

May 23rd, 2014

**RE: ADDENDUM #1**

Project Address – 513 Garden Street

The following is a list of responses to RFI's received up until the end of Thursday, May 22<sup>nd</sup>, 2014

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**CIVIL:**

**1. Sheet A2.1, Keyed Notes 15. Civil sheet 3of5, Construction Notes 1**

The handicap parking stalls on sheet A2.1 are referred to as: "Permeable Pavers, Typ. (S.C.D)," Keyed Notes 15. Alternatively, the handicap parking stalls on civil sheet 3 of 5 are specified as "Gravelpave^2," Construction Notes 1. Please confirm that the handicap parking stalls are indeed the permeable pavers.

**Response:** Correct, the ADA spaces should be pavers, see attached pdf with correct notation.

**2. Civil sheet 3of5, Construction Notes 2**

Unilock Eco-Prioria permeable pavers: Please provide paver selection as rectangle (9.4" X 4.7" X 3.1") or large square (9.4" X 9.4 " X 3.1"), and provide laying pattern, such as straight running bond, herringbone, etc...

**Response:** Paver selection - large square.  
Laying Pattern - Stack (permeable spacing)  
In addition, please price the SF Rima (spec. included)

**3. Civil sheet 3of5, Construction Notes 3**

Permeable Concrete: Please provide standard mix and specification, unless specified in the requested geotechnical/soils report.

**Response:** See attached permeable concrete spec as well as subgrade prep spec.

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**STRUCTURAL / PHOTOVOLTAIC SUPPORTS:**

**Response:** Per the attached memo, Details 1 and 2 on S-3.3 have been revised. Disregard detail 3/A8.9. Proceed with Details 3 and 4 on S-3.4 as the preferred means of supporting the photovoltaic panels.

**M A C Y  
A R C H  
I T E C  
T U R E**

## LANDSCAPE:

1. The landscape architect is to verify the sizes for the self-watering Tournesol pots to be used on the third floor. (per L-2) What are the sizes? (sizes directly affect pricing)
2. More information needed on the quantity of plants to be used in the round self-watering pots and the rectangular 1'x4' Tournesol planters.
3. There is a list of plants to use, but wanted to know arrangement of each planter and quantities of each item per planter.
4. Common outdoor living space (Note 8) on Sheet A2.1 is shown to have a seat wall on Sheet L1, but it is not shown in architectural. Civil grading and drainage plan indicate it to be a planter area, but Sheet L1 shows it only being partially a planter area. Please advise.

### Responses:

All planters (round & rectangular) shall be by Tournesol Siteworks (or approved equal), 800-542-2282.

#### Round Planters:

Small - Model No.: WS-2400

Large - Model No: WS-3000

Provide lightweight soil mix, filter fabric and 6" gravel at bottom

#### Rectangular Planters:

Model No: WR-481824 and/or WR-601824. Quantities sufficient to accommodate areas shown on plan.

Provide lightweight soil mix, filter fabric and 6" graven at bottom.

#### Plantings:

##### Round Planters

Small - Provide and install 5- 1 gallon containers. Final selection by Landscape Architect.

Large - Provide and install 7- 1 gallon containers. Final selection by Landscape Architect.

Rectangular Planters: Provide and install 1 gallon containers (*Muhlenbergia capillaris*) at 24" o.c. throughout

Please incorporate a separate line item for the Round and Rectangular Planters located on the Roofs.

Please disregard the "seat wall." This will be a planter area.

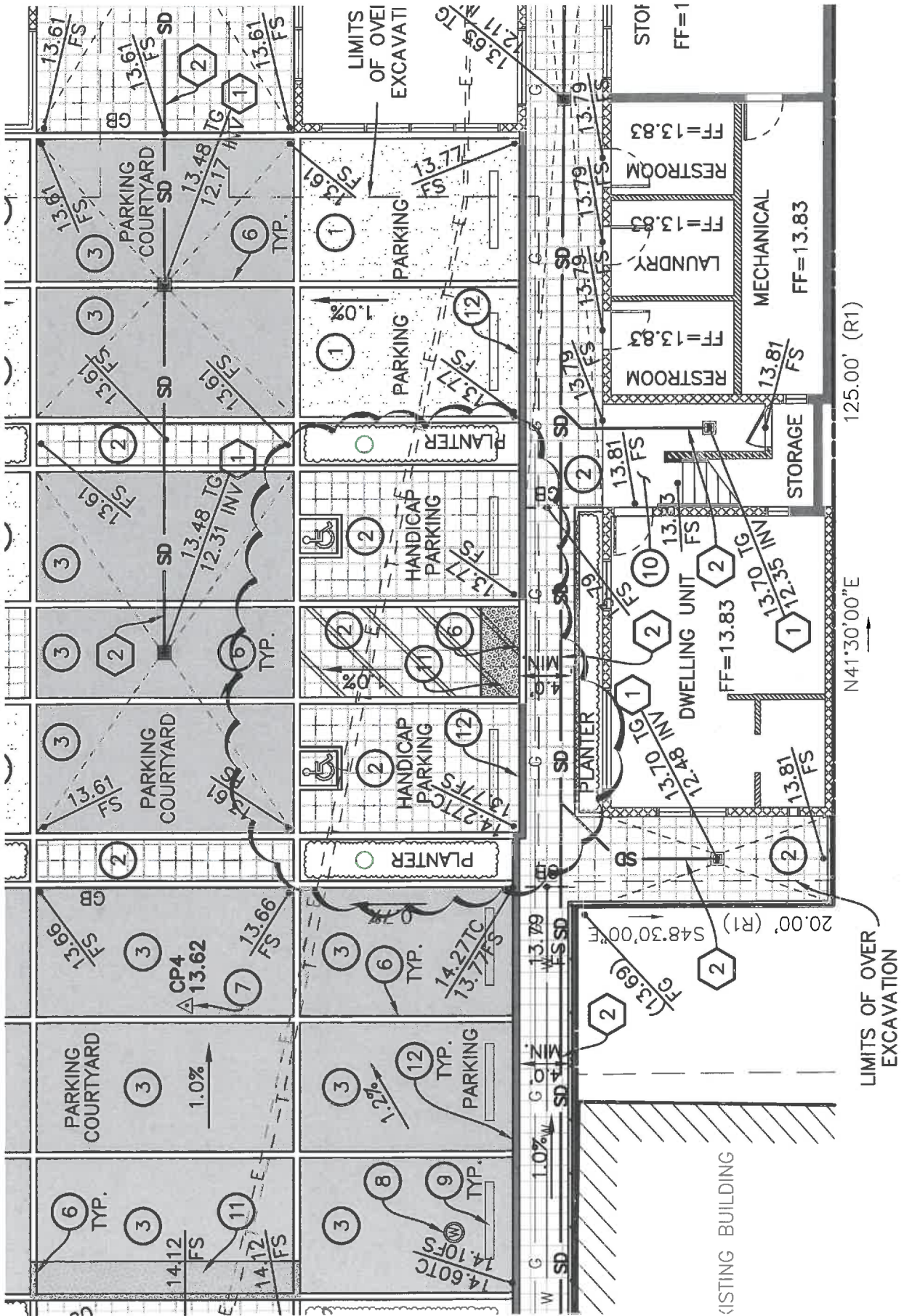
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## END ADDENDUM #1

Please let me know if you have any questions or comments.

Thanks,  
Mark

**M A C Y  
A R C H  
I T E C  
T U R E**



125.00' (RT)

N41°30'00"E

LIMITS OF OVER EXCAVATION

(EXISTING BUILDING

**SF Rima™**

SF Rima™ is a permeable paving stone that allows stormwater to percolate back into the ground rather than run off the surface. This infiltration can regenerate valuable groundwater tables, control erosion and improve stormwater runoff quality. It also reduces the amount of runoff flowing into stormwater systems. SF Rima™ pavements are eligible for LEED credits under the U.S. and Canadian Green Building Council guidelines.

**Stocked Color(s):**  
 Gray



*Shown: Gray SF Rima™ with a Gray-Moss-Charcoal Holland running border.*



**SF Rima**  
 8.20" x 8.20"  
 Patent No. 5224792

<b>SF Rima</b>	<b>80 mm</b>
Size (in inches)	8.20 x 8.20
Sq Ft per Stone	47
Stones per Sq Ft	2.14
Sq Ft per Pallet	90
Stones per Pallet	192
Weight per Stone	16.42 lbs
Weight per Pallet	3153 lbs

For custom color options  
 contact your Angelus Sales  
 Representative at:  
**(951) 328-9115** or  
**(805) 485-1137**

Visit [AngelusPavingstones.com](http://AngelusPavingstones.com) for more information about Related Pavers & Walls Products.



Turfstone



Permeable Holland

**NOTE: ALWAYS VIEW PRODUCT SAMPLES PRIOR TO INSTALLATION** The color and texture of Angelus products are not specific to any product or groups of products. Variation in color, shades of color, texture, and aggregate exposure is inherent in all concrete products and exact matches cannot be guaranteed. Not all products are stocked in all colors. Charts with more product related color availability are shown from product pages. Colors and textures represented in print and online are as close as possible to the actual product. Photographic techniques, printing techniques and viewing monitors – as well as actual viewing conditions – can alter perception of color.

CIVIL

**SF RIMA™**

Solid Colors (swatches shown in Antique Cobble I)

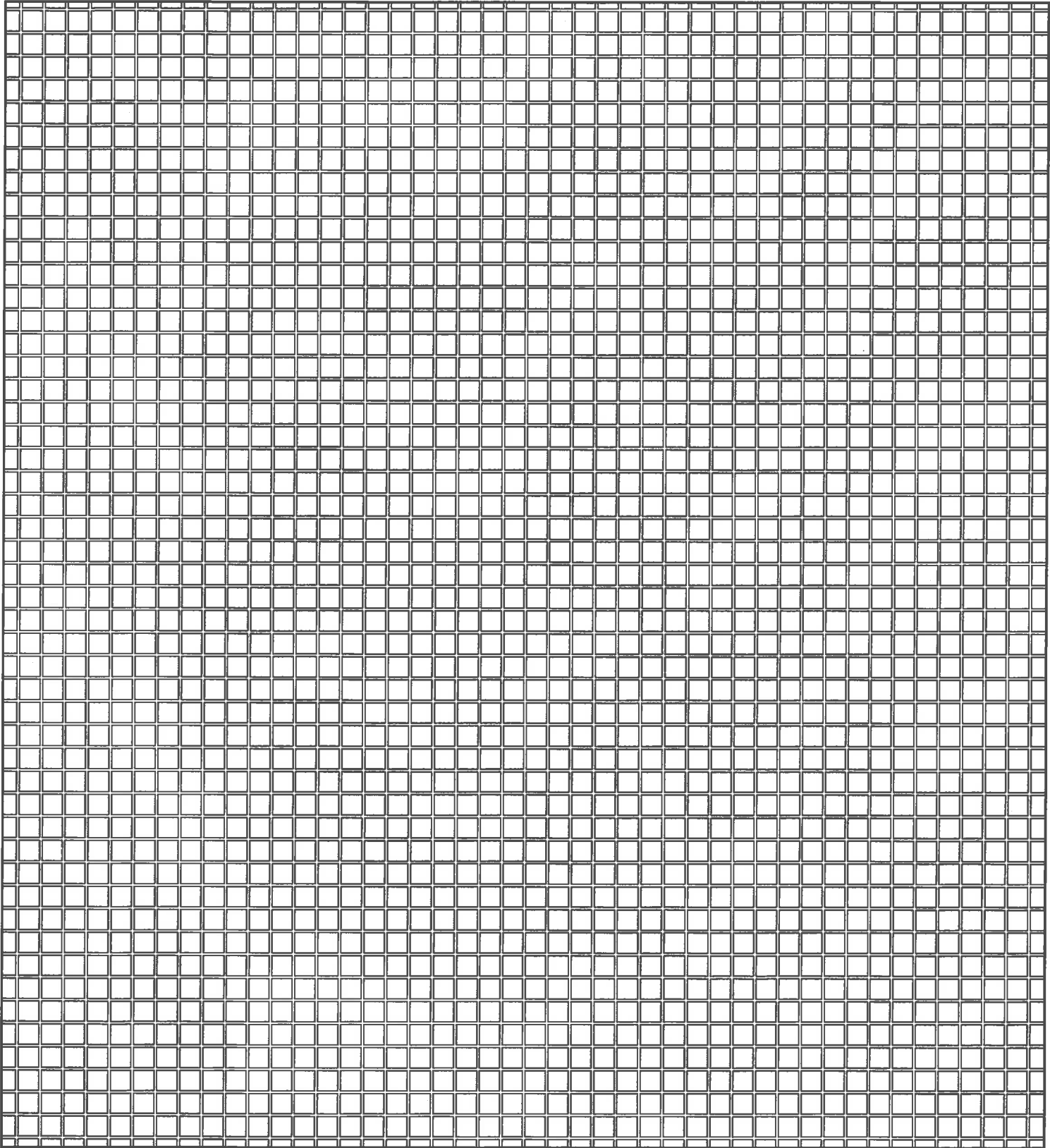


**GRAY**



**AVAILABLE WITH  
RECYCLED CONTENT**

**SF-Rima™ Stack - Permeable Spacing**  
100% SF-Rima™



**SECTION 31 00 00  
SUBGRADES AND COMPACTION FOR PORTLAND CEMENT PERVIOUS  
CONCRETE PAVEMENT**

**PART 1 – GENERAL**

**1.1 SCOPE OF WORK**

- A. The Work to be completed under this contract includes the subgrade and compaction requirements for Portland Cement Pervious Concrete Pavement for streets, parking & pedestrian areas in conformance with the plans and specifications.
- B. Work in other sections:
  - 1. Formwork: see "Concrete Formwork" in Division 03
  - 2. Other Paving: see other sections in Division 33
  - 3. Inserts of landscape accessories into concrete pavement: see division 32
  - 4. Drains in concrete pavement: see Division 32
  - 5. Portland Cement Pervious Concrete Pavement: see Division 33 Section 033729

**1.2 REFERENCES**

- A. American Society for Testing and Materials
  - 1. ASTM D 1557 "Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup>)"
  - 2. ASTM D 3385 "Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer"

**1.3 SUBGRADE AND COMPACTION**

- A. Material: The top 6 inches shall be composed of granular or gravelly soil that is predominantly sandy with no more than a moderate amount of silt or clay. Granular sub-base may be placed over the subgrade.
- B. Permeability: Subgrade shall be determined in accordance with ASTM D3385.
- C. Compaction: Compact sub-grade to a minimum 90% and a maximum 95%. Compaction shall be in accordance with ASTM D 1557.
- D. Fill: If fill material is required to bring the subgrade to final elevation, it shall be clean and free of deleterious materials. It shall be placed in 6-inch maximum layers, and compacted by a mechanical vibratory compactor to a minimum density of 90% and a maximum density of 95% in accordance with ASTM D 1557.
- E. Moisture: The subgrade moisture content shall be 1% - 3% above optimum as determined by ASTM D 1557.

- F. Verify subgrade preparation, grade, and conduct permeability and density tests for conformance to project requirements.

END OF SECTION

**SECTION 033729  
PORTLAND CEMENT PERVIOUS CONCRETE PAVEMENT**

**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

- A. The Work to be completed under this contract includes the furnishing of all labor, materials and equipment necessary for construction of Portland Cement Pervious Concrete Pavement for streets, parking and pedestrian areas in conformance with the plans and specifications.
- B. Work in other sections
  - 1. Formwork: see "Concrete Formwork" in Division 03
  - 2. Other Paving: see other sections in Division 33
  - 3. Inserts of landscape accessories into concrete pavement: see Division 32
  - 4. Drains in concrete pavement: see Division 32
  - 5. Subgrades and Compaction: see Division 31

**1.2 REFERENCES**

- A. American Concrete Institute
  - 1. Concrete Field Testing Technician Grade I
- B. American Society for Testing and Materials
  - 1. ASTM C 29 "Test for Bulk Density (Unit Weight) and Voids in Aggregate ASTM C33 "Specification for Concrete Aggregates"
  - 2. ASTM C 33 "Specification for Concrete Aggregates"
  - 3. ASTM C 94 "Specification for Ready-Mixed Concrete"
  - 4. ASTM C 150 "Specification for Portland Cement"
  - 5. ASTM C 260 "Specification for Air-Entraining Admixtures for Concrete"
  - 6. ASTM C 494 "Specification for Chemical Admixtures for Concrete"
  - 7. ASTM C 595 "Specification for Blended Hydraulic Cements"
  - 8. ASTM C 618 "Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete."
  - 9. ASTM C 685 "Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing"
  - 10. ASTM C 989 "Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars."
  - 11. ASTM C 1438 "Standard Specification for Latex and Powder Modifiers for Hydraulic Cement Concrete and Mortar."

12. ASTM C 1602 "Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete"
13. ASTM C 1688 "Standard Test Method for Density and Void Content of Freshly Mixed Pervious Concrete"
14. ASTM C 1701/C1701M "Standard Test Method for Infiltration Rate of In Place Pervious Concrete"
15. ASTM C 1751 "Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)"
16. ASTM C 1752 "Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction."
17. ASTM D 994 "Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)"
18. ASTM E 329 "Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction."

C. National Ready Mixed Concrete Association

1. Text Reference for Pervious Concrete Contractor Certification

### 1.3 QUALITY ASSURANCE

A. The Pervious Concrete Subcontractor:

1. Shall submit:
  - a. Evidence of two successful pervious concrete pavement projects including: the project name and address, owner's name, contact information and size of each project.
  - b. Verification of current NRMCA Certification requirements described below:
2. Shall meet, at the time of bidding: one of the following criteria for the minimum certification for each placement crew and submit verification of NRMCA Pervious Concrete Certification with the bid. ([http://www.nrmca.org/Education/Certifications/Pervious\\_Contractor.htm](http://www.nrmca.org/Education/Certifications/Pervious_Contractor.htm))
  - a. The pervious concrete subcontractor shall employ no less than one (1) NRMCA Certified Pervious Concrete Craftsman who must be onsite, actively guiding and working with each placement crew during all pervious concrete placement.
  - b. The pervious concrete subcontractor shall employ no less than three (3) NRMCA Certified Pervious Concrete Installers who must be onsite, actively guiding and working with pervious concrete for projects.
  - c. The pervious concrete subcontractor shall employ no less than three (3) NRMCA Pervious Concrete technicians and one (1) Pervious Installer who shall be onsite, actively guiding and working with each placement crew during all pervious concrete placement.
- B. Performance: Upon completion of the initial curing, the pervious concrete shall be tested for initial baseline infiltration in accordance with ASTM C1701. The rate shall be a minimum of 100 inches per hour.

1.4 Submittals: Before starting work, submit the following:

1. Concrete materials:
  - a. Proposed concrete mixture proportions including all material weights, volumes, density (unit weight), water / cementitious ratio, and void content. The mix design shall not specify a compressive or flexural strength.
  - b. Aggregate type, source and gradation.
  - c. Cement, fly ash, ground granulated blast-furnace slag and admixture manufacturer certifications
2. Qualifications: Evidence of qualifications listed under Quality Assurance.
3. Project details: Specific plans, details, schedule, construction procedures and quality control plan.
4. Test Panel:
  - a. Construct Test panel(s) to meet requirements of contract documents. Place a minimum one 225 sq. ft panel. Provide joints and curing using materials, equipment, and personnel proposed for the project as described in Section 1.02.B. Coordinate location of test panels with Owner and Architect/Engineer.
  - b. The test panel shall be tested for acceptance in accordance with section 3.08 Quality Control.
  - c. An approved test panel will be used as quality control for the project and may be incorporated into the project if of acceptable quality.
  - d. Remove and legally dispose of all materials used for test panels not approved and all excess materials.

## PART 2 - MATERIALS

2.1 Materials:

- A. Cement: Portland cement Type II or V conforming to ASTM C150 or Portland cement Type IP or IS conforming to ASTM C595.
- B. Supplementary Cementitious Materials:
  1. Class F Fly Ash: ASTM C618
  2. Ground Granulated Blast-Furnace Slag: ASTM C989
- C. Chemical Admixtures:
  1. Air entraining agents shall comply with ASTM C260.
  2. Chemical Admixtures shall comply with ASTM C494.
  3. Latex bonding agents shall comply with ASTM C1438.

- D. Aggregates: Coarse Aggregate: ASTM C33. The maximum size and gradation shall meet the project criteria for surface appearance and void content.
  - E. Water: ASTM C 1602.
  - F. Isolation Joint Material: Shall comply with ASTM D994, D1751, or D1752.
- 2.2 Mixture Proportions: The composition of the proposed concrete mixtures shall be submitted to the owner's representative for review and shall comply with the following provisions unless an alternative composition is demonstrated to comply with the project requirements. Conform with all requirements of Authorities Having Jurisdiction (AHJ) for pavements and walkways.
- A. Cementitious Content: Comply with the approved mix design.
    - 1. Supplementary cementitious content:
      - a. Fly ash: 25% maximum of the total cementitious material or in accordance with approved mix design.
      - b. Slag: 40% maximum of the total cementitious material or in accordance with approved mix design.
  - B. Water / Cementitious Ratio Shall range between 0.27 lb/lb and 0.31 lb/lb. or in accordance with approved mix design.
  - C. Aggregate Content: As appropriate for approved mix design.
  - D. Admixtures: Use in accordance with approved mix design.
  - E. Mix Water: as appropriate for approved mix design.
  - F. Color: Pigments to be selected by the architect.

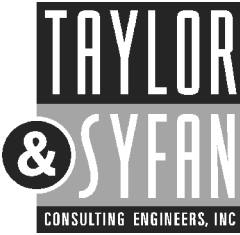
### **PART 3 - EXECUTION**

- 3.1 Subgrade: Verify subgrade preparation, grade, and conduct permeability and density tests for conformance to project requirements and is acceptable for installation of pervious concrete. (See PSCA 'Section 31 Subgrade Guidelines for Pervious Concrete' that accompanies this document.)
- 3.2 Recharge Basin (Detention Basin): When base material is used under pervious concrete for water recharge, it shall be composed of uniform sized aggregate conforming to ASTM C33, minimum size 6. For minimum void content, refer to civil or geotechnical contract documents.
- 3.3 Formwork: Form materials: any material permitted by AHJ and of sufficient strength and stability to support mechanical equipment without deformation of plan profiles following spreading, strike-off and compaction operations.
- 3.4 Mixing and Hauling:
  - A. Production: Pervious concrete shall be manufactured and delivered in accordance with applicable sections of ASTM C 94 or ASTM C 685.
  - B. Mixing: Pervious concrete shall be produced in central mixers, transit mixers or in volumetric mixers.

- C. Delivery: Deliver pervious concrete directly from the mixer by means of conveyor as close as possible to final position.
  - D. Discharge: Each truckload will be visually inspected for consistency of concrete mixture. Job site water additions are permitted to obtain and maintain the required mix consistency throughout the discharge. Discharge shall be a continuous operation. Concrete shall be deposited as close to its final position as practical and such that discharged concrete is incorporated into previously placed plastic concrete.
- 3.5 Placing and Finishing: Shall comply with the content of the National Ready Mixed Concrete Association's 'Text Reference for Pervious Concrete Contractor Certification' with the following provisions:
- A. Internal vibration shall not be permitted. Use mechanical screed equipment. Do not use hand screeds except in confined and small areas. Cross roll compacted concrete to remove any screeding and compaction marks on the concrete surface.
  - B. Compact to the required cross-section and shall not deviate more than  $\pm 3/8$  inch in 10 feet from profile grade.
- 3.6 Jointing
- A. Joints shall be installed at locations and to depths shown on the project plans.
  - B. Control (contraction) joints shall be installed at regular intervals not to exceed 1.5 times the width of the placement or 20 feet, or in accordance with approved joint placement plan. The control joints shall be installed at  $1/4$  the thickness of the pavement but not to exceed 1-1/2". These joints can be installed in the plastic concrete or saw cut after the concrete has hardened. New joints in plastic concrete or recently hardened concrete shall align with joints in older concrete. Joints abutting curbs and other fixed concrete shall be installed within 10 degrees of perpendicular to the older concrete as possible.
  - C. Install joints to match approved sample.
  - D. Transverse construction joints: Install whenever placing is suspended for 20 minutes or whenever concrete is no longer workable.
  - E. Do not dowel longitudinal joints between successive placements.
  - F. Isolation joints: Use when abutting fixed vertical structures. Place isolation material before concrete is placed and to the depth of the pavement section.
- 3.7 Curing:
- A. Final curing procedures shall begin no later than 20 minutes after the concrete has been discharged from the mixer. The pavement surface shall be covered with a minimum of six (6) mil thick white or clear polyethylene sheet or other approved covering material. In cold weather black plastic may be used to aid in heat retention. The cover shall prevent air infiltration to the fresh concrete and shall overlap all exposed edges and shall be secured to prevent dislocation due to winds or adjacent traffic conditions.
  - B. The curing cover shall remain securely in place for a minimum of 7 days. No vehicular traffic shall be permitted on the pavement until curing is complete and no truck traffic shall be permitted for at least 14 days.
- 3.8 Quality Control:

- A. The owner shall employ a testing laboratory that conforms to the requirements of ASTM E329 and ASTM C1077. All personnel engaged in testing shall be certified by the American Concrete Institute as ACI Concrete Field Technicians or equivalent and shall be certified by NRMCA as a Pervious Concrete Technician.
- B. Prior to each placement, the formed thickness shall be at least the design thickness testing within -0" to +3/4".
- C. Plastic concrete shall be sampled in accordance with ASTM C 172 and density (unit weight) measured in accordance with ASTM C 1688. The density (unit weight) of the delivered concrete shall be +/- 5 pcf of the design density (unit weight).
- D. Plastic void content shall be calculated as per ASTM C1688 Gravimetric Air Determination and compared to the void percentage required by the hydraulic design.
- E. Upon completion of initial curing, the pervious concrete shall be tested for a baseline infiltration rate using ASTM C1701.

END OF SECTION



Central Coast:  
684 Clarion Court  
San Luis Obispo, CA 93401  
(805)547.2000  
(805)547.2001 fax  
(800)579.3881

Southern California:  
1276 E. Colorado Blvd.  
Suite 201  
Pasadena, CA 91106  
(626)793.7438  
(626)793.7439 fax

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## Alternative Detail Request

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Date: May 23, 2014  
To: Mark Shkolnikov  
Macy Achitecture  
From: Garret D. McElveny, LEED AP  
Taylor & Syfan Consulting Engineers  
Project: SBCAST  
513 Garden Street  
Santa Barbara, CA 93101  
T&S Job No.: 11521

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Subject: Alternative Parapet Detail

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Per your request,

See alternative parapet detail

As per our email correspondence:

- These details may be substituted for details 2/S-3.3 & 3/S-3.3 and shall occur spaced at 6'-0" o.c. in all parapets walls that are not otherwise laterally braced.
  - Provide this detail at any unbraced, free parapet wall end (i.e. where no sheathed return wall or bracing is present)
  - Where a sheathed return wall is present, this detail shall begin at a 6'-0" offset from centerline of wall corner to centerline of baseplate.

If you have any questions or need anything further, do not hesitate to contact my office.

All revisions to the approved drawings are subject to approval by the building department. We recommend that these revisions be approved prior to continuing with the work in question.

Sincerely,

Garret D. McElveny, LEED AP  
Project Engineer  
Taylor & Syfan Consulting Engineers

