APPENDIX E

PROCEDURE FOR SUBMITTING, REVIEWING AND APPROVING PROJECTS, STARTING AND RECEIVING WORKS

SPONSORED CONCESSION OF PUBLIC SERVICES FOR CONSTRUCTION, OPERATION, MAINTENANCE AND INVESTMENTS NECESSARY FOR THE EXPLORATION OF THE SANTOS-GUARUJÁ IMMERSED TUNNEL

1. INTRODUCTION

1.1. All engineering projects shall be inserted into SISPROJ, as soon as they are implemented by the CONCESSIONAIRE, and shall be prepared in compliance with the applicable technical specifications and standards, based on the rules, design instructions, ordinances and standards in force at the time of preparation (REGULATORY AUTHORITY, DER/SP, DNIT, ABNT, and, failing that, observing internationally recognized standards), as well as the forms of development and availability, as described in EXHIBITS 5, 6 and 7.

1.2. The FUNCTIONAL PROJECTS shall be delivered by the CONCESSIONAIRE to the REGULATORY AUTHORITY no later than eighteen (18) months before the date on which the physical execution of the works provided for in the ORIGINAL INVESTMENT PLAN begins.

1.2.1. The FUNCTIONAL PROJECTS may be delivered in packages considering the following stages: (i) DRY DOCK, (ii) IMMERSED TUNNEL, (iii) URBAN ACCESSES in Santos, (iv) URBAN ACCESSES in Guarujá, (v) ACCESS BUILDINGS in Santos, and (vi) ACCESS BUILDINGS IN GUARUJÁ.

1.2.2. The CONCESSIONAIRE may, at its option, propose delivery packages for the intermediate FUNCTIONAL PROJECTS in divisions of smaller works, segregating, for example, the embankments of the TUNNEL, OAEs, item 3.2.1 of EXHIBIT 4, among other groupings, provided that this is previously approved by the REGULATORY AUTHORITY.

1.3. The FUNCTIONAL PROJECTS shall be delivered based on the PHYSICAL-EXECUTIVE SCHEDULE presented in the current INVESTMENT PLAN and approved by the REGULATORY AUTHORITY.

1.4. The approval of the FUNCTIONAL PROJECTS by the REGULATORY AUTHORITY or the obtaining of the QUALITY CERTIFICATE for the EXECUTIVE PROJECTS does not exempt the designer company or the CONCESSIONAIRE from responsibility for the preparation of the respective projects, without prejudice to the penalties applicable to the CONCESSIONAIRE.

1.5. For the processing of the CONCESSION's engineering projects, the provisions of the AGREEMENT and EXHIBITS shall prevail in the event of any divergence with the REGULATORY AUTHORITY's regulations.

1.6. Unless expressly stipulated, the deadlines set out in this APPENDIX are counted in calendar days, excluding the day on which they begin and including the day on which they expire.

1.7. In addition to sharing documents via SISPROJ, as soon as it is implemented by the CONCESSIONAIRE, the CONCESSIONAIRE will provide the REGULATORY AUTHORITY, upon request, with one (1) complete copy of the written and drawn parts of the studies, functional plan and projects on material that allows them to be reproduced and with computer support, within five (5) days of receiving the request.

1.8. Until the SISPROJ platform is implemented, the CONCESSIONAIRE shall submit to the REGULATORY AUTHORITY all the documentation for the FUNCTIONAL and EXECUTIVE PROJECTS in printed sheets – and respective digital copies in pdf format or equivalent – covering all the details of the works, in accordance with the procedures set out in the design instructions in force at DER/SP and the REGULATORY AUTHORITY at the time the project was prepared.

1.9. The procedure set out in this APPENDIX, with the exception of any deadlines for delivery of the projects, which will be defined by agreement between the REGULATORY AUTHORITY and the CONCESSIONAIRE, applies to the processing and content of the FUNCTIONAL and EXECUTIVE PROJECTS to be prepared by the CONCESSIONAIRE as part of the implementation of new investments, under the AGREEMENT.

2. GENERAL RULES FOR BIM (*Building Information Model*) MODELING

2.1. From the first year of the CONCESSION, counted from the date of signature of the INITIAL TRANSFER INSTRUMENT, all documentation relating to the FUNCTIONAL and EXECUTIVE PROJECTS shall be designed and prepared using BIM modeling technology. The models generated shall be geo-referenced – SIRGAS2000 global coordinate system or any other that may be officially adopted by the REGULATORY AUTHORITY.

2.2. The projects and BIM models shall be made available on the SISPROJ with each delivery. Once made available, the CONCESSIONAIRE will not be able to change versions in the system without proper registration and versioning control activated through an alert, warning, notice and/or acknowledgment workflow for registered USERS by the REGULATORY AUTHORITY. The coding standards (Work Id) for work/service items and project document coding in force and defined by the REGULATORY AUTHORITY shall be maintained.

2.3. The final files generated in BIM modeling and planks shall be made fully available to the REGULATORY AUTHORITY through SISPROJ, in IFC format, without loss of information and properties of the elements, with respect to the original model. As long as it is not possible to make the model available without loss of data, the CONCESSIONAIRE shall make the model available on SISPROJ in its original, editable format - in a format compatible with the platform(s) used by the REGULATORY AUTHORITY - in addition to the IFC model.

2.4. The information and attributes generated in the BIM models shall be integrated, whenever possible, and whenever requested by the REGULATORY AUTHORITY, into the electronic management systems to be implemented by the CONCESSIONAIRE, in particular SISGIS.

2.5. These models should also serve as the basis for maintaining and updating the MDSR, described in greater detail in EXHIBIT 6.

2.6. The CONCESSIONAIRE shall present a PD-BIM within six (6) months of the date of signing the INITIAL TRANSFER INSTRUMENT, for approval by the REGULATORY AUTHORITY. This document should include:

(i) a phased implementation schedule and gradual evolution of the levels of development (LOD – Level Of Development) of the BIM models, for each of the project disciplines, to be included in the projects to be implemented in each year of the CONCESSION, based on the regulations and instructions in force; and

(ii) a phased implementation schedule and gradual evolution of the dimensions of the BIM models (3d, 4d, 5D, etc.), for each of the project disciplines, to be included in the projects to be implemented in each year of the CONCESSION, based on the regulations and instructions in force.

2.7. The CONCESSIONAIRE shall review the PD-BIM annually and submit it for approval by the REGULATORY AUTHORITY. The document will be reviewed considering the following premises:

(i) compatibility of the PD-BIM with the technologies available in Brazil; and

(ii) compatibility of the PD-BIM with current regulations and best national and international practices.

2.8. The PD-BIM initially presented shall allow for the gradual evolution of the levels of development (LOD – Level of Development) of the BIM models, requiring LOD 400 as a minimum parameter within six (6) years. For reference purposes for this AGREEMENT, the following table presents the initial qualitative definitions of LOD. These definitions may be further detailed and specified in project instructions issued by the REGULATORY AUTHORITY.

Table - Qualitative definitions of LOD (Level of Development) for this AGREEMENT

LOD	Equivalência em nível de detalhamento dos elementos	Necessidade de complementação do projeto, com pranchas de detalhes, não necessariamente vinculadas ao modelo	Precisão geométrica dos elementos					Quantidade de informações relacionadas à especificação dos materiais e métodos executivos					Precisão de localização geométrica dos elementos (eixo de localização, etc.)					Precisão da base topográfica					Quantidade de informações relacionadas ao acompanhamento da obra e aos dados do controle tecnológico				
			nula	baixa	média	alta	muito alta	nula	baixa	média	alta	muito alta	nula	baixa	média	alta	muito alta	nula	baixa	média	alta	muito alta	nula	baixa	média	alta	muito alta
100	Equivalente ao projeto conceitual	sim																					(não aplicável)				
200	Equivalente ao projeto funcional (anteprojeto)	sim																					(não aplicável)				
300	Equivalente ao projeto básico	sim																					(não aplicável)				
350	Equivalente ao projeto executivo com nível mediano de detalhamento	não, exceto em casos específicos																					(não aplicável)				
400	Equivalente ao projeto executivo com alto nível de detalhamento	não, exceto em casos muito específicos																					(não aplicável)				
500	Equivalente à documentação As-Built	não, exceto em casos muito específicos																									

Portuguese	English
LOD	LOD
Equivalência em nível de detalhamento dos elementos	Equivalence in the element detail level
Equivalente ao projeto conceitual	Equivalent to conceptual design
Equivalente ao projeto funcional (anteprojeto)	Equivalent to functional design (preliminary design)
Equivalente ao projeto executivo com nível mediano de detalhamento	Equivalent to an executive project with a medium level of detail
Equivalente à documentação As-Built	Equivalent to As-Built documentation
Necessidade de complementação do Projeto, com pranchas de detalhes, não necessariamente vinculadas ao modelo	Need to complement the project with detail sheets, not necessarily linked to the model
sim	yes
não, exceto em casos específicos	no, except in specific cases
não, exceto em casos muito específicos	no, except in very specific cases
Precisão geométrica dos elementos	Geometric accuracy of elements
Quantidade de informações relacionadas à especificação dos materiais e métodos executivos	Amount of information related to the specification of materials and execution methods
Precisão de localização geométrica dos elementos (eixo de localização, etc.)	Accuracy of geometric location of elements (location axis, etc.)
Precisão da base topográfica	Accuracy of the topographic base
Quantidade de informações relacionadas ao acompanhamento da obra e aos dados do controle tecnológico	Amount of information related to monitoring the work and technological control data
nula	null
baixa	low
media	medium
alta	high
muito alta	very high
(não aplicável)	(not applicable)

Note: The classifications ‘low, ‘medium’, ‘high’ and ‘very high’ are generic terms that refer in relative terms to the degree of detail, with respect to the possibilities of the available technology, at the time of updating the PD-BIM document.

2.9. For any and all project documentation, as long as it is not possible to reach LOD 400, or to reach the appropriate level of detail for the analysis or construction of a given building element, additional drawings/spreadsheets shall be generated (as many as necessary), even if in 2D format (two dimensions) and not linked to the BIM model, to complement the project documentation. This obligation will not entail any burden for the GRANTING AUTHORITY.

3. CERTIFICATION

3.1. The CONCESSIONAIRE shall obtain for all IMPLEMENTATION WORKS and other works carried out on the INTERCONNECTION SYSTEM, at its own expense, a QUALITY CERTIFICATE for the EXECUTIVE PROJECT and a QUALITY CERTIFICATE for the works. The certificate shall be issued by an inspection body accredited by INMETRO, under Ordinance No. 367/2017, or a certifying authority previously approved by the REGULATORY AUTHORITY.

3.1.1. If it is impossible for the CONCESSIONAIRE to obtain QUALITY CERTIFICATION pursuant to the provisions in item 3.1, the CONCESSIONAIRE may obtain certification from an entity that is not accredited by INMETRO or approved by the REGULATORY AUTHORITY. In this case, it shall submit a triple list for the REGULATORY AUTHORITY to elect from, observing the criteria of broad technical reputation and no prohibitions on contracting with the Public Administration.

3.1.2. The criterion of technical reputation will be considered satisfied if one of the candidates on the triple list, with professionals or companies of notorious specialization, is recognized by the REGULATORY AUTHORITY and/or by another entity of recognized capacity, with regard to the scope of the certification.

3.1.3. Within five (5) days of submitting the triple list, the REGULATORY AUTHORITY shall express its opinion on the choice and may, within the same period, request that a new triple list be prepared.

3.1.4. Within seven (7) days of the request mentioned in the item 3.1.3 above, the CONCESSIONAIRE shall submit a new triple list to the REGULATORY AUTHORITY, with the replacement of the three candidates.

3.1.5. The REGULATORY AUTHORITY shall give its opinion within five (5) days of receiving the new triple list referred to in item 3.1.4 above.

3.1.6. The CONCESSIONAIRE shall submit the triple list provided for in the item 3.1.1 above in time to meet the deadlines for the timely submission of the EXECUTIVE PROJECTS.

3.1.7. The certifying authority will be technically responsible, for all legal purposes, for the accredited inspection of projects and works.

3.1.8. All costs and eventual responsibilities related to contracting the certifying authority will be exclusively attributed to the CONCESSIONAIRE, with no charge of any kind to the REGULATORY AUTHORITY or the GRANTING AUTHORITY.

3.2. In order to obtain the QUALITY CERTIFICATE for the EXECUTIVE PROJECT of any intervention within the scope of this CONCESSION, QUALITY CERTIFICATION by sampling will not be allowed, and the ACCREDITED INSPECTION shall be carried out on all the documents.

4. FUNCTIONAL PROJECTS

4.1. At least thirty (30) days before the date scheduled for the submission of the FUNCTIONAL PROJECTS, including in case of new investments, the CONCESSIONAIRE shall send the GRID to the REGULATORY AUTHORITY.

4.2. The FUNCTIONAL PROJECTS can only be sent to the REGULATORY AUTHORITY once the GRID has been accepted, and the REGULATORY AUTHORITY has a deadline of up to fifteen (15) days from submission by the CONCESSIONAIRE.

4.2.1. If requested by the REGULATORY AUTHORITY, the CONCESSIONAIRE shall make adjustments to the GRID and submit it to the REGULATORY AUTHORITY within ten (10) days of the request, which shall comment on the adjusted GRID within ten (10) days of receipt.

4.2.2. If the CONCESSIONAIRE deems it necessary, after sending or approving the GRID, it may generate or send the GAID (Document Index Change Guide) to the REGULATORY AUTHORITY. The period that elapses between the submission or approval of the GRID and the submission of the GAID will be added to that initially foreseen for the REGULATORY AUTHORITY to manifest itself with respect to the GRID.

4.3. The FUNCTIONAL PROJECTS shall consider the compatibility of INTERFERENCES with existing and future infrastructure systems and public services, according to the information available, especially road systems and the establishment of access to transportation systems.

4.4. FUNCTIONAL PROJECTS shall be analyzed and approved by the professional responsible for road safety at the CONCESSIONAIRE, who shall ensure that the proposal set out in the FUNCTIONAL PROJECT meets all road safety parameters.

4.5. The FUNCTIONAL PROJECTS shall be prepared using the requirements listed in EXHIBIT 7 as a minimum reference. The FUNCTIONAL PROJECTS will only be considered delivered if they include:

(a) Project Speed

(b) 1:2000 Aerial Image/Photo: the entire project shall be submitted with an updated aerial image or photo (at least six (6) months);

(c) Magnetic North: the project shall show magnetic north, as well as the nearest cities;

(d) Radii used and widths adopted: the adoption of radii and widths in accordance with the vehicle type of project agreed with the REGULATORY AUTHORITY, as well as the simulation of turning and the corresponding speed considered;

(e) Adherence of the work (configuration and location): balancing INTERFERENCES with existing and future infrastructure systems and public services, especially road systems and the establishment of access to transportation systems.

(f) Longitudinal Profiles, Typical Cross Sections, Vertical Templates, OAE Sections: the profiles, sections and templates shall meet the technical characteristics required in the EXHIBITS;

(g) Indication of direction of travel: indication of direction of travel according to the classification of the planned road;

(h) Length of Acceleration and Deceleration Lanes and Tapers in compliance with IP.DIN.002: the length of acceleration and deceleration lanes and tapers in compliance with IP.DIN.002. The design of buildings shall take IP.DIN.002 into account;

(i) Traffic movements provided for in the guiding functional studies;

(j) Compliance with DER/SP Project Instructions, including for BIM models: IP-DE-A00/001 (Preparation and Presentation of Technical Documents), IP-DE-A00/002 (Technical Documents Coding) and IP-DE-A00/003 (Preparation and Presentation of Project Drawings in Digital Media), in their most recent revisions, in addition to IP.DIN/001 – Functional Project of the REGULATORY AUTHORITY and other applicable standards in

force;

(k) Synthesis Report containing a descriptive memorial of the work, a list of all the documents produced (LD) and their traceability, a plan for implementing the work (segmentation and deadlines), all the premises, guidelines and criteria that will guide the detailing of the EXECUTIVE PROJECT, as well as a list of the main technical specifications to be followed;

(l) The identification of non-motorized traffic points with the presence of pedestrians, cyclists and bus stops (regular and/or irregular), collective transportation stops (regular and irregular).

(m) Identification of all future investments provided in the AGREEMENT and in the area of influence of the work; and

(n) Presentation of a checklist showing that all of the above items have been met.

4.6. The REGULATORY AUTHORITY shall rule on the admissibility of the FUNCTIONAL PROJECTS within thirty (30) days of receipt, expressing its formal acceptance or any adjustments, if necessary.

4.6.1. The REGULATORY AUTHORITY's decision that the FUNCTIONAL PROJECT is inadmissible due to non-compliance with the requirements provided in items 4.5 and 4.6 above does not change the deadline provided in the item 1.3 above for the FUNCTIONAL PROJECTS to be considered delivered.

4.7. The adjustments requested under the item 4.6 above shall be submitted by the CONCESSIONAIRE within twenty (20) days of receiving the request from the REGULATORY AUTHORITY, which shall comment on the adjustments made within thirty (30) days of the submission by the CONCESSIONAIRE.

4.8. If the REGULATORY AUTHORITY justifiably understands that the adjustments made by the CONCESSIONAIRE do not allow the FUNCTIONAL PROJECT to be considered admissible, in compliance with items 4.4 and 4.5 above, the dispute shall be reviewed by the REGULATORY AUTHORITY's Steering Committee who shall issue an opinion on admissibility within ten (10) days, subjecting the CONCESSIONAIRE to the imposition of a penalty for failure to deliver the FUNCTIONAL PROJECT, under Exhibit 11.

4.9. Once the FUNCTIONAL PROJECT has been accepted, the REGULATORY AUTHORITY shall give its opinion, in a consolidated form and not in parts, on its approval within a period of up to thirty (30) days from acceptance, which may be extended for an equal period, provided that it does so by duly motivated act, and may request corrections and adjustments from the CONCESSIONAIRE.

4.9.1. If the REGULATORY AUTHORITY requests corrections to the FUNCTIONAL PROJECT under item 4.9 above, the CONCESSIONAIRE shall implement it within thirty (30) days.

4.10. In view of the corrections submitted by the CONCESSIONAIRE under item 4.9 above, the REGULATORY AUTHORITY shall issue a consolidated and non-divided opinion within twenty (20) days of receipt, and may request final corrections which shall be implemented by the CONCESSIONAIRE within seven (7) days of receipt of the request.

4.11. Regarding the corrections provided for in item 4.10 above, the REGULATORY AUTHORITY shall express its opinion within fifteen (15) days of receipt, which may be extended for the same period, provided that it does so by duly motivated act.

4.12. If the REGULATORY AUTHORITY justifiably understands that the adjustments made by the CONCESSIONAIRE do not allow the FUNCTIONAL PROJECT to be considered approved, the dispute shall be reviewed by the REGULATORY AUTHORITY's Steering Committee who shal

issue an opinion on the approval within ten (10) days, subjecting the CONCESSIONAIRE to the imposition of a penalty for failure to deliver the FUNCTIONAL PROJECT, under EXHIBIT 11. Failure to approve the functional project, due to the need for correction by the CONCESSIONAIRE, does not exempt it from the penalties provided for delays in the work.

4.13. At the end of the approval process, the CONCESSIONAIRE shall make a final version of the Integrated BIM Model of the FUNCTIONAL PROJECT (MBIM – PF) available on SISPROJ.

4.14. Considering the allocation of risks provided in the AGREEMENT, without prejudice to the assessment of the extent of the consequences of each event, the following adjustments to the FUNCTIONAL PROJECT prepared by the CONCESSIONAIRE, with respect to the guiding functional study of the NOTICE, will not be subject to rebalancing:

(i) Adjustment of the scope of the work to adapt to the interferences detected at the time the CONCESSIONAIRE prepared the functional project (examples: interferences with local roads, with local OAEs', with other service concessionaires, infrastructure systems and public transportation services), provided that the extension does not result from a risk allocated to the GRANTING AUTHORITY; and

(ii) Expansion of the scope of work to comply with the requirements of the environmental agencies in the context of licensing for the execution of services.

5. EXECUTIVE PROJECTS

5.1. The EXECUTIVE PROJECTS shall follow the premises, concepts and any reservations of the previously approved FUNCTIONAL PROJECT.

5.2. The EXECUTIVE PROJECTS shall also consider the interferences with existing and future infrastructure systems and public services, according to the information available, especially road systems and the establishment of access to transportation systems.

5.3. The EXECUTIVE PROJECTS shall present calculation memoranda for the structures considering the construction phase and the permanent condition and following the assumptions listed in EXHIBIT 7.

5.4. The EXECUTIVE PROJECTS shall be delivered to the REGULATORY AUTHORITY through SISPROJ, as soon as they are implemented, in order to fully register all the documentation relating to the processing of said projects, at least twenty (20) days before the date scheduled for the start of the works, duly certified.

5.4.1. The GRID shall be delivered at least twenty (20) days before the EXECUTIVE PROJECTS are due to be delivered, according to the deadline initially set.

5.4.2. If, during the development of the EXECUTIVE PROJECT, for any reason, there is an impediment to implementing the solution in accordance with the concepts, premises, guidelines and any reservations established in the FUNCTIONAL PROJECT previously approved by the REGULATORY AUTHORITY, the CONCESSIONAIRE may present any problems, their justifications and any suggested solutions for further analysis by the REGULATORY AUTHORITY, prior to issuing the EXECUTIVE PROJECT for analysis by the certifying authority.

5.4.3. For the executive projects for signaling and road restraint devices, all the sheets shall be analyzed and certified, sample analysis is not allowed.

5.4.4. After sending the GRID, the CONCESSIONAIRE may send the GAID to the REGULATORY AUTHORITY whenever necessary.

5.5. The CONCESSIONAIRE shall make the final version of the Integrated BIM Model of the Executive Project (MBIM-PE) available before work begins.

5.6. The REGULATORY AUTHORITY may request clarifications or corrections to the certified EXECUTIVE PROJECT submitted within twenty (20) days. The REGULATORY AUTHORITY's request for clarifications or corrections to the projects submitted will result in the approval deadline being restarted.

5.7. The EXECUTIVE PROJECT documentation shall include a study of at least two alternative areas (by type) with the potential to be used as construction support areas. This is especially important for the following support areas: disposal areas; borrow areas and areas for installing construction sites.

5.8. Without prejudice to obtaining the QUALITY CERTIFICATE for the EXECUTIVE PROJECT, the CONCESSIONAIRE shall submit the EXECUTIVE PROJECTS required to obtain the ENVIRONMENTAL INSTALLATION LICENSE for the IMPLEMENTATION WORKS, observing the deadlines that shall be met in order to meet the deadlines provided in the PHYSICAL-EXECUTIVE SCHEDULE of the ORIGINAL INVESTMENT PLAN approved by the REGULATORY AUTHORITY.

5.9. The CONCESSIONAIRE shall insert all the engineering projects previously submitted to the REGULATORY AUTHORITY within twelve (12) months of implementing SISPROJ.

6. AS BUILT DOCUMENTATION

6.1. The CONCESSIONAIRE shall issue "As built" documentation for all the works provided for in the INVESTMENT PLAN.

6.2. The "As built" documentation shall be generated from the final update of the MBBIM-AB and MBIM-COMP Integrated Comparative (MBIM COMP) models. The documentation shall contain a comparative analysis based on the Comparative Integrated BIM model (MBIM-COMP). This analysis shall certify that the work was carried out in accordance with what was envisaged in the EXECUTIVE PROJECT.

6.3. The CONCESSIONAIRE is responsible for any and all information contained in the "As Built" documentation and may be penalized if it detects omissions of relevant information or unjustified inconsistencies between the EXECUTIVE PROJECT and the work carried out, which may compromise the proper performance of the CONCESSION.

6.4. The "As Built" documentation shall be sent to the REGULATORY AUTHORITY within forty-five (45) days of the completion of the works, understood as its assessment by the REGULATORY AUTHORITY under the item 10 below, and shall be made available on SISPROJ if this digital system is already implemented by the CONCESSIONAIRE, and the GRID or GAID shall be made available within fifteen (15) days of the completion of the works.

6.5. If SISPROJ has not yet been implemented or, even if it has, at the REGULATORY AUTHORITY's express request, the final "As built" documentation shall be delivered to the REGULATORY AUTHORITY by the CONCESSIONAIRE, in accordance with the REGULATORY AUTHORITY's regulations:

CONCESSIONAIRE Name
Work
Service item

6.6. As Built documentation will be considered compliant if it minimally meets the following requirements:

(i) Documentation Delivery complete, including a Certificate of Completion of Works issued by a CERTIFYING AUTHORITY under this Agreement;

(ii) Delivery of duly updated BIM Models (MBIM-AB and MBIM-COMP) and with the level of detail required by the REGULATORY AUTHORITY;

(iii) Proof of updating the road register and asset register information in the CONCESSION's Digital systems (SISATIVOS and SIR);

(iv) Proof of final updating/consolidation of information in the CONCESSION's digital systems (SISOBRAS, SIGECON, SISQUALI, SGP, etc.);

(v) Proof of updating the MDSR; and

(vi) Proof of updating the information in SISGIS.

7. CONDITIONS FOR STARTING WORK

7.1. The works under the responsibility of the CONCESSIONAIRE, which involve the presentation of engineering projects, may be started subject to the following conditions:

(i) Obtaining and maintaining approval for each package of the FUNCTIONAL PROJECT from the REGULATORY AUTHORITY;

(ii) Obtaining and maintaining the PRIOR ENVIRONMENTAL LICENSE, ENVIRONMENTAL INSTALLATION LICENSE, depending on the project, from the environmental agencies responsible;

(iii) Submission of the EXECUTIVE PROJECT and its respective QUALITY CERTIFICATE to the REGULATORY AUTHORITY, as provided for in item 5;

(iv) Issuance of a Public Utility Decree; and

(v) Necessary expropriations or resettlements, as applicable.

7.2. The presentation of the QUALITY CERTIFICATE for the EXECUTIVE PROJECT does not exclude the functional responsibility of the CONCESSIONAIRE's Technical Engineer in Charge, nor does it exempt the CONCESSIONAIRE from repairing any and all non-conformities in the work that has been started, it being understood that the entire cost of redoing the work will be the responsibility of the CONCESSIONAIRE.

7.3. Delays in the delivery of the certified EXECUTIVE PROJECT will not be considered a justification for delaying the works under the EXHIBIT 11.

8. MONITORING OF WORKS USING BIM TECHNOLOGY

8.1. Information on the progress of the works shall be inserted and updated on a monthly basis in the BIM model initially prepared in the EXECUTIVE PROJECT (MBIM-PF), with a level of detail to be defined in a technical specification issued by the REGULATORY AUTHORITY. This procedure will result in the development of the Integrated BIM Model for Construction Monitoring / As Built (MBIM-AB).

8.2. Monthly monitoring shall include recording and maintaining a database of georeferenced high-definition aerial images to be made available for viewing on SISGIS.

8.3. For road elements that require greater detail or additional detail to record and determine the status of the work in progress, additional topographical surveys shall be carried out, using georeferenced reality capture instruments (high definition photo survey using drones or equivalent or superior technology) that provide an adequate level of detail (in terms of image and point cloud), to record and determine the progress of each work front and covering the entire area of the work in progress.

8.4. Regardless of the provisions of item 8.3, the CONCESSIONAIRE shall collect images with drones on a monthly basis for all works in progress. The images shall be able to be transmitted

in real time to the CONCESSIONAIRE's CCO, and subsequently integrated into the REGULATORY AUTHORITY's CCI. The photos shall record the date, time and geographical position (latitude and longitude in decimal degrees). The CONCESSIONAIRE shall feed the information collected (photos and reimbursed 3D model) into the CONCESSION's electronic SIR system. The REGULATORY AUTHORITY may request, up to a maximum of twelve times a year, an extraordinary inspection, with image recording and storage of the images in the CONCESSION's electronic SIR system, and possibly 3D reimbursement of the elements, in addition to the above-mentioned ordinary inspections, of any elements of the road system containing works in progress. In this case, the route and elements to be inspected may be defined by the REGULATORY AUTHORITY itself. The images shall be made available on the SIR system no later than 5 days after collection, and preferably in real time.

8.5. The reality capture shall be presented in the form of digital elevation models (three-dimensional models) of the elements of the work in sufficient detail for dimensional and qualitative verification of the elements. The results of the complementary surveys shall be fed back into the Integrated BIM Model for Construction Monitoring / As Built, as well as into SISGIS every two weeks.

8.6. This monitoring shall also result in the generation of the Comparative BIM Model (MBIM-COMP) between the executive project initially prepared in the EXECUTIVE PROJECT (MBIM-PE) and the As Built BIM Model (MBIM-AB). All the comparative models (MBIM-COMP) generated shall be made available on SISPROJ, as soon as they are implemented, also every two weeks.

8.7. When the work is delivered, a topographical survey shall be carried out using laser scanning or equivalent or superior technology, covering all the elements of the work, including signaling and safety elements. For road elements that require greater detail or additional detail (OAEs, footbridges, buildings, etc.), additional topographic surveys shall be carried out using georeferenced reality capture instruments (high-definition photo survey with drone or equivalent or superior technology).

8.8. This survey shall contain sufficient information (in terms of images and point clouds) to enable the final version of the Integrated BIM Model for Construction Monitoring / As Built (MBIM-AB) to be generated, as well as the final version of the Comparative BIM model (MBIM-COMP). Both the topographical surveys and the BIM models generated using the above procedure shall contain sufficient qualitative and quantitative information to enable the REGULATORY AUTHORITY's Works Supervision team to certify that the works have been properly completed.

9. WORKS COMPLETION NOTIFICATION

9.1. The CONCESSIONAIRE shall notify the REGULATORY AUTHORITY of the work completion by means of a "Completion Notification", to be sent no later than thirty (30) days before the date stipulated for completion. This document, which shall be approved by the REGULATORY AUTHORITY within thirty (30) days of receipt of the Completion Notification sent by the CONCESSIONAIRE, after the relevant inspections attesting to the clearance of the road for safe operation, will serve as a parameter for stipulating the completion date of the works.

9.1.1. The CONCESSIONAIRE shall submit to the REGULATORY AUTHORITY all the supporting documents required to obtain the OPERATING LICENSE.

9.2. If "non-conformities" are identified during the inspections (with reference to projects, compliance with standards and specifications and contractual obligations), the REGULATORY AUTHORITY will issue a technical report notifying the CONCESSIONAIRE of the irregularities found. Based on this report, the CONCESSIONAIRE, at its own expense, shall make the necessary corrections and issue a new "Completion Notification". Once this notification has been sent, the REGULATORY AUTHORITY will carry out new inspections to certify that the road has been cleared.

9.3. The safe release of the road to traffic may take place before acceptance of the work, always with the authorization of the REGULATORY AUTHORITY, subject to overcoming the "non-conformities" identified within thirty (30) days, extendable at the REGULATORY AUTHORITY's

discretion, under penalty of the penalties set out in EXHIBIT 11. Under no circumstances the CONCESSIONAIRE may release the road without prior authorization from the REGULATORY AUTHORITY.

9.4. Upon completion of the expansion works and simultaneously with the preparation of the “As Built” documentation, the CONCESSIONAIRE shall carry out a new detailed topographical survey taking into account the new physical layout of the entire area modified by the project. Based on this survey, the CONCESSIONAIRE’s Digital Management Systems shall be updated with information relevant to analyzing the safety of the road (slopes of the track and other relevant information that may be requested by the REGULATORY AUTHORITY).

10. CONDITIONS FOR RECEIPT OF THE WORKS BY THE REGULATORY AUTHORITY

10.1. The works can only be considered fully completed when:

(i) the CONCESSIONAIRE presents the respective QUALITY CERTIFICATE of the Works to the REGULATORY AUTHORITY; and

(ii) the REGULATORY AUTHORITY expressly recognizes the completion of the planned investments, in accordance with the FUNCTIONAL and EXECUTIVE PROJECTS.

10.2. The CONCESSIONAIRE remains liable for the projects even after the REGULATORY AUTHORITY has received the works.