

# **The Tool Library**

Chris Bell

# Inspiration

The West Philadelphia Tool Library is a community based resource center that provides tools and related DIY materials to its members.

Ultimately my vision is to provide design solutions which will improve technology access and usage within small businesses and non-profit organizations.

# Persona

## Eager learner



## Eugene Weaver

*"I love being outdoors and working with my hands."*

Gene is the epitome of "on the go", this husband and father of two juggles his two year old Grace and eight year old Eugene Jr with the support of his wife April. He manages to personally renovate his home in West Philadelphia while working at the auto repair shop and the West Philadelphia tool library. In his "spare time" he hones his first passion, cooking.

He is all about improving the lives of his family, often saying "hard work returns results." He embraces technology as it becomes relevant to his world and has expressed an interest in finding a way to "automate things", but lacks some basic computing skills. He occasionally gets overwhelmed performing certain actions. Within his circle his computing knowledge is higher than average.

## Goals

- Join the library
- Make reservations
- Make payments
- Modify inventory
- Order parts
- Schedule maintenance
- Search for resources
- Receive notifications
- Send notices to customers

Aside from what Gene does to earn a living, he actively promotes a number of home based businesses and enjoys attending financial workshops. Among these are alternative cellular and energy services. He enjoys interacting in the community and can be found engaging in beautification projects throughout the city.

Gene's greatest difficulty is getting and staying organized. In order for him to maximize his time he needs assistance running errands, organizing equipment and continuing the renovations on his home. He would love to make more time for his family and hobbies.

Gene asserts his willingness to try anything that will help him become more efficient at tracking and cataloging his inventory; "anything to make my life easier" he says. He's always exploring new ways to connect to other resources in the community more effectively.

## First time user

*Male, 37, married with two children*

*Entrepreneur and student*

*Gene is willing and eager to learn new things. He becomes easily frustrated with computer jargon. He is not apprehensive about exploring helps and responds quickly to step by step directions.*

## Needs

Preference order:

1. Assistance organizing equipment
2. More efficiency at tracking and cataloging
3. Searchable resource database

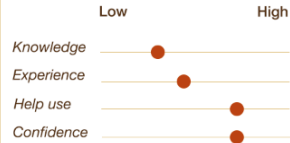
## Ideal features

Ability to search for resources  
Upload/modify equipment data  
Tutorials for DIY projects  
Ability to query client data remotely  
GPS resources for mapping.

## Frustrations

No consolidation of resources  
Incomplete inaccurate resource libraries  
No centralized database  
No access to view/manipulate client data remotely  
Incomplete GPS data/databases  
Creating unique profiles

## Key attributes



# Task List



Join the Tool Library



Reserve Tools



Pay fines/fees

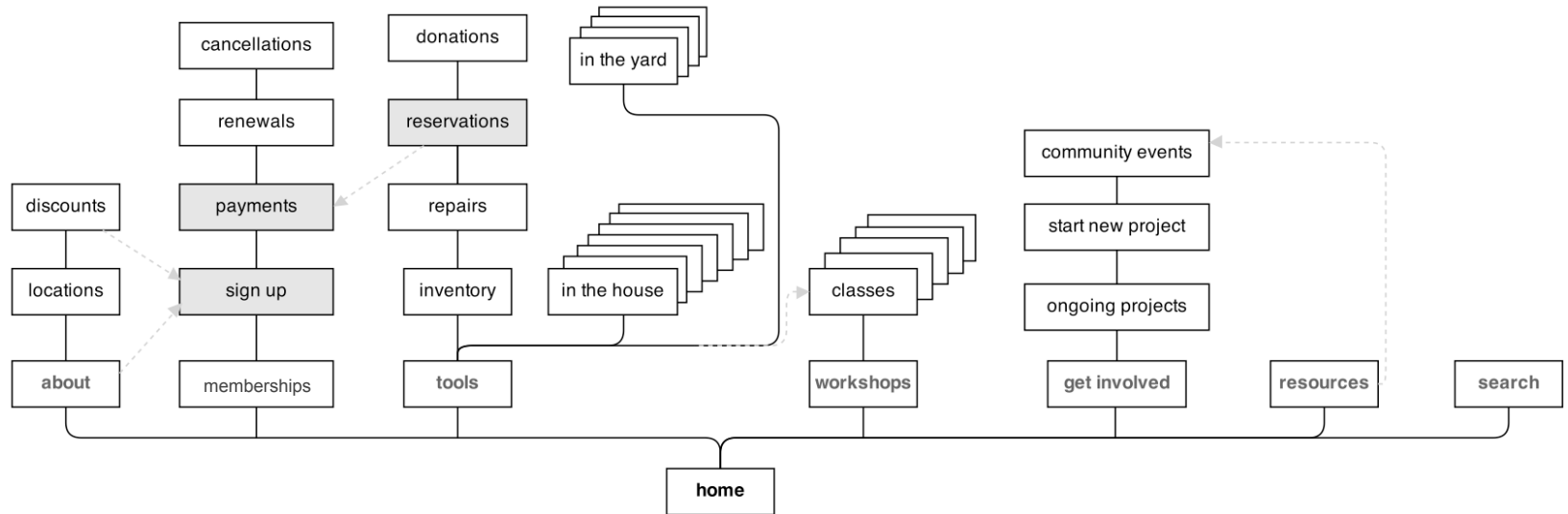


# Card Sort

<div><div>▼ tools</div><div>tool rental</div><div>power tools</div><div>buying tools</div><div>tool donations</div><div>tool inventory</div><div>tool repair</div></div> <div><div>▼ about</div><div>discounts</div><div>find locations</div></div>	<div><div>▼ get involved</div><div>community events</div><div>ongoing projects</div><div>start a new project</div></div> <div><div>▼ yard work</div><div>gas powered</div><div>yard work</div><div>electric power</div></div>	<div><div>▼ membership</div><div>renewals</div><div>cancel</div><div>cost</div><div>sign up</div></div>	<div><div>▼ workshops</div><div>workshops</div><div>just for women</div><div>DIY class</div><div>just for children</div><div>crafts</div></div>	<div><div>▼ home improvement</div><div>safety equipment</div><div>painting</div><div>plumbing</div><div>iron working</div><div>wood working</div><div>electrical</div></div>	<div><div>▼ resources</div><div>resources</div></div>
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Main navigation

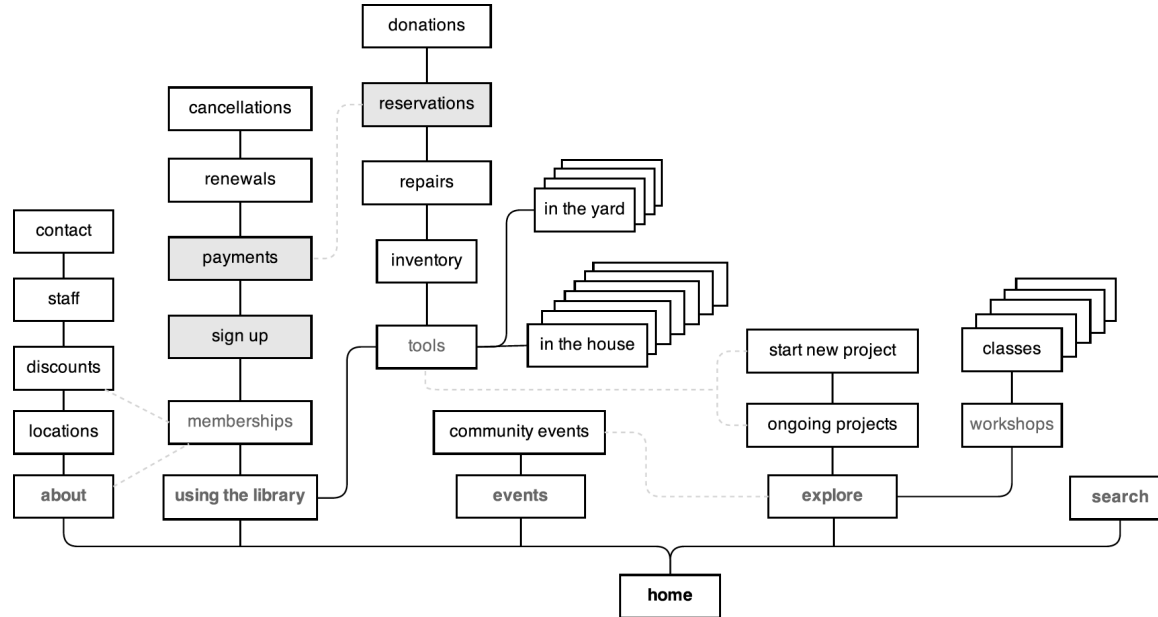
# Information Architecture



Site structure

# Information Architecture

version 2 abandoned



## Main navigation

# Card Sort

Automotive	Bike	Cleaning	Electrical	Hand tools	Ladders	Lawn/Garden	Measuring tool	Painting	Plumbing	Power tools	Safety item
battery charger	bike rack	broom	conduit bender	hammers	extension	axe	caliper	caulk gun	auger(2)	circular saw	ear muffs
buffer	nut driver set	brush	crimping cable ferrules	pliers	folding	edger	chalk line	edger	caulking buddy	crusher	gloves (4)
funnel	trailer & cover	dust pan (4)	fish tape (2)	saw	mittens	hoe	compass	paint sprayer	drain snake	floor sander	hard hat
grabber	u lock	hose	heat gun	screwdrivers	scaffold	lawn mower	framing square	paint tray	faucet handle pullers	grinding machine	knee pads
jack (5)		lint eater	lightbulb extractor	studfinder	sections	pitch fork	gauge (4)	painters tool (5)	flaring tool	jack hammer	nut driver set
jumping cables		scraper(2)	lights(5)	utility knife	stabilizer	pitch fork	level (5)	pan roller w handle	pipe cutter	power shear	respirator mask
polisher		squeeges	soldering gun/iron	wrench	step	rake	m. square (5)	pole w/ fixture	pvc cutter	wall chaser	safety glasses
ramp & stand		vacuum (4)	swage it tools*			saw	m. tape	sander	soldering pipe	wood router	scraper ice
spark plugs						shears	plump bob	tarp	soldering torch		tinted glasses
tie down cable						shovel	watch back	trim guard			
tire gear						spade	yard				
undercar caddy						sprayer					
						tree pruner					
						weeder					

Tool categories

# Information Architecture

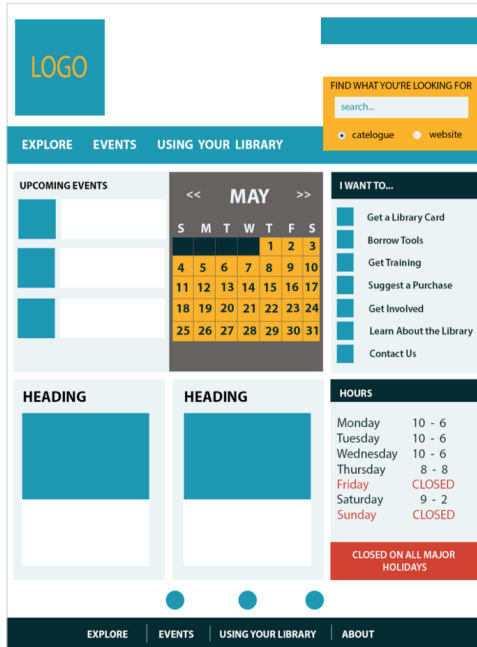
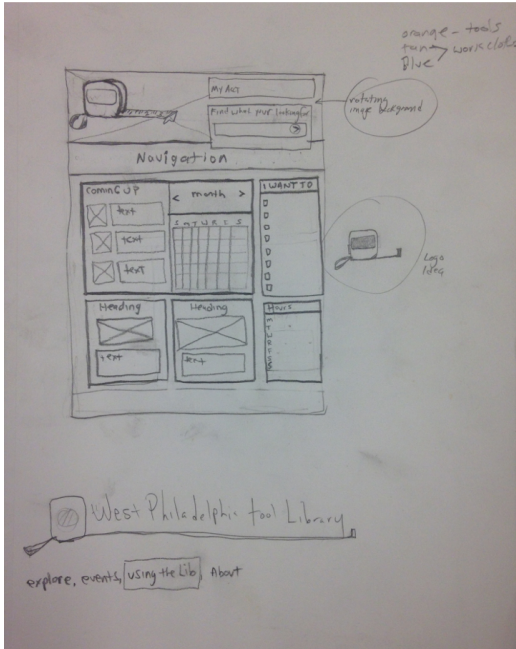


Tool navigation

# Usability requirements

1. A user will be able to **search and reserve tools** within **two minute** without assistance.
2. On average users will rate the **ease of joining the Tool Library** as **4.0**.
  - 1) Very confusing
  - 2) Somewhat confusing
  - 3) Neither simple or confusing
  - 4) Somewhat simple
  - 5) Very simple

# Conceptual Design



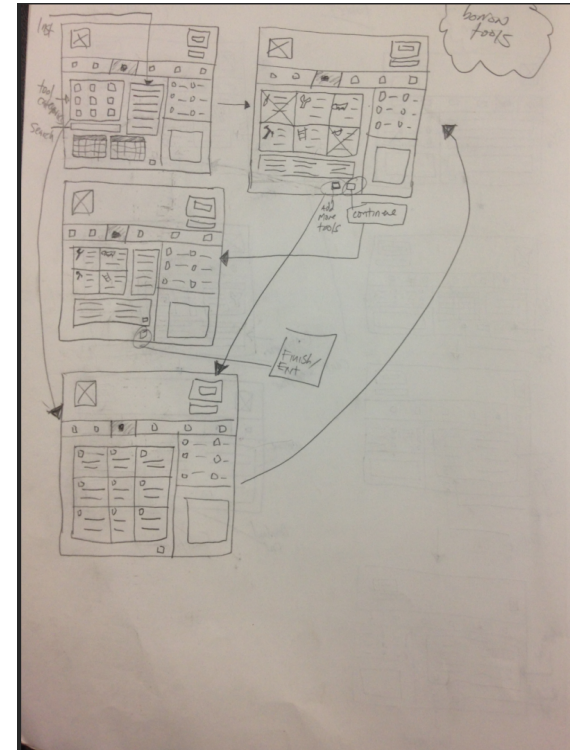
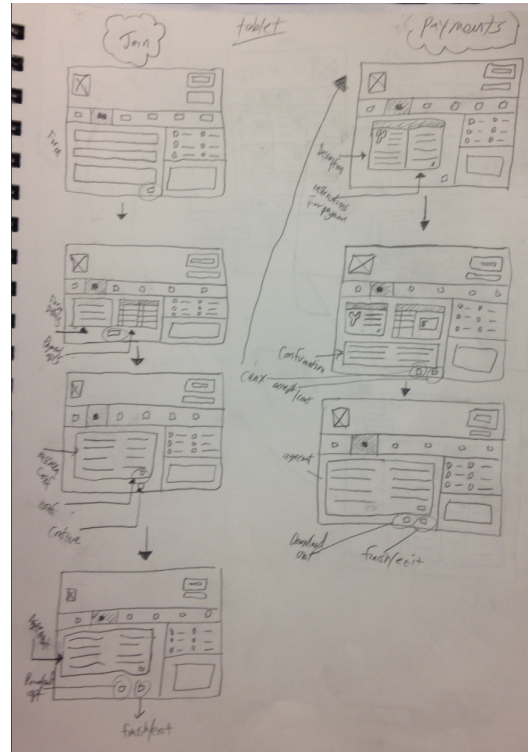
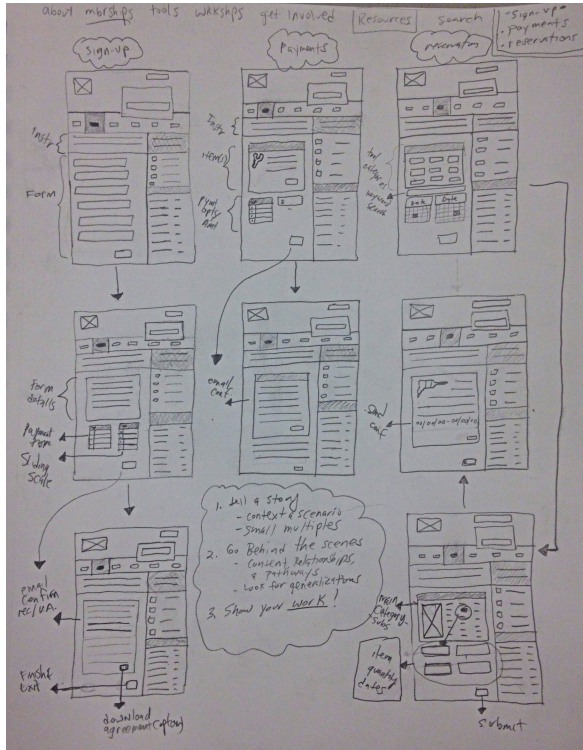
**Tool Library** 

**Tool Library** Tool Library

**Tool Library** Tool Library



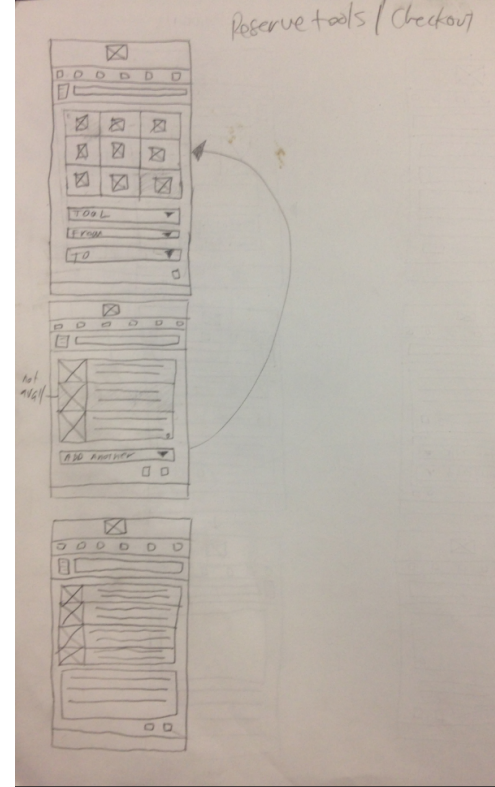
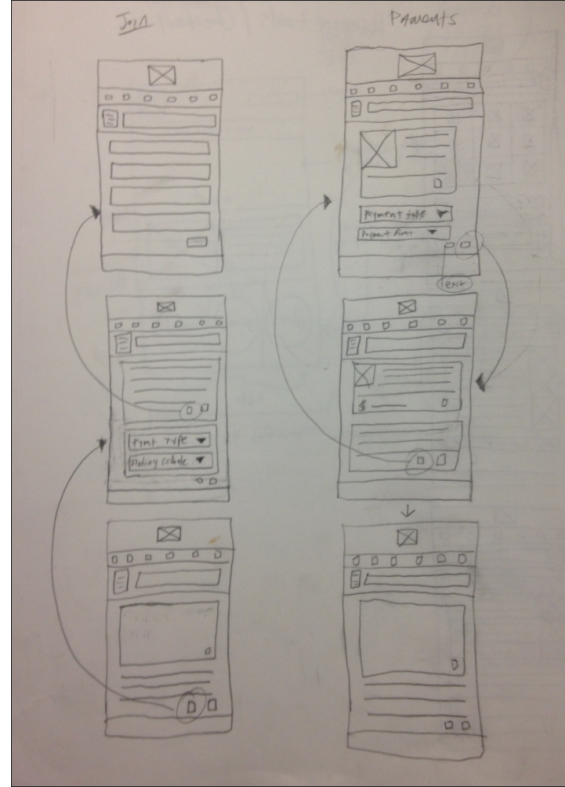
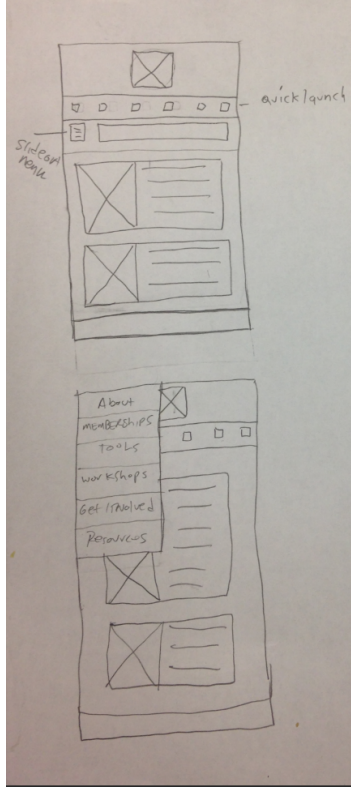
# Wireframes



desktop & tablet



# Wireframes



mobile

# Accessibility

## Color Blindness



normal



red-blind  
green-blind



blue-blind

# Accessibility

## Color Blindness



normal



red-blind  
green-blind



blue-blind

# Looking ahead

Consider sound elements as another feedback method to handle accessibility.

Refine tool sorting to make finding items easier; consider quick kits for routine projects.

Conceptualize administrator pages to handle site management.

**Questions/comments**

West Philadelphia Tool Library

search...

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29

30

Monday

10 - 6

Tuesday

10 - 6

Wednesday

10 - 6

Thursday

8 - 8

Friday

CLOSED

Saturday

9 - 2

Sunday

CLOSED

CLOSED ON ALL MAJOR HOLIDAYS



Park and public space clean up.



Neighborhood beautification.



Depaving project and park rehab.



Roxborough's Gorgas Park.

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West Philadelphia Tool Library

search...

ABOUT

MEMBERSHIP

TOOL CATALOG

WORKSHOPS

GET INVOLVED

RESOURCES

PAYMENTS


RENEWALS

CANCELLATIONS


29

30


CLOSED ON ALL MAJOR HOLIDAYS




Park and public space clean up.



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Roxborough's Gorgas Park.

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West Philadelphia Tool Library

search...

To join the Tool Library, stop by during our hours of operation, or join now by completing the on-line application below.

After joining, but before you borrow your first tools, we will ask you to show us two forms of identification, including one that is a government issued photo ID (like a drivers license) and one that includes your current address.

Please read and sign our tool lending policy and waiver of liability form.

After you submit this form, you will be asked to pay your membership dues via Pay Pal or mail. Your membership application is not complete until you pay your membership dues.

The Tool Library uses a voluntary sliding scale membership fee schedule. We ask that you pay between \$20 and \$50 per year based on your individual income.

Here's what we suggest:

Annual Income	Annual Membership
up to \$25,000	\$20
\$25,000 to \$50,000	\$30
\$50,000 to \$75,000	\$40
above \$75,000	\$50

Consider becoming a Lifetime Member for \$200 if you can swing it, if you're planning on being in the neighborhood for a while like us you'll be glad you did in a few years. Plus, the upfront money will help the Tool Library buy more tools that you can borrow.

STEP 1: Complete the membership application form below.

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West Philadelphia Tool Library

search...

Title:

Full Name:

Suffix:

Gender:

Date of Birth:

Address:

Apt/Suite:

City:

State:

Zip:

ID type:

ID#:

Phone #

Email

REFERENCES

Name	Address	Phone

Submit your info

Cancel

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search...

STEP 2: Method of Payment.

You may also pay in person at the tool library with cash, checks or money orders.

Card Type:

American Express

Discover

Mastercard

Visa

Card Number (on opaque or blank)

Security Code

Exp. Date

Name on it appears on card

For your security:

Type the text

Privacy & Terms

Card Number (on opaque or blank)

Security Code

Exp. Date

Name on it appears on card

Submit

Cancel

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search...

Your purchase summary

Individual Membership

\$50.00

Item number: IndMem

Item price: \$50.00

Quantity: 1

Item total

\$50.00

Total \$50.00 USD

Submit

Cancel

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West Philadelphia Tool Library

search...

<<

JUNE

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S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

HOURS

Monday	10 - 6
Tuesday	10 - 6
Wednesday	10 - 6
Thursday	8 - 8
Friday	CLOSED
Saturday	9 - 2
Sunday	CLOSED

CLOSED ON ALL MAJOR HOLIDAYS

Park and public space clean up.

Neighborhood beautification.

Depaving project and park rehab.

Roxborough's Gorgas Park.

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West Philadelphia Tool Library

search...

ABOUT

MEMBERSHIP

TOOL JOIN

PAYMENTS

RENEWALS

CANCELLATIONS

RESOURCES

HOURS

Monday	10 - 6
Tuesday	10 - 6
Wednesday	10 - 6
Thursday	8 - 8
Friday	CLOSED
Saturday	9 - 2
Sunday	CLOSED

CLOSED ON ALL MAJOR HOLIDAYS

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Roxborough's Gorgas Park.

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West Philadelphia Tool Library

search...

Payments due

20 ft ladder	June 12 - June 13	\$2.00
Large tarp	June 12 - June 13	\$2.00
50 ft extension pole	June 12 - June 13	\$2.00
3 - Item(s) total		\$6.00
		Total \$6.00 USD

You may also pay in person at the tool library with cash, checks or money orders.

VISA

Discover

Mastercard

Visa

Card Type:

American Express

Discover

Mastercard

Visa

Card Number (no spaces or dashes)

Security Code

Exp. Date

Name as it appears on card

For your security:

323

Type the text

Privacy & Terms

Submit

Cancel

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West Philadelphia Tool Library

search...

Your purchase summary

Overdue fee	\$6.00
20 ft ladder	June 12 - June 13 \$2.00
Large tarp	June 12 - June 13 \$2.00
50 ft extension pole	June 12 - June 13 \$2.00
Item(s) total	\$6.00
	Total \$6.00 USD

Submit

Cancel

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West Philadelphia Tool Library

search...

Home, Login, and tool categories: Wrench, Drill, Saw, Hammer, Screwdriver, Pliers, and others.

### Reservation summary

June 17 - June 21 [edit](#)

**Auto Jack  
Compressor Tire Inflation Chuck  
Drill, air**

⊕

[Go](#)

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[illegible]

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