



AGENDA ITEM: 11

MEETING DATE: May 27, 2015
TO: Board of Directors
FROM: Kevin Smith, General Manager
SUBJECT: 2015 Summer Pavement Maintenance Work Program

OBJECTIVE: Review attached project descriptions and justification for *Proposed Airport Improvement Projects* to be completed summer of 2015. Review proposed modification of summer pavement schedule and list of approved projects.

Receive airport user public comment per *FAA Order 5100.38D Section 3-20-Consultation with Airport Users*.

DISCUSSION: District Staff would like to review with the Board, public, and airport users, the various pavement maintenance projects scheduled for the summer of 2015. The FAA has provided preliminary indications of FAA grant funding for the attached 5 projects. These projects are proposed to be funded at the 90% level from the FAA. For full descriptions of projects including location on the airport, please review the attached *Proposed Airport Improvement Projects – Descriptions and Justification* sheet as attached.

All projects proposed for 2015 are included in the Airport Capital Improvement Program for project years 2015 and 2016. To facilitate funding and to accommodate the FAA funding cycle, the FAA has asked to move the Taxiway A project from 2016 to 2015. Due to the fact that the Airport's new Airport Layout Plan has not received final approval from the FAA and ongoing discussions regarding Hangar 3, the Jet Ramp and Apron Widening Project are proposed for 2016. The FAA will provide design and engineering funds for the Jet Ramp project in 2015.

The projects as described are currently in the design and bidding phase. Staff anticipates beginning construction mid July 2015 assuming final approval of Grant Agreements. It should be noted that while funding is anticipated, the grant agreements have yet to be received. Staff is hopeful to receive final grant approval and signed Grant Agreements by mid-summer 2015.

Per FAA order 5100.38D Section 3-20-Consultation with Airport Users, the District is required to seek input from airport users regarding these projects. These projects along with their descriptions have been provided to the pilot community, the EAA chapter, civil air patrol, and included in an eblast to airport users. This is a relatively new requirement of the FAA and assures the airport user community is

aware of upcoming construction that may potentially disrupt operations. This Board meeting is an opportunity to receive input and comment from any interested parties.

FISCAL IMPACT:

2015 Summer Pavement Projects:

Project 1	Saw and Seal Supplemental Joints –Runway 2-20, Taxiway G	\$528,000
Project 2	Reclamite Seal – Runway 2-20, Taxiway G, Hangars L&M, Warehouse	\$255,000
Project 3	Reconstruct Hangar Taxi lane G and GH	\$1,030,000
Project 4	Reconstruct Taxiway A from F to J	\$2,376,000
Project 5	Jet Ramp Engineering and Design	\$75,000
	Total Project (FAA and District) Costs	\$4,264,000
	10% Required TTAD match	\$426,400

The State of California Division of Aeronautics will pay 5% of the District contribution or \$213,200. With full FAA funding and State matching grants, total District expenditures on these projects could be as low as \$213,400.

While funding is anticipated in FY2015, final Grant Agreements have not been received. Staff continues to work with the FAA Airport District Office in San Francisco on final funding commitments.

ATTACHMENTS:

- 5 Year Airport Capital Improvement Program
- Proposed Airport Improvement Projects – Project Descriptions and Justification
- 2015 Summer Pavement Work Program Map



MEETING DATE: May 27, 2015
TO: Board of Directors
FROM: Bill Quesnel PE, District Engineer
SUBJECT: Projects Update

RECOMMENDATION:

For information only, no Board action requested

DISCUSSION:

Replacement Plow Truck:

M-B Companies is on schedule to complete fabrication of the replacement plow truck by the end of this month with final delivery, setup and training prior to the contractual completion date of June 20th. Mike Ketron and Roger Pynappel will visit the factory during the first week of June to inspect the truck and receive initial operation and maintenance training.

Tahoe City Helipad:

My office has completed the preliminary drawings for submittal of the helipad project to the Tahoe Regional Planning Agency. Because of the complexity of the project; located on multiple parcels in multiple land capability districts and the need to mitigate the new coverage in a mapped Stream Environment Zone (SEZ) I have enlisted the assistance of a planning firm that specializes in TRPA permitting to help us get through the process. I have also been in contact with the Placer County Planning Department to determine that agency's project review process and timing (simultaneous or sequential to TRPA); needless to say a helipad is not a common project and some upfront effort to determine the path of least resistance, now that we have all the background information, is time well spent.

Obstruction Clearance:

You will recall the FAA currently prohibits the instrument approach circle-to-land options for Runways 02 and 29 due to minor obstacle (tree) penetrations into the 20:1 clear zones. The FAA provided GPS coordinates of the "offending" trees (one in the Lahontan subdivision and one in Waddle Ranch) along with the amount (height) of the encroachment. The "Waddle Ranch" tree was cut-down and the "Lahontan" tree (located on a residential parcel) was topped by 10-feet, thanks to cooperation of the home owner, more than enough to satisfy the 1.79-foot encroachment identified by the FAA. Documentation, including the residual height of the Lahontan tree as measured by a licensed land surveyor, was forwarded to the FAA to show the Airport's actions with regard to the encroachment. The FAA has now determined the Lahontan tree is only three-inches below the floor of the penetration zone, which "rounds" to zero meaning the instrument approach to Runway 02 is still not authorized; on a

more positive note, the circle-to-land option for Runway 29 will be available beginning in late June or early July. Separately, Caltrans has completed a 5010 study of the protected zone and has identified a number of trees that encroach and must be removed, even though the District removed 256 “encroaching” trees in 2012. Staff is quite frustrated by the process and is considering conducting its own obstruction study rather than relying on the FAA and Caltrans.

Americans with Disabilities Act Compliance:

Three buildings are slated for ADA renovation; Hangar 1, Hangar 2 and the Warehouse. My office prepared plans and bids are due on May 22 from three local contractors. The proposed improvements to each facility are:

- Hangar 1:
 - Exterior and interior access route modifications including parking and the exterior door
 - Remodel of men’s restroom to a compliant unisex restroom
- Hangar 2:
 - Exterior access route modifications including parking and exterior doors
 - Demolition of two restrooms and remodel of the third to a compliant unisex restroom
 - Installation of new heating unit to serve lower and upper levels of building
- Warehouse:
 - Exterior and interior access route modifications including parking
 - Remodel of existing unisex restroom to compliant unisex restroom
 - A local structural engineer has completed the design of free-standing entrance structures that can be placed in front of the warehouse doors to protect users during the winter.
 - Exiting requirements are being verified, it is likely that one or more of the units will require the installation of a second exterior door.

Staff will do periodic inspections with a final walkthrough by the ADA consultant if deemed necessary. Construction should start about first week of June; Hangar 2 will be first to allow relocation of Hertz before the start of high season and demolition of their existing building planned for August. Work on Hangar 1 is the next priority followed by the warehouse with a targeted completion date of early September.

Facilities Master Plan Upgrades

Painting

Maintenance Staff solicited proposals from four area companies to paint:

- North side of Hangar 1 (after the siding is repaired)
- Hangar Row “A”
- Hangar Row “K”
- Hangar Row “F”
- Garage adjacent to Careflight
- Warehouse

The low bidder was Easterbrook painting of Truckee with a total bid of \$54,524 (bids ranged from \$54,524 to \$69,700). As in previous years the District will purchase the paint directly (cost \$32,800). Weather permitting the work will start the second week of June and should be complete in three weeks.

Hangar Roof Repairs

M-Row: Last fall, a contract (\$65,000) was signed for M-row repair per Varco-Pruden (the manufacturer of the M-Row Steel Structure) standards with Cranston Steel of Woodland, California. Last week,

Cranston notified staff that temperatures have come up enough to start on the repairs, however the chance of thunderstorms remains a concern. There is the possibility that repair work will start in May if weather/moisture conditions permit. A Varco-Pruden representative has been contacted and will inspect the work (\leq \$3,000) at least one time, either during, or at the completion of the job. Regardless whether the work starts in late spring or not, the contract states the project must be complete by the end of September.

D-Row: A contract with Alpine Roofing of Sparks (\$58,992) has been executed. As with the M-Row work, Alpine Roofing is waiting for acceptable weather conditions to start work. The acrylic coating material is on airport property in a heated space. Prosser Building and Development will provide on-site building inspection services (\leq \$2,000). The contract requires completion by the end of September.

B-Row: Two job walks have been given. Seven Contractors were invited to bid, four have declined. Staff expects to receive bids at the end of the month. Two types of material have been specified based on expected durability and price: CPR Rubber (10 year life) and Urethane (15 year life). Should the bids come in within budget, the material shall be specified and the contract signed. Inspection and warranty services will be provided by Garland Industries, the material manufacturer. Bidders have been informed that the project should be completed by the end of September. The budget for the project is \$79,500.

2015 Pavement Project:

The General Manager will provide an update on the 2015 pavement maintenance project.

FISCAL IMPACT:

The 2015 Budget includes the \$429,492 cost of the plow truck.

The 2015 Budget includes \$300,000 for the helipad project.

Slightly less than \$100,000 is included in the 2015 Budget for ADA improvements.

The 2015 Budget includes \$90,900 for the painting work (includes carryover from 2014).

The 2015 Budget includes \$317,631 for the roofing work (includes carryover from 2014).

NOTICE TO AIRPORT USERS
PROPOSED AIRPORT IMPROVEMENT PROJECTS
Truckee Tahoe Airport
Posted May 6, 2015

Project Description and Justification

As per Order 5100.38D Section 3-20 Consultation with Airport Users. Truckee Tahoe Airport proposes to request Airport Improvement Program Grant funds for the following Projects. While this notification does not require users to provide input or agree with the proposed projects, the airport is providing a reasonable opportunity for users to provide input to the proposals listed below.

Project 1: Saw and Seal Supplemental Joints – Runway 2-20 and Taxiway G (61,500 In. ft.) –With airports in the higher altitudes of the Sierra Nevada Mountain Range, large temperature changes occur between night and day in both summer and winter. These large temperature changes cause thermal stresses to build up in the asphalt pavement section, which generally results in cracking of the pavements, both longitudinal and transverse. To minimize this thermal cracking, a joint pattern was sawed and sealed in the pavements on Runway 2-20 and Taxiway G with 25-foot transverse and longitudinal joint spacing. Studies have shown that with 25-foot joint spacing intermediate cracks will develop between the joints and the existing joints will widen beyond tolerable limits. To prevent this intermediate cracking it is proposed in this project to saw and seal additional joints to create a joint pattern with 12 to 15 foot longitudinal and transverse joint spacing.

Project Date: Construction is scheduled to occur in the summer of 2015.

Impacts: Construction is scheduled to last 25 working days. Runway 2-20 and Taxiway G will be closed to aircraft traffic during this period. There will be no other restrictions at the airport and it will remain open during construction.

Total Project Cost: \$528,000 with 90% funding through FAA Airport Improvement Grant.

Project 2 – Reclamite Seal – Runway 2-20 and Taxiway G, Hangars L and M, and Warehouse Area Taxilane (108,000 sq. yd.) - The surface of these pavements is beginning to show moderate to severe weathering and raveling. It is proposed to place an asphalt-rejuvenating agent on the paved surfaces to help protect these surfaces from weathering

Project Date: Construction is scheduled to occur in the summer of 2015.

Impacts: Construction is scheduled to last 10 working days. Runway 2-20 and Taxiway G will be closed to aircraft traffic during this period. Aircraft movement from Hangars L and M and the Warehouse Area Taxilane to the runway will have some restrictions. There will be no other restrictions at the airport and it will remain open during construction.

Total Project Cost: \$255,000 with 90% funding through FAA Airport Improvement Grants.

Project 3 – Reconstruct Hangar Taxilanes West G and GH (111,720 sq. ft.) –The PMMP has indicated that under forecast loadings the pavement section on Hangar Taxilanes West G and GH is adequate to support the forecast aircraft without causing deep-seated failure within 20+ years. The surface bituminous surface course pavement has shown serious block cracking and cracking at the paving joints caused mainly by large changes in temperature that occur between day and night and summer and winter. These large temperature changes cause thermal stresses to build up in the asphalt pavement section, which results in formation of the cracks. It is proposed in this project to reconstruct the section by pulverizing, excavating, and stockpiling the existing asphalt and aggregate base. The subgrade will then be excavated to new subgrade level and scarified and recompacted to a depth of 6 inches. The stockpiled pulverized AC and AB will then be placed as aggregate subbase course and then 6 inches of aggregate base course and 3 inches of bituminous surface course will be placed. New airfield markings will be installed. The existing slot drain has been damaged and has deteriorated to a point where it is a hazard to aircraft tires. This drain will be removed and replaced with a concrete surface around the inlet of the slot drain to protect it from damage caused by snowplow operations.

Project Date: Construction is scheduled to occur in the summer of 2015.

Impacts: Construction is scheduled to last 40 working days. Aircraft movement from Taxilanes West G and GH to the runway will have some restrictions. There will be no other restrictions at the airport and it will remain open during construction.

Total Project Cost: \$1,030,000 with 90% funding through FAA Airport Improvement Grants.

Project 4 – Reconstruct Taxiways A (Sta. 28+00 to 72+00), F, H, U, and J (360,460 sq. ft.) – The Pavement Maintenance Management Plan (PMMP) prepared for Truckee Tahoe Airport shows that the pavement on Taxiways A (Sta. 28+00 to 72+00), F, H, U & J will fail from deep-seated distress by 2020 if forecast traffic is realized. In order to avoid complete subgrade failure, it is recommended to reconstruct or strengthen a pavement 1 to 3 years before deep-seated failure. As a result, by 2015 the pavement on Taxiways A (Sta. 28+00 to 72+00), F, H, U & J will need to be reconstructed. This reconstruction will include pulverizing and recompacting the existing asphalt and aggregate base course and placing 4 inches of new crushed aggregate base course and 3 inches of new bituminous surface course. This will result in raising the taxiway grade 7 inches, which will require the adjacent lights and signs to be raised to new grade. In addition, new airfield markings will be installed. Shoulder grading will also be required to accommodate the raised grade of the section.

Project Date: Construction is scheduled to occur in the summer of 2015.

Impacts: Construction is scheduled to last 60 working days. Taxiway A from Station 28+00 to Station 72+00 and Taxiways F, H, U, and J will be closed during the construction of this project. There will be no other restrictions at the airport and it will remain open during construction.

Total Project Cost: \$2,376,000 with 90% funding through FAA Airport Improvement Grants.

Project 5: Engineering for the Reconstruction of the South Jet Apron (113,500 sq. ft.) – The Pavement Maintenance Management Plan (PMMP) prepared for Truckee Tahoe Airport shows that the pavement on the South Jet Apron will fail under forecast traffic from deep-seated distress by 2018. In order to avoid complete subgrade failure, it is recommended to reconstruct or strengthen a pavement 1 to 3

years before deep-seated failure. As a result, by 2016 the pavement on the South Jet Apron will need to be reconstructed. The reconstruction will include pulverizing, excavating, and stockpiling the existing asphalt and aggregate base. The subgrade will then be excavated to new subgrade level and scarified and recompact to a depth of 6 inches. The stockpiled pulverized AC and AB will then be placed as aggregate subbase course and then 6 inches of aggregate base course and 3 inches of bituminous surface course will be placed. New airfield markings will be installed.

Project Date: Engineering for the project is expected to be completed by the Spring of 2016.

Impacts: There will be no impacts to airport operations due to this project.

Total Project Cost: \$75,000 with 90% funding through FAA Airport Improvement Grants.

Comments or Questions:

Comments or questions must be received by June 3, 2015. Comments or questions on this notice should be directed to:

Mr. Kevin Smith, General Manager
Truckee-Tahoe Airport
10356 Truckee Airport Road
Truckee, California 96161
(530) 587-4119, Extension 105
Via e-mail at: kevin.smith@truckeetahoeairport.com

TABLE NO. 39

TRUCKEE TAHOE AIRPORT
TRUCKEE TAHOE AIRPORT DISTRICT, TRUCKEE, CALIFORNIA

AIRPORT CAPITAL IMPROVEMENT PROGRAM - 2015-2025

SUMMARY OF PROJECT COSTS
(Based on 2015 Unit Prices)

Project/ Priority No.	Shown on ALP	Project Type	Construction Year	Environmental Status	Description	Construction Cost	Engineering & Administration	Total Project Cost	F.A.A. Participation	Sponsor Participation
1	Yes	D	2015		Engineering Design - Projects No. 2, 3, 4, 5 and 6 - Reimbursement	\$ -	\$ 244,000	\$ 244,000	\$ 219,600	\$ 24,400
2	Yes	D	2015	2014	Runway 2-20 & Taxiway G - Saw & Seal Supplemental Joints (61,500 ln. ft.) & Reclamite Seal (87,000 sq. yd.)	512,000	95,000	607,000	546,300	60,700
3	Yes	D	2015	2/26/14	South Jet Apron - 113,500 Sq. Ft. - Reconstruct	845,000	160,000	1,005,000	904,500	100,500
4	Yes	D	2015	2014	Hangar Taxilanes West G and GH - 111,720 Sq. Ft. - Reconstruct	867,000	165,000	1,032,000	928,800	103,200
5	Yes	D	2015	2014	Hangars L & M & Warehouse Area Taxilane - 21,000 Sq. Yd. - Reclamite Seal	48,000	9,000	57,000	51,300	5,700
6	No*	D	2015	2014	Remove Taxiway E (19,000 Sq. Ft.) and Widen Apron A1 and A2 (20' x 415') - New Construction	217,000	41,000	258,000	232,200	25,800
7	Yes	D	2015	N/A	Purchase Snow Removal Equipment - Loader	460,000	10,000	470,000	423,000	47,000
8	Yes	D	2015	2014	Engineering Design - Project No. 9	-	220,000	220,000	198,000	22,000
TOTAL FOR 2015						\$ 2,949,000	\$ 944,000	\$ 3,893,000	\$ 3,503,700	\$ 389,300
9	Yes	D	2016	2014	Taxiways A (Sta. 28+00 to 72+00), F, H, U, & J - 360,460 Sq. Ft. - Reconstruct	\$ 2,000,000	\$ 381,000	\$ 2,381,000	\$ 2,142,900	\$ 238,100
10	Yes	P	2016	N/A	Airport Land Use Compatibility Plan			State Funded		
11	Yes	D	2016	2015	Engineering Design - Projects No. 13, 14, and 15	-	85,000	85,000	76,500	8,500
12	No*	D	2016	--	Environmental Assessment (EA) - Project 27	-	175,000	175,000	157,500	17,500
TOTAL FOR 2016						\$ 2,000,000	\$ 641,000	\$ 2,641,000	\$ 2,376,900	\$ 264,100
13	Yes	D	2017	2015	Runway 11-29 (East) - Saw & Seal Supplemental Joints - 19,000 Ln. Ft.	\$ 155,000	\$ 30,000	\$ 185,000	\$ 166,500	\$ 18,500
14	Yes	D	2017	2015	Hangar Taxilanes CD and DE (East) - 72,000 Sq. Ft. - Reconstruct	431,000	82,000	513,000	461,700	51,300
15	Yes	D	2017	2015	Replacement of Alder Hill Beacon Tower	100,000	15,000	115,000	103,500	11,500
16	Yes	D	2017	N/A	Purchase Snow Removal Equipment - Oshkosh Blower	500,000	10,000	510,000	459,000	51,000
17	Yes	D	2017	2016	Engineering Design - Projects No. 18, 19, 20, and 21	-	60,000	60,000	54,000	6,000
TOTAL FOR 2017						\$ 1,186,000	\$ 197,000	\$ 1,383,000	\$ 1,244,700	\$ 138,300
18	Yes	D	2018	2016	Hangars L & M & Warehouse Area Taxilane - Crack Repair, Seal Cracks - 33,500 Ln. Ft.	\$ 95,000	\$ 20,000	\$ 115,000	\$ 103,500	\$ 11,500
19	Yes	D	2018	2016	Runway 2-20 Blast Pads - 30,300 Sq. Ft. - Reconstruct	154,000	29,000	183,000	164,700	18,300
20	Yes	D	2018	2016	Runway 11-29 East Blast Pad - 27,500 Sq. Ft. - Reconstruct	88,000	17,000	105,000	94,500	10,500
21	Yes	D	2018	2016	Taxilanes - Hangars A through C - Joint and Crack Repair - 26,700 Ln. Ft.	76,000	14,000	90,000	81,000	9,000
22	Yes	D	2018	2017	Engineering Design - Projects No. 25, 26, and 27	-	540,000	540,000	486,000	54,000
TOTAL FOR 2018						\$ 413,000	\$ 620,000	\$ 1,033,000	\$ 929,700	\$ 103,300
23	Yes	D	2019	N/A	Update Pavement Maintenance/Management Program	\$ -	\$ 85,000	\$ 85,000	\$ 76,500	\$ 8,500
24	Yes	D	2019	N/A	Airport Layout Plan Narrative including Updated ALP Drawings	-	145,000	145,000	130,500	14,500
25	Yes	D	2019	2017	Taxilane R - 128,240 Sq. Ft. - Reconstruct	760,000	145,000	905,000	814,500	90,500
26	Yes	D	2019	2017	Taxiways A, B, C, & D - Crack Repair, Seal Cracks (1,500 Ln. Ft.)	48,000	9,000	57,000	51,300	5,700
27	No*	D	2019	EA	Widen and Extend Runway 2-20 - Widen from 75' to 100'; Extend 100' x 555' (including blast pad)	4,990,000	948,000	5,938,000	5,344,200	593,800
28	Yes	D	2019	2018	Engineering Design - Project No. 29	-	24,000	24,000	21,600	2,400
TOTAL FOR 2019						\$ 5,798,000	\$ 1,356,000	\$ 7,154,000	\$ 6,438,600	\$ 715,400
29	Yes	D	2020	2018	Hangar Taxilanes J & K - Saw & Seal New Joints (14,000 Ln. Ft.)	\$ 60,000	\$ 11,000	\$ 71,000	\$ 63,900	\$ 7,100
30	Yes	D	2020	2019	Engineering Design - Project No. 31	-	178,000	178,000	160,200	17,800
TOTAL FOR 2020						\$ 60,000	\$ 189,000	\$ 249,000	\$ 224,100	\$ 24,900
31	Yes	D	2021	2019	Apron A3 - 200,000 Sq. Ft. - Reconstruct	\$ 1,207,000	\$ 230,000	\$ 1,437,000	\$ 1,293,300	\$ 143,700
32	Yes	D	2021	2020	Engineering Design - Project No. 33	-	370,000	370,000	333,000	37,000
33	Yes	D	2022	2020	Runway 2-20 and Taxiway G - 777,400 Sq. Ft. - Reconstruct	3,300,000	627,000	3,927,000	3,534,300	392,700
34	Yes	D	2022	2021	Engineering Design - Projects No. 35, 36, 37, and 38	-	450,000	450,000	405,000	45,000
35	Yes	D	2022	2021	Runway 11-29 (East) - Crack Repair (3,500 Ln. Ft.), Reseal Existing Joints (35,000 Ln. Ft.)	157,000	30,000	187,000	168,300	18,700
36	Yes	D	2023	2021	Apron A1 - 270,000 Sq. Ft. - Reconstruct	1,590,000	302,000	1,892,000	1,702,800	189,200
37	Yes	D	2024	2021	Taxiways A (Sta. 0+00 to 28+00), B, C, & D - 251,100 Sq. Ft. - Reconstruct	1,275,000	242,000	1,517,000	1,365,300	151,700
38	Yes	D	2025	2021	Apron A2 - 253,000 Sq. Ft. - Reconstruct	1,465,000	280,000	1,745,000	1,570,500	174,500
TOTAL FOR 2021 thru 2025						\$ 8,994,000	\$ 2,531,000	\$ 11,525,000	\$ 10,372,500	\$ 1,152,500
TOTAL						\$ 21,400,000	\$ 6,478,000	\$ 27,878,000	\$ 25,090,200	\$ 2,787,800

* - Project is shown on the revised ALP that has been submitted for review.