

SOUTH SHORE Technical High School

Hanover, Massachusetts



School Building Committee

November 15, 2023



100
YEARS

DRA

Agenda



. **Design Options**

- Review Comparative Conceptual Cost Analysis
- Review Options Constraints
- Review Design Options
- Review Options Priority Matrix
- Possible Vote to eliminate a number of design options and/or design enrollments from consideration

Preliminary Options - Areas

Option	645 students	750 students	805 students	900 students	975 students
Addition/ Renovation AR- 1 “L-shape”	201,500 sf	217,500 sf	230,400 sf	243,200 sf	254,500 sf
Addition/ Renovation AR- 2 “Lightwell”	188,100 sf	201,700 sf	209,600 sf	228,500 sf	236,100 sf
New Construction NC-1 “Courtyard”	203,480 sf	228,540 sf	240,000 sf	260,000 sf	278,000 sf
New Construction NC-2 “Linear”	203,480 sf	228,540 sf	240,000 sf	260,000 sf	278,000 sf
New Construction NC-2.1 “Linear/Center core”	203,480 sf	228,540 sf	240,000 sf	260,000 sf	278,000 sf
New Construction NC-3 “Wings”	203,480 sf	228,540 sf	240,000 sf	260,000 sf	278,000 sf

Student Enrollment Range: 645 - 975 Students	805 Students		900 Students		975 Students
	New* (all 3 options)	Add/Reno AR1 L Shape	New* (all 3 options)	Add/Reno AR1 L Shape	New* (all 3 options)
TOTAL ESTIMATED PROJECT COSTS	\$ 344,190,750	\$ 349,805,000	\$ 367,913,625	\$ 366,758,125	\$ 389,362,000
Cost/Student	\$ 427,566	\$ 434,540	\$ 408,793	\$ 407,509	\$ 399,346
Estimated MSBA Participation Range***	30.4%	30.5%	30.8%	30.5%	31.1%
	\$ 104,633,988.00	\$ 106,690,525.00	\$ 113,317,396.50	\$ 111,861,228.13	\$ 121,091,582.00
Estimated District Share Range***	69.5%	69.5%	69.2%	69.5%	68.9%
	\$ 239,556,762.00	\$ 243,114,475.00	\$ 254,596,228.50	\$ 254,896,896.88	\$ 268,270,418.00

Estimated Share By District****

Abington	16.70%	\$ 40,005,979.25	\$ 40,600,117.33	\$ 42,517,570.16	\$ 42,567,781.78	\$ 44,801,159.81
Cohasset	1.49%	\$ 3,569,395.75	\$ 3,622,405.68	\$ 3,793,483.80	\$ 3,797,963.76	\$ 3,997,229.23
Hanover	11.06%	\$ 26,494,977.88	\$ 26,888,460.94	\$ 28,158,342.87	\$ 28,191,596.79	\$ 29,670,708.23
Hanson	13.03%	\$ 31,214,246.09	\$ 31,677,816.09	\$ 33,173,888.57	\$ 33,213,065.66	\$ 34,955,635.47
Norwell	4.10%	\$ 9,821,827.24	\$ 9,967,693.48	\$ 10,438,445.37	\$ 10,450,772.77	\$ 10,999,087.14
Rockland	22.77%	\$ 54,547,074.71	\$ 55,357,165.96	\$ 57,971,561.23	\$ 58,040,023.42	\$ 61,085,174.18
Scituate	6.60%	\$ 15,810,746.29	\$ 16,045,555.35	\$ 16,803,351.08	\$ 16,823,195.19	\$ 17,705,847.59
Whitman	24.25%	\$ 58,092,514.79	\$ 58,955,260.19	\$ 61,739,585.41	\$ 61,812,497.49	\$ 65,055,576.37

*Costs are the same across all New Construction Options for each enrollment - shown as a single cost for simplicity.

**Costs based on CM at-Risk delivery method for simplicity.

***Estimated MSBA Participation and District Share Ranges calculated without MSBA input. This range likely to change by the time the project finishes Schematic Design.

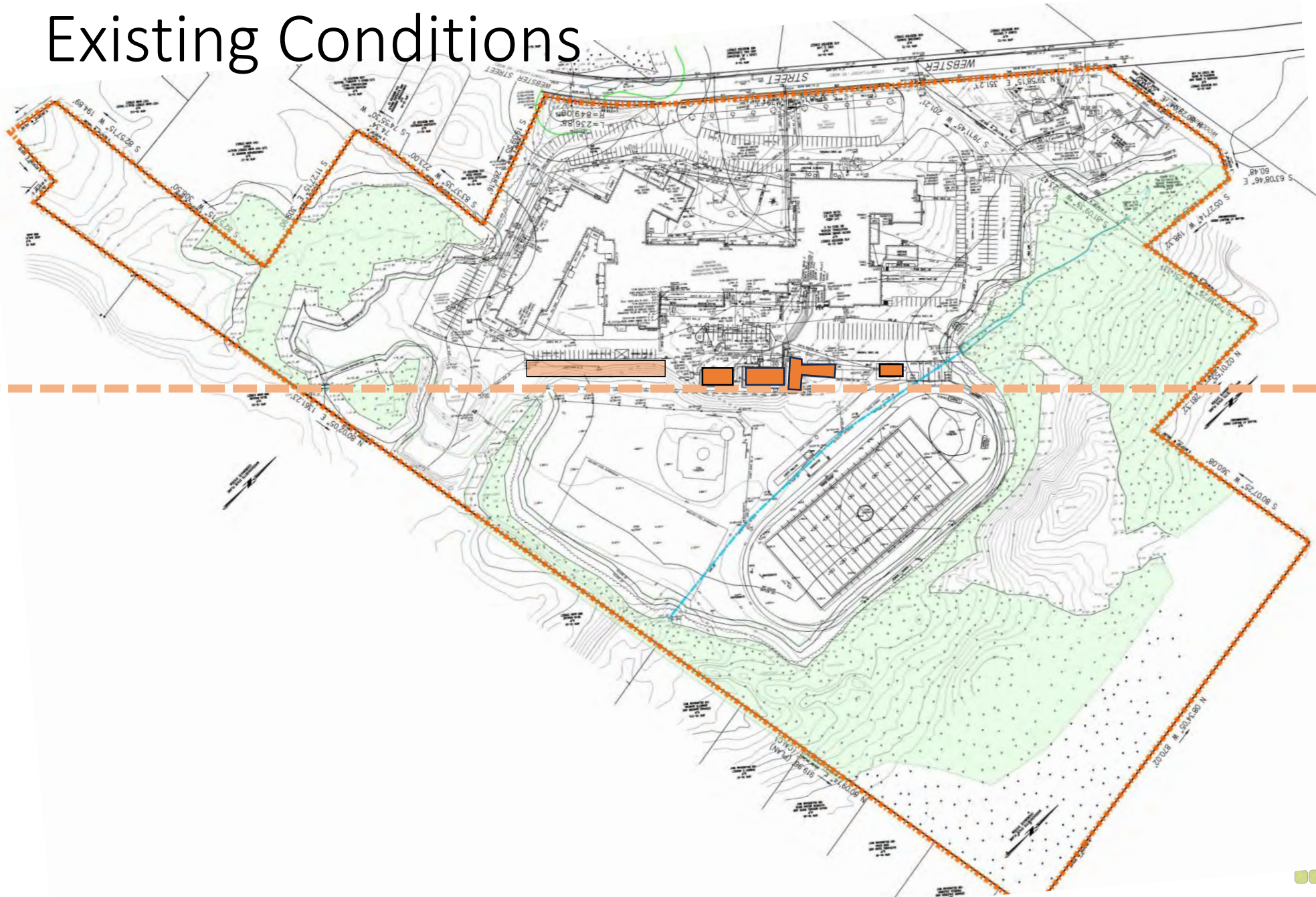
****Based on October 1, 2023 reporting numbers

The estimated construction and total project cost provided are for COMPARISON PURPOSES ONLY. The estimated costs will be updated at the Preliminary Schematic Report (PSR) phase to assist the committee in defining the single preferred solution to proceed into the Schematic Design (SD) phase. The actual costs and total project budget will be established at the end of the Schematic Design (SD) phase for the district's preferred solution.

Existing Conditions



Existing Conditions



Status Updates

Site Development Requirements

Key issues

- Vehicular Circulation, Bus & Car Access
- Parking requirements
- Athletic Fields & support spaces
- Outdoor Learning opportunities
- Utilities
- Outbuildings
- Adjacent Property

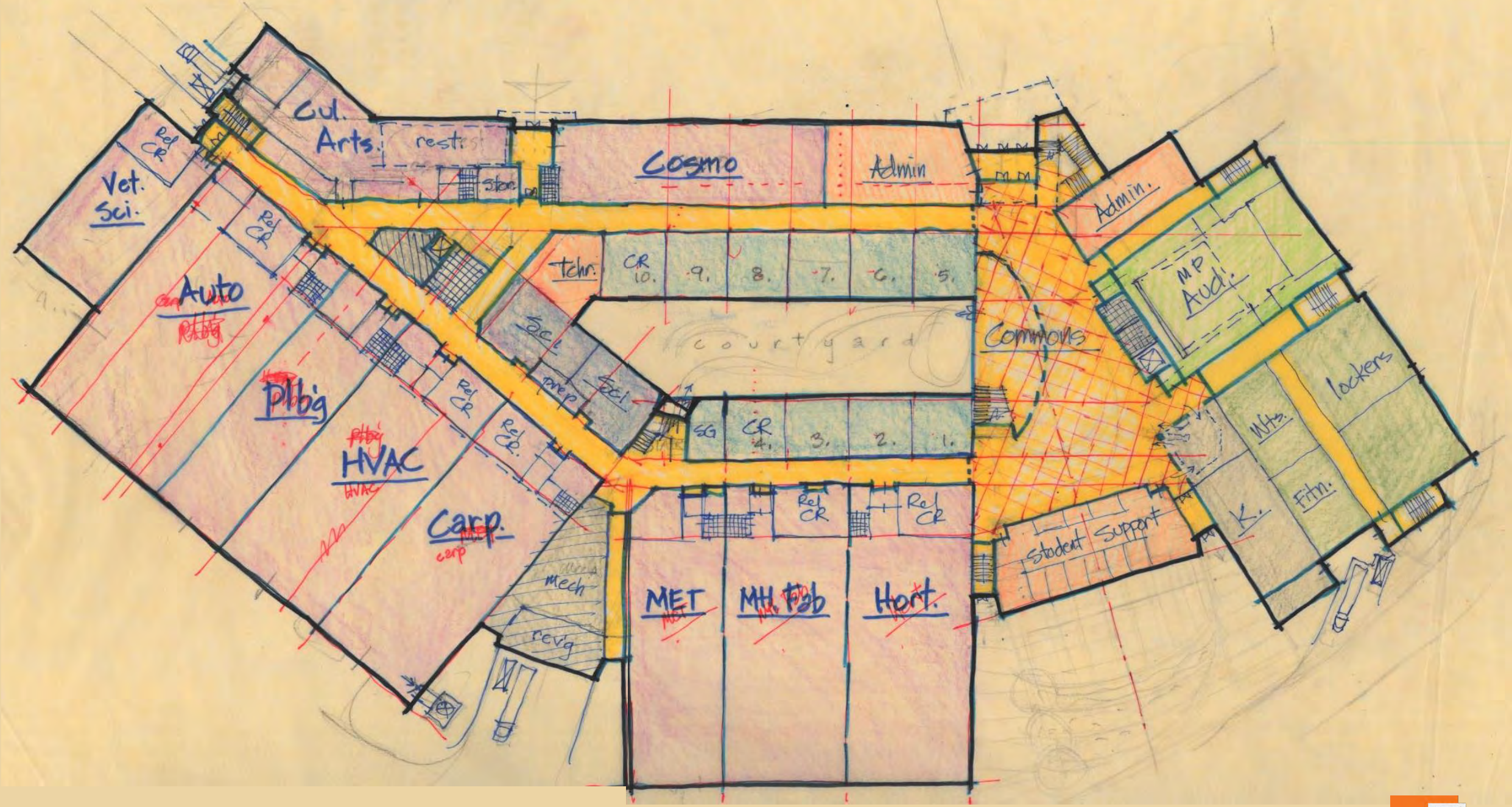
	existing	750	805	900	975
Enrollments:	645	750	805	900	975
Staff: (Admin & Teachers):	130	150	160	175	185
Approx. 2/3 of seniors:	108	125	134	150	163
Approx. 1/3 of juniors:	53	61	66	74	80
Visitors:	20	23	24	27	29
TOTAL Parking Spaces:	311	359	384	426	457
<i>Bus parking (one bus = 4 cars)</i>	<i>12</i>	<i>14</i>	<i>15</i>	<i>17</i>	<i>19</i>

Preliminary Options

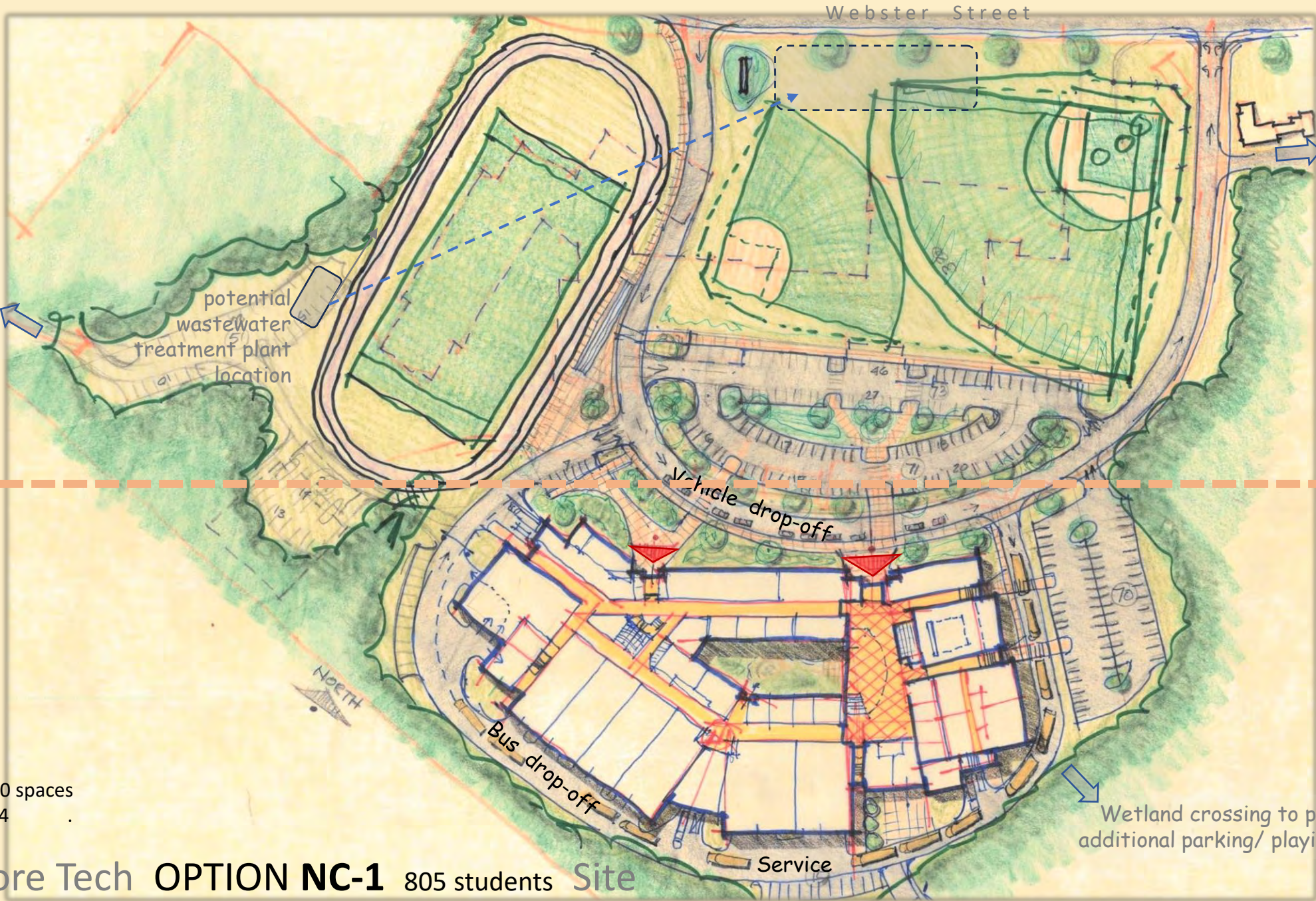


New Construction Options

- NC-1 “Courtyard”
- NC-2 “Linear”
- NC-2.1 “Linear/ Center core”
- NC-3 “Wings”



South Shore Tech OPTION NC-1 1st Floor



Wetland crossing to potential additional parking & Main St. access

potential wastewater treatment plant location

District Offices

Vehicle drop-off

Bus drop-off

Wetland crossing to potential additional parking/ playing field??

Service

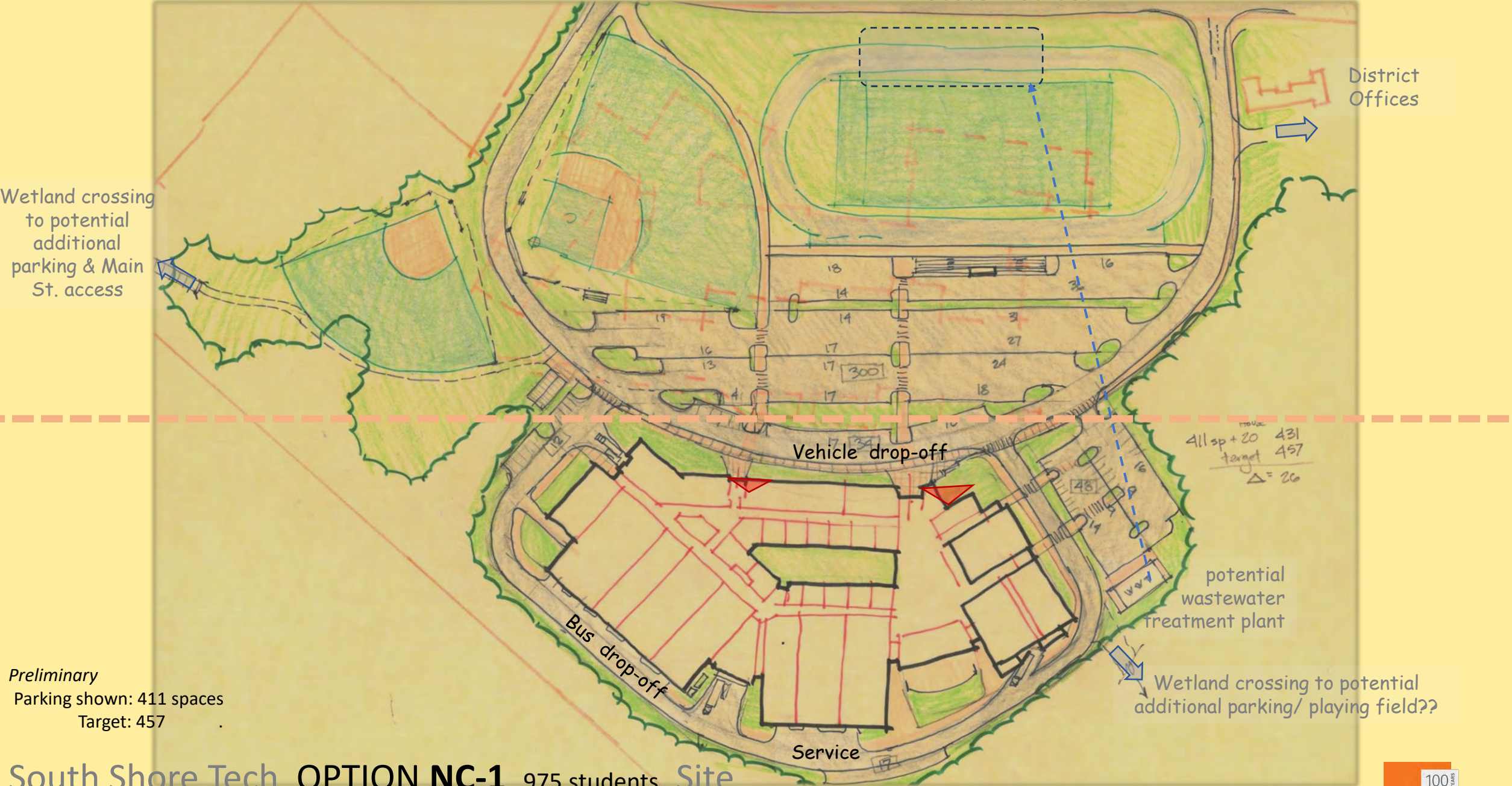
Preliminary
 Parking shown: 250 spaces
 Target: 384

South Shore Tech **OPTION NC-1** 805 students Site

Webster Street

District Offices

Wetland crossing to potential additional parking & Main St. access

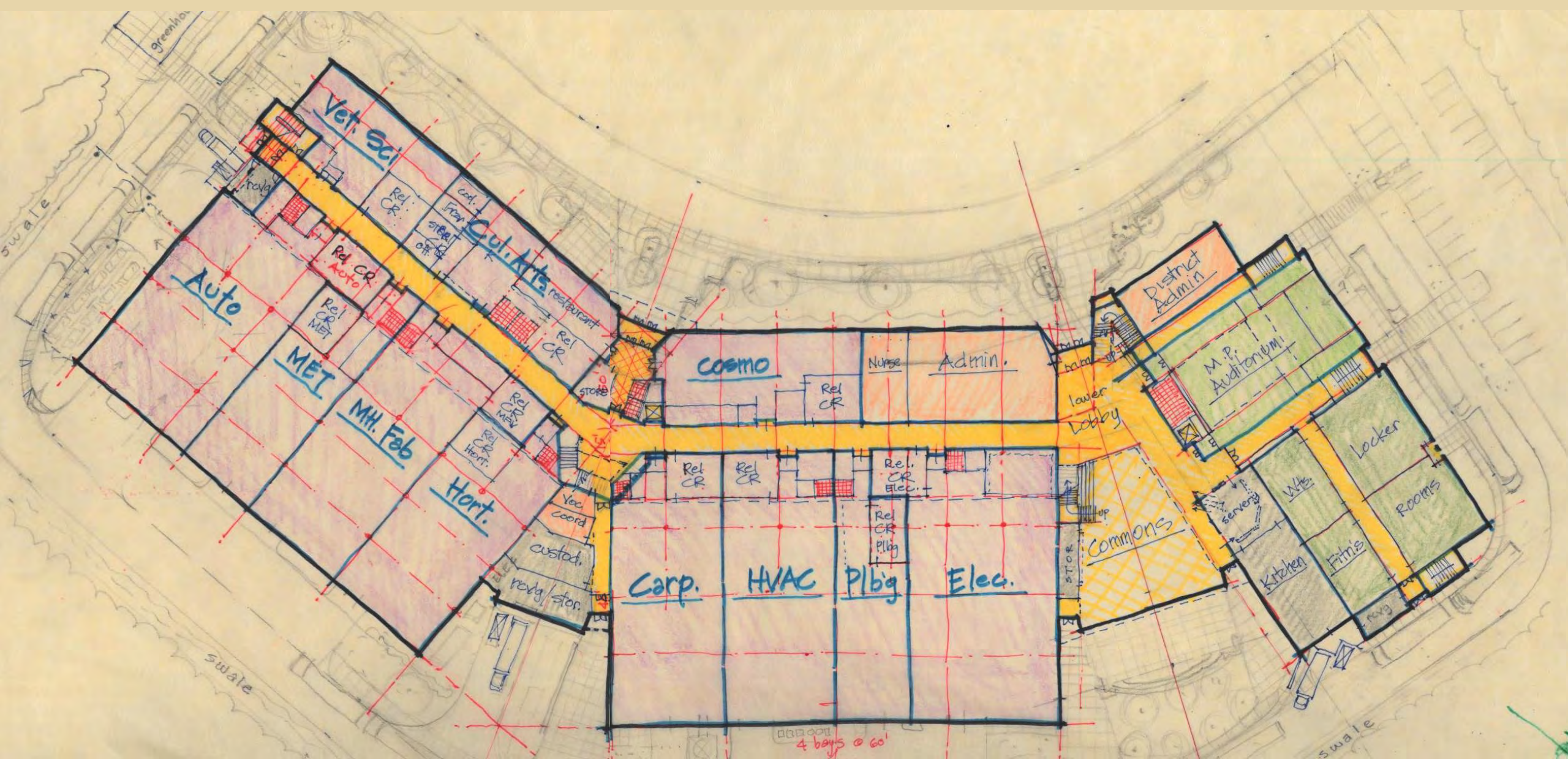


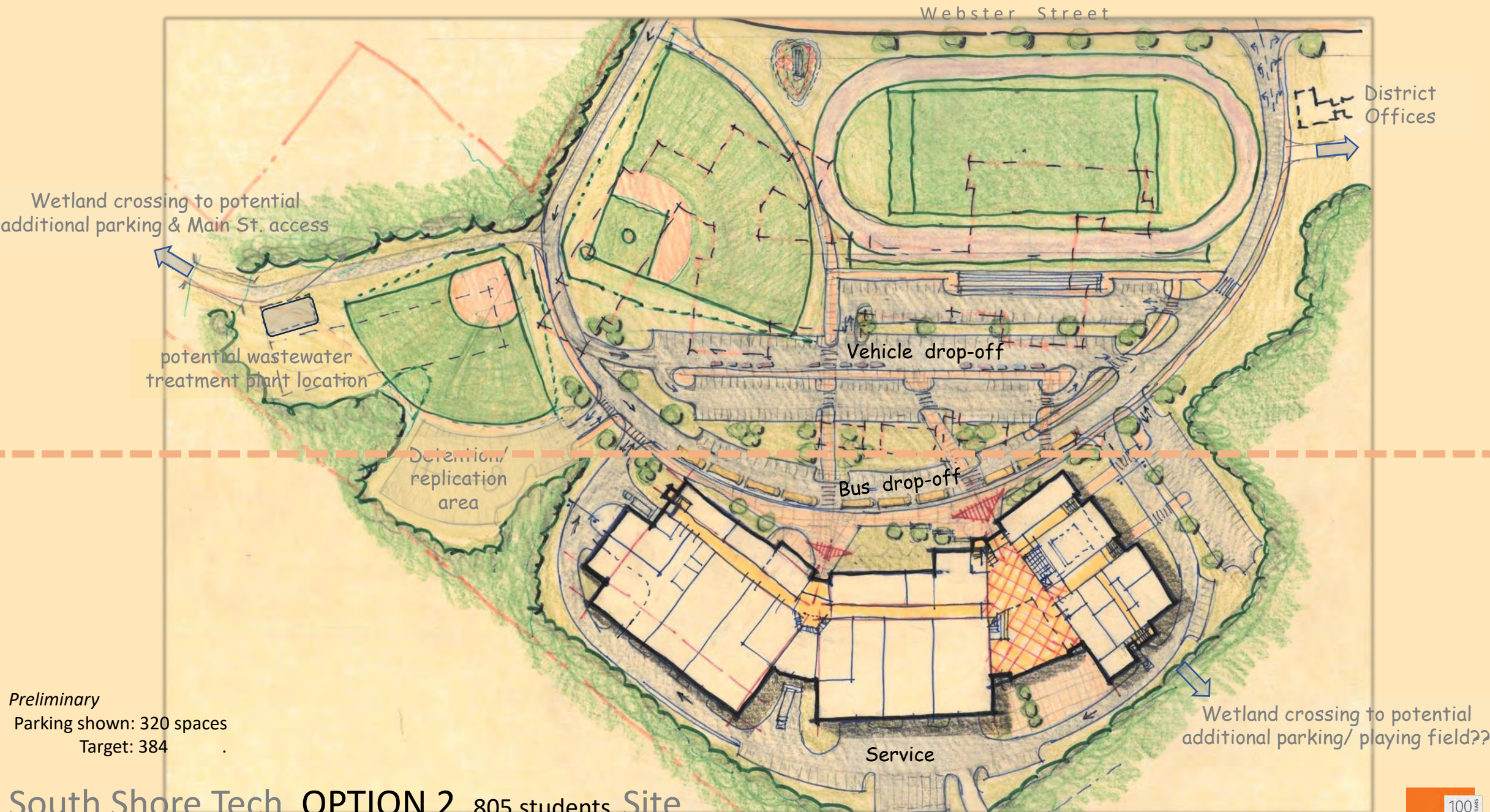
All sp + 20	431
target	457
Δ	26

Preliminary
 Parking shown: 411 spaces
 Target: 457

South Shore Tech **OPTION NC-1** 975 students Site

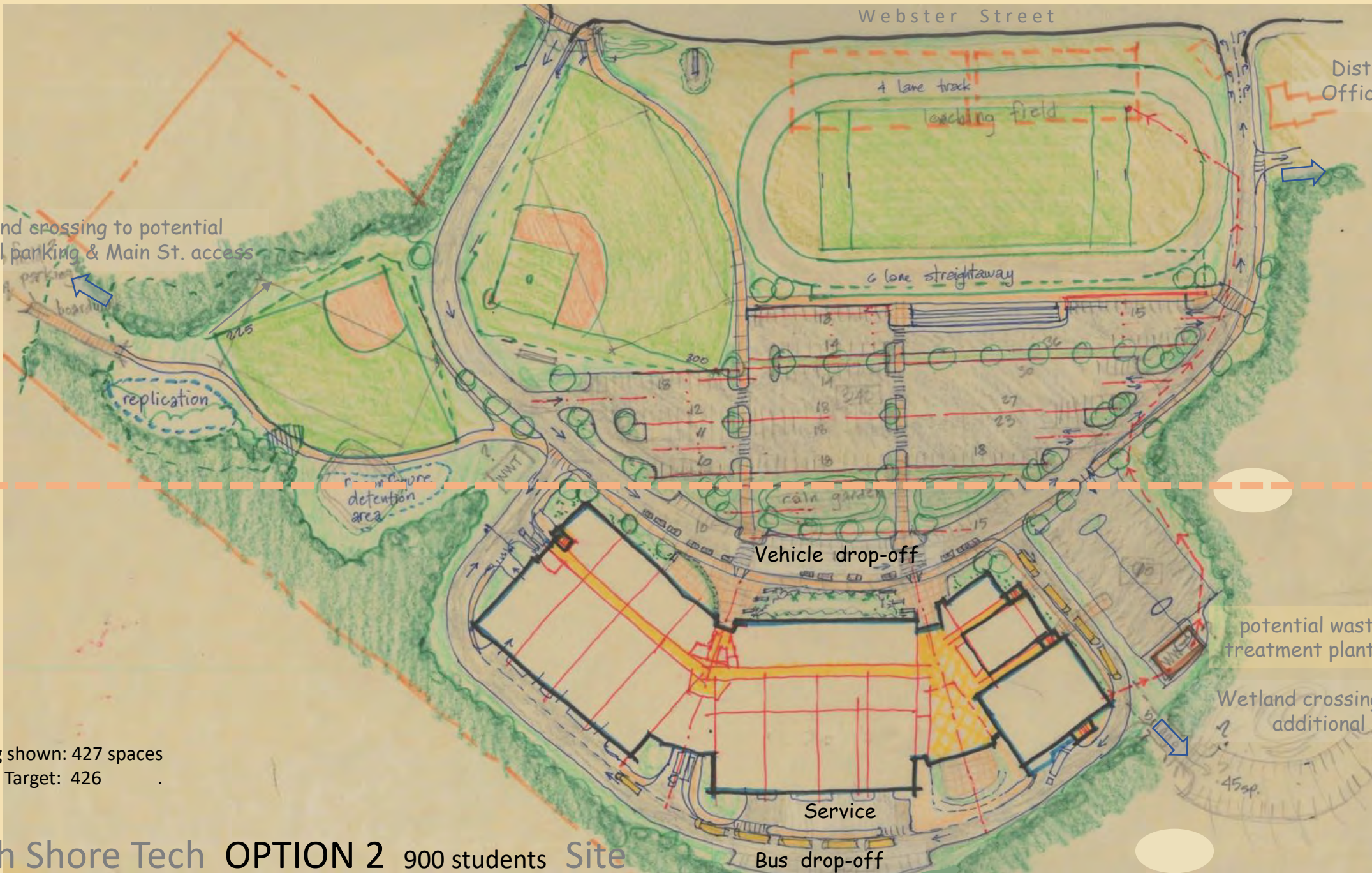






Preliminary
 Parking shown: 320 spaces
 Target: 384

South Shore Tech OPTION 2 805 students Site



Wetland crossing to potential additional parking & Main St. access

District Offices??

Parking shown: 427 spaces
Target: 426

potential wastewater treatment plant location

Wetland crossing to potential additional parking

South Shore Tech OPTION 2 900 students Site

Webster Street

District Offices??

Wetland crossing to potential additional parking & Main St. access

potential wastewater treatment plant location

Wetland crossing to potential additional parking

Parking shown: 429 spaces
Target: 457

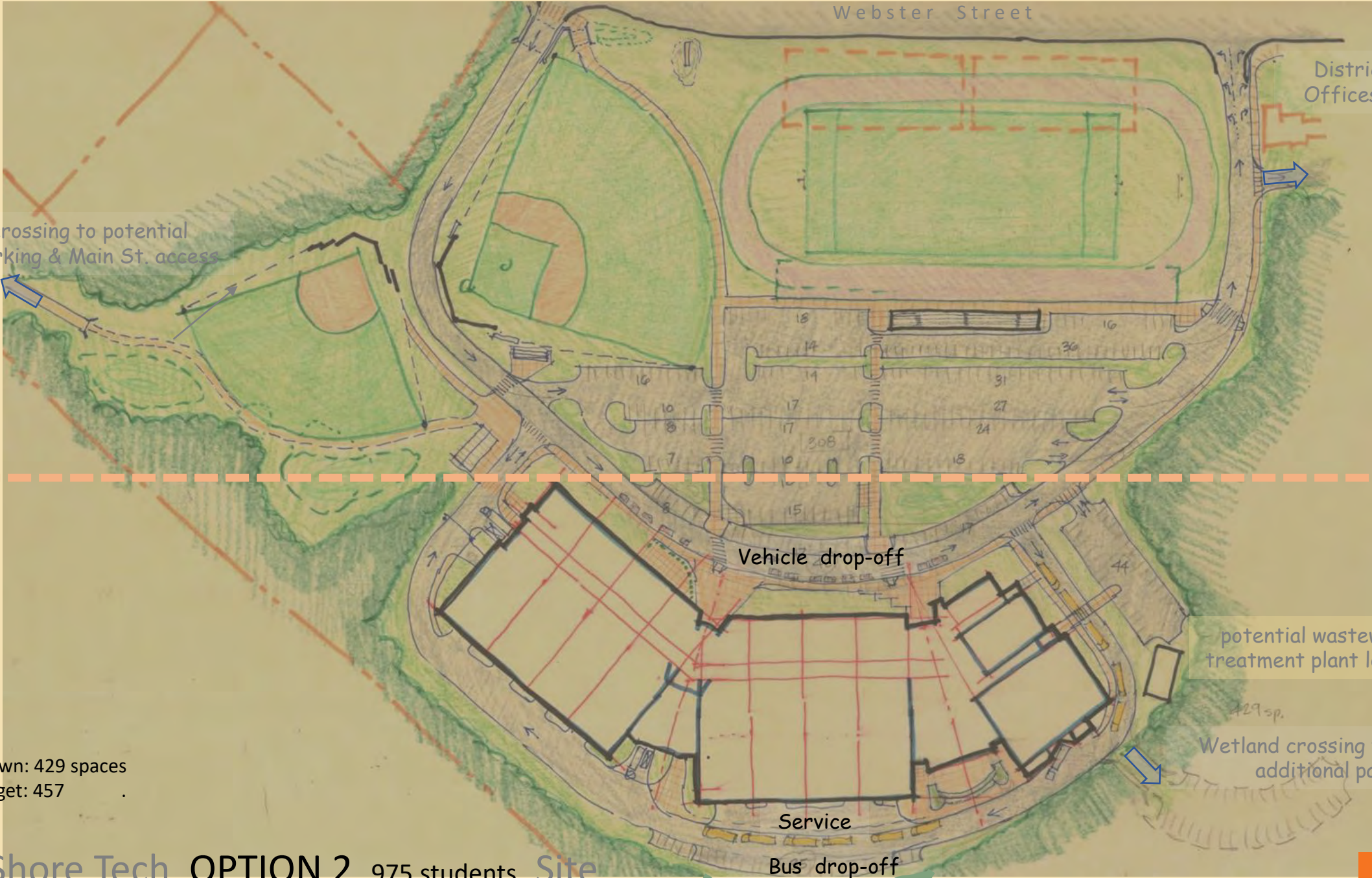
Vehicle drop-off

Service

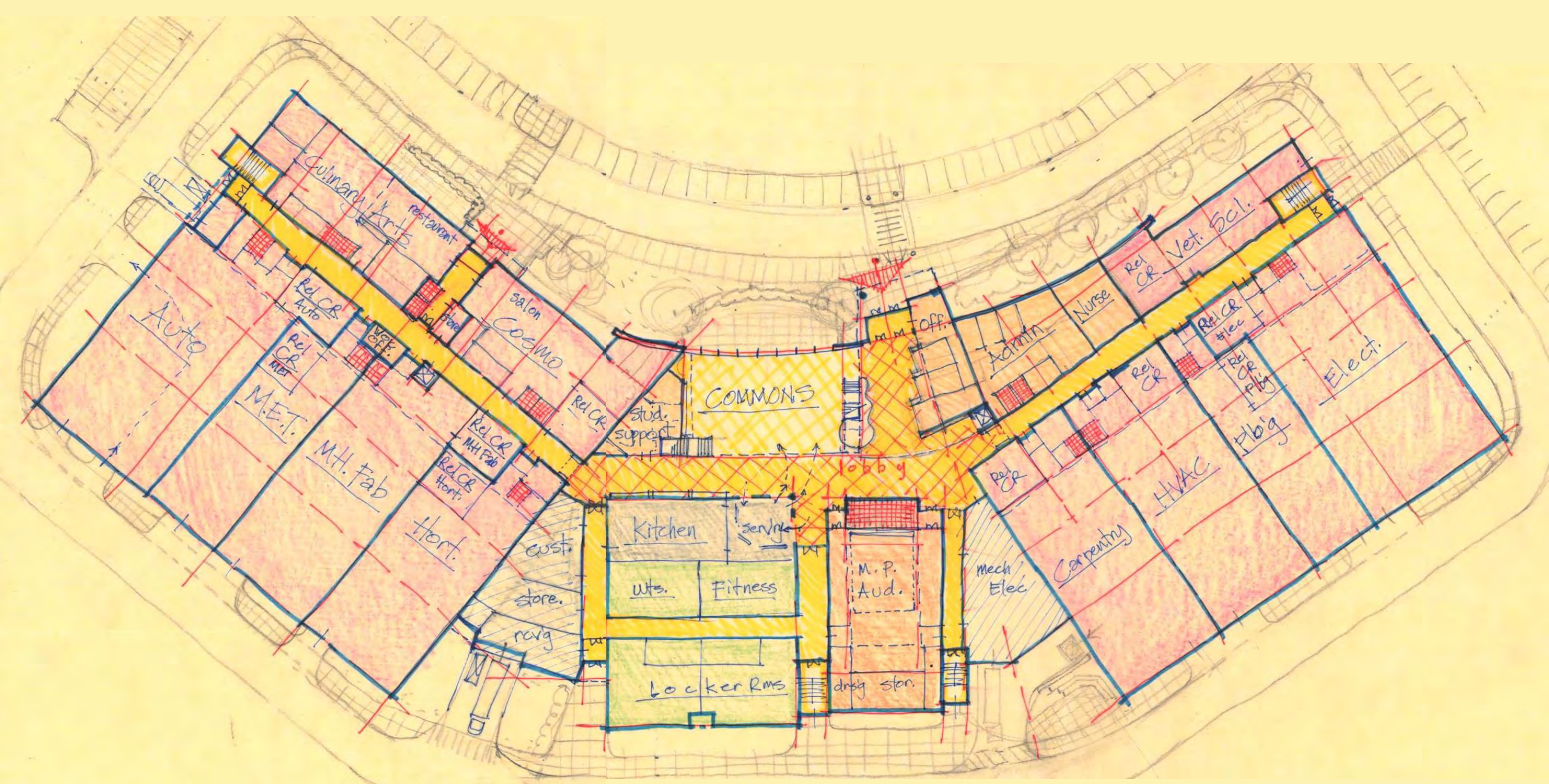
Bus drop-off

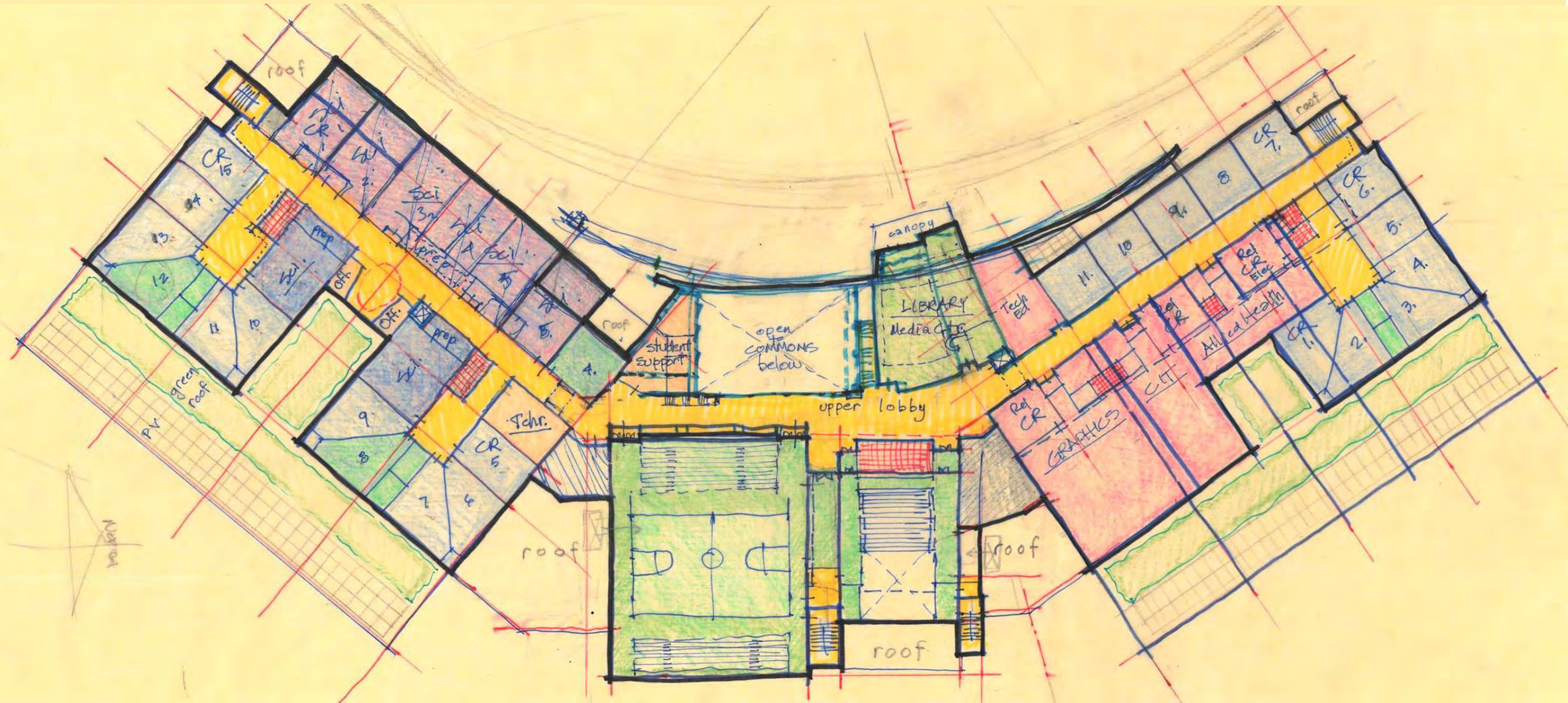
429 sp.

South Shore Tech OPTION 2 975 students Site

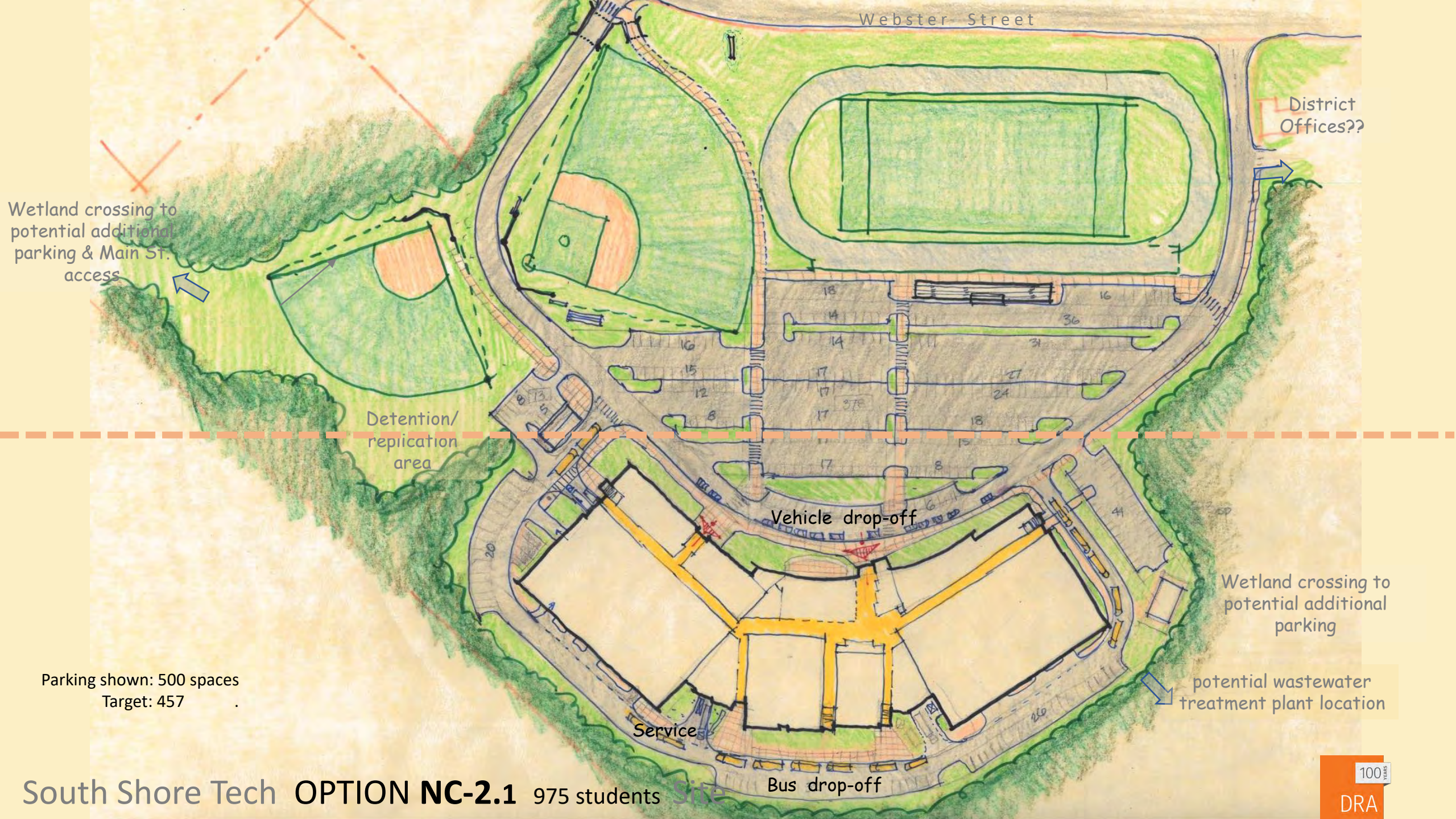








South Shore Tech OPTION NC-2.1 2nd Floor



Webster Street

District Offices??

Wetland crossing to potential additional parking & Main St. access

Detention/replication area

Vehicle drop-off

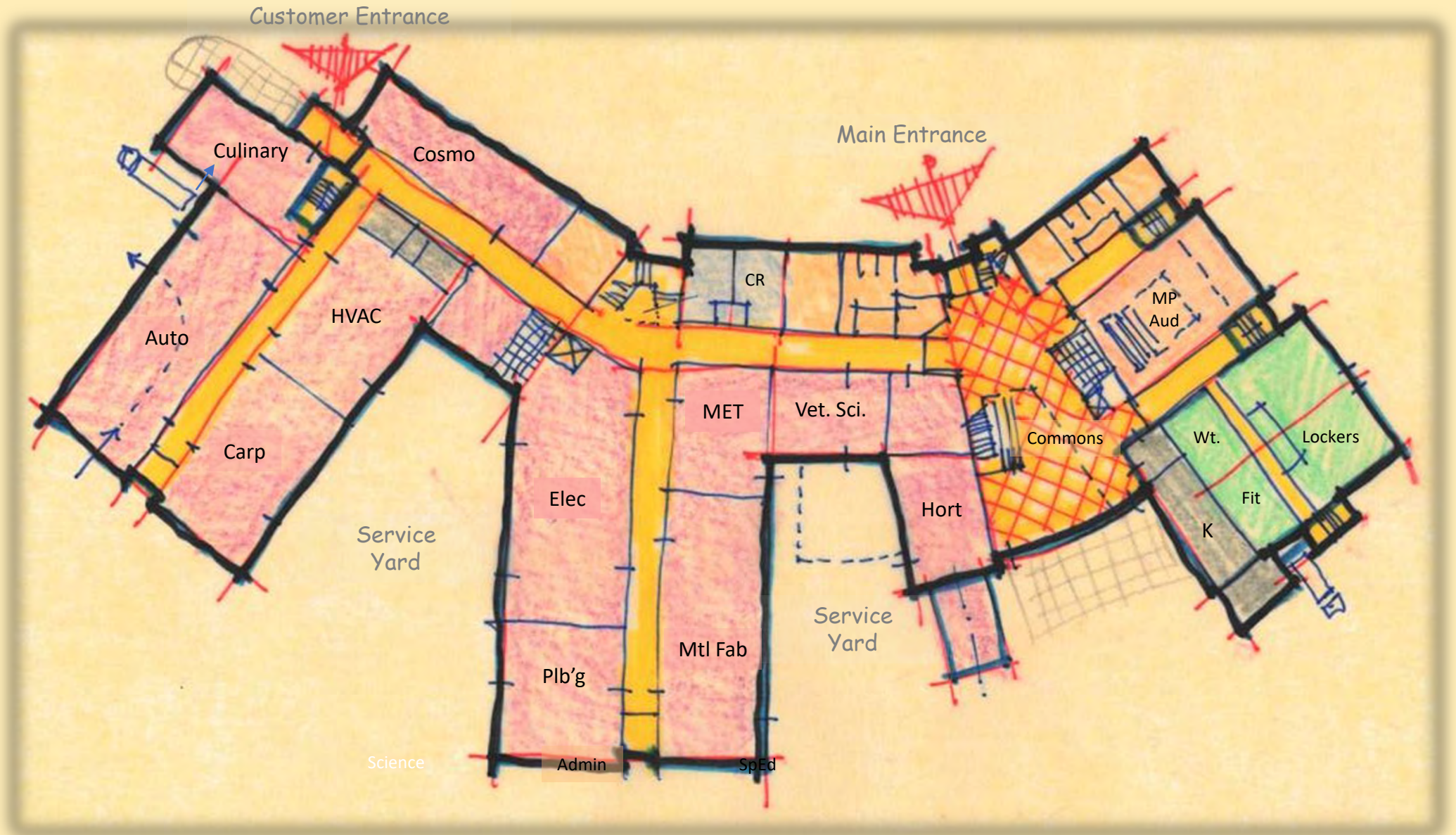
Wetland crossing to potential additional parking

potential wastewater treatment plant location

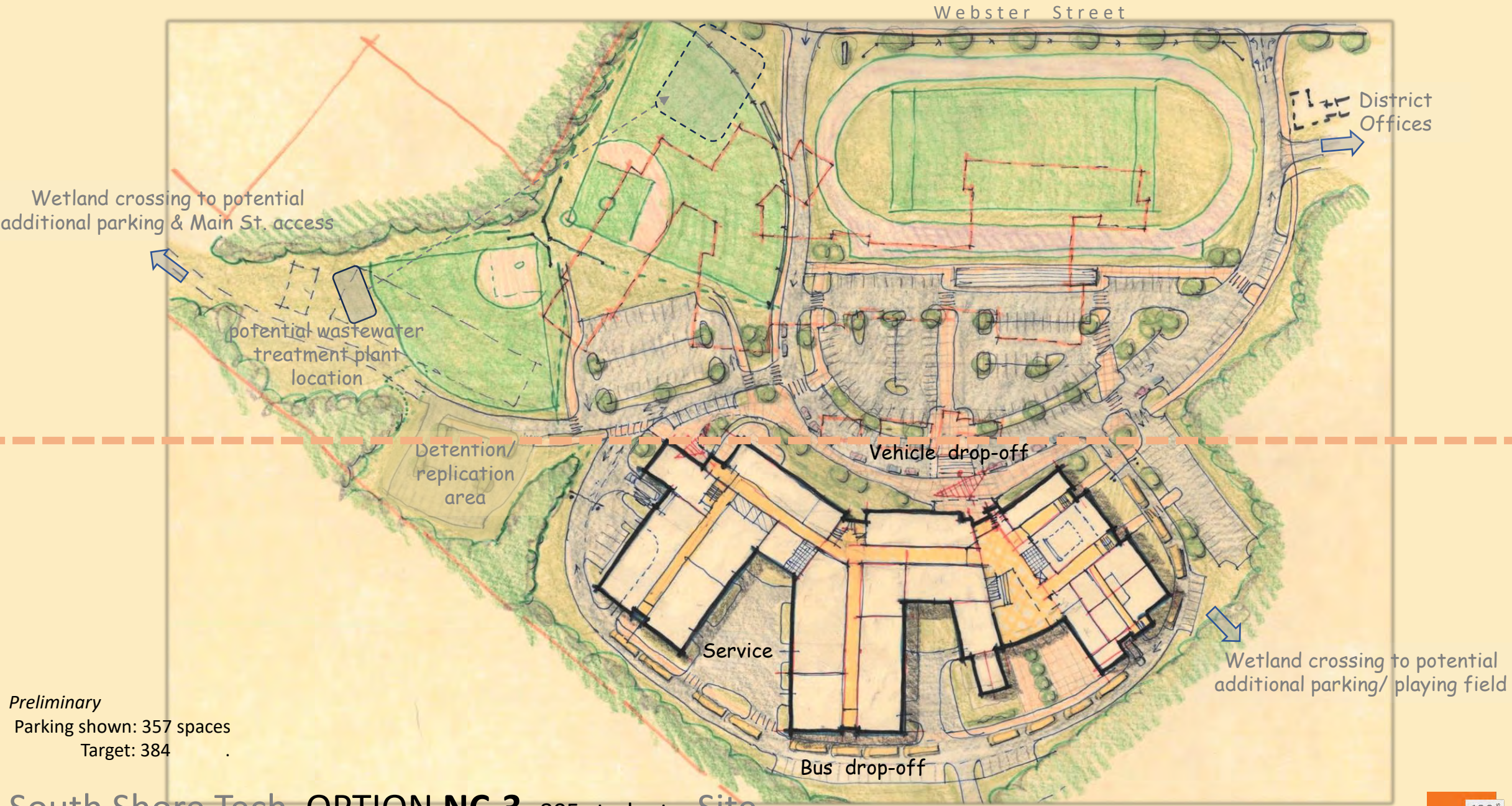
Parking shown: 500 spaces
Target: 457

Service

Bus drop-off



South Shore Tech **OPTION NC-3** 1st Floor



Preliminary
 Parking shown: 357 spaces
 Target: 384

South Shore Tech **OPTION NC-3** 805 students Site

Webster Street

District Offices

Wetland crossing to potential additional parking & Main St. access

Detention/replication area

Vehicle drop-off

potential wastewater treatment plant location

Service

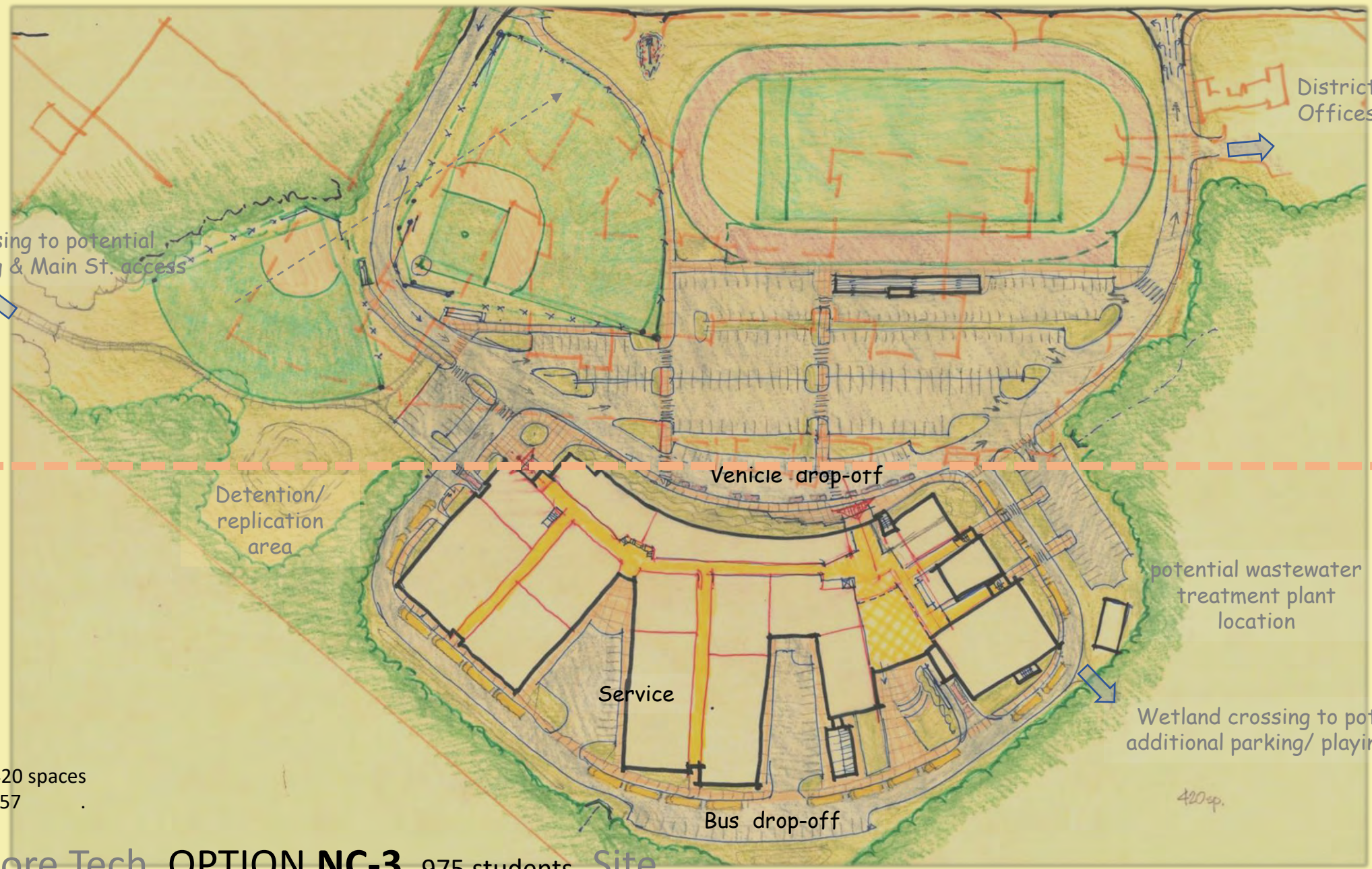
Wetland crossing to potential additional parking/ playing field

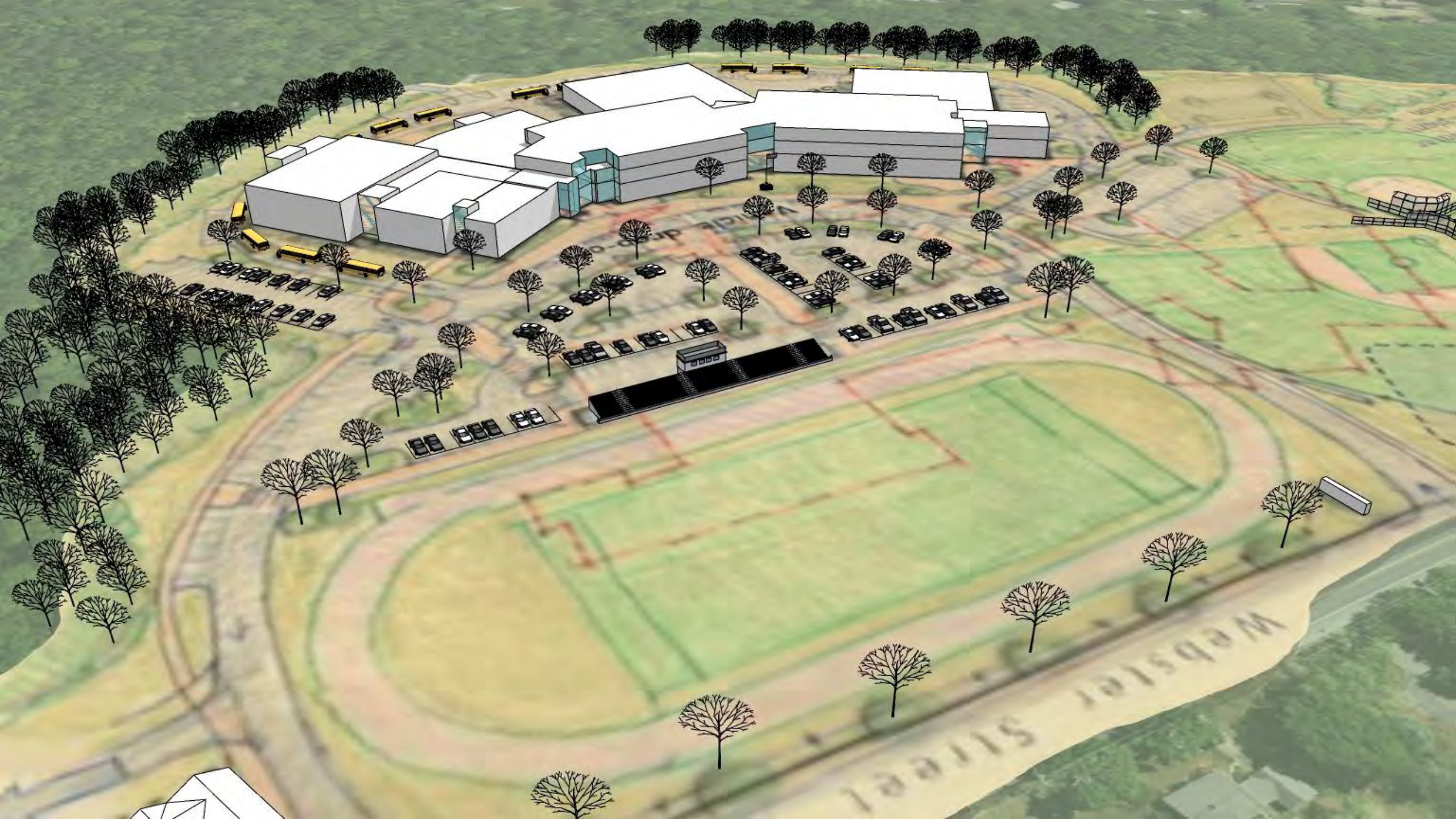
Bus drop-off

420 sp.

Preliminary
Parking shown: 420 spaces
Target: 457

South Shore Tech OPTION NC-3 975 students Site







View from Webster Street

Preliminary Options

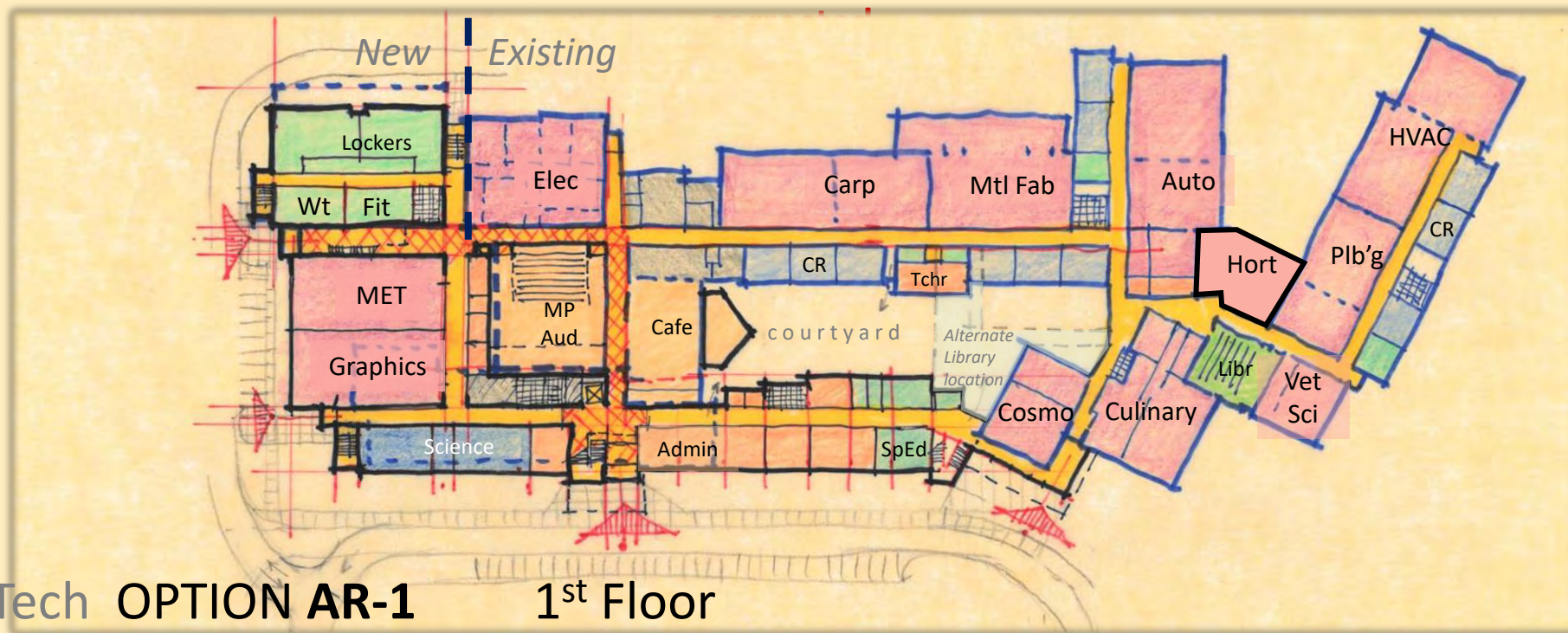
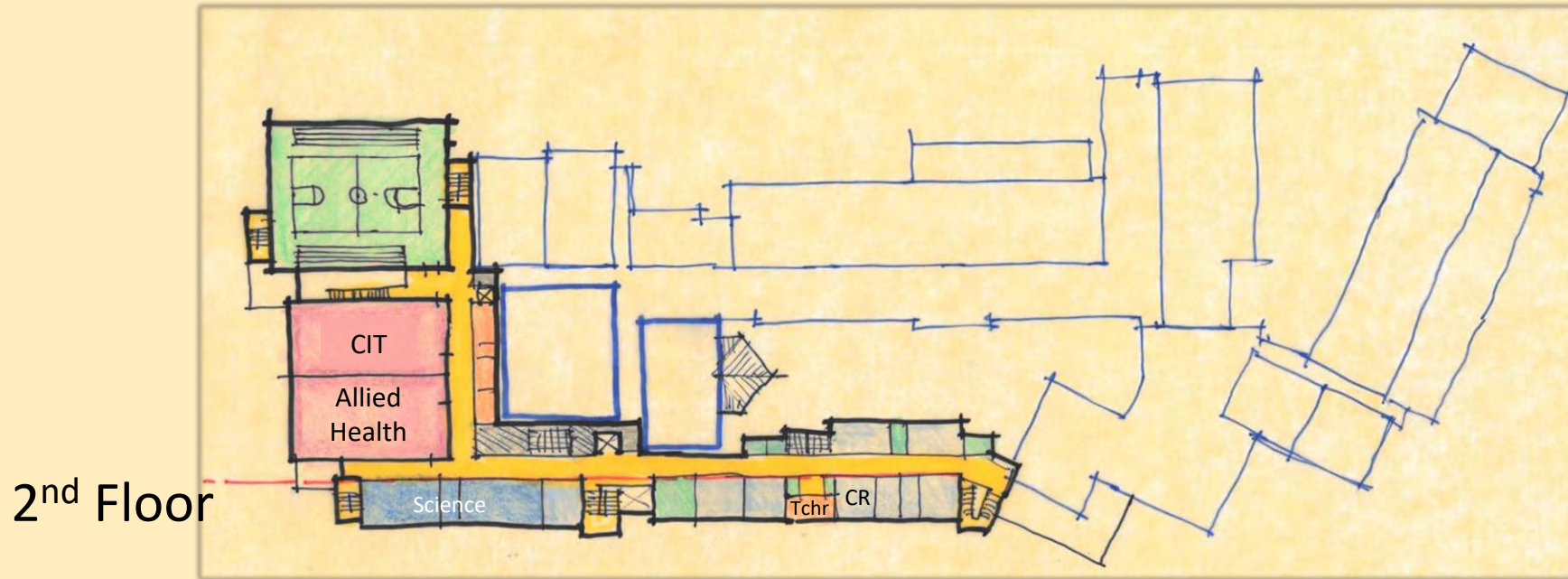


Addition / Renovation Options

- AR-1 “L-Shaped”

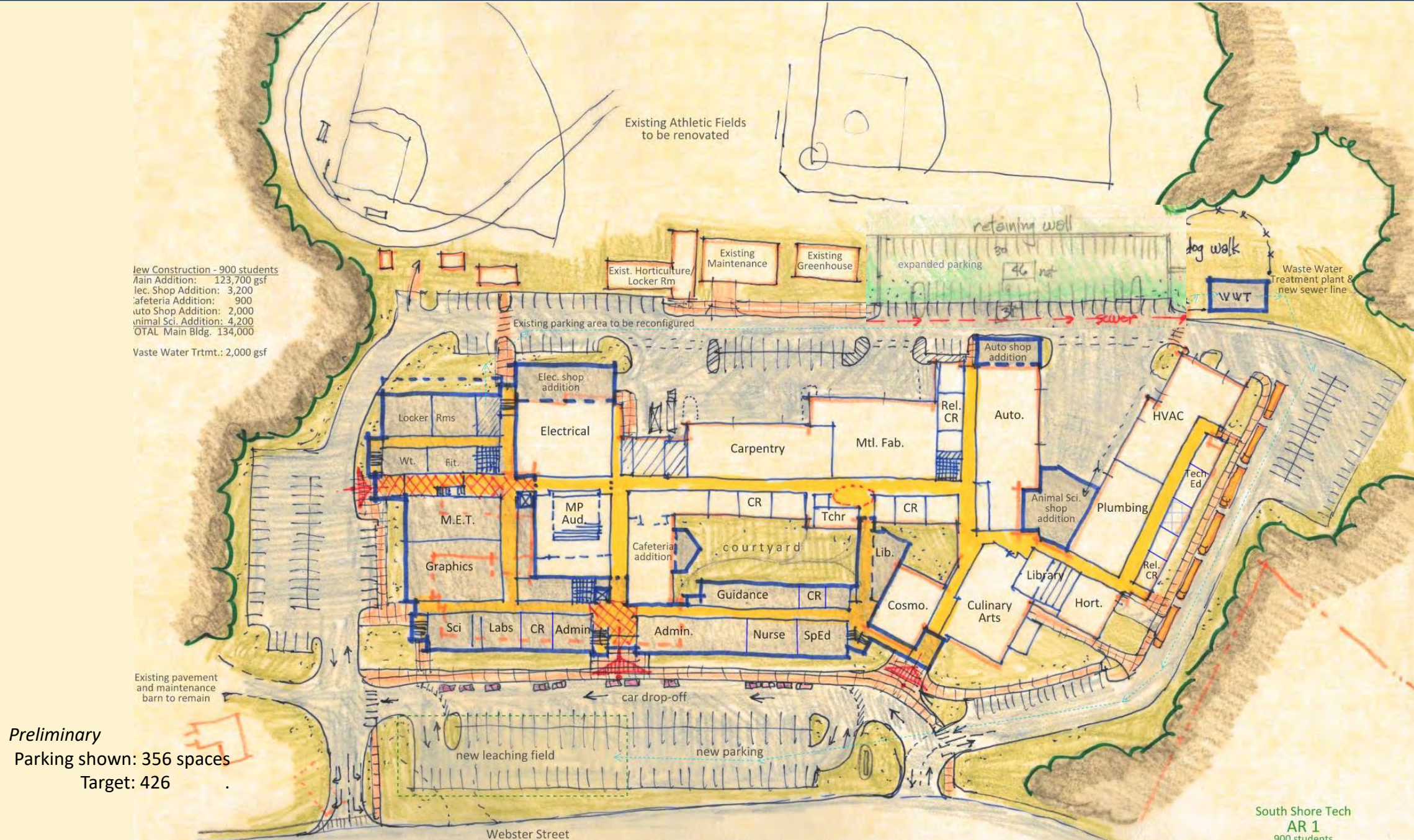


Addition/Renovation Option





OPTION AR 1



New Construction - 900 students
 Main Addition: 123,700 gsf
 Elec. Shop Addition: 3,200
 Cafeteria Addition: 900
 Auto Shop Addition: 2,000
 Animal Sci. Addition: 4,200
 TOTAL Main Bldg.: 134,000
 Waste Water Trtmt.: 2,000 gsf

Preliminary
 Parking shown: 356 spaces
 Target: 426

South Shore Tech
 AR 1
 900 students

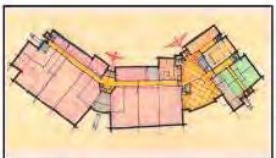
South Shore Tech **OPTION AR-1** 900 students Site Plan

Preliminary Evaluation Matrix - South Shore Tech - Concept Options - **WORKING DRAFT**



Updated:
9/14/2023

Evaluation Criteria		Concept Options						
		MSBA Required	Renovation	Add/ Reno Options		New Construction Options		
		Base Repair	Renovation	AR.1	AR.2	NC.1	NC.2	NC.3
		Code Renovation		L - Shaped	Lightwell	Courtyard	Linear	Wings
Construction Duration:	multiple years		3+ years	4 years	2+ years	2+ years	2+ years	
1	Ed Plan Accommodation Compliance w/ Vision	doesn't address any educational deficiencies	Not Feasible - Existing Building cannot meet the Space Needs for Target Enrollment	Addresses most Space Needs Lacks meaningful integration of academic & CTE spaces	Addresses some Space Needs Gym & Lecture Hall remain undersized	Good Ed Plan conformance	Good Ed Plan Conformance	Best Ed Plan Conformance
2	Project Cost Reimbursable Cost Temporary Costs Long-term Value			Lower initial cost Higher reimbursment rate for renovation High temporary costs.	Lower initial cost Higher reimbursment rate for renovation Higher temporary costs long Term Value Poor	Higher Initial Construction Cost Good Long-Term Value	Higher Initial Construction Cost Good Long-Term Value	Higher Initial Construction Cost Good Long-Term Value
3	Disruption Impact on Students Construction Duration Phasing			Phased construction adjacent to occupancy Long construction schedule Multi-phase renovation	Phased construction adjacent to occupancy Long construction schedule Multi-phase renovation	Minimal impact on adjacent occupancy. Loss of Athletic Fields during construction. Short duration 2 phases: 1. New construction, 2 Demolition & Sitework	Minimal impact on adjacent occupancy. Loss of Athletic Fields during construction. Short duration 2 phases: 1. New construction, 2 Demolition & Sitework	Minimal impact on adjacent occupancy. Loss of Athletic Fields during construction. Short duration 2 phases: 1. New construction, 2 Demolition & Sitework
4	Flexibility Community Use Expansion Potential			Some Flexibility Good community use Limited expansion potential	Limited flexibility Limited community use, lack of Auditorium Limited expansion potential	Good Flexibility, Good Community access Limited expansion potential	Good Flexibility, Good Community access Limited expansion potential	Good Flexibility, Good Community access Limited expansion potential
5	Operating Costs Maintenance			Generally all new finish materials & systems Some existing infrastructure remains Limited Building envelope upgrade	Generally all new finish materials & systems Some existing infrastructure remains Limited Building envelope upgrade	All new construction, infrastructure, & MEP systems Best thermal envelope	All new construction, infrastructure, & MEP systems Best thermal envelope	All new construction, infrastructure, & MEP systems Best thermal envelope
6	Site Access Safety & Security Circulation/ Flow			Site circulation similar to existing Potential admin presence at existing public entrance Remains somewhat sprawling	Site circulation similar to existing Unchanged access to public shops Remains somewhat sprawling, disjointed	Site Approach focused on School Dedicated secure access to public shops Compact footprint, central student commons	Site approach along edge of property Dedicated secure access to public shops Long linear corridor	Site Approach focused on School Dedicated secure access to public shops Some dead-end corridors
7	Final Site layout amenities Abutters	Site Impact to		Similar to existing No additional site amenities Minimal new impact to abutters	Similar to existing No additional site amenities Minimal new impact to abutters	Larger footprint in a constrained site Bus access at rear Enclosed outdoor courtyard Playing fields may impact abutters	Building layout follows buildable area Separate Buses and Car drop-offs in front Patio off of the Commons Playing fields may impact abutters	Wings create shared outdoor collaboration area Bus access at rear off of the Commons Patio Playing fields may impact abutters
8	Civic Image / Aesthetics			New "front door" and civic image	Minimal improved image Less opportunity to transform aesthetics	School setback from street Athletic fields & parking in front yard All new construction = all new image	School setback from street Athletic fields & parking in front yard All new construction = all new image	School setback from street Athletic fields & parking in front yard All new construction = all new image
Totals								

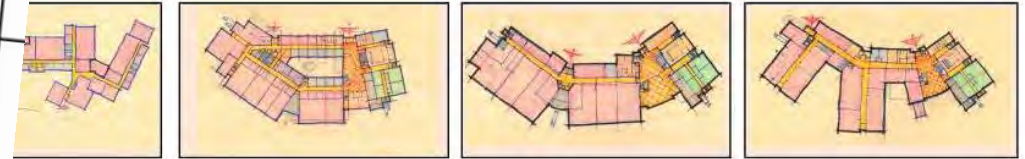


Updated:
9/14/2023

Evaluation Criteria	Construction Duration:	MSBA Required	Renovation
		Base Repair	Renovation
Code Renovation			
multiple years			
1 Ed Plan Accommodation Compliance w/ Vision		doesn't address any educational deficiencies	Not Feasible - Existing Building cannot meet the Space Needs for Target Enrollment
2 Project Cost Reimbursable Cost Temporary Costs Long-term Value			
3 Disruption Impact on Students Construction Duration Phasing			
4 Flexibility Community Use Expansion Potential			
5 Operating Costs Maintenance			
6 Site Access Safety & Security Circulation/ Flow			
7 Final Site layout amenities Abutters	Site Impact to		
8 Civic Image / Aesthetics			
Totals			

Evaluation Criteria	Construction Duration:
1 Ed Plan Accommodation Compliance w/ Vision	
2 Project Cost Reimbursable Cost Temporary Costs Long-term Value	
3 Disruption Impact on Students Construction Duration Phasing	
4 Flexibility Community Use Expansion Potential	
5 Operating Costs Maintenance	
6 Site Access Safety & Security Circulation/ Flow	
7 Final Site layout amenities Abutters	Site Impact to
8 Civic Image / Aesthetics	

Options	New Construction Options		
	NC.1 Courtyard 2+ years	NC.2 Linear 2+ years	NC.3 Wings 2+ years
Good Ed Plan conformance	Good Ed Plan Conformance	Best Ed Plan Conformance	
Higher Initial Construction Cost	Higher Initial Construction Cost	Higher Initial Construction Cost	
Good Long-Term Value	Good Long-Term Value	Good Long-Term Value	
Minimal impact on adjacent occupancy. Loss of Athletic Fields during construction.	Minimal impact on adjacent occupancy. Loss of Athletic Fields during construction.	Minimal impact on adjacent occupancy. Loss of Athletic Fields during construction.	
Short duration	Short duration	Short duration	
2 phases: 1. New construction, 2 Demolition & Sitework	2 phases: 1. New construction, 2 Demolition & Sitework	2 phases: 1. New construction, 2 Demolition & Sitework	
Good Flexibility, Good Community access	Good Flexibility, Good Community access	Good Flexibility, Good Community access	
Limited expansion potential	Limited expansion potential	Limited expansion potential	
All new construction, infrastructure, & MEP systems	All new construction, infrastructure, & MEP systems	All new construction, infrastructure, & MEP systems	
Best thermal envelope	Best thermal envelope	Best thermal envelope	
Site Approach focused on School	Site approach along edge of property	Site Approach focused on School	
Dedicated secure access to public shops	Dedicated secure access to public shops	Dedicated secure access to public shops	
Compact footprint, central student commons	Long linear corridor	Some dead-end corridors	
Larger footprint in a constrained site	Building layout follows buildable area	Wings create shared outdoor collaboration area	
Bus access at rear outdoor courtyard	Enclosed Separate Buses and Car drop-offs in front. Patio off of the Commons	Bus access at rear off of the Commons	
Playing fields may impact abutters	Playing fields may impact abutters	Playing fields may impact abutters	
School setback from street	School setback from street	School setback from street	
Athletic fields & parking in front yard	Athletic fields & parking in front yard	Athletic fields & parking in front yard	
All new construction = all new image	All new construction = all new image	All new construction = all new image	



Discussion

School Building Committee

November 2, 2023



100
YEARS

DRA

Thank you!

Please note:

Upcoming Community Meetings:

November 9	Marshfield Town Hall	6 pm
December 5	Rockland Senior Center	7 pm
December 14	Whitman Town Hall	7 pm

School Building Committee

November 2, 2023

