## Garland ISD Application & Reporting for Door Security Audits

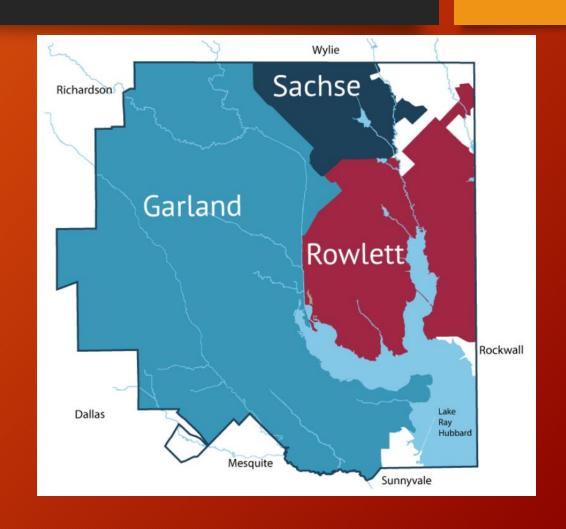


James Walker, Robert Oleson - Garland ISD

## Garland ISD

3 Cities,71 Campuses52,000 StudentsNo Limits on Learning

And Multiple Doors per Campus...



#### CAD to GIS

For several years we have had our School floorplans in our GIS system.

We extract and build our GIS feature classes from our CAD drawings of each facility.





#### Security Data

Last year we were working on digitizing various assets for security.

Cameras

**Motion Sensors** 

Fire Extinguishers

PA System

Etc...



#### Doors

One of the data sets we were updating was door entry numbers.

Doors are numbered clockwise around the building perimeter to aid emergency responders when they need to quickly find a particular entrance.



On our maps a green entry has a electronic card reader and a red entry does not.

## Then there was a tragedy in south Texas and school doors became and issue on every news station.

## Unlocked Doors Were 'First Line of Defense' at Uvalde School

The Uvalde massacre began after the 18-year-old gunman entered the school through a door that could only be locked from the outside and then got inside a classroom that had a busted lock.

By Associated Press | June 22, 2022, at 8:18 p.m.



Houston Public Medi

https://www.houstonpublicmedia.org > 2022/05/26

#### Uvalde gunman walked through apparently unlocked door, ...

May 26,2022 — During the siege, which ended when a U.S. Border Patrol team burst in and shot the gunman to death, frustrated onlookers urged police ...



Reuters

https://www.reuters.com > world > classroom-door-uvald...

#### Classroom door in Uvalde school shooting was not locked, ...

Jun 21, 2022 — The classroom **door** in the **Uvalde** elementary school where 19 children and two teachers were killed in May was not locked even as police ...



KENS !

https://www.kens5.com > uvalde-school-shooting > ro...

#### Lawmakers fear flawed Uvalde school doors could be ...

Jun 23, 2022 — Texas police leaders say it's "ridiculous and inexcusable" that the **doors** at Robb Elementary school could only lock from the outside.

#### INVESTIGATIONS

Unlocked door in Uvalde school shooting raises questions about Texas safety requirements

by: <u>Avery Travis</u>
Posted: May 26, 2022 / 09:39 PM CDT
Updated: May 26, 2022 / 09:53 PM CDT





A section of a classroom door from Robb Elementary School in Uvalde, Texas, is seen as Texas Department of Public Safety Director Steve McCraw testifies at a Texas Senate hearing at the state capitol, Tuesday, June 21, 2022, in Austin, Texas. Two teachers and 19 students were killed in last month's mass shooting in Uvalde. (AP Photo/Eric Gay) In THE ASSOCIATED PRESS

https://apnews.com/article/politics-shootings-texas-school-safety-2c97d26b56e8b081aa725ee2235e4a3b

https://www.google.com/search?surl=18safe=active&q=unlocked+door+uvalde&rlz=1 C1CHBF\_enU\$816U\$816&oq=unlocked+door+uvalde&aqs=chrome\_69i57j0i22i30l4j69i6 1.433510i7&sourceid=chrome&tie=UTF-8#ip=1

https://www.usnews.com/news/us/articles/2022-06-21/secure-doors-were-first-line

https://www.kxan.com/investigations/unlocked-door-in-uvalde-school-shooting-raises-questions-about-tex as-safety-requirements/

https://www.pbs.org/newshour/nation/texas-police-say-uvalde-school-teacher closed-propped-open-door-before-attack-but-it-didnt-lock

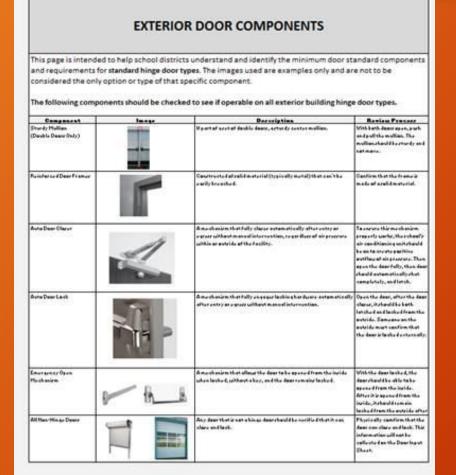
#### Door security audits were mandated

GIS had meetings with both GISD Maintenance and GISD Security to discuss what needed to be done.

https://www.texastribune.org/2022/06/01/texasgreg-abbott-school-security-uvalde/

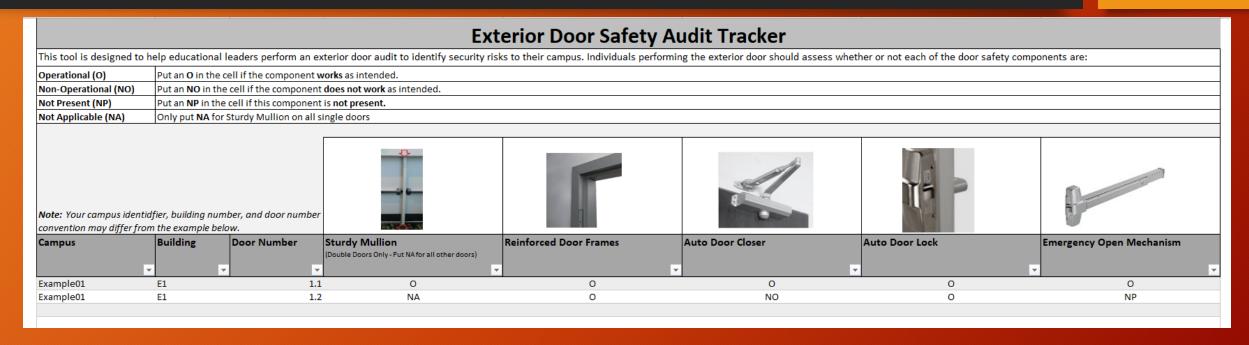


#### TEA sent out instructions



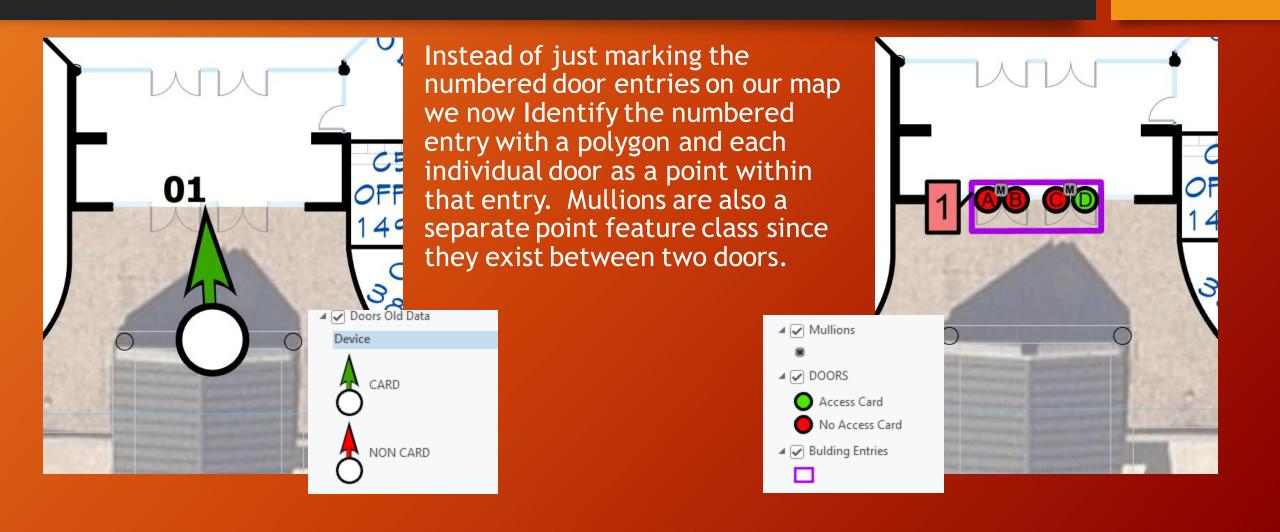


#### We had to assess our data

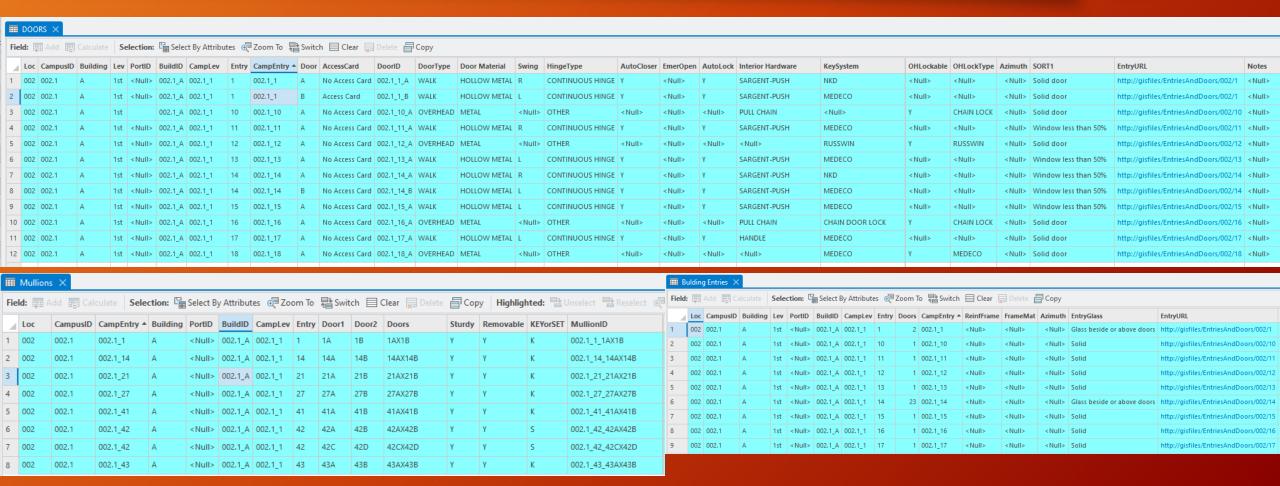


Certain assets needed to be inventoried for every exterior door. We met with Maintenance and Security again to discuss what data we had and what needed to be collected.

#### More detail in door data



#### More detail in door data



## Maintenance collected the door data and took photos which we placed on a server. gisfiles - /Entries.

Campus GHS

Entry Number	Number of doors	Door ID	Access Card	Door Type	Walk / Over	Swing	Key System	Interior Hardware	Mullion Secure	Auto door Auto door closer lock
1	2	A	Y (N)	A(M)/W	Walk / OH	LR	NO .	SPB	Y) N	Y N W/N
		B	(Ŷ) N	A/M/W	Walk / OH	L) R	med	SPB	Mullion Removable	Overhead Door
Hinges	per door	e	Y / N	A/M/W	Walk / OH	L/R			YN	Manual ← Electric
1 2	<b>y</b> 3 ~ 4	D	Y / N	A/M/W	Walk / OH	L/R	titi		Set screw or Key	Lock Y/N

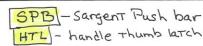
Entry Number	Number of doors	Door II)	Access Card	Door Type	Walk / Over	Swing	Key System	Interior Hardware	Mullion Secure	Auto door A closer	uto door lock
2	1	(A)	Y (N)	A/M W	Walk / OH	①/ R	meD	SPB	y/N	(Y)/ N	Y)/ N
		¥	Y / N	A/M/W	Walk / OH	L/R			Mullion/ Removable	Overhead	Døor
Hinges	per door	Ø	Y / N	A/M/W	Walk / OH	L/R			Y N	Manual 1	Electric
1 2		p	Y / N	A/M/W	Walk / OH	L/R			Set screw or Key	Lock Y	/ N

Entry Number	Number of doors	Door ID	Access Card	Door Type	Walk / Over	Swing	Key System	Interior Hardware	Mullion Secure	Auto door closer	Auto door lock
3	2	A	Y /(N)	A /M/ W	Walk / OH	L/R	men	SPB	(Y)/ N	(Y)/ N	Y N
-		B	②/ N	A/MW	Walk / OH	Ĺ) R	70	SPB	Mullion Removable	Overhea	ad Døor
Hinges	per door	£	Y / N	A/M/W	Walk / OH	L/R			Y N	Manual	Electric
(1)-2-	~ 3 ~ 4	D	Y / N	A/M/W	Walk / OH	L/R			Set screw of Key	Lock	Y / N

MeD- medeco Key

NO - NO Key

C.R. - Corbin Russwin Key



1 –



#### [To Parent Directory]

8/2/2022 6:39 AM 5426333 <u>002 - Entry 1 Exterior.JPG</u> 8/2/2022 6:39 AM 5494293 <u>002 - Entry 1 Interior.JPG</u>





#### SQL Server

We built SQL views to summarize inspections by week and visually indicate which doors had been inspected in the current week.

Alias	Table	Outp	Sort Type
	fnWeekN	~	
	fnWeekN	~	
	fnWeekN	~	
EndDat		$\checkmark$	
		fnWeekN fnWeekN fnWeekN	fnWeekN

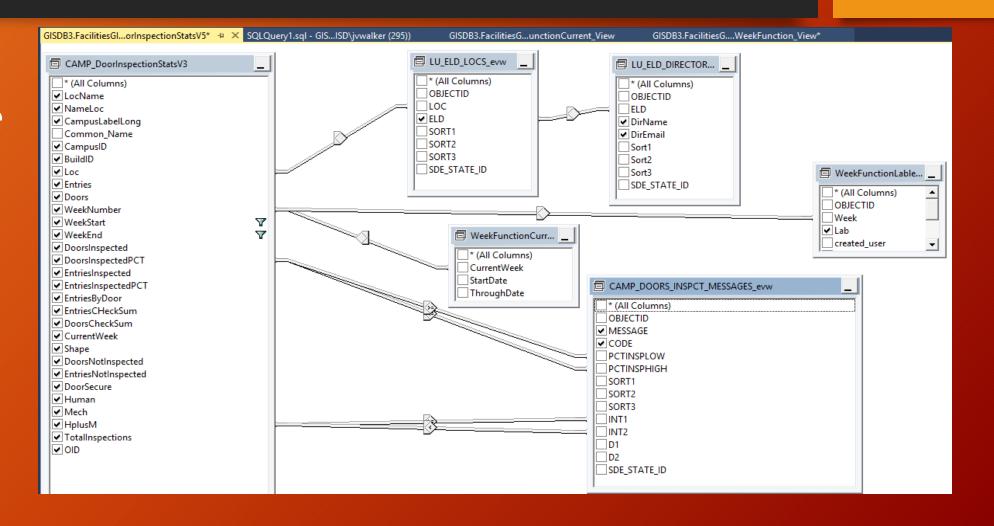
LECT WeekNumber, StartDate, EndDate, DATEADD(day, 1, EndDate) AS EndDateP1
OM dbo.fnWeekNumbersByDateRange('8-1-2022', GETDATE()) AS fnWeekNumbersByDateRange\_1

WeekNumber	StartDate	EndDate	EndDateP1
14	2022-10-30 00:00:00.000	2022-11-05 00:00:00.000	2022-11-06 00:00:00.000
15	2022-11-06 00:00:00.000	2022-11-12 00:00:00.000	2022-11-13 00:00:00.000
16	2022-11-13 00:00:00.000	2022-11-19 00:00:00.000	2022-11-20 00:00:00.000
17	2022-11-20 00:00:00.000	2022-11-26 00:00:00.000	2022-11-27 00:00:00.000
18	2022-11-27 00:00:00.000	2022-12-03 00:00:00.000	2022-12-04 00:00:00.000
19	2022-12-04 00:00:00.000	2022-12-10 00:00:00.000	2022-12-11 00:00:00.000
20	2022-12-11 00:00:00.000	2022-12-17 00:00:00.000	2022-12-18 00:00:00.000

Week	Lab	cr
19	Fall 2022 Grade Period 2 Week 7	J'
20	Fall 2022 Grade Period 2 Week 8	J'
21	Winter Break 2022 Week 1	J'
22	Winter Break 2022 Week 2	J
23	Spring 2023 Grade Period 3 Week 1	J'
24	Spring 2023 Grade Period 3 Week 2	J'
25	Spring 2023 Grade Period 3 Week 3	J'
26	Spring 2023 Grade Period 3 Week 4	J'
27	Spring 2023 Grade Period 3 Week 5	J'
28	Spring 2023 Grade Period 3 Week 6	J'
29	Spring 2023 Grade Period 3 Week 7	J'
30	Spring 2023 Grade Period 3 Week 8	J'
31	Spring 2023 Grade Period 3 Week 9	J'
32	Spring 2023 Grade Period 3 Week 10	J'
33	Spring Break 2023	J
34	Spring 2023 Grade Period 4 Week 1	J'
35	Spring 2023 Grade Period 4 Week 2	J'

#### SQL Server

Some of the views got a bit complex



### SQL Server

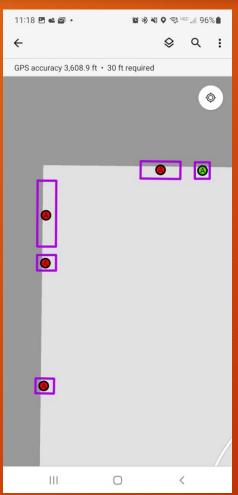
LocName	NameLoc	CampusLabelL	CampusID	BuildID	Loc	Entries	Doors	WeekNumber	WeekLab	WeekStart	WeekEnd	DoorsInspected	DoorsInspecte	EntriesInspected	EntriesInspect
						Entitles									· ·
157 - COUCH ES	COUCH ES - 157	COUCH ELEME	157.1	ALL BUILDINGS	157	16	34	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	34	100.0000000000	16	100.0000000000
105 - CENTERVILLE ES	CENTERVILLE ES - 105	CENTERVILLE E	105.1	ALL BUILDINGS	105	16	21	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000
134 - NORTHLAKE ES	NORTHLAKE ES - 134	NORTHLAKE EL	134.1	ALL BUILDINGS	134	30	44	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000
047 - BRANDENBURG MS	BRANDENBURG MS - 047	BRANDENBUR	047.1	ALL BUILDINGS	047	38	51	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000
111 - KIMBERLIN ACADEMY ES	KIMBERLIN ACADEMY ES - 111	KIMBERLIN AC	111.1	ALL BUILDINGS	111	11	19	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000
102 - BULLOCK ES	BULLOCK ES - 102	BULLOCK ELEM	102.1	ALL BUILDINGS	102	20	31	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	31	100.0000000000	20	100.00000000000 2
002 - GHS - FIELDHOUSE @ WILLIAMS	GHS - FIELDHOUSE @ WILLIAMS - 002	GARLAND HIG	002.2	ALL BUILDINGS	002	29	35	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000 2
043 - HOUSTON MS	HOUSTON MS - 043	HOUSTON MID	043.1	ALL BUILDINGS	043	30	42	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000
144 - KEELEY ES	KEELEY ES - 144	KEELEY ELEME	144.1	ALL BUILDINGS	144	18	27	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	27	100.0000000000	18	100.00000000000
048 - SELLERS MS	SELLERS MS - 048	SELLERS MIDDL	048.1	ALL BUILDINGS	048	26	42	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000 2
931 - NATATORIUM	NATATORIUM - 931	NATATORIUM	931.1	ALL BUILDINGS	931	14	23	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.000000000000	0	0.0000000000000
053 - AEC	AEC - 053	GARLAND ALTE	053.1	ALL BUILDINGS	053	11	13	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	13	100.0000000000	11	100.00000000000
158 - LIBERTY GROVE ES	LIBERTY GROVE ES - 158	LIBERTY GROVE	158.1	ALL BUILDINGS	158	16	34	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	34	100.0000000000	16	100.00000000000
133 - HICKMAN ES	HICKMAN ES - 133	HICKMAN ELE	133.1	ALL BUILDINGS	133	25	38	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	38	100.0000000000	25	100.0000000000 2
012 - GILBREATH-REED CTC	GILBREATH-REED CTC - 012	GILBREATH-RE	012.1	ALL BUILDINGS	012	21	36	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	36	100.0000000000	21	100.00000000000 2
002 - GARLAND HS	GARLAND HS - 002	GARLAND HIG	002.1	ALL BUILDINGS	002	74	112	40	Spring 2023 Grade Period 4 Week 7	2023-04-30 00:0	2023-05-02 14:5	0	0.0000000000000	0	0.0000000000000

But the results gave us what we needed to track and report.

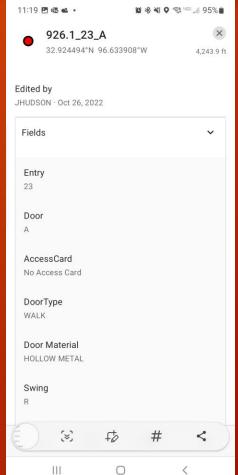
EntriesByDoor	EntriesCHeckS	DoorsCheckSu	CurrentWeek	Shape	DoorsNotInsp	EntriesNotInsp	DoorSecure	Human	Mech	HplusM	TotalInspections	MESSAGE	CODE	ELD	DirName	DirEmail	OID
16	16	34	40	POLYGON ((256	0	0	34	0	0	0	34	Inspections Complete No Issues	4	EDLES1	Mrs. Kim Marsh	KLMarsh@garla	400003576
16	16	21	40	POLYGON ((254	21	16	0	0	0	0	0	Inspections Not Started	0	EDLES1	Mrs. Kim Marsh	KLMarsh@garla	400001729
30	30	44	40	POLYGON ((254	44	30	0	0	0	0	0	Inspections Not Started	0	EDLES3	Mrs. Cheryl Ale	CLAlexan@garl	400004847
38	38	51	40	POLYGON ((254	51	38	0	0	0	0	0	Inspections Not Started	0	EDLMS1	Mrs. IDA Perales	iPerales@garla	400004460
11	11	19	40	POLYGON ((254	19	11	0	0	0	0	0	Inspections Not Started	0	EDLES3	Mrs. Cheryl Ale	CLAlexan@garl	400004034
20	20	31	40	POLYGON ((252	0	0	31	0	0	0	31	Inspections Complete No Issues	4	EDLES1	Mrs. Kim Marsh	KLMarsh@garla	400001643
29	29	35	40	MULTIPOLYGO	35	29	0	0	0	0	0	Inspections Not Started	0	EDLHS1	Mr. Ray Merrill	RRMerril@garla	400004485
30	30	42	40	POLYGON ((253	42	30	0	0	0	0	0	Inspections Not Started	0	EDLMS1	Mrs. IDA Perales	iPerales@garla	400004444
18	18	27	40	POLYGON ((257	0	0	27	0	0	0	27	Inspections Complete No Issues	4	EDLES3	Mrs. Cheryl Ale	CLAlexan@garl	400003356
26	26	42	40	POLYGON ((254	42	26	0	0	0	0	0	Inspections Not Started	0	EDLMS1	Mrs. IDA Perales	iPerales@garla	400002706
14	14	23	40	POLYGON ((254	23	14	0	0	0	0	0	Inspections Not Started	0	SEC	Security	Security	400001018
11	11	13	40	POLYGON ((254	0	0	13	0	0	0	13	Inspections Complete No Issues	4	EDLMS1	Mrs. IDA Perales	iPerales@garla	400003301
16	16	34	40	POLYGON ((257	0	0	34	0	0	0	35	Inspections Complete No Issues	4	EDLES2	Dr. Kristin Wolf	KEWolfki@garl	400003610
25	25	38	40	POLYGON ((252	0	0	38	0	0	0	38	Inspections Complete No Issues	4	EDLES1	Mrs. Kim Marsh	KLMarsh@garla	400004846
21	21	36	40	POLYGON ((254	0	0	36	0	0	0	36	Inspections Complete No Issues	4	EDLHS1	Mr. Ray Merrill	RRMerril@garla	400002423
1 <del>7:</del>	7.	110	*	2011/2011//252	112	71	2	0	2	^	2		2	CDLLIGA		0014 10	100001001

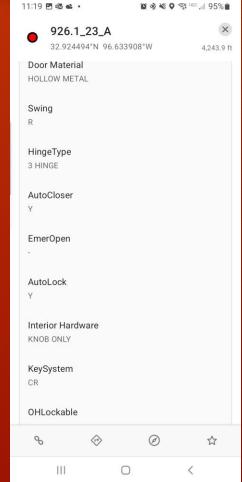
### ESRI Field Maps deployed for door inspections



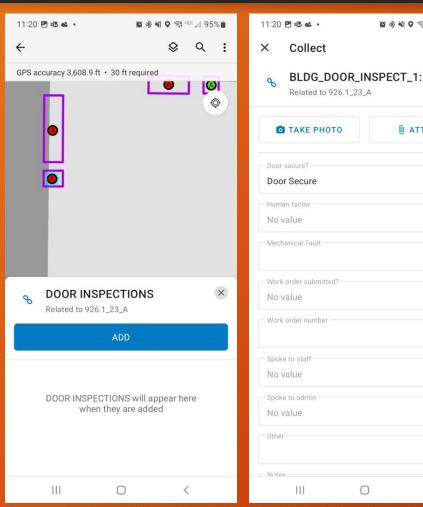


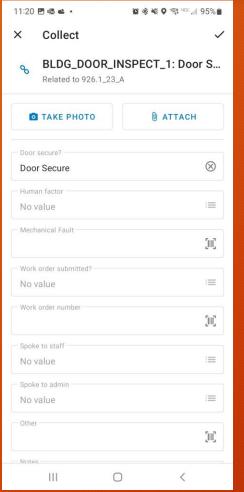


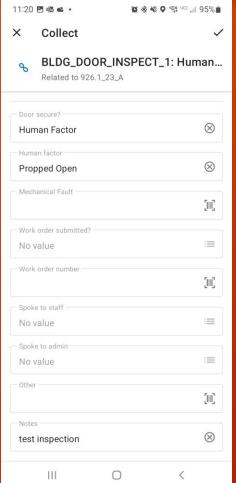


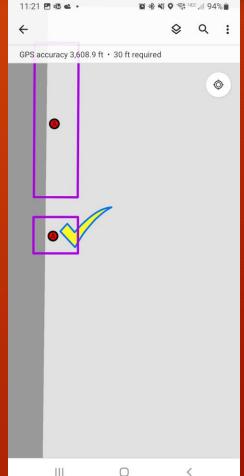


### ESRI Field Maps deployed for door inspections





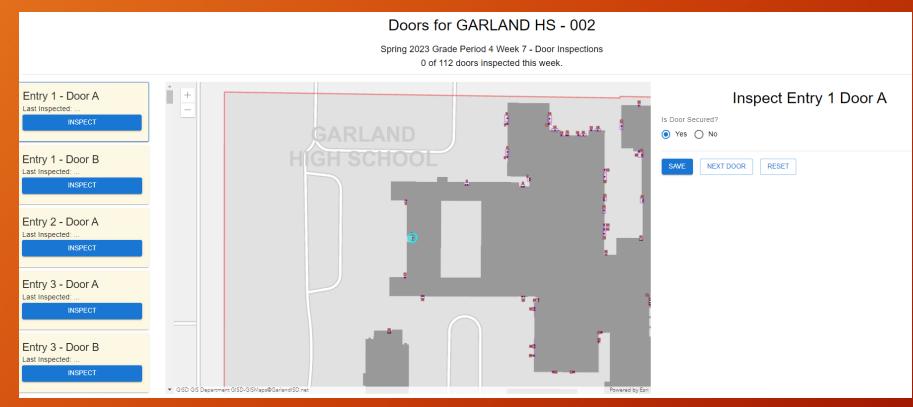




Field Maps works in IOS and Android, while the initial response to this app was positive it was decided that we could not proceed with out a desktop based inspection solution.

#### We needed a little help

We reached out to **David McCourt** at **Softwhere Solutions** for help developing a desktop app. This is what we came up with

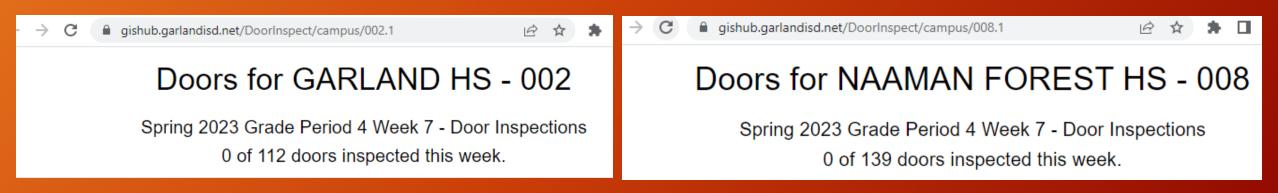




http://www.softwheresolutions.com/

#### Campus privileges

One advantage that David's app has is that we can parse the CampusID through the URL to restrict users to only be able to inspect doors at campuses they have been given access to.



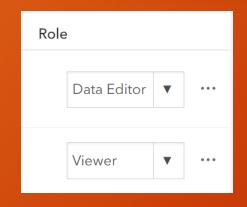
This meant that work needed to be done setting up privileges.

#### User Types, Roles, and Privileges



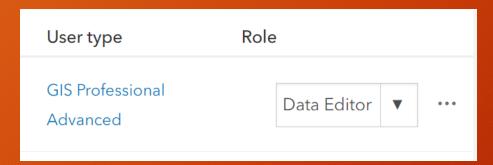
#### Assigned User Type

Controls the scope of privileges that can be assigned to the member through a role.



#### Roles

Type of work that members perform in the organization.





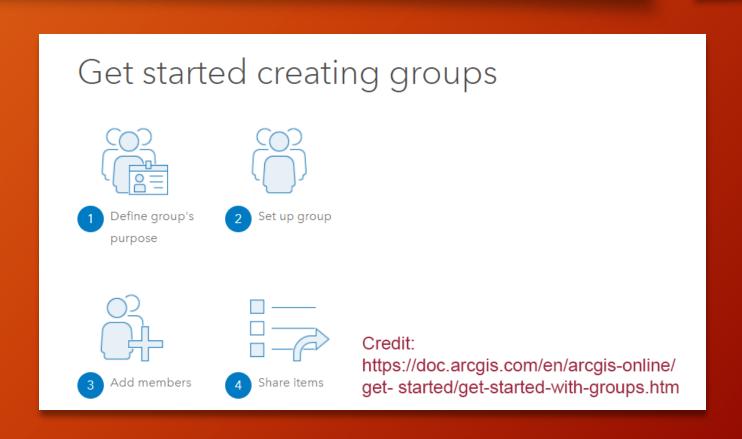
#### Privileges

Assigned to a role to grant specific rights to members. They control what a member can or cannot do in the organization.

https://doc.arcgis.com/en/arcgis-online/administer/roles.htm

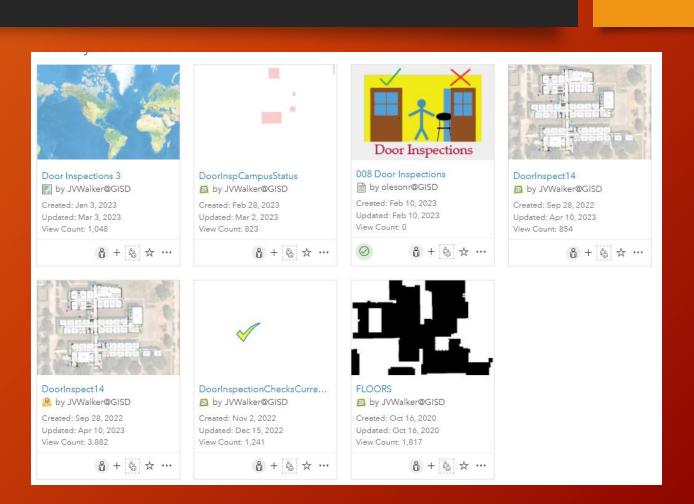
### Groups were set up for each campus

- ✓ Define Group's Purpose
- ✓ Set Up Group
- ✓ Add Members
- ✓ Share Items



#### Data was shared to groups

Webmap, layers and individual campus URL was added to each group.



#### Users were added to their groups

Security provided a list of administrators from each campus who needed access to the app.

A separate list of security officers and SRO's were given access to do inspections for all schools.



159

**CARVER ES** 

Security Inspections

Security Department

and SRO Access

Web Mapping Application

Security Inspections

**SRO Access** 

JVWalker@GISD

Security Department and

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Web Mapping Application

159 Inspections

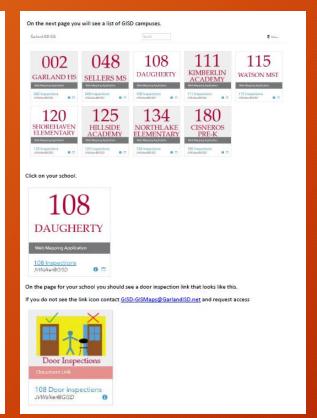
olesonr@GISD

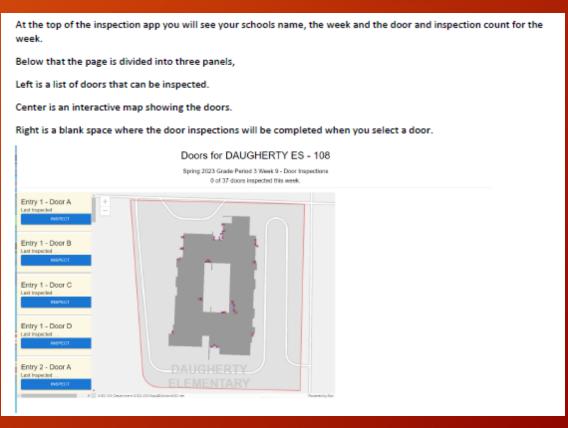
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Group pages were set up for each school.

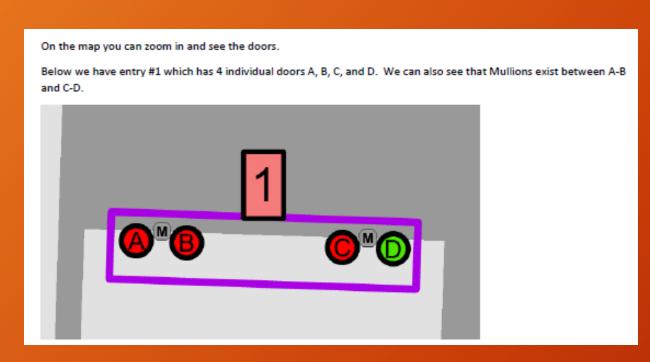
#### App instructions were sent to the schools

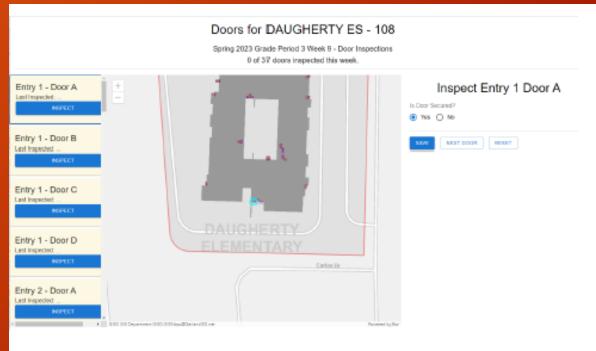




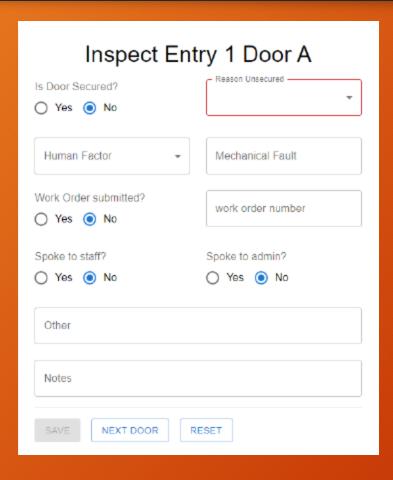


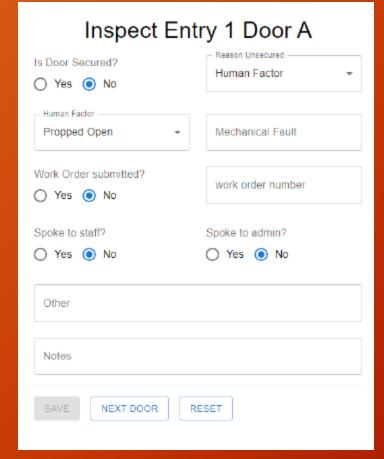
#### App instructions were sent to the schools

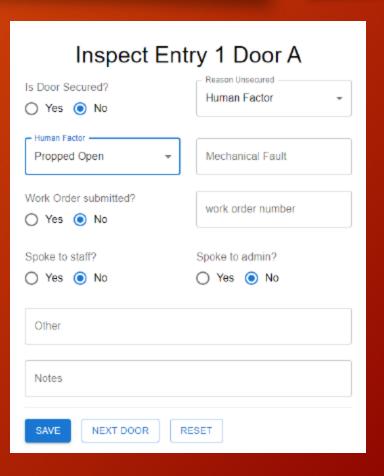




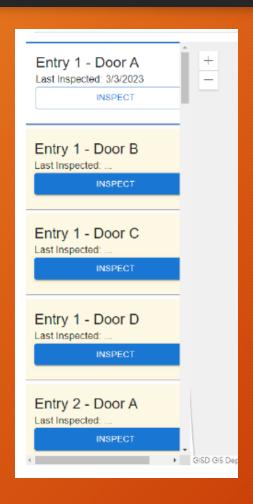
#### Instructions had to be detailed







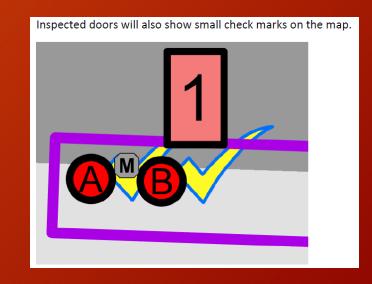
## Indicators in the app help users keep up with inspection progress



#### Doors for DAUGHERTY ES - 108

Spring 2023 Grade Period 3 Week 9 - Door Inspections 36 of 37 doors inspected this week.

Check boxes in the web map and summary data by week leverage the SQL views.

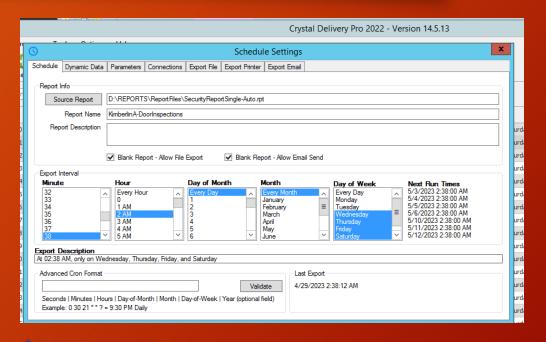


#### Reporting was the next step

For this we reached out to New Edge Services.

We worked with Robbie Schermerhorn to design and build reports in Crystal Reports.

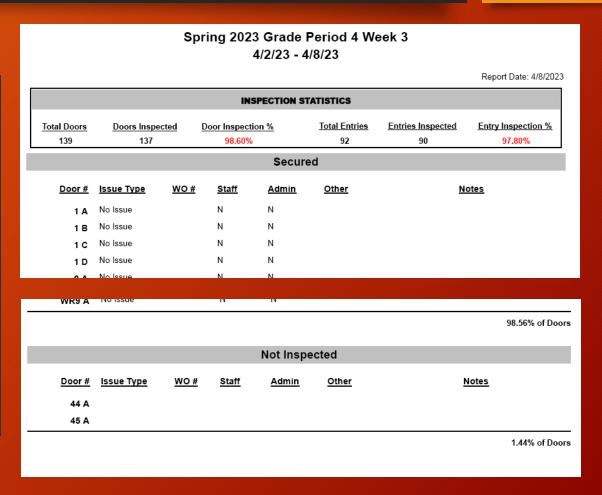
Robbie implemented a tool called Crystal Delivery Pro.





# Each campus gets a detail report Wednesday through Friday and a final weeks report is generated Saturday morning

#### Spring 2023 Grade Period 4 Week 3 4/2/23 - 4/3/23 Report Date: 4/3/2023 INSPECTION STATISTICS Total Entries Entries Inspected Entry Inspection % Total Doors Doors Inspected Door Inspection % 100.00% 45 34 100.00% Human Fault Door # Issue Type WO# Staff Admin <u>Other</u> Notes P004L A Unlocked 2.22% of Doors Secured Door # Issue Type **Staff** <u>Admin</u> Other Notes No Issue Ν 2 B No Issue



### Directors get summary reports

Area Directors Report
Weekly Door Inspections Stats
Mrs. Kim Marsh
Spring 2023 Grade Period 4 Week 6
04/23/2023 - 04/28/2023

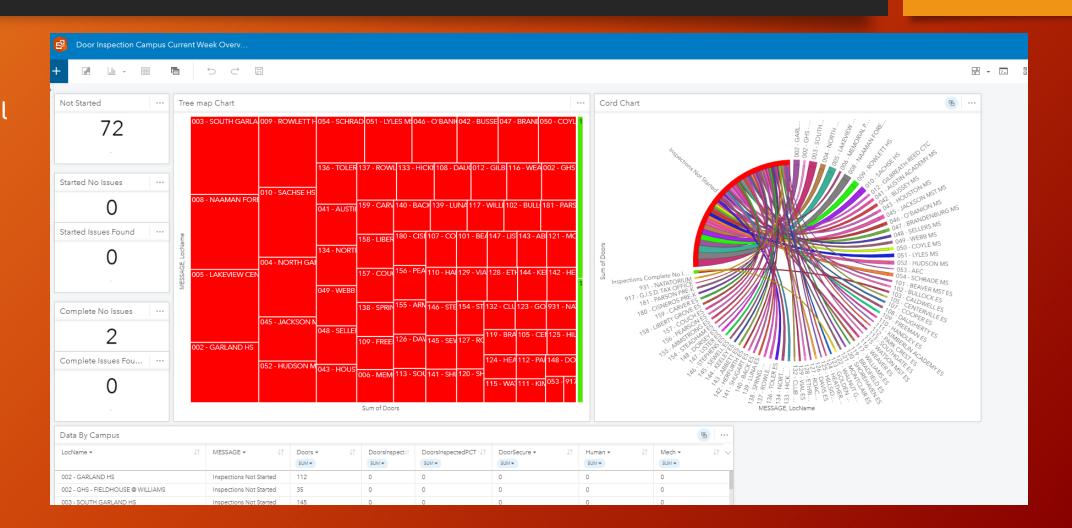
Report Date: 4/28/2023

	BULLOCK ELEMENTARY SCHOOL CAMPUS - 102											
Total Doors	Doors Inspected	Door Inspection %	Doors Secure	Human Errors	Mechanical Faults							
31	31	100.00%	31	0	0							
	CALDWELL ELEMENTARY SCHOOL CAMPUS - 103											
Total Doors	Doors Inspected	Door Inspection %	Doors Secure	Human Errors	Mechanical Faults							
30	30	100.00%	30	0	0							
	CENT	ERVILLE ELEMENETAR		-								
	<u> </u>											
Total Doors	Doors Inspected	Door Inspection %	Doors Secure	Human Errors	Mechanical Faults							
21	21	100.00%	21	0	0							
		CISNEROS PRE-K SCH	IOOL CAMPUS - 18	30								
Total Doors	Doors Inspected	Door Inspection %	Doors Secure	Human Errors	Mechanical Faults							
30	30	100.00%	30	0	0							
	CLU	JB HILL ELEMENTARY	SCHOOL CAMPUS	- 132								
<u>Total Doors</u>	Doors Inspected	Door Inspection %	Doors Secure	<u>Human Errors</u>	Mechanical Faults							
24	24	100.00%	24	0	0							
	COUCH ELEMENTARY SCHOOL CAMPUS - 157											

<u>Total Doors</u>	Doors Inspected	Door Inspection %	Doors Secure	Human Errors	Mechanical Faults
52	30	57.70%	30	0	0
<u>Total Doors</u>	Doors Inspected	Door Inspection %	Doors Secure	Human Errors	Mechanical Faults
51	51	100.00%	48	3	0
<u>Total Doors</u>	Doors Inspected	Door Inspection %	Doors Secure	<u>Human Errors</u>	Mechanical Faults
29	29	100.00%	28	1	0

#### Security requested a dashboard

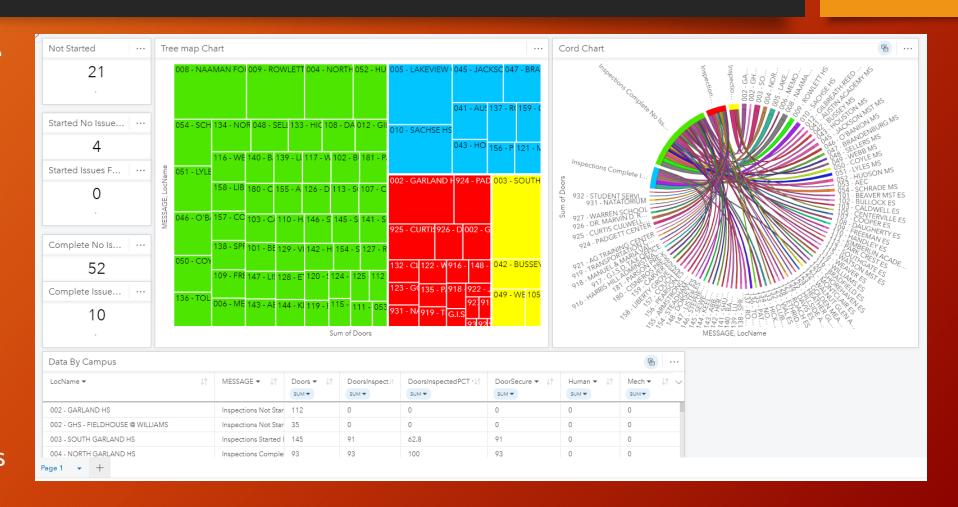
We used ArcGIS Insights to give Security the real time status of campus by campus door inspections.



#### Security requested a dashboard

Color coding in the Tree Map Chart and Cord Chart changes as inspections are done.

Red = No inspections
Orange = Inspections
started and problems
found
Yellow = inspections
started no problems
Green is inspections
complete no problems
Blue = inspections
complete with problems



#### Questions and contact info



James Walker GIS Program Manager Garland ISD JVWalker@garlandisd.net (972) 487-3692 Office (972) 838-3717 Cell

Mark Quinn **Director of Security** Garland ISD Office #972-487-4110 Fax #972-494-8627 mquinn@garlandisd.net Asksecurity@garlandisd.net

David McCourt Softwhere Solutions 469-955-6116 david@softwheresolutions.com



NewEdge Services, LLC (469) 766-3732 Info@newedgeservices.com



Robert Oleson GISD GIS Department GIS Auto Cad Technician OlesonR@garlandisd.net 972-487-3685