

Citizens' Advisory Committee

Meeting 2

September 19, 2022

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.



Welcome from your Superintendent

Dr. Jamie Wilson
Superintendent
Denton ISD



Agenda

- WELCOME
- PROCESS REVIEW
- DEMOGRAPHICS
- FACILITY NEEDS ASSESSMENT
- SAFETY & SECURITY
- TECHNOLOGY & INFRASTRUCTURE
- CLOSING



TRANSCEND⁴

Collaboration | Communication | Critical Thinking | Creativity

Dr. Lizzy Johnson

Facilitator

lizzy@transcend4.com

940.595.0251

Charge to Committee

To help the district plan for the future, the Citizens' Advisory Committee is charged to:

- Assess and prioritize the district's current and long-term facility needs, including, but not limited to:
 - District growth and capacity
 - Building age, safety and condition
 - Land acquisition
 - Evolving educational delivery and programs
 - Energy efficiency and sustainable features
- Develop and prioritize potential projects, including new construction, renovations/additions, technology, and other areas that may arise from community input
- Consider the educational needs of all students and align recommendations with the district's mission, vision and goals
- Represent the entire school district community, values and perceptions, and seek input from other residents
- Consider the district's current financial position and funding methods to develop a recommendation that is fiscally sound
- Make a recommendation to the Board of Trustees that addresses the district's growth and facility needs based on the Committee's identified priorities



Housekeeping

- All relevant materials and information will be distributed to you as handouts.
- Due to time constraints, no breaks have been scheduled. Please take care of your personal needs on your own.
- The Denton ISD Leadership Team is here to serve you and to be a resource. Ask questions.
- Your attendance at every meeting will help yield optimum results for this committee and your community.



Ground Rules

- Only one speaker at a time
- Respect the person who is speaking
- Listen with a desire to contribute & learn
- Engage in the ENTIRE meeting



Q&A Process

- Each table will discuss the information presented and select one question to ask.
- Unanswered questions or concerns will be placed on the 'parking lot' to be answered later via email or website post.



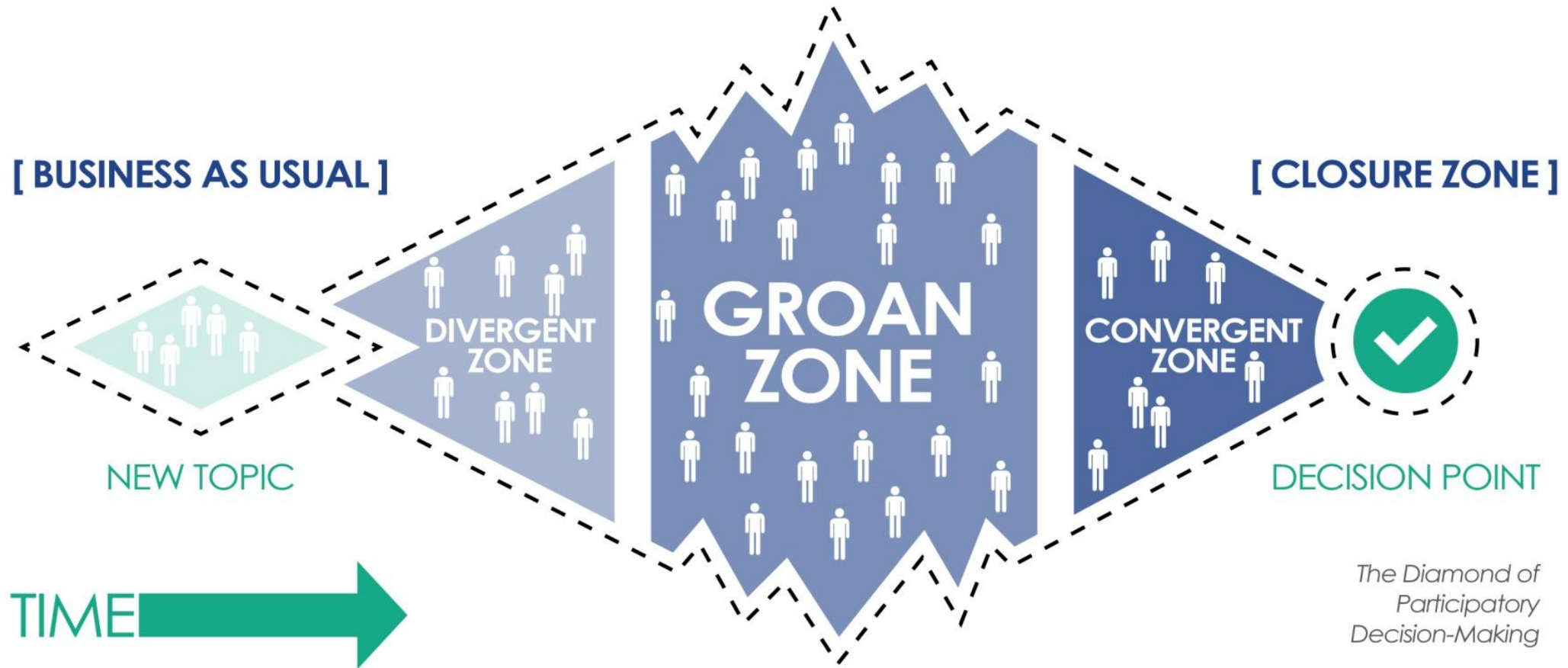
Consensus & Gradients of Agreement Model

ENDORSEMENT "I like it."	ENDORSEMENT WITH A MINOR POINT OF CONTENTION "Basically, I like it."	AGREEMENT WITH RESERVATIONS "I can live with it."	ABSTAIN "I have no opinion."	STAND ASIDE "I don't like this, but I don't want to hold up the group."	FORMAL DISAGREEMENT, BUT WILLING TO GO WITH THE MAJORITY "I want my disagreement noted in writing, but I'll support the decision."	FORMAL DISAGREEMENT, WITH REQUEST TO BE ABSOLVED OF RESPONSIBILITY "I don't want to stop anyone else, but I don't want to be involved in implementing it."	BLOCK "I veto this proposal."
------------------------------------	--	---	--	---	--	--	---

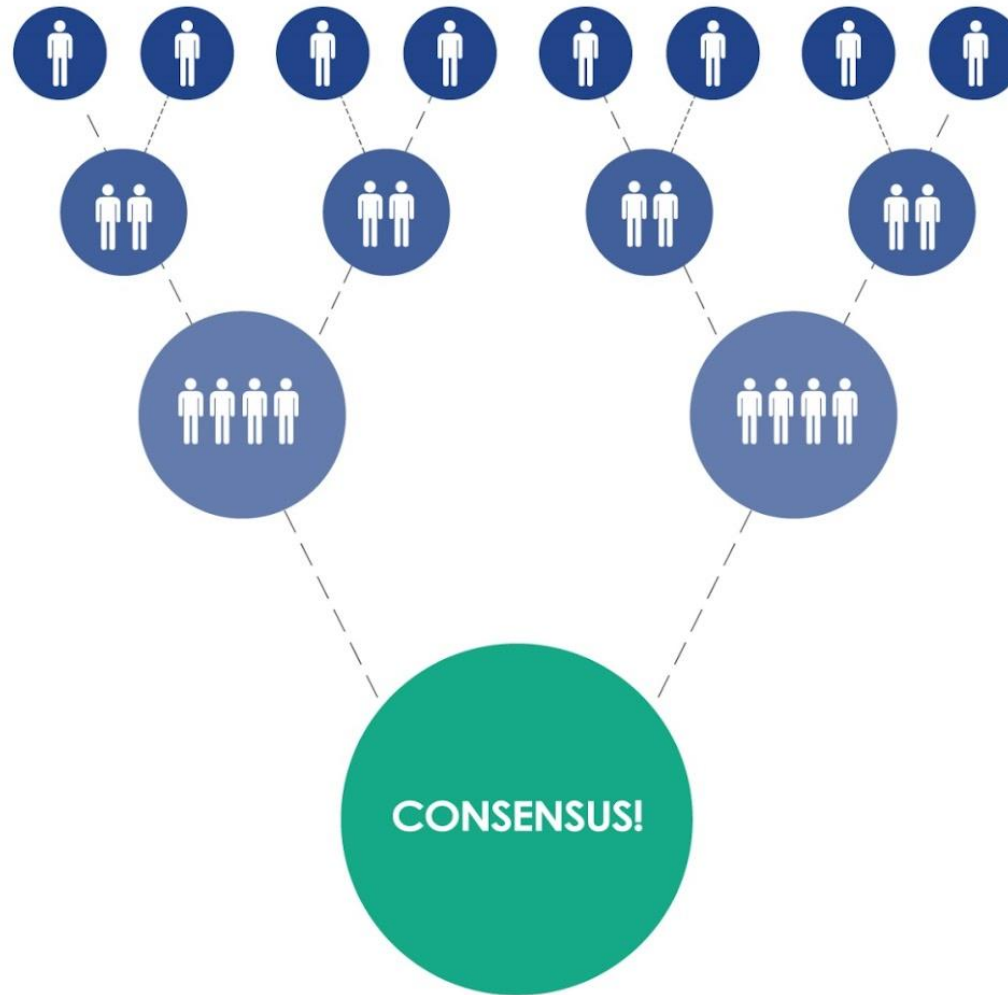
This scale makes it easier for participants to be honest. Using it, members can register less-than-whole hearted support without fearing that their statement will be interpreted as a veto.



Dynamics of Group Decision-Making



Consensus Building Model



Meeting Overview

Meeting #1

Process, timeline, vision, end goal
Charge from Board of Trustees
School Finance 101
Overview of 2018 Bond Projects

Meeting #2

Demographic Report

Facility Needs Assessment

Safety & Security

Technology & Infrastructure

Meeting #3

Athletics

Child Nutrition & Transportation

CTE & Fine Arts

Video Facility Tours

Meeting #4

Land Overview

Project Priority Presentation

Priority Worksheet

Meeting #5

Financial Advisor Presentation

Priority Worksheet and Mock Vote

Meeting #6

Bond Package Development with CoVoice
SWOT Analysis regarding potential bond



CAC Information Link
<https://www.dentonisd.org/cac2022>

Construction/2018 Bond Projects Link
www.dentonisd.org/construction

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.

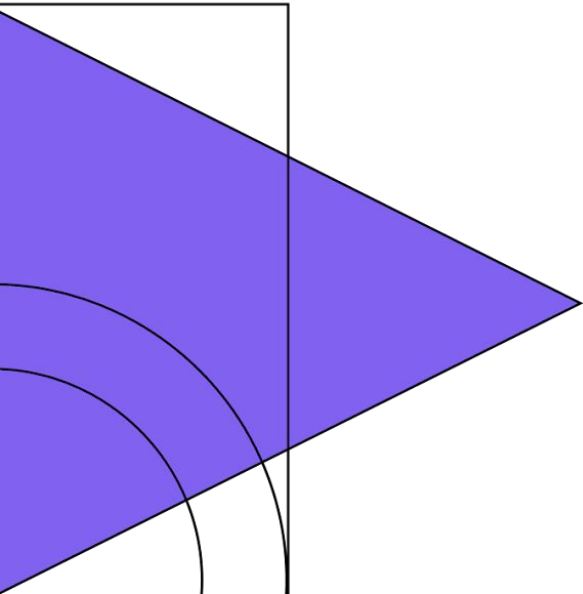
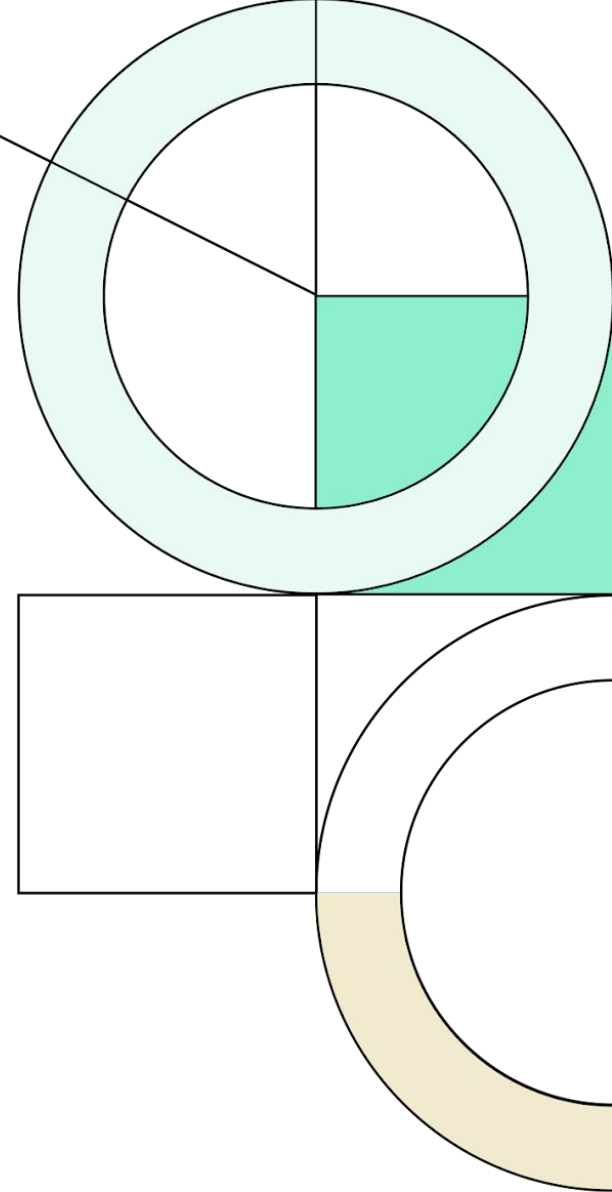




Denton Independent School District

2Q22

Demographic Report



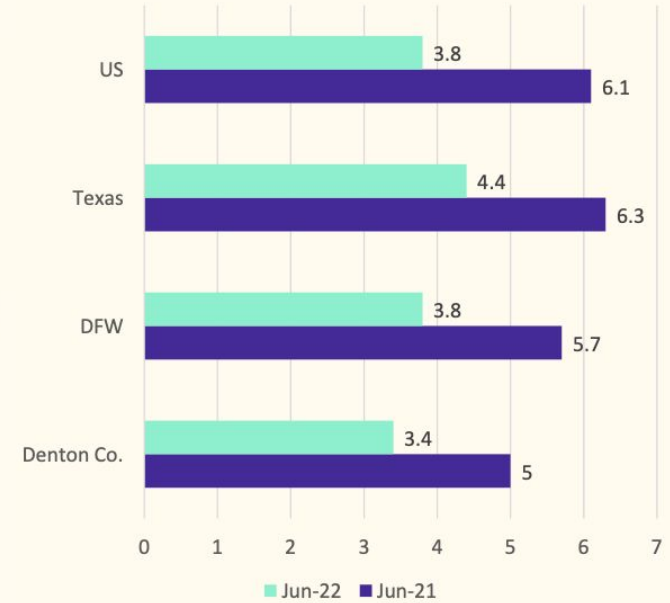


Local Economic Conditions

Unemployment Rate, June 2019 – June 2022

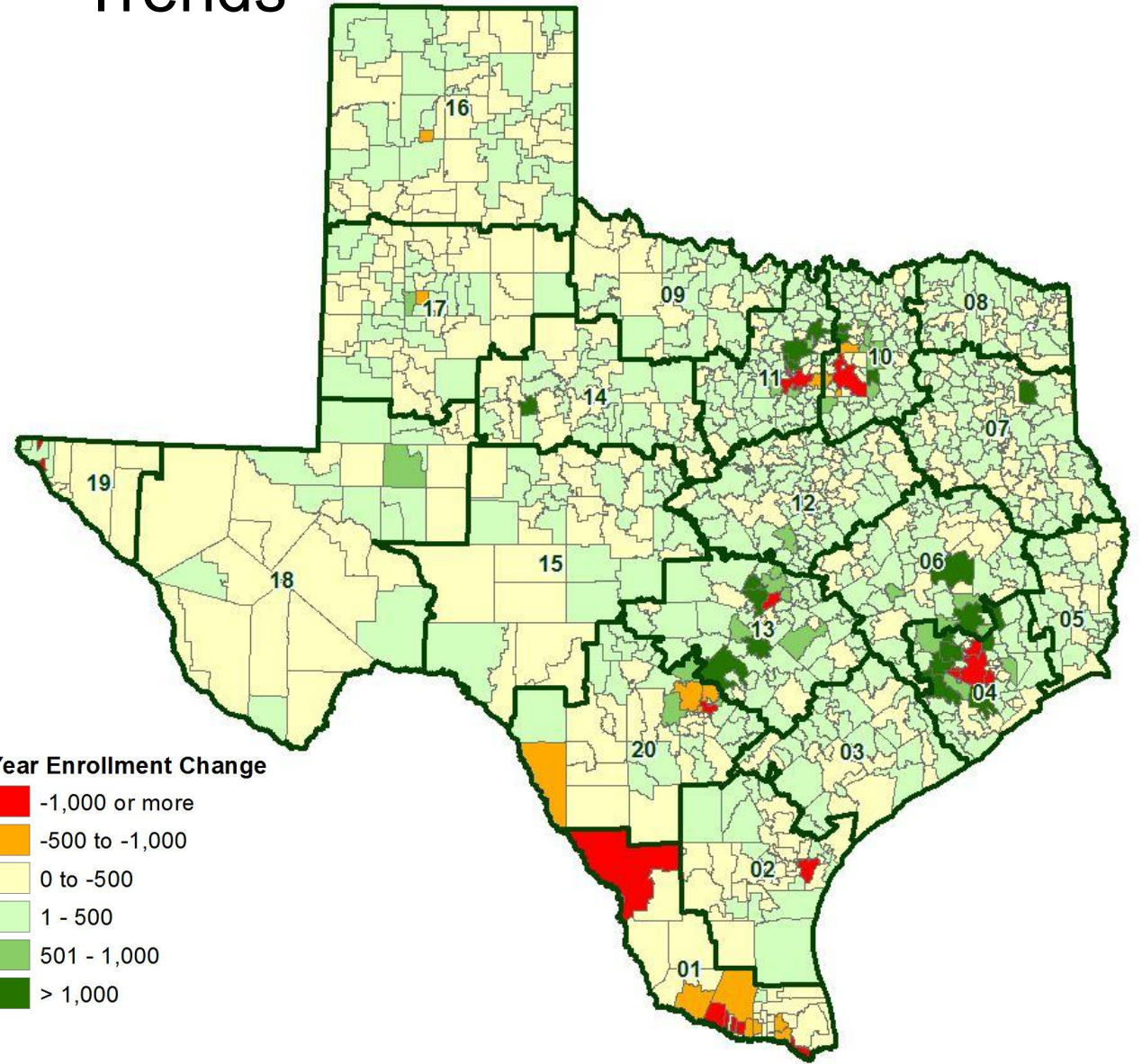


Unemployment Rate, Year Over Year

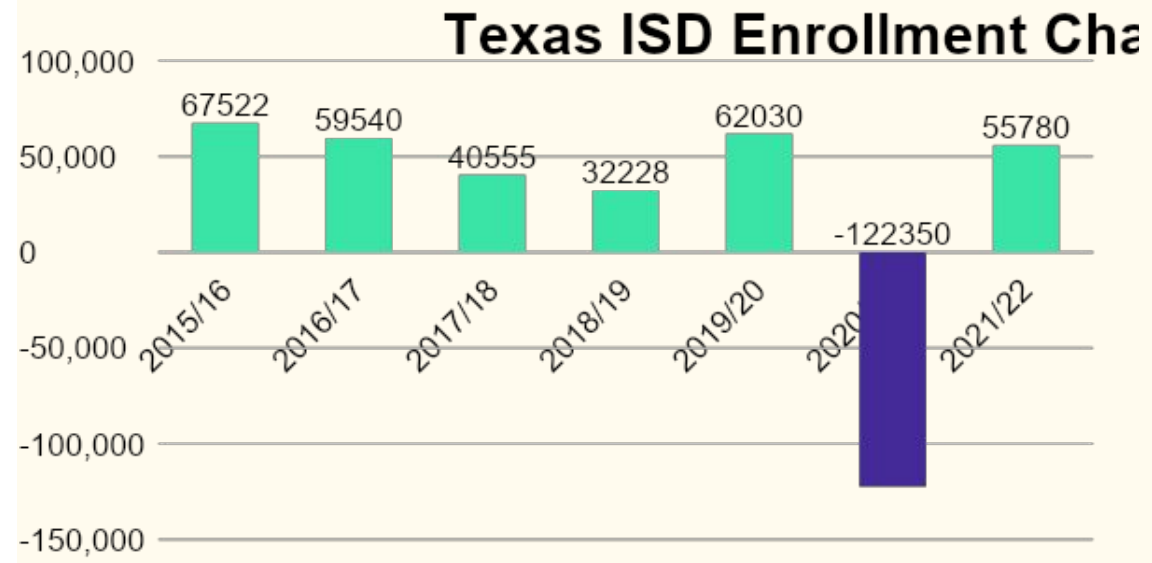




State Enrollment Trends



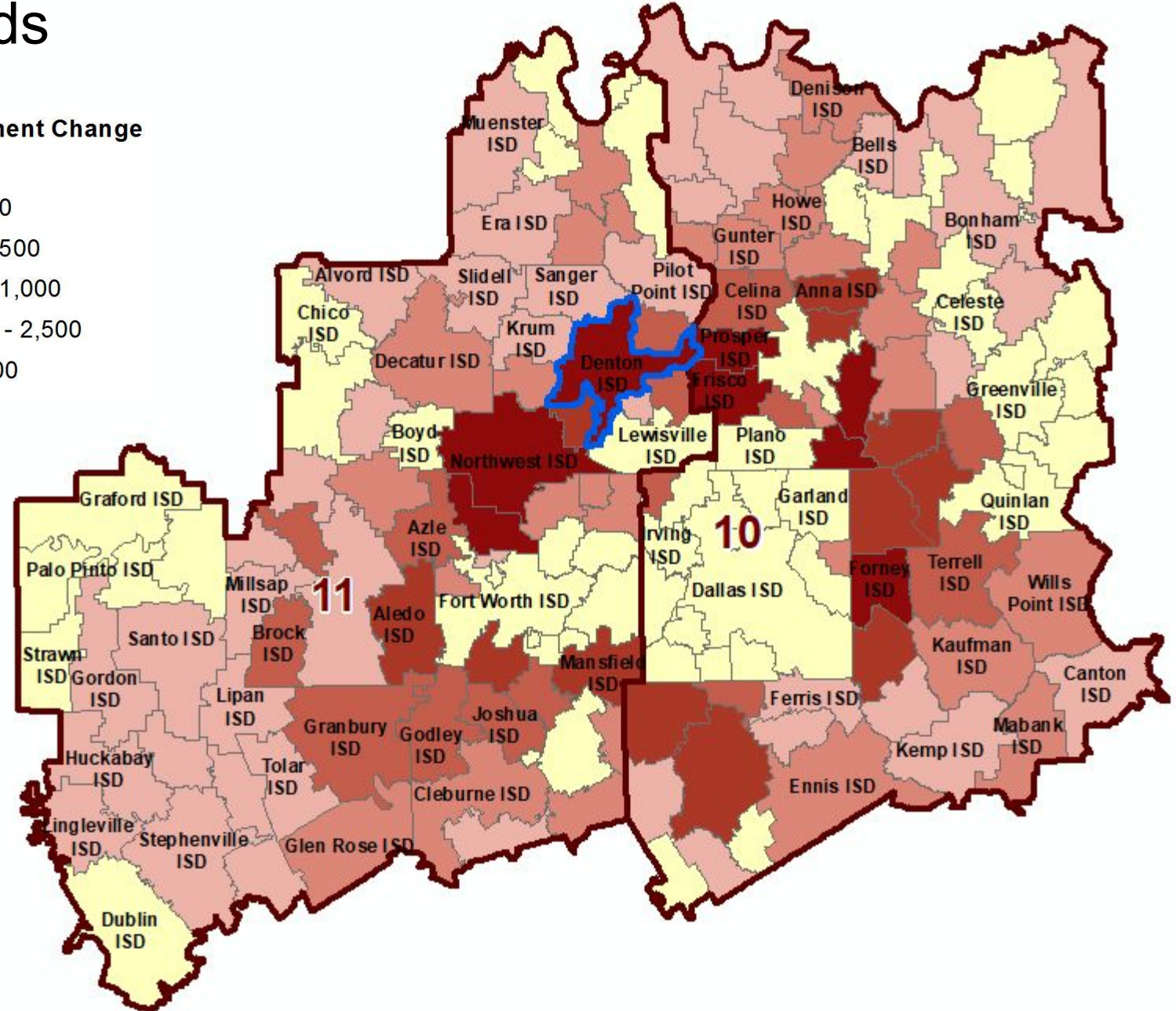
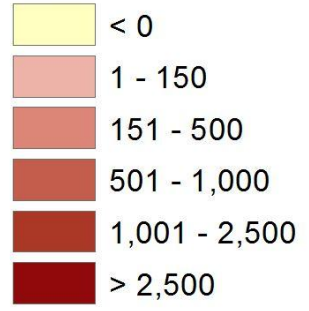
2021/22 State Enrollment	
Total Enrollment	5,427,370
Total Growth	55,780





Region 10 & 11 Enrollment Trends

5 Yr Enrollment Change



- Denton ISD enrollment increased by 3,323 students between 2016/17 and 2021/22, an increase of 11.6%
- Denton ISD is the second fastest growing district in Region 11



DFW New Home Ranking Report

ISD Ranked by Annual Closings – 2Q22

Rank	District Name	Annual Starts	Annual Closings	Inventory	VDL	Futures
1	NORTHWEST ISD	4,519	3,608	2,508	3,040	38,878
2	DENTON ISD*	3,303	2,834	2,550	3,367	31,645
3	FORNEY ISD	2,484	2,712	1,109	2,412	30,175
4	PROSPER ISD	2,844	2,630	2,323	3,032	21,195
5	FRISCO ISD	1,590	1,799	1,291	1,339	9,749
6	DALLAS ISD	2,031	1,614	1,834	2,128	6,257
7	PRINCETON ISD	2,434	1,557	1,609	1,826	9,571
8	ROYSE CITY ISD	1,812	1,312	1,348	1,929	8,515
9	MIDLOTHIAN ISD	1,341	1,157	916	1,037	20,949
10	CROWLEY ISD	1,334	1,154	796	2,130	16,373
11	CRANDALL ISD	1,486	1,138	890	1,021	13,856
12	WAXAHACHIE ISD	1,030	1,072	540	1,172	26,958
13	LEWISVILLE ISD	1,242	1,015	989	1,208	2,504
14	EAGLE MT-SAGINAW ISD	1,225	987	820	2,277	16,479
15	ROCKWALL ISD	1,411	942	1,214	2,369	8,989
16	MCKINNEY ISD	1,146	940	883	1,512	14,761
17	ANNA ISD	1,164	913	732	880	7,162
18	CELINA ISD	1,330	880	1,035	765	33,549
19	AUBREY ISD	1,590	841	1,154	680	5,737
20	COMMUNITY ISD	1,245	835	895	706	8,679

* Based on additional Templeton Demographics housing research

**Includes Age-Restricted subdivisions



District Housing Overview by Elementary Zone

Elementary	Annual Starts	Quarter Starts	Annual Closings	Quarter Closings	Under Construction	Inventory	Vacant Dev. Lots	Futures
ADKINS	28	5	13	9	20	21	23	343
ALEXANDER	55	13	28	24	77	77	53	338
BELL	15	0	83	15	9	16	70	0
BLANTON	33	7	16	7	24	26	2	0
BORMAN	42	4	0	0	42	42	311	15,376
CROSS OAKS	39	1	79	16	22	28	3	251
EP RAYZOR	0	0	0	0	0	0	0	0
EVERS	394	166	166	42	310	335	240	657
GINNINGS	73	1	167	17	36	41	174	649
HAWK	51	14	19	9	31	32	23	85
HODGE	4	0	11	0	3	6	194	2,158
HOUSTON	0	0	0	0	0	0	151	95
MCNAIR	146	82	0	0	146	146	37	156
N RAYZOR	0	0	0	0	0	0	5	37
NELSON	0	0	0	0	0	0	0	4
PALOMA CREEK	23	0	32	2	17	23	1	0
PECAN CREEK	1	0	3	0	0	0	7	46
PROVIDENCE	309	52	286	75	194	216	129	3,837
RIVERA	79	21	0	0	79	0	0	327
RYAN	151	24	131	35	119	123	174	245
SANDBROCK RANCH	655	57	851	214	364	425	396	1,384
SAVANNAH	30	8	18	7	25	29	14	16
SCHULTZ	1	0	23	0	0	0	1	0
STEPHENS	36	24	40	8	42	43	225	532
UNION PARK	677	142	544	139	553	590	732	1,287
GRAND TOTAL	2,842	621	2,510	619	2,113	2,219	2,965	27,823

Highest activity in the category

Second highest activity in the category

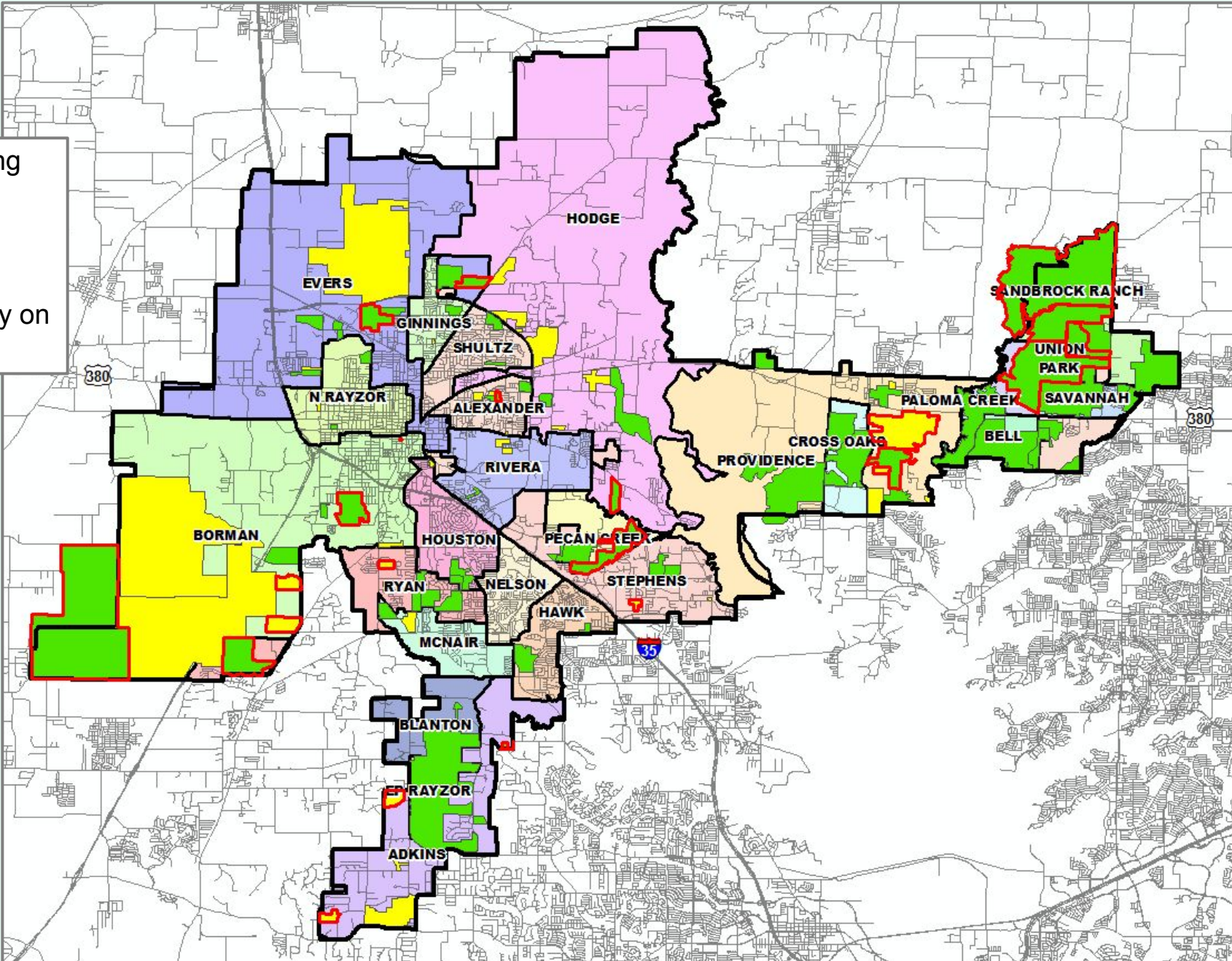
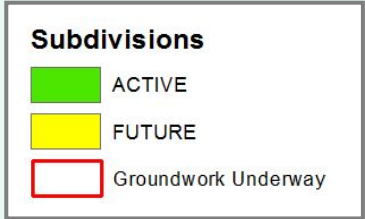
Third highest activity in the category

*Does NOT include age-restricted communities



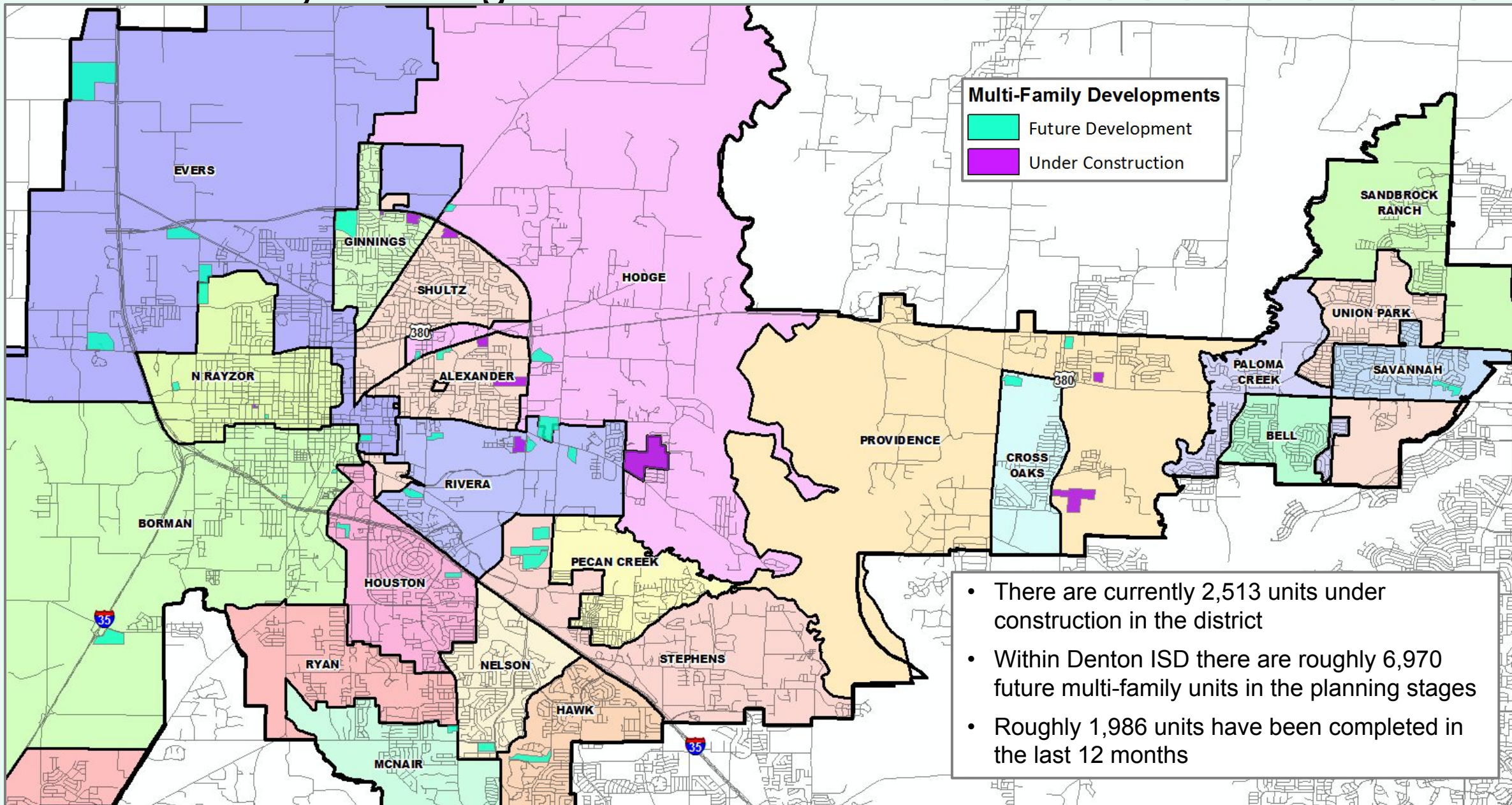
District Housing Overview

- The district has 67 actively building subdivisions
- Within DISD there are 38 future subdivisions
- Of these, groundwork is underway on 4,034 lots within 23 subdivisions



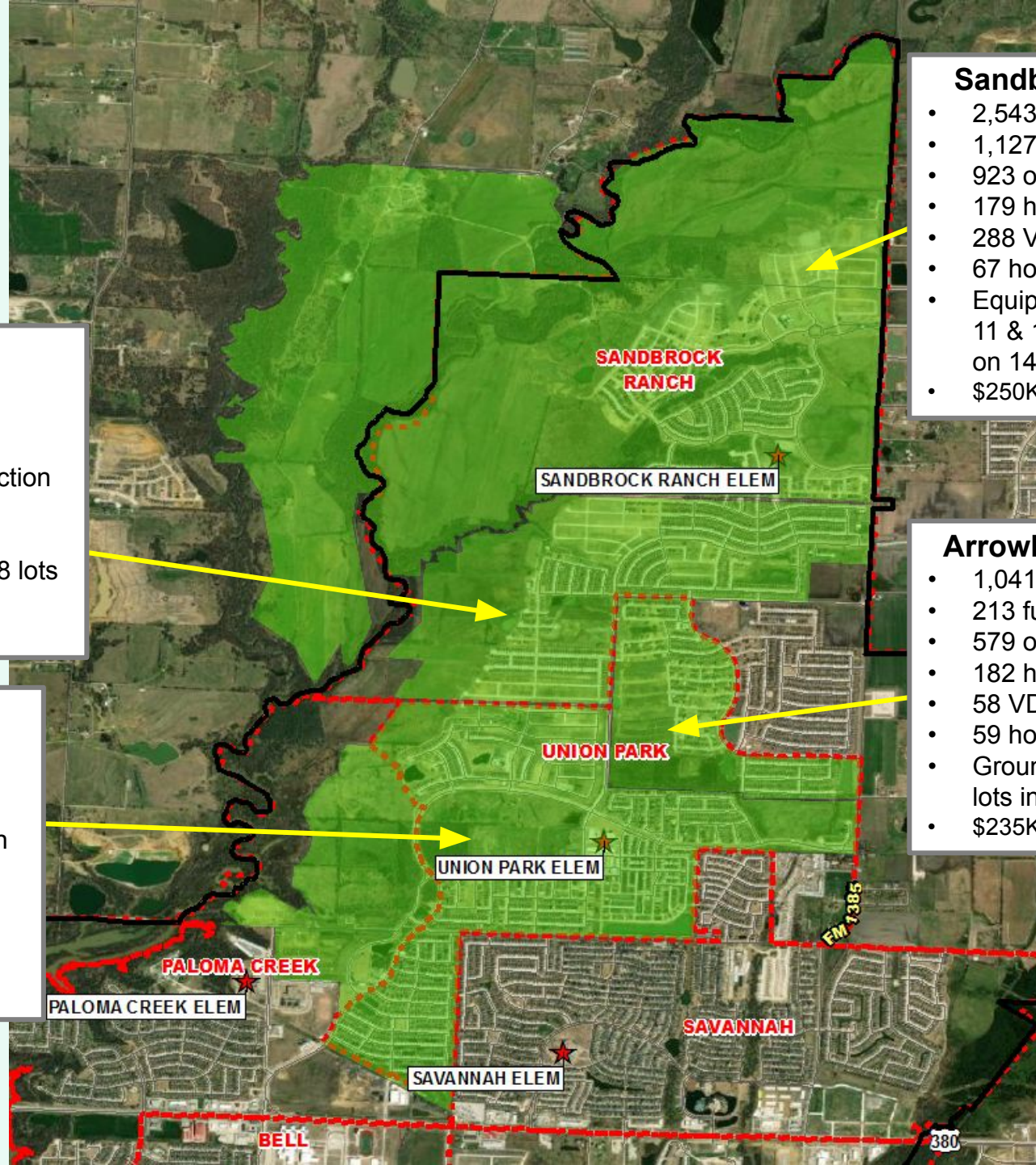


Multi-Family Housing





Residential Activity



Winn Ridge

- 1,741 total lots
- 253 future lots
- 1,326 occupied homes
- 134 homes under construction
- 9 VDL
- 124 homes closed 2Q22
- Streets being paved in 258 lots in Sec 3
- \$195K - \$330K

Union Park

- 2,944 total lots
- 816 future lots
- 1,400 occupied homes
- 245 homes under construction
- 460 VDL
- 67 homes started 2Q22
- Streets being paved fore 243 lots in Sec 7
- \$250K - \$4450K

Sandbrock Ranch (DISD)

- 2,543 total lots
- 1,127 future lots
- 923 occupied homes
- 179 homes under construction
- 288 VDL
- 67 homes closed 2Q22
- Equip on site for 242 lots in Sec 11 & 12; groundwork underway on 147 lots in Sec 10
- \$250K - \$4450K

ArrowBrooke (Union Park)

- 1,041 total lots
- 213 future lots
- 579 occupied homes
- 182 homes under construction
- 58 VDL
- 59 homes started 2Q22
- Groundwork underway on 173 lots in Sec 7
- \$235K - \$365K



Residential Activity

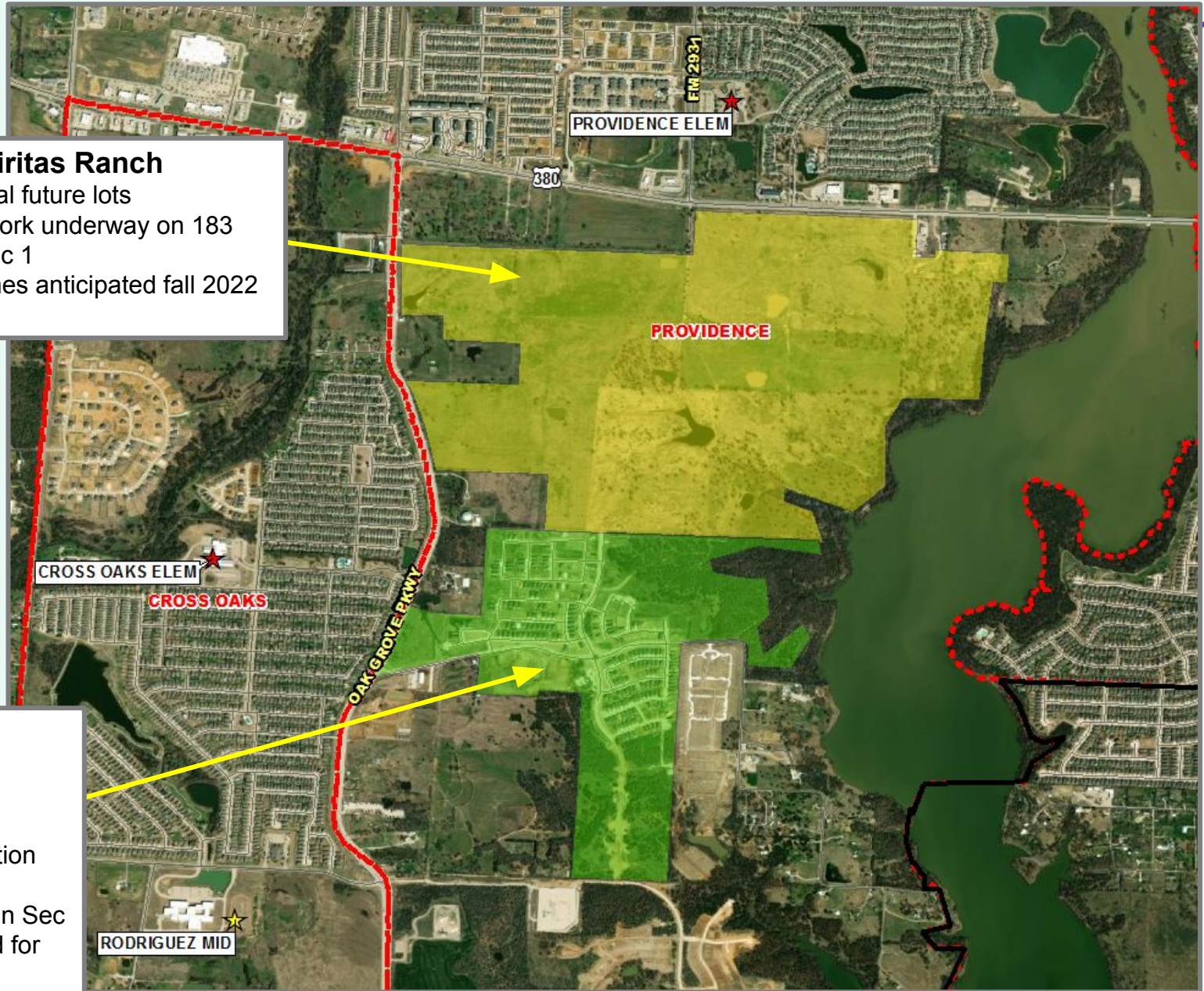


Spiritas Ranch

- 2,156 total future lots
- Groundwork underway on 183 lots in Sec 1
- First homes anticipated fall 2022
- \$500K+

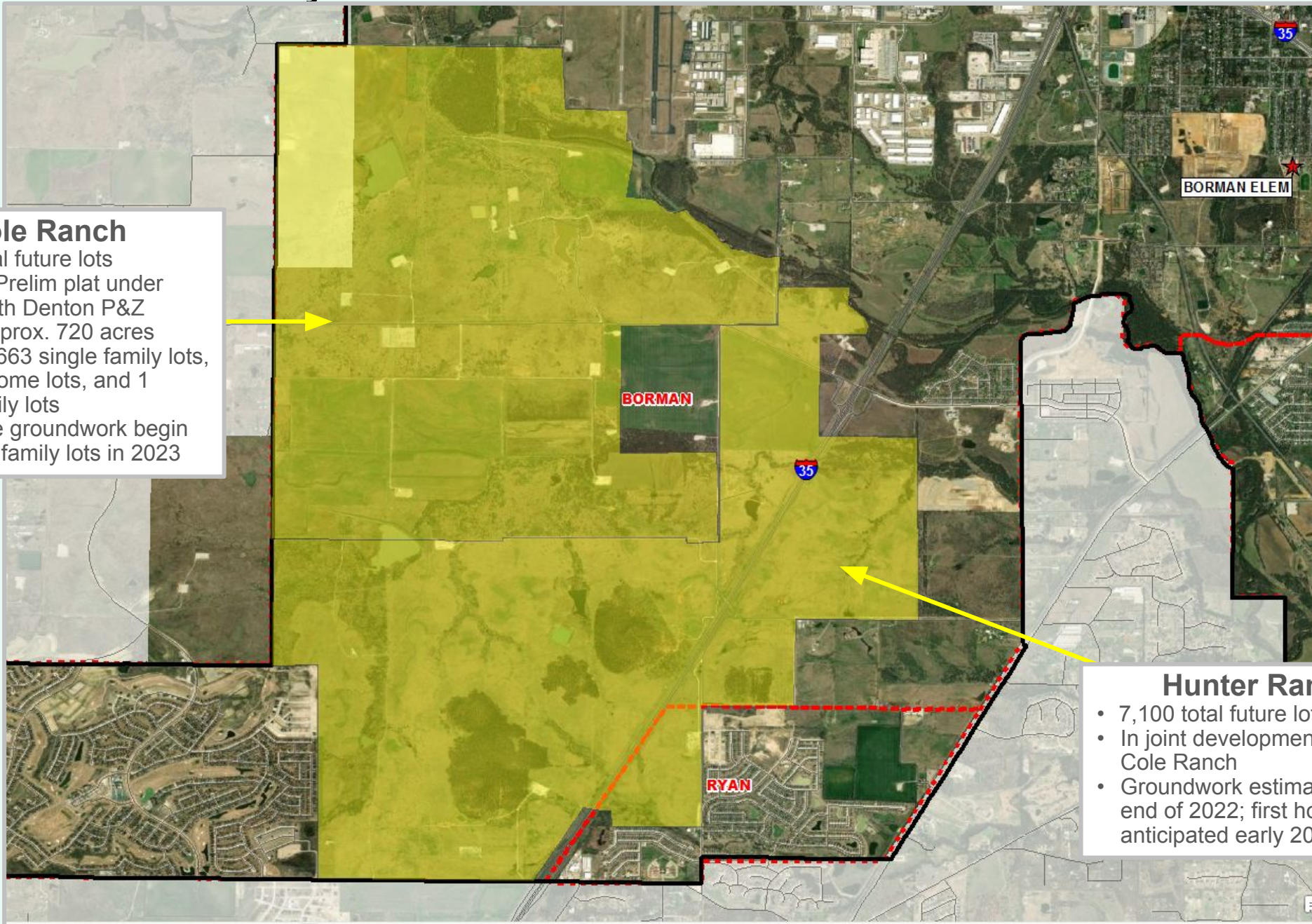
Prairie Oaks

- 985 total lots
- 536 future lots
- 303 occupied homes
- 80 homes under construction
- 59 VDL
- Equip on site for 206 lots in Sec 2 & 3; streets being paved for 222 lots in Sec 2 & 4
- \$500K+





Residential Activity



Cole Ranch

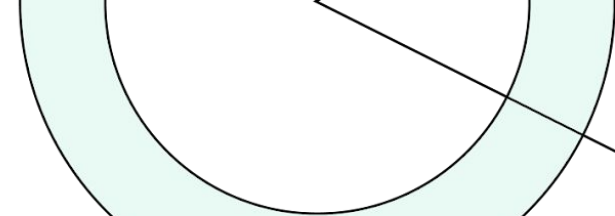
- 8,600 total future lots
- Phase 1 Prelim plat under review with Denton P&Z
- Spans approx. 720 acres
- Includes 663 single family lots, 48 townhome lots, and 1 multi-family lots
- Anticipate groundwork begin on single family lots in 2023

Hunter Ranch

- 7,100 total future lots
- In joint development plan with Cole Ranch
- Groundwork estimated begin end of 2022; first homes anticipated early 2024



Ten Year Forecast by Grade Level



Year	EE	PK	K	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total	Total Growth	Total %
2017/18	98	1,048	2,081	2,100	2,119	2,230	2,251	2,300	2,264	2,232	2,204	2,346	2,245	2,018	1,887	29,423		
2018/19	78	1,082	2,177	2,117	2,182	2,136	2,274	2,303	2,335	2,328	2,312	2,371	2,313	2,173	1,988	30,169	746	2.5%
2019/20	90	1,099	2,157	2,279	2,155	2,222	2,179	2,323	2,333	2,409	2,403	2,543	2,385	2,220	2,111	30,908	739	2.4%
2020/21	92	978	2,062	2,115	2,213	2,092	2,198	2,120	2,273	2,319	2,402	2,455	2,402	2,324	2,222	30,267	-641	-2.1%
2021/22	77	1,205	2,341	2,291	2,256	2,380	2,225	2,312	2,237	2,385	2,443	2,615	2,516	2,434	2,289	32,006	1,739	5.7%
2022/23	77	1,317	2,441	2,511	2,407	2,361	2,498	2,318	2,373	2,330	2,463	2,667	2,644	2,546	2,427	33,380	1,374	4.3%
2023/24	77	1,350	2,525	2,623	2,653	2,539	2,494	2,625	2,375	2,475	2,395	2,679	2,692	2,678	2,549	34,728	1,348	4.0%
2024/25	77	1,432	2,646	2,716	2,760	2,784	2,651	2,634	2,669	2,467	2,558	2,615	2,691	2,739	2,673	36,112	1,383	4.0%
2025/26	77	1,495	2,760	2,806	2,853	2,909	2,907	2,789	2,684	2,760	2,539	2,783	2,626	2,734	2,740	37,462	1,350	3.7%
2026/27	77	1,565	2,865	2,923	2,921	2,970	3,044	3,038	2,841	2,777	2,837	2,761	2,812	2,668	2,738	38,837	1,375	3.7%
2027/28	77	1,621	2,950	2,977	3,015	3,006	3,081	3,149	3,090	2,930	2,848	3,073	2,779	2,855	2,669	40,121	1,284	3.3%
2028/29	77	1,661	2,980	3,089	3,081	3,126	3,119	3,201	3,201	3,173	2,993	3,089	3,100	2,820	2,859	41,569	1,448	3.6%
2029/30	77	1,688	3,060	3,114	3,227	3,187	3,231	3,227	3,258	3,285	3,243	3,244	3,125	3,146	2,821	42,934	1,364	3.3%
2030/31	77	1,731	3,130	3,192	3,232	3,328	3,286	3,329	3,279	3,346	3,355	3,516	3,279	3,173	3,147	44,400	1,466	3.4%
2031/32	77	1,756	3,158	3,266	3,310	3,331	3,432	3,404	3,387	3,368	3,421	3,636	3,543	3,328	3,174	45,592	1,192	2.7%

Yellow box = largest grade per year
Green box = second largest grade per year



Ten Year Forecast by Elementary Campus

Campus Name	HISTORY		Fall	ENROLLMENT PROJECTIONS									
	Capacity	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2030/32
Alexander Elementary School	740	580	600	592	600	613	621	636	650	654	669	681	692
Adkins Elementary School	740	435	444	454	474	495	487	513	513	517	520	514	511
Bell Elementary School	740	653	714	718	715	717	713	713	716	718	724	733	738
Blanton Elementary School	740	479	492	504	508	512	514	520	517	515	515	524	534
Borman Elementary School	740	434	432	430	473	587	742	879	1,013	1,151	1,284	1,401	1,518
Cross Oaks Elementary School	740	668	720	728	730	756	772	786	799	803	802	813	813
E P Rayzor Elementary School	740	311	310	313	306	305	310	319	322	333	341	350	359
Evers Park Elementary School	740	543	621	680	771	827	925	996	1,004	1,023	1,049	1,087	1,117
Ginnings Elementary School	740	583	665	717	752	778	812	822	818	803	792	783	774
Hodge Elementary School	740	618	658	680	737	828	905	1,014	1,057	1,087	1,126	1,172	1,195
Sam Houston Elementary School	740	530	532	534	537	540	568	563	568	573	585	594	609
Nelson Elementary School	740	577	569	553	579	576	595	594	607	616	608	611	615
McNair Elementary School	740	534	533	515	511	542	550	562	565	573	576	592	609
Hawk Elementary School	740	568	595	582	598	589	571	613	622	632	634	649	660
Olive Stephens Elementary School	740	379	421	487	556	626	701	771	777	782	786	801	813
Paloma Creek Elementary School	740	648	685	718	742	785	843	858	885	904	915	936	953
Pecan Creek Elementary School	740	643	663	658	664	657	666	673	668	662	663	653	651
Providence Elementary School	740	554	656	760	889	1,025	1,134	1,242	1,289	1,339	1,393	1,454	1,514
Newton Rayzor Elementary School	740	614	632	640	644	641	653	663	670	677	682	686	683
Rivera Elementary School	740	540	625	673	691	706	756	777	754	743	743	738	728
Sandbrock Ranch Elementary School	740	0	0	631	789	855	944	995	1,052	1,102	1,166	1,212	1,256
Savannah Elementary School	740	641	778	807	843	868	860	879	879	871	871	856	847
Ryan Elementary School	740	544	560	561	587	585	578	570	603	637	670	709	734
Union Park Elementary School	740	727	962	649	801	849	885	900	961	1,027	1,092	1,131	1,168
Schultz Elementary School	740	567	642	669	684	703	725	744	737	739	746	737	740
Ann Windle School For Young Child	740	252	307	344	358	374	388	404	420	431	436	447	457
Gonzalez School For Young Child	740	248	270	333	347	363	377	393	409	420	425	436	446
ELEMENTARY TOTALS	19,980	13,870	15,086	15,929	16,885	17,699	18,595	19,402	19,875	20,333	20,810	21,304	21,733
Elementary Absolute Change		-631	1,216	843	956	815	895	807	473	458	477	493	429
Elementary Percent Change		-4.35%	8.77%	5.59%	6.00%	4.82%	5.06%	4.34%	2.44%	2.30%	2.35%	2.37%	2.01%

Yellow box = over capacity



Ten Year Forecast by Secondary Campus

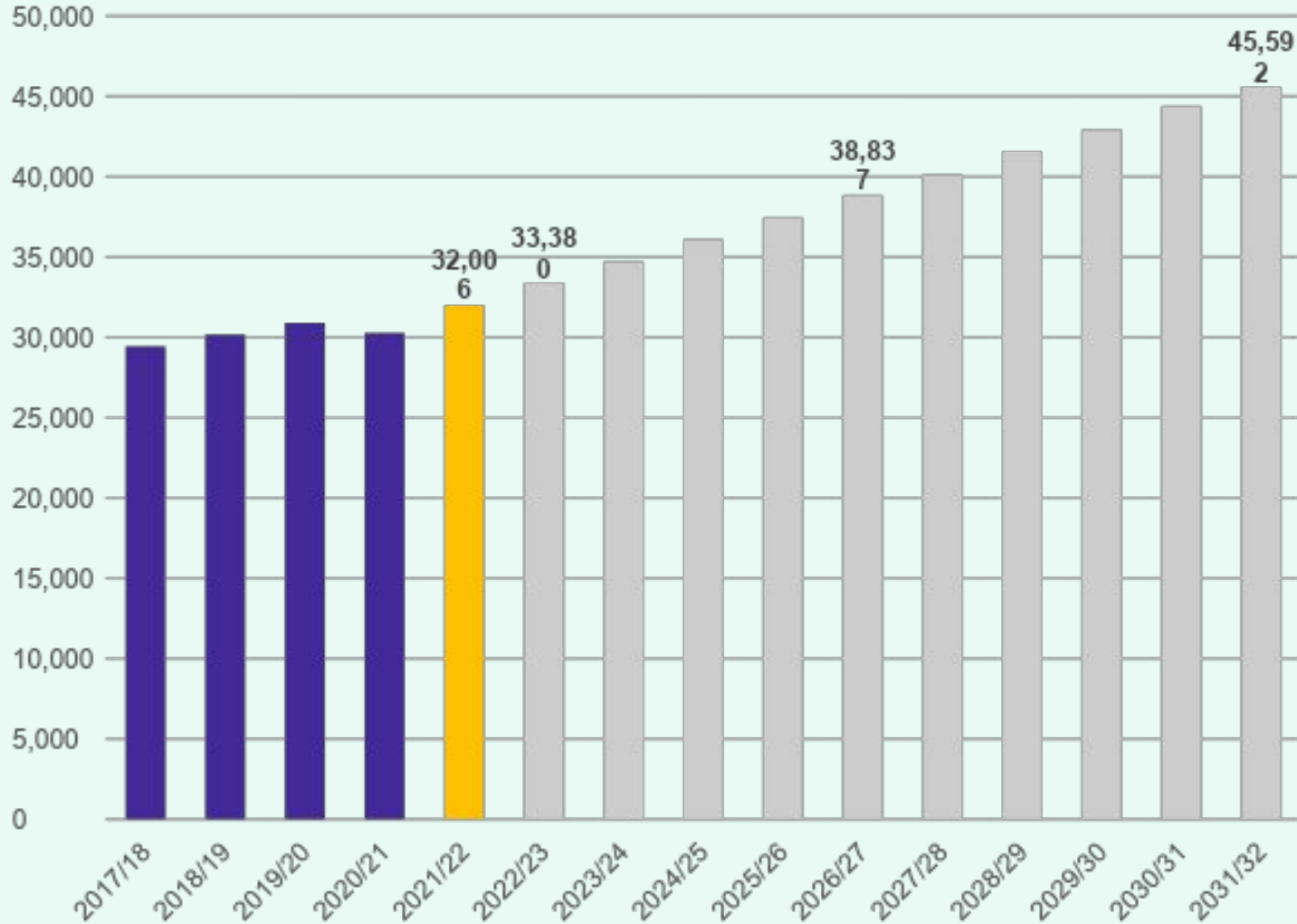
Campus Name	HISTORY		Fall	ENROLLMENT PROJECTIONS									
	Capacity	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2030/32
Calhoun Middle School	1,268	664	700	712	701	768	772	818	859	958	1,016	1,043	1,078
McMath Middle School	1,181	804	812	795	790	812	810	880	924	1,036	1,094	1,171	1,232
Navo Middle School	1,181	1,025	1,063	1,124	1,191	1,301	1,363	1,478	1,514	1,544	1,553	1,573	1,592
Crownover Middle School	1,181	874	813	820	732	771	755	777	745	739	782	793	804
Strickland Middle School	1,334	901	975	992	1,012	1,025	1,051	1,101	1,191	1,269	1,336	1,361	1,388
Harpool Middle School	1,181	875	867	818	798	769	795	781	820	813	853	844	851
Rodriguez Middle School	1,323	961	988	1,070	1,186	1,352	1,500	1,661	1,796	1,904	1,990	2,049	2,083
Bette Myers Middle School	1,323	880	834	822	822	883	924	946	1,006	1,091	1,149	1,133	1,135
MIDDLE SCHOOL TOTALS	9,972	6,984	7,052	7,153	7,232	7,681	7,970	8,442	8,855	9,354	9,773	9,967	10,163
Middle School Absolute Change		-139	68	101	79	449	289	472	413	499	419	194	196
Middle School Percent Change		-1.95%	0.97%	1.43%	1.10%	6.21%	3.76%	5.92%	4.89%	5.64%	4.48%	1.99%	1.97%
Braswell High School	3,350	2,446	2,728	3,020	3,173	3,351	3,523	3,701	4,029	4,433	4,736	5,043	5,300
Denton High School	2,460	2,023	1,924	1,996	2,046	2,069	2,113	2,116	2,176	2,180	2,295	2,458	2,600
Fred Moore High School		68	56	56	56	56	56	56	56	56	56	56	56
John Guyer High School	3,200	2,621	2,626	2,597	2,617	2,521	2,478	2,376	2,317	2,345	2,292	2,382	2,397
Ryan High School	2,340	2,197	2,226	2,286	2,364	2,370	2,360	2,380	2,443	2,491	2,580	2,782	2,926
The LaGrone Academy		0	202	237	237	0	0	0	0	0	0	0	0
HIGH SCHOOL TOTALS	11,350	9,355	9,762	10,192	10,493	10,367	10,530	10,629	11,021	11,505	11,959	12,721	13,279
High School Absolute Change		185	407	430	301	-126	163	99	392	484	454	762	558
High School Percent Change		2.02%	4.35%	4.41%	2.95%	-1.20%	1.57%	0.94%	3.69%	4.39%	3.95%	6.37%	4.39%
Denton J J A E P		8	4	4	4	4	4	4	4	4	4	4	4
Juvenile Detention CTR		43	50	50	50	50	50	50	50	50	50	50	50
Lester Davis School		7	52	52	52	52	52	52	52	52	52	52	52
ALTERNATIVE SCHOOL TOTALS		58	106	106	106	106	106	106	106	106	106	106	106
DISTRICT TOTALS	41,302	30,267	32,006	33,380	34,716	35,853	37,201	38,579	39,857	41,298	42,648	44,098	45,281
District Absolute Change		-641	1,739	1,374	1,336	1,137	1,347	1,378	1,278	1,441	1,350	1,449	1,183
District Percent Change		-2.1%	5.7%	4.3%	4.0%	3.3%	3.8%	3.7%	3.3%	3.6%	3.3%	3.4%	2.7%

Yellow box = over capacity



Key Takeaways

Enrollment Projections



- 2022/23 enrollment in position to exceed 33,000 students
- Multifamily likely to play a larger role with enrollment growth
- Groundwork is underway on roughly 4,034 lots within 25 subdivisions
- Enrollment approaching 39,000 by the fall of 2026 and over 45,000 students fall of 2031



Denton ISD: 20- Year Growth Scenarios – Student Growth

LOW (~1800 SF/MF homes per year)

48,062 Total students

- 7,036 additional Elementary students (9-10 campuses)
- 3,287 additional Middle School students (2-3 campuses)
- 4,363 additional High School students (1-2 campuses)

14,686 Total Additional Students

Current Forecast (~2,700 SF/MF homes per year)

55,603 students

- 10,322 additional Elementary students (13-14 campuses)
- 5,232 additional Middle School students (3-4 campuses)
- 6,673 additional High School students (1-2 campuses)

22,227 Total Additional Students

HIGH (~3,600 SF/MF homes per year)

63,396 students

- 14,383 additional Elementary students (19-20 campuses)
- 6,719 additional Middle School students (4-5 campuses)
- 8,918 additional High School students (2-3 campuses)

30,020 Total Additional Students

Campus capacity used for calculations: 740 Elementary, 1,300 Middle, 3,200 High School



Table Talk Q&A Process

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.





DENTON ISD

LRFP Committee Meeting No. 2

Facilities Assessment

September 19, 2022





AGENDA

Process Overview
Campus Overview





PROCESS OVERVIEW



PROCESS OVERVIEW - VLK | LINK[®]



VLK | CURATION[®]



Technical Design
Guidelines



Safety & Security



Programming &
Capacity Analysis



Educational Adequacy
Assessment



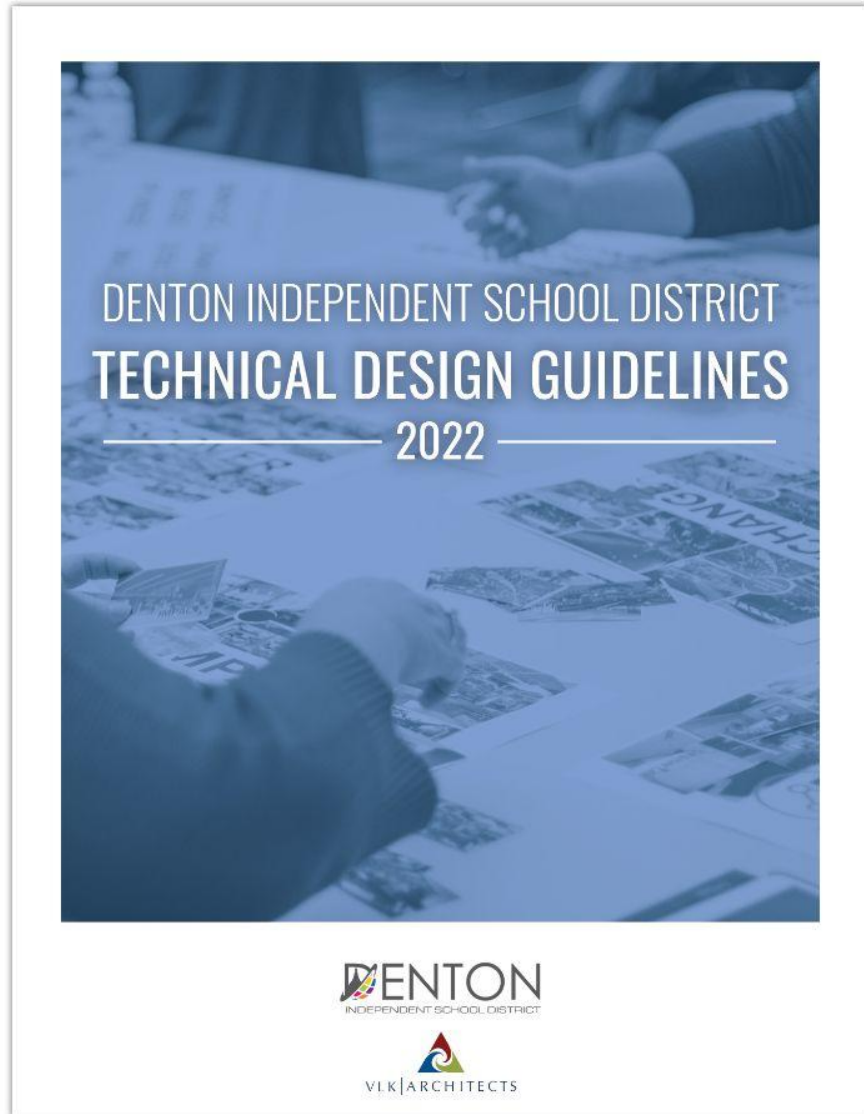
Facility Conditions
Assessment



Demographics



PROCESS OVERVIEW



Technical Design Guidelines

Technical Design Guidelines define the established materials and systems to be used by the district to guide new facility construction and make decisions regarding the renovation of existing buildings. The guidelines are established in order to create and maintain physical environments which support the district's learning goals.

- This will be an evolving document as TEA requirements are continually being updated and as the performance of current systems is evaluated.



PROCESS OVERVIEW - CAPACITY STUDY



Borman Elementary School Capacity

Denton Independent School District

9/1/2022

0.9

Space	Quantity	TEA Ratio	Maximum Capacity	Functional Capacity	Current Enrollment
Pre-K	1	1:22	22	20	
Kindergarten	5	1:22	110	99	
1st	5	1:22	110	99	
2nd	5	1:22	110	99	
3rd	5	1:22	110	99	
4th	5	1:22	110	99	
5th	5	1:25	125	113	
Classrooms used for other purposes					
Flex	2	1:22	44	40	
Totals	33		741	667	0
The spaces below do not contribute to the school's capacity					
EXPO	1				
ESL	1				
READ 180	1				
Art	1				
Music	1				
Reading Recovery	1				
Computer Lab	2				
ALS	1				
Literacy Library	1				
Science	1				
Totals	44		741	667	0

Cafeteria 3,539 sf will support 705 students with 3 lunch periods @ 15 sf / student
3,539 sf / 7 sf per person for assembly = 505 people

Library 3,696 sf will serve 632 students
Formula: 3,000 sf + 3 sf / student over 500

Gymnasium Gym: 3,600 SF
TEA minimum size = 3,000 sf

Summary

A capacity study determines the available number of seats in a school.

- Existing capacity will be compared with developed programs needed for each facility.
- By evaluation of campus floor plans and class schedules, the capacity study determines the functional capacity of the academic spaces and the operational capacity of the core areas (Dining, Library, Media Center)



PROCESS OVERVIEW - FACILITY CONDITIONS ASSESSMENT



A facility Condition Assessment is conducted in order to evaluate the current condition of building systems, finishes, materials, and site conditions. This information is used to formulate plans for not only current maintenance/repair needs, but also to prepare a long term plan for the buildings evaluated.

- VLK staff and engineers conducted a facility walk through to verify TAS Facility Assessment and document existing conditions. Life safety, maintenance items, life cycle replacement items, sub-standard education conditions, safety and security, non-compliant conditions were reviewed.
- Cost information was identified for each deficiency and is used to determine future needs.



PROCESS OVERVIEW - DISTRICT CAPITAL NEEDS

PRIORITIZATION MEASURES

PRIORITY	DESCRIPTION
1	Items that address deficiencies related to Life Safety, campus security, and/or accessibility. 0-1 Years
2	Items that address deficiencies related to building envelop (roofing and windows), building systems (HVAC or lighting), or other near term major maintenance needs. 2-5 Years
3	Items or systems which are likely to require attention within the next ten years, or would be considered an enhancement to the instructional environment. The enhancements may be aesthetic or may provide greater functionality (ceiling or flooring replacement, roofing, walls and doors.) 5-10 Years
4	Items that address deficiencies related to maintenance items addressable directly by Denton ISD staff.



PROCESS OVERVIEW

ELEMENTARY SCHOOLS

- Alexander Elementary
- Blanton Elementary
- Borman Elementary
- EP Rayzor Elementary
- Evers Park Elementary
- Ginnings Elementary
- Hawk Elementary
- Hodge Elementary
- Houston Elementary
- McNair Elementary
- Nelson Elementary
- Newton Rayzor Elementary
- Paloma Creek Elementary
- Pecan Creek Elementary
- Providence Elementary
- Rivera Elementary
- Savannah Elementary
- Stephens Elementary
- WS Ryan Elementary

MIDDLE SCHOOLS

- Calhoun Middle School
- Crownover Middle School
- Harpool Middle School
- McMath Middle School
- Navo Middle School
- Strickland Middle School



PROCESS OVERVIEW

HIGH SCHOOLS

- Guyer High School
- Ryan High School
- LaGrone ATC
- Fred Moore High School

SUPPORT FACILITIES

- Norm Sisk Annex
- Virginia Gallian CDC
- Central Services Building
- Communications Building
- Davis School
- Fred Moore Nursery Day School
- Professional Development Center
- Publications/ Wellness Center
- West Transportation Center
- C.H. Collins Complex



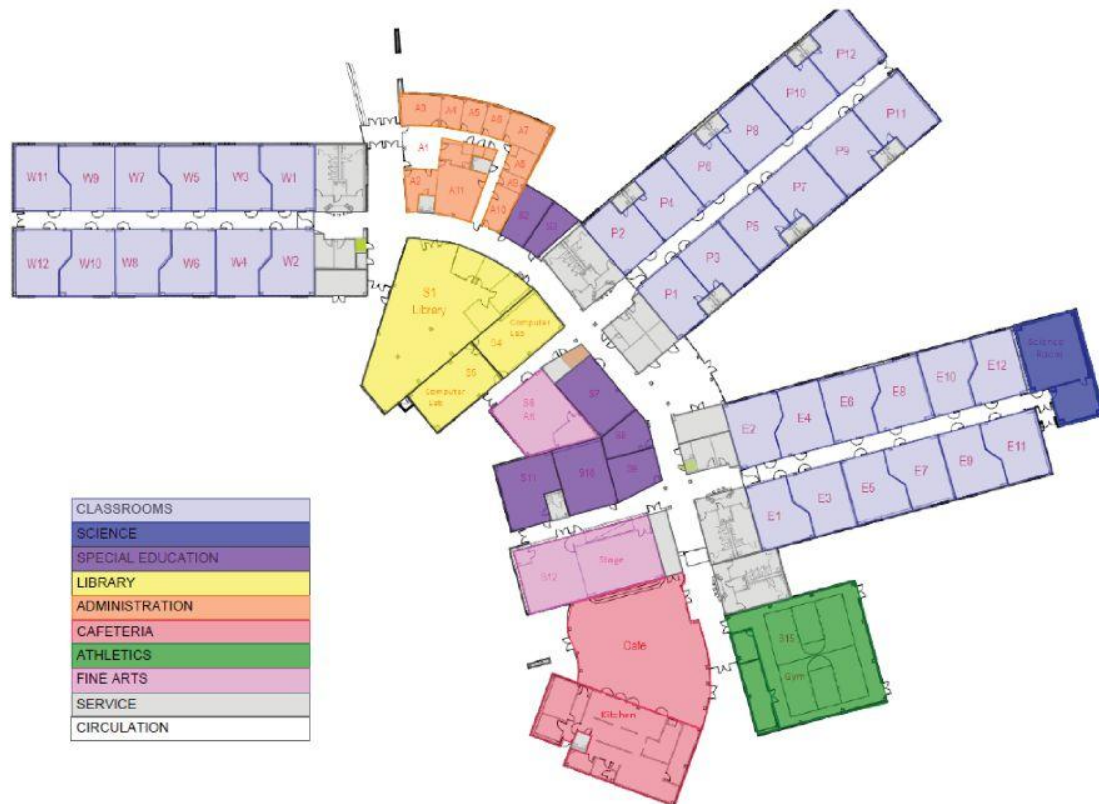


SELECT CAMPUS OVERVIEW



CAMPUS OVERVIEW- WS RYAN ELEMENTARY SCHOOL

2002 - Original Construction
2011 - Addition



CAMPUS OVERVIEW- WS RYAN ELEMENTARY SCHOOL

DENTON ISD
CAPITAL IMPROVEMENTS
Architectural and MEP

WS Ryan Elementary School Date: August 1, 2022
 Mth: 2022 Orig., Additons 2011 Date Reviewed: 8/1/22 Surveyor-Arch. Surveyor-Mech. Surveyor-Plumb

Total Building Area: 77,725 No. Floors: 1

TYPE	RANK	DESCRIPTION	QUANTITY	U of M	UNIT COST	TOTAL
SITE	2	Install marker sign	1	EA		\$0
SITE	1	Reshape parking lot and drive as needed	2,208	SF		\$0
SITE	2	Remove/replace joint sealant	15,990	SF		\$0
SITE	3	Resod lawn areas around building	73,711	SF		\$0
SITE	2	Repair entry ramps		LF		\$0
SITE	1	Replace damaged curbs and walks	11,089	SF		\$0
SITE	1	Provide safety fencing around playgrounds and play fields	1,866	LF		\$0
SITE	3	Trim trees and recontour playground	73,711	SF		\$0
EXTERIOR	3	Replace window systems	47	EA		\$0
EXTERIOR	1	Repair/replace metal door/frames with new hardware	3	EA		\$0
EXTERIOR	3	Replace entry vestibule curtainwall/doors/hardware	4	EA		\$0
EXTERIOR	1	Repair window lintels	47	LS		\$0
EXTERIOR	3	Replace exterior column door/frames/hardware	16	EA		\$0
ROOFING	1	Tear off and replacement with 30 yr. CTFW roof system	1	LS		\$0
INTERIOR	3	Replace tile flooring (dated)	13,897	SF		\$0
INTERIOR	3	Replace vinyl tile flooring (dated)	58,790	SF		\$0
INTERIOR	2	Replace ACQ ceiling insulation	77,416	SF		\$0
INTERIOR	2	Repair walls and door frames	3,360	SF		\$0
INTERIOR	3	Replace wall ties (dated)	3,360	SF		\$0
INTERIOR	2	Replace comping (sketch)	2,540	SF		\$0
INTERIOR	3	Replace toilet rooms (dated)	4,266	SF		\$0
INTERIOR	2	Replace casework (dated)	1,200	LF		\$0
INTERIOR	2	Reinstall stage floor	977	SF		\$0
INTERIOR	2	Reinstall wood paneling/stage	172	SF		\$0
INTERIOR	1	Replace stage curtain	40	LF		\$0
INTERIOR	2	Replace kitchen/serving line finishes	2,804	SF		\$0
INTERIOR	2	Replace door hardware and handles	160	EA		\$0
INTERIOR	2	Repair gym, including ceilings	3,040	SF		\$0
INTERIOR	2	Replace gym flooring	3,871	SF		\$0
MECHANICAL	1	Replace ceiling louvers	77,725	SF		\$0
MECHANICAL	1	Replace select water coolers	8	EA		\$0
ELECTRICAL	1	Upgrade parking lot lighting to LED	8	EA		\$0
ELECTRICAL	1	Upgrade interior lighting controls to LED	77,725	SF		\$0
ELECTRICAL	2	Upgrade stage lighting and controls	1,206	SF		\$0
ELECTRICAL	2	Upgrade stage sound systems	40	LF		\$0
ELECTRICAL	1	Upgrade storm lighting to LED	1,367	SF		\$0
ELECTRICAL	1	Upgrade emergency lighting	77,725	SF		\$0
KITCHEN	1	COLD STORAGE SHELVING	1	EA		\$0
KITCHEN	1	ICE MAKER W/ BIN	1	EA		\$0
KITCHEN	1	FIRE PROTECTION SYSTEM	1	EA		\$0
KITCHEN	1	TWO BURNER RANGE	1	EA		\$0
KITCHEN	1	CONVECTION STEAMER	2	EA		\$0
KITCHEN	1	COMBI OVEN- SINGLE	1	EA		\$0
KITCHEN	1	SERVING COUNTER	1	EA		\$0
KITCHEN	1	TRAY COMPARTMENT SINK	1	EA		\$0
KITCHEN	1	MOBILE UTENSIL SHELF	1	EA		\$0
KITCHEN	1	COLD STORAGE REFRIGERATION SYSTEM	1	EA		\$0
KITCHEN	1	DISPOSER- CONE MOUNT	1	EA		\$0
TOTAL -- Capital Improvements						\$0

DENTON ISD
CAPITAL IMPROVEMENTS
Architectural and MEP

WS Ryan Elementary School Date: August 1, 2022
 Mth: 2022 Orig., Additons 2011 Date Reviewed: 8/1/22 Surveyor-Arch. Surveyor-Mech. Surveyor-Plumb

Total Building Area: 77,725 No. Floors: 1

TYPE	RANK	DESCRIPTION	QUANTITY	U of M	UNIT COST	TOTAL
SITE	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Site Subtotal				\$0
EXTERIOR	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Exterior Subtotal				\$0
INTERIOR	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Interior Subtotal				\$0
ROOFING	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Roofing Subtotal				\$0
MECHANICAL	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Mechanical Subtotal				\$0
ELECTRICAL	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Electrical Subtotal				\$0
PLUMBING	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Plumbing Subtotal				\$0
Kitchen	1					\$0
	2					\$0
	3					\$0
	4					\$0
		Kitchen Subtotal				\$0
		COMBINED TOTAL				\$0
ALL RANK 1						\$0
ALL RANK 2						\$0
ALL RANK 3						\$0
ALL RANK 4						\$0
		COMBINED TOTAL				\$0



CAMPUS OVERVIEW- WS RYAN ELEMENTARY SCHOOL

EDUCATIONAL ADEQUACY

- Some portions of classroom casework are outdated for current technology

FACILITY REPAIR / UPGRADE

- Roofing Replacement
- Ceiling Replacement
- Renovate all group restrooms
- Renovate all single restrooms
- Replace classroom casework in select areas
- Replace select kitchen equipment
- Replace finishes in kitchen serving

MECHANICAL / ELECTRICAL / PLUMBING

- Replace lighting throughout with LED
- Replace Fire Alarm System
- Replace plumbing fixtures as a part of restroom renovations

OTHER ISSUES

- Add chain link fencing to secure playground
- Repair/replace select portions of sidewalk and curbs



CAMPUS OVERVIEW- GENERAL ASSESSMENT OBSERVATIONS

HVAC REPAIR & REPLACEMENT

- Life cycle repairs or replacement of HVAC systems needed at 23 facilities
- HVAC controls system is at end of life at 18 facilities and must be replaced

FOOD SERVICE EQUIPMENT REPLACEMENT

- Needs have been identified for select equipment replacement at 25 facilities

ROOF LIFE CYCLE REPLACEMENT

- Roof replacement is needed at 16 facilities totaling more than 1,043,600 SF of roof surface

ENERGY RELATED UPGRADES

- Opportunities exist to replace interior/exterior lighting at many assessed facilities with LED fixtures delivering energy savings to the district

INTERIOR FINISH REPLACEMENT

- Many finishes in the assessed facilities are approaching end of life

ACCESS CONTROL

- Controls system is at end of life at 13 facilities and must be replaced





Table Talk Q&A Process

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.





Safety and Security

September 19, 2022

Dr. Jeff Russell

Area Superintendent

jrussell2@dentonisd.org

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.



Philosophy

*Continue to make our schools
the safest place for staff and
students using best practices
and current technology*

IN AN EMERGENCY TAKE ACTION



**HOLD! In your room, office or area.
Clear the halls.**

OCCUPANTS

Clear the hallways and remain in room or area until the "All Clear" is announced
Do business as usual

STAFF

Close and lock door
Account for occupants and staff
Do business as usual



SECURE! Get inside. Lock outside doors.

OCCUPANTS

Return inside
Do business as usual

STAFF

Bring everyone indoors
Lock outside doors
Increase situational awareness
Account for occupants and staff
Do business as usual



LOCKDOWN! Locks, lights, out of sight.

OCCUPANTS

Move away from sight
Maintain silence
Do not open the door
Prepare to evade or defend

STAFF

Lock interior doors
Turn out the lights
Move away from sight
Do not open the door
Maintain silence
Account for occupants and staff
Prepare to evade or defend



EVACUATE! (A location may be specified)

OCCUPANTS

Evacuate to specified location
Bring your phone
Instructions may be provided about retaining or leaving belongings

STAFF

Lead evacuation to specified location
Account for occupants and staff
Notify if missing, extra or injured people



SHELTER! Hazard and safety strategy.

OCCUPANTS

Use appropriate safety strategy for the hazard

STAFF

Lead safety strategy
Account for occupants and staff
Notify if missing, extra or injured people

Hazard Safety Strategy

Tornado	Evacuate to shelter area
Hazmat	Seal the room
Earthquake	Drop, cover and hold
Tsunami	Get to high ground



2018 Bond Safety & Infrastructure Projects - **COMPLETE**

Restricted Access-Add restricted access control system at main entrance of all schools

Security - Replace all analog security cameras and increase the number of HD cameras

Secure Vestibules - Add security features at Davis & Ann Windle

Technology - Replace fiber

Building Control Systems - Replace climate control systems at 22 facilities



Safety and Security Upgrades

2020 TEA Grant Provided installation of impact resistant film to all campus exterior doors and entryways - \$500,000



Needs: Hardening of Interiors

Additional Impact Resistant Film within the interior of buildings - beyond the front door

Evaluation of campus front office design and the development of safe rooms based upon campus design, needs

Opaque or one-way treatments for visibility reduction for intruders



Needs: Technology

Camera Upgrades to increase communication between first responders and the district

Vape Detectors for all Secondary Campuses

Mass Remote Lock Down capability for each campus



Key Points & Takeaways

- Continue to harden exteriors of each campus where needed
- Harden campus interiors using impact resistant film
- Improve the district's camera technology for enhanced communication and greater responsiveness





Dr. Jeff Russell
Area Superintendent
jrussell2@dentonisd.org

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.



Technology Division

September 19, 2022

Robert Pierce

Chief Technology Officer

rpierce@dentonisd.org

940-369-0185

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.



Technology–Definition



- A critical, **strategic** investment in the education and future of students
- **Potentially** anything that uses electricity
- Includes smart devices, tablets, phones, and any other Internet of Things (**IoT**) device (e.g. doorbell cameras, smart lighting)
- Indispensable in the **3rd decade** of the 21st century.
- DISD is a **Fortune-500**-equivalent organization in technology infrastructure
 - 40,000 internal users



Technology–Needs



20-year Refresh Plan

- Calculated per year based on
 - Device Lifecycle
 - Projected Student Count
 - Projected School Count
 - Projected Employee Count
 - Projected E-rate Funding
- Covers
 - Equipment Refreshes
 - Construction
 - New Standards/Best Practices
 - Safety & Security (Cybersecurity, too)



Equipment Refreshes



Technology–Equipment Refreshes



Desktop Computer–1988

Windows 7 was our computer operating system in 2009. Today we use Windows 10.

	Processor Cores	RAM	Hard Drive	VRAM
Windows 7 (2009)	Single	1 GB	16 GB	
Windows 10 (2015)	Dual	4 GB	64 GB	
Adobe Creative Cloud 2018 (just Photoshop)		2 GB	2.6 GB	512 MB
Adobe Creative Cloud 2022 (just Photoshop)		8 GB	4 GB	1.5 GB



Technology–Equipment Refreshes

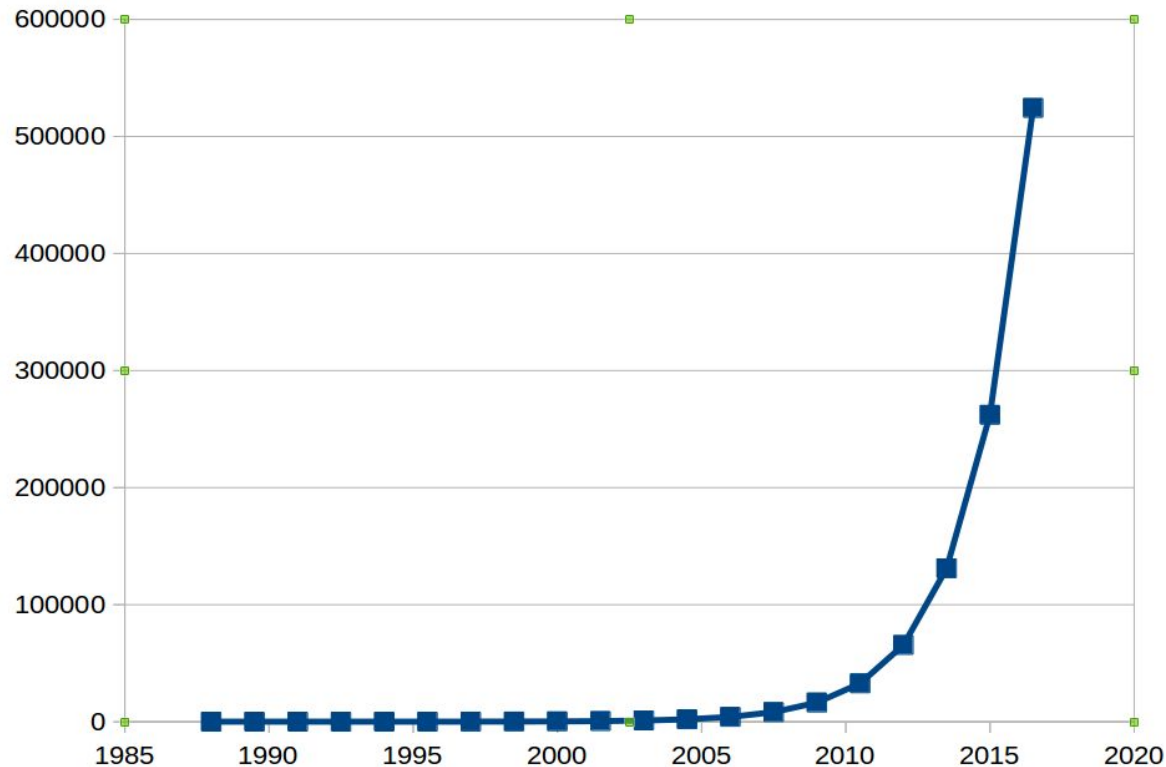


Smartphone–2022

- 65,000 End-User Devices
- 4,500 Phones
- 4,400 Wireless Access Points
- 2,000 Surveillance Cameras
- 1,000 Network Switches
- 1,500 Promethean Panels
- TVs
- Redundant Backup Systems
- UPSs (Uninterruptible Power Supply)
- Firewalls
- Printers/Copiers
- Large Venue A/V
- Classroom A/V
- Public Address Systems



Technology–Equipment Refreshes



Moore's Law, Arithmetically (What it really looks like)

<https://homepages.cwi.nl/~steven/Talks/2016/01-08-internet/#L587>

- 20,000,000 documents processed per day for authentication/event logs
- 3 TB of data to maintain 1 month of monitoring data
 - ~3,900 filing cabinets full of paper documents
 - ~600,000 songs
- Near real-time reporting and alerts on suspicious activity



Technology–Equipment Refreshes



A hacker in his native dress & environment

- Why are equipment refreshes important?
 - **Old equipment** (i.e. >5-years old) is vulnerable and dangerous!
 - **Old software** (i.e. >2 versions old) is vulnerable and dangerous!

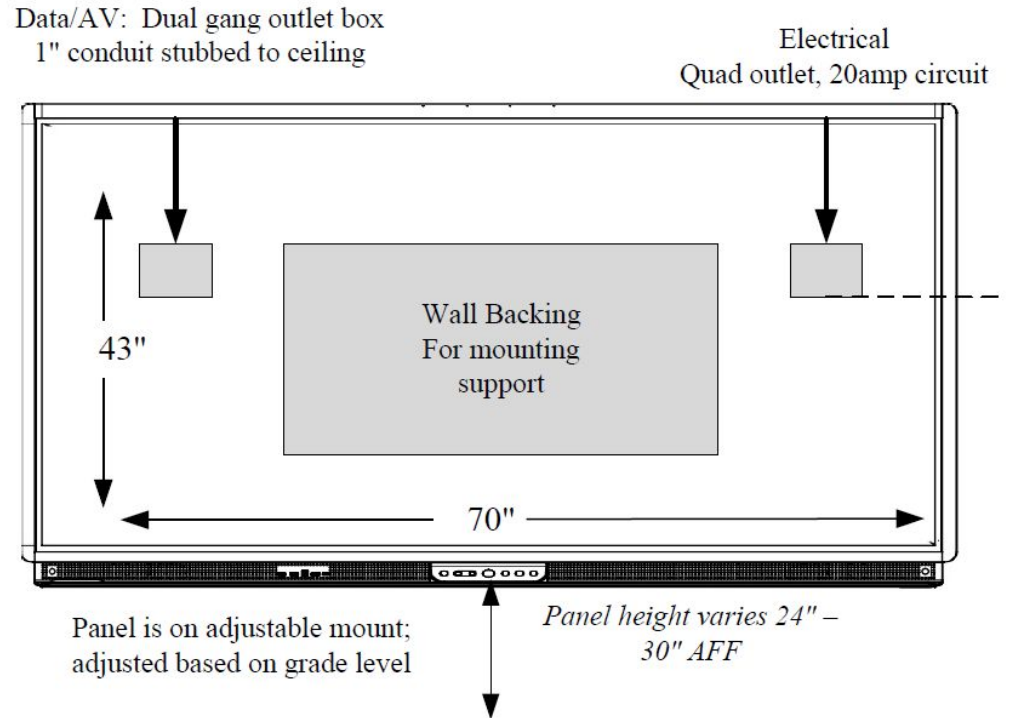


A vertical bar on the left side of the slide, composed of several colored segments: green, yellow, orange, pink, light blue, dark blue, and purple.

Construction



Technology–Construction



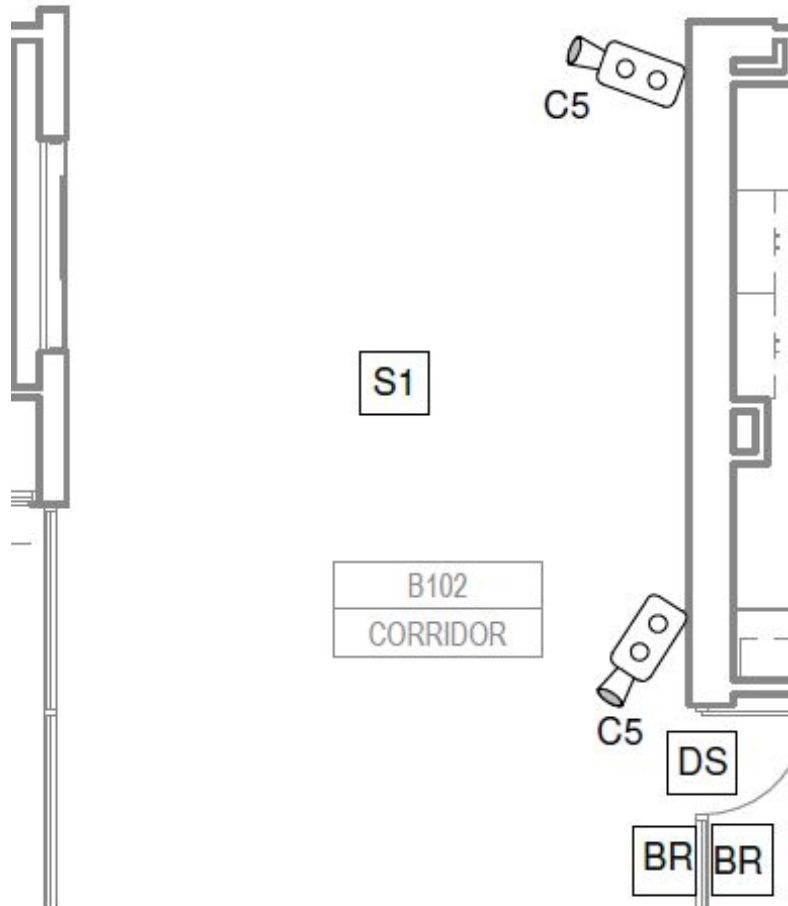
Classroom Teaching Wall Design

Classroom & Role-based Standards

- 75" Promethean Panel
- Extron Control System
- Integrated Public Address
- Document Camera
- Teacher Desktop



Technology–Construction



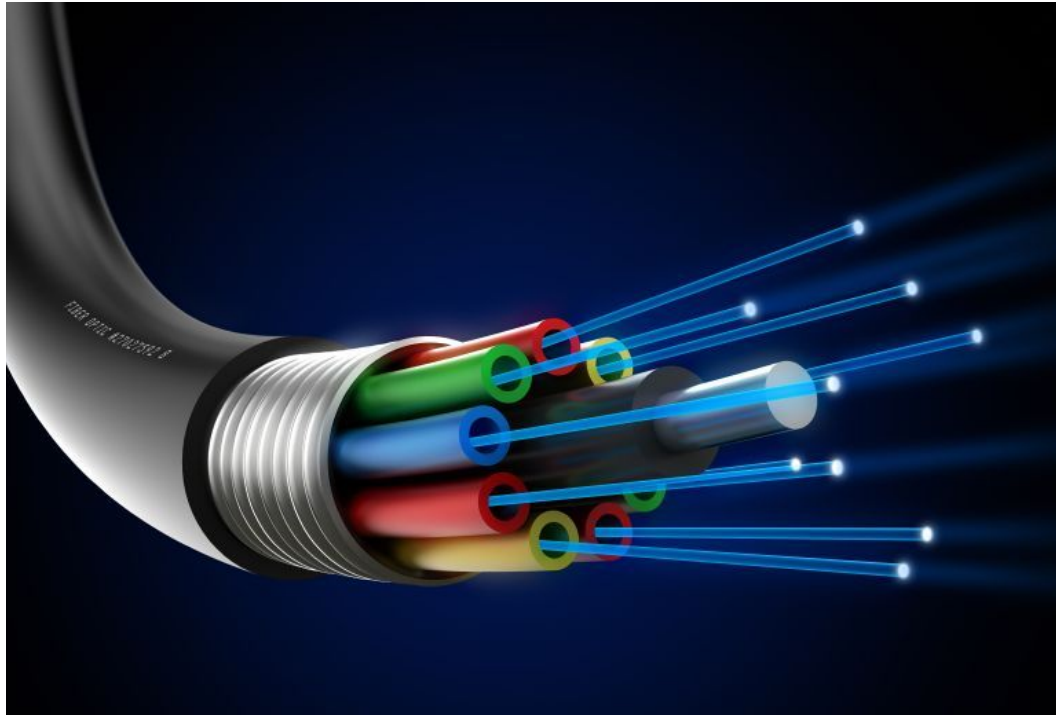
Surveillance in an Elementary Entry Corridor

Surveillance Cameras

- Everywhere!
- Hi-Def
- Low Light



Technology–Construction

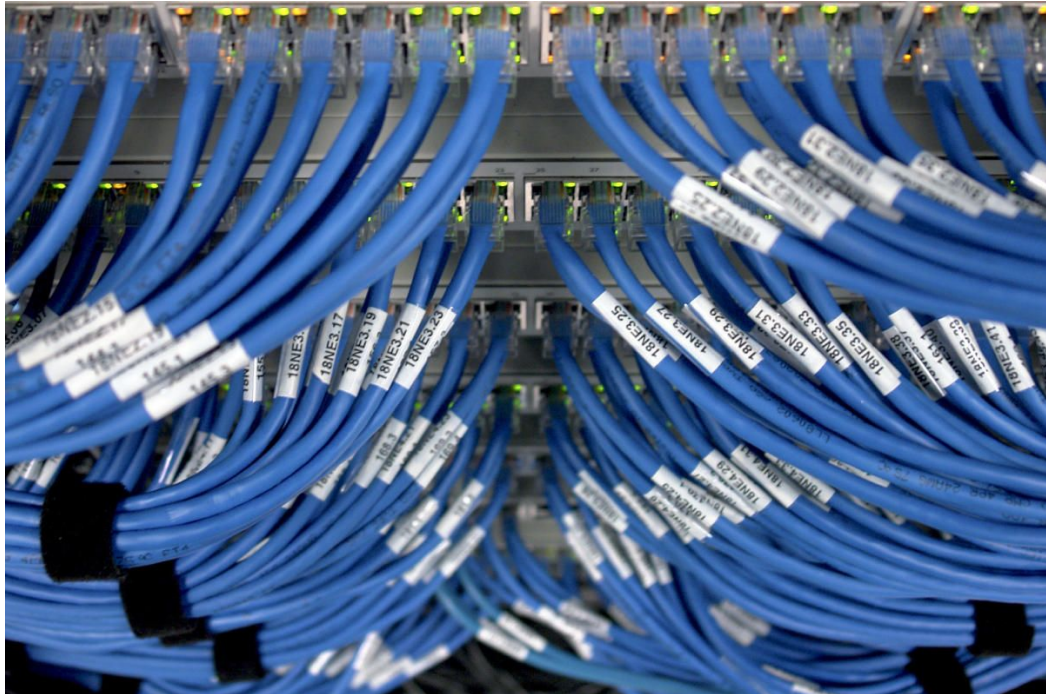


Fiber Optic Connectivity

- It is significantly cheaper for us to install fiber optics ourselves rather than leasing lines if the line is used for more than 2 years.
- That connection to our wide-area network will last more than 20 years.
- Many of our sites have multiple links



Technology–Construction



Equipment

- Example: The new Denton High School has
 - 3,600 Wired Connections
 - 2,300 Chromebooks
 - 546 Desktop Computers
 - 234 Webcams
 - 156 Laptops
 - 130 Promethean Panels
 - 125 Document cameras
 - 75 Network Switches
 - 21 Printers
 - 15 MDFs/IDFs (Data Closets)
 - 15 Copiers



Technology–Construction



Business Continuity Power

- Devices
 - UPS
 - On-site Generators (secondary schools only)
 - Generator truck with building umbilical (elementary)
- Purpose
 - A UPS will keep connected equipment alive for 20 minutes or so
 - A generator will keep connected devices alive for as long as it has fuel.



Technology–Construction



HVAC in MDF/IDF

- Computing equipment is very sensitive to heat and can react to high heat by behaving erratically or having a greatly reduced lifespan.



A vertical bar on the left side of the slide, composed of several colored segments: green, yellow, orange, pink, light blue, dark blue, and purple.

New Standards/Best Practices



Technology–New Standards



Ubiquitous WiFi 6

- WiFi with sufficient capacity for the number of users in a space and WiFi in every space both inside and outside, including playgrounds and parking lots.
- Parents, students, staff, and visitors expect high performance from our WiFi



Technology–New Standards



Ubiquitous WiFi 6

- Everyone has 2 or 3 devices on them at all times.
- Chromebooks are the “textbook” for digital resources for ALL 32,000 students. Chromebooks are wireless and get their data almost exclusively through that connection



Technology–New Standards



Ubiquitous WiFi 6

- WiFi 6 is a recently released standard and supports 50% more connections per access point.
- WiFi 6 allocates bandwidth more efficiently
- Improved wireless speeds for all users



Technology–New Standards

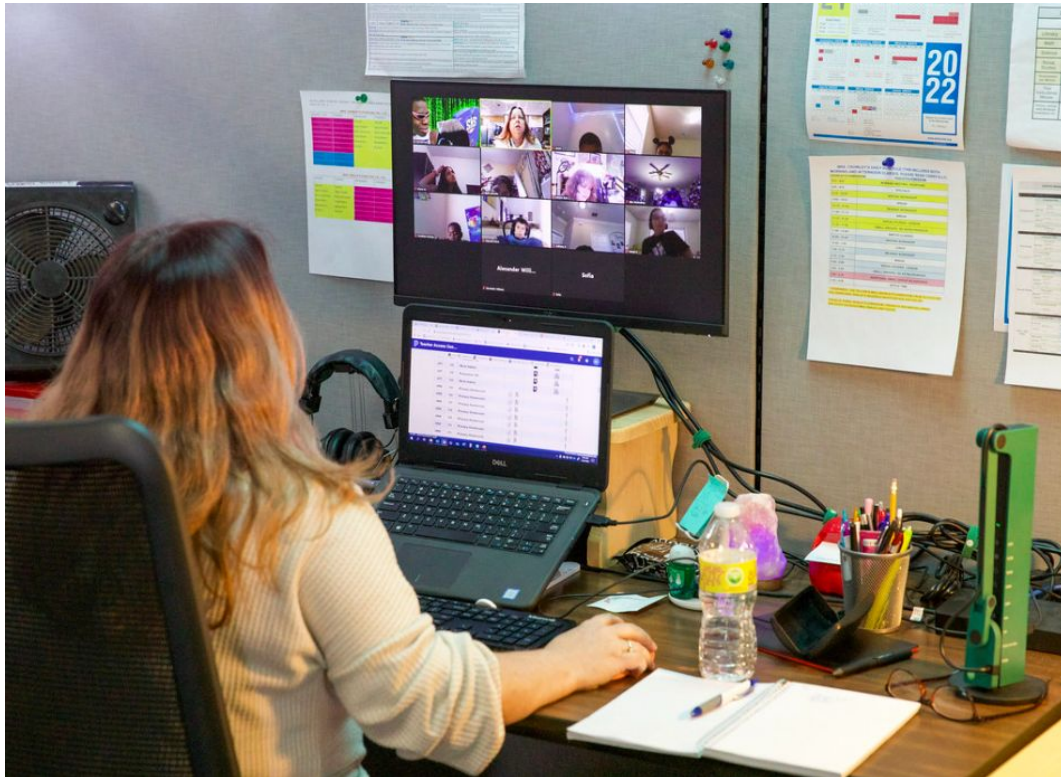


Near-Zero Blind Spots

- Surveillance coverage of **every** possible angle in **every** possible space both **outside** and **inside**, including playgrounds and parking lots, using a **minimum** number of strategically placed, high-definition cameras.
- Not classrooms



Technology–New Standards



Essential Technology Provided Centrally

- Campus budgets are fixed, based on student count.
- Handling those expenses centrally frees up that fixed budget for other classroom needs.





Safety & Security



Technology–Safety & Security



- Cell Phone Boosters
- AI-based Monitoring
- Ubiquitous Video Doorbells
- UPSs
- Generators (secondary)
- Generator Truck (elementary)
- Generator & UPS Rewiring
- Near-Zero Blindspot Surveillance
- Redundant Systems & Infrastructure



Key Points & Takeaways

- Technology is a critical, strategic investment in the education and future of students
- In addition to refreshing the equipment we have, we need to meet new standards and best practices in existing facilities and new construction.
- Technology ages out, on average, after about five years
- The Technology Division is working from a twenty-year plan because most of these expenses are known and predictable.
- DISD's infrastructure is equivalent to that of a fortune 500 company with just under 40,000 internal users.



Robert Pierce
Chief Technology Officer
rpierce@dentonisd.org
940-369-0185

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.





Table Talk Q&A Process

Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.





Telling the Story



Monday, October 17th

5:30pm Dinner
6pm-8pm Meeting

Curtis Ramsey
Professional
Development Center



Our Mission: Empowering lifelong learners to be engaged citizens who positively impact their local and global community.

