Los Alamos Ice Rink
Shade Structure Evaluation

Second Public Meeting
Parks and Recreation Board
April 10, 2025

Incorporated County of Los Alamos

Public Works Department
Community Services Department
County Public Relations

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Background

- County programmed funds FY 2025 to assess possibility of shade structure
- Services from Wilson & Co. to assist this process (On-call consultant)
- Listening sessions LAHA and LADD
  - Identify perspectives, concerns, and needs to inform decision making
  - Introduce the public outreach process and schedule
- First public meeting and on-line survey, January 9, 2025
  - Introduce the Public Outreach process to the PRB & Community
  - Collect community perspectives on shade structures

Objective

- Present the results of the first survey
- Present cover structure options suggested by Consultant
- Present cover structure options suitable for Ice Rink
- Open second survey to collect shade structure preferences.
- Outlook for third Public Meeting

Project Team

- Brendan Tuning – Ice Rink Manager
- Katherine Hudspeth – Recreation Superintendent
- John McNamara – Design Professional, Wilson & Co.
- Miguel Jimenez – Project Manager
- Julie Williams-Hill – Public Relations Manager
- Eric Martinez – Public Works Director
- Cory Styron – Community Services Director

First On-line Survey

- Collect communities' perspectives on shade structure
- Input from listening sessions
- Survey opened from January 9 to the 25, 2025.
- 575 participants
  - 73% are in favor of a shade structure
  - 93% live in the County.
  - 53% have lived in Los Alamos for more than 10 years

Public’s Perspectives

Survey says: Cover Structure

- Cover structure must protect skating surface and skaters from: sun , rain, and snow exposure.
- Full floor, bleachers, and team boxes coverage (32%) & Adjustable (37%)
- Permanent (36%) & retractable structure (35%)
- Visual appearance somewhat important (32%) or neutral (29%)
- Ease of maintenance is very important (59%)

Cover Structure Alternatives

- Wilson & Co. identified 11 alternatives
- Full, partial, and retractable alternatives considered
- Custom and pre-engineered structures considered
- Steel, timber & hybrid structures considered
- Five structures already used in outdoor ice rinks
- Six structures potentially adaptable to ice rinks

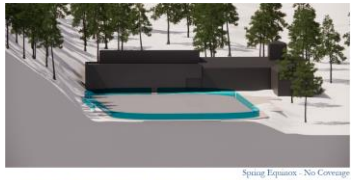
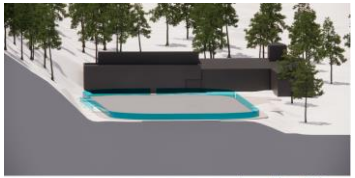
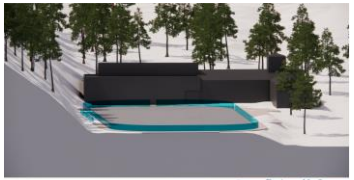
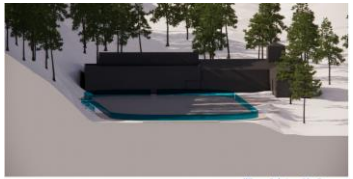
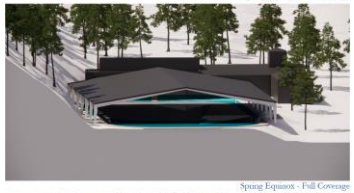
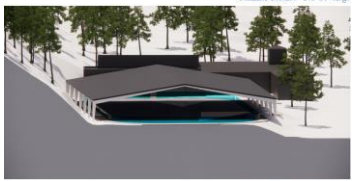
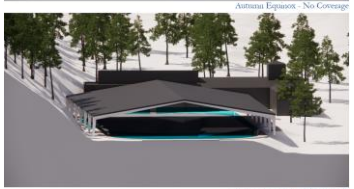
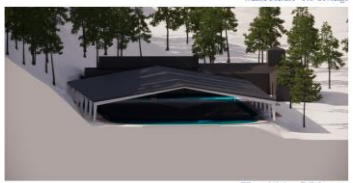
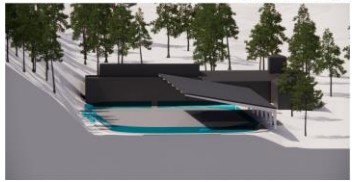
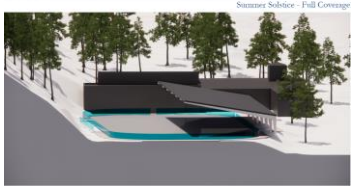
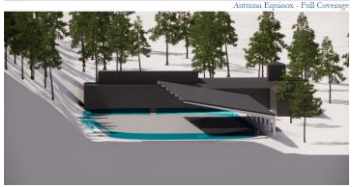
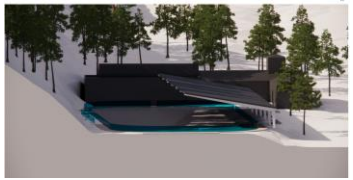
Solar Study Model

- Determine number of sun exposure hours per day
- Wilson & Co. created a sun exposure model
  - Site visit
  - Record drawings
  - Topography data from USGS
  - Canyon wall
  - Full, partial and no cover cases
- Four season solar exposure simulations

Sun exposure Autum equinox

Solar Study Results

Partial cover structure is only effective at shading during Wintertime!
It will not keep snow or rain off the ice.

Spring equinox (8h)	Summer solstice (10h)	Autum equinox (8h)	Winter solstice (4h)
			
			
			

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Full Coverage Structures

Custom options *: Balanced aesthetics & function

- Floor only or floor plus bleachers and player boxes
- Effective all-season protection from sun
- Effective protection from rain, and snow
- Supports wind and snow loads
- Opinion of probable cost: $4 Million to $6 Million

Haendel Park Skating Rink, QC
Nordic Structures

Glue-lam timber
High effort & cost to maintain

Parc des Éperviers, QC
Poirier Fontaine Architects Inc.

Steel & polycarbonate
Least effort & cost to maintain

St. Louis Park Rec. Center, MN
RSP Arch.

Steel / aluminum / glue-lam / fabric
Greatest effort & cost to maintain

* Representative examples

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Full Coverage Structures (cont.)

Pre-engineered options *: Durable & cost-conscious option

- Same functionality as the custom options
- Steel structures and decking composites
- Architectural finish can enhance aesthetics
- Thermally insulated decking
- Requires least effort & cost to maintain
- Opinion of probable cost: $900,000 to $1.5 Million (about 37% of custom option)

Rendering
Sim - Steel Buildings & Dry Kilns
Steelway building systems

Sun Peak Centre, BC
MAD Arc

* Representative examples

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Partial Coverage Structures

Custom option only*: Unobstructed views & limited protection against elements

- Steel struct. & tensile fabric (light frames)
- Helps with ice melting situation on the north edge of the rink
- Opinion of probable cost: $1.7 Million to $2.3 Million
- No protection from rain or snow
- Vulnerable to heavy snow and wind loads
- Cantilevered structure / larger footings
- Fabric wears over time, repairs & replacement increase efforts and cost to maintain
- Reduced cost effectiveness compared to pre-engineered full cover structures

Grandstand cover Villetaneuse, FR
SMC2 Sport & leisure construction

Sagebrush Community Church
Albuquerque, NM

West Mesa Park and Ride
Mesa, AZ

* Representative examples

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Retractable Structures

Custom option only*: Seasonal adjustable & most expensive option

At least 3.3 times the cost of the pre-engineered full cover structure

- Full cover
- Rigid or canvas decking
- Complex mechanisms expensive design & construction
- High effort & cost to maintain
- Opinion of probable cost: $4 Million to $6 Million (fabric covering)
- Opinion of probable cost: $5 Million to $7 Million (rigid covering)

Retractable rigid roof
Roll-A-Cover Int'l -

Retractable awnings

Vulnerable to heavy snow and wind loads
Challenging to manage snow melt and rainwater running down the cover

* Representative examples

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Site challenges

Site work expenses can be high and are not included in the opinion of probable cost!

- Limited space available in the parcel
- Varying site elevation contours
- Proximity to canyon wall
  - Footings require a detailed engineering analysis
  - Slope clearing & stabilization may be required
  - Retaining ways may be required
- Canyon wall is in DOE property

Cover Structure Recommendation

Pre-engineered full cover structure

- Complete functionality
- Steel structure
- Rigid roof decking
- Gable or mono-slope frame
- OPC: $900,000 to $1.5 Million
- Most cost-effective structure

Gable frame

Mono-slope frame

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Third Public Meeting

- Inform County Council on:
  - Public Outreach Process
  - Community perspectives on cover structure
  - Community preferences on structure frame (Gable or mono-sloped)
  - Opinion of probable cost
  - Obtain direction moving forward
- May 20, 2025, at Council Chambers

Main Takeaways

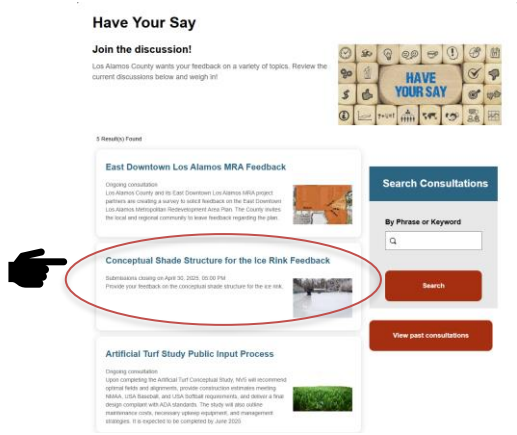
- First survey says cover structure
- The most cost-effective structure is recommended.
  - Full cover pre-engineered steel structure w/rigid roof decking
- Second on-line survey opens tonight (14 days).
  - Collect community preference on gable or mono-slope structure.
- Still at planning/conceptual phase.
- Moving forward requires County Council approval.
  - Schematic design
  - Design development
  - Estimated construction cost

Thank you!

Take the survey

- Open from today until April 24
- Approximately 3.5 minutes
- https://lacnm.com/ShadeStructure-Survey2

Have your say



https://www.losalamosnm.us/Have-Your-Say

Contact us

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