



30th Annual State Construction Conference

March 24th, 2011

SCO Office Overview & Change

-Design Review Section -

New Office Organization

- **Design Review**

Plan Review w/ code compliance + Tent permits

- **Construction Management**

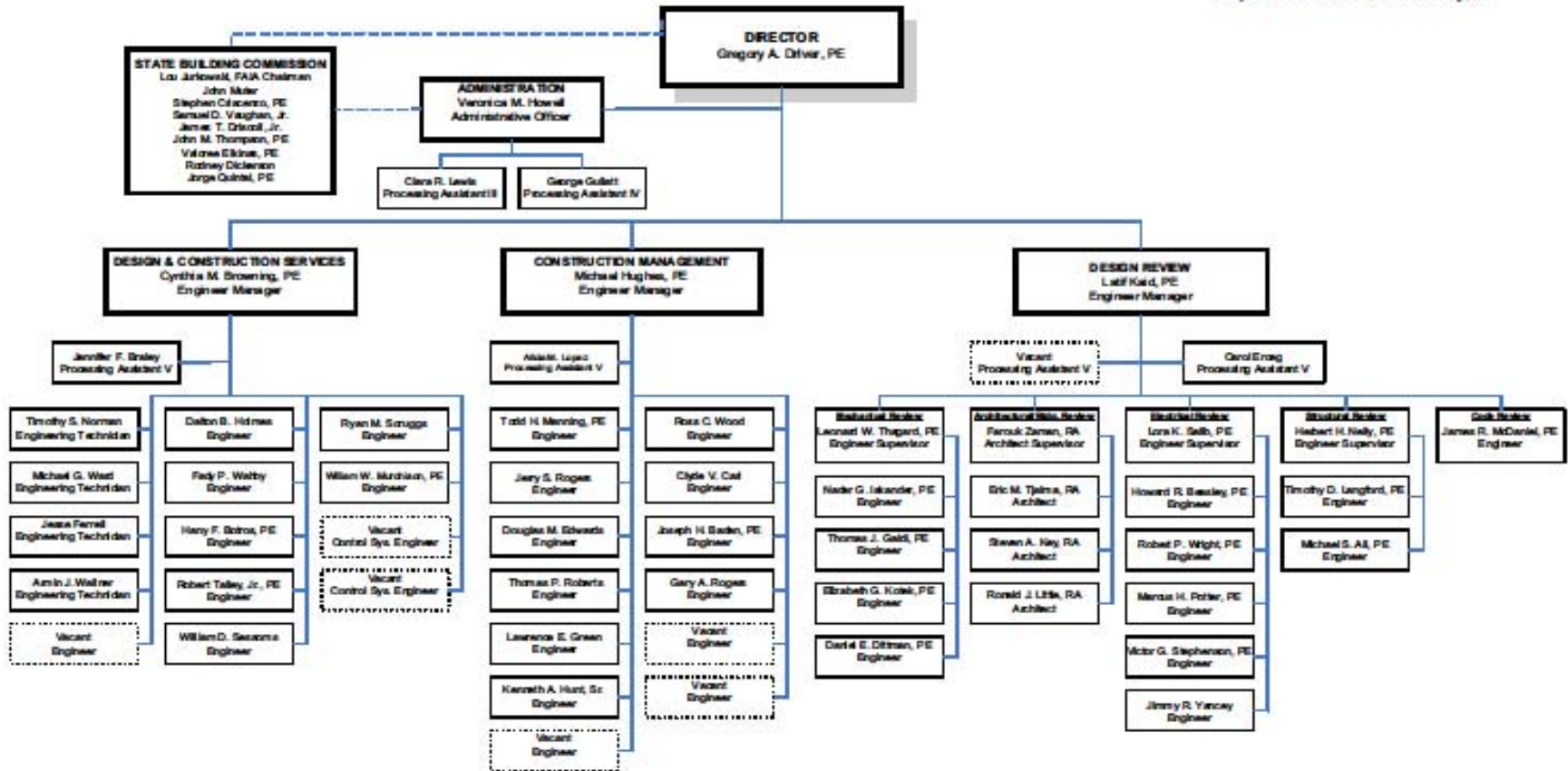
FCAP + Construction Administration (monitoring)

- **Design & Construction Services**

Consulting Services + Electrical Inspections + Contract Administration

NC Department of Administration
State Construction Office

Division Head: Gregory A. Driver, PE
 Department Head: Moses Carey, Jr.



SCO Website Changes

1. State Construction Manual (draft)
2. New or revised documents:
 - Electrical Guidelines (draft, effective July 2011)
 - Fire Alarm Guidelines (new, 1st edition)
 - Sprinkler Guidelines (new, 1st edition)
 - Roofing Design Criteria (in revision)
3. Added features
 - Current status of projects in design review
 - Current status of projects under construction <coming soon>
 - Design Review Requirements and Exemptions
4. Forms & Documents Reorganized in accordance with the State Construction Manual

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Downtown Raleigh [Parking Map](#)

Recent News

The **2011 State Construction Conference** is scheduled for **March 24th** at the NCSU McKimmon Center

[State Construction Manual \(2011 Draft\)](#)

[Electrical Guidelines \(2011 Draft\)](#)



HELP IMPROVE DOA

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Forms and Documents

- **Administration & Design Contract**
 - [Requirements and Guidelines](#)
 - [Forms](#)

- **Flood Plain Management**
 - [Requirements and Guidelines](#)
 - [Forms](#)

- **Design Review**
 - [Requirements and Guidelines](#)
 - [Forms](#)

- **Bidding & Contract**
 - [Requirements and Guidelines](#)
 - [Forms](#)

- **Construction Administration**
 - [Requirements and Guidelines](#)
 - [Forms](#)

- **Project Close-out**
 - [Requirements and Guidelines](#)
 - [Forms](#)

- **Other**
 - [State Construction Manual \(2011 Draft\)](#)
 - [Electrical Guidelines \(2011 Draft\)](#)

Documents :: Administration & Design Contract

- **Requirements and Guidelines**

- [Alternative Contracting Method \(State Building Commission\)](#)
- [General Conditions \(OC -15\)](#)
- [Informal Contract \(Revised 10/2010\)](#)
- [CMR Selection Procedure](#)
- [Cost Estimate Instructions Manual \(Electronic Ed.\)](#)

- **Forms**

- [Designer/Owner Contract Agreement](#)
- [Proposal Form 2006 \(Revised 10/2009\)](#)
- [Standard Form 254](#)
- [Standard Form 255](#)

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Documents :: Flood Plain Management

- **Requirements and Guidelines**

- [Floodplain Evaluation Procedures](#)
- [Executive Order No.123, "Uniform Floodplain Management Policy"](#)
- [Floodplain Permitting Instructions](#)

- **Forms**

- [Permit Application Form \(March 2007\)](#)
- [Floodplain Development Permit \(March 2010\)](#)
- [Certificate of Compliance \(Feb. 2005\)](#)

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Documents :: Design Review

- **Requirements**

- [ARRA Review Requirements](#)
- [University Download Review Requirements](#)
- [Privately Funded Projects Design Exemptions](#)
- [Informal Project Requirements](#) (*Coming Soon*)

- **Guidelines**

- [Asbestos Abatement](#)
- [Electrical Guidelines \(2008 Ed.\)](#)
- [Federal Tax Deduction Program \(179D\) for Energy Efficient Buildings](#)
- [Fire Alarm Guidelines](#) (*New, March 2011*)
- [Life Cycle Cost Analysis](#)
- [G.S. 133-3 Compliance Procedure](#)
- [Masonry Mortar Policy](#)
- [Metal Building System Design Guidelines](#)
- [Roofing Design Criteria](#)
- [Modular Buildings Memorandum](#)
- [Sprinkler Guidelines](#) (*New, March 2011*)
- [STS-1000 Telecommunication Guidelines](#)
- [Special Inspections](#)
- [Seals Presentation \(Bill Davis, RA\)](#)
- [Energy Bill Mandates:](#)
 - [Advance Planning Flow Chart](#)
 - [Commissioning of Buildings](#)
 - [Energy Performance Modeling and Reporting](#)
 - [Water Conservation](#)
 - [Energy Efficient Buildings Advisory Report](#)
 - [Performance Verification of Buildings](#)

- **Forms**

- [Energy & Water Efficient Bldg Deliverables Checklist](#)
- [Energy Model Compliance Report](#)
- [Minority Business Participation Form](#)
- [Flood Plain Management \(Revised 3/2010\)](#)

Documents :: Bidding & Contract

- **Requirements and Guidelines**

- [Bid Opening Guidelines](#)
- [Minority Business Participation Guidelines](#)

- **Forms**

- [Advertisement for Bids](#)
- [Bid Bond Form](#)
- [Bid Summary Sheet](#)
- [Construction Contract Forms & Bonds](#)
- [Construction Contract Checklist](#)
- [County Sales & Use Tax Report Summary Totals](#)
- [Prequalification of General Contractor \(Revised 03/2011\)](#)
- [Notice to Bidders 2010](#)

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Documents :: Construction Administration

- **Requirements and Guidelines**

- [Preconstruction Conference meeting Requirements & Agenda](#)
- [MBE Recruitment & Selection](#)
- [Site Preparation & Grading Criteria](#)
- [Dispute Resolution](#)
- [Change Orders Manual \(Electronic Ed.\)](#)
- [Construction Administration List of Required Documents](#)
- [Items Covered at Monthly Meetings](#)

- **Forms**

- [Appendix "E" MBE Documentation for Contract Payments](#)
- [Change Order](#)
- [Vendor Payment Form \(Electronic Ed.\)](#)
- [Field Order](#)
- [Fire Alarm: Checklist for Addressable Systems](#)
- [Monthly Construction Progress Report](#)
- [Project Schedule Summary](#)
- [Weekly Inspection Form](#)

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Documents :: Project Close-out

- **Requirements and Guidelines**

- [Contractor's Evaluation Manual \(Electronic Ed.\)](#)
- [Designer's Evaluation Manual \(Electronic Ed.\)](#)

- **Forms**

- [Affidavit of Payment of Debts and Claims](#)
- [Affidavit of Release of Liens](#)
- [Certificate of Compliance and Certificate of Completion](#)
- [Consent of Surety to Final Payment](#)
- [Completion Agreement Form](#)
- [Final Inspection for Owner Occupancy](#)
- [Final Inspection for Beneficial Occupancy \(Partial Utilization\)](#)
- [Final Report Checklist \(obsolete, for Info only\)](#)

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Reports

- **Status**

- [Design Review Status](#) *(Coming Soon)*
- [Construction Status](#) *(Coming Soon)*
- [Capital Area Projects Status](#) *(Coming Soon)*

- **Bids**

- [Design Services Requests](#) (IPS)
- [University Design/Construction Information](#) (IPS)
- [Construction Bid Notices](#) (IPS)

- **Awards**

- [Design Contracts Awarded](#)
- [Construction Contracts Awarded](#)
- [CM at Risk Contractor Selection](#)

- **Under Construction**

- [CMR Contracts](#) *(Coming Soon)*
- [Single Prime Contracts](#) *(Coming Soon)*
- [Multi Prime Contracts](#) *(Coming Soon)*
- [Informal Contracts](#)

- **Other**

- [Project Monitor Territory Assignment](#)
- [Electrical Inspection Territory Assignment](#)
- [DOI Quarterly Report](#) *(Coming Soon)*
- [HUBSCO Quarterly Report](#) *(Coming Soon)*
- [Capital Area Master Plan](#)
 - [Master Plan](#)
 - [2007 State Gov Facilities Master Plan](#)

Design Review Requirements

- **ARRA Project** (American Recovery & Reinvestment Act)

<http://www.nc-sco.com/documents/forms/ARRA%20Projects%20Design%20Review.pdf>

- **University Download Project** (<\$2M)

<http://www.nc-sco.com/documents/forms/University%20Download%20Project%20Review%20Requirements.pdf>

- **Privately Funded Projects**

<http://www.nc-sco.com/documents/forms/Privately%20Funded%20Design%20Exemption.pdf>

- **Performance Contracting (IGA - Investment Grade Audit Report)** <http://www.energync.net/programs/usi.html#pc>

- **Informal Contracts** <Plans are required to be submitted for review unless requesting exemption in accordance w/ SCO Manual.>

Informal Contract

- Per section 202.2 (c) of SCO Manual (or section 102.5 new manual), an owner could request exemption from SCO plan review & oversight under the following conditions:
 - Project total cost under \$300K.
 - A written application requesting exemption & to include description of work, cost estimates and name of licensed designer (if any).
 - The plans, if any, are to comply with GS 133-1.1 a & b.
 - This Exemption is not applicable to SCO code review unless the project has limited scope of work, it involves no life safety modifications and there are no structural elements (i.e. painting, carpet replacement, lamp replacement and other maintenance type work).

Shop Drawing Reviews

Unless specified during the review process submit only the following if applicable:

Sprinkler System:

- ✓ Drawings; Hydraulic calcs; cat. cuts; engineer's review.

Structural:

- ✓ Pre-engineered Wood Roof Trusses.
- ✓ Pre-engineered Metal Buildings.
- ✓ Precast Building Structures (w/ primary structural design by precaster).
- ✓ Precast Parking Decks (w/ primary structural design by precaster).
- ✓ Light Gage Metal Framing (LGMF) for Bearing Walls (w/ primary structural design by vendor).
- ✓ Permanent Pre-engineered Steel/Aluminum Bleachers.
- ✓ Other Systems (judiciously required when warranted on a project-specific basis).

Note: Fire alarm shop drawings are to be reviewed by the engineer of record only.

Change Orders Reviews

- Contact the Project Monitor before submitting any CO Proposals for review.
- Designer of record is responsible for verifying compliance with all project terms and conditions.
- Plans are to be submitted for review on:
 - Any Life Safety Change
 - Changes affecting NCBC or other codes (i.e. NFPA)
 - Added scope of work
 - Reduction in scope of work

Design Review in brief

Yearly Review submittals

2008		2009		2010	
SD	57	SD	66	SD	42
DD	124	DD	164	DD	133
CD	261	CD	541	CD	706
Final	410	Final	637	Final	579
Total:	852	Total:	1408	Total:	1460

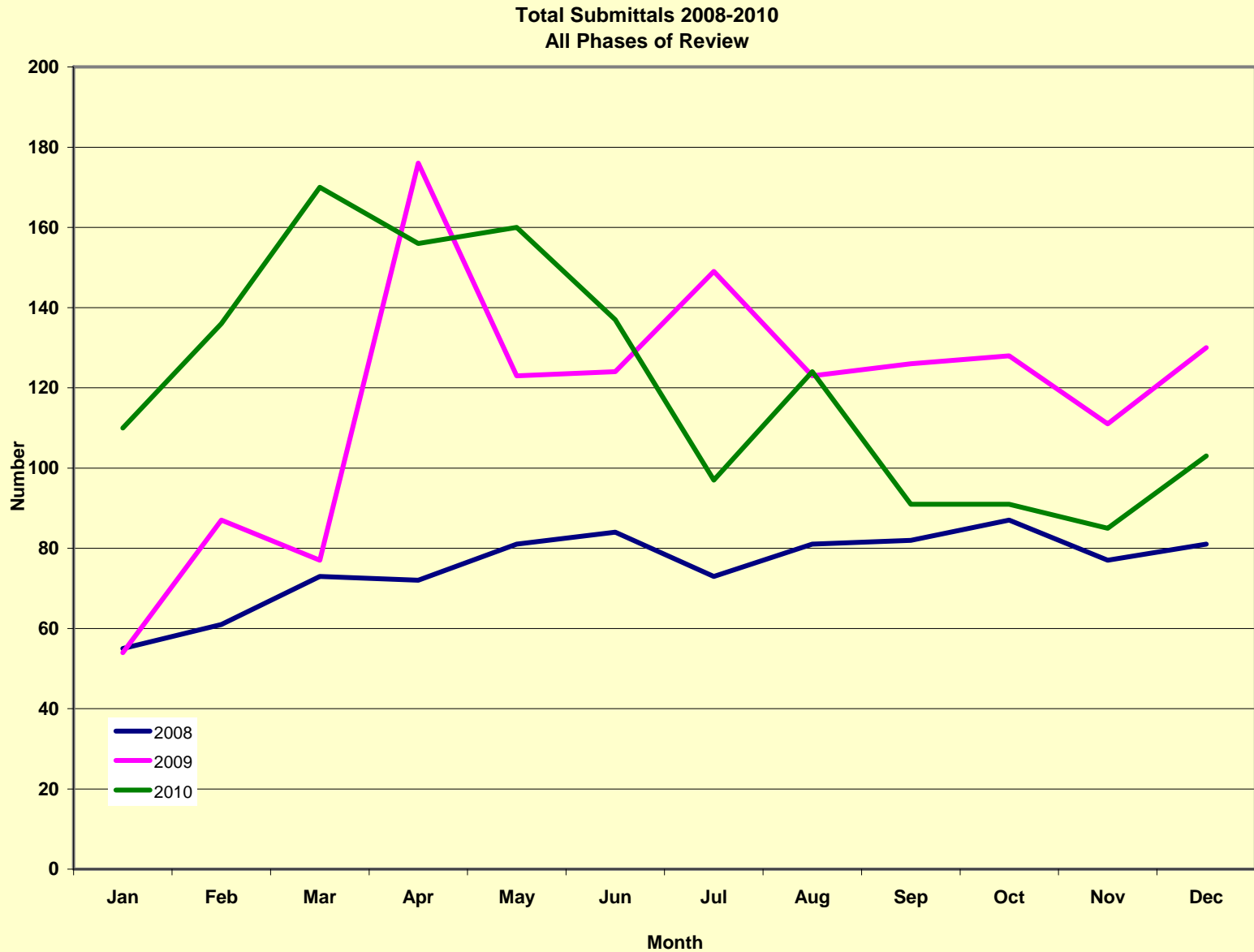
SD - Schematic Design Phase

DD - Design Development Phase

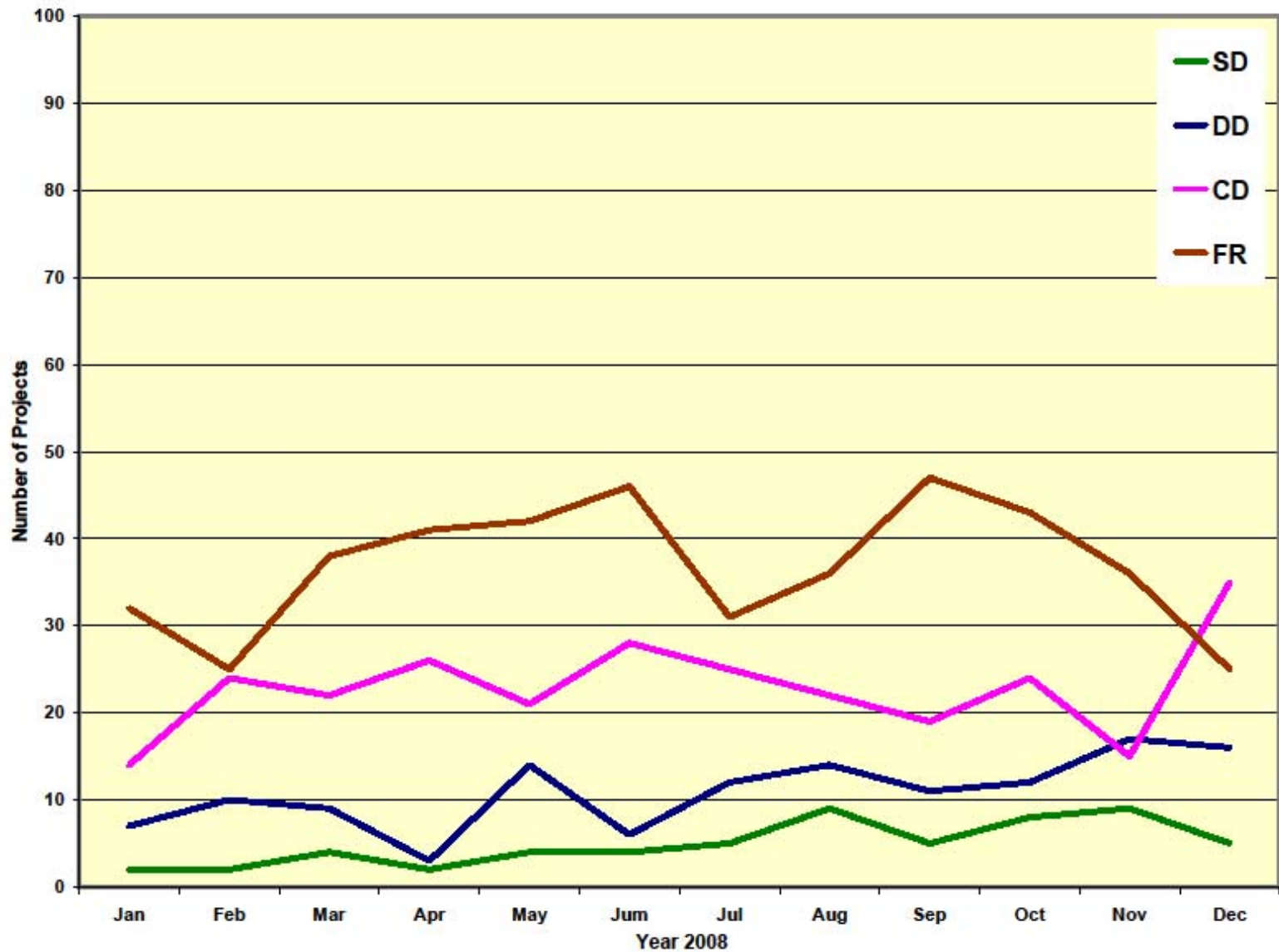
CD - Construction Document Phase

Final - Final Design Phase

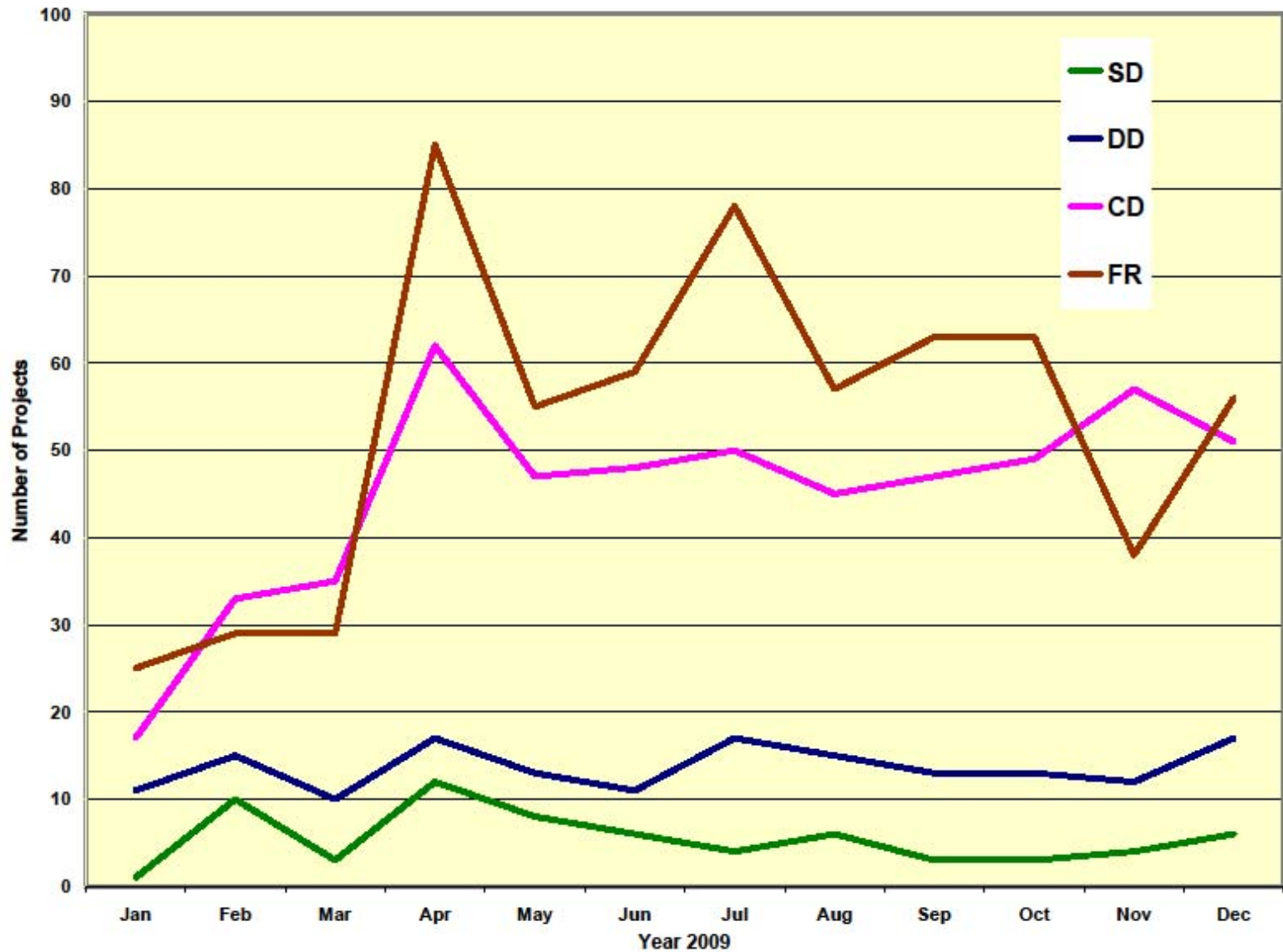
Monthly Distribution of submittals for the last three years



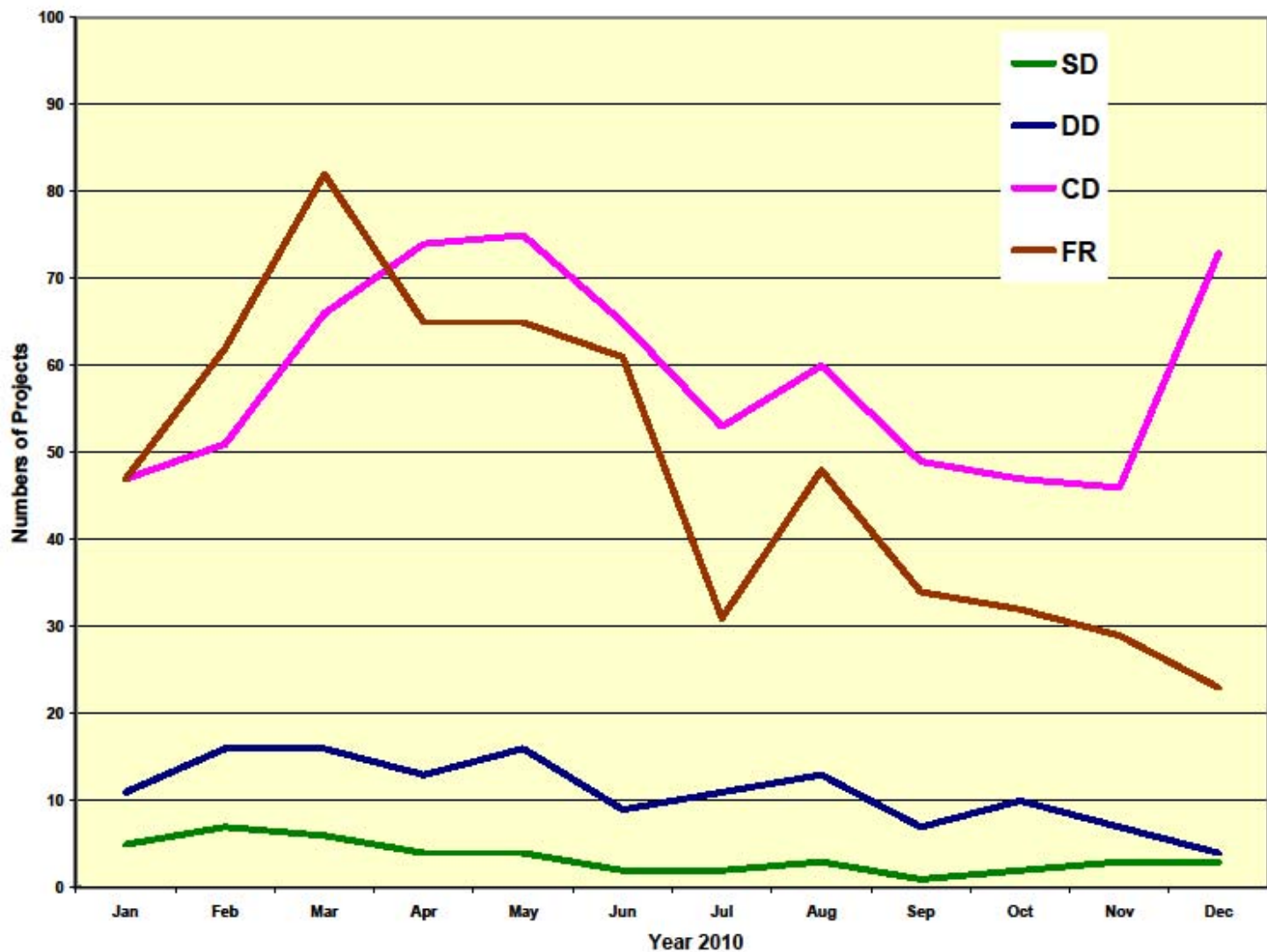
Monthly Distribution of all submittal phases for 2008



Monthly Distribution of submittal phases for 2009



Monthly Distribution of submittal phases for 2010



Key Notes

- Always use the State ID Number when communicating with our office (9 digits # followed by a letter).
- Always include a transmittal letter with a brief description of package. If it's a code only, state "code review only".
- If approval w/ comments has been issued, no resubmittal is required for review except the responses to comments and a bid set.
- An approval, when issued from our office, is only good for six months; NC Administrative Code sec 204.3.2.
- AV, Theater Lighting & Kitchen systems are strongly recommended to be part of the project due to field coordination issues.

Key notes (continue)

- Final stand up review can be requested if:
 - The number of CD comments are not excessive.
 - Allow at least one week after we've received the final package for scheduling the review date.
- When designing geothermal wells verify with the local authorities for any conflict with their potable water aquifer.
- Any information submitted to our office will become public domain.
- Did I mention always provide the State ID number when communicating with our office?

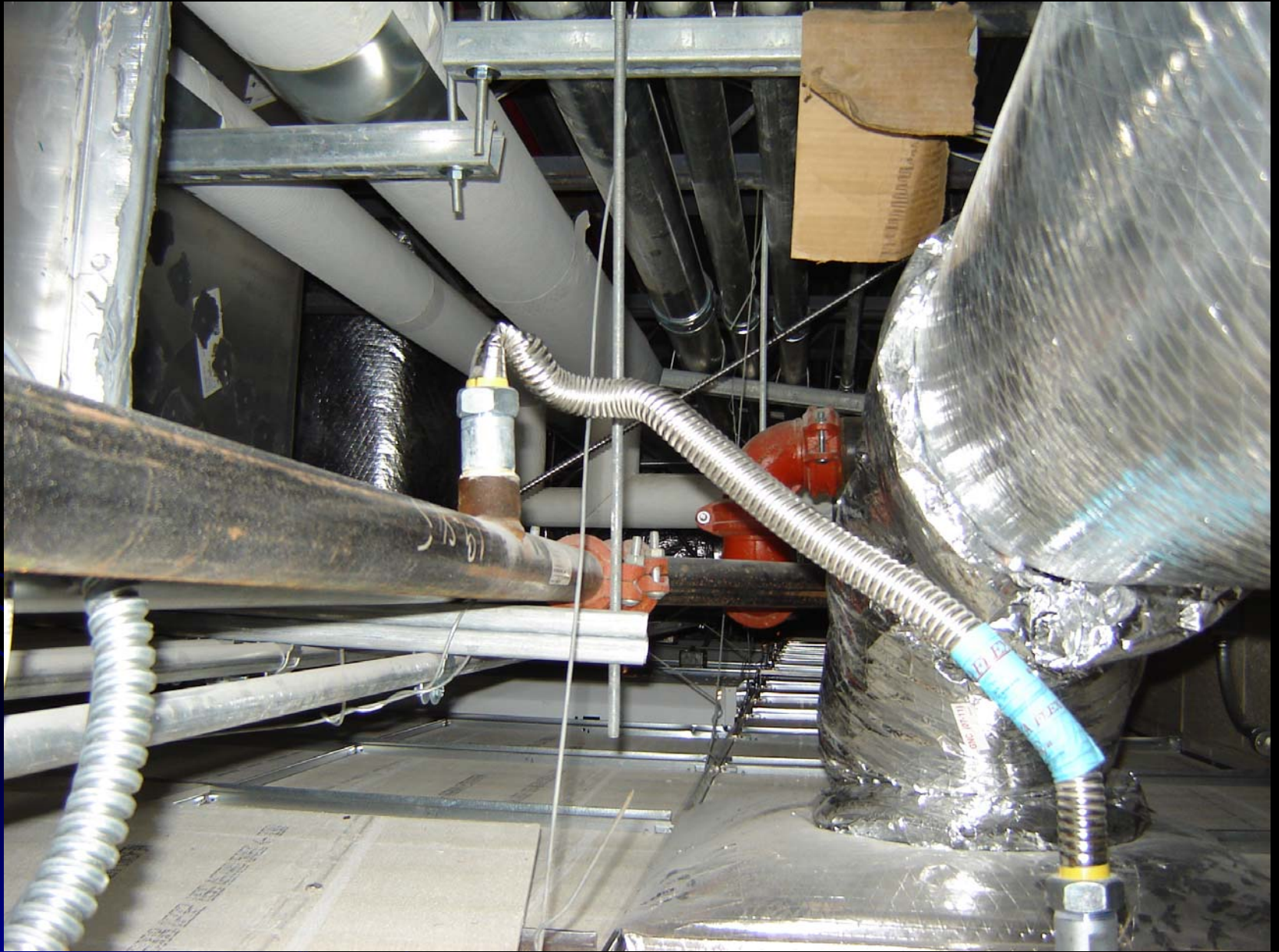
Top Ten Most Frequent Comments

10. Avoid extensive modification to the project General Conditions.
9. Provide a list of all chemicals and potentially Hazardous materials stored and/or used (submit at DD).
8. Flood Plain Permit must be addressed early (SD or earlier).
7. Designer's seal must not be obscured for verification.
6. Bids are to be received and opened at the same public location; designer's office is not a public location.

Top Ten (continued)

5. Location of the service XMFR in relative to the building per ANSI/IEEE 979, 30 feet.
4. The AHJ on all State funded projects is the State Construction Office.
3. Missing/incomplete overall Life Safety Plan.
2. Missing/incomplete Building Code Summary Sheet.
1. **The use of Sprinkler flexible piping is limited to braided SST type, corrugated flex is not be acceptable.**







Thank you

Contact: latif.kaid@doa.nc.gov