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USAID/EI Salvador Tropical Storm Ida Reconstruction Project

Work Plan / Project Year 2

Year 2013

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Disclaimer

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Acronyms

A&E	Architecture & Engineering
AASHTO	American Association of State Highways and Transportation Officials
ADESCOS	Community Development Association
ASTM	American Society for Testing and Materials
CAD	Computer Aided Design
CDE	School Board
COP	Chief of Party
COTR	Contracting Officer's Technical Representative
D/B	Design/Build
EA	Environmental Assessment
ELAC	Economic Commission of Latin America and the Caribbean
EMP	Environmental Mitigation Plan
GIS	Geographic Information Systems
GOES	Government of El Salvador
GRAM	GRAM Arquitectos S.A. de C.V.
IEA	Initial Environmental Assessment
LRFD	Load and Resistance Factor Design
MARN	Ministry of Environment and Natural Resources
MEO	Mission Environmental Officer
MINED	Ministry of Education
MOP	Ministry of Public Works
MINSAL	Ministry of Health
O&M	Operation and Maintenance
PMP	Performance Monitoring Plan
PQM	Project Quality Management
QA/QC	Quality Assurance/Quality Control
QMP	Quality Management Procedures
RD	R.D. Consultores S.A. de C.V.
SDB	Small Disadvantaged Business
STP	Technical Secretary of Presidency
USAID	United States Agency for International Development
PMA	Architectural Program or Medical Architectural Program

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1 Background

In November 2009, persistent rain over several days associated with Tropical Storm Ida resulted in significant flooding, landslide and loss of lives and property in El Salvador. Heavy rainfall over a short period of time on the night of November 7-8, 2009, triggered flooding and landslides, causing the loss of 200 lives (plus 78 people unaccounted for), and the destruction of homes, roads and bridges, and other household and community infrastructure. There was severe Infrastructure damage and loss of life in the five departments of San Salvador, La Paz, Cuscatlán, San Vicente and La Libertad, also water and sanitation facilities were destroyed.

On December 4th, the Economic Commission of Latin America and the Caribbean (ECLAC), with the support of the Government of El Salvador (GOES), published a Damage Assessment Report that identified \$240 million in damages and losses. ECLAC estimated that 125,000 Salvadorans were directly or indirectly affected, and concluded that \$343 million would be required for the rehabilitation and reconstruction of the affected areas.

Most GOES ministries also undertook sector specific assessments after the storm. The Ministries of Education and Health, and the Ministry of Public Work (through the Vice Minister of Housing) detailed damage to schools, clinics, and houses, classifying them into several categories such as partially damaged, completely damaged, and infrastructure in need of relocation due to ongoing high-risk factors.

People, communities, and government authorities at all levels are still grappling with the process of reconstruction and rehabilitation. While the GOES has dedicated several tranches of funding to address housing needs, environmental mitigation, and reconstruction, additional assistance is needed to stabilize and resume livelihoods, to restore basic infrastructure necessary to support economic recovery, and to address the apparent shortfalls in government, community, and institutional capacity to mitigate the likelihood of future occurrences of similar events.

Through the Tropical Storm IDA Reconstruction Project, the United States Agency for International Development (USAID) is supporting the reconstruction of bridges, schools and health clinics that have been identified and prioritized by the GOES through total program funding of \$25 million for engineering/architectural services, construction, equipment and other related services and support (see Section 11.1 for breakdown on funding by component).

Based on the previous Work Plan and the lessons learned, the Work Plan for Project Year 2 (2013) has been adjusted according to updated objectives, which have shifted the interventions in the various components of the project:

- The Schools within the current scope will be reconstruction (new construction on same property) rather than rehabilitation
- The original PMAs (based upon MINSAL guidance) have been adjusted by MINSAL to better fit the existing sites and coverage areas.
- The design of the two bridges include mitigation works and additional complementary work that was not considered in the original GOES estimation, which further reduced the number of facilities that could be included within the fixed budget..

The number of subprojects (schools, clinics, bridges) to be addressed under the project with existing funds is substantially less than the original list of proposed priority facilities as identified by the Ministries and included within the original scope of work. The reduction is attributable to a fixed reconstruction budget and a higher estimated cost of construction for each facility. GOES acknowledged a reduction (and reprioritization) of some facilities as reported through a newspaper article on July 27th, 2012 – the revised prioritization within this article was recognized by USAID for the purpose of priority ordering the projects to be addressed under the project, that is, subprojects would be selected in the revised order up to the number of projects that could be developed under the project with the available funding - the first group of subprojects within each component had already been selected at this point. The initial proposed reduction followed the rapid assessment where a site visit was conducted to all facilities on the original list for a more detailed analysis of proposed reconstruction needs as well as a preliminary cost estimate. The subsequent reduction occurred in early January 2013 where USAID advised stopping work on additional facilities based upon a more refined cost estimates that were developed on the first groups of facilities. An updated list of facilities and maps with the locations of the facilities is included in Section 10.

The Work Plan for Year 2 is based upon the progress achieved through the end of Project Year 1, in advancing the scope activities through this project year. From December 2012 through March 2013, there were exchanges between CDM Smith and USAID related to reprogramming efforts, these exchanges captured events/activities during the course of implementation of Project Year 1 which required reprogramming of resources and activities. The current work plan is largely guided by the information relayed through the reprogramming exchanges, the exchanges were:

- December 3 ,2012: CDM Smith sent to USAID a Task Order Reprogramming, agreed upon changes to date and proposed realignment of resources for work envisioned at that time;,,
- January 3 and 4, 2013: USAID guidance to reduce the number of facilities based upon updated cost estimates in comparison with the fixed budget for reconstruction;
- February 8, 2013: USAID requested a new reprogramming and a budget adjustment budget reflecting current realities and maintaining the established total estimated cost, and incorporating changes based upon a revised number of facilities;
- March 20, 2013: CDM Smith sent to USAID an updated reprogramming schedule and realigned budget.

2 Objectives, Goals and Expected Results

2.1 Main Objective

The main objective of the project does not change from year to year, which is to repair, rehabilitate/reconstruct the priority facilities identified where damage is attributed to Tropical Storm Ida. This objective and scope of services was described within the task order (Task Order Contract No.: AID-519-TO-12-00001) that was awarded to CDM Smith to carry out A&E services for the design and rehabilitation/ reconstruction of the damaged facilities, employing quality criteria in standards and design practice for improvements to the existing facilities and reduce the susceptibility of the facilities to future damage from natural disasters.

During the course of the project, CDM Smith will assess the facilities and propose interventions through general supervision and administration, A&E services (studies, assessments and preliminary designs), provide Design/Build procurement support to USAID, Design/Build construction oversight, and training to local firms and increasing the empowerment of local communities for appropriate care and the facilities through community engagement and capacity building.

2.2 Project Goals, Objectives and Expected Results

This Project is framed under the Strategic objective 519-022 “Humanitarian Assistance”, and is the main activity of Bilateral Humanitarian Assistance for the USAID/El Salvador Mission. This activity has the principal objective of: “Timely Humanitarian Assistance and Crisis Response”.

The two Intermediate Results for this activity are:

- a. Disaster/Crisis prevention and preparedness, already performed by USAID
- b. Humanitarian Relief and Reconstruction, part of CDM Smith’s scope of work.

CDM Smith will contribute to the improvement of damaged infrastructure in three sectors (i.e., bridges, health care facilities or clinics, and educational facilities) to benefit the affected populations, assisting communities with sustainable infrastructure, direct and indirect employment during reconstruction (by D/B contractors and other services during implementation), and significant direct and indirect benefits attributable to the improved facilities and reductions in travel time and cost (from reconstruction of bridges damaged by Tropical Storm IDA). These improvements, undertaken in collaboration with local Government, are anticipated to will build confidence, increase local capabilities and contribute to long term economic growth. CDM Smith’s interventions will demonstrate show results in all three sectors.

Schools and Health Care Facilities: The rehabilitation of these facilities will benefit the attendees of these facilities, in addition to the communities in which they are located, and surrounding catchment areas by providing adequate shelter when/if future disasters strike.

Bridges: The reconstruction of bridges will improve the transportation flow of goods and services, facilitate local and regional transportation, and provide access to local farmers and residents in the five departments affected by IDA Storm as identified by USAID and the GOES.

The original list of priority facilities identified in the Task Order scope has been reduced during the implementation of Project Year 1 activities through a process of refining cost estimates for the highest priority facilities to match the available funding for reconstruction. The process of refined cost estimates started early in Project Year 1 with the rapid assessment of all facilities which was conducted in parallel with the development of rehabilitation/ reconstruction approach in accordance with current needs and criteria compliance. As preliminary designs were developed, cost estimates were further refined.

Based upon these refined estimates, on January 3, 2013 USAID suspended the preliminary designs of the second set of bridges thereby limiting the number to two Bridges, San Antonio Bridge and Bridge Acahuapa. On January 4, 2013 USAID suspended additional preliminary design work on the third group of schools, limiting the schools component to preliminary design of eight schools, and for purposes of the rescheduling of the project six schools will be considered for the final design stage. On the same date USAID also reported the suspension of the third and fourth group of clinics, therefore the preliminary design/final design and construction is limited to six clinics.

The tables below include the names/locations of the facilities currently considered as part of the reconstruction program:

Schools

Preliminaries Designs of eight facilities (subproject) and Final Design/Build of six facilities.

Table1. List of schools subproject, MINED

Facility
Group 1
CE Cantón San Sebastián Abajo
CE Cantón Chantusnene
CE Pedro Pablo Castillo
CE Dr. Adrian García

Facility
Group 2
CE Catón Ojo de Agua
CE Las Margaritas 1 y2
CE Dr. Francisco Antonio Lima
Instituto Nacional José María Peralta Lagos

The last two schools on the list will be included in Final Design – Build stage if the funding is sufficient.

Clinics

Preliminary Design of six facilities (subproject) and Final Design – Build of six facilities.

Table2. List of clinics subproject, MINSAL

Facility
Group 1
Unidad de Salud San Ildefonso
Unidad de Salud Jerusalén
Unidad de Salud Santa Lucía Orcoyo
Group 2
Unidad de Salud Periférica de Cojutepeque
Unidad de Salud El Pimental
Unidad de Salud San Pedro Perulapán

Bridges

Preliminary Design of two facilities (subproject) and Final Design/Build of two facilities.

Table 3. List of bridges subproject, MOP

Facility
Bridge over Río Acahuapa, San Vicente
San Antonio bridge over Río San Antonio - La Libertad in CA02 Coastal Highway

3 General Approach

Preliminary Design

The main focus of this project has been to reduce the uncertainty of the bidders, providing preliminary designs in most cases over 30% - it is estimated 50 to 60% of the final design have been developed.

The expectation with a higher level of design is that it will reduce the resources required for the development of the final designs by the Design – Build contractors, as well as enable Design – Build contractors to provide more competitive bids based upon the lower level of work to be developed. It is also anticipated to reduce variations and change orders during D-B phase.

Final Design –Construction

During this stage, the Design – Build Contractor will be responsible for developing the 100% designs and construction, with appropriate QA/QC; CDM Smith will provide supervision with QA verification and monitoring the contractor QC system during implementation.

CDM Smith has developed a management system to facilitate the control and tracking of the projects and to maintain a continuous communication between project supervision and contractor.

3.1 Key Features of Our General Approach

Proactive attention to community engagement for Operation and Maintenance (O&M) and gender concerns: In order to foster community participation and a sense of ownership, CDM Smith’s Community Outreach Team will organize O&M committees, so that the community will have a role in the project from the startup through ongoing maintenance of their facility after completion. CDM Smith has contracted a specialist, a recognized social/community involvement specialist for managing/coordinating community involvement and gender issues as an integrated member of the team; one of the first activities under the project was the community engagement strategy design to accompany the technical activities during implementation to ensure positive relationships with each community.

Implementation coordination: CDM Smith will continue the process to encourage USAID and the ministries to have a fully coordinated extended team in order to reduce redundancies and achieve synergies, leverage complementary activities and streamline initiatives across our own subcontractors, Design/Build contractors, and other donors and stakeholders.

Effective Operations Management for schedule tracking and project controls: CDM Smith will continue manage multiple projects, schedules and budgets, and track and report implementation progress on all projects which will be implemented in a carefully coordinated sequence for appropriate allocation of resources, per the Gantt chart and Critical Path Method in an annex to this report. Based on its experiences elsewhere, CDM Smith will implement effective and proven planning, quality controls, and program management tools and methods; as an example, see the Issues Tracker (Section 3.2) that was developed during Project Year 1.

Rigorous Quality Assurance/Quality Control (QA/QC) procedures: CDM Smith will ensure consistency in data collection and reporting, review and validate design work, reduce risk and help ensure high-quality sustainable infrastructure by using CDM Smith’s proprietary Quality Management Procedures Manual No. 2 (QMP-2) for Engineering Services during Construction, in addition to QMP-3 for Construction Project Operations. These manuals are the cornerstones of CDM Smith’s quality management program and are mandatory for all CDM Smith’s projects.

Strong interdependency and interaction between activities: The management system developed by CDM Smith will better ensure an integrated and consistent approach for schools and clinics facilities. To the extent possible and practical, processes and procedures between and within facility groupings have been standardized, where lessons learned on first facility groupings has been used on subsequent groupings. The bridges are also included within the electronic management system, but focusing on parameters tailored to bridge reconstruction.

Project Risks: The project team has developed a spreadsheet called Issue Tracker (see Annex 1) which is updated monthly to monitor situations that deserve special attention in the project. The objective of the Issue Tracker is to identify issues (actual and foreseen) early and track progress on actions and resolutions in an effort to avoid or minimize their impact on the implementation schedule.

3.2 Key Challenges

CDM Smith has identified key challenges and key success factors that are extremely important for defining the roadmap for the implementation stage.

- a. The main key challenge is to ensure teamwork for the extended team that includes the CDM Smith’s key personnel and its subcontractors’ team, the designated COTR, and the liaisons with Salvadoran government representatives: Ministry of Foreign Affairs, Technical Secretary of Presidency (STP) and Ministries (MINED, MINSAL and MOP).
- b. Transfer knowledge and best practices through proven methodologies and high standards, leading to adjustments and improvements of local practice through

learning new approaches and techniques, while the works are been implemented (learning while doing).

- c. Define criteria and ensure a consistent understanding of the criteria so that different persons or organizations have a uniform understanding of expectations,
- d. Reduce downtime and lack of definitions/direction that could delay the bidding process.
- e. Resolve the issue of building permits, as well as solvency payments in the respective municipalities.

3.3 Success Factors

The key success factors for the project were one of the subjects discussed in the project startup/PQM meeting. Success factors are meant to identify a limited number of factors, at a fairly high level – the appropriate management of which is critical to the overall success of the project. The success factors identified are:

- a. Creating synergy in and out of the extended team, keeping always the overall objective in mind, working within previously approved scope of work and budget.
- b. CDM Smith will attempt to quickly facilitate consensus on the intervention criteria with USAID and the Salvadoran Government at the beginning of each stage – to clarify expectations, expected results, and deliverables – thus mitigating potential delays to the extent possible.
- c. The Community Involvement and Gender Component has worked to organize communities in search of facilities where clinics and schools function temporary during the construction phase.
- d. Incorporate as a cross cutting activity, best practices in public administration techniques based on community involvement, management and a gender policy to integrate women as decision makers in their communities.
- e. Complying with the CDM Smith's QA/QC system, compliant with ISO 9001, assuring high quality standards.
- f. There must be flexibility, within the larger project team to make the necessary adjustments during the course of implementation based upon actual working conditions and activities required for project progress.
- g. Keeping the communication protocol established at the beginning of the project for the participants, for the extended team, and respecting the defined channels of communication.

3.4 Specific Criteria by Facility Type

The criteria developed in concurrence with the ministries and the CDM Smith representatives for each component were officially approved by the ministries (MINED, MINSAL and MOP) on June 6th, 2012. Those criteria define the framework of action and the pattern of the work that will be carried out; the criteria are also meant to be the guide for the ministries receiving works to evaluate design submittals.

These criteria were developed early in Project Year 1 and remain in place for Project Year 2.

3.4.1 Criteria for Health Care Facilities

The criteria, developed by CDM Smith, in collaboration with USAID and MINSAL, include the following:

- a. In addition to the criteria used by MINSAL for cost estimates, CDM Smith will incorporate regulations and requirements of USAID and the United States Government (USG).
- b. USAID requires a preliminary diagnosis for each work site environment, which must be approved by the Mission Office of Environment before starting any activity. Currently the project is working to address the observations made by USAID to the document Programmatic Environmental Mitigation Plan for Clinics.
- c. Works shall be executed under the form of Design/Build Contracts. CDM Smith will provide diagnoses, minimum essential technical studies, preliminary conceptual designs and supervision during the Design/Build period.
- d. Clinics will be built on existing land. There shall be no liability of any kind.
- e. The formulation of the designs should consider the following:
 - i. Design life of 20 years to make possible future expansion plans.
 - ii. Build spaces under the current Agreement that will be defined based on current needs, projected 5-year term.
 - iii. Use of ramps or elevators to facilitate access for people with disabilities.
 - iv. Emergency stairs in buildings with more than one floor.
 - v. Infrastructure will be design to mitigate climate change impacts.
 - vi. Promotion of energy efficiency and clean energy use.
 - vii. Waiting areas should be adequate for the number of users that can be served for a period of 2 hours.
 - viii. An area for vector emergency response with independent access must be included.

- ix. In the units where a clinical laboratory is necessary, the use of an air conditioning and air exchange system to prevent biological contamination must be guaranteed.
 - x. In the specialist level units, a data system to facilitate future electronic management of the consultation must be included.
 - xi. In the intermediate level units, it is necessary to provide the amenities to facilitate independent connection of computers in the following areas: laboratory, pharmacy, warehouse, statistics (file) and appointments.
 - xii. In order to minimize security risk, the number of access/exit points to the health center should be minimized and strategically located to facilitate surveillance.
 - xiii. Must provide emergency exits with panic door hardware.
 - xiv. The ceilings should be light and fire retardant and no-ceiling alternative will be analyzed.
- f. Transportations costs for site supervision along with community engagement/ involvement management during the construction phase are not included in the CDM Smith contract, so these costs will be estimated as part of the D/B services. The scope of community engagement/ involvement management is monitoring and facilitating interactions with communities during the construction phase, and indirect contribution to security personnel.
 - g. Structural design shall minimize the vulnerability to seismic events through continuity of elements or by anchorage systems.
 - h. The cost estimates do not include any fees. The responsibility for the fee payments shall be determined through interactions with USAID/Ministries.

3.4.2 Criteria for Schools

Criteria agreed by MINED, USAID and CDM Smith, which has been used by CDM Smith:

- a. In addition to the criteria used by MINED for preliminary cost estimates, CDM will incorporate Smith regulations and requirements of USAID and the United States Government (USG).
- b. USAID requires a preliminary diagnosis for each work environment site, which must be approved by the Mission Office of Environment before starting any activity. Currently the project is working to address the observations made by USAID to the Programmatic Environmental Mitigation Plan for Schools.
- c. Works shall be executed under the form of Design/Build Contracts. CDM Smith will provide diagnoses, minimum essential technical studies, preliminary conceptual designs and supervision during the Design/Build period.

- d. In the formulation of the designs, the following should be considered:
 - i. Design life of 20 years to facilitate future expansion plans.
 - ii. Build spaces under the current Agreement will be defined based on current needs, projected 5-year term.
 - iii. Use of ramps or elevators to facilitate access for people with disabilities.
 - iv. Emergency Stairs in buildings with more than one floor.
 - v. Adequate infrastructure to support increasing climate change resiliency.
 - vi. All classrooms should have at least two doors to facilitate the rapid evacuation of students.
 - vii. The principal and computer rooms should have elements that guarantee reasonable assurance/security of room contents.
 - viii. The ceilings should be light and fire retardant and a 'no-ceiling' alternative will be analyzed.
 - ix. A unified power system to be employed in schools, some of which currently have more than one power meter..
- e. Transportations costs for site supervision along with community engagement/ involvement management during the construction phase are not included in the CDM Smith contract, so these costs are estimated as part of the D/B services.
- f. Structural design shall minimize the vulnerability of the whole and its parts against seismic actions through continuity of elements or by use of anchors.
- g. The cost estimates do not include any fees. The responsibility for the fee payment shall be determined through interactions with USAID/Ministries.

3.4.3 Criteria for Bridges

Criteria agreed by MOP, USAID and CDM Smith, which has been used by CDM Smith:

- a. USAID requires a preliminary diagnosis for each work site environment, which must be approved by the Mission Office of Environment before starting any activity.
- b. In addition to the criteria used by the MOP for preliminary cost estimates, CDM Smith will incorporate regulations and requirements of USAID and the United States Government (USG) for the donation.
- c. Works shall be executed under the form of Design/Build Contracts. CDM Smith will provide diagnoses, minimum essential technical studies, preliminary conceptual designs and supervision during the Design/Build period.

- d. Transport costs and community involvement management oversight during the construction phase are not included in the CDM Smith contract, so these costs are estimated as part of the D/B services.
- e. Removal and relocation of temporary bridges will be the responsibility of the MOP, which has a specialized team for this activity.
- f. With the exception of San Antonio Bridge, new bridges can be relocated or realigned in order to comply with standards and minimize bridge spans.
- g. The acquisitions of rights of way or properties that may result from recommended/approved preliminary design shall be under the responsibility of MOP, which has a specialized management office for this purpose.
- h. Temporary routes or bypasses should be ensured during the construction phase. Bypass costs and temporary works shall be under the responsibility of the construction firm.
- i. Temporary or permanent ramp approaches or access ramps shall be under the responsibility of the construction firm.
- j. Deep foundations shall be used only when required by technical studies performed in the preliminary design stage.
- k. Structural design shall minimize vulnerability to seismic and hydraulic actions of the structure by continuity of elements and anchorage.
- l. The connectivity may be ensured with other type of overpass works, instead of bridges, as determined by technical studies.
- m. The cost estimates shall not include any taxes or fees which shall be under the responsibility of the MOP.

4 Methodology

4.1 Key Lines of Action

The methodological framework utilized for implementation of the project is based on the general approach as described above.

While there are some common elements associated with the different facility types, they are different facilities with different requirements (and under the jurisdiction of different authorities), and thus, will follow different tracks at the detail level. CDM Smith has planned the implementation of the work by the following three sectors: schools, clinics and bridges.

CDM Smith will implement the work by applying a proven and successful management system in accordance with the requirements included in the USAID's task order for this project.

For the Preliminary Design and Design – Build stages, specific lines of action were submitted:

- Do not exceed the approved fund in the agreement
- Follow technical and contractual guidelines of USAID

The schedule has been modified to update the process for the technical work into the following principal tasks, which are common for the facilities in each sector:

- a. Rapid Appraisal: the objective was to obtain basic information and a quick appraisal to develop preliminary budgets, Initial Environmental Assessments (IEAs) and document the social climate for each site, in order to determine preliminary estimated cost (as compared to estimated cost prepared by ministries) and re-prioritize facilities. CDM Smith proposed that a subset of these facilities – those facilities with repair requirements that are less complex, requiring less significant duration, and have a negative environmental determination could be Fast Tracked.
- b. Assessment and Preliminary Design: the objective is completing all the technical studies and assessments necessary to prepare a preliminary design (by groups of facilities according to market conditions, in order of priority), which is defined as 30% of final design and must include the technical specifications along with other documentation for tender preparation.

This stage began with a fast-track process that will included those schools and clinics coming out sooner and for which there was consensus on including the facilities within the highest priority group.

The preliminary designs for the first group of schools was finished on February 25, 2013 and the second group will be completed on April 23, 2013. The second group consists of four schools of which only two are currently expected to enter the bidding process due to funding constraints.

The comments from MINSAL on the first group of clinics have been analyzed to identify/resolve discrepancies between criteria, USAID design guidance and other factors.

- c. Design/Build Contract Procurement: the main objective is supporting USAID during the bidding and contracting process to answer questions that potential bidders will have to minimize differences in interpretations.

CDM Smith will also assist USAID in the following related tasks: attend pre-proposal/pre-bid meetings and prepare minutes; assist USAID in drafting addenda and responding to questions.

- d. Design/Build (D-B) Supervision Services: The objective is assuring the quality of final design and construction work by implementing a Quality Management System (QMS) to better ensure the quality of the processes utilized and compliance with identified requirements for this project.

Furthermore, CDM Smith will monitor the following tasks that the D-B contractor will undertake: mobilization / start-up; reviews of submittals; on site activities, monitoring and reporting; meetings with CDM Smith personnel and subcontracted supervisor firms; and records/control, maintenance and updates.

- e. Contract Closeout: the activities are verifying the financial balance/value of works achieved with each contractor, review the warranties, bonds, and manuals, and confirm that the required trainings have been completed as specified.

CDM Smith will assist USAID to issue Certificates of Completion for all works, and review and confirm the requisite drawings and documentation is submitted for the works.

Besides the technical tasks for each activity, as mentioned above, CDM Smith will undertake some administrative tasks common to all of them: General Supervision and Administration, Development of Documentation Clearinghouse.

- a. General Supervision and Administration: The General Supervision and Administration extends for the life of the contract, starting with the mobilization of personnel/startup meetings through regular meetings and consultations with USAID and GOES/ministries and the development of the required program deliverables.

CDM has an equipped and operational office, with staffing needed for all the activities identified in the reprogramming schedule.

- b. Meetings with USAID and key authorities are a critical step in ensuring an oversight effort that meets the needs and expected results of USAID's and GOES' Ida Reconstruction Program. During Workshop on March 8, 2013 , USAID and CDM Smith reviewed and clarified the contract requirements and quality Assurance / quality Control System approach to be applied. While started, this process is still ongoing with some activities remaining; an additional workshop is planned in April 2013.

CDM Smith knows the importance of having a strong and timely control to detect and focus in closing the gap between reality and programmed goal, and has determined that the control system, once initially developed, will be followed with internet access (web portal) tailored to fit with the information monitoring and reporting needs to effectively track performance during the implementation of the project.

- c. Development of Documentation Clearinghouse: CDM Smith has developed a robust document control system to manage the significant amount of information produced during studies, design, tenders and construction supervision; and to ensure that all this information (in electronic and hardcopy formats) is readily available to USAID and all relevant parties upon request and for project reporting/adherence to contract requirements. CDM Smith has implemented a web-based system to store and upload performance project information into a database capable of generating custom reporting.
- d. In addition, CDM Smith has included a cross-cutting activity required by the modern public administration to invest in social infrastructure, the community and gender issue management to empower the community in order to better ensure the ministry responsibility to provide facility maintenance and sustainability, and that women be included in an active part of the making decision process.

4.2 Social-Gender Issue Management

The actions that must be carried out for the application of the Community and Gender Component in the project are to create an involvement consciousness in the communities and especially the host population to accept themselves as key actors in the project and make it their own, integrating efforts and providing support as a community.

The 2013 Work Plan of the Community and Gender Component was adjusted to identify restructuring and intervention needs.

4.2.1 Community and Gender Conceptual Framework

The CDM Smith community and gender approach defines the strategy that facilitates relationships of the communities and social actors/stakeholders in the area where the sub-projects are executed: School Centers, Community Family Health Units (UCSF) and Bridges, establishing processes for them to learn about, understand, participate and integrate social activities throughout the construction process.

This approach involves the communities from the beginning of the process to the completion of work, since the reconstructed works will be delivered to the ministries/communities where sustainability of the facility is dependent on their support.

The operational application of this approach lies on the community organization existing at the locations where the work is carried out, as well as in the facilitation of participation and mechanisms in the communities and institutions that operate at the local level. As a result of the application of the component, support committees for the reconstruction projects have been created, integrated by local and institutional authorities, and include representatives from ADESCOS, CDE and from other community organizations.

4.2.2 Justification

All actions that enable the participation of local actors that are either related to or will benefit from this USAID project (School, Clinics and Bridges) are implemented from the Community and Gender Approach. Pillars that will contribute sustainability to the Project are precisely those persons benefiting directly and indirectly from it. It is expected that project implementation, itself, will contribute to the social development of the communities.

Achieving the project's objectives with the application of this approach requires the intervention of specialists for the application of an Action Plan that establishes the work lines and strategies that link the technical architecture and construction aspects with the integration of the communities and organizations existing at the local level, so that participation and organization processes are implemented that are linked to the construction process.

From the CDM Smith team in the preliminary design phase, through their specialists in component management, actions have been carried out that lead from the social investigation of the communities and municipalities of the locations where each sub-project is located, the promotion of the project, to the formation and integration of support committees for the reconstruction processes.

In the construction phase, the D-B contractors must apply the Community and Gender Component, with those responsible for the component in the CDM team, assuming supervision functions that guarantee the quality in the component's application.

Social development is achieved through the active participation of the organized communities and the benefited population; therefore, processes must be established so that the community makes them their own and assumes the responsibilities that ensure the sustainability of the infrastructure work that will benefit them. In this respect, the application of the component has validity and gains importance. Maintaining the trust, participation and integration of the community organizations in the reconstruction process deserves greater intervention from the component's specialists.

It is necessary to carry out consistent monitoring actions in order to oversee, provide counseling to, accompany and organize the support committees during the reconstruction process, since the formation and integration level of the groups in each canton and municipality where projects are carried out is different and can differ even for similar facilities.

4.2.3 Objectives

General Objective

Integrate the community and gender approach throughout the reconstruction process of the public works damaged by Tropical Storm Ida, complying with quality criteria and in line with the project schedule.

Specific Objectives

- Form and integrate support committees in each subproject, so that they become the mechanism for community involvement throughout the reconstruction process, especially in the care and maintenance of the infrastructure built.
- Establish a training and instruction process based on community interventions and component application models in order to achieve a uniform implementation of the Community and Gender Component in all sub-projects.
- Facilitate control and recording instruments that ensure a uniform system to be used by contractors in the application of the component.
- Facilitate a monitoring, supervision and evaluation system for the actions implemented by the social management units of the D/B contractors.

4.2.4 Work Strategies

- a. Maintain communication and coordination channels and team work with the different subcontractors for the implementation of the Community and Gender Component.
- b. Form and integrate support committees in each of the sub-projects so that they serve as the mechanism for community involvement.
- c. Application of a monitoring, follow-up and evaluation system of the application of the Community and Gender Component by the D-B contractors.
- d. Implement verification actions for field work.
- e. Provide documentation of the intervention carried out.
- f. Execute the necessary training processes that strengthen and support the application of the Community and Gender Component aimed at contractors, sub-contractors and organized communities.

4.2.5 Methodology, results and activities

Work methodology for the application of the component

Joint work will be carried out with the D/B Contractors in the integration of the Community and Gender Component in the different phases of the reconstruction process in each sub-project; activities that require community involvement are executed in a coordinated manner with the CDM Smith team.

Work will be carried out with the existing organizational structures and with the reconstruction process support committees integrated in each sub-project, and that are providing follow-up on their own and are participating in the execution of the project.

The following table shows a detail of the responsibilities of the component:

PHASE	RESULTS	ACTIVITIES
Preliminary designs	Local authorities and knowledgeable community organizations, with awareness of the reconstruction project (School Center, UCSF and Bridges) Group 2	<ul style="list-style-type: none"> • Planning and preparation of the project's presentation • Field visits • Coordination with subcontractors • Meeting with authorities and community organizations • Reports of field visit
Preliminary design already approved by USAID	Each reconstruction subproject counts on a support committee, integrated and involved in the reconstruction project	<ul style="list-style-type: none"> • Integration of support committees into the reconstruction process in each subproject (2 School Centers and 3 UCSF) • Field visits to carry out follow-up actions • Presentation of preliminary designs approved by USAID. Second group (2 School centers) • Procedures and advice for the transfer and relocation of the second (2 School Centers and 3 UCSF)
Allocation and final designs phase	Situation of transfer and relocation solved in School Centers and UCSF, groups 1 and 2 of subprojects, with active participation from community organizations.	<ul style="list-style-type: none"> • Follow-up actions and organization of local committees for the relocation and transfer of School Centers and UCSF that integrate the first and second group of subprojects • Design and implementation of a Training Plan for the application of the Community and Gender Component aimed at D-B contractors
Execution phase	<p>That the Tropical Storm Ida Reconstruction Project counts on a monitoring, supervision and evaluation system of the application of the Community and Gender Component carried out by the contracting companies</p> <p>Communities trained and instructed in maintenance of the infrastructure built.</p>	<ul style="list-style-type: none"> • Verification of compliance with Contractual Terms related to the social area • Field supervision in all subproject groups that are under execution (S.C., UCSF and Bridges) • Advice in the management of conflicts that appeared or those related to the reconstruction process. • Revision and approval of monthly reports submitted by D-B contractors (Social Management) • Preparation of proposals of maintenance plans • Supervision and evaluation of maintenance plans
Training	Subcontractor, contractors and community organizations trained for the integration of the Community Component in the whole project process. One of the items that will receive follow-up and training is the	<ul style="list-style-type: none"> • Carrying out of training processes for contractors, ministries and local organizations related to community processes • Besides, the collection and preparation of support material for the training process of specialists that will be in charge of

PHASE	RESULTS	ACTIVITIES
	carrying out of the maintenance plans for each sub-project, under the direction of the Social Management Coordinator from the D-B Contractor. .	social management in each sub-project.
Development of documents and information.	Timely and systematic documentation of all work carried out by the Community and Gender Component	<ul style="list-style-type: none"> • Preparation of 2013 Work Plan • Submittal of weekly, quarterly and yearly reports • Submittal of monthly work programming • Preparation of field work reports

Other administrative activities will be carried out, such as: coordination meetings and training, among others.

4.2.6 MONITORING SYSTEM OF THE COMMUNITY AND GENDER COMPONENT

The monitoring system to be applied in the full-execution phase of the sub-projects and at their closure will facilitate the effective measurement of the progress made and the compliance with the specific goals of the Community and Gender Component in each one of the sub-projects.

Monitoring is an essential element to better guarantee a positive execution of each one of the strategies, action lines and activities executed by the D-B Contractors through their respective Social Management units.

a. Follow-up mechanisms

These are the techniques used to control the application of the Community and Gender Component in the execution phase of the construction. Those mechanisms are: field visits, meetings with support committees and supervision action with those responsible for applying the component.

b. Administrative mechanisms

The administrative mechanisms that will be required in this component to be performed by the contractors are: work plan of this component, monthly reports and final report.

5 Tasks Implementation

For each set of facilities, four common tasks are performed in accordance with the requirements included in the USAID's task order for this project and subject to the scope described in this section.

- a. Rapid appraisal, provided the basic information and a quick appraisal of all priority facilities identified in the Task Order to enable an analysis for the decision-making process of prioritization and selection of facilities to be reconstructed under the project.
- b. Assessment and Preliminary Design: Includes all the technical studies and assessments to complete preliminary design documents, defined as 30% of final design (or 30% construction documents) necessary to implement the tendering process for procurement of D/B Contracts.
- c. Tendering: Based on uniform final design documentation, the tendering process will lead to the selection of qualified D/B contractors for the execution of the rehabilitation/ construction of facilities (the potential bidding contractors have been facilitated/approved through the prequalification process).
- d. Supervision of D/B contracts: Comprises management and oversight to better ensure that every D/B Contract will be completed in compliance with final designs documents, drawings, specification, as well as within planned schedules and budgets. Through following the quality management system (QMS), the quality of each of D/B contract results is better ensured. Contracts closeouts at the end of Supervision of D/B contracts services will include financial closeout, capacity building and reception of final deliverables as well as facility turnover.

5.1 Rapid Appraisal

The Rapid Appraisal conducted in February and submitted on March 8th, 2012 included more refined cost estimates along with CDM Smith team recommendations for reprioritization of facilities. A good deal of discussion/refinement of the Rapid Assessment findings and recommendations occurred between USAID and CDM Smith in preparation for presentation to GOES due to the anticipated sensitivity of presenting a reduced number of facilities. The effort did produce results in (eventually) identifying/receiving concurrence on the highest priority facilities within each sector for the first groups to undergo more detailed assessment and preliminary design ('fast track' facilities). However, and as anticipated, significant effort was required to facilitate concurrence with the ministries (and/or STP) with the revised list of facilities based upon budget constraints. Thus, while the identification of the preliminary grouping enabled the

technical teams to start on detailed assessments/preliminary designs, the delay in consensus on facilities following the first group hampered forward planning and work flow for the technical teams. The subsequent groups of facilities were resolved in late January 2012 with a reprioritization recognized by GOES.

The Rapid Appraisal report included:

- a. Background description/rapid appraisal data associated with each facility
- b. Initial Environmental Assessment (IEA) Report for each site utilizing forms from the Environmental Mitigation Plan: III-A. Environmental Screening; III-B. Identification of Mitigation Plan; and, III-C. Environmental Monitoring and Evaluation Tracking Table; and,
- c. Survey report of existing infrastructure and proposed scope to rehabilitate and to bring facility to code and/or recommendation for facility to be relocated for construction /rehabilitation purposes.
- d. Preliminary estimated cost of construction for the rehabilitation scope for facilities and bridges, based on index numbers, experience and expertise, in order to facilitate decision making on facilities/bridges that could be included within the design/construction program within the budget constraints.
- e. Basic inputs to plan social work management by answering the following questions: How is the community organized? Who are the community leaders and how to contact them? And how the community defines the social environment?
- f. Tabular summary listing of all facilities that are reprioritized along with the rationale for changes to the priority assigned by the Ministry. With USAID concurrence, CDM Smith developed a Complexity Index that evaluates technical, environmental and social complexity of each facility. The methodology and the weight of each element considered can be consulted in the Rapid Appraisal Report.

Also the Rapid Appraisal was utilized as the basis to redefine changes in the schedule and in the level of effort required to perform scope activities adjusted to the site conditions and approvals process which also guided adjustments to the implementation methodology.

5.2 Studies, Assessments and Preliminary Design

In this phase, CDM Smith developed and applied uniform guidelines for technical subcontractors to conduct the work according to the work plan. Initial discussions and training on these guidelines before deployment of staff to the field was a critical step to ensure a common understanding regarding methodology, process, expected outcomes and reporting.

5.2.1 Detailed Studies and Assessments

This phase of work was largely completed within Project Year 1 with the main objective was the completion of more detailed studies and assessments required by the preliminary designs for facilities and bridges.

These detailed studies for schools and clinics complemented the information provided by Ministries and included:

- a. Site analysis, including GPS/GIS location, topographical survey, analysis of risks/hazards, type of soils, and overall functioning of the site. The analysis will include inspections for industrial-type health risks.
- b. Assessment of site stability during storm events.
- c. Identification/description of environmental issues at each site that will be used as baseline data to be incorporated into USAID EAs, MARN EIAs and Environmental Mitigation Plans (EMPs).
- d. Inspection of the site, risk analysis and assessment of geographic, hydrographic, road connections, weather, winds, solar radiation, rainfall, temperature, and other factors. This will also include environmental data collection in accordance with requirements for EA/EIA.
- e. Determination of architectural and engineering requirements and initial feasibility;
- f. Specialized studies including electrical systems, potable water supply, storm water drainage, sanitary facilities and sewerage disposal, solid waste disposal, hazardous and infectious wastes disposal in health care facilities, etc.;
- g. Structural analysis, especially due to damage caused by water infiltration into the foundations; and
- h. Measurements and drawings including floor plans, elevations, facades, sections, and structural details on walls, roofs and roof structures, and inventory of accessories such as windows, doors, electrical circuit boxes, lamps, gutters, valves, perimeter walls, gates, etc.
- i. Identification of equipment needs. In the case of commodity procurements, CDM Smith will validate these needs in consultation with relevant ministries and USAID.
- j. All facility assessments will include consideration of gender-sensitive factors for facility design (such as ensuring separate sanitary facilities for boys and girls in all schools). Architectural drawings of all the facilities will be accompanied by photographs and narratives of each location and condition of all architectural and engineering elements, especially those that reportedly are most in need of replacement and

rehabilitation, such as: leaking roofs, clogged / inadequate drainage systems and un-sanitary facilities.

- k. All drawings and topographical studies were digitized in AUTOCAD files.
- l. Soils tests and hydro-geologic tests conducted to draw a profile of each site where rehabilitation and new construction will be implemented. Perforations performed on those sites where floors were deformed due to humidity/water infiltration.

The general assessment for bridges required the following studies:

- a. Topographical;
- b. Geological;
- c. Geotechnical and Geophysical;
- d. Hydrological and Hydraulic; and
- e. Traffic

5.2.2 Preliminary Designs

At this time, CDM Smith has completed virtually the preliminary design for the first group of each component.

Schools and clinics

The information provided by the GOES ministries and the findings, conclusions and recommendations of the assessments provided a basis for preparing preliminary designs. These take into consideration mitigation measures for natural hazards and the effects of climate change and/or environmental risks in each facility. In all cases, CDM Smith incorporates requirements for energy efficient technologies, and has worked closely with the ministries to follow local construction standards, but also to update requirements and specifications, based upon gaps or perceived deficiencies identified through the process of preliminary design development.

The target for percent design completion with 'preliminary designs' is 30% construction documents; this level of design was explicitly defined early in Year 1 activities to better ensure a uniform understanding. In most cases, the eventual design products exceed 30% for many design elements, e.g. in some cases, more in-depth structural investigations was needed due to infiltration of water into the building's foundations and depending on soil conditions. It is estimated that the average level of design achieved is closer to 50%.

In order to build back better, the preliminary designs produced include aspects that exceed ministerial requirements, adding/prescribing and designing with consideration to, among others: earthquake-resistant standards and specifications, materials and labor quality, testing methods,

norms and standards, construction procedures, methods for handling maintenance and repairs in different elements (which will include user-friendly guidance to communities, parents and staff), additives and accessories, norms on measurements, and characteristics and capacities of equipment and special installations.

Specific recommendations for the Design/Build (D/B) approach were an integral part of CDM Smith's contribution for vertical or multistory structures, as well as for bridges.

USAID Acceptance of Preliminary Designs: As preliminary design information, analysis and recommendations have been completed, CDM Smith has packaged the design documentation to USAID for acceptance.

- a. Design documents and calculations
- b. Design drawings
- c. Technical Specifications
- d. Bill of Quantities (BOQ)
- e. D/B Contractor Scope of Work, including requirements for final design

Bridges

Based on the results of studies and assessments, and in consultations with MOP, the preliminary design for bridges and construction alternatives was prepared. These alternatives were evaluated based on technical feasibility parameters. The final preliminary designs were approved in consultation between USAID and MOP; the designs were based upon on the requirements of "AASHTO LRFD Bridge Design Specifications, Fifth Edition, 2010."

Likewise, seismic forces were evaluated in accordance with the requirements of the "Regulation for the Security of Structural Constructions of the Republic of El Salvador", the "Standard Technique for Design of Foundations and Stability of Slopes" and other standards that are part of this regulation, as appropriate, which was complemented by the above mentioned AASHTO LRFD specifications.

Preliminary design of bridge structures and paving design: The design of bridge structures included addressing freeboard elevation, size of bridge opening, bridge type and location, scour preventive measures, foundation type, and seismic design requirements, among other aspects, design approach includes:

- a. Geometric design of the roadway;
- b. Preliminary design of bridge structures;
- c. Preliminary design works for environmental protection and/or mitigation;
- d. Design of pavement of approaches to the bridge;
- e. Study of drainage works;
- f. Development of drawings and technical documents;
- g. Preparation of preliminary budget and bills of quantities, including environmental protection/mitigation works;

USAID Acceptance of Preliminary Designs: As above for the school and health care facilities, as preliminary design information, analysis and recommendations were completed, CDM Smith packaged the design documentation into a submittal for USAID acceptance.

The main elements of the preliminary design packages, intended to be suitable for design/build contracting, included the following:

- a. Design Drawings
- b. Calculations
- c. Technical Specifications
- d. Bill of Quantities (BOQs)
- e. D/B Contractor Scope of Work, including requirements for final design

The stated objective of 30% preliminary design was exceeded in a number of areas though the various stages of preliminary design review; it was determined that more detail was needed in a number of areas to reduce unknowns and therefore potential risk for the eventual final design/construction. It is estimated for the bridges that the average level of design achieved is closer to 70%.

5.3 Pre-qualification Process

In this process CDM Smith collaborated with USAID on several specific tasks, including:

- Assistance in the preparation of the announcement to participate in the prequalification process
- Preparation of prequalification document for bidders using design-built contracts,
- Coordinating and attending meetings with CASALCO,

- Coordination and participation in the workshop to promote the project. CDM Smith prepared a presentation and gave a speech about design – built contracts to members of CASALCO, ASIA and ACODES

The activities performed by CDM Smith for pre-qualification process on behalf USAID included the following:

- a. In consultation with USAID, design the pre-qualification process and advise how to achieve the objective of identifying the more capable firms to minimize USAID risk during implementation.
- b. Based on market condition, CDM Smith proposed that USAID identify firms with independent units that could work in an integrated fashion for the design and construction or, alternatively, strategic alliances between two firms: a constructor and a consultant designer, joined in a temporary association or in a prime-sub relationship.
- c. Suggested contacting construction sector organizations to present the Project and USAID scopes and requirements. The recommended organizations included: Salvadoran Camera of Construction (CASALCO), Association of Consultants of El Salvador (ACODES), and Salvadoran Association of Engineers and Architects (ASIA).
- d. Accompanied USAID to meet representatives of construction sector organizations and to make presentations of the project.
- e. On behalf of USAID, prepared the advertising and presentations to promote the project to potentially interested firms.
- f. In consultation with USAID, design and develop the pre-qualification document to request the following information from interested firms:
 - i. General information, including profile and legal documentation.
 - ii. Financial statements for the last three years, including specific financial ratios.
 - iii. Organization chart.
 - iv. Project management plan.
 - v. Strategic alliance to cover both final design and construction activities under the D/B contract, and
 - vi. Permanent technical and professional personnel.
- g. Collaborated with USAID to design,/develop/conduct a workshop for interested firms to pre-qualify in order to relay the following information:
 - i. Types of alliances for D/B contracts and legal requirements,
 - ii. How a D/B contract works and what kind of contract the firm should expect, and
 - iii. Cost system and quotations for USAID construction contracts.

- h. Advised USAID on evaluation of firms' pre-qualification documents including the design/drafting of evaluation guidelines.

5.4 Design/Build Contract Procurement

Through frequent meetings / discussions to be held during the last Quarterly 2012, CDM Smith I assisted USAID in Analyzing FIDIC and FAR (Federal Acquisition Regulations) to prepare the General Conditions for Design and Build Contracts.

Main objective of this phase is the completion of documentation and provide guidance to USAID for the completion of D/B Contract Packages that provide sufficient detail and guidance to D/B Contractors that minimizes potential issues in awarding D/B Contracts and misinterpretations during D/B construction.

As part of all the procurement process CDM Smith will assist USAID in:

- Developing Statements of Work and Request for Proposal documents for Design/Build procurement by furnishing all preliminary designs, bills of quantities (or lump sum bid items), cost estimates/budgets, technical specifications, work programs, and any other technical documentation necessary for tenders preparation, including occupational health and safety plans.
- Pre - Bidding conferences
- Reproduction, collation, and providing copies of material for bid packages, e.g. design drawings, specs and BOQs.
- Provide inputs/recommendation for scheduling of works.
- Provide inputs/recommendations on QA/QC procedures to be followed by Design Build contractors.
- Providing recommendations on contract packages (identify facilities for each bid package)
- Responding to questions from bidders on designs produced.
- Follow up with MARN as necessary for approval of EAs, if necessary
- Receiving proposal documents from the bidders in CDM Smith offices

5.5 Design/Build (D-B) Supervision Services

5.5.1 Final Design

The main objective is the completion of final designs for each USAID approved facility.

USAID Acceptance of Final Designs: As final design information, analysis and recommendations are completed by the D/B Contractor, CDM Smith will review design drawings, supporting documentation and make a recommendation to USAID.

CDM Smith will monitor, review and provide concurrence for the deliverables produced by the D/B Contractors, which includes, but may not be limited to:

- a. Design documents and calculations
- b. Final Design drawings and shop drawings.
- c. Updated Detailed Technical Specifications
- d. Updated Bill of Quantities (BOQ)
- e. Construction and environmental permits, including environmental mitigation plans (EMP's).
- f. Other documents:
 - i. Final design report (digital and hard copy).
 - ii. Site plan identifying all risks/hazards and vulnerabilities. Plan to mitigate all identified risks/hazards and vulnerabilities during construction process.
 - iii. MS Project schedule, considering the impact of seasonal considerations during the design and construction stages.
 - iv. QC Management and Safety Plan.

5.5.2 Construction Stage

CDM Smith's approach to construction management support and supervision services is based upon our own Project Life Cycle, which will be applied for the supervision of the D/B contractor (that will be under direct contract with USAID); the main supervision activities during construction include:

- a. Review/recommend payment on vouchers;
- b. Resolve contractual technical issues;
- c. Provide quality assurance;
- d. Monitor overall planning, scheduling, scope and cost controls;
- e. Progress reporting and maintaining records;
- f. Review "As built" Drawings and operation and maintenance (O&M) manuals and
- g. Assist with contract closeout at final completion of the works.

CDM Smith will provide assistance to USAID for the development of bidding requirements which would include mobilization plans; and develop its own supervision plan with established benchmarks, performance metrics and identification of performance deviations, evaluations for corrective actions, and adjustments. Field supervisors will document performance and deviations daily in the field and convey to the main office to evaluate results and draw lessons learned for improvements on the ongoing projects.

A Quality Assurance Plan will be an integral part of our supervision plan. This will be established for each project at start-up. It will enable field supervisors -- architects and engineers -- to measure work products, quality of workmanship, and conditions on site against set quality benchmarks. Where field architects and engineers notice performance deviations between plans and field implementation, they will either work with the contractor on site to make reparations or escalate a report to the COP who will resolve the matter with the contractor's management and advise USAID of possible problems and potential claims. All materials will be checked to ensure compliance with specifications in the contract documents.

In addition, CDM Smith will advise USAID on contractors work schedule; will attend pre-construction meetings and prepare minutes, and advise the COTR on quality control issues and progress in the regular reporting process.

Construction Contract Completions: In a timely manner, CDM Smith will conduct the necessary inspections and monitor Punch Lists to determine the remaining works to be completed. When remaining works are satisfactorily completed, CDM Smith will assist USAID in issuing Certificates of Substantial or Final Completion.

Upon completion of works, CDM Smith will review and certify all As-Built, and help ensure that any other documentation required in the construction contracts are submitted properly.

CDM Smith will also review any required operation and maintenance (O&M) manuals before submission to USAID and before finalization for on-site use.

Training and Capacity Development to the community through community involvement: CDM Smith will ensure that D/B construction contracts require that vendors who furnish equipment with specialized installation, operation, and maintenance provide appropriate education and training to the recipients' personnel in the field. CDM Smith will also assist relevant ministries receiving the infrastructure provided in developing, disseminating, and establishing maintenance plans for such infrastructure and infrastructure components.

Main objective of D-B Supervision Services is the verification by regular monitoring and presence on site that the D/B Contractor complies with the approved design, specifications and other

requirements in carrying out the rehabilitation/reconstruction activities, while maintaining proposed/approved schedule.

CDM Smith as A/E contractor will perform the following activities:

- a. Mobilization/startup
 - i. Verify contractor mobilization plans, including recommendations for approval of work schedule and issuance of notice to commence.
 - ii. Participate in pre-construction meetings and prepare meeting minutes.
 - iii. Review and advice on quality control issues and plans.
 - iv. Approve Design/Build contractors' QA/QC plans. In a timely manner, notify of non-compliance with current US industry quality standards.
 - v. Review construction (including health and safety) manuals or other materials provided by the construction firms for accuracy, operational usefulness, and consistency that are used to guide the construction contractors on construction procedures, forms required for inspection, handover, testing, submittals, transmittals, and other topics as necessary.
- b. Reviews of submittals
 - i. Verify and validate all engineering and construction documents, assessments, and design / build proposals for the rehabilitation and reconstruction of schools, and health clinics for awards
 - ii. Review records of the construction contractor's critical path method (CPM) construction schedules and ensure that they comply with construction contract documents. Submit these CPM schedules to the COTR and recommend acceptance or rejection.
- c. On site activities, monitoring and reporting
 - i. Monitor and report on construction activities, including review and approval recommendation of shop drawings and submittals provided by the construction contractor. Ensure that the Design/Build contractor(s) obtains all required permits and approvals and those construction activities comply with all applicable laws and standards.
 - ii. Continuously monitor and advise on the progress of the work, by conducting site visits and providing weekly progress highlights and detailed monthly progress reports. Monthly progress reports should describe the value of works completed; problems that may require USAID/COTR attention, actions taken to date by the A/E firm, the likelihood that completion could be delayed or advanced, and whether circumstances reported could affect projects costs. Monthly progress

reports shall include, but not be limited to, documentation of test results, mitigation of issues in environmental assessments, and project progress photographs.

- iii. Advises USAID of possible problem situations (technical, legal, political, or otherwise) and construction service contractors' actions, of which the CDM Smith technical subcontractor firm has become aware, that may adversely impact project implementation.
- iv. Monitor, report, and take necessary measures to ensure that the construction complies with the Environmental Assessment and, or Environmental Mitigation Plan and include this information in monthly progress reports as well as in final reports.

d. Records maintenance

Maintain project construction records, in hardcopy and electronic format that include but are not limited to shop drawings, submittals for materials, warranties, product literature, and maintenance procedures. Prepare correspondence, certificates, notices, and instructions as required for the signature of the COTR.

e. Contractor Invoices

Review construction service contractors' payment invoices and make appropriate recommendations for payment to USAID. Certify that completed works covered by invoices have been carried out in accordance with the requirements of the construction contracts, or otherwise indicate any deficiencies in the completion of the works.

f. Claims

- i. Promptly examine construction service contractor claims for extensions of time, payments of extra work, and other similar matters. Promptly submit appropriate recommendations to the COTR. Advice on claims and disputes as necessary. Include technical support services for participation in litigation or alternative dispute resolution of claims.
- ii. Play a role in the review analysis and in making recommendations to USAID in the event of a possible claim or litigation between the United States Government and the construction contractors. In the event of litigation or any alternative process between the said parties for the resolution of claims undertaken or defended by USAID, provide expert opinion and recommendations to protect USAID interests such as preparing for and serving as a witness in any public or private hearing or other forum related to projects.

g. Meetings

Participate in periodic construction implementation meetings and such additional meetings as necessary, to resolve issues impacting project costs and schedules.

- h. Contract Closeouts at Completion of works
 - i. In a timely manner, conduct the necessary inspections and determine the remaining works to be completed. When remaining works are satisfactorily completed, and in coordination with USAID, issue Certificates of Substantial or Final Completion to USAID.
 - ii. Maintain/track status of warranties/guarantees for all awarded construction contracts and, when appropriate, if requested, alert USAID in writing 30 days prior to the expiration of any warranty or insurance that may need an extension.
 - iii. During periods for the remedy of project defects, provide inspection services to verify completion of all work in accordance with construction contract specifications and monitor, report, and take the necessary measures to assure proper closeout of the construction contract for the project.
 - iv. Upon completion of works, review, certify, and insure that as-built drawings as well as any other documentation required in the construction contracts are submitted properly.
 - v. Review any required operation and maintenance (O&M) manuals before submission to USAID.
 - vi. The A/E firm is responsible, when assigned by the COTR or CO, for the review of system manuals and other operating documents written in Spanish for renovated health clinics for completeness, and operational usefulness. The A/E firm may be required to review any activities by the construction contractor to incorporate manufacturer's standard manuals into the system manuals. The construction contractor's responsibility is limited to ensure that all manufacturer's standard manuals and cut sheets are complete before they are handed over to the A/E firm.

5.6 Year 1 Implementation Status

The description above includes the conceptualization of the task implementation across all tasks the following provides a status of the tasks at the completion of Project Year 1.

The Rapid Appraisal was completed on schedule within Year 1, however the analysis of the Rapid Appraisal by USAID for presentation to GOES required more effort and took longer than expected. Further, the presentations and revisions to arrive at the approval by GOES for the first group of facilities caused further delays. The selection of the following groups of facilities for preliminary studies did not occur until early in the Q3 2012.

The activities completed in Year 1 by component are as follows:

Clinics

- Rapid Appraisal/all facilities
- Design criteria/consensus with USAID, MINSAL, others
- Identification/concurrence on first group of (3) facilities
- Development of PMAs/concurrence from USAID/MINSAL
- Preliminary design of first group of facilities.
- Reprioritization of facilities, allowing identification of groupings following the first group.
- Revisions to PMAs
- Revisions to Preliminary Design of first group of facilities

The main reason for delays specific to clinics was the revision required to the PMAs. The original PMAs, developed in accordance with the design criteria and local norms and MINSAL standards, were meant to guide the Preliminary Design, however, the initial preliminary designs highlighted deficiencies to the initial standards used in the development of the PMAs. This caused a setback in the first progress until the PMAs could be corrected. The revised PMAs followed more site specific limitations; other aspects were changed to enable keeping the facilities to one level. Following the revision to the PMAs and renewed concurrence, the preliminary designs advanced, with the submittal late in the year.

Schools

- Rapid Appraisal/all facilities
- Design criteria/consensus with USAID, MINED, others
- Identification/concurrence on first group of (4) facilities
- Preliminary design of first group of facilities.
- Reprioritization of facilities, allowing identification of groupings following the first group.
- Review/comments on first group of facilities
- Revisions to Preliminary Design of first group of facilities
- Approvals (USAID, MINED), Group 1 facilities
- Programmatic Environmental Monitoring Plan comments require revisions to hydraulic design
- Preliminary design of on Group 2 facilities initiated, following examples/lessons learned on Group 1.

In the schools component, it was initially anticipated that existing school facilities would be rehabilitated, however, it was determined that for the priority schools identified, that reconstruction was required. This decision for new facilities construction was determined the better option after an assessment of the existing facilities and necessity to apply both local codes and selected international codes, including earthquake resistance. Therefore, the preliminary designs required more effort and time to produce after the reconstruction determination was made.

Bridges

- Rapid Appraisal/all facilities
- Design criteria/consensus with USAID, MOP, others
- Identification/concurrence on first group of (2) bridges
- Preliminary design of first bridge.
- Reprioritization of facilities, allowing identification of groupings following the first group.
- Review/comments on first group of facilities
- Development of draft bridge EAs
- Revisions to Preliminary Design of first bridge (San Antonio) and start of design on second bridge (Acahuapa)
- Approvals (USAID, MOP), on first bridge/proceeding to tendering period
- Comments/revisions to bridge EAs

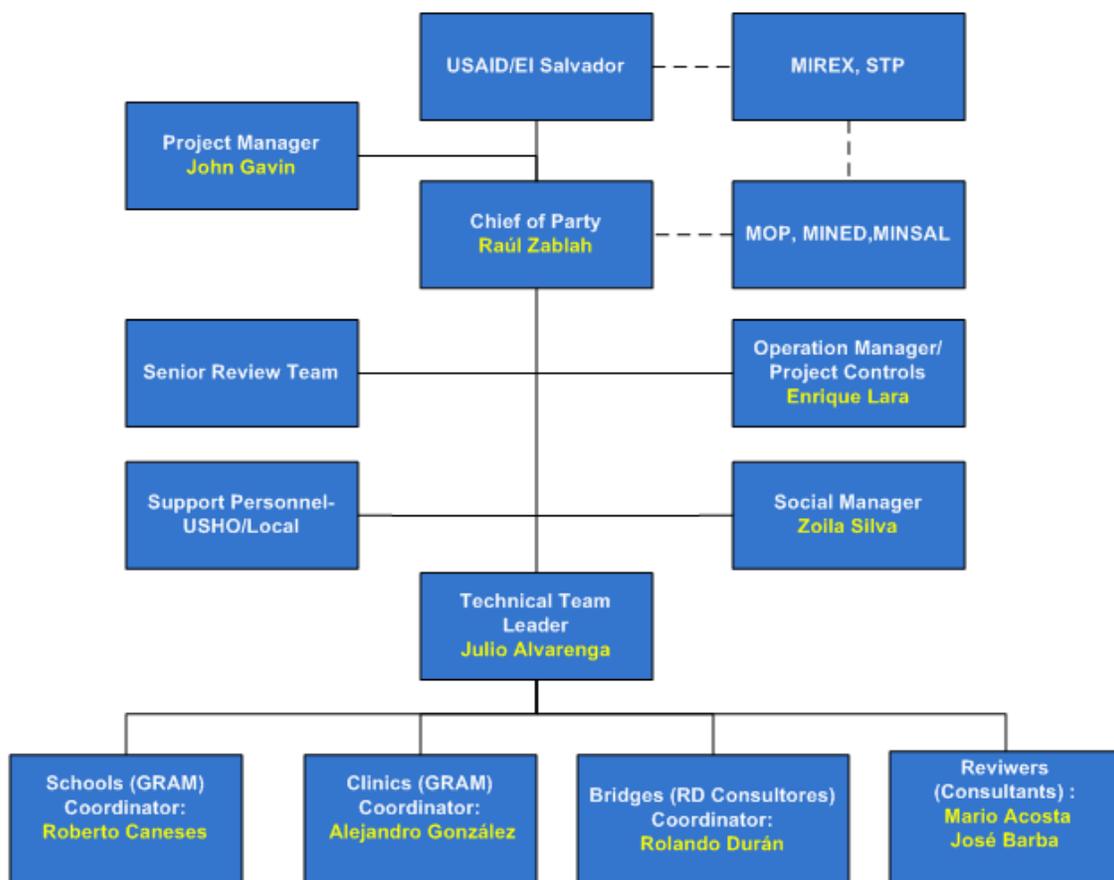
In the bridge component the preliminary design of San Antonio Bridge was finished in September 2012, two tender processes were needed. The second tendering process started in January 2013. The second bridge (Acahuapa) bridge required additional geotechnical studies to better clarify foundation requirements which required additional geotechnical studies to minimize risk for the D/B procurement. The preliminary design of Acahuapa Bridge was finished in December 2012.

6 Project Team

6.1 Key Personnel

For the year 2, the key personnel remain the same as presented in the original work plan; the Chief of Party, Raúl Zablah; the Technical Team Leader, Julio Alvarenga; and, the Operations Manager, Enrique Lara. The key personnel are supported by the Client Service Manager, Senior Review Team and Specialists from various CDM Smith USA-based offices, as well as supplementary locally-based personal.

Following is the project organization chart.



6.2 Non Key personnel

The key project personnel are supported by local personnel: an Office Manager, driver, accountant, one technical assistant and two engineers serving as technical reviewers. Since the previous work plan, an additional engineer/technical reviewer was added, in addition to replacing the administrative assistant with an architect to provide support to both administration and reporting.

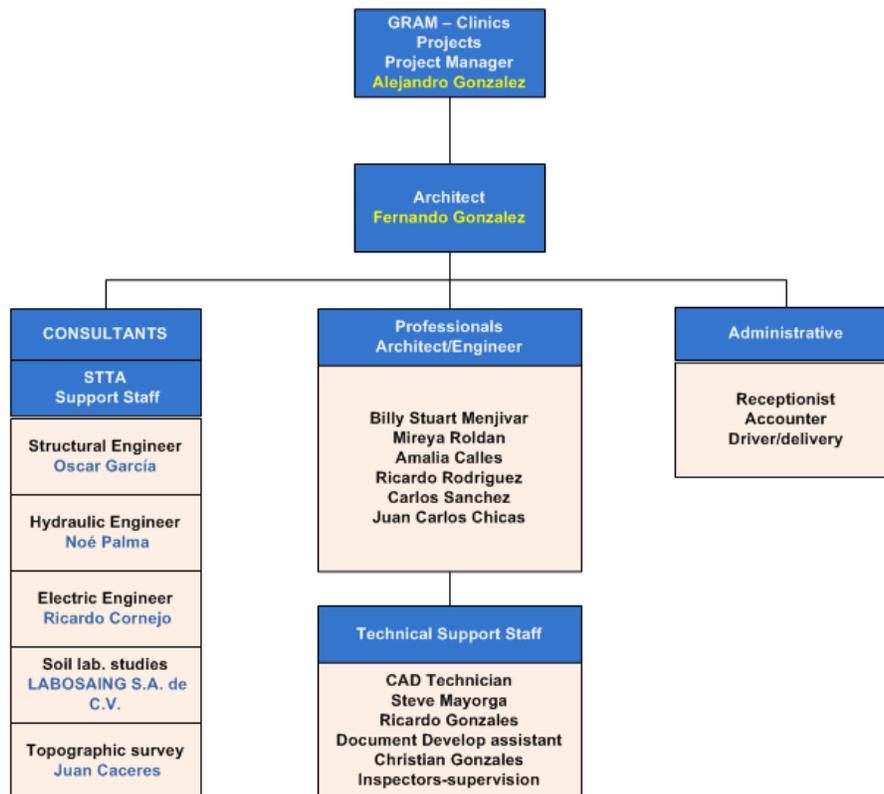
6.3 Subcontractors

To carry out the design and field supervision efforts, there are two technical subcontractors that round out the CDM Smith team; this includes:

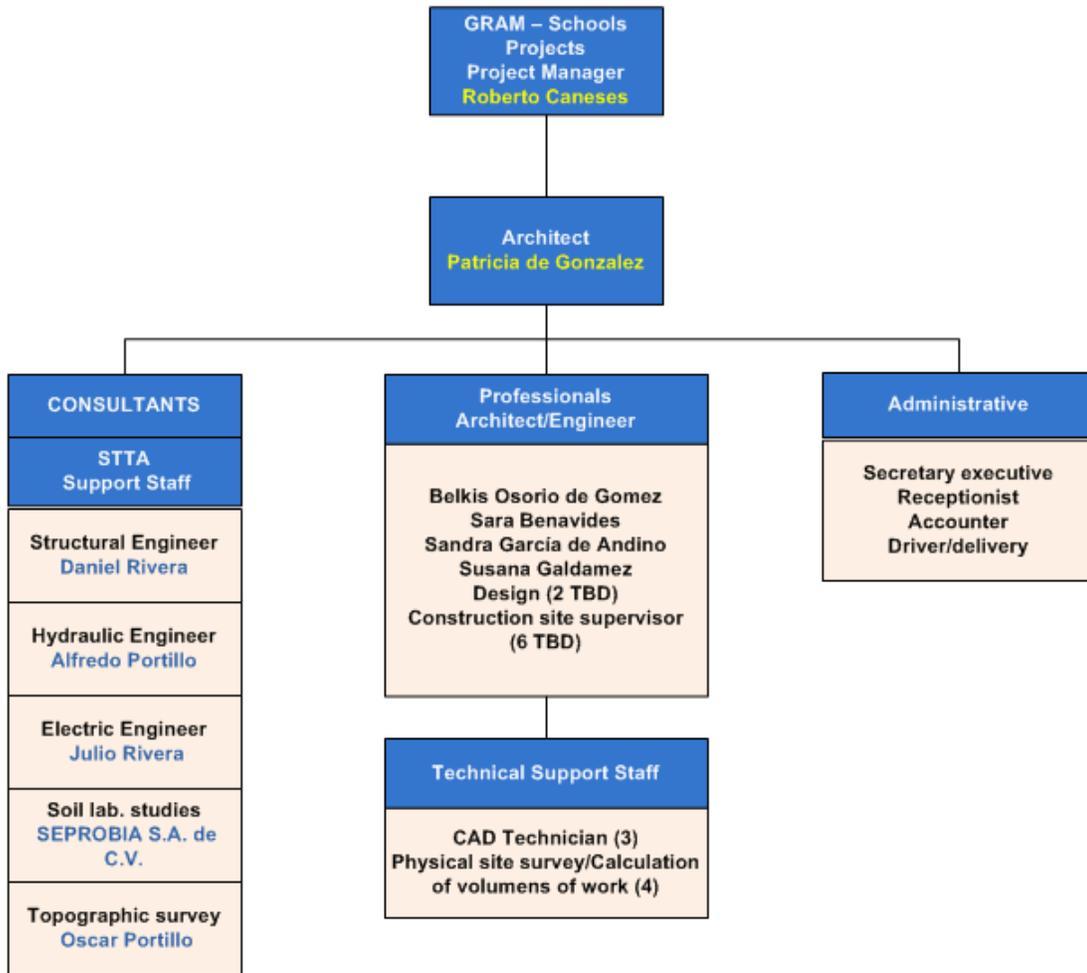
- GRAM S.A. de C.V. is in charge of two components: schools and health care facilities. The School component is lead by Roberto Caneses and the health facilities are lead by Alejandro Gonzalez.
- RD Consultores S.A. de C.V. is in charge of the bridges component, lead by Rolando Duran.

Their organization charts for these subcontractors remains the same, however, some of the personnel have changed; following are the organization charts for each facility team:

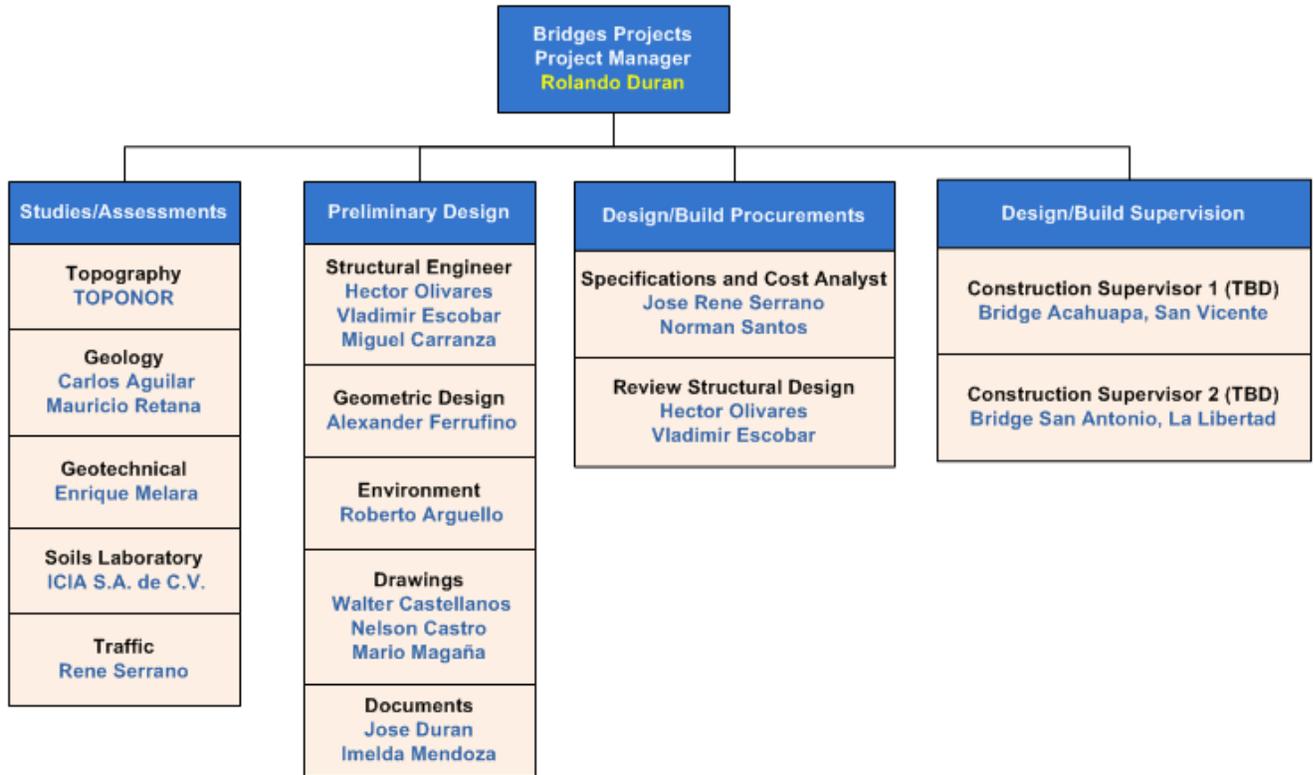
GRAM-Clinics



GRAM – Schools



R.D. Consultores, S.A. de C.V. - Bridges



6.4 Matrix of Responsibilities¹

Based upon the experience within the team during Project Year 1, the roles and responsibilities of project personnel were reviewed and redefined; the matrix presented below includes the updated roles and responsibilities matrix for the project.

Position	Firm	Expat/ Local	Tasks							Position reports to:	Responsibility in brief	Name	
			Gen Adm.	Pre-Designs	Tendering	Supervision	C. Closeouts	B. Capacity	Clearinghouse				
Key Personnel													
Chief of Party*	CDM	Local	X	X	X	X	X	X	X	X	USAID COTR and CDM HO Project Manager (PM)	Responsible for project delivery across all tasks, project monitoring and submittals, and management of personnel. Liaises with USAID and CDM HQ, coordinates with other donors and host country ministries (MOP, MINED, MINSAL).	Raul Zablah
Operations Manager/ Project Controls*	CDM	Local									COP	<ul style="list-style-type: none"> Define the scheduling for deliverables, negotiate them and provide follow-up. Verify compliance and in case of deviations, request corrective measures to recover the deviation. Provide follow-up to response times for the comments of the technical group. Coordinate and prepare reports in collaboration with the administrative technical assistant and the technical group (as providers of information to be included in the report). Management of the control and follow-up system for deliverables from subcontractors in the preliminary design and work execution phase. Coordinate the requirements for independent revisions. Coordinate follow-up meetings for deliverables from subcontractors. Record, control and back-up the information produced in the project. In the server and in the e-room. 	Enrique Lara
Technical Team Leader*											COP	<ul style="list-style-type: none"> Manages and mobilizes technical resource staff in support of field activities and quality audits. Provides guidance to, and collaborates in preparation of all reporting to COP and USAID, including annual reports and annual work plans, in coordination with Operation Manager. Provides timely response to information requests for all operations, and ensures timely preparation and submission of data to the COP and USAID. Provide hands-on, daily oversight and guidance to assessment/studies, preliminary design, tendering, and supervision functions. Work with local subcontractors in the development and implementation of plans, schedules and progress reports, in coordination with Operation Manager. Monitors and reports on assessment/studies, design and supervision progress to the COP in coordination with Operations Manager and other units as needed; Oversees and coordinates designs by lead designers for bridges, schools, clinics. Ensuring consistency between designers, QA/QC, and compiles preliminary design packages for procurement in collaboration with technical subcontractors. Aim guidance to partial deliveries of documentation in order to facilitate technical revisions and follow-up for Operation Manager. Develop QA/QC guidelines and procedures for construction phase to be followed by Supervision 	Julio Alvarenga

¹ This matrix was updated to adequate the staff of the project according to the current realities

Position	Firm	Expat/ Local	Tasks							Position reports to:	Responsibility in brief	Name	
			Gen Adm.	Pre-Designs	Tendering	Supervision	C. Closeouts	B. Capacity	Clearinghouse				
											Subcontractors, and Contractors. <ul style="list-style-type: none"> • Coordinates and train Supervision Subcontractors for QA/QC system to be implemented during construction phase. • Coordinates and monitors Supervision Subcontractors ensuring that QA/QC procedures are being followed during construction phase. • Work with local Social and environmental subcontractors in the development of plans, and follow-up and progress reports during the construction phase, in coordination with Operation Manager. • Monitors and oversees Supervision Subcontractors for closeouts procedures in coordination with Operation Manager. 		
Short Term Technical Resources/Field Support													
Engineering/Technical													
Structural Engineer	CDM	Expat		X	X	X					Technical Team Leader	Supports Technical Team Leader on guidance to bridge subcontractor and reviews of submittals - also anticipated for in-country meeting covering design stds/criteria development and CDM QA/QC requirements	Leonel Almanzar
Project Engineer (Jr)	CDM	Local Cons		X		X					Technical Team Leader	<ul style="list-style-type: none"> • Provide support in the revision of documents submitted by engineering service providers to CDM Smith to make sure that they meet the standards established by the company's quality system implemented in the project. • Monitor all activities carried out by design teams related to the orderly and timely compliance with all drawing approval processes and technical engineering resolutions established by the corresponding regulatory institutions. 	Mario Acosta
Project Engineer (Jr)	CDM	Local Cons		X		X					Technical Team Leader	<ul style="list-style-type: none"> • Provide support in the revision of documents submitted by engineering service providers to CDM Smith to make sure that they meet the standards established by the company's quality system. 	Jose Barba
Architect	CDM	Local Cons		X		X					Technical Team Leader	Support the Technical Team Leader on reviews during preliminary design phase as needed - depending on review needs, may bring in alternative specialist on an as needed basis.	Marco Antonio Tobar
Hydrologist	CDM	Local Cons		X		X					Technical Team Leader	Provides support to TTL in reviews of hydrological submittals coming from technical subcontractors during study phase	Fernando Lemus
Geotechnical Specialist	CDM	Local Cons		X		X					Technical Team Leader	Provides support to TTL in reviews of geotechnical submittals coming from technical subcontractors during study phase	Luis Armando Pineda
Environmental													
Sr. Environmental Specialist	CDM Cons.	Expat		X		X					COP	Develops environmental guidance/templates in for Envir. Assessments (EAs) and Envir. Mitigation Plans (EMMP) in accordance with 22 CFR 216. Supervises the collection/consolidation of information in accordance with El Salvador EIA requirements (to extent possible for design scope limitations). Finalizes submittals to USAID based upon in-country team inputs. Reviews environmental reporting, ongoing compliance reported by field personnel/construction contractors.	Karen Menczer
Local Environmental Coordinator	CDM Cons.	Local		X		X					COP	Works with Sr. Env Spec on development of EA based upon information from Subcontractors. Coordinates information developed by Subcontractors, provides guidance to subs on what data/reporting is needed for both the USAID EA and the GOES EIA. Participates in meetings with MARN - provide comments/corrections on environmental reporting. Reviews logs from field team and construction contractor on environmental compliance.	Ernesto Javier Figueroa/ Carlos Escobar/ Daniel Portillo
Community Outreach - subcontractor - SMP													
Community Involvement Coordinator	SMP	Local consultant		X		X	X	X			COP/ Ops Manager	<ul style="list-style-type: none"> • Management of the relationship, communication and organization of communities, keeping them involved in the reconstruction process. • Carry out follow-up and monitoring actions in the application of the community and gender component carried out by construction companies. 	Zolla Silva

Position	Firm	Expat/ Local	Tasks							Position reports to:	Responsibility in brief	Name
			Gen Adm.	Pre-Designs	Tendering	Supervision	C. Closeouts	B. Capacity	Clearinghouse			
											<ul style="list-style-type: none"> • Design of a training plan for the application of the community and gender components for contracting companies. • Supervision actions in each sub-project; field work. • Design of recording instruments for the work carried out by community and gender component. • Supervision and evaluation of the execution of the maintenance and care plans for the works built. • Revision, evaluation and approval of monthly reports submitted by the companies executing the sub-projects. • Document, in a systematic manner, the work carried out by the community and gender component. 	
Comm. Involvement Promoter	SMP	Local Consultant		X		X	X			Community Coordinator	Conducts direct interactions with communities, provides information to communities on project and feedback to project from community inputs. Monitors/reports on adherence to infrastructure maintenance plans.	Karina Zavala
Senior Review Team												
Lead Practitioner		Expat		X		X	X			COP	Serves as senior technical reviewer, coordinating other QA/QC reviewers as needed and within TRC budget. Conducts routine and periodic performance checks as project progresses for resolution of issues as they arise.	Eduardo Galindo
Structural Engineer		Expat		X	X	X				LP, COP, TTL	Provides technical QA/QC oversight of submittals - checking on reviews of CDM local team, primarily, but not limited to the design phase	Leonel Almanzar
Electrical Engineer		Expat		X		X				LP, COP, TTL	Provides technical QA/QC oversight of submittals - checking on reviews of CDM local team, primarily, but not limited to the design phase	Raul Aviles
Mech (HVAC/Plumb)		Expat		X		X				LP, COP, TTL	Provides technical QA/QC oversight of submittals - checking on reviews of CDM local team, primarily, but not limited to the design phase	Leon Warriner
Geotechnical		Expat		X						LP, COP, TTL	Provides technical QA/QC oversight of submittals - checking on reviews of CDM local team, primarily, but not limited to the design phase	Michael Gilbert
Sr. Cost Estimator		Expat		X		X				COP, TTL	Develops costing guidance and templates, develops and/or reviews cost estimates prepared locally, bills of quantities and pre-bid and post bid documentation.	Alfred Vega
Technical Subcontractors												
Schools and Clinics	GRAM	Local		X	X	X	X	X	X	Technical Team Leader / Ops Manager	GRAM will be responsible for schools and medical facilities through two teams, one for each facility type - provides a field team and resident technical services to carry out - or oversee - 1.) initial site investigations/assessments (topo studies, geotech, facility/site assessments); 2) preliminary design (drawings, specifications, BOOs, cost estimates); 3) D/B procurement (procurement packaging, responding to bidder questions, etc.); 4) D/B supervision (reviews/ recommendation on contractor submittals, site visits/audits, compliance monitoring, engineering review, change order review and comment); 5) contract completions (final facility inspections and recommendation, verification on completions, facilitate transition); 6) training/capacity building (vendor provided training, maintenance plans developed by contractors). Personnel identified for the work will cover, but may not be limited to, Topographic Surveyors, Geotechnical Specialists, Hydrologists, Structural/Sanitary/ Site (Civil) Electrical Engineers, CADD technicians, Cost Estimators and Field Construction personnel. Subcontractor will design deliverables in addition to monthly (weekly during construction) reports in formats in accordance with CDM guidance.	Alejandro Gonzalez (as lead), along with Fernando Gonzales and various GRAM personnel for the Medical Facilities Team. Arq Roberto Caneses and team for the Schools
Bridges	RDC	Local		X	X	X	X	X	X	Technical Team Leader / Ops Manager	R.D. Consultores, S.A. will provide a similar scope of services but with a focus on bridges. Personnel will include structural (bridge) as well as highway design/supervision specialists.	Rolando Durán (as lead) and various RDC personnel for the Bridges Team

Position	Firm	Expatriate/ Local	Tasks							Position reports to:	Responsibility in brief	Name	
			Gen Adm.	Pre-Designs	Tendering	Supervision	C. Closeouts	B. Capacity	Clearinghouse				
Project Controls System Development	JPC	Local		X	X	X	X	X	X	X	COP / Ops Manager	Juan Pablo Castillo will design/develop internet-based Project Controls system to be utilized by the project to capture site and facility data, progress on implementation activities (design and construction), reporting (suitable for submittal as annex to project periodic reporting - monthly, qtrly, annually), costs vs. progress, etc. The development of the PC system will be under the guidance/direction of the CDM Ops Mgr with inputs from other CDM team members (COP, TTL) and subcontractors. Training/orientation on input/data needs is also part of the scope of services.	Juan Pablo Castillo
Local Administrative Personnel													
Office Manager/ Financial Manager	CDM	Local	X							X	COP	Responsible for the organization and coordination of office operations, procedures and resources to facilitate organizational effectiveness and efficiency. Assign and monitor clerical, administrative and secretarial responsibilities and tasks among office staff, allocation of resources to enable task performance, coordinate office staff activities, recruit and select office administrative staff, organize orientation and training staff members, coach and discipline office staff, ensure filing systems are maintained and current, establish procedures for record keeping, monitor record keeping, design and implement office policies and procedures, monitor and maintain office supplies inventory, review and approve office supply acquisitions, maintain a safe and secure working environment, maintains office petty cash, project cost projections/status and other financial reporting as requested by CDM Home Office.	Leticia Bonilla
Technical/Administrative Assistant	CDM	Local	X	X				X		X	COP/Ops Manager/Office Mgr.	Provides technical and administrative support to office staff; receive, review and file incoming mail for administrative and technical staff and determine course of action; prepare documents, transcribing dictation to final copy and finalizing draft documents; to scan documents for administrative and technical staff; coordinate appointments and meetings; collect and coordinates data needed and conduct analysis of information and reports to technical staff; maintains records and data utilizing various automated systems which may include creating database/server, developing tracking systems/spreadsheets, setting up files, etc., resolves problems and/or discrepancies which may involve research and data collection. Job distribution: 1. Technical assistance (40 - 55%): revise the narrative, orthography and format of technical documents delivered by subs and consulting engineers; QC/OA of drawings (formats, measures, etc). 2. Reports (25 - 35%): gather the info to monthly, quarterly, and specials reports; revise the narrative and orthography; revise format; etc. 3. Administrative assistance (20 - 25%): make photocopies, letters, files (digital and hard copy), tracking answers to letters, etc.	Ana Rubio
Accountant	CDM	Local	X								Office Mgr.	Oversees project bank account/reconciliation, maintains ledger, backup for invoicing according to CDM/USAID requirements, maintains office petty cash, maintains secure filing system and office safe, prepares CDM local period charges report (LCR) on monthly basis for submittal to CDM (within 1 week of month end), maintains vendor list/project inventory, prepares payroll, project cost projections/status and other financial reporting as requested by Office Mgr or CDM Home Office.	Glenda Aparicio
Housekeeper	CDM	Local	X								Office Mgr	Provides general maintenance and upkeep of the office. Maintaining a clean and professional environment. Manage the kitchen/kitchen equipment and inventory. Coordinate with the office manager or her designee on supply needs.	Ana Maria Argueta-Recinos
Driver	CDM	Local	X								Office Mgr	Provides vehicle transport to project team, maintain project vehicles and trip logs.	Rafael Quijada
HO Support Personnel													
HO Project Manager (PM)	CDM	Expatriate	X	X	X	X	X	X	X	X	CSM	Provides support to COP throughout the life of the project as well as assist with mobilization, setting up project office, staffing, processes and procedures. Reviews periodic reports and key deliverables before submittal to client. Serves as liaison with other home office staff and coordinates project support from HO,	John Gavin

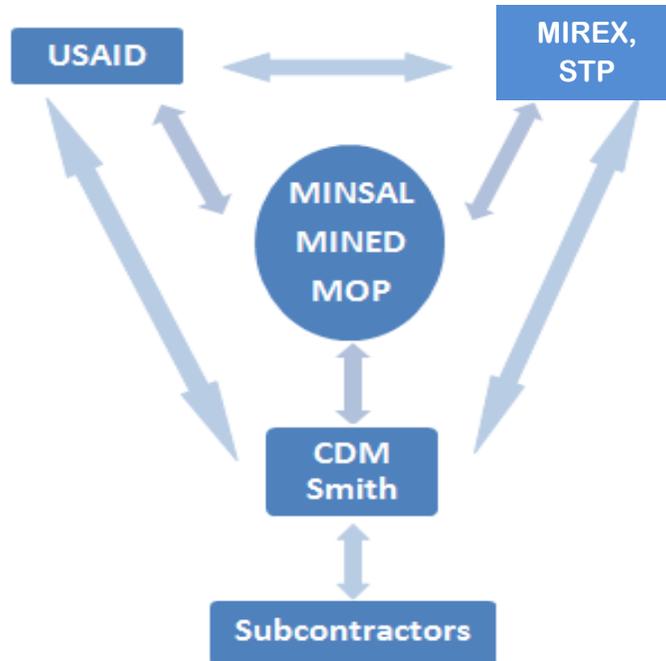
Position	Firm	Expat/ Local	Tasks							Position reports to:	Responsibility in brief	Name
			Gen Adm.	Pre-Designs	Tendering	Supervision	C. Closeouts	B. Capacity	Clearinghouse			
											as necessary, in all areas. Supports project mgt. team with contract modifications and negotiation with subcontractors on an as needed basis.	
Contract Administrator (CA)	CDM	Expat	X							COP, PM, Contract Manager	Responsible for overall project accounting, invoicing to client, developing ECAC/project projections, reviewing LCR, maintaining charge codes, resolving discrepancies, oversight/guidance to local accountant as needed.	Tone Limtrajiti
Contract Manager	CDM	Expat	X		X	X				COP & PM	Provides guidance during administrative, financial, contractual startup and training. Support to El Salvador-based team in DB procurement, bringing in USAID contracting experience. Provides overall F&A supervision, development of contracts/ subcontracts, QA/QC financial auditing, assistance for contractual modification development/reviews.	Carl Brown
Admin Support/Logistics	CDM	Expat	X							PM	Provides general administration and logistics support throughout project period including coordinating HO staff travel, accommodations and general communications with staff on administrative and logistics needs.	Ana Maria Dillon

7 Communications Protocols

The communication protocols established in the original Work Plan remain in place. These protocols were developed to better ensure an efficient and effective communications, with correct levels of authority, for facilitating project progress and performance.

The source of the protocols under this project were discussed at, and agreed upon, at the Post Award Conference with USAID; they were further defined at the project startup/PQM meeting that involved both USAID and GOES/key project ministries. Key elements of the protocol include:

- a. USAID has direct communication and relations with the CDM Smith Team and the Ministry of Foreign Affairs and STP.
- b. GOES communication is housed in the Ministry of Foreign Affairs and STP, which deals directly with the USAID Office in El Salvador.
- c. USAID will have direct communication with CDM Smith. CDM Smith can have contact with the Ministry of Foreign Affairs and STP and the ministries, but must keep USAID fully informed. Also, CDM Smith can contact the ministries directly, but must keep the Ministry of Foreign Affairs, STP and USAID fully informed.
- d. Final decisions will be made jointly by USAID and the Ministry of Foreign Affairs and STP; USAID will convey these decisions to CDM Smith for any necessary adjustments the to the implementation process.
- e. CDM Smith's subcontractors will only have a direct relationship with CDM Smith; they will not have a direct relationship with the ministries or the Ministry of Foreign Affairs and STP.



Project Communication Protocol Chart

The CDM Smith points of contact were defined in the post-award conference, as follows:

For technical aspects:

Raúl Zablah,

Chief of Party,

Telephone number 2243-2036

Email: zablahr@cdmsmith.com

New Address: Urb. Madreselva II, Av. El Espino y Pje. 10 Ote. No. 57, Antiguo Cuscatlán, La Libertad, El Salvador.

For contractual aspects:

Carlton K. Brown,

Principal Contract Manager,

Telephone number (617) 452-6201

Email: brownck@cdmsmith.com

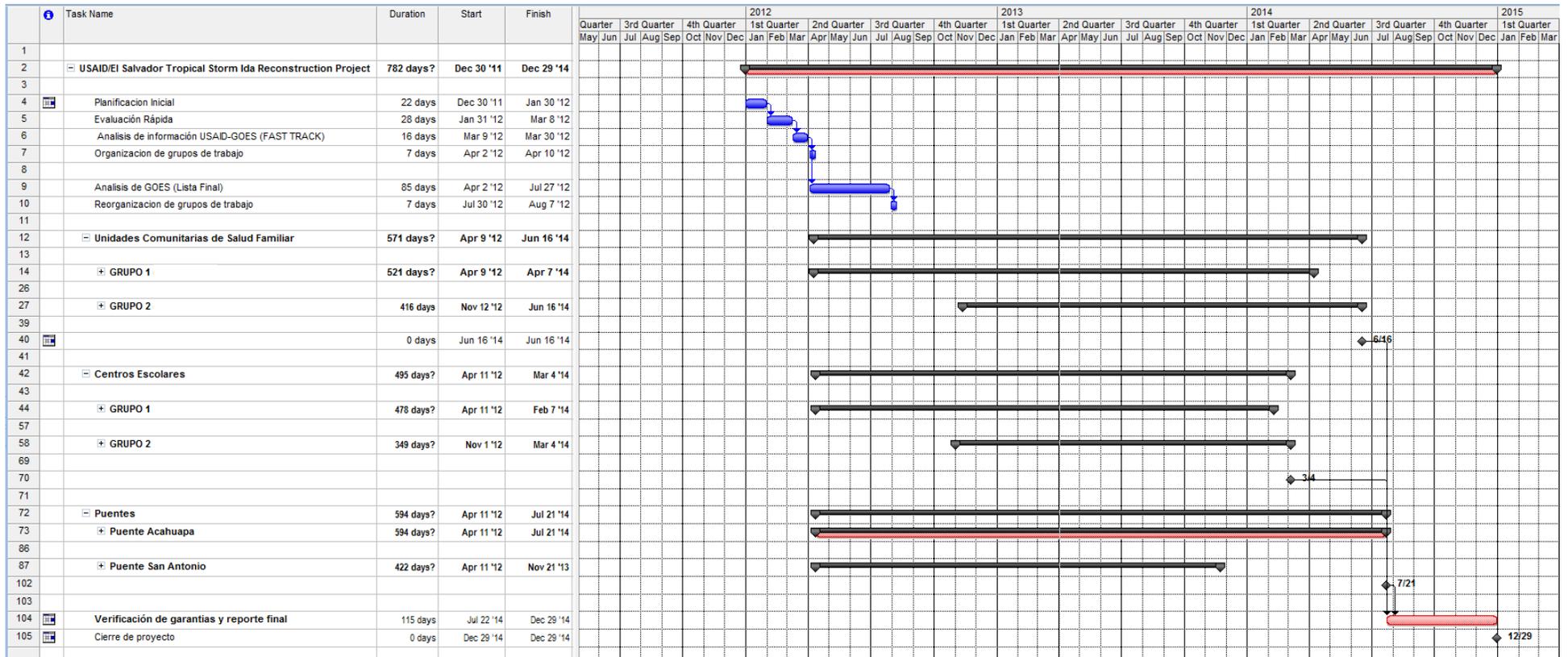
8 Schedule

The schedule presented with this work plan has been updated to incorporate changes encountered during Year 1, accounting for status of progress in Year 1 and revising the number of facilities as determined at the end of Project Year 1.

The following Summary Schedule includes those changes in the list of facilities to be implemented and a detailed schedule is included in the Annex to this report.

8.1 Summary Schedule

USAID TROPICAL STROM RECONSTRUCTION PROJECT



8.2 CDM Smith Expatriate Specialists Interventions

Expatriate interventions during Project Year 2 are anticipated to support the project in four primary areas as follows:

- Project management support, contracting, oversight and performance monitoring
- Bid evaluation support
- Design reviews and support during construction
- Ad-hoc technical support and reviews

The CDM Smith Project Manager, Mr. John Gavin, will provide ongoing support from the Home Office. In addition, it is anticipated that he will make two or more trips to El Salvador in support of the project according to project necessities.

Additional bid evaluation support was requested by USAID in support of the reviews of the two bridge procurements (San Antonio and Acahuapa). This support has been provided by CDM Smith Structural/Bridge Specialist, Mr. Leonel Almanzar. The bid evaluation support occurred remotely has been supported with Mr. Almanzar participating from the home office with his involvement coordinated by USAID.

Design reviews will be conducted through interactions between the El Salvador-based team and various CDM Smith home office specialists – the primary home office specialists that will be providing this support include Health Facility Architect (Mr. Eduardo Galindo), Schools Architect (Ms. Sarah Woodhead) and Structural/Bridges Engineer (Mr. Leonel Almanzar, who is also supporting the bid evaluation as mentioned above). There are also other home office specialists representing different engineering/technical disciplines that are available to support the project in accordance with project needs. While the primary need for this support is anticipated through the design period (preliminary design by local team and detailed design by D/B contractors), there may be some need for support during the construction period as well.

The ad-hoc technical support may include reviews of cost estimates, environmental documentation and reporting on an as needed basis, utilizing the same personnel involved in Project Year 1 to the extent possible.

At the moment, the specialists identified above are the only ones we anticipate utilizing during Project Year 2 - based on the respective scopes of works described above. Even so, additional or alternative personnel may be engaged in accordance with project needs as implementation unfolds during Year 2.

8.3 Health Unit Facilities Milestones

As for the general scheduling of the project, the proposed health unit facilities have been grouped in two sets for planning and scheduling purposes and for establishing tentative milestones for main tasks to be executed for the completion of the health unit facilities.

These milestones will be used for the determination of target results considered in the Performance Monitoring Plan (PMP).

Milestone Table for Health Unit Facilities (Tentative task finish dates)			
Task	First Group	Second Group	Total Clinics
Initial Appraisal			Mar 2012
Studies and Assessments			Dec 2012
Preliminary Designs	Apr 2013	May 2013	May 2013
Design/Build Contract Procurement	Jun 2013	Jul 2013	Jul 2013
Design/Build Supervision Services			
Final Designs	Aug 2013	Sep 2013	Sep 2013
Construction Phase	Feb 2014	Apr 2014	Apr 2014

8.4 School Facilities Milestones

As for the general scheduling of the project, the proposed school facilities have been grouped in two sets for planning and scheduling purposes and for establishing tentative milestones for main tasks to be executed for the completion of the School facilities.

These milestones will be used for the determination of target results considered in the Project Monitoring Plan (PMP).

Milestone Table for School Facilities (Tentative task finish dates)			
Task	First Group	Second Group	Total Schools
Initial Appraisal			Mar 2012
Studies and Assessments			Jan 2013
Preliminary Designs	Feb 2013	Apr 2013	Apr 2013
Design/Build Contract Procurement	May 2013	Jun 2013	Jun 2013
Design/Build Supervision Services			
Final Designs	Jul 2013	Aug 2013	Aug 2013
Construction Phase	Jan 2014	Jan 2014	Jan 2014

8.5 Bridges Milestones

As for the general scheduling of the project, all MOP's proposed bridges includes two bridges (Group 1) for planning and scheduling purposes and for the establishing of tentative milestones for mains tasks to be executed for the completion of the rehabilitation.

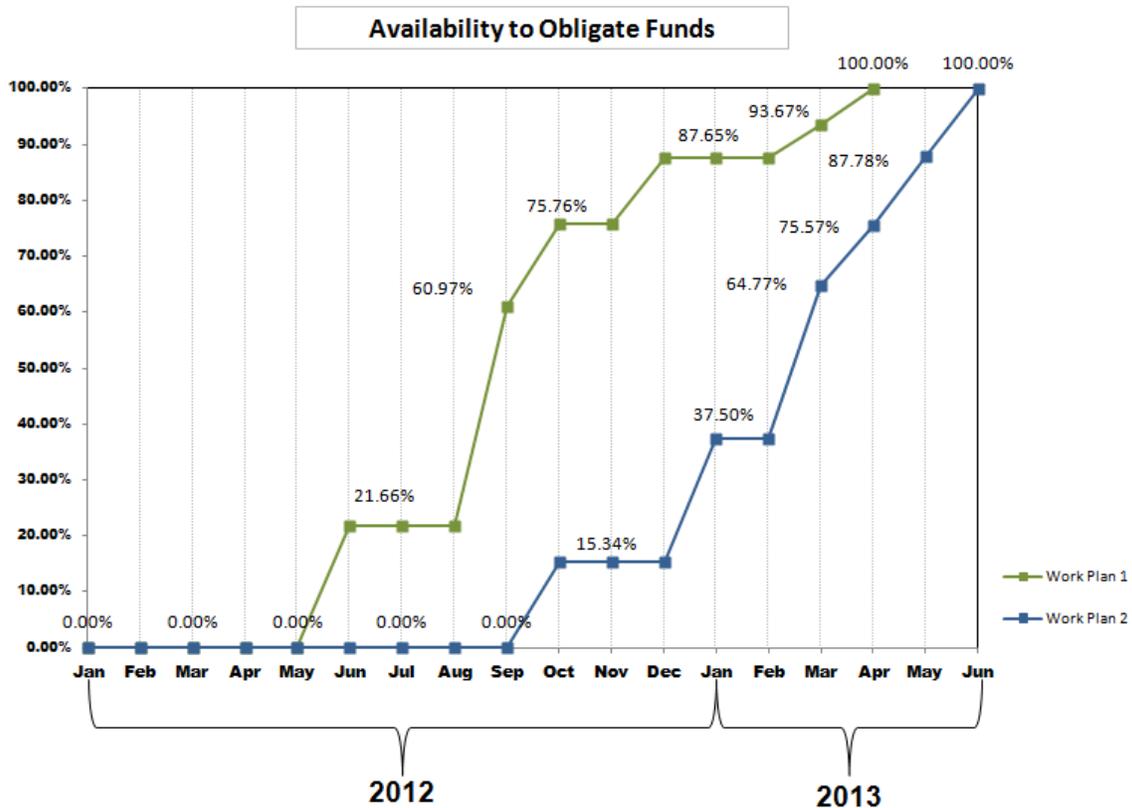
These milestones will be used for the determination of target results considered in the Performance Monitoring Plan (PMP).

Milestone Table for Bridges (Tentative task finish dates)		
Task	First Group	Total Bridges
Initial Appraisal		Mar 2012
Studies and Assessments		Dec 2012
Preliminary Designs	Nov 12	Nov 2013
Design/Build Contract Procurement	Apr 2013	Apr 2013
Design/Build Supervision Services		
Final Designs	Jul 2013	Jul 2013
Construction Phase	Jun 2014	Jun 2014

9 Performance Monitoring Plan (PMP)

The amount of funding available for reconstruction has remained the same; the number of facilities to be addressed by the project has decreased due to the higher unit costs per facility. A measurement of performance based upon the original number of identified priority facilities (as stated in the Performance Monitoring Plan included in the Work Plan for the Year 2012) does not recognize the reduction to the total potential facilities to be addressed by the project. As such, a revised measure of performance is based upon the cumulative estimated cost of the preliminary designs delivered, where performance is based upon authorization by to obligate funds toward the subprojects for reconstruction.

To compare the anticipated to actual project progress, the following chart was developed. In the following graphic, two lines are represented, one on green with the obligated funds according to Work Plan 1 and a blue line represent the obligated funds according to Work Plan 2. This graphic shows the impact of the delays to the project, the cumulative total of which is approximately three months. That is, the obligation of funding for sub-projects is anticipated for June 2013 compared with April 2013 as anticipated with the original work plan.



The graph above shows the availability of funds for obligation in early 2013. As indicated in March 2013, it is projected that 75.6% of the allocated funds for rehabilitation/reconstruction of facilities can be obligated; rising to 87.8% in April, 2013, with the remaining expected to become available around June 2013.

The PMP includes indicators of performance, guided by the overall project objectives, and broken down into measurable / quantifiable results that can be used to track both progress on the individual tasks by facility type as well as overall performance of the project.

The PMP will also be used as a tool for risk management and for tracking effectiveness of mitigation measures.

9.1 CY 2013 Monitoring Indicators (CDM Smith)

ID	INDICATOR	CY 2013																
		QRT 1				QRT 2				QRT 3				QRT 4				Total
		Jan	Feb	Mar	Total	Apr	May	Jun	Total	Jul	Aug	Sep	Total	Oct	Nov	Dec	Total	
Rapid Assessment																		
1	Number of Rapid Assessments for Health Clinics Completed	Target																
		Actual																
2	Number of Rapid Assessments for Schools Facilities Completed	Target																
		Actual																
3	Number of Rapid Assessments for Bridges Completed	Target																
		Actual																
Preliminary Design																		
4	Number of Preliminary Designs for Health Clinics Completed	Target			3	3		3	3								6	
		Actual																
5	Number of Preliminary Designs for Schools Facilities Completed	Target			4	4	4		4								8	
		Actual																
6	Number of Preliminary Designs for Bridges Completed	Target																
		Actual																
Tendering																		
7	Number of D-B Contract Procurement for Health Clinics Completed	Target									3	3	6				6	
		Actual																
8	Number of D-B Contract Procurement for Schools Facilities Completed	Target					4	2	6								6	
		Actual																
9	Number of D-B Contract Procurement for Bridges Completed	Target				2		2									2	
		Actual																
Final Design																		
10	Number of Final Designs for Health Clinics Completed	Target								3	3	6					6	
		Actual																
11	Number of Final Designs for Schools Facilities Completed	Target								4	2	6					6	
		Actual																
12	Number of Final Designs for Bridges Completed	Target						2	2								2	
		Actual																
Construction of Facilities																		
13	Number of Health Clinics Rebuilt/Rehabilitated	Target																
		Actual																
14	Number of School Facilities Rebuilt/Rehabilitated	Target																
		Actual																
15	Number of Bridges Rebuilt/Rehabilitated	Target											1			1	1	
		Actual																
Training and Capacity Development																		
16	Number of Health Clinics Trainings and Capacity Developments Completed	Target																
		Actual																
17	Number of School Facilities Trainings and Capacity Developments Completed	Target																
		Actual																
18	Number of Bridges Trainings and Capacity Developments Completed	Target											1			1	1	
		Actual																

9.2 CY 2014 Monitoring Indicators (CDM Smith)

DETAILED PROJECT PERFORMANCE INDICATORS TABLE USAID - EL SALVADOR TROPICAL STORM IDA RECONSTRUCTION PROJECT Contract No. AID-EDH-I-00-08-00023 / Order No. AID-519-TO-12-00001

ID	INDICATOR	CY 2014																
		QRT 1				QRT 2				QRT 3				QRT 4				Total
		Jan	Feb	Mar	Total	Apr	May	Jun	Total	Jul	Aug	Sep	Total	Oct	Nov	Dec	Total	
Rapid Assessment																		
1	Number of Rapid Assessments for Health Clinics Completed	Target																
		Actual																
2	Number of Rapid Assessments for Schools Facilities Completed	Target																
		Actual																
3	Number of Rapid Assessments for Bridges Completed	Target																
		Actual																
Preliminary Design																		
4	Number of Preliminary Designs for Health Clinics Completed	Target																
		Actual																
5	Number of Preliminary Designs for Schools Facilities Completed	Target																
		Actual																
6	Number of Preliminary Designs for Bridges Completed	Target																
		Actual																
Tendering																		
7	Number of D-B Contract Procurement for Health Clinics Completed	Target																
		Actual																
8	Number of D-B Contract Procurement for Schools Facilities Completed	Target																
		Actual																
9	Number of D-B Contract Procurement for Bridges Completed	Target																
		Actual																
Final Design																		
10	Number of Final Designs for Health Clinics Completed	Target																
		Actual																
11	Number of Final Designs for Schools Facilities Completed	Target																
		Actual																
12	Number of Final Designs for Bridges Completed	Target																
		Actual																
Construction of Facilities																		
13	Number of Health Clinics Rebuilt/Rehabilitated	Target		3		3	3			3							6	
		Actual																
14	Number of School Facilities Rebuilt/Rehabilitated	Target	4	2		6											6	
		Actual																
15	Number of Bridges Rebuilt/Rehabilitated	Target							1	1							1	
		Actual																
Training and Capacity Development																		
16	Number of Health Clinics Trainings and Capacity Developments Completed	Target		3		3	3			3							6	
		Actual																
17	Number of School Facilities Trainings and Capacity Developments Completed	Target	4	2		6											6	
		Actual																
18	Number of Bridges Trainings and Capacity Developments Completed	Target							1	1							1	
		Actual																

9.3 CY 2012, 2013 and 2014 Monitoring Indicators (USAID)

USAID - EL SALVADOR TROPICAL STORM IDA RECONSTRUCTION PROJECT Contract No. AID-EDH-I-00-08-00023 / Order No. AID-519-TO-12-00001												
STRATEGIC OBJECTIVE 519-022 "HUMANITARIAN ASSISTANCE AND CRISIS RESPONSE"												
SUMMARY PERFORMANCE INDICATORS OPERATIONAL PLAN DATA TABLE AS OF DECEMBER 30, 2011 - HUMANITARIAN ASSISTANCE ACTIVITY												
Indicator	Selected for OP reporting	Progress direction + or -	Baseline data	Baseline year	Target/ Actual	CY11	CY12	CY13	CY14	Date Last Data Quality Assessment	Data source	
OBJECTIVE: TIMELY HUMANITARIAN ASSISTANCE AND CRISIS RESPONSE												
IR 2: HUMANITARIAN RELIEF AND RECONSTRUCTION												
1	Number of designs for damaged structures completed.	YES	+	0	2013	Target	0	2	14	0	TBD	Contractor
						Actual	0	2				
2	Number of health facilities rebuilt/rehabilitated.	YES	+	0	2013	Target	0	0	0	6	TBD	Contractor
						Actual	0					
3	Number of schools rebuilt/rehabilitated.	YES	+	0	2013	Target	0	0	0	6	TBD	Contractor
						Actual	0					
4	Number of bridges rebuilt.	YES	+	0	2013	Target	0	0	1	1	TBD	Contractor
						Actual	0					

Humanitarian Assistance:

Timely humanitarian assistance and crisis response

Intermediate Result 2: Humanitarian Relief and Reconstruction

INDICATOR: Number of designs (preliminary designs) for damaged structures completed			
<p>UNIT OF MEASURE: Number of designs</p> <p>SOURCE: Contractor</p> <p>INDICATOR DESCRIPTION: This indicator measures the number of preliminary designs of health facilities, schools, and bridges that are completed by the Architecture and Engineering (A&E) contractor as a direct result of the funding provided by USAID.</p> <p>OPERATIONAL PLAN STANDARD INDICATOR:</p> <p>YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p> <p>PROGRAM AREA: Protection, Assistance and Solutions</p> <p>PROGRAM ELEMENT: Assistance and Recovery</p> <p>METHOD OF DATA COLLECTION: Directly from the contractor's design files.</p> <p>FREQUENCY/SCHEDULE OF DATA COLLECTION: Monthly</p>	CAL. YEAR	PLANNED TARGET	ACTUAL RESULT
	2012	2	2
	2013	14	
	2014	0	

Performance Indicator Reference Sheet

Strategic Objective: Timely Humanitarian Assistance and Crisis Response

Intermediate Result: Humanitarian Relief and Reconstruction

Indicator: Number of designs for damaged structures completed

Link to Other Reporting Indicators/Name: N/A

Is this an OP Standard Indicator?: Y

In Reporting Year: 2013

DESCRIPTION

Precise Definition(s): This indicator measures the number of preliminary designs of health facilities, schools, and bridges that are completed by the Architecture and Engineering (A&E) contractor as a direct result of the funding provided by USAID.

Unit of Measure: Number of designs

Disaggregated by: N/A

Justification/Management Utility: This indicator will help measure the progress of the Tropical Storm Ida Reconstruction Project.

PLAN FOR DATA ACQUISITION BY USAID

Data Collection Method: Records on designs completed by the contractor

Method of Acquisition by USAID: Data will be provided in monthly reports

Data Source(s): Contractor

Frequency/Timing of Data Acquisition: Monthly

Estimated Cost of Data Acquisition: Approximately \$200 per quarter

Responsible Individual(s) at USAID: Sophie Taintor, COTR

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: TBD

Known Data Limitations and Significance (if any): N/A

Actions Taken or Planned to Address Data Limitations: COTR will monitor project progress

Date of Future Data Quality Assessments: TBD

Procedures for Future Data Quality Assessments: Spot checks of data, site visits

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Information will be analyzed by the COTR in conjunction with the contractor monthly.

Presentation of Data: Data will be presented in written reports and illustrative tables.

Review of Data: Data will be reviewed monthly with the contractor.

Reporting of Data: Data from this indicator will be reported in documents prepared for the Biannual Supplemental Performance Report, Mission Performance Plan and Report, and as appropriate to USAID/Washington.

OTHER NOTES

Notes on Baselines/Targets: Targets are not cumulative

Location of Data Storage: In files of USAID and the contractor

Other Notes: N/A

THIS SHEET LAST UPDATED ON: 24-Apr-2013

Humanitarian Assistance:

Timely humanitarian assistance and crisis response

Intermediate Result 2: Humanitarian Relief and Reconstruction

INDICATOR: Number of health facilities rebuilt/rehabilitated.			
<p>UNIT OF MEASURE: Number of facilities</p> <p>SOURCE: Contractor</p> <p>INDICATOR DESCRIPTION: This indicator measures the number of schools that are rebuilt or rehabilitated as a direct result of the funding provided by USAID.</p> <p>OPERATIONAL PLAN STANDARD INDICATOR:</p> <p align="center">YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p> <p>PROGRAM AREA: Protection, Assistance and Solutions</p> <p>PROGRAM ELEMENT: Assistance and Recovery</p> <p>METHOD OF DATA COLLECTION: Directly from the contractor's design files.</p> <p>FREQUENCY/SCHEDULE OF DATA COLLECTION: Monthly</p> <p>RESPONSIBLE FOR DATA COLLECTION:</p> <p>COMMENTS:</p>	CAL. YEAR	PLANNED TARGET	ACTUAL RESULT
	2012	0	
	2013	0	
	2014	6	

Performance Indicator Reference Sheet

Strategic Objective: Timely Humanitarian Assistance and Crisis Response

Intermediate Result: Humanitarian Relief and Reconstruction

Indicator: Number of health facilities rebuilt/rehabilitated.

Link to Other Reporting Indicators/Name: N/A

Is this an OP Standard Indicator?: Y

In Reporting Year: 2013

DESCRIPTION

Precise Definition(s): This indicator measures the number of health facilities that are rebuilt or rehabilitated as a direct result of the funding provided by USAID.

Unit of Measure: Number of facilities

Disaggregated by: N/A

Justification/Management Utility: This indicator will help measure the progress of the Tropical Storm Ida Reconstruction Project.

PLAN FOR DATA ACQUISITION BY USAID

Data Collection Method: Completion records from the contractor

Method of Acquisition by USAID: Data will be provided in monthly reports

Data Source(s): Contractor

Frequency/Timing of Data Acquisition: Monthly

Estimated Cost of Data Acquisition: Approximately \$200 per quarter

Responsible Individual(s) at USAID: Sophie Taintor, COTR

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: TBD

Known Data Limitations and Significance (if any): N/A

Actions Taken or Planned to Address Data Limitations: COTR will monitor project progress

Date of Future Data Quality Assessments: TBD

Procedures for Future Data Quality Assessments: Spot checks of data, site visits

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Information will be analyzed by the COTR in conjunction with the contractor monthly.

Presentation of Data: Data will be presented in written reports and illustrative tables.

Review of Data: Data will be reviewed monthly with the contractor.

Reporting of Data: Data from this indicator will be reported in documents prepared for the Biannual Supplemental Performance Report, Mission Performance Plan and Report, and as appropriate to USAID/Washington.

OTHER NOTES

Notes on Baselines/Targets: Targets are not cumulative

Location of Data Storage: In files of USAID and the contractor

Other Notes: N/A

THIS SHEET LAST UPDATED ON: 24-Apr-2013

Humanitarian Assistance:

Timely humanitarian assistance and crisis response

Intermediate Result 2: Humanitarian Relief and Reconstruction

INDICATOR: Number of schools rebuilt/rehabilitated.			
<p>UNIT OF MEASURE: Number of facilities</p> <p>SOURCE: Contractor</p> <p>INDICATOR DESCRIPTION: This indicator measures the number of schools that are rebuilt or rehabilitated as a direct result of the funding provided by USAID.</p> <p>OPERATIONAL PLAN STANDARD INDICATOR:</p> <p align="center">YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p> <p>PROGRAM AREA: Protection, Assistance and Solutions</p> <p>PROGRAM ELEMENT: Assistance and Recovery</p> <p>METHOD OF DATA COLLECTION: Directly from the contractor's design files.</p> <p>FREQUENCY/SCHEDULE OF DATA COLLECTION: Monthly</p> <p>RESPONSIBLE FOR DATA COLLECTION:</p> <p>COMMENTS:</p>	CAL. YEAR	PLANNED TARGET	ACTUAL RESULT
	2012	0	
	2013	0	
	2014	6	

Performance Indicator Reference Sheet

Strategic Objective: Timely Humanitarian Assistance and Crisis Response
Intermediate Result: Humanitarian Relief and Reconstruction
Indicator: Number of schools rebuilt/rehabilitated.
Link to Other Reporting Indicators/Name: N/A
Is this an OP Standard Indicator?: Y **In Reporting Year:** 2013

DESCRIPTION

Precise Definition(s): This indicator measures the number of schools that are rebuilt or rehabilitated as a direct result of the funding provided by USAID.

Unit of Measure: Number of facilities

Disaggregated by: N/A

Justification/Management Utility: This indicator will help measure the progress of the Tropical Storm Ida Reconstruction Project.

PLAN FOR DATA ACQUISITION BY USAID

Data Collection Method: Completion records from the contractor
Method of Acquisition by USAID: Data will be provided in monthly reports
Data Source(s): Contractor
Frequency/Timing of Data Acquisition: Monthly
Estimated Cost of Data Acquisition: Approximately \$200 per quarter
Responsible Individual(s) at USAID: Sophie Taintor, COTR

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: TBD
Known Data Limitations and Significance (if any): N/A
Actions Taken or Planned to Address Data Limitations: COTR will monitor project progress
Date of Future Data Quality Assessments: TBD
Procedures for Future Data Quality Assessments: Spot checks of data, site visits

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Information will be analyzed by the COTR in conjunction with the contractor monthly.
Presentation of Data: Data will be presented in written reports and illustrative tables.
Review of Data: Data will be reviewed monthly with the contractor.
Reporting of Data: Data from this indicator will be reported in monthly reports.

OTHER NOTES

Notes on Baselines/Targets: Targets are not cumulative
Location of Data Storage: In files of USAID and the contractor
Other Notes: N/A

THIS SHEET LAST UPDATED ON: 24-Apr-2013

Humanitarian Assistance:

Timely humanitarian assistance and crisis response

Intermediate Result 2: Humanitarian Relief and Reconstruction

INDICATOR: Number of bridges rebuilt.			
<p>UNIT OF MEASURE: Number of structures</p> <p>SOURCE: Contractor</p> <p>INDICATOR DESCRIPTION: This indicator measures the number of bridges that are rebuilt as a direct result of the funding provided by USAID.</p> <p>OPERATIONAL PLAN STANDARD INDICATOR:</p> <p align="center">YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p> <p>PROGRAM AREA: Protection, Assistance and Solutions</p> <p>PROGRAM ELEMENT: Assistance and Recovery</p> <p>METHOD OF DATA COLLECTION: Directly from the contractor's design files.</p> <p>FREQUENCY/SCHEDULE OF DATA COLLECTION: Monthly</p> <p>RESPONSIBLE FOR DATA COLLECTION:</p> <p>COMMENTS:</p>	CAL. YEAR	PLANNED TARGET	ACTUAL RESULT
	2012	0	
	2013	1	
	2014	1	

Performance Indicator Reference Sheet

Strategic Objective: Timely Humanitarian Assistance and Crisis Response

Intermediate Result: Humanitarian Relief and Reconstruction

Indicator: Number of bridges rebuilt.

Link to Other Reporting Indicators/Name: N/A

Is this an OP Standard Indicator?: Y

In Reporting Year: 2013

DESCRIPTION

Precise Definition(s): This indicator measures the number of bridges that are rebuilt as a direct result of the funding provided by USAID.

Unit of Measure: Number of structures

Disaggregated by: N/A

Justification/Management Utility: This indicator will help measure the progress of the Tropical Storm Ida Reconstruction Project.

PLAN FOR DATA ACQUISITION BY USAID

Data Collection Method: Completion records from the contractor

Method of Acquisition by USAID: Data will be provided in monthly reports

Data Source(s): Contractor

Frequency/Timing of Data Acquisition: Monthly

Estimated Cost of Data Acquisition: Approximately \$200 per quarter

Responsible Individual(s) at USAID: Sophie Taintor, COTR

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: TBD

Known Data Limitations and Significance (if any): N/A

Actions Taken or Planned to Address Data Limitations: COTR will monitor project progress

Date of Future Data Quality Assessments: TBD

Procedures for Future Data Quality Assessments: Spot checks of data, site visits

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Information will be analyzed by the COTR in conjunction with the contractor monthly.

Presentation of Data: Data will be presented in written reports and illustrative tables.

Review of Data: Data will be reviewed monthly with the contractor.

Reporting of Data: Data from this indicator will be reported in monthly reports.

OTHER NOTES

Notes on Baselines/Targets: Targets are not cumulative

Location of Data Storage: In files of USAID and the contractor

Other Notes: N/A

THIS SHEET LAST UPDATED ON: 24-Apr-2013

10 Project Lists by Facility Type

The following list presents the subprojects that are included in First Group and Second Group by component, which is followed by a map that includes the facility locations.

Group	ID	Name
		School Centers
1	1	SC Cantón San Sebastián Abajo
1	2	SC Cantón Chantusnene
1	3	SC Pablo Castillo
1	4	SC Dr. Adrian García
2	5	SC Cantón Ojo de Agua
2	6	National Institute José María Peralta Lagos
2	7	SC Doctor Francisco Antonio Lima
2	8	SC Colonia Las Margaritas 1 y 2
		Bridges
1	1	San Antonio Bridge
1	2	Acahuapa Bridge
		Clinics
1	1	San Idelfonso Clinic
1	2	Salud Jerusalén Clinic
1	3	Santa Lucía Orcoyo Clinic
2	4	Periférica de Cojutepeque Clinic
2	5	El Pimental Clinic, San Luis Talpa
2	6	San Pedro Perulapán Clinic



Image 1. Subprojects location First Group and Second Group

11 Budget

The most recent updated budget realignment that reflects the current realities and maintains the established total estimated cost was presented to USAID on March 20, 2013.

Summary to budget changes

The following summary provides an overview of most significant changes to the CDM Smith and technical subcontractor (GRAM - Schools and Clinics, and RDC – Bridges) budgets.

CDM Smith Reprogramming Budget Overview

As mentioned in the 03 December submittal, there are changes during implementation for estimated project costs where the number of facilities and scope of work for those facilities can change during the course of implementation/ refinement of activities and associated costs. Many of these same areas were included within the 03 December budget and are repeated here. The section below highlights the changes by cost type.

Labor-US

John Gavin/Project Manager – Included herein is additional level effort for Project Manager, John Gavin. To date, John has spent more time than originally envisioned in a large part to help offset some local workload requirements, report reviews in addition to the number of trips to El Salvador to date that were not originally anticipated. In supporting the project from this point forward, we have budgeted 3, one-week trips per year along with 3 days/mo. for general support/reviews.

Other changes include:

- Tone Limtrajiti/Contract Administrator – LOE has been adjusted based upon incurred to date and future projections of 5 days/qtr for increased LOE required for ongoing budget management, analysis and VAT management.
- Leonel Almanzar/Structural Engineer – subsequent to the 03 December submittal, CDM Smith and USAID had more detailed discussions of anticipated needs for the engagement of Mr. Almanzar for participating in the bid review evaluations of the San Antonio and Acahuapa bridges. Accordingly, Mr. Almanzar's LOE has been increased for this additional service request. Further, we have budgeted additional time for Mr. Almanzar during the construction period as well as a trip to be utilized if/when needed for more direct guidance/support leading up to, or during the construction phase.
- We have made minor increases to the projected LOE for Eduardo Galindo (HO Clinics Architect) and Sarah Woodhead (Schools Architect) for support during final design/construction activities as needed.

Labor-Local Employees

- Local employees – The addition of Ms. Ana Maria Rubio de Ramos in an Administrative/Technical Assistant role was made in January 2013; a part time accountant, Ms. Glenda Aparicio, was also brought in about the same time to replace the departing accountant, Mr. Elmer Arqueta. These changes were described in the 03 December submittal as well as the departure of Administrative Assistant, Ms. Yessenia Rosales.

Labor-Local Consultants

- Project Engineer/Mario Acosta – LOE has been increased through the completion of Year 2 as the schedule has been extended through the design phase and to provide support through the majority of construction supervision;
- Project Engineer/Jose Barba – this position was included in the 03 December submittal and Mr. Barba started in January 2013. This position is extended through Year 2.
- Local Environmental Coordinator/ Douglas Ventura – We have engaged Mr. Ventura who is transitioning into the Local Environmental Coordinator role for the project, taking the place of Mr. Ernesto Javier Figueroa. Mr. Figueroa has been a part time consultant to the CDM Smith team and his availability has been more limited due to his other commitments which have slowed the responsiveness on key environmental submittals. Thus, the transition to Mr. Ventura should facilitate current/pending environmental submittals; we have also included time during construction supervision for site visits inspections/environmental reporting.

Travel and Transportation

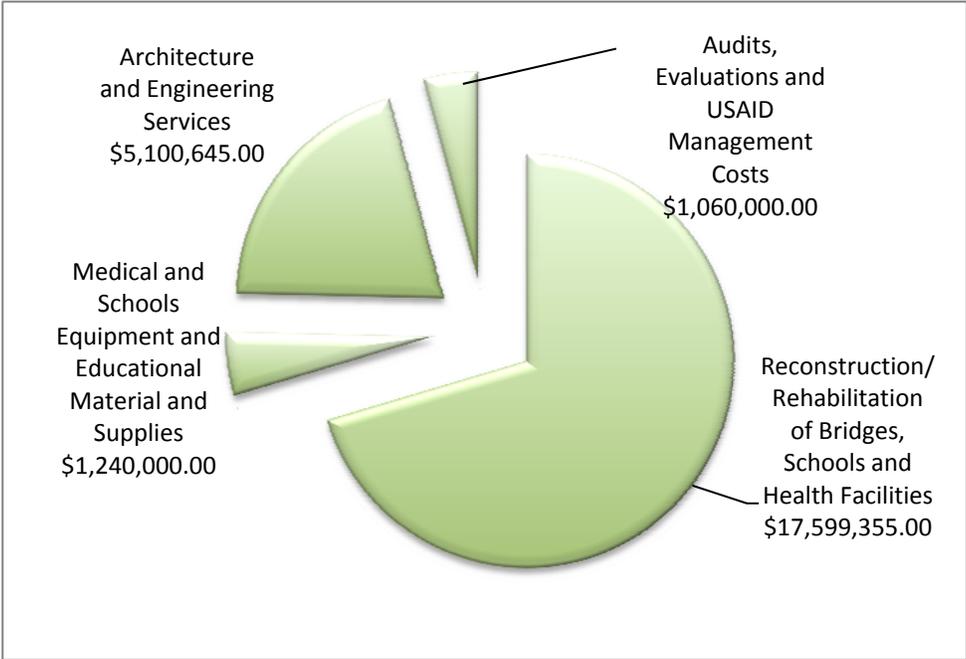
- The additional costs under Travel and Transportation are associated with the trips estimated for John Gavin and Leonel Almanzar.
- Local transport – Vehicle Lease for 2 months – this is an added line item to provide local transport while providing additional time for the resolution of licensing on project procured vehicles.

The summary of the changes to technical subcontractor estimated costs were presented in detail in the letter sent to USAID on March 20th, 2013.

11.1 Illustrative Budget by program area/Components (U.S. \$)

USAID has allocated total funding of \$25 million for the program that has been divided into the program areas/components as listed below:

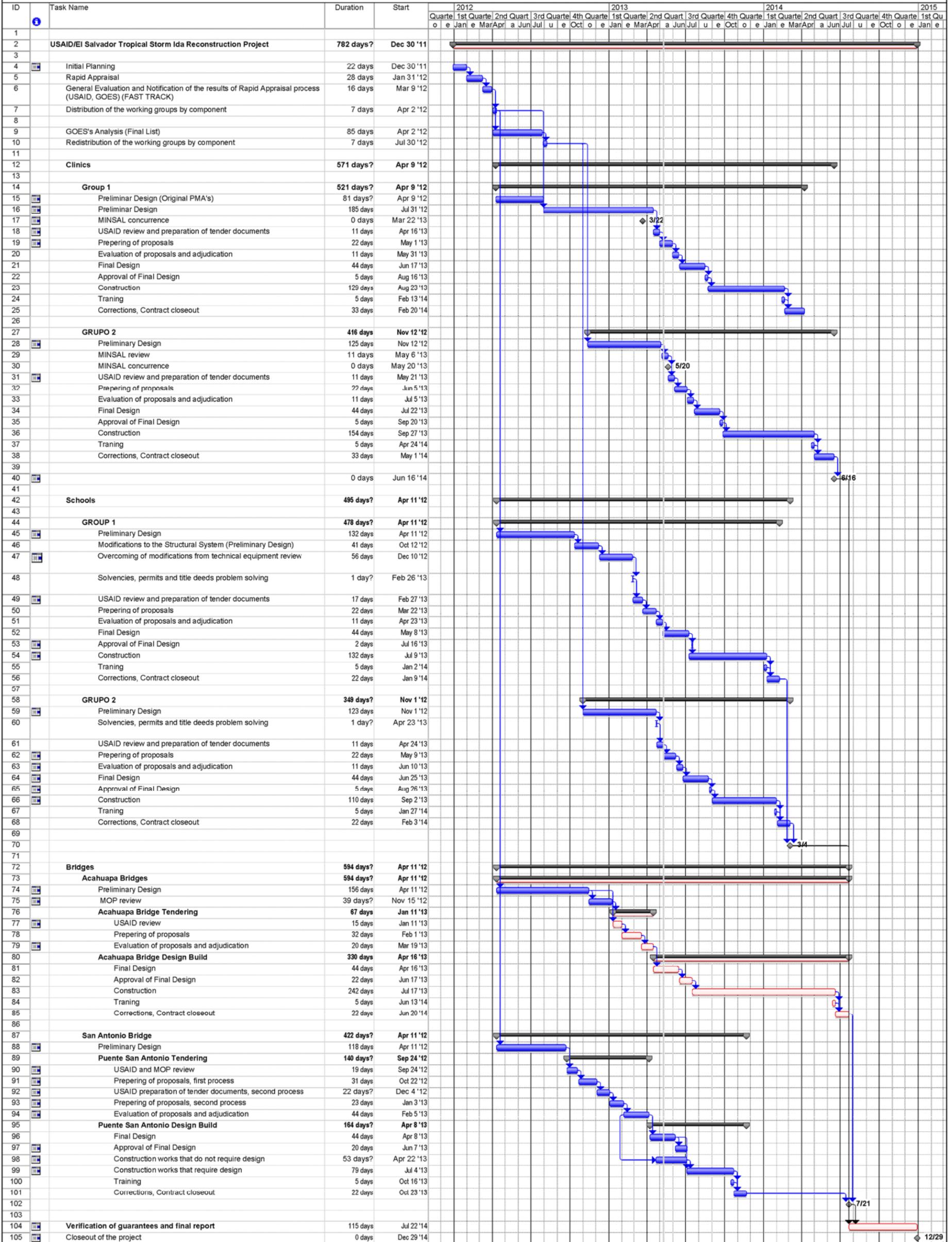
ID	COMPONENT	ALLOCATED FUNDS
1	Reconstruction / Rehabilitations of Bridges, Schools and Health Facilities	US\$17,599,355.00
2	Medical and Schools Equipment and Educational Materials and Supplies	US\$1,240,000.00
3	Architecture and Engineering Services	US\$ 5,100,645.00
4	Audits, Evaluation and USAID Managements Costs	US\$ 1,060,000.00
	TOTAL	US\$ 25,000,000.00



Annex 1

Detail Project Schedule

USAID/EI Salvador Tropical Storm Ida Reconstruction Project REPROGRAMMING March 20th -2013



Project: Reprogramación General IDA Date: May 9 '13

Task: [Blue Bar] Split [Red Bar] Progress [Dotted Bar] Milestone [Grey Bar] Summary [Grey Arrow] Project Summary [Grey Arrow] External Milestone [Green Arrow] External Tasks [Grey Arrow] Deadline

The number of projects to be constructed depends on the availability of funds and they will start the tender process according to the concurrence

Annex & Issues Tracker Log

Issues Tracker Log

Name of the Project	USAID Tropical Storm Ida Reconstruction Project
Date of creation	Aug-21-12
Maintained by	Enrique Lara Donado
Report Date	31-Mar-13

ID	Issue Code	Grouping Code	Difficulty	Identified by	Identification Date	Description	Impact	Priority	Institution Responsible	Recommended solution	Deadline	Report Date	Δ days	Days after identification without closure	Status	Progress notes	
001		UCSF	MINSAL has not supplied the municipal certificates of solvency for the procedures to be carried out in OPLAGEST: • Santa Lucía Orcoyo, Olocuilta, La Paz • El Pimental, San Luis Talpa, La Paz	CDM Smith (GRAM UCSF)	12-Jun-12	This is a requirement to request the construction line and location rating. This information is essential to know the total area available of the land in order to prepare the preliminary design. In its absence, it has been necessary to estimate the area available	Assume the area to work in the zoning and preliminary design, if the area is different to the assumption and is less, it could affect the progress in the preliminary designs	5	MINSAL	it is recommended that MINSAL obtains the solvency as soon as possible and that USAID intervenes immediately on this matter in order to find quick solutions that allow to continue with the approval processes in all real estate to be intervened. It is necessary to highlight the fact that soon there will be complete documents to launch the bidding process for the design and construction of the first three UCSFs and it is necessary to count on approved plans and documents.	10-Oct-12	31-Mar-13	⊗	172	292	In process	On February 22, the invoice for the payment of duties of Santa Lucía Orcoyo is delivered to MINSAL and on March 4, the invoice for payment of duties of El Pimental is delivered to MINSAL.
002		CE	MINSAL has not supplied the municipal certificates of solvency for the procedures to be carried out in OPLAGEST: • San Sebastián Abajo, Santiago Nonualco, La Paz • Chantusnene, San Juan Opico, La Libertad • Pedro Pablo Castillo, Nuevo Cuscatlán, La Libertad • Ojos de Agua, Huizucar, La Libertad	CDM Smith (GRAM CE)	12-Jun-12	This is a requirement to request the construction line and location rating. This information is essential to know the total area available of the land in order to prepare the preliminary design. In its absence, it has been necessary to estimate the area available	Assume the area to work in the zoning and preliminary design, if the area is different to the assumption and is less, it could affect the progress in the preliminary designs	5	MINED	it is recommended that MINSAL obtains the solvency as soon as possible and that USAID intervenes immediately on this matter in order to find quick solutions that allow to continue with the approval processes in all real estate to be intervened. It is necessary to highlight the fact that soon there will be complete documents to launch the bidding process for the design and construction of the first four CEs and it is necessary to count on approved plans and documents.	21-Sep-12	31-Mar-13	⊗	191	292	In process	USAID, in coordination with MINED, look for alternatives to solve this problem
004		CE	Payment in the territorial planning and management organizations (OPLAGEST) at the local level to obtain the construction and occupation permits for the CE • San Sebastián Abajo, Santiago Nonualco, La Paz • Chantusnene, San Juan Opico, La Libertad • Pedro Pablo Castillo, Nuevo Cuscatlán, La Libertad • Ojos de Agua, Huizucar, La Libertad	CDM Smith (GRAM CE)	10-Jul-12	Payments required by the municipalities to carry out the procedures and to obtain the authorizations	Impossibility of obtaining permits and procedures required for the construction stage	4	MINED	CDM Smith must request USAID to define the form of payment and the origin of the funds.	21-Sep-12	31-Mar-13	⊗	191	264	Started	
005		UCSF	Settlement between the topographic survey, deed and cadastre record of the UCSF of San Ildefonso	CDM Smith (GRAM UCSF)	26-Apr-12	According to the topographic survey of UCSF de San Ildefonso, a legal procedure is required to settle the differences found between the topographic survey, the deed and the cadastre record	If the legal problem is not solved, the subproject cannot be incorporated in the bidding process	4	MINSAL	Settle differences as soon as possible.	03-Oct-12	31-Mar-13	⊗	179	339	In process	On February 22, MINSAL notified that an estimated time of 2 months is required to have the new property deed registered in the real estate registry
023		UCSF	In UCSF subprojects, VMVDU requires one parking space for every 50 m2 of construction, with controlled entry and exits • Jerusalén • San Ildefonso • Perulapan • Cojutepeque	CDM Smith (GRAM UCSF)	22-Oct-12	VMVDU requires additional parking spaces besides those requested by MINSAL in the PMA that are part of the design criteria	Affects the architectural zoning reached by consensus and the progress achieved in preliminary designs, work that has been carried out based on the parking requirements of MINSAL and taking into account the area and topography of the land, the existing vegetable cover and the construction area in one story implied by the new PMAs that serve as a guide		MINSAL	MINSAL and VMVDU must reach an interinstitutional agreement that allows the construction of the UCSFs with the number of parking spaces required by MINSAL in its PMAs	31-Oct-12	31-Mar-13	⊗	151	160	In process	The reform of the resolutions based on MINSAL's policy/standard will be requested
024		UCSF	Settlement of the topographic survey, deed and cadastre record in the UCSF of San Pedro Perulapán	CDM Smith (GRAM UCSF)	27-Oct-12	According to the topographic survey of the San Pedro Perulapán UCSF, a legal procedure is required to settle the differences found between the topographic survey, the deed and the cadastre record	If the legal problem is not solved, the subproject cannot be incorporated into the bidding process	4	MINSAL	Settle differences as soon as possible.	31-Oct-12	31-Mar-13	⊗	151	155	In process	Notification letter was sent to MINSAL and so that the pertinent actions be carried out
027		UCSF	Include the requirement of a multi-purpose room in the PMA of the UCSF Periférica de Cojutepeque	CDM Smith (GRAM UCSF)	19-Nov-12	Given that there is currently one, MINSAL wants to include it in the PMA	Change in the preliminary design	4	MINSAL	Include it as a requirement in the PMA	30-Nov-12	31-Mar-13	⊗	121	132	In process	The requirement of MINSAL to include it is missing
028		CE	Resolution of VMVDU with respect to CE, issues suggestions not considered in the preliminary design in: • CE Dr. Adrian García • CE Las Margaritas 1 and 2 • Instituto Nacional José María Peralta Lagos • CE Dr. Francisco Antonio Lima	CDM Smith	23-Nov-12	VMVDU demands compliance with the regulations that do not correspond to MINED regulations, which is the one that was used	Complying with the regulations of VMVDU in the final plans prepared by the designer would change the pre-design	5	MINED	Request a reconsideration to apply MINED's regulations to the plans of the final design	31-Dec-12	31-Mar-13	⊗	90	128	In process	A letter from VMVDU is received on January 25, 2013, stating that they do not have any objections to what has been requested about the authorization to refurbish, rebuild or build based on the regulations for educational spaces provided by MINED. For the case of the perimeter wall of CE Las Margaritas, at the time of the construction permit, submit a sworn statement about relocating the wall whenever MOP or the municipality request so

Issues Tracker Log

Name of the Project	USAID Tropical Storm Ida Reconstruction Project
Date of creation	Aug-21-12
Maintained by	Enrique Lara Donado
Report Date	31-Mar-13

ID	Issue Code	Grouping Code	Difficulty	Identified by	Identification Date	Description	Impact	Priority	Institution Responsible	Recommended solution	Deadline	Report Date	Δ days	Days after identification without closure	Status	Progress notes
029			The construction line of the UCSF of San Pedro Perulapán indicated in the resolution affects the buildings projected	CDM Smith	03-Dec-12	In the northern and eastern sectors, the definition of the construction line affects the buildings projected.	Land area is too small and the project cannot be developed, not even in two stories	5	MINSAL	Request a reconsideration of the construction line proposed by the designer	31-Dec-12	31-Mar-13	90	118	In process	A letter is sent to MINSAL on 3-Jan-2013 requesting support for the reconsideration of the construction line. The VMVDU asks to request the reconsideration of the construction line through a procedure of project feasibility reform
030		UCSF	Obtain an access easement to route the rain water discharges through adjacent land in UCSF San Pedro Perulapán	CDM Smith (GRAM UCSF)	02-Jan-13	It is necessary to reconsider the discharge point of rain water given that there is a rain water collection system in operation within the limits of the property	Additional costs	4	MINSAL	Acquire easement access in the southwestern extreme of the project up to the rainy-season creek.	28-Feb-13	31-Mar-13	31	88	In process	Documentation is required on March 14 to carry out the procedure and the delivery by MINSAL is awaited
031		UCSF	Reconsider the rain water discharge point in UCSF Periférica de Cojutepeque	CDM Smith (GRAM UCSF)	03-Jan-13	It is requested that the discharge is made with a system of adequate capacity towards the existing location	Additional costs	4	MINSAL	Request the reconsideration of the resolution to be able to use an existing well in the rain water collection system that operates within the limits of the property.	28-Feb-13	31-Mar-13	31	87	In process	Documentation is required on March 14 to carry out the procedure and the delivery by MINSAL is awaited
032		UCSF	A procedure is necessary to reconsider the construction line of the UCSFs Jerusalén and San Ildefonso	CDM Smith (GRAM UCSF)	14-Mar-13	The reconsideration of Jerusalén is necessary due to the lack of space for the location of pipes and in San Ildefonso, to incorporate the access to the land	Delay in the bidding process	5	MINSAL	Delivery to CDM Smith of the documentation requested on March 14 to carry out the procedure	28-Mar-13	31-Mar-13	3	17	In process	The delivery of the documentation required is awaited