



**CHALLENGE
TOWERS**
AERIAL ADVENTURES

DESIGN GUIDE

We call it the High Country, an area deep in the heart of the Southern Appalachians near Boone, North Carolina. For generations, this small mountain community has served as a gateway to adventure and with more than 2 million acres of federally protected lands, Western North Carolina has left its mark on the recreation, adventure sports, camping and outdoor education industry. Building on that history, Ken Jacquot and Steve Owen founded Blue Ridge Learning Centers (BRLC) in 1992 to leverage unique learning environments for developing conscious action in individuals and organizations.

Challenge Towers was established in 1996 as a division of BRLC, born from a passion to create unique outdoor experiences through innovative ropes course design and value driven construction. **Today, Challenge Towers is a leading company in the evolving aerial adventure industry,** leveraging 20+ years of facilitation and installation experience with creative design and leading technologies to craft innovative aerial attractions for a broad range of businesses, organizations, and institutions.

Our perspective on design and construction can be traced to those early days of BRLC and our commitment to adventure programming and facilitation. Challenge Towers staff share decades of outdoor education and facilitation experience that informs every course we design and install. We know first-hand the powerful impact that adventure can have on people and this drives our passion to create and innovate.

Challenge Towers was among the first Professional Vendor Members (PVM) accredited by the Association for Challenge Course Technology (ACCT); the leading association and ANSI Standards Developer for the aerial adventure industry. Today, ACCT boasts more than 3,000 members and 40 PVM's worldwide and ACCT Standards are the international benchmark for the construction and operation of aerial attractions. Challenge Towers' unwavering commitment to the responsible growth of the industry is embodied by CT President Ken Jacquot who has served on the ACCT Board of Directors, the Accessible and Universal Design Committee, created and chaired the Government Relations Committee, and is recipient of the ACCT Critical Link Award. Ken and the Challenge Towers Team continue to be actively engaged with ACCT in a variety of roles that advance its critical mission.



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Thank you for your interest in Challenge Towers designed and built aerial adventure facilities. This guide will introduce you to some of our most popular designs that cover a wide range of end user needs and program budgets. The information listed herein is intended to be a resource for initial project research and qualification and final pricing will vary based on site specific considerations and other variables individual to each project.

As you make your way through this guide, you will find key information about Challenge Towers facilities including design summaries, ideal audiences, specific operations parameters, and key specifications. You'll also find expansion options for many of the highlighted facilities that help to identify your needs for today and inspire your ideas for tomorrow.

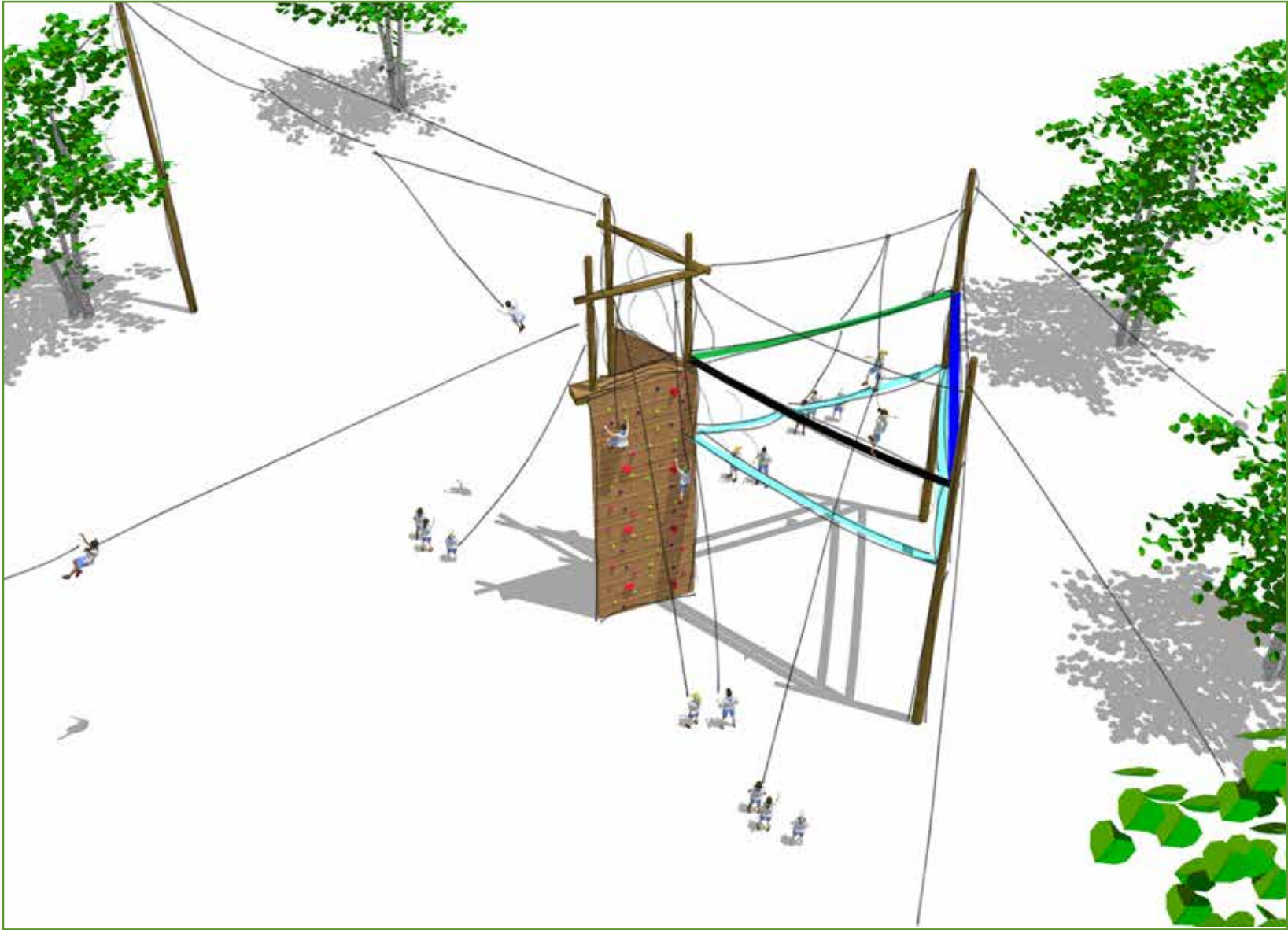
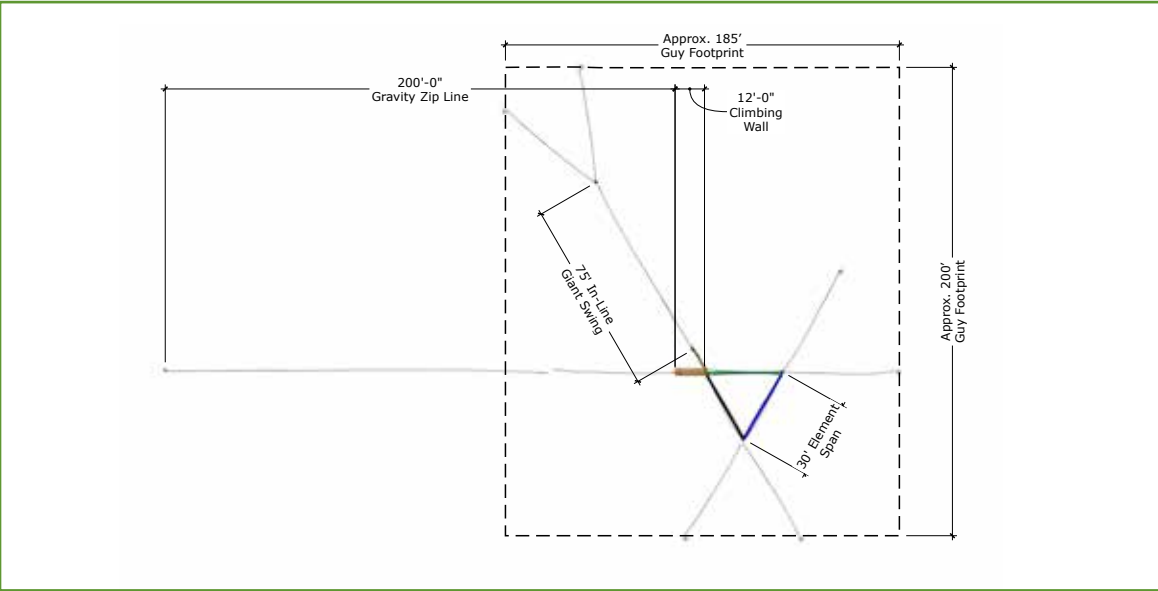
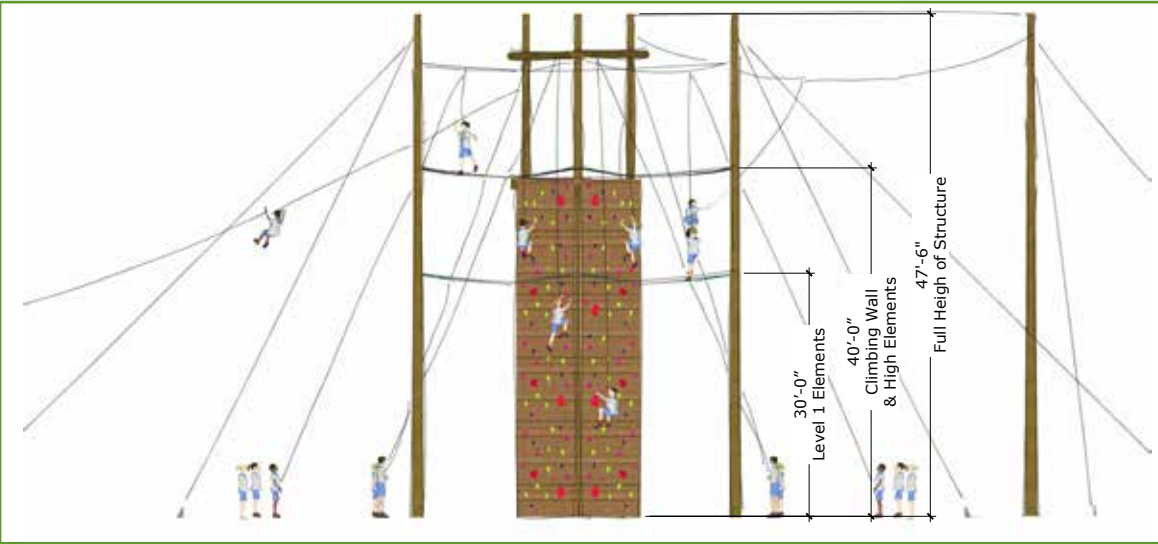
Not finding what you are looking for? No problem, Challenge Towers builds a wide range of semi and fully custom aerial adventure facilities including zip lines, canopy tours, jump towers, and tree-based challenge courses and aerial parks. Contact Challenge Towers and start your journey of project discovery with our experienced team of professional designers and installers.

828.265.0602 | [ChallengeTowers.com](https://www.ChallengeTowers.com)

HOW TO USE THIS GUIDE:

CHALLENGER™ SERIES

The Challenger Course provides a range of programming options in a small and compact footprint and is perfect for those looking to get the most out of their construction budget. The Challenger Course offers a dynamically belayed high course and includes options for one or more twin-lane climbing walls, swings, and zip lines.



IDEAL USES:

- Public/Private Schools
- BSA/GSA Programs
- Youth and Sports Camps
- Colleges and Universities
- Therapeutic Facilities

OPERATIONAL PARAMETERS:

- Age Range: 10 and up
- Weight Restrictions: 275 lbs
- Staffing: 1-10
- Course Capacity: Up to 40
- Throughput: N/A
- Length of Experience: Multiple days-months program
- Belay System: Dynamic

**Listed price does not include project and location specific variables including but not limited to: engineering, travel and living expenses, program equipment or training*

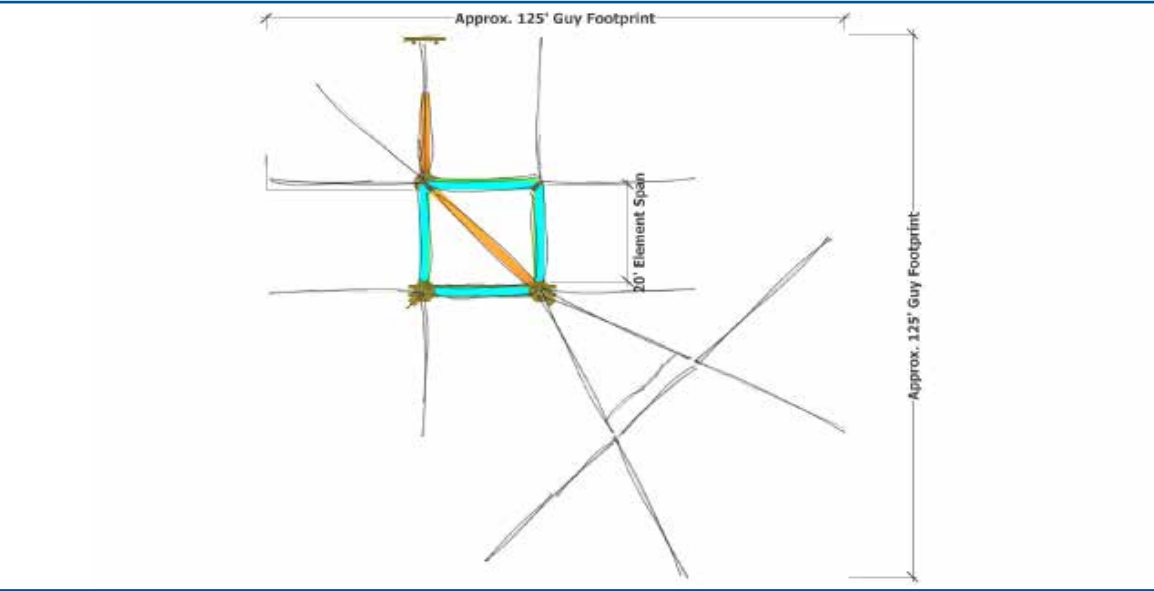
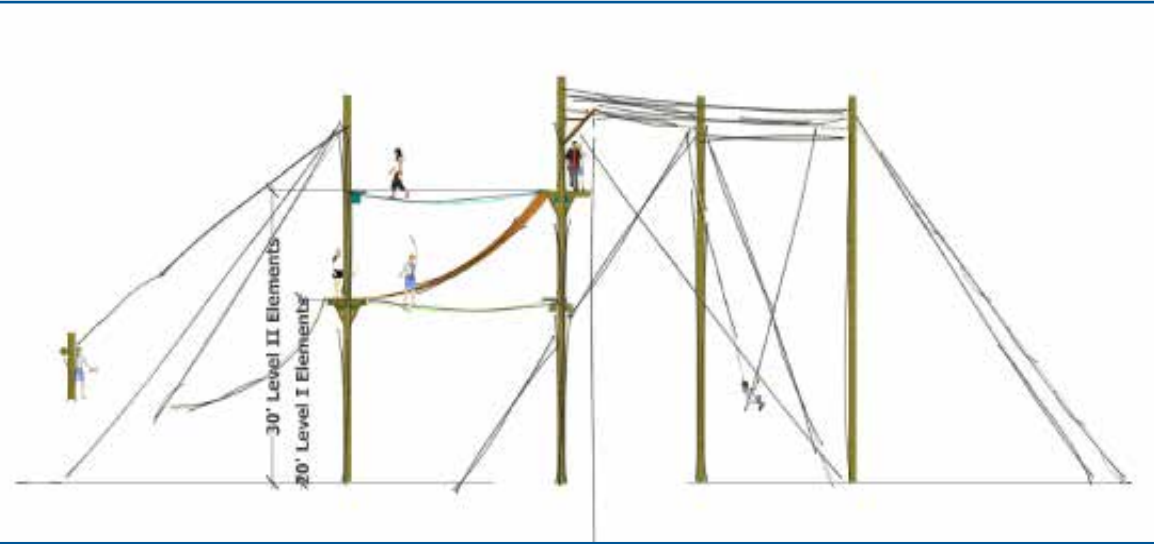
***Installation only time estimate. Additional time may be required prior to the start of onsite installation to complete design, engineering, and/or satisfy other preconstruction requirements.*

SPECIFICATIONS:

- Approx. List Price: * \$37,000-\$99,000
- Installation Timeframe: ** 2-4 weeks
- Access Prevention: Ladder or removable holds
- Number of Elements: Up to 12
- Difficulty Level of Elements: Easy, moderate and difficult available
- Training Needs: 3-7 days, estimated \$7K budget
- Equipment Needs: Varies/basic, estimated \$13K budget
- Maintenance Needs: Treating lumber on climbing wall annually, treating utility poles as needed, changing hardware and cable approx. every 7-10 years.
- Highlights: Climbing wall(s) can be used as rappel station. Platforms and ascent stations can be added to transform this course into a statically/belayed course. Auto belays can be added to the climbing wall(s). Gravity and point to point Zip Line possibilities exist. Low elements can be easily added.
- Expansion Options:
 - Challenger 1: Dynamically belayed 3 element high course
 - Challenger 2: Add 3 additional elements mid-level and a 1 sided climbing wall
 - Challenger 3: Add another side to the climbing wall, Swing-by-Choice, and Zip Line

ENDEAVOR™ SERIES

The Endeavor Course is an exciting new design that bridges the gap between traditional and modern course layout. Intended to work with Smart Belay technology in a simple, efficient, and cost-effective package, the Endeavor Series features a compact footprint that can easily be expanded to accommodate more elements, a Giant Swing, and Zip Lines. An ideal facility for a wide range of users that can grow with your programming needs.



IDEAL USES:

- Public/Private Schools
- BSA/GSA Programs
- Youth and Sports Camps
- Colleges and Universities
- Therapeutic Facilities

OPERATIONAL PARAMETERS:

- Age Range: 7 and up
- Weight Restrictions: 275 lbs
- Staffing: 1-5
- Course Capacity: Up to 25
- Throughput: +/- 75 per day
- Length of Experience: 1 hour - multiple day program
- Belay System: Smart/Static

**Listed price does not include project and location specific variables including but not limited to: engineering, travel and living expenses, program equipment or training*

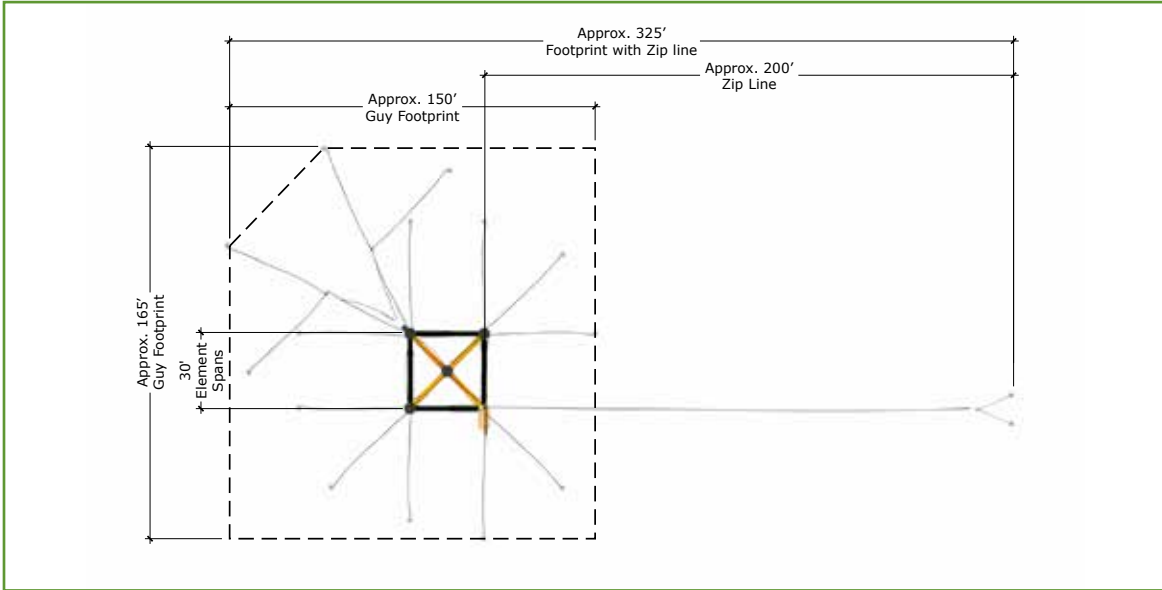
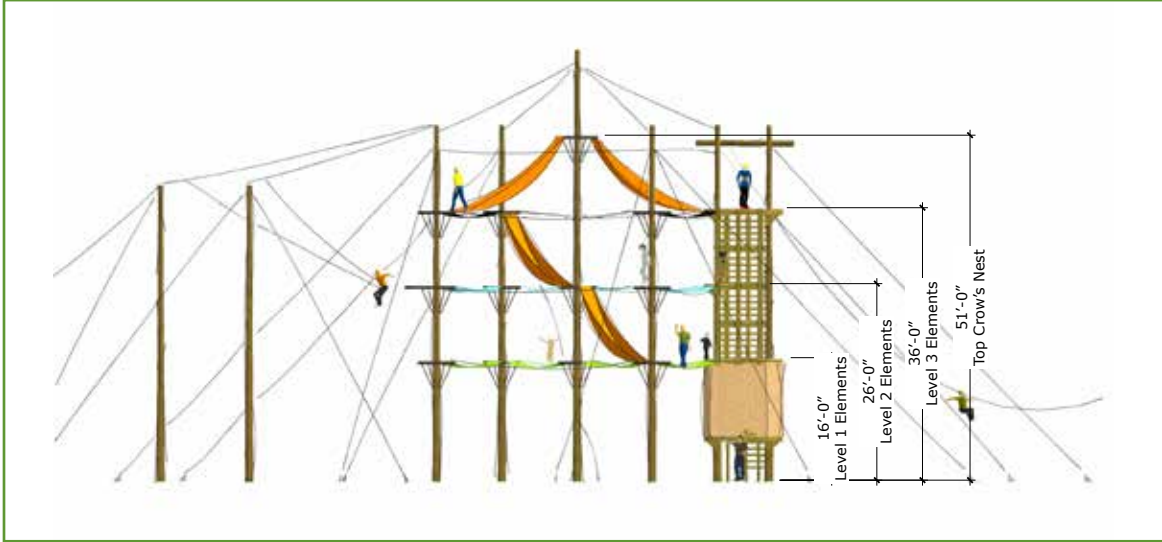
***Installation only time estimate. Additional time may be required prior to the start of onsite installation to complete design, engineering, and/or satisfy other preconstruction requirements.*

SPECIFICATIONS:

- Approx. List Price: * \$70,000-\$135,000
- Installation Timeframe: ** 3 weeks+
- Access Prevention: Retracting Net or Removable Staple Climb
- Number of Elements: Up to 13
- Difficulty Level of Elements: Easy, moderate and difficult available
- Training Needs: 3-7 days, estimated \$7K budget
- Equipment Needs: Varies/basic-advanced, estimated \$25K budget
- Maintenance Needs: Treating lumber on platforms annually, treating utility poles as needed, changing hardware and cable approx. every 7-10 years.
- Highlights: Super compact footprint, multiple options for access, giant swing and gravity or point to point zip can be added as well as multiple cells increasing capacity dramatically.
- Expansion Options:
 - Endeavor 1: 1 cell, 10 elements, plus lowering station
 - Endeavor 2: Add Giant Swing or Zip Line
 - Endeavor 3: Add Giant Swing and Zip Line or additional cell

DISCOVERY™ SERIES

Our signature product representing nearly three decades of construction and programming experience, the Discovery Course offers a high visual impact in a small compact footprint. Appropriate in traditional and commercial settings alike, the Discovery course can be paired with a variety of access options and easily accommodate zip lines and giant swings.



IDEAL USES:

- Public/Private Schools
- BSA/GSA Programs
- Youth and Sports Camps
- Colleges and Universities
- Therapeutic Facilities
- Corporate Programs
- Small Commercial Enterprises

OPERATIONAL PARAMETERS:

- Age Range:** 7 and up
- Weight Restrictions:** 275 lbs
- Staffing:** 1-6
- Course Capacity:** Up to 50
- Throughput:** +/- 150 per day
- Length of Experience:** 2 hours - multiple day program
- Belay System:** Dynamic/Smart/Static

SPECIFICATIONS:

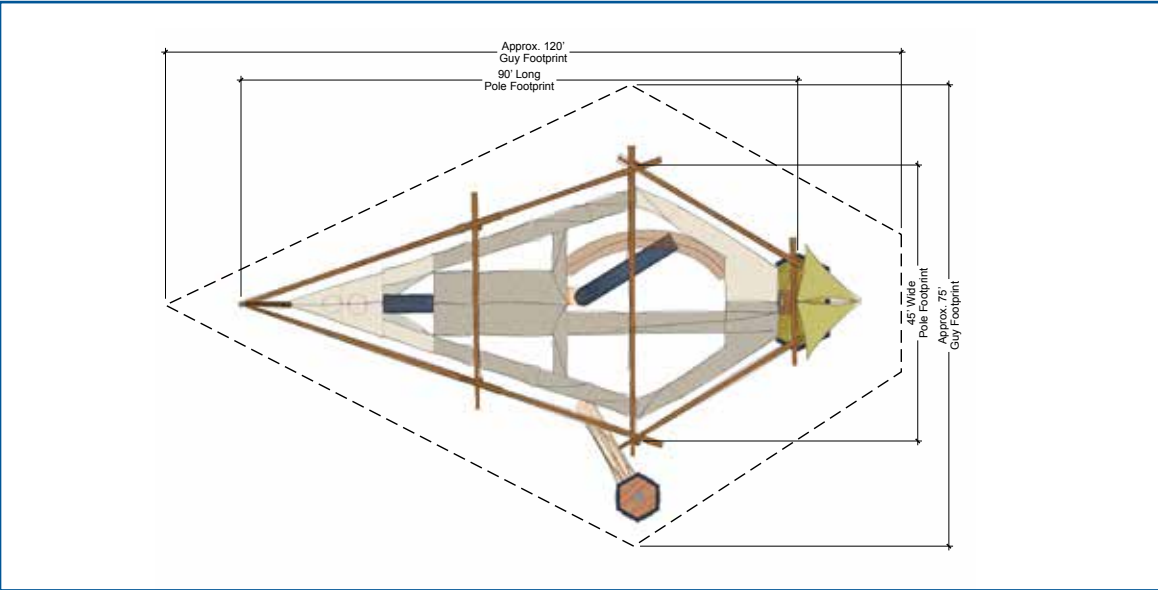
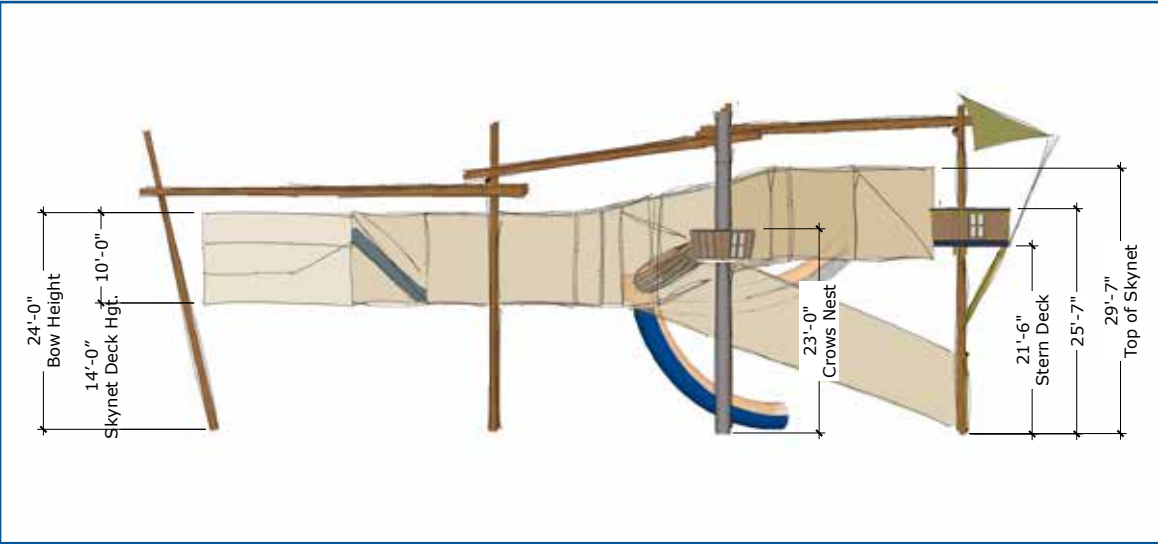
- Approx. List Price:** * \$75,000-\$150,000
- Installation Timeframe:** ** 3-5 weeks+
- Access Prevention:** ½ or Full Sieve with lockable door
- Number of Elements:** Up to 24
- Difficulty Level of Elements:** Easy, moderate and difficult available
- Training Needs:** 3-7 days, estimated \$7K budget
- Equipment Needs:** Varies/basic-advanced, estimated \$35K budget
- Maintenance Needs:** Treating lumber on Sieve Structure annually, treating lumber on platform annually, treating utility poles as needed, changing hardware and cable approx. every 7-10 years.
- Highlights:** Full Sieve structure can be set up as climbing wall or rappel station. Option to go with steel platforms with composite decking to limit maintenance. Numerous addition and expansion options including gravity or point-to-point zip lines.
- Expansion Options:**
 - Discovery 1:** Dynamically belayed 14 element high course at low and mid level
 - Discovery 2:** Add 7 additional elements mid/top level and Half Sieve access
 - Discovery 3:** Add Full Sieve access, Giant Swing, and tandem zip lines.

**Listed price does not include project and location specific variables including but not limited to: engineering, travel and living expenses, program equipment or training*

***Installation only time estimate. Additional time may be required prior to the start of onsite installation to complete design, engineering, and/or satisfy other preconstruction requirements.*

SKYNET PLAY SYSTEM™ SERIES

Skynet Play Systems™ ushers in a new era of adventure facilities. Capture the imagination of young and old in a variety of settings, shapes, and configurations. These exciting and engaging net courses can be installed on trees or artificial structures and feature rooms, tunnels, obstacles, passages, mazes, slides, treehouses, and more. No need for harnesses, helmets, belay systems, or ground school. Skynet courses offer a unique experience that solves common age and participation gaps in a simple, easy, and efficient to operate package.



IDEAL USES:

- Public/Private Schools
- Public Play Grounds
- Youth Camp Programs
- Therapeutic Facilities
- Small Commercial Enterprises
- Medium Commercial Enterprises
- Large Commercial Enterprises

OPERATIONAL PARAMETERS:

- Age Range: 4 and up (with adult)
- Weight Restrictions: 300 lbs
- Staffing: 1-3
- Course Capacity: 60-100+
- Throughput: 500+
- Length of Experience: 2.5 hours
- Belay System: N/A

SPECIFICATIONS:

- Approx. List Price: * \$300,000
- Installation Timeframe: ** 6-8 weeks
- Access Prevention: Lockable door with ramp access
- Number of Elements: N/A
- Difficulty Level of Elements: Fun!
- Training Needs: Basic 1 day for operational and maintenance, estimated \$2K budget
- Maintenance Needs: Treating lumber on structures annually, treating utility poles as needed, adjusting tension as needed. Changing netting and lashing as needed. Changing hardware and cable approx. every 10+ years.
- Highlights: Utility pole or tree based. Options for slides and tube crawls, trails and tree houses. No safety equipment necessary.
- Expansion Options: Custom

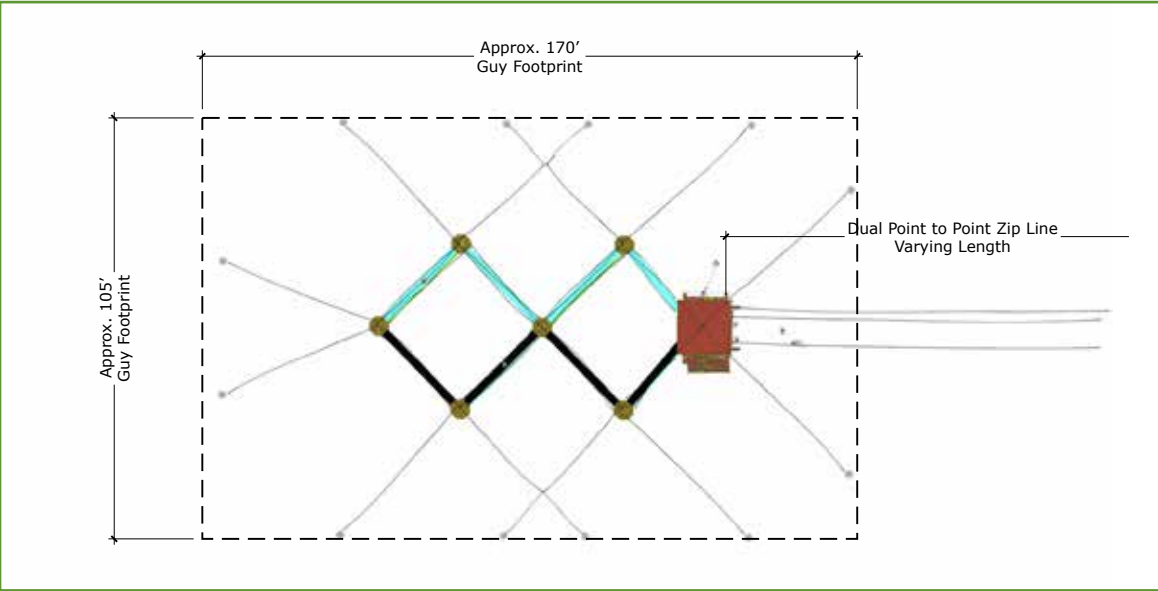
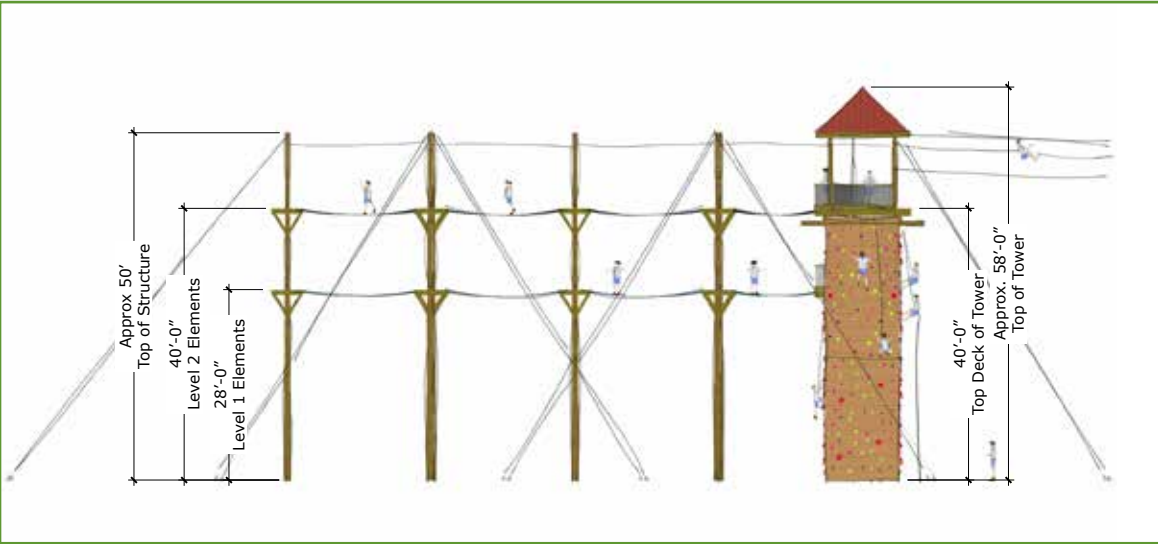
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WATCH TOWER™ SERIES

The highly versatile and visually impressive Watch Tower can fulfill a broad range of programming and operation needs. More than 1,600 square feet of climbing sits below a 40-foot-high covered observation deck that offers spectacular 360 degree views. The observation deck is accessed via an internal spiral staircase and the Watch Tower is Zip Line and Powerfan ready. An excellent canvas for the addition of Perfect Descent Auto Belays, internal climbing surfaces, Sky Bridge connectors to aerial adventure courses and custom dimensional features that add visual interest and technical challenge.



IDEAL USES:

- Public/Private Schools
- BSA/GSA Programs
- Youth Camp Programs
- Sports Camp Programs
- Colleges and Universities
- Small Commercial Enterprises

OPERATIONAL PARAMETERS:

- Age Range:** 10 and up
- Weight Restrictions:** 275 lbs
- Staffing:** 2-8
- Course Capacity:** Up to 75
- Throughput:** Approx. 225 per day
- Length of Experience:** 2.5 hours - multiple day program
- Belay System:** Dynamic/Auto/Smart/Continuous/Static/

**Listed price does not include project and location specific variables including but not limited to: engineering, travel and living expenses, program equipment or training*

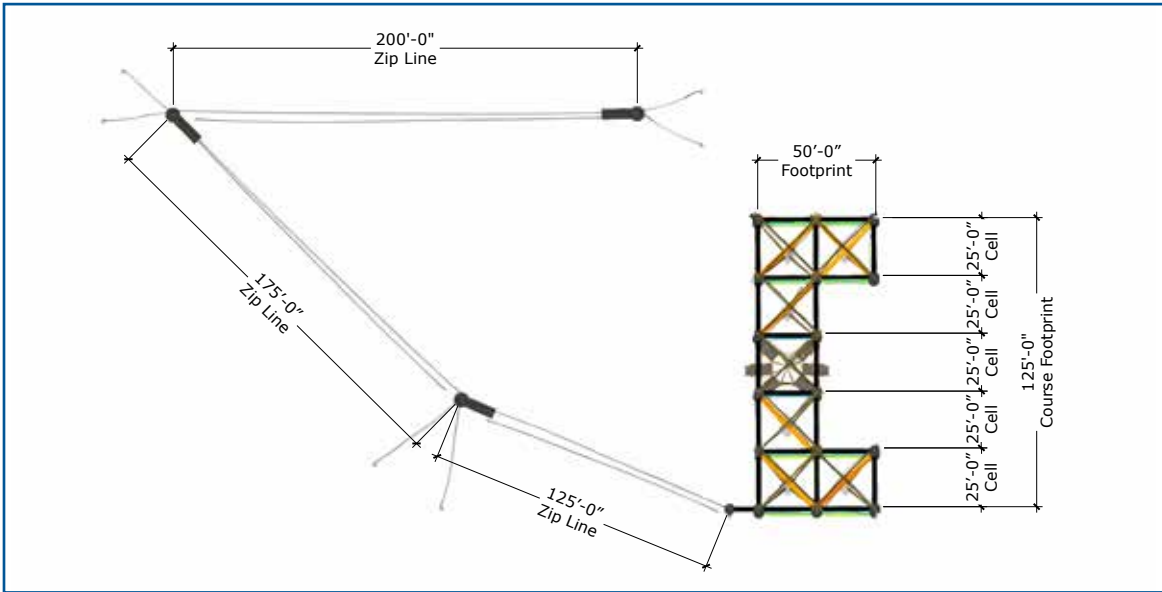
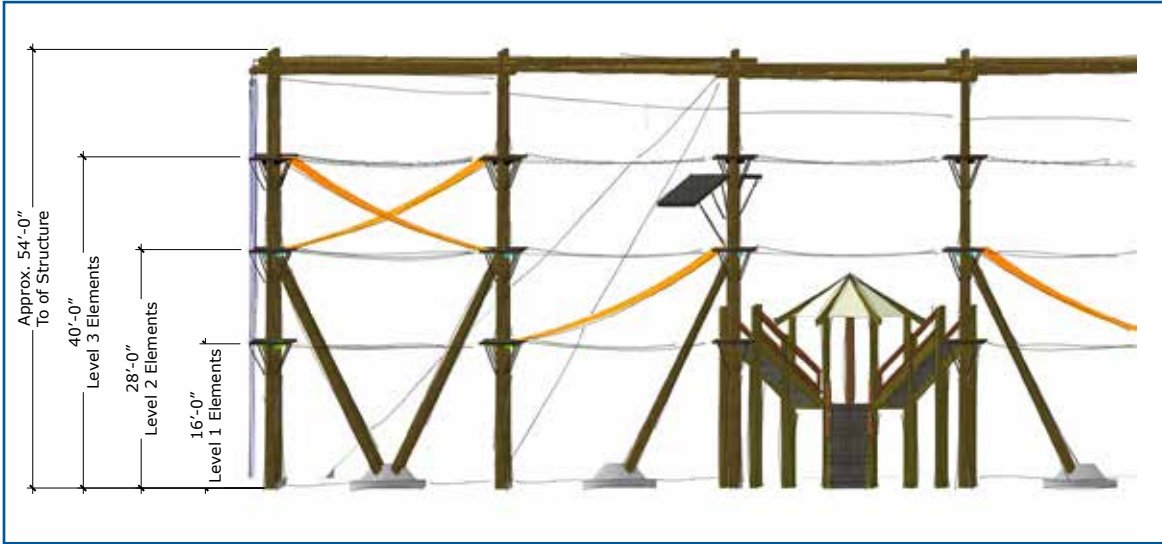
***Installation only time estimate. Additional time may be required prior to the start of onsite installation to complete design, engineering, and/or satisfy other preconstruction requirements.*

SPECIFICATIONS:

- Approx. List Price:** * \$199,000-\$421,000
- Installation Timeframe:** ** 3-8 weeks+
- Access Prevention:** Lockable door
- Number of Elements:** Up to 26
- Difficulty Level of Elements:** Easy, moderate and difficult available
- Training Needs:** 3-7 days, estimated \$7K budget
- Equipment Needs:** Varies/basic-advanced estimated \$40K budget
- Maintenance Needs:** Treating lumber on climbing surface annually. Treating lumber on platforms annually. Treating utility poles as needed. Changing hardware and cable approx. every 7-10 years.
- Highlights:** Faces can be set up for climbing with added features or flat for rappelling. Option to go with steel platforms with composite decking to limit maintenance. Seamless expansion beyond the standard package offerings. Gravity or point to point Zip Line possibilities exist.
- Expansion Options:**
 - Watch Tower 1:** Watch Tower structure
 - Watch Tower 2:** Watch Tower structure and Zip Line
 - Watch Tower 3:** Watch Tower, Zip Line and Double Diamond aerial course or other

WESTPARK™ SERIES

WestPark is the award winning aerial adventure park that offers a dynamic recreation experience for a wide-ranging audience. The heart of Westpark is a 25ft x 25ft freestanding cell structure that can be configured into a variety of shapes and sizes and requires no external guying. The course boasts 3 levels of self-navigable terrain and includes vertical ascending and descending stations and an optional integrated zip line tour. WestPark is ideal for small sites and operators needing an efficient and high-volume facility.



IDEAL USES:

- Corporate Programs
- Small Commercial Enterprises
- Medium Commercial Enterprises
- Large Commercial Enterprises

OPERATIONAL PARAMETERS:

- Age Range: 4 and up (with adult)
- Weight Restrictions: 275 lbs
- Staffing: 3-8
- Course Capacity: Up to 200
- Throughput: 600+ daily
- Length of Experience: 3 hours +
- Belay System: Smart/Continuous (optional with kids course)

**Listed price does not include project and location specific variables including but not limited to: engineering, travel and living expenses, program equipment or training*

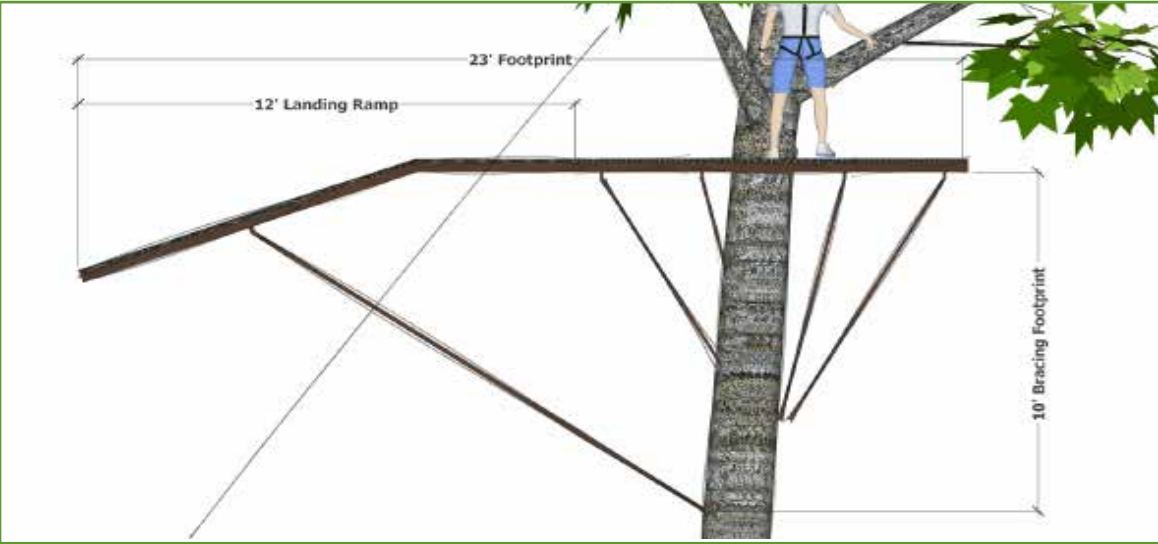
***Installation only time estimate. Additional time may be required prior to the start of onsite installation to complete design, engineering, and/or satisfy other preconstruction requirements.*

SPECIFICATIONS:

- Approx. List Price: * \$538,000-\$992,000
- Installation Timeframe: ** 4-12 weeks
- Access Prevention: Quad deck with lockable door
- Number of Elements: Up to 78
- Difficulty Level of Elements: Easy, moderate and difficult available
- Training Needs: 5-7 days, estimated \$12K budget
- Equipment Needs: Advanced, estimated \$125K budget
- Maintenance Needs: Treating lumber on Quad Deck structure annually, treating utility poles as needed, changing hardware and cable approx. every 7-10 years.
- Highlights: Steel platforms with composite decking. Seamless expansion beyond the standard package offerings. Options for integrated kids course. Options for continuous and self-navigating belay systems.
- Expansion Options:
 - Westpark 3: 3 cells, approx. 36 elements and 3 Zip tour
 - Westpark 5: 5 cells, approx. 59 elements and 3 zip tour
 - Westpark 7: 7 cells, approx. 78 elements and 3 zip tour

CUSTOM™ SERIES

Whether you're building new or looking to transform an existing facility, our team of passionate and creative professionals work closely with you to explore project possibilities and define your dream. We've learned what matters most and use a well-formulated process to design unique structures that reduce risk, support efficient operations, and stand up to years of use and abuse. From canopy tours to challenge courses and just about everything in between, our team works within your budget and space to craft custom adventure experiences that are second to none.



IDEAL USES:

- Small Commercial Enterprises
- Medium Commercial Enterprises
- Large Commercial Enterprises

OPERATIONAL PARAMETERS:

- Age Range: Based on weight
- Weight Restrictions: 75-275 lbs
- Staffing: 4-12+
- Course Capacity: 24-150+
- Throughput: 72-500+ per day
- Length of Experience: 1.5-3+ hours
- Belay System: Smart/Continuous

SPECIFICATIONS:

- Approx. List Price: * \$187,000-\$1,250,000
- Installation Timeframe: ** 6-16 weeks+
- Access Prevention: Custom
- Number of Elements: 6-200+
- Difficulty Level of Elements: Easy, moderate and difficult available
- Training Needs: 7-10+ days, estimated \$15K budget
- Equipment Needs: Advanced, estimated \$25K-\$275K budget
- Maintenance Needs: Treating lumber on platforms annually, treating utility poles as needed, changing hardware and cable approx. every 7-10 years.
- Highlights: Custom technology that allows steel or wooden platforms to be installed on trees without hampering growth, optional steel and composite platform components that greatly reduce annual maintenance, custom and unique entrance structures to prevent unwanted access, through bolt design for belays and elements that allow for more natural tree growth and less maintenance.
- Expansion Options: Custom

**Listed price does not include project and location specific variables including but not limited to: engineering, travel and living expenses, program equipment or training*

***Installation only time estimate. Additional time may be required prior to the start of onsite installation to complete design, engineering, and/or satisfy other preconstruction requirements.*



CONSULTATION:

We want to know more about you and how you intend to use your new adventure facility by drilling down to the key information that will support efficient Discovery and Design phases.

- Define Audience
- Establish Needs
- Confirm Goals
- Highlight Opportunities
- Communicate Process



INSTALLATION

Our team of qualified aerial installers efficiently construct the planned facility with consistent input and oversight from our project management, inspections, and operations team ensuring that the final product meets intended design parameters, documented specifications, and operational objectives.

- Logistics and coordination
- Reporting and communication
- Operations review
- Acceptance inspection
- Project Commission



DISCOVERY

Timeframe: 2-4 weeks | Cost: \$250 +

Project evaluation intended to collect information to complete and return a concept proposal outlining facility specifications, operational considerations, installation parameters, and itemized costing.

- Define vision
- Collect information
- Establish scope
- Determine feasibility
- Complete Concept



TRAINING AND OPERATIONS

Prepare your operations team for the job of managing your new facility using the Association for Challenge Course Technology Practitioner Certification scheme designed to provide objective assessment of an individual's skill and ability to work and manage risk while at height.

- Support safety
- Prepare Staff
- Develop Skills
- Confirm Ability
- Ready opening



DESIGN

Timeframe: 4-8 weeks | Cost: \$5,000 +

While some projects are ready for installation following Discovery, others will move into a Design phase prior to installation to confirm concept assumptions, complete project documentation, and finalize prefabrication and installation logistics and planning.

- Resolve unknowns
- Finalize design
- Complete engineering
- Plan Installation
- Confirm Costing



ADDITIONAL INFORMATION & FREQUENTLY ASKED QUESTIONS:

What can I expect when I contact Challenge Towers to explore the services and resources you provide?

- ▲ You can expect to reach a Challenge Towers project consultant and have an initial conversation to identify some of the foundational pieces of your project including audience, scale, timeframe and budget.
- ▲ The information you provide during your initial consultation is shared with the Director of Design and Installation and the CT Design Team. They will review the details, return preliminary facility information for your review, and contact you to schedule a follow up call.

Does this first step cost anything?

- ▲ We are able to provide you with general information and costing at no charge. It is not until you are ready to move forward with our Discovery phase that we start the contracting process. This is where we start to gather and evaluate information specific to your site and project and produce critical information necessary for project development.

What does the Discovery phase cost?

- ▲ Many projects start the Discovery phase with a remote project evaluation where we use digital tools to evaluate site-specific variables including terrain, distance, and elevation. This timely, and efficient process gives you fast answers, site specific layouts, and preliminary pricing to share with investors and other critical stakeholders for only \$250. In some cases, an in-person site visit may also be critical to collect the information necessary to establish project feasibility. The charge for in-person site visits is \$1,500 per person for the first day and \$850 per person for every day thereafter. Most pole-based projects will require 1-2 people for 1-2 days while tree-based projects often require 2 people for 2 or more days.

Can we proceed with our project with just a remote project evaluation, or will we need a full site visit?

- ▲ In some cases, on smaller projects where the design is not complicated and there are no identified site issues associated with things like terrain and soil conditions, we are able to move a project forward with a preconstruction site visit.
- ▲ Many projects will require one or more site visits prior to the start of construction. The cost of the remote project evaluation will be returned via credit in cases where a site visit is determined to be necessary.

How much will the Design phase cost for my project?

- ▲ Cost for Design is commensurate with the complexity, scale, and uniqueness of the project. Variables including engineering and permitting requirements may further influence Design phase costs. Small to medium size projects often range between \$5,000 and \$15,000 while large and complex projects can push to \$50,000+. The final cost for your Design phase will be confirmed upon completion of initial project Discovery.

Do I need engineering for my course?

- ▲ In many instances engineering is not needed nor required for smaller structures, however it is solely dependent upon what your state and or local municipalities require or requirements of your organization and stakeholders.
- ▲ Engineering is typically required if you are intending to build a course for commercial purposes.
- ▲ Increasingly, states are requiring documentation of structural engineering as a part of the installation process. Challenge Towers works closely with engineers experienced in aerial adventure facility design and can provide state sealed documents throughout the United States.

What can I expect once installation has begun?

- ▲ You can expect detailed and consistent communication from our installation team and regular project updates through our digital management tools. Any time a change occurs to the installation schedule, you'll be notified in real time of the change.
- ▲ You can expect a professional work crew directed by a seasoned Project Lead.
- ▲ You can expect ongoing communication with your Project Coordinator, who provides oversight and support to the installation team and is closely involved with every aspect of your project.
- ▲ You can expect timely communication about changes that may impact installation cost or timeframe and formal written approvals to affect necessary or requested changes.
- ▲ You will find that many components are fabricated and shipped-to-site making installation easier and more efficient.
- ▲ You can expect the project site to be kept as tidy as reasonably allowed by circumstances throughout the installation process.
- ▲ You will experience unparalleled quality and attention to detail from our professional and organized team.

What does the end of the installation process look like?

- ▲ Our team keeps you informed and helps you navigate the transition from installation, to training and operations.
- ▲ We will complete a thorough acceptance inspection that includes a structural review and operational testing to ensure that every component works as designed and meets design and engineering parameters.
- ▲ You will receive a comprehensive Acceptance Inspection report, as part of the commissioning process, documenting all necessary information to meet industry standards and state and local requirements.
- ▲ You will receive Local Operating Procedures at the conclusion of your training that outlines important information regarding the use of your course.

What can I expect from Challenge Towers, after my course has been installed and I have started operations?

- ▲ The real journey begins once your project installation is complete. The Challenge Towers team is passionate and motivated to help you make your new enterprise a success. We have the skill, experience, and ability to support a range of operation types and facilities, big and small.
- ▲ You can expect to receive a timely response to your questions and timely resolution to your issues. Our team is accessible and will take the time you need to deliver the service you deserve.



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