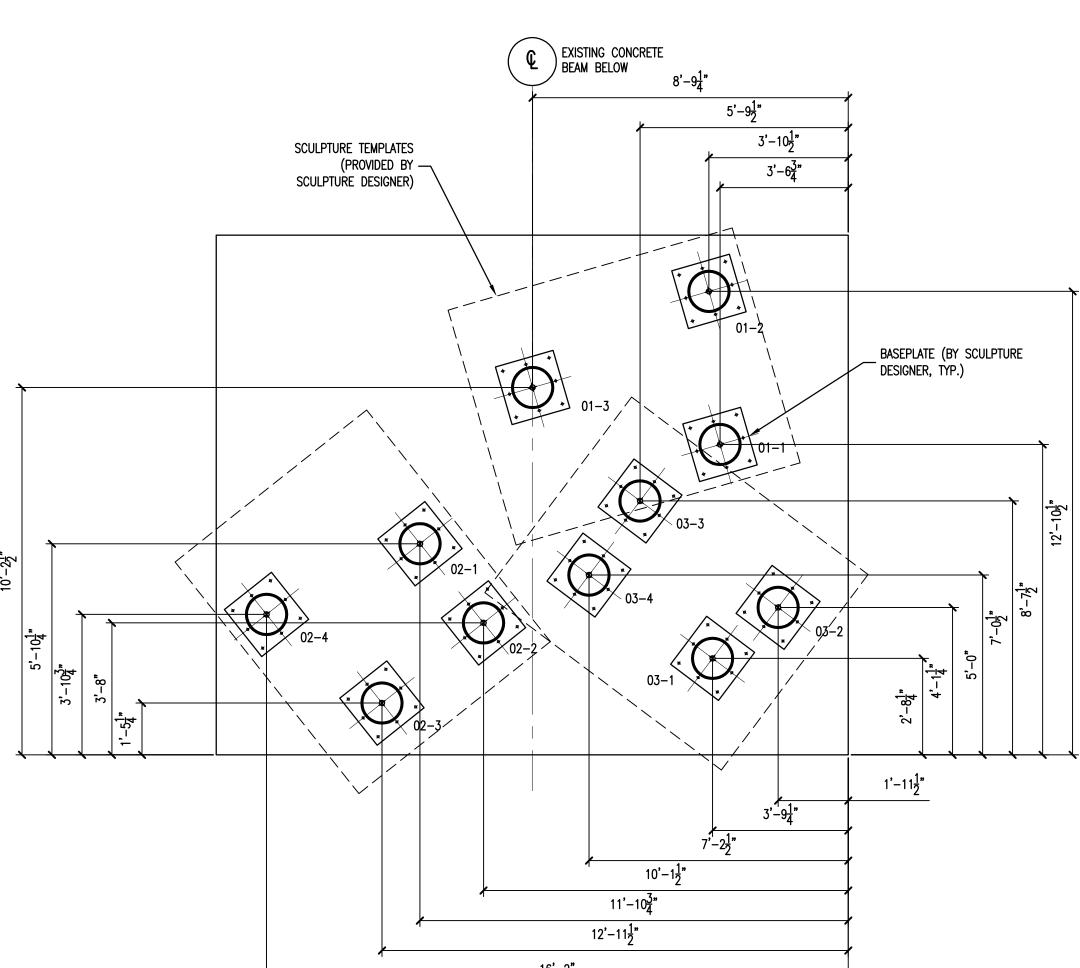
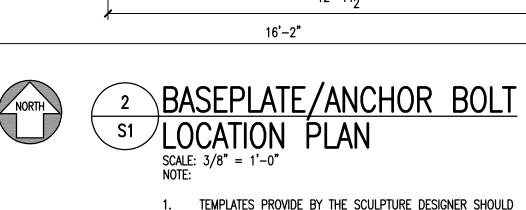


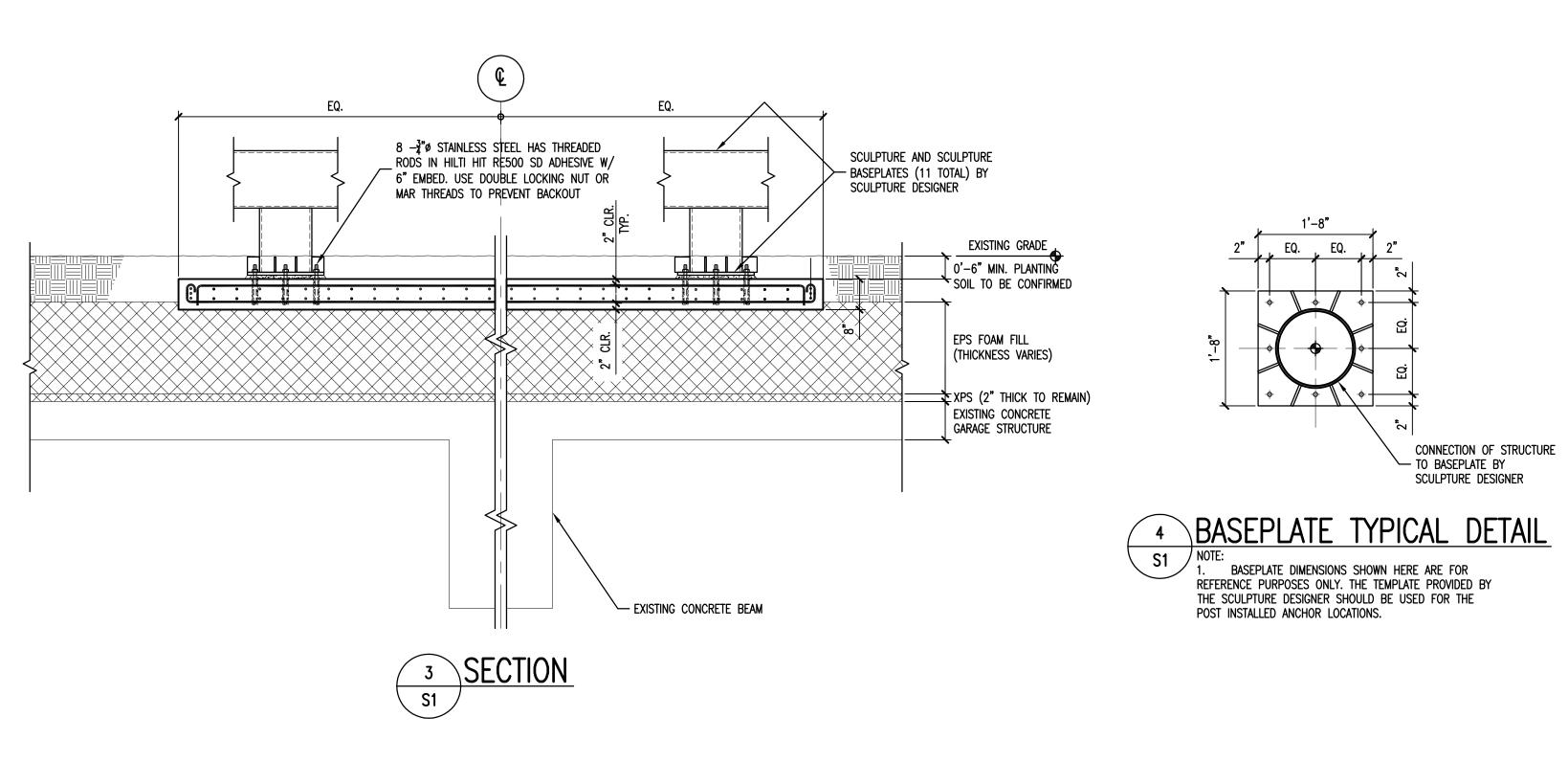
NOTE: REFER TO 2/S1 TO LOCATE CENTER OF EACH BASEPLATE.





TEMPLATES PROVIDE BY THE SCULPTURE DESIGNER SHOULD BE USED FOR THE POST INSTALLED ANCHOR LOCATIONS.

2. 01-2 DENOTES SCULPTURE BASEPLATE IDENTIFIER AS DETERMINED BY SCULPTURE DESIGNER. "01" DENOTES SCULPTURE #1 OF 3 AND "-2" DENOTES BASEPLATE #2 OF 3.



GENERAL NOTES

1.0 GENERAL

- 1. All work shall conform to the IBC 2009 Building Code and to all other applicable Federal, State and local regulations.
- 2. Contractor shall verify and/or establish all existing conditions and dimensions at the site.
- 3. If the existing field conditions do not permit the installation of the work in accordance with the details shown, the Contractor shall notify the Architect/Engineer immediately and provide a sketch of the condition with his proposed modification of the details given on the contract documents.
- 4. Replace in-kind existing soil/sod removed to install footings.

2.0 FOUNDATIONS

- Excavation shall be performed so as not to disturb existing utility lines or existing EPS fill over parking garage. Verify location of all utilities prior to commencement of work. Hand excavate around utilities as required.
- Footings shall bear on existing EPS over garage structure. Bearing is not to exceed 15 psi compressive stress
- Contractor shall verify all existing field conditions that may affect the installation of the foundation system as shown prior to starting work.
- 4. Geofoam blocks shall be cut in the field as required for foundation installation using the hot wire cutting method.

3.0 CONCRETE

- 1. Concrete shall be reinforced, detailed and constructed in accordance with the Building Code Requirements for Structural Concrete (ACI 318-05), and the Manual of Standard Practice.
- 2. Use the following cementitious materials, of the same type, brand, and source, throughout the Project:
- a. Portland Cement: ASTM C150, Type I. b. Fly Ash: ASTM C618, Class C.
- c. Ground Granulated Blast-Furnace Slag: ASTM C989, Grade 100 or 120.
- Use normal—weight, ASTM C33, Class 3S coarse aggregate or better, graded. Maximum aggregate size is 🖥 nominal. Provide aggregates from a single source. The aggregate should include service record data indicating absence of deleterious expansion of concrete due to alkali aggregate reactivity.
- Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
- Water-Reducing Admixture: ASTM C494, Type A. Retardina Admixture: ASTM C494, Type B.
- Water-Reducing and Retarding Admixture: ASTM C494, Type D.
- High-Range, Water-Reducing Admixture: ASTM C494, Type F. High-Range, Water-Reducing and Retarding Admixture: ASTM C494, Type G.
- Plasticizing and Retarding Admixture: ASTM C1017, Type II.
- Prepare concrete design mixtures for each type and strength of concrete and submit to engineer of record for review and approval, proportioned on the basis of laboratory trail mixture or field test date, or both, according to ACI 301. Proportion normal weight concrete mixture as follows:
- Minimum Compressive Strength: 4000 psi at 14 days and 6000 psi at 28 days.
- Maximum Water-Cementitious Materials Ratio: 0.45. Slump Limit: 4 inches, plus or minus 1 inch.
- Air Content: 6 percent, plus or minus 1.5 percent at point of delivery.
- Limit fly ash percentage, by weight, to 25 percent. Limit ground granulated blast-furnace slab percentage, by weight, to 50 percent.
- 6. 4000 psi compressive strength at 14 days should be verified by required cylinder tests prior to installing anchors for baseplate connections.
- 7. Air-Entraining Admixtures: ASTM C260
- Reinforcing steel: ASTM A-615 Grade 60.
- 9. Construct formwork for all footings so concrete is of size, shape, alignment, elevation, and position indicated.
- 10. Consolidate surfaces by hand floating. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture. Top of footing to be level.
- 11. Trowel finish after applying float finish. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects.

- 12. Provide non-metallic, shrinkage resistant grout: ASTM C1107, factory packaged, non-corrosive, and non-staining, mixed with water to consistency suitable for application and required working time.
- 13. Hot-Weather Placement: Comply with ACI 301 and as follows:
 - a. Maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
- b. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

4.0 IRRIGATION SYSTEM

- 1. Operate irrigation system after sculptures are installed
- 2. Make adjustments to existing heads so that no water from irrigation system hits the sculptures.
- 3. Add sprinkler heads to avoid any dry spots adjacent to sculptures.
- 4. Provide unit cost to add sprinkler heads if required.

5.0 SUBMITTALS AND TESTING/INSPECTIONS

- 1. Reproduction of structural drawings for use in preparation of shop drawings is prohibited. Shop drawings so produced
- 2. The following submittals are required to be reviewed and approved by the Engineer of Record prior to construction: a. Design Mixtures and Steel reinforcement shop drawings.
 - b. Material Certificates for all materials to be utilized.
- 3. Special inspection is required of all construction delineated on the Structural Drawings. The Owner shall employ a testing/inspection agency which shall provide personnel with the following minimum qualifications:
 - a. Certified by the Institute of Certified Engineering Technicians, or other recognized comparable organization. b. For inspection, sampling, and testing concrete: ACI Certified Concrete Field-Testing Technician, Grade 1; and
 - Construction Inspector, Level II. c. Submit final inspection report summary, certified by a licensed professional engineer, that special inspections were performed and that work was performed in accordance with the Contract Documents.
- 4. The following Inspections are required:
- a. Steel reinforcement placement
- Verification of use of required design mixture.
- c. Concrete placement, including conveying and depositing.
- d. Curing procedures and maintenance of curing temperature.

5. The following Material Testing is required:

- a. Compression Test Specimens (ASTM C31): Cast and laboratory cure three sets of two standard cylinder
- Test one set of two laboratory—cured specimens at 14 days and one set of two specimens at 28 days. Reserve one set of two specimens for 56 day test if 28 day test does not meet required strength.
- b. Slump (ASTM C143): One test at point of placement.
- c. Air Content (ASTM C231): pressure method for normal weight concrete. One test required.
- d. Concrete Temperature (ASTMC1064): One test required when air temperature is above 80 degrees F.

6.0 DESIGN LOADS

Sculpture Loads:

Franz West:

Approx. 29,100 lbs total (sculpture weight and concrete mat foundation)

Wind (Main Wind Force Resisting system): Wind speed

Wind Importance factor — I: Occupancy Category: Exposure:

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Jon E. Morrison P.E. - Lic. #035288-E

Key Notes:

No. Date Revisions

Philadelphia Museum of Art Franz West Sculpture

Drawing Set: **ISSUED FOR CONSTRUCTION**

Drawn: AJC Checked:

NMH Approved: JEM

Proiect Name:

Drawing Title:

PLANS, DETAILS, AND GENERAL NOTES

Job Number: E2012048A

Date: 07.05.12 | Scale: As Noted

Drawing Number: