

2019 BOND

Co & Extra-Curricular Projects UPDATE

December 10, 2019

Jeremy Trimble

Chief Operations Officer



Co & Extra-curricular Projects Timeline

- 2019 Bond program developed, including Aquatics, Robotics, & Wrestling Spaces **(Fall 2018)**
- 2019 Bond passes with 83% voter approval **(May)**
- Interview & Select Architect(s)/Consultant(s) **(June)**
- Establish Program Focus Groups **(June)**
- Select Construction Manager at Risk [CMAR] **(Aug)**
- Develop Designs **(Aug-Nov)**
- Analyze M&O operational costs for Aquatics Facility **(Oct-Feb '20)**
- Finalize Designs **(Dec-Jan '20)**
- Begin Required Permitting Processes **(Feb-Mar '20)**
- Approve Guaranteed Maximum Price (GMP)s **(March '20)**
- Estimated Start of Construction
 - Robotics **(June '20)**
 - Aquatics **(June '20)**
 - Wrestling **(June '20)**



**Goal is to have spaces fully operational by 2021-22 SY*

***All dates subject to change*

2019 Bond Ballot Language

For any proposed new construction or facility expansion, the District shall **endeavor to obtain** necessary permitting and approvals from appropriate jurisdictions **before debt is issued** to fund construction of the project.



2019 Bond Ballot Language

If voters approve the proposition to fund and construct an **Aquatics Center**, the District shall **explore** options for **reducing or eliminating** maintenance and operating expenses to be borne by the District, including but not limited to, public-private partnerships and/or pool management services. Debt for construction of an Aquatics Center shall not be issued until the Board of Trustees has **confidence** that any impact on the District's Maintenance and Operations budget would be **significantly mitigated or eliminated** through such operating arrangements.



EANES ISD - WESTLAKE HIGH SCHOOL ADDITIONS



The included information to be presented follows months of individual Focus Group Meetings



Robotics  Facility

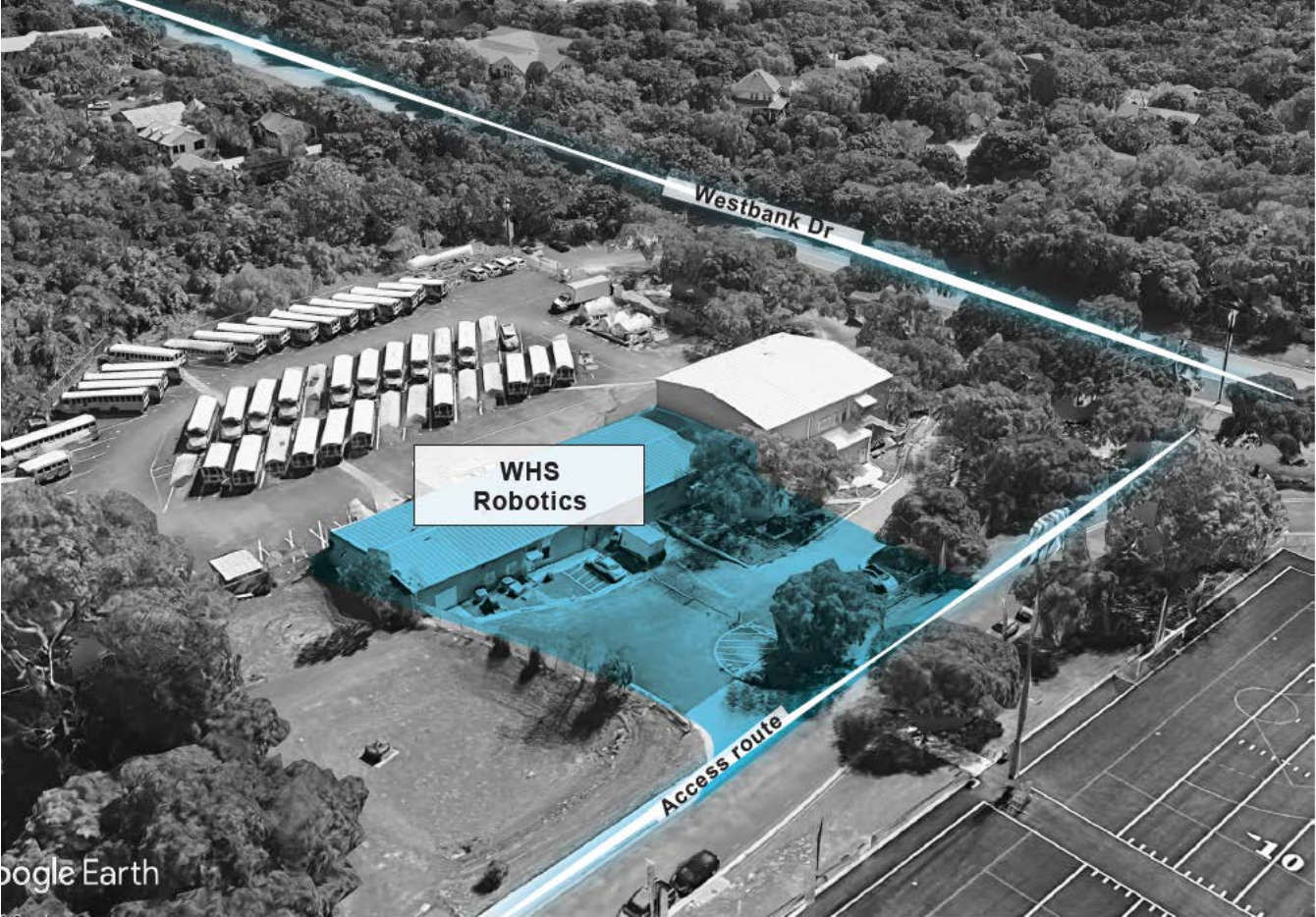


Westlake High School Robotics Addition

Focus Group Membership

Role	Name
WHS Robotics Instructor	Norman Morgan
Robotics Parent	Emily McKaskle
Mentor	Eric MacInerney
Community Member	Bob Weinschenk
Envision Eanes Liaison	Yan Cheung
Eanes STEM	Jerri LaMirand
Campus Representative	Steve Ramsey
Facilities & Operations	Jeremy Trimble
Maintenance	Brian Bolek
Architect	Stantec
General Contractor	American Constructors

Westlake High School Robotics Addition



Google Earth

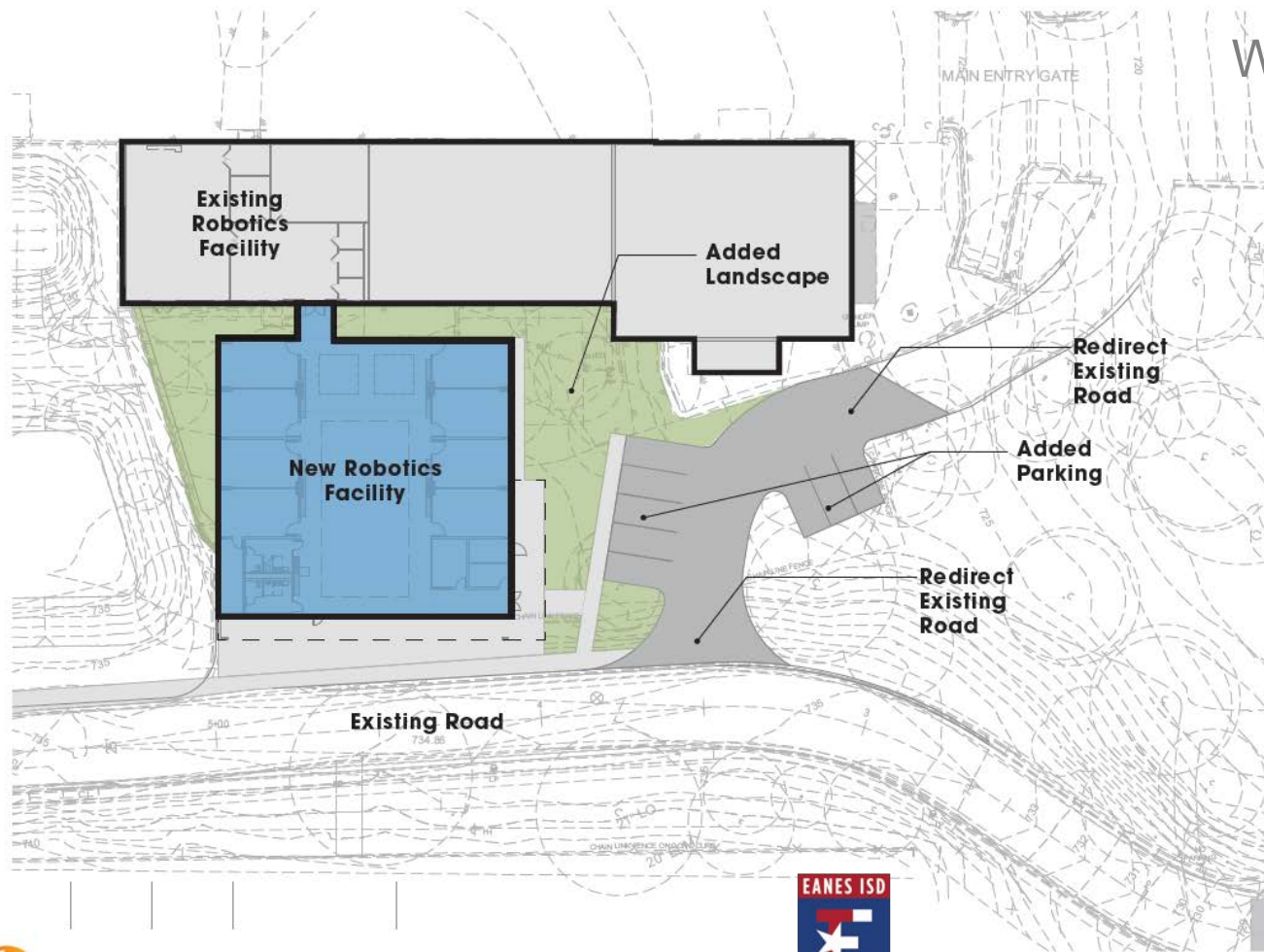
PROGRAM

Westlake High School Robotics Addition

Robotics										
03.01.000	Robotics									
03.01.001	FRC Workzone	0	0	45		2,368		1	2,368	27x54' Arena w/ 5' walkable clearance
03.01.004	FTC Workzone	0	0	30		1,000		1	1,000	(2) 11'-9"x11'-9" Fields w/ work area
03.01.004		0	0	0		0		1	0	
03.02.000	Academics									
03.02.001	Classroom	3	3	75		700		3	2,100	spaces to be sub-dividable into (2) meetings spaces
03.02.002	Computer Lab	0	0	0		0		1	0	Combined w/ Medium Collaboration, Portable Laptops
03.02.002	Student Breakout Zones	0	0	30		350		2	700	10-15 people; Located off FRC field, Semi-private, flexible sound (partitions)
03.02.003		0	0	0		0		1	0	
03.03.000	Administrative									
03.03.001	Office	0	0	0		175		1	175	
03.03.002	Storage	0	0	0		0		1	0	Backfill in existing shop building
03.03.003	Print Room	0	0	0		0		1	0	Backfill in existing shop building
03.03.004	Shop	0	0	0		0		1	0	Backfill in existing shop building
03.03.001		0	0	0		0		1	0	
03.03.000	Building Support									
03.03.001	Mechanical Room	0	0	0		0		1	0	In grossing factor
03.03.002	Electrical Room	0	0	0		0		1	0	In grossing factor
03.03.003	IDF Room	0	0	0		0		1	0	In grossing factor
03.03.004		0	0	0		0		1	0	
Robotics Subtotals		3	3	210					6,343	

Grossing Factor	1.40
TOTAL GROSS AREA	8,880

Westlake High School Robotics Addition



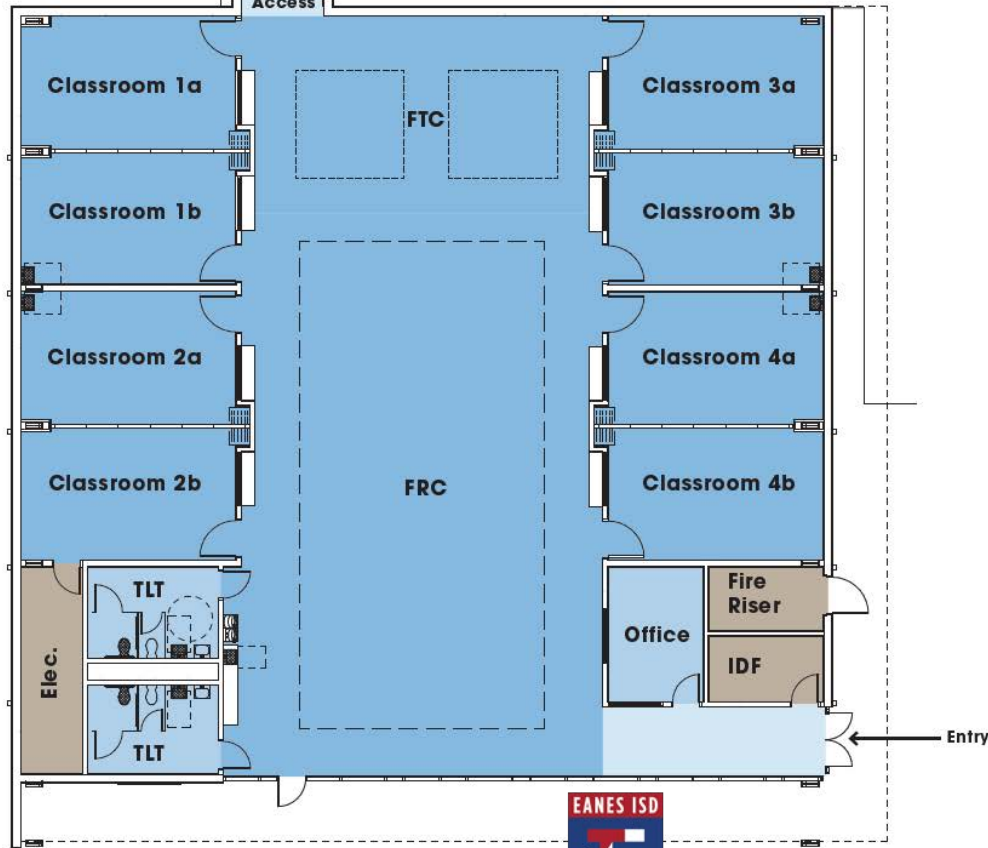
Site Plan

0 12' 25' 50'



Existing Robotics Facility

Access



Westlake High School Robotics Addition

Level 1 Floor Plan

0 5' 10' 20'



Conceptual Only

Westlake High School
Robotics Addition



View of FRC Field Looking North

Conceptual Only

Westlake High School Robotics Addition



View of FRC Field Looking Southwest



Conceptual Only Westlake High School Robotics Addition



Conceptual Only

Westlake High School
Robotics Addition





Wrestling  **Facility**

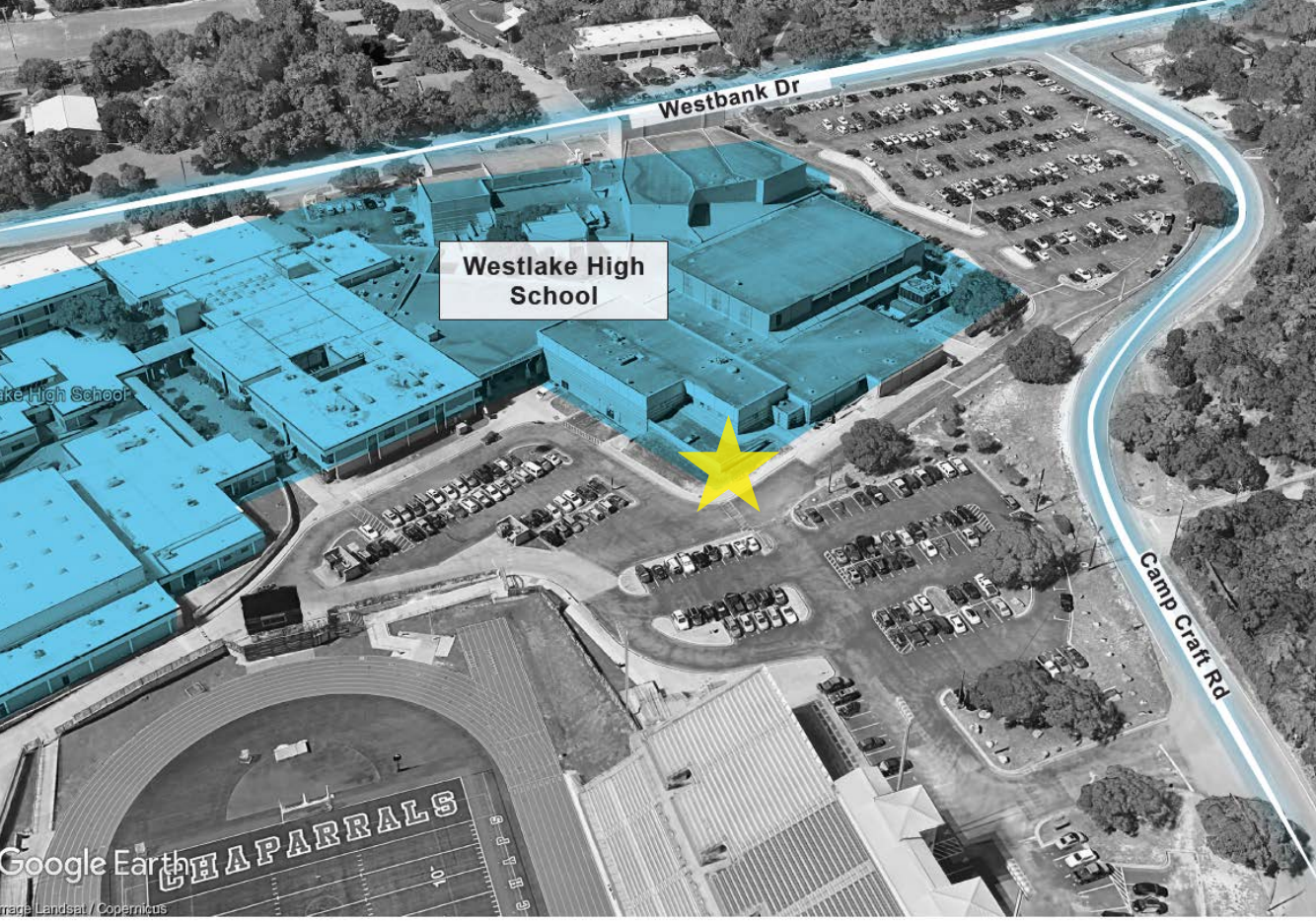


Westlake High School Wrestling Addition

Focus Group Membership

Role	Name
WHS Wrestling Coach	Pat O'harra
WHS Wrestling Assistant Coach	Tyson Dobinsky
Wrestling Parent	K.J. Stanley
Envision Eanes Liaison	Laura Clark
Athletics Representative	Callan Nokes
Campus Representative	Steve Ramsey
Facilities & Operations	Jeremy Trimble
Maintenance	Brian Bolek
Architect	Stantec
General Contractor	American Constructors

Westlake High School Wrestling Addition



Westlake High School Wrestling Addition

PROGRAM

Wrestling									
02.01.000	Wrestling								
02.01.001	Mat Room	0	0	60	6,552	1	6,552		126'x52' Room (3-42'x42' Mats w/ 5' clearance)
02.01.006		0	0	0	0	1	0		
02.02.000	Lockers								
02.02.001	Boys Lockers	0	0	0	0	1	0		
02.02.002	Girls Lockers	0	0	0	0	1	0		
02.02.003	Coaches Showers	0	0	0	0	1	0		
02.02.002		0	0	0	0	1	0		
02.02.003		0	0	0	0	1	0		
02.03.000	Building Support								
02.03.001	Mechanical Room	0	0	0	0	1	0		In grossing factor
02.03.002	Electrical Room	0	0	0	0	1	0		In grossing factor
02.03.003	IDF Room	0	0	0	0	1	0		In grossing factor
02.03.004		0	0	0	0	1	0		
02.03.005		0	0	0	0	1	0		
02.03.006		0	0	0	0	1	0		
Wrestling Subtotals		0	0	60			6,552		

Grossing Factor	1.30
TOTAL GROSS AREA	8,518



Legend

- Existing Rooms
- Physical Education
- Physical Education Support
- Physical Education Circulation



Conceptual Only

Westlake High School Wrestling Addition



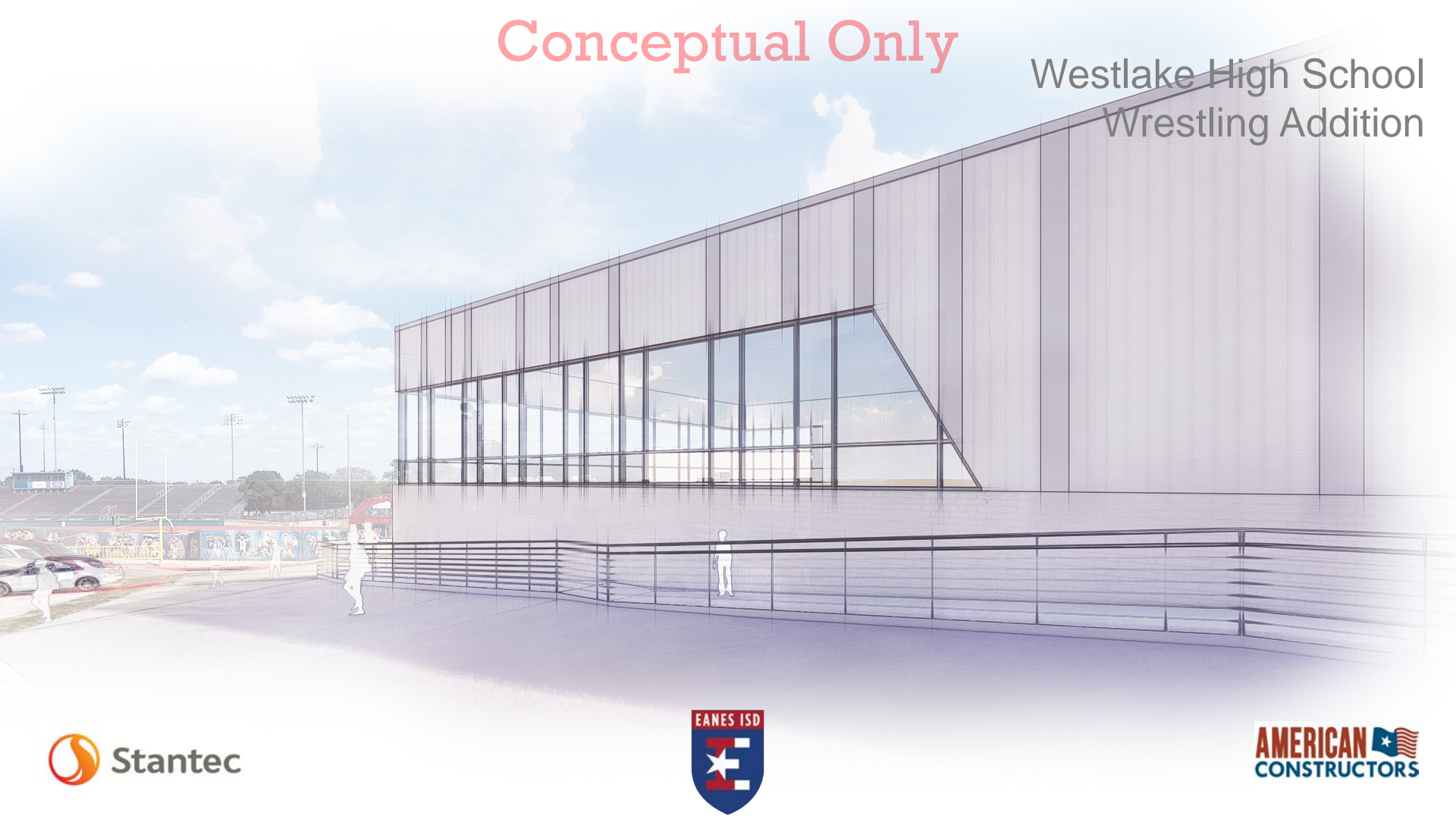
Conceptual Only

Westlake High School Wrestling Addition



Conceptual Only

Westlake High School Wrestling Addition



Possible View from Inside Wrestling Space





Aquatics Facility



Focus Group Membership

Role	Name
WHS Boy's Swim Coach	Steve Navarro
WHS Girl's Swim Coach	Alison Soelter
Swim Parent	Brian Klaas
Community Member	Brendan Hansen
Envision Eanes Liaison	Alan Knox
Athletics Representative	Haley Gaddis
Campus Representative	Steve Ramsey
Facilities & Operations	Jeremy Trimble
Maintenance	Brian Bolek
Architect	Stantec
Aquatics Consultant	Counsilman-Hunsaker
General Contractor	American Constructors

Westlake High School Aquatics Center



Westlake High School Aquatics Center

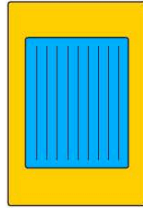
PROGRAM

Program Spaces		Total							ADJACENCIES	NOTES
		Capacity		Density	Unit Area	Unit Area Override	Quantity	Net Area		
		Staff	IS							
Aquatics Center										
01.01.000	Main Entry									
01.01.001	Entry Vestibule/Lobby	0	0	0		300		1	300	
01.01.002	Public Restrooms	0	0	0		0		2	0	In grossing factor
01.01.002	Office	1	0	0		220		1	220	2 coaches
01.01.001	Locker Rooms	0	0	0		350		2	700	50 double tier lockers each
01.01.002	Restrooms/Shower	0	0	0		350		2	700	
01.01.002	Laundry	0	0	0		150		1	150	
01.01.002		0	0	0		0		1	0	
01.02.000	Pool Deck									
01.02.001	Pool Surface	0	0	100		9,150		1	9,150	122'x75' 25M Stretch Pool w/Bulkhead and Diving
01.02.002	Deck	0	0	0		5,840		1	5,840	10' clear around pool surface (50% of pool surface recommended)
01.02.003	Spectator Seating	0	0	0		1,500		1	1,500	100 Seats, Could position above storage, ADA access
01.02.003	Storage	0	0	0		600		1	600	
01.02.005		0	0	0		0		1	0	
01.03.000	Building Support									
01.03.001	Pool Equipment	0	0	0		1,000		1	1,000	
01.03.002	Mechanical Room	0	0	0		0		1	0	In grossing factor
01.03.002	Electrical Room	0	0	0		0		1	0	In grossing factor
01.03.002		0	0	0		0		1	0	
Aquatics Subtotals		1	0	100				20,160		

Grossing Factor	1.17
TOTAL GROSS AREA	23,645

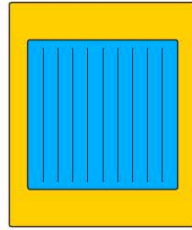


Westlake High School Aquatics Center



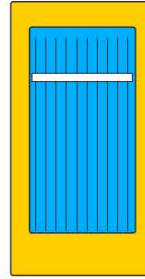
8 lane short course

Poolsize: 75'x60'
Pool Area (water surface): 4,500 sf
Total Net area: 13,870 sf
Total Gross area: 16,961 sf



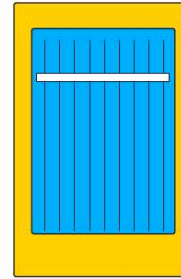
25m x 25 yd

Poolsize: 82'x75'
Pool Area (water surface): 6,150 sf
Total Net area: 15,600 sf
Total Gross area: 19,077 sf



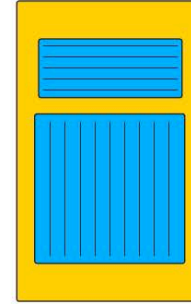
**25 yd Short course stretch
(narrow lanes)**

Poolsize: 122'x60'
Pool Area (water surface): 7,320 sf
Total Net area: 16,830 sf
Total Gross area: 20,581 sf



25 m/yd Stretch

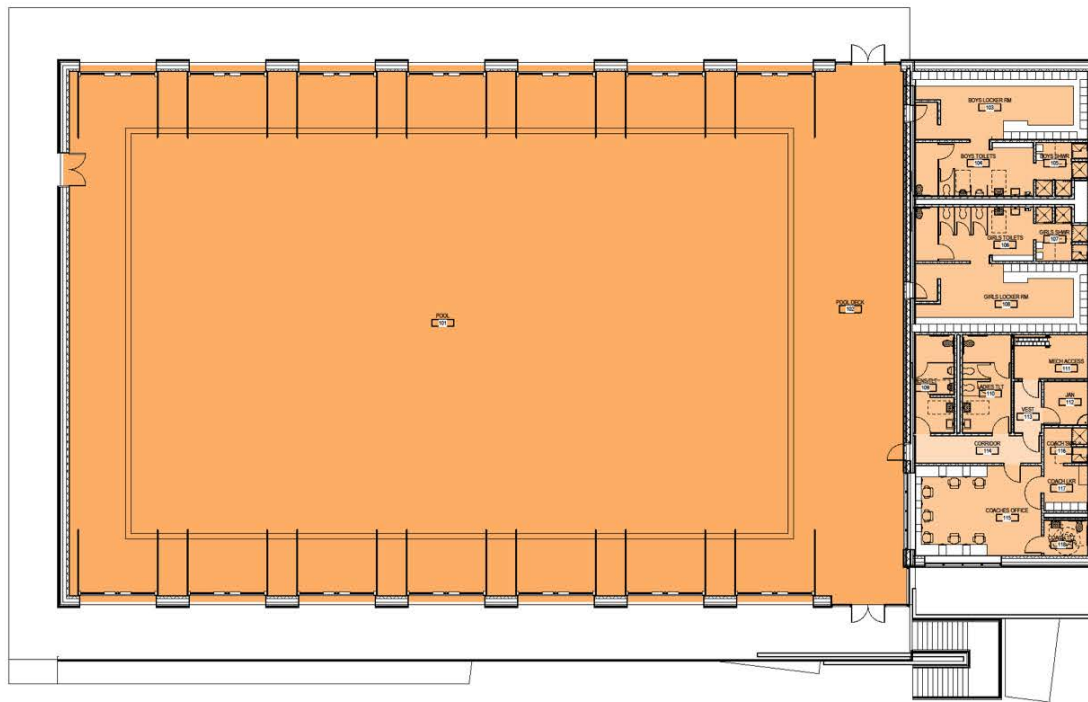
Poolsize: 122'x75'
Pool Area (water surface): 9,150 sf
Total Net area: 19,260 sf
Total Gross area: 23,553 sf



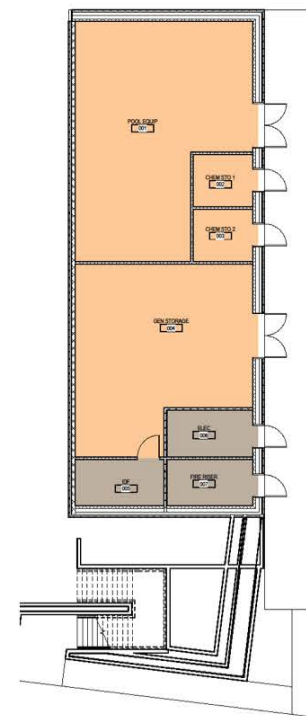
25m x 25yd¹ with Warm-Up²

Poolsize¹: 82'x75'
Pool Area (water surface): 6,150 sf
Poolsize²: 32'x75'
Pool Area (water surface): 2,400 sf
Total Net area: 18,840 sf
Total Gross area: 23,039 sf

Westlake High School Aquatics Center



Level 1

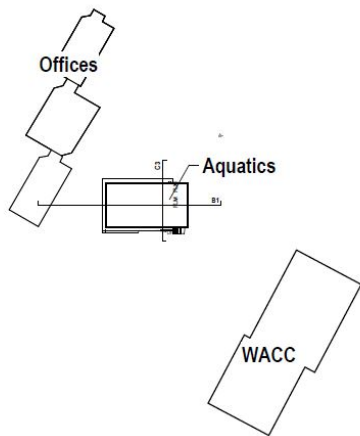


Level 0

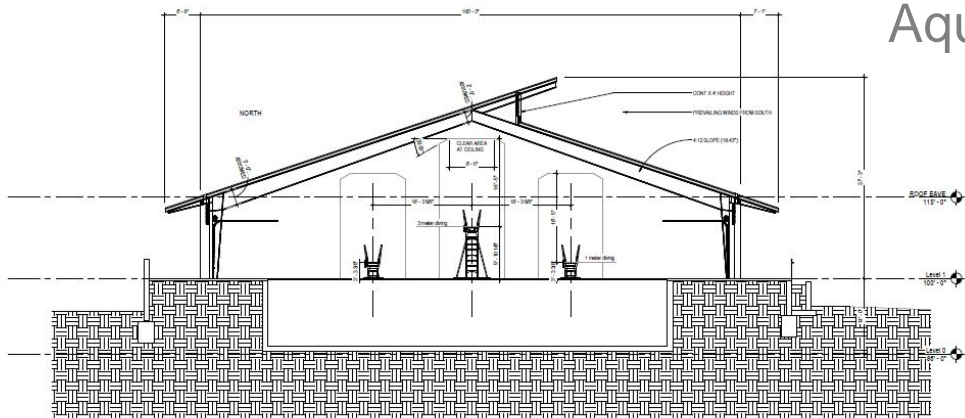


Site Layout

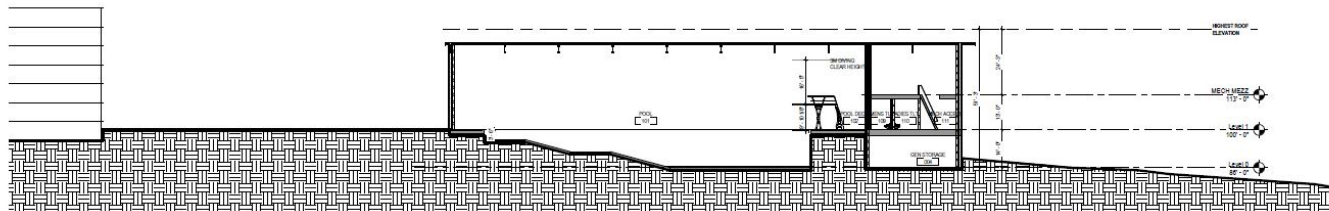
Westlake High School Aquatics Center



C1
001 KEY PLAN
1" = 100'-0"



C3
001 BUILDING SECTION C3
1/8" = 1'-0"



B1
001 BUILDING SECTION B1
1/8" = 1'-0"

Conceptual Only

Westlake High School Aquatics Center



Conceptual Only

Westlake High School Aquatics Center



Conceptual Only

Westlake High School Aquatics Center

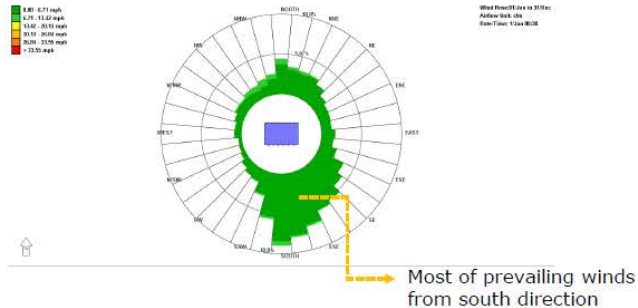
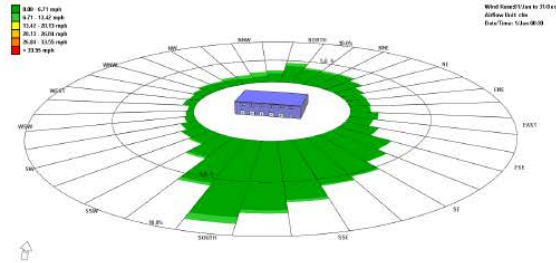


Conceptual Only

Westlake High School Aquatics Center



Site Orientation Assessment - EISD Aquatics Center



Annual Prevailing Winds

*Comfortable Area with >3fps + 50% area with 1.5-3 fps

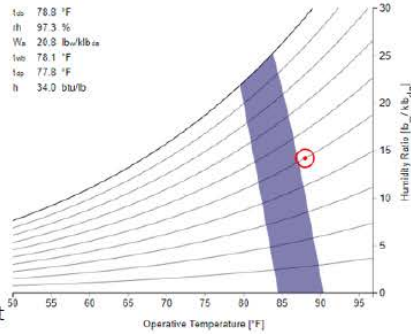
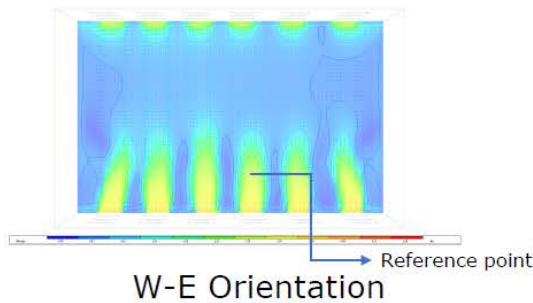


Building Orientation	Annual Comfort Percentage during Operation Hours (Natural Ventilation and Heating) – Based on ASHRAE 55 PMV Method	Percentage of Comfortable Floor Area During the Peak Time Based on Prevailing Wind*
	60.8%	0.2%
	63.6%	17.8%
	58.5%	6.6%
	59.9%	7.4%

*Using ASHRAE 55 Adaptive Method, the comfort percentage will increase +/- 10%

The most recommended option

Orientation Assessment – Occupant Comfort

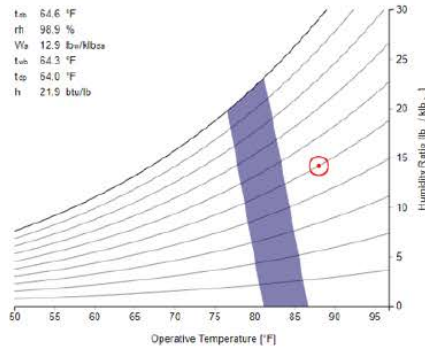
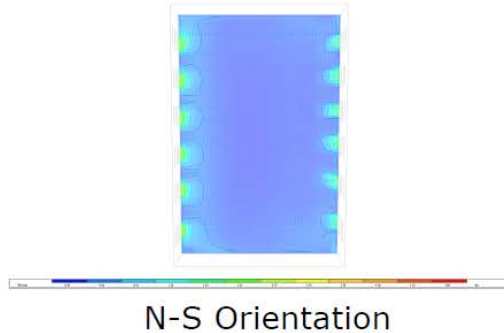


W-E Orientation

PMV=0.67 (Slightly Warm)

PPD (Percentage Dissatisfied)=14%

Percentage Comfortable Floor Area: 17.8%



N-S Orientation

PMV=1.35 (Slightly Warm)

PPD (Percentage Dissatisfied)=43%

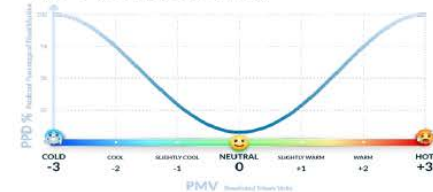
Percentage Comfortable Floor Area : 0.2%

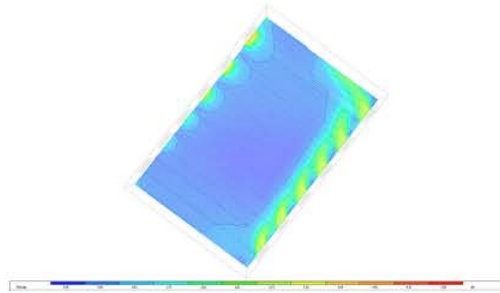
Note:

ASHRAE 55 PMV Method Performance Target:

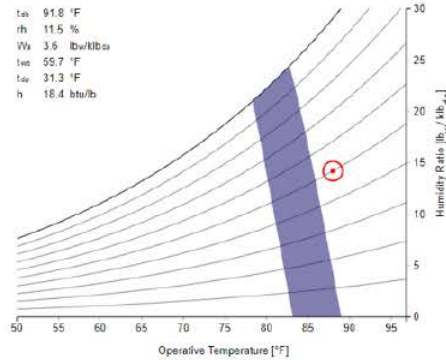
PPD: 10%

PMV 0 (neutral sensation)





SW-NE Orientation

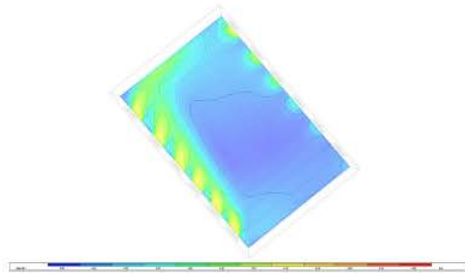


SW-NE Orientation

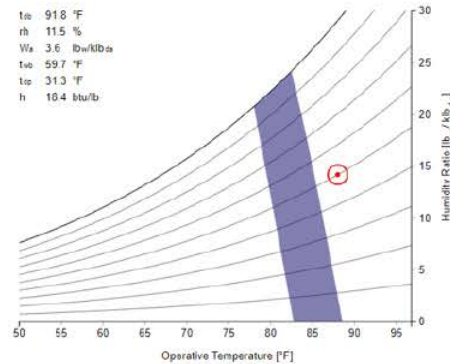
PMV=1 (Slightly Warm)

PPD (Percentage Dissatisfied)=26%

Percentage Comfortable Floor Area: 6.6%



NW-SE Orientation



NW-SE Orientation

PMV=0.92 (Slightly Warm)

PPD (Percentage Dissatisfied)=23%

Percentage Comfortable Floor Area : 7.8%

Boundary Conditions:

- Temperature = 88 °F
- Wind Velocity = 7.5 mph
- Wind Direction = 180 °East of North
- Relative Humidity = 60%

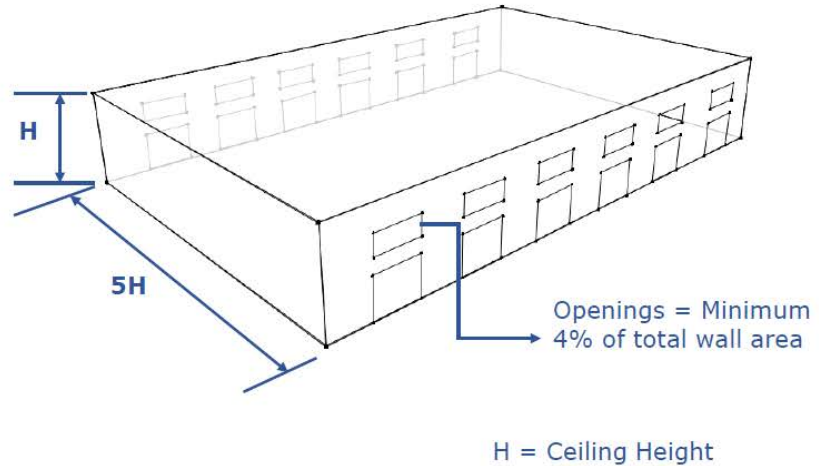
Building Height

Per ASHRAE 62.1 2016 6.4.1.2:
The maximum distance of from operable
openings shall be not more than $5H$.
 H =Ceiling Height



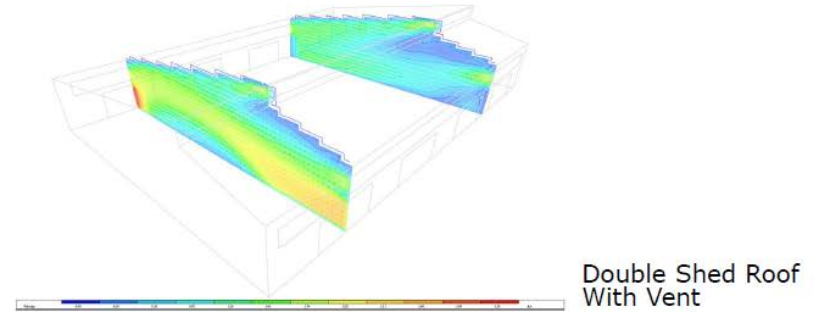
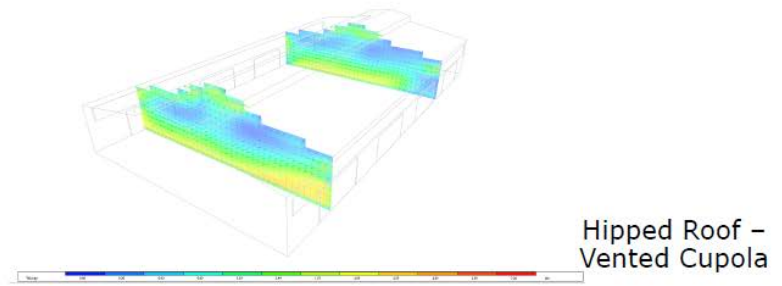
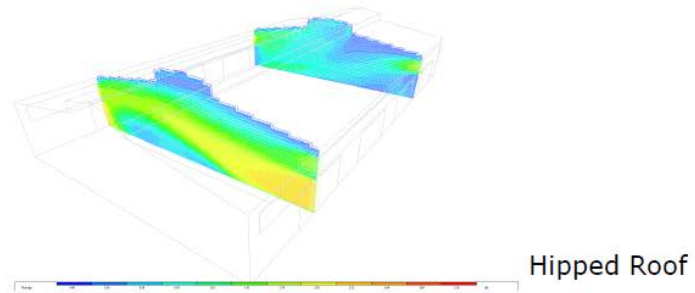
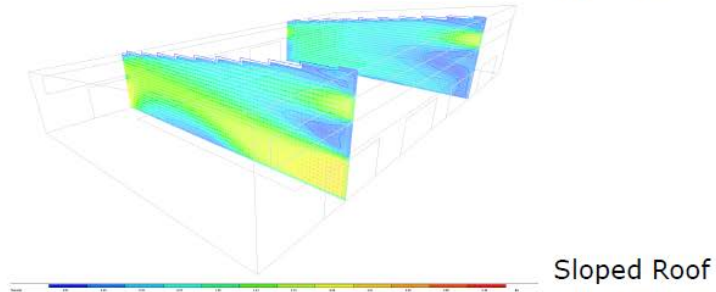
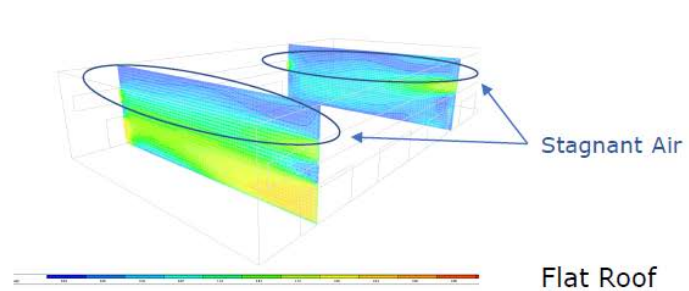
Natatorium Building Depth = 100 FT
Minimum Ceiling Height Per Code: 20 FT

ASHRAE 62.1 Minimum Requirements for Natural Ventilation

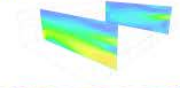
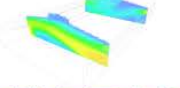
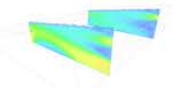
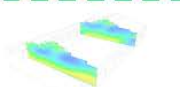
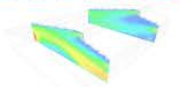


Conclusion:

- W-E Orientation performs the best for providing thermal comfort and air distribution.
The air distribution will have to provide thermal comfort and dilute chloramines.



Roof Type – Air Distribution Comparison

Roof Type	% Stagnant Air by Volume	Average wind velocity at occupant height	Stagnant Air on Ceiling?	
 Flat Roof	29.2%	1.36 ft/s	Yes	
 Hipped Roof	21.7%	1.75 ft/s	Yes	
 Sloped Roof	13.1%	1.95 ft/s	Yes	Good alternate option if vented roofing is added
 Hipped Roof – Vented Cupola	16.6%	2.09 ft/s	No	The most recommended option
 Double Shed Roof with Vent	14.5%	1.97 ft/s	No	The second best option in this study

Conclusion:

- In terms of overall stagnant air in the space, Sloped Roof outperforms all other options studied, meaning it provides the most even air distribution. Sloped roof performs well due to the venturi effect
- Hipped Roof with Vented Cupola provides better comfort by having the highest average wind velocity at occupant height.
- Hipped Roof with Vented Cupola also has no stagnant air on the ceiling, which makes the development of mold less likely
- Double Shed Roof with vent has minimum stagnant air and the shape also creates the effect and speeds up the air movement.

Preliminary DRAFT

LOGGERS



Counsilmans Hunsaker
AQUATICS FOR LIFE

Eanes Independent School District
Aquatic Center Business Plan
November 20, 2019

Preliminary DRAFT

EXPENSE ANALYSIS

- Personnel – aquatic FT staff, lifeguards
 - \$9.50/hr base rate (\$11.40 w/benefits)
 - 11 ½ operating hours/day
 - 360 days/year
 - Four FTEs (full-time equivalents)

- Insurance – property & liability

- Repair and maintenance – pumps, motors, lights, equipment repairs

- Operating supplies – office supplies, facility equipment

- Chemicals – chlorine/pH buffer

- Advertising – brochures, flyers, event budget, promotions

- HVAC – heat and cool support spaces (assumes passive ventilation)

- Electricity – pumps/motors for pool + lighting

- Water/sewer – pool water replacement + toilets/showers

Cost Avoidance of current Rollingwood Pool Rental Fee= \$35,000

Direct Facility Expense Budget	
	SD+Rentals
Facility Staff	
Aquatic Director	\$60,000
Full Time Benefits	\$24,000
Lifeguard Personnel	\$94,392
Front Desk Personnel	\$0
Personnel Equipment Cost	\$1,433
Training	\$6,000
Total Labor	\$185,825
Direct Facility Expenses	
Insurance	Not Included
Repair and Maintenance	\$25,200
Operating Supplies	\$15,120
Chemicals	\$39,075
Advertising	\$2,000
Total Commodities	\$81,395
Utilities	
HVAC	\$24,573
Electricity	\$47,519
Pool Heating	\$115,967
Data/Communications	\$5,184
Trash Service	\$3,120
Water & Sewer	\$21,681
Total Utilities	\$218,044
Programs	
Program Supplies	\$0
LG Class Materials	\$0
Part-Time Program Staff	\$0
Total Programs	\$0
Total Operating Expenses	\$485,264



PRELIMINARY AQUATIC CENTER SCHEDULE

Preliminary DRAFT

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8	Lane 9	Lane 10	Lane 11	Lane 12	Lane 13	Lane 14	Lane 15
5:30 AM	Club Practice (22.5 lane hours)														
6:00 AM															
6:30 AM															
7:00 AM	Eanes ISD - Westlake HS V/JV														
7:30 AM															
8:00 AM															
8:30 AM															
9:00 AM	Community Swim														
9:30 AM															
10:00 AM	Eanes ISD - Diving / Water Polo														
10:30 AM															
11:00 AM															
11:30 AM															
12:00 PM															
12:30 PM	Community Swim														
1:00 PM															
1:30 PM															
2:00 PM															
2:30 PM															
3:00 PM	Eanes ISD - Middle School Practice														
3:30 PM															
4:00 PM															
4:30 PM	Club Practice (60 lane hours)														
5:00 PM															
5:30 PM															
6:00 PM															
6:30 PM															
7:00 PM															
7:30 PM															
8:00 PM															
8:30 PM															
9:00 PM															
9:30 PM															
10:00 PM															



PRIMARY REVENUE STREAM

FACILITY RENTALS

- Based on the following assumptions:
 - 15 lanes/day
 - 5.5 hours/day
 - 275 to 360 days/year
 - \$14 - \$20 per lane hour
 - \$365,000 to \$594,000 annually at capacity
 - 60% rental capacity ranges from \$190,000 to \$356,000
 - 80% rental capacity ranges from \$253,000 to \$475,000

Cost per day	Cost per hour (15 hrs)	Cost per lane hour
\$1,329.49	\$88.63	\$5.91
Cost per day	Cost per hour (5.5 hrs)	Cost per lane hour
\$1,329.49	\$241.73	\$16.12

Preliminary DRAFT

360 Days/Year

Available Lane Hours/Day	82.5
Days/Year	360
Total Lane Hours Per Year	29,700
\$20/rate	\$594,000
\$16.12/rate	\$478,764

Mon-Sat Year-Round

Available Lane Hours/Day	82.5
Days/Year	313
Total Lane Hours Per Year	25,823
\$20/rate	\$516,450
\$16.12/rate	\$416,259

275 Days/Year

Available Lane Hours/Day	82.5
Days/Year	275
Total Lane Hours Per Year	22,688
\$20/rate	\$453,750
\$16.12/rate	\$365,723

100%



SUMMARY

Preliminary DRAFT

- The hourly cost to operate each lane of the pool during operational hours is \$5.91. Assuming that the District wants to generate revenue to cover expenses for the non-rentable time, the District would need to charge a minimum of \$16.12 per lane hour.
- USA Swimming states the national average for rental rates per lane per hour is approximately \$14, while the projected cost to operate the WHS aquatic center is \$16.12 per lane hour. Based upon the local market, cost of operations, length of rental contract and the number of lanes, the District could look at a tiered pricing strategy for short-term (daily/monthly), mid-term (1 month to 6 months) and long-term lane rentals depending upon their cost recovery goals. This variation could range from \$14 to \$24 per lane hour.
- An achievable range of rental revenue for the aquatic center is projected to be in between \$190,000 and \$250,000 with an overall expense to revenue ratio of approximately 40% to 50%. If lane rentals for 275 days are maximized, the overall cost recovery would increase to 93%.
- When solidifying a long-term rental contract with a local USA Swim Club, it's important for the District to ensure it has priority for practices, curriculum classes and competitive events. These types of activities will decrease the number of overall hours available for rental and revenue generation.



Co & Extra-curricular Projects Timeline

- 2019 Bond program developed, including Aquatics, Robotics, & Wrestling Spaces **(Fall 2018)**
- 2019 Bond passes with 83% voter approval **(May)**
- Interview & Select Architect(s)/Consultant(s) **(June)**
- Establish Program Focus Groups **(June)**
- Select Construction Manager at Risk [CMAR] **(Aug)**
- Develop Designs **(Aug-Nov)**
- Analyze M&O operational costs for Aquatics Facility **(Oct-Feb '20)**
- Finalize Designs **(Dec-Jan '20)**
- Begin Required Permitting Processes **(Feb-Mar '20)**
- Approve Guaranteed Maximum Price (GMP)s **(March '20)**
- Estimated Start of Construction
 - Robotics **(June '20)**
 - Aquatics **(June '20)**
 - Wrestling **(June '20)**



**Goal is to have spaces fully operational by 2021-22 SY*

***All dates subject to change*

Questions & Discussion

