



# PROGETTO RIQUALIFICAZIONE

Enrico Demaria | One Works

**LA RIQUALIFICAZIONE  
DELL'ESISTENTE E LA  
PROGETTAZIONE IN BIM**

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BARI | 12 febbraio 2020

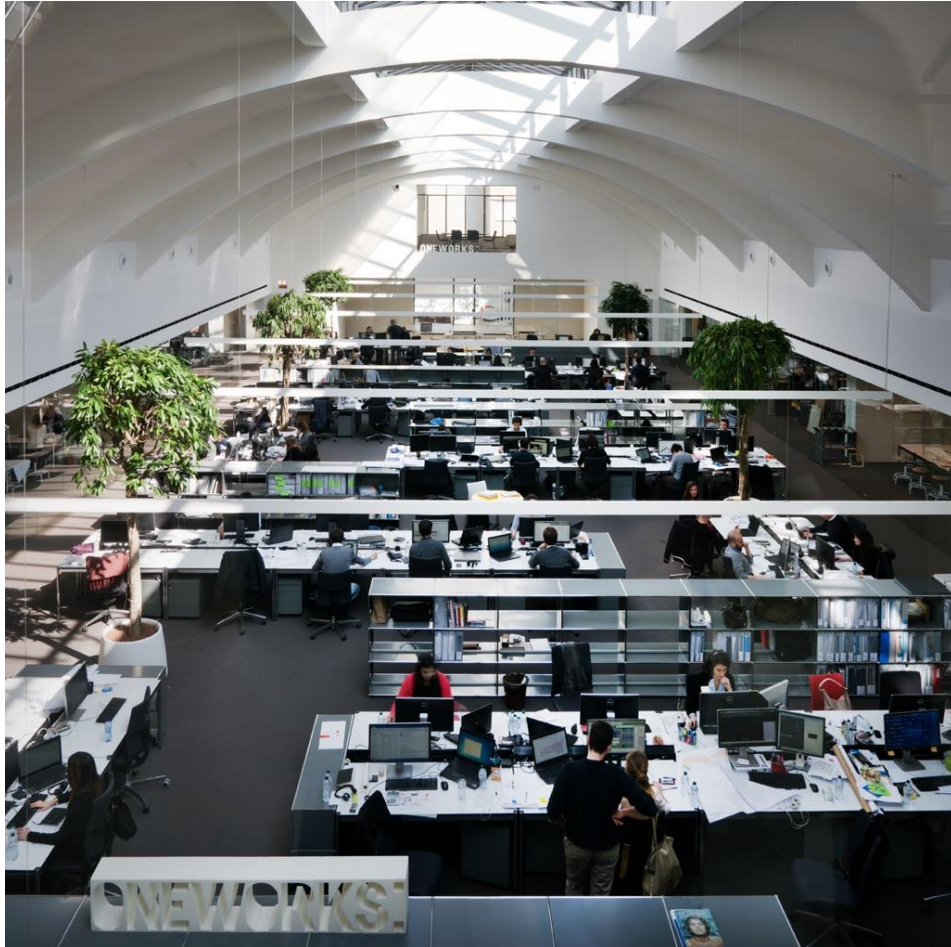




# LA SOCIETÀ



PROGETTO  
RIQUALIFICAZIONE



One Works is a global design and consultancy firm, offering an integrated approach to architecture, infrastructure and urban engineering.

We believe in creating dynamic, intuitive places where people and communities can connect with their environment, and with each other.

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# LE SEDI



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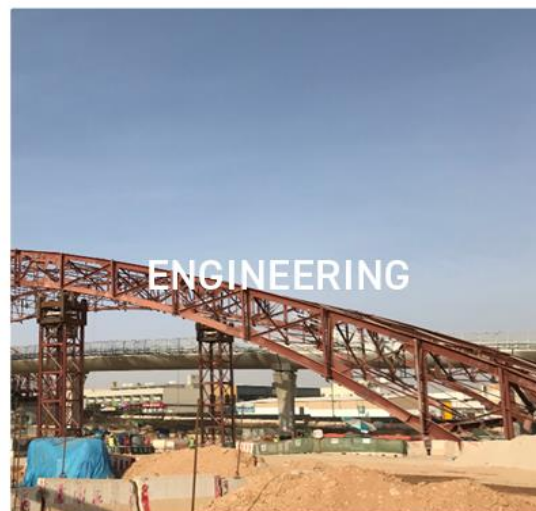
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# L'EXPERTISE



PROGETTO  
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AVIATION  
CONSULTANCY

ADVISORY &  
CONSULTANCY

PROJECT SUPPORT  
SERVICES

CONTRACTOR  
SUPPORT SERVICES

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## AVIATION

Consultancy  
Masterplanning  
Airside Design  
Landside Design



## TRANSPORTATION

Metro and Rail  
Ports & Maritime  
Parking and Roads



## URBAN DESIGN

Masterplanning  
Urban Realm  
Transport Orientated  
Development



## RETAIL

Shopping Centres  
Urban Destinations  
New Destinations



## BUILDINGS

Offices  
Hospitality  
Education  
Cultural



# LA RIQUALIFICAZIONE DELL'ESISTENTE E LA PROGETTAZIONE IN BIM

## CHE COS'E' IL BIM?



# CHE COS'E' IL BIM?



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**BIM** or **Building Information Modelling** is a process for creating and managing **information** on a construction project across the project **lifecycle**. One of the key outputs of this process is the Building Information Model, the digital description of every aspect of the built asset. This model draws on information assembled **collaboratively** and updated at key stages of a project. Creating a digital Building Information Model enables those who interact with the building to optimize their actions, resulting in a greater whole life value for the asset.

UK National Building Specification (NBS), RIBA

**Building Information Modeling (BIM)** is a digital representation of physical and functional characteristics of a facility. A BIM is a **shared knowledge resource** for **information** about a facility forming a reliable basis for decisions during its **life-cycle**; defined as existing from earliest conception to demolition..

USA National BIM Standard Commission



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# CHE COS'E' IL BIM?



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# LA RIQUALIFICAZIONE DELL'ESISTENTE E LA PROGETTAZIONE IN BIM



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## RIQUALIFICAZIONE E AMPLIAMENTO DEL TERMINAL PASSEGGERI DELL'AEROPORTO MARCO POLO DI VENEZIA

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# IL PROGETTO



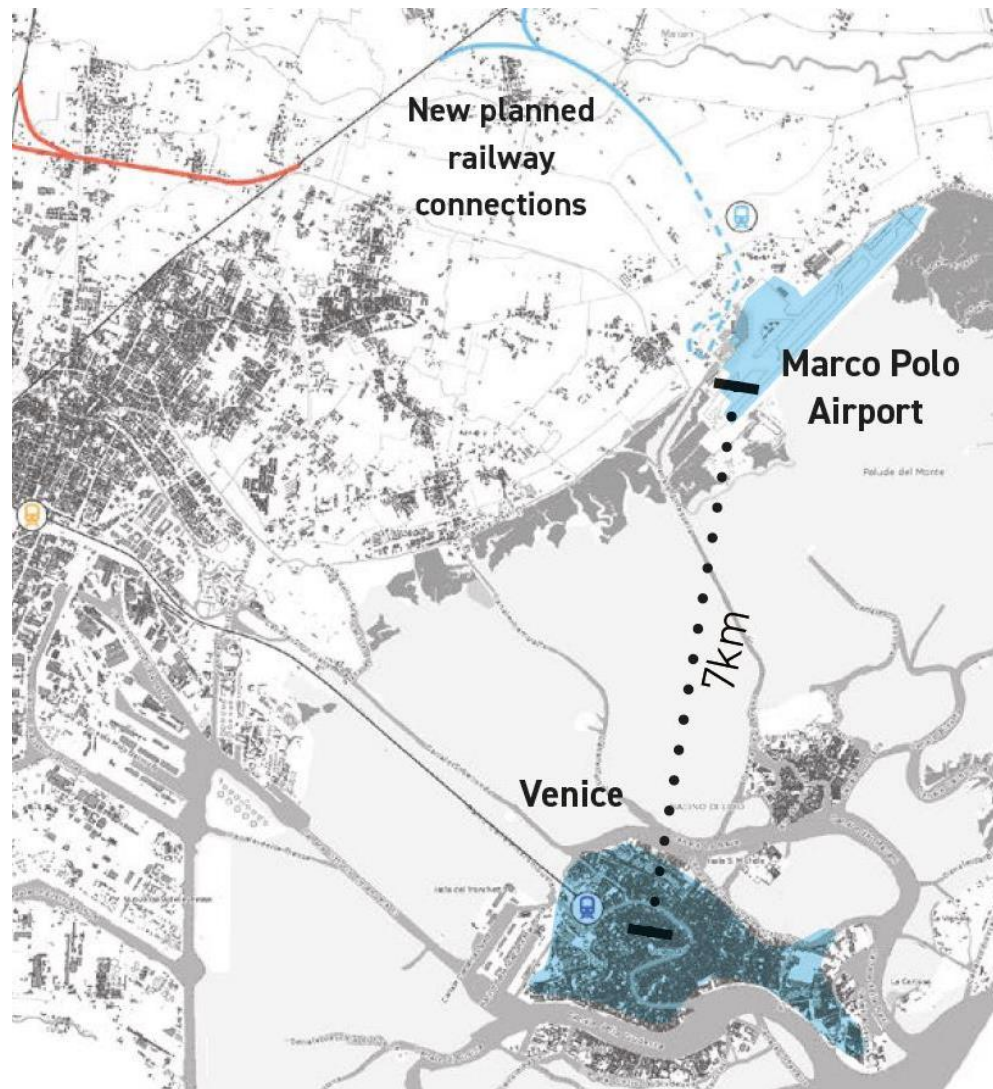
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# IL PROGETTO



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## OVERVIEW OF THE AIRPORT EXPANSION

Three phase extension programme to meet the complex functional, architectural and constructive demands for over 15 million passengers expected every year. Marco Polo International Airport is a prestigious city gateway featuring innovative materials and a premium retail offer.

### PHASE - LOT 1

Recently completed, the initial Lot 1 expansion of the airport's passenger terminal is designed to accommodate the departing and arriving passengers on various floors thus restoring pedestrian traffic circulation to an acceptable level of service.

### LANDSIDE MASTERPLAN

One Works is currently working with SAVE to develop a design for the next phase of development to create Venice Marco Polo as a new destination airport with improved public spaces, hotel and conference facilities, as well as an impressive new retail and entertainment hub.



# OVERVIEW OF THE AIRPORT EXPANSION

Three phase extension programme to meet the complex functional, architectural and constructive demands for over 15 million passengers expected every year. Marco Polo International Airport is a prestigious city gateway featuring innovative materials and a premium retail offer.

## PHASE - LOT 1

Recently completed, the initial Lot 1 expansion of the airport's passenger terminal is designed to accommodate the departing and arriving passengers on various floors thus restoring pedestrian traffic circulation to an acceptable level of service.

## PHASE - LOT 2B

One Works is working on the design development of Lot 2B, placed south of the existing terminal, that will serve Extra-Schengen passengers. The expansion is planned in 4 phases. The first 3 expansion phases, guarantee an increase in the gross surface area of the terminal of around 49,900 sqm. Additional 15,600 sqm are supplied instead from phase 4, thus bringing the total gross area of the terminal to approximately 204,300 square meters.

## LANDSIDE MASTERPLAN

One Works is currently working with SAVE to develop a design for the next phase of development to create Venice Marco Polo as a new destination airport with improved public spaces, hotel and conference facilities, as well as an impressive new retail and entertainment hub.

## PHASE - LOT 2A

Part two of the second phase of expansion (due to complete in 2025) and comprises the construction of a new north wing to increase of the terminal's operational capacity on both airside and landside. Through the creation of new volumes and rationalization of existing functions, dramatic improvements will be made to services offered and passenger experience.



# IL PROGETTO

## A NEW LIGHT-FILLED TERMINAL HALL

One Works provided full architectural design services for the new departure lounge, as well as acting as artistic supervisors during construction to provide a welcoming and relaxing environment for all.

The new space offers a spacious welcome for passengers, channelling them into an elegant, light-filled area where they can shop, eat or just relax while waiting for their flight.

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# IL PROGETTO

## THE EXPANDED TERMINAL HALL

This phase represents the second important extension of the passenger terminal that was necessary, mainly to adapt the capacity of the airport to the growing traffic demand.

One Works paid careful attention to all of the construction materials and finishes throughout this terminal refurbishment and expansion project to ensure they embodied the architectural vision for the airport's future and maintained consistency with the buildings' original fabric.

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# IL PROGETTO

## THE EXPANDED BOARDING AREAS

Local materials such as bricks and stone linked the airport to the lagoon landscape while maximizing durability and sustainability. Iron and glass created the transparency required to allow the natural light to illuminate the space.

Textures, colors, and lighting also evoked the Venetian environment, identifying the airport's sense of place while providing the best possible customer experience and highlighting its spaciousness.

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# **LA RIQUALIFICAZIONE DELL'ESISTENTE E LA PROGETTAZIONE IN BIM**

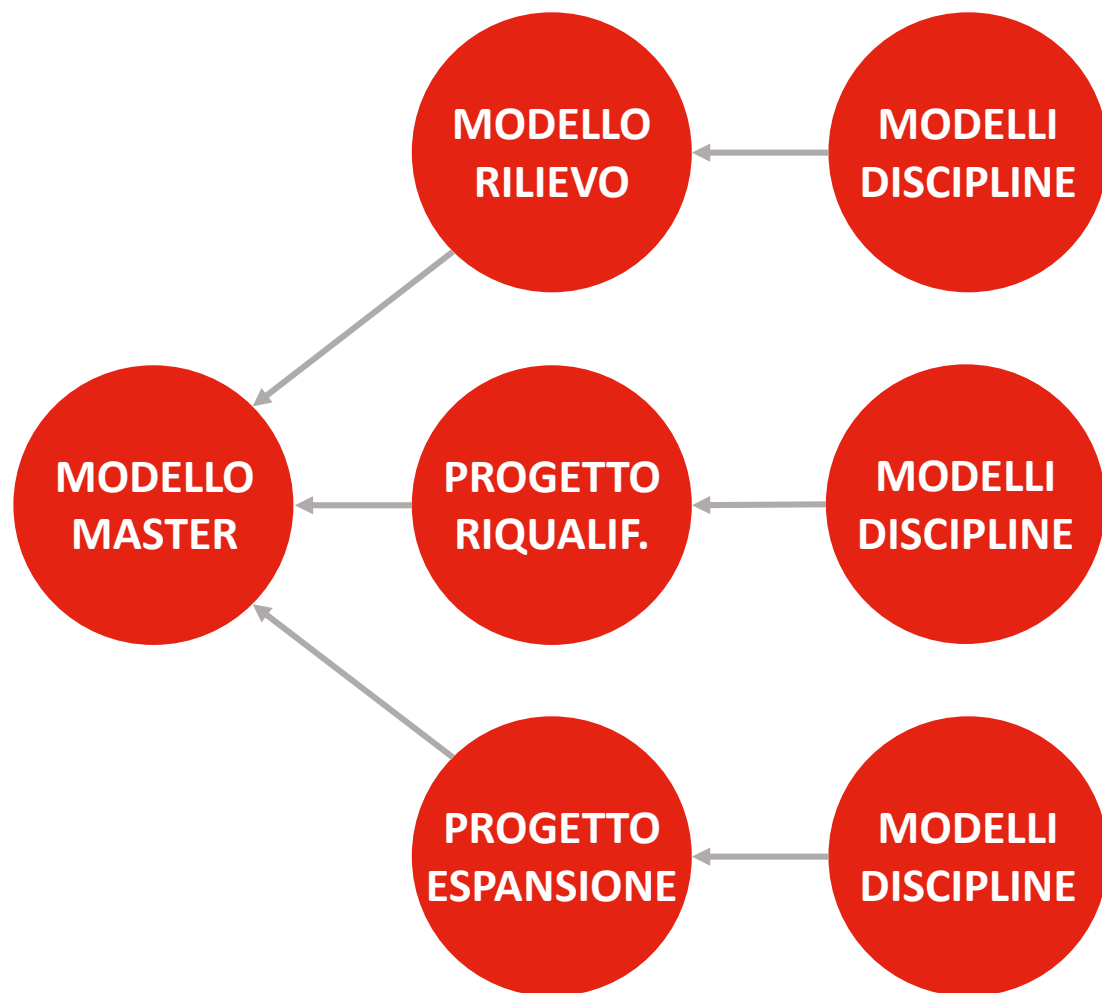
## **PROGETTAZIONE INTEGRATA E COORDINAMENTO BIM**



# L'IMPOSTAZIONE DEI MODELLI



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## DISCIPLINE PRINCIPALI

ARCHITETTURA	(20 MODELLI)
STRUTTURE	(10 MODELLI)
MEP	(17 MODELLI)
BHS	(2 MODELLI)
CIVILE	(DWG/TOPO)

## FORMATI DI SCAMBIO

NATIVI: RVT/RFA  
COORDINAMENTO: NWC/NWD  
INTERSCAMBIO: IFC

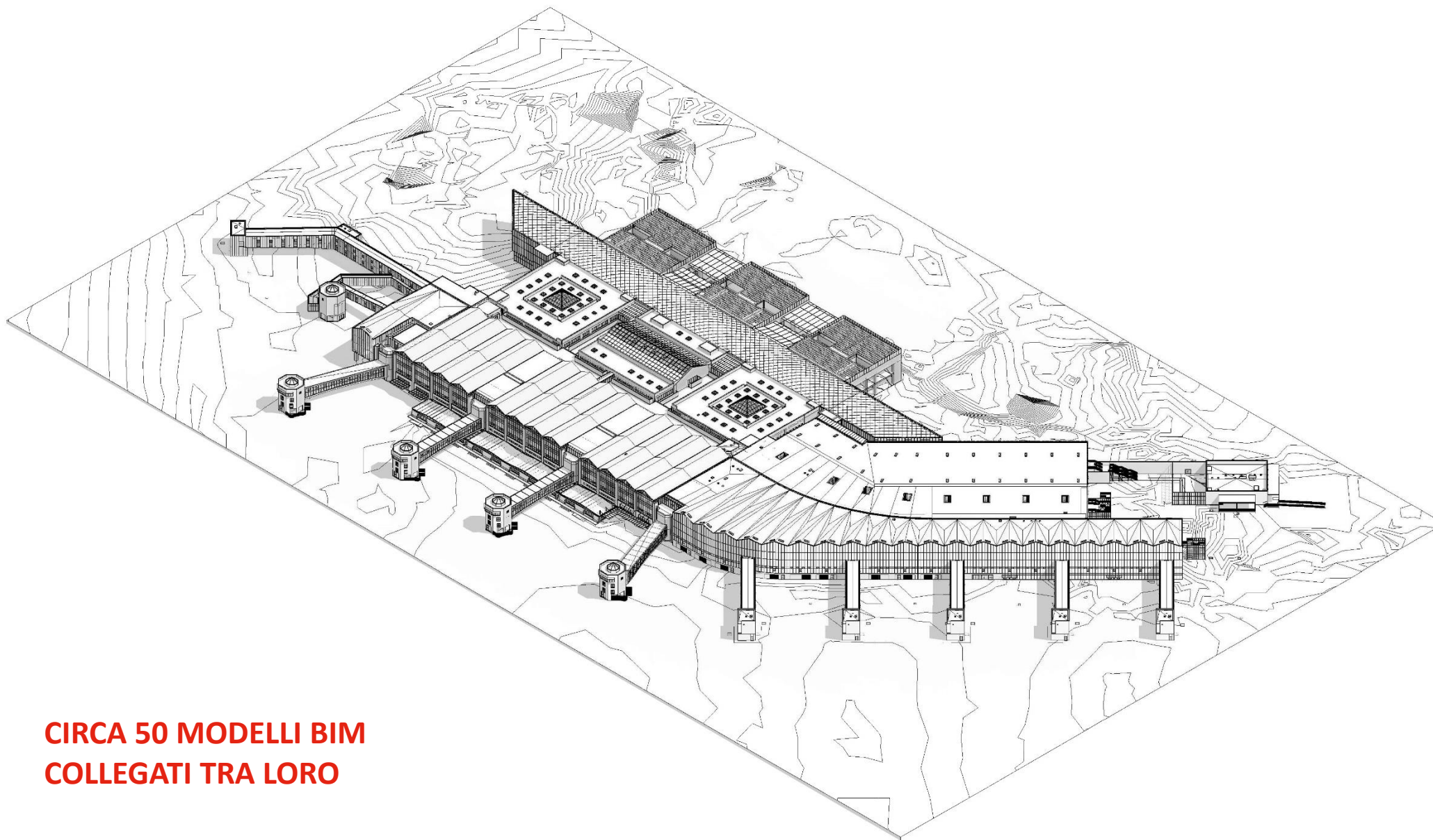
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# IL MODELLO MASTER



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**CIRCA 50 MODELLI BIM  
COLLEGATI TRA LORO**

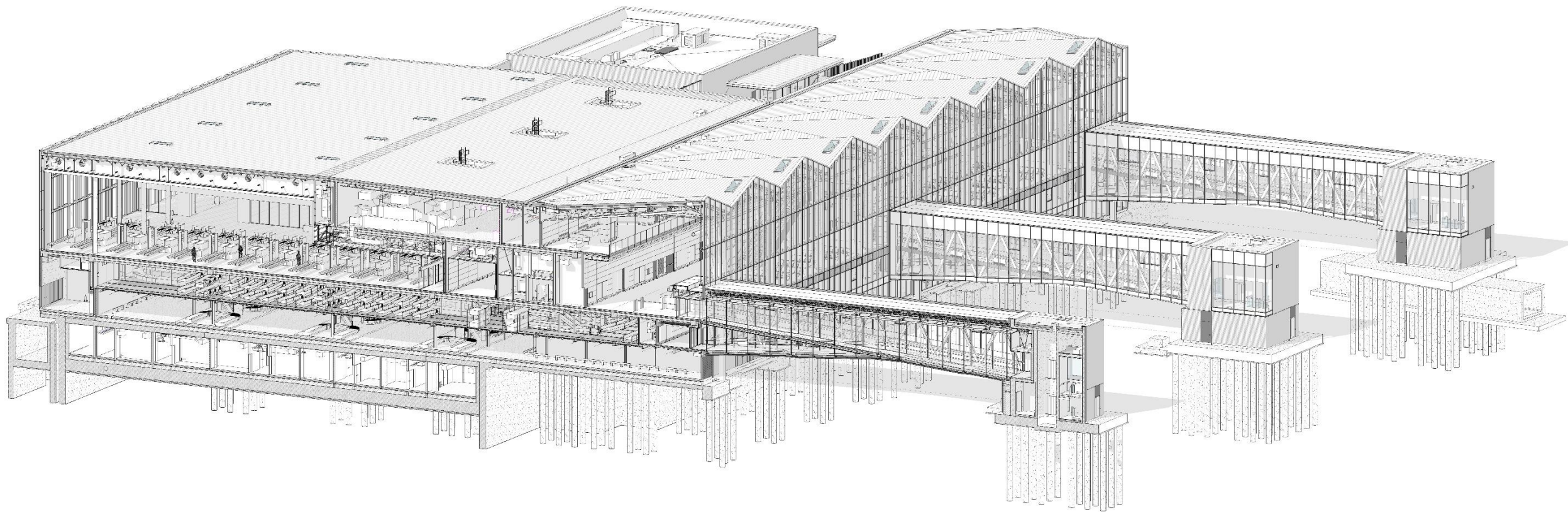
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# ESTRATTO DEL MODELLO ARCHITETTONICO



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INVOLUCRO, PARTIZIONI,  
ARREDO E WAYFINDING

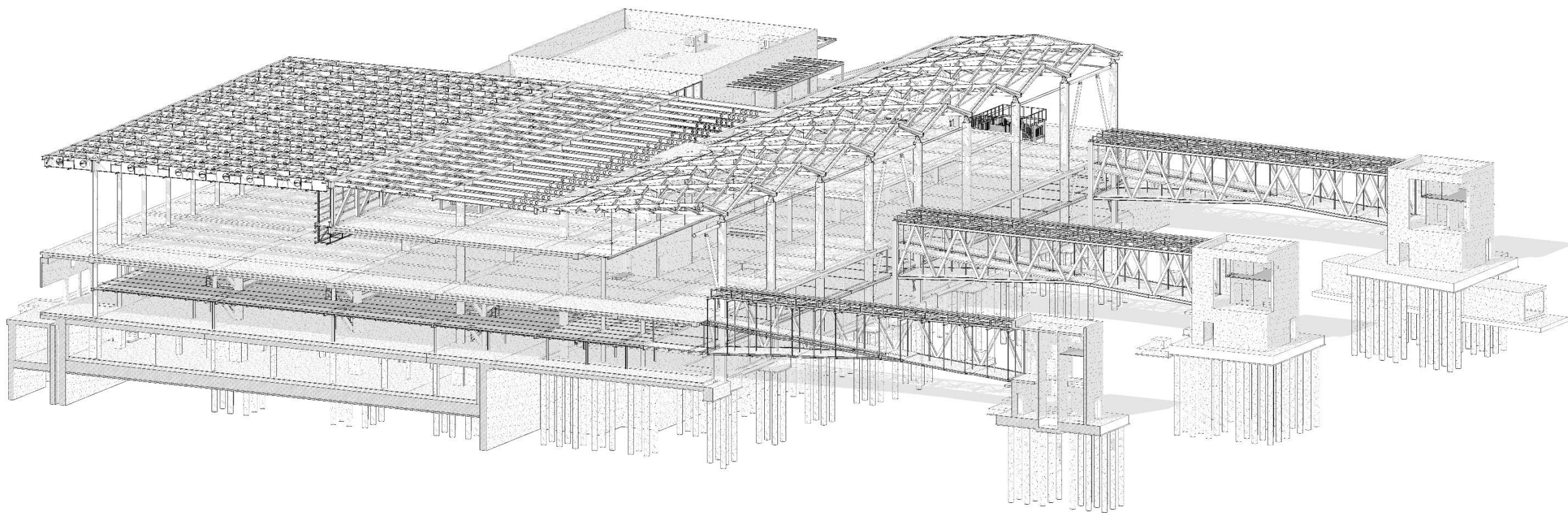
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# ESTRATTO DEL MODELLO STRUTTURALE



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STRUTTURE IN ACCIAIO, IN  
CALCESTRUZZO ARMATO, FONDAZIONI

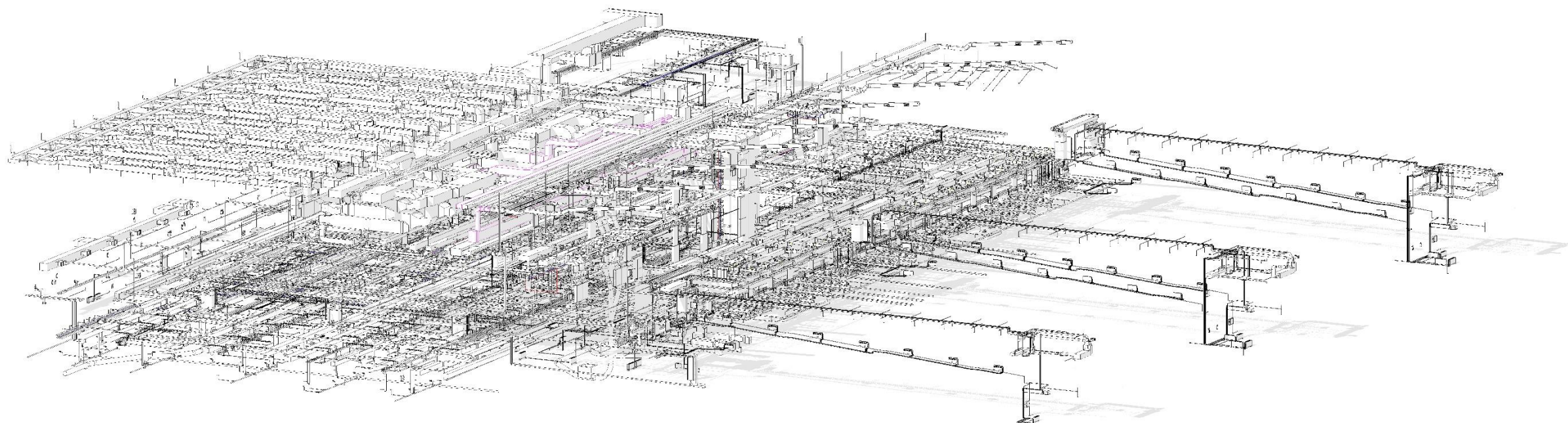
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# ESTRATTO DEL MODELLO MEP



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**IMPIANTO ELETTRICO, MECCANICO, IDRAULICO,  
ANTINCENDIO E SMALTIMENTO RIFIUTI**

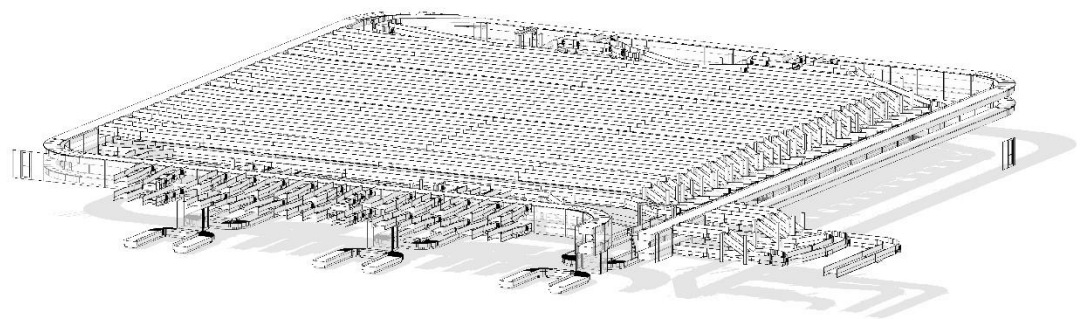
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# ESTRATTO DEL MODELLO BHS



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IMPIANTO AUTOMATICO DI  
SMISTAMENTO BAGAGLI

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# LE FASI – FASE 0



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# LE FASI – FASE 1



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# LE FASI – FASE 2



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# LE FASI – FASE 3



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**INTERVENTO**

**RIQUALIFICAZIONE  
ESISTENTE**

**PROGETTO DI  
AMPLIAMENTO**

**AREA DI  
INTERVENTO**

**PIANO TERRA  
PIANO MEZZANINO  
PIANO PRIMO  
PIANO SECONDO  
PONTILI E TORRINI  
FACCIAE  
ECC.**

**CATEGORIA**

**FINITURE  
STRUTTURE  
IMPIANTI ELETTRICI  
IMPIANTI  
MECCANICI  
SOTTOSERVIZI  
BHS  
OPERE STRADALI  
ECC.**

**OPERA**

**RIVESTIMENTI INTERNI  
RIVESTIMENTI ESTERNI  
SERRAMENTI INTERNI  
SERRAMENTI ESTERNI  
OPERE METALLICHE  
ECC.**



# IL LIVELLO DI DETTAGLIO

SEZIONE DEL MODELLO MASTER

LOD 300/350



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# IL LIVELLO DI DETTAGLIO

ESPLOSO

TRIDIMENSIONALE

LOD 300/350



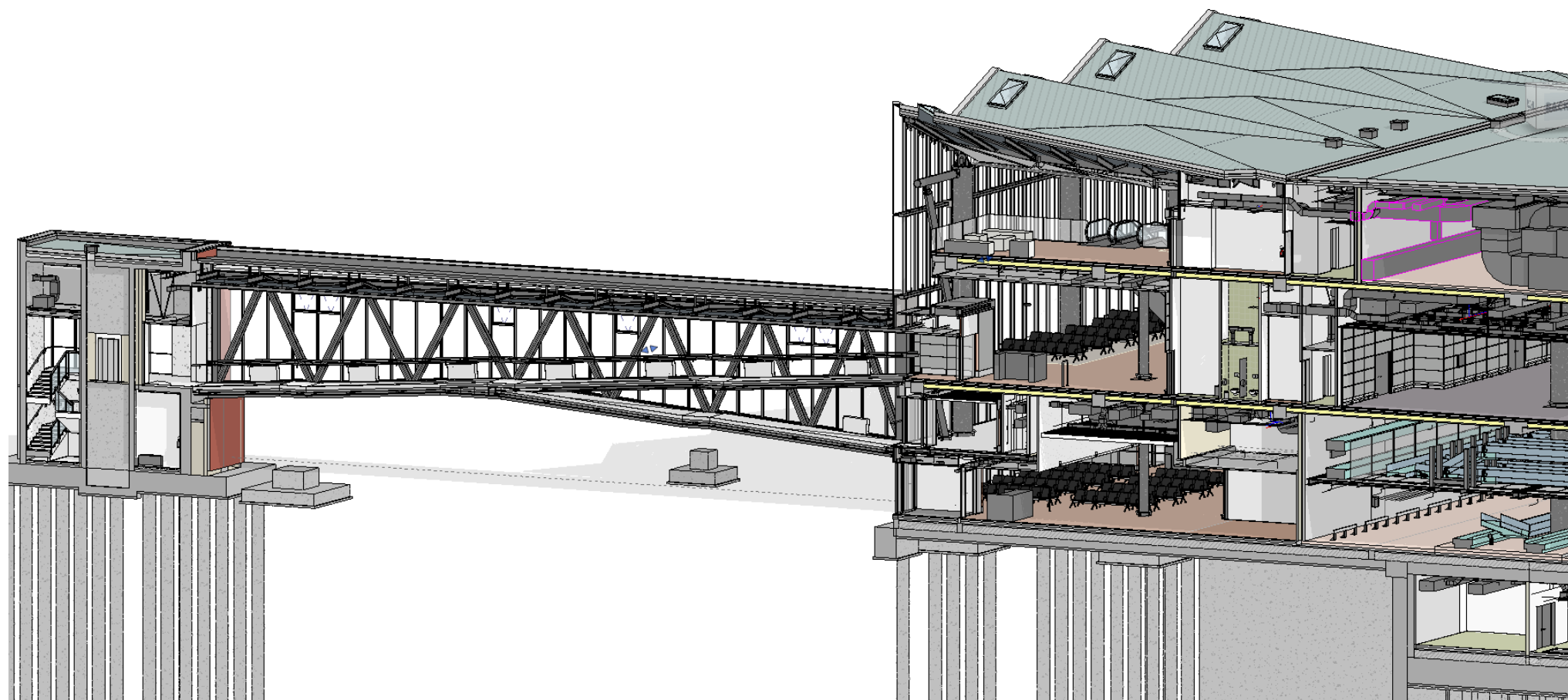
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# IL LIVELLO DI DETTAGLIO



PROGETTO  
RIQUALIFICAZIONE



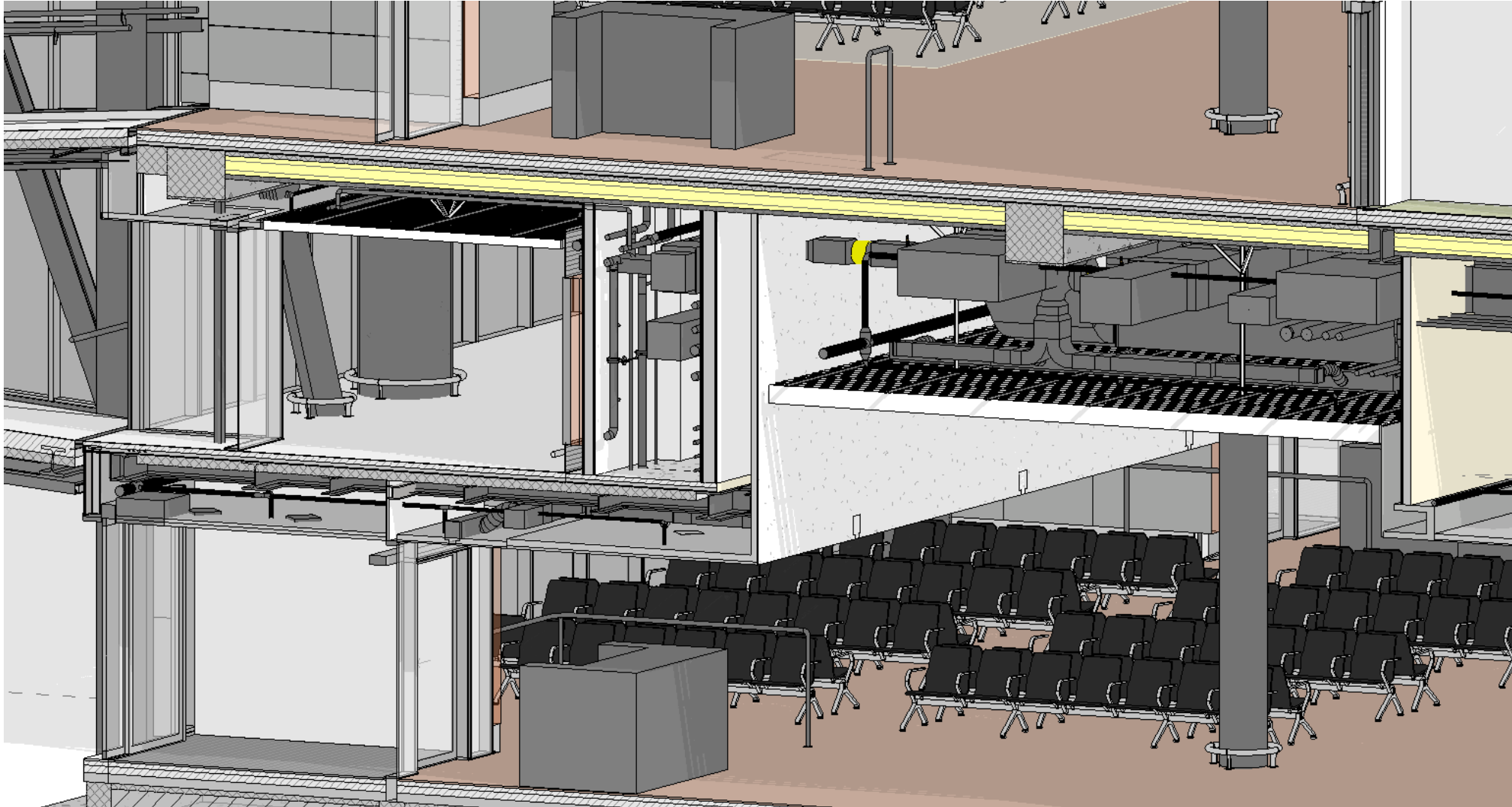
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# IL LIVELLO DI DETTAGLIO



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# **LA RIQUALIFICAZIONE DELL'ESISTENTE E LA PROGETTAZIONE IN BIM**

**PERCHE' IL BIM?**

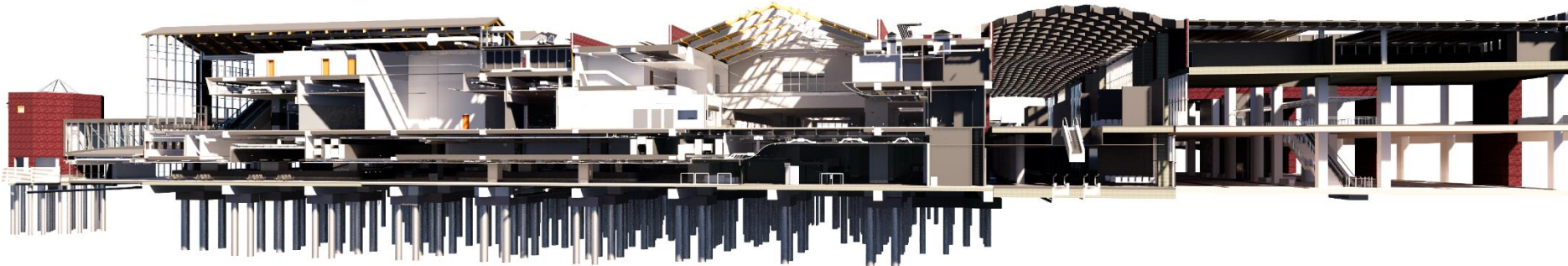
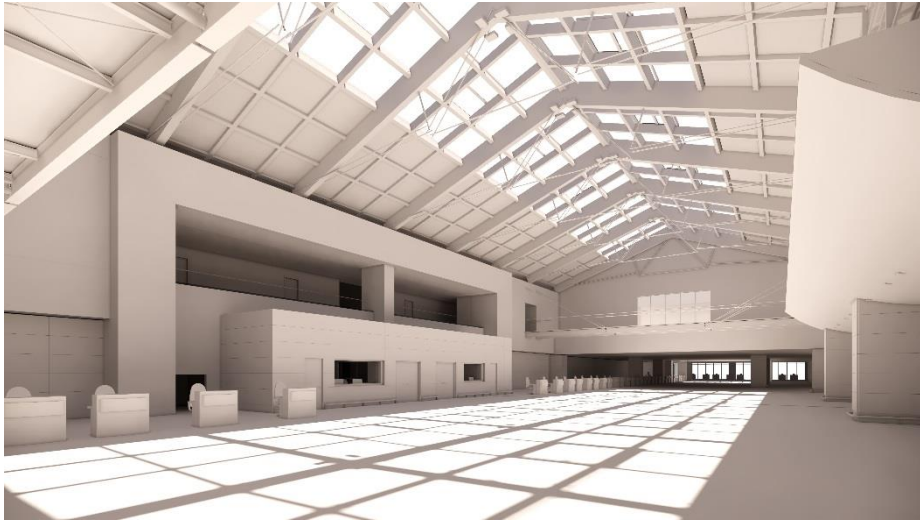
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# IL DIGITAL TWIN



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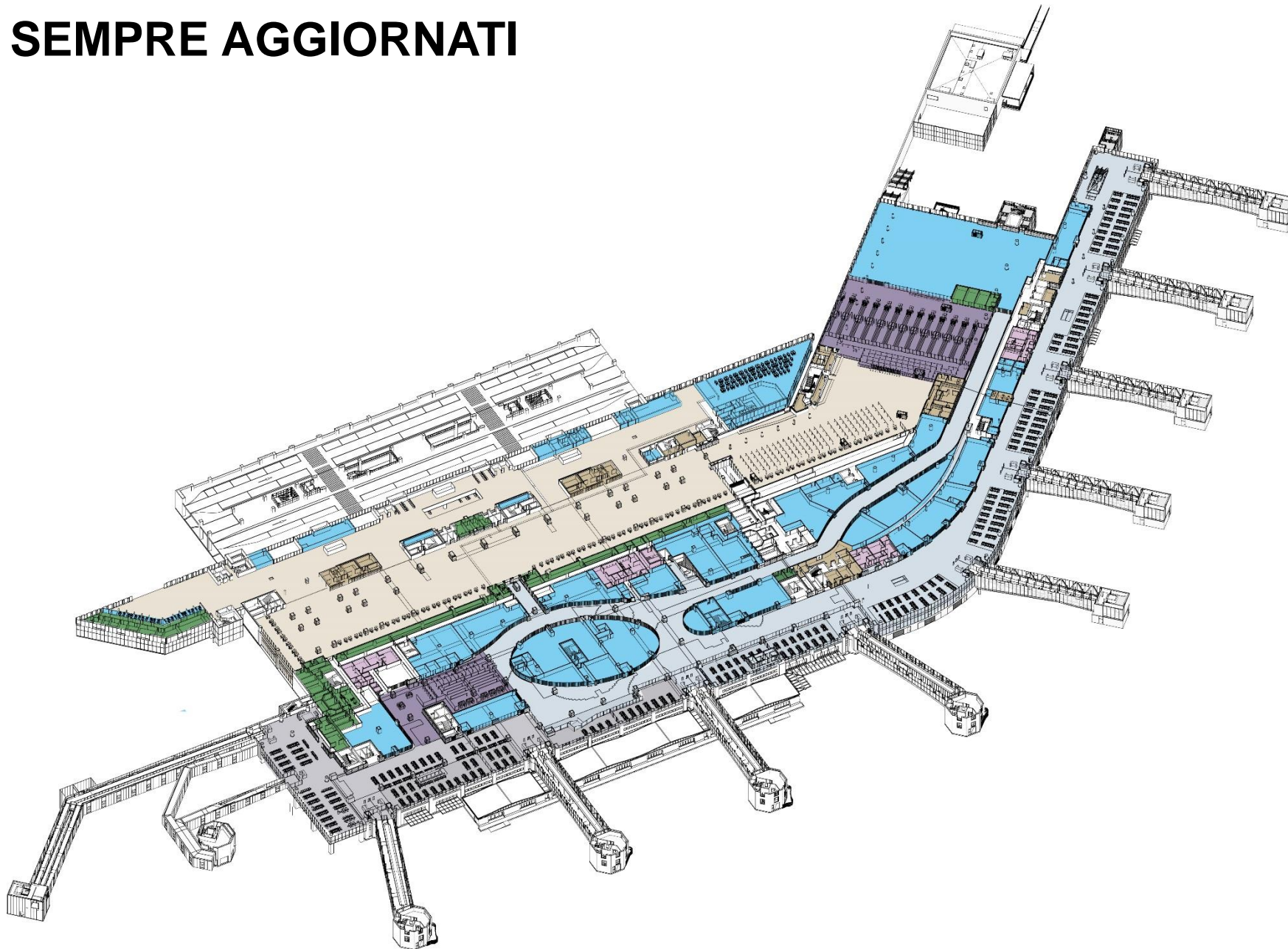
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**DATI SEMPRE AGGIORNATI**



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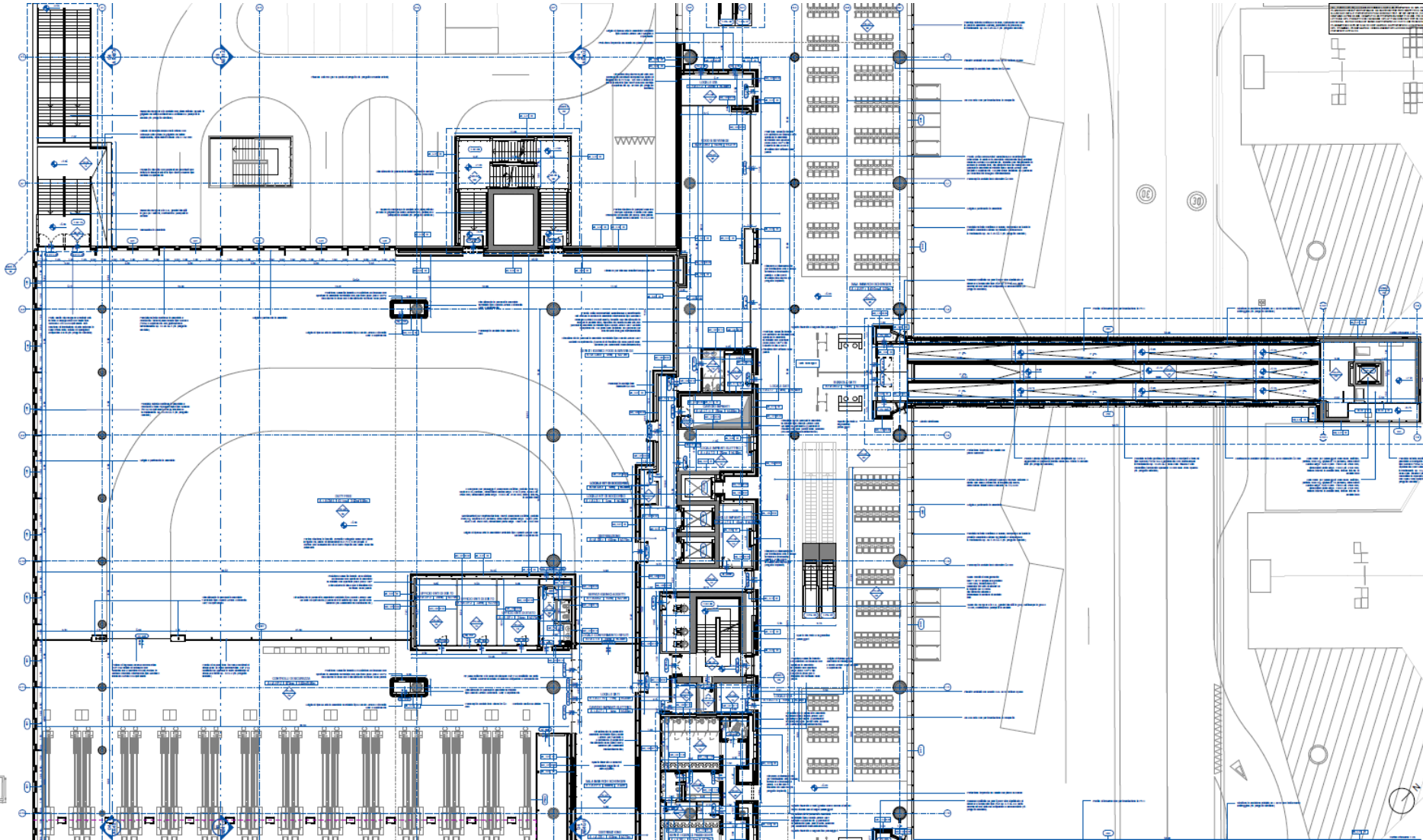
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# ELABORATI GRAFICI



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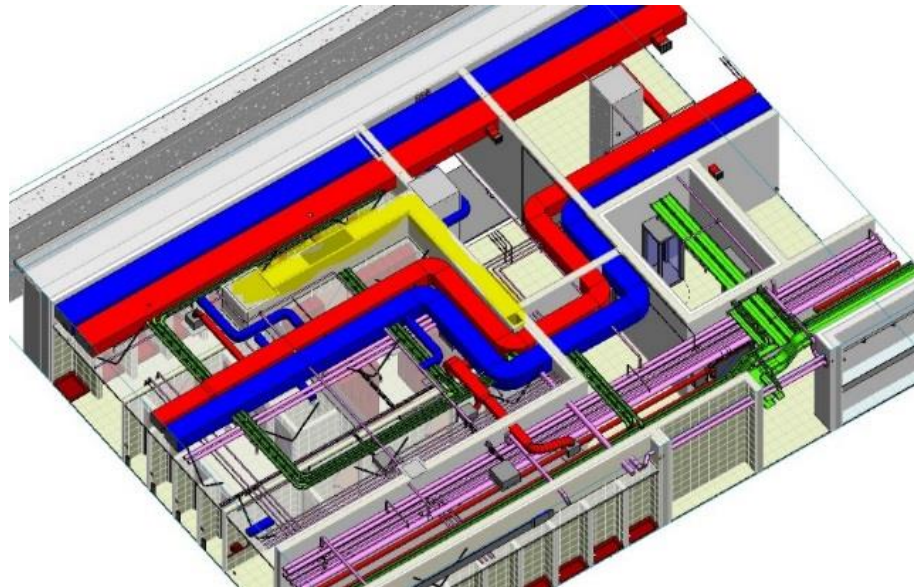
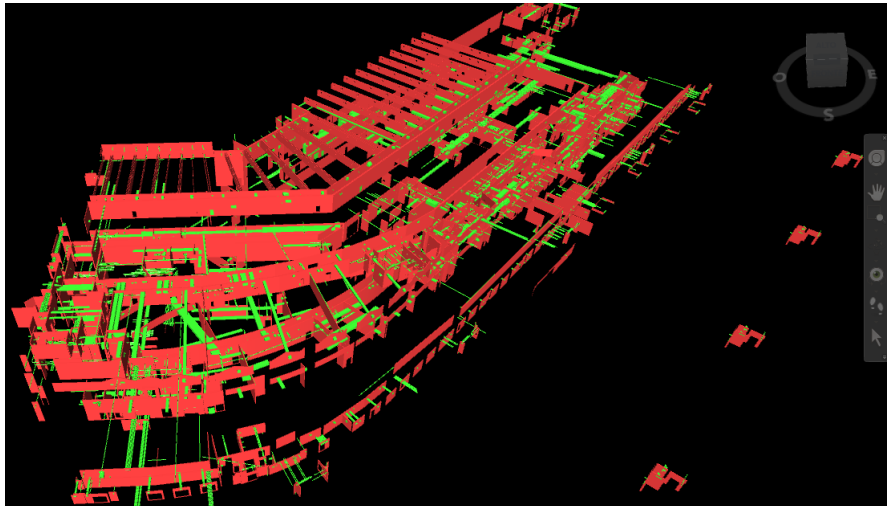
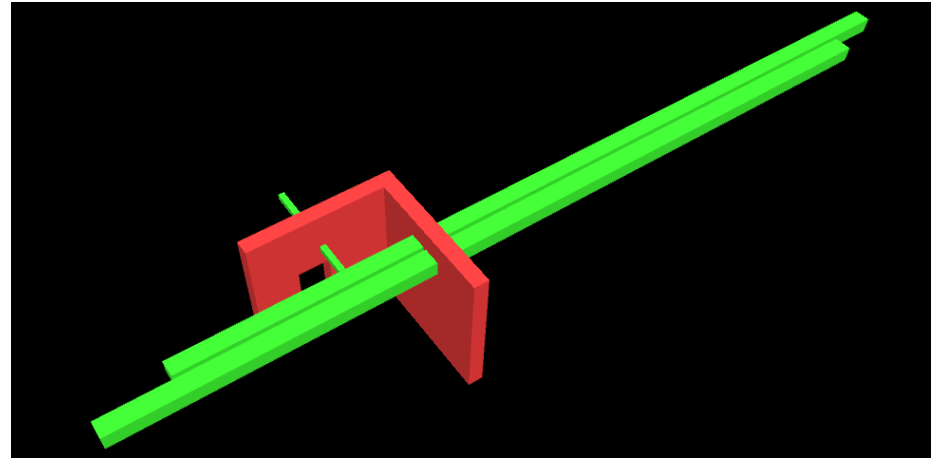
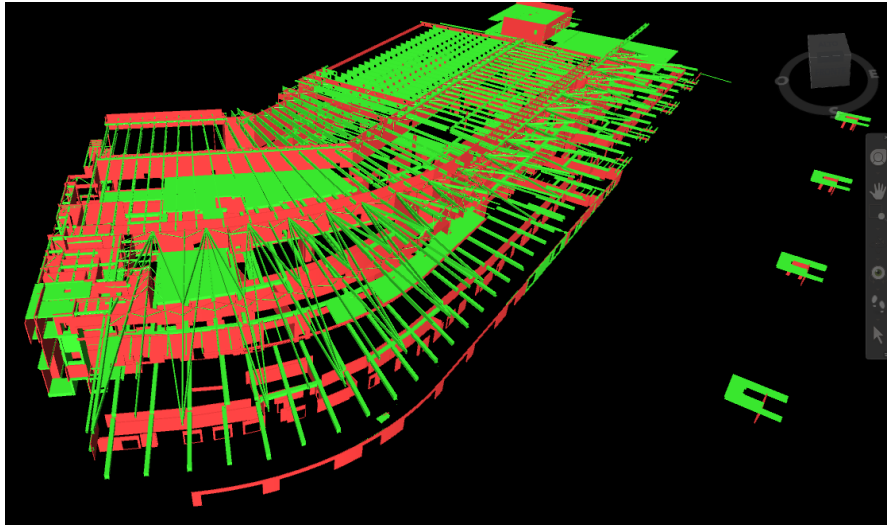
ONWORKS:



# IL COORDINAMENTO BIM



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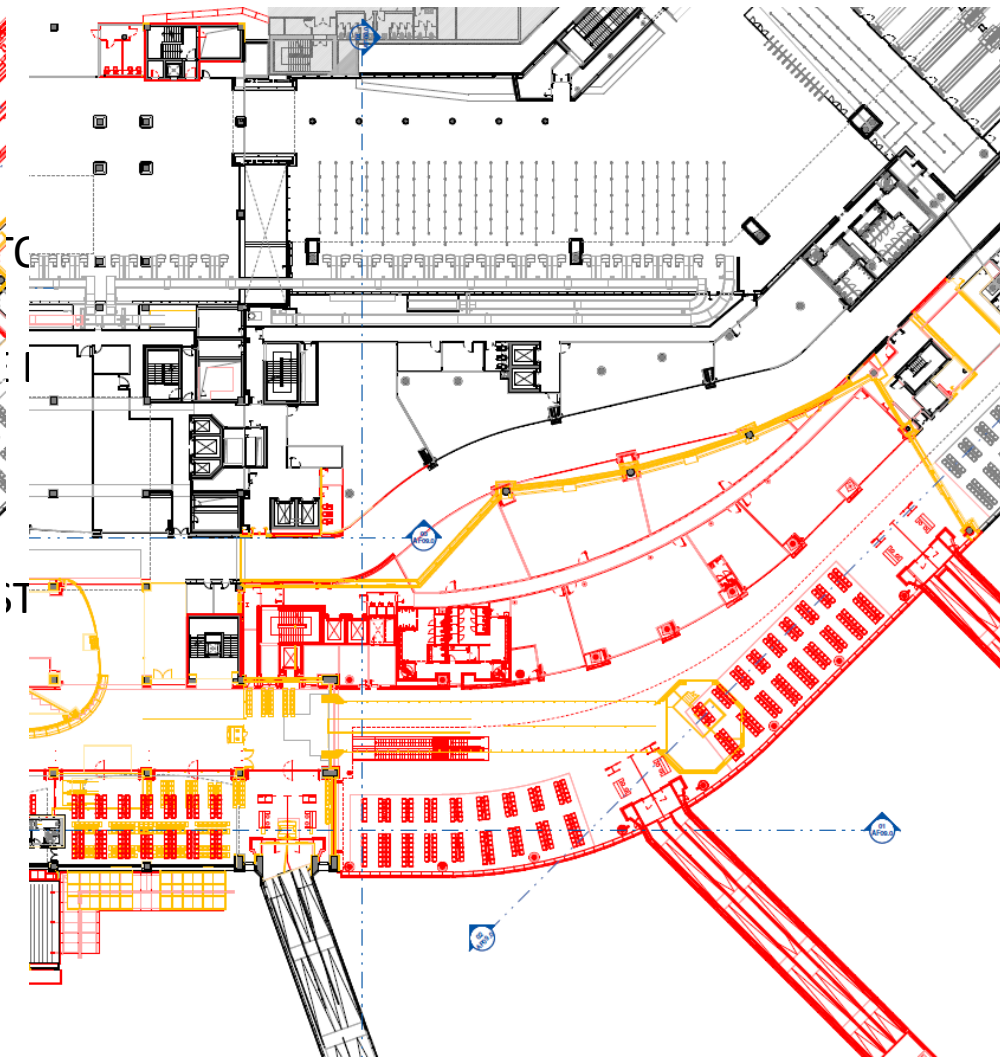
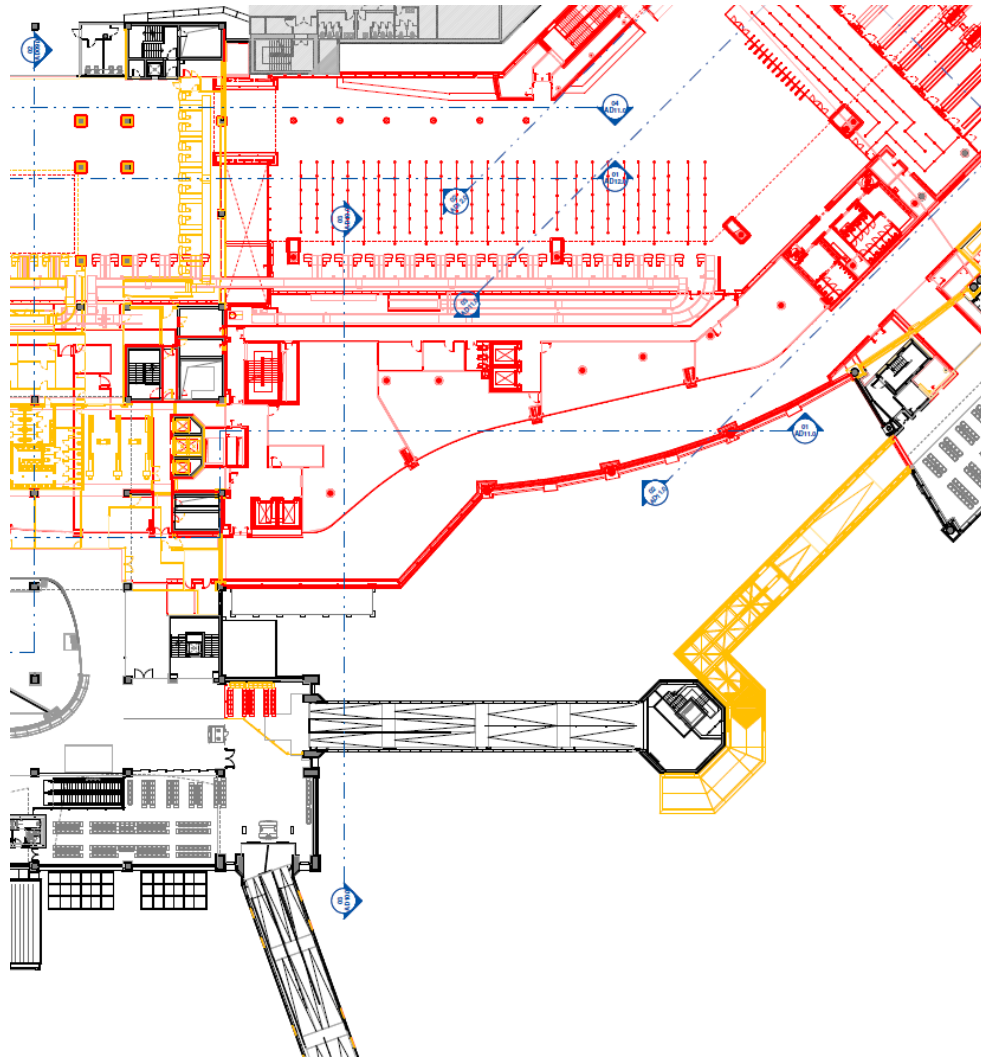
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# LA GESTIONE DEMOLIZIONI E COSTRUZIONI



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# LE SIMULAZIONI



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# L'ESTRAZIONE DELLE QUANTITA' - COMPUTI



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<- WALL\_Partizioni / Intonaci / Rivestimenti / Pitturazioni e Verniciature - Wall Schedule>

A	B	C	D	E	F	G	H	I	J
FASE DI CREAZIONE	INTERVENTO	CATEGORIA	AREA D'INTERVENTO	OPERA	Family and Type	1.TIPOLOGIA	2.FINITURA	3.FINITURA	AREA
INTONACI									
	AMPLIAMENTO	FINITURE	PIANO MEZZANINO	INTONACI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		0.00
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO MEZZANINO	INTONACI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		1.78
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO MEZZANINO	INTONACI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		172.01
									173.80
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		200.46
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		84.30
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		70.44
									355.20
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		11.88
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		41.21
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		93.04
									146.14
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		404.03
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		1081.62
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		446.90
									1932.55
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI	Basic Wall: OW_ARC - MB_R-01b_25 - Intonaco di Malta cementiza per Esterni 25 mm	MB_R-01b	25		12.22
									12.22
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI	Basic Wall: OW_ARC - MB_R-01b_25 - Intonaco di Malta cementiza per Esterni 25 mm	MB_R-01b	25		243.07
									243.07
INTONACI E RIVESTIMENTI INTERNI									
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		99.97
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		204.29
									304.25
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		261.08
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		1391.82
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_20 - Intonaco di Malta cementiza e Idropittura 15 mm	MB_R-01	20		200.79
									1853.69
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		9.05
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		36.51
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_21 - Intonaco e Vernice a Smalto Opaca 15 mm	MB_R-01	21		32.97
									78.53
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		65.52
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		35.11
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO PRIMO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		42.49
									143.13
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		37.41
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO SECONDO	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		17.09
									54.51
LOTTO 2A_FASE1	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		40.81
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		49.82
LOTTO 2A_FASE3	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_22 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	22		0.95
									91.58
LOTTO 2A_FASE2	AMPLIAMENTO	FINITURE	PIANO TERRA	INTONACI E RIVESTIMENTI INTERNI	Basic Wall: OW_ARC - MB_R-01_26 - Intonaco di Malta cementiza più Piastrelle 30 mm	MB_R-01	26		36.05
									36.05

ONWORKS:



# PROGETTARE CON LA REALTÀ VIRTUALE



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ONWORKS:





**ONWORKS:**





**ONWORKS:**





# GRAZIE PER L'ATTENZIONE

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Arch. Enrico Demaria

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[e.demaria@one-works.com](mailto:e.demaria@one-works.com)

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