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ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION CONTRACT NO: EDH-I-00-08-00023

MONTHLY PROGRESS REPORT – MAY 2015

15 June 2015

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

MONTHLY PROGRESS REPORT

MAY 2015

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15 June 2015

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 APRIL 2015

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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 May 2015 to 31 May 2015. In addition, the report details the status and approach to project challenges and presents an outline schedule for the forthcoming month.

2. MAY 2015 OVERVIEW

Preamble

During this reporting period, ES3R team was engaged in field surveys, interventions and other geotechnical and hydrology data collection in preparation for road and culvert design. Construction oversight activities in the three Counties continued to be carried out by the team, along with capacity building activities in the planning of on-the job training to the A&E engineers.

2.1 May 2015 Highlights Summary

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

Date	Description	Comment
May 4, 2015	Submittal of weekly updates	To USAID Liberia
May 5, 2015	Completion of all A&E Firm signing of MOU for capacity building in field training.	Gbesohn Associates, Ltd. to ES3R
May 7, 2015	Meeting/ Site Inspection for substantial completion of three road links, Lofa County	SSF, USAID COR, local MPW and ES3R team
May 7, 2015	Draft of CDM Contract Modification 4 received from USAID	From USAID, to CDM COP
May 8, 2015	ES3R Environmental Specialist arrived in Monrovia for review of the Environmental Monitoring Compliance by construction Contractors	ES3R Environmental Specialist -Karen Menczer-
May 11, 2015	Submittal Weekly Project Updates	To USAID/Liberia
May 12, 2015	Meeting with MPW Deputy Minister Jackson Paye on project issues information and discussion of application of MPW ES3R Engineers to	USAID, MPW & ES3R team

	the Project.	
May 13, 2015	Submittal of Monthly Report for April 2015	To USAID/Liberia
May 18, 2015	Engagement of Site Inspector for Lofa County	ES3R Team
May 19, 2015	Submittal Weekly Project Updates	To USAID/Liberia
May 21, 2015	Meeting with MPW, Deputy Minister Jackson Paye and his staff for project issues and ES3R Environmental Specialist wrap-up of visit to sites	MPW, ES3R team
May 22, 2015	Weekly Meeting with USAID COR for project and environmental compliance issues	USAID COR, ES3R Team
May 22, 2015	Submittal of Contract Modification 4	To USAID/Liberia
May 26, 2015	Submittal of Weekly Project Updates	To USAID/Liberia
May 31, 2015	Mobilization of the Capacity Training A&E firms' engineers for on-the job-training	Five A&E firms, ES3R Team

2.2 Details of Highlights

2.2.1 Project Deliverables and Documentation

Monthly Progress Report

The last monthly report submitted was for the month of April 2015.

The main contains of the report are:

- Highlights Summary
- Details of Highlights
- Progress Meetings with USAID
- Field Visits to Counties Sites
- Project Deliverables and Documentation
- Design of Bridgeworks

- Revised Work Plan
- Objective 1 – Construction Oversight
- Objective 2 – Design and Contract Documents
- Objective 3 – Training and Capacity Building
- Performance Management Plan – PIRS

Letters / E mails from USAID/Liberia

The following communications addressed to the ES3R Project from USAID were received during the reporting period:

- May 14, 2015: USAID COR Instructed the ES3R to suspend the field survey of Konia-Zigida road link in Lofa County as it appeared that this road link construction would be taken over by IFAD as reported by the IFAD County Engineer to ES3R FTL in Lofa.
- May 18, 2015: Email from USAID COR instructing the ES3R team to replace Konia-Zigida road for the road link ranked number 10 (Jamulor-Kenela-Korleh road, 7.6 km) in the Lofa prioritized list.
- May 19, 2015: Email from USAID on May 19 requesting the ES3R Team to organize a site inspection due to application from Westwood Corp. for substantial completion; the estimated proposed date would be around 29 June in Bong County.
- May 19, 2015: USAID COR email addressed to the construction contractors on required efforts to comply with the requisite contractual obligations. Assistance was offered by COR to the contractors to include the ES3R Project resources to ensure that the project quality and outputs are consistent with the contract and best engineering practices.

- May 26, 2015: USAID COR requested ES3R to inform the Ministry of Public Work that any project communication should be addressed to the ES3R Chief of Party with copy to USAID and not to the field team members.
- 26 May, 2015: USAID COR transmitted a copy of email addressed to SSF Contractor on the award of contract modification to carry out construction works of Farm to Market Roads in Lofa County under Contract #AID-669-C-14-00001.
- May 29, 2015: USAID COR advised that CDM Smith registration in SAM had been expired on May 11, 2015 and that USAID could not award the modification until after reactivation of CDM Smith, Inc.'s SAM account.
- Email from USAID COR on May 29, 2015: requested the ES3R team submit construction Contractor's Environmental Compliance Report prepared by the Environmental Expert.

3. PROJECT OBJECTIVES PROGRESS

3.1 Team Structure

The field based teams have adopted the revised structure illustrated in the Y2 Work-plan is as follows:

Team 1

Responsible for road and pipe culvert design in the Counties of Lofa and Nimba in addition to construction oversight in Lofa.

Field Team Leader: Geoffrey Kibisi; responsible for coordinating and managing field surveys, construction oversight and national staff mentoring.

Resident/Design Engineer: Roosevelt Ballah; responsible for field survey activities.

Inspector Engineer: George OC Kaicora; responsible for road construction oversight.

Surveyor: provided by Geo Surv; responsible for topographic survey in support of surveys #1 and 2.

Team 2

Responsible for road and pipe culvert design in the Counties of Grand Bassa and Bong in addition to construction oversight in Bong County.

Field Team Leader: Frederick Were- Higenyi; responsible for Grand Bassa/Bong Team.

Resident/Design Engineer: Richard Freeman; field survey and geotechnical/hydrology investigation

Assistant Engineer (Staff from MPW); position vacant pending approval of Modification 4.

Topographic Survey Team: Geo Surv; responsible for topographic survey in support of surveys 1 & 2 and bridges.

Team 3

Box Culvert Design, Nimba, Grand Bassa, Lofa and Bong as well as construction oversight in Nimba County.

Field Team Leader: Jackson Kirungi; responsible for coordination of topographic survey, hydraulic and structural assessments, location of structure, materials investigation and construction procedures.

Resident/Design Engineer: James Appleton; responsible for topographic survey and supervision of materials investigation.

Assistant Engineer: (Staff from MPW); position vacant pending approval of Modification 4.

Team 4

Bridge design Team, for Nimba, Grand Bassa, Lofa, and Bong bridges.

Team mobilization is awaiting approval of modification 4.

It is important to note that:

As of 30th April 2015 only team #1 is fully resourced. Positions in Teams #2 & 3 are vacant pending approval of the contract Modification 4. The outputs of these teams are therefore compromised because of this.

Bridge Design team 4 has yet to be mobilized. It should be further noted that mobilization and deployment of the team to the field is quite urgent keeping in view that the onset of the rainy period is approaching which likely will impact negatively in the scheduled deliveries as per modified work program. Modification 4 is pending SAM update.

Many key activities of the Bridge Team require low level flows in watercourses to be bridged. This late mobilization is now of major concern.

3.2 Objective 1 – Construction Oversight

3.2.1 General

All construction Contractors have received contract modifications up to the end of this reporting period. Westwood Inc. and 21st Century have initiated preliminary activities on the expanded scope of works, and shortly SSF will be handed over the phase II road links for construction.

ES3R has requested additional resources from USAID in its proposed contract modification 4. Elements of additional resources requested are in support of the extended scope in construction oversight. The modification has yet to be issued by USAID due to SAM system issues.

Work activities during the reporting period focused on work activities within the Contractor's original scope.

3.2.2 Bong County

Contract and modification have been awarded to Westwood Corporation Inc.

Construction of three roads totaling 49.6 km is ongoing under the original scope (Phase –I). The contractor's performance was a bit low in the reporting month due to the seasonal rains.

The road links and contract data is shown below.

1.	Tolomai - Leleh – Palala	29.9 Km
2.	Gbenequelleh – Janyea	10.5 Km
3.	Gbenequelleh - Duita to Molly Town	9.2 Km
TOTAL		49.6 Km

Construction oversight has been carried out as per requirements by the Senior Field team who had arrived in Liberia since 16th April.

Continuous monitoring of the contractor has taken place via the Site Inspector and with weekly visit from the FTL.

All single-cell box culverts are completed and the multi-cell ones have reached an average progress of 95%.

Reshaping is all done; gravelling has been done in 36km.

Contractor is currently behind on his work plan. The contract period for the original scope finished 22nd May.

Given the work load required to complete and the resources available on site, it is anticipated that the Contractor cannot complete the works within the allotted time.

3.2.3 Lofa

Contract and modification have been awarded to SSF construction contractor.

Substantial completion inspection was carried out on May 7 with a punch list jointly prepared by participants. SSF is likely to complete the outstanding items and corrective actions by middle of June potentially allowing USAID to issue the substantial completion certificate. It is

proposed that ES3R team will pre-inspect the listed works for confirmation before SSF is recommended entitlement to substantial completion status.

It is estimated to the end of this month, a physical progress of 98%.

3.2.3 Nimba County

Contract and modification have been awarded to 21st Century Corporation Inc.

Original Scope

1.	Banh – Paye –Zuoplay	14.9 Km
2.	Dwonwea-Zoe Lappa	4.1 Km
3.	Dunpead Road	2.5 Km
	TOTAL	21.5 Km

On May 29, the ES3R team, USAID COR, local MPW representative, and Feeder Road Engineer (in absence of the MPW RE), conducted inspection of the road links under construction. A site inspection progress meeting was held at the Ganta ES3R field office the following day.

Road construction works have been delayed due to unseasonal rains during the reporting period. As reported by the Contractor, 4 days have been lost on account of early rains. All site Cross-drainage structures have been completed; Lee Bridge has reached 25% of progress and 20.4 kilometers of graveling is done. Details of the three contractors are shown below:

Description	Westwood Corp: BONG	SSF: LOFA	21 st Century: NIMBA
Contract Award	22 Jan 2014	27 Jan 2014	22 Jan 2014
Modification	7 April 2015		7 April 2015
Contract Period, days initial scope comp. Maintenance and defects liability	16 months 8 months	16 months 8 months	16 months 8 months
Additional scope – to complete Maintenance and defects liability	12 months 8 months		15 months 8 months
Extension of time due to EVD		3 months	
Time Elapsed (end April 2015), % Additional scope	101%	81%	101%
Comp. date for construction: initial scope	22 May 2015	27 August 2015	22 May 2015
Comp.date for construction additional works	6 April 2016		6 April 2016
Overall Assessed Completion, % (16 approx.)	81%	<90 (to be determined pending substantial completion survey	84
Additional scope			
Total Contract Value, USD	\$1,895,141.86	\$592,384	\$843,228.25
Additional scope	<u>\$1,861,722</u>		<u>\$2,183,507</u>
Total	\$3,756,864		\$3,026,286
Value of works certified as of May 2015, USD	\$1,138,663 (to be updated as per Contractor's MPR)	\$578,706	\$556,530.49 (to be updated as per Contractor's MPR)
Additional scope	0		0

3.3 Objective 2 – Design of Prioritized Road Links

General:

Section 3.1 indicates the proposed team structure for delivery of outputs on this component. Key positions within the structure remain vacant pending the modification for the Y2 work plan. Outputs for the design team are listed below:

Field Survey Details:

Field surveys are composed of the following components:

1. Community sensitization – District Commissioners, Paramount Chiefs and traditional leaders of communities along road link.
2. Chaining of road link.
3. Current land use within road corridor– providing type/density of clearance required and presence of cash crops within road corridor.
4. Culvert location, sizing, identification of inlet and outlet structures and length/nature of outlet channel (includes topographic survey).
5. Carriageway defect identification and selection of remedial interventions.
6. Selection of Geometric cross section – a function of traffic characteristics and topography either side of the road corridor.
7. Topographic survey along road link centerline and selection of appropriate longitudinal storm drainage interventions.
8. Road Inventory location and description of existing road assets, villages, schools etc.
9. Environmental and social aspects.

Team 1: Road works Lofa and Nimba:

Roads Surveyed during reporting period: 96 km.

It is noted that Konia-Zigida road for the road link was suspended and advised by USAID to replace for the ranked number 10 (Jamulor-Kenela-Korleh road, 7.6 km) in the Lofa prioritized list.

Team 2: Road Works Bong and Grand Bassa

Team 2 is supported by a surveying agency, Geo-Surv for field survey components requiring topographic support.

Roads Surveyed up to this reporting period is: 86 Km

Quality control checks on data provided by GeoSurv indicate some road links need further review.

Also, survey for potential wearing course quality borrow pits was not undertaken due to ES3R human resource constraints.

Team 3: Box Culverts, Lofa, Nimba, Bong and Grand Bassa

Box Culvert surveys include collection of data for hydrology of river and hydraulic design of box culvert apertures.

Box Culverts surveyed during reporting period: 6 locations

Total to date = 19.

Team 4, Bridge Design

Mobilization is pending the Y2 work plan modification agreement. The Bridge Engineer/ team leader is residing abroad. Mobilization to

Liberia and deployment to the field is expected to be in the order of 14 days following confirmation of the Modification.

3.4 Objective 3 – Capacity Building

General

MPW Feeder Road Engineers:

MPW Feeder Road engineers as supporting staff are yet to be approved by the Ministry of Public Works.

It is anticipated that the MPW engineers will join ES3R after approval of Modification 4.

A & E Firm Trainees:

The A & E firms' trainees have been mobilized and immediately exposed to the different capacities. All trainees have mobilized to field locations for on the job training.

3. 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
Additional resources for field surveys	Modification 4 requested engineering assistants to support the field survey works of Teams, 1, 2 & 3.
Bridge engineering team requirement.	Proposal for structural engineering support is required. A realistic estimate of waterways which require bridge structures is required. This position is to be included in modification 4 request.
Need for time extension due to the EVD crisis	Submit Work Plan Year 2 with anticipated completion date and associated costs for this extension.

5. OUTLINE SCHEDULE

5.1 Outline Schedule for June 2015

Preamble

Formal approval to resume normal field based activities was given on 12 February with the Year 2 Work Plan submitted in draft form to USAID on 27 February. The following outputs below are based on this work plan.

The strategy of work plan Year 2 remains the continuance of the construction oversight for the ongoing 84 km. It is still feasible for the works on all three contracts to reach a level of Substantial Completion before the onset of heavy rains anticipated at the end of July. Oversight of the additional 74 km will continue through the end of December 2015 unless otherwise modified by USAID.

Despite the delay in the mobilization of additional resources embedded in the request for Y2 work plan modification, and on the assumption that the modification is formalized quickly, ES3R remain confident that the completion of road and culvert field survey work by end of July is remains viable. What is critical however is mobilization of the Bridge Design Team.

Objective 1 – Construction Oversight

It is anticipated that the Nimba and Bong based Contractors will fully mobilize during June; clearing works have been initiated since early May. Workshops will continue to be held ES3R field staff on as ‘as needed’ basis for both Contractor’s field staff with regard to the revised design presentation formats, refined method of measurements for activities for the permanent works and revised standard drawings.

Objective 2 – Design and Contract Documents

Team 1, Lofa and Nimba will advance field surveys in Nimba (95 km) and complete by end of the July.

Team 2, Bong and Grand Bassa: anticipate completion of the field surveys in Grand Bassa (137.5 km) by the end of the month.

Team 3, Box Culverts Bong Grand Bassa and Nimba: anticipate completing 12 field surveys by the end of the month.

Team 4, Bridge Team: The team deploys to field sites within two weeks of agreement on the modified contract. Field work is programmed to last 90 working days (5 days per bridge site); the bridge Engineering Team can be deployed to the field by end of the month. However, this leaves insufficient time to complete field survey works before anticipated commencement of heavy rains and rising water levels in the perennial water courses where bridge field surveys are required.

Objective 3 – Capacity Building

TRG re-engaged with the 5 selected A & E firms identified for capacity Development and reviewed all trainee resumes prior to field deployment. Field trainees will continue to receive on the job field training.

Next workshops and training with key A&E personnel will take place with TRG and ES3R staff in first weeks of September