

Project Manual

Monona Terrace Community and Convention Center Madison, Wisconsin

Exhibition Hall Flooring
Resurfacing

City of Madison Munis No. 20166

City of Madison Contract No. 8221

June 1, 2018

Potter Lawson No. 2017.10.00



PROJECT: MONONA TERRACE COMMUNITY
AND CONVENTION CENTER
ONE JOHN NOLEN DRIVE
MADISON, WISCONSIN 53703

EXHIBITION HALL FLOORING
RESURFACING

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DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

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The following List of Drawings bound separately from the Project Manual comprise the Drawings as referenced in the Procurement Documents and the Contract Documents.

The arrangement, numbering, titling and location of the Drawings within a bound set shall not control the Contractor in dividing the work among Subcontractors or in establishing the extent of Work to be performed by any trade.

<u>DRAWING NO.</u>	<u>DRAWING TITLE</u>
<u>GENERAL</u>	
CD01	Cover Drawing
<u>ARCHITECTURAL</u>	
A101	Level +4'-8" Floor Finish Plan
	End of List of Drawings

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DIVISION 09

SECTION 09 65 13.33 - RESILIENT ACCESSORIES

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PART ONE - GENERAL

DESCRIPTION

Rubber base
Rubber transition strips.
Preparation of substrate surfaces.

RELATED WORK AND REQUIREMENTS

Section 09 67 23: Resinous Flooring

SUBMITTALS

Product Data: Submit manufacturer's product data and installation instructions for each type of product specified.
Samples: Submit samples for verification purposes for each color of resilient product indicated.
Maintenance Instructions: Submit 2 copies of manufacturer's recommended maintenance practices for each type of resilient product required.

QUALITY ASSURANCE

Installer's Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing resilient products similar to those required for this Project and with a record of successful in-service performance.

DELIVERY, STORAGE, AND HANDLING

Deliver products to Project site in manufacturer's original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.
Store products in dry spaces with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 degree F or more than 90 degree F.
Move products into spaces where they will be installed at least 48 hours before installation, unless longer conditioning period is recommended in writing by manufacturer.

PROJECT CONDITIONS

Maintain temperatures within range recommended by manufacturer in spaces to receive products.
Do not install products until they are at the same temperature as the space where they are to be installed.
Install resilient products after other finishing operations have been completed.

PART TWO - PRODUCTS

Rubber Base: 4 inches H x 1/8-inch thick, ASTM F 1861, Type TP or TS, Group 1, rubber base. Continuous rolls if available. Acceptable product: Johnsonite; Traditional 4" Cove Rubber Base .
Color: Match existing Rubber Base color.

1 Resilient Transition Edge Strips: 1/8-inch thick, homogenous rubber composition, tapered or bullnose edge, in
2 width and profile matching existing transition strips.

3
4 Color: Match existing transition strips color.

5
6 Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions.

7
8 Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic
9 cement based formulation provided by or approved by resilient product manufacturer compatible with substrate
10 and adhesives.

11
12
13 **PART THREE - EXECUTION**

14
15 EXAMINATION

16
17 Installer shall examine substrates, areas, and conditions where installation of resilient products will occur for
18 compliance with manufacturer's requirements. Verify that substrates and conditions are satisfactory for resilient
19 product installation and comply with requirements specified.

20
21 Proceed with installation only after unsatisfactory conditions have been corrected.

22
23 PREPARATION

24
25 Comply with resilient product manufacturers written installation instructions for preparing substrates indicated to
26 receive resilient products.

27
28 Remove ridges, bumps, and other substrate protrusions. Use leveling and patching compounds as recommended
29 by resilient manufacturer for filling low spots, cracks, holes, and other depressions in substrate.

30
31 Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

32
33 INSTALLATION

34
35 Install resilient products according to manufacturer's written installation instructions.

36
37 Install resilient transition edge strips tightly butted to flooring and secure with adhesive. Install edging strips at
38 exposed edges of flooring.

39
40 CLEANING AND PROTECTION

41
42 Perform following operations immediately upon completion of installation:

43
44 Remove adhesive, factory finish, and other surface blemishes using cleaner recommended by resilient
45 product manufacturers.

46
47 Protect transition strips against mars, marks, indentations, and other damage from construction operations during
48 the remainder of construction period. Use protection methods indicated or recommended in writing by
49 manufacturer.

50
51
52
53 End of Section

SECTION 09 67 23 - RESINOUS FLOORING

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PART ONE - GENERAL

DESCRIPTION

Composition resinous floor surfacing system for resurfacing existing interior concrete floor and cove base finish.

RELATED WORK AND REQUIREMENTS

Section 09 65 13.33: Resilient Accessories

PREINSTALLATION MEETING

Conduct preinstallation meeting at Project site with Owner to review methods and procedures related to resinous flooring including, but not limited to, the following:

Inspect and discuss condition of existing flooring and base substrates and other preparatory work.

Review materials, application procedures, and protection of in-place conditions.

Review and finalize construction schedule and verify availability of materials, Installer's personnel, and equipment needed to complete the Work in accordance with the Owner's schedule.

Review dust control procedures.

SUBMITTALS

Product Data: Submit manufacturer's technical data, installation instructions, and general recommendations for resinous flooring materials required. Include manufacturer's certification indicating compliance of materials with requirements.

Samples: Submit 6-inch square samples of resinous flooring applied to a rigid backing, in color and texture selected by Owner.

Qualification Data: Submit installer qualifications.

Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices for flooring system specified.

QUALITY ASSURANCE

Installer Qualifications: Engage an Installer who is acceptable to manufacturer of primary materials and who has successfully completed within the last 5 years at least 3 resinous flooring applications similar in type and size to that of this project and who will assign mechanics from these earlier applications to this project, of which one will serve as lead mechanic.

Single Source Responsibility: Obtain resinous flooring system materials from a single manufacturer.

DELIVERY, STORAGE AND HANDLING

Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other causes.

1 PROJECT CONDITIONS

2

3 Environmental Conditions: Comply with resinous flooring manufacturer's directions for maintenance of substrate
4 temperatures, ventilation, and other conditions required to execute and protect work.

5

6 Control and collect dust produced by floor preparation operations. Protect adjacent surfaces from detrimental
7 effects of floor preparation operations.

8

9 Install temporary dust filter covers at all return air grilles in areas of work.

10

11 Install dust covers over sensitive electronic devices such as fire alarm devices and similar items.

12

13 Provide dustproof partitions and temporary enclosures to limit dust migration.

14

15 Fabric and plastic films used for temporary dust partitions shall be certified as conforming to the
16 requirements of Test Method #2 contained in NFPA 701 - Standard Methods of Fire Tests for Flame
17 Propagation of Textiles and Films.

18

19

20 **PART TWO - PRODUCTS**

21

22 ACCEPTABLE MANUFACTURER

23

24 Tennant Company (No Substitution)

25

26 RESINOUS FLOORING SYSTEM

27

28 High Performance Concrete Resurfacing System: Comply with manufacturer's written instructions for floor
29 system components and mixing.

30

31 Color and Finish: For initial selection of colors and finishes, submit to Owner manufacturer's color charts
32 samples showing full range of colors and textures available.

33

34 System Components:

35

36 Primer Coat: Eco-MPE, two-component 100 percent solids epoxy.

37

38 Application Thickness: Not less than 5 mils.

39 Color: As selected by Owner from manufacturer's full range.

40

41 Base Coat: Eco-MPE, two-component 100 percent solids epoxy.

42

43 Application Thickness: Not less than 15 mils.

44 Color: As selected by Owner from manufacturer's full range.

45

46 Top Coat: Eco-HTS 100, high solids, three-component, aliphatic, moisture-cured, light-stable, satin urethane.

47

48 Application Thickness: 500 square feet per gallon.

49 Color: As selected by Owner from manufacturer's full range.

50

51 System Properties: Provide flooring system that meets or exceeds the following listed minimum requirements:

52

53 VOC Content (ASTM D 3960): Mixed A+B+C = 0.05 lbs. per gal (6 g/L).

54

55 Abrasion Resistance (ASTM D 4060), CS-17 Taber Abrasion Wheel, 1,000 gram load, 1,000 revolutions:
56 18 mg/loss; result base on independent lab testing of Eco-HTS.

57

1 Adhesion to Concrete:
2 ASTM D 4541: 450 psi (3.10 MPa), concrete failed.
3 ASTM D 7234: 732 psi (4.48 MPa), concrete failed.
4
5 Coefficient of Friction (ASTM D 2047): 0.63.
6
7 Wet Static Coefficient of Friction, BOT 3000, (ANSI/NFSI B101.1): 0.94.
8
9 Compressive Strength, Epoxy, (ASTM D 695): 13,500 psi (93.079 MPa).
10
11 Flammability (ASTM D 635): 182 mm/min.
12
13 Resistance to Yellowing; measured using ASTM D 2244 after 1,000 consecutive hours UV exposure in
14 QUV, (ASTM G 154): Less than 10 increase of yellow units (CIE Lab Δb) if pigmented topcoat.
15
16 Tensile Strength (ASTM D 2370): 6,250 psi (43.09 MPa).
17
18 Elongation (ASTM D 2370): 6 percent.
19
20 Hardness, König Test, 3 mil/0.08 mm film, topcoat resin, (ASTM D 4366): 171.3.
21
22 Shore D Hardness, Epoxy, (ASTM D 2240):
23 0 Seconds: 80 to 85.
24 15 Seconds: 75 to 80.
25
26 Water Absorption, 24-Hour Immersion, (ASTM C 413): 0.2 percent weight increase.
27

28 MISCELLANEOUS ACCESSORIES

29
30 Patching and Fill Material: Eco-MPE epoxy with fumed silica for minor patching and small cracks and Eco-PT
31 250 epoxy for major patching and large cracks or other products approved and recommended by flooring
32 manufacturer for application indicated.
33
34 Sealants: Type recommended or produced by manufacturer of resinous flooring system for type of service and
35 joint condition.
36

37 **PART THREE - EXECUTION**

39 EXAMINATION

40
41
42 It is the Bidder's responsibility to determine the quantities of materials and labor required to complete all the
43 Work of this Section.
44
45 Before submitting a bid, Bidder shall visit and inspect the project site to become acquainted with the adjacent
46 areas, means of approach to the site, conditions of actual job site, and facilities for delivering, storing, placing,
47 and handling of materials and equipment.
48
49 Failure to visit the project site or failure to examine any and all Contract Documents will in no way relieve the
50 successful Bidder from necessity of furnishing any materials or equipment, or performing any work, that may be
51 required to complete the work in accordance with the Contract Documents.
52
53 Neglect of above requirements will not be accepted as reason for delay in the work or additional
54 compensation.
55
56 Examine substrates and areas, with Installer present, for compliance with requirements for conditions affecting
57 performance of the Work.

1 Proceed with installation only after unsatisfactory conditions have been corrected.
2
3 PREPARATION
4
5 Perform preparation and cleaning procedures in compliance with flooring manufacturer's instructions for
6 particular existing substrate conditions indicated to receive resinous flooring. Provide clean, dry, and neutral
7 substrate for flooring application.
8
9 Existing Concrete Floor and Base Finish:
10
11 Prepare existing floor surfaces including all edges and cove base by mechanical method that abrades the
12 surface to a CSP-2 surface profile per the International Concrete Repair Institute (ICRI) guideline.
13
14 Remove sufficient material to provide a sound surface free of laitance, glaze, and any bond-inhibiting
15 materials or compounds. Remove dust, dirt, grease, oil, and other contaminants incompatible with
16 resinous flooring.
17
18 Repair damaged and deteriorated concrete floor surfaces to acceptable condition according to resinous
19 flooring manufacturer's written recommendations.
20
21 Use patching and fill material to fill cracks, holes, and depressions in substrates according to flooring
22 manufacturer's written instructions.
23
24 Protect other building areas and equipment from dust generated by substrate preparation operations. Erect and
25 maintain temporary enclosures and other suitable methods to limit dust migration to other areas of the building.
26
27 MATERIALS PREPARATION
28
29 Carefully mix and prepare materials used in resinous flooring system in strict compliance with manufacturer's
30 instructions.
31
32 APPLICATION
33
34 General: Apply each component of resinous flooring system in compliance with manufacturer's directions to
35 produce a uniform monolithic wearing surface of thickness indicated, uninterrupted except at existing floor
36 control, expansion, and other types of joints (if any).
37
38 Primer Coat: Apply primer coat to prepared floor and cove base surfaces to ensure proper adhesion of flooring
39 system.
40
41 Base Coat: Allow primer coat to become tacky prior to application of base coat. If the base coat is not applied to
42 the primer coat within 24 hours of the primer coat application, prepare primer coat surfaces including all edges
43 and cove base by mechanical method that abrades the surface to a surface profile in accordance with
44 manufacturer's instructions before applying base coat.
45
46 Top Coat:
47
48 After base coat has fully cured, prepare base coat surfaces including all edges and cove base by mechanical
49 method that abrades the surface to a surface profile in accordance with manufacturer's instructions.
50
51 Apply top coat at spreading rate recommended by manufacturer to produce color and texture finish selected by
52 Owner and allow to fully cure.
53
54 Joints: Where substrate is interrupted by expansion or control joints, provide joint in resinous flooring to comply
55 with details recommended by resinous flooring manufacturer.
56
57 Sealant: Apply joint sealant materials to comply with resinous flooring manufacturer's recommendations.

1 **TRANSITION FROM EXISTING TO NEW WORK**

2

3 Where new work abuts with existing materials and finishes including items set into floor (i.e. electrical floor
4 boxes, cleanout covers, etc.), make an even-plane, smooth and workmanlike transition to comply with details
5 recommended by resinous flooring manufacturer.

6

7 **CURING, CLEANING AND PROTECTION**

8

9 Cure resinous flooring materials in compliance with manufacturer's directions, taking care to prevent
10 contamination during stages of application and prior to completion of curing process.

11

12 Protect resinous flooring materials from damage and wear during construction operation. Where temporary
13 covering is required for this purpose comply with manufacturer's recommendations for protective materials and
14 method of application. Remove temporary covering just prior to cleaning for final inspection.

15

16 Clean resinous flooring just prior to final inspections. Use cleaning materials and procedures recommended by
17 resinous flooring manufacturer.

18

19

20

21

End of Section

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