Chhatrapati Shivaji Maharaj
INTERNATIONAL AIRPORT
MUMBAI

Ref No: MIAL/CEO/2024-25/015

06th June, 2024

To,
The Chairperson,
Airports Economic Regulatory Authority of India,
AERA Building, New Administrative Block,
Safdarjung Airport,
New Delhi- 110003.

Sub: Submission of Multi Year Tariff Proposal (MYTP) by Mumbai International Airport Limited (MIAL) for the True up of First, Second and Third Control Period & Projections for Fourth Control Period (FY2024-25 to FY2028-29) for Chhatrapati Shivaji Maharaj International Airport, Mumbai.

Dear Sir,

The Authority vide order no. 64/2020-21 dated 27th February 2021 approved the existing tariff for Mumbai International Airport till 31st March 2024. It was further extended till 30th September 2024 vide order no. 40/2023-24 dated 15th March 2024.

We hereby submit the Multi Year Tariff Proposal for Mumbai International Airport Limited (MIAL) for the True up of First, Second and Third Control Period and determination of Aeronautical Tariff for the Fourth Control Period starting from 1st April 2024 to 31st March 2029 for kind consideration and approval of the Authority.

We shall be pleased to provide any further information that Authority may require in this regard.

Thanking you

Yours truly,
For Mumbai International Airport Limited,

Prakash Tulsiani
Chief Executive Officer

Enclosures: -
1. Multi Year Tariff Proposal along with annexures
2. Financial Model in Excel format

Mumbai International Airport Limited
Chhatrapati Shivaji Maharaj International Airport
1st Floor, Terminal 1B, Santacruz (E),
Mumbai 400 099,
Maharashtra, India
CIN: U45200MH2006PLC160164

Tel +91 22 6685 0900 / 6685 0901
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Registered office: office of the Airport Director, Terminal-1B, CSMI Airport, Mumbai – 400099, Maharashtra, India

Chhatrapati Shivaji Maharaj
INTERNATIONAL AIRPORT
MUMBAI

BEFORE THE AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA
AT NEW DELHI
SUBMISSION OF MULTI YEAR TARIFF PROPOSAL FOR AND ON BEHALF OF:
M/S Mumbai International Airport Limited (MIAL)

I, Prakash Tulsiani, aged 62 years, resident of Mumbai, India acting in my official capacity as authorized signatory in M/s Mumbai International Airport Limited having its registered office at Terminal-1B, CSMIA do hereby state and affirm as under that:

1. That I am duly authorized to act for and on behalf of M/s Mumbai International Airport Limited in the matter of making this submission before the Airports Economic Regulatory Authority of India, New Delhi ('the Authority');

2. I am competent to make this submission before the Authority;

3. I am making this submission in my official capacity and the facts stated herein are based on official records;

4. The contents of this submission which include (i) Business Plan; (ii) Information pertaining to physical assets; (iii) Information relation to the Regulatory Building Blocks; (iv) Historical and Forecasted Volumes; and (v) Historical Revenue, are correct and true to my knowledge and belief and nothing material has been concealed there from.

For **Mumbai International Airport Limited**,

Prakash Tulsiani
Chief Executive Officer
Place: Mumbai
Date: 06-June-2024

Mumbai International Airport Limited
Chhatrapati Shivaji Maharaj International Airport
1st Floor, Terminal 1B, Santacruz (E),
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Registered office: office of the Airport Director, Terminal-1B, CSMI Airport, Mumbai – 400099, Maharashtra, India

Confidential Information

With reference to this MYTP, MIAL will make various submissions/providing information, including but not limited to the information being submitted along with this MYTP, from time to time to the Authority.

MIAL would request the Authority to maintain the confidentiality of financial information and commercial agreements by not sharing any such information in the public domain. MIAL would not have objections with the Authority publishing documents that should be available to public under any other law or are already under public domain. MIAL's MYTP business plan containing financials are requested not to be placed in public. The following legal agreements which contain commercially sensitive data for which parties have the responsibility to maintain confidentiality and/or are the property of parties signing them should not be published for common access:

- Any communication between AEL/AAHL/MIAL and AAI/Authority
- Commercial Agreements/arrangements/Letter of Awards/Bid documents etc.

Multi Year Tariff Proposal
for
Mumbai International Airport Limited
for
Determination of Aeronautical Tariff
for
Fourth Control Period
(From 1st April 2024 to 31st March 2029)

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Glossary

Glossary of abbreviations used in this MYTP is as follows:

AAI	Airports Authority of India
AERA/ Authority	Airports Economic Regulatory Authority
CAGR	Compounded Annual Growth Rate
CPI	Consumer Price Index
CNS/ATM	Communication, Navigation and Surveillance/ Air Traffic Management
CSMIA	Chhatrapati Shivaji Maharaj International Airport
CWIP	Capital Work in Progress
DF	Development Fee
DIAL	Delhi International Airport Limited
FCP	First Control Period
FoCP	Fourth Control Period
FRoR	Fair Rate of Return
GoI	Government of India
HRAB	Hypothetical Regulatory Asset Base
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IGIA	Indira Gandhi International Airport
ISP	Independent Service Provider
JVC	Joint Venture Company
MIAL	Mumbai International Airport Limited
MMRDA	Mumbai Metropolitan Region Development Authority
MoCA	Ministry of Civil Aviation
MoU	Memorandum of Understanding
MYTP	Multi Year Tariff Proposal
NAR	Non-Aeronautical Revenue
O&M	Operation and Maintenance Cost
OMDA	Operation, Management and Development Agreement
PSF (SC)	Passenger Service Fee (Security Component)
RAB	Regulatory Asset Base
RSA	Revenue Share Assets
RSD	Refundable Security Deposit
SCP	Second Control Period
SSA	State Support Agreement
TCP	Third Control Period
TDSAT	Telecom Disputes Settlement & Appellate Tribunal
TR	Target Revenue
TWY	Taxiway
WACC	Weighted Average Cost of Capital

Background

The Civil Aviation industry in India has emerged as one of the fastest growing industries in the country in the recent past. India is currently considered the third largest domestic civil aviation market in the world and could emerge as top aviation market by the turn of the decade. Indian carriers are together projected to have a fleet of around 2,000 aircraft in the next five to seven years from a present estimate of 700 planes.

The Civil Aviation industry has ushered in a new era of expansion, driven by factors such as low-cost carriers (LCCs), modern airports, Foreign Direct Investment (FDI) in domestic airlines, advanced information technology (IT) and Digital interventions and growing emphasis on regional connectivity.

Airport privatization played a key role in growth of aviation industry in India. With a success of existing PPP projects, governments further privatized many new greenfield airports at Noida, Bhogapuram, Goa and Navi Mumbai Airport and six brownfield airports operated by AAI at Ahmedabad, Lucknow, Mangalore, Guwahati, Jaipur, and Trivandrum.

Chhatrapati Shivaji Maharaj International Airport

Airport Authority of India (AAI) pursuant to Airport Infrastructure policy 1997 had initiated the process of selecting a lead partner for executing the modernization projects through a competitive bidding process for the CSMIA Airport, Mumbai. A consortium led by the GVK Group was awarded the bid for operating, maintaining, developing, designing, constructing, upgrading, modernizing, financing, and managing the Airport. Post selection of the consortium, on 1st March 2006, a special purpose vehicle, namely Mumbai International Airport Pvt Ltd (MIAL), was incorporated with AAI retaining 26% equity stake and balance 74% of equity capital acquired by members of consortia.

MIAL executed the Operation, Management and Development Agreement (OMDA) with AAI on 4th April 2006 and commenced operations from 3rd May 2006.Under OMDA, AAI granted MIAL the exclusive right and authority to undertake some of the functions of operations, maintenance, development, design, construction, up gradation, modernizing, finance and management of the CSMIA Airport and to perform services and activities constituting aeronautical services and non-aeronautical services (but excluding Reserved activities) at the airport in accordance with terms and conditions of OMDA.

Simultaneously several agreements were entered into such as Lease Deed dated 25th April 2006, Shareholders' Agreement dated 4th April 2006, State Support Agreement dated 26th April 2006, State Government Support Agreement dated 26th April 2006, CNS/ ATM Facilities and Services Agreement dated 25th April 2006 and Escrow Agreement dated 28th April 2006 for smooth and efficient functioning of the grant under the principal agreement. OMDA and these agreements are collectively known/ treated as Concession Agreements and meet the criteria for the concession offered by central government in terms of clause 13 (1) (a) (vi) of the AERA Act 2008.

The State Support Agreement ("SSA") signed with Government of India outlined the support from Government of India and laid down the principles of for tariff fixation. Clause 3.1 read with Schedule 1, 6 and 8 to SSA inter-alia lay down the methodology and the principles to be followed by the Regulatory Authority for fixing the tariff for the provision of aeronautical services and the recovery of the costs relating to Aeronautical Assets at CSMI Airport.

MIAL has always pressed that the Concession Agreements awarded to it are of utmost importance and same have to be considered for tariff determination purpose. The concession provided under this agreement has to be respected by the Authority during the tariff determination exercise.

This MYTP is being submitted for the Fourth Control Period from FY25 to FY29. Authority had finalised tariff for the FCP, SCP and TCP vide its Order no. 32/2012-13 dated 15th January 2013, Order no. 13/2016- 17 dated 23rd September 2016 and Order no. 64/2020-21 dated 27th February 2021 respectively. Certain claims of MIAL for the previous three control periods were not accepted by the Authority and were litigated before the Appellate Authority, TDSAT and Hon'ble Supreme Court.

This MYTP incorporates the impact of judgements of TDSAT vide order dated 6th October 2023 and by Supreme Court vide order dated 11th July 2022 with respect to certain building blocks in the tariff determination.

TDSAT and Supreme Court Judgements and its impact on current tariff filing

Current MYTP Proposal of MIAL takes into consideration following judgments:

- Supreme Court Judgement dated 11th July 2022 on First Control Period tariff orders of DIAL and MIAL
- TDSAT Judgement dated 6th October 2023 on Second and Third Control Period tariff orders of MIAL.
- Supreme Court Judgement dated 4th December 2023 respect to MA filed by DIAL/MIAL with respect to computation of HRAB, wherein the supreme court has directed TDSAT to examine effect of letter dated 24.05.2011 by MoCA to AERA and whether single till should be basis of the computation of HRAB.
- Summary of various issues and their impact in current tariff filing are captured in table below:

	Impact in which control period			Status	Treatment in this MYTP
Matter Disputed	**FCP**	**SCP**	**TCP**		
Hypothetical Regulatory Asset Base	Yes	Yes	Yes	Supreme Court vide order dated 4th December 2023 has directed TDSAT to re-examine the computation of HRAB.	Impact is not considered in current MYTP filing and will be based on final resolution of the matter by TDSAT
Whether Annual Fee is to be considered as an aeronautical expense while computing corporate tax pertaining to aeronautical services (T)	Yes	Yes	Yes	Resolved by virtue of SC Judgement dated 11th July 2022	Annual Fee not considered as an aeronautical expense while computing T
Whether S factor is to be added to aero revenues for computation of revenue base to calculate corporate tax	Yes	Yes	Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	S factor added to aero revenues for computation of revenue base to calculate T

	Impact in which control period			Status	Treatment in this MYTP
pertaining to aeronautical services (T)					
Nature of Fuel Throughput Charges (FTC) and Into Plane Revenue (ITP)	Yes	Yes	Yes	Resolved by virtue of SC Judgement dated 11th July 2022	FTC revenues considered as aero
DF Funded assets deemed to be completed in FY14 instead of FY16	Yes	Yes		Resolved by virtue of TDSAT Judgement dated 6th October 2023	DF assets considered completed in FY16
Not to protect the Reserves and Surplus and to reduce it on account of subsequent losses for the purpose of calculation of WACC		Yes		Resolved by virtue of TDSAT Judgement dated 6th October 2023	Reserves and Surplus not reduced on account of subsequent losses.
Whether 'Other Income' is to be considered as Revenue from RSA for the purpose of cross subsidization	Yes	Yes	Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Other Income not considered as Revenue from RSA
Cost of Refundable Security Deposits (RSD)		Yes		Resolved by virtue of TDSAT Judgement dated 6th October 2023	Return equivalent to cost of equity on RSD
AERA denied "Return on RAB" on the unamortized portion of Capital expenditure incurred on runway recarpeting works			Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Return equivalent to WACC considered on Unamortized portion of Capital expenditure incurred on runway recarpeting works
AERA did not change the aeronautical assets allocation ratio due to the re-classification of the Chhatrapati Shivaji Maharaj Statue ("Statue") from non-aeronautical to aeronautical, change in area allocation of T1 and reclassification of GA Terminal from Non-Aero to common			Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Revised aero allocation considered taking into account statue as aeronautical asset, revised T1 allocation and considering GA terminal as common

	Impact in which control period			Status	Treatment in this MYTP
Disallowing the Operation and Maintenance Expenses like (i) Interest of Working Capital; (ii) Restructuring expenses (iii) Insurance.			Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Various expenses considered at actuals for purpose of tariff determination
Did not allow return on assets disposed-off during the year based on actual usage in the year		Yes		Resolved by virtue of TDSAT Judgement dated 6th October 2023	Return on RAB is computed using actual date of disposal of assets
Cap the Cost of Debt at 10.3% while examining the Fair Rate of Return (FRoR)			Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Cost of debt is considered at actuals
Reduced the Hypothetical Regulatory Asset Base (HRAB) written down value in respect of old T2 demolished			Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	No adjustment in HRAB on account of demolition of Old T2
Whether Annual fee is to be considered in the determination of 'S' Factor	Yes	Yes	Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Annual Fee is reduced from Revenue from RSA in computation of S Factor
Not to exclude revenue from Existing Assets from the Revenue from RSA	Yes	Yes	Yes	Resolved by virtue of TDSAT Judgement dated 6th October 2023	Revenue from existing assets excluded from Revenue from RSA

1. True-Up of First Control Period (FCP)

Supreme Court vide its judgement dated 11th July 2022 has adjudicated on issues raised by DIAL and MIAL with respect to First Control Period tariff order.

The Authority has considered the true-up for the first control period vide its order no.13/2016-17 dated 23rd September 2016 w.r.t tariff determination of SCP and order no. 64/2020-21 dated 27th February 2021 w.r.t tariff determination of TCP. MIAL has filed appeal against the above orders of AERA in TDSAT.

Matters in the above appeals have been adjudicated by virtue of TDSAT judgement dated 06th October 2023.

To give effect to the Supreme Court and TDSAT orders MIAL has proposed to true up the relevant building block from first control period.

1.1. True-Up of Regulatory Asset Base (RAB) for FCP

1.1.1. Adjustment in RAB on account of capitalization of DF Assets: AERA in SCP tariff order adjusted the entire DF amount of Rs. 3,400 Crs (as allowed by AERA vide Order No. 32/2012-13) by FY14 while calculating RAB for FCP. It is to be noted that only a part of new Terminal 2 was commissioned in FY14, while other facilities and balance Terminal 2 were commissioned only in FY16.

TDSAT vide order dated 06th October 2023 directed AERA to adjust the actual amount of assets funded through Development Fee while calculating RAB, as per the Auditor's Certificate/Annual Accounts till FY16 when the project got completed.

Table 1: Details of DF capitalization as per AERA and as per audited accounts

Particulars (Rs. In Crs)	FY10	FY11	FY12	FY13	FY14
DF Capitalization as per Books	26.87	72.93	77.08	126.40	3,038.87
DF Capitalization as per AERA	51.86	142.98	193.18	318.35	3,400.00
Excess DF capitalization as per AERA	24.99	70.05	116.10	191.95	361.13

MIAL has given effect to above directions of TDSAT in current MYTP. Higher capitalization of DF assets considered by AERA has direct impact on reducing the RAB of all the years of FCP. RAB of FCP computed by AERA in SCP tariff order was:

Table 2: Closing RAB of FCP computed by AERA in SCP Order

Particulars (Rs. In Crs)	FY10	FY11	FY12	FY13	FY14
Opening RAB	827.80	1,120.98	1,506.94	1,861.57	2,068.77
Depreciation	53.69	83.24	107.43	123.22	141.88
Addition	346.86	468.84	462.43	330.05	3,270.88
Closing RAB	1,120.98	1,506.94	1,861.57	2,068.77	5,198.78

Revised RAB of FCP computed by MIAL considering DF capitalization schedule as per audited accounts of MIAL is given here under:

Table 3: Closing RAB of FCP computed by MIAL as per actual DF capitalization schedule

Particulars (Rs. In Crs)	FY10	FY11	FY12	FY13	FY14
Opening RAB	827.80	1,144.99	1,572.54	1,968.13	2,241.29
Depreciation	54.78	87.31	113.23	132.74	150.80
Additions	371.97	514.86	508.82	405.90	3,440.41
Closing RAB	1,144.99	1,572.54	1,968.13	2,241.29	5,530.90

1.1.2. Adjustment in closing RAB of FY14 on account of revised aeronautical allocation of 86.17%: TDSAT vide its judgement dated 06th October 2023 directed AERA to consider asset allocation of 86.17% for FY14 by applying asset allocation ratio only to common assets of T-2. AERA had computed asset allocation of 83.97% by applying the same to total cost of T-2. Below tables demonstrates asset allocation of 83.97% by AERA and 86.17% by MIAL

AERA while determination of tariff of Second Control Period (in the consultation paper) had computed asset allocation of FY14 at 84.52% based on study done by ICWAI MARF (consultant appointed by AERA)

Table 4: Computation of asset allocation of FY13-14 by AERA in SCP consultation paper

Asset Allocation as per ICWAI MARF Study (Rs. In Crs)		Total Assets	Asset Allocation	Aero Assets
Terminal 2 Assets				
Aero	a	1578	100%	1578
Non-Aero	b	30	0%	0
Common	c	4583	82.7%*	3790
Other Assets				
Aero	a1	3583	100%	3583
Non-Aero	b1	814	0%	0
Common	c1	377	84.1%	317
Total Assets				
Aero	A=a+a1	5161		5161
Non-Aero	B=b+b1	845		0
Common	C=c+c1	4960		4107
Total	A+B+C	10966		9268
Asset Allocation				84.52%

*82.7% allocation is based on IGIA Airport

To arrive at the asset allocation ratio, ICWAI MARF report had first identified specific Aeronautical and Non-Aeronautical Assets in accordance with the Schedule 5 & 6 of OMDA and assets within the terminal building were treated as common assets. It is important to note that ICWAI-MARF had not considered entire terminal building as common asset but first identified specific Aeronautical and Non-Aeronautical Assets and thereafter only remaining assets within the terminal building, for which the benefits or usage

cannot be exclusively linked to either Aeronautical or Non-Aeronautical Services, were classified as common assets.

It is to be noted that ICWAI MARF had applied aeronautical allocation of 82.7% (Terminal 3 of IGIA airport) on Terminal 2 of CSMIA airport. It is important to mention here that ICWAI-MARF had applied ratio of T3, Delhi only for the common assets and not for the entire New T2.

MIAL commissioned a study by Indian Register of Shipping (IRS) which carried out an independent verification of areas built at new T2 and submitted that total Non-Aeronautical Services area is 14.43% of the total area of new T2. Using this allocation ratio to allocate the common assets between Aeronautical Assets and Non-Aeronautical Assets already identified by the ICWAI-MARF, the overall asset allocation is 86.17% as shown below:

Table 5: Computation of correct asset allocation of FY13-14 by MIAL

Asset Allocation as per MIAL (Rs. In Crs)		**Total Assets**	**Asset Allocation**	**Aero Assets**
Terminal 2 Assets				
Aero	a	1578	**100%**	1578
Non-Aero	b	30	**0%**	0
Common	c	4583	**85.6%****	3922
Other Assets				
Aero	a1	3583	100%	3583
Non-Aero	b1	814	0%	0
Common	c1	377	84.1%	317
Total Assets				
Aero	A=a+a1	5161		5211*
Non-Aero	B=b+b1	845		0
Common	C=c+c1	4960		4239
Total	A+B+C	10966		9450
Asset Allocation				86.17%
** Additional 49.8 Cr asset reclassified by AERA to aeronautical classified as non-aero in ICWAI MARF study* *** As per IRS study*				

However, AERA computed aeronautical allocation of 83.97% in wrong manner by wrongly considering 85.6% terminal area on total cost of T2.

Table 6: Computation of asset allocation of FY13-14 by AERA in SCP Order

Asset Allocation as per AERA (Rs. In Crs)		**Total Assets**	**Asset Allocation**	**Aero Assets**
Terminal 2 Assets				
Aero	a	1578	**85.6%**	1351
Non-Aero	b	30	**85.6%**	26
Common	c	4583	**85.6%**	3923

Asset Allocation as per AERA (Rs. In Crs)		Total Assets	Asset Allocation	Aero Assets
Other Assets				
Aero	a1	3583	100%	3583
Non-Aero	b1	814	0%	0
Common	c1	377	84.1%	317
Total Assets				
Aero	A=a+a1	5161		4984*
Non-Aero	B=b+b1	845		26
Common	C=c+c1	4960		4240
Total	A+B+C	11016		9250
Asset Allocation				83.97%

**Additional Rs. 49.8 Crs asset reclassified by AERA to aeronautical classified as non-aero in ICWAI MARF study. AERA has added Rs. 49.8 Crs to aero assets, but inadvertently has not reduced it from non-aero assets, increasing total assets from Rs. 10,966 Crs to Rs. 11,016 Crs.*

If aeronautical asset allocation is corrected from 83.97% to 86.17%, closing RAB of FY14 will change from Rs. 5,531 Crs (computed in table 3 above) to Rs. 5,766 Crs and consequently same will become the opening RAB of FY15.

Table 7: Computation of closing RAB of FY13-14 by changing aeronautical allocation from 83.97% to 86.17% in line with TDSAT judgement

Particulars (Rs. In Crs)	FY10	FY11	FY12	FY13	FY14
Opening RAB	827.80	1,144.99	1,572.54	1,968.13	2,241.29
Depreciation	54.78	87.31	113.23	132.74	156.74
Additions	371.97	514.86	508.82	405.90	3,681.64
Closing RAB	1,144.99	1,572.54	1,968.13	2,241.29	5,766.19

1.1.3. True-Up of Hypothetical Regulatory Asset Base: Supreme Court vide order date 04th December 2023 while dealing with Misc. Application No.1710 Of 2023 filed by MIAL, has observed as under.

"15. We are, thus, inclined to adopt the alternative prayer of the applicants by directing that the effect of this document ought to be examined by the TDSAT. We leave it to the TDSAT to take a view on the same, uninfluenced by the fact that the earlier opinion of the TDSAT has received our imprimatur. Thus, the TDSAT may for the limited issue qua computation of HRAB examine the effect of the letter now produced before us, i.e., the letter dated 24.05.2011 by the MoCA to the AERA and take its own independent view on the impact of the same in computing HRAB and whether 'single till' mechanism should be the basis of the computation".

Since the matter is sub-judice, the revised HRAB as computed by MIAL is not yet considered in this submission. MIAL reserves the right to submit further information based on the final outcome of matter by TDSAT.

1.2. True-Up of Depreciation for FCP

Due to change in DF assets capitalization schedule of DF assets and considering aeronautical asset allocation of 86.17%, depreciation for FCP is as follows:

Table 8: Depreciation of FCP considering change in DF assets capitalization schedule and 86.17% aeronautical allocation for FY13-14

Particulars (Rs. In Crs)	FY10	FY11	FY12	FY13	FY14
Depreciation on RAB of FCP in SCP Order No. 13 of 2016-17	53.69	83.24	107.43	123.22	141.88
Revised Depreciation on RAB as per MIAL	54.78	87.31	113.23	132.74	156.74

1.3. True-Up of WACC for FCP

MIAL has considered WACC of 12.18% for FCP as computed by AERA in TCP order dated 64/2020-21 dated 27th February 2021.

1.4. True-Up of Revenue from Revenue Share Assets and S Factor

1.4.1. Other Income to be excluded from Revenue from RSA for determination of S factor:

In line with the TDSAT Judgement, MIAL has excluded "Other Income" in calculating Revenue from Revenue Share Assets. Other Income for FCP considered by AERA for calculation S factor is as follows:

Table 9: Other Income as per AERA in SCP Order

Particulars (Rs. In Crs)	FY10	FY11	FY12	FY13	FY14
Other Income considered by AERA for purposes of computation of S factor as per SCP Order	6.91	4.70	6.61	4.20	12.90

1.4.2. Exclusion of the revenue from existing assets from 'Revenue from RSA' for the purposes of cross-subsidization

TDSAT vide its judgement dated 06th October 2023 held that revenue accrued from the existing assets/demised premises by the appellant cannot be considered as part of revenue from "Revenue Share Assets" for the calculation of "S" factor.

TDSAT based on interpretation of various provisions of OMDA, SSA and lease agreement has concluded that existing assets (owned by AAI) are not part of Non-aeronautical assets and consequently are not part of Revenue Share Assets as well.

TDSAT in its order has directed that **true-up has to be given for previous control periods**.

Revenue from existing assets for FCP are as follows:

Table 10: Revenue from Existing Assets for FCP

Particulars (Rs. in Crs)	FY10	FY11	FY12	FY13	FY14
Revenue from Existing Assets	505.41	655.87	760.41	784.17	755.09

Details are provided as per independent assessment of Revenue from Existing Assets done by Third Party.

1.4.3. Exclusion of annual fee in the determination of S factor: TDSAT vide its judgement dated 06th October 2023 has directed AERA to exclude Annual Fee on gross revenue generated by JVC from the Revenue Share Assets for calculation of S factor. Further true up has to be given for earlier Control Periods also.

Based on above, revised S factor is as below:

Table 11: Computation of revised S factor of FCP in line with TDSAT Judgement

Particulars (Rs. in Crs)		FY10	FY11	FY12	FY13	FY14
NAR (AERA Order No.13/2016-17 Table 10)	a	515.35	688.14	801.50	851.39	883.12
Other Income (AERA Order No.13/2016-17 Table 10)	b	6.91	4.70	6.61	4.20	12.90
Revenue from Existing Assets (As per independent Study)	c	505.41	655.87	760.41	784.17	755.09
Revenue from RSA	d=a-b-c	3.03	27.57	34.49	63.02	115.13
Annual Fee on above	e=38.7%* d	1.17	10.67	13.35	24.39	44.56
Revenue from RSA after annual fee	f=d-e	1.86	16.90	21.14	38.63	70.57
S Factor	g=30%*f	0.56	5.07	6.34	11.59	21.17

1.5. True-Up of Aeronautical Tax for FCP

Supreme Court vide judgment dated 11th July 2022 has decided that Component 'T' in the formula of Target Revenue (TR) in SSA has to be computed based solely on regulatory accounts prepared by AERA for the TR formula. Corporate Tax has to be calculated based on provisions of SSA and annual fees needs to be excluded from the aeronautical expenses to compute aeronautical PBT.

Further TDSAT vide its judgement dated 6th October 2023 has held that amount equal to "S factor" partakes the colour of aeronautical revenue and also looking to the definition of "T" in SSA which is a "Corporate taxes on earnings pertaining to aeronautical services" and it is not on target revenue. Accordingly, TDSAT has directed S factor should be added to aeronautical revenues to compute "T".

Based on above Supreme Court and TDSAT Judgements, revised Calculation of Aeronautical Tax for the FCP is shown below:

Table 12: Computation of T for FCP in line with SC and TDSAT Judgement

Particulars (Rs. in Crs)	FY10	FY11	FY12	FY13	FY14
Aero Revenues (AERA order 13/2016-17 table 10)	476.44	486.11	507.16	621.84	1,280.26
Add: S Factor (30% of RSA) (MYTP table 11)	0.56	5.07	6.34	11.59	21.17
Total Revenues	**476.99**	**491.18**	**513.50**	**633.43**	**1,301.43**
Less Aero Expenses (AERA order 13/2016-17 table 10)	374.97	190.58	311.45	382.19	502.21
Less Aero Depreciation (MYTP Table 7)	54.78	87.31	113.23	132.74	156.74
Less Interest Cost*	57.71	91.84	130.57	157.19	235.37
PBT	(10.47)	121.45	(41.74)	(38.69)	407.10
Profit for Tax Computation (P)	(10.47)	121.45	(41.74)	(38.69)	407.10
Marginal Tax Rate (T)	33.99%	33.22%	32.45%	32.45%	33.99%
Corporate Tax pertaining to Aeronautical Services (P X T)	**-**	**40.34**	**-**	**-**	**138.37**

*Interest Cost = RAB X Gearing X Cost of Debt

- RAB = Closing RAB computed considering proportionate addition
- Gearing is debt portion (%) of total capital of particular year used for computation of WACC.
- Cost of debt is average interest rate of particular year

1.6. True up of ARR for FCP

Based on above changes in various building blocks, revised ARR of FCP is as below:

Table 13: Computation of TR of FCP after incorporating changes in various building blocks

Particulars (Rs. in Crs)	FY10	FY11	FY12	FY13	FY14	Total
Return on RAB and HRAB	217.02	277.63	325.21	353.20	464.86	1,637.92
Add: Operating Expenses	374.97	190.58	311.45	382.19	502.21	1,761.40
Add: Depreciation (RAB and HRAB)	96.99	134.99	161.25	180.53	180.53	754.29
Add: Aeronautical Taxes	-	40.34	-	-	138.37	178.72
Less:30% Revenue Share Assets	(0.56)	(5.07)	(6.34)	(11.59)	(21.17)	(44.73)
Target Revenue	**688.42**	**638.48**	**791.57**	**904.33**	**1,264.80**	**4,287.60**
Actual Aero revenues	476.44	486.11	507.16	621.84	1,280.26	**3,371.81**
True-up/true-down	**211.98**	**152.37**	**284.41**	**282.48**	**(15.45)**	**915.79**
Carrying Cost @12.18%	12.18%	12.18%	12.18%	12.18%	12.18%	
Years	5.00	4.00	3.00	2.00	1.00	
Factor	1.78	1.58	1.41	1.26	1.12	
True-up with carrying cost	**376.59**	**241.29**	**401.50**	**355.48**	**(17.34)**	**1,357.53**

2. True-Up of Second Control Period (SCP)

As stated in Chapter 1, SC judgement dated 11th July 2022 and TDSAT judgement dated 6th October 2023 will have an impact on various building blocks of Second Control Period as well.

2.1. True-Up of Regulatory Asset Base (RAB) for SCP

2.1.1. True-Up of RAB as discussed in section 1.1.1 and 1.1.2 with respect to DF assets and correct aeronautical allocation will have an impact on RAB of SCP as well.

2.1.2. Further Calculation of Proportionate Closing RAB done by AERA in Table 52 of TCP tariff order is based on proportionate addition of assets considering the actual date of capitalization, but disposal of assets has been considered on first day of the year without considering the actual date of disposal of assets.

During the course of hearings of TCP matters before TDSAT, AERA has clarified that true up of the return on disposed of assets would be carried out proportionately in the subsequent control period. Details of disposed-off assets and their corresponding date of disposal are part of Annexure F.

2.1.3. Based on the above-mentioned changes, closing RAB for SCP will be as follows:

Table 14: Comparison of closing RAB of SCP as per AERA and MIAL

Particulars (Rs. in Crs)	FY15	FY16	FY17	FY18	FY19
RAB for SCP as per revised calculation	5,259.12	5,719.65	6,309.84	6,130.17	5,898.91
RAB for SCP computed by AERA in TCP (Order No 64/2020-21 Table 52)	4,634.61	5,329.57	6,107.86	5,929.70	5,698.56

2.2. True-Up of depreciation for SCP

TDSAT vide its judgement dated 6th October 2023 has directed AERA to consider impact of reclassification of Shivaji Statue from non-aeronautical to aeronautical, change in aeronautical asset allocation of common assets of Terminal 1 based on change in floor area of non-aeronautical activities from 10.64% to 10.03% and treating GA terminal assets as common assets in the total gross asset allocation of 82.58% computed by AERA as on 31st March 2019. If the impact of all three issues is captured, asset allocation gets revised from 82.58% to 82.78%.

Table 15: Comparison of depreciation of SCP as per AERA and MIAL

Particulars (Rs. in Crs)	FY15	FY16	FY17	FY18	FY19
Dep. on RAB for SCP as per revised calculation	349.54	369.23	447.51	479.44	495.02
Dep. on RAB for SCP computed by AERA in TCP (Order No 64/2020-21 Table 60)	348.16	367.9	445.91	477.74	493.18

2.3. True-Up of WACC for SCP

2.3.1. During tariff determination of TCP, AERA had considered the entire expenditure incurred on the· re-carpeting of Runway / Apron /Taxiway as part of O&M expenditure in the year of incurrence up till FY18. However, from FY19 onwards, any expenditure incurred on the Re-carpeting of RWY/Apron/TWY is amortized over a period of 5 years.

To give effect of this adjustment, AERA should have reduced capex incurred on re-carpeting of Runway / Apron /Taxiway from Regulatory Asset Base, and at the same time adjusted Depreciation and Operational and Maintenance expenditure. AERA has reduced the amount from Regulatory Asset Base, increased O&M expenditure but failed to reduce the depreciation amount in the working for Profit and Loss

Owing to the above error, the profit and loss amount in all the years of Second Control Period are reduced, which has impacted the gearing ratio and ultimately the WACC computation for Second Control Period.

During the course of proceedings of TCP tariff order before TDSAT, AERA has agreed to correct the above mistake. Same has been given effect in current MYTP proposal.

2.3.2. AERA while carrying out tariff determination of SCP had decided to protect the paid-up Equity Share Capital rather than the Net Worth (which includes equity share capital and accumulated reserves and surplus) for purpose of calculation of WACC. TDSAT vide judgement dated 6th October 2023 had set aside the above decision of AERA and directed that accumulated reserves and surplus should not be adjusted against the subsequent losses for the purpose of determining WACC.

2.3.3. As per the directions of TDSAT judgement dated 23rd April 2018, AERA had given Cost of Debt on Refundable Security Deposit (RSD). MIAL has appealed against the above decision of AERA. TDSAT vide judgement dated 6th October 2023 directed AERA to give return equivalent to cost of equity on RSD.

2.3.4. Authority had computed WACC of 11.8% for SCP as part of true-up of SCP in TCP Order. Revised WACC for SCP based on above three issues i.e. correct computation of profits on account of exclusion of depreciation related to runway recarpeting, protecting reserves and surplus on account of book losses and considering return on RSD works out to 12.22%. Accordingly, same has been considered for true-up.

2.4. True-Up of Non-Aero Revenues for SCP

2.4.1. Issues discussed in points 1.4.1, 1.4.2 and 1.4.3 in true-up of FCP are applicable for SCP as well.

2.4.2. In line with true up of FCP, MIAL has excluded "Other Income" and "Revenue from Existing Assets" in the calculation of S factor and Annual Fee on S factor is also not considered. Hence, revised non-aeronautical revenues for SCP are:

Table 16: Computation of revised S factor of SCP in line with TDSAT Judgement

Particulars (Rs. in Crs)		FY15	FY16	FY17	FY18	FY19
NAR (AERA Order No 64/2020-21 Table 78)	a	1,020.13	1,246.58	1,433.47	1,682.00	1,832.23
Other Income (AERA Order No 64/2020-21 Table 78)	b	29.74	81.47	71.36	111.92	91.70
Revenue from Existing Assets (As per Independent Study)	c	487.58	520.96	493.28	548.80	542.64
Revenue from RSA	d=a-b-c	502.80	644.16	868.84	1,021.28	1,197.89
Annual Fee on above	e=38.7%*d	194.58	249.29	336.24	395.23	463.58
Revenue from RSA after annual fee	f=d-e	308.22	394.87	532.60	626.04	734.31
S Factor	=30%*f	92.47	118.46	159.78	187.81	220.29

2.5. True-Up of Aeronautical Tax for SCP

2.5.1. Impact of Hon'ble Supreme Court Judgment dated 11th July 2022 and TDSAT judgment dated 6th October 2023 on aeronautical tax of SCP is shown below:

Table 17: Computation of T for SCP in line with SC and TDSAT Judgement

Particulars (Rs. in Crs)	FY15	FY16	FY17	FY18	FY19
Aero Revenues (AERA Order No 64/2020-21 Table 83)	1,376.20	1,512.03	1,640.18	1,786.55	1,896.19
Add: S Factor (MYTP Table 16)	92.47	118.46	159.78	187.81	220.29
Total Revenues	**1,468.66**	**1,630.49**	**1,799.96**	**1,974.36**	**2,116.48**
Less: Aero Expenses (AERA Order No 64/2020-21 Table 83)	772.89	589.42	721.49	862.74	839.30
Less Aero Depreciation (MYTP Table 15)	349.54	369.23	447.51	479.44	495.02
Less: Interest Cost*	427.44	460.41	499.24	435.52	395.00
Net Profit	**(81.21)**	**211.43**	**131.73**	**196.66**	**387.15**
Profit for Tax Computation (P)	(81.21)	211.43	131.73	196.66	387.15
Tax Rate (T)	33.99%	34.61%	34.61%	34.61%	34.94%
Aero Taxation (P X T)	**-**	**73.17**	**45.59**	**68.06**	**135.29**

*Interest Cost = RAB X Gearing X Cost of Debt
RAB = Closing RAB computed considering proportionate addition
Gearing is debt portion (%) of total capital of particular year used for computation of WACC by AERA
Cost of debt is average interest rate of particular year

2.6. True up of ARR for SCP

Based on above changes in various building blocks, revised ARR of SCP is as below:

Table 18: Computation of TR of SCP after incorporating changes in various building blocks

Particulars (Rs. in Crs)	FY15	FY16	FY17	FY18	FY19	Total
Return on RAB and HRAB	731.23	780.88	846.61	817.88	782.98	3,959.59
Add: Operating Expenses	773.06	589.71	721.69	862.99	839.68	3,787.12
Add: Depreciation	409.36	417.69	503.24	534.85	548.33	2,413.47
Add: Aeronautical Taxes	-	73.17	45.59	68.06	135.29	322.11
Less:30% Revenue Share Assets	(92.47)	(118.46)	(159.78)	(187.81)	(220.29)	(778.81)
True-up for FCP	1,357.53	-	-	-	-	1,357.53
Target Revenue	**3,178.71**	**1,742.99**	**1,957.35**	**2,095.97**	**2,085.99**	**11,061.01**
Actual Aero revenues	1,376.20	1,512.03	1,640.18	1,786.55	1,896.19	8,211.14
True-up/true-down	**1,802.51**	**230.97**	**317.17**	**309.41**	**189.80**	**2,849.86**
Carrying Cost @12.22%	12.22%	12.22%	12.22%	12.22%	12.22%	
Years	5.00	4.00	3.00	2.00	1.00	
True-up with carrying cost	**3,207.43**	**366.24**	**448.18**	**389.63**	**212.99**	**4,624.47**

3. True-Up of Third Control Period (TCP)

3.1. True-Up of Regulatory Asset Base (RAB) for TCP

3.1.1. Onset of COVID pandemic and subsequent GoI restrictions on air travel since March 2020 severely impacted air traffic in India and around the world. Since Maharashtra was one of the severely affected states by the pandemic, Mumbai airport was heavily impacted due to severe restrictions on air travel by Maharashtra Government. Paucity of funds due to lower traffic and lower revenues delayed the execution of Capex.

3.1.2. In July 2021, Adani Group acquired 74% stake in MIAL by picking up GVK Group's 50.5% stake and 23.5% stake from ACSA Global Ltd and Bid Services Division (Mauritius) Ltd (Bidvest).

3.1.3. Although execution of capex was delayed in wake of impact of COVID and change in ownership of CSMIA, the pace of execution picked up in FY24. All the critical projects required for safety, security and passenger convenience were executed in cost effective and time bound manner.

3.1.4. AERA in Third Control Period had approved total capital expenditure of Rs. 1,939 Crs. Comparison of Capex approved by AERA and executed by MIAL is as follows:

Table 19: Computation of capitalization approved by AERA and Actual Capitalization

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Capitalization approved by AERA in TCP Order	**438.00**	**526.70**	**342.80**	**410.40**	**221.00**	**1,938.90**
Total Capitalization as per books	518.80	3.50	160.50	212.90	847.70	**1,743.40**
Aero Capitalization	332.05	3.32	150.74	181.51	777.52	**1,445.14**
Runway Recarpeting Works*	137.50	0.60	3.80	-	115.00	**256.90**
Net Aero Capitalization	**194.90**	**2.70**	**146.90**	**181.50**	**663.40**	**1,189.40**

***** *Runway Recarpeting works are approved as opex by AERA. Hence same has been adjusted from aeronautical capitalization to arrive at comparable aeronautical capitalization.*

Based on above capitalization, depreciation for **various** years of third control period is as follows:

Table 20: Depreciation for various years of TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Depreciation as per Books (excluding Upfront Fee)-a	727.04	704.94	582.99	576.11	564.74	3,156
Aeronautical Allocation Ratio-b*	83.4%	83.4%	83.4%	83.4%	83.4%	
Aeronautical Depreciation – (a X b)	606.35	587.92	486.21	480.47	471.00	2,632
Less: Higher Dep. in books as compared to AERA (241 Assets identified by AERA in TCP Order)	30.32	28.11	25.25	23.62	23.41	131
Less: Runway recarpeting amortized as O&M	58.03	63.75	48.06	39.99	39.95	250

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Less: Depreciation on disallowed projects	5.07	4.85	3.97	3.94	3.56	21
Aeronautical Depreciation	**512.94**	**491.21**	**408.93**	**412.93**	**404.08**	**2,230**

**Gross Asset Allocation is 83.4% as on 31st March 2024.AERA had applied gross asset allocation as on 31 March 2019 to all years of SCP to compute aeronautical depreciation, Same principle is being applied for TCP as well.*

3.1.5. RAB for third control period is as follows: -

Table 21: RAB for TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Opening RAB	5,896.98	5,654.95	5,238.96	4,858.18	4,696.13	
+ Addition based on proportionate capitalization*	270.90	75.22	28.15	250.88	295.33	**920.48**
- Depreciation	512.94	491.21	408.93	412.93	404.08	**2,230.09**
Closing RAB	**5,654.95**	**5,238.96**	**4,858.18**	**4,696.13**	**4,587.37**	

**Statement of Proportionate Addition during TCP*

Particulars (Rs Crs)	FY20	FY21	FY22	FY23	FY24	Total
Total Capitalization during the year	194.55	3.32	150.74	181.51	777.52	
Less: Carried forward to next year	74.54	2.64	125.22	55.86	538.05	
Proportionate capitalization during the year	**120.01**	**0.68**	**25.51**	**125.65**	**239.47**	
Add: Brought forward balance to be added to RAB	150.89*	74.54	2.64	125.22	55.86	
Total Capitalization during the year	**270.90**	**75.22**	**28.15**	**250.88**	**295.33**	**920**

**Carried forward from Second Control Period*

3.2. True-Up of Hypothetical Regulatory Asset Base (HRAB) for TCP

AERA while determining tariff for TCP decided to remove value attributable to old T2 from HRAB and computed impact of Rs. 258.83 Crs as on 1st April 2019 on TR (refer table 232 of TCP Order).

TDSAT vide judgement dated 6th October 2023 has ruled that decision of AERA to reduce HRAB on account of demolition of old T-2 is not correct. Hence, MIAL has not considered the one-time impact of Rs. 258.83 Crs computed by AERA (table 232 of TCP Tariff order) on account of reduction in HRAB for the purpose of calculation of true-up of TCP.

Further the revised HRAB for Third Control Period is as follows:

Table 22: Revised HRAB as per TDSAT Judgement not considering removal of old T2 from HRAB

Particulars (Rs. in Crs)	FY20	FY21	FY22	FY23	FY24
Opening HRAB	483.81	430.34	379.15	337.22	295.68
Depreciation	53.47	51.19	41.93	41.54	37.60
Closing HRAB	430.34	379.15	337.22	295.68	258.08
Average HRAB	457.07	404.74	358.19	316.45	276.88

3.3. True-Up of Weighted Average Cost of Capital (WACC) for TCP

3.3.1. Cost of Equity: In the TCP tariff order dated 27th February 2021 AERA has provided Cost of Equity of 15.13% to MIAL. MIAL has considered the same for the calculation of WACC of TCP.

3.3.2. Cost of Debt: In the Consultation Paper of TCP, AERA had proposed to true up the Cost of Debt subject to an additional 50 bps on the existing rates i.e., from the current level of 10.30% to the ceiling of 10.80%. However, in the tariff Order, the AERA capped cost of debt at 10.30%.

It is to be noted that interest rate of any business entity cannot remain constant as it is derived from two variable components which are Base Rate and the Spread. Base rate is dependent on various macro-economic factors like Inflation, global interest rates etc. Spread depends on the credit profile of the entity. If there is downgrade of rating of any entity, spread will increase which leads to increased interest rate.

During the tariff determination process of TCP, MIAL had submitted letter from State Bank of India dated 20th December 2019 to the Authority which stated that on account of downgrade in the external rating of MIAL by India Ratings from A+ to A-, the existing pricing on all the credit facilities has been increased by 0.50% w.e.f. 9th August 2019, effective rate of interest being 10.30% p.a.

Subsequently, MIAL's financial profile was severely impaired by the outbreak of COVID-19, the resultant lockdowns, and the continued restrictions on airlines' operations starting from March 2020.

MIAL's liquidity crisis was aggravated in FY21 as total passengers handled plummeted from 45.9 mn in FY20 to 10.5 mn in FY21 resulting in constrained operating cash flow.

This weakened liquidity profile and pandemic hit operations constrained ability of MIAL to service debt, and the company requested its lenders to restructure its debt.

In July 2021, MIAL, with the support from AAHL and AEL, refinanced its existing debt with short term bridge to bond facility which was mix of 11% Non-Convertible Debentures redeemable at the end of one year and Term Loans with interest rate of MCLR plus spread of 4.65% (effective interest rate of 11%) repayable at end of one year.

In April 2022, MIAL has raised USD 750 million (~Rs 5,500 Crs) through 7.25-year USD Notes/Bonds through US Private Placement (USPP). Funds raised through Private placement along with additional borrowings from Adani Airport Holdings Limited (AAHL) have been used for, refinancing of existing short term bridge loan of Rs. 7,250 Crs as on 31 March 2022. It is to be noted that only ~75% of existing debt was refinanced from USD notes and balance was refinanced by inter-company loan from AAHL.

USD Notes are repayable in 7.25 years on the last day of Tenor (Bullet Repayment on last date of Tenor). As per the existing loan agreements, the effective interest rate is ~11.5% (7.25% effective coupon rate + 3.8% hedging cost+6% TDS on coupon payments)

The intercompany loan from AAHL is unsecured and subordinated to the senior debt. It carries interest @12.5% per annum.

Year wise cost of debt and weighted average cost of debt for Third Control Period is as follows:

Table 23: Computation of weighted average cost of debt for TCP

Particulars (Rs Crs)	FY20	FY21	FY22	FY23	FY24
Opening outstanding debt	6,273.60	6,138.40	6,075.64	7,183.00	8,114.04
Closing outstanding debt	6,138.40	6,075.64	7,183.00	8,114.04	8,743.10
Average Debt	**6,206.00**	**6,107.02**	**6,629.32**	**7,648.52**	**8,428.57**
Interest Cost	615.75	635.17	732.62	907.30	954.57
Cost of Debt	9.92%	10.40%	11.05%	11.86%	11.33%
Weighted Avg Cost of Debt	**10.98%**				

AERA had finalized process of tariff determination of MIAL for TCP in February 2021 with consultation process getting completed in November 2020. There were significant changes in global economy post this period. Interest rates surged sharply globally post December 2020.

Since May 2022, the Reserve Bank of India has increased Repo Rate by 2.50% leading to cost of domestic borrowing becoming dearer in India.

Even if MIAL had continued with existing debt facility, increase in interest rate for FY23 would have been 1.25% (since average interest rates increased gradually) and 2.5% for FY24 considering only the overall increase in interest rates in the economy. Based on above, weighted average rate of interest for TCP would have been 11.17% as given hereunder:

Table 24: Computation of weighted average cost of debt if MIAL had continued with existing debt facility throughout the TCP

Particulars (in Rs Cr)	FY20	FY21	FY22	FY23	FY24
Opening Debt	6,273.60	6,138.40	6,075.64	7,183.00	8,114.04
Closing Debt	6,138.40	6,075.64	7,183.00	8,114.04	8,743.10
Average Debt	**6,206.00**	**6,107.02**	**6,629.32**	**7,648.52**	**8,428.57**
Cost of Debt (%)	10.30%*	10.30%	10.30%	11.55%	12.80%
Weighted Average Cost of Debt for TCP	**11.17%**				

**AERA approved percentage*

It would be observed from the above that the actual weighted average cost of debt of MIAL for TCP is 10.98% which is lower than 11.17% as calculated in table above.

TDSAT vide judgement dated 6th October 2023 has ruled that AERA ought to have allowed actual cost of debt incurred by MIAL especially looking into fact that debt availed is from reputed lenders.

3.3.3. **WACC**: As per weighted average cost of debt of 10.98% for TCP and cost of equity of 15.13% as decided by the Authority in TCP tariff order and gearing ratio of 48:52 as decided by the Authority in TCP tariff order, calculation of revised WACC for TCP is as follows:

Table 25: Computation of WACC for TCP

Calculation of WACC for TCP	
Cost of Debt	10.98%
Cost of Equity	15.13%
Gearing	48%
WACC for TCP	**13.14%**

3.4. True-Up of Operating Expenses for TCP

3.4.1. Total efficient operating and maintenance expenditure allowed by the Authority for TCP (Table no.179 of TCP Order) was as follows:

Table 26: O&M expenses allowed by AERA in TCP (Order No 64/2020-21)

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Employee Cost	201.73	201.73	218.89	237.50	257.70	1,117.55
Utilities (net of recoveries)	147.30	92.14	79.38	128.83	142.48	590.13
Repair & Maintenance Expenses	128.19	133.06	139.52	143.82	146.04	690.63
Rent, Rate and Taxes	46.26	46.92	76.41	87.40	88.28	345.27
Advertisement Expenses	5.00	5.00	5.00	5.00	5.00	25.00
Administrative Expenses	83.10	68.22	73.80	79.40	85.02	389.54
AOA Fees	9.88	10.07	10.26	10.46	10.66	51.33
Insurance Expenses	4.58	8.19	8.56	8.96	9.37	39.66
Consumption of store	6.34	7.11	8.13	10.00	10.46	42.04
Operating Expenditure	149.72	156.65	163.90	171.49	179.43	821.19
VRS payment to AAI	1.47			-		1.47
Financing Charges	20.00	20.00	20.00	20.00	20.00	100.00
Collection charges over DF	2.72	2.72	2.72	-	-	8.16
Runway Recarpeting	13.74	59.45	59.45	59.45	47.46	239.55
Total	**820.03**	**811.26**	**866.02**	**962.31**	**1,001.90**	**4,461.52**

3.4.2. Year wise actual operating and maintenance expenditure incurred by MIAL for TCP is as follows:

Table 27: Actual O&M expenses incurred by MIAL in TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total	Variation w.r.t AERA Cost
Employee Cost	217.68	220.79	168.02	146.12	159.37	911.98	18%
Utilities (net of recoveries)	120.95	63.53	73.40	108.40	132.75	499.03	15%
Repair & Maintenance Expenses	179.53	127.17	164.41	205.41	180.29	856.81	-24%
Rent, Rate and Taxes	45.97	43.84	48.05	53.88	57.25	248.99	28%
Advertisement Expenses	5.17	2.28	3.06	8.17	3.58	22.26	11%
Administrative Expenses	78.80	59.33	23.87	41.79	59.82	263.60	32%
AOA Fees	10.53	8.81	-	-	-	19.34	62%
Insurance Expenses	9.15	15.54	15.13	16.05	17.83	73.70	-86%
Consumption of store	8.63	5.12	9.05	20.41	17.47	60.68	-44%
Operating Expenditure	159.30	150.12	127.61	161.58	174.71	773.32	6%
Interest on Working Capital	24.98	28.00	27.23	17.50	17.50	115.21	
Financing Charges	24.74	14.98	162.64	38.93	27.77	269.06	-169%
Runway Recarpeting along with carrying cost on unamortized portion	52.32	56.21	51.13	45.92	29.51	235.10	2%
Corporate Cost Allocation	-	-	91.47	100.10	76.00	267.57	
Various others	13.31	39.27	23.02	40.44	6.77	122.81	
Total	**951.06**	**834.99**	**988.09**	**1,004.70**	**960.63**	**4,739.46**	-6%

* (+ve% indicates savings and -ve% indicates higher cost)

3.4.3. From the above table it is clear that MIAL has been able to achieve significant savings in various heads of O&M like Employee expenses, Utilities, Rates and Taxes, Advertisement, Administrative Expenses and Operating expenses.

3.4.4. However there have been increase in expenses for some heads of expenditure like Repairs and Maintenance, Insurance, Working Capital, and Financing Charges.

3.4.5. Reasons for increase in various heads of expenditure:

Corporate allocation costs from AEL and AAHL resulting in higher Administration Costs

Adani Enterprises ltd (AEL) acquired MIAL through its step-down subsidiary Adani Airport Holdings Ltd (AAHL) in July 21. In addition to MIAL, 6 other operating airports and one Greenfield airport (Navi Mumbai) are also part of airport business of Adani Group.

AEL is a flagship company for Adani Group which has promoted various businesses like Power, Renewable, Ports, Logistics, Airports, Data Center, Defense etc.

AAHL is a company incorporated with an aim to promote Airport and Airport related activities. As on date AAHL has portfolio of 8 Airports i.e. Mangaluru, Lucknow, Ahmedabad, Guwahati, Jaipur, Thiruvananthapuram, Mumbai, and Navi Mumbai.

AEL and AAHL have developed various capabilities, infrastructure, and processes in several areas ("Corporate Support Services").

AEL has consolidated various strategic functions/activities like corporate finance, legal, central procurement, green initiative, ESG, Information technology, taxation, management assurance, internal audit, shared service for financial transactions. human resource management. AEL also includes various strategic and leadership functions like Chairman office, Group CFO office, Corporate Communication and Branding etc. AEL provides support on these functions to all group companies including but not limited to Power, Renewable, Ports, Logistics, Airports, Data Center, Defense etc.

AAHL houses a team of specialized subject matter experts in Aviation sector having domain knowledge and expertise in Airports Operation, Airside Management, Master Planning, Designing, Airport Development, Airport Regulatory, Human Resources, Transition Management, Hospitality, Customer management, Finance Management, Legal expertise, Cargo Development and management, Airline Marketing, Retail, Commercial, Space Leasing, Non-Aeronautical etc.

These capabilities, infrastructure, and processes (retained under AEL and AAHL) are very important for sustainable operations of any business including Airports.

The cost is incurred by AEL and AAHL on overall basis to provide these services and support to various group companies (including Airports) by AEL and to various Airport companies in case of AAHL respectively. The major composition of these costs includes salaries and administrative costs.

These common costs are recovered by AEL and AAHL through appropriate allocation method/keys. AEL / AAHL do not allocate the costs which are related to shareholders services (activities performed by AEL / AAHL for their own benefits like consolidation of accounts, secretarial etc.). Further AAHL does not allocate the costs relating to non-Aeronautical activities.

The cost is allocated on cost-to-cost basis "without any mark-up". **In case these services are to be maintained by each of the 8 airports on standalone basis then the summation of cost incurred by each Airport will be much higher than the consolidated cost incurred by AEL and AAHL to maintain these services.**

It is a common practice across all the industries operated by big business houses including private Airport entities and AAI, whereby cost allocation process is prevalent. For e.g., GMR Infrastructure Limited (GIL) and GMR Airports Limited (GAL) provide services to DIAL and GHIAL and their costs are allocated based on suitable drivers. Similar practice is followed by AAI as well in allocating its

Central Head Quarters (CHQ) / Regional Head Quarters (RHQ) costs to various airports under two categories (i) manpower cost and (ii) admin & general costs.

Developing domains of competencies and sharing the same with group companies is globally accepted best practice which large conglomerates follow both in public and private enterprise domains.

Developing capabilities and infrastructure at MIAL was not found to be a prudent option as it would also entail duplication of expenses. Wide range of services are being provided by AAHL and AEL as already explained in preceding paragraphs to enable, support, and improve efficiency and productivity resulting in better performance and better cash flows of MIAL.

Further, it is to be noted that ~Rs 13 Crs per annum paid by MIAL to GVK Power and Infra Ltd previously on account of services received by MIAL from parent company and Rs. 10 Crs per annum paid to ACSA as Airport Operator Fee has been discontinued post the acquisition of MIAL by Adani Group.

Cost allocated to MIAL by AEL and AAHL is on the same basis on which cost is allocated to other Adani Group airports. AERA while approving tariff for Ahmedabad, Mangalore, and Lucknow airports, has examined and accepted this allocation methodology.

It is to be noted that at the time of TCP tariff determination, MIAL has claimed the Corporate Cost Allocation as part of its response to Consultation Paper No. 35/2020-21 (refer Para 6.4.10 of the TCP order). However, the same was not considered by AERA. MIAL appealed against the matter in the TDSAT. **TDSAT vide judgment dated 6th October 2023 has directed AERA to include corporate cost of TCP under operating expenses on actual basis and true up should be given in FoCP.**

3.4.6. Reasons for increase in Repair and Maintenance Costs

3.4.6.1. AERA while projecting repair and maintenance costs for TCP had approved the same based on percentage of opening gross block (1.1%) of particular year. Opening Gross block and repair and maintenance costs considered by AERA in TCP order are as shown below:

Table 28: Repairs & Maintenance cost for TCP as per AERA

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24
Opening Gross Fixed Assets	11,695.62	12,140.1	12,729.6	13,121.66	13,324.28
% of opening gross block	1.10%	1.10%	1.10%	1.10%	1.10%
R&M expenses	128.19	133.06	139.52	143.82	146.04

It was observed that there was an error in above calculation of R&M expenses as gross block used in the above calculation is much lower than actual gross block of MIAL.

Closing block of FY19 (last year of the SCP) is Rs. 15,046.88 Crs. Same is also confirmed in Table 3 of Para 4.4 of the independent study done by AERA for Asset Allocation of SCP. Hence correct opening gross block and R&M

expenses for each of the years of TCP using the same 1.1 % as applied by AERA on opening gross block would be as under:

Table 29: Computation of Repairs & Maintenance cost based on total gross block for TCP

Particulars (Rs. In Crs)	FY19	FY20	FY21	FY22	FY23	FY24	Total
Opening Gross Block		15,046.88	15,484.92	16,011.6	16,354.39	16,764.79	
Aero Asset Addition as per AERA Order		438.04	526.68	342.79	410.4	220.96	
Closing Gross Block	15,046.88	15,484.92	16,011.6	16,354.39	16,764.79	16,985.75	
% of opening gross block		1.10%	1.10%	1.10%	1.10%	1.10%	
R&M expenses		165.52	170.33	176.13	179.90	184.41	876.29

Reason for lower value of opening gross block in above table is that AERA has inadvertently used aeronautical opening gross block instead of using total gross block for calculating total R&M expenses. This is not the correct approach as aeronautical allocation of 86.71% (as per independent study conducted by AERA on aeronautical O&M expenses of SCP) is being applied on total R&M expenses to calculate aeronautical R&M expenses.

Particulars (in Rs Cr)	FY20	FY21	FY22	FY23	FY24	Total
R&M expenses	165.52	170.33	176.13	179.90	184.41	876.29

3.4.6.2. Historically costs related to AMC of security equipment used at Mumbai airport were being incurred by MIAL and same were being reimbursed from NASFT. Hence, same was not part of MYTP filed by MIAL for TCP.

NASFT vide email dated 7th January 2021 shared the revised list of permissible items of expenditure (Annexure A). This revised list excluded AMC/CAMC of security equipment as allowable expenditure under NASFT.

NASFT has not allowed reimbursement of expenses incurred on AMC of security equipment since July 2019 onwards (inception of ASF) and any payments made to MIAL from NASFT on account of AMC of security equipment since July 2019 have been clawed back.

Year wise expenses related to AMC of security equipment costs since July 19 which are now part of O&M expenses of MIAL are as follows:

Table 30: Security Equipment cost included in Repairs & Maintenance cost in TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Expenses related to AMC of security Equipment	9.45	10.70	6.66	9.50	13.75	**50.05**

3.4.6.3. Hence, if R&M expenses were projected considering correct opening block and AMC of security equipment is added, the same would be as follows:

Table 31: Computation of Repairs & Maintenance cost based on gross block and Security Equipment cost for TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
R&M expenses considering total gross block (a)	165.52	170.33	176.13	179.9	184.41	876.29
Security Equipment AMC expenses (b)	9.45	10.70	6.66	9.50	13.75	50.05
Total of (a) and (b)	**174.97**	**181.03**	**182.79**	**189.40**	**198.16**	**926.34**

Total actual R&M expenses incurred by MIAL in TCP (Rs. 856.81 Cr) are lower than expenses as projected in above table.

As per several recent tariff orders, AERA has approved R&M cost equivalent to 6% of opening RAB. The R&M cost for MIAL is also well below the 6% of Opening RAB.

3.4.7. Increase in costs related to financing charges: Authority while carrying out the tariff determination of TCP had approved financing costs in line with average per year cost incurred in Second Control Period.

Financing Charges include costs related to upfront fees/arranger fees to be paid to banks/financial institutions, Commission on Bank Guarantee, and other Bank Charges.

All the above are recurring costs which need to be incurred by Airport Operator and any additional/one-time costs are over and above.

In November 2020, during the tariff determination process of TCP, MIAL requested AERA to approve the one-time restructuring/refinancing cost of Rs. 55 Crs (as per the preliminary estimates based on limited discussion with lenders).

Subsequently, due to severe liquidity crunch caused by substantial reduction in revenue, MIAL was not able to fulfil its debt servicing obligations and had approached lenders for restructuring of loans as per extant RBI guidelines. In December 2020, MIAL ratings were further downgraded from C to D (Default).

In this tough macro-economic environment, restructuring of existing debt was not possible and it was decided to go for refinancing of all existing loans with long term bonds. Due to weaker financial strength and existing uncertainties around the traffic in wake of COVID pandemic, MIAL was not able to raise funds through long term bonds. In July 21, MIAL, with the Corporate Guarantee and support from AAHL and AEL refinanced its existing debt with short term bridge to bond facility which had a tenure of 1 year. As part of refinancing of this existing debt with short term bridge to bond facility, MIAL had to incur one-time financing charges of Rs. 158 Crs.

It is noted that MIAL had requested for one time cost as part of restructuring costs (Rs. 55 Crs) in its submissions during determination of tariff of TCP although cost sought was much lower than actual as restructuring discussions were at very early stages during that period. Looking into circumstances under which refinancing of entire debt was necessary for survival of airport, expenditure related to refinancing of debt is justified. Hence, AERA is requested to consider this one-time cost as allowable costs under financing charges.

Table 32: Total Finance Charges incurred in TCP and as approved by AERA

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Finance Charges	24.74	14.98	4.95	38.93	27.77	111.37
Finance Charges (one time - exceptional)			157.69			157.69
Total Finance Charges	**24.74**	**14.98**	**162.64**	**38.93**	**27.77**	**269.06**
Approved by AERA	**20.00**	**20.00**	**20.00**	**20.00**	**20.00**	**100.00**

It is evident from table below that recurring Financing charges incurred by MIAL are comparable to AERA approved costs of Rs. 100 Crs.

Moreover, TDSAT vide judgment dated 6th October 2023 has directed AERA to include financing charges incurred by MIAL during TCP under operating expenses on actual basis and true up should be given in FoCP.

3.4.8. **Interest on Working Capital**: Authority during the tariff determination of TCP had noted that should there be a need for the working capital, the Authority will review the same in the fourth control period based on actual incurrence together with necessary need justification and evidence of the same. It is submitted that airport operators inherently require working capital. Same is evident from the fact that MIAL had incurred total working capital interest of Rs. 71.42 Crs during the SCP (when the operations were normal) and same were approved by AERA. Working Capital became all the more important due to liquidity crunch caused by pandemic. Year wise expense incurred by MIAL on working capital loan and other Short-term loans during the TCP are as follows:

Table 33: Interest on Working Capital for TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Interest on working capital/other short term interests	**24.98**	**28.00**	**27.23***	**17.50***	**17.50***	**115.21**

*At the start of TCP, MIAL had cash credit/working capital limits of upto Rs. 330 Crs which it used for working capital purposes. The average utilization of these facilities varied with time depending on business requirements and average utilization was in the range of Rs. 180 to Rs. 200 Crs. MIAL has paid interest on working capital of Rs. 17.56 and Rs 17.76 Crs in FY20 and FY21 respectively.

TDSAT vide judgment dated 6th October 2023 has directed AERA to include interest on working capital incurred by MIAL during TCP under operating expenses on actual basis and true up should be given in FoCP.

In July-2021, MIAL, with the support from AAHL and AEL, refinanced its existing debts (including outstanding working capital debt of approx. Rs. 180 Crs) with short term bridge to bond facility which was mix of 11% Non-Convertible Debentures redeemable at the end of one year and Term Loans with interest rate of MCLR plus spread of 4.65% (effective interest rate of 11%) repayable at end of one year.

The disclosure of the same is made in the audited financial statements for FY20-21 (Refer Note 9 of audited financial statements).

In FY21-22, MIAL has paid interest on working capital debt up to July 2021 of Rs. 3.77 Crs. However, due to refinancing, as briefed above, the working capital facility was replaced by new facilities. From July-2021 onwards the interest cost paid for new facilities inter-alia includes interest on erstwhile cash credit facility.

Considering the fact that MIAL was using the working capital facility in past and has been paying interest on the same of approx. Rs. 17.5 Crs with average utilization of facility of Rs. 180 Crs, we have considered the amount of interest on working capital of Rs. 17.5 Crs for FY22, FY23 and FY24. Accordingly, the interest amount (Rs. 17.5 Crs) and average working capital debt utilization amount (Rs. 180 Crs) is reduced from total interest cost and total outstanding debt while calculating WACC.

3.4.9. Insurance Expenses: As per clause 8.5.6 of OMDA "*During the Term, JVC shall affect and maintain at its own cost, at all times the insurances set out in Schedule 11, the insurances required under the Financing Documents and such additional insurances as JVC may reasonably consider necessary or prudent in accordance with Good Industry Practice"*

Further as per clause 1.1 of Schedule 1 of OMDA "*Subject to Applicable Law, JVC must at its own cost and expense ensure that the insurances specified in this paragraph are effected from the Effective Date and are maintained in full force for the remainder of the Term.*

(a) Insurances in respect of "all risks" as customarily covered by such insurance policies for physical loss or damage to the Airport (including all assets thereon, including but not limited to Aeronautical Assets, Non-Aeronautical Assets and Existing Assets) and all or any structures (including temporary structures), plant (including hired in plant) and equipment including computer equipment and vehicles on the Airport, to their full rebuilding or replacement cost (including allowance for professional fees and removal of debris costs), increased from time to time as necessary to maintain such full rebuilding or replacement cost.

(b) Business interruption insurance to indemnify JVC in respect of JVC's revenues for a period of not less than six (6) months if any of the property insured under paragraph 1.1.1 is lost or destroyed or damaged by any of the

risks insured under paragraph 1.1.1 which causes interruption to or interference with Aeronautical Services or Non-Aeronautical Services.

(c) Insurance in respect of any legal liability of JVC and any of its agents, servants, employees and contractors, any third party, aircraft operator, user of the Airport or otherwise, or liability of such persons in respect of loss or damage arising out of the construction, maintenance, operation and/or management of the Airport, including death or bodily injury or disease, loss of or damage to property, including resultant loss of use, to such amounts as would be effected by a prudent operator of airports of the size and with characteristics comparable to the Airport and in each case which does not self-insure (except for any customary deductibles).

(d) Any legal liability of JVC in respect of loss or damage as a result of the death and/or personal injury suffered by an employee of JVC or any person for whom JVC is responsible.

As per the above provisions of OMDA, it is mandatory for MIAL to maintain various insurances to cover all the aspects of business-like physical loss or damage, business interruption, employee's insurance etc.

AERA had approved the following insurance costs for TCP:
Table 34: Insurance Expense projected by AERA in TCP tariff order

Particulars (in Rs Cr)	FY20	FY21	FY22	FY23	FY24	Total
Insurance Expense	4.58	8.19	8.56	8.96	9.37	39.66

However, there was significant increase in insurance costs in FY20 and FY21 due to various reasons like increase in insurance rate by re-insurer, reinstatement of asset value by the insurer, increase in insurance premium for Industrial All Risk Policy due to COVID 19

Actual Insurance expenses incurred by MIAL for TCP are as follows:
Table 35: Actual Insurance Expense incurred for TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Insurance Expenses	9.15	15.54	15.13	16.05	17.83	73.70

Since insurance expenses are mandatory expenses and are determined by reputed insurance companies which are also regulated by IRDAI, same are beyond the control of MIAL. AERA is requested to consider the actual expenses incurred by MIAL with respect to various insurance policies.

TDSAT vide judgment dated 6th October 2023 has directed AERA to include insurance expenses incurred by MIAL during TCP under operating expenses on actual basis and true up should be given in FoCP.

3.4.10. Aeronautical Allocation of Operating Expenses: Expenses have been allocated based on independent study of Operation and Maintenance expenses of SCP during tariff determination of TCP.

The principles determining the segregation of Operation and Maintenance costs in Aeronautical and Nonaeronautical expenses for the purpose of tariff

determination is discussed below. The process of segregation broadly involved the following steps:

1. As per independent study, Segregation of various costs into Aeronautical, Non-aeronautical and common based on review of the cost centres
2. Methodology for allocation of common cost is as below:
   a. Common costs related to Terminal operations are apportioned between Aeronautical and Non-aeronautical activities based on the weighted average terminal floor space ratio.
   b. Corporate Overheads are apportioned between Aeronautical & Non-aeronautical activities based on the adjusted gross fixed assets ratio

The following common costs centres are being used by MIAL for segregation purposes.

Cost Centre	Description	Classification for regulatory purposes	Cost Driver for Segregation of common expenses
Aeronautical Common	For cost common to Aeronautical activities	Aeronautical	100% Aero
Airport Common	For costs common to Aeronautical and Non-aeronautical Activities	Common	Weighted average terminal floor area ratio of the terminal 87.43%
Non-aeronautical Common	For costs common to Non-aeronautical Activities	Non-aeronautical	0% Aero
Corporate Overheads	For allocation of Corporate overheads applicable at the entity level	Common	83.4% (Gross Aeronautical fixed assets ratio of closing gross block of FY23-24)

Following segregation logic has been used for allocation of expenses:

Employee Cost	• Segregation of man-power expenses is done based on department wise actual gross cost to company. • Employee cost of departments engaged in Aeronautical activities have been taken as Aeronautical. • Employee cost of departments engaged in Non-aeronautical activities have been taken as Non-aeronautical. • Employee cost of common departments have been segregated based on the gross fixed assets ratio

Utilities	• Electricity, water, and gas consumed by the concessionaires is charged from them and reduced from the gross consumption charges. • Utility expenses (net of recovery) have been taken as fully Aeronautical other than expenses attributable to Non-aeronautical activities.
R&M	• Segregation has been done on expense-by-expense basis. • Repairs relating to Aeronautical assets have been classified as Aeronautical and those relating to Non-aeronautical assets classified as Non-aeronautical. • Common expenses other than corporate overheads have been segregated based on the weighted average floor area ratio of the terminals. • Corporate overheads have been segregated based on gross fixed assets ratio
Rents, Rates and Taxes	• Rent expense has been segregated based on the usage of the premises. • Property tax (net of recovery) has been considered as wholly Aeronautical. • Non-Agricultural Tax has been considered as common and segregated using the floor area ratio. • Common expenses other than corporate overheads have been segregated based on the weighted average floor area ratio of the terminals. • Corporate overheads have been segregated based on gross fixed assets ratio
Advertisement	• Promotional expenses relating to company in general has been classified as common expenses/ corporate overheads. • Promotional expenses relating to Aeronautical marketing have been classified as Aeronautical. • Promotional expenses relating to Non-aeronautical activities/service lines have been classified as Nonaeronautical.

	• Common expenses other than corporate overheads have been segregated based on the weighted average floor area ratio of the terminals. • Corporate overheads have been segregated based on adjusted gross fixed assets ratio
Administrative Expenses	• Major items in administrative expenses are legal fees, professional fees, corporate allocation, travelling. • Legal expenses have been considered as Corporate Overheads • Professional fees have been segregated based on the nature of the expense. • Common expenses other than corporate overheads have been segregated based on the weighted average floor area ratio of the terminals. • Corporate overheads have been segregated based on gross fixed assets ratio.
AOA Fees	• Airport Operator Agreement (AOA) fee (till FY21) has been segregated based on gross fixed assets ratio.
Insurance Expense	• Insurance expenses have been segregated based on gross fixed assets ratio
Consumable stores	• Consumables have been classified by MIAL based on their usage.
Contract Services	• Contract Services include cleaning, security, horticulture, trolley, medical emergencies etc. • Trolley contracts are classified as fully aeronautical. • Security and Cleaning is classified as Aeronautical except when deployed for wholly Non-aeronautical activities. • Horticulture is considered Aeronautical except when relating to wholly Non-aeronautical activities. • Common expenses other than corporate overheads have been segregated based on the weighted average floor area ratio of the terminals.

	• Corporate overheads have been segregated based on gross fixed assets ratio.
Bad debts written off	• Bad debts have been classified based on the nature of debt written off. Aeronautical dues written off have been classified as Aeronautical and Non-aeronautical dues written off have been classified as Non-aeronautical.
Working Capital Interest	• Working capital interest has been considered as a corporate overhead and has been segregated using the gross fixed assets ratio
Financing charges	• Financing charges have been classified as corporate overhead. Segregated based on gross fixed assets ratio
Loss on scrapping of Asset	• Loss on scrapping of asset has been classified based on the classification of the asset scrapped.
Exchange gain and loss	• Exchange gain / loss is considered as a corporate overhead and is segregated based on the gross fixed assets ratio
Corporate Cost Allocation	• Corporate Cost Allocation has been allocated in the ratio applied for employee cost.

Based on the above segregation logic as per independent study, aeronautical allocation of various expenses of TCP using above allocation principles is given below

Table 36: Aeronautical allocation of O&M expenses incurred by MIAL in TCP

Allocation Ratio	FY20	FY21	FY22	FY23	FY24	Applied by AERA in TCP
Employee Cost	89.69%	89.43%	88.07%	88.41%	88.41%	86.50%
Utilities Expenses (power+ water+ fuel)	99.04%	98.60%	98.18%	98.85%	98.85%	98.60%
Repair & Maintenance Expense	93.56%	96.06%	92.88%	96.07%	96.07%	86.90%
Rents, Rates & Taxes	91.24%	91.11%	90.98%	84.15%	84.15%	81.90%
Advertisement Expense	92.54%	95.14%	91.88%	84.67%	84.67%	91.40%
Administrative Expenses	76.07%	83.08%	78.78%	82.57%	82.57%	77.50%
AOA Fees	83.40%	83.40%	0.00%	0.00%	0.00%	82.60%
Insurance Expense	83.40%	83.40%	83.40%	83.40%	83.40%	82.60%
Consumable stores	87.90%	87.94%	90.29%	95.39%	95.39%	93.70%
Operating cost	87.32%	86.87%	91.17%	90.89%	90.89%	91.20%
Bad debts written off	100.00%	0.00%	61.18%	0.00%	0.00%	
Working Capital Interest	83.40%	83.40%	83.40%	83.40%	83.40%	82.60%
Financing charges	83.40%	83.40%	83.40%	83.40%	83.40%	78.30%
Runway Recarpeting	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Carrying cost on runway recarpeting	100.00%	100.00%	100.00%	100.00%	100.00%	

Allocation Ratio	FY20	FY21	FY22	FY23	FY24	Applied by AERA in TCP
Corporate Cost Allocation	89.69%	89.43%	88.07%	88.41%	88.41%	

3.5. True Up of Revenues from RSA for TCP

3.5.1. Revenue from Revenue Sharing Asset as determined by AERA in the tariff order table 207 was:

Table 37: Revenue from Revenue Share Assets projected by AERA in TCP tariff order

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Retail License Revenues						
F&B	138.00	23.31	65.83	111.55	126.85	465.54
Flight Kitchen	38.73	7.44	21.01	35.60	40.48	143.26
Retail concession	154.00	26.37	74.47	126.20	143.51	524.55
Foreign exchange, Banks & ATM	73.33	3.24	14.33	17.68	19.98	128.56
IT & Communication	61.66	-	-	70.00	79.60	211.26
Car Rental & Hotel Reservation	24.00	6.17	18.93	25.63	27.61	102.34
Duty Free Shops	370.00	22.41	151.35	253.42	290.73	1,087.91
Advertising Income	165.36	32.20	90.88	154.00	175.12	617.56
Car Parking	33.40	7.70	23.80	32.00	34.10	131.00
Ground Handling	126.93	35.02	71.20	114.85	131.99	479.99
Others	60.29	12.36	34.89	59.12	67.23	233.89
Total (A)	**1,245.70**	**176.22**	**566.69**	**1,000.05**	**1,137.20**	**4,125.86**
Rent & Service Revenues						
Land Rent & Lease	113.29	47.40	86.77	129.66	135.62	512.74
Hanger Rent	15.30	8.20	18.51	28.42	48.57	119.00
Terminal Bldg Rent	74.38	27.75	53.15	80.43	84.13	319.84
Cute counter charges	13.71	6.85	10.27	13.70	14.94	59.47
Lounges	80.00	41.76	65.40	91.03	103.52	381.71
Cargo Bld Rent & Other Building rent	35.74	15.37	28.91	44.40	47.73	172.15
Total (B)	**332.42**	**147.33**	**263.01**	**387.64**	**434.51**	**1,564.91**
Cargo Revenues						
Domestic Cargo	36.11	17.65	28.89	41.09	45.21	168.95
International Cargo	228.88	88.43	154.32	264.94	287.99	1,024.56
Perishable Cargo	19.96	20.22	20.50	21.22	24.33	106.23
Courier Services	20.51	11.35	17.08	23.30	26.64	98.88
Others	26.78	13.95	21.85	30.42	34.26	127.26
Total (C)	**332.24**	**151.60**	**242.64**	**380.97**	**418.43**	**1,525.88**
Less: Revenue from Other than Revenue Share Assets (ie. Non Transfer Assets) (D)	13.75	14.83	15.30	15.81	19.13	**78.82**
Add: Other Income (E)	22.31					**22.31**
Grand Total Revenues from RSA (A+B+C-D+E)	**1,918.93**	**460.32**	**1,057.04**	**1,752.85**	**1,971.01**	**7,160.15**
Cross subsidization (30% of above)	**575.68**	**138.10**	**317.12**	**525.85**	**591.30**	**2,148.05**

3.5.2. Revenue from Revenue Sharing Asset as actually earned by MIAL are as follows:

Table 38: Revenue from Revenue Share Assets earned by MIAL in TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Retail License Revenues						
F&B	138.46	18.88	59.33	138.25	184.43	539.35
Flight Kitchen	25.15	6.08	14.31	36.80	55.09	137.43
Retail concession	152.54	25.78	72.64	158.08	159.90	568.94
Foreign exchange, Banks & ATM	61.24	4.34	15.43	62.38	71.29	214.68
IT & Communication	52.42	4.62	2.58	37.44	164.68	261.74
Car Rental & Hotel Reservation	24.66	5.20	10.39	24.78	25.51	90.54
Duty Free Shops	351.70	31.97	66.95	207.48	316.30	974.40
Advertising Income	155.02	32.05	113.43	187.35	218.87	706.72
Car Parking	33.42	4.89	41.01	51.27	56.38	186.97
Ground Handling	108.06	39.78	78.64	129.92	141.81	498.21
Others	45.23	21.57	68.20	69.26	54.33	258.58
Total (A)	**1,147.90**	**195.16**	**542.91**	**1,103.02**	**1,448.59**	**4,437.58**
Rent & Service Revenues						
Land Rent & Lease	96.23	91.89	97.65	151.72	185.34	622.83
Hanger Rent	18.01	15.01	20.06	25.67	33.01	111.76
Terminal Bldg Rent	63.41	59.50	65.85	76.96	108.77	374.49
Cute counter charges	12.85	3.57	6.13	12.07	13.98	48.60
Lounges	73.07	17.70	72.73	115.66	151.64	430.80
Cargo Bld Rent & Other Building rent	28.26	27.66	29.75	29.00	35.08	149.75
Total (B)	**291.83**	**215.33**	**292.17**	**411.09**	**527.82**	**1,738.24**
Cargo Revenues						
Domestic Cargo	32.28	25.85	32.85	37.80	30.74	159.52
International Cargo	202.55	202.00	221.49	231.84	311.39	1,169.27
Perishable Cargo	21.72	24.36	25.77	25.76	34.72	132.33
Courier Services	20.42	11.34	18.06	17.54	19.60	86.96
Others	25.15	16.61	25.17	28.53	31.36	126.82
Total (C)	**302.12**	**280.16**	**323.34**	**341.46**	**427.81**	**1,674.89**
Grand Total Revenues from RSA (A+B+C)	**1,741.85**	**690.65**	**1,158.42**	**1,855.57**	**2,404.22**	**7,850.70**

Total of 5 years actuals (for each segment i.e. A/B/C) is higher than projected revenues approved in the SCP tariff order.

3.5.3. Issues discussed in points 1.4.1, 1.4.2 and 1.4.3 in true-up of FCP are applicable for TCP as well.

3.5.4. In line with true up of FCP and SCP, MIAL has excluded "Other Income" and "Revenue from Existing Assets" in the calculation of S factor and Annual Fee on S factor is also not considered. Hence, non-aeronautical revenues for TCP are:

Table 39: Computation of S factor for TCP

Particulars (Rs. In Cr)		FY20	FY21	FY22	FY23	FY24
Non-Aero Revenue	a	1,755.76	727.89	1,238.67	1,887.95	2,464.84
Other Income	b	13.91	37.24	80.19	32.38	60.62
Revenue from Existing Assets	c	524.70	341.99	413.66	592.61	592.61
Revenue from RSA	d=a-b-c	1,217.14	348.66	744.82	1,262.96	1,811.61
Annual Fee on above	e=38.7%*d	471.03	134.93	288.24	488.77	701.09
Revenue from RSA after annual fee	f=d-e	746.11	213.73	456.57	774.19	1,110.52
S Factor	**=30%*f**	**223.83**	**64.12**	**136.97**	**232.26**	**333.16**

3.6. True-Up of Aeronautical Tax for TCP

3.6.1. T has been computed after considering Impact of TDSAT judgment dated 6th October 2023 and Supreme Court Judgment dated 11th July 2022 is as:

Table 40: Computation of Aeronautical Tax for TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24
Aero Revenues	1,721.98	882.24	668.05	1,225.41	1,500.95
Add : S Factor (30% of RSA)	223.83	64.12	136.97	232.26	333.16
Total Revenues	**1,945.81**	**946.35**	**805.02**	**1,457.67**	**1,834.11**
Less Aero Expenses	847.96	720.94	871.78	881.65	870.74
Less Aero Depreciation	512.94	491.21	408.93	412.93	404.08
Less Interest Cost	269.32	261.55	257.71	267.39	249.38
Net Profit	**315.60**	**(527.34)**	**(733.39)**	**(104.31)**	**309.91**
Profit for Tax Computation	315.60	(527.34)	(733.39)	(104.31)	309.91
Tax Rate	34.94%	34.94%	34.94%	25.17%	25.17%
Aero Taxation	**110.28**	**-**	**-**	**-**	**78.00**

3.7. True-Up of Traffic for TCP

The comparison of traffic approved in the tariff order and the actuals is as follows : -

Table 41: Comparison of projected and actual traffic of TCP

Particulars	FY20	FY21	FY22	FY23	FY24	Total
As per Tariff Order						
Passenger Traffic						
Domestic (mn)	33.60	9.30	20.59	33.50	36.30	133.29
International (mn)	12.30	1.20	7.75	12.40	13.60	47.25
Total	**45.90**	**10.50**	**28.34**	**45.90**	**49.90**	**180.54**
ATM Traffic						
Domestic (mn)	229.00	87.00	140.00	229.00	247.00	932.00
International (mn)	76.00	22.00	48.00	76.00	84.00	306.00
Total	**305.00**	**109.00**	**188.00**	**305.00**	**331.00**	**1,238.00**
As per Actuals						
Passenger Traffic						
Domestic (mn)	33.57	9.84	18.56	32.72	38.50	133.19
International (mn)	12.36	1.22	3.18	11.21	14.32	42.28
Total	**45.92**	**11.05**	**21.75**	**43.92**	**52.82**	**175.47**
ATM Traffic						
Domestic (mn)	228.68	91.81	150.75	221.86	241.81	934.90
International (mn)	75.99	23.18	34.90	67.78	83.15	285.01
Total	**304.68**	**114.98**	**185.65**	**289.64**	**324.96**	**1,219.91**

Overall traffic during TCP is in line with traffic approved by AERA except for lower actual traffic in FY22.

3.8. True up of ARR for TCP

Based on above changes in various building blocks, revised ARR of TCP is as below

Table 42: Computation of TR for TCP

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Return on RAB and HRAB	803.02	741.49	685.35	658.57	639.08	3,527.51
Add: Operating Expenses	847.96	720.94	871.78	881.65	870.74	4,193.07
Add: Depreciation on RAB and HRAB	566.41	542.39	450.86	454.47	441.68	2,455.81
Add: Aeronautical Taxes	110.28	-	-	-	78.00	188.28
Less:30% Revenue Share Assets	(223.83)	(64.12)	(136.97)	(232.26)	(333.16)	(990.34)
True-up for SCP	4,624.47	-	-	-	-	4,624.47
Target Revenue	**6,728.31**	**1,940.70**	**1,871.01**	**1,762.43**	**1,696.34**	**13,998.81**

Particulars (Rs. In Crs)	FY20	FY21	FY22	FY23	FY24	Total
Actual Aero revenues	1,721.98	882.24	668.05	1,225.41	1,500.95	**5,998.62**
True-up/true-down	**5,006.33**	**1,058.47**	**1,202.96**	**537.02**	**195.39**	**8,000.18**
Carrying Cost @13.15%	13.14%	13.14%	13.14%	13.14%	13.14%	
Years	5.00	4.00	3.00	2.00	1.00	
True-up with carrying cost	**9,280.46**	**1,734.27**	**1,742.14**	**687.41**	**221.07**	**13,665.34**

4. Fourth Control Period (FoCP)

4.1. Regulatory Asset Base for FoCP

4.1.1. The Regulatory Base (RB) to be used for computation of the Target Revenue pertains to only Aeronautical Assets. Further, the SSA has defined that the RB for a year during the control period to be determined as follows:

$$RB_i = RB_{i-1} - D_i + I_i$$

RB for any year i (RBi) will be the sum of closing value of the RB for the immediately preceding year (RB_{i-1}) and investments undertaken in the current year i (excluding CWIP and Upfront Fee) adjusted for the depreciation charged for the current year. Thus, the RB for the year i is the closing value of RB for that year.

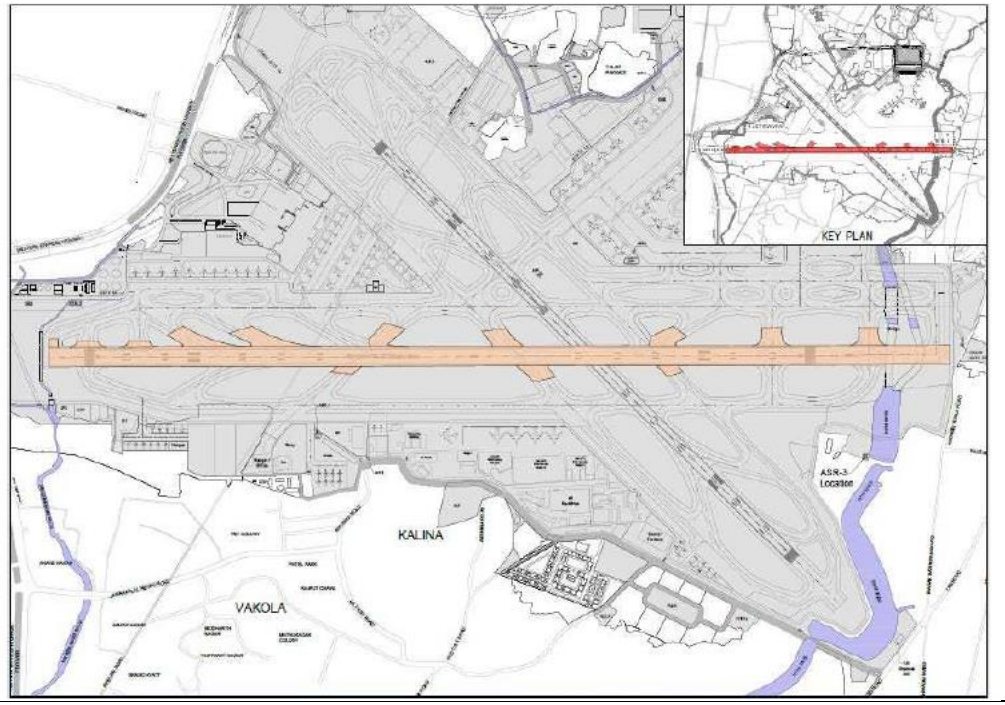
For the Fourth Control Period, RB for each year has been calculated as the average of opening and closing RB. Same will be adjusted at the time of true-up based on actual capitalization and disposal dates of various assets.

Further, MIAL has excluded DF funded assets from the RB and has not claimed any depreciation on assets funded through DF.

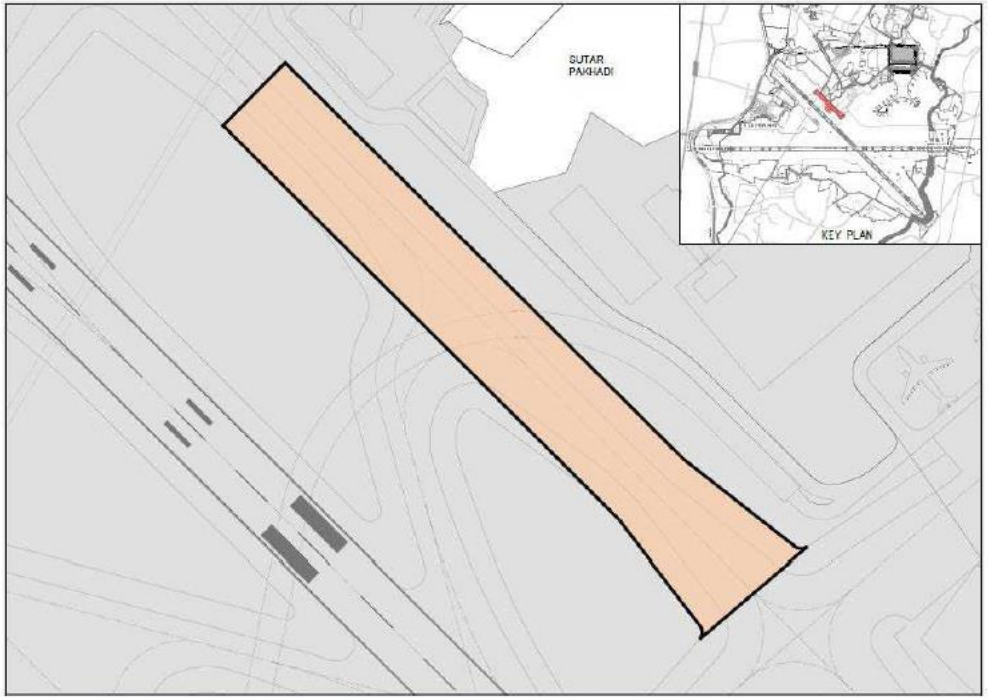
The estimated closing RB for FY24 forms the opening RB for the first year of the FoCP i.e., FY25. The Assets expected to be capitalised during the year have been added to the opening RB and adjusted for depreciation charged during the year to arrive at closing RB for FY25. RB for other years of control period has been computed on similar basis. The CWIP not capitalised during the year has not been included in RB. The details of RB for the control period can broadly be classified under the following categories:

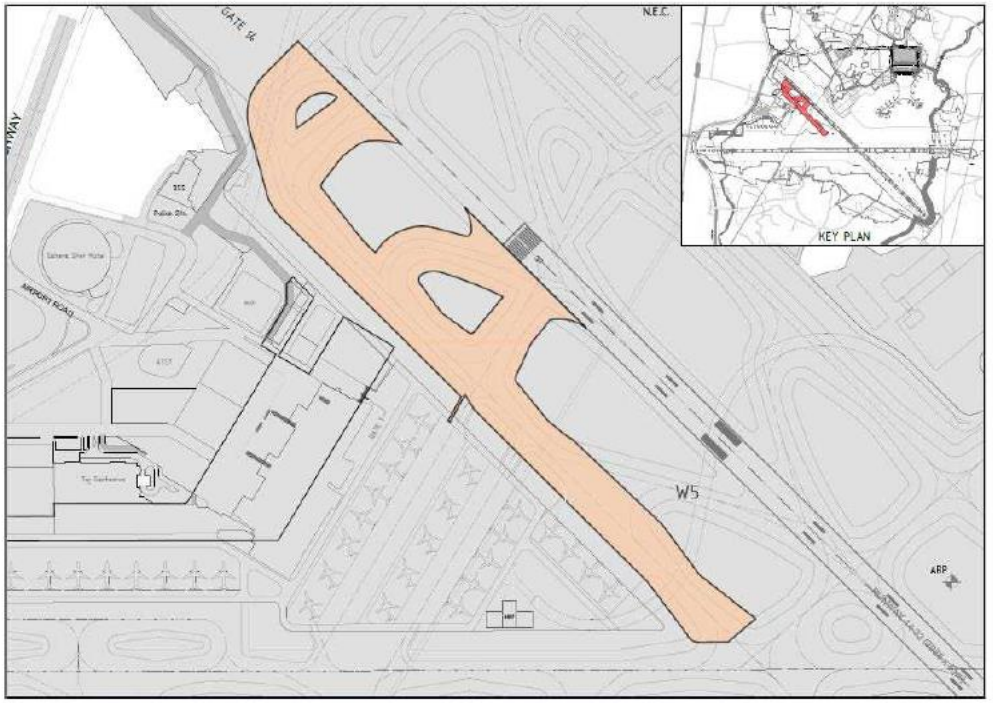
1. Airside Improvement Works
2. Passenger Terminal Improvement & Associated Works
3. Landside/Kerbside Development Works
4. Ancillary Building Development Works
5. External Connectivity Improvement Works
6. Operational/Sustaining Works

4.1.2. AIRSIDE IMPROVEMENT WORKS

Sl No	Airside Improvement Works	Need for the Project
1.1	**Runway Improvement Works**	
1.1.1	**Recarpeting of RWY 09-27**	Runway 09-27 is the primary runway for CSMIA – this is used 94% of the time in a year. Recarpeting will be required during 4th Control Period since previous recarpeting was carried out in 2019. The proposed work involves recarpeting of runway surface over an area of 3,27,983 Sqm (illustrated in the figure below). The project is proposed to be undertaken from FY 2027-28, since the various works related to Airfield Ground Lighting (AGL) are expected to be over by then – this is to ensure that after recarpeting, no cutting of runway/shoulder is required. 

Sl No	Airside Improvement Works	Need for the Project
		Figure: Proposed recarpeting of RWY 09-27
1.2	**Taxiway Improvement Works**	
1.2.1	**Construction of Taxiway E (segment between E5 & E7, North-East side, parallel to RWY 14-32; and Construction of Taxiway W (North-West side, parallel to RWY 14-32)**	Currently, full length parallel taxiway is not available either on Eastern or Western side of RWY 14-32. Due to this, its peak hour ATM capacity (35 ATMs per hour) is significantly lower than that of RWY 09-27 (46 ATMs per hour). This leads to significant congestion and flight delays, whenever primary RWY 09-27 is closed for maintenance purpose or due to bad weather. On the Eastern side, aircrafts operating to & from T2 are required to backtrack on the RWY 14- 32, in the absence of any Parallel Taxiway. This leads to additional fuel burn, defeating the objective of achieving environmental sustainability and the vision of achieving net zero emission. As regards aircraft operating from T1 apron and Kalina (Western side), in the absence of any Parallel Taxiway, aircraft is required to cross active RWY 14-32. Further, large aircraft landing using RWY 32 is required to backtrack, increasing Runway Occupancy Time (ROT) and defeating the objective of achieving environmental sustainability as mentioned above. In view of the above, the following projects are proposed to be undertaken: • Taxiway E (29,989 Sqm): to reduce Runway Occupancy Time (ROT) for aircrafts landing on RWY 32 and proceeding towards T2 apron. • Taxiway W (1,04,301 Sqm): In addition to reducing ROT, this work will also function as a buffer area during departure peaks, freeing up space on the congested domestic apron (i.e. T1 apron). The above-mentioned proposed works are illustrated in the figures below.

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Proposed TWY E (segment between E5 and E7, North-East side, parallel to RWY 14-32)*

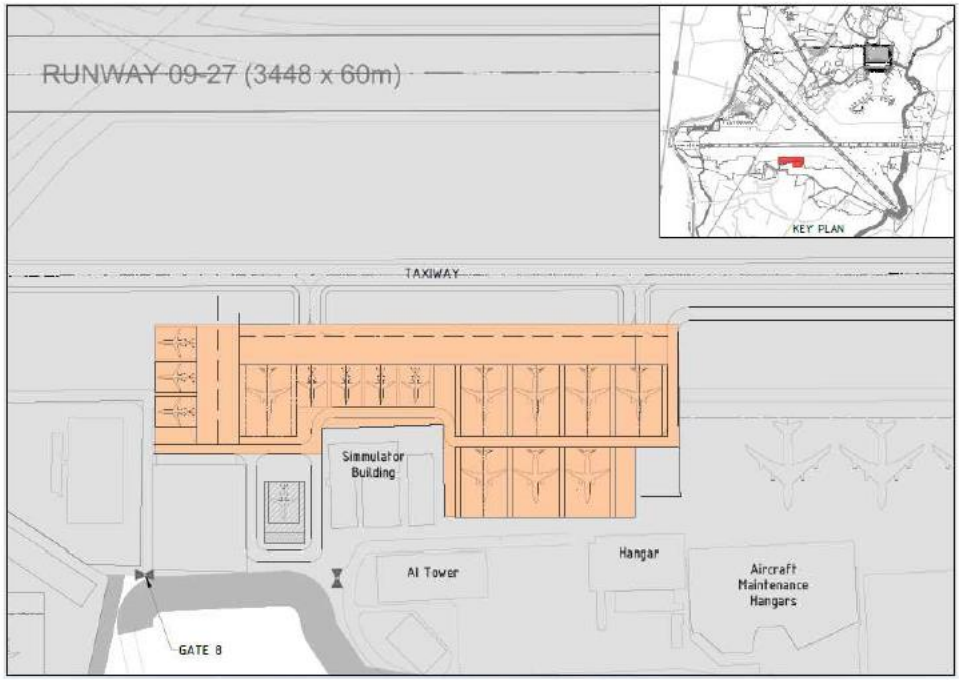
Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Proposed Taxiway W (North-West side, parallel to RWY 14-32)*
1.2.2	**Construction of Taxiway M Extension (East side)**	Currently, departure queuing towards RWY 27 (primary runway) side results in delays during peak hours. One of the major reasons for this queueing is the absence of two access taxiways. To address the issue, MIAL proposes extending Code F Taxiway M (19,411 Sqm) connecting the existing T2 apron to the existing RWY 27 entry. The proposed work, which will also consist of construction of a bridge over Mithi River, will provide alternate space for queuing of outbound aircrafts and reduce congestion around T2 apron and thereby, greatly improving operational efficiency and capacity.

Sl No	Airside Improvement Works	Need for the Project
		This project was first suggested by NATS as part of their recommendations in airport capacity augmentation study in 2011 and later recommended by the AAI and approved by Ministry of Civil Aviation (MoCA) as part of approval of MIAL Master Plan. The proposed work is illustrated in the figure below.  *Figure: Proposed Taxiway M Extension (East Side)*
1.3	**Apron Improvement Works**	
1.3.1	**Construction of additional Aircraft Parking Stands (V1)**	To meet the increasing demand of overnight halt by Indian domestic carriers, and additional flights by foreign carriers during peak periods at night, there is a need to construct additional parking stands at T2 passenger terminal. MIAL proposes constructing additional parking stands, associated GSE areas,

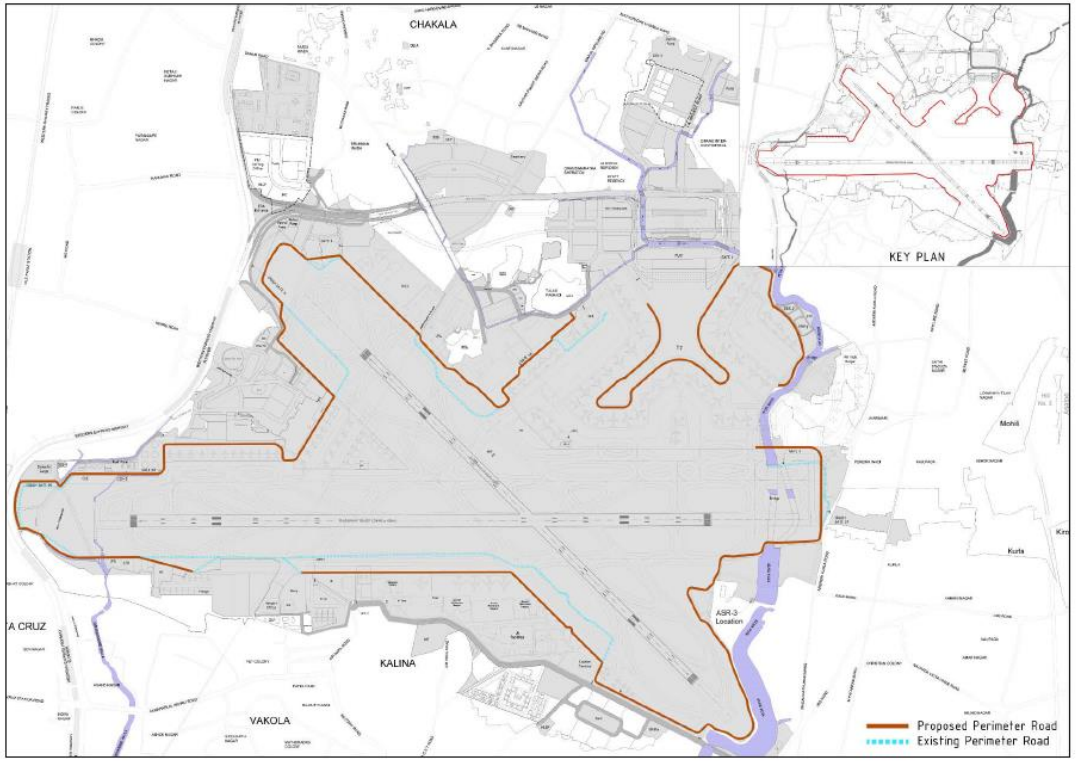
Sl No	Airside Improvement Works	Need for the Project
		Taxiway Z extension, etc. at V17 (total area of approx. 50,269 Sqm), adjoining T2.  *Figure: Proposed construction of additional Parking Stands (V1)*
1.3.2	**Reconstruction of Apron C (Tier 1 and Tier 2)**	Apron C (Tier 1 and Tier 2) is situated in front of T1 and is the busiest apron in CSMIA having 3 Tiers of Parking stands. Tier 1 and Tier 2 of Apron C are made of Pavement Quality Concrete (PQC). Both the mentioned Tiers have served the design life – they are severely damaged and have developed signs of serious deterioration and full depth cracks, leading to safety issues. To address the issue, MIAL proposes reconstructing Tier 1 and Tier 2 of Apron C to ensure airside safety (total area of approx. 28,877 Sqm including associated apron lighting and other works). This project was already approved by AERA in the 3rd Control Period and part of the Tier 2 is constructed. The balance portion of Tier 2 (which could not be constructed to keep Taxiway W6,

Sl No	Airside Improvement Works	Need for the Project
		which is in between Tier 1 and Tier 2, operational), along with Tier 1, is now proposed in the FoCP. The proposal is illustrated in the figure below.  *Figure: Proposed reconstruction of Apron C (Tier 1 and Tier 2)*
1.3.3	**Construction of additional Aircraft Parking Stands in the Southern side of RWY 09-27**	The present apron on the Southern side (near Gate No. 8) of RWY 09-27 is non-compliant from permissible height perspective and is required to be demolished. Accordingly, MIAL proposes constructing new parking Stands (approx. 66,438 Sqm) for aircrafts. The existing and proposed parking stands are illustrated in the figures below.

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Existing Apron (Southern side of RWY 09-27)*

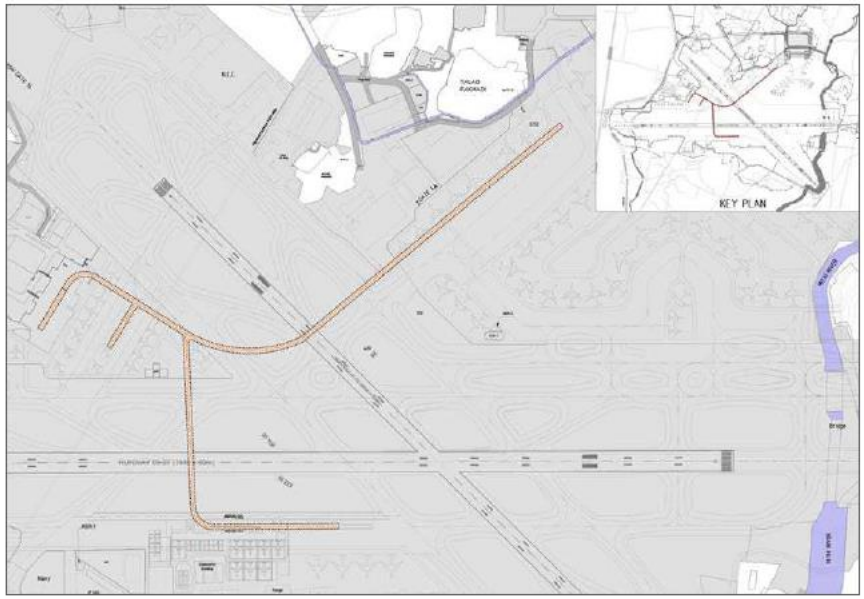
Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Proposed additional Aircraft Parking Stands in the Southern side of RWY 09-27*
1.3.4	**Parking Stands at NEC Hangar**	Currently, there is shortage of aircraft parking stands at CSMIA which cannot meet the increasing demand of night parking from airlines. Hence to increase airside capacity, CSMIA plans to acquire NEC hangar from AIESL which can accommodate 8 additional parking stands. WDV value of NEC Hangar is Rs 120 Cr
1.4	**Reconstruction of Perimeter Road**	Currently, the Perimeter Road comprises of bituminous pavement, which is prone to damages during monsoon. Over the years, due to wear and tear, the Perimeter Roads at CSMIA have significantly degraded (photos given below). The crust is not conducive for movement of airside and GSE vehicles. This has led to severe safety issues. There are numerous incidents of near-miss accidents by GSE vehicles, which have damaged nearby properties. Further,

Sl No	Airside Improvement Works	Need for the Project
		the poor condition of the roads cause great damage to the airside and GSE vehicles. To ensure safety, it is proposed to reconstruct the existing bituminous Perimeter Roads as Pavement Quality Concrete (PQC) roads, with proper crust layers to ensure longevity. Further, due to proposed modification in airside (addition of Parallel Taxiway, Aprons, etc.), the alignment of Perimeter Roads is proposed to be modified. Existing alignment and proposed alignments are indicated in the figure below. It may be noted that only stretches that are permanent in nature (i.e. as per overall Master Plan) are proposed to be constructed with PQC (approx. 1,39,060 Sqm). Stretches where other airside infrastructure will come up in subsequent phases of the Master Plan are proposed to be constructed with bituminous layers (approx. 60,900 Sqm). This project was earlier approved by AERA in the 3rd Control Period and work was already initiated. The balance works are proposed in the FoCP.

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Proposed improvement works of the Airside Perimeter Road*

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Existing condition of Perimeter Road at various locations (ref: Grid Map)*
1.5	**Airside Tunnel**	There is strong operational inter-dependence between T1 and T2. During night-time, some of the flights operating at T2 are required to be parked at the T1 apron due to shortage of stands at T2. When the flights are parked at T1 apron, passengers and baggage are required to be transported between T1 apron and T2 apron via the perimeter road around RWY 14-32, which takes a long time. The situation becomes especially adverse during monsoon season as the adverse weather significantly delays transportation of baggage and passengers between these aprons. In the past, CSMIA has received numerous complaints/ grievances in this regard.

Sl No	Airside Improvement Works	Need for the Project
		In addition to the existing requirement, T1 is proposed to be reconstructed in the 4th Control Period and accordingly, all operations will be shifted to T2. To access the aircraft parking stands in T1, it is imperative that a direct connectivity is established through an underground tunnel, to ensure operational efficiency (movement of staffs, GSE vehicles, etc.) and passenger convenience. Further, since additional aircraft parking stands are proposed on the Southern side of the RWY 09-27, it is imperative to connect this apron with T1/T2 apron. Considering the ground feasibility, it is proposed to connect T1 apron with this proposed Southern apron. In view of the above-mentioned strong inter-dependence among various aprons and to reduce transit time among them, it is proposed to construct a tunnel that will connect (i) T1 and T2 apron: alignment is underneath RWY 14-32; and (ii) T1 apron and the proposed new Southern apron: alignment is underneath RWY 09-27. It may be noted that AERA in its Order dated 27-Feb-2021 for 3rd Control Period, had noted the following with respect to this project: "Accordingly, there will be requirement for total 23 Aircraft operating from T2 to park at T1 apron during nights. AERA had also noted that there would be significant movement of GSE vehicles as under: "Considering approximately 25 nos. of equipment / vehicles required to service a Code "C" aircraft, there will be requirement to shift approximately 575 nos. (23 x 25) of equipment / vehicles to service these 23 aircrafts at Terminal-I Apron. Shifting of such large number of equipment / vehicles from T2 apron to T1 apron and vice versa will be not possible on daily basis, due to the location and distance between both the aprons.

Sl No	Airside Improvement Works	Need for the Project
		Going forward, with various initiatives being undertaken at CSMIA, number of ATMs is projected to increase to approx. 3,50,000 by FY 2048, which translate to approx. 960 ATMs per day. In view of this, fast transfer among various parking stands will be a key to enhancing operational efficiency and passenger convenience. Indicative alignment of the proposed Tunnel is illustrated in the figure below.  *Figure: Proposed alignment of the Tunnel* The proposed cross section of the Tunnel is given in the figure below. The construction methodology will be such that does not affect airside operations.

Description	Current configuration
Width of Tunnel	
Traffic Lanes	2 x 3.50m
Extra widening	-
Shoulders	2 x 1.50m
Emergency Walkway	2 x 1.50m
Kerb Shyness	-
Total internal width	13.00m
Vertical Clearance	
Vehicular Clearance	4.60 m
Services Allowance	0.40 m
Total Clearance	5.00 m

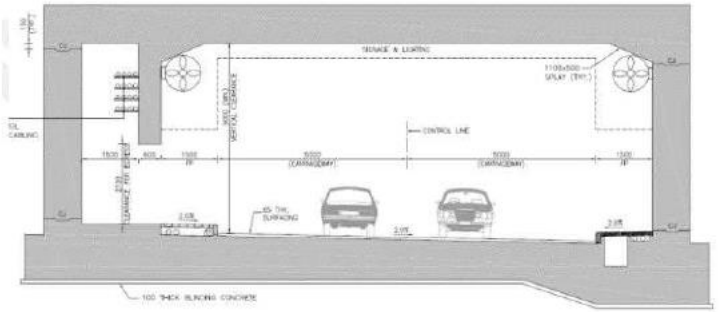
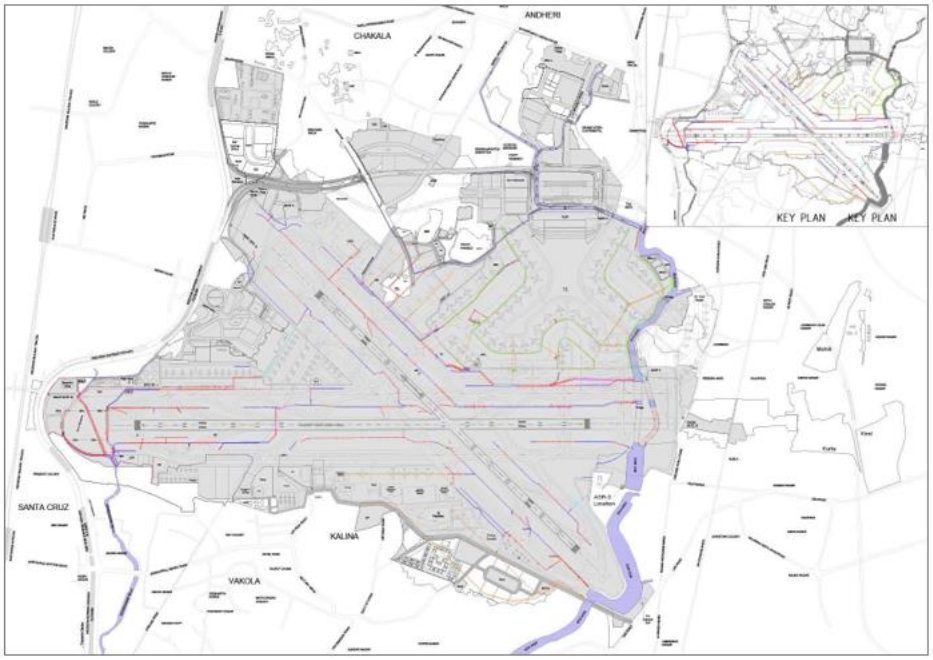
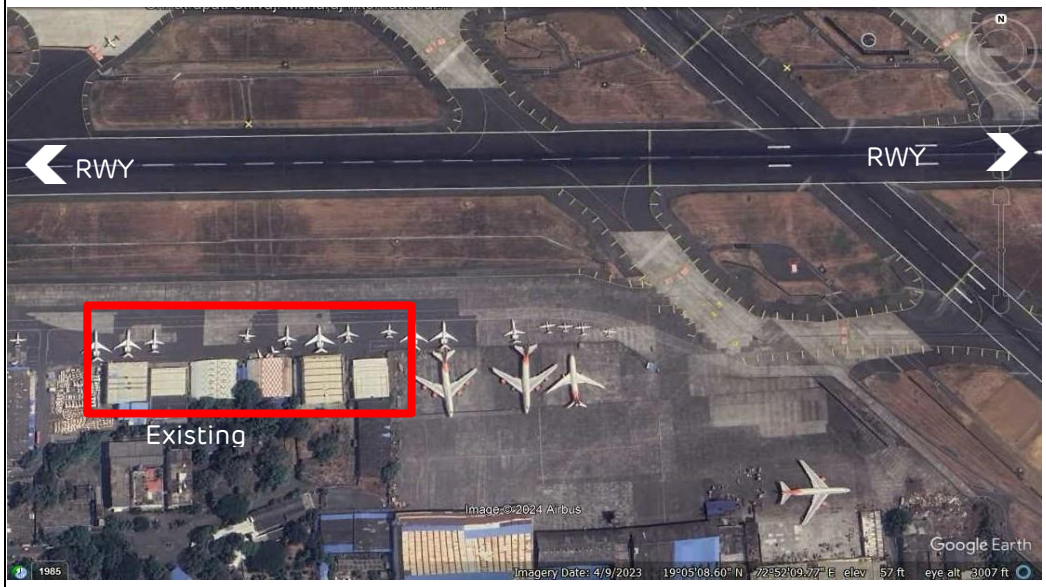


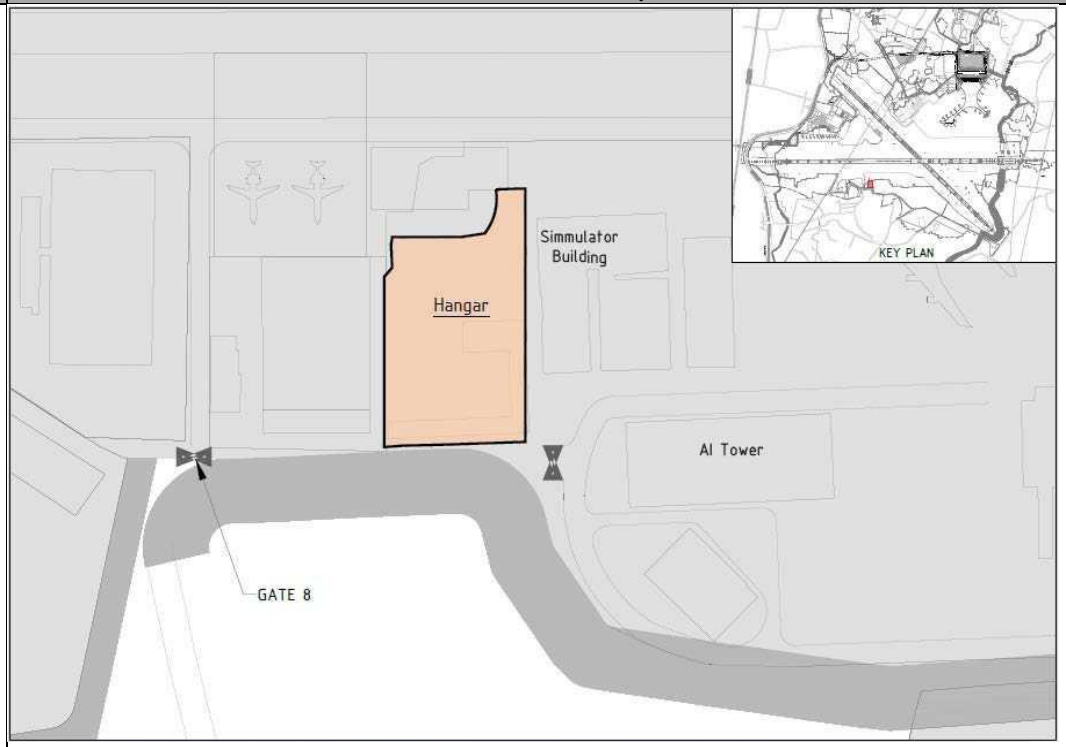
Figure: Proposed Cross-Section of the Tunnel

Sl No	Airside Improvement Works	Need for the Project
1.6	**Reconstruction of Airside Storm Water Drains**	The existing storm water drains (SWDs) are made of brick / stone masonry and are in a dilapidated condition (photos showing existing condition at various locations are given below). At many places, the SWDs have collapsed, leading to severe flooding issues. Frequent damages at multiple locations lead to various operational mis-happenings and challenges. The SWDs are beyond repair and in a place like Mumbai which receives heavy rainfall, it is proposed to reconstruct the SWDs with Reinforced Cement Concrete (RCC). In addition to existing storm water drains, the proposed airside development (with paved surface areas e.g. addition of Aircraft Parking Stands, Taxiways, etc.) will result in an increase in storm water run-off in the existing drainage network, so enhancement of existing airside storm water drainage system will be required. MIAL proposes to construct approx. 44,821 meters of RCC storm water drains to effectively protect the airside.

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Existing situation of Storm Water Drains at various locations*  *Figure: Mithi River Downstream*  *Figure: Near Naval Hangar*  *Figure: Near RWY 32* The proposed alignments of airside SWDs are illustrated in the figure below.

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Proposed alignments of Airside Storm Water Drains*
1.7	**Hangars**	The existing Hangars are non-compliant since they infringe the Obstacle Limitation Surfaces. To ensure compliance, MIAL has already served notices to the concerned owners / operators and enabling works are expected to be initiated from Jan'25. In lieu of the existing Hangars, MIAL proposes to construct one common Hangar (approx. 10,000 Sqm) in the Southern side of RWY 09-27.

Sl No	Airside Improvement Works	Need for the Project
		 *Figure: Existing Hangars in the Southern side of the RWY 09-27*

Sl No	Airside Improvement Works	Need for the Project
		 *Figure Proposed Hangar*

4.1.3. PASSENGER TERMINAL IMPROVEMENT & ASSOCIATED WORKS

4.1.3.1. T1 Redevelopment

The existing T1 building at Santacruz comprises of T1A, T1B and T1C. Currently, T1B and T1C are used for domestic operations (T1A was decommissioned after shifting of some domestic airlines to T2).

T1B building is more than 65 years old – it was constructed between 1957 and 1964 and the structure has developed various defects / distresses and seepage / leakage, which cannot be addressed by repair activities. Structural Audit conducted through third party independent agency has recommended demolition of a significant portion of the building.

T1C currently houses the Security Hold Area (SHA) – however, the current spatial arrangement of the building leads to mix of departure and arrival passengers, which is in violation of security regulations. Segregation of departure and arrival passengers will call for addition of floors, which will necessitate major alteration of the existing structure. Hence there is a need for comprehensive reconstruction of T1 to ensure safety of passengers and compliance with security regulations.

Figure: Existing structural damages in T1

The proposed capacity of T1 has been ascertained after carefully analyzing various demand and supply side aspects. To elaborate, the existing site and surroundings of T1 building are significantly constrained. Owing to presence of Localizer for RWY 27 and Surface Movement Radar (SMR), the permissible height ranges between 15m to 22m. This restricts vertical development of the terminal. The landside poses another constraint, since, for smooth operations, departures and arrivals are required to be accommodated at different levels and calls for construction of an elevated road. Given the limited space available between the Western Express Highway and T1 building, the kerb length available after accommodating the ramp for elevated road is also a governing factor in ascertaining T1 capacity.

In terms of actual traffic, T1 has recorded 18.30 million domestic passengers in FY 2018-19. Going forward, the demand will easily surpass

supply. Hence CSMIA proposes to reconstruct T1 (with Gross Floor Area of approx. 2,01,074 Sqm) in the most optimum manner to facilitate 20 MPPA capacity (segregated two-way peak of 5,280).

The indicated footprint and floor plans are illustrated in the figures below.

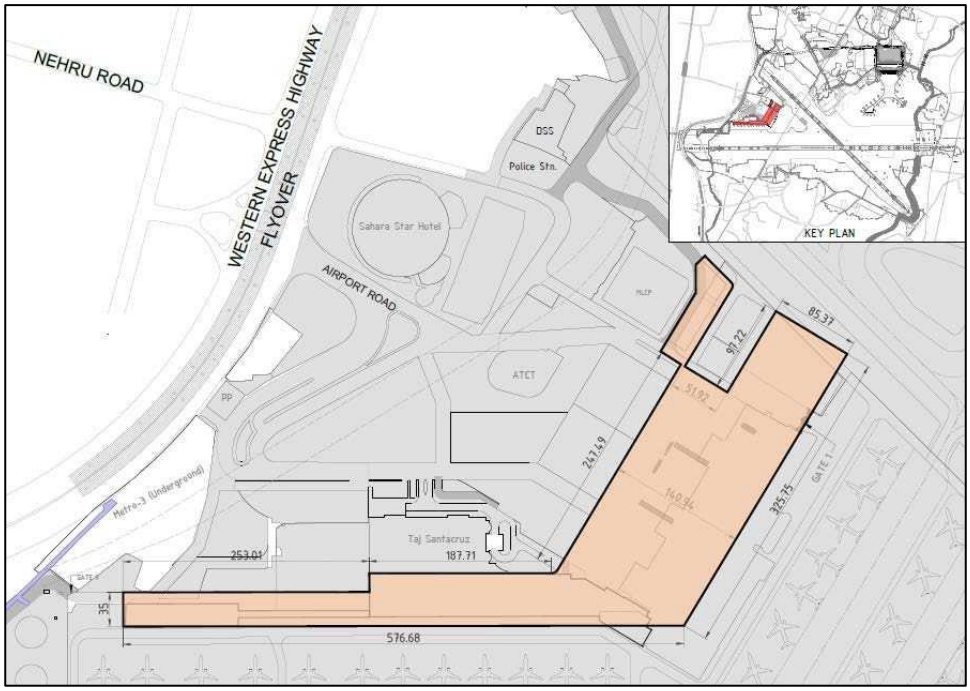


Figure: Proposed Footprint of T1

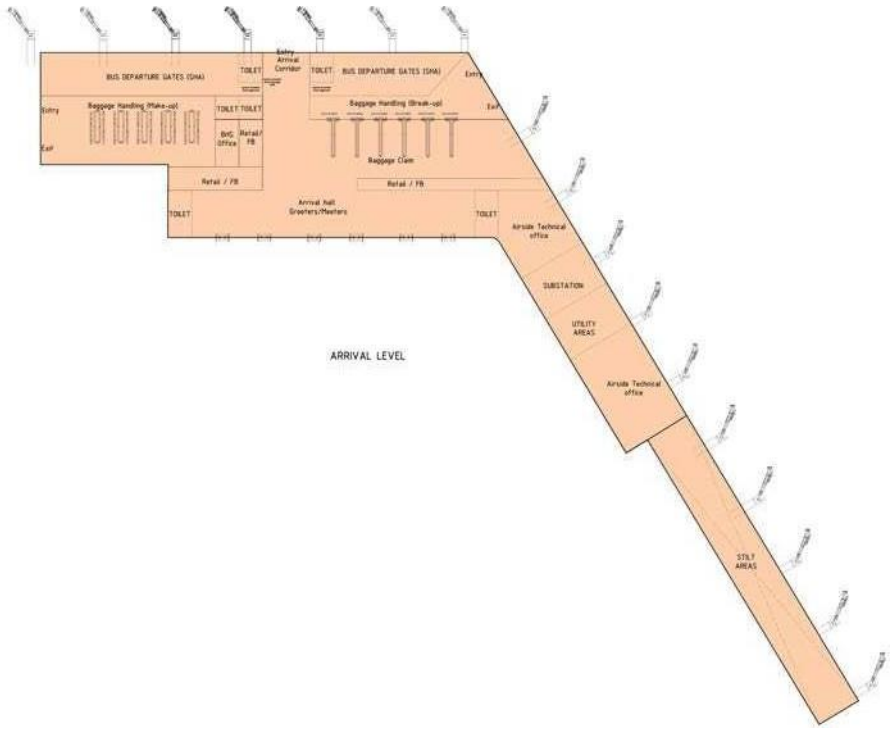


Figure: Proposed indicative Floor Plan of T1 at Arrival Level

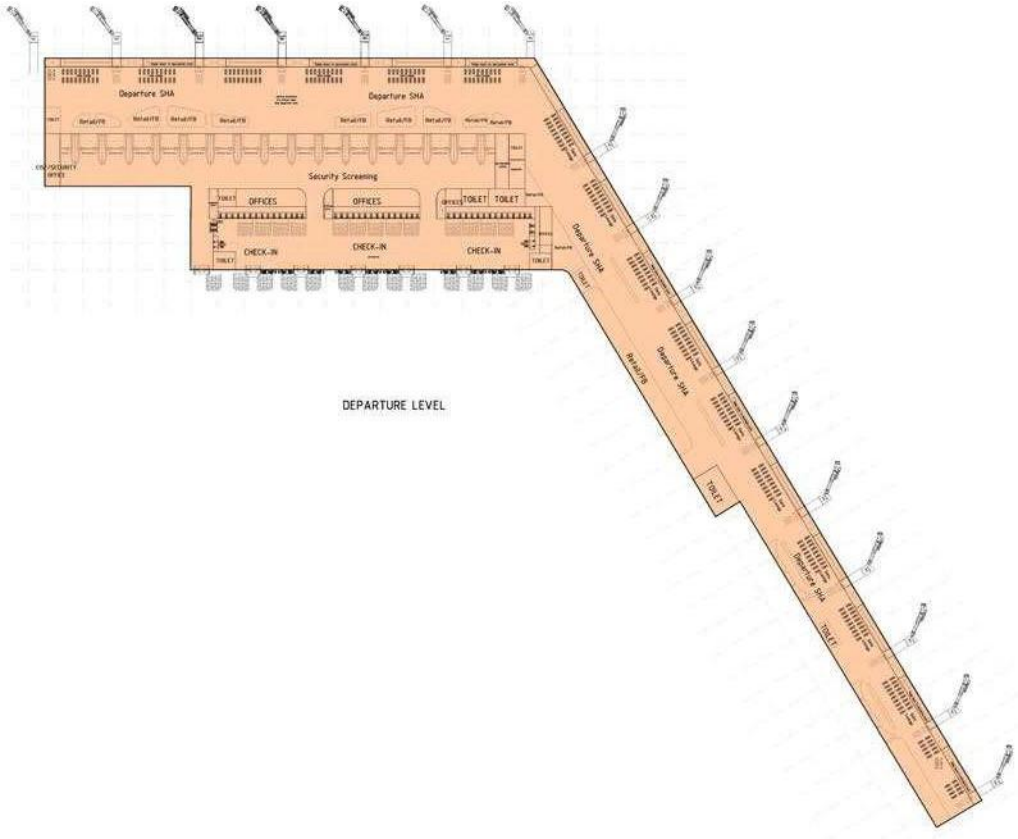


Figure: Proposed indicative Floor Plan of T1 at Departure Level

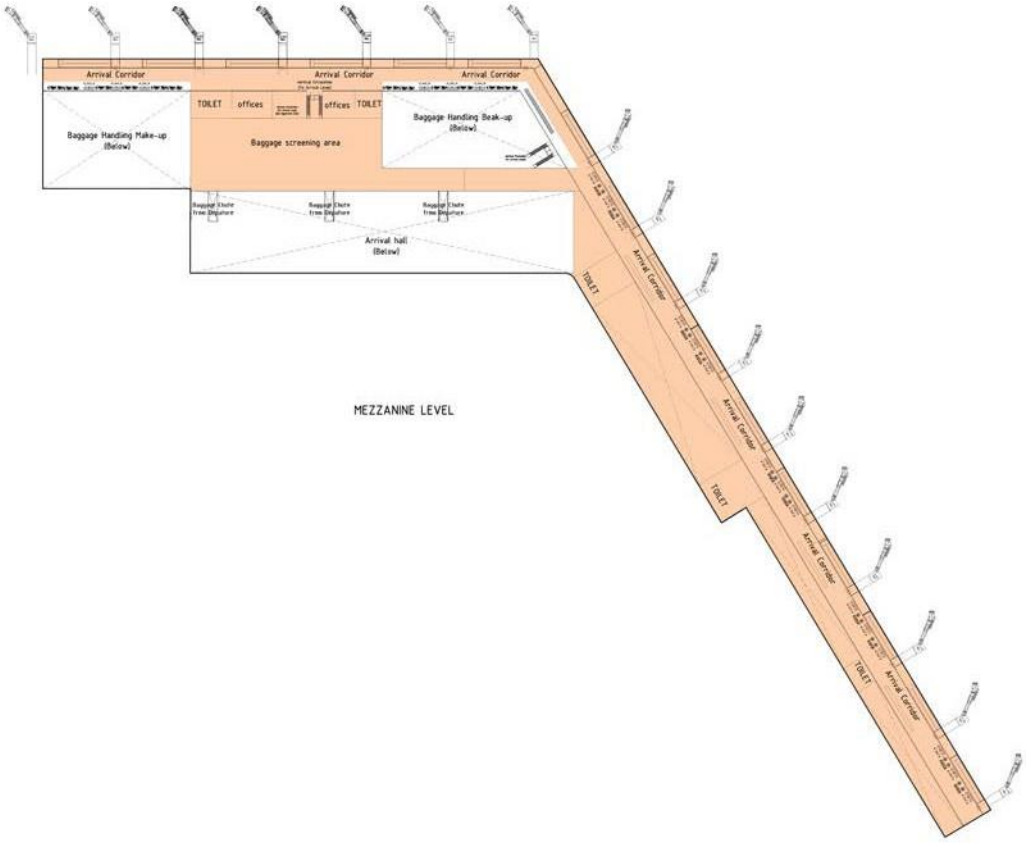


Figure: Proposed indicative Floor Plan of T1 at Mezzanine Level

4.1.3.2. **Expansion of T2**

The following expansion works of T2 are proposed:

- North-West Pier.
- Integrated Passenger Amenities

These are elaborated in the subsequent section:

- North-West Pier: Currently, declared capacity of T2 is 40 MPPA. It is proposed to construct the balance portion of the North-West[16] Pier (V1, V2, V3), which will increase the capacity. The pier will be constructed as per the original design of T2, with gate and other associated terminal facilities for efficient terminal processing. The proposal is illustrated in the figure below.

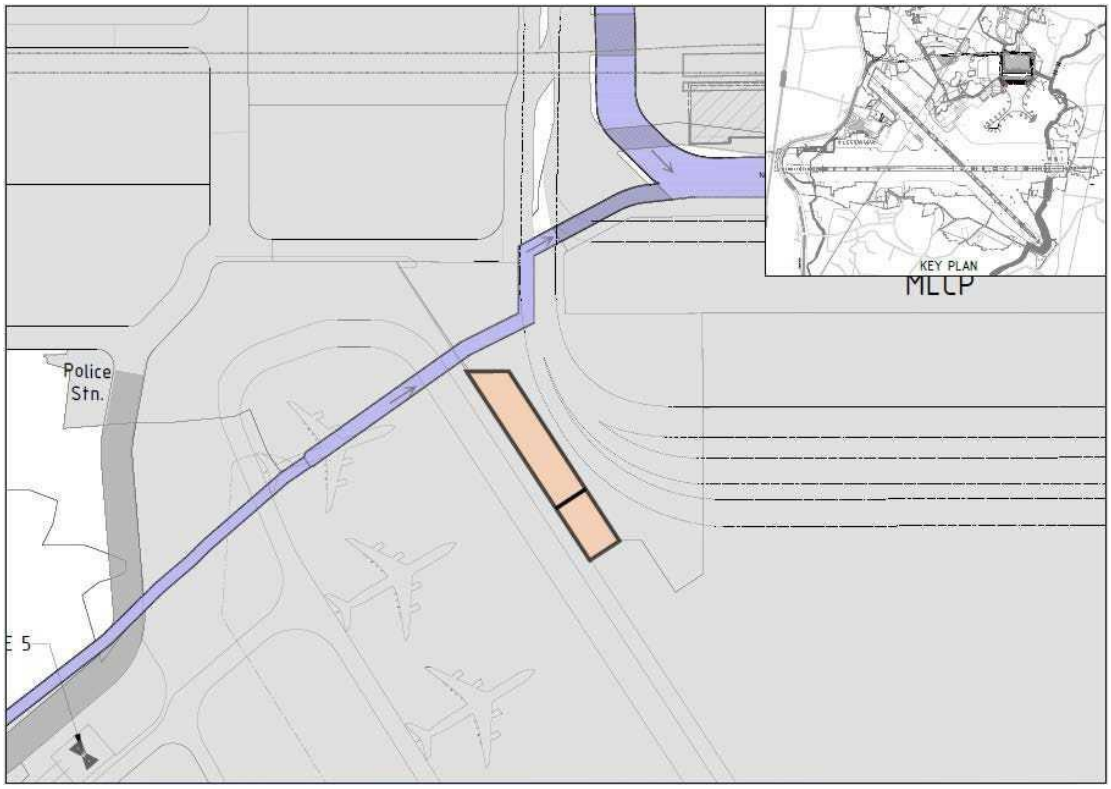
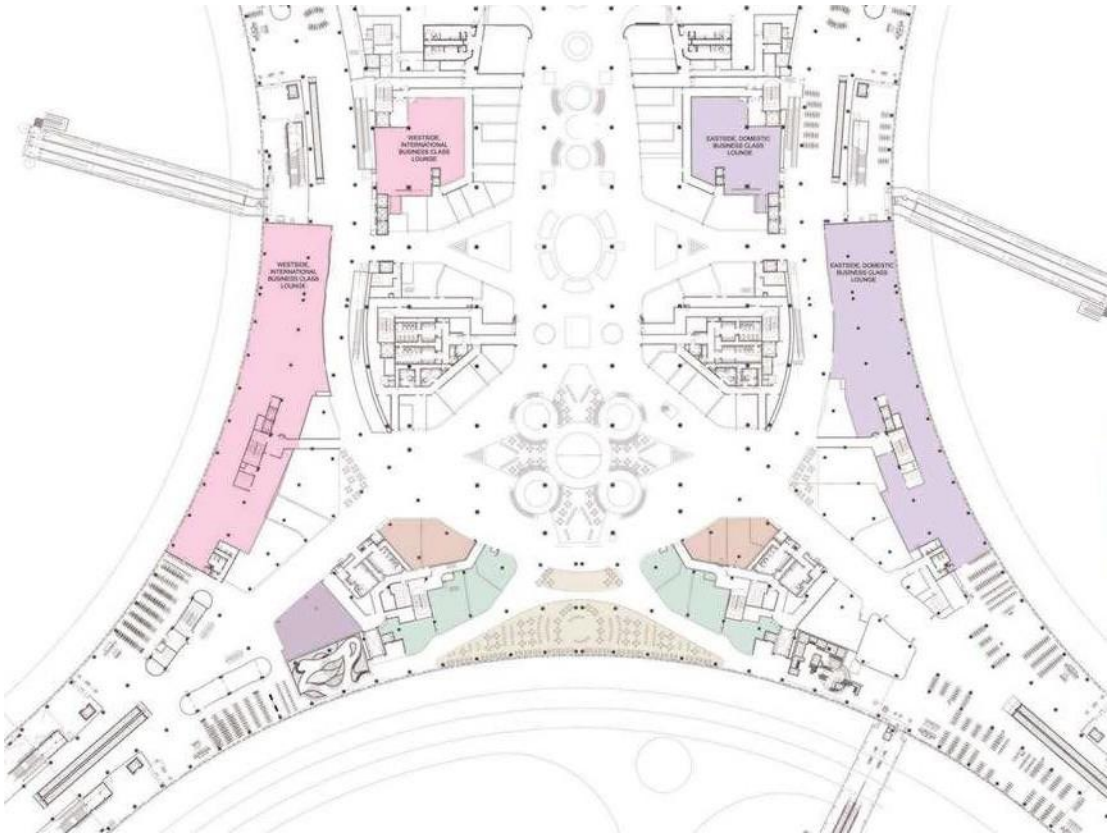


Figure: Proposed North-West Pier for T2

- Integrated Passenger Amenities: Currently, various passenger amenities are scattered in T2 Security Hold Area (SHA) in Level 3 and Level 4. With several initiatives being taken, CSMIA is set to transform itself as a major transfer hub. This will call for creation of appropriate passenger amenities comparable with global Hubs. Accordingly, MIAL proposes construction of approx. 4,360 Sqm of additional floor space to facilitate this. The existing and proposed floor

plans are illustrated in the figures below.

Figure: Existing Layout of T2



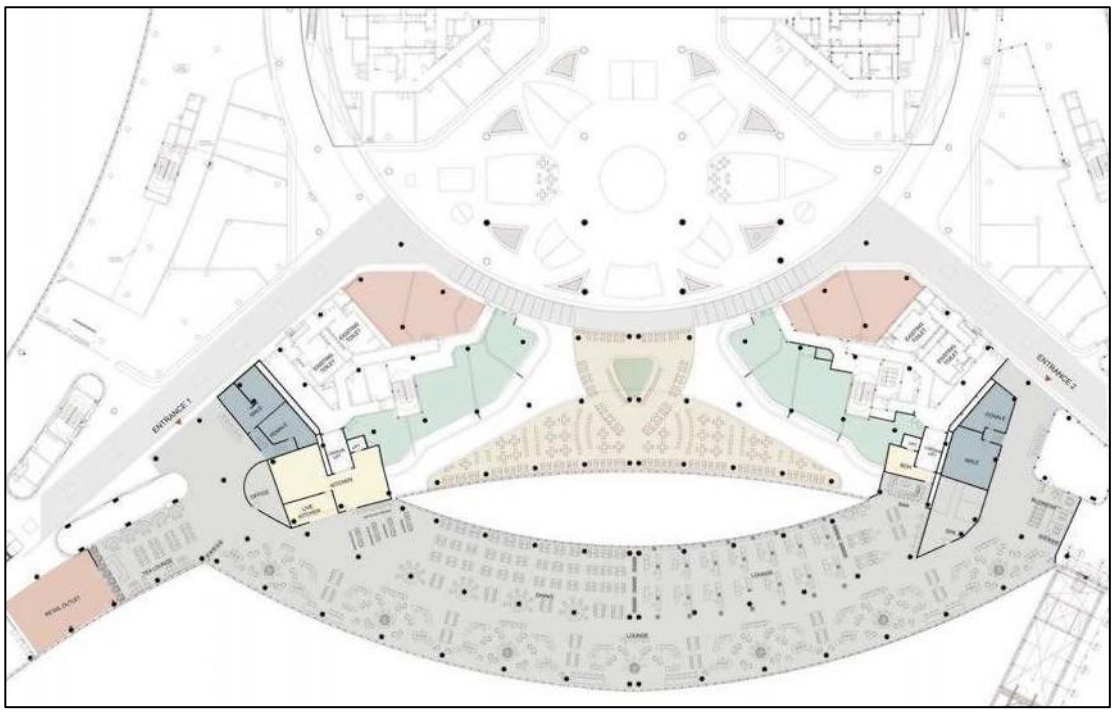


Figure: Proposed modification/expansion of T2

4.1.3.3. **Expansion of General Aviation Terminal**

CSMIA experiences high demand for GA. In FY23, it recorded approx. 12,400 GA ATMs and it is expected that in FY24, it will record approx. 13,000 GA ATMs (average of 36 ATMs per day).

The existing size and facilities in the GA Terminal are disproportionate to the GA Traffic and spread over Gross Floor Area of 700 Sqm only resulting in highly constrained operations.

In addition to GA flights, there is an increasing trend for using bigger Charter flights (Code C equivalent, with 180 average seating capacity) by the Corporates, which are currently being operated from T2.

To cater to the growing demand for GA and Charter flights with larger capacity, it is required that the GA Terminal is extended, so that the Terminal is equipped to house the increased number of passengers from Charter flights. Accordingly, MIAL proposes to expand the existing GA Terminal by constructing another approx. 9,893 Sqm of Gross Floor Area.

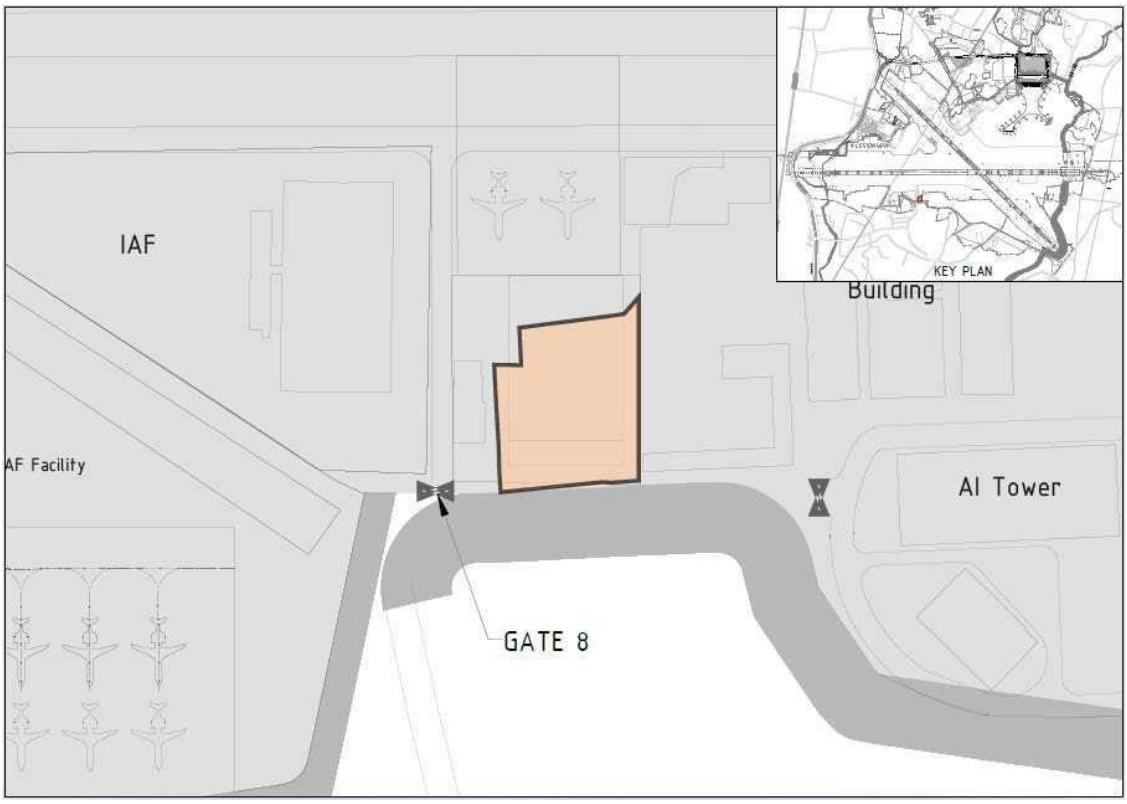


Figure: Proposed expansion of General Aviation Terminal

4.1.4. KERBSIDE INFRASTRUCTURE WORKS

4.1.4.1. Construction of Kerbside Roads for T1

T1 is proposed to be reconstructed with departures and arrivals segregated at different levels. To facilitate this, MIAL proposes to construct an elevated road with Ramps at Departure level (approx. 14,725 Sqm) and modification / upgradation of at-grade roads at Arrival level (approx. 27,253 Sqm). The proposed works also include pedestrian networks seamlessly integrating T1 with the proposed Metro Station in front of T1.

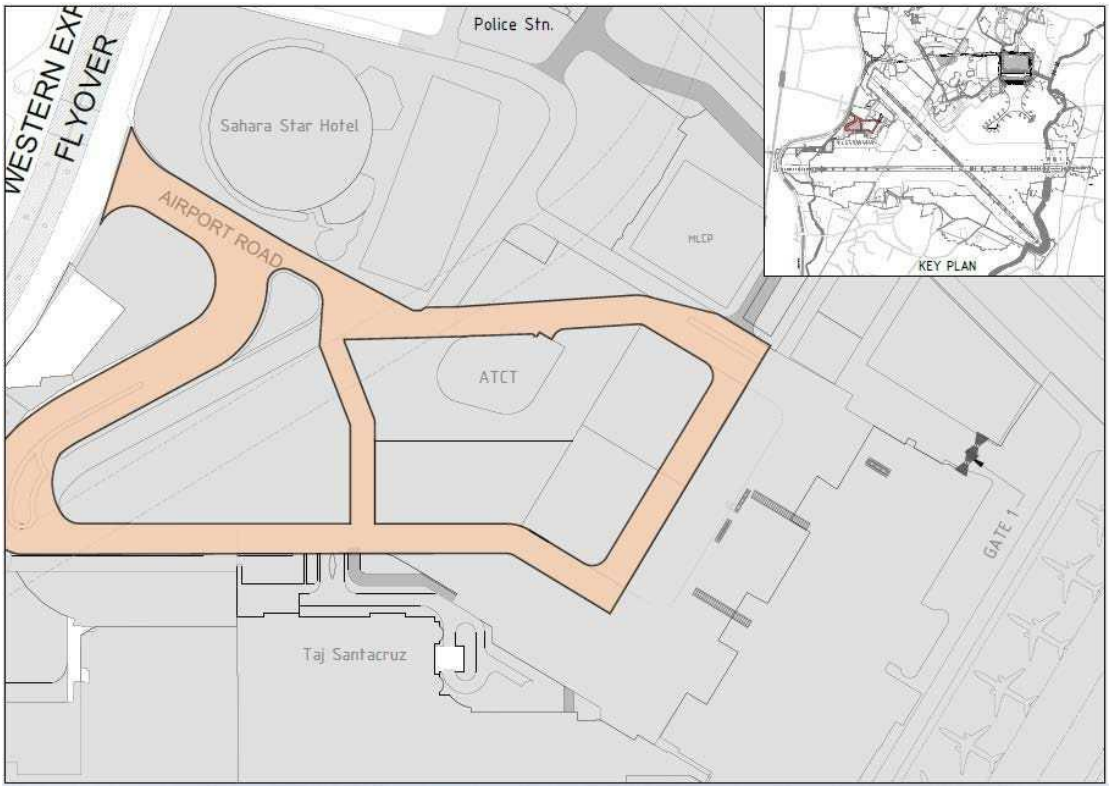


Figure: Proposed Kerbside Improvement Works for T1

4.1.4.2. **Construction of road in front of T2 (over Nallah)**

To cater to the increased volume of vehicular traffic at T2, it is proposed to construct a road (approx. 12,818 Sqm) over the existing Nallah. The project will streamline the traffic circulation in front of T2 and will greatly contribute towards reducing congestion.

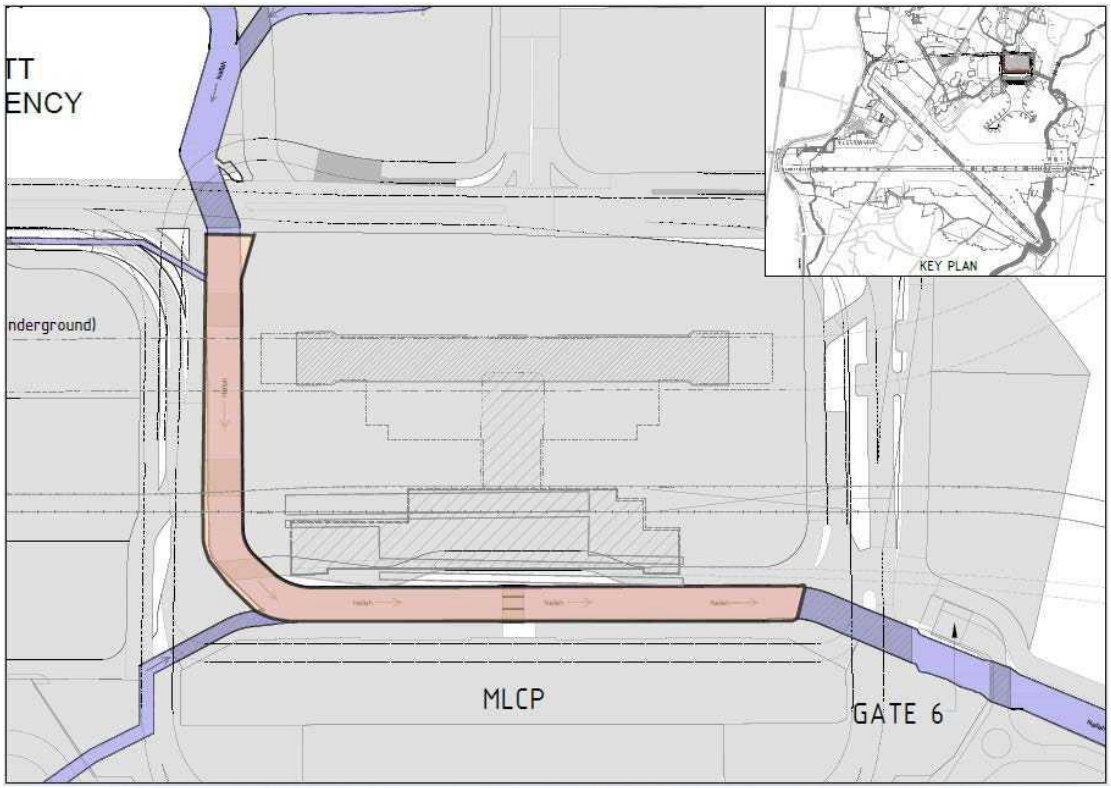


Figure: Proposed Road in front of T2 (over Nallah)

4.1.5. External Connectivity Improvement Works

T1 and T2 are located at about 5 km distance at CSMIA. While T1 has direct access from the Western Express Highway, access to T2 is through the elevated road from the Western Express Highway. Significant transfer of passengers takes place between T1 and T2. Owing to heavy vehicular congestion on the Western Express Highway and other adjoining roads, travel time between the two terminals varies between 30 to 45 minutes during peak hours based on traffic congestion levels on the Western Express Highway. To minimize travel time between the two terminals and to provide better level of service to airport users, following two transport connectivity improvement projects are proposed:

- Dedicated road connection between T1 and T2 elevated road by means of constructing a Vehicular Overpass (VOP); and
- Grade separation on Western Express Highway by means of constructing a Vehicular Underpass (VUP).

4.1.5.1. Vehicular Overpass (VOP) on Western Express Highway on South of T1

The proposed VOP will reduce travel time between T1 and T2 by means of allowing quick access to the North-bound flyover located near T1 on Western Express Highway. This flyover has direct access to already existing T2 elevated road entry underpass. All three signalized junctions on existing route can be

bypassed with reduced travel distance. Implementation of the VOP is possible with limited traffic management measures during construction on the Western Express Highway. The proposal is illustrated in the figure below.

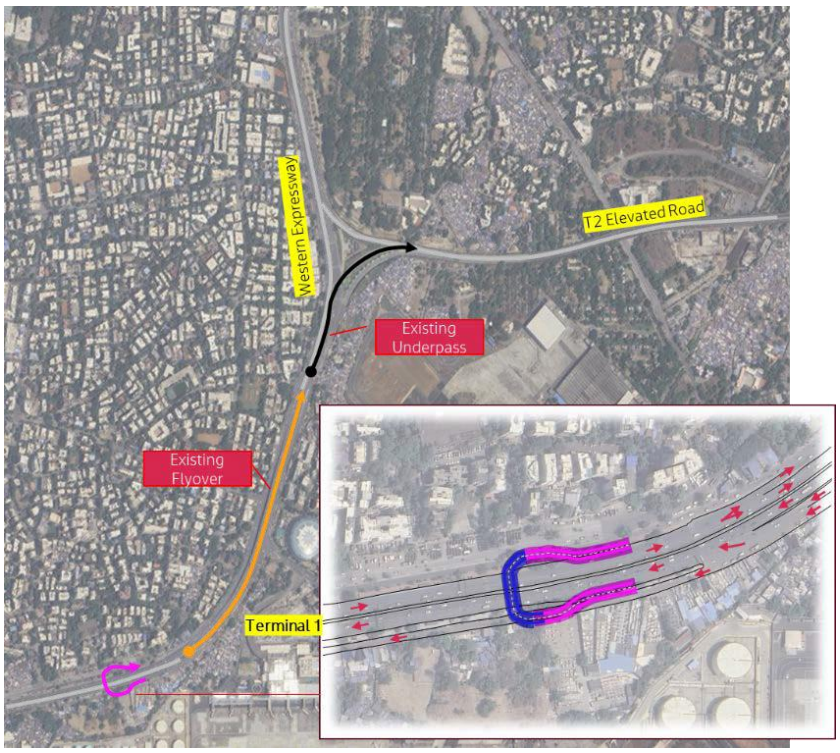


Figure: Proposed Vehicular Overpass on Western Express Highway

4.1.5.2. **Vehicular Underpass (VUP) connecting Western Expressway with T2 Main Access Road**

2 lane underpass is proposed at T2 elevated road on the Western Express Highway. This proposal will facilitate North-bound movement of T2 exit traffic. For traffic movement between T2 and T1, the stretch between T2 elevated road and Nehru Road on the Western Express Highway becomes congested currently mainly due to ongoing flyover construction at T1 and North-bound traffic from T2 coming up to Nehru Road for U turn movement. Grade separation at T1 along with this underpass will help relieve traffic congestion on the Western Express Highway and provide faster connection from T2 to T1. The proposed underpass has been designed in such a manner that it will meet the existing underpass at its highest point with limited length of ramps. Further, existing landscaping will not be hampered. The proposal is illustrated in the figure below.

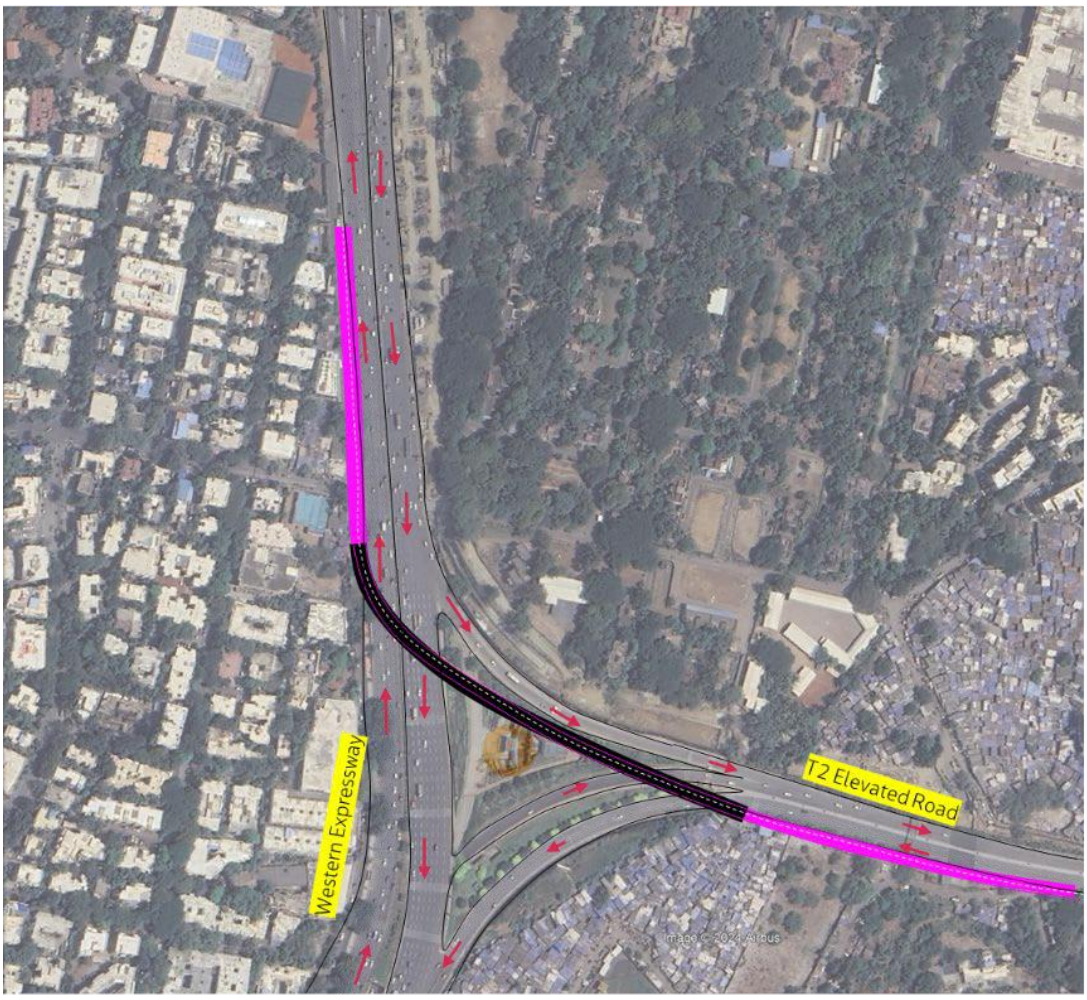


Figure: Proposed Vehicular Underpass on Western Express Highway at T2 Elevated Road

4.1.6. ANCILLARY BUILDING DEVELOPMENT WORKS

4.1.6.1. Construction of MIAL Administration and Management Office

Currently, CSMIA does not have an office that is adequate to house all its employees and staffs of stakeholders under one roof. This leads to inconvenience in coordination and makes efficient operation extremely challenging.

In addition, with the transformative vision of being one of the major global transfer hub airports, it is imperative that associated aviation functions such as training centers on various aspects of aviation are also integrated, so that the workforce can be continually trained to be ever ready to tackle new challenges and embrace latest developments in the aviation sector.

With this vision, it is proposed to construct MIAL Administration and Management Office (with Office Space of approx. 70,000 Sqm and basement area of 50,000 Sqm) for all staffs. Indicative list of stakeholders to be housed along with their numbers are given below:

- Staff: Approx. 1,500 (currently, MIAL has ~1,200 employees. It is expected that number of employees will go up).
- Other stakeholders
- Aviation Safety Training Institute
- DG Training Institute, etc.
- Airside Operation Simulator Room
- JCC
- Auditoriums
- Seminar Halls
- Airport Experience Centre

The proposed MIAL Administration and Management Office will be efficiently integrated with the proposed T1 building, to ensure minimum response time for operations staff. Proposed location and Floor Plans are illustrated in the figures below.

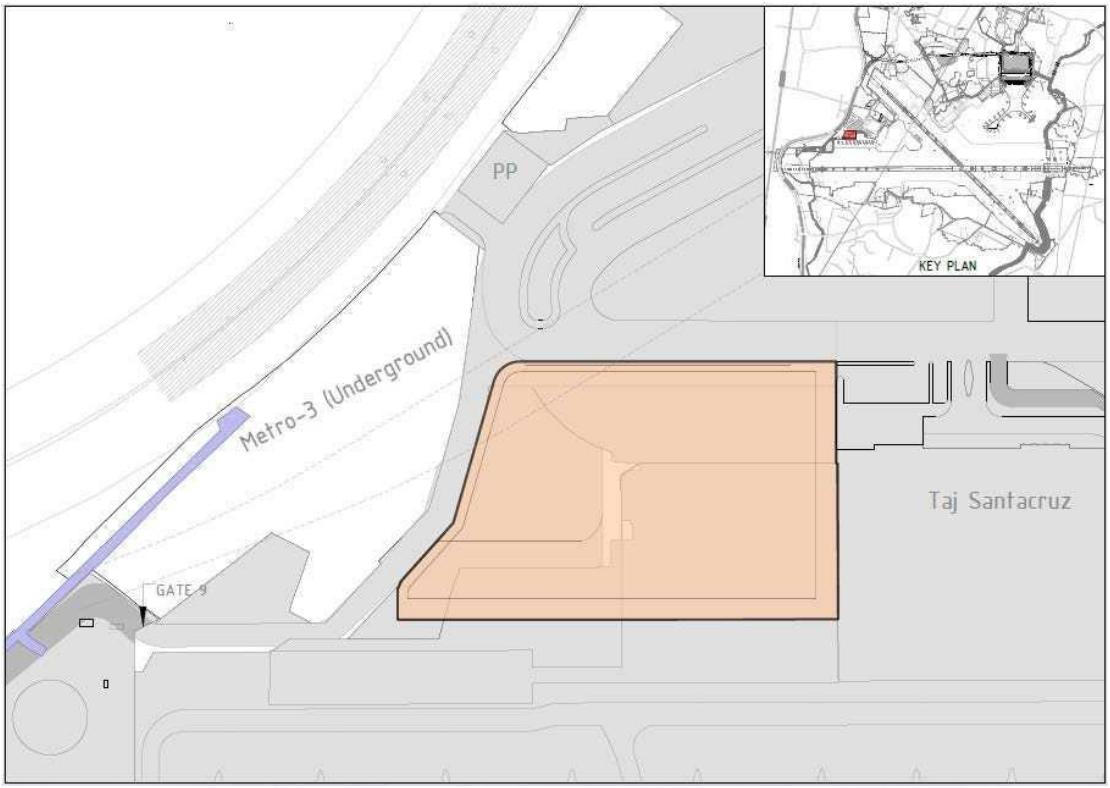


Figure: Proposed Site for MIAL Administration and Management Office

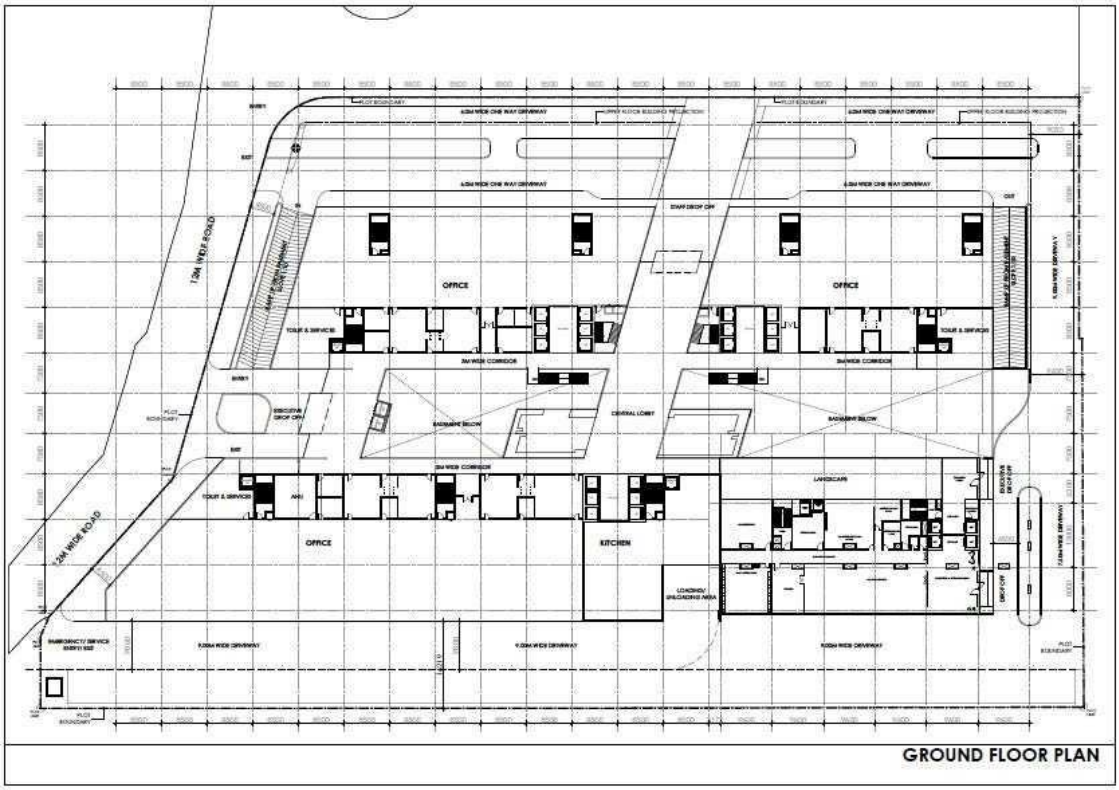


Figure: Proposed Ground Floor Plan for MIAL Administration and Management Office

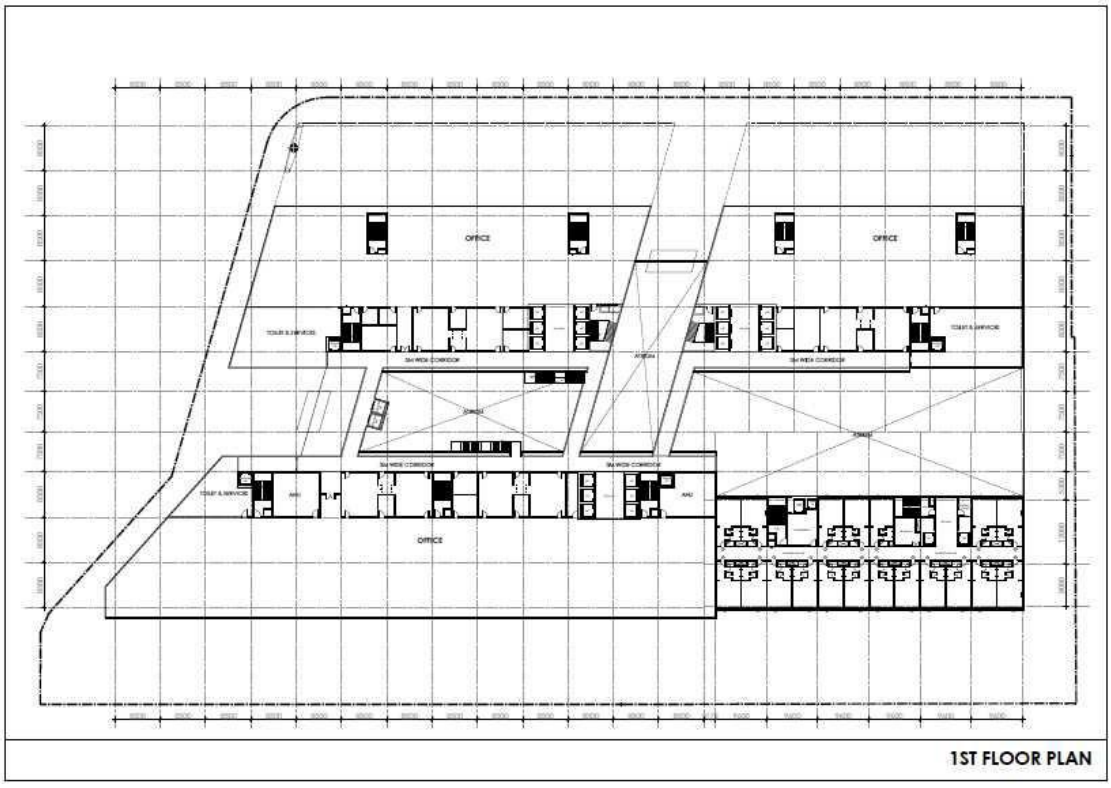


Figure Proposed First Floor Plan for MIAL Administration and Management Office

Figure: Proposed Plan (Second-Fourth Floors) for MIAL Administration and Management Office

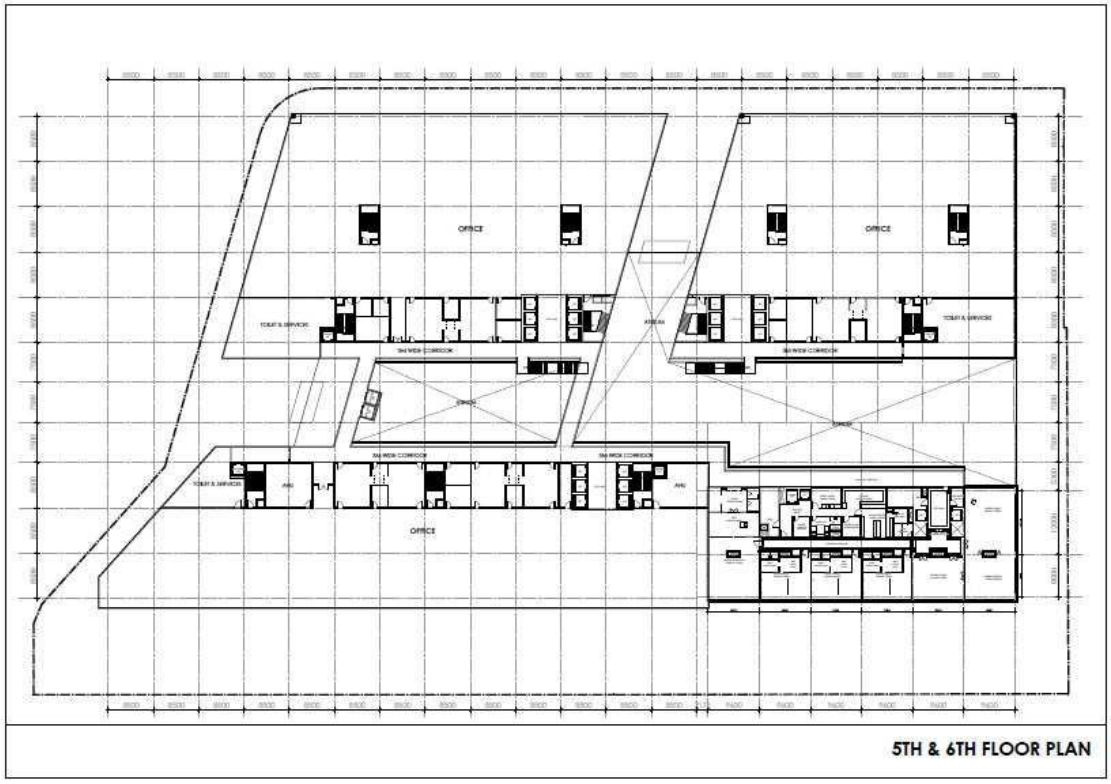


Figure: Proposed Plan (Fifth-Sixth Floors) for MIAL Administration and Management Office

4.1.6.2. **NAD Colony Redevelopment**

As part of NAD Colony Redevelopment Project at Sahar, MIAL is required to construct a total of 488 units (in seven buildings) with a total constructed area of 44,243 sqm inclusive of all units their balconies, lobbies, etc.

This project was approved by AERA in the 3rd Control Period and construction works were initiated by MIAL. However, owing to the delay in obtaining all required permissions from concerned Govt. Authorities due to COVID-19, part of the project could only be completed and accordingly, the balance part (comprising of 37,750 Sqm of Gross Floor Area) is proposed in the 4th Control Period.

The land obtained through compact development of NAD Colony is proposed to be used for various aeronautical uses and support functions / infrastructure / utilities. The map of the project is illustrated in the figure below.

Figure: NAD Colony Buildings proposed for redevelopment

4.1.6.3. **Crew Terminal**

The new crew terminal will help decongest the existing security lanes in T2 as this crew terminal would have dedicated crew security lanes. This would mean that incremental passenger handling capacity would be created in T2.

Plan is to extend Passenger Terminal Building at the Northwest Wing and create vertical connectivity for Domestic/international crew into the terminal pier, Security Hold Area, Customs, Emigration, Immigration Areas.

Cost to be incurred in design, Construction, enabling works and others: Rs. 98.7 Cr.

4.1.6.4. **Relocation of ATC Technical block**

The existing ATC Technical Block is located north of Runway 14-32 near New Engineering Complex (NEC). Presently the structure of ATC Technical Block is penetrating Construction Limitation Surface (OLS) and does not meet taxiway clearance standards specified by DGCA and ICAO. Hence this needs to be relocated.

Total area of the existing ATC block is 15000 sqm. Cost to be incurred for relocation is Rs. 184.14 cr.

4.1.6.5. Mumbai Metro Line 3: Construction of Metro Stations at CSIA

The following 3 Stations are proposed at CSIA as part of Mumbai Metro Line 3:

- T1 Terminal Forecourt Station.
- Sahar Road Station; and
- T2 Terminal Forecourt Station.

As per the Memorandum of Understanding signed between Mumbai Metro Rail Corporation (MMRC) and MIAL dated 16-Sep-2015 and as amened on 31-Aug-2017, MIAL is required to bear following costs with respect to development of metro stations

- Cost to be paid to MMRC for change in design of T1 station as per BCAS directions: Rs. 75 Cr.
- Cost of underground basements for two stations (required for structural stability purpose, since the basements will act as dead load, which, in turn, will ensure stability to the metro stations): Rs. 141 Cr.

4.1.6.6. Development of T2 forecourt (Metro Station)

T2 Forecourt is a mixed-use development planned to the north of International Terminal (T2), Mumbai.

Metro line 3 and Metro line 7A pass through this development with stations located at Basement 4 and 5 levels.

Various airport facilities like check in counters and baggage handling systems is part of this mixed-use and is located at Basement 1 level.

This is planned primarily for the convenience of passengers alighting from stations on metro lines 3 and 7A for check-in or baggage drop facilities.

Cost to be incurred to develop facility and other passenger processing facilities is Rs. 124.8 cr.

4.1.7. OPERATIONAL CAPEX PROPOSALS

CSMIA is a constrained airport and enhancing operational efficiency is the key to meeting the increasing demand for air travel and cargo in the Mumbai Metropolitan Region (MMR). At the same time, ensuring safety of passengers and providing convenient and hygienic facilities is also imperative. Accordingly, several Operational Capex projects / works are proposed in the FoCP, with the overall aim of the following:

- To comply with the directions / circulars of Govt. Authorities for improving security of passengers and/or improving the overall security clearance process such as introducing CT Handbag X-Ray Machines, Full Body Scanners, etc.
- To ensure operational readiness, such as equipping the airport with suitable Aircraft Rescue and Response operations by replacing old end-of-life Crash Fire Tenders.
- To ensure passenger hygiene by upgrading washrooms.
- To enhance airside safety and improve operational efficiency by means of facilitating innovative technology solutions for Advanced Surface Movement Guidance and Control System (A-SMGCS) such as "Follow the Greens".
- To improve existing passenger processing by means of ICT based smart solutions such as Self Bag Drops.
- To address observations of regulatory agencies such as DGCA and BCAS.
- To adhere to various requirements stipulated in the OMDA.

Major Operational Capex Proposals (Rs 50 Crs or more) along with the need and description of works are as follows:

4.1.7.1. **CT Handbag X-ray**

Currently, dual view XBIS machines are installed at various Pre-Embarkation Security Check (PESC) points of T1 and T2. As per the *modus operandi* of XBIS machines, passengers are required to remove electronic devices (like laptops), liquids and gels from hand baggage making the entire security checking process is time consuming and thereby leading to reduced throughput and increasing tray demand and ultimately inconvenience for the passengers. Further, due to technology limitation, it is difficult for the screener to identify complex images in predefined time, resulting in higher rejection and resultantly reduced throughput.

To address the above, Bureau of Civil Aviation Security (BCAS), vide AVSEC Circular No. 02/2023, has directed airport operators to provide X-Ray Baggage inspection based on CT (Computed Tomography) at Pre-Embarkation Security Check (PESC) Points at the airports having a passenger movement of more than five million per annum and at all upcoming non- RCS Greenfield airports in India.

Further to providing new CT Machines, the above-mentioned Circular also mandates that all X- Ray machines currently installed at Pre-Embarkation Security Checkpoints (PESC) for screening of cabin baggage at airports, where passenger movement is more than five million per annum, shall be replaced with CT (Computed Tomography) X-Ray Machines.

Noncompliance with the above guidelines shall attract a penalty under applicable provisions of the Aircraft Act, 1934 and the Aircraft (Security) Rules, 2011.

In pursuance of the above-mentioned Circular, it is proposed to replace total 55 number of XBIS Machines installed at various locations of CSMIA as under:

Sl. No.	Location	No of existing units		Number of Units Proposed		
				FY25	FY26	FY27
1	**Terminal 2**		38	10	25	20
	Level 4 PESC	24				
	D to D	04				
	I to I	10				
2	**Terminal 1**		15			
	SHA 1*	04				
	SHA 2*	05				
	SHA 3*	06				
3	**GA Terminal**	**01**	01			
4	**CISF Training Centre**	**01**	01			
5	**Total**		**55**			
6	**Net Cost taken under Operational Capex (5-2)**		**40**			

* 15 CTiX machines in T1 is already taken under T1 Reconstruction project cost. Accordingly, for ascertaining cost of Operational Capex, 40 nos. of CTiX machines considered.

4.1.7.2. **Full Body Scanner**

Currently, Walk Through Metal Detectors (WTMDs) and Hand-held Metal Detectors (HHMDs)[23] are installed / used for screening passengers / crew at various PESC points at CSMIA.

BCAS, vide Addendum III to AVSEC Circular No. 05/2019 has directed hyper-sensitive airports, having 10 million passengers per annum or more, to install Full Body Scanners (FBS)[24]. Non- compliance with the above guidelines shall attract

penalty under applicable provisions of the Aircraft Act, 1934 and the Aircraft (Security) Rules, 2011.

Existing deployment of WTMDs and the proposed deployment of FBS			
S. No	**Location**	**WTMDs Present**	**FBS Proposed**
1	T2 level 4	4 9	15
2	T2 level 2 (D2D)	6	2
3	T2 level 2 (Transit)	10	4
4	T1 SHA 1*	4	2
5	T1 SHA 2*	9	3
6	T1C SHA*	10	4
7	GA Terminal	2	1
8	Ceremonial Lounge	2	1
9	V21 SHA	2	0
10	**Total**	**9 4**	**32**
11	**Net Cost taken under Operational Capex (10-4-5-6)**		**23**

* 9 FBS in T1 is already taken under T1 Reconstruction project cost. Accordingly, for ascertaining cost of Operational Capex, 23 nos. of FBS considered.

4.1.7.3. **Crash Fire Tender**

A fully serviceable and reliable Crash Fire Tender (CFT) is an essential component of Aerodrome Rescue & Fire Fighting (ARFF) Services, and its presence is critical in the event of an Aircraft Accident / Incident or other fire related incidents within the airport premises.

Based on Task & Resource analysis of ARFF Services, the number of CFTs required to manage operations at CSMIA is 7 (seven). 4 (four) out of total 7 Crash Fire Tenders (CFTs) required to be maintained at CSMIA are due for replacement within 4th Control Period. The details about the same are mentioned in the table below.

Appliance	Year of Manufacture	Due for replacement	Remarks
CFT 1	2006	2021	Due for replacement
CFT 2	2007	2022	Due for replacement
CFT 3	2010	2025	Will be due in 2025
CFT 4	2010	2025	Will be due in 2025

Accordingly, it is proposed to replace with new 4 CFTs to ensure dependable Aerodrome Rescue & Fire Fighting (ARFF) Services at CSMIA.

4.1.7.4. Refurbishment of Staff and Public Washrooms at Terminal 2

The washrooms in T2 were commissioned more than 10 years ago. With more than 1,50,000 passengers using them, coupled with the fact that no major upgradation works were undertaken since their commissioning, the fittings and fixtures have experienced severe degradation due to heavy wear and tear, leading to potential health hazard to the passengers, beside creating a poor passenger experience in one of the major airports in India. This is despite CSMIA's best efforts in maintaining the washrooms to the best of the standards
(it may be noted that MIAL deploys considerable manpower round the clock in maintaining the washrooms).

To address the issue, it is imperative that the fittings and fixtures are replaced, in such a manner that they facilitate touchless experience (as warranted by recent COVID-19 pandemic) as well as contribute towards resource efficiency, i.e. they reduce water and power consumption.

To achieve the above, CSMIA proposes upgradation of the washrooms in T2 by means of replacing the fittings and fixtures and undertaking associated civil and electrical works. In this endeavor, Information and Communication Technology (ICT) will be leveraged to the fullest through deployment of IoT integrated smart solutions, to provide hygienic washroom facility, which will also ensure environmental sustainability through reduction of resource consumption and thereby cost efficiency in the long run.

The project is proposed to be implemented as per the following order of sequence:

Type of Washrooms	Male	Female	Family	Total
Phase-I				
Staff washrooms	36	36	1	73

Type of Washrooms	Male	Female	Family	Total
Public washrooms	14	14	14	42
Phase-II				
Passenger washrooms	41	41	46	128
Total	**91**	**91**	**61**	**243**

Figure: Existing condition of Washrooms at T2

4.1.7.5. **Transfer Hub Initiatives at Baggage Handling System at T2:**

Govt. of India is taking several initiatives to transform major airports like CSMIA as major international hubs, which will offer single-point international connectivity to the rest of the world. These initiatives include further streamlining of security and immigration processes. However, to truly transform CSMIA into a transfer hub and compete with its global counterparts, immediate augmentation of the Baggage Handling System (BHS) will be required, since seamless transfer of international passengers [International-International(I-I) or International-Domestic (I-D)] pivots about timely and efficient transfer of their baggage. Key attributes for success of any transfer system are (i) reduction in Minimum Connect Time (MCT) for Bags; and (ii) reduction in mis-handled, mis-connected and delayed bags. Two key constituents of this baggage transfer system are as under:

- Auto sortation for inbound bags for I-D passengers; and
- Enhancement of Early Bags Store capacity & process.

The issues in the current system w.r.t. the above-mentioned components and proposals to address the issues are elaborated in the subsequent section.

4.1.7.5.1. **Auto sortation for inbound bags for I-D passengers:** Passengers arriving from international destinations and further connecting to domestic, even after checking in with boarding pass for the destination, are required to collect their baggage at their first landing port of this country. Subsequently, they are required to clear customs and get the baggage dropped off at I-D

connection area and proceed to departure. Delay in any part of this process (say, passenger reaching late to arrival belt for collection of bags or delay in custom clearance) leads to delay in the further connection of either passenger or baggage to the flight. It is, therefore required to have auto sortation for inbound bags of I-D passengers.

Currently there are 18 arrival feeder belts at Terminal 2 feeding to 10 reclaim carousels which are equipped for handling international Arrival Baggage. Auto Sortation system provided will sort bags arriving from international origin which have to be connected to Domestic Destination and connect them directly to Departure Baggage Handling System (provided the same are custom cleared)

4.1.7.5.2. **Early bags store capacity & process:** As of now, the process of early bag handling is semi- automatic. Bags are stored electronically but handling is manual leading to inefficient operations. The existing storage capacity is also limited - currently, the system can store 715 bags at any given point in time, as against average 800-900 bags per hour[26]. Cumulatively, the maximum baggage load received for Early Bag Store in July 2023 was 2,940 bags per day and the lowest number was 2,177 bags per day in the same month. In the near future, it is expected that the load will increase manifold – accordingly, it is crucial to improve the early bag store capacity and further streamline the process of the same. It is therefore, proposed that:

a) The handling capacity of Early Bag Store be enhanced from 715 to more than 2,500 at given point in time.

b) Fully automate Early Bag Store operation, facilitating automatic storage and retrieval & dispatch of bags when flight opens. This will also ensure continuous operation in case of downtime, as the system will be connected to high level control, low level control as well as the Airlines BSM integration.

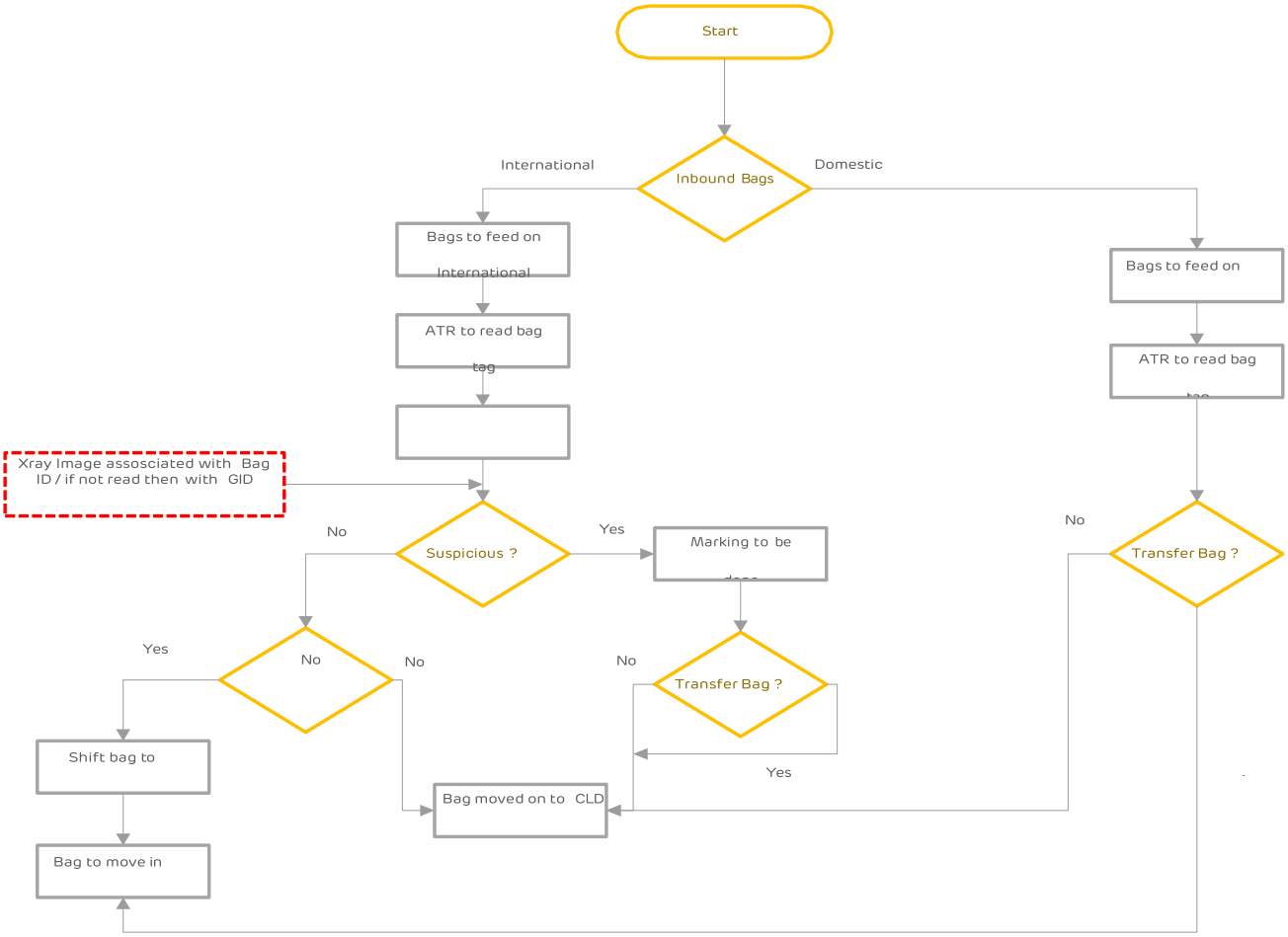
c) Elimination of human errors

d) Contribute towards better health & safety of operators.

Process flow for auto-sortation for inbound bags for I-D passengers:

1. International arrival bags from flight to be offloaded on feeder belt.
2. Bags will pass through automatic tag reader and then through screening machine.
3. Bags get associated with Bag ID (License Plate) and Machine ID (GID). Decision is taken by the customs official.
4. Specific time configured for decision to be taken as there is centralized screening room and decision taken by the official remotely. Based on the decision taken by the official i.e., reject or accept, bag will further track and travel.

5. Domestic connection bags and Custom clear bags will get auto diverted to the conveyor further connecting to departure BHS.



6. If the bag is clear and local, it will go to the carousel.
7. If Bag is local and rejected, will get diverted to marking station and then inducted to the carousel line.
8. If the bag is transferred to domestic connection and rejected, then same will go to marking station and further to carousel.
9. For Transfer passenger with clear bag, passenger will walk straight to departure.
10. Transfer passengers with reject bag passenger will clear the bag and drop it to I-D counters.
11. Considering the general proportion of bags that get rejected, it can be assumed that more than 90% of the bags will follow this auto-sortation path reducing the connecting time for passengers and bags.

Figure: Transfer Option from BBA: Baggage flow

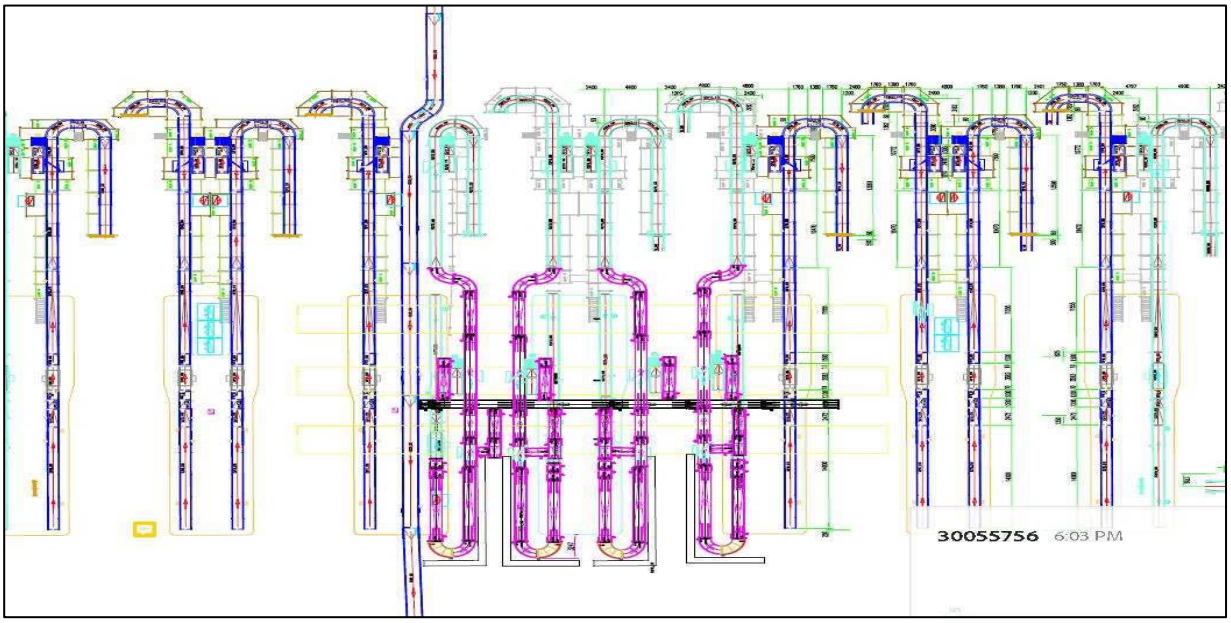


Figure: Proposed I-D auto-sortation layout for the Arrival Belts

4.1.7.6. **Follow the Greens**

CSMIA is the busiest single runway airport in the world with an average daily of 900+ ATMs and nearly 1,50,000 passengers. Prior to onset of COVID-19 pandemic in 2020, CSMIA reached its limit with slots booked out and there was very limited flexibility in terms of any further airside movement. Post COVID-19 also, demand is almost at the pre-covid level now with increased demand of slots. With airlines set to ramp up their fleet plans, especially home airlines like Air India (470 aircraft order), Indigo (500 aircraft order) and Akasa Air (150 aircraft order), the demand for slots will further go up significantly.

Given the space constraints for physical expansion on the airside, enhancement of capacity can be facilitated only through technology interventions aimed at improvement of operational efficiency and safety in conjunction with appropriate 'concept of operation' and suitable training. To achieve the overall aim of facilitating 50+ ATMs in the peak hour, CSMIA proposes a technology solution titled "Follow the Greens", which is built on an Artificial Intelligence platform that leverages A-SMGCS Level-4 and enables both pilot and Air Traffic Controller (ATCo) to manage the aircraft movement on ground, by simply following the green lights of the taxiway centerline [AGL], thereby automating the movement to and from Runway. The system uses the taxiway lighting to efficiently direct crews and aircraft by only activating segments of taxiway lighting that are needed, leaving others switched off thereby decongesting the airside and maximizing the asset utilization. The system forms an intelligent guidance procedure, which identifies the best possible Taxiway (shortest and

fastest), after eliminating any potential conflict / safety hazard, thereby making the airside safer and more efficient. Advantages of the new system are as follows:

- Reducing taxi & holding time of aircraft and directly contributing to better on time performance, lower carbon emissions and contributing towards net-zero vision of CSMIA.
- Enhanced situational awareness by always knowing the position of the aircraft.
- Optimized turnaround efficiency with the combined synergies being drawn from the proposed implementation of the smart apron system at CSMIA.
- Improving operational efficiency by automating multiple processes and reducing human interferences.
- Implementation of "Follow the Greens" will also require the Conversion of existing halogen Airfield Ground Lighting system (AGL) to LEDs, which will help in energy conservation and better performance.
- Reduces the workload on Air Traffic Controllers (ATCOs).
- Maximize runway and taxiway utilization.
- Enhanced airside safety, especially during adverse weather conditions experienced in Mumbai during monsoons.

The proposed interventions will cover the following:

- New infrastructure like Stand Manoeuvring Guidance lights for necessary aircraft stands, Induction Loops (loop sensors) on apron lanes, additional Intermediate Holding Position (IHP), stop bar lights required on the Taxiway Junction (wherever feasible), installation of few additional Taxiway Centerline Lights (TCL) and grouping of TCLs based on route selection and other related works.
- Integration with existing infrastructure like Gate Operating System (GOS) / Visual Docking Guidance Systems (VDGS), Ground Traffic Management System (or equivalent Ground Traffic data monitoring system), AODB, Aircraft & Vehicle Detection Systems, A-SMGCS system and existing LCMS systems. A holistic ground movement management solution for a smart apron.
- Integration of required software (including testing of software compatibility) and IT systems required for these systems to communicate with each other.
- Shallow bases & fixtures, cabling after cutting of stands, connectors, isolation transformers, transformer pits, etc.
- Development of a comprehensive Cyber Security framework and Technology Architecture that will integrate with CSMIA's IT landscape and future IT induction plan.

The as-is capability model of the sky tower and overall architecture of the ATM DPDS, ITWP & ASMGCS System are indicated in the figures below.

4.1.7.7. **Self-Bag Drops at T2**

Conventional check-in counters are dependent upon availability of staff and any resource shortfall on the part of the Airlines results in passenger handling capacity and causes great passenger inconvenience. The conventional counters offer no flexibility in adapting to fluctuating passenger volumes, leading to

congestion in peak hours. At the same time, during non-peak hours, deployment of dedicated staff results in inefficiencies. In addition, the conventional check-in system does not restrict the non-standard check-in practices which causes several issues in the baggage handling system, resulting intermittent operations, stoppage, or breakdowns & unserviceability. The options of Biometric, Digi-yatra and Payment gateway are not available at same locations, resulting in interruptions in the check-in process and greatly causing passenger inconvenience. Above all, a manual check-in system is prone to human errors.

Conversely, Self-Bag Drops (SBDs), through leveraging automation and technology, enable passengers to be self-sufficient for check-in – examples across global and Indian airports reinforce the fact that Self Bag Drops with appropriate user interface is the most successful mode of check-in. This greatly improves the efficiency of the check-in process and enhances passenger convenience.

Currently, 201 conventional check-in counters are installed in T2, and 32 Self Bag Drops (standard type) have been installed (layout plan is given below). Domestic airlines are already onboarded, and onboarding of international airlines is in progress.

It is proposed that 100% of the check-in counters be converted to hybrid Self-Bag Drops. Hybrid Self-Bag Drops can function either as a standalone self-bag drop or as a manned Self- Bag Drop with an airline staff assisting the passengers. Initially it is proposed to convert 70% of the available conventional check-in desks into Hybrid SBDs and 30% of remaining to be maintained as the conventional, which will facilitate the passengers who need in-person assistance of Airlines' staffs for check-in. Going forward, with more and more passengers getting used to the process, all the conventional check-in desks will be converted into Hybrid counters.

The project includes the following scope of works:

- Modification in Baggage Handling System (since the SBDs need to be connected with the baggage belts);
- IT Network;
- Civil and Electrical Works; and
- SBD Hybrid Counters.

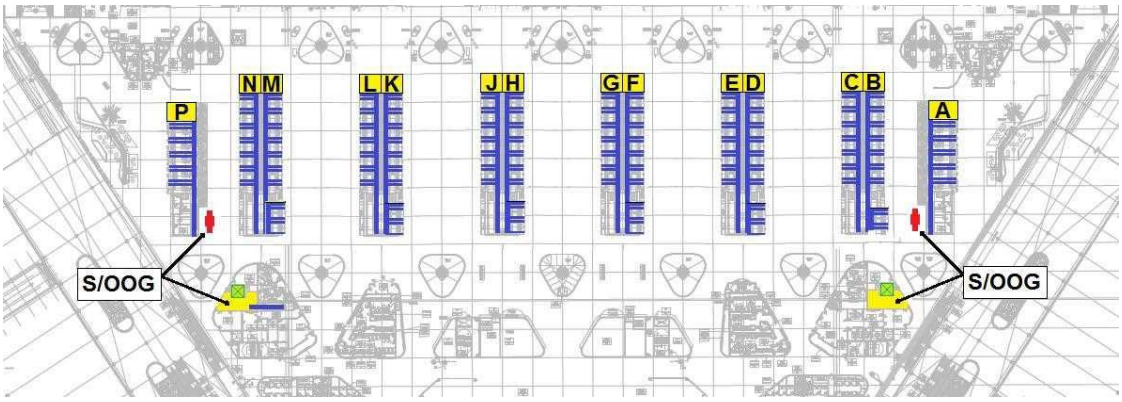


Figure: Existing Check-in Islands

4.1.8. A department list of Operational Capex Proposals is provided below in

Department wise Operational Capex	Total Cost (Rs Cr)
Airside Operations	175
Baggage Handling Systems	328
Engineering and Maintenance	765
Environment	49
Horticulture	16
Digital and Information Technology	423
Safety	183
Security	579
Terminal Operations	578
Other (JCC, Landside etc.)	14
Total	**3,109**

Item-wise list of operational capex is part of financial model.

It is to be noted that MIAL is finalising the Slum rehabilitation scheme in consultation with AAI and will implement it in the Fourth Control Period and claim under RAB on incurrence basis in the next control period.

4.1.9. BASIS OF COSTING

4.1.9.1. **Block Cost Estimate:** - Block Cost estimation for works / projects as included in each category of capex is based on the Schedule of Rates published by various Departments of Govt. of Maharashtra / Delhi Schedule of Rates (DSR) published by CPWD / MoRTH, Govt. of India / Plinth Area Rates (PAR)/ Market rate analysis at price level valid including all necessary Taxes, duties, levies etc. as applicable. For PIF, base cost, i.e. cost at Jan'24 level has been included (i.e. no escalation has been built in). In addition to this, Pre-operative Cost, Design Cost, Project Management Consultancy (PMC) cost, preliminary expenses and Interest during Construction (IDC) will also be part of overall Capex. Indexation @ 5% per annum has been considered on the projected cash flows.

4.1.9.2. **Soft Cost of approx. 16%:** Technical consultancies, contingencies, pre-operative Cost, design cost, PMC, preliminary expenses

4.1.9.3. As per recent released CPWD SOP 2022 dated 13.07.2022 https://cpwd.gov.in/Publication/sop2022.pdf, the Project Estimation should take care of the following requirements :-

10. Preliminary estimate (PE) is to be prepared on the basis of Plinth Area Rates or length of road etc. worked out on the rate per unit area/length/number, or such other method adopted for ready and rough calculation, so as to give an idea of the approximate cost involved in the proposal.
11. Prevailing Cost Index over the plinth area rates, effect of ESI & EPF leviable (rates as given in Annexure -14, Contingencies and Departmental Charges (if applicable) are to be added in the PE.

As per CPWD norms, the various costs to be considered while preparing the preliminary estimates and should include the following components:

i. Planning Consultancy 4% and Project Management Consultancy 5% (refer below PART 1 as the relevant extract from CPWD SOP2022)
ii. Other Technical Services like Preliminary Sketches, Detailed Drawings, Preliminary Estimates, Structural Design, Execution, Audit & Account etc. is ranging between 7% to 24% depending upon size of the project (refer below PART 2 as the relevant extract from CPWD SOP2022)
iii. Contingency cost is 3% (refer below PART 3 as the relevant extract from CPWD SOP2022)
iv. ESI & EPF ranging between 0.85% to 4.2%, say average of 2% (refer below PART 4 as the relevant extract from CPWD SOP2022)

4.1.9.4. As per accounting standards (refer extract as PART 5 below) the costs relating to Project Team is required to be capitalized. These costs have been approved by AERA in various orders for PPP and AAI Airports ranging between 2-3% of the project cost *(refer below PART 6 for few Airports examples)*. The same is recognized by AERA in its Guidelines Form F11 (b) *(refer below PART 7 as the extract from AERA Guidelines).*

The overall Soft Costs based on point 4.1.9.3 and 4.1.9.4 above is minimum 18-20%.

4.1.9.5. As per "Airport Capital Improvements: A Business Planning and Decision-Making Approach" study conducted by Airport Cooperative Research Program (ACRP), Transport Research Board (sponsored by US Government's Federal Aviation Administration). The soft costs range between 10% to 30%. The extract from Page 48 the report is as follows:

Soft costs typically range from 10% to 30% of total project costs. These include design fees, permitting fees, utilities, costs associated with inspections and land acquisition, costs associated with the bidding and procurement process, and project administration and management costs.

Full study report by ACRP is provided as Annexure B.

4.1.9.6. **MIAL has proposed soft cost of 16% of total Capex which is within the reasonable range based on information from reputed agencies from India and Overseas.**

PART 1

SOP No. 8/7: Levy of Fees by CPWD for Consultancy Services (Para 8.20)

CPWD handles consultancy works of planning and designing (with or without construction) of
various projects including high-rise buildings, housing complexes etc of Public Sector Undertakings and other organizations to undertake construction on turnkey basis, or for
Mission's buildings abroad, etc. at negotiated rates. Fee for the Consultancy Services is charged.
by CPWD as given below.

FEES FOR CONSULTANCY SERVICES

(a) Planning 4%
(b) Construction Management 5%
(c) Visits of CPWD Officers from India 1%

For planning and designing work, the following charges is levied:
(i) Development of Master Plan Rs.10000/- per hectare
(ii) Architectural plans and drawings 3 % for original work ½ % for repetition
(iii) Structural designs and drawings 1% for original work ½ % for repetition

PART 2

ANNEXURE- 5

(Reference Para 3.1.1.4 (1))

RATES OF DEPARTMENTAL CHARGES

Objectives of works	All maintenance works, and minor works costing upto Rs. one lakh	Construction works costing upto Rs. Two Crores	Construction works costing between Rs. Two and five Crores	Construction works costing more than Rs. five crores
1	2	3	4	5
(A) Establishment Charges				
1. Preparation of preliminary sketches	½%	¼%	¼%	¼%
2. Preparation of detailed working drawings	1%	¾%	½%	¼%
3. Preparation of preliminary estimates	¼%	¼%	¼%	¼%
4. Preparation of detailed estimates	½%	¾%	½%	¼%
5. Preparation of structural designs	1%	1%	¾%	¾%
6. Execution	19-¼%	7-¾%	4-¾%	4-¼%
Total Establishment charges	22-½%	10-¾%	7%	6%
(B) T&P (Machinery Equipment)	¾%	¾%	½%	½%
(C) Audit & Account	¼%	¼%	¼%	¼%
(D) Pensionary	¼%	¼%	¼%	¼%
	23-¾%	12%	8%	7%

PART 3

SOP No. ¾: Provision for Contingencies and its Utilization (Refer Para 3.1.1.3 (3))

1. *In addition to the provision for all expenditure which can be foreseen for a work, a provision of contingency is kept as follows : (i) Estimated cost up to Rs. 1 Crore ..... 5% (ii)* ***Estimated cost more than Rs. 1 Crore ... 3%, subject to minimum of Rs. 5 Lakh***

PART 4

ANNEXURE- 14

(Refer SOP No. 3/2)

STATEMENT SHOWING THE RATES OF EPF and ESI CHARGES TO BE INCLUDIED IN PRELIMINARY ESTIMATE

Category of work	Component of Labour	EPF @12.5 % of labour Component	ESI @ 4.5 %of labour Component	Total of EPF & ESI
Buildings	25%	3.125%	1.125 %	4.25%
Road Works & pavements in airfields	5%	0.625%	0.225%	0.85%
External sewerage	10%	1.25 %	0.45%	1.70%
External water supply	5%	0.625%	0.225%	0.85%
Bridge/Flyover works	25%	3.125%	1.225%	4.25%
Maintenance works engaging only labour component	100%	12.50 %.	4.50%	17.00 %
Other Maintenance work	70%	8.75%	3.15%	11.9%

PART 5

Indian Accounting Standard (Ind AS) 16 *Property, Plant and Equipment*

Elements of cost

16 The cost of an item of property, plant and equipment comprises:

(a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.

(b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

(c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

17 Examples of directly attributable costs are:

(a) costs of employee benefits (as defined in Ind AS 19, Employee Benefits) arising directly from the construction or acquisition of the item of property, plant and equipment;

(b) costs of site preparation;

(c) initial delivery and handling costs;

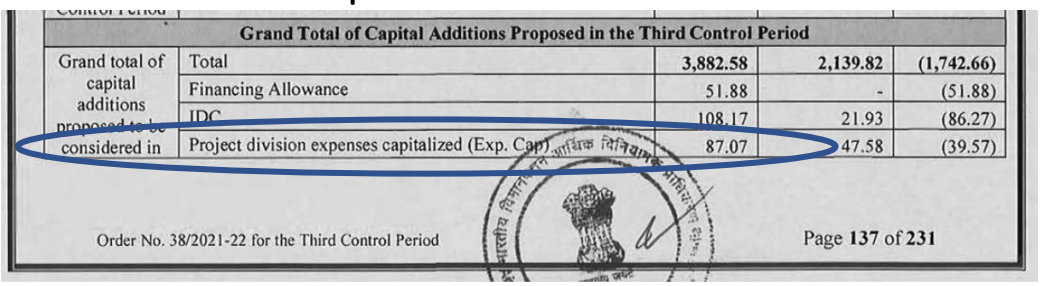
(d) installation and assembly costs;

(e) costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment); and

(f) professional fees.

PART 6

Extract from Chennai Airport Order No. 38/2021-22 for the Third Control Period



Grand Total of Capital Additions Proposed in the Third Control Period				
Grand total of capital additions proposed to be considered in	Total	3,882.58	2,139.82	(1,742.66)
	Financing Allowance	51.88	-	(51.88)
	IDC	108.17	21.93	(86.27)
	Project division expenses capitalized (Exp. Cap)	87.07	47.58	(39.57)

Order No. 38/2021-22 for the Third Control Period

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Extract from Pune Airport Order No. 38/2021-22 for the Third Control Period

the control of Pune International Airport or its contracting agency and is properly justified, the same would be considered by the Authority while truing up the actual cost at the time of determination of tariff for the Fourth Control Period. Further, this proposal was applicable to all the projects forecasted to be capitalized in the Third Control Period given in this Consultation Paper. This will ensure timely adherence to the capital expenditure plan proposed in the Third Control Period.

4.2.33 Based on the discussion above, the total capital additions proposed to be considered by the Authority in the Third Control Period was as tabulated below:

4.2.34 Based on the Authority's analysis of capital expenditure deferred from Second Control Period (Para 4.2.9 to Para 4.2.24) and new capital expenditure proposed to be incurred in the Third Control Period (Para 4.2.25 to Para 4.2.31), the Authority considered a total Capital Expenditure of Rs. 52,540.93 lakhs as given below:

Table 83: Capital Expenditure additions for the Third Control Period considered by the Authority

Reference	Project	No.	Particulars	Submitted by AAI	Proposed by the Authority	Difference
				1	2	3=2-1
I	Capital additions deferred from the Second Control Period to the Third Control Period	I.A	New Integrated Terminal Building	44,621.19	43,694.92	-926.27
		I.B	PMC-Expansion of Terminal Building- (Tensile canopy)			
		I.C	PMC-Expansion of Terminal Building-Electrieal works (aerobridge)			
		I.D	Baggage Trolley & XBIS	508.47	508.47	-
		I.E	Financing Allowance	3,337.57	-	-3,337.57
		I.F	IDC	2,023.22	2,005.96	-17.26
		I.G	Project division expenses capitalized (Exp. Cap)	1,651.26	1,630.60	-20.67
		I	Sub Total (NITB)	52,141.71	47,839.95	-4,301.77

~3.5%

PART 7

Form F11 (b): Payroll Related Expenditure and Provisions (ref: Section A5.5.5)

S.N.	Particulars - with detailed breakup	Last available audited year^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	*Salaries and Wages*							
B	*PF Contribution*							
C	*Medical Expenses*							
D	*Overtime*							
E	*Staff Welfare Fund*							
F	.....							
1	Grand Total							
2	Employee expenses capitalised							
3	Net Employee expenses (1)-(2)							

* Projected values to be provided
# Fields in italics are indicative only
^ Information for last financial year for which audited accounts are available

4.1.9.7. **Interest During Construction (IDC) –** IDC is calculated based on construction phasing, cash flows and proposed capitalization dates. The amount is calculated considering debt portion of 70% with actual cost of debt of ~11.9%.

4.1.9.8. All the procurement will be done as per procurement guidelines mentioned in the OMDA and as per company procurement policy adopted by the company.

4.1.10. Total Cost of the proposed Capital expenditure during Forth Control Period is tabled as below:

Table 43: Costs and timeline for various capex projects proposed in FoCP

Sl. No.	PROJECTS	COST (In Rs. Cr.)	START	COMPLETION
1	**CAPEX Proposals**	**9,176.03**	**Apr-24**	**Mar-29**
A	**Airside Projects**	**3,189.18**	**Feb-24**	**Mar-29**
A1	**Runway Improvement Works**	**148.70**		
A1-1	Recarpeting of RWY 09-27	148.70	Oct-27	May-28
A2	**Taxiway Improvement Works**	**296.23**		
A2-1	Construction of Taxiway E (segment between E5 & E7), North-East side, parallel to RWY 14-32	73.59	Oct-27	Mar-28
A2-3	Construction of TWY W (North-West side, parallel to RWY 14-32)	161.65	Oct-26	Mar-28
A2-2	Construction of Taxiway M Extension (East side)	60.99	Oct-26	Mar-28
A3	**Apron Improvement Works**	**219.54**		
A3-1	Construction of Additional Aircraft Parking Stands (V1+V2)	113.26	Oct-26	Mar-28
A3-2	Reconstruction of Apron C (Tier 1 and Tier 2)	53.16	Oct-24	Mar-25
A3-3	Construction of additional Stands in the Southern side of RWY 09-27	53.12	Oct-25	Mar-27
A4	**Reconstruction of Perimeter Road**	**202.50**	Apr-24	Mar-29
A5	**Construction of Airside Tunnel**	**894.23**	Oct-25	Oct-28
A6	**Reconstruction of Airside Drain**	**498.80**	Oct-24	Mar-29
A7	**Construction of Hangar**	**92.76**	Oct-25	Mar-27
A8	**Parking Stands at NEC Hangar**	**120**	April-24	Mar-25

Sl. No.	PROJECTS	COST (In Rs. Cr.)	START	COMPLETION
A9	**Various Projects less than 50 Cr**	**716.02**	April-24	Mar-29
B	**Passenger Terminal Improvement & Associated Works**	**3,496.11**	**Apr-24**	**Mar-28**
B1	Reconstruction of T1	3,129.23	Apr-24	Sep-28
B2	Terminal 2 Expansion Project	141.88	Apr-25	Mar-27
B3	Expansion of General Aviation Terminal	225	Apr-24	Oct-25
C	**Kerbside Improvement Projects**	**280.21**	**Apr-24**	**Mar-29**
C1	Construction of Kerbside Roads for T1	130.28	Oct-25	Oct-28
C2	Construction of road in front of T2 (over Nallah)	81.8	Oct-25	Mar-27
C3	External Landscape & Horticulture	49.0	Oct-27	Mar-29
C4	At-Grade Road widening for International Airport Road	19.13	Oct-27	Mar-29
D	**External Connectivity Improvement Project**	**58.87**	**Oct-25**	**Mar-28**
E	**Ancillary Building Development Works**	**2,152.06**	**Oct-24**	**Mar-29**
E-1	Construction of MIAL Administration and Management Office	1,229.36	Oct-24	Mar-27
E-2	NAD Colony	282.65	Apr-24	Mar-26
E-3	Mumbai Metro Line 3: Construction of 3 Metro Stations at CSIA	216	Apr-24	Mar-25
E-4	STP and other utilities	16.41	Apr-28	Mar-29
E-5	Development of T2 Forecourt	124.8	Apr-24	Mar-28

Sl. No.	PROJECTS	COST (In Rs. Cr.)	START	COMPLETION
E-6	Crew Terminal	98.7	Oct-24	May-26
E-7	Relocation of ATC Technical Block	184.14	Apr-25	Mar-27
2	**OPERATIONAL CAPEX PROPOSALS**	**3,109.48**	**Apr-24**	**Mar-29**
A	CT Handbag X-ray	320	Apr-24 to Mar-29	
B	Full Body Scanner	69		
C	Crash Fire Tender	50		
D	Refurbishment of Washrooms at T2	189		
E	Transfer Hub Initiatives at Baggage Handling Systems at T2	190		
F	Follow the Greens	200		
G	Self-Bag Drops at T2	222		
H	Projects less than Rs. 50 Cr.	1869.48		
GRAND TOTAL (Project Capex + Operational Capex) (1+2)		**12,285.91**		

Table 44: Gross Total Capex and Total Aeronautical Capex

	Gross Amount (Rs Crs)	Aeronautical Portion* (Rs Crs)
Total Base Cost	12,286	11,653
Indexation over the control period as per cash flow	1,703	1,613
Soft Cost @16%	2,238	2,123
Interest During Construction	1,212	1,120
Total	**17,439**	**16,510**

*Following allocation methodology has been applied.

	Allocation Ratio Applied	Remarks
Aeronautical Assets like Airside Works, Access Roads, BHS, etc	100%	
Common Assets like Terminal, Office Building(New)	90%	Generally accepted Ratio of 90% Aero as used by AERA in the recent orders of various Airports is applied for projection perspective. The ratio based on actual usage area is subject to true-up at the time of determination of tariff for next control period.
Common Assets like Terminal, Office Building(Old)	T1 - 86.84% T2 - 89.93% Overall – 87.43%	Based on IRCLASS Report
Common Assets like GA Business Centre	95.3%	As per aeronautical area allocation of existing GA terminal
Non-Aeronautical Assets like Aircraft Maintenance Hangar	0%	

Year Wise RAB capitalization is as follows : -

Table 45: Year Wise RAB capitalization in FoCP

Particulars	FY25	FY26	FY27	FY28	FY29	Total
Terminal Building	74.96	79.60	248.25	0.62	4,399.86	4,803.29
Runway, Taxiway and Apron	311.71	118.33	171.18	884.77	292.68	1,778.68
Boundary Wall	11.27	11.83	12.42	49.01	13.70	98.23
IT equipment	304.06	77.76	38.10	26.50	24.75	471.17
Plant and Machinery	607.25	675.10	309.79	193.59	63.64	1,849.38
Other Buildings	653.36	831.79	2,198.06	351.22	1,582.95	5,617.38
Access Road	50.39	52.35	271.52	296.23	89.57	760.07
Electrical Installation and Equipment's	260.64	154.89	167.93	194.43	64.53	842.42
Computers - Servers & Networks	84.83	19.82	4.03	1.41	1.48	111.57
Furniture & fixtures	52.59	28.49	31.09	13.16	15.37	140.70
Vehicles	3.05	2.56	5.87	12.33	12.94	36.74
New Capex (1)	**2,414.11**	**2,052.54**	**3,458.25**	**2,023.27**	**6,561.47**	**16,509.65**
Proportionate Capitalization brought forward as per Para 3.1.5 above (2)	**538.05**					**538.05**
Total New Capex (1+2)	**2,952.16**	**2,052.54**	**3,458.25**	**2,023.27**	**6,561.47**	**17,047.70**

Depreciation for FoCP

Table 46: Year Wise Depreciation in FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Depreciation on opening RAB as per Books (excluding Upfront Fees)-a	556.54	513.56	483.16	468.19	421.27	
Aeronautical Allocation (based on FY23-24 closing Gross Block aero allocation) -b	83.4%	83.4%	83.4%	83.4%	83.4%	
Aeronautical Depreciation –(aXb)	464.16	428.31	402.95	390.47	351.34	
Less: Higher depreciation in books as compared to AERA (241 Assets identified by AERA in TCP Order)	20.17	17.61	17.56	17.52	13.05	
Less: Runway recarpeting amortize separately as O&M	29.52	6.54	6.54	6.54	6.54	
Less: Depreciation on disallowed projects	3.74	4.24	4.06	4.16	3.28	
Add: Depreciation on new assets	111.60	288.64	437.72	562.20	634.50	
Aeronautical Depreciation on RAB (1)	**522.33**	**688.56**	**812.51**	**924.44**	**962.98**	**3,910.82**
Depreciation on HRAB (2)	39.44	44.80	42.88	43.93	34.59	205.63
Total (1 + 2)	**561.77**	**733.36**	**855.39**	**968.37**	**997.57**	**4,116.45**

Calculation of Average RAB and HRAB

Table 47: Calculation of Average RAB and HRAB in FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Opening RAB	4,587.37	7,017.20	8,381.19	11,026.9	12,125.76	
Less: - Depreciation during the year	522.33	688.56	812.51	924.4	962.98	**3,910.82**
Add: Capitalization during the year	2,952.16	2,052.54	3,458.25	2,023.3	6,561.47	**17,047.70**
Closing RAB	7,017.20	8,381.19	11,026.92	12,125.8	17,724.25	
Average RAB	**5,802.29**	**7,699.19**	**9,704.06**	**11,576.3**	**14,925.00**	
Opening HRAB	258.08	218.64	173.84	130.97	87.04	
Less: - Depreciation during the year	39.44	44.80	42.88	43.93	34.59	**205.63**
Closing HRAB	218.64	173.84	130.97	87.04	52.44	
Average HRAB	**238.36**	**196.24**	**152.41**	**109.00**	**69.74**	

Airport Users Consultative Committee (AUCC): MIAL conducted Airports Users Consultative Committee with all relevant stakeholders on 13th March 2024. The need and costs for the projects above Rs 50 Crs were discussed in AUCC in line with AERA guidelines. The project information memorandum (PIF) was circulated to all stakeholders including AERA well in advance (Annexure C). The minutes of the AUCC meeting including response to written submissions received from stakeholders have also been circulated to

all stakeholders. The AUCC presentation and minutes of the meeting of AUCC are being submitted as Annexure D.

4.2. Operation & Maintenance Cost for FoCP

4.2.1. The Operation and Maintenance (O&M) cost consists of the employees cost, electricity, water and fuel cost, repairs & maintenance costs, and other operating expenditure.

4.2.2. The projections for FY25 to FY29 are based on certain assumptions elaborated against each of the expense head and are based on actual expenses of FY24.

4.2.3. Further as explained in Chapter 4.1, MIAL is expected to reconstruct T1 during the control period from November 2025 till November 2028. This will lead to one time reduction in certain expenses like R&M, Utilities and Operating Contracts. Further the cost will increase in FY29 once the new terminal with bigger size is available.

4.2.4. Reduction/addition in terminal-1 area due to demolition and re-construction of T1 during the FoCP.

Table 48: Total Terminal Area

Particulars (Sq mtr)	FY25	FY26	FY27	FY28	FY29
T1 Old	103,131	103,131*	-	-	-
T2	448,432	448,432	448,432	448,432	448,432
T1 New					201,074 **
Total Area	551,563	508,592	448,432	448,432	548,969

*only till September 2025

** from October 2028 onwards

Utilities and Operating Cost are decreased/increased in proportion to the change in terminal area.
R&M cost have been reduced by Rs. 13 Crs p.a. based on internal assessment of cost attributable to existing T1.

4.2.5. Segregation and allocation of O&M costs between Aeronautical and Non-Aeronautical services for FoCP is based on the average aeronautical allocation of all years of TCP for each of the expense heads except employee cost. Further common expenses have been allocated based on terminal area ratio of 87.43% (IRCLASS Report) and corporate overheads have been allocated based on gross aeronautical asset ratio of 83.40% (Aeronautical asset allocation as on 31st March 2024).

4.2.6. Employees Cost

In past MIAL has observed high attrition due to new upcoming airports and expansion works in other big airports in the country. Accordingly, to retain talent, considering future expansion and passenger growth, MIAL has considered nominal increase of 10% YoY in average cost per employee. Additionally, MIAL has also considered an increase in manpower in FY29 due to commissioning of new terminal-1 which is almost double the size of existing terminal.

Table 49: Calculation of Employee Cost in FoCP

	FY25	FY26	FY27	FY28	FY29	Total
Number of Employees (Nos.)	1,200	1,200	1,200	1,200	1,400	
Average Cost per employee (Rs Crs)	0.16	0.17	0.19	0.21	0.23	
Employee Cost (Rs in Crs)	**190.38**	**209.42**	**230.36**	**253.39**	**325.19**	**1,208.74**

4.2.7. Electricity, Water and Fuel

Electricity Cost: Electricity cost per unit is based on FY25 tariffs fixed as per the order of Maharashtra Electricity Regulatory Commission (MERC) and thereafter projected to increase by 10% YoY based on increase in rates for last 3 years. MIAL is expecting that gross consumption of units will increase by 5% per annum during the FoCP.

Recoveries from concessionaires (towards Non-Aeronautical costs) have been deducted from total electricity cost to arrive at net electricity cost for Aeronautical Services.

Water Cost: Based on historical trend, consumption of water is expected to increase by 5% YoY and rates will escalate by 7% YoY based on increase in rates for last 3 years. Estimated recoveries from concessionaires have been deducted from total water cost to arrive at net water cost for Aeronautical services.

Following are the utility costs after accounting for One-time adjustment due to decommissioning of old terminal 1 and commissioning of new terminal-1 as explained in point 4.2.1 above.

Table 50: Power and Water Cost in FoCP

Particulars (Net of Recoveries) (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Power Cost	146.24	153.87	160.26	185.10	259.44	904.92
Water Expenses	17.83	18.02	17.96	20.47	29.67	103.95
Total Cost	**164.07**	**171.89**	**178.22**	**205.58**	**289.12**	**1,008.87**

4.2.8. Repairs and Maintenance cost: Repairs and maintenance include sums incurred towards repairs and maintenance (including AMC) in nature of

i) civil works at passenger / cargo terminals, landside, and airside areas
ii) electrical repairs and maintenance for airside ground lighting, aerobridges (and related electrical installations), air conditioning equipment, power supply and generation sets

iii) repairs and maintenance of plant and machinery such as baggage handling equipment, security equipment etc.,
iv) repairs and maintenance of certain information technology assets and electronics
v) repairs and maintenance of vehicles, furniture, and fixtures

Repairs and Maintenance cost for MIAL have increased at CAGR of 10.34% for 5 years (from FY15 to FY20) and trend is expected to remain the same in the future. R&M expenses pertaining to old terminal-1 have been adjusted from total R&M expenses (from Nov 25 onwards) as explained above in point 4.2.1.

Table 51: Calculation of Repairs & Maintenance cost in FoCP

Particulars (Rs Crs)	FY25	FY26	FY27	FY28	FY29	Total
Repairs and Maintenance @CAGR 10.34%	198.93	219.49	242.18	267.22	294.85	**1,222.68**
Less Due to demolition of T1	-	13.00	13.00	13.00	13.00	**52.00**
Total	**198.93**	**206.49**	**229.18**	**254.22**	**281.85**	**1,170.68**

4.2.9. Rents, Rates and Taxes: Major expense items in rent, rates and taxes include rental paid for accommodating customs offices, guest house rentals, property taxes, Non-Agricultural tax, and other levies of similar nature.

Rental

Rental expenses during the TCP are expected to increase at average rate of 10% i.e. CPI+5% YoY.

Property Tax

Property tax has been estimated based on current rate of property tax. As per Section 140A of the Act, property tax shall not exceed 40% of the amount of tax payable in the year immediately preceding the year of revision. MIAL is expecting a 40% upward revision in the property tax rate in FY 26. However due to uncertainty on the timing and quantum of this revision, same has not been considered and it will be claimed on actual incurrence basis during the tariff determination of next control period.

Recoveries from concessionaires towards Non-Aeronautical costs have been deducted from total property tax cost to arrive at net property tax cost for aeronautical services.

Non-Agricultural Tax (NA)

NA Tax has been projected based on current rate of NA Tax and increase in rates as per the provisions of Maharashtra Land Revenue Code, 1966. According to which the tax rate could escalate by maximum three times of previous tax rate every five years. MIAL is envisaging that tax rate will increase by three times in FY25. However,

in light uncertainty on timing and quantum of increase of NA Tax, MIAL has not considered any increase in NA Tax and it will be claimed on actual incurrence basis during the tariff determination of next control period.

Costs under rent, rates and taxes are as under:

Table 52: Total Rent, Rates and Taxes for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Rents	26.09	27.33	28.70	32.25	33.91	**148.29**
Property Tax	25.78	25.78	25.78	25.78	25.78	**128.88**
Non-Agricultural Tax	20.17	20.17	20.17	20.17	20.17	**100.87**
Total	**72.04**	**73.28**	**74.65**	**78.20**	**79.86**	**378.04**

MIAL is under the process of takeover of land from Air India at CSMIA and same can result in potential increase of up to Rs. 60-70 Crs. in Property Tax. Further, as stated above, Property Tax can increase by 40% and NA Tax can increase up to three times in near future. Increase in Property Tax on account of additional land from Air India and NA Tax has not been considered in this MYTP. However, MIAL requests Authority that actual payments done by MIAL for these taxes should be allowed on actual incurrence basis during true-up of FoCP.

4.2.10. Advertising Cost: Advertisement expenses include expenses incurred towards general advertisement, retention of a PR agency and surveys relating to customer satisfaction.

Advertisement costs are expected to increase by 10% i.e. CPI+5% YoY, considering FY24 as the base year.

Table 53: Total Administrative Cost in FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Advertisement Expenses	**3.94**	**4.33**	**4.76**	**5.24**	**5.77**	**24.04**

4.2.11. Administrative Cost: Major items in administrative expenses include legal fees, professional fees, travelling and lodging, telephone expenses, business development, conveyance, printing & stationery, subscription / membership fees and hospitality expenses.

The administrative costs have been assumed to increase at 10% i.e. CPI+5%.

Table 54: Total Administrative Cost for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Administrative Expenses	**65.80**	**72.38**	**79.61**	**87.58**	**96.33**	**401.70**

4.2.12. Insurance Cost: The insurance cost is based on the sum insured under various policies like Industrial All Risk Policy, Terrorism and Sabotage Risk policy, Cyber Security Insurance and Airport Operator's Liability Policy. Insurance expenses are projected as % of Gross Block of assets. Insurance expenses of FY24 translates to

0.11% of Gross Block of assets. Same has been used for projecting the insurance expenses for future years of FoCP.

Table 55: Total Insurance Expense for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Insurance Expense	**20.46**	**23.27**	**27.45**	**29.69**	**37.45**	**138.33**

4.2.13. Consumable Stores: Consumable stores include expenses incurred towards purchase and consumption of facility stores including engineering stores, cleaning chemicals and other consumables. MIAL estimates that expenses on consumable stores will increase by 10% i.e. CPI+5% over FY24 being the base year.

Table 56: Total Consumable stores for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Consumables	**19.22**	**21.14**	**23.25**	**25.58**	**28.14**	**117.32**

4.2.14. Operating Costs: Operating cost includes expenses incurred towards housekeeping/cleaning contracts, security contract, horticulture expenses, inter-terminal coaches, trolley management contracts and other operating contracts such as golf cart services within the terminal, medical emergency facilities and passenger service management. Most of the cost are labour intensive and we expect the cost to increase by 12.30% (CAGR of 5 years from FY15 to FY20).

Table 57: Total Operating costs in FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Operating Costs	**214.13**	**222.11**	**228.59**	**256.70**	**340.11**	**1,261.65**

4.2.15. Digitization Cost: CSMIA handles about 140,000 passengers and 280,000 non-passengers each day. In other terms, we look after about 420,000 Consumers per day and over 150 million Consumers a year. In recent times, consumer demand and expectations for real-time information regarding flights, schedules, security check and queues, at airports, etc., have increased multi-folds. Till date, CSMIA's main priorities have been effective and safe airport operations, optimizing capacity, and seamless service quality, among other things.

But as times have changed, our focus is Consumer service, convenience, and hospitality. Hence it has become critical for CSMIA to relook at operating model and move from traditional physical service model to combination of physical & digital service model.

MIAL believes that next phase of growth will be dependent on digital transformation / technology intervention where we can provide end to end services to our consumers (origin to destination) on single platform which will result in enhanced consumer experience and more satisfaction.

It is to be noted that customer expectations in terms of service quality have increased multi-fold and MIAL believes that Digitization of airport will be key enabler for achieving the same. MIAL, as an airport operator, needs to focus on enhancing passenger handling capacity, augmenting airport infrastructure, and improving overall service quality. While focusing on this, MIAL does not have bandwidth nor expertise to undertake digitalisation of airport experience. It will have to be done with the help of industry experts of the Digital field. Building specific manpower for this field will have challenges and considering pace at which digitization is required to be adopted, timelines are also not conducive. Hence MIAL by virtue of competitive bidding process has selected another entity which can help MIAL to embark on this journey of Digital transformation. Estimated costs for this activity is as under:

Table 58: Total Digitalization cost in FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Digitization Costs	**138.00**	**119.00**	**128.00**	**135.00**	**139.00**	**659.00**

4.2.16. Corporate Cost Allocation – The concept has been explained in detailed in Point 3.4.5 above. The Corporate Cost allocation has been increased at 10% YoY (in line with increase in employee costs)

Table 59: Total Corporate cost allocation for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Corporate Cost Allocation	**94.00**	**103.40**	**113.74**	**125.11**	**137.63**	**573.88**

4.2.17. Working Capital Interest and Finance Charges: As explained in chapter 3, working capital is an inherent requirement of airport business. Working capital loan has been considered at an interest rate of 12% per annum on average balance.

Financing charges includes (i) amortization of existing loan processing fees paid to bankers, arranger's fee and other upfront fees as per accounting standards (ii) upfront fee of 1.5% to be paid on future debts, (iii) performance bank guarantee given to AAI as mandated under OMDA of Rs. 300 Crs @1.5% annual fees.

Table 60: Total Interest on Working Capital and Finance Charges for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Interest on Working Capital	54.03	133.80	152.99	151.32	168.00	660.14
Finance Charges	70.91	58.15	67.22	62.41	42.75	301.44
Total	**124.94**	**191.95**	**220.21**	**213.73**	**210.75**	**961.59**

4.2.18. Other Miscellaneous Expenses: Other miscellaneous charges like Bad debts written off, exchange gain/loss, CWIP written off, loss on sale of asset etc. have not been included in MYTP for FoCP and shall be claimed on actual incurrence basis during the tariff determination of next control period.

4.2.19. Summary of Aeronautical Expenses after applying aeronautical allocation ratio is as follows:

Table 61: Aeronautical O&M expenditure proposed for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Employee Costs	177.05	194.76	214.23	235.66	302.43	**1,124.12**
Electricity, Water and Fuel	161.94	169.66	175.91	202.92	285.37	**995.80**
Repairs and Maintenance	188.84	196.02	217.56	241.33	267.56	**1,111.32**
Rent, Rate and Taxes	63.63	64.73	65.94	69.08	70.54	**333.91**
Advertisement Expenses	3.54	3.89	4.28	4.71	5.18	**21.58**
Administrative Expenses	53.04	58.35	64.18	70.60	77.66	**323.82**
Insurance Expenses	17.06	19.41	22.90	24.76	31.24	**115.36**
Consumables	17.56	19.32	21.25	23.37	25.71	**107.21**
Operating Costs	191.50	198.64	204.43	229.56	304.16	**1,128.28**
Digitization Expenses	124.20	107.10	115.20	121.50	125.10	**593.10**
Corporate Cost Allocation	87.42	96.16	105.78	116.36	127.99	**533.71**
Interest on Working Capital	45.06	111.59	127.59	126.20	140.11	**550.56**
Finance Charges and Performance Bank Guarantee Charges	59.14	48.50	56.06	52.05	35.66	**251.41**
Runway Recarpeting	0.11	0.10	0.00	0.00	0.00	**0.22**
Total	**1,190.10**	**1,288.21**	**1,395.31**	**1,518.09**	**1,798.69**	**7,190.41**

4.3. Revenue from Revenue Shared Assets and S Factor (S) for FoCP

The Revenue from Revenue Share Assets for the FoCP has been projected based on applicable revenue drivers/ agreements / contracts. Impact of decrease in traffic due to demolition and reconstruction of Terminal-1 has been considered while projecting revenue from various non-aeronautical businesses.

4.3.1. Retail License Revenues

4.3.1.1. Food and Beverage (F&B) Concessions:

Revenue from F&B Concessions have been considered basis projected passenger traffic. Further 2% growth in Average Transaction Value (ATV) per pax and 1% growth in penetration is considered each year of fourth control period.

Revenues to MIAL is (1) revenue share or MMG, whichever is higher and (2) common area maintenance charges as per company policy.

4.3.1.2. Flight Catering Concessions:

Revenue from Flight Catering concessions is considered basis projected passenger traffic and 5% growth based on actual revenue of FY24.

4.3.1.3. Retail Concessions:

Revenue from Retail Concessions have been projected basis projected passenger traffic. Further 2% growth in Average Transaction Value (ATV) per pax and 1% growth in penetration is considered each year of fourth control period

Revenues to MIAL is (1) revenue share or MMG, whichever is higher and (2) common area maintenance charges as per company policy.

4.3.1.4. Forex Concessions & Automated Teller Machines (ATMs):
The revenue from Forex is based on fixed MMG contract. Revenue from ATM concessions is assumed to increase at 5% on likely actual revenue of FY24.

4.3.1.5. IT and Communication:
The revenue from IT and communication is assumed to increase by 5% YoY.

4.3.1.6. Car Rental and Hotel Reservation Concessions:
Revenue from Car rental and Hotel reservation concessions is considered projected basis projected passenger traffic and 5% growth based on likely actual revenue of FY24.

4.3.1.7. Duty free concession:
Revenue from Duty Free Concessions have been projected basis projected international passenger traffic Further 2% growth in Average Transaction Value (ATV) per pax and 1% growth in penetration is considered each year of fourth control period.
Revenues to MIAL is (1) revenue share or MMG, whichever is higher and (2) common area maintenance charges as per company policy.

4.3.1.8. Advertisement concession:
Revenue from Advertising concession is expected to grow at 5% in line with expected business growth.

4.3.1.9. Car parking concession:
Revenue from Car Parking concessions is projected based on fixed MMG contract (10% annual increase)

4.3.1.10. Ground handling concession:
As per contract with various Ground Handling agencies, revenue from Ground Handling concessions is higher of MMG and revenue share. Total Ground Handling revenue is expected to grow inline with traffic growth

4.3.2. Land Lease Rentals, License Fee and Space Rent:

4.3.2.1. **Land Lease Rent, Hangar Rent, Terminal Building rent and other building Rents** are expected to increase at a rate of 7.5% p.a. considering FY24 likely numbers as base numbers.

4.3.2.2. **Lounge Concessions** - Revenue from F&B Concessions have been projected basis projected departing passenger traffic, Average Transaction Value (ATV) per pax and penetration of FY24 and considering growth in ATV by 2% and penetration by 1% respectively for each year of fourth control period.

Revenues to MIAL is (1) revenue share or MMG whichever is higher and (2) common area maintenance charges as per company policy.

4.3.3. Cargo:

4.3.3.1. Domestic Cargo:

- Domestic Cargo revenue have been projected based on cargo volume of FY24 and change in cargo volume which in turn is dependent on domestic ATM traffic, and 5% growth in yield per ton.

- Revenues accruing to MIAL is revenue share or MMG, whichever is higher.

4.3.3.2. International Cargo:

- International Cargo revenue have been projected based on cargo volume of FY24 and change in cargo volume which in turn is dependent on international ATM traffic, and 5% growth in yield per ton.
- Revenues accruing to MIAL is revenue share or MMG, whichever is higher.

4.3.3.3. Perishable Cargo:

- Perishable Cargo revenue have been projected based on cargo volume of FY24 and change in cargo volume which in turn is dependent on international ATM traffic, and 5% growth in yield per ton.
- Revenues accruing to MIAL is revenue share or MMG, whichever is higher.

4.3.3.4. Courier:

- Courier Cargo revenue have been projected based on cargo volume of FY24 and change in cargo volume which in turn is dependent on international ATM traffic, and 5% growth in yield per ton.
- Revenues accruing to MIAL are revenue share as per Concession Agreement.

4.3.3.5. Cargo Handling

Cargo handling revenues are projected to increase by 5%.

4.3.4. Summary of Revenues from Revenue Share Asset and S Factor is as follows: -

Table 62: Revenue from Revenue Share Assets projected for FoCP

Particulars	FY25	FY26	FY27	FY28	FY29	Total
Retail License Revenues						
F&B	151.45	155.04	163.80	176.99	201.97	849.26
Flight Kitchen	57.65	51.17	49.38	53.63	64.02	275.85
Retail concession	149.65	142.58	139.90	150.29	173.52	755.94
Foreign exchange, Banks & ATM	94.16	78.46	71.68	76.08	81.30	401.68
IT & Communication	146.35	130.06	125.60	136.44	163.13	701.59
Car Rental & Hotel Reservation	26.73	23.76	22.94	24.92	29.80	128.15

Particulars	FY25	FY26	FY27	FY28	FY29	Total
Duty Free Shops	348.01	286.05	260.41	272.32	284.84	1,451.64
Advertising Income	230.23	204.75	197.84	214.93	256.88	1,104.64
Car Parking / Ground Transport	61.89	57.62	58.30	66.35	83.10	327.27
Ground Handling	144.84	121.04	110.91	114.22	129.74	620.76
Others	27.17	22.99	21.15	21.88	24.91	118.11
Total	**1,438.13**	**1,273.54**	**1,221.92**	**1,308.06**	**1,493.23**	**6,734.88**
Rent & Service Revenues						
Land Rent & Lease	199.24	214.18	230.25	247.52	266.08	1,157.27
Hanger Rent	35.49	19.07	-	-	-	54.56
Terminal Bldg Rent	116.93	113.95	109.86	118.10	155.42	614.25
Cute counter charges	14.28	11.93	10.93	11.26	12.79	61.20
Lounges	79.80	77.67	79.55	85.91	98.02	420.95
Cargo Bld Rent & Other Building rent	37.71	40.54	43.58	46.85	50.36	219.04
Total	**483.44**	**477.34**	**474.17**	**509.64**	**582.67**	**2,527.26**
Cargo Revenues						
Domestic Cargo	33.26	32.78	33.80	36.55	41.79	178.17
International Cargo	323.52	295.87	289.88	307.96	327.20	1,544.43
Perishable Cargo	35.83	30.49	28.43	30.00	31.65	156.39
Courier Services	19.51	10.33	9.31	9.78	10.27	59.20
Others	32.93	34.57	36.30	38.12	40.02	181.95
Total	**445.04**	**404.04**	**397.73**	**422.40**	**450.93**	**2,120.14**
Grand Total Revenues from RSA	**2,366.61**	**2,154.93**	**2,093.83**	**2,240.10**	**2,526.82**	**11,382.29**

Calculation of S factor

Table 63: Calculation of S factor for FoCP

Particulars	FY25	FY26	FY27	FY28	FY29	Total
Revenue from RSA as per above	2,366.61	2,154.93	2,093.83	2,240.10	2,526.82	11,382.29
Less revenue from Non-Transfer Assets	16.66	17.50	18.37	19.29	20.25	92.08
Less Revenues from Existing Assets	592.61	442.07	291.53	291.53	291.53	1,909.28
Net Revenues from RSA	**1,757.34**	**1,695.36**	**1,783.92**	**1,929.27**	**2,215.03**	**9,380.93**
Less Annual Fees @38.7%	680.09	656.10	690.38	746.63	857.22	3,630.42
RSA to be used for Target Revenues	1,077.25	1,039.26	1,093.54	1,182.64	1,357.82	5,750.51
S Factor as 30% of RSA	**323.17**	**311.78**	**328.06**	**354.79**	**407.34**	**1,725.15**

For projection purposes Revenue from Existing Assets is considered as the same amount as in FY24.

4.4. Traffic Forecast considered for FoCP

4.4.1. Historical Traffic at MIAL is as follows : -

Table 64: Historical Traffic at MIAL

	Passengers (mppa)			ATMs (000)			Avg. Load Factors		
	Dom Pax	Intl Pax	Total	Dom ATM	Intl ATM	Total	Dom ATM	Intl ATM	Total
FY10	17.37	8.23	25.61	164.63	65.17	229.80	106	126	111
FY11	20.00	9.08	29.07	173.98	68.68	242.66	115	132	120
FY12	21.04	9.70	30.75	179.31	72.21	251.51	117	134	122
FY13	20.28	9.93	30.21	173.25	71.26	244.51	117	139	124
FY14	21.88	10.34	32.22	188.31	72.36	260.67	116	143	124
FY15	25.21	11.43	36.63	195.37	74.09	269.46	129	154	136
FY16	30.05	11.62	41.67	220.25	76.38	296.63	136	152	140
FY17	32.72	12.43	45.15	224.90	80.57	305.47	145	154	148
FY18	34.85	13.65	48.50	234.61	86.08	320.69	149	159	151
FY19	34.09	14.74	48.83	232.65	88.62	321.26	147	166	152
FY20	33.57	12.36	45.92	228.68	75.99	304.68	147	163	151
FY21	9.84	1.22	11.05	91.81	23.18	114.98	107	53	96
FY22	18.56	3.18	21.75	150.75	34.90	185.65	123	91	117
FY23	32.72	11.21	43.92	221.86	67.78	289.64	147	165	152
FY24	38.50	14.32	52.82	241.81	83.15	324.96	159	172	163
CAGR 5 years from FY15 to FY20	5.9%	1.6%	4.6%	3.2%	0.5%	2.5%	2.6%	1.1%	2.1%
CAGR 10 years from FY10 to FY20	6.8%	4.1%	6.0%	3.3%	1.5%	2.9%	3.4%	2.6%	3.1%

Mumbai airport is a land locked and constrained single runway airport. It is also the most efficiently managed airport and holds the world record for maximum movements on a single runway in a single day.

Historically, traffic has increased 5-6% on yearly basis which is attributed to increase in ATMs and average Load Factor. Due to capacity constraint at Airside and average Load Factor nearing to maximum planning position of 85%, the growth expected in future is almost negligible.

4.4.2. As provided in the Capital Expenditure chapter, MIAL has proposed to re-construct Terminal 1 which is currently handling approx. 15 million domestic traffic. It is expected that once the operations at existing Terminal 1 are stopped for demolition

and re-construction purposes, certain traffic will be accommodated in Terminal 2. The balance traffic is expected to shift at Navi Mumbai International Airport which is likely to start operation in the year 2025. Once the T1 is reconstructed it will cater to the available demand in the MMR region.

Based on independent traffic study conducted by ICF for CSMIA (Annexure E) which has considered overall traffic demand at MMR region and various supply side constraints, the likely traffic to be handled at the MIAL in FoCP will be as follows: -

Table 65: Projected Traffic for FoCP

	Passengers (million)			ATM (000)		
	Domestic	International	Total	Domestic	International	Total
FY25	38.60	14.11	**52.72**	250.73	81.18	**331.91**
FY26	33.61	11.01	**44.62**	214.36	63.02	**277.37**
FY27	31.49	9.54	**41.04**	214.36	54.13	**268.48**
FY28	32.83	9.63	**42.46**	207.62	54.13	**261.75**
FY29	38.63	9.72	**48.34**	243.17	54.13	**297.30**

MIAL has exempted ATM and Passenger of approx. 3% and 15% respectively. The same will be suitably factored while submitting rate card at the time of consultation paper.

4.5. Inflation considered for FoCP

4.5.1. As per RBI Forecaster Survey 87th round dated 05th April 2024, the projection of inflation is as follows:

Calendar Year	CPI Combined
FY24-25 onwards	Mean as 4.6%

Based on the above, MIAL has assumed CPI inflation of 5% for all years in the Forth Control Period starting from FY25 onwards. while projecting both capital expenditure and operating expenditure.

4.6. Fair Rate of Return for FoCP

4.6.1. Cost of Equity (COE)

4.6.1.1. It is mandated under the AERA Guidelines that Cost of Equity is to be calculated based on Capital Asset Pricing Model (CAPM). The relevant extract from AERA Guideline is as below:

5.1.3. Cost of Equity

The Authority shall estimate cost of equity, for a Control Period, by using the Capital Asset Pricing Model (CAPM) for each Airport Operator, subject to the consideration of such factors as the Authority may deem fit.

4.6.1.2. Tabled below is a comparison of traffic growth at various Airports in India.

Table 66: Comparison of traffic growth at various Airports in India

	FY09-10	FY14-15	FY19-20	CAGR 10 years	CAGR 5 years
Mumbai	**25.60**	**36.63**	**45.87**	**6%**	**5%**
Ahmedabad	3.53	5.05	11.17	12%	17%
Mangaluru	0.84	1.31	2.24	10%	11%
Lucknow	1.18	2.54	5.53	17%	17%
Jaipur	1.52	2.20	5.47	14%	20%
Trivandrum	2.33	3.17	4.43	7%	7%
Guwahati	1.59	2.23	5.74	14%	21%
6 Airports	**10.99**	**16.50**	**34.58**	**12%**	**16%**
Delhi	26.12	40.98	67.3	10%	10%
Hyderabad	6.52	10.4	21.7	13%	16%
Bangalore	9.93	15.4	32.4	13%	16%
All India Traffic	**123.76**	**190.13**	**341.05**	**11%**	**12%**
Mumbai% to India	21%	19%	13%		
Delhi% to India	21%	22%	20%		
Hyderabad% to India	5%	5%	6%		
Bangalore% to India	8%	8%	9%		
6 Airport% to India	9%	9%	10%		

4.6.1.3. MIAL has witnessed a very limited traffic growth (5-6%) in recent past, as compared to all India growth or other PPP Airports growth (10%-16%). MIAL market share as compared to all India traffic has been on declining trend (reduced from 21% to 13%) since last 10 years whereas for other Airports it is either increasing or remain stable. Same is attributable to the fact that Mumbai is airside constrained airport. This risk factor needs to be duly provided for while evaluating the cost of equity.

4.6.1.4. Adani Group recently has done the detailed cost of equity study for 3 airports (Ahmedabad, Lucknow, and Mangalore) which was used in their respective

MYTP submission. The similar factors are being used for Mumbai Airport in current MYTP submission with an additional premium of risk factor as explained above added.

4.6.1.5. The components to be estimated in the CAPM are (a) the beta of the Airport, (b) the risk-free rate and (c) the equity risk premium. The process is elaborated in the table below:-

Estimated parameter	Methodology/Approach	Result
Beta	Identification of comparable airports: Various airports were identified which are listed on stock exchanges across the globe or have regulated betas. A set of airports were removed from the list because of either lack of data for the required time period or unreliable data.	-
	Determination of equity and asset beta for the selected airports: Beta is indicative of the systematic risk of the project. In order to calculate this, the analysis regresses the movement of the stock prices (of respective airports) on the movement of an index representing the market portfolio. The beta values pertaining to this regression are called the 'equity' betas. Once the equity beta is calculated, the analysis 'un-levers' the beta (i.e., purges off the effects of the capital structure) by using the Hamada equation: $\beta_U = \frac{\beta_L}{(1+(1-t)\left(\frac{D}{E}\right))}$, where t is the tax rate, D and E are debt and equity respectively. This unlevered beta is called the 'asset' beta for the respective airports.	-
	Computing the proximity scores for each airport and asset beta of the airport: Once the asset betas have been computed, quantifiable assessment has been undertaken for identified airports to determine the proximity/ relevance scores. All the airports have been compared with the airport based on the following airport characteristics: Regulatory Environment Operational Structure	0.81

	Payment Structure Ownership Structure Numeric values of 1 to 3 have been assigned to each factor wherein lower the score, more comparable is the airport. Furthermore, an inverse of the proximity scores is used to calculate the 'asset' beta.	
	Re-lever the asset beta to obtain the equity beta: The asset beta is re-levered using the Hamada equation to obtain the equity (re-levered) beta. As the re-levered beta is a function of D/E or gearing ratio, the beta value changes whenever the D/E or gearing ratio changes. A gearing ratio of 48:52 is considered. This has been derived from the gearing ratios set by the regulators at different comparable international airports.	1.38
Risk Free Rate	An average of daily yield for 10 years of the 10-year Government of India security has been considered as the risk-free rate.	7.57%
Equity Risk Premium	To avoid any bias, an average of equity risk premiums computed by a list of studies and standard market indices are taken for the analysis. The list of the same is provided as follows: Prof Damodaran's estimate of ERP as of January 2021 based on ratings of sovereign bonds. Prof Damodaran's estimate of ERP as of January 2021 based on ratings of sovereign bonds. Forward looking ERP of India as estimated in a study conducted in April 2019 by Grant Thornton ERP published by Incwert Valuation Chronicles in June 2020 ERP computed based on Nifty 50 ERP computed based on Sensex.	7.06%

4.6.1.6. After computing the parameters as mentioned in the table above, the inputs are fed into the CAPM:

$$R_e = R_f + \beta * (R_m - R_f)$$

Where,

R_e is the Cost of Equity

R_f is the risk-free rate

β is the equity beta of the airport

$(R_m - R_f)$ is the equity risk premium

4.6.1.7. Additional Risk Premium due to lesser growth and capacity saturation is estimated as 1% based on below calculations: -

MIAL Market Share in 2009-10 (A)	21%
MIAL Market Share in 2014-15 (B)	19%
MIAL Market Share in 2019-20 ©	13%
Annual % market share lost in 10 years (A – C) / 10	0.72%
Annual % market share lost in 5 years (B – C) / 5	1.16%
Risk factor considered for calculation purposes	**1%**

4.6.1.8. After incorporating the above estimated figures in the CAPM equation and with Additional Risk Premium, the computed CoE is as follow. The following table summarizes the sensitivity of the gearing ratio:

Gearing Ratio	CoE
48:52	18.11% - 18.28%
60:40	20.55% - 20.76%
65:35	22.06% - 22.29%
70:30	24.07% - 24.34%

4.6.1.9. Accordingly, in view of the foregoing and that AERA has been considering gearing ratio of 48:52, CoE should be allowed at 18.30% for MIAL for the FoCP.

4.6.2. Cost of Debt

4.6.2.1. As on date MIAL has two outstanding loans in its financial statements.

4.6.2.2. **External Commercial Borrowing** – As explained in point 3.3.2 above, all in effective cost of Debt is 11.50%.

Table 67: External Commercial Borrowing and cost of its debt for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29
Opening Debt Outstanding	6,339	6,339	6,339	6,339	6,339
Closing Debt Outstanding	6,339	6,339	6,339	6,339	6,339
Cost of Debt	11.50%	11.50%	11.50%	11.50%	11.50%

4.6.2.3. The intercompany loan from Adani Airport Holdings Limited is unsecured and subordinated to the senior debt. It carries interest @12.5% per annum.

Table 68: Intercompany loan and cost of its debt for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29
Opening Debt Outstanding	2,584	2,928	3,318	3,760	4,260
Closing Debt Outstanding	2,928	3,318	3,760	4,260	4,827
Cost of Debt	12.50%	12.50%	12.50%	12.50%	12.50%

4.6.2.4. MIAL has estimated average cost of debt to be 11.93% per annum for Fourth Control Period as: -

Table 69: Calculation of Weighted Average Cost of Debt for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29
Opening Debt Outstanding	8,743	12,622	15,415	18,760	21,741
Closing Debt Outstanding	12,622	15,415	18,760	21,741	23,374
Average Debt	10,683	14,018	17,088	20,251	22,557
Interest Cost	1,274	1,666	2,036	2,418	2,697
Cost of Debt	11.93%	11.88%	11.91%	11.94%	11.96%
Weighted Avg Cost of Debt	**11.93%**				

4.6.3. Gearing Ratio

4.6.3.1. For calculating the fair rate of return (FRoR), MIAL has assumed debt-equity ratio of 48%:52% which is consistent with debt-equity ratio considered by AERA in various recent tariff orders.

4.6.4. FRoR

4.6.4.1. Based on above parameters, the below table summarizes the FRoR for TCP:

Table 70: Calculation of FRoR for FoCP

Particulars	FY25	FY26	FY27	FY28	FY29
Cost of Debt	11.93%	11.93%	11.93%	11.93%	11.93%
Cost of Equity	18.3%	18.3%	18.3%	18.3%	18.3%

D/E Ratio	0.48:0.52	0.48:0.52	0.48:0.52	0.48:0.52	0.48: 0.52
FroR	**15.24%**				

4.7. Aeronautical Taxation for FoCP

In line with methodology used to calculate aeronautical tax in FCP, SCP and TCP, Aero Taxation has been calculated for FoCP as follows:-

Table 71: Calculation of Aeronautical Tax for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Aero Revenues	6,014.13	9,027.65	8,510.53	9,116.12	10,483.82	43,152.25
Add : S Factor (30% of RSA)	323.17	311.78	328.06	354.79	407.34	1,725.15
Total Revenues	**6,337.30**	**9,339.42**	**8,838.59**	**9,470.92**	**10,891.16**	**44,877.40**
Less Aero Expenses	1,190.10	1,288.21	1,395.31	1,518.09	1,798.69	7,190.41
Less Aero Depreciation	522.33	688.56	812.51	924.44	962.98	3,910.82
Less Interest Cost	332.22	439.08	554.96	663.40	856.56	2,846.23
Net Profit	**4,292.64**	**6,923.57**	**6,075.81**	**6,364.99**	**7,272.93**	**30,929.94**
Profit for Tax Computation	4,292.64	6,923.57	6,075.81	6,364.99	7,272.93	30,929.94
Tax Rate	25.17%	25.17%	25.17%	25.17%	25.17%	
Aero Taxation	**1,080.37**	**1,742.52**	**1,529.16**	**1,601.94**	**1,830.45**	**7,784.45**

4.8. Airport Service Quality for FoCP

4.8.1. With respect to the Airport Service Quality obligations of MIAL, OMDA provide the list of Objective and Subjective Service Quality Requirements in Schedule 3 and Schedule 4.

4.8.2. The ASQ rating achieved by the Airport in last few years is as follows:

4.9. Aggregate Revenue Requirement (ARR) for FoCP

Based on the above analysis, MIAL estimates the present value of target revenue for the aeronautical service to be Rs 32,156.61 Cr. The following table summarizes the ARR of MIAL for the FoCP is as :

Table 72: Calculation of Aggregate Revenue Requirement (ARR) for FoCP

Particulars (Rs. In Crs)	FY25	FY26	FY27	FY28	FY29	Total
Opening RAB	4,587.37	7,017.20	8,381.19	11,026.92	12,125.76	
Closing RAB	7,017.20	8,381.19	11,026.92	12,125.76	17,724.25	
Average RAB	5,802.29	7,699.19	9,704.06	11,576.34	14,925.00	
Opening HRAB	258.08	218.64	173.84	130.97	87.04	
Closing HRAB	218.64	173.84	130.97	87.04	52.44	
Average HRAB	238.36	196.24	152.41	109.00	69.74	
Return on Average RAB and HRAB @15.17%	920.67	1,203.37	1,502.25	1,781.00	2,285.40	7,692.70
Add: Operating Expenses	1,190.10	1,288.21	1,395.31	1,518.09	1,798.69	7,190.41
Add: Depreciation	561.77	733.36	855.39	968.37	997.57	4,116.45
Add: Aeronautical Taxes	1,080.37	1,742.52	1,529.16	1,601.94	1,830.45	7,784.45
Less:30% Revenue Share Assets	(323.17)	(311.78)	(328.06)	(354.79)	(407.34)	(1,725.15)
Target Revenue	**3,429.74**	**4,655.69**	**4,954.05**	**5,514.60**	**6,504.76**	**25,058.85**
Add: True-up upto TCP	13,665.34					13,665.34
Total Target Revenue (TR)	**17,095.08**	**4,655.69**	**4,954.05**	**5,514.60**	**6,504.76**	**38,724.19**
Discounting Factor	1.00	0.87	0.75	0.65	0.57	
PV of TR	**17,095.08**	**4,039.94**	**3,730.30**	**3,603.21**	**3,688.07**	**32,156.61**

4.10. Annual Tariff Proposal for FoCP

4.10.1. The existing applicable rate card is approved by AERA through tariff order no. 64/2020-21 dated 27th February 2021 and further extended by order no. 40/2023-24 upto 30th September 2024.

4.10.2. As regard to the annual tariff proposal for FoCP, it is submitted that in line with the extant practice, the detailed pricing proposal (rate card) will be submitted upon release of consultation paper by AERA.

4.10.3. In order to calculate Aeronautical taxes, the existing rates are increased one time by a factor of (CPI – X) in FY25 and by CPI in future years of FoCP to match the NPV of ARR for the control period.

5. List of Annexures of MYTP Fourth Control Period

Annexure Reference	Particulars
Annexure A	NASFT email dated 7 January 2021
Annexure B	ACRP Report - Airport Capex
Annexure C	CSMIA PIF
Annexure D	MIAL AUCC Minutes for FoCP
Annexure E	MIAL Traffic report – 2024
Annexure F	Proportionate RAB addition (on account of disposal of asset - TDSAT judgement related)
Annexure G	Financial Statements from FY 2019-20 to 2023-24
Annexure H	Fixed Asset Register from FY 2019-20 to 2023-24
Annexure I	IRCLASS Report
Annexure J	TDSAT Order dated 6th October 2023 for Second and Third Control Period Tariff Order
Annexure K	Supreme Court Order dated 11th July 2022 for First Control Period Tariff Order