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Republic of the Philippines
**DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS**
**OFFICE OF THE SECRETARY**
Manila

04 AUG 2017

**DEPARTMENT ORDER** )
)
**NO.** 100 )
**Series of 2017** )

08.08.17

**SUBJECT: Prescribing a Consultant's Performance Evaluation System (ConsPES) for Infrastructure Projects**

In line with the continuing efforts of the DPWH to improve the performance evaluation of consultants for infrastructure projects, the revised Guidelines on Consultant's Performance Evaluation System (ConsPES) for Infrastructure Projects is hereby prescribed for compliance by all concerned.

This Order shall supersede Department Order No. 145, Series of 2016 and shall take effect immediately.

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Secretary

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**Senior Undersecretary**
**Officer-In-Charge**

Department of Public Works and Highways
Office of the Secretary
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Encl: Revised Consultant's Performance Evaluation System (ConsPES) Guidelines

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# Revised Consultant's Performance Evaluation System (ConsPES) Guidelines

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## A. Objectives of ConsPES

ConsPES seeks to achieve the following objectives:

1. To set an objective and consistent method to evaluate, measure, and rate a Consultant's performance in DPWH projects.

2. To provide the DPWH with a means to incentivize Consultants to perform good work.

3. To provide the DPWH essential inputs in the process of selecting Consultants for its future consulting services project.

4. To give Consultants the opportunity to improve their job performance from one ConsPES rating period to another.

## B. Guidelines

1. ConsPES shall be used mainly for the most common types of consulting services engaged by the DPWH – Feasibility Study (FS), Detailed Engineering Design (DED), and Construction Supervision (CS). For other types of consulting services – e.g., preparation of Master Plan, specialized technical jobs such as geotechnical investigations, traffic surveys, parcellary surveys, and institutional capacity development - the Procurement Service (PrS) through its Consulting Services Division (PrS-CSD) - shall customize ConsPES to fit the specific requirements of those services, upon request of the concerned Implementing Unit (IU).

2. The evaluation and rating of a consultant's performance, using ConsPES, shall be done by a ConsPES Team to be formed by the Director of the PrS, with members from the following offices to be designated by their respective heads of office, on a project-to-project basis, depending on the type of consulting services involved:

| FS | DED | CS |
|---|---|---|
| PrS–CSD | PrS–CSD | PrS–CSD |
| Planning Service – Project Preparation Division (PS-PPD) | Bureau of Design (BOD) | Concerned Cluster of Unified Project Management Office (UPMO) |
| BOD | Bureau of Construction (BOC) | BOC |

3. The evaluation of the consultant's performance, through ConsPES, shall be carried out upon reaching the following milestones using the criteria given in ANNEX A:

    a. 50% of contract period
    b. 100% of contract period

4. The IU shall assign the corresponding points for each activity and/or deliverable required in the Terms of Reference (TOR).

5. The IU concerned shall transmit the Consultant's deliverables to the following specialized offices, for review/evaluation of the specific aspects pertaining to their offices:

| Specialized Offices | FS | DED | CS | Others |
|---|---|---|---|---|
| PS | ✓ | | | |
| BOD | ✓ | ✓ | | |
| BOC | ✓ | ✓ | ✓ | |
| UPMO | | | ✓ | |
| Bureau of Research and Standards | | | ✓ | |
| Bureau of Quality and Safety | | | ✓ | |
| Others | | | | |

6. For each consultant's deliverable (except for CS), the specialized offices responsible for reviewing/evaluating the deliverable shall determine whether the defects/deficiencies in the deliverable are major or minor based on their respective checklists. Only one staff from the specialized office concerned shall be assigned to review/evaluate a particular (or a specific aspect of) deliverable throughout the entire contract period. The Director of the concerned specialized office shall synthesize the results of its evaluation of each deliverable using the form in ANNEX B (Summary of Findings) and submit this to the PrS-CSD. In addition, the IU must furnish the PrS-CSD with the exchange of communication/correspondences (e.g., DPWH to Consultant vice-versa, DPWH office to another DPWH office, and the like).

7. For FS and DED, based on the Summaries of Findings for each deliverable submitted by the concerned specialized offices, the ConsPES Team shall evaluate and rate the performance of the consultant using the criteria in ANNEX A.

8. The ConsPES Team shall prepare the corresponding Intermediate Evaluation Report (IER) indicating its performance rating using the form in ANNEX C and submit it to the Director of the PrS for review and notation. The IER shall be submitted on the following milestones with their respective weights:

| IER No. | Milestone | Weight |
|---|---|---|
| 1 | 50% of contract period | 50% |
| 2 | 100% of contract period | 50% |

9. Upon completion of the consulting services, the ConsPES Team shall compute the final performance rating of the consultant, which is the sum of the weighted ratings obtained in the two evaluation periods. The Team shall then submit its Final Evaluation Report (FER) using the form in ANNEX D to the PrS Director for review.

10. The PrS Director shall recommend the approval of FER to the approving authority concerned.

11. Prior to the approval of the FER, the PrS-CSD shall provide a copy of FER to the consultant concerned for his information. If requested by the consultant within five (5) calendar days from the date of receipt of the FER, the ConsPES Team shall discuss with the consultant the said report.

12. The PrS-CSD shall maintain a ConsPES database which shall include, among other things, the findings and performance ratings of the consultants evaluated.

13. The latest ConsPES rating of the Consultant shall be used by the BAC as an input in the shortlisting and evaluation of technical proposal of the Consultant for the next bidding. The Consultant will be rated in two (2) phases as shown on the table below:

| **Consultant being rated** | **Phase 1 Rating** | **Phase 2 Rating** |
|---|---|---|
| FS Consultant | Based on completed FS | Based on implemented FS*, done by DED Consultant/IU (not necessarily the FS Consultant) |
| DED Consultant | Based on completed DED | Based on implemented DED*, supervised by the CS Consultant/IU (not necessarily the DED Consultant) |
| CS Consultant | Based on completed CS | Based on the findings of the IU and ConsPES Team during the Defects Liability Period (DLP) |

***** *provided the scope of works is the same, otherwise use the Phase 1 rating*

14. The latest ConsPES Rating to be used in the succeeding biddings shall be the Phase 2 rating of the Consultant.

15. All the firms in a joint venture or association shall be given the same ConsPES rating in a particular contract.

16. The ConsPES Rating of a consultant in a packaged contract, i.e., a contract with multiple projects awarded to a single consultant, shall be computed by obtaining the weighted (according to cost) average of its performance ratings in all projects in the contract.

## C. Basic Criteria and Weights by Type of Consulting Services

ConsPES shall use the following basic criteria, with their corresponding weights, for the common types of consulting services – Feasibility Study, Detailed Engineering Design, and Construction Supervision:

Phase 1:

| **Criteria** | **Feasibility Study (FS)** | **Detailed Engineering Design (DED)** | **Construction Supervision (CS)** |
|---|---|---|---|
| Quality (of Output) | 50 | 60 | 60 |
| Cost (of Output) | 20 | 20 | 20 |
| Schedule (of Deliverables) | 30 | 20 | 20 |
| Total | 100 pts. | 100 pts. | 100 pts. |

Phase 2:

| **Criteria** | **FS** as evaluated after DED stage | **DED** as evaluated after CS stage | **CS** as evaluated after the DLP |
|---|---|---|---|
| Quality (of Output) | 50 | 60 | 60 |
| Cost (of Output)* | 20 | 20 | 20 |
| Schedule (of Deliverables)* | 30 | 20 | 20 |
| Total | 100 pts. | 100 pts. | 100 pts. |

***** *The same rating in Phase 1 will be used in Phase 2.*

## D. Basic Rating System

ConsPES shall use the following numerical and adjectival ratings:

| **Numerical** | **Adjectival** |
|---|---|
| 95% to 100% | Very Satisfactory |
| 85% to <95% | Satisfactory |
| 70 to <85% | Fair |
| <70% | Unsatisfactory |

## E. Application of ConsPES Ratings

The ConsPES ratings shall be used by the concerned Bids and Awards Committees as inputs in the shortlisting and the evaluation of technical proposals of consultants, as follows:

| | **PROPOSED WEIGHTS** | |
|---|---|---|
| | **With ConsPES** | **Without ConsPES*** |
| **For Shortlisting:** | | |
| 1. Applicable Experience of Firm | 25% | 35% |
| 2. Qualification of Personnel of the entire Firm | 30% | 40% |
| 3. Job Capacity | 20% | 25% |
| **4. ConsPES Rating** | 25% | - |
| **Total** | 100% | 100% |
| **For Evaluation of Technical Proposals** | | |
| 1. Applicable Experience of Firm | 10% | 10% |
| 2. Work Plan and Methodology | 15% | 20% |
| 3. Qualification of Personnel to be assigned to the Project | 55% | 70% |
| **4. ConsPES Rating** | 20% | - |
| **Total** | 100% | 100% |

***** *For firms without ConsPES ratings, the weights in this column shall be used.*

For the procurement - i.e., shortlisting or evaluation of technical proposals – of a specific consulting services contract, the ConsPES rating to be used shall be that for a similar completed services contract. In case the consultant has two or more ConsPES ratings, the average ConsPES rating of the last two similar consulting services contracts shall be used for shortlisting and evaluation of technical proposals.

## F. List of Annexes

| Annex | Title | Responsible Office |
|---|---|---|
| A | DPWH ConsPES Criteria and Rating System by Type of Services<br>• Feasibility Study (FS)<br>• Detailed Engineering Design (DED)<br>• Construction Supervision (CS) | ConsPES Team |
| B | Summary of Findings<br>• Feasibility Study (FS)<br>• Detailed Engineering Design (DED) | Specialized Office |
| C | Intermediate Evaluation Report (IER)<br>• Feasibility Study (FS)<br>• Detailed Engineering Design (DED)<br>• Construction Supervision (CS) | ConsPES Team |
| D | Final Evaluation Report (FER)<br>• Feasibility Study (FS)<br>• Detailed Engineering Design (DED)<br>• Construction Supervision (CS) | ConsPES Team |
| E | Monitoring Control for Construction Supervision of Flood Control Projects | - |

**ANNEX A**

**DPWH CONSULTANT'S PERFORMANCE EVALUATION SYSTEM (ConsPES)**
**CRITERIA AND RATING SYSTEM BY TYPE OF SERVICES**

## A. FEASIBILITY STUDY (FS)

| Criteria | Points |
|---|---|
| **1. Quality** | **50** |
| 1.1 Adequacy and accuracy of FS assumptions, data, analyses, and outputs vs. Terms of Reference (TOR) | 20 |
| 1.2 Cost-effectiveness of FS recommendation, including PED | 20 |
| 1.3 Tenure of Consultant's key personnel | 10 |
| **2. Cost** | **20** |
| 2.1 Completeness of FS/PED cost estimates vs. TOR cost items/ requirements | 8 |
| 2.2 Comparison of FS/PED cost estimates with accepted benchmarks | 12 |
| **3. Schedule** | **30** |
| 3.1 Adherence to schedule of accepted FS deliverables | 30 |
| **Total** | **100** |

### 1. Quality: 50 Points

| Criteria | Weights | Indicators | Rating System | |
|---|---|---|---|---|
| | | | **Errors/ Inaccuracies/ Deficiencies (70%)** | **Resubmissions (30%)** |
| 1.1 Adequacy and accuracy of FS assumptions, data, analyses, and outputs vs. Terms of Reference (TOR) covering the following:<br>a. Engineering surveys (topographic, geotechnical, hydrologic, etc.)<br>b. Traffic/market surveys and analyses<br>c. Prel. engg design (PED) including cost estimates<br>d. Economic evaluation<br>e. Environmental impact | 40% | a. Extent and impact of errors/ inaccuracies/ deficiencies in FS data, analyses, and outputs, based on DPWH review and validation.*<br><br>b. Number of resubmissions of corrected FS.<br><br>----------<br>**see Notes on Phase 2 evaluation (page 5).* | 100%: Very Satisfactory – FS assumptions, data and outputs required no changes or only minor ones for clarity. No major technical errors/ inaccuracies/ deficiencies** that influenced quality of FS outputs.<br><br>85%: Satisfactory– 1-3 documented major errors/ | 100%: Very Satisfactory - No resubmission required.<br><br>85%: Satisfactory– One (1) resubmission required to correct the work.<br><br>70%: Fair– Two (2) resubmissions required to correct the work.<br><br>50%: Unsatisfactory– |

| | | | | |
|---|---|---|---|---|
| f. Social and GAD<br>g. ROW Plan and RAP<br>h. Preliminary value engineering<br>i. Risk analysis<br>j. Financial and Value for Money analyses for PPP<br>k. Operational analysis<br>l. Others<br><br>----------<br>*Under this criterion, the IU shall specify the weight/ multiplier for each item (column 1.1) as indicated in the TOR. The weights may vary from one project to another.* | | | inaccuracies/ deficiencies.<br><br><u>70%: Fair</u>–<br>4-6 documented major errors/ inaccuracies/ deficiencies.<br><br><u>50%: Unsatisfactory</u> –<br>More than 6 documented major errors/ inaccuracies/ deficiencies<br><br>----------<br>****** *see Notes on major FS defects/ deficiencies (page 5).*<br><br>----------<br>*3 minor errors shall be equivalent to 1 major error.* | Three (3) or more resubmissions to correct the work. |
| 1.2 Cost-effectiveness of FS recommendation, including PED. | 40% | a. Extent of DPWH comments*** on Consultant's evaluation of alternatives, based on economic cost-benefit analyses (CBA) and other relevant criteria, leading to recommended most cost-effective scheme.<br><br>b. No. of revisions made<br><br>----------<br>******** *see Notes on DPWH comments on Consultant's evaluation of alternatives (p.5).* | <u>100%: Very satisfactory</u> –<br>Evaluation results readily accepted by DPWH with no adverse comments.<br><br><u>85%: Satisfactory</u> –<br>Evaluation results required 1-3 major adverse comments by DPWH.<br><br><u>70%: Fair</u> –<br>Evaluation results required 4-6 major adverse comments by DPWH.<br><br><u>50%: Unsatisfactory</u> –<br>Evaluation results | <u>100%: Very satisfactory</u> –<br>No resubmission required.<br><br><u>85%: Satisfactory</u> –<br>One (1) revision/ resubmission before being accepted by DPWH.<br><br><u>70%: Fair</u> –<br>Two (2) revisions/ resubmissions before being accepted by DPWH.<br><br><u>50%: Unsatisfactory</u> –<br>Three (3) or more revisions/ resubmissions before being accepted by DPWH. |

| | | | | |
|---|---|---|---|---|
| | | | required more than 6 major adverse comments by DPWH. | |
| 1.3 Tenure of Consultant's key personnel (Upon award of contract) | 20% | Incidence of replacement of key personnel (weighted according to their roles) with or without valid reasons. | 100%: Very satisfactory – No replacement of key personnel over the duration of the Consulting services.<br><br>85%: Satisfactory – Replacement of less than 20% of the number of key personnel.<br><br>70%: Fair – Replacement of 20-30% of the number of key personnel.<br><br>50%: Unsatisfactory – Replacement of project manager and/or more than 30% of the number of key personnel.<br><br>---<br>Replacement (%) = (No. of Replacement ÷ Total Number of Key Personnel) x 100 | |

## 2. Cost of Output: 20 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 2.1 Completeness of FS/PED cost estimates vs. TOR cost items/ requirements | 40% | Extent of coverage of FS/PED cost elements: materials, labor, equipment, indirect costs (cost of money, insurance, contingencies, taxes, etc.), ROW, etc., as reflected in the TOR (See DO 197, series of 2016 for factors. Level of accuracy is ± 20%). | 100%: Very Satisfactory – Omissions/ errors/ inaccuracies in cost items, affecting less than 5% of total cost.<br><br>85%: Satisfactory – Omissions/ errors/ inaccuracies in cost items, affecting 5% to less than 10% of total cost.<br><br>70%: Fair – Omissions/ errors/ inaccuracies in some cost items, affecting 10-20% of total cost.<br><br>50%: Unsatisfactory – Omissions/ errors/ inaccuracies in cost items, affecting more than 20% of total cost.<br><br>---<br>Variance (%) = [(Consultant's Total Cost Estimate – Sum of TOR Cost Items) ÷ Sum of TOR Cost Items] x 100<br><br>Sign convention:<br>(+): If Consultant's cost estimate is above the sum of TOR cost items |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| | | | (-): If Consultant's cost estimate is below the sum of TOR cost items<br><br>*Note: Variance shall be based on cost elements that are:*<br>*a. excluded by the Consultant*<br>*b. included by the Consultant which exceed the requirements of the TOR and disapproved by DPWH.*<br>*c. understated/ overstated by the Consultant* |
| 2.2 Comparison of FS/PED cost estimates with accepted benchmarks | 60% | Extent of variance of FS/PED cost estimates vs. accepted DPWH/ industry/ benchmarks/ standards (e.g., cost per km of road, cost/lineal meter of bridge, cost/sq. m of bldg.) and vs. required +/-20% accuracy - adjusted for special characteristics. | 100%: Very Satisfactory – Total variance less than 10%.<br><br>85%: Satisfactory – Total variance within 10-15%.<br><br>70%: Fair – Total variance within 15-20%, and/or variance for some major items more than 20%.<br><br>50%: Unsatisfactory – Total variance more than 20%, and/or variance for major items more than 30%.<br><br>---<br>Variance (%) = [(Consultant's Cost Estimate – Standard Cost) ÷ Standard Cost] x 100<br><br>Sign convention:<br>(+): If Consultant's cost estimate is above the standard cost<br>(-): If Consultant's cost estimate is below the standard cost<br><br>*Note: Use existing data per region / province. Cost elements without available benchmarks shall not be evaluated.* |

## 3. Schedule: 30 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 3.1 Adherence to schedule of accepted FS deliverables | 100% | Extent of actual time slippage (delay) vs. original/approved schedule for FS deliverables, due | 100%: Very Satisfactory – FS deliverables completed/ submitted ahead of or on schedule. |

| | | | |
|---|---|---|---|
| | | to the Consultant's fault. | 85%: Satisfactory – Slippage of less than 10% of original delivery period, due to Consultant's fault.<br><br>70%: Fair – Slippage of 10-15%, due to Consultant's fault.<br><br>50%: Unsatisfactory – Slippage of more than 15%, due to Consultant's fault.<br>---<br>Time Slippage (%) = [(Contract Schedule – Actual Schedule) ÷ Contract Schedule] x 100 |

**NOTES:**

***Phase 2 Evaluation**
If the IU, together with the DED Consultant, finds additional errors and discrepancies in the FS output during the DED phase (Phase 2), this criteria (Indicator A of 1.1) shall also be used to compute the Phase 2 rating of the FS Consultant. The same rating in Phase 1 shall be applied for other criteria.

****Major FS Errors/Deficiencies:**
- Use of "table" survey instead of actual field survey (e.g., traffic, socio-economic, road and river profile/cross-section surveys).
- Use of wrong benchmarks, coordinates.
- Use of inadequate/inappropriate assumptions (e.g., traffic parameters/adjustment factors, VOC, growth rates).
- Errors in geotechnical investigation such as inadequate spacing and depth of boreholes.
- Wrong preliminary design analysis on the main frame that will affect the structural integrity of the project (e.g., seismic coefficient, design flood level/return period).
- Inadequate preliminary design data used in structural analysis (e.g., thickness, materials).
- Inadequate value engineering to determine the most cost-effective design.
- Non-compliance with major environmental requirements for environmentally critical projects and projects in environmentally critical areas.
- Inappropriate cost estimate of right of way acquisition.
- *Other major FS errors/deficiencies, as may be added by PS, depending on the project.*

*FS errors/deficiencies not stated above are considered minor FS errors/deficiencies.*

*****Possible adverse comments of DPWH on Consultant's evaluation of alternatives:**
- Failure of the Consultant to meet the minimum number of proposed alternative schemes as per TOR requirement.
- Major omission of a potential cost-effective alternative.
- Inadequate economic cost-benefit analysis to determine the most cost-effective scheme.
- Non-consideration of possible conflict with other ongoing government infrastructure projects.
- Use of secondary traffic data in traffic analyses.
- No reference/s cited for the report on the profiles of the location of the subject project.
- *Other adverse comments, as may be added by PS, depending on the project.*

## B. DETAILED ENGINEERING DESIGN (DED)

| Criteria | Points |
|---|---|
| **1. Quality** | **60** |
| 1.1 Adequacy and accuracy of DED surveys and plans, analyses, and outputs vs. Terms of Reference (TOR) | 36 |
| 1.2 Cost-effectiveness of DED | 12 |
| 1.3 Tenure of Consultant's key personnel | 12 |
| **2. Cost** | **20** |
| 2.1 Completeness and accuracy of DED cost estimates in the DUPA vs. TOR cost items/ requirements | 8 |
| 2.2 Comparison of DED cost estimates with accepted benchmarks | 12 |
| **3. Schedule** | **20** |
| 3.1 Adherence to schedule of accepted DED deliverables | 20 |
| **Total** | **100** |

### 1. Quality: 60 Points

| Criteria | Weight | Indicators | Rating System | |
|---|---|---|---|---|
| | | | **Errors/ Inaccuracies/ Deficiencies (70%)** | **Resubmissions (30%)** |
| 1.1 Adequacy and accuracy of DED surveys and plans, analyses, and outputs vs. Terms of Reference (TOR) covering the following:<br>a. Field investigations/ surveys (topographic, geotechnical, hydrologic, parcellary, etc.)<br>b. Design analyses (geometric, structural, seismic, hydro, etc.)<br>c. Drawings<br>d. Specifications<br>e. Bidding documents<br>f. Others | 60% | a. Extent and impact of errors/ inaccuracies/ deficiencies in DED surveys and plans, analyses, and outputs, based on DPWH review and validation*<br><br>b. Number of resubmissions of corrected DED<br>---<br>**See Notes on Phase 2 evaluation (page 10).* | 100%: Very Satisfactory – DED surveys and plans, analyses, and outputs required no/minor changes for clarity only. No major technical errors/inaccuracies/ deficiencies** that influenced quality of DED outputs.<br><br>85%: Satisfactory– 1-3 documented major errors/inaccuracies/ deficiencies.<br><br>70%: Fair– 4-6 documented major errors/inaccuracies/ deficiencies (e.g., | 100%: Very Satisfactory – No resubmission required.<br><br>85%: Satisfactory– One (1) resubmission required to correct the work.<br><br>70%: Fair– Two (2) resubmissions required to correct the work.<br><br>50%: Unsatisfactory– Three (3) or more resubmissions to correct the work. |

| Criteria | Weight | Indicators | Rating System | |
|---|---|---|---|---|
| | | | **Errors/ Inaccuracies/ Deficiencies (70%)** | **Resubmissions (30%)** |
| ---------- *Under this criterion, the IU shall specify the weight/ multiplier for each item (column 1.1) as indicated in the TOR. The weights may vary from one project to another.* | | | wrong BM or seismic coefficient).<br><br>50%: Unsatisfactory– More than 6 documented major errors/ inaccuracies/ deficiencies<br><br>---------- ** *See Notes on major errors/inaccuracies/ deficiencies (page 11).*<br><br>---------- *3 minor errors shall be equivalent to 1 major error.* | |
| 1.2 Cost-effectiveness of DED | 20% | a. Extent of DPWH comments on Consultant's evaluation of alternative schemes, using VE and other relevant criteria, leading to recommenda-tion of most cost-effective alternative.<br><br>b. No. of revisions/ resubmissions made. | 100%: Very Satisfactory – Evaluation adequately used VE and other relevant criteria, and recommended most cost-effective alternative readily accepted by DPWH with no/minor adverse comments.<br><br>85%: Satisfactory – Evaluation used relevant criteria, and recommended alternative accepted by DPWH, with minor comments by DPWH – with less than 10% cost savings identified by DPWH but missed by consultant (thru VE). | 100%: Very satisfactory – No resubmission required.<br><br>85%: Satisfactory – One (1) revision/ resubmission before being accepted by DPWH.<br><br>70%: Fair – Two (2) revisions/ resubmissions before being accepted by DPWH.<br><br>50%: Unsatisfactory – Three (3) or more revisions/ resubmissions before being accepted by DPWH. |

| Criteria | Weight | Indicators | Rating System | |
|---|---|---|---|---|
| | | | **Errors/ Inaccuracies/ Deficiencies (70%)** | **Resubmissions (30%)** |
| | | | 70%: Fair – Evaluation required substantive/major comments/ involvement by DPWH – with 10-20% cost savings identified by DPWH but missed by consultant (thru VE).<br><br>50%: Unsatisfactory – Evaluation required extensive involvement by DPWH and major reassessment with more than 20% cost savings identified by DPWH but missed by consultant (thru VE).<br><br>----------<br>Variance (%) = [(Budgetary Cost – Approved Cost per Alternative Scheme) ÷ Budgetary Cost] x 100 | |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 1.3 Tenure of Consultant's key personnel (Upon award of contract) | 20% | Incidence of replacement of key personnel (weighted according to their roles) with or without valid reasons | 100%: Very satisfactory – No replacement of key personnel over the duration of the Consulting services.<br><br>85%: Satisfactory – Replacement of less than 20% of the number of key personnel.<br><br>70%: Fair – Replacement of 20-30% of the number of key personnel.<br><br>50%: Unsatisfactory – Replacement of project manager and/or more than 30% of the number of key personnel. |

| | | | |
|---|---|---|---|
| | | | ---------- Replacement (%) = (No. of Replacement ÷ Total Number of Key Personnel) x 100 |

## 2. Cost: 20 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 2.1 Completeness and accuracy of DED cost estimates in the DUPA vs. TOR cost items/ requirements | 40% | a. Extent of coverage of DED cost elements: materials, labor, equipment, indirect costs (cost of money, insurance, bonds, contingencies, profit, taxes, etc.), ROW, etc. as reflected in the TOR (See DO 197, series of 2016, for factors).<br><br>b. Adequacy of Detailed Unit Price Analysis (DUPA) | 100%: Very Satisfactory – Omissions of cost items and errors/deficiencies in DUPA, affecting less than 5% of total cost.<br><br>85%: Satisfactory – Omissions of cost items and errors/deficiencies in DUPA, affecting 5-10% of total cost.<br><br>70%: Fair – Omissions of some cost items and errors/deficiencies in DUPA, affecting more than 10% up to 15% of total cost.<br><br>50%: Unsatisfactory – Omissions of cost items and errors/deficiencies in DUPA, affecting more than 15% of total cost.<br><br>----------<br>Variance (%) = [(Consultant's Total Cost Estimate–Sum of TOR Cost Items) ÷ Sum of TOR Cost Items] x 100<br><br>Sign convention:<br>(+): If Consultant's cost estimate is above the total approved cost<br>(-): If Consultant's cost estimate is below the total approved cost<br><br>*Note: Variance shall be based on cost elements that are:*<br>*a. excluded by the Consultant*<br>*b. included by the Consultant which exceed the requirements of the TOR and disapproved by DPWH.*<br>*c. understated/ overstated by the Consultant* |
| 2.2 Comparison of DED cost estimates with accepted benchmarks. | 60% | Extent of variance of DED cost estimates vs. DPWH/industry benchmarks/ standards (e.g., cost/km of road, cost/lineal m of bridge, cost/sq m of bldg.), and vs. | 100%: Very Satisfactory – Total variance within 5%.<br><br>85%: Satisfactory – Total variance within 5-10%.<br><br>70%: Fair – Total variance within 10-15%, and/or variance for some major items more than 15%. |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| | | required +/-5-10% accuracy - adjusted for special characteristics. | 50%: Unsatisfactory – Total variance more than 15%, and/or variance for major items more than 20%.<br><br>---<br>Variance (%) = [(Consultant's Cost Estimate – Standard Cost) ÷ Standard Cost] x 100<br><br>Sign convention:<br>(+): If Consultant's cost estimate is above the standard cost<br>(-): If Consultant's cost estimate is below the standard cost<br><br>*Note: Use existing data per region / province. Cost elements without available benchmarks shall not be evaluated.* |

## 3. Schedule: 20 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 3.1 Adherence to schedule of accepted DED deliverables | 100% | Extent of actual time slippage (delay) vs. original/approved schedule for deliverables, due to the Consultant's fault. | 100%: Very Satisfactory – DED deliverables completed and submitted ahead of or on schedule.<br><br>85%: Satisfactory – Slippage of less than 10% of original delivery period, due to Consultant's fault.<br><br>70%: Fair – Slippage of 10-15%, due to the Consultant's fault.<br><br>50%: Unsatisfactory – Slippage of more than 15%, due to the Consultant's fault.<br><br>---<br>Time Slippage (%) = [(Contract Schedule – Actual Schedule) ÷ Contract Schedule] x 100 |

**NOTES:**

***Phase 2 Evaluation**
If the IU, together with the CS Consultant, finds additional errors and discrepancies in the DED output during the CS phase (Phase 2), this criteria (Indicator A of 1.1) shall also be used to compute the Phase 2 rating of the DED Consultant. The same rating in Phase 1 shall be applied for other criteria.

****Major DED Errors/Deficiencies:**

- Use of table survey instead of actual field survey.
- Use of wrong benchmarks, coordinates, topographical data, mean sea level elevation.
- Errors in geotechnical investigation, such as inadequate spacing and depth of boreholes, lack of understanding of subsurface condition.
- Wrong design analysis on the main frame that will affect structural integrity of the project (e.g., seismic coefficient, design flood return period, maximum experienced flood elevation).
- Inadequate design data used in structural analysis (e.g., thickness, materials).
- Inappropriate value engineering to determine the most cost-effective design.
- Non-consideration of socio-political issues – e.g., historical landmarks, densely populated area - resulting in non-implementation or major realignment/revision of project.
- *Other major DED errors/deficiencies, as may be added by BOD, depending on the project.*

*DED errors/deficiencies not stated above are considered minor DED errors/deficiencies.*

## C. CONSTRUCTION SUPERVISION (CS)

| Criteria | Points |
|---|---|
| **1. Quality** | **60** |
| 1.1 Consultant's efficiency in ensuring contractor's compliance of its construction work with the approved DED, particularly plans and specifications | 30 |
| 1.2 Quality of Consultant's const. supervision (CS) system | 24 |
| 1.3 Tenure of Consultant's key personnel | 6 |
| **2. Cost** | **20** |
| 2.1 Consultant's efficiency in controlling cost overruns | 20 |
| **3. Schedule** | **20** |
| 3.1 Consultant's efficiency in ensuring contractor's adherence to approved construction schedule | 8 |
| 3.2 Consultant's prudent evaluation of proposed contract time extensions | 6 |
| 3.3 Consultant's timeliness in submitting required reports and documents | 6 |
| **Total** | **100** |

### 1. Quality: 60 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 1.1 Consultant's efficiency in ensuring contractor's compliance of its construction work with the approved DED, particularly plans and specifications***** <br><br> ---------- <br> ***** *See Notes on Phase 2 evaluation (page 16).* | 50% | Incidence of construction defects/ deficiencies****** stated in the Statement of Works Accomplished (SWA) recommended by Consultant for payment, but found by DPWH to be not in accordance with the approved plans and specifications. <br><br> ---------- <br> ****** *See Notes on major construction defects (page 16).* | 100%: Very Satisfactory – All workmanship stated in the SWA, carried out by the Contractor, and recommended by the Consultant for payment are in accordance with the duly approved plans and specifications. Noted defects/deficiencies (if any) are within the acceptable tolerance set and prescribed in the monitoring/control matrix. *(Please refer to Annex E for Flood Control Projects)* <br><br> 85%: Satisfactory – SWA recommended by Consultant for payment is found by DPWH to have defects/deficiencies in major work items requiring rectification works and/or costing 10% and below of the aggregate works accomplished. <br><br> 70%: Fair – SWA recommended by Consultant for payment is found by DPWH to have defects/deficiencies in major work items requiring |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| | | | rectification works and/or costing 20% and below of the aggregate works accomplished.<br><br>50%: Unsatisfactory – SWA recommended by Consultant for payment is found by DPWH to have defects/deficiencies in major work items requiring reconstruction and/or costing above 20% of the aggregate works accomplished.<br><br>---<br>*Three (3) minor errors shall be equivalent to one (1) major error.* |
| 1.2 Quality of Consultant's const. supervision (CS) system:<br>a. Organization of key personnel<br>b. Control of Quality of Workmanship (Inspection and supervision)<br>c. Control of Quality of Materials (Sampling and testing)<br>d. Documentation [Reporting and records management (e.g., log book, test results, site instructions, progress reports, etc.)]<br>e. Other Management Consideration<br>• Construction Health and Safety Management<br>• Traffic Management<br>• Environmental Management | 40% | Incidence of deficiencies in the Consultant's CS system***, covering the five (5) criteria (column 1).<br><br>---<br>****See Notes on major CS system deficiencies (page 18).* | 100%: Very Satisfactory – All the five (5) criteria are satisfactorily complied.<br><br>85%: Satisfactory – Has incurred 1-2 cases of major infractions/deficiencies in any of the criteria.<br><br>70%: Fair – Has incurred 3-4 cases of infractions/deficiencies in any of the criteria.<br><br>50%: Unsatisfactory – Has incurred 5 or more cases of infractions/deficiencies in any of the criteria.<br><br>---<br>*Three (3) minor errors shall be equivalent to one (1) major error.* |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 1.3 Tenure of Consultant's key personnel (Upon award of contract) | 10% | Incidence of replacement of key personnel (weighted according to their roles) with or without valid reasons. | 100%: Very satisfactory – No replacement of key personnel over the duration of Consulting services.<br><br>85%: Satisfactory – Replacement of less than 20% of the number of key personnel.<br><br>70%: Fair – Replacement of 20% - 30% of the number of key personnel.<br><br>50%: Unsatisfactory – Replacement of Project Manager and/or more than 30% of the number of key personnel. |

## 2. Cost: 20 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 2.1 Consultant's efficiency in controlling cost overruns. | 100% | Incidence of variation orders (VOs) with cost overruns, recommended by Consultant, but disapproved/reduced by DPWH, except VOs initiated itself by DPWH and VOs initiated due to fortuitous events. | 100%: Very Satisfactory – Each VO recommended by Consultant are approved by DPWH.<br><br>85%: Satisfactory – Each VO recommended by Consultant is reduced by less than 5% by DPWH.<br><br>70%: Fair – Each VO recommended by Consultant is reduced by 5% up to 10% by DPWH.<br><br>50%: Unsatisfactory –Each VO recommended by Consultant is disapproved or reduced by more than 10% by DPWH. |

## 3. Schedule: 20 Points

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| 3.1 Consultant's efficiency in ensuring contractor's adherence to approved construction schedule. | 40% | Extent of slippage of planned accomplishment vs. actual accomplishment. | 100%: Very Satisfactory – Work accomplishments are completed ahead of, or on schedule (+, or no slippage).<br><br>85%: Satisfactory – Has incurred 10% and below negative slippage due to Consultant's laxity/fault. |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| | | | 70%: Fair – Has incurred above 10% up to 15% negative slippage due to Consultant's laxity/fault.<br><br>50%: Unsatisfactory – Has incurred above 15% negative slippage due to Consultant's laxity/fault. |
| 3.2 Consultant's prudent evaluation of proposed contract time extensions | 30% | Incidence of contract time extensions recommended by Consultant but disapproved/reduced by DPWH – except time extensions for VOs due to faulty DED, due to fortuitous events or for VOs initiated by DPWH. | 100%: Very Satisfactory – All proposed contract time extension recommended by Consultants are approved by DPWH<br><br>85%: Satisfactory –The proposed contract time extension recommended by Consultant is reduced by less than 5% by DPWH.<br><br>70%: Fair –The proposed contract time extension recommended by Consultant is reduced by 5% up to 10% by DPWH.<br><br>50%: Unsatisfactory –The proposed contract time extension recommended by Consultant is disapproved/reduced by more than 10% by DPWH. |
| 3.3 Consultant's timeliness in submitting required reports and documents | 30% | Extent of Consultant's compliance with prescribed schedule to submit project reports and other documents, e.g.:<br>a. As-staked plans<br>b. Progress reports<br>c. Request for Payment of Materials on Hand<br>d. Material Test results/report<br>e. Site instructions<br>f. Progress billings<br>g. As-built plans<br>h. Recommendations on VOs and time extensions | 100%: Very Satisfactory – All the required reports/documents are satisfactorily prepared and submitted within the prescribed schedule<br><br>85%: Satisfactory – All the required reports/documents are satisfactorily prepared and submitted within 1-2 days behind the prescribed schedule<br><br>70%: Fair – All the required reports/documents are satisfactorily prepared and submitted 3-4 days behind the prescribed schedule<br><br>50%: Unsatisfactory – All the required reports/documents are satisfactorily prepared and submitted above 5 days behind the prescribed schedule, and/or |

| Criteria | Weight | Indicators | Rating System |
|---|---|---|---|
| | | | Incomplete submission of reports/documents |

**NOTES:**

***Phase 2 Evaluation**
If the IU and the ConsPES Team find construction defects/deficiencies during the Defects Liability Period (Phase 2), this criteria shall be used to compute the Phase 2 rating of the CS Consultant. The same rating in Phase 1 shall be applied for other criteria.

****Major Construction Defects:**

**General:**
- Structural failure due to faulty construction.
- Inappropriate size and type of materials used for critical components of structures vs. plans and specifications.[1]
- Inappropriate dimension of structures, such as insufficient thickness, width and/or depth.[1]
- Inadequate concrete strength based on coring.[1]

[1]***Not included in Phase 2 evaluation***

**Roads and Bridges:**
- Pavement or base failure, major cracks due to insufficient compaction, inadequate concrete mix, especially on structural and load bearing components (e.g., girders, columns, piles).
- Major scaling and faulting in PCCP.
- Asphalt raveling, shoving and corrugation.
- Scouring on bridge abutment.
- Erosion of earth materials from the top due to non-compliance with cut slope requirement.
- Settlement of bridge approaches

a. Clearing and Grubbing
   - No/insufficient clearing and grubbing done within the limits of the project
   - Damage to structure designated to remain
   - Improper disposal of materials/debris from the clearing and grubbing operations
   - Insufficient provision of the required equipment for clearing and grubbing as per POW
   - Undisposed materials from excavation

b. Embankment
   - Eroded/scoured embankment materials
   - Embankment materials not spread and compacted in layers
   - Deficient width/length/thickness of embankment
   - Loosed/uncompacted in-placed embankment
   - Presence of oversized aggregates/rubberized materials on the in-placed selected borrow for topping

c. Subgrade Preparation
   - Eroded/scoured subgrade
   - Insufficient compaction on subgrade preparation
   - Insufficient cut below subgrade level
   - No/insufficient vertical control during subgrade preparation
   - Insufficient provision of the required equipment for subgrade preparation as per POW

d. Aggregate Subbase Course
   - Compaction of prepared aggregate subbase not done to full width
   - Eroded/scoured/damaged aggregate subbase course shoulder
   - Incorrect slope of aggregate subbase course shoulder
   - Unsuitable aggregate subbase course material on the stockpile
   - Deficient width/thickness of aggregate subbase course
   - Irregular/uneven surface of aggregate subbase course materials

e. Aggregate Base Course
   - Compaction of prepared aggregate base not done to full width
   - Eroded/scoured/damaged aggregate base course shoulder
   - Incorrect slope of aggregate base course shoulder
   - Insufficient compaction of aggregate base course materials
   - Oversized aggregates on the in-placed aggregate base course
   - Deficient width/thickness of aggregate base course
   - Irregular/uneven surface of aggregate base course materials

f. Pavement
   - Chipped-off edges on the completed concrete pavement
   - Concrete beam samples not meeting the minimum flexural strength requirements
   - Concrete mix containing too much water, based on visual inspection and slump test
   - Concrete vibrator not being used during pouring of concrete
   - Honeycombs on the exposed side of the concrete pavement
   - Insufficient number of dowel bars in the on-going construction of the concrete pavement
   - Undersized dowel bars noted in the on-going concrete pavement which does not conform as per approved plan
   - Incorrect spacing of dowel bars in the on-going concrete pavement

**Flood Control:**

- Any/all deviation(s) determined to be beyond the tolerance set and prescribed in the monitoring/control matrix of the Manual on Construction Supervision of Flood Control Projects, shall be considered as major construction defects.
- Hairline cracks/ surface defects
- Stagnant water (for drainage)
- Erosion of soil materials (earthworks)
- Non-provision of mortar collar for pipes
- Scouring of riprap
- Non-compliance with standard requirements for the type/class of boulders (for dikes)
- Insufficient mortar for grouted riprap
- Severe cracks and settlement of structures
- Difficulty of opening and closing the gate, due to structural strain and deformation
- Non-compliance to designed slope
- Major cracks and failure of concrete structure like reinforced concrete canals, box culverts and revetment due to inadequate design mix, insufficient compaction of foundation (e.g. flood occurrence with magnitude below the designed flood level)
- Incurred damages to, and or failure of structure, due to fortuitous events (e.g.: flood occurrence with a magnitude below the designed safety level) is considered major construction defects.[1]

[1] ***Not included in Phase 2 evaluation***

**Buildings and Other Infrastructure:**

- Major cracks especially on structural and load bearing components (e.g., girders, columns, piles).

– Other major construction defects, as may be added by BOC and IO, depending on the project.

*Defects not stated above are considered minor construction defects.*

*****Major CS System Deficiencies:**

a. Organization of key personnel
   – Mismatch of personnel assigned to supervise the project vs. requirements.
     • Lack of experience
     • Frequent absence from project site.

b. Control of Work (Inspection and site instructions)
   – Mismatch of personnel assigned to supervise the project vs. requirements.
     • Lack of experience
     • Frequent absence from project site.
   – Inadequate logistical resources for supervision (e.g., lack of testing equipment and service vehicles).
   – Poor construction records keeping, e.g., test results, defects noted and corrected.
   – Failure to issue or enforce site instructions
   – Laxity in enforcing health, safety, environmental requirements, and traffic management.

c. Control of Quality of Materials (Sampling and testing)
   – Mismatch of personnel assigned to supervise the project vs. requirements.
     • No accreditation
     • Lack of experience
     • Frequent absence from project site.
   – Inadequate logistical resources for testing of materials (e.g., lack of testing equipment and service vehicles).
   – Poor construction records keeping, e.g., test results, defects noted and corrected.

d. Documentation [Reporting and records management (e.g., log book, test results, site instructions, progress reports, etc.)]
   – Frequent absence from project site.
   – Poor construction records keeping, e.g., test results, defects noted and corrected.

e. Other Management Consideration
   • Construction Safety Management
   • Traffic Management
   • Environmental Management

   – Inefficiency of personnel assigned to supervise the project vs. requirements.
     • Lack of experience
     • Frequent absence from project site.
   – Inadequate logistical resources for supervision (e.g., lack of testing equipment and service vehicles).
   – Poor construction records keeping, e.g., test results, defects noted and corrected.
   – Laxity in enforcing health, safety, environmental requirements, and traffic management.

– Other major CS system deficiencies, as may be added by BOC and IO, depending on the project.

*CS system deficiencies not stated above are considered minor CS system deficiencies.*

**ANNEX B**

## SUMMARY OF FINDINGS

CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

**PROJECT TYPE:** Feasiblity Study (FS)

**NAME OF PROJECT:**

**CONSULTANT/S:**

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **A.** | **REPORTS** | | | | | |
| **1** | **Inception Report** | | | | | |
| | Inception Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Inception Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **2** | **Capacity Improvement Study Report** | | | | | |
| | Capacity Improvement Study Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Capacity Improvement Study Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **3** | **Traffic Survey and Analysis Report** | | | | | |
| | Traffic Survey and Analysis Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Traffic Survey and Analysis Report No. __ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **4** | **Topographic Survey Report** | | | | | |
| | Topographic Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Topographic Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **5** | **Geotechnical and Geological Survey Report** | | | | | |
| | Geotechnical and Geological Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Geotechnical and Geological Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **6** | **Hydrological Survey Report** | | | | | |
| | Hydrological Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Hydrological Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **7** | **Utilities Survey Report** | | | | | |
| | Utilities Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Utilities Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **8** | **Parcellary Survey Report** | | | | | |
| | Parcellary Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| | Parcellary Survey Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **9** | **Highway Design Report** | | | | | |
| | Highway Design Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Highway Design Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **10** | **Bridge Design Report** | | | | | |
| | Bridge Design Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Bridge Design Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **11** | **Drainage Design Report** | | | | | |
| | Drainage Design Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Drainage Design Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **12** | **Cost Estimate** | | | | | |
| | Cost Estimate No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Cost Estimate No. __ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **13** | **Implementation Plan** | | | | | |
| | Implementation Plan<br>No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Implementation Plan<br>No. __ | | | 1.<br>2. | 1.<br>2. | |
| **14** | **Environmental and Social Impact Assessment** | | | | | |
| | Environmental and Social Impact Assessment<br>No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Environmental and Social Impact Assessment<br>No. __ | | | 1.<br>2. | 1.<br>2. | |
| **15** | **Resettlement Action Plan (RAP)** | | | | | |
| | Resettlement Action Plan (RAP)<br>No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Resettlement Action Plan (RAP)<br>No. __ | | | 1.<br>2. | 1.<br>2. | |
| **16** | **Gender and Development (GAD) Plan No. __** | | | | | |
| | Gender and Development (GAD) Plan No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Gender and Development (GAD) Plan No. __ | | | 1.<br>2. | 1.<br>2. | |
| **17** | **Interim Report** | | | | | |
| | Interim Report No. __ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| | Interim Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **18** | **Draft Final Report** | | | | | |
| | Draft Final Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Draft Final Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **19** | **Final Report** | | | | | |
| | Final Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Final Report No. __ | | | 1.<br>2. | 1.<br>2. | |
| **20** | **Drawing Volume** | | | | | |
| | Drawing Volume No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Drawing Volume No. __ | | | 1.<br>2. | 1.<br>2. | |
| **21** | **Appendices** | | | | | |
| | Appendices No. __ | | | 1.<br>2. | 1.<br>2. | |
| | Appendices No. __ | | | 1.<br>2. | 1.<br>2. | |
| **22** | **Other Ancillary Works** | | | | | |

Prepared by:

(Name)
Division Chief

Approved by:

(Name)
Director, (Specialized Office)

**ANNEX B**

## SUMMARY OF FINDINGS

CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

**PROJECT TYPE:** Detailed Engineering Design (DED)

**NAME OF PROJECT:**

**CONSULTANT/S:**

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **A.** | **REPORTS** | | | | | |
| **A.1** | **Inception Report** | | | | | |
| | Inception Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Inception Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.2** | **Value Engineering Report** | | | | | |
| | Value Engineering Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Value Engineering Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.3** | **Road Safety Audit Report (Preliminary)** | | | | | |
| | Road Safety Audit Report (Preliminary) No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Road Safety Audit Report (Preliminary) No.___ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **A.4** | **Road Safety Audit Report (Final)** | | | | | |
| | Road Safety Audit Report (Final) No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Road Safety Audit Report (Final) No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.5** | **Geotechnical Investigation Report** | | | | | |
| | Geotechnical Investigation Report No___ | | | 1.<br>2. | 1.<br>2. | |
| | Geotechnical Investigation Report No___ | | | 1.<br>2. | 1.<br>2. | |
| **A.6** | **Preliminary Draft of Tender Documents** | | | | | |
| | Preliminary Draft of Tender Documents No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Preliminary Draft of Tender Documents No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.7** | **Tender Documents (Final Form)** | | | | | |
| | Tender Documents (Final Form) No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Tender Documents (Final Form) No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.8** | **Monthly Progress Report** | | | | | |
| | Monthly Progress Report No.___ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| | Monthly Progress Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.9** | **Resettlement Action Plan Report (Final Report)** | | | | | |
| | Resettlement Action Plan Report (Final Report) No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Resettlement Action Plan Report (Final Report) No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.10** | **Utility Relocation Plans** | | | | | |
| | Utility Relocation Plans No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Utility Relocation Plans No.___ | | | 1.<br>2. | 1.<br>2. | |
| **A.11** | **Other Ancillary Works** | | | | | |
| **B.** | **Design** | | | | | |
| **B.1** | **Hydrologic / Hydraulic Design Report** | | | | | |
| | Hydrologic / Hydraulic Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Hydrologic / Hydraulic Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **B.2** | **Highway/Geometric Design and Calculation Report** | | | | | |
| | Highway/Geometric Design and Calculation Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Highway/Geometric Design and Calculation Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.3** | **Study of Traffic Impact during Construction** | | | | | |
| | Study of Traffic Impact during Construction No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Study of Traffic Impact during Construction No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.4** | **Quantity Calculations and Price Analysis** | | | | | |
| | Quantity Calculations and Price Analysis No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Quantity Calculations and Price Analysis No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.5** | **Pavement Evaluation and Design Calculation Report** | | | | | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| | Pavement Evaluation and Design Calculation Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Pavement Evaluation and Design Calculation Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.6** | **Bridge Evaluation and Design Report** | | | | | |
| | Bridge Evaluation and Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Bridge Evaluation and Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.7** | **Structural Analyses and Design Calculation** | | | | | |
| | Structural Analyses and Design Calculation No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Structural Analyses and Design Calculation No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.8** | **Cost Estimate** | | | | | |
| | Cost Estimate No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Cost Estimate No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.9** | **Draft Final Design Report** | | | | | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| | Draft Final Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Draft Final Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.10** | **Final Design Report** | | | | | |
| | Final Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Final Design Report No.___ | | | 1.<br>2. | 1.<br>2. | |
| **B.11** | **Other Ancillary Works** | | | | | |
| **C.** | **Drawings** | | | | | |
| **C.1** | **Detailed Preliminary Concept Design** | | | | | |
| | Detailed Preliminary Concept Design No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Detailed Preliminary Concept Design No.___ | | | 1.<br>2. | 1.<br>2. | |
| **C.2** | **Topographic Plans** | | | | | |
| | Topographic Plans No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Topographic Plans No.___ | | | 1.<br>2. | 1.<br>2. | |

| NO. | DELIVERABLES | DATE RECEIVED BY THE SPECIALIZED OFFICE | DATE RETURNED BY THE SPECIALIZED OFFICE | FINDINGS BY THE SPECIALIZED OFFICE | | REMARKS / STATUS |
|---|---|---|---|---|---|---|
| | | | | MAJOR ERROR / INACCURACIES / DEFICIENCIES | MINOR ERROR / INACCURACIES / DEFICIENCIES | |
| **C.3** | **Draft Final Design Drawings** | | | | | |
| | Draft Final Design Drawings No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Draft Final Design Drawings No.___ | | | 1.<br>2. | 1.<br>2. | |
| **C.4** | **Final Design Drawings** | | | | | |
| | Final Design Drawings No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Final Design Drawings No.___ | | | 1.<br>2. | 1.<br>2. | |
| **C.5** | **Right-of-Way Plans** | | | | | |
| | Right-of-Way Plans No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Right-of-Way Plans No.___ | | | 1.<br>2. | 1.<br>2. | |
| **C.6** | **Parcellary and Subdivision Plans** | | | | | |
| | Parcellary and Subdivision Plans No.___ | | | 1.<br>2. | 1.<br>2. | |
| | Parcellary and Subdivision Plans No.___ | | | 1.<br>2. | 1.<br>2. | |

Prepared by:

(Name)
Division Chief

Approved by:

(Name)
Director, (Specialized Office)

**ANNEX C**

**INTERMEDIATE EVALUATION REPORT (IER) No. _____**
CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

## I. Contract / Project Data

| | | | |
|---|---|---|---|
| Contract No.: | | Project No.: | |
| Project Type.: | **Feasibility Study (FS)** | | |
| Project Name: | | | |
| Consultant: | | | |
| Address: | | | |
| Telephone No.: | | Fax No.: | |
| Project Manager: | | | |
| Telephone No.: | | Email Address: | |
| Contract Award Amount: | | Date of Award: | |
| Project Cost: | | Completion Date: | |
| Evaluation Rating: | | | |

**II. Performance Evaluation Summary**

**1. QUALITY – 50**

<table>
<tr><td colspan="2">CRITERIA</td><td colspan="3">INDICATOR</td></tr>
<tr><td rowspan="2">1.1 Adequacy and Accuracy of FS Assumptions, Data, Analyses and Outputs vs. Terms of Reference (TOR) covering the following:</td><td colspan="2">Extent and Impact of Errors/ Inaccuracies/ Deficiencies in FS data, analyses and outputs based on DPWH Review and Validation</td><td colspan="2">Number of Resubmissions of Corrected FS</td></tr>
<tr><td>TOTAL Equivalent MAJOR ERRORS</td><td>RATING</td><td>Quantity</td><td>RATING</td></tr>
<tr><td>A. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td>B. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td>C. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Average Rating for Errors</td><td colspan="2"></td></tr>
<tr><td colspan="3">Average Rating for Resubmissions</td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating = (Ave. Rating for Errors + Ave. Rating for Resubmissions) ÷ 2</td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating x 40%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td rowspan="3">1.2 Cost-Effectiveness of FS recommendation, including PED</td><td colspan="2">Extent of DPWH Comments on Consultant's Evaluation of Alternatives</td><td colspan="2">Number of Revisions Made</td></tr>
<tr><td>Total No. of Adverse Comments</td><td>RATING</td><td>Quantity</td><td>RATING</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Rating x 40%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td rowspan="3">1.3 Tenure of Consultant's Key Personnel</td><td colspan="4">Incidence of Replacement of Key Personnel (Weighted According to their Roles) With or Without Valid Reasons</td></tr>
<tr><td colspan="2">Number of REPLACEMENT</td><td colspan="2">RATING</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating x 20%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td colspan="3">Rating (QUALITY) = Item 1.1(40%) + Item 1.2(40%) + Item 1.3(20%)</td><td colspan="2"></td></tr>
<tr><td colspan="3">TOTAL SCORE FOR QUALITY = Rating(QUALITY) x 0.50</td><td colspan="2"></td></tr>
</table>

**2. COST OF OUTPUT – 20**

| CRITERIA | INDICATOR | |
|---|---|---|
| **2.1 Completeness of FS/PED Cost Estimates vs Terms of Reference (TOR) cost items/requirements** | **Extent of coverage of FS/PED cost elements: materials, labor, equipment, indirect costs (cost of money, insurance, contingencies, taxes, etc.), ROW, etc., as reflected in the TOR (See DO 197, series of 2016 for factors. Level of accuracy is ± 20%).** | |
| | **Percentage(%) of VARIANCE** | **RATING** |
| | | |
| **Rating x 40%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **2.2 Comparison of FS/PED Cost Estimates with Accepted Benchmarks** | **Extent of variance of FS/PED cost estimates vs. accepted DPWH/ industry/ benchmarks/ standards (e.g., cost per km of road, cost/lineal meter of bridge, cost/sq. m of bldg.) and vs. required +/-20% accuracy - adjusted for special characteristics.** | |
| | **Percentage(%) of VARIANCE** | **RATING** |
| | | |
| **Rating x 60%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (COST OF OUTPUT) = Item 2.1(40%) + Item 2.2(60%)** | | |
| **TOTAL SCORE FOR COST = Rating(COST OF OUTPUT) x 0.20** | | |

**3. SCHEDULE – 30**

| **3.1 Adherence to Schedule of Accepted FS Deliverables** | **Extent of Actual Time Slippage (Delay) vs. Original/Approved Schedule for FS Deliverables, due to Consultant's fault** | | | |
|---|---|---|---|---|
| | **Date of Submission (Consultant)** | **Date of Submission (Indicated in TOR)** | **Percentage(%) of SLIPPAGE** | **RATING** |
| *A. [Name of deliverable]* | | | | |
| *B. [Name of deliverable]* | | | | |
| *C. [Name of deliverable]* | | | | |
| **Rating** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **Rating (SCHEDULE)** | | | | |
| **TOTAL SCORE FOR SCHEDULE = Rating(SCHEDULE) x 0.30** | | | | |

| |
|---|
| **Evaluation Rating = QUALITY(50%) + COST(20%) + SCHEDULE(30%)** |

**III. Recommendations**

| |
|---|
| |

Evaluated by:

Designation

Designation

Designation

Noted by:

Designation

**ANNEX C**

**INTERMEDIATE EVALUATION REPORT (IER) No. _____**
CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

## I. Contract / Project Data

| | | | |
|---|---|---|---|
| Contract No.: | | Project No.: | |
| Project Type.: | **Detailed Engineering Design (DED)** | | |
| Project Name: | | | |
| Consultant: | | | |
| Address: | | | |
| Telephone No.: | | Fax No.: | |
| Project Manager: | | | |
| Telephone No.: | | Email Address: | |
| Contract Award Amount: | | Date of Award: | |
| Project Cost: | | Completion Date: | |
| Evaluation Rating: | | | |

## II. Performance Evaluation Summary

**1. QUALITY – 60**

<table>
<tr><th>CRITERIA</th><th colspan="4">INDICATOR</th></tr>
<tr><td rowspan="2">1.1 Adequacy and accuracy of DED surveys and plans, analyses, and outputs vs. Terms of Reference (TOR) covering the following:</td><td colspan="2">Extent and impact of errors/ inaccuracies/ deficiencies in DED surveys and plans, analyses, and outputs, based on DPWH review and validation</td><td colspan="2">Number of Resubmissions of Corrected DED</td></tr>
<tr><td>TOTAL Equivalent MAJOR ERRORS</td><td>RATINGS</td><td>Quantity</td><td>RATINGS</td></tr>
<tr><td>A. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td>B. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td>C. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Average Rating for Errors</td><td colspan="2"></td></tr>
<tr><td colspan="3">Average Rating for Resubmissions</td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating = (Ave. Rating for Errors + Ave. Rating for Resubmissions) ÷ 2</td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating x 60%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td rowspan="3">1.2 Cost-Effectiveness of DED</td><td colspan="2">Extent of DPWH Comments on Consultant's Evaluation of Alternatives, based on Value Engineering (VE) and Other Relevant Criteria Leading to Recommended Most Cost-Effective Scheme</td><td colspan="2">Number of Revisions Made</td></tr>
<tr><td>Deficiency</td><td>RATINGS</td><td>Quantity</td><td>RATINGS</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Rating x 20%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td rowspan="3">1.3 Tenure of Consultant's Key Personnel</td><td colspan="4">Incidence of Replacement of Key Personnel (Weighted According to their Roles) With or Without Valid Reasons</td></tr>
<tr><td colspan="2">Number of REPLACEMENT</td><td colspan="2">RATINGS</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating x 20%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td colspan="3">Rating (QUALITY) = Item 1.1(60%) + Item 1.2(20%) + Item 1.3(20%)</td><td colspan="2"></td></tr>
<tr><td colspan="3">TOTAL SCORE FOR QUALITY = Rating(QUALITY) x 0.60</td><td colspan="2"></td></tr>
</table>

**2. COST OF OUTPUT – 20**

| CRITERIA | INDICATOR | |
|---|---|---|
| **2.1 Completeness of DED Cost Estimates in the DUPA vs TOR cost items/ requirements** | **Extent of coverage of DED cost elements: materials, labor, equipment, indirect costs (cost of money, insurance, bonds, contingencies, profit, taxes, etc.), ROW, etc. as reflected in the TOR (See DO 197, series of 2016, for factors).** | |
| | **Percentage(%) of VARIANCE** | **RATINGS** |
| | | |
| **Rating x 40%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **2.2 Comparison of DED Cost Estimates with Accepted Benchmarks** | **Extent of Variance of DED Cost Estimates vs DPWH Industry Benchmarks/Standards (e.g., cost/km of road, cost/lineal meter of bridge, cost/sq meter of bldg.) and vs. Required (+/-)5-10% Accuracy Adjusted for Special Characteristics** | |
| | **Percentage(%) of VARIANCE** | **RATINGS** |
| | | |
| **Rating x 60%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (COST OF OUTPUT) = Item 2.1(40%) + Item 2.2(60%)** | | |
| **TOTAL SCORE FOR COST = Rating(COST OF OUTPUT) x 0.20** | | |

**3. SCHEDULE – 20**

| | | | | |
|---|---|---|---|---|
| **3.1 Adherence to Schedule of Accepted DED Deliverables** | **Extent of Actual Time Slippage (Delay) vs. Original/Approved Schedule for DED Deliverables, due to Consultant's fault** | | | |
| | **Date of Submission (Consultant)** | **Date of Submission (Indicated in ToR)** | **Percentage(%) of SLIPPAGE** | **RATINGS** |
| *A. [Name of deliverable]* | | | | |
| *B. [Name of deliverable]* | | | | |
| *C. [Name of deliverable]* | | | | |
| **Rating** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **Rating (SCHEDULE)** | | | | |
| **TOTAL SCORE FOR SCHEDULE = Rating(SCHEDULE) x 0.20** | | | | |

| | |
|---|---|
| **Evaluation Rating = QUALITY(60%) + COST(20%) + SCHEDULE(20%)** | |

**III. Recommendations**

| |
|---|
| |

Evaluated by:

Designation

Designation

Designation

Noted by:

Designation

**ANNEX C**

**INTERMEDIATE EVALUATION REPORT (IER) No. _____**
CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

## I. Contract / Project Data

| | | | |
|---|---|---|---|
| Contract No.: | | Project No.: | |
| Project Type.: | **Construction Supervision (CS)** | | |
| Project Name: | | | |
| Consultant: | | | |
| Address: | | | |
| Telephone No.: | | Fax No.: | |
| Project Manager: | | | |
| Telephone No.: | | Email Address: | |
| Contract Award Amount: | | Date of Award: | |
| Project Cost: | | Completion Date: | |
| Evaluation Rating: | | | |

## II. Performance Evaluation Summary

**1. QUALITY – 60**

| CRITERIA | INDICATOR | |
|---|---|---|
| **1.1 Consultant's Efficiency in Ensuring Contractor's Compliance of it's Construction Work with the Approved DED, Particularly Plans and Specification** | **Incidence of construction defects/ deficiencies stated in the Statement of Works Accomplished (SWA) recommended by Consultant for payment, but found by DPWH to be not in accordance with the approved plans and specifications.** | |
| | **Deficiency** | **Ratings** |
| | | |
| **Rating x 50%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **1.2 Quality of Consultant's Construction Supervision (CS) System** | **Incidence of Deficiencies in the Consultant's CS System covering the Five(5) Criteria** | |
| | **No of Deficiencies** | **Ratings** |
| | | |
| **A. Organization of Key Personnel** | | |
| **B. Control of Quality of Workmanship** | | |
| **C. Control of Quality of Materials** | | |
| **D. Documentation** | | |
| **E. Other Management Considerations** | | |
| **Rating x 40%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **1.3 Tenure of Consultant's Key Personnel** | **Incidence of Replacement of Key Personnel (Weighted According to their Roles) With or Without Valid Reasons** | |
| | **Number of REPLACEMENT** | **RATINGS** |
| | | |
| **Rating x 10%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (QUALITY) = Item 1.1(50%) + Item 1.2(40%) + Item 1.3(10%)** | | |
| **TOTAL SCORE FOR QUALITY = Rating(QUALITY) x 0.60** | | |

**2. COST OF OUTPUT – 20**

| CRITERIA | INDICATOR | |
|---|---|---|
| **2.1 Consultant's Efficiency in Controlling Cost Overruns** | **Incidence of variation orders (VOs) with cost overruns, recommended by Consultant, but disapproved/reduced by DPWH, except VOs initiated itself by DPWH and VOs initiated due to fortuitous events.** | |
| | **Variation Order TOTAL VARIANCE** | **RATINGS** |
| | | |
| **Rating x 100%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (COST OF OUTPUT) = Item 2.1(100%)** | | |
| **TOTAL SCORE FOR COST = Rating(COST OF OUTPUT) x 0.20** | | |

**3. SCHEDULE – 20**

| CRITERIA | INDICATOR | | | |
|---|---|---|---|---|
| **3.1 Consultant's Efficiency in Ensuring Contractor's Adherence to Approved Construction Schedule.** | **Extent of slippage of planned accomplishment vs. actual accomplishment.** | | | |
| | **Date of PLANNED Accomplisment** | **Date of ACTUAL Accomplisment** | **Percentage(%) of SLIPPAGE** | **RATINGS** |
| ***Contractor's Activity Under the Auspices of CS Consultant*** | | | | |
| *A. [Activity A]* | | | | |
| *B. [Activity B]* | | | | |
| C. *[Activity C]* | | | | |
| **Rating x 40%** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **3.2 Consultant's Prudent Evaluation of Proposed Contract Time Extensions** | **Incidence of contract time extensions recommended by Consultant but disapproved/reduced by DPWH – except time extensions for VOs due to faulty DED, due to fortuitous events or for VOs initiated by DPWH.** | | | |
| | **No. of Proposed Contract Time Extension Recommended by Consultant but DISAPPROVED/REDUCED by DPWH** | | **RATINGS** | |
| | | | | |
| **Rating x 30%** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |

| **3.3 Consultant's Timeliness in Submitting Required Reports and Documents** | **Extent of Consultant's compliance with prescribed schedule to submit project reports and other documents** | | | |
|---|---|---|---|---|
| | **DATE OF SUBMISSION (Required by DPWH)** | **CONSULTANT ACTUAL DATE OF SUBMISSION** | **SLIPPAGE in No. of Days** | **RATINGS** |
| ***Deliverables*** | | | | |
| *A. [Activity A]* | | | | |
| *B. [Activity B]* | | | | |
| C. *[Activity C]* | | | | |
| **Rating x 30%** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **Rating (SCHEDULE) = Item 3.1(30%) + Item 3.2(40%) + Item 3.3(30%)** | | | | |
| **TOTAL SCORE FOR SCHEDULE = Rating(SCHEDULE) x 0.20** | | | | |

| | |
|---|---|
| **Evaluation Rating = QUALITY(60%) + COST(20%) + SCHEDULE(20%)** | |

**III. Recommendations**

| |
|---|
| |

Evaluated by:

Designation

Designation

Designation

Noted by:

Designation

**ANNEX D**

**FINAL EVALUATION REPORT (FER) - Phase _____**
CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

## I. Contract / Project Data

| | | | |
|---|---|---|---|
| Contract No.: | | Project No.: | |
| Project Type.: | **Feasibility Study (FS)** | | |
| Project Name: | | | |
| Consultant: | | | |
| Address: | | | |
| Telephone No.: | | Fax No.: | |
| Project Manager: | | | |
| Telephone No.: | | Email Address: | |
| Contract Award Amount: | | Date of Award: | |
| Project Cost: | | Completion Date: | |
| Evaluation Rating: | | | |

**II. Performance Evaluation Summary**

**1. QUALITY – 50**

<table>
<tr><td colspan="2">CRITERIA</td><td colspan="4">INDICATOR</td></tr>
<tr><td colspan="2" rowspan="2">1.1 <u>Adequacy and Accuracy of FS Assumptions, Data, Analyses and Outputs vs. Terms of Reference (TOR) covering the following:</u></td><td colspan="2">Extent and Impact of Errors/ Inaccuracies/ Deficiencies in FS data, analyses and outputs based on DPWH Review and Validation</td><td colspan="2">Number of Resubmissions of Corrected FS</td></tr>
<tr><td>TOTAL Equivalent MAJOR ERRORS</td><td>RATING</td><td>Quantity</td><td>RATING</td></tr>
<tr><td colspan="2">A. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">B. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">C. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="4">Average Rating for Errors</td><td colspan="2"></td></tr>
<tr><td colspan="4">Average Rating for Resubmissions</td><td colspan="2"></td></tr>
<tr><td colspan="4">Rating = (Ave. Rating for Errors + Ave. Rating for Resubmissions) ÷ 2</td><td colspan="2"></td></tr>
<tr><td colspan="4">Rating x 40%</td><td colspan="2"></td></tr>
<tr><td colspan="6">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td colspan="2" rowspan="3">1.2 <u>Cost-Effectiveness of FS recommendation, including PED</u></td><td colspan="2">Extent of DPWH Comments on Consultant's Evaluation of Alternatives</td><td colspan="2">Number of Revisions Made</td></tr>
<tr><td>Total No. of Adverse Comments</td><td>RATING</td><td>Quantity</td><td>RATING</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="4">Rating x 40%</td><td colspan="2"></td></tr>
<tr><td colspan="6">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td colspan="2" rowspan="3">1.3 <u>Tenure of Consultant's Key Personnel</u></td><td colspan="4">Incidence of Replacement of Key Personnel (Weighted According to their Roles) With or Without Valid Reasons</td></tr>
<tr><td colspan="2">Number of REPLACEMENT</td><td colspan="2">RATING</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td colspan="4">Rating x 20%</td><td colspan="2"></td></tr>
<tr><td colspan="6">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td colspan="4">Rating (QUALITY) = Item 1.1(40%) + Item 1.2(40%) + Item 1.3(20%)</td><td colspan="2"></td></tr>
<tr><td colspan="4">TOTAL SCORE FOR QUALITY = Rating(QUALITY) x 0.50</td><td colspan="2"></td></tr>
</table>

**2. COST OF OUTPUT – 20**

| CRITERIA | INDICATOR | |
|---|---|---|
| **2.1 Completeness of FS/PED Cost Estimates vs Terms of Reference (TOR) cost items/requirements** | **Extent of coverage of FS/PED cost elements: materials, labor, equipment, indirect costs (cost of money, insurance, contingencies, taxes, etc.), ROW, etc., as reflected in the TOR (See DO 197, series of 2016 for factors. Level of accuracy is ± 20%).** | |
| | **Percentage(%) of VARIANCE** | **RATING** |
| | | |
| **Rating x 40%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **2.2 Comparison of FS/PED Cost Estimates with Accepted Benchmarks** | **Extent of variance of FS/PED cost estimates vs. accepted DPWH/ industry/ benchmarks/ standards (e.g., cost per km of road, cost/lineal meter of bridge, cost/sq. m of bldg.) and vs. required +/-20% accuracy - adjusted for special characteristics.** | |
| | **Percentage(%) of VARIANCE** | **RATING** |
| | | |
| **Rating x 60%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (COST OF OUTPUT) = Item 2.1(40%) + Item 2.2(60%)** | | |
| **TOTAL SCORE FOR COST = Rating(COST OF OUTPUT) x 0.20** | | |

**3. SCHEDULE – 30**

| | | | | |
|---|---|---|---|---|
| **3.1 Adherence to Schedule of Accepted FS Deliverables** | **Extent of Actual Time Slippage (Delay) vs. Original/Approved Schedule for FS Deliverables, due to Consultant's fault** | | | |
| | **Date of Submission (Consultant)** | **Date of Submission (Indicated in TOR)** | **Percentage(%) of SLIPPAGE** | **RATING** |
| *A. [Name of deliverable]* | | | | |
| *B. [Name of deliverable]* | | | | |
| *C. [Name of deliverable]* | | | | |
| **Rating** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **Rating (SCHEDULE)** | | | | |
| **TOTAL SCORE FOR SCHEDULE = Rating(SCHEDULE) x 0.30** | | | | |

| | |
|---|---|
| **Evaluation Rating = QUALITY(50%) + COST(20%) + SCHEDULE(30%)** | |

**III. Recommendations**

| |
|---|
| |

Evaluated by:

Designation

Designation

Designation

Noted by:

Designation

Approved by:

Designation

Concurred by:

*(Name of Consultant)*

Designation

**ANNEX D**

**FINAL EVALUATION REPORT (FER) - Phase _____**
CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

## I. Contract / Project Data

| | | | |
|---|---|---|---|
| Contract No.: | | Project No.: | |
| Project Type.: | **Detailed Engineering Design (DED)** | | |
| Project Name: | | | |
| Consultant: | | | |
| Address: | | | |
| Telephone No.: | | Fax No.: | |
| Project Manager: | | | |
| Telephone No.: | | Email Address: | |
| Contract Award Amount: | | Date of Award: | |
| Project Cost: | | Completion Date: | |
| Evaluation Rating: | | | |

**II. Performance Evaluation Summary**

**1. QUALITY – 60**

<table>
<tr><td>CRITERIA</td><td colspan="4">INDICATOR</td></tr>
<tr><td rowspan="2">1.1 Adequacy and accuracy of DED surveys and plans, analyses, and outputs vs. Terms of Reference (TOR) covering the following:</td><td colspan="2">Extent and impact of errors/ inaccuracies/ deficiencies in DED surveys and plans, analyses, and outputs, based on DPWH review and validation</td><td colspan="2">Number of Resubmissions of Corrected DED</td></tr>
<tr><td>TOTAL Equivalent MAJOR ERRORS</td><td>RATINGS</td><td>Quantity</td><td>RATINGS</td></tr>
<tr><td>A. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td>B. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td>C. [Name of deliverable]</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Average Rating for Errors</td><td colspan="2"></td></tr>
<tr><td colspan="3">Average Rating for Resubmissions</td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating = (Ave. Rating for Errors + Ave. Rating for Resubmissions) ÷ 2</td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating x 60%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td rowspan="3">1.2 Cost-Effectiveness of DED</td><td colspan="2">Extent of DPWH Comments on Consultant's Evaluation of Alternatives, based on Value Engineering (VE) and Other Relevant Criteria Leading to Recommended Most Cost-Effective Scheme</td><td colspan="2">Number of Revisions Made</td></tr>
<tr><td>Deficiency</td><td>RATINGS</td><td>Quantity</td><td>RATINGS</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Rating x 20%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td rowspan="3">1.3 Tenure of Consultant's Key Personnel</td><td colspan="4">Incidence of Replacement of Key Personnel (Weighted According to their Roles) With or Without Valid Reasons</td></tr>
<tr><td colspan="2">Number of REPLACEMENT</td><td colspan="2">RATINGS</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td colspan="3">Rating x 20%</td><td colspan="2"></td></tr>
<tr><td colspan="5">Comments: (Please note any specific information in determining performance level)</td></tr>
<tr><td colspan="3">Rating (QUALITY) = Item 1.1(60%) + Item 1.2(20%) + Item 1.3(20%)</td><td colspan="2"></td></tr>
<tr><td colspan="3">TOTAL SCORE FOR QUALITY = Rating(QUALITY) x 0.60</td><td colspan="2"></td></tr>
</table>

**2. COST OF OUTPUT – 20**

| CRITERIA | INDICATOR | |
|---|---|---|
| **2.1 Completeness of DED Cost Estimates in the DUPA vs TOR cost items/ requirements** | **Extent of coverage of DED cost elements: materials, labor, equipment, indirect costs (cost of money, insurance, bonds, contingencies, profit, taxes, etc.), ROW, etc. as reflected in the TOR (See DO 197, series of 2016, for factors).** | |
| | **Percentage(%) of VARIANCE** | **RATINGS** |
| | | |
| **Rating x 40%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **2.2 Comparison of DED Cost Estimates with Accepted Benchmarks** | **Extent of Variance of DED Cost Estimates vs DPWH Industry Benchmarks/Standards (e.g., cost/km of road, cost/lineal meter of bridge, cost/sq meter of bldg.) and vs. Required (+/-)5-10% Accuracy Adjusted for Special Characteristics** | |
| | **Percentage(%) of VARIANCE** | **RATINGS** |
| | | |
| **Rating x 60%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (COST OF OUTPUT) = Item 2.1(40%) + Item 2.2(60%)** | | |
| **TOTAL SCORE FOR COST = Rating(COST OF OUTPUT) x 0.20** | | |

**3. SCHEDULE – 20**

| **3.1 Adherence to Schedule of Accepted DED Deliverables** | **Extent of Actual Time Slippage (Delay) vs. Original/Approved Schedule for DED Deliverables, due to Consultant's fault** | | | |
|---|---|---|---|---|
| | **Date of Submission (Consultant)** | **Date of Submission (Indicated in ToR)** | **Percentage(%) of SLIPPAGE** | **RATINGS** |
| *A. [Name of deliverable]* | | | | |
| *B. [Name of deliverable]* | | | | |
| *C. [Name of deliverable]* | | | | |
| **Rating** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **Rating (SCHEDULE)** | | | | |
| **TOTAL SCORE FOR SCHEDULE = Rating(SCHEDULE) x 0.20** | | | | |

| |
|---|
| **Evaluation Rating = QUALITY(60%) + COST(20%) + SCHEDULE(20%)** |

**III. Recommendations**

| |
|---|
| |

Evaluated by:

Designation

Designation

Designation

Noted by:

Designation

Approved by:

Designation

Concurred by:

*(Name of Consultant)*

Designation

**ANNEX D**

**FINAL EVALUATION REPORT (FER) - Phase _____**
CONSULTANT'S PERFORMANCE EVALUATION SYSTEM

## I. Contract / Project Data

| | | | |
|---|---|---|---|
| Contract No.: | | Project No.: | |
| Project Type.: | **Construction Supervision (CS)** | | |
| Project Name: | | | |
| Consultant: | | | |
| Address: | | | |
| Telephone No.: | | Fax No.: | |
| Project Manager: | | | |
| Telephone No.: | | Email Address: | |
| Contract Award Amount: | | Date of Award: | |
| Project Cost: | | Completion Date: | |
| Evaluation Rating: | | | |

## II. Performance Evaluation Summary

**1. QUALITY – 60**

| CRITERIA | INDICATOR | |
|---|---|---|
| **1.1 Consultant's Efficiency in Ensuring Contractor's Compliance of it's Construction Work with the Approved DED, Particularly Plans and Specification** | **Incidence of construction defects/ deficiencies stated in the Statement of Works Accomplished (SWA) recommended by Consultant for payment, but found by DPWH to be not in accordance with the approved plans and specifications.** | |
| | **Deficiency** | **Ratings** |
| | | |
| **Rating x 50%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **1.2 Quality of Consultant's Construction Supervision (CS) System** | **Incidence of Deficiencies in the Consultant's CS System covering the Five(5) Criteria** | |
| | **No of Deficiencies** | **Ratings** |
| | | |
| **A. Organization of Key Personnel** | | |
| **B. Control of Quality of Workmanship** | | |
| **C. Control of Quality of Materials** | | |
| **D. Documentation** | | |
| **E. Other Management Considerations** | | |
| **Rating x 40%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **1.3 Tenure of Consultant's Key Personnel** | **Incidence of Replacement of Key Personnel (Weighted According to their Roles) With or Without Valid Reasons** | |
| | **Number of REPLACEMENT** | **RATINGS** |
| | | |
| **Rating x 10%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (QUALITY) = Item 1.1(50%) + Item 1.2(40%) + Item 1.3(10%)** | | |
| **TOTAL SCORE FOR QUALITY = Rating(QUALITY) x 0.60** | | |

**2. COST OF OUTPUT – 20**

| CRITERIA | INDICATOR | |
|---|---|---|
| **2.1 Consultant's Efficiency in Controlling Cost Overruns** | **Incidence of variation orders (VOs) with cost overruns, recommended by Consultant, but disapproved/reduced by DPWH, except VOs initiated itself by DPWH and VOs initiated due to fortuitous events.** | |
| | **Variation Order TOTAL VARIANCE** | **RATINGS** |
| | | |
| **Rating x 100%** | | |
| Comments: *(Please note any specific information in determining performance level)* | | |
| **Rating (COST OF OUTPUT) = Item 2.1(100%)** | | |
| **TOTAL SCORE FOR COST = Rating(COST OF OUTPUT) x 0.20** | | |

**3. SCHEDULE – 20**

| CRITERIA | INDICATOR | | | |
|---|---|---|---|---|
| **3.1 Consultant's Efficiency in Ensuring Contractor's Adherence to Approved Construction Schedule.** | **Extent of slippage of planned accomplishment vs. actual accomplishment.** | | | |
| | **Date of PLANNED Accomplishment** | **Date of ACTUAL Accomplishment** | **Percentage(%) of SLIPPAGE** | **RATINGS** |
| ***Contractor's Activity Under the Auspices of CS Consultant*** | | | | |
| *A. [Activity A]* | | | | |
| *B. [Activity B]* | | | | |
| C. *[Activity C]* | | | | |
| **Rating x 40%** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **3.2 Consultant's Prudent Evaluation of Proposed Contract Time Extensions** | **Incidence of contract time extensions recommended by Consultant but disapproved/reduced by DPWH – except time extensions for VOs due to faulty DED, due to fortuitous events or for VOs initiated by DPWH.** | | | |
| | **No. of Proposed Contract Time Extension Recommended by Consultant but DISAPPROVED/REDUCED by DPWH** | | **RATINGS** | |
| | | | | |
| **Rating x 30%** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |

| **3.3 Consultant's Timeliness in Submitting Required Reports and Documents** | **Extent of Consultant's compliance with prescribed schedule to submit project reports and other documents** | | | |
|---|---|---|---|---|
| | **DATE OF SUBMISSION (Required by DPWH)** | **CONSULTANT ACTUAL DATE OF SUBMISSION** | **SLIPPAGE in No. of Days** | **RATINGS** |
| ***Deliverables*** | | | | |
| *A. [Activity A]* | | | | |
| *B. [Activity B]* | | | | |
| C. *[Activity C]* | | | | |
| **Rating x 30%** | | | | |
| Comments: *(Please note any specific information in determining performance level)* | | | | |
| **Rating (SCHEDULE) = Item 3.1(30%) + Item 3.2(40%) + Item 3.3(30%)** | | | | |
| **TOTAL SCORE FOR SCHEDULE = Rating(SCHEDULE) x 0.20** | | | | |

| | |
|---|---|
| **Evaluation Rating = QUALITY(60%) + COST(20%) + SCHEDULE(20%)** | |

**III. Recommendations**

| |
|---|
| |

Evaluated by:

| | |
|---|---|
| Designation | Designation |
| Designation | |

Noted by:

Designation

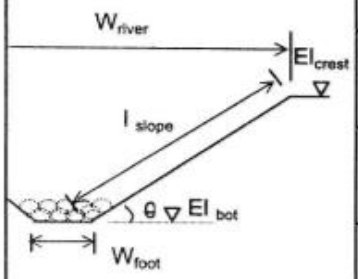
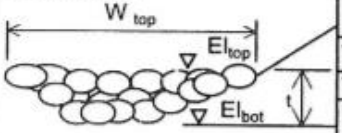
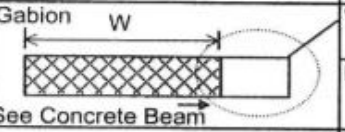
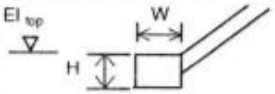
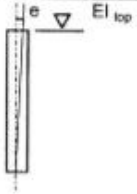
Approved by:

Designation

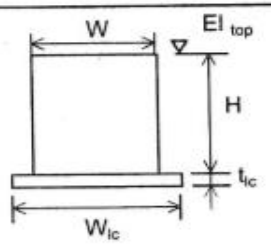
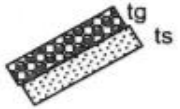
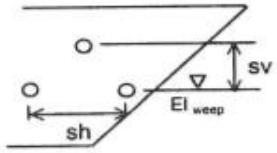
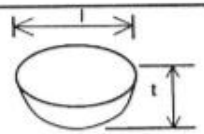
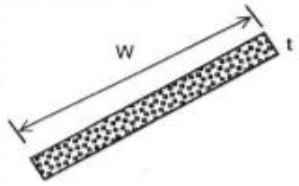
Concurred by:

*(Name of Consultant)*
Designation

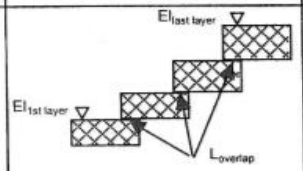
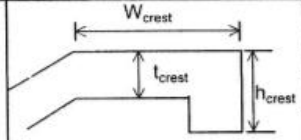
## Annex 3.1 Monitoring Control for Revetment

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| **I. Earthwork** |  | Elevation | Crest ($El_{crest}$) | ±50 | Level | every x-section |
| | | | Bottom ($El_{bot}$) | ±50 | | |
| | | Width | River ($W_{river}$)* | -0<br>+200 | Measuring Tape | every x-section |
| | | | Foot ($W_{foot}$) | +200 | | |
| | | Slope | Length ($l_{slope}$) | $l_{slope}$<3m : -50<br>$l_{slope}$>3m :-100 | | |
| | | | Required Slope (θ) | -0.5 ratio | | every 20m |
| | | Length | L< 10m | -20 | Measuring Tape | every y-section |
| | | | 10m≤ L<100m | -50 | | |
| | | | L≥100m | -100 | | |
| **II. Foundation/ Foot Protection**<br>a. Foot Protection<br>- boulder<br>- gabion | Boulder Apron<br>  | Elevation | Top ($El_{top}$) | ±50 | Level | every x-section |
| | | | Bottom ($El_{bot}$) | ±50 | | |
| | | Width | Top ($W_{top}$) | -100 | Measuring Tape | every 20m |
| | | Thickness | (t) | -100 | | |
| | | Length | (L) | -200 | | every y-section |
| | Gabion<br>  | Width | (W) | -100 | | every x-section |
| | | Length | (L) | -200 | | every y-section |
| b. Concrete/ Cut-off wall |  | Elevation | Top ($El_{top}$) | ±50 | Level | every x-section |
| | | Width | (W) | -30 | Measuring Tape | |
| | | Height | (H) | -30 | | |
| | | Length | (L) | -100 | | every y-section |
| c. Concrete Pre-cast Pile/ Steel Sheet Pile |  | Elevation | Top of pile ($El_{top}$) | ± 50 | Level | every x-section |
| | | Eccentricity | (e) | 100 | Transit | Every 10 piles |
| | | Length | L< 10m<br>10m≤ L<100m<br>L ≥100m | -20<br>-50<br>-100 | Measuring Tape | every y-section |

## Annex 3.1 Monitoring Control for Revetment

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| d. Concrete Beam/ Pile cap |  | Levelling Concrete | Width, ($W_{lc}$) | -30 | Measuring Tape | every 20m |
| | | | thickness, ($t_{lc}$) | -10 | | |
| | | | Length, ($L_{lc}$) | -30 | | |
| | | Main body | Steel bar spacing | ± bar diameter | | Entire stretch |
| | | | Width, W | -30 | | every 20m |
| | | | Height, H | -20 | | |
| | | | Elevation of top, $El_{top}$ | ± 30 | Level | every x-section |
| | | | Length, (L) | as same as c. | Measuring Tape | every y-section |
| III. Bedding |  | Thickness | Sand, (ts) | -20 | Measuring Tape | 1 time/10m |
| | | | Gravel, (tg) | -20 | | |
| | | | | | | |
| |  | Weephole | Spacing (sv, sh) | -100 | Measuring Tape | Every weephole location |
| | | | | | | |
| |  | Graded Gravel | Thickness, (t) | -20 | Measuring Tape | Every weephole location |
| | | | Length, (l) | -20 | | |
| | | | Elevation of row ($El_{weep}$) | -20 | Level | Every row of weephole |
| | | | | | | |
| IV. Slope Protection<br>a. Dry Boulder/ Concrete/Rubble Concrete/Gabion |  | Width | (W) | -100 | Measuring Tape | every 20m |
| | | thickness | (t) | -20 | | |
| | | Length | (L) | -200 | | every y-section |
| | | | | | | |

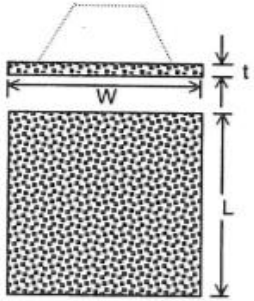
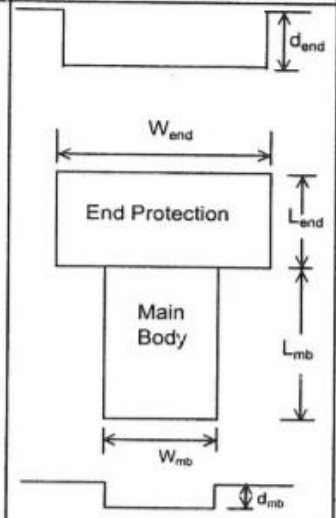
## Annex 3.1 Monitoring Control for Revetment

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| b. Gabion (pile-up type) |   | Elevation | 1st layer ($El_{1st\ layer}$) | ±50 | Level | every x-section |
| | | | Last layer ($El_{last\ layer}$) | ±50 | | |
| | | Length | Overlap ($L_{overlap}$) | -20 | Measuring Tape | every x-section |
| | | | Length (L) | -200 | | every y-section |
| | | | | | | |
| V. Crest Protection |   | Width | ($W_{crest}$) | -100 | Measuring Tape | every 20m |
| | | thickness | ($t_{crest}$) | -20 | | |
| | | Height | ($h_{crest}$) | -20 | | |
| | | Length | L< 10m | -20 | Measuring Tape | every y-section |
| | | | 10m≤ L<100m | -50 | | |
| | | | L ≥100m | -100 | | |

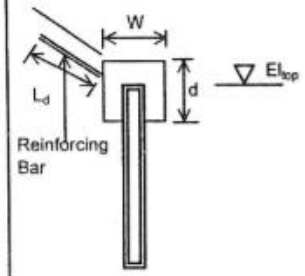
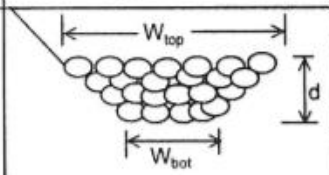
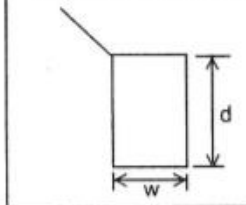
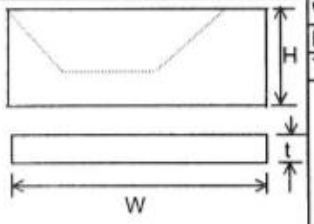
NOTE:

a) x-section : cross-section with intervals ranging from 10m to 100m. Depends on approved plans.
b) y-section : longitudinal-section. Depends on approved plans.
c) frequency : minimum recommended frequency of measurement.
d) tolerance : allowable deviation on dimension. Design engineer's prescribed tolerances shall govern.
e) $W_{river}$ : Distance between riverbanks.

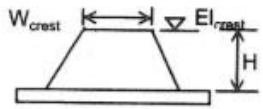
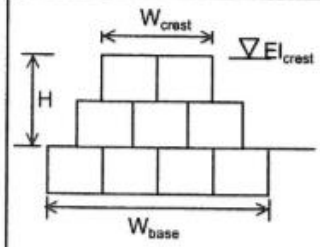
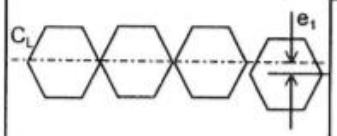
## Annex 3.2 Monitoring Control for Spur Dike

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| **I. Earthwork** | | | | | | |
| a. Gravel bedding (For boulder type) |   | Length | (L) | -100 | Meas. Tape | 2 locations/s.dike |
| | | Width | (W) | -100 | | |
| | | Thickness | (t) | -30 | | every 5m of L |
| b. Gabion type |   | End Protection | Width ($W_{end}$) | -0 +100 | Meas. Tape | every end prot. |
| | | | Length ($L_{end}$) | +100 | | |
| | | | Depth ($d_{end}$) | -50 | | every 2m of $W_{end}$ |
| | | Main Body | Width ($W_{mb}$) | -0 +100 | Meas. Tape | 2 locations/s.dike |
| | | | Length ($L_{mb}$) | -0 +100 | | |
| | | | Depth ($d_{mb}$) | -50 | | every 5m of $L_{mb}$ |

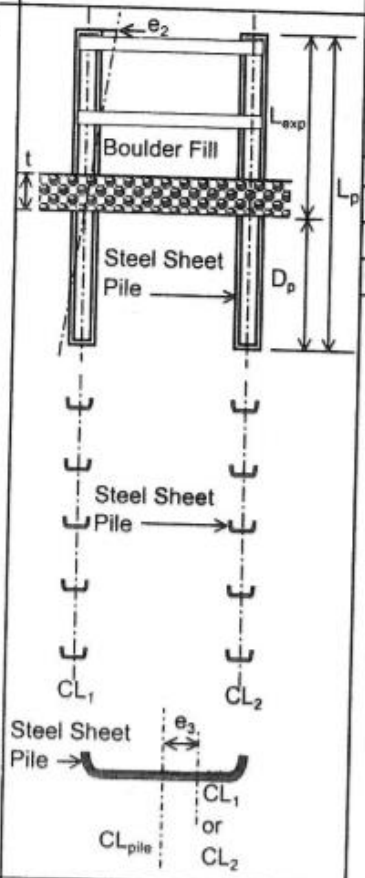
## Annex 3.2 Monitoring Control for Spur Dike

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| **II. Foundation** | | | | | | |
| a. Sheet pile |  | Elevation | Top of pile ($El_{top}$) | ±50 | Level | every 5 piles |
| | | Pile Cap | Width (W) | -30 | Meas. Tape | every 20m |
| | | | Depth (d) | -30 | | |
| | | Steel Bar | Spacing (s) | ± bar diameter | | every 10 bars |
| | | | Development length ($L_d$) | -20 | | |
| b. Loose boulder |  | Width of top | ($W_{top}$): $L_{mb}$≤20m | -100 | Meas. Tape | every 10m of $L_{mb}$ |
| | | Width of bottom | ($W_{bot}$):$L_{mb}$≤20m | -100 | | |
| | | Depth | (d) | -50 | | |
| c. Cut-off wall |  | Width | (W) | -30 | Meas. Tape | every 5m of $L_{mb}$ |
| | | Depth | (d) | -30 | | |
| d. Curtain wall |  | Width | (W) | -30 | Meas. Tape | every curt. wall |
| | | Depth | (d) | -30 | | |
| | | Thickness | (t) | -30 | | |

## Annex 3.2 Monitoring Control for Spur Dike

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| **III. Installation** | | | | | | |
| a. Boulder |   | Elevation | ($El_{crest}$) | ±100 | Level | 2 locations/s.dike |
| | | Height | (H) | ±100 | Meas. Tape/Pole | |
| | | | Required Slope Side | -0.5 ratio | | |
| b. Gabion |   | Elevation | ($El_{crest}$) | ±50 | Level | 2 locations/s.dike |
| | | Base Width | ($W_{base}$) | -100 | Meas. Tape | |
| | | Crest Width | ($W_{crest}$) | -100 | | |
| | | Height | (H) | ±50 | | |
| c. Concrete Block |   | Eccentricity | ($e_1$) | ±100 | Meas. Tape | every block |

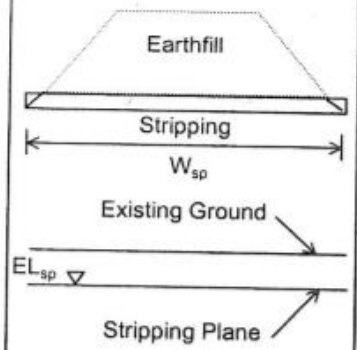
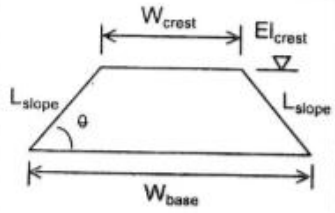
## Annex 3.2 Monitoring Control for Spur Dike

| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| d. Steel sheet pile hurdles |  | Exposed length | ($L_{exp}$) | - | Meas. Tape/Pole | every pile |
| | | Penetration | ($D_p$) | -5% of $L_p$ | $L_p - L_{exp}$ | |
| | | Eccentricity | ($e_2$) | ±100 | Transit | |
| | | | ($e_3$) | ±100 | Meas. Tape | |
| | | Boulder Fill | thickness (t) | -100 | | 2 locations/s.dike |
| | | Centerline of pile ($CL_{pile}$) | | - | | every pile |
| | | Centerline of row 1 ($CL_1$) | | - | Stake-out | every s.dike |
| | | Centerline of row 2 ($CL_2$) | | - | | |
| **IV. Surface Protection (if any)** (Refer to Annex 3.1) | | | | | | |

NOTE:

a) frequency : minimum recommended frequency of measurement.
b) tolerance : allowable deviation on dimension. Design engineer's prescribed tolerances shall govern.
c) pile length ($L_p$) to be checked upon delivery at site.

## Annex 3.3 Monitoring Control for Dike

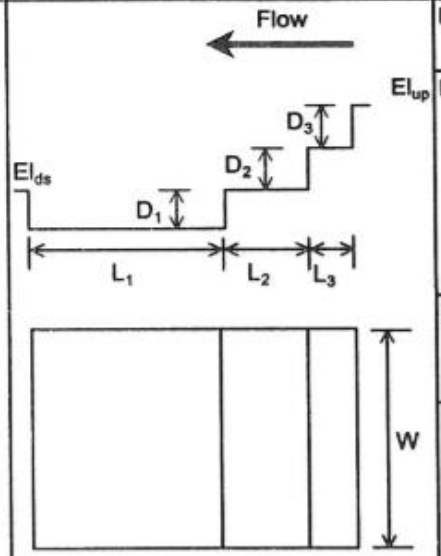
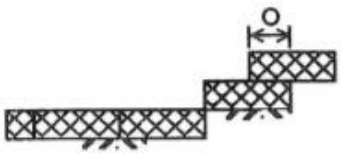
| Type of Work | Illustration | Items to be Checked | | Tolerance (mm) | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| **I. Stripping** |  | Elevation | ($El_{sp}$) | -50 | Level | every x-section |
| | | Width | ($W_{sp}$) | -0 | Meas. Tape | |
| | | | | +300 | | |
| | | Length | ($L_{sp}$) | -0 | | every y-section |
| | | | | +300 | | |
| **II. Embankment** |  | Elevation of crest | ($El_{crest}$) | -0 | Level | every x-section |
| | | Crest width | ($W_{crest}$) | -100 | Meas. Tape | |
| | | Base width | ($W_{base}$) | -100 | | |
| | | Slope length | ($L_{slope}$) | -100 | | |
| | | Length | (L) | -100 | | every y-section |
| | | Required slope | (θ) | -0.5ratio | Meas. Tape/Pole | every x-section |
| **III. Surface Protection (if any)** (Refer to Annex 3.1 Revetment) | | | | | | |

NOTE:

a) frequency : minimum recommended frequency of measurement.

b) tolerance : allowable deviation on dimension. Design engineer's prescribed tolerances shall govern.

## Annex 3.4 Monitoring Control for Groundsill

| Type of Work | Illustration | Items to be Checked | | Tolerance | Instrument to be used | Frequency |
|---|---|---|---|---|---|---|
| I. Excavation |  | Elevation | Upstream ($El_{up}$)<br>Downstream ($El_{ds}$) | ±50<br>±50 | Level | every 10m of W |
| | | Length | ($L_1$) | -0<br>+100 | Meas. Tape | |
| | | | ($L_2$) | -0<br>+100 | | |
| | | | ($L_3$) | -0<br>+100 | | |
| | | Depth | ($D_1$) | -50 | | |
| | | | ($D_2$) | -50 | | |
| | | | ($D_3$) | -50 | | |
| II. Placement of Gabion |  | Overlap | (O) | -50 | Meas. Tape | every 10m of W |

NOTE:
a) frequency : minimum recommended frequency of measurement.
b) tolerance : allowable deviation on dimension. Design engineer's prescribed tolerances shall govern.