EXHIBIT A

Basis for Variance Relief Requested
Cornell University Variance Application for Temporary Structures #2015-0101

Relief requested: All are variance requests from FCNYS §F2403.81 (1/1/2003 to present), related to standards for fire apparatus access roads, specifically:
§F503.1.1 road distance to all portions of structure not greater than 150 feet.
§F503.2.1 20’ width of road.
§F503.2.3 support for 75,000 pound imposed load on road.
§F503.2.5 length of dead-end road not greater than 150 feet.

Strict compliance with the above code requirements would:

(1) Create an excessive and unreasonable economic burden: The only open spaces on which to erect the dozens of tents that are needed for short-term events that attract thousands of visitors to campus are almost exclusively in the park-like quads, courts, playing fields, gardens and rustic areas. Many of them are campus icons and safe from future development. They have buildings grouped at a distance around, but not in, them. Therefore, the interiors of open spaces are not served by §F503 fire apparatus access (“FAA”) roads. With no prospect of there ever being buildings constructed inside these open spaces, it would be an excessive and unreasonable economic burden to construct §F503 FAA roads for the sole purpose of providing fire protection to tents that are erected there for a handful of days annually.

(3) Would inhibit achievement of some other important public policy: It is the public policy of New York to support education of all levels (see generally NYS Constitution, Articles 5, 8, 16). The legislature chartered Cornell University in 1865, days after the surrender at Appomattox, in part to take advantage of the U.S. Morrill Land-Grant Act of 1862. Both acts were signs of public priorities and faith in education.

A park-like setting was then the “ideal” of a college campus, meant to foster learning for learning’s sake, almost in a cloister, set around quadrangles and walks. Cornell’s then-almost-unique contribution was to include practical education in agriculture and engineering, which was to manifest as three quads - Arts and Sciences, Agriculture, and Engineering. The entire Arts Quad, largest and oldest, together with its buildings is a designated Historic Landmark District. Morrill Hall on the Arts Quad is a National Landmark. Several Ag buildings are designated Landmarks. All of the quads are old enough to be eligible as historic landmarks. Historic preservation is a public policy (see §14.01 Declaration of Policy, NYS Parks, Rec. & Hist. Preservation Law).

To this day, quads, courts, playing fields, gardens, and natural areas are the most beloved and symbolic places of the college experience to both Cornell’s newest graduating senior and its oldest alumnus returning for his class reunion. The future
loyalty of both individuals is vital to the wellbeing of the university in terms of gifts and other support. Public policy recognizes the importance of private support by making gifts tax deductible. Little wonder, then, that the largest numbers of tents are rented for Commencement and Reunion.

Strict compliance with code requirements would inhibit the twin public policies of education and historic preservation. Eliminating use of the quads for tents altogether would end the colleges’ traditional, personalized commencement ceremonies held on their quads. Likewise, the reunion experience would be significantly less likely to connect alumnae to the institution without the traditional socials in the most nostalgic scenes of past college life. In both cases, the loss of the tent locations would mean cancelling or moving events to more distant and less congenial locations such as hotel ballrooms, assuming there were enough within a 40-mile radius. Either would result in lower attendance (probably markedly so in the case of Reunion), loss of a sense of connectedness, and associated lower support for their alma mater. Alternatively, building FAA roads in historic quads, assuming it would be allowed at all, or in courts and gardens would drastically alter their historic look and the traditional feel of ceremonies and social gatherings held in them.

(4) Be physically impracticable: People walking places would be the first thing noticed on a visit to the Cornell campus. Sidewalks - 60 miles of them - are the major campus transportation network, particularly within and between academic and residential quads and courts. Sidewalks provide safe places for thousands of students to walk to and from classrooms, residence halls, and athletic fields. It would be physically impracticable, unsafe for pedestrians, and extremely disruptive to the walkability and appearance of the campus environment to insert more roads into a necessarily pedestrian-oriented environment. Since tents are not equipped with sprinklers, any FAA roads would have to be at a distance of 150 feet or less (measured to reach all sides of the tent), resulting in a dense grid of roads. This would be impracticable. Alternatively, if tents had to be placed the required distance from existing FAA roads, there would not be enough Code-qualifying and suitable tent sites on campus, due to steep slopes and limited open space along roads. The quads, courts, and playing fields already occupy all the level places. Therefore these open areas are the only suitable sites, any other areas being physically impracticable for tents.

(5) Be unnecessary in light of alternatives which, without a loss in the level of safety, achieve the intended objective of the code. The primary alternatives are the major campus sidewalks. Such sidewalks were purposely designed robustly enough for access by fire apparatus vehicles as well as by campus services (deliveries, building repair and

1 Approximately 6,000 students graduate in May each year. Their families and friends numbering 25,000 to 35,000, attend for some part of the Commencement weekend. A main ceremony is held for everyone in the football stadium. It is stirring but impersonal. Following this, graduates and family disperse to tents around campus for personalized ceremonies and receptions held by their individual colleges, schools, and programs. There would simply be insufficient room to hold simultaneous functions without tents.

2 Similarly, about 7,000 alumni and family members attend class Reunions (each class reunion is held on a 5-year cycle). For lack of suitable space reunions would also be impossible to hold on campus without tents.

3 There are about 15 miles of FAA roads, compared with 60 miles of sidewalks and paths.
maintenance, landscape work and snow removal), but they do not meet the current requirements of §F503 for FAA roads. These major sidewalks were historically designed, designated and have long provided official fire access for some purposes\(^4\). A significant majority of them are wider than 10 feet and do not need a variance from §F503.2.3 (support for 75,000 pounds imposed load) (See Exhibit G). Fire hydrants are abundantly located around the quads, courts and elsewhere on campus for buildings or portions of buildings and are capable of providing fire flow for fire protection for permanent structures (see Exhibit H). The fire access sidewalks are interior to open spaces but they are adequately connected to and readily accessible from nearby §F503 FAA roads.

The relief requested from §F503.1.1 includes increasing from 150 to 200 feet the allowable distance from the FAA road (or approved FAA sidewalk, relief requested to use) for reaching all parts of the exterior walls of the first floor of the Tent. Tents are recognized and differentiated in many ways from other buildings and facilities to which the requirements of §F503.1.1 apply. Applicant’s use of Tents does not create a significant fire load within them and they are single story. There will never be any sleeping or cooking in tents, as provided by the Prescriptive Plan. Tents are also equipped with portable fire extinguishers that are available for use by individuals who are trained in their use to successfully extinguish a fire in its incipient stage should one start. Saving the Tent is not going to be a firefighter priority once occupants have exited. Finally, the Tents are used for functions lasting a few hours\(^5\) at a time and then they are vacated. They are erected for only a few days for annual events. Due to these differences and precautions, a variance of an additional 50 feet is unlikely to prevent meeting the intended objective of the code or result in a reduction in the overall level of life safety.

There are a few places such as courtyards that are connected by staircases to fire access sidewalks and FAA roads. For them, the Prescriptive Plan sets out at I.5. an alternative that Ithaca Fire Chief Parsons proposed, involving the pre-deployment of hoses and valves from wall hydrants or hose valves to achieve the intended objective of the code without a loss in the level of safety.

Similarly, for still fewer sites (only one such campus site has ever been requested) that cannot be reached by FAA roads because of topography or waterways, the prescriptive plan would allow specialized fire suppression to be approved and staffed by the Ithaca Fire Department. See Prescriptive Plan at I.6. By allowing judgment to be exercised by the fire official in each situation, either the fire official could decline to allow the site to be used altogether, or could devise prescriptive measures tailored to the size and location of the function, the availability of specialized equipment, or take advantage of future developments in access to the site or in specialized fire suppression equipment. The exercise of professional judgment with the ability to fine tune it achieves the intended objective of the code without a loss in the level of safety.

\(^4\) The existing buildings that face onto quads and courts are themselves currently in compliance both because they are grandfathered for the use of these major sidewalks as their FAA and, because with upgrades over the years, they are now often bounded by §F503-compliant FAA roads and driveways on the sides of the buildings that face away from the quads and courts. In addition, many buildings are now equipped with sprinklers.

\(^5\) At some events a small tent for information or registration of attendees will be used by 2-3 event staff for a longer period.
## Cornell University - Tax Parcel #'s

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Cornell University Prescriptive Plan
For Variance to NYS Requirements for Temporary Tents, Canopies and
Membrane Structures (Collectively “Tents”)
Used For University Commencement, Reunion, Slope Day, and other Campus
Events in the City of Ithaca (the “Prescriptive Plan”)

FCNYS §2403.8 Fire apparatus access roads shall be provided in accordance with §F503.

Notes: In each of I - IV below, the italicized text presents the subsection of §F503 from which relief is requested, followed by prescriptive provisions that focus on it. The next section, V, contains general prescriptive provisions that supplement those found in I-IV. Together, the prescriptive provisions of I-V constitute the Prescriptive Plan.

“Event” refers to one or more activities that relate to a particular purpose, such as Commencement or Reunion, and may span one or several days. A “Function” refers to a gathering scheduled between specific hours during the Event, such as a reception or a ceremony.

I. FCNYS §503.1.1 Buildings and Facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45,720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Prescriptive Plan:
1. Temporary tents, canopies, or membrane structures (collectively “Tents”) shall be provided with fire apparatus access (“FAA”) by one or more roads or walks that (a) meets the requirements of this Prescriptive Plan, (b) meets the requirements of §503 unless otherwise relieved by the variance requested herein, and (c) shall extend to within 200 feet of all portions of the Tent and all portions of the exterior walls of the Tent as measured by an approved route around the exterior of the Tent (hereafter “FAA Roads” or “FAA Walks”).
2. Use of such FAA Roads or Walks that extend to within 200 feet shall only apply to Tents that receive a tent permit and meet the requirements of this Prescriptive Plan, and shall not apply to any other type of facility or building.
3. FAA Roads and Walks may be used in combination with each other to access Tents and reduce distance measured in accordance with §503.1.1 from FAA Roads and Walks to Tents.
4. Existing connections between FAA Roads and FAA Walks in areas proximate to Tent sites shall be maintained (or improved with the approval of the code enforcement official in consultation with the fire official). Approved signs or other approved notices shall be provided on FAA Roads and FAA Walks where required by the code enforcement official in consultation with the fire official.
5. Tents in courtyards that cannot be adequately accessed by FAA Roads or FAA Walks shall be allowed to be served by fire protection from an adjacent building with pre-deployed hoses from a Wall Hydrant or Hose Valve, provided that hose valves are within 150 feet of the exterior of the Tent as measured in accordance with §503.1.1.

6. Tent(s) in locations where FAA Roads or Walks cannot be built because of topography, waterways, nonnegotiable grades or similar conditions, shall be allowed to be served by specialized fire suppression apparatus that are approved and staffed by the City of Ithaca Fire Department.

II. FCNYS §503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet, 6 inches (4115 mm). Fire apparatus access roads shall also meet the width requirements of sections D103.1 and D105 of Appendix D §D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm). See Figure D103.1.


Prescriptive Plan:

1. All existing sidewalks that (a) have an unobstructed width of ten (10) feet or wider, (b) meet the requirements of this Prescriptive Plan, (c) meet the requirements of §503 unless otherwise relieved by the variance requested herein, and (d) have the required turning radius as determined by the code enforcement official in consultation with the fire official, shall be FAA Walks and may be used wherever a FAA Road is required by §F2403.8.1 and §F503.

2. When existing sidewalks are being reconstructed or replaced or when new sidewalks are being built, all those that are or will be used to provide FAA Walks to Tents (collectively “New FAA Walks”), shall (a) have an unobstructed width of twelve (12) feet or wider, (b) meet the requirements of this Prescriptive Plan, (c) meet the requirements of §503 unless otherwise relieved by the variance requested herein, and (d) have the required turning radius as determined by the code enforcement official in consultation with the fire official, and may be used wherever a FAA Road is required by §F2403.8.1 and §F503.

3. No existing FAA Walks or New FAA Walks shall be required to meet the minimum road width of 26 feet required for fire hydrants located on FAA Roads by §D103.1

4. Before North Campus tent permits are issued for Reunion 2015, Applicant shall widen two 8-foot wide walks at North Campus (one between Dickson/Bauer Halls and Balch Hall, the other between Dickson and Donlon Halls), to the temporary width of 10 feet and create turning radius curves associated with these sidewalks, as determined by the code enforcement official in consultation with the fire official, using asphalt or crusher run stone. The Applicant shall widen these two FAA Walks to 12 feet and otherwise
cause them to meet the requirements for New FAA Walks as provided in #2 above before or during calendar year 2016.

5. Before Arts Quad tent permits are issued for Commencement 2015, Applicant shall create turning radius curves at one or more corners of the Arts Quad perimeter’s Existing FAA Walks as determined by the code enforcement official in consultation with the fire official, using asphalt or crusher run stone. The Applicant shall widen all existing FAA Walks to 12 feet and otherwise cause them to meet the requirements for New FAA Walks as provided in #2 above, on or before November 30, 2018.

6. The Applicant shall widen the Existing 8-foot walk between Central Avenue and Uris Library to 12 feet and otherwise cause it to meet the requirements for New FAA Walks as provided in #2 above when the ADA compliance project on Central Avenue is built during Summer 2015.

7. The FAA Walks in the Ag Quad Renovation Project shall be New FAA Walks as provided in #2 above when the project is built.

III. FCNYS §503.2.3 Surface. Fire apparatus access roads shall be designed per Section D102.1 of Appendix D, maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities.

Appendix D, D102.1 Access and Loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34,050 kg).

Prescriptive Plan:

1. New FAA Walks shall be asphalt, concrete, or other approved driving surface paved to the width of twelve (12) feet. The paved surface, together with space, where necessary, for aerial fire apparatus support, and with any additional width necessary to accommodate turning radius curves where required by the code enforcement official in consultation with the fire official, shall be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. Weight-bearing surface wider than 12 feet may be paved as above or supported using surface or subsurface supportive techniques or technologies approved by the code enforcement official in consultation with the fire official.

IV. FCNYS §503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus as required in Section D103.4 of Appendix D. [See Table D103.4 in Appendix D.]

Prescriptive Plan:
1. Applicant shall not provide Existing and New FAA Walks to Tents that dead-end in excess of 150 feet without providing an approved area for turning around fire apparatus or a pass-through condition that avoids a dead-end.

2. Before Engineering Quad tent permits are issued for Commencement 2015, Applicant shall provide the Existing FAA Walk on the Engineering Quad with an area for turning around fire apparatus that is approved by the code enforcement official in consultation with the fire official, using asphalt or crusher run stone. The Applicant shall provide an approved permanent area for turning around fire apparatus as required in §D103.4 or a pass-through condition that avoids a dead-end on the Engineering Quad on or before November 30, 2020 unless additional time is approved by the fire official.

V. General Prescriptive Provisions

1. All other Fire Code requirements for use of temporary Tents shall apply.
2. No air-inflated or air-supported membrane structures as defined in FCNYS § 2402 shall be used unless approved by the code enforcement official.
3. No Tents shall be used for any overnight purpose or sleeping, unless approved by the code enforcement official. Tents may otherwise stay up at night or during consecutive nights, subject to the other provisions of this Prescriptive Plan.
4. Only canopies of 700 sq. ft. or less (or aggregate 700 sq. ft. or less) shall be used for cooking. Any cooking for a Function shall be done off-site or done in a separate canopy from the Function’s Tent. All canopies used for cooking shall be constructed of flame resistant materials or flame retardant treated materials meeting the requirements for flame resistance as determined in accordance with NFPA 701.
5. Only one Tent that is greater than 15,000 sq. ft. in area shall be used per Event unless approved by the code enforcement official; and such Tent shall be located not less than 50 feet from any other Tent or structure as measured from the sidewall of the Tent unless joined together by a corridor.
6. No Tent shall be used for a Function that lasts for more than 16 hours, unless longer is approved by the code enforcement official. However Tents may remain up before, after, or in between Functions.
7. Tents shall be erected for no more than 18 consecutive days unless approved by the code enforcement official, and then must be taken down.
8. With the exception of food warming equipment, any use of fires, candles or other open flame devices in Tents is prohibited.
Exhibit D

Cornell University Variance Application 2015-0101

Summary and Strategy for Events that Require Tents

Cornell University is an educational institution providing undergraduate and graduate degree programs. Various events held during the warmer months of the year support the university’s mission and require the use of temporary tents and canopies (and membrane structures, if any) (hereafter “tents”). These events include but are not limited to University Commencement, Alumni Reunion, New Student Welcome, Homecoming, and End of Classes Celebration (Slope Day). Activities conducted in tents include graduation ceremonies, receptions, lectures, information displays, dinners, and small musical performances.

The largest event is Commencement. About 6,000 students receive degrees in May each year. Most of them attend Commencement. In addition, family and friends numbering 25,000 to 35,000 attend for some part of the Commencement weekend, annually. The ceremony in the football stadium is formal but impersonal. Following it, most new graduates and their families disperse around campus to smaller, more personal ceremonies and receptions held by their college, school, or program in tents on their respective academic quads and courts.

The Cornell University campus was built on the 19th century ideal of a pedestrian campus whose buildings are arranged cloister-like around quadrangles and courts. Together with the playing fields, these are the major venues for outdoor campus events using temporary tents. They provide suitable space for large often-simultaneous activities that cannot be accommodated within university buildings. The use of tents allows for these events to be conducted in a safe manner, protects attendees from the elements, and prevents overcrowding of indoor facilities.

The FCNYS §F2403.8.1 requires fire apparatus access roads shall be provided in accordance with FCNYS §F503 when using temporary tents, canopies, and membrane structures. Most of the open areas used for these events are designed for pedestrian use, contain large lawn areas, trees, and shrubs and are equipped with broad asphalt and concrete sidewalks. These areas are not typically served by roadways or fire access lanes and may be more than 150 feet from the nearest roads. The main sidewalks in these areas were designed to support vehicular use by campus service, maintenance, and emergency services personnel as they provide services to the buildings and grounds. Most major sidewalks are ratable for the 75,000 pounds required of fire apparatus access roads.

This variance request is to establish a prescriptive solution for the use of tents in areas not directly served by fire apparatus access roads that are close enough to meet the requirements of FCNYS §F503. This variance request is made with full consideration to
minimizing risk, promoting public safety and fire safety, and facilitating provision of emergency services.

The Prescriptive Plan to support this variance is found at Exhibit C. In addition, Cornell uses comprehensive event management strategies.

**Risk and Hazard Management and Mitigation Strategies**

Cornell University maintains a detailed event management program to plan for and manage campus events. A variety of campus departments collaborate to review plans and ensure that they meet safety and security requirements, best practices, comply with laws, codes, and regulations, and have adequate plans and contingencies for emergency situations. The University’s Event Management Planning Team (EMPT) has fixed representation from the departments of Environmental Health and Safety, Cornell Police, Dean of Students, and Risk Management and Insurance. EMPT representation from other departments varies based on the event under review. The Environmental Health and Safety (EHS) department’s program of Fire Code Compliance and Event Management (FCC&EM) and the University Fire Marshal takes the lead on matters related to health and safety, code compliance, and provision of emergency services. The Fire Marshal is the applicant in this variance request.

Large events such as Commencement, Reunion, Homecoming, and Slope Day have dedicated planning committees and teams that include health and safety, police, and risk management representatives. They are usually organized the same way and with the same schedule each year. When changes are made, they are small and occur by evolution rather than revolution.

In addition to reviews by safety professionals, event planners are provided with guidance documents to assist them in preparing and planning. These documents outline practices that are in compliance with laws, regulations, and standards and meet any more stringent campus requirements. See Exhibit I Event Management Guidance Documents.

**Event Management Strategies**

Event management strategies vary based on the size and complexity of the event. Strategies that may be employed include:

- Crowd management training for staff working at events. This training provides event staff with the knowledge and skills to recognize and correct fire safety and egress issues and to appropriately assist in emergency venue evacuation.

- On-site positioning of trained fire safety, security, and emergency medical personnel. Staff from Environmental Health and Safety, Cornell Police, Cornell University Emergency Medical Service, and/or Bangs Ambulance are assigned to stand by at events. Responsibilities include proactive actions to monitor for and correct hazards and reactive actions to respond to emergency situations. Personnel from Environmental
Health and Safety are members of the campus incipient fire brigade and receive training in fire extinguisher use, fire and life safety hazard recognition, and evacuation procedures. On-site operations by these groups follow the National Incident Management Incident Command System.

- Monitoring of weather conditions to identify hazardous conditions that may require evacuation of temporary structures. The Cornell Police 911 Center and/or any event Incident Command Post continuously monitors area weather conditions and relays information to on-site incident command staff. Also, Cornell University Emergency Management has partnered with the National Weather Service Binghamton office and they are notified of major outdoor campus events so they can contact the Cornell Police 911 Center if severe weather conditions develop.

- Development of National Incident Management System-compliant Incident Action Plans that detail event operations including on-site provision of emergency and support services. Large events have a written Incident Action Plan that integrates the activities of all internal and external departments and agencies involved in event operations. Dedicated off-site command posts are used for command and control of Commencement and Slope Day events. The command posts are staffed by personnel from emergency services, support services, and event operations. They coordinate resources, personnel, and activities related to the event.

- Coordination with outside emergency response agencies is done through pre-event planning and briefing meetings and by supplying copies of the Incident Action Plans to outside agencies.

**Summary**

Cornell University places a high value on fire and life safety and maintains a strong event management program to support those goals. It also places a high value on its traditions and the iconic quads and courts where its traditions are played out annually, but is not willing to sacrifice life safety for their sakes. The application of the event management process helps ensure that events are conducted in a safe manner. The combination of pre-event planning, event staff training, on-site provision of professional safety and emergency response personnel, and the use of recognized incident management procedures all combine to improve the safety of campus events. The presence of NYSFC §F503 compliant roads and non-compliant major sidewalks that can be used for vehicle access and the successful history of their use by campus vehicles demonstrates that fire apparatus access can still be successfully accomplished by following the Prescriptive Plan at Exhibit C. Based on these management practices and facility conditions together with the Prescriptive Plan, we believe that public, fire, and life safety interests will be well served if the variance relief requested is granted.
March 23, 2015

This memo summarizes information regarding load capacities of campus pavements.

There are many variables involved in analyzing the load capacity of pavements including:
- material properties (strength and condition) of the asphalt or concrete
- presence and type of reinforcement in concrete
- thicknesses and material properties of the subbase aggregates
- properties of the subsoil

In particular, the moisture content of the subsoil has a large influence on the load capacity of a pavement. The moisture content is highly variable and unpredictable.

To predict the capacity of a pavement with confidence would require coring and studying the pavement and subsoil materials and analyzing the reinforcement within concrete pavement at a guestimate of $2,000 for each location. As mentioned, the calculated capacity would vary greatly depending on the subsoil moisture content.

Using analysis software provided by the Cornell Local Roads program, I ran simulations for various campus pavements based on assumed poor conditions of wet subsoil.

- The typical concrete sidewalks on campus should support a 75,000 pound vehicle causing pavement deflections of less than one tenth of an inch.
- Our current standard for asphalt sidewalks (adopted approximately 5 years ago) should support a 75,000 pound vehicle causing pavement deflections of just over one tenth of an inch.
- Cornell’s previous campus standard for asphalt sidewalks could result in deflections of approximately three tenths of an inch that would likely damage the sidewalk. The important issue is that even our old asphalt walks should support a 75,000-pound vehicle though the walk would be damaged. Damage to pavement and the need to repair is a risk the University takes. Asphalt walks that are currently broken would require repair before they could be deemed capable of supporting a 75,000 pound vehicle with minimal deflection under saturated conditions.

Please let me know if you have questions or need additional information.

[Signature]

Cornell University is an equal opportunity affirmative action educator and employer.
Room Setup
- Furniture and event setup must not block exits.
- Adequate aisles must be maintained throughout the venue (minimum 42 inches wide).
- Doors must open easily and fully and may not be locked, blocked or obstructed in any way.
- Exit ways, signs and doors must be clear, visible and unobstructed.
- Sound, lighting and other equipment must be properly secured so it does not fall and must not create a tripping hazard.
- Do not block or store materials in front of electrical panels, exits and doorways, fire alarm pull stations, hydrants & extinguishers, aisle ways, eyewash stations/showers, etc.

Exits and Corridors
- Exits, corridors, stairs and egress routes must remain clear and unobstructed at all times.
- Nothing may be set up in stairways, hallways, aisles, or other exit routes.

Fire Detection Equipment
- Never attach anything to fire protection equipment.
- Attention should be given to the location of the fire protection equipment including smoke detectors, sprinkler heads and piping, fire alarm pull stations and fire extinguishers.
- Smoke, dust, aerosols, fog/smoke machines, cooking and food preparation tasks, and physical contact can activate fire detection equipment.
- In the event of fire alarm activation, your event must stop and everyone evacuated from the venue.
- If there are any questions or concerns please contact EH&S.

Outdoor Event Setup
- Outside exit paths and fire lanes must be kept clear at all times.
- Events that obstruct non-exit/fire lane pathways may be allowed after EH&S review.
  - Obstructed sidewalks must be barricaded at each end. Contact Cornell Grounds Department for barricades.
- Due to the presence of underground utilities, stakes and posts that extend more than 6 inches into the ground require a utility location survey.
  - Contact Cornell Customer Service at 255-5322 and request a utility location survey/stakeout to have the utility lines marked so stakes and posts are not driven into them. (Please note that there is a fee for this service.)

For further information e-mail ehs_uup@cornell.edu or call 255-8200.
http://www.ehs.cornell.edu
The Cornell University Department of Environmental Health & Safety (EH&S) works with Cornell staff and students to help ensure that special events on campus are organized and run safely. All registered events require EH&S approval through the Use of University Property (UUP) form. EH&S personnel will work with you to review and approve events for items such as:

- Locations and occupancy limitations
- Event layout, setup and egress
- Activities and decorations
- EH&S staffing requirements
- Emergency medical staffing requirements
- Applicable municipal permits

EH&S may provide professional staffing at campus events including: events expecting over 1,000 attendees, events in specific campus venues, or events with certain. EH&S will identify which events need EH&S staffing and assign personnel as needed.

EH&S staff are on duty 24 hours a day and regularly check on campus events. On duty EH&S staff may stop by your event to check on setup, occupancy and other safety issues. They may ask for your assistance in resolving any problems they identify. Please work with them to insure that your event happens safely. If you have a safety related question or concern during your event you can contact our on duty staff person by calling Cornell Police at 255-1111. The police dispatcher will contact the on duty staff member to assist you.

EMERGENCIES
Immediately prior to the start of the event an announcement must be made to notify the audience of the location of the exits to be used in case of fire or other emergency. The announcement should also indicate that the audience must evacuate the facility when the fire alarm sounds. Suggested wording is:

May I have your attention please. Please note that emergency exits are located (...announce/point out specific locations for this venue...). In the event of an emergency or fire alarm please proceed quickly and calmly out the nearest emergency exit.

In the event of a fire alarm or emergency that requires evacuation, the event must stop and the ushers and event staff should assist people in exiting from the building. Evacuation is always the priority in a fire situation.

In any emergency, using a telephone within the Cornell Phone System dial 911 for assistance, if using a Cell Phone call Cornell Police at (607) 255-1111. Be sure to provide information about the location, type and severity of the problem. Event staff should be sent to meet emergency responders and to take them to the problem.

CONTACT INFORMATION
General event related questions, UUP approval questions and requests for EH&S staffing should be sent to: ehs_uup@cornell.edu or call the EH&S office at 255-8200.

On duty EH&S staff – call Cornell Police at 255-1111

Other EH&S event safety guides are available on our web site: http://www.ehs.cornell.edu

Approved by: University Fire Marshal
Last revised by: R. Flynn
Revision date: 08/10/2012
Tent Permits

The New York State Fire Code requires a Building Permit be obtained prior to erection of tents and canopies if they meet any of the following criteria:

- Open canopies greater than 700 square feet with no sidewalls
- Open canopies greater than 400 square feet with sidewalls on less than 25% of the perimeter
- Enclosed (sidewalls on more than 25% of perimeter) tents greater than 200 square feet
- Occupant load of 50 or more people anticipated

Note: When individual canopies or tents are separated by less than 12 feet of clear space (measured from the end of any guy ropes) from other canopies or tents, the areas of the canopies or tents are combined to determine if a tent permit is required.

Permit Applications

Applicants must submit a permit application to the appropriate agency in advance of the tent installation. Please allow adequate time to obtain the permit.

- City of Ithaca – Building Department – 274-6508
- Town of Ithaca – Building & Code Enforcement – 273-1783
- Village of Cayuga Heights – Code Enforcement Department – 257-5536
- State Campus Properties and Buildings – Ralph D’Amato 254-6371 or e-mail rjd15

The application varies by agency but typically must include:

- Detailed site plan
- Detailed floor plan showing means of egress, seating capacity, seating arrangement, equipment setup, exit signs, and location of fire extinguishers.
- Detailed plan showing location and type of electrical, cooking and heat producing equipment
- Flame resistance treatment certification from an approved testing laboratory
- Applicable fee payable to the appropriate agency

Event Safety

- All event safety guidelines apply to events held in tents.
- Fire, candles and other open flame devices may NOT be used inside tents.
- “No Smoking” signs must be posted in the tent.
- Fire extinguisher(s) are the Tent Vendor’s responsibility and must be installed in tents
- The appropriate code enforcement agency has the right to inspect your setup and enforce all applicable codes and regulations.

For further information e-mail ehs_uup@cornell.edu or call 255-8200

http://www.ehs.cornell.edu
Crowd Management

- Event organizers are responsible for crowd control and management at their event. There shall be at least (1) designated Crowd Manager for every 250 persons attending the event and their duties shall include:
  
  A.C.E.:
  
  o **A**isles are kept clear and unobstructed at all times. No sitting or standing is permitted in aisles or egress paths to exits
  
  o **C**apacity of the Venue Space. Know the Maximum Legal Occupancy and ensure that it is not exceeded
  
  o **E**xits are clear and unobstructed at all times and assist in facilitating evacuation of the venue in the event of an emergency
  
- **Prior to the start of any event,** the Crowd Manager shall ensure that an announcement is made identifying the locations of exits and advising patrons that in the event of an emergency or if the fire alarm sounds they must evacuate from the building.

Seating

- When booking a venue, it is critical to choose a space that is adequate to handle the expected attendance.
  
  o In venues with fixed seats, seating is only allowed in the fixed seats. Sitting or standing in the aisles or placing additional chairs in the venue is strictly prohibited.
  
  o The number of people in the venue may not exceed the posted maximum legal occupancy.

Ushers

- If ushers are used for your event, they too shall utilize the Acronym A.C.E. noted above
  
  o Ushers should be visually identifiable (usher name tags, common shirts, etc.)
  
  o Ushers are responsible for:
    
    - controlling access
    - assisting audience members in finding seats
    - ensuring aisles remain clear
    - directing patrons to exits in the event on an emergency

Crowd Control

- For events that are expected to fill a venue, the use of entry tickets to track attendance is strongly encouraged.

- Free tickets or programs in a quantity equal to the available seating can be handed out at the door (remember to remove tickets to account for ushers, performers that will be sitting in the audience, etc.).

- When the maximum occupancy limit has been met, the Crowd Manager or designee shall ensure that no additional entries are allowed

- Handheld counters may also be used as a control device.

- Overcrowding violations may result in the event being shut down and/or disciplinary action.

For further information e-mail ehs_uup@cornell.edu or call 255-8200.

http://www.ehs.cornell.edu
Curtains, Draperies, Hangings and other Decorative Materials are permitted if:
(Including fabrics, plastics, paper decorations, streamers, etc.)

- Made of non-combustible materials
- Made of combustible materials that have been treated with fire resistant or flame retardant product
  - Manufacturer certification of fire resistance or treatment.
  - Certification of treatment and/or testing for flame resistance by an approved agency
  - Fire resistant treatments self-applied to any item (less than 10 square feet) according to the treatment product’s instructions. (Product must be available on site.)
- Plant Materials which are:
  - Freshly cut flowers in water, live, potted plants and fresh gourds or pumpkins are allowed.
  - The following are prohibited unless treated and tested to be flame resistant by an approved agency: other cut or dried plant materials including corn stalks, straw, hay, branches, leaves, trees, wreaths, etc.

Note: Fire treated combustible materials (including plants) that meet the above requirements are limited in quantity to covering no more than 10% of the wall and ceiling area of the room. Curtains, drapes, and other pre-existing items in the room count towards this 10% maximum.

Placing Decorations
- Decorations may not block, cover or be attached to any fire protection equipment including fire alarm pull stations, smoke detectors, sprinkler pipes, fire extinguishers, exit signs and fire alarm panels.
- Windows and doors may not be covered with decorations.
- Decorations may not be placed on stairway handrails.

Candles & Open Flame Devices
- The use of candles or other open flame devices for decorative purposes in buildings and tents is strictly prohibited. Battery powered LED candles are the recommended alternative.
- Refer to the EH&S Candle & Open Flame Policy for information about outdoor use.
- Refer to the EH&S Candle & Open Flame Policy for information about use for religious or instructional purposes; or for use during theatrical productions in the Schwartz Center.

Helium Filled Balloons
- Helium filled balloons may NOT be used in any building with an Atrium! In addition the use of Helium filled balloons is PROHIBITED in; Bartels Hall, Bailey Hall, the Big Red Barn and Lynah Rink.

For further information e-mail ehs_uup@cornell.edu or call 255-8200.
http://www.ehs.cornell.edu
Barbecue Grills & Other Outdoor Cooking

- Grills and other open flame cooking equipment may only be used outside and may NOT be set up under any overhang, in a tent, or on any balcony or rooftop.
- Grills and open flame cooking equipment must be set up on level ground at least 6 feet from walkways and 25 feet from buildings.
- Equipment must be set up so smoke from cooking does not enter any buildings.
- Charcoal must be completely extinguished and cold before disposal and must not be dumped onto the ground.
- For grills and barbecues a minimum of (1) 5 pound ABC extinguisher must be present. Contact EH&S to borrow an extinguisher. Never removed extinguishers from buildings.
- Portable propane and natural gas tanks must be properly secured to prevent them from tipping over and tanks may not be brought into University buildings.
- Applicable City of Ithaca commercial cooking and LPG (propane) permits must be secured before the event begins. Contact the City of Ithaca Chamberlin’s Office at (607) 274-6580.
- An Open Burn Permit is NOT required for barbecue grill use.

Indoor Cooking & Food Reheating

- Indoor cooking may only be done in kitchens and kitchenettes.
- Use of deep fryers and other cooking equipment that generates grease laden vapors is restricted to kitchens equipped with the appropriate ventilation hood & suppression systems.
- Warming equipment used to reheat or keep prepared foods warm may be used in areas other than kitchens.
  - Warming equipment may not be placed in corridors, stairways or exit pathways.
  - All equipment must be UL listed. Refer to the EH&S Event Management Electrical Safety document for further information on using electrical equipment.
  - Sterno may be used for food warming purposes if:
    - the sterno is in commercially manufactured, prepackaged cans
    - is used with a chafing dish equipped with a sterno can holder
    - is kept away from combustible items such as napkins, papers & decorations
    - attended at all times and care is taken to not spill the sterno
    - sterno containers are closed and disposed of properly after use

All cooking and heating appliances shall be used and maintained in strict accordance with the manufacturer’s instructions.

For further information e-mail ehs_uup@cornell.edu or call 607-255-8200.
http://www.ehs.cornell.edu
Electrical Safety

Event Management

Electrical Equipment
- All electrical equipment must be UL listed and in good condition.
  - Examine all electrical equipment and cords prior to use for loose connections, frayed wiring and for cut or damaged insulation.
- Keep electrical equipment and power cords away from heat, water and oil
- UL listed miniature electric holiday lights and electric rope lights may be used. Light strings must not be run along floors where people may step on them or trip over them.
- Nothing may be attached to sprinkler pipes or other fire protection equipment.

Electrical Power Supply
- Only Cornell Electric Shop personnel are allowed to make connections to electrical panels or wiring. The Cornell Electric Shop can be reached by calling Cornell Customer Service at 255-5322.
- Generators may be used outside of buildings but must be barricaded, fenced, or otherwise physically separated from the public and must be away from buildings and building air intakes. Gasoline storage must be in a safe outdoor area, away from the public.
- Power strips, extension cords and outlets must have sufficient capacity for the equipment being used. The wattage rating of the equipment must not exceed the rating of the cords and outlets. Must possess over current circuit breaker protection. Contact the Cornell Electric Shop for guidance to prevent overloading of outlets.
- Multi-outlet adapters and grounding adapters are NOT allowed.
- Utilize ground fault circuit interrupter (GFCI) connections in wet or damp areas.
- Power and Extension Cords
  - All extension cords and power strips must be listed & approved by either UL or ETL
  - Extension cords may only be used for temporary power supply
  - Cords must be in good condition with no loose connections, cut or damaged insulation, frayed wiring, missing prongs or damaged ends
  - Cords must not be chained together
  - Cords may NOT run through doorways, windows or walls
  - Cords should be kept out of areas where people will be walking or dancing and must be taped down, secured or covered to prevent tripping

For further information e-mail ehs_uup@cornell.edu or call 255-8200.
http://www.ehs.cornell.edu
April 7th, 2015

NYS Uniform Fire Prevention and
Building Code Board of Review
Department of State
99 Washington Ave
Albany, New York 12231-0001

Re: Petition No 2015-0101

Members of the Board of Review:

I am responding for the Ithaca Fire Department in the matter of Petition No. 2015-0101. Pursuant to 19 NYCRR Part 1225, the petitioner is seeking a variance concerning the Uniform Code requirements for Fire Apparatus Access Roads related to Tents, Canopies, and Other Membrane Structures. The subject property is located in the City of Ithaca, New York. The Ithaca Fire Department provides emergency fire services and is an Authority Having Jurisdiction over the fire safety and property maintenance of the subject property.

The Building Commissioner, Michael Niechwiadowicz, and I met with the Petitioner several times as they developed their mitigations and prescriptive plan. I am satisfied that the petitioner’s plan ensures that if a fire or other emergency occurred that the Ithaca Fire Department will have adequate access, as intended by the Uniform Code, to the locations where Tents, Canopies, and Other Membrane Structures will be erected.

In conclusion, on behalf of the City of Ithaca Fire Department I have no objection to the variance application, as submitted, being granted by the Building Code Board of Review.

Sincerely

C Thomas Parsons
Fire Chief
City of Ithaca Fire Department

Cc: Ron Flynn, Cornell University
    Shirley Egan, Cornell University
    Mike Niechwiadowicz, City of Ithaca Building Department
    File

"An Equal Opportunity Employer with a commitment to workforce diversification."
LIST OF EXHIBITS

Required Documents:  
- Exhibit A Basis For Variance Relief Requested  
- Exhibit B List of Tax Parcel #s

Summary:  
- Exhibit C Cornell University Prescriptive Plan  
- Exhibit D Summary & Strategy for Events that Require Tents

Site Plan:  
- Exhibit E Site Plan Cornell University Variance Application

Supplementary Documents:  
- Exhibit F Representative Distances from FAA Walks  
- Exhibit G Robert H. Chiang, PLS Memo 03.23.2015  
- Exhibit H Fire Hydrants Cornell Campus  
- Exhibit I Event Management Guidance Documents