HOLDERS OF PLANS AND SPECIFICATIONS:

North Campus Faculty Housing Phase II
Project No. FM110407L/986315
Addendum No. 3

September 16, 2011

Enclosed is ADDENDUM NO. 3 to the Construction Documents on the above-captioned project.

Bid date is Thursday, September 29, 2011 at 2:30 PM 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 NUMBER 3

to the

CONSTRUCTION DOCUMENTS

September 16, 2011

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. SPECIFICATION

Item No.

1. Table of Contents: Replace in its entirety with attached Table of Contents, Addendum 3, which includes listings for new Section 07541-9 & Section 0951-9.

Item No.

2. Table of Contents: Add the following Sections:
   “Section 07541-9, Mechanically Fastened Thermoplastic Membrane Roofing, pages 1-12, Section 09651-9, Rubber Base. Pages 1-2”

Item No.

3. Section 06200, Interior Finish Carpentry, Part 1 – General, 1.3 Quality Assurance: Delete B in its entirety:

Item No.

4. Section 06415, Stone Countertops, Part 2 - Products, 2.2 Granite Countertops, A Granit Countertops (units & Recreational Building): Daltile: Add the Following first sentence 1.:

Item No.

5. Section 07541-9, Mechanically Fastened Thermoplastic Membrane Roofing: Add in its entirety: (See specification section attached: p.1-13).
Item No.

Item No.
7. Section 10300, Fireplaces, Part 2 – Products, 2.1 Materials, A, Prefabricated Fireplaces: Change 1. to read in its entirety
   “1. Manufacturers “with outside air kit” to “Model NBV3630” by Heatilator, or equal.”

II. DRAWINGS

Item No.
1. DELETE Sewer Improvement Plans, dated 8/1/11 sheets 1-5, in their entirety, and REPLACE with Sewer Improvement Plans, dated 9/9/11 sheets 1-6.

Item No.
2. DELETE Phase 2 Water Improvement Plans, dated 8/1/11 sheets No.s 4 – 10 in their entirety, and REPLACE with Phase 2 Water Improvement Plans, dated 9/12/11 sheets No. 1 – 10.

Item No.

Item No.
4. DELETE Detail 14 from Sheet No. AD5.1 Architectural Details and REPLACE with attached Sketch 2 of 2, dated 9/09/11.

Item No.
5. ADD Sketch 1 of 2 Addendum 3 Additional Detail 23/AD5.1 to Sheet AD5.1 Architectural Details.

Item No.
6. DELETE Detail 15 from Sheet AD5.1.

Note: All showers are shower pans. See specification section 15410 Part 2.2.7 for all shower pan inserts.
7. **DELETE** note from Detail 4, Sheet AAD.1, that reads “Additional layer for sound attenuation verify location w/ acoustical consultant”. **REPLACE** with note “Additional layer of 5/8” gypsum board, from floor to ceiling, for sound attenuation at all demising walls separating units”.


9. **ADD** Sketch 1 of 1 Addendum 3 additional detail 15/AD1.2 to Sheet AD1.2 Architectural Details.

10. **REPLACE** 2”x4” facia board elevation with 2”x6” facia board for elevations 400B & 600B. REFER to Roof Plan sheets for roofing material. “S” Tile use detail 1/AD1.2 & 3/AD1.2 “Flat” Tile use detail 4/AD1.2 & 5/AD1.2

11. **DELETE** Detail 1 & 6 from Sheet No. AD5.1 Architectural Details and **REPLACE** with attached Sketches 2 of 3 and 3 of 3, dated 9/13/11.


14. **REVISE** Sheet LI-2 location of Irrigation Controller and Sheet LP-5 sizing of (20) Maori Queen Flax plants per Landscape Sketch Addendum 3, Sketch No. 1 of 5, dated 9/9/11.

15. **REVISE** Detail 5 of Sheet LCD-2 per Landscape Sketch Addendum 3, Sketch No. 3 of 5, dated 9/9/11.
16. REVISE SHRUB LEGEND, found on Sheets LP-4, LP-5, LP-6, & LP-7 per Landscape Sketch Addendum 3, Sketch No. 5 of 5, indicating plant-types to be “Owner Furnished, Contractor Installed”.

17. DELETE All references to “Limit of Work” and/or “Limit of Work – Phase 2” on Sheets LC-1, LC-2, LC-3, LC-7, LI-1, LI-2, LI-3, LI-4, LP-1, LP-2, LP-3, LP-4, LP-5, LP-6, & LP-7 and REPLACE with “Limit of Landscape and Irrigation Work”, per Landscape Sketch Addendum 3, Sketch No. 4 of 5.

18. Sheet LC-0, Product and Material Schedule, 2.0 Walls Fences and Masonry, Items 21 & 22, Under Categories: Material/Model# / Color / Finish / Notes - respectively.
   DELETE, ‘Selected by University’/”To Match Phase I Selection’/ Selected by University/ -respectively-, and REPLACE with ‘Elegance Solid Privacy’/ ‘Woodland Select Weathered Cedar’/ ‘N/A’/-respectively- & ADD, under Notes, “Post Cap Spec External. See Landscape Sketch Addendum 3, Sketch No. 4 of 5.

Note: Or Equal, no known equal.

III SKETCHES

1. Add the attached Electrical Revisions Sketches 1-13, dated 9/9/11:
   Sketch 1 of 17 J-Box AT Center of All Bedroom – General A
   Sketch 2 of 17 J-Box AT Center of All Bedroom – General B
   Sketch 3 of 17 Remove Extra Outlet for Future Radon Fan – General C
   Sketch 4 of 17 Relocate Fut. Outlet for Radon fan – General D
   Sketch 5 of 17 Provide More Lighting in Bathroom and Closet – B-5
   Sketch 6 of 17 Dwelling Unit Lg. Fixture Schedule – B-5.1
   Sketch 7 of 17 Wall Sconce-Two or Three Lamps Varies at Bedrms.- B-5.2
   Sketch 8 of 17 Cable Connection at Study – C-7
   Sketch 9 of 17 Dining Room J-Box Location – D-14
   Sketch 10 of 17 Cable Connection Adjacent to Fire Place – F-19
   Sketch 11 of 17 Laundry Room Lighting – Bldg. 300 Series – I-28
   Sketch 12 of 17 Laundry Room Light Switch Added – I-28.1
   Sketch 13 of 17 Walk-in Closet Light Fixture Wattage Revised – I-30

2. Add the attached Plumbing Revisions Sketches 1-17, dated 9/9/11:
   Sketch 1 of 17 Bldg.300A 1st Floor Plumbing Plan
3. **Add** the attached **Mechanical Revisions Sketches 1-9**, dated 9/9/11:

   Sketch 1 of 9  Building 300A  Second Floor Mechanical Plan (Typical for All Building 300)
   Sketch 2 of 9  Building 400AR  Second Floor Mechanical Plan (Typical for All Building 400)
   Sketch 3 of 9  Building 500B  Second Floor Mechanical Plan (Typical for All Building 500)
   Sketch 4 of 9  Building 600A  Second Floor Mechanical Plan (Typical for All Building 600)
   Sketch 5 of 9  Building 600A  Third Floor Mechanical Plan (Typical for All Building 600)
   Sketch 6 of 9  Building 700A  Second Floor Mechanical Plan (Typical for All Building 700)
   Sketch 7 of 9  Building 700A  Third Floor Mechanical Plan (Typical for All Building 700)
   Sketch 8 of 9  Mechanical Air Supply Register Schedule
   Sketch 9 of 9  Mechanical Air Return Grille Schedule

4. **Add** the attached **Landscape Revisions Sketches 1-5**, dated 9/9/11:

   Sketch 1 of 5 (Refer to Sheets LI-2 & LP-5)
   Sketch 2 of 5 (Refer to Sheet LCD-2)
   Sketch 3 of 5 (Refer to Sheet LCD-2)
   Sketch 4 of 5 (Refer to Sheets LC-0 & LC-5)
   Sketch 2 of 5 (Refer to Sheets LP-4,-5,-6, &-7)
IV. CLARIFICATIONS

Item No.

1. Section 03225-2; Install vapor barrier per manufacturer's recommendation, DIRECTLY UNDER SLAB, not embedded in, or under, gravel base.

Item No.

2. Sheet A11.10 has the correct information on granite types and colors.

Item No.

3. Pre-cast concrete trim specifications are found in Section 04720 Part 2.2.1.C

Item No.

4. Refer to Phase 2 Construction Exhibit, dated 8/1/11, posted on UCSB website

Item No.


This exhibit is a general synopsis of Phase II work for reference; it does not supersede the bidding documents.

Item No.

6. All casework to be installed, anchored, and attached per manufacturer's recommendations.

Item No.

7. All shower wall tile heights shall be at 80" above finished floor.

Item No.

8. All light fixtures for Units and Recreational Building are specified in Section 16500.

Item No.

9. Recreational Building Ceiling Heights are shown on Sheet A10.11.

Item No.

10. Recreational Building Trellis Details are to be followed, per Detail 18/LSW2, for lumber sizing and connections, and Detail 3/AD6.4 for design intent and waterproofing.

Item No.

11. Existing Plant Salvaging efforts have already been completed by the University.
Item No.
12. Connect all pool deck and planter drains (found on Sheet LC-5) to the 19.65 invert found on Storm Drain Main Line Plan Sheet 23 of 49, dated 8/1/11, by Fuscoe Engineering. See Note at northeast end of spa directing deck drain point of connection.

Item No.
13. At Edison Drawing, Sheet 2 of 2, SCE Job No. 0147159, Clouded Pedestol @ Pacific Drive & Pacific Court, Relocate Pedestal per sketch 1 of 5, Addendum 3, Note 2, dated 9/9/11, By Forma.

Item No.
14. At Sheet A10.11, Floor Plan Key notes, Note 24, Refer to Detail 23, Sheet AD6.2.

END OF ADDENDUM NO. 3
ADDENDUM NUMBER 3

to the

CONSTRUCTION DOCUMENTS

September 15, 2011

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  - 01630 Product Options and Substitutions
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MECHANICALLY FASTENED THERMOPLASTIC MEMBRANE ROOFING

PART 1 - GENERAL CONDITIONS

1.01 DESCRIPTION

A. Scope
1. The extent of the PVC roofing system work is defined to include roofing, flashing, and roofing accessories integrally related to roofing installation.
2. Contractor shall coordinate with all other trades that directly influence the roof system application to provide a watertight installation of all roof membrane and roof flashings.
3. Contractor shall verify condition of substrate, curbs, penetrations, flashings, equipment supports, etc. and shall notify Architect of any discrepancies in the scope of work as shown on the drawings prior to commencement of roofing.

B. System Description
1. Over the plywood deck, install a 1/2" Securock Glass Mat protection board. The protection board is to be mechanically fastened in accordance with the manufacturer's written instructions and with manufacturer approved fasteners and plates.
2. Over the 1/2" Securock protection board, install a new mechanically fastened Sika Samafil 50 mil PVC membrane. The color of the membrane is to be "Energy Smart" white. The new roof system shall be installed in accordance with this specification and details.
3. Parapet walls are to be wrapped with PVC roofing membrane adhered using a manufacturer's approved flashing adhesive.
4. Provide unit cost to install Walkway Tread as required by the University's Representative.

C. Upon successful completion of work the following warranties may be obtained:
1. PVC Manufacturer's Warranty
2. Roofing Contractor Warranty

1.02 QUALITY ASSURANCE

A. This roofing system shall be applied only by a Roofing Contractor authorized by the Roofing Manufacturer prior to bid.

B. Upon completion of the installation and the delivery to the Manufacturer by the Applicator of a certification that all work has been done in strict accordance with the contract specifications and the Manufacturer's requirements, an inspection shall be made by a Technical Representative of the Manufacturer to review the installed roof system.

C. There shall be no deviation made from the Project Specification or the approved shop drawings without prior written approval by the University, the University's Representative and the Manufacturer.

E. All work pertaining to the installation of PVC membrane and flashings shall only be completed by Applicator personnel trained and authorized by the Manufacturer in those procedures.

F. Membrane to have no formulation changes in the last (10) years as certified by the manufacturer.

G. Manufacturer's warranty shall have "No Dollar Limit" for the replacement of defective materials and/or labor and shall not contain any exclusion for ponding water.
H. Membrane Manufacturer shall submit; third-party test data documenting the proposed equal has a membrane "polymer thickness" within two (2) mils of the specified mil thickness, ASTM (+/-) mil tolerances are not acceptable.

I. Membrane shall have a minimum of twenty-two (22) mils of waterproofing polymers above the reinforcements as documented by a third party source.

J. Manufacturer must have an established program for recycling membrane at the end of its useful life. Must provide 3 (three) instances in which they have done so.

K. Membrane manufacturer to confirm in writing that they directly manufacture the roofing membrane (private labeled membranes are not acceptable).

1.03 SUBMITTALS

At the time of bidding, the Applicator shall submit to the University (or Representative) the following:

A. Copies of Specification.

B. Samples of each primary component to be used in the roof system and the manufacturer's current literature for each component.

C. Sample copy of Manufacturer's warranty.

D. Sample copy of Applicator's warranty.

E. Certifications by manufacturers of roofing and insulating materials that all materials supplied comply with all requirements of the identified ASTM and other industry standards or practices.

F. Certification from the Applicator that the system specified meets all identified code and insurance requirements as required by the Specification.

G. Material Safety Data Sheets (MSDS)

1.04 CODE REQUIREMENTS

The applicator shall submit evidence that the proposed roof system meets the requirements of the local building code and has been tested and approved or listed by the following test organizations. These requirements are minimum standards and no roofing work shall commence without written documentation of the system's compliance, as required in the "Submittals" section of this specification.

A. Factory Mutual Research Corporation (FM) - Norwood, MA
   1. Class 1-90

B. Underwriters Laboratories, Inc. - Northbrook, IL
   2. Class A assembly

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

A. All products delivered to the job site shall be in the original unopened containers or wrappings bearing all seals and approvals.

B. Handle all materials to prevent damage. Place all materials on pallets and fully protect from moisture.
C. Membrane rolls shall be stored lying down on pallets and fully protected from the weather with clean canvas tarps. Unvented polyethylene tarps are not accepted due to the accumulation of moisture beneath the tarpaulin in certain weather conditions that may affect the ease of membrane weldability.

D. As a general rule all adhesives shall be stored at temperatures between 40°F and 80°F. Read instructions contained on adhesive canister for specific storage instructions.

E. All flammable materials shall be stored in a cool, dry area away from sparks and open flames. Follow precautions outlined on containers or supplied by material manufacturer/supplier.

1.06 JOB CONDITIONS

A. Roofing materials may be installed under certain adverse weather conditions but only after consultation with the Manufacturer, as installation time and system integrity may be affected.

B. Only as much of the new roofing as can be made weathertight each day, including all flashing and detail work, shall be installed. All seams shall be heat welded before leaving the job site that day.

C. All surfaces to receive new protection board, membrane or flashings shall be dry. Should surface moisture occur, the Applicator shall provide the necessary equipment to dry the surface prior to application.

D. All new and temporary construction, including equipment and accessories, shall be secured in such a manner as to preclude wind blow-off and subsequent roof or equipment damage.

E. Uninterrupted waterstops shall be installed at the end of each day's work and shall be completely removed before proceeding with the next day's work. Waterstops shall not emit dangerous or unsafe fumes and shall not remain in contact with the finished roof as the installation progresses. Contaminated membrane shall be replaced at no cost to the University.

F. The Applicator is cautioned that certain roofing membranes are incompatible with asphalt, coal, heavy oils, roofing cements, creosote and some preservative materials. Such materials shall not remain in contact with PVC membranes. The Applicator shall consult the PVC Manufacturer regarding compatibility, precautions and recommendations.

G. Arrange work sequence to avoid use of newly constructed roofing as a walking surface or for equipment movement and storage. Where such access is absolutely required, the Applicator shall provide all necessary protection and barriers to segregate the work area and to prevent damage to adjacent areas. A substantive protection layer consisting of plywood over 8 oz. felt or plywood over insulation board shall be provided for all new and existing roof areas that receive rooftop traffic during construction.

H. Prior to and during application, all dirt, debris and dust shall be removed from surfaces by vacuuming, sweeping, blowing with compressed air and/or similar methods.

I. The Applicator shall follow all safety regulations as required by OSHA and any other applicable authority having jurisdiction.

J. All new roofing waste material (i.e., scrap roof membrane, empty cans of adhesive) shall be immediately removed from the site by the Applicator and properly transported to a legal dumping area authorized to receive such material.

K. The Applicator shall take precautions that storage and/or application of materials and/or equipment does not overload the roof deck or building structure.
L. Flammable adhesives and deck primers shall not be stored and not be used in the vicinity of open flames, sparks and excessive heat.

M. All rooftop contamination that is anticipated or that is occurring shall be reported to the roofing Manufacturer to determine the corrective steps to be taken.

N. The Applicator shall verify that all roof drain lines are functioning correctly (not clogged or blocked) before starting work. Applicator shall report any such blockages in writing (letter copy to roofing Manufacturer) to the University’s Representative for corrective action prior to the installation of the PVC roof system.

O. Site cleanup, including both interior and exterior building areas that have been affected by construction, shall be completed to the University’s satisfaction.

P. The PVC membrane shall not be installed under the following conditions without consulting the Manufacturer’s Technical Department for precautionary steps:
   1. The roof assembly permits interior air to pressurize the membrane underside.
   2. Any exterior wall has 10% or more of the surface area comprised of opening doors or windows.
   3. The wall/deck intersection permits air entry into the wall flashing area.

Q. Protective wear shall be worn when using solvents or adhesives or as required by job conditions.

R. PVC membranes are slippery when wet or covered with snow, frost, or ice. Working on surfaces under these conditions is hazardous. Appropriate safety measures must be implemented prior to working on such surfaces. Always follow OSHA and other relevant fall protection standards when working on roofs.

1.07 BIDDING REQUIREMENTS

A. Pre-Bid Meeting:
   1. A pre-bid meeting shall be held with the University’s Representative and involved trades to discuss all aspects of the project. The Applicator’s field representative or roofing foreman for the work shall be in attendance. Procedures to avoid rooftop damage by other trades shall be determined.

1.08 WARRANTIES

A. Roofing Manufacturer 20 Year System Warranty
   1. Upon successful completion of the work to The Manufacturer’s satisfaction and receipt of final payment, the Manufacturer’s 20 Year NDL System Warranty shall be issued.

B. Applicator/Roofing Contractor 2 Year Warranty
   1. The Applicator shall supply the University with a separate 2 year workmanship warranty. In the event any work related to roofing, flashing, or metal is found to be within the Applicator warranty term, defective or otherwise not in accordance with the Contract Documents, the Applicator shall repair that defect at no cost to the University. The Applicator’s warranty obligation shall run directly to the University, and a copy shall be sent to the Manufacturer.

C. University Responsibility
   1. University shall notify both the Manufacturer and the Applicator of any leaks as they occur during the time period when both warranties are in effect.

PART 2 - PRODUCTS

2.01 GENERAL
A. The basis of design for the roof system is Sika Sarnafil.

2.02 MEMBRANE

A. Sarnafil S327 polyester reinforced membrane with a lacquer coating.

B. Membrane shall conform to ASTM D4434 (latest version), “Standard for Polyvinyl Chloride Sheet Roofing,” Classification: Type III.
   1. Sarnafil S327, 60 mil, thermoplastic membrane with polyester reinforcement.

C. Certified Polymer Thickness
   1. Membrane manufacturer is to certify that the polymer thickness is +/- 2 mils of the thickness specified. Certification is to be signed by the membrane manufacturer’s quality control manager. ASTM +/- tolerance for membrane thickness is not accepted.

D. Color of Membrane
   1. “Energy Smart” white, initial reflectivity of 0.83, initial emissivity 0.90, solar reflective index (SRI) of >104 and aged reflectivity of <0.50.

2.03 FLASHING MATERIALS

A. Wall/Curb Flashing
   1. Flashing Membrane
      A fiberglass reinforced membrane adhered to approved substrate using VOC compliant adhesive.
   2. PVC Clad
      A PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles. PVC clad is a 25 gauge, G90 galvanized metal sheet with a 20 mil unsupported PVC membrane laminated on one side. The dimensions of PVC clad are 4 ft x 10 ft.

B. Miscellaneous Flashing
   1. Reglet Termination Bar
      A heavy-duty, extruded aluminum flashing termination reglet used at walls and large curbs. Reglet termination bar is produced from 6063-T5, 0.10 inch - 0.12 inch thick extruded aluminum. The Reglet has a 2½ inch deep profile, and is provided in 10 foot lengths. Use prefabricated reglet mitered inside and outside corners where walls intersect.
   2. PVC Stack
      A prefabricated vent pipe flashing made from 0.048 inch (48 mil) thick G410 membrane. Available in five different sizes.
   3. Prefabricated corners - Universal
      Prefabricated outside and inside flashing corners made of 0.060 inch (60 mil) thick membrane that are heat-welded to membrane or clad base flashings. Available in one size which accommodate both inside and outside corners. Can be cut into one inside or one outside corner.
   4. Multi-Purpose Sealant
      A proprietary sealant used at flashing terminations. Consult Product Data Sheet for additional information.
   5. VOC Compliant Solvent Based Adhesive
      A VOC compliant adhesive used to attach membrane to flashing substrate.

2.04 OVERLAYMENT BOARD

A. Securock Glass Mat
   1. A siliconized gypsum, fire-tested hardboard with glass-mat facers. Securock is provided in a 4 x 8 ft board size and in a thickness of 3/32".

MECHANICALLY FASTENED THERMOPLASTIC MEMBRANE ROOFING 07541-9-5
ATTACHMENT COMPONENTS

A. Membrane Fastener: A #15, heavy-duty, corrosion-resistant fastener used with seam plate to attach membrane to the appropriate roof deck. Membrane fastener has a shank diameter of approximately 0.21 inch and the thread diameter is approximately 0.26 inch. The driving head has a diameter of approximately 0.435 inch and is #3 Phillips design for positive engagement.

B. Seam Plate: Seam plates are high strength, linear plate used with a #15 fastener to attach the roof membrane to the appropriate roof decks. Seam plate is an 18 gauge, 2 inch by 3-3/4 inch corrosion resistant steel plate.

C. Membrane fastener: A #21, A specially designed, heavy-duty, corrosion-resistant fastener used with a polymeric batten strip to clamp roof membrane to roof decks. #21 fasteners may also be used to secure and polyester reinforced roof membrane to roof decks. Acceptable substrates include 22-24 gauge steel and 1/2-5/8 wood roof decks. The #21 has a shank diameter of approximately 0.26 inch and a thread diameter of approximately 0.33 inch. The driving head has a diameter of approximately 0.56 inch with a #3 Phillips recess for positive engagement and simplicity of application.

D. #21 Seam Plate: A large diameter high strength plate used with #21 fasteners to attach the 120 inches PVC roof membrane to 1/2-5/8 wood roof decks. This is a 20 gauge, 3.5 inch, round corrosion resistant steel plate.

E. #12 Protection board Fastener. A #12 corrosion-resistant fastener used with protection board plates to attach protection boards to steel or wood roof decks. #12 Fasteners have a modified buttress thread, a shank diameter of approximately 0.168 inch and a thread diameter of approximately 0.214 inch. The driving head has a diameter of approximately 0.435 inch with a #3 Phillips recess for positive engagement. Consult Product Data Sheet for additional information.

F. Protection board plate: Used with various fasteners to attach protection boards to roof deck. The protection board plate is a 3 inch square or round, 26 gauge stamping of SAE 1010 steel with an AZ 55 Galvalume coating.

G. Peel Stop: An extruded aluminum, low profile bar used with certain fasteners to attach to the roof deck or to walls/curbs at terminations, penetrations and at incline change of the substrate. Peel stop is a 1 inch wide, flat aluminum bar 1/8 inch thick that has predrilled holes every 6 inches on center.

WALKWAY PROTECTION

A. PVC Walkway: A polyester reinforced, 0.096 inch, weldable membrane with surface embossment. Used as a protection layer from rooftop traffic. PVC Walkway is supplied in rolls of 39.3 inches wide and 32 8 feet long.

MISCELLANEOUS ACCESSORIES

A. Aluminum Tape: A 2 inch wide pressure-sensitive aluminum tape used as a separation layer between small areas of asphalt contamination and the membrane and as a bond-breaker under the coverstrip at the PVC Clad joints.

B. PVC Cleaner: A high quality solvent cleaner used for the general cleaning of residual asphalt, scuff marks, etc., from the membrane surface. PVC Cleaner is also used daily to clean seam areas prior to hot-air welding in tear off or dirty conditions or if the membrane is not welded the same day it is unrolled.

C. Multi-Purpose Tape: A high performance sealant tape used with metal flashings as a preventive measure against air and wind blown moisture entry.
2.08 SEALANTS

A. Multi-Purpose Sealant (for termination details).

B. Two Part urethane sealant.

C. Depending on substrates, the following sealants are options for temporary overnight tie-ins:
   1. Two Part urethane sealant.
   2. Multiple layers of roofing cement and felt.
   3. Spray-applied, water-resistant urethane foam.
   4. Mechanical attachment with rigid bars and compressed sealant.

2.09 MISCELLANEOUS FASTENERS AND ANCHORS

All fasteners, anchors, nails, strap, bars, etc. shall be post-galvanized steel, aluminum or stainless steel. Mixing metal types and methods of contact shall be assembled in such a manner as to avoid galvanic corrosion. Fasteners for attachment of metal to masonry shall be expansion type fasteners with stainless steel pins. All concrete fasteners and anchors shall have a minimum embedment of 1¾ inch and shall be approved for such use by the fastener manufacturer. All miscellaneous wood fasteners and anchors used for flashings shall have a minimum embedment of 1 inch and shall be approved for such use by the fastener manufacturer.

PART 3 - EXECUTION

3.01 PRE-CONSTRUCTION CONFERENCE

A. The Applicator, University's Representative/Designer and Manufacturer(s) shall attend a pre-construction conference.

B. The meeting shall discuss all aspects of the project including but not limited to:
   1. Safety
   2. Set up
   3. Construction schedule
   4. Contract conditions
   5. Coordination of the work

3.02 SUBSTRATE PREPARATION

The roof deck and existing roof construction must be structurally sound to provide support for the new roof system. The Applicator shall load materials on the rooftop in such a manner as to eliminate risk of deck overload due to concentrated weight. The University's Representative shall ensure that the roof deck is secured to the structural framing according to local building code and in such a manner as to resist all anticipated wind loads in that location.

A. Reroofing with Removal of Existing Bitumen Roofing

General Criteria

All existing roofing, base flashing, deteriorated wood blocking or deteriorated metal flashings shall be removed. Remove only that amount of roofing and flashing which can be made weathertight with new materials during a one-day period or before the onset of inclement weather.

1. Wood Deck:
   a) FM Approved Wood Deck - All rotted or deteriorated wood shall be removed and replaced. The deck thickness shall be 2 inch minimum lumber or ½ inch plywood. The deck shall conform to FM's requirements for Class 1 wood decks. Deck attachment shall
conform to FM and local code requirements. Fastener heads shall be recessed into the wood surface.

b) Non-FM Approved Wood Deck - All rotted or deteriorated wood shall be removed and replaced. The deck thickness shall be 1-1/2 inch lumber or 15/32 plywood or match existing deck if greater. Deck type and attachment shall conform to local code requirements. Fastener heads shall be recessed into the wood surface.

3.03 SUBSTRATE INSPECTION

A. A dry, clean and smooth substrate shall be prepared to receive the PVC roof system.

B. The Applicator shall inspect the substrate for defects such as excessive surface roughness, contamination, structural inadequacy, or any other condition that will adversely affect the quality of work.

C. The substrate shall be clean, smooth, dry, and free of flaws, sharp edges, loose and foreign material, oil and grease. Roofing shall not start until all defects have been corrected.

D. All roof surfaces shall be free of moisture.

E. Roofing membrane shall be applied over compatible and accepted substrates only.

3.04 PROTECTION BOARD INSTALLATION

A. Protection board shall be installed according to manufacturer's instructions.

B. Protection board shall be neatly cut to fit around penetrations and projections.

C. Do not install more protection board than can be covered with PVC membrane by the end of the day or the onset of inclement weather.

D. Mechanical Attachment
   1. Protection board shall be mechanically fastened to the deck with approved fasteners and plates at a rate according to the protection board manufacturer's, FM's and roofing manufacturer's recommendations for fastening rates and patterns. The quantity and locations of the fasteners and plates shall also cause the protection boards to rest evenly on the roof deck/substrate so that there are no significant and avoidable air spaces between the boards and the substrate. Each protection board shall be installed tightly against the adjacent boards on all sides.
   2. Fasteners are to be installed consistently in accordance with fastener manufacturer's recommendations. Fasteners are to have minimum penetration into structural deck recommended by the fastener manufacturer and roofing manufacturer.
   3. Use fastener tools with a depth locator and torque-limiting attachment as recommended or supplied by fastener manufacturer to ensure proper installation.

3.06 INSTALLATION OF MEMBRANE

The surface of the substrate shall be inspected prior to installation of the PVC roof membrane. The substrate shall be clean, dry, free from debris and smooth with no surface roughness or contamination. Broken, delaminated, wet or damaged protection boards shall be removed and replaced.

A. General
   1. PVC membrane is to be attached with manufacturer approved fasteners and plates according to Manufacturer's and Factory Mutual's requirements.
   2. Membrane overlaps shall be shingled with the flow of water where possible.
3. Full-width PVC rolls shall be fastened perpendicular to the direction of the wood plank where possible.
4. Tack welding of full or half-width rolls for purposes of temporary restraint during installation is not permitted. Consult Manufacturer's Technical Department for further information.

B. Perimeter and Corner Areas

1. Over the properly installed and prepared substrate surface, half-width PVC rolls are to be installed either parallel or perpendicular to the entire perimeter edge according to FM guidelines. The number of adjacent half-rolls will be determined by building height and width and other conditions according to FM guidelines and the Manufacturer's Technical Department. Fasteners and Plates are installed along the edge of the membrane on the fastening line at a spacing determined by the roofing Manufacturer and the University's Representative/Designer. The #21 fasteners are held back 1-1/4 inch from the outer edge of the membrane, the #15 fasteners are held back 1 inch. The adjacent half-roll is positioned to overlap the fastened edge of the first half-roll by 7 inches for the #21 fastener and 5-1/2 inches for the #15 fastener in accordance with the overlap lines marked on its edge. The 5-1/2 inch overlap will allow the top membrane to extend 2-1/2 inches past the fastener for heat-welding. The 7 inch overlap will allow the top membrane to extend 2-1/4 inches past the fastener for heat-welding. Fasteners shall clamp the PVC membrane tightly to the substrate. In corner areas where perimeter half-rolls intersect, add rows of fasteners and plates over the top the half-rolls and weld a coverstrip above them for watertightness. See Detail Drawings.

Notes:
a) Perimeter area is defined as the outer boundary of the roof. If the roof is broken into different levels, each roof area shall be treated as an individual roof with its outer boundary being treated as a perimeter. Typically, internal expansion joints and firewalls are not considered to be full perimeters. Refer to Factory Mutual's Data Sheet 1-28 for more information.
b) The ridge area is defined as the high point in the roof area formed by two intersecting planes. When the sum of the slopes is a minimum of 4 inches in 12 inches (30 degrees), each side of the ridge shall be treated as a perimeter area.

2. Hot-air weld overlaps according to the Manufacturer's requirements. Seam test cuts shall be taken at least 3 times per day.

C. Interior Area

1. Over the properly installed and prepared substrate surface, full-width rolls are to be installed perpendicular to the wood plank panels. Fasteners and plates are installed along the edge of the membrane on the fastening line at a spacing determined by the roofing manufacturer and the University's Representative/Designer. The #21 is held back 1-1/4 inch from the outer edge of the membrane, the #15 is held back 1 inch. The adjacent full-roll is positioned to overlap the fastened edge of the first full-roll by 5-1/2 inches for the #15 fastener. The adjacent full-roll is positioned to overlap the fastened edge of the first full-roll by 7 inches in accordance with the overlap lines marked on its edge. The 5-1/2 inch overlap will allow the top membrane to extend 2-1/2 inches past the fastener for heat welding. The 7 inch overlap will allow the top membrane to extend 2-1/4 inches past the fastener for heat-welding. Fasteners shall clamp the membrane tightly to the substrate. See Detail Drawings.

2. Hot-air weld overlaps according to Manufacturer's recommendations. Seam test cuts shall be taken at least 3 times per day.

D. Securement Around Rooftop Penetrations

1. Around all perimeters, at the base of walls, drains, curbs, vent pipes, or any other roof penetrations, fasteners and plates shall be installed according to perimeter rate of attachment. Fasteners shall be installed according to the manufacturer's instructions. Fasteners shall be installed using the fastener manufacturer's recommended torque-sensitive fastening tools with depth locators. Fasteners shall clamp the membrane tightly to the substrate.
2. Membrane flashings shall extend 2-1/4 inches past the fasteners and be hot-air welded to the deck membrane.

3.06 HOT-AIR WELDING OF SEAM OVERLAPS

A. General
1. All seams shall be hot-air welded. Seam overlaps should be 3 inches wide when automatic machine-welding and 4 inches wide when hand-welding, except for certain details.
2. Welding equipment shall be provided by or approved by the Manufacturer. All mechanics intending to use the equipment shall have successfully completed a training course provided by the Manufacturer's Technical Representative prior to welding.
3. All membrane to be welded shall be clean and dry.

B. Hand-Welding
1. Hand-welded seams shall be completed in two stages. Hot-air welding equipment shall be allowed to warm up for at least one minute prior to welding.
2. The back edge of the seam shall be welded with a narrow but continuous weld to prevent loss of hot air during the final welding.
3. The nozzle shall be inserted into the seam at a 45 degree angle to the edge of the membrane. Once the proper welding temperature has been reached and the membrane begins to "flow," the hand roller is positioned perpendicular to the nozzle and rolled lightly. For straight seams, the 1-1/2 inch wide nozzle is recommended for use. For corners and compound connections, the 3/4 inch wide nozzle shall be used.

C. Machine Welding
1. Machine welded seams are achieved by the use of the Manufacturer's automatic welding equipment. When using this equipment, Manufacturer's instructions shall be followed and local codes for electric supply, grounding and over current protection observed. Dedicated circuit house power or a dedicated portable generator is recommended. No other equipment shall be operated simultaneously off the generator.
2. Metal tracks may be used over the deck membrane and under the machine welder to minimize or eliminate wrinkles.

D. Quality Control of Welded Seams
1. The Applicator shall check all welded seams for continuity using a rounded screwdriver. Visible evidence that welding is proceeding correctly is smoke during the welding operation, shiny membrane surfaces, and an uninterrupted flow of dark grey material from the underside of the top membrane. On-site evaluation of welded seams shall be made daily by the Applicator at locations as directed by the University's Representative or Manufacturer's representative. One inch wide cross-section samples of welded seams shall be taken at least two times a day. Correct welds display failure from shearing of the membrane prior to separation of the weld. Each test cut shall be patched by the Applicator at no extra cost to the University.

3.07 MEMBRANE FLASHINGS

All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the University's Representative and roofing manufacturer. If any water is allowed to enter under the newly completed roofing, the affected area shall be removed and replaced at the Applicator's expense. Flashing shall be adhered to compatible, dry, smooth, and solvent-resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.

A. VOC Compliant Flashing Adhesive
1. Over the properly installed and prepared flashing substrate, the flashing adhesive shall be applied according to instructions found on the Product Data Sheet. The flashing adhesive shall be applied in smooth, even coats with no gaps, globs or similar inconsistencies. Only
an area which can be completely covered in the same day's operations shall be flashed. The bonded sheet shall be pressed firmly in place with a hand roller.

2. No adhesive shall be applied in seam areas that are to be welded. All panels of membrane shall be applied in the same manner, overlapping the edges of the panels as required by welding techniques.

B. Install Peel stop according to the Detail Drawings with approved fasteners into the structural deck at the base of parapets, walls and curbs. Peel stop is required by the Manufacturer at the base of all tapered edge strips and at transitions, peaks, and valleys according to the Manufacturer's details.

C. The Manufacturer's requirements and recommendations and the specifications shall be followed. All material submittals shall have been accepted by the Manufacturer prior to installation.

D. All flashings shall extend a minimum of 8 inches above roofing level unless otherwise accepted in writing by the University's Representative and the Manufacturer's Technical Department.

E. All flashing membranes shall be consistently adhered to substrates. All interior and exterior corners and miters shall be cut and hot-air welded into place. No bitumen shall be in contact with the PVC membrane.

F. All flashing membranes shall be mechanically fastened along the counter-flashed top edge with Peel stop at 6-8 inches on center.

G. Membrane flashings shall be terminated according to the Manufacturer's recommended details.

H. All flashings that exceed 30 inches in height shall receive additional securement. Consult the Manufacturer's Technical Department for securement methods.

3.08 METAL FLASHINGS

A. Metal details, fabrication practices and installation methods shall conform to the applicable requirements of the following:
   1. Factory Mutual Loss Prevention Data Sheet 1-49 (latest issue).
   2. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - latest issue.

B. Metal, other than that provided by the Manufacturer, is not covered under the Manufacturer's warranty.

C. Complete all metal work in conjunction with roofing and flashings so that a watertight condition exists daily.

D. Metal shall be installed to provide adequate resistance to bending to allow for normal thermal expansion and contraction.

E. Metal joints shall be watertight.

F. Metal flashings shall be securely fastened into solid wood blocking. Fasteners shall penetrate the wood nailer a minimum of 1 inch.

G. Airtight and continuous metal hook strips are required behind metal fascias. Hook strips are to be fastened 12 inches on center into the wood nailer or masonry wall.

H. Counter flashings shall overlap base flashings at least 4 inches.
I. Hook strips shall extend past wood nailers over wall surfaces by 1-1/2 inch minimum and shall be securely sealed from air entry.

3.09 PVC CLAD METAL BASE FLASHINGS/EDGE METAL

A. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the University's Representative and the Manufacturer. If any water is allowed to enter under the newly completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.

B. PVC clad metal flashings shall be formed and installed per the Detail Drawings.

C. All metal flashings shall be fastened into solid wood nailers with two rows of post galvanized flat head annular ring nails, 4 inches on center staggered. Fasteners shall penetrate the nailer a minimum of 1 inch.

D. Metal shall be installed to provide adequate resistance to bending and allow for normal thermal expansion and contraction.

E. Adjacent sheets of PVC clad shall be spaced 1/4 inch apart. The joint shall be covered with 2 inch wide aluminum tape. A 4 inch minimum wide strip of PVC flashing membrane shall be hot-air welded over the joint. Exercise caution at perimeter of roof. Workers shall follow OSHA safety procedures.

3.10 WALKWAY INSTALLATION

A. PVC Walkway

Roofing membrane to receive PVC Walkway shall be clean and dry. Place chalk lines on deck sheet to indicate location of Walkway. Apply a continuous coat of VOC Compliant flashing adhesive to the deck sheet and the back of Walkway in accordance with the Manufacturer's technical requirements and press Walkway into place with a water-filled, foam-covered lawn roller. Clean the deck membrane in areas to be welded. Hot-air weld the entire perimeter of the Walkway to the PVC deck sheet. Check all welds with a rounded screwdriver. Re-weld any inconsistencies. Important: Check all existing deck membrane seams that are to be covered by Walkway with rounded screwdriver and re-weld any inconsistencies before Walkway installation.

3.11 TEMPORARY CUT-OFF

All flashings shall be installed concurrently with the roof membrane in order to maintain a watertight condition as the work progresses. All temporary waterstops shall be constructed to provide a 100% watertight seal. The stagger of the board joints shall be made even by installing partial panels of boards. The new membrane shall be carried into the waterstop. The waterstop shall be sealed to the deck and/or substrate so that water will not be allowed to travel under the new or existing roofing. The edge of the membrane shall be sealed in a continuous heavy application of sealant as described in Section 2.08. When work resumes, the contaminated membrane shall be cut out. All sealant, contaminated membrane, insulation fillers, etc. shall be removed from the work area and properly disposed of off site. None of these materials shall be used in the new work.

If inclement weather occurs while a temporary waterstop is in place, the Applicator shall provide the labor necessary to monitor the situation to maintain a watertight condition.

If any water is allowed to enter under the newly-completed roofing, the affected area shall be removed and replaced at the Applicator's expense.
3.12 COMPLETION

Prior to demobilization from the site, the work shall be reviewed by the University's Representative and the Applicator. All defects noted and non-compliances with the Specifications or the recommendations of the Manufacturer shall be itemized in a punch list. These items must be corrected immediately by the Applicator to the satisfaction of the University's Representative and the Manufacturer prior to demobilization.

All Warranties referenced in this Specification shall have been submitted and have been accepted at time of contract award.

END OF SECTION
SECTION 09651-9

RUBBER BASE

PART 1 GENERAL

1.01 SUMMARY
Specifier Note: Article below may be omitted when specifying manufacturer’s proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for including edition date of standard referenced. Conditions of the Contract or Section 01 42 19 - Reference Standards may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section.

1.02 RELATED SECTIONS
1. A. 08650 Resilient Athletic Flooring

1.03 SUBMITTALS
A. Product Data: Manufacturer's published literature for each resilient accessory.
B. Certificates: For fire-rated materials and ADA compliance.
C. Samples: Linear materials.

1.04 PROJECT SITE CONDITIONS
A. Store at job site in a dry place at least 48 hours before installation.
B. Install only when room temperature is within range specified by manufacturer. Maintain temperature until 24 hours after completion.

PART 2 PRODUCTS

2.01 MANUFACTURE
A. Provide products produced by Burke Flooring.

2.02 WALL BASE
A. BurkeBase Type TS Thermoset Rubber Base:
1. Molded Thermoset (vulcanized) rubber, 1/8 in. thickness, satin finish; ASTM F1861, Type TS, Group 1, Styles A & B. Available in pre-molded corners.
2. Product: BurkeBase 1/8 in. Rubber Base Type - TS
3. Color: TBD. Select from manufacturer's standard color array.
4. Profile: Cove
5. Size: 6 in.

B. Adhesive Physical Properties:

Use adhesives as specified by manufacturer. Use a flexible non-solvent acrylic wall base adhesive or equal unless other types of adhesives are recommended by manufacturer.
PART 3 EXECUTION

3.01 RESILIENT WALL BASE INSTALLATION

A. Apply wall base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.

B. Install wall base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.

C. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.

D. Do not stretch wall base during installation.

E. On masonry surfaces or other similar irregular substrates, fill voids along top edge of wall base with manufacturer's recommended adhesive filler material.

F. Pre-molded Corners: Install pre-molded corners before installing straight pieces.

G. Job-Formed Corners:

1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends. Shave back of base at points where bends occur and remove strips perpendicular to length of base that are only deep enough to produce a snug fit without removing more than half the wall base thickness.

2. Inside Corners: Use straight pieces of maximum lengths possible. Form by cutting an inverted V-shaped notch in toe of wall base at the point where corner is formed. Shave back of base where necessary to produce a snug fit to substrate.

3.02 CLEANING

A. After installation, remove excessive adhesive pursuant to resilient material manufacturer's published instructions.

B. Clean resilient materials pursuant to manufacturer's published instructions.

Burke Flooring Material's Maintenance Methods

Many products are available that can do a good job of cleaning and polishing rubber wall base. Specific products cannot be recommended since Burke has no control over their manufacture or application. Consult manufacturers, suppliers and janitorial services as to the suitability of a specific product for rubber wall base maintenance.

A. Wait several days, at least 48 hours, after installation before cleaning a new installation. This allows time for the wall base to bond firmly. During this period the wall base should be protected against traffic.

END OF SECTION
General comment:

Bedroom J-box: Provide J-box, listed for ceiling suspended fan support, located at center of bedroom with dual switch (dimmer switch for light and fan switch) at door for future fan light combo by tenant. See sketch general B for detail-Typical for all type of unit.

Add to the bedrooms listed below:

Building 400AR  
add to all bedrooms at units 4.0R and 5.0R

Building 400B  
add to all bedrooms at units 4.0 and 5.0

Building 500B  
add to all bedrooms at unit 4.0.

Building 600A  
add to bedroom 1(office), 2, 3 at unit 4.1 and bedroom 2, 3(study) at unit 5.1.

Building 600B  
add to bedroom 1(office), 2, 3 at unit 4.1 and bedroom 2, 3(study) at unit 5.1.

Building 600AR  
add to bedroom 1(office), 2, 3 at unit 4.1R and bedroom 2, 3(study) at unit 5.1R.

Building 700AR  
add to main bedroom and bedroom 2 at units 4.0R.
General comment: Outlet for future Radon fan

At building 300 series detect extra outlet for future Radon fan from second floor attic space. (Typical for building 300A, 300AR, 300AX and 300AXR)
General comment: Outlet for future Radon fan

Relocate outlet for future Radon fan from Second floor attic space to third floor attic space. (Typical for unit 5) at building 600A, and 600B, unit 5.1R at building 600AR)

unit 7.1 at building 700A, and unit 7.1R at building 700AR)

Relocate outlet for future Radon fan at third floor to loft area adjacent to top of stair.

(Typical for unit 4.1 at building 600A, and 600B, unit 4.1R at building 600AR)

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SCALE: 1/4" = 1' - 0"
Item B-5

Lighting Fixture Specification selected and specified by Architect and shown on sheet E003 is revised as follows to increase lighting level in bathroom and walk-in closet. (See sketch B-5) for revised lighting fixture schedule for dwelling unit.

Wall sconce with three 18W compact fluorescent lamps fixtures. Two
sconces to be installed in master bathroom and bathroom with two sinks
centered on top of each sink.

Wall sconce with three 18W compact fluorescent lamps fixtures. One
sconce to be installed in all bathroom with only one sink.

Wall sconce with two 18W compact fluorescent lamps fixtures. One
sconce to be installed in all powder rooms.

(See sketch B-5 for layout at various bathrooms as shown above.)

Surface round drum shaped fixture for all walk-in or laundry closet to be revised to
two 26W compact fluorescent lamps to provide twice light level at closet.

Revised symbol for fixture used at garage and specify two lamps
instead of one lamp.
## Dwelling Unit Lighting Fixture Schedule

<table>
<thead>
<tr>
<th>Fixture Symbol</th>
<th>Fixture Description</th>
<th>Lamps</th>
<th>Volts</th>
<th>Mounting</th>
<th>Mounting Height</th>
<th>Manufacturer/Catalog *</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Light fixture over bathroom pullman, brushed nickel finish, glass shades.</td>
<td>3</td>
<td>18</td>
<td>Wall</td>
<td>-</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>Light fixture over bathroom pullman, brushed nickel finish, glass shades.</td>
<td>2</td>
<td>18</td>
<td>Wall</td>
<td>-</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>6&quot; D.A. Horizontal CFL fluorescent downlighting with alzak clear diffuser, electronic ballast, and IC house.</td>
<td>1</td>
<td>26</td>
<td>Recessed</td>
<td>9'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>Fluorescent downlighting with white diffuser, electronic ballast, and IC house.</td>
<td>1</td>
<td>26</td>
<td>Recessed</td>
<td>9'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>Wet listed fluorescent downlighting with white diffuser, electronic ballast, and IC house.</td>
<td>1</td>
<td>26</td>
<td>Recessed</td>
<td>9'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>Round white drum shaped cloud fixture.</td>
<td>2</td>
<td>18</td>
<td>Surface</td>
<td>9'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>Fluorescent downlighting with alzak clear diffuser, electronic ballast, and IC house.</td>
<td>1</td>
<td>26</td>
<td>Recessed</td>
<td>9'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>Fluorescent strip light with electronic ballast and 50% third instant-start.</td>
<td></td>
<td>120</td>
<td>Surface</td>
<td>9'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
<tr>
<td>[ ]</td>
<td>12 high outdoor fluorescent wall light fixture with electronic ballast and built in photocell.</td>
<td>1</td>
<td>13</td>
<td>Wall</td>
<td>4'-6&quot;</td>
<td>Selected and specified by Architect</td>
</tr>
</tbody>
</table>
Item C-7: Location of the cable connection at study

Cable connection for study located at unit 5.0R on building 400AR to be relocated to larger wall to allow more room for TV installation.

Cable connection for study located at unit 5.0 on building 400B to be relocated to larger wall to allow more room for TV installation.

Cable connection for study located at unit 5.1 on building 600A to be relocated to larger wall to allow more room for TV installation.

Cable connection for study located at unit 5.1R on building 600B to be relocated to larger wall to allow more room for TV installation.

Cable connection for study located at unit 5.1R on building 600AR to be relocated to larger wall to allow more room for TV installation.

SCALE: 1/4" = 1'-0"
Item D-14: Location of the dining room J-box to be center of dining area.

J-box at dining room should be on top and at center of dining table. Architect will show dining table for locating this J-box.
Item F-19: Location of the cable connection adjacent to fire place

All cable connection adjacent to fire place to be relocated out of niches and be relocated to the wall above fire place at 460" AFF (field verify) for flat screen TV installation.
Item 1-28: Light fixture at laundry room.

Light fixture at laundry room of building 300 series revised from surface 1x4 fluorescent fixture to surface round drum light with (2) 26W compact fluorescent lamp.
Item 1-28: Light fixture at laundry room.

One surface round drum light with switch control to be installed in laundry closet at the following areas:

- Unit 5.0R at building 400AR
- Unit 5.0 at building 400B
- Unit 5.1 at building 600A
- Unit 5JR at building 600AR
- Unit 5.1 at building 600B

SCALE: 1/4" = 1' - 0"
Item I-30: Light fixture at walk-in closet.

Light fixture at walk-in closet to revise to two 26W compact fluorescent lamps to provide twice light level at closet. (Typical for whole project.)
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2”-4” FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2''-4'' FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2" - 4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2" - 4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2" - 4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
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NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2" - 4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2" - 4" FROM THE WALL TO KEEP CONSISTENCY.
NOTE: CLEANOUTS SHALL BE CLOSE TO THE FLOOR AND 2"-4" FROM THE WALL TO KEEP CONSISTENCY.
BUILDING 300A SECOND FLOOR MECHANICAL PLAN
(TYPICAL FOR ALL BUILDING 300)
BUILDING 400AR SECOND FLOOR MECHANICAL PLAN
(TYPICAL FOR ALL BUILDING 400)
BUILDING 600A SECOND FLOOR MECHANICAL PLAN
(TYPICAL FOR ALL BUILDING 600)
BUILDING 700A THIRD FLOOR MECHANICAL PLAN
(TYPICAL FOR ALL BUILDING 700)
# AIR DISTRIBUTION SCHEDULE

## (RESIDENTIAL)

<table>
<thead>
<tr>
<th>CFM</th>
<th>LISTED SIZE</th>
<th>CFM</th>
<th>LISTED SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-55</td>
<td>8x4</td>
<td>136-175</td>
<td>14x8</td>
</tr>
<tr>
<td>56-65</td>
<td>6x6</td>
<td>176-185</td>
<td>16x6 &amp; 10x10</td>
</tr>
<tr>
<td>56-70</td>
<td>10x4</td>
<td>176-190</td>
<td>12x8</td>
</tr>
<tr>
<td>71-85</td>
<td>12x4</td>
<td>191-235</td>
<td>14x8 &amp; 18x6</td>
</tr>
<tr>
<td>86-110</td>
<td>10x6</td>
<td>236-300</td>
<td>16x8 &amp; 12x12</td>
</tr>
<tr>
<td>111-120</td>
<td>8x8</td>
<td>301-390</td>
<td>14x14 &amp; 24x8</td>
</tr>
<tr>
<td>111-135</td>
<td>12x6</td>
<td>391-560</td>
<td>16x16</td>
</tr>
</tbody>
</table>

**SIDEWALL/CEILING SUPPLY REGISTER:**
- HART & COOLEY MODEL #682 (TWO WAY)
- HART & COOLEY MODEL #683 (THREE WAY)
- HART & COOLEY MODEL #684 (FOUR WAY)

**NOTES:**
- PROVIDE "HART & COOLEY" OR APPROVED EQUAL.
- COORDINATE WITH OWNER AND ARCHITECT FOR COLOR.
- FOR THE SAME CFM, THE GREATER SIZE CAN BE USED.
## AIR DISTRIBUTION SCHEDULE (RESIDENTIAL)

<table>
<thead>
<tr>
<th>CFM (MAXIMUM)</th>
<th>LISTED SIZE</th>
<th>CFM (MAXIMUM)</th>
<th>LISTED SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>6x6</td>
<td>540</td>
<td>20x20</td>
</tr>
<tr>
<td>100</td>
<td>12x6, 10x8</td>
<td>640</td>
<td>20x24</td>
</tr>
<tr>
<td>150</td>
<td>12x10</td>
<td>770</td>
<td>24x24</td>
</tr>
<tr>
<td>200</td>
<td>12x12,30x6</td>
<td>800</td>
<td>30x20</td>
</tr>
<tr>
<td>250</td>
<td>18x12,14x14</td>
<td>960</td>
<td>30x24</td>
</tr>
<tr>
<td>300</td>
<td>16x14,30x8</td>
<td>1200</td>
<td>30x30</td>
</tr>
<tr>
<td>400</td>
<td>18x18,30x10</td>
<td>1450</td>
<td>30x36</td>
</tr>
<tr>
<td>500</td>
<td>16x25,18x24</td>
<td>1800</td>
<td>36x36</td>
</tr>
</tbody>
</table>

**RETURN AIR GRILLE:** HART & COOLEY MODEL #672/674  
**RETURN AIR FILTER GRILLE:** HART & COOLEY MODEL #673

**NOTES:**  
- PROVIDE "HART & COOLEY" OR APPROVED EQUAL.  
- COORDINATE WITH OWNER AND ARCHITECT FOR COLOR.  
- FOR THE SAME CFM, THE GREATER SIZE CAN BE USED.
1. The irrigation controller 'B' shown on the landscape drawings sheet 18 of 30 (LI-2) shall be relocated adjacent to Building 14 as shown within this exhibit and in response to Addendum 3, Item H-25.

2. The electrical meter pedestal shall be relocated to share a concrete pad with the irrigation controller at the same location.

3. Twenty (20) of the Maori Queen Flax shown on landscape sheet 27 of 30 (LP-5) immediately surrounding the pedestals shall be changed from a 1 Gallon container to a 5 Gallon container.
1. Detail shown on the landscape drawing Sheet 11 of 30 (LCD-2), Detail 3 'Tube Steel Fence & Gate (Pickets 2" Clr.) - Private Yards' is incorrect and should match what is depicted within this exhibit. Fence design should match what was constructed in Phase 1.
1. Post and Wire Perimeter/ Buffer Fence-
The construction detail found within the landscape drawings sheet 11 of 30 (LCD-2), detail 5 has been revised to include a third wire matching the Phase 1 specification.
1. Vinyl Fence and Gate specification- The Landscape Construction Material Schedule found on sheet 3 of 30 (LC-0) items 2.1 and 2.2 have been revised to match Phase 1 specifications.

2. Response to Amoroso RFC #1-
All references to 'Limit of Work' or 'Limit of Work - Phase 2' within the landscape drawings shall be amended to read 'Limit of Landscape and Irrigation Work'

3. Response to CW Driver RFI #2, Item 16-
Contractor shall connect all deck and planter drains referenced in the landscape plans on sheet 8 of 30 (LC-5) within the pool area to the invert designed by the Civil Engineer. Invert location can be found on the C.E. Storm Drain Mainline Plan sheet 23 of 49 at the top, middle portion of the image.
# SHRUB LEGEND

<table>
<thead>
<tr>
<th>SYM</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING CDY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>Achillea millefolium 'White'</td>
<td>Common Yarrow</td>
<td>1 gal.</td>
<td>18&quot; O.C.</td>
</tr>
<tr>
<td>☐</td>
<td>Alstroemeria 'Red Jumper'</td>
<td>'Red Jumper' Kangaroo Paw</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Azalea 'Elfin King'</td>
<td>Dwarf Strawberry Tree</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Arctostaphylos 'Emerald Carpet'</td>
<td>'Emerald Carpet' Manzanita</td>
<td>4&quot; Pots</td>
<td>24&quot; O.C.</td>
</tr>
<tr>
<td>☐</td>
<td>Arctostaphylos ova-osa 'Radiant'</td>
<td>Radiant Bearberry</td>
<td>4&quot; Pots</td>
<td>24&quot; O.C.</td>
</tr>
<tr>
<td>☐</td>
<td>Arctostaphylos 'Sunset'</td>
<td>Sunset Manzanita</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☼</td>
<td>Asclepias fascicularis</td>
<td>Passion flower</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Baccharis 'Centennial'</td>
<td>'Centennial' Coyote Brush</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Baccharis pilularis 'Twin Peaks II'</td>
<td>Dwarf Coyote Brush</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Cistus laevis</td>
<td>Crimson-Spot Rockrose</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Cistus ladanifer</td>
<td>White Rockrose</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Erigeron karvinskianus</td>
<td>Santa Barbara Daisy</td>
<td>1 gal.</td>
<td>18&quot; O.C.</td>
</tr>
<tr>
<td>☼</td>
<td>Heteromeles arbutifolia</td>
<td>Toyon</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Juniperus chinensis 'Sea Green'</td>
<td>Sea Green Juniper</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Lavandula dentata</td>
<td>French Lavender</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Lavandula angustifolia 'Lyn's Legacy'</td>
<td>Lyn's Legacy Rio Bravo Bush</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Linum percarli</td>
<td>Sea Lavender</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☼</td>
<td>Mimulus aurantiacus</td>
<td>Bush Monkey Flower</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Nasturtium officinale</td>
<td>Purple Nasturtium</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Phormium hybrids 'Apricot Queen'</td>
<td>Apricot Queen Flax</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Phormium hybrids 'Maori Queen'</td>
<td>Maori Queen Flax</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Rhus californica 'Eve's Garden'</td>
<td>Coffeeberry</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☐</td>
<td>Rosmarinus officinalis 'Irene'</td>
<td>Irene Rosemary</td>
<td>1 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☼</td>
<td>Salvia spathacea</td>
<td>Hummingbird Sage</td>
<td>5 gal.</td>
<td>PER PLANT</td>
</tr>
<tr>
<td>☼</td>
<td>Stylisma bellum</td>
<td>Blue-eyed Grass</td>
<td>1 gal.</td>
<td>18&quot; O.C.</td>
</tr>
</tbody>
</table>

# TURF LEGEND

<table>
<thead>
<tr>
<th>SYM</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING CDY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>Buchloe dactyloides</td>
<td>Buffalograss</td>
<td>Plug</td>
<td>6&quot; O.C.</td>
</tr>
</tbody>
</table>

**HATCH PATTERN NOTE:**
For all hatch patterns shown on planting sheets, landscape contractor shall install a min. of 2 rows, triangulated spacing, of specified planting material at narrowest point. Plant spacing as called out on Legend.

**NATIVE SPECIES NOTE:**
* Owner furnished, contractor installed

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1. The native species note has been revised to read "Owner furnished, Contractor installed." This legend can be found in the landscape plans on all shrub planting sheets 26-29 of 30. This revision does not apply to the tree sheets 23-25 of 30.

---

**2011**

**SKETCH NO.:** 5 of 5

**TITLE:** Addendum 3

**UCSB North Campus Faculty Housing - Phase II**

**SCALE:** M/A

**PHASE:** PHASE-2

**JOB NO.:** 0304.020

**DATE:** SEP. 9, 2011
KITCHEN CABINETS @ SUBFLOOR

COUNTER TOP PER SPEC
PLYWOOD PER MANUFACTURER'S INSTRUCTIONS
DISHWASHER PER SPEC
CABINET BEYOND PER SPEC
TOE KICK VARIES PER FLOOR SUBSTRATES
TILE FLOOR WITHIN DISHWASHER SPACE
BACKER BOARD
PLYWOOD SUBFLOOR

1" = 1'-0"
MODIFICATION TO DETAIL 14/AD5.1

TITLE: Addendum 3
SKETCHES PER C.W. DRIVER RFI#1

UCSB North Campus Faculty Housing - Phase II
University of California, Santa Barbara
Santa Barbara, California
ABOVE TREAD NOSING

FINISH FLOOR

1 1/8" PLYWOOD TREADS

2x14 STRINGERS
[AT 16" O.C. MAX.]
EACH END & MID SPAN

GYP. BD. AT ALL WALLS AND CLG. OF ENCLOSED USABLE SPACE UNDER STAIR

NOTE: RAILING TO RESIST APPLIED LOADS PER CODE REQUIREMENTS SEE STRUCTURAL AND SHOP DRAWINGS

GUARD AT STAIRS 1-1/2'-1'-0'

ST2

REPLACE DETAIL 1/AD5.1

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SKETCH NO.: 2 of 3
SCALE: 1-1/2'-1'-0'
PHASE: PHASE II
JOB. NO.: 2008145
DATE: 06/13/11

TITLE: Addendum 3
SKETCHES PER C.W. DRIVER RFI #3

UCSB North Campus Faculty Housing - Phase II
University of California, Santa Barbara
Santa Barbara, California
NOTE: RAILING TO RESIST APPLIED LOADS PER CODE REQUIREMENTS SEE STRUCTURAL AND SHOP DRAWINGS

GUARD AT FLOOR OPENING

REPLACE DETAIL 6/AD5.1