



FIRESTONE CENTRAL PARK MASTER PLAN

TOWN OF FIRESTONE BOARD OF TRUSTEES

WORK SESSION NO. 8

18 August 2021

DESIGNWORKSHOP



AGENDA

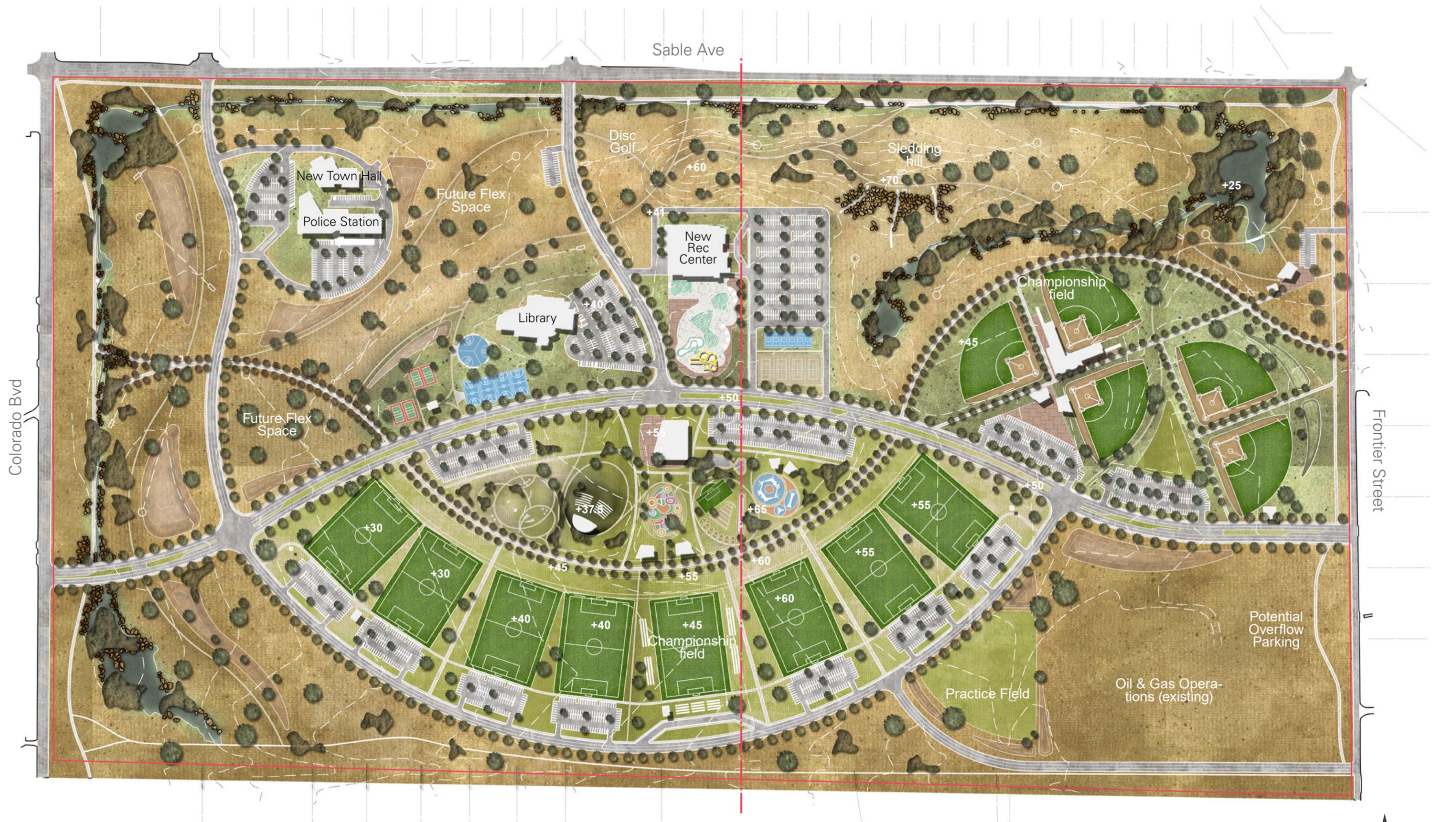
1. Minor Plan Revisions
2. Disc Golf
3. Architecture
4. Artist's Renderings

Plan Revisions



Final Concept

Illustrative Plan



Preferred Concept

Illustrative Enlargement



A Court Sports



B Sculpture Garden



C Amphitheater



H Ropes Course



G Sports Play



D Flex Lawn



E Mixed use building (15,000 sf)



F Adventure Play

Disc Golf

DISCatcher
Disc Golf Target
www.innovadiscs.com





Determining Par for Each Tee Color Based on Hole Length and Foliage Density

Updated May 2017

		Footage																													
		Foliage																													
		125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	650	700	750	800	850	900	1000	1100	1200	1300
Gold Tees 1000 Rating	Light	PAR 3						PAR 4						PAR 5				PAR 5													
	Heavy	PAR 3				PAR 3						PAR 4						PAR 5				P 6									
Blue Tees 950 Rating	Light	PAR 3				PAR 3						PAR 4						PAR 5				PAR 5									
	Heavy	PAR 3		PAR 3						PAR 4						PAR 5				PAR 6											
White Tees 900 Rating	Light	PAR 3				PAR 3						PAR 4						PAR 5				PAR 6									
	Heavy	PAR 3				PAR 3						PAR 4						PAR 5				PAR 6									
Red Tees 850 Rating	Light	PAR 3				PAR 3						PAR 4						PAR 5				PAR 6									
	Heavy	PAR 3				PAR 3						PAR 4						PAR 5				PAR 6									
Footage		125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	650	700	750	800	850	900	1000	1100	1200	1300



- Designing Par 2 holes is not recommended. The lengths are shown as cautionary indicators that a hole is likely too short for that player level.

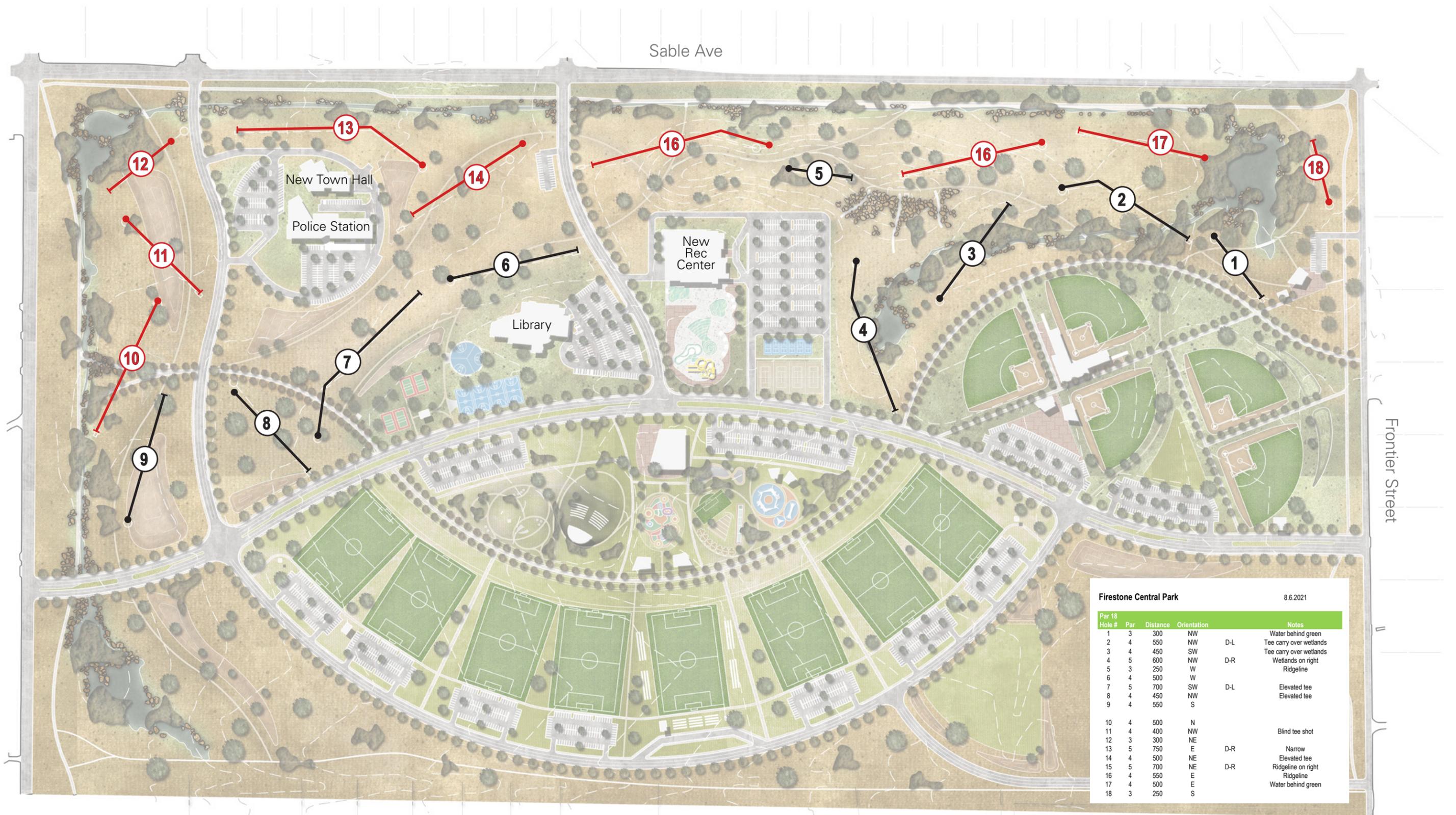
Adjust Length

- Estimating the effective length accounts for elevation. Multiply 3 times the difference in height between tee and pin. Add/subtract this amount from measured length.
- Special length adjustments are needed for wooded doglegs and sometimes carries over water. For doglegs, the amount to add depends on the color tees being calculated. Subtract the distance from the tee to the dogleg landing zone from the following numbers for each tee:
Gold = 320, Blue = 270, White = 230, Red = 200, Green = 170. If less than zero leave it blank. Or, in the case of water carries enter the additional distance a player who can't throw straight across the water would have to traverse.

Courtesy Professional Disc Golf Association

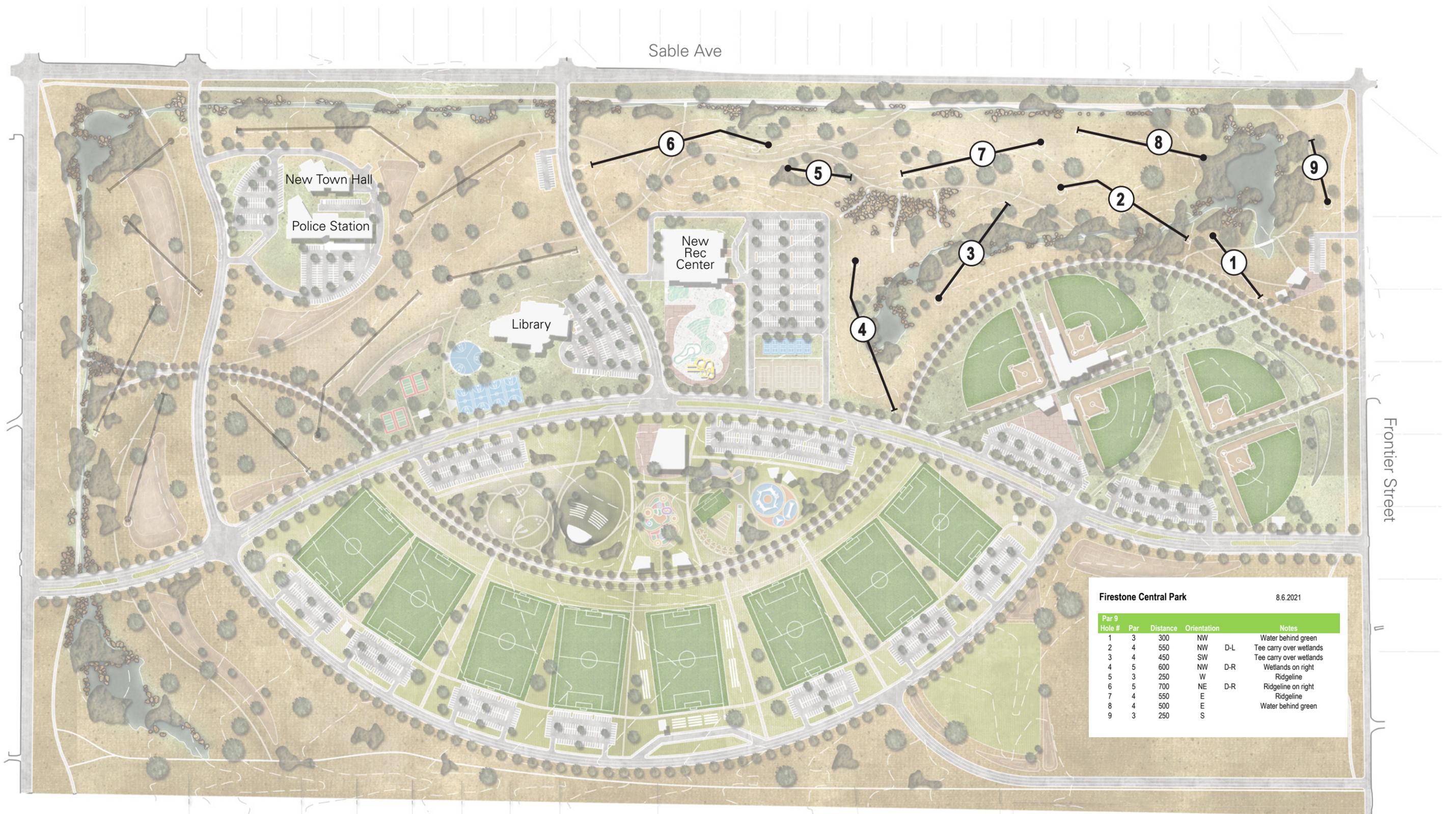
Final Concept

Illustrative Plan



Final Concept

Illustrative Plan

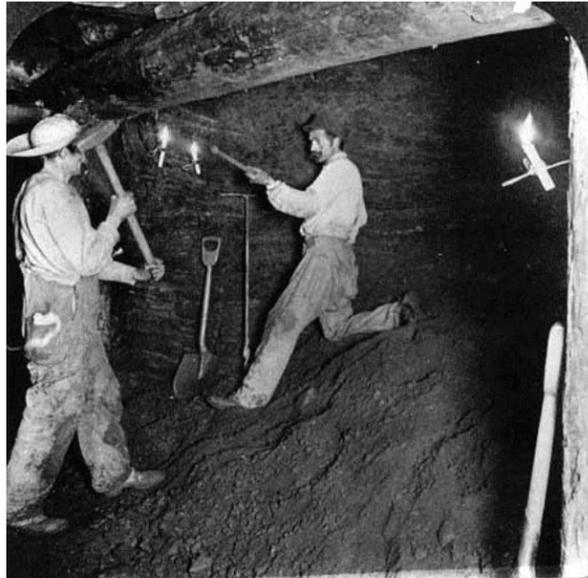


Firestone Central Park 8.6.2021

Par 9 Hole #	Par	Distance	Orientation	Notes
1	3	300	NW	Water behind green
2	4	550	NW	D-L Tee carry over wetlands
3	4	450	SW	Tee carry over wetlands
4	5	600	NW	D-R Wetlands on right
5	3	250	W	Ridgeline
6	5	700	NE	D-R Ridgeline on right
7	4	550	E	Ridgeline
8	4	500	E	Water behind green
9	3	250	S	

Architecture





HISTORY OF FIRESTONE

- _ 1872 - Colorado's first production coal mine (where Saddleback Golf Course is now)
12-mile-long Firestone Trail from Settler's Park to Coronado Park
- _ 1865 - Fort Junction
200 foot long, 4 sided sod fort built to protect settlers from the Native Americans. The sod walls were laid in blocks in a brick-link pattern with portholes 8 feet apart along the walls and 8 ft off the ground. A 2 foot wide, 3 foot tall bench ran the interior perimeter of the form for access to the elevated portholes.
- _ Firestone Coal Co. established in 1907
- _ Town of Firestone established in 1908

ARCHITECTURAL TAKEAWAYS

- _ steel frame structures
- _ brick walls
- _ walls for protection from openness
- _ elevated openings



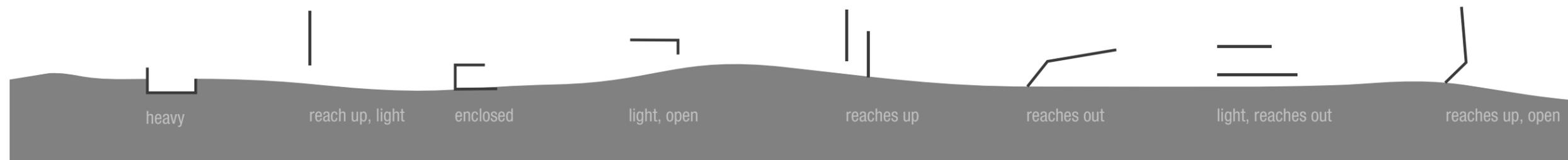
LOCAL CONTEXT

- _ gas wells
- _ oil pump jacks
- _ power line towers
- _ layered views toward mountains
- _ agrarian fences

ARCHITECTURAL TAKEAWAYS

- _ steel frame structures
- _ vertical forms
- _ layers
- _ repetition
- _ vertical planes - porous and opaque

PROGRAM	REACH	WEIGHT	POROSITY	ENCLOSURE	FUNCTIONS
amphitheater	out	light	porous/solid	open	project sound and light, provide cover, gathering point
concessions	out / up	light / heavy	solid	enclosed	provide storage/protection, facilitate exchange, gathering point, gateway?
restrooms	in	heavy	solid	enclosed	provide privacy/protection, identifiable
shelters	out	light	porous/solid	open	provide protection from elements, seating, privilege views
mixed use	up / out	light / heavy	porous	enclosed	anchor within park, spaces for restaurants & other







reach up, light

light, open

reaches out

light, reaches out

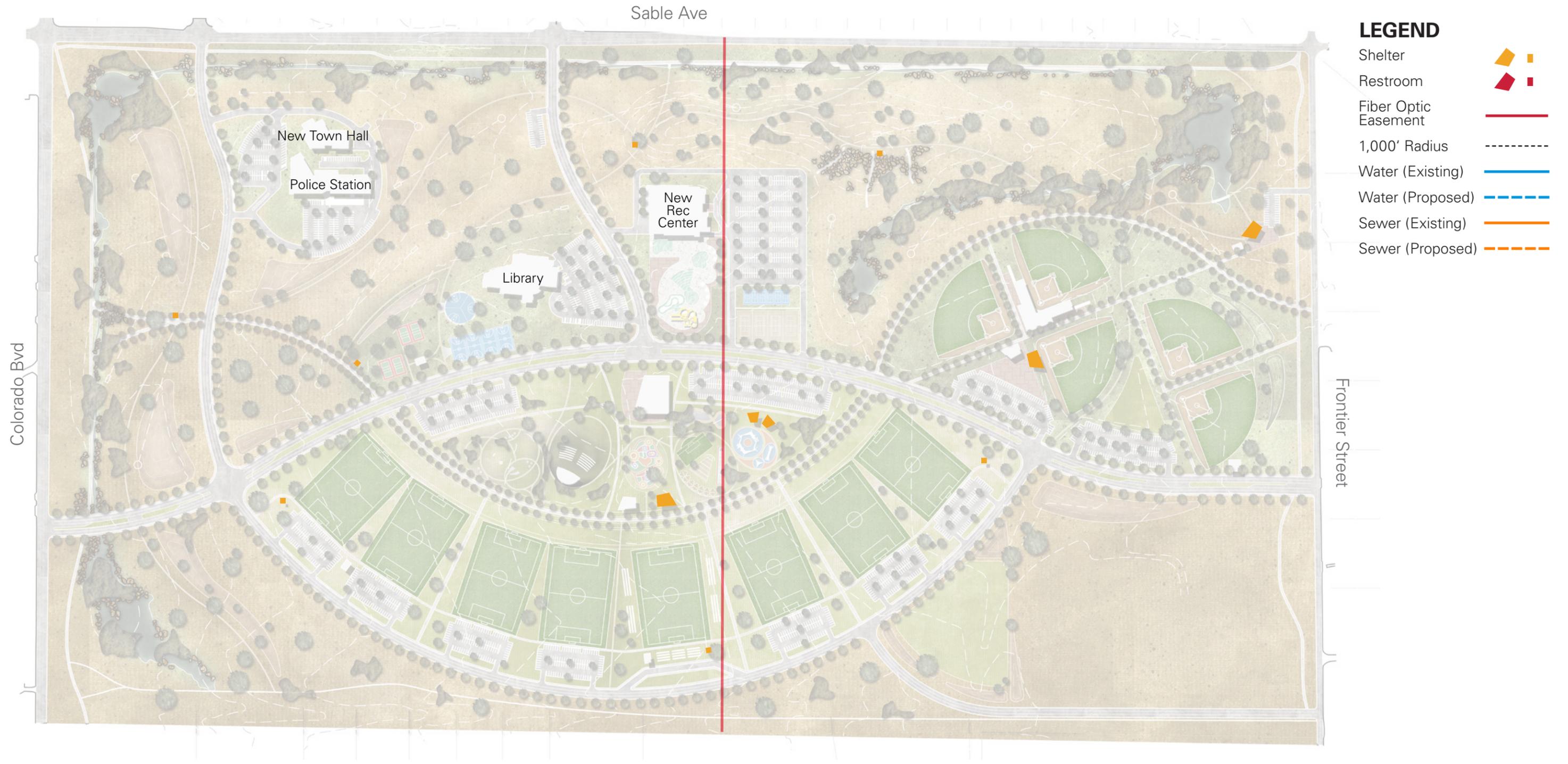




Structures

Shelters

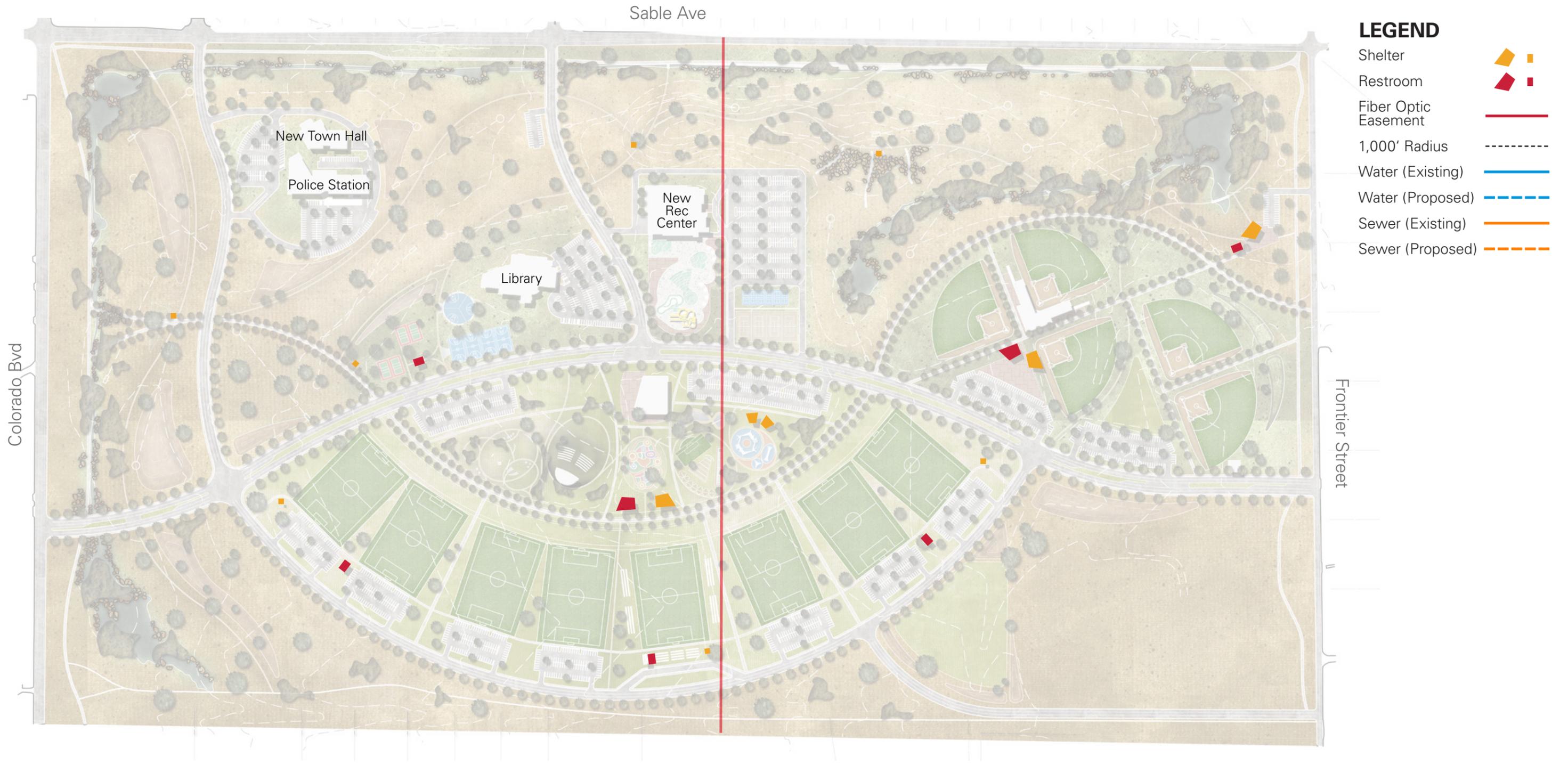
Large shelters are located at the three primary destination and gathering points. Small shelters are strategically scattered throughout the park.



Structures

Restrooms

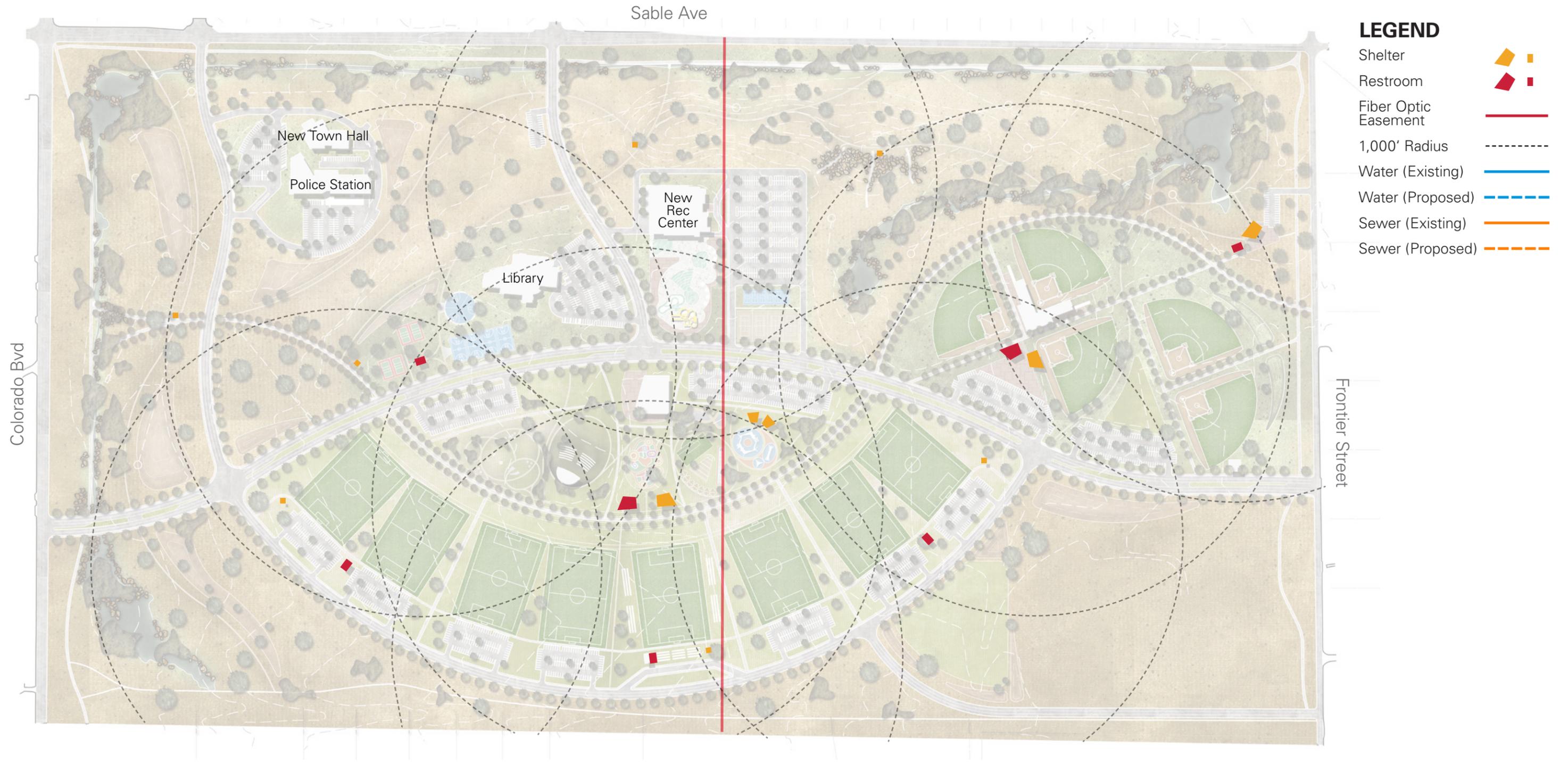
Larger restrooms are located at the two primary destination and gathering points. Medium restrooms are located at secondary destinations and could be a future phase. The smallest shelters could replaceable modular units that would not require utility connections.



Structures

Restroom Distribution

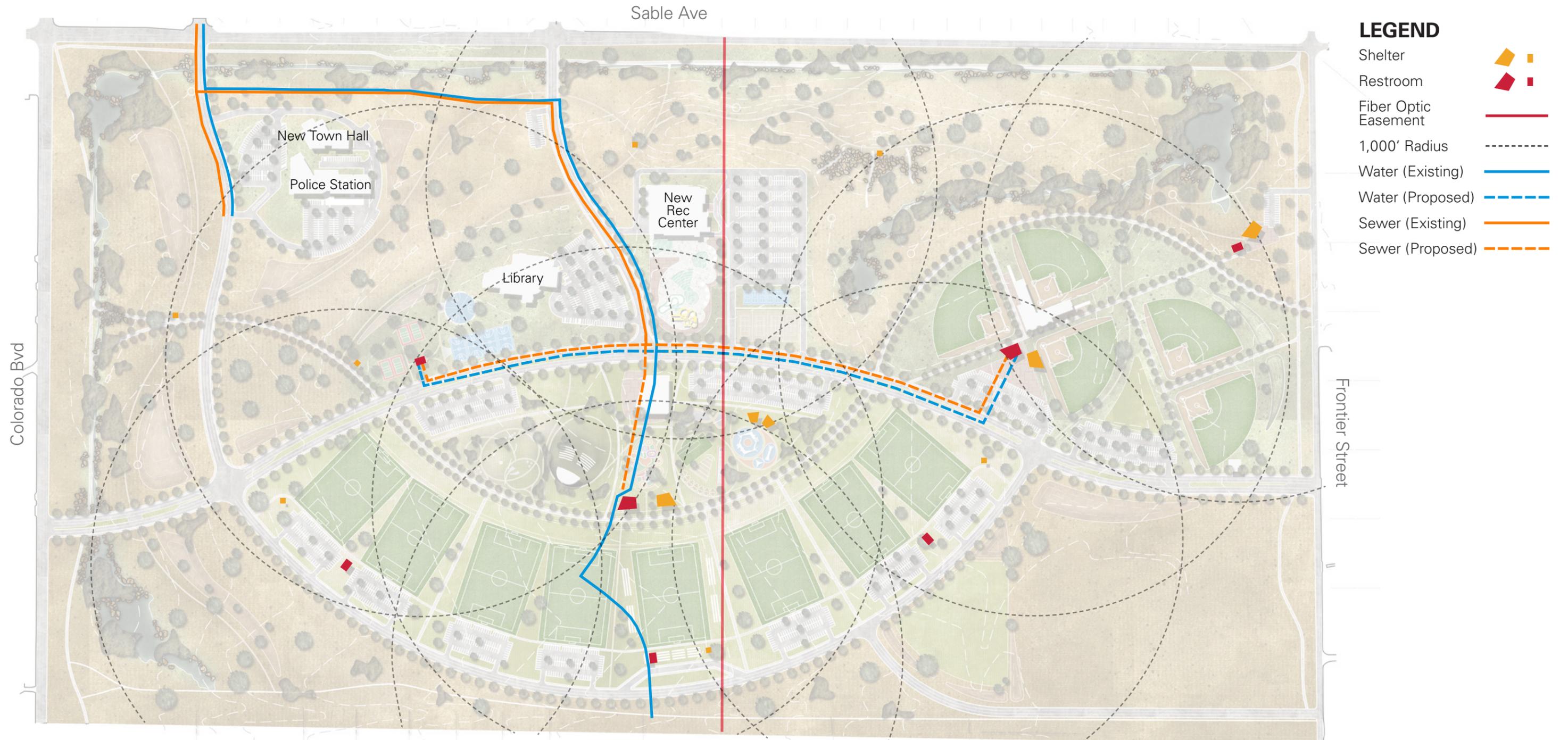
For planning purposes, 1/4 of a mile (1,320') is considered a 5 minute walk on average. For the purposes of the park we have used 1,000' to account for grade variation and obstructions that would make walking a straight line difficult.



Structures

Infrastructure

The restrooms with flushing facilities and running water must have access to the sanitary sewer and water line. This will require a cost to extend the existing infrastructure. The proposed restrooms seek to balance the ideal program location for the restrooms with utility access.



RESTROOM QUANTITY RESEARCH

RECOMMENED TOILETS *AT EVENTS*

1 portable toilet unit for every 100 female guests expected and another for every 500 men, plus and an additional portable urinal unit for every 150 men.

- <https://www.viprestrooms.com/>

For events lasting up to four hours, as a general rule of thumb, provide at least one portable restroom per 50 people

- <https://www.potty.com/>

8-10 restrooms per 1,000 guests

- <https://www.andyloos.co.uk/>

For most special events, we recommend one [toilet] for every 100 people in attendance

- <https://onsiteco.com/does-my-public-park-need-porta-johns/>

TAKEAWAY:

1 restroom per 100 visitors *at events*

RESTROOMS AT EXISTING PARKS

CITY PARK

330 acres

2 restroom facilities
4 toilet enclosures

- _ pavilion
- _ band shell
- _ walking jogging path
- _ 14 tennis courts
- _ 2 handball courts
- _ 2 interactive fountains
- _ 1 baseball / softball field
- _ 2 soccer fields
- _ 1 football field
- _ horseshoe pits
- _ 2 designated picnic areas
- _ BBQ grills
- _ additional picnic tables and benches
- _ 2 playgrounds
- _ flower beds
- _ lake
- _ zoo
- _ museum

WASH PARK

161 acres

2 restroom facilities
2 toilet enclosures

- _ bike and pedestrian path
- _ boat house / pavilion
- _ lawn / multi-use sports fields
- _ 4 basketball courts
- _ 11 tennis courts
- _ 4 volleyball courts
- _ horseshoe pits
- _ 2 shelters
- _ 5 picnic areas
- _ BBQ grills
- _ additional picnic tables and benches
- _ 1 playground
- _ flower beds
- _ lakes
- _ rec center
- _ fire station

WESTMINSTER CENTRAL PARK

205 acres

2 restroom facility

- _ 3 pavilions
- _ 1 playground
- _ 1 skate park
- _ 18 hole disc golf
- _ 4 soccer fields
- _ 4 baseball / softball fields
- _ 17 picnic tables
- _ multi-use trail
- _ additional lawn / multi-use sports fields

SANDSTONE RANCH SPORTS COMPLEX

173 acres

2 restroom facilities
2 toilet enclosures

- _ 4 baseball / softball fields
- _ 4 soccer fields
- _ 2 football fields
- _ 1 volleyball court
- _ 6 multi-use sports fields
- _ concession stand
- _ 5 shaded picnic areas
- _ playground
- _ interactive water feature
- _ trails
- _ fishing pond
- _ visitor center

RESTROOM QUANTITY RESEARCH

RESTROOMS AT EXISTING PARKS

BROOMFIELD COUNTY COMMONS PARK

350 acres

2 restroom facilities
4 toilet enclosures

- _ dog park
- _ 2 playgrounds
- _ 3 pavilions
- _ green open space
- _ 12 soccer fields
- _ mixed-use open space
- _ 3 designated picnic areas
- _ 5 parking lots
- _ rec center
- _ reservoir
- _ cemetery

AURORA SPORTS PARK

220 acres

6 restroom facilities

- _ 4 playgrounds
- _ 4 pavilions
- _ 7 picnic shelters
- _ 5 concession areas
- _ 2 first aid buildings
- _ 12 baseball / softball field
- _ 23 soccer fields
- _ BBQ grills
- _ additional picnic tables and benches
- _ 2 playgrounds
- _ flower beds
- _ lake

STENGER SPORTS COMPLEX

74 acres

3 restroom facilities

- _ bike and pedestrian path
- _ 2 pavilions
- _ administration building
- _ lawn / multi-use sports fields
- _ 14 regulation soccer fields
- _ storage building
- _ 3 shelters
- _ 5 picnic areas
- _ BBQ grills
- _ additional picnic tables and benches
- _ 1 playground
- _ pond
- _ creek
- _ 1 skatepark
- _ 1 half-court basketball field

LONG LAKE REGIONAL PARK

90 acres

3 restroom facilities
1 toilet enclosure

- _ 3 pavilions
- _ 2 playgrounds
- _ 2 volleyball courts
- _ 1 soccer field
- _ 1 baseball / softball fields
- _ 17 picnic tables
- _ paved multi-use trail
- _ 15 boat trailer slots
- _ 1 concession stand
- _ 32 picnic tables
- _ boat launch
- _ public beach
- _ railroad track
- _ history center
- _ nature space

DICK'S SPORTING GOOD FIELD

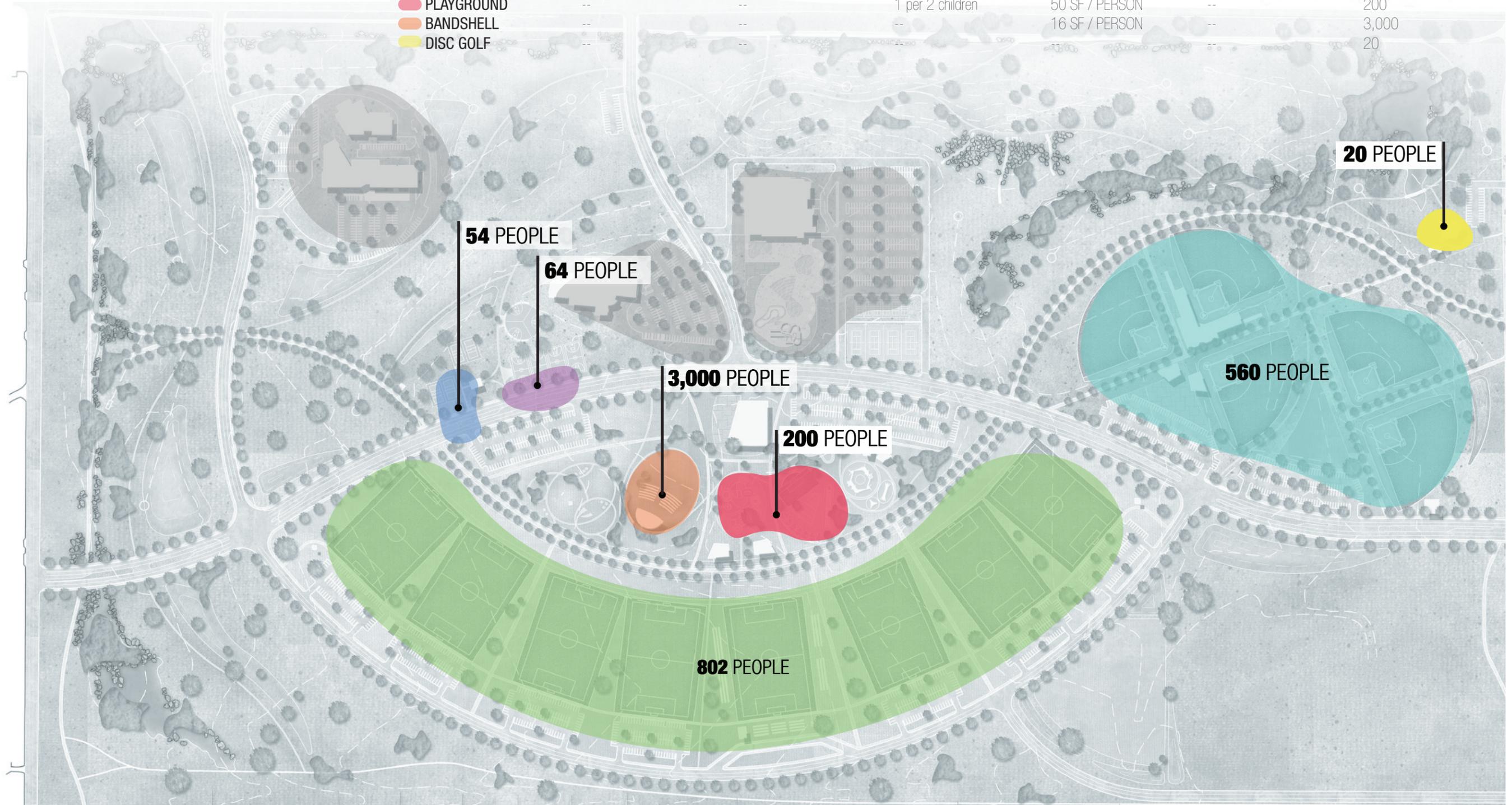
163 acres

4 restroom facilities
12 toilet enclosures

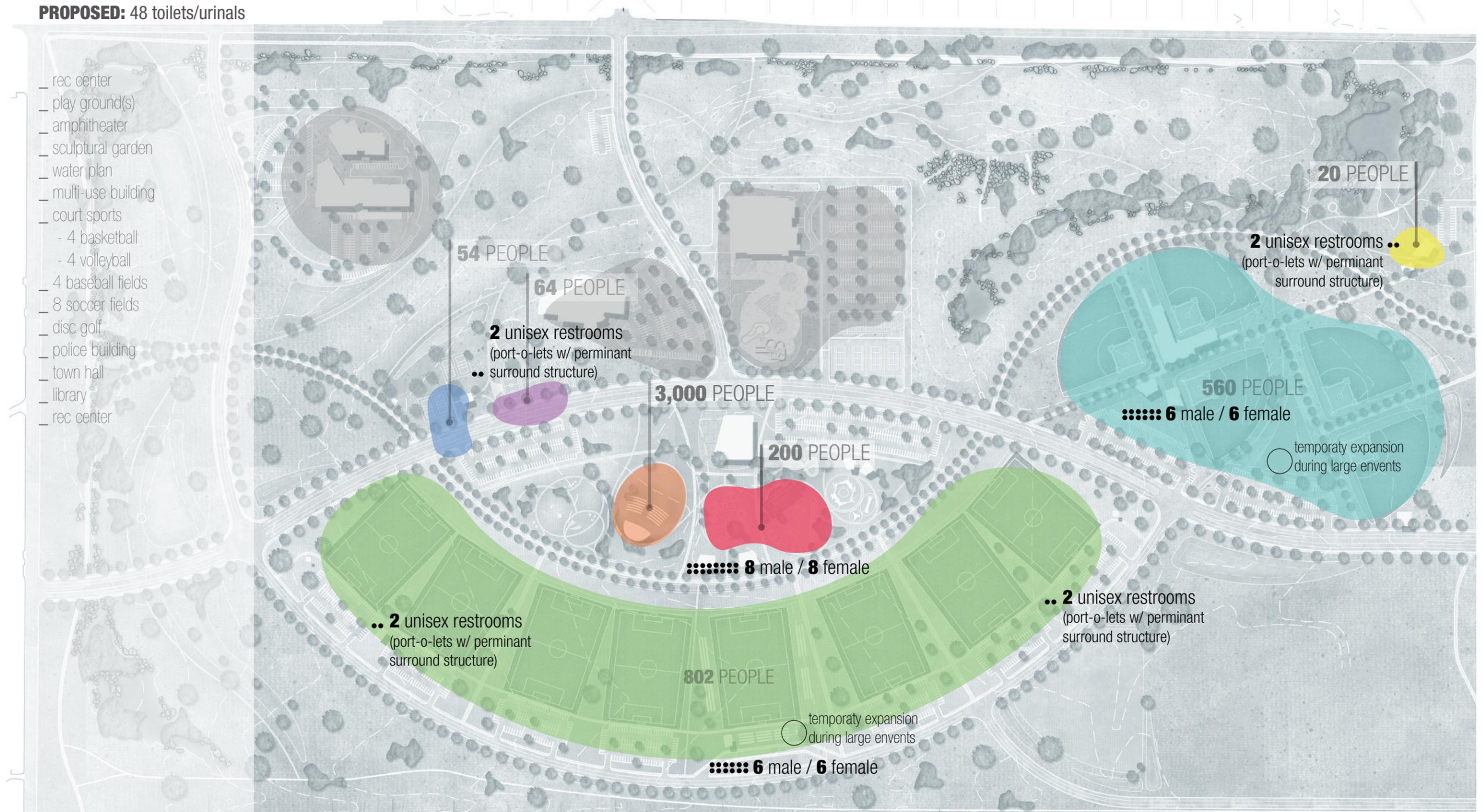
- _ 21 soccer fields
- _ 4 pavilions
- _ 3 concession stands
- _ 6 shaded areas
- _ visitor center
- _ 8 storage buildings

PARK PEAK CAPACITY ESTIMATES

SPORT / ACTIVITY	COACHES PER TEAM	TEAM MEMBERS	SPECTATORS PER TEAM MEMBER	PEOPLE PER FIELD / COURT / VENUE	# OF FIELDS / COURTS	TOTAL CAPACITY
SOCCER	2	16	2	100	8	802
BASEBALL	2	18	2	112	5	560
BASKETBALL	--	5	2.5 (50% of players)	13.5	4	54
VOLLEYBALL	--	6	3 (50% of players)	16	4	64
PLAYGROUND	--	--	1 per 2 children	50 SF / PERSON	--	200
BANDSHELL	--	--	--	16 SF / PERSON	--	3,000
DISC GOLF	--	--	--	--	--	20



PROPOSED RESTROOM QUANTITIES



STRUCTURAL TYPOLOGY SUMMARY

01 LARGE RESTROOM, CONCESSIONS, STORAGE, PICNIC FACILITY

8 bathroom stalls, utility and storage space for park maintenance equipment, concessions facility, and shaded area for picnic tables located centrally in the park along the promenade

02 MEDIUM RESTROOM, CONCESSIONS, STORAGE, PICNIC FACILITY

6 bathroom stalls, utility and storage space for park maintenance equipment, concessions facility, and shaded area for picnic tables located at the baseball fields

03 SMALL RESTROOM FACILITY

4 bathroom stalls located as needed

04 EXTRA-SMALL RESTROOMS FACILITY

structure designed to surround 2 portable restrooms located in the more remote locations

05 LARGE SHADE STRUCTURE

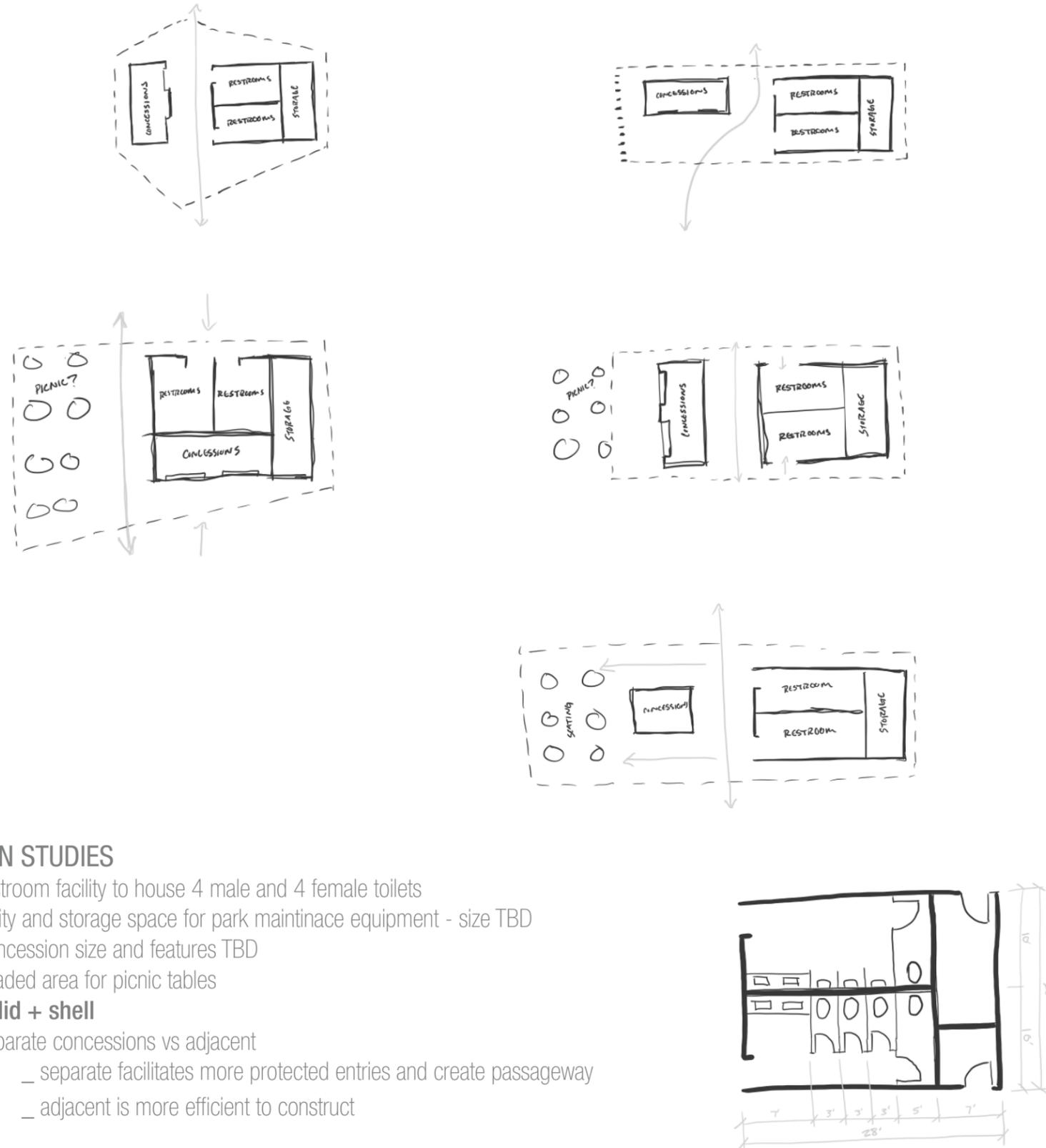
pavilion housing 2 picnic tables designed to privilege views and mitigate weather and sun exposure

06 SMALL SHADE STRUCTURE

pavilion housing 8 picnic tables designed to privilege views and mitigate weather and sun exposure

07 BAND SHELL

02 MEDIUM FACILITY

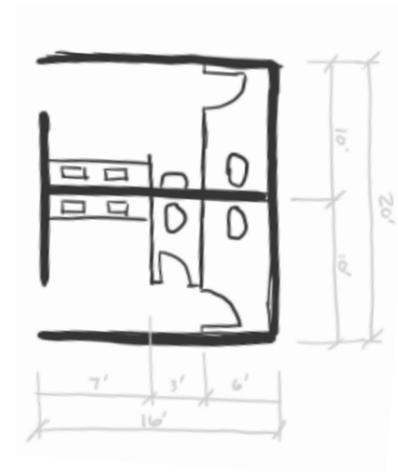
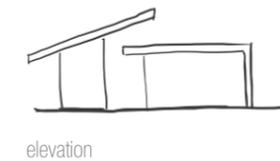
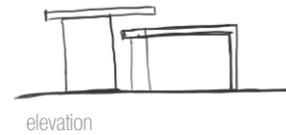
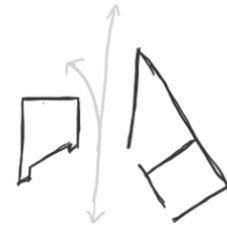
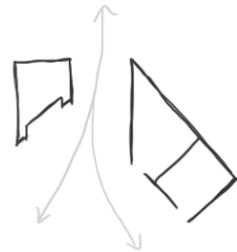
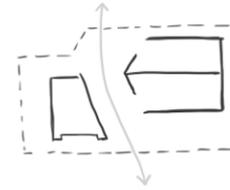
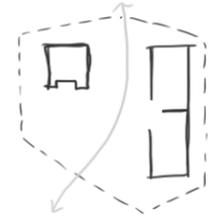
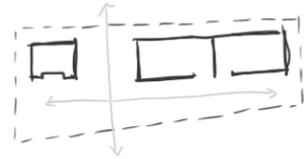
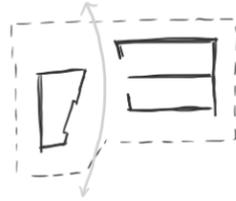
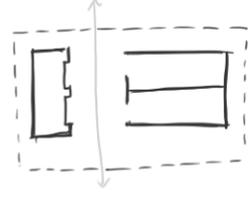
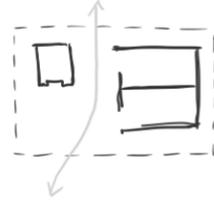


PLAN STUDIES

- _ restroom facility to house 4 male and 4 female toilets
- _ utility and storage space for park maintenance equipment - size TBD
- _ concession size and features TBD
- _ shaded area for picnic tables
- _ **solid + shell**
- _ separate concessions vs adjacent
 - _ separate facilitates more protected entries and create passageway
 - _ adjacent is more efficient to construct



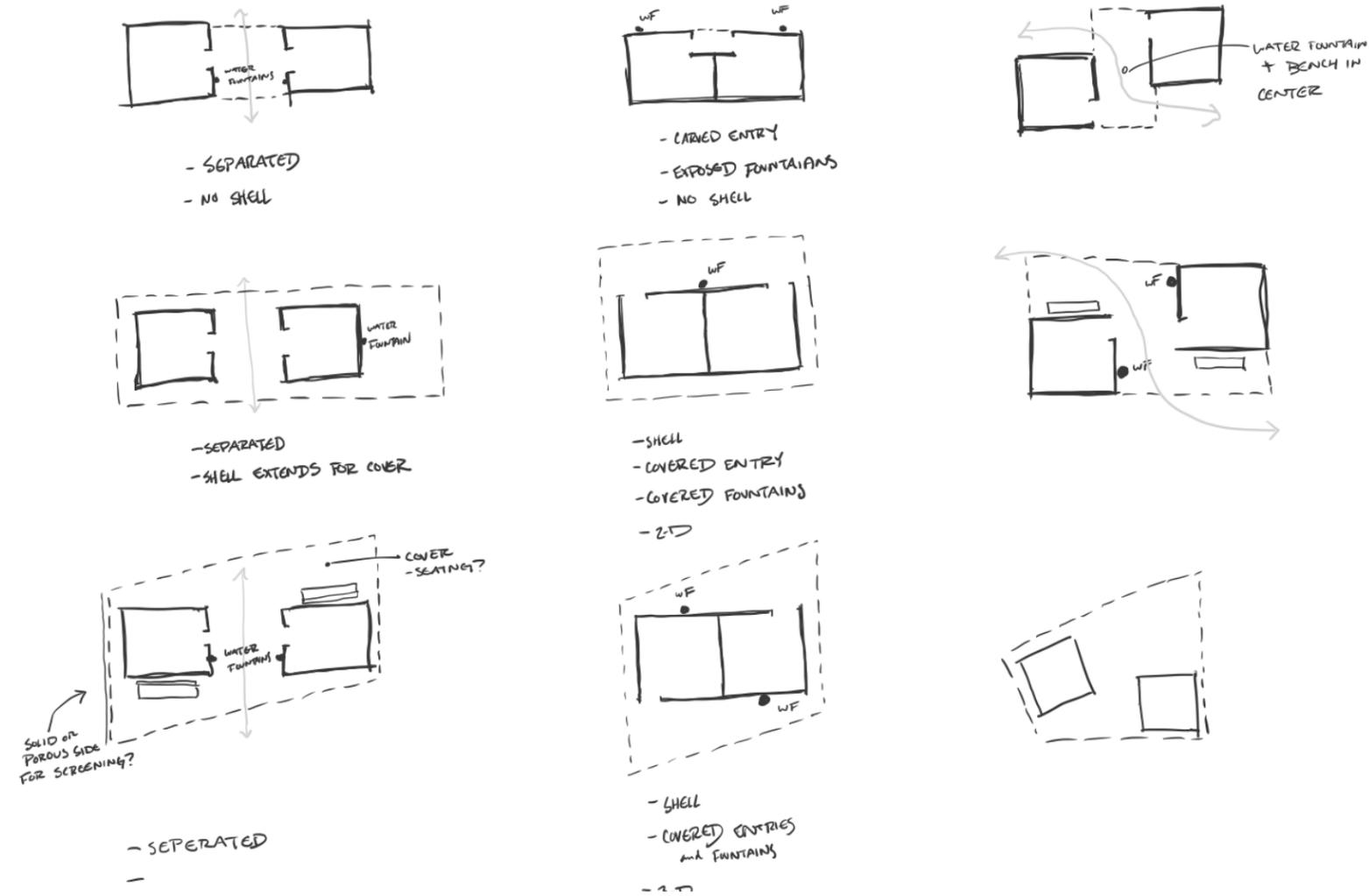
02 MEDIUM FACILITY



PLAN + ELEVATION STUDIES

- _ restroom facility to house 3 male and 3 female toilets
- _ utility and storage space for park maintenance equipment - size TBD
- _ concession size and features TBD
- _ shaded area for picnic tables
- _ **solid + shell**
- _ separate concessions and restroom to create gateway into ballparks
- _ studies explore how orientation, size, and proportions of structures facilitate circulation

03 SMALL FACILITY

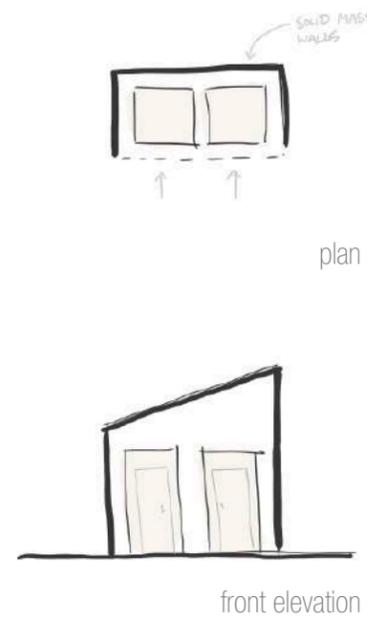


PLAN STUDIES

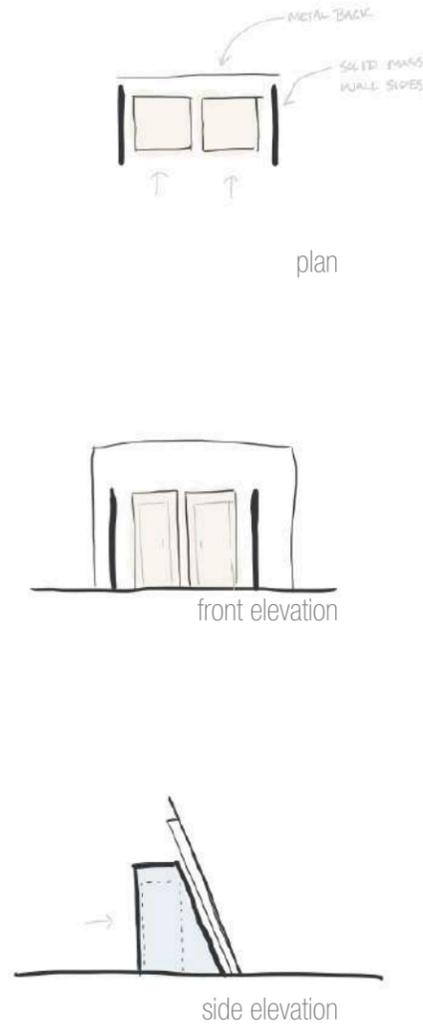
- _ 4 restrooms to be located near sports fields/courts to support high capacity
- _ restrooms separate vs adjacent
 - _ separate facilitates more protected entries
 - _ adjacent is more efficient to construct
- _ over hanging roof vs no overhang (**solid + shell or just solid?**)
 - _ overhang provides opportunity for more shaded exterior space
 - _ no overhand enforces concept of "object in the landscape"

04 EXTRA-SMALL FACILITY

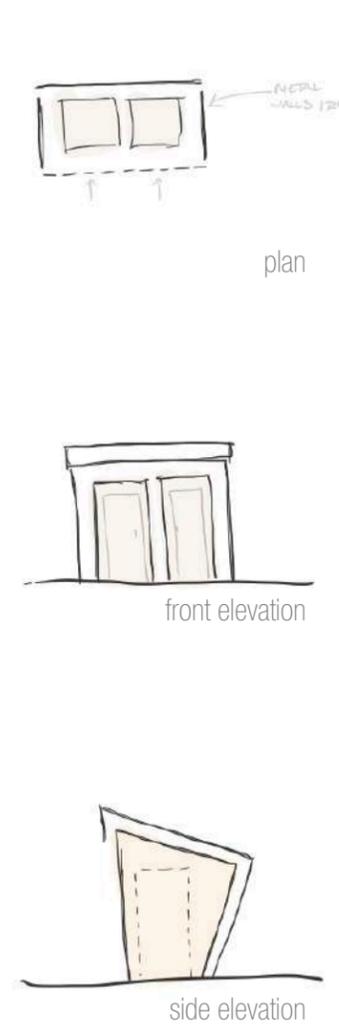
SOLID



SOLID + SHELL



SHELL



PLAN + ELEVATION STUDIES

- _ 2 portable restrooms surrounded by permanent structure
- _ mitigates infrastructure costs while providing restrooms in the more remote areas of the park
- _ architectural language to be solid, shell, or both?
 - _ solid mass walls will help keep the area cooler in summer (reduce odor) and warmer in winter
 - _ shell keeps the architecture consistent with other proposed park structures

05 LARGE SHADE STRUCTURE

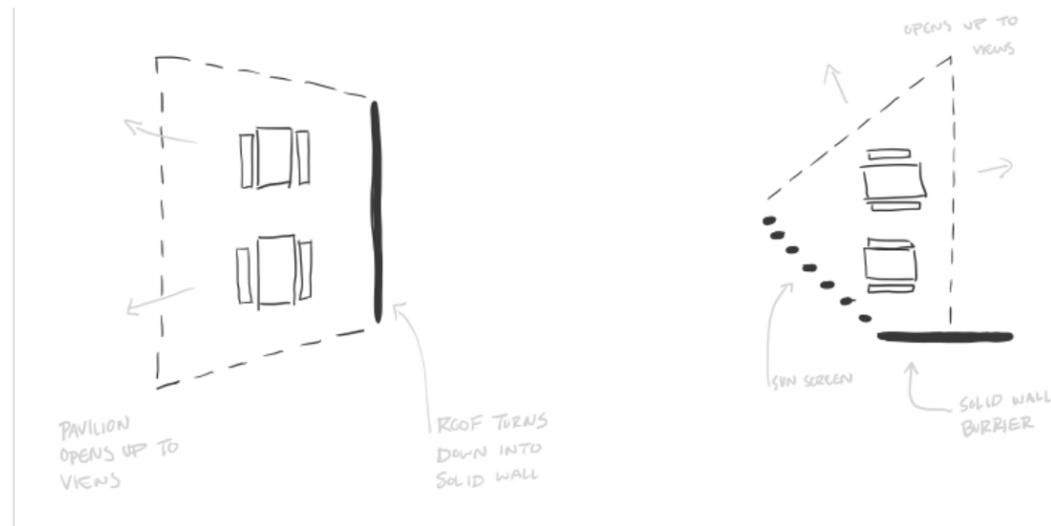


PLAN STUDIES

- _ structure to provide space for approximately 10 picnic tables and places in key locations in the park
- _ versatile **“shell”** structure to orient on and adapt to each individual site to:
 - _ optimize views
 - _ protect from weather
 - _ filter sun exposure
 - _ create barriers or open up other program in the park



06 SMALL SHADE STRUCTURE



PLAN STUDIES

- _ structure to provide space for approximately 2 picnic tables and dispersed throughout the park
- _ versatile **“shell”** structure to orient on and adapt to each individual site to:
 - _ optimize views
 - _ protect from weather
 - _ filter sun exposure
 - _ create barriers or open up other program in the park



CONCESSION SCALE



SMALL STRUCTURE W/ OPERABLE SERVICE WINDOW

- _ storage shelves
- _ counter top for supplies, cash register, etc.

MID-RANGE

- _ refrigerators
- _ ice maker
- _ sinks
- _ storage
- _ counters

LARGE MULTI-WINDOW STRUCTURE W/ FOOD PREP EQUIPMENT

- _ grills
- _ soda machine
- _ rapid cook ovens
- _ ice cream machine
- _ refrigerators
- _ ice maker
- _ sinks
- _ storage
- _ counters

Renderings





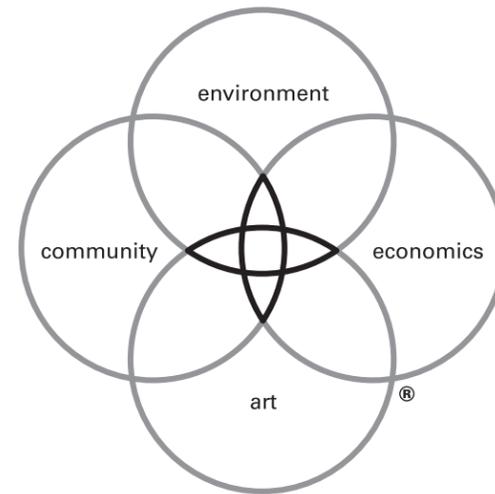




Final Concept

Illustrative Plan





DW LEGACY DESIGN®

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