NOTES:

1. THE WORK SHALL CONSIST OF CONSTRUCTING A STILLING WELL FOR THE PURPOSE OF PUMPING CLEAN WATER AROUND A DISTURBED CONSTRUCTION AREA TO A STABILIZED OUTFALL.

2. THE DIMENSIONS OF THE STILLING WELL SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
SUMP PIT CHART

<table>
<thead>
<tr>
<th>TYPE</th>
<th>PIPE 1</th>
<th>PIPE 2</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N/A</td>
<td>N/A</td>
<td>4&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>2</td>
<td>24&quot; x 12&quot; CMP WITH PERFORATED CAP WELDED ON BOTTOM COMPLETELY WRAPPED WITH GEOTEXTILE.</td>
<td>REMOVABLE PERFORATED 36&quot; CMP WITH PERFORATED CAP WELDED ON BOTTOM COMPLETELY WRAPPED WITH GEOTEXTILE.</td>
<td>8&quot;</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>

NOTES:
1. THE WORK SHALL CONSIST OF CONSTRUCTING A SUMP PIT FOR THE PURPOSE OF FILTERING AND PUMPING WATER TO A STABILIZED OUTFALL.

2. GEOTEXTILE FOR THE 36" CMP SHALL BE REPLACED WHEN CLOGGED WITH SEDIMENT.

3. 

4. ALL PERFORATIONS SHALL BE 1" (25) IN DIAMETER AND 12" ON CENTER IN ALL DIRECTIONS.

5. TYPE I SUMP PIT SHALL BE USED ONLY WHEN PUMPING IS NEEDED FOR LESS THAN 7 DAYS.

DELTA WILKINSON

DEPARTMENT OF TRANSPORTATION

SUMP PIT, TYPE 1 & 2

STANDARD NO. E-16 (2005)

SH. 1 OF 1

APPROVED

RECOMMENDED

09/01/2005

12/07/05
NOTES:
1. A DEWATERING BASIN (DB) IS USED TO REMOVE SEDIMENT FROM SEDIMENT-LADEN WATER PUMPED FROM A CONSTRUCTION SITE BEFORE THE WATER RE-ENTERS THE WATERWAY. THE DB SHALL HAVE A MINIMUM TOP WIDTH OF 6' (1829) AND A MINIMUM DEPTH OF 3' (914). THE MINIMUM TOP LENGHT SHOWN IN THE PLAN IS USED ONLY FOR QUANTITY CALCULATIONS BY THE ENGINEER. THE ACTUAL TOP LENGTH IN THE FIELD SHALL BE CALCULATED BY THE EQUATION:

US CUSTOMARY: TOP LENGTH (FEET) = 26' + .01 X Y
METRIC: TOP LENGTH (MM) = 7920 + 48300 X Y

WHERE Y IS THE MAXIMUM CAPACITY IN GALLONS PER MINUTE (CUBIC METERS PER SECOND) OF THE DEWATERING PUMP.

2. THE OUTFALL FROM THE BASIN TO THE RECEIVING WATERS SHALL BE STABILIZED. PUMPING INTO THE DB SHALL CEASE WHEN THE EFFLUENT FROM THE BASIN BECOMES SEDIMENT-LADEN.

3. A SUMP PIT OR STILLING WELL (SEE STANDARD SHEETS) SHALL BE USED IN CONJUNCTION WITH A DB. THE BASIN MAY BE BYPASSED INTO THE STABILIZED OUTFALL. IF THE WATER BEING PUMPED IS NON-SEDIMENT-LADEN, DIRECT DISCHARGE TO THE RECEIVING WATERS SHALL CEASE AND BE REJECTED TO THE DB WHEN EFFLUENT FROM THE PUMP BECOMES SEDIMENT-LADEN.

4. MAINTENANCE MUST BE PERFORMED IN ORDER FOR THE DB TO FUNCTION PROPERLY. ACCUMULATED SEDIMENT SHALL Be REMOVED AND DISPOSED OF IN AN APPROVED DISPOSAL AREA WHEN THE BASIN IS FILLED TO WITHIN 12' (3660) FROM THE CRESTM.

5. WHEN USED IN CONJUNCTION WITH A COFFERDAM, DEWATERING SHALL BEGIN NO SOONER THAN 12 HOURS AFTER COFFERDAM INSTALLATION IN ORDER TO ALLOW SEDIMENT PRODUCED DURING INSTALLATION TO SETTLE COMPLETELY.
NOTES:  
1. THE WORK SHALL CONSIST OF INSTALLING FLOW DIVERSIONS FOR THE PURPOSE OF EROSION CONTROL. WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILIZATION OR BRIDGE ABUTMENT CONSTRUCTION.  
2. THE DIVERSION STRUCTURE SHALL BE INSTALLED FROM UPSTREAM TO DOWNSTREAM.  
3. THE EFFECTIVE CHANNEL WIDTH SHALL BE SIZED TO PASS A ONE YEAR STORM EVENT PEAK FLOW, OR 1/3 OF STREAM WIDTH, WHICHEVER IS GREATER.  
4. THE SANDBAG DIVERSION HEIGHT 40 SHALL BE F' (300) ABOVE THE PEAK ELEVATION OF THE ONE YEAR STORM.
**NOTES:**

1. THE WORK SHALL CONSIST OF INSTALLING A SANDBAG DIKE FOR THE PURPOSE OF EROSION CONTROL. WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILIZATION OR BRIDGE ABUTMENT CONSTRUCTION.

2. THE SANDBAG DIKE SHALL BE INSTALLED AT THE UPSTREAM LOCATION FIRST.

3. THE HEIGHT OF THE SANDBAG DIKE SHALL BE 13 feet above the peak elevation of the one-year storm, or equal with the top of bank, whichever is less. SEE PLANS FOR INFORMATION.

4. THE SPILLWAY SHALL BE SIZED TO PASS A 1/3 ONE YEAR STORM EVENT PEAK FLOW. SEE PLANS.

5. THE PIPE, WHEN UTILIZED, SHALL BE SIZED TO PASS THE STREAM BASE FLOW.
1. All surface water flowing or diverted toward construction entrances shall be piped under the entrance. If necessary, a mountable berm with 6:1 slopes shall be allowed to facilitate placement of pipes in shallow conditions.

2. The location and number of stabilized construction entrances shall be as indicated on the plans. Any change in location, addition, or elimination of an entrance shall be approved in advance by the Engineer.

3. Drainage pipe, if utilized, shall be paid for separately under the appropriate bid item.

4. The top 2" (50) of stone shall be removed and replaced with 2" (50) of clean stone when voids are filled or as directed by the Engineer.
NOTES:

1. ALL P.V.C. PIPES ARE TO BE 4" OD. SCHEDULE 40
2. ALL JOINTS OF THE FLOATATION SECTION SHALL BE SOLVENT WELDED. JOINTS OF SKIMMER SECTION NEED NOT BE WATER-TIGHT.
3. 4" OD. HOPE FLEXIBLE STRAIN PIPE IS TO BE ATTACHED TO THE POND OUTLET STRUCTURE WITH WATER-TIGHT CONNECTIONS.
4. ORIFICE IS TO BE SIZED ACCORDING TO STORAGE VOLUME AND TO SLOWLY RELEASE RUNOFF FOR AT LEAST 24 HOURS.

PLAN VIEW

12 ROWS OF 1/4" ID. HOLES, 3/4" OD. C.C.

OFFICE DRILLED IN END CAP (SEE NOTE 41)

ATTACH FLEXIBLE PIPE TO PVC WITH TWO NO. 8 WOOD SCREWS

4" x 6" x 16" STEEL STRAP (1TP)

FLANGE WITH RUBBER GASKET MATERIAL (ATTACH TO STRUCTURE WITH CONCRETE SCREWS OR OTHER SUITABLE ATTACHMENT AS APPROVED BY THE ENGINEER)

SIDE VIEW

4" OD. X 6" OD. DELAWARE #5 STONE PAD FOR SKIMMER, 4" OD. MINIMUM THICKNESS.

SKIMMER DEWATERING DEVICE

DEPARTMENT OF TRANSPORTATION

STANDARD NO. E-22 (2006)

SHT. 1 OF 1

APPROVED

10/02/2006
FLOATING TURBIDITY CURTAIN

NOTE: 1. ADDITIONAL PANEL REQUIRED FOR DEPTHS GREATER THAN 5' (5000).
2. FLOATING TURBIDITY CURTAIN SHALL REACH BOTTOM UP TO DEPTHS OF 10' (3000) BY USING TWO PANELS. DEPTHS GREATER THAN 10' (3000) SHALL REQUIRE SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
NOTES:
1. THE PORTABLE SEDIMENT TANK SHOWN MAY BE USED IN SITES WHERE SPACE IS LIMITED TO CONSTRUCT A DEWATERING BASIN.

2. THE MAXIMUM PUMP DISCHARGE INTO THIS TYPICAL PORTABLE SEDIMENT TANK SHALL BE 425 GALLONS PER MINUTE 256 LITERS PER SECOND. THE FILTER FABRIC SHALL BE REPLACED WHEN THE PORTABLE SEDIMENT TANK CAN NO LONGER ALLOW THIS FLOW RATE, WHEN THERE IS A TEAR, OR WHEN DIRECTED BY THE ENGINEER.

3. SEVERAL UN-CONNECTED OR CONNECTED IN PARALLEL PORTABLE SEDIMENT TANKS MAY BE USED WHEN A HIGHER FLOW RATE IS NEEDED TO DE-WATER THE JOB.

4. OTHER DESIGNS MAY BE USED PROVIDED THE HYDRAULIC DESIGN IS SUBMITTED TO AND APPROVED BY THE STORMWATER ENGINEER.

SECTION B-B

DELaware
DEPARTMENT OF TRANSPORTATION

PORTABLE SEDIMENT TANK

STANDARD NO. E-24 (2005)
SHT. 1 OF 1

APPROVED

09/08/2005
**Chipfed Anchor System**

**Initial Trench Anchor Detail**
- Applied at the downstream end of ditch.
- Compacted and seeded backfill.
- Staples to be placed at 2'-10" (300) spacing across dominant flow.

**Terminal Trench Anchor Detail**
- Applied at the upstream end of ditch.
- Compacted and seeded backfill.
- Staples to be placed at 1'-10" (300) spacing across dominant flow.

**Longitudinal Trench Anchor Detail**
- Staples to be placed at 6'-0" (1800) spacing along dominant flow.
- Compacted and seeded backfill.

**Overlap Detail**
- Compacted and seeded backfill.
- Staples to be placed at 1'-10" (300) spacing across dominant flow.

**Stabilization of Ditches**

**Plan**
- Notes: 1. Additional staples not shown are required at overlaps, ends, check slots and edges. See appropriate details for staple placement.
- 2. Staples are to be staggered.
- 3. Topsoil under turf reinforcement mat is to be tracked and seeded.

**Section A-A**
- Turf reinforcement mat to be centered along flow line of ditch.
- Staples (TypJ).
- Longitudinal trench anchor.

**Turf Reinforcement Mat Applications**

**Delaware Department of Transportation**

**Standard No.** E-2S (2000)

**SHT. 1 OF 1**

**Recommended**

**Approved**
NOTES:
1. RIFFRAP IS TO BE PLACED PRIOR TO PLACING PIPE.
2. PLACE DELAWARE NO. 3 STONE UNDER PIPE.
3. ELEVATION (EL) SHOULD NOT BE HIGHER THAN PIPE INVERT.
4. REFER TO THE PIPE ENERGY DISSIPATOR SCHEDULE ON THE CONSTRUCTION PLANS FOR THE VALUE OF DIMENSION VARIABLES.
ALL DEAD, BROKEN, & CROSSING BRANCHES SHALL BE PRUNED OFF FOLLOWING INSTALLATION

ALL SOIL SHALL BE EXCAVATED FROM THE PIT, MIXED WITH APPROVED AMENDMENTS AND USED AS BACKFILL DURING INSTALLATION OF SHRUBLING.

MULCH IN ACCORDANCE WITH SPECIFICATIONS, DO NOT PLACE MULCH AGAINST THE SHRUB STEM.

ROOT BALL SHALL BE SET FLUSH TO GRADE OR 1'-6" TO 2'-4" ABOVE GRADE IF SOILS ARE SLOW TO DRAIN. DO NOT COVER THE TOP OF THE ROOTBALL WITH SOIL.

NOTES:
1. BASE OF PLANTING PIT SHALL BE A MINIMUM WIDTH OF TWICE THE ROOT BALL SIZE AND A MAXIMUM OF THREE TIMES THE ROOT BALL SIZE.
2. SHRUBS SHALL BE INSTALLED IN MASSES OF NO LESS THAN 3 PLANTS. A MINIMUM OF 6' 1000' WIDTH IS REQUIRED FROM THE BACK OF CURB TO THE EDGE OF SIDEWALK FOR INSTALLATION OF SHRUBS.
3. ALL PRUNING SHALL BE DONE BY AN I.C.A. CERTIFIED ARBORIST, CERTIFIED NURSERY PROFESSIONAL, OR UNDER THE DIRECTION THEREOF, DO NOT HEAVILY PRUNE SHRUBS AT PLANTING.
4. AUGERED HOLES SHALL BE HAND DUG TO FINAL WIDTH AND TO ELIMINATE GLAZING.
5. ALL SHRUB MASSES SHALL BE MULCHED AS ONE CONTINUOUS BED.

ROADSIDE SHRUB PLANTING DETAIL

DELWARE DEPARTMENT OF TRANSPORTATION

PLANTING DETAILS

APPROVED

STANDARD NO. L-1 (2006)

SH. 1 OF 3

RECOMMENDED

08/04/2006
DO NOT PRUNE THE DOMINANT LEADER OR TERMINAL BUDS OF THE CROWN.

NOTES:

1. ALL PRUNING SHALL BE DONE BY OR UNDER THE DIRECTION OF AN LS.A. CERTIFIED ARBOREST OR CERTIFIED NURSERY PROFESSIONAL. DO NOT HEAVILY PRUNE TREES AT PLANTING.
2. ALL DEAD, BROKEN & CROSING BRANCHES SHALL BE PRUNED OFF FOLLOWING INSTALLATION.
3. BASE OF PLANTING PIT SIZE SHALL BE A MINIMUM WIDTH OF TWICE THE ROOT BALL SIZE AND A MAXIMUM OF THREE TIMES THE ROOT BALL SIZE.
5. WHEN PLANTING TREES ALONG SIDEWALKS, THE TREE SHALL BE LIMITED TO 7' (2100) FOR PEDESTRIAN CLEARANCE.

STAKE & GUY TREES, GUY WIRE, STAKES, & RUBBER HOSE SHALL BE AS SPECIFIED IN SECTION 1ST.

SET ROOT BALL FLUSH TO GRADE OR + 1' (30) ABOVE GRADE IF SOILS ARE SLOW TO DRAIN. PLANT TREES SUCH THAT THE TRUNK FLARE IS VISIBLE. ANY TREE WHERE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.

TAMP SOIL AROUND THE ROOT BALL BASE WITH FOOT PRESSURE SO ROOT BALL DOES NOT SHIFT.

ALL SOIL SHALL BE EXCAVATED FROM THE PIT, MIXED WITH APPROVED AMENDMENTS AS PER SPECIFICATIONS AND USED AS BACKFILL. DURING INSTALLATION OF TREES, PLACE ROOT BALL ON TAMPERED OR UNEXCAVATED SOIL.

REMOVE BURLAP AND BASKETS TO 1/2 OF THE ROOT BALL, DO NOT BURY EXCESS BURLAP, ROPE, OR REMNANTS OF BASKET IN THE PLANTING HOLE.

DELTA DEPARTMENT OF TRANSPORTATION

PLANTING DETAILS

STANDARD NO. L-1 (2006) SHT. 2 OF 3

APPROVED

RECOMMENDED

08/04/2006
PERENNIAL/GROUND COVER PLANTING DETAIL

NOTE:
1. SEE PLANT LIST FOR SPACING CO.

PLAN VIEW

SECTION VIEW

PERENNIAL/GROUND COVER
FINISHED GRADE
3" (75) MULCH - NOT TO COVER LEAVES
ROOT MASS
6" (150) PREPARED SOIL MIX, AS PER SPECIFICATION
SUBGRADE TILLED TO 6" (150) DEPTH
1-1/8" hole to accommodate survey cap.

Longitudinal steel 6 cage (4.5) wire spaced 3"/175 c.c., 26"/1500 long (typ).

Transverse steel 7 cage (4.5) wire spaced 8"/1000 c.c.

Notes:
1. Longitudinal steel shall be held in place by cradles.
2. Letters to be countersunk in top of marker 1/4"/16.1.

Delaware Department of Transportation

Concrete Monument


Approved

Recommended

07/28/2008
DEPARTMENT OF TRANSPORTATION

BOLLARD & SHARED-USE PATH DETAILS

NOTES:
2. STEEL TUBE TO EXTEND 12" ID ABOVE GROUND WITH CONCRETE TO SLOPE AWAY FROM TUBE TO KEEP WATER AND SEDIMENT FROM DRAINING INTO TUBE.
3. BOLLARDS ARE NOT REQUIRED FOR A SHARED-USE PATH LESS THAN 8' ID @ 1450.
4. SHAPE THE POST AS NECESSARY SO THAT IT WOULD FIT IN THE STEEL TUBE.
5. THE LANDING SECTION SHALL BE A MINIMUM OF 5' ID @ 1450 IN LENGTH AND SHALL HAVE A MAXIMUM CROSS SLOPE AND RUNNING SLOPE OF 2%. THE ENTIRE LANDING SECTION MUST ALSO BE CONCRETE.
6. THE RAMP SECTION SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%. IT SHALL ALSO HAVE A MAXIMUM RUNNING SLOPE OF 1%. IF A 2% RUNNING SLOPE DOES NOT ALLOW THE RAMP TO MEET EXISTING GRADE @ 1450, THE RUNNING SLOPE MAY EXCEED 1%.
7. STRIPING MATERIAL TO BE DETERMINED BY THE ENGINEER BASED ON THE MATERIAL THAT THE STRIPING IS BEING PLACED ON.
8. THE APPROPRIATE TYPE 3 OBJECT MARKER SHALL BE PLACED ON THE FRONT AND BACK OF EACH BOLLARD AS PER THIS DETAIL.
FRONT VIEW

- 12" (300) RADIUS
- 2" (50)
- 9" (225) TYP
- 24" (600)

CONCRETE OR GROUT

ALTERNATE ANCHOR OPTION

SECTION VIEW

- 3/4" (19) x 1 1/2" (38) TAMPER PROOF CONCRETE ANCHOR (TYP)
- 3/4" (19) x 1 1/2" (38) TAMPER PROOF CONCRETE ANCHOR (TYP)
- 4 1/2" (114)

EXISTING CONCRETE

ISOMETRIC VIEW

- 4 BIKE INSTALLATION
- 36" (900)
- 48" (1200)

BIKE RACK DETAILS

- CONCRETE OR GROUT
- 1 1/2" (38) TAMPER PROOF CONCRETE ANCHOR (TYP)
- 2" (50)

EXISTING CONCRETE

DELTA RECOMMENDED 10/23/07

DEPARTMENT OF TRANSPORTATION

STANDARD NO. M-4 (2007) SHT. 1 OF 1

APPROVED 10/24/07

04/03/2007
WOOD RAIL FENCE DETAILS


1. ALL RAIL JOINTS SHALL BE CENTERED AT THE POSTS.
2. ALL JOINTS SHALL BE ATTACHED WITH 3 - 12d NAILS AND TWO ADJACENT RAILS SHALL NOT END ON THE SAME POST.
3. RAILS SHALL BE FLUSH TO THE POSTS AT THE END POSTS.

NOTES:

SLOPE TO DRAIN

SECTION A-A

TYPICAL JOINT DETAIL

PATH

FRONT

NOTES:

1. ALL RAIL JOINTS SHALL BE CENTERED AT THE POSTS.
2. ALL JOINTS SHALL BE ATTACHED WITH 3 - 12d NAILS AND TWO ADJACENT RAILS SHALL NOT END ON THE SAME POST.
3. RAILS SHALL BE FLUSH TO THE POSTS AT THE END POSTS.

NOTES:

1. ALL RAIL JOINTS SHALL BE CENTERED AT THE POSTS.
2. ALL JOINTS SHALL BE ATTACHED WITH 3 - 12d NAILS AND TWO ADJACENT RAILS SHALL NOT END ON THE SAME POST.
3. RAILS SHALL BE FLUSH TO THE POSTS AT THE END POSTS.

NOTES:

1. ALL RAIL JOINTS SHALL BE CENTERED AT THE POSTS.
2. ALL JOINTS SHALL BE ATTACHED WITH 3 - 12d NAILS AND TWO ADJACENT RAILS SHALL NOT END ON THE SAME POST.
3. RAILS SHALL BE FLUSH TO THE POSTS AT THE END POSTS.

NOTES:

1. ALL RAIL JOINTS SHALL BE CENTERED AT THE POSTS.
2. ALL JOINTS SHALL BE ATTACHED WITH 3 - 12d NAILS AND TWO ADJACENT RAILS SHALL NOT END ON THE SAME POST.
3. RAILS SHALL BE FLUSH TO THE POSTS AT THE END POSTS.
4" (100) x 6" (200) RUNNING BOND PATTERN

4" (100) x 6" (200) HERRINGBONE PATTERN

NOTES:

1. ACTUAL PATTERN TO BE USED SHALL BE SPECIFIED ON THE PLANS. COLOR IS TO BE "BRICK RED" UNLESS OTHERWISE NOTED ON THE PLANS.
2. MATERIALS AND PAVEMENT BOX VARY DEPENDING ON PLANS.
3. FOR CROSSWALK APPLICATIONS, 8" (200) WHITE LINES SHOULD BE PLACED ON BOTH SIDES.
4. THE PATTERNS ABOVE ARE THE PREFERRED PATTERNS AVAILABLE FOR SIDEWALK OR CROSSWALK APPLICATIONS.

BRICK PAVERS

4" (100) CONCRETE BASE, CLASS B

SUBGRADE COMPACTED TO 95% OF ASTM D 657

NOTES:

1. ALL PAVERS ARE TO BE "BRICK RED" UNLESS OTHERWISE SPECIFIED ON THE PLANS. THE PATTERN SHALL BE SPECIFIED ON THE PLANS.
2. EXPANSION JOINT MAY BE NEEDED ON NON-CURB SIDE OF BRICK PAVER SIDEWALK IF THAT SIDE IS AGAINST BUILDING OR OTHER CONFINING FEATURE.
1. Transverse joints are perpendicular to the centerline of the pavement when the pavement is straight.
2. Transverse joints are perpendicular to a tangent line to the outside arc of the pavement when the pavement is curved.
3. Align the transverse joints for all adjacent slabs with each other.
4. Abrupt changes in pavement width may occur only at the transverse joint line; longitudinal joints shall be continuous whenever possible.
5. Longitudinal joints should not be located within proposed wheel paths. The wheel path is generally located 2' (600 mm) inside of the lane edge line or centerline.

Delaware Department of Transportation

P.C.C. Pavement


Recommended

[Stamp]

04/18/2001
NOTES:
1. AS DIMENSIONED, THE WIDTH OF THE TRANSVERSE SEALANT RESERVOIR IS APPLICABLE WHEN THE TEMPERATURE OF THE PAVEMENT SURFACE IS BETWEEN 60°F (16°C) AND 80°F (27°C). WHEN THE TEMPERATURE IS BELOW 60°F (16°C), THE SEALANT RESERVOIR SHALL BE CUT 1/8" WIDER. WHEN THE TEMPERATURE IS ABOVE 80°F (27°C), THE SEALANT RESERVOIR SHALL BE CUT 1/4" NARROWER.
2. "T" REFERS TO THE ACTUAL CONSTRUCTED SLAB THICKNESS.
3. TOLERANCE ON ALL JOINT SEALANT DETAIL DIMENSIONS SHOWN WITHOUT RANGES SHALL BE PLUS 1/4" MINUS 0.3T.
4. THE TOP EDGES OF THE CONTACT SURFACES OF THE SEALANT MATERIAL ON BOTH SIDES OF THE JOINT RESERVOIR SHALL BE AT THE SAME ELEVATION.
5. TRANSVERSE JOINT MATERIAL SHALL BE PLACED BEFORE LONGITUDINAL JOINT MATERIAL. THE TRANSVERSE JOINT MATERIAL SHALL BE CONTINUOUS FOR THE FULL WIDTH OF ALL ADJACENT P.C.C. PAVEMENT SLABS.
6. LONGITUDINAL JOINT MATERIAL SHALL BE PLACED WITHOUT GAPS EVEN WHEN INTERRUPTED BY THE TRANSVERSE JOINT MATERIAL.
7. TRANSVERSE JOINT SEAL TO BE RECESSED 1/4" TO 1/8" DEEP AT THE TOP OF THE SLAB ALONG BOTH SIDES OF THE TRANSVERSE SEALANT RESERVOIR.
8. THE TOP EDGES OF THE COMPRESSION SEAL SHALL BE IN FULL CONTACT WITH THE SLAB SIDES.
9. THE TOP EDGES OF THE COMPRESSION SEAL SHALL BE IN FULL CONTACT WITH THE SLAB SIDES.

DELTAWAVE  DEPARTMENT OF TRANSPORTATION  P.C.C. PAVEMENT  APPROVED

STANDARD NO.  P-1 C2000  SHT. 2 OF 5  RECOMMENDED  DATE

01/01/2004
DOWEL & TIE BAR PLACEMENT TOLERANCES
PLAN

- Proposed locations for transverse joints shall exactly match the alignment of the final existing or relocated transverse joints in all immediately adjacent lanes.

NOTES:
1. When repairing existing transverse joints, the patch shall extend a minimum of 2'-0" (600) through the existing joint, which will relocate the joint.
2. Proposed locations for transverse joints, when not aligned with the final expected transverse joint locations in the immediately adjacent lanes, shall be offset a minimum of 2'-0" (600) from the aforementioned joints.
3. The longitudinal joint alignment shall be straight and continuous through the repaired area.

DELW ARE
DEPARTMENT OF TRANSPORTATION

P.C.C. PAVEMENT PATCHING

STANDARD NO. P-2 (2000)  SHT. 1 OF 5  RECOMMENDED

APPROVED

1/14/2008

SCALE 1 N.T.S.
1. AS DIMENSIONED, THE WIDTH OF THE TRANSVERSE SEALANT RESERVOIR IS APPLICABLE WHEN THE TEMPERATURE OF THE PAVEMENT SURFACE IS BETWEEN 60°F (16°C) AND 80°F (27°C). WHEN THE TEMPERATURE IS BELOW 60°F (16°C), THE SEALANT RESERVOIR SHALL BE CUT ¹/₈" (0.13) WIDER.

2. "T" REFERS TO THE EXISTING "AS-BUILT" SLAB THICKNESS.

3. TOLERANCE ON ALL JOINT SEALANT DETAIL DIMENSIONS SHOWN WITHOUT HANES SHALL BE PLUS/ MINUS ¹/₁₆" (0.025).

4. THE TOP EDGES OF THE CONTACT SURFACES OF THE SEALANT MATERIAL ON BOTH SIDES OF THE JOINT RESERVOIR SHALL BE AT THE SAME ELEVATION.

DOWEL BAR

GROUT RETENTION DISK

NOTES:

HOT-POURED JOINT SEALANT

EXISTING P.C.C. SLAB

TOP OF SLAB

P.C.C. PATCH

HOT-POURED JOINT SEALANT

TOP OF SLAB

BACKER ROD (UNCOMPRESSED DIAMETER = ¹/₈" (3.17) MIN.)

TRANSVERSE SAW-CUT JOINT

TRANSVERSE CONSTRUCTION JOINT

SEALANT DETAIL - LONGITUDINAL JOINT

SEALANT DETAIL - TRANSVERSE SAW-CUT JOINT

SEALANT DETAIL - TRANSVERSE CONSTRUCTION JOINT

D - DOWEL DIAMETER INCLUDING PROTECTING COATINGS, IF ANY

³/₈" (0.38) MIN.

6" (0.15) MAX.

GROUT RETENTION DISK

DOWEL BAR

NOTES:

1. AS DIMENSIONED, THE WIDTH OF THE TRANSVERSE SEALANT RESERVOIR IS APPLICABLE WHEN THE TEMPERATURE OF THE PAVEMENT SURFACE IS BETWEEN 60°F (16°C) AND 80°F (27°C). WHEN THE TEMPERATURE IS BELOW 60°F (16°C), THE SEALANT RESERVOIR SHALL BE CUT ¹/₈" (0.13) WIDER.

2. "T" REFERS TO THE EXISTING "AS-BUILT" SLAB THICKNESS.

3. TOLERANCE ON ALL JOINT SEALANT DETAIL DIMENSIONS SHOWN WITHOUT HANES SHALL BE PLUS/ MINUS ¹/₁₆" (0.025).

4. THE TOP EDGES OF THE CONTACT SURFACES OF THE SEALANT MATERIAL ON BOTH SIDES OF THE JOINT RESERVOIR SHALL BE AT THE SAME ELEVATION.
DOWEL & TIE BAR PLACEMENT TOLERANCES

FULL DEPTH PATCH
NOTE: CLOSED CELL POLYETHYLENE FOAM SHALL BE THE SAME WIDTH AS THE JOINT AND 2'-1/2" IN DEPTH AFTER THE CONCRETE IN THE REPAIR AREA HAS ACHIEVED THE SPECIFIED STRENGTH. THE FOAM SHALL BE REMOVED AND REPLACED WITH BACKER ROD AND HOT-POUR SEALANT MEETING ALL APPLICABLE STANDARD DETAILS AND SPECIFICATIONS.

SECTION WITH SPALL NOT ADJACENT TO JOINT

NOTE: WHEN X > 12" (300), THEN Y = 1'-2/5" AND POLYETHYLENE FOAM IS NOT USED. WHEN X ≤ 12" (300), THEN Y = X AND POLYETHYLENE FOAM IS USED.

DELAWARE
DEPARTMENT OF TRANSPORTATION

P.C.C. PAVEMENT PATCHING

STANDARD NO. P-2 (2001) SHT. 5 OF 5

APPROVED 06/26/00

05/22/2001
NOTES:
1. THE PROFILE OF THE OVERLAY PAVING SHALL BE ADJUSTED TO ASSURE A SMOOTH TRANSITION THROUGH THE BUTT JOINT. THE REMOVAL AND CLEANUP OF THE HOT MIX RESIDUE MIDGE LEFT FROM THE MILLING OPERATIONS ALONG CORB LINES, ADJACENT TO SPEED RUMPS, ACROSS INTERSECTING STREETS, AND AT THE BEGINNING AND ENDING POINTS OF THE BUTT JOINT, SHALL BE INCIDENTAL TO THE BUTT JOINT ITEM.

2. THE LENGTH OF THE BUTT JOINT SHALL BE EQUAL TO 30'(900mm) FOR EVERY 1"(25) OF OVERLAY DEPTH.