### District 113

Parking & Transportation: Study, Recommendations, & Plan

HPHS Community Meeting February 19, 2015 HPHS Cafeteria









### Introduction

Annette Lidawer

District 113 Board of Education



# District 113 - neighbor and community member

### Since last May, District 113 has communicated via:

- 3 neighborhood meetings
- 13 e-mail updates
- 4 letters to neighbors
- 4 meetings with City staff
- 6 Oversight Committee meetings discussing transportation and traffic issues, including indepth review during 3 January meetings
- Launching a new community Task Force to advise on implementation and continuous improvement

## Projected enrollment 2014-2018

HPHS' enrollment will increase by 37 students

District 113's enrollment will increase by 80 students

#### Enrollment 2014-2019

Year	HPHS	% increase/ decrease	District	% increase/ decrease
2014-2015	2065		3692	
2015-2016	2086	+1%	3712	+1%
2016-2017	2105	+1%	3735	+1%
2017-2018	2061	-2%	3722	0%
2018-2019	2102	+2%	3771	+1%



#### **AGENDA**

### Challenge

**Short-Term Actions** 

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

### District 113 faced a challenge brought to a head by the HPHS construction project

- Short-term parking shortage
- Potentially worsening existing congestion

HPHS parking spaces	On		
	campus	Remote	Total
Pre-construction	631	-	631
During construction	449	86	535
Post-construction goal	631		631





#### **AGENDA**

Challenge

**Short-Term Actions** 

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

#### District 113 took mitigating actions:

- Evaluated alternative parking options and secured 86 temporary spaces with City
- Implemented a new parking lottery system
- Deployed 5 staff to direct traffic on Vine and St. Johns
- Secured assistance from the police for traffic enforcement
- Requested and received a speed reduction on St. Johns to 20 mph
- Communicated special events (deliveries, crowded events)



Staff deployed to direct drop-off traffic



**Staff Location** 



#### **AGENDA**

Challenge

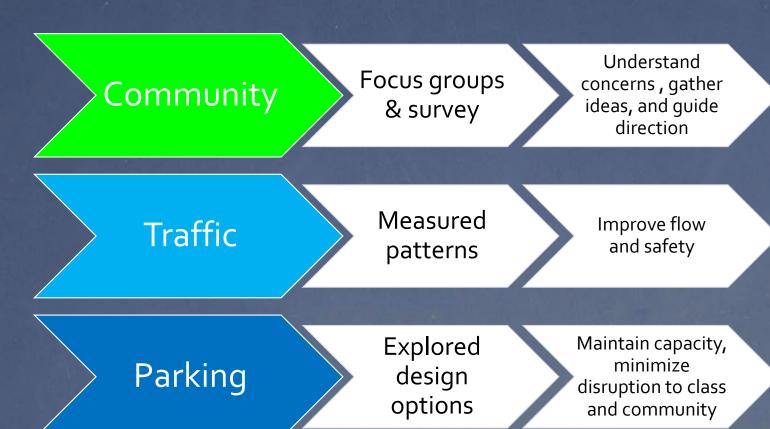
**Short-Term Actions** 

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

District 113 simultaneously launched efforts to fully explore potential solutions to pre-construction traffic issues



### Focus Groups & Survey

Alison P. Smith

Consultant





Neighbor, parent, student focus groups (35 participants) 1) Community focus groups informed traffic study, parking options and trip reduction plan (TRP)

#### **COMMON GROUND:**

- Safety, traffic concerns
- Less parking = more traffic
- Enforcement needed

#### **DIFFERENCES:**

- Neighbors want same or less parking
- Students/parents want same or more parking





Neighbor, parent, student focus groups (35 participants)

Student focus groups (150 participants)

1) Community focus groups informed traffic study, parking options and trip reduction plan (TRP)

#### COMMON GROUND:

- Safety, traffic concerns
- Less parking = more traffic
- Enforcement needed

#### **DIFFERENCES:**

- Neighbors want same or less parking
- Students/parents want same or more parking
- 2) Student focus groups informed the survey and TRP
  - Heard scope of concerns and ideas re: bus service
  - Identified meaningful incentives to bus ridership
  - Identified some alternative means





Neighbor, parent, student focus groups (35 participants)

Student focus groups (150 participants)

Student survey (466 participants)

1) Community focus groups informed traffic study, parking options and trip reduction plan (TRP)

#### COMMON GROUND:

- Safety, Traffic concerns
- Less parking = more traffic
- Enforcement needed

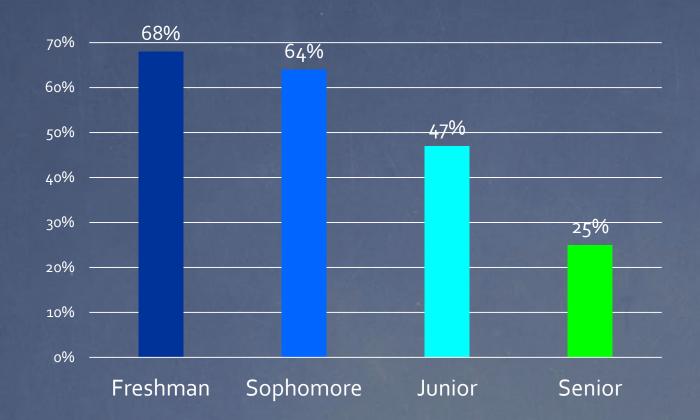
#### **DIFFERENCES:**

- Neighbors want same or less parking
- Students/parents want same or more parking
- 2) Student focus groups informed the survey and TRP
  - Heard scope of concerns and ideas re: bus service
  - Identified meaningful incentives to bus ridership
  - Identified some alternative means
- 3) Student survey informed the trip reduction plan
  - Measured satisfaction with current service
  - Identified mechanisms to increase ridership
  - Recognized potential for change in behavior



Survey responses (466 participants)

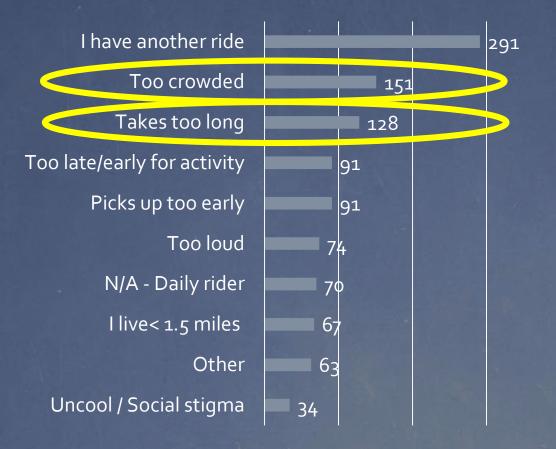
### Rate of "frequent" (daily/weekly) ridership by bus-eligible respondents





Survey responses

### Why don't you ride the bus more often?

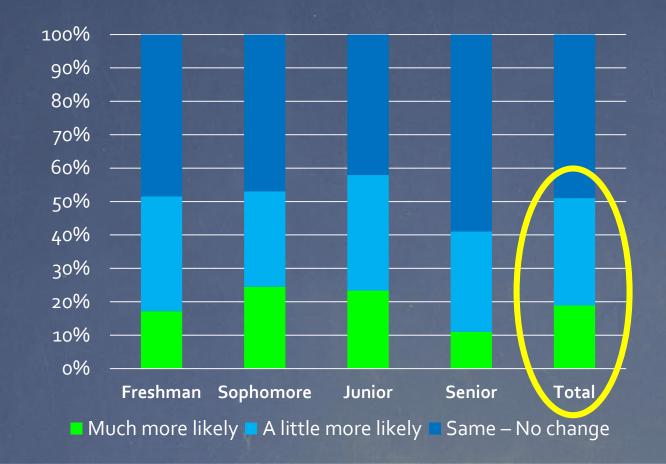




Survey responses

A window of opportunity...

### If these issues changed, how likely would you be to ride the bus?



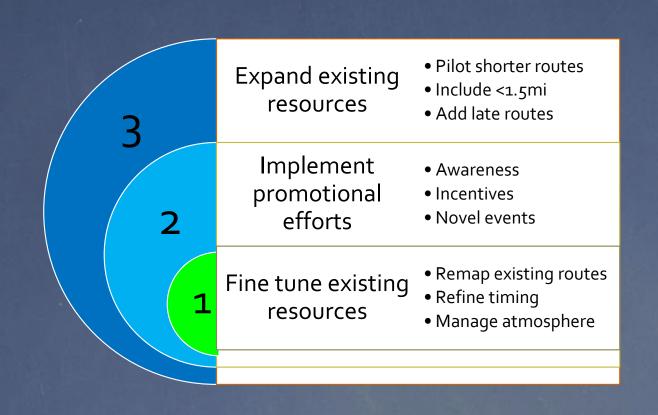


Levels of intervention

Increased effort and investment

Ridership will likely increase

Traffic levels will likely decrease







### Traffic study

Stephen B. Corcoran, P.E., PTOE Director of Traffic Engineering





- Fall counts 2013 and 2014
  - Vehicle/drop-off, bus, bike, parking and pedestrian
- Observations
- Input from:
  - Community
  - City
  - School
- Develop and analyze alternatives



### Morning peak-hour volumes

### **Listening & Learning**

	2013	2014	% Change
Hourly volumes	1,334	1,437	+8%
Student population	2,127	2,076	-2%



### **Student transportation**

**Listening & Learning** 

Travel Mode	National Average	2013	2014
Walk/bike <sup>(1)</sup>	7.5%	19%	22%
School bus	25.9%	13%	18%
Drive and park		29%	23%
Parent drop-off and pick-up	62.1%	39%	37%
Metra/PACE	4.5%	<1%	<1%
Total	100%	100%	100%

Traffic and parking study

### Less parking = more traffic

- 96 fewer spaces resulted in 103 more trips
- Drive and park became drive/drop/leave
  - Adds to drop-off congestion
  - Impacts more intersections
- Remote parking Not a solution
  - Parents: Safety
  - Students: Inconvenience
  - Created secondary traffic
- Demand for more than 631 spaces
  - Permit requests not satisfied
  - Parking in the neighborhood



Lot	2013	2014	Proposed
Accessible	18	16	18
Student	281	154	281
Staff	272	237	272
Visitor (off street)	42 42		60
Visitor (on-street)	18	_	_
Student (remote)	-	86	-
Total	631	535	631

- Original parking supply: 631 spaces
- Looked at 23+ parking alternatives
- 150+ parking combinations
- Proposed changes
  - Gain 37 parking spaces in Athletic Lot
  - Create 115-space lot south of Vine Avenue



Traffic alternatives

- Vine Avenue one-way (EB and WB)
- One-way traffic through campus
- Turn restrictions at existing drives
  - · Move congestion from one location to another
- All parking north of Vine Avenue
  - Status quo



Student loading

- Student loading is a problem
  - Neighbors
  - Students
  - Parents
- Westbound Vine backs into St. John
- Athletic Lot backs up onto Vine
- Parents find alternate locations



Locations for additional loading

- St Johns North of Vine Avenue
- St Johns South of Vine Avenue
  - SB drop-off would back up onto Vine Avenue
- West side of school (One-way northbound)
- Redesign Athletic Lot
- South side of Vine Avenue
  - Number of alternatives analyzed



**Pedestrian safety** 

### St Johns Crosswalk at Woodpath

- Poor sightlines on curve
- High travel speeds (32 mph)
- Need to reduce speeds
- Enacted school speed zone
- Evaluate and reassess

### St Johns Sidewalk (West Side)

- Carriage walk not safe/poor sightlines
- ADA requirements challenging
- Barrier between walk and street
- Existing/new retaining walls/poles
- Removal of landscaping
- Safer for students to use south/east exits

## Capital Improvement Projects Highland Park High School Parking Lot Studies

Perkins+Will

**Project Architects** 



HPHS onsite traffic/parking

### Conceptual framework & criteria for analysis

- 1) Total parking count Maintain 631 parking spaces
- 2) Provide a net improvement of traffic congestion on and around the site
- 3) Provide additional on-site queuing for dropoff/pick-up
- 4) Provide visual screening for neighbors from improvements south of Vine Avenue
- 5) Improvements should have no impact on educational offerings
- 6) Improvements should be limited to a minimal change in overall project costs

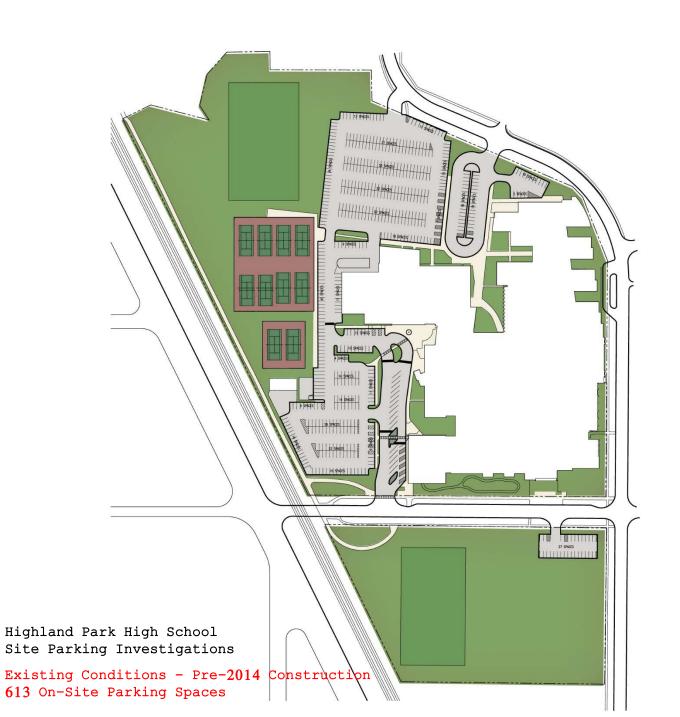
HPHS onsite traffic/parking

### **Process**

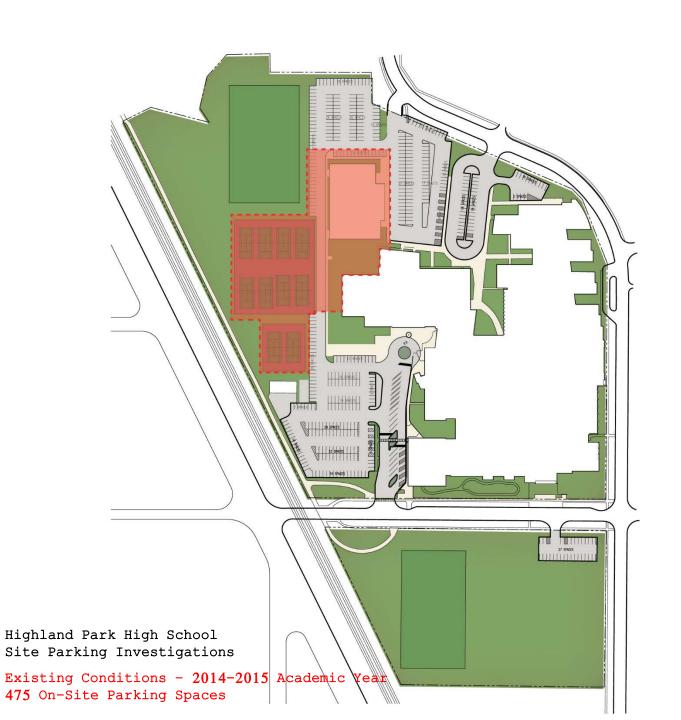
- 1) Establishment of criteria
- 2) Analysis of options
  - 23 configuration options
  - 150 potential combinations
- 3) Goals
  - Improve drop-off & pick-up queuing
  - Distribute parking load
  - Reduce peak traffic congestion



### Pre-construction conditions

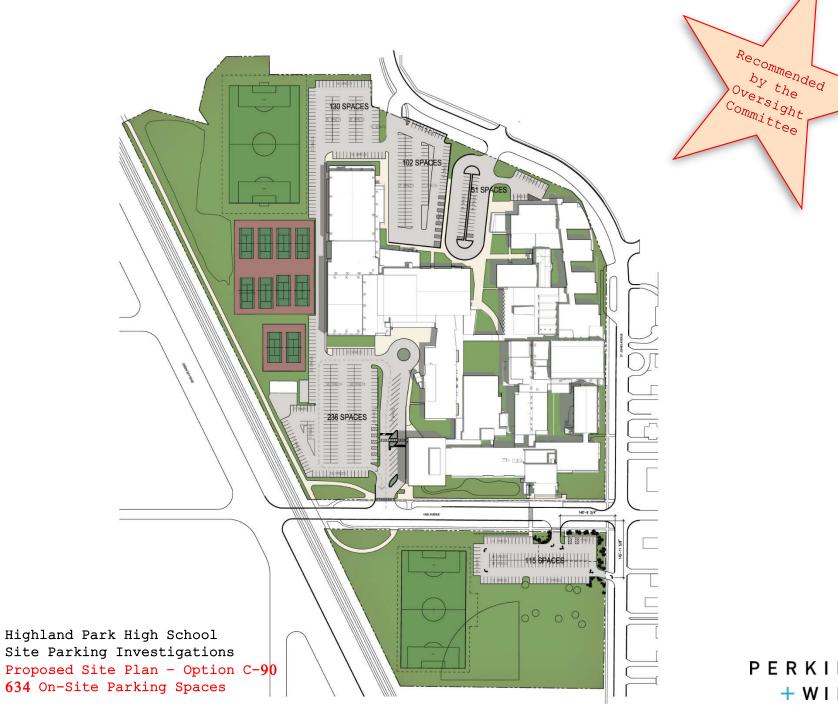


PERKINS + WILL Current conditions under construction



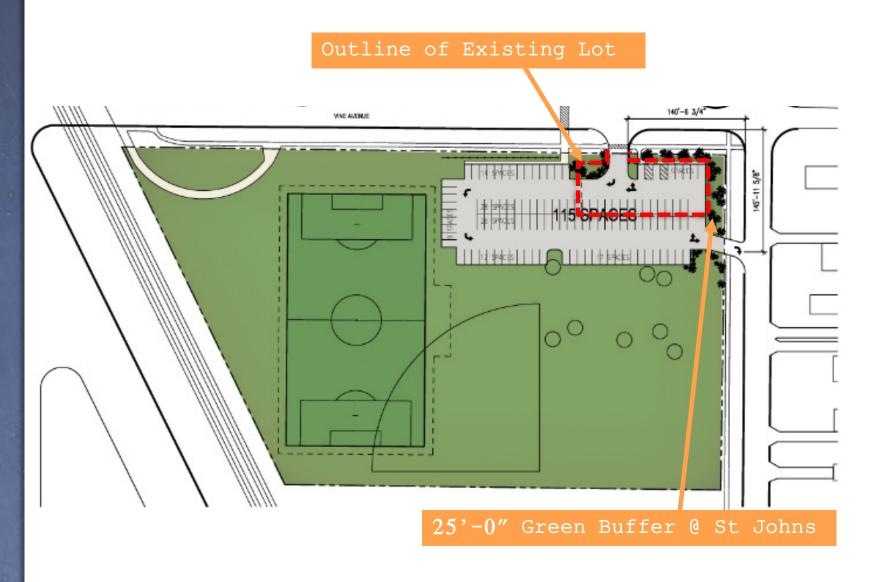
PERKINS + WILL

### Recommended plan



PERKINS + WILL

## Recommended plan



Highland Park High School Site Parking Investigations Proposed Site Plan - Option C South of Vine Staff / Visitor Lot 115 On-Site Parking Spaces



### Landscaping



Highland Park High School Site Parking Investigations

Proposed Site Plan - Option C South of Vine St. Johns Green Buffer







1/28/2015

Revision 7

#### Highland Park High School Vine Ave. Parking Lot Options Summary \*

Area	Option	Parking Spaces A	Parking Spaces B	Parking Spaces C	Parking Spaces D	Parking Spaces Total	Net Added Cost over current Budget	Cost/Added Parking Space	Comment - Soccer Field Count
Current		153	130	199	131	613	\$0		Two full size soccer fields (1 N, 1 S)
Cost of reco	ommended	options fro	m 1/20/15	Oversight Co	ommittee N	∕leeting			
	С	153	130	236	104	623	\$ 185,163	\$ 18,516	Maximize parking in Area C, Exit from S. Vine lot (Area D) to St. John provided. Minor (5 cars) additional queuing. Two soccer fields (1N, 1S)
	C-90	153	130	236	115	634	\$ 191,971	\$ 9,141	Maximize parking in Area C, Exit from S. Vine lot (Area D) to St. John provided. No additional queuing. Two soccer fields (1 N, 1S).

<sup>\*</sup> Unless noted otherwise, only green highlighted areas are revised; other areas are not reconfigured

Highland Park High School Site Parking Investigations

Site Configuration Options
Cost Analysis - Options C, C-90



# Parking lot lighting

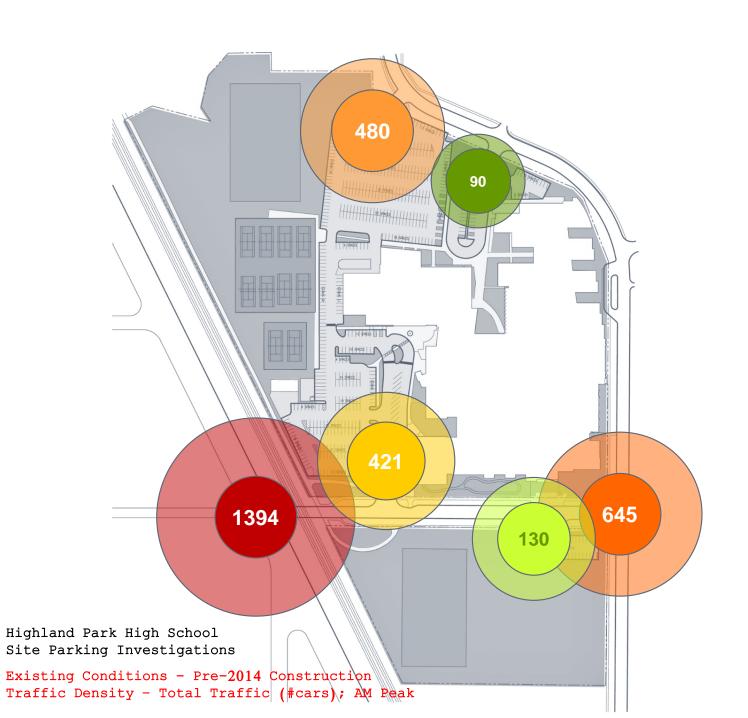
- 12' 14' high lighting
- Full cut-off & shielded
- High-efficiency LED
- Dark sky compliant
- Programmable & dimmable



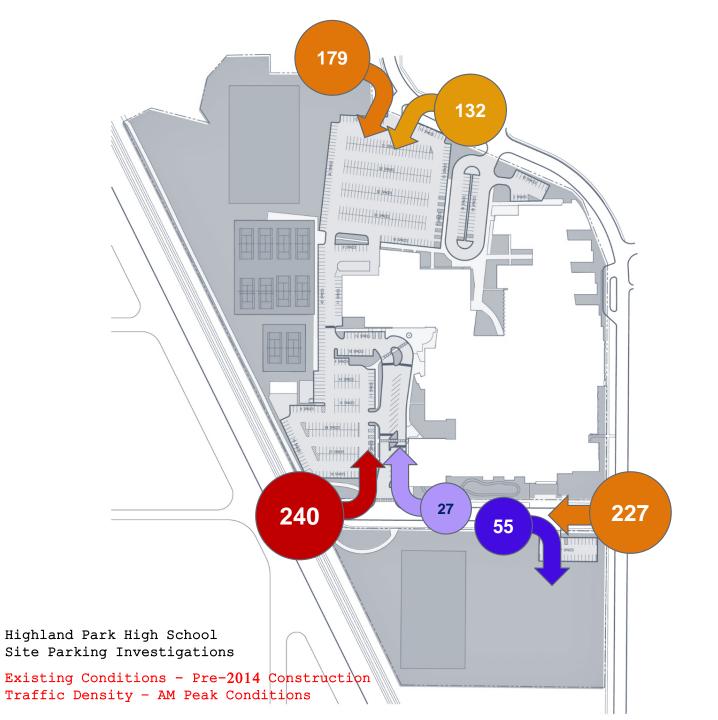
PERKINS +WILL

1

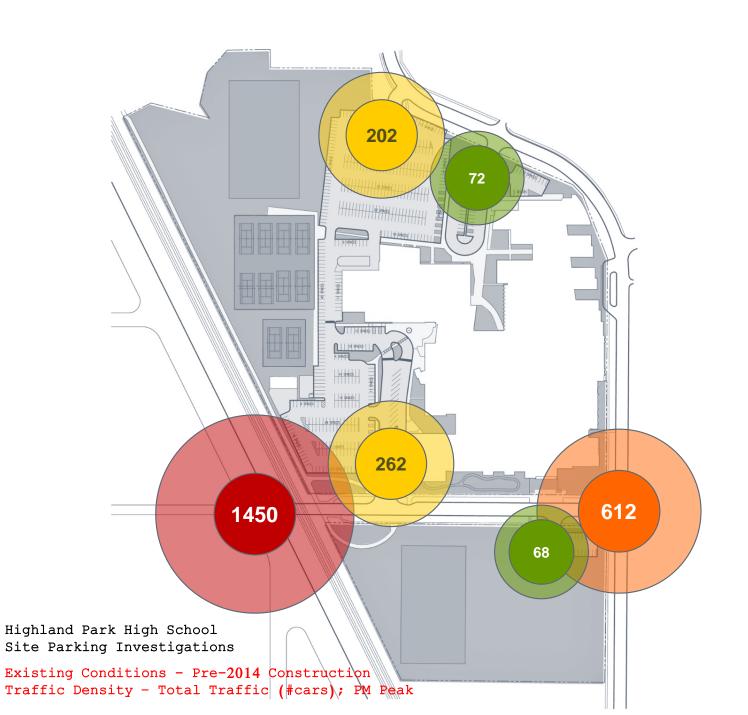
Traffic density intersections A.M. peak



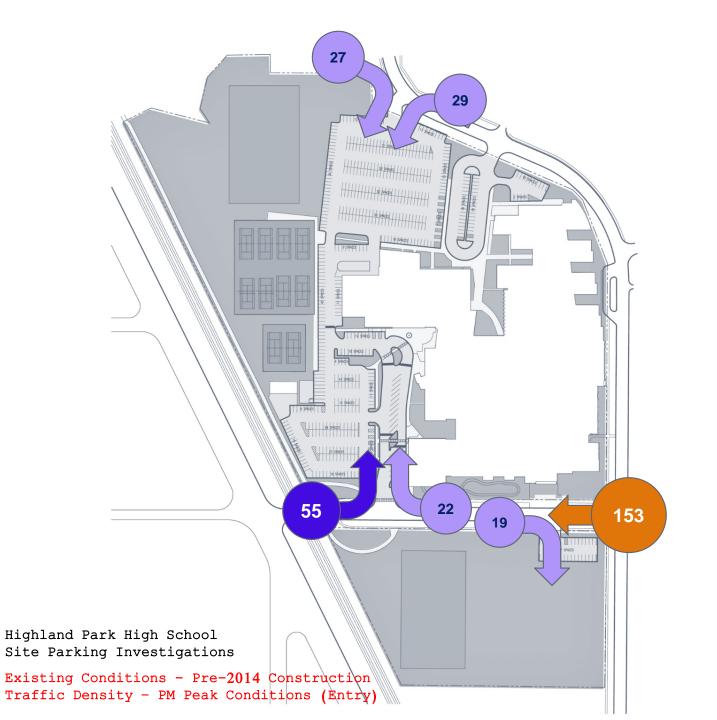
Traffic density incoming A.M. peak



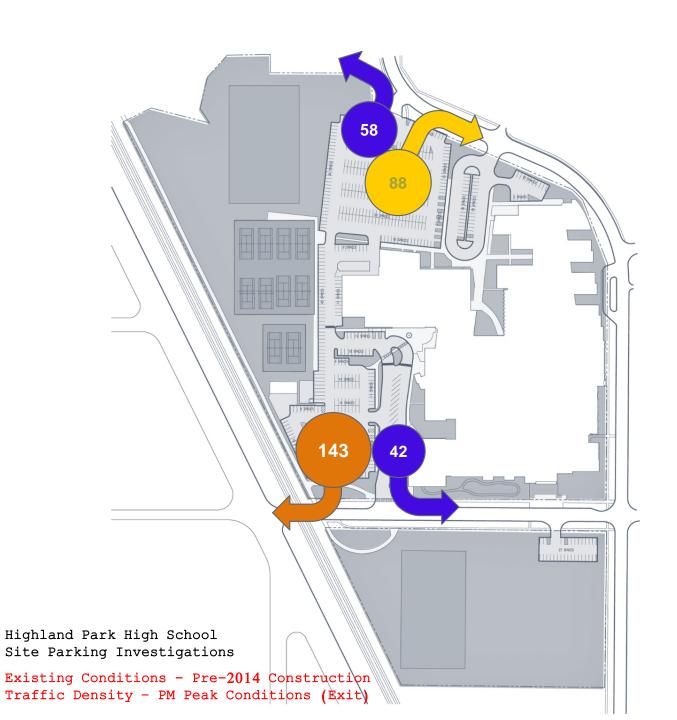
Traffic density intersections P.M. peak

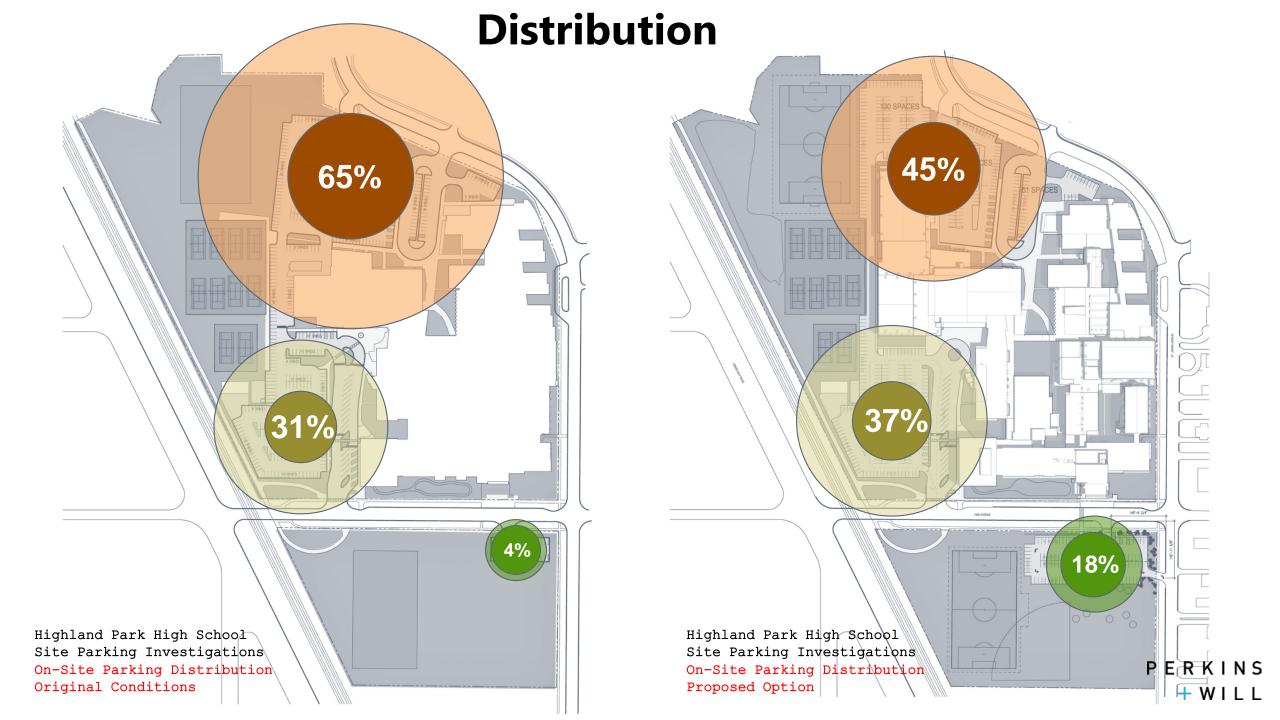


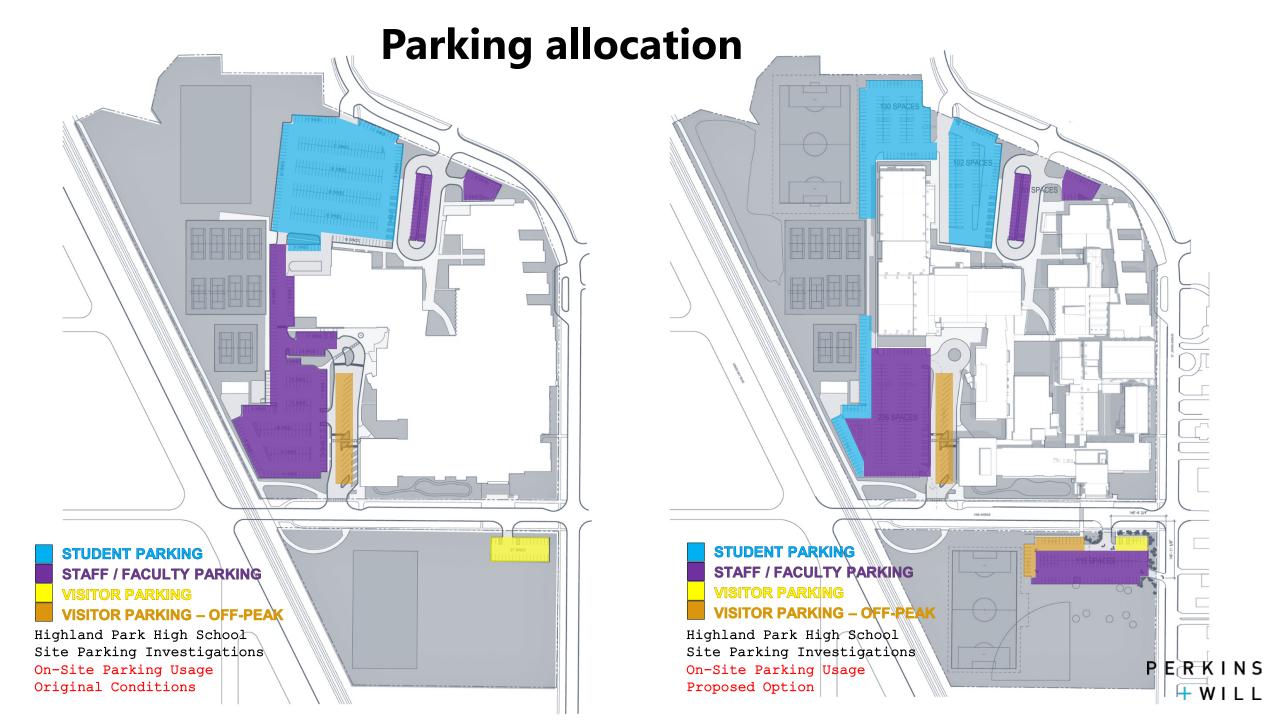
Traffic density incoming P.M. peak

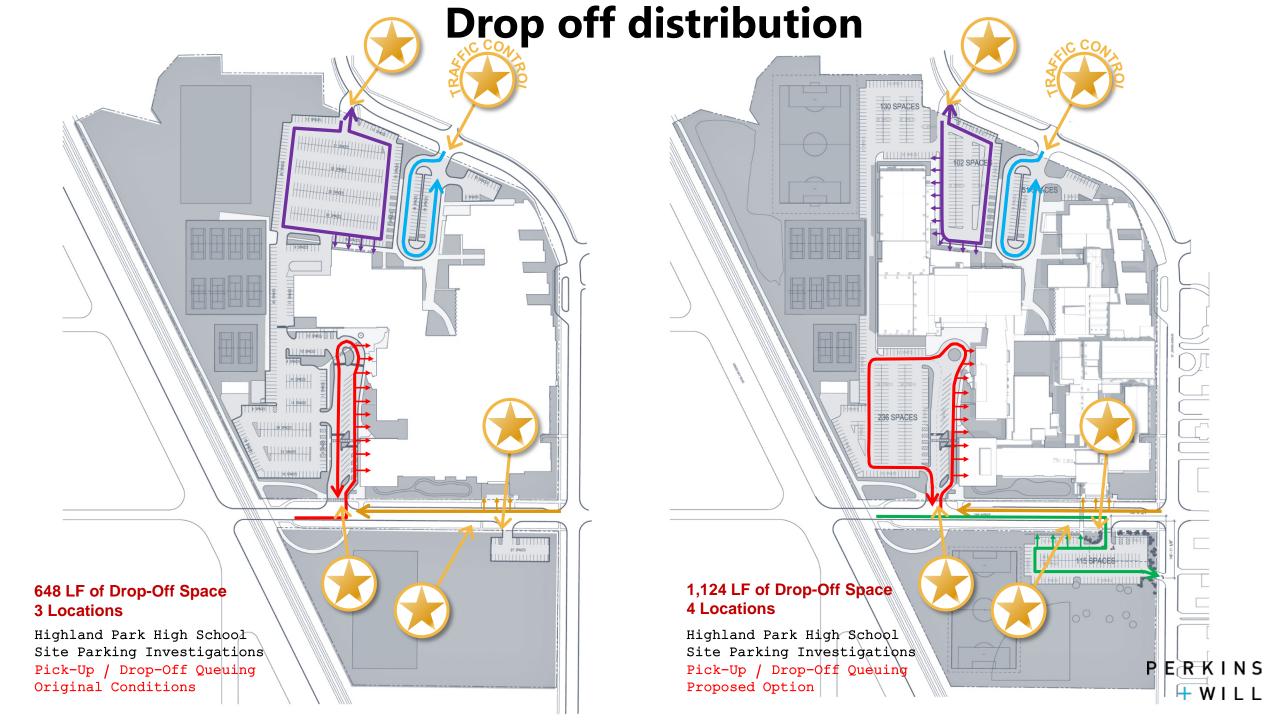


Traffic density outgoing P.M. peak

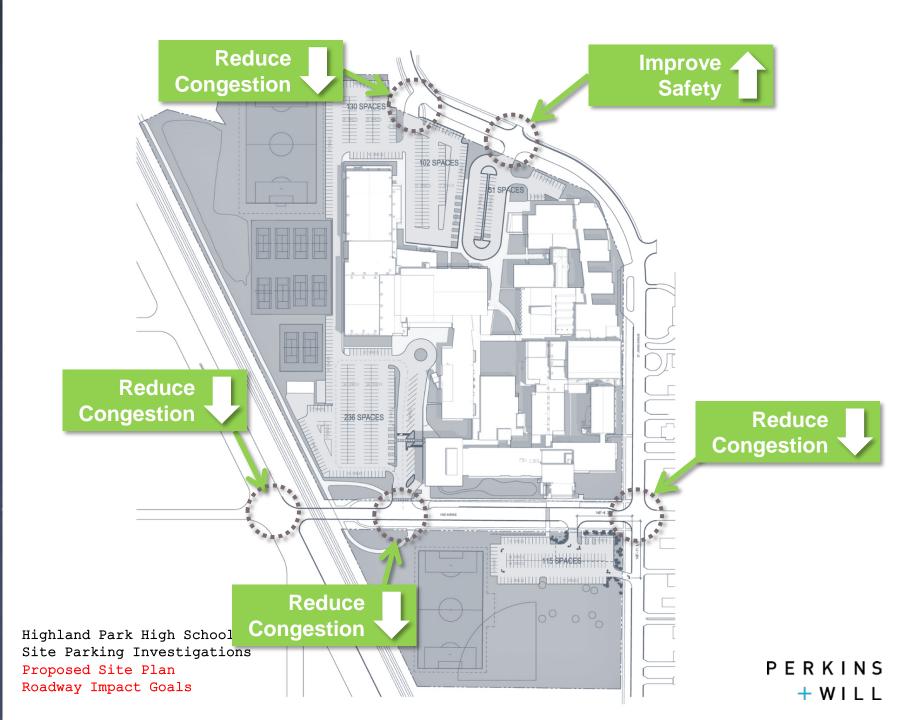




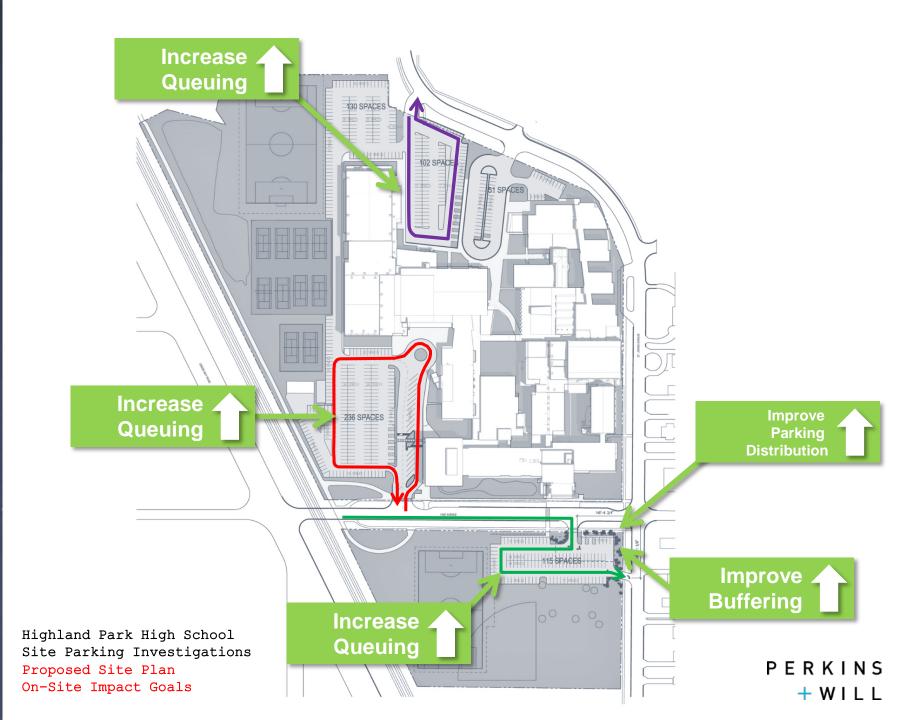


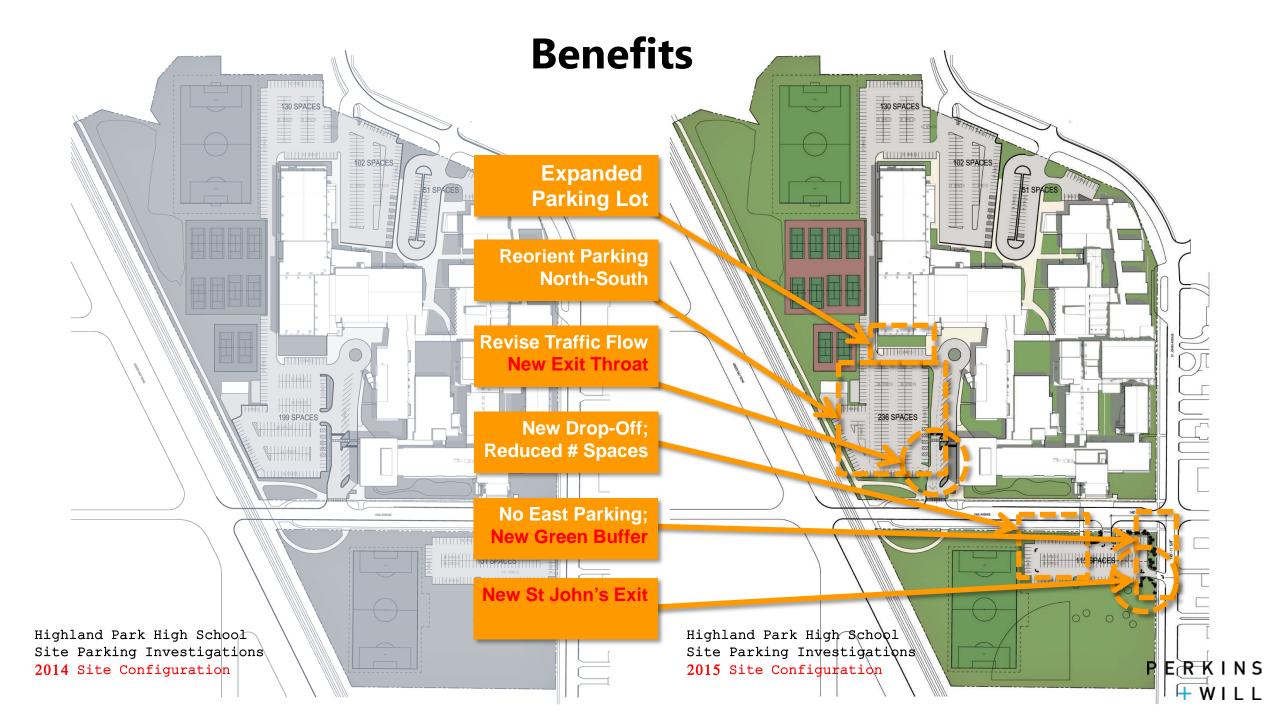


Reduce congestion, improve safety



Increase queuing, improve distribution & buffering





### Traffic benefits

- Additional loading location
- More queuing storage off public streets
  - 15+ spaces in Athletic Lot
  - 20+ spaces in new Vine Lot
  - Fewer back-ups on neighborhood streets
- Vine Avenue / St. John's intersection
  - A.M. peak 552 vs. 625 vehicles per hour (vph) (-12%)
  - Fewer overall delays (-10%)
  - Fewer delays from westbound drop-off
- Athletic Lot entrance
  - Fewer back-ups onto Vine Avenue
  - Eastbound traffic can use Vine Lot as alternative drop-off

## Other traffic improvements

- Traffic staff is now located at:
  - North lot and bus lot entrances
  - Vine Avenue loading
  - Athletic Lot entrance
  - Visitor Lot (south of Vine Avenue)
- School speed zone on St. Johns
- Improve North Lot entrance geometrics
- Trip Reduction Plan



### Highland Park High School Trip Reduction Plan & Transportation Services

Patrick Sassen Assistant Principal Highland Park High School



Challenge

**Short-Term Actions** 

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

### Trip Reduction Plan

Carpool incentive options:

- Preferential parking for permit-holders who carpool
- Discounted permits for Share-a-Spot
- Carpool subscription packages
- Lottery incentives
- Junior permits require carpooling



### Recommended Long-Term Actions

Biking and walking to school plan

- HPHS will investigate the possibility of PE make-up credit for walkers/bikers
- Twice a quarter, HPHS will conduct prize drawing for walkers/bikers and bus riders
- HPHS will expand the storage capacity for bikes on campus
- Student-led publicity campaign to raise awareness of the physical and environmental benefits of walking/biking



### Recommended Long-Term Actions

Timeline of efforts to support trip reduction plan

SPRING 2015

- Publicity campaign to raise awareness
- Communication of carpool options to junior class

SUMMER 2015

- Increased bike storage capacity
- Make necessary alterations to the senior lot to support carpooling enforcement

FALL 2015

- Prize drawings for walkers/bikers and bus riders
- Carpooling enforcement
- Periodic review of Trip Reduction Plan with revisions as needed

### **Transportation Services**



### Service goals and standards

- Bus transportation is safe, reliable, cost-effective, and environmentally beneficial
- State law requires providing busing for students who live 1.5 miles or further from school
  - Legal bus limits 71 (3 to a seat)
  - District 113 goal is 49 (2 to a seat)



## Utilization and occupancy

- 406 of 1,563 (26%) of eligible riders use the bus on average
- 36 buses in District 113 fleet
  - Average route time is 24 minutes
  - Average occupancy rate:
    - 60% (28.5 riders per bus) on A.M. routes
    - 76% (37.2 riders per bus) on P.M. routes



## Modification of bus routes

• Bus routes are modified whenever:

- Ridership is consistently greater than 49 students
- More convenient pick-up/drop-off stops are identified
- Safety becomes an issue
- The 24 minute average route time is consistently exceeded



## Cost to add a bus route

\$49.700 for each additional route

- Annual bus cost is \$8,000
- Annual fuel cost is \$2,700
- Annual salary for driver with benefits is \$37,000
- Annual maintenance and repair costs are \$2,000 on average

Approving ridership under 1.5 miles could add an estimated 5 routes at a cost of \$248,500



### Recommended Long-Term Actions

Transportation

Management Plan

- Measure baseline occupancy and potential ridership including incoming 9<sup>th</sup> graders
- Monitor ridership and optimize routes
- Monitor the impact of bus ridership promotion
- Pursue additional service improvements as needed



### Summary

David Small

District 113 Board of Education



Challenge

**Short-Term Actions** 

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

- Launch HPHS community Task Force for duration of construction
  - Engage neighbors, parents, students, staff
  - Meet regularly to assess progress and identify needed improvements
- Pursue parking lot renovation and construction
- Manage and monitor traffic
- Implement trip reduction strategies



Challenge

Short-Term Actions

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

- Launch HPHS community Task Force for duration of construction
- Pursue parking lot renovation and construction
  - School Board vote 2/23/15
  - Plan Commission hearing 3/17/15
  - Complete design by 3/27/15
  - City Council meetings (TBD)
  - Complete bidding by 4/24/15
  - Award contract by 5/8/15
  - Complete renovation/construction by 8/14/15
- Manage and monitor traffic
- Implement trip reduction strategies



Challenge

**Short-Term Actions** 

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

- Launch HPHS community Task Force for duration of construction
- Pursue parking lot renovation and construction
- Manage and monitor traffic ongoing
  - Continue interim strategies
  - Communicate changes to family/community
  - Collaborate with police for enforcement
  - Monitor impact of traffic flow changes
  - Repeat traffic study as needed
- Implement trip reduction strategies



Challenge

Short-Term Actions

Listening & Learning

Recommended Long-Term Actions

Implementation & Management Plan

- Launch HPHS community Task Force for duration of construction
- Pursue parking lot renovation and construction
- Manage and monitor traffic
- Implement trip reduction strategies
  - Promote carpooling, walking, biking, and bus ridership
  - Optimize bus routes and occupancy





Challenge

**Short-Term Actions** 

**Listening & Learning** 

Recommended Long-Term Actions

Implementation & Management Plan

- Faced a challenge brought to a head by the HPHS construction project
- Took mitigating actions
- Simultaneously launched efforts to fully explore potential solutions to improve the previous status quo
- Recommended actions for improvement with support of the Referendum Oversight Committee
- Developing implementation and management plan to measure impact



### Questions & Comments



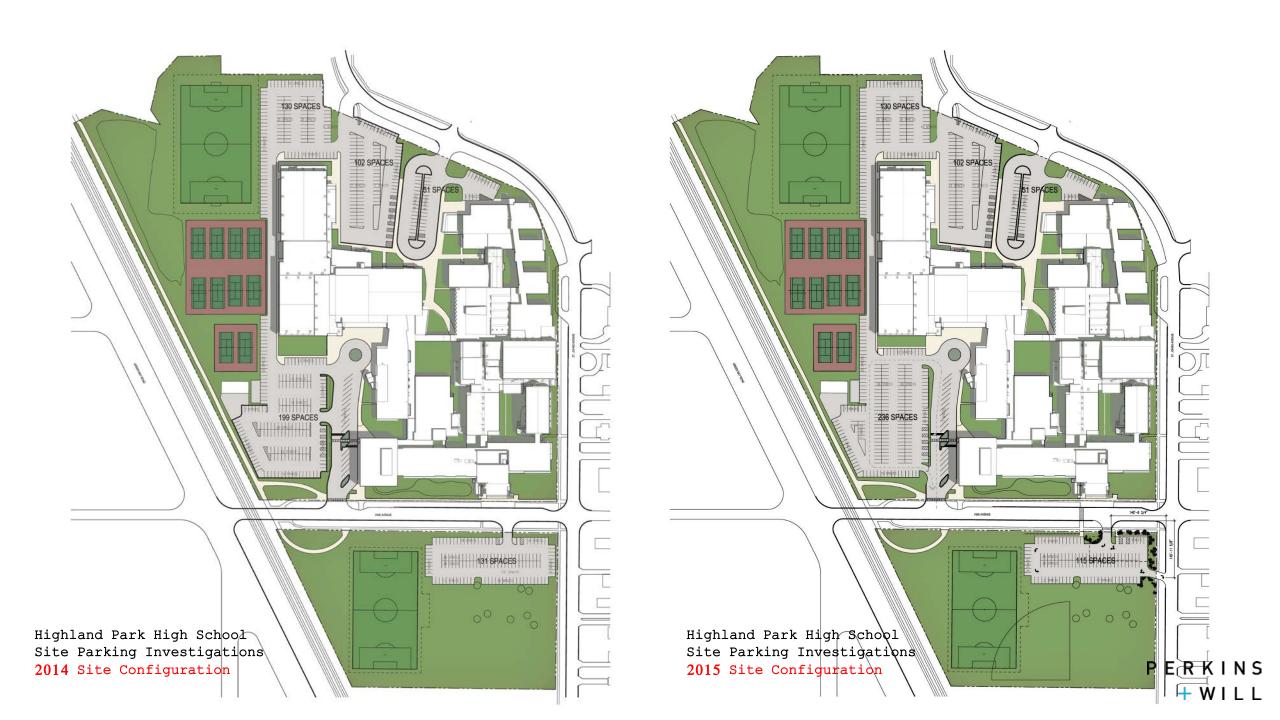
### Appendices

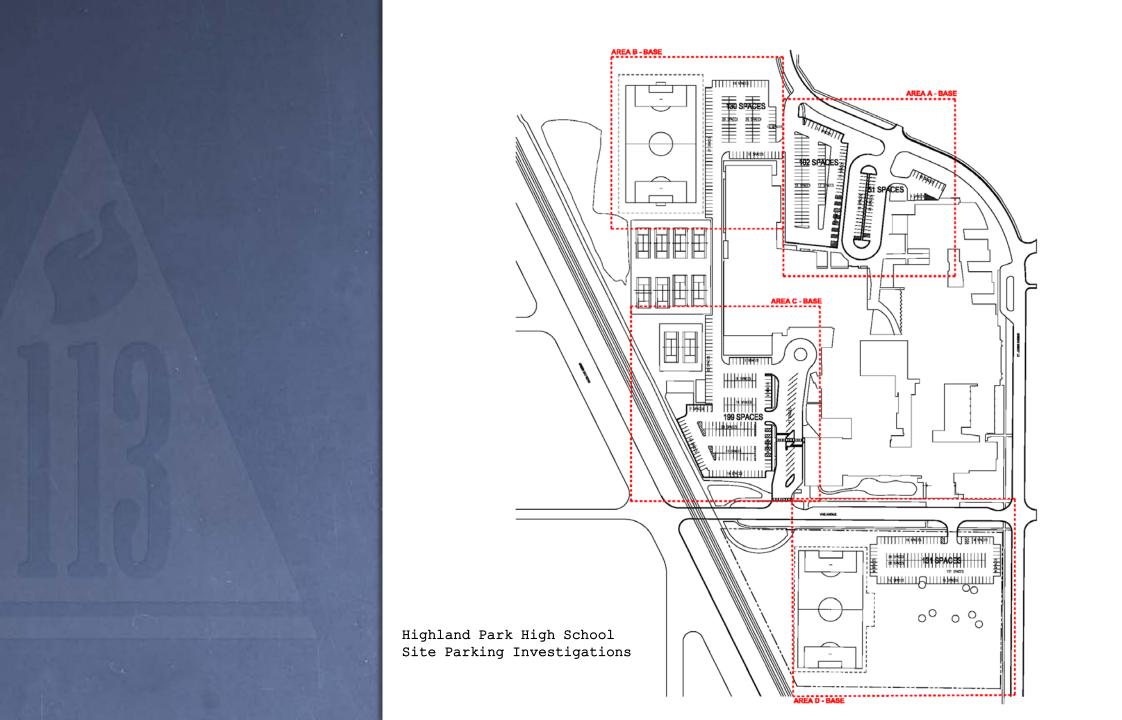
- Summary of community involvement (online)
- Traffic study (online)
- Parking lot configurations & costs (follows)
- Focus group and survey reports (online)



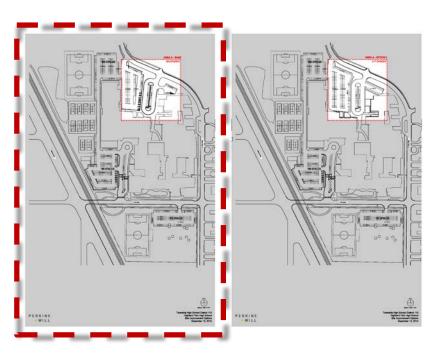
# Appendix: Parking lot configurations & costs

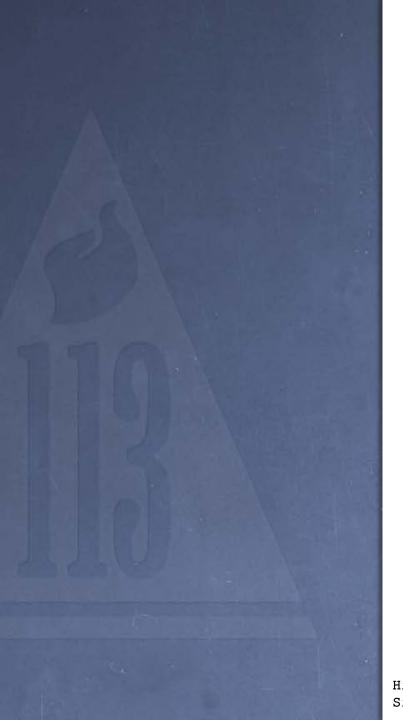




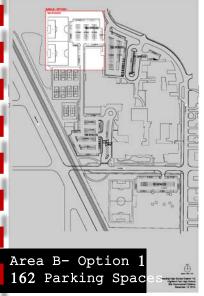






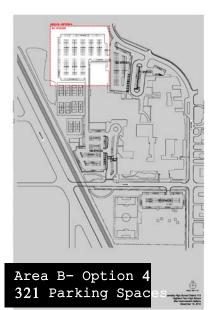




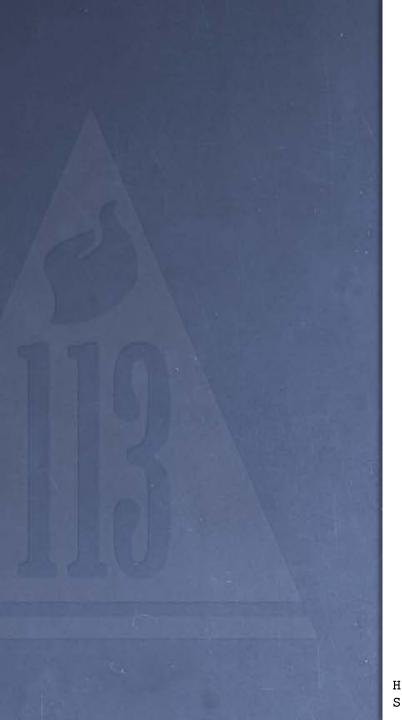




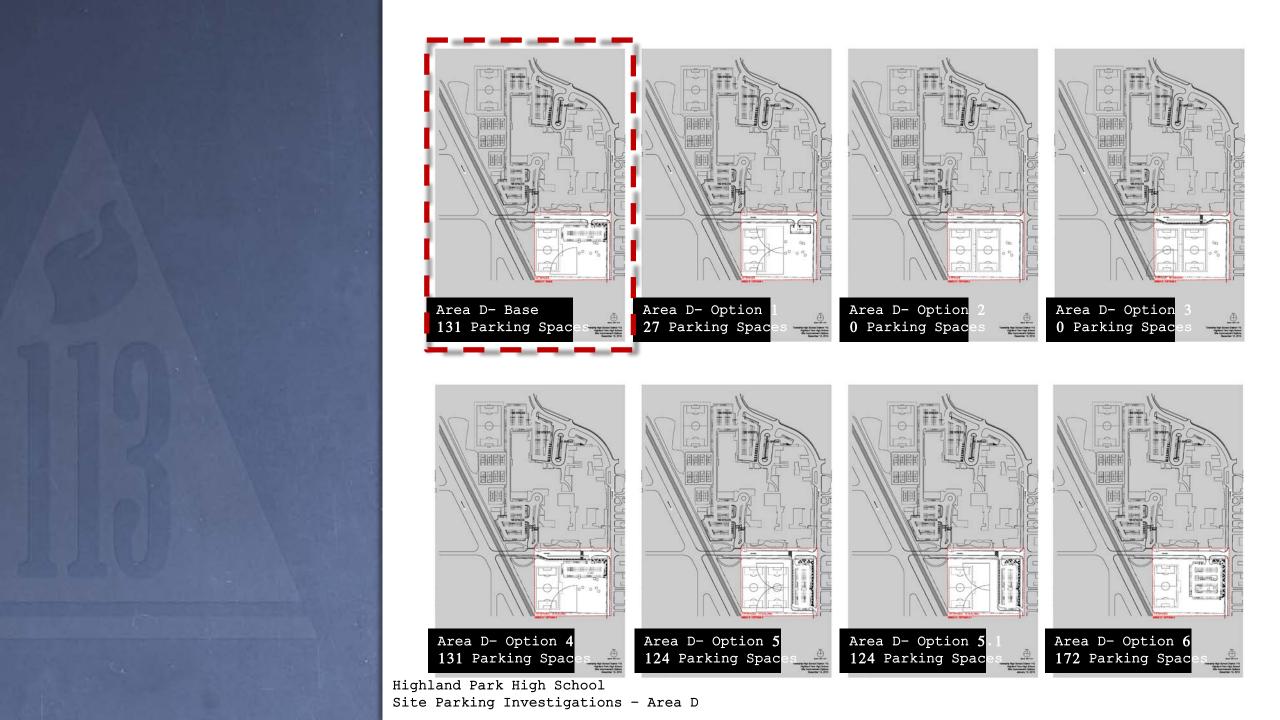


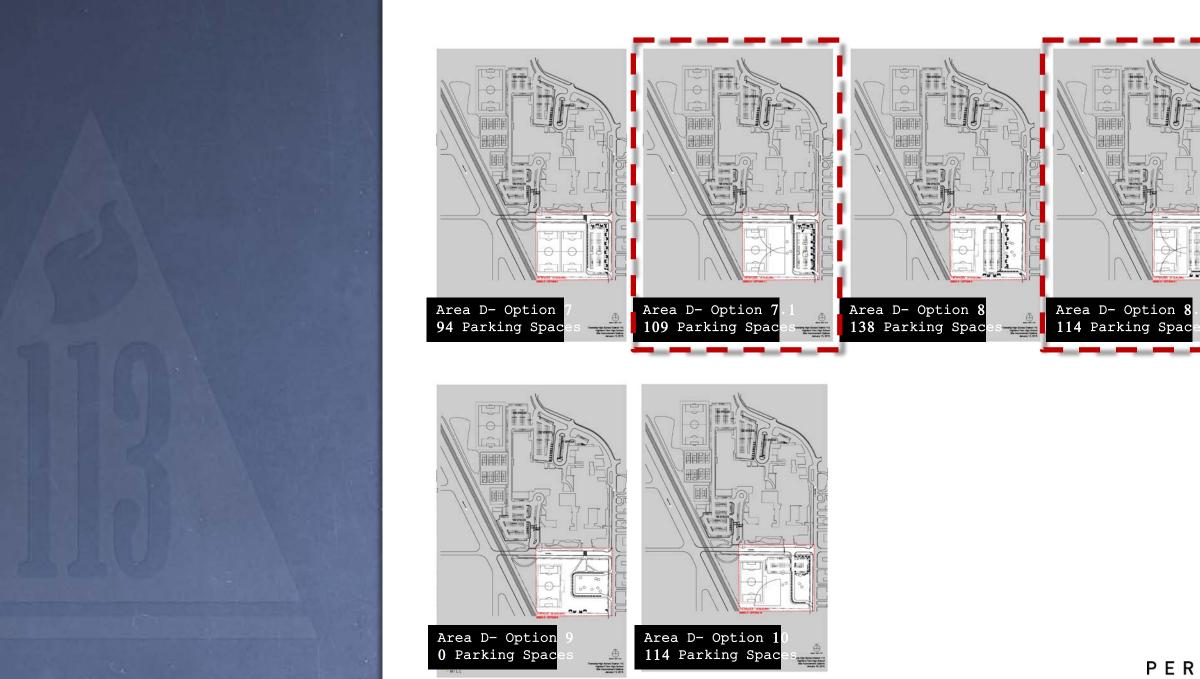


Highland rark High School Site Parking Investigations - Area B

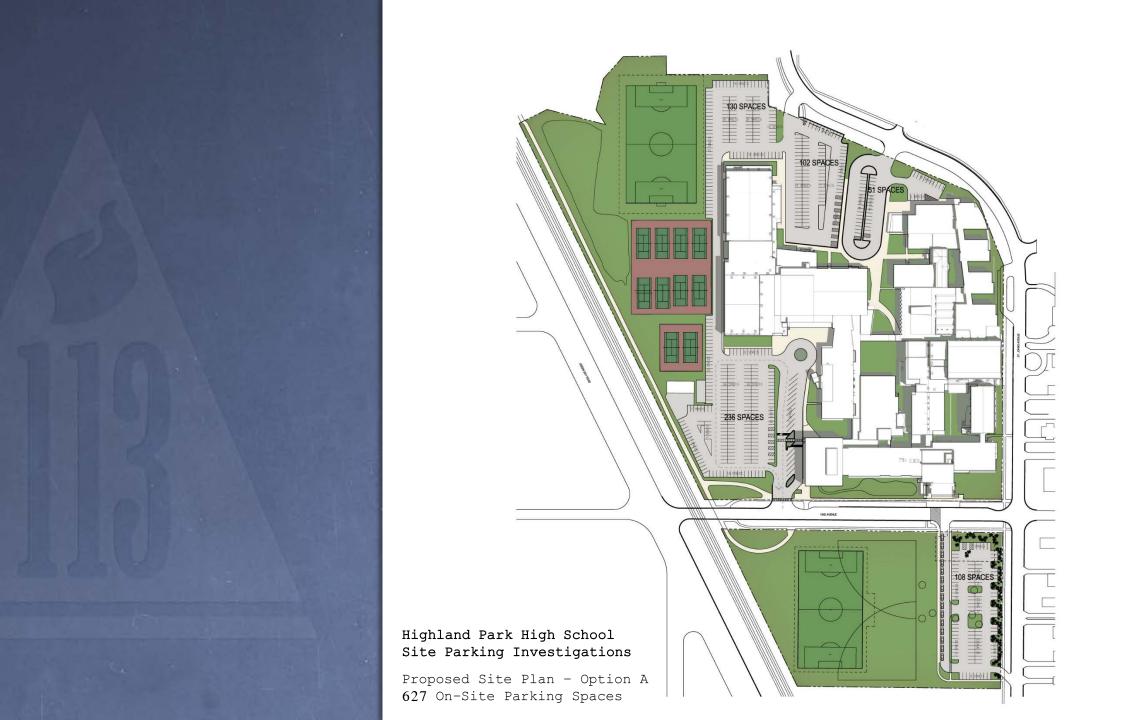


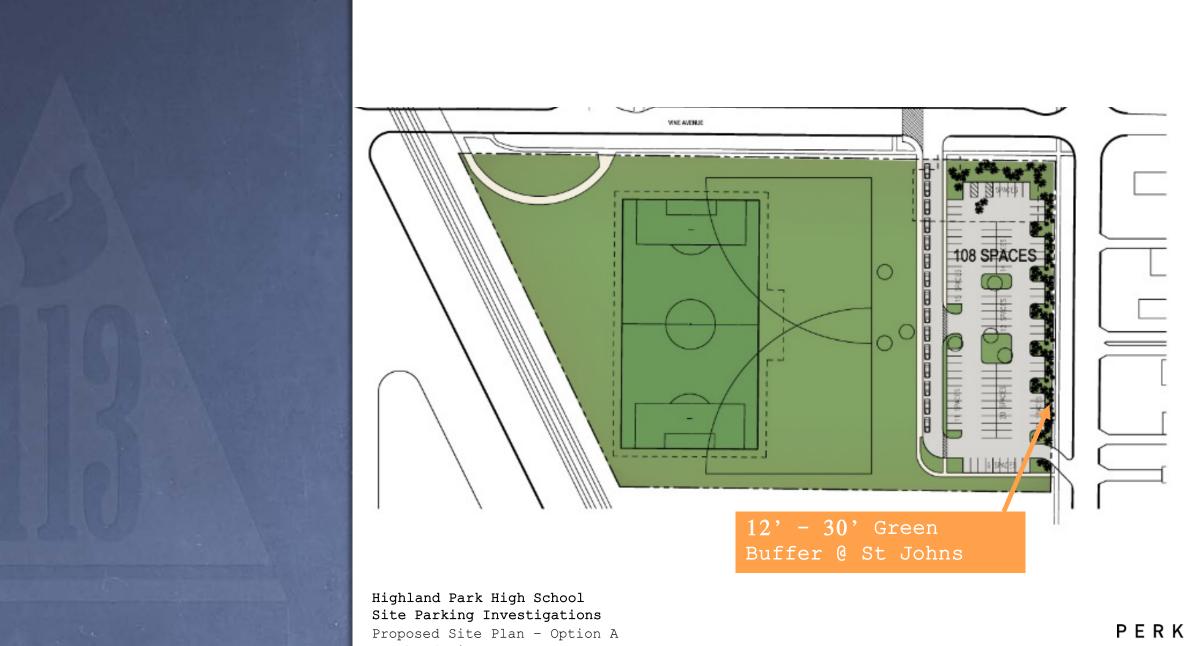




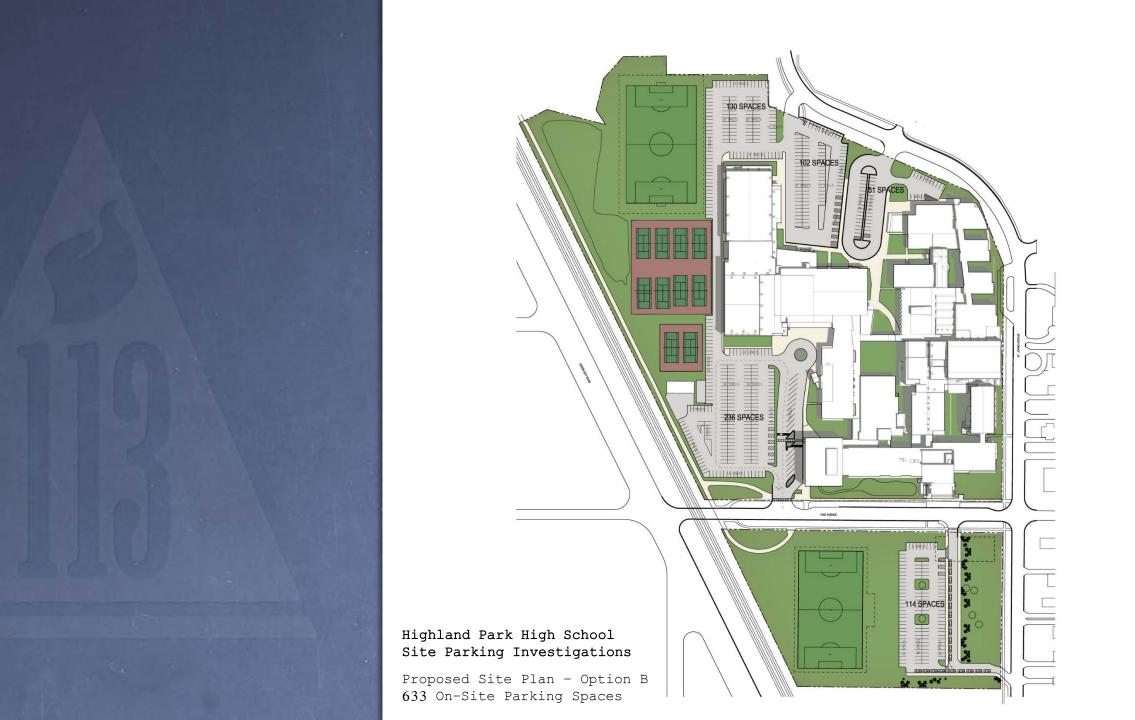


High and rark might behoof Site Parking Investigations - Area D Cont.





Proposed Site Plan - Option A South of Vine 108 On-Site Parking Spaces - 15 Queuing





Proposed Site Plan - Option B South of Vine 114 On-Site Parking Spaces - 21 Queuing















**Gilbane** 

1/28/2015

## Highland Park High School Vine Ave. Parking Lot Options

Summary \*

Area	Option	Parking Spaces A	Parking Spaces B	Parking Spaces C	Parking Spaces D	Parking Spaces Total	(	let Added Cost over current Budget		st/Added king Space	Comment - Soccer Field Count
Current		153	130	199	131	613	L	\$0			Two full size soccer fields (1 N, 1 S)
Α	1	217	130	199	131	677	\$	390,311	\$	6,099	Two full size soccer fields (1 N, 1 S)
В	1	153	162	199	131	645	\$	132,653	\$	4,145	Two half-soccer fields @ north
В	2	153	189	199	131	672	\$	220,115	\$	3,731	Two half-soccer fields @ north
В	3	153	255	199	131	738	\$	379,877	\$	3,039	Lose 1 soccer field
В	3a	153	255	199	27	634	\$	223,608	\$	10,648	Two full size soccer fields @ south
В	4	153	321	199	131	804	\$	603,683	\$	3,161	Lose 1 soccer field
В	4a	153	321	199	27	700	\$	447,415	\$	5,143	Two soccer fields @ south
с	1	153	130	236	131	650	\$	122,242	\$	3,304	Two full size soccer fields (1 N, 1 S)
D	1	153	130	199	27	509	\$	(289,000)	\$	2,779	Two full size soccer fields @ south
D	2	153	130	199	0	482	\$	(156,269)	\$	1,193	Two full size soccer fields @ south
D	3	153	130	199	0	482	\$	125,802		N/A	Two full size soccer fields @ south
D	4	153	130	199	131	613	\$	307,852		N/A	Two full size soccer fields (1 N, 1 S)
D	5	153	130	199	124	606	\$	377,803	\$	(53,972)	Two full size soccer fields (1 N, 1 S)
D	5.1	153	130	199	124	606	\$	332,774	\$	(47,539)	Two full size soccer fields (1 N, 1 S), two softball infields overlay 1 soccer field
D	6	153	130	199	172	654	\$	505,657	\$	12,333	Two full size soccer fields (1 N, 1 S)
D	7	153	130	199	94	576	\$	356,904	s	(9,646)	Queuing for 15 cars @ S. Lot, Three full size soccer fields (1 N, 2 S)
D	7.1	153	130	199	109	591	\$	302,068	\$	(13,730)	Queuing for 15 cars @ S. Lot, Two full size soccer fields (1 N, 2 S), Two softball fields @ S
D	8	153	130	199	138	620	\$	433,251	\$	61,893	Queuing for 21 cars @ S. Lot, Two full size soccer fields (1 N, 1 S)
D	8.1	153	130	199	114	596	\$	387,528	\$	(22,796)	Queuing for 21 cars @ S. Lot, Two full size soccer fields (1 N, 1 S). Space for two softball fields
D	9	153	130	199	0	482	\$	(18,998)	\$	145	Queing for 26 cars @ S. Lot, Two full size soccer field (1 N, 1 S)
D	10	153	130	199	114	596	\$	320,408	\$	(18,848)	Queuing for 15 cars @ S. Lot, exit to St. John, Two full size soccer fields (1 N, 1 S) and 1 softball field
D Option C	11	153	130	199	104	586	\$	62,921	\$	(2,330)	P&W Option C-90 for Area D. Exit to St. John added. Queuing for 5 cars in Lot D.
D Option C-90	12	153	130	199	115	597	5	69,728	\$	(4,358)	P&W Option C for Area D. Exit to St. John added. No additional queuing.
	ommended	d options fro	om 1/20/19	Oversight 0	ommittee	Meeting					Maximize parking in Area C, Exit from S. Vine lot (Are
	c	153	130	236	104	623	\$	185,163	\$	18,516	D) to St. John provided. Minor (5 cars) additional queuing. Two soccer fields (1N, 1S)
	C-90	153	130	236	115	634	\$	191,971	\$	9,141	Maximize parking in Area C, Exit from S. Vine lot (Are D) to St. John provided. No additional queuing. Two soccer fields (1 N, 1S).

Revised parking count for option

South lot reconfigured per current design

South lot not rebuilt. Existing lot remains. New soccer field built @ south

\* Unless noted otherwise, only green highlighted areas are revised; other areas are not reconfigured

Highland Park High School Site Parking Investigation

Site Configuration Options Cost Analysis

