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**ENGINEERING SERVICES FOR RURAL ROADS
REHABILITATION (ES3R)
CONTRACT NO: EDH-I-00-08-00023
MONTHLY PROGRESS REPORT – OCTOBER 2014**

10 November 2014

ENGINEERING SERVICES FOR RURAL ROAD REHABILITATION (ES3R) CONTRACT NO. EDH-I-00-08-00023

MONTHLY PROGRESS REPORT

OCTOBER 2014

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10 November 2014

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government. This report was prepared for the U.S. Agency for International Development. It was prepared by CDM International, Engineering Services Rural Roads Rehabilitation (ES3R)

Acronyms

A & E	Architect and Engineer
BoQ	Bills of Quantity
COP	Chief of Party
COR	Contracting Officer Representative
EMMP	Environmental Mitigation and Monitoring Plan
ES	Environmental Specialist
ESMMP	Environmental & Social Mitigation & Monitoring Plan
ES3R	Engineering Services for Rural Roads Rehabilitation
ETL	Engineering Team Leader
FED	Food and Enterprise Development
FTF	Feed the Future
FTL	Field Team Leader
F2M	Farm to Market
F2MRR	Farm to Market Road Rehabilitation
GIS	Geographic Information System
GOL	Government of Liberia
LESSP	Liberia Energy Sector Support Project
LMWP	Liberia Municipal Water Project
MOF	Ministry of Finance
MPEA	Ministry of Planning and Economic Affairs
MPW	Ministry of Public Works
OCA	Organizational Capacity Assessment
PIRS	Performance Indicator Results Sheet
RE	Resident Engineer
SI	Site Inspector
USAID	United States Agency for International Development

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

MONTHLY PROGRESS REPORT OCTOBER 2014

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1. SUMMARY PROJECT DESCRIPTION

1.1 Introduction

The U. S. Agency for International Development's (USAID) 'Engineering Services for Rural Roads Rehabilitation (ES3R)' was awarded to Camp Dresser McKee International (CDM) under the following USAID contract number: EDH-I-00-08-00023 and task order AID-669-TO-13-00002 which records the period of performance as 8 October 2013 to 20 October 2015.

Liberia's Farm to Market Rural Roads (F2MRR) activity is allied to the objectives of the Feed the Future (FTF) initiative, which is a U.S. government initiative, which aims to address the root causes of global hunger by sustainably increasing agricultural productivity. F2MRR will provide infrastructure investment in the rehabilitation of rural farm-to-market roads to support the following:

- USAID /Liberia FTF program Food and Enterprise Development (FED),
- Capacity development for routine maintenance systems within the Government of Liberia (GOL),
- Capacity development of Ministry of Public Works (MPW) rural roads engineers and local A & E firms,
- Development of alternative low volume road pavement pilot projects, standards and design specifications.

1.2 Objectives

Within F2MRR, ES3R will be an implementing mechanism which will undertake the following objectives:

Objective 1:

Provide construction oversight for three (3) local contracts for the rehabilitation of a total of 83.5 kilometers farm-to-market roads in Bong, Lofa, and Nimba counties from 2013 to 2015.

Objective 2:

Produce engineering designs and construction documents for the 450 kilometers farm-to-market roads in Bong, Lofa, Nimba, and Grand Bassa counties to be rehabilitated in 2015 to 2018.

Objective 3:

Training and pre-qualification of five (5) local architect-engineer firms capable of providing oversight for road rehabilitation activities by 2015.

This monthly progress report presented in respect of the project covers the progress of the works for the period from 1 October 2014 to 31 October 2014. In addition, the report details the status and approach to project challenges and presents an outline schedule for the forthcoming month.

2. OCTOBER 2014 OVERVIEW

Preamble

During October 2014, ES3R staff was located in Monrovia, working out of the Monrovia office, engaged in the design and documentation of roads for the whole month.

2.1 October Highlights Summary

The table included hereafter provides a summary of the project highlights:

	OCTOBER 2014	
Date	Description	Comment
1 Oct	CDM letter reply to USAID of 26 September	CDM letter
3 Oct	USAID CO letter reply to CDM of 1 October	USAID CO letter
6 Oct	USAID COR in design meeting with ES3R	ES3R design
6 Oct	CDM Letter to USAID – reply to USAID 3 October	CDM letter
14 Oct	USAID CO letter; issuance of Notice	USAID issue Notice
w/e 24 Oct	Numerous office visits by COR	COR to ES3R office
24 Oct	Meeting of CDM, USAID CO and senior staff	Washington D.C.
24 Oct	USAID CO letter, Notice of 14 Oct rescinded	USAID CO letter
24 Oct	USAID COR to Monrovia office to peruse designs	COR to Office
25 Oct	ETL proceeds on medical leave to Europe	ETL- J Clarke
27 Oct	CDM letter to USAID – will provide new proposal	Proposal by 7 Nov.
27 Oct	ES3R deliver design package to USAID/Liberia	Design delivery
29 Oct	COR/ES3R meet 21 st Century re: bridge design	Review design
29 Oct	Meeting with COR – advice of field visits	COR meeting

Items of note specifically related to the progression of project objectives include the demobilization of project field teams to Monrovia office which has been largely documented in the following:

- Project Deliverables and Documentation

2.2 Details of Highlights

2.2.1 Project Deliverables and Documentation

Table of ES3R Communication Documents and Letters (abridged)

ES3R COMMUNICATION DOCUMENTS AND LETTERS			
Communication		Date	Detail
From	To		
CDM	USAID CO	26-Aug-14	Changing Conditions
CDM	USAID CO	28-Aug-14	Project Action Plan Modification
USAID CO	CDM	3-Sep-14	Project Action Plan Modification
CDM	USAID/Liberia	10-Sep-14	Monthly Progress Report – August 2014
CDM	USAID CO	24-Sep-14	Project Action Plan – Interim WP Proposal
USAID CO	CDM	26-Sep-14	Project Action Plan – Further Guidance
CDM	USAID CO	1-Oct-14	Project Action Plan – Further Direction Request
USAID CO	CDM	3-Oct-14	Project Action Plan – Further Direction Request
CDM	USAID CO	6-Oct-14	Continued Notification of Stop Work Conditions
USAID CO	CDM	14-Oct-14	Notice
USAID CO	CDM	24-Oct-14	Notice
CDM	USAID CO	27-Oct-14	Updated Proposed Project Action Plan

The above ‘Table of Communication Documents and Letters’ includes in chronological order those communications of particular relevance to the progression of Works on the ES3R project for the period of late August (for background) to end October 2014.

The most significant effect on project planning and operations since early August 2014 has been occasioned by the crisis caused by the Ebola virus. USAID has acknowledged that the Ebola virus is an increasing cause of concern in Liberia. Such concern has been vindicated by the total numbers of confirmed, probable and suspected cases of infection, which have increased from just over 300 at the beginning of August 2014 to 6535 cases and 2413 deaths as of 29 October 2014.

The ES3R team has informed and regularly updated USAID regarding adverse operational impacts and made alternative work arrangements in order that negative impacts on progress can be mitigated as much as possible. The ES3R team has presented USAID with notifications and details of changed conditions, as well as requests for direction regarding changes in operations. The relevant correspondence is recorded in the said table.

During September 2014, the ES3R prepared an Interim Work Plan and narrative which were formally submitted to USAID CO under CDM letter dated 24 September 2014, to which a response letter was received by USAID/Liberia dated 26 September 2014, which advised as follows:

“The U.S. Agency for International Development in Liberia has reviewed the subject document dated September 24, 2014, in which CDM Smith proposed solutions to keep ES3R project active until the end of the calendar year. Please note that the plan submitted was deemed as unacceptable.”

The letter further advised of only two acceptable options at this time:

Option 1 included the following (abridged):

- Return of COP and FTL (or replacement) to Liberia,
- Restore periodic QA services to Bong & Nimba counties,
- Commence field surveys in Grand Bassa,
- Work on 30% designs for the remaining balance of roads.

Option 2 was advised as a ‘Stop work order for a period of 60 days’.

Finally USAID/Liberia reiterated the final statement contained in their letter dated 3 September 2014, regarding the firms’, *‘willingness to move into the field’*.

Subsequent to further exchanges of correspondence between the parties, a USAID/Liberia letter dated 14 October 2014 was issued which contained a 'Notice'. As a result of a high level meeting held in Washington D.C. between senior staff of the parties on 24 October 2014, this notice was rescinded by USAID/Liberia for reasons as stated by USAID "to allow CDM Smith additional time to address the concerns raised" (in the said notice).

As of the end of October 2014, CDM in a letter dated 27 October 2014, agreed, "to provide USAID with a new proposal detailing how CDM Smith will fulfill the terms of the contract for review and consideration by no later than close of business on Friday 7 November 2014".

Quarterly Progress Report

The Quarterly Progress Report for Y1 Q4 was submitted on schedule to USAID on 20 October 2014.

Preliminary Draft Design Package

The Preliminary Draft Design Package for 75km of roads was delivered to USAID/Liberia on 27 October 2014. The package was composed of the following documentation:

- Report narrative + 6 annexes (Annex 6 is the Prioritization Report, the balance as per the contract requirements),
- Set of Standard Drawings, common to all design packages,
- Suggested revisions to General Specifications (Sections 1 -6),
- Suggested addition to General Specification (Section 7),
- Detailed designs for the Bong, Nimba and Lofa packages (Strip maps, customized drawings for large culverts, culvert schedules, BoQs with take-off sheets).

Progress Meetings with USAID

Progress meetings have been achieved to the extent that the USAID COR has made regular visits to the project office during the reporting month. Essential liaison with the senior design staff, ETL and FTL's has been carried out, during which there has been much sharing of opinions and discussions which have provided resolution of numerous technical related items.

Two formal meetings were held on 29 October 2014, the first with 21st Century Engineering, the Nimba Contractor, which was followed by a meeting between ES3R and COR.

3. PROJECT OBJECTIVES PROGRESS

3.1 Objective 1 – Construction Oversight

General:

A meeting was held at ES3R office on 29 October 2014 at which the USAID COR advised of his forthcoming scheduled visits to the construction sites of Lofa (5 – 8 November); Nimba (9 – 11 November); and Bong (12 – 15 November 2014). Progress meetings were to be held with the respective contractors after site inspections. COR expressed his desire to have ES3R team members present during these progress site visits.

Consistent with previous CDM correspondence with the CO, the ES3R Chief of Party reiterated the guidance to the FTL's that it would not be possible for ES3R staff to be present at the counties visits. CDM Smith H & S policy had not changed and did not permit field work for ES3R team at present. In addition, it was advised that USAID and CDM Smith were in communications about how to proceed under the existing conditions, as a result of which, there was unlikely be a change in position until 07 November, 2014 at the earliest – when CDM was due to present its Revised Work Plan.

Bong:

The construction contractor performance during October 2014 was low and characterized by minimal site activity. Clearing on the Tolomai - Lele road was the only work done during this period. According to the Contractor's Work plan, full work was to commence during early November 2014.

Overall assessed percentage completion: 35%

Percentage time elapsed: 39%

Gbenquelleh – Janyea Road: (10.5km)

Gbenquelleh – Molly Town Road: (9.5km)

Tolomai – Palala Road: (29.9km)

Financial:	Assessed Value of Works completed	\$ 663,299.65
	Total Contract Value	\$1,895,141.86
	Payments to date	\$ 508,376.56

Nimba:

A meeting was held with 21st Century at the ES3R office on 29 October 2014, primarily to review the contractor’s bridge design.

Output from the meeting, chaired by USAID COR, was as follows:

- The Contractor was advised to make a resubmission of his bridge design to include a structural design report that includes design calculations, foundation design assumptions, steel bending schedule and more clear drawings (showing bridge deck steel reinforcement, retaining wall steel & concrete).
- The Contractor was also advised to follow up the approval process in the Ministry of Public Works, but the COR offered to assist on the follow up provided the contractor’s design report and designs were found acceptable (dependent on the design report requested).
- The Contractor advised that it planned to resume reshaping and embankment filling works on the remaining road section starting 3 November 2014.

Overall assessed percentage completion:	39%
Percentage time elapsed:	39%

Bahn – Kpayee – Zuolor – Payee Road (14.4km)

Dwonwea - Zuo Lapa Road (4.1km)

Duanpea Road (2.5km)

Financial:	Assessed Value of works completed	\$328,753
	Total Contract Value	\$843,228.25
	Payments to Date	\$280,847.97

Lofa:

The SSF request for suspension of work due to the outbreak of Ebola was granted by USAID/Liberia in letter dated 5 August 2014, which incorporated Modification No. 1; 'to suspend all works being completed in Lofa County from 8 August 2014 to 7 September 2014, which was subsequently extended to 7 October 2014 by the issuance of Modification No. 2.

Overall assessed percentage completion:	34.4%
Percentage time elapsed:	30%

Galamai Road (2.6km)

Bitijama Road (3.6km)

Barkedu – Jamulor – Moibadu Road (8.3km)

Financial:	Assessed Value of Works Completed	\$203,966
	Total Contract Value	\$592,384.35
	Payments to Date	\$202,957.65

3.2 Objective 2 – Design and Contract Documents

General:

As a consequence of the EVD crisis the three field teams were moved to the Monrovia office to carry out design work as of early August 2014. Since that time, the teams have continued with design work from the office, which resulted in the completion of design work for the following road links, the detailed surveys for which were carried out prior to the withdrawal of field teams from detailed field surveys.

County	Road Link	Length km	Total km
Lofa	John's Town - Bulor	15.4	15.4
Nimba	Dounpa – Zuaplay – Gogein - Nimba	22.2	28.2
	Gaopah – Garwonpa - Fleedin	6.0	
Bong	Gbondi - Gbarnia	17.5	31.6
	Yaindewoun – Nyan – Molo ta Junction	14.1	
		Total	75.2

The works involved in the detailed design of the road links as follows:
For each road link, conversion of survey data into tender documentation including:

- Strip mapping,
- Improvement plans,
- Bills of quantities (BoQ) according to specification,
- Technical drawings illustrating BoQ items,
- Digital drawings for pipe culverts,
- Digital drawings for revised inlet / outlet structures,

- Technical drawings for single and double cell box culverts,
- Review and revision of MPW Bills of Quantities (5 sections),
- Review and revision of MPW Specifications (5 sections),
- Preparation of standard contractor reporting templates.

The Preliminary Draft Design Package was completed on 24 October 2014, on which day the USAID COR visited the ES3R office in order to review the documentation contained in the package. As the COR expressed appreciation for the product, it was subsequently delivered to USAID/Liberia on 27 October 2014 as per the COR request. Timely submission of these by USAID to MPW (for initial comments and observations) will facilitate any amendments to be made to the design package. The completion of this first design package is therefore dependent on the timing of feedback and observations of key stakeholders.

3.3 Objective 3 – Training and Mentoring

The mentoring of contractors was not applicable during the month, in which QAC oversight was not carried out during October 2014, for reasons stated under ‘General’ within this section. Because of the continuing Ebola crisis situation in Liberia, the schedule of training for A & E firms during September has been postponed which has placed a hold on interface with the A & E firms and trainees.

ES3R Team training and mentoring was undertaken as follows:

Resident Engineers:

- Road geometric design calculations,
- Analysis of details from existing road conditions for design purposes,
- Preliminary design for box culverts,
- Calculations in design of structures,

- Preparation of road works bill of quantities,
- Interpretation and use of standard contract documentation
- Compile designs for submission to USAID/Liberia.

Site Inspectors:

- Collection and analysis of field data,
- Preparation of site layouts,
- Earthworks design and appraisal methods,
- Plotting of road reduced levels into AutoCAD,
- Erosion protection interventions and design process,
- Checking of strip maps and bill of quantities.

4. PROJECT CHALLENGES

The following items have been encountered recently which are continuing and pose challenges to the ES3R team and project:

Challenge / Issue	Mitigation / Resolution
All contractors are struggling with the design / build contract model, thus require much support in preparation of submittals.	QAC team members have to offer an inordinate amount of support to contractors in order that compliance be achieved and progress achieved.
The lack of capability of local contractors required excessive time spent by FTL's in guidance and mentoring process.	ES3R must strike a balance between formal mentoring of contractors and progression of survey and design works required.
Detailed design field survey commenced on 1 July. Available time for design documentation by deliverable date is 3.5 months.	On the basis of time available, completion of target design of 150km is a significant challenge as previously indicated. 75 km was agreed as appropriate within time available.
In the interests of health and safety, the field teams were moved to the project office in Monrovia to commence design duties.	The staff of the three field teams will be fully engaged in the design of 75 km of roads for which survey data is now available.
MPW Technical Specifications, Method of Measurement and Detail Drawings which are required to be used in the contract documentation are neither finalized nor yet field tested.	ES3R have identified that from initial assessment, the existing MPW documents will require significant refinement for inclusion in the contract documents. Further work to be undertaken by ES3R.
Bridge engineer requirement.	Proposal for structural engineering support is required. A realistic estimate of waterways which require bridge structures is required.

<p>MPW Specification is inconsistent with USAID/Liberia conditions of contract.</p>	<p>A Specification should be totally consistent with conditions of contract, a matter which should be resolved prior to any solicitation.</p>
<p>Ebola crisis situation is the cause of increased stress of team members which results in reduced motivation and decreased productivity.</p>	<p>Promote team get together and sharing of views to increase morale and resolve difficulties.</p>

5. OUTLINE SCHEDULE

5.1 Work Schedule for November 2014

Preamble

The statements included within section 3.1, General, of this document regarding CDM Smith H & S policy, as well as current communications with the client apply constraints to the works which may be planned for November 2014.

Objective 1 – Construction Oversight

Construction oversight for November 2014 will be on hold owing to the suspension of field operations in view of the continuation of the prevailing EVD crisis in the country.

All three contractors have advised that they are mobilizing further key resources to facilitate increased operations in early November, following the ‘slow down’ during the rainy season; and suspension of the works (to 7 October 2014), in the case of SSF on the Lofa contract.

Objective 2 – Design and Contract Documents

ES3R field staff will continue design works operating from the project office in Monrovia. Work to be carried out will include the following:

- Finalization of 75km design package including:
 - i. Comments and observations from key stakeholders,
 - ii. ES3R meeting with key stakeholders (USAID & MPW) in order to discuss the preliminary draft designs,

- iii. ES3R incorporation of comments, as agreed, into designs,
 - iv. Internal ES3R QA/QC of draft designs,
 - v. Formal submission of Draft Designs to USAID/Liberia,
 - vi. ES3R receipt of final comments on design package; and
 - vii. ES3R submission of final design package following incorporation of final comments.
-
- Engineer's estimate for 75km design package including unit rate analysis.
 - Detailed design of box culverts.
 - 30% designs for balance of road links (375 km).

Objective 3 – Training (of A & E Firms) & Mentoring

The scheduled workshop which was due for commencement in mid-September 2014 was postponed due to the EVD crisis situation. Monrovia based classroom training of AE firm personnel would be initiated following the lifting of CDC travel advisory and resumption of normally scheduled flights. It may be feasible to initiate a limited classroom environment via remote teleconference, but challenges remain with dependable and consistent internet connection.

Mentoring of RE and SI staff will include the following activities:

- Collection of market information for Engineer's estimate,
- Preparation of strip maps for 30% design,
- Fieldwork data processing