

ADDENDUM #1 -- CPS RFP 20/69 --

BENTON ELEMENTARY MOBILE CLASSROOMS SITEWORK PACKAGE

PREPARED BY:

1000 W. Nifong Blvd. Building #1
Columbia, MO 65203
p: (573) 447-0292
tim@crockettengineering.com



DATE: AUGUST 21, 2020

TO BIDDING DOCUMENTS ENTITLED:

CPS RFP #20/69

Columbia Public Schools

Benton Elementary Mobile Classroom Sitework Package

BID DATE: August 27, 2020

Drawings and Specifications for the above noted project and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect:

General:

- 1. The list of pre-bid attendees has been attached in this addendum.**
- 2. A copy of the pre-manufactured trailer drawings for the two new trailers has been attached to this addendum for reference. Installation and leveling of the trailers is not in this contract, but utility hook-ups for water, sewer, and electric are in this contract. There are no available drawings for the existing trailer to remain, but it will be hauled to a district site and available for the contractor to look at it if they need to see it during construction.**
- 3. The current CPS school schedule is being impacted by COVID-19, but for the purposes of this bid, the contractor shall assume they will have access to the site by June 1st of 2021 and they are required to be finally complete by August 6th of 2021. The contractor shall also anticipate that the trailer installer for CPS will need two weeks to install the trailers. The contractor shall anticipate this when determining the project schedule. The bid form has been modified to ask bidders for an anticipated date that the concrete pad for the trailers will be made available to the trailer installer.**

Response to Questions:

1. Does the \$20,000 Allowance-B for sewer repairs shown on the Unit Price and Allowance form cover key note items F, J, & K as shown on CE4?
 - a. *The \$20,000 sewer allowance would not cover key note "F" because the tap location is known. The \$20,000 sewer allowance would also not cover the capping of the existing tap shown in key note "J" because the location and depth of this work is known. The \$20,000 sewer allowance would also not cover the installation of the two new cleanouts shown in key note "K" since those location and depths are known. The \$20,000 sewer allowance would cover any investigative camera work needed to determine if there is additional problems between the main and the building for each of the sewer laterals affected. It would also cover any remediation work needed to replace those laterals as needed.*
2. Is there any elevation information on the existing RCB where roof drain "H" ties into the line?
 - a. *Exact depths are unknown, but based on available information, we believe the flow line of the RCB is no deeper than 6' below existing grade.*
3. Is there a box framed opening in the transformer big enough for the 4" conduit to enter under the transformer?
 - a. *Yes. See the attached picture from City Light department showing the condition of this transformer. They also determined that that all metering is done by the CT's that are already on the transformer bushings. This means the new conduit can come up on the same side as those bushings and a new metering can is no longer required. See the attached revision to the electrical plans showing this.*



4. The only conduit type on the spec sheet is galvanized rigid conduit. Is PVC conduit acceptable for underground raceways:
 - a. *PVC conduit is acceptable below grade up to the first junction box. All other above grade conduit should be galvanized rigid.*

Specifications:

1. Spec Section 00 4213 "Request For Proposal" "Page 8" has been modified to clarify start date and final completion date for the project.
2. Spec Section 00 4213 "Bid Form" has been modified to ask for the number of calendar days from the start day that the concrete trailer pad will be available to the trailer installer.
3. Spec Section 00 7201 "Supplementary Conditions" "Page 4" is modified to clarify the start date and completion date for the project.
4. Spec Section 00 4322 "Unit Price and Allowance Form" shall be modified to include a base bid allowance of \$15,000 for the contractor to include in their base bid to cover building permit fees from the City of Columbia.

Drawings:

1. Sheet CE0
 - a. Updated the zoning designation for the property.
 - b. Added a general note clarifying that City of Columbia will require a traffic control plan from the contractor prior to performing any work in City right of way.
2. Sheet CE2
 - a. Reference to Silt Fence detail added.
 - b. Construction Entrance and street sweeping notes added.
 - c. Concrete Washout Facility requirement added.
 - d. City of Columbia stockpiling requirement notes added.
 - e. Erosion Control narrative added.
3. Sheet CE3
 - a. Reference to Silt Fence detail added.
 - b. Construction Entrance and street sweeping notes added.
 - c. Concrete Washout Facility requirement added.
 - d. City of Columbia stockpiling requirement notes added.
4. Sheet CE4
 - a. Underground electric conduit routing modified to match the existing trailer that is to be re-installed.
 - b. Note "D" clarified that water meter shall be 1".
 - c. Note "G" modified to show detail of data conduits at building entry location.
 - d. Note "O" added to account for riser adjustment needed at buried storm manhole access location.
5. Sheet CE5
 - a. Playground striping and overall configuration has been modified. See key notes "U,V,W,X,Y"
 - b. Additional detail added for Note "G" showing handrail modification.
 - c. Note "K" modified to show concrete requirements at post embedment of playground structure.

6. Sheet S200A
 - a. A typical detail has been added to allow for an access hatch in the wood deck framing. The exact location will be determined once a buried storm manhole is uncovered.
7. Sheet E101
 - a. The riser diagram has been modified to eliminate the meter can.

Attachments:

1. Pre-bid Attendee's list
2. Drawings for new premanufactured trailers
3. 00 4213 Request For Proposal, Page 8
4. 00 4213 Bid Form - revised
5. 00 7201 Supplementary Conditions – Page 8
6. 00 4322 Unit Price and Allowance Form - revised
7. Revised Sheet CE 0
8. Revised Sheet CE 2
9. Revised Sheet CE 3
10. Revised Sheet CE 4
11. Revised Sheet CE 5
12. Revised Sheet S200A
13. Revised Sheet E101

Sincerely,



**Tim Crockett,
Crockett Engineering**



COLUMBIA PUBLIC SCHOOLS

PRE-BID MEETING ATTENDANCE SHEET FOR

RFP No.: <u>RFP 20169</u>	Date: <u>Aug 13th</u>	Time: <u>10:00 am</u>
RFP Name: <u>Benton Elem Mobile Classroom</u>	Completed By: <u>Lisa Ozanich</u>	*

* Due to COVID-19, attendee information has been written in by the Purchasing Department.

NAME	COMPANY	PHONE	EMAIL
Ryan Greenwood	S+A Equipment	573 220 3653	Ryan@sequipmentbuilders.com
Terry Pinkerton	Sirecal	573-893-5977	tracy@sirecalcontracting.com
Brian Derrison	PCE	573-442-1113	bderrison@pce-mo.com
Gatlin Wilson	Arete	573-418 1237	gatlin.wilson@aretecontracting.com
Jake Massman	Schneider Electric	573 636 4101	jmassman@secojc.com
Jesse Stephens	Crockett Eng		
Tim Crockett	Crockett Eng		
Francis Smith	CPS		
Charles Oestreich	CPS		
Lisa Ozanich	CPS		
Greg Drake	CPS		
Bryant Vessel	ESS	573-445-8331	bryant.vessel@demeray supp.com

ELECTRICAL NOTES:

- ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
- WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "CLOSET STORAGE SPACE" AS DEFINED BY NEC ARTICLE 410.2.
- WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOOKED IN THE OPEN POSITION.
- HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
- PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH ARTICLES 110.9 & 110.10 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
- THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
- ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, OR CABLE CONNECTORS.
- ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (WP) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED. THE RECEPT ITSELF SHALL ALSO BE LISTED AS WEATHER RESISTANT.
- EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.
- THE BUILDINGS FIRE ALARM SYSTEM (PROTECTIVE SIGNALING SYSTEMS, FIRE DETECTION SYSTEMS, ETC.) SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 101 AND NFPA 72 AND SITE INSTALLED BY OTHERS SUBJECT TO LOCAL BUILDING OFFICIAL REVIEW AND APPROVAL. THE FIRE ALARM CONTROL PANEL MUST BE INSTALLED IN A HIGHLY VISIBLE LOCATION ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION. (THE FACP CANNOT BE INSTALLED IN A CLOSET OR BATHROOM).
- TAMPER RESISTANT RECEPTS TO BE PROVIDED IN EDUCATION BUILDING SERVING ELEMENTARY PRE-SCHOOL AND YOUNGER.

GENERAL NOTES:

- ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
- ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
- ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
- ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 26 GA. WITH 7 - 15 GA. x 7/16 INCH CROWN x 1 INCH STAPLES EACH END OF STRAP OR EQUIVALENT FROM RIDGE BEAM TO COLUMN, AND COLUMN TO FLOOR.
- PORTABLE FIRE EXTINGUISHER PER N.F.P.A. - 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
- PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE BUILDING OWNER AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
- WHEN LOW SIDES OF ROOF PROVIDE LESS THAN 6" OF OVERHANG, GUTTERS AND DOWN SPOUTS SHALL BE SITE INSTALLED, DESIGNED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
- IN WIND-BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIREMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND-BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE IBC
- WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.
- STRAPPING MUST BE TESTED AND/OR CERTIFIED TO VERIFY THE STRUCTURAL CAPACITY. APPROPRIATE DOCUMENTATION MUST BE ON FILE AT THE MODULAR BUILDING FACTORY.
- A FIRE ALARM MUST BE SITE INSTALLED BY OTHERS, SUBJECT TO APPROVAL BY AUTHORITY HAVING JURISDICTION.

PLUMBING NOTES:

- WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED PER IPC SECTION 403 ARE NOT PROVIDED WITHIN THE BUILDING, A HANDICAPPED ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER AND IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE
- THIS UNIT MUST BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE.
- ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.
- WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T & P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.
- DWV SYSTEM SHALL BE EITHER ABS OR PVC - DWV.
- WATER SUPPLY LINES SHALL BE CPVC, OR COPPER, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.
- BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
- TEMPERATURE ACTUATED MIXING VALVES WHICH ARE INSTALLED TO REDUCE WATER TEMPERATURE TO DEFINE LIMITS SHALL COMPLY WITH ASSE 1017
- THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL APPROVAL.
- WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION.
- WATER, SOIL AND WASTE PIPES IN UNCONDITIONED SPACES SHALL BE INSULATED AND PROTECTED FROM FREEZING.
- CUSTOMER ASSUMES ALL RESPONSIBILITY FOR REQUIRED PLUMBING FACILITIES WHEN NOT SHOWN ON THE PLANS.
- TEMPERED WATER SHALL BE SUPPLIED THROUGH A WATER TEMP LIMITING DEVICE THAT CONFORMS TO ASSE 1070 AND SHALL LIMIT THE TEMPERED WATER TO A MAX OF 110°F(43°C)

MECHANICAL NOTES:

- ALL SUPPLY AIR REGISTERS SHALL BE 14 INCHES x 14 INCHES ADJUSTABLE WITH 10 INCHES x 20 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-5 MINIMUM INSULATION EXCEPT DUCTS EXPOSED TO VENTILATED ATTICS AND CRAWL SPACES SHALL HAVE R-6.5 INSULATION.
- INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN (FOR UNRATED DOORS)
- HVAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FRESH AIR INTAKES PROVIDING 10 CFM PER PERSON & 0.12 CFM PER S.F. BLDG. AREA PER SECTION 403.3 OF THE IMC.
- VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
- EXHAUST FANS SHALL PROVIDE A MINIMUM OF 75 CFM FOR EACH WATER CLOSET AND URINAL.

WINDOW & DOOR SPECIFICATIONS

- DBL. PANE WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE COMCHECK ENERGY CALCULATIONS FOR THE MAXIMUM ALLOWED U-FACTOR AND SHGC.
- THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR WINDOWS IS 0.3 CFM PER SQUARE FEET OF WINDOW AREA.
- THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR EXTERIOR DOORS IS 0.3 CFM PER SQUARE FEET OF DOOR AREA.

ACCESSIBILITY NOTES:

- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
- ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND THE BOTTOM EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.
- WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED AT LEAST ONE TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS TO SUCH SPACES SHALL BE ACCESSIBLE (I.E. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH; CLOTHES RODS OR COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM WHEN DISTANCE FROM WHEEL CHAIR TO ROD EXCEEDS 10 INCHES). SHELVES IN KITCHENS OR TOILET ROOMS SHALL BE 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE IN FLOOR.
- CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 48 INCHES ABOVE THE FLOOR. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
- WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOM, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING,WHICHEVER IS LOWER.
- ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.
- FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
- ACCESSIBLE WATER CLOSETS SHALL BE 17 INCHES TO 19 INCHES, MEASURED FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED BEHIND WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG SIDE OF WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES TO 36 INCHES ABOVE THE FLOOR. IN ADDITION, A VERTICAL GRAB BAR 18 INCHES MINIMUM IN LENGTH SHALL BE MOUNTED ON THE SIDEWALL WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 AND 41 INCHES ABOVE THE FLOOR, AND WITH THE CENTER LINE OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES FROM THE REAR WALL.
- ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
- ACCESSIBLE LAVATORIES AND SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR (THIS EXCLUDES SINKS IN CABINETRY). KNEE CLEARANCE OF AT LEAST 27 INCHES HIGH MUST BE PROVIDED WITH A MINIMUM DEPTH OF 8 INCHES BENEATH THE FIXTURE. AND 9 INCHES HIGH MINIMUM WITH A MINIMUM DEPTH OF 11 INCHES BENEATH THE FIXTURE. THE KNEE SPACE MUST BE AT LEAST 30 INCHES WIDE.
- HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIALS MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
- ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (I.E. LEVER-OPERATED, PUSH TYPE, ELECTRONICALLY CONTROLLED).
- MIRRORS LOCATED ABOVE LAVATORIES, SINKS OR COUNTERS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE A MAXIMUM OF 40 INCHES ABOVE THE FLOOR. OTHER MIRRORS IN TOILET ROOMS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FLOOR.
- GRAB BARS HAVING A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1.25 INCHES MINIMUM AND 2.0 INCHES MAXIMUM. THE SPACE BETWEEN THE GRAB BAR AND THE WALL SHALL BE 1.5 INCHES.
- WATER CLOSET FLUSH CONTROL SHALL BE INSTALLED A MAXIMUM OF 36 INCHES ABOVE THE FLOOR AND SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
- DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (I.E. LEVER - OPERATED, PUSH TYPE, U-SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.
- TOILET STALL DOORS SHALL BE THE SELF-CLOSING TYPE.
- A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVTORIES.

STRUCTURAL LOAD LIMITATIONS

BUILDING RISK CATEGORY: II	
FLOOR LIVE LOAD: A. 40 PSF B. 1000 LB. CONCENTRATED LOAD OVER 30 INCH x 30 INCH AREA LOCATED ANYWHERE ON FLOOR	
ROOF LIVE LOAD: A. 20 PSF	
SNOW LOAD: A. Pg = 30 PSF GROUND SNOW LOAD B. Pf = 23.1 PSF FLAT ROOF SNOW LOAD C. Ce = 1.0 SNOW EXPOSURE FACTOR D. Is = 1.0 SNOW IMPORTANCE FACTOR E. Ct = 1.1 SNOW THERMAL FACTOR WIND LOAD: ASCE 7-10 A1 Vult= 130 MPH WIND SPEED A2 Vasd = 100 MPH WIND SPEED C. Iw = 1.0 WIND IMPORTANCE FACTOR D. C WIND EXPOSURE CATEGORY D. Cqgi= 0.18 INTERNAL PRESSURE COEFFICIENT E. Pr: ZONE 1: 22.1 PSF Pw: ZONE 4: 24.0 PSF ZONE 2: 37.0 PSF ZONE 5: 29.5 PSF ZONE 3: 55.8 PSF F. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT. SEISMIC LOAD: A. Ie = 1.0 SEISMIC IMPORTANCE FACTOR B. D SITE CLASS C. A13 SEISMIC FORCE RESISTING SYSTEM. D. C SEISMIC DESIGN CATEGORY E. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE F. Ss = ≤ .537 MAPPED SPECTRAL RESPONSE COEF. G. St1 = ≤ .285 MAPPED SPECTRAL RESPONSE COEF. H. Sds = ≤ .49 SPECTRAL RESPONSE COEFFICIENT I. Sd1 = ≤ .34 SPECTRAL RESPONSE COEFFICIENT J. V = 4432 LB DESIGN BASE SHEAR K. R = 6.5 RESPONSE MODIFICATION COEFFICIENT L. Cs = 0.06 SEISMIC RESPONSE COEFFICIENT FLOOD LOAD: THIS BUILDING IS NOT DESIGNED TO BE LOCATED IN A FLOOD HAZARD AREA.	

ATTENTION LOCAL INSPECTIONS DEPARTMENT

SITE INSTALLED ITEMS

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY THE MANUFACTURER, HAVE NOT BEEN INSPECTED BY EMC AND ARE NOT CERTIFIED BY THE STATE MODULAR LABEL. NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIAL THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL. CODE COMPLIANCE MUST BE DETERMINED AT THE LOCAL LEVEL.

- THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
- RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
- PORTABLE FIRE EXTINGUISHER(S).
- GUTTERS AND DOWN SPOUTS.
- ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
- THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS
- CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATELINE(S) - (MULTI-UNITS ONLY).
- STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY).
- FIRE INSPECTION
- GLAZED OPENING PROTECTION (SEE GENERAL NOTE NO. 8)
- BUILDING DRAINS, CLEAN OUTS, AND HOOK-UPS TO PLUMBING SYSTEM
- FIRE ALARM

BUILDING DESIGN PARAMETERS

1. USE/OCCUPANCY:	EDUCATION
2. CONSTRUCTION TYPE:	VB
3. SPRINKLER SYSTEM:	NO
4. BUILDING AREA:	1914 S.F.
5. BUILDING HEIGHT:	≤ 15 FEET
6. NUMBER OF STORIES:	1
7. NUMBER OF MODULES:	2
8. OCCUPANT LOAD 79_ BASED ON 20_ NET SF/PERSON IN CLASSROOMS.	
9. EXTERIOR WALL FIRE RATING:	NOT RATED
10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY IBC 602 AND SECTION 705.3	
11. ENERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS.	
12. MANUFACTURERS DATA PLATE, STATE LABELS AND EMC LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.	



CONSULTING ENGINEER: NADER TOMASBI, P.E. - 58665 GLENRIVER DRIVE - GOSHEN, IN. 46528 - 574-370-3419

CODE SUMMARY:						
STATE	BUILDING/FIRE	ELECTRICAL	MECHANICAL	PLUMBING	ACCESSIBILITY	ENERGY CODE
MO.	2015 IBC	2014 NEC	2015 IMC	2015 IPC	2009 ANSI A117.1	2015 IECC W/STATE AMENDS.

DATE: 4-25-20		REVISIONS:	
SCALE : NO SCALE			
CODES: SEE NOTES			
STATES: MO.		BY: N.T.	
REFERENCE: 8441			
FSS8441-42 A/B		SHEET	
27'-4" x 70'-0" EDUCATION		1 OF 4	
COVER SHEET		DESTINATION: COLUMBIA	

SYMBOLS

J-BOXES ONLY

P

H

S

FIRE ALARM PULL STATION

FIRE ALARM HORN/STROBE

FIRE ALARM STROBE LIGHT

J

JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)

S

SMOKE DETECTOR

D

DUPLEX RECEPTACLE 120 V.

R

SINGLE RECEPTACLE 240 V.

L

INCANDESCENT LIGHT WITH 1-60 W. BULB

C

COMPACT FLOURESENT LIGHT 1-60 W. BULB

H

HIGH PRESSURE SODIUM LIGHT

M

METAL HALIDE WALL PACK

V

VENT FAN

F

COMB. VENT FAN & LIGHT

A

SUPPLY AIR REGISTER

R

RETURN AIR REGISTER

L

FLOOD LIGHT 2-150W BULBS

T

THERMOSTAT

F

FLUORESCENT FIXTURE WITH 2-25W TUBES

E

EXIT/EMERGENCY COMBO W/BATTERY BACKUP

E

EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP

E

EXIT/EMERGENCY COMBO W/BATTERY BACKUP

E

EXIT SIGN W/BATTERY BACKUP

E

EMERGENCY LIGHT WITH BATTERY BACKUP

J

TELEPHONE JACK

S

SWITCH & 3 WAY SWITCH

O

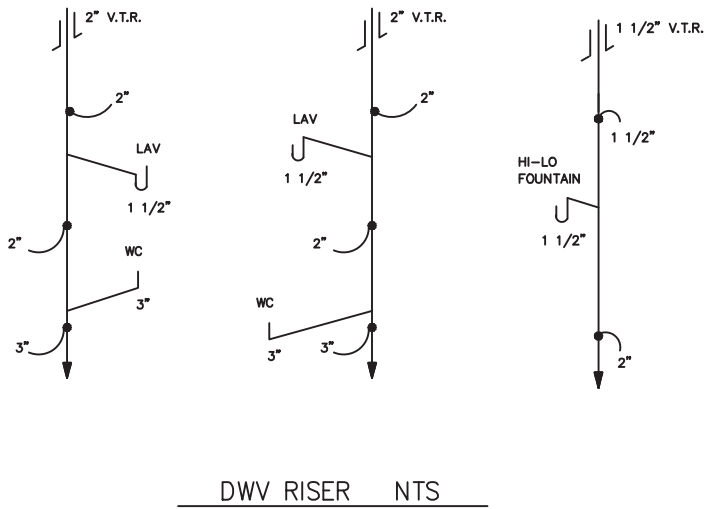
OCCUPANCY SENSOR SWITCH

E

FIRE EXTINGUISHER

ELECTRICAL SCHEDULE 'A'			
ORCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	90 A (2P) HACR	4-2 #8 GRND.
6	WATER HEATER	20 A(1P)	12-2 NM
4, 5	RECEPTACLES/FAN	20 A	12-2 NM
2	LIGHTING/FAN	20 A	12-2 NM
ELECTRICAL PANEL SIZING:			
DESCRIPTION		PANEL 'A'	KVA
GENERAL LIGHTING			
.0030 KW/SF X 64 SF X 1.25=		1.0	
.10_RECEPTS AT 180VA/1000=		1.8	
WATER HEATER 1.9 KW x 1.25 =		2.4	
2_FANS AT .3 KW X 1.25=		.8	
HVAC		23.0	
TOTAL 29 KW			
TOTAL/240 X 1000=		121 AMPS	
INSTALL 150 AMP PANEL		120/240 V 1Ø	

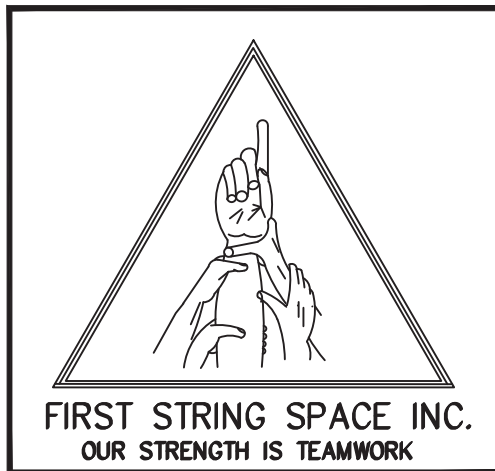
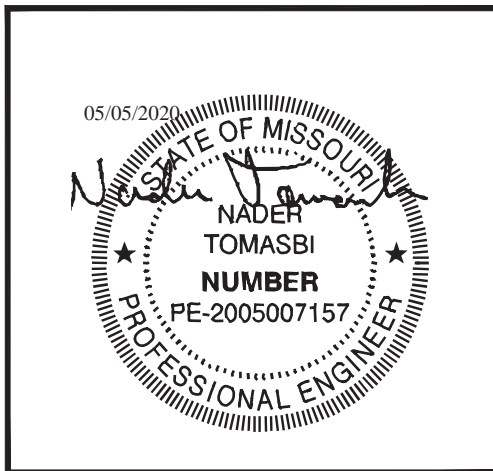
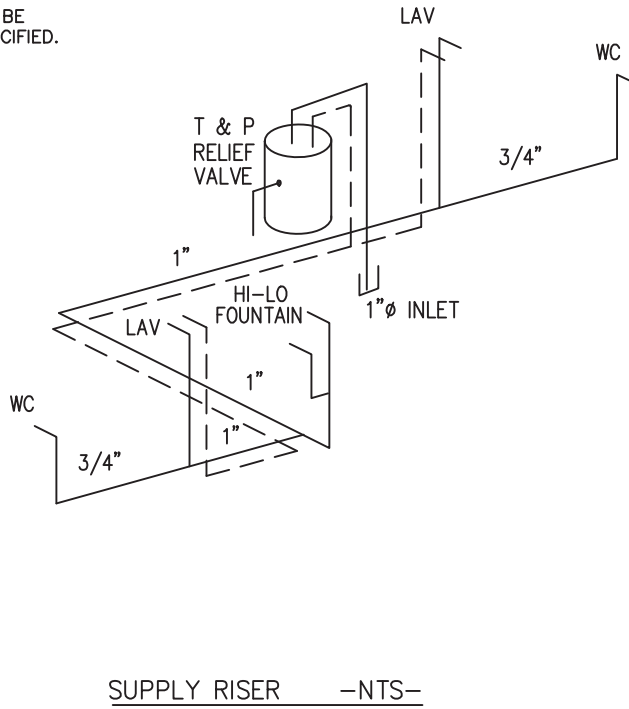
ELECTRICAL SCHEDULE 'B'			
ORCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	90 A (2P) HACR	4-2 #8 GRND.
5, 6	RECEPTACLES/FAN	20 A	12-2 NM
2, 4	LIGHTING/FAN	20 A	12-2 NM
ELECTRICAL PANEL SIZING:			
DESCRIPTION		PANEL 'B'	KVA
GENERAL LIGHTING			
.0030 KW/SF X 1850 SF X 1.25=		7.0	
.11_RECEPTS AT 180VA/1000=		2.0	
WATER HEATER 6.5 KW =		.8	
2_FANS AT .3 KW X 1.25=		23.0	
HVAC			
TOTAL 32.8 KW			
TOTAL/240 X 1000=		137 AMPS	
INSTALL 150 AMP PANEL		120/240 V 1Ø	



SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 46 TO 60 PSI AT MAIN INLET AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

COLD
HOT

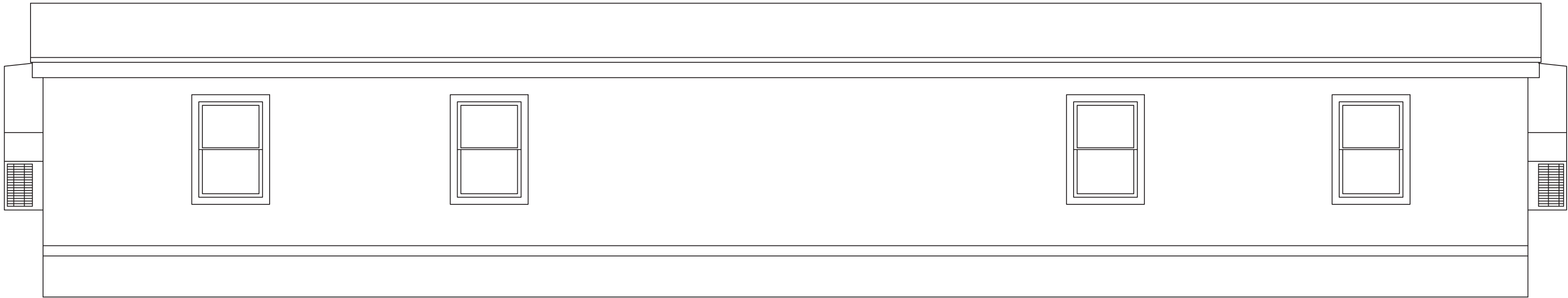
ALL SUPPLY LINES SHALL BE 3/4", ALL STUB-UPS SHALL BE 1/2" UNLESS OTHERWISE SPECIFIED.



COLUMN STRAPPING SCHEDULE:	
(A) (2) 2x4 SYP #2 THIS HALF.	(B) (2) 2x4 SYP #2 EACH HALF
(C) (3) 2x4 SYP #2 THIS HALF.	(D) (3) 2x4 SYP #2 EACH HALF.
(E) (4) 2x4 SYP #2 THIS HALF.	(F) (4) 2x4 SYP #2 EACH HALF.
(G) (5) 2x4 SYP #2 THIS HALF.	(H) (2) 2x6 SYP #2 EACH HALF.
* WITH RIDGE BEAM BEARING STIFFENER	
NOTES:	
1. ALL COLUMN STUDS SHALL BE GLUE/NAILED TOGETHER. PVA GLUE WITH 100% COVERAGE SHALL BE USED.	
2. INSTALL TWO STEEL STRAPS AT EACH STUD OF EACH COLUMN.	
3. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED.	

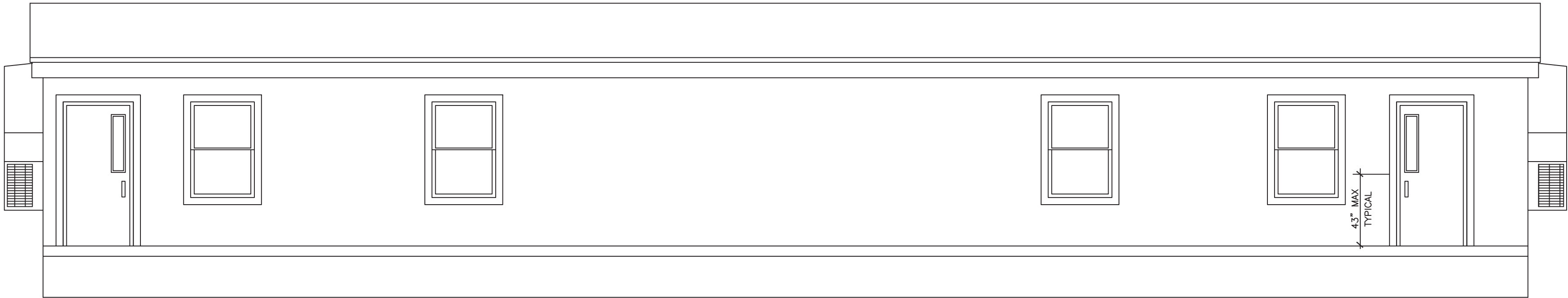
CONSULTING ENGINEER: NADER TOMASBI, P.E. - 58665 GLENRIVER DRIVE - GOSHEN, IN. 46528 - 574-370-3419

FIRST STRING SPACE			
892 RAILROAD AVE. EAST PEARSON, GEORGIA 31642 (912) 422-6455			
DATE: 4-25-20	REVISIONS:		
SCALE : 1/4"=1'-0"			
CODES: SEE NOTES	BY: N.T.		
STATES: MO.			
REFERENCE: 8441			
FSS8441-42 A/B 27'-4" x 70'-0" EDUCATION		SHEET	
FLOOR PLAN		DESTINATION: COLUMBIA	2 OF 4

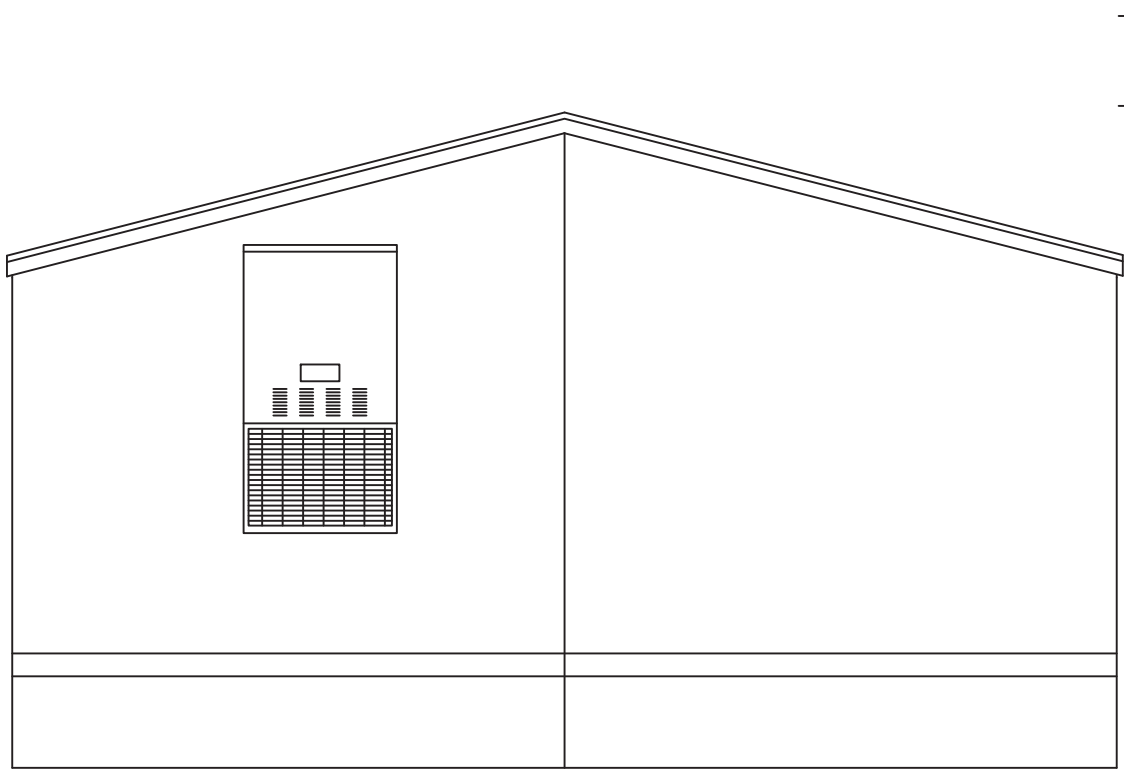


REAR ELEVATION

SCALE: 3/16"=1'-0"

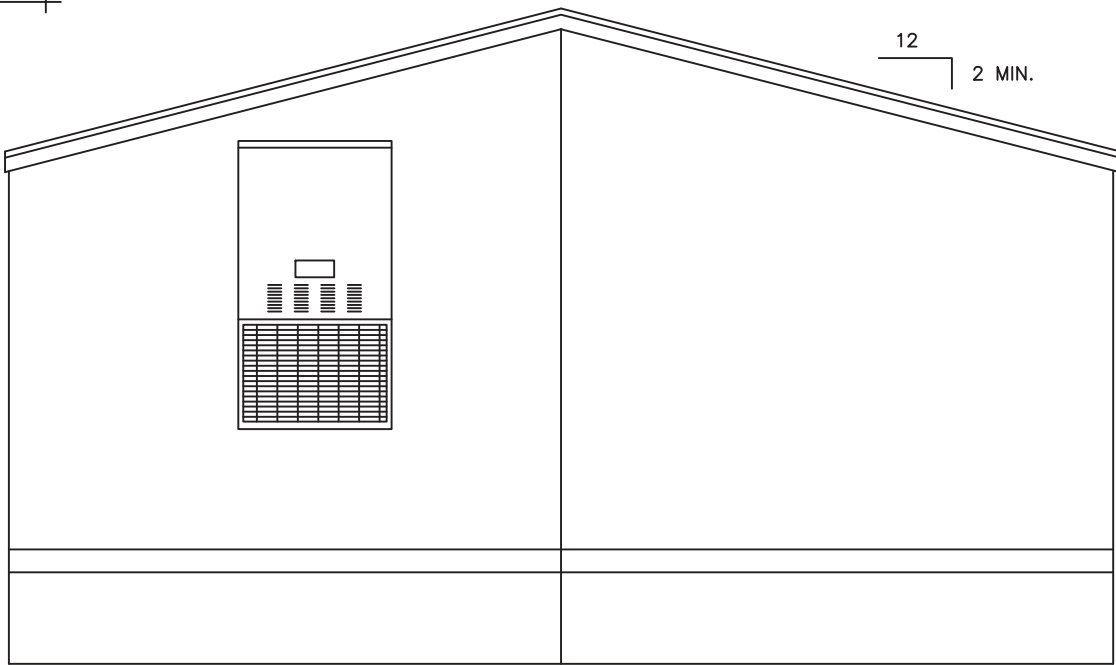


FRONT ELEVATION



RIGHT ELEVATION

OVERHANG:
ENDWALLS: 6"
SIDEWALLS: 2"



LEFT ELEVATION

ELEVATION NOTES: TYPICAL
SEE—CROSS SECTION FOR
METHOD OF ROOF VENTILATION

ACCESSIBLE RAMP(S), STAIR(S),
AND HANDRAILS ARE SITE
INSTALLED, DESIGNED BY OTHERS,
AND SUBJECT TO LOCAL JURISDICTION.

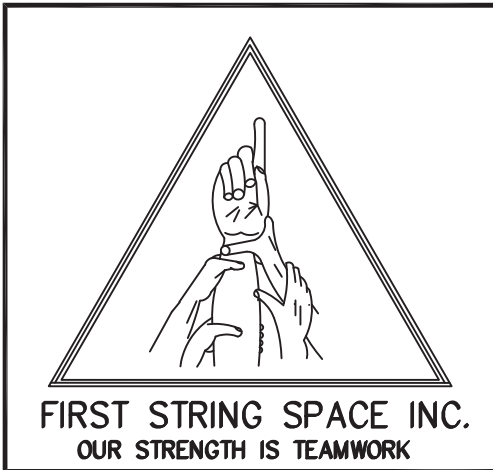
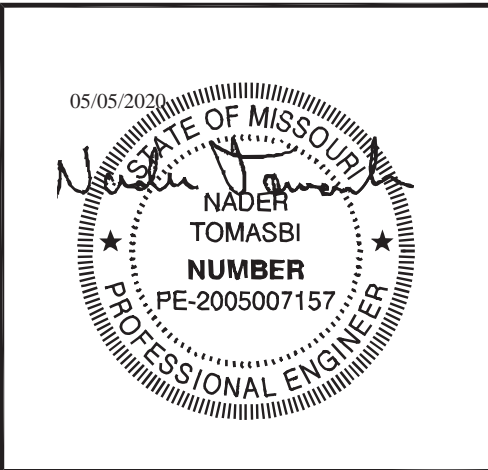
FOUNDATION ENCLOSURE
(WHEN PROVIDED) MUST HAVE
1 SQUARE FOOT NET VENT AREA
PER 1/150TH OF THE FLOOR AREA,
AND AN 18" X 24" MINIMUM CRAWL
SPACE ACCESS, SITE INSTALLED BY
OTHERS SUBJECT TO LOCAL
JURISDICTION.

ELEVATIONS SHOWN ON THIS PAGE
REPRESENT BASIC COMPONENTS & ARE
NOT INTENDED TO BE ALL INCLUSIVE
NOR DO THESE ELEVATIONS DETAIL EVERY
CODE REQUIRED ASPECT OF THIS BLDG..
SITE BUILT STOOPS, STEPS, DECKS,
PORCHES, HANDRAILS AND/OR SIMILAR
ITEMS MUST BE PROVIDED BY OTHERS ON
SITE FOR COMPLIANCE WITH APPLICABLE
CODES. COMPLIANCE WITH ALL APPLICABLE
CODES PER LOCAL AUTHORITY HAVING
JURISDICTION, WHETHER DETAILED IN THIS
SET OR NOT, MUST BE MET



APPROVED
05 05 2020

CONSULTING ENGINEER: NADER TOMASBI, P.E. — 58665 GLENRIVER DRIVE — GOSHEN, IN. 46528 — 574-370-3419



FIRST STRING SPACE			
892 RAILROAD AVE. EAST PEARSON, GEORGIA 31642 (912) 422-6455			
DATE: 4-25-20		REVISIONS:	
SCALE : 1/4"=1'-0"			
CODES: SEE NOTES			
STATES: MO.		BY: N. T.	
REFERENCE: 8441			
FSS8441-42 A/B 27'-4" x 70'-0" EDUCATION		SHEET	
ELEVATIONS		3 OF 4	
		DESTINATION: COLUMBIA	

INTERIOR FINISH MATERIAL:

- CEILING - 1/2" GYP. BOARD (SEASPRAY FINISH) CEILING INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- WALLS - 5/8" TYPE 'X' GYPSUM BOARD (VCG) THROUGH OUT INSTALLED PER MANUFACTURERS SPECIFICATIONS
- FLOOR - AS NOTED ON FLOOR PLAN

NOTE:
INTERIOR WALL AND CEILING FINISH SHALL BE CLASS B OR BETTER IN IN CORRIDORS AND CLASS C OR BETTER IN ROOMS AND ENCLOSED SPACES. FLOOR FINISHES SHALL BE CLASS II OR BETTER.

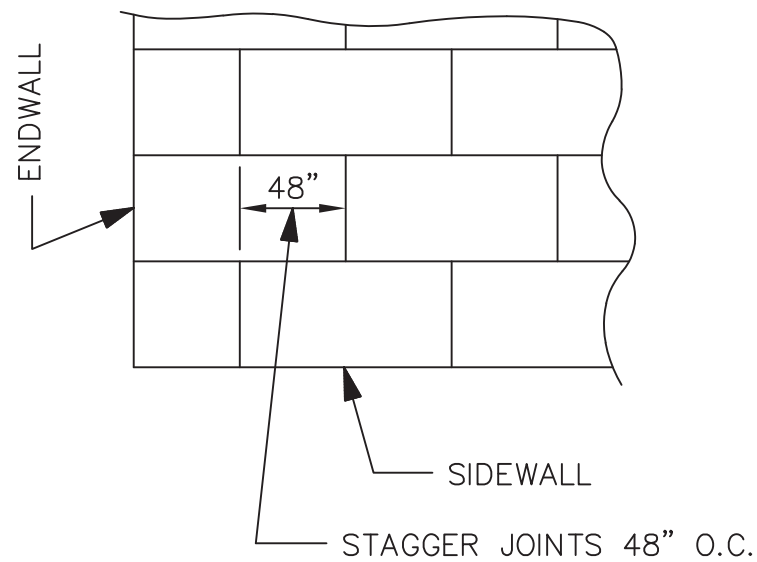
EXTERIOR FINISH MATERIAL:

ROOF - ARCHITECTURAL SHINGLES OVER (2) LAYERS OF 15# FELT PAPER OVER APPROVED MOISTURE BARRIER INSTALLED PER MANUFACTURERS SPECIFICATIONS

WALL - 7/16" SMART PANEL SIDING OVER APPROVED MOISTURE BARRIER INSTALLED PER MANUFACTURERS SPECIFICATIONS

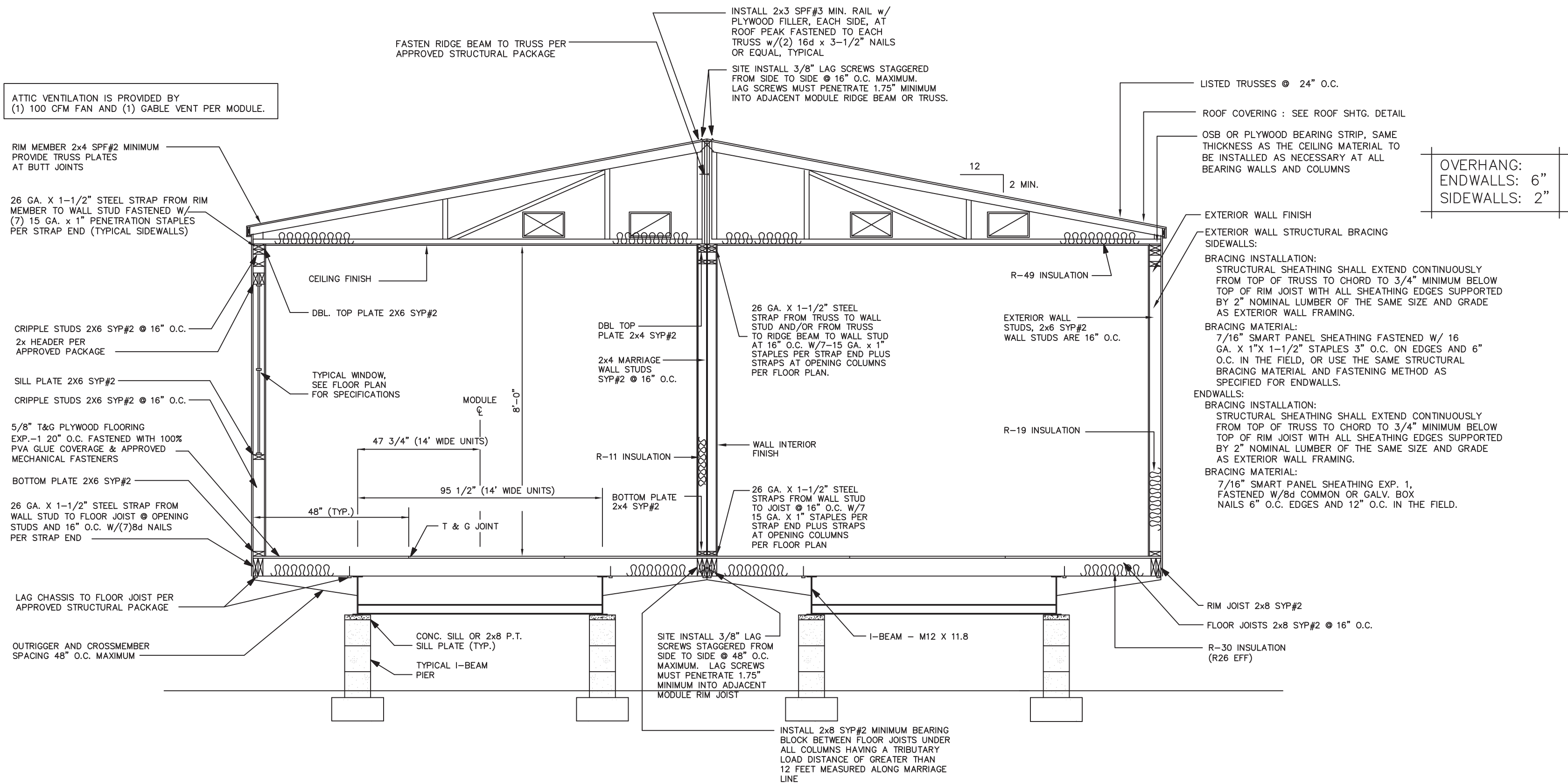
NOTE:

ICE DAM MEMBRANE: IN AREAS WHERE THERE HAS BEEN HISTORY OF ICE FORMING ALONG THE EVES CAUSING A BACKUP OF WATER. A MEMBRANE THAT CONSIST OF AT LEAST TWO LAYERS OF UNDERLAYMENT CEMENTED TOGETHER OR OF A SELF-ADHERING PLOYMER MODIFIED BITUMEN SHEET SHALL BE USED IN LIEU OF NORMAL UNDERLAYMENT AND EXTEND FROM THE EAVES EDGE TO A POINT AT LEAST 24 INCHES INSIDE EXTERIOR WALL LINE OF THE BUILDING. (AS PER SECTION 1507.2.8.2 OF THE IBC).



7/16" OSB SHEATHING ROOF DIAPHRAGM FASTENED TO TRUSSES W/0.099"Ø x 2" NAILS AT 6" O.C. ON EDGES & 6" O.C. IN THE FIELD ON ALL ZONES

ROOF SHEATHING DETAIL



APPROVED TRUSS DESIGN:
TRUSS MANUFACTURER: UNIVERSAL
TRUSS DRAWING. # SF247317

RIDGE BEAM CONSTRUCTION:

(SEE FLOOR PLAN) 3/4" PLYWOOD, RATED SHEATHING, EXP.-1, STRUCT.-1, 5 PLY/5 LAYER, 48/24 EACH HALF CONTINUOUS ENTIRE LENGTH OF CLEARSPAN.

NOTES:

- PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
- ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
- ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD. NO LUMBER OR PLYWOOD FLANGES ARE PERMITTED.
- PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE W/ PS I-95.
- PLYWOOD LAMINATIONS IN EACH HALF OF THE UNITS MUST BE GLUE NAILED TO ADJACENT LAYERS IN ACCORDANCE W/PDS SUPPLEMENT #5. W/ AN ADHESIVE COMPLYING W/ASTM D2559 (SEE APPROVED PACKAGE FOR MECHANICAL FASTENER SPECIFICATIONS & SPACING REQUIREMENTS
- PLYWOOD MUST NOT BE TREATED W/ A FIRE RETARDANT PROCESS.
- MOISTURE CONTENT MUST BE LESS THAN 16%.
- BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
- INSTALL (2X4) X 20" SPF#3 RIDGE BEAM BEARING STIFFENER OVER SUPPORT COLUMNS, WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM W/ 100% GLUE COVERAGE AND (6) 16 GA. X 2-1/2" STAPLES.

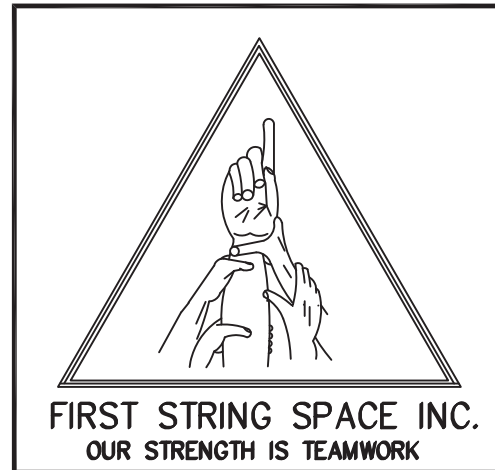
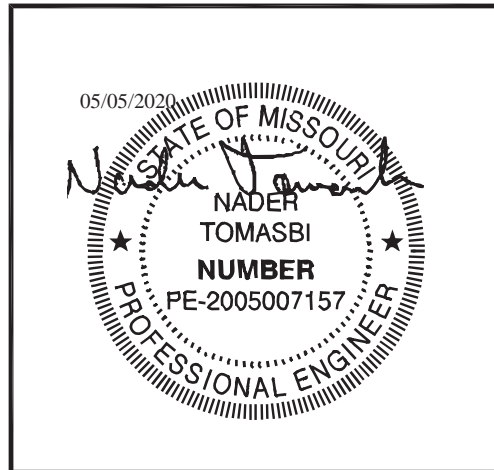
GENERAL CROSS-SECTION NOTES:

- UNLESS OTHERWISE SPECIFIED, ALL STEEL MUST COMPLY W/ ASTM A36, YIELD STRENGTH = 36 KSI.
- ALL LAG SCREWS MUST COMPLY W/ ANSI/ ASME B18.2.1. F_y= 60 KSI MINIMUM.
- SEE FOUNDATION PLAN FOR PIER AND TIE-DOWN STRAPPING LOCATIONS, ORIENTATIONS, AND SPECIFICATIONS.

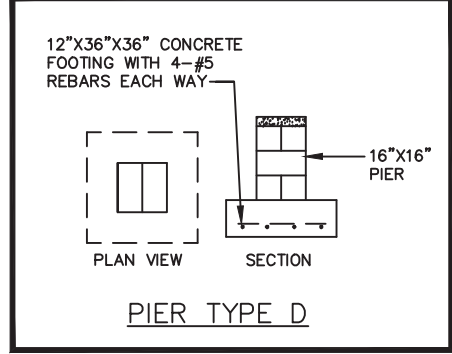
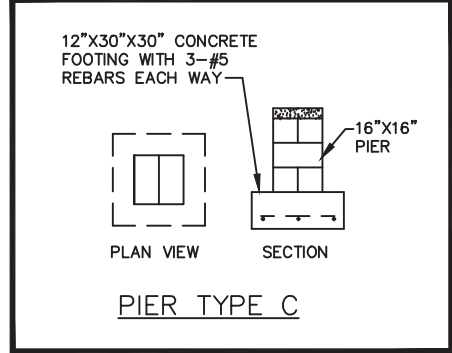
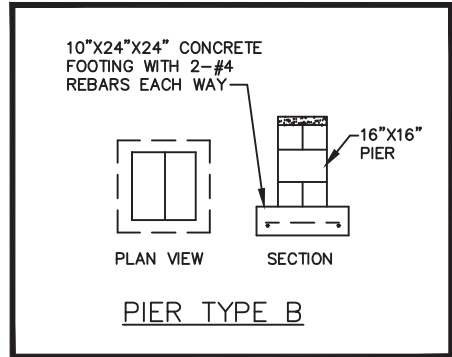
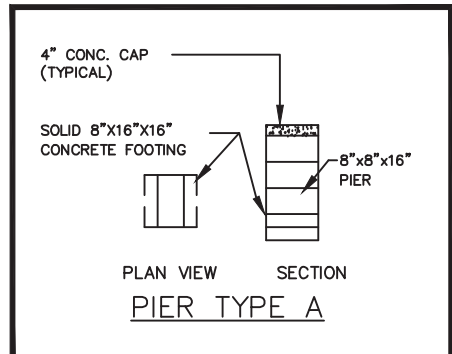
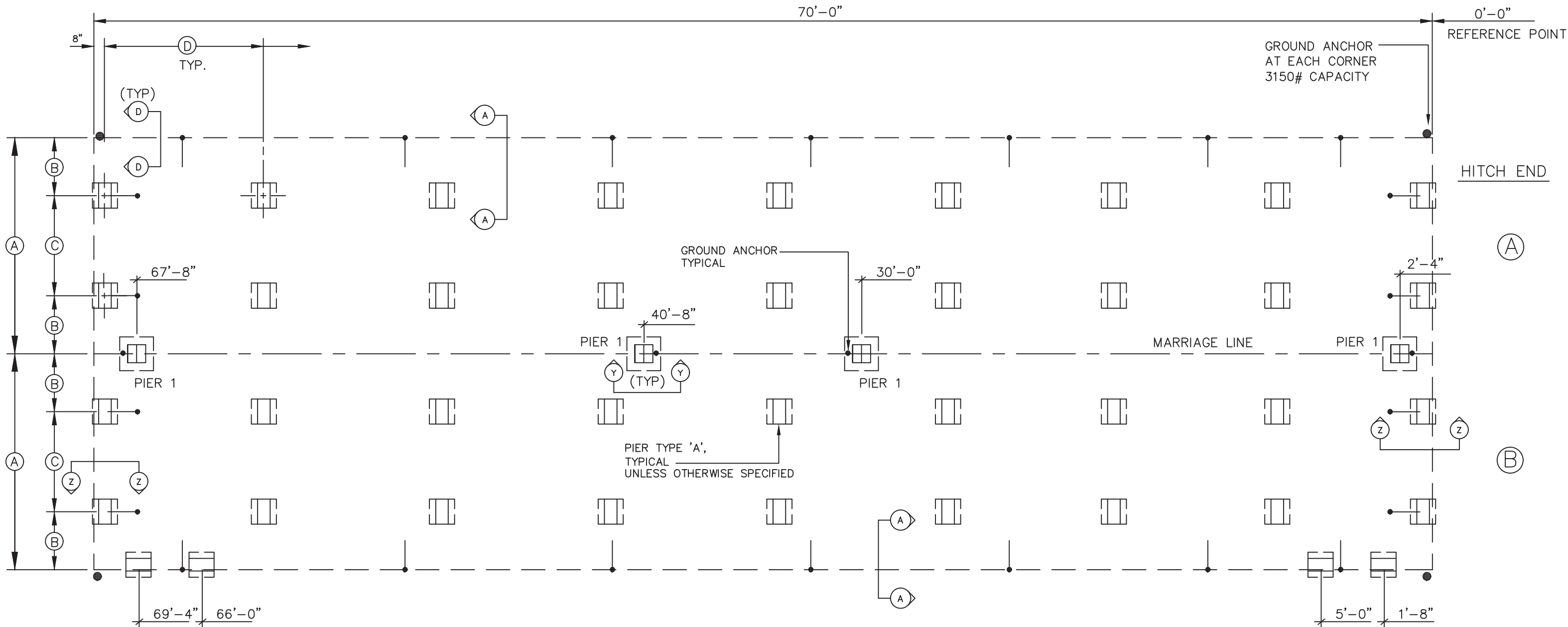
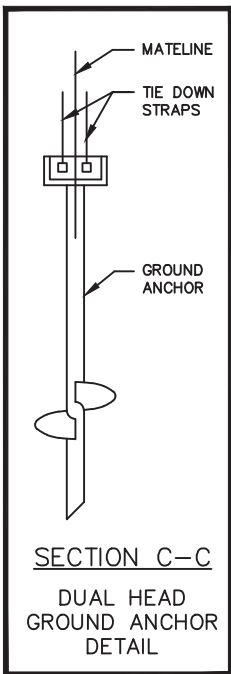
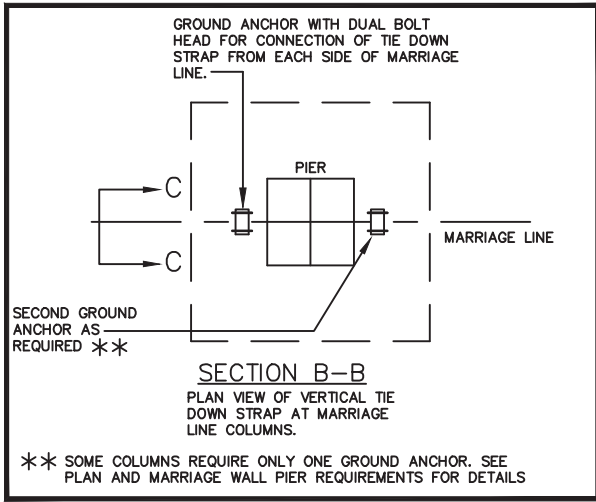
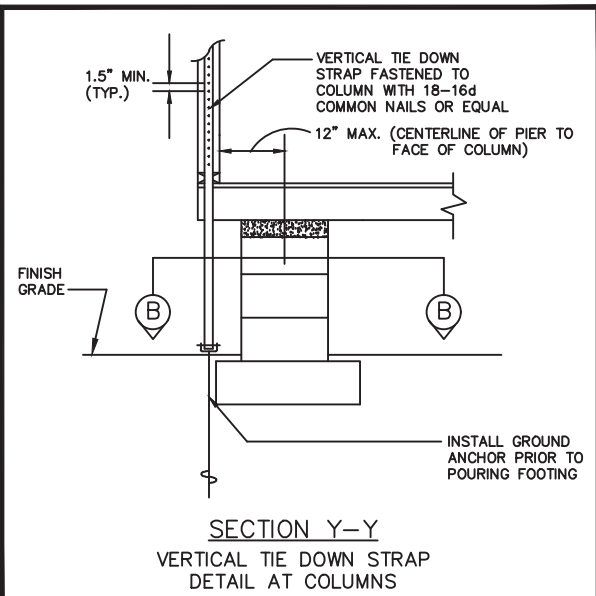


APPROVED
05 05 2020

CONSULTING ENGINEER: NADER TOMASBI, P.E. - 58665 GLENRIVER DRIVE - GOSHEN, IN. 46528 - 574-370-3419



FIRST STRING SPACE			
892 RAILROAD AVE. EAST PEARSON, GEORGIA 31642 (912) 422-6455			
DATE: 4-25-20		REVISIONS:	
SCALE : NO SCALE			
CODES: SEE NOTES			
STATES: MO.			BY:
REFERENCE: 8441			N.T.
FSS8441-42 A/B 27'-4" x 70'-0" EDUCATION			SHEET
CROSS SECTION		DESTINATION: COLUMBIA	4 OF 4



MARRIAGE WALL PIER REQUIREMENTS			
PIER NUMBER	MINIMUM SOIL BEARING CAPACITY	PIER TYPE	NUMBER OF VERTICAL TIE DOWN STRAPS REQ'D (EACH MODULE)
1	2000 PSF	D	1
	3000 PSF	C	1
	2000 PSF		
	3000 PSF		

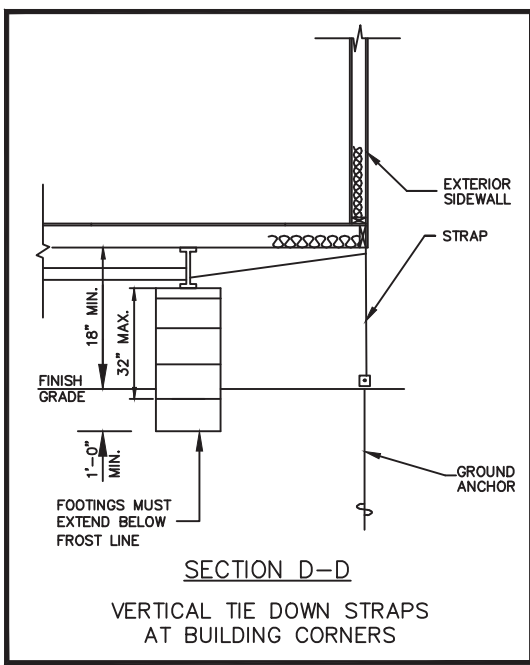
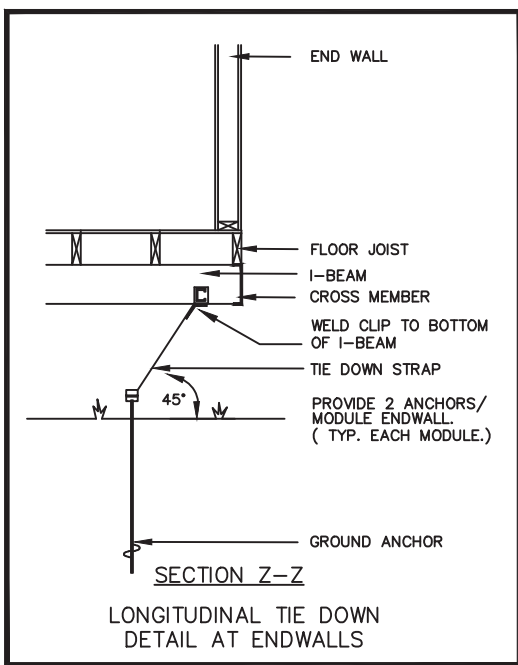
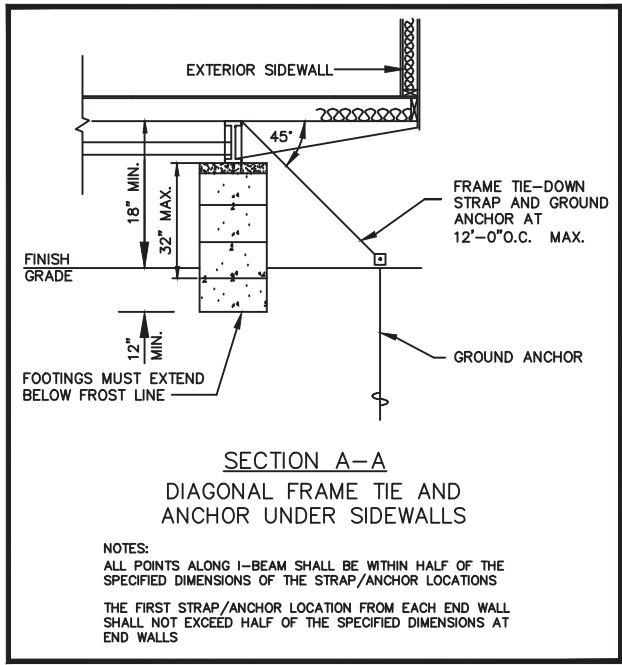
NOTE:
THIS FOUNDATION PLAN IS PROVIDED FOR REFERENCE AS A TYPICAL STANDARD. ACTUAL FOUNDATION CONDITIONS MUST BE EVALUATED FOR APPLICABILITY IF THIS PLAN IS TO BE USED. ALTERNATE FOUNDATION PLANS MAY BE DESIGNED BY OTHERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY.

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR AREA, AND AN 18" X 24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

FOUNDATION DIMENSIONS		
A MODULE WIDTH	B PIER TO MODULE EDGE	C STEEL BEAM SPACING
13'-8"	34 1/4"	95 1/2"
D MAXIMUM PIER SPACING		MINIMUM SOIL BEARING CAPACITY
4'-4"		2000 PSF
6'-8"		3000 PSF

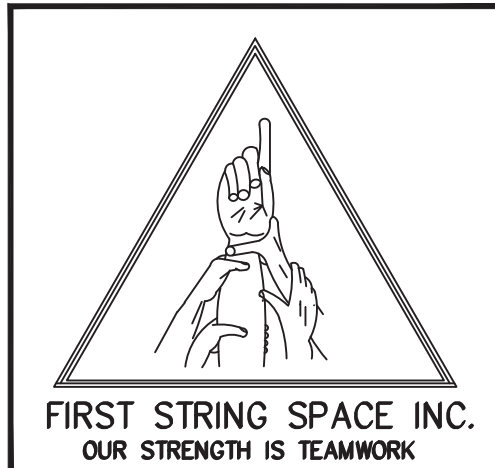
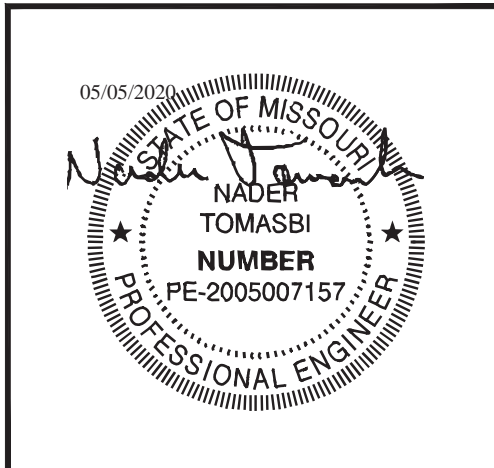
NOTE:
THE NUMBER OF PIERS SHOWN ON THIS FOUNDATION PLAN IS NO INDICATION OF THE AMOUNT OF PIERS REQUIRED AND NEEDED FOR THIS BUILDING. SEE MAXIMUM PIER SPACING CHARTS ABOVE FOR THE CORRECT NUMBER OF PIERS REQUIRED FOR EACH SOIL BEARING CAPACITY. ALSO THE NUMBER STRAPS (SPACING) WILL BE DETERMINED IN SECTION A-A. THE NUMBER OF ALL COMPONENTS OF THIS FOUNDATION PLAN CAN BE FOUND IN THE CHARTS AND DETAILS ABOVE.

- FOUNDATION NOTES:**
- ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
 - TIE-DOWN STRAPS TO BE 1-1/4" .035" TYPE-1, FINISH B, GRADE 1 ZINC COATED STEEL STRAPPING CERTIFIED BY A REGISTERED ENGINEER OR ARCHITECT AS CONFORMING WITH ASTM D3953-91. TIE DOWN STRAPS AND CONNECTING HARDWARE SHALL HAVE 3150# MINIMUM WORKING CAPACITY.
 - EACH GROUND ANCHOR SHALL HAVE A WORKING CAPACITY NO LESS THAN THE SUM OF THE REQUIRED WORKING CAPACITIES OF ALL TIE DOWN STRAPS CONNECTED TO THE GROUND ANCHOR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DESIGN OF GROUND ANCHOR, INCLUDING SHAFT LENGTH, NUMBER AND DIAMETER OF HELIXES, ETC., TO BE AS SPECIFIED BY THE GROUND ANCHOR MANUFACTURER FOR THE ACTUAL SOIL TYPE ENCOUNTERED. IF THE HOLDING OR PULLOUT CAPACITIES OF GROUND ANCHORS ARE BELOW THE ASSUMED DESIGN VALUES, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
 - THE FIRST TIE-DOWN STRAP FROM ENDWALLS SHALL NOT EXCEED 1/2 THE MAXIMUM SPACING INDICATED.
 - ALL PIERS SHALL BE CONSTRUCTED OF CONCRETE MASONRY UNITS CONFORMING TO ASTM C90. MASONRY UNITS SHALL BE LAID IN TYPE M OR S MORTAR OR COVERED WITH SURFACE BONDING CEMENT INSTALLED IN ACCORDANCE WITH ITS LISTING. PIER FOOTINGS SHALL BE AS DESCRIBED ABOVE.
 - MINIMUM CONCRETE FOOTING COMPRESSIVE STRENGTH 2500 PSI AT 28 DAYS.
 - ALL REINFORCEMENT BARS SHALL COMPLY WITH ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING.
 - SEE SHEET 1 OF 4 FOR BUILDING DESIGN LOADS.
 - I-BEAM SUPPORT PIERS MAY BE INSTALLED Laterally (90° FROM THE ORIENTATION SHOWN ON THE FOUNDATION PLAN). CENTERLINE OF EACH PIER MUST BE LOCATED DIRECTLY BELOW THE I-BEAM CENTERLINE.
 - SOIL BEARING CAPACITY SHOWN ON THIS PLAN IS ASSUMED. IF THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN 2,000 PSF, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR REQUIRED ALTERNATE FOUNDATION DESIGN. FOOTINGS SHALL BE PLACED ON NON-EXPANSIVE SOILS ONLY.
 - INSTALL BLOCK PIER ON EACH SIDE OF ALL EXTERIOR DOOR OPENINGS. (MANUFACTURER'S RECOMMENDATION ONLY - OPTIONAL WHEN NOT SHOWN) SLIGHT ADJUSTMENT MAY BE REQUIRED TO INSURE OPENABILITY AFTER INSTALLATION OF BUILDING IS COMPLETE.
 - THE FOUNDATION DIMENSIONS SHOWN ON THE ABOVE LAYOUT ARE NOMINAL DIMENSIONS OF THE FACTORY BUILT MODULARS AND DO NOT ACCOUNT FOR GAPS BETWEEN MODULES THAT MAY OCCUR DURING INSTALLATION. THE FOUNDATION DESIGNER, FOUNDATION CONTRACTOR AND MODULAR BUILDING INSTALLER MUST CONSULT TO DETERMINE IF ADJUSTMENTS TO PIER LOCATIONS ARE NEEDED TO ACCOUNT FOR TOLERANCES NEEDED DURING INSTALLATION OF THE BUILDING MODULES
 - THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.



APPROVED
05 05 2020

CONSULTING ENGINEER: NADER TOMASBI, P.E. - 58665 GLENRIVER DRIVE - GOSHEN, IN. 46528 - 574-370-3419



FIRST STRING SPACE			
892 RAILROAD AVE. EAST			
PEARSON, GEORGIA 31642		(912) 422-6455	
DATE: 4-25-20	REVISIONS:		
SCALE : NO SCALE			
CODES: SEE NOTES			
STATES: MO.			BY:
REFERENCE: 8441			N.T.
FSS8441-42 A/B 27'-4" x 70'-0" EDUCATION			SHEET
FOUNDATION		DESTINATION: COLUMBIA	1 OF 1

COLUMBIA SCHOOL DISTRICT
BUSINESS SERVICES-PURCHASING DEPARTMENT
1818 W WORLEY ST
COLUMBIA, MO 65203

DESCRIPTION/SCOPE OF WORK

The scope of work for Sidewalk Improvements at Smithton Middle School shall include, but is not limited to, the following: Provide equipment, material and labor to install.

The successful bidder will be required to provide to the District/Facilities and Construction Services a complete set of all Material Safety Data Sheets used for the performance of the contracted scope of work. The successful bidder will also be required to maintain an additional complete set at the work site at all times.

The successful bidder will be required to keep and maintain daily logs for the duration of the project. A copy of the same shall be provided as part of the contract close out documentation.

All work shall be in accordance with the specifications and drawings prepared by Crockett Engineering

OWNER

The owner of the project is Columbia Public School District and the project is located at Benton Elementary School, 1410 Hinkson Avenue, Columbia, MO 65201.

AWARD OF CONTRACT

The District reserves the right to reject any and all bids, and waive any and all informalities and the right to disregard all non-conforming or conditional bids or counter proposals.

In evaluation of the bids, the District shall have the right based on qualifications and compliance with specifications for products listed and other determining factors, to award the contract to the lowest responsible bidder who best serves the interest of the project, and not necessarily the low bid.

INSTALLATION SCHEDULE

The following are the dates when this project can begin and when it must be completed. All insurance and background check documents must be on file with the District prior to the successful contractor being authorized to proceed.

Start Date – June 1, 2021 Final Completion Date – August 6, 2021

BID QUESTIONS

For inquiries or questions about the bid or specifications, please contact the following:

1. Bid procedures and format -
Ms. Dana Reynolds, Purchasing Agent
Email: dreynolds@cpsk12.org

All questions or requests shall be submitted in writing/email prior to the bid closing. Replies may be issued by addendum.

SECTION 00 4213

PROPOSAL FORM

Project:

COLUMBIA SCHOOL DISTRICT
BENTON ELEMENTARY MOBILE
CLASSROOM SITEWORK PACKAGE
COLUMBIA, MISSOURI

BID TIME: 2:00 p.m.

BID DATE: Thursday, August 27, 2020

FROM:

TO: Columbia Public School District

FOR: Benton Elementary Mobile Classroom Sitework Package
Hereinafter called the "Work"

1. The Undersigned, having examined and being familiar with the local conditions affecting the Work and with the contract documents, including "Instructions to Bidders", "Proposal Form", "Special Conditions", "Contractor Agreement", "Scope of Work" and "Drawings" (including Addenda _____ through _____, as issued by Columbia Public School District, hereby proposed to furnish and pay for all appropriate sales and use taxes, insurance, bonds, labor, materials, tools, equipment, services, and related items required for the performance and completion of the work as follows:

BASE BID

The Sum of: _____ dollars (\$_____)

2. In submitting this bid, it is understood that the right is reserved by the owner, to reject any and all bids and it is agreed that the bids may not be withdrawn for a period of sixty (60) days from the specified time for receiving bids. The Owner reserves the right to waive any information or irregularity in any bid received and to award a contract in any manner deemed to Owner, at their sole discretion to be in their best interest.
3. Bidder proposes to complete all Work according to the Instructions to Bidders.
4. The Bidder is requested to define the number of calendar days to achieve final completion of this project if different than what is defined in 00 7201 "Supplementary Conditions": _____.
5. Bidder shall provide the number of calendar days from the start date to when the concrete pad for the new trailers will be made available to the Trailer installer:_____.
6. See 007201 "Supplementary Conditions" for additional schedule requirements.
7. The bidder agrees that they have included all allowances identified in Section 3.3 "Schedule of Allowances" as shown in Section 00 4322 – "Unit Price and Allowance Form", and bidder has provide additive and deductive unit prices for each allowance item.

8. The Bidder certifies that the following proposed subcontractors will be used in the performance of the Work (if none, so state):

a. Concrete Paving

- i. Name of Subcontractor: _____
ii. Work to be Performed: _____

b. Asphalt Paving

- i. Name of Subcontractor: _____
ii. Work to be Performed: _____

c. Excavation/Earthwork

- i. Name of Subcontractor: _____
ii. Work to be Performed: _____

The Bidder hereby certifies that this proposal is genuine and is not made in the interest of or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement of rules of any group, association or corporation. That the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal; that the bidder has not solicited or induced any person, firm or corporation to refrain from bidding; that the bidder has not sought by collusion or otherwise to obtain for themselves any advantage over any other bidder or over the owner, and that the bidder will not discriminate against any corporation, firm, company, employee or applicant for employment for services because of sex, race, creed, color or national origin in connection with the performance of Work.

Signed by: _____ Title: _____

Dated this _____ day of _____, 20____

Organization Type: Individual ____ Partnership ____ Corporation ____

Name/title of officer: _____

Firm or Partnership Name: _____

Address for communication: _____

Telephone: _____ Fax: _____

If a Corporation:

1. Incorporated under the laws of the State of _____
2. Licensed to do business in the State of Missouri? YES ____ NO ____

** Each Bidder must complete the Proposal Form by signing it in the proper signature lines above and by supplying the required information called for in connection with the signatures. The information is necessary for the proper preparation of a contract.

Mail or deliver the proposal form to:

Ms. Dana Reynolds, Purchasing Agent
Administration Building
1818 W. Worley
Columbia, Missouri, 65203

END OF SECTION 00 4213

so long as it does not increase the Contract Sum.

Add the following 7.1.4:

Notwithstanding anything in this Article 7 and elsewhere in the Contract Documents, for any Change Order or Construction Change Directive which changes the Contract Sum, the following conditions apply:

- 1 If the change is requested by the Architect for work falling under a fixed price contract, the amount will be based on the Contractor's price quotation.
- 2 For changes requested by the Contractor, the amount will be based on the Contractor's request for a Change Order or Change Directive as approved by the Architect.
- 3 For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
- 4 For a change ordered by the Architect without a quotation for the Contractor, the amount will be determined by the Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- 5 The allowance for any overhead and profit, combined, derived by Contractor or any subcontractors as a result of any change, including the total cost to the Owner, shall be based on the following schedules:
 - A. For the Contractor, for Work performed by the Contractor's employees, 10% of the cost of labor and 5% of the cost of materials.
 - B. For the Contractor, for Work performed by the Contractor's subcontractor, 5% of the amount of the subcontractor.
 - C. For each subcontractor, or sub-subcontractor involved, for any Work performed by that subcontractor's employees, 10% of the total Work cost.
 - D. For each subcontractor, for Work performed by subcontractors sub-subcontractor, 5% of the amount due the subcontractor.
 - E. In order to facilitate checking of quotations for extras and credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs, including labor, materials and subcontracts. Labor and materials shall be itemized. Where major cost items are subcontracts, they shall also be itemized.
- .6 The allowance for overhead and profit shall account for ALL time associated with the Change Order or Change Directive. Compensation for time generating documents will not be allowed.
- .7 The allowance for Payment and Performance Bond costs associated with any Change Order or Change Directive shall not exceed 1.5% and shall be used on both additive and deductive Change Orders or Change Directives.

ARTICLE 8 TIME

8.1 Definitions

Add the following:

8.1.3.1 The Contractor is expected to achieve Final completion by August 6, 2021. The contractor shall anticipate access to the site for mobilization by June 1, 2021.

8.2.4 The parties acknowledge that Contractor's failure to achieve substantial completion of the Work within the Contract Time by the Contract Documents will cause Owner to incur substantial economic damages of types and in amounts that are impossible to compute and ascertain with certainty as a basis for recovery by the Owner of actual damages, and that liquidated damages represent a fair, reasonable and appropriate estimate thereof. Accordingly, in lieu of actual damages for such delay, Contractor agrees that liquidated damages may be assessed

SECTION 00 4322
UNIT PRICE AND ALLOWANCE FORM

PART 1 – PARTICULARS

1.1 Related Documents

- A. Drawings and general provisions of the Contract including General and Supplementary Conditions and other Division I Specifications apply to this section.

1.2 Summary

- A. This Section includes administrative and procedural requirements for Unit Prices and Allowances.

1.3 Definitions

- A. Unit Price is an amount proposed by bidders, of a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 Procedures

- A. Unit Prices include all necessary material plus cost for delivery, installation, insurance, overhead and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for Work that requires establishment of Unit Prices. Methods of measurement and payment for Unit Prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of Work in-place that involves use of established Unit Prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

PART 2- PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 The following is the list of unit prices referenced in the bid submitted by:

- A. Bidder: _____
- B. To: Columbia Public School District
- C. Dated: _____ and which is an integral part of the bid form.
- D. The following are unit prices for specific portions of the work as listed and are applicable to authorized variations from the contract documents.
- E. See respective specification sections for further definitions of item description for unit prices

3.2 UNIT PRICE LIST

- A. Item description/unit measurement/unit value
- a. Unsuitable Material
- i. Includes haul off of unsuitable material, and import and compaction of suitable material below planned subgrade: Price per Cubic Yard
1. Add _____
2. Deduct _____

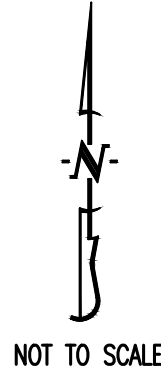
- b. Excavator Labor and Equipment
 - i. Include cost per hour for all labor and equipment for an excavator with up to a 4' bucket for additional excavation as may be needed for sewer repairs.
 - 1. Add _____ per hour
- c. Skidsteer Labor and Equipment
 - i. Include cost per hour for all labor and equipment for a skidsteer as may be needed for sewer repairs.
 - 1. Add _____ per hour
- d. Laborer
 - i. Include cost per man hour for all labor as needed for sewer pipe repairs.
 - 1. Add _____ per hour

3.3 SCHEDULE OF ALLOWANCES

- A. Unsuitable Material
 - a. Include **100 cubic yards** of unsuitable soil removal and replacement in the base bid. Price shall include all costs to export unsuitable material, haul in suitable material, and provide appropriate compaction and moisture conditioning of replacement material as outlined in Section 31 2000 "Earthmoving". Should this allowance not be used, it will be deducted from the contract price based on the unit price list above. Should this allowance be exceeded, the Contract Sum will be adjusted based on the unit price list above.
- B. Sewer Repairs
 - a. Include a **\$20,000** (Twenty Thousand Dollar) Allowance for anticipated unknown sewer repairs. Should this allowance not be used, it will be deducted from the contract price based on the unit price list above. Should this allowance be exceeded, the Contract Sum will be adjusted based on the unit prices above and itemized receipts from the Contractor. The contractor is not allowed to exceed the base bid allowance without written permission from the owner.
- C. Building Permit
 - a. Include a **\$15,000** (Fifteen Thousand Dollar) Allowance to cover anticipated building permit related fees payable to the City of Columbia for this project. A receipt from the City of Columbia shall be provided to the owner.
- D. Crockett Engineering Consultants will monitor and verify all allowance quantities. The contractor shall notify Crockett Engineering in writing to document any use of the allowances above.

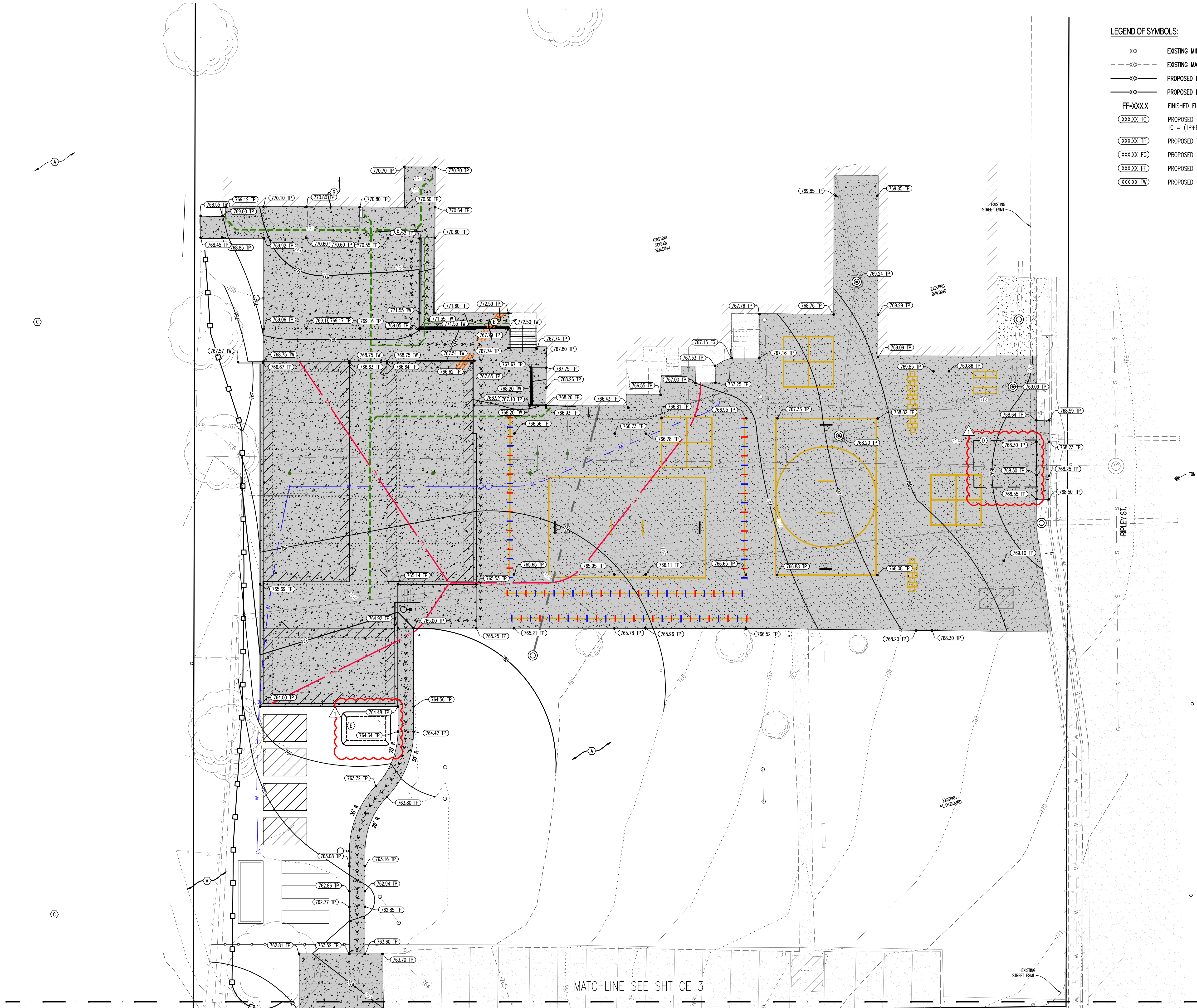
END OF SECTION 00 4322

BENTON ELEMENTARY MOBILE CLASSROOM SITEWORK PACKAGE



SHEET: CE 0

OWNER:
COLUMBIA SCHOOL DISTRICT
1818 W. WORLEY ST.
COLUMBIA, MO 65203
(573) 214-3400



LEGEND OF SYMBOLS:

- XXX--- EXISTING MINOR CONTOUR
- - -XXX- - - EXISTING MAJOR CONTOUR
- XXX--- PROPOSED MINOR CONTOUR
- XXX--- PROPOSED MAJOR CONTOUR
- FF-XXXX FINISHED FLOOR OF STRUCTURE
- XXXX.XX TC PROPOSED TOP OF CURB ELEVATION
TC = (TP+6") UNLESS NOTED OTHERWISE
- XXXX.XX TP PROPOSED TOP OF PAVEMENT ELEVATION
- XXXX.XX FG PROPOSED FINISH GRADE ELEVATION
- XXXX.XX FF PROPOSED FINISH FLOOR AT DOOR
- XXXX.XX TW PROPOSED FINISH GRADE AT TOP OF WALL

LEGEND OF LABELS

- A FINE GRADE AS SHOWN BY PROPOSED CONTOURS. PLACE MINIMUM OF 6" TOP SOIL. SEED AND MULCH ALL DISTURBED AREAS.
- B INSTALL RAMP GRADE TO SPOT ELEVATIONS AS SHOWN. RAMP SHALL NOT EXCEED A RUNNING SLOPE OF 1:12 AND IT SHALL NOT EXCEED A CROSS-SLOPE OF 1:48. ALL LANDINGS SHALL NOT EXCEED A CROSS-SLOPE OF 1:48 IN ANY DIRECTION. AREAS OF FUTURE PAVEMENT AND BUILDING PAD NOT TO HAVE TOPSOIL, RESPAVED, SEED AND AND MULCH ALL DISTURBED AREAS.
- C INSTALL SILT FENCE WHERE SHOWN. SEE INSTALLATION DETAIL ON CE 3.
- D CONSTRUCTION ENTRANCE SHALL BE THE EXISTING ASPHALT ENTRANCE AS LONG AS FEASIBLE. CONTRACTOR SHALL KEEP SILT FROM TRACKING OFF-SITE AND ONTO CITY STREETS. PROVIDE ALL NECESSARY STREET SWEEPING EQUIPMENT TO KEEP STREETS CLEAN AS NEEDED.
- E 20' X 30' X 3' MIN CONCRETE WASHOUT FACILITY. THE WASHOUT FACILITY IS TO BE LINED WITH A PLASTIC LINING MATERIAL (10 MIL POLYETHYLENE SHEETING MIN.) FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COULD COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL. A SIGN SHALL BE INSTALLED ADJACENT TO FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

GENERAL NOTE

STOCKPILES ARE NOT ANTICIPATED ON THIS PROJECT, BUT IF DEEMED NECESSARY BY THE CONTRACTOR STOCKPILES SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

STOCKPILE SHALL NOT EXCEED THREE (3) ACRES IN AREA OR TEN (10) FEET IN HEIGHT.

THE SIDE SLOPE OF A STOCKPILE OF SOIL SHALL NOT EXCEED A 3:1 RATIO.

STOCKPILES OF SOIL SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL MANUAL ISSUED BY THE DIRECTOR. THE WORKING FACE OF THE STOCKPILE, HOWEVER, NEED NOT BE SEEDED. STOCKPILES OF SOIL THAT MEET THE REQUIREMENTS OF THIS SECTION MAY REMAIN IN PLACE FOR UP TO THREE (3) YEARS AFTER ISSUANCE OF A LAND DISTURBANCE PERMIT.

WHEN THE TIME LIMIT FOR A STOCKPILE OF SOIL HAS EXPIRED AND NO EXTENSION HAS BEEN GRANTED, THE PROPERTY OWNER MUST EITHER REMOVE THE STOCKPILE OR GRADE IT TO A SLOPE OF NO GREATER THAN A 4:1 RATIO AND PERMANENTLY SEED IT IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL MANUAL ISSUED BY THE DIRECTOR.

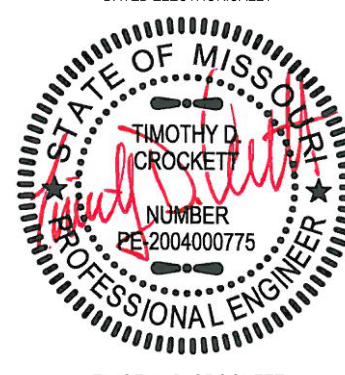
EROSION CONTROL NARRATIVE:

- 1) THE PROJECT CONSISTS OF THE CONSTRUCTION OF THE REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT TO ALLOW FOR 5 TRAILERS TO BE REPLACED AT BENTON ELEMENTARY SCHOOL. THE OVERALL SITE IMPERVIOUS AREA PERCENTAGE WILL DECREASE FROM 55% TO 54%. THE OVERALL SITE IMPERVIOUS AREA WILL DECREASE FROM 1.30 ACRES TO 1.27 ACRES.
- 2) SILT FENCE SHALL BE PROVIDED AT LOW POINTS ON THE PROJECT'S LIMITS TO INSURE THAT SILT DOES NOT LEAVE THE SITE. WHEN SILT ACCUMULATES TO MORE THAN HALF THE FENCE HEIGHT, IT SHALL BE REMOVED. REPLACE ANY TORN OR CLOGGED FABRIC OR BROKEN POSTS AS MAY BE REQUIRED.
- 3) THE EXISTING RUN-OFF COEFFICIENT FOR THE SITE IS 0.63. THE DECREASED IMPERVIOUS AREA WILL CHANGE THE RUN-OFF COEFFICIENT TO 0.62.
- 4) THE PEAK RUN-OFF ANTICIPATED TO DRAIN THROUGH THE EROSION CONTROL MEASURES DURING THE 10-YEAR STORM EVENT IS 10.4 CFS.
- 5) THE EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THE SITE HAS BEEN STABILIZED AND VEGETATION IS ESTABLISHED OVER A MINIMUM OF 70% OF THE DISTURBED AREA.
- 6) ALL EROSION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO LAND DISTURBANCE. SHOULD CONSTRUCTION CEASE FOR MORE THAN 30 DAYS, THE SITE SHALL BE TEMPORARY SEEDED TO STABILIZE ALL DISTURBED AREAS.
- 7) EROSION CONTROL FACILITIES SHALL BE INSPECTED AT A MINIMUM OF ONCE PER WEEK OR AFTER EVERY MAJOR STORM EVENT THAT PRODUCES RUN-OFF.
- 8) POST DEVELOPMENT STORM WATER FLOWS PARTIALLY SHEET DRAIN THROUGH THE EXISTING SOCCER FIELD TO THE ALLEY. PIPED ROOF DRAINS WILL CONNECT TO THE EXISTING PUBLIC STORM SEWER SYSTEM.

REVISIONS:

NO.	DATE
ORIGINAL	07/24/2020
1	08/21/2020

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



PREPARED BY:
CROCKETT
ENGINEERS & ARCHITECTS
1009 W. Kings Blvd., Ste. 100
Columbia, Missouri 65203
(314) 447-0599
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000000001

OWNER:
COLUMBIA SCHOOL DISTRICT
188 W. MOLEY ST.
COLUMBIA, MO 65203

BENTON ELEMENTARY MOBILE CLASSROOM SITEWORK PACKAGE

1410 HINKSON AVENUE, COLUMBIA, MO 65201

DRAWING INCLUDES:

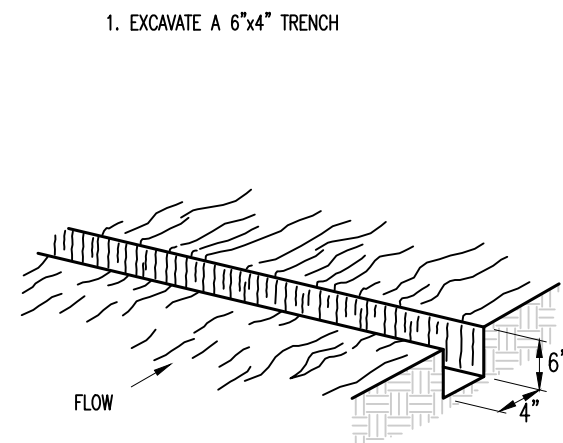
GRADING PLAN
NORTH

DESIGNED: JRS

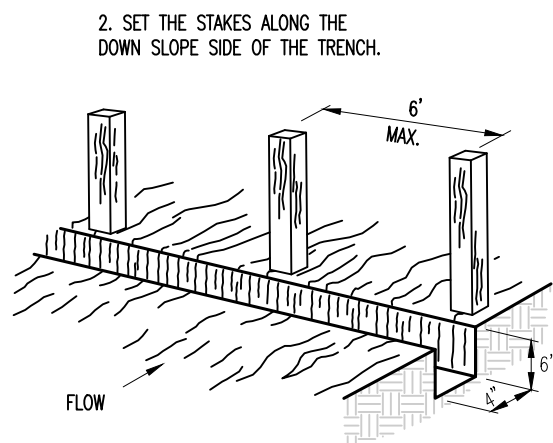
DRAWN: JAA

PROJECT NO.: 180231

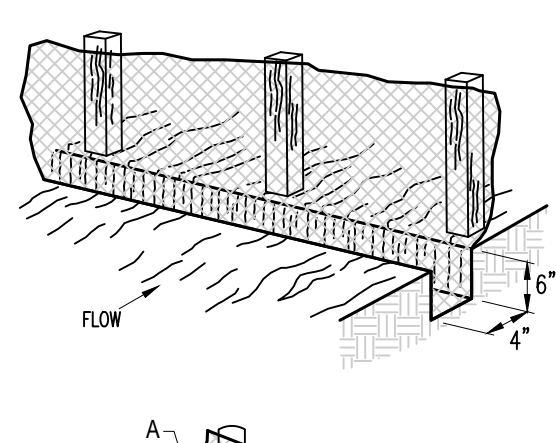
SHEET:
CE 2



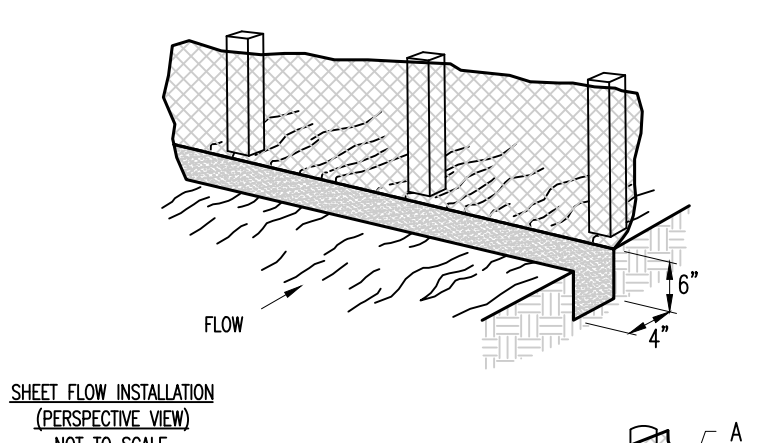
1. EXCAVATE A 6'x4' TRENCH



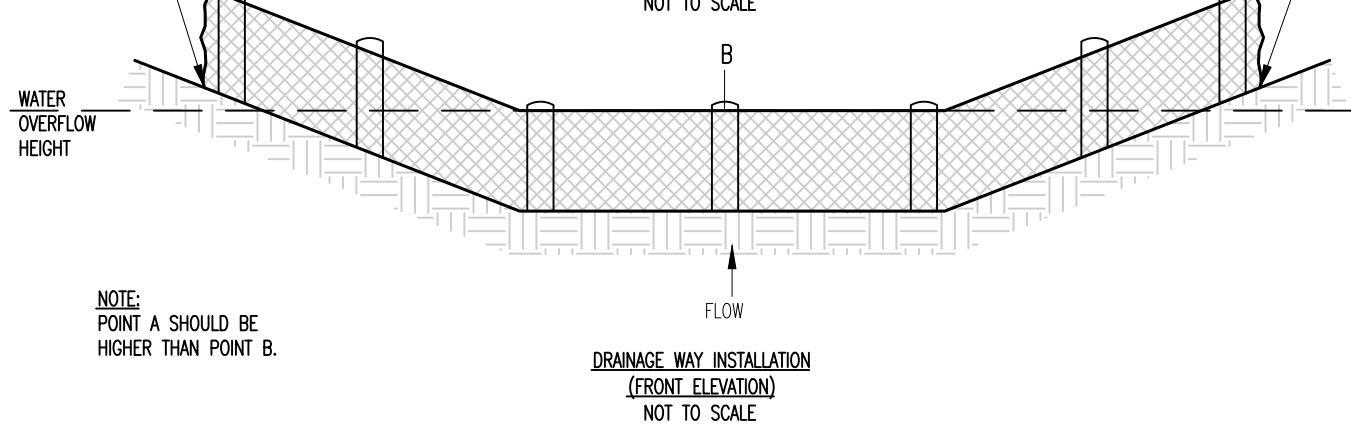
2. SET THE STAKES ALONG THE DOWN SLOPE SIDE OF THE TRENCH.



3. STAPLE GEOTEXTILE MATERIAL TO STAKES AND EXTEND IT INTO AND AROUND THE BOTTOM OF THE TRENCH.



4. BACK FILL AND COMPACT THE EXCAVATED SOIL OVER THE GEOTEXTILE IN THE TRENCH.



NOTE: POINT A SHOULD BE HIGHER THAN POINT B.

SHEET FLOW INSTALLATION (PERSPECTIVE VIEW) NOT TO SCALE

DRAINAGE WAY INSTALLATION (FRONT ELEVATION) NOT TO SCALE

SILT FENCE

LEGEND OF LABELS

- (A) FINE GRADE AS SHOWN BY PROPOSED CONTOURS. PLACE MINIMUM OF 6" TOP SOIL SEED AND MULCH ALL DISTURBED AREAS.
- (B) INSTALL RAMP GRADE TO SPOT ELEVATIONS AS SHOWN. RAMP SHALL NOT EXCEED A RUNNING SLOPE OF 1:12 AND IT SHALL NOT EXCEED A CROSS-SLOPE OF 1:48. ALL LANDINGS SHALL NOT EXCEED A CROSS-SLOPE OF 1:48 IN ANY DIRECTION. AREAS OF FUTURE PAVEMENT AND BUILDING PAD NOT TO HAVE TOPSOIL RESPREAD. SEED AND MULCH ALL DISTURBED AREAS.
- (C) INSTALL SILT FENCE WHERE SHOWN. SEE INSTALLATION DETAIL ON THIS SHEET.
- (D) CONSTRUCTION ENTRANCE SHALL BE THE EXISTING ASPHALT ENTRANCE AS LONG AS FEASIBLE. CONTRACTOR SHALL KEEP SILT FROM TRACKING OFF-SITE AND ONTO CITY STREETS. PROVIDE ALL NECESSARY STREET SWEEPING EQUIPMENT TO KEEP STREETS CLEAN AS NEEDED.
- (E) 20' X 30' X 3' MIN CONCRETE WASHOUT FACILITY. THE WASHOUT FACILITY IS TO BE LINED WITH A PLASTIC LINING MATERIAL (10 MIL POLYETHYLENE SHEETING MIN.) FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COULD COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL. A SIGN SHALL BE INSTALLED ADJACENT TO FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

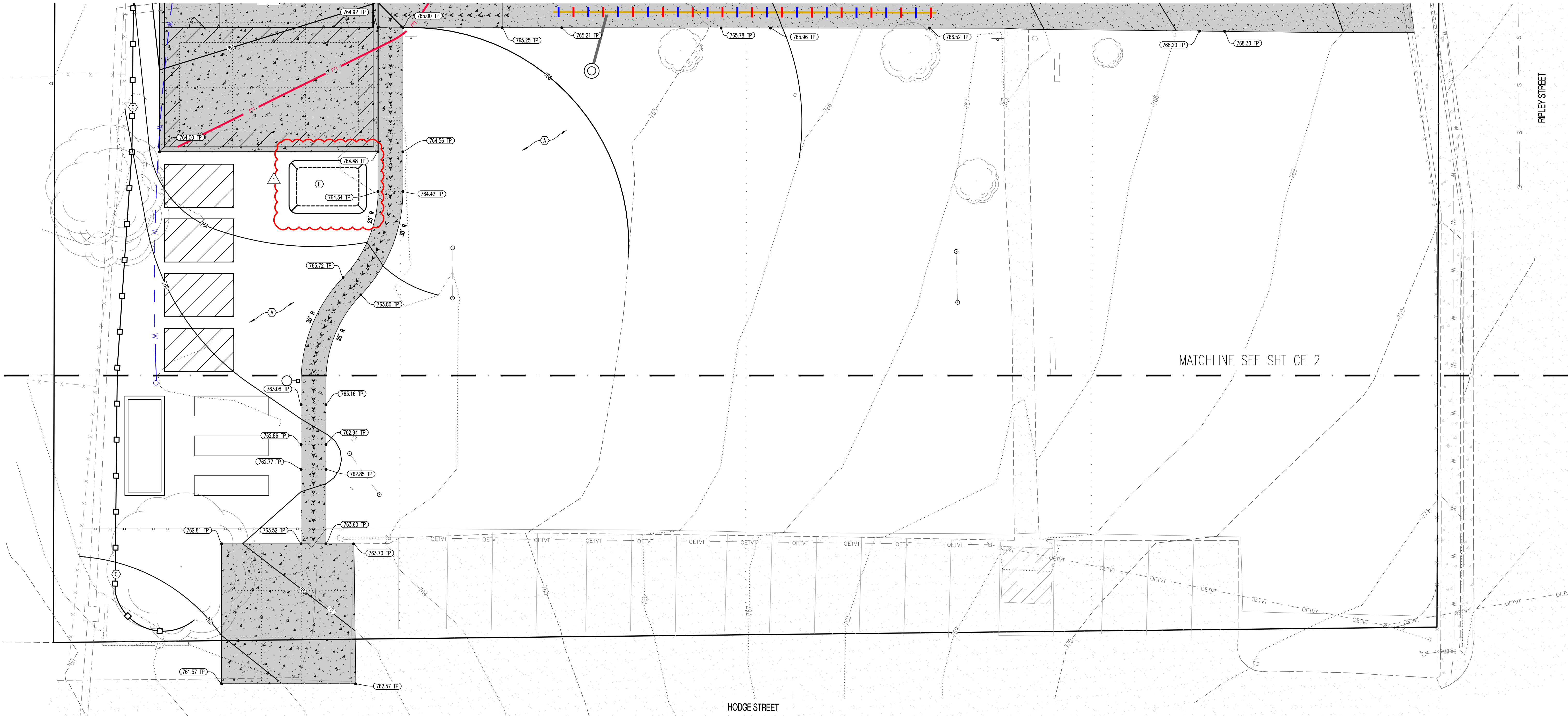
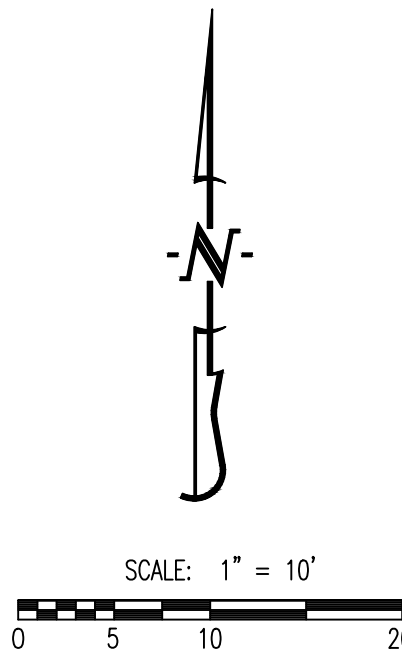
STOCKPILES ARE NOT ANTICIPATED ON THIS PROJECT, BUT IF DEEMED NECESSARY BY THE CONTRACTOR STOCKPILES SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
STOCKPILE SHALL NOT EXCEED THREE (3) ACRES IN AREA OR TEN (10) FEET IN HEIGHT.

THE SIDE SLOPE OF A STOCKPILE OF SOIL SHALL NOT EXCEED A 3:1 RATIO.
STOCKPILES OF SOIL SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL MANUAL ISSUED BY THE DIRECTOR. THE WORKING FACE OF THE STOCKPILE, HOWEVER, NEED NOT BE SEEDED. STOCKPILES OF SOIL THAT MEET THE REQUIREMENTS OF THIS SECTION MAY REMAIN IN PLACE FOR UP TO THREE (3) YEARS AFTER ISSUANCE OF A LAND DISTURBANCE PERMIT.

WHEN THE TIME LIMIT FOR A STOCKPILE OF SOIL HAS EXPIRED AND NO EXTENSION HAS BEEN GRANTED, THE PROPERTY OWNER MUST EITHER REMOVE THE STOCKPILE OR GRADE IT TO A SLOPE OF NO GREATER THAN A 4:1 RATIO AND PERMANENTLY SEED IT IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL MANUAL ISSUED BY THE DIRECTOR.

LEGEND OF SYMBOLS:

- XXX----- EXISTING MINOR CONTOUR
---XXX--- EXISTING MAJOR CONTOUR
-XXX- PROPOSED MINOR CONTOUR
-XXX- PROPOSED MAJOR CONTOUR
FF=XXXX FINISHED FLOOR OF STRUCTURE
(XXX.XX TC) PROPOSED TOP OF CURB ELEVATION
(XXX.XX TP) PROPOSED TOP OF PAVEMENT ELEVATION
(XXX.XX FG) PROPOSED FINISH GRADE ELEVATION
(XXX.XX FT) PROPOSED FINISH FLOOR AT DOOR
(XXX.XX TW) PROPOSED FINISH GRADE AT TOP OF WALL



REVISIONS:

NO.	DATE
ORIGINAL	07/24/2020
1	08/21/2020

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



PREPARED BY:
CROCKETT
ENGINEERS & ARCHITECTS
1000 W. Hinkson Blvd., Ste. 100
Columbia, Missouri 65203
(314) 487-0595
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000000001

OWNER:
COLUMBIA SCHOOL DISTRICT
188 W. WOLEY ST.
COLUMBIA, MO 65203

BENTON ELEMENTARY MOBILE CLASSROOM SITEWORK PACKAGE

1410 HINKSON AVENUE, COLUMBIA, MO 65201

DRAWING INCLUDES:

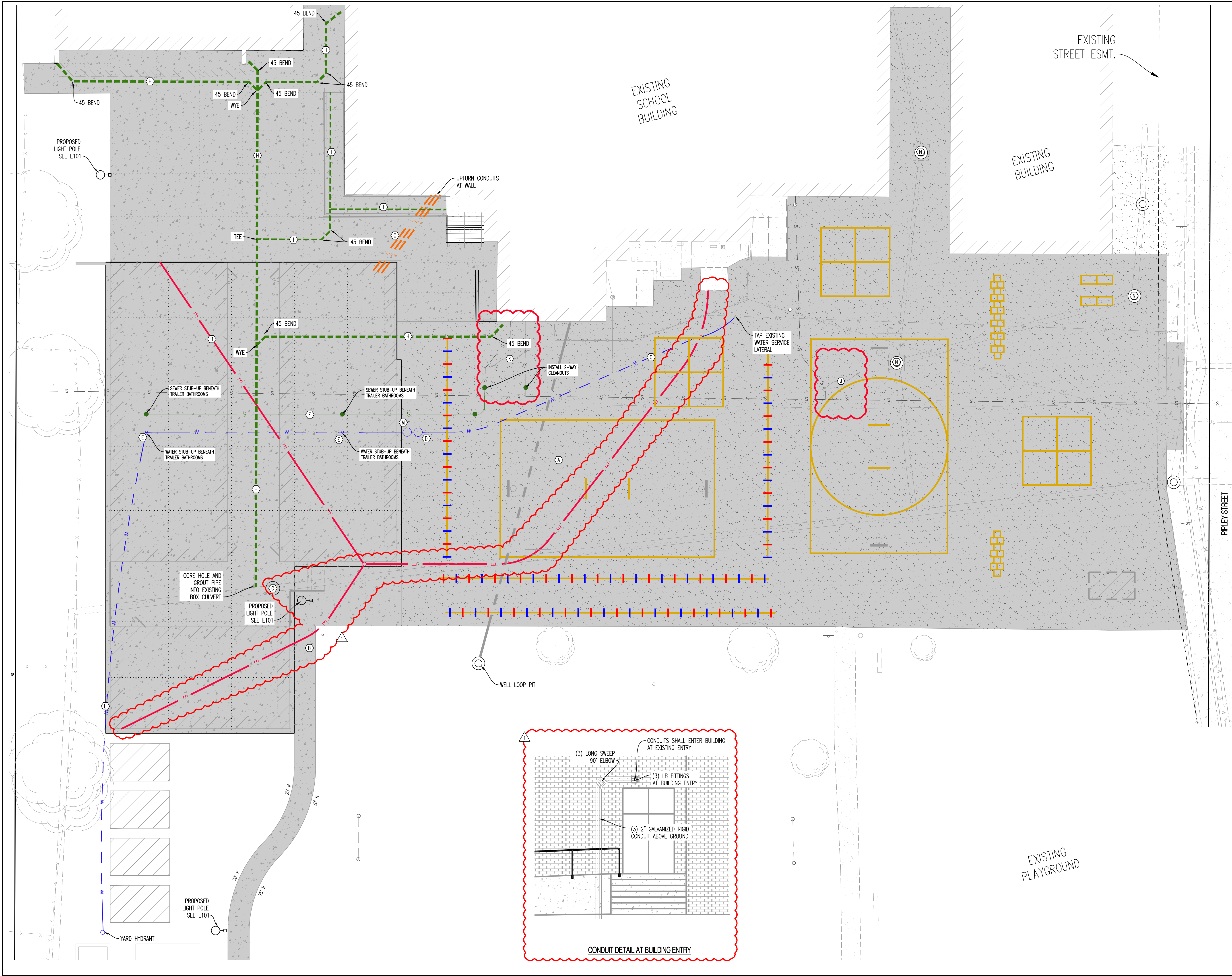
GRADING PLAN
SOUTH

DESIGNED: JRS

DRAWN: JAA

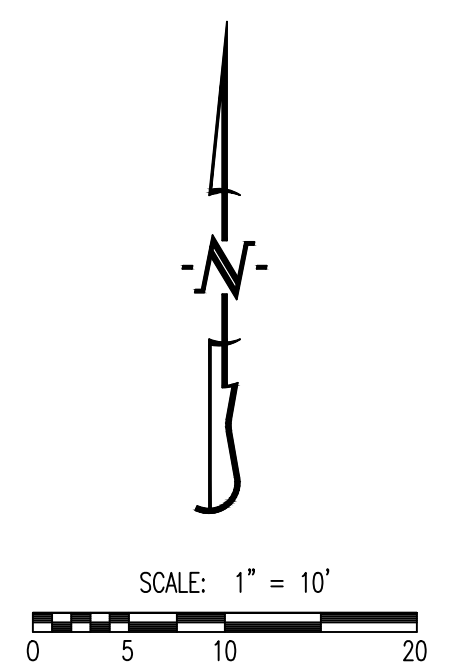
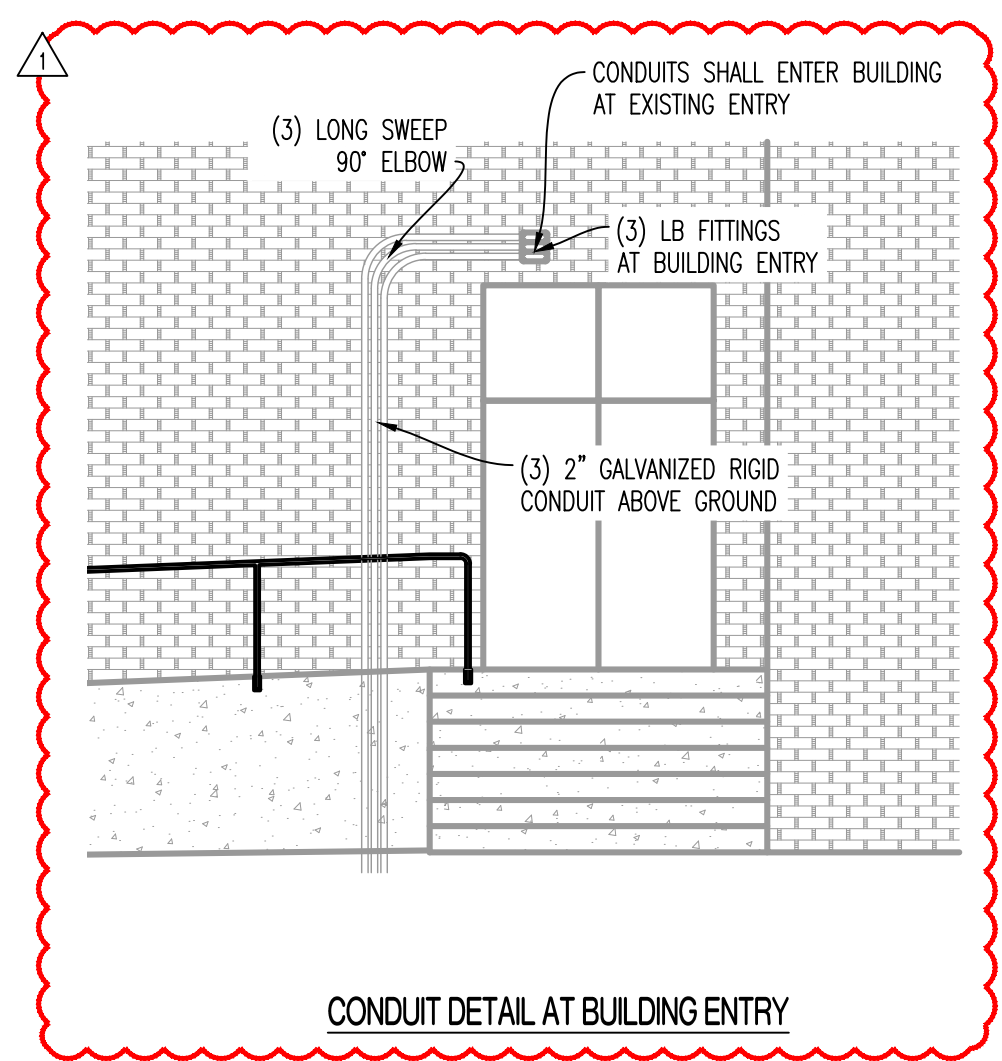
PROJECT NO.: 180231

SHEET:
CE 3



LEGEND OF LABELS

- (A) 4" PRIMARY CONDUIT FROM EXISTING XFMR LOCATION TO EXTERIOR FACE OF TRAILER FOR METER MOUNTING. SEE E101
- (B) 4" SECONDARY CONDUIT FROM METER LOCATION TO TRAILER PANEL. SEE E101
- (C) 1" POLY LINE. PROVIDE 1" CORP STOP VALVE AT EXISTING SERVICE LINE. ROUTE POLY LINE TO METER PIT.
- (D) METER PIT. PURCHASE ALL APPURTENANCES FROM CITY OF COLUMBIA WATER AND LIGHT DEPARTMENT. SEE DETAIL ON CE 8. METER SHALL BE 1".
- (E) INSTALL 1" POLY LINE FROM METER PIT TO EACH TRAILER LOCATION.
- (F) 4" SDR 35 PVC SEWER LATERAL. ROUTE AT 1% SLOPE TO EXISTING MAIN LOCATION. USE EXISTING TAP OF MAIN AT THIS LOCATION FOR TIE-IN.
- (G) (3) 2" CONDUITS FROM UNDERSLAB AREA OF TRAILERS. UPTURN AT BUILDING LOCATION. SEE DETAIL THIS SHEET.
- (H) 8" SDR 35 ROOF DRAIN AT 1% MINIMUM SLOPE.
- (I) 4" PERFORATED DRAIN TILE BEHIND WALL. SWITCH TO SOLID PIPE AT WALL. PENETRATION AND ROUTE AT 1% MINIMUM GRADE. FLOW LINE OF DRAIN TILE SHALL BE ABOVE THE CROWN OF THE STORM DRAIN IMMEDIATELY BEFORE CONNECTING TO STORM PIPE.
- (J) AN UNCAPPED SEWER LATERAL EXISTS WITHIN THE CLOUDED AREA. LATERAL IS APPROXIMATELY 10' DEEP. CONTRACTOR SHALL EXPOSE THE LATERAL AND PERFORM A CAMERA INSPECTION TO MAKE SURE IT IS NOT A LIVE LINE. CAP EXISTING TAP ACCORDING TO CITY OF COLUMBIA SEWER UTILITY DEPARTMENT SPECIFICATIONS. COORDINATE TAP WITH SEWER DEPARTMENT.
- (K) TWO UNKNOWN SEWER LATERALS EXIST WITHIN THE CLOUDED AREA. EXACT ENTRY POINT TO THE BUILDING IS UNKNOWN. FIND BOTH EXISTING LINES AND INSTALL TWO-WAY CLEANOUTS NEXT TO THE MAIN. PERFORM CAMERA INSPECTION TO DETERMINE EXACT ROUTE EACH LINE TAKES TO THE BUILDING. COORDINATE RESULTS OF CAMERA INSPECTION WITH SEWER DEPARTMENT.
- (L) INSTALL 1" POLY LINE TO YARD HYDRANT LOCATION NEAR COMPOST PILE. INSTALL FROST-PROOF YARD HYDRANT.
- (M) INSTALL 1" BACKFLOW DEVICE IN METER PIT.
- (N) PROVIDE RISER ADJUSTMENT AT MANHOLE LID. REFER TO GRADING PLAN.
- (O) BURIED STORM LID ACCESS. CONTRACTOR SHALL UNCOVER EXISTING MANHOLE GRATE AND PROVIDE A PRECAST RISER EXTENSION AS NEEDED TO EXTEND THE GRATE TO PROPOSED FINISH GRADE. AN ACCESS PORT DIRECTLY OVER TOP OF THE LID SHALL BE GRADED IN THE DECKING. SEE DETAIL S200A SHOWN ON ADDENDUM #1.



REVISIONS:

NO.	DATE
ORIGINAL	07/24/2020
1	08/21/2020

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

TIMOTHY D. CROCKETT
MISSOURI LICENSE 2004000775

PREPARED BY:

CROCKETT ENGINEERING CONSULTANTS, LLC
1000 W. Kings Blvd., Ste. 300
Columbia, Missouri 65203
(314) 487-0599
www.crockettengineering.com
Missouri Certificate of Authority #000000001

OWNER:

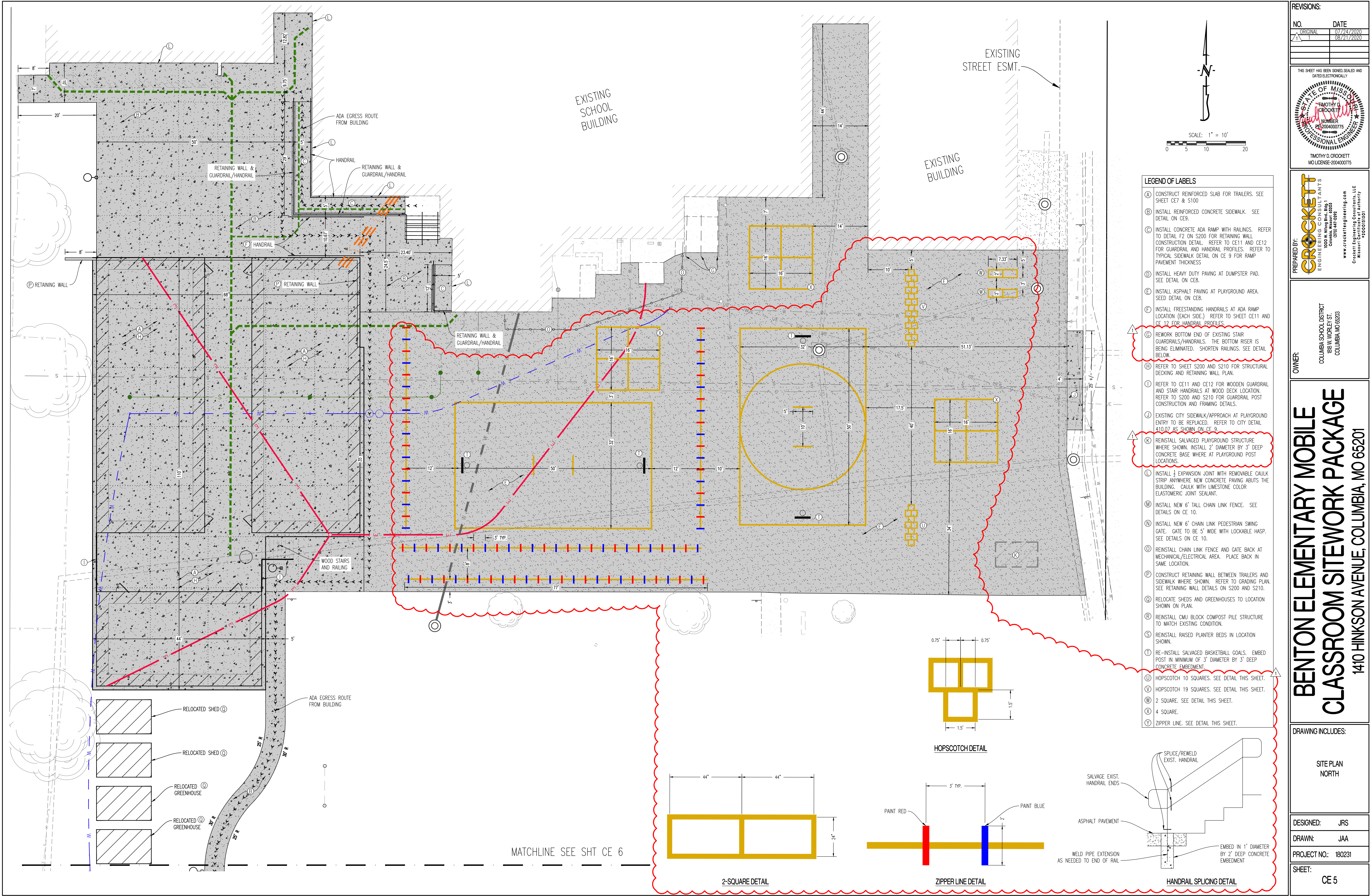
COLUMBIA SCHOOL DISTRICT
188 W. WOLLEY ST.
COLUMBIA, MO 65203

BENTON ELEMENTARY MOBILE CLASSROOM SITEWORK PACKAGE
1410 HINKSON AVENUE, COLUMBIA, MO 65201

DRAWING INCLUDES:

SITE UTILITY PLAN

DESIGNED: JRS
DRAWN: JAA
PROJECT NO.: 180231
SHEET: CE 4



REVISIONS:

NO.	DATE
ORIGINAL	07/24/2020
1	08/21/2020

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

TIMOTHY D. CROCKETT
MISSOURI LICENSE 2004000775

PREPARED BY:

ENGINEERING CONSULTANTS
1000 W. Kings Blvd. Ste. 200
Columbia, Missouri 65203
(314) 487-0599
www.crockettengineering.com
Missouri Certificate of Authority
#000000001

OWNER:

COLUMBIA SCHOOL DISTRICT
188 W. MOLEY ST.
COLUMBIA, MO 65203

BENTON ELEMENTARY MOBILE
CLASSROOM SITEWORK PACKAGE

1410 HINKSON AVENUE, COLUMBIA, MO 65201

DRAWING INCLUDES:

SITE PLAN
NORTH

DESIGNED: JRS

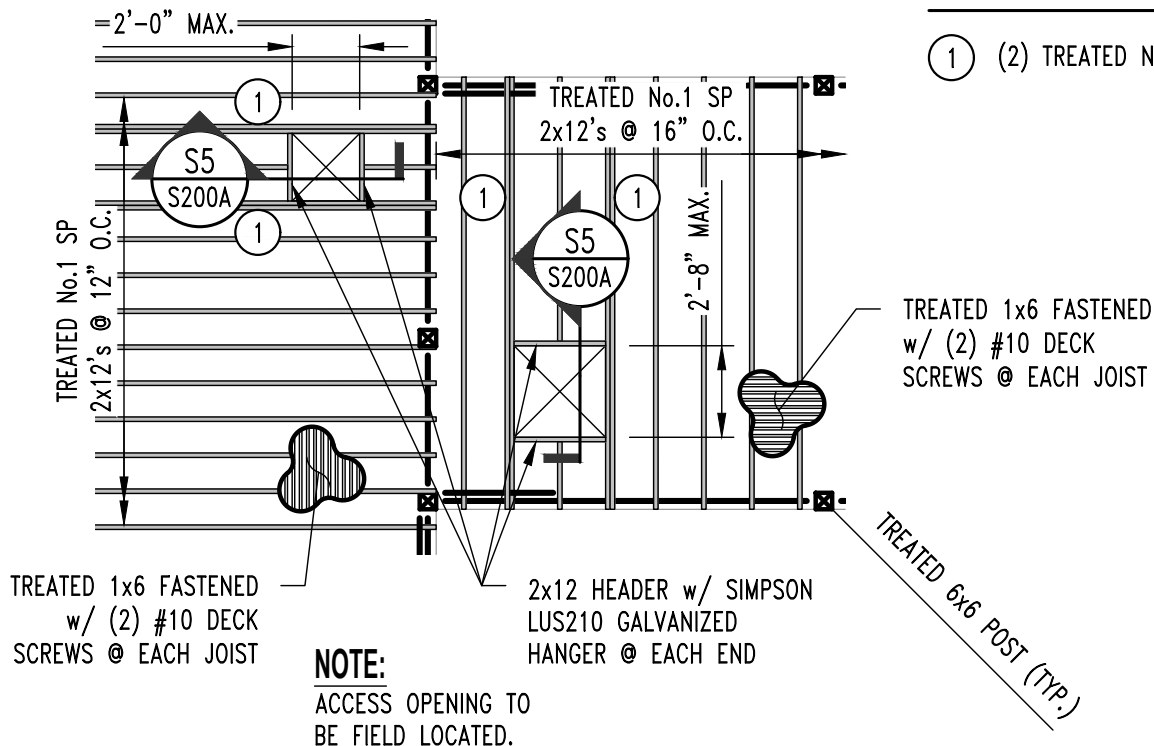
DRAWN: JAA

PROJECT NO.: 180231

SHEET: CE 5

FRAMING NOTES

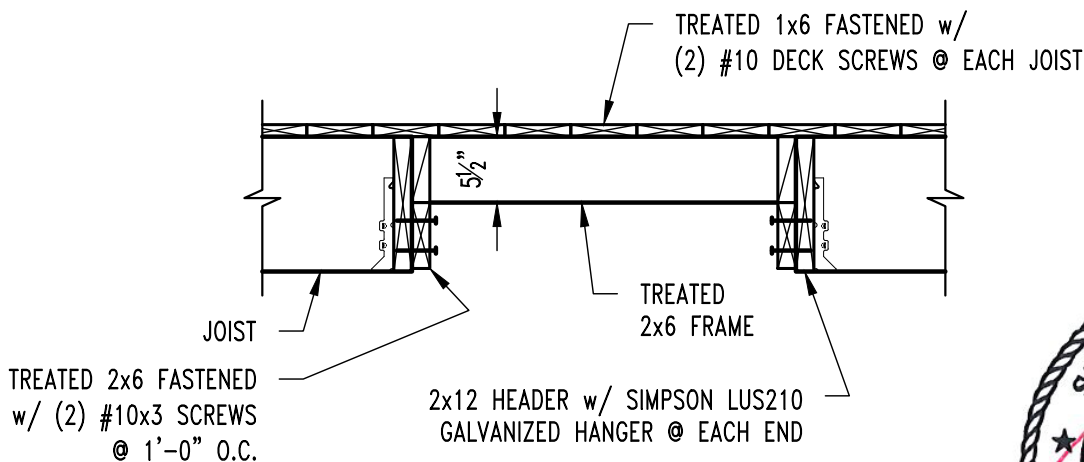
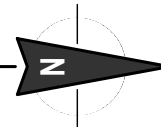
① (2) TREATED No.1 SP 2x12's



ENLARGED PARTIAL FRAMING PLAN

1A
S200A

SCALE: $\frac{3}{16}" = 1'-0"$



ACCESS OPENING SECTION

S5
S200A

SCALE: $\frac{3}{4}" = 1'-0"$



STRUCTURAL ENGINEER:

CROCKETT

ENGINEERING CONSULTANTS

1000 W. Nifong Blvd., Bldg. 1
Columbia, Missouri 65203
(573) 447-0292

www.crockettengineering.com

Crockett Engineering Consultants, LLC

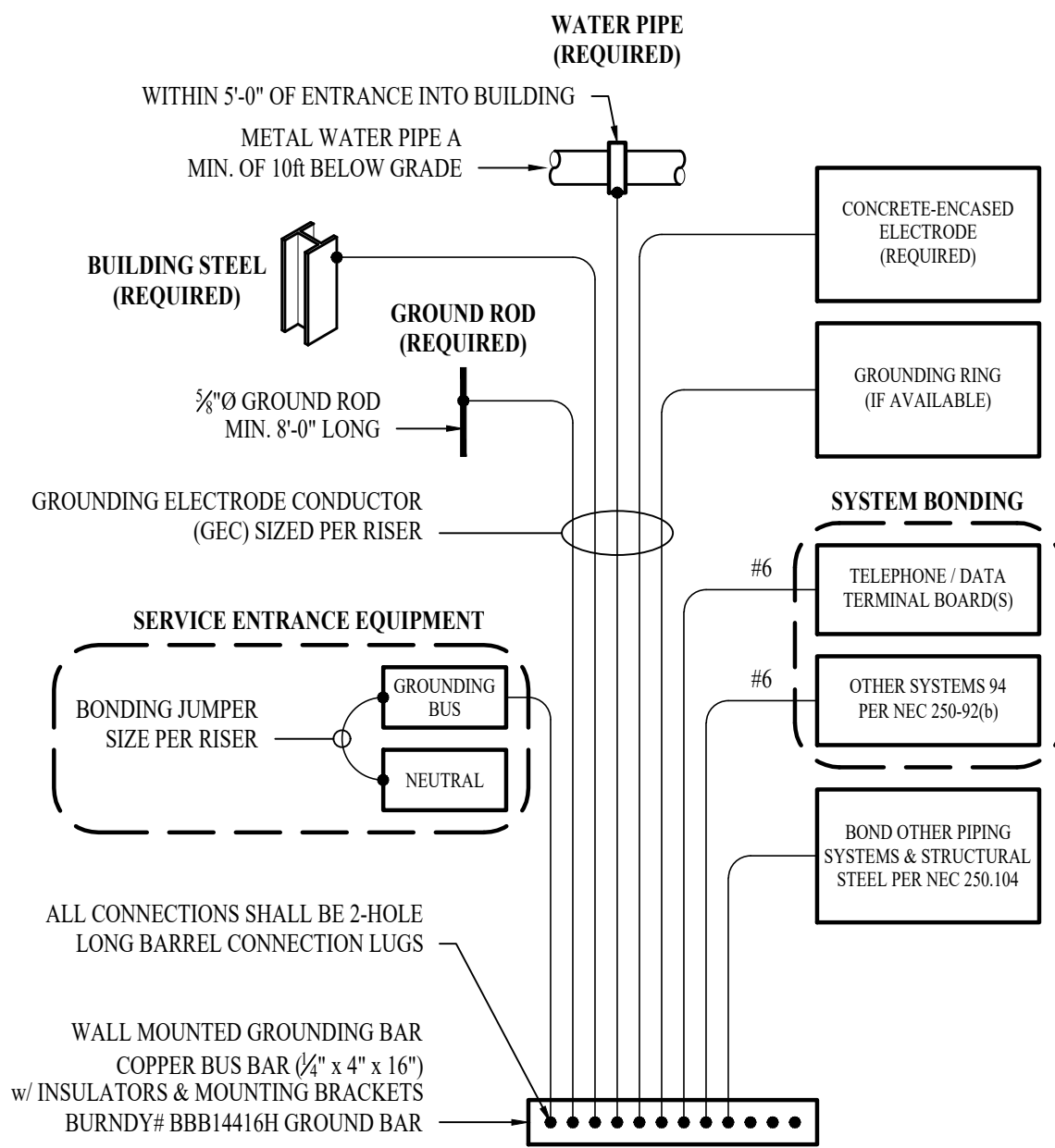
DESIGNED: JWV

DATE: 08/21/2020

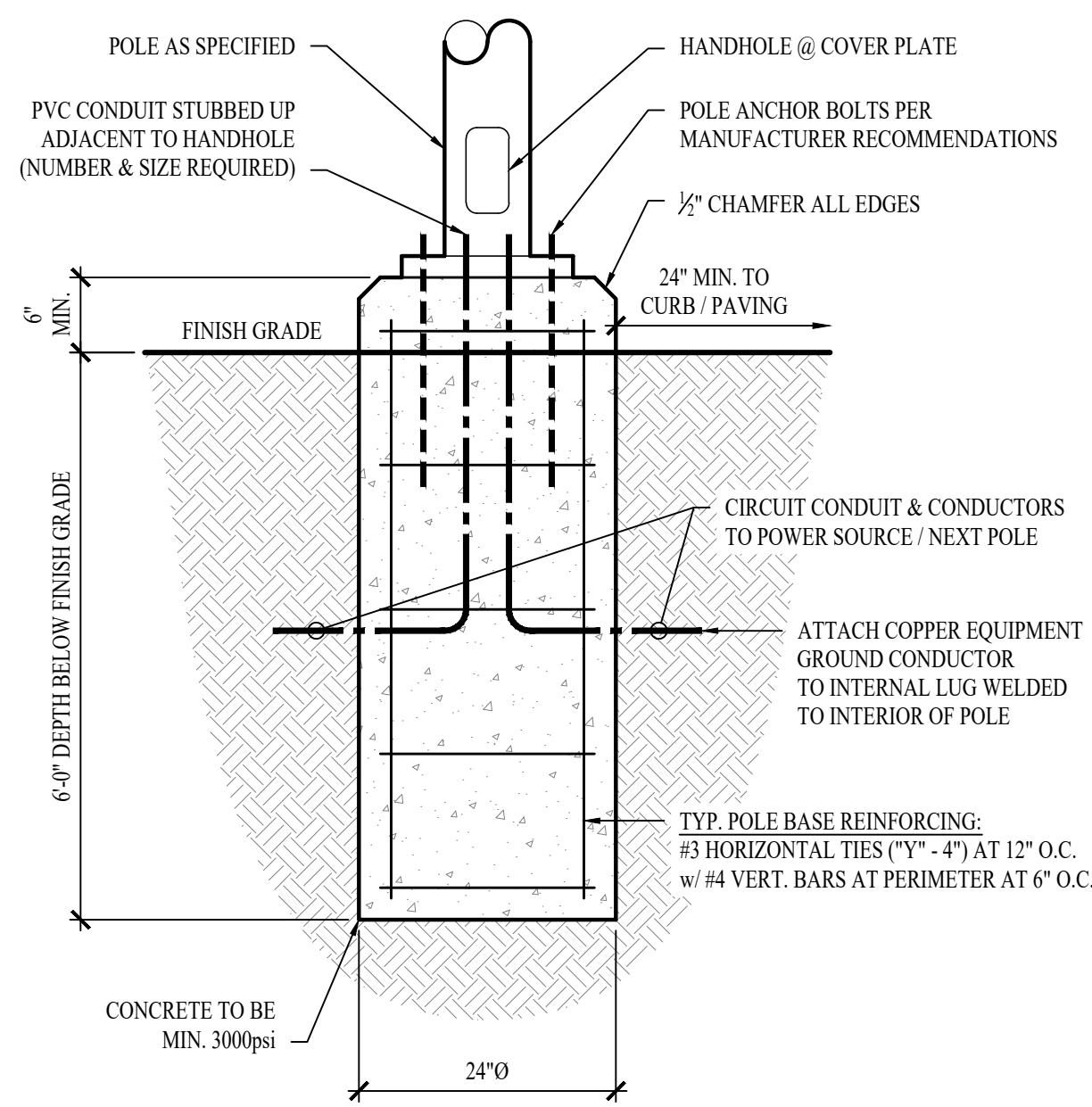
TYPE: ADDENDUM #1

SHEET:

S200A

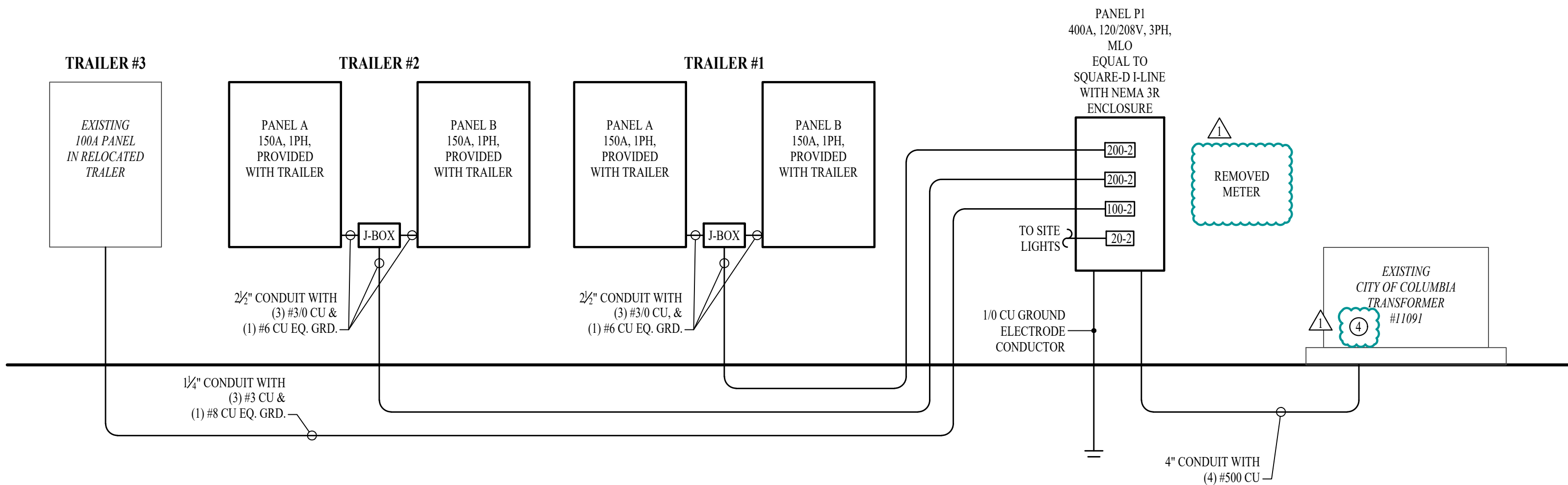


TYPICAL GROUNDING & BONDING DETAIL

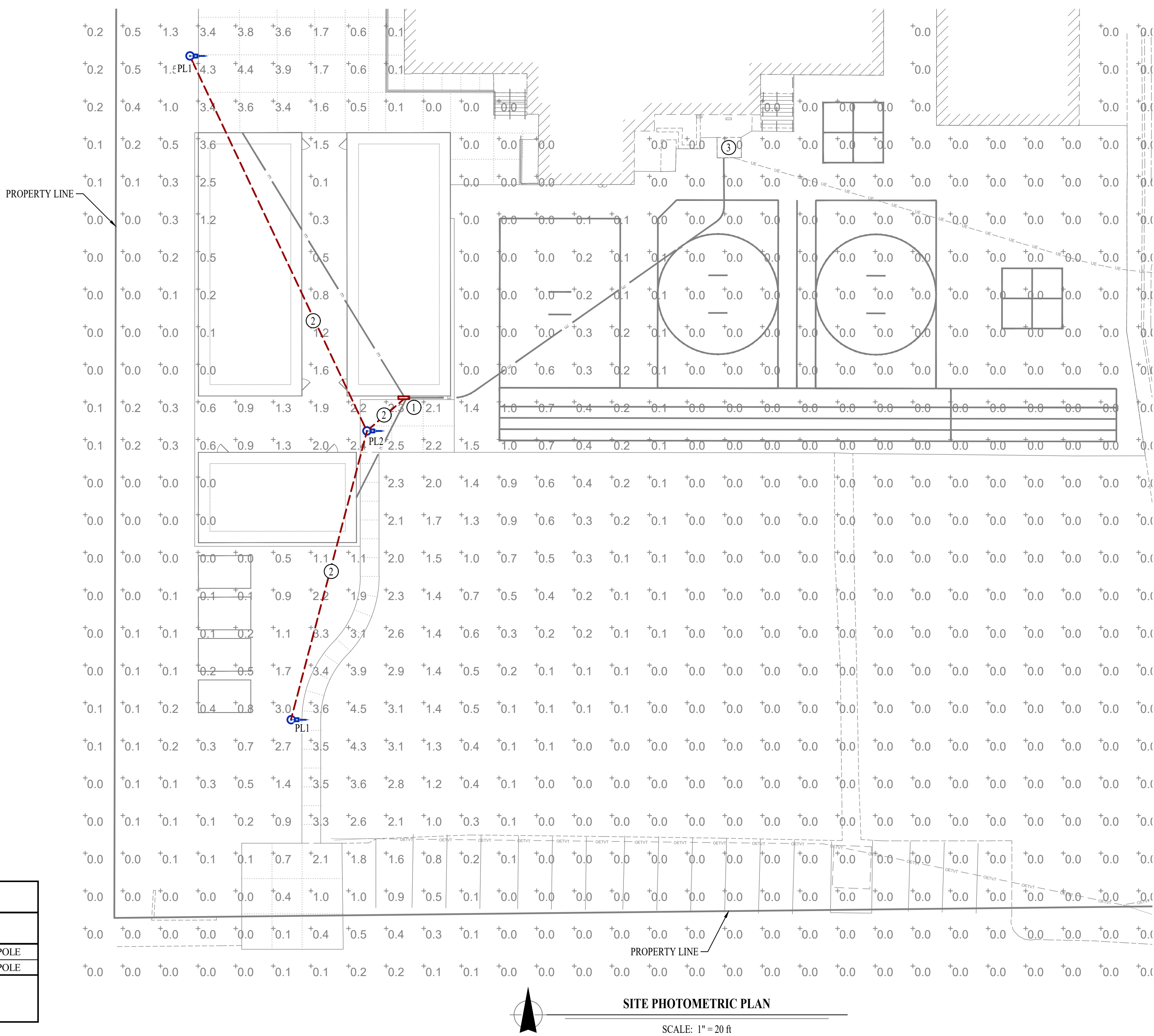


TYP. LIGHT POLE DETAIL - 2

LIGHT FIXTURE SCHEDULE											
TAG	MANUFACTURER (OR EQUAL)	MODEL NUMBER (OR EQUAL)	DESCRIPTION	MOUNTING	LUMEN OUTPUT	CCT (°K)	CRI	VOLTS	WATTS	NOTES	
PL1	MCGRAW EDISON	GLEON-AF-02-LED-EI-T3-BK-MS/DIM-L20-OA/RA1016	LED AREA LIGHT	POLE	12,461	4000	70	208	113	MOUNT ON BLACK SSS 18" POLE	
PL2	MCGRAW EDISON	GLEON-AF-02-LED-EI-5WQ-BK-MS/DIM-L20-OA/RA1016	LED AREA LIGHT	POLE	13,122	4000	70	208	113	MOUNT ON BLACK SSS 18" POLE	
NOTES:											
1. VERIFY LIGHT FIXTURE FINISHES WITH OWNER / ARCHITECT PRIOR TO INSTALLATION											



POWER RISER



REFERENCED CODES IN EFFECT

2017 NATIONAL ELECTRIC CODE

2018 INTERNATIONAL ENERGY CONSERVATION CODE

POWER PLAN GENERAL NOTES:

- SEE SPECIFICATION MANUAL FOR ADDITIONAL INFORMATION.
- PHOTOMETRIC REFLECTS LIGHTING PROVIDED BY NEW FIXTURES INDICATED AND DOES NOT TAKE INTO ACCOUNT EXISTING STREET LIGHTING.
- POLE LIGHTS TO INCLUDE 2018 IECC COMPLIANT PHOTOCCELL AND OCCUPANCY SENSORS. SEE LIGHTING SCHEDULE FOR DETAILS.

POWER PLAN KEY NOTES:

- PANEL P1: SEE RISER FOR DETAILS.
- 1" CONDUIT WITH (2) #10 CU, (1) #10 EQ GRD.
- EXISTING TRANSFORMER. REFER TO CIVIL PLANS FOR CONDUIT ROUTING AND RISER FOR ADDITIONAL INFORMATION.
- CONNECT NEW SECONDARY CONDUCTORS TO EXISTING AVAILABLE CU & LUGS.