



Autorità di Sistema Portuale del Mar Tirreno Centro Settentrionale

PORTI DI ROMA E DEL LAZIO · CIVITAVECCHIA · FIUMICINO · GAETA



Co-financed by the Connecting Europe
Facility of the European Union

Fast Track to the Sea.
Implementing the upgrade of the last mile
rail connections port of Civitavecchia

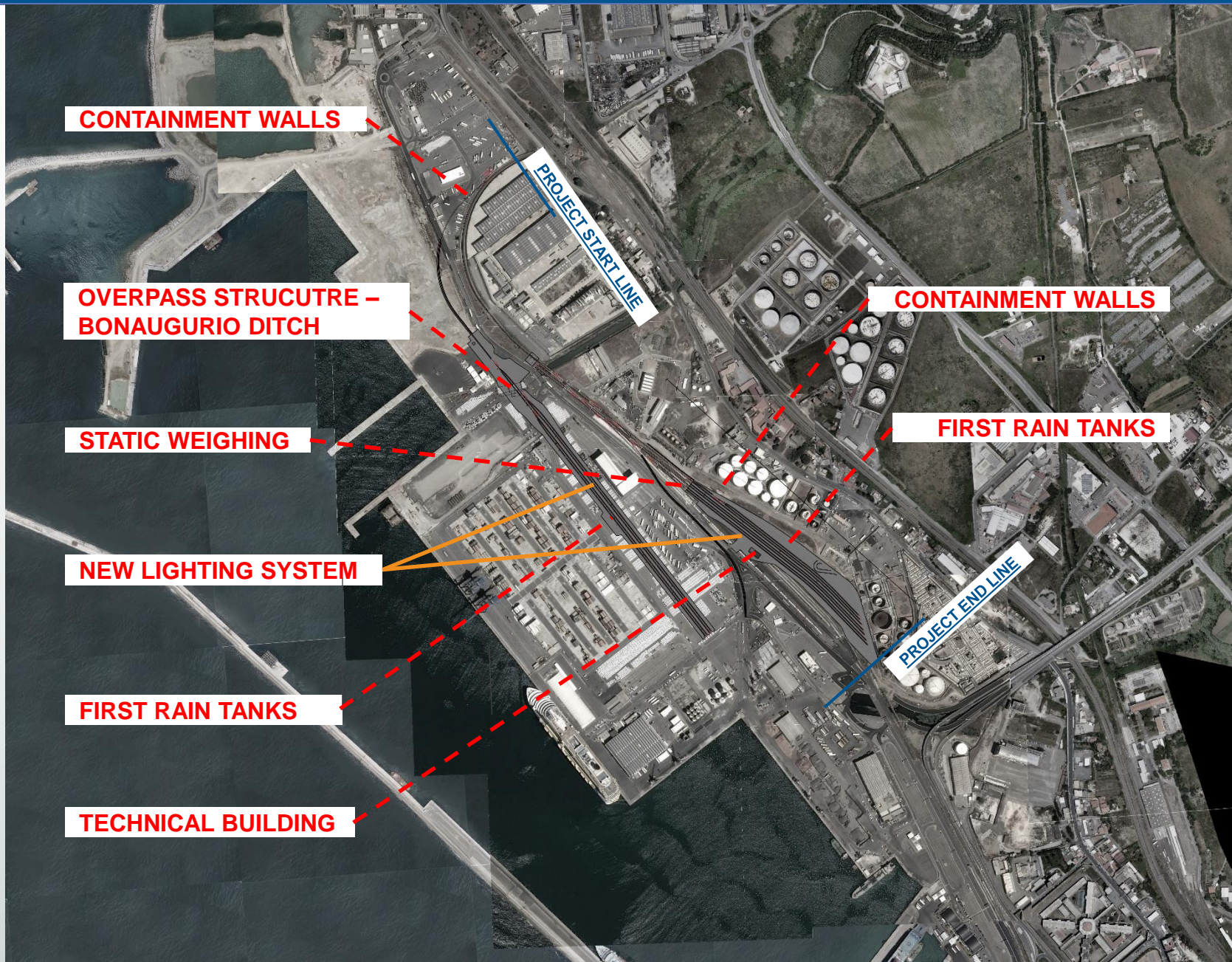
Action 2019-IT-TA-0034-M



PROJECT AREA
Ca 61175,00 M²

During the whole project process, the following surveys and polls were carried out in order to analyze, classify and characterize the type of soil, the ballast and the geological-geotechnical characteristics of the land site area, mainly near by Bonaugurio ditch and on fill materials stored in the "Ex Molo Vespucci" area.





CONTAINMENT WALLS

**OVERPASS STRUCTURE -
BONAUGURIO DITCH**

STATIC WEIGHING

NEW LIGHTING SYSTEM

FIRST RAIN TANKS

TECHNICAL BUILDING

PROJECT START LINE

CONTAINMENT WALLS

FIRST RAIN TANKS

PROJECT END LINE

RAILWAY ARMAMENT

RAILROAD SWITCH

EXISTING CURVE

- RFI 60/250/0,12 SX
R= 1053 m.
r²=202,2 m.

SEVEN RAILROAD SWITCH

- S 60/170/0,12 DX
- Velocità 30Km/h

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ELECTRIC TRACTION

- ELECTRIFICATION SYSTEM 3KV C.C.
- 320 mm² CPF - BINARI CORSA
- 220 mm² CPF - BINARI SECONDARI

ELECTRIC TRACTION WILL BE CONNECTED TO THE CIVITAVECCHIA STATION'S FUTURE ELECTRIC TRACTION SYSTEM

SIGNALLING SYSTEM

LOW SIGN

MANEUVERING BENCH AND LIGHT PANEL



THE SIGNALING AND AUTOMATION SYSTEM HAS BEEN MADE ACCORDING TO RFI'S STANDARDS AND SPECIFICATIONS. THE SIGNALING WILL BE MANAGED WITH "LOW SIGNALS" AND THE CONVOY ROUTING WILL BE MANAGED AND CONFIGURED THROUGH A CONTROL STATION LOCATED INSIDE THE FA01 TECHNICAL BUILDING.

RAILWAY SLEEPERS



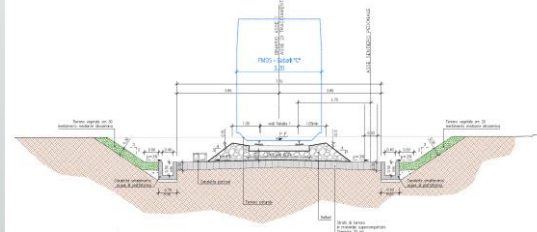
- RFI 240

RAILS



- TIPO 60 E1
- QUALITA' R260

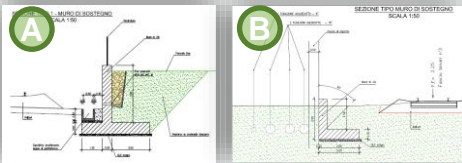
RAILWAY GAUGE 1437 mm
INTERASSE 4,60 M
GABARIT «C» PMO5



- Convoglio proveniente dalla Stazione di Civitavecchia fermo prima del deviatio;
- Locomotiva bimodale in attesa lungo l'asse 5;

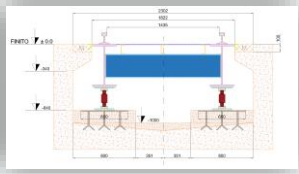


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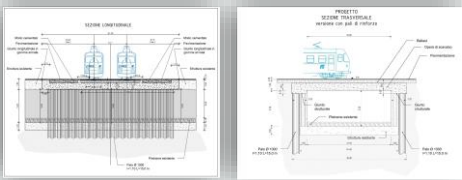
CONTAINMENT WALLS
A. PK 0+050,00 – PK0+150,00
LENGHT = 101,10 M
B. OLEODUCT PROTECTION
LENGHT = 125,00 M

4



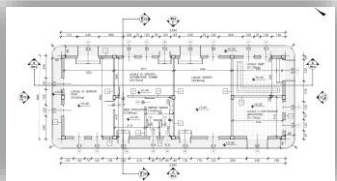
STATIC RAILWAY WEIGHING SYSTEM
EXISTING RAILWAY WEIGHING SYSTEM WILL BE RELOCATED

2



OVERPASS STRUCUTRE – BONAUGURIO DITCH
LENGHT = 21,30 M

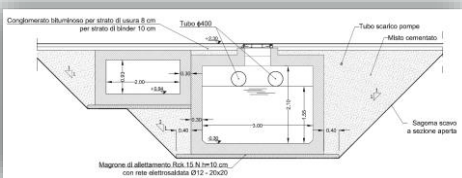
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TECNOLOGICAL BUILDING FA01
TECHNICAL ROOMS WILL BE PLACE INSIDE AS FOLLOWS:

- WEIGHING SYSTEM ROOM
- SERVER ROOM
- QEGBT ROOM
- REST ROOMS

3



FIRST RAIN TANK SYSTEM

- SEDIMENTATION
- DE OILER
- SLUICE



“EX MOLO VESPUCCI” AREA

TERMINAL CONTAINER AREA

PAVED SURFACE

RAIL TRACK LENGHT

PAVED SURFACE

RAIL TRACK LENGHT

28240 M²

- Track 1 → L = 359 m
- Track 2 → L = 443 m
- Track 3 → L = 451 m
- Track 4 → L = 615 m
- Track 5 → L = 608 m
- Track 6 → L = 568 m
- Track 7 → L = 577 m

23635 M²

- Axis 1 → L = 572 m
- Axis 2 → L = 572 m
- Axis 3 → L = 620 m
- Axis 4 → L = 594 m

BALLAST SURFACE

TOTAL LENGHT
3621 M

TOTAL LENGHT
2358 M

9300 M²



N° 13 LIGHT TOWERS WITH LED FLOODLIGHTS

LIGHT TOWERS HEIGHT 30 M

The construction of a **new lighting system** to serve the railway infrastructure is planned. The lighting project has led to the solution that involves the replacement of the existing light towers with more current elements to ensure a better quality standard both in terms of lighting and energy efficiency.

Expected benefits:

- Optimum light temperature
- Maintenance savings due to longer lamp life
- Use of eco-sustainable materials
- Reduction of energy consumption
- Reduction of CO2 emissions



TOTAL SURFACE LIGHTED – 51875 M²

The operation mode of the whole system, can be divided through the analysis of three functional macro areas

- THE ROOT is the section that borders with the RFI's relevancy railway where switching from freight trains to loco-tractors will happen. At this point loco-tractors will be able to move from/to ex molo Vespucci and terminal container areas.
- EX MOLO VESPUCCI AREA That has been reconfigured with seven new rail tracks
- TERMINAL CONTAINER AREA Characterized with four new rail tracks

The movement of the trains will be managed using bimodal means (rubber-iron).

The use of this type of vehicle makes it possible to interrupt the electrification of the line in the initial area where the bifurcation between Axis 1 and Axis 5 takes place.

The freight train driven by an electric locomotive will be driven to the first diverter at the beginning of the new axes.

In the case of outgoing movement of the freight convoy, the bimodal vehicle will lead the wagons in the electrified area so that the electric locomotive can hook the convoy leading it to the Civitavecchia station, from where it can be fed into the network.

