

ACKNOWLEDGMENTS

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01. SUMMARY AND OVERVIEW

Lower Chester Park is located in the Chester Neighborhood, and is bordered by Chester Creek on the west and residential homes to the south and east. The park itself is relatively flat, with significant topography on the west and north creating natural bounds for the park. There is a connection to the lower part of Chester Park, via trail, as well. Lower Chester Park also acts as an informal neighborhood trail access point for the trails along Chester Creek. Northeast of the main park is the 'Tank Top'; a large open space above a City water reservoir. This is not recognized as an official part of the park and is not Parks property (it is operated and managed by Public Works), but is used for dog walking, soccer and other informal field sports.

This park features multiple hockey rinks, pleasure skating and open space. During the summer, one of the rinks serves as a skateboard/bike riding area which is also used for box lacrosse in the fall. There are two buildings in the park, serving as community space/ warming house and a storage building.

One of Duluth's first four parks, Chester Park spans approximately 131 acres between Thirteenth and Fifteenth Avenues East and stretches from Kenwood Avenue to Fourth Street, where Chester Creek runs under the street and, a few blocks later, disappears beneath the City before it emerges near Leif Erikson Park and empties into Lake Superior. Lower Chester Park, specifically, is located at 15th Avenue East and East 5th Street and is about 2 acres in size.

02. EXISTING CONDITIONS

Access into the park is from 15th Avenue East, or from a trail leading up from East 4th Street and through the lower section of the park. There is no designated parking lot for the park. Visitors from outside the surrounding neighborhood must rely on on-street parking.

Current features of the park include two hockey rinks, a pleasure skating area, open space and a community building/warming house and storage building. The large, main hockey rink is in very good condition, with a

concrete base, boards that stay up year-round and a players box. The concrete rink surface was redone in 1998 with the help of CDBG funds, at which time DAHA also completed maintenance of the mechanical system. Boards for the main rink came from a community-backed NHL grant. The second rink is erected each year for hockey season, from November- March, by Congdon-Lower Chester Hockey (CLCH).

Wildflower/native plant gardens are present in a few places as well, maintained by the Neighbors of Lower Chester Park (NOLCP). A recently installed 'Little Library' is maintained by NOLCP.

The existing community building is in satisfactory condition, but the storage building is in a deteriorative state. At which time the buildings are deemed unusable, the City will engage both the public and stakeholder groups to determine what is appropriate for the site going forward.



FIGURE 1.1 LOWER CHESTER PARK LOCATION MAP

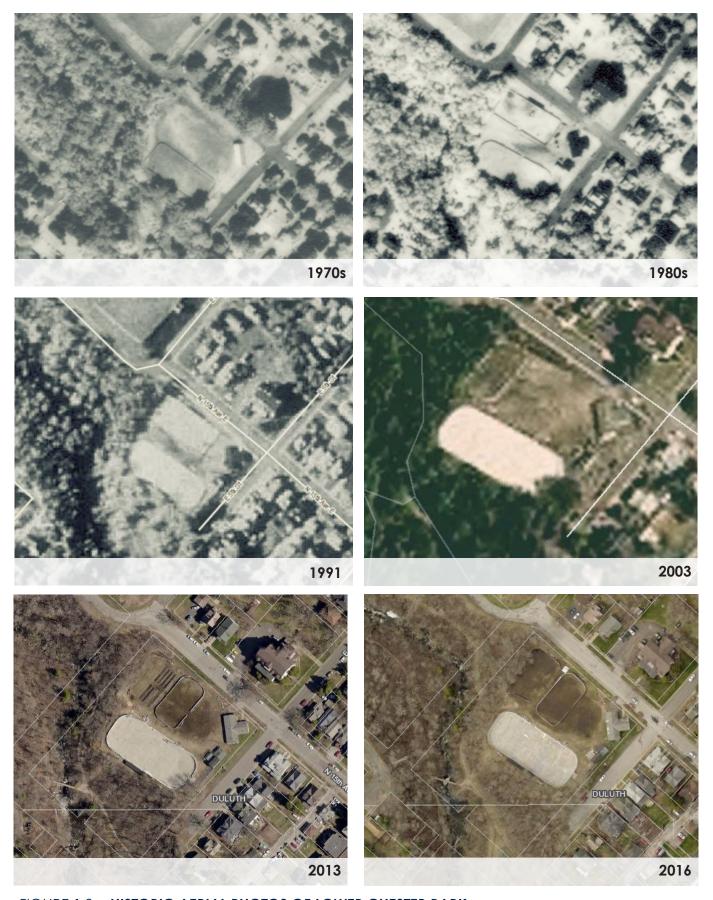


FIGURE 1.2 HISTORIC AERIAL PHOTOS OF LOWER CHESTER PARK

CITY OF DULUTH 2010 MASTER PLAN:

PARK COVERAGE AND GAPS

In 2010, the City of Duluth completed a Master Plan for their park system. As part of this process, an evaluation was done of the existing parks and the proximity of parks to each neighborhood. The map below is a graphic representation of that information. The Lower Chester Park neighborhood is shown to have sufficient access to park land and green space, with no gaps in coverage. On the following page, the parks outside of the Lower Chester neighborhood are examined. This serves to highlight the importance of Lower Chester park to the population it serves, especially when the physical 'barriers' to park access are considered.





AREAS SERVED BY LOWER CHESTER PARK:

The 'boundary' for Lower Chester Park users can be defined in two ways; through passive recreation use and through programmed recreation use. The map to the left shows the passive recreation boundary, defined by the barriers listed.

The Programmed Recreation 'Boundary' is determined by programmed uses in the park (such as hockey, box lacrosee, etc.) and extends beyond the passive boundary.

NEARBY PARK EVALUATIONS:

LAKEVIEW PARK: MAINLY WOODED, NO PARK ELEMENTS TO SPEAK OF

MUNGER PARK: SMALL PARK WITH A TINY PLAYGROUND & OPEN FIELD; KIDS FROM LOWER CHESTER NEIGHBORHOOD WOULD HAVE TO CROSS CHESTER CREEK TO ACCESS THIS PARK

PORTLAND SQUARE: LOTS OF OPEN SPACE & PLAY EQUIPMENT; KIDS FROM LOWER CHESTER NEIGHBORHOOD WOULD HAVE TO CROSS CHESTER CREEK OR WALK ALONG 4TH SEVERAL BLOCKS TO ACCESS

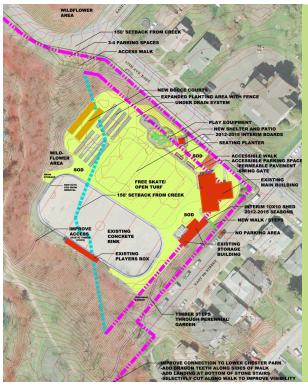
ENDION PARK: KIDS FROM THE LOWER CHESTER
NEIGHBORHOOD WOULD HAVE TO CROSS 4TH ST TO ACCESS
THIS PARK

OLD MAIN: NO PARK ELEMENTS TO SPEAK OF, KIDS FROM LOWER CHESTER NEIGHBORHOOD WOULD HAVE TO CROSS WOODLAND AVE TO ACCESS

CHESTER PARK: PLAYGROUND, TRAILS, SKI HILL, PARKING AREA, PROGRAMMED ACTIVITIES; LOWER CHESTER NEIGHBORHOOD KIDS WOULD HAVE TO CROSS 8TH STREET OR WALK ALONG CREEK TO ACCESS PARK

PARKS WITH A PLAYGROUND: MUNGER, PORTLAND, ENDION, UPPER CHESTER

FIGURE 1.3 **NEARBY PARK EVALUATION** To highlight the importance of Lower Chester Park to the surrounding neighborhood, the next closest parks were evaluated for their strengths and weaknesses from the neighbors' perspective.



HISTORY OF THE MINI-MASTER PLAN

In 2012 a Mini-Master Plan was adopted for Lower Chester Park. Included in this plan were the following elements:

- Maintenance of area above 4th Street along Chester Creek
- Enhanced connection to Fourth Street
- New Playground
- Small Patio and Shelter
- Existing Concrete Rink Surface & Boards
- ADA Improvements
- Maintenance Building Improvements
- Field / Grass Improvements
- Sub-Drainage Improvements
- Community Garden
- Interim Hockey Boards
- Bocce Courts

Due to issues created by the 2012 floods, the ongoing competing interests for park use and requests by the two main stakeholder groups (NOLCP & CPH), the City felt it was an appropriate time to reopen the mini-master plan in 2017.

FIGURE 1.4 2012 MINI-MASTER PLAN



Lower Chester Community Recreation Area is owned by the City of Duluth. Since 2009, NOLCP has had an agreement in place with the city to operate, manage and use the area for recreational and community advancement purposes. A large part of NOLCP's mission is to enhance the sense of community that once distinguished the Lower Chester Creek neighborhood, and is now re-imagined to embrace its sense of youth, its homage to its past, and to build upon its vision of future possibilities. NOLCP wishes to see a sustainable four-season park that reflects the desired uses of the neighborhood. Their vision for the park includes the following: healthy, usable green space; a playground and nature playscape; a birdwatching/ nature trail; plants and landscaping to attract wildlife; a Little Free Library with a reading bench; a sledding hill and a picnic pavillion. NOLCP is very active in the park, completing general building and park maintenance and promoting, supporting and conducting recreational activities and educational classes.

Along with NOLCP, Congdon- Lower Chester Hockey also operates in Lower Chester Park (the parent group for CLCH is the Duluth Amateur Hockey Association or DAHA). In 2012, Congdon Park Hockey (CPH) lost their home rink during the Congdon Elementary school expansion. As a neighborly gesture, and to bring hockey back to Lower Chester Park, NOLCP began leasing the park to CPH. During the months of November- March, Congdon-Lower Chester Hockey maintains the rinks, buildings and surrounding park area for organized youth hockey and pleasure skating.

For the last five years, Lower Chester Park has also served as the home of the Duluth Box Lacrosse. Prior to establishment of the league in 2013, all outdoor hockey rinks in the Duluth region were assessed for suitability for box lacrosse. Only Lower Chester offered a safe, appropriate rink. Both the permanent concrete rink and second grass rink are utilized during the box lacrosse season, running from late September to early November.

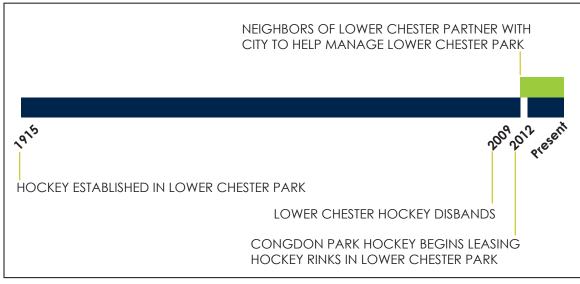
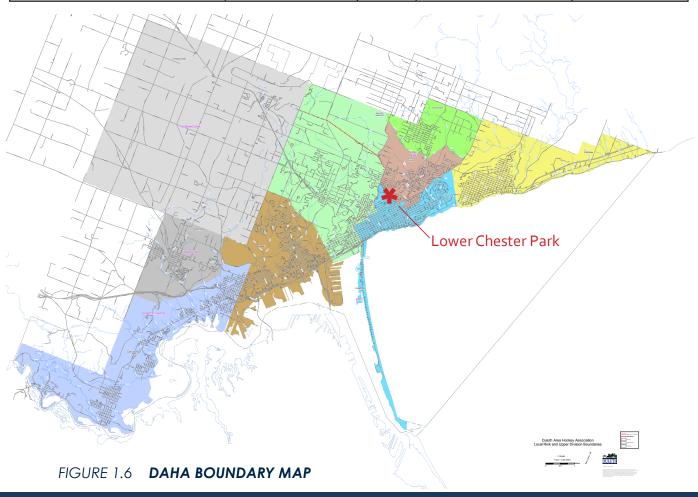


FIGURE 1.5 PARK STEWARDSHIP TIME LINE BY STAKEHOLDER GROUPS

DAHA: BYTHE NUMBERS (*2017-18 season registration numbers)

HOCKEY ASSOCIATION	# OF PARTICIPANTS*	# OF RINKS	SIZE OF RINK(S)	PLEASURE RINK SIZE
DENFELD	54	-	(NOT OUTDOOR)	
GARY/ MORGAN PARK	35	4	(180 x 80) (180 x 80) (85 x 45)	(125 x 100)
PIEDMONT	59	3	(190 x 85) (190 x 85)	(275 x 150)
DULUTH HEIGHTS	41	3	(160 x 85) (90 x 60)	(80 x 40)
WOODLAND	85	4	(200 x 85) (185 x 80) (100 x 60)	(250 x 70)
GLEN AVON	103	3	(190 x 90) (190 x 90)	(90 x 125)
CONGDON-LOWER CHESTER	74	3	(200 x 85) (150 x 65)	(75 x 105)
PORTMAN	107	4	(110 x 62) (94 x 45) (190 x 85)	(150 x 150)





PUBLIC ENGAGEMENT PROCESS

The following meetings took place throughout the planning process for the 2017 Mini-Master Plan. Due to the impassioned groups involved in this process, more meetings than are typical for a park of this size were held to ensure all opinions and concerns were heard and the most amicable solution was reached.

MEETING DATE	MEETING TOPIC	STAKEHOLDERS PRESENT
October 21, 2016	Stakeholder Initial Mtg	NOLCP
October 27, 2016	Stakeholder Meeting	CLCH/ DAHA
November 7, 2016	Stakeholder Meeting	NOLCP
November 10, 2016	Stakeholder Meeting	NOLCP/CLCH/DAHA
March 14, 2017	MMP Initial Meeting	CLCH/ DAHA
April 13, 2017	MMP Initial Meeting	NOLCP
May 15, 2017	MMP Initial Meeting	CLCH/ DAHA
May 25, 2017	MMP Initial Meeting	NOLCP
June 23, 2017	Stakeholder Meeting	NOLCP
August 23, 2017	Stakeholder Meeting	NOLCP
August 24, 2017	Plan Review	NOLCP
September 5, 2017	Stakeholder Meeting	NOLCP
September 8, 2017	Plan Review	NOLCP
September 13, 2017	Parks Commission Presentation	Public Meeting
September 14, 2017	Public Meeting #1	NOLCP/CLCH/DAHA/Box Lacrosse/Skaters
September 20, 2017	Public Mtg. Recap	NOLCP/CLCH/DAHA
Sept. 14-Oct. 12, 2017	Public Survey	
October 11, 2017	Parks Commission Presentation	Public Meeting
October 16, 2017	Stakeholder Meeting	CLCH/ DAHA
November 2, 2017	Stakeholder Meeting	NOLCP
November 3, 2017	Stakeholder Meeting	NOLCP/CLCH/DAHA
November 8, 2017	Parks Commission Presentation	Public Meeting
December 11, 2017	Stakeholder Meeting	NOLCP/CLCH/DAHA
December 27, 2017	Stakeholder Meeting	NOLCP
January 10, 2018	Parks Commission Update	Public Meeting
January 11-25, 2018	Public Comment Period	
February 14, 2018	Parks Commission Vote	Public Meeting
February 26, 2017	City Council Vote	Public Meeting



FIGURE 1.5 GRAPHIC REPRESENTATION OF PUBLIC ENGAGEMENT PROCESS

PUBLIC ENGAGEMENT PARTICIPANTS:

20

EMAILED WRITTEN COMMENTS

85

ATTENDED PUBLIC MEETING #1

333

COMPLETED ONLINE SURVEY

PUBLIC ENGAGEMENT STAKEHOLDERS FINDINGS: STAKEHOLDERS

OVERALL PARK PRIORITIES

NOLCP

- 1 OPEN SPACE (WINTER & SUMMER)
- 2 PLAYGROUND
- 3 PAVED RINK

OVERALL PARK PRIORITIES CLCH/DAHA

- 1 2 HOCKEY RINKS
- 2 PLEASURE SKATING RINK
- 3 WINTER OPEN SPACE

PUBLIC ENGAGEMENT PUBLIC MEETING FINDINGS: PUBLIC MEETING

TOPICS BROUGHT UP AS PRIORITIES AT PUBLIC MEETING #1:

- PARKING
- PUBLIC SAFETY
- TRAIL ACCESS
- PLAYGROUND
- HOCKEY
- SUMMER & WINTER OPEN SPACE
- PLEASURE SKATING
- SPORT COURT

05. SURVEY RESULTS & SUMMARY OF PUBLIC INPUT

Along with the stakeholder and public meetings, the majority of public input was gathered through an online survey conducted over a period of several weeks. The survey was made available to the general public, but most respondents fell into one of two groups; Lower Chester Park neighborhood residents and/or DAHA participants. The 333 respondents were broken down by zip code in compiling survey results; the adjacent zip codes (55805 & 55812) and those outside of the adjacent zip codes. The adjacent zip codes are represented in the Lower Chester Park neighborhood (see map below); it is important to see the differences in park use and future priorities for those living in the neighborhood compared to those from other neighborhoods.

There were several important takeaways from the survey results. First, the park sees the most traffic in the winter, being for organized hockey, open/community skate, pick-up hockey and free play.

Adjacent zip code respondents use the park more for open skate and free play, whereas the outside zip codes use it for organized hockey and pick-up hockey. Top uses in summer include free play in the grass areas, nature activities/ bird watching and skateboarding/ skating on the concrete court. Free play was the highest ranked activity by the adjacent zip codes and skating on the court was highest ranked by the outside zip codes. During the 'shoulder' season (October-November), both groups are also using the park for box lacrosse.

As for future use, the survey showed that both groups would like to see organized hockey, open skating and pick-up hockey

55811

Signature of the ster park & Adjacent Zip Codes

55810

French River

Lower Chester Park & Adjacent Zip Codes

55807

continue during the winter months. Both hockey uses came out as top priority for the outside zip codes; open skate is most important to the adjacent zip codes. Summer use priorities were more varied between the groups; adjacent zip codes would like to see dedicated space for free play, improved trail access to the creek, skating on the court and a playground. The outside zip codes prioritized skating on the court, dedicated space for free play and basketball on the sport court. Both groups would like to see box lacrosse continue as well.

Comprehensive survey results can be found in Appendix A of this document (page 22).

SUMMARY OF PRIORITIES FROM PUBLIC ENGAGEMENT PROCESS:

- 2 HOCKFY RINKS & PLEASURE RINK
- PLAYGROUND
- PARKING
- DRAINAGE SYSTEM/ GRASS IMPROVEMENTS
- PAVED WALKS & ADA IMPROVEMENTS
- WINTER OPEN SPACE
- * RED DENOTES HIGHEST PRIORITY

- SPORT COURT ACTIVITIES
- GARDENS
- TRAIL CONNECTIONS
- STORAGE
- BOX LACROSSE

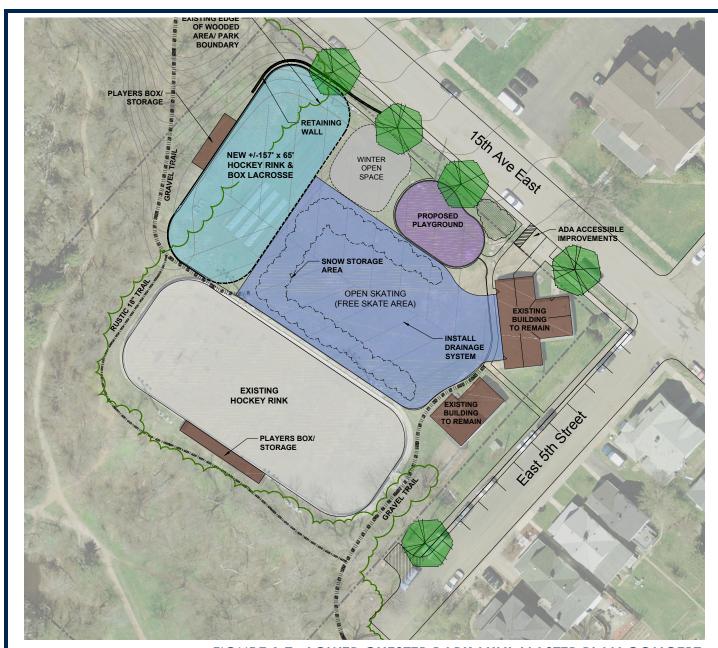


FIGURE 1.7 LOWER CHESTER PARK MINI-MASTER PLAN CONCEPT

06. CONCEPT PLAN & RECOMMENDATIONS

The concept plan for Lower Chester Park includes overall drainage improvements, a second hockey rink with seasonal boards and players box, a playground and ADA improvements. Because the second rink location is pushed into the hillside (outside of the current park edge), this plan creates more usable park space year-round. Improved drainage and partially removable boards on the second hockey rink will further improve green space in the summer; the rink layouts provide ample space for a large free skate area in the winter. Both rinks can be used for box lacrosse from late September to early November, and the permanent rink can continue to be utilized for skateboarding, bike-riding lessons and roller skating in the summer. The players' boxes will offer the possibility for storage during the summer months. Trails will be added and/or improved as needed to offer connectivity to other sections of Chester Park.

ADDITIONAL MINI-MASTER PLAN CONSIDERATIONS

This Mini-Master Plan also aims to address additional specific concerns raised during the public process of this project. It is believed that having these regulations in place will help to ensure a long-lasting partnership with all stakeholder groups.

PARK MANAGEMENT: While ultimately owned by the City of Duluth, separate agreements will be in place with both NOLCP and DAHA/CLCH to manage the park during summer and winter, respectively. No one group ever has sole management of the park and that shall be honored at all times.

HOCKEY SEASONAL BOARDS: DAHA/CLCH will be responsible for putting boards up no earlier than Nov. 1st and must have them down by March 31st unless otherwise agreed upon. All maintenance equipment, gear, etc. must be removed from the community building by March 31st. It should also be noted that Box Lacrosse will have the option to install the boards the last week of September for their season as outlined below.

SKATEBOARD/ SUMMER EQUIPMENT: All skateboarding and other summer equipment must be removed by NOLCP no later than October 31st and can be installed starting April 1st unless otherwise agreed upon. All summer seasonal equipment shall be removed from the community building by October 31st as well. When box lacrosse is in season, box lacrosse participants will remove skate equipment from the concrete rink during their games and replace it once games are complete for the day.

HOCKEY/ FREE SKATE HOURS: Organized, programmatic hockey will run from 5-8pm each evening. In accordance with the DAHA citywide agreement, CLCH must provide at least twenty-five (25) hours of supervised rink time per week, including at least one day on the weekend, where one or more rinks are open for free/open skate and the warming shack shall be open and staffed by DAHA volunteers for skate changing and bathroom access. This schedule shall also include expanded hours of operation during school breaks. Pleasure skating will be available from 4:30-8pm every weeknight on the pleasure skating rink (the key survey respondent time) with the warming shack open during this time as well. All rinks will be closed for maintenance flooding between 8 and 10pm each evening. The only exception to these guidelines is during the initial flooding period at the beginning of each season. During this time flooding activities occur 24/7, typically for 2 weeks, pending weather conditions. Flooding may extend to 11pm if needed but must utilize maintenance lights of adequate intensity to safely flood that do not cause glare or light trespass beyond the park boundaries. Open skate/ rink operational hours must be posted in a readily visible location, in accordance with the DAHA citywide agreement.

PARKING PLAN: Parking regulations for all Lower Chester Park users, based on the city-wide parking guidelines, will be clearly defined within each user group's agreement with the City. All groups are to adhere strictly to these regulations. Parking regulations will be enforced at all times to ensure the safety of residents and park users. It is recognized that special events will require special permissions and considerations for high volume; organizations are to coordinate with the City's parking department prior to any special events.

BOX LACROSSE: In the Fall, from late September to early November, the Duluth Box Lacrosse League (DBLL) has been utilizing the hockey rinks for youth and high school box lacrosse. DBLL has been using Lower Chester for the past 5 years for a box lacrosse league. The number of participants in the league has grown steadily to approximately 120 participants in 2017. The league has utilized both the large main hockey rink and smaller grass hockey rink (their preferred rink surface) when in place. Box lacrosse does not hold practices in this location; they use the site for games one night a week, on Sundays from 11am to 8pm. After 4pm on Sundays parking is allowed on both sides of the street, reducing the aprking impact in the neighborhood. Because it has been determined the Lower Chester rinks are the only ones currently suitable for box lacrosse in Duluth, both rinks will continue to be made available for box lacrosse during the specified time frame. The City will work with the league to determine if an alternate location may offer a better long-term solution for the home of box lacrosse.

LIGHTING: Current park lighting, while functional, is quite outdated and could be greatly improved upon. As part of the mini-master plan it is recommended that, as funds become available, the current fixtures should be replaced with high-efficiency LED fixtures that are dark sky compliant, down cast and utilize fixture cut-off technology to minimize light trespass and glare outside the park boundary. For the interim, the City will work with stakeholder groups to add pedestrian-scale lighting throughout the park that can be used in lieu of overhead lighting at appropriate times to reduce light glare to adjacent properties while still providing security.

TURF/ FIELD IMPROVEMENTS: The current turf is in poor condition, due to years of being flooded for skating without a proper drainage system and existing poor soils (much of the park is covered in street sweepings which create a hard-packed surface and lack the proper nutrients and organics for turf to establish). A key part of this mini-master plan is to remove the top 12 inches of poor soils; install a new drainage system under the open space (including under the second hockey rink and playground); replace with amended topsoil and new seed. Duluth Parks and Recreation will review field conditions periodically and develop additional strategies to alleviate unreasonable wet field conditions should the grading, amended soil structures, and underground drainage prove ineffective.

COMMUNITY GARDENS: Following the 2012 Mini-Master Plan, the Seeds of Success transitional employment program maintained commercial agricultural gardens in Lower Chester Park. This program was operated through Community Action Duluth. After Seeds of Success abandoned the site, the agricultural plots went unused and the City had them removed.

Currently the City partners with the Duluth Garden Flower Society (DGFS) in the maintenance and development of community flower gardens across town. We encourage the Lower Chester community to partner with the DGFS and apply for membership to the society. This partnership will help identify potential locations for community flower gardens in Lower Chester.

PARKING STUDY: EXISTING CONDITIONS

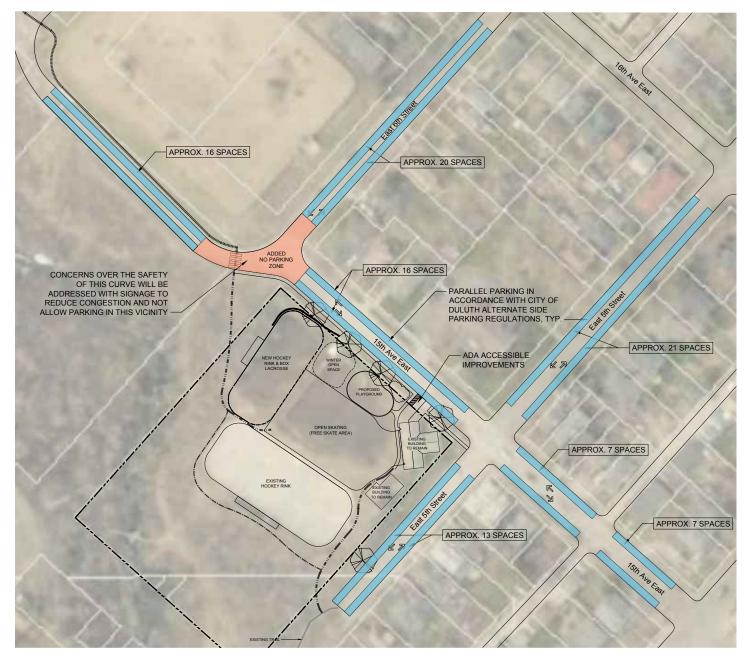


FIGURE 1.8 EXISTING CONDITIONS/INTERIM PARKING PLAN

Primarily a concern during the winter months, parking came up as a topic during the public survey/ comment period. The graphic above shows available on-street parking within one block of Lower Chester Park. Using only one side at a time (following the City's alternate side parking), the shaded areas represent +/- 90 potential spots. Because not all players are practicing during the same time frame, we estimate parking needs for approximately 40-50 cars at a time. Anyone coming into the Lower Chester neighborhood and needing to park is expected to obey City parking regulations at all times.

PARKING STUDY: PHASE II & III PLAN

As part of Phases II & III, upgrades will be made to establish dedicated parking and improved trail access for the park. The first step will be parallel parking along the upper part of 15th Ave E. Phase III will see continued parallel parking along 5th Street, along with a hammerhead turnaround and an improved neighborhood trail access point and drainage. By definition the trail access point will act as a local connector, providing limited parking (4-6 vehicles), signage explaining rules & etiquette, and optional litter receptacle, bollards and/or bike rack. Addition of the turnaround will allow better functionality for both parking and trail access. During this phase, all efforts will be made to salvage the existing community gardens. At which time the tank and/or upper 15th Ave East needs repair/ replacement, there may be an opportunity to add nose-in parking along 15th Ave East, creating more parking for users of Lower Chester Park.

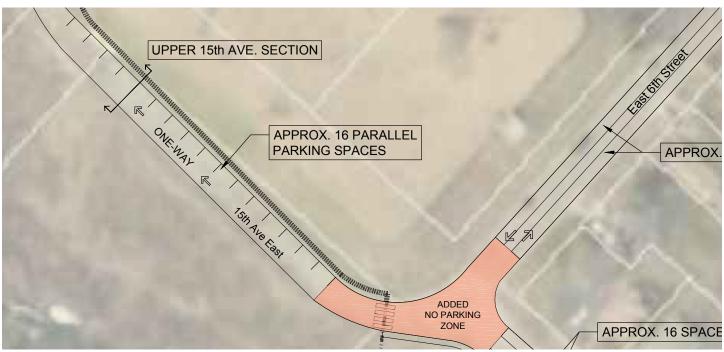


FIGURE 1.9 PHASE II PARKING PLAN; UPPER 15th AVE E

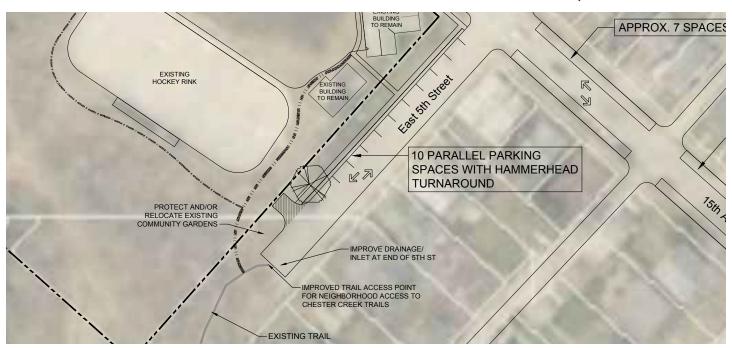


FIGURE 1.10 PHASE III E 5th STREET PARKING PLAN & TRAIL ACCESS IMPROVEMENTS

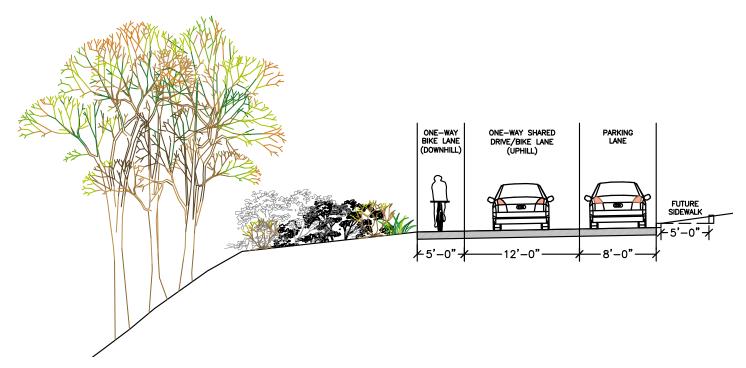


FIGURE 1.11 PROPOSED UPPER 15th AVE E SECTION

In order to address safety concerns on the upper section of 15th Ave E, and to create additional parking opportunities, the above layout is proposed. It includes a parking lane, shared uphill bike/ drive lane, and a downhill bike lane. The layout also allows for a future sidewalk along the street for further pedestrian safety and connectivity. Further study would be required prior to finalizing the proposed layout.



LOWER CHESTER PARK, WINTER 2013-14



SUMMER PLAN

During the summer months, the park will have a playground area, open space for field games and free play (with a drain field for improved drainage and healthy turf), walking trails to connect to other areas of the park and space for community plantings. Half of the boards from the 2nd hockey rink will be removed to maximize the open turf area during the summer. Boards to be removed are the straight section and corresponding curved portions closest to the open space. The two short, straight ends, back straight portion and back curved sections will remain up all year. Additionally, the players boxes offers storage opportunities for the summer months and will remain up all year.

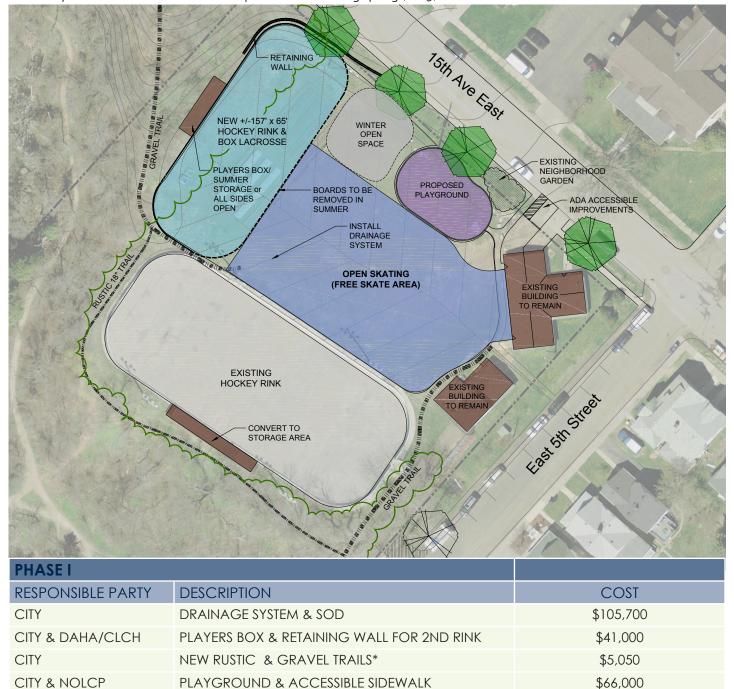
WINTER PLAN

For the winter season, the park will continue to offer the large permanent hockey rink; will add a second rink (approximately 157' x 65') with a players box; provide an open skate area; allow open space for free play, snow storage or space to expand open skating; playground; walking trails to connect to other areas of the park and offer a warming area in the existing community building. From late September until early November, both rinks may also be used for box lacrosse. A line will be added to the appropriate party's user agreement with the City to include the responsibility of keeping all sidewalks clear of snow.



PHASING & COST ESTIMATES (See Appendix A, pg. 31 for detailed costs)

PHASE I: Complete soil remediation and install new drainage system; construct players box and retaining wall for second rink; install new playground with accessible sidewalk and parking stall; construct new trails throughout park. Because the establishment of quality turf is essential to this plan, work will begin on in April of 2018 with the mass earthwork and installment of the retaining wall (completed by May); drainage will be installed from May-June and turf establishment will be from June-November. The turf area will be fenced off during this time to ensure establishment within the year and allow for winter use, but access will remain to the proposed playground area, all buildings and the concrete rink. Any necessary overseeding to solidify turf establishment will be completed the following spring (2019).

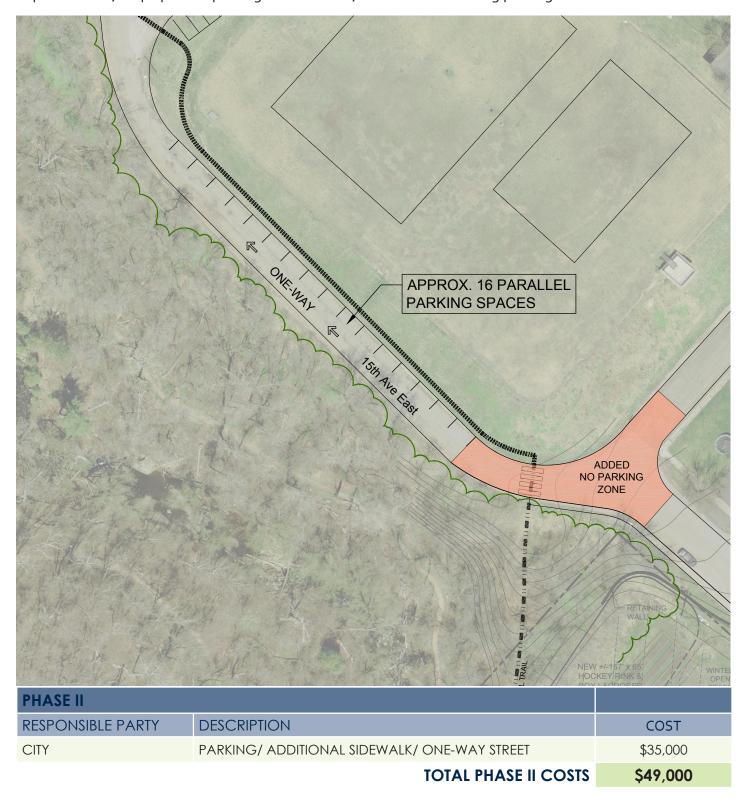


^{*}Rustic Trails will be volunteer built at no cost (310 ft.); Gravel Trails (505 ft.) estimated at \$10/ft. for install NOTE: Lighting in the park to be replaced through attrition at an estimated cost of \$5000/ fixture.

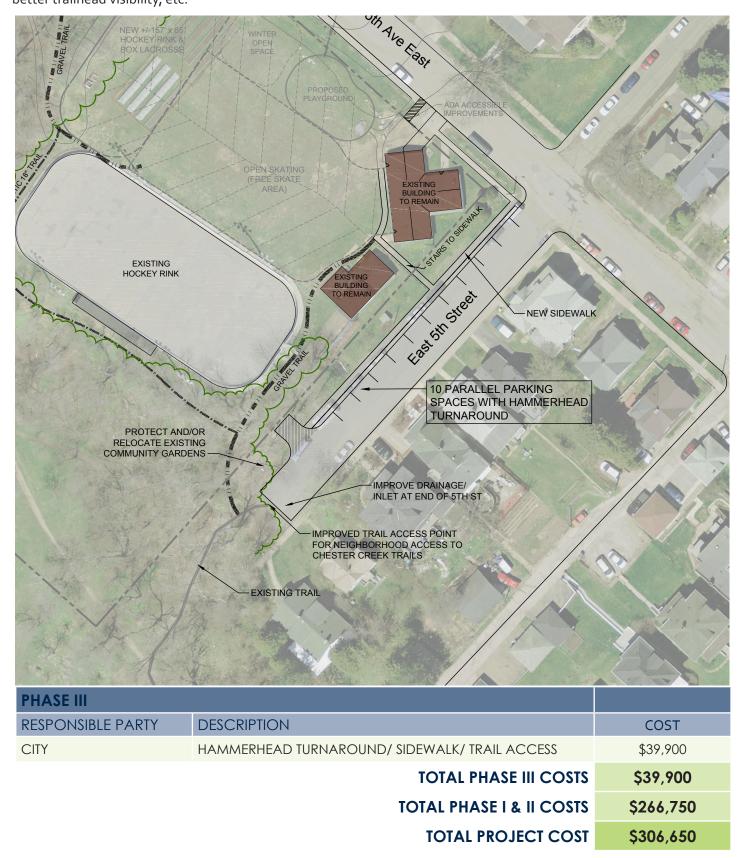
TOTAL PHASE I COSTS

\$217,750

PHASE II: Establish one-way drive on upper 15th Ave. East; make any necessary curb & gutter improvements; stripe parallel parking and bike lane; install sidewalk along parking lane.



PHASE III: Construct hammerhead turnaround; add sidewalk along parking on East 5th Street; make improvements to inlet/drainage on E. 5th; improve neighborhood trail access point with signage, maps, better trailhead visibility, etc.



08. APPENDIX A

THE FOLLOWING ARE RESULTS FROM THE INITIAL SURVEY:

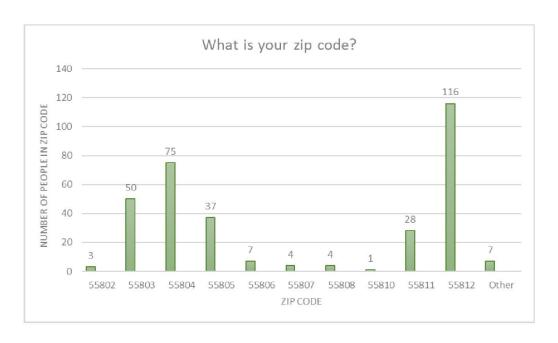


FIGURE A.1 SURVEY RESPONDENTS BY ZIP CODE

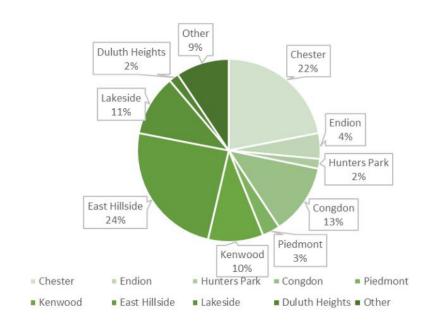
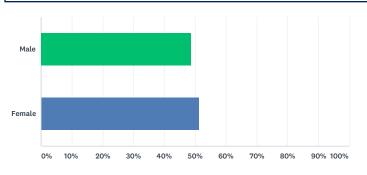
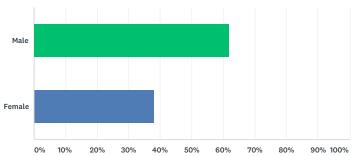


FIGURE A.2 SURVEY RESPONDENTS BY NEIGHBORHOOD

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: % of respondents who completed the survey

FIGURE A.3 SURVEY RESPONDENTS BY GENDER

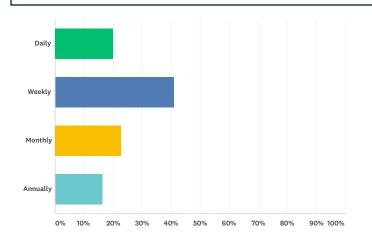


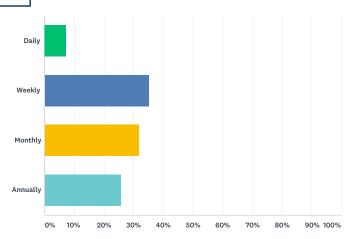


ADJACENT ZIP CODES (55805 & 55812)

OTHER RESPONDENTS

FIGURE A.4 HOW OFTEN DO YOU USE THE PARK?

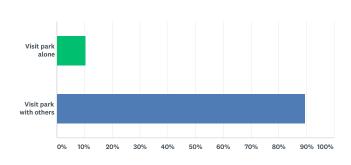


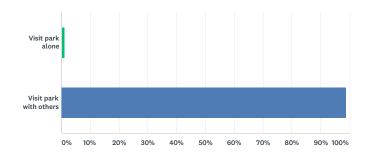


ADJACENT ZIP CODES (55805 & 55812)

OTHER RESPONDENTS

FIGURE A.5 DOYOU VISIT THE PARK ALONE OR WITH OTHERS?





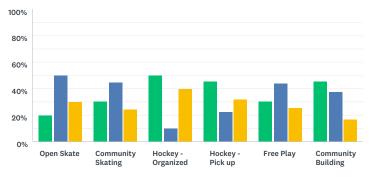
ADJACENT ZIP CODES (55805 & 55812)

OTHER RESPONDENTS

IN THE WINTER, RANK WHY/ HOWYOU CURRENTLY USE THE PARK

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: % of respondents who completed the survey

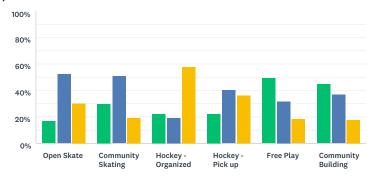
FIGURE A.6 ADJACENT ZIP CODES (55805 & 55812)



Do Not Use	Use on Occasion	_	Most Used
DO NOL OSE	USE OII OCCASIOII		MOST OSEG

	DO NOT USE	USE ON OCCASION	MOST USED	TOTAL	WEIGHTED AVERAGE
Open Skate	20.00%	50.00%	30.00%		
	30	75	45	150	1.10
Community Skating	30.60%	44.78%	24.63%		
	41	60	33	134	0.94
Hockey - Organized	50.00%	10.00%	40.00%		
	70	14	56	140	0.90
Hockey - Pick up	45.26%	22.63%	32.12%		
	62	31	44	137	0.87
Free Play	30.60%	44.03%	25.37%		
	41	59	34	134	0.95
Community Building	45.52%	37.31%	17.16%		
_	61	50	23	134	0.72

FIGURE A.7 OTHER RESPONDENTS



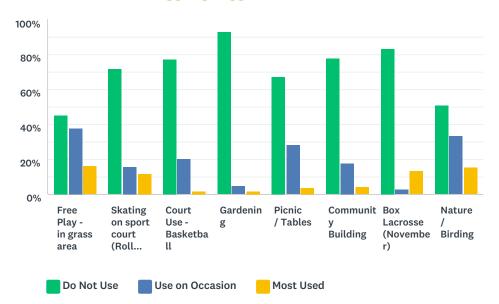
Do Not osc	Do Not Use		Use on Occasion		Most Used
------------	------------	--	-----------------	--	-----------

	DO NOT USE	USE ON OCCASION	MOST USED	TOTAL	WEIGHTED AVERAGE
Open Skate	16.96%	52.63%	30.41%		
	29	90	52	171	1.13
Community Skating	29.81%	50.93%	19.25%		
	48	82	31	161	0.89
Hockey - Organized	22.54%	19.65%	57.80%		
	39	34	100	173	1.35
Hockey - Pick up	22.67%	40.70%	36.63%		
	39	70	63	172	1.14
Free Play	49.68%	31.85%	18.47%		
	78	50	29	157	0.69
Community Building	45.22%	36.94%	17.83%		
	71	58	28	157	0.73

IN THE **SUMMER**, RANK WHY/ HOW YOU CURRENTLY USE THE PARK

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: % of respondents who completed the survey

FIGURE A.8 ADJACENT ZIP CODES (55805 & 55812)

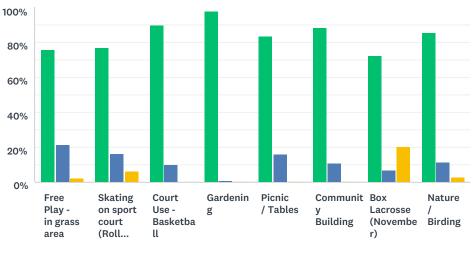


	DO NOT USE	USE ON OCCASION	MOST USED	TOTAL	WEIGHTED AVERAGE
Free Play - in grass area	45.52%	37.93%	16.55%		
	66	55	24	145	1.42
Skating on sport court (Roller Hockey)	71.94%	15.83%	12.23%		
	100	22	17	139	0.81
Court Use - Basketball	77.30%	20.57%	2.13%		
	109	29	3	141	0.50
Gardening	92.75%	5.07%	2.17%		
	128	7	3	138	0.19
Picnic / Tables	67.59%	28.28%	4.14%		
	98	41	6	145	0.73
Community Building	77.86%	17.86%	4.29%		
	109	25	6	140	0.53
Box Lacrosse (November)	83.69%	2.84%	13.48%		
	118	4	19	141	0.60
Nature / Birding	51.02%	33.33%	15.65%		
-	75	49	23	147	1.29

IN THE **SUMMER**, RANK WHY/ HOW YOU CURRENTLY USE THE PARK

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: % of respondents who completed the survey

FIGURE A.9 OTHER RESPONDENTS



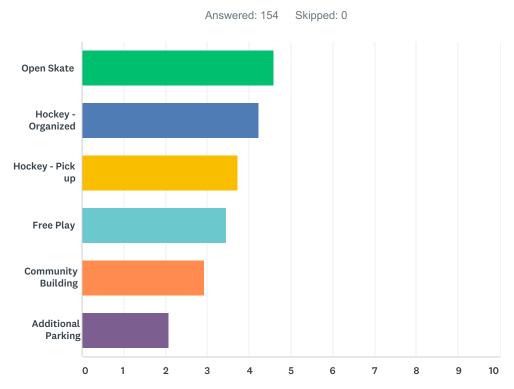
Do Not Use	Use on Occasion	Most Used
Do Not Use	Use on Occasion	Most Used

	DO NOT USE	USE ON OCCASION	MOST USED	TOTAL	WEIGHTED AVERAGE
Free Play - in grass area	76.02%	21.64%	2.34%		
	130	37	4	171	0.53
Skating on sport court (Roller Hockey)	77.06%	16.47%	6.47%		
	131	28	11	170	0.59
Court Use - Basketball	89.82%	10.18%	0.00%		
	150	17	0	167	0.20
Gardening	98.20%	1.20%	0.60%		
	164	2	1	167	0.05
Picnic / Tables	83.43%	15.98%	0.59%		
	141	27	1	169	0.34
Community Building	88.55%	10.84%	0.60%		
	147	18	1	166	0.24
Box Lacrosse (November)	72.67%	6.98%	20.35%		
	125	12	35	172	0.95
Nature / Birding	85.71%	11.31%	2.98%		
-	144	19	5	168	0.35

PLEASE RANK FUTURE PRIORITIES FOR THE PARK IN THE WINTER

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: Ranking questions calculate the average ranking for each answer choice to determine which answer choice was most preferred overall. The answer choice with the largest average ranking is the most preferred choice.

FIGURE A.10 ADJACENT ZIP CODES (55805 & 55812)

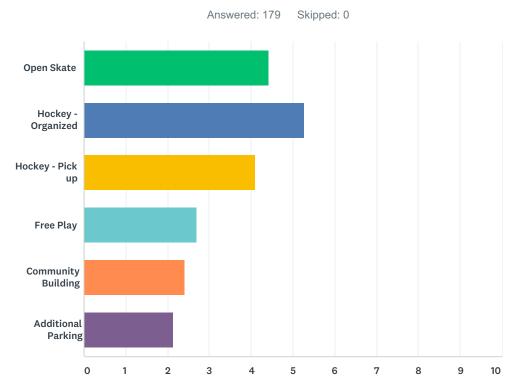


	1	2	3	4	5	6	TOTAL	SCORE
Open Skate	23.38%	33.12%	29.87%	7.79%	4.55%	1.30%		
	36	51	46	12	7	2	154	4.59
Hockey - Organized	45.45%	10.39%	7.79%	7.79%	14.94%	13.64%		
	70	16	12	12	23	21	154	4.23
Hockey - Pick up	5.84%	29.87%	22.08%	23.38%	11.69%	7.14%		
	9	46	34	36	18	11	154	3.73
Free Play	16.23%	9.09%	17.53%	29.87%	14.94%	12.34%		
	25	14	27	46	23	19	154	3.45
Community Building	3.25%	12.34%	17.53%	19.48%	35.71%	11.69%		
	5	19	27	30	55	18	154	2.93
Additional Parking	5.84%	5.19%	5.19%	11.69%	18.18%	53.90%		
	9	8	8	18	28	83	154	2.07

PLEASE RANK FUTURE PRIORITIES FOR THE PARK IN THE WINTER

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: Ranking questions calculate the average ranking for each answer choice to determine which answer choice was most preferred overall. The answer choice with the largest average ranking is the most preferred choice.

FIGURE A.11 OTHER RESPONDENTS

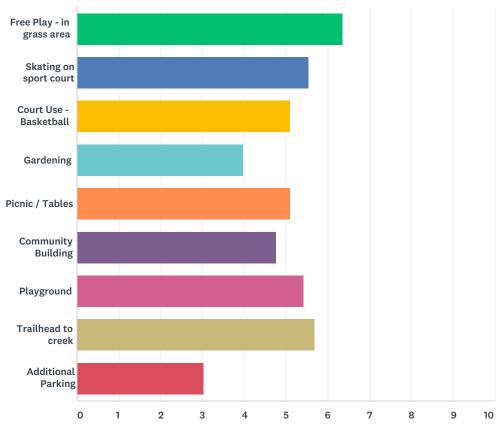


	1	2	3	4	5	6	TOTAL	SCORE
Open Skate	10.06%	39.11%	36.87%	10.06%	3.35%	0.56%		
•	18	70	66	18	6	1	179	4.41
Hockey - Organized	74.86%	7.82%	5.59%	1.12%	2.23%	8.38%		
	134	14	10	2	4	15	179	5.27
Hockey - Pick up	7.26%	37.43%	30.73%	8.94%	13.97%	1.68%		
	13	67	55	16	25	3	179	4.10
Free Play	2.79%	5.03%	11.73%	41.34%	17.88%	21.23%		
	5	9	21	74	32	38	179	2.70
Community Building	2.79%	3.91%	6.70%	21.23%	47.49%	17.88%		
	5	7	12	38	85	32	179	2.40
Additional Parking	2.23%	6.70%	8.38%	17.32%	15.08%	50.28%		
_	4	12	15	31	27	90	179	2.13

PLEASE RANK FUTURE PRIORITIES FOR THE PARK IN THE **SUMMER**

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: Ranking questions calculate the average ranking for each answer choice to determine which answer choice was most preferred overall. The answer choice with the largest average ranking is the most preferred choice.

FIGURE A.12 ADJACENT ZIP CODES (55805 & 55812)

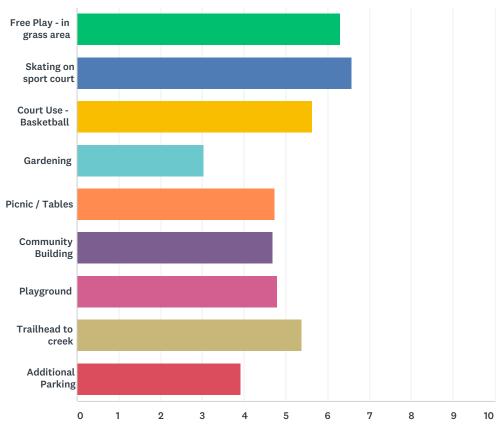


	1	2	3	4	5	6	7	8	9	TOTAL	SCORE
Free Play - in	20.78%	22.73%	13.64%	11.04%	7.79%	9.09%	6.49%	1.95%	6.49%		
grass area	32	35	21	17	12	14	10	3	10	154	6.36
Skating on sport	20.78%	14.29%	7.79%	7.14%	11.69%	6.49%	12.99%	13.64%	5.19%		
court	32	22	12	11	18	10	20	21	8	154	5.55
Court Use -	3.90%	11.04%	19.48%	13.64%	11.04%	13.64%	11.04%	10.39%	5.84%		
Basketball	6	17	30	21	17	21	17	16	9	154	5.11
Gardening	1.95%	6.49%	6.49%	11.69%	10.39%	18.83%	12.34%	15.58%	16.23%		
	3	10	10	18	16	29	19	24	25	154	3.97
Picnic / Tables	1.95%	9.74%	14.29%	16.23%	19.48%	13.64%	16.23%	8.44%	0.00%		
	3	15	22	25	30	21	25	13	0	154	5.10
Community	7.79%	4.55%	9.74%	18.18%	9.09%	15.58%	17.53%	15.58%	1.95%		
Building	12	7	15	28	14	24	27	24	3	154	4.77
Playground	19.48%	11.04%	14.29%	9.74%	7.79%	5.19%	8.44%	9.74%	14.29%		
	30	17	22	15	12	8	13	15	22	154	5.41
Trailhead to creek	20.13%	15.58%	9.09%	6.49%	14.29%	8.44%	8.44%	13.64%	3.90%		
	31	24	14	10	22	13	13	21	6	154	5.70
Additional	3.25%	4.55%	5.19%	5.84%	8.44%	9.09%	6.49%	11.04%	46.10%		
Parking	5	7	8	9	13	14	10	17	71	154	3.03

PLEASE RANK FUTURE PRIORITIES FOR THE PARK IN THE **SUMMER**

HOWTO INTERPRET SURVEY RESULTS ON THIS PAGE: Ranking questions calculate the average ranking for each answer choice to determine which answer choice was most preferred overall. The answer choice with the largest average ranking is the most preferred choice.

FIGURE A.13 OTHER RESPONDENTS



	1	2	3	4	5	6	7	8	9	TOTAL	SCORE
Free Play - in	23.46%	19.55%	15.08%	6.70%	10.61%	7.82%	5.03%	4.47%	7.26%		
grass area	42	35	27	12	19	14	9	8	13	179	6.29
Skating on sport	27.93%	22.91%	11.17%	9.50%	6.15%	3.91%	7.82%	6.70%	3.91%		
court	50	41	20	17	11	7	14	12	7	179	6.57
Court Use -	7.26%	17.32%	20.11%	13.41%	10.06%	8.94%	10.06%	8.38%	4.47%		
Basketball	13	31	36	24	18	16	18	15	8	179	5.63
Gardening	2.23%	3.35%	3.35%	5.59%	8.38%	10.06%	12.29%	25.14%	29.61%		
	4	6	6	10	15	18	22	45	53	179	3.03
Picnic / Tables	2.79%	6.15%	10.06%	13.41%	18.44%	20.67%	15.64%	12.29%	0.56%		
	5	11	18	24	33	37	28	22	1	179	4.72
Community	5.59%	5.59%	8.94%	12.85%	15.08%	21.23%	16.20%	9.50%	5.03%		
Building	10	10	16	23	27	38	29	17	9	179	4.68
Playground	9.50%	7.26%	12.85%	15.08%	6.70%	10.61%	13.97%	14.53%	9.50%		
	17	13	23	27	12	19	25	26	17	179	4.80
Trailhead to creek	11.73%	10.61%	10.06%	17.88%	15.64%	8.38%	12.29%	7.26%	6.15%		
	21	19	18	32	28	15	22	13	11	179	5.37
Additional	9.50%	7.26%	8.38%	5.59%	8.94%	8.38%	6.70%	11.73%	33.52%		
Parking	17	13	15	10	16	15	12	21	60	179	3.91

THE FOLLOWING ARE RESULTS FROM THE FOLLOW-UP SURVEY:

WHAT IS YOUR ZIP CODE?

FIGURE A.14 ADJACENT ZIP CODES (55805 & 55812)

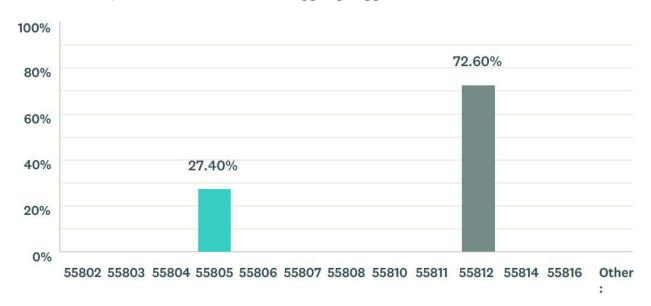
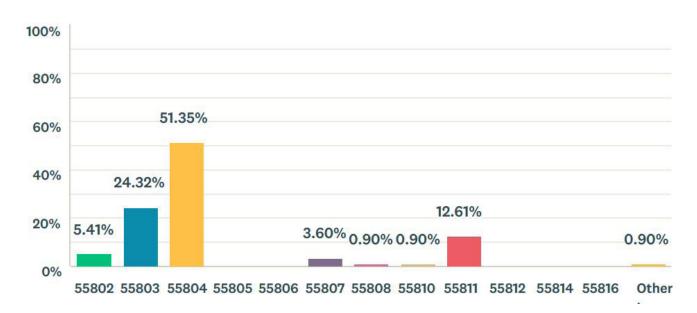


FIGURE A.15 ALL OTHER ZIP CODES



WHAT NEIGHBORHOOD DO YOU RESIDE IN?

FIGURE A.16 ADJACENT ZIP CODES (55805 & 55812)

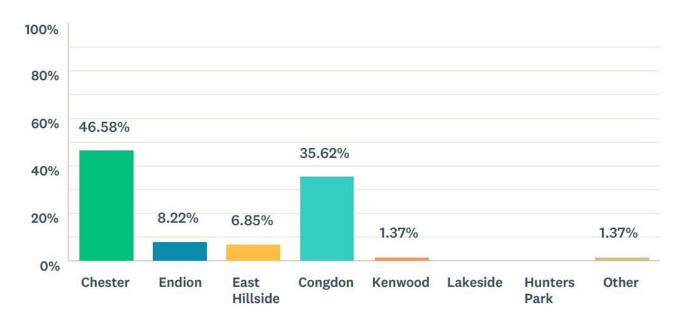
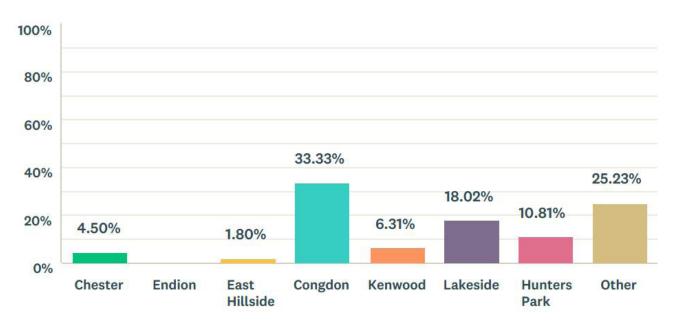


FIGURE A.17 ALL OTHER ZIP CODES



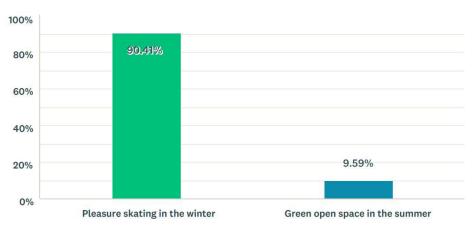
WHICH DO YOU VALUE MORE IF YOU CANNOT HAVE BOTH ATTHIS LOCATION:

PLEASURE SKATING AREA IN THE WINTER OR

GREEN OPEN SPACE IN THE SUMMER?

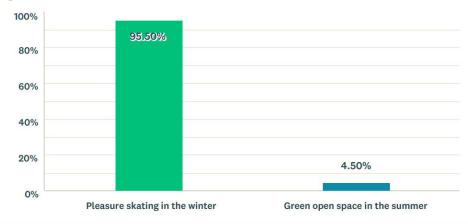
NOTE: IF OPEN SPACE IS SELECTED, YOU WILL LIKELY NOT HAVE ACCESS TO PLEASURE SKATING DURING THE WEEK AFTER 4:30PM DUE TO THE BOARDED RINKS BEING USED BY ORGANIZED HOCKEY DURING THAT TIME.

FIGURE A.18 ADJACENT ZIP CODES (55805 & 55812)



ANSWER CHOICES	RESPONSES	
Pleasure skating in the winter	90.41%	66
Green open space in the summer	9.59%	7
TOTAL		73

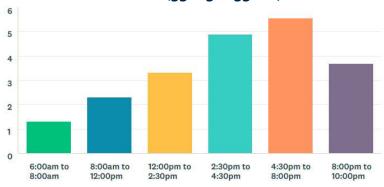
FIGURE A.19 ALL OTHER ZIP CODES



ANSWER CHOICES	RESPONSES	
Pleasure skating in the winter	95.50%	106
Green open space in the summer	4.50%	5
TOTAL		111

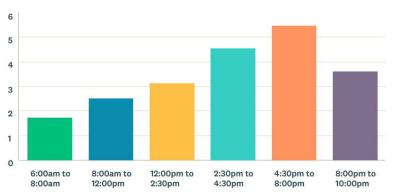
WHAT IS YOUR PREFERRED TIME FOR **OPEN SKATING DURING THE WEEK**? RANK THE FOLLOWING FROM 1-6, WITH 1 BEING MOST PREFERRED.

FIGURE A.20 ADJACENT ZIP CODES (55805 & 55812)



	1	2	3	4	5	6	TOTAL	SCORE
6:00am to 8:00am	0.00%	0.00%	4.62%	6.15%	4.62%	84.62%		
	0	0	3	4	3	55	65	1.31
8:00am to 12:00pm	3.08%	0.00%	3.08%	18.46%	70.77%	4.62%		
	2	0	2	12	46	3	65	2.32
12:00pm to 2:30pm	3.03%	6.06%	27.27%	51.52%	9.09%	3.03%		
	2	4	18	34	6	2	66	3.33
2:30pm to 4:30pm	19.40%	55.22%	23.88%	0.00%	0.00%	1.49%		
Control of the Contro	13	37	16	0	0	1	67	4.90
4:30pm to 8:00pm	75.00%	13.24%	7.35%	1.47%	2.94%	0.00%		
	51	9	5	1	2	0	68	5.56
8:00pm to 10:00pm	1.47%	26.47%	33.82%	20.59%	11.76%	5.88%		
	1	18	23	14	8	4	68	3.68

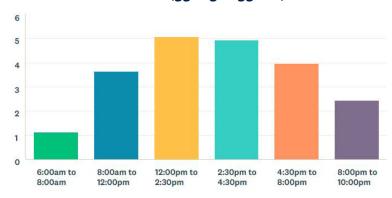
FIGURE A.21 ALL OTHER ZIP CODES



	1	2	3	4	5	6	TOTAL	SCORE
6:00am to 8:00am	3.03%	6.06%	5.05%	5.05%	8.08%	72.73%		
	3	6	5	5	8	72	99	1.73
8:00am to 12:00pm	2.97%	2.97%	7.92%	20.79%	60.40%	4.95%		
	3	3	8	21	61	5	101	2.52
12:00pm to 2:30pm	1.01%	1.01%	29.29%	56.57%	6.06%	6.06%		
	1	1	29	56	6	6	99	3.16
2:30pm to 4:30pm	10.48%	50.48%	30.48%	2.86%	4.76%	0.95%		
	11	53	32	3	5	1	105	4.56
4:30pm to 8:00pm	80.56%	9.26%	1.85%	1.85%	0.93%	5.56%		
	87	10	2	2	1	6	108	5.50
8:00pm to 10:00pm	3.92%	31.37%	24.51%	12.75%	18.63%	8.82%		
	4	32	25	13	19	9	102	3.63

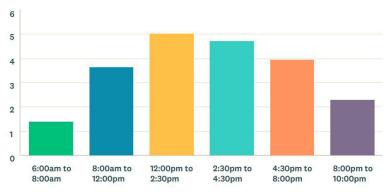
WHAT IS YOUR PREFERRED TIME FOR **OPEN SKATING ON THE WEEKEND**? RANK THE FOLLOWING FROM 1-6, WITH 1 BEING MOST PREFERRED.

FIGURE A.22 ADJACENT ZIP CODES (55805 & 55812)



	1	2	3	4	5	6	TOTAL	SCORE
6:00am to 8:00am	0.00%	0.00%	0.00%	3.13%	4.69%	92.19%		
	0	0	0	2	3	59	64	1.11
8:00am to 12:00pm	21.54%	7.69%	9.23%	33.85%	27.69%	0.00%		
	14	5	6	22	18	0	65	3.62
12:00pm to 2:30pm	45.45%	28.79%	15.15%	9.09%	1.52%	0.00%		
	30	19	10	6	1	0	66	5.08
2:30pm to 4:30pm	22.73%	48.48%	27.27%	1.52%	0.00%	0.00%		
	15	32	18	1	0	0	66	4.92
4:30pm to 8:00pm	8.96%	13.43%	44.78%	29.85%	2.99%	0.00%		
	6	9	30	20	2	0	67	3.96
8:00pm to 10:00pm	3.03%	3.03%	3.03%	22.73%	60.61%	7.58%		
6 6	2	2	2	15	40	5	66	2.42

FIGURE A.23 ALL OTHER ZIP CODES



	1	2	3	4	5	6	TOTAL	SCORE
6:00am to 8:00am	4.12%	1.03%	0.00%	1.03%	13.40%	80.41%		
	4	1	0	1	13	78	97	1.40
8:00am to 12:00pm	17.65%	10.78%	12.75%	37.25%	21.57%	0.00%		
	18	11	13	38	22	0	102	3.66
12:00pm to 2:30pm	49.53%	22.43%	15.89%	8.41%	2.80%	0.93%		
	53	24	17	9	3	1	107	5.05
2:30pm to 4:30pm	20.95%	49.52%	20.95%	2.86%	1.90%	3.81%		
	22	52	22	3	2	4	105	4.73
4:30pm to 8:00pm	11.54%	8.65%	48.08%	28.85%	2.88%	0.00%		
	12	9	50	30	3	0	104	3.97
8:00pm to 10:00pm	0.00%	8.08%	2.02%	18.18%	55.56%	16.16%		
	0	8	2	18	55	16	99	2.30

FIGURE A.24 **DETAILED COST PROJECTION**

PHASI	ΕI				
		CONT.		UNIT	
DESCRIPTION	UNITS	QUANT.		PRICE	TOTAL
RINK- 157'					
BOARDS (EXISTING BUT WILL HAVE TO REPOSITION)	LS	1	\$	-	\$ -
STORAGE (PLAYER'S BOX)	SF	400	\$	20.00	\$ 8,000.00
LIGHTING RELOCATE ONE EXISTING (ALLOWANCE)	LS	1	\$	3,000.00	\$ 3,000.00
RETAINING WALL (STRUCTURAL w/ FOOTING) 60" AVG HGT	SF	500	\$	55.00	\$ 27,500.00
FENCING ALONG TOP OF WALL	LF	100	\$	25.00	\$ 2,500.00
RINK SUBTOTAL					\$ 41,000.00
DRAINTILE/ TURF	1				
COMMON EXCAVATION (12")	CY	1,200	\$	25.00	\$ 30,000.00
50/50 SAND/ TOPSOIL (12")	CY	1,200	_	45.00	\$ 54,000.00
DRAINTILE SYSTEM (CITY INSTALLED @ NO COST)	LS	1	\$	28,970.00	\$ -
HYDROSEED	SF	31,000	\$	0.70	\$ 21,700.00
DRAINTILE/TURF SUBTOTAL					\$ 105,700.00
TRAILS					
GRAVEL TRAILS	LF	505	\$	10.00	\$ 5,050.00
RUSTIC TRAILS (VOLUNTEER BUILT; NO COST)	LF	310	\$	-	\$
TRAILS SUBTOTAL					\$ 5,050.00
PLAYGROUND					
EQUIPMENT/ SURFACING	LS	1	\$	46,400.00	\$ 46,400.00
ADA SIDEWALK	SF	300	\$	12.00	\$ 3,600.00
ADA PARKING IMPROVEMENTS (CURB & GUTTER)	LS	1	\$	16,000.00	\$ 16,000.00
ABATTARIAN INI TOVENETTIO (COND & COTTER)			_		\$ 66,000.00

PHASE II							
DESCRIPTION	UNITS	CONT. QUANT.		UNIT PRICE		TOTAL	
PARKING/ ACCESSIBILITY UPGRADES							
ADDITIONAL SIDEWALKS	SF	2,000	\$	12.00	\$	24,000.00	
PARALLEL PARKING AND ONE-WAY STREET	LS	1	\$	25,000.00	\$	25,000.00	
PHASE II SUBTOTAL					\$	49,000.00	

PHASE III								
		CONT.	UNIT					
DESCRIPTION	UNITS	QUANT.	PRICE		TOTAL			
PARKING/ CIRCULATION UPGRADES								
ADDITIONAL SIDEWALKS	SF	2,075	\$ 12.0	0 \$	24,900.00			
HAMMERHEAD TURNAROUND	LS	1	\$ 12,500.0	0 \$	12,500.00			
TRAIL ACCESS UPGRADES	LS	1	\$ 2,500.0	0 \$	2,500.00			
PHASE III SUBTOTAL			•	\$	39,900,00			

PROJECT SUB TOTAL	\$ 306,650.00
DESIGN FEES 10%	\$ 30,665.00
CONTINGENCY 15%	\$ 45,997.50
COMPLETE PROJECT COST	\$ 383.312.50

RESPONSIBLE PARTY	
GENERAL/CITY	
RINK (1/2 COST)	\$ 20,500.00
DRAINTILE/ TURF	\$ 105,700.00
PLAYGROUND (BALANCE OF COST)	\$ 45,500.00
TRAILS	\$ 5,050.00
PARKING/ ACCESSIBILITY/ CIRCULATION UPGRADES	\$ 88,900.00
DESIGN FEES	\$ 30,665.00
CONTINGENCY	\$ 45,997.50
GENERAL/ CITY TOTAL	\$ 342,312.50
DAHA/ CPH	
RINK (1/2 COST)	\$ 20,500.00
DAHA/CPH TOTAL	\$ 20,500.00
NOLCP	
PLAYGROUND	\$ 20,500.00
NOLCP TOTAL	\$ 20,500.00

FIGURE A.25 ANNUAL MAINTENANCE COSTS

The following maintenance costs are anticipated for the general operations and upkeep at Lower Chester Park based on the mini master plan recommendations. These costs will be applicable once all construction is complete and turf has been fully established.

LOWER CHESTER PARK ANNUAL MAINTENANCE COSTS			
DESCRIPTION	QTY	UNIT	COST
TURF MAINTENANCE	1	LS	\$500
PLAYGROUND MAINTENANCE	1	LS	\$500
BOARDS/ PLAYERS BOXES (BY CPCH)*	-	-	\$
TREE WORK/ PRUNING	1	LS	\$250
TRAIL MAINTENANCE	1	LS	\$100
MOWING	1	LS	\$2000
TRASH REMOVAL	1	LS	\$480
ANNUAL TOTAL			\$3830

^{*}CPCH will be responsible for the yearly maintenance costs related to hockey boards and the players' boxes