

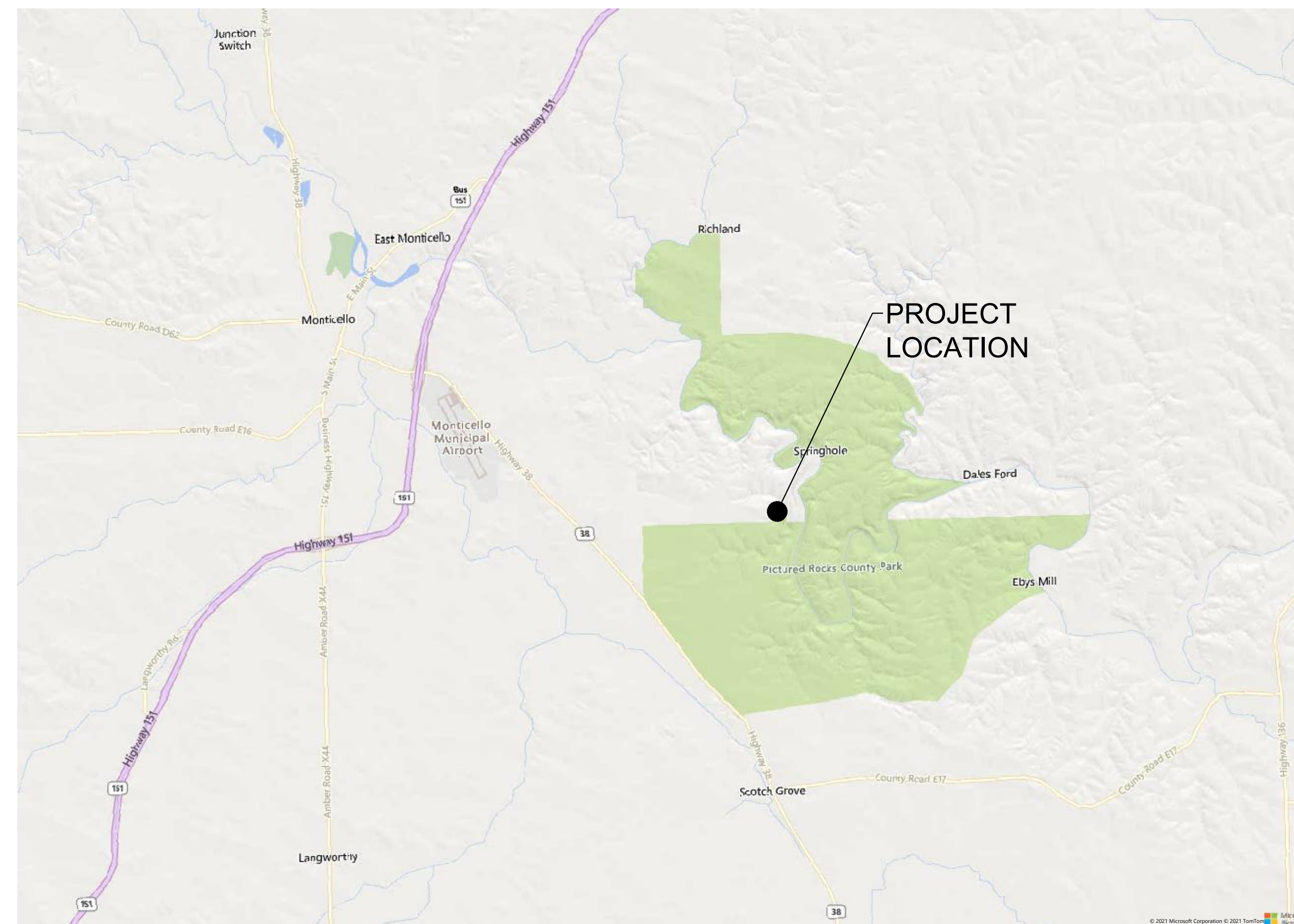
CULTURAL EDUCATION CENTER

MONTICELLO, IOWA

UTILITY NOTE

THE LOCATIONS OF THOSE BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITY MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

UTILITIES



VICINITY MAP
SCALE: 1:16404.1667

MAP PROVIDED BY BING

Sheet List Table

SHEET NUMBER	SHEET TITLE
C-000	COVER
C-100	NOTES-DETAILS & LEGEND
C-200	SITE LAYOUT
C-201	OVERALL SITE WITH SECTION
C-300	GRADING PLAN
C-301	EROSION CONTROL PLAN
C-400	CIVIL DETAILS
A1.0	ARCHITECTURAL FLOOR PLAN
A2.0	ELEVATION NORTH & SOUTH
A2.1	ELEVATION EAST & WEST
A3.0	WALL CROSS SECTIONS
A3.1	WALL CROSS SECTIONS
A3.2	WALL CROSS SECTIONS
S1.0	GENERAL NOTES
S1.1	TABLES & SCHEDULES
S1.2	TABLES & SCHEDULES
S1.3	TYPICAL DETAILS
S2.0	FOUNDATION PLAN
S2.1	FIRST FLOOR FRAMING PLAN
S2.2	VIEWING AREA ROOF FRAMING PLAN
S2.3	EXHIBIT AREA ROOF FRAMING PLAN

DEVELOPER/OWNER
CAMP COURAGEOUS
 12007 190TH ST.
 MONTICELLO, IOWA 52310
 CHARLIE BECKER - CEO
 PH: 319-465-5916 (WORK)

GENERAL NOTES

- ALL IMPROVEMENTS SHOWN ON THESE ENGINEERING PLANS SHALL COMPLY WITH THE **CITY OF MONTICELLO** DESIGN AND SPECIFICATIONS, LATEST EDITION, AND THE STANDARDS OF THE **IOWA** DEPARTMENT OF NATURAL RESOURCES, LATEST EDITION.
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS, AND FIELD INVESTIGATION. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO.
- ALL DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE PROPERLY DISPOSED OF OFF-SITE UNLESS NOTED.
- THE CONTRACTOR SHALL EXERCISE PROPER CAUTION TO PROTECT THE EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE.
- PORTLAND CEMENT CONCRETE, CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES. COMPRESSING STRENGTH SHALL BE 4000PSI IN 14 DAYS, AIR ENTRAINMENT SHALL BE BETWEEN 5% AND 8% AND SLUMP SHALL BE 4 INCHES OR LESS ALL AS MEASURED BY THE APPROPRIATE ASTM METHODS. REINFORCING STEEL SHALL BE ASTM CERTIFIED 60KSI TENSILE STRENGTH. REINFORCING STEEL SHALL BE #4 SIZE UNLESS OTHERWISE SPECIFIED. HANDRAILS, BOLLARDS, AND OTHER APPURTENANCES SHALL BE INSTALLED PER PLAN AND MEET JURISDICTIONAL REQUIREMENTS.
- CLEANUP AND FINAL INSPECTION. WORK BROKEN OR DAMAGED BY CONTRACTOR ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. ALL WASTE MATERIAL, CONCRETE WASHOUT, LANDSCAPE WASTE AND BUILDING MATERIAL SHALL BE REMOVED. SOIL SHALL BE REMOVED FROM PAVED AREAS AND THE PROJECT SHALL BE LEFT IN A CLEAN AND WORKMANLIKE MANNER.

GRADING NOTES

- ALL EARTHWORK OPERATIONS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- ALL ELEVATIONS SHOWN ARE TO FLOWLINE FINISHED GRADE OR TOP OF PAVEMENT UNLESS OTHERWISE STATED.
- PROVIDE POSITIVE DRAINAGE AT ALL TIMES WITHIN THE CONSTRUCTION AREAS. DO NOT ALLOW WATER TO POND ON PROPERTY.
- PRIOR TO PLACEMENT OF ANY FILL, THE STRIPPED SITE SHALL BE SCARIFIED TO A DEPTH OF 9 INCHES AND RE-COMPACTED TO 95% DENSITY. ANY UNSUITABLE SOILS FOUND AT THIS TIME SHALL BE DRIED AND RECOMPACTED OR REMOVED IF REQUIRED COMPACTION CANNOT BE OBTAINED. CUT AREAS SHALL ALSO BE SCARIFIED TO A DEPTH OF 9 INCHES AND RE-COMPACTED TO 95% DENSITY.
- ALL FILL MATERIAL SHALL CONSIST OF APPROVED, SUITABLE SOILS PLACED IN LOOSE LIFTS OF 9 INCHES OR LESS AND COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D-698) IN ALL PAVEMENT, BUILDING ADDITION AND ATHLETIC FIELD AREAS. THE COMPACTION WILL BE FIELD TESTED BY A SOILS ENGINEERING CONSULTANT REPRESENTING THE OWNER.
- PROJECT WILL BE COVERED BY A GENERAL PERMIT REGULATING RUNOFF FROM CONSTRUCTION SITES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE REQUIRED MONITORING, INSPECTION AND MAINTENANCE AS REQUIRED BY THE PERMIT.
- ALL DISTURBED EMBANKMENTS GREATER THAN 3:1 SLOPES SHALL BE SEEDDED ACCORDING TO A RECOMMENDED SEEDING MIX BY THE LANDSCAPER AND COVERED WITH EROSION CONTROL BLANKETS OR AS DIRECTED BY PLAN DOCUMENTS.
- CONTRACTOR SHALL ADHERE TO THE **CITY OF MONTICELLO** EROSION AND SEDIMENT CONTROL REGULATIONS AND THE STATE OF **IOWA** CONSTRUCTION SITE EROSION CONTROL MANUAL.
- ALL AREAS TO BE GREENSPACE AT PROJECT COMPLETION SHALL BE LEFT WITH 9 INCHES OF TOPSOIL WHEN MASS GRADING ACTIVITIES ARE COMPLETE.

EROSION CONTROL NOTES

- EROSION CONTROL SHALL BE INSTALLED PRIOR TO ANY GRADING OPERATIONS WHERE POSSIBLE.
- CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT OFF-SITE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS. ANY SEDIMENT DEPOSITED ON PUBLIC ROADS SHALL BE REMOVED BY SHOVELING OR STREET CLEANING BEFORE THE END OF EACH WORKING DAY.
- SHOWN LOCATION OF SILTATION CONTROL IS APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION.
- WATER PUMPED DURING CONSTRUCTION OPERATIONS SHALL BE FILTERED.
- ONCE CONSTRUCTION HAS BEEN COMPLETED, OR TEMPORARILY SUSPENDED FOR LONGER THAN 28 DAYS (SUCH AS WINTER SHUTDOWN), THE CONTRACTOR SHALL INITIATE SEEDING ON ALL AREAS DISTURBED IMMEDIATELY OF THE LAST DISTURBANCE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE CONTRACTOR ESTABLISHES A GOOD STAND OF GRASS OF UNIFORM COLOR AND DENSITY TO THE SATISFACTION OF THE ENGINEER.
- CONTRACTOR SHALL ADHERE TO THE **IOWA** CONSTRUCTION SITE EROSION CONTROL MANUAL.
- ALL EROSION CONTROL MEASURES MUST BE INSTALLED (WHERE POSSIBLE) PRIOR TO THE COMMENCEMENT OF ANY EARTH DISTURBING OPERATIONS. THE REMAINING EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS REASONABLY POSSIBLE AFTER GRADING OPERATIONS BEGIN. WHERE THE PRESENCE OF SILT FENCE WILL INTERFERE WITH ACTIVITIES, DIVERSION DITCHES AND SMALL TEMPORARY SEDIMENT TRAPS SHALL BE UTILIZED UNTIL SILT FENCE OR OTHER MEASURES MAY BE INSTALLED AND VEGETATION ESTABLISHED.
- EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH PRECIPITATION EVENT AND REPLACED OR REPAIRED AS NECESSARY.
- SILT FENCE AND SEDIMENT BASIN SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO WITHIN ONE FOOT OF THE TOP OF THE SILT FENCE.
- PROJECT WILL BE COVERED BY A GENERAL PERMIT REGULATING RUNOFF FROM CONSTRUCTION SITES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE REQUIRED MONITORING, INSPECTION AND MAINTENANCE AS REQUIRED BY THE PERMIT.
- CONCRETE WASHOUT DEBRIS SHOULD BE HAULED OFF-SITE. WASHOUT SHOULD BE FILLED IN AND SEEDDED.
- ALL AREAS DISTURBED BEYOND LIMITS SHOWN SHOULD BE SEEDDED WITH ADJACENT SEED MIXTURE OR IN-KIND.
- THERE ARE NO EXPECTED DOWNSTREAM IMPACTS OTHER THAN THOSE ALLOWED PER ORDINANCE (2 YEAR, PRE-DEVELOPED RATE OF RELEASE)

UTILITY NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES AND PAVED STREETS, INCLUDING ANY NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF ANY CONFLICTS WITH THE DRAWINGS OCCUR. ANY DAMAGE TO EXISTING UTILITIES AND/OR PAVED STREETS CAUSED BY TRENCHING AND GRADING OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE.
- ALL EXISTING UNDERGROUND UTILITIES SHOWN WERE LOCATED PARTIALLY IN THE FIELD AND PARTIALLY FROM REVIEW OF EXISTING PUBLIC RECORDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT EACH UTILITY COMPANY FOR THE FIELD LOCATION OF THEIR EXISTING LINES IN OR NEARBY THE CONSTRUCTION AREA PRIOR TO BEGINNING ANY CONSTRUCTION.
- THE CONTRACTOR SHALL EXERCISE PROPER CAUTION TO PROTECT THE EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE.
- THE LOCATIONS OF THOSE BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITY MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- WATER MAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL WATER COMPANY STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION.
- ALL WATER MAIN SHALL HAVE A MINIMUM COVER OF 5 FEET.
- MAINTAIN 18 INCHES VERTICAL SEPARATION (OUTER EDGE TO OUTER EDGE) BETWEEN WATER MAIN AND SEWER.
- NITRILE GASKETS SHALL BE USED WHERE WATER MAIN CROSSES BELOW STORM SEWER.
- UTILITY PIPING. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION METHODS INCLUDING BACKFILL MATERIAL AND MATERIAL DEPTHS. PIPE MATERIAL SHALL BE AS SPECIFIED ON THE PLANS. ALL MATERIAL SHALL MEET THE REQUIREMENTS OF THE LOCAL JURISDICTION FOR STRENGTH, MATERIAL TYPE AND CONFORMITY WITH THE EXISTING SYSTEM. SEWER LINES SHALL BE CONSTRUCTED STRAIGHT TO THE SPECIFIED LINE AND GRADES. MANHOLES, STORM INLETS, VALVE BOXES AND APPURTENANCES SHALL BE ADJUSTED TO GRADE OR PER PLAN PRIOR TO SEEDING/LANDSCAPING ACTIVITIES.



Know what's below.
Call before you dig.



LEGEND

PROPOSED	EXISTING	
		STORM MANHOLE
		STORM INLET
		STORM DOUBLE INLET
		FLARED END SECTION
		DOWNSPOUT
		SANITARY MANHOLE
		SANITARY/STORM CLEANOUT
		UNKNOWN MANHOLE
		WATER VALVE
		HYDRANT
		WELL
		SPRINKLER BOX
		WATER METER
		WATER SERVICE
		POWER POLE
		POWER POLE W/ LIGHT
		POWER POLE W/ METER
		GUY WIRE
		GUY POLE
		ELECTRIC MANHOLE
		ELECTRIC PEDESTAL/TRANSFORMER
		ELECTRIC METER
		TELEPHONE POLE
		TELEPHONE MANHOLE
		TELEPHONE PEDESTAL
		UTILITY MANHOLE
		HANDHOLE
		GAS VALVE
		LIGHT POLE
		VAPOR LIGHT
		LIGHT JUNCTION BOX
		SIGN
		FLAGPOLE
		POST/BOLLARD
		CONIFER TREE
		DECIDUOUS TREE
		BUSH/SHRUB
		TREE STUMP
		CONTROL POINT
		BENCHMARK
		SOIL BORING HOLE
		R.O.W. MARKER, FOUND
		RAILROAD SPIKE, FOUND
		PIPE, FOUND
		CONCRETE MONUMENT, FOUND
		MEASURED DIMENSION
		RECORDED DIMENSION
		SPOT ELEVATION
		GRADE LABEL
		DRAINAGE SLOPE
		LINE CONTINUATION
		SURVEY BOUNDARY
		PROPERTY LINE
		CENTERLINE
		HISTORICAL LINE - AS NOTED
		EASEMENT LINE
		SECTION LINE
		R.O.W. LINE
		SETBACK LINE
		FORCE MAIN
		SANITARY SEWER
		STORM SEWER
		PIPE UNDERDRAIN
		WATER LINE
		OVERHEAD ELECTRIC
		UNDERGROUND ELECTRIC
		GAS LINE
		TELEPHONE LINE
		UTILITY LINE
		EDGE OF WATER LINE/DITCH FLOWLINE
		CHAIN LINK FENCE
		SILT FENCE
		CONTOUR
		GUARD RAIL
		TREE LINE
		FLOOD PLAIN
		FLOODWAY
		CONSTRUCTION LIMITS

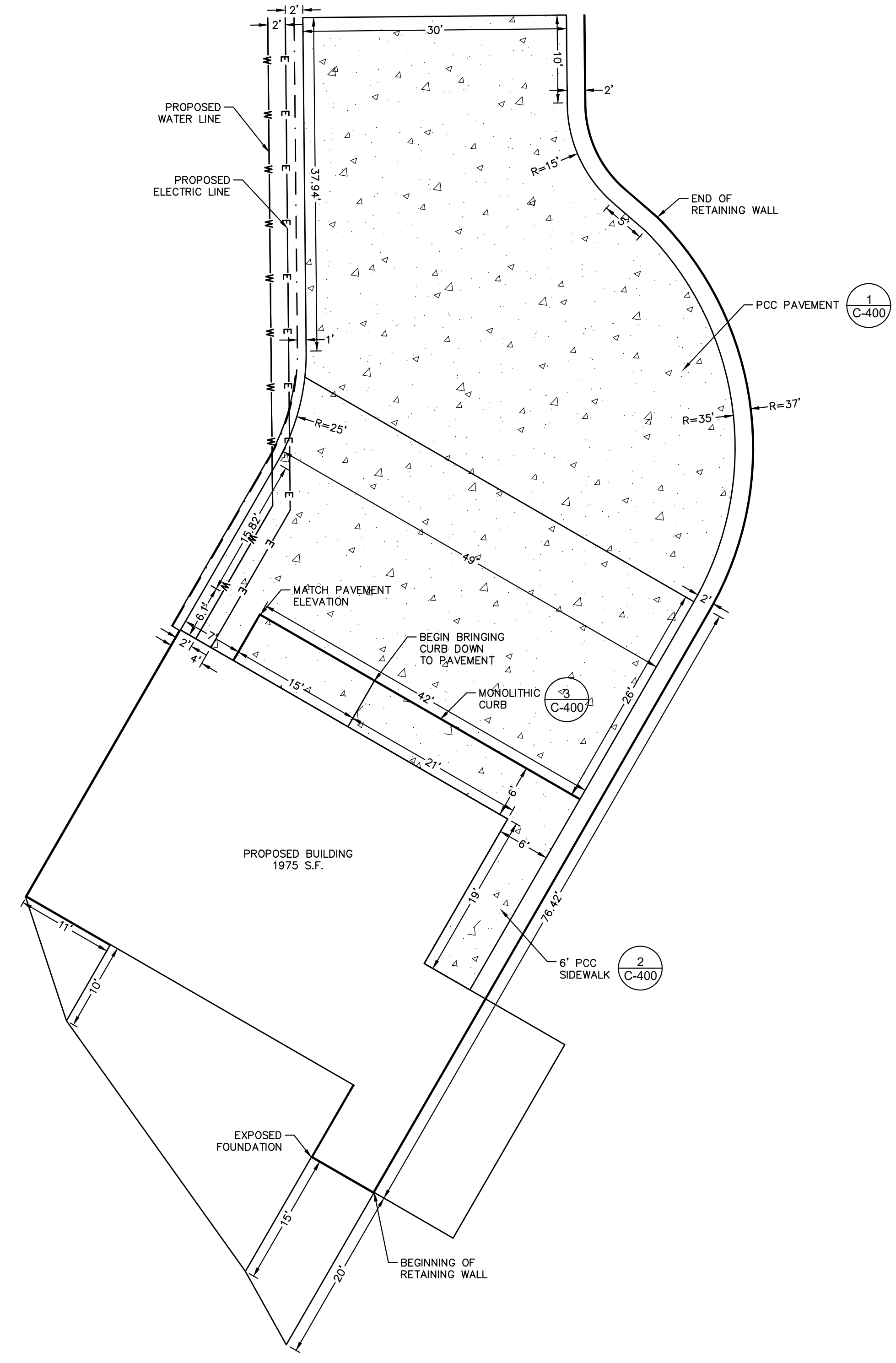
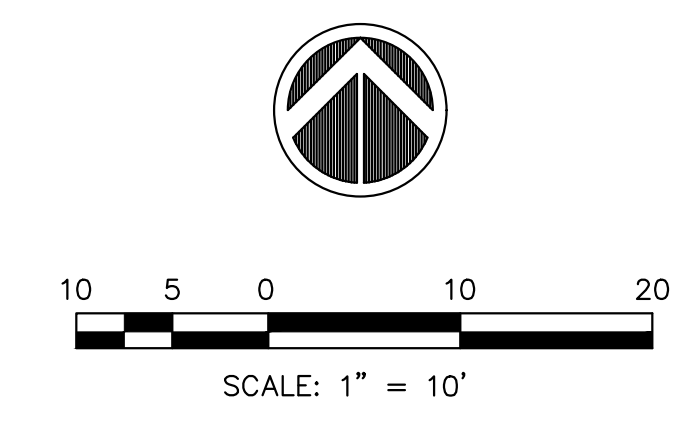
PROJECT:	CEE: 4850
DATE :	12/17/21
DRAWN BY:	NCO
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@iowa.edu

CULTURAL EDUCATION CENTER
EDUCATIONAL - NOT FOR CONSTRUCTION
12007 190th St.
Monticello, IA 52310

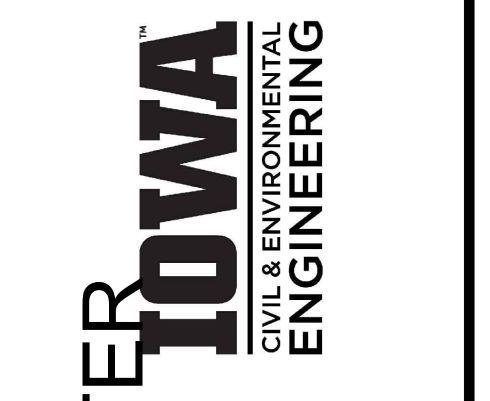
SHEET NAME
NOTES-DETAILS & LEGEND

SHEET NO.
C-100



PROJECT:	CEE: 4850
DATE :	12/17/21
DRAWN BY:	NCO
REVISION:	

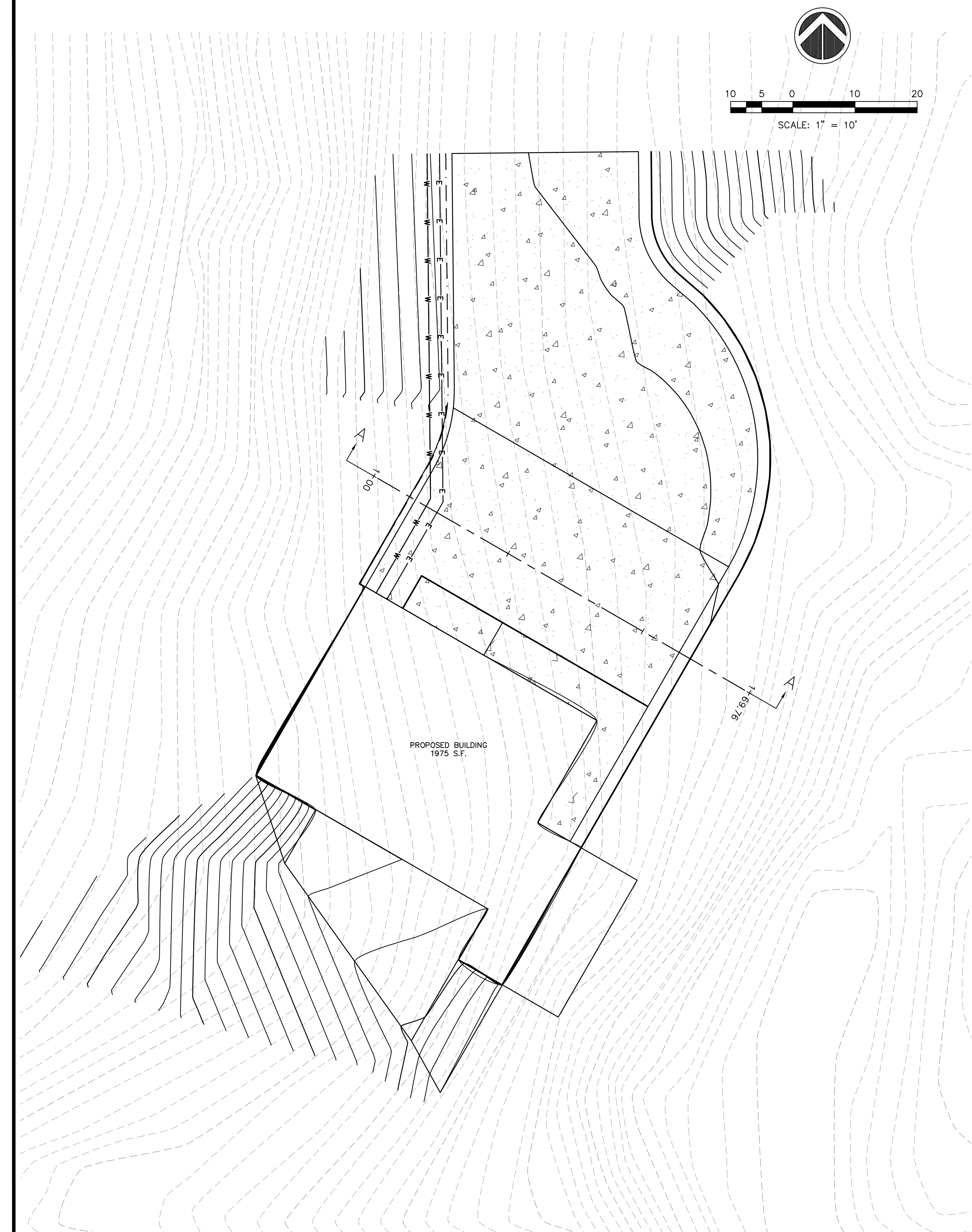
THE UNIVERSITY OF IOWA
 CIVIL AND ENVIRONMENTAL ENGINEERING
 4105 SEAMANS CENTER FOR THE
 ENGINEERING ARTS AND SCIENCES
 103 S CAPITOL ST
 IOWA CITY, IOWA 52242
 PHONE: 319.335.5647
 FAX: 319.335.5660
 EMAIL: civil-hawks@iowa.edu



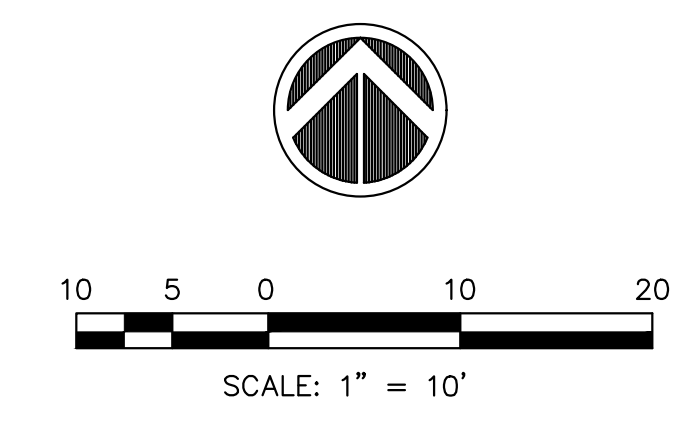
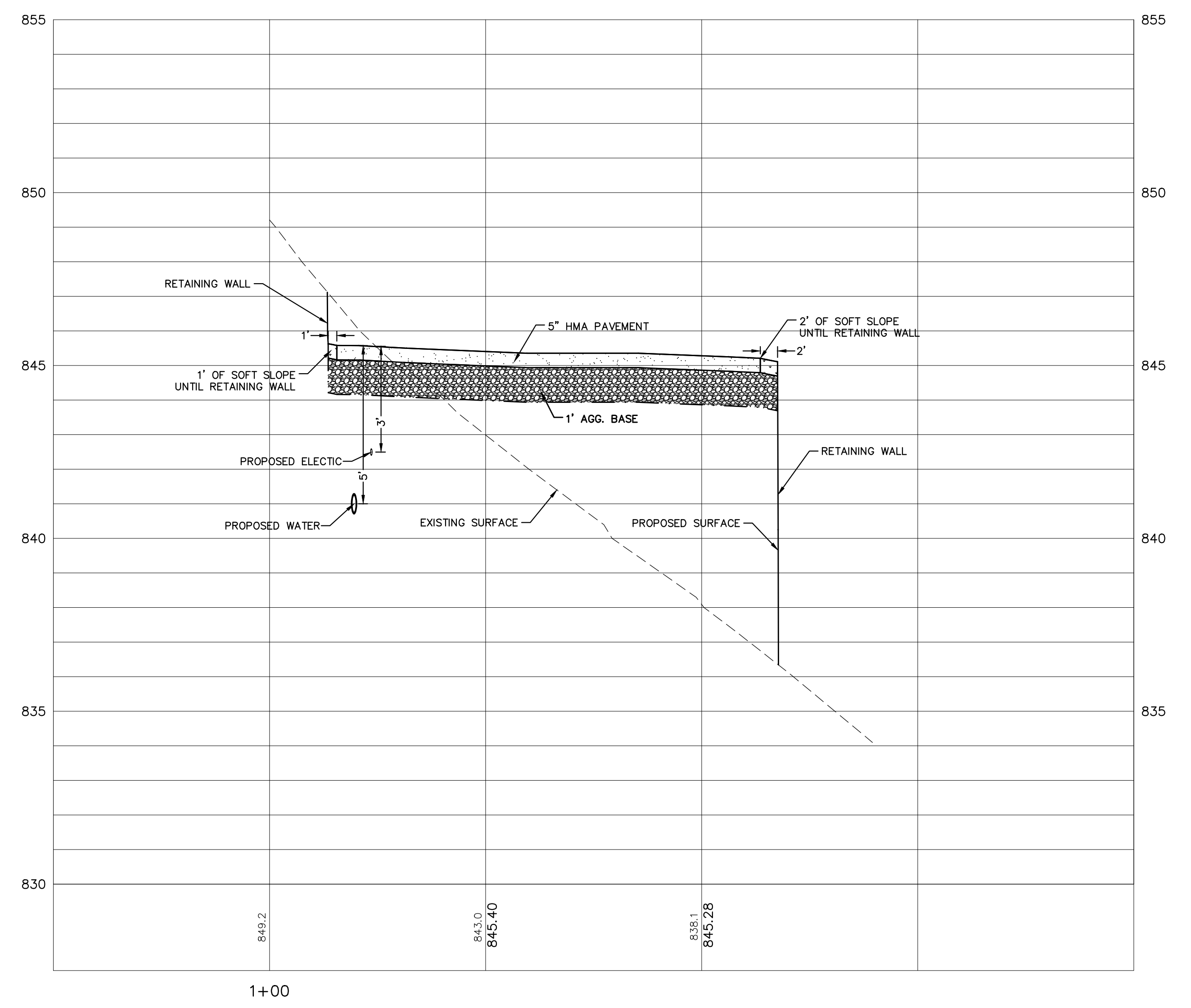
CULTURAL EDUCATION CENTER
 EDUCATIONAL - NOT FOR CONSTRUCTION
 12007 190th St.
 Monticello, IA 52310

SHEET NAME
 SITE LAYOUT

SHEET NO.
C-200



PROFILE VIEW OF TYPICAL SECTION A-A
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 2'



PROJECT:	CEE: 4850
DATE :	12/17/21
DRAWN BY:	NCO
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE
ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@iowa.edu



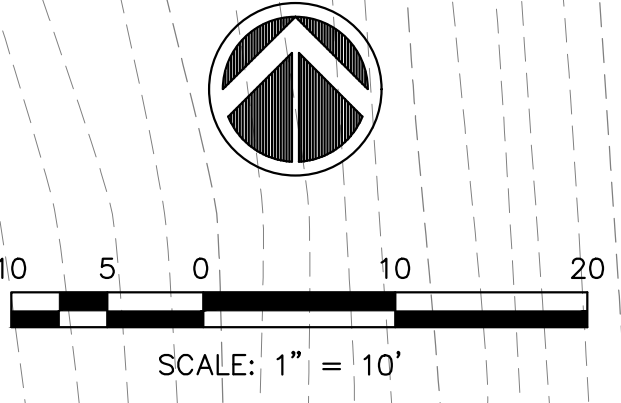
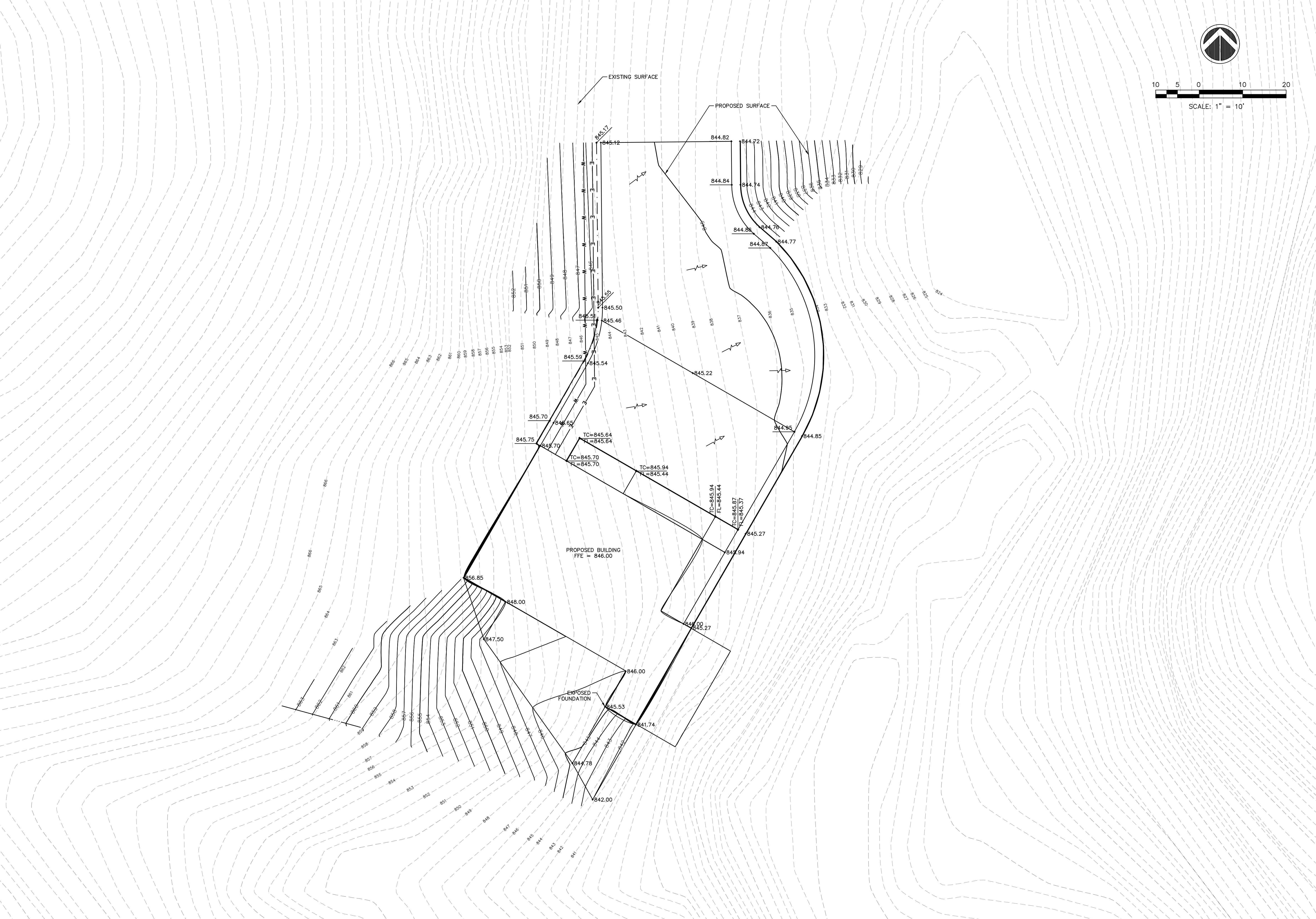
EDUCATIONAL - NOT FOR CONSTRUCTION

CULTURAL EDUCATION CENTER

12007 190th St.
Monticello, IA 52310

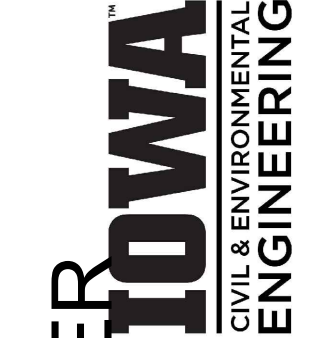
SHEET NAME
OVERALL SITE WITH SECTION

SHEET NO.
C-201



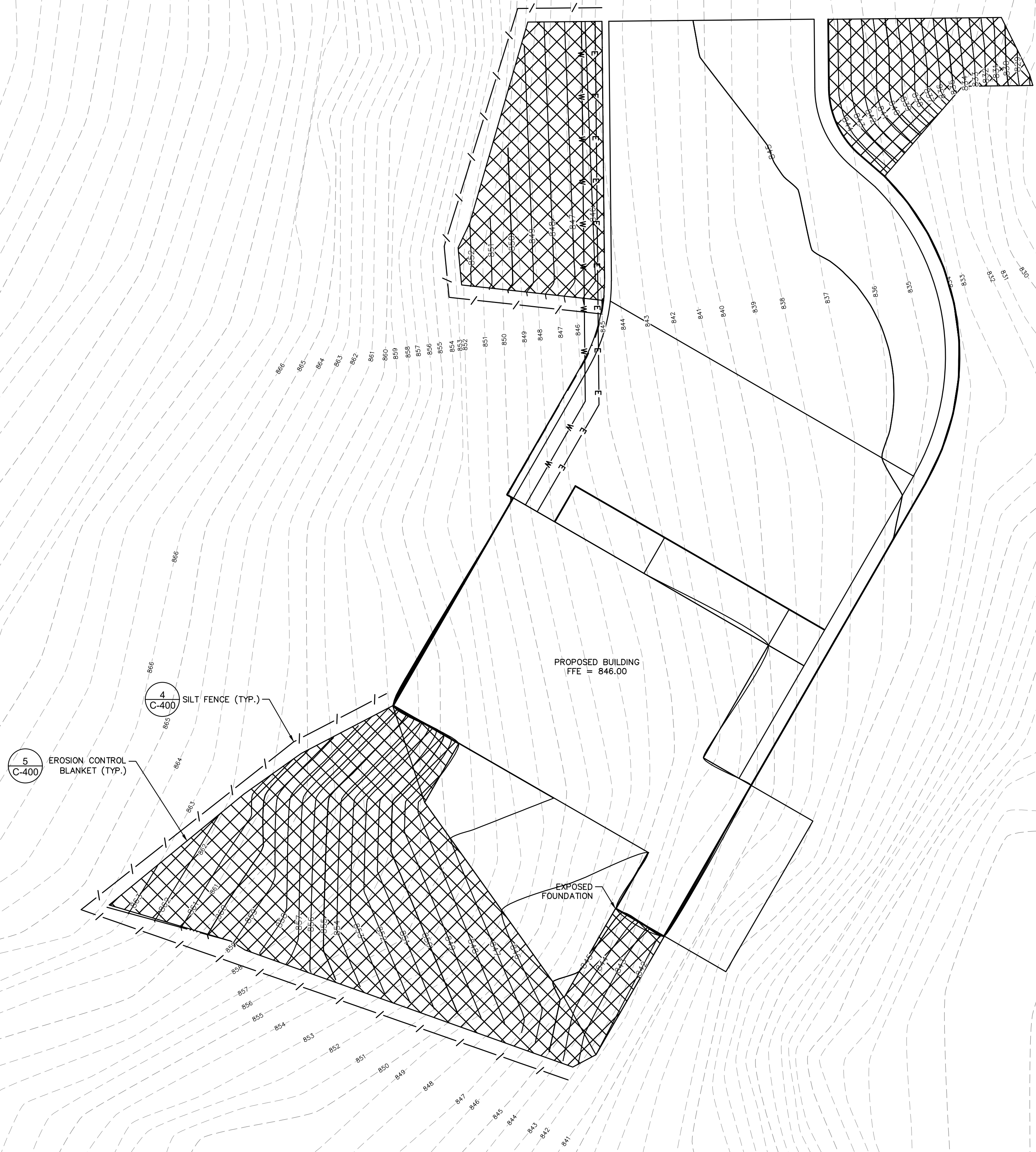
PROJECT:	CEE: 4850
DATE :	12/17/21
DRAWN BY:	NCO
REVISION:	

THE UNIVERSITY OF IOWA
 CIVIL AND ENVIRONMENTAL ENGINEERING
 4105 SEAMANS CENTER FOR THE
 ENGINEERING ARTS AND SCIENCES
 103 S CAPITOL ST
 IOWA CITY, IOWA 52242
 PHONE: 319.335.5647
 FAX: 319.335.5660
 EMAIL: civil-hawks@iowa.edu



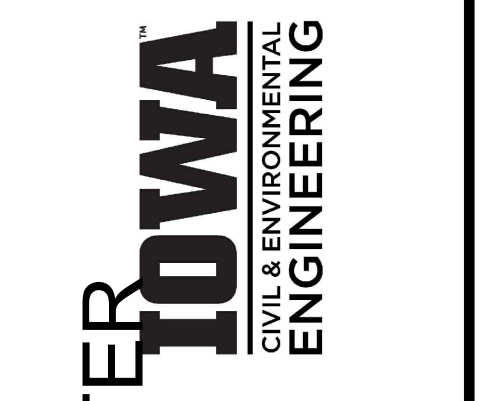
CULTURAL EDUCATION CENTER EDUCATIONAL - NOT FOR CONSTRUCTION	SHEET NAME GRADING PLAN
	SHEET NO. C-300

12007 190th St.
 Monticello, IA 52310



PROJECT:	CEE: 4850
DATE :	12/17/21
DRAWN BY:	NCO
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE
ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@iowa.edu

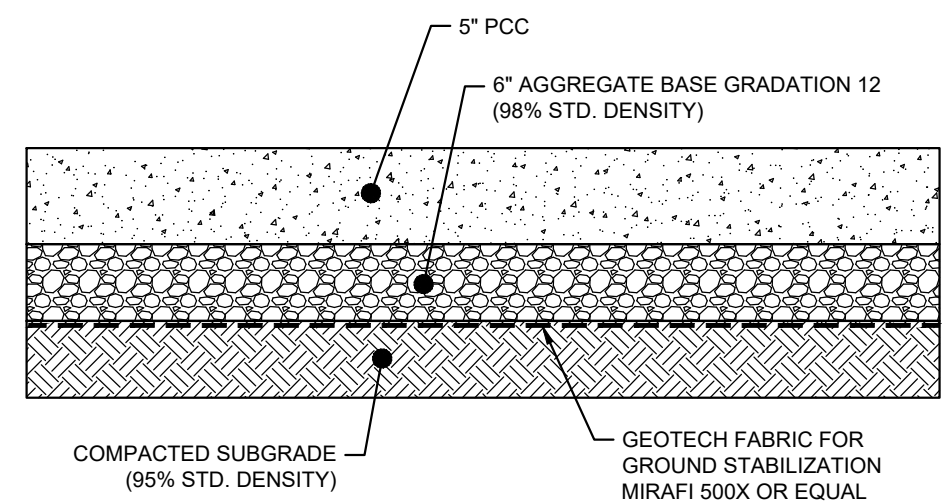


CULTURAL EDUCATION CENTER
EDUCATIONAL - NOT FOR CONSTRUCTION

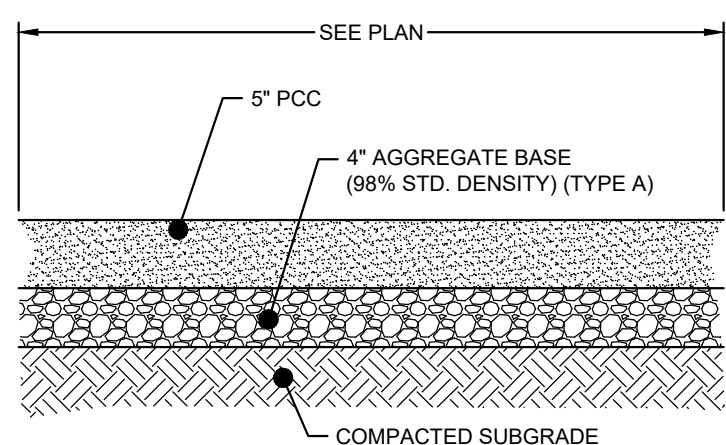
12007 190th St.
Monticello, IA 52310

SHEET NAME
EROSION CONTROL PLAN

SHEET NO.
C-301



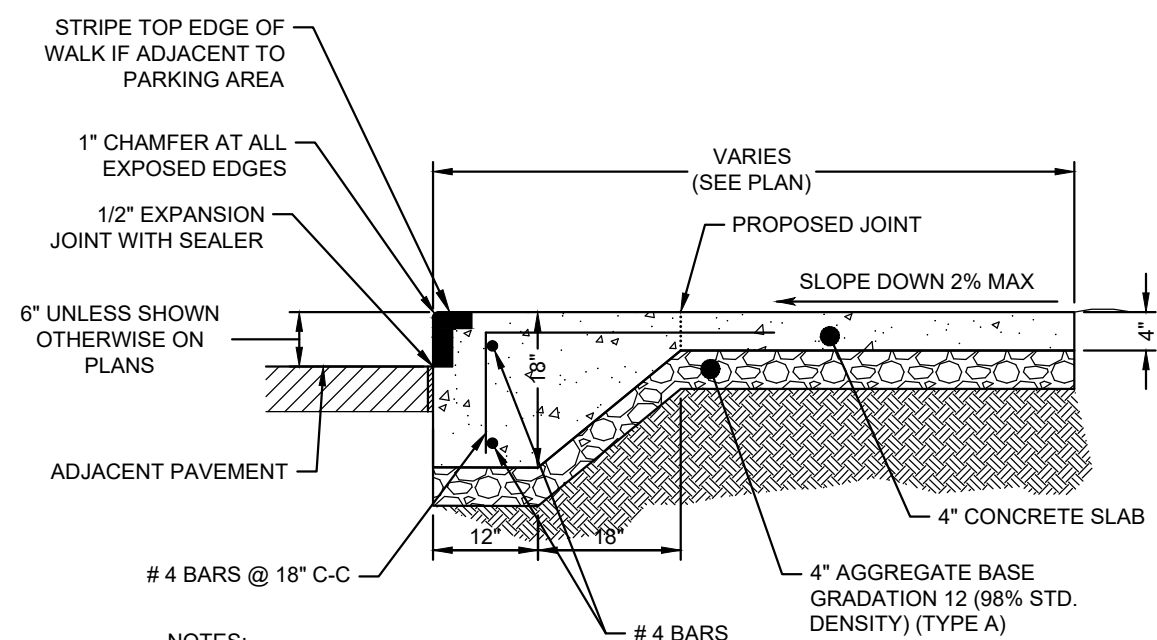
1 5" PCC PAVEMENT SECTION
C-400 N.T.S.



2 PCC SIDEWALK DETAIL
C-400 N.T.S.

NOTES:

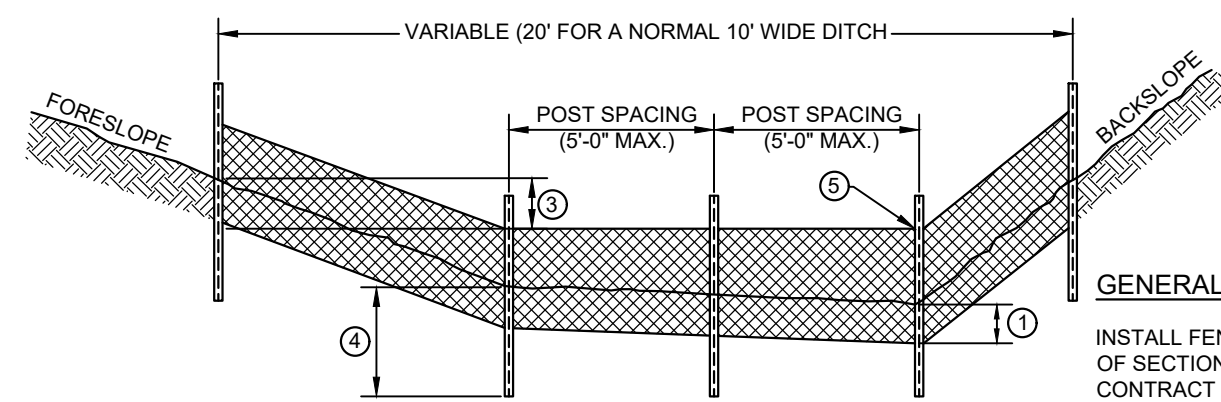
1. PROVIDE 3/8" WIDE x 1" DEEP TOOLED CONTRACTION JOINTS (TJ) AT 5' O.C. MAX.
2. TURN DOWN EDGE AT PAVEMENT AREA ONLY.
3. INSTALL 1/2" THICK EXPANSION JOINT AT 50' MAXIMUM SPACING AND AT DRIVEWAYS, BACK OF CURB, PROPERTY LINES, AND AT OTHER SIDEWALKS. EXPANSION JOINTS AT BACK OF CURB SHALL BE SEALED WITH APPROVED POURED JOINT SEALER.



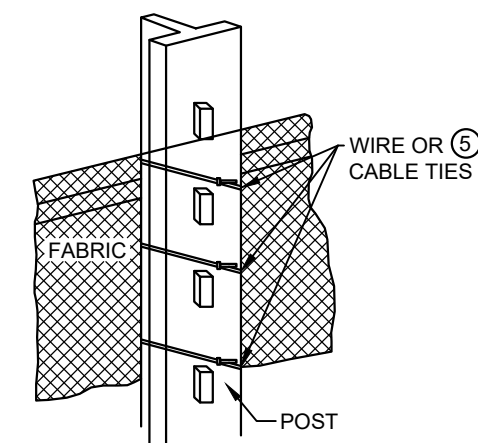
NOTES:

1. BROOM FINISH PER ARCHITECT.
2. TURN DOWN EDGE AT PAVEMENT AREA ONLY.
3. PROVIDE 3/8" WIDE BY 1" DEEP TOOLED CONTRACTION JOINTS @ 5' O.C. MAX.

3 MONOLITHIC PCC SIDEWALK
C-400 N.T.S.



TYPICAL SILT FENCE DITCH CHECK



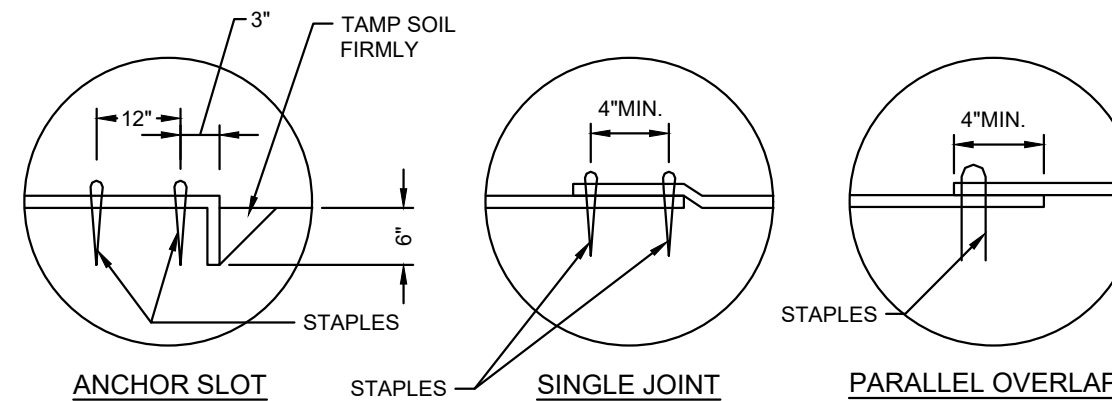
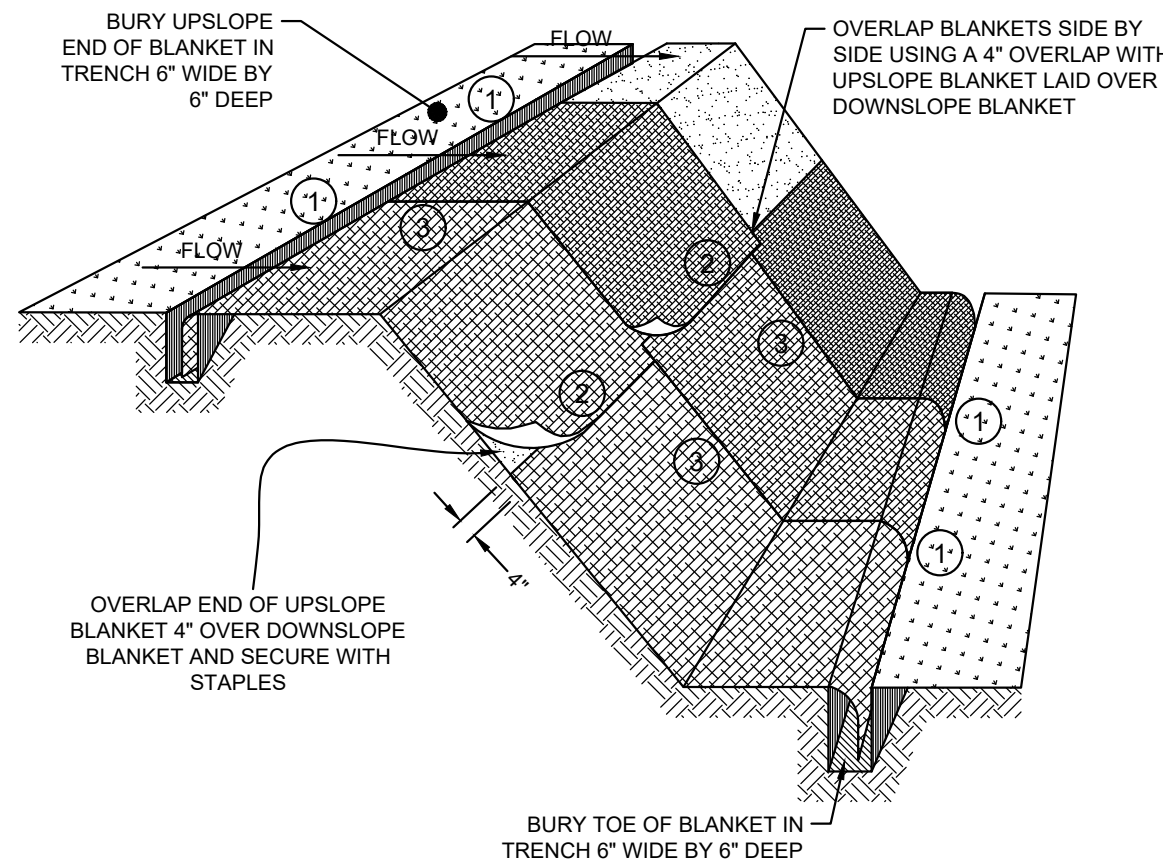
ATTACHMENT TO POST

4 SILT FENCE DITCH CHECK
C-400 N.T.S.

GENERAL NOTES:

INSTALL FENCE ACCORDING TO THE IA DOT REQUIREMENTS OF SECTION 9040, 3.07 AND AT LOCATIONS SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE JURISDICTIONAL ENGINEER

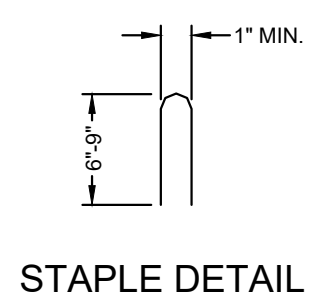
1. INSERT 12 INCH OF FABRIC A MINIMUM OF 6 INCH DEEP (FABRIC MAY BE FOLDED BELOW THE GROUND LINE)
2. COMPACT GROUND BY DRIVING ALONG EACH SIDE OF THE SILT FENCE AS REQUIRED TO SUFFICIENTLY SECURE THE FABRIC IN THE TRENCH TO PREVENT PULLOUT AND FLOW UNDER THE FENCE.
3. IN DITCHES, EXTEND SILT FENCE UP SIDE SLOPE SO THE BOTTOM ELEVATION AT THE END OF THE FENCE IS A MINIMUM OF 2 INCH HIGHER THAN THE TOP OF THE FENCE IN THE LOW POINT OF THE DITCH.
4. STEEL POSTS TO BE EMBEDDED 20 INCHES UNLESS OTHERWISE ALLOWED BY THE JURISDICTIONAL ENGINEER.
5. SECURE TOP OF ENGINEERING FABRIC TO STEEL POSTS USING WIRE OR PLASTIC TIES (50 LB. MIN.). SEE DETAILS OF "ATTACHMENT TO POSTS."



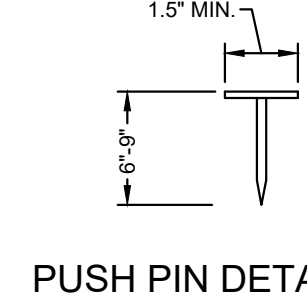
DETAIL 1

DETAIL 2

DETAIL 3



STAPLE DETAIL



PUSH PIN DETAIL

NOTES:

1. STAPLES SHALL BE PLACED IN A DIAMOND PATTERN AT 2 PER S.Y. FOR STICHED BLANKETS. NON-STICHED SHALL USE 4 STAPLES PER S.Y. OF MATERIAL. THIS EQUATES TO 200 STAPLES WITH STICHED BLANKET AND 400 STAPLES WITH NON-STICHED BLANKET PER 100 S.Y. OF MATERIAL.
2. STAPLE OR PUSH PIN LENGTHS SHALL BE SELECTED BASED ON SOIL TYPE AND CONDITIONS (MINIMUM STAPLE LENGTH IS 6").
3. EROSION CONTROL MATERIAL SHALL BE PLACED IN CONTACT WITH THE SOIL OVER A PREPARED SEEDBED.
4. ALL ANCHOR SLOTS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.
5. DETAIL DERIVED FROM THE ILLINOIS URBAN MANUAL (STANDARD DWG NO. IUM-530).

5 EROSION CONTROL BLANKET
C-400 N.T.S.

PROJECT:	CEE: 4850
DATE :	12/17/21
DRAWN BY:	NCO
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE
ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@iowa.edu

CULTURAL EDUCATION CENTER
EDUCATIONAL - NOT FOR CONSTRUCTION
IOWA CIVIL & ENVIRONMENTAL ENGINEERING
12007 190th St.
Monticello, IA 52310

SHEET NAME
CIVIL DETAILS

SHEET NO.
C-400

FASTENING SCHEDULE ¹		
(IBC TABLE - 2304.10.1/IRC TABLE - R602.3(1))		
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF ²		
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3 - 8d COMMON (0.131" x 2-1/2"); OR 3 - 10d BOX (0.128" x 3"); OR 3 - (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2 - 8d COMMON (0.131" x 2-1/2") 2 - (0.131" x 3") NAILS 2 - (14 GA. x 3") STAPLES 2 - 16d COMMON (0.162" x 3-1/2") 3 - (0.131" x 3") NAILS 3 - (14 GA. x 3") STAPLES	EACH END, TOENAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (0.162" x 3-1/2") @ 6" O.C. (0.131" x 3") NAILS @ 6" O.C. (14 GA. x 3") STAPLES @ 6" O.C.	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	3 - 8d COMMON (0.131" x 2-1/2"); OR 3 - 10d BOX (0.128" x 3"); OR 3 - (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST)	3 - 16d COMMON (0.162" x 3-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	PER TABLE 2308.7.3.1 OR R802.5.2	FACE NAIL
5. COLLAR TIE TO RAFTER	3 - 10d COMMON (0.148" x 3"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE	3 - 10d COMMON (0.148" x 3"); OR 3 - 16d BOX (0.135" x 3-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	TOENAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	2 - 16d COMMON (0.162" x 3-1/2"); OR 3 - 10d BOX (0.128" x 3"); OR 3 - (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	END NAIL
	3 - 10d COMMON (0.148" x 3"); OR 4 - 16d BOX (0.135" x 3-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	TOENAIL
WALL		
8. STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (0.162" x 3-1/2")	24" O.C. FACE NAIL
	10d BOX (0.128" x 3"); OR (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (0.162" x 3-1/2"); OR	16" O.C. FACE NAIL
	16d BOX (0.135" x 3-1/2"); OR (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	12" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (0.162" x 3-1/2"); OR	16" O.C. EA. EDGE, FACE NAIL
	16d BOX (0.135" x 3-1/2"); OR	12" O.C. EA. EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4 - 8d COMMON (0.131" x 2-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (0.162" x 3-1/2"); OR	16" O.C. FACE NAIL
	10d BOX (0.128" x 3"); OR (0.131" x 3") NAILS; OR (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	12" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8 - 16d COMMON (0.162" x 3-1/2"); OR 12 - 10d BOX (0.128" x 3"); OR 12 - (0.131" x 3") NAILS; OR 12 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	EA. SIDE OF END JOINT, FACE NAIL (MIN. 24" LAP SPlice LENGTH EA. SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (0.162" x 3-1/2"); OR	16" O.C. FACE NAIL
	16d BOX (0.135" x 3-1/2"); OR (0.131" x 3") NAILS; OR (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	12" O.C. FACE NAIL

15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	2 - 16d COMMON (0.162" x 3-1/2"); OR 3 - 16d BOX (0.135" x 3-1/2"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	4 - 8d COMMON (0.131" x 2-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	TOENAIL
	2 - 16d COMMON (0.162" x 3-1/2"); OR 3 - 10d BOX (0.128" x 3"); OR 3 - (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	END NAIL
17. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS.	2 - 16d COMMON (0.162" x 3-1/2"); OR 3 - 10d BOX (0.128" x 3"); OR 3 - (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	FACE NAIL
18. 1" BRACE TO EA. STUD AND PLATE	2 - 8d COMMON (0.131" x 2-1/2"); OR 2 - 10d BOX (0.128" x 3"); OR 2 - (0.131" x 3") NAILS; OR 2 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	FACE NAIL
19. 1" x 6" SHEATHING TO EA. BEARING	2 - 8d COMMON (0.131" x 2-1/2"); OR 2 - 10d BOX (0.128" x 3")	FACE NAIL
20. 1" x 8" AND WIDER SHEATHING TO EA. BEARING	3 - 8d COMMON (0.131" x 2-1/2"); OR 3 - 10d BOX (0.128" x 3")	FACE NAIL
FLOOR ²		
21. JOIST TO SILL, TOP PLATE, OR GIRDER	3 - 8d COMMON (0.131" x 2-1/2"); OR 3 - 10d BOX (0.128" x 3"); OR 3 - (0.131" x 3") NAILS; OR 3 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	TOENAIL
22. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON (0.131" x 2-1/2"); OR 10d BOX (0.128" x 3"); OR (0.131" x 3") NAILS; OR (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	6" O.C. TOENAIL
23. 1" x 6" SUBFLOOR OR LESS TO EA. JOIST	2 - 8d COMMON (0.131" x 2-1/2"); OR 2 - 10d BOX (0.128" x 3")	FACE NAIL
24. 2" SUBFLOOR TO JOIST OR GIRDER	2 - 16d COMMON (0.162" x 3-1/2"); OR	FACE NAIL
25. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	2 - 16d COMMON (0.162" x 3-1/2"); OR	EACH BEARING, FACE NAIL
26. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER PLIES/LAYERS	20d COMMON (0.192" x 4")	32" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	10d BOX (0.128" x 3"); OR (0.131" x 3") NAILS; OR (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	AND: 2-20d COMMON (0.192" x 4"); OR 3-10d BOX (0.128" x 3"); OR 3-(0.131" x 3") NAILS; OR 3-(14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	ENDS AND AT EA. SPLICE, FACE NAIL
27. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3 - 16d COMMON (0.162" x 3-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	EA. JOIST OR RAFTER, FACE NAIL
28. JOIST TO BAND JOIST OR RIM JOIST	3 - 16d COMMON (0.162" x 3-1/2"); OR 4 - 10d BOX (0.128" x 3"); OR 4 - (0.131" x 3") NAILS; OR 4 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	END NAIL
29. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2 - 8d COMMON (0.131" x 2-1/2"); OR 2 - 10d BOX (0.128" x 3"); OR 2 - (0.131" x 3") NAILS; OR 2 - (14 GA. x 3") STAPLES, $\frac{7}{16}$ " CROWN	EACH END, TOENAIL
WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF & INTERIOR WALL SHEATHING TO FRAMING ³		
30. 3/8" - 1/2"	8d COMMON OR DEFORMED (0.131"x2-1/2")	6" O.C. EDGE 12" O.C. FIELD
31. 19/32" - 3/4"	8d COMMON (0.131"x2-1/2")	6" O.C. EDGE 12" O.C. FIELD
PANEL SIDING TO FRAMING		
32. 1/2" OR LESS	6d CORROSION-RESISTANT SIDING (0.106"x1-7/8") NAILS; OR 6d CORROSION-RESISTANT CASING (0.099"x2") NAILS	6" O.C. EDGE 12" O.C. FIELD
33. 5/8"	8d CORROSION-RESISTANT SIDING (0.128"x2-3/8") NAILS; OR 8d CORROSION-RESISTANT CASING (0.113"x2-1/2") NAILS	6" O.C. EDGE 12" O.C. FIELD

- NOTE:
- USE THE ABOVE FASTENING SCHEDULE UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
 - STRUCTURAL COMPOSITE LUMBER (SCL) WHICH INCLUDES LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL) LAMINATED STRAND LUMBER (LSL) AND ORIENTED STRAND LUMBER (OSL), SHALL BE FASTENED PER MFR. REQUIREMENTS.
 - RE: DIAPHRAGM SCHEDULE FOR FLOOR AND ROOF SHEATHING FASTENING REQUIREMENTS.

REBAR SCHEDULE									
DEVELOPMENT LENGTHS - Ld									
F'c = 3000 PSI					F'c = 4000 PSI				
BAR SIZE	STD. Ld		CLASS B		BAR SIZE	STD. Ld		CLASS B	
	TYP.	TOP	TYP.	TOP		TYP.	TOP	TYP.	TOP
#4	15"	19"	20"	25"	#4	13"	17"	17"	23"
#5	28"	36"	37"	47"	#5	24"	31"	32"	41"
#6	33"	43"	43"	56"	#6	29"	37"	38"	49"
#7	48"	63"	63"	82"	#7	42"	54"	55"	71"
#8	55"	72"	72"	94"	#8	48"	62"	63"	81"
#9	62"	81"	81"	106"	#9	54"	70"	71"	91"
#10	69"	90"	90"	117"	#10	60"	78"	78"	102"
#11	76"	98"	98"	128"	#11	66"	85"	86"	111"
STANDARD HOOKS									
F'c=3000 PSI					F'c=4000 PSI				
BAR SIZE	Ldh	HOOK DIMENSIONS			BAR SIZE	Ldh	HOOK DIMENSIONS		
		"A"	"B"	"C"			"A"	"B"	"C"
#4	6"	2-1/2"	6"	2"	#4	6"	2-1/2"	6"	2"
#5	10"	2-1/2"	7-1/2"	2-1/2"	#5	9"	2-1/2"	7-1/2"	2-1/2"
#6	12"	3"	9"	3"	#6	10"	3"	9"	3"
#7	14"	3-1/2"	10-1/2"	3-1/2"	#7	12"	3-1/2"	10-1/2"	3-1/2"
#8	16"	4"	12"	4"	#8	14"	4"	12"	4"
#9	18"	4-1/2"	13-1/2"	5-5/8"	#9	15"	4-1/2"	13-1/2"	5-5/8"
#10	20"	5"	15"	6-1/4"	#10	17"	5"	15"	6-1/4"
#11	22"	5-1/2"	16-1/2"	6-7/8"	#11	19"	5-1/2"	16-1/2"	6-7/8"
180 DEGREE HOOK					90 DEGREE HOOK				
USE THE ABOVE TABLE UNLESS NOTED OTHERWISE ON PLANS OR DETAILS									

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING

4105 SEAMANS CENTER FOR THE ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu

IOWA
CIVIL & ENVIRONMENTAL ENGINEERING

EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Couragous
12007 190th St., Monticello, IA 52310

SHEET NAME
Tables & Schedules

SHEET NO.
S1.1

Material Takeoff						
Category	Family and Type	Material: Name	Material: Area	Material: Volume	Material: Unit weight	Count
Floors	Floor: 5" Concrete	Concrete, Cast-in-Place gray	4320 SF	1799.92 CF	150.28 lb/ft³	1
Walls	Basic Wall: Retaining - 12" Concrete	Concrete, Cast-in-Place gray	811 SF	810.66 CF	150.28 lb/ft³	1
Floors	Floor: 5" Concrete	Concrete, Cast-in-Place gray	1799 SF	749.64 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 90" x 12"	Concrete, Cast-in-Place gray	1382 SF	603.00 CF	150.28 lb/ft³	1
Walls	Basic Wall: Retaining - 12" Concrete	Concrete, Cast-in-Place gray	475 SF	468.32 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 90" x 12"	Concrete, Cast-in-Place gray	805 SF	348.31 CF	150.28 lb/ft³	1
Floors	Floor: 5" Concrete	Concrete, Cast-in-Place gray	379 SF	157.73 CF	150.28 lb/ft³	1
Walls	Basic Wall: Retaining - 12" Concrete	Concrete, Cast-in-Place gray	125 SF	119.84 CF	150.28 lb/ft³	1
Floors	Floor: 5" Concrete	Concrete, Cast-in-Place gray	273 SF	113.75 CF	150.28 lb/ft³	1
Walls	Basic Wall: Exterior - 8" Concrete	Concrete, Cast-in-Place gray	170 SF	113.54 CF	150.28 lb/ft³	1
Walls	Basic Wall: Exterior - 8" Concrete	Concrete, Cast-in-Place gray	147 SF	97.88 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 36" x 12"	Concrete, Cast-in-Place gray	352 SF	94.99 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 90" x 12"	Concrete, Cast-in-Place gray	218 SF	89.49 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 36" x 12"	Concrete, Cast-in-Place gray	312 SF	83.90 CF	150.28 lb/ft³	1
Walls	Basic Wall: Retaining - 12" Concrete	Concrete, Cast-in-Place gray	81 SF	80.99 CF	150.28 lb/ft³	1
Walls	Basic Wall: Exterior - 8" Concrete	Concrete, Cast-in-Place gray	117 SF	77.97 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 36" x 12"	Concrete, Cast-in-Place gray	244 SF	65.50 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 90" x 12"	Concrete, Cast-in-Place gray	151 SF	60.16 CF	150.28 lb/ft³	1
Floors	Floor: 5" Concrete	Concrete, Cast-in-Place gray	86 SF	35.76 CF	150.28 lb/ft³	1
Walls	Basic Wall: Exterior - 8" Concrete	Concrete, Cast-in-Place gray	35 SF	23.33 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 36" x 12"	Concrete, Cast-in-Place gray	77 SF	20.00 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 36" x 12"	Concrete, Cast-in-Place gray	69 SF	17.54 CF	150.28 lb/ft³	1
Walls	Basic Wall: Exterior - 8" Concrete	Concrete, Cast-in-Place gray	23 SF	15.66 CF	150.28 lb/ft³	1
Structural Foundations	Wall Foundation: Bearing Footing - 36" x 12"	Concrete, Cast-in-Place gray	37 SF	8.00 CF	150.28 lb/ft³	2
Walls	Basic Wall: Exterior - 8" Concrete	Concrete, Cast-in-Place gray	5 SF	3.11 CF	150.28 lb/ft³	2
Concrete, Cast-in-Place gray			12492 SF	6058.99 CF		27
Floors	Floor: 1.5B-36, Grade 50, 1.5" Roof Metal Deck	Metal Deck	1332 SF	166.55 CF	490.06 lb/ft³	1
Floors	Floor: 1.5B-36, Grade 50, 1.5" Roof Metal Deck	Metal Deck	452 SF	56.46 CF	490.06 lb/ft³	1
Metal Deck			1784 SF	223.01 CF		2
Structural Columns	HSS-Hollow Structural Section-Column: HSS6X6X5/8	Steel ASTM A500, Grade B, Rectangular and Square	68 SF	1.64 CF	490.00 lb/ft³	2
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	88 SF	0.85 CF	490.00 lb/ft³	2
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	44 SF	0.42 CF	490.00 lb/ft³	1
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	42 SF	0.41 CF	490.00 lb/ft³	1
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	83 SF	0.80 CF	490.00 lb/ft³	2
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	39 SF	0.38 CF	490.00 lb/ft³	1

Material Takeoff						
Category	Family and Type	Material: Name	Material: Area	Material: Volume	Material: Unit weight	Count
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	76 SF	0.73 CF	490.00 lb/ft³	2
Structural Columns	HSS-Hollow Structural Section-Column: HSS4X4X1/4	Steel ASTM A500, Grade B, Rectangular and Square	38 SF	0.36 CF	490.00 lb/ft³	1
Structural Columns	HSS-Hollow Structural Section-Column: HSS3X3X3/8	Steel ASTM A500, Grade B, Rectangular and Square	37 SF	0.53 CF	490.00 lb/ft³	2
Structural Columns	HSS-Hollow Structural Section-Column: HSS3X3X3/8	Steel ASTM A500, Grade B, Rectangular and Square	34 SF	0.50 CF	490.00 lb/ft³	2
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	263 SF	0.78 CF	490.00 lb/ft³	9
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	442 SF	1.30 CF	490.00 lb/ft³	16
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	450 SF	1.33 CF	490.00 lb/ft³	18
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	205 SF	0.61 CF	490.00 lb/ft³	11
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	659 SF	1.94 CF	490.00 lb/ft³	37
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	40 SF	0.12 CF	490.00 lb/ft³	3
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	45 SF	0.13 CF	490.00 lb/ft³	5
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	188 SF	0.55 CF	490.00 lb/ft³	30
Structural Columns	ClarkDietrich-SFIA-S-Column: 600S162-68(50)	Steel ASTM A500, Grade B, Rectangular and Square	32 SF	0.09 CF	490.00 lb/ft³	22
Steel ASTM A500, Grade B, Rectangular and Square			2873 SF	13.49 CF		167
Structural Framing	W Shapes: W12X26	Steel ASTM A992	203 SF	2.61 CF	490.00 lb/ft³	2
Structural Framing	W Shapes: W12X26	Steel ASTM A992	100 SF	1.29 CF	490.00 lb/ft³	1
Structural Framing	W Shapes: W12X26	Steel ASTM A992	97 SF	1.25 CF	490.00 lb/ft³	1
Structural Framing	W Shapes: W12X26	Steel ASTM A992	187 SF	2.41 CF	490.00 lb/ft³	2
Structural Framing	W Shapes: W12X26	Steel ASTM A992	146 SF	1.88 CF	490.00 lb/ft³	2
Structural Framing	W Shapes: W12X26	Steel ASTM A992	140 SF	1.80 CF	490.00 lb/ft³	2
Structural Framing	W Shapes: W12X26	Steel ASTM A992	40 SF	0.52 CF	490.00 lb/ft³	1
Structural Framing	W Shapes: W12X26	Steel ASTM A992	24 SF	0.31 CF	490.00 lb/ft³	1
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	74 SF	0.22 CF	490.00 lb/ft³	2
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	133 SF	0.39 CF	490.00 lb/ft³	4
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	63 SF	0.19 CF	490.00 lb/ft³	2
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	283 SF	0.83 CF	490.00 lb/ft³	12
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	64 SF	0.19 CF	490.00 lb/ft³	4
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	41 SF	0.12 CF	490.00 lb/ft³	3
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	160 SF	0.47 CF	490.00 lb/ft³	15
Structural Framing	ClarkDietrich-SFIA-T-Horizontal: 600T125-68(50)	Steel ASTM A992	13 SF	0.04 CF	490.00 lb/ft³	2
Steel ASTM A992			1768 SF	14.51 CF		56

PROJECT: CEE-4850
DATE: 12/07/2021
DRAWN BY: UIS Engineering, Inc.
REVISION:

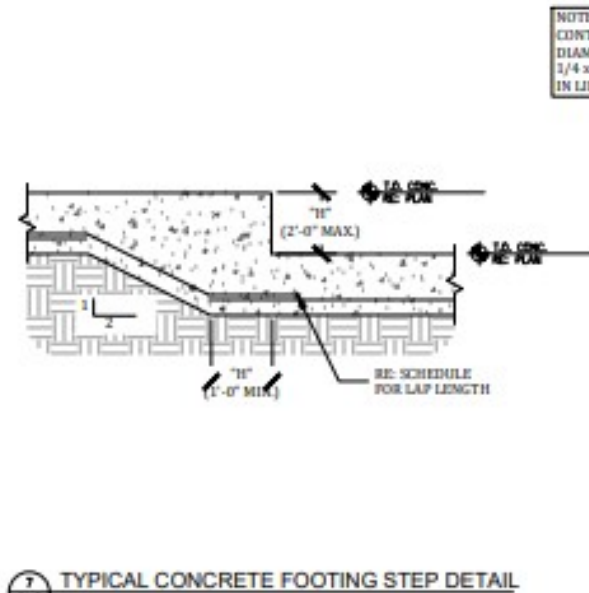
THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMAN'S CENTER FOR THE ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu



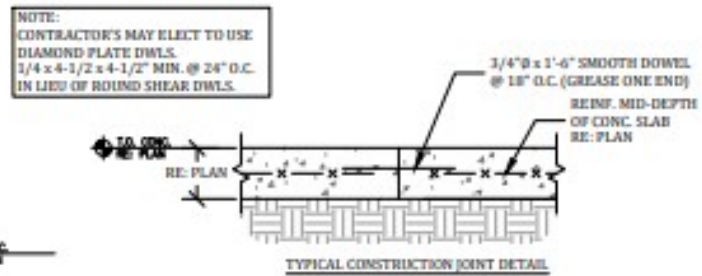
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center
Campe Courageous
12007 190th St., Monticello, IA 52310

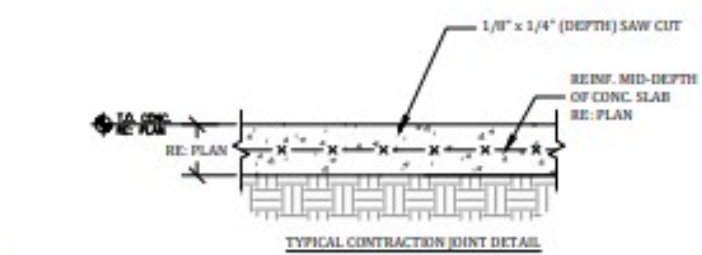
SHEET NAME
Tables & Schedules
SHEET NO.
S1.2



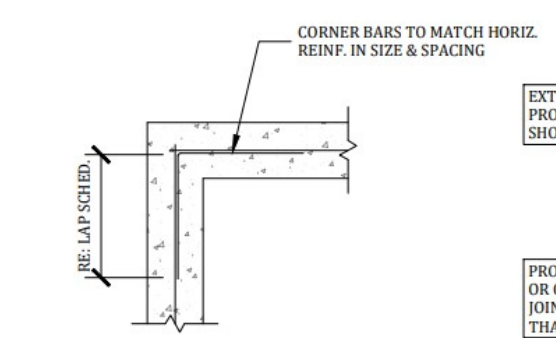
7 TYPICAL CONCRETE FOOTING STEP DETAIL
S1.3 N.T.S.



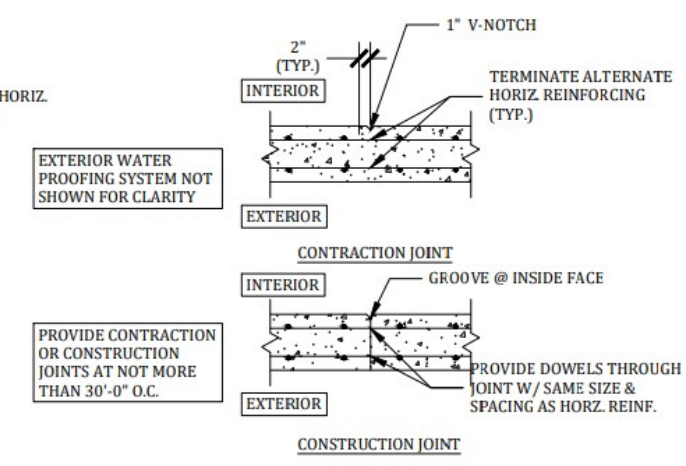
8 TYPICAL CONCRETE SLAB JOINT DETAILS
S1.3 N.T.S.



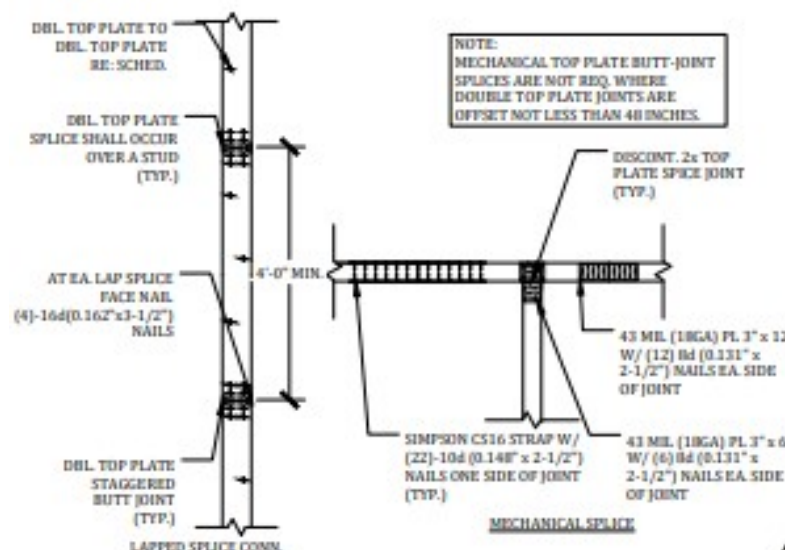
9 TYPICAL CONCRETE SLAB JOINT DETAILS
S1.3 N.T.S.



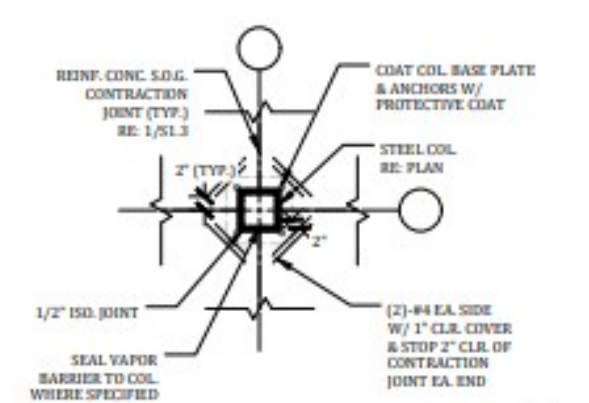
3 TYPICAL CONCRETE CORNER DETAIL
S1.3 N.T.S.



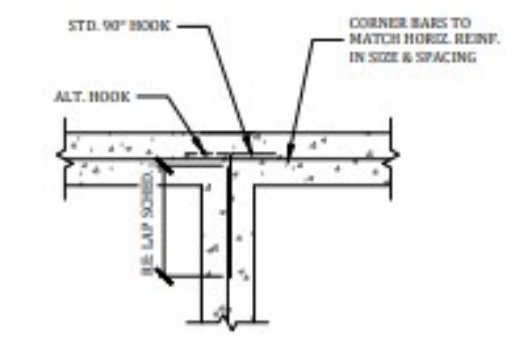
1 TYPICAL CONCRETE WALL JOINT DETAIL
S1.3 N.T.S.



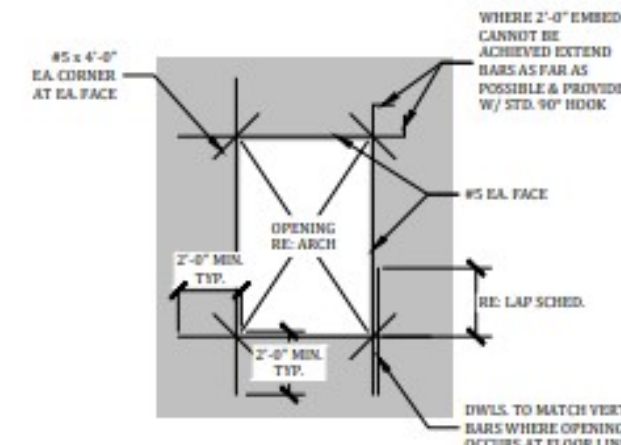
8 TYP. TOP PLATE SPLICE CONN.
S1.3 N.T.S.



4 TYPICAL COLUMN ISO. JOINT
S1.3 N.T.S.



4 TYPICAL CONCRETE TEE DETAIL
S1.3 N.T.S.



2 TYPICAL CONCRETE WALL OPENING
S1.3 N.T.S.

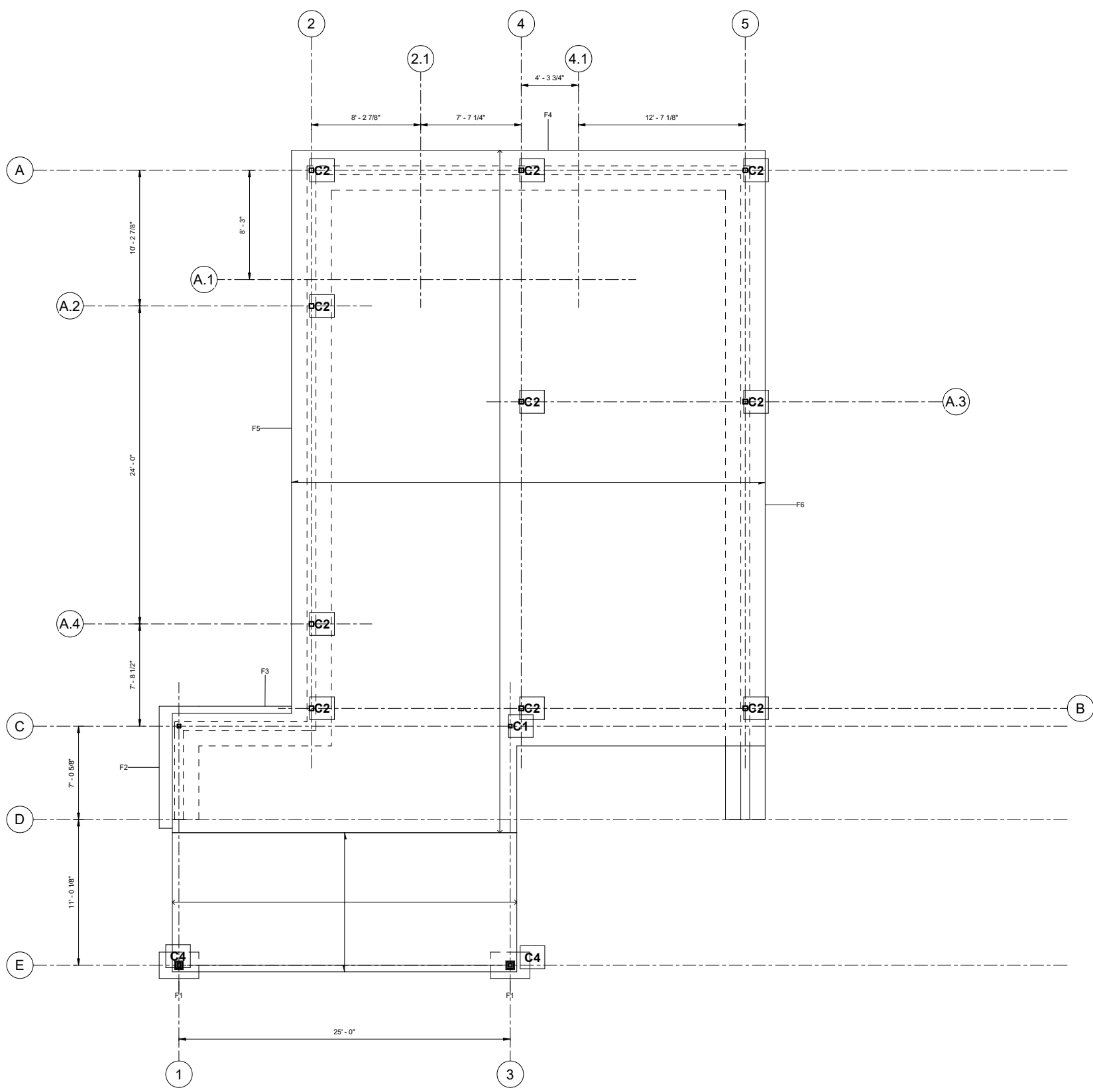
PROJECT:	CEE-4850
DATE:	12/07/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
 4105 SEAMANS CENTER FOR THE ENGINEERING ARTS AND SCIENCES
 103 S CAPITOL ST
 IOWA CITY, IOWA 52242
 PHONE: 319.335.5647
 FAX: 319.335.5660
 EMAIL: civil-hawks@uiowa.edu

EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center
 Campe Courageous
 12007 190th St., Monticello, IA 52310

SHEET NAME
 Typical Details
 SHEET NO.
 S1.3



1 Slab on Grade
1/4" = 1'-0"

Wall Footing Schedule				
Mark	Width	Length	Volume	Type
F1	3' - 0"	2' - 0"	4.00 CF	Bearing Footing - 36" x 12"
F2	3' - 0"	8' - 0 5/8"	17.54 CF	Bearing Footing - 36" x 12"
F3	3' - 0"	11' - 4"	20.00 CF	Bearing Footing - 36" x 12"
F4	3' - 0"	34' - 9"	65.50 CF	Bearing Footing - 36" x 12"
F5	3' - 0"	43' - 3 3/8"	83.90 CF	Bearing Footing - 36" x 12"
F6	3' - 0"	50' - 0"	94.99 CF	Bearing Footing - 36" x 12"
F7	7' - 6"	8' - 0 5/8"	60.16 CF	Bearing Footing - 90" x 12"
F8	7' - 6"	11' - 11 1/4"	89.49 CF	Bearing Footing - 90" x 12"
F9	7' - 6"	46' - 5 5/8"	348.31 CF	Bearing Footing - 90" x 12"
F10	7' - 6"	80' - 5"	603.00 CF	Bearing Footing - 90" x 12"

Structural Column Schedule	
Mark	Type
C1	HSS3X3X3/8
C2	HSS4X4X1/4
C3	600S162-68(50)
C4	HSS6X6X5/8

Wall Foundation Schedule				
Mark	Type	Width	Length	Volume
W1	Exterior - 8" Concrete	0' - 8"	0' - 8"	1.56 CF
W2	Exterior - 8" Concrete	0' - 8"	7' - 6 5/8"	15.66 CF
W3	Exterior - 8" Concrete	0' - 8"	32' - 9"	77.97 CF
W4	Exterior - 8" Concrete	0' - 8"	49' - 6"	113.54 CF
W5	Exterior - 8" Concrete	0' - 8"	10' - 0"	23.33 CF
W6	Exterior - 8" Concrete	0' - 8"	41' - 11 3/8"	97.88 CF
W7	Retaining - 12" Concrete	1' - 0"	8' - 0 3/8"	80.99 CF
W8	Retaining - 12" Concrete	1' - 0"	11' - 11"	119.84 CF
W9	Retaining - 12" Concrete	1' - 0"	46' - 5 3/8"	468.32 CF
W10	Retaining - 12" Concrete	1' - 0"	80' - 4 3/4"	810.66 CF



PROJECT: CEE-4850
DATE: 12/07/2021
DRAWN BY: UIS Engineering, Inc.
REVISION:

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu



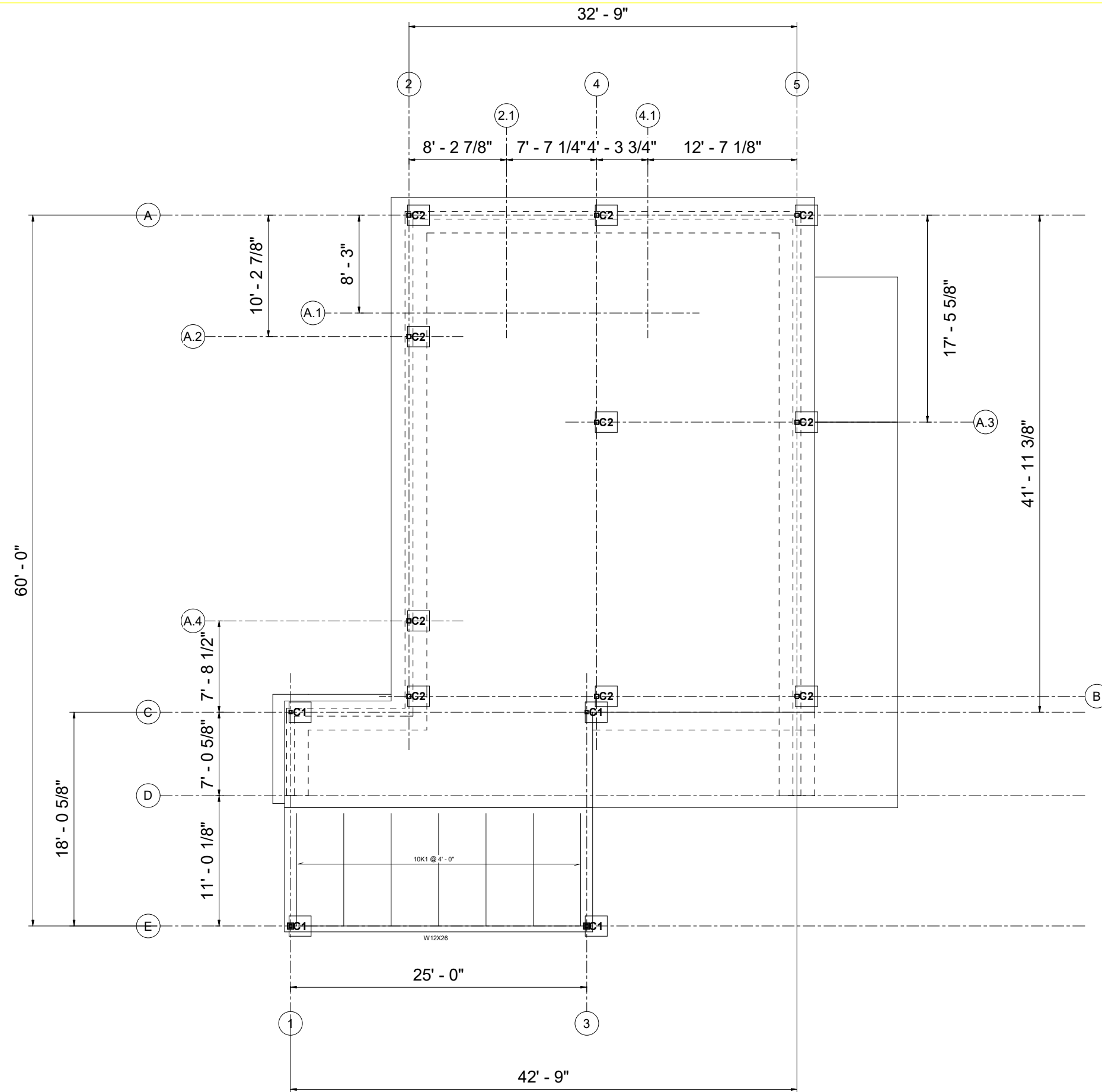
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Courageous
12007 190th St., Monticello, IA 52310

SHEET NAME
Foundation Plan

SHEET NO.
S2.0



Structural Column Schedule	
Mark	Type
C1	HSS3X3X3/8
C2	HSS4X4X1/4
C3	600S162-68(50)
C4	HSS6X6X5/8



① Level 1
1/4" = 1'-0"

PROJECT: CEE-4850
DATE: 12/07/2021
DRAWN BY: UIS Engineering, Inc.
REVISION:

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE
ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu



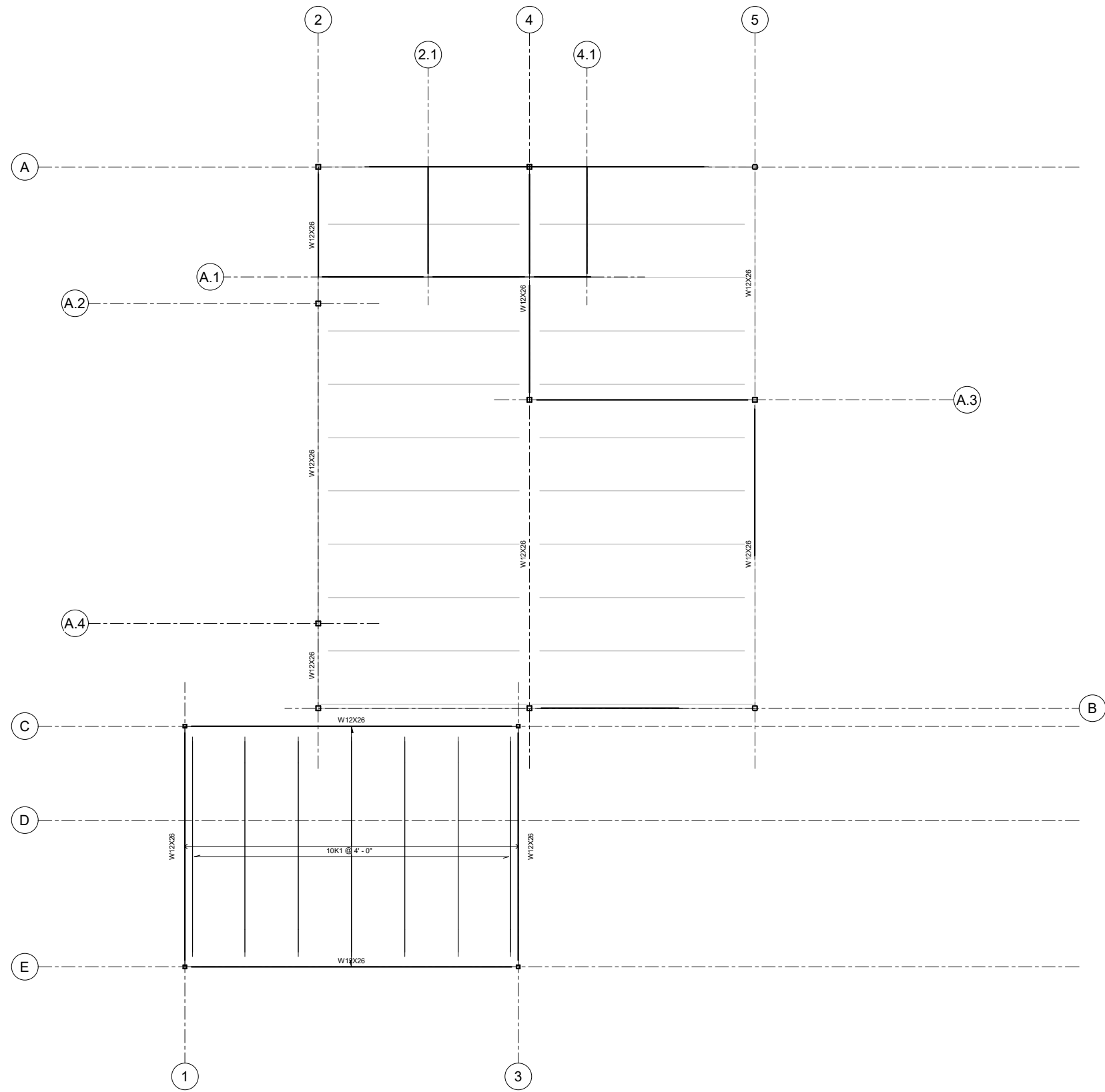
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Courageous
12007 190th St., Monticello, IA 52310

SHEET NAME
First Floor Framing Plan

SHEET NO.
S2.1



① Viewing Area Roof Bottom
1/4" = 1'-0"



PROJECT: CEE:4850
DATE: 12/07/2021
DRAWN BY: UIS Engineering, Inc.
REVISION:

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4-105 SEAMANS CENTER FOR THE
ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu

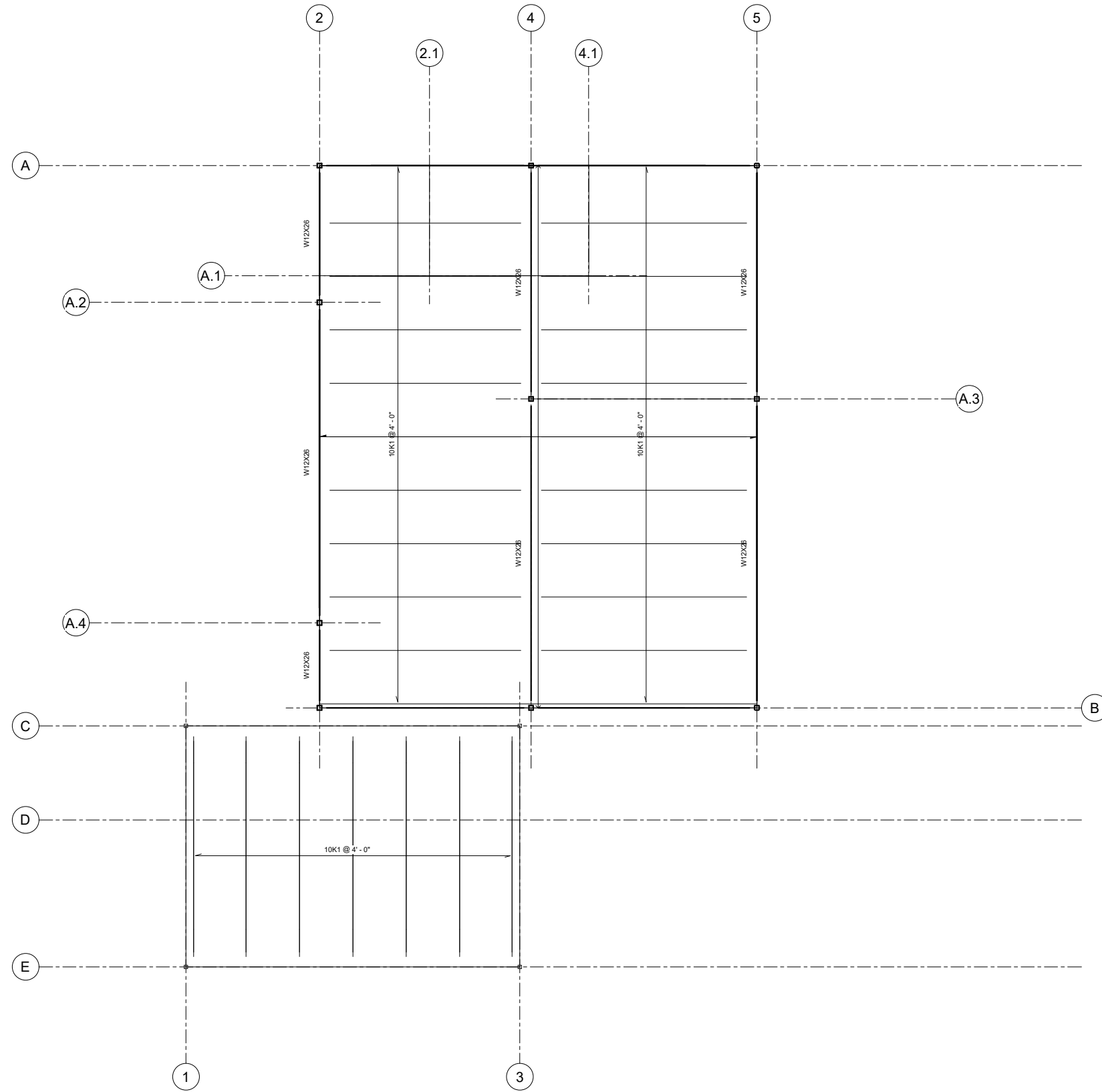


EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Courageous
12007 190th St., Monticello, IA 52310

SHEET NAME
**Viewing Area
Roof Framing
Plan**
SHEET NO.
S2.2



① Exhibit Area Roof Bottom
1/4" = 1'-0"

PROJECT: CEE:4850
DATE: 12/07/2021
DRAWN BY: UIS Engineering, Inc.
REVISION:

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
4105 SEAMANS CENTER FOR THE
ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu

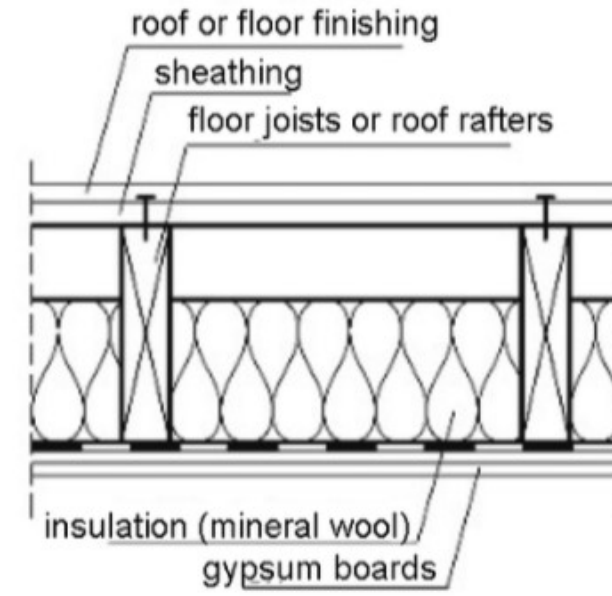
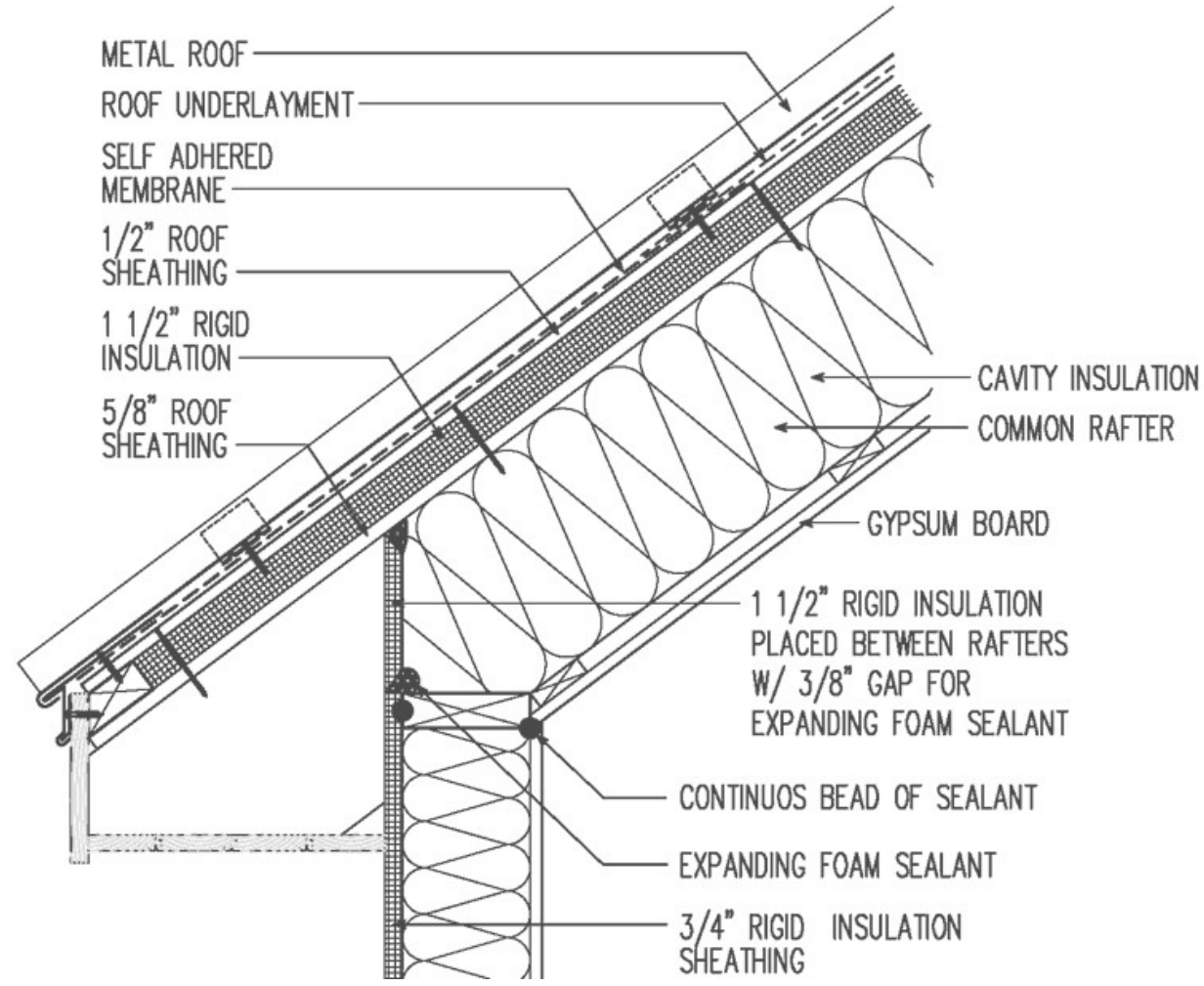


EDUCATIONAL - NOT
FOR CONSTRUCTION

Cultural Education Center

Campe Courageous
12007 190th St., Monticello, IA 52310

SHEET NAME
Exhibit Area
Roof Framing
Plan
SHEET NO.
S2.3




EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

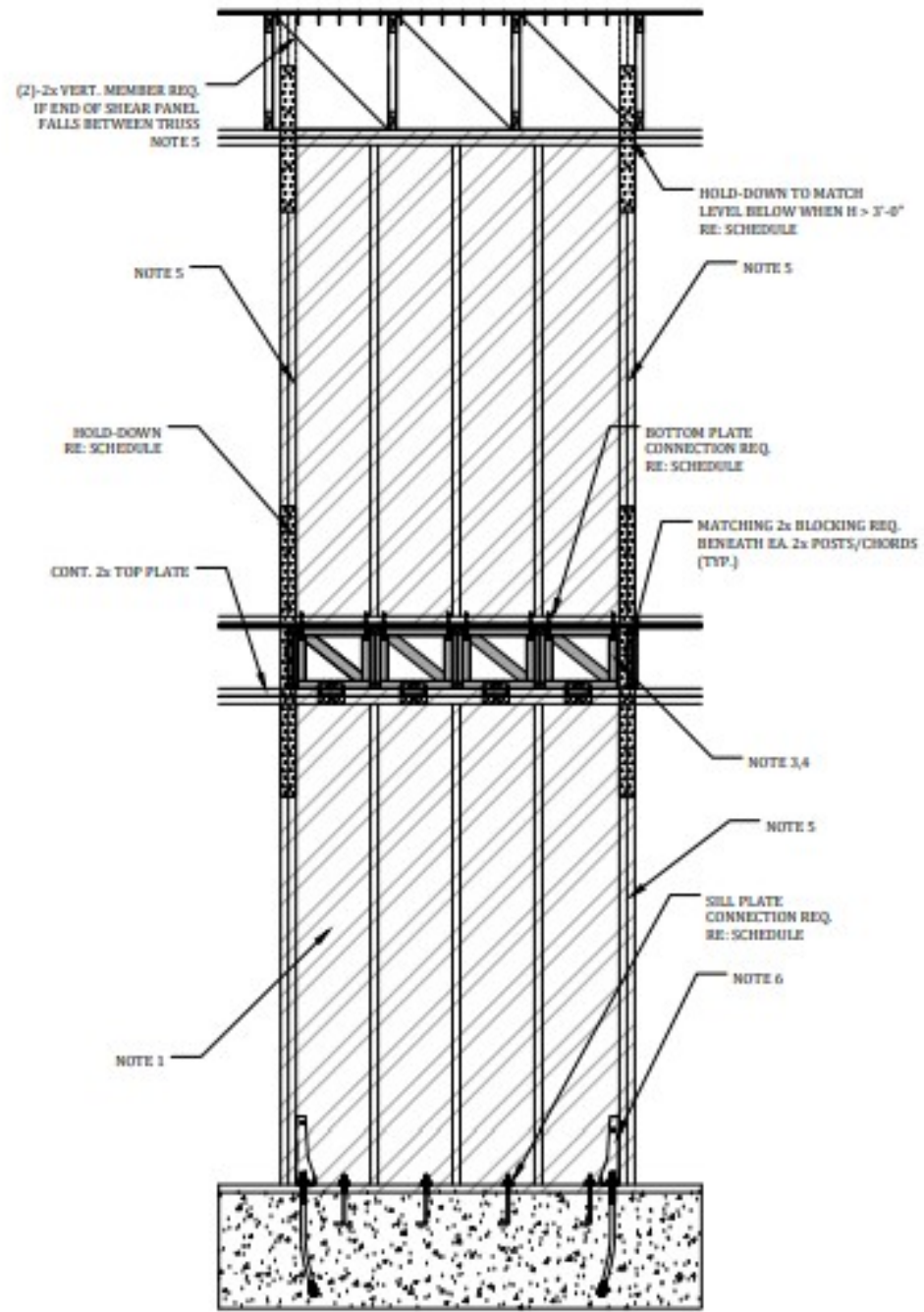
Campe Courageous
 12007 190th St., Monticello, IA 52310

SHEET NAME
**Framing
 Details**

SHEET NO.
S3.0

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING

 4105 SEAMANS CENTER FOR THE
 ENGINEERING ARTS AND SCIENCES
 103 S CAPITOL ST
 IOWA CITY, IOWA 52242
 PHONE: 319.335.5647
 FAX: 319.335.5660
 EMAIL: civil-hawks@uiowa.edu

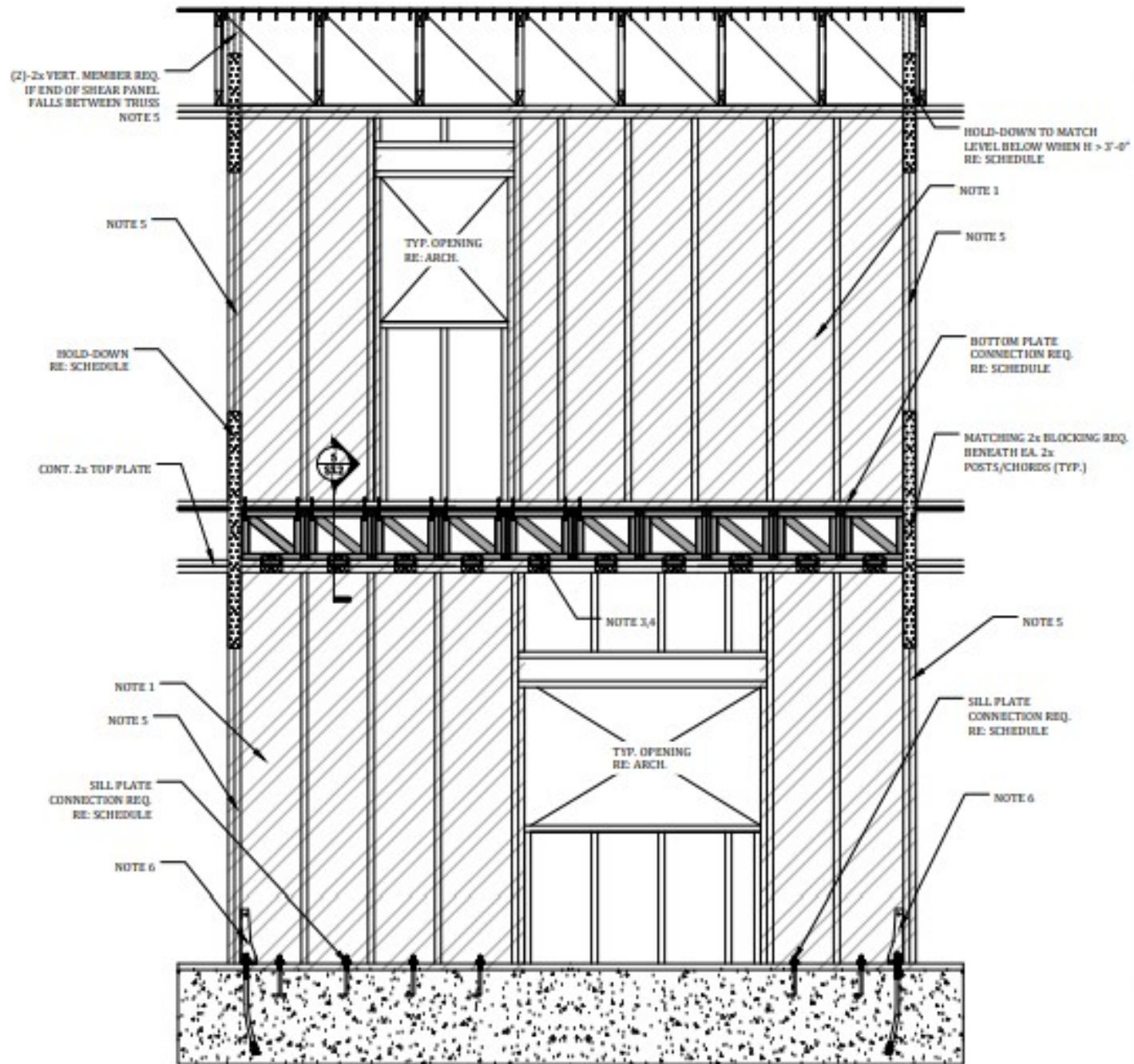
PROJECT:	CEE:4850
DATE:	12/07/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	



1 TYP. EXTERIOR SEGMENTED SHEAR WALL
S4.1 N.T.S.

NOTES

1. [Hatched Area] HATCHED AREA DENOTES EXTENT OF SHEAR WALL.
2. [Solid Area] IN LIEU OF SHEAR PANEL BLOCKING, PROVIDE CONTINUOUS SHEATHING THRU FLOOR CAVITY. SHEATHING TYPE, SHEATHING THICKNESS, AND NAILING PATTERN(S) SHALL MATCH THAT REQUIRED FOR THE SHEAR WALL AT THE FLOOR BELOW, TYP.
3. PROVIDE CONTINUOUS SHEATHING THRU FLOOR CAVITY. SHEATHING TYPE, SHEATHING THICKNESS, AND NAILING PATTERN(S) SHALL MATCH THAT REQUIRED FOR THE SHEAR WALL AT THE FLOOR BELOW, TYP.
4. SHEAR PANEL BLOCKING MAY BE PROVIDED IN LIEU OF CONTINUOUS SHEATHING TO TRANSFER SHEAR WALL FORCES. SPACING/QUANTITY OF SHEAR PANELS REQUIRED SHALL BE PER SCHEDULE.
5. VERTICAL POST/CHORD REQUIRED AT EACH END OF SHEAR WALL PER SHEAR WALL ANCHORAGE SCHEDULE. THE SCHEDULED POST SHALL BE PROVIDED IN ADDITIONAL TO THE VERTICAL WALL STUDS REQUIRED WITHIN THE SHEAR WALL AND SHALL BE CONTINUOUS FROM FLOOR TO FLOOR (CRIPPLES WITHIN THE FLOOR CAVITY TO MATCH SCHEDULED SIZE OF POST, TYP.).
6. FOUNDATION ANCHOR AT EACH END OF SHEAR WALL. RE: SCHEDULE



2 TYP. EXTERIOR PERFORATED SHEAR WALL
S4.1 N.T.S.

NOTES

1. [Hatched Area] HATCHED AREA DENOTES EXTENT OF SHEAR WALL.
2. [Solid Area] IN LIEU OF SHEAR PANEL BLOCKING, PROVIDE CONTINUOUS SHEATHING THRU FLOOR CAVITY. SHEATHING TYPE, SHEATHING THICKNESS, AND NAILING PATTERN(S) SHALL MATCH THAT REQUIRED FOR THE SHEAR WALL AT THE FLOOR BELOW, TYP.
3. PROVIDE CONTINUOUS SHEATHING THRU FLOOR CAVITY. SHEATHING TYPE, SHEATHING THICKNESS, AND NAILING PATTERN(S) SHALL MATCH THAT REQUIRED FOR THE SHEAR WALL AT THE FLOOR BELOW, TYP.
4. SHEAR PANEL BLOCKING MAY BE PROVIDED IN LIEU OF CONTINUOUS SHEATHING TO TRANSFER SHEAR WALL FORCES. SPACING/QUANTITY OF SHEAR PANELS REQUIRED SHALL BE PER SCHEDULE.
5. VERTICAL POST/CHORD REQUIRED AT EACH END OF SHEAR WALL PER SHEAR WALL ANCHORAGE SCHEDULE. THE SCHEDULED POST SHALL BE PROVIDED IN ADDITIONAL TO THE VERTICAL WALL STUDS REQUIRED WITHIN THE SHEAR WALL AND SHALL BE CONTINUOUS FROM FLOOR TO FLOOR (CRIPPLES WITHIN THE FLOOR CAVITY TO MATCH SCHEDULED SIZE OF POST, TYP.).
6. FOUNDATION ANCHOR AT EACH END OF SHEAR WALL. RE: SCHEDULE

PROJECT:	CEE:4850
DATE:	12/07/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING

4105 SEAMANS CENTER FOR THE ENGINEERING ARTS AND SCIENCES
103 S CAPITOL ST
IOWA CITY, IOWA 52242
PHONE: 319.335.5647
FAX: 319.335.5660
EMAIL: civil-hawks@uiowa.edu



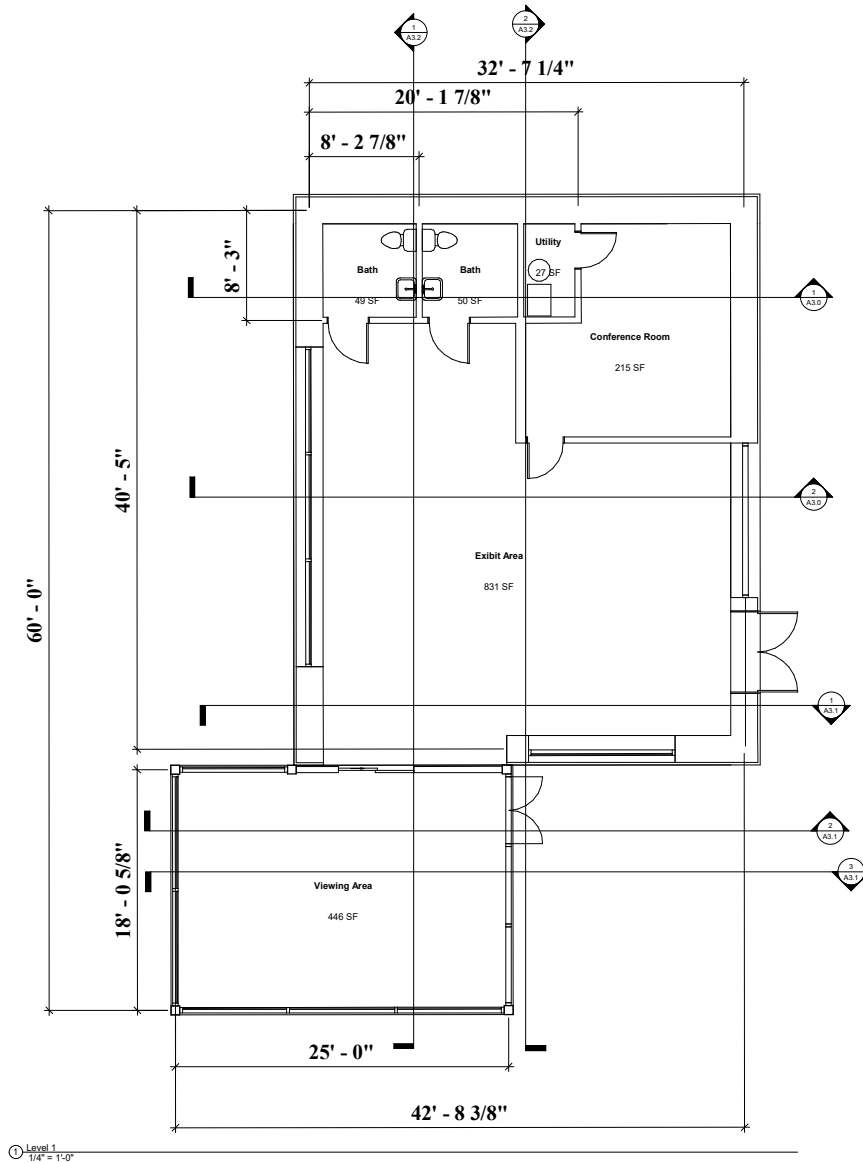
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Courageous
12007 190th St., Monticello, IA 52310

SHEET NAME
Lateral Bracing Plan

SHEET NO.
S4.0



Level 1
1/4" = 1'-0"



PROJECT:	CEE-0809
DATE:	12/07/2021
DRAWN BY:	US Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
 103 S. CAPITOL ST.
 IOWA CITY, IOWA 52242
 PHONE: 319.335.9600
 FAX: 319.335.9600
 EMAIL: civil-hawk@uiowa.edu



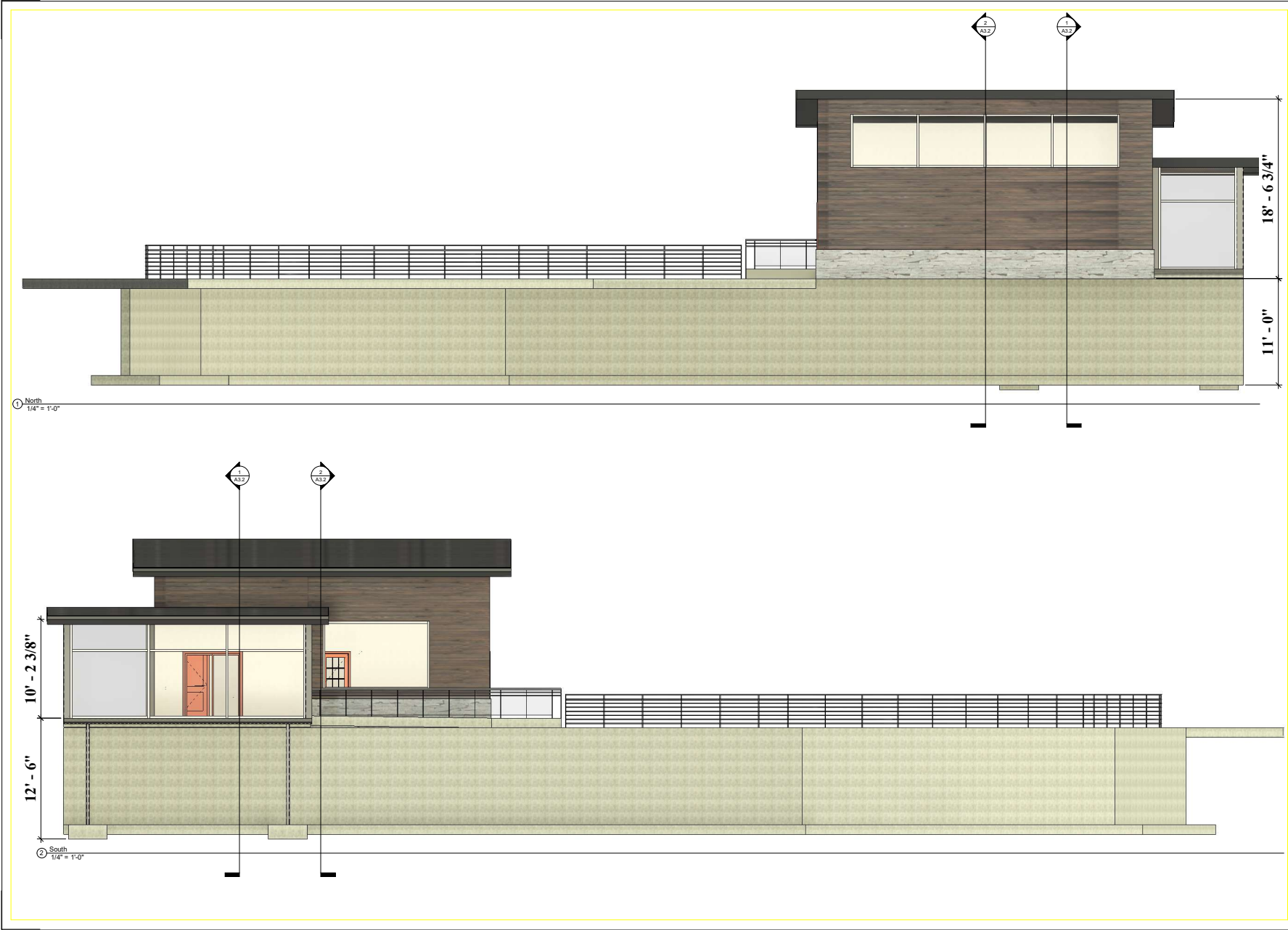
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Couragrouis
 12007 190th St., Monticello, IA 52310

SHEET NAME
Architectural Floor Plan

SHEET NO.
A1.0



① North
1/4" = 1'-0"

② South
1/4" = 1'-0"

PROJECT: CEE-0809
 DATE: 12/07/2021
 DRAWN BY: UIS Engineering, Inc.
 REVISION:

THE UNIVERSITY OF IOWA
 CIVIL AND ENVIRONMENTAL ENGINEERING
 IOWA CITY, IOWA 52242
 PHONE: 319.335.9860
 FAX: 319.335.9860
 EMAIL: civil-hawk@uiowa.edu



EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

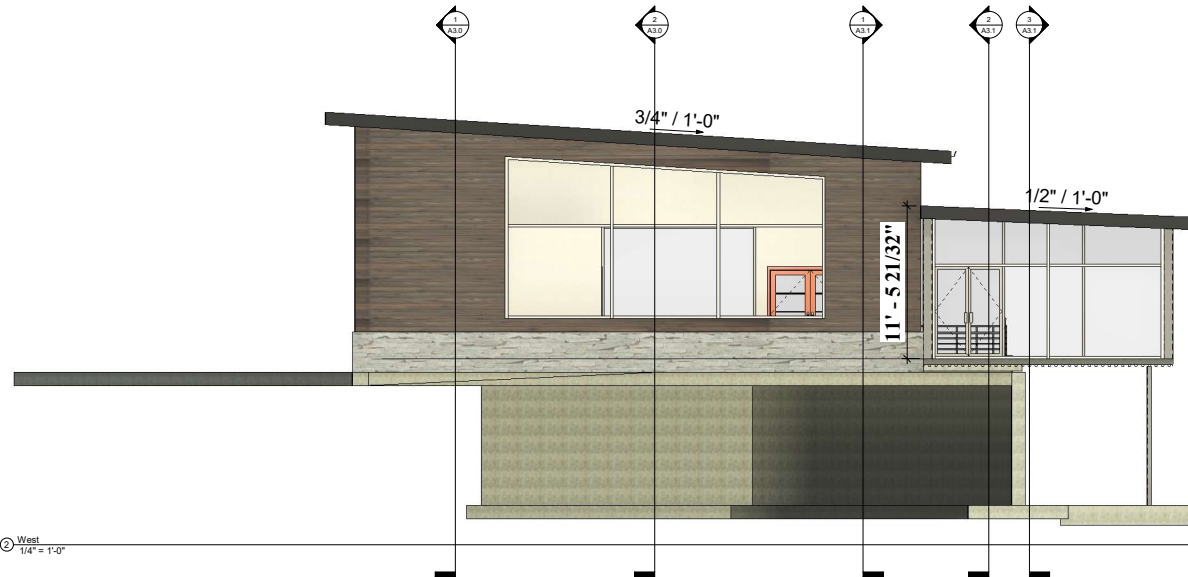
Campe Couragours
 12007 190th St., Monticello, IA 52310

SHEET NAME
 Elevation
 North & South

SHEET NO.
 A2.0



① East
1/4" = 1'-0"



② West
1/4" = 1'-0"

PROJECT:	CEE-0869
DATE:	12/6/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
 CIVIL AND ENVIRONMENTAL ENGINEERING
 103 S. CAPITOL ST.
 IOWA CITY, IOWA 52242
 PHONE: 319.335.9860
 FAX: 319.335.9860
 EMAIL: civil-hawk@uiowa.edu

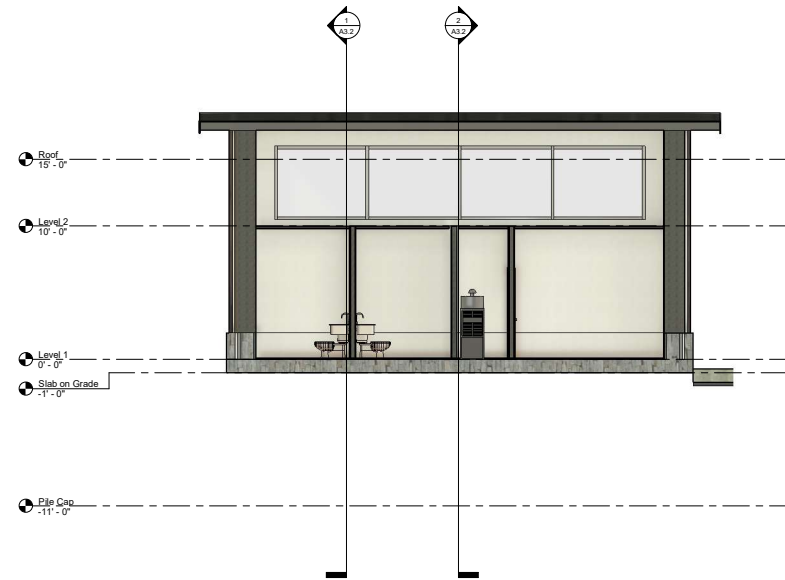
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

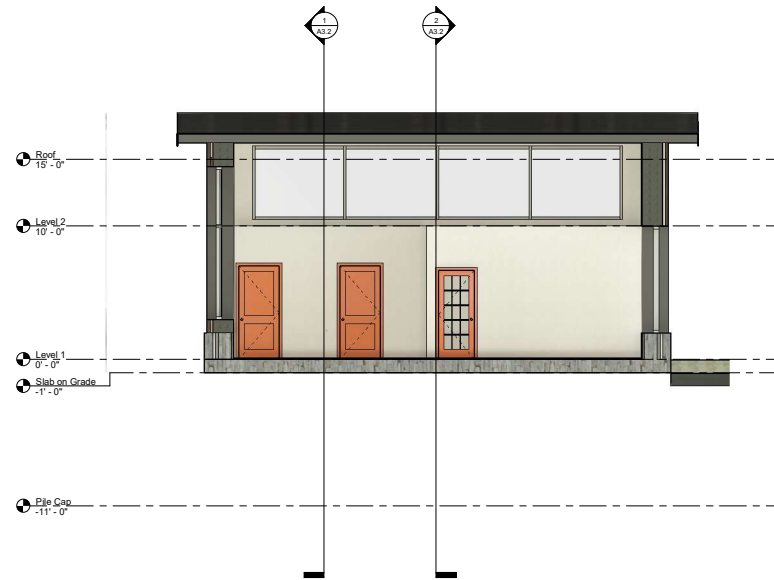
Campe Couragrouns
 12007 190th St., Monticello, IA 52310

SHEET NAME
Elevation East & West

SHEET NO.
A2.1



① Section 1
1/4" = 1'-0"



② Section 2
1/4" = 1'-0"

PROJECT:	CEE-6869
DATE:	12/7/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
 CIVIL AND ENVIRONMENTAL ENGINEERING
 ENGINEERING PARTS AND SERVICES
 103 S. CAPITOL ST.
 IOWA CITY, IOWA 52242
 PH: 319.335.9869
 FAX: 319.335.9869
 EMAIL: cveil-haw@uiowa.edu



EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Couragous
 12007 190th St., Monticello, IA 52310

SHEET NAME
Wall Cross-Sections

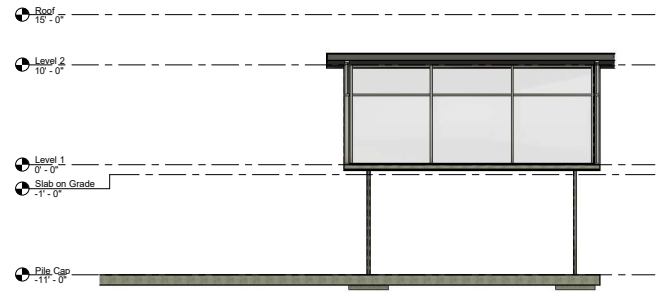
SHEET NO.
A3.0



① Section 3
1/4" = 1'-0"



② Section 4
1/4" = 1'-0"



③ Section 5
3/16" = 1'-0"

PROJECT:	CEE-0809
DATE:	12/7/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
 ENGINEERING ARTS AND SCIENCES
 103 S. CAPITOL ST.
 IOWA CITY, IOWA 52242
 PHONE: 319.335.9800
 FAX: 319.335.9800
 EMAIL: civil-hawk@uiowa.edu



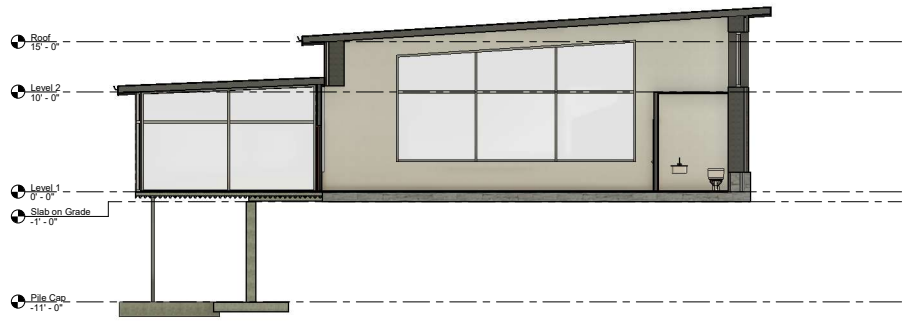
EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Couragous
 12007 190th St., Monticello, IA 52310

SHEET NAME
Wall Cross-Sections

SHEET NO.
A3.1



① Section 6
3/16" = 1'-0"



② Section 7
3/16" = 1'-0"

PROJECT:	CEE-0869
DATE:	12/07/2021
DRAWN BY:	UIS Engineering, Inc.
REVISION:	

THE UNIVERSITY OF IOWA
CIVIL AND ENVIRONMENTAL ENGINEERING
 ENGINEERING ARTS AND SCIENCES
 103 S. CAPITOL ST.
 IOWA CITY, IOWA 52242
 PHONE: 319.335.9690
 FAX: 319.335.9690
 EMAIL: civil-hawk@uiowa.edu



EDUCATIONAL - NOT FOR CONSTRUCTION

Cultural Education Center

Campe Couragrouns
 12007 190th St., Monticello, IA 52310

SHEET NAME
Wall Cross-Sections

SHEET NO.
A3.2