

# Alaska Department of Transportation & Public Facilities

## Glenn Highway: Airport Heights to Parks Highway Rehabilitation and Incident Management Accommodations

Kinney Engineering, LLC

Project No: 001656/CFHWY00545 & 0A16056/CFHWY01033

November 2024

Our mission is to *Keep Alaska Moving* through service and infrastructure.



# Project Team

- **Department of Transportation & Public Facilities**
  - Chris Bentz, PE – Project Manager
  
- **Kinney Engineering**
  - Art Johnson, PE – Project Manager
  - Will Webb, PE, PTOE – Project Engineer
  - Joann Mitchell, PE – Public Involvement
  
- And many, many others

# Project Area



# Corridor History

- Continuous upgrades since the 1950s
- High Traffic Volumes
  - 60,000 vehicles per day (Muldoon to JBER)
  - 26,600 vehicles per day (Parks Interchange)
- Last repaved in 2017-2019



# Integrated Corridor Management Study

*“Implement an integrated, multimodal system on the Glenn Highway corridor that improves safety and mobility, enhances efficiency and convenience of travel and supports local, regional, and state transportation objectives”*

- 30 strategies supporting 4 goals.
  - 3 High-Priority Safety strategies are underway
    - Freeway On-Ramp Upgrades
    - Hiland Road Interchange Improvements
    - Artillery Road Interchange Improvements
- Incident Management Plan

# Project Scope

- 3R
  - Resurface
  - Restoration
  - Rehabilitation
- Extend Service Life
- Pavement Evaluation
- Culvert Evaluation
- Capacity Analysis
- Safety Analysis with Cost Effective Solutions



# Findings

- Pavement
  - Pavement base layers generally 30-50 years old
  - Primary issue is Rutting
- Drainage and Hydrology
  - Culvert Inspection
  - Fish Passage
  - Capacity





# Findings

- Safety
  - Locations near JBER, South Birchwood, South Peters Creek, south of Muldoon have elevated crash rates
  - Most locations meet design standards
  - Southbound Muldoon Curve has non-standard grading
- Capacity - Based on the Integrated Corridor Management Study Findings
  - 15 on-ramps would benefit from merge capacity improvements
  - Hiland Road and Artillery Road interchange improvements are proceeding as separate projects



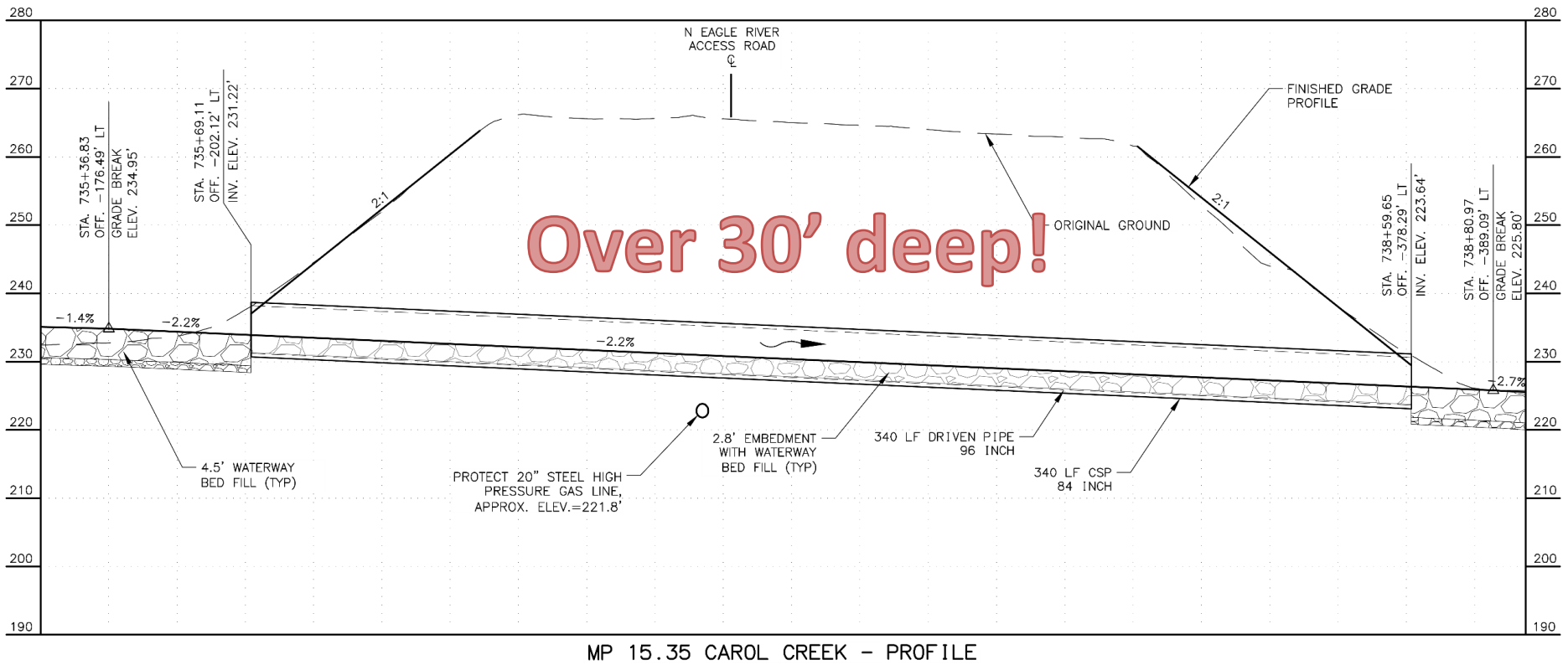
# Proposed Improvements

- Repave – Mainline, Shoulders, select Ramps
- Re-grade curve south of Muldoon
- Spot Path Repaving



# Proposed Improvements

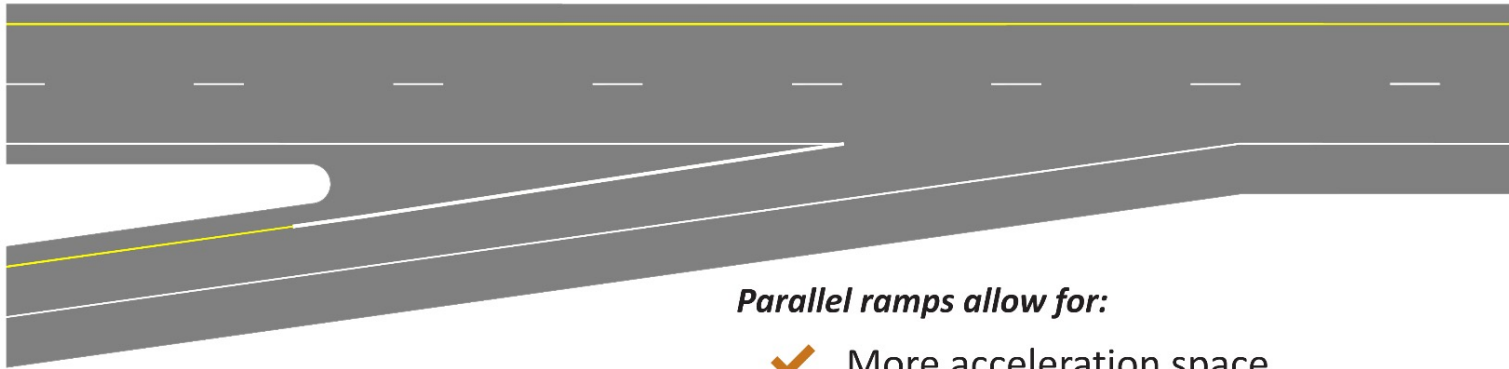
- Culvert Work – Spot Repairs, Replacements, Upgrades



# Proposed Improvements

- On-Ramps – Parallel Acceleration Lanes at 15 Locations

TAPERED  
RAMPS

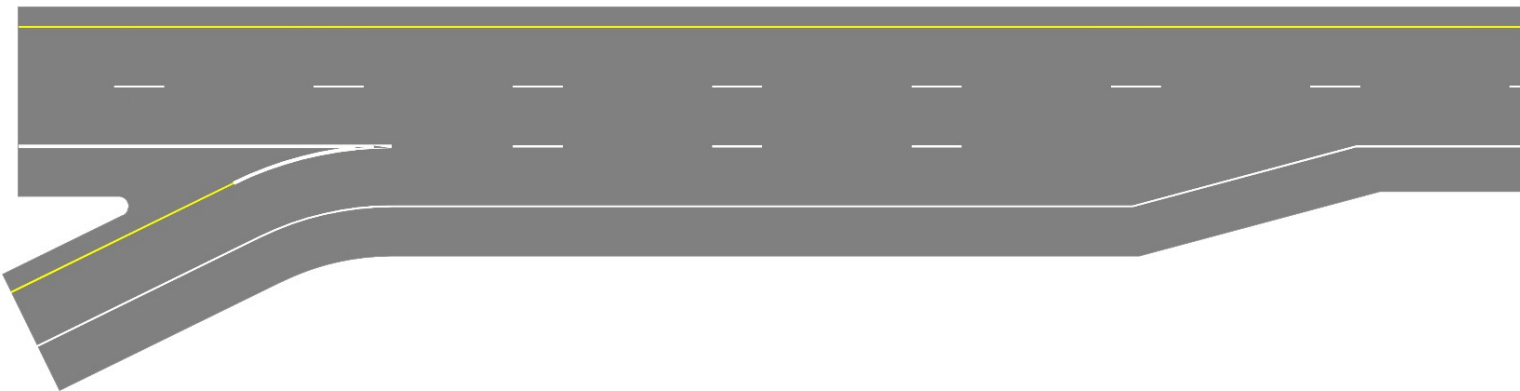


*Parallel ramps allow for:*

- ✓ More acceleration space
- ✓ Better positioning of vehicles into gaps
- ✓ Increased safety
- ✓ Increased capacity

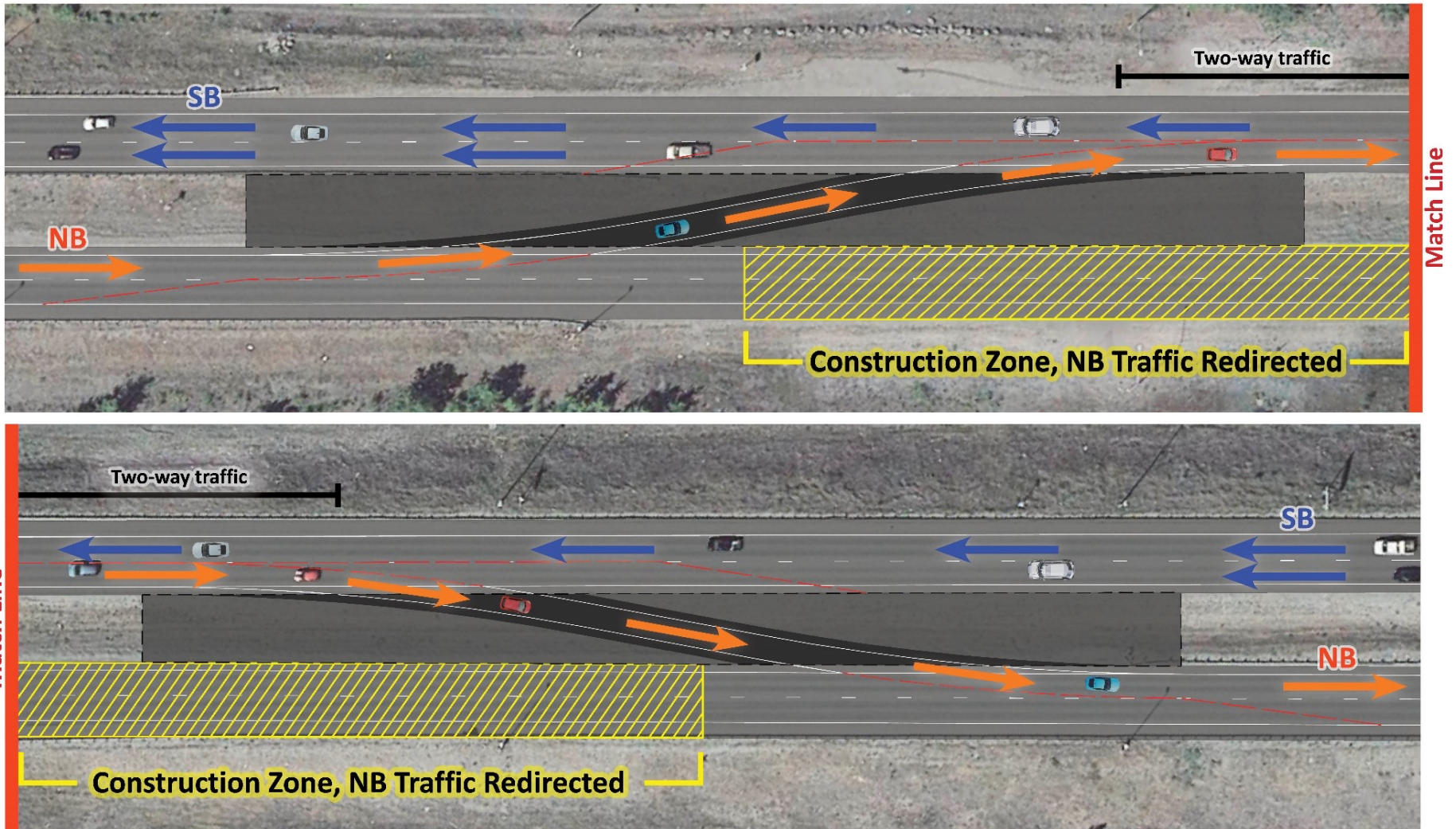
*...To this!*

PARALLEL  
RAMPS



# Proposed Improvements

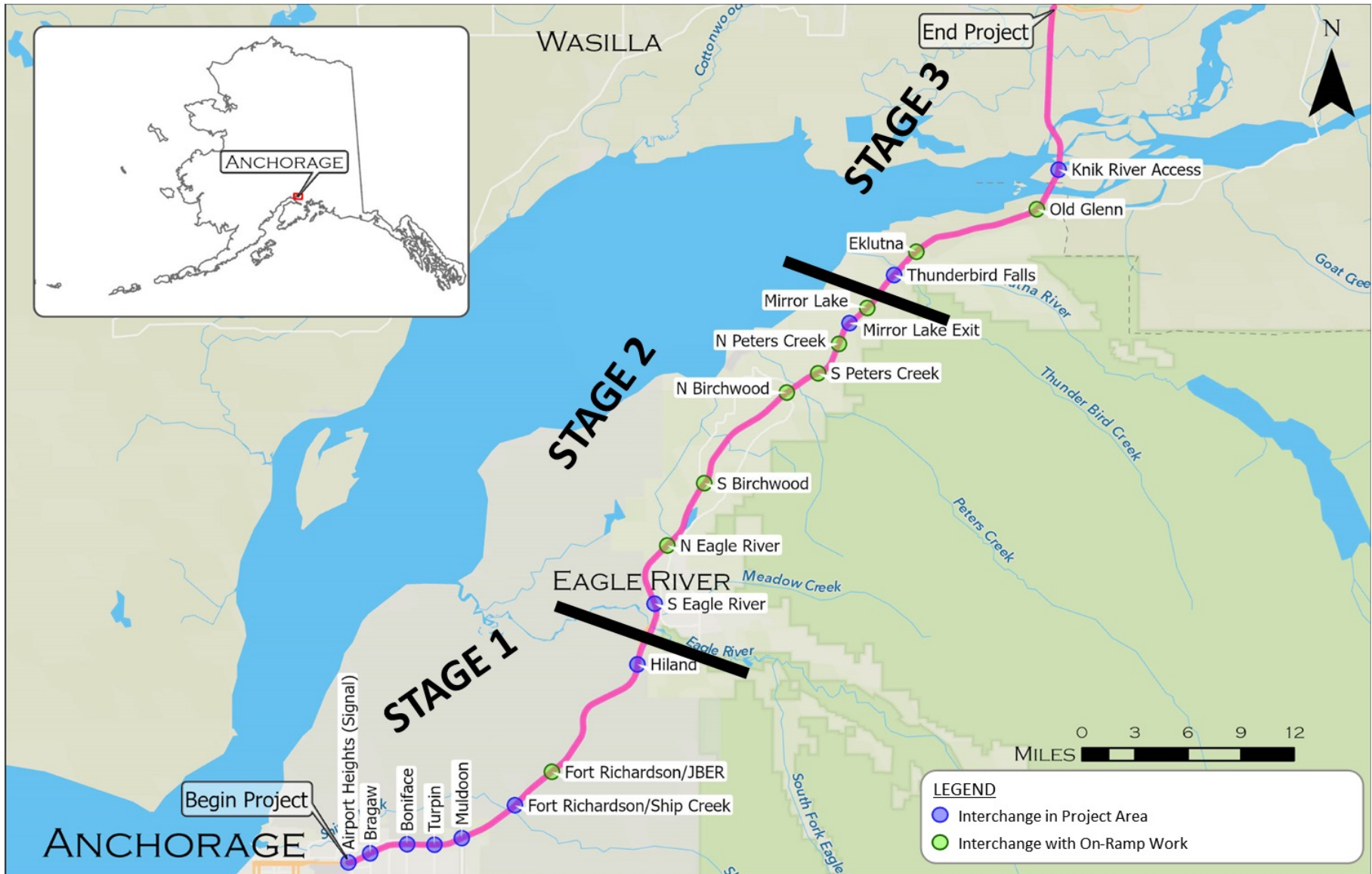
- Median Cross-overs



# Getting it Built



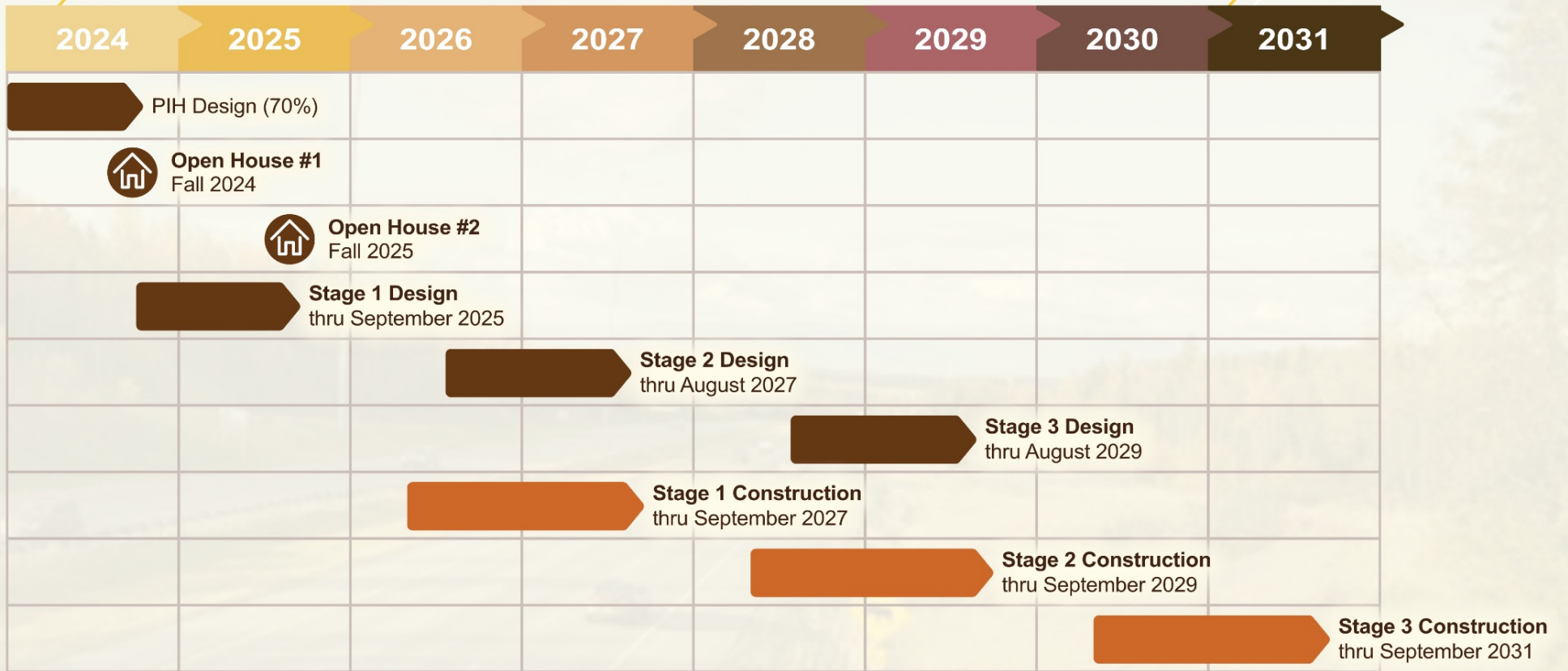
# Project Staging Plan



# Project Schedule

## PROJECT SCHEDULE

AS OF NOVEMBER 2024



\*Note: Construction schedule is estimated.

