## UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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SANTA BARBARA • SANTA CRUZ

OFFICE OF DESIGN & CONSTRUCTION SERVICES and PHYSICAL FACILITIES

CONTRACTING SERVICES
Building 439
Santa Barbara, California 93106-1030
Telephone (805) 893-3356
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SENT VIA:	FAX ON THIS DATE
$\boxtimes$	E-MAIL
$\boxtimes$	POSTED ON UCSB PLANROOM AND WEBSITE

HOLDERS OF PLANS AND SPECIFICATIONS:

North Campus Faculty Housing Ongoing Infrastructure Project No. FM150027L/986180 Addendum No. 4

August 29, 2014

Enclosed is ADDENDUM NO. 4 to the Construction Documents on the above-captioned project.

The Bid date is hereby changed from Wednesday, September 3, 2014 at 2:30PM, to Friday, September 5, 2014 at 2:30PM to be held at:

CONTRACTING SERVICES
Facilities Management, Bldg. 439,
Door #E, Reception Counter
University of California, Santa Barbara
Santa Barbara, CA 93106-1030.

Late arrivals shall be disqualified. Please allow time for unforeseen traffic delays, securing a parking permit and potential parking problems.

Greg Moore,

Associate Director, Contracting Services

#### ADDENDUM NO. 4

to the

#### CONSTRUCTION DOCUMENTS

### August 29, 2014

### **GENERAL**

The following changes, additions or deletions shall be made to the following document(s) as indicated; all other conditions shall remain the same.

### I. ADVERTISEMENT FOR BIDS

Item No.

**1-1. REPLACE Text**: Page 1, sentence beginning with "Bid Deadline:" in its entirety, with the following language:

"Bid Deadline: Sealed bids must be received on or before <u>2:30 PM</u> on <u>Friday, September 5, 2014</u>"

# II. SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

Item No.

**2-1. REPLACE Text**: Item 4, in its entirety, with the following language:

Bids will be received on or before the Bid Deadline: 2:30 PM, September 5, 2014, and only at:

Contracting Services
Facilities Management, Building 439
Door E, Reception Counter
University of California, Santa Barbara
Santa Barbara, California 93106-1030

# III. LIST OF DRAWINGS

Item No.

3-1. ADD Text: Add the following to the List of Drawings:

Addendum No. 4 LSW1 RETAINING WALLS AND DETAILS 8/29/14

# IV. <u>DRAWINGS</u>

### Item No.

**4-1. ADD Drawing:** Add attached "LSW1 Retaining Walls and Details" drawing dated 8/29/14.

## V. <u>CLARIFICATIONS</u>

#### Item No.

- 5-1.
- 1. Refer to the Grading Plan Review Report, Albus-Keefe & Associates, Inc. April 15, 2009 (located in the Information Available to Bidders section of the Construction Documents) for backfill and compaction recommendations.
- 2. Exclude fencing and related fence posts from bid.
- 3. Refer to LSW1 for masonry unit specs and related concrete information.
- 4. The color and texture of the masonry block for the retaining walls shall match that of the block used for the large retaining wall already in place at the southerly boundary of the project.

#### END OF ADDENDUM NO. 4

delivery's, the work shall be scheduled so that each batch is placed while the

the proceeding batch.

preceding one is still plastic. If the preceding batch placement has just stiffened

beyond the point where it can be penetrated by vibration, bond may be achieved

by thoroughly and systematically vibrating the subsequent batch into contact with

DIVISION 5: METALS 05120 STRUCTURAL METAL: Work shall comply with these structural specifications, notes, and drawings together Testing of concrete: Structural steel (M & S) sections, channels, angles and plates shall conform with with associated specifications, notes and drawings--collectively referred to as ASTM A 36, Structural Steel. Mill certificates for steel shall be submitted to the a) Tests need not be made as noted above provided the total quantity of the Construction Documents. Where the construction documents do not give concrete placed is less than fifty (50) cu. yd. In place of the tests, a Letter Building Official, prior to use, and to the Architect and Structural Engineer. specific instruction, work shall be in accordance with accepted trade standards of Certification shall be furnished by the Material Supplier to the Building Official, Architect and Structural Engineer prior to delivery of the materials to Pipe columns shall conform with ASTM A 53, Grade B, Type E or S, Pipe, Steel the job site. The letter shall assure that the concrete will have the strength Black and Hot-Dipped, Zinc-Coated Welded & Seamless. Mill certificates for Work shall comply with the 2001 California Building Code (CBC) as adopted and steel shall be submitted to the Building Official, prior to use, and to the amended by the California Code of Regulations (CCR), Title 24, 2001 California Architect and Structural Engineer. Building Code and as adopted and amended by the local city or county and any Curing. Concrete shall be maintained above 50°F and in a continuously moist agencies having jurisdiction--collectively referred to as the Building Code. condition for at least seven (7) days after placement. Steel tubes (HSS sections) shall conform with ASTM A-500, Grade B, Cold-Formed Work shall comply with applicable federal laws, state statutes, local ordinances, and Welded & Seamless Carbon Steel Structural Tubing in Rounds & Shapes. Mill Minimum concrete protection for stressing tendons and reinforcing steel shall be the regulations of agencies having jurisdiction. The Contractor shall assume full certificates for steel shall be submitted to the Building Official, prior to use, and responsibility for complying with the construction safety orders and the general to the Architect and Structural Engineer. industrial safety orders of the State Division of Industrial Safety, the regulations Stressing Tendon and Reinforcing Bar Cover Schedule: Welds: of the Federal and State Occupational Safety and Health Administrations, and such Clearance other agencies governing the Contractor's acts. The Contractor shall be a) Welds shall be made with either of the following procedures: responsible for and hold harmless the Structural Engineer for any damages and Cast against and permanently exposed to earth. penalties or both resulting from his failure to comply with said laws, statutes, Self-shielded flux cored arc welding (FCAW-3) per all applicable Cast against forms, exposed to earth or weather: ANSI/AWS DI. Structural Welding Code-Steel, requirements using #6 through #11 bars (19mm through 36mm): ETOTG-K2, ETIT-8 or the ETOT-6 electrodes. The electrodes shall also The design, adequacy and safety of erection bracing, shoring, temporary supports, 1-1/2" \*5 bars (16mm), and smaller, Stressing tendon. conform to ASTM A 233 specifications. The electrode shall have a etc. is the sole responsibility of the Contractor, and has not been considered by minimum specified Charpy V-Notch (CVN) value of 20 ft-lb at -20°F. Cast against forms, not exposed to weather or in contact with ground the Structural Engineer. The Contractor is responsible for the stability of the Shielded metal arc welding (SMAW) per all applicable ANSI/AWS DI.I 3/4" structure prior to the application of all shear walls, roof and floor diaphragms and \*11 bars (19mm) and smaller in slabs, walls, joists. requirements using the ETOXX electrodes. The electrodes shall also \*11 bars (19mm) and smaller in beams, girders, columns. finish materials. He shall provide the necessary bracing to provide stability prior 1-1/2" conform to ASTM A 233 specifications. The electrode shall have a to the application of the aforementioned materials. Observation visits to the site Stressing tendon. minimum specified Charpy V-Notch (CVN) value of 20 ft-lb at -20°F. by the Structural Engineer or his designee shall not include inspection of the above DIVISION 4: MASONRY Full penetration and partial penetration welds shall be continuously inspected by a special inspector and be ultrasonically non-destructively tested. Ultrasonic testing shall be in accordance with ANSI/AWS DI.I chapter 6. 04220 CONCRETE UNIT MASONRY: No alternate methods of construction or substitutions shall be allowed without Acceptance and rejection criteria are those for cyclically loaded welds. Concrete masonry units shall conform with ASTM C 90, Hollow & Solid Load Bearing c) Field welds shall be continually inspected by a Special Inspector. The Contractor shall verify all dimensions and conditions on the Construction Concrete Masonry Units, and be normal weight units. Holes for bolts in structural steel shall be drilled or punched. Burning of holes Documents and at the site and shall notify the Architect and Structural Engineer Aggregates for mortar shall conform with ASTM C 144,  $\underline{\mathsf{Aggregates}}$  for Masonry shall not be permitted. Unless noted otherwise, holes shall be standard size, 1/16 of any discrepancies found prior to commencing work. The structural drawings take inch larger than the bolt. precedence over specifications. Detailed drawings and detailed specifications take precedence over general drawings and general specifications. Dimensions Aggregates for grout shall conform with ASTM C 404, Aggregates for Grout. All structural steel may be primed with a rust resistant primer before shipment to the project site. Primer shall not be applied to the immediate area of steel Masonry cement shall conform with ASTM C 91a, Masonry Cement. intended to receive slip critical bolted connections. If steel is primed, after erection is complete, touch-up all shop priming coats damaged during The owner shall retain the services of the Soils Engineer, when such services are Mortar cement shall conform with ASTM C 1329, Mortar Cement. transportation and erection. Portland cement shall conform with ASTM C 150, Portland Cement & Blended Shop welding: The Soils Engineer shall inspect and document, in accordance with the Soils <u>Hydraulic Cements.</u> a) All shop welding and fabrication shall be done in the shop of a steel Hydrated lime shall conform with ASTM C 207, Hydrated Lime for Masonry fabricator, approved by the Building Official and in accordance with UBC The Soils Engineer shall furnish inspection reports to the Building Official, prior to section 1701.7. All prefabricated steel shall be fabricated in accordance with foundation inspection and to the Architect and Structural Engineer as to the UBC section 1704. A Certificate of Fabrication in accordance with UBC section conformance of the contractor's work with the soils report and building code. Water shall be free from deleterious quantities of acids, alkalis, and organic 1704.6.2 shall be finished by the Shop to the Building Official prior to his inspection, to the Architect and the Structural Engineer. Concrete masonry assemblages noted on the plans as not requiring special b) Welding shall be in accordance with ANSI/AWS D13, Structural Welding inspection shall be constructed in conformance with the following: <u>Code-Steel.</u> ) Concrete block shall be certified. A Letter of Certification shall be furnished The soils report is hereby incorporated into these drawings. Recommendations DIVISION 6: WOOD by the Material Supplier to the Building Official, Architect and Structural Engineer prior to delivery of the materials to the job site. The letter shall assure that the materials conform with ASTM C 90. The Contractor shall take all necessary measures to fully protect adjacent b) Mortar shall be type 5 and have been mixed in accordance with UBC table 21-A or IBC Table 2103.7(1). The mortar mix shall achieve a 28 day strength of All site and pad preparation, such as but not limited to, grading, compaction of the fill, pre-saturation, concrete slab base preparation and vapor retarder c) Grout shall be mixed in accordance with UBC table 21-B or IBC Table 2103.10 installation shall be performed in accordance with the Soils Engineer's and on based on ASTM C 476, Grout for Masonry. The grout mix shall achieve a 28 day strength of 2000 psi. A Letter of Certification shall be furnished by the Material Supplier to the Building Official, Architect and Structural The bottoms of footing excavations shall be level, clean, and free of loose Engineer prior to delivery of the materials to the job site. The letter shall material or water when concrete is placed. Over excavation shall be filled with assure that the materials conform with specifications and achieve a 28 day concrete as for the footings. Back fill shall not be placed until supporting strenath of 2000 bsi. foundations, walls, and slab have attained sufficient strength to support lateral d) Construction of concrete masonry walls need not be inspected by a Special . No pipes and conduits shall extend under isolated column footing or under Concrete masonry assemblages noted on the plan as requiring special inspection continuous wall footing unless specifically detailed or approved by the Architect shall be constructed in conformance with the following: a) Concrete block shall be tested. Tests of the blocks shall be made in Finish grade about the perimeter of the structure shall be such that rain and accordance with ASTM C 140 Sampling and Testing Concrete Masonry Units. irrigation water drain away from the foundation as required by the civil drawings. Tests shall be made of the blocks prior to the start of construction and Vapor (retarder) barrier shall be High-Density Polyethylene plastic film and shall during the course of construction at the rate of one test per 5000 sq. ft. of conform to ASTM E 1745, Water Vapor Retarders Used in Contact with Soil or wall or fraction thereof. Test results shall be furnished to the Building Official, Special Inspector, Architect, and Structural Engineer. Test results shall assure that the materials conform with ASTM C 90 and achieve a minimum Slab must not be poured during or immediately after rainstorms base layer material net compressive strength of 1900 psi. above vapor barrier shall not be saturated at the time if the concrete pour. Any o) Mortar shall be type 5 and have been mixed in accordance with UBC table free water trapped in the base layer must be removed prior to the concrete pour 21-A or IBC Table 2103.7(1). The mortar mix shall achieve a 28 day strength of Workmanship during the placing and finishing operations and protection during the curing of the foundations shall be such that the resulting cured concrete shall be c) Grout shall be mixed in accordance with UBC table 21-B or IBC Table 2103.10 and on ASTM C 476, Grout for Masonry. The grout mix shall achieve a 28 day strength of 2000 psi. Tests of the grout shall be made in accordance with The Contractor shall arrange for observation of the work by the Soils Engineer. ASTM C 1019 Sampling and Testing Grout. Tests shall be made of the grout during the course of construction at the rate of one test per 5000 sq. feet of wall or fraction thereof. Test results shall be furnished to the Building a) All pad preparation and footing excavations shall be inspected and certified Official, Special Inspector, Architect, and Structural Engineer. Test results in compliance with the soils report by the Soils Engineer prior to placing of shall assure that the materials achieve a minimum net compressive strength of 2000 psi at 28 days. b) A Certificate of Compliance regarding pad preparation and footing d) Construction of concrete masonry walls shall be inspected by a Special excavation) shall be submitted to the Building Official prior to his foundation inspection and a copy of the certification shall be submitted to the Architect Steel reinforcing bars shall confirm to ASTM A 615, <u>Deformed and Plain Billet</u> Steel Bars for Reinforcing Steel. Bars shall be grade 60 except that no. 3 \$ 4 bars may be grade 40. Bars shall be deformed. Mill certificates for reinforcing bars shall be submitted to the Building Official and Special Inspector, if retained, prior to use, and to the Architect and Structural Engineer. Steel reinforcing bars shall conform to ASTM A 615, <u>Deformed and Plain Billet</u> Fabrication and placement of reinforcing steel, embedded anchors and hardware Steel Bars for Reinforcing Steel. Bars shall be grade 60 except that No. 3 4 4 shall be periodically inspected by a Special Inspector when placement of the concrete masonry assemblages is required to be inspected by a Special bars may be grade 40. Bars shall be deformed. Mill certificates for reinforcing bars shall be submitted to the Building Official prior to use, and to the Architect Inspector. Following are requirements of the Special Inspector: a) He shall verify the mill certificates. Wire fabric shall conform to ANSI/ASTM A 185, Steel Welded Wire Fabric, Plain, for b) He shall verify that the material used are properly stored and prepared for Placement of reinforcing steel need not be inspected by a Special Inspector c) He shall verify that construction details, procedures, and workmanship are in accordance with the Construction Documents and Building Code. Cement shall conform with ASTM C 150 & C 595, Portland Cement & Blended d) He shall verify that the reinforcement bar grade, size, placement, and splices are in accordance with the Construction Documents and Building Code. Fly ash or pozzolans, if used, shall conform with ASTM C 618, Coal Fly Ash and Raw e) A Certificate of inspection shall be furnished by the Special inspector to the or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete. Usage Building Official prior to his inspection and to the Architect and Structural shall not exceed 25 percent, by weight of the total of the cementitious materials. When pozzolans are used to mitigate the effect of sulfate containing soils they shall be of a type that has demonstrated such ability by test or service record. Placement of concrete masonry assemblages shall be continuously inspected by a Special Inspector when special inspection is noted as being required. The Water shall be potable and free from deleterious quantities of acids, alkalis, and Inspector shall be present during preparation and taking of any required prisms or organic materials. Sulfate (SO4) in water shall not exceed 150 parts per million. test specimens, at the start of laying units each day, after the placement of reinforcing steel to inspect the grout space prior to each grouting operation, Aggregate shall conform with ASTM C 33, Concrete Aggregates. The nominal and during all grouting operations. He need not be present during the entire maximum size of course aggregate shall be not larger than any of the following: laying operation provided he is present at the onset of each days work Following are requirements of the Special Inspector: a) He shall verify the taking of test samples. b) He shall verify that the material used are properly stored and prepared for c) Three fourths the minimum clear spacing between individual bars or bundles o c) He shall verify that the concrete masonry units are in accordance with the Construction Documents and Building Code. d) He shall verify that the mortar is properly prepared and placed in accordance . The Contractor shall retain the services of a qualified licensed engineer to with the Construction Documents and Building Code. provide a Concrete Mix Design for each Class of Concrete to be used. The e) He shall verify that the grout used and placed is in accordance with the Construction Documents and Building Code. He shall verify load tickets for Concrete Mix Designs used shall have the following properties and be subject to transit mixed arout. ) He shall verify that construction details, procedures, and workmanship are in accordance with the Construction Documents and Building Code. Class
(Use) of Concrete | 28 Day | Maximum | Special Inspector | Cylinder Testing A Certificate of Inspection shall be furnished by the Special Inspector to the Building Official prior to his inspection and to the Architect and Structural Continuous Footings. 2500 PSI 4 in. Not required Not required Not required Not required Cells shall be in vertical alignment to provide a minimum unobstructed core of 3"x3". Dowels from footings shall be set to align with cores containing reinforcing. The 28 day minimum strength may be reduced to 4000 PSI for concrete All cells containing reinforcing, anchors or inserts shall be filled solid with grout. 2) The maximum slump of the concrete may be increased by 1 inch when the Other cells shall be grouted as noted on Construction Documents. Un-grouted concrete is hand consolidated. The slump given is based on mechanical cells shall be blocked with a grout stop fabric to prevent them from being inadvertently grouted. b) Water-cement ratio, cement type, and pozzolans and minimum strength shall b. Concrete surfaces shall be cleaned of all lattice prior to setting blocks. additionally conform to the following for concrete used in floor Clean out openings shall be provided at the bottom of all cells to be filled at each lift or pour of grout where such lift or pour is in excess of 5 feet in height. Overhanging mortar or other obstruction or debris shall be removed from inside Cement type | Maximum Water- | 28 Day ASTM C 150 | Cement Ratio | Min. Strength of cell walls. Clean outs shall be sealed after inspection, before grouting. Hold vertical reinforcing in position at top and bottom and at intervals not exceeding 200 bar diameters in masonry walls. 0.45 4500 PS ). All reinforcing bar bends shall be made cold. c) The concrete mix design shall be such that the resulting cured concrete shall D. All anchor bolts and inserts shall be secured in place prior to placing concrete or be free of significant cracks or significant vertical displacement d) The concrete mix design shall be such that the resulting cured concrete at 28 to 42 days of age shall have a water soluble chloride ion(CI) content in Welding of masonry reinforcement shall be the same as for concrete reinforcement, see section 03200, above.

STRUCTURAL DESIGN CRITERIA: . 2009 "California Building Code" (2009 IBC). . Roof live load, 20 PSF, Uniformly distributed Roof snow load, O PSF, Floor live load, 40 PSF, Uniformly distributed Wind Site Specific Variables. Wind use group: 11 Building Category: Enclosed Building Component and Cladding: Design Methodology: Analytical, All height 6. Seismic Site Specific Variables: So =1.636 Si =0.630 Seismic use group: Il Spectral response coefficients: Site class: D Seismic Design Category: D Basic seismic force resisting system: light framed walls with shear panels Design Base Shear: as noted on calculations Analysis Procedure: Equivalent lateral force procedure GEOTECHNICAL ENGINEER'S STATEMENT The undersigned has reviewed these drawings and finds them in general conformance with the intentions of the geotechnical recommendations. Seal is not an indication of the drawings having been prepared under the signator's supervision. INSPECTION AND OBSERVATION PROGRAM: This inspection and observation program applies only to the structural drawings and observation of the project. The Building Official shall inspect the project in accordance with the building permit and the provisions of the Building Code. All structural aspects. supplementary thereto. Any excavations and the of the building pad. 2. Back fill of utility trenches. 3. Footing excavations as required on the plans. as required on the plans. GENERAL PLAN NOTES, SITE PLAN: FOUNDATION PLAN NOTES For Expansion joints see (1/LSW2).

BAI NO.: 061BC-ALL Basic wind speed, 85 miles per hour: exposure C. (3 second gust)

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> > E-Mail: Bokaie.Intlagmail.com

Bokaie Engineering Solutions

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and specifications. The Contractor shall coordinate in a timely manner inspection

|Individual or firm to | Duties of Building

Portion of work requiring inspection: perform inspection: Inspector: Building inspector | Shall be in accordance designated by the | with UBC Section 108-Building Official inspections The Soils Engineer shall inspect and document, in accordance with the Soils

Report, the following. This itemization is not intended to supersede any requirements of the Soils Engineer or the Building Official but is intended to be |Individual or firm to | Duties of Soils Portion of work requiring inspection: perform inspection: Engineer:

Individual or firm | Shall be in accordance placement of fill for construction designated by the | with the soils report. |Soils Engineer Individual or firm | Shall be in accordance designated by the | with the soils report. Soils Engineer Individual or firm | Shall be in accordance designated by the | with the soils report.

Soils Engineer A Special Inspector (Registered Deputy Inspector) shall provide continuous inspection of the following portions of the work: Portion of work requiring continuous | Individual or firm to | Duties of Special | perform inspection: | Inspector

A qualified person | Shall be in accordance Testing sampling and masonry block placement and grouting | who shall have | with specifications in when deputy inspection is noted demonstrated competence to the satisfaction of the Building Official

A Special Inspector (Registered Deputy Inspector) shall provide periodic inspection of the following portion of the work:

Portion of work requiring periodic | Individual or firm to | Duties of Special |perform inspection: | Inspector: Placement of masonry reinforcing A qualified person | Shall be in accordance steel, anchor bolts and inserts, who shall have with specifications in when deputy inspection is noted demonstrated Division 4 competence to the satisfaction of the

Building Official

All work not detailed, specified or noted shall be constructed the same as similar work shown in the construction documents. Where the work is not detailed, specified or noted it shall be in accordance with accepted trade standards for good and workmanship like construction. Refer to Architectural landscape and civil drawings for additional information.

All dimensions on the structural drawings shall be compared with those on the architectural landscape and civil drawings by the Contractor prior to construction.

The Contractor shall notify the Structural Engineer of discrepancies.

For bar bends & hooks: See Details (2/LSW2).

For stepped footings: See Detail (3/LSW2).

For lapping of bars in footings: See Detail (5/LSW2). . For intersecting masonry walls: See Detail (6/LSW2).

© ROS-24-00 BAI BAI NO: SITEPLAN REFER TO SN SHEETS FOR ALL NOTES AND SPECIFICATIONS PROJECT: North Campus |Faculty Housing Ongoing Infrastructure

> DUNER/DEVELOPER: University California Santa Barbara UCSB

RETAINING DETAILS

PLOT DATE: 08-29-14 ISSUED FOR: CAMPUS SUBMITTAL SET REVISIONS MADE TO THIS DRAWING

Addendum No. 4

ENGINEER OF RECORD:

-For design questions regarding these plans and specifications contact the Project Manager: Ferial Emadi:

Facsimile: 949-752-7559 Email: feriale@bes.com -For site observation contact: Mohammad Douroudian: Telephone: 949-752-0601 ext. 208 Facsimile: 949-752-7559 Email: mohammadd@bes.com UCSB PROJECT No. FMI50027L/986180 UCSB DRAWING No. 60-305

FILE NO: 20068

SHT NO.

Telephone: 949-752-0601 ext. 212

CAD NO. :20068-SW21/20N GOING INFRASTRUCTU