HILL CREST MIDDLE SCHOOL SIDEWALK REPLACEMENT

PD&A Project No: 15-08

Project location: 530 Daniels Farm Rd, Trumbull, CT 06611

The Project Consists of:

Remove and replace 4000sf of existing concrete sidewalks, curbing and paving. All work as stipulated within the specifications including but not limited to the following

HILLCREST MIDDLE SCHOOL

- All work as stipulated within the specifications including but not limited to the following:
- Demolition of existing and installation of new concrete sidewalks and curbing.
- Repaint/Strip all existing ADA areas and existing stripping effected by work. All stripping will be installed as per current building codes.
- Supply and install new bituminous concrete paving for patching if applicable.
- Perform landscaping and or grading at disturbed areas.
- Excavation and selective demolition to perform all work.

ALTERNATES to consider

none

Asbestos/Lead considerations

none

Unit prices to consider

- Provide Square Foot Unit Pricing for additional sidewalk replacements located the school and additional locations.

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SITE VIEW:

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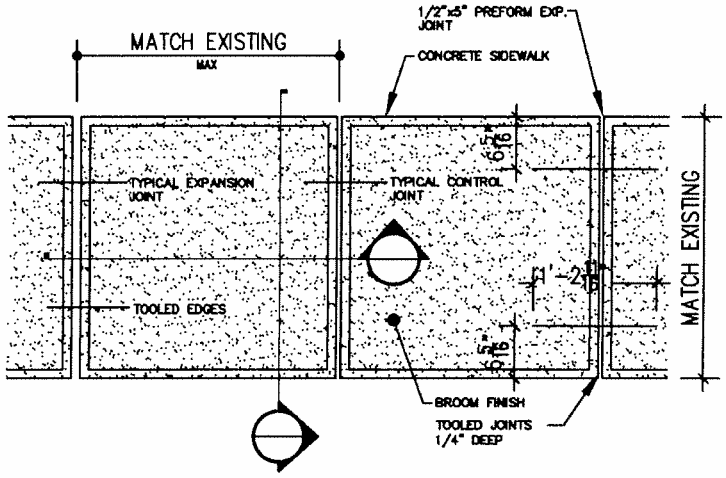
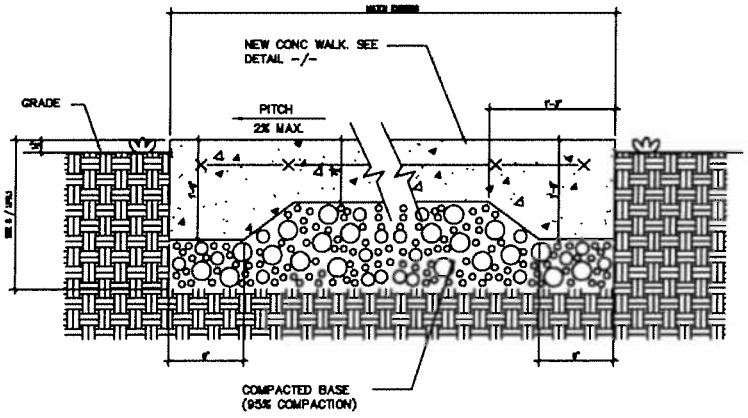
TYPICAL SITE DETAILS:



TYP. CONCRETE SIDEWALK PLAN
NONE



SECTION THRU CONCRETE WALK
NONE

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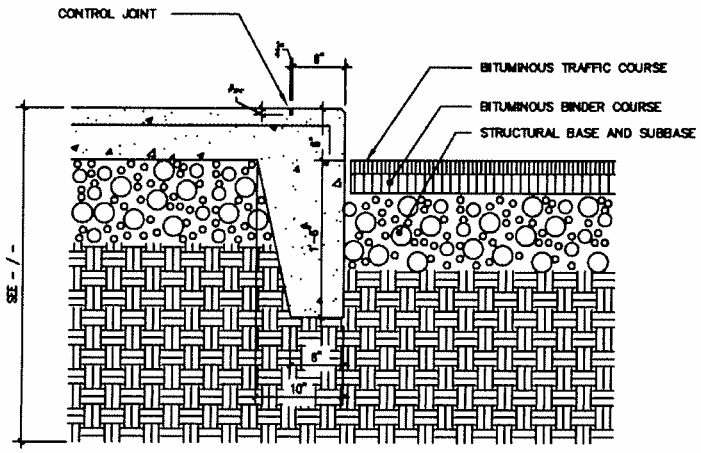
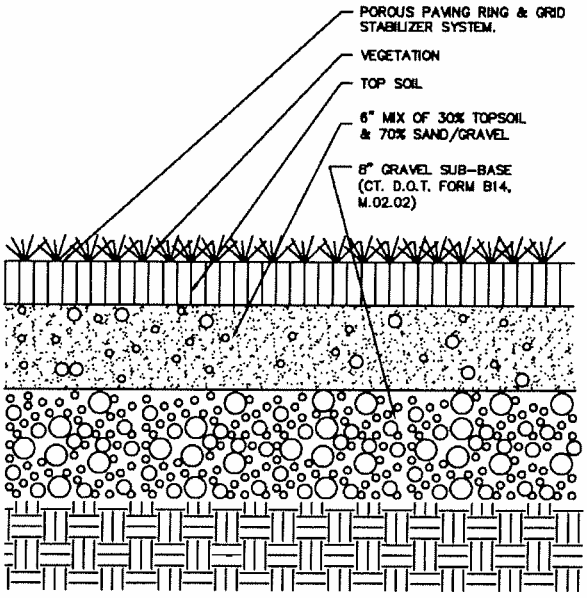


TYPICAL CONC. WALK DETAIL @ CURB

NONE



NOTES:
1. COMPACTION TO BE COMPLETED IN 4" LIFTS.
2. ALL DEPTHS SHOWN ARE AFTER COMPACTION.
3. ON SITE MATERIAL MAY BE USED FOR SUB-BASE IF LAB TESTED TO CONFORM AS REQUIRED

GRASS PAVE SECTION

NONE

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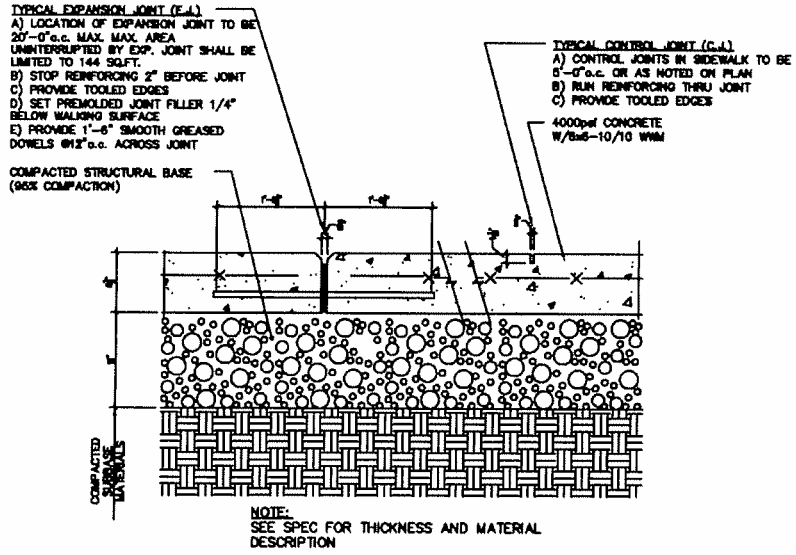
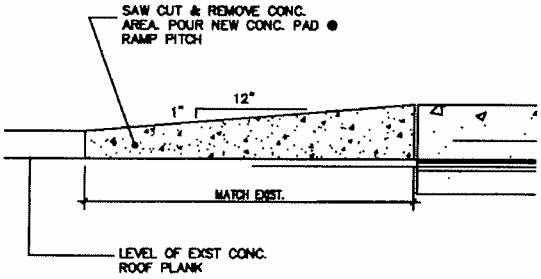


TYPICAL CONCRETE WALK SECTION

NONE



H.C. RAMP BASE DETAIL

NONE

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1 PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Concrete stairs, ramps, sidewalks, and curbs.
B. Aggregate base course.

1.2 RELATED SECTIONS

A. Section 02200 - Earthwork and Clearing.
B. Section 02510 – Bituminous Concrete Paving.

1.3 QUALITY ASSURANCE

A. Reference Standards:

1. ACI 301 - Specifications for Structural Concrete for Buildings.

2. ACI 304 - Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete.

3. ANSI/ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.

4. ANSI/ASTM A497 - Welded Deformed Steel Wire Fabric for Concrete Reinforcement.

5. ANSI/ASTM D1751 - Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction.

6. ASTM C33 - Concrete Aggregates.

7. ASTM C94 - Ready Mix Concrete.

8. FS TT-C-800 - Curing Compound, Concrete, for New and Existing Surfaces.

9. State of Connecticut, Department of Transportation, (DOT) Standard:

   a. Standard Specifications for Roads, Bridges and Incidental Construction; (Form 814) Dated 1990.

B. Perform work in accordance with ACI 301 and the requirements of the State of Connecticut, Department of Transportation, (DOT) Standard.

C. Obtain cementitious materials from same source throughout.

1.4 PERFORMANCE REQUIREMENTS

A. Paving: Designed for light duty commercial vehicles.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.
B. Product Data: Provide data on curb repair/cap process, joint filler and curing compounds.

2 PART 2 - PRODUCTS

2.1 FORM MATERIALS

A. Form Materials: Conform to ACI 301.
B. Joint Filler: ANSI/ASTM D1751; ½ inch thick.

2.2 REINFORCEMENT

A. Welded Steel Wire Fabric: Plain type, ANSI/ASTM A185; in flat sheets galvanized finish.

B. Dowels: ASTM A615; 40 ksi yield grade, plain steel, galvanized finish.

2.3 CONCRETE MATERIALS

A. Cement: ASTM C150 Air Entraining - Type IA Portland type, grey color.

B. Fine and Coarse Mix Aggregates: ASTM C33.

C. Water: Potable, not detrimental to concrete.

D. Air Entrainment: ASTM C260.

2.4 ACCESSORIES

A. Curing Compound: ASTM C309, Type 1, Class A; manufactured by Guardian Chemical Company.

2.5 CONCRETE MIX - BY PERFORMANCE CRITERIA

A. Mix concrete in accordance with ACI 304. Deliver concrete in accordance with ASTM C94.

B. Select proportions for normal weight concrete in accordance with ACI 301 Method 1.

C. Provide concrete to the following criteria:
   1. Compressive Strength: 3500 psi @ 28 days.
   2. Slump: 2 to 3 inches.
   3. Air Entrained: 4 - 8% percent.

D. Use accelerating admixtures in cold weather only when approved by Owner. Use of admixtures will not relax cold weather placement requirements.

E. Use calcium chloride only when approved by Owner.

F. Use set retarding admixtures during hot weather only when approved by Owner.

3 PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify base conditions under provisions of Section 01600.

B. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.

C. Verify gradients and elevations of base are correct.

3.2 SUBBASE

A. Prepare subbase in accordance with the State of Connecticut, Department of Transportation, (DOT) Standard

3.3 PREPARATION

A. Moisten base to minimize absorption of water from fresh concrete.

B. Notify Owner minimum 24 hours prior to commencement of concreting operations.

3.4 FORMING

A. Place and secure forms to correct location, dimension, and profile.

B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.

C. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

3.5 REINFORCEMENT

A. Place reinforcement as indicated.
B. Interrupt reinforcement at expansion joints.

3.6 PLACING CONCRETE

A. Place concrete in accordance with ACI 301.

B. Ensure reinforcement, inserts, embedded parts and formed joints are not disturbed during concrete placement.

C. Place concrete continuously between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

D. Place concrete to pattern indicated.

3.7 JOINTS

A. Place expansion joints as indicated or at a minimum, 20 foot intervals. Align retaining wall and sidewalk joints.

B. Place joint filler between paving components and building or other appurtenances. Recess top of filler ¼ inch for sealant placement by Section 07900.

C. Provide scored joints at intervals indicated.

3.8 FINISHING

A. Pad and Sidewalk Paving: Light broom, radius to 2 inch radius, and trowel joint edges.

B. Inclined Ramps: Broom perpendicular to slope

C. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

3.9 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed and paid for by the Owner.

3.10 PROTECTION

A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

END OF SECTION