



MEETING DATE: February 25, 2015
TO: Board of Directors
FROM: Bill Quesnel PE, District Engineer & Kevin Smith, General Manager
SUBJECT: Truckee Donner Recreation and Park District Aquatics Building Comprehensive Land Use Plan Upgrades and Funding Request

RECOMMENDATION:

Accept the District Engineer's estimate of the additional construction costs associated with the Truckee Donner Recreation and Parks District Aquatics Building's conformance with Truckee Tahoe Airport Land Use Compatibility Plan Policy 3.4.2.

DISCUSSION:

The Truckee Tahoe Airport Land Use Commission (Commission or TTALUC) is a completely separate entity from the Truckee Tahoe Airport District (District or TTAD) and is staffed by the Nevada County Transportation Commission. The Commission is regulated by the State of California and follows guidelines outlined in the State Aeronautics Acts. This being the case, the District was not involved in developing or enforcing building safety requirements and/or and land use limitations contained within the 2004/2010 *Truckee Tahoe Airport Land Use Compatibility Plan (Plan or TTALUCP or CLUP)* enacted by the Commission, nor does it influence its decisions.

Notwithstanding the fact the Commission and District are two separate agencies, Staff feels it is appropriate for the Board to review and consider a funding request by the Truckee Donner Recreation and Park District (Rec/Park or TDRPD) for assistance in meeting the Commission's building requirements. Consistent with Policy Instruction 312, it is Staff's opinion that in certain instances, i.e. construction of a public building paid for by tax payers and constituents common to both Districts, it may be appropriate for the Airport District to consider contributing to the cost of the safety upgrades when funding is available.

In addition to consideration of funding for the mandated building upgrades, the District also has the option of providing additional funding for facility upgrades and enhancements that provide education and awareness of the Airport's Mission and Core Values. The enhancements could be in the form of aviation themed water features, educational exhibits, naming rights, etc., all of which would inform the public about the District as well as provide benefit and value to District constituents.

TDRPD REQUEST AND PROPOSAL:

The Truckee Donner Recreation and Park District proposes to construct an Aquatics Center adjacent to the Recreation Center located on Donner Pass Road near the intersection with Pioneer Trail and Highway 89 North. The property is located in Zone “D” (Primary Traffic Patterns) and the *Plan* generally limits the density/intensity of uses in Zone D to 100 persons/use and 300 persons/acre. Policy 3.4.2 of the *Plan* contains the following language for this specific site:

- (a) Intensity limits for non-residential development in this area shall be as follows:
 - (1) 300 people per acre on average for the entire area; and
 - (2) 1,000 people per any single one-acre portion of the area
- (b) Any new structures shall be limited to no more than three aboveground habitable floors and, to the extent feasible, should incorporate other design features that would help protect the building occupants in the event of a small-aircraft crash. Examples of such features include:
 - Using concrete construction;
 - Limiting the number and size of windows;
 - Upgrading the strength of the building roof;
 - Avoiding skylights
 - Enhancing the fire sprinkler system; and
 - Increasing the number of emergency exits

In 2006, the Recreation Center Architect provided the Town of Truckee with a list of specific measures to be incorporated in the “Master Plan Buildout” of the site including:

- Structural steel frame
- Structural steel primary roof framing with metal pan deck
- South and South-Eastern facing natatorium façade will be constructed with steel reinforced concrete columns. Infill glazing will be tempered safety glazing
- Exterior aquatics patio area will be surrounded by a steel reinforced concrete wall to a minimum height of 6-feet
- Structural loads increased to special occupancy standards over and above that required by code. Structural loads will be calculated to support snow loading 15% in excess of code requirements and lateral loading 25% in excess of code requirements
- Emergency exiting will be provided in excess of code requirements
- Fire sprinkler system design will be upgraded above code requirements from 0.10 gallons/minute/squarefoot to 0.20 gallons/minute/squarefoot.

The 2013 California Building Code (Table 1604.5) assigns Risk Categories (I to IV) to buildings based on the “nature of the occupancy”. The higher the category, the greater the design requirements for vertical and lateral structural loads associated with snow and earthquakes expressed in terms of Importance Factors. The Importance Factors for Category II buildings are 1.0 and 1.0 with 10% increases in the snow load and 25% increases in the lateral load for each increase in risk. For example a Risk Category III building’s factors are 1.10 and 1.25 while a Risk Category IV building’s factors are 1.20 and 1.50. Before considering the additional occupant protection requirements of Policy 3.4.2 of the *TALUCP*, the Aquatics Building is considered a Risk Category III building because of a *substantial hazard to human life in the event of failure* and the fact the building *contains day care facilities with an occupant load of greater than 250* (the building occupancy is limited to 300 persons by the Plan).

The facility's original 2012/2013 design assumed the use of a prefabricated metal building shell with Risk Category III loading; the Architect provided a list of proposed occupant protection features:

- Steel frame with steel roof deck
- Mechanical systems installed under the roof; no penetrations and equipment located away from public spaces
- Concrete interior partition and support walls
- Lateral design that meets or exceeds seismic code requirements.
- Automatic fire protection system designed in accordance with code requirements
- Number and width of emergency exits increased beyond code requirements
- Reliance on the site's relatively dense stand of trees for aircraft impact protection

As part of the land use permitting process, the Town of Truckee required confirmation from the Airport District that the building, as designed, was in conformance with the Policy 3.4.2. Beginning in October 2013, Airport Staff reviewed various iterations of the plans and suggested the building design could reasonably incorporate four additional occupant protection systems:

- Increase of the structural design beyond the minimum code requirement, i.e. to Risk Category IV.
- The use of closely spaced concrete filled columns and/or Concrete Masonry Unit (CMU) walls along the south building line and between the widely spaced structural steel frames on the east and west walls. Without these features, the only protection to facility users were insulated panels provided by the metal building supplier.
- The installation of a concrete wall along the exterior of the outside patio area; no wall was proposed
- Design of the fire sprinkler system beyond the minimum code requirement, i.e. to be consistent with the Recreation Center system.

The plans were revised and in November 2013, the Airport District notified the Town Planner that the Building's occupant protection features met the intent of Policy 3.4.2. The Recreation and Park District solicited bids with the result being the project was significantly over budget; in June 2014, the TDRPD Board directed staff to remove some of the interior features from the base bid and look at other ways to reduce construction costs.

The redesign effort included the hiring of a structural engineer, up to that time the Architect had assumed the metal building supplier would provide the design calculations that incorporated CMU occupant protection walls into the overall structural system. After further investigation by the Engineer, Architect and Construction Manager, it was determined the low-bid metal building supplier could not meet the structural design requirements with the inclusion of the occupant protection walls due to their height/weight and the need for lateral support from the steel superstructure. A second metal building supplier was contacted and while that company indicated they could satisfy the structural design requirements, the cost of doing so was significantly greater than the first company. At that point, the TDRPD Design Team determined that it would be more cost effective to build the structure with CMU block (all walls) and a steel truss roof supported by steel columns. At the same time, the Recreation and Park District met with Airport Staff to discuss the feasibility of a "hybrid" lateral design wherein only the

south and east walls were designed to Risk Category IV loading due to their relationship to the alignment of Runway 11-29 and because they're not shaded/protected by the Recreation Center structure which is built of concrete and designed entirely to Risk Category IV. This approach was approved with the proviso the Structural Engineer provide the District with information on how the building would react in the event of being struck by an aircraft, specifically addressing the connections and load transfer between the roof and walls as they were built to different standards. The Engineer provided that information and his professional opinion is that "the structure as currently designed will adequately resist the damage from a small aircraft without global collapse".

The Aquatics Building as currently designed includes the following occupant protection features:

- All interior and exterior walls are CMU with the south and east walls designed to greater than Risk Category III standards
- The roof is protected by a steel deck on top of the trusses and there are no penetrations (mechanical equipment or skylights)
- A six-foot high combination wrought iron and concrete wall protects occupants of the patio area located on the south east side of the building
- The number of emergency exits is 50% greater than required by code and the total width of the exits is four times the required amount
- The fire sprinkler system coverage/flow is double code requirements

Bids for the re-designed project were opened in January; the lowest proposal being approximately \$900,000 more than the budgeted by T DPRD.

FISCAL IMPACT:

Providing the occupant protection features described in Policy 3.4.2 of the *TTALUCP* increased the cost of the building's shell as compared to a structure designed to Risk Category III requirements in accordance with the 2013 California Building Code; the question is how much.

As described previously, the need to structurally integrate the CMU occupant protection walls with the steel structure precluded the use of a prefabricated building. The attached spreadsheet quantifies the difference in cost between a prefabricated metal shell and that of the proposed combined CMU/Truss building shell. In addition to the building cost comparison, the spreadsheet also provides cost information for the features that were common to both buildings; extra doors, fire sprinklers and the patio enclosure. The net result is an increased project cost of \$405,045.70 to meet the requirements of the *Truckee Tahoe Airport Land Use Compatibility Plan*.

If the Board determines that a contribution is appropriate, Staff proposes to fund the request from the District's Unrestricted Net Asset Fund; 50% (\$202,522.85) from Community Outreach and 50% from Operations. Each designation currently holds \$1,000,000.

Any additional funds the Board might choose to allocate to the Aquatics Center toward Education and Awareness of the District's Mission and Core Values could be funded through the Unrestricted Net Asset Fund's Community Outreach designation.

PUBLIC COMMUNICATIONS:

The Policy Instruction, and specifically the Aquatics Center project, have been reviewed at prior Board Meetings. Overall, Staff believes a contribution at some level would be well received by the community. Staff would not recommend instituting the Policy, or a making a contribution, if the result would be an impact on the Airport's ability to fund direct aviation related functions, projects, or capital facility needs. It is Staff's assessment that the District has sufficient funding now, and for the foreseeable future, to meet all anticipated aviation related expenses along with providing funding for the Aquatics Center as suggested.

ATTACHMENTS:

TDRPD Aquatics Center Cost Comparison Spreadsheet

Letter from TDRPD

PI 312 – Funding Assistance – CLUP

Applicable Parcels Map

TDRPD Aquatics Building Shell Cost Comparison

Pre-Fabricated Steel Building Shell Risk Category III

Metal Building Material Cost (2013 Bid Price)	\$ 476,742.00
Material Cost Escalation @ 5% (2013 to 2015)	\$ 23,837.10
Metal Building Material Cost (2015)	\$ 500,579.10
Sales Tax @ 8.375%	\$ 41,923.50
Freight	\$ 16,000.00
Total Building Material Cost	\$ 558,502.60
Building Erection (10% increase from 2013 bid)	\$ 540,916.20
Total Pre-Fab Metal Building Shell Cost	\$ 1,099,418.80

Stick Framed Masonry Building Risk Category III & IV

Structural Steel (Columns, Purlins, Girders, Trusses)	\$ 720,000.00
Steel Roof Deck	\$ 87,000.00
Roofing	\$ 106,770.00
Miscellaneous Steel (parapet walls, etc.)	\$ 20,000.00
Exterior Masonry Walls	\$ 400,000.00
Concrete Foundation for Exterior Masonry Walls	\$ 75,360.00
Rebar for Concrete Foundation for Exterior Masonry	\$ 35,000.00
Structural Engineering	\$ 21,000.00
Total Steel/CMU/Truss Building Shell Cost	\$ 1,465,130.00

Building Shell TTALUC Related Costs \$ 365,711.20

Note:

All construction costs provided by TDRPD Construction Manager and are based on bid prices and/or estimates from contractors

Exterior Patio Deck Enclosure

Concrete Wall 75lf of 6' wall, 450sf @ \$40/sf	\$ 18,000.00
Concrete Foundation 111' @ \$70/lf	\$ 7,770.00
Wrought Iron Fencing 36lf @ \$75/lf	\$ 2,700.00
Double Doors w/alarm and exit sign 1ea	\$ 2,500.00
Painting 1243 sf @ \$1.5/sf	\$ 1,864.50
Total Enclosure	\$ 32,834.50

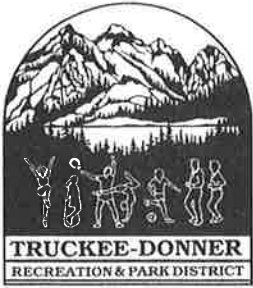
Additional Double Door Exits with Alarms and Signage

Two @ \$2,500 each	Total Added Doors \$ 5,000.00
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Additional Fire Sprinkler Upgrade

additional heads	Sprinkler System \$ 1,500.00
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Total TTALUC Added Costs	\$ 405,045.70
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Truckee Donner

Recreation and Park District

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PHONE: (530) 582-7720 • FAX (530) 582-7724

General Manager

Steve Randall

February 6, 2015

Kevin Smith, General Manager
Members of the Board of Directors
Truckee Tahoe Airport District

Re: Request for funding for the Truckee Aquatic Center

The Truckee Donner Recreation & Park District requests to be on the Wednesday, February 25, 2015 Truckee Tahoe Airport District board agenda to discuss potential funding for the Aquatic Center. This process started in January, 2014 when we approached your board about potential funding for our aquatic center. The request was based on the zoning and construction requirements which were beyond normal construction costs, as determined by the Airport Land Use Commission. The construction conditions referenced have caused the cost of the building construction to increase. We understand that these requirements were put on the project from the Airport Land Use Commission and not the Truckee Tahoe Airport District, which are two separate and independent entities.

The District put the project out to re-bid in December, 2014 and the bid opening was held on January 21, 2015. The District had \$5.7 million for the construction of the Aquatic Center project. The low bid on the project was disappointingly high at \$6,694,000 leaving us a shortfall of approximately \$1 million. This is the second time this project has been bid. The first bid effort in 2013 resulted in figures substantially in excess of available District funds, and the result was a one year effort to value engineer the project to drive to a lower overall cost. We determined we would keep the building footprint, eliminate the entire warm water element, and then move towards a phased warm water additive approach for the future full facility completion. The building is designed to allow for the addition of the second body of water at a later date. It is the District's belief that if we do not start the project at this time, we will not be able to do so in the future with the rising costs of construction, need to re-permit the project, and subsequent redesign expenses.

Your potential contribution to the project based on the numbers developed by your engineer from the increased costs imposed by ALUC will bridge the gap to green-light the project. The District is finalizing a written commitment from a non-profit for funding, has maximized contribution funds from our reserves, and on February 24, 2014, will be considered by the Town of Truckee for a substantial economic development grant. All of these

funds combined will give us the necessary funds to proceed and subsequently award a construction contract to the lowest bidder at the District Board Meeting February 26, 2015.

This project is a true collaboration to construct an important community facility. Our past collaboration on the Ponderosa Golf Course has resulted in a wonderful partnership and a fantastic asset to our community. The positive feedback from citizens and tourists alike is substantial, and this partnership between TDRPD and TTAD will once again change lives and increase safety for all. If funding is received from TTAD for this project, we will work with your general manager to make sure that proper recognition is received for the Airport District. I would personally like to thank your general manager, Kevin Smith, your engineer, Bill Quisnel and your Board Members for all their hard work on helping us develop a potential funding level for the Aquatics project.



Steve Randall
General Manager

TRUCKEE TAHOE AIRPORT DISTRICT POLICY INSTRUCTION

PI NUMBER 312

Effective: Dec. 3, 2014

SUBJECT: FUNDING ASSISTANCE – COMPREHENSIVE AIRPORT LAND USE PLAN

PURPOSE: To establish District policy regarding the consideration of funding to meet Truckee Tahoe Airport Land Use Commission requirements for new public buildings proposed in Compatible Land Use Plan (CLUP) Zones B1, C, and specified special use areas in the D, contingent on available funding.

POLICY:

The Truckee Tahoe Airport Land Use Commission (TTALUC) is a separate and distinct entity from the Truckee Tahoe Airport District (TTAD). TTALUC's primary role is to protect public health, safety and welfare, promote orderly airport development, minimize airport land use compatibility conflicts, adopt an Airport Land Use Compatibility Plan, and review local agency actions and review land use proposals within the airport influence area. TTALUC is staffed by the Nevada County Transportation Commission. TTALUC is regulated by the State of California and follows State statutes. As such TTAD is not involved in the requirements mandated by TTALUC nor does it influence its decisions, other than designating two of the seven Commissioners. The Airport does recognize that the Airport Master Plan created and adopted by TTAD may affect and influence the ALUCP as adopted by TTALUC. As such TTALUC in certain instances recommends specific occupancy and construction requirements to local land use review agencies to meet TTALUC requirements.

It is therefore the Policy of the TTAD Board of Directors that in certain instances related to the construction of public buildings paid for by tax payers and constituents common to both the public agency and TTAD, to consider funding TTALUC required construction upgrades when funding is available.

If such funding is approved, TTAD shall require, as a condition of providing such funding assistance, all of the following:

- 1) That the public agency receiving such funds shall extend any and all benefits, discounts or access to the facilities that are extended to residents of the public agency to all residents of TTAD on the same terms and conditions.
- 2) Permanent acknowledgement of the Airport District's participation.
- 3) That the recipient of funds execute in favor of the District a Release and Covenant Not to Sue by that fund recipient as to
 - A. any claimed damages or adverse impacts of the Truckee Tahoe Airport,
 - B. aircraft utilizing that airport or the fund recipient's use of their real property,
 - C. any land use restrictions or increased structural requirements imposed by the Truckee Tahoe Airport Land Use Commission's Compatible Land Use Plan, whether currently in effect or as may be later adopted.

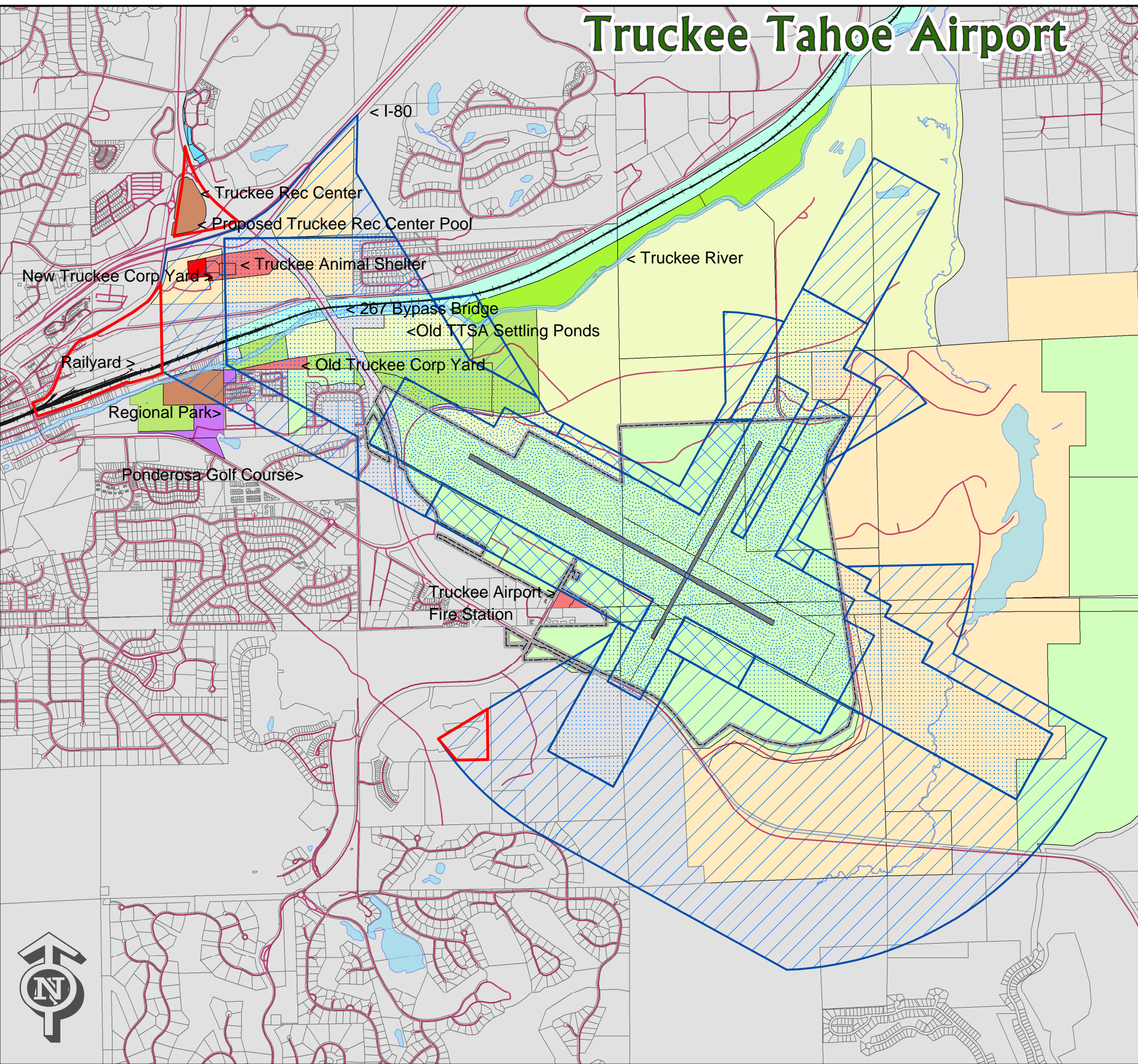
FUNDING REVIEW REQUIREMENTS AND CRITERIA:

- 1.** Structure is located in the B1, C, or Special Use Area 1 of the D CLUP Zones. (see attached Map)
- 2.** Funding will only be provided for public buildings owned and operated by a public agency.
- 3.** Funding of the construction upgrades will be considered only when TTAD has available funding.
- 4.** TTAD will determine the amount it will offer, if any, based on the Airport District Engineer's opinion based on actual bid costs.
- 5.** Structure is designed for large gatherings of people per the CLUP definition and not for storage of property, i.e. Sand, salt, or vehicles.
- 6.** Funding consideration will be extended only to local public agencies, municipalities, and local special districts, not state or federal agencies.
- 7.** Significant public benefit will be realized by construction of proposed project and that TTADs participation in such project will provide benefits to constituents of TTAD.
- 8.** Permanent public acknowledgement of the Airport District's participation in cost sharing shall also be required.
- 9.** TTAD may consider other requirements and criteria at its discretion in considering funding proposals.

John Jones, President

Truckee Tahoe Airport

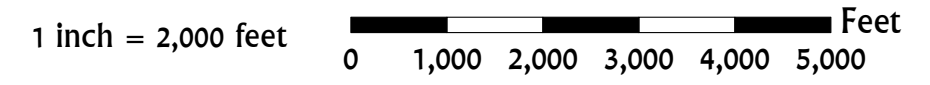
Publicly Owned Parcels & Airport Land Use Compatibility Plan



Legend

ACLUP Site Specific Exception	TTAD
ACLUP ZoneC	Town of Truckee
ACLUP ZoneB2	Truckee Donner PUD
ACLUP ZoneB1	Truckee Donner Recreation and Park District
ACLUP ZoneA	Truckee Fire Protection District
Airport Boundary	Tahoe Truckee Sanitation Agency
Railroad Tracks	Truckee Sanitary District
Street Centerline	Southern Pacific Transportation Company
Major Waterway	Village at Grays Crossing
Private Owner	
United States of America	
State of California	

Note: This map was compiled from datasets acquired from the Nevada and Placer Counties in 2013 and augmented with ownership data provided by TTAD. No guarantee of map accuracy or validity of data is made at this time.



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