

The ARCHERY TRADE ASSOCIATION (ATA)

works to increase the recruitment and retention of new, current and once-active archers and bowhunters. We are the driving force in defending, educating, and lobbying for the greater good of the industry and sport. We preserve and promote archery and bowhunting's rich heritage to ensure active consumer participation, and successful manufacturing and retailing for generations to come. With this guide, the ATA puts its focus on archery participation by reaching out to archery park enthusiasts.

The Archery Range Guide is a detailed blueprint to build an archery park in your community. From site plans and recommendations to input from those who have already built parks, this guide features a broad offering of useful information. There are even case studies and information on risk management along with a breakdown of each park's amenities and costs. From big to small and everything in between, you'll find what you're looking for!

FOR MORE INFORMATION

Contact the ATA at **866.266.2776** info@archerytrade.org

The Archery Trade Association thanks staff and industry partners who helped in collaboration of this Archery Range Guide.





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FAQS

DO I NEED A PERMANENT ARCHERY-ONLY FACILITY TO START CONDUCTING ARCHERY PROGRAMS?

No, beginning archery programs can be conducted in any gym by hanging special netting to protect walls and other property. Tennis courts can be utilized using the same technique.

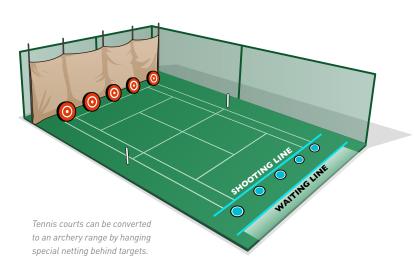
Existing walking trails may be used for field/3D events, or ski archery during the off months and archery courses can be used for cross-country skiing, snowshoeing or other winter sports.

An open field, such as those used for soccer or football, could accommodate many archery programs.

Indoor archery ranges can be added to one side of a recreation center so the entire gym area and range can be used for archery events and programs, or the archery area can be used as part of events being held in other parts of the recreation center.

Archery facilities can be designed so that targets can be covered with curtains and the range used for events like weddings, parties and other rental activities.

© BUNKER HILLS ARCHERY COMPLEX





With use of special netting, beginning archery programs can be conducted in a gym.



Archery and airgun shooting are very compatible recreational activities. Ben Avery Shooting Facility, Phoenix, Ariz.



Any indoor activity that requires open space, like that in an event or community center, could be compatible with archery. Covering targets with netting would allow the same space to be used for wedding and other income generating events.

Bunker Hills Archery Complex, Anoka County, Minn.

IS ARCHERY A SAFE SPORT?

Throughout its long history, archery ranks as one of the safest activities offered in any organized group setting. In fact, evidence shows that archery is safer than golf and even baseball.

OBTAIN YOUR COPY OF THE ARCHERY SAFETY BROCHURE AT ARCHERYTRADE.ORG

WHAT ARE THE SPACE REQUIREMENTS FOR ARCHERY?

Although it would seem an archery range would take a lot of space, a high-quality shooting facility can fit just about anywhere. The space needed for archery is dependent upon available natural or manmade backstops, as well as budget and the types of shooting being considered. The more shooting options available, the larger the park needs to be. Half-acre, fully contained facilities are not uncommon, as in our

STARING LAKE PARK case study.

A small community range in open space can utilize as little as 2 acres

DEMOPOLIS SPORTS-PLEX, but 5 acres is a good starting point for most moderately sized ranges. The more targets offered, the more space needed.

BUNKER HILLS ARCHERY COMPLEX

WHAT SHOOTING FEATURES DO I NEED TO CONSIDER?

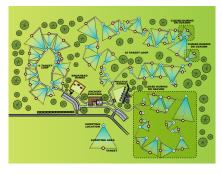
BEGINNER AREA

A separate area should be considered for beginning archers and classes. Beginners often use low draw weight bows that are best shot into targets where low-velocity arrows will not bounce back from the target. These targets are often slightly different than those used for more advanced archers shooting higher-velocity arrows. In addition, more targets can be placed at shorter distances (5-20 yards or 4-18 meters) to ensure shooting success. Moveable targets will also make it easier to conduct classes.



Archery pavilion/containment range utilizing only ½ acre and located next to a dog park.

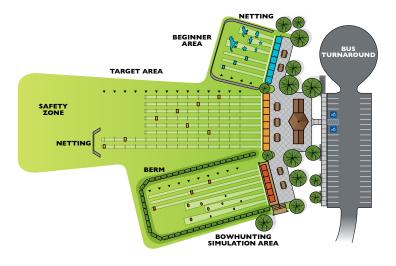
Staring Lake Park, Eden Prairie, Minn.



Bunker Hills Archery Complex, Anoka County, Minn.

TARGET PRACTICE AREA

A minimum of five targets, staggered from 10-40 yards (9-37 meters) will serve a majority of recreational archers. Where space is available, longer distances should be considered for local target archers (Olympic competition is 90 meters for men – almost 100 yards) or bowhunters who hunt in western states (and shoot longer distances). Again, having moveable targets means the area could be used for intermediate and advanced shooting programs such as Junior Olympic Archery Development (JOAD) and Scholastic 3D Archery (S3DA), where participants shoot longer distances in competitions.



BOWHUNTING SIMULATION AREA

In eastern states, most bowhunters use treestands or ground blinds with a majority of shot opportunities presented at 40 yards (37 meters) or less. A platform design can simulate these common hunting scenarios. In western states, most bowhunters utilize the spot-and-stalk method of hunting where shot opportunities are at longer distances. Distances at a practice range should reflect the most common hunting scenarios in that area. Broadhead use should be considered in this area. This topic is addressed in detail on page 20.

Archery Park conceptual design utilizing three safety measures: netting, space and berms.

WALKING COURSE

An archery trail should be considered where 3D and field competitions are popular (ASA, NFAA, IBO and S3DA). Hunters frequently use this type of facility as it often simulates natural hunting conditions, although it does require more land than other shooting areas (approximately 1 – 1.5 acres per target).

INDOOR ARCHERY

Indoor facilities should be considered in any location where cold weather prevents use of outdoor ranges for more than three months. For more information on indoor range ideas and specifications, obtain additional range guides at www.archerytrade.org.

Also, review Easton Foundations Archery Facility Planning Guide at www.esdf.org/archery-facilities/ archery-facility-planning-guide.

WHERE SHOULD THE ARCHERY PARK BE LOCATED?

To ensure frequent use, archery facilities should be considered in and near highly populated areas and other common park facilities to provide the most access and opportunity for residents in any community. These ranges should be just as visible as other recreational opportunities and accessible via common travel routes (trails, roads etc.). Placing a few targets in a remote area without typical park amenities is unlikely to attract youth or families.

The best outdoor locations are where topography and other natural barriers can be used to improve safety. Consider looking for existing parks where space might not be fully utilized. If nothing is available in existing parks, locate archery facilities near other recreation hubs, like baseball and other sports complexes.

20 Target Walk Through Range Using Range Fans 75 yth Remay Year (1975) 100 yth 100 y



An event in Athens, Ala., where they used the city trail to put up a temporary walking course.

WHAT ARCHERY ACTIVITIES AND PROGRAMS SHOULD I CONSIDER TO AID IN THE DESIGN OF MY FACILITY?

Besides avid bowhunters and recreational archers, Boy Scouts, Girl Scouts, churches, homeschool student groups, corporate event hosts and other youth-oriented groups have great potential as users of an archery facility. Birthday parties, after school programs and one-day events where residents can come out and try archery are other examples of programs that can be offered. Some specific programs to consider:

- 4-H Shooting Sports
- Explore Archery
- Boy Scouts archery merit badge
- Centershot Ministries
- Explore Bowhunting
- Explore Bowfishing
- Hunter Education
- Junior Olympic Archery Development (JOAD)
- National Archery in the Schools Program (NASP)

- USA Archery Adult
 Achievement Program
- US Collegiate Archery Program
- Scholastic 3D Archery (S3DA)
- National Field Archery Association (NFAA)
- Archery Tag
- Field to Fork Programs
- Archery Shooters Association (ASA)
- International Bowhunting Organization (IBO)



Target throwers can be used for events and are a great way to provide extra income, but require use of special arrows.

TOURNAMENTS

Local tournaments can bring in anywhere from a handful of archers to several thousand participants and spectators. Facilities should consider additional space and target requirements if tournaments are part of the long-term plan. Some larger tournaments require a bid process that will outline minimum needs for a facility. A permanent facility may not necessarily need to meet tournament requirements so long as nearby open fields and wooded areas can be used to temporarily accommodate additional space needs

OCULLMAN COMMUNITY ARCHERY PARK.

Tournament participation is likely to increase if sanctioned by a state or national archery organization and marketed well.

Benefits from hosting tournaments include increased awareness and exposure of the archery range. Tournaments may also bring in funding support for maintaining the range through fundraising sponsored by local archery programs.

ARCHERY ACTIVITIES

Archery activities and games can add value to your range or excitement to your program. Games such as tic-tac-toe, horseshoes and balloon pop are simple, yet keep participants engaged. Activities such as Archery Tag and Explore Bowfishing can offer ways for participants to find their favorite type of archery. Some additional risk management issues may have to be considered, depending on the game and activity.



Paper targets or other items, like balloons and playing cards, can be used for fun and as an additional challenge.





Several manufacturers make paper targets with different games.





Motion/Pop-up target systems are another exciting shooting opportunity, especially for experienced archers. Systems can be expensive and require staff to operate. However, events and tournaments using the system can provide income back into the facility.



Some companies make targets that flip or have action, which are used to create an exciting competition.



Bowfishing is a popular activity in many states and setting up an area to simulate the activity could make an exciting addition. Special equipment is required.

WHAT CAN I DO TO MANAGE RISK/LIABILITY?

USING SPACE AS A SAFETY BUFFER

For targets at distances less than 30 yards (27 meters), use a 15-yard (14-meter) safety buffer to the side and 25 yards (23 meters) beyond the targets.

For shooting from 31 to 50 yards (or 27 to 46 meters), use a 25-yard (23 meter) safety buffer to the side and beyond the targets.

For shooting distances longer than 50 yards (46 meters), use a 25-yard (23-meter) safety buffer to the side. Beyond the targets use a buffer that is half the distance of the largest target (for example: if the target is placed at 80 yards (73 meters), the safety buffer should be 40 yards (37 meters).

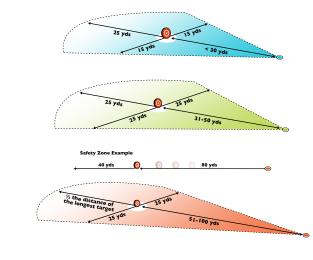
USING MANMADE OR NATURAL BARRIERS FOR SAFETY

EARTHEN BERM

An earthen or stone berm built 5 feet (1.6 yards or 1.5 meters) or higher positioned within 10 yards (9 meters) beyond and to the sides of the targets is ideal.

NETTING

A net hung 3 feet beyond the targets and extending 5 to 10 feet to the sides of the outermost targets is sufficient. Typical netting is made of Kevlar and is 8 feet in height. Netting should be loosely hung on well-secured metal or wooden posts. Wind and sun will break netting down faster than if used indoors. Netting should ONLY be used in a beginner area featuring bows with less than 30 pounds of draw weight and larger diameter arrows.





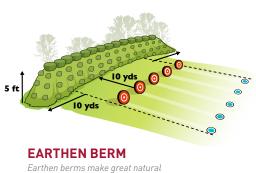


NATURAL BARRIERS

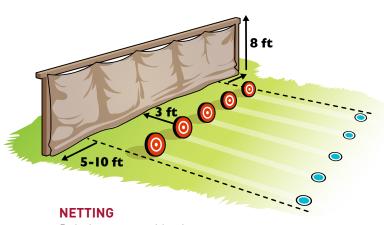
Shooting toward a hill or ravine will help restrict arrow movement beyond targets. Landscaping, especially dense species such as cedar and arborvitae, can be used to aid in reducing arrow loss.

WALLS

Walls can be built downrange taking wind and other weather conditions into account. A small neighborhood range can be entirely contained by a combination wall/baffle system.



Earthen berms make great natural safety barriers. Adding shrubs and other landscaping material is ideal to keep the range looking like other parks.



For beginner areas, special netting hung behind targets makes an ideal safety barrier.

CONTROLLING ACCESS

Access should always be controlled so the entrance is behind the shooting line.

FENCES/GATES

Gates and fencing are not necessary, but should be considered where residential or other recreational uses exist downrange.

NATURAL BARRIERS

Landscaping, hillsides and other natural barriers can be utilized to direct safe access to the range.

SIGNS

A welcome sign should include range rules, procedures, ordinance language and emergency phone numbers.

Warning signs should be posted around the perimeter of any outdoor shooting range.

Signs may also be placed on walking courses to indicate unsafe zones when searching for arrows.

Signage should be posted on the outside of any indoor entrance that may fall within the range buffer zone.

DOORS

Any and all doors should be securely locked, even chained from the inside, to eliminate dangers when the range is in use.



Walls not only make great barriers, but can be used for advertising during events.

Cullman Community Archery Park Cullman, Ala.



Fencing can be utilized to control access. Mardsen Archery Range, Ramsey County, Minn.

Rules:

- Follow archery shooting procedures.

 Number of arrows in = number of arrows out.

 Only shoot at designated targets.
 Always be aware of the target and what is beyond the target.
 Always keep bow pointed toward targets.
 Always keep bow pointed toward targets.
 Always have bow with arrow parallel to the ground.
 Only nock arrows at the shooting line.
 Always have an arrow knocked when drawing to eliminate the possibility of a dry fire.
 Broadhead shooting is only allowed at specified targets and/ or during special "sight-in" days.
 Anyone I6 and under must be under adult supervision.

Shooting Procedures:

- Verify that the range is clear.
 Give "Range is Hot" or similar command to indicate shooting may commence.
 When finished shooting, place bow on rack or set it down and wait behind the shooting line until all archers are finished shooting.
 • Give a "Cease Fire" or similar command to indicate all
- shooting should stop.
 Verify all equipment is put down and remains behind the
- shooting line.
 Proceed to the targets to retrieve arrow
- When using whistle commands: use one (1) whistle blast (i.e. "shoot") to indicate shooting may commence; three (3) blasts (i.e. "go get arrows") to indicate arrows may be retrieved, and four (4) or more blasts if an emergency exists. Two (2) whistle blasts (i.e. get bows") are used during programs to indicate participants can pick up their equipment. This command is not necessary during open shooting.

GRANITEVILLE ARCHERY PARK

Hours of Operation:

Monday - Thursday: 8 AM - 7 PM 8 AM - 8 PM 12 PM - 5 PM Sunday:

John Doe, Director of Parks & Recreation 123 Fake Street, Graniteville, State 29829 Phone: (123) 456-7890

Contact:





Warning signs should be posted around the perimeter of outdoor ranges.

Sample welcome sign.

ARCHERY RULES

Follow archery shooting procedures.

Number of arrows in = number of arrows out.

Only shoot at designated targets.

Always be aware of the target and what is beyond the target.

Always keep bow pointed toward targets.

Always draw bow with arrow parallel to the ground.

Only nock arrows at the shooting line.

Always have an arrow nocked when drawing to eliminate the possibility of a dry fire.

Broadhead shooting is only allowed at specified targets and/or during special "sight-in" days.

Anyone 16 and under must be under adult supervision.

ARCHERY SHOOTING PROCEDURES

Verify that the range is clear.

Give "Range is Hot" or similar command to indicate shooting may commence.

When finished shooting, place bow on rack or set it down and wait behind the shooting line until all archers are finished shooting.

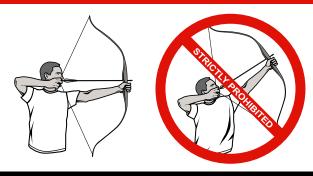
Give a "Cease Fire" or similar command to indicate all shooting should stop.

Verify all equipment is put down and remains behind the shooting line.

Proceed to the targets to retrieve arrows.

When using whistle commands: use 1 whistle blast (i.e. "shoot") to indicate shooting may commence; 3 blasts (i.e. "go get arrows") to indicate arrows may be retrieved, and 5 or more blasts if an emergency exists. 2 whistle blasts (i.e. "get bows") are used during programs to indicate participants can pick up their equipment. This command is not necessary during open shooting.

BOWS MUST BE DRAWN SO ARROWS ARE PARALLEL TO THE GROUND



THIS HELPS KEEP ARROWS INSIDE THE PARK



When possible, include a place on your sign to insert announcements. Ben Avery Shooting Facility, Phoenix, Ariz.

ADDITIONAL RANGE ETIQUETTE

When people are waiting to shoot, keep shooting time under 30 minutes or take turns shooting no more than 6 arrows.

When bringing your own paper targets to the range, attach the paper with easily removable adhesive and take everything with you when you leave.

Always check your equipment – bow and arrows included – for damage to avoid injury.

Archers should police themselves to ensure safety.

OTHER WAYS TO MINIMIZE RISK

Create a waiver that states all range rules and procedures will be followed. The best time to ask participants to sign the waiver is when fees are paid or passes are handed out.

Rental of equipment to adults, parents or guardians could be allowed after signing a waiver.

Develop a set of operating procedures for the facility, including a regular maintenance schedule.

Make sure the facility becomes a regular part of a staff security or police route.

Post emergency procedures on entrance and informational signs.

ARE MOST ARCHERY PARKS STAFFED?

No, most public and private outdoor archery ranges are not staffed. Some ranges allow users and/or members access to facilities via keys, pass codes or similar entry systems. Larger facilities are often staffed to manage and run programs, classes, events and operational activities. Indoor facilities are more likely to have staff on site. The staff may be utilized to manage the range or nearby to observe when in use.

Staffing can add great value to your range when it comes to archery classes and programming. Archery certified staff not only ensure proper safety measures, but create a welcoming environment for all users, especially beginners, to ask questions and to remain engaged.

WHAT SHOULD BE INCLUDED IN MY BUDGET FOR THE FACILITY?

View the table at right for a sample budget.

WHAT USER FEES SHOULD BE CONSIDERED?

User fees for archery should be consistent with other recreational facilities, and daily fees may be considered. Annual passes for individuals and families are often easier to administer, especially where facilities are not staffed. Some facilities use a pay box located at the entrance based on the honor system. Group rates should also be considered, especially for school, church, Boy Scouts, Girl Scouts, 4-H and other youth groups that may want to utilize the facility.

Fees should reflect factors such as wear and tear on equipment, staff time, utilities (such as electric), rental equipment, and range maintenance. Refer to individual case studies for sample fee structures.

	TOTAL BUDGET	LOCAL ENTITY CONTRIBUTION	LOCAL 3RD PARTY CONTRIBUTIONS	GRANTS	FUNDING NEEDED
Recreation Programs	TOTAL BODGET	OUNTRIDOTION	SORTRIBOTIONS	OKARTS	- ONDING REEDED
Equipment					
Training costs					
Staff & benefits					
Programs sub-total					
, rograms sub-total					
Construction					
Land (cost or value)					
Engineering/Site design contractor					
Staff & benefits					
Travel					
Site preparation					
Land prep					
Roads					
Walkways					
Utilities					
Non-archery Costs - Outdoor					
Restrooms					
Shelters					
Storage buildings					
Picnic tables					
Benches					
Signs					
Bike racks					
Playground					
Landscaping					
Archery Costs - Outdoor					
Targets					
Platforms					
Ground quivers					
Bow racks					
Safety netting and poles					
Berms					
Range and rules signs					
Building costs - indoor					
Archery Park sub-total					
Operations & Maintenance (annual)					
Staff & benefits					
Utilities					
Equipment & target maintenance General facilities maintenance					
O&M sub-total					
our sus total					
Marketing					
Mailings					
Media					
Brochures/Maps					
Grand opening event					
Marketing sub-total					
mai keung sup-total					

Sample budget available on page 49.



Fee boxes are ideal for unstaffed facilities.

HOW DO I KNOW THERE ARE ENOUGH ARCHERS TO SUPPORT AN ARCHERY FACILITY?

The best way to determine your archery market is to research existing archery retailers, clubs and organizations in the area. The Archery Trade Association lists its retail members at www.archery360.com/where-to-shoot or www.bowhunting360.com/where-to-shoot. These retailers are likely to be familiar with the archery market in the area.

You may also contact your state archery associations and organizations to find archery clubs and programs near you. By calling your state coordinator, you can find out how many schools include archery as a part of their physical education curriculum and after school programs. In addition, local 4-H programs sometimes run archery programs and the Boy Scouts have a merit badge for archery.

Refer to our map on www.archerytrade.org for contacts in specific states.

This local market analysis is important to determining your final plan for archery in the community. For instance, if there are a large number of schools participating in archery programs, beginner shooting areas may need to be larger. If 3D archery is popular locally, a walking course should be considered.

A larger community could actually support several small neighborhood archery ranges. Small ranges can be utilized for archery programs and minor events. Larger facilities can support a variety of tournaments and competitions.

HOW DO I FUND THE CONSTRUCTION OF MY FACILITY?

START LOCALLY

Funding can be found in the same places you would look to fund other recreational facilities within your community.

STATE LEVEL

Contact your state's wildlife agency and hunter education coordinator for more information. Utilizing non government state organizations could provide support and possible funding.

BEYOND STATE RESOURCES

The Archery Trade Association has funded facilities. We work in partnership with the state wildlife agencies because they are the recipients of a federal excise tax levied on the archery industry to generate revenues for the enhancement of archery and bowhunting opportunities. Our funding will only be considered if a full plan that includes archery programs is developed. USA Archery offers grants to their JOAD and Collegiate Archery Clubs for purchases towards equipment and trainings.



Depending on a community's size, a variety of archery parks may be necessary to meet the needs of residents. In this example, we used a ratio of 15 archery parks per 250,000 people (approximately the current ratio used when infusing golf into community's recreational menu). A majority of archery parks (say 60-75%) would be small neighborhood venues providing introduction and practice opportunities similar to the size and uses of a neighborhood ball field. Fewer (say 20-30%) could be midsized community parks large enough to support programs and small competitions. At least one destination park should be considered to accommodate large events and competitions.

ARCHERY RANGE DESIGN ELEMENTS

SUN ANGLES

A north-facing range is ideal; however, safety should be foremost. World Archery requires archers participating in its sanctioned events to shoot within 45 degrees of north (www.worldarchery.org). Permanent shade structures over the shooting line will also protect shooters from rain or excessive heat (note that some competitions do not allow shooters under covered structures).

TOPOGRAPHY

Except for walking courses, most outdoor archery ranges are located on level ground. Take advantage of areas where shooting can be conducted toward hills, heavily wooded areas with no walking trails, or downward into ravines or valleys.



ACCESS RECOMMENDATIONS

Have a well-defined entrance and exit.

Informational signs that describe hours of operation, where to get range passes (if applicable), range rules, range procedures, emergency procedures and where to get information about local archery programs (where applicable) should be placed at the entrance.

Entrance to the range should be from behind the shooting line.

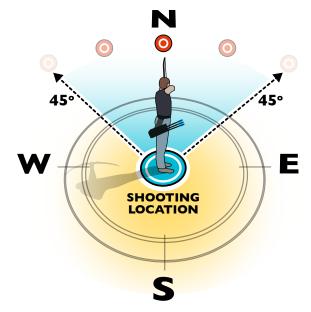
Provide adequate parking and turnaround for vehicles, bikes and buses.

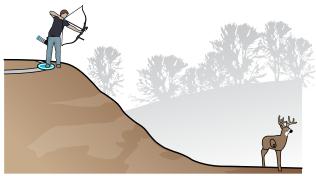
Walkways should connect all sections of the range. Outdoor facilities should include bathrooms, shelters, picnic tables, garbage receptacles, beverage machines and similar amenities, just like those provided at any public park.

Indoor facilities should include restrooms, a spectator area that allows food and beverage and similar conveniences found at any indoor structure.

Consider ADA accessibility:

- Grade should be 5 percent or less (with ramping conditions that can be increased to 8.33 percent).
- Walkways should be hard-packed or paved.
- Handicapped parking and drop off should be closest to the range.
- Restrooms must be handicapped accessible.
- Range should have clearances for wheelchair spaces.





Utilizing topography that allows for shooting downhill will increase archery safety.





ADA accessible range. Pontiac Lake Shooting Range, Oakland County, Mich.







ADA accessible lift. Rose Lake Shooting Range, Clinton County, Mich.

ROOM FOR ARCHERY MOVEMENT AND SPECTATORS

A waiting area should extend at least 3 yards (3 meters) behind the shooting line indoors and 5.5 yards (5 meters) outdoors.

Spectator areas should be a minimum of 10 feet (3 yards or meters) behind the waiting line. Up to 25 feet (8 yards or 7 meters) or more of space should be considered if larger events or competitions will be held, especially for youth events that tend to bring in more spectators.

If competitions or classes are held, it would be ideal for spectators to be slightly raised to see downrange over the archers.

Indoor areas can include food and beverage vending, wi-fi access and announcements for upcoming events and programs.

For more information on spectator space, visit: www.esdf.org/archery-facilities/archery-facility-planning-guide

WELL-MARKED SHOOTING LANES

Draw a distinguishing line of pavement, packed gravel or paint for each shooting lane, as well as where ground quivers and/or bow racks are located.

Consider using platforms as a low maintenance shooting lane marker.

DISTANCE MARKERS

These should be consistent with the look and feel of other signs and amenities at other parks in the area.

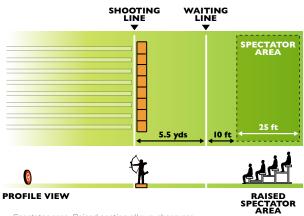


Raised platform.

Carver Park Reserve, Victoria, Minn.



Bow rack and distance marker. Spring Lake Park Reserve, Dakota County, Minn.



Spectator area. Raised seating allows observers a clear view downrange.



Paved shooting line.
Bunker Hills Archery Complex, Anoka County, Minn.



Distance marker. Boosalis Shooting Park, Lincoln, Neb.



Quiver and distance marker. Ben Avery Shooting Facility, Phoenix, Ariz.



Use of landscape blocks for shooting lines. Paseo Vista Recreation Area Chandler, Ariz.



Ground quivers serve as the shooting line. Athens Community Archery Park, Athens, Ala.

SHOOTING LANES

Common widths are 24 to 30 inches, therefore a 5-foot (1.6-yard or 1.5-meter) shooting lane for each target is sufficient to accommodate 2 archers per target at most ranges.

If the range is intended to support World Archery competitions, each lane needs to be at least 32 inches (1 yard or 0.8 meters) wide for each shooter. With 2 archers per lane, each lane should be 5-feet, 4-inches (1.8 yards or 1.6 meters).

SHOOTING EQUIPMENT ACCESSIBILITY

Bow racks may be placed at or behind the shooting line. At beginner ranges, however, bow racks should be placed well behind the shooting line to make it easier for the instructor to maintain visual control of the shooting line. Bow hangers should also be placed on platforms.

Quivers should be placed at the shooting line and can be as simple as a metal ring on a post or PVC pipe. They can also be attached directly to the bow rack where they are placed on the shooting line.

Archers often carry their equipment in cases, along with many shooting accessories and tools. If parking is not directly behind the shooting line, additional tables and/or benches should be considered for archers to keep extra equipment nearby.

TARGETS

There are several manufacturers that make targets specifically for shooting ranges. Each of the case studies associated with this guide will list the types of targets used and how often they are replaced.

Refer to the manufacturer's guidelines for recommendations on target frame design. Some targets require shelter to prolong target life and others need rain to help expand target materials.

Often times, the front of target frames are also covered with rubber, used fire hose or other materials to help protect wood from damage caused by arrows.



Double target frame.

Athens Community Archery Park, Athens, Ala.



Bow racks should appear near all shooting lines, including shooting from platforms. Carver Park Reserve, Victoria, Minn.



PVC ground quiver. Ben Avery Shooting Facility, Phoenix, Ariz.



PVC quiver attached to bowrack. Carver Park Reserve, Victoria, Minn.



Protected target frame. Lake Elmo Park Reserve, Washington County, Minn.



Layered carpet target often used in southwestern states. Ben Avery Shooting Facility, Phoenix, Ariz.



Simple target frame. Carver Park Reserve, Victoria, Minn.

SPECIFIC SHOOTING AREAS

BEGINNER AREA

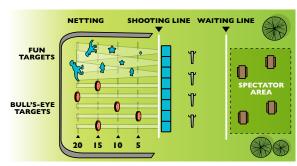
Targets should be placed from 5-20 yards (4-8 meters) to ensure success.

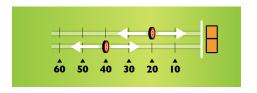
Targets for low draw weight bows should be used (usually less than 30 pounds).

5 bullseye targets would easily accommodate a class of 10. Additional participants can shoot in turns.

When running programs, bow racks are often placed between the shooting line and waiting line to aid in safety and range control. This should be considered at a permanent range as well.

A few fun targets could be located in the beginner area to the side of othe targets. Targets may resemble monsters, cartoon characters or dinosaurs. These can be arranged so that more than one target can be shot from a single shooting location.





TARGET AREA

A minimum of 5 targets should be placed from 10-40 yards [9-37 meters].

It is a good idea to double the most frequently used targets, which are usually at 20 and 30 yards (18 and 27 meters).

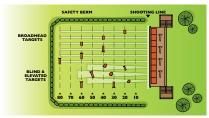
Targets out to 100 yards (91 meters) are necessary for competitive archers or bowhunters who need to practice for western hunting conditions.

If a separate area is not being considered for bowhunters, this area is where special broadhead targets could be placed to the side of other targets.

Targets should ideally be designed for higher draw weight bows and crossbows.

Moveable targets would be ideal, especially if the range is to accommodate competitions.

SAFETY TARGETS SAFETY WALL TARGETS QUIVER BOW NOLDERS FECTATOR ALEA PACTATOR AREA SAFETY WALL TARGETS QUIVER BOW HOLDER SPECTATOR AREA SPECTATOR SPECTATOR AREA SPECTATOR SPECTATOR AREA SPECTATOR SPECTA









BOWHUNTER AREA

At least 5 targets should be placed from 10-40 yards (9-37 meters) minimum.

Targets out to 100 yards (91 meters) for bowhunters who need to practice for western hunting conditions.

This area is where special broadhead targets could be placed to the side of other targets.

Targets used should ideally be designed for higher draw weight bows and crossbows.

An elevated platform that can accommodate at least 2 shooters at a time should be considered.

A simulated blind should also be considered for this area and can be incorporated into the platform, or set up as a separate lane.



Elevated platform.
Culluman Community Archery
Park, Cullman, Ala.



Simulated blind. Lake Elmo Park Reserve, Washington County, Minn.

DEALING WITH CROSSBOWS AND BROADHEADS ON THE RANGE

We do not recommend equipment bans of any kind and encourage ranges to accommodate crossbows and broadheads at every facility. Many range operators will tell you that bans don't prevent use: therefore, we recommend several options for incorporating broadhead use at the facility.

Crossbows have become more broadly legalized for hunting and a small segment of archers use them for competition. Today's crossbows and high-performance compound bows produce similar arrow speeds. However, arrows shot from crossbows are heavier and have a higher overall kinetic energy resulting in faster target wear. A target with a worn center might still stop an arrow shot from a compound bow if there is 20 inches of penetration because crossbow arrows are much shorter than normal arrows. However, a worn target center could result in the inability to easily retrieve them from the target or result in a pass-through. Planning and budgeting for target replacement and repair is the best solution. Crossbow use on any beginner range is strongly discouraged except for programs using crossbows with less than 30lbs of draw weight.

Broadheads have cutting surfaces that can affect the longevity of the targets on the range. The following considerations should be made to accommodate for the use of broadheads:

- Provide a clearly labeled, manufactured target specifically designed for shooting with broadheads and place it at 20 yards (18 meters) (the most common distance used to practice).
- Provide a separate area with broadhead pits that can be used whenever the range is open.
- Set up "sight-in" days, set out broadhead-specific targets during the hours open for broadhead shooting and advertise for hunters to come out and use the range during those dates and times.

INDOOR FACILITIES

Indoor archery facilities should be considered where weather prevents outside shooting from occurring for 3 or more months per year and where populations can support its daily use and maintenance.

Because indoor facilities usually include many more supporting elements like lobbies, meeting rooms, bathrooms and storage as well as engineering, they are not addressed in this document.

Please refer to the Easton Foundations Archery Facility Planning Guide for guidance in building your indoor facility. The Archery Trade Association can also provide additional range guides and indoor facility designs.

® BUNKER HILLS ARCHERY COMPLEX ® DEMMER CENTER.



Clearly labeled broadhead only target. Carver Park Preserve, Laketown Township, Minn.



Broadhead pit. Ben Avery Shooting Facility, Phoenix, Ariz.

NON-ARCHERY DESIGN ELEMENTS TO CONSIDER

LIGHTING: Bowhunters and other recreational shooters often like to practice before work or in the evenings. Having a lighted facility can significantly extend shooting hours.

STORAGE: Consider having a place to store replacement targets, program targets and equipment, repair kits, signs, carts to move equipment around, and places to hang bows and store arrows.

USE TRACKING: Incorporate people counters, lasers at archery park entrance or cameras into the design where facilities are not staffed. Where facilities are staffed, the same system used to track use at a recreation center can be utilized. Occasional on-site counts at varying times of the year, month, week and day could be used to determine use patterns. Digital check-in and check-out range systems allow experienced users to utilize the range outside of programming time without supervision.

PUBLIC ANNOUNCEMENT SYSTEM: Should be considered if larger events are to be held at the range.

FEE BOXES: Ideal for unstaffed facilities, both indoor and outdoor.



Fee boxes are ideal for unstaffed facilities.

OPERATIONAL PROCEDURES

An operations manual should be prepared, especially for an indoor facility. This will be helpful during staff trainings and annual facility reviews, allowing for quick access for any clarifications.

The following are items to contain in this manual:

- 1. Mission and Vision for Facility
- 2. Facility Attributes
 - Location and address
 - Access/Common areas
 - Archery range (indoor and/or outdoor) description
- 3. Copy of Local Ordinances (if applicable)
- 4. Staff and Management
 - Full-time staff
 - Part-time staff
 - Volunteers
 - Advisory committee
 - Training requirements
- 5. Administrative Duties
- 6. Customer Relations
 - Individuals and user groups defined
 - Orientation/safety training (if applicable)
 - Customer service and feedback
- 7. Programs and Events Management
 - Public open shooting
 - Introductory classes and camps
 - Skill development classes, camps and
 - year-round programs
 - Leagues and tournaments
 - Organization uses
 - Corporate uses
 - Scheduling policy

- 8. Hours and Fees
 - Hours of operation
 - Membership fees
 - Daily use fees
 - Annual pass fees
 - Group fees
- 9. Range Rules and Procedures
 - Range rules
 - Archery range procedures (with and without whistle commands)
 - Emergency procedures and plan
- 10. Maintenance Plans
 - Janitorial (trash and cleaning schedules)
 - Grounds maintenance
 - Monthly building checks
 - Landscaping
 - Snow removal
 - Annual maintenance schedules (painting, etc.)
 - Archery maintenance
 - Target and frame repair and maintenance
 - Program equipment repair and maintenance
 - Inventory of equipment (when purchased, installed, fixed/repaired/rotated and replaced)
 - Insurance and legal issues

ORDINANCES

You do not have to consider adding or adjusting ordinances to build an archery range, especially if the risk management issues presented in this document have been addressed. The following is language to be considered when shooting on private property or for hunting.

A person may shoot a bow and arrow on private property in the city if these requirements are met:

- 1. All shots must be aimed toward a target owned by the property owner or tenant, and the target must be on the archer's property. The target must be maintained in good condition, which means capable of stopping arrows no matter where they strike.
- 2. A backstop must be used and positioned on the archer's property to prevent any arrow missing a target from crossing into or over neighboring property, unless the neighbor has provided written permission for the archer to trespass. Archers can use a building on their own property as a backstop. All backstops must prove capable of stopping arrows no matter where they strike.
- 3. An adult (at least 18 years old) must be present and supervising any archer under age 16 who is shooting a bow with a draw weight of 30 pounds or more. The archer and the supervising adult are responsible for the impact of all shots.
- 4. An archer of any age can shoot a bow with a draw weight less than 30 pounds under these conditions:
 - An adult must be on the premises and aware the archer is practicing.
 - The archer must use field or target points.
 - The archer must comply with Section 1 and Section 2.
- 5. As an added precaution, the city suggests archers practice from an elevated position whenever possible so they are aiming down into the target.

If your community is considering hunting within city limits, these ordinances could help provide guidelines.

- 1. All hunters must follow state hunting laws and license requirements to bowhunt within city limits.
- 2. The discharge of a bow must be on the hunter's own land or the hunter must have express written permission of the property owner to discharge such a bow on the property of another.
- 3. Hunting is not allowed within 150 feet (50 yards or 46 meters) of any public park land, public trail, public right of way or any land or building not owned by the landowner.
- 4. If discharging a bow within 150 feet (50 yards or 46 meters) from a property line, any such discharge shall be toward the interior of the parcel upon which the discharge is occurring.



INSURANCE

Archery is generally covered under any community's general liability policy. Some companies offer insurance for club ranges and individuals not covered under such policies. Verify or update your insurance policy coverage to include range insurance options and what state specific requirements need to be accomplished.

ASA, IBO, NFAA and USA Archery all offer insurance for their clubs.

MARKETING & WEBSITES

Archery facilities and programs should be clearly located on community websites and program brochures like other recreational opportunities in the community. This allows visibility to the range, program and events. Consider partnering with the local archery club, archery retail shops and other recreational listings to market programs and events on the archery range.

CONSTRUCTION DRAWINGS AVAILABLE AT ARCHERYTRADE.ORG

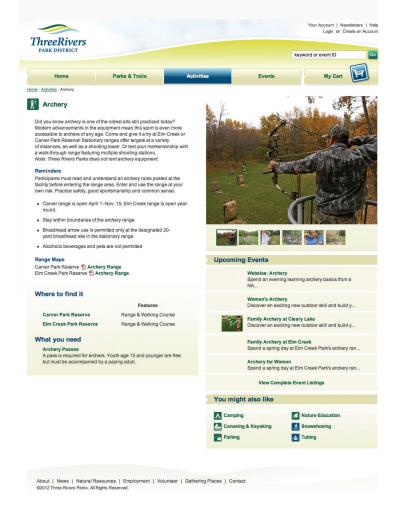
Target stands (2 designs)

Broadhead pit

Platforms (3 designs)

Buffer fence

Archery Pavilion/Containment Range



Archery website for Three Rivers Park District, Minn.



BUNKER HILLS ARCHERY COMPLEX

ANOKA COUNTY, MINNESOTA

ANOKA COUNTY PARKS

550 Bunker Lake Blvd. NW Andover, MN 55304 763.757.3920

RAPIDS ARCHERY CLUB

1255 133rd Ave. NW Andover, MN 55304 763.862.8163

COMMUNITY BACKGROUND

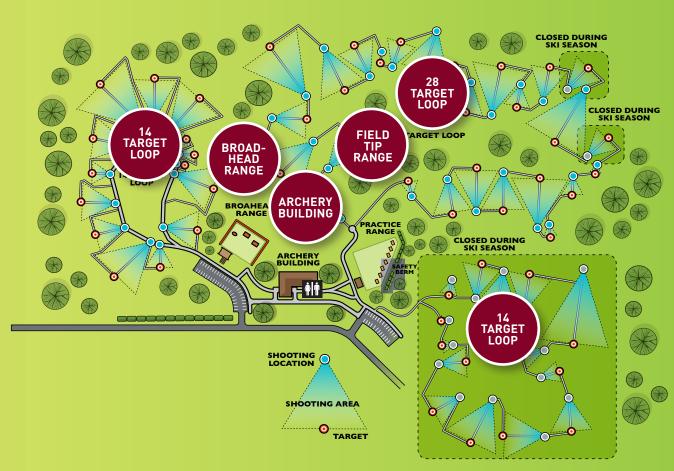
Anoka County is a part of the 7-County Minneapolis/St. Paul Metropolitan area with a population of more than 330,000.

Owned by Anoka County.
The Archery Complex is located in the northwest corner of Bunker Hills Regional Park.

The complex is a 1,600-acre park that offers camping, horse trails, biking, hiking, playground and cross country skiing.

The park is located next to the Bunker Beach Water Park and Bunker Hills Golf Club.





BUNKER HILLS ARCHERY COMPLEX

HOURS OF OPERATION

Outdoor range open 6:00 a.m. to ½ hour after sunset, March-November. Closed during cross country skiing.

Indoor range open via Rapids Archery Club partnership:

MID-OCTOBER-DECEMBER:

Tuesdays and Thursdays from 9:00 a.m. – 1:00 p.m. and 6:00 – 9:00 p.m.

Saturdays 5:00 – 9:00 p.m. and Sundays 1:00 p.m. – 5:00 p.m.

JANUARY-APRIL:

Tuesdays and Thursdays from 9:00 a.m. – 1:00 p.m.

Saturdays 5:00 p.m. – 9:00 p.m. and Sundays 1:00 p.m. – 5:00 p.m.

The indoor range is staffed when open by volunteers from the club.





DESIGN & DESCRIPTION

OUTDOOR ARCHERY PARK

General target range: 22 handicap accessible targets from 10-100 yards (9-91 meters) and 4 targets from 66-76 yards (60-70 meters) to accommodate both recreational and target competitors.

Broadhead range: 8 sod bale targets out to 30 yards (27 meters) with small portable tower.

14-target handicap accessible walking course (NFAA field) from 10-80 yards (9-73 meters) with elevated platform.

14-target walking course (NFAA field) from 10-80 yards (9-73 meters) with elevated platform.

28-target walking course (NFAA field) from 10-80 yards (9-73 meters) with elevated platform.

INDOOR ARCHERY

8400 sq. ft

Archery range with 24 shooting lanes all at 20 yards (18 meters)

Bow racks

Kitchen and drinks vending machine

Restrooms

Classroom

GENERAL ACCESS AREA

Parking	Paved	☐ Gravel
Bus turn-around capability	Yes	□ No
AMENITIES		
Shelter	■ Yes	□ No
Benches	■ Yes	□ No
Picnic Tables	■ Yes	□ No
Play Area	☐ Yes	■ No
Restrooms	■ Yes	□ No
Food and beverage nearby	■ Yes	□ No

BUNKER HILLS ARCHERY COMPLEX

BUDGET & FEE STRUCTURE

Land is valued at approximately \$600,000.

Construction budget was \$825,000 in 2001 and included \$550,000 for the building and \$275,000 for outdoor areas.

Operating expenses are approximately \$15,000 per year for staff and \$20,000 for operations and maintenance.

The archery center provides about \$20,000 in annual income to the county. Additional income is generated by the Rapids Archery Club.

Fees charged per visit to any of the archery ranges (free range fees for Rapids Archery Club members).

TIMELINE

Rapids Archery Club owned 20 acres of land shortly after they were formed in 1959. The land was sold to Anoka County in 1972 and the first archery building was built in 1977.

1998 master plan suggested moving archery.

1999 fire in park led to a settlement of \$800,000 which was used for the indoor archery complex and opened in 2001.

MAINTENANCE

30-year partnership between Anoka County and Rapids Archery Club. The current license agreement is for 10 years.

Anoka County pays utilities and some herbicide, cuts grass, plows snow and maintains the building.

Rapids Archery Club maintains the archery ranges, sprays weeds, spreads wood chips and pays for additional herbicide when needed.

All Rapids Archery Club members are required to work a minimum of 20 hours per year. After the first year, members have the option to purchase a non-working annual membership.

Indoor range targets (made in-house) are replaced about every 3 years. Outdoor targets (also made in-house) are replaced at varying times depending on their distance on the range; 20-30 yard (18-27 meter) targets are replaced every year, 30-50 yard (27-46 meter) targets are replaced every 2-3 years and targets over 50 yard (46 meter) are replaced every 3-4 years. Sometimes the 30-50 yard (27-46 meter) targets can get moved over to the 50+ yard (46+ meter) area to get another year out of them.

SAFETY

There have been no safety concerns or accidents.

Vandalism issues: Every year 1 or 2 targets are destroyed by people shooting broadheads into them and a sign or two will be damaged.

Wood target stands need occasional repair. Material is supplied by the county and labor is provided by the club.

PROGRAM & EVENT ELEMENTS

Beginning Archery: 6 weeks for 1.5 hours each week, during the winter months. Classes are limited to 50 students per class and often have a waiting list. \$

Archery Camps in conjunction with Camp Courage (YMCA) during the summer programs.

Bowhunter Education classes offered once per year. \$

Rapids Archery JOAD club (Bandits) runs throughout the year (10-15 weeks) on Saturdays, 1½ hours each for the Standard and Advanced groups. To reach the Advanced group, a participant may be invited by the head coach. \$

Rapids Archery Club offers archery tournaments and events each year, including several outdoor and indoor NFAA and JOAD sanctioned events. \$

Facility is also utilized by local 4-H shooting sports program.

Special hunts occur in some Anoka County parks, but not at the range.

Rapids Archery Club offers archery leagues throughout the year, indoor and outdoor, for recurve, compound and traditional archers. \$

\$ - Fees charged to participate



STORAGE ELEMENTS

Indoor building storage room, outdoor storage shed near general target range. An additional 16' x 20' shed for ATV's used for walking course trail maintenance, herbicide storage, 3D and field targets and JOAD equipment.

ANSWER TO THE QUESTION: IF WE HAD TO DO OVER AGAIN, WHAT WOULD WE DO DIFFERENTLY?

The indoor range should have been longer to accommodate a larger waiting area behind the shooting line. A place for outdoor vending machines is needed.

ANY ISSUES WITH NEIGHBORS, WORKING WITH COUNCIL ETC. THAT OTHERS COULD LEARN FROM?

Because the archery facility is located inside a large park that was master-planned, there have been no issues.

PARTNERSHIP

The 10-year license agreement outlines maintenance as per above. The club is also responsible for offering programs at the facility. In exchange for their labor, the club has exclusive access to the indoor range.







MARKETING

Archery page within the Anoka County Parks website.

Archery classes are a part of the recreation brochure and cross promoted with other recreational activities within the park, including golf, horseback riding, swimming and camp. Rapids Archery Club does outreach at local festivals and events.

Rapids Archery Club website.

JOAD club advertises beginner archery classes.

Posts information for upcoming events on local archery retailers Facebook page and in-shop. eBlasts via the Outdoor Newsletter.



CARVER & ELM CREEK PARK RESERVES

WESTERN TWIN CITIES, MINNESOTA

THREE RIVERS PARK DISTRICT (Carver Archery Range)

6920 Springview Dr. Waconia, MN 55387 763.694.7650

THREE RIVERS PARK DISTRICT (Elm Creek Archery Range)

13387 129th Ave. N Dayton, MN 55327 763.694.7894

COMMUNITY BACKGROUND

Western side of the Twin Cities Metropolitan Area.

More than 1.4 million people within 20 miles of Elm Creek facility and more than 700,000 within 20 miles of Carver Park facility.

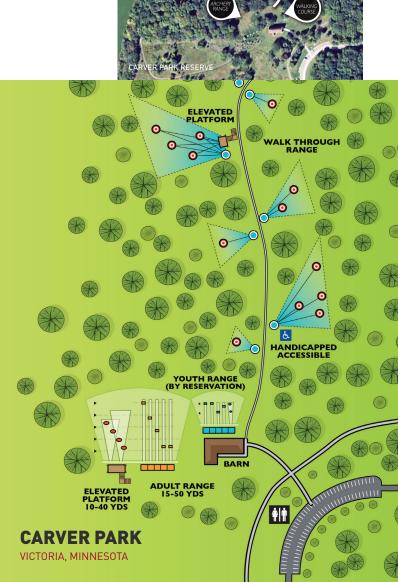
Three Rivers Park District has nearly 27,000 acres of parks, reserves, trails and special-use facilities.

Owned by Three Rivers Park District.

Elm Creek Park Reserve is located in Dayton, Minn. – nearly 100,000 people within 5 miles.

Carver Park Reserve is located in Laketown Township, Minn. – 35,000 people within 5 miles.





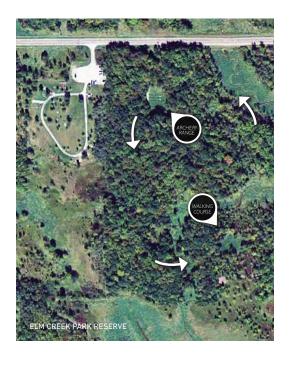
CARVER & ELM CREEK PARK RESERVES

HOURS OF OPERATION

Carver Park Reserve is open from 5:00 a.m. – 10:00 p.m.; stationary range is open year-round and walk-through course is open April 1st - November 15th.

Elm Creek Park Reserve is open year-round from 5:00 a.m. – 10:00 p.m.

Both archery ranges are unstaffed.



DESIGN & DESCRIPTION

CARVER PARK RESERVES

OUTDOOR ARCHERY PARK

Area for portable youth range: 10 targets from 5-20 yards (4.5-18 meters), set up for supervised group instruction only.

General target range: 10 targets at 10-40 yards (9-37 meters).

Crossbow and Broadhead only range: 2 targets set at 20 & 50 yards (18 & 46 meters), located next to stationary range.

Other: 19-target walking course with 9 stations up to 70 yards [64 meters].

Portions of the range are designed to accommodate individuals with mobility disabilities.

GENERAL ACCESS AREA

Paved	☐ Gravel
■ Yes	□ No
☐ Yes	■ No
■ Yes	□ No
■ Yes	□ No
☐ Yes	■ No
■ Yes	□ No
☐ Yes	■ No
	■ Yes □ Yes ■ Yes ■ Yes □ Yes □ Yes □ Yes

Park is 3,700 acres and includes a historic farm, nature center, water bird sanctuary and campground among many other trails and amenities.

ELM CREEK PARK RESERVE

OUTDOOR ARCHERY PARK

General target range: 11 targets at 10-50 yards (9-46 meters), including an elevated platform.

Ten youth targets located permanently in the general target range, 10-20 yards (9-18 meters).

Other: 17-target walking course (at 15 shooting stations) up to 60 yards (55 meters).

GENERAL ACCESS AREA

Parking	☐ Paved	■ Gravel
Bus turn-around capability	Yes	□ No

CARVER & ELM CREEK PARK RESERVES

AMENITIES

Shelter	☐ Yes	■ No
Benches	■ Yes	□ No
Picnic Tables	■ Yes	□ No
Play Area	☐ Yes	■ No
Restrooms	■ Yes	□ No
Food and beverage nearby	☐ Yes	■ No

Park is 5,300 acres that includes swim pond, large play area, horse trails and camp, winter recreation area and nature center as well as trails and other park amenities.

BUDGET & FEE STRUCTURE

\$60,500 including \$40,000 in labor (2009) for Carver Park Reserve.

\$9,000 grant received from ATA for program equipment.

Annual expenses to maintain ranges are about \$5,300.

Fees are charged for daily and annual passes.

TIMELINE

Elm Creek Archery Range opened in 2004.

Carver Park reserve opened in 2009.

MAINTENANCE

Maintained by park district with other park activities.

Targets (Block) are repacked 1 or 2 times a year to replace worn layers. Complete replacement of targets is no more than once per year, but some last for up to two years.

SAFETY

There are no major safety concerns, and the Carver Range is adjacent to a group reservation site. While this allows archery groups like Boy Scouts to stay overnight, it also allows unattended kids to occasionally walk to the range.

Vandalism has been minimal.

PROGRAM & EVENT ELEMENTS

Family Archery: 2 to 3 hour program \$

Introduction to archery: 2 to 3 hour program \$

Archery 101, 102 and 103: 3 sessions of 2-3 hours each \$

Women's Archery: 2 to 3 hour program \$

Advanced Archery: Olympic archery coach contracted for half a day \$

Several youth summer archery camps: half-day or all-day and a Forkhorn camp (in partnership with Minnesota Deer Hunters Association).

Forkhorn II camp that focuses on bowhunting, including bowhunter certification. \$

Scheduled Group fieldtrips: schools, scouts, 4-H, Baker Near Wilderness, etc. \$

Scheduled lessons with scouts and homeschool groups. \$

The Park District offers a 2-hour beginner archery session to about 30 communities, park and recreation departments and non-profits. Beginner classes accommodate as many as 20 people. Advanced classes are 4 hours over 5 days. Advanced class size is limited to 10. \$

\$ - Fees charged to participate



STORAGE ELEMENTS

Own a trailer with program equipment and targets that can be used at many park locations.

ANSWER TO THE QUESTION;
IF WE HAD TO DO OVER AGAIN,
WHAT WOULD WE DO DIFFERENTLY?

None.

ANY ISSUES WITH NEIGHBORS, WORKING WITH CITY COUNCIL, ETC., THAT OTHERS COULD LEARN FROM:

Since the ranges are in the interior of large parks, there are no problems with neighbors.





MARKETING

Range has page within the Three Rivers website.

Local archery, Cabin Fever Sporting Goods, promotes the range.

All archery activities posted on the Web, in recreation brochures in conjunction with several communities and in local papers.

Advertisement for the archery ranges are mailed to both bow and firearms hunters participating in our park hunts.

Baker Near Wilderness utilizes the range and advertises the programs offered.



CULLMAN COMMUNITY ARCHERY PARK

CITY OF CULLMAN, ALABAMA

CULLMAN PARKS AND RECREATION

P.O. Box 278 Cullman, AL 35056-0278 256.734.9157

CULLMAN COMMUNITY ARCHERY PARK

2604 Co Rd. 490 Cullman, AL 35055

COMMUNITY BACKGROUND

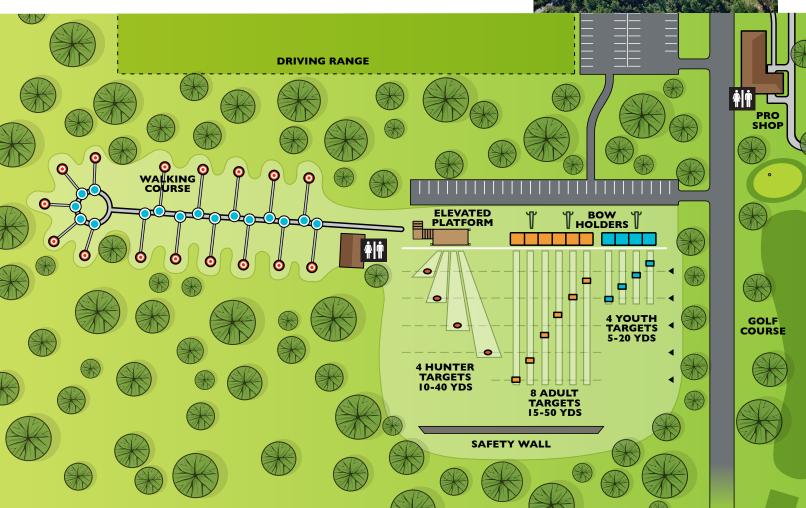
Located 50 miles north of Birmingham and 55 miles south of Huntsville, No. 1 and No. 4 most populated cities in the state, respectively.

Population of city: 16,000

Owned by City of Cullman and leased by Alabama Div. of Wildlife and Freshwater Fisheries (ALDWFF) for 25 years; 18 acres total.

Location is immediately adjacent to City of Cullman Golf Course.





CULLMAN COMMUNITY ARCHERY PARK

HOURS OF OPERATION

Outdoor park: sunrise to sunset.

Indoor range: Monday-Thursday from 4:00 p.m. – 7:30 p.m.

The indoor range is staffed, while the outdoor range is unstaffed.





DESIGN & DESCRIPTION

OUTDOOR ARCHERY PARK

Beginner range: 8 targets from 5-20 yards (4.5-18 meters) with concrete and covered shooting line.

General target range: 8 targets with known distance markers from 15-50 yards (14-46 meters) with concrete and covered shooting line.

Bowhunting range: 4 targets from 10-40 yards (9-37 meters) with 12 foot platform.

Other: 16-target walking course up to 70 yards (64 meters).

INDOOR RANGE

Basement of Cullman Civic Center.

Maximum shooting distance is 25 yards (3.7 meters).

GENERAL ACCESS AREA

Parking	☐ Paved	■ Gravel
Bus turn-around capability	■ Yes	□ No
AMENITIES		
Shelter	■ Yes	□ No
Benches	■ Yes	□ No
Picnic Tables	■ Yes	□ No
Play Area	■ Yes	□ No
Restrooms	■ Yes	□ No
Food and beverage nearby	■ Yes	□ No

Golf pro shop located 200 yards from archery range.

Site includes pavilion/restroom with storage. Small shelter on walking course.



CULLMAN COMMUNITY ARCHERY PARK

BUDGET & FEE STRUCTURE

Total was \$138,550 for facility (2009)

City of Cullman - \$142,000 (which includes \$85,000 in land value).

ALDWFF - \$57,690 for facility construction.

ATA - \$6,800 for targets and \$50,000 (provided through Easton Foundations) for a bathroom/shelter.

Estimated \$5,000 to convert basement to indoor archery range. This includes painting, lighting, new targets and wall materials behind targets.

ATA provided \$45,000 for archery programs and – National Archery in the Schools Program in all local schools and program equipment for parks and recreation.

All Alabama residents between ages 16-64 are required to have a current hunting, fishing, heritage, or Wildlife Management Area (WMA) license to use the range. Non-residents need a valid WMA license for ages 16 and older.

TIMELINE

Early 2008 the idea was pitched to city by the ALDWFF.

Land confirmed and leased in April 2008.

Site plan and operations & maintenance plan completed in July 2008.

July 2008 began construction with completion date of April 2009 (outdoor) and May 2011 (indoor).

MAINTENANCE

Maintained by city with golf course. General maintenance is estimated at approximately \$8,000 per year and includes groundskeeping and utilities. The state agency and local archery club help maintain the targets, which are an additional maintenance expense.

Targets (Pacific Bow Butts and Morrell) on the outdoor range need to be replaced about every 3 years.



SAFETY

A wall was added downrange due to lack of a natural berm.

Security: the entrance gate is closed when the park is closed and the area is patrolled at the same time as the golf course.

A sign was created to help reduce what is called "sky drawing" - when a bow is drawn higher than parallel to the ground.

Vandalism issues: None.

PROGRAM & EVENT ELEMENTS

Explore Archery, Archery 2.0 and Tournament Archers programs: multi-week classes offered by Parks and Recreation. Multiple sessions are held throughout the year. \$

Junior Olympic Archery Development Program (Intermediate and Advanced): 12 participants maximum, 1 hour/twice per week for 6 weeks (12 hours). Several sessions are held throughout the year. \$

Adult lessons: 12 participants maximum, 1 hour/twice per week for 6 weeks (12 hours). Several sessions are offered throughout the year. \$

Open Night (non-instructional): Twice/week throughout the fall/winter. Range is open for 1 hour, twice per week. Rental equipment available. \$

Summer Camp: 2, week-long day camps offered per summer. Maximum of 50. \$

Heritage Archery Club holds several shoots at the outdoor range each summer. In exchange, clubs help with programs and occasional maintenance.

JOAD club also attends several local shooting events each year. \$

City has utilized additional park and open space areas to host a national tournament; the Archery Shooters Association Classic Pro/AM. \$

Working with the Heritage Archery Club, purchased broadhead targets for broadhead sight-in day.

Hosted fundraiser archery shoot with UAB Hospital Breast Cancer Institute. \$

\$ - Fees charged to participate

STORAGE ELEMENTS

A storage room is part of a pavilion building at the park and is used by the local club to store 3D targets for events.

ANSWER TO THE QUESTION: IF WE HAD TO DO OVER AGAIN, WHAT WOULD WE DO DIFFERENTLY?

Take a closer look at the development of an elevated platform for better application and utilization throughout the year. As an added expense, it may be more practical to utilize an earthen hill.

Unless heavily wooded, construct covered shooting lines on a walking range. Provides shade and covering from the weather when trees cannot.

ANY ISSUES WITH NEIGHBORS, WORKING WITH CITY COUNCIL, ETC., THAT OTHERS COULD LEARN FROM?

A neighbor did attempt to sue the city and state for issues related to the safety buffer zone and absence of a natural berm. A judge ruled in favor of the city and state since all safety measures had been identified and addressed prior to construction of the range.







MARKETING

Range has a page within the Outdoor Alabama website. Archery classes/leagues part of summer recreation brochure and on web site. Local archery retailer promotes the range through the store.



DEMMER CENTER

MICHIGAN STATE UNIVERSITY, LANSING, MICHIGAN

DEMMER SHOOTING SPORTS, EDUCATION AND TRAINING CENTER

4830 East Jolly Rd. Lansing, MI 48910 517.884.0550

COMMUNITY BACKGROUND

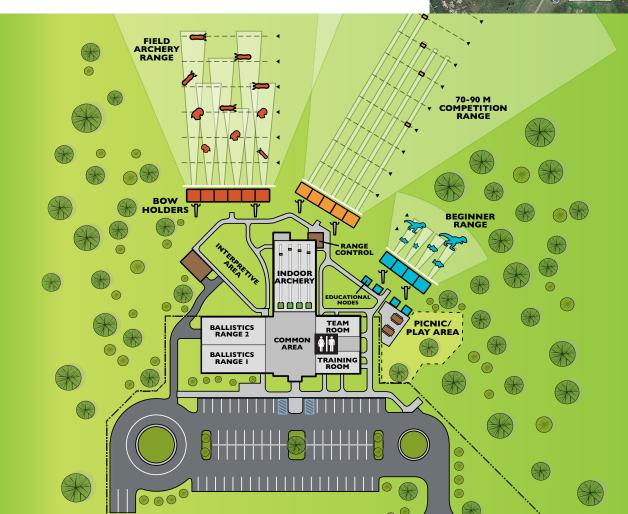
More than half a million people within 25 miles and 1.8 million within 50 miles.

Owned by Michigan State University (MSU) and located on south end of campus.

This 24,000 square-foot, multipurpose facility offers both archery and firearm sports and programs, including accommodations for DNR conservation and MSU police officer trainings.

The center also offers interpretive information stations covering the history of archery, free wi-fi access, gift shop, and certified staff including bow technicians.





DEMMER CENTER

HOURS OF OPERATION

Public hours are Tuesday-Thursday from 11:30 a.m. – 8:00 p.m., Saturday 11:00 a.m. – 8:00 p.m. and Sunday 1:00 p.m. – 7:00 p.m.

Member hours are Tuesday, Wednesday, Thursday and Friday from 1:00 p.m. – 8:00 p.m. as well as Saturday and Sunday hours when open to the public.

Mornings and afternoons may be reserved for private instruction, organized group activities, classes, camps and clinics.

Facility is staffed at all times when open using both full-time and part-time staff.

Full-time staff includes a manager, archery coordinator and range safety instructors.



An Interpretive Area has signs with archery information and history.

DESIGN & DESCRIPTION

OUTDOOR ARCHERY PARK

Beginner range with 15 lanes offers 30 shooting points with a target distance up to 33 yards (30 meters) including fun 3D targets.

Competition range containing 15 lanes offering 30 shooting points with a target distance up to 98 yards (90 meters). This range also has a few heated shooting points in winter.

Field/3D range containing 20 lanes offering 40 shooting points with a target distance up to 76 yards (70 meters) with elevated platform.

Walking 3D Archery Course contains more than 30 3D animals with 3 shooting points: beginner, intermediate and expert.

INDOOR ARCHERY

Eleven lanes offering 22 shooting points with a distance up to 27 yards (25 meters). This range can also be used as a 11-yard (10-meter) air rifle/air pistol range with 24 firing points.

Storage, lockers, restrooms, conference rooms and offices

GENERAL ACCESS AREA

Parking	■ Paved	□ Gravel
Bus turn-around capability		
bus turn-around capability	Yes	□ No
AMENITIES		
Shelters	■ Yes	□ No
Benches	■ Yes	□ No
Picnic Tables	■ Yes	□ No
Play Area	■ Yes	□ No
Restrooms	■ Yes	□ No
Food and beverage nearby	■ Yes	□ No

BUDGET & FEE STRUCTURE

\$3.5 million: Approximately \$3 million for the shooting center and \$0.5 million for the outdoor archery park.

DEMMER CENTER

TIMELINE

Site plan drafted in September 2006.

MSU Board of Trustees approved the project in October 2006.

Michigan Natural Resources Trust Fund (developed through the Michigan DNR) grant received in December 2006 with fundraising completed in October 2007.

Construction bids out to contract in Spring 2008.

Groundbreaking July 18, 2008.

Completed August 2009.

MAINTENANCE

Maintained by facility staff/MSU.

Target (American Whitetail, Big Boy and Delta) replacement is expected every 2 years.

SAFETY

No special safety concerns.

Security: The entire facility is fenced for security

Vandalism issues: None

PROGRAM & EVENT ELEMENTS

CLASSES

Introduction to Archery: 1 Hour \$

Basic Archery 101: 6 weeks, 1.5 hours each week; covers recurve compound and crossbows \$

Archery 101 Kinesiology: An Accredited Class \$

Advanced Archery Kinesiology: An Accredited Class \$

Scholastic 3D Archery \$

Meridian Township Hunter Education \$

Summer Archery Triathlon 101: 4 weeks; large

group activity \$

GROUP EVENTS

Brownies, Girl Scouts and Boy Scouts \$

Church groups \$

Upward Bound \$

Homeschool groups \$

Parks & Recs \$

Private Organizations \$

Women's Mounted Archers \$

Teambuilding/Corporate Events \$

Assisted Living Activities Program \$

Origami Brain Injury Rehabilitation Center; working with brain-injured outdoorsmen and women to get back out \$

MSU departments and student organizations \$

CLUBS

MSU Demmer Center JOAD: 2 hours per week. Upfront season fee for pins, T-shirt and banquet, plus free weekly session to members. Cost per session for nonmembers. Equipment is included. \$

The University's archery club and team practices weekly during the school year.

\$ - Fees charged to participate



EVENTS

MSU Fall Classic Archery Tournament \$

World and JOAD team trials \$

Offers archery tournaments and events each year, including several outdoor and indoor sanctioned events. \$

Collegiate Indoor and Outdoor Regionals \$

Science Behind Archery presentation during the Science Festival with shooting component included \$

Saginaw Valley Youth Tournament Indoor \$

LEAGUES

Compound/Traditional league free for members and fees for non-members. \$

\$ - Fees charged to participate

ANSWER TO THE QUESTION:

IF WE HAD TO DO OVER AGAIN.

IF WE HAD TO DO OVER AGAIN, WHAT WOULD WE DO DIFFERENTLY?

Need to double the conference room space and double the size of the indoor archery range.

ANY ISSUES WITH NEIGHBORS, WORKING WITH CITY COUNCIL, ETC., THAT OTHERS COULD LEARN FROM?

None.









MARKETING

Three (3) local communities' partner with Demmer Center to offer archery that appears in each communities' recreation brochure.

NWTF for intro to archery class

Mailings to MSU students and staff



DEMOPOLIS SPORTS-PLEX

CITY OF DEMOPOLIS, ALABAMA

DEMOPOLIS PARKS AND RECREATION

957 Sportsplex Rd. Demopolis, AL 36732 334.289.2891



COMMUNITY BACKGROUND

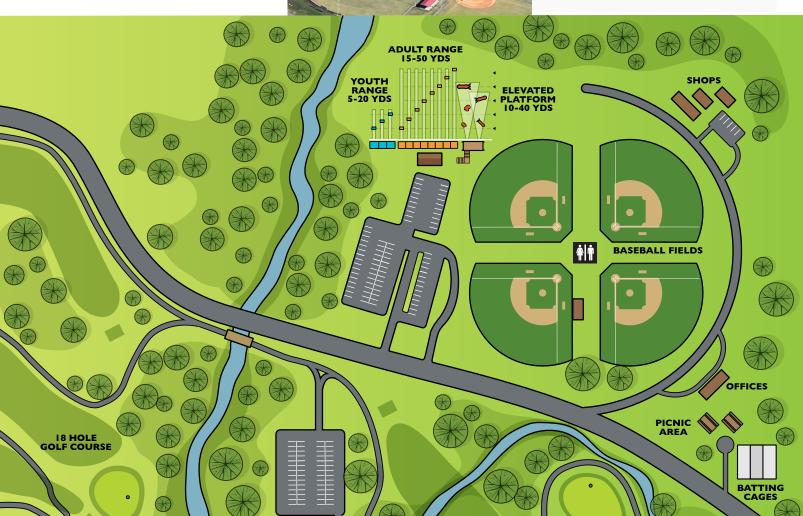
Demopolis is the largest city in Marengo County, Ala., with a population of 8,000.

Owned by City of Demopolis and leased by Alabama Div. of Wildlife and Freshwater Fisheries (ALDWFF) for 25 years in 2008; 3 acres.

The Demopolis Sports-Plex is a 299-acre park featuring three lighted, four-field baseball/softball complexes with concession/restroom facilities, soccer/multi-use fields, a public pond for fishing, a picnic pavilion with playground, a ½ mile walking trail, an 18-hole golf course including pro shop, putting green and driving range, and offices and equipment shops for the Parks and Recreation Department.

The Sports-Plex also includes the Demopolis University Center, an extension of the University of West Alabama.

Facility is located adjacent to Webb Field at the Sports-Plex.



CASE STUDY **DEMOPOLIS**

DEMOPOLIS SPORTS-PLEX

HOURS OF OPERATION

Open year-round from sunrise to sunset and unstaffed.





DESIGN & DESCRIPTION

OUTDOOR ARCHERY PARK

Beginner range: 8 targets from 5-20 yards (4.5-18 meters).

General target range: 8 targets from 15-20 yards (14-46 meters).

Bowhunting range: 4 targets from 10-40 yards (9-37 meters) with a

14-foot elevated platform.

Ten (10) 3D targets are placed on the range in late summer through late spring, at which time they are usually replaced.

GENERAL ACCESS AREA

Parking	☐ Paved	■ Gravel	
Bus turn-around capability	■ Yes	□ No	
AMENITIES			
Shelter	■ Yes	□ No	
Benches	■ Yes	□ No	
Picnic Tables	■ Yes	□ No	
Play Area	☐ Yes	■ No	
Restrooms	■ Yes	□ No	
Food and beverage nearby	☐ Yes	■ No	

BUDGET & FEE STRUCTURE

\$20,000 site preparation and facility development

- ALDWFF: \$12,926 (75 percent from Federal Aid)
- City of Demopolis: \$15,310, which includes \$6,000 in land value
- ATA: \$3,400 for targets

All Alabama residents between ages 16-64 are required to have a current hunting, fishing, heritage, or WMA license. Non-residents need a valid Wildlife Management Area (WMA) license for ages 16 and older.

TIMELINE

The city became interested in archery when a firearms range was built in the county.

Date land purchased or leased: City purchased property in 1991, archery range site was leased to ALDWFF in November 2008

Date construction began: April 2009 Completion date: September 2009

MAINTENANCE

City provides routine maintenance as part of the maintenance of the Sports-Plex.

SAFETY

No special safety concerns.

Security: Patrolled with the Sports-Plex

Vandalism issues: None

PROGRAM & EVENT ELEMENTS

Utilized as a public range for individuals to participate during daylight hours.

Space for end-users without a place to shoot to use in preparation for upcoming hunting season.

Local archery clubs will host shooting competitions and demonstrations. \$

ATA provided \$20,000 for archery programs and program equipment for parks and recreation.

\$ - Fees charged to participate

STORAGE ELEMENTS

There is a small (6'x12') storage shed that holds equipment for programs and events.

ANSWER TO THE QUESTION:

IF WE HAD TO DO OVER AGAIN,

WHAT WOULD WE DO DIFFERENTLY?

Although it offers higher visibility to the public and is easier to maintain, building the range near wooded areas to offer natural shade would be appreciated. As an alternative, to protect participants from the elements, need to include covering the shooting lines within the budget.

ANY ISSUES WITH NEIGHBORS, WORKING WITH CITY COUNCIL, ETC., THAT OTHERS COULD LEARN FROM?

None.







MARKETING

Range has a page within the City of Demopolis and Outdoor Alabama websites.

One local retailer promotes range through the store as does the local archery club.



PASEO VISTA RECREATION AREA

CITY OF CHANDLER, ARIZONA

CITY OF CHANDLER PARKS
(Paseo Vista Recreation Area)

3850 S. McQueen Rd. Chandler, AZ 85286 480.782.2754 **PASEO VISTA ARCHERY CLUB**

3850 S. McQueen Rd. Chandler, AZ 85286 info@paseovista.com

COMMUNITY BACKGROUND

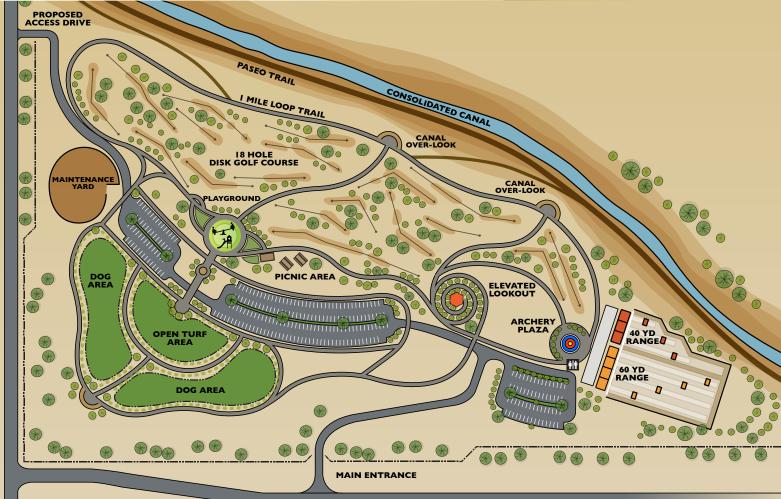
Chandler is a suburb of Phoenix with a population of more than 200,000.

Owned by City of Chandler, 64 acres total. Facility is part of the Paseo Vista Recreation Area.

The park features include an elevated lookout, picnic area, dog park, disc golf, playground and walking trails.

Due to landfill regulations, site development was limited to activities and structures that did not require digging. Permanent structures, such as restrooms, were limited in size. Shade ramadas were built on large "floating" concrete slabs, and asphalt and concrete use was held to a minimum.





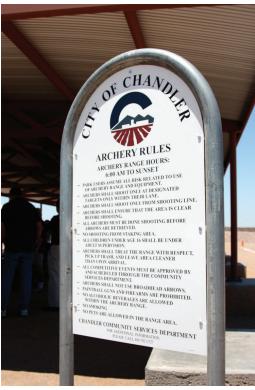
PASEO VISTA RECREATION AREA

HOURS OF OPERATION

Open from sunrise to sunset, year-round.

The range is unstaffed during public shooting hours.





DESIGN & DESCRIPTION

OUTDOOR ARCHERY PARK

General target range: 14 targets from 10-80 yards.

GENERAL ACCESS AREA

Parking	☐ Paved	■ Gravel
Bus turn-around capability	■ Yes	□ No
AMENITIES		
Shelter	Yes	□ No
Benches	Yes	□ No
Picnic Tables	Yes	□ No
Play Area	Yes	□ No
Restrooms	Yes	□ No
Food and beverage nearby	Yes	□ No

BUDGET & FEE STRUCTURE

The project was funded through the sale of General Obligation Bonds approved by Chandler voters. A separate budget for archery is not available.

City provided \$15,000 worth of program equipment to the Paseo Vista Archery Club and the club runs programs.

City received a \$500 National Recreation and Park Association (NRPA) grant in April 2010 that was used for transportation and instructor fees for Youth Summer Camp.

TIMELINE

Park development approved: 2004

Landfill closed and public meeting held where archery was

approved: 2005

Construction began: January 2008 Range opened: December 2009

PASEO VISTA RECREATION AREA

MAINTENANCE

The city of Chandler provides regular maintenance (bathrooms, weed control, etc.). The Paseo Vista Archery Club maintains the archery targets, distance markers and other archery equipment.

Targets (Big Green Targets) are replaced or repaired annually.

SAFETY

Even though well-signed, people occasionally walk up to the back of the range.

Security: Patrolled with the rest of the park.

Vandalism issues: minimal.

PROGRAM & EVENT ELEMENTS

Beginning Archery: 1 hour each week for 8 weeks. \$

Beginning Family Archery Class: 1 hour each week for 6 weeks. \$

Intermediate Archery Class: 1½ hours each week for 6 weeks. \$

The Paseo Vista Archery Club offers programs for homeschool groups, charter schools and Boy and Girl Scout troops. \$

A Junior Olympic Archery Development club is also held year-round. \$

Archery parties, Corporate events and Private Lessons are available; contact directly for pricing. \$

A weeklong JOAD camp and state JOAD championship are held annually. \$

Instructor Certification classes. \$

\$ - Fees charged to participate





STORAGE ELEMENTS

A storage trailer holds extra targets and program equipment.

ANSWER TO THE QUESTION:

IF WE HAD TO DO OVER AGAIN, WHAT WOULD WE DO DIFFERENTLY?

Add lighting.

ANY ISSUES WITH NEIGHBORS, WORKING WITH CITY COUNCIL, ETC., THAT OTHERS COULD LEARN FROM?

When proposing non-traditional recreational amenities in any park, two things are important. First, the need for such a facility should be documented. Second is education. Citizens, city staff and elected officials need to understand the benefits to the community of building such a facility.

Tying "Olympic" target archery to the range seemed to make it a more acceptable activity.



MARKETING

Range page within the City of Chandler website. Paseo Archery Club website Class listings through recreation guide. Archery classes part of recreation brochure.



STARING LAKE PARK

CITY OF EDEN PRAIRIE, MINNESOTA

CITY OF EDEN PRAIRIE (Staring Lake Park)

14800 Pioneer Trl. Eden Prairie, MN 55347 952.949.8442

COMMUNITY BACKGROUND

City of Eden Prairie is a western suburb of the Twin Cities Metro area. Population of city: 60,000.

More than 4,000 acres of parks, recreation and preserves, just under 3,000 owned by the city.

One of the city's 6 community parks of more than 40 acres – this park is 185 acres – archery range takes up ½ acre (125'x50')

The park also includes baseball and soccer fields, basketball and tennis courts, ice skating rink, biking trails, hiking, playfields and picnic areas.



STARING LAKE PARK

HOURS OF OPERATION

Open from 6:00 a.m. – 10:00 p.m. and unstaffed.





DESIGN & DESCRIPTION

OUTDOOR ARCHERY PARK

6 targets placed at varying distances from 10-40 yards (9-37 meters) (one at 10 yards (9 meters), 3 at 20 yards (18 meters), one at 30 yards (27 meters), and 1 at 40 yards (37 meters)).

Targets are on skids and can be moved with an ATV.

GENERAL ACCESS AREA

Parking	Paved	☐ Gravel
Bus turn-around capability	■ Yes	□ No
AMENITIES		
Shelter	Yes	□ No
Benches	☐ Yes	■ No
Picnic Tables	Yes	□ No
Play Area	☐ Yes	■ No
Restrooms	Yes	□ No
Food and beverage nearby	☐ Yes	■ No

BUDGET & FEE STRUCTURE

\$20,000 for facility in 2004 (Capital Improvement funds).

Included donation of some materials and installation by Minnesota Valley Electric Co-op of approximately \$10,000.

The park is free to the public as are other park amenities.

Additional grants for program equipment and range supplies were received; \$2,078 from Eden Prairie Foundation in 2005, \$3,796 from MN DNR in 2006, and \$500 NRPA After School Archery Grant in 2009.

TIMELINE

Design was a result of the City's Park Maintenance Supervisor attending a conference in Colorado, where the only other facility of this kind exists (Bear Creek Regional Park, El Paso County Parks).

2003 project received approval by Parks, Recreation and Natural Resources commission.

The City Council did not approve until 2004 after staff directed to reduce cost (originally \$30,000).

Construction began in summer 2004 and was completed in early 2005.

MAINTENANCE

Maintained by the city with the rest of park. No itemized budget for archery.

Targets (Block) are replaced approximately every 2 years with fees collected from classes and programs.

SAFETY

Shooting pavilion and walls placed strategically along with a conveyor belt overhead prevents arrows from leaving the space.

Security: Patrolled same as rest of park

Vandalism issues: No

PROGRAM & EVENT ELEMENTS

Beginner lessons: 12 participants maximum, 1 hour, twice per week for 3 weeks (6 hours). 5 sessions are offered throughout the summer. \$

Intermediate lessons: 12 participants maximum, 1 hour, twice per week for 3 weeks (6 hours). 2 sessions are offered throughout the summer. \$

Adult/Child beginning lessons: must register as duo – maximum of 12 people. 1 hour, twice per week for 3 weeks (6 hours). 1 session is offered throughout the summer. \$

Adult archery lessons (16 and up): 8 participants maximum, 1 hour, twice per week for 3 weeks (6 hours). \$

Summer Archery league: 1 night per week throughout the summer. Range is open for 3 hours each of these nights. 3 weeks to establish 80 percent handicap, 300 round, 60 arrows. Maximum of 40 shooters. \$

\$- Fees charged to participate

STORAGE ELEMENTS

Small storage building hold targets and program equipment.

ANSWER TO THE QUESTION:

IF WE HAD TO DO OVER AGAIN,

WHAT WOULD WE DO DIFFERENTLY?

New belting would have been used for the overhead baffles to improve appearance.







ANY ISSUES WITH NEIGHBORS, WORKING WITH CITY COUNCIL, ETC., THAT OTHERS COULD LEARN FROM?

There were some initial concerns about the cost of the facility, but with donated poles and labor from the local power company as well as some labor provided by Institutional Correction Work Crew, those concerns quickly faded.

MARKETING

Archery listed within the city of Eden Prairie website.

Archery classes/leagues part of summer recreation brochure.



ARCHERY PARK SAMPLE BUDGET

		LOCAL ENTITY	LOCAL 3RD PARTY		
	TOTAL BUDGET	CONTRIBUTION	CONTRIBUTIONS	GRANTS	FUNDING NEEDED
Recreation Programs					
Equipment					
Training costs					
Staff & benefits					
Programs sub-total					
ri ogi anis sub-totat					
Construction					
Land (cost or value)					
Engineering/Site design contractor					
Staff & benefits					
Travel					
Site preparation					
Land prep					
Roads					
Walkways					
Utilities					
Non-archery Costs - Outdoor					
Restrooms					
Shelters					
Storage buildings					
Picnic tables					
Benches					
Signs					
Bike racks					
Playground					
Landscaping					
Archery Costs - Outdoor					
Targets					
Platforms					
Ground quivers					
Bow racks					
Safety netting and poles					
Berms					
Range and rules signs					
Building costs - indoor					
Archery Park sub-total					
Operations & Maintenance (annual)					
Staff & benefits					
Utilities					
Equipment & target maintenance					
General facilities maintenance					
0&M sub-total					
Marketing					
Mailings					
Media					
Brochures/Maps					
Grand opening event					
Marketing sub-total					

