

Track 1: Capital Programs: Regional Activities

CRMF – A DB Experience From Designer’s Point of View



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Gannett Fleming

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COMMUTER RAIL MAINTENANCE FACILITY (CRMF)

DENVER, CO



Project Overview



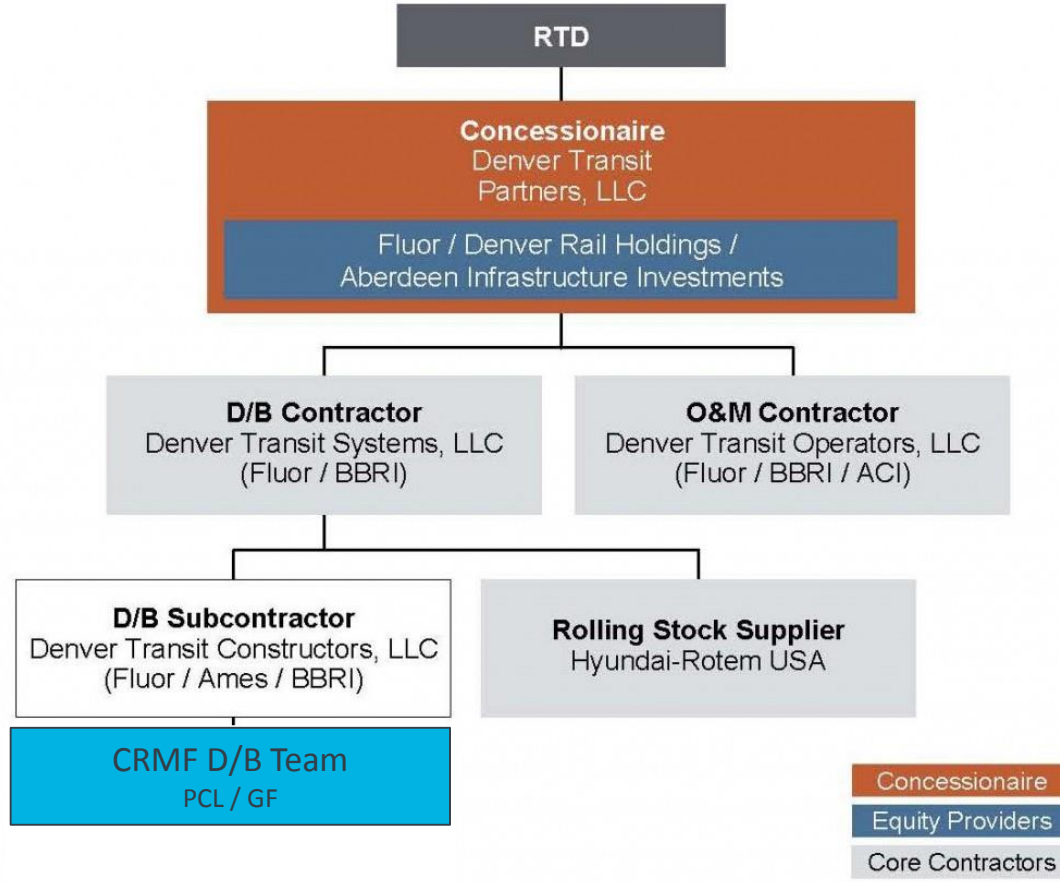
Eagle P3 Project



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Project Overview

- P3 – Public Private Partnership
- DBFMO – Design Build Finance Maintain and Operation
- 34 Year Contract



Project Overview

- Total Contract \$66,000,000
 - Includes appx \$14M in Equipment
- 230,000 sf Main Shop and Stand-alone Train Wash Building
- LEED Silver – Achieved Gold
- Awarded AGC’s Best Building Project in the \$40-70M Range
- USGBC Innovative Project of the Year – Central PA



Project Overview

- 6 Tracks
 - 3 Daily Servicing (Electrified)
 - 1 Periodic Inspection
 - 1 Wheel Truing
 - 1 Component Changeout
- Component Shops
 - Air Brake
 - Compressor
 - Battery
 - HVAC
 - Pantograph
 - Electronics
- OCC
- MofW Workshop
- Storeroom
- Welfare and office spaces



Project Overview

- 2004 – RTD’s 2004 Voter Approved FasTracks Plan
- 2009 – RTD Advertises Eagle P3
- 2010 – RTD Selects DTP
- CRMF Design Start: May 2011
- CRMF Construction Start October 2012
- CRMF Completion: September 2014
- 2014 – December, First 4 Cars Arrive
- 2016 – Project Opens



© Regional Transportation District



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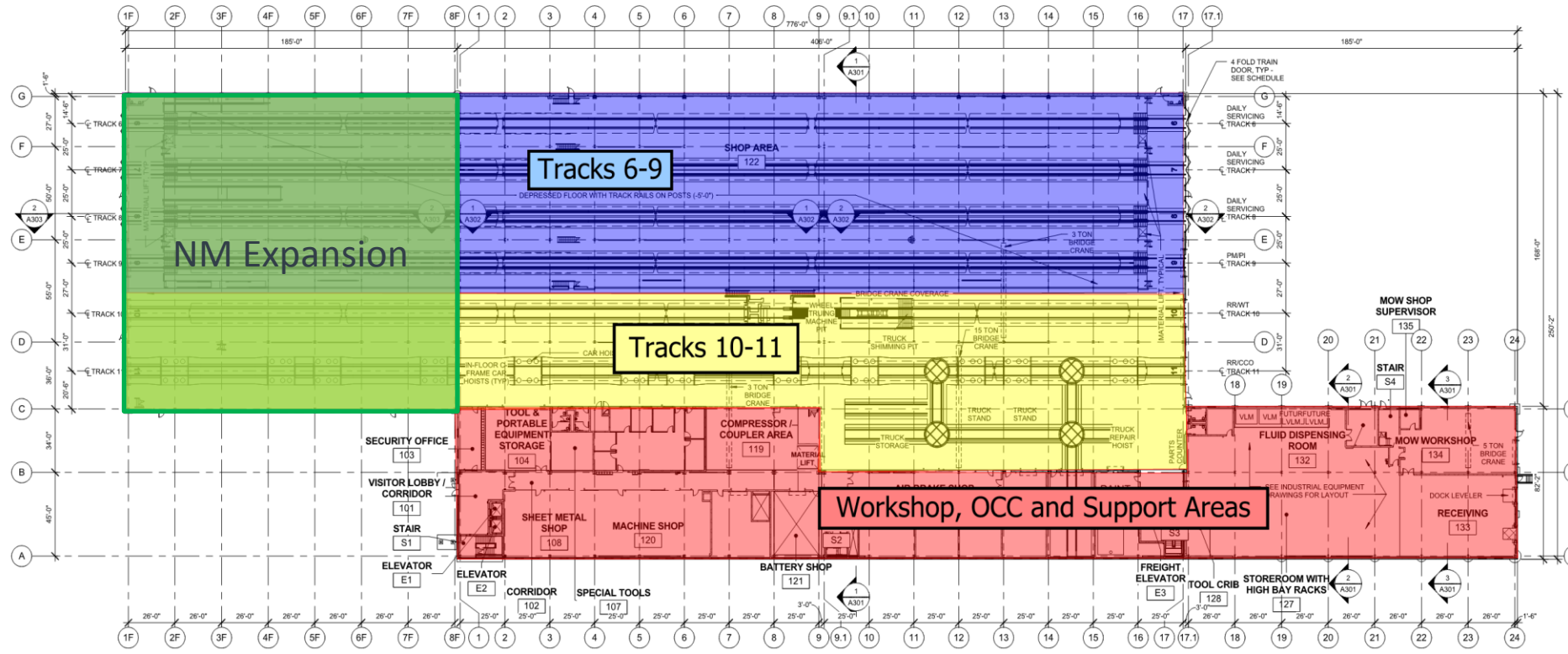


[Grey bar] ACTIVITY Timeline

[Green circle with R] START DATE - Revenue Service

[Black circle with C] CRMF - Completed

Building Layout



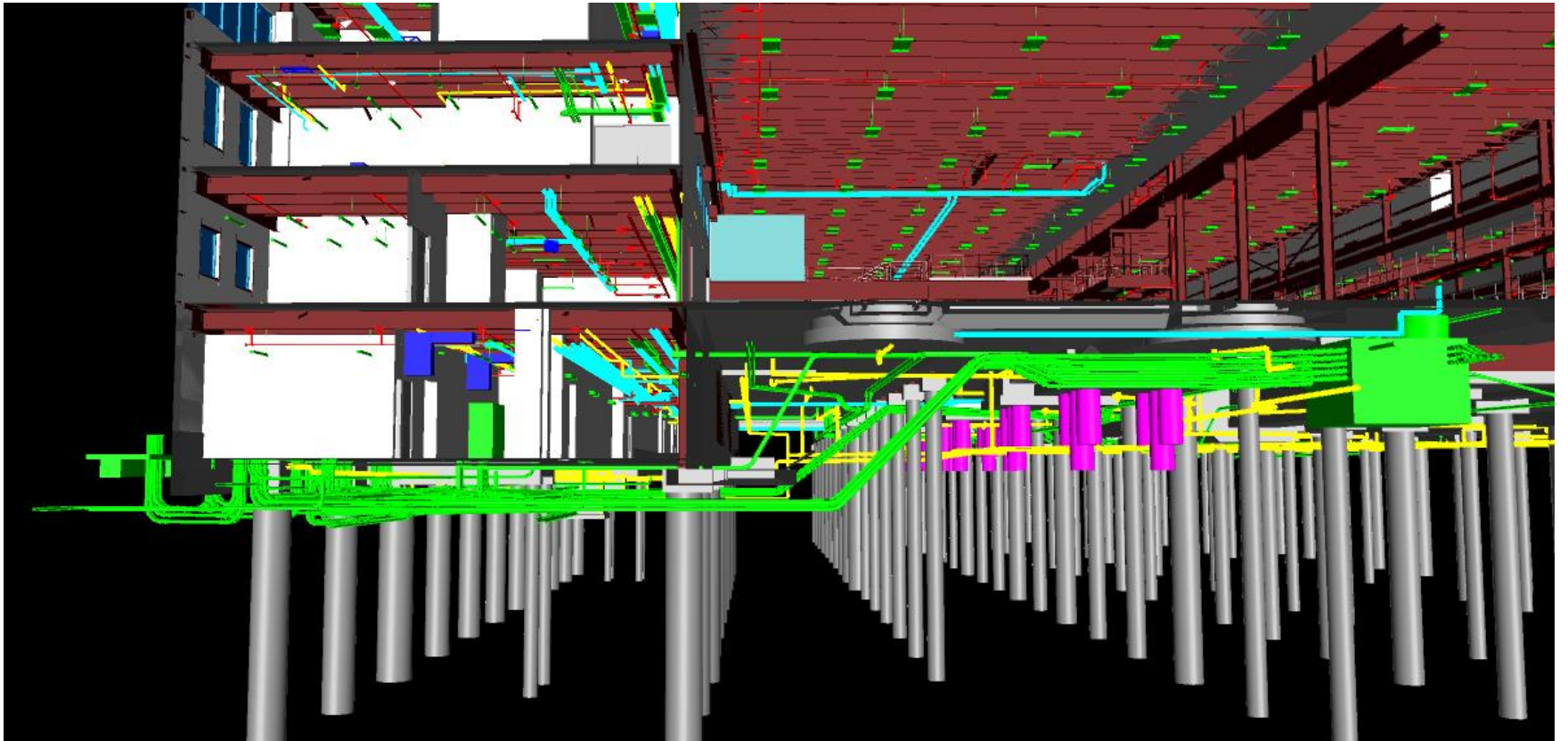
Phasing



Phasing



Underground and Foundations



Underground and Foundations



Phasing



Phasing



Phasing

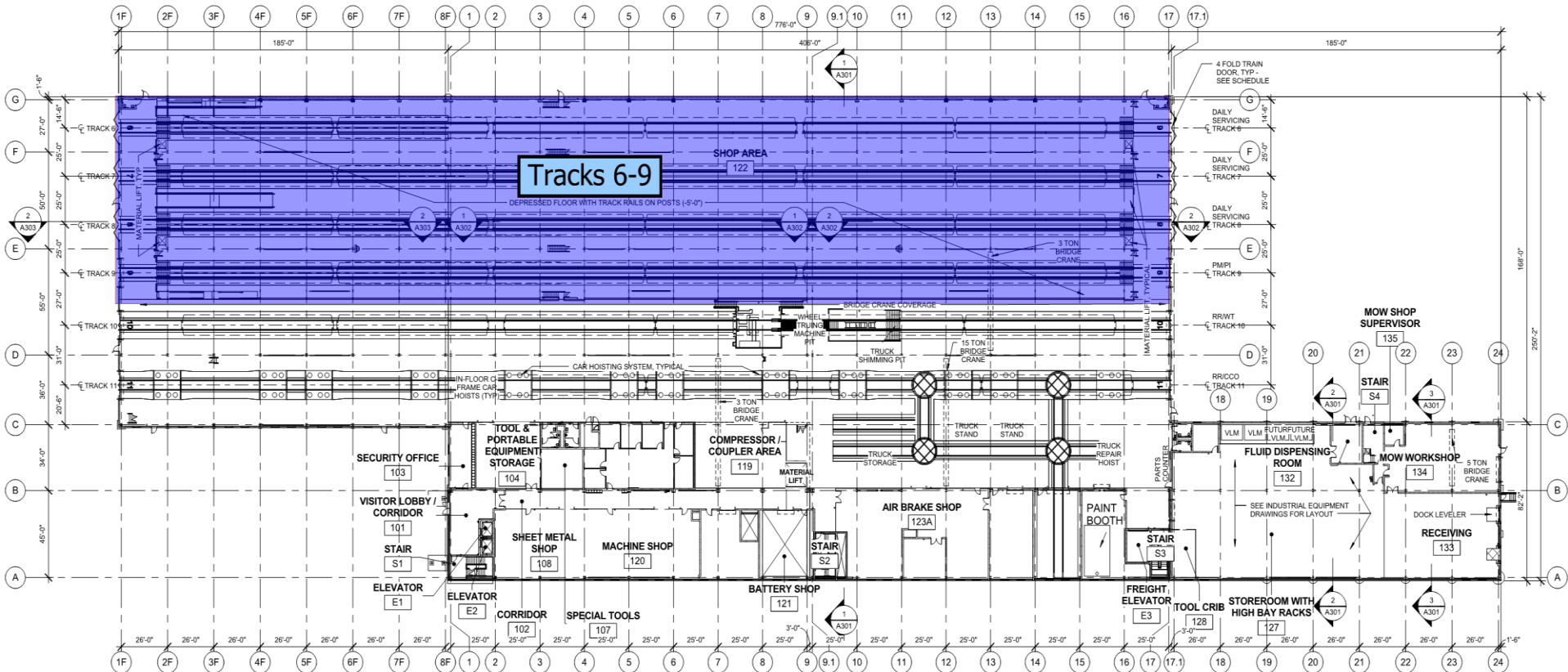


Completed Site

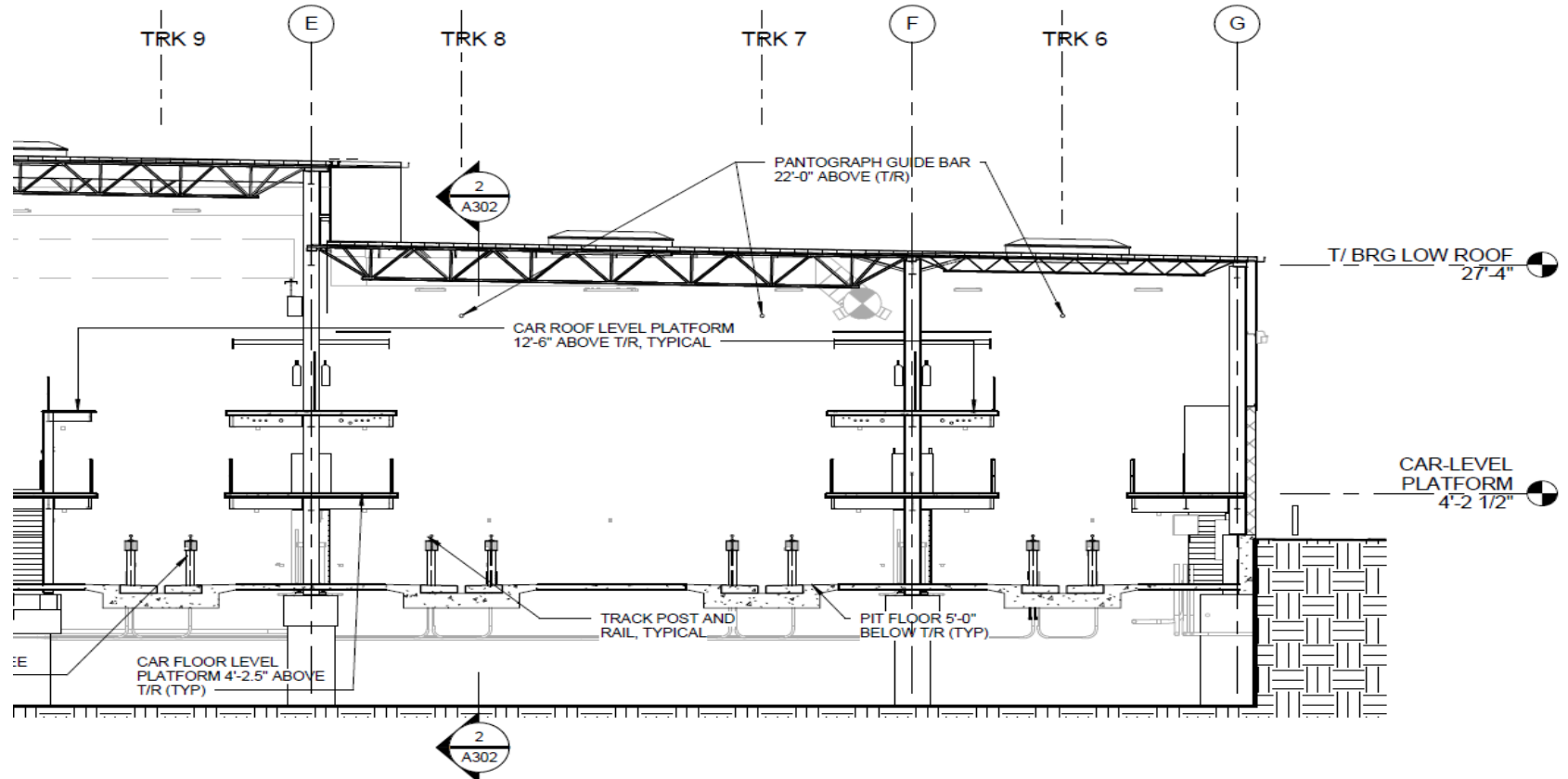


September 2014

Daily Service and Inspection Tracks



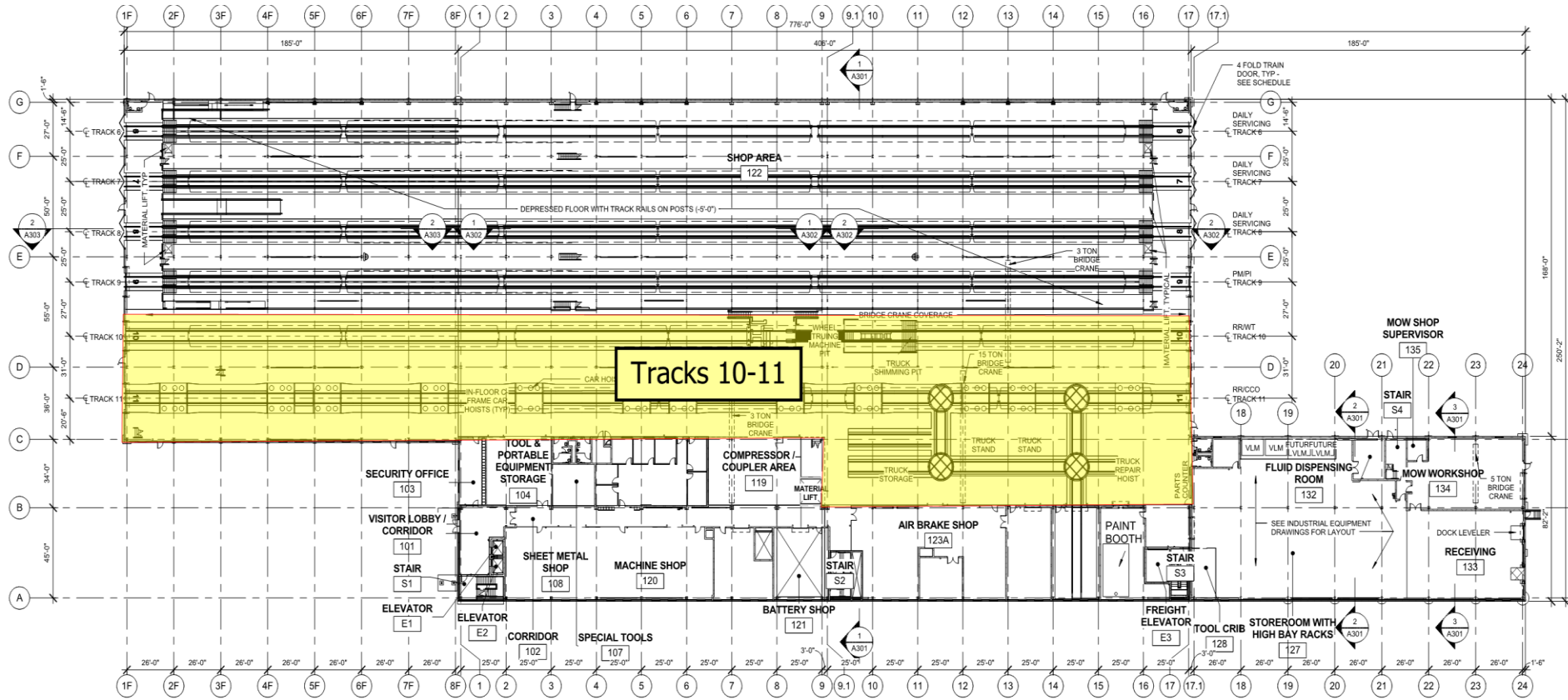
Daily Service and Inspection Tracks



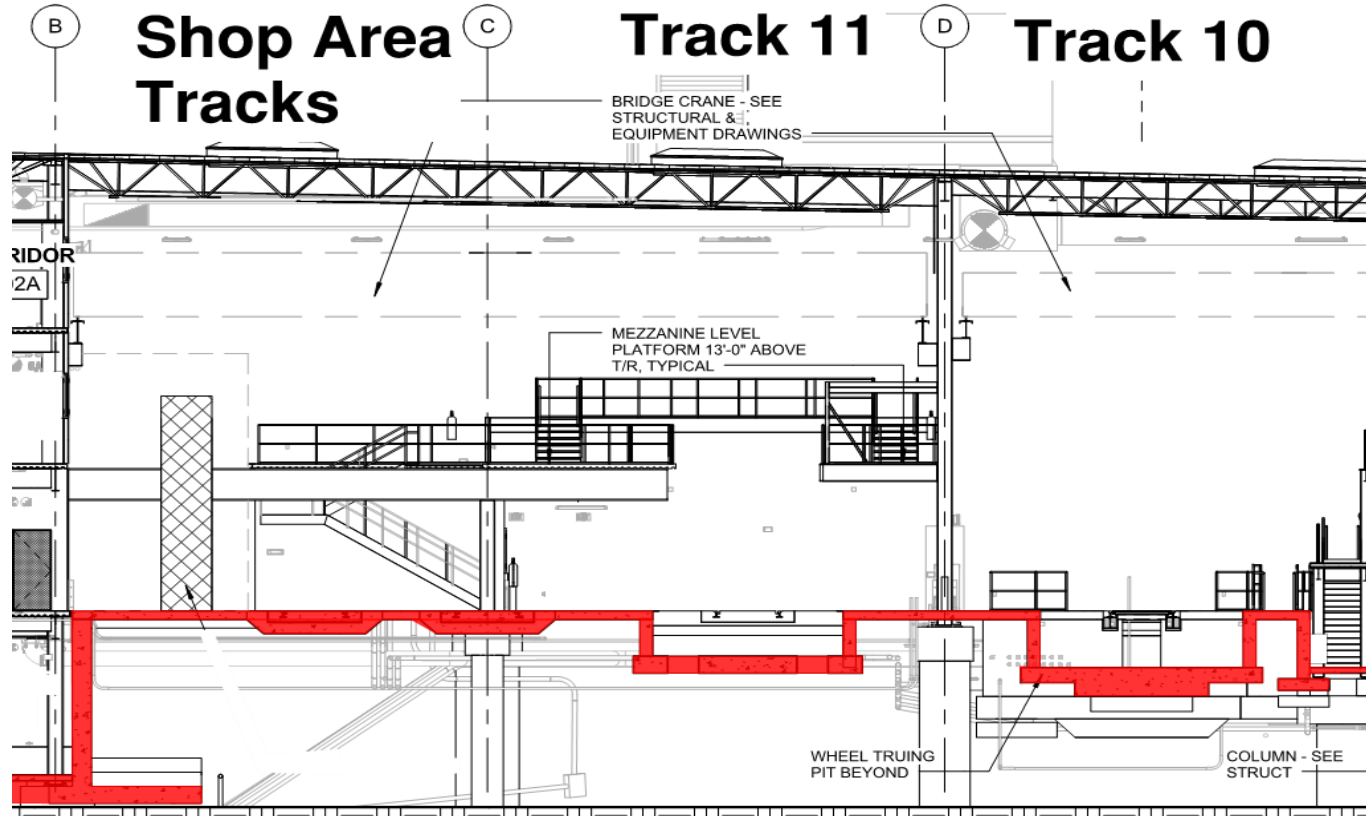
Tracks 6-9 Elevated Work Platforms and Trestle Tracks



Tracks 10-11



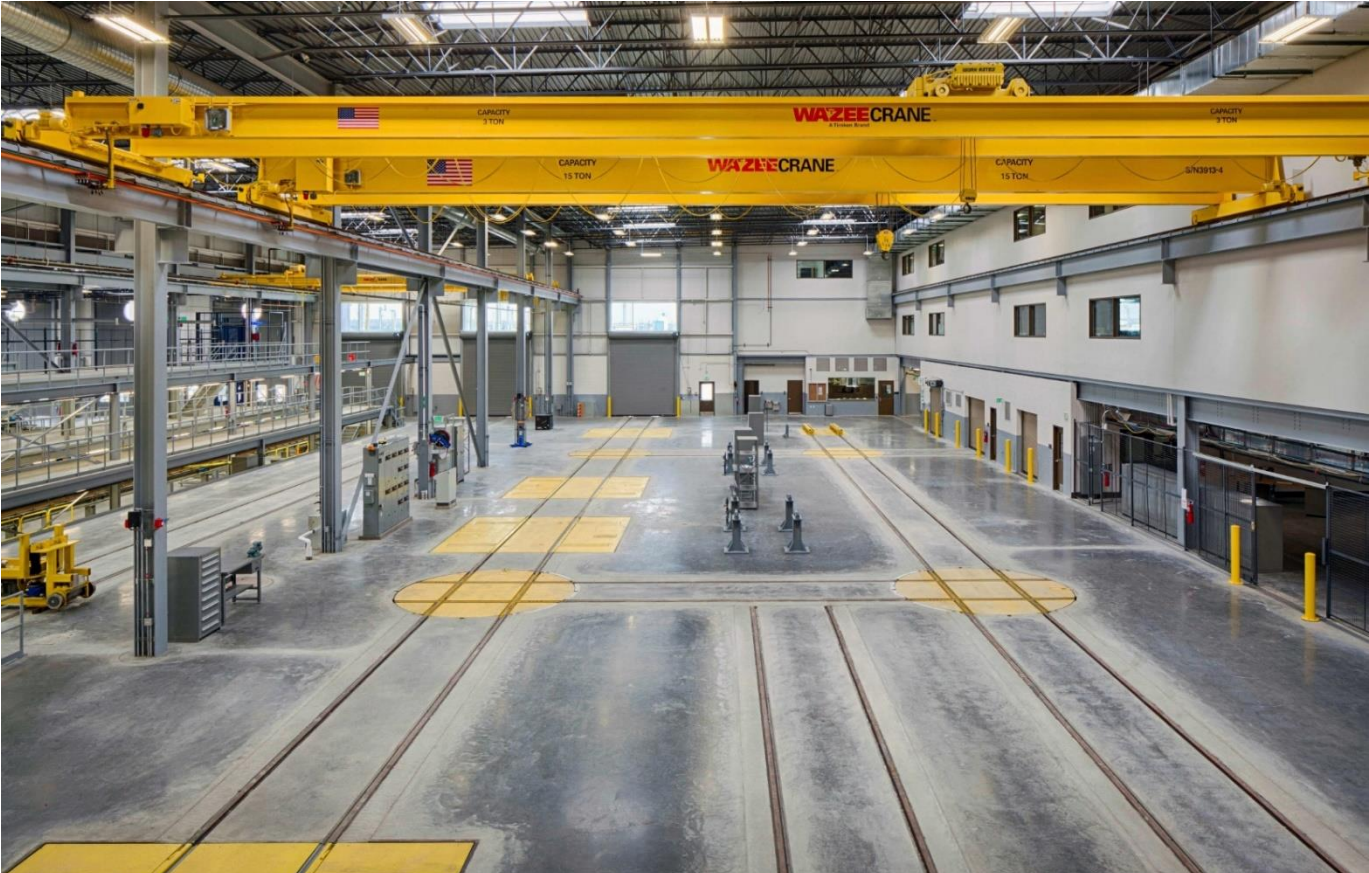
Tracks 10-11



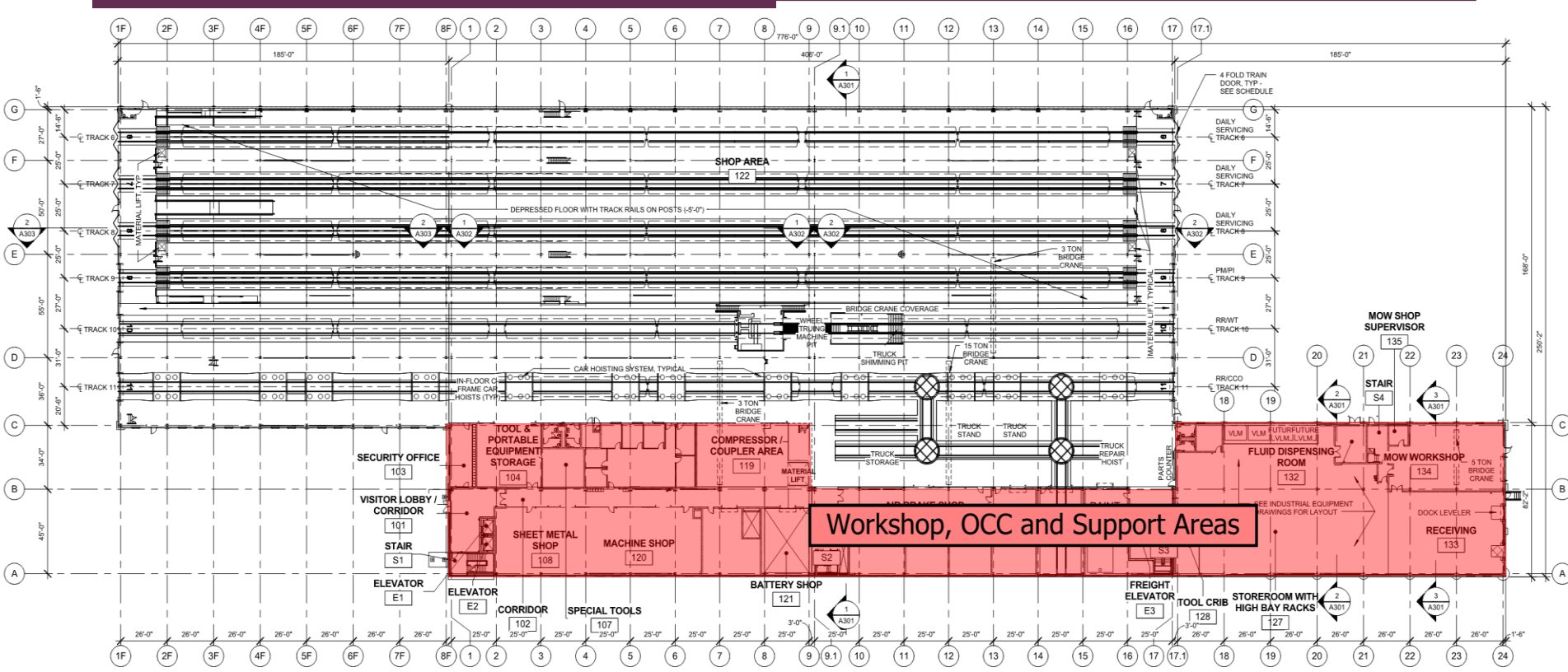
Tracks 10-11



Tracks 10-11

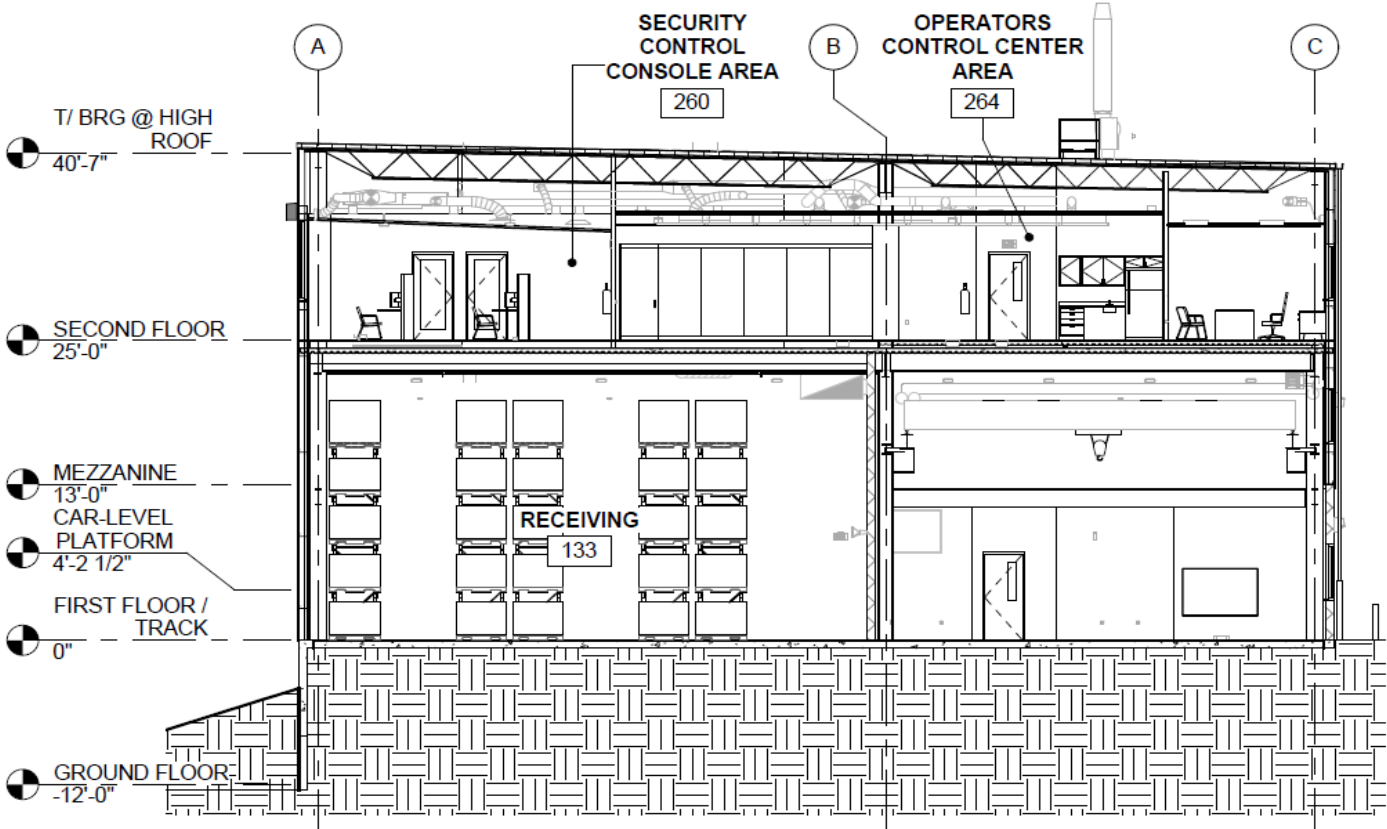


Workshops, OCC and Support Areas



Workshop, OCC and Support Areas

Workshops, OCC and Support Areas



Operational Control Center



Funding

- P3 – Public Private Partnership
- DBFMO – Design Build Finance Maintain and Operation



- FTA – Federal Funding

-
- FTA Buy America (CFR 49 Part 661)
 - Disadvantaged Business Enterprise Requirements – 20%

Funding

- FTA Buy America (CFR 49 Part 661)
 - Compliance
 - Rolling Stock
 - Steel
 - Waivers
 - Premiums and Lead Times



THANK YOU





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