Plans-In-Hand REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12/21/2011 **REVIEWER: Baski, Larson** **SECTION: Highway Design Peer Review** **PHONE:**	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
In the Section column below please use your assigned Functional group identifier: Right-of-Way = RW; Traffic/Safety = TS; Highway Design = HD; Materials = M; Bridge Design = B; Survey = SC; Internal Review = QC; Construction = C; Utilities = U; Specifications = S; Review Engineer = RE; Maintenance = M&O.

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	A02	HD	Consider using an alphabetic alignment abbreviation for 92nd Ave, not "92." Seems like this could lead to confusion.	Updated	
2)	A02	HD	Delete Std Dwgs D-09.00 and I-20.13. Consider adding F-01.01, D-24.00. Check with Traffic Section to get the latest version of their signing std dwgs.	Will delete D-09.00 & I- 20.13 Will add F- 01.01 & D- 24.00 Will coordinate.	
3)	B01	HD	Add a general note requiring sawcutting of existing pavement next to new paving.	Will add.	
4)	B01	HD	Typical section: A 3.5 foot vertical cut is unrealistic. Lay the slope back so the contractor gets paid for the work. Where do you sawcut?	Sawcut is at PG point. Will revise typical.	
5)	B01	HD	Slope Exception Table. Check cut/fill status. At least some of these guardrail runs are in cut conditions, aka slope limit line types.	Will check and revise cut/fill notation.	
6)	B01	HD	General note 2. Please clarify. You want grubbing on ALL existing foreslopes? Don't we want to preserve some of this vegetation for a vegetated buffer?	Will clarify.	
7)	B02	HD	Top typicals. Should probably show a D-1 wedge for pavement edge support.	Will add.	
8)	B03, B04	HD	Typical sections: Vertical cuts unrealistic. See comment for sheet B1.	Will revise typical.	

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9)	B03	HD	Bottom typical. Carry the 2% cross slope across the centerline to the median. Refer to the Typical Raised Median Detail, Sheet B5. Check the stations for this typical and the top typical. The median ends at about 297+50.	Will do and will coordinate with grading plans. Will check and coordinate.	
10)	B04, B05	HD	Identify material under pathway foreslopes.	Will add callout.	
11)	B05	HD	Embankment Widening for Guardrail typical: Provide the cut section case, also.	Will also provide cut section case.	
12)	C01, A02, Y19, EE	HD	Delete item 203(19) Use Item 605(5) Porous Backfill Material	Porous Backfill Material removed.	
13)	C02	HD	Item 662(1) Signal Interconnect: Check if MOA wants fiber.	MOA does not want fiber.	
14)	C02	HD	Item 670(10) MMA: At least some of the striping should be inlaid, if not all of it.	Will include	
15)	D04	HD	627(10A) Remove and Replace Water Valve Box and Lid item not listed in the summary tables.	Will revise table to 627(10A).	
16)	D04	HD	W-Beam Summary Table: Somewhere you need to specify the end offset of the parallel guardrail. See Subsection 710-2.11 2.a(3). 2 feet offset is preferred.	Will include end offset notation in table.	
17)	E02	HD	See note 1. Add a driveway detail defining length, width, skew angle. Modify approach summary table as necessary to provide this information.	Will add detail.	
18)	E02, K14	HD	Please use Central Region Standard Drawings CR 01-00 and CR 02-00.	Will incorporate CR-T-01.00 and CR-T-04.00. Add to standard drawings list on A2?	

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19)	EE, C2	HD	Add item 645(1) Training Program _ Trainees/Apprentices	Not a Federally funded project.	
20)	F General	HD	Show only one set of ROW lines (not both existing and proposed ROW)	Will show only one line after ROW is acquired.	
21)	F General	HD	Delete the concrete hatch pattern for concrete sidewalk and curb ramps. It's too small to see and clutters the existing utility line work.	Updated	
22)	F General	HD	Show overhead wire elevations in the profile view.	Will add.	
23)	F General	HD	Are there any wetlands in the project area? The DSR indicates a high water table….	No identified wetlands.	
24)	F General	HD	Consider adding alignment abbreviations along all centerlines.	Considered, however plan sheets are cluttered and alignments are abbreviated along matchlines and profiles.	
25)	F General	HD	Try to relocate signs out of ditch flow lines	Will review locations and relocate where feasible.	
26)	F05	HD	This ditch isn't a 2:1 as shown on B6 is it? 2:1 seems pretty steep, given how close some of these ditches are to the road/highway. Consider making the ditch a flyout on B1.	Not a 2:1, will clarify.	
27)	F07	HD	Left Vee Ditch. Where is the ditch profile being controlled? The pathway?	Revised.	
28)	F09	HD	Flat bottomed ditch ponds.	Will revise to not pond.	
29)	F10	HD	Where does the water in the Pathway North ditch go?	To culvert at 208+00.	
30)	F15	HD	Pathway North slope limits shown outside of ROW.	Updated.	
31)	F17	HD	Sta 300+00. Snow removal in refuge island area will be difficult with standard curbing.	Median uses expressway curb.	

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32)	F18	HD	1) Signal pole on the southwest corner of the intersection is in front of a private sign. Do we need ROW for this pole? 2) OHE line along the east side of the Old Seward will need to be moved. Looks like there will be a conflict with the signal pole on the northeast corner. Will this line be undergrounded?	1) Yes, will coordinate for TCE. 2) Will coordinate relocation & pole placement. Utility agreement pending.	
33)	K01	HD	Note 6: Will need different pay items for the inlaid and surface applied striping.	Will place all inlaid striping.	
34)	K04	HD	Relocate sign 14. This location will be confusing for peds on the pathway.	Will move.	
35)	K09	HD	"ONLY" is not used on turn lanes (pockets) that are added, but are used where you drop through lanes. Don't stripe across the entrance to the turn pocket (lower left detail).	Will remove.	
36)	K09	HD	Consider adding skip striping through the intersection.	Will add.	
37)	K15, K16	HD	Get the most recent drawings from Traffic Section. These drawings supersede part of Std Dwg S-00.01 and replace Std Dwgs S-01.00 and S-20.10. Make appropriate changes to list of Standard Drawings on A2.	Will coordinate.	
38)	L General	HD	Show drainage arrows outside of project area and well as within the project.	Will add.	
39)	L General	HD	Is the existing vegetation along the project continuous enough and thick enough to be used as a vegetated buffer for all the areas being shown?	Will check and revise.	
40)	L08, L09	HD	The vegetated buffer strip adjacent to the pathway is too narrow to prevent sediment from leaving the project across the ROW line. Use fiber roll or silt fence along the edge of the pathway.	ROW research is ongoing and general flow is towards highway. Still evaluating fiber rolls to be added to plans.	

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41)	L11	HD	Provide inlet protection at existing inlets at Station 35+55 LT and at 38+60 LT.	Will add to 38+60 and 35+55.	
42)	P01	HD	Move Marking Legend to striping sheets.	Call outs added to plan sheets.	
43)	P06	HD	Lane widths on this sheet are shown being measured to the lip of gutter, not as shown on the typical sections.	Lane widths removed.	
44)	Q02	HD	Will you be using portable message boards?	Still considering portable message board.	
45)	Y19	HD	Delete Section. Use item 605(5) Porous Backfill Material	Will delete.	
46)	Y21	HD	Section 301-3.03 SHAPING AND COMPACTION Add the following: "Areas with 3 inches or less of Aggregate Base Course shall be compacted to the satisfaction of the Engineer."	Will add.	
47)	Y58	HD	Need some language describing oil grit separator work, method of payment etc.	Removed oil grit separator.	
48)	Y73	HD	Add Item 621(5) Landscaping Complete and associated basis of payment/method of measurement language	621 pay items are by species.	
49)	Y75	HD	627-5.01 BASIS OF PAYMENT Change pay item to 627(10A)	Will do.	
50)	Y75	HD	Third bullet point. Are we pavement planing? Do we need a planing pay item?	No pavement planning.	
51)	Z - 07	HD	*Typical Sections.* Typical sections in the plans for the highway and ramps show max fill slopes of 3:1, not 2:1, except behind guardrail.	2:1 slopes are shown on sheet B6.	
52)	Z – Geotech Recs	HD	Provide plan details showing recommended subexcavations.	Will coordinate with Materials Section.	
53)	Z – H&H Summary	HD	Page ii of iii: Add OGS (Oil and Grit Separator) to Table of Acronyms.	OGS removed from project.	

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54)	Z – H&H Summary	HD	Page 3 of 10, Section 4.1, first para line 3: add the word "less" ("comprises less than five percent"). Last para, line 4 Change "slopes" to "sloped"	Added. Revised.	
55)	Z – H&H Summary	HD	Page 7 of 10, 1st para, last sentence: Consider deleting point 3.	Deleted.	
56)	Z – H&H Summary	HD	Page 9 of 10, Section 6.0 EROSION PROTECTION. Fix first sentence. Section 8.0 CONCLUSION (Spelling)	Fixed. Revised.	

PIH Review

PROJECT NAME: Seward Hwy 92nd Ave connector

PROJECT NUMBER: 59770

	DATE: 8/12/11 **REVIEWER: C. Bentz** **SECTION: TD** **PHONE: 269-0652**	**Confirmation of action taken on comment by:**

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Item No.	Sheet No. / Page No.	By	Comment	Recommendation/Response?	Meeting Note
1)	1	TD	In striping, only arrows are no longer used with "only" text except where a lane drop occurs (i.e. a through lane becomes a turn only condition). Use just the arrow.	Will revise.	
2)	K4	TD	Provide begin/end TWLTL signage.	Will add.	
3)	K4	TD	Is the warning flasher system warranted, and if so shouldn't the crossing be striped (ladder type)?	Warrants for the pedestrian beacon to be checked. Beacon not required.	
4)	K5	TD	Place sign 30 at pater point.	Will locate per MUTCD/DOT Guidance.	
5)	K8	TD	Provide begin/end TWLTL signage.	Will add.	
6)	K8	TD	North side fog line striping around Sta. 290+00, provide station or other info as to how to terminate this stripe.	Will do.	
7)	K9	TD	End 8"W stipe for turn pocked at full pocket width, approx. sta. 44+50	Will do.	
8)	K10	TD	Complete signing table for post sizes	Will do.	
9)	K14	TD	This is a regional detail and should be included on the title sheet unmodified, to be attached to the plan set. This sheet should then no longer be needed.	Will coordinate.	
10)	P2	TD	Cannot clearly read text on this sheet. Enlarge to make information useful.		
11)	P3/4	TD	Show j-boxes, conduit size/type/path, cable in conduits, and circuit numbers.	Circuits added on plan.	
12)	P3/4	TD	Symbols for luminares and flashing beacons shown on the Symbol sheet P1 should be used for those items. Symbol shown do not match.	Flashing beacon deleted from project.	
13)	P5	TD	Complete lighting schedule for further review. Provide lighting design criteria, voltage drop information, etc.	Lighting design completed.	

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	DATE: 8/12/11 **REVIEWER: C. Bentz** **SECTION: TD** **PHONE: 269-0652**	**Confirmation of action taken on comment by:**

14)	P6	TD	Nice to have the foundation and j-box schedules on a plan sheet like this for referencing the physical locations to the site plan.	Stationing added to plan sheet.	
15)	P6	TD	Show conduit paths, opticom, lums on signal poles on this sheet.	Conduit routing shown on sheet.	
16)	P6	TD	Heads 41-42-43 should all show that they are turn indications on the block/symbol.	Turn indications added.	
17)	P6	TD	Loop series 72x and 71x should flip lanes.	7XX series flipped.	
18)	P7	TD	Should finish the notes table to label loop cables or better clarify what loops are included in say cable 41x or 11x. It can be figured out by finding the last run for the cable where it has been shown, but would prefer in not be ambiguous elsewhere in the table.	Table revised.	
19)	P8	TD	Please complete tables, what does SHT stand for in the signal base table? Sheet? Can the table be expanded to fit the whole word, also SHT isn't included in the abbreviations on sheet A2.	"SHT" removed.	
20)	P8	TD	All lum bulbs must be dual arc tube with 40,000 hr average life. Add this requirement to note of provide a luminare/lamp performance table.	Table added.	
21)	P8	TD	Are (8) 400w lums really necessary here in this intersection? Was a lighting analysis done? The intersection is not particularly large, its only a 3-way and does not have geometric issues.	8 luminaires reduced to 4 total.	
22)	P8	TD	Signal pole tables describing distance to a component on a pole in combination with note 5, need to explain what the distance in the table is relative to.	Tables deleted, signs now dimensioned.	
23)	P23	TD	This cabinet detail was designed to be used with a loop activated flasher system. A different design will be required for a ped-button actuated system as ped buttons do not run through a DA typically. Further research should be done. DOT Traffic Design may be able to help with this.	Flashing beacon deleted.	
24)	Y	TD	Include the specifications for the Muni Traffic Signal Components. This replaces much of the DOT 740 specifications.	Will revise.	
25)	Y				

PIH- DDSR REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

TRAFFIC ENGINEERING DIVISION	**DATE: 12/29/11** **REVIEWER: Dan Boots** **SECTION: Safety** **PHONE:** (907) 343-8429	**Confirmation of action taken on comment by:**

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Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	1	SF	Coordinate with MOA Addressing the correct street names and block numbers associated with this project. Recent conversations indicated MOA Addressing intended to designate the portion of roadway currently named Abbott Road and shown as 92nd Ave on the plan set as Academy Drive to prevent renaming at such time that the underpass is constructed and the connection is made.	92nd Avenue is now named Scooter Avenue per correspondence from Karleen Wilson, Municipality of Anchorage and the Mayor's Executive Order 2013-010.	
2)	Z Append B	SF	There do not appear to be any MOA Design Standards designated. If a portion of the 92nd is to be owned and maintained by the MOA then some MOA design standards are required. These include, but are not limited to: a. 92nd Avenue is classified as a Minor Arterial II in the OS&HP. Most of the design criteria for Urban Collector per DOT standards appear to meet MOA DCM requirements for Minor Arterial II, however there are some differences, such as design speed requirements. DCM Table 1-3 indicates a design speed of 45 mph. These two classifications should be closely compared for inconsistencies and the more stringent requirement utilized for all design aspects. b. Commercial driveways require curb returns (DCM App 1D) c. Street lighting is required to utilize white light (DCM 5.4D) d. MASS standards shall be utilized on MOA owned and maintained ROW.	Per Traffic Analysis Report Will incorporate commercial driveway curb returns. Will use white light for street lighting. Will include MASS standards for stormwater structures, lights, and traffic signals.	

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TRAFFIC ENGINEERING DIVISION	**DATE: 12/29/11** **REVIEWER: Dan Boots** **SECTION: Safety** **PHONE:** (907) 343-8429	**Confirmation of action taken on comment by:**

			e. Side street approaches shall be designed and constructed to the criteria indicated in DCM Table 1-6, transition as required to existing beyond curb termination. f. Design criteria tables designate the WB-67 as the design vehicle. The WB-67 exceeds DCM requirements, however, it does not appear that a WB-50 can negotiate the turn from north bound Old Seward to east bound 92nd Ave without encroaching on the median. Both west bound right turn lanes appear to be required to make that turn with a WB-50 vehicle.	Will check Traffic Analysis Report of ADT of side streets WB-50 is design vehicle. Will adjust curb radii.	
3)	K sheets	SF	a. Remove all ONLY word pavement markings. Install arrows per MASS Figure 70-8. ONLY word markings are not used at terminating legs of T intersections b. Delete the object markers below the R4-7 keep right signs. c. Utilize MASS sign installation standards for all signs to be maintained by the MOA. MASS Detail 70-31 determines PT post size for ground mounted installations. d. All striping shall be inlaid; Note 6 on K1 requires revision. MOA standard of practice for Minor Arterial roadways with 11000 ADT typically requires inlaid MMA to 250 mils	Will remove ONLY pavement markings and utilize arrows. Will delete object markers Will compare MOA vs. DOT standards for sign posts. Will incorporate inlaid striping.	

PIH REVIEW

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	DATE: January 3, 2012 **REVIEWER: Krysta Gard** **SECTION: ROW Engineering** **PHONE:** (907) 269-0676	**Confirmation of action taken on comment by:**

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Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	D1/F17	ROW	Fence at "92" 300+04 to 301+25 9'RT, add to removal list?	Updated	
2)	D1/F17	ROW	Fence at "92" 301+25 RT, add to removal list?	Updated	
3)	D1/F17	ROW	Remove building at "92" 300+35 RT? Add to removal table?	Updated	
4)	D1/F17	ROW	Remove building at "92" 301+00 RT? Add to removal table?	Updated	
5)	F8	ROW	Proposed slope limits outside existing ROW, 194+00 LT. Please address.	Updated	
6)	F9/F10	ROW	Proposed slope limits outside existing ROW, 200+50 LT. Please address.	Updated	
7)	F11-F13	ROW	May need to realign the Controlled Access Line? Area of concern at STA "R1" 35+89 LT to ramps, on and off highway at 92nd. CA Line exists primarily along existing fence on the West side of the Seward Hwy.	Proposed Changes to Controlled Access Report delivered to DOT&PF ROW on 04-26-13	
8)	F 16	ROW	"92" 291+20 RT, signal pole with mast arm is proposed outside of ROW. Please address.	ROW acquired, parcel E-27A	
9)	F16	ROW	Approach at "92" 293+02 LT will need TCE/TCP. Paving limits outside of ROW.	Approach deleted.	
10)	F16	ROW	Approach at "92" 295+52.5 LT will need TCE/TCP.	TCP added.	
11)	K sheets	ROW	Please add ROW lines.	Updated	
12)	L8/L9	ROW	Vegetative buffer outside ROW. May need TCE/TCP? Please address. 192+00 LT to 203+00 LT.	Vegetative buffer is within 10' of Telecom and Electric easement and 30' of screening easement.	
13)					
14)					

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	DATE: December 8, 2011 **REVIEWER: Paul Janke** **SECTION: Hydrology** **PHONE:** (907) 269-0526	**Confirmation of action taken on comment by:**

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1)	DSR App E	H	DSR Appendix E, Draft H&H Summary Report, page 3, Section 4.1 Drainage Basin Description, first paragraph: Change the first sentence to "… such that the project area comprises five percent of the total downstream basin …".	Changed.	
2)	DSR App E	H	DSR Appendix E, Draft H&H Summary Report, page 3, Section 4.1 Drainage Basin Description, first paragraph: Correct the error in the fourth sentence. The 0.7 square miles stated does not equal 248 acres.	Changed.	

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3)	DSR App E	H	DSR Appendix E, Draft H&H Summary Report, page 6, Section 4.3.2 Proposed Infrastructure: The proposed conditions in the SWMM model should represent the conditions expected during the design year of this project, not the existing conditions modified to include this proposed project as stated. Consider full development allowed by current zoning.	As discussed in Section 4.3, full development allowed by current zoning was not considered for this project for the following main reasons: (1) The design life of this project is estimated to be 2024 (10 years from the date of construction). The design year of the future project is expected to be 20 years from the date of construction which is not currently known. Stormwater regulations in the Municipality of Anchorage (MOA) are rapidly changing due to increasingly stringent EPA requirements. For example, recent MOA criteria require on-site management of the first 0.52 inches of stormwater for all development and redevelopment sites of 10,000 square feet or more. Onsite retention of storm water was determined to be infeasible due to two factors: a) very poor native soils, and b) the high groundwater table. Modeling a peak runoff from future full development with no on-site detention or retention in place is unrealistic. It is expected that by the design year of the project, stormwater regulations will be even more stringent than recent requirements. It was not considered prudent to anticipate future stormwater regulations so many years in the future. (2) The existing stormdrain system along OSH that is draining most of the project drainage basin is currently undersized. Future full development as allowed by zoning would be unable to discharge into the downstream system without system reconstruction. Reconstruction of the OSH system would change the hydraulics of this project.	

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4)	DSR App E	H	DSR Appendix E, Draft H&H Summary Report, page 8, Section 4.3.3 Modeling Results, first paragraph: The fourth sentence indicates that the proposed project will increase the design discharge in three existing conduits. Discuss the impacts of this and solutions to expected resulting problems.	Will provide additional information/clarification.	
5)	DSR App E	H	DSR Appendix E, Draft H&H Summary Report, page 8, Section 4.3.5 Roadway Subdrain System: It is understood that HDL is working with DOT materials section personnel to develop a subdrain system that will convey groundwater from the roadway structural section to a stormdrain system under 92nd Ave, Old Seward Hwy, and Dimond Blvd. Discuss anticipated icing problems and solutions for this alternative. Also, discuss other alternatives that collect less groundwater and/or dispose of it differently in the winter and hence have less potential for icing problems. I am available to work with design team members to help find the best solution for this problem.	Based on our meeting on Monday December 19, 2011, HDL and ADOT&PF are working together to (1) minimize the amount of groundwater that will be discharged into the stormdrain system, particularly during winter months, and (2) to ensure that rainfall events will not cause downstream surface water to backflow through the stormdrain and saturate the roadway section. The proposed design has been evaluated against the existing system. The project does not anticipate a net increase in volume into the existing system.	
6)	A2	H	Delete standard drawing D-09.00. Use the culvert marker posts required by section 603 in the specifications.	Will revise.	

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7)	B2	H	Ramp typical section in the middle of the sheet: If groundwater seeping out of the ditch backslope is expected, consider the following alternatives. Deepen and widen the ditch as much as possible to provide ice storage. Add porous backfill material wrapped in geotextile on ditch backslopes and direct this water to the subdrain shown. Try to collect as little groundwater as possible in the subdrain system to minimize downstream icing problems.	Groundwater seepage out of the backslope in this area is not anticipated. See response to comment No. 5.	
8)	B2 & B3	H	Typical Sections: In the road sections, ensure the geotextile wraps around the porous backfill material, not just on the top and bottom as shown.	No porous material.	
9)	B3 & B4	H	Drain the pathway and sidewalk away from the road where this follows natural drainage patterns.	Drainage will follow natural drainage patterns as much as possible. Drainage flows from C&G to Storm Drain.	
10)	D2	H	Removal of Culvert Pipe summary: Consider putting culvert extension information in a different table. Or, change the table title and add other pay items.	Will clarify.	
11)	F Sheets	H	General: Consider showing the subdrain system on the F sheets, similar to the stormdrain system.	No more subdrain.	
12)	UD Sheets	H	General: Add underdrain details on the UD sheets as stated on sheet B2.	No more underdrain.	

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13)	UD8	H	Use vane grates on curb inlets where the gutter longitudinal slope is greater than about 2%. See standard drawing D-25.00.	Will revise as needed.	
14)		H	.		
15)		H			
16)		H			
17)		H			
18)		H			

Plans in Hand REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12/14/11 **REVIEWER: Jason Lamoreaux** **SECTION: Construction** **PHONE:** (907) 269-0661	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
In the Section column below please use your assigned Functional group identifier: Right-of-Way = RW; Traffic/Safety = TS; Highway Design = HD; Materials = M; Bridge Design = B; Survey = SC; Internal Review = QC; Construction = C; Utilities = U; Specifications = S; Review Engineer = RE; Maintenance = M&O.

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	X	C	Delete items: 644(2) Field Laboratory, 644(8) Vehicle (LT/SUV), 644(15) Nuclear Testing Equipment Storage Shed, and 644(16) Storage Container. This project is located within Anchorage. Materials testing will be handled through one of the Mega-Labs already established in town. This project does not warrant it's own lab setup. Also, project staff vehicles will be supplied through our state fleet. The deletion of these items should also be addressed in section 643 of the specifications and on sheet C1 of the plans.	Will do.	
2)	X	C	Item 306(2) – Specifications call for PG 52-28 grade oil. Correct item description on engineer's estimate and on plan sheet C1 to match.	Geotechnical recommendation PG 52-34. Will revise specs to match.	
3)	X	C	Item 402(1) STE-1 Asphalt for Tack Coat – Make this material subsidiary to other asphalt pay items. For urban projects, contractors may utilize the same tack truck for multiple local projects at the same time. It is not practical to re-scale the truck each time it is used for each project and tracking of quantities becomes problematic.	Will do.	
4)	X	C	Add pay item 401(3) Hot Mix Asphalt, Temporary, Type II, Class B.	Will do.	
5)	Y-054	C	Section 401-5.01 – Delete item 401(8). This item is not in the bid schedule. Approach item is already specifying that asphalt to be used will match asphalt for mainline. It will be paid under the same pay item as mainline.	Will do.	

Plans in Hand REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12/14/11 **REVIEWER: Jason Lamoreaux** **SECTION: Construction** **PHONE:** (907) 269-0661	**Confirmation of action taken on comment by:**

6)	Y-073	C	Section 621-5.01 – States that water for seeding will be subsidiary to item 621(8). This item has not been established for this project. Make subsidiary to item 621(5) Landscaping Complete.	Will revise spec to clarify.	
7)	Y-073	C	Section 621-5.01 – States that fertilization will be subsidiary to item 621(2). This item has not been established for this project. Make subsidiary to item 621(5) Landscaping Complete.	Will revise spec to clarify.	
8)	Y-073	C	Establish item 621(5) Landscape Complete in section 621-5.01.	Will do.	
9)	Y-075	C	Section 627-5.01 – First sentence – Correct item number to 627(10A).	Will do.	
10)	Y-111	C	Table 643-4 – Remove item "Pilot Car w/sequential arrows". A pilot car by definition guides people/vehicles through a controlled area rather than diverting them around itself. Replace with "Sequential Arrow Panel for Mobile Operation" and define in section 643 as including the tow vehicle and operator.	Still coordinating with DOT&PF construction.	
11)	Y-114	C	Reference comment on estimate regarding deleting multiple section 644 items. Delete sections 644-2.02, 644-2.05, 644-2.06, and 644-2.07. Update section 644-3.01 and 644-4.01 accordingly.	Will do.	
12)	A2	C	Table of Estimating Factors – Item 402(1) – Provide application rate in table rather than weight conversion factor. Weight conversion factor does nothing to help estimate quantity to be used over a specified area.	Assumes 0.7 gal/SY application rate according to the specification (mid-range) and 0.00415 tons/gal (density of oil).	
13)	A2	C	Table of Estimating Factors – Move table to sheet C2 to be consistent with standard plan set format.	Will do.	

Plans in Hand REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12/14/11 **REVIEWER: Jason Lamoreaux** **SECTION: Construction** **PHONE:** (907) 269-0661	**Confirmation of action taken on comment by:**

14)	B1	C	Typical section – Seward Highway – SB Lane Add – This section will result in differential settlement and a longitudinal crack at the joint location shortly after completion. Eliminate vertical cut and replace with sloped cut to eliminate vertical failure plane. Locate cut further into the existing shoulder which is already constructed with similar materials as the remainder of the highway, possibly as far as the edge of the existing asphalt, and have only asphalt removal/milling and repaving for the remainder of the distance to the joint with the existing outside lane. Also, eliminating or moving the vertical cut away from the edge of the existing lane will eliminate the need for at least half of the jersey barriers called for in the traffic control phasing plans.	Vertical cut replaced with sloped cut. Cut is located 8' from edge of pavement. Ok.	
15)	B1	C	Typical section – Eliminate call for Selected Material, Type C. For the relatively small quantity of material, just use Selected Material, Type A. Selected Material, Type C leaves the door open to poor quality materials being placed under a high volume highway structural section.	Type C estimate requires 13,845 tons or +/- $180,000 additional cost if changed to Borrow, Type A.	
16)	B2	C	Road Sections D and E (E on sheet B3). Constructability must be considered when specifying the structural section. With subdrains running down both sides of the roadway that will intercept any incoming water and transport it away from the road, do we need the porous backfill material under the entire roadway? Constructing a typical section of this complexity will be extremely time consuming and expensive. Do to geotechnical reports and analysis really require this and is there a high enough confidence that it will perform as expected to warrant the cost?	Coordination with Materials Section determined that if structural section is above groundwater that the porous backfill material was not required. A thermal analysis supported this change.	

Plans in Hand REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12/14/11 **REVIEWER: Jason Lamoreaux** **SECTION: Construction** **PHONE:** (907) 269-0661	**Confirmation of action taken on comment by:**

17)	C1	C	Reference comments on Engineer's Estimate for related corrections/changes to estimate of quantities.	Will do.	
18)	C1	C	Add pay item 401(3) Hot Mix Asphalt, Temporary, Type II, Class B.	Will do.	
19)	F5	C	Existing south pathway extends beyond ROW just beyond end of planned work. Equipment to construct pathway will be utilizing the existing pathway and will end up beyond the existing ROW.	Pathway limits have been revised.	
20)	F17	C	Elevation scale on profile view off by 10' between elevations 105' and 120' points.	Will revise.	
21)	G4	C	Cut limits for north pathway between Sta. 11+00 and Sta. 14+50 extend beyond ROW. Gain ROW to keep cut slope within new ROW or adjust alignment of pathway to fit within ROW.	Updated.	
22)	K1	C	Pick one type of striping (inlaid or surface applied) for the project rather than mixing inlaid and surface applied. There is not enough volume of total striping to warrant the changes. Inlaid would be recommended for durability on high traffic areas. If going with inlaid for highway section and ramps, clarify whether gore stripes are included or if they can be surface applied. Specifications indicate surface applied unless the plans say otherwise, and plans are not as clear as they could be.	Striping will be inlaid.	
23)	K9	C	Review current standard practices regarding the use of "ONLY" symbols. They are only used in special cases (when a through lane terminates into a turn lane for example). An added lane for a turn lane does not warrant and "ONLY". Revise plans in accordance with current design standards.	Will do.	

Plans in Hand REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12/14/11 **REVIEWER: Jason Lamoreaux** **SECTION: Construction** **PHONE:** (907) 269-0661	**Confirmation of action taken on comment by:**

24)	Q9	C	Traffic Control Phase I – The existing shoulder is wide enough to shift traffic over and won't require the use of concrete barriers to construct the detour.	Barriers are shown for safety concerns with high traffic volumes.	
25)	Q10	C	Traffic Control Phase II – Reference previous comment regarding shifting/eliminating vertical cut for lane addition construction. If cut is moved/eliminated as shown, there will not be a need for concrete barriers to separate the highway traffic from the new construction.	Vertical cut replaced with sloped cut.	
26)					

PLANS IN HAND REVIEW

PROJECT NAME: Seward Highway, 92nd Ave Connector

PROJECT NUMBER: 59770

	DATE: 1-25-2012 **REVIEWER: Lynn McGee** **SECTION: MOA ROW** **PHONE:** (907) 343-8226	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
In the Section column below please use your assigned Functional group identifier: Safety = SF; Signals = SG; Transportation Planning = TP

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	A1	MOA ROW	Clarify on the plans or tables whether the proposed ROW for East 92nd Avenue will be MOA or ADOT.	Still coordinating with DOT&PF and MOA.	
2)	A1	MOA ROW	6-22-2011: Based on the type and location of work, no Right of Way Permit appears to be required. Should the work area extend to the MOA Rights of Way or certain easements, additional ROW plan review and possible permitting may be required.	Ok.	
3)					
4)					
5)					

PIH- DDSR REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

TRAFFIC ENGINEERING DIVISION	**DATE: 12/29/11** **REVIEWER:Stephanie Mormilo** **SECTION: Traffic Engineering** **PHONE:** (907) 343-8070	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
In the Section column below please use your assigned Functional group identifier: Safety = SF; Signals Operations = SG; Signals Maintenance = SM; Transportation Planning = TP

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	1	TE	Please clarify who is responsible for maintenance and operations of the 92nd Avenue ROW between Seward Highway and Old Seward Highway. Where is the break in maintenance? Provide any existing or proposed TORA's for review. This information is critical prior to future reviews so that construction standards and requirements can be established.	The TORA is still to be negotiated between DOT & MOA. The project break is at approximately station 298+50 (Stub Place).	
2)	K4 & P3	TE	Remove advanced beacon. Provide "Pedestrian Crossing Ahead" signage instead.	Warrants for the pedestrian beacon were checked. Beacon is not required.	
3)	F16	TE	Please remove the driveway on the north side of 92nd Ave near STA 293+00. It is too close to the Old Seward Highway intersection.	Will remove.	
4)	F16 & F17	TE	Short Street and the relocated "Long Street" intersections are too closely spaced. Minimum separation for roads is typically 330'. Recommend only providing one access at approximately STA 298+00.	Relocated Long St. is aligned with existing Sam's Mall frontage road. With anticipated future connection being an extension of the existing road.	
5)	F16 & F17	TE	Short Street and driveway near STA 295+50 are unacceptable as proposed. Anyone driving eastbound on 92nd who wants to turn left into the mall will have to cross 4 lanes of traffic without a turn pocket. In addition, anyone turning left out of the mall or Short Street have a similar number of lanes to cross to make their movements. Traffic recommends coordinating an access easement with the mall's adjacent property owner to allow for a full-access driveway at approximately STA 298+00 (across from the relocated "Short Street"). This will allow for	We can delete the Short St. connection. Will extend median to stop left across 4 lanes. Will need to verify that this will meet fire vehicle access requirements. If the median is closed at STA 295+50 this will result in all direct access to the mini mall to be right in and right out. A relocated access for the mini mall lot via opposite of Long St. relocated would	

TRAFFIC ENGINEERING DIVISION	**DATE: 12/29/11** **REVIEWER:Stephanie Mormilo** **SECTION: Traffic Engineering** **PHONE:** (907) 343-8070	**Confirmation of action taken on comment by:**

			safer entering and exiting turns and will provide for a future connection to the Sam's mall. The driveway near STA 295+50 can remain as a right-in, right-out only access.	require substantial additional ROW.	
6)	K8 & 9, P6, 7, &8	TE	Are dual lefts necessary at the Old Seward intersection? Current development suggests the right hand turns will have the larger demand. Operating the signal with the proposed lane layout will require an exclusive pedestrian phase and will impact Old Seward signal operations.	Yes, dual lefts are necessary. The traffic study shows west bound lefts as larger demand. Will evaluate pedestrian crossing layout alternatives.	

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Mike Sickler (SE) Signal Electronics (907) 343-8355 / 8417	Confirmation of action taken on comment by:
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov	Utilities Section

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	Y120	SM	Proposed 660-2.01 Item #2. Add the following: In addition, submit two complete sets of all electrical related plan sheets. The engineer will deliver one copy of each to MOA Signal Electronics and MOA Street Light Maintenance.	Text added.	
2)	Y120	SM	Proposed 660-3.01, first paragraph. Replace "regional Traffic Signal Technician DOT&PF' with " MOA Signal Electronics Shop"	Text added.	
3)	Y124	SM	Proposed 660-3.01 Item #6. Add the following: All traffic signal system items shall be delivered to the MOA Traffic Signal warehouse at 5923 Rowan St. Signal poles and mast arms shall be delivered to the MOA Traffic Signal Pole Yard at 3rd Ave. & Orca St.. Allow MOA Maintenance personnel to select the equipment and pole items they would like to salvage and contractor to dispose of all remaining equipment and pole items. Contact Foreman at 343-8355 one week before your tentative delivery date.	Text added.	

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Mike Sickler (SE) Signal Electronics (907) 343-8355 / 8417				Confirmation of action taken on comment by:	
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
4)	Y136	SM	Proposed 660-3.11, Manufacturer Assisted Start Up. This is Central Region language used on signalization projects outside of the MOA service area. Delete and replace with previously used **660-3.11 Signal System Timing And Adjustments** insert. Insert addresses work performed by MOA Signal Electronics. *Incorporate these changes into* ***660-3,11*** **Signal System Timing And Adjustments,** if not included in version provide by Central Region. Controller Cabinet Preparation, first paragraph. 1. Replace "3650 E. Tudor Road, Building C" with "3601 Dr. Martin Luther King Jr. Ave." (New Address same location) 2. Add the following: Allow six weeks for testing. 3. Controller Cabinet Preparation, item 4. Replace "test and connect" with "splice, test and connect copper".	Text added.	
5)	Y144	SM	Proposed Section 662. Proposed interconnect (IC) work on this project is very minimal: intercept of existing IC on the west side of Old Seward. Work will basically involve intercepting the existing 2" RMC conduit and routing it into the new traffic signal system j-boxes. Add note that all IC conduit shall be RMC on this project.	RMC specifications added.	
6)	Y169	SM	Table 740-2. Change cable for pedestrian signal to 5 conductor. Add "Orange" as a "Spare".	Text added.	
7)	Y169	SM	Table 740-2. Change cable for pedestrian push button to 3 conductor. Delete "Green" as a "Spare".	Text added.	
8)	Y170	SM	Table 740-2. Preemption cable color code is yellow, orange and blue. The blue conductor termination is dependent on which model of detector is used. Suggest dropping item or "Per manufacturer installation methods."	"Per manufacturer" added.	

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

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Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
9)	Y172- Y204	SM	Proposed 740-2.10, 740-2.11, 740-2.12, 740-2.13 sections are Central Region language used on signalization projects outside of the MO A service area. Replace with previously approved sections language used on signalization projects within of the MOA service area. *Incorporate these changes into MOA service area sections, if not all ready incorporated into version provide by Central Region.* 1. 740-2.11. item 1, g Cabinet Ventilation, sub-item 2, a. Replace "A199999BBC-2C" with A19BBC-2C". 2. 740-2.11. item 1. h Auxiliary Cabinet Equipment sub-item 1. Replace "lamp shall be 110W" with "lamp shall be a 100W". 3. 740-2.11 Controller Cabinet, item 1, j. Field Terminal Blocks, sub-item (1). Change "Red, Yellow and Green" to "Green, Yellow and Red". 4. 740-2.13 Special Auxiliary Equipment, item 3, System Modem/Interface Unit, sub-item c. Change "five meter" to "5 feet". 5. Proposed 740-2.13 Special Auxiliary Equipment, item 5, Bus Interface Unit (BIU). Change "Provide BIU's" to "Provide six BIU's".	Most comments do not apply to revised DOT specs. Six BIU'	
10)	B3	SM	Modify Typical Sections or insert Note to require a minimum of 4" Aggregate Base Course, Grading D-1 in areas where detector loops are installed.	Will consider and coordinate with DOT&PF Materials	
11)	B4	SM	Modify Typical Sections or insert Note to require a minimum of 4" Aggregate Base Course, Grading D-1 in areas where detector loops are installed.	Will consider and coordinate with DOT&PF Materials	
12)	K9	SM	Sign Post #49. SBLT movement is proposed as a Flashing Yellow Arrow (FYA) operation. R3-5L signage wasn't installed at previous FYA installations. *(Muldoon & Northern Lights and Huffman & Lake Otis)*	Will remove sign.	
13)	K12	SM	Modify Sign Summary for previous Sign Post #49 if applicable.	Will modify.	

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

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Comments by: Mike Sickler (SE) Signal Electronics (907) 343-8355 / 8417				Confirmation of action taken on comment by:	
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
14)	PI	SM	Foundations Note #2. Add "driveways" to note.	Added.	
15)	P6	SM	Unusual phasing layout for "T" intersection operation. Revise WB vehicle movements to Phase 3 & 7.	Phasing layout revised.	
16)	P6	SM	Delete Signal #24 from Pole 1.	#24 deleted from P1.	
17)	P6	SM	Optical detectors (EVP) aren't shown on plan view.	EVP added to plan view.	
18)	P6	SM	Three additional System Modem/Interface Unit with cables/parts (Special Provisions 740-2.13 Special Auxiliary Equipment, Item #3) will be required to make the communication connection tie-in between the new 92nd & Old Seward TS2 controller cabinet and the Traffic Management Center. Need to add note to plans to provide additional units. Could be added on to plan sheet K15.	Note added to P17.	
19)	P7	SM	Existing traffic signal interconnect (IC) system runs along the west side of Old Seward, not the east side as shown. Revise plan	IC shown on west side.	
20)	P8	SM	Add identifier numbers to signal equipment and revise signing and signal placement per previous comments	Elevation revised.	
21)	P8	SM	Signal Pole 4 detail. 4 section FYA signal #11 is shown with the plumbizer mounting bracket be located between the red arrow and solid yellow arrow indication heads. Had a few clearance issues on the Huffman & Lake Otis project. Need to calculate clearance as shown. If additional clearance is needed, relocate plumbizer between the solid yellow arrow and flashing yellow arrow indication heads.	FYA mounting shown between solid yellow arrow and flashing yellow arrow.	
22)	P9	SM	Load Center "A" summary proposes to install the traffic signal controller, signal intersection lighting, flasher controller and both 92nd lighting circuits from this load center. 1. The SB Seward Hwy. Off ramp and ON ramp lights should be on a SOA maintained load center. Need to confirm with MOA Street Light Maintenance.	Lighting and signal circuits separated.	
23)	P10	SM	Delete MOA TS2 Controller Concrete Foundation details and insert Central Region detail.	CR detail inserted.	

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Mike Sickler (SE) Signal Electronics (907) 343-8355 / 8417				Confirmation of action taken on comment by:	
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
24)	P20	SM	Opticom detector assembly detail. 1. Detail - change Part #6 symbol to 2" nipple and renumber as #11. 2. Parts list - #6. Change quantity remark to "Not Used". 3. Parts list Add item #11: part type is "3/4" x 2" galvanized nipple". Quantity remark is "Add 2 to kit".	EVP detail revised.	
25)					
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Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Mike Sickler (SE) Signal Electronics (907) 343-8355 / 8417	Confirmation of action taken on comment by:
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov	Utilities Section

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Michael L. Stoianoff	
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov	Utilities Section

Con

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	C2	U	Estimate of Quantities: • Pay Item 661(1) Type-1 load center • Quantity Total should be 1 not 7	Load center quantities and types revised.	
2)	P6 & P7	U	Label load center [X] on plan as LCA	Load center labeled.	

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Michael L. Stoianoff					
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
3)	P9	U	Transformer for load center –A: • KVA Rating: ○ The transformer characters were not defined. Based on the load demand for load Panel – B of 13.00 KVA, this transformer can be rated 15-KVA. This transformer can deliver 15-KVA continuously • Primary & Secondary voltages ○ Primary – Should be 240 volt ○ Secondary option #1: 480-volt 2-wire ○ Secondary option #2: 240/480-volt 2-wire • Over current protection – See NEC table 450-3 (B) ○ Primary only - Circuit breaker to be 125% FLA max = 15-KVA / 240-volts x 125% = 75-a,ps – 2 pole @ 240-volts ○ Primary Secondary : ▪ Primary 240-volts 3-wire – 250% FLA max = 75 amps max 40 amps minimum. ▪ Secondasry 240/480 – 3-wire – 125% fla max = 15-KVA / 480-volts x 125% = 40 amps max • Sugestion: None of the loads in load panel-B requires a neutral. Therefore the panel can be wired 480-volt 2- wire with Primary only over current production.	Type 1 load centers no longer used.	

Comments by: Michael L. Stoianoff					
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
4)	F9	U	Load Center "A" Summary • Add transformer data as follows a. 15 KVA – 240v primary, 480 v Secondary b. Note: Both primary & secondary circuits are 2-wire c. Primary over current circuit breaker to be 240volt, 75-amp 2-pole. d. Secondary over current circuit breaker – None required – See NEC Table 450.3(B) – Primary Only protection • Contactors: Provide one 12 pole, 600 volt contactor. It is not required to provide separate contactors for each load panel. Note: GE sells a 12 pole contactor base that will accept both 30-amp & 60 amp 600-volt (1, 2, & 3-pole) contactor modules, • Both load-panels A & B are 18 circuits, pole rated 480-volts. • Circuit A1/3 – Back fed 200-amp MCB. This circuit breaker requires 4 single poles (A-1/3/2/4) • Circuit A3/5 _ Transformer primary over current protection should b e 75-amp 2-pole See NEC Table 450.3(B • Circuit breaker A-9/11 should be a 15-amp 1-pole because MOA prefers 120-volt photoelectric controls. • Circuit A-2: Relocate to position A-13 or A-14. This position is required for back fed 200-amp circuit breaker in position A1/3 • Circuit A6 – Beacon Controller – See one-line on sheet P-23: The flashing bacon is a 120-volt circuit. This should be fed from a 20-amp 1-pole circuit breaker (i.e. Ckt A-6)	Type 1 load centers no longer used.	

Con

Comments by: Michael L. Stoianoff					
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov				Utilities Section	
5)	P9	U	Load Center "A" Summary • Circuit A-11 load to be 0.0 KVA The description should be "SPARE" • The total connected load is shown as 20.8 KVA – 85.8 Amps @ 120/240-volt 3-wire. The main circuit breaker; Circuit A-1/3/2/4 can be rated as low as 125-amps. 200 amps is over kill	Type 1 load centers no longer used.	
6)	P9	U	Load Center LCA: • Change the circuit breaker to the flashing beacon controller to 20/1. This load is 120-volt • Show the transformer to be 15-KVA 240 volt single-phase primary and 480-volt single-phase secondary two-wire, delete ground connection • Change the 100/2 primary transformer circuit breaker to 75/2 (LOAD CENTER fla X 125%) • Delete the 100/2 secondary transformer circuit breaker Based on NEC Table 450-3(B) it is not required for a 2-wire (480-volt) circuit.\ • Provide neutral & ground buses for load panel-A. The are not required	Flashing beacon deleted. Type 1 load centers no longer used.	
7)					

Plans-in-Hand Review **Seward Highway: 92nd Avenue Connection**

PROJECT NUMBER: 59770 **DATE:**

Comments by: Michael L. Stoianoff	
Email to: Jim Amundsen jim/amundsen@alaksa.gov Ken Chapman ken.chapman@alaska.gov	Utilities Section

Con

PIH Review

PROJECT NAME: 92nd Ave Connector

PROJECT NUMBER: 59770 /

	DATE: 1/03/12 **REVIEWER: SET** **SECTION: TS** **PHONE: 269-0639**	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
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Item No.	Sheet No. / Page No.	By	Comment	Recommendation/Response?	Meeting Note
1)	C 002	TS	Item 660(1B) Flashing Pedestrian Crossing. We need to discuss and review the warrants for this device before it is finalized in the bid set. Not all crossings require a ped triggered device. Gaps, speeds, connected facility types, and minimum pedestrian volumes apply.	Warrants for the pedestrian beacon were be checked. Beacon is not required.	
2)	C 002	TS	MMA. Recommend inlaid MMA on the Seward Hwy mainline, consistent with the recent repaving of the Seward Hwy and with Regional Guidelines for striping at high lane volumes.	Will do.	
3)	E 002	TS	Tyipcal curbed return. The intent was to have Regional Details which do not change for consistency around the Region. I do not recommend we redraft them with each project, which can become a source of inconsistency and added review time to be sure they were not altered or edited. The original detail was for parallel curb ramps only. This modification now could allow perpendicular ramps, which are less ideal at the locations shown in this detail. This is a problem for our section, as we end up defending the consistency of the Department's designs.	Verify the difference between MOA and DOT&PF. CR-T-1.00	
4)	F 001	TS	Is it cost-effective to relocate the hightower and retain clear zone from Sta 144-149? As compared to installing guardrail and the potential crashes with guardrail?	Will check. There is a sign that exists here. Perform a roadside cost/benefit analysis.	
5)	F 012	TS	Has vehicle acceleration to within 5 MPH of mainline design speed been computed at merge point based upon ramp grades?	Will verify.	

PIH Review

PROJECT NAME: 92nd Ave Connector

PROJECT NUMBER: 59770 /

	DATE: 1/03/12 **REVIEWER: SET** **SECTION: TS** **PHONE: 269-0639**	**Confirmation of action taken on comment by:**

6)	F 014	TS	4% grade into ped crossing a concern. Can we relocate the crossing to 299+00 intersection? What does this connect? An intersection is close to the west, so this leads to multiple decision points in a short distance. Is the best spot at the next intersection with Calimity Court, or midway between Long Street and Short Street, aligned with the anticipated mall frontage access point?	Moved pedestrian crossing -2.5% profile Yes The ped. crossing aligns with the anticipated mall frontage road.	
7)	F 019	TS	Recommend closure of left turn puzzle piece be demonstrated by computations or DSR documentation demonstrating the queue length and storage requirements for 92nd require this.	This needs to be closed off for queing. See Traffic Analysis Report.	
8)	G 002, G 003	TS	1. Consider the need for pedestrian fencing, signing notifying and restricting access to the motorized freeway lanes. This connection makes walking more feasible at this location. Existing maintenance problems on the east side illustrate a strong demand in this area and take considerable effort to sign, close off unauthorized use. 2. Request pedestrian fencing replacement of worn, end of life fencing from 92nd Ave sound barrier to Dimond Boulevard on the east side of the freeway with this project. 3. Please review pedestrian routing with our Section.	Fencing and signs added. No budget. Call Scott Thomas.	
9)	K 001	TS	Consider minimizing overhead signs and guardrail. Section 2E.30 of the MUTCD recommends 1 mile and ½ mile advance guide signing. We need to consider MUTCD compliance and revisit the shall/should of the number of advance guide signs as well. ¼ Mile is not common. We've used ½ mile and NEXT RIGHT and an arrow at the gore typically on our urban freeway.	Will drop 1/4 mile signs.	
10)	K 001	TS	Which type of overhead sign structure will be used? Large tube cantilevers or truss cantilevers?	Large Tube cantilever	
11)	K 002	TS	The airport jet does not go with the zoo sign. It goes on the post of the ¼ mile or NEXT RIGHT guide sign. The zoo sign is relatively new and could be relocated.	Updated	

PIH Review

PROJECT NAME: 92nd Ave Connector

PROJECT NUMBER: 59770 /

	DATE: 1/03/12 REVIEWER: SET SECTION: TS PHONE: 269-0639	Confirmation of action taken on comment by:

12)	K 002	TS	The Buckle Up sign is not an essential sign to the 92nd Ave entrance and could be deleted. We have it elsewhere at entrances to more continuous facilities like O'Malley or Tudor.	Updated	
13)	K 002	TS	The northbound SLOWER TRAFFIC KEEP RIGHT sign is not required of this project since it is southbound ramps. This sign is usually downstream of entrance ramps, back to back if possible. Look for ways to share with this type of sign coming from O'Malley Road northbound.	Updated	
14)	K 003	TS	The double merge warning is not required unless we have such a grade differential both the ramp and mainline don't see the same sign.	Updated	
15)	K 004	TS	DO NOT ENTER needs to be posted nearer to Sta 60+50.	Updated	
16)	K 004	TS	The pedestrian crossing location is recommended for reconsideration (earlier).	Will evaluate further	
17)	K 005	TS	Recommend deleting nonessential BUCKLE UP due to limited sign space between interchanges.	Updated	
18)	K 005	TS	Examine the need for "weaving area" striping between Dimond and 92nd, 92nd and O'Malley. Fig 3B-10 and See Minnesota Drive – Dimond to 100th Ave for consistency.	Will evaluate weaving striping further.	
19)	K 006	TS	If sign 37 visible to both ramp and mainline, sign 36 can be deleted.	Updated	
20)	K 007	TS	Recheck MUTCD examples– MUTCD may not require 4 signs in advance of exit (3/4, ½, ¼, and arrow). Use no more than 3 if possible. Recheck sign spreading examples in MUTCD. Is it preferable to locate the ½ mile sign away from the Dimond exit gore, further south? Are the slopes at the gore favorable to a 2 post sign? The ¾ sign is less desirable as it mixes with the Dimond Exit signing.	Updated	
21)	K 014	TS	Tyipcal uncurbed return. The intent was to have Regional Details which do not change for consistency around the Region. I do not recommend we redraft them with each project,	Updated	

PIH Review

PROJECT NAME: 92nd Ave Connector

PROJECT NUMBER: 59770 /

	DATE: 1/03/12 **REVIEWER: SET** **SECTION: TS** **PHONE: 269-0639**	**Confirmation of action taken on comment by:**

22)	Q 007	TS	Speed:1 tapers result in long detour shifts and temporary asphalt. The contractor can submit a reverse curve design that would work over a shorter distance.	Agree that contractor can submit a reverse curve design that would work over shorter distance.	
23)	Q 007	TS	Is the median barrier at Dimond Interchange impacted by detours? Will it be reconstructed when complete? Is it a permanent or temporary pay item to complete the median at Dimond Interchange?	No, it is not impacted by detours.	
24)	SP 140	TS	How are we coordinating signal startup, cabinet testing, inspections, timing with the Municipality during construction? There used to be pay item for MOA assistance.	DOT&PF will coordinate with MOA to get a signed utility agreement to cover start up	
25)	SP 150	TS	Inlaid MMA markings, 250 mil recommended on the Seward Hwy and gores.	Updated	
26)	DSR 01	TS	Intro. Also NHS Route 1 for the whole state, not just Anchorage Bowl.	Updated	
27)	DSR 09	TS	Access control needs to be addressed for nonmtorized traffic as well as motorized traffic. Existing illegal pedestrian crossing of the freeway at 92nd Avenue is well documented and a recurring M&O repair, signing, and enforcement issue. Existing fencing towards pedestrian control is beyond its design life. A capital improvement on both sides of the road needs to be considered.	Updated	
28)	DSR 09	TS	Fencing work to control nonmotorized use is a safety feature. It would address operational concerns.	Updated	
29)	DSR 10	TS	Existing illegal pedestrian use needs to be considered with this project.	Updated	
30)	DSR 10	TS	Pushbutton ped actuated warning are not commonly used. This device needs to be reconsidered against an established basis such as gaps, speeds, volumes, sight distance, and ped volumes, and connectivity to designated facilities.	Beacon Deleted.	
31)	DSR 11	TS	FYI - Offset luminaires will need to be on flatter 6:1 slopes, or designed to fit bumper height trajectories, and use breakaway bases if within the clear zone.	Poles placed at a 30ft setback or with breakaway bases.	

PIH Review

PROJECT NAME: 92nd Ave Connector

PROJECT NUMBER: 59770 /

	DATE: 1/03/12 REVIEWER: SET SECTION: TS PHONE: 269-0639	Confirmation of action taken on comment by:

32)	DTR 05	TS	Do the MOA Bike Plan and MOA Ped Plan also provide planning priorities for this project?	Yes, we are incorporating it.	
33)	DTR 21	TS	Prefer not to use HSIP screening criteria (Safety Index, CAR) in DSR's and reports. Instead, recommend limiting analysis to crash types, averages, trends, overrepresentation. SI and CAR are part of an annual review and is not recommended for computation outside of the HSIP screening process or HSIP program computations.	Ok	
34)	DTR 28	TS	In addition to safety demonstrated by crash history, there are documented safety concerns with pedestrians cutting through older and worn fencing to cross the freeway. This project does not address this demand and leaves this to M&O to provide continued repairs. Existing chain link fencing has outlived its design life and should be considered for replacement.	The fencing along the Northbound lanes is not within the project limits. This project is limited to the Southbound lanes. Fencing is designed along the controlled access limits to reduce pedestrians crossing the Seward highway and new on/off ramps.	
35)	K 003	TS	Thank you for parallel entrance ramp merges due to the higher modern volumes on this freeway.	Yes, we are incorporating	
36)					
37)					

PIH REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12-27-11 **REVIEWER: Vanderwood** **SECTION: M&O** **PHONE:** (907) 269-0756	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
In the Section column below please use your assigned Functional group identifier: Right-of-Way = RW; Traffic/Safety = TS; Highway Design = HD; Materials = M; Bridge Design = B; Survey = SC; Internal Review = QC; Construction = C; Utilities = U; Specifications = S; Review Engineer = RE; Maintenance = M&O.

Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	General	M&O	M&O requests that maintenance/operation/ownership responsibilities for 92nd Ave by the Muni be established in writing prior to advertising the project for construction.	ROW department tasked with MOA memorandum.	
2)	B1	M&O	General Notes: Add note that all pavement penetrations (manholes, valve boxes, monument cases, etc) shall be set to final elevation prior to top lift paving.	Will do.	
3)	B1	M&O	General Note 1: Clearing limits for work on the Seward Highway should extend to the right of way, regardless of where catch limits fall…	Will do. Clearing ROW to ROW due to moose mitigation concerns.	
4)	B1	M&O	Road Section A: Top lift pavement type should match pavement type for thru lanes. Is this the case?	Still coordinating with DOT&PH materials and M&O.	
5)	B6	M&O	It is unclear as to where these typical sections apply. Please clarify. For ditches on the Seward Highway, a minimum ditch depth of 3' is recommended.	Locations are shown on P&Ps by name and line type symbol. Ditches will be 3 feet.	
6)	C1	M&O	Item 607(3): I am unable to determine what the height of the new fence is to be. Please clarify.	Updated. 8-foot fence.	
7)	C2	M&O	Item 670(10)All pavement markings associated with the Seward Highway new lanes and ramps should be provided with "Inlaid" MMA Pavement Markings	Updated. Note on Sheet H1.	
8)	E5	M&O	Median Layout, bottom of page: Recommend tapering into/out of center median curb cut similar to curb cuts at top of page at side street. Abrupt curb cuts, as shown, damage equipment during snow removal.	Will evaluate. Removed curb cuts	

PIH REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12-27-11 **REVIEWER: Vanderwood** **SECTION: M&O** **PHONE:** (907) 269-0756	**Confirmation of action taken on comment by:**

9)	F17	M&O	Recommend relocating ped crossing 100'-200' to the east and have the crossing occur between the ramps. This eliminates the center raised median and allows for more direct access for continuation of bike traffic along the Seward Hwy. Alternately, relocate to cross street at sta 299+00.	Need to keep pedestrians off of ramps. Flashing beacon deleted from project. Relocated sidewalk crossing to 299+00.	
10)	F18	M&O	At a minimum, ensure that all new pavement joints are located on lane lines. It might be a good time to assess just paving the entire width of the Seward Hwy, curb to curb, rather than patch quilt the project.	Will consider if construction fund allows.	
11)	K3	M&O	"Exit Only Sign" sta "WL" 171+00: Seems odd that an "Exit Only" sign is positioned on the ramp, when traffic has not had opportunity to merge into thru lanes? Should be moved further south?	Similar configuration as northbound ramp at Raspberry and Minnesota Exit Only.	
12)	K4	M&O	"Wrong Way" signs: The direction of use for "Wrong Way" signs as an option in the MUTCD does not appear to present on this roadway. Please remove from project if this is correct.	Will remove.	
13)	K4	M&O	Signs 25 and 26: Should these signs be equipped with supplemental sign (ahead)?	Will add.	
14)	K2/K5	M&O	Sign 5 and 31: Please evaluate need of two "Buckle Up" signs less than ½ mile apart for traffic in the same direction.	Will reduce number of signs	
15)	K Sheets	M&O	For DOT owned/operated/maintained roadways, place flexible delineators at the ends of all center raised medians not equipped with proposed signs.	Will do.	
16)	P Sheets	M&O	Please ensure that lighting on 92nd Ave, Seward Hwy ramps, and Old Seward hwy are on separate load centers/meters for separate billings with the Muni.	MOA and DOT lighting has been separated.	
17)	P Sheets	M&O	Who will be responsible for owning/maintaining the new traffic signal at 92nd Ave?	Assuming MOA maintaining, DOT funding.	
18)	P Sheets	M&O	Are flashing beacons warranted on both the advance ped xing signs and at the crossing?	Beacon deleted.	

PIH REVIEW

PROJECT NAME: Seward Highway: 92nd Avenue Connector

PROJECT NUMBER: 59770

	DATE: 12-27-11 **REVIEWER: Vanderwood** **SECTION: M&O** **PHONE:** (907) 269-0756	**Confirmation of action taken on comment by:**

MUNICIPALITY OF ANCHORAGE
PUBLIC WORKS DEPARTMENT
4700 Elmore Road
Anchorage AK 99507

Project Review Form

Project Name:	**Seward Highway 92nd Ave Connector DSR & Plan Review**	Project No:	**59770**
Project Status:	☒ Design Study ☒ 35% ☐ 65% ☐ 95% ☐ Other		
Name/Title: Kris Woo (kw)			
Organization / Department: PW/Traffic/Signal Electronics			
Phone Number:343-8299		Date:12-28-11	

	Reviewer	Page/ Sheet No.	Comment	Response
1)	kw	K 8	Remove the drive way at near Sta 293+00. "The unobstructed minimum throat length shall be 250 feet, or 95% back of queue, or which ever is greater. No intersecting driveways will be allowed within this distance on the approach to the signal (DCM 6-4K Driveways)."	Will remove driveway
2)	kw	K 9	Adjust curb radii for northbound right and westbound right turning maneuvers. A WB50 could not make the northbound right turn and would require both lanes to complete the westbound right turn.	Will adjust curb radii.
3)	Kw	K 9	The current lane configuration would require an exclusive pedestrian phase. Please reevaluate other options such as putting a single right turn lane with an island and eliminating the south pedestrian crossing.	Still evaluating alternatives that do not involve an exclusive pedestrian phase.
4)	kw	P 24	Please identify the agency that will be responsible for maintaining the Pedestrian Beacon. The MOA does not have the budget for maintenance. Please reevaluate other options such as an underground crossing.	Beacon deleted

Project Name: **Seward Highway 92nd Ave Connector DSR & Plan In Hand Review** Project No: **59770**

	Reviewer	Page/ Sheet No.	Comment	Response
5)	kw	P 25	Change sign on section AA from "push button for pedestrian crossing" to "push button to activate" ("Push button for pedestrian crossing" should only be used at signal.)	Beacon Deleted.

PLANS-IN-HAND REVIEW

PROJECT NAME: Seward Hwy, 92nd Ave. Connector

PROJECT NUMBER: 59770

	DATE: 1-3-11 **REVIEWER: Mike Yerkes** **SECTION: Materials** **PHONE:** (907) 269-6200	**Confirmation of action taken on comment by:**

In Sheet No. column, use a 1 for General comments, X for estimate comments, Y - pg # for Specifications, and Z - pg # for DSR, and the alpha numeric pg # of Plan sheets (use an A if no Alpha is used on the plan sheets)
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Item No.	Sheet No. / Page No.	Section	Comment	Response	Meeting Note
1)	A 02	M	Sheet B6 missing from index.	Updated	
2)	A 03	M	Legend in survey section shows monuments "To be set this project". Recommend adding pay items as needed or revising column heading to "Proposed".	Will use latest A3 version 11 from DOT&PF ftp site.	
3)	B 01	M	Recommend adding sub-excavation detail per the preliminary Geotech recommendations from Sta. "WL" 173+50lt. to 179+50lt. to remove organic soils.	Will add digout location and detail	
4)	B 03	M	Both sections include "Road Section E", which includes a 30" select A layer at the bottom. 30" select A layer is only required between Sta. 294+12 to 295+12 to remove peat layer (See preliminary Geotech recommendations).	Will Verify with materials.	
5)	B 04	M	Old Seward – top typical: need to add ATB and CABC layers where new pavement is replacing existing medians. Ensure pavement joints are not designed to fall within the wheel path.	Updated	
6)	B 04	M	Road Section F: 3" ATB lift may be placed in one lift.	Updated	
7)	B 05	M	Typical raised median: recommend reducing D-1 layer to 2".	Updated	
8)	B 06	M	Ditch typicals: slopes are shown as 1:2. Recommend 2H:1V.	Updated	
9)	B 06	M	Mailbox turnout detail: recommend reducing D-1 layer to 4".	Updated	
10)	K 10 - 12	M	Specify post embedment type per Standard Drawing S-30.03 (note 2).	All PST posts shall be installed with concrete foundations.	
11)	P 12 & P 13	M	Borings advanced in some of the proposed signal pole locations indicate soil and groundwater parameters below the required minimums specified in Note 1.	Pile foundations now specified for signal poles.	