General Design Comments:

* Please include the ADF&G culvert numbers on plans and other project documents.
* The 3-ft wide low flow channel is shown on the drawings but bankfull/OHW is unclear on plan view drawings.  What is the channel expected to look like at normal and high flows? What is the relationship between the typical flows (4-5 cfs?) and the existing conditions outside of the road influence?
* Based on C-2xx and C-5xx the proposed bankfull width is 13 ft.   Was the surveyed bank full width the active channel or an older uplifted relic channel?  The H&H lists OHW widths of 14, 18, and 20 feet and bankfull of 18, 19, and 25 feet for the proposed structures but bankfull on the plan set is 13 feet for all three crossings and OHW is not referenced.  The reference reaches appear fairly close to the road and may be affected by the roadway and undersized culverts.  Difficult to determine what the reference reach dimensions are from the field notes in the H&H.  Additional clarification on channel width measurements and reference reach dimensions is needed.
* C-2xx and C-5xx show veg mat within the bankfull channel all the way up to the low flow channels.  Please clarify why this was proposed.  Seems like an odd application and downstream it is sandwiched between the culvert inlet/outlet aprons and the grade control weirs.  Why are no banks constructed on COP-44 and-45 outside of the culvert?
* The H&H proposes a low flow channel depth of 12in. and the plans indicate a 6 inch depth.  We have significant concerns about the constructability and stability of the proposed shallow and poorly defined low-flow channel, especially given the flat profile of the remainder of the channel out to bankfull width.  These types of channels are prone to filling in with gravel and fine sediment over time, even in low bedload systems.  Given the plans to backwater the pipes, this increases the concern for low flow channels filling in and we would prefer to see more defined banks to maintain the low flow channel on a receding hydrograph after higher flows.
* Surveyed long profiles seem to be too short to capture enough information for properly constructed upper and lower VAP lines.  Given how undersized the culverts are, significant impacts could be expected close to the road.  Difficult to review the profiles in C-400/401/402 without a longer view.
* Still have some remaining concerns about the stability of the proposed weirs and concerns that they will trap sediment in the wide & shallow channels upstream.
* Streambanks in the culvert seem un-constructable and unstable as shown in C-500/501/502.
* The upper VAP line should have accounted for the grade control weir, ie it should be at the elevation of the low flow notch. It’s not clear that it is.
* The upstream banks should definitely be at a higher elevation than the grade control weir to prevent aggradation and splitting of the flow over time.

**V-100/101/102**

* The project title needs to be updated for all three sheets (says Kodiak Island…)
* Assuming the “as-built mapping” is existing conditions?  Would be good to clarify.

***C-300/301/302***

* Depending on proposed construction timing & duration, the plan to divert flow between sites could be an issue.  Additional detail is needed on how the stream is expected to flow between the sites during construction.
* Water may need to be pumped to the downstream side of the project to ensure sufficient flow for supporting fish in existing stream channels at each site during construction.

**Permits**

The ADF&G Aquatic Resource Permit is the fish collection permit, so the duplicate in the section can be removed and the first reference should be edited to reflect the full permit title.

**672-3.02 – Dewatering** *(edited to reflect ADF&G screening requirement for this location)*

Relocate all the fish contained within any coffer/diversion dams, the scour pool, or the old channel before the site is completely dewatered. Place relocated fish in the closest pool upstream or downstream of the construction area. If trash pumps are used for stream diversion, the intake must be operated and maintained to prevent fish entrapment, entrainment, or injury. Around the intake use perforated or slotted plate and woven wire with a mesh size not greater than 1/10 inch or a profile bar and wedge wire with openings not greater than 1/10 inch. Intake velocities shall not exceed a passive velocity of 0.2 feet per second (fps) or an active velocity 0.5 fps.