



**BHISD Bond Projects:** 

LSC – KC Corridor Demolition - Auxiliary Field - Intermediate School North and South



# ENERGY MANAGEMENT UPDATE \_ BHISD

In **June 2011** our Board of Trustees approved hiring an Energy Manager (Ricky Shelton) allowing us to start an Energy Management Department. In ten years of Energy Conservation and strategic best practices, BHISD has lowered the cost per Sq.Ft. from **\$1.24 to \$0.90**. While adding 560,608 Sq.Ft. since then (+31%), the District is paying only <3% more today than 10 years ago. A savings of **\$612,688** for this past year.

2010-2011	Cost per Sq. Ft.	<mark>2020-2021</mark>	Cost per Sq. Ft.
High School	\$1.46	High School	\$.83
Intermediate	\$1.05	Middle South	\$.77
Middle North	\$1.34	Middle North	\$1.34
Elementary South	\$.87	Elementary South	\$.93
Primary	\$1.16	Elementary North	\$.78
Kindergarten	\$1.55	Pre-K	\$.85
		Early Childhood	\$.78
		Center	
		Multi-Purpose	\$.93
		Building	
Average Cost per Sq. Ft.	\$1.24	<mark>Average Cost per Sq. Ft.</mark>	<mark>\$.90</mark>



#### Going Forward: Electrical Contracts with TASB Energy Cooperative / Direct Energy:

- June 2021 June 2024 cost per KWH is <u>.04494</u> \*\*\*Current Market Rate: <u>.0623</u> (highest in 15 years); from the previous contract equals a savings of \$170,000 per yr./ \$510,600 life of contract;
- June 2024 June 2027 cost per KWH will lower to .0374; this price was locked in January several weeks before Winter Storm Uri. Savings per year equals an additional \$172,500 per yr./\$690,000 for contract;
- Through proactive management with Demand Response & 4CP CenterPoint line charges, we've lowered that portion of our energy bill (<u>typically 50% of total bill</u>) to 38%; Est. savings for 2021: \$408,560

#### **REASONS FOR CONTINUED ENERGY MANAGEMENT SUCCESS:**

- Maintaining <u>occupant comfort</u> as a priority in executing the energy management program;
- <u>Collaboration</u> in working with the Maintenance Department: HVAC and Electrical as well as Operations;
- Participation in <u>New Construction & Renovations</u>: both planning & commissioning of projects;
- <u>Regular communication and feedback</u> with Principals and campus staff regarding building efficiencies;
- TEMA (Texas Energy Managers Association) Professional Development;
  - The District has four Accredited Texas Energy Managers in the Dept. of Planning & Operations;
  - State TEMA Board Participation: Ricky Shelton is currently Vice President of the State Board; just named President of the new TEMA Beaumont Chapter to help start it.







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Aerial – Tax Office Entrance from Eagle Drive





Aerial – Main Entrance Lobby from Eagle Drive

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Aerial – Board Room Entrance from Eagle Drive





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Aerial – Hall of History – KC Wing Demolition





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Aerial – Hall of History – KC Wing Demolition





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Aerial – Hall of History – KC Wing Demolition





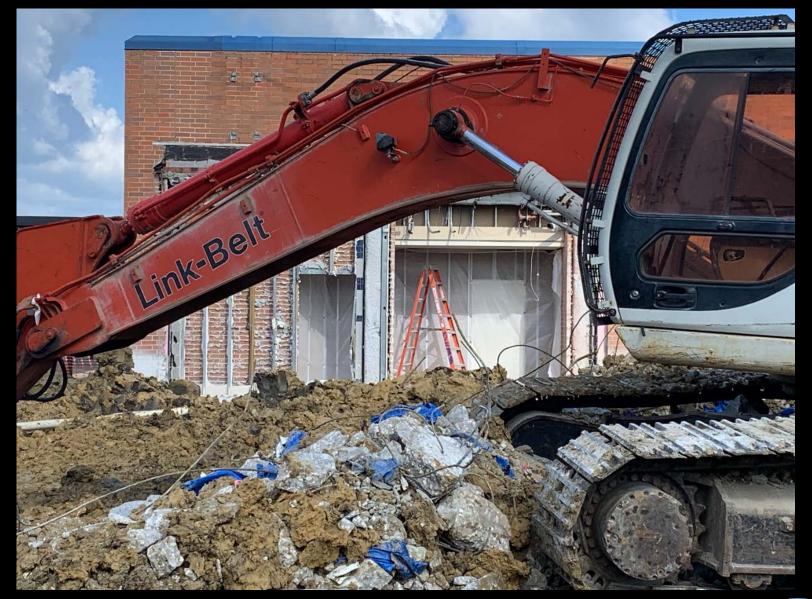
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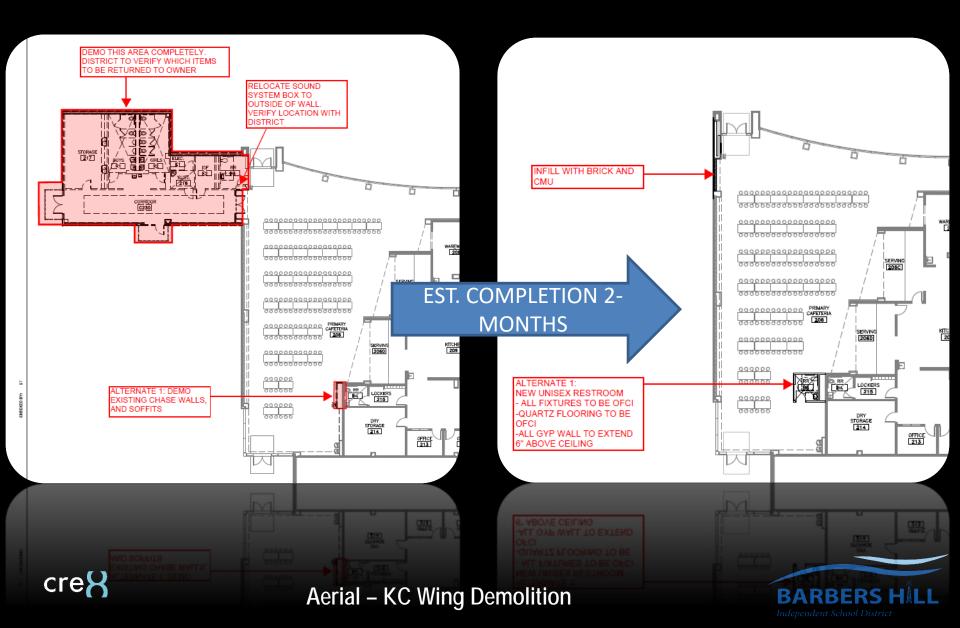






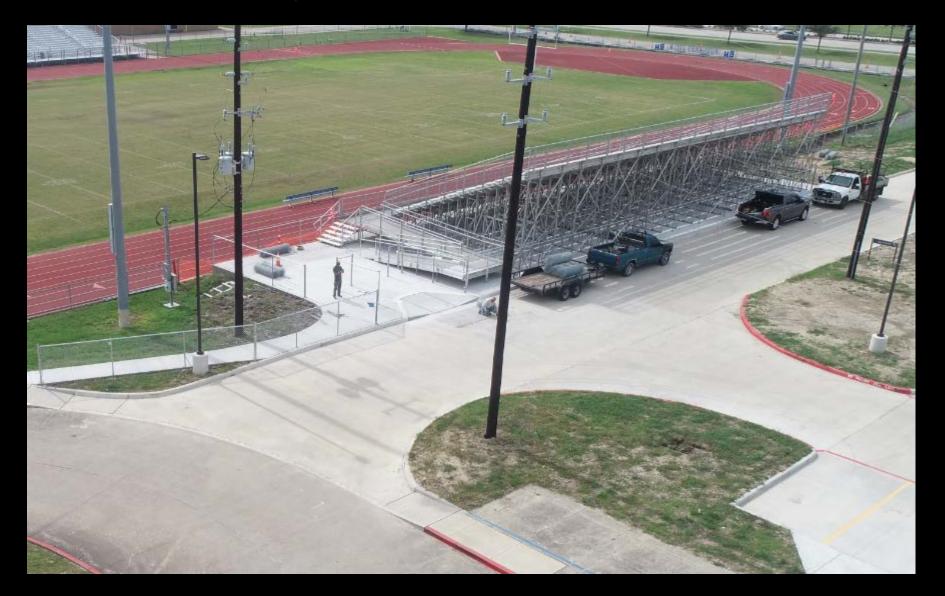






#### BOND 2020 – Auxiliary Field

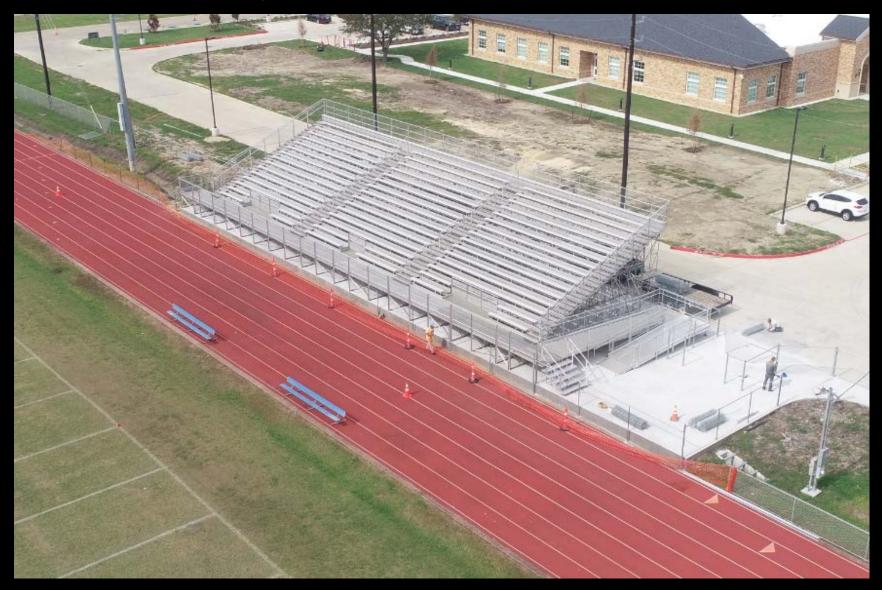
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Aerial – Visitor Bleachers Fencing Installation in Progress



# BOND 2020 – Auxiliary Field



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Aerial – Visitor Bleachers Fencing Installation in Progress



#### BOND 2020 - INTERMEDIATE SCHOOL NORTH - SITE PLAN

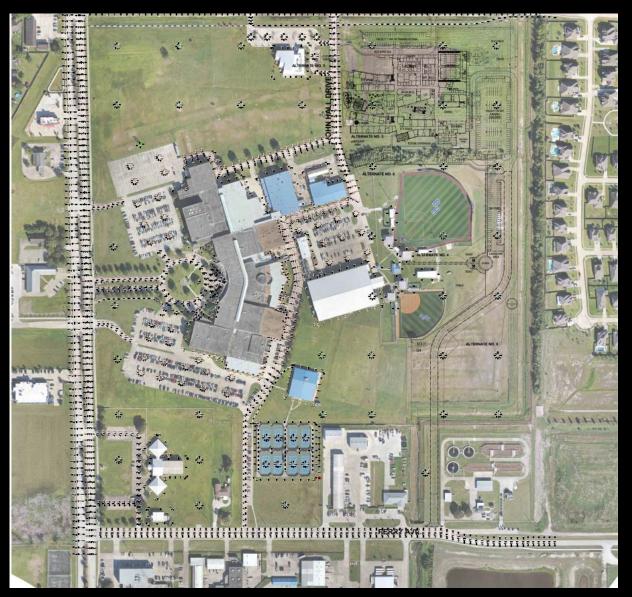


# INTERMEDIATE SCHOOL NORTH

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## BOND 2020 – INTERMEDIATE SCHOOL NORTH – SITE PLAN



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Intermediate School North Site Plan





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Aerial – Main Building Entrance North Elevation along Wilburn Ranch Dr. and John Hall Dr. Intersection





Aerial – Main Entrance Canopy and Visitor Parking at Wilburn Ranch Dr. cre8





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Aerial – Faculty East Parking Lot & Building Elevation







Aerial – New Ticket Booth for BB-SB Complex; Site for BB Grass Practice Infield





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Aerial – Stacking Drive Bridge





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Aerial – Stacking Drive entrance from Perry Avenue

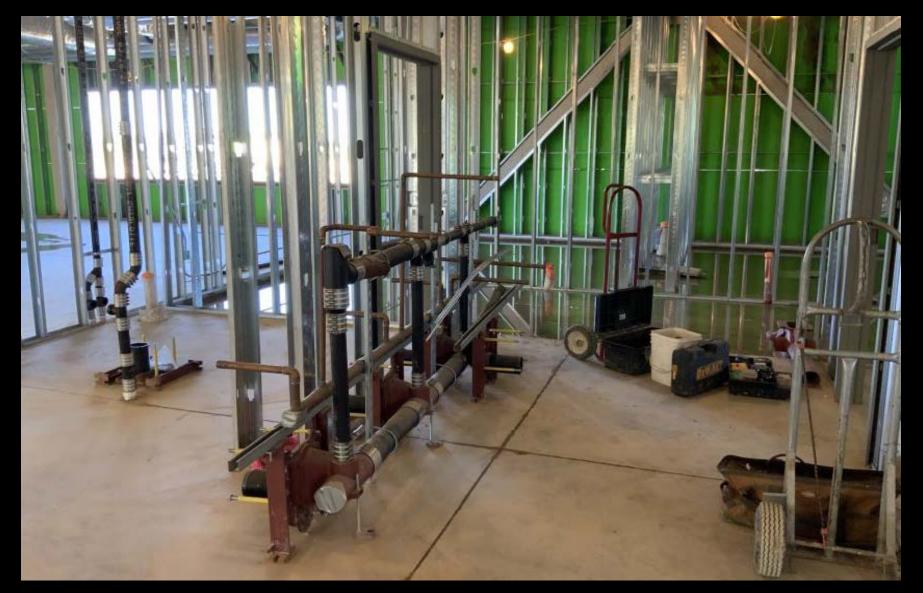




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Concrete Poured up to Perry Ave.





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Area C – Restroom Plumbing in Progress





**cre**8 Area E – Foam backer rod and sealant around window frame





**cre8** Area E – Moisture Resistant Gyp.Bd. for ceramic tile in Restroom







Area F – Service Court pad compacted and tested – ready form for new concrete





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Area H – CMU installation at the North Wall of Gym





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Area C – Electrical Conduit Installation in progress

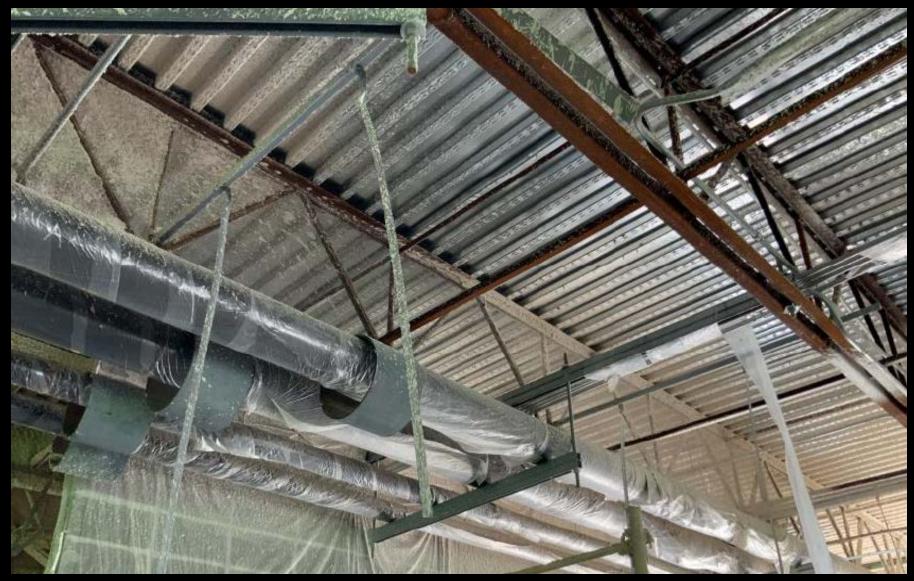




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Area D - Hollow Metal Door & Window Frame installation





**Cre** Area E – Applying spray on Fire Proofing to roof structure





**CreS** Area A Roof – Lightweight concrete on foam block installation

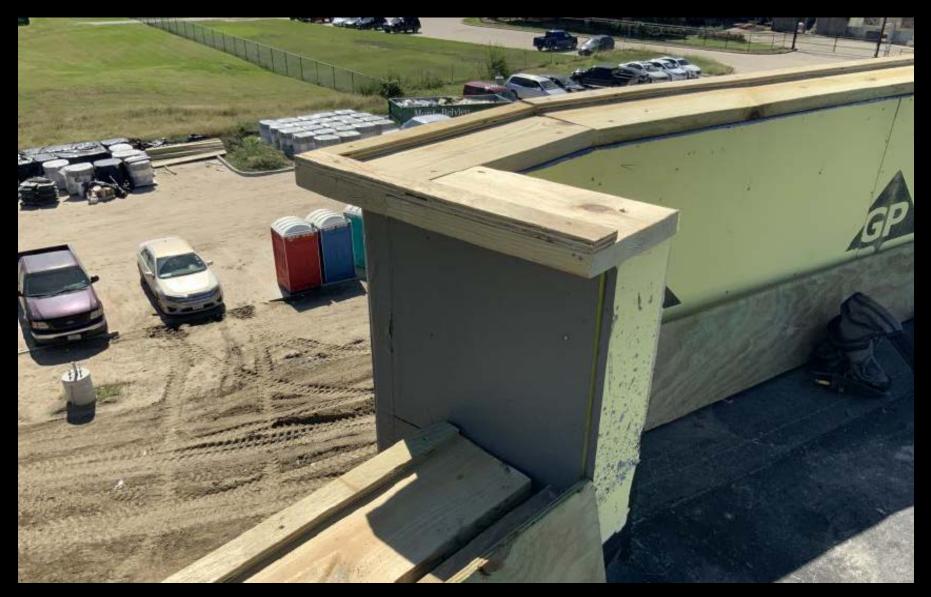




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Area D Roof – Base sheet turned down over roof edge





**cre8** Area D Roof – Wood Blocking installation at parapet wall tops





**cre8** Area E Roof – Plywood backing to parapet walls installation



# BOND 2020 – INTERMEDIATE SCHOOL SOUTH - SITE PLAN



# cre8 INTERMEDIATE SCHOOL SOUTH



# BOND 2020 - INTERMEDIATE SCHOOL SOUTH - SITE PLAN



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Intermediate School South Site Plan





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Aerial – Parent Drop Off-Pickup and Faculty Parking Lot





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Aerial - West Elevation at Parent Drop Off-Pickup





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Aerial – East Elevation Classroom Wings looking West





**cre8** Main Entrance Canopy, Visitor Parking & Bus Drop Off - Pickup





**Cre** Aerial – West Elevation Gymnasiums & Cafeteria-Kitchen





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Adjacent District Property – North





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Aerial – North East Elevation & Outfall Structure





cre Aerial – South Elevation looking North from Gill Parkway





**cre** Aerial – South West Elevation Stacking Drive off Gill Parkway





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Site – Concrete Outfall to North side ditch Complete

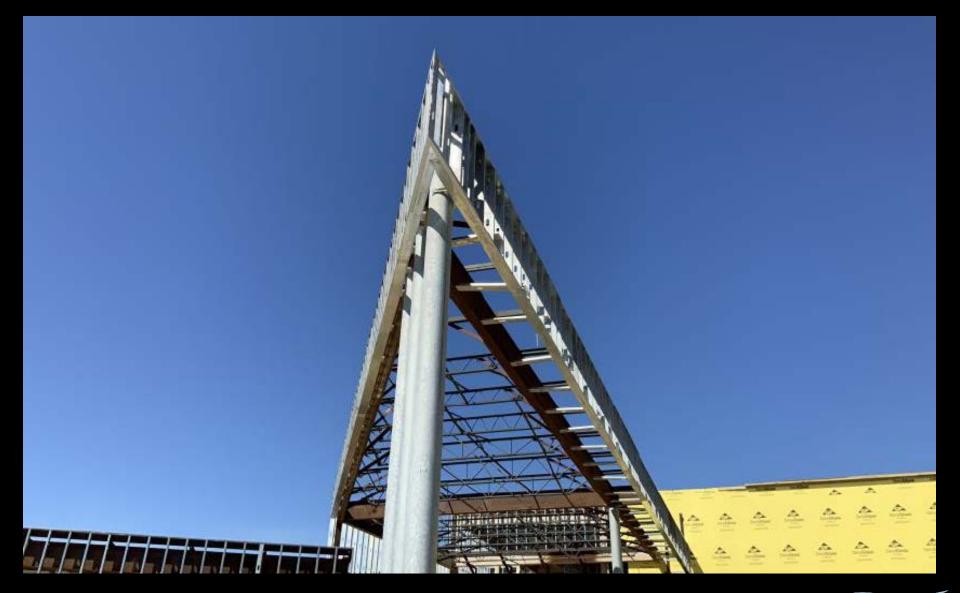




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Site – North side concrete retaining wall in progress





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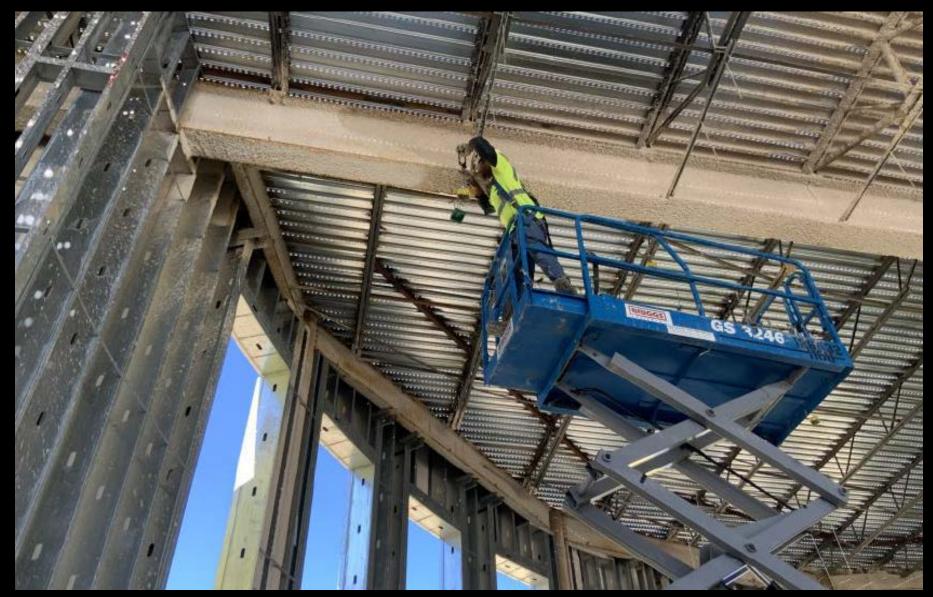
Area A – Entrance Canopy metal framing





**cre** Area A – Exterior Metal Stud Framing at the south admin office wall





**Cre8** Area B – Installation of Electrical J Box from Steel Structure





Area C – Welding of Elevator Side Rails to Steel Structure

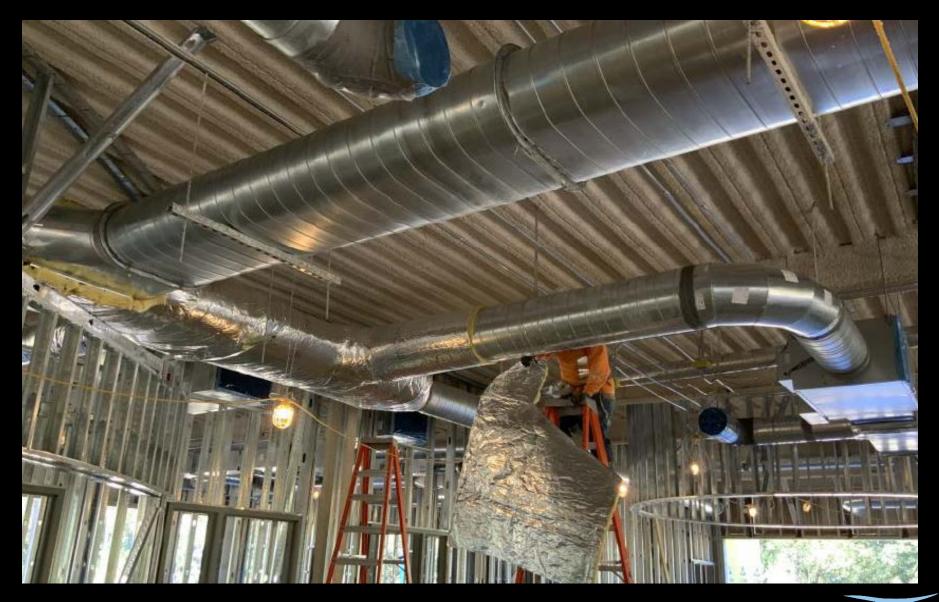
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**Cre8** Area C – Fur-Down metal framing around main duct lines





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Area D – Insulating metal duct lines





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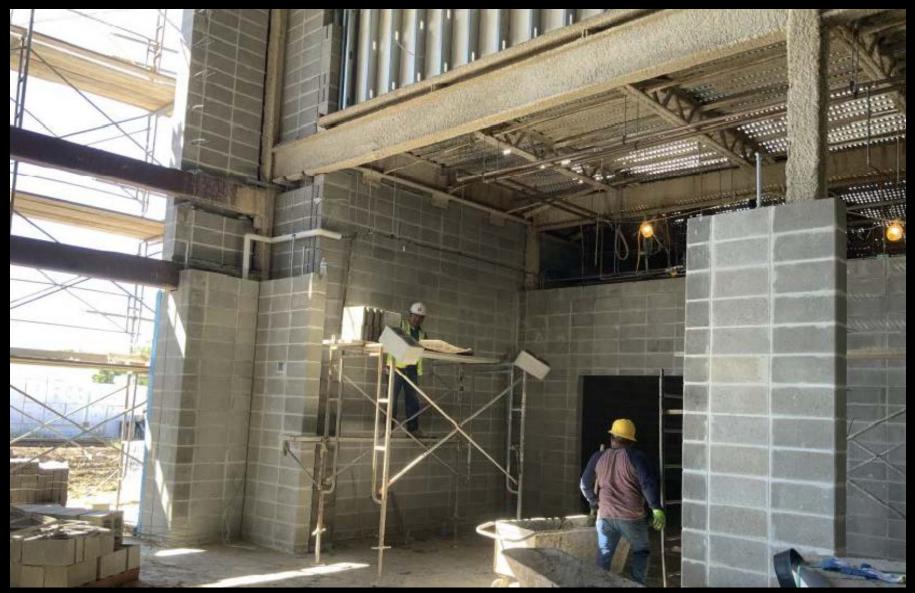




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Area C – Fire-Proofing Application to Roof Structure





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Area F – CMU column wrap installation





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Area F – Exterior Brick Veneer Installation in Progress





**Cre** Area H – Exterior CMU Installation at the South Gym Wall





# THANK YOU

