

GEOSPATIAL INTELLIGENCE BASED LAND MANAGEMENT INFORMATION SYSTEM

Proposal Document (V.2)

Prepared for



DEENDAYAL PORT AUTHORITY

ISO 9001:2008 | ISO 14001 | ISPS compliant port

Deendayal Port Authority, Kandla

Ministry of Ports, Shipping and Waterways

Government of India

Prepared by



Supported by

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DEPARTMENT OF

SCIENCE & TECHNOLOGY

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TECHNOLOGY PARK, PUNE FOR THE DEENDAYAL PORT AUTHORITY,
KANDLA, GUJARAT.

MARCH 2025 V1

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Proposal for

Development of Geospatial Port Land Management Information System for Deendayal Port Authority, Kandla, Gujarat

Proposed by



Supported by
विज्ञान एवं पौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY
GOVERNMENT OF INDIA
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15th April 2025

Version 2

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1. Background: Deendayal Port Authority (DPA)

Deendayal Port, formerly known as Kandla Port, is one of India's largest port covering an area of approximately 2.30 Lakhs acres and most strategically significant ports. Located in the Gulf of Kutch in Gujarat, it serves as a key gateway for trade, particularly for industries in northern and western India. Established in the 1950s, Deendayal Port has grown into a major hub for handling diverse cargo, including crude oil, petroleum products, coal, fertilizers, and containerized goods. The port plays a critical role in facilitating India's international trade and contributes significantly to the country's economic growth. The port serves as a key gateway for international trade, handling a diverse range of cargo, including crude oil, petroleum products, coal, fertilizers, salt, and containerized goods. It has consistently ranked among the top-performing ports in India, contributing significantly to the nation's economy through its high cargo-handling capacity.

The port's strategic location, deep draft, and well-developed infrastructure make it an ideal hub for trade with the Middle East, Africa, and Europe. It features multiple terminals, modern storage facilities, and efficient logistics networks that enhance its operational efficiency. Additionally, the port has been expanding its capabilities through digitization, automation, and green port initiatives to improve environmental sustainability and ease of doing business.

In recent years, Deendayal Port has focused on expanding its capacity, modernizing infrastructure, and improving efficiency to meet the increasing demands of global maritime trade. Deendayal Port Authority (DPA) is actively advancing its land allocation strategies to bolster India's maritime and industrial sectors. A significant recent initiative involves the invitation for e-tenders and e-auctions to lease **2,000 acres** of land over a **30-year** period. This land, located in **Veera**, is designated for the development of an **Integrated Shipbuilding Cluster**. The provisional reserve price is set at **₹27,510 per acre annually**, with the final price to be confirmed during the pre-bid meeting or before the technical bid opening. The pre-bid meeting is scheduled for **February 10, 2025**, and the deadline for online tender submissions is **February 21, 2025**. This initiative aligns with the national objective to enhance the domestic shipbuilding industry, as highlighted in the recent budget announcements.

In a parallel development, DPA is facilitating the establishment of a **Green Hydrogen Hub** at Kandla. This project has seen the allocation of **14 land parcels**, each measuring **300 acres**, to prominent industry players including **Reliance Industries Ltd (RIL)**, **Larsen & Toubro (L&T)**, **Greenko Group**, and **Welspun New Energy**. The hub aims to produce **7 million tonnes per annum (MTPA)** of green ammonia and **1.4 MTPA** of green hydrogen, positioning India as a leader in sustainable energy production.

These land allocation endeavours are conducted in accordance with the **Amended Land Policy Guidelines 2015**, and Amendment 2019 ensuring a transparent and efficient process. The guidelines empower ports to lease land based on approved land use plans and zoning regulations, facilitating structured and strategic development. Through these strategic land allocations, Deendayal Port Authority is not only expanding its operational capabilities but also contributing significantly to India's industrial growth and energy sustainability goals.

Managing land assets efficiently is crucial for a port of Deendayal's scale, where land is a valuable and limited resource. A Geographic Information System (GIS)-based Land Management Information System (LMIS) can provide a structured and data-driven approach to land administration, ensuring transparency, efficiency, and sustainability. Some of the key benefits of Implementing GIS-Based LMIS at Deendayal Port;

Enhanced Land Utilization & Planning

GIS enables real-time visualization of land parcels, helping port authorities analyze land usage patterns. It assists in optimal land allocation for cargo handling, storage, and industrial development while preventing encroachments or underutilization of land.

Regulatory Compliance & Transparency

A GIS-based LMIS ensures that land allocation follows government regulations, lease agreements, and environmental norms. The system can maintain digital records of land ownership, lease tenures, and zoning restrictions, reducing legal disputes and improving accountability.

Streamlined Lease and Revenue Management

The port leases out large portions of its land to industries, logistics companies, and storage facilities. A GIS-enabled LMIS can integrate lease management with a revenue tracking system, ensuring timely rent collection, lease renewals, and monitoring of unauthorized land use or encroachments.

Disaster Management & Environmental Protection

Deendayal Port is susceptible to coastal erosion, rising sea levels, and industrial pollution. GIS can help map vulnerable areas, monitor environmental impact, and plan mitigation strategies. Additionally, in case of natural disasters, GIS can assist in emergency response and recovery efforts.

Smart Infrastructure Development

With future expansion projects in mind, a GIS-based system can support infrastructure planning, including road networks, utilities, and logistics hubs. It can integrate with IoT sensors and drone imagery for real-time monitoring of construction projects.

As a part technology adoption program and bringing uniformity with inter-departmental data exchange DPA, is looking for a **Smart Geospatial Port Land Management Information System** which

will cater to the departmental geospatial mapping requirements of Estate Department (Land and Asset), Water, Sewage and Drainage, Communication and Electrical Department, Legal and Finance Department, Traffic Storage Area and Port Operational Infrastructure.

A similar approach has been adopted by **V. O. C. Port, Tuticorin** under the vision of Ministry of Ports, Shipping and Waterways Government of India where in updation of port land was done using land asset survey by DGPS and ETS, its finalization with the port asset register document and transforming the entire data into an easily visible browser-based Web GIS System to be utilized by the departments of the port for their internal users. It also has the capability to integrate records from already existing SAP/ERP systems at port or Port Operations System (POS) for managing the traffic storage areas and displaying it in the GIS System. DPA, is looking for such solutions at their port and in this context has contacted Science and Technology Park, Pune Supported by Department of Science and Technology, Government of India to assist and share a techno-commercial proposal for implementation.

2. Study Area:



3. About Science and Technology Park, Pune

Science and Technology Park Pune (Scitech Park) is one of the Science and Technology Entrepreneurs' Park (STEPS) set up in the year 1986 by National Science and Technology Entrepreneurship Development Board (NSTEDB) of the Ministry of Science and Technology, Government of India within the campus of Savitribai Phule Pune University. Scitech Park, through its business incubator 'Growth Lab', has incubated 280+ companies primarily in the areas of renewable energy and clean technology, electric mobility, waste processing, medical technology and diagnostics, biotechnology, electronics and telecommunications, IT applications, education, social incubation, application of remote sensing and GIS for socio economic surveys, marine services, agriculture and food technology, health and hygiene/sanitation, cyber security, mobile computing, skill training and entrepreneurship development for differently abled persons, women and others.

Science and Technology Park's vision and mission is to 'Convert Knowledge into Wealth' and to strengthen industry-academia-government linkage. Science and Technology Park has successfully completed various large-scale planning and development DPRs, GIS and remote sensing projects, environmental studies and consultancy projects for various governmental agencies and has been instrumental in various policy level interventions, both at the State and National levels. Activities performed by Scitech Park are structured to be innovation driven, inclusive and sustainable.

The Geoinformatics Division of Science and Technology Park, Pune is recognized as one of the premium Geospatial Institution in the country offering Geoinformatics based support to Government, PSU's and Private institutions enlisted by the [India Science, Technology and Innovation Portal, Government of India](#). It is engaged in providing smart, affordable mapping and software development solutions to Central and State ministries/departments at various capacities.

Scitech Park, Pune is involved with the Ministry of Ports, Shipping and Waterways, Government of India for Developing Port Land Information Management System for **V.O. Chidambaranar Port Authority, Thoothukudi, Tamil Nadu** and **Cochin Port Authority, Kochi, Kerala**. Scitech Park, Pune is also involved in evaluating the existing Land Management Information System (LMIS) for **Syama Prasad Mookerjee Port, Kolkata (SMPK)** formerly known as Kolkata Port Trust and made recommendation for enhancing the LMIS and similar implementation is in progress at **Visakhapatnam Port Authority (VPA)**. In parallel Scitech Park, Pune is also working with **Assam State Space Application Centre, Guwahati** and Assam Agriculture University, Jorhat for developing state wide Web GIS based Geospatial Decision Support System as Gaon Panchayat Village Resource Centre for the **State of Assam and Ministry of Agriculture**. We are also dedicatedly involved with **Ministry of Defence, Government of India** in

providing software-based solutions to schools in 62 cantonment boards across India by implementing School Management System. On State level we have successfully implemented Web GIS based Decision Support System & Temporal Change Analysis for **Gujarat Industrial Development Corporation, Govt. of Gujarat** for mapping the land assets and facilities across the state and also worked with the **Gujarat State Urban Development Department** for digitization and mapping of more than 400 Town Planning schemes on GIS and Web GIS platform.

We have expertise in conducting detailed port land and port asset mapping using latest state of the art technology using hybrid technique of differential global positioning system (DGPS), electronic total station (ETS) and finally generating datasets and finally generating world class user-friendly Web GIS application-based solutions using open-source GIS tools and technologies with no recurring cost for the department. The successful implementation of Geospatial intelligence-based Port Land Information at VOC Port, Tuticorin and Cochin Port Authority is an example of implementing effective, user department centric, sustainable and Integratable solution.

4. Project Scope

Deendayal Port Authority DPA, (Kandla) is one the largest ports in India covering an approximate area of about 2.30 lakhs acres of which 1019 acres belongs to the custom bound area and the remaining 2.29 lakhs area belongs to the outside custom bound area. Out of the total outside custom bound area at DPA, approximately 36407 acres are rentable; 6917 acres belongs to the Gandhidham township area and remaining 1.86 lakhs acres of land is non-rentable due to impact of tidal affected areas. Since the area of DPA is nearly 40-50 times that of any major port in India, it is very vital for DPA to ensure there is an effective and workable Geospatial Port Land Management Information System (GPLMIS) which will cater to the departmental requirements of the port and help in cross-platform data sharing and smart decision making for smooth conduct of day-to-day port business. For smooth project implementation purpose the following are the proposed Scope of Work to be initiated at DPA;

- A. Conduct detailed hybrid survey on ground and from air (using drones) for the entire port land including land owned by the port. Since this area is huge, we propose to conduct a hybrid survey involving ground-based survey using DGPS and Electronic Total Station (ETS) for land demarcation assisted by high precision orthomosaic drone images for the entire port jurisdiction. This survey will cover custom bound areas (including port operation area and area managed by the Traffic Department) and outside custom bound areas including Gandhidham township.
- B. Establish standard protocols of data cleaning, normalization, attribute collection and data attachment for land parcels available at DPA and conduct joint assessment of land parcels.
- C. Ground survey for mapping and marking of Port Infrastructure and Port Assets including Traffic Area fixed assets and above ground port utility assets with reference to water, electrical, drainage and communication and other utilities including buildings. It will also involve non-spatial attribute data collection for different layers and its spatial mapping to ground collected coordinates for individual assets.
- D. Development of Smart Geospatial Port Land Information System for DPA having various Modules including that of Admin, Vacant Land Module, Land /Estate Module, Port Utility Module, Legal Module, Finance Module along with linking of any Online System available at Port to that of Geospatial System proposed to be developed via compatible database or APIs.
- E. Development of Smart Business Intelligence Tools for Report Generation
- F. Post Project Monitoring through Annual Maintenance Contract with Training and Handholding
- G. IT Infrastructure Support from DPA for ensuring Smooth hand over of Data and database related to the project.

5. Detailed Project Components

A. Conducting Hybrid Survey of The DPA Port Land

It is proposed to conduct latest hybrid ground-based topographical survey assisted by Drone images for DPA port land. If permissions for drone flying are not received due to security reasons, only ground based surveys in the region shall be done. Port **Land Records** (Port possessed land area) will be surveyed using ground based high quality survey instruments like differential global positioning system (DGPS), Electronic Total Station (ETS). It is proposed to conduct ground survey of all plot boundaries within the port area of DPA. For this DPA has to depute officers / technicians during survey who will guide our survey team for demarcation and survey of all port land plots throughout the survey duration. The survey guidance should be provided by some knowledgeable person or retired official from DPA who is aware of the estate land plots and is well versed with the actual ground conditions. It is proposed to conduct survey of all outer boundaries only.

Important Note:

- 1) Our survey team will not venture into the premises of individual plots or boundary wall of individual industries/allotted land parcels. Survey shall be done strictly for the outer boundary of land parcels.
- 2) During Survey DPA has to depute on ground knowledgeable person (working/retired) from the Estate Department who is completely aware of the land records of the Port and allottee details along with boundary of the port close to any restricted area marked in the region. Our Survey team shall conduct survey as guided and directed by the deputed estate officer and data quality will totally depend upon the directions received.

The ground survey will further involve the following activities;

- ❖ Establishment of **Control Points** with DGPS observation and GCP point fix on existing structures by static methodology.
- ❖ Establishment of **Reference/Bench Mark Pillars** with yellow paint and marking value on top (Approximate dimension: 30cm X 30cm X 45cm) with 10 mm Iron Rod will be embedded). This activity is proposed as optional if permanent structures are not available at the location or not allowed to paint or mark)
- ❖ Drones if allowed will be deployed in the area for imaging purpose and establishing ground control points for ensuring best fit for land related activities.
- ❖ Georeferencing and Digitization of the **Cadastral maps** (revenue Maps) as collect from Gujarat Government-Land Records) as provided by DPA (hard copy or PDF file or Auto

CAD Files) shall be done along with georeferencing and superimposition on the topographical land survey map.

Refer details of Land Data along with their attribute to be mapped:

No.	Land Polygon	Proposed Attributes
1		Zone
2		Block
3		Status (Vacant, Allotted, Overstay)
4		Land Code
5		Primary Key (Link to REFX/ERP/SAP)
6		Land Ownership
7		Party Name
8		Area of the Plot (Record Area)
9		Outstanding
10		Category
11		Remarks if Any
12		Allotment Status
13		Allotment Remarks
14		Usage
15		Contract Number
16		SAP Code
17		Usage Status
18		Land Use
19		SOR
20		Litigation
The attributes mentioned are tentative and not limited to the above list only. The Project Authority (DPA) may be change as per their requirements.		

B. Data Cleaning, Normalization, Integration & Finalization of Port Land Records

This will involve, transformation of data collected from the survey, its data cleaning, normalization, linking of ground survey records with that of available knowledge of the Port; conversion of survey Auto CAD drawings into final shape file in GIS format, attribute data collection and integration to individual land parcels and adopting unique land classification standards w.r.t. land ownership, possession, allotments status, category of land type etc. and assigning Standard Land Code and Primary Key to every land parcel as defined by DPA Estate Department.

C. Port Infrastructure and Asset Mapping:

During the survey, Detailed mapping of **Port Assets and Infrastructures** shall also be done using DGPS and ETS instruments. It will capture all above ground assets which can be seen, visualised and identified for all port departments including port assets along berths, water,

sewerage, drainage, communication, transportation, electrical, wayleaves and emergency assets. Refer detailed list of assets and utilities to be captured at Port; The attributes mentioned are tentative and not limited to the above list only. The Project Authority (DPA) may change as per their requirements.

- **Port Infrastructure:**

This section will cater to the mapping and attribute information collection and their record updation for the port infrastructures captured using ground survey using DGPS and ETS. The assumed layers under this division includes;

No.	Layer Name	Data Type
1	Bollard	Point
2	Fender	Point
3	Buoy Marine	Point
4	Light House	Point
5	Crane Track	Polygon
6	Embankment	Polygon
7	Berth	Polygon
8	Bund & Break Water	Polygon
9	Fly Ash Dyke	Polygon
10	Light House base	Polygon
11	Platform	Polygon
12	Support Pillar	Point/Polygon
13	Ship Channel	Polygon
14	Conveyor Belt	Polygon
15	Storage Tank	Polygon

- **Traffic Storage Department:** Survey, marking and mapping of Transit Traffic Storage Area for demarcation of land parcels and its associated features. Under the Web GIS System it is proposed to develop an integrated system wherein data in GIS will be capable to fetch real-time record from the already functional Port Operations System (POS) via API's provided or provisioned by the POS System for integration to define the real-time occupancy and vacancy status of plots and the ownership along with core data w.r.t. lease start date and lease expiry dates. This module could be either independent or a sub-set of the Land / Estate Module or Traffic/Marine Department.
- **Water Department:** For this department it is proposed to survey and map all above ground assets that are identifiable, traceable within the port area. The assumed layer list includes;

No.	Layer Name	Data Type
1	Bore Well	Point
2	Hand Pump	Point
3	Water Tap	Point
4	Water Valve	Point
5	Well	Polygon
6	UG Water Line	Line
7	Check Dam	Line
8	Pond	Polygon
9	Pump House	Polygon
10	Water Cooling	Polygon/Point
11	Water Tank	Polygon/Point

- **Electrical Department:** For Electrical department it is proposed to survey and map all above ground assets that are identifiable, traceable within the port area. The assumed layer list includes;

No.	Layer Name	Data Type
1	Electric Line	Line
2	Electric Pole	Point
3	HT Cable Marker	Point
4	HT Tower	Point
5	Light Pole	Point
6	Mast Light	Point
7	Panel Box	Point
8	Transformer	Point
9	XLPE Cable Marker	Point
10	HT Line	Line
11	HT Tower Base	Polygon
12	Solar Panel	Polygon
13	XLPE Cable	Line

- **Sewage Utility:** The assets proposed to be mapped under Sewage utility includes all above ground identifiable assets that could be visualized, marked and mapped on to GIS platform during survey. Some of the proposed assets to be captured from ground includes;

No.	Layer Name	Data Type
1	Manhole	Point
2	UG Sewage Line	Line
3	Sewage Pump House	Polygon
4	Sewage Septic Tank	Point
5	Storm Water Drain	Line

- **Communication Network:** Communication Network is to be mapped for all assets found above ground as per the list given below;

No.	Layer Name	Data Type
1	OFC Pillar	Point
2	Telephone Pole	Point
3	Tower Point	Point
4	OFC Cable	Line
5	Antenna	Point
6	Tower Base	Polygon

- **Other Utility Assets:** Apart from all the above utility assets, it is proposed to map during survey the following important assets essential for port operations. These includes;

No.	Layer Name	Data Type
1	Conveyor Belt	Polygon/Line
2	Storage Tank	Point/ Polygon
3	Other Emergency	Point
4	CCTV	Line
5	Hydrant	Point
6	Tower Base	Polygon
7	Wayleave	Polygon/Line
8	Waste Water Pipeline	Line
9	Waste Water Septic Tank	Polygon

- **Road and Rail Network:** Utilities falling under the road and railway network shall be mapped while surveying on ground for all above ground assets. Their tentative list is given in the table given below;

No.	Layer Name	Data Type
1	Km Stone	Point
2	Railway Electric Pole	Point
3	Sign Board	Point
4	Signal Pole	Point
5	Sign Post	Point
6	Bridge & Culvert	Polygon/Line
7	Cart Track	Line
8	Road Centreline	Line
9	Railway Track	Line
10	Hume Pipe	Line
11	Retaining Wall	Line
12	Footpath	Line/Polygon
13	Road	Polygon
14	Road Divider	Polygon

No.	Layer Name	Data Type
15	Weighbridge	Polygon
16	Wing Wall	Polygon

- **Buildings:** These includes all buildings (quarters) and any other asset of the port like Community Center, Shopping Center, Hospitals, Sports facility Complex etc.

No.	Layer Name	Data Type
1	Buildings (Quarters)	Polygon
2	Sheds	Polygon
3	Community Centers	Polygon
4	Hospitals	Polygon
5	Sports Complex	Polygon
6	Shopping Centers	Polygon

- **Miscellaneous Layers for Survey and Mapping:** These are layers which helps in completeness of the survey specific to the land parcel. These layers also show connectivity and association withing port area. Some of the assumed layers considered for survey and mapping includes;

No.	Layer Name	Data Type
1	Bus Stop	Point
2	Dustbin	Point
3	Flag	Point
4	Landmark	Point
5	Toilet	Point
6	Worship Places	Point
7	Compound Wall	Line
8	Fence Line	Line
9	Gate	Line
10	KERB Stone	Point
11	Chamber	Point
12	Fountain	Point
13	Garden	Polygon
14	Graveyard Point	Point
15	Graveyard	Polygon
16	Playground	Polygon
17	Plantation	Polygon
18	Salt Pan	Polygon
19	River Channel	Polygon
20	River Channel Centreline	Line
21	Sea Boundary	Polygon
22	Stage	Polygon
23	Staircase	Polygon/Line

No.	Layer Name	Data Type
24	Statue	Point
25	Village Boundary	Polygon
26	Wind Mill	Point

- **Survey Essential Points:** These are some points proposed to be captured or marked during survey. We further propose to capture the contours for generating land profile. The presumed layer list includes;

No.	Layer Name	Data Type
1	Old Boundary Pillars	Point
2	New Boundary Pillars	Point
3	Control Points	Point
4	Base Point	Point
5	Contour	Line

Like the land survey activity, the data collected from the survey for port assets and infrastructure will undergo data cleaning and transformation from Auto CAD file format to GIS file format compatible to industry standards. It will also involve linking of attribute information to the individual layers as per data shared by DPA and other departments of DPA. For underground pipelines it is proposed to overlay or best fit the available drawings with respective departments. No ground-based survey shall be conducted for the same.

D. Development: Smart Geospatial Port Land Management Information System
 Science and Technology Park, Pune proposes to develop **Smart Geospatial Port Land Management Information System (GPLMIS)** through a Web GIS Portal which will act as a decision support tool for integrated viewing of Land Details, their allotment status, vacant land information and availability, ownership-based land details, viewing of port assets and port buildings and integrating their existing system to the GIS system via API's. The GPLMIS is proposed to be modular in nature and shall have independent and integrated modules covering the following modules of the port operations;



I. ADMIN MODULE:

This is the **Administrator Module** which will cater to the Online Web GIS Application. The module is designed to offer seamless control and management of users, data, and system configurations. It allows administrators to manage user roles and permissions, ensuring secure access to various GIS layers and tools. The module supports data uploads, updates, and visualization of geospatial information, providing real-time insights and monitoring capabilities. Additionally, the admin can oversee project-specific tasks, control the visibility of GIS features, and generate analytical reports, enhancing the overall efficiency and effectiveness of the GIS system.

II. VACANT LAND INFORMATION SYSTEM (VLIS):

Vacant Land Information System (VLIS) module is proposed to be developed with open access and restricted access. For open access anyone interested in the port land allocation could view vacant plots available under DPA. The Core features will include;

- Display vacant land parcels across DPA
- Develop a Free Public View with data matrix on proximity analysis to road, dry ports, rail and airports
- Form a two-way communication channel for Vacant Plot Interaction between Ports (aligned department) and Investor/ interested party
- Incorporation of Master Plan by digitizing and overlaying the proposed Master Plan facilitating land buyers/investors
- Display basic info on Vacant Plots as per Department and their current status
- Overlay DPA's Land Use Plan for smart Decision Making while purchasing plots

Such development will promote land utilization planning and compliance with sustainability goals.

III. CORE LAND/ESTATE MODULE IN GIS:

The **Core Land/Estate Module** is the base module for the Estate Department / Land Department and data captured from ground, cleaned, normalized and attribute integrated will be displayed in this section. The Module will help in conducting Spatial Search, Pan, Zoom In-and Zoom- Out and measure area and length as GIS operations. Colour Coded Maps based on Land Classification will help in discerning land parcels based on land ownership, land use, allotment etc. Additionally, tools will be provided to manage and upload land parcel details, lease agreements and property records.

Proposed sub-modules within the Core Modules are;

- **Land Module:** Detail of land parcels, based on land use, land ownership and allotment status, along with provision to either integrate it with existing SAP/REFX module or provided APIs to any centralized portal of the Ministry.
- **Lease Expiry:** This module will cater to the reflection of all leases on a Map and in a downloadable database format for user defined period coming 1/2/3/6 months in advance. This data will be pulled from the existing SAP system via API's and shown in the Web GIS Estate Module portal.
- **Lease Allotment:** This module will enable Port Authority to have a synoptic view of the entire port on a Web GIS platform based upon the lease allotment classification adopted by DPA. The lease land could be colour coded to have better representation of the land parcel.
- **Lease Deed Upload Module:** This module will facilitate the Port Authority to upload scanned PDF of latest Lease Deed against a Contract No. which is subsequently linked to a lease land code of Estate Department and Primary Key of the SAP.

IV. UTILITY AND PORT INFRASTRUCTURE MODULE:

The **Utility & Port Infrastructure Module** refers to the port asset data available within various departments operational at the port. The data capture on ground will be represented and visualized on a web GIS system with their core assets as its attributes. The proposed departments and their anticipated asset list are enumerated below;

- **Port Infrastructure:**

This section will cater to the visualization and attribute record updation of the port infrastructures captured using ground survey using DGPS and ETS. Refer Port Assets Layer List under Phase I.

- **Traffic Storage Department:**

Survey, marking and mapping of Transit Traffic Storage Area for demarcation of land parcels and its associated features. Under the Web GIS System it is proposed to develop an integrated system wherein data in GIS will be capable to fetch real-time record from the already functional Port Operations System (POS) to define the real-time occupancy and vacancy status of plots and the ownership along with core data w.r.t. lease start date and lease expiry dates. This module could be either independent or a sub-set of the Land / Estate Module.

- **Water Department:**

For this department it is proposed to survey and map all above ground assets that are identifiable, traceable within the port area. Refer Port Assets Layer List under Phase I

- **Electrical Department:**

For Electrical department it is proposed to survey and map all above ground assets that are identifiable, traceable within the port area. Refer Port Assets Layer List under Phase I

- **Sewage Utility:**

The assets proposed to be mapped under Sewage utility includes all above ground identifiable assets that could be visualized, marked and mapped on to GIS platform during survey. Refer Port Assets Layer List under Phase I

- **Communication Network:**

Communication Network is to be mapped for all assets found above ground as per the list given above; refer Port Assets Layer List under Phase I.

- **Other Utility Assets:**

Apart from all the above utility assets, it is proposed to map during survey the following important assets essential for port operations. Refer Port Assets Layer List under Phase I.

- **Road and Rail Network:**

Utilities falling under the road and railway network shall be mapped while surveying on ground for all above ground assets. Refer Port Assets Layer List under Phase I.

- **Miscellaneous Layers for Survey and Mapping:**

These are layers which helps in completeness of the survey specific to the land parcel. These layers also show connectivity and association withing port area. Refer Port Assets Layer List under Phase I.

- **Survey Essential Points:**

These are some points captured or marked during survey along with profile of the land is mapped by generating contour lines. Refer Port Assets Layer List under Phase I.

V. **LEGAL MODULE:**

This module will cater to the mapping of all land parcels under litigation. We propose that once the survey and mapping of land parcels are done along with assignment of land code and primary key, we collect records from the Legal Department for the land

parcels where litigations are under progress. We can create a completely new module for Legal Team to view, upload records and court proceedings as PDF files for respective land parcels. Additionally, we propose to distinguish land parcels on the basis of the courts the legal matter is pending (District, High Court or Supreme Court). We further propose to develop a dynamic Calendar View along with advance intimation of any court proceedings in advance where frequency can be determined. We also propose to map all litigation cases which has been settled as a ready reckoner for any new case. Details of the module can be finalized with DPA post project allotment.

VI. FINANCE MODULE:

We propose to link the already available data with the Finance Department to the Web GIS System for better decision making w.r.t. to dues and pending dues against parties. This needs a dedicated integration of existing Finance Module working at Port with that of the newly developed Web GIS System. This will help us to map defaulters / pending dues in one shot. It will also integrate the estate department land code and primary key to correlate and throw outputs related to leases that are getting expired (duration can be decided by the end user) and their pending dues. Further to this, if the finance data is linked to the individual land code and primary key, we can also generate reports like;

- Demand Raised
- Demand Not Raised
- Land Code and Party Name wise Pending Dues

We can further add on to the report section as per DPA. **The only limiting criteria is that every lease land code has to be linked to primary key and that primary key has to be linked to the Finance Data to form a seamless data integration capability.**

E. Development of BI/MIS Tools for Generation of Reports:

Scitech Park, Pune further proposes to develop a smart and intelligent system that will generate reports from the database. The reports will be derived from a primary table, with related tables displayed within the module. While an initial list of tables has been assumed, the module will be developed in close coordination with DPA as the end user and the Science and Technology Park, Pune, to meet specific requirements. Some of the most relevant reports that could be visualized includes;

- I. Party Wise Outstanding Details: Party-wise outstanding summary

- II. Allotment Acres and Count Details Existing / Expired Allotment type wise report in Acres and Count. Note: Report without quarters data
- III. Party Wise Outstanding- Detailed
Party-wise outstanding summary with further details of outstanding amounts
- IV. Quarters Allotment Abstract (Existing & Expired)
Quarters allotment report for existing and expired contracts
- V. Expired Vacant Outstanding Report – Non-Quarters
Outstanding summary for vacated estates (non-quarters)
- VI. Expired Vacant Outstanding Report - Quarters
Outstanding summary for vacated quarters
- VII. Existing Party Wise Details
Outstanding details for existing Quarters with category
- VIII. Expired Party Wise Details
Outstanding details for vacated Quarters
- IX. Unauthorized Occupancy
Outstanding summary for unauthorized occupancy estates.

Deendayal Port Authority has to facilitate the same with the similar data structure to enable linking. For development of this module, we need dedicated help working in parallel with our development team and providing APIs which will share the requisite SAP/ERP data with the proposed Web GIS System. The data could be in csv, excel or XML format as per SAP/ERP vendor preference.

Note: This development will only be feasible if the data is comprehensively and accurately mapped in the GIS system and a structured mechanism is established to link individual land records with their respective contract numbers, ownership details, allotment status, occupation status, and other relevant attributes from the SAP or ERP system. Without a well-defined linkage, the integration of individual land parcels with geospatial intelligence will present significant challenges.

Furthermore, it is imperative to formalize agreements with the SAP/ERP system contractors at DPA to ensure the provision of APIs for seamless integration with the SAP/ERP modules operational at DPA. This requirement applies to multiple functional modules, including Estate, Legal, and Finance.

F. Post Project Monitoring

DPA should ensure successful implementation of the project with sustainable approach. To achieve the same Scitech Park, Pune proposes post-project monitoring through dedicated **Annual Maintenance Contract (AMC)** for a period of one (01) year to ensure the sustainability and efficiency of the implemented system with considerable transition period. This AMC will not just cater to the Software Part but will also include any land changes which will be reflected in GIS post discussion with the Estate Department of DPA. The frequency of land change could be decided mutually.

Additionally, this stage provides crucial **online trainings (one- or two-days training twice in a year) and handholding** for port officials, focusing on data synchronization and daily data management practices. By building internal capacity, the system's operations can continue smoothly, with ports equipped to handle and maintain data independently.

G. IT Infrastructure Support

DPA should ensure support to the proposed **Online Web GIS Solution Portal** by establishing a dedicated physical server with a robust and scalable IT infrastructure. The system will require high-performance scalable servers with 64-bit processors, (32-64) GB RAM, and (2-4) TB SSD storage initially for the project (with a provision to expand the same in future as per records and data created and developed for the project) for data repository and high-speed access.

A centralized database server utilizing PostgreSQL with PostGIS will manage spatial data, ensuring redundancy through clustered deployments. Web GIS servers (e.g. GeoServer) and Apache for hosting services will handle heavy user requests. To ensure seamless access across all ports, (100-500) Mbps dedicated bandwidth with redundant ISPs is necessary, supported by enterprise-grade firewalls for security.

For data protection, daily backups and security measures will be implemented. Security measures will include SSL/TLS encryption, multi-factor authentication (MFA), and role-based access control (RBAC).

6. Project Deliverables

- A. Establishment of Control Points and Reference Benchmarks and delivery in shape file and Auto CAD file format
- B. Plot boundary mapped on ground and delivered in standard GIS file format and Auto CAD File format
- C. Port Boundary pillars marked, established and mapped with coordinates in standard GIS file format and Auto CAD File format
- D. Cadastral Maps mapped, georeferenced and superimposed on the ground in standard GIS file format and Auto CAD File format
- E. Port Assets mapped on ground and map generation in standard GIS file format and Auto CAD File format
- F. Attribute data collection and its integration in GIS
- G. Procured HR Satellite Image (google images- subject to availability) as Geotiff or ECW file format specific to a Raster Image or similar images for Drone Image (subject to clearance and approvals)
- H. Development of Geospatially Intelligent Port Land Information System
 - i. Admin Module
 - ii. Dashboard Module
 - iii. Land and Estate Module
 - iv. Utility Module
 - v. Legal Module
 - vi. Financial Module
- I. BI/MIS Report Module

7. Proposed Project Timelines (Revised)

Revised Project Timelines

GANTT CHART OF THE PROJECT										
	Project Activity Proposed	TO	Year 1				Year 2			
			Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Survey									
1.1	DGPS, ETS & Drone based Hybrid survey of land parcels and port asset mapping; Drone Image (subject to		1	2	3	4	5	6		
2	Application Development									
	Development of Geospatially Intelligent Port Land Information System for DPA and Integrating final Survey Data into the Web GIS system									
2.1	System Requirements Study SRS & Report Submission		1							
2.2	Server Deployment; Data Preparation, Module Development and Soft Launch of the Web GIS System with Modules;			2						
	• Admin Module									
	• Vacant Land Information System Module									
	• Estate Module									
2.3	Module Development and Soft Launch of the Web GIS System with Modules;				4					
	• Utility Module									
	• Legal Module									
	• Finance Module									
2.4	Final Launch of Web GIS System and BI/MIS Report Generation					5 & 6				
2.5	Security Audit; Security Compliance						1			
2.6	Geospatially Intelligent Port Land Information System for DPA GO LIVE						Go Live			
2.7	Post Project Monitoring								1	2
	Annual Maintenance and Data Hosting								3	4

Note:

- Revised timeline for the project is 18 months involving 6 Quarters. DGPS+ ETS+ Drone based hybrid survey is a field-oriented work. For timely completion of work, DPA, Kandla should ensure all support, permissions as and when required, timely availability of data. This will help speedy completion of work.
- The proposal has a survey component and survey is field dependent and hence has direct impact of various external factors like unfavourable climatic conditions involving Monsoon Period (from June to September) in Kandla region which is nearly 4 months of no field work period. Hence, we make our submission to DPA to consider the delay positively and allocate extra time for any such delay due to monsoon while considering the project it is important to consider escalation of time for that duration due to onset of monsoon for survey and related field activities. Also, any delay due to monsoon should also not be considered under Liquidated Damages (LD).
- Timelines assume uninterrupted work, but external dependencies (drone permissions, weather conditions, DPA personnel availability) could delay completion and DPA should consider these factors positively.

8. Project Financials

OPTION 1 (Hybrid Mode Drone Inclusive with Survey of DGPS and ETS)					
Survey	Quantity	UOM	Unit Rate		
DGPS, ETS based ground survey of land parcels and port assets; assisted by Drone					
1 <ul style="list-style-type: none"> • Taking of Control Points with DGPS observation an GCP point fixing on existing structure by Static Method 	500	Numbers	640	₹ 3,20,000.00	
2 <ul style="list-style-type: none"> • Taking reference/Bench Mark Pillars with Yellow Paint and Marking Value on top (size 30 X 30 X 45) cm, 10mm Iron Rod will be embedded. 	200	Numbers	1280	₹ 2,56,000.00	
3 <ul style="list-style-type: none"> • Topographical survey of all Land Parcels and Port Assets with the help of DGPS/Total station /Auto Level. Showing all land parcels, structures/features Building Road, Railway Line, cart track, pond, monuments, well, HT Line and drains with Invert Level etc. All above ground features Electric line, Park/Garden, Coastal Line, Drain/nallah, water body, boundary wall, Fence line, Manhole, Light post, OFC/GAS/Petrol Pipe Line Markers, Port Operational Area, Bollard, Fender, Fire Hydrant, parking, Break Water, Traffic area, Material Yards, Hills/Jetty area, Contour will be drawn @ 0.5m interval or below as per required with ref to GTS Bench Mark. Drawing will be on global coordinates and shape file will be prepared to superimpose on Satellite imagery. All the features will be shown in different layers & colours Cadastral Map will be prepared as per revenue map provided by client and same will superimposed on topographical drawing Topographical Survey drawing Data Normalization, Attribute collection and Finalization with Survey Data reconciliation with Deendayal Port Authority Drone Survey, control point establishment; image processing and Orthoimage generation 	234750	Acre	650	₹ 15,25,87,500.00	
				Total of Survey Cost	₹ 15,31,63,500.00
Application Development					
Development of Geospatially Intelligent Port Land Information System for DPA <ul style="list-style-type: none"> • Administrator Module • Vacant Land Information Module • Estate Module and its Sub-Modules • Utility & Port Infrastructure Module • Legal Module with API Integration • Finance Module with API Integration 					
4 <ul style="list-style-type: none"> Development of BI/MIS Tools for generation of Reports by integrating Port Land Information System with that of already online or Digital Initiatives of DPA. 		Lump Sum		₹ 65,00,000.00	
Post Project Requirement					
5 Annual Maintenance Contract of the Application Development Project along with GIS Updation Project	1 year	Yearly	₹ 15,00,000.00	₹ 15,00,000.00	
6 Security Audit of the Web GIS Application Developed	1 year	Yearly	₹ 5,00,000.00	₹ 5,00,000.00	
7 Annual Data Hosting and Related Charges for Web GIS Developed	1 year	Yearly	₹ 6,50,000.00	₹ 6,50,000.00	
				Proposed Cost for Option 1	₹ 16,23,13,500.00
				In Words: Rs. Sixteen Crores, Twenty Three Lakhs Thirteen Thousand and Five Hundred only/-	

NOTE:

- Currently services provided by Science and Technology Park, Pune are exempt from Goods and Services Tax (GST) as per Notification No. 12/2017- State Tax, Notification No. 12/2017- Central Tax and Notification No. 9/2017- Integrated Tax. Any change in tax regime due to legislations in future by Government of India shall be made applicable with immediate effect and all taxes as levied and applicable from time to time has to be borne by the project authority as extra.
- All other areas except inside details of Private properties or industries etc or within premise survey not included in the present proposal. Only their outer boundary shall be considered for survey and mapping.
- Unit rates are given along with approximate quantities. final cost will depend upon the actual quantity of work executed on ground and accordingly bills shall be raised on pro rata basis.
- Annual Maintenance Contract (AMC) and Annual Hosting (AH) is a recurring cost on monthly basis initially for a period of 12 months post completion of the Development process. All payments w.r.t. AMC and AH has to be paid upfront in Advance.
- Post Project Requirements are considered for a period of **ONE year only**. Extensions could be done for a minimum period of 3 to 5 years by entering into a separate contract by Science and Technology Park, Pune after completion of the above project tenure.

OPTION 2 Area Reduced to 75000 Acres (Excluding Major Tidal Area)				
Survey	Quantity	UOM	Unit Rate	
DGPS, ETS based ground survey of land parcels and port assets; assisted by Drone				
1	500	Numbers	640	₹ 3,20,000.00
2	200	Numbers	1280	₹ 2,56,000.00
3	75000	Acre	650	₹ 4,87,50,000.00
				₹ 4,93,26,000.00
Application Development				
Development of Geospatially Intelligent Port Land Information System for DPA				
4	Lump Sum			₹ 65,00,000.00
Post Project Requirement				
5 Annual Maintenance Contract of the Application Development Project along with GIS Updation Project	1 year	Yearly	₹ 15,00,000.00	₹ 15,00,000.00
6 Security Audit of the Web GIS Application Developed	1 year	Yearly	₹ 5,00,000.00	₹ 5,00,000.00
7 Annual Data Hosting and Related Charges for Web GIS Developed	1 year	Yearly	₹ 6,50,000.00	₹ 6,50,000.00
Total Project Cost -Option 2 Considering Area 75000 Acres by Excluding Tidal Area			₹ 5,84,76,000.00	
In Words: Five Crores, Eighty Four Lakhs and Seventy Six Thousand only/-				

NOTE:

- Area has been reduced to Technically Approved Area (approx. 75000 acre). This area excludes Tidal Impact Area. All other areas except inside details of Private properties or industries etc or within premise survey not included in the present proposal. **The Unit rate of Rs. 650 per acre is applicable to a minimum area guarantee of 70,000 acre and above. Anything below minimum guarantee area will be charged at a higher rate which will be decided mutually.**
- Currently services provided by Science and Technology Park, Pune are exempt from Goods and Services Tax (GST) as per Notification No. 12/2017- State Tax, Notification No. 12/2017- Central Tax and Notification No. 9/2017- Integrated Tax. Any change in tax regime due to legislations in future by Government of India shall be made applicable with immediate effect and all taxes as levied and applicable from time to time has to be borne by the project authority as extra.
- All other areas except inside details of Private properties or industries etc or within premise survey not included in the present proposal. Only their outer boundary shall be considered for survey and mapping.
- Unit rates are given along with approximate quantities. final cost will depend upon the actual quantity of work executed on ground and accordingly bills shall be raised on pro rata basis.

- Annual Maintenance Contract (AMC) and Annual Hosting (AH) is a recurring cost on monthly basis initially for a period of 12 months post completion of the Development process. All payments w.r.t. AMC and AH has to be paid upfront in Advance.
- Post Project Requirements are considered for a period of **ONE year only**. Extensions could be done for a minimum period of 3 to 5 years by entering into a separate contract by Science and Technology Park, Pune after completion of the above project tenure.
- Annual Maintenance Contract (AMC) and Annual Hosting (AH) is a recurring cost on monthly basis initially for a period of 12 months post completion of the Development process. All payments w.r.t. AMC and AH has to be paid upfront in Advance.

9. Project Payment Terms

Since the project has multiple components of the project and each component is unique in its data acquisition and finalization, it is advisable to make payments on a component's milestone basis so that a regular cash flow in the project is maintained. We proposed to have a Running Bill System post delivery spread across entire Project Duration.

All payments are request to be made within (15-20) days of raising the invoice. Any inordinate delay may lead to stoppage or discontinuation of work.

For Survey Related Work			
A	Project Milestone	Time Schedule	Amount (%)
1	Project Mobilization Cost to start the field work on ground	T0 (Issue of Work Order and Mobilization Advance)	10 % of the Survey Component
2	On completion of Survey Work and submission of Draft Drawing to Port for an Area or Block or Village of the Port (As a Running Bill)	Monthly or Bimonthly or Quarterly or after completion of a Block or Zone	70% amount of the said area for which Survey is completed and Draft Drawing is Submitted as a Running Bill
3	After Data Normalization, attribute collection and finalization with DPA estate department and others and generation of final Auto CAD Drawings and its Submission to Client with Generation of GIS File Format		30% amount of the said area for which Final Drawing and GIS Data is Generated.
	For Only Survey related activities, we request DPA to adjust 10% of Advance Amount in every running Bill submitted to their office.		

For Development and Related Activities			
A	Project Milestone	Time Schedule	Amount (%)
1	Project Mobilization Cost to start the Development Initiative	T0 (Issue of Work Order and Mobilization Advance)	10 % of the Development Component
2	After finalization of System Requirement Study and submission of SRS Report to DPA for Smart Geospatial Port Land Management Information System	After 3 months of Project Issue Date	30% of the Development Cost

3	Server Deployment; Data Preparation, Module Development and Soft Launch - 1 of the Web GIS System with Modules; <ul style="list-style-type: none"> • Admin Module • Vacant Land Information System Module • Estate Module 	After 6 Months of Project Issue Date	30% of the Development Cost
4	Soft Launch-2 of the Web GIS System with Modules <ul style="list-style-type: none"> • Utility Module • Legal Module and • Finance Module 	After 12 Months of Project Issue Date	20% of the Development Cost
5	Final Launch of Web GIS System with BI/MIS Report Generation	After 18 Months of Project Issue Date	10% of the Development Cost
6	Security Audit of the Geospatial Port Land Management Information System	Between 12-15 Months	Upfront 50% of Security Audit Cost before the start of the Security Audit Process
7	Security Audit Compliance Completion and GO LIVE	Between 12-15 Months	Remaining 50% of Security Audit Cost
8	Annual Maintenance Contract	Running Monthly Bill shall be raised after GO LIVE (18 months) of the Geospatial Port Land Management Information System for Deendayal Port Authority. This will be for a period of One Year	
9	Annual Hosting Charges for the Web GIS System	Advance 100% for upfront Payment to 3 rd Party Hosting Provider.	

Note: Science and Technology Park, Pune commits to submit Bank Guarantee (BG) against advance amount requested in the project at different stages of the project. Refer Corrigendum-II attached to the current proposal.

10. Corrigendum- I

Reply to Queries to DPA - This response is in reference to the queries raised by DPA via email on 7th April, 2025 against Science and Technology Park, Pune's Proposal dated 7th March, 2025 to Deendayal Port Authority and submitted to DPA via email on 10th April, 2025.

1. In case of any new allotment or any new infrastructure will develop than extra charges will be payable or not

Reply to Point No. 1:

Scenario-1: Till our Team is deployed at Site for Survey we may take care of new Buildings or allotments; but those will be consolidated in a Month and then we may take up survey activity for the same on Monthly basis for different zones. The data will be updated.

Scenario-2: There will be a scenario, where updation is required in the 75000-acre land post our Survey Team has left the place after conducting Bulk Survey. In this scenario, generally DPA should get the survey done from Local Survey Team deployed at DPA, and the survey Team should be provided with Scitech Park's Auto CAD Drawings which will be utilized by local survey agency to either split or amalgamate the land parcel as per allotment. Once it is done, the data in AutoCAD along with allottee details should be sent to Scitech Park, GIS Development Team and we shall update the same in the Proposed Web GIS.

Scenario-3: If DPA proposes to get Survey of Additional Area beyond 75000 Acres defined in the project and our Team is still working, it will be considered and Scitech Team will conduct the activity, however, pro-rata charges will be levied extra as per rates finalized.

Scenario-4: If DPA proposes to get Survey of Additional Area beyond 75000 Acres defined in the project and our Team has left the place after conducting Bulk Survey, then DPA can involve Scitech Park, Pune for the same for the survey and we may deploy resource for survey for a bulk area for a minimum of (5000-1000) acre. However, Scitech Park, Pune will define the standards of data collection and once data in Georeferenced Auto CAD file format is provided to Scitech Park's Development Team, we shall update the same in the Proposed Web GIS. It is further assumed that Scitech Park, Pune will retain the AMC part of GIS Development Activity on a yearly basis.

2. It is assumed that GIS is in discussion with DPA page No.23

Reply to Point No. 2

In reference to Point no 2, Page no. 23, Line No. 3, Item No. F. Post Project Monitoring; there is a (typo error) where, AMC (Annual Maintenance Contract) AMC is minimum period of 03 years is mentioned. This has to be corrected and read as minimum period of 01 (ONE) year.

3. 6. Project deliverables Page No.24 sub point G.- Related to Google Images and Drone

Reply to Point No. 3

Initially it is proposed to conduct drone imaging for the entire surveyed area. However, as per Government of India's New Drone Policy and Digital Sky Platform, the Port Area of Deendayal falls under No-Fly Zone and special permissions will be required from multiple stakeholders like DGCA, AAI, Local Police Commissioner Office, Port Office and Ministry of Defence (MoD) if any defence establishment is in nearby vicinity. Scitech Park, Pune is hopeful in seeking permissions via legitimate channels through Deendayal Port Authority.

For some places where permissions are tricky or not-achievable, we may look for a Google images which can be downloaded and are comparatively low in spatial resolution as compared to Drone Images.

Additionally, to supply individual Drone and Google images or both type of images is of a very heavy size. For example; a 1 sq.km. of Drone images will need approximate 2.5 GB of hard-disk space and to render such files, a specialized file format is *.Geotiff. To ensure that the file opens in any software (GIS or Remote Sensing or Web GIS) we need to compress the Image (lossless compression) using image compression algorithms and the file format achieved is *.ECW (Enhanced Wavelet Compression). Similar is the case with Google Images.

As far as clarification w.r.t. Point No. H- Development of Geospatially Intelligent Port Land Information System is concerned; Science and Technology Park, Pune has suggested SIX (06) modules. All of these modules are interlinked and since we are developing a System which is Geospatially Intelligent and ready to link it can cater to the future requirements of the DPA ensuring linkage to the quintessential modern Enterprise resource Planning System (ERP) or SAP (Systems, Applications, and Products in Data Processing) or RE-FX Module. We can also link DPA current Tally Based Accounting System through the Tally API's depending on Version and Support from Tally Vendor.

As a Geospatial Knowledge Partner to Various Ports under Ministry of Ports, Shipping and Waterways, we recommend development of these six basic modules that will be integratable at any point of time when a Centralized Geospatial Land Management Information System is put in place.

4. Reduction in the project timeline, if suitable. With proper adjustments, I believe we can meet the goals earlier. –

Reply to Point No. 4

The plan and Gantt Chart currently considers TWO (02) years of entire project execution including 1.5 years of Survey. The survey component is time consuming and the maximum time period is dependent on various external factors and dependencies like favourable climatic conditions avoiding Monsoon Period completely for field activity, permissions during survey, timely availability of resource from DPA and ensuring safety and health of our survey team members. Onset of Monsoon period in Kandla Region ranges from June to September end which is nearly 4 months of no field work period. Hence, while considering the project it is important to consider escalation of time for that duration due to onset of monsoon for survey and related field activities

Secondly, the data received from the survey, undergoes a series of processing (standardization and normalization) in terms of Port requirements. This balanced transitional capability of Data from AutoCAD to GIS file further includes systemized attribute incorporation which is a time taking process as our team will work under consultation with DAP and its Officials. Hence, Development of Geospatially Intelligent Port Land Information System requires data as input for most of its modules.

Looking at your request we have adopted a revised strategy wherein we propose a reduction in overall engagement from 2 Years to 1.5 years and suggest a modular approach where some of the modules are Soft Launched earlier by the end of First Year and the remaining are made functional in incremental options.

5. Clarification on server and IT infrastructure

Reply to Point No. 5

We have assumed that DPA will ultimately require a sophisticated and high-end Server Infrastructure after 2.5 years of project implementation period (1.5 Years of Project Time Line and 1 year of AMC and Annual Hosting after GO LIVE). This time period is given to DPA to adjust and prepare themselves to the new system of GIS at their place. Once the data of survey in GIS file format is migrated to Your Servers, the annual Hosting cost will be nullified.

Currently in the present proposal, we have included 1 year of Data Hosting with requisite Hardware configuration recommended (32-64 GB of RAM and 2-4 TB of HDD Space). This will be required due to larger area of DPA considering 75000 acres approximately. We further propose to Host the data for One Year at the said price (mentioned in the proposal) at Software Technology Parks of India an organization under Ministry of Electronics and Telecommunication, Government of India.

6. Payment Structure

Reply to Point No. 6

There are **THREE** major Sub-components to the Proposal and we have different Payment Structures for all Three of them;

Sub Component 1: Ground Based Survey for Land Parcel Boundary and Other Features

No.	Milestone and Proposed Timeline	Payment Requested
1	Project Mobilization Cost to start the field work on ground T0 (Issue of Work Order and Mobilization Advance)	10% Advance of the Survey Component Cost Only
2	On completion of Survey Work and submission of Draft Drawing to Port for an Area/ Block / Village of the Port (As a Running Bill per Block/Village) Monthly or Bimonthly or Quarterly or after completion of a Block or Zone	70% amount of the said area for which Survey is completed and Draft Drawing is Submitted as a Running Bill
3	After Data Normalization, attribute collection and finalization with DPA estate department and others and generation of final Auto CAD Drawings and its Submission to Client with Generation of GIS File Format (Running Bill as above)	30% amount of the said area for which Final Drawing and GIS Data is Generated.
For Only Survey related activities, we request DPA to adjust 10% of Advance Amount in every running Bill submitted to their office.		

Sub Component 2: Application Development: Geospatially Intelligent Port Land Management System

No.	Milestone and Proposed Timeline	Payment Requested
1	Project Mobilization Advance to start the Development Initiative T0 (Issue of Work Order and Mobilization Advance)	10 % of the Application Development Component cost
2	After finalization of System Requirement Study and submission of SRS Report to DPA for Smart Geospatial Port Land Management Information System After 3 months of Project Work Order Date	30% of the Development Cost component
3	Server Deployment; Data Preparation, Module Development and Soft Launch-1 of the Web GIS System with Modules; <ul style="list-style-type: none"> Admin Module Vacant Land Information System Module Estate Module After 6 Months of Project Work Order Date	30% of the Development Cost component
4	Final Launch of the Web GIS System with Modules <ul style="list-style-type: none"> Utility Module Legal Module and Finance Module This Soft Launch 2 will be for completed Survey area till the time period mentioned. After 12 Months of Project Work Order Date	20% of the Development Cost component
5	Final Launch of Web GIS System with BI/MIS Report Generation. This will be the GO LIVE of the Geospatially Intelligent Port Land Management System with all functionalities. After 18 Months of Project Work Order Date	Remaining 10% of the Development Cost component

Sub Component 3: Post Project Requirements.

No.	Milestone and Proposed Timeline	Payment Requested
1	Annual Maintenance Charges (AMC) This AMC will start after 18 months; i.e. when the System is GOLIVE; for a period of 12 Months.	Running Monthly Bill shall be raised after GO LIVE of the Geospatial Port Land Management Information System for Deendayal Port Authority. This will be for a period of One Year Only
2	Security Audit of the Geospatial Port Land Management Information System To be before the GOLIVE, approximately between (15-18 months)	100% Advance Amount for upfront Payment to Certified Application Security Auditor. [REFER CORRIGENDUM II or PROPOSAL AS FINAL PAYMENT STRUCTURE FOR SECURITY AUDIT]
3	Annual Hosting Charges for the Geospatial Port Land Management Information System To be from 18 months; i.e. when the System is GOLIVE; for a period of 12 Months.	Advance 100% for upfront Payment to the 3 rd Party Hosting Provider.

11. Corrigendum – II

This response is in reference to the queries raised by DPA via email on 12th April, 2025 against Science and Technology Park, Pune's Proposal dated 7th March, 2025 to Deendayal Port Authority along with Clarification Note sent to DPA on 10th April, 2025. All responses/clarifications are written in Green Colour.

Query 1

A. PAGE NO. 28 CLOUSE 9. PROJECT PAYMENT TERMS

- **Subcomponent 1 For survey related work**

1. Project mobilization cost to start the field work on ground:

Payment requested as 10 % of survey component. **(advance payment against submission of bank guarantee (BG)).**

Reply to Query 1

Yes, we, agree to advance against Bank Guarantee (BG) requested.

2. On completion of survey work and submission of draft drawing to part for an area/block/village of the port (as a running bill per block/village):

70 % amount of the said area, **C.P, B.M, Topographic Survey** for which survey is completed and draft drawing is submitted as a running bill. **A 10% deduction shall be made from the running bills as an adjustment against the advance payment.**

Reply to Query 1

We request the release of 70% amount of the said area including Control point (CP), Bench Mark (BM) and Topographic Survey for an area /block/village of the port. Yes, we, agree to 10% Deductions from running Bills as an adjustment against the advance payment.

3. After Data Normalization, attribute collection and finalization with DPA estate department and others and generation of final Auto CAD Drawings and its Submission to Client with Generation of GIS File Format:

30 % amount of the said area, **C.P, B.M, Topographic Survey** for which survey is completed and draft drawing is submitted as a running bill. **A 10% deduction shall be made from the running bills as an adjustment against the advance payment.**

Reply to Query 1

We request the release of remaining 30% amount of the said area including Control point (CP), Bench Mark (BM) and Topographic Survey for an area /block/village of the port. Yes, we, agree to 10% Deductions from running Bills as an adjustment against the advance payment.

Subcomponent 2:application development and related activities.

1. Project Mobilization Cost to start the Development Initiative: 10 % of development component. Is modified to (advance payment against submission of bank guarantee (BG)).

Reply to Query 1

Yes, we, agree to advance against Bank Guarantee (BG) requested.

2. Security Audit of the Geospatial Port Land Management Information System: 50% advance mention in old payment schedule and you are submitted 100% in new please consider 50% as per discussion.

Reply to Query 1

Kindly ignore the new payment schedule of 100% Advance Payment. We agree to the old payment schedule of 50% Advance against Security Deposit as per the original proposal.

Upfront **50%** of Security Audit Cost before the start of the Security Audit Process (advance payment against submission of bank guarantee (BG)."

Reply to Query 1

Yes, we, agree to advance against Bank Guarantee (BG) requested.

Query 2

- B. Kindly confirm whether the staff will be available during the project execution period and the AMC phase.

Reply to Query 2

For the given project there is no consideration of deployment of an exclusive resource at DPA. The entire project will be executed remotely from Pune HQ.

However, during the Survey time period it is proposed to deploy survey team exclusively for survey related activities at DPA. They will be stationed at Gandhidham only for the survey period and their job will be to execute field work and survey using Total Station and DGPS and coordinate with DPA Officials as and when required in the interest of the project.

For the Development and Post Project Monitoring phase, we may on need basis deploy One resource with GIS Capabilities at DPA. This will be at sole discretion of Science and Technology Park, Pune.

Query 3

C. Submit the revised proposed project time line based on duration of 1.5 year (18 month).

Reply to Query 3 (Revised Timeline and Note)

GANTT CHART OF THE PROJECT												
		Year 1				Year 2				Year 3		
	Project Activity Proposed	TO	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2
1	Survey											
1.1	DGPS, ETS & Drone based Hybrid survey of land parcels and port asset mapping; Drone Image (subject to		1	2	3	4	5	6				
2	Application Development											
	Development of Geospatially Intelligent Port Land Information System for DPA and Integrating final Survey Data into the Web GIS system											
2.1	System Requirement Study SRS & Report Submission		1									
2.2	Server Deployment; Data Preparation, Module Development and Soft Launch of the Web GIS System with Modules;			2								
	• Admin Module											
	• Vacant Land Information System Module											
	• Estate Module											
2.3	Module Development and Soft Launch of the Web GIS System with Modules;					4						
	• Utility Module											
	• Legal Module											
	• Finance Module											
2.4	Final Launch of Web GIS System and BI/MIS Report Generation						5 & 6					
2.5	Security Audit; Security Compliance											
2.6	Geospatially Intelligent Port Land Information System for DPA GO LIVE						Go Live					
2.7	Post Project Monitoring									1	2	
	Annual Maintenance and Data Hosting								3	4		

Note:

- Revised timeline for the project is 18 months involving 6 Quarters. DGPS+ ETS+ Drone based hybrid survey is a field-oriented work. For timely completion of work, DPA, Kandla should ensure all support, permissions as and when required, timely availability of data. This will help speedy completion of work.
- The proposal has a survey component and survey is field dependent and hence has direct impact of various external factors like unfavourable climatic conditions involving Monsoon Period (from June to September) in Kandla region which is nearly 4 months of no field work period. Hence, we make our submission to DPA to consider the delay positively and allocate extra time for any such delay due to monsoon while considering the project it is important to consider escalation of time for that duration due to onset of monsoon for survey and related field activities. Also, any delay due to monsoon should also not be considered under Liquidated Damages (LD).
- Timelines assume uninterrupted work, but external dependencies (drone permissions, weather conditions, DPA personnel availability) could delay completion and DPA should consider these factors positively.

Query 4

Logging and boarding arrangement to be done by consultant themselves, no local transport will be provided.

However, in case they are required to travel as per instructions of Chief Engineer & HOD Estate, Deendayal

Port Authority

Reply to Query 4

Yes, post allocation of the project, lodging, boarding arrangements will be done by Science and Technology Park, Pune and their Associates only. There will be no dependency on DPA for the same.

Query 5

E. Liquidated Damage (L.D.): The time allowed for various shall be strictly adhered to by the consultant. In case of delay on satisfactory completion of any of the services due to the any default on part of consultant, the consultant shall be liable to pay L.D for delay an amount equal to 0.5% per week or part thereof of the contract value of the work, beyond the scheduled period of undertaking the services to be rendered by consultant. Provided always that the entire amount of L.D to be levied shall not exceed 10% of total value of the contract.

Reply to Query 5

Yes, we accept the clause of LD, subject to exclusions where external factors beyond the control of Science and Technology Park, Pune hampers the project timelines like, onset of monsoon period, delay in attaining permission for drone fly or any permission related to on-ground survey.

Query 6

F. GOODS & SERVICE (GST) CLAUSE:

The consultant shall quote the price exclusive of GST. The applicable GST shall be paid extra to the consultant after producing GST Invoice as per the certified Bill by the department. However, element of GST shall not consider for evaluation of bid.

"Contractor/service provider/supplier etc. has to ensure timely & proper filling of GSTR 1 so that Deendayal Port AUTHORITY can avail input tax credit in timely manner. In case DPA not allowed input credit due to failure of part of the contractor/service provider/supplier etc., it will be a financial loss to DPT & therefore same shall be recovered from the payment/deposit of the contractor/service provider/supplier.

Reply to Query 6

Currently services provided by Science and Technology Park, Pune are exempt from Goods and Services Tax (GST) as per Notification No. 12/2017- State Tax, Notification No. 12/2017- Central Tax and Notification No. 9/2017- Integrated Tax. Any change in tax regime due to legislations in future by Government of India shall be made applicable with immediate effect and all taxes as levied and applicable from time to time has to be borne by the project authority as extra.

Please find attached Document for the same, attached to this document.

Please Note: We do file monthly returns but since we do not charge GST there won't be any input tax credit.

Query 7

G. TDS ON GST

TDS provision under GST Acts, 2017 are in force from 01.10.2018 and accordingly TDS under GST Act will be deducted @ 2 % (1% CGST and 1 % SGST or 2 % IGST) from payment / credit given to contractor/ professional and other for work order / contract exceeding Rs. 2,50,000/-.

H. GST at the rates applicable from time to time, shall however be paid extra. The payment of GST shall be subject to the reflection of credit towards GST amount paid for previous month in DPA's Electronic Credit Ledger Account on GSTN Portal. The GST for the first month shall be reimbursed only after reflection of credit towards GST amount in DPA's Electronic Credit Ledger Account on GSTN portal.

Reply to Query 7

Yes, Ok and accepted that TDS will be deducted at 2%.

12. General Terms of Contract

I. Validity:

Offers shall remain valid for a period of 2 months from Proposal Date.

II. Standard of Performance:

Science and Technology Park, Pune (Scitech Park, Pune) shall implement the Project; perform its obligations under the contract with due diligence, efficiency and economy in accordance with generally accepted norms techniques and practices used in the industry.

III. Support and Agreement from Deendayal Port Authority (DPA), Gandhidham

For timely completion of work, Deendayal Port Authority (DPA) should ensure all support, permissions, police protection (as and when required) timely availability of data. This will help speedy completion of work. For any delay due to non-working conditions on ground (harsh weather, monsoon, rains) Scitech Park Pune should not be held responsible. Also, issuance of Work Order on the basis of this proposal deems to accept and agree to the General Terms and Conditions along with scope, project timeline and financials and payment terms mentioned herein.

Additionally, DPA should appoint one dedicated resource person with our field team who is aware of all land plots and their jurisdiction for demarcation of plot boundaries in DPA. Also, there should be a single point of contact deputed by DPA for the project.

IV. Project Execution Clause:

- All other areas except inside details of Private properties or industries etc or within premise survey not included in the present proposal.
- Unit Rates are given along with approximate quantities. Final cost will depend upon the actual quantity of work executed on ground and accordingly bills shall be raised on pro rata basis.
- Currently services provided by Science and Technology Park, Pune are exempt from Goods and Services Tax (GST) as per Notification No. 12/2017- State Tax, Notification No. 12/2017- Central Tax and Notification No. 9/2017- Integrated Tax. Any change in tax regime due to legislations in future by Government of India shall be made applicable with immediate effect and all taxes as levied and applicable from time to time has to be borne by the project authority as extra.
- Annual Maintenance Contract (AMC) and Annual Hosting (AH) is a recurring cost on monthly basis initially for a period of 12 months post completion of the Development process. All payments w.r.t. AMC and AH has to be paid upfront in Advance.

V. Extra Work:

The Modules presumed in the present proposal are for budgetary sanctions, however if there is an increase/change in functionality then appropriate time and cost needs to be given to STP for the extra work that shall be conducted.

VI. Short Closure:

If the project is short closed at any point before actual contract period, Science and Technology Park, Pune shall be legally paid for the work done till the short closure.

VII. Sign Off & Support:

The deliverables shall be deemed to be signed off once the authorized signatory/competent authority certifying that the deliverables are as per the contracted agreement signs the sign off report. The sign off time by the competent authority shall not exceed more than FIFTEEN (15) days of submission of delivery, otherwise it shall be deemed to have been signed off automatically.

VIII. Confidentiality:

Scitech Park Pune shall maintain all the information received from DPA as confidential, using high degree of care, sincerity of purpose and integrity, as is appropriate to prevent any unauthorized use or disclosure in any manner, unless DPA authorizes Scitech Park Pune with written consent to pass on, disclose to any other party, in writing. If any subordinate /associate/ department/office of DPA requires any information, within agreed terms shall be released by Scitech Park Pune only with the written consent from competent authority of DPA.

On the other hand, the financial and technical matter contained within the current proposal should be strictly confidential and for the purpose of DPA only. It should not be disclosed at any point of time to any Organization or its associates or associates/employees of Science and Technology Park, Pune under this confidentiality clause of the Proposal.

IX. Ownership:

Data generated for DPA will have DPA's Ownership and Scitech Park, Pune will be bound by NDA clause if entered upon for data distribution. However, Application Developed shall be solely owned by Science and Technology Park, Pune and the same cannot be distributed, copied or source-code be shared to any 3rd Party by DPA.

X. Termination Clause:

The promises made by the parties shall define the rights and obligations of the parties. It shall be ensured that either or both parties have the right to terminate the contract under certain circumstances. In the event of DPA terminating the contract, all payments due till the date of termination including that commensurate to the work in progress shall be made to Scitech Park Pune.

XI. Arbitration:

At any dispute or question that shall arise to touch various matters that will affect the smooth functioning and or continuity of the project as a whole, or any clause or thing contained or respecting the rights or liabilities or the parties on either side of the contract shall be referred to an arbitrator appointed by the provisions of the Arbitration Act 1996 or any amendments therein. The venue, Pune / Gandhidham, shall be mutually decided.

XII. Indemnity Clause:

DPA and SciTech park Pune shall indemnify, defend and hold harmless each other from all 3rd Party claims arising out of any or part of or relating to the project implementation program

XIII. Jurisdiction:

The courts in Pune/ Gandhidham shall have complete and exclusive jurisdiction to decide any dispute arising during the currency of the contracted terms and conditions.

XIV. Force Majeure:

Scitech Park shall not be responsible for any failure to perform due to unforeseen circumstances or due to cause beyond Scitech Park's reasonable control, including but not limited to acts of God, War, Riot, acts of civil or

military authorities, pandemic, COVID restrictions, fire, energy, labour or material. In the event of any such delay, either or both parties may after giving a due notice defer the delivery date for a period equal to time of such delay.

XV. Final Note:

A formal Work Order has to be issued with clear terms and conditions relevant to the Proposal Deendayal Port Authority (DPA) along with entering into an Agreement between Science and Technology Park, Pune and Deendayal Port Authority (DPA), Gandhidham.

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END OF PROPOSAL

13. GST Certificate and Exemption Clause



(Amended)

Government of India**Form GST REG-06***[See Rule 10(1)]***Registration Certificate****Registration Number :27AAATS4493H1Z6**

1.	Legal Name	SCIENCE AND TECHNOLOGY PARK UNIVERSITY OF PUNE		
2.	Trade Name, if any	SCIENCE AND TECHNOLOGY PARK		
3.	Constitution of Business	Society/ Club/ Trust/ AOP		
4.	Address of Principal Place of Business	SAVITRI BAI PHULE UNIVERSITY CAMPUS, GANESHKHIND ROAD, PUNE, Pune, Maharashtra, 411007		
5.	Date of Liability	01/07/2017		
6.	Date of Validity	From	28/10/2017	To
7.	Type of Registration	Regular 		
8.	Particulars of Approving Authority			
Maharashtra Goods and Services Tax Act, 2017				
<i>Signature</i>				
Name		Arun Narute		
Designation		STATE TAX OFFICER		
Office		PUNE-1		
Date of issue of Certificate		06/04/2018		
Note: The registration certificate is required to be prominently displayed at all places of Business/Office(s) in the State.				

[TO BE PUBLISHED IN THE GAZZETE OF INDIA, EXTRAORDINARY, PART II,
 SECTION 3, SUB-SECTION (i)]

Government of India
 Ministry of Finance
 (Department of Revenue)

Notification No. 9/2017-Integrated Tax (Rate)

New Delhi, the 28th June, 2017

G.S.R.....(E).- In exercise of the powers conferred by sub-section (1) of section 6 of the Integrated Goods and Services Tax Act, 2017 (13 of 2017), the Central Government, on being satisfied that it is necessary in the public interest so to do, on the recommendations of the Council, hereby exempts the inter-State supply of services of description as specified in column (3) of the Table below from so much of the Integrated Tax leviable thereon under sub-section (1) of section 5 of the said Act, as is in excess of the said tax calculated at the rate as specified in the corresponding entry in column (4) of the said Table, unless specified otherwise, subject to the relevant conditions as specified in the corresponding entry in column (5) of the said Table, namely:-

Table

Sl. No.	Chapter, Section, Heading, Group or Service Code (Tariff)	Description of Services	Rate (per cent.)	Condition
(1)	(2)	(3)	(4)	(5)
1	Chapter 99	Services by an entity registered under section 12AA of the Income-tax Act, 1961 (43 of 1961) by way of charitable activities.	Nil	Nil
2	Chapter 99	Services by way of transfer of a going concern, as a whole or an independent part thereof.	Nil	Nil
3	Chapter 99	Pure services (excluding works contract service or other composite supplies involving supply of any goods) provided	Nil	Nil

		senior advocate, by way of legal services to- (i) an advocate or partnership firm of advocates providing legal services; (ii) any person other than a business entity; or (iii) a business entity with an aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year; (c) a senior advocate by way of legal services to- (i) any person other than a business entity; or (ii) a business entity with an aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year.		
48	Heading 9983	Services by a veterinary clinic in relation to health care of animals or birds.	Nil	Nil
49	Heading 9983 or Heading 9991	Services provided by the Central Government, State Government, Union territory or local authority by way of- (a) registration required under any law for the time being in force; (b) testing, calibration, safety check or certification relating to protection or safety of workers, consumers or public at large, including fire license, required under any law for the time being in force.	Nil	Nil
50	Heading 9983 or any other Heading of Chapter 99	Taxable services, provided or to be provided, by a Technology Business Incubator or a Science and Technology Entrepreneurship Park recognised by the National Science and Technology Entrepreneurship Development Board of the Department of Science and Technology, Government of India or bio-incubators recognised by the Biotechnology Industry Research Assistance Council, under the Department	Nil	Nil

		of Biotechnology, Government of India.		
51	Heading 9984	Services by way of collecting or providing news by an independent journalist, Press Trust of India or United News of India.	Nil	Nil
52	Heading 9984	Services of public libraries by way of lending of books, publications or any other knowledge-enhancing content or material.	Nil	Nil
53	Heading 9984	Services provided by the Goods and Services Tax Network to the Central Government or State Governments or Union territories for implementation of Goods and Services Tax.	Nil	Nil
54	Heading 9985	Services provided by a tour operator to a foreign tourist in relation to a tour conducted wholly outside India.	Nil	Nil
55	Heading 9985	Services by an organiser to any person in respect of a business exhibition held outside India.	Nil	Nil
56	Heading 9985	Services by way of sponsorship of sporting events organised - (a) by a national sports federation, or its affiliated federations, where the participating teams or individuals represent any district, State, zone or Country; (b) by Association of Indian Universities, Inter-University Sports Board, School Games Federation of India, All India Sports Council for the Deaf, Paralympic Committee of India or Special Olympics Bharat; (c) by the Central Civil Services Cultural and Sports Board; (d) as part of national games, by the Indian Olympic Association; or (e) under the Panchayat Yuva Kreedha Aur Khel Abhiyaan Scheme.	Nil	Nil
57	Heading 9986	Services relating to cultivation of plants and rearing of all life forms of animals, except the rearing of horses, for food, fibre, fuel, raw material or other similar	Nil	Nil

[TO BE PUBLISHED IN THE GAZZETE OF INDIA, EXTRAORDINARY, PART II, SECTION 3, SUB-SECTION (i)]

Government of India
 Ministry of Finance
 (Department of Revenue)

Notification No. 12/2017- Central Tax (Rate)

New Delhi, the 28th June, 2017

G.S.R.....(E).- In exercise of the powers conferred by sub-section (1) of section 11 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Central Government, on being satisfied that it is necessary in the public interest so to do, on the recommendations of the Council, hereby exempts the intra-State supply of services of description as specified in column (3) of the Table below from so much of the central tax leviable thereon under sub-section (1) of section 9 of the said Act, as is in excess of the said tax calculated at the rate as specified in the corresponding entry in column (4) of the said Table, unless specified otherwise, subject to the relevant conditions as specified in the corresponding entry in column (5) of the said Table, namely:-

Table

Sl. No.	Chapter, Section, Heading, Group or Service Code (Tariff)	Description of Services	Rate (per cent.)	Condition
(1)	(2)	(3)	(4)	(5)
1	Chapter 99	Services by an entity registered under section 12AA of the Income-tax Act, 1961 (43 of 1961) by way of charitable activities.	Nil	Nil
2	Chapter 99	Services by way of transfer of a going concern, as a whole or an independent part thereof.	Nil	Nil
3	Chapter 99	Pure services (excluding works contract service or other composite supplies involving supply of any goods) provided to the Central Government, State Government or Union territory or local authority or a Governmental authority by way of any activity in relation to any function entrusted to a Panchayat under article 243G of the Constitution or in	Nil	Nil

		<p>aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year;</p> <p>(b) a partnership firm of advocates or an individual as an advocate other than a senior advocate, by way of legal services to-</p> <ul style="list-style-type: none"> (i) an advocate or partnership firm of advocates providing legal services; (ii) any person other than a business entity; or (iii) a business entity with an aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year; <p>(c) a senior advocate by way of legal services to-</p> <ul style="list-style-type: none"> (i) any person other than a business entity; or (ii) a business entity with an aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year. 		
46	Heading 9983	Services by a veterinary clinic in relation to health care of animals or birds.	Nil	Nil
47	Heading 9983 or Heading 9991	Services provided by the Central Government, State Government, Union territory or local authority by way of-	Nil	Nil
48	Heading 9983 or any other Heading of Chapter 99	(a) registration required under any law for the time being in force;	Nil	Nil
		(b) testing, calibration, safety check or certification relating to protection or safety of workers, consumers or public at large, including fire license, required under any law for the time being in force.		
		Taxable services, provided or to be provided, by a Technology Business Incubator or a Science and Technology Entrepreneurship Park recognised by the National Science and Technology	Nil	Nil

महाराष्ट्र शासन राजपत्र असाधारण भाग चार-ब, जून २९, २०१७/आषाढ ८, शके १९३९

८१

FINANCE DEPARTMENT

Madam Cama Road, Hutatma Rajguru Chowk, Mantralaya,
 Mumbai 400 032, Dated the 29th June 2017.

NOTIFICATION
Notification No. 12/2017- State Tax (Rate)
MAHARASHTRA GOODS AND SERVICES TAX ACT, 2017.

No. MGST-1017/C.R. 103 (11) / Taxation- 1.-In exercise of the powers conferred by sub-section (1) of section 11 of the Maharashtra Goods and Services Tax Act, 2017 (Mah. XLIII of 2017), the Government of Maharashtra, on being satisfied that it is necessary in the public interest so to do, on the recommendations of the Council, hereby exempts the intra-State supply of services of description as specified in column (3) of the Table below from so much of the state tax leviable thereon under sub-section (1) of section 9 of the said Act, as is in excess of the said tax calculated at the rate as specified in the corresponding entry in column (4) of the said Table, unless specified otherwise, subject to the relevant conditions as specified in the corresponding entry in column (5) of the said Table, namely:-

Table

S.I. No.	Chapter, Section, Heading, Group or Service Code (Tariff)	Description of Services	Rate (per cent.)	Condition
(1)	(2)	(3)	(4)	(5)
1	Chapter 99	Services by an entity registered under section 12AA of the Income-tax Act, 1961 (43 of 1961) by way of charitable activities.	Nil	Nil
2	Chapter 99	Services by way of transfer of a going concern, as a whole or an independent part thereof.	Nil	Nil
3	Chapter 99	Pure services (excluding works contract service or other composite supplies involving supply of any goods) provided to the Central Government, State Government or Union territory or local authority or a Governmental authority by	Nil	Nil

महाराष्ट्र शासन राजपत्र असाधारण भाग चार-ब, जून २९, २०१७/आषाढ ८, शंके १९३९

८१

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Table

S.I. No.	Chapter, Section, Heading, Group or Service Code (Tariff)	Description of Services	Rate (per cent.)	Condition
(1)	(2)	(3)	(4)	(5)
1	Chapter 99	Services by an entity registered under section 12AA of the Income-tax Act, 1961 (43 of 1961) by way of charitable activities.	Nil	Nil
2	Chapter 99	Services by way of transfer of a going concern, as a whole or an independent part thereof.	Nil	Nil
3	Chapter 99	Pure services (excluding works contract service or other composite supplies involving supply of any goods) provided to the Central Government, State Government or Union territory or local authority or a Governmental authority by	Nil	Nil

Sl. No.	Chapter, Section, Heading, Group or Service Code (Tariff)	Description of Services	Rate (per cent.)	Condition
		<p>(iii) a business entity with an aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year;</p> <p>(c) a senior advocate by way of legal services to-</p> <ul style="list-style-type: none"> (i) any person other than a business entity; or (ii) a business entity with an aggregate turnover up to twenty lakh rupees (ten lakh rupees in the case of special category states) in the preceding financial year. 		
46	Heading 9983	Services by a veterinary clinic in relation to health care of animals or birds.	Nil	Nil
47	Heading 9983 or Heading 9991	Services provided by the Central Government, State Government, Union territory or local authority by way of-	Nil	Nil
48	Heading 9983 or any other Heading of Chapter 99	<p>Taxable services, provided or to be provided, by a Technology Business Incubator or a Science and Technology Entrepreneurship</p>	Nil	Nil

महाराष्ट्र शासन राजपत्र असाधारण भाग चार-ब, जून १९, २०१७/आषाढ ८, शके १९३९

११

Sl. No.	Chapter, Section, Heading, Group or Service Code (Tariff)	Description of Services	Rate (per cent.)	Condition
		Park recognised by the National Science and Technology Entrepreneurship Development Board of the Department of Science and Technology, Government of India or bio-incubators recognised by the Biotechnology Industry Research Assistance Council, under the Department of Biotechnology, Government of India.		
49	Heading 9984	Services by way of collecting or providing news by an independent journalist, Press Trust of India or United News of India.	Nil	Nil
50	Heading 9984	Services of public libraries by way of lending of books, publications or any other knowledge-enhancing content or material.	Nil	Nil
51	Heading 9984	Services provided by the Goods and Services Tax Network to the Central Government or State Governments or Union territories for implementation of Goods and Services Tax.	Nil	Nil
52	Heading 9985	Services by an organiser to any person in respect of a business exhibition held outside India.	Nil	Nil
53	Heading 9985	Services by way of sponsorship of sporting events organised - (a) by a national sports federation, or its affiliated	Nil	Nil

14. STP Response to DPA Finance Observations

In Reference to the Observations received vide Email dated 14.05.2025, please find response of Science and Technology Park, Pune (Scitech Park, Pune) below:

1. Proposal is for award of contract on nomination basis. Please refer para 3.10 of Manual for procurement of consultancy and other services and give the exceptional circumstances to select single firm viz. M/s. SciTech Park, Pune OR confirm whether M/s. SciTech has to be engaged as consultant for implementation of LMIS at all major ports as per govt. direction?

Reply 1: DPA should produce the letter issued to Chairperson of All Major Ports in India dated 1st Jan 2025 by NAVIC-Cell-11 under Ministry of Ports, Shipping and Waterways, Government of India where Science and Technology Park, Pune (Scitech Park, Pune) has been recommended as Knowledge Partner for Works related to Land Management Information System and additionally stating that the Ports which do not have LMIS implemented may initiate the process in consultation with Scitech Park, Pune.

2. It is pertinent to mention here that for all contract on nomination procuring entity has to certify the reasonableness of price as per para 3.10 of manual. Please confirm whether rates charges by M/s. SciTech is the same as charged to other major ports?

Reply 2: Science and Technology Park, Pune is currently engaged with 3 major ports across India with different scope of work for implementing Land Management Information System at ports. Ground Survey of Land Parcels using DGPS and ETS instruments is a major component (85%) of the entire project scope which is common for all Ports, we have given You a comparison of Survey rates in the below table.

Additionally, DPA is aware of the fact, that, their area is much larger as compared to any other ports where work has been executed by Science and Technology Park, Pune so, for survey we have designed a telescopic rate exclusively for DPA, Kandla which is nearly **(2-2.5) times less** as compared to any other port.

We confirm that the unit rates for DPA, Kandla Port is practically much less as compared to other ports like VOCPA, Tuticorin Port, Vishakhapatnam Port and Cochin Port. Our engagement with SMP, Kolkata is completely different as we are engaged in providing consultancy for the improvement of the existing LMIS and additionally developing a Vacant Land Information System. Survey rates are mentioned below for your reference purpose; **(request You to kindly keep it confidential)**

No.	Port	Activity	Unit Rate (Survey)	Area (acres)
1	VOCPA, Tuticorin 2023	DGPS and ETS Survey and Mapping of Port Land on ground	Rs. 1169.27 per acres	5388.56 acres
2	Vishakhapatnam Port 2025	DGPS and ETS Survey and Mapping of Port Land on ground + Drone Survey	Rs. 1604.47 per acres	7615.62 acres
3	Cochin Port (Proposal at CoPA sent) 2025	DGPS and ETS Survey and Mapping of Port Land on ground	Rs. 1512.57 per acres	2177 acres
4	DPA, Kandla	DGPS and ETS Survey + Drone Imaging	Rs 650 per acres	75000 acres

3. From the proposal of the consultant, it is understood that (i) The survey will cover all port's assets and infrastructure pertaining to all the Department of DPA. (ii) this development will only be feasible if the data is comprehensively and accurately mapped in the GIS System and a structured mechanism is established to link individual land record with their respective contract numbers, ownership details, allotment status, occupation status, and other relevant attributes from the SAP or ERP System. (iii) It is imperative to formalize agreements with SAP/ERP system contracts at DPA to ensure the provision of APIs for seamless integration with SAP/ERP modules operational at DPA. This requirement applies to the multiple functional modules including estate, legal and finance. (iv) DPA to ensure support to the proposed online web GIS Solution Portal by establishing a dedicated physical server with robust and

Reply to 3:

- i. Logically, all departments mentioned in the Proposal will be covered and efforts will be taken to map their corresponding assets on ground to their departmental records. Equal effort and support from DPA and their Departments has to be taken to ensure there is complete uniformity in timely data availability. Additionally, if some of the non-spatial records from Department are not captured, an additional provision shall be made in the application developed exclusively for the authorized person from the DPA department to populate the data on the online platform.
- ii. DPA concerned department to ensure contractual obligations with the SAP team/ERP team is done for data exchange via APIs or any other suitable means. Additionally, such data exchanges will happen only when there is a structured data in the system and for that Science and Technology Park, Pune has already suggested generation of a standard Port Land Data Structure Model which will act as a backbone of GIS implementation.
- iii. DPA to comply internally with selected SAP/ERP Party
- iv. DPA to comply internally

4. Considering obligation of DPA as per para 1 to 3 above, please confirm that views/confirmation of all the concerned department is obtained for successful implementation of proposed system.

Reply to 4: DPA Kandla to comply internally

5. Sanctioned budget scheme to which expenditure of proposed work is to be charged and reference of DPA may also be mentioned in the proposal.

- **Reply to 5: DPA to comply internally**

6. Time line of 18 months to go live subject to uninterrupted work and external dependencies (drone permission, weather conditions, DPA personnel availability), DPA should ensure all support, permission as and when required, timely availability of data), monsoon period during survey. As these factors decide levy of L.D. Please confirm whether drone permission is DPA's obligations?

Reply to 6: The project actual working timeline (without any delay reason like mentioned above) is 18 months and at this time we **Go Live**. However, the project has intermediary deliveries which will be done in a phased manner as discussed in the Proposal. Also, this timeline is applicable to conducting ground survey for 75,000 acres of DPA land parcels.

1. **Project Timeline has to be accordingly adjusted followed by nullifying Levy of LD Clause for the disruption period due to onset of monsoon** (generally starts from mid of June till late September-early October)
2. **Project Timeline has to be accordingly adjusted followed by nullifying Levy of LD Clause for any delay due to drone permission flying in Red Zone or Green Zone in the Port Area).** (YES, SEEKING

PERMISSION BY GIVING VALID REASON IS DPA's OBLIGATION TO VARIOUS STAKEHOLDERS DEFINED BY THE GOVERNMENT OF INDIA AS PER GUIDELINES UNDER THE NEW DRONE POLICY AND DIGITAL SKY PLATFORM.)

- Drone flying for Green Zone: Less tedious process and requires Ports Approval giving reason for Drone flying and Authorised District Police Commissioner Office Permission.
- Drone Flying for Red Zone: Very complex and multiple permissions are required from different stake holders like Port and Port Security itself, DGCA, MoD, (Army/Navy/Air Force) permissions, additionally Ministry of Home Affairs and Local Police Commissioner Office. All these permissions unless acquired, drone flying will not be permitted legally in the region.

Note:

- ❖ Scitech Park, Pune will help in documentation and providing details of the Drone to be utilized for the survey once project approval is given by DPA. Seeking permission for Green Zone and Red Zones are separate and has to be put up separately to respective stakeholders.
- ❖ In wake of the recent geo-political situation and inherent proximity of DPA to International Border drone permission could be a tough task (*This is recent Development after submitting the Project Proposal to DPA*). Hence, we would like to particularly mention that Ground based DGPS and ETS Survey is independent of Drone survey and this survey will be conducted by seeking authorized permissions from Port Authority and CISF Team Deployed at DPA. All letters related to Permission to do physical ground survey and entering into restricted Port Area has to be provided by DPA to Science and Technology Park, Pune authorized survey team.

3. Project Timeline has to be accordingly adjusted followed by nullifying Levy of LD Clause for any delay due to non-availability of DPA person on field to guide our team during surveys.

4. Project Timeline of 18 months is applicable for 75,000 acres of Land Parcel or lesser area. If the area increases and is beyond 75,000 acres then the timeline has to be accordingly adjusted as additional timeline and for the same. we request to nullify the LD clause for the additional timeline required for additional area.

7. Please confirm that L.D. clause will invoke if delay in completion of entire work beyond scheduled period of 18 months and not component wise.

Reply to 7: Standard LD Clause of DPA mentioned below as per DPA Email dated 17-May-2025 is applicable component wise hence the same is acceptable to Scitech Park, Pune.

3. Liquidated Damage (L.D.): The time allowed for various activities shall be strictly adhered to by the consultant. In case of delay on satisfactory completion of any of the activities due to the any default on part of consultant, the consultant shall be liable to pay L.D for delay an amount equal to 0.5% per week or part thereof of the contract value of the work, beyond the scheduled period of undertaking the services to be rendered by consultant. Provided always that the entire amount of L.D to be levied shall not exceed 10% of total value of the contract.

8. Price comparison of both OPTION-1 & 2: Charges for Item no.4 viz. Application Development Rs. 65.00 lakhs and charges for Item no. 5 to 7 i.e. AMC, security Audit, annual data hoisting total of Rs.26.50 lakhs are same for both the model. Though area is reduced three times from 234750 to 75000 acre. Please see for comments.

Reply to 8: It is to be clearly mentioned that Web GIS Application Development along with all its functionalities and modules remains the same irrespective of area. This is because the development involves end-to-end functional incremental flexibility with synchronized digital programming for all modules irrespective of Area. Hence, there is no direct correlation between development of Web GIS with that of area.

Additionally, if DPA in future demands inclusion of new area (beyond 75,000 acres) in the proposed Web GIS System only the deployment charges with extra effort estimation will be levied. The system proposed to be developed is highly scalable to incorporate functionalities of new area subject to there are no new modules to be generated by DPA. AMC, Security Audit and Annual Data Hosting will attract equivalent efforts.

9. Notes below price-bid stated that – unit rate of Rs.650.00 per acre is applicable to a minimum area guarantee (MAG) of 70,000 acres and above. Anything below the MAG will be charged at higher rate will be decided mutually. Please refer Corrigendum-I, Scenario-3 & 4 additional survey in area should be on the approved rate of Rs.650.00 considering the fact that for area 234750-acre rate quoted by the consultant is Rs.650 for OPTION-1

Reply to 9: In all scenarios where Survey Team is still deployed at DPA for Bulk survey as per current scope of work, with reference to Corrigendum I Scitech Park, Survey Team shall conduct the survey for additional area (beyond 75000 acres) at the same rate mentioned in the Proposal i.e. 650 per acre. However, additional cost and timeline has to be given for the same as per above fixed Unit rate of survey as the cost will be on pro-rata basis, no fixed cost will be applicable for the survey component.

If Survey Team has left the place (DPA), Kandla after 1.5 years of Work post completing the survey activity and additional work is allocated there should be a chunk of considerable land parcel for which survey is required like minimum area of (5000 – 10,000) acres and more; we may consider redeploying the resources at DPA, Kandla for a fixed rate as per proposal and period. For this additional survey, revised timeline & cost needs to be considered.

10. Payment terms:

- Like sub-component 1, 10% advance for sub component 2 should be adjusted in subsequent payment. Here it is a part of 100% payment.
- for sub-component 3: (I) AMC monthly bill after go-live mean advance it should be completion of each month.
- Stage for release of BG towards all advance payment need to be specify.

Reply to 10:

- Like sub-component 1, 10% advance for sub component 2 should be adjusted in subsequent payment. Here it is a part of 100% payment.: Science and Technology Park, Pune agrees to the request made and we shall consider adjustment of any advance in consequent bills.
- for sub-component 3: (I) AMC monthly bill after go-live mean advance it should be completion of each month.: Science and Technology Park, Pune agrees to raise monthly bill at the end of every month during the AMC monthly running bill cycle.
- Stage for release of BG towards all advance payment need to be specify: DPA, Kandla has to take an internal call as to when they will actually release the BG amount of Science and Technology Park, Pune. Ideally it should be done after the Advance amount is consumed in subsequent bills as rest payments are milestone delivery based only.

11. Termination: either or both parties have the right to terminate the contract. It is open ended clause. Reasons/ground to be provided for termination right of both parties. If SciTech terminate the contract what remedy available to DPA is to be made clear.

Reply to 11: Standard Termination Clause as sent by DPA on Email date 23-May-2025 is acceptable to Scitech Park, Pune.

12. Indemnity clause provision indemnifies the consultant only

Reply to 12: DPA, Kandla Modified indemnity clause as mentioned below as per E-mail date 17-May-2025 is acceptable to Scitech Park, Pune.

“DPA and Scitech Park Pune shall indemnify, defend and hold harmless each other from all 3rd Party claims arising out of any or part of or relating to the project implementation program.”

13. In view of para 10 & 11 above standard clause of any consultancy tender may be got accepted by M/s. SciTech

Reply to 13: In view of para 10 & 11 – as mentioned in above, Standard Termination Clause as sent by DPA on Email date 23-May-2025 is accepted by Scitech Park, Pune.

14. Performance Security clause is not found provided

Reply to 14: DPA, Kandla Performance Security clause as sent via E-mail date 17-May-2025 as below is acceptable to Scitech Park, Pune.

Security Deposit shall consist of two parts; a) Performance Guarantee to be submitted at award of work, and b) Retention money to be recovered from Running Bills.

1.1 Security Deposit/ Performance guarantee shall be 10% of Contract price of which 5% of contract price should be submitted as FDR or Bank Guarantee (BG) of Nationalized/scheduled bank (except Co- operative) Banks having its branch at Gandhidham and BG should remain valid for 60(Sixty)days beyond the date of completion of all contractual obligations of the concern contract, or Digital transfer within (21 days in case of domestic bids and within 28 days in case of global bids) of receipt of letter of acceptance and Or in form of Insurance Security Bond as per format and condition in Form – 8A in Tender Document balance 5% recovered as Retention Money from Running Bills. Recovery of 5% of Retention Money to commence from the first bill onwards @ 5% of bill value from each bill. Retention Money be refunded within 14 days from the date of payment of final bill. Balance SD to be refunded immediately not later than 14 days after payment of retention money.

1.2 The BG to be extended for further period in the extension of the contract period at his own cost.

1.3 The documentary evidence (copy of paid challan in Government Treasury) of welfare cess @1% of work done as amended by Statutory Authority from time to time paid on final bill shall be submitted before releasing the Performance Guarantee.

15. DPA's standard form of Bank guarantee, contract agreement, Integrity pact etc. should be got accepted by the Consultant.

Reply to 15: Bank guarantee, contract agreement, Integrity pact as per DPA, Kandla Email date 17-May-2025 is accepted by Scitech Park, Pune.

15. Deendayal Port Standard Clause Accepted by Scitech Park, Pune

1. Suspension

1.1. The Client may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension.

2. Termination

2.1. This Contract may be terminated by either Party as per provisions set up below:

a. By the Client

2.1.1. The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through(f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension to be corrected
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;

2.1.2 Furthermore, if the Client determines that the Consultant has engaged in corrupt, fraudulent, collusive, coercive [or obstructive] practices, in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days' written notice to the Consultant, terminate the Consultant's employment under

b. By the Consultant

2.1.3 The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

- (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to arbitration clause within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.
- (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GCC 45.1.
- (d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.

c. Cessation of Rights and Obligations

2.1.4 Upon termination of this Contract or upon expiration of this Contract all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records (iv) any right which a Party may have under the Applicable Law.

d. Cessation of Services

2.1.5 Upon termination of this Contract by notice of either Party to the other, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Client, the Consultant shall proceed as provided, respectively, by Clauses GCC 27 or GCC 28.

e. Payment upon Termination

19.1.6 Upon termination of this Contract, the Client shall make the following payments to the Consultant:

- (a) payment for Services satisfactorily performed prior to the effective date of termination; and

(b) in the case of termination pursuant to paragraphs (d) and (e) of Clause 2.1.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract.

3. Liquidated Damage (L.D.):

The time allowed for various activities shall be strictly adhered to by the consultant. In case of delay on satisfactory completion of any of the activities due to any default on part of consultant, the consultant shall be liable to pay L.D for delay an amount equal to 0.5% per week or part thereof of the contract value of the work, beyond the scheduled period of undertaking the services to be rendered by consultant. Provided always that the entire amount of L.D to be levied shall not exceed 10% of total value of the contract.

4. Performance security:

Security Deposit shall consist of two parts; a) Performance Guarantee to be submitted at award of work, and b) Retention money to be recovered from Running Bills.

4.1 Security Deposit/ Performance guarantee shall be 10% of Contract price of which 5% of contract price should be submitted as FDR or Bank Guarantee (BG) of Nationalized/scheduled bank (except Co- operative) Banks having its branch at Gandhidham and BG should remain valid for 60(Sixty)days beyond the date of completion of all contractual obligations of the concern contract, or Digital transfer within (21 days in case of domestic bids and within 28 days in case of global bids) of receipt of letter of acceptance and Or in form of Insurance Security Bond as per format and condition in Form – 8A in Tender Document balance 5% recovered as Retention Money from Running Bills. Recovery of 5% of Retention Money to commence from the first bill onwards @ 5% of bill value from each bill. Retention Money be refunded within 14 days from the date of payment of final bill. Balance SD to be refunded immediately not later than 14 days after payment of retention money.

4.2 The BG to be extended for further period in the extension of the contract period at his own cost.

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- for sub-component 3: (I) AMC monthly bill after go-live mean advance it should be completion of each month.: Science and Technology Park, Pune agrees to raise monthly bill at the end of every month during the AMC monthly running bill cycle.
- Stage for release of BG towards all advance payment need to be specify: The BG shall be released after the Advance amount is consumed in subsequent bills.

7 Logging and boarding arrangement to be done by consultant themselves, no local transport will be provided. However, in case they are required to travel as per instructions of Chief Engineer & HOD Estate, Deendayal Port Authority.

8 Reply to 9: In all scenarios where Survey Team is still deployed at DPA for Bulk survey as per current

scope of work, with reference to Corrigendum I SciTech Park, Survey Team shall conduct the survey for additional area (beyond 75000 acres) at the same rate mentioned in the Proposal i.e. 650 per acre. However, additional cost and timeline has to be given for the same as per above fixed Unit rate of survey as the cost will be on pro-rata basis, no fixed cost will be applicable for the survey component.

If Survey Team has left the place (DPA), Kandla after 1.5 years of Work post completing the survey activity and additional work is allocated there should be a chunk of considerable land parcel for which survey is required like minimum area of (5000 – 10,000) acres and more; we may consider redeploying the resources at DPA, Kandla for a fixed rate as per proposal and period. For this additional survey, revised timeline & cost needs to be considered.

9 TDS ON GST

TDS provision under GST Acts, 2017 are in force from 01.10.2018 and accordingly TDS under GST Act will be deducted @ 2 % (1% CGST and 1 % SGST or 2 % IGST) from payment / credit give to contractor/ professional and other for work order / contract exceeding Rs. 2,50,000/-.

GST at the rates applicable from time to time, shall however be paid extra. The payment of GST shall be subject to the reflection of credit towards GST amount paid for previous month in DPA's Electronic Credit Ledger Account on GSTN Portal. The GST for the first month shall be reimbursed only after reflection of credit towards GST amount in DPA's Electronic Credit Ledger Account on GSTN portal.