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## **DARIEN PUBLIC SCHOOLS FACILITY ANALYSIS CLASSROOM SIZE STUDY**

DATE: November 24, 2020

RE: **DRAFT** STUDY UPDATE

### **INTRODUCTION**

Darien Public Schools retained the services of Northeast Collaborative Architects, LLC (NCA) to provide a Feasibility Study for the following:

- Review classroom size at Hindley, Holmes, and Royle Elementary Schools
- Study existing classroom size in relation to the Darien Public School standards for student count / class size and current quantity of classrooms per grade level
- Review classroom size standards specific to the student counts indicated
- Indicate ranges of sizes in relation to the ranges of student counts indicated
- Compare current classroom size and count to the needs indicated
- Consider the remaining timeline of the current enrollment projections to determine if any major growth/decline will impact classroom size and count

### **METHODOLOGY AND APPROACH**

The initial step for the study involved meetings wherein the general size of certain classrooms in each of the three schools were thought to be inadequate. This study seeks to quantify the size of the classrooms in relation to the Darien Public Schools classroom size standards and current grade-level distribution, and reveal any potential inadequacy in a measurable manner.

NCA was provided the following data:

- Current floor plans of the schools, with room area indicated
- Current grade-level distribution in each school
- Darien Public Schools Low-End, Optimal & High-End student count class size, per grade level
- Classroom size information from the proposed Ox Ridge Elementary School and the recent Tokeneke Elementary School

### **FACILITY ANALYSIS**

The preliminary analysis follows in the attached table. The following information is presented in the development of the "Standard" for Classroom Size and Count, by School and Grade Level, and is directly compared to (and compatible with) that of Ox Ridge and Tokeneke:

- Range and Student Count: as relates to Darien Public School's minimum, ideal and maximum student count/class size, per grade level
- Square Foot (SF) Factor: a sliding scale of SF/person with ranges expressed by the State of Connecticut and general educational facility



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planning practice. This sliding scale uses interpolation to assist in developing the Square Foot Range for classrooms

- Square Foot (SF) Range: the resulting net square footage of classrooms, with Low-End, Optimal and High-End size indicated
- Each school’s required classroom counts based on this year’s use compared with currently available classrooms within each size range
- In the “Current” column, yellow color indicates that classroom size and count are within one room of meeting the need and red color indicates significant need.
- **SUMMARY:**
  - the greatest needs appear to be at Grades 3 – 5 in Royle Elementary School (generally located on the second/upper floor in the oldest portion of the building)
  - the needs at Hindley are more distributed among the various grade levels (but still generally located on the second/upper floor in the oldest portion of the building)
  - at Holmes, the needs of the younger grade levels balance between Grades Kindergarten through Grade 3; there are two below minimum classrooms at Grades 4 -5 on the second/upper floor in the oldest portion of the building)

School (Priority Order)	Classroom Deficit (Below Min.)	Grades
ROYLE	8	1 @ Gr 1
		<b>7 @ Gr 4 – 5</b>
HINDLEY	5	1 @ K – Gr 1
		2 @ Gr 2 – 3
		2 @ Gr 4 – 5
HOLMES	2	2 @ Gr 4 – 5

- **PROJECTION:**
  - Royle sees the largest fluctuation in student count via the enrollment projections. At the lowest anticipated enrollment over the next 8 years, classroom count requirements will improve, but at most, it would alleviate the need for 2 upper elementary level classrooms. At the highest anticipated enrollment, classroom crowding at the upper elementary level will continue to be an issue.
  - Hindley and Holmes: the needs do not become more pronounced over the next 8 years, nor will a significant reduction in population remedy the issue entirely.

	<i>Existing Portable Classroom Use</i>	<i>Spaces Relocating to Ox Ridge</i>	<i>Proposed New Addition Spaces (Option 1)</i>	<i>Proposed Renovation Spaces (Opt. 1)</i>	<i>Proposed New Addition Spaces (Option 2)</i>	<i>Proposed Renovation Spaces (Opt. 2)</i>	<i>PRIORITY</i>	<i>OPPORTUNITES AND CONSTRAINTS</i>
Hindley	Band/Orchestra Music World Languages IDEA Lab Interventions	DLC (2)	Band/Orchestra Music Music Office/Stor Libr/Media Ctr/ Learning Commons 2 Classrooms	World Languages IDEA Lab 2 Classrooms (former DLC) Interventions	Gym PE Office/Stor Libr/Media Ctr/ Learning Commons 2 Classrooms	Band/Orchestra Music Interventions World Languages IDEA Lab 2 Classrooms (former DLC)	Highest # of portables Spaces relocating to Ox Ridge Libr/Media Ctr infrastructure	<u>New Gym (Opt. 2)</u> "10 Year Test" Comparison to new Community use 2 PE Classes Code: over 600P
<i>Area</i>			10,096 SF		12,196 SF			
<i>Est. \$</i>			<i>Option 1 Additions and Renovations: \$9M - \$11M</i>		<i>Option 2 Additions and Renovations: \$10.5M - \$12.5M</i>			
Royle	Band/Orchestra Music World Languages Gifted Program/ Interventions	ELP (3)	Band/Orchestra Music Music Office/Stor Libr/Media Ctr/ Learning Commons 4 Classrooms (replace demolished)	World Languages IDEA Lab 1 Classroom (former ELP) Interventions	Gym PE Office/Stor Libr/Media Ctr/ Learning Commons 4 Classrooms (replace demolished)	Band/Orchestra Music Interventions World Languages IDEA Lab 1 Classroom (former ELP)	2 <sup>nd</sup> highest # of portables Spaces relocating to Ox Ridge Libr/Media Ctr & 4 classroom infrastructure	<u>New Gym (Opt. 2)</u> "10 Year Test" Comparison to new Community use 2 PE Classes Code: over 600P
<i>Area</i>			12,540 SF		15,400 SF			
<i>Est. \$</i>			<i>Option 1 Additions and Renovations: \$12.5M - \$14.5M</i>		<i>Option 2 Additions and Renovations: \$14M - \$16M</i>			
Holmes	Band/Orchestra Music Interventions (existing)	none	4 Classrooms Interventions Band/Orchestra (partial)	Band/Orchestra Music Libr/Media Ctr/ Learning Commons			3 <sup>rd</sup> highest # of portables Interventions and other support space constraints	Largest core component spaces Site constraints limit addition(s)
<i>Area</i>			6,670 SF					
<i>Est. \$</i>			<i>Option 1 Additions and Renovations: \$7.5M - \$9.5M</i>					

DRAFT: 11-24-2020

Darien Public Schools

Facility Analysis - Classrooms Size and Count - by School & Grade Level

Standard

Other Darien Schools

Grade Level	Range	Student Count	SF Factor	SF Range (NET)		Ox Ridge SF	Tokeneke SF
Kindergarten - Grade 1	Low-End	18	43-48	774-846			
Kindergarten - Grade 1	Optimal	19-21	43-48	817-1008	K-Grade 1	790-972	793-914
Kindergarten - Grade 1	High-End	22	43-48	946-1056			
STATE GROSS SPACE STD: Kindergarten		25	48		1200 Gross		
Grade 2 & 3	Low-End	19	41	779			
Grade 2 & 3	Optimal	20-22	40	800-880	Grade 2-3	788-866	765-843
Grade 2 & 3	High-End	23	39	897			
Grade 4 & 5	Low-End	20	38	760			
Grade 4 & 5	Optimal	21-23	37	777-851	Grade 4-5	791-813	770-795
Grade 4 & 5	High-End	24	36	864			
STATE GROSS SPACE STD: Grade 1 - 5		25	36		900 Gross		

NOTE: classroom count does not include the following spaces provided or to be provided at each school: Band/Orchestra, Music, Art, IDEA Lab, World Languages

Hindely (429 - ranges between 426 and 440 over next 8 years)

19.5

Grade Level	Range	Student Count	SF Factor	SF Range	Required	Current	Below
Kindergarten - Grade 1	Low-End	18	43-48	774-846			5
Kindergarten - Grade 1	Optimal	19-21	43-48	817-1008	7	1	
Kindergarten - Grade 1	High-End	22	43-48	946-1056			1
Grade 2 & 3	Low-End	19	41	779			
Grade 2 & 3	Optimal	20-22	40	800-880	8	6	
Grade 2 & 3	High-End	23	39	897			2
Grade 4 & 5	Low-End	20	38	760			
Grade 4 & 5	Optimal	21-23	37	777-851	7	5	
Grade 4 & 5	High-End	24	36	864			2
TOTAL					22	17	5

Royle (358 - ranges between 339 and 393 over next 8 years)

17.05

Grade Level	Range	Student Count	SF Factor	SF Range	Required	Current	Below
Kindergarten - Grade 1	Low-End	18	43-48	774-846			2
Kindergarten - Grade 1	Optimal	19-21	43-48	817-1008	7	3	
Kindergarten - Grade 1	High-End	22	43-48	946-1056			1
Grade 2 & 3	Low-End	19	41	779			1
Grade 2 & 3	Optimal	20-22	40	800-880	6	5	
Grade 2 & 3	High-End	23	39	897			0
Grade 4 & 5	Low-End	20	38	760			
Grade 4 & 5	Optimal	21-23	37	777-851	8	1	
Grade 4 & 5	High-End	24	36	864			7
TOTAL					21	13	8

Holmes (433 - ranges between 425 and 441 over next 8 years)

18.8

Grade Level	Range	Student Count	SF Factor	SF Range	Required	Current	Below
Kindergarten - Grade 1	Low-End	18	43-48	774-846			
Kindergarten - Grade 1	Optimal	19-21	43-48	817-1008	7	8	
Kindergarten - Grade 1	High-End	22	43-48	946-1056			(+1)
Grade 2 & 3	Low-End	19	41	779			
Grade 2 & 3	Optimal	20-22	40	800-880	8	7	
Grade 2 & 3	High-End	23	39	897			
Grade 4 & 5	Low-End	20	38	760			1
Grade 4 & 5	Optimal	21-23	37	777-851	8	6	
Grade 4 & 5	High-End	24	36	864			2
TOTAL					23	21	2