DOCUMENT 009113 – ADDENDA NUMBER 02

1.1 PROJECT INFORMATION

A. Project Name: St Gregory the Great Dorm Addition.

B. Owner: St Gregory the Great Seminary.

C. Architect: Clark Architects Collaborative 3.

D. Architect Project Number: 14021.

E. Date of Addendum: 05/12/2016.

1.2 NOTICE TO BIDDERS

A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

C. The date for receipt of bids is unchanged by this Addendum, at same time and location.

1. Bid Date: May 24th, 2016.

D. SPECIFICATION SECTIONS 221113, 311000, 312000, 321200, 321313 321373 and 329300 are located in the Specification Manual after Section 123661 and before Section 220719.

1.3 ATTACHMENTS

A. This Addendum includes the following attached Documents and Specification Sections:

1. Mechanical / Electrical Addendum Items, dated 5/12/16 (new)
2. Document; Report of Geotechnical Investigation, dated 12/10/1998, (new).
3. Section 004321 Allowance Form, dated 5/12/16, (new). This form is to be submitted with the bid proposal form.
4. Section 004323 Alternates Form, dated 5/12/16, (new). This form is to be submitted with the bid proposal form.
5. Section 034100 Precast Structural Concrete, dated 5/12/16, (new).
6. Pre-Bid Meeting Minutes.
7. Pre-Bid Meeting attendance.

B. This Addendum includes the following attached Sheets:

1. Architectural Sheet E201D, Lighting Plan for Area D, (included with Mechanical / Electrical Addendum Items) dated 05/02/2016, (new).

C. This Addendum includes the attached Addendum Drawings:

1. Architectural Addendum Drawing AAD-01, dated 05/12/16, revising A1/A205.
2. Architectural Addendum Drawing AAD-02, dated 05/12/16, revising G1/A205.
3. Architectural Addendum Drawing AAD-03, dated 05/12/16, revising H11/A104.
4. Architectural Addendum Drawing AAD-04, dated 05/12/16, revising the Room Finish Schedule.
5. Architectural Addendum Drawing AAD-05, dated 05/12/16, revising the Room Finish Schedule.
6. Architectural Addendum Drawing AAD-06, dated 05/12/16, revising A8/A100.
7. Architectural Addendum Drawing AAD-07, dated 05/12/16, revising Final Site Construction Plan.
8. Architectural Addendum Drawing AAD-08, dated 05/12/16, revising Paving Plan.

1.4 REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS

A. Specification Section 012300 – Alternates, (reissued).

1. Paragraph 3.1: Add Paragraphs B, C and D, refer to the reissued specification Section 012300 (included) which adds Alternates Two, Three and Four which involve the replacement of existing asphalt, concrete in lieu of asphalt and Performance and Labor and Material Payment Bond, respectively.

B. Specification Section 034100 – Precast Structural Concrete. (new).

1. This new specification section has been included with this addendum.

C. Specification Section 047200 – Cast Stone Masonry. (not reissued).

1. Paragraph 1.3.B: Add the following requirement:
   a. Delegated-Design Submittal: For cast stone masonry indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

2. Paragraph 2.3 Cast Stone Units: Add the following paragraph:
   a. Load Bearing Lintel Units: Cast Stone lintels shown spanning over window and door openings are to be designed as load bearing members. They are to be designed to carry their own weight as well as the masonry veneer above the unit.

D. Specification Section 329200 – Turf and Grasses, (not re-issued).

1. Paragraph 2.1: Add the following grass seed products:
   a. Miller Seed, Preferred Turf Plus.
   b. Miller Seed, All Purpose Contractor Mix.

1.5 REVISIONS TO DRAWING SHEETS

A. Sheet C402 – Paving Plan (not reissued).

1. Revise the configuration of the paving at the generator and transformer pad in accordance with the attached drawing AAD-08. Grading is to be adjusted accordingly.

B. Sheet C501 – Final Site Construction Plan (not reissued).

1. Refer to the Legend: Change the Turf Type Tall Fescue Miller Seed "Preferred Turf" to Miller Seed "Preferred Turf Plus".
2. Refer to the Well Field Area: The Well Field Area is to be seeded with Arrow Seed Company "Sport Turf Mixture" at a rate of 3 to 4 lbs / 1000 sf. See AAD-07.

C. Sheet A100 – Dorm Addition – Demo Plans (not reissued).

1. Drawing A8: Revisions were made to the floor demolition that are more accurately coordinated with the structural requirements, See AAD 06.
2. Drawing A8: The gypsum wallboard ceiling in Toilet 149a is being removed and replaced to allow for mechanical modifications above the ceiling. See AAD 06.
3. Drawing A8: The gypsum wallboard ceiling in Weight C137 is being partially removed and replaced to allow for mechanical modifications above the ceiling. See AAD 06.

D. Sheet A104 – Dorm Addition – Priest Suites (not reissued).

1. Drawing H11: Wall types were added to this drawing and eliminated exterior door from Priest Suite 147. See AAD 03.

E. Sheet A107 – Dorm Addition – Mech Mezz. Over Dorms (not reissued).

1. Drawing A1: Plan at stairs, added walls in lieu of guardrail. See AAD 01.

F. Sheet A112 – Dorm Addition – Schedules and Door Frames and Wall Types (not reissued).

1. Room Finish Schedule: Rooms C136 and C137 were added to the Room Finish Schedule. See AAD 04.
2. Room Finish Schedule: Rooms 149a was added to the Room Finish Schedule. See AAD 05.

G. Sheet A205 – Dorm Addition – Building Sections (not reissued).

1. Drawing G1: Building Section G1 has been revised eliminating the gypsum wallboard from the underside of the trusses that are above the structural precast hollowcore. See AAD 02.
2. Drawing A1: Stair Section A1 has been revised to show where the section is being cut and to more accurately portray the condition. See AAD 01.

END OF DOCUMENT 009113

DATE ISSUED	5/12/2016	ADDENDUM #	2
ENGINEER	Engineering Technologies, Inc. 825 M Street, Suite 200 Lincoln, NE 68508	PROJECT	St. Gregory the Great Seminary – Dorm and Classroom Addition
		ETI PROJECT #	2015-026

The Architect issues this Addendum to all known bidders before receipt of proposals. Bidder shall acknowledge the receipt of this addendum on their proposal sheet and all information contained herein shall become a part of the contract documents.

ADDENDUM:

PRIOR APPROVAL – MECHANICAL

1. The following manufacturers have received prior approval for bidding purposes subject to shop drawing review:

A. List Equipment Here	List Manufacturer Here
Air/Dirt Separator	Taco

DRAWINGS – ELECTRICAL

1. Sheet E100 – Electrical Site Plan:
   A. Change five (5) Type 17 light fixtures to Type 15 light fixtures.
   B. Change three (3) Type 18 light fixtures to Type 16 light fixtures.

2. Sheet E101B – First Floor Plan & Penthouse Floor Plan – Area B – Electrical Demolition
   A. Remove and replace existing light fixture and switch in Toilet 149a.

3. Sheet E201B – First Floor Plan & Penthouse Floor Plan – Area B – Lighting
   A. Add one (1) Type 11 light fixture and one (1) Type 11E light fixture in Music C136. See attached Sheet E101B Attachment No. 1.
   B. Add new light switches in existing boxes in Music C136. See attached Sheet E101B Attachment No. 1.
   C. Add one (1) ceiling mounted dual technology occupancy sensor in Music C136. See attached Sheet E101B Attachment No. 1.
   D. Remove and reinstall existing light fixtures in Corridor 129 to accommodate installation of HP-132 as required. Reconnect to existing lighting circuit.
   E. Add one (1) Type 2 light fixture and Type 1 vacancy sensor in existing in Toilet 149a. Connect to nearest normal lighting circuit.
   F. Delete designated sheet note 5 on normal light fixture in Corridor 149.

4. Sheet E201D – First Floor Plan & Penthouse Floor Plan – Area D – Lighting
   A. Sheet reissued.

5. Sheet E201E – First Floor Plan & Penthouse Floor Plan – Area E – Lighting
   A. Drawing A1 shall read “First Floor Plan – Area E – Lighting”
   B. Add unswitched conductor to light connected to light switch in Mechanical 175.
   C. Designated Sheet Note 5 on Type 11 light fixture in Corridor 174 shall be changed to Sheet Note 1.

6. Sheet E301E – First Floor Plan & Penthouse Floor Plan – Area D – Electrical
   A. Sheet shall be named “First Floor Plan & Penthouse Floor Plan – Area E – Electrical”
   B. Delete six (6) receptacles and six (6) data outlets with two (2) data jacks each from northwest wall of Lab Class/Storage 188. Label circuit breaker L1A-29 as “spare”.
   C. Relocate duct detector for ERU-1 to supply side duct in lieu of the return duct.
   D. Provide circuit for handicap door operators in Vestibule 178A and connect to L1A-28.

LINCOLN: 825 M Street, Suite 200, Lincoln, NE 68508 P 402.476.1273 F 402.476.1274
OMAHA: 1111 N.13th Street, Suite 216, Omaha, NE 68102 P 402.330.2772 F 402.330.2630

E. Provide Sheet Note 10 to read " Provide conduit to door position switch from accessible ceiling." Add Sheet Note 10 to two (2) door position switches on north and south doors in Corridor 177.
F. All conduit in Corridor 177 shall be concealed within walls and ceiling.

7. Sheet E400 – Electrical Schedules and Details
   A. Equipment Connection Schedule: Change wiring to 4-#10, #10 GND in 3/4" conduit for HP-138.

8. Sheet E401 – Electrical Panel Schedules
   A. Delete duplicate panel schedule "H1A".
   B. Change Panel "H1C" to 277/480V in lieu of 120/208V.
   C. Change Panel "LSL1A" to 120/208V in lieu of 277/480V.

SPECIFICATIONS – ELECTRICAL

1. 26 0534, Conduit
   A. 2.02F.1 – Branch Circuits: 1/2 inch trade size.
   B. Flexible Connections to Luminaires: 3/8 inch trade size.

2. 26 0545, Pathways for Communications and Security Systems

3. 26 5100, Interior Lighting
   A. Delete reference to fluorescents and ballasts throughout, including the Reference Standards
   B. Delete 1.01D
   C. Delete 1.03A
   D. Delete 1.03J
   E. Delete 1.05B(5)

4. 26 5600, Exterior Lighting
   A. Delete 26 5600.1.03B
   B. Delete 26 5600.309A

5. 28 3100, Fire Alarm System
   A. 2.02A Fire Alarm Control Units – Existing System: Siemens Firefinder XLSV, www.siemens.com

   B. 2.05D Initiating Devices
      i. 2.05D(2) Smoke Detectors: Photoelectric and addressable
      ii. 2.05D(3) Duct Detectors: addressable

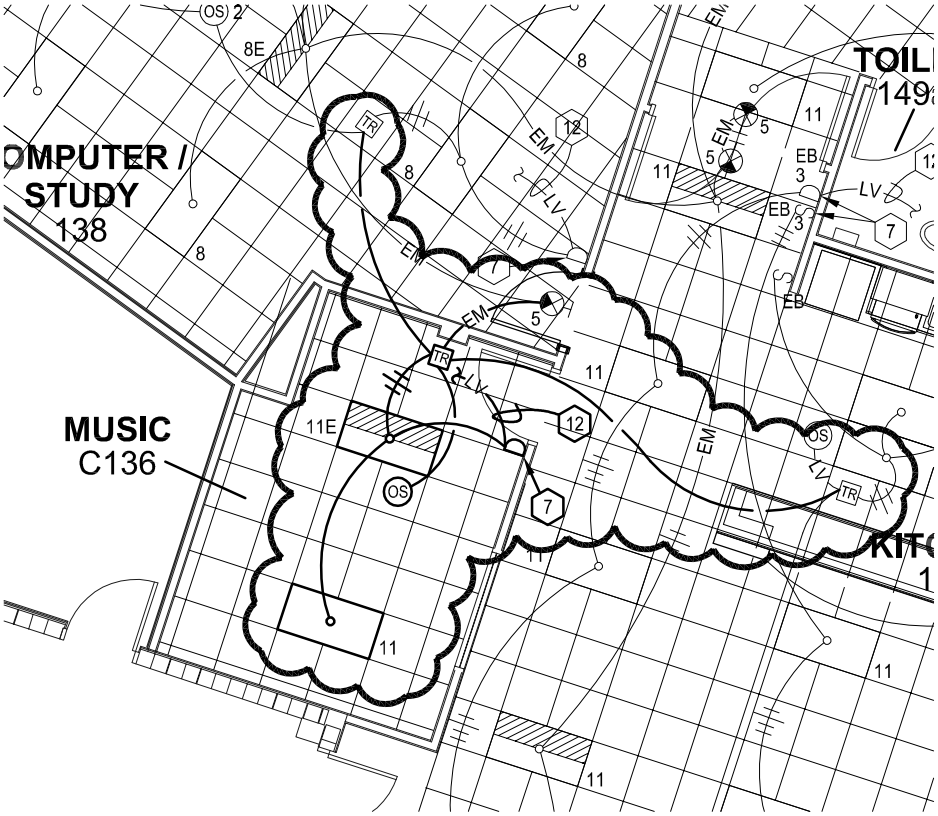
   C. 2.05E Notification Appliances:
      i. 2.05D(5) Speakers: Adjustable taps, white enclosure
      ii. 2.05D(4) Strobes: ADA compliant, with field adjustable footcandle levels

Attachments: (2 pages total)

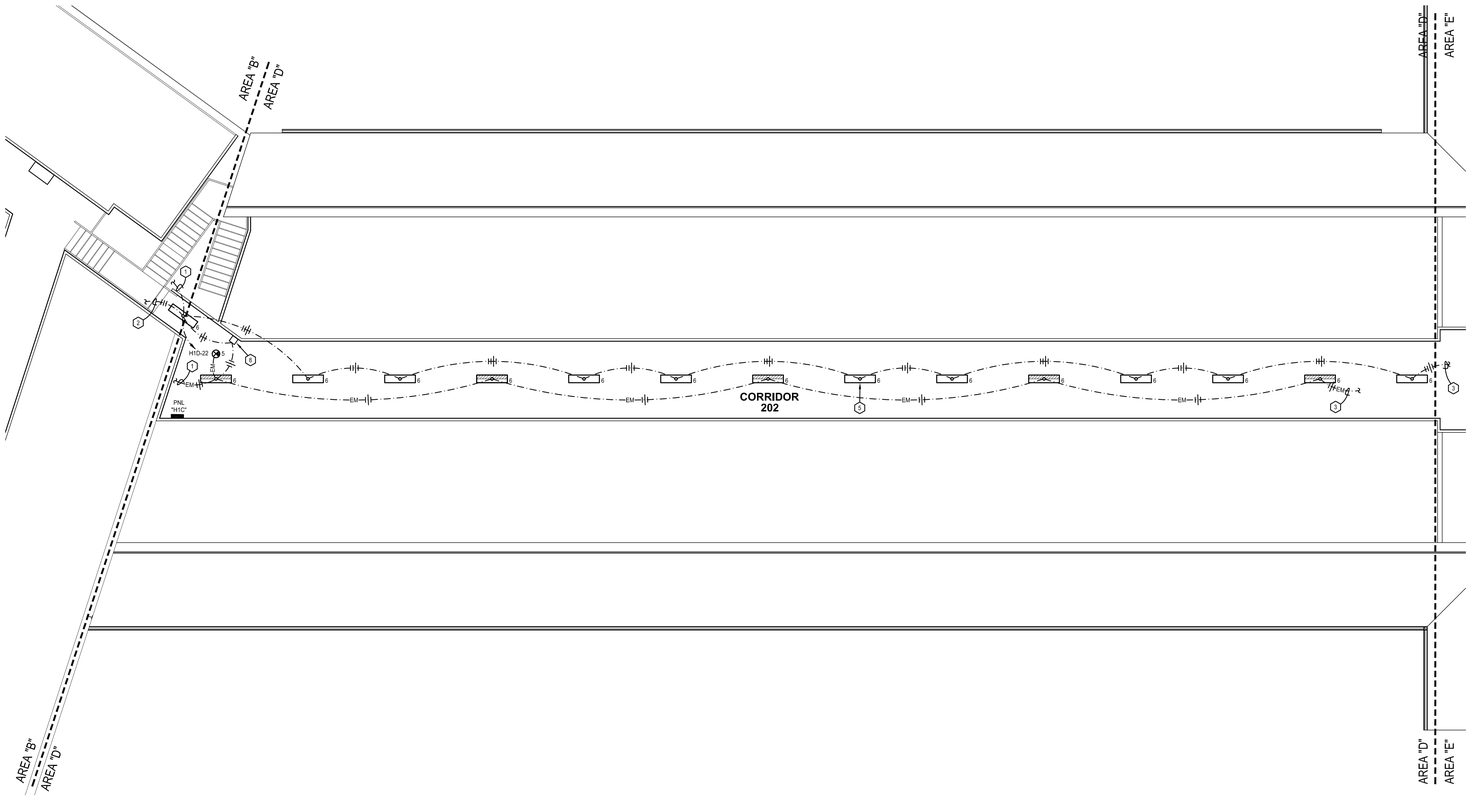
a. 2 of 3: ETI drawing Sheet E201B Attachment No. 1, dated 5.9.16
b. 3 of 3: ETI drawing Sheet E201D.

END OF ADDENDUM

LINCOLN: 825 M Street, Suite 200, Lincoln, NE 68508 P 402.476.1273 F 402.476.1274
OMAHA: 4559 S. 133rd Street, Omaha, NE 68137 P 402.330.2772 F 402.330.2630

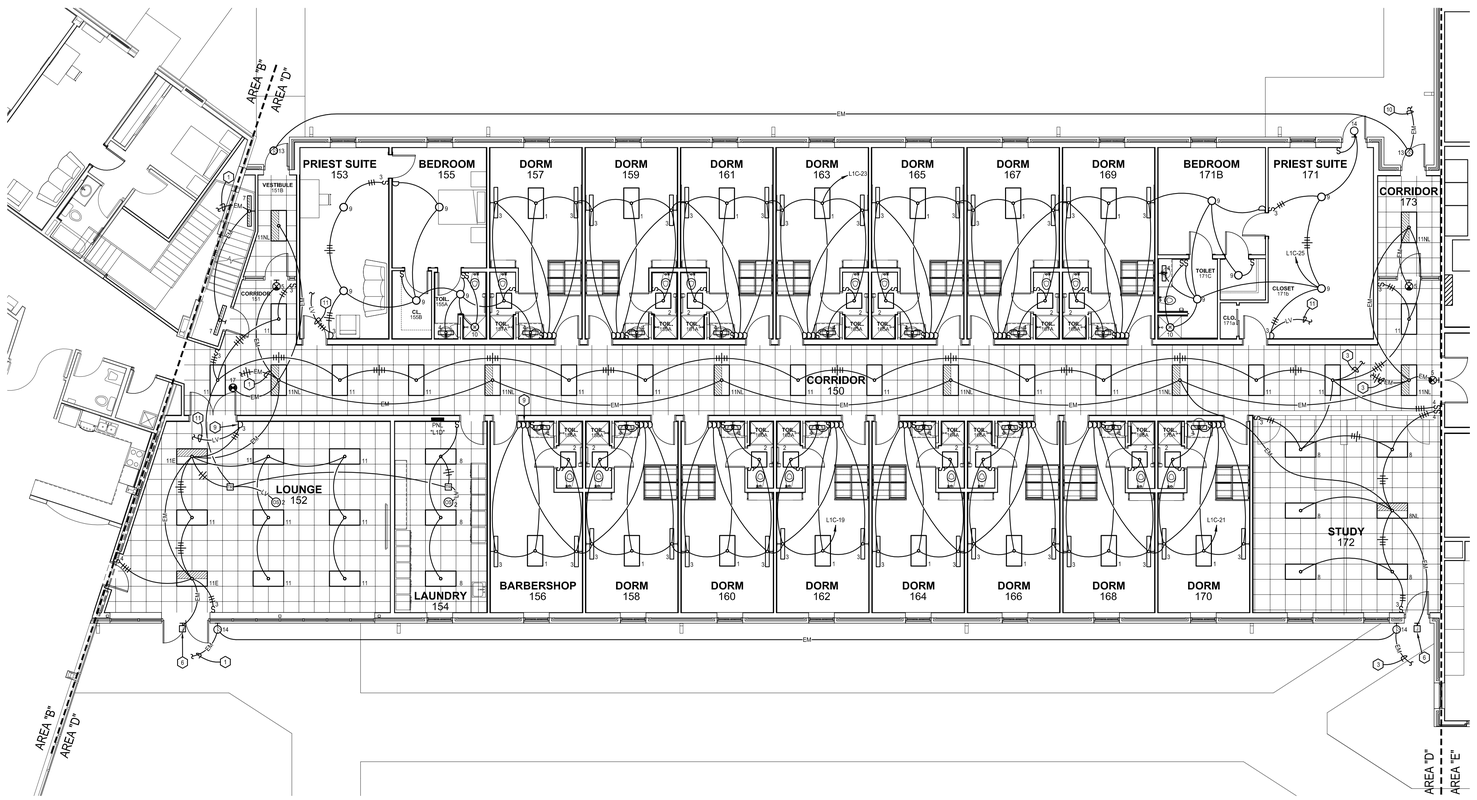


ST. GREGORY THE GREAT SEMINARY - DORMITORY AND CLASSROOM ADDITION - FIRST FLOOR PLAN & PENTHOUSE FLOOR PLAN - AREA B - LIGHTING		**Engineering Technologies Inc.** Mechanical & Electrical Building Solutions 825 M Street, Suite 200 I Lincoln, NE 68508 P 402.476.1273 I F 402.476.1274 1111 N. 13th Street, Suite 216 I Omaha, NE 68102 I P 402.330.2772 I F 402.330.2630 ETI Project No: (2015-026)	ADD #1 SHEET E201B ATTACHMENT NO. 1 05/09/2015
SCALE: 1/8" = 1'-0"	MAB		



H1 PENTHOUSE FLOOR PLAN - AREA D - LIGHTING

SCALE: 1/8" = 1'-0"



A1 FIRST FLOOR PLAN - AREA D - LIGHTING

SCALE: 1/8" = 1'-0"

LIGHTING GENERAL NOTES

A. PROVIDE TEMPORARY POWER, LIGHTING, AND HEATING AS REQUIRED FOR CONSTRUCTION. COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES.

B. FIRE SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, CEILING AND FLOORS.

C. COORDINATE LOCATION OF WIRING DEVICES, TELECOM OUTLETS, FIRE ALARM DEVICES, ETC. WITH MILLWORK, TILE LAYOUT, AND OTHER WALL FINISHES PRIOR TO ROUGH-IN.

D. ALIGN ADJACENT WALL MOUNTED OUTLET BOXES FOR SWITCHES, THERMOSTATS, AND SIMILAR DEVICES. DEVICES SHALL BE ALIGNED VERTICALLY WHEN INSTALLED AT DIFFERING HEIGHTS AND INSTALL ALL ADJACENT DEVICES AT THE SAME HEIGHT TO CENTER, NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN TRADES PRIOR TO ROUGH-IN.

E. ALL SENSORS SHALL BE CONNECTED TO LINE SIDE OF WALLSWITCH.

F. OCCUPANCY SENSORS SHALL BE INSTALLED A MINIMUM 6 FT. FROM HVAC DIFFUSERS. FIELD COORDINATE.

G. PROVIDE OCCUPANCY SENSORS WITH POWER PACKS AND LOW VOLTAGE CABLING AS REQUIRED FOR A COMPLETE SYSTEM AND CONNECT AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

SHEET NOTES

1. CONNECT TO LIGHTING CIRCUIT IN AREA B. SEE SHEET E201B FOR CONTINUATION.
2. CONNECT TO 3-WAY LIGHT SWITCH IN AREA B. SEE SHEET E201B FOR CONTINUATION.
3. CONNECT TO LIGHTING CIRCUIT IN AREA E. SEE SHEET E201E FOR CONTINUATION.
4. EMERGENCY POWER TRANSFER CONTROL DEVICE (EPC). SEE DETAIL A1 ON SHEET E400. WIRE TO CORRIDOR EGRESS (HATCHED) LIGHT FIXTURES. (EXIT LIGHTS SHALL BE WIRED TO UNSWITCHED CONDUCTOR) AS SHOWN, WALL MOUNT AT 8'-0" A.F.F.
5. MOUNT LIGHT FIXTURE AS HIGH AS POSSIBLE. COORDINATE EXACT MOUNTING LOCATION WITH ALL MECH PIPING AND DUCTWORK. (TYPICAL)
6. PROVIDE RECESSED JUNCTION BOX WITH WP COVER FOR FUTURE EXIT SIGN.
7. CONNECT TO LIGHTING CIRCUIT IN AREA E. SEE SHEET E201E FOR CONTINUATION.
8. EMERGENCY POWER TRANSFER CONTROL DEVICE (EPC). SEE DETAIL A1 ON SHEET E400. WIRE TO PENTHOUSE EGRESS (HATCHED) LIGHT FIXTURES. (EXIT LIGHTS SHALL BE WIRED TO UNSWITCHED CONDUCTOR), AS SHOWN, WALL MOUNT AT 8'-0" OR AS HIGH AS POSSIBLE.
9. PROVIDE COMPATIBLE (0-10V) DIMMER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. LEVITON MODEL AWSMT-7DW. (TYPICAL)
10. CONNECT TO OTHER EXTERIOR LIGHTS IN AREA E/ SEE SHEET E201 FOR CONTINUATION.
11. CONNECT LOW VOLTAGE WIRING TO DRIVER IN EACH FIXTURE CONTROLLED BY THIS DIMMER.
12. CONNECT TO EXTERIOR LIGHT FIXTURE IN AREA B. SEE SHEET E201B FOR CONTINUATION.

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COLLABORATION

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MECHANICAL/ELECTRICAL ENGINEER
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Project No. 2015-026

CIVIL ENGINEER
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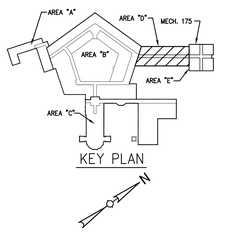
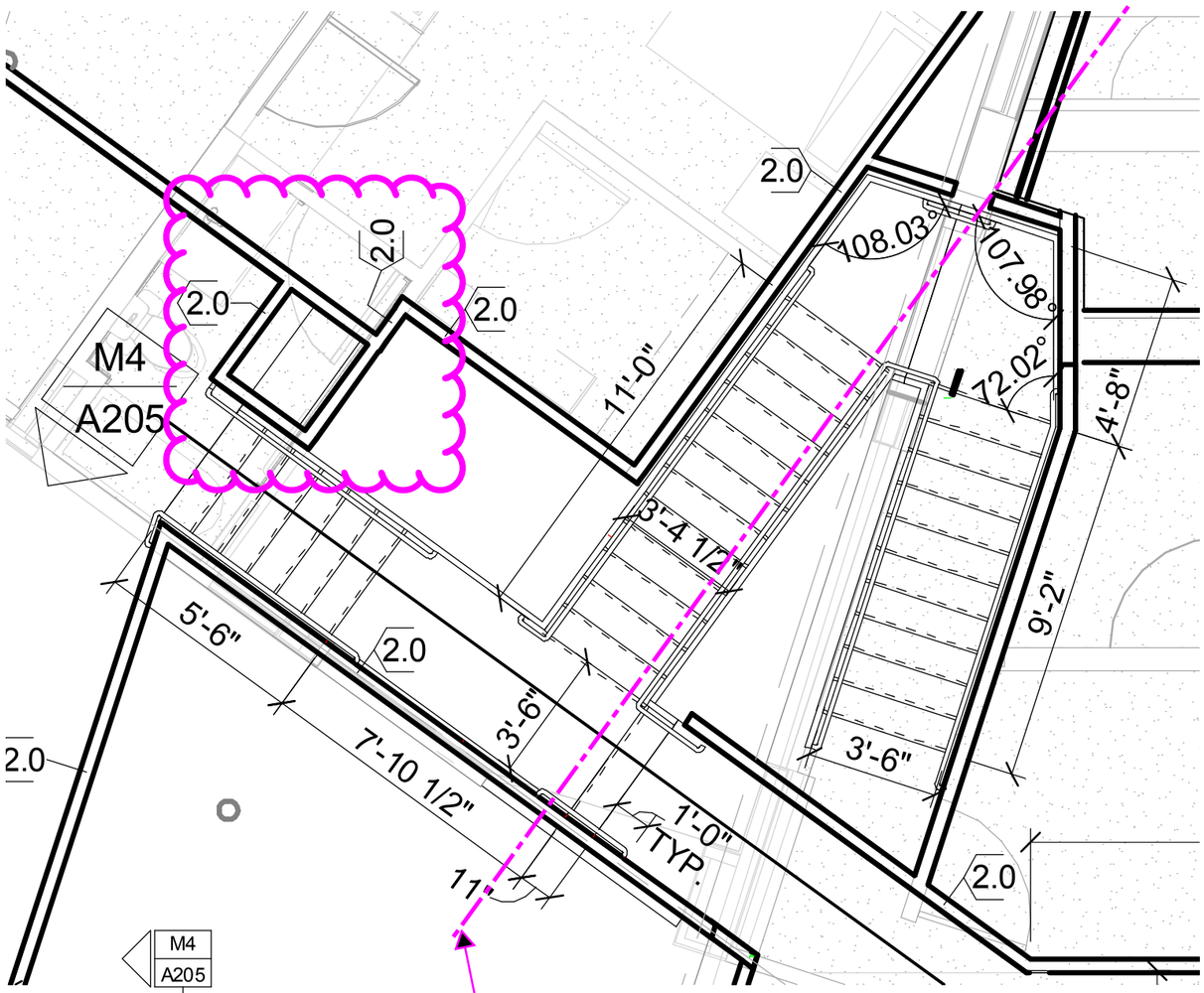
St. Gregory the Great Seminary
Dormitory and Classroom Addition
800 Fletcher Road Seward, Nebraska 68434



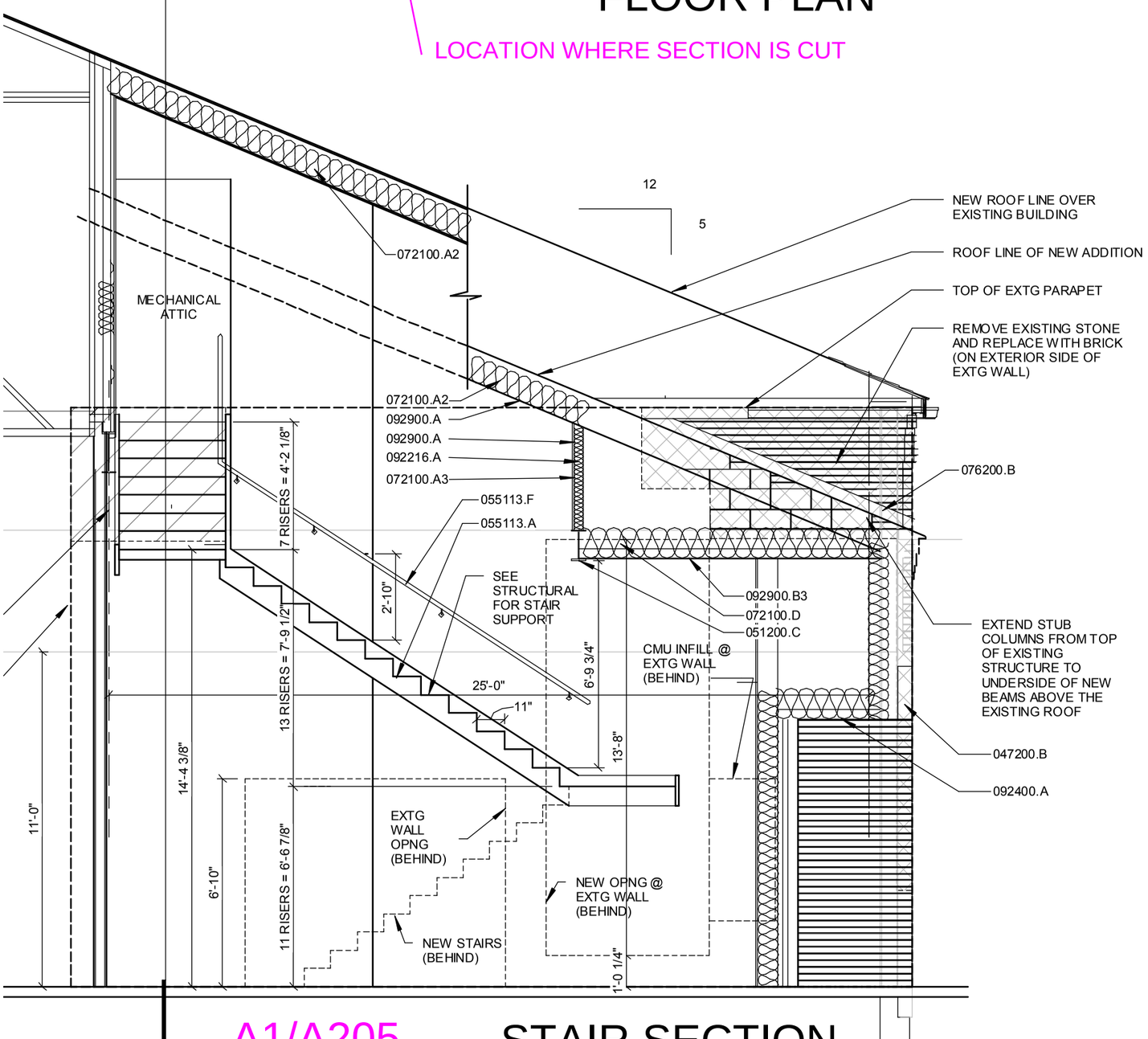
DRAWING TITLE:	FIRST FLOOR PLAN & PENTHOUSE FLOOR PLAN - AREA D - LIGHTING
ENGINEER:	HAL
DRAWN BY:	MAB
ISSUE DATE:	05/02/2016
PROJECT NO.:	14021

E201D



FLOOR PLAN

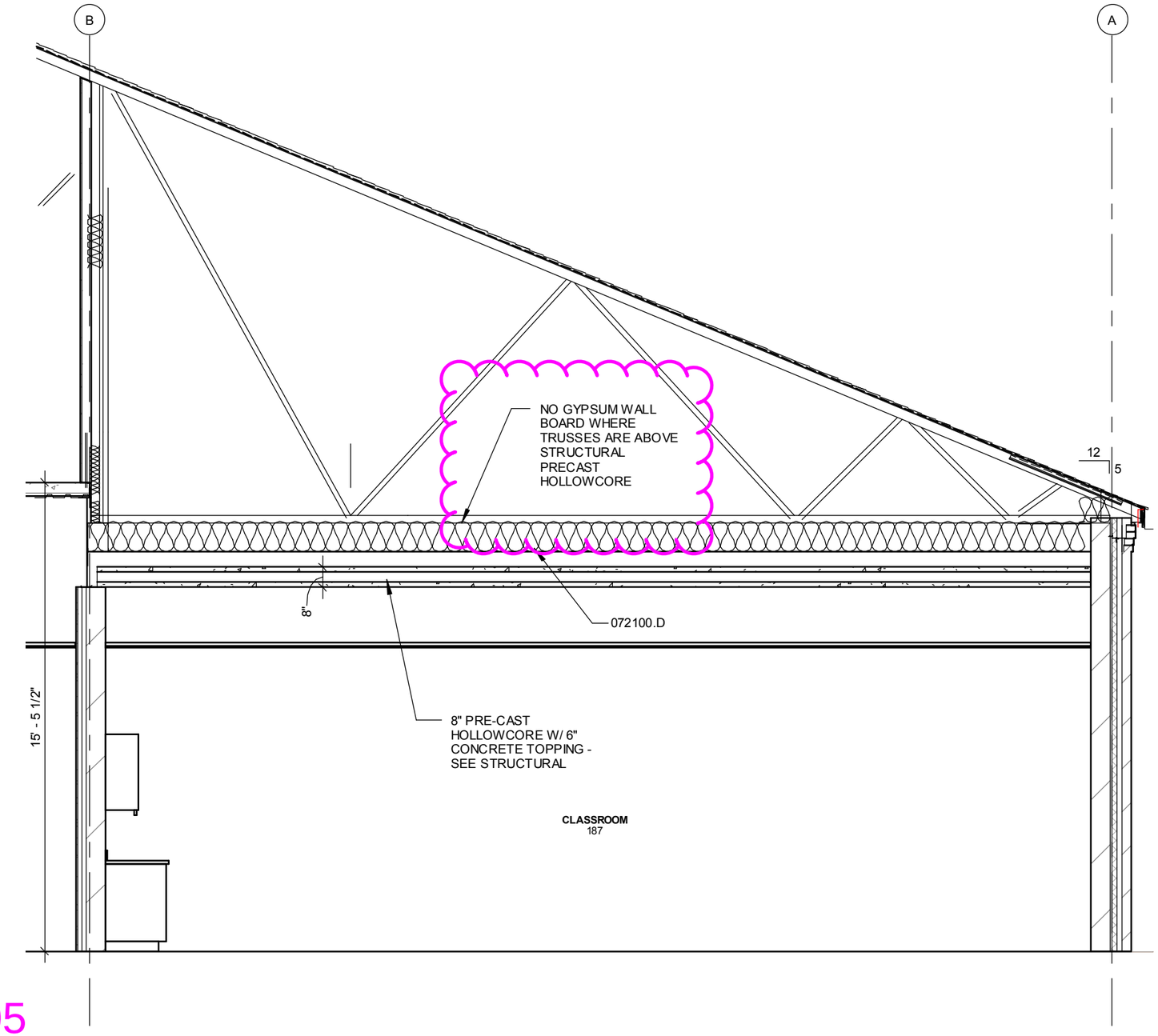
LOCATION WHERE SECTION IS CUT

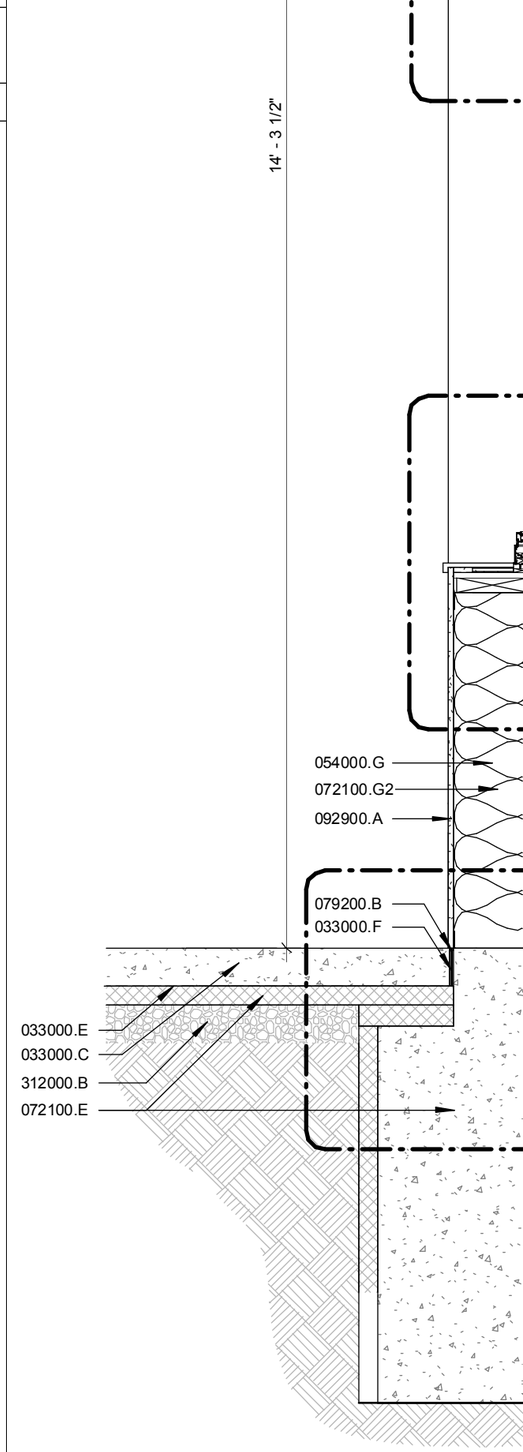


A1/A205 STAIR SECTION

AAD-01 Addendum 02 05/12/16

M4	BUILDING SECTION
SCALE: 1/8" = 1'-0"	





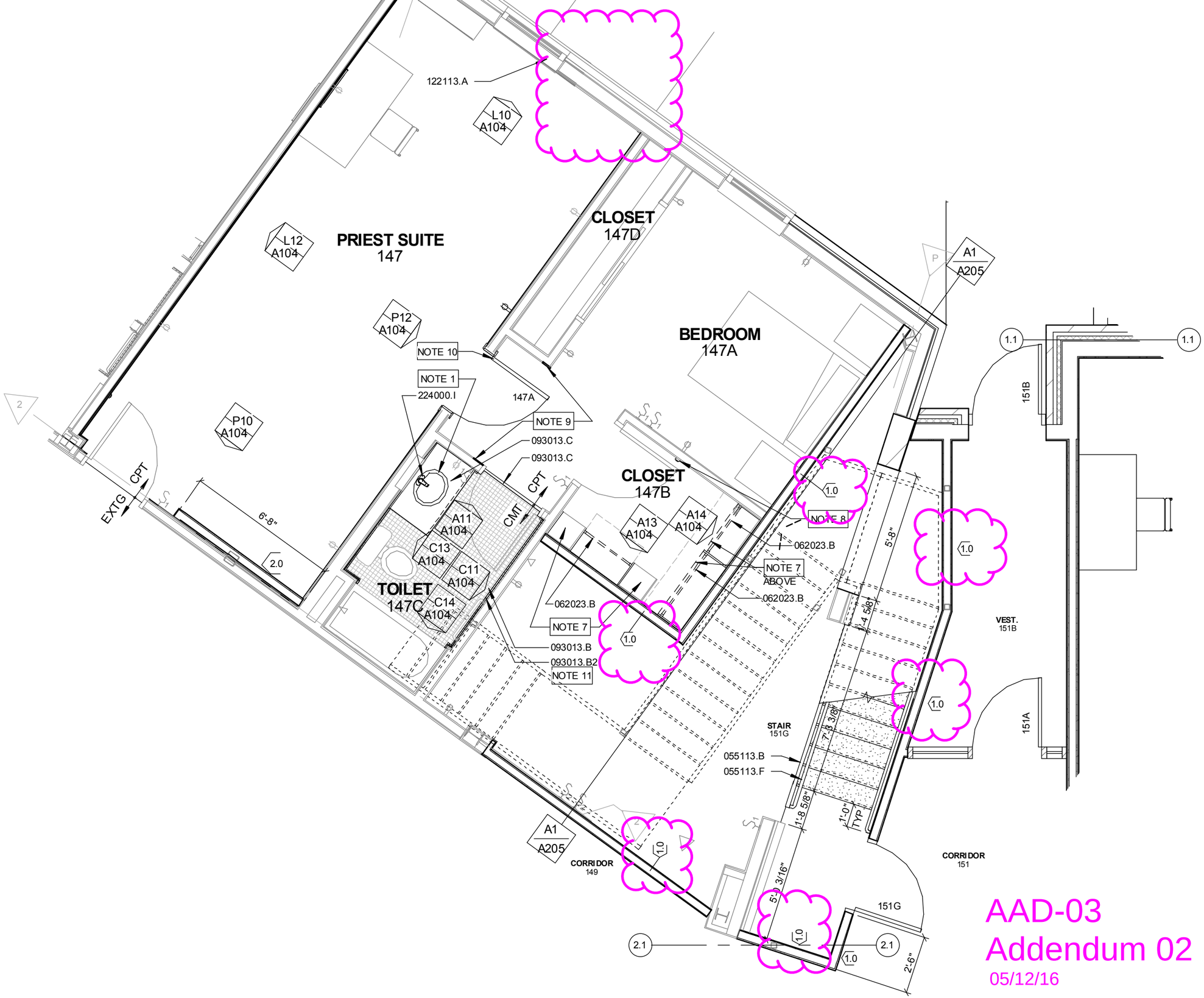
G1/A205

G1	BUILDING SECTION
SCALE: 1/4" = 1'-0"	CLASSROOM 187 - STORM SHELTER ROOM

AAD-02-Addendum 02

05/12/16

G7	WALL SECTIO
SCALE: 3/4" = 1'-0"	



AAD-03
Addendum 02
05/12/16

093013.B	2"X2" MOSAIC FLOOR
093013.B2	2"X2" BUILT-UP COVE
093013.C	EDGE OF TILE TO CAR STRIP
099123.C	PAINT FINISH
102800.C	TOILET PAPER DISPEN
102800.D	SHOWER CURTAIN RO
102800.E	ROBE HOOK
102800.G	24" TOWEL BAR
102800.H	RECESSED MEDICINE
122113.A	HORIZONTAL LOUVER
123661.C	SOLID SURFACE COUN BACKSPLASH
224000.A	FLOOR DRAIN
224000.C	SHOWER HEAD AND H
224000.E	FLOOR MOUNTED FLU
224000.G	SINK - SEE MECHANIC
224000.H	1 PIECE FIBERGLASS SHOWER ROD AND CU
224000.I	CENTERSET 1-HANDLE BATHROOM FAUCET
265100.A	LIGHT FIXTURE - SEE

SHEET A104 SHEET SP

NOTE 1	NEW BATHROOM SINK.
NOTE 2	REMOVE EXISTING GWB ABO SHOWER ROD LOCATION. INS SHOWER ROD. PATCH AND F MOISTURE AND MOLD RESIS
NOTE 3	REMOVE AND RETAIN EXISTI WALL TO BE RE-PAINTED; ON AND DRY, REINSTALL EXISTIN

167	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		167
167A	TOIL.	CT	CT	GWB	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB	PNT	3	167A
168	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		168
168A	TOIL.	CT	CT	GWB/CT	PNT	GWB / CT	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3	168A
169	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		169
169A	TOIL.	CT	CT	GWB	PNT	GWB / CT	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3	169A
170	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		170
170A	TOIL.	CT	CT	GWB/CT	PNT	GWB / CT	SG PNT / CT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3	170A
171	PRIEST SUITE	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		171
171a	CLO.	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		171a
171B	BEDROOM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		171B
171b	CLOSET	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		171b
171C	TOILET	CT	CT	GWB	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	GWB	PNT		171C
172	STUDY	CPT	VWB	-	-	GWB	PNT	GWB	PNT	GWB	PNT	APC	-		172
173	CORRIDOR	CPT	VWB	GWB	PNT	GWB	PNT	-	-	GWB	PNT	APC	-		173
173A	VEST.	CPT-2	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		173A
174	CORRIDOR	CPT	VWB	GWB	PNT	-	-	GWB	PNT	GWB	PNT	APC	-		174
175	MECHANICAL	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	175
175A	ELECTRICAL	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	175A
176	IT	VCT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		176
177	CORRIDOR	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC	-		177
178	CORRIDOR	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	-	-	APC	-		178
178A	VESTIBULE	CPT-2	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		178A
179	SEMINAR	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC	-		179
179B	TOILET	CT	CT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT		179B
179C	STORAGE	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT			4	179C
186	CUST.	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	186
187	CLASSROOM	CPT	CT	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	APC	-		187
188	LAB CLASS / STORAGE	VCT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC	-		188
C136	MUSIC	CPT	VWB	EXTG	PNT	EXTG.	PNT	EXTG.	PNT	EXTG.	PNT	APC	-		C136
C137	WEIGHT	CPT	VWB	EXTG	PNT	EXTG.	PNT	EXTG.	PNT	EXTG.	PNT	GWB	PNT		C137
C138	COMMUNITY	CPT	VWB	GWB	PNT	EXTG.	PNT	EXTG.	PNT	EXTG.	PNT	APC	-		C138
New Bldg. Penthouse															
200	CORRIDOR	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	200
201	CORRIDOR	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	201
202	CORRIDOR	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	202
203	CORRIDOR	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	203
204	CORRIDOR	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	204
205	CORRIDOR	CONC	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4	205

ROOM FINISH SCHEDULE NOTES

1 REMOVE AND REPLACE EXISTING GWB CEILING AS REQUIRED FOR REMOVAL OF EXISTING DUCTWORK AND INSTALLATION OF NEW.
2 INSTALL 4x4 CERAMIC WALL TILE AT SERVICE SINK TO 5'-0" ABOVE TOP OF SINK AND 12" PAST EACH EDGE.
3 CERAMIC TILE TO BE INSTALLED AROUND SHOWER ENCLOSURE - SEE ELEVATIONS FOR EXTENT
4 EXPOSED CONCRETE FLOORS TO RECEIVE A CLEAR SEALER FINISH.

AAD-04
Addendum 02
05/12/16

3 REQUIRES POSITION SWITCH
4 REQUIRES MAG HOLD OPEN
5 REQUIRES CARD READER
6 REQUIRES DOOR OPERATOR

AAD-05
Addendum 02
05/12/16

ROOM FINISH SCHEDULE

No.	Name	Floor Finish	Base	North Wall		East Wall		South Wall		West Wall		CEILING		NOTE
				Material	Finish	Material	Finish	Material	Finish	Material	Finish	Material	Finish	
First Floor														
138	COMPUTER / STUDY	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC		
142	KITCHEN	VCT	VWB	GWB	PNT	GWB	PNT	-	-	-	-	APC		
143	DORM	EXTG	EXTG	-	-	-	-	-	-	-	-	GWB	PNT	1
145	DORM	EXTG	EXTG	-	-	-	-	-	-	-	-	GWB	PNT	1
147	PRIEST SUITE	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
147A	BEDROOM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
147B	CLOSET	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
147C	TOILET	CT	CT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
147D	CLOSET	CPT	VWB	EXTG.	EXTG.	EXTG.	EXTG.	EXTG.	EXTG.	EXTG.	EXTG.	EXTG.	EXTG.	
149	CORRIDOR	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC	-	
149a	TOILET	EXTG	EXTG	EXTG	PNT	EXTG.	PNT	EXTG.	PNT	EXTG.	EXTG	GWB	PNT	
149b	JANITOR	VCT	VWB	GWB	PNT	EXTG.	PNT	EXTG	PNT	EXTG.	PNT	GWB	PNT	2
150	CORRIDOR	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC		
151	CORRIDOR	CPT	VWB	GWB	PNT	GWB	PNT	-	-	GWB	PNT	APC	-	
151B	VEST.	CPT-2	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
151G	STAIR	CONC	-	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	4
152	LOUNGE	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC	-	
153	PRIEST SUITE	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
154	LAUNDRY	VCT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	APC	-	
155	BEDROOM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
155A	TOIL.	CT	CT	GWB	PNT	GWB/CT	PNT	GWB / CT	PNT	GWB	PNT	GWB	PNT	3
155B	CL.	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
156	BARBERSHOP	VCT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
156A	TOIL.	CT	CT	GWB/CT	PNT	GWB / CT	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3
157	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
157A	TOIL.	CT	CT	GWB	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB	PNT	3
158	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
158A	TOIL.	CT	CT	GWB/CT	PNT	GWB / CT	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3
159	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
159A	TOIL.	CT	CT	GWB	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB	PNT	3
160	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
160A	TOIL.	CT	CT	GWB/CT	PNT	GWB / CT	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3
161	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
161A	TOIL.	CT	CT	GWB	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB	PNT	3
162	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
162A	TOIL.	CT	CT	GWB/CT	PNT	GWB / CT	PNT	GWB	PNT	GWB / CT	PNT	GWB	PNT	3
163	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	
163A	TOIL.	CT	CT	GWB	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB / CT	PNT	GWB	PNT	3
164	DORM	CPT	VWB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	

SHADING INDICATES PARTIAL REMOVAL AND REPLACEMENT OF EXTG GWB CEILING TO FACILITATE HVAC INSTALL - SEE MECH

M.8

N.4

2

REMOVE AND REPLACE EXISTNG CARPET AND VINYL WALL BASE

REPLACE SHEATHING AT NEW BRICK

P

REMOVE EXISTING STONE VENEER - REPLACE WITH NEW FACE BRICK FROM TOP OF FOOTING TO UNDERSIDE OF NEW FASCIA AND BETWEEN NEW ROOF AND FASCIA - SEE A1/A205

REMOVE & REPLACE EXISTING CARPET AND VWB

REMOVE AND REPLACE EXISTING GWB CEILINGS FROM THESE ROOMS

INSIDE NEW ENTRY ALCOVE, REPLACE EXISTING STONE WITH NEW FACE BRICK FROM TOP OF FOOTING TO UNDERSIDE OF NEW ALCOVE CEILING.

REMOVE & REPLACE EXISTING LAY-IN ACOUSTICAL CEILING

REMOVE EXTG VCT FLOORING AND VINYL BASE

3

N

N.2

REMOVE EXTG GWB CEILING - REPLACE WITH 2 X 2 LAY-IN. SEE REFLECTED CEILING

INDICATES CONCRETE REMOVAL FOR NEW FOOTINGS - SEE STRUCTURAL

INDICATES CONCRETE REMOVAL FOR NEW FOOTINGS - SEE STRUCTURAL

REPAIR EXISTING WALL AFTER CABINET REMOVAL

COLUMN IS TO REMAIN IN PLACE

REPAIR EXISTING WALL AFTER CABINET REMOVAL

2

REMOVE EXISTING CONCRETE FLOOR FOR INSTALLATION OF NEW PLUMBING - SEE MECHANICAL

2.9

INDICATES CONCRETE REMOVAL FOR NEW FOOTINGS - SEE STRUCTURAL

SHADING INDICATES PARTIAL REMOVAL AND REPLACEMENT OF EXTG GWB CEILING TO FACILITATE MODIFICATION OF RAINWATER PIPING - SEE MECH

REMOVE AND REPLACE EXTG LAY-IN CEILING SYSTEM

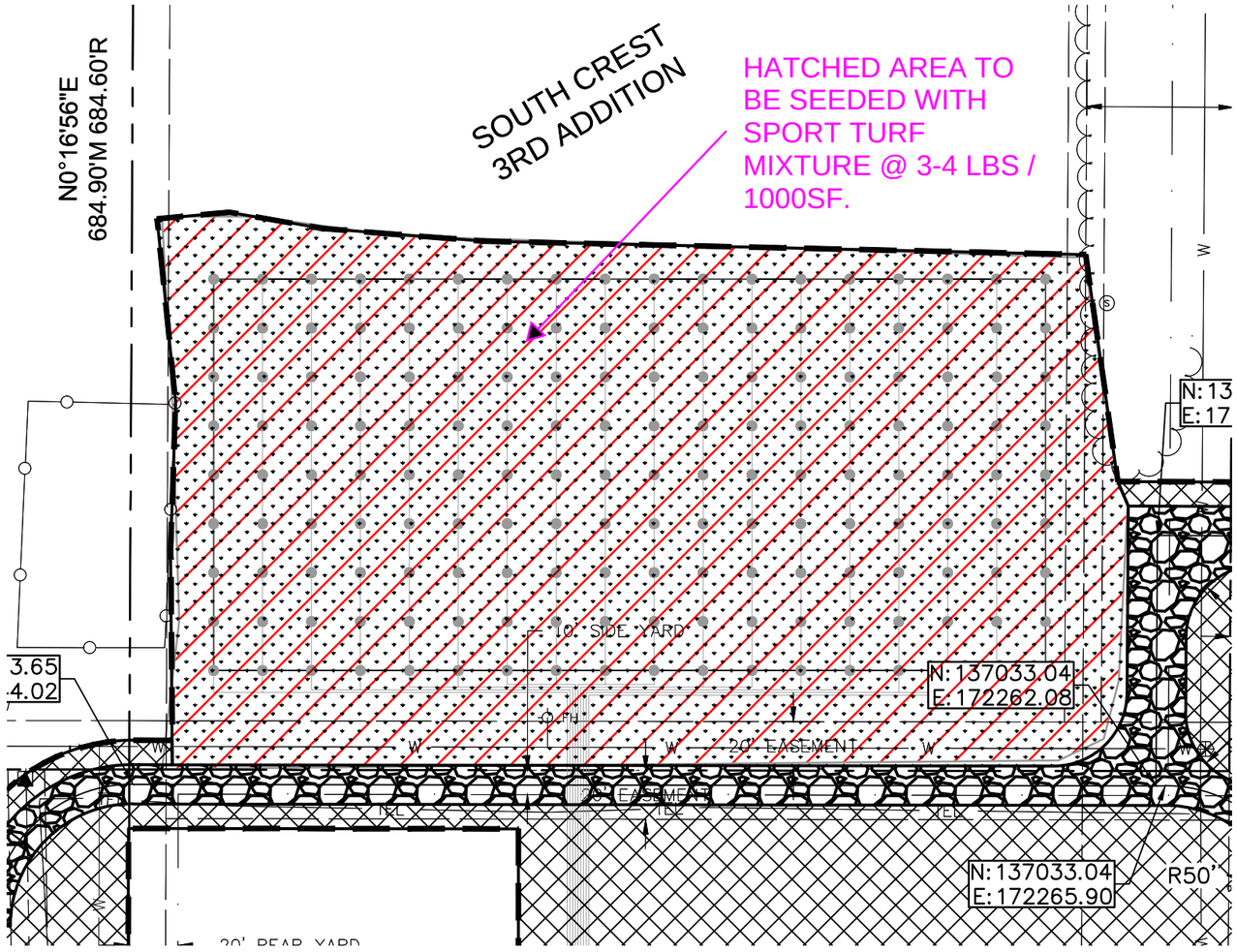
2.9

3

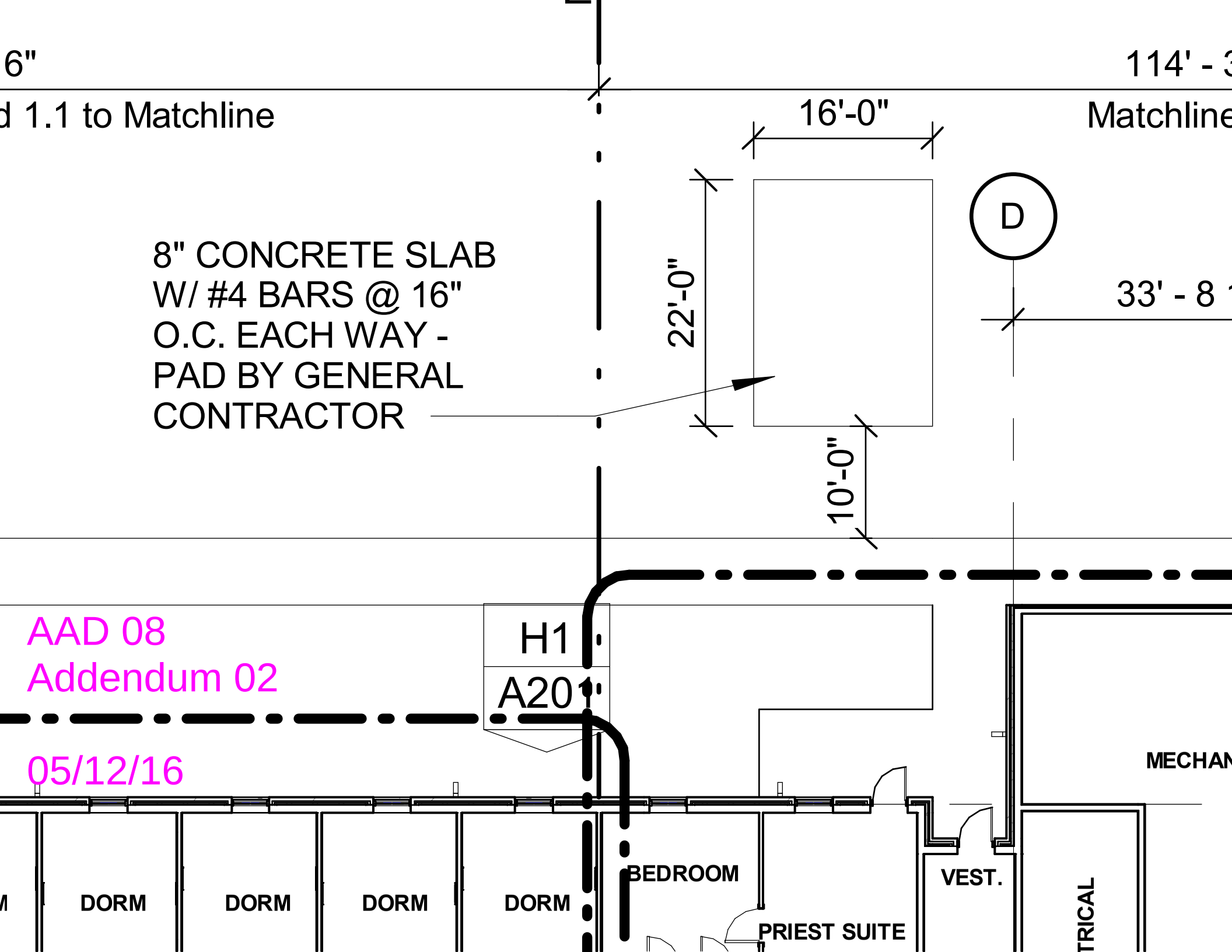
REMOVE AND REPLACE EXISTING CARPET AND VINYL BASE

Q P N M L K J

AAD-06
Addendum 02
scale 1"=10'
05/12/16



AAD-07
Addendum 02
05/12/16


6"
114' - 3
d 1.1 to Matchline
Matchline
16'-0"
D
8" CONCRETE SLAB
W/ #4 BARS @ 16"
O.C. EACH WAY -
PAD BY GENERAL
CONTRACTOR
22'-0"
10'-0"
33' - 8
AAD 08
Addendum 02
05/12/16
H1
A201
MECHAN
DORM
DORM
DORM
DORM
BEDROOM
PRIEST SUITE
VEST.
TRICAL

DOCUMENT 004321 - ALLOWANCE FORM

1.1 BID INFORMATION

A. Bidder: _____.

B. Project Identification: St. Gregory the Great Seminary Dormitory Addition.

1. Project Location: 800 Fletcher Road, Seward Nebraska 68434.

C. Owner: St. Gregory the Great Seminary.

D. Architect: Clark Architects Collaborative.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

B. The undersigned Bidder certifies that Base Bid submission to which this Bid Supplement is attached includes those allowances described in the Contract Documents and scheduled in Section 012100 "Allowances."

1.3 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this ____ day of _____, 2016.

B. Submitted By:_____(Insert name of bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

END OF DOCUMENT 004321

DOCUMENT 004323 - ALTERNATES FORM

1.1 BID INFORMATION

A. Bidder: _____.

B. Project Identification: St. Gregory the Great Seminary Dormitory Addition.

1. Project Location: 800 Fletcher Road, Seward Nebraska 68434.

C. Owner: St. Gregory the Great Seminary.

D. Architect: Clark Architects Collaborative.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

1.3 DESCRIPTION

A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.

B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."

C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."

D. The Bidder shall be responsible for determining from the Contract Documents the effects of each alternate on the Contract Time and the Contract Sum.

E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 60 days of the Notice of Award unless otherwise indicated in the Contract Documents.

F. Acceptance or non-acceptance of any alternates by the Owner shall have no effect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

1.4 SCHEDULE OF ALTERNATES

A. Alternate No. One: Alternate Acoustical Ceiling Panels:

1. ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
2. _____ Dollars ($_____).
3. ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

B. Alternate No. Two: Replacement of Existing Asphalt Paving:

1. ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
2. _____ Dollars ($_____).
3. ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

C. Alternate No. Three: Concrete in Lieu of Asphalt:

1. ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
2. _____ Dollars ($_____).
3. ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

D. Alternate No. Four: Performance and Labor and Material Payment Bond:

1. ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
2. _____ Dollars ($_____).
3. ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

1.5

1.6 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this ____ day of _____, 2016.

B. Submitted By:_____(Insert name of bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

END OF DOCUMENT 004323

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Execute accepted alternates under the same conditions as other work of the Contract.

C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. One: Alternate Acoustical Ceiling Panels.

1. Base Bid: Utilize specified acoustical ceiling panels throughout as indicated on Drawing A700 and as specified in Section 095113 "Acoustical Panel Ceilings."
2. Alternate: In lieu of the specified acoustical ceiling panel throughout, use Certainteed, Vantage – VAN-154 w/ reveal edge in the corridors and the specified panels in the rooms.

B. Alternate No. Two: Replacement of Existing Asphalt Paving.

1. Base Bid: Replace existing asphalt paving as indicated on Sheets C401, C402, C403 and associated details on sheet C103.
2. Alternate: Eliminate replacement of existing asphalt paving.

C. Alternate No. Three: Concrete in Lieu of Asphalt

1. Base Bid: Parking lot and drives are to be paved with asphalt as indicated on Sheets C401, C402, C403 and associated details on sheet C103.
2. Alternate: Utilize Portland Cement Concrete in lieu of asphalt.

D. Alternate No. Four: Performance and Labor and Material Payment Bond

1. Base Bid: The Contractor is to provide a Performance Bond, and a separate Labor and Material Payment Bond.
2. Alternate: Delete the requirement of the Performance Bond and the separate Labor and Material Payment Bond,

END OF SECTION 012300

SECTION 034100 - PRECAST STRUCTURAL CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Precast structural concrete.

B. Related Sections:

1. Section 042000 "Unit Masonry" for inserts or anchorages required for precast concrete slab connections.
2. Section 079200 "Joint Sealants" for elastomeric joint sealants and sealant backings.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design precast structural concrete, including comprehensive engineering analysis by a qualified professional engineer licensed in the State of Nebraska, using performance requirements and design criteria indicated.

B. Structural Performance: Precast structural concrete units and connections shall withstand design loads indicated in the Drawings.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Design Mixtures: For each precast concrete mixture. Include compressive strength and water-absorption tests.

C. Shop Drawings: Include member locations, plans, elevations, dimensions, shapes and sections, openings, support conditions, and types of reinforcement, including special reinforcement. Detail fabrication and installation of precast structural concrete units.

1. Indicate welded connections by AWS standard symbols. Show size, length, and type of each weld.
2. Detail loose and cast-in hardware, lifting and erection inserts, connections, and joints.
3. Indicate locations, tolerances, and details of anchorage devices to be embedded in or attached to structure or other construction.

4. Include and locate openings larger than 10 by 10 inches (250 mm).
5. Indicate location of each precast structural concrete unit by same identification mark placed on panel.
6. Indicate relationship of precast structural concrete units to adjacent materials.
7. Indicate estimated camber for precast floor slabs with concrete toppings.
8. Indicate shim sizes and grouting sequence.
9. Design Modifications: If design modifications are proposed to meet performance requirements and field conditions, submit design calculations and Shop Drawings. Do not adversely affect the appearance, durability, or strength of units when modifying details or materials and maintain the general design concept.

D. Delegated-Design Submittal: For precast structural concrete indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and fabricator.

B. Welding certificates.

C. Material Certificates: For the following, from manufacturer:

1. Cementitious materials.
2. Reinforcing materials and prestressing tendons.
3. Admixtures.
4. Bearing pads.

D. Material Test Reports: For aggregates.

E. Source quality-control reports.

1.6 QUALITY ASSURANCE

A. Fabricator Qualifications: A firm that assumes responsibility for engineering precast structural concrete units to comply with performance requirements. Responsibility includes preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer experienced in design of precast concrete and licensed in the State of Nebraska.

1. Participates in PCI's Plant Certification program at time of bidding and is designated a PCI-certified plant as follows:

a. Group C, Category C2 - Prestressed Hollowcore and Repetitively Produced Products.

B. Installer Qualifications: A precast concrete erector qualified at time of bidding, as evidenced by PCI's Certificate of Compliance, to erect Category S1 - Simple Structural Systems.

C. Testing Agency Qualifications: Qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.

D. Design Standards: Comply with ACI 318 (ACI 318M) and design recommendations in PCI MNL 120, "PCI Design Handbook - Precast and Prestressed Concrete," applicable to types of precast structural concrete units indicated.

E. Quality-Control Standard: For manufacturing procedures and testing requirements, quality-control recommendations, and dimensional tolerances for types of units required, comply with PCI MNL 116, "Manual for Quality Control for Plants and Production of Structural Precast Concrete Products."

F. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D.1.1M, "Structural Welding Code - Steel."
2. AWS D1.4, "Structural Welding Code - Reinforcing Steel."

1.7 DELIVERY, STORAGE, AND HANDLING

A. Support units during shipment on nonstaining shock-absorbing material in same position as during storage.

B. Store units with adequate bracing and protect units to prevent contact with soil, to prevent staining, and to prevent cracking, distortion, warping or other physical damage.

1. Store units with dunnage across full width of each bearing point unless otherwise indicated.
2. Place adequate dunnage of even thickness between each unit.
3. Place stored units so identification marks are clearly visible, and units can be inspected.

C. Handle and transport units in a position consistent with their shape and design in order to avoid excessive stresses that would cause cracking or damage.

D. Lift and support units only at designated points shown on Shop Drawings.

1.8 COORDINATION

A. Furnish loose connection hardware and anchorage items to be embedded in or attached to other construction before starting that Work. Provide locations, setting diagrams, templates, instructions, and directions, as required, for installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Fabricators: Subject to compliance with requirements, fabricators offering products that may be incorporated into the Work.

2.2 MOLD MATERIALS

A. Molds: Rigid, dimensionally stable, non-absorptive material, warp and buckle free, that will provide continuous and true precast concrete surfaces within fabrication tolerances indicated; nonreactive with concrete and suitable for producing required finishes.

1. Mold-Release Agent: Commercially produced liquid-release agent that will not bond with, stain or adversely affect precast concrete surfaces and will not impair subsequent surface or joint treatments of precast concrete.

2.3 REINFORCING MATERIALS

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.

B. Low-Alloy-Steel Reinforcing Bars: ASTM A 706/A 706M, deformed.

C. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.

D. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.

E. Supports: Suspend reinforcement from back of mold or use bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place according to PCI MNL 116.

2.4 PRESTRESSING TENDONS

A. Pretensioning Strand: ASTM A 416/A 416M, Grade 270 (Grade 1860), uncoated, 7-wire, low-relaxation strand.

2.5 CONCRETE MATERIALS

A. Portland Cement: ASTM C 150, Type I or Type III, gray, unless otherwise indicated.

1. For surfaces exposed to view in finished structure, mix gray with white cement, of same type, brand, and mill source.

B. Supplementary Cementitious Materials:

1. Fly Ash: ASTM C 618, Class C or F, with maximum loss on ignition of 3 percent.
2. Metakaolin Admixture: ASTM C 618, Class N.

C. Normal-Weight Aggregates: Except as modified by PCI MNL 116, ASTM C 33, with coarse aggregates complying with Class 5S. Stockpile fine and coarse aggregates for each type of exposed finish from a single source (pit or quarry) for Project.

D. Water: Potable; free from deleterious material that may affect color stability, setting, or strength of concrete and complying with chemical limits of PCI MNL 116.

E. Air-Entraining Admixture: ASTM C 260, certified by manufacturer to be compatible with other required admixtures.

F. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and to not contain calcium chloride, or more than 0.15 percent chloride ions or other salts by weight of admixture.

1. Water-Reducing Admixtures: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. Water-Reducing and Accelerating Admixture: ASTM C 494/C 494M, Type E.
5. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
6. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
7. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M.

G. Corrosion-Inhibiting Admixture: Commercially formulated, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete.

2.6 STEEL CONNECTION MATERIALS

A. Carbon-Steel Shapes and Plates: ASTM A 36/A 36M.

B. Carbon-Steel-Headed Studs: ASTM A 108, AISI 1018 through AISI 1020, cold finished, AWS D1.1/D1.1M, Type A or B, with arc shields and with minimum mechanical properties of PCI MNL 116.

C. Carbon-Steel Plate: ASTM A 283/A 283M.

D. Malleable-Iron Castings: ASTM A 47/A 47M.

E. Carbon-Steel Castings: ASTM A 27/A 27M, Grade 60-30 (Grade 415-205).

F. High-Strength, Low-Alloy Structural Steel: ASTM A992/A992M.

G. Carbon-Steel Structural Tubing: ASTM A 500, Grade B.

H. Wrought Carbon-Steel Bars: ASTM A 675/A 675M, Grade 65 (Grade 450).

I. Deformed-Steel Wire or Bar Anchors: ASTM A 496 or ASTM A 706/A 706M.

J. High-Strength Bolts and Nuts: ASTM A 325 (ASTM A 325M) or ASTM A 490 (ASTM A 490M,), Type 1, heavy hex steel structural bolts; heavy hex carbon-steel nuts, ASTM A 563 (ASTM A 563M); and hardened carbon-steel washers, ASTM F 436 (ASTM F 436M).

1. Do not zinc coat ASTM A 490 (ASTM A 490M) bolts.

K. Welding Electrodes: Comply with AWS standards.

L. Precast Accessories: Provide clips, hangers, plastic or steel shims, and other accessories required to install precast structural concrete units.

2.7 BEARING PADS

A. Provide ~~one of~~ the following bearing pads for precast structural concrete units:

1. Random-Oriented, Fiber-Reinforced Elastomeric Pads: Preformed, randomly oriented synthetic fibers set in elastomer. 70 to 90 Shore, Type A durometer hardness, ASTM D 2240; capable of supporting a compressive stress of 3000 psi (20.7 MPa) with no cracking, splitting, or delaminating in the internal portions of pad. Test 1 specimen for every 200 pads used in Project.

2.8 GROUT MATERIALS

A. Sand-Cement Grout: Portland cement, ASTM C 150, Type I, and clean, natural sand, ASTM C 144 or ASTM C 404. Mix at ratio of 1 part cement to 2-1/2 parts sand, by volume, with minimum water required for placement and hydration.

B. Nonmetallic, Nonshrink Grout: Premixed, nonmetallic, noncorrosive, nonstaining grout containing selected silica sands, portland cement, shrinkage-compensating agents, plasticizing and water-reducing agents, complying with ASTM C 1107, Grade A for drypack and Grades B and C for flowable grout and of consistency suitable for application within a 30-minute working time.

C. Epoxy-Resin Grout: Two-component, mineral-filled epoxy resin; ASTM C 881/C 881M, of type, grade, and class to suit requirements.

2.9 CONCRETE MIXTURES

A. Prepare design mixtures for each type of precast concrete required.

1. Limit use of fly ash and silica fume to a maximum aggregate amount of 25 percent of portland cement by weight.

B. Design mixtures may be prepared by a qualified independent testing agency or by qualified precast plant personnel at precast structural concrete fabricator's option.

C. Limit water-soluble chloride ions to maximum percentage by weight of cement permitted by ACI 318 (ACI 318M) or PCI MNL 116 when tested according to ASTM C 1218/C 1218M.

D. Normal-Weight Concrete Mixtures: Proportion by either laboratory trial batch or field test data methods according to ACI 211.1, with materials to be used on Project, to provide normal-weight concrete with the following properties:

1. Compressive Strength (28 Days): 6000 psi (41.4 MPa).
2. Maximum Water-Cementitious Materials Ratio: 0.40.

E. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 6 percent, with a tolerance of plus or minus 1-1/2 percent.

F. When included in design mixtures, add other admixtures to concrete mixtures according to manufacturer's written instructions.

G. Concrete Mix Adjustments: Concrete mix design adjustments may be proposed if characteristics of materials, Project conditions, weather, test results, or other circumstances warrant.

2.10 MOLD FABRICATION

A. Molds: Accurately construct molds, mortar tight, of sufficient strength to withstand pressures due to concrete-placement operations and temperature changes and for prestressing and detensioning operations. Coat contact surfaces of molds with release agent before reinforcement is placed. Avoid contamination of reinforcement and prestressing tendons by release agent.

1. Place form liners accurately to provide finished surface texture indicated. Provide solid backing and supports to maintain stability of liners during concrete placement. Coat form liner with form-release agent.

B. Maintain molds to provide completed precast structural concrete units of shapes, lines, and dimensions indicated, within fabrication tolerances specified.

1. Edge and Corner Treatment: Uniformly chamfered or radiused.

2.11 FABRICATION

A. Cast-in Anchors, Inserts, Plates, Angles, and Other Anchorage Hardware: Fabricate anchorage hardware with sufficient anchorage and embedment to comply with design requirements. Accurately position for attachment of loose hardware, and secure in place during precasting operations. Locate anchorage hardware where it does not affect position of main reinforcement or concrete placement.

1. Weld-headed studs and deformed bar anchors used for anchorage according to AWS D1.1/D1.1M and AWS C5.4, "Recommended Practices for Stud Welding."

B. Furnish loose hardware items including steel plates, clip angles, seat angles, anchors, dowels, cramps, hangers, and other hardware shapes for securing precast structural concrete units to supporting and adjacent construction.

C. Cast-in reglets, slots, holes, and other accessories in precast structural concrete units as indicated on the Contract Drawings.

D. Cast-in openings larger than 10 inches (250 mm) in any dimension. Do not drill or cut openings or prestressing strand without Architect's approval.

E. Reinforcement: Comply with recommendations in PCI MNL 116 for fabricating, placing, and supporting reinforcement.

1. Clean reinforcement of loose rust and mill scale, earth, and other materials that reduce or destroy the bond with concrete. When damage to epoxy-coated reinforcement exceeds limits specified, repair with patching material compatible with coating material and epoxy coat bar ends after cutting.
2. Accurately position, support, and secure reinforcement against displacement during concrete-placement and consolidation operations. Completely conceal support devices to prevent exposure on finished surfaces.
3. Place reinforcement to maintain at least 3/4-inch (19-mm) minimum coverage. Increase cover requirements according to ACI 318 (ACI 318M) when units are exposed to corrosive environment or severe exposure conditions. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position while placing concrete. Direct wire tie ends away from finished, exposed concrete surfaces.
4. Place reinforcing steel and prestressing strand to maintain at least 3/4-inch (19-mm) minimum concrete cover. Increase cover requirements for reinforcing steel to 1-1/2 inches (38 mm) when units are exposed to corrosive environment or severe exposure conditions. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position while placing concrete. Direct wire tie ends away from finished, exposed concrete surfaces.
5. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh spacing and wire tie laps, where required by design. Offset laps of adjoining widths to prevent continuous laps in either direction.

F. Reinforce precast structural concrete units to resist handling, transportation, and erection stresses.

G. Prestress tendons for precast structural concrete units by either pretensioning or post-tensioning methods. Comply with PCI MNL 116.

1. Delay detensioning of precast, prestressed structural concrete units until concrete has reached 3500 psi compressive strength as established by test cylinders cured under same conditions as concrete.
2. Detension pretensioned tendons either by gradually releasing tensioning jacks or by heat cutting tendons, using a sequence and pattern to prevent shock or unbalanced loading.
3. If concrete has been heat cured, detension while concrete is still warm and moist to avoid dimensional changes that may cause cracking or undesirable stresses.
4. Protect strand ends and anchorages with bituminous, zinc-rich, or epoxy paint to avoid corrosion and possible rust spots.

H. Comply with requirements in PCI MNL 116 and in this Section for measuring, mixing, transporting, and placing concrete. After concrete batching, no additional water may be added.

I. Place face mixture to a minimum thickness after consolidation of the greater of 1 inch (25 mm) or 1.5 times the maximum aggregate size, but not less than the minimum reinforcing cover specified.

J. Place concrete in a continuous operation to prevent seams or planes of weakness from forming in precast concrete units.

K. Thoroughly consolidate placed concrete by internal and external vibration without dislocating or damaging reinforcement and built-in items, and minimize pour lines, honeycombing, or entrapped air on surfaces. Use equipment and procedures complying with PCI MNL 116.

1. Place self-consolidating concrete without vibration according to PCI TR-6, "Interim Guidelines for the Use of Self-Consolidating Concrete in Precast/Prestressed Concrete Institute Member Plants."

L. Comply with ACI 306.1 procedures for cold-weather concrete placement.

M. Comply with PCI MNL 116 procedures for hot-weather concrete placement.

N. Identify pickup points of precast structural concrete units and orientation in structure with permanent markings, complying with markings indicated on Shop Drawings. Imprint or permanently mark casting date on each precast structural concrete unit on a surface that will not show in finished structure.

O. Cure concrete, according to requirements in PCI MNL 116, by moisture retention without heat or by accelerated heat curing using low-pressure live steam or radiant heat and moisture. Cure units until compressive strength is high enough to ensure that stripping does not have an effect on performance or appearance of final product.

P. Discard and replace precast structural concrete units that do not comply with requirements, including structural, manufacturing tolerance, and appearance, unless repairs meet requirements in PCI MNL 116 and meet Architect's approval.

2.12 FABRICATION TOLERANCES

A. Fabricate precast structural concrete units straight and true to size and shape with exposed edges and corners precise and true so each finished unit complies with PCI MNL 116 product dimension tolerances.

2.13 COMMERCIAL FINISHES

A. Screed or float finish unformed surfaces. Strike off and consolidate concrete with vibrating screeds to a uniform finish. Hand screed at projections. Normal color variations, minor indentations, minor chips, and spalls are permitted. Major imperfections, honeycombing, or defects are not permitted.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine supporting structural frame or foundation and conditions for compliance with requirements for installation tolerances, true and level bearing surfaces, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. Do not install precast concrete units until supporting, cast-in-place, building structural framing has attained minimum allowable design compressive strength or until supporting steel or other structure is complete.

3.2 INSTALLATION

A. Install clips, hangers, bearing pads, and other accessories required for connecting precast structural concrete units to supporting members and backup materials.

B. Erect precast structural concrete level, plumb, and square within specified allowable tolerances. Provide temporary structural framing, supports, and bracing as required to maintain position, stability, and alignment of units until permanent connection.

1. Install temporary steel or plastic spacing shims or bearing pads as precast structural concrete units are being erected. Tack weld steel shims to each other to prevent shims from separating.
2. Maintain horizontal and vertical joint alignment and uniform joint width as erection progresses.
3. Remove projecting lifting devices and grout fill voids within recessed lifting devices flush with surface of adjacent precast surfaces when recess is exposed.

C. Connect precast structural concrete units in position by bolting, welding, grouting, or as otherwise indicated on Shop Drawings. Remove temporary shims, wedges, and spacers as soon as practical after connecting and grouting are completed.

1. Do not permit connections to disrupt continuity of roof flashing.

D. Field cutting of precast units is not permitted without approval of the Architect.

E. Fasteners: Do not use drilled or powder-actuated fasteners for attaching accessory items to precast, prestressed concrete units.

F. Welding: Comply with applicable AWS D1.1/D1.1M and AWS D1.4 for welding, welding electrodes, appearance, quality of welds, and methods used in correcting welding work.

1. Protect precast structural concrete units and bearing pads from damage by field welding or cutting operations, and provide noncombustible shields as required.
2. Clean weld-affected steel surfaces with chipping hammer followed by brushing, and apply a minimum 4.0-mil- (0.1-mm-) thick coat of galvanized repair paint to galvanized surfaces according to ASTM A 780.
3. Clean weld-affected steel surfaces with chipping hammer followed by brushing, and reprime damaged painted surfaces.
4. Remove, reweld, or repair incomplete and defective welds.

G. At bolted connections, use lock washers, tack welding, or other approved means to prevent loosening of nuts after final adjustment.

1. Where slotted connections are used, verify bolt position and tightness. For sliding connections, properly secure bolt but allow bolt to move within connection slot. For friction connections, apply specified bolt torque and check 25 percent of bolts at random by calibrated torque wrench.

H. Grouting: Grout connections and joints and open spaces at keyways, connections, and joints where required or indicated on Shop Drawings. Retain grout in place until hard enough to support itself. Pack spaces with stiff grout material, tamping until voids are completely filled.

1. Place grout to finish smooth, level, and plumb with adjacent concrete surfaces.
2. Fill joints completely without seepage to other surfaces.
3. Trowel top of grout joints on roofs smooth and uniform. Finish transitions between different surface levels not steeper than 1 to 12.
4. Place grout end cap or dam in voids at ends of hollow-core slabs.
5. Promptly remove grout material from exposed surfaces before it affects finishes or hardens.
6. Keep grouted joints damp for not less than 24 hours after initial set.

3.3 ERECTION TOLERANCES

A. Erect precast structural concrete units level, plumb, square, true, and in alignment without exceeding the noncumulative erection tolerances of PCI MNL 135.

B. Minimize variations between adjacent slab members by jacking, loading, or other method recommended by fabricator and approved by Architect.

3.4 FIELD QUALITY CONTROL

A. Special Inspections: Engage a qualified special inspector to perform the following special inspections:

1. Erection of precast structural concrete members.

3.5 REPAIRS

A. Repair precast structural concrete units if permitted by Architect.

1. Repairs may be permitted if structural adequacy, serviceability, durability, and appearance of units has not been impaired.

B. Mix patching materials and repair units so cured patches blend with color, texture, and uniformity of adjacent exposed surfaces and show no apparent line of demarcation between original and repaired work, when viewed in typical daylight illumination from a distance of 20 feet (6 m).

C. Prepare and repair damaged galvanized coatings with galvanizing repair paint according to ASTM A 780.

D. Wire brush, clean, and paint damaged prime-painted components with same type of shop primer.

E. Remove and replace damaged precast structural concrete units that cannot be repaired or when repairs do not comply with requirements as determined by Architect.

3.6 CLEANING

A. Clean mortar, plaster, fireproofing, weld slag, and other deleterious material from concrete surfaces and adjacent materials immediately.

B. Clean exposed surfaces of precast concrete units after erection and completion of joint treatment to remove weld marks, other markings, dirt, and stains.

1. Perform cleaning procedures, if necessary, according to precast concrete fabricator's written recommendations. Clean soiled precast concrete surfaces with detergent and water, using stiff fiber brushes and sponges, and rinse with clean water. Protect other work from staining or damage due to cleaning operations.
2. Do not use cleaning materials or processes that could change the appearance of exposed concrete finishes or damage adjacent materials.

END OF SECTION 034100

Report of Geotechnical Investigation for St. Gregory the Great Seminary 1301 280th Road Seward, Nebraska

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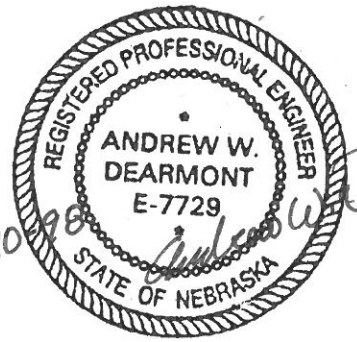

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GEOTECHNICAL AND GEOENVIRONMENTAL CONSULTANTS

. . . PRACTICAL SOLUTIONS, SUPERIOR SERVICE

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REPORT OF A GEOTECHNICAL INVESTIGATION FOR ST. GREGORY THE GREAT SEMINARY 1301 280TH ROAD SEWARD, NEBRASKA DECEMBER 10, 1998 GSI JOB NO. 26L272

INTRODUCTION

This report presents the results of a geotechnical investigation performed at the site of the proposed addition to the St. Gregory the Great Seminary to be located at 1301 280TH Road, south of Seward, Nebraska. Mr. Richard Toren of Sinclair Hille authorized this investigation & Associates, on November 3, 1998, based on our written proposal dated October 28, 1998.

The geotechnical investigation for this project includes test borings, laboratory testing, and this geotechnical engineering report presenting our conclusions and recommendations. The scope of our report contains the following:

- An evaluation the engineering properties of the soils encountered.
- Recommendations for types and depths of foundation elements.
- An evaluation of soils bearing capacity and an estimation of settlement.
- A presentation of our recommendations for earthwork and soils related construction with respect to the soils encountered at the site.

The scope of this investigation did not include any environmental assessment for the presence of hazardous or toxic materials in the soil or groundwater on or near this site. If contamination is suspected or is a concern, it is recommended that the scope of this study be expanded to include an environmental assessment. Any statements in this report

regarding odors, discoloration, or suspicious conditions are strictly for the information of our Client.

Geotechnical Services, Inc. (GSI) prepared this report under the supervision of a professional engineer registered in the State of Nebraska. The recommendations presented have been based on applicable standards of the geotechnical engineering profession at the time this report was prepared. This report has been prepared for the exclusive use of Sinclair Hille & Associates, their representatives, the Owner and the Contractor, for specific application to the proposed project, in accordance with generally accepted soil and foundation engineering practices.

PROPOSED CONSTRUCTION

GSI understands that current construction plans call for the addition to the St. Gregory the Great Seminary to be located along the northeast side of the existing building. The envelope area of the proposed irregular-shaped addition will have plan dimensions of approximately 171 feet by 314 feet. The footprint of the proposed addition is presented on the Boring Location Plan in Appendix A of this report. Roy O. Youker, Inc. has indicated that the addition will have 3 kips per foot wall loads and typical column loads ranging from 30 to 40 kips. However, the addition will have a maximum column load of 120 kips.

The proposed floor surface elevation of the addition will match the existing building's floor surface elevation, and will be approximately 1 foot above the existing ground surface level. Therefore, excavation and filling, required to prepare the site for this project will be minimal.

FIELD WORK

The field investigation was conducted on November 9, 1998. The exploratory program consisted of eight test borings made at the locations shown on the Boring Location Plan (Appendix A). The boring locations were determined by GSI according to a preliminary site plan provided by Sinclair Hille and Associates. The borings were located in the field by the drilling crew using taped distances from landmarks shown on this preliminary plan. Elevations of the ground surface at each of bore holes were determined using a hand level with reference to the existing floor surface elevation at the main entrance located on the east side of the existing building. The elevation of this benchmark was arbitrarily assigned a value of 100.0 feet. The location and elevation of the borings should be considered accurate only to the degree implied by these methods.

Test borings were advanced to depths ranging from 5 to 15 feet below the existing ground surface with a truck mounted drill rig using continuous flight augers. The borings

remained open during drilling, and stabilization drilling methods were not required to the depths investigated.

Soil samples were obtained at the sampling intervals shown on the Boring Logs (refer to Appendix B). Recovered samples were extruded in the field, sealed in plastic containers, labeled, and protected for transportation to the laboratory for testing. Undisturbed samples, designated "U" samples, were obtained with thin-walled tube samplers having 3.0-inch outside diameters and hydraulically pushed in accordance with ASTM D1587-94, "Thin Walled Tube Sampling of Soils."

The field boring logs were prepared in accordance with ASTM D2488-93, "Description of Soils (Visual-Manual Procedure)." Stratification lines represent the approximate boundary between soil types. However, the transition between the soil types might be gradual. Water level readings were made in the drill holes at times and under conditions stated on the Boring Logs.

LABORATORY TESTING

The field boring logs were reviewed to outline the depths, thicknesses, and extent of the soil strata, and a testing program was established to evaluate the engineering properties of the recovered samples. Specific tests that were performed include moisture content determinations, density determinations, unconfined compression tests, a one-dimensional consolidation test, constant-volume swell tests, and Atterberg limits. All tests were conducted in accordance with current ASTM or other generally accepted test procedures. The laboratory test results are presented in Appendix C.

The moisture content and density determinations were used to determine the existing moisture-density state of the soils. Unconfined compression tests were used to define the stress-strain characteristics and related shear strength of the soils. The one-dimensional consolidation test was used to determine the load-settlement relationship of the soil. The constant-volume swell test was used to evaluate the expansive potential of the subgrade soils. Atterberg limits were used to determine plasticity characteristics and to classify the soils under the Unified Soils Classification System.

The field logs have been reviewed and supplemented based on the results of the above-mentioned testing program. The boring logs (presented in Appendix B) represent GSI's interpretation of the field logs and reflect the additional information gained in the laboratory-testing program.

SITE CONDITIONS

The project site is situated on a high terrace along the west side of the Big Blue River valley. The site is relatively flat with a gentle slope downward to the east. Highway 15 and a county road bound the site on the east and south, respectively. A hay field, of which the addition will extend into, is located north of the site, with existing commercial property located to the north of this field. Farm ground is located to the west of the project site.

SOIL CONDITIONS

This site lies in the loess mantled, glaciated region of eastern Nebraska. The generalized subsurface profile for this region consists of wind deposited soils (loess) of various ages overlying glacial deposits (till). Erosion of the loess mantle has created the alternating drainageway and divide topography common to eastern Nebraska. To the depths investigated, the soils encountered on this site consist of existing fill, topsoil, Peoria loess and subsoil (soil development zone atop the Peoria loess).

Fill materials were encountered from the existing ground surface or directly below existing pavement slabs to depths ranging from 0.8 to 4.0 feet below the existing ground surface at drill holes 1, 2, 3 and 6. The fill materials encountered at drill holes 1, 3 and 6 consisted of slightly moist to moist lean clay soil with soft to hard consistencies. The fill materials encountered at drill hole 3 consisted of slightly moist, medium dense clayey gravel. Laboratory tests performed on a selected sample indicate a moisture content of 26.0 percent, a dry density of 99.0 pounds per cubic foot (pcf) and an unconfined compressive strength of 2.34 tons per square foot (tsf).

Topsoil materials were encountered from the ground surface to 0.7 feet below the ground surface at drill holes 4, 5 and 8. These topsoil materials consisted of moist, organic, lean clay materials with soft to firm consistencies.

The subsoil development zone was encountered directly below the fill and/or topsoil to depths that ranged from 2.0 to 4.0 feet below the existing ground surface. The subsoil materials consisted of slightly moist to moist lean to fat clay and fat clay materials with firm to hard consistencies. Laboratory tests performed on selected samples of the subsoil materials indicate moisture contents ranging from 11.4 to 20.0 percent, dry densities ranging from 102.4 to 111.8 pcf, and unconfined compressive strengths ranging from 1.02 to 4.95 tsf.

The Peoria loess was encountered directly below the existing fill, subsoil and/or existing pavement. These Peoria materials extended to the depths of all eight drill holes (from 5 to 15 feet below the existing ground surface). The Peoria loess materials consisted of slightly moist to moist lean clay with firm to hard consistencies. Laboratory tests

performed on selected samples of the Peoria materials indicate moisture contents ranging from 15.9 to 30.7 percent, dry densities ranging from 88.5 to 112.1 pcf, and unconfined compressive strengths ranging from 1.05 to 2.97 tsf.

Groundwater was not encountered to the depth of the test borings during or at the end of the drilling operations. However, it must be noted that fluctuations in the level of groundwater can occur due to variations in rainfall, temperature, and other factors.

CONCLUSIONS AND RECOMMENDATIONS

In general, this site is considered suitable for the proposed construction. The soils encountered in the test borings are generally capable of supporting the anticipated loads.

It should be noted that low moisture content, moderately expansive soils were encountered at the project site during the subsurface investigation. These low moisture content, expansive soils will increase in volume as their moisture content increases. This expansion can result in heaving (lifting) of floor and pavement slabs if such structures are constructed atop the low moisture content soil. Recommendations relating to this aspect of the project are found in the following sections of this report.

FOUNDATION ANALYSIS

In light of the subsurface conditions revealed by the boring and testing program, this site appears suitable for use of a shallow spread foundation system. The selection of an allowable soil bearing pressure for shallow foundation elements must fulfill two requirements. First, the load must be sufficiently less than the ultimate bearing capacity of the foundation to insure stability. Second, the differential settlement must not exceed an amount, which will produce adverse behavior of the superstructure and/or adjacent structures.

In order to meet the previous criteria, we have explored both the bearing capacity and the load-settlement characteristics of the foundations soils assuming typical wall and column loads of 3 kips per foot and of 120 kips, respectively. The bearing capacity is based on a factor of safety of 3 against the full dead load plus normal live load. A maximum total settlement of 1/2 inch and a differential settlement of 1/4 inch within 20 feet were used in our analysis. The allowable bearing pressure is expressed in terms of the net pressure transferred to the soil.

A net allowable soil bearing pressure of 2,500 pounds per square foot has been determined and should be used to size both continuous wall footings and isolated spread column footings. In no case should footings be smaller than local code sizes. Exterior footings and footings in unheated areas should be founded at a minimum depth of 40

inches below surrounding grade to provide frost protection, and all footings should be reinforced with steel reinforcement.

This site is considered to be suited for the use of trenched "grade beam" type footings for the support of continuous walls. The advantages of this type of footing include: (a) quicker construction, (b) elimination of the need to backfill foundation excavations, and (c) a more even distribution of foundations stresses into the soil. Trenched footings should be reinforced with both top and bottom reinforcement. Trench footings supporting load-bearing walls should have a minimum width of 12 inches. For this purpose, a trench footing is defined as any footing with a thickness at least two times its width.

The topsoil and existing fill materials are not considered suitable foundation materials. The underlying moist subsoil (soil development zone) and Peoria soils encountered at the project site are considered suitable foundation soil for column footings and continuous wall footings. The slightly moist (low moisture content) Peoria and subsoil materials have swell pressures that exceed the above listed allowable bearing capacity. Therefore, these low moisture content materials are not considered suitable foundation soil for the direct support of column footings and continuous wall footings. The depths and elevations of the surface of the soils that are considered suitable foundation materials for column footings and continuous wall footings is presented in Table 1.

TABLE 1

Depth and Elevations of the Surface of the Soils that are Considered Suitable Foundation Materials for Column Footings and Continuous Wall Footings

Boring No.	Elevation, Feet	Depth Below Existing Grade, ft.
1	97.1	4.0
2	98.4	1.0
3	92.4*	5.5*
4	94.5*	4.0*
6	97.9	0.8
7	99.0	0.5

* Surface of "moist" Peoria lean clay materials that underlie the slightly moist (low moisture content), expansive subsoil and Peoria materials.

The design base elevation of conventional depth interior and exterior footings constructed in the vicinity DH-3 and DH-4 are estimated to as much as 5.6 and 3.6 feet above the values presented in Table 1. GSI recommends that these low moisture content, expansive materials be over-excavated in accordance with the recommendations presented in the following Earthwork and Excavation section of this report.

The design base elevation of conventional depth **exterior** footings constructed in the vicinity of **DH-1** and **DH-6** are estimated to be 1.1 and 1.9 feet, respectively, below the values presented in Table 1. The design base elevation of conventional depth **interior** footings constructed in the vicinity of **DH-1** and **DH-6** are estimated to be 0.9 and 0.1 feet, respectively, above the values presented in Table 1. The recommended options to facility construction of a spread foundation system are presented below:

- Deep seat column and continuous wall footings on the suitable foundation soils located below the depths presented in Table 1. This option would require lowering some interior footings as much as 0.9 feet below conventional footing depths.
- Remove or rework those unsuitable foundation materials that will be included by the proposed spread foundation system such that the base of conventional depth footings will be seated in: (a) new fill or (b) suitable foundations soils located below the depths presented in Table 1.

The base of over-excavations made for the later option should extend horizontally a minimum of 3 feet beyond the vertical faces of the proposed footings. The sides of the over-excavations should be laid back (sloped) to allow proper compaction of backfill materials.

EARTHWORK AND EXCAVATIONS

Prior to overall site grading, any existing pavements or structures should be completely removed and disposed of off-site. Organic topsoil, including all surface vegetation and the root crown, should be stripped and stockpiled for later use as top-dressing, or wasted off-site.

The low moisture content, expansive subsoil and Peoria materials encountered at drill holes 3, 4, 5 and 8 will increase in volume as they become wetter. This expansion could result in heave (lifting) of floor and pavement slabs. Therefore, GSI recommends that these materials be removed (over-excavated) from the addition areas and areas to be paved to the depths presented in Table 2. The sides of the over-excavations should be laid back (sloped) to allow proper compaction of backfill materials. The geotechnical engineer should observer the over-excavations to verify that the expansive subsoil and Peoria materials are properly removed from the addition area and areas to be paved. Following

the approval of the geotechnical engineer, the over-excavations should be backfill to finished grade with new fill materials.

Table 2

Depth and Base Level Elevations for Over-Excavations made to Remove the Low Moisture Content, Expansive Subsoil and Peoria Materials

Boring No.	Elevation, Feet	Depth Below Existing Grade, ft.
3	92.4	5.5
4	94.5	4.0
5	94.5	2.5
6	94.9*	2.5

The exposed ground in areas cut to finished grade/subgrade, and areas to be filled should be proofrolled with a loaded dump truck or similar piece of equipment to locate unstable materials. The proofrolling should be performed in the presence of the geotechnical engineer or his/her qualified representative. Unstable material should be replaced with new fill materials. Areas that will accept new fill should be scarified from 8 to 12 inches deep and recompacted to eliminate a plane of weakness along the contact surface.

Excavated on-site soils consisting of the existing lean clay fill or the lean clay Peoria materials are considered suitable for reuse as new fill. It should be noted that portions the existing fill and Peoria materials had both low and high moisture contents at the time of the subsurface investigation. These materials might require manipulation to lower and/or raise their moisture content to workable levels if used as new fill. Any off-site borrow material should be a clean, inorganic ML[1] or CL[2] materials (with a liquid limit less than 50), SM[3] and/or SC[4].

Fill and backfill materials placed within the proposed addition area should be placed in loose lifts of no more that 8 inches thick and compacted with a sheeps-foot type roller to a minimum of 98 percent of the maximum dry density as determined by ASTM D698-91, Standard Proctor Moisture-Density Relationship.

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[1] Silt, silt with sand and sandy silt.
[2] Lean clay, lean clay with sand and sandy lean clay
[3] Silty sand
[4] Clayey sand

Fill and backfill materials placed in utility trenches and excavations located within areas to be paved should be placed in loose lifts no more than 8 inches thick and compacted to a minimum of 95 percent of the maximum dry density (ASTM D698-91, Standard Proctor).

Fill and backfill materials placed in utility trenches and/or excavations located outside of the building area and areas to be paved be compacted to a minimum of 90 percent of the maximum dry density (ASTM D698-91, Standard Proctor).

The moisture content of the fill and backfill materials at the time of compaction should range between -2 and +5 percent of the fill material's optimum moisture content as determined by ASTM D698-91, Standard Proctor.

It is recommended that a technician working under the supervision of an experienced geotechnical engineer from GSI periodically monitor earthwork operations to evaluate compliance with the above recommendations.

Vertical cuts and excavations may stand for short periods of time, but should not be considered stable in any case. All excavations should be sloped back, shored, or shielded for protection of workers. Trenching and excavation activities should conform to federal and local regulations as a minimum. The soils encountered in the test borings generally classify as a type B soil according to OSHA's Construction Standards for Excavations. In general, the maximum allowable slope for shallow excavations made in type B soil is 1.0[H] : 1[V], although other provisions and restrictions may apply. If different soil types are encountered, the maximum allowable slope may be different.

FLOOR SLAB AND PAVEMENT SUBGRADES

The moist existing fill, subsoil and Peoria materials encountered at the project site are considered suitable subgrade materials if the prove stable under a loaded dump truck or similar rubber tired vehicle (proofrolled). The low moisture content subsoil and Peoria materials encountered within the addition area and areas to be paved should be over-excavated in accordance with the recommendations presented in the Earthwork and Excavation section of this report.

The degree of compaction, uniformity, and stability of the subgrade directly affect pavement performance. This is particularly important where heavy truck traffic is anticipated. It is recommended that the top 12 inches of the subgrade be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM D698-91, Standard Proctor Moisture-Density Relationship. The upper 12 inches of pavement "subgrade" materials that will directly support heavy trucks (such as loaded concrete transport vehicles) directly atop the subgrade soils (prior to paving) should be compacted to a minimum of 100 percent of the maximum dry density as determined by ASTM D698-91. The moisture content should also be controlled to between -2 and +3 percent of the

materials optimum moisture content. The final subgrade should be proofrolled immediately prior to placement of the concrete or asphalt to detect any localized areas of instability. Unstable areas should be reworked to provide a uniform subgrade. It should be noted that the above subgrade compaction requirements are minimum recommended values. More stringent requirements based on a specific pavement design should supersede these recommendations.

Surface drainage around the pavement is also important to long term performance. Curbs should be backfilled as soon as possible after construction of the pavement. Backfill should be compacted and should be sloped to prevent water from ponding and infiltrating under the pavement. All pavement joints should be caulked and any cracks should be promptly sealed to prevent moisture intrusion into the subgrade.

To provide uniform support for floor slabs, the subgrade should be reworked and compacted immediately prior to concrete placement. It is recommended that the top 6 inches of the subgrade be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM D698-91, Standard Proctor Moisture-Density Relationship. If a granular cushion is used beneath the floor slab, this layer should be free draining, well graded, and compacted by vibration prior to pouring the floor slab.

SURFACE DRAINAGE AND LANDSCAPING

The success of the shallow foundation system and slab on grade floor system is contingent upon keeping the subgrade soils at a more or less constant moisture content, and by not allowing surface drainage a path into the subgrade. Positive surface drainage away from structures must be maintained at all times. Landscaped areas should be designed and built such that irrigation and other surface water will be collected and carried away from foundation elements.

During construction, temporary grades should be established to prevent runoff from entering excavations or footing trenches. Backfill should be placed as soon as structural strength requirements are met, and should be graded to drain away from the building.

The final grade of the foundation backfill and any overlying pavements should have a positive slope away from foundation walls on all sides. A minimum slope of 1 inch per foot for the first 5 to 10 feet is recommended. However, the slope may be decreased if the ground surface adjacent to foundations is covered with concrete slabs or asphalt pavements. A minimum slope of 2 percent is recommended for other areas of the site. Pavements and exterior slabs that abut structures should be carefully sealed against moisture intrusion at the joint. All downspouts and faucets should discharge onto splash blocks that extend at least 3 feet from the building line. Splash blocks should slope away from the foundation walls. Irrigation within ten feet of the foundation should be carefully controlled and minimized.

GENERAL

In the event that any changes in the nature, design, or location of the structure are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The analysis and recommendations submitted in this report are based in part upon the data obtained from the eight soil borings. The nature and extent of variation between the borings may not become evident until construction. If variations then appear, it will be necessary to reevaluate the recommendations of this report.

It is recommended that the geotechnical engineer be provided the opportunity for general review of the final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications. It is also recommended that the geotechnical engineer be retained to provide continuous engineering services during construction of the foundation, excavation, and earthwork phases of the work. This is to observe compliance with the design concepts, specifications, or recommendations and to modify these recommendations in the event that subsurface conditions differ from those anticipated.

Respectfully submitted,
GEOTECHNICAL SERVICES, INC.

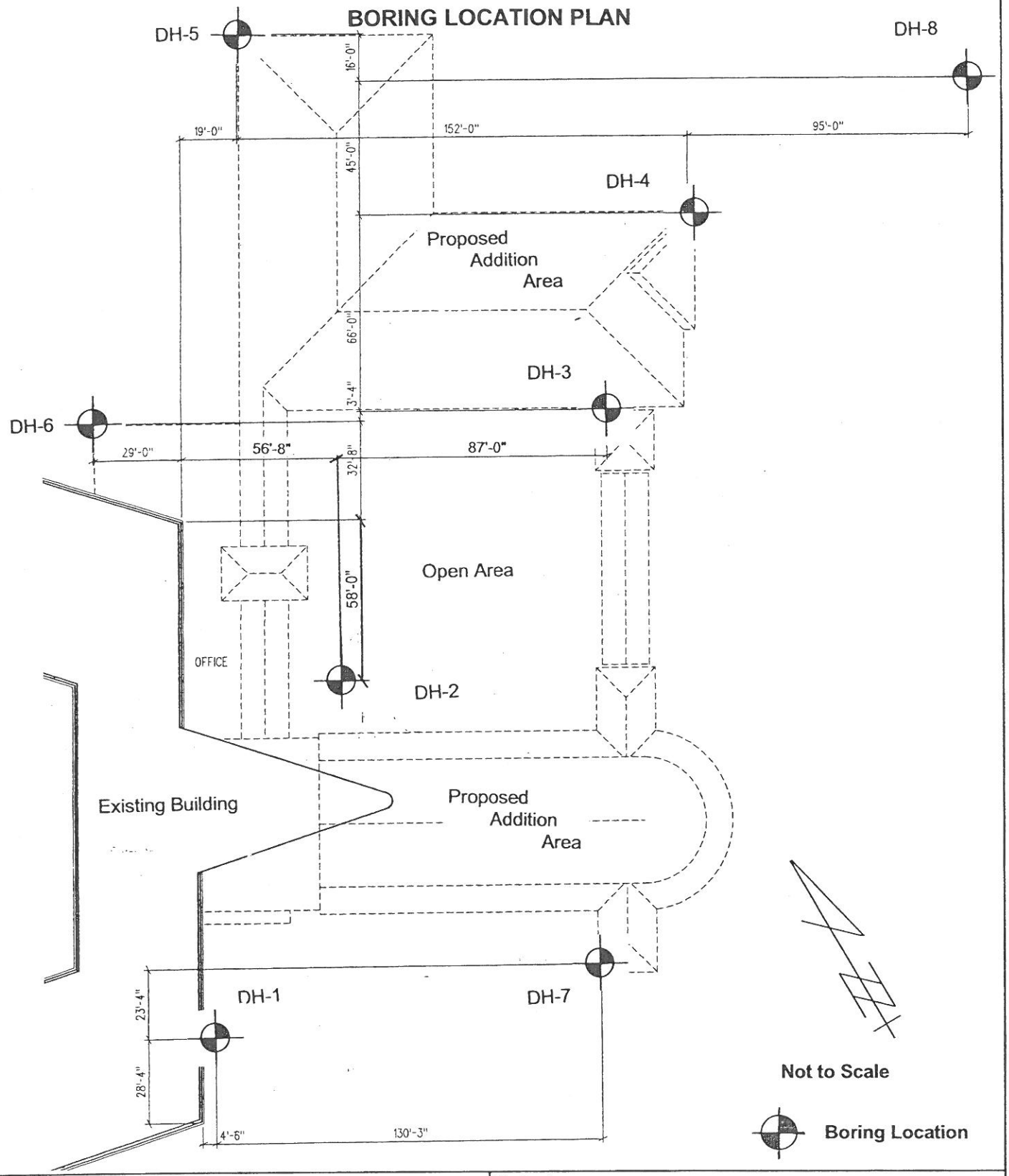
Prepared by,

Andrew W. Dearmont, P.E.
Nebraska E-7729

APPENDIX A

BORING LOCATION PLAN

BORING LOCATION PLAN



Geotechnical Services Inc.	Project: **Addition to St. Gregory the Great Seminary**
	Location: **1301 280th Rd; Seward, NE**
	Job No. **26L272** / Date **11/05/98**

APPENDIX B

BORING LOGS

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-1	See Boring Location Plan	101.1'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	Grass	Mobile B-34
none	none			DRILLING METHOD	TOTAL DEPTH
				6-inch Continious Flight Auger	15'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
				Black	Moist	Soft	CL	Lean clay (Fill)					
				Grayish Brown / Gray	Slightly Moist	Hard	CL	Lean clay; 5-10% fine to coarse sand and fine to coarse gravel; gravel layer encountered from 1.5 to 1.8 feet below the surface; voids observed (Fill).					
5	U-1		100	Yellowish Brown	Moist	Firm	CL	Lean clay; iron and carbon stained (Peoria).	26.0	99.0	2.34		5
10	U-2		100	Grayish Brown				Heavily iron & carbon stained, carbon filled root holes.	28.9	90.0	1.27		10
15	U-3		100					Iron and carbon stained.	29.3	88.8			15
								Bottom of hole at 15 ft.					
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition	
Location	1301 280th Rd.; Seward, NE	
Job No.	26l272	Date 11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-2	See Boring Location Plan	99.4'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	6 inches asphalt concrete	Mobile B-34
				DRILLING METHOD	TOTAL DEPTH
none	none			6-inch Continious Flight Auger	15'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
								Asphalt Concrete					
				Gray	Slightly Moist	Med. Dense	GC	Clayey gravel; 60-70% coarse sand and fine gravel (Fill).					
				Yellowish Brown	Moist	Firm	CL	Lean clay; iron and carbon stained (Peoria).					
5	U-1		100						27.3	91.8	1.12		5
10	U-2		100	Grayish Brown				Heavily iron & carbon stained, carbon filled root holes.	27.7	94.5	1.18		10
15	U-3		100					Iron sained.	30.4	92.1			15
								Bottom of hole at 15 ft.					
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition		
Location	1301 280th Rd.; Seward, NE		
Job No.	26l272	Date	11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-3	See Boring Location Plan	97.9'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	Grass	Mobile B-34
none	none			DRILLING METHOD	TOTAL DEPTH
				6-inch Continious Flight Auger	15'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
				Black	Moist	Soft/Firm	CL	Lean clay; organic (Fill).					
	U-1		100	Dark Brown	Slightly Moist	Hard	CH	Fat clay; root holes and root hairs encountered; blocky (Subsoil).	16.7	107.2			
5	U-2		100	Yellowish Brown	Slightly Moist	Hard	CL	Lean clay; root holes encountered; iron and carbon stained (Peoria).	15.9	112.1			5
					Moist	Firm							
10	U-3		100						25.7	90.7			10
15	U-4		100	Gray					29.6	91.6			15
								Bottom of hole at 15 ft.					
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition		
Location	1301 280th Rd.; Seward, NE		
Job No.	26l272	Date	11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-4	See Boring Location Plan	98.5'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	Grass over 8 inches of topsoil.	Mobile B-34
				DRILLING METHOD	TOTAL DEPTH
none	none			6-inch Continious Flight Auger	15'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
				Black	Moist	Soft/Firm	CL	Lean clay (Topsoil).					
				Dark Yellowish Brown	Slightly Moist	Hard	CL/CH	Lean to fat clay; root holes and root hairs encountered; blocky (Subsoil).					
5	U-1		100	Yellowish Brown	Moist	Hard	CL	Lean clay; iron and carbon stained (Peoria).	20.0	108.7	4.95		5
						Firm							
10	U-2		100					Heavily iron and carbon stained; carbon filled root holes.	23.1	104.5			10
15	U-3		100						25.5	94.8			15
								Bottom of hole at 15 ft.					
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition		
Location	1301 280th Rd.; Seward, NE		
Job No.	261272	Date	11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-5	See Boring Location Plan	97.0'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	Grass over 8 inches of topsoil	Mobile B-34
none	none			DRILLING METHOD	TOTAL DEPTH
				6-inch Continious Flight Auger	5'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
				Black	Moist	Firm	CL	Lean clay (Topsoil).					
	U-1		100	Dark Gray	Slightly Moist	Hard	CL/CH	Lean to fat clay; root holes encountered; blocky (Subsoil).	11.4	111.8	2.05		
				Gray									
5	U-2		100	Grayish Brown	Slightly Moist	Hard	CL	Lean clay; root holes encoutered; iron and carbon stained (Peoria).	17.3	113.4			5
				Bottom of hole at 5 ft.									
10													10
15													15
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition		
Location	1301 280th Rd.; Seward, NE		
Job No.	26l272	Date	11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-6	See Boring Location Plan	98.7'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	Grass	Mobile B-34
none	none			DRILLING METHOD	TOTAL DEPTH
				6-inch Continious Flight Auger	15'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
				Black	Moist	Soft/Firm	CL	Lean clay; organic (Fill).					
				Dark Grayish Brown	Moist	Firm	CL/CH	Lean to fat clay; blocky (Subsoil).					
5	U-1		100	Yellowish Brown	Moist	Hard	CL	Lean clay; iron and carbon stained (Peoria).	24.2	104.8	2.97		5
10	U-2		100			Firm		Heavily iron and carbon stained; carbon filled root holes.	27.0	99.1	1.48		10
15	U-3		100					iron and carbon stained	29.9	94.6			15
								Bottom of hole at 15 ft.					
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition
Location	1301 280th Rd.; Seward, NE
Job No.	26l272
Date	11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-7	See Boring Location Plan	99.5'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	____ HOURS	4 inchs of Asphalt Concrete	Mobile B-34
				DRILLING METHOD	TOTAL DEPTH
none	none			6-inch Continious Flight Auger	15'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
								Asphalt Concrete					
				Grayish Brown	Moist	Firm	CL	Lean clay; iron and carbon stained; root holes encountered (Peoria).					
5	U-1		100	Yellowish Brown					25.8	97.6	1.62		5
10	U-2		100	Grayish Brown				Ion and carbon filled root holes.	28.9	88.5			10
15	U-3		100						30.7	88.6	1.05		15
								Bottom of hole at 15 ft.					
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition		
Location	1301 280th Rd.; Seward, NE		
Job No.	26l272	Date	11-9-98

Form 216 3/90

BORING LOG

DRILL HOLE NO.	LOCATION OF DRILL HOLE	ELEVATION	DATUM	DRILLER	LOGGER
DH-8	See Boring Location Plan	97.4'	Ex. Floor	G. Barkow	A. Dearmont

WATER LEVEL OBSERVATIONS				TYPE OF SURFACE	DRILL RIG
WHILE DRILLING	END OF DRILLING	24 HOURS AFTER DRILLING	——— HOURS	Grass over 8 inches of topsoil	Mobile B-34
none	none			DRILLING METHOD	TOTAL DEPTH
				6-inch Continious Flight Auger	5'

DEP. Ft.	SAMPLE DATA: SAMPLE NO.& TYPE	"N" BLOWS /FT	% REC.	SOIL DESCRIPTION: COLOR	MOIST	CONS.	GROUP NAME	GEOLOGIC DESCRIPTION & OTHER REMARKS	LABORATORY DATA: % MC	DRY DENS pcf	qu tsf	CLASS	DEP. FT.
				Black	Moist	Firm	CL	Lean clay (Topsoil).					
	U-1		100	Dark Yellowish Brown	Slightly Moist	Firm/ Hard	CL/CH	Lean to fat clay; root holes encountered; blocky (Subsoil).	16.0	102.4	1.02		
5	U-2		100	Yellowish Brown	Slightly Moist	Hard	CL	Lean clay; iron and carbon stained (Peoria).	19.2	110.8			5
								Bottom of hole at 5 ft.					
10													10
15													15
20													20
25													25
30													30
35													35

Geotechnical Services Inc.

Project	St. Gregory the Great Seminary Addition		
Location	1301 280th Rd.; Seward, NE		
Job No.	261272	Date	11-9-98

Form 216 3/90

APPENDIX C

LABORATORY TESTS

SUMMARY OF SOIL TESTS

BORING NO.	SAMPLE NO.	SAMPLE DEPTH (ft.)	SAMPLE DIA. (in.)	MOISTURE CONTENT (%)	DENSITY WET (pcf)	DENSITY DRY (pcf)	VOID RATIO (e)	SAT. (%)	UNCONFINED COMPRESSION q_u (tsf)	UNCONFINED COMPRESSION STRAIN (%)	SOIL CLASSIFICATION ATTERBERG LIMITS LL	ATTERBERG LIMITS PL	ATTERBERG LIMITS PI	PASS #200 (%)	REMARKS
DH-1	U-1	3.5-5	2.83	26.0	124.8	99.0	0.701	100	2.34	9.7					Fill
	U-2	8.5-10	2.76	28.9	116.0	90.0	0.873	89	1.27	8.8					Peoria
	U-3	13.5-15	2.80	29.3	114.8	88.8	0.897	88							Peoria
DH-2	U-1	3.5-5	2.80	27.3	116.8	91.8	0.836	88	1.12	10.6					Peoria
	U-2	8.5-10	2.83	27.7	120.7	94.5	0.783	96	1.18	3.7					Peoria
	U-3	13.5-15	2.80	30.4	120.1	92.1	0.829	99							Peoria
DH-3	U-1	1-2.5	2.83	16.7	125.1	107.2	0.572	79							Subsoil
	U-2	3.5-5	2.83	15.9	129.9	112.1	0.503	85							Peoria
	U-3	8.5-10	2.83	25.7	113.9	90.7	0.858	81							Peoria
	U-4	13.5-15	2.83	29.6	118.7	91.6	0.840	95							Peoria
DH-4	U-1	3.5-5	2.83	20.0	130.4	108.7	0.550	98	4.95	4.7					Subsoil
	U-2	8.5-10	2.83	23.1	128.7	104.5	0.612	100							Peoria
	U-3	13.5-15	2.83	25.5	119.0	94.8	0.778	89							Peoria
DH-5	U-1	0.5-2	2.83	11.4	124.6	111.8	0.507	61	2.05	2.8					Subsoil
	U-2	3.5-5	2.83	17.3	133.0	113.4	0.486	96							Peoria
DH-6	U-1	3.5-5	2.83	24.2	130.2	104.8	0.607	100	2.97	18.3					Peoria
	U-2	8.5-10	2.83	27.0	125.8	99.1	0.700	100	1.48	5.0					Peoria
	U-3	13.5-15	2.83	29.9	122.8	94.6	0.782	100							Peoria
DH-7	U-1	3.5-5	2.83	25.8	122.8	97.6	0.726	96	1.62	3.6					Peoria
	U-2	8.5-10	2.83	28.9	114.1	88.5	0.903	86							Peoria
	U-3	13.5-15	2.80	30.7	115.7	88.6	0.903	92	1.05	9.7					Peoria
DH-8	U-1	0.5-2	2.83	16.0	118.8	102.4	0.646	67	1.02	3.9					Subsoil
	U-2	3.5-5	2.83	19.2	132.1	110.8	0.520	100							Peoria

Geotechnical Services Inc.

PROJECT: St. Gregory the Great Seminary Addition

LOCATION: 1301 280th Road; Seward, NE

JOB NO.: 26L272

DATE: 11-16-98

CONSTANT VOLUME SWELL TEST

Sample Identification:
DH-3; U-1; 1.0-1.5 ft.

Sample Description:
Developed zone atop Peoria

Initial Water Content	16.2 %	Swell Pressure	1.51	tsf
		Preconsolidation Pressure	3.9	tsf
Final Water Content	22.7 %	Swell Index	0.025	
		Compression Index	0.207	
Initial Saturation	76.5 %			
		Liquid Limit	56	
Dry Unit Weight	107.2 pcf	Plasitc LImit	24	
		Plasticity Index	32	
Specific Gravity	2.70 (Assumed)	Classification	CH	

Test conducted according to ASTM 2435-90.

Geotechnical Services Inc.

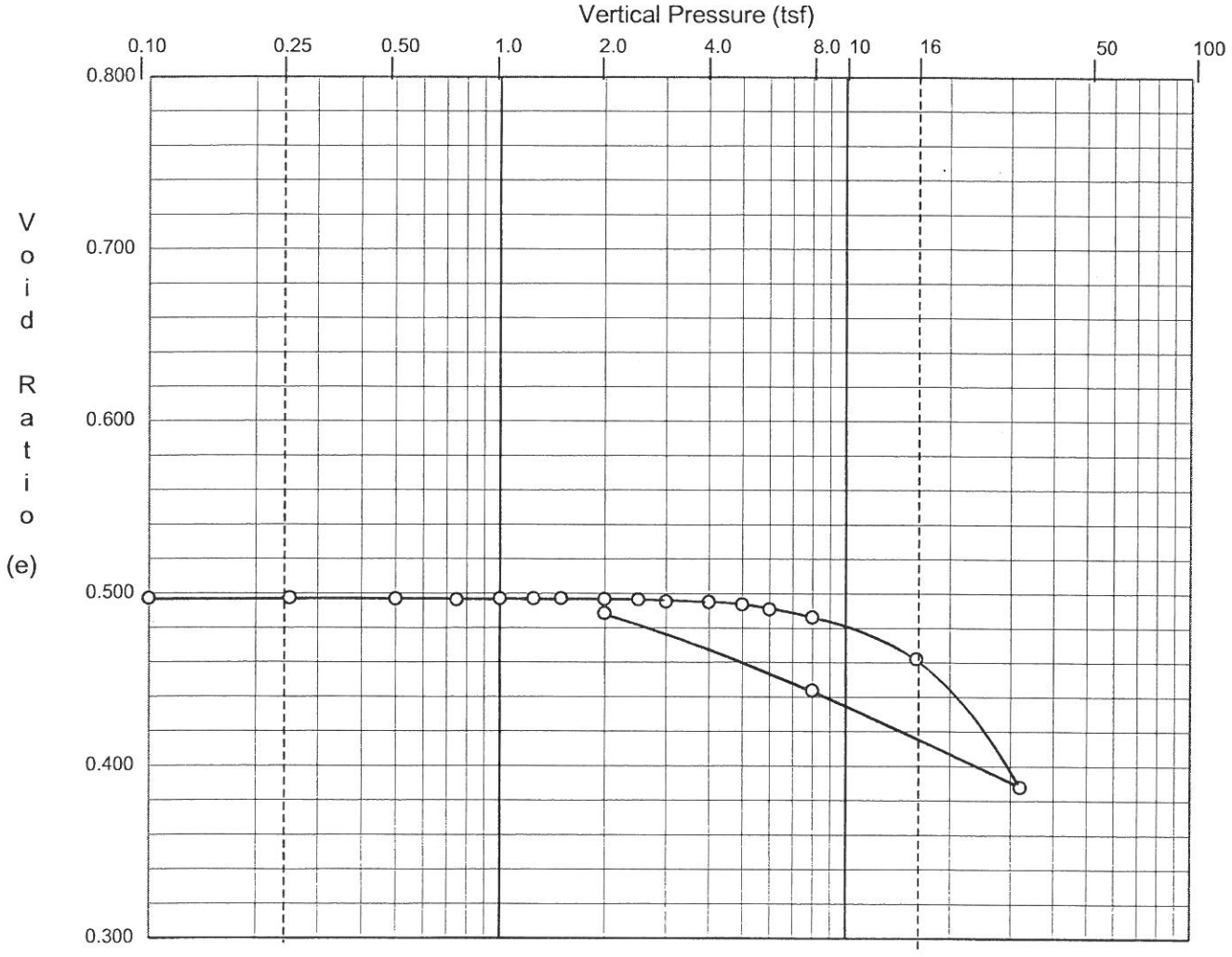
Project:	St. Gregory the Great Seminary Addition
Location:	1301 280th Road; Seward, NE
Job No.: 26L272	Date: 11/20/98

CONSTANT VOLUME SWELL TEST

Sample Identification:
DH-3; U-2; 3.5-5.0 ft.

Sample Description:
Peoria lean clay

Initial Water Content	14.8 %	Swell Pressure	4.1	tsf
		Preconsolidation Pressure	17.8	tsf
Final Water Content	22.7 %	Compression Index	0.084	
		Compression Index	0.247	
Initial Saturation	80.5 %			
		Liquid Limit	47	
Dry Unit Weight	112.5 pcf	Plasitc LImit	20	
		Plasticity Index	27	
Specific Gravity	2.70 (Assumed)	Classification	CL	



Test conducted according to ASTM 2435-90.

Geotechnical Services Inc.

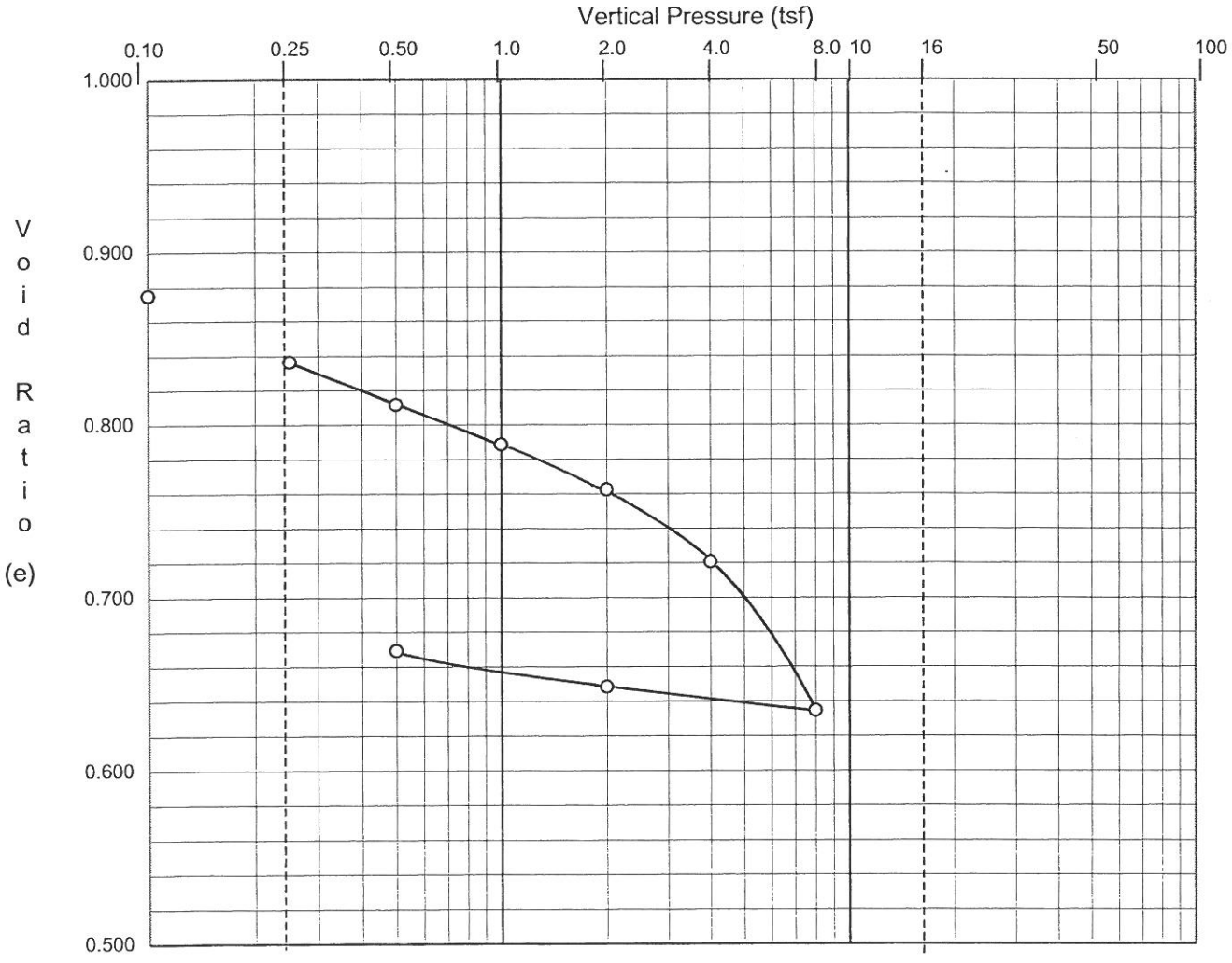
Project:	St. Gregory the Great Seminary Addition
Location:	1301 280th Road; Seward, NE
Job No.: 26L272	Date: 11/20/98

CONSOLIDATION TEST

Sample Identification:
DH-7; U-2; 8.5-10.0 ft.

Sample Description:
Peoria lean clay

Initial Water Content	28.3 %	Preconsolidation Pressure	4.7	tsf
		Compression Index	0.286	
Final Water Content	29.5 %			
Initial Saturation	87.2 %	Liquid Limit	37	
		Plasitc LImit	21	
Dry Unit Weight	89.8 pcf	Plasticity Index	16	
		Classification	CL	
Specific Gravity	2.70 (Assumed)			



Test conducted according to ASTM 2435-90.

Geotechnical Services Inc.

Project:	St. Gregory the Great Seminary Addition
Location:	1301 280th Road; Seward, NE
Job No.: 26L272	Date: 11/20/98

PREBID MEETING MINUTES – MAY 11TH 2016

1.1 PREBID MEETING

1.2 PROJECT OVERVIEW

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. This project involves the construction of a 20,700 square foot dormitory addition to the Saint Gregory the Great Seminary. The addition will include sixteen (14) dorm rooms, three Priest Suites, a Lounge and Classroom space. This project is considered an R2 occupancy and be of Construction Type IIB. The mechanical system will include a geothermal wellfield and associated heat pumps. The project is to be completed for use by August 4th 2017 for the beginning of the 2017 school year.

2. Future phases will include additional classrooms, lecture hall, weight room and gymnasium as well as an Indoor Air Quality portion for the currently occupied dorm room spaces.

1.3 PHASED CONSTRUCTION

A. The Work phases were reviewed and discussed.

1. Phase One - New Construction (the addition): The addition will include fourteen (14) dorm rooms, two Priest Suites, a Lounge and Classroom space. Work in the first phase will also include reconstruction of the asphalt paved surfaces and the new parking lot. Before the Owner can allow renovation of spaces within the existing building to occur, new rooms (classrooms and/or dorm rooms) must be available for use in the addition. Or, all renovation work will need to occur during the summer months of 2017.

2. Phase One "A" – Geothermal Wellfield: Included as a part of phase one is the installation of the geothermal wellfield. The wellfield must be completed by September 9th to allow for installation of new turf over the wellfield area. The wellfield included in this contract is sized to accommodate the future phases described above.

3. Phase Two – Renovation of Existing Spaces: Work includes incorporation of new mechanical/ electrical systems and the renovation of existing finishes in the affected areas. This remaining Work shall be substantially complete and ready for occupancy before August 4th, 2017.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

C. The invited General Contractors Providing Bids were announced as:

1. Cheever Construction.
2. Dickey Hinds Muir

3. Kingery Construction

D. Topics that may affect proper preparation and submittal of bids, including the following:

1. Procurement and Contracting Requirements:

a. Documents are available to General Contractors electronically on Dropbox.
b. Subcontractors can obtain documents from A&D Printing and must use a password to obtain documents.
c. Bid Security - will not be required

2. Communication during Bidding Period:

a. Questions can be directed to Chris Beardslee of Clark Architects 402-253-9805 or if they are Mechanical or Electrical they can be directed to ETI at 402-476-1273.
b. Bidder's Substitution Request/Prior Approval Request. Substitutions must be requested before May 19th for them to be included in the final addendum.
c. Addenda. Second Addendum will be issued either tomorrow or Friday of this week.

3. Contracting Requirements:

a. Agreement. AIA A107
b. The General Conditions. AIA A201-2007
c. The Supplementary Conditions have information regarding insurance requirements.

4. Construction Documents:

a. Overview of general construction work was given by Chris Beardslee of CAC and mechanical electrical overview was given by Dan Thompson of ETI.
b. Temporary Facilities were explained by Dan Thompson.
c. Use of Site / access to site was explained by Chris Beardslee.
d. Work Restrictions – smoking is allowed on site but not inside the building.

5. Separate Contracts:

a. Work by Owner – there is no work by Owner anticipated at this time.

6. Schedule:

a. Project Schedule. Begin as soon as contracts and insurance are in place. Work is to be complete by August 4th 2017.
b. Liquidated Damages. None
c. Other Bidder Questions.

7. We conducted a site/facility walkthrough then adjourned.

END OF DOCUMENT 002513

May 11, 2016

Saint Gregory the Great Seminary - Dormitory Addition
Pre-Bid Meeting

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Dan Thompson	ETI	402 476-1273	DThompson@eti-engineers.com
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May 11, 2016

Saint Gregory the Great Seminary - Dormitory Addition
Pre-Bid Meeting

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