

VOLUME C

TECHNICAL PROPOSAL

The Participant shall provide all the necessary and relevant data and information regarding its TSP software system, including the modifications, adaptations and adjustments required to comply fully with the Company requirements and to allow the Company to assess its capabilities and evaluate its suitability for the required project. The Technical Proposal shall fully adhere to the mandatory requirements in Volume E of the Tender Documents - Functional & Technical Requirements.

The Technical Proposal's structure shall be as follows:

- a. Introduction
- b. For each requirement in Volume E, under the specific requirement, will be written in the following format:
 - a. Read and understood
 - b. Comply / Not Comply / Partially Comply (every answer except "Comply" to Mandatory requirement can disqualify the proposal)
 - c. A detailed explanation about the way that software meets the requirement (or N/A if not comply) It can include words and images as needed.

Example -

Requirement 2.1.2 the printing process will allow selection and arrangement of the print sections.

- a. Read and understood*
- b. Comply*
 - c. The user have the option to arrange the order of the printed chapters by selection box in a dialog opened from the Print Menu. The dialog will be opened in the last settings of the user...etc.*
- c. Solution roadmap and growth potential, incl. plans for future development and major updates for the proposed system
- d. Participant's Brochures & Data Sheets

VOLUME D

COMMERCIAL PROPOSAL

We, the undersigned, after carefully reading, studying and understanding all of the instructions and requirements of Ayalon Highways Co. Ltd (the "**Company**") as set forth in the Tender No. 18/19 For Delivery, Implementation & Support of Traffic Signals Planning Software, hereby offer to deliver the items below, in strict accordance with all requirements set forth in the Agreement and in all others Tender Documents, in exchange for the consideration set forth below:

Item		Units	Price (NIS)	Weight
P1	a	Licenses (The Prices in this table should refer to the price of a single license when bought in a Package, minimum number of licenses in that purchase), including first year support services.	Package of 10	25%
	b		Package of 5	20%
	c		Single (1)	10%
P2	Annual support services: The cost of one-year support service will not exceed 15% of single license cost (as proposed in cell P1c). First year will be included in license cost.	% of License cost		25%
P4	Software Workshop – During the Support Period (As defined in <u>Volume F</u>)	As needed, at least 1		5%
P4	Future software development needs: Price for hour of labor. The cost of one labor hour will not exceed \$120 per hour			15%

“**Package**” shall include licenses that give a number of non-specific end users (according to the relevant Package – 1/5/10) the right to access and use, simultaneously, all the features and modules of the proposed Traffic Signals Planning Software System, including any updates, documentation and content in connection with the Traffic Signals Planning Software System, and including first year support services, all in accordance with the provisions of the Agreement.

The Commercial Proposal Scoring shall be determined, as follows:

$$P=P1a+P1b+P1c+P2+P3+P4$$

$$P1a=(\text{Lowest Proposed } P1a/\text{Current Proposed } P1a) \times 25$$

$$P1b=(\text{Lowest Proposed } P1b/\text{Current Proposed } P1b) \times 20$$

$P1c = (\text{Lowest Proposed } P1c / \text{Current Proposed } P1c) \times 10$

$P2 = (\text{Lowest Proposed } P2 / \text{Current Proposed } P2) \times 25$

$P3 = (\text{Lowest Proposed } P3 / \text{Current Proposed } P3) \times 5$

$P4 = (\text{Lowest Proposed } P4 / \text{Current Proposed } P4) \times 15$

Such calculation will be conducted only for the purpose of comparing between the Proposals, and without any obligation from the Company in respect of the actual quantities that the Company will order from the Winning Participant.

Notes:

1. Fees will be paid in New Israeli Shekels (NIS) only. Proposals in other currencies will not be allowed, and may be disqualified or converted to NIS, at the Company's sole direction. For the purpose of evaluating the proposed fees, all fees shall be translated to NIS in accordance with the official exchange rate published by the Bank of Israel on the Submission Date (as defined herein).
2. Where necessary, the Participant shall specify any premises and assumptions taken as part of the pricing process.
3. Incomplete Proposals may be deemed invalid and may not be considered.
4. The Participant shall provide all the necessary and relevant data and information regarding its commercial proposal, in full compliance to Tender Documents.

The Participant's name (complete): _____

Names and positions of the Participant's authorized signatories: _____

Signatures of the authorized signatories: _____

The Participant's stamp/seal: _____ Date: _____

Authentication

The undersigned, a certified attorney from _____ (Full address) hereby approves that Mr/ Ms . _____ holding the position of _____ in _____ (The Participant) assured to me the facts mentioned in Volume D are true.

_____ (signature of Attorney) Date _____

VOLUME E

Functional & Technical Requirements

Requirements types

1. Each requirement will be marked with the specific type:
 - 1.1. **M** (Mandatory) - Mandatory requirement that requires a "comply" response or else the proposal will be rejected. Shall be answered as "Read, understood and acceptable to us, our proposal meets the requirement".
Unless otherwise stated, the proposal shall include detailed and accurate explanations according to "S" requirement definition.
 - 1.2. **S** (Specific) - Requires a detailed and accurate response to the specific requirement. Shall be answered as "Read, understood and acceptable to us, our proposal meets or not meets the requirement". If the proposal meets the requirements, the answer shall include functional and technical description of the functionality, performance and Human engineering and usage convenience according to section 3.
2. The technical proposal will be judged according to a weighted score based upon the software's functionality, performance, and convenience/usability.
 - Functionality** - Software capabilities (ranging from minimum compliance to requirements to capabilities beyond requirements).
 - Performance** - Demand on computer resources to perform software activities.
 - Convenience/Usability** - Level of user-friendliness of the software, if it is intuitive to learn and to perform software activities.

The weighted score for any criterion will be the result of the awarded score multiplied with the weight of any criterion, as detailed below.

Definitions

1. **Local Controller Logic Signal Timing Plans** - All the signal timing plan logic runs locally and independently in the local controller. The local controller receives information from detectors and other inputs (such as adjacent intersections) and produces signal outputs based on a predefined logic which runs within the controller. The local controller can be capable of exchanging information (parameters, status) with a central traffic management system however this information shall be incorporated in the local logic and not replace this logic.
2. **Signal Timing Plan** – The complete design of the signal functionality including all elements required for the successful approval and implementation of the signal. The Signal Timing plan will include all information required for implementing different Programs in different situations (e.g. morning, evening...).
3. **Program** – A set of parameters (and sometimes a unique Logic) defining the manner of operation under a certain situation (e.g. morning, evening...).
4. **Timing Plan Logic** – All considerations, rules of decision and relevant changes in signal heads, made in order to determine the signal's operation at the intersection.
5. **Approach** – one of the junction's arms.
6. **Movement** – Unique vehicle (regular vehicle, LRT...) movement from an entry approach to an exit approach (e.g. straight, right, left, etc' or pedestrian move).
7. **Signal Group** - Compatible with signal head in the controller. There may be several types of signal groups:
 - 7.1. **Vehicle Signal Group** - A vehicle signal group will have one or more movement (e.g. straight and right movement controlled by one signal head).
 - 7.2. **Pedestrians.**
 - 7.3. **Flashing amber.**
 - 7.4. **Transit vehicle preemption signal.**
8. **Stage** - One or more Signal Group receiving green simultaneously.
9. **Partial Inter-Stage** - (also known as **Parallel inter-stage**) – special inter-stage divided into a number of inter-stages by grouping the participating moves into independent sub-groups.
10. **Stage Sequence:**
 - 10.1. **Un-Constrained Stage Sequences** - All possible sequences of stages, not essentially implemented by the Timing Plan Logic. Usually will be represented by a diagram showing the stages and possible transitions between these stages.
 - 10.2. **Constrained Stage Sequences** – Possible sequences of stages according to the Timing Plan Logic. These Sequences shall include all or part of the Un-Constrained Stage Sequences, depending on the Timing Plan Logic.
11. **Stage transition** – The transition between two stages describing the Signal Group transition from the origin Stage to the destination Stage.
12. **Pulse** – Binary pulses input/output to/from the junction controller (and part of the Timing Plan Logic).

13. **Branch** - A unique sequence of stages that begins and ends with the main stage. The branches which are derived from the Constrained Stage Sequence represent the possibilities in which the junction may operate in different situations, as defined by the Stage Sequence and the Timing Plan Logic.
 - 13.1. **Skeleton Branch** – A branch in which all the stages receive the minimum length of time needed to ensure the minimum green time required for all Signal Groups included in the branch (and of course all inter-green times required between conflicting Signal Groups).
14. **Signal Group Timing Plan** – A detailed description of the operation of the signal as time proceeds (second by second), under predefined conditions. The details shall include both inputs (detectors, pulses, etc') and outputs (Signal head aspects for all Signal Groups, Pulses etc').
15. **Signal Group Timing Chart** – Graphical description of the Signal Timing Plan.
16. **Scenario** – a sequence of events related to the signalized intersection and their outcome activated by the Signal controller.
 - 16.1. **Scenario Input** - The input to the controller representing the sequence of events (e.g. detectors, pulses etc').
 - 16.2. **Scenario Output** - The Signal Group Timing Plan resulting from the Scenario Input.
 - 16.3. **Scenario Chart** - Graphical description of the Scenario Output.

Requirements

1. General - Software Requirements [10%]

- 1.1. The software shall support and produce Local Controller Logic Signal Timing Plans. A software package which is aimed for the design of Signal Timing Plans which rely on the logic of a central traffic management system shall not be acceptable. (M)
- 1.2. The software shall produce traffic signals design that doesn't targets only specific controllers or specific traffic signals framework. (M)
- 1.3. The software licenses shall enable the use on any computer installed with the software (more than the number of purchased licenses). The company can limit the concurrent use to the number of purchased licenses. (M)
- 1.4. The software is approved by the Israeli Ministry of Transportation (MOT). (S)
- 1.5. The software shall be developed from native code (C++,C#, Java etc) and shall not be developed and run using macro code in an applications generators such as Ms-Access, Ms-Excel, Visio etc. (M)
- 1.6. No third party licenses shall be needed to be purchased separately for using the software.(M)
- 1.7. The software shall run on all of the supported Windows OS including the latest version.(M)
- 1.8. The Junction design shall be saved in one file/Directory that includes all the planning data. (M)
- 1.9. Saving and opening design files shall take only a few seconds in a common PC. (S)
- 1.10. The software shall manage planning versions according to software versions - each planning shall be recognized by the last saving software version. (M)
- 1.11. Each software version changes shall be clearly documented. (M)
- 1.12. It will be possible to make "diff" between design files versions changes. (S)
- 1.13. Versions shall have backward compatibility management (breaking backward compatibility of the Israeli version shall be approved by Netivey Ayalon).(M)
- 1.14. The software shall include user manual and help. (M)

2. Printing [5%]

- 2.1. The software enables the printing out of the Signal Timing Plan: (S)
 - Title/Cover Page including Junction Name, Local Traffic Authority, Designer Name, Plan Number, List of Accompanying Documents, Versions, Attached Geometry Plans.
 - Table of Content.
 - Geometry plan of junction 1:500 scale
 - Schematic Plan of Junction via software.
 - Table of Minimum time for signal groups.
 - Table of clearing Distances for intergreen calculation.

- Intergreen Matrix and Parameters for calculation the intergreens.
 - Table of detectors/pulses.
 - Junction Specific Functions (if exist).
 - Stage Diagram.
 - Interstages.
 - Flow Chart / Logic Diagram of Transition between stages.
 - Minimum Signal Group Timing Plans (Skeletons).
 - Signal Group Timing Plans including Manual Operation Plans.
 - List of Signal Group Timing Plans & Activation Schedule.
 - Parameters Table.
- 2.2. The printing process will allow selection and arrangement of the print sections including importing and printing of external PDF files. (S)
- 2.3. The software enables export of the information in PDF format. (S)
- 2.4. The software warns/prevents Signal Timing-Plan printout when changes were made to parameters pertaining to Inter-green durations or minimum green time for signal groups but not all relevant changes to the Traffic-signal plan (inter green matrix, interstages, skeletons, time plans) were made. (S)

3. Planning capabilities

3.1. Basic definitions [8%]

- 3.1.1. Will be able to set an absolute minimum green time for a Signal Group according to Israeli guidelines as part of the signal group definitions and warn and /or prevent in case of deviations. (M)
- 3.1.2. Will be able to set a minimum green time for a Signal Group (Vehicles w/o flashing green, pedestrians) and warn and / or prevent in case of deviations (for example during interstages, skeletons or scenarios). (M)
- 3.1.3. Stages Sequence Chart – Planning will include chart\ describing the possible sequences of operation of the traffic lights. The information will include all the possible stages, all possible transitions between stages leading to the different sequences and the conditions for the transitions (Or a way to link to the conditions). (S)
- 3.1.4. Shall enable defining general description parameters for each intersection such as - junction ID, name, streets, city, version, designer details, customer details, authority details, status and project.(M)
- 3.1.5. Shall enable the definition of approaches and lanes for each approach.(S)
- 3.1.6. Shall enable defining signal groups of all kinds - Vehicles, PT vehicles, pedestrian, bicycles, Flashing amber including characteristics of each type. (M)
- 3.1.7. Shall enable usage of order and signal-lengths for signal groups that are in compliance with the Israeli guidelines (red-amber. Amber, flashing green). (M)
- 3.1.8. The software warns/prevents when the order or/and the signal lengths are not in compliance with the Israeli guidelines. (S)

- 3.1.9. Shall enable defining Stages. (M)
- 3.1.10. Shall enable defining a minimum green time for a stage. (S)
- 3.1.11. Shall enable defining Stage Sequence and Stage Transition. (M)
- 3.1.12. Shall enable defining Pulses. (M)
- 3.1.13. Shall enable defining vehicle detectors, pedestrian push buttons, PT detectors including characteristics and parameters. (M)
- 3.1.14. Shall enable defining partial group stages for the purpose of defining Partial Inter Stages (See also requirement 6.3). (S)

3.2. Inter-green times matrix data feeding and calculations [6%]

- 3.2.1. Shall enable defining and calculate conflict matrix between movements and manual input of all conflicting movements data needed for inter green time matrix calculation. (M)
- 3.2.2. Shall warn the user of missing data or other validation errors. (S)
- 3.2.3. Where changes were made to parameters related to Inter-green duration calculation and minimum green time for signal groups, the software consequently makes all the required changes in the traffic-signal plan or notifies of the need for changes required (the notification will appear as long as the required changes were not implemented). (S)
- 3.2.4. Shall enable the user to override part or all the inter-green time calculation results (lengthening them, not shortening). (S)
- 3.2.5. Shall enable defining characteristics for Inter-green calculation, such as vehicle speed, acceleration, deceleration, pedestrian speed, vehicle length etc, for each movement type. (M)
- 3.2.6. Shall enable define how the conflict points will be calculated and calculate the inter-green time, according to the Israeli design Guidelines. (S)

3.3. Defining and designing Stage transition [6%]

- 3.3.1. Shall enable automatic calculation of stage transitions. (S)
- 3.3.2. Shall enable manual editing of a stage transition (insert/ delete/ edit). (S)
- 3.3.3. Shall enable defining parameters for stage transition auto-calculation. (S)
- 3.3.4. It is possible to define vehicle signal groups as " proximate signal groups" and the software prevents or notifies in case of an opening interval for proximate signal groups of one second. (S)

3.4. Defining and designing Stage transition [6%]

- 3.4.1. Shall enable auto calculation of minimum Signal Group Timing Plans (skeletons), according to the stage transition and stage sequence chart, and will display the relevant Signal Group Timing Charts. (M)
- 3.4.2. Shall enable auto-calculation of maximum signal group timing plans according to traffic volumes. (S)
- 3.4.3. Shall enable manual updates/creation of the signal timing plans. (S)
- 3.4.4. Stage Transition conditions (decision point for detectors) will be displayed as part of the Skeletons & Timing Plans. (S)
- 3.4.5. Shall enable defining multiple Programs, each with different parameters (e.g. cycle time, green times, offset...). (M)
- 3.4.6. Shall enable to define operation schedule for the various timing plans. (S)

3.4.7. Shall guide the user how to fix whatever caused the errors and warnings in the Signal Timing Plan and support the user during the design process by helping to prevent deviations from the correct signals planning rules. (S)

3.5. Green Waves [4%]

3.5.1. Shall enable the design of a green wave between 2 or more intersection, updating the speed of the green wave and the offset for each intersection and displaying the green wave on time-stage diagram. (S)

3.5.2. Shall enable update of the programs for each intersection from the green wave diagram and warns/ prevents in case of deviations of basic validation rules. (S)

3.5.3. Shall enable transmitting of syncroization pulses between different junctions as part of logic, and display/generate green wave diagram accordingly. (S)

3.6. Graphic planning [2%]

3.6.1. Shall enable importing junction geometry plan as a picture in the common formats (jpeg, png, tif, bmp) and defining of all the junction elements including junction routs, lanes, movements, signal groups, detectors. (S)

3.6.2. Shall enable intergreen duration calculations according to graphical data of clearing distances, and update intergreen durations according to alternation to graphical data. (S)

3.6.3. Shall enable links between the elements on the graphic plan and the Signal Timing Plan database. (S)

3.6.4. Shall enable auto update of the Signal Timing Plan on every change of the junction element data including immediate feedback on errors, warnings according to signal plan validation rules. (S)

3.7. Planning methods [2%]

3.7.1. Shall enable stage based method. (M)

3.7.2. Shall enable signal group based method.(S)

3.7.3. Shall enable integrated design based on stages and signal groups (where it is possible within the frame of the stages to control individual signal groups and to define logic conditions for those signal groups to be extended or shortened , including during interstages). (S)

3.8. Timing Plan Logic [6%]

3.8.1. Shall enable defining logic code for signal planning including all the necessary parameters and variables. (M)

3.8.2. Shall enable defining the Signal Plan Logic using supportive tools in a user friendly editor. (S)

3.8.3. Shall enable defining new functions that can be used for Signals Plan Logic include "out of the box" functions. (M)

4. Quality testing (M - at least one of the chapters 4.1 and/or 4.2)

4.1. Defining and running Scenarios [21%]

4.1.1. Shall enable defining and/or generating a large number of Scenarios (more than 1000) for a plan. (M)

- 4.1.2. Shall enable defining random Scenarios generated from parameters or characteristics (e.g vehicle demand, PT demands). (S)
- 4.1.3. Shall enable defining a large number of constrained scenarios automatically generated according to set of definable rules for the creation of these Scenarios. The scenarios will be defined for vehicles and PT vehicles (realistic PT behavior). (S)
- 4.1.4. Shall enable Spontaneous (not pre defined) scenario generation according to detector activation (vehicles, PT vehicles, pedestrian buttons...). (S)
- 4.1.5. Shall display Signal Groups Timing Chart that includes the display of Signal Groups and detector status according to the Scenarios, second by second. (S)
- 4.1.6. Shall enable displaying the logic code flow second by second. (S)
- 4.1.7. Shall log the virtual controller run time data, second by second, including detector status and variable values and all the data needed to analyze the scenario run result. (S)
- 4.1.8. Shall display warning in event of errors/ logic failure / deviations from basic design rules. (S)
- 4.1.9. Shall enable output performance measures from scenarios, such as delays, queue length, level of service, green durations, etc. (S)
- 4.1.10. Shall enable transition from one scenario to another and updating variables and parameters. (S)

4.2. Traffic Simulation (M or S) [9%]

- 4.2.1. The simulation will be part of the software - implemented as an embedded module or as an Add-On to simulation software (e.g Vissim...) that can be directly operated from the planning software. (M)
- 4.2.2. When activating external simulation software, the translation of the signal design to the simulation virtual controller shall be done automatically. (M)
- 4.2.3. The simulation module will produce simulation run results that will enable analysis of the signals plan and output performance measures such as delays, queue length, level of service, green durations, etc. (S)
- 4.2.4. Shall display Signal Groups Timing Chart that includes the display of Signal Groups and detectors status second by second. (S)
- 4.2.5. Shall enable displaying the logic code flow second by second. (S)
- 4.2.6. Shall log the virtual controller run time data, second by second, including detector status and variable values and all the data needed to analyze the run result. (S)
- 4.2.7. Shall display warning in event of errors/ logic failure / deviations from basic design rules. (S)
- 4.2.8. The simulation enable the running of scenarios according to pre-defined rules, and the transition between scenarios for planning analysis. (S)

5. Logic code debug capabilities [2%]

- 5.1. Shall enable displaying the run time log, line by line, synchronized with the running code and jump from the log line to the logic code or the logic flow chart. (S)

- 5.2. Shall enable displaying error and warnings in the code and /or logic flow chart, emphasize logical failures (according to planning rules and pre defined conditions) in the logic code and suggest error and warning corrections. (S)
- 5.3. Shall enable breakpoints in the logic code and / or logic code chart. (S)

6. Import / Export [1%]

- 6.1. Import from Autocad - Will enable import the parameters for Inter-Green time calculation (e.g clearing distances for movements). (S)
- 6.2. Import from traffic count files.(S)
- 6.3. Shall enable signal plan code generator to be used for signal controller programming. (M)
- 6.4. The supplier shall declare that he will make everything in his power so that the software will enable upload of the signal plan to any signal controllers that Netivei Ayalon will define (Netivei Ayalon will define the relevant signal controllers and be responsible for the signal controller companies' cooperation). (M)
- 6.5. The supplier shall declare that he will make everything in his power so that the software will enable signal plan export to traffic control centers. The interface format will be provided. (M)

7. Layout configuration [2%]

- 7.1. Will enable the user to arrange the working layout made from chosen views and location setup. (S)
- 7.2. Will enable the user to save and retrieve layouts.(S)
- 7.3. Will enable sharing and importing layouts. (S)
- 7.4. Undo/Redo - Shall enable Undo and Redo actions for at least the last action.(S)
- 7.5. Autosave and restore – will enable autosave and restore action. (S)

8. General impression - general impression of the company and the product [10%]

VOLUME F

Scope of Work

(Will be attached to the Agreement as Appendix A)

The Scope of Work for the services of the Supplier (as defined in the Agreement) with respect to the Agreement ("**Scope of Work**" or the "**SOW**") is as follows:

1. Delivery and implementation of the Traffic Signals Planning Software System (hereinafter: the "**Software**" and the "**Software System**", respectively) in accordance with the Agreement, the Tender, the Ministry of Transportation's Requirements for Traffic Light Planning (Volume H to the Tender), the Unified Format for Defining Timing Plan for Signaled Junctions (Volume I to the Tender) and any applicable law.
2. In addition, the Scope of Work shall comprise the following:
 - 2.1 MOT software approval
 - 2.1.1 The Supplier is required to meet the MOT requirements and get the MOT software approval according to Volume H to the Tender. Any adjustments, additions or improvements to the software in order to meet the MOT requirements are at the sole expense of the Participant.
 - 2.1.2 The Supplier shall submit the adjusted software for approval within three [3] months following the announcement of the winning proposal in the Tender.
 - 2.1.3 In the event that the MOT updates such requirements, whether it determines more lenient or more stringent requirements, the Winning Participant shall be required to meet such updated requirements and the Participant shall have no demand or claim in such situations.
 - 2.2 Documentation:
 - 2.2.1 Delivery of documentation as part of the software supply, including:
 - 2.2.1.1 Detailed user manual.
 - 2.2.1.2 System administrator manual [incl. installation & configuration manual and troubleshooting procedures]
 - 2.2.1.3 Training materials.
 - 2.3 Support:
 - 2.3.1 The Support Period shall be at least 10 years from Agreement execution ("**The Support Period**").
 - 2.3.2 On-going technical support services throughout the Support Period:
 - 2.3.2.1 Help desk expert service for troubleshooting and support.

- 2.3.2.2 Technical support via remote access.
- 2.3.2.3 Delivery of bug fixes and service patches.
- 2.3.2.4 Delivery of Software upgrades [each new Software version issued by the Supplier shall be offered to the Company for installation at the Company's discretion].
- 2.3.2.5 The Supplier shall maintain the Israeli version in the Support Period and shall merge all the other version improvements and upgrades into the Israeli version.
- 2.3.2.6 The Supplier shall maintain the Israeli version in the Support Period if and when local MOT updates will be required. The updates will be initiated by the Company only by written work order according to the Changes and Improvements process defined in section.
- 2.3.3 Changes and Improvements process:
 - 2.3.3.1 the Company will be able to initiate changes and improvements to the Israeli version Software.
 - 2.3.3.2 Written requirements will be submitted to the Supplier.
 - 2.3.3.3 The Supplier will submit work hours estimation for the work.
 - 2.3.3.4 the Company will be able to negotiate the work hours estimation and will submit a written work order in the price of the work hours * the proposed work hour rate.
 - 2.3.3.5 the Company will be able to request and approve requirements (SRD), design (SDD) and testing (STD) documents.
- 2.3.4 Traffic engineering's Software workshop -
 - 2.3.4.1 Software workshop given in English (or Hebrew) by the Participant's qualified employees.
 - 2.3.4.2 The workshops participants will be up to 30 signals planners that will be using the software.
 - 2.3.4.3 The workshop resources and effort will be based on -
 - 2.3.4.3.1 One representative from the Supplier.
 - 2.3.4.3.2 Flights expenses (if needed).
 - 2.3.4.3.3 Workshop materials including presentations and course printed materials as needed.

2.3.4.3.4 Up to 80 work hours for Participant's representatives.

2.4 Software licenses as needed, in accordance with the provisions of the Agreement.

2.5 Additional professional services, software licenses as may be required and may be ordered by the Company.

2.6 Project Management:

2.6.1 The Supplier shall appoint a dedicated and experienced Project Manager who will serve as the POC vis-à-vis the Company.

2.6.2 The Supplier shall appoint a dedicated and experienced Team as needed.

2.7 **Service Level Agreement [SLA]**

The Supplier shall provide technical support services based, as a minimum, on the response and recovery times detailed in the following Service Level Agreement [SLA] [term definitions follow]:

Parameters <i>[term definitions follow below]</i>	Minimum Service Level		Deduction from Payment in Case of Failure to Meet Minimum Service Level	
			Time frame deviation	Penalty (Deduction from monthly Payment)
Help Desk Availability	5 Business days/week 9:00-18:00 [UTC+2]			
Time To Answer [remote support expert]	Critical	Next business day	Each additional day	500NIS
	Other	3 business days	Each additional day	200NIS
Response Time [on-site support expert]	Critical	3 business days	Each additional day	500NIS
	Other	10 business days	Each additional day	200NIS
Recovery Time (fixing critical malfunctions)	Critical	5 business days	Each additional day	500NIS
	Other	15 business days	Each additional day	300NIS

Following are standard terminology and definitions for the above SLA:

Definition	Description of Definition & Responsibilities
Service Request	A service request is the Company's request for resolution of a problem or for assistance in resolving a problem or question, which the Company presents to the Supplier Help Desk [HD].
Malfunction, Fault	A condition, error, bug, or any problem causing the Software to function wrongly or not function at all.

Definition	Description of Definition & Responsibilities
Critical Level Malfunction	A malfunction in the Software or any of its modules, that results in complete Software malfunction or Software crash. Malfunction classification is the Company's sole discretion.
Other Malfunction	Any malfunction that is not a Critical Level Malfunction. Malfunction classification is the Company 's sole discretion.
Time To Answer [TTA]	The duration starting from the submittal of a Service Request to the Supplier's HD, until a Supplier remote technical expert has contacted the Company.
Response Time	The duration starting from the reporting of the malfunction to the Supplier's HD until a Supplier's Service Expert arrives on-site or started a remote handling process
Recovery Time	The duration starting from the reporting of the malfunction to the Supplier's HD until the malfunction has been resolved and the System is operational again

3. The Supplier shall submit a quarterly (3 months) report of the SLA monitoring, including the full life cycle of the customer request from opening to full closing of each request.
4. The Supplier shall remain technically and financially responsible, within the terms of the Contract, for the support levels required to maintain the availability requirements specified above.

VOLUME G

The Ministry of Transport's Requirements for Traffic Light Planning Software and Unified Format for Defining Timing Plan for Signaled Junctions

As detailed in the documents attached to the link below:

https://www.gov.il/he/Departments/Policies/guidelines_using_software_plan_traffic_lights

as will be updated from time to time.