



YOUR PARTNER FOR SUCCESS

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PROPOSAL

TO: Brandon Boyer – Denton ISD

PROJECT: Denton ISD Newton Rayzor ES-Calhoun MS

DATE: June 1, 2022

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TDControls is very pleased to have the opportunity to provide pricing for the Denton ISD Newton Rayzor ES & Calhoun MS – Building Automation and Access Control system as per the documents prepared by RWB Consulting Engineers.

Drawings and Specifications Revision and Date:

a. 100% CD – 5-12-2022

b. Addendum 1 – 5-20-2022

HVAC

Equipment Summary:

Equipment Summary - Newton Rayzor ES - Areas A thru E	
System	Qty.
RTUs - 2 Stage Cooling - 2 Stage Heating – T	70
RTUs - 2 Stage Cooling - 2 Stage Heating - T/CO2	4
RTU – MAU	1
AC Units - IDF & Electrical Room	10
Exhaust Fans - Kitchen EF w/ VFD	2
Exhaust Fans - Start/Stop/Status	4
Exhaust Fans - Status Only	33
Exhaust Fan - LV Tstat	1
Exhaust Fan - Kiln Room	1
Exhaust Fan – Dishwasher	1
Electric Unit Heater	1
Miscellaneous	See Scope

Equipment Summary - Newton Rayzor ES - Storm Shelter - Area E	
System	Qty.
AC Units - IDF & Electrical Room	2
Exhaust Fans - Status Only	3
Exhaust Fans - Storm Shelter	2
Miscellaneous	4

Equipment Summary - Calhoun MS - Areas A thru H	
System	Qty.
AHU - VAV	5
AHU - VAV - Existing	1
RTUs - 2 Stage Cooling - 2 Stage Heating	21
RTUs - Existing	13
FPB w/ HW Reheat	32
FPB w/ HW Reheat - Existing	48
AC Units - IDF & Electrical Room	7
AC Units - IDF & Electrical Room - Existing	12
Exhaust Fans - Kitchen EF w/ VFD	3
Exhaust Fans - Relief Fans w/ VFD	10
Exhaust Fans - Start/Stop/Status	6
Exhaust Fans - Status Only	16
Exhaust Fans - LV Tstat	2
Exhaust Fan - Kiln Room	1
Exhaust Fan - Dishwasher	1
Exhaust Fans - Existing	11
Chillers - Existing	2
CHW Pumps - Existing	2
CHW Loop	1
HW Boiler	1
HW Pumps w/ VFD	5
HW Boilers - Existing to be relocated	4
HW Pumps - Existing	4
HHW Loop	1
Electric Unit Heater	2
Miscellaneous	32

Equipment Summary - Calhoun MS - Storm Shelter - Area B	
System	Qty.
RTUs - 2 Stage Cooling - 2 Stage Heating	4
AC Units - IDF & Electrical Room	2
Exhaust Fans - Status Only	4
Exhaust Fans - Storm Shelter	1
Electric Unit Heater	1
Miscellaneous	3

Equipment Summary - Calhoun MS - ALTERNATE - Crawl Space	
System	Qty.
Exhaust Fan - Crawl Space	1

Scope of Work: TDControls will provide all BAS controllers, sensors, control wiring, programming, check-out, and startup labor to control and/or monitor the following equipment:

Newton Rayzor ES – Main Areas A thru E

- **Roof Top Units – 2-Stage Cooling/2-Stage Heating – Temp Only – Qty. 70**
 - Daisy chain field mounted controller with BACnet MS/TP communication trunk
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire air temperature sensors
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal for cooling and heating stages
 - Wire signal for gas heat control
 - Wire signal for OA damper actuators
 - Wire duct smoke detectors into safety circuit
 - Integration
- **RTUs – 2-Stage Cooling/2-Stage Heating – T/CO2 – Qty. 4**
 - Daisy chain field mounted controller with BACnet MS/TP communication trunk
 - Furnish, install, and wire space temperature/CO2 sensor
 - Furnish, install, and wire air temperature sensors
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal for cooling and heating stages
 - Wire signal for gas heat control
 - Wire signal for OA damper actuators
 - Wire duct smoke detectors into safety circuit
 - Integration
- **RTU – MAU – Qty. 1**
 - Daisy chain field mounted controller with BACnet MS/TP communication trunk
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire air temperature sensors
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal for cooling and heating stages
 - Wire signal for gas heat control
 - Wire signal for OA damper actuators
 - Wire duct smoke detectors into safety circuit
 - Integration
- **Dx Split System – IDF/Electrical Rooms – Qty. 10**
 - Furnish, install, and wire Siemens DXR field controller
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensor
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal to interlock pan switch
 - Program, check-out, and start-up

- **Exhaust Fans – Kitchen EF w/ VFD – Qty. 2**
 - Furnish and field mount controller
 - Wire BACnet communication and connect to BMS
 - Furnish, install, and wire relays and CT to enable and monitor the fan
 - Daisy-chain VFD with BACnet communication trunk
 - Wire hard-wired monitoring points (speed and VFD alarm) from VFD to controller
 - Interlock fan with the grease hood exhaust air system
 - Interlock fan with the fire suppression system
 - Check-out and start-up
- **Exhaust Fans – Start/Stop/Status – Qty. 4**
 - Furnish, install, and wire Relay and CT for fan operation and monitoring
 - Program, check-out, and start-up
- **Exhaust Fans – Status Only – Qty. 33**
 - Furnish, install, and wire CT for fan monitoring
 - Program, check-out, and start-up
- **Exhaust Fan – LV Tstat – Qty. 1**
 - Furnish, install, and wire CT for fan monitoring
 - Furnish, install, and wire LV thermostat and wire to fan
 - Program, check-out, and start-up
- **Exhaust Fan – Kiln Room – Qty. 1**
 - Furnish, install, and wire CT for fan monitoring
 - Interlock fan with the associated FPB box
 - Program, check-out, and start-up
- **Exhaust Fan – Dishwasher – Qty. 1**
 - Furnish, install, and wire CT for fan monitoring
 - Interlock fan with the dishwasher
 - Program, check-out, and start-up
- **Electric Unit Heater – Qty. 1**
 - Install manufacturer provided thermostat
- **Miscellaneous Points**
 - OA Temperature and Humidity – Temperature & Humidity Sensor – Qty. 1
 - Building Static Pressure – Building Static Pressure – Qty. 1
 - Domestic Water Meter – Monitor – Qty. 1
 - Power Meter – Monitor – Qty. 1
 - Outside Lighting Zones – Qty. 4
 - Ansul System – Status – Qty. 1

- **OWS/BAS Front-End**
 - Tridium Niagara N4 JACE 8000 equipped with license suitable for 125 devices
 - Tridium Niagara Software Maintenance Agreement of 18 months (additional options available) for the JACE
 - Jace software and setup
 - Web-Based Access to Tridium Niagara N4 front end, access locally or remotely, with internet connection (provided by others).
 - HVAC Systems and floor graphics
 - Provide equipment scheduling capability.
 - Setup temperature and/or failure alarms for visibility at front-end

Newton Rayzor ES – Storm Shelter – Area E

- **Dx Split System – IDF/Electrical Rooms – Qty. 2**
 - Furnish, install, and wire Siemens DXR field controller
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensor
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal to interlock pan switch
 - Program, check-out, and start-up
- **Exhaust Fans – Status Only – Qty. 3**
 - Furnish, install, and wire CT for fan monitoring
 - Program, check-out, and start-up
- **Exhaust Fans – Storm Shelter – Qty. 2**
 - Furnish, install, and wire CT for fan monitoring
 - Interlock fan to storm shelter wall switch
 - Program, check-out, and start-up
- **Storm Shelter Control Panel – Qty. 1**
 - Furnish, install, and wire Storm Shelter Control panel (SSCP)
 - Program and start-up of SSCP
 - Interlock fans (Approx. Qty. 2) and wall-louver dampers (Approx. 3) with SSCP
 - Meet Denton ISD's storm shelter control panel standards. More scope detail to be provided as more information on system becomes available.
- **Miscellaneous Points**
 - Motorized Dampers – Damper Actuator interlock with Storm Shelter EFs – Qty. 2

Calhoun MS – Main Areas A thru H

- **AHU VAV – Qty. 5**
 - Furnish and field mount AHU controller
 - Daisy-chain controller with BACnet communication trunk
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire air temperature sensors and LTD/Freezestat sensor
 - Furnish, install, and wire air CO2 sensor
 - Furnish, install, and wire air humidity sensor
 - Furnish and wire OA AFMS. Installed by mechanical
 - Furnish, install, and wire downstream static pressure switch
 - Furnish, install, and wire filter pressure switches
 - Furnish, install, and wire high static pressure switches
 - Furnish, install, and wire CT to monitor the bipolar ionizer
 - Furnish, install, and wire damper actuators
 - Furnish, install, and wire relays and CT to enable and monitor the supply and return fans
 - Daisy-chain VFDs with BACnet communication trunk
 - Wire hard-wired monitoring points from VFDs to controller
 - Furnish and wire CHW control valves. Installed by mechanical
 - Furnish and wire HHW control valves. Installed by mechanical
 - Wire interlock wiring to the associated gravity intake ventilator
 - Wire duct smoke detector/FA relay into safety circuit
 - Program, check-out, and start-up
- **AHU VAV – Existing – Qty. 1**
 - Furnish and field mount AHU controller
 - Daisy-chain controller with BACnet communication trunk
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire air temperature sensors and LTD/Freezestat sensor
 - Furnish, install, and wire air CO2 sensor
 - Furnish, install, and wire air humidity sensor
 - Furnish and wire OA AFMS. Installed by mechanical
 - Furnish, install, and wire downstream static pressure switch
 - Furnish, install, and wire filter pressure switches
 - Furnish, install, and wire high static pressure switches
 - Furnish, install, and wire CT to monitor the bipolar ionizer
 - Furnish, install, and wire damper actuators
 - Furnish, install, and wire relays and CT to enable and monitor the supply and return fans
 - Daisy-chain VFDs with BACnet communication trunk
 - Wire hard-wired monitoring points from VFDs to controller
 - Furnish and wire CHW control valves. Installed by mechanical
 - Furnish and wire HHW control valves. Installed by mechanical
 - Wire interlock wiring to the associated gravity intake ventilator
 - Wire duct smoke detector/FA relay into safety circuit
 - Program, check-out, and start-up

- **Roof Top Units – 2-Stage Cooling/2-Stage Heating – Qty. 21**
 - Daisy chain field mounted controller with BACnet MS/TP communication trunk
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire air temperature sensors
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal for cooling and heating stages
 - Wire signal for gas heat control
 - Wire signal for OA damper actuators
 - Wire duct smoke detectors into safety circuit
 - Integration
- **Roof Top Units – 2-Stage Cooling/2-Stage Heating – Existing – Qty. 13**
 - Daisy chain field mounted controller with BACnet MS/TP communication trunk
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire air temperature sensors
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal for cooling and heating stages
 - Wire signal for gas heat control
 - Wire signal for OA damper actuators
 - Wire duct smoke detectors into safety circuit
 - Integration
- **FPB w/ HW Reheat – Qty. 32**
 - Furnish and install terminal unit controllers w/ integrated actuator
 - Daisy chain BACnet communication and connect to BMS
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensors
 - Furnish, install, and wire relay to enable fan
 - Furnish and wire HW control valves. Installed by mechanical
 - Check-out and start-up
- **FPB w/ HW Reheat – Existing – Qty. 48**
 - Furnish and install terminal unit controllers w/ integrated actuator
 - Daisy chain BACnet communication and connect to BMS
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensors
 - Furnish, install, and wire relay to enable fan
 - Furnish and wire HW control valves. Installed by mechanical
 - Check-out and start-up
- **Dx Split System – IDF/Electrical Rooms – Qty. 7**
 - Furnish, install, and wire Siemens DXR field controller
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensor
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal to interlock pan switch
 - Program, check-out, and start-up

- **Dx Split System – IDF/Electrical Rooms – Existing – Qty. 12**
 - Furnish, install, and wire Siemens DXR field controller
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensor
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal to interlock pan switch
 - Program, check-out, and start-up
- **Exhaust Fans – Kitchen EF w/ VFD – Qty. 3**
 - Furnish and field mount controller
 - Wire BACnet communication and connect to BMS
 - Furnish, install, and wire relays and CT to enable and monitor the fan
 - Daisy-chain VFD with BACnet communication trunk
 - Wire hard-wired monitoring points (speed and VFD alarm) from VFD to controller
 - Interlock fan with the grease hood exhaust air system
 - Interlock fan with the fire suppression system
 - Check-out and start-up
- **Exhaust Fans – Relief Fan w/ VFD – Qty. 10**
 - Furnish and field mount controller
 - Wire BACnet communication and connect to BMS
 - Furnish, install, and wire relays and CT to enable and monitor the fan
 - Daisy-chain VFD with BACnet communication trunk
 - Wire hard-wired monitoring points (speed and VFD alarm) from VFD to controller
 - Check-out and start-up
- **Exhaust Fans – Start/Stop/Status – Qty. 6**
 - Furnish, install, and wire Relay and CT for fan operation and monitoring
 - Program, check-out, and start-up
- **Exhaust Fans – Status Only – Qty. 16**
 - Furnish, install, and wire CT for fan monitoring
 - Program, check-out, and start-up
- **Exhaust Fan – LV Tstat – Qty. 2**
 - Furnish, install, and wire CT for fan monitoring
 - Furnish, install, and wire LV thermostat and wire to fan
 - Program, check-out, and start-up
- **Exhaust Fan – Kiln Room – Qty. 1**
 - Furnish, install, and wire CT for fan monitoring
 - Interlock fan with the associated FPB box
 - Program, check-out, and start-up
- **Exhaust Fan – Dishwasher – Qty. 1**
 - Furnish, install, and wire CT for fan monitoring
 - Interlock fan with the dishwasher
 - Program, check-out, and start-up

- **Air-Cooled Chillers – Existing – Qty. 2**
 - Wire BACnet from ACCs packaged controller to BMS
 - Wire hard-wired monitoring points from chiller to plant controller
 - Furnish, install, and wire relays and CT to enable and monitor Chillers
 - Furnish and wire chiller supply and return immersion temperature sensors. Installed by mech.
 - Furnish and wire chiller DP transducer. Installed by mech.
 - Integration
- **CHW Pumps with VFDs – Existing – Qty. 2**
 - Daisy-chain CHW Pump VFDs with BACnet communication trunk
 - Furnish, install, and wire relays and CT to enable and monitor CHW Pump VFD
 - Wire hard-wired monitoring points (speed and alarm) from VFDs to controller
 - Program, check-out, and start-up
- **Chilled Water Loop – Existing – Qty. 1**
 - Furnish, install and wire CHW Loop supply and return immersion temperature sensors
 - Furnish, install and wire CHW Loop DP Transducer for remote CHW DP Sensor
 - Furnish and wire CHW Loop flow meter. Taps installed by mech.
 - Wire CHW Loop flow switch. Provided by Chiller Mfr. and installed by mech.
 - Furnish and install CHW system controller and enclosure
 - Program, check-out, and start-up CHW system
- **Boiler – Qty. 1**
 - Daisy-chain individual Boilers and connect communication to Master Panel
 - Daisy-chain Master Panel with BACnet communication trunk
 - Wire hard-wired monitoring points from Boilers to HHW system controller
 - Furnish, install, and wire relays and CT to enable and monitor boilers
 - Furnish and wire isolation valve to Master Panel. Installed by mech.
 - Furnish, install, and wire boiler supply and return immersion temperature sensors
 - Furnish and wire HHW flow meter. Taps installed by mechanical contractor
 - Integration
- **HHW Pumps with VFDs – Qty. 5**
 - Daisy-chain HHW Pump VFDs with BACnet communication trunk
 - Wire hard-wired monitoring points (speed and alarm) from VFDs to controller
 - Furnish, install, and wire relays and CT to enable and monitor HHW Pump VFD
 - Program, check-out, and start-up
- **Boiler – Existing to be relocated– Qty. 4**
 - Daisy-chain individual Boilers and connect communication to Master Panel
 - Daisy-chain Master Panel with BACnet communication trunk
 - Wire hard-wired monitoring points from Boilers to HHW system controller
 - Furnish, install, and wire relays and CT to enable and monitor boilers
 - Furnish, install, and wire boiler supply and return immersion temperature sensors
 - Integration
- **HHW Pumps with VFDs – Existing – Qty. 4**
 - Daisy-chain HHW Pump VFDs with BACnet communication trunk
 - Wire hard-wired monitoring points (speed and alarm) from VFDs to controller
 - Furnish, install, and wire relays and CT to enable and monitor HHW Pump VFD
 - Program, check-out, and start-up

- **Heating Hot Water Loop – Qty. 1**
 - Furnish, install, and wire space carbon monoxide sensor
 - Furnish, install, and wire OA temperature and humidity sensor and interlock with HHW Loop
 - Furnish, install, and wire HHW Loop supply and return immersion temperature sensors
 - Furnish, install, and wire HHW pump supply and return immersion temperature sensors
 - Furnish and wire HHW make-up meter. Taps installed by mechanical contractor
 - Furnish, install, and wire HHW Loop DP Transducer for remote HHW DP Sensor
 - Furnish, install, and wire AHU-E5 DP Transducer
 - Furnish and install HHW system controller and enclosure
 - Program, check-out, and start-up HHW system
- **Electric Unit Heater – Qty. 2**
 - Install manufacturer provided thermostat
- **Miscellaneous Points**
 - OA Temperature and Humidity – Temperature & Humidity Sensor – Qty. 1
 - Domestic Water Meter – Monitor – Qty. 1
 - Power Meter – Monitor – Qty. 1
 - Outside Lighting Zones – Qty. 6
 - Dry Storage Room monitoring – Temperature and humidity – Qty. 1
 - Room Temperature Monitoring (Area D) – Temperature – Qty. 1
 - DW Circulation Pump – Status & Alarm – Qty. 6
 - Space Humidity (Area D) – Wall Humidity Sensor – Qty. 1
 - Motorized Dampers – Damper Actuator interlock with boiler controller – Qty. 1
 - Motorized Dampers – Damper Actuator interlock with Mezzanine AHUs – Qty. 5
 - RTU Aux Tstat Removal – Area G Demolition – Qty. 6
 - RTU Tstat Relocation – Area G Relocation – Qty. 4
 - Exhaust Fan Removal – Area G Demolition – Qty. 2
- **OWS/BAS Front-End**
 - Tridium Niagara N4 JACE 8000 equipped with license suitable for 200 devices
 - Tridium Niagara Software Maintenance Agreement of 18 months (additional options available) for the JACE
 - Jace software and setup
 - Web-Based Access to Tridium Niagara N4 front end, access locally or remotely, with internet connection (provided by others).
 - HVAC Systems and floor graphics
 - Provide equipment scheduling capability.
 - Setup temperature and/or failure alarms for visibility at front-end

Calhoun MS – Storm Shelter – Area B

- **RTUs – 2-Stage Cooling/2-Stage Heating – Qty. 4**
 - Daisy chain field mounted controller with BACnet MS/TP communication trunk
 - Furnish, install, and wire space temperature
 - Furnish, install, and wire air temperature sensors
 - Furnish, install, and wire ceiling CO monitor
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal for cooling and heating stages
 - Wire signal for gas heat control
 - Wire signal for OA damper actuators
 - Wire duct smoke detectors into safety circuit
 - Integration

- **Dx Split System – IDF/Electrical Rooms – Qty. 2**
 - Furnish, install, and wire Siemens DXR field controller
 - Furnish, install, and wire space temperature sensor
 - Furnish, install, and wire supply air temperature sensor
 - Wire enable and monitoring signals for fan control and monitoring
 - Wire signal to interlock pan switch
 - Program, check-out, and start-up
- **Exhaust Fans – Status Only – Qty. 4**
 - Furnish, install, and wire CT for fan monitoring
 - Program, check-out, and start-up
- **Exhaust Fans – Storm Shelter – Qty. 1**
 - Furnish, install, and wire CT for fan monitoring
 - Interlock fan to storm shelter wall switch
 - Program, check-out, and start-up
- **Storm Shelter Control Panel – Qty. 1**
 - Furnish, install, and wire Storm Shelter Control panel (SSCP)
 - Program and start-up of SSCP
 - Interlock fans (Approx. Qty. 2) and wall-louver dampers (Approx. 3) with SSCP
 - Meet Denton ISD's storm shelter control panel standards. More scope detail to be provided as more information on system becomes available.
- **Electric Unit Heater – Qty. 1**
 - Install manufacturer provided thermostat
- **Miscellaneous Points**
 - Motorized Dampers – Damper Actuator interlock with Storm Shelter EFs – Qty. 2
 - DW Circulation Pump – Status & Alarm – Qty. 1

Calhoun MS – ALTERNATE – Area B (Crawl Space)

- **Exhaust Fan – Crawl Space – Qty. 1**
 - Furnish, install, and wire relay and CT for fan operation and monitoring
 - Furnish, install, and wire a space temperature and humidity sensor and wire to fan
 - Program, check-out, and start-up

Scope Notes – Newton Rayzor ES & Calhoun MS

- Work will be performed during normal business hours.
- BAS controllers will be networked together via BACnet MSTP communication
- We will be re-using the existing sequence for the CHW System & HHW System
- Provide, install, and configure all necessary software.
- Provide database programming, install, and configure all necessary BAS software, BAS network configuration, project management, commissioning, BAS controllers check-out and startup labor, installation and wiring submittals, record drawings, and Operation & Maintenance data.
- Training – 20 Hrs. for Newton Rayzor ES, 20 Hrs. for Calhoun MS
- All low voltage wiring will be installed in plenum rated cable, which will be color coded and not in conduit, in concealed spaces and above lay-in ceilings; all wiring will be run neatly and regularly supported. Low voltage control wiring will be ran in EMT conduit when it must be run exposed and is subject to damage (i.e. Electrical, Chiller, Mechanical and/or AHU Room/s, Etc.).
- One year warranty on labor and workmanship is included in this scope of work.

Assumptions:

- We will be able to re-use existing wires for existing end-devices.
- We will re-use existing wire pathways to run the new wires. Where no wire pathways in place, we will run plenum wire (no conduit)
- We will be able to re-use existing controls enclosures, where possible.
- We will be able to re-use existing end-devices. For any defective devices, we will notify and propose the repair pricing before we proceed.
- The existing HVAC systems are regularly maintained and in good operating conditions.

Items Not Included

- Any work outside of the scope mentioned above
- Any work associated with the Carbon monoxide detectors for the classrooms. This is to be done by Division 28.
- Repair of any existing defective devices.
- Repair of any existing controls and/or HVAC equipment. We can provide HVAC equipment diagnostic of existing issues and provide a separate quote to repair/replace equipment.
- Replacing pneumatic valves and damper actuators
- Any work associated with the Kitchen Make-Up Air
- Any work associated with the Grease Hood Exhaust Air System
- Any work associated with the Fire Suppression System
- Any work associated with the Building Lighting Controls
- Bipolar Ionizers provided by mechanical contractor for the AHUs. TD will monitor status if available.
- Any work associated with Bipolar Ionizers for the RTUs.
- Vault, raceway, and installation of the domestic meter.
- Irrigation meter.
- Device mounting and control wiring for mechanical provided maintenance shop equipment. By Division 26 if above 50 volts.
- Mechanical needs to provide conventional thermostat wiring connection for split ac units
- Raceways in walls or sleeves through walls, floors or decking for t-stats and access controls devices and conduit to doors (By division 26)
- Motorized/control dampers
- Outside Air Intake Motorized/control dampers and actuators
- Louver wall dampers
- Space sensor back boxes and conduit stub-ups are excluded
- VFDs, furnishing and/or wiring
- IP drops / Network switches
- LAN fiber-optic network
- Flow switches, to be provided with the Air-Cooled Chiller
- 3rd party equipment packaged communication cards
- Underground conduit.
- Any fire alarm system related work (e.g. smoke detectors, relays, etc.)
- Fire smoke dampers, furnishing and/or monitoring
- Furnishing line voltage thermostats
- 120 volt power for RTU control panels and Field control panels
- 120V/24V transformers on boxes
- Power meters and natural gas meters

ACCESS CONTROL

Denton ISD Rayzor ES Access Door Summary

Base bid								
Door #	Type	Reader	DSS	Push Button	Lock	Qty	Comments	Location
A100.1	Single		1		Key		Intercom, Panic Button	Reception
A100.2	Single	2	1	Push Button	Elec Lock	1	1 Rocker Switch, Readers Both Sides	Reception
A120.2	Single	1	1	Push Button	Panic	1	1 Rocker Switch	Clinic
B107	Single	1	1		Elec Lock	1		IDF
E106	Single	1	1		Elec Lock	1		IDF
E115.2	Double		2		Lock	2	Door Status Only	Receiving
ZE103.1	Double	1	2		Panic	2		Corridor
ZE103.2	Double	1	2		Panic	2		Corridor
VB100.1	Double	1	2		Panic	2	2n Integrated Reader	Vest.
VB100.2	Double	1	2	Push Button	Panic	2		Vest.
E116	Single	1	1		Panic	1		Vest.
VC100.1	Double	1	2		Panic	2		Vest.
VC101.1	Double	1	2		Panic	2		Vest.
VE100.1	Double	1	2		Panic	2		Vest.
B203	Single	1	1		Elec Lock	1		IDF
E121	Double		2		Lock	2	Door Status Only	Fire Riser Room
E122	Double		2		Lock	2	Door Status Only	Main Electrical Room
D213	Single	1	1		Elec Lock	1		IDF
	Intercom	Reader's	DSS's	Push Button			Note: All locking devices are provided and installed by door hardware contractor. We will be terminating and testing them only.	
	1	15	28	3		27		
				Panic Button				
				1				
Misc Points								

Denton ISD Calhoun MS Access Door Summary								
Base bid								
Door #	Type	Reader	DSS	Push Button	Lock	Qty	Comments	Location
A105	Single	1	1		Elec Lock	1		IDF Room
B110	Single	1	1		Panic	1		Kitchen
C100.1	Single	1	1		Panic	1	Card Reader Both Sides	Reception
C100.2	Single	1	1		Panic	1		Reception
C110	Single	1	1		Elec Lock	1		IDF Room
C117.1	Single	1	1	Push Button	Panic	1		Clinic
D105	Single	1	1		Elec Lock	1		IDF Room
ZC100.4	Double	1	2		Panic	2		Corridor
VB100.1	Double	1	2		Panic	2		Vest
VC100.1	Double	1	2	Push Button	Panic	2	Intercom	Vest
VC100.3	Double	1	2	Push Button	Panic	2		Vest
VE100.2	Double	1	2		Panic	2		Vest
A201	Single	1	1		Elec Lock	1		IDF Room
B204	Single	1	1		Elec Lock	1		MDF
A102	Double		2		Lock	2		Elec
B116	Double		2		Lock	2		Elec
A106.2	Double		2		Lock	2		Mech. Room
B117	Single		1		Lock	1		Boiler Room
	Intercom	Reader's	DSS's	Push Button			Note: All locking devices are provided and installed by door hardware contractor. We will be terminating and testing them only.	
	1	14	26	3		26		
				Panic Button				
				1				
Misc Points								

Scope Notes

- **Also Included in Access Control project:**
 - Panic button located at the reception desk s
 - (200) Access cards
- 110 VAC power for our enclosures is excluded
- All locking hardware and power transfer devices to be furnished and installed by others.
- District LAN/WAN connection is excluded
- Reader back boxes and conduit stub-ups are excluded
- Conduit pathways into door frames to be supplied by others
- Performance and payment bond are excluded
- Raceways in walls or sleeves through walls, floors or decking for access controls devices and conduit to doors (By division 26)

IRRIGATION INTEGRATION

Scope Notes

- We are providing the integration of a new baseline irrigation system for Newton Rayzor ES and Calhoun MS
- Site and sectional graphics loaded on Server
- Integrate the new Baseline controllers to the server
- Programming the front end
- Testing and verification
- Irrigation system to be fully functional and operating before we can integrate it into the server.
- Payment and Performance bond is excluded

The price for the controls systems, per the scope of work above is:

100% CD – Newton Rayzor ES

HVAC.....	\$326,721.20
Access Controls.....	\$ 86,595.60
Irrigation.....	\$ 11,029.20
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Total.....	\$424,346.00
Newton Rayzor ES Contingency (10%).....	\$ 42,435.00

100% CD – Calhoun MS

HVAC.....	\$730,256.80
Access Controls.....	\$ 84,822.60
Irrigation.....	\$ 16,187.60
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Total.....	\$831,267.00
Calhoun MS Contingency (10%).....	\$ 83,127.00
Alternate – Crawl Space (Area B) Fan.....	\$ 2,428.40

No sales or use tax included.

The pricing above is quoted as part of our Omnia Partners cooperative agreement.
Certified Proposal #: TX-R200403-

TDIndustries deserves the right to reprice project materials when our parts submittal is approved by the project's engineer-of-record, if more than 60 days have passed between the proposal date and the parts submittal approval date.

Thank you very much for the opportunity to provide pricing for the work listed above. Please contact me if you have any questions or need further information.

Best regards,

Dan Wine
TDControls Account Manager
Mobile #: 214-263-9300
E-Mail: Daniel.Wine@tdindustries.com

LIMITED WARRANTY

1	EQUIPMENT, GOODS, MATERIAL PURCHASED AND INSTALLED BY TDINDUSTRIES: TDIndustries, Inc. shall use its best efforts to obtain from each manufacturer, in accordance with the manufacturer's warranty (copies of which will be furnished upon request) or customary practice, the repair or replacement of equipment, goods, or material that are defective in material or workmanship. The foregoing shall constitute the exclusive remedy of the customer and sole obligation of TDIndustries, Inc. THERE ARE NO WARRANTIES, EITHER WRITTEN OR ORAL, IMPLIED OR STATUTORY RELATING TO THE EQUIPMENT, GOODS, OR MATERIAL, PROVIDED WHICH EXTEND BEYOND THAT DESCRIBED IN THIS PARAGRAPH. NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY.
2	Workmanship - Repair Installation - TDIndustries, Inc. warrants its workmanship to be free from defects for a period of 12-months from the date of completion of the above equipment, goods, and material. Sewer and Drain Cleaning - TDIndustries, Inc. warrants its workmanship for sewer and drain cleaning for a period of 24 hours from the date of completion. Any foreign material retrieved from sewer or drain will discharge warranty and incur additional costs for clearing stoppage.
	This proposal is submitted for customer's consideration with the understanding that it must be approved by TDIndustries, Inc. after its acceptance by the customer and is not binding upon TDIndustries, Inc. until so approved in writing.
	Your acceptance of this proposal is expressly limited to the terms of this document. Any additional or different terms or conditions set forth in your purchase order or in any similar such communication are hereby objected to by TDIndustries, Inc. and shall not be binding nor effective unless assented to in writing by an authorized representative of TDIndustries, Inc. Any order or any statement of intent to proceed with installation or any direction to proceed with installation or acceptance of this proposal or payment in full or part for any of the work or equipment furnished shall constitute customer's assent to the terms and conditions of this proposal.
	THIS PROPOSAL IS EXPRESSLY CONDITIONED UPON THE TERMS AND CONDITIONS CONTAINED OR REFERRED TO HEREIN, INCLUDING THOSE CONTAINED IN ANY ATTACHMENT HERETO.

STANDARD TERMS AND CONDITIONS

	THIS PROPOSAL IS EXPRESSLY CONDITIONED UPON THE TERMS AND CONDITIONS CONTAINED OR REFERRED TO HEREIN, INCLUDING THOSE CONTAINED IN ANY ATTACHMENT HERETO.
1	TDIndustries, Inc. liability or any claim for loss or damage arising out of this contract or from the performance or breach thereof or connected with the supplying of any labor, equipment, goods or material hereunder, or their sale, resale, operation or use, whether based on contract, warranty, tort (including negligence) or other grounds, shall not exceed the price allowable to such labor, equipment, goods or material, or part thereof involved in the claim. TDIndustries, Inc. shall not, under any circumstances, be liable for any labor charges without the prior written consent of TDIndustries, Inc. TDIndustries, Inc. shall not, in any event, be liable, whether as a result of breach of contract, warranty, tort (including negligence) or other grounds, for special, consequential, incidental or penal damages including, but not limited to, loss of profits, revenues, loss of the product or any associated product, cost of capital, cost of substitute products, facilities or services, downtime costs or claims of the Customer for such damages. If TDIndustries, Inc. furnishes Customer with advice or other assistance which concerns labor, equipment, goods, or material furnished hereunder, or any systems or equipment in which of such equipment, goods, or material may be installed, and which is not pursuant to this contract, the furnishing of such advice or assistance will not subject TDIndustries, Inc. to any liability, whether based on contract, warranty, tort (including negligence) or other grounds.
2	If TDIndustries, Inc. encounters asbestos, polychlorinated Biphenyl (PCB) or other hazardous substances on the site, TDIndustries, Inc. will stop work and report the condition to the owner or owners' representative. TDIndustries, Inc. will not resume work in the affected area until the asbestos, PCB's or other hazardous substances have been removed or otherwise controlled so that it does not pose a health or safety threat.
3	Any installation dates given in advance are estimated. Installation will be subject to prior orders with TDIndustries, Inc. TDIndustries, Inc. shall not be liable for failure to perform or delay in performance hereunder resulting from fire, labor difficulties, delays in usual sources of supply, major changes in economic conditions, or, without limitation by the foregoing, any cause beyond TDIndustries, Inc. reasonable control.
4	On arrival of any equipment, goods and material at the shipping address specified on the reverse side hereof, Customer shall assume all risk or loss or damage to such equipment, goods, or material.
5	In the event Customer requires TDIndustries, Inc. to delay shipment or completion of the work under this proposal, payment pursuant to this proposal shall not be withheld or delayed on such account. TDIndustries, Inc. shall have the right to deliver any portion of the equipment, goods or material to be furnished hereunder and to bill Customer therefore, and Customer agrees to pay for the same in accordance with terms of the payment hereof upon notification that such shipment is ready for delivery, notwithstanding the fact that Customer may be unable to receive or provide suitable storage space for any such partial delivery. In such event, such portion of the equipment, TDIndustries, Inc. may store goods or material ready for shipment at Customer's expense.
6	The amount of any past, present or future occupation, sales, use, service, excise or other similar tax which TDIndustries, Inc. shall be liable for, either on its own behalf or on behalf of Customer, or otherwise, with respect to any equipment, goods, material or service covered by this proposal, shall be in addition to the prices set forth herein and shall be paid by Customer.
7	If the equipment, goods or material furnished hereunder requires the use of water or steam, recirculated or otherwise, TDIndustries, Inc. shall not be liable for the effect of its physical or chemical properties upon said equipment, goods or material.
8	All skilled or common labor which may be furnished by the Customer shall be considered and treated as Customer's own employees, and Customer agrees to fully protect and indemnify TDIndustries, Inc. against all claims for accidents or injuries to such employees in the course of the work, or to any person or persons through the negligence of such employees.
9	No oral representations are binding upon TDIndustries, Inc. unless reduced to writing and signed by an authorized representative of TDIndustries, Inc. All changes to this contract must be in writing.
	Revised 05-09-2008