

Drones Need Water, Too

Introduction

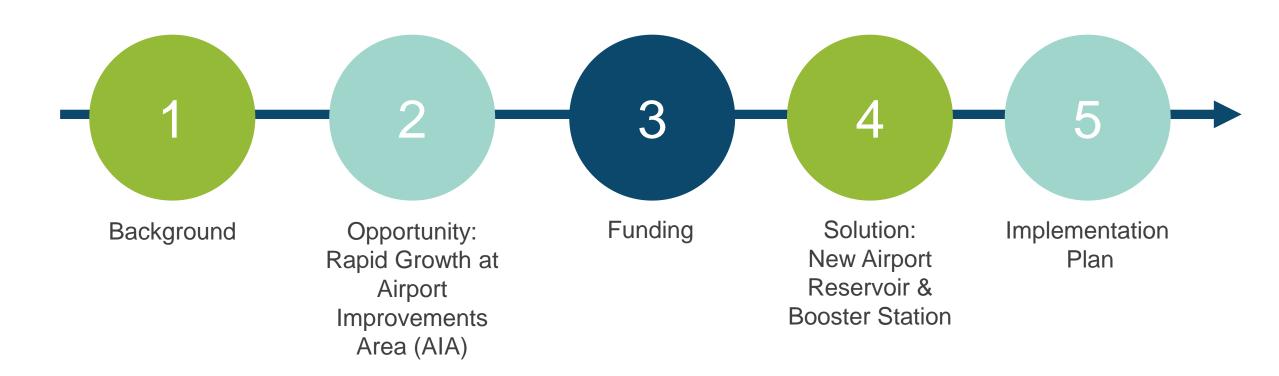


Bob Patterson, PE Public Works Director, City of Pendleton

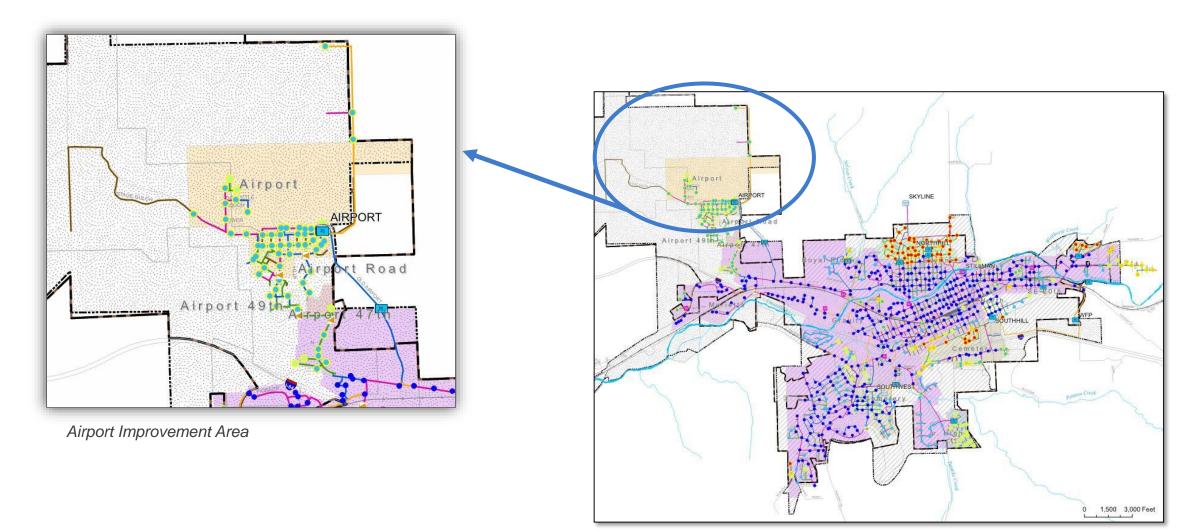


Lael Alderman, PE Senior Engineer, Project Manager at Murraysmith

Agenda



Airport Improvement Area (AIA)



City of Pendleton service area

Why Are We Here?

- The Pendleton UAS (Unmanned Aircraft System) Range is Experiencing Rapid Growth
- We are Out of Space
- The 10-Year Vision has Arrived in 5-Years
- The Opportunity Window is Waning
- We Need More Hangars
- We Need More Shovel Ready Ground

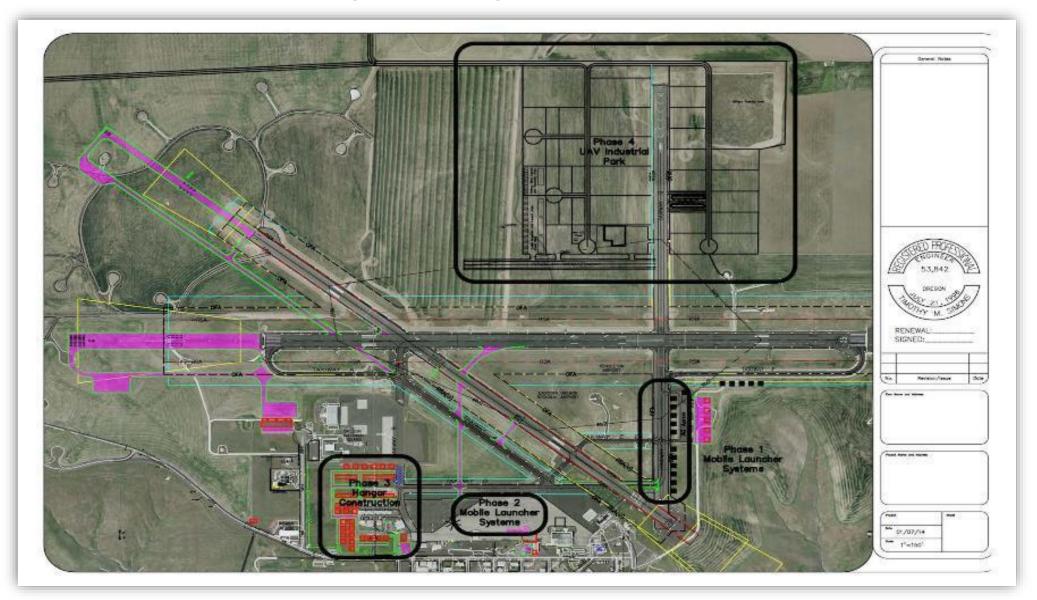
WE NEED TO BUILD PHASE IV

Growing Client List

- Digital Harvest (Virginia)
- Yamaha Motor Corporation (California/Japan)
- Pacific Northwest National Laboratories (Washington)
- NAVMAR Applied Sciences Corporation (Pennsylvania)
- Modern Technology Solutions, Inc. (Virginia)
- A³ by Airbus (California/Germany/France)
- US Marines & Counter-Terrorism Department (Wash. D.C.)
- PAEISR (Virginia)
- Cubic Corporation (California)
- Yates Electrospace Corporation (California)
- Insitu (Washington/Oregon)
- Johns Hopkins University (Maryland)

...and their subcontractors

Future Vision (2014): UAS Industrial Park



If we don't build now, we may miss this opportunity!



Growth potential...the sky's the limit

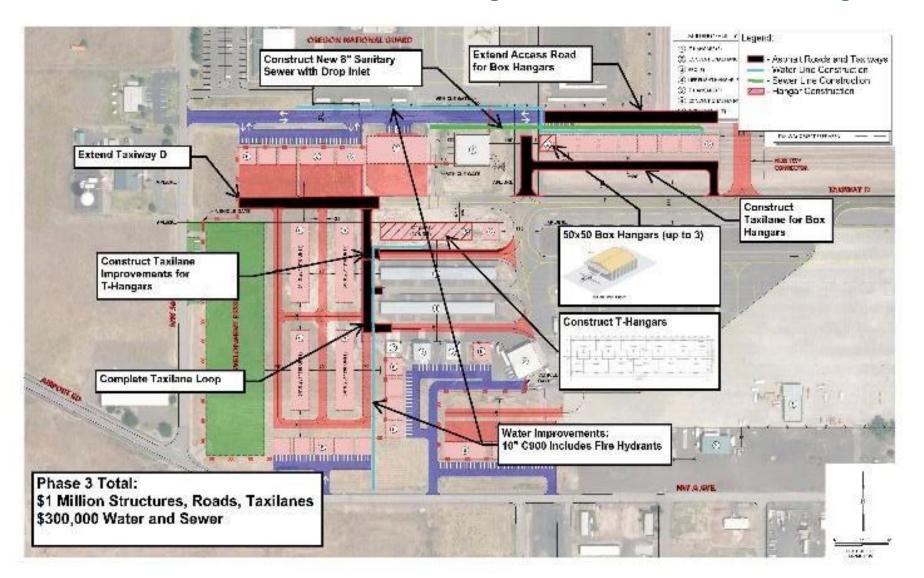


What's holding us back?

- 1. Lack of Hangars
- 2. Lack of Shovel-Ready Ground
- 3. Lack of Infrastructure
- 4. Window of Opportunity NOW!

Window is PHASE IV

Phase III Development Concept



Box Hangers

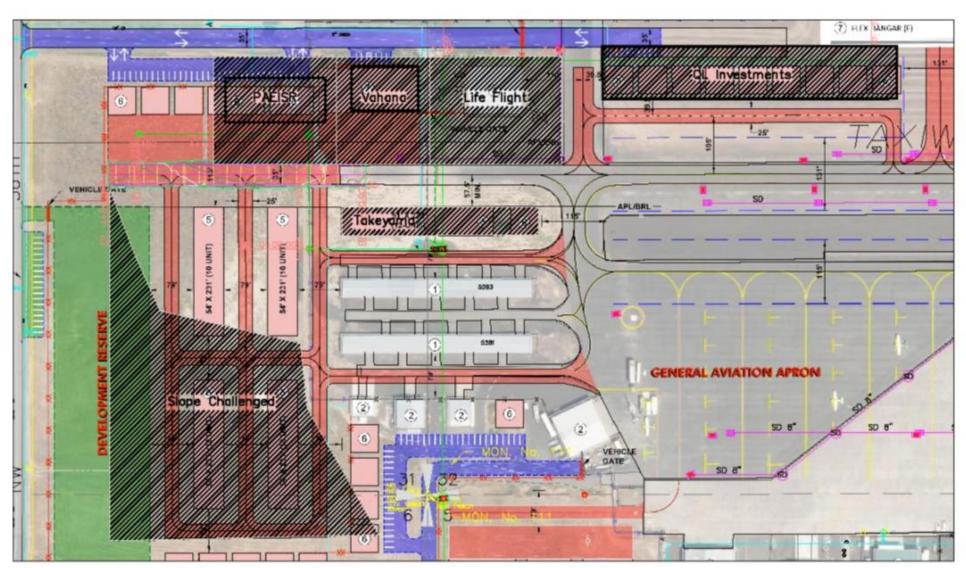
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Fire flow improvements

+

Roadway improvements

Phase III Public & Private Infill

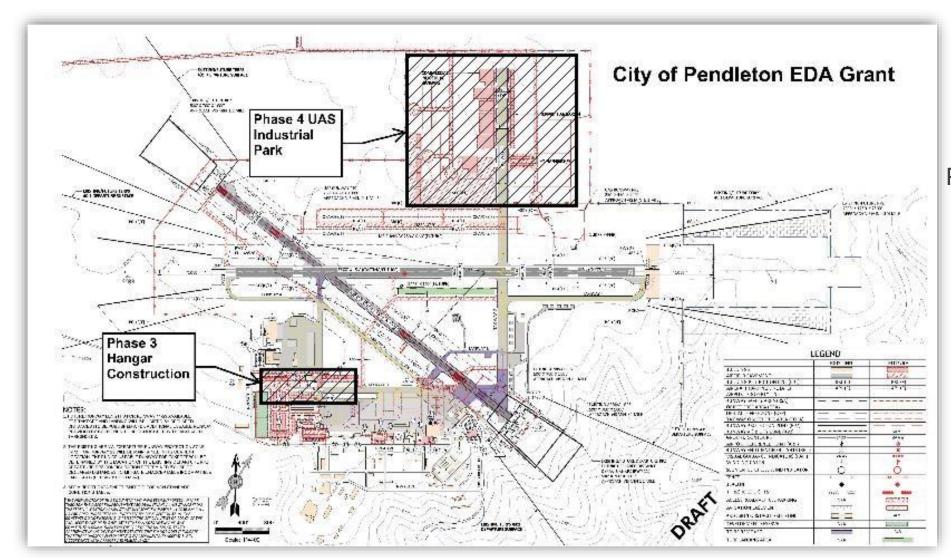


New UAS-related business

+

Associated residential development to the north

Phase III & IV Utilities Overview

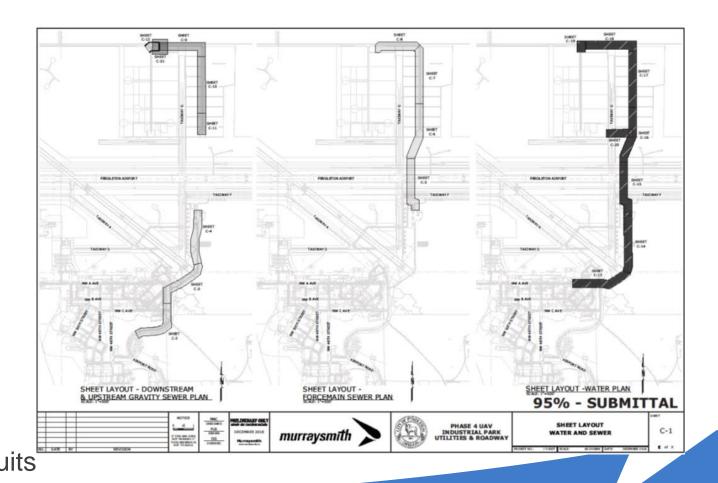


Ph III: UAS Hanger Expansion

Ph IV: Industrial Park

Phase IV Utility Expansion

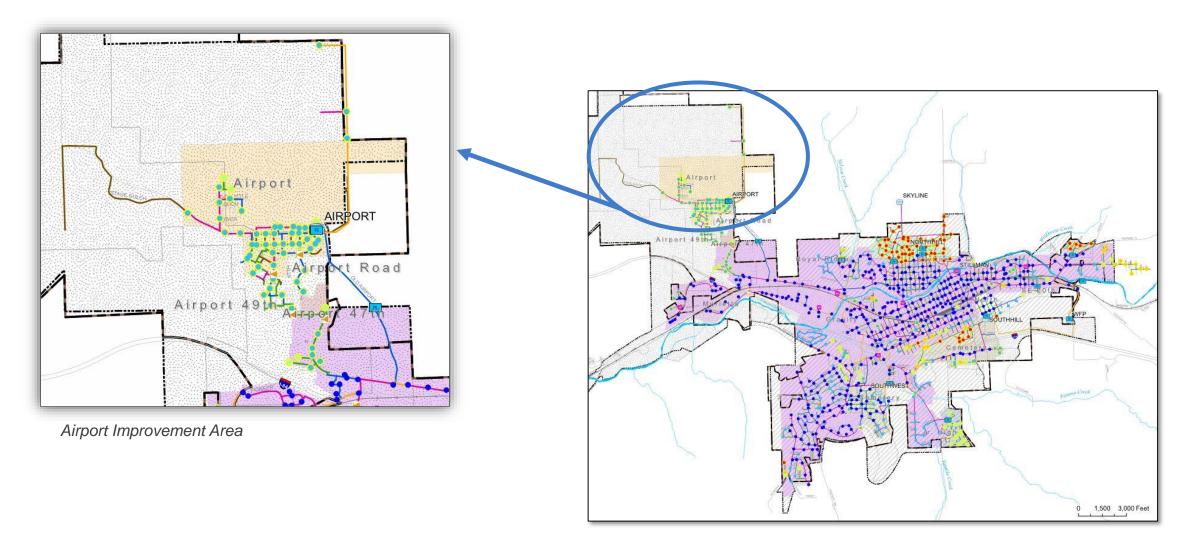
- Water9,250 LF of 18-inch waterline
- Sewer
 8,175 LF of 8-inch gravity sewer
 4,400 LF of 6-inch force main
 300 gpm lift station
- Road5,700 LF of asphalt road
- Stormwater control facilities
- Dry Utility
 5,275 LF of Comm & Power Conduits



Project Funding

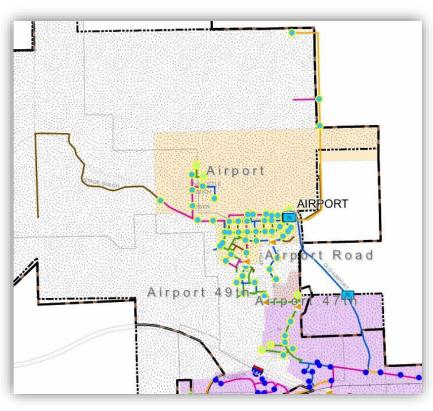
Funding Source	Dollars
Drinking Water SRF	\$14.855 M
Clean Water SRF	\$9.8 M
Federal, Economic Development Administration	\$3.0 M
City of Pendleton	remaining balance

Airport Improvement Area (AIA)



City of Pendleton service area

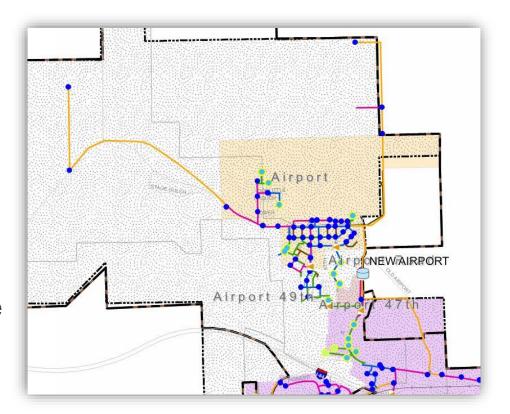
Proposed Improvements



Phase III/IV: Utility expansion

New Airport Reservoir + Booster Station

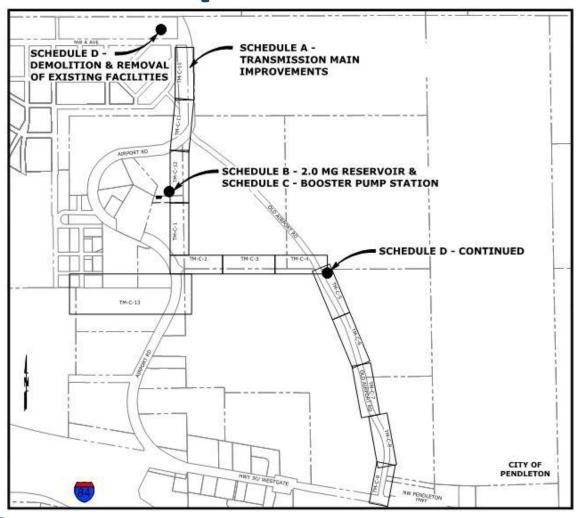
Upsized transmission main to/from Main Pressure Zone



Proposed conditions

Existing conditions

New Airport Reservoir + Booster Station



Transmission main improvements

+

2.0 MG welded steel reservoir

+

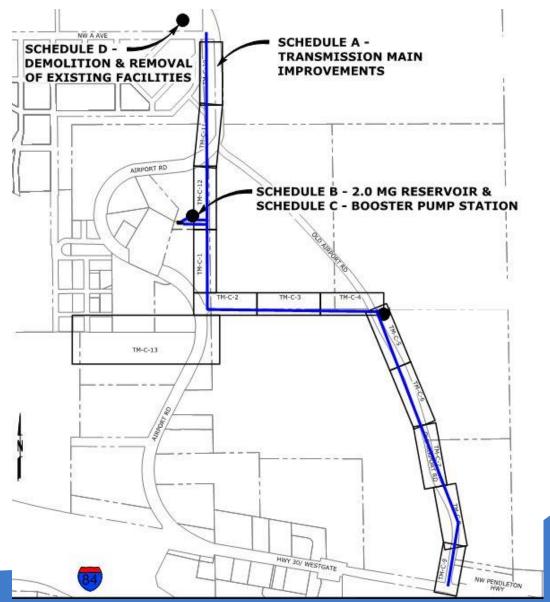
3,500 gpm booster station

Tx Main Improvements

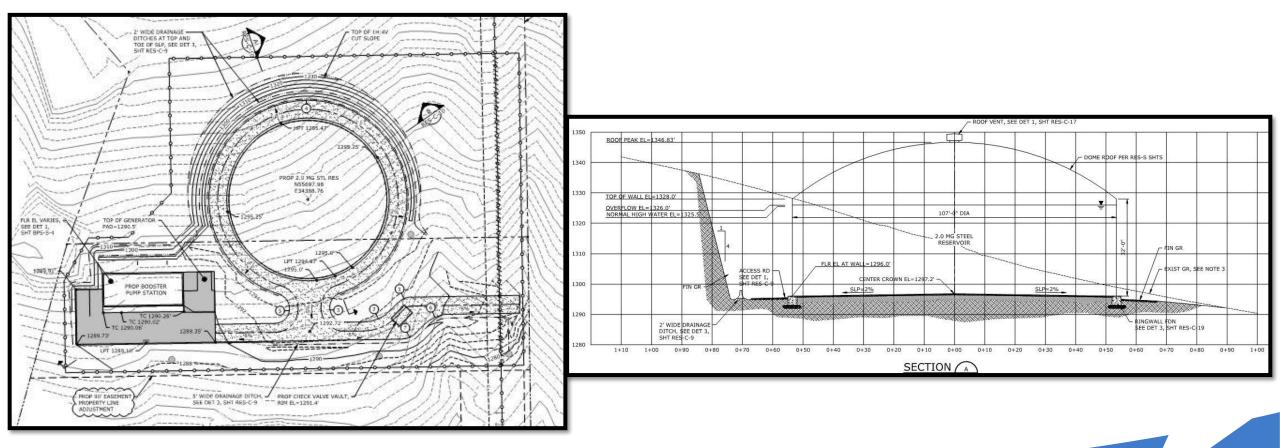
4,700 LF of 18-inch diameter

+

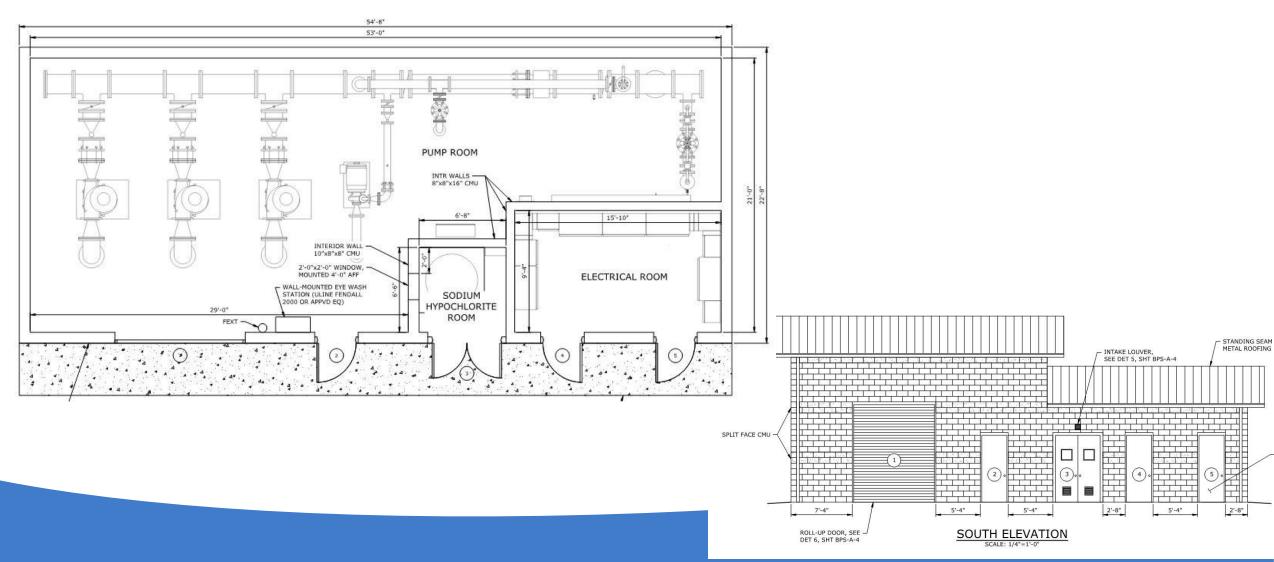
1,500 LF of 24-inch diameter



New Airport Reservoir



Booster Station



Implementation Schedule for AIA

- 1. Phase III: Infill/development

 Ongoing
- 2. Phase IV: Utility expansion

 Summer 2019 early Summer 2020
- 3. New Airport Reservoir + Booster Station
 Fall 2019 Spring 2021 (depending on funding)



Q&A



Thank you!