

SECTION 321313 - LANDSCAPE CONCRETE PAVING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Landscape concrete paving.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.
 - 2. Section 033053 - Landscape Cast-in-Place Concrete.
 - 3. Section 079205 - Landscape Joint Sealants.

1.2 REFERENCES

- A. ASTM International (ASTM) D4819 - Standard Specification for Flexible Cellular Materials Made From Polyolefin Plastics.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Product Data: Indicate products and accessories proposed for use.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 3 years experience in work of this Section including specialty finishes of types specified.
- B. Concrete Mix Design: Free from admixtures and additives not specifically approved by coloring admixture manufacturer.
- C. Mockups:
 - 1. Provide mockups of each concrete paving color and finish, minimum 5 x 5 feet.
 - 2. Show:
 - a. Each paving color.
 - b. Each paving finish.
 - c. Control and expansion joints.
 - 3. Locate where directed.
 - 4. Approved mockups may remain as part of the Work.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Concrete: As specified in Section 033053 except:
 - 1. Formwork:
 - a. Metal forms: Free of deformities, furnished in maximum practical lengths.
 - b. Wood forms: Good grade lumber, sound and free of warp, minimum 2 inch nominal thickness except where extremely short radii of curves require thinner forms.
 - 2. Dowels: Plain round bar dowels, conforming to reinforcing steel requirements.
 - 3. Exposed aggregate: Type, size, and color to match approved mockups.
 - 4. Coloring admixture: Refer to Materials Legend.

2.2 ACCESSORIES

- A. Joint Filler: ASTM D4819, Type II, closed cell polyethylene, non-staining, chemical resistant, ultraviolet stable, non-absorbent, with removable strip providing recess for joint sealant.
- B. Joint Sealant: Specified in Section 079205.

2.3 MIXES

- A. Mix concrete in accordance with Section 033053.

PART 3 EXECUTION

3.1 CONSTRUCTION OF FORMS

- A. Construct formwork in accordance with Section 033053.
- B. Set forms accurately to required grades and alignment.
- C. Brace forms to withstand loads applied during concrete placement.
- D. Install flexible or curved forms of wood or metal for curves with radius of 300 feet or less.
- E. Align straight and curved sections at true tangent points without broken curves.
- F. Form curves uniform and smooth, to radius indicated.
- G. Leave forms in place for minimum 12 hours after completion of finishing operation.
- H. Provide expansion joints where paving abuts other construction, and at maximum 30 feet on center unless otherwise indicated on Drawings.
 - 1. Shape joint filler to concrete cross section and fasten in place.
 - 2. Provide holes for dowel bars maximum 1/8 inch larger than bar diameter.
 - 3. Provide 24 inch long No. 4 reinforcing bars or smooth steel dowels spaced maximum 24 inches on center, centered on expansion joint. Wrap one end of bars or dowels with two layers PVC tape.

3.2 PLACING REINFORCING

- A. Install reinforcement in accordance with Section 033053.
- B. Place reinforcing in middle third of flatwork.
- C. Stop alternate bars of reinforcing steel at control joints.
- D. Provide dowels at maximum 18 inches on center at expansion joints. Wrap one end of dowel in building paper or felt. Stop reinforcement on both sides of joint.

3.3 PLACING CONCRETE

- A. Place concrete in accordance with Section 033053.
- B. Place concrete continuously between predetermined expansion and control joints. Do not interrupt successive placement such that cold joints occur.
- C. Shape curbs and gutters to cross section indicated on Drawings.
- D. Strike off flatwork with screed, then float to uniform surface.
- E. Tool expansion joint edges and other exposed edges to smooth, dense surface with 1/8 inch radius.
- F. Seal expansion joints as specified in Section 079205.
- G. Provide control joints at maximum 10 feet on center unless otherwise indicated on Drawings. Saw joints within 24 hours after concrete placement, to 1/8 inch width and depth equal to 1/4 of slab depth.

- H. Installation Tolerances: Surfaces true to plane, in longitudinal direction to required grade, within plus or minus 1/4 inch in 10 feet, noncumulative.

3.4 FINISHING

- A. Rock Salt Finish:

1. Steel trowel surfaces to uniform surface.
2. While concrete is still plastic, uniformly broadcast rock salt over surface.
3. Allow salt to remain on surface until surface is lightly pitted, then wash off remaining salt.
4. Match approved mockup.

- B. Exposed Aggregate Finish:

1. Float surfaces to required lines and grades.
2. While concrete is still plastic broadcast exposed aggregate uniformly over surface to depth of single stone.
3. Roll surfaces to fully embed aggregate.
4. Wash and brush surfaces to remove overlying cement matrix and expose aggregate. Use chemical retarder if required to extend working time.
5. Match approved mockup.

END OF SECTION