Duane Hall
Remove and Replace Roof & Waterproofing

Site Plan

Scope of Work
The Plaza Waterproofing Repairs project at the Duane Laboratories is to include, but not necessarily limited to, the following:

1. **Waterproofing Removal**: Remove existing concrete topping slabs and soil overburden. Remove existing sheet-applied waterproofing system.

2. **Concrete Repair**: Once the existing overburden/topping slab and waterproofing has been removed, Architect/Engineer to be contacted to observe conditions to determine what, if any, repairs to the existing reinforced deck are necessary.

3. **Waterproofing Installation**: Clean and prepare existing concrete substrate per specifications to receive new hot fluid-applied waterproofing system. New system to include protection course and/or root barrier, where appropriate, and drainage mat.

4. **Overburden and Paving Replacement**: Remove existing soil overburden and concrete topping as necessary to execute repairs. Replace existing concrete with new concrete (per details and specifications). Reuse/replace existing soil per specifications, including new sod.

Alternate No. 1: Include waterproofing and topping slab replacement along east side of building from scope of repairs, see plans.

Alternate No. 2: Alternate hot-fluid applied waterproofing system, see specifications.

Alternate No. 3: Include the use of rigid insulation at project, installing a thinner concrete topping slab or shallower soil fill, where appropriate.

Duane Laboratories
Remove and Replace Roof & Waterproofing
Phase 1 of 2
University of Colorado
Boulder, Colorado
CU Project No. CP007332

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**Abbreviations**
- Ø: Diameter
- @: At
- A/E: Architect/Engineer (WJE Associates)
- ALUM: Aluminum
- APPROX: Approximately
- BETWEEN: Between
- CONC: Concrete
- CONT: Continuous
- CU: University of Colorado, Boulder
- DP: Dampproofing
- (E): Existing
- EQ: Equal
- GA: Gauge
- MFR: Manufacturer
- MIN: Minimum
- (N): New
- REINF: Reinforcement / Reinforcing
- T: Top of
- TEMP: Temporary
- TERM: Termination
- TYP: Typical
- VIF: Verify In Field
- WP: Waterproofing
- XPS: Extruded PolyStyrene

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**Project**
Remove and Replace Roof & Waterproofing - Phase 1 of 2
Duane Laboratories
2000 Colorado Avenue
Boulder, Colorado

**Client**
University of Colorado
Boulder, Colorado

**Architect**
Wiss, Janney, Elstner Associates, Inc.
3609 South Wadsworth Blvd, Suite 400
Lakewood, Colorado 80235
303.914.4300 tel | 303.914.3000 fax
www.wje.com
General Notes

1. Do not scale drawings. Contractor to verify all dimensions in field.
2. All work shall conform to the rules and regulations applicable in the City of Boulder, the State of Colorado, the University of Colorado, and all other authorities having jurisdiction.
3. The Contractor shall set all existing conditions at the site, and shall immediately notify the Architect/Engineer of any discrepancies, omissions, or other conditions that may affect the scope of work. Upon receipt of the Contractor's report, the Architect/Engineer shall make any necessary changes.
4. The Contractor shall furnish all labor, materials, and equipment as required to complete the work.
5. Building to be fully operational at all times during construction.
6. Construction and construction-related activities shall be coordinated with the Owner's Architect and Engineer.
7. The contractor shall provide protective barriers, tarps, sidewalkish, etc., to ensure the safety of the public, pedestrians, contractors, subcontractors, and the like. All sections, as approved by the Owner and Architect/Engineer and in accordance with the requirements of local and state authorities, including Occupational Safety and Health Administration (OSHA), shall be followed.
8. Contractor to provide free and plant protection per the project specifications throughout the duration of the project.
9. The contractor shall not unnecessarily remove site and/or area elements to gain access to and for purposes of inspection or to verify the extent of damage.
10. Repairs shall be in place of the damaged site, and shall be verified by the Contractor and Architect/Engineer.
11. The Contractor shall be responsible for any damages to the building, equipment, or property caused by the work. Any such damage shall be repaired by the Contractor and Architect/Engineer prior to repairing the damage. All damage to buildings, equipment or property must be repaired to the satisfaction of the Owner or Owner's Architect/Engineer.
12. Contractor to be solely responsible for all jobsite safety during the repair work.
13. Contractor shall comply with all applicable regulations applicable to dust and debris removal.
14. Contractor shall provide access to work in progress during the periodic inspections. Contractor to include a $5,000 allowance for CU to review and approval prior to execution of repairs. Contractor to develop a pedestrian detour plan indicating signage, path of travel, duration of detour, etc.
15. Temporary lighting must be installed throughout the duration of the project where the existing exterior lighting is temporarily removed. Contractor to develop a pedestrian detour plan indicating signage, path of travel, duration of detour, etc.
16. Stormwater: The contractor is not to discharge any construction water, waste, or debris into the stormwater system.
17. Contractor shall provide temporary covering of exposed water system.
18. The Contractor shall verify all existing conditions at the job site, and shall immediately notify the Architect/Engineer of any discrepancies, omissions, or other conditions that may affect the scope of work. Upon receipt of the Contractor's report, the Architect/Engineer shall make any necessary changes.
19. Contractor shall provide temporary covering of exposed water system.
20. Pedestrian detour sign is to be reviewed and approved by CU prior to the execution of repairs. Contractor shall provide access to work in progress during the periodic inspections.
21. Contractor to include a $5,000 allowance for CU to review and approval prior to execution of repairs. Contractor to develop a pedestrian detour plan indicating signage, path of travel, duration of detour, etc.
22. Temporary lighting must be installed throughout the duration of the project where the existing exterior lighting is temporarily removed. Contractor to develop a pedestrian detour plan indicating signage, path of travel, duration of detour, etc.
23. All conflicts between the drawings and the specifications shall be brought to the attention of the Architect/Engineer.
24. The Contractor shall provide temporary covering of exposed water system.
25. The Contractor shall maintain the water tightness of the building throughout the construction that is related to the demolition/repair process. Removal of the existing roof is necessary to accomplish work. Holes for fixtures and utilities shall be provided and kept clear of debris during the repair work. Any such damage shall be reported to the Owner and Architect/Engineer prior to repairing the damage. All damage to buildings, equipment or property must be repaired to the satisfaction of the Owner or Owner's Architect/Engineer.
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33. All conflicts between the drawings and the specifications shall be brought to the attention of the Architect/Engineer.
34. The Contractor shall provide temporary covering of exposed water system.
35. The Contractor shall maintain the water tightness of the building throughout the construction that is related to the demolition/repair process. Removal of the existing roof is necessary to accomplish work. Holes for fixtures and utilities shall be provided and kept clear of debris during the repair work. Any such damage shall be reported to the Owner and Architect/Engineer prior to repairing the damage. All damage to buildings, equipment or property must be repaired to the satisfaction of the Owner or Owner's Architect/Engineer.
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Structural Loading

Original design loads for the plan shown as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Live load</th>
<th>Dead load</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100 psf</td>
<td>90 psf</td>
</tr>
<tr>
<td>A</td>
<td>100 psf</td>
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</tr>
<tr>
<td>A</td>
<td>150 psf</td>
<td>100 psf</td>
</tr>
</tbody>
</table>
AREA OF SOIL TO BE REMOVED TO EXECUTE WP REPAIR. REMOVE IRRIGATION SYSTEM.

REMOVE AND REPLACE CONCRETE TOPPING SLAB TO EXECUTE WP REPAIR

REMOVE AND REPLACE 8" CONCRETE TOPPING TO EXECUTE WP REPAIR

BUILDING OUTLINE ABOVE

EXTENT OF WP REPAIR

THICKENED SLAB EDGE

ENCLOSED STAIR TO SPACE BELOW, TYP. NO REPAIRS WITHIN ENCLOSED STAIRS.

REMOVE AND REPLACE (E) BENCH TO EXECUTE WP REPAIR. SALVAGE AND PROTECT (E) STONE COPING UNITS FOR Resetting on (N) BENCH.

TEMPORARILY REMOVE AND REINSTALL (E) BIKE RACKS TO EXECUTE WP REPAIR. CU WILL COORDINATE WITH CONTRACTOR ON TEMPORARY LOCATION DURING CONSTRUCTION.

PROTECT (E) TREES TO REMAIN AND DO NOT STORE MATERIALS WITHIN DRIP LINE OF TREE

REMOVE AND REPLACE (E) LANDSCAPING GROWTH AS NECESSARY TO EXECUTE WP REPAIR.

TEMPORARILY REMOVE AND REINSTALL (E) BIKE RACKS TO EXECUTE WP REPAIR.

CONTRACTOR STAGING AREA. CONTRACTOR TO FENCE OFF AREA WITHIN DRIP LINE OF TREES AS NECESSARY SO NO CONTRACTOR WORK AND/OR STORAGE OF MATERIALS TO OCCUR NEAR TREES. ALL DAMAGED SOD WILL NEED TO BE REPLACED.

DUANE HALL
Remove and Replace Roof & Waterproof
Phase 1 of 2
University of Colorado
Boulder, Colorado
CU Project No. CP007332

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Plotted: 2/26/2013 2:52 PM
by VerSchave, Everett

File Name: P:\2012\2012.4417 - duane physical laboratories\wje drawings\Sheets\A1.0 Plaza Plan.dwg

This sheet plots full size at 24x36 (inches)

Scale: 3/32" = 1'-0"

A1.0 Plaza Plan

February 27, 2013

As Shown

Plaza Plan
Duane Hall
Remove and Replace
Roof & Waterproofing Repairs
Phase 1 of 2
University of Colorado
Boulder, Colorado
CU Project No.: CP007332

Sheet Title: Waterproofing Repair Details

This sheet plots full size

Sheet No: A2.1

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Sheet Contents:
1. Assembly at Plaza Edge
2. Assembly at Thickened Slab Edge
3. Assembly at Slab Tie-In
4. Assembly at Thickened Slab Edge
5. Assembly at Slab to Soil Fill
6. Thickened Slab Edge Section
7. Assembly at Thickened Slab Edge

Assembly at Thickened Slab Edge
- Replace soil and install new waterproofing
- Use Type J2 backer rod
- Use compressible fill within joint

Assembly at Slab Tie-In
- Replace soil and install new waterproofing
- Use Type J2 backer rod
- Use compressible fill within joint

Assembly at Slab to Soil Fill
- Replace soil and install new waterproofing
- Use Type J2 backer rod
- Use compressible fill within joint

Assembly at Thickened Slab Edge
- Replace soil and install new waterproofing
- Use Type J2 backer rod
- Use compressible fill within joint

**Notes:**
- Replace (N) XPS insulation - see specifications
- Replace soil and install (N) sod per specifications
- Separate concrete slab - see plans for thickness
- Use #3 stirrups @ 18" OC
- Use #5 bars, top and bottom
- Use Epoxy all (N) steel
- Use new concrete topping over XPS insulation
- Use new slab - see plans
- Use new slab (beyond extent)
- Use 3" min cover (bottom)
- Use 1-1/2" cover (sides)
- Use embedded sheet flashing 3" across transition
- Use 24" wider than (E)
- Use Type J2 over 1/2" thick
- Use 12" min reinf into (E)
- Use 2" x 4" stretcher headers
- Use 303.914.4300 tel | 303.914.3000 fax
- Use www.wje.com

University of Colorado
Boulder, Colorado