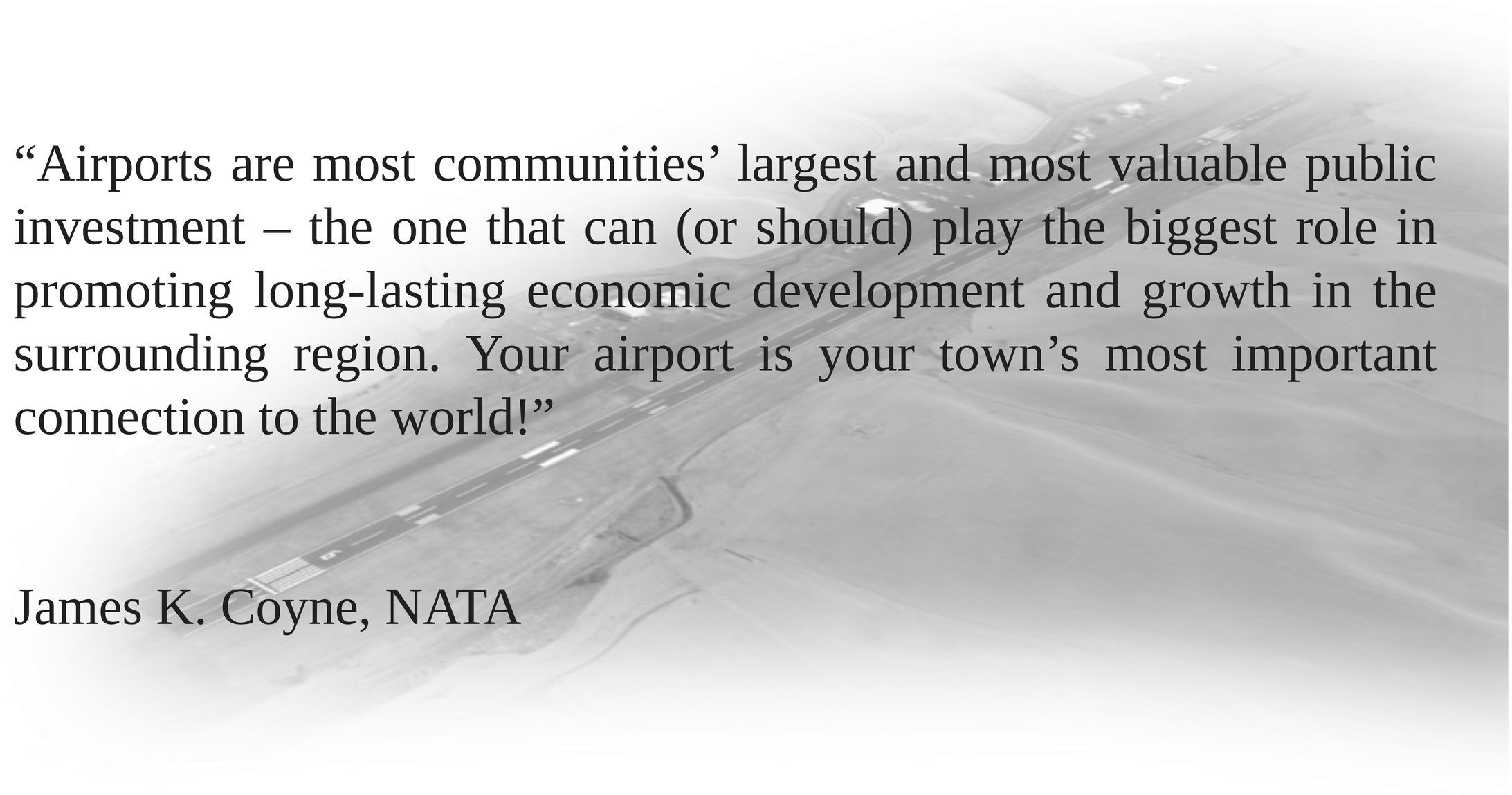
RUNWAY REALIGNMENT, TERMINAL, & AIR SERVICE CHALLENGES

WASHINGTON STATE TRANSPORTATION COMMISSION
SEPTEMBER 15, 2020

PULLMAN-MOSCOW REGIONAL AIRPORT

What we believe



“Airports are most communities’ largest and most valuable public investment – the one that can (or should) play the biggest role in promoting long-lasting economic development and growth in the surrounding region. Your airport is your town’s most important connection to the world!”

James K. Coyne, NATA

How we work

- **Staffing**
  - 4 Full-time employees, 4 part-time
  - Internalized organization
  - ARFF and EMR Certified
    - Operations and Maintenance
    - SRE
    - Administration
  - Finance is handled by contract with City of Pullman
- **Benchmarking and reinventing the wheel**
- **Our way of dealing with “Problems and Issues”**

Preparing for program

- **Look ahead – what will be needed?**
  - AGIS
  - SRE
  - ARFF
  - Pavement maintenance
  - Finance
- **Patience and Perseverance**

FAA Partnership

- **ADO, Region, HQ Collaboration**
- **Satisfy FAA needs**
- **Part of the solution – not a hurdle to clear**
- **Transparency with “Opportunity”**

Community Vision and Partnerships

- **Joint Sponsorship between Cities of Moscow and Pullman.**
- **8 Member Airport Board**

  2 – City of Moscow (Including Mayor)

  2 – City of Pullman (Including Mayor)

  1 – Washington State University

  1 – University of Idaho

  1 – Latah County

  1 – At Large

- **Port of Whitman County – non-voting funding partner**

Partnerships

- **Ed and Beatriz Schweitzer**

Funding Partners

Partners	Commitment
City of Pullman	$2.5 million
City of Moscow	$2.5 million
Whitman County	$850,000
Latah County	$100,000
Port of Whitman	$250,000
Washington State University	$1 million
University of Idaho	$500,000
WSDOT	$1.5 million est.
ITD	$30,000 est.
Schweitzer Engineering Laboratories	$1 million
Ed and Beatriz Schweitzer	$1 million
PFC	$850,000
Total	$12,180,000

FAA Airport *Federal* Funding
WA State 2019 - 2023

NPIAS (i.e., federally-funded) Airports Only

(NPIAS = National Plan of Integrated Airport Systems)

- **$713,199,380** **5-Year Project Forecast Estimate for WA**
  - **$376,690,666 5-Year Project Forecast - SeaTac Alone**

- **$3,364,287** **Annual Required WA State Match**

- ***Annual WSDOT Aviation Division funds available = $1,300,000***

WSDOT
Aviation Division

WSDOT *State* Funding: ***2019 History***

- **$61,144,731 Value of 44 requested projects**

21 Projects Funded ***23 Projects Unfunded / Deferred***

Available WSDOT Funds = $1,439,538, Shortfall = $1,625,921

Federal Projects – Unfunded / Deferred = $5,827,553

Non-Federal Projects – Unfunded = $1,074,607

- **With just $291,378 more . . .**
  The General Fund Would Gain $406,239

6.971 % X $5,827,553

WSDOT
Aviation Division

WSDOT *State* Funding: ***2020 Planning***

- **$76,872,828** **Value of 129 requested projects**

- **$12,467,234** **State matching funds *required***

- **$ 1,300,000** **State matching funds *available***

Consultant Team

Mead & Hunt

JUB

GeoProfessional Innovation

Commonstreet Consulting, LLC

RICONDO®

Prime Contractors

M.A. DeAtley Construction

N.A. Degerstrom INC.

Project Fun Facts

6.5 Million

YARDS OF EARTH MOVED

3

MILES OF POWER LINE RELOCATION

300

Acres of Land Acquisition

2

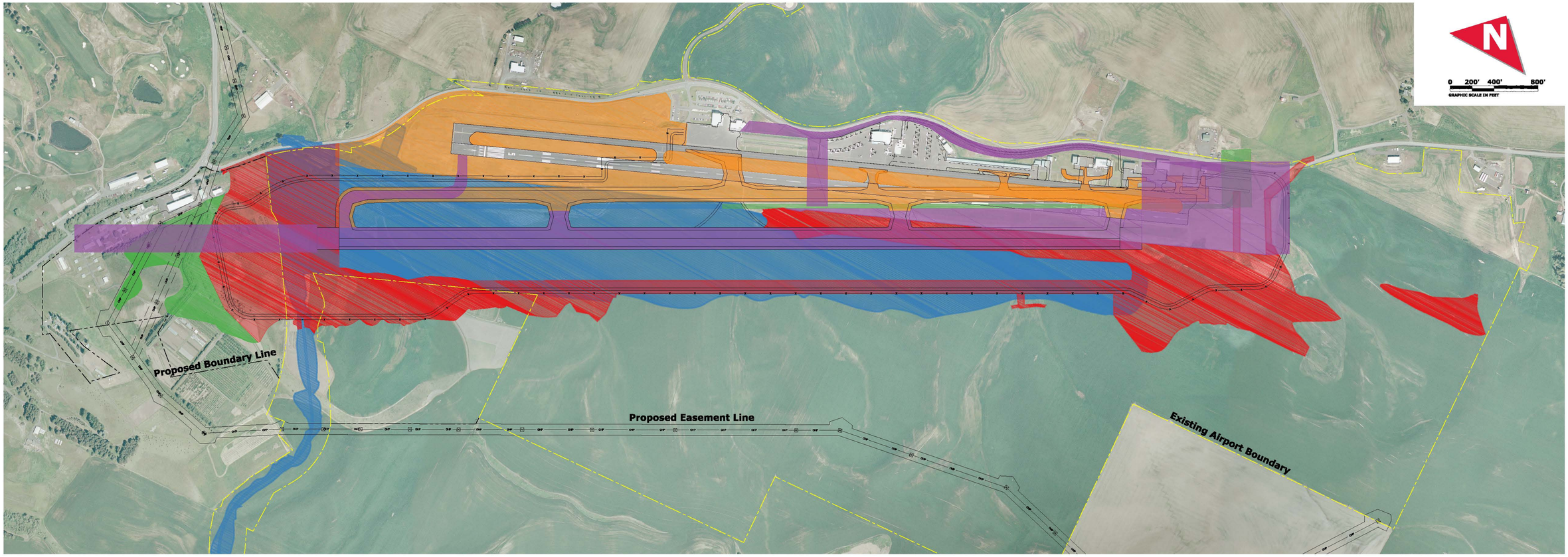
MILES OF CREEK RELOCATION

59

FEET OF DEEPEST FILL

Construction Phasing

Mead&Hunt



2015

1. LAND ACQUISITION (Private Land Owners)
2. WETLAND MITIGATION
3. FINALIZE AVISTA DESIGN

2016 Airfield Improvements
Construction 2016/2017

1. AIRPORT CREEK BOX CULVERT (Phase I)
2. EARTHWORK (Phase I)
3. CONSTRUCT TEMPORARY ACCESS ROUTE
4. AIRFIELD STORM DRAINAGE IMPROVEMENTS (Phase I)

2017 Airfield Improvements
Construction 2017/2018

1. LAND ACQUISITION (WSU)
2. EARTHWORK (Phase II)
3. AIRFIELD STORM DRAINAGE IMPROVEMENTS (Phase II)
4. CONSTRUCT UTILITY CORRIDORS
5. RUNWAY 6-24 CRACK SEAL AND REMARKING
6. CONSTRUCT NEW ELECTRICAL BUILDING
7. RUNWAY 5-23 PAVEMENT SECTION CONSTRUCTION (PHASE I)

2018 Airfield Improvements
Construction 2018/2019

1. EARTHWORK (Phase III)
2. FENCING AND GATE WORK (Phase I)
3. AIRFIELD STORM DRAINAGE IMPROVEMENTS (Phase III)
4. AIRPORT CREEK BOX CULVERT (Phase II)
5. RUNWAY 5-23 PAVEMENT SECTION CONSTRUCTION (PHASE II)

2019 Airfield Improvements
Construction 2019/2020

1. RUNWAY 5-23 COMPLETED AND OPERATIONAL
2. FENCING AND GATE WORK (Phase II)
3. AIRFIELD STORM DRAINAGE IMPROVEMENTS (Phase IV)

2020 Airfield Improvements
Construction 2020/2021

1. TAXIWAY IMPROVEMENTS
2. TERMINAL AREA IMPROVEMENTS
3. EARTHWORK (Phase IV)

Updated Phasing Plan

February 2017

Pullman-Moscow Regional Airport
Runway Realignment Project

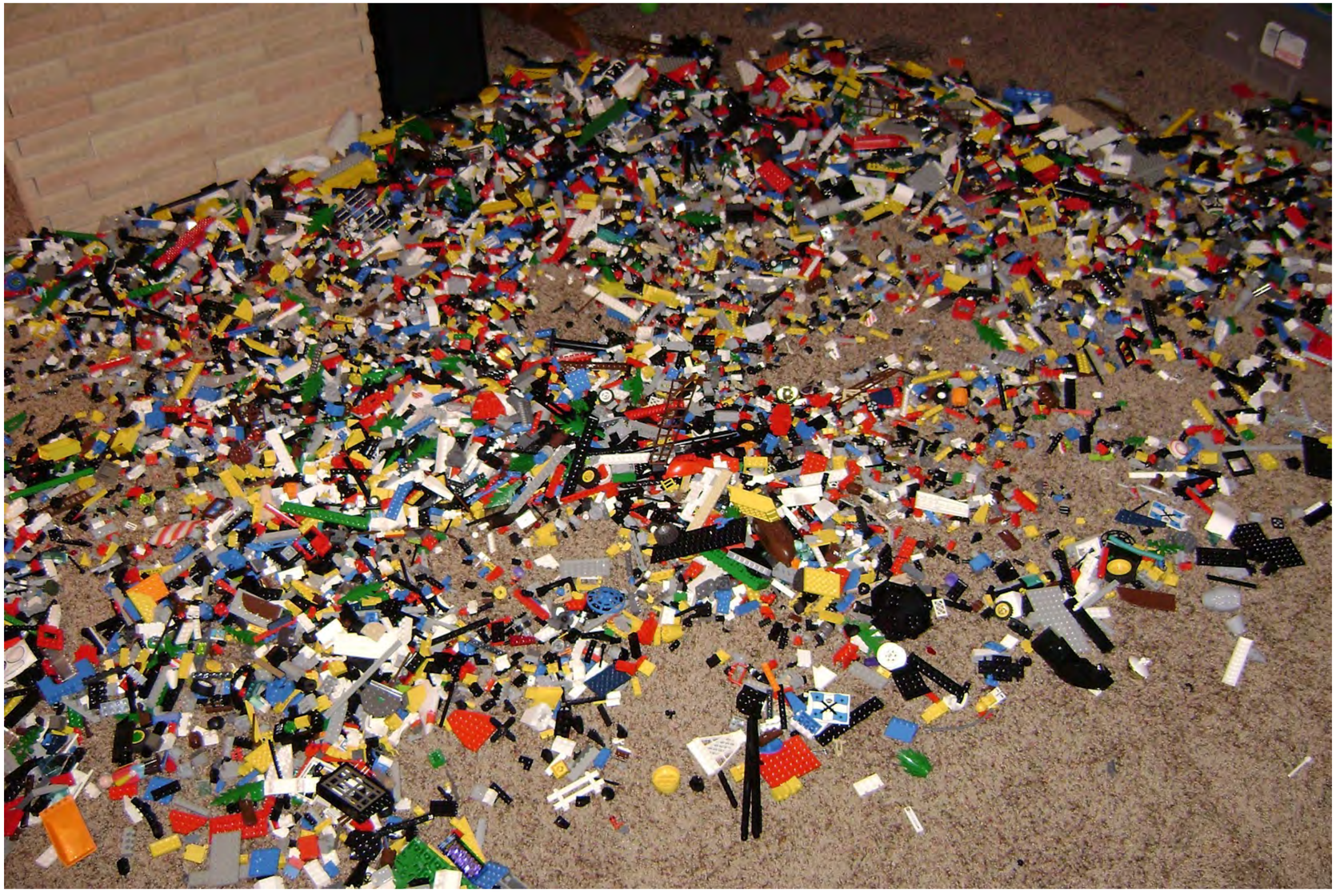
Solutions: Managing Change

A Project is Born!

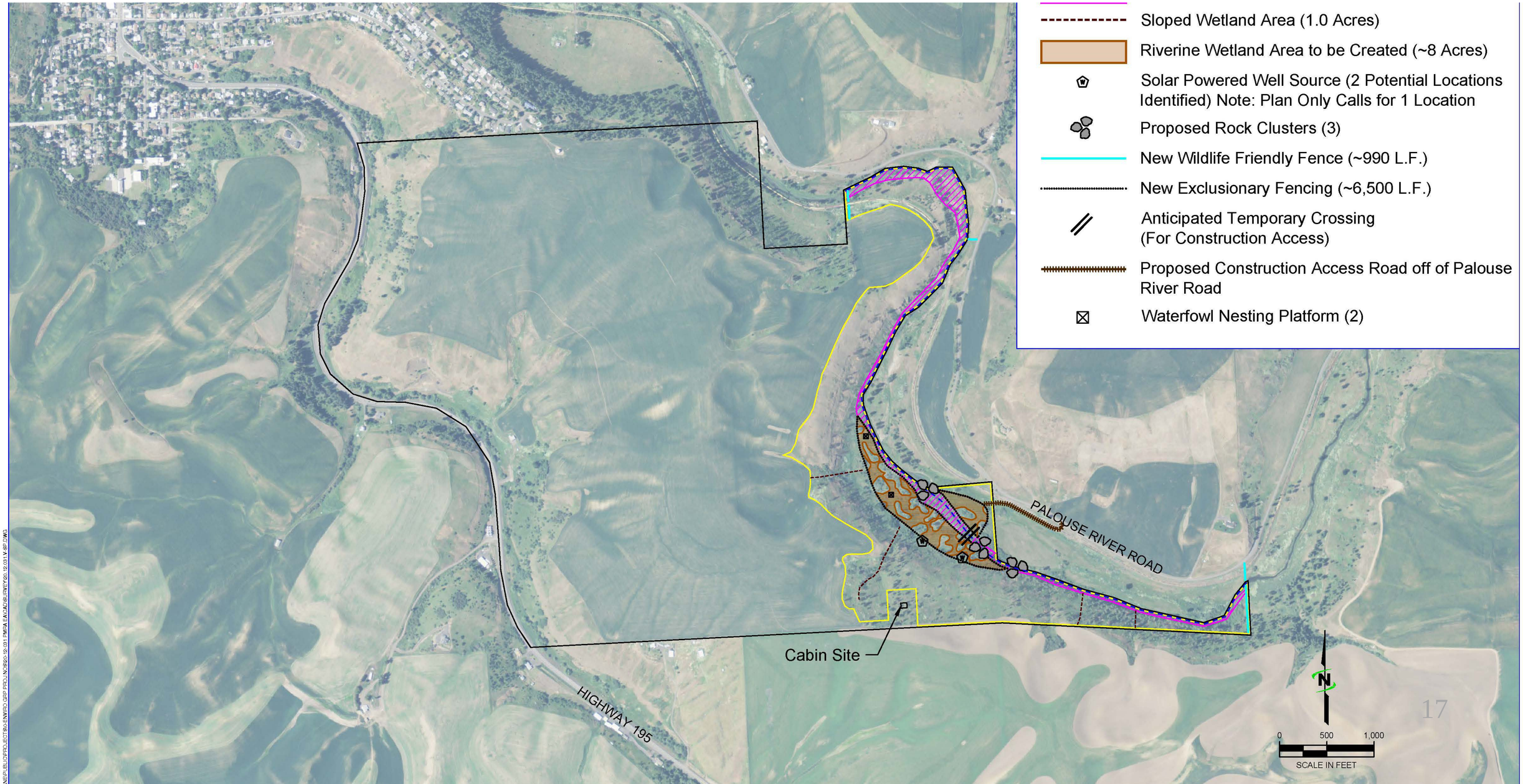
We have a plan!

The Goal is Clear!

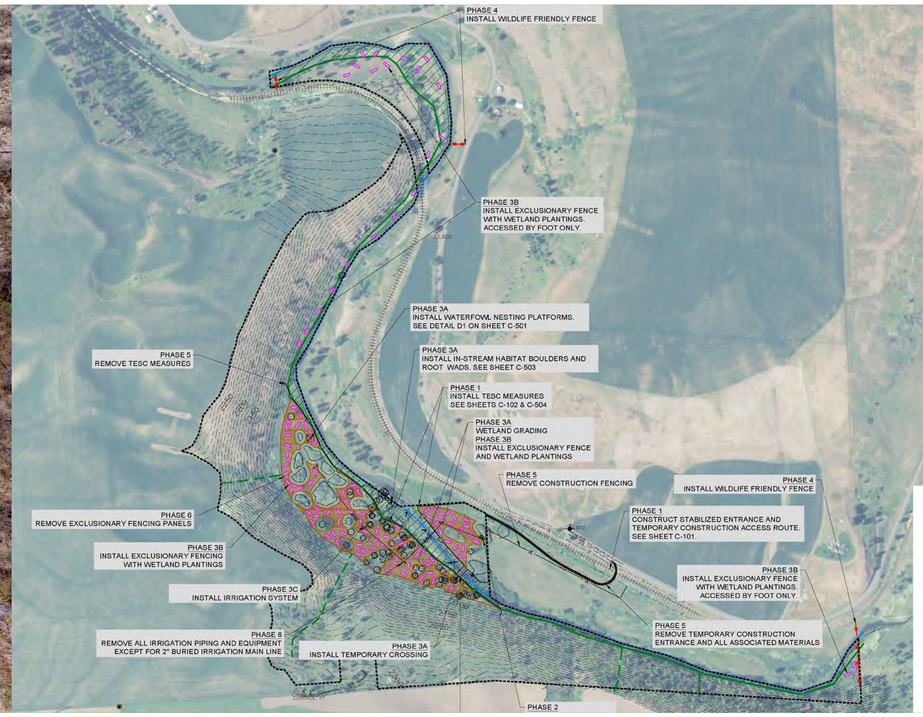
Solutions: Managing Change

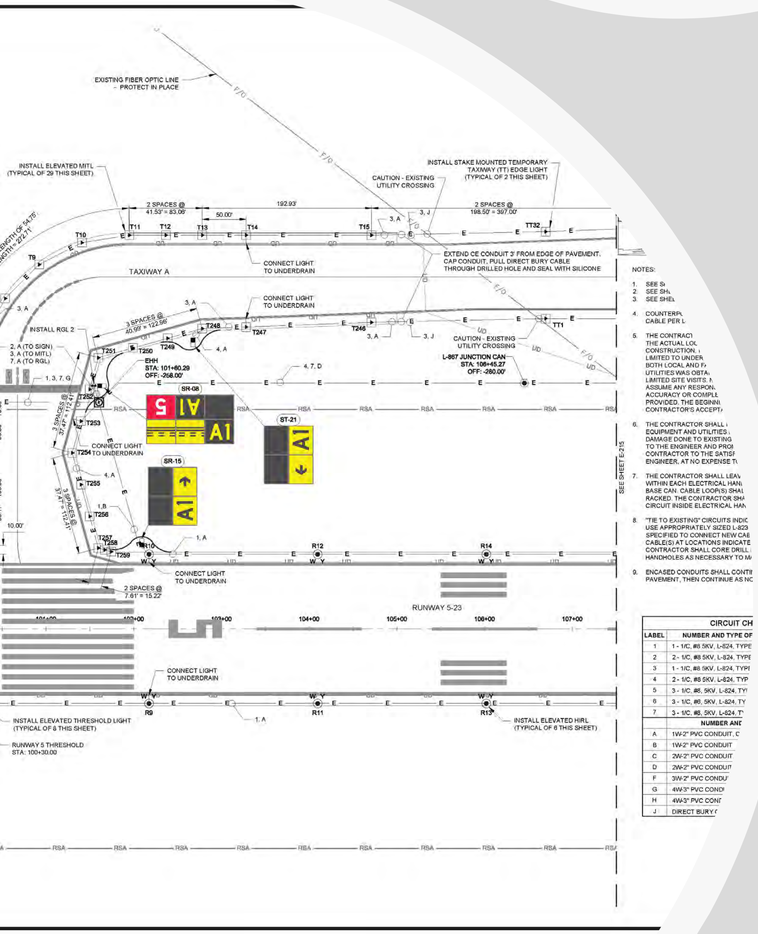


Wetland Mitigation and Conservation Easement
117.48 Acres - Location: Colfax, Washington



Mitigation Site

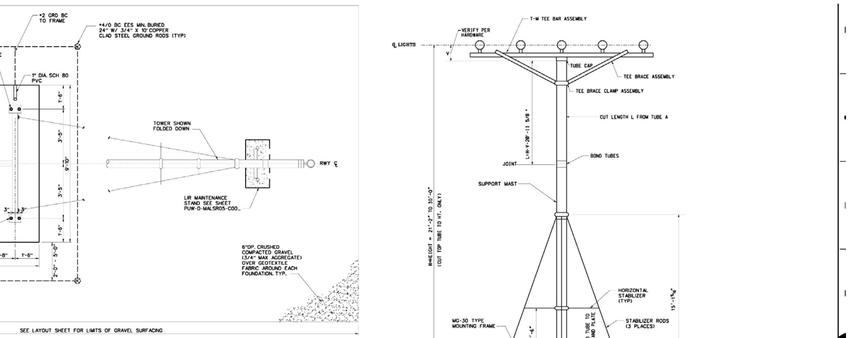


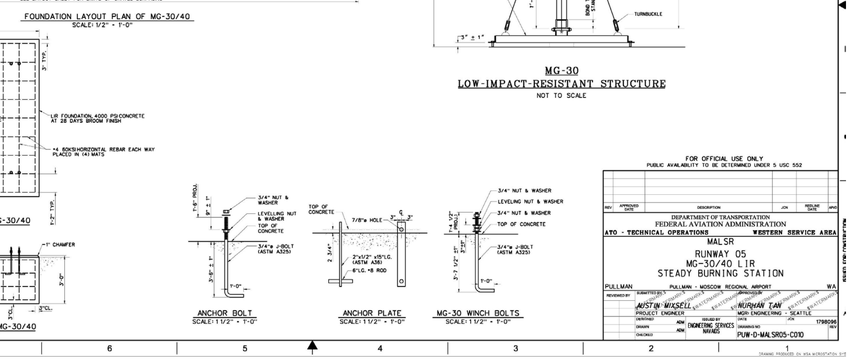


Airfield Signage, Lighting, and NAVAIDs


Mead&Hunt


Alaska Horizon





FOUNDATION LAYOUT PLAN OF MG-30/40
SCALE: 1/2" = 1'-0"

MG-30
LOW-IMPACT-RESISTANT STRUCTURE
NOT TO SCALE

FOR OFFICIAL USE ONLY
PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552

REV	APPROVED DATE	DESCRIPTION	JCN	RELEASE DATE	APPD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — WESTERN SERVICE AREA

MALSR
RUNWAY 05
MG-30/40 LIR
STEADY BURNING STATION

PULLMAN — PULLMAN - MOSCOW REGIONAL AIRPORT — WA

REVISIONS BY	SUBMITTED BY	APPROVED BY

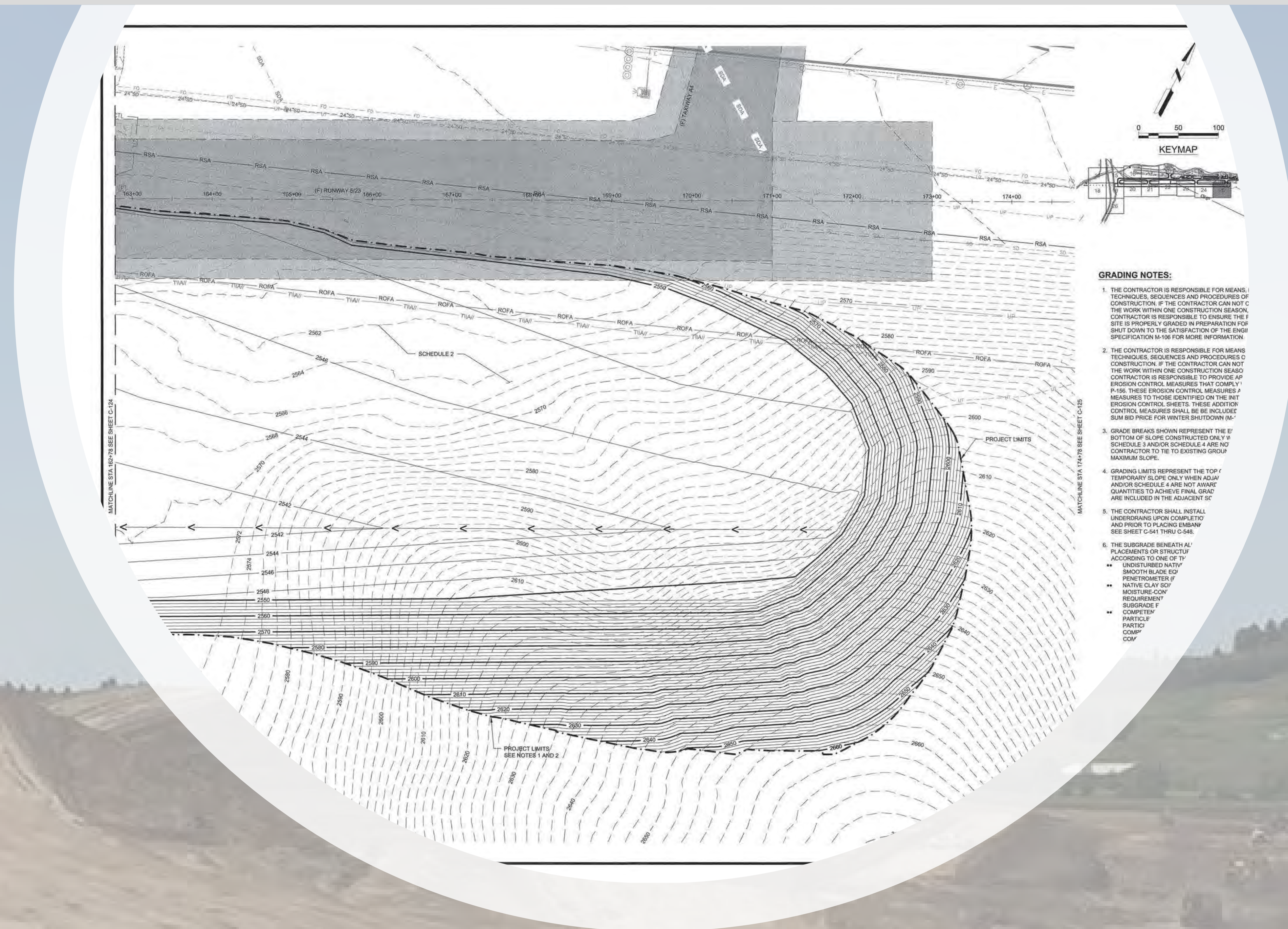
AUSTIN WASELL
PROJECT ENGINEER
ADM ENGINEERING SERVICES

HURMAN TAN
MDH ENGINEERING - SEATTLE

DESIGNED BY	DRAWN BY	CHECKED BY	JOB
ADM	NAVAIDS		1798066

DRAWING NO: PUW-D-MALSR05-C010

Mead&Hunt



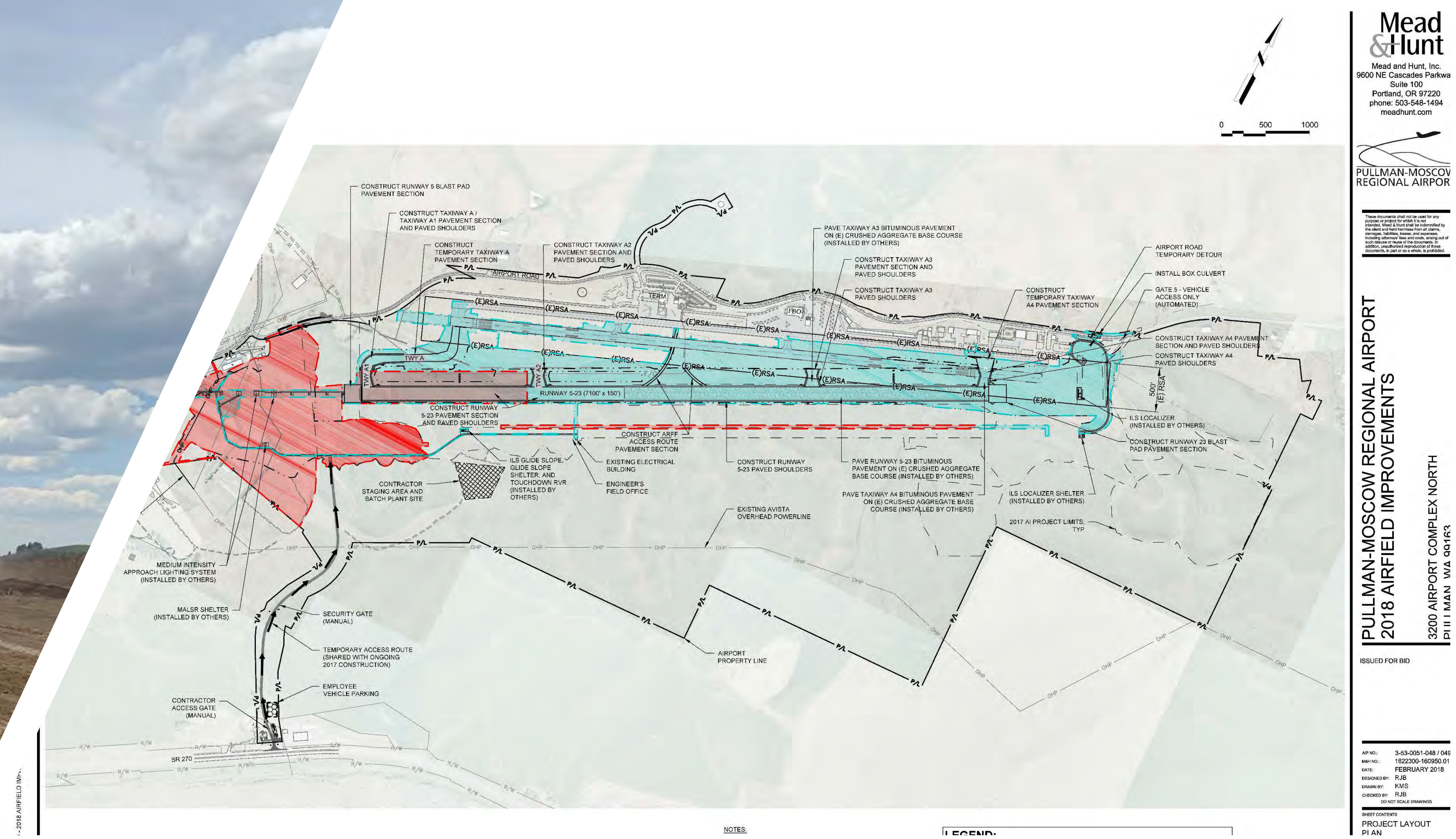
Grading

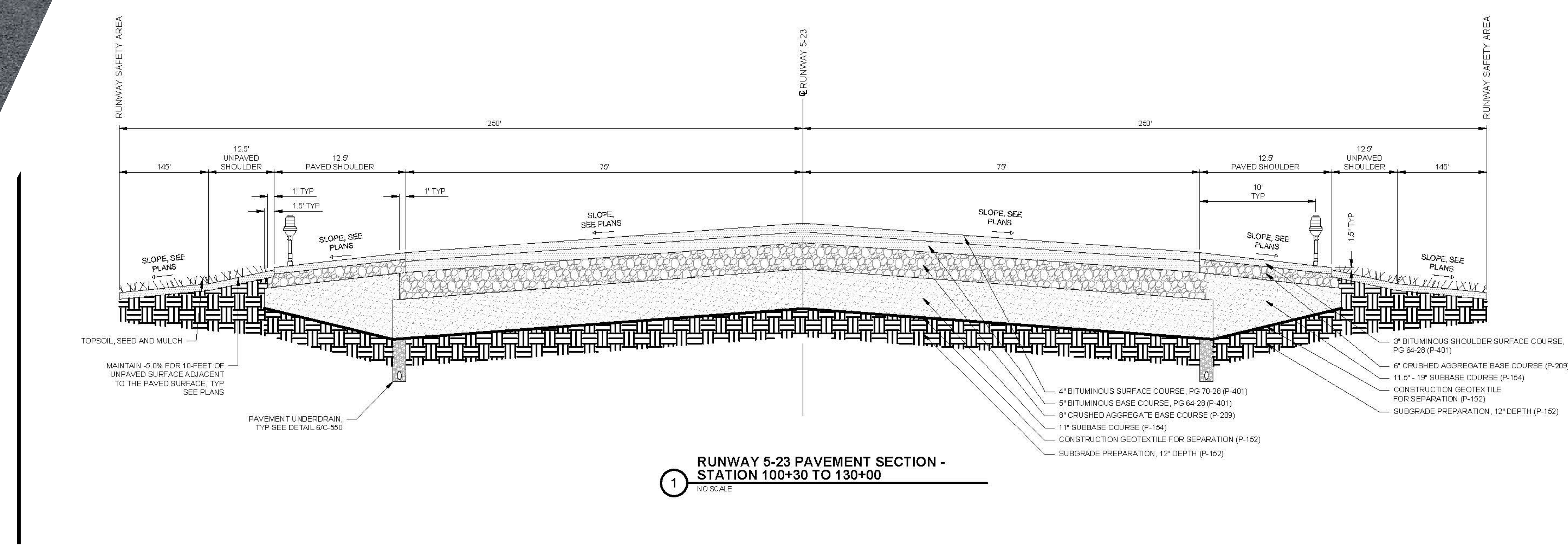

Mead&Hunt


Mead&Hunt


Mead&Hunt

Pavement



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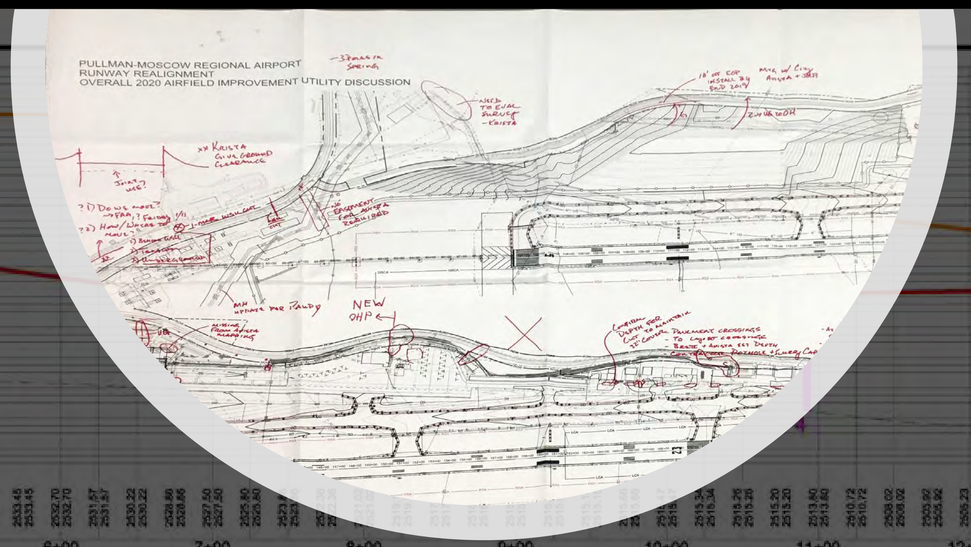


Avista Transmission Relocation

Mead &Hunt
9600 NE Cascades Parkway,
Suite 100
Portland, OR 97220
phone: 503-548-1494
meadhunt.com

PULLMAN-MOSCOW REGIONAL AIRPORT

PULLMAN-MOSCOW REGIONAL AIRPORT
RUNWAY 6/24 REALIGNMENT
OVERALL 30% DESIGN

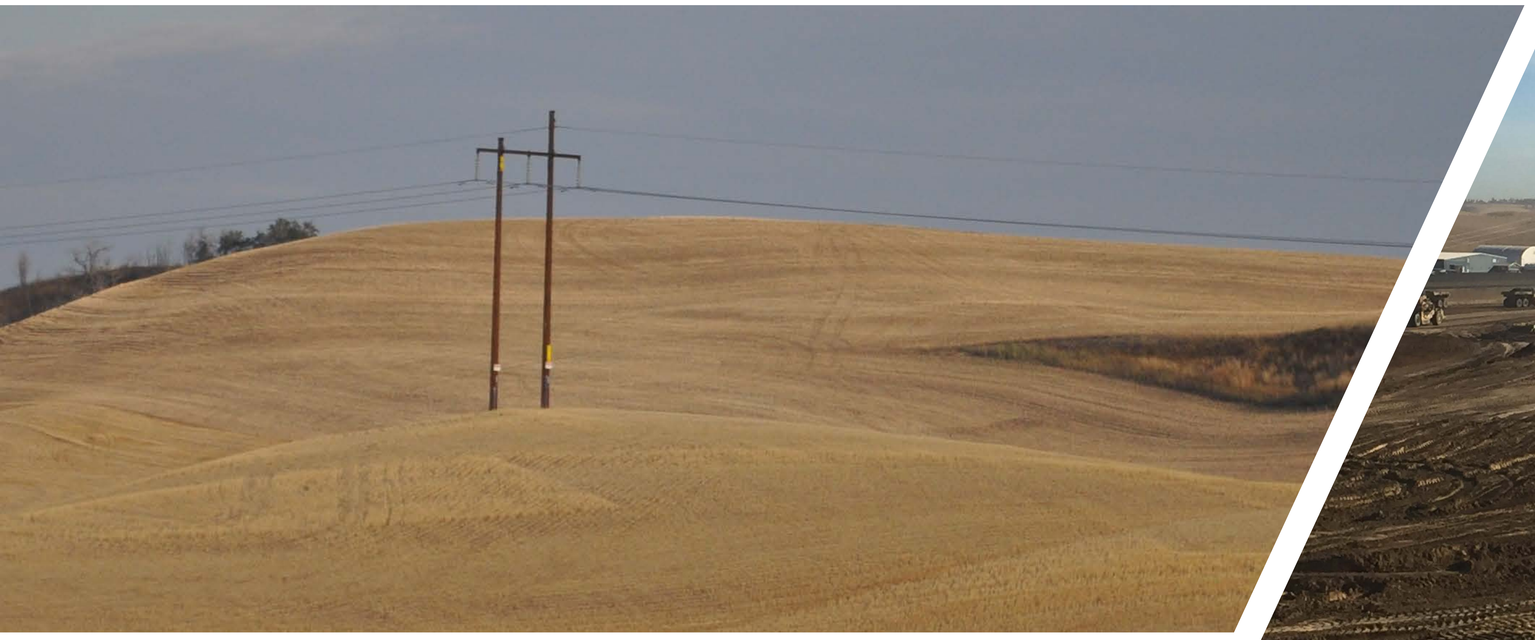
3200 AIRPORT COMPLEX NORTH
PULLMAN, WA 99163

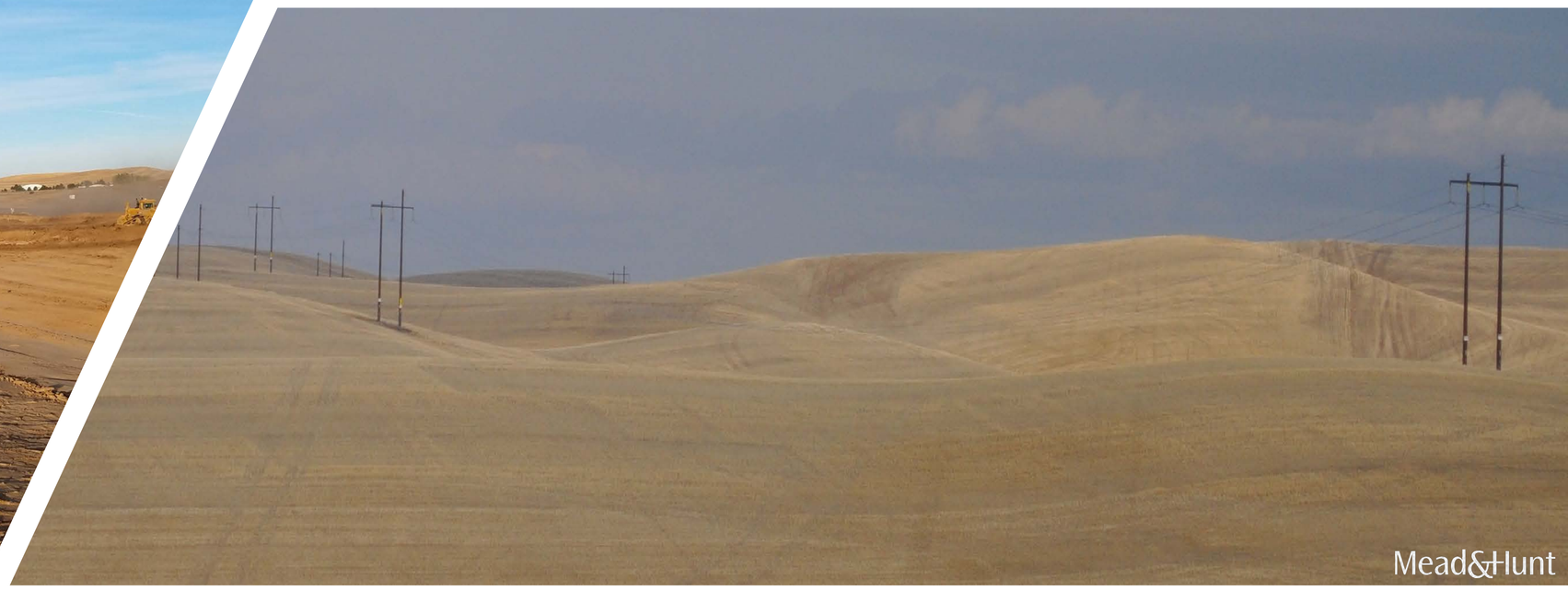
NOT FOR CONSTRUCTION

AIP NO.:	3-53-0051-41-2015
M&H NO.:	1622300-131867.01
DATE:	NOVEMBER 2, 2015
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	

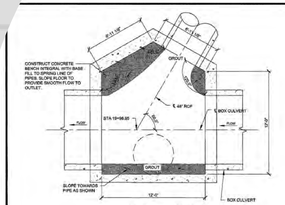
DO NOT SCALE DRAWINGS

SHEET CONTENTS

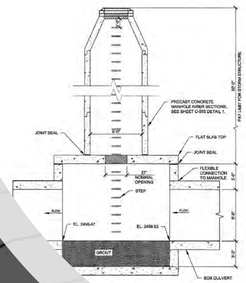



Mead&Hunt

Airport Creek Relocation, Floodplain Management, & Storm Water

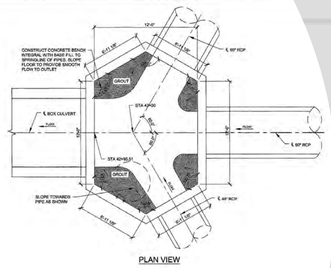


PLAN VIEW

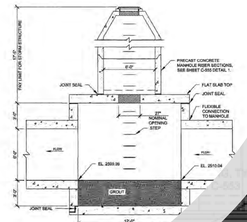


SECTION

NOTES ON C-555.



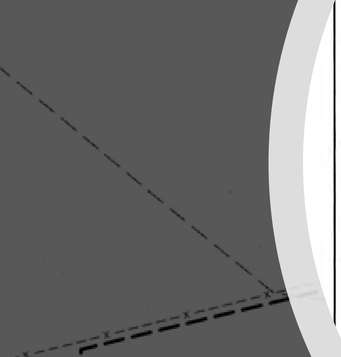
PLAN VIEW

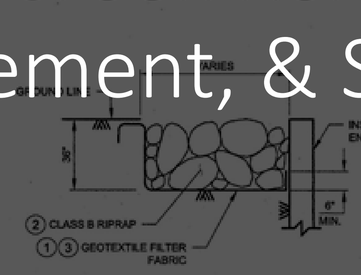


SECTION

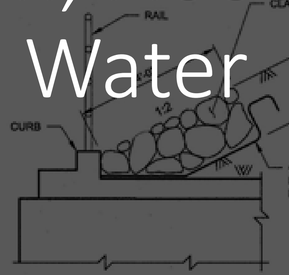
NOTE:
1. SEE PRECAST STRUCTURE NOTES ON

2 SD-6 REINF... JUNCTI...
SEE

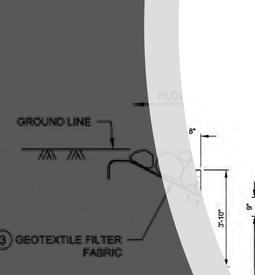




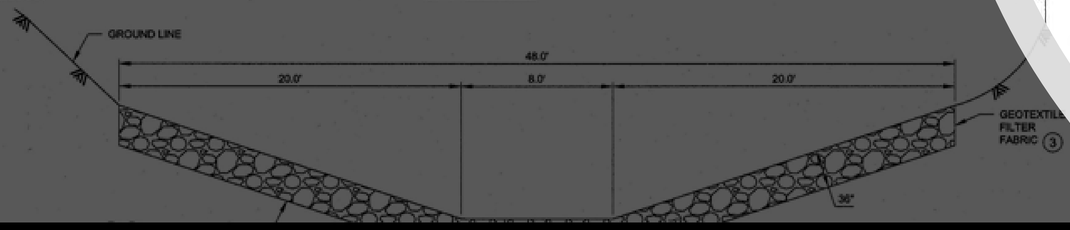
SECTION A-A



SECTION B-B



SE...



...THE CONCRETE OUTFALL AND REINFORCED CONCRETE BOX CULVERTS SHALL BE PRECAST.

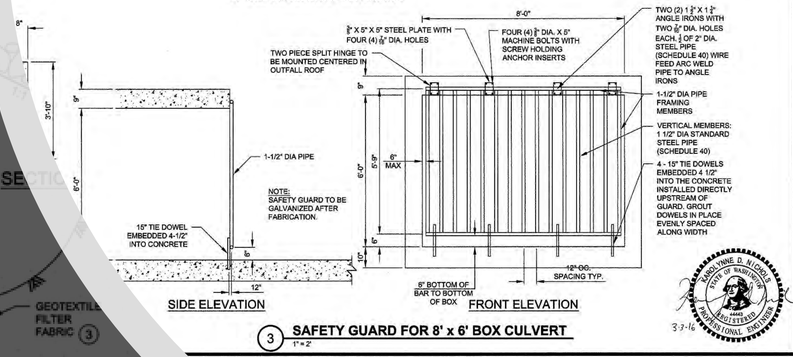
...EINFORCED CONCRETE THREE SIDED STRUCTURES AND PRECAST REINFORCED CONCRETE BOX CULVERTS ...2.

...SHALL BE 75-YEARS IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, LATEST EDITION AND ...ECT ON THE BID ADVERTISING DATE.

...ULAR LIVE LOAD FOR THE BOX CULVERT SHALL BE AIRCRAFT LOADING FROM A BOEING 737-800, THE DESIGN VEHICLE LIVE LOAD FOR ...E OUTFALL SHALL BE DESIGNED TO MEET AASHTO HL-93 LOADING.

... THE BOX CULVERT SYSTEM FOR THE VERTICAL AND LATERAL LOADS APPLIED FROM BOTH TEMPORARY AND FINAL EMBANKMENT ...PURATIONS AND HEIGHT INDICATED ON THE PLANS. SOIL INFORMATION IS AS FOLLOWS:
A. UNIT WEIGHT = 125 PCF
B. ACTIVE PRESSURE COEFFICIENT = 0.41
C. AT-REST PRESSURE COEFFICIENT = 0.68
D. PASSIVE PRESSURE COEFFICIENT = 2.46
E. SOIL FRICTION ANGLE = 25 DEG.

6. THE 28 DAY CONCRETE STRENGTH SHALL BE 4000 PSI MIN. IN ACCORDANCE WITH ASTM C31 AND ASTM C39.
7. ALL CONCRETE REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 OR ASTM A185 GRADE 70 FOR WELDED WIRE REINFORCEMENT.
8. THE JOINT DESIGN SHALL BE BELL AND SPIGOT OR A TONGUE AND GROOVE STYLE JOINT. THE SPIGOT OR TONGUE SHALL BE GROOVED TO PROPERLY CONTAIN AND SET THE RUBBER GASKET. THE JOINT ASSEMBLIES SHALL BE ACCURATELY FORMED SO THAT WHEN EACH SECTION IS FORCED TOGETHER IN THE TRENCH THE ASSEMBLED BOX SHALL FORM A CONTINUOUS WATERTIGHT CONDUIT WITH A SMOOTH AND UNIFORM INTERIOR SURFACE, AND SHALL PROVIDE FOR SLIGHT MOVEMENT OF ANY PIECE OF THE PIPELINE DUE TO EXPANSION, CONTRACTION, SETTLEMENT OR LATERAL DISPLACEMENT. THE GASKET SHALL BE THE SOLE ELEMENT OF THE JOINT PROVIDING WATER TIGHTNESS. MORTARED JOINTS OR CONCRETE COLLARS ARE NOT PERMITTED.
9. INVERT ELEVATIONS OF BOX CULVERTS AND STRUCTURES SHALL NOT BE CHANGED FROM THE ELEVATIONS CALLED OUT ON THE DRAWINGS.
10. ALL TIE DOWELS TO BE #8 EPOXY COATED GRADE 60 REINFORCING STEEL DOWEL. GROUT TIES DOWELS USING GROUT TYPE 2 PER WSDOT STANDARD SPECIFICATIONS 9-20.3(2).
11. SEE SHEET C-554 FOR BOX CULVERT BEDDING REQUIREMENTS. PLACE 12" CLASS B BEDDING BELOW CONCRETE OUTFALL AND BACKFILL WITH GRANULAR BACKFILL PER SPECIFICATION D-701.
12. SEE SPECIFICATIONS FOR OTHER DESIGN REQUIREMENTS.
13. SUBMIT SIX SETS OF SHOP DRAWINGS WITH TWO SETS OF SUPPORTING DESIGN CALCULATIONS, AND DOCUMENTATION PACKAGE FROM A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER IN THE STATE OF WASHINGTON INDICATING THE CONCRETE OUTFALL AND BOX CULVERT ARE DESIGNED TO MEET THE SPECIFIED LOADING.
14. CONCRETE OUTFALL SUBMITTALS SHALL ALSO INCLUDE THE FOLLOWING:
A. PANEL SHAPES (ELEVATIONS AND SECTIONS) AND DIMENSIONS.
B. FINISHES AND METHOD OF CONSTRUCTING THE FINISH (I.E., FORMING, ROLLING).
C. REINFORCING, JOINT, AND CONNECTION DETAILS INCLUDING TIE DOWEL SPECIFICS.
D. LIFTING, BRACING, AND ERECTION INSERTS.
E. LOCATIONS AND DETAILS OF HARDWARE ATTACHED TO THE STRUCTURE.
F. RELATIONSHIP TO ADJACENT MATERIAL.
G. WINGWALL AND HEADWALL.
H. ERECTION AND BACKFILL PROCEDURE.
I. COMPLETE SITE-SPECIFIC ITEMIZED BAR LIST FOR ALL STEEL REINFORCEMENT
15. PROCEEDING WITH ANY WORK WITHOUT PRIOR APPROVAL OF THE SHOP DRAWING WILL BE AT THE CONTRACTOR'S RISK.
16. PRIOR TO PRECAST STRUCTURE FABRICATION, NOTIFY ENGINEER AT LEAST FIVE WORKING DAYS IN ADVANCE OF BEGINNING FABRICATION OF THE VARIOUS TYPES OF PRECAST STRUCTURES BEING CAST SO THE CASTING OPERATION MAY BE INSPECTED AND APPROPRIATE SPECIMENS MAY BE SELECTED FOR TESTING.
17. ONE PRECAST CONCRETE BOX JOINT PER SIZE, SHALL BE HYDROSTATICALLY TESTED AT THE PLACE OF MANUFACTURE TO VERIFY WATER TIGHTNESS AND JOINT INTEGRITY. HYDROSTATIC PRESSURE TESTS ON JOINTS SHALL BE MADE ON AN ASSEMBLY OF TWO SECTIONS OF BOX, PROPERLY CONNECTED IN ACCORDANCE WITH THE JOINT DESIGN. SUITABLE MEANS SHALL BE PROVIDED THAT ALLOWS PRESSURE TO BE APPLIED TO THE JOINT, EITHER EXTERNAL OR INTERNAL OF THE TWO JOINED BOX SECTIONS. WHEN INFILTRATION IS A CONCERN, THE JOINT SHALL BE TESTED USING EXTERNAL PRESSURE ONLY
18. PRIOR TO SHIPPING, FURNISH A COMPLETE DOCUMENTATION PACKAGE FOR EACH PRECAST OUTFALL AND BOX CULVERT. THE DOCUMENTATION PACKAGE SHALL INCLUDE THE FOLLOWING INFORMATION FOR EACH CULVERT SECTION:
A. CONCRETE BATCH TICKETS
B. CONCRETE CYLINDER BREAK RESULTS
C. MATERIAL CERTIFICATIONS
D. COPIES OF ALL CHANGES FROM THE PLANS AND SPECIFICATIONS
19. THE FOLLOWING INFORMATION SHALL BE LEGIBLY AND PERMANENTLY MARKED ON ONE INSIDE FACE OF EACH ELEMENT BY INDENTATION, WATERPROOF PAINT, OR OTHER MEANS APPROVED BY THE ENGINEER:
A. BOX SECTION SPAN AND RISE DIMENSIONS, MINIMUM AND MAXIMUM DESIGN EARTH COVER DIMENSIONS, AND VEHICULAR LIVE LOAD FOR DESIGN (HL-93) OR (AIRCRAFT).
B. CONTRACT NUMBER AND DATE OF FABRICATION.
C. NAME OR TRADEMARK OF THE FABRICATOR.



3 SAFETY GUARD FOR 8' x 6' BOX CULVERT
1"=2'

3-3-16

Mead &Hunt
Mead and Hunt, Inc.
9600 NE Cascades Parkway,
Suite 100
Portland, OR 97220
phone: 503-548-1494
meadhunt.com

PULLMAN-MOSCOW REGIONAL AIRPORT

PULLMAN-MOSCOW REGIONAL AIRPORT
2016 AIRFIELD IMPROVEMENTS

3200 AIRPORT COMPLEX NORTH
PULLMAN, WA 99163

ISSUED
ISSUED FOR BIDS

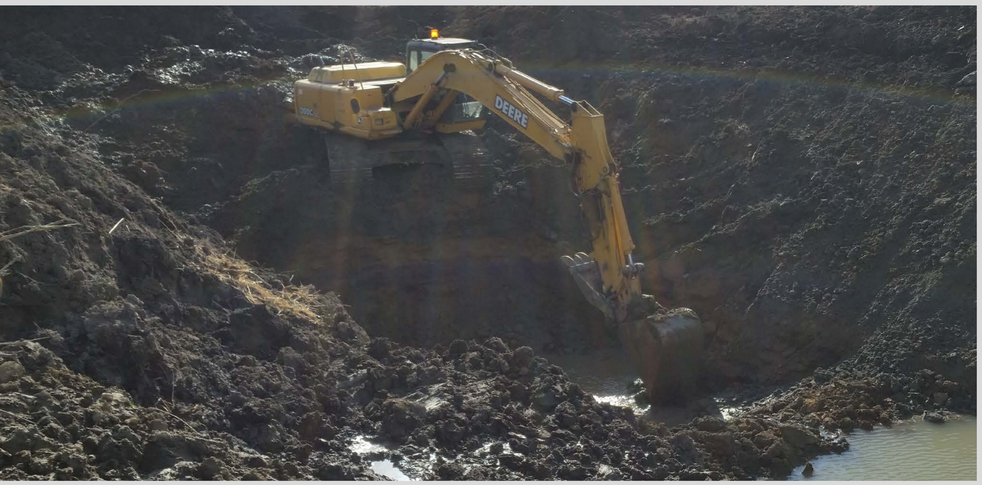
AIP NO.:	3-53-0051-042-2016
MAIN NO.:	1622300-131667.01
DATE:	MARCH 2016
DESIGNED BY:	RDT
DRAWN BY:	STAFF
CHECKED BY:	KDN

DO NOT SCALE DRAWINGS

SHEET CONTENTS
STORM DRAINAGE DETAILS

SHEET NO. 100 of 227

C-552



Mead&Hunt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HITACHI


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TOP
Oldcastle


Mead&Hunt


Mead&Hunt

Alaska Airlines Procedure Flight Check

Mead&Hunt


Mead&Hunt

Success in Partnership

Success in Partnership

Success in Partnership

Next Steps: Taxiway & Terminal

Next Steps: Air Service Development

- **Small Community Air Service Development Grant**
- **Chamber Engagement**
- **Community Engagement – Support Letters and Matching $’s**
- **Route Study / Aircraft Fit**
- **Revenue Guarantee and Marketing Service**
- **Changing Customer Base**
- **COVID-19**

THANK YOU
&
QUESTIONS

PULLMAN-MOSCOW
REGIONAL AIRPORT