



SUPPLEMENTAL BID BULLETIN NO. 2
to the
BID DOCUMENTS
for the
SUPPLY AND DELIVERY OF VARIOUS ENGINEERING SOFTWARE
FOR NIA ENGINEERING DEPARTMENT
ITB No. NIACODSD-S-2R

A. Please be advised of the following revisions in the Procurement Schedule for the above-captioned project:

Deadline of Submission of Bids : October 17, 2025; 10:00 A.M.
BAC-A Secretariat Office
6th Floor, NIA Building A
EDSA, Quezon City

Opening of Bids : October 17, 2025; 10:30 A.M.
BAC-A Conference Room
6th Floor, NIA Building A
EDSA, Quezon City

B. Please be advised of the following revisions in the Bidding Documents for the above-captioned project:

- 1) Delete pages 20 and 21 under Section III. Bid Data Sheet of the Bidding Documents, and substitute the herein attached Attachment Sheet Nos. "1" and "2";
- 2) Delete pages 33 and 34 under Section VIII. Checklist of Technical and Financial Documents of the Bidding Documents, and substitute the herein attached Attachment Sheet Nos. "3" and "4";
- 3) Additional Miscellaneous items in all Comparative Specifications Table, for reference, please see attached Annex "A".

C. The Minutes of Pre-bidding Conference is attached as Annex "B" for reference.

D. Receipt of this Notice must be acknowledged by the Bidders at the Office of the BAC-A Secretariat, 6th Floor, NIA Building "A", EDSA, Diliman, Quezon City.

E. This Notice shall form part of the Bidding Documents.


ENGR. ROBERT C. SUGUITAN
BAC-A Chairperson



Bid Data Sheet

ITB Clause	
5.3	<p>For this purpose, contracts similar to the Project shall be:</p> <ol style="list-style-type: none"> a. The Bidder must have completed a single contract similar to the Project, equivalent to fifty percent (50%) of the ABC or atleast two (2) similar contracts, the aggregate contract amount should be equivalent to at least fifty percent (50%) of ABC having the largest of these similar contracts equivalent to at least twenty five percent (25%) of the ABC for each lot. b. The similar contract/s must have been completed within five (5) years from the deadline of submission and receipt of bids. c. For this purpose, similar contract/s shall refer to Various Engineering Software for Lot No. 1 & Lot No. 2
7.1	Sub-contracting is not allowed.
10	<ol style="list-style-type: none"> a) The first envelope shall contain the eligibility and technical documents of the Bid as specified in Section VIII. Checklist of Technical and Financial Documents <ol style="list-style-type: none"> a.1) Additional Documentary Requirements for Lot No. 1 & Lot No. 2 <ol style="list-style-type: none"> a.1.1. Duly accomplished Comparative Specification Table. a.1.2. Certification of Authority as a Distributor and/or Reseller of Products Offered (the Bidder should have authorization from the developer for the Bidding). a.1.3. Certificate of Completion from at least five (5) private and/or government offices with whom the bidder have supplied/distributed the to be procured various engineering software.
12	The price of the Goods shall be quoted DDP <i>National Irrigation Administration Central Office, EDSA, Diliman, Quezon City</i> or the applicable International Commercial Terms (INCOTERMS) for this Project.
14.1	<p>The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <p>For Lot No. 1 -</p> <ol style="list-style-type: none"> a. The amount of not less than PhP752,870.00 [equivalent to two percent (2%) of ABC=PhP37,643,500.00], if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or

	<p>b. The amount of not less than PhP1,882,175.00 [equivalent to five percent (5%) of ABC= PhP37,643,500.00] if bid security is in Surety Bond.</p> <p>For Lot No. 2 -</p> <p>a. The amount of not less than PhP800,719.21 [equivalent to two percent (2%) of ABC=PhP40,035,960.65], if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or</p> <p>b. The amount of not less than PhP2,001,798.03 [equivalent to five percent (5%) of ABC= PhP40,035,960.65] if bid security is in Surety Bond.</p>																																												
15	<p>Each Bidder shall submit one (1) original and two (2) copies of the first and second component of its bid. Original and copies 1 and 2 must reflect the following:</p> <p>a. Table of contents;</p> <p>b. Should be in sequential order of documents in line with Section VIII "Checklist of Technical and Financial Documents";</p> <p>c. Proper tabbing of the documents; and</p> <p>d. Copies 1 and 2 must be certified true copy of the original.</p>																																												
19.3	<p><u>Per Lot Description:</u></p> <table border="1"> <thead> <tr> <th>Lot No. 1</th> <th>Description</th> <th>Quantity</th> <th>Approved Budget for the Contract</th> </tr> </thead> <tbody> <tr> <td>Item A</td> <td>STAAD Pro Advanced</td> <td>10</td> <td>PhP22,750,833.33</td> </tr> <tr> <td>Item B</td> <td>STAAD Foundation Advanced</td> <td>3</td> <td>PhP3,281,000.00</td> </tr> <tr> <td>Item C</td> <td>GeoStudio 2D (Max)</td> <td>2</td> <td>PhP11,611,666.67</td> </tr> <tr> <td colspan="3" style="text-align: right;">TOTAL</td> <td>PhP37,643,500.00</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Lot No. 2</th> <th>Description</th> <th>Quantity</th> <th>Approved Budget for the Contract</th> </tr> </thead> <tbody> <tr> <td>Item A</td> <td>LeapFrog</td> <td>3</td> <td>PhP21,682,796.42</td> </tr> <tr> <td>Item B</td> <td>Central</td> <td>1</td> <td>PhP14,897,164.23</td> </tr> <tr> <td>Item C</td> <td>Oracle Primavera P6 Enterprise Project Portfolio Management</td> <td>2</td> <td>PhP1,309,333.33</td> </tr> <tr> <td>Item D</td> <td>Solidworks Premium</td> <td>1</td> <td>PhP2,146,666.67</td> </tr> <tr> <td colspan="3" style="text-align: right;">TOTAL</td> <td>PhP40,035,960.65</td> </tr> </tbody> </table>	Lot No. 1	Description	Quantity	Approved Budget for the Contract	Item A	STAAD Pro Advanced	10	PhP22,750,833.33	Item B	STAAD Foundation Advanced	3	PhP3,281,000.00	Item C	GeoStudio 2D (Max)	2	PhP11,611,666.67	TOTAL			PhP37,643,500.00	Lot No. 2	Description	Quantity	Approved Budget for the Contract	Item A	LeapFrog	3	PhP21,682,796.42	Item B	Central	1	PhP14,897,164.23	Item C	Oracle Primavera P6 Enterprise Project Portfolio Management	2	PhP1,309,333.33	Item D	Solidworks Premium	1	PhP2,146,666.67	TOTAL			PhP40,035,960.65
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20.1	<p>Post-qualification requirements:</p> <p>a) Two (2) copies of Certified True Copy of the Latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS); and</p> <p>Two (2) copies of Certified True Copy of valid Tax Clearance Certificate</p>																																												

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) **in accordance with Section 8.5.2 of the IRR;**

Technical Documents

- (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; **and**
- (d) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** Original copy of Notarized Bid Securing Declaration; **and**
- (e) Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable;

For Lot No.1 and Lot No. 2

- e.1. Duly accomplished Comparative Specification Table.
- e.2. Certification of Authority as a Distributor and/or Reseller of Products Offered (the Bidder should have authorization from the developer for the Bidding).
- e.3. Certificate of Completion from at least five (5) private and/or government offices with whom the bidder have supplied/distributed the to be procured various engineering software.
- (f) Original duly signed Omnibus Sworn Statement (OSS) **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (g) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) **or** A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class "B" Documents

- (h) If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence **or** duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

- (i) Original of duly signed and accomplished Financial Bid Form; **and**
- (j) Original of duly signed and accomplished Price Schedule(s).

Other documentary requirements under RA No. 9184 (as applicable)

- (k) *[For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos]* Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- (l) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

Section VII. Technical Specifications

LOT 1: ITEM A - STAAD Pro Advanced**BID NO. NIACODSD-S-2R****QUANTITY: 10**

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
Comprehensive Structural Analysis and Design Software with CBFEM Steel Connection Design Software	
1. Software Licensing Model: Perpetual (single user)	
2. License Access Management: Standalone	
3. Hardware Requirements: Application Desktop/Laptop	
4. Systems Requirements:	
MINIMUM:	
a. Windows 10 or 11 (64-bit OS)	
b. Intel® Pentium or AMD processor 3.0 GHz or greater	
c. 1 GB memory	
d. 500 MB storage	
e. Graphics card and monitor with 1280 x 1024 resolution and 256 color display	
RECOMMENDED: 2 GB memory, 16-bit high color graphics card	
5. Maintenance	
a. Three (3) year software upgrade to new version releases and maintenance releases, problem resolutions, bug fixes, and local technical support bundled with reinforced concrete design detailing software.	
6. Interoperability and Compatibility	
a. Compatibility with various software used by NIA to enhance its functionality and integrate with different aspects of structural engineering projects.	
7. User Interface	
a. Structural grids	
b. Tooltips to highlight data	
c. Frame generators	
d. Structure wizard for simple analytical models, or with the physical model to aid with an integrated solution	
e. Simple wire frames for speed, accuracy, and ease of use	
f. Fully rendered 3D models for clear mass distribution and presentation	
g. Advanced IDE style editor with IntelliSense, database integration, and context-sensitive help	
h. Triangular or quadrilateral meshes created from zones within defined models or imported from DXF files	
i. Meshes automatically refined to account for loading and changes in geometry when part of a physical model	

9/10/2025

LOT 1: ITEM A - STAAD Pro Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 10

j. Load generators, including seismic UBC, IBC, ASME wind and snow	
k. Steel detailing and concrete modeling capabilities when used with a subscription program	
8. Functionalities	
A. Includes all the modeling, analysis, design and interoperability capabilities, layers on advanced analysis, as well as reinforced concrete design and detailing features.	
a. Nonlinear geometric and cable analysis	
b. Eigen buckling analysis	
c. Floor spectrum analysis due to time history loading (seismic design)	
d. Steady state dynamic performance for vibration design	
e. Pushover analysis	
f. Design and detailing of reinforced concrete beams, columns, footings, pile caps, walls, and slabs	
g. Automated reinforcing drawings, details, and schedules, with customizable settings	
B. Objects	
a. Standard linear, curved, and physical beams, compression/tension only, with databases of sections from around the world	
b. 3- or 4-noded 2D plates and surface objects with holes	
c. Solid 3D bricks from 4- to 8-noded	
d. Supports, including foundation and multilinear springs	
e. Full range of loads for static and dynamic analysis that can be defined explicitly or calculated using the wide range of load generators	
C. Modeling	
a. Section libraries tailored for different industries	
b. Physical modeling for concrete and steel BIM workflows	
c. Calculate section properties and retrieve stress values with Section Wizard	
d. Specialized quick modeling environment for concrete buildings	
e. Create models quickly using a Structure Wizard	
D. Analysis and Design	
a. Analyze and design structures of all types, including integrated concrete and steel	
b. Design loads and load combinations including automatic wind and seismic requirements	

LOT 1: ITEM A - STAAD Pro Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 10

c. Analysis: FEM, linear static elastic, P-Delta, dynamic, AISC direct analysis	
d. Design basic foundation types including spread footings	
e. Design basic structural steel connections	
f. Produce automated steel drawings directly from Structural Analysis and Design Software model	
g. Design basic reinforced concrete elements	
h. Traditional first-order elastic analysis, including iterative one-way analysis	
i. Both large and small P-Delta analysis, including stress-stiffening effects	
j. Account for imperfections in structural geometry	
k. Direct analysis as per AISC 360	
l. Dynamic modal analysis, including stress-stiffening eigen solution and steady-state options, time history, and response spectrums	
m. Advanced solver that is up to 1,000 times faster than the standard solver	
n. Shape Editor to calculate properties of built-up sections, drawn freehand, parametrically defined, or imported from a CAD drawing	
E. Advanced Analysis	
a. Nonlinear geometric and cable analysis	
b. Eigen buckling analysis with in-depth buckling mode evaluation	
c. Floor spectrum analysis due to time history loading (seismic design)	
d. Steady state dynamic performance for vibration design	
e. Pushover analysis (FEMA 356)	
F. Integrated Design	
a. Advanced concrete design, drawing, and documentation	
b. Automatically determine beam member continuity to provide continuous, practical reinforcement	
c. Automatically identify columns, walls, and their continuity over the height of the building to ensure continuity of reinforcement	
d. Produce practical designs by grouping. Identify groups of levels for design of beams or columns. Define groups of multiple elements for most critical design to be adopted for beams, columns, and foundations	
e. Control automatic designs through simple dialogues	
f. Control detailing requirements through simple dialogues	

LOT 1: ITEM A - STAAD Pro Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 10

g. Validate designs with summary graphics, which enable user modifications to prescribe alternative solutions	
h. Modify the design to suit special requirements using simple tools	
i. Lock and unlock designs to prevent accidental editing	
j. Produce detailed calculations. Generate drawings for general arrangements, test schedules, detailed sections, and elevations. Obtain detailed bills of quantity for each entity.	
k. Design columns for standard or more complex shapes	
l. Determine slab design without having to specify a finite element mesh	
m. Design foundations like pad, stepped, or pile caps (up to six piles) for RCC and steel structures. For steel structures, design pedestal columns up to the foundation	
n. Design fluid-retaining structures, analyzed using parametric surface modeling in Structural Analysis and Design Software. The design of tank walls and slabs is supported for EN base code and other annexes. Identify walls and slabs analyzed with FEM models.	
o. Generate section forces for specified width at specified intervals. Produce zonal and curtailed detailing for walls. Manage design using flexural crack-width and drying-shrinkage crack-width *with CBFEM Steel Connection Design Software for concrete and steel connection	
p. With Design codes ACI 318M-11, ACI 318-11, ACI 318M-14, and ACI 318-14, IS 456 and IS 13920-2106, EN 1992 – base code national annexes – U.K., Malaysia, Singapore, Belgium, and custom, BS 8110-97, NSCP 2015, AS 3600-2018	
q. Automatically calculate combinations taking the forces from the analytical model (static and dynamic) and use either the defined combination defined in the analytical model or from a template. Define cross combinations for irregular buildings.	
r. Produce drawings in the universal standard DXF format. Produce general arrangement drawings and reinforcing layouts, plus elevations with cross sections at key locations.	
G. Post Processing	
a. interface is configured to suit the model to ease access to the required data	
b. Linked tables and windows to gain direct feedback from one item in related windows	

LOT 1: ITEM A - STAAD Pro Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 10

c. Simple, clear information to verify the analysis and output the file	
d. Create high-quality documents	
e. Use automatic or user-configured scales, colors, and limits to create contoured stress plots	
f. View displacement, stress contour, or mode shape animations dynamically	
9. Design Codes/References	
a. Can choose from a minimum of 50 steel design codes from around the world	
b. Integrated steel drawing production.	
c. Can select from a minimum of 40 concrete design codes, either in batch processing or the interactive concrete design mode	
d. Integrated concrete design, detailing, and drawing production	
e. Support for four timber design codes	
f. Shear wall designs for U.S., Indian, and British codes	
10. Miscellaneous (Authorized Distributor and/or Reseller Only)	
a. 7 days training for a minimum of 10 participants with inclusion of meals and snacks	
b. Fundamentals and Advanced Training	
c. Documentation (Installers/Manual)	
Name of Firm	Name in Print & Signature of Bidder

LOT 1: ITEM B - STAAD Foundation Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 3

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
Foundation Analysis and Design Software	
Foundation Analysis and Design Software	
1. Software Licensing Model: Perpetual (single user)	
2. License Access Management: Standalone	
3. Hardware Requirements: Application Desktop/Laptop	
4. Systems Requirements:	
a. MINIMUM: Windows 8, 10, or 11 (64-bit OS), Intel® Pentium or AMD Athlon or greater, 1 GB memory, 300 MB storage, graphics card and monitor with 1280 x 1024 resolution and 256 color display	
b. RECOMMENDED: 2 GB memory, 2 GB storage, 16-bit high color graphics card, OpenGL 3D graphics supported	
5. Maintenance:	
a. Three (3) year software upgrade to new version releases and maintenance releases, problem resolutions, bug fixes, and local technical support	
6. Interoperability and Compatibility:	
a. Direct integration with Structural analysis softwares used by NIA for importing and analyzing structural models.	
b. Foundation design can be performed based on the loads and reactions from NIA used software models.	
c. Integration for designing foundations based on loads and reactions from NIA used software models.	
d. Compatible for importing and exporting 2D and 3D CAD models for detailed foundation design documentation.	
e. Supports roadway and civil infrastructure projects by integrating with NIA used softwares for foundation design within broader civil engineering workflows.	
f. Supports importing and exporting DXF and DWG files, enabling compatibility with drafting softwares used by NIA for detailed CAD drafting.	
g. Interoperability with Revit for BIM workflows, allowing foundation designs to be integrated into Revit models.	
h. Supports general CAD/BIM interoperability through common file formats like DWG, DXF, and IFC.	
7. Functionalities:	

LOT 1: ITEM B - STAAD Foundation Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 3

<ul style="list-style-type: none"> • General Footings 	
<ul style="list-style-type: none"> • Intuitive graphical user interface; the workflow is categorized and arranged to flow from top to bottom 	
<ul style="list-style-type: none"> • Foundation project environment that includes isolated, combined, strap, pile cap, octagonal footing, mat, and rotating/reciprocating machine foundations; it connects all the modules through a global layer 	
<ul style="list-style-type: none"> • Tabbed view, navigator tree ribbon control and custom skin style 	
<ul style="list-style-type: none"> • Spreadsheet import/export integration with detailed output 	
<ul style="list-style-type: none"> • Physical mat foundation modeling environment saves time and reduces errors by considering openings, control regions, physical beam, and column lines; provides an option for both triangular and quadrilateral plates 	
<ul style="list-style-type: none"> • Physical loading—like point load on space, irregular quadrilateral load, circular load, or line load allows users to simulate any physical loading such as tank and wall loading 	
<ul style="list-style-type: none"> • Wizard-based simplified input for rotating/reciprocating machine foundation creates solid elements with dynamic loading 	
<ul style="list-style-type: none"> • Seamlessly integrates with NIA used softwares to import/export loadings, reactions, column positions; users can import any set of analyzed plates to design; tracks changes made in model and can merge the changes with the software. 	
<ul style="list-style-type: none"> • Graphics that help visualize output like displacements, stress on displaced shape, combined beam stress, and entities such as plates and beams in 3D for a realistic rendered view 	
<ul style="list-style-type: none"> • Automatic pile arrangement 	
<ul style="list-style-type: none"> • Analysis and Design 	
<ul style="list-style-type: none"> • Support for both flexible and rigid methods; optimize footing dimensions 	
<ul style="list-style-type: none"> • FEM-based static analysis for mat foundation and dynamic analysis for machine foundation. 	
<ul style="list-style-type: none"> • Support for many load cases and load combinations 	
<ul style="list-style-type: none"> • User-defined reinforcing zones and blocks for optimal reinforcement arrangement 	
<ul style="list-style-type: none"> • Slab design along any cut line to simulate manual mat design techniques 	
<ul style="list-style-type: none"> • Pedestal design Analysis for partial uplift caused by biaxial bending for all footing types 	

LOT 1: ITEM B - STAAD Foundation Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 3

<ul style="list-style-type: none"> • Parallel analysis and design runs for multiple mats designed to ACI 318-2014 and 2019 	
<ul style="list-style-type: none"> • One-way shear check for mats designed to ACI 318-2014 and 2019 	
<ul style="list-style-type: none"> • Special Features for Plant Foundations 	
<ul style="list-style-type: none"> • Specific modules for the plant industry, such as vertical vessel foundation, heat exchanger foundation, annular ring tank foundation, and drilled pier analysis 	
<ul style="list-style-type: none"> • Generates load combinations automatically based on several country codes such as ASCE-7 and PIP STC 01015 	
<ul style="list-style-type: none"> • Generates wind load and zip-code-based seismic load automatically based on ASCE 7, IS 875, and IS 1893 	
<ul style="list-style-type: none"> • Creates different configurations of vessel foundations 	
<ul style="list-style-type: none"> • Output 	
<ul style="list-style-type: none"> • DXF export of detailed and GA drawing 	
<ul style="list-style-type: none"> • Detailed structural drawings with customizable drawing options and labels 	
<ul style="list-style-type: none"> • Base pressure and plate stress color contours 	
<ul style="list-style-type: none"> • Step-by-step detailed calculation sheet with code clauses and equations to verify output 	
<ul style="list-style-type: none"> • To-scale dynamic sketches in calculation sheet GA drawings with grid marks to help identify interferences 	
<ul style="list-style-type: none"> • Bending moment and shear force graphs for combined footing embedded in calculation sheet for critical load case 	
<ul style="list-style-type: none"> • Printable bending moment and shear force graphs for combined footing 	
<ul style="list-style-type: none"> • Customizable live reports for mat foundations designed to ACI 318-2014 and 2019 	
<ul style="list-style-type: none"> • Foundation Toolkit Features 	
<ul style="list-style-type: none"> • Time-saving, wizard-based input for isolated footings, combined footings, and pile cap arrangement and design 	
<ul style="list-style-type: none"> • Drilled axial pier module supporting API and FHWA 1999 and alternative Vesic method 	
8. Design Codes / References:	
a. United States – ACI 318-2019 (only for mats), 2014, 2011, 2005	
b. United Kingdom – BS 8110	
c. India – IS 456-2000	
d. Australia – AS 3600 2018	
e. Canada – CSA A 23.3-19	

LOT 1: ITEM B - STAAD Foundation Advanced

BID NO. NIACODSD-S-2R

QUANTITY: 3

f. Chinese – GB50007 2011	
g. Euro – EN 1992-1-1-2004	
9) Miscellaneous (Authorized Distributor and/or Reseller Only)	
a. 5 days training for a minimum of 10 participants with inclusion of meals and snacks	
b. Fundamentals and Advanced Training	
c. Documentation (Installers/Manual)	
Name of Firm	Name in Print & Signature of Bidder

LOT 1: ITEM C – Geostudio 2D

BID NO. NIACODSD-S-2R

QUANTITY: 2

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
Comprehensive Geotechnical Analysis Software	
1) Software Licensing Model: Perpetual (shared use)	
2) License Access Management: Standalone	
3) Hardware Requirements: Application Desktop/Laptop	
4) Systems Requirements:	
a. MINIMUM: Windows 10 or 11 (64-bit OS), Intel® Pentium® 4 or better, or AMD Opteron™ or Athlon™ 64 or better, 4 GB RAM, 64 GB storage, NVIDIA® GT 300, ATI® Radeon® HD 4000 Series, Intel® HD Graphics 3000/2000, display 1024 px by 768 px or better	
b. RECOMMENDED: Windows 10 or 11 (64-bit OS), Intel® i5, i7, i9, AMD Ryzen, 16 GB RAM, 500 GB storage, 2GB VRAM / DirectX 10+ support, e.g. NVIDIA GeForce, AMD Radeon, display Full HD	
5) Maintenance:	
a. Three (3) year software upgrade to new version releases and maintenance releases, problem resolutions, bug fixes, and local technical support	
6) Geo-engineering Solutions	
a. Slope Stability Analysis:	
• Provides limit equilibrium slope stability analysis for soil and rock slopes, supporting both simple and complex problems with various slip surface shapes, pore water pressure conditions, soil properties, and loading conditions.	
b. Groundwater Flow Modelling:	
• Offers powerful finite element modeling capabilities for simulating groundwater flow in porous media, handling both simple saturated steady-state problems and advanced saturated/unsaturated transient analyses with atmospheric coupling at the ground surface.	
c. Stress and Deformation Analysis:	
• Provides powerful finite element modeling for analyzing stress and deformation in soil, rock, and structures, supporting a range of simulations from simple linear elastic analyses to complex soil-structure interaction problems with nonlinear material models.	
d. Dynamic and Seismic Analysis:	
• Offers powerful finite element modeling for analyzing earthquake liquefaction and dynamic	

LOT 1: ITEM C – Geostudio 2D

BID NO. NIACODSD-S-2R

QUANTITY: 2

loading, calculating motion and excess pore water pressures resulting from earthquake shaking, blasts, or sudden impact loads.	
7) Functionalities:	
a. Groundwater Seepage	
<ul style="list-style-type: none"> • 2D cross-section, 2D axisymmetric, and 1D geometry options 	
<ul style="list-style-type: none"> • Convenient initial pore water pressure condition definition 	
<ul style="list-style-type: none"> • Estimation routines for defining hydraulic functions 	
<ul style="list-style-type: none"> • Hydraulic boundary conditions, including specialised boundary conditions for soil-atmosphere coupling 	
<ul style="list-style-type: none"> • Optional isothermal vapor transfer 	
<ul style="list-style-type: none"> • Results graphing and visualisation options, including isosurfaces and contouring 	
<ul style="list-style-type: none"> • Saturated/unsaturated formulation 	
<ul style="list-style-type: none"> • Steady-state or transient groundwater flow 	
<ul style="list-style-type: none"> • Under-relaxation and convergence strategies for pore water pressure computation 	
b. Slope Stability	
<ul style="list-style-type: none"> • Automated strength reduction stability analysis 	
<ul style="list-style-type: none"> • Comprehensive material model library for soil and rock 	
<ul style="list-style-type: none"> • Finite element stress-based stability analysis 	
<ul style="list-style-type: none"> • Full range of slip surface search techniques 	
<ul style="list-style-type: none"> • Newmark deformation stability analysis 	
<ul style="list-style-type: none"> • Partial factor analysis capabilities including limit state design support 	
<ul style="list-style-type: none"> • Pore water pressure definition with finite element seepage analysis 	
<ul style="list-style-type: none"> • Probabilistic and sensitivity analysis capabilities 	
<ul style="list-style-type: none"> • Reinforcement definition options including vendor reinforcement library 	
<ul style="list-style-type: none"> • Rigorous limit equilibrium slope stability formulation 	
<ul style="list-style-type: none"> • Staged pseudo static formulation 	
<ul style="list-style-type: none"> • Staged rapid drawdown functionality 	
<ul style="list-style-type: none"> • Surcharge and seismic load functionality 	
<ul style="list-style-type: none"> • Thirteen limit equilibrium methods including Morgenstern-Price and Spencer 	
c. Static and Dynamic Stresses	
<ul style="list-style-type: none"> • Complete range of stress and deformation boundary conditions 	

LOT 1: ITEM C – Geostudio 2D

BID NO. NIACODSD-S-2R

QUANTITY: 2

<ul style="list-style-type: none"> • Comprehensive stress-strain constitutive model list, including non-linear soil and rock material models 	
<ul style="list-style-type: none"> • Coupled stress and pore water pressure formulation for consolidation analysis 	
<ul style="list-style-type: none"> • Dynamic and static stress analyses to model post-earthquake deformation and excess pore water pressures dissipation 	
<ul style="list-style-type: none"> • Incremental stress-strain formulation 	
<ul style="list-style-type: none"> • Multiple options for In situ stress definition, including gravity activation, K0 procedure, and field stresses 	
<ul style="list-style-type: none"> • Stress redistribution analysis 	
<ul style="list-style-type: none"> • Stress-update algorithm for handling non-linear material models 	
<ul style="list-style-type: none"> • Structural element library for modelling reinforcement, retaining walls and more 	
<ul style="list-style-type: none"> • Unloading/loading stress analysis with straightforward construction sequence simulation 	
8) File Types	
a. Imports	
1D/2D Geometry	
<ul style="list-style-type: none"> • AutoCAD drawing files (*.dwg, *.dxf) 	
<ul style="list-style-type: none"> • Maptek Vulcan exported DXF files (*.dxf) 	
<ul style="list-style-type: none"> • Software files (*.xml) 	
3D Background Meshes	
<ul style="list-style-type: none"> • STL Files (*.stl) 	
<ul style="list-style-type: none"> • AutoCAD Files (*.dwg, *.dxf) 	
<ul style="list-style-type: none"> • Wavefront Files (*.obj, *.mtl) 	
3D Bodies/Profiles	
<ul style="list-style-type: none"> • STEP Files (*.stp, *.step) 	
<ul style="list-style-type: none"> • IGES Files (*.igs, *.iges) 	
3D Geological Model Volumes	
<ul style="list-style-type: none"> • Wavefront Files (*.obj, *.mtl) 	
3D Points (Fit to Surface, Draw Locations)	
<ul style="list-style-type: none"> • CSV Files (*.csv) 	
<ul style="list-style-type: none"> • XYZ Files (*.xyz) 	
Cloud Imports	
<ul style="list-style-type: none"> • surface meshes 	
<ul style="list-style-type: none"> • geological model volume meshes 	
<ul style="list-style-type: none"> • 2D sections 	
Datasets (for material, climate, and/or boundary condition functions)	
<ul style="list-style-type: none"> • CSV Files (*.csv) 	
<ul style="list-style-type: none"> • Data Files (*.dat) 	
Earthquake Records (QUAKE/W)	

LOT 1: ITEM C – Geostudio 2D

BID NO. NIACODSD-S-2R

QUANTITY: 2

• Earthquake Records (*.acc)	
Pictures	
• AutoCAD Files (*.dwg, *.dxf, *.dwt)	
• Enhanced Windows Metafile (*.emf)	
• Graphics Interchange Format (*.gif)	
• High Definition Photo (*.wdp, *.mdp, *.hdp)	
• Icon (*.ico)	
• JPEG File Interchange Format (*.jpeg, *.jpg)	
• Microstation DGN File (*.dgn)	
• Portable Network Graphics (*.png)	
• Tiff File (*.tiff)	
• Windows Bitmap (*.bmp, *.dib)	
• Windows Metafile (*.wmf)	
b. Exports	
1D/2D Geometry Objects	
• AutoCAD DXF Files (*.dxf)	
• AutoCAD Drawing Files (*.dwg)	
3D Geometry Bodies	
• STEP Files (*.stp, *.step)	
3D Results Data (isosurface, ground surface, contours)	
• CSV Files (*.csv)	
• XYZ Files (*.xyz)	
3D Surface Mesh Files	
• DXF Files (11/12 [AC1009] (*.dxf)	
• DXF Polyface Files (11/12 [AC1009] (*.dxf)	
• AutoCAD Drawing Files (2013/LT2013) (*.dwg)	
Analysis Report Summary	
• HTML Files (*.htm, *.html)	
Graph Data Points (material or boundary condition functions, results graphs)	
• CSV Files (*.csv)	
• Data Files (*.dat)	
Images/Screenshots	
• Enhanced Windows Metafile (*.emf)	
• Graphics Interchange Format (*.gif)	
• High Definition Photo (*.wdp, *.jxr)	
• JPEG File Interchange Format (*.jpeg, *.jpg, *.jpe, *.exif)	
• Portable Network Graphics (*.png)	
• Tiff File (*.tiff, *.tif)	
• Windows Bitmap (*.bmp, *.dib, *.rle)	
• Windows Metafile (*.wmf)	
Movie Files	
• AVI Movie Files (*.avi)	

LOT 1: ITEM C – Geostudio 2D

BID NO. NIACODSD-S-2R

QUANTITY: 2

Result Information Data (View Object Information, View Result Information)	
• CSV Files (*.csv)	
• Data Files (*.dat)	
9) Miscellaneous (Authorized Distributor and/or Reseller Only)	
a. 5 days training for a minimum of 10 participants with inclusion of meals and snacks	
b. Fundamentals and Advanced Training	
c. Documentation (Installers/Manual)	
Name of Firm	Name in Print & Signature of Bidder

LOT 2: ITEM A – Leapfrog

BID NO. NIACODSD-S-2R

QUANTITY: 3

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
Geological Modelling Software for civil engineering and environmental projects	
1) Software Licensing Model: Three (3) year Subscription	
2) License Access Management: Standalone	
3) Hardware Requirements: Application Desktop/Laptop	
4) Systems Requirements:	
a. MINIMUM: Windows 10 or 11 (64-bit OS), Intel® Pentium® 4 or better, or AMD Opteron™ or Athlon™ 64 or better, 4 GB RAM, 64 GB storage, NVIDIA® GT 300, ATI® Radeon® HD 4000 Series, Intel® HD Graphics 3000/2000, display 1024 px by 768 px or better	
b. RECOMMENDED: Windows 10 or 11 (64-bit OS), Intel® i5, i7, i9, AMD Ryzen, 16 GB RAM, 500 GB storage, 2GB VRAM / DirectX 10+ support, e.g. NVIDIA GeForce, AMD Radeon, display Full HD	
5) Maintenance:	
a. Three (3) year software upgrade to new version releases and maintenance releases, problem resolutions, bug fixes, and local technical support	
6) 3D subsurface modelling for civil and environmental projects	
a. Rapidly create and update 3D geological models that dynamically adjust as new data is input.	
b. Visualise and understand your subsurface data, making it easier to communicate risks with stakeholders.	
c. Ideally suited for engineering geological models, hydrogeological models, geotechnical domain models and contaminant plume models	
d. Easily produce cross sections, maps, images and 3D volumes in industry standard formats	
e. Integrate geological models with engineering designs and BIM workflows for better collaboration and decision-making on infrastructure projects.	
7) Dynamic 3D Modelling	
a. Easily copy and build multiple models to explore various hypotheses and then update them dynamically with latest information. Automatically add new borehole data while parameters hold true.	
b. Create static models for comparison and reference.	
8) Ground type classifications	
a. Rapidly build 3D geological and numeric models from a wide variety of data sources including	

LOT 2: ITEM A – Leapfrog

BID NO. NIACODSD-S-2R

QUANTITY: 3

borehole, structural, GIS, 2D grid, map, point, polyline, mesh/surface, historical cross section data, geotechnical investigations, well screens, or points.	
b. Apply an array of modelling methods and powerful intuitive interpolant controls.	
c. Perform structural modelling and use borehole planning tools.	
d. Combine rock mass ratings, soil behaviour, or contaminant concentrations with geological domains for combined ground type classifications.	
9) Collaboration and sharing	
a. Easily share cross sections, images and movies, interactive 3D scenes, BIM, and CAD data outputs.	
b. Visualize and share projects rapidly for better workflow and communication, allowing everyone from technical staff to non-technical stakeholders to understand what the data is saying.	
10) Interoperability	
a. Connect directly to softwares used by NIA to access single source of geotechnical data, or read industry standard formats like gINT, AGS or Excel and csv files.	
b. Easily import and export geotechnical and geoenvironmental data to specialist software packages, including GIS data from Esri geodatabases and shapefiles, Map Info, or raster images and maps.	
c. Export seamlessly in industry recognized BIM formats.	
d. Integrate Drawing eXchange Format (DXF), Drawing (DWG) formats from NIA used softwares.	
11) Engineering designs	
a. Can process CAD directly using engineering data in the geological context model.	
b. Can produce output that enables rapid visualization and understanding of detailed tunnel, motorway earthworks, bridge, dam and building foundation designs in geological context.	
c. Integrate designs, build surface topography, and create excavation volumes to inform design.	
d. Import alignments and create longitudinal sections.	
12) Environmental insight	
a. 3D geological modelling to build geology and initial values for groundwater flow simulation.	
b. Rapidly assess contaminant plumes or saltwater intrusion by combing geological models with water sample screens or geophysical data.	

LOT 2: ITEM A – Leapfrog

BID NO. NIACODSD-S-2R

QUANTITY: 3

c. Model directly from screens in AGS or gINT projects.	
d. Visualise plumes or saltwater wedge intrusion in 3D.	
e. Use the Hydrogeology Extension to easily combine with flow models.	
f. Use the Contaminants Extension to estimate contaminant concentration and mass.	
13) Generate cross sections	
a. Make sections anywhere on site in minutes, not hours.	
b. Visualize from any angle, turn, rotate, and rapidly detect errors.	
c. Work intuitively with tools that help you advance your analysis and recognize correlations and trends.	
d. Update dynamically as the model evolves.	
e. Import historic sections and maps.	
f. Tailor outputs for reports, CAD, or geotechnical analysis in industry trusted applications for geotechnical analysis.	
14) Miscellaneous (Authorized Distributor and/or Reseller Only)	
a. 4 days training for a minimum of 10 participants with inclusion of meals and snacks	
b. Fundamentals and Advanced Training	
c. Documentation (Installers/Manual)	
Name of Firm	Name in Print & Signature of Bidder

LOT 2: ITEM B – CENTRAL

BID NO. NIACODSD-S-2R

QUANTITY: 1

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
Data management software for Geological Modelling	
1) Software Licensing Model: Three (3) year Subscription	
2) License Access Management: Standalone	
3) Hardware Requirements: Application Desktop/Laptop	
4) Systems Requirements:	
a. MINIMUM: Windows 10 or 11 (64-bit OS), Intel® Pentium® 4 or better, or AMD Opteron™ or Athlon™ 64 or better, 4 GB RAM, 64 GB storage, NVIDIA® GT 300, ATI® Radeon® HD 4000 Series, Intel® HD Graphics 3000/2000, display 1024 px by 768 px or better	
b. RECOMMENDED: Windows 10 or 11 (64-bit OS), Intel® i5, i7, i9, AMD Ryzen, 16 GB RAM, 500 GB storage, 2GB VRAM / DirectX 10+ support, e.g. NVIDIA GeForce, AMD Radeon, display Full HD	
5) Maintenance:	
a. Three (3) year software upgrade to new version releases and maintenance releases, problem resolutions, bug fixes, and local technical support	
6) Description and Features	
a. The software must provide secure cloud hosting, scalable user access through individual subscriptions, and licensing options to accommodate diverse team structures and operational needs.	
b. It should integrate with industry-standard tools – including NIA used softwares (GeoStudio, PLAXIS) – to facilitate seamless data exchange and project version management.	
c. Minimum 3000 GB (3TB) storage	
d. NIA used Design Software Integration (Plaxis 3D and Geostudio)	
e. Maximum of 10 users	
f. Visualize and review published data and models	
g. Create and save scenes to share and view	
h. User and admin management	
i. Audit trail access	
j. Leave and reply to comments	
k. Upload and download files	
l. Import cross sections into NIA used softwares (GeoStudio and PLAXIS)	
m. Import geological model volumes into NIA used softwares (PLAXIS and GeoStudio)	
n. Publish projects from NIA used geological modeling softwares to Data Management Software	

LOT 2: ITEM B – CENTRAL

BID NO. NIACODSD-S-2R

QUANTITY: 1

o. Publish data and models from NIA used geological modeling softwares to Data Management Software	
p. Download projects from NIA used geological modeling softwares to Data Management Software	
q. Import selected objects and files from Data Management Software to Geological modelling software	
r. Manage project revisions and branches	
s. Add and remove users from projects in Data Management Software	
7) Miscellaneous (Authorized Distributor and/or Reseller Only)	
a. 4 days training for a minimum of 10 participants with inclusion of meals and snacks	
b. Fundamentals and Advanced Training	
c. Documentation (Installers/Manual)	
Name of Firm	Name in Print & Signature of Bidder

LOT 2: ITEM C – Primavera P6 Enterprise Project Portfolio Management**BID NO. NIACODSD-S-2R****QUANTITY: 2**

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
Project Management Software	
1. Software Licensing Model: Perpetual (single user)	
2. License Access Management: Standalone	
3. Hardware Requirements: Application Desktop/Laptop	
4. Systems Requirements:	
a. Windows 10 or 11 (64-bit OS)	
b. 2 ('dual') x 1 Core @2.90 GHz, Intel Xeon CPU E5-2690 or equivalent	
c. 10 GB Hard Disc Space	
d. 4GB (minimum) / 8GB (recommended) RAM	
5. Maintenance:	
a. One (1) year software upgrade to new version releases and maintenance releases	
b. Problem resolutions, bug fixes, and local technical support	
6. Interoperability and Compatibility:	
a. Interoperable / compatible with other Design and Construction Project Management Software by taking advantage of its Primavera Gateway, Primavera Web Services, and Integration Applications Programming Interface (API)	
7. Key Features:	
a. Cloud-based solution for managing projects	
b. Flexible user interface	
c. Streamlined enterprise reporting	
d. Team member interfaces for gathering status updates	
e. Integrated risk management	
f. Resource management and optimization views	
8. Functionalities:	
a. Project and Schedule Management	
b. Critical Path Method (CPM) scheduling	
c. Project Portfolio and Program Management	
d. Planning and Risk Management	
e. Resources management	
f. Tracking progress to gain insights into costs and resource use	
g. Collaboration and content management	
h. Tracking/Monitoring Project Milestones and Conflicts	
i. Reporting and analytics	
j. Create Graphical Representation (figure, tables, charts, S-curve, network diagrams, etc.)	

9/10/2025

LOT 2: ITEM C – Primavera P6 Enterprise Project Portfolio Management

BID NO. NIACODSD-S-2R

QUANTITY: 2

9. File Output:	
a. PDF	
b. Excel	
c. Text Output/Word	
d. Graphics (figures, tables, charts, diagrams etc.)	
10. Miscellaneous (Authorized Distributor and/or Reseller Only)	
a. 5 days training for a minimum of 10 participants with inclusion of meals and snacks	
b. Fundamentals and Advanced Training	
c. Documentation (Installers/Manual)	
Name of Firm	Name in Print & Signature of Bidder

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

NIA MANDATORY SPECIFICATIONS	BIDDER'S SPECIFICATIONS
3DCAD Modelling Software with Simulation Premium Design Software	
1. Software Licensing Model: Perpetual License	
2. License Access Management: Standalone Commercial License	
3. Hardware Requirements: Application Desktop/Laptop	
4. Systems Requirements:	
MINIMUM: Windows 10 or 11 (64-bit OS), Intel® Pentium® 4 or better, or AMD Opteron™ or Athlon™ 64 or better, 4 GB RAM, 64 GB storage, NVIDIA® GT 300, ATI® Radeon® HD 4000 Series, Intel® HD Graphics 3000/2000, display 1024 px by 768 px or better	
a. Windows 10 or 11 (64-bit OS)	
b. Intel® Pentium® 4 or better, or AMD Opteron™ or Athlon™ 64	
c. 4 GB RAM	
d. 64 GB storage	
e. Graphics card and monitor Intel® HD Graphics 3000/2000, display 1024 px by 768 px	
5) Maintenance: Two (2) years after-sales support - Supplier must have a certified support center with certificate	
6) Part and Assembly Modeling Handle all aspects of your part and assembly modeling and transform ideas and concepts into virtual 3D models, regardless of design complexity and size. Leverage specialized tools for sheet metal, weldment, mold, and parametric surfacing.	
7) 2D Drawings and 3D Manufacturing Documentation Create production-ready 2D drawings or go drawingless and use intelligent, automated 3D dimensioning and tolerancing capabilities	
8) Productivity Tools Easily analyze, compare, check, and report on your designs.	
9) Design Reuse and Automation	

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

<p>Simplify the reuse of existing design data with search, automation, and configuration tools that help you speed up the creation of new designs.</p>	
<p>10) Interference and Clearance Check</p> <p>Before going into production, verify in 2D and 3D that your parts and assemblies will fit, assemble, and operate correctly.</p>	
<p>11) Manufacturability Checks</p> <p>Review your designs for Draft, Undercut, Thickness, and Hole Alignments early in the development process to ensure manufacturability.</p>	
<p>12) Xtended Reality (XR) Exporter</p> <p>Export CAD data for AR, VR, and web-viewing experiences while retaining geometry, appearance, motion studies, display states, and more.</p>	
<p>13) Graphics Performance</p> <p>Utilize the full power of your GPU hardware to speed up viewing and manipulation of your largest designs.</p>	
<p>14) CAM Programming</p> <p>Leverage integrated 2.5-axis milling programming capabilities to improve communication, reduce errors and cycle times, and increase product quality.</p>	
<p>15) CAD Libraries</p> <p>Easily find, customize, and share hundreds of thousands of prebuilt industry-standard fastener models and commonly reused CAD data.</p>	
<p>16) CAD Standards Checking</p> <p>Establish design standards and check drawings (or models) against them to create uniform designs and documentation.</p>	
<p>17) Automated Tolerance Stack-up Analysis</p> <p>Automatically check the effects of tolerances on parts and assemblies to ensure the consistent fit of components and verify tolerancing schemes before manufacturing your designs.</p>	
<p>18) Design for Cost</p>	

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

Continuously check your designs against cost targets with automatic cost estimation tools fully integrated within 3D CAD.	
19) Reverse Engineering Recreate designs with the ability to import, edit, evaluate, and create solid geometry from scanned point-cloud and mesh data.	
20) ECAD/MCAD Collaboration Utilize the full power of your GPU hardware to speed up viewing and manipulation of your largest designs.	
21) Sharing of 2D Drawings and Models Get the power to create, view, share, and control the access to 3D models and 2D drawings in an email-ready format.	
22) Advanced Surface Flattening Flatten complex, nondevelopable surfaces typically, encountered in products made from textiles (like clothing), or sheet metal (like metal stampings).	
23) Pipe and Tube Routing Simplify the design and documentation of piping and tubing for a wide range of systems and applications, including machinery, skid systems, and process plant piping.	
24) Linear Static Analysis for Parts and Assemblies Calculate the stresses and deformations of geometry using Finite Element Analysis (FEA) methods, and running linear stress analysis to determine the response of parts and assemblies.	
25) Time-Based Motion Analysis Realistically visualize your product moving throughout its, operational cycle world, measure the forces and loads on your design, and use the data to correctly size motors and ensure product performance, quality, and safety.	
26) FEA Modeling offer 2D simplification, plane stress, plane strain, axisymmetric and sub-modelling.	
27) Interactions and Connectors	

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

<ul style="list-style-type: none"> • Bonded, Contact, Shrink Fit, Free and Virtual Wall conditions. • Node-to-surface and surface-to-surface contact. • Self-contact. • Connectors: bolt, spring, pin, elastic support and bearing • Connector safety check 	
<p>28) Loads and Constraints</p> <ul style="list-style-type: none"> • Fixtures to prescribe degrees of freedom. • Force, pressure and remote structural loads. • Temperature loading. • Import Pressure and Thermal Loads from SOLIDWORKS Flow Simulation. • includes Load Case Manager to evaluate the effects of various load combinations on your model. 	
<p>29) Stress Hot Spot Diagnostics</p> <p>Regions of model with irregular stress gradients can be detected between adjacent elements. The cause of the irregular stress gradients could be stress singularities.</p>	
<p>30) Communication with Reports and eDrawings®</p> <p>Customizable simulation report. eDrawings of simulation results.</p>	
<p>31) Linear Static Simulation for Assemblies</p> <p>Part and assembly structural analysis problems solved for stress, strain, displacements and Factors of Safety (FOS). Typical analysis assumes static loading, elastic linear materials and small displacements.</p>	
<p>32) Time-Based Motion</p> <p>Rigid body kinematic and dynamic motion tool used to calculate velocities, accelerations and movements of assembly under operational loads. With motion analysis complete, component body and connection loads can be included in linear analysis for a complete structural investigation.</p>	
<p>33) Design Comparison Studies</p> <p>"What if" scenarios based on defined variables (dimensions, mass properties, simulation data).</p>	
<p>34) Fatigue Simulation</p>	

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

<p>Estimation of high cycle fatigue life of components subjected to multiple varying loads where peak stress is below material yield stress. Cumulative damage theory used to predict locations and cycles to failure.</p>	
<p>35) Trend Tracker Detection of trends in results from different iterations of a static study.</p>	
<p>36) Automatic Conversion of Toolbox Fasteners to Bolts Automatic conversion of Toolbox fasteners from SOLIDWORKS CAD models to simulation bolt connectors. Patent awarded in 2018.</p>	
<p>37) Design Optimization Based on a Design of Experiments (DoE) method, Design Optimization finds the optimum design according to design variables and user-defined goals such as minimize mass, stress, deflections. Design variables can be CAD dimensions, material properties or load values.</p>	
<p>38) Load Case Manager Effects of various load combinations on your model can be evaluated.</p>	
<p>39) Advanced Interactions and Connectors</p> <ul style="list-style-type: none"> • Thermal contact resistance condition • Insulated condition • Edge weld connector • Link Rod connector 	
<p>40) Topology Optimization Studies Ability to discover new minimal material design alternatives under linear elastic static loading while still meeting component stress, stiffness and vibrational requirements.</p>	
<p>41) Event-Based Motion Simulation Motion analysis generated by event-triggered motion control using any combination of sensors or events or time schedule.</p>	
<p>42) Frequency Simulation</p>	

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

<p>Product’s natural modes of vibration can be determined—important for products that experience vibration in their working environment.</p>	
<p>43) Buckling or Collapse Simulation</p> <p>Buckling failure mode for long and slender components is by collapse at load below material yield stress. Buckling study predicts components’ buckling load factor.</p>	
<p>44) Thermal Simulation</p> <p>Solution of steady-state and transient thermal problems for temperature, temperature gradient and heat flux. Thermal analysis results can be imported as loads into Static Studies.</p>	
<p>45) Drop Test Simulation</p> <p>Ability to analyze effect of impact of part or assembly on target surface.</p>	
<p>46) Pressure Vessel Design</p> <p>Pressure Vessel Study calculates linearized stress, key for safe pressure design.</p>	
<p>47) Submodeling Simulation</p>	
<p>48) 2D Simplification</p> <p>Dramatic reduction in amount of time needed to solve problem by simplifying 3D models to 2D in plane stress, plane strain or axi-symmetric models.</p>	
<p>49) Linear Dynamic Simulation</p>	
<p>50) Nonlinear Simulation</p> <p>Calculation of effects of dynamic loads, forcing vibrations, impact or shock loading for linear elastic materials. Study types are *Modal Time History Analysis *Harmonic Analysis *Random Vibration Analysis *Response Spectrum Analysis. Nonlinear Analysis enables users to analyze complex material behavior, such as post-yield metals, rubbers and plastics, as well as account for large deflections and sliding contact. Complex material models in Nonlinear Static Studies can be used to calculate permanent deformation and residual stresses due to excessive loads, as well as</p>	

LOT 2: ITEM D – SOLIDWORKS PREMIUM

BID NO. NIACODSD-S-2R

QUANTITY: 1

<p>predict performance for components, such as springs and clip fasteners. Nonlinear Dynamic Study accounts for effect of real-time varying loads. In addition to solving nonlinear static problems, Nonlinear Dynamic Studies can solve impact problems.</p>	
<p>51) Composites Simulation Analysis of structural response of composite, which is mixture of two or more materials.</p>	
<p>52) Miscellaneous (Authorized Distributor and/or Reseller Only) - 4 days training for a minimum of 10 participants with inclusion of meals and snacks - Fundamentals and Advanced Training - Documentation (Installers/Manual)</p>	
<p>Name of Firm</p>	<p>Name in Print & Signature of Bidder</p>



BIDS AND AWARDS COMMITTEE-A (BAC-A)

MINUTES OF THE MEETING

PRE-BIDDING CONFERENCE

October 3, 2025; 10:30 AM
BAC-A Conference Rm. 6th Floor, Bldg. A
NIA Bldg. A, NIA Complex, EDSA, Diliman, Quezon City



SUPPLY AND DELIVERY OF VARIOUS ENGINEERING SOFTWARES FOR NIA ENGINEERING DEPARTMENT Invitation to Bid No. NIACODSD-S-2R

Approved Budget for the Contract

Lot 1: PhP37,643,500.00

Lot 2: PhP40,035,960.65

I. ATTENDANCE

PRESENT:

ROBERT C. SUGUITAN	-	Chairperson, BAC-A
AILYNE C. AGTUCA-SELDA	-	Vice-Chairperson BAC-A
REYNE B. UGAY	-	Member, BAC-A
WILHELM S. TIANGCO	-	Member, BAC-A
LLOYD ALAIN A. CUDAL	-	Member, BAC-A
ARIEL S. NAJERA	-	Provisional Member
ARNOLD L. SALAZAR	-	Head, TWG
PIA ALEXIS A. BACANI	-	TWG, Member
HAJJI HAROON M. DEANON	-	TWG, Member
WARREN DENZLE V. LUCAS	-	TWG, Member

PROSPECTIVE BIDDERS	REPRESENTATIVES
XSTRUCTURES	ENGR. JOHN PAUL DELA ROSA ENGR. JOHN CARL DOBLON
DYNAMIC GLOBAL SOFT INC.	ENGR. RHYDEN YALUNG
INFRASYS, INC.	APRIL ZAPANTA MARY ANN MANUEL

II. CONFIRMATION OF QUORUM

The BAC Secretariat acknowledged the presence of the following BAC-A members: (1) Engr. Robert C. Suguitan (2) Atty. Ailyne C. Agtuca-Selda (3) Wilhelm S. Tiangco; (4)



Engr. Reyne B. Ugay and (5) Atty. Lloyd Alain A. Cudal. Having five (5) of the members present, hence, there was an en banc.

III. CALL TO ORDER

Having an en banc, the BAC-A pre-procurement conference for the above-mentioned proposed contract was called to order at 10:50 A.M. by BAC-A Chairperson Engr. Robert C. Suguitan.

IV. BUSINESS MATTERS

The Chairperson welcomed and acknowledged the presence of the BAC-A members, the members of the Technical Working Group, and the BAC Secretariat and informed the body that the meeting was regarding the Pre-Procurement Conference for the above-mentioned contract. He then instructed the Secretariat to present the agenda of the meeting.

Engr. Zosimo R. Baira of the BAC-A Secretariat presented the slides for the meeting; the latter presented the following:

BACKGROUND INFORMATION

Lot No.	Item No.	Description	Qty.	Approved Budget for the Contract
1	A	STAAD Pro Advance	10	PhP22,750,833.33
	B	STAAD Foundation Advance	3	PhP3,281,000.00
	C	GeoStudio 2D (Max)	2	PhP11,611,666.67
Total ABC for Lot No. 1				PhP37,643,500.00

Lot No.	Item No.	Description	Qty.	Approved Budget for the Contract
2	A	LeapFrog	3	PhP21,682,796.42
	B	Central	1	PhP14,897,164.23
	C	Oracle Primavera P6 Enterprise Project Portfolio Management	2	PhP1,309,333.3
	D	Solidworks Premium	1	PhP2,146,666.67
Total ABC for Lot No. 2				PhP40,035,960.6

*Delivery Schedule-Sixty (60) calendar days upon receipt of Notice to Proceed.

PROCUREMENT SCHEDULE

Issuance of Bidding Documents	From September 18, 2025 to October 16, 2025
Deadline for the Submission of Bids	On or before October 16, 2025; 10:00 AM
Venue	Office of the BAC-A Secretariat, 6 th Floor NIA Building A, EDSA, Quezon City
Opening of Bids	October 16, 2025; 10:30 AM
Venue	BAC-A Conference Room, 6 th Floor NIA Building A, EDSA Quezon City

Envelope 1-

Class "A" Documents

a) Eligibility Requirements

- (i) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;

b) Technical Documents

- (ii) Statement of All its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid;

- (iii) Statement of the Bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, in accordance with ITB Clause 5.3

- The Bidder must have completed a single contract similar to the Project, equivalent to fifty percent (50%) of the ABC, or at least two (2) similar contracts with the aggregate contract amounts equivalent to at least fifty percent (50%) of the ABC, the largest of which must have a value equivalent to at least twenty five percent (25%) of the ABC.
- The similar contract/s must have been completed within five (5) years from the deadline of submission and receipt of bids
- For this purpose, similar contract shall refer to shall refer to Supply and Delivery of Various Engineering Software for Lot No. 1 & Lot No. 2.

- (iv) Bid Security - The bid security shall be limited to Bid Securing Declaration or one (1) other form in accordance with the following amount:

Form of Bid Security	Amount of Bid Security (Not less than the Percentage of ABC)
Cash or cashier's/manager's check Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank; or	Two percent (2%) = For Lot No. 1 - PhP752,870.00 For Lot No. 2 - PhP800,719.21
Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Five percent (5%) = For Lot No. 1 - PhP1,882,175.00 For Lot No. 2 - PhP2,001,798.03

- (v) Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable;

(v.1) Duly accomplished Comparative Specification Table form

(v.2) Certification of Authority as a Reseller of Products Offered (the Bidder should have authorization from the developer for the Bidding)

v.3) Certificate of Completion from at least five (5) private and/or government offices with whom the bidder have supplied/distributed the to be procured various engineering software

- (vi) Duly signed and notarized Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section VIII-A. Bidding Forms - Omnibus Sworn Statement, and

Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

2. *[Select one, delete the other:]*

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

[Jurat]

SUBSCRIBED AND SWORN to before me this ___ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ at _____.

Witness my hand and seal this ___ day of [month] [year].

FINANCIAL DOCUMENTS

- (vii) Net Financial Contracting Capacity (NFCC) computation or a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class "B" Documents

- (viii) If applicable, a duly signed and notarized Joint Venture Agreement (JVA) in case the joint venture is already in existence, or duly notarized statements from all the potential joint venture partners

stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Envelope 2

c) Financial Component:

- (ix) Original of duly signed and accomplished Financial Bid Form
- (x) Original of duly signed and accomplished Price Schedule(s)

Other documentary requirements under RA 9184 (as applicable)

(xi) For foreign bidders claiming by reason of reciprocal rights to Filipinos] **Certification** from the relevant government office of their country **stating that Filipinos are allowed to participate in government procurement activities for the same item or product.**

(xii) **Certification from the DTI** if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

REMINDERS

For the submission of bids, Original, copies 1 and 2 of the first and second component of the bid must reflect the following:

1. Table of contents;
2. Sequential order of documents in line with **Section VIII “Checklist of Technical and Financial Documents”**;
3. Proper tabbing and binding of documents; and
4. Copies 1 and 2 must be certified true copy of the original document.

Indicate the official address, contact numbers, and e-mail address in your Letter of Intent.

- Use the NIA Prescribed Forms attached in Section VIII-A of the Bidding Documents. Electronic copy of said Forms are readily available upon purchase of Bidding Documents at the Office of the BAC-A Secretariat, 6th Floor, NIA Bldg. A, Diliman, Quezon City.
- Bidders must completely and properly fill-out all required details in the NIA Prescribed Forms, and notarize all necessary documents accordingly.
- Written requests and/or clarifications may be submitted until October 6, 2025.
- Supplemental Bid Bulletin/s will be posted on or before October 9, 2025.

QUESTIONS AND ANSWERS

DYNAMIC GLOBAL SOFT INC.

Q1: The representative inquired whether the bidder will craft his/her own form i.e. Comparative Specification Table.

A1: The TWG replied that there is no need for the required forms are already provided in the bidding documents.

INFRASYS INC.

Q1. The representative inquired as to why the software are divided per lot when there is a possibility that a single company can provided all the software.

A2: The TWG replied that the same is due to the nature of the need of the end-user and added, that a company can join the bidding or submit his bid for all the lots if he wishes to do so.

Q2: The representative inquired as to when will the product presentation or demo be held.

A2: The TWG replied that the product presentation will take place after issuance of Notice of Award.

V. ADJOURNMENT

Having no other matters for discussion the meeting ended at 11: 45 A.M.

Prepared by:


GERARD E. GUZMAN
Member, BAC-A Secretariat

Noted:


ENGR. ROBERT C. SUGUITAN
Chairperson, BAC-A