

Presentation to:
Little Missouri Scenic River
Commission
Sept 1, 2020

Presented by
Dan Schneider, PE

NDDOT
Project AC-NH-SOIB-7-
085(109)125

STRUCTURE REPLACEMENT, WILDLIFE CROSSING
STRUCTURE, GRADING, AGGREGATE BASE, HMA,
GUARDRAIL & INCIDENTALS

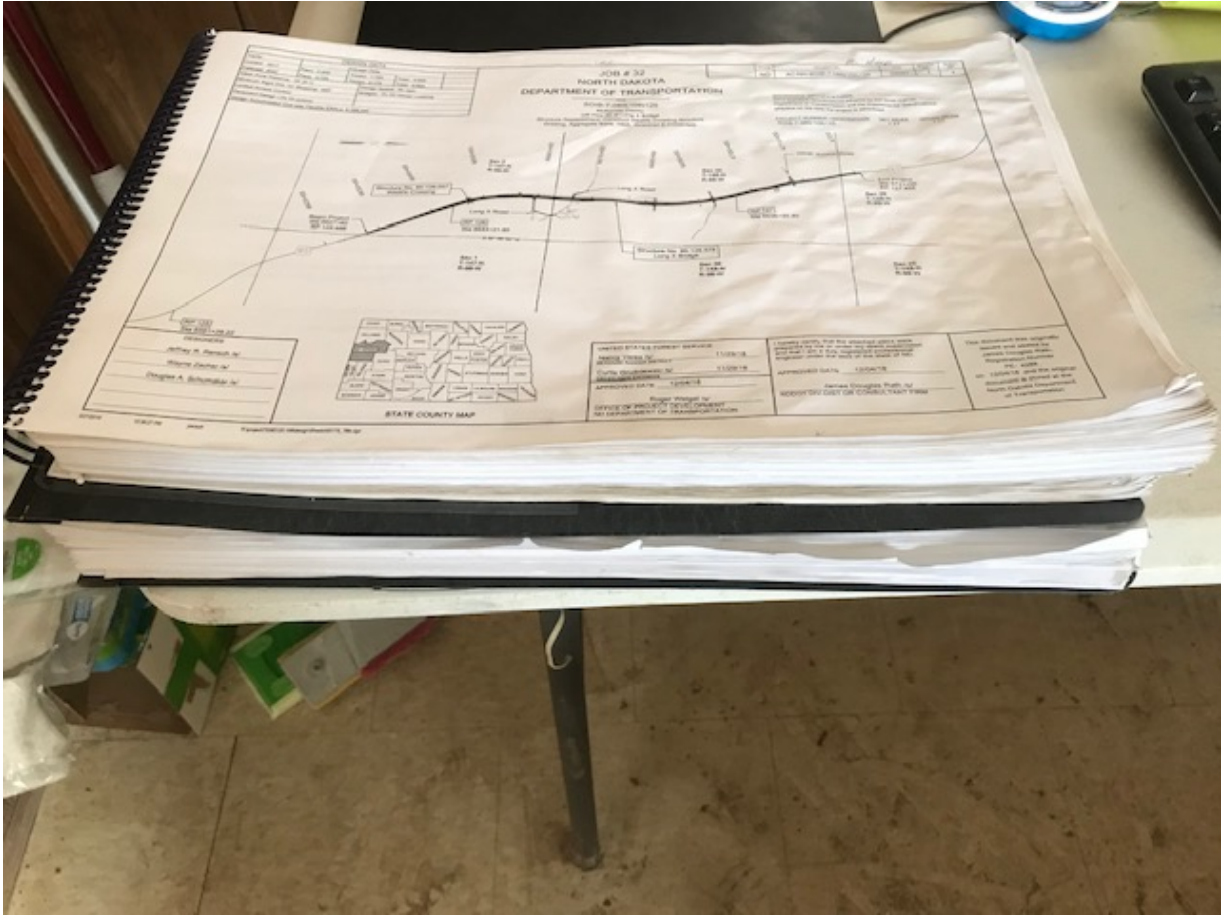
PROJECT OVERVIEW

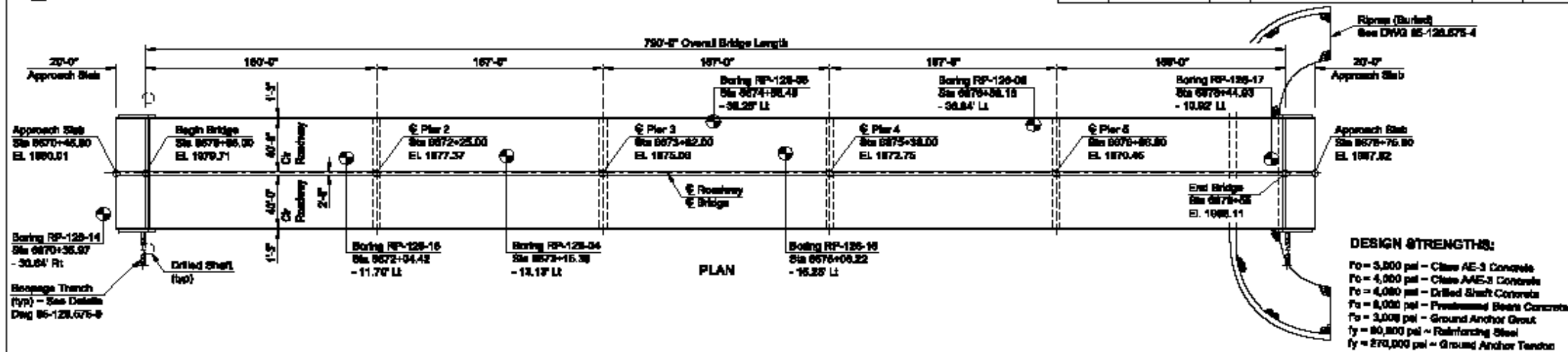
- Location: US 85, Long X Bridge, Between Grassy Butte and Watford City
- NDDOT District: Williston
- Design: NDDOT
- Contract Date: June 10, 2019
- Start Date: July 29, 2019
- Completion Date: July 15, 2021
- Original Contract Amount: \$33,971,510.00
- Contractor: Ames Construction, INC Burnsville, MN
- Construction Inspection team: AECOM

Sequencing

- Widen roadway, begin construction of Long X Bridge, and construct temporary bypass at wildlife crossing structure
- Place traffic on temporary bypass and construct east portion of wildlife crossing structure. Bridge construction continues.
- Construct roadway over east portion of the wildlife crossing structure and construct west portion of wildlife crossing structure
- Complete construction of long X Bridge and route traffic to east half
- Remove existing bridge, salvaging the south truss.
- Complete roadway and route traffic to newly constructed bridge and roadway

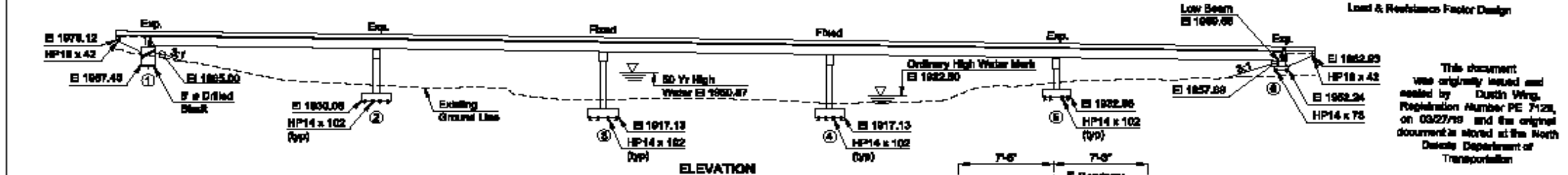
Plans and Cross-sections



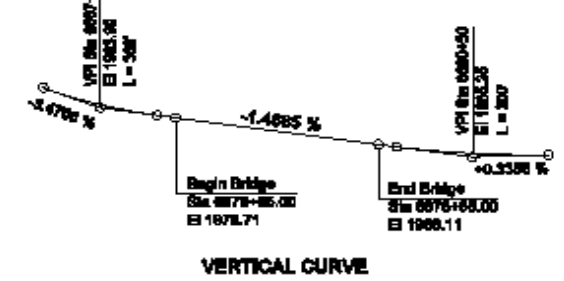
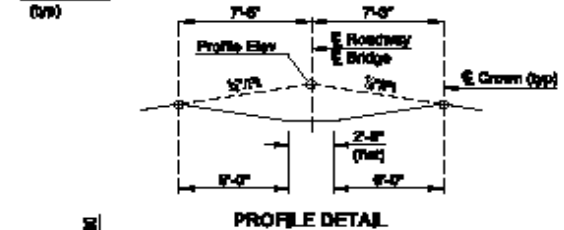
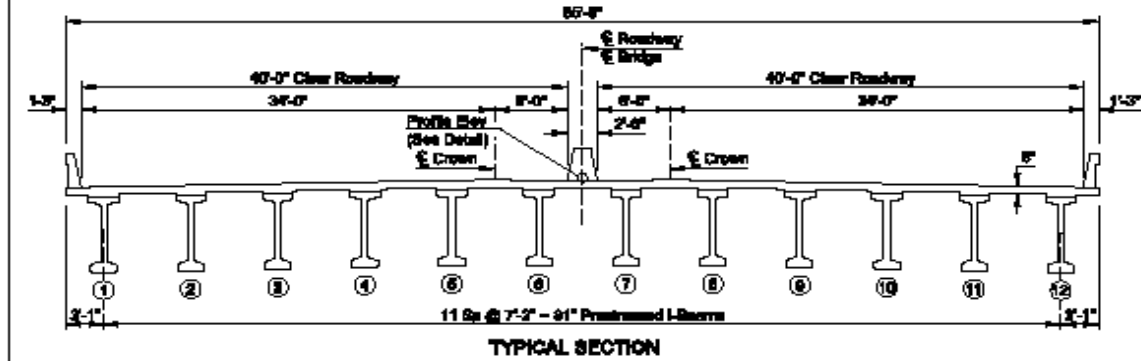


DESIGN STRENGTHS:
 F_c = 3,000 psi - Class AE-3 Concrete
 F_c = 4,000 psi - Class AAES-3 Concrete
 F_c = 4,000 psi - Drilled Shaft Concrete
 F_c = 8,000 psi - Prestressed Beam Concrete
 F_c = 3,000 psi - Ground Anchor Grout
 f_y = 80,000 psi - Reinforcing Steel
 f_y = 270,000 psi - Ground Anchor Tendon

Load & Resistance Factor Design



This document was originally issued and revised by Dustin Wing, Registration Number PE 7128, on 03/27/18 and the original document is stored at the North Dakota Department of Transportation.



SURVEY CONTROL POINTS			
POINT	NORTHING	EASTING	ELEVATION
GPS 17	214,687.43	1,292,328.54	2,472.22
GPS 16a	235,908.02	1,298,987.34	2,617.80

SPECIAL PROVISIONS
SEE DWG 85-128.575-3

STANDARD DRAWINGS
D622-51, D714-18, D775-05, D900-01

F.W.S. 15 P8F
HL-60 DESIGN LOADING
 NORTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 LONG X BRIDGE
 LITTLE MISSOURI RIVER
 HIGHWAY 85
 BRIDGE LAYOUT

PROJECT: BOIB-7-088(109)125
 STATION: 8874+85.00
 MCKENZIE COUNTY

3/27/18 Jon Ketterling

Existing Structure



Environmental Commitments

- Paleontologist requirements
- Theodore Roosevelt National Park provisions
- Grouse lek surveys and provisions
- SWPPP
- Eagle and Raptor nesting surveys and provisions
- Big horn sheep lambing provisions
- USFS provisions
- Biologist requirements
- Asbestos removal
- Sensitive plant species watch

Environmental Commitments (2)

- Noxious weed survey
- Equipment hygiene
- Fire prevention provisions
- Erionite disposal
- Visual screening
- Aquatic nuisance provisions
- Cultural resource preservation
- Causeway construction and minimum river opening
- Migratory bird provisions

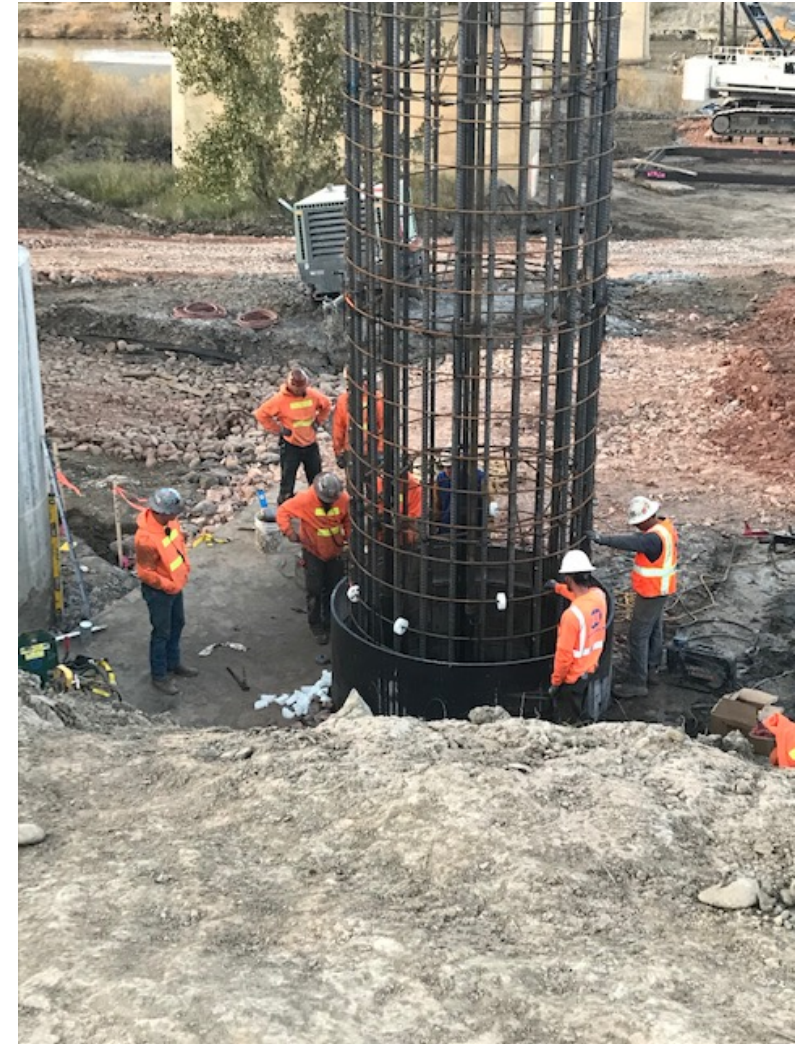
Paleontologist Findings



Drilled shafts at abutment 1



Reinforcing steel cage Abutment 1



Ground Anchors Abutment 1



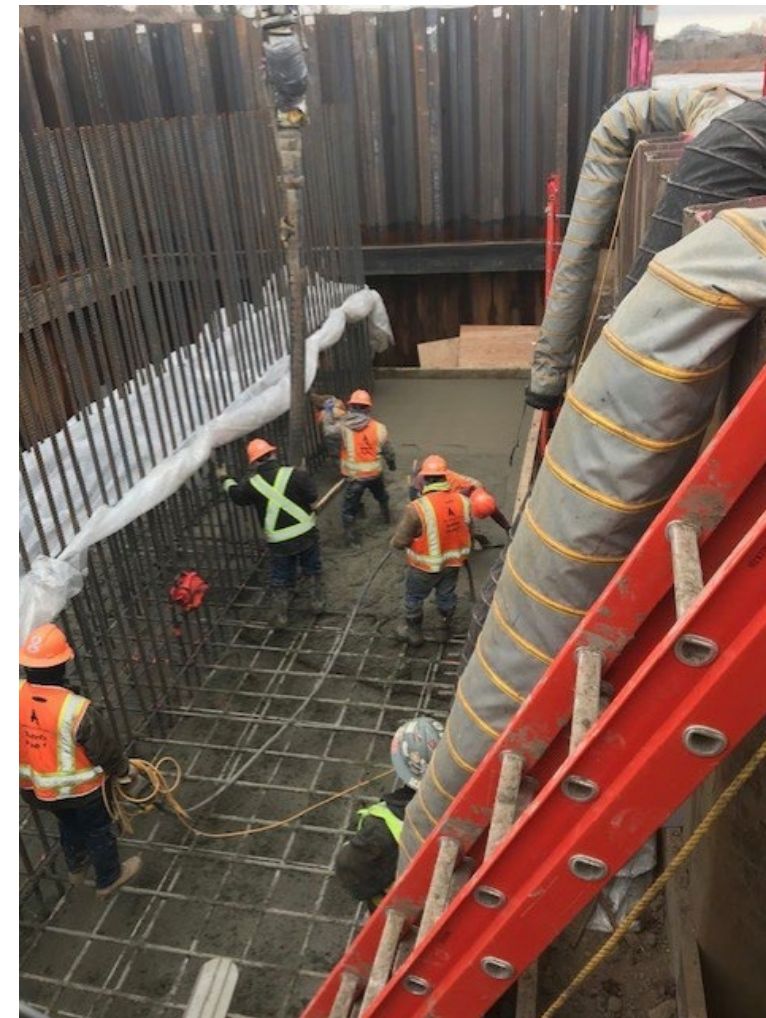
Removing Ground Anchor Casing



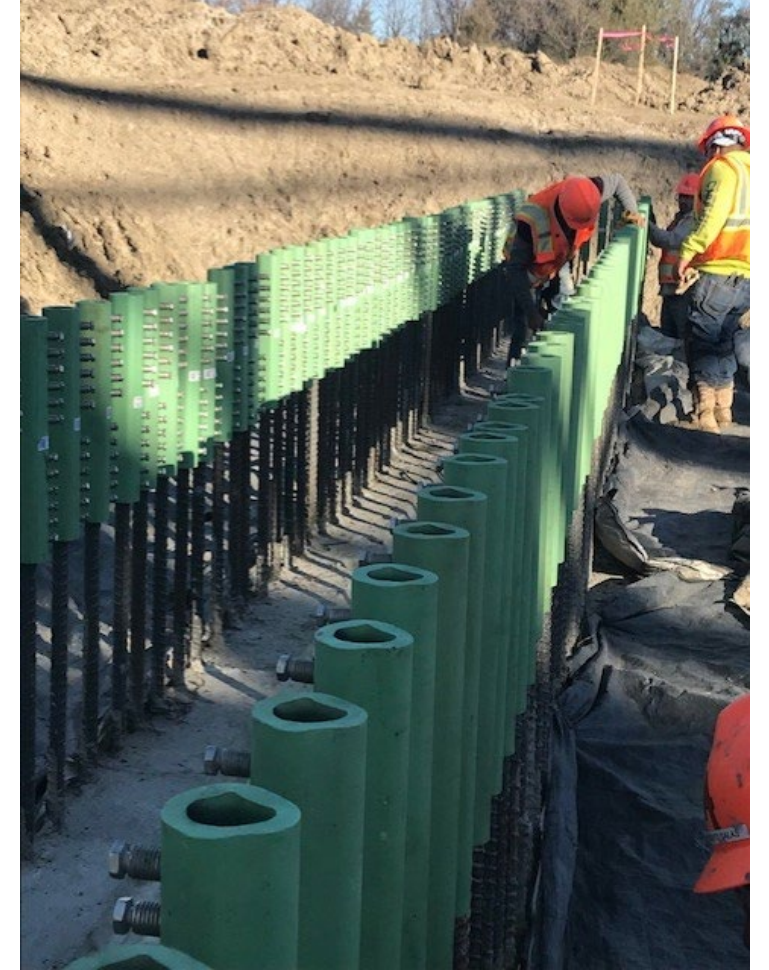
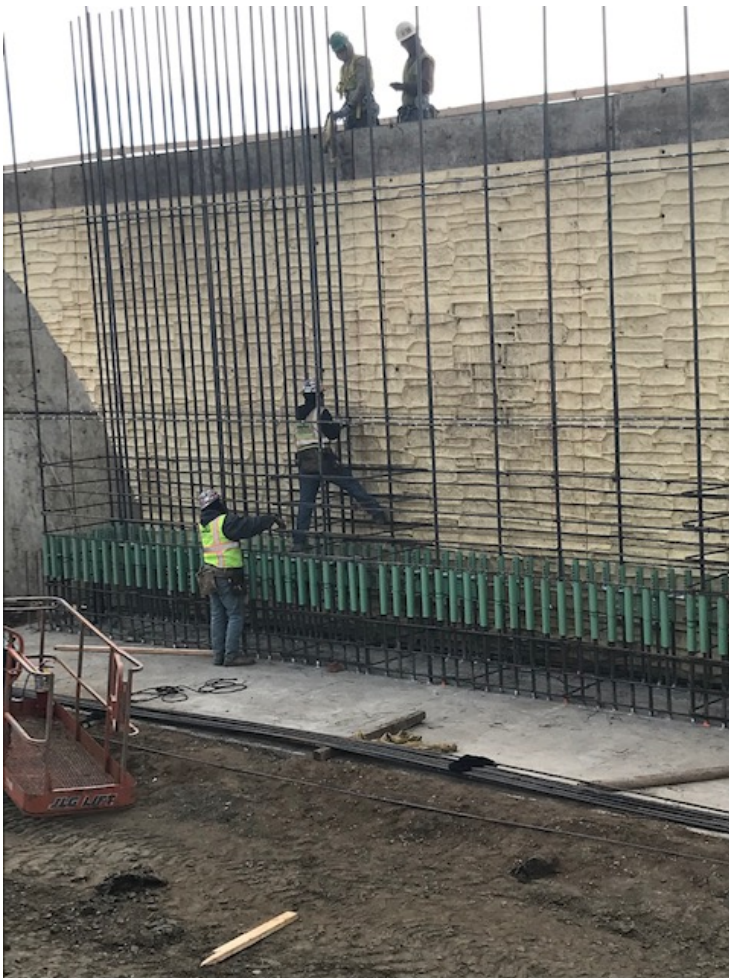
Piling



Cofferdam Construction



Reinforcing steel



Placing Concrete



Pier 5 with Form Liner



Substructure Construction Piers 3 and 4



Architectural Finish



Prestressed Concrete I Beams



Setting Beams over Little Missouri River



Erosion control



Phase 1 Wildlife Crossing



Phase 2 Wildlife Crossing



Completed Wildlife Crossing – Looking East



Deck Placement



Artist Rendition



Conclusion

- Project progressing well
- Completion scheduled for July 2021

• Questions