From Bid to Black Top

- Source Selection
- Process & Transport
- HMA Production & Placement

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Source Selection

- British Columbia
- Washington
- Alaska

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Source Selection

In-State vs. Out-of-State

- Costs may be comparable
- Logistical challenges
- Nordic Values
- Quantity
- Transport Schedule

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Source Selection

RAIL

- Access?
- Siding Investment(s)?
- Train Schedule?
- Contamination?
- Transport costs?

BARGE

- Material loss?
- Longshoremen?
- Port access?
- Barge Schedule?
- Contamination?
- Transport costs?

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Process & Transport

Chose Alaska source via rail (Cantwell)

- Setup Crusher – April 26
- Begin Crush – May 3
- Notice to Proceed – May 23
- Finish Crush – June 1
- Haul Crush to Healy Siding – June 6
- Load/Unload Train – June 9

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Process and Transport

Processing Considerations

- Abrasiveness of Hard Aggregate
  - Wear parts (liners, shoes, etc.)
  - Belt repairs
- Weather
  - Frost & permafrost
  - Rain & snow (silt & fines sticking to rock)

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Process & Transport

Transport Considerations

- Road restrictions
- Loss during handling
- Rail car contamination

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Production & Placement

West Dimond (2” lift) ~ 14,500 TN

- Mix Design #1 Approval: June 6
- Pave Jewel Lake to C St.: June 19 – July 9

East Dimond (3” lift) ~ 13,500 TN

- Mix Design #2 Approval: July 22
- Pave C St. to New Seward: Aug. 8 – Aug. 30

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Production

Separation of Hard / Local Aggregates

- Required additional floor space at plant

Otherwise, Business As Usual

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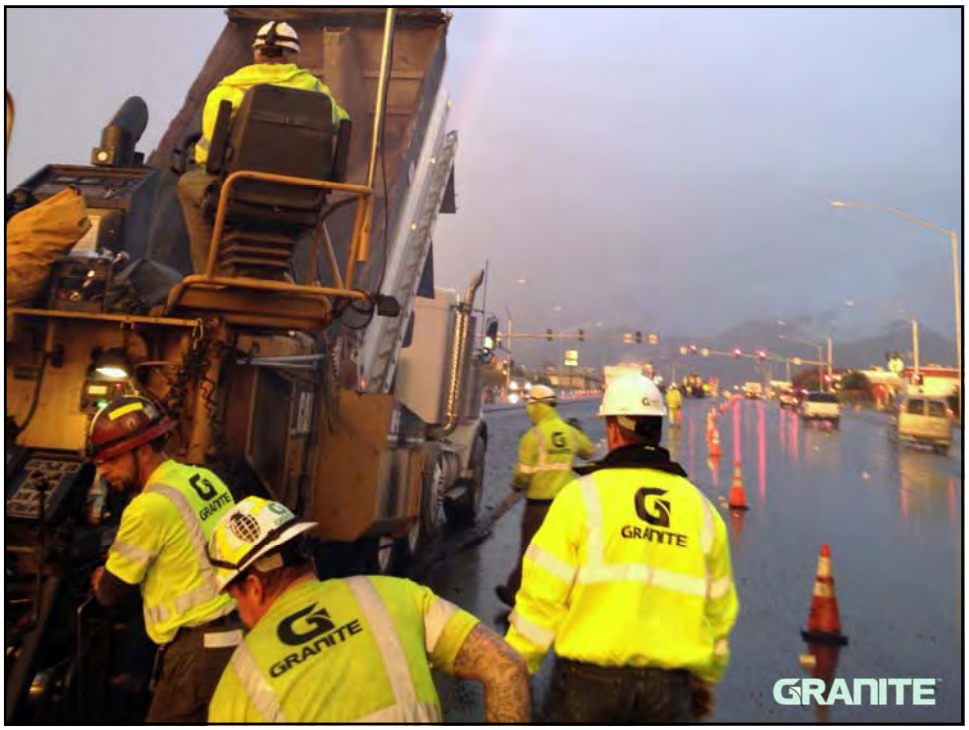

Placement

Pave/Compact - Business as Usual

- No unique observations on workability of mix
- Typical characteristics of Type V Superpave w/ modified binder

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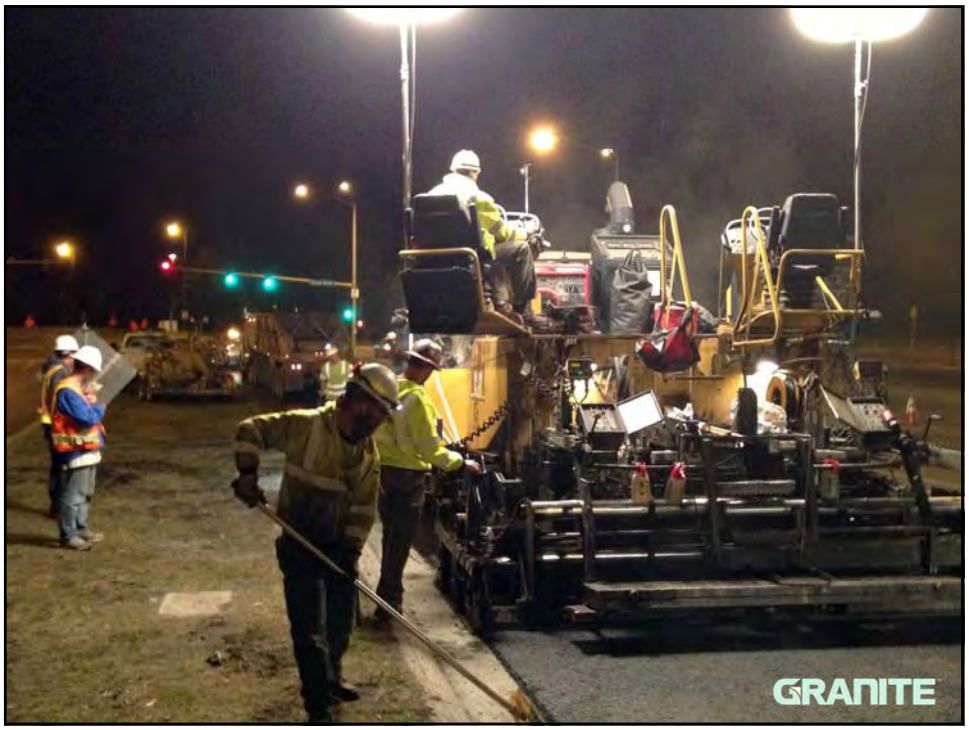

QC – Hard Aggregate

Observations

- Coarse Aggregate was very cubicle
- High % of 3-face fractures
- Low absorption

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QC - Pavement Smoothness

IRI Specification

- Different form of measurement vs. PRI
- Uses same inertial profiler
- Evaluated by % improve. (rough. reduction)
- IRI measured before const. & after paving

Initial IRI – 119

Final IRI – 74.5

Roughness Reduction = 37%

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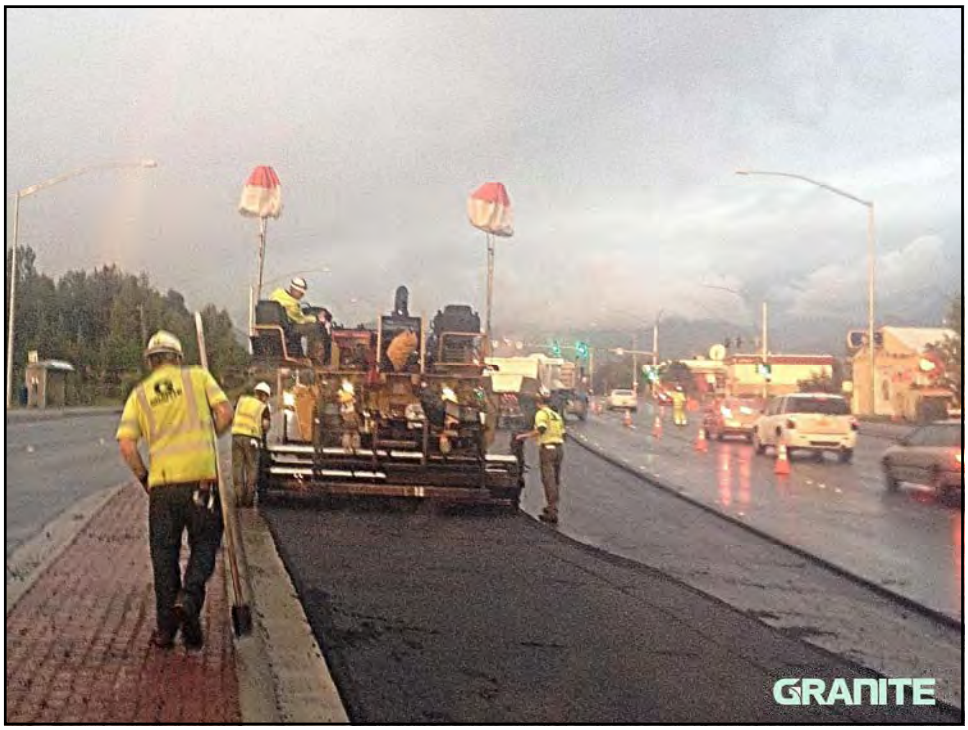

Take-Aways

- Qty is important driver in cost-effectiveness
- Scheduling is crucial
  - Long lead time on rail/barge
- Hard Agg. projects need to bid early
  - Contractor preparation

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Wish List

Resource development

- Access improvements for in-state sources
- Earlier bid/award dates in winter
- Future Hard Aggregate quantity forecasts

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Questions?
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