

109 W. RED OAK ROAD P.O. BOX 9000 RED OAK, TEXAS 75154 972.617.2941 FAX 972.617.4333

FOR IMMEDIATE RELEASE

Contact: Adi Bryant, Executive Director of Communications

972-617-4013 or adi.bryant@redoakisd.org

January 28, 2016

Update on Construction at Shields Elementary on Ovilla Road

On December 26, 2015, Donald T. Shields Elementary located at 223 W. Ovilla Road in Glenn Heights, Texas, was damaged due to an EF-3 tornado, with winds speeds estimated to have been between 145 and 150 mph (Report from National Weather Service attached). The district took immediate action to set up a temporary school for the students and staff to attend this semester, located at 200 Live Oak Street in Red Oak. On December 27, the district began working with L.A. Fuess Engineering, the engineer for the 2008 construction, and representatives from Corgan & Associates, the architects for the school project, to assess the damage and evaluate the safety of the building for entry by the volunteers waiting to help with the cleanup.

On December 30, the district was first contacted with questions about the quality of the construction of the exterior walls at Shields Elementary. Until this inquiry, the district had received no reports of poor workmanship, nor had any issues arisen with the building that would have prompted an evaluation.

As part of the district's efforts to restore the building and assure the students' future safety, Red Oak ISD requested a formal inspection of the entire campus by Corgan and Fuess. Following the inspection, Fuess prepared a preliminary report of the overall damage to the building and repairs, which would be necessary to assure a safe facility. The report confirmed that the steel roof framing on the building (beams, joists, columns and vertical bracing) showed limited instances of damage and appeared to be in good condition, and that the load bearing reinforced concrete walls on the north side of the building had sustained no damage. Several areas of roof decking, the gymnasium, and the west wall of the kitchen were reported to have sustained substantial damage. The majority of the HVAC rooftop units had been destroyed when they blew off the building roof, with some causing damage to the building. Fuess concluded that while the damage was substantial, it appeared that the building could be repaired and rebuilt as a safe facility for the students. Fuess observed in their report that various lengths of the perimeter non-load bearing metal framed walls had fallen away from the steel roof structure. At his recommendation, a third-party engineer, Lavi & Associates, was immediately contracted to evaluate and provide a report to Red Oak ISD regarding the design and construction of the walls, which had fallen away from the building and the associated steel structure to which they were attached.

Lavi & Associates' preliminary report was delivered to Red Oak ISD on January 11, 2016 (Report from Lavi & Associates attached). Mr. Yoosef Lavi, P.E., the engineer who prepared the report, conducted limited field observation, reviewed the architect's performance



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specifications, the engineered shop drawings (prepared by Lalonde Engineering, Inc.), the applicable code requirements, the construction of the walls and their connection to the building frame. Mr. Lavi reported that the engineered shop drawings were in general compliance with the performance specifications provided by the architect, and were consistent with applicable building code requirements, including those for wind load. The engineer concluded however, that some aspects of the exterior wall installations performed by Ratcliff Constructors and/or their subcontractors, deviated from the shop drawings and specifications provided; specifically the sizes of the fasteners and manner of their installation. The engineer concluded that these elements contributed to the failure of the walls.

On Tuesday, January 12, 2016, Red Oak ISD received a response to the Lavi & Associates report from Lalonde Engineering Inc., the engineering firm which originally prepared the engineered shop drawings for the walls in question. The letter provided additional information regarding the selection and approval of the fasteners used by Ratcliff, and commentary regarding the deviations cited in the Lavi Report. Mr. Lalonde's letter suggested that the force of the storm may have played a larger role in the wall failure than the deviations cited in the Lavi Report, reasoning that the tornado, as rated by the National Weather Service, could have created actual wind pressure load on the walls, two and a half times greater than the code required design force.

On January 14, 2016, the district's investigation continued as a team from Corgan & Associates, Lavi & Associates, L.A. Fuess, Ratcliff Constructors and Wiss Janney Elstner Associates (engineers for Ratcliff Constructors) began the process of cutting holes in existing exterior walls to visually inspect the wall fasteners at issue. Additional engineers and insurance representatives for the various contractors involved joined these parties on site at Shields Elementary the following day. Red Oak ISD formally met with Corgan & Associates representatives on January 19, 2016 to discuss next steps and continues to keep an open dialogue; however, Ratcliff declined the invitation to attend the January 19 meeting. On January 20, 2016, the district received an additional report from Lavi & Associates, which concluded that of 12 sites or walls inspected on January 14 none had fasteners which were installed in compliance with manufacturer installation guidelines. Specifically, Lavi & Associates found that the fasteners did not fully penetrate steel framing as required by the manufacturers installation guidelines.

"The information the district now has suggests that the failure of some of these exterior walls may have been caused, at least in part, by the contractor and/or its subcontractor's failure to install the connecting fasteners in accordance with the approved specifications. Our students, staff, parents, community and district taxpayers deserve the very best in their schools. These deviations from the specified plans are unacceptable for Red Oak ISD. The district will do whatever is necessary to address these issues, and any other construction quality issues, if any are revealed, as we rebuild our school. The responsible parties will be held accountable," said Red Oak ISD Superintendent Dr. Scott Niven.



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Facts, timelines, reports and documents are on the following pages. Facts on Donald T. Shields Elementary School:

- Donald T. Shields Elementary was built in 2008 and was completed in 2009.
- The General Contractor for the Shields Elementary construction was Ratcliff Constructors, L.P.
- Ratcliff Constructors constructed no other campus in Red Oak ISD.
- No issues with the construction quality at Shields Elementary have been reported to the district since it opened.
- The Shields Elementary building passed all final inspections by Bureau Veritas, the inspection provider required by the City of Glenn Heights. A certificate of occupancy was issued in August 2009. Bureau Veritas has not returned calls from Red Oak ISD through the date of this press release.
- Ratcliff Constructors subcontracted the construction of the non-load bearing exterior walls to Walker Drywall, Inc.
- Phillipe Lalonde, P.E., of Lalonde Engineering Inc. prepared and sealed the shop drawings for the non-load bearing exterior walls at Shields Elementary.
- The architect for the 2008 Shields Elementary Project was Corgan & Associates, which was hired to provide overall design and prepare performance specifications for various aspects of the building (including the non-load bearing exterior walls).
- The engineer hired by Corgan for the 2008 Shields Elementary Project was L.A. Fuess.
- Cadence McShane is the construction company selected by the district to rebuild and complete any/all repairs to Shields Elementary on Ovilla Road.
- Cadence McShane was also the General Contractor for Red Oak High School.

Timeline of Important Dates:

- **December 26, 2015**: EF-3 tornado damaged Shields Elementary
- **December 27, 2015**: Engineers from L.A. Fuess were on site to determine that the campus was safe for entry by the volunteer cleanup crews. The building was cleared for the volunteer cleanup crews to begin work.
- December 30, 2015: Red Oak ISD was contacted with questions about construction quality of Shields Elementary.
- December 30, 2015: Red Oak ISD requested a report and inspection of construction quality from L.A. Feuss and Corgan & Associates. Subsequently, a 3rd party engineering company was hired for the report. That company was Lavi & Associates.
- **January 8, 2016:** L.A. Feuss issued a report on the overall sustained damages to the school, which is attached at the end of this press release.
- **January 11, 2016:** Red Oak ISD received report from Lavi & Associates, with results of its initial inspection and review, which is attached at the end of this press release.
- **January 12, 2016:** Red Oak ISD received a response from Lalonde Engineering Inc. that addresses the Lavi & Associates Report.



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- **January 14, 2016:** At the request of Red Oak ISD, a team from Corgan & Associates, Lavi & Associates, L.A. Fuess, Ratcliff Constructors and Wiss Janney Elstner Associates (WJE are the engineers for Ratcliff Constructors) began the process of cutting holes in existing exterior walls to visually inspect the wall fasteners.
- January 15, 2016: Additional engineers and insurance representatives for contractors were on site at Shields Elementary on Live Oak.
- **January 19, 2016:** Red Oak ISD and Corgan & Associates representatives met to discuss next steps. Ratcliff Contractors declined the invitation to attend.
- **January 20, 2016:** Red Oak ISD received an updated report from Lavi & Associates recapping the visual inspection of exterior walls that was conducted on January 14, which is attached at the end of this press release.
- **AT PRESENT:** Red Oak ISD is seeking formal recommendations with regard to correction of the exterior wall deficiencies.

Documents Attached:

- National Weather Service Report from December 26, 2015
- Statement from Ratcliff Constructors on January 4, 2016
- Statement from Corgan & Associates on January 5, 2016
- L.A. Fuess Report from January 8, 2016
- Lavi & Associates Report from January 11, 2016
- Lalonde's Response to Lavi & Associates Report on January 12, 2016
- Lavi & Associates Report from January 20, 2016
- Contract Between Red Oak ISD and Ratcliff Constructors from January 2008
- Contract Between Red Oak ISD and Bureau Veritas from September 2008
- Certificate of Occupancy from the City of Glenn Heights from August 2009
- Final Inspection Report from Bureau Veritas showing Passed for C/O from July 2009

MWSChat - NOAA's Nation ×

← → 🧷 🗅 https://nwschat.weather.gov/p.php?pid=201512290153-KFWD-NOUS44-PNSFWD

... MIDLOTHIAN /OVILLA / GLENN HEIGHTS TORNADO...

RATING: EP-3
ESTIGATED PEAK WIND: 145-155 MPH
PATH LENGTH /STATUTE: 8.5 MILES
PATH WIDTH /MAXIMUM/: 125 YARDS
FATALITIES: 0
INJURIES: N/A
START DATE: DEC 26 2015
START TIKE: 601 FM CST
START LOCATION: 5 E MIDLOTHIAN / ELLIS / TEXAS

END DATE:

END TIME:

613 PM CST

END LOCATION:

GLENN HEIGHTS / DALLAS / TEXAS

SURVEY SUMMARY: THIS TORNADO PRODUCED A LONG AND NARROW DAWAGE PATH FROM JUST NORTHEAST OF THE MID-WAY REGIONAL AIRPORT NEAR MIDLOTHIAN TO THE DROBER OF DESOYO AND GLENN HEIGHTS. THERE WERE SEVERAL HONES HITH DAWAGE TO ROOFS...WITH SEVERAL HOWES SUFFERING WALL FAILURE DAWAGE. ADDITIONALLY...TWO CHURCHES AND ONE ELEMENTARY SCHOOL SUFFERED EXTERSIVE DAWAGE.



January 4, 2016

RE: D.T. Shields Elementary School

To Whom It May Concern,

On January 4, 2008, Ratcliff Constructors, LP entered into an agreement with the Red Oak Independent School District to construct the new D.T. Shields Elementary School in Glenn Heights, Texas. The building construction was completed on July 27, 2009.

On December 26, 2015, the school was damaged by a tornado that traveled through the City of Glenn Heights. There have been public accusations that the construction means and methods used to construct the building were inferior and not within industry standards. Ratcliff Constructors, LP strongly disagrees with these allegations and firmly believes the D.T. Shields Elementary School was constructed in accordance with the plans and specifications (Contract Documents) provided to us. In that regard, Ratcliff was provided with engineered metal stud shop drawings that support and confirm the design intent of the plans and specifications which was based on ASCE 7-05 wind design (90 MPH). This set of stamped and engineered shop drawings details the attachment method to be used in connecting the metal stud system to the concrete slab and the steel structure. All exterior and interior wall construction was inspected and approved by a third party inspection firm at numerous intervals throughout the construction process. No drywall or wall sheathing was installed until after Ratcliff received written approval from the third party inspection firm verifying the metal stud framing system was properly installed. To date, we have seen no official report by any engineer or firm regarding their post-tornado findings that indicate otherwise.

Our thoughts and prayers go out to everyone who has been affected by the tornados in the area. Ratcliff Constructors, LP will cooperate with the Red Oak ISD and the City of Glenn Heights but strongly disagrees with the statements being made that the damage to the school was caused by inferior construction.

Max K. Young President



ARCHITECTURE INTERIOR DESIGN

401 North Houston Street Dallas, Texas 75202

214 748 2000 WWW.CORGAN.COM January 5, 2016

Red Oak ISD
Dr. Scott Niven
Superintendent of Schools
109 W. Red Oak Road
Red Oak, TX 75154

Re: Shields Elementary School Damage - Red Oak Independent School District

Dear Dr. Niven:

First of all, we at Corgan would like to express our sincere relief that there were no injuries at the elementary school during the recent tornadoes and severe storms. It is our understanding that over 200 homes were damaged or destroyed in the Ovilla, Glenn Heights and Red Oak areas; and the nearby Ovilla Road Church of the Nazarene was completely destroyed. Our thoughts, and we think those of all Dallas, have been with your communities and families affected by the devastating storms of December 26th.

As you are aware, Corgan was the architect for the Donald T. Shields Elementary School building design. As a part of our services Corgan prepared and issued a performance specification to the contractor for the metal stud wall framing assembly. This is an industry recognized process in which the contractor chooses a specific acceptable framing system manufacturer and then engineers and constructs a wall framing system based on that manufacturer's components to meet applicable code requirements and other criteria set out in the performance specification. With this performance specification in hand, an independent engineer was selected by and contracted through the contractor, Ratcliff Construction, to design and seal the detailed design drawings for the metal stud wall system for this school. The metal stud wall assembly was permitted per applicable Glenn Heights' building code processes, at the time it was constructed and installed by Ratcliff Construction and its sub-contractors. Further, the metal stud wall framing assembly was inspected for conformance with building code requirements by an independent third party inspector retained by the District for building inspection services as required by the City of Glenn Heights.

As you know, our team has been working diligently with the Red Oak Independent School District team over the last week to assess and understand the damage caused by the tornado and to develop a plan for reconstructing this school after this tragedy. The priority is to get the children back into Shields Elementary School and back to their routine soon. Thus far we understand that the school took a direct hit from what has been classified in multiple articles to be somewhere in the range of an EF1 to an EF3 tornado, meaning winds of up to 155 mph. The metal wall framing assembly, if designed to applicable code and the performance specification should sustain up to 90 mph direct winds. The roof top units on the classrooms wings were ripped from their mounts and rolled across the roof and into the parapet wall. There was also a large vehicle which was lifted by the storm and tossed into a wall of the

5 January 2016

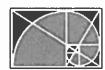
school. At this time, we understand that the pressure of the units being throw into the parapet wall and the sustained winds of the tornado may have both contributed to the wall failure. While we will defer to the structural engineers involved in this project to further discuss the forces in play and structural capabilities of the school, there were obviously extremely powerful winds and resultant forces generated by this storm. Again, we are very thankful that there were no injuries.

Our investigation with you is continuing, but we wanted to give you our most current information to help with your communications to your district and community. Corgan looks forward to helping Red Oak ISD move forward through this tragedy and to getting the children back to their school.

Sincerely,

Steve Hulsey, AIA

Principal



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Project : Red Oak Independent School District

Shields Elementary School

200 Live Oak Street

Red Oak Texas 75154

Attn : Steve Hulsey

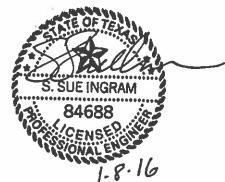
Corgan Associates 401 N Houston Street Dallas, Texas 75202

Report By : Walter R. Wilcox, PE

S. Sue Ingram, PE

Report Date : January 8, 2016

WALTER R. WILCOX
63130
63130
63756/STERED



Subject : Shields Elementary School – Storm Damage

We are writing to report the findings of our visual evaluation of the condition of the building structure at Shields Elementary School (circa 2009) that sustained damage due to a tornado on December 26th at approximately 6 pm. Building structure reviewed includes steel roof beams, steel roof joists, steel columns, vertical steel bracing, steel roof deck, and load bearing reinforced concrete masonry walls. Visual reviews were conducted on the mornings of December 27th, 28th, and 29th with some limited access and visibility due to various levels of debris. An additional visual review was completed the morning of January 6 after the majority of the debris had been removed inside and outside the building.

General Observations of damage:

- A. The tornado moved from the southwest to the northeast generally. The south and west sides of the school sustained the most damage from wind and debris impacts. Adjacent building structures were heavily damaged to the southwest and northeast of the school.
- B. In general the steel roof frame (steel beams, steel joists, steel columns, and vertical steel bracing) are in good condition with no visible signs of damage with the exception of items D and J below.
- C. No damage is visually apparent to the load bearing reinforced concrete masonry walls on the north side of the building.
- D. Approximately 1,300 square feet (two bays of roof deck) is damaged or missing in the fourth grade wing (west wing of the southern portion of building). In this area approximately ten



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- steel roof joists are damaged beyond repair and require replacement. See photos #4 and #5 and Floor Plan #2 for location.
- E. Roofing and steel roof deck is damaged in multiple areas. Roof decking is punctured or connections damaged in a few areas. See Floor Plan #2 and #3 for locations.
- F. The gymnasium parapet along the north wall (load bearing reinforced concrete masonry) and the kitchen west wall at the north end has damage at one location where a portion of the brick veneer fell, separating from the masonry wall.
- G. Several stand alone exterior pre-manufactured canopy members are broken, bent, and deformed. See photo #1 for an example.
- H. At classroom wings in four locations, various lengths of perimeter exterior non-load bearing cold formed metal framed walls with brick cladding have fallen away from the building frame. See Floor Plan #1 for locations and photos #2, #3 for examples.
- I. A majority of the roof top units (approximately 33 of 40) were displaced from their original locations, many blown off of the roof. The units are reported by the Contractor to be separated from their curbs, with curbs still in place and anchored to steel roof structure.
- J. One displaced roof top unit passed through a perimeter wall above the low roof adjacent to the main entry, coming to rest on the floor inside the building. The tube steel brace member in the wall between the low and high roof at this location may have been damaged but was not accessible for evaluation due to debris and interior finishes still in place. See Floor Plan #3 for location.

Structural Repairs and further evaluations anticipated:

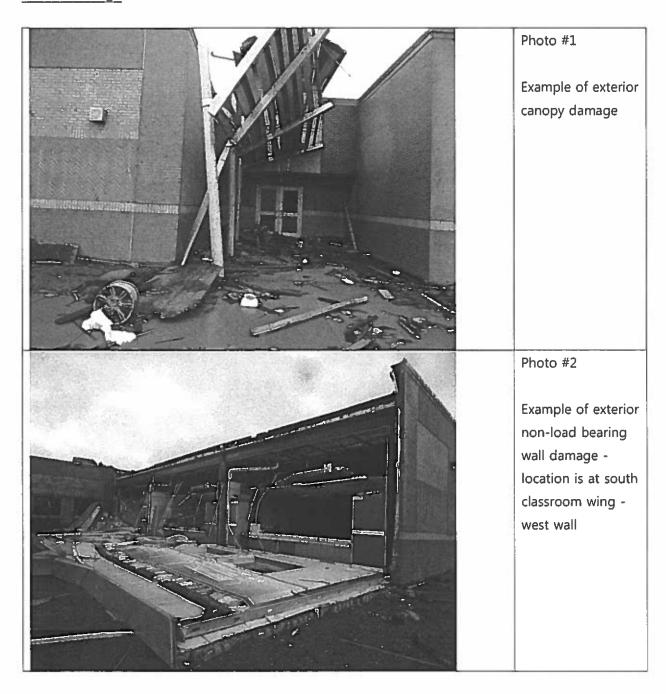
- Structural Steel Frame: After completion of interior cold form metal framed wall demolition, condition of vertical braces, roof framing members, and connections will be visually confirmed one final time for any possible damage needing repairs.
- 2. Steel roof joists and roof decking replacement is needed in two bays of the fourth grade wing (west wing of the southern portion of building). See Floor Plan #2 for location and photos #4 and #5.
- 3. The roof deck adjacent to the perimeter walls per item H. above show signs of distress due to wind uplift. Replacement is needed for some portion of roof deck in these areas. In isolated areas throughout the building existing roof deck will likely require reattachment to steel roof support members prior to the replacing the roofing. A final evaluation will be completed once ceiling tiles are removed to allow visual and physical access.



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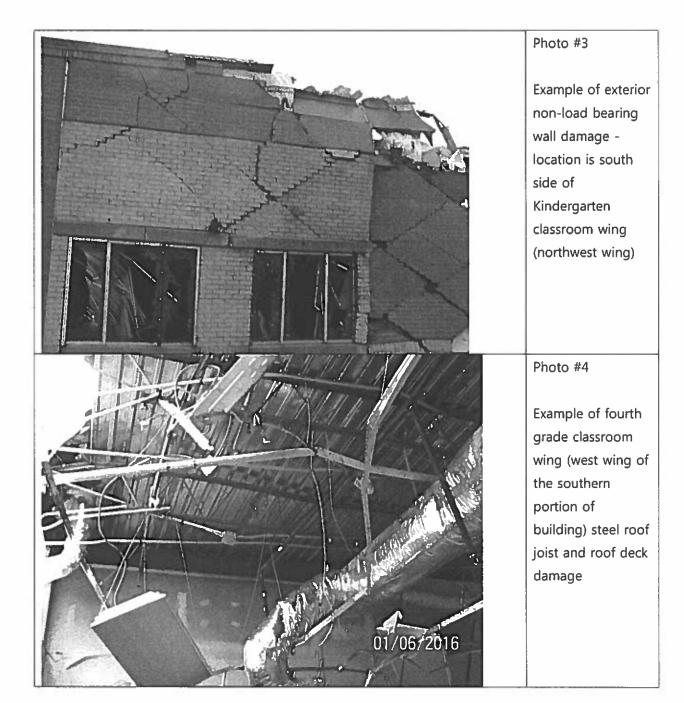
4. Roof top unit support frames: To be assessed for localized damage once ceiling tiles are removed.

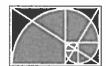
Photo Montage





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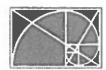


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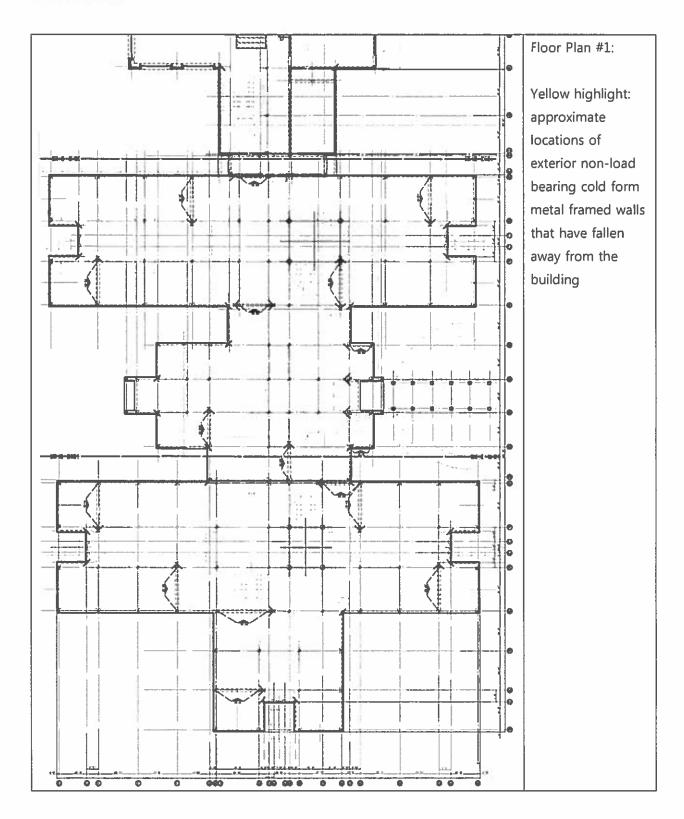


Photo #5

Example of fourth grade classroom wing (west wing of the southern portion of building) steel roof joist and roof deck damage

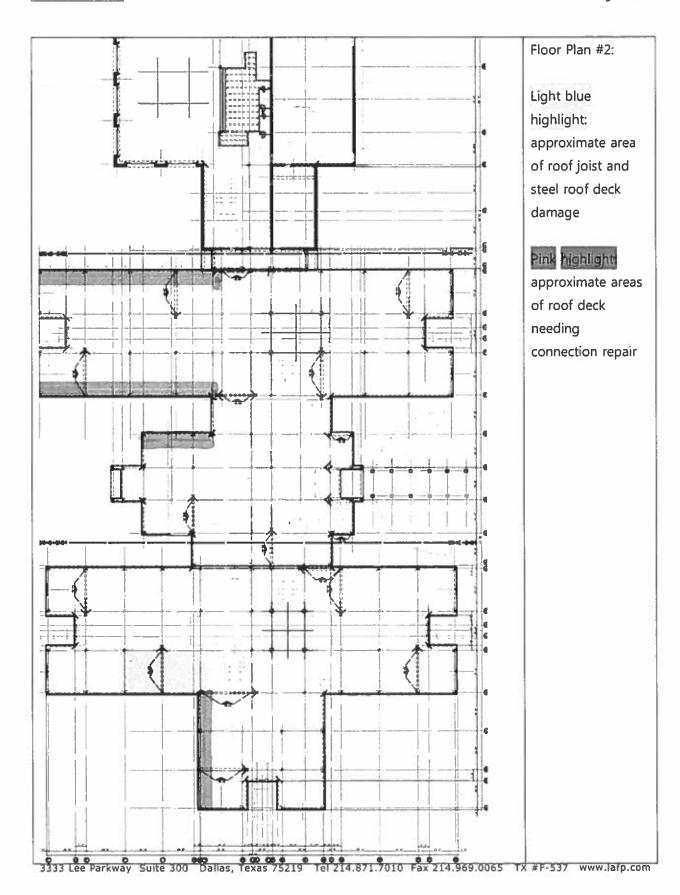


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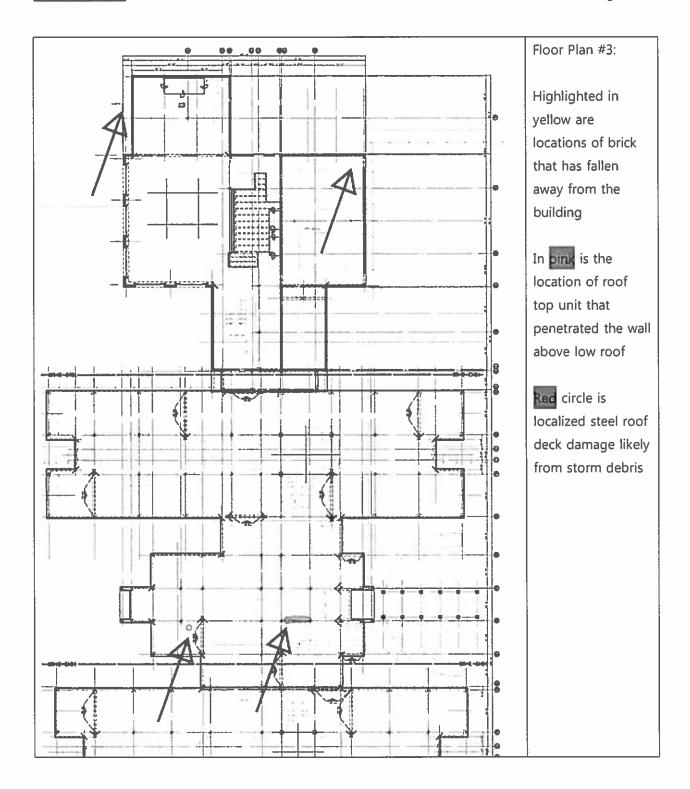


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LAVI & ASSOCIATES, L.P.

CONSULTING ENGINEERS

10300 N. CENTRAL EXPWY. SUITE 322 DALLAS, TEXAS 75231 USA

PHONE (214) 340-0049 FAX (214) 340-0067 EMAIL ylavi@laviengineering.com

January 11, 2016

Mr. Steve Hulsey Corgan Associates 401 N. Houston Street Dallas, Texas 75202

Re: Shields Elementary School, Red Oak ISD-Tornado Damage

Dear Mr. Hulsey:

We are writing to report our visual evaluation of the exterior non-load bearing cold formed metal framed walls with brick Veneer cladding that have fallen away from the building main structure due to a tornado on December 26Th. Photo # 1 depicts the location of these walls, and photo #2 is the examples of the extent of damage.

Our report is based on photographs from December 27th through 29th furnished to us by L.A. Fuess Partners, Inc. Structural Engineers, and our visual reviews conducted on the morning of January 6, after the majority of the debris had been removed.

In this report we will briefly discuss the wall construction used for the exterior non-load bearing walls and their connection to the building frame. We will also review the engineered shop drawings for the exterior framing, and compare it to as built construction. Finally we will review photographs of the exterior condition and render our opinion.

Typical Exterior Construction:

Exterior wall construction consist of typical brick veneer and cold formed steel studs, and exterior sheathing, which have been used in this type buildings for many decades. (Photo # 3, and # 4 for examples). These wall panels typically attached to building frame using Power-actuated fasteners. Since these non-load bearing walls only supporting the weight of exterior, and interior sheathing, and lateral load from wind, or seismic loads <u>anchor bolts</u>, <u>or any structural bolts</u> are not needed for connection of these walls to the main structure, and are not typically used.

Review of Engineered Shop Drawings:

Exterior metal stud shop drawings were prepared, and stamped by Philippe Lalonde, P.E. dated December 18, 2008 as required by the contract drawings. In review of these shop drawings, and their accompanied calculations, it appears to be in general compliance with loading specified in the construction documents dated October 29, 2007 which are consistent with code requirements.

Engineered Shop Drawings VS. Observed actual installation:

Based on our limited field observation, review of photographs, and comparing the as built condition to engineered shop drawings we found the following discrepancies. (Items specified below may not be the only discrepancies observed).

Wall Panel bottom tack attachment to concrete slab:

Drawing:

(1) 0.145" dim. Hilti X-DNI fastener W/ 1-1/2" embedment into conc. @ 16" O.C.

Min. edge distance required 3". Allowable shear = 378 lbs. / fast.

Installed:

(1) 0.125" dim. Ramset power-actuated fastener 3/4" long (If installed properly

will yield 5/8" embedment) at 8" to 12" spacing.

Min. edge distance required 3.2". Allowable shear = 94 lbs. / fast

Fasteners were installed anywhere from 1.5" to 2" from concrete edge which will

reduces the capacity.

Additionally as can be seen in the photographs #5 through #9 some of the fasteners did not have proper embedment or edge distance.

Wall panel attachment to roof edge angle:

Drawing:

Verticlip SLB 600 or equal with (2) #12-12 Screws to stud & (2) Hilti 0.145" Hilti

X-EDNI to steel edge.

Min. fastener spacing required 1". Allowable Tension = 675 lbs. / fast.

Installed:

Verticlip SLB 600 with (3) #12-12 Screws to stud & (3 to 4) 0.125" dim

Ramset power-actuated fasteners to steel edge angle.

Min. fastener spacing required 1". Allowable Tension = 239 lbs. /fast. Fastener were installed anywhere from 1/4" to 1" o.c. which will reduces the

Capacity further.

In some locations screws connecting the clips to the studs did not appear to be installed (See photos #10, #11, and #13). Additionally as can be seen in the photographs #10-13 some of the fasteners did not have proper embedment into steel angle or proper edge distance, which may have caused connection failure.

Conclusion

In our opinion the engineered shop drawings were in general compliance with the construction document design requirements, and met the building code wind load requirements. However, installation of exterior non-load bearing walls were not consistent with the engineered shop drawings. There were numerous deviations especially in regard to fasteners used. Easteners as installed did not meet the sizes specified on the shop drawings, and were not installed following fastener manufacturer's installation guidelines. We believe the elements specified above, in combination with tornado wind loads, contributed to failure of these walls.

Shields Elementary School January 11, 2016 Page 3 of 16

We reserve the right to amend or supplement this report as new information is provided or learned.

Please do not hesitate to contact our office should you have any questions, or require additional information.

Sincerely,

Yoosef Lavi, P.E.

YL/fl

Texas Firm Number: F-2384

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NG

Photo # 1: Yellow Highlight shows approximate location of walls fallen away from building

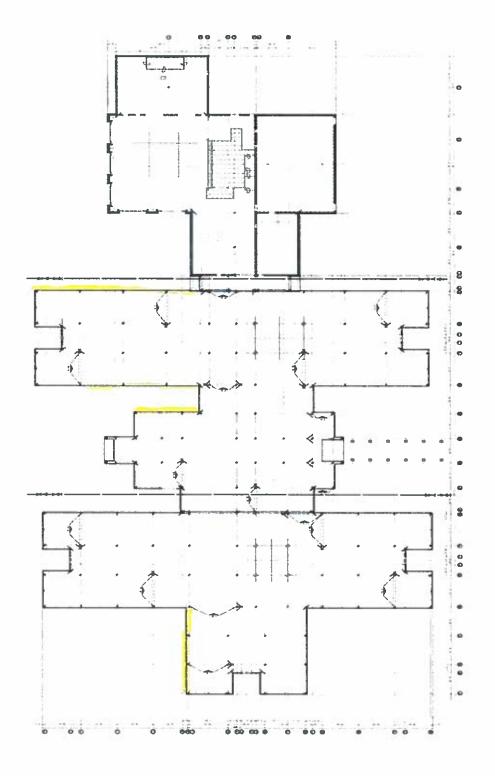


Photo #2: Example of exterior non-load bearing wall damage.

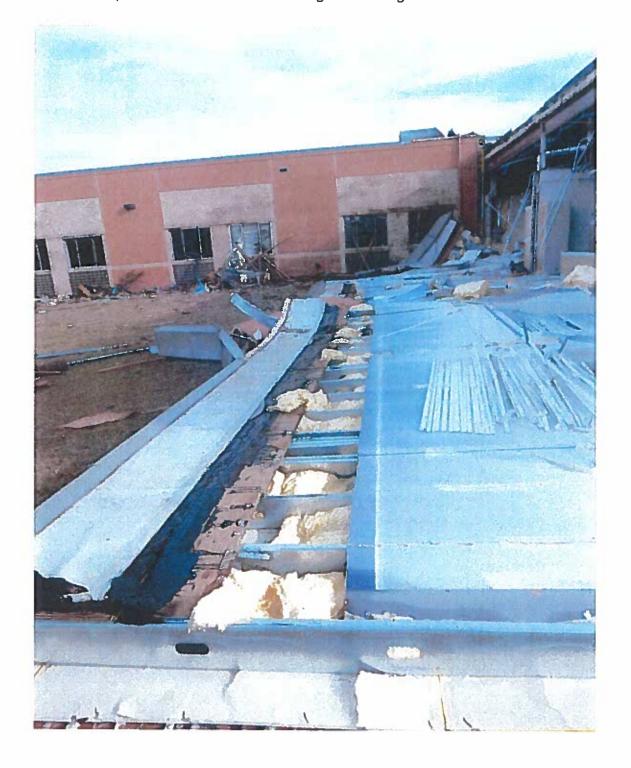


Photo #3: Example of Exterior wall construction

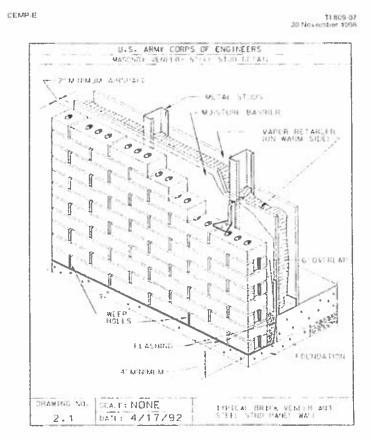


Figure G.5. Typical Brick Venuer and Steel Strid Panel Walt

Photo #4: example of base connection using power-actuated fasteners.

<u>Anchor bolts</u> not requires for this type of construction.

CEMP-E

TI 809-07 30 November 1998

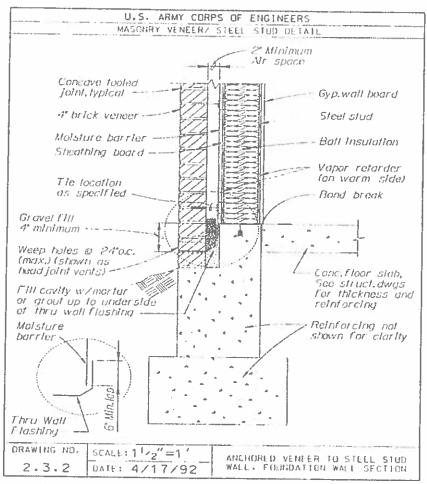


Figure G-8. Mosonry Veneer Steel Stud Panel Wall, Foundation Wall Section

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Photo #5: Example of Power-actuated fasteners not properly penetrating concrete slab and too close to concrete edge.



Photo #6: Example of Power-actuated fasteners not properly penetrating concrete slab and too close to concrete edge. Conditions like this was consistent through the failed walls.



Photo #7: Example of power-actuated fastener not installed properly.

Proper installation would have shown plastic guidance washer totally flattened For proper penetration into concrete.



Photo #8: Another example of fastener too close to edge of concrete.

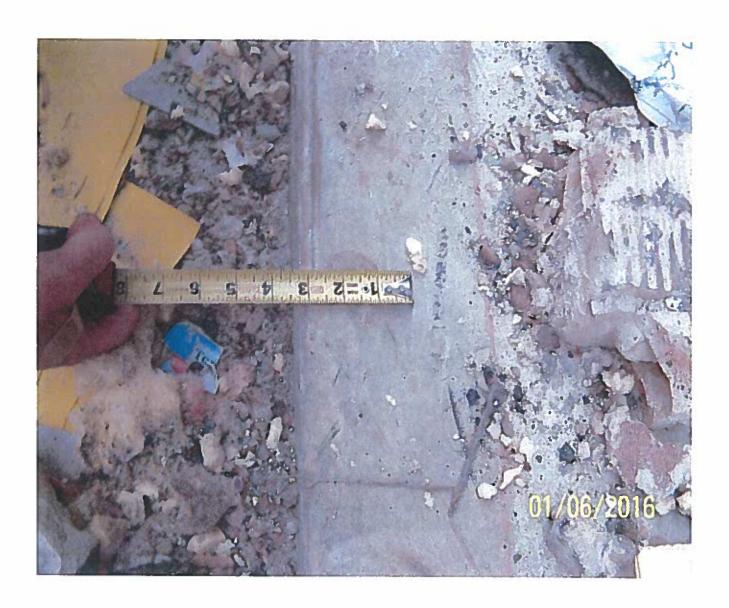


Photo #9: Another example of fastener too close to edge of concrete. This was consistent thorough failed walls.



Photo #10: Example of improper clip installation, it appears the power-actuated fasteners Hardly penetrating the edge angle.

It also appears that stud in this location was not attached to the clip. Also fasteners spacing were less than minimum.



Photo #11: Another example of studs not being attached to clips which may have added additional load on adjacent connections.

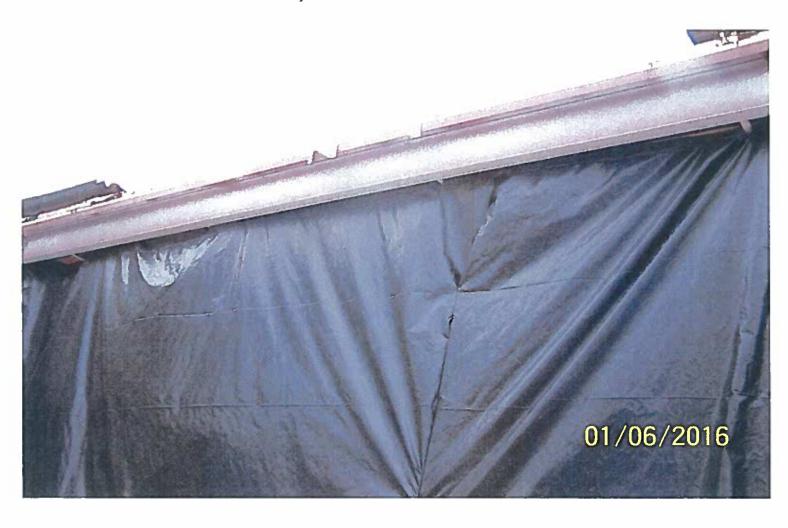


Photo #12: Example of fasteners not having enough penetration into edge angle. Fasteners installed too close to edge of punch-outs

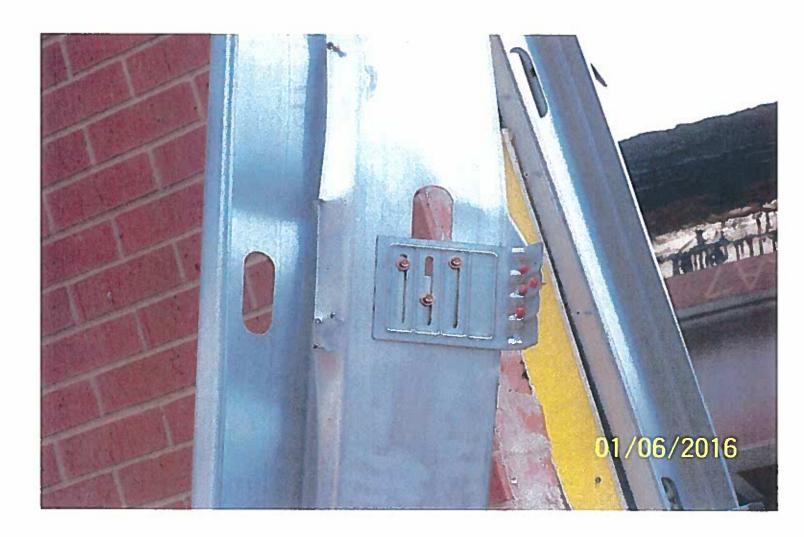
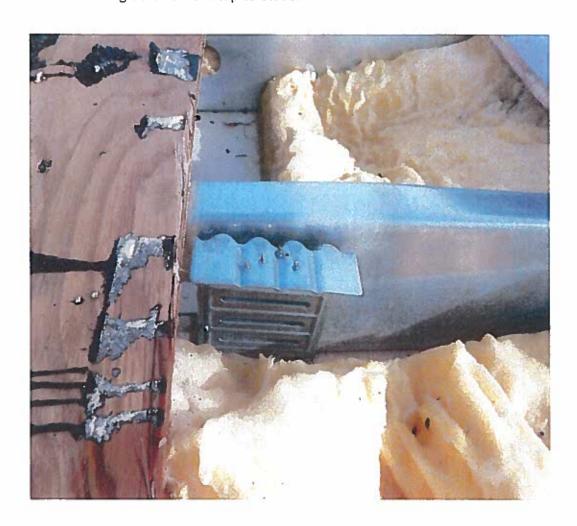


Photo #13: Example of improper installation, and not enough fastener penetration into steel causing connection failure.

Missing screws from clip to studs.





6617 Red Bud Road Fort Worth, Texas, 76135 Phone: 817-307-8266 Fax: 817-238-1520 Email: plalonde@lalonde.org.com

1/12/2016 Rawson Shop Drawings Attn: Mike Rawson 5849 Bridal Trail Fort Worth, Texas 76179

Job No. 081042

DT Shields Elemetary - Steel Stud Submittal Calculations

Mr. Rawson,

It has been requested of me to provide a response to the report issued by Lavi & Associates, L.P. on January 11, 2016 regarding the damage observed by Yoosef Lavi, P.E. and assessed in his report. It is the purpose of this letter to provide comments regarding aspects found within that report and the generally known facts regarding this incident. It should be known that I have not been to the site to observe the damage and can provide no insight beyond what has been documented thus far. I am only offering commentary on the Lavi report.

It should be noted first that the National Weather Service has issued a rating for the tornado that affected the school. I have attached it to this report. The basic wind speed that was required for code design is 90 mph per the 2003 International Building Code which was used for this design in 2008. The tornado has been rated by the NWS as an EF-3 with wind speeds estimated between 145 mph – 150 mph. The basic wind pressure calculation given by ASCE-7 is a fuction of wind velocity squared. A simplified ratio of actual wind pressure to design wind pressure can be found by squaring the actual wind speed of 145 mph and dividing by the square of the design wind speed of 90 mph. This results in a factor of 2.5957 or roughly 2 1/2 times the design pressures. Based on this assessment it is fair to say the actual wind pressures were well above the design wind pressures. This should be considered when evaluating how the construction of the school performed during this tornado event.

Within the report there is a reference to the use of RAMSET T3 pins for connecting the base track to the concrete slab instead of HILTI X-DNI fasteners. This was allowed as an alternate and is documented in the attached letter and details provided to the client at the time the alternate was requested. The shear reactions for the wall studs in question were analyzed using 2008 reported values for the T3 pins. The values that appear in the

Lavi report appear to be from the 2015 ESR-1955 report for Ramset T3 pins. These are less than the HILTI values. The HILTI anchors do provide greater shear resistance. The Ramset anchors were not designed as a full replacement of the HILTI anchor values but were calculated to resist the actual force reaction from the stud calculations. The values from the initial analysis of the alternate Ramset anchors in 2008 show adequate capacity in shear to resist the reactions of the studs at the code design levels. The minimum edge spacing mentioned by Lavi appears to be from the 2015 ESR report noted above.

The connection of the stud to the roof edge angle is accomplished by a clip angle with screws to the studs and anchor pins to the steel angle. The reaction of the stud at the roof according to the studs calculations for 1/S2 on the submittals is 348.5 lbs based on the design code loading. The Lavi report appears to use the 2015 ESR-1955 report for Ramset T3 pins to provide an allowable tension load of 239 lbs per pin. It also shows that his observations account for three or four pins per clip instead of the two specified. Using 3 pins times the allowable load of 239lbs per pin provides an allowable total load of 717 lbs which exceeds the actual reaction force of 348.5 lbs. This is a factor of safety of 2.05. It is likely that the spacing of the pins at less than the 1" minimum specified in the ESR-1955 report will reduce the effective resisting load but there is no adjustment factor provided in the ESR report to reduce the load. It is unclear what the actual resisting load would be when factored for the closer spacing but it would have to be more than a 50% reduction to reduce the effective resisting load below the actual design calculated reaction.

The anchor pins being pulled out of the concrete in tension is not surprising. The manner of failure appears to be that the wall studs broke free of the roof attachment and rotated down to the ground. This action would provide a vertical prying force on the base track pulling the pins out of the concrete. The studs are roughly 14 feet tall and would be acting as a 14 foot lever arm compared to the approximate 3 inch distance from the edge of track to the pins. This is a force multiplier of 56 when comparing the lever arms, similar to a hammer prying out a nail. It is unclear how any pin could adequately resist such a loading condition.

Within the Lavi report there is an observation that in some locations the screws did not appear to be installed from the clip angle to the studs. It is not verified that the clip angles directly match a stud with no screws for attachment. It is common for the clip angles to be pre-installed to the steel edge angle at 16 inches on center spacing. When the wall is erected the studs may have been relocated due to the occurrence of jambs at openings. The clips are then installed to the studs and edge angle in the new location of the stud and the pre-installed clips are abandoned in place. Based on photographs, I cannot verify if this is the case for the photos provided in the Lavi report. I only offer this as a possible explanation as to why clips are present that do not appear to have screws to the studs. Further observations

coordinating the location of the clips at the roof edge angle to studs in the wall would need to be completed before a direct correlation could be made regarding the lack of connection screws.

This has been a brief response and commentary on the Lavi report. The purpose was to provide explanations and commentary to the areas of the report that Lavi refers to as deviations. Further analysis would be required to provide conclusive determination of these issues. It is again prudent to remember the rating of the tornado by the NWS and the possible increase in actual wind pressure loading of 2 ½ times the code required design force that this tornado would have provided to the structure.

If you have any questions then please contact our office.

Sincerely,

Philippe Lalonde, P.E.

President

Digitally signed by Philippe Lalonde

DN: cn=Philippe Lalonde, o, ou, email=plalonde@lalondeeng.com, c=US

'Date: 2016.01.12 13:00:26 -06'00

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PHILIPPE J. LALONDE, P.E. 89364 (CO# F-7978) ON January 12, 2016.

START LOCATION: 3 S SULPHUR SPRINGS / HOPKINS / TEXAS

DEC 26 2015 END DATE: END TIME: 5:34 PM CST

END LOCATION: 2 S SULPHUR SPRINGS / HOPKINS / TEXAS

SURVEY SUMMARY: THIS TORNADO WAS OBSERVED AND PHOTOGRAPHED BY TRAINED SPOTTERS.

.MIDLOTHIAN /OVILLA / GLENN HEIGHTS TORNADO...

EF-3 RATING:

ESTIMATED PEAK WIND: 145-155 MPH PATH LENGTH /STATUTE/: 8.5 MILES PATH WIDTH /MAXIMUM/: 125 YARDS

FATALITIES: 0 N/A INJURIES:

DEC 26 2015
START TIME: 601 PM CST
START LOCATION: 5 P MTT

5 E MIDLOTHIAN / ELLIS / TEXAS

END DATE: DEC 26 2015 613 PM CST END TIME:

END LOCATION: GLENN HEIGHTS / DALLAS / TEXAS

SURVEY SUMMARY: THIS TORNADO PRODUCED A LONG AND NARROW DAMAGE PATH FROM JUST NORTHEAST OF THE MID-WAY REGIONAL AIRPORT NEAR MIDLOTHIAN TO THE BORDER OF DESOTO AND GLENN HEIGHTS. THERE WERE SEVERAL HOMES WITH DAMAGE TO ROOFS...WITH SEVERAL HOMES SUFFERING WALL FAILURE DAMAGE. ADDITIONALLY...TWO CHURCHES AND ONE ELEMENTARY SCHOOL SUFFERED EXTENSIVE DAMAGE.

.SUNNYVALE / GARLAND / ROWLETT...

RATING: EF-4

170-180 MPH ESTIMATED PEAK WIND: PATH LENGTH /STATUTE/: 13 MILES PATH WIDTH /MAXIMUM/: 550 YARDS

8 FATALITIES: 7+ INJURIES:

START DATE: DEC 26 2015 START TIME: 6:45 PM CST

SUNNYVALE / DALLAS / TEXAS START LOCATION:

DEC 26 2015 END DATE: END TIME: 7:02 PM CST

END LOCATION: LAKE RAY HUBBARD / ROCKWALL / TEXAS

Lalonde Engineering Inc.

6617 Red Bud Road Fort Worth, Texas - 76135 Phone: 817 307 8266 Fas: 817 238 4520 Email: philoade@laloade.eng.com

1/9/2009 Rawson Shop Drawings Attn: Mike Rawson 5849 Bridal Trail Fort Worth, Texas 76179 Job No. 081042

Re: DT Shields

Dear Mr Rawson,

The ¾" RAMSET Trakfast T3 pins are appropriate for this application and have been provided for this project. The spacing of these pins shall average 10" on center along the track.

If the ¾" RAMSET Trakfast T3 pins are provided by the contractor at an average spacing of 10" on center then the project will be in general compliance with the design and contract documents. This means that the track should have the following amount of pins per 50 inch length along the track:

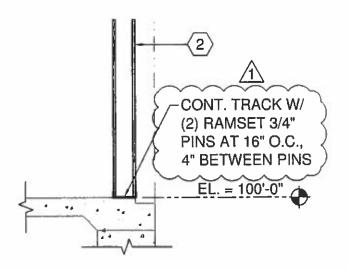
50" 5-pins

Should the number of pins within 50" be less than 5 then the contractor shall add pins as necessary to meet 5 pins in 50 inches requirement.

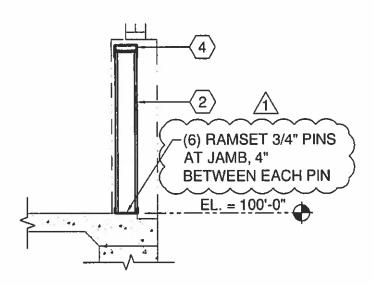
Sincerely,

Philippe Lalonde, P.E. P.E. No 89364 President PHILIPPE J. LALONDE B9364

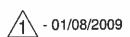
Lalonde: Engineering Inc.



REFER TO 01/A06-01, 01/A06-02, 04/A06-03 & 01/A06-05 WALL SECTION



2 REFER TO 02/A06-01 & 02/A06-02 WALL SECTION





The seal appearing on this document was authorized by Philippe J. Lalonde, P.E. 89364 on Jan. 08, 2009.

Rawson Shop Drawings

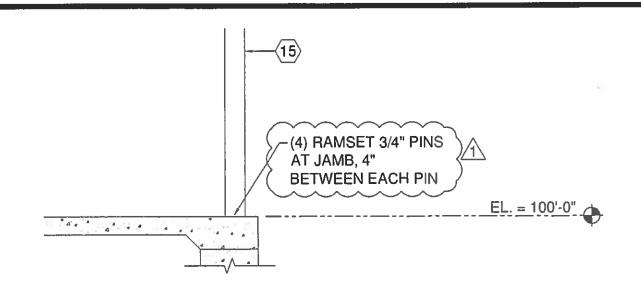
5849 Bridal Trail Fort Worth, Texas 76179 (817! 564-3358 (817) 232-2862 FAX mrawson@rawsonshops.com

ALTERNATE FOR 3/4" TRAKFAST RAMSET PINS

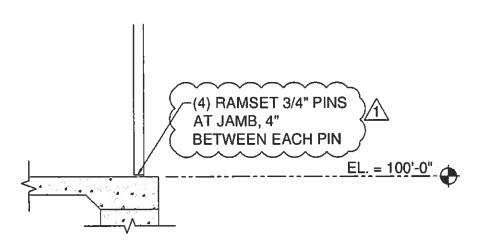
DONALD T. SHIELDS ELEM. SCHOOL - RED OAK ISD GLEN HEIGHT, TEXAS

DATE	01/08/2009
DRAWN BY	M.W.R.
CHECKED BY	P.L.
PROJECT No.	08-051

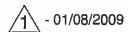
MS-1



3 WALL SECTION



4 WALL SECTION





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Rawson Shop Drawings

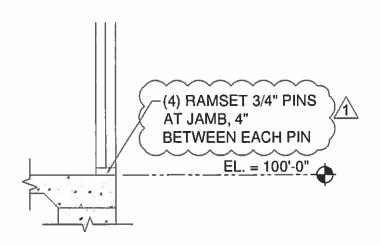
5849 Bridal Trail Fort Worth, Texas 76179 (817) 564-3358 (817) 232-2862 FAX mrawson@rawsonshops.com

ALTERNATE FOR 3/4" TRAKFAST RAMSET PINS

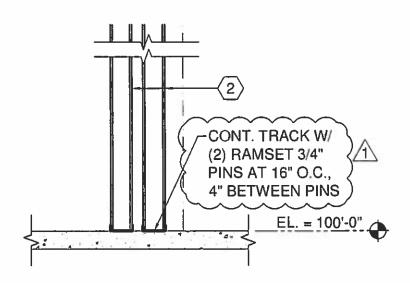
DONALD T. SHIELDS ELEM. SCHOOL - RED OAK ISD GLEN HEIGHT, TEXAS

DATE	01/08/2009
DRAWN BY	M.W.R.
CHECKED BY	P.L.
PROJECT No.	08-051

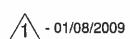
MS-2



5 WALL SECTION



9 WALL SECTION





The seal appearing on this document was authorized by Philippe J. Lalonde, P.E. 89364 on Jan. 08, 2009.

Rawson Shop Drawings

5849 Bridat Trail Fort Worth, Texas 76179 (817) 564-3358 (817) 232-2862 FAX mrawson@rawsonshops.com

ALTERNATE FOR 3/4" TRAKFAST RAMSET PINS

DONALD T. SHIELDS ELEM. SCHOOL - RED OAK ISD GLEN HEIGHT, TEXAS

DATE	01/08/2009
DRAWN BY	M.W.R.
CHECKED BY	P.L.
PROJECT No.	08-051

MS-3

LAVI & ASSOCIATES, L.P.

CONSULTING ENGINEERS

10300 N. CENTRAL EXPWY. SUITE 322 DALLAS, TEXAS 75231 USA

PHONE (214) 340-0049 FAX (214) 340-0067 EMAIL ylavi@laviengineering.com

January 20, 2016

Mr. Steve Hulsey Corgan Associates 401 N. Houston Street Dallas, Texas 75202

Re: Shields Elementary School, Red Oak ISD- Tornado Damage

Dear Mr. Hulsey:

We are writing to report our visual evaluation of the connection of slotted clip to 3x3x1/4" structural roof edge angle. On January 14, 2016 we observed a total of 12 location as shown in photo #1. These areas where consisted of approximately 30" x 30" removal of exterior sheathing and roofing material on the backside of the parapet. In these 12 areas we were looking for fastener penetration through the backside of the edge angle which is required for proper installation of power actuated fasteners. Following are the summery of our observations.

- In all of the 12 areas selected for observation, none of the fasteners had full penetrations as can be seen in photos #2, and 3, and are not in compliance with fastener manufacturer installation guides.
- In some areas studs were not connected to the main structure, therefore the adjacent connections may be overloaded. Photo #4
- In several areas where multiple studs were used for jamb studs, they were not connected together as required by design. Photo # 5

Observation was limited to these 12 areas, however we believe these conditions may be typical through the other areas also.

Please do not hesitate to contact our office should you have any questions, or require additional information.

Submitted by:

Yoosef Lavi, P.E.

YL/fl

Texas Firm Number: F-2384

Photo # 1: Areas circled in red show approximate location of observed areas

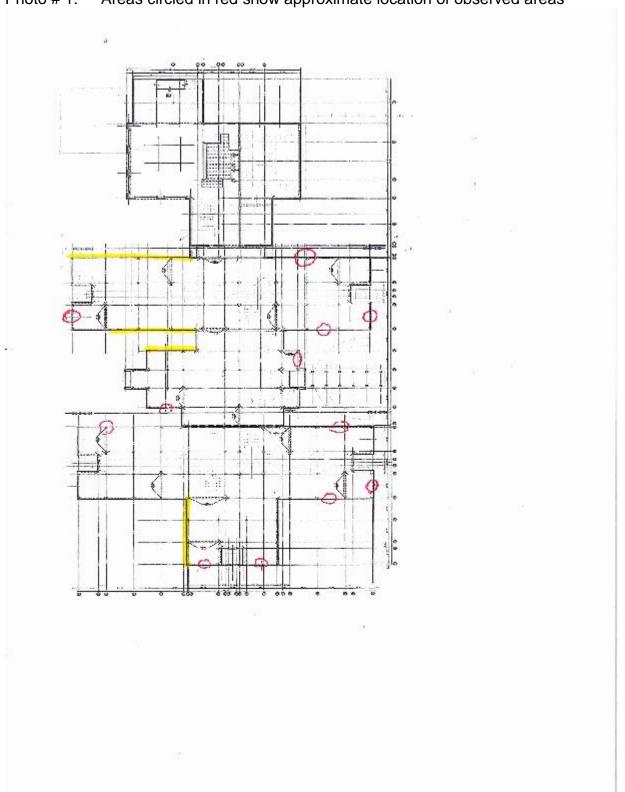


Photo #2 Fasteners not fully penetrating the edge angle

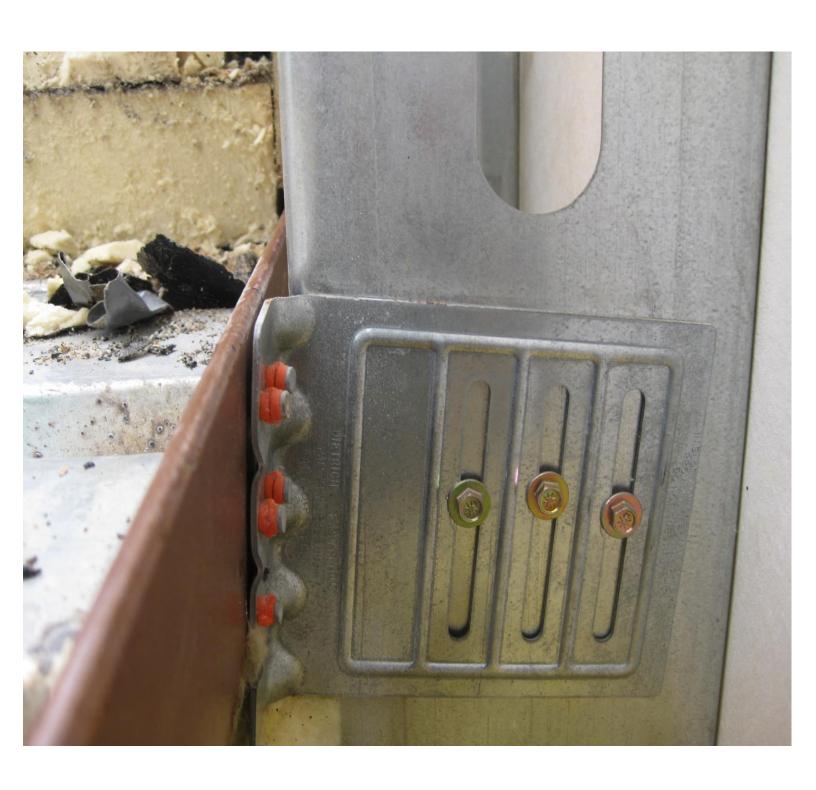


Photo #3 Fasteners have not penetrated the edge angle as required for proper installation.

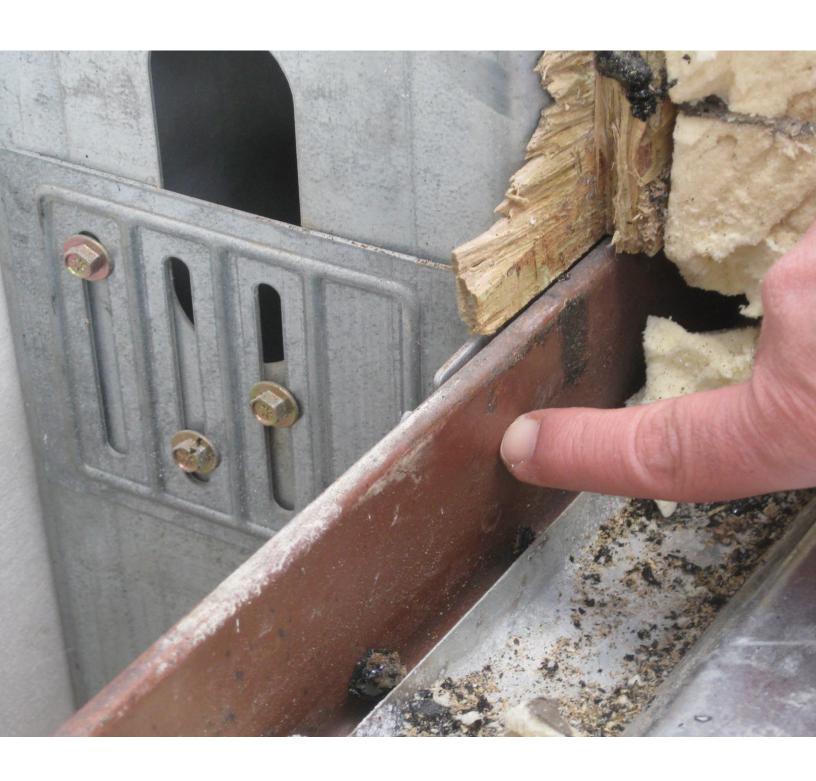
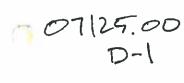


Photo #4 Stud not connected to structural edge angle



Photo #5 Stud not connected together at window jambs







Standard Form of Agreement Between Owner and Contractor where the basis of payment is a STIPULATED SUM

AGREEMENT made as of the 4th day of January in the year of Two Thousand Eight (In words, indicate day, month and year)

BETWEEN the Owner:

(Name, address and other information)

Red Oak Independent School District P.O. Box 9000 156 Louise Ritter Blvd. Red Oak. Texas 75154

and the Contractor: (Name, address and other information)

Ratcliff Constructors, L.P. 14901 Quorum Drive <u>Suite 715</u> Dailas, Texas 75254 Telephone Number: 972-432-9969 Fax Number: 972-432-9943

The Project is: (Name and location)

New D.T. Shields Elementary School Glenn Heights, Texas CAI Project Number: 07125,0000

The Architect is: (Name, address and other information)

Corean Associates, In. 401 North Houston Street Dallas, Texas 75202 Telephone Number: 214-748-2000 Fax Number: 214-653-8281

The Owner and Contractor agree as follows.

User Notes: 07125.0000 New Shields Elementary School - Ratcliff

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201-1997. General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

This document has been approved and endorsed by The Associated General Contractors of America.

(1320993486)

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties herete and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.51.1 The Contract Documents consist of this Agreement, as amended, Conditions of the Contract, as amended (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement, the proposal signed by the contractor, the request for proposals, and proof of payment and performance bonds and proof of insurance; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8. All Amended, General, or Supplementary Conditions to the General Conditions of the Contract are also incorporated herein by reference. Any reference to AIA Document A201-1997 in this Agreement shall be construed as the AIA Document A201-1997 as amended.

- § 1.2 This Agreement, as amended, represents the entire and integrated agreement between the Owner and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. Any revision, amendment, or Modification to the Standard Form of this Agreement shall be valid, binding, and enforceable only if said revision, amendment or modification is made conspicuous by being underlined, linedthrough, or highlighted in this Agreement signed by Contractor and the authorized representative of Owner's Board of Trustees. In the event of conflict, terms and conditions contained in the Agreement, as amended, shall take precedence over terms and conditions contained in the General Conditions, as amended, and the terms and conditions in the General Conditions, as amended, shall take precedence over all other terms and conditions contained in the other Contract Documents, including the Request for Proposal and any addenda thereto, which takes precedence over the Proposal, unless specifically agreed otherwise herein, and the Proposal,
- \$1.3 The Board of Trustees, by majority vote, is the only representative of the Owner, an independent school district, having the power to enter into a contract, to approve changes in the scope of the Work, to approve and execute a Change Order or Construction Change Directive modifying the Contract Sum, or to agree to an extension to the date of Substantial or Final Completion.
- 1.4 The Board designates the authorized representatives identified in Paragraph 7.3 to act on its behalf in other respects.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner. (Insert the date of commencement if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)

Date to be fixed in a separate notice to proceed.

If, prior to the commencement of the Work, the Owner requires time to file mortgages, mechanic's liens and other security interests, the Owner's time requirement shall be as follows:

N/A

§ 3.2 The Contract Time shall be measured from the date of commencement.

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(1320893486)

§ 3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than days from the date of commencement, or as follows:

(Insert number of calendar days, Alternatively, a calendar date may be used when coordinated with the date of commencement. Unless stated elsewhere in the Contract Documents, insert any requirements for earlier Substantial Completion of certain portions of the Work.)

Portion of Work Entire Scope of Work Substantial Completion Date 330 Calendar Days from Notice to Proceed

, subject to adjustments of this Contract Time as provided in the Contract Documents. (Insert provisions, if any, for liquidated damages relating to failure to complete on time or for bonus payments for early completion of the Work.)

3.3.1 Time is of the essence in all phases of the Work. It is specifically understood and agreed by and between Owner and Contractor that time is of the essence in the Substantial Completion of the Project and Owner shall sustain actual and direct damages as a result of Contractor's failure, neglect or refusal to achieve said deadline. Such actual and direct damages are, and will continue to be, impracticable and extremely difficult to determine, Execution of this Agreement under these specifications shall constitute agreement by Owner and Contractor that the amounts stated below are the minimum value of the costs and actual and direct damages caused by failure of Contractor to substantially complete the work within the allotted times, that such sums are liquidated direct damages and shall not be construed as a penalty, and that such sums may be deducted from payments due Contractor if such delay occurs. Failure to substantially complete the Work within the designated period, or as it may be extended, shall be construed as a breach of this Agreement. It is expressly agreed as a part of the consideration inducing the Owner to execute this Agreement that the Owner may deduct from the Final Payment made to the Contractor a sum equal to \$800.00 per day for each and every additional calendar day beyond the agreed date of Substantial Completion. It is expressly understood that the said sum per day is agreed upon as a fair estimate of the pecuniary damages which will be sustained by the Owner in the event that the Work is not completed within the agreed time. or within the extended time, if any, otherwise provided for herein. Said sum shall be considered as liquidated damages only and in no sense shall be considered a penalty, said damages being caused by additional compensation to personnel, for loss of interest on money, and other miscellaneous increased costs, all of which are difficult to exactly ascertain.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be Twelve Million Seven Hundred And Four Thousand Seven Hundred And Fifty Two Dollars (\$ 12.704.752.00), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

(State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires)

Alternate 1	Enlarged Gymnasium	\$62,000
Alternate 2	Raised Ceilings at Classroom Pods.	\$86,000
Alternate 3	Canopies at end of classroom pod	\$78,000
Alternate 4	Exterior Canopies Excluding Porte-Cochere and Main Entry	\$186,000
Alternate 5	Additive Pricing for Dual Switching as Indicated.	\$7,400
Alternate 7	Additive Pricing for Indicated Classroom Millwork.	\$86,000
Alternate 8	Additive Pricing for Porte Cochere.	\$135,000
Alternate 9	Additive Pricing for Parking Inside Bus Loop.	\$64,000

§ 4.3 Unit prices, if any, are as follows:

Description	Units	Price (\$ 0.00) ADD / DEDUCT
1. Drilled Piers (w/o casing).	Lineal Ft 12" Lineal Ft 18" Lineal Ft 24"	N/A / \$0 \$28 / \$15 \$40 / \$22
2. Casing for drilled piers.	Lineal Ft 12" Lineal Ft 18"	N/A / \$0 \$28 / \$0
3. Allowance for sitework	<u>Lineal Ft 24"</u> <u>As shown on</u> Exhibit A.	\$32 / \$0 \$1.681.698

ARTICLE 5 PAYMENTS § 5.1 PROGRESS PAYMENTS

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

The period covered by each application for payment shall be one calendar month ending on the 25th of each month.

- § 5.1.3 Provided that an Application for Payment is received by the Architect not later than the 25th day of a month, the Owner shall make payment to the Contractor not later than the 15th day of the next month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than forty-five (45) days after the Architect receives the Application for Payment.
- § 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.
- § 5.1.5 Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- § 5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

Init.

1

- Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of five percent (5%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.8 of AIA Document A201-1997;
- Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of five percent (5%);
- Subtract the aggregate of previous payments made by the Owner; and
- Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-1997.

§ 5.1.7 The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

- Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and (Section 9.8.5 of AIA Document A201-1997 requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.)
- Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201-1997.
- If Owner is entitled to deduct liquidated damages, or any other damages or amounts provided in the Contract Documents, including clean-up fees, then Owner shall be entitled to deduct such liquidated damages, amounts and fees due Contractor at any time.
- If Contractor fails or refuses to complete the Work, or has unsettled claims with Owner, any final payment to Contractor shall be subject to deduction for such amounts as the Architect shall determine as the cost for completing incomplete Work and the value of unsettled claims.

§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

N/A

init.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 FINAL PAYMENT

\$ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201-1997, and to satisfy other requirements, if any, which extend beyond final payment; and

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a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

When the Owner's Board of Trustees has voted to accept the Work and approve the Final Payment.

ARTICLE 6 TERMINATION OR SUSPENSION

§ 6.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document

In addition to termination under any other applicable provisions, Owner may terminate this Contract with sixty (60) days advance written notice to the Contractor, in the event that Owner determines that there is a performance deficiency on the part of the Contractor. In the event of such termination by the Owner, Owner shall be responsible for payment of all expenses incurred prior to termination.

§ 6.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201-1997.

In addition, all or part the Work may be suspended by the Owner at any time that the Owner orders such Work stopped pending correction of noted deficiencies.

ARTICLE 7 MISCELLANEOUS PROVISIONS

§ 7.1 Where reference is made in this Agreement to a provision of AIA Document A201-1997 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 7.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

(-) At the rate established by Texas Government Code Chapter 2251

(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Contractor's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Legal advice should be obtained with respect to deletions or modifications, and also regarding requirements such as written disclosures or waivers,)

§ 7.3 The Owner's representative is: (Name, address and other information)

Mr. John Humphrey Red Oak Independent School District P.O. Box 9000 156 Louise Ritter Blvd. Red Oak, Texas 75154

♣ 7.4 The Contractor's representative is: (Name, address and other information)

Mr. Max Young . President Ratcliff Constructors, L.P. 14901 Quorum Drive, Suite 715 Dallas, Texas 75254

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§ 7.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

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(1320993486)

§ 7.6 Other provisions:

- 7.6.1 The Agreement shall be governed by the law of the State of Texas, and mandatory and exclusive venue for any dispute shall be in state district court in Ellis County.
- 7.6.2 As a material consideration of the making of this Agreement, the Modifications to this Agreement shall not be construed against the maker of said Modifications.
- 7.6.3 Notwithstanding anything to the contrary in this Agreement, or in any document forming a part hereof, there shall be no mandatory arbitration for any dispute arising hereunder.
- 7.6.4 Prior to performing the Work, the Contractor shall provide all insurance policies and endorsements, and separate performance and payment bonds, in accordance with Article 11 of AIA Document A201-1997, as amended.
- 7.6.5 All sums due hereunder are payable in Red Oak. Ellis County, Texas.
- 7.6.6 The Contractor may not assign its responsibilities, duties, obligations and rights under this

 Agreement, without the express written consent of the Owner. This does not prevent Contractor from engaging subcontractors to perform various phases of the Project, but Contractor shall be fully responsible to Owner for the work, actions and omissions of all such subcontractors.
- 7.6.7 This Agreement, in its entirety, shall be binding upon all the parties hereto, their respective successors, heirs, executors, administrators or assigns.
- 7.6.8 Execution of this Agreement shall constitute approval and acceptance of all terms, covenants and conditions as modified and contained in the Contract Documents.
- 7.6.9 This Agreement is subject to all applicable federal and state laws, rules, and regulations.

 Invalidity of any portion of this Agreement under the laws of the State of Texas or of the United

 States shall not affect the validity of the remainder of this Agreement.
- 7.6.10 Unless otherwise noted, terms in this Agreement shall have the same meaning as those in the edition of AIA Document A201-1997, General Conditions of the Contract for Construction, as amended for the Work.
- 7.6.11 The Contractor shall bear full responsibility for design and execution of acceptable trenching and shoring procedures, in accordance with Texas Government Code Section 2166.303, as applicable, and Texas Health & Safety Code Section 756.021 et seq. Trench excavation safety protection shall be a separate pay item, and shall be based on linear feet of trench excavated. Special shoring requirements shall also be a separate pay item, and shall be based on the square feet of shoring used. Said cost shall be included within the Contract Sum.
- 7.6.12 No delay or omission by either of the parties hereto in exercising any right or power accruing upon the noncompliance or failure of performance by the other party hereto of any of the provisions of this Agreement shall impair any such right or power or be construed to be a waiver thereof. A waiver by either of the parties hereto of any of the covenants, conditions or agreements hereof to be performed by the other party hereto shall not be construed to be a waiver of any subsequent breach thereof or of any other covenant, condition or agreement herein contained.
- 7.6.13 Contractor stipulates that Owner is a political subdivision of the State of Texas, and, as such, enjoys immunities from suit and liability under the Constitution and laws of the State of Texas. By entering into this Agreement, Owner does not waive any of its immunities from suit and/or liability, except as otherwise specifically provided herein and as specifically authorized by law.
- 7.6.14 In addition to the modifications set forth in the Supplementary Conditions, Sections 10.3.3, 10.3.5 and 13.7 of the General Conditions of the Contract for Construction are hereby deleted.
- 7.6.15 Pursuant to Texas Education Code Section 44.034. Contractor must give advance written notice to the Owner if the Contractor or an owner or operator of the Contractor has been convicted of a felony. The Owner may terminate this Agreement if the Owner determines that the Contractor failed to give such notice or misrepresented the conduct resulting in the conviction. This paragraph requiring advance notice does not apply to a publicly-held corporation.
- 7.6.16 Contractor will, at least annually, obtain criminal history record information that relates to an employee, applicant, agent or Subcontractor of the Contractor or a Subcontractor, if the person has or will have continuing duties related to the Project, and the duties are or will be performed on Owner's property or at another location where students are regularly present. Contractor shall assume all expenses associated with the background checks, and shall immediately remove any employee or agent who was convicted of a felony or a misdemeanor involving moral turpitude.

- from Owner's property or other location where students are regularly present. Owner shall determine what constitutes "moral turpitude" or "a location where students are regularly present".
- 7.6.17 Construction Manager shall indemnify and hold Owner harmless from any liens, claims, security interests, encumbrances, statutory or common law claims filed by the Construction Manager, subcontractors, or anyone claiming by, through or under the Construction Manager or subcontractor for items covered by payments made by the Owner to the Construction Manager.
- 7.6.18 Construction Manager's employees, agents, consultants, and subcontractors shall abide by all Owner policy and procedures regarding campus access, which required badges for anyone entering ROISD campuses.
- 7.6.19 Texas Workers' Compensation Insurance. A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Department of Insurance (TDI), or a coverage agreement (DWC-81, DWC-82, DWC-83, or DWC-84), showing statutory workers' compensation insurance coverage for the Contractor's employees providing services on a Project is required for the duration of the Project.
 - 7.6.19.1 Duration of the Project includes the time from the beginning of the Work on the Project until the Contractor's work on the Project has been completed and accepted by the Owner.
 - 7.6.19.2 Persons providing services on the Project ("subcontractor" in Texas Labor Code 406.096) include all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity that furnishes persons to provide services on the Project.
 - 7.6.19.3 Services include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other services related to the Project. Services do not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
 - 7.6.19.4 The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code 401.011(44) for all employees of the Contractor providing services on the Project for the duration of the Project.
 - 7.6.19.5 The Contractor must provide a certificate of coverage to the Owner prior to being awarded the Contract.
 - 7.6.19.6 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Owner showing that coverage has been extended.
 - 7.6.19.7 The Contractor shall obtain from each person providing services on the Project, and provide to the Owner:
 - A certificate of coverage, prior to that person beginning work on the Project, so the Owner will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
 - No later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.
 - 7.6.19.8 The Contractor shall retain all required certificates of coverage for the duration of the Project and for one year thereafter.
 - 7.6.19.9 The Contractor shall notify the Owner in writing by certified mail or personal delivery, within ten days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
 - 7.6.19.10 The Contractor shall post on each Project site a notice, in the text, form, and manner prescribed by the TDL informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
 - 7.6.19.11 The Contractor shall contractually require each person with whom it contracts to provide services on the Project. to:
 - .1 Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the

The Code ADI 01/44) for all of its application
statutory requirements of Texas Labor Code 401.011(44) for all of its employees
providing services on the Project for the duration of the Project:
2 Provide to the Contractor, prior to that person beginning work on the
Project, a certificate of coverage showing that coverage is being provided for all
employees of the person providing services on the Project for the duration of the
Project:
.3 Provide the Contractor, prior to the end of the coverage period, a new
certificate of coverage showing extension of coverage. if the coverage period
shown on the current certificate of coverage ends during the duration of the
Project.
Obtain from each other person with whom it contracts, and provide to
the Contractor:
.1 A certificate of coverage, prior to the other person beginning
work on the Project; and
A new certificate of coverage showing extension of coverage.
prior to the end of the coverage period, if the coverage period shown on
the current certificate of coverage ends during the duration of the
Proiect:
.5 Retain all required certificates of coverage on file for the duration of
the Project and for one year thereafter:
.8 Notify the Owner in writing by certified mail or personal delivery.
within ten days after the person knew or should have known, of any change that
materially affects the provision of coverage of any person providing services on
the Project; and
.7 Contractually require each person with whom it contracts to perform as
required by items 1-6, with the certificates of coverage to be provided to the
person for whom they are providing services.
7.6.19.12 By signing this Contract or providing or causing to be provided a certificate of coverage.
the Contractor is representing to the Owner that all employees of the Contractor who will
provide services on the Project will be covered by workers' compensation coverage for the
duration of the Project, that the coverage will be based on proper reporting of classification
codes and payroll amounts, and that all coverage agreements will be filed with the appropriate
insurance carrier or, in the case of a self-insured, with the TDI's Division of Self-Insurance
Regulation. Providing false or misleading information may subject the Contractor to
administrative penalties, criminal penalties, civil penalties, or other civil actions.
7.6.19.13 The Contractor's failure to comply with any of these provisions is a breach of contract by
the Contractor that entitles the Owner to declare the Contract void if the Contractor does not
remedy the breach within ten days after receipt of notice of breach from the Owner.
7.6.19.14 The coverage requirement recited above does not apply to sole proprietors, partners, and
corporate officers who are excluded from coverage in an insurance policy or certificate of
authority to self-insure that is delivered, issued for delivery, or renewed on or after January I.
1996.
28 TAC § 110.110(i)

ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

\$ 8.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

§ 8.1.1 The Agreement is this executed 1997 edition of the Standard Form of Agreement Between Owner and Contractor, AIA Document A101-1997. A101-1997, as modified.

§ 8.1.2 The General Conditions are the 1997 edition of the General Conditions of the Contract for Construction, AIA Document A201-1997, A201-1997, as modified by the Supplementary Conditions.

§ 8.1.3 The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated 29 October 2007 __, and are as follows

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Document	Title	Page
Title Sheet		1
Table of Contents		6
00800	Supplementary Conditions	12

Title of Specifications exhibit:

§ 8.1.4 The Specifications are those contained in the Project Manual dated as in Section 8.1.3, and are as follows: (Either list the Specifications here or refer to an exhibit attached to this Agreement.)

Section	Title
	Title Sheet
	Title Sheet
	Table of Contents
BIDDING REC	QUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT
00030	Advertisement for Bids
00100	Advertisement for Bids
00200	Information Available to Bidders
00300	Bid Form
00405	Bid Bond
00420	Contractor Qualification Requirements
00610	Performance Bond
00620	Payment Bond
00700	General Conditions
00800	Supplementary Conditions
00830	Wage Rate Schedule
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DIVISION 1 -	GENERAL REQUIREMENTS
01010	Summary of Work
01020	Allowances
01025	Measurement and Payment
01030	Alternates
01041	Project Coordination
01050	Field Engineering
01060	Regulatory Requirements
01090	Reference Standards
01120	Alteration Project Procedures
01200	Project Meetings
01310	Progress Schedules
01340	Progress Schedules Shop Drawings, Product Data and Samples
01410	Testing Laboratory Services
01440	Contractor's Quality Control
01500	Contractor's Quality Control
01560	Construction Cleaning
01580	Project Identification and Signs
01600	Materials and Equipment
01630	Product Options and Substitutions
01670	Systems Demonstrations
01700	Contract Closeout
01710	Final Cleaning
01720	Project Record Documents
01730	Operation and Maintenance Data
01740	Warranties and Bonds

01750	Extra Materials1
DIVISION 2 -	SITEWORK
02211	Building Pad Preparation 6 Soil Treatment 3 Drilled Piers 5
02280	Soil Treatment
02372	Drilled Piers
02580	Pavement Marking
02831_	Pavement Marking
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DIVISION 3	- CONCRETE
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03200	Structural Concrete Formwork
03300	Structural Concrete
03355	Concrete Sealing
03600	Grouting Steel Base Plates
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DIVISION 4 -	
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05320	Metal Floor Deck2
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05500	Metal Fabrications5
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07270	Fire Resistance Systems
07411	Curved Structural Standing Seam Metal Roof System
07530	Coal-Tar Elastomeric Roofing System
07600	Sheet Metal and Miscellaneous Accessories for Coal-Tar
01000	Elastomeric Roofing System
	Detail Drawings/Roof Plans
	Policy Plantings/1907 Figure

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07830	Roof Specialties and Accessories	6
07900	Joint Sealers	6
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08410	Aluminum Entrances and Storefronts	6
08710	Door Hardware	10
08800	Glazing	13
08920	Glazed Aluminum Curtain Walls	6
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DIVISION 9 - F		
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09250	Gypsum Board Systems	11
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09300	Tile	7
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09511	Epoxy Terrazzo Suspended Acoustical Ceilings	5
09520	Acoustical Panels	3
09590	Athletic Flooring Systems	
09650	Resilient Tile Flooring	4
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09690	Sheet Carpet Carpet Tile	4
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10193	Cubicle Curtain and Track	2
10210	Metal Wall Louvers	
10260	Wall and Corner Guards	2
10350	Fiagooles	
10400	Identifying Devices	
10420	Plaques	
10505	Metal Lockers	4
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10532	Walkway Cover	3
10800	Toilet and Bath Accessories	A
10999	Miscellaneous Specialties	
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13845	Sound Reinforcement Systems
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END OF DOCUMENT

§ 8.1.5 The Drawings are as follows, and are dated October 29. 2007 unless a different date is shown below: (Either list the Drawings here or refer to an exhibit attached to this Agreement.) Title of Drawings exhibit:

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<u>C1</u>	<u>FINAL PLAT</u>
C2	CIVIL UTILITY PLAN
C3	CIVIL GENERAL NOTES AND DETAILS SHEET
C4	CIVIL HORIZONTAL CONTROL PLAN
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L2.02	LANDSCAPE SPECIFICATIONS
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A01-13	MISC SITE DETAILS
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EP 5.02 ELECTRICAL DETAILS EP 5.03 ELECTRICAL RISER DIAGRAM AND DETAILS	
EP 6.01 ELECTRICAL PANEL BOARDS	
EP 6.02 ELECTRICAL PANEL BOARDS	
EP 6.03 ELECTRICAL PANEL BOARDS	
EL 1.01A LIGHTING FLOOR PLAN - AREA A	
EL 1.01B LIGHTING FLOOR PLAN – AREA B	
EL 1.01C LIGHTING FLOOR PLAN - AREA C	
EL 5.01 LIGHTING DETAILS	
EL 6.01 LIGHTING FIXTURE SCHEDULE	
ET 1.01A ELEC. COMM. FLOOR PLAN - AREA A	
ET 1.01B ELEC. COMM. FLOOR PLAN - AREA B	
ET 1.01C ELEC. COMM. FLOOR PLAN - AREA C	
ET 5.01 ELEC. COMM. DETAIL SHEET	
PS 1.01 PLUMBING OVERALL SITE PLAN	
PL 1.01A PLUMBING FLOOR PLAN - AREA A	
PL 1.01B PLUMBING FLOOR PLAN - AREA B	
PL 1.01C PLUMBING FLOOR PLAN – AREA C	
PL 1.02 PLUMBING ROOF PLAN AREA A/B	
PL 1.03 PLUMBING ROOF PLAN AREA B/C	

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PL 4.01	PLUMBING ENLARGED KITCHEN PLAN
PL 5.01	PLUMBING DETAILS
PL 5.02	PLUMBING DETAILS
PL 5.03	PLUMBING DETAILSAND SCHEDULES
PL 5.04	PLUMBING RISERS
FP 1.01	FIRE PROTECTION
FOOD SERV	<u>CE</u>
FS101	FOOD SERVICE EQUIPMENT PLAN
FS102	FOOD SERVICE SPECIAL CONDITIONS PLAN
FS103	FOOD SERVICE PLUMBING CONNECTIONS PLAN
FS104	FOOD SERVICE ELECTRICAL CONNECTIONS PLAN
FS105	FOOD SERVICE MECHANICAL PLAN
FS106	FOOD SERVICE ELEVATIONS PLAN
FS107	FOOD SERVICE SECTIONS PLAN
FS108	FOOD SERVICE SECTIONS AND DETAILS PLAN
FS109	FOOD SERVICE DETAILS PLAN
COACTL AL	landa if any and as fallance.

§ 8.1.6 The Addenda, if any, are as follows:

Number	Date	Pages
Addendum No.1	November 7, 2007	Items 1.01 through 1.104
Addendum No.2	November 14, 2007	Items 2.01 through 2.028
Addendum No.3	November 20, 2007	Items 3.01 through 3.036

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

§ 8.1.7 Other documents, if any, forming part of the Contract Documents are as follows:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201-1997 provides that bidding requirements such as advertisement or invitation to bid, Instructions to Bidders, sample forms and the Contractor's bid are not part of the Contract Documents unless enumerated in this Agreement. They should be listed here only if intended to be part of the Contract Documents.)

This Agreement consists of those documents enumerated in Paragraph 1.1 and the following, which are incorporated herein by reference:

- A. Contractor's Response to Requests for Proposals
- B. General Conditions of the Contract for Construction, AIA A201, 1997 edition,
- C. Supplementary Conditions
- D. Certificate of Project Compliance Form

This Agreement is entered into as of the day and year first written above-

above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the

Architect for use in the administration of the Contract, and the remainder to the Owner.

OWNER (Signature)

CONTRACTOR (Signature)

John Humphrey, Assistant Superintendent

User Notes: 07125.0000 New Shields Elementary School - Ratcliff

Max Young, President

(Printed name and title)

(Printed name and title)

Scott Niver, Supt

1/28/2008 D.T. Shields Elementary - Site Items for Relocation Allowance

Item	Scope	
	All site demolition, clearing, grading, building pad preparation & lime stabilization.	Amount
San C	As snown on sheet C-12 - Slit fence, hay bale dikes, construction entrance, inlet	
Site Excavation & Brosion Control	protection.	
	Erosion Control Lime Stabilization	\$8,300,00
	Engineering	\$58,100.00
	Concrete Demo and Haul Off	\$9,500.00
	Clear, Grub, Strip & Stockpile	\$11,700.00
	Cut & Fill	\$11,200.00
	Soil Conditioning at Pad	\$46,300,00 \$50,000.00
	Select Fill @ Pad	\$58,010.00
	Haut in Borrow Material	\$15,500.00
	Fine Grade for Paving Respread Topaoli	\$3,990,00
	•	\$35,000.00
	Excavation Sub-total	\$305,600.00
Site Orbities	Storm drainage system - including outlet structure, headwalls, rip rap, inlets, pipe & flumes. Sanitary sewer system - including manholes, piping, fittings and teating. Water system - including fire hydrants, all PVC sleeves, valve boxes,water service assembly, FDC, water service line, fire line, meter vault, detector check, irrigation	
one councy	service, wet tap.	\$322,964.00
Landscaping & frigation	All landscape and irrigation as shown and specified on L2.01, L2.02, L3.01 & L3.02	\$157,500.00
Chain Link Fencing	Chain Link Fence as shown on A00-10	\$13,857.00
Pavement Markings	All Pavement Makings as shown on Sheet C-6, traffic signs and wheel stops	\$4,018.00
Retaining Walls	Stone retaining walls as shown on L 1.01	\$35,298.00
Concrete Paving, Walks, Light Pole Bases	All concrete walks as shown on L1.01 (exterior Basketball Court not included) Includes mow strip at chain link fence and all paving as shown on sheet C-5. All	
and the states	concrete light pole bases as shown on 7/EP5.01. Approaches	
	5" Paving	\$22,336.00
	6" Paving	\$58,182.00
	7" Paving	\$284,942,00
	Monolithic Curb	\$1,890.00 \$13,770.00
	Handicap Ramps	\$2,550.00
	Salt Finish Sidewalks	\$7,085.00
	Mow Strip	\$115,118.00
	Light Pole Bases	\$3,376,00
	Site Concrete Sub-total	\$2,800.00
	- Concrete Stational	\$512,049.00
Electical Underground Service Conduit, Site Pole Lighting, Marqui e Sign (Indiciground fraceways), couduit and power)	Primary raceways from utility pole to utility transformer, secondary raceways & cabling from utility transformer to MSB. All raceways shown from phone room to phone utility at property line. Raceways to marquee sign, conduit & wiring from panel to marquee sign. Conduit & wiring for site lighting, site light poles & fixtures, erection of poles & setting including costs thereof. Excavation, backfill &	
ays, commented prover)	compaction. All excavation equipment, fuel, etc.	\$94,211.00
Site Joint Sealers	Pavement Joint Sealants	•
	Sidewalk Joint Sealants	\$10,479.00

Exclusions:

Dumpster Enclosure - Foundation, Wall and Gates Traffic Gates Exterior Basketball Courts Transformer Pad Bicycle Racks Canoples Flag Pole & Lighting Grease Trap Porte Cochere Bollards Marquee Signs (raceways, conduit and power included in electrical site costs) Temporary Fencing

+ contingency 15% \$ 1,681,698.00

\$6,370.00 Total Site Amount \$1,462,348.00

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DOCUMENT 00610

PERFORMANCE BOND

THE STATE OF TEXAS
KNOW ALL MEN BY THESE PRESENTS: COUNTY OF ELLIS

THAT we, RATCLIFF CONSTRUCTORS, L.P.,

14901 Quorum Drive, Suite 715, Dallas, TX 75254

as Principal, and CONTINENTAL CASUALTY COMPANY,
CNA Plaza, Chicago, IL 60685

as Spirety, are hereby held and firmly hound unto Red Oak Independent School District, hereafter called Obligee, in the penal sum of \$12.704.752.00 which is the full amount of Principal's contract with the named Obligee, for the payment of which sum the said Principal and Surety bind themselves, their heirs, executors, administrators and successors, jointly and severally firmly by these presents.

WHEREAS, the principal has entered into a written contract dated January 4, 2008 with Obligee named, to do and perform certain construction work as provided in said contract and the related plans, specifications, general conditions and other contract documents, all of which are by reference made a part hereof.

New Shields Elementary School, Glenn Heights, Texas, CAI Project Number: 07125.0000

NOW, THEREFORE, the conditions of this Obligation is such that if the Principal shall faithfully perform all of the work in accordance with the plans, specifications general conditions and contract documents, and shall faithfully perform each, every and all other obligations incumbent upon him under the terms of said written contract referred to, and shall fully indemnify and save harmless the Obligee from all costs, expense and damage which it may suffer or incur because of Principal's default, or failure so to do, then this obligation shall be void, otherwise it shall remain in full force and effect.

In the event Principal shall default in the faithful performance of the work called for by said written contract, plans, specifications and contract documents, the Surety shall within 15 days of the determination of default (determined as provided in said contract, general conditions and contract documents) take over and assume completion of said contract, or within such 15 day period make other arrangements satisfactory with the Obligee for completion of the contract, and said Surety shall become entitled thereupon to the payment or benefit of the balance of the contract price as the same matures according to its terms.

The Surety, for the protection of the Obligee herein, waives notice of, and hereby consents to any subsequent modification or alteration both in the work to be performed by the Principal, and the consequent price or sums to be paid by the Obligee, as well as any other change, or amendment, addition or deletion in the contract documents during the progress of the work, including but not limited to all extensions of time or other indulgences permitted the Principal.

Notwithstanding any other provision, the liability of the Surety on this bond shell never exceed the penal sum stated in first paragraph.

Bond No. 929425295

PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to contract, or to the work performed thereunder, or the plans, specifications, drawings, etc., accompanying the same, shall in anywise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or the work to be performed thereunder. This Bond shall automatically be increased by the amount of any Change Order or Supplemental Agreement which increases the Contract price, but in no event shall a Change Order or Supplemental Agreement which reduces the Contract prices decrease the penal sum of this Bond. This Performance Bond is given in compliance with the terms and provisions of Chapter 2253 of the Texas Government Code, and this bond and all of the provisions herein contained shall be solely for the protection of the named Obligee which has awarded the contract referred to.

The undersigned, Corporate Surety, does by the execution of this Bond solemnly warrant and represent that it is duly authorized to do business in Texas, and that the agent listed below is authorized to receive notices and service of process for any claims arising under this Bond.

Executed this	4111	day of	February	, 20_0	3
Attest Mak Sr	nith	357	RATCLIFF By Title	CONSTRUCTOR Le MESIM	
Approved as to For	m by Oblige	ee: **	CONTINENTAL COMPANY	L CASUALTY	Surety
By SA	N-,	Supt.		Mrs. N	
			Tiel	e Reu Ruiberteau,	Jr., Attorney-In-Fact

The Resident Agent of the Surety in XXIII Texas, for delivery of notice and service of the process is: (NOTE: Date of Performance Bond must be date of Contract. If Resident Agent is not a corporation, give a person's name.)

NAME: James P. Dervin

ADDRESS: 7116 Blackwood Drive, Dallas, TX 75231

(NOTE: Date of Payment Bond must be date of Contract. If Resident Agent is not a comporation, give a person's name.)

NOTE:

- This bond must be payable to the awarding authority, Red Oak Independent School District as the named obligee, and it must be approved as to form by such awarding authority.
- 2. This bond must be furnished before any work is commenced.

- 3. Surety must be a comporate surety duly authorized to do business in Texas.
- 4. This PERFORMANCE BOND must be in the full amount of the contract which it secures.
- 5. Attach Power of Attorney from Corporate Surety to this Performance Bond.

END OF DOCUMENT

POWER OF ATTO EY APPOINTING INDIVIDUAL ATTO

Know All Men By These Presents, That Continental Casualty Company, an Illinois corporation, National Fire Insurance Company of Hartford, a Connecticut corporation, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania corporation (herein called "the CNA Companies"), are duly organized and existing corporations having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

Stephen L Cory, Pamela K Tucker, Melanie Stern, Bert Guiberteau Jr, Individualiy

of Metairie, LA, their true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on their behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of their corporations and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the corporations.

In Witness Whereof, the CNA Companies have caused these presents to be signed by their Senior Vice President and their corporate seals to be hereto affixed on this 25th day of August, 2005.







Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Michael Gengler Senior Vice Presid

State of Illinois, County of Cook, ss:

On this 25th day of August, 2005, before me personally came Michael Gengler to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Chicago, State of Illinois; that he is a Senior Vice President of Continental Casualty Company, an Illinois corporation, National Fire Insurance Company of Hartford, a Connecticut corporation, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania corporation described in and which executed the above instrument; that he knows the seals of said corporations; that the scals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said corporations and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporations.

"OFFICIAL SEAL"
MARIA M. MEDINA
Motorry Public, District Styles
My Cognition Explose 3/15/20

My Commission Expires March 15, 2009

Maria M. Medina

Notary Public

CERTIFICATE







Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Mary A. Ribikawskis

Assistant Secretary

Form F6853-11/2001

29 October 2007 00620-1 CAI 07125.0000

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Bond No. 929425295

1	П	N WITNESS WHEREOF, this instrument is executed 4th day of February
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3		
4	A	ttest: RATCLIFF CONSTRUCTORS, L.P.Principal
5		Junda S. Smille By
6.		By By
7		The Reinsur
8		Ette // VENICE /
9.	Α.	To the Court of th
10	W.	pproved as to Form by Obligee:
11 12		CONTINENTAL CASUALTY COMPANSUrety
	704	Cupt of Back
13 14	D)	By But Om W
15		Tal Rest Guiberteau It Attorney In Fact
16		Title Bert Guiberteau, Jr., Attorney-In-Fact
17		/
18	TI	Deside it A sent of the Court is WIKWYXXXV. There for deline - Continued assistance of the
19	71	ne Resident Agent of the Surety in XIII WOOMN, Texas, for delivery of notice and service of the
20		ocess is: (NOTE: Date of Performance Bond must be date of Contract. If Resident Agent is not corporation, give a person's name.)
21	24 (corporation, Sive a berson a mane.)
22	λT	AME: James P. Dervin
23	AT	DDRESS: 7116 Blackwood Drive, Dallas, TX 75231
24	211	DRIES, TITO SHARE THE PARTY OF
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26	M	OTE: Date of Payment Bond must be date of Contract. If Resident Agent is not a corporation,
27		c a person's name.)
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31	1.	This bond must be payable to the awarding authority, Red Oak Independent School District, as
32 .		the named obligee, and it must be approved as to form by such awarding authority.
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34	2.	This bond must be fumished before any work is commenced.
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36	. 3.	Surety must be a corporate surety duly authorized to do business in Texas.
37		and are no a sorbarnes seems, and are seemed to an ordered in Torice.
38	4	This PAYMENT BOND must be in the FULL amount of the contract.
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40	5.	Attach Power of Attorney from Corporate Surety to this Payment Bond.
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43		END OF DOCUMENT
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• •		

POWER OF ATTO JEY APPOINTING INDIVIDUAL ATTOID JY-IN-FACT

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Stepben L Cory, Pamela K Tucker, Melanie Stern, Bert Guiberteau Jr, Individually

of Metairie, LA, their true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on their behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unilmited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of their corporations and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

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Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Michael Gengler Senier Vice President

State of Illinois, County of Cook, ss:

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"DFFICIAL SEAL"
MARIA M. MEDBIA
Notary Public, Blats of Minds
Ny Commission Espires 2/18/06

My Commission Expires March 15, 2009

Maria M Medina

Notary Public

CERTIFICATE







Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Mary A. Roikavskis

Assistant Secretary

Form F6853-11/2001

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- In Unlimited Amounts -

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National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Aichael Gengler Senier Vice Presider

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"OFFICIAL SEAL"
AURIA M. MEDINA
Notary A.bile, State of Minels
My Countiston Expires 3/1508

My Commission Expires March 15, 2009

Maria M. Medina

Notary Public

CERTIFICATE







Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Mary A. Roikavskis

Assistant Secretary

Form F6853-11/2001



ADOPTED BY THE BOARD OF DIRECTORS OF CONTINENTAL CASUALTY COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company.

"Article IX-Execution of Documents

Section 3. Appointment of Attorney-in-fact. The Chairman of the Board of Directors, the President or any Executive, Senior or Group Vice President may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Company in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority, shall have full power to bind the Company by their signature and execution of any such instruments and to attach the seal of the Company thereto. The Chairman of the Board of Directors, the President or any Executive, Senior or Group Vice President or the Board of Directors, may, at any time, revoke all power and authority previously given to any attorney-in-fact."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 17th day of February, 1993.

"Resolved, that the signature of the President or any Executive, Senior or Group Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted pursuant to Section 3 of Article IX of the By-Laws, and the signature of the Secretary or an Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power and any power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

ADOPTED BY THE BOARD OF DIRECTORS OF AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA:

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company.

"Article VI-Execution of Obligations and Appointment of Attorney-In-Fact

Section 2. Appointment of Attorney-in-fact. The Chairman of the Board of Directors, the President or any Executive, Senior or Group Vice President may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Company in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority, shall have full power to bind the Company by their signature and execution of any such instruments and to attach the seal of the Company thereto. The President or any Executive, Senior or Group Vice President may at any time revoke all power and authority previously given to any attorney-in-fact."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 17th day of February, 1993.

"Resolved, that the signature of the President or any Executive, Senior or Group Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted pursuant to Section 2 of Article VI of the By-Laws, and the signature of the Secretary or an Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power and any power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

ADOPTED BY THE BOARD OF DIRECTORS OF NATIONAL FIRE INSURANCE COMPANY OF HARTFORD:

This Power of Attorney is made and executed pursuant to and by authority of the following Resolution duly adopted on February 17, 1993 by the Board of Directors of the Company.

"RESOLVED: That the President, an Executive Vice President, or any Senior or Group Vice President of the Corporation may, from time to time, appoint, by written certificates, Attorneys-in-Fact to act in behalf of the Corporation in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. Such Attorney-in-Fact, subject to the limitations set forth in their respective certificates of authority, shall have full power to bind the Corporation by their signature and execution of any such instrument and to attach the seal of the Corporation thereto. The President, an Executive Vice President, any Senior or Group Vice President or the Board of Directors may at any time revoke all power and authority previously given to any Attorney-in-Fact."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 17th day of February, 1993.

"RESOLVED: That the signature of the President, an Executive Vice President or any Senior or Group Vice President and the seal of the Corporation may be affixed by facsimile on any power of attorney granted pursuant to the Resolution adopted by this Board of Directors on February 17, 1993 and the signature of a Secretary or an Assistant Secretary and the seal of the Corporation may be affixed by facsimile to any certificate of any such power, and any power or certificate bearing such facsimile signature and seal shall be valid and binding on the Corporation. Any such power so executed and sealed and certificate by certificate so executed and sealed, shall with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Corporation."



September 12, 2008

Project - Red Oak ISD, Shields Elementary Address - 223 W. Ovilla Road Glen Heights, Texas Re - Third party Code Assurance (CA) inspection service

John Humphrey, Assistant Superintendent, Red Oak School District

Thank you for the opportunity to submit a proposal to provide code assurance inspections. To ensure compliance with the state adopted codes for commercial construction, we will perform code assurance inspections in accordance with the 2003 International Codes and the 2005 National Electrical Code. Our inspection services for this code assurance proposal include the following service(s) outlined below:

- Plumbing Rough (water, sewer under floor, and to public connection) code assurance inspections
- Foundation code assurance and/or verification of engineer inspection
- Framing, mechanical rough, electric rough and plumbing top-out code assurance inspections
- Construction Electric and Final Building, mechanical, electrical and plumbing code assurance inspections
- Energy Code inspections as required by the city and per construction schedule
- Inspection performed next business day of the request / No charge for reinspections
- Attend Job-site coordination meetings, as needed, and provide an electronic inspection tracking system
- Coordinate all inspections with the City of Glenn Heights, as needed, to ensure a final inspection approval.

We look forward to working with you on this project.

Project Valuation:

\$13,340,639

Square Footage:

82,000

Cost of services

Code Assurance Inspections

\$ 26,700.00

AUTHORIZATION - If the scope of work is acceptable, please sign and return the proposal to formalize the agreement. All work shall be conducted in accordance with the Terms and Conditions attached hereto and made part of this agreement.

EXPIRATION - This contract shall expire 30 days after receiving the Certificate of Occupancy from the City.

ACCEPTED BY:

PROVIDER: Bureau Veritas North America

CLIENT: Red Oak ISD

BUREAU VERITAS 1000 Jupiter Road, Suite 800 Plano, Texas 75074 P: 469.241.1834 F: 469.241.1849 www.bvbuildingsafety.com



THIRD PARTY INSPECTION AGREEMENT STANDARD TERMS AND CONDITIONS

- 1. This agreement shall be binding upon the heirs, executors, administrators, successors and assigns of each of the parties.
- 2. Neither party may assign this Agreement or any right or obligation hereunder without the prior written consent of the other party, which shall not be unreasonably withheld or delayed, provided, however, that no consent shall be necessary in the event of an assignment to a successor entity resulting from a merger, acquisition or consolidation by either party or an assignment to an Affiliate of either party if such successor or Affiliate assumes all obligations under this Agreement Any attempted assignment, which requires consent hereunder, shall be void and shall constitute a material breach of this Agreement if such consent is not obtained.
- 3. This agreement contains the entire agreement between the parties relating to the Project and the provision of services to the Project. Any prior agreements, promises, negotiations or representations not expressly set forth in this agreement are of no force or effect. Subsequent modifications to this agreement shall be in writing and signed by all parties.
- 4. The waiver of any term, condition, or covenant, or breach of any term, condition, or covenant, shall not constitute the waiver of any other term, condition, or covenant, or the breach of any other term, condition, or covenant.
- 5. If any term, condition, or covenant of this agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this agreement shall be valid and binding.
- 6. This agreement shall be governed by and construed in accordance with the laws of the state in which the work is performed in a court of competent jurisdiction. Each of the parties to the Agreement consents to exclusive venue for any lawsuit arising out of this Agreement in the state courts of Ellis County, Texas and of the federal courts with jurisdiction over such county.
- 7. Client acknowledges that its right to utilize the services and work product provided pursuant to this agreement will continue only so long as client is not in default pursuant to the terms and conditions of this agreement and client has performed all obligations under this agreement.
- 8 Client agrees that the periodic billings from the provider to the client are correct, conclusive, and binding on client unless client, within thirty (30) days from the date of receipt of such billing, notifies provider in writing of alleged inaccuracies, discrepancies, or errors in the billing.
- Client agrees to pay interest on overdue payments at an accrual rate as set forth in Texas Government Code 2251.025.
- 10. In the event all or any portion of the work prepared or partially prepared by the provider be suspended, abandoned, or terminated, client shall pay the provider for all fees, charges and services provided for the project, to the date of termination, not to exceed any contract limit specified herein. Client acknowledges if the project work is suspended for a period of 60 days and restarts, there will be additional charges to suspension of the work, which shall be paid for by client as extra work.

- 11. Provider is not responsible for delay caused by activities or factors beyond the provider's reasonable control, including but not limited to, delays by reason of strikes, lockouts, work slowdowns or stoppages, accidents, acts of God, failure of client to furnish timely information, faulty performance by client or contractors or governmental agencies. When such delays, beyond the provider reasonable control occur, client agrees provider is not responsible for damages nor shall provider be deemed to be in default of this agreement.
- 12 All claims, disputes, controversies or matters in question arising out of, or relating to, this Agreement or any breach thereof, including but not limited to disputes arising out of alleged design defects, breaches of contract, errors, omissions, or acts of professional negligence, (collectively "Disputes") shall be submitted to mediation before and as a condition precedent to pursuing any other remedy. Upon written request by either party to this Agreement for mediation of any dispute, client and provider shall select a neutral mediator by mutual agreement Such selection shall be made within ten (10) calendar days of the date of receipt by the other party of the written request for mediation. In the event of failure to reach such agreement or in any instance when the selected mediator is unable or unwilling to serve and a replacement mediator cannot be agreed upon by client and provider within ten (10) calendar days, a mediator shall be chosen as specified in the Construction Industry Mediation Rules of the American Arbitration Association then in effect, or any other appropriate rules upon which the parties may agree. Any cause of action brought against provider for work or services performed under this Agreement, shall be acted upon within the time limits as stated in Texas Law Should either party to this Agreement commence any legal action against the other party arising out of this Agreement, the prevailing party shall be entitled to recover its reasonable litigation expenses, including court costs, expert witness fees, discovery expenses, and attorney's fees.
- 13. Client acknowledges that provider is not responsible for the performance of work by third parties including, but not limited to, the construction contractor and its subcontractors.
- 14. Client acknowledges that the provider's scope of services for this project does not include any work related in any way to asbestos and/or other hazardous waste. Should provider or any other party encounter such materials on the job site, or should it in any other way become known that such materials are present or may be present on the job site or any adjacent or nearby areas which may affect provider's work, provider may, at its option, terminate work on the project until such time as client retains a specialist contractor to abate and/or remove the asbestos and/or hazardous waste materials and warrant that the job site is free from any hazard which may result from the existence of such materials.



15. The parties acknowledge that a variety of risks potentially affect provider by virtue of entering into an agreement to perform the services. In order for client to obtain the benefit of a fee, which includes a lesser allowance for dealing with the provider's risks, client agrees to limit the provider's liability to client, and to all other parties, for claims arising out of the provider's performance of the services. Client agrees that in no instance shall provider be responsible, in total or in part, for the errors or omissions of any other professional, contractor, subcontractor or any other party. Client also agrees that provider shall not be responsible for the means, methods. procedures performance or safety of the construction contractors or subcontractors, or for their errors or omissions 16. Client agrees to hold harmless, indemnify and defend provider, and its employees, affiliates, officers, directors and agents, and subcontractors, and each of their employees, affiliates, officers, directors and agents, against all claims, suits, fines and penalties, including attorneys fees and other costs of settlement and defense, which such liabilities arise out of or are related to this Agreement or the Services, except to the extent allowable by law

17. This agreement shall be interpreted as though prepared by all parties

18 Each party waives its right to a jury trial in any court action arising between the parties, whether under this Agreement or otherwise related to the work being performed under this Agreement.

19. It is expressly understood & agreed that the enforcement of these terms and conditions shall be reserved to the client and the provider. Nothing contained in the agreement shall give or allow any claim or right of action whatsoever by any third person. It is the express intent of the client and the provider that any such person or entity, other then the client or the provider, receiving services or benefits under this agreement shall be deemed an incidental beneficiary.

CERTIFICATE OF OCCUPANCY City of Glenn Heights

ORDINANCE 0-21-08

Donald T. Shields

Elementary School **BUSINESS NAME:**

Glenn Heights, TX 75154 223 Ovilla ADDRESS:

> TYPE OF BUILDING -

OCCUPANCY CLASSIFICATION -

OCCUPANCY LOAD.

[I]

OCCUPANT

BUILDING OWNER

NAME

Donald T. Shields Elementary

ADDRESS

CITY/STATE

Glenn Heights TX 75154

CITY/STATE

972-223-1499

PHONE NO.

223 Ovilla Rd

ADDRESS

NAME

Red Oak TX 75154

156 Louise Ritter

Red Oak ISD

972-617-4012

PHONE NO.

Elementary School This structure to be used as a This structure was inspected under the International Code as adopted by the City of Glenn Heights. Certificate of Occupancy cannot be transferred or reassigned to other owners or changes in business names. Post Certificate in Public View- No Vehicle washing allowed.

CERTIFICATE NO.

080509-01

August 5, 2009 DATE

Benne ВУ

APPROVED



INSPECTION REPORT

PROJECT ADDRESS	CITY
223 W. OVILLA Rd.	GLENN HEIGHTS
SUBDIVISION/PROJECT NAME	CLIENT
NEW SHIPLOS ELEM. SCHOOL	
PROJECT NUMBER	CLIENT CONTACT
2008-012317	

BUILDING	Status	PLUMBING	Status	ELECTRICAL	Status	MECHANICAL	Status	ENERGY	Status
☐ Form Survey		Rough		☐ T-Pole		☐ Rough		☐ Pre-Insulation	
☐ Pier / Footing		☐ Water Service		Underground		Fireplace		☐ Insulation	
☐ Foundation		☐ Yard Sewer		Rough		☐ Type I Duct		☐ Duct	
☐ Flatwork	. ::	☐ Gas Underground		Const. Meter		☐ Type I Hood		☐ Electric	
☐ Framing		☐ Gas Rough		☐ Final		☐ Type II Duct		☐ Plumbing	
☐ Veneer / Wall Tie		☐ Top Out		☐ Pool Belly Bond		☐ Type II Hood		☐ Final	
Term. Letter		☐ Gas Final / Release		☐ Pool Deck Bond		☐ Final		☐ Above Ceiling	
☐ ROW Tag		☐ Final		☐ Above Ceiling		☐ Above Ceiling			
☐ Final		☐ Grease Trap							
Pool Final		☐ Pool P-Trap							
X.co	P	☐ Backflow							
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PERMIT NUMBER		INSPECTO	DR .		INSPEC	CTOR'S PHONE		DATE	
		DELL	us F) I F. DER. I C. H				7-29-09	,

INSPECTION REQUEST TOLL FREE: (877) 837-8775 FAX (877) 837-8859