IN THE MATTER OF ARBITRATION UNDER THE RULES OF ARBITRATION OF

THE INTERNATIONAL CHAMBER OF COMMERCE

ICC CASE NO. 26834/HTG

BETWEEN

SOJITZ-L&T CONSORTIUM

Claimant

-AND-

DEDICATED

FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED

Respondent

WITNESS STATEMENT OF MRS. BABITA GUPTA

(RESPONDENT WITNESS NO. RW-4)

30th JUNE 2023

Advocates for the Respondent

AKS Partners

A. INTRODUCTION

1. I, **Babita Gupta**, an Indian citizen aged 54 years, W/o Mr. Sumant Gupta, R/o 201, Millennium Tower, Omaxe Heights, Sector 86, Faridabad, 121002, currently working in Delhi Metro Rail Corporation (DMRC) as a Chief Design Engineer (Civil) at New Delhi. I have previously worked with Nippon Koei India Pvt. Ltd. (hereinafter "Engineer") as Assistant General Manager/ Deputy General Manager from January 2014 to January 2022.

2. I do hereby present the witness statement on behalf of Dedicated Freight Corridor Corporation of India Limited (also referred to as Respondent or "DFCCIL") in relation to the ICC Case No. 26834/HTG commenced by Sojitz-L&T Consortium (Claimant) against the Respondent.

3. I state and affirm that this statement is based on my knowledge and the documents I have referred to, except where otherwise indicated. Matters referred to herein which are within my direct knowledge are true. Matters referred to herein which are not within my direct knowledge are true to the best of my knowledge and belief. The reference "Parties" is to DFCCIL and Sojitz- L&T Consortium. I hereby clarify that in case I have used the expression we/us/our, then I am referring to the Engineer.

4. In my witness statement, I refer to the documentation that has been filed by the Parties along with their pleadings and these shall be footnoted with specific reference therein. In addition, I will also be referring to other relevant documents from the records. I believe that the said documents are relevant for the determination of the dispute.

5. Where the document has been exhibited in the arbitral pleadings, it is referred to by the same exhibit number. Where the document has not been exhibited before in the arbitration, it is referenced by a new exhibit number in the format "R-".

6. The counsel for the Respondent has assisted me in drafting this statement based on interviews conducted with me. I have reviewed the text and can confirm that this written statement accurately reflects my testimony based on my recollection of my experience with the Project.

7. My Witness Statement addresses various matters with respect to:

   i. My Experience and Role in the Project

   ii. The main design elements, procedure of design approval and relevant contract provisions

   iii. The design related delay and deficiencies attributable to the Claimant which resulted in delayed progress of the Project.

8. In my witness statement, I address to the design-related issues as well as any other relevant issues that arose after M/s Nippon Koei India Pvt. Ltd came on board as Engineer i.e. April 2014. It is important to note that my knowledge and observations pertain to the period during which I was involved in the project as a member of the Engineer's design team. I am able and willing to attend a hearing in this matter if required to do so.

B. MY PROFESSIONAL BACKGROUND AND EXPERIENCE

9. I am a qualified engineer with a degree in M. Tech. (Structures).

10. I have experience of over 28 years as Structure Engineer and have been associated with Project Management, planning, preliminary & detailed engineering, design, and drawings of various highway & railway bridges, buildings, metro viaducts, and elevated & underground stations. In 2014, I joined the M/s Nippon Koei India Pvt. Ltd. as an Assistant General Manager and later was promoted to Deputy General Manager, and worked till January 2022.

11. Thereafter, I joined National Capital Region Transport Corporation (NCRTC) as Senior Design Expert for a period of four months and finally joined Delhi Metro Rail Corporation (DMRC) as Chief Design Engineer (Civil) in June 2022, and have been working here for about one year now as listed below:

Organization	Designation	From	To
Delhi Metro Rail Corporation	Chief Design Engineer (Civil)	June 2022	Present
National Capital Region Transport Corporation	Senior Design Expert (Civil Design)	February 2022	May 2022
Nippon Koei India Pvt. Ltd., New Delhi	Deputy General Manager/Assistant General Manager	January 2014	January 2022

12. My CV is attached herewith to this witness statement detailing my past experience and employment as **Exhibit R-315**.

C. ROLE IN THE PROJECT

13. I started working on the Project in April 2014 in the role of Civil Design Engineer for the Engineer, and I was assigned with various design related tasks and functions including:

i. Review of Detail Design & Drawings of Bridges.
ii. Review of GADs for bridges for Approval from Indian Railway & Other concerned authorities.
iii. Technical Coordination/ Interaction with various streams: Alignment, Hydrology, Geo technology & Construction department.

iv. Estimating eligibility of variations claims – design-related variations.
v. Checking IPC (Interim Payment Certificate) – design-related payment under Schedule 4.1 of the Contract – in each work segment.
vi. Site-related issues – design and field change notices.
vii. Design Progress Review Meetings with the Claimant/ Respondent.

14. It is worth mentioning that before my involvement in the Project, CPM/ Jaipur and CPM/Ajmer served as the Designated Engineers, overseeing the review and approval process of the design through their respective design teams. Though I was not involved directly in the review of Alignment and Embankment Designs, I am aware of the correspondences exchanged between the Engineer and the Claimant regarding these design submittals.

15. Throughout the Project, I maintained frequent communication and interaction with the Claimant through correspondences and meetings, in order to facilitate the review and approval of design elements of the Project.

16. As such I am aware of the facts of the present case and competent to swear the present statement.

D. OVERVIEW OF THE CONTRACTUAL REQUIREMENTS FOR DESIGN

17. I say that the Contract is a Design and Build Lump Sum ("DBLS") Contract, wherein the Contractor is assigned with the responsibility of entire design works. Accordingly, the Claimant was entrusted with the following responsibilities:

i. The Claimant had the entire responsibility to plan, design and execute the Project within the boundaries set by DFCCIL. It was their duty to ensure that the Project is designed in accordance with the Employer's Requirements and specifications.

ii. The Claimant had the obligation to coordinate/ liaison/ interface with other contractors, Indian Railways (IR), and other authorities throughout the design and construction phases as part of their role under the Contract.

18. Therefore, in the event of any design discrepancies, noncompliance with the ER, or resulting delays, the responsibility falls on the Claimant.

E. THE MAIN DESIGN ELEMENTS AND PROCEDURE IN THE PROJECT

Main Design Components

19. The Project may be divided into following elements whose design and drawing documents play a crucial role in the overall planning and execution of the Project. These include:

a. Alignment Design/ Plan & Profile
b. Earthwork Design

c. Structure Design
d. Station Building Design
e. Track Design

20. According to the Approved CCP, the design phase was scheduled to be completed by 16 April 2014 and 31 May 2014 for CTP-1 and CTP-2 respectively. These dates were established at the outset of the Project and formed part of the agreed schedule.

21. It is pertinent to note that the designs were required to be submitted/ approved in a specific sequence as set under the Contract and as planned by the Claimant in the approved CCP for both the CTP-1 and CTP-2 respectively.

For CTP-1 (Rewari - Madar)

Sr. No.	Design & Engineering Phase	Planned Start Date	Planned Finish Date	Actual Finish Date
1	Embankment, Drain & Design of Earth Retaining Structure	11-Oct-13	24-Feb-14	On going as on 31 August 2016
2	Alignment Design	15-Oct-13	29-Jan-14	On going as on 31 August 2016
3	Bridge Design	22-Nov-13	16-Apr-14	On going as on 31 August 2016
4	Station Building Design	08-Nov-13	25-Feb-14	On going as on 31 August 2016
5	Track Design	11-Oct-13	18-Mar-14	On going as on 31 August 2016

For CTP-2 (Madar - Iqbalgarh)

Sr. No.	Design & Engineering Phase	Planned Start Date	Planned Finish Date	Actual Finish Date
1	Embankment, Drain & Design of Earth Retaining Structure	11-Nov-13	10-Mar-14	On going as on 31 August 2016
2	Alignment Design	11-Nov-13	12-Feb-14	On going as on 31 August 2016
3	Bridge Design	02-Dev-13	30-Apr-14	On going as on 31 August 2016
4	Station Building Design	08-Nov-13	25-Feb-14	On going as on 31 August 2016
5	Track Design	11-Oct-13	18-Mar-14	On going as on 31 August 2016

22. I recall that progress against cost centres 4.1 (b) & 4.1.2 was exceptionally delayed from CCP which is evident from invoice details mentioned in below table:

Cost Centre	Activity Head	Planned Start	Planned Finish	Actual Start	Actual Finish
CTP-1					

4.1 (b)	Geotechnical Investigation	28-Sep-13	09-Jan-14	Dec-14	Apr-21
4.1.2	Technical Design	11-Oct-13	24-Feb-14	Apr-15	Sep-19
CTP-2					
4.1 (b)	Geotechnical Investigation	14-Oct-13	04-Feb-14	Sep-14	Jan-16
4.1.2	Technical Design	11-Nov-13	10-Mar-14	May-15	Sep-20

Relevant records from IPCs are attached as **Exhibit R-316**.

23. Thus, the design phase was scheduled for a span of 8 to 9 months wherein the designs/ drawings were to be finalized and approved in a timely and sequential manner. Any delay/ disruption/ shortcomings in the design phase could have an effect on the construction phase which spans for much larger part of the Project i.e., almost 3 years.

24. Furthermore, it is important to note that the inconsistencies in the design submissions by the Claimant led to frequent revisions of the design program. Despite the observations and recommendations provided by the Engineer on the submitted designs, there was a consistent failure on the part of the Claimant to adhere to these suggestions. This lack of adherence to the design program not only caused delays and inefficiencies in the design phase but also had a cascading effect on the overall project schedule.

Procedure for Design Submission and Approval

25. During the design phase, the Claimant was required to follow a specific set of steps for the finalization of designs and drawings necessary for the construction phase:

a. The Claimant would submit the drawings to the Engineer/Employer.

b. The Engineer would review the submitted drawings, may ask for further information or give its comments for modifications. Otherwise, if the submitted drawings were acceptable, the Engineer would grant his approval to the submitted drawings.

c. In case the Engineer suggested modifications, the Claimant would need to make suggested modifications and submit the revised drawings to the Engineer/Employer for approval. This process would continue until the drawings are approved by the Engineer.

d. In case of drawings to be approved by the concerned authorities, the Engineer would forward the submitted drawings to the Employer, who would then forward them to the relevant authorities such as Indian Railway (IR), National Highway Authority of India (NHAI), Public Works Department (PWD), etc., as per the Project requirements. If any comments or suggestions were received from the concerned authorities, those would be communicated to the Claimant and the

Claimant would need to make the necessary revisions and resubmit the drawings for approval.

26. Based on my understanding of Clause 5.2 of the GCC/ PCC under the Contract, the Engineer is responsible for reviewing the designs submitted by the Claimant and reverting within 21 days of receiving the Claimant's Document and the Claimant's notice.

27. I affirm that the Engineer has diligently reviewed all design submissions within the stipulated timeframe of 21 days as per the contractual requirements. In cases where the review process exceeded the designated time, the corresponding Extension of Time (EOT) has been duly considered.

F. CLAIMANT'S FAILURE TO FULFILL DESIGN OBLIGATIONS

28. After I got involved in the Project in April 2014 onwards, I observed that the Claimant was failing to effectively manage/ control its design obligations defined under the Contract. There were multiple reasons for this failure i.e. the Claimant's improper/ inadequate planning, design submissions that did not comply with the ER, lack of internal quality checks and delay in the establishment of a proper Design Team at the Site. This was reflected in the quality of the Claimant's design submissions.

29. Also, it was evident that the Claimant lacked a comprehensive understanding of its contractual obligations to thoroughly examine and assess the Employer's requirements. This included scrutinizing the purpose, scope, design, and other technical criteria for the works, including design criteria and calculations if applicable. The lack of attention to these contractual obligations resulted in various instances where the Claimant failed to meet the specified design criteria and requirements. The detailed instances have been highlighted further in the draft.

30. Further, it is important to note that the Claimant did not account for any additional time in the CCP required for the rectification of inadequacies in the submitted design documents. This failure on the part of the Claimant to promptly address and rectify such defects resulted in delays in the design phase, leading to delays in the execution of the succeeding activities.

31. As per my knowledge and substantial records, the designs submitted by the Claimant since the commencement were not accompanied by the software used to access and understand the designs. This omission was a significant issue, as it hindered the Engineer's ability to effectively review and assess the designs.

32. The provision of software by the Claimant was a contractual requirement, along with the additional obligation to provide necessary training to the staff of DFCCIL/Engineer, ensuring their proficiency in utilizing the software and any subsequent versions. However, there were delays in the provision of the software, which consequently led to further delays in the design approval process.

33. It is important to note that the software to be provided by the Claimant was essential for reviewing the designs. Without the proper software, the designs could not be effectively reviewed and modified. Therefore, the timely provision of the software was crucial for the smooth progress of the design approval process.

34. Furthermore, in order to effectively use the software, appropriate training was required for the staff of DFCCIL/Engineer. The delay in providing the necessary training further impeded the efficient utilization of the software and hindered the design approval process.

G. The Claimant's Delay in Design Submissions/ Resubmissions

35. I can confirm that the major causes of delay in the design stage of the Project were the piecemeal submissions, repetitive deficient design submissions, poor quality of the Claimant's design, and the Claimant's failure to comply with the requirements outlined in the Employer's Requirements (ER) and relevant codes and standards.

36. With regard to the delays in the design approval process, I attest to the correctness of the tabular assessment of various design delays attributable to the Claimant in **Exhibit R-248** of the SOD. This exhibit shows delays in design caused by the Claimant without accounting for the initial delay in design submissions in comparison to the planned dates outlined in the CCP. The total delay in finalizing the design is attached herewith and marked as **Exhibit R-317**.

Plan & Profile

37. Following are the some of the delays which are attributable to the Claimant relating to finalization of Plan and Profile for earthwork -

i. Initial delay (i.e. delay upto first submission) in submission of Design by the Claimant extended up to 218 days (the maximum delay was in Pacharmalikpur to Phulera section).

ii. Proposed Design did not conform with the requirements of Employer's Requirements (ER).

iii. The Claimant did not follow the horizontal and vertical gradients as per ER.

iv. Non-submission/incomplete submission of cross-sections, slope stability analysis and alignment verification report along with the Construction Design.

Bridges

38. The Claimant's design work had poor progress due to its design not being compliant with the ER, particularly in relation to bridges. Even the schedule provided in the Revised Design Programme was not being followed by the Claimant. As per the Contract, the bridge works for Major and Minor bridges (the site preparation works

with foundation works and the precast production in casting yards and production centres) had to be started by the Claimant in parallel with the approval of construction design. This is supported by the letter dated 19 November 2014, which can be found in **Exhibit R-25.** It is crucial to note that the Claimant was obligated to commence this work during the initial months of the project, but they failed to do so, causing significant delays in the overall project timeline.

39. The Claimant consistently failed to conduct proper analysis of the existing Indian Railways (IR) structures and discrepancies were found in their verification of the site conditions. This lack of attention to detail and non-compliance with the requirements significantly impacted the approval process for the designs of the Major Bridges, which were subject to approval by Indian Railways (IR). The deficiencies and non-compliances in the designs submitted by the Claimant resulted in delays in obtaining approval for the Major bridge designs from IR.

Major and Minor Structures

40. There were significant delays of more than 300 days in the initial submission of GADs by the Claimant. It is worth noting that the Claimant also took considerable time in resubmitting the designs after receiving feedback. I recall that as of August 31, 2016, the GADs of only 6 major structures had not been approved. However, it is important to highlight that despite the pending approval of GADs for 2 out of these 6 structures, the Engineer had issued NONOC to the Construction Design Package allowing the commencement of work at the site for those particular Major Bridge (MJB) and Intermediate Minor Bridge (IMB) structures.

41. I recall that as per Engineer's EOT assessment for delay events accrued up to 31 August 2016, GADs of only 5 no. of RUBs were not approved. However, for the remaining RUBs, the IGAD was approved either by the IR or by the Respondent in consultation with IR Authorities for starting the work at site.

42. The EOT by the Engineer had been granted only on in relation to the remaining RUBs which were having some issues in the approval of GADs by IR authorities. Other than this, there were no issues with balance structures which comprises a majority of MIBs (800 in number). Nor do I recall the Claimant having notified any delay in MIBs or seeking an EOT It is important to note that IR approval was not required for MIBs, and therefore any delays in their construction can be attributed solely to the Claimant. These delays resulted in many structures remaining unconstructed, leading to gaps in the formation and further delays in the trackwork.

Track design

43. I recall that there were significant delays in the finalization of the track design by the Claimant. In the review meeting in November 2014, which is documented in Exhibit R-24, the Engineer raised concerns regarding the Claimant's lack of progress in the

track design work. During the meeting, it was observed that the Claimant had not even commenced the track design as per the stipulated timeline outlined in the CCP. According to the CCP, the completion date for the track design was set for March 2014. However, the Claimant had failed to meet this deadline, causing considerable delays in the track design phase.

Yard

44. The Claimant exhibited slow progress in submitting designs of the yards. As of 12 September 2014, the Claimant had only made four design submissions for the yards. To this effect, I refer to the MPR of August 2014 annexed with letter dated 18 September 2014 at **Exhibit R-19**.

45. I would like to draw attention to the Minutes of Meeting dated 24 January 2015 (**Exhibit R-39).** In this meeting, the Engineer raised concerns regarding the progress of the design works. It was observed that the Claimant had made a commitment to submit 100% of the design by 31 December 2014. However, it was disclosed by the Claimant themselves that they had only submitted 95% of the design, with pending submissions including 50% of the Geotechnical Investigation Reports (GIR) and Hydrology Investigation Reports (HIR).

H. Claimant's Poor/ Inadequate Design Submissions

46. I can confirm that the timely review and approval of the Claimant's design submissions were crucial for the progress of the Project. The Claimant's design submissions were expected to be ready for use such that the Engineer could proceed to grant the Notice of No Objection (NONO). However, the design and drawings provided by the Claimant under the Technical Design Package (TDP) were incomplete, deficient and did not meet the required standards. Numerous technical non-compliances were identified in the design documents submitted by the Claimant as detailed below.

Design Submissions were Inadequate/ Incomplete

47. I can say that the first submission of the Technical Design was delayed beyond the dates originally agreed upon in the CCP. Upon joining the Project, it became evident to me that the design submissions made by the Claimant were inadequate. I observed that the Claimant consistently failed to include the necessary documents (which I have highlighted in the following paragraphs) that were essential for determining the final design approval. These missing documents were crucial in assessing the compliance of the design with the required standards and specifications. As a result, the design submissions lacked the necessary information and details needed for a thorough review and approval process.

48. The Claimant submitted the GADs without submission of one or the other of the following documents which was a pre-requisite in terms of Appendix 14 [Requirements of Design] of the ER, and as per CT-3 of Coordination Events Table of Appendix to

Bid, which is Complete submission of Validation of Data of the Employer (23 Weeks from the commencement):

For Waterway Bridges (MIB, MJB, IMB) the Claimant failed to submit the following documents along with the GADs:

a. Geotechnical Investigation Report (GIR)
b. Hydrological Investigation Report (HIR)
c. Span arrangement and foundation details matching with the existing Indian Railway Bridge on the parallel alignment

Similarly, for other Bridges (RUBs, ROBs, RFOs), the Claimant omitted important documents such as:

a. Geotechnical Investigation Report (GIR)
b. Vertical and horizontal clearances as prescribed in the Indian Railway Schedule of Dimensions as also the Western DFCC Schedule of Dimensions.
c. Refuge platform for maintenance staff and proper bearings.

49. The absence of these critical documents in the design submissions created a significant gap in the necessary information required for evaluating the feasibility, safety, and compliance of the bridge designs. It also hindered the Engineer's ability to assess and approve the designs in accordance with the contractual requirements.

50. The Claimant did submit certain bridge drawings prior to appointment of the Engineer. Specifically, in the Bhagega Dabla section, the Claimant had submitted the span arrangement for the Major Bridge on 06 November 2013. However, it should be noted that these bridge design submissions were incomplete or submitted prior to the submission of related GIR and HIR as mentioned in **Clause 3.1 of ER [Design].**

51. I would like to emphasize that the submission of the GIR and HIR played a crucial role in the final approval of the bridge design. The GAD could not be reviewed without the finalization of these preliminary documents. Therefore, the absence of the GIR and HIR hindered the thorough assessment and review of the bridge design, leading to the need for further revisions and delays in the design approval process.

52. Therefore, since the required GIR and HIR were not provided along with the bridge design submissions, the drawings had to be returned to the Claimant for compliance with the contractual requirements.

53. Also, the GADs of many RUBs were submitted by the Claimant without incorporating proper diversion schemes and drainage arrangements. The construction of RUBs requires careful consideration of the traffic diversion plan and effective drainage systems to ensure the smooth flow of vehicular movement and to prevent waterlogging issues. However, the GADs submitted by the Claimant lacked these crucial elements.

54. Instead of providing complete and well-coordinated designs, the Claimant often submitted partial designs or made repetitive submissions without even addressing the shortcomings or observations made by the Engineer. For example, Claimant has submitted design documents pertaining to Foundation design, Substructure design and superstructure design for all the MJBs, RFOs, ROBs, etc. separately for Engineer review/NONO and in piecemeal basis without following the submissions as planned in the CCP.

55. This approach significantly impeded the progress of the project, as it required multiple review cycles and additional time for rectifying design issues.

Design Submissions were not compliant with ER/ Site Requirements

56. I personally witnessed several instances where the Engineer, after reviewing the designs submitted by the Claimant, pointed out significant non-compliance with the Employer's Requirements (ER) and relevant Codes and Standards

    a. It is essential for the GADs/ designs to accurately reflect the conditions and requirements specific to the site where the structure is to be constructed which would be in line with the existing structures of IR in the vicinity as mentioned in Clause 3.1 of ER (Design).

    b. I can confirm that the ER, which mandated a minimum clearance under the bridge in accordance with the HFL for waterway bridges, and the road and rail traffic requirements for RUBs, ROBs, and RFOs, were violated on several occasions.

    c. Additionally, I observed that the alignment of piers /abutments of proposed bridges with existing IR bridges was frequently neglected in many of the submissions.

57. As a part of the design team, I actively highlighted these issues and shortcomings to the Claimant, urging them to make necessary revisions and resubmit the designs in accordance with the contractual requirements. To this effect, the Engineer had issued a letter dated 17 April 2014 along with other letters marked as Exhibit R-269[1].

58. I recall that instead of addressing the deficiencies and non-compliance in their design submissions, the Claimant made an allegation in their letter dated 30 April 2014, claiming that their designs were not being reviewed by the Engineer within the specified 21-day period. In response to this allegation, the Engineer issued a letter dated 09 May 2014 (Exhibit R-269), clarifying that the design submissions were indeed inadequate and did not meet the requirements of the Contract. Furthermore, the letter emphasized

[1] Page No. 108-164

the repeated non-compliance with the Employer's Requirements (ER) on the part of the Claimant.

59. I say that the reason why the Engineer could not give its Notice of No Objection ("NONO") was that the drawing and designs submitted by the Claimant were found to be deficient and not in accordance with the ER and the same is evident from the letters attached in Exhibit R-269[2]. For example, in the case of RUBs, the Claimant had submitted Drawings of RUBs with major discrepancies/errors in span arrangements with respect to **Clause 3.1 of ER [Design]** as shown below:

Sr. no.	Document/Drawing no.	Span Arrangement	
		SLT Document	Required Span **as per ER**
1	DOC-CTP1-DGN-BR-0226 Rev 0	1 x 4.5m x 3.66m	2 x 4.5m x 3.66m
2	1-UB-GEN-000-3620 Rev A	1 x 4.5m x 3.66m	2 x 4.5m x 3.66m
3	DOC-CTP1-DGN-BR-0209 Rev 2 (LC-36) Sec-12	1 x 4.5m x 5m	1 x 4.5m x 4m
4	DOC-CTP1-DGN-BR-0209 Rev 2 (LC-96) Sec-14	1 x 4.5m x 5m	1 x 4.0m x 3.6m + 1 x 4.5m x 5.0m

60. Such types of non-compliances by the Claimant were causing the Engineer a lot of effort to re-arrange, check and review the design submissions repetitively. The Engineer, on numerous occasions, communicated these concerns to the Claimant and requested compliance with the ER requirements, as well as relevant standards and specifications specified in the Contract.

61. Additionally, the Engineer had issued stern notifications[3] to the Claimant for repeatedly submitting deficient designs, quality of design, and repeated ER non-compliances. Even, when the deficiencies in the designs were communicated[4] to the Claimant, the Claimant did not seek to improve the quality of the design submissions, as can be referred in detail from **S. No. 2 of Exhibit R-269 (**Refer Page No. 108-164).

<u>The Claimant lacked internal quality check for design</u>

62. I recollect that the Engineer time and again requested the Claimant to arrange design submissions and carry out internal checks before any design submissions to avoid the delay in the design review process. The Internal Authorization Process for design documents, as specified in ER para 9.3, Appendix 7, Part-2 of the Contract, had to be followed by the Claimant. However, the Claimant did not adhere to this process, which contributed to the delays and shortcomings in the design submissions.

63. I observed that despite the Engineer's repeated suggestions, it seemed that the Claimant did not have a proper quality control or review mechanism in place within their

[2] Page 117 – 170 of Exhibit R-269
[3] L-NKC-SLT-PMC-1411-254 dated 26 November 2014; L-NKC-SLT-PMC-1409-118 dated 15 September 2014; Letter dated 05 May 2014 at Exhibit R-269
[4] Letter dated 23 July 2014 at Exhibit R-269

organization. To this effect, I can refer to the Engineer's letter dated 06 August 2014 at **Exhibit R-269**.

64. Furthermore, I would like to draw attention to the Design Certificate attached at the end of Appendix 7, which specifies that an in-house check must be undertaken and completed to ensure the completeness, adequacy, and validity of the design of the Permanent Works.

Elaboration of Design Issues Leading to the Claimant's Delay

65. I have considered a few sample design submissions for P&P & Major/ Minor Structures showcasing various issues related to the finalization of design submittals by the Claimant for the execution of the Project.

66. I have described in detail the significance of such designs & drawings, and the sequence of submissions & resubmissions, highlighting the Claimant's inefficiency and delay in finalization of the same. A detailed summary of each design submission and respective letters are attached as **Exhibit R-318**.

67. Additionally, I have reviewed the reasons that necessitated the Engineer to refer the technical design submission to the Claimant multiple times. These reasons are listed below:

Plan and Profile Drawings:

(i) Insufficient attention was given to data validation: The Claimant did not give sufficient attention to the validation of data. Survey instruments were not properly calibrated, and the provided benchmarks in the indicative data were not professionally validated.

(ii) Lack of site verification: Site verification was not being done by the Claimant to identify the obligatory points and propose a P&P clear of those obligatory points (No infringement to existing structures etc.)

(iii) Violations of Employer's Requirements:

a. The proposed changes of gradient and curvature were made at locations that were not permitted by the ER such as points and crossings and the approaches of the MJB, IMB etc.

b. The gradients and curvatures provided by the Claimant exceeded the limiting values specified in the ER.

c. Several locations violated the ER requirement that the height of embankment should not be less than 1.0 m.

d. The height of the embankment did not respect the highest flood level (HFL) at bridge sites, failing to provide the minimum freeboard above the HFL.

(iv) The Claimant made avoidable and unnecessary changes in gradients and curvatures, disregarding "Good Engineering Practices."

68. Despite specific comments regarding the above issues, the Claimant either did not comply or only partly complied with the feedback, resulting in the need for rectification and resubmission by the Claimant.

Structure Drawings:

69. As I have mentioned above, the Claimant submitted the GAD for technical design without preparing and submitting the GIR, HIR and site verification details, mainly in reference to the existing bridges on Indian Railway system near the proposed DFCC structure. The GIR and HIR were submitted 3 months and 8 months respectively after the initial GAD submission.

(i) The Claimant's un-professional approach resulted in the inability to provide reliable site details of existing Indian Railway bridges, necessitating multiple references back to the Claimant for clarification.

(ii) The design by the Claimant relied on unreliable data parameters obtained in an unprofessional manner. The unprofessional conduct on the part of the Claimant refers to their failure to address our observations and incorporate them into their design submissions. Despite our explicit feedback and recommendations, the Claimant submitted multiple revised designs without adequately incorporating our past observations. Upon Cross-checking by the Respondent, it was discovered that the data was not based on actual site conditions but rather on certain assumptions that were inaccurate. This discrepancy between the assumed data and the actual site conditions raised concerns about the reliability and validity of the design.

I affirm that the statements made hereinabove are based upon my own knowledge, including my review of documents and records maintained by the Respondent and the Engineer in regular course of the Project. Although I have been assisted by counsel of the Respondent in preparing this witness statement, I confirm that it contains my true testimony as to the matters addressed herein. I am able and willing to testify to the matters stated in this witness statement if required to do so.

Babita Gupta 30.06.2023

DEPONENT

VERIFICATION

I, the Deponent above named, do hereby verify that the contents of the foregoing affidavit are true and correct. Paragraphs 1 to ___ of the affidavit are based on my personal knowledge and knowledge as derived from the records of the Project. No part of the present affidavit is false and nothing material has been concealed.

Verified at ___ on this ___ day of June 2023.

Babita Gupta 30.06.2023

DEPONENT

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ATTESTED
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30 JUN 2023