

Public Building Commission  
July 21, 2011 4:00 pm  
Pool Bubble Replacement Subcommittee Meeting Minutes  
Town Hall- Council Chambers

Attendees: Keith Goldberg, PBC-Subcommittee Chairman  
John Purtill, PBC Chairman  
Ron Palumbo, PBC  
Mark Nash, PBC  
Vin Robitaille, PBC  
Doug Levens, Subcommittee User Member  
Dave Gavin, Energy Commission, Subcommittee User Member  
George Noewatne, Cheshire Public Works  
Bob Ceccolini, Park & Rec  
Sheila Adams, Park & Rec

Jan Ligas, Arizon Structures  
Jason Abbott, Yeadon Fabric Structures, Ltd.

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**Mr. Jan Ligas, President – Arizon Structures**

Meeting called to order at 4:05pm

Jan Ligas of Arizon Structures was introduced to the subcommittee.

Mr. Ligas reviewed his firm's proposal for the bubble replacement

The base proposal cost is \$202,680. Eight alternatives were offered:

Option 1	Energy efficient air inflation system	\$79,612.00
Option 1B	Dehumidification – Separate design required	TBD
Option 2	Wall mounted lighting	\$9,908.00
Option 3	Energy efficient lighting	\$25,504.00
Option 4	Revolving door @ lifeguard area	\$14,941.00
Option 5	Expedited fabrication	\$44,814.00
Option 6	Improved insulation	\$49,958.00
Option 7	High efficiency doors – included in base price	-
Option 8	Erection of dome *	\$34,900.00

\* Does not include secondary support structure

Question and answers:

Q: What materials comprise the bubble?

A: Mr. Ligas stated the bubble is vinyl-coated, polyester weave with additives for UV, cleanliness, etc.

Q: Will installing and removing the structure damage it?

A: Mr. Ligas stated that repeated installations and removals of the bubble should not degrade the fabric. During removals, a tarp is placed over the deck to dry out the enclosure. Arizon has approved installers – Hemispheric Air is on that list.

Q: What is the delivery schedule?

A: Mr. Ligas stated that the delivery schedule is 10 weeks, with an alternate for a 6-week schedule.

Q: Can the existing anchor system be utilized; what is current code?

A: The current anchor system will support the Arizon structure. The bubble is designed for a 90 mph, 3 second gust.

Q: Do wind/snow sensors come with the bubble?

A: They are available, but were not asked for as part of the specifications. The low bias cable system allows snow to shed more easily than other cable networks.

Q: How do you handle high wind or snow conditions?

A: Arizon's HVAC system uses separate fans to increase pressure in high wind without increasing heat (in warm weather), and the air rotation system prevents stratification.

Q: Will the bubble yellow?

A: No, there are no adhesives in our liner. Adhesives cause yellowing.

Q: Can the hanging lights get into the pool during a deflation?

A: There is a tie-back system available for additional cost which keeps the light close to the bubble material.

Q: Have you considered induction or LED lights?

A: Yes, but they are not felt to be suitable at this time.

Q: What is your take on the existing blower?

A: It is a high AP system, very inefficient. We believe in low HP but high mixing of air. It re-circulates most of the air and takes in make-up air as required. The new unit would have a back-up system included.

Q: Can the alternates be added later?

A: Yes, no changes in design required.

Q: Will a new blower extend the timeline?

A: Yes, it will be 4 weeks additional time. The blower can be swapped out with the dome inflated.

**Mr. Jason Abbott, Sales Representative – Yeadon Fabric Structures, LLC**

Mr. Abbott presented his proposal

Base proposal cost	\$256,194.00
Supervision	\$750.00/day
DuPont Tedlar® finish	\$58,644.00
Wind sensor	\$15,500.00
Snow sensor	\$3,000.00
Revolving door @ lifeguard area	\$13,832.00
Energy efficient inflation system	\$97,712.00
Emergency doors	\$8,857.00
Hanging lights	\$32,643.00

Mr. Abbott stated that the code may have changed that would require the cable system to be reinforced. We should check with our designer for clarification.

Questions and answers:

Q: What is the timeframe for delivery?

A: Delivery will be 9 weeks. Mechanicals require extra time. His company can provide mechanical assistance to check out the existing blower.

Q: What does the mechanical system consist of?

A: All-in-one combination unit. The unit has been in the field for many years and it is energy efficient.

Q: Is the great wall an issue?

A: No. New cable anchors will have to be added to accept the Yeadon cable system.

The dome will be made in three sections. It makes the bundles lighter and may reduce installation costs.

Yeadon can provide heat calculations and energy efficiencies.

He has never seen a pool dome with hanging lights due to life safety issues. Yeadon recommends pole lighting. Yeadon's estimate came in with 50 lights.

The base structure quoted has a 10-year warranty – pro-rated.

Three grades of material: Translucent, opaque, and opaque insulated. Opaque material will add \$5,000 to base cost. Adding Tedlar® will bump warranty up to 15 years. Cost is \$58,644.00.

A linear cable system is proposed. Can be retrofitted to existing equipment on site.

Yeadon will provide shop drawings but Town must provide engineering approvals (stamps). Yeadon can facilitate this, the cost is probably \$2,000.

Existing angle iron is undersized, per the original drawings. The drawings call for 5" x 5" x 1/2" angle, and what is on site is 3" x 3" x 3/8"

*Motion: Based on information obtained tonight, there is no need to hire a pool bubble experienced engineer to review and approve the shop drawings of the chosen firm. Motion made by Mark Nash, seconded by Kevin Wetmore and passed unanimously.*

*Motion: Proceed with Arizon Structures as the selected vendor for the Pool Bubble Replacement Base Proposal in the amount of \$202,680.00, pending due diligence: past project and reference checks. Motion made by Keith Goldberg, seconded by Mark Nash and passed unanimously.*

*Motion to adjourn by Mark Nash, seconded by Ron Palumbo and passed unanimously.*

Meeting adjourned at 7:40pm

Respectfully submitted,

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George Noewatne