What’s Up with PCC?

Recent changes and current happenings in PCC Design & Specifications.

Goal of Pavement Design

- Design most cost effective pavement
- Provide tools to assure quality construction
- Simplify decision making for designers (minimize errors & omissions)
- Simplify requirements of final product
- Minimize Maintenance exposure
- Willing to spend more money up front to get it right the first time.

Pavement Service Life

- Included 40 year service life standard in HDM for high volume corridors.
- Memo issued reiterating importance/advantage of longer life pavements

PCC Shoulder Design

- HDM update allows either tied PCC shoulders or AC shoulders with a widened (14’) slab except in a few cases.
- Goal is to focus more on performance based requirements.

Other HDM/Guide Changes

- New HDM limits use of undoweled pvmt
- Min PCC thickness now 8”.
- LCB & AC Base now preferred
- New PCC design overview.
- New PCC rehab guide.

Other Changes

- Pavement web site to provide one stop shop

http://projdel.dot.ca.gov/design/pavement/index.asp

- Portion of site available on internet.

http://www.dot.ca.gov/hq/oppd/pavement/index.htm

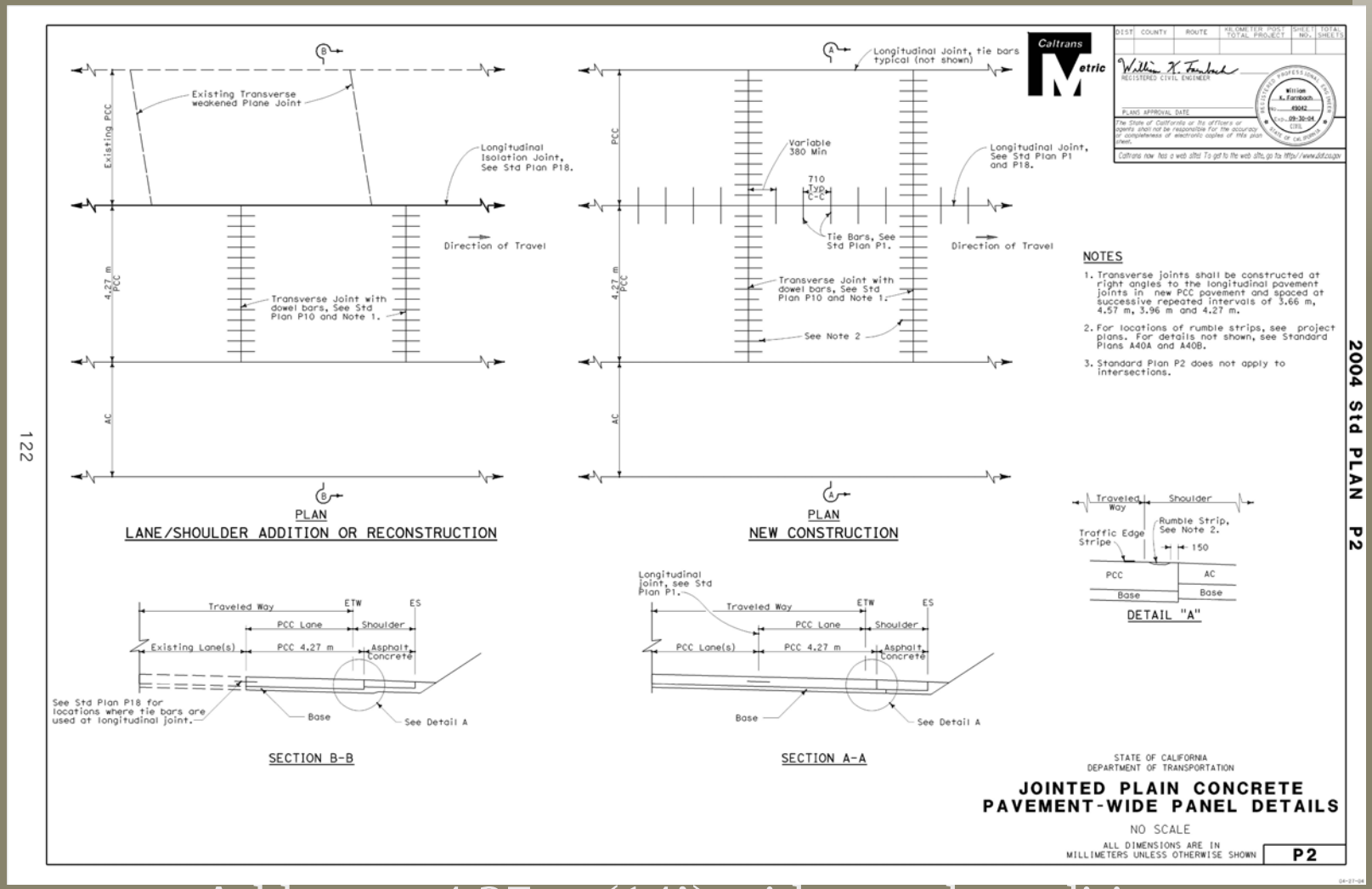
Standard Plan Updates

- Replace A35 series with new P series.
- Expanded # sheets from 4 to 13 for PCC
- Some of the added features include:

P1: Jointed Plain Concrete Pvmt

- Old A35B (Doweled PCC Pvmt)
- Cleaned up notes. Move some info to other plans.
- Want to start using term JPCP on plans, specs, & estimates.
- Reason: Planning to introduce other types of PCC paving in the next few years.

P2: Wide Panel Details



Addresses 4.27 m (14’) wide panel conditions

P5: Undoweled JPCP

- Old A35A (Undoweled PCC Pvmt)
- Removed Undoweled option for new pavement.
- Modified remaining details to match cases allowed in HDM.

P7: Dowel Bar Retrofit

- Old A35D
- No changes, but changes are coming
- Current advisory to not include in projects for 4/5 Year due to some recent problems.

P10: Dowel Bars

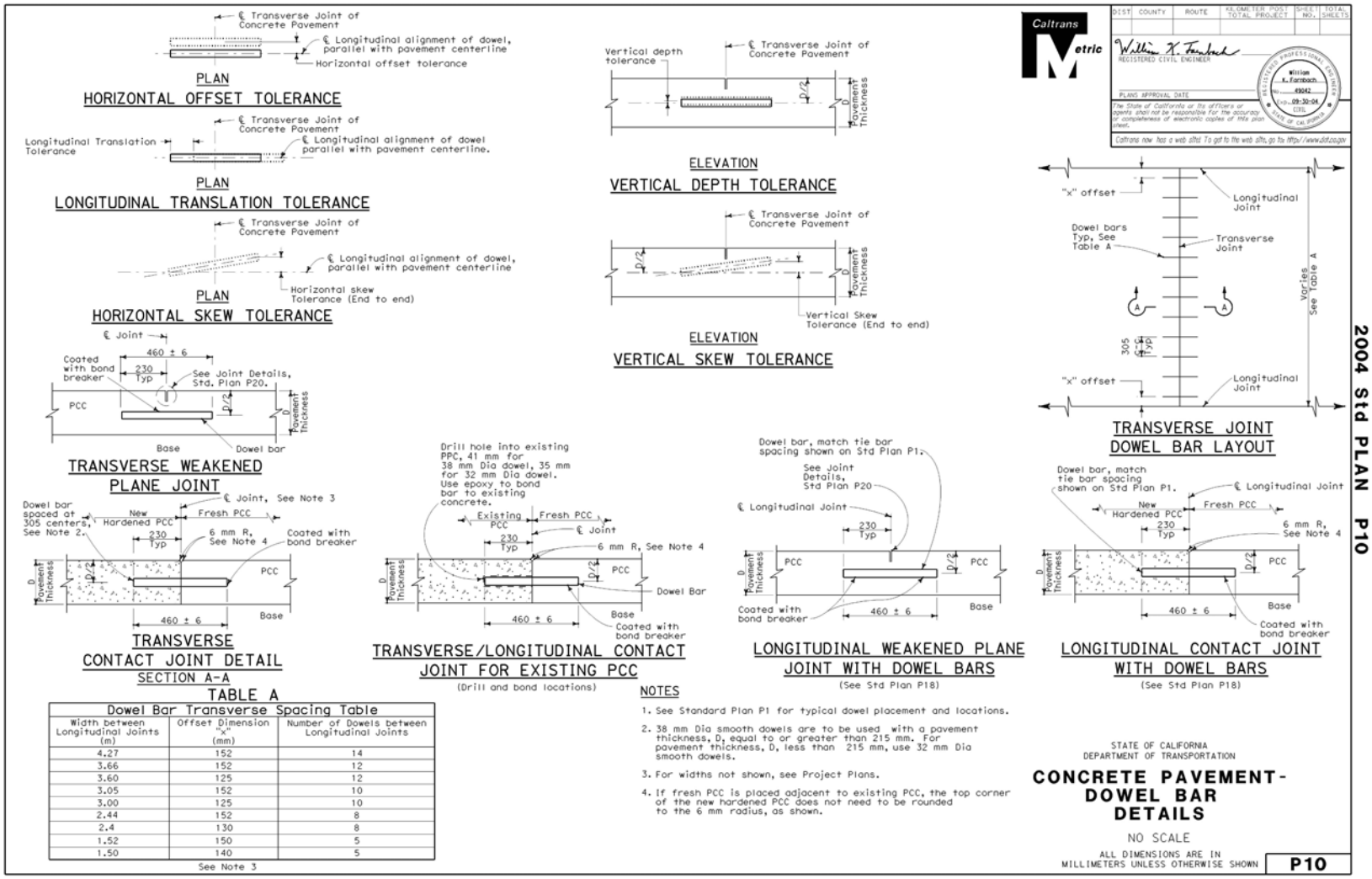


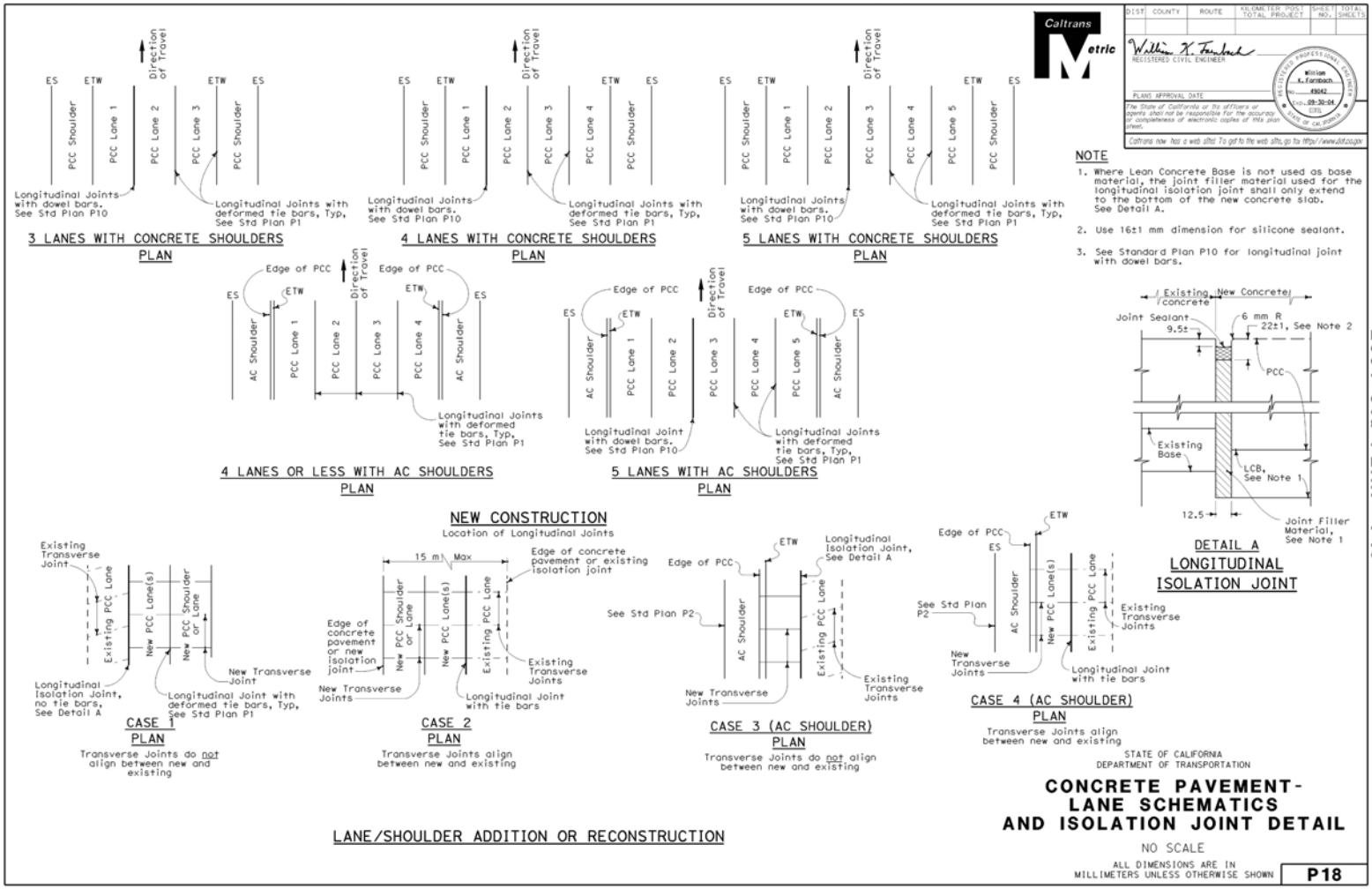
TABLE A

Dowel Bar Transverse Spacing Table		
Width between Longitudinal Joints (m)	Offset Dimension "x" (mm)	Number of Dowels between Longitudinal Joints
4.27	152	14
3.66	152	12
3.60	125	12
3.05	152	10
3.00	125	10
2.44	152	8
2.4	130	8
1.52	150	5
1.50	140	5
See Note 3		

P12 & P17: Dowel & Tie Bar Baskets

- Provides standardized details
- Eliminate need for Contractor to produce & RE to review shop drawings

P18: Lane Schematics

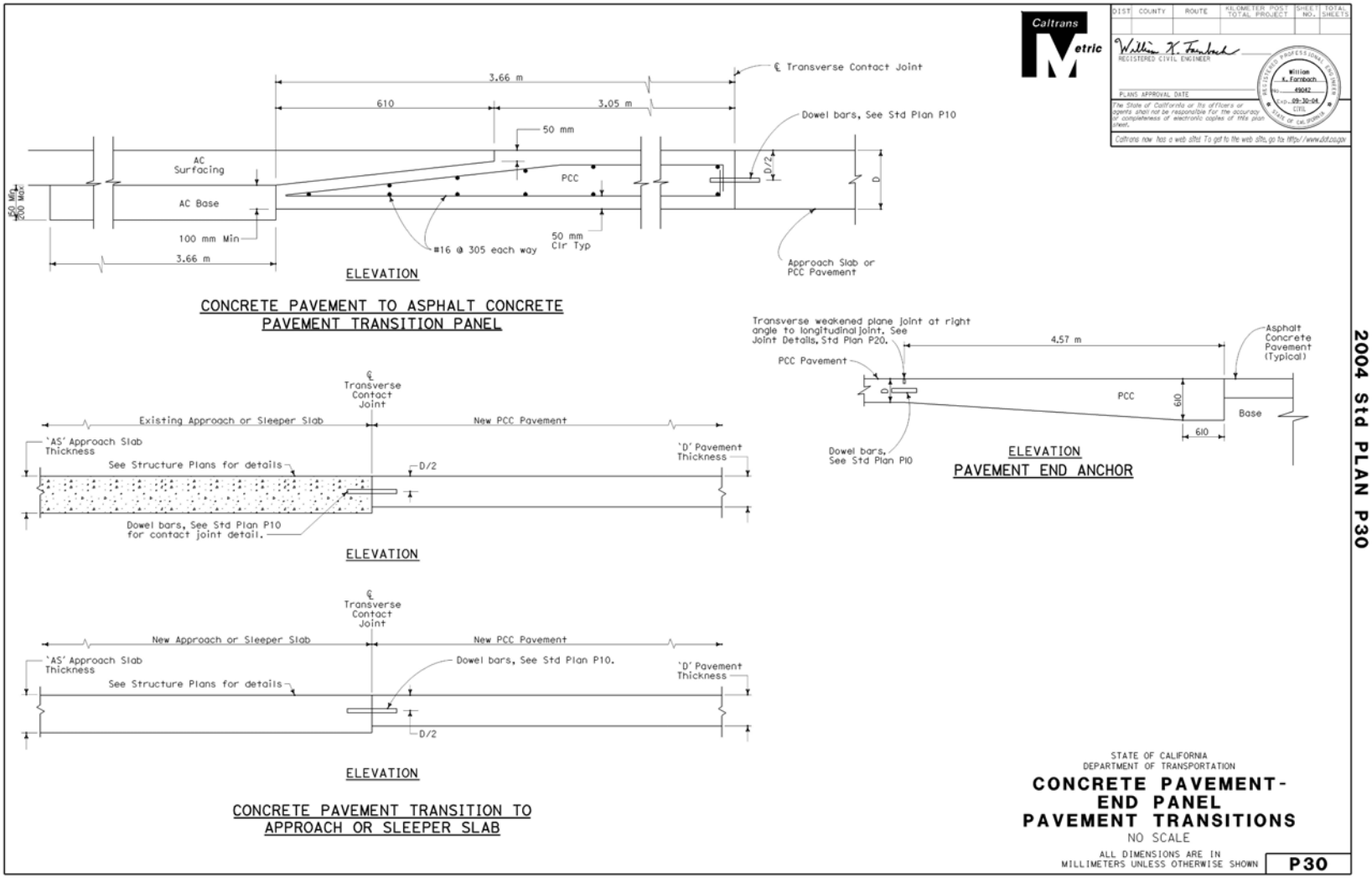


Tie bar layouts & Isolation Joints

P20: Joint Seals

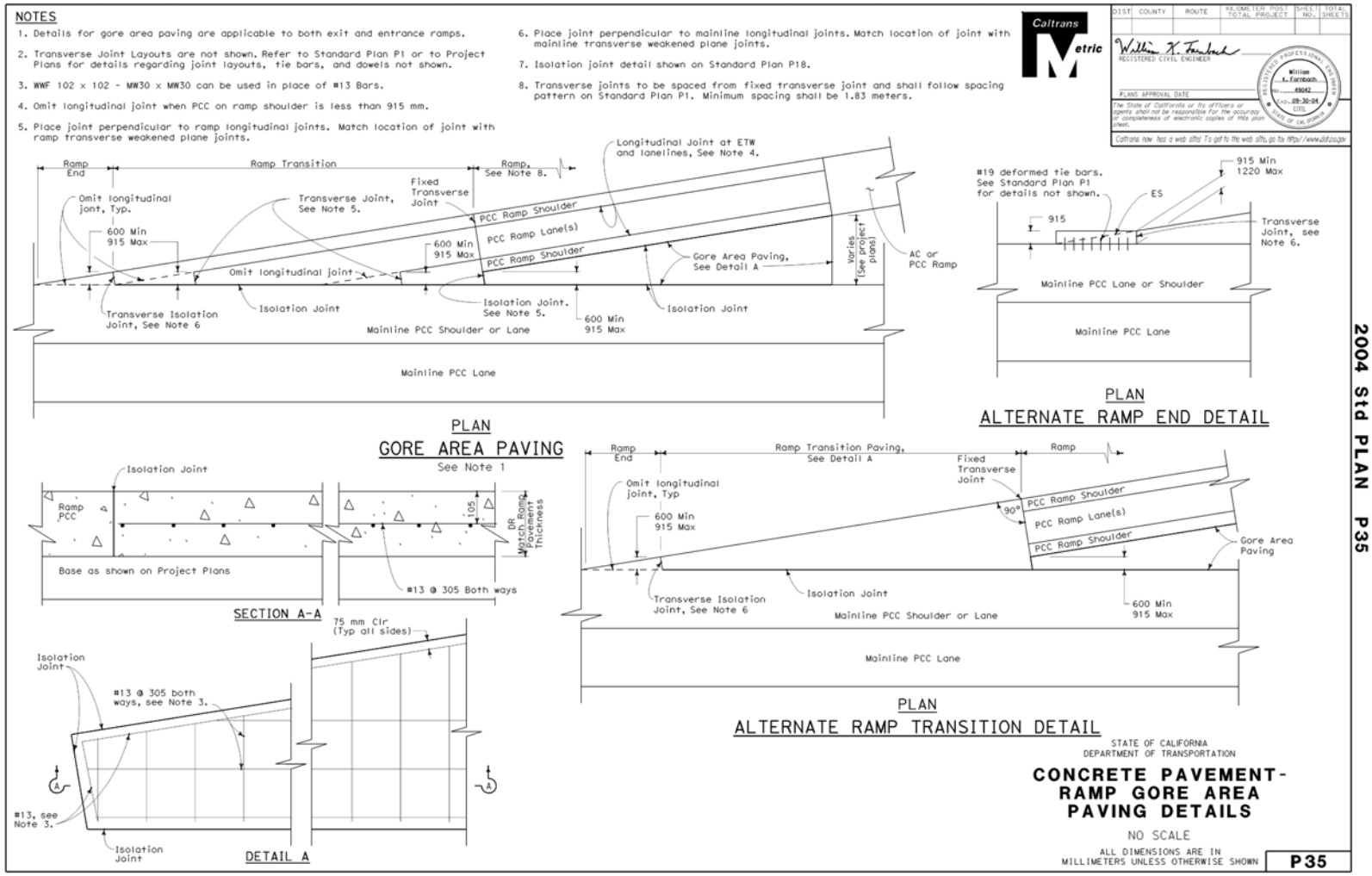
- Old A35C
- Saw cut depth removed from plans (allows depth to vary based on cut type)

P30: PCC Transition



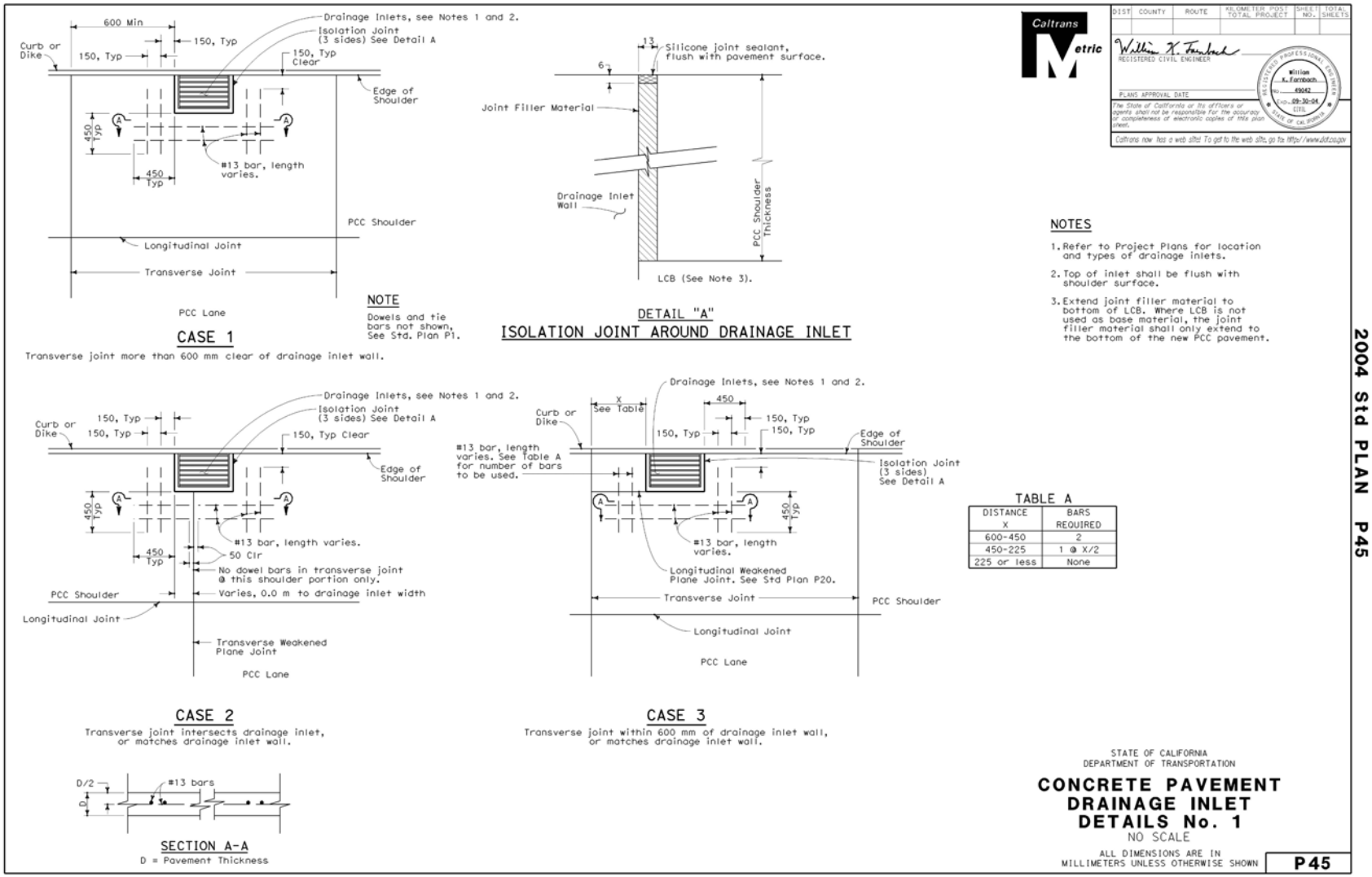
To AC Pvmts & Approach Slabs

P35: Ramp Transition/Gore

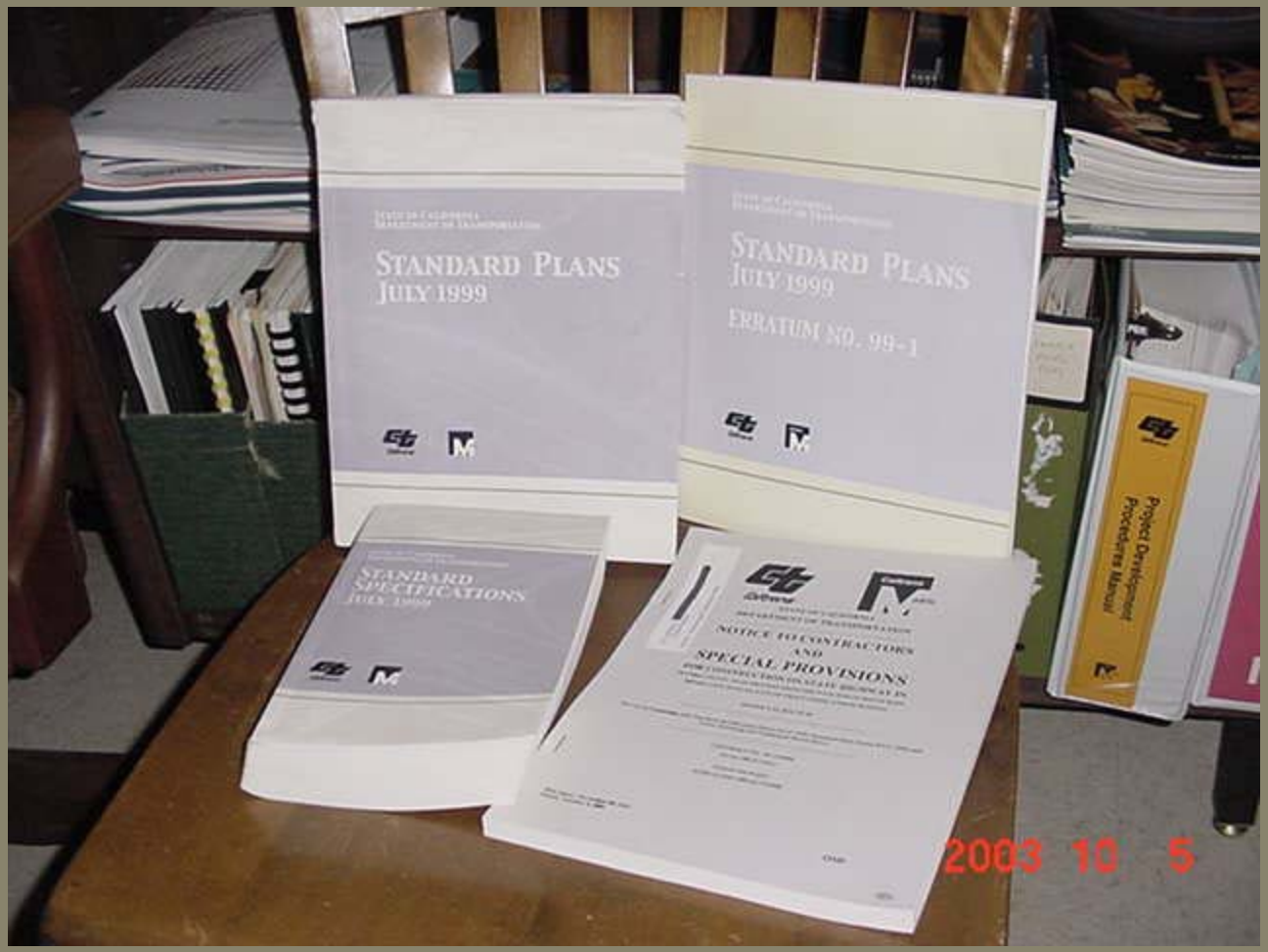


2004 Std PLAN P35

P45 & P46: Drain Inlets in PCC



Pavement Specification Changes



Work in Progress

- Update design thickness tables for PCC
- Establish performance criteria for end of pavement service life.
- Improved monitoring of existing pavements
- Guide to designing PCC intersections
- Develop performance based design method (M-E)

Last Thought – For Latest Info

- Pavement intranet site

http://projdel.dot.ca.gov/design/pavement/index.asp

- Pavement internet site

http://www.dot.ca.gov/hq/oppd/pavement/index.htm