

AN ORDINANCE GRANTING A SPECIAL USE PERMIT RENEWAL FOR LONGVIEW MANSION EVENTS TENT IN DISTRICT PMIX ON LAND LOCATED AT 1200 SW LONGVIEW PARK DRIVE FOR A PERIOD OF EIGHT (8) YEARS FROM THE PREVIOUS EXPIRATION DATE, ALL IN ACCORDANCE WITH ARTICLE 10 WITHIN THE UNIFIED DEVELOPMENT ORDINANCE, FOR THE CITY OF LEE'S SUMMIT, MISSOURI.

WHEREAS, on January 5, 2006 by Ordinance No. 6098, the City Council granted a special use permit for Pavilion/Tent for a period of 8 years on land located at 1200 SW Longview Park Drive , and said permit expired on January 5, 2014; and,

WHEREAS, Application #PL2014-003, submitted by Longview Mansion, requesting a special use permit renewal for Longview Mansion Events Tent in District PMIX on land located at 1200 SW Longview Park Drive, was referred to the Planning Commission to hold a public hearing; and,

WHEREAS, after due public notice in the manner prescribed by law, the Planning Commission held a public hearing for the request on April 8, 2014 and rendered a report to the City Council containing findings of fact and a recommendation that the special use permit be approved; and,

WHEREAS, after due public notice in the manner prescribed by law, the City Council held a public hearing on May 1, 2014, and rendered a decision to grant said special use permit.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF LEE'S SUMMIT, MISSOURI, as follows:

**SECTION 1.** That the application pursuant to Article 10 of the Unified Development Ordinance to allow Longview Mansion Events Tent in District PMIX with a Special Use Permit is hereby granted for a period of 8 years from the previous expiration date, to expire on January 5, 2022, with respect to the following described property:

*Range 32, Township 47, Section 09 – Beginning at the SE corner of the W 400 feet thence NW to the NW corner of the SE ¼ of SE ¼ of SE ¼ of the NE to a point 1700 feet N of the S line of Section and 400 feet W of the East line of Section, thence NE to a point 60 feet W of the NE corner of SE ¼ of the E 60 feet to the S to the Point of beginning.*

**SECTION 2.** That the following conditions of approval apply:

1. The special use permit shall be granted for a period of 8 years.

**SECTION 3.** That failure to comply with all of the provisions contained in this ordinance shall constitute violations of both this ordinance and the City's Unified Development Ordinance, enacted by Ordinance No. 5209 and amended from time to time.

**SECTION 4.** That this ordinance shall be in full force and effect from and after the date of its passage and adoption, and approval by the Mayor.

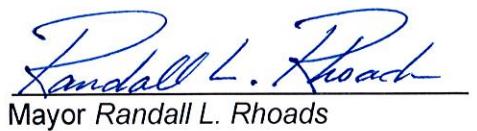
PASSED by the City Council of the City of Lee's Summit, Missouri, this 1<sup>st</sup> day of May, 2014.

  
Mayor Randall L. Rhoads

ATTEST:

  
City Clerk Denise R. Chisum

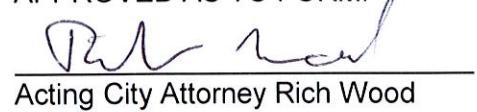
APPROVED by the Mayor of said city this 5<sup>th</sup> day of May, 2014.

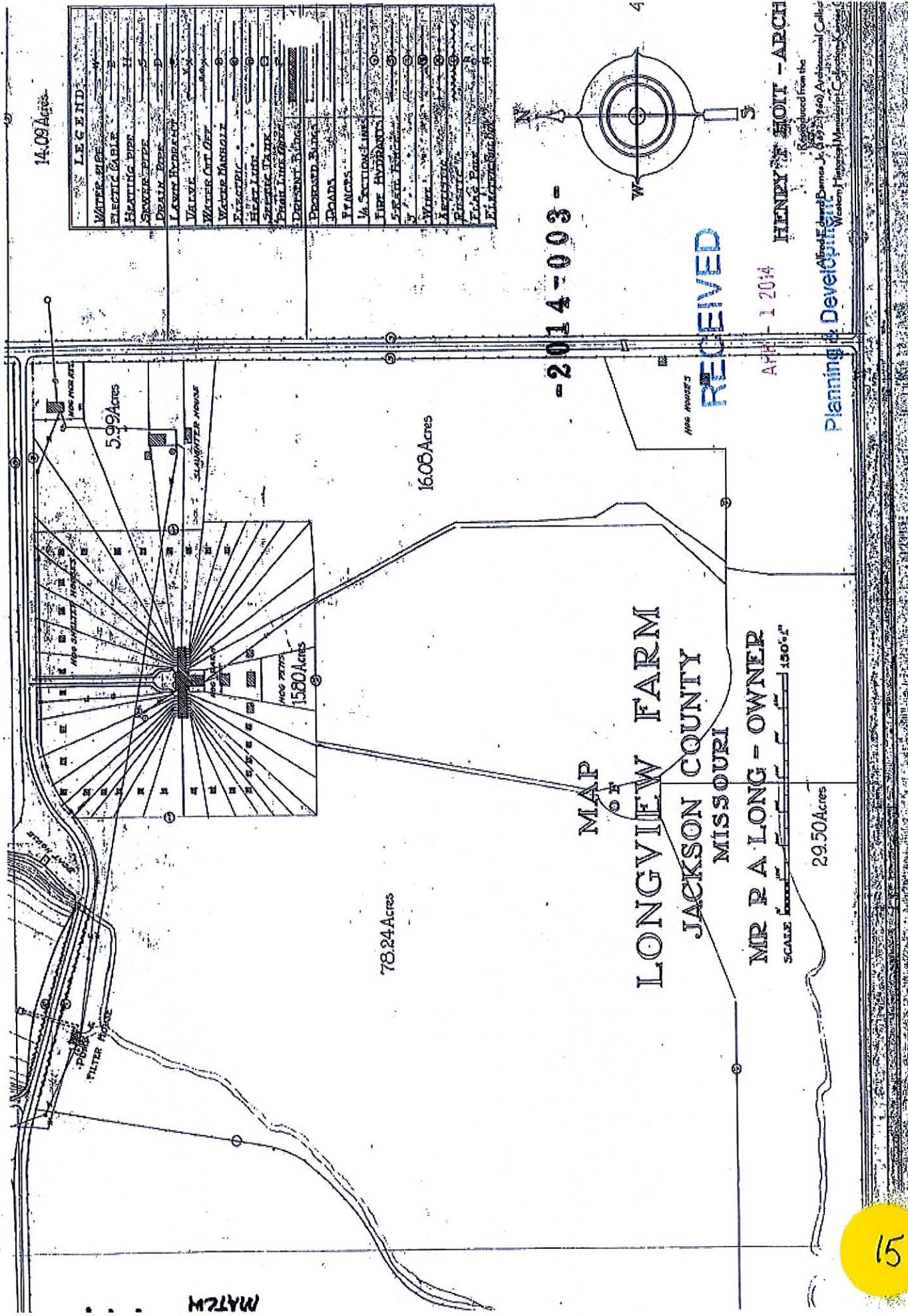
  
Mayor Randall L. Rhoads

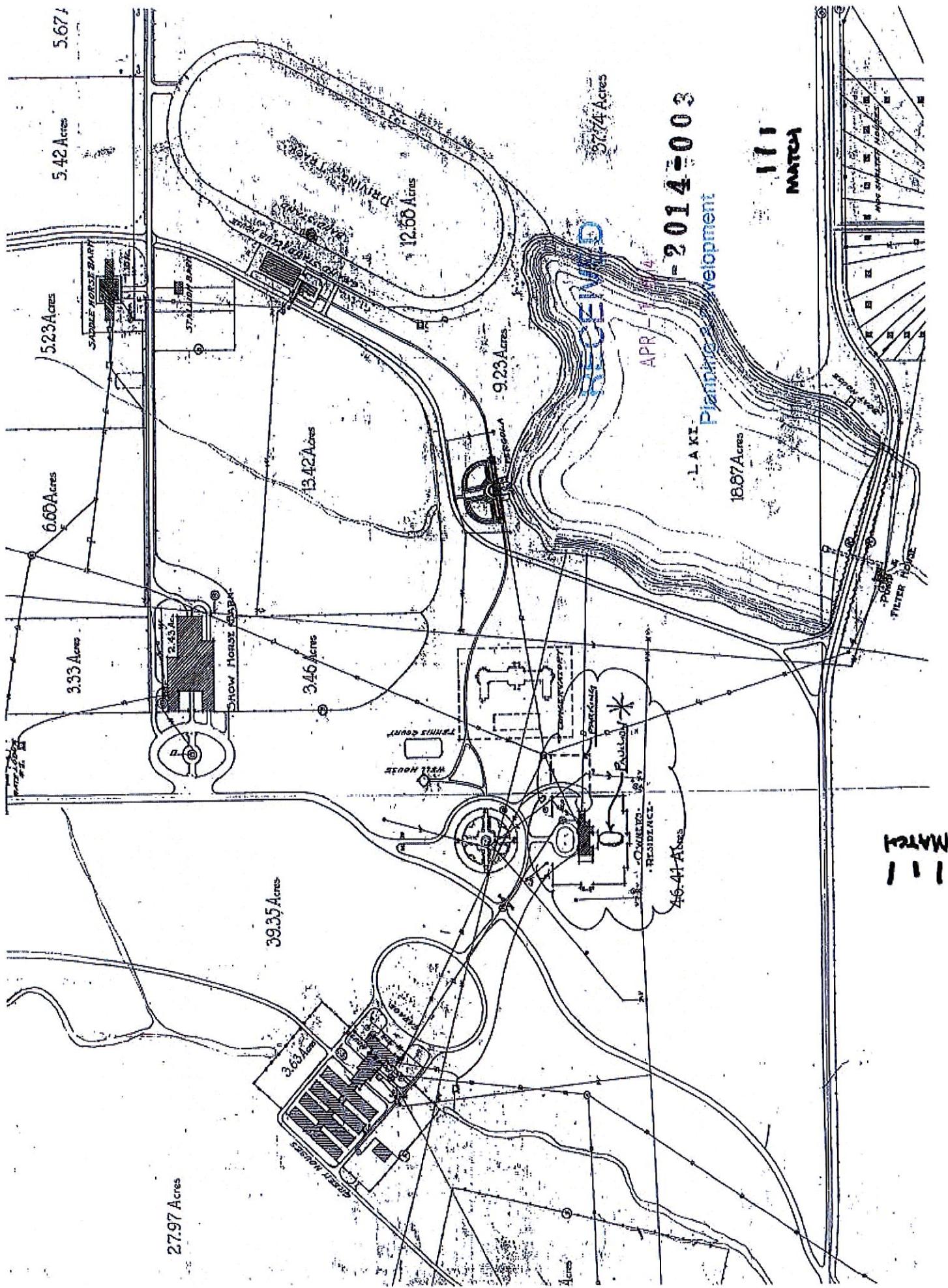
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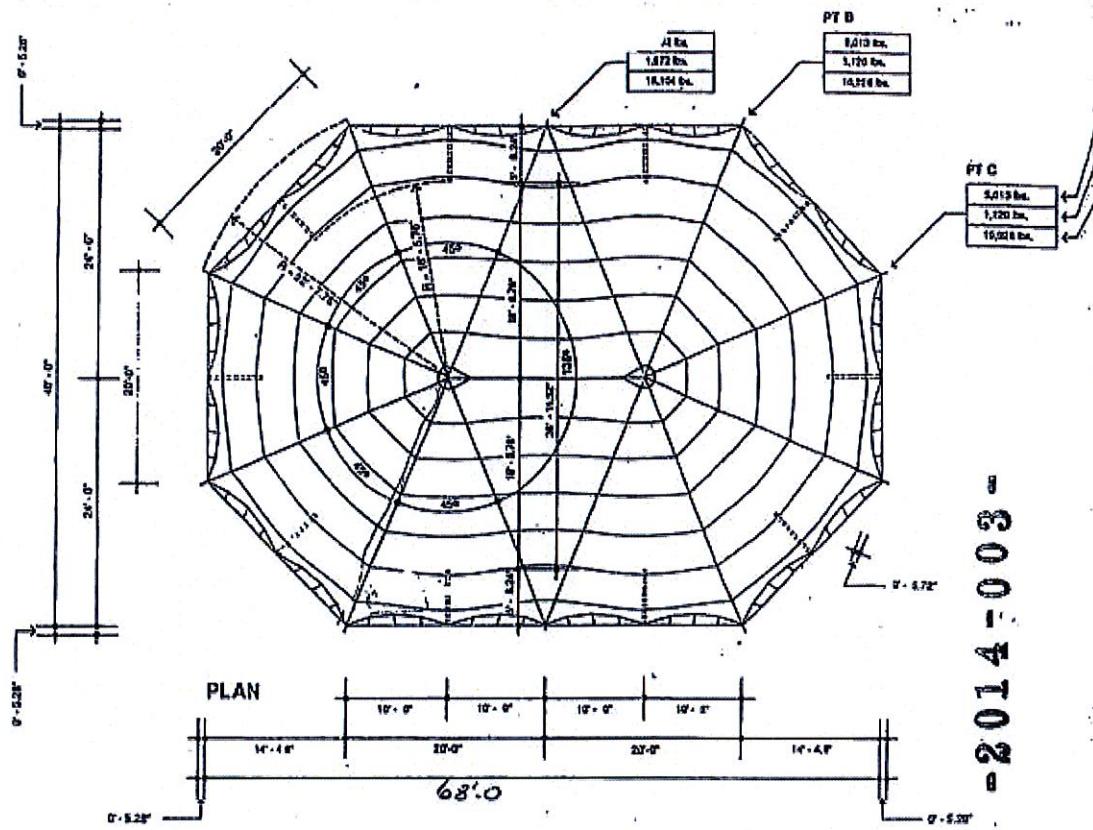
  
City Clerk Denise R. Chisum

APPROVED AS TO FORM:

  
Acting City Attorney Rich Wood





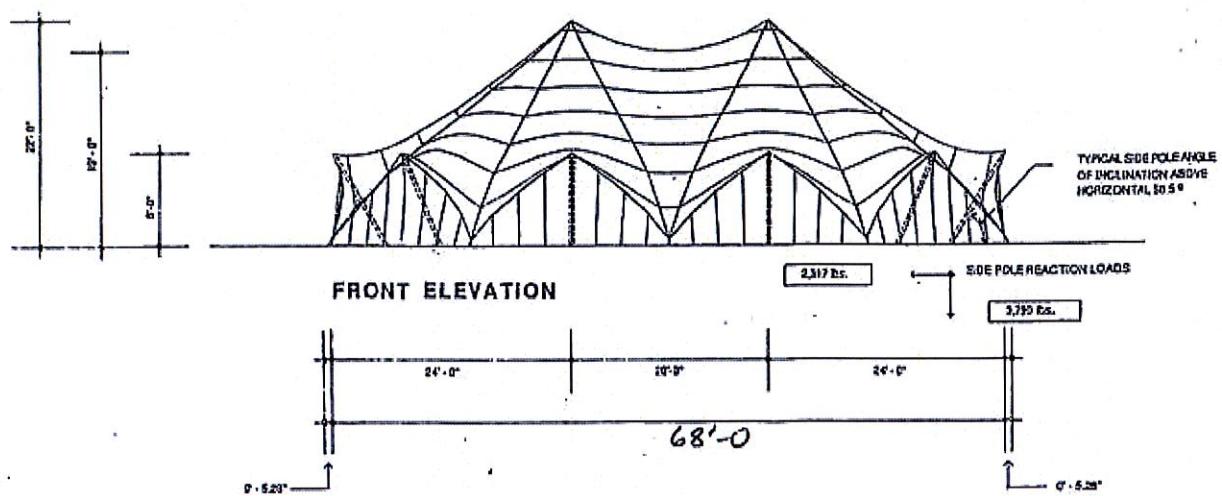


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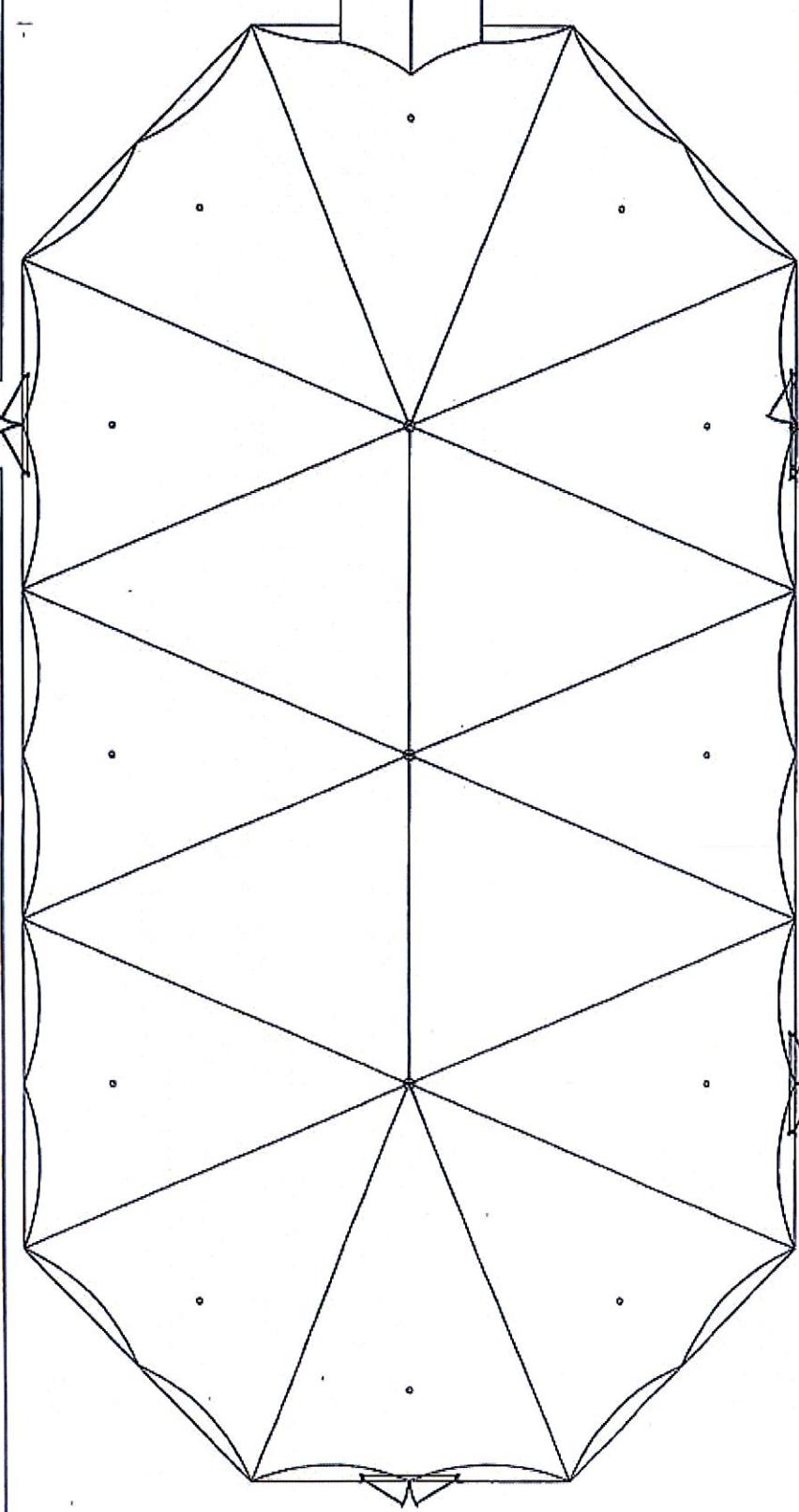
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APR - 1 2014



# EXISTING SUNROOM



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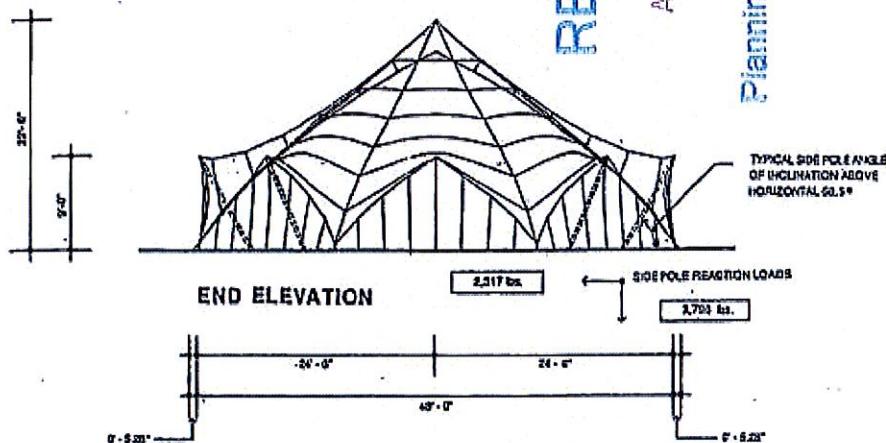
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- This number represents the actual anchor link load anticipated under maximum design load.
- This number represents the act-tension force which is the amount of tension necessary in the anchor link to properly pull the tent out and keep it properly tensioned.
- This number represents the actual pull-out load that the anchoring device must resist in the direction of its corresponding guy rope under full load (includes safety factor of 2.0).

## Planning & Development



*JL 7/12/05*



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### GENERAL

The information on this drawing pertains only to the Ambruster 48' wide Wind Version Tension Tent, a fabric tent design by FTL Associates, Inc., manufactured exclusively by Armbruster Manufacturing Company, Springfield, Massachusetts. If used for review or approval of a particular Ambruster 48' wide Wind Version Tension Tent application or installation, the FTL Associates drawing should be incorporated by the manufacturer's engineer's assurance that the materials, sizes and specification requirements on this drawing will be met or exceeded, and the manufacturer engineers agreement that the anchoring requirements and the installation and maintenance recommendations will be met or exceeded. The following criteria, relating to design loads and typical material sizes are summarized (applicable to your application) and installation of this standard structure. The integrity and appropriateness of the engineering criteria selected for the structure should be reviewed for each installation and site based on local climate and conditions, geographical location, exposure, duration of installation, occupancy, and building code requirements.

### STRUCTURAL DETAILS

The engineering details stated for the Ambruster 48' wide Wind Version Tension Tent are as follows:

|                     |        |
|---------------------|--------|
| Gauge Wind Pressure | 20 psf |
| Uniform Departure   | 8 psf  |

Pressure coefficients from wind tunnel tests performed on similar tent structures have been used to calculate surface pressures.

The equilibrium surface form and load carrying behavior of this tent have been determined by computer analysis of aerodynamically representative multiple loading state elements, and analyses of dynamic responses. Computer-aided structural analysis using Micro/NASTRAN finite element analysis software has been prepared by FTL Associates for wind directions of 30° from the axis of roll, and for a non-oriented east, west (bi-directional) and structures mounted at grade on a horizontal ground plane.

### INSTALLATION TIPS

1. All anchor locations must be laid out accurately as shown on the attached diagram (as advance of laying out the fabric) to a tolerance of +/- 6" in any direction (right or left, forward or back, up or down, etc.) All cables must be tensioned to lay out accurately to a tolerance of +/- 3" in any direction.

2. Anchor and cable locations shown on the diagram assume a perfectly flat site. If the soil has variations in elevation that prevent all the anchors and cables from being at the same level, new anchor locations and/or anchor depths must be accurately calculated to preserve the original design geometry and vectors.

3. Make sure that the anchors installed are adequate to resist the pull out loads shown on the diagram. Actual testing of some individual anchors in 75% of the anchor pull out load is recommended for sensitive installations where anchor strengths which are to be permanently loaded for repeated use in crucial locations.

4. Make sure adequate loads to pull the fabric tight (pre-tension load) is applied in the guys cables before inflation is complete. Pre-tension loads for each guy are shown on the diagram.

5. Measuring the angle of the main and side poles affords a very good check on the geodetic accuracy of the installation. This can easily be done with an Angle-Goniometer. As illustrated in this drawing, each and every slope angle should be induced from front to back 30° across the horizontal ground plane and from side to side. i.e. in a plane perpendicular to the horizontal ground plane. The center pole should be perpendicular to the horizontal ground plane.

Note: All the above considerations must be considered in order for the structure to obtain proper geodesy, pre-tension, and anchor holding power, all of which are necessary to achieve full design load capacity.

**A TENT PENDING**

### DEFINITION OF STRUCTURAL FORCES

#### MATERIALS, SIZES AND SPECIFICATIONS FOR THE AMBRUSTER 48' WIDE VERSION TENSION TENT

##### 1. FABRIC:

Unknown Fabric Specie: 20 psf A. Avg.  
37 psf A. FII

Recommended Safety Factor for Fabric: 2.0 times maximum design load (Federal Standard No. 191, Method 5102).

Using Vinyl-coated polyester fabric with a static tensile strength (per Federal Standard No. 191, Method 5102) of:

120 psf A. Avg.

148 psf A. FII

Fabrics to be top tested to resist UV degradation and scaling.

##### 2. FABRIC STRENGTH:

a. Recommended Factor of Safety for fabric assumes 2.0 times the maximum design load (Federal Standard No. 191, Method 5102).

b. Use Seam Strength of 120 psf A. Avg (Federal Standard No. 191, Method 5102).

c. To pass a single "load test seam test" or not less than five hours duration with no visible failure or separation when subjected to a continuous load of 100% of the maximum design load at 50°F.

100% of maximum design load: 20 psf A. Avg.  
27 psf A. FII

##### 2. WEAVING BELT REQUIREMENTS:

###### BASIC INFLATION LOAD:

Weaving belt design with greatest design load has been tensioned to side ridge loads.

Weaving belt design load (approx) 3,793 lbs.

Factor of Safety on polyester weaving belts: 4.0 times maximum design load.

Use Polyester weaving with minimum break strength of 14,830 lbs. (with maximum elongation 12% to 15% at break).

###### REINFORCED GATEWAY WEAVING BELT:

Polyester gateway with greatest design load.

Weaving belt design load (approx) 2,629 lbs.

Use Polyester weaving with minimum break strength of 8,116 lbs. (with maximum elongation 12% to 15% at break).

Every weaving belt shall be immediately tensioned at each end and leave back end free for a distance 12 times as long as the hot air pipe (i.e. for a 2" wide belt, the free back length should be 24", for a doubled 2" wide belt the free back distance should be 48").

Threads for inflation belts to fabric sheet to be high UV resistant polyesters. Thread and stitching on hot air pipe should be designed to develop the hot air breathing strength of 1000 lbs.

(hot air breathing capability of polyester fabric reinforcement bands which are directly and firmly attached to the polyester weaving belt may be considered when using the belts to retain the fabric folds).

##### 3. COLUMNS:

Center Pole:  
Length 72'  
Design Load: 8,864 lbs.

Factor of Safety for Column: 2.0 times maximum design load.

Use 5" min. dia. schedule 40 aluminum pipe (50 ft LTB 100)

Side Poles:  
Length 18'-6 1/2"  
Design Load: 4,443 lbs.

Use 2.5" min. dia. schedule 40 aluminum pipe (50 ft LTB 100)

### 4. SIDE DOWN:

End A: Design load: 8,032 lbs.

End B: Design load: 8,012 lbs.

End C: Design load: 8,012 lbs.

### 5. CONNECTED HARDWARE:

All connecting hardware such as shingles, hardware, door-hinges, roof and fabricated plates or assemblies shall be listed or tested in 50% static load capacity of the weight of the tent and its contents under maximum design load.

### INSPECTION:

The component of each Ambruster 48' wide Wind Version Tension Tent should be inspected at the beginning and the end of each installation for visual signs of damage by this regular AD damaged procedure should be applied immediately.

### ANCHORING:

A Factor of Safety of 2.0 times the design load is recommended for ground anchors for temporary structures.

A wide variety of ground anchoring devices are currently used. Soil conditions and resulting capacities vary from sand to rock and from sea shore to land in a particular site. The Owner and/or installer of the Ambruster 48' wide Wind Version Tension Tent is fully responsible for assuring that the selection and installation of the anchoring devices is adequate and appropriate to meet the pull out loads on the decking, for special situations.

Among other considerations, the Factor of Safety for the anchoring device has to do with the possibility of reduced anchor performance under wet soil conditions. Care should be taken that water is not absorbed to or collected near anchors.

Anchoring device holding capacity can be developed using a single large device, or by using multiple smaller devices.

### INSTALLATION:

Correct "pulling out" and "tressing out" of a metal tent requires strength and moderate skill and expertise which can be obtained only through proper field training and experience as a professional rental tent supplier. Training Class sheet is forthcoming to obtain optimal structural behavior of the Ambruster 48' wide Wind Version Tent Test.

### GENERAL GUIDELINES:

a. Clean the site to prepare for the planned activity.

b. Drop cloths can be used to prevent soiling or damage to the fabric membranes.

c. Any objects with sharp projections which might remain in contact with the tent should be padded and taped.

d. Tent sections are placed on site, unrolled, and tied together, and secured to anchorage points using tie-downs or stakes.

e. Gazebo poles are raised in the order of operational sequence.

f. Columns and guy ropes are then tensioned and re-tensioned according to design geometry to obtain proper loading on the tent. Any corrections, showing visible signs of damage should be reported immediately.

### MAINTENANCE:

Since a variety of materials and weather factors can result in fabric stretch, weaving belt stretch, wear areas, areas that rotting, and staining, any changes in the tents geometry or the tents overall and environmental performance characteristics of the tent can occur while the tent is in use, caused by the breakdown of materials.

It is recommended that the most vulnerable areas be checked and repaired as required. Maintenance Agreement be signed between the Client and the Installer involving periodic inspections and adjustments.

All alterations and recommendations contained herein have been prepared by FTL Associates at the request of Ambruster Manufacturing Company and have been accepted and approved by Ambruster Manufacturing Company.

### 48' WIDE TENSION TENT WIND VERSION

|                |  |
|----------------|--|
| FTL ASSOCIATES | 100 EAST 42ND STREET<br>NEW YORK, NY 10017<br>(212) 582-1177 |
|----------------|--|

**ARMBRUSTER  
ESTABLISHED  
1875  
TENT MAKER**

600-637-4326

**#PL2014-004 - SPECIAL USE PERMIT  
LONGVIEW MANSION EVENT TENT  
LONGVIEW MANSION, APPLICANT**

