

- GENERAL CONCRETE PAVEMENT NOTES**
1. REVIEW AND VERIFY ALL AS-BUILT CONDITIONS WHICH AFFECT NEW CONSTRUCTION PRIOR TO SUBMISSION OF SHOP DRAWINGS AND ANY FABRICATION.
  2. INDUSTRY STANDARDS GOVERNING THIS WORK ARE OF THE LATEST ISSUE AT THE DATE OF THIS DRAWING RELEASE.
  3. ENSURE STORAGE, HANDLING, PREPARATION, INSTALLATION, ETC. OF ALL MATERIALS ARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

- PAVEMENT SUBGRADE AND BASE NOTES**
1. ENSURE TESTING AGENCY VERIFIES THE SUBGRADE IS COMPACTED TO THE SPECIFIED MAXIMUM DRY DENSITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. RECOMPACT SPOT AREAS AS DIRECTED BY THE GEOTECHNICAL ENGINEER. TESTING AGENCY TO PROVIDE LETTER REPORT TO THE OWNER'S REPRESENTATIVE STATING THAT THE SUBGRADE HAS BEEN PROPERLY COMPACTED.
  2. ENSURE TESTING AGENCY EVALUATES THE SUBGRADE BY PROOF-ROLLING. PROOF-ROLLING TO BE DONE BY A FULLY LOADED TRUCK OR A 10,000 LB TRUCK OR OTHER EQUIVALENTLY WHEELED VEHICLE ACCEPTABLE TO THE TESTING AGENCY. OWNER'S REPRESENTATIVE TO PROVIDE LETTER REPORT TO THE OWNER'S REPRESENTATIVE STATING THAT THE SUBGRADE HAS BEEN PROOF-ROLLED AND IS ACCEPTABLE. NOTES: DO NOT PROOF-ROLL ON TOP OF OR WITHIN 5 FT. FROM THE EDGES OF THE UNDERLAYMENT. STAY ON YOUR OWN SIDE.

- AGGREGATE BASE MATERIAL**
- A. COARSE AGGREGATE BASE: CRUSHER RUN WITH ROCK FINES. USE ASTM D 446, NO. 47, 57 OR 10 BLEND ONLY IF NOTED OTHERWISE.
  - B. FINE AGGREGATE BASE: CLEAN SCHEDLINGER ASTM D 446, NO. 10 WITH 6% TO 12% PASSING NO. 200 SIEVE.

- AGGREGATE BASE MATERIAL INSTALLATION**
- A. COMPACT COARSE AGGREGATE BASE TO FINAL THICKNESS SHOWN IN LAYERS NOT EXCEEDING 8 INCHES. WITH MINIMUM OF 2 PASSES PER LAYER WITH A VIBRATORY COMPACTOR.
  - B. COMPACT FINE AGGREGATE BASE TO THE SPECIFIED MAXIMUM DRY DENSITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
  - C. CHECK OFF TOP SURFACE OF COARSE AGGREGATE BASE WITH FINE AGGREGATE BASE MATERIAL ONE TO THE FOLLOWING:
    1. AS REQUIRED TO MEET FINE GRADE ELEVATION TOLERANCES SPECIFIED.
    2. WHERE COARSE AGGREGATE MATERIAL DOES NOT HAVE SUFFICIENT FINE PARTICLES TO PRODUCE A SURFACE THAT IS FREE OF EXPOSED AGGREGATE OR SURFACE DEFECTS. TO PROVIDE A SMOOTH SURFACE.
  - D. COMPACT FINE AGGREGATE BASE CHOK-OFF LAYER WITH A MINIMUM OF 2 PASSES WITH A VIBRATORY COMPACTOR.
  - E. TOP SURFACE OF BASE MATERIAL TO BE DRY, SMOOTH, FLAT, DENSE SURFACE. MINOR CORRECTIONS PERMITTED.

4. ENSURE TESTING AGENCY VERIFIES AGGREGATE BASE IS COMPACTED TO THE SPECIFIED MAXIMUM DRY DENSITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER IMMEDIATELY PRIOR TO PLACING PAVEMENT. TESTING AGENCY TO PROVIDE LETTER REPORT TO OWNER'S REPRESENTATIVE STATING THE BASE IS ACCEPTABLE.
6. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IF UNUSUAL SOIL CONDITIONS ARE FOUND.
7. PROTECT EXISTING STRUCTURES, UTILITIES, PROPERTY, ETC. RESTORE ALL ITEMS DAMAGED, AS REQUIRED BY OWNER, AT NO COST TO OWNER OR WITHOUT EXTENSION OF CONTRACT TIME.
8. DO NOT ALLOW STORED EXCAVATION MATERIAL TO DISRUPT PROPER DRAINAGE OF AREA. DAMAGE TO SURROUNDING AREA, OR STRAIN ADJACENT CONCRETE.
9. DISPOSE OF EXCAVATED MATERIAL AS REQUIRED BY OWNER'S REPRESENTATIVE.

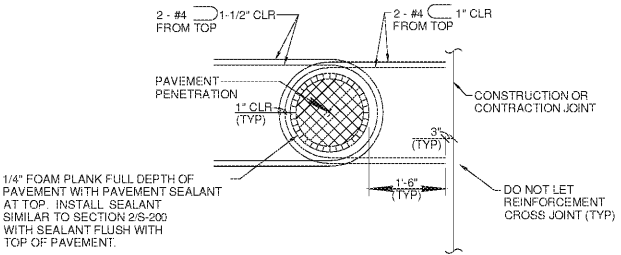
**CONCRETE PAVEMENT NOTES**

1. CONFORM TO ACI 318 AND 117 FOR THE DESIGN AND PLACEMENT OF CONCRETE, REINFORCING, AND RELATED ITEMS.
2. CONFORM TO ACI 308.1 FOR COLD WEATHER CONCRETING AND ACI 308R WHEN ANY COMBINATION OF HIGH TEMPERATURE, LOW RELATIVE HUMIDITY, AND WIND VELOCITY TEND TO IMPAIR THE QUALITY OF THE CONCRETE. REJECT CONCRETE IF ITS TEMPERATURE AT TIME OF PLACEMENT EXCEEDS 90 DEGREES FAHRENHEIT (F) OR ABOVE. PROTECT SURFACES OF EXPOSED CONCRETE FROM PRECIPITATION DAMAGE UNTIL ADEQUATE STRENGTH IS GAINED TO PREVENT DAMAGE.
3. CONFORM TO ACI 302.1R, 304R, 306, 306R, 308R AND 347R FOR CONCRETE, FORM WORK, CURING, AND RELATED ITEMS. CONFORM TO CRSMANUAL OF STANDARD PRACTICE AND CRSP PLACING REINFORCING BARS FOR PLACING REINFORCING.
4. THE GEOTECHNICAL ENGINEERING REPORT INDICATES THAT THE SOILS ON SITE HAVE A XXXXXX SULFATE EXPOSURE. WHERE IMPORTED FILL OR BASE MATERIALS ARE IN CONTACT WITH CONCRETE, THE SULFATE CONTENT AND EXPOSURE OF THESE MATERIALS SHALL BE ACQUIRED BY TEST. SUBMIT ALL TEST RESULTS WITH CONCRETE MIX DESIGN. FAILURE TO PROVIDE SUPPORTING TEST RESULTS FROM AN ACCREDITED TESTING LABORATORY WILL REQUIRE THE CONCRETE MIX TO BE PROPORTIONED FOR VERY SEVERE SULFATE EXPOSURE AT NO ADDITIONAL COST OR DELAY IN THE PROJECT SCHEDULE.
5. CONCRETE SHALL BE PROPORTIONED TO MEET THE PROJECT SPECIFICATIONS AND THE MINIMUM CRITERIA ESTABLISHED IN "TABLE A" (THIS SHEET) BASED ON THE SULFATE EXPOSURE FROM ANY ADJACENT SOILS OR FILL MATERIALS.
6. ADDITIONALLY, EXTERIOR CONCRETE EXPOSED TO FREEZING TEMPERATURES AND/OR SALT OR OTHERS CHEMICALS SHALL HAVE AN ENHANCED CEMENT CONTENT APPROPRIATE FOR THE EXPECTED EXPOSURE. SEE SPECIFICATIONS FOR MORE INFORMATION.
7. CONCRETE TO MEET DURABILITY REQUIREMENTS OF ACI 301. FREEZING AND THAWING EXPOSURE CATEGORY TO BE [F1] [F2] [F3]. SULFATE EXPOSURE CATEGORY TO BE [S0] [S1] [S2] [S3]. AND CORROSION PROTECTION EXPOSURE CATEGORY TO BE [C0] [C1] [C2]. PROVIDE A MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS OF [5000 psi] [4000 psi] [3500 psi] [3000 psi] WITH MAXIMUM WATER-CEMENT RATIO OF [0.55] [0.50] [0.45] [0.40].
8. ENSURE REINFORCING BARS CONFORM TO ASTM A615 GRADE 60, DEFORMED.
9. PROVIDE CLASS B TENSION LAP SPICES PER ACI 318, FOR CONCRETE STRENGTH AND BAR LOCATIONS NOTED.
10. MAINTAIN FULL THICKNESS FOR DEPRESSED OR SLOPED PAVEMENTS.
11. DO NOT ADD WATER OR PLAIN CEMENT TO ANY PAVEMENT SURFACE DURING FINISHING OPERATIONS.
12. PERFORM NO FINISHING OPERATION WHILE WATER IS PRESENT ON PAVEMENT SURFACE.
13. STRIKE OFF CONCRETE TO REQUIRED ELEVATIONS AND IMMEDIATELY START FINISHING/FLATTENING OPERATIONS. ENSURE FINISHING OPERATIONS ARE NO MORE THAN NECESSARY TO REMOVE IRREGULARITIES AND MEET SPECIFIED TOLERANCES. USE A HIGHWAY STRAIGHTEDGE, 10 FT. WITH MINIMUM, UNLESS OTHERWISE ALLOWED BY OWNER'S REPRESENTATIVE. IN ORDER TO CUT OFF HIGH SPOTS AND FILL IN LOW SPOTS. PERFORM FINISHING OPERATIONS AS NECESSARY TO ENSURE PAVEMENT WILL DRAIN WELL. UNIFORM FINISH SURFACE TO TEXTURE PROVIDED BY APPROVED BY OWNER'S REPRESENTATIVE. DO NOT ALLOW SURFACE TO DRY DURING FINISHING OPERATIONS AND BEFORE CURING COMPOUND IS APPLIED. USE EVAPORATION RETARDANT AS NECESSARY TO PREVENT SURFACE CRACKING AND PLASTIC SHRINKAGE CRACKS.
14. FOR TOLERANCES CONFORM TO ACI 117 AND ACI 347R, EXCEPT AS NOTED BELOW.
  - A. PAVEMENT AGGREGATE BASE FINE GRADE: -0.34/2/0/1.
  - B. MINIMUM PAVEMENT THICKNESS TOLERANCE: -3/4 INCH.
  - C. WHEN COMPUTING THE AVERAGE OF ALL SAMPLES, SAMPLES WITH A THICKNESS MORE THAN 3/4 IN. ABOVE THE SPECIFIED THICKNESS SHALL BE ASSUMED TO HAVE A THICKNESS 3/4 IN. MORE THAN THE SPECIFIED THICKNESS.
  - D. AVERAGE PAVEMENT THICKNESS TOLERANCE: 0.
  - E. THICKNESS SAMPLES ARE TO BE RANDOMLY LOCATED FROM EACH PAVEMENT PLACEMENT AND NOT EXCEED 1000 SQUARE FEET OF PAVEMENT SURFACE AREA.
15. START SAWING PAVEMENT CONTRACTION JOINTS USING A "SOFF-CUT" SAW. BLADES AND SKID PLATES AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT PAVING OR OR DISLOCATIONS OF AGGREGATES. UNLESS PAVING OR DISLOCATIONS OCCURS, COMPLETE SAWING OF JOINTS WITHIN THE MAXIMUM ELAPSED TIME NOTED BELOW, BUT PREFERABLY LESS. THE SPECIFIED TIME FOR ANY ONE LOCATION STARTS WHEN FINISHING OPERATIONS ARE COMPLETE FOR THAT LOCATION. THE SPECIFIED TEMPERATURE IS THE MAXIMUM AIR TEMPERATURE IN DEGREES FAHRENHEIT THAT OCCURS WITHIN THE SPECIFIED TIME LIMIT. THE ELAPSED TIME MAY NEED TO BE SHORTENED EVEN MORE IF DRY AND OR WINDY CONDITIONS ARE PRESENT. ENSURE JOINTS ARE CLEANED AFTER SAWING AND REMAIN CLEAN UNTIL SEALED.
 

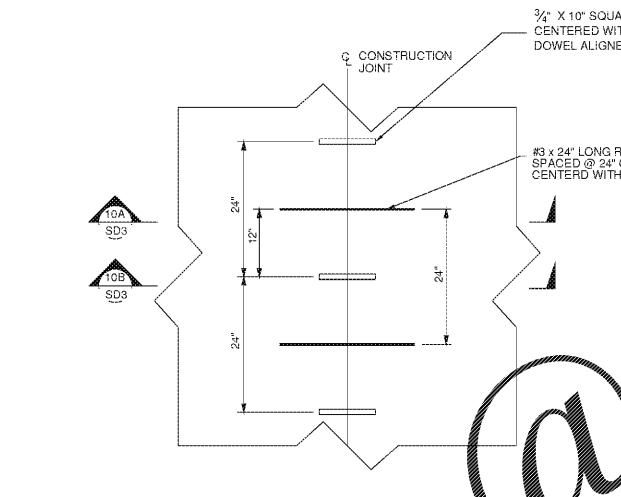
MAX DEG F	MAX. ELAPSED HOURS
85 AND ABOVE	1
80-84	2
75-79	3
40-49	4
16. START CURBS AS SOON AS CONCRETE SURFACE IS NOT BE DAMAGED BY CURING OPERATIONS. CURE CONCRETE CONTINUOUSLY FOR A MINIMUM OF 56 CONSECUTIVE DAYS.
17. ENSURE PAVEMENT SURFACE IS PROTECTED FROM EQUIPMENT SCUFFS, IMPACT ABRASIONS, STAINS, ETC. REPAIR PAVEMENT SURFACE DAMAGE AS DIRECTED BY OWNER'S REPRESENTATIVE. VEHICLE AND EQUIPMENT SHALL NOT BE PROHIBITED UNTIL THE COMPLETION OF PAVEMENT CURING OPERATIONS. VEHICLES AND EQUIPMENT ARE DAMAGED TO THE EXTENT OF OIL OR FLUID LEAKS FROM STAINING THE PAVEMENT.
18. REFER TO ARCHITECTURAL MECHANICAL/ELECTRICAL PROCESS AND VERTICAL ELEVATIONS FOR NOTED ITEMS SHOWN. COORDINATE AND PLACE ALL ITEMS ON THE DRAWING OR RECORD BY ALL TRADES.
19. ALL CONSTRUCTION NOTES:
  - ATTEND THE CONSTRUCTION MEETING TO BE SCHEDULED AT LEAST 7 DAYS BEFORE STARTING CONSTRUCTION.
  - ATTENDANCE DESIGNATED BY THE OWNER'S REPRESENTATIVE AND THE FOLLOWING: STRUCTURAL ENGINEER, GEOTECHNICAL ENGINEER, TESTING AGENCY, CONTRACTOR, CONCRETE SUPPLIER, INSPECTION QUALITY CONTROL PERSONNEL, AND SUBCONTRACTOR. OWNER'S REPRESENTATIVE AND BASE REPRESENTATIVE. REPAIR ELEMENTS, LAPPING OR OTHER MEANS OF CONVEYING, PLACEMENT, FINISHING, SAWING, CURING, AND OTHER PERTINENT PORTIONS OF WORK.
  - CONTRACTOR'S REPRESENTATIVE SHALL BE PERSONNEL WHO ARE DIRECTLY INVOLVED IN THE WORK AND HAVE AUTHORITY TO CONTROL WORK.

**TABLE A (SEE CONCRETE PAVEMENT NOTE #5)**

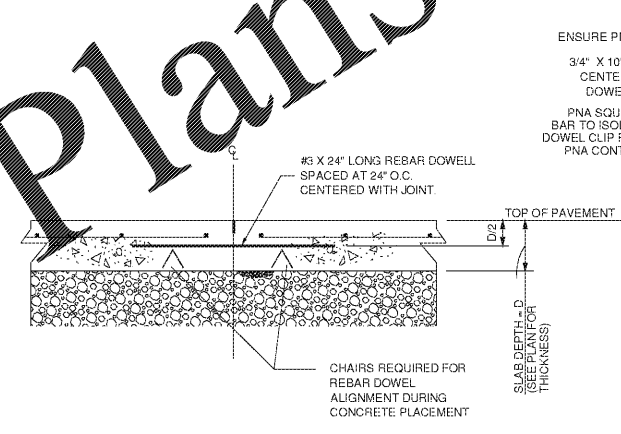
SULFATE EXPOSURE	WATER SOLUBLE SULFATE (SO4) IN WATER PPM	SULFATE (SO4) IN WATER PPM	PORTLAND CEMENT TYPE	MAXIMUM W/C RATIO	CONCRETE PAVEMENTS
NEGLECTIBLE	0.00 ≤ SO4 < 0.10	0 ≤ SO4 < 150	I	0.55	3500
MODERATE	0.10 ≤ SO4 < 0.10	150 ≤ SO4 < 1500	II	0.50	4000
SEVERE	0.20 ≤ SO4 < 0.10	1500 ≤ SO4 < 10,000	V	0.45	4500
VERY SEVERE	SO4 ≥ 200	SO4 ≥ 10,000	POZZOLAN	0.45	4500



**SLAB PENETRATIONS DETAIL** (1) SD3

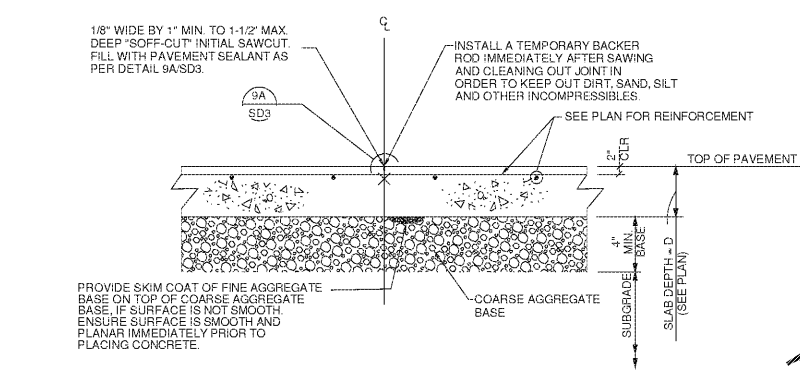


**CONSTRUCTION JOINT PARTIAL PLAN DETAIL** (10) SD3

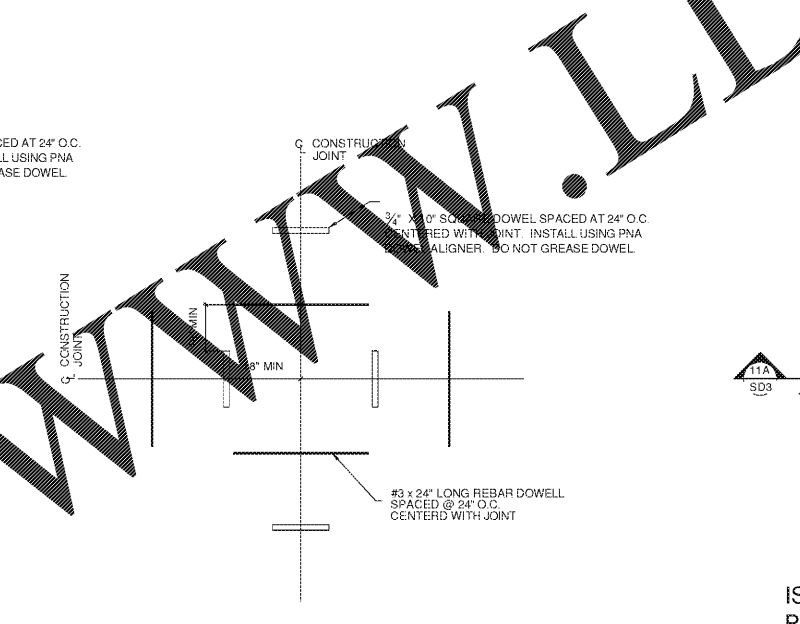


**SLAB CONSTRUCTION JOINT SECTION** (10A) SD3

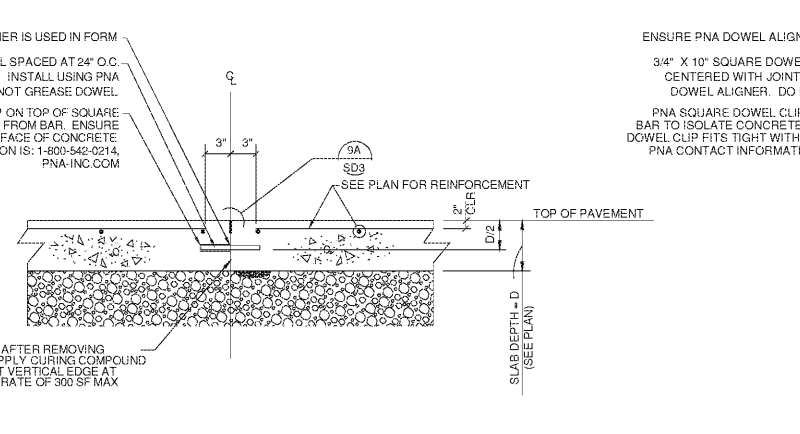
NOTES:  
1. SEE CONTRACTION JOINT FOR INFO NOT SHOWN



**SLAB CONTRACTION JOINT SECTION** (9) SD3

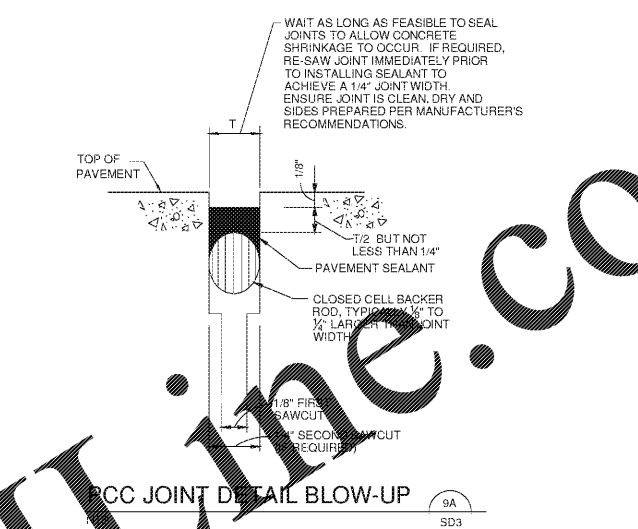


**CONSTRUCTION JOINT INTERSECTION PARTIAL PLAN DETAIL** (10C) SD3

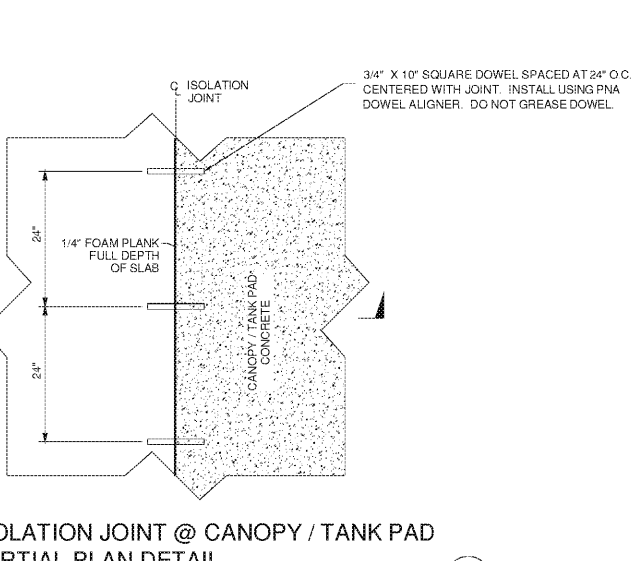


**SLAB CONSTRUCTION JOINT SECTION** (10B) SD3

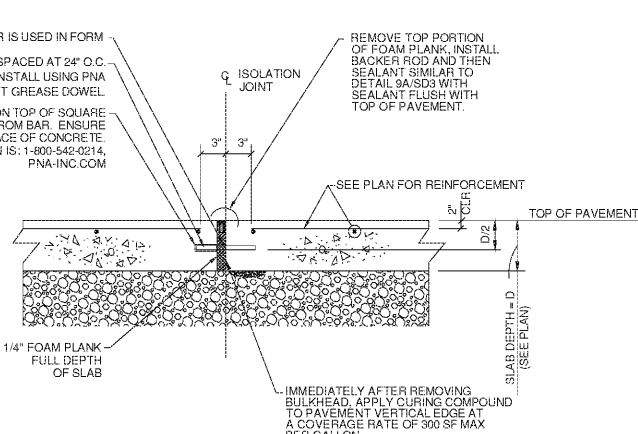
NOTES:  
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**PCC JOINT DETAIL BLOW-UP** (9A) SD3



**ISOLATION JOINT @ CANOPY / TANK PAD PARTIAL PLAN DETAIL** (11) SD3



**ISOLATION JOINT @ CANOPY SECTION** (11A) SD3

NOTES:  
1. SEE CONTRACTION JOINT FOR INFO NOT SHOWN

02/25/18	DATE
06/29/18	DATE
1	JURISDICTIONAL COMMENTS
5	OWNER REVISIONS & JURISDICTIONAL COMMENTS
5780 PEACHTREE PARKWAY PEACHTREE CORNERS, GEORGIA SUITE 200 DUBLIN, GEORGIA 30098 (770) 925-3527	
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<b>RACETRAC STANDARD DETAILS</b> PEACHTREE CORNERS RACETRAC	DRAWN BY: JCW DATE: 01/15/2018 SCALE: NTS DRAWING NAME: 4607.00-SD-DETAILS.dwg SD3 SHEET NO. 1