



*Mecklenburg County
January 21, 2014
@ 3:00 p.m.
Agenda*

Building-Development Commission

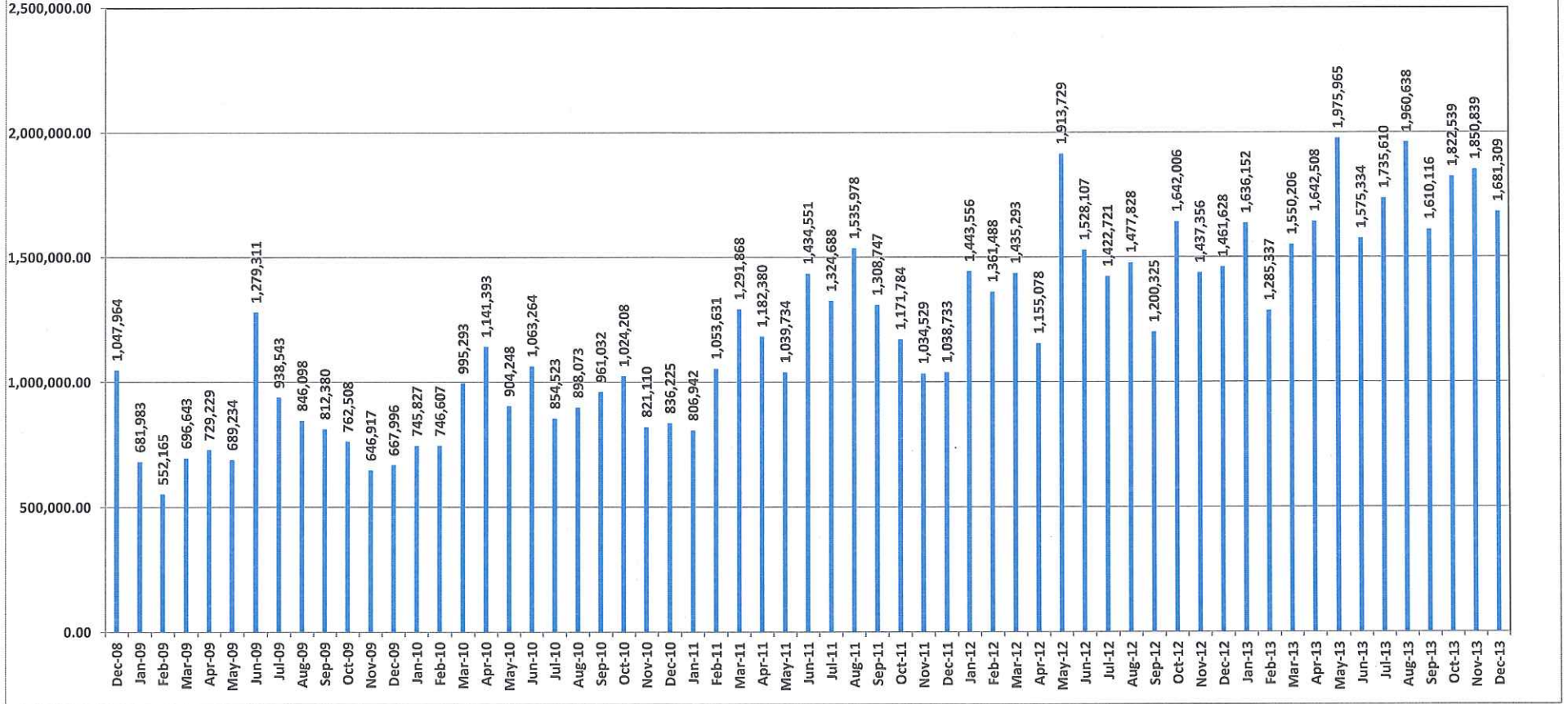
1. Minutes Approved
2. BDC Member Issues
3. Public Attendee Issues
4. Code Enforcement 2014 CSS Survey.....Ed Gagnon
5. BDC Budget Subcommittee Work.....Patrick Granson/Gene Morton
6. FY14 Mid-Year Numbers Report.....Jim Bartl
7. Quarterly Reports
 - Technical Advisory Board Report.....Lon McSwain
 - Consistency Team Report.....Willis Horton
 - Code Compliance Report.....Joe Weathers
 - Commercial Plan Review Report.....Melanie Sellers
8. Quarterly BDC Bulletin Exercise.....Jim Bartl
9. Department Statistics and Initiatives Report.....Jim Bartl
 - Statistics Report
 - Status Report on Various Department Initiatives
 - Other
 - Manager/CA Added Comments
10. Adjournment

The next **BDC Meeting** is scheduled for **3:00 p.m. on February 18, 2014.**

Please mark your calendars.

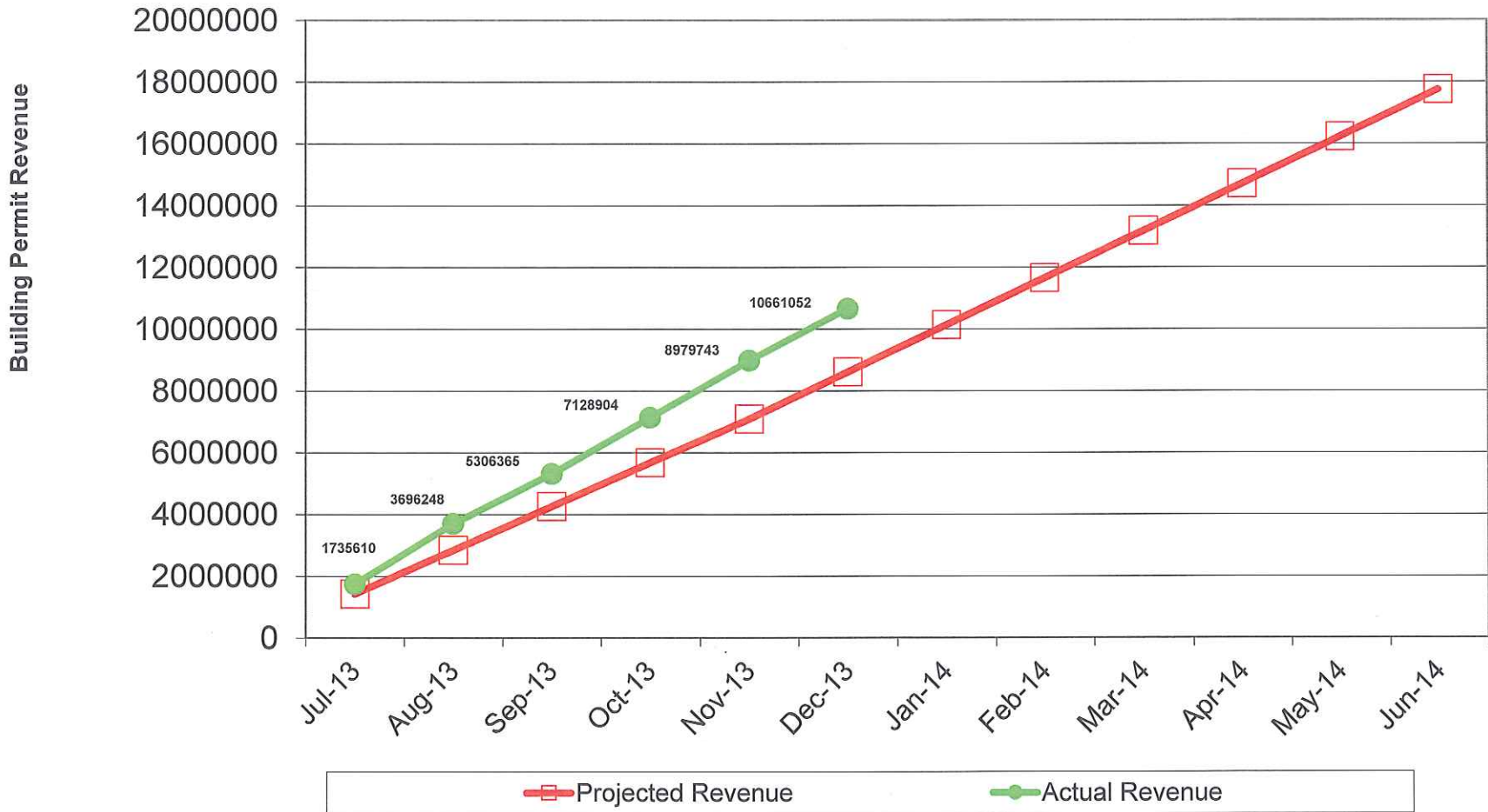
**MONTHLY
DEPARTMENTAL
REPORTING**

**PERMIT REVENUE
12-2008 thru 12-2013**



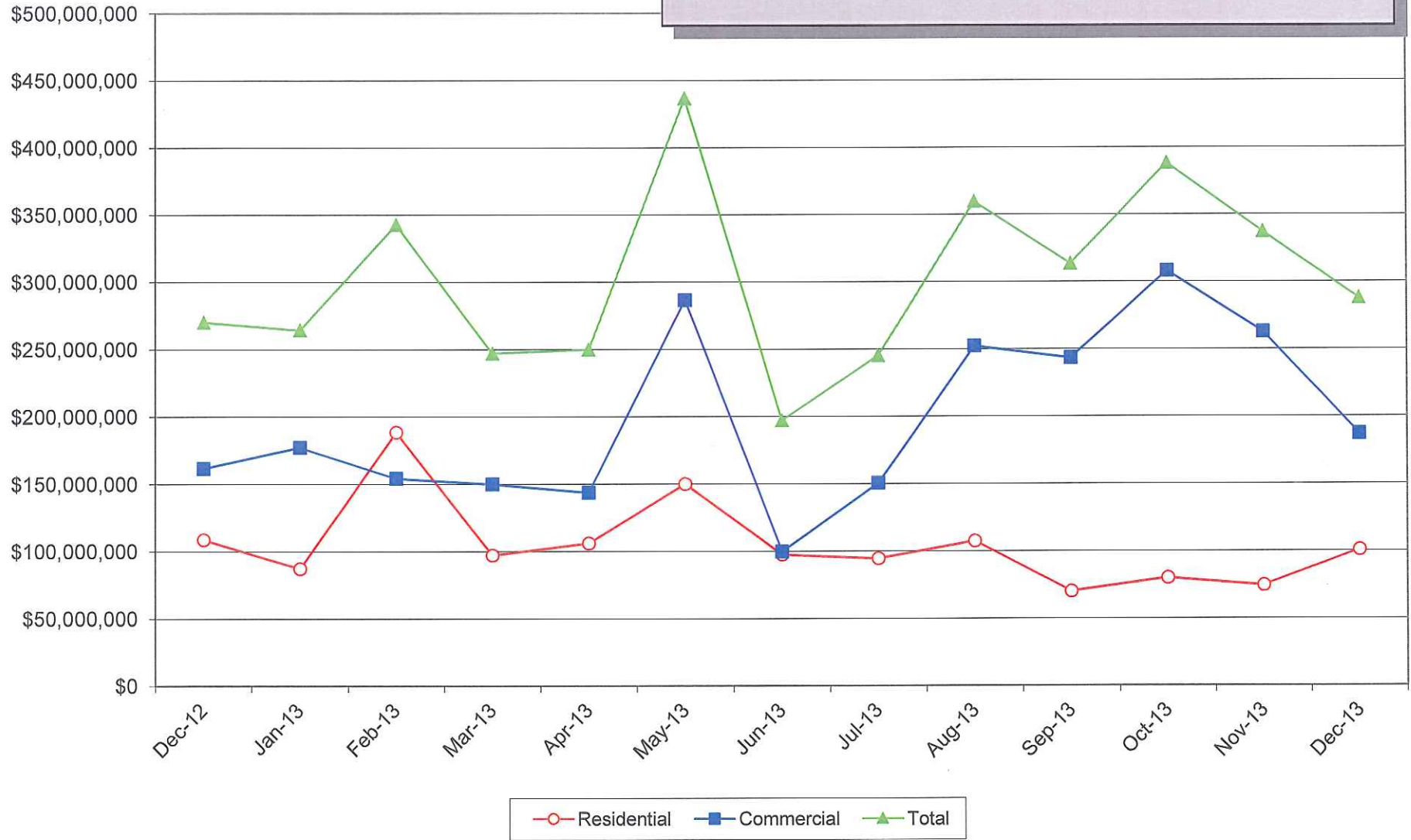
Building Permit Revenue

INCREASE/DECREASE
 December 2013 Permit Revenue = \$1,681,309
 FY14 Year-To-Date Permit Revenue = \$10,661,052
 16.7% above Projected YTD Permit Revenue



Construction Valuation

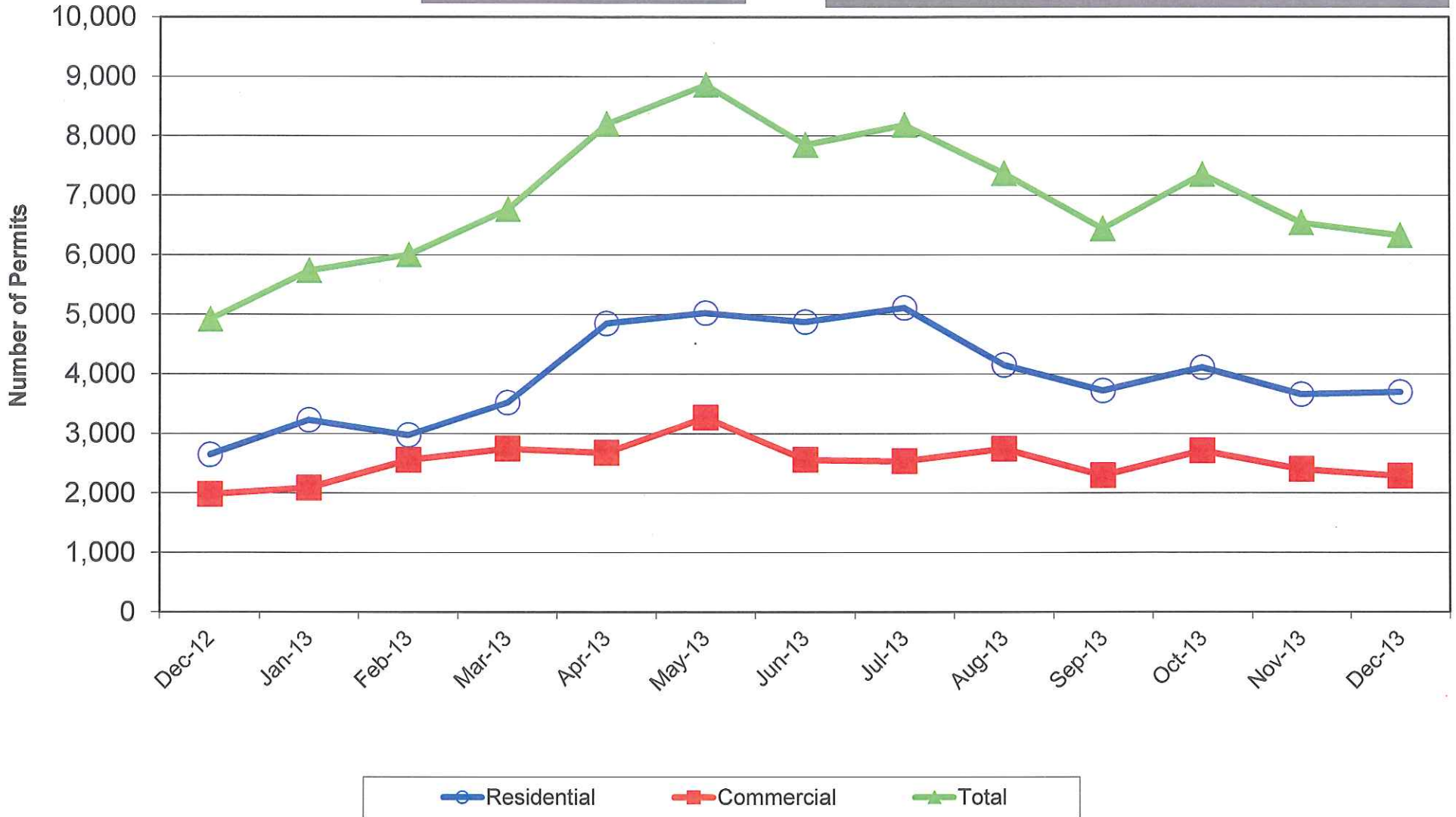
INCREASE/DECREASE
 December 2013 Total = \$287,676,185
 FY14 YTD Total = \$1,930,876,386
 FY13 YTD Total = \$1,420,945,834
 FY14 up 35.9% from this time FY13



Permits Issued

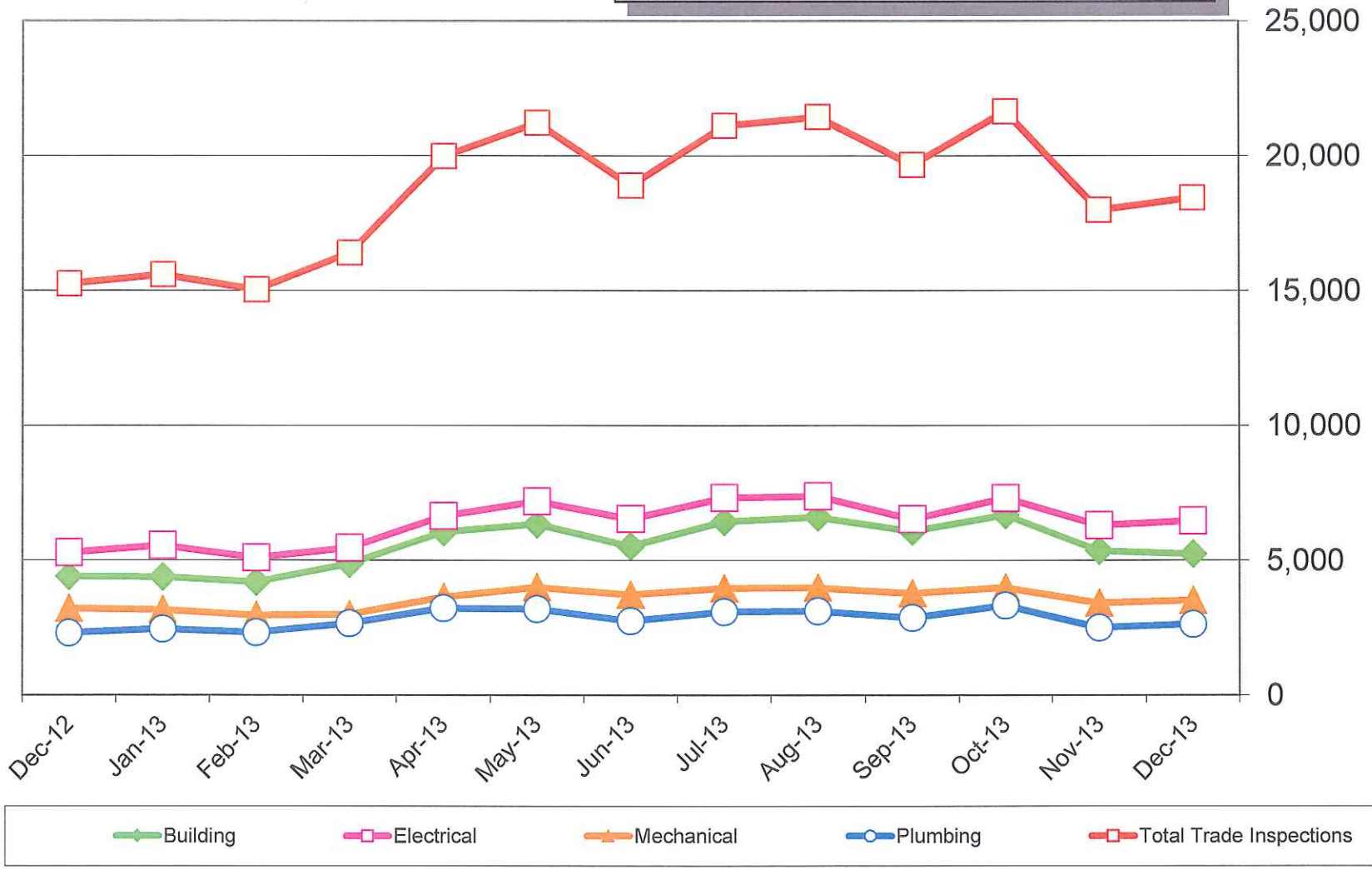
INCREASE/DECREASE
 Residential up - 1%
 Commercial dn - 4.7%
 Overall dn - 4.2%

FISCAL YEAR TO DATE PERMIT TOTALS
 Residential December FY14 = 24,441 FY13 = 20,813
 Commercial December FY14 = 14,969 FY13 = 14,697
 Total December FY14 = 42,214 FY13 = 38,010



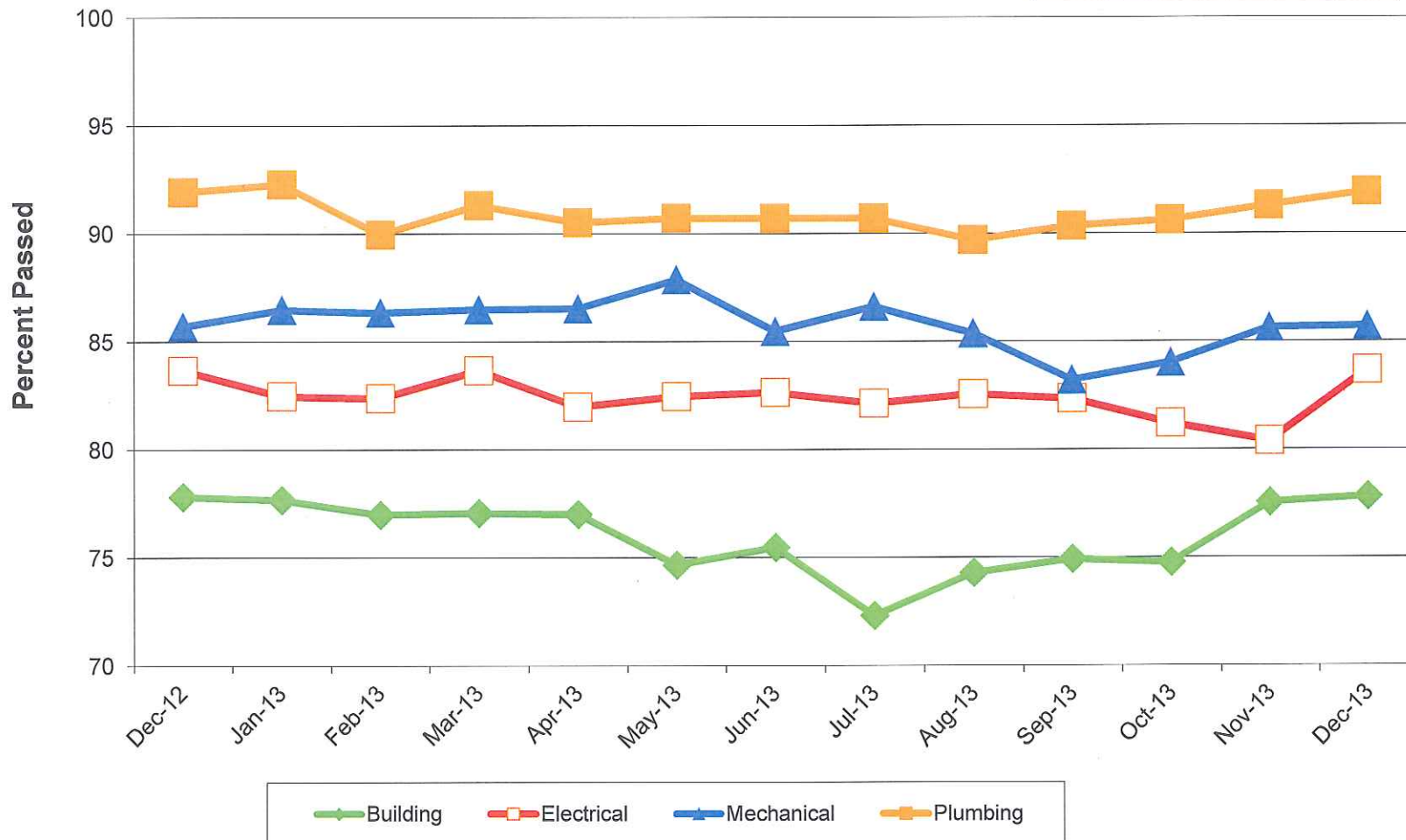
Inspections Performed

INCREASE/DECREASE
 December 2013 Inspections Performed up 1.65%

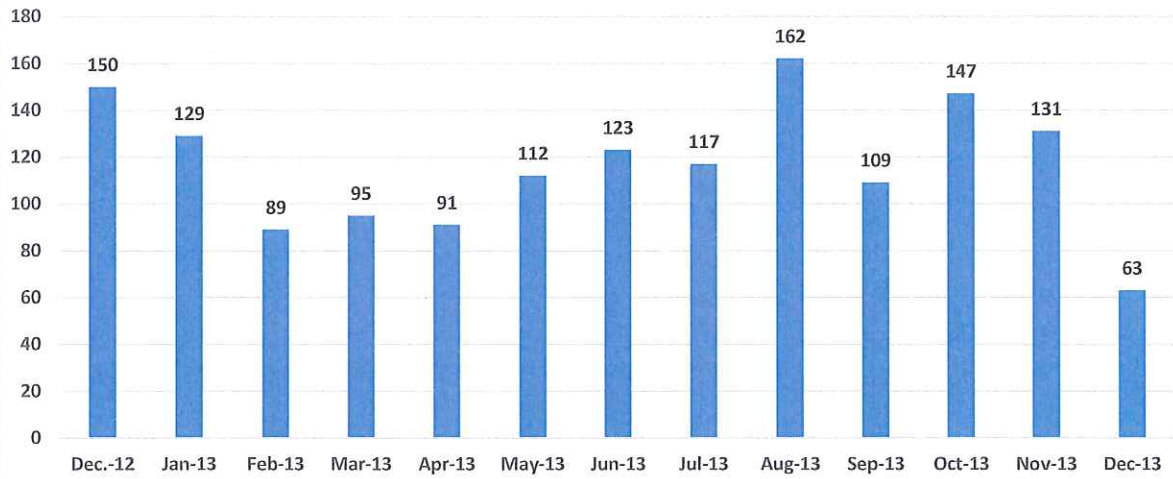


Inspection Pass Rates

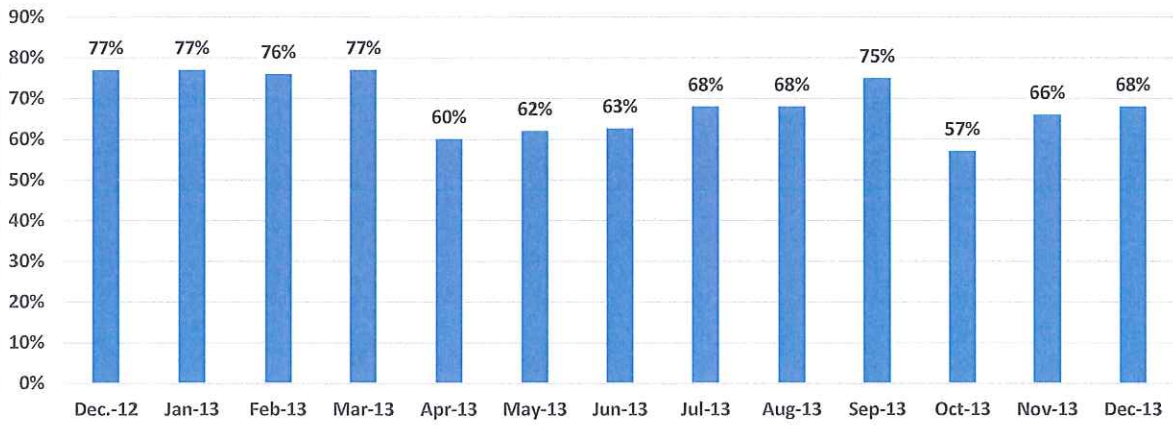
December 2013 Pass Rates:	
Building	77.83%
Electrical	83.67%
Mechanical	85.70%
Plumbing	91.92%
OVERALL:	84.15%



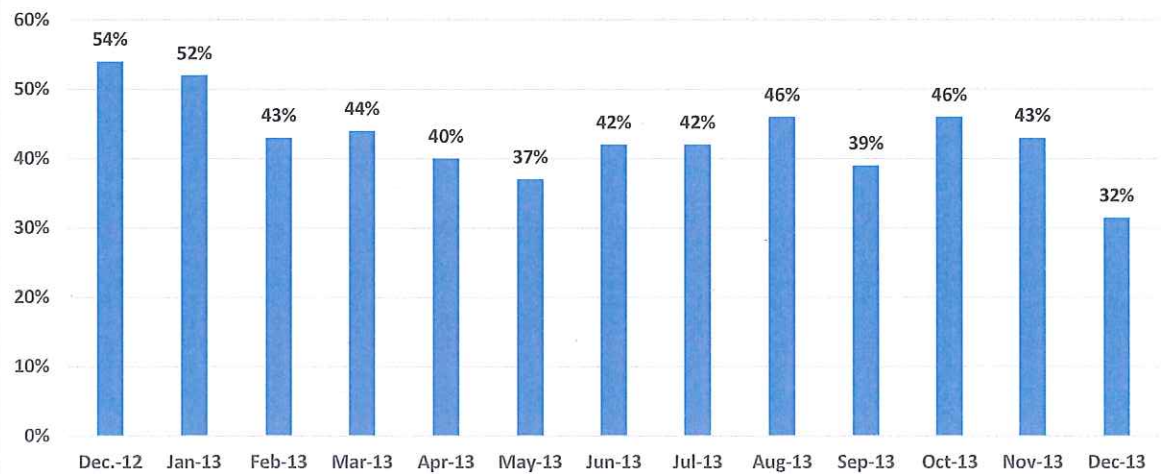
CTAC First Reviews
December 2013



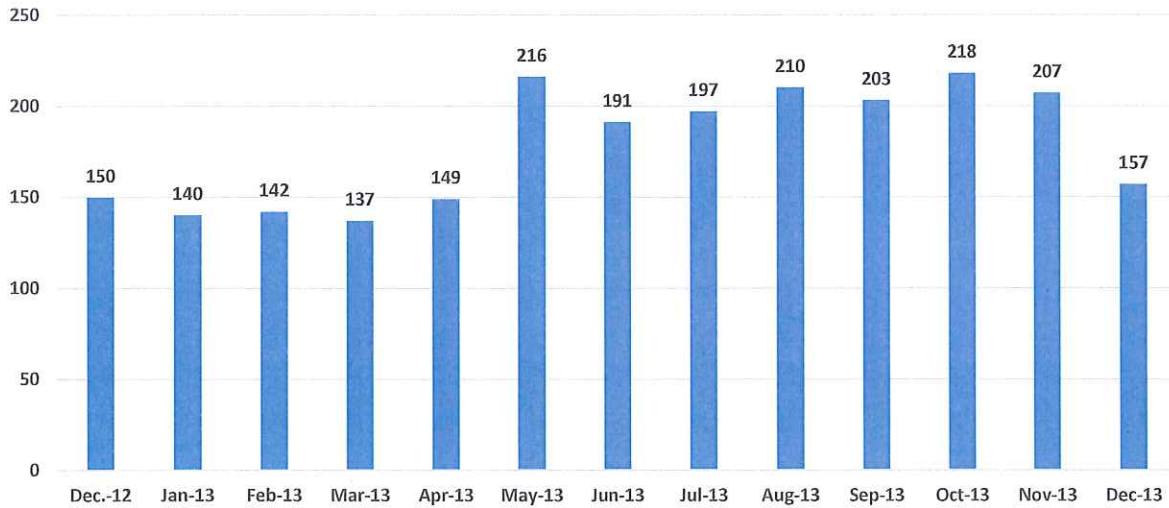
CTAC Approval Rate
December 2013



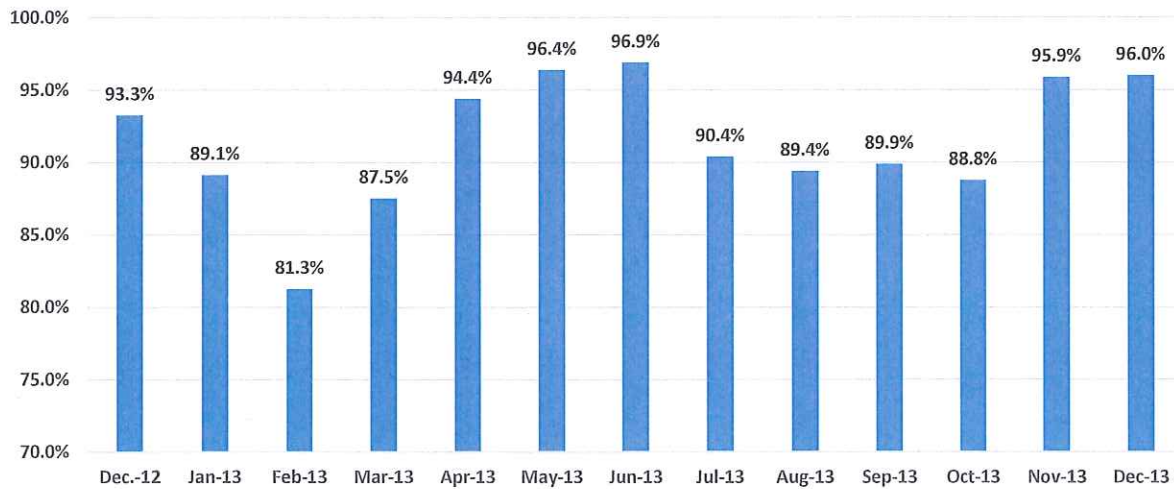
CTAC % of OnSchedule & Express
December 2013



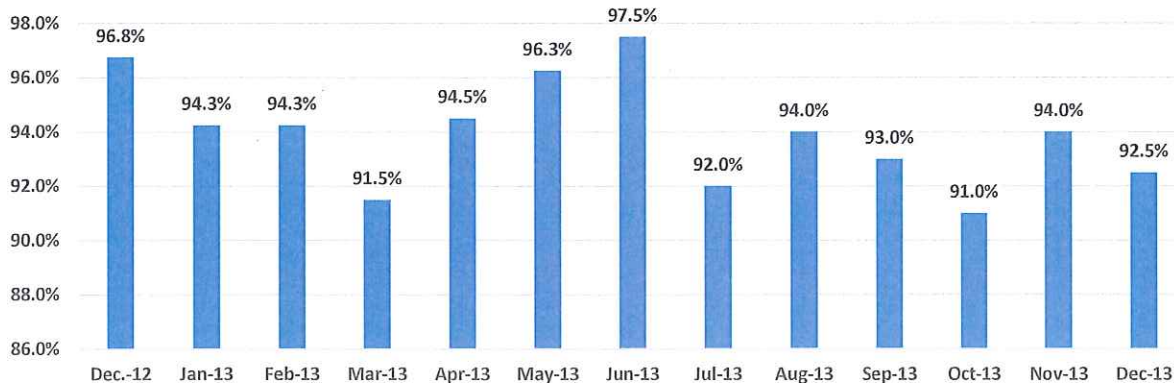
**OnSchedule Total 1st Reviews
December 2013**



**OnSchedule OnTime/Early All Trades
December 2013**



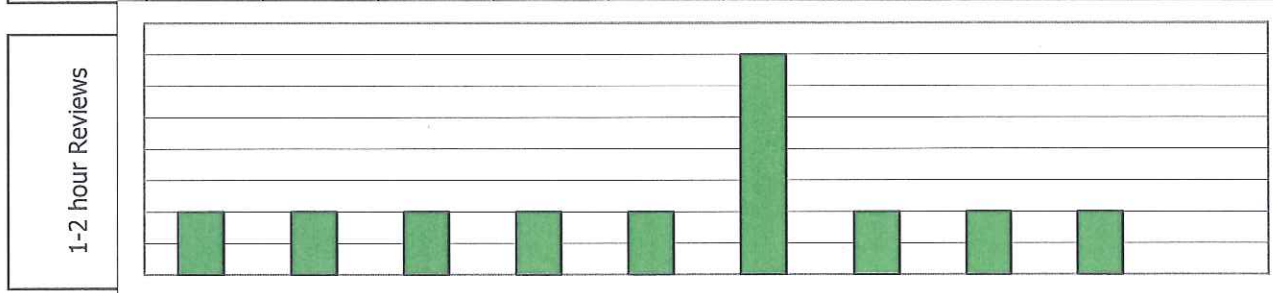
**OnSchedule OnTime/Early BEMP
December 2013**



December 30, 2013

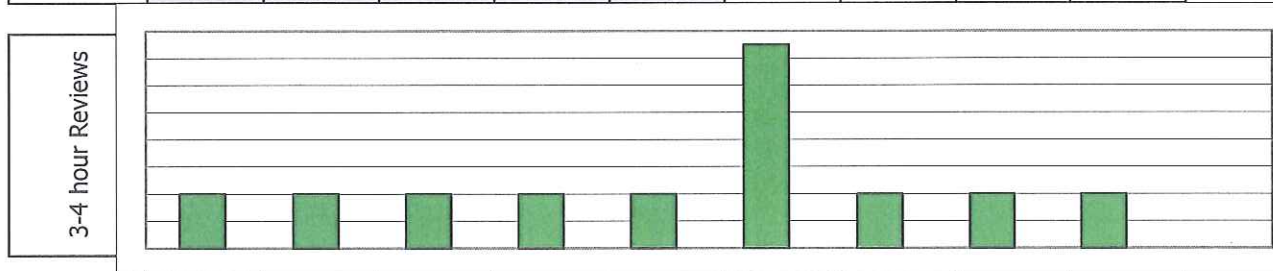
Plan Review Lead Times for OnSchedule Review

12/30/13	Building	Electrical	Mech / Plumbing	County Fire	County Zoning	Backflow - CMUD	Health	City Zoning	City Fire
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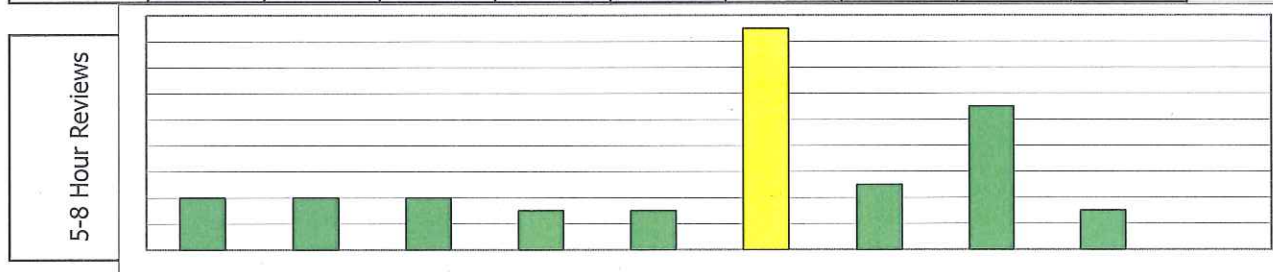
Working Days	4	4	4	4	4	14	4	4	4
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12/30/13	Building	Electrical	Mech / Plumbing	County Fire	County Zoning	Backflow - CMUD	Health	City Zoning	City Fire
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Working Days	4	4	4	4	4	15	4	4	4
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12/30/13	Building	Electrical	Mech / Plumbing	County Fire	County Zoning	Backflow - CMUD	Health	City Zoning	City Fire
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Working Days	4	4	4	3	3	17	5	11	3
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Green: Booking Lead Times within 2 weeks (10 - 14 work days = The Goal)
 Yellow: Booking Lead Times within 3-4 weeks (15 - 20 work days)
 Red: Booking Lead Times exceeds 4 weeks (21 work days or greater)

All booking lead times indicated are a snapshot in time on the date specified.
 The actual booking lead time may vary on the day you submit the OnSchedule Application.

December 30, 2013

Express Review

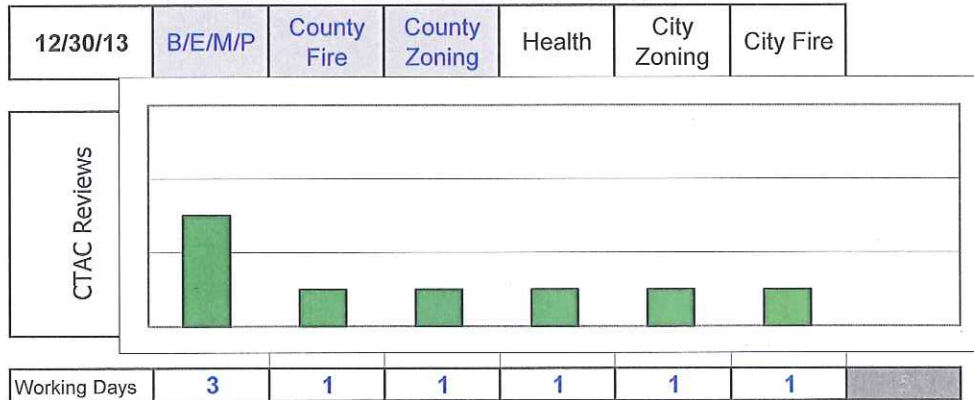
Appointments are available for:

Small projects in 6 working days

Large projects in 6 working days

Appointments are typically determined by the furthest lead time.
For Example: If M/P is 11 days, the project's appointment will be set at approximately 11 days.

Plan Review Lead Times for CTAC Review



Green: Review Turnaround Times are within CTAC goal of 5 days or less
Red: Review Turnaround Times exceed CTAC goal of 5 days or less

**QUARTERLY
DEPARTMENTAL
REPORTING**

TAB
QUARTERLY
REPORT

TAB SUB COMMITTEE REPORT January 15, 2014

A compiled history of the Sustainable Sub Committees from January 2012 through December 2013.

TECHNICAL ADVISORY BOARD SUSTAINABLE DESIGN SUB-COMMITTEE REPORT ON ACTIVITIES
JANUARY 2013 THROUGH DECEMBER 2013 (RESIDENTIAL AND COMMERCIAL TEAMS)

Report for meetings held January through March 2013

- **February**- TAB reorganized its work, breaking up into 3 sub-committee groups (residential, commercial and existing building/renovations) to investigate sustainable design incentives.

Commercial Teams

- **March**-Discussion of existing incentive programs utilities, other jurisdictions. Committee speakers from the City of Charlotte discussed their sustainability programs: Laurie Sickles from the City of Charlotte, representing the Sustainable Facilities Oversight Team & Energy Work Group, and David Miller, City of Charlotte Energy Manager.

Residential Team

- **March**- Discussion of possible residential incentive programs. An aggressive educational program was the general consensus of what would be most beneficial.

Report for meetings held April through June 2013.

Commercial Teams

- **April**- Rob Phocus, the Energy and Sustainability Manager for the City of Charlotte presented information on the City's Internal Environmental Operation Plan for City owned buildings. Building commissioning to reassure buildings met design requirements is the latest hot item on the City's to do list. Rob discussed incentive programs offered by the City which was mainly utility based programs. Sub-committee discussed incentive ideas on how to drop energy use 20% over a ten year period. A Committee Mission Statement proposal for the group was presented and passed.
- **May**-Erin DeBerardinis, County Energy Manager, outlined work on tracking the energy use in County, to create a benchmark of energy use as the County installs upgrades. The committee compiled a list of objectives for a Sustainable Plan for the County and ask members to look at each item and comment on its viability for the next meeting.
- **May**-A meeting was held to discuss what would be needed to have a discussion with the Utilities on incentives offered to the public and business. Discussion of contacts for each utility, who to contact etc. A meeting was set up for June 5th. Duke Energy, CMUD and PNG representatives are invited to gauge their interest in participating in discussion on the feasibility of the idea of "favorable utility rates" tied to the individual IgCC chapters. This approach had been suggested in the Chamber Land Use meeting of September 26, 2012.
- **June**-A meeting was held with representatives of Duke Energy, CMUD and PNG that included the Director, Code Enforcement staff, County Recycling and a representative from the TAB commercial team. The meeting was held to discuss the IgCC and how the utility incentive plans might fit into the new code requirements. The department had emailed a matrix of specific code requirements to the utility representatives for discussion. We discussed some of the specifics related to the utilities which mainly fell into Chapters 6 and 7 of the IgCC.
- There was a lengthy discussion on electrical metering and data collection. Both the CMUD representative and the PNG representative gave information on programs they had in place to assist customers and in some cases educate them as to how to conserve water and gas. The meeting closed with the expectation the utility representatives would help the

department by filling in the incentives in the Green Code matrix. Code Enforcement hopes to champion the utility incentives as part of their Sustainable Building program.

Residential Team

- **April**-Discussed incentives for different levels of energy efficiency; home owner education was identified as a key issue, as well as some way to track improvements to existing houses thereby assuring a future buyer was aware of the improvements which could enhance the resale value of the home.
- **May**-The second meeting included contractor representation from Charlie Stefinopoles of MI Homes, a tract builder, Michael De Fabion, President of NARY and Michael Wait also representing NARI. A discussion of a proposed matrix of incentives beneficial to the homeowner was discussed at length as a possible educational tool that would provide the home owner with energy savings ideas, some applying to remodeling, some to tract builders, and some to custom builders. Also discussed using a stamp identifying energy saving items performed on a home at the construction stage and contractor "green builder" award programs.
- **June**-Continued discussion with Industry representatives on homeowner and builder incentives. Committee agreed to work on an on line document to educate the homeowner.

Report for July through September 2013

Commercial Team

- **July**TAB committee members discussed a final actions list of objectives that would be required for the green building design and construction program to function properly. The list included the following categories: Leadership, Education, Recognition, Benchmarking, and Government/Regulatory. The group then proceeded to do a board exercise to list the items we felt were important functions under each category. Once that exercise was completed volunteers were assigned to each category to bring back information as to how that component of the program should function and what needs to be done to achieve that goal.
- **September-**
- TAB team members reported on the 5 objectives they volunteered to research after the July meeting.
- A brief summary of the objectives is included below.
- Leadership-Discussion included the type of individual needed to champion the County Sustainable design program. The members' came up with a list of individuals they thought would make a great leader for the program. The comment was made that we need to have the program ready for implementation before getting the type of leader we need in place. We also should make sure that our goals and objectives are not competing with other groups that have similar programs.
- Education-Energy Star has a number of educational tools that include webinars. Partner with other groups. Find real life examples of programs that work. Check out educational broadcasts and web sites.
- Recognition- There are three levels of recognition for sustainable design Federal, State and Local. Each program has criteria for the award on the web which can be downloaded and

included in a recognition handout. It was also suggested we could establish criteria for the department to give out our won annual award.

- Benchmarking - The benchmarking research was done on the Energy Star program. An extensive amount of research was done to understand the history of the program and the effective use of the scoring method in identifying energy efficient buildings. There really are no other programs out there that are used as extensively. There are 10,000 buildings being tracked by the Energy Star program.
- The committee feels this is the program we will use to benchmark projects in the Mecklenburg County program.
- Government Regulations- Mecklenburg County already has many of the programs in place other jurisdictions use to incentivize their green build programs. (Express Review, expedited inspections)
- We are looking at ways we can alter programs with the help of the County attorney.

Residential Team

- **July**-The team had a report from Fitz Lee, he is a realtor who was ask to join the team and report on how green building programs have affected the real estate market and what effects he sees energy programs and sustainable design will have on future real estate sales to homeowners.
- Mr. Lee reported on several issues now taking place in the market place including bringing appraisers to the table to establish value based on energy saving construction, promotion of green building construction by realtors, and establish a rating program for level of energy savings for specific construction projects for the home.
- Tom Gentry briefly discussed his role on a program at UNCC to educate the home owner on Energy Savings.
- The committee decided to focus on an educational tool for the homeowner that would cover three areas; new construction, existing construction and renovations, and buying and selling a home. Each team member was charged with bringing 10 items that a homeowner could do to conserve energy and water in their home to the next meeting for discussion.
- **August**-Members compiled a master list of Energy Saving items that could be installed by the home owner. Members also included a list of items that needed a contractor for the work to be performed properly. The homeowner needs to know all of his options for energy saving construction and would not generally have the knowledge to install certain systems. Examples ;(tankless water heaters, HVAC ductwork and equipment) The Homeowner could,as an example,install insulation and energy efficient lighting.
- In the next TAB meetings members will rank the projects as to cost and difficulty as well as work on new construction and buying and selling a home leading up to a final educational document that will be added to the Meckpermit.com web site.

Report for October through December

December 18th- Meeting held at Optima Engineering to incorporate all the information from the TAB Commercial and Residential teams to determine a final implementation strategy for the sustainable design program for Mecklenburg County Code Enforcement. Final discussion items will be taken to the LUESA Director.

A meeting will be held on January 13th to plan for the January 15th General TAB meeting where a final strategy for implementation will be presented for TAB Committee comments prior to submittal to the BDC for final action. The final implementation document may be presented to the BDC in the February meeting.

**CONSISTENCY
QUARTERLY
REPORT**

Consistency Second Quarter Report 2014

Plumbing Consistency Team met twice in the second quarter. There were 26 Plumbing questions and 6 Fuel/Gas questions. Ten contractors attended the November meeting.

Mechanical Consistency Team met twice in the second quarter. There were 13 Mechanical questions. 10 contractors attended the November meeting.

There were three speakers combined between both teams.

Electrical Consistency Team met three times in the second quarter. There were 13 questions in October, 14 questions in November, and 13 questions in December. Five contractors attended the November meeting.

Residential Building Consistency Team met three times in the quarter. There were six questions in October, five questions in November, and three questions in December. There was an average of 12 contractors at each meeting.

Commercial Building Consistency Team met two times in the quarter. There were six questions in November, and seven questions in December. There were no outside attendees.

Residential Consistency
Land Use and Environmental Service Agency
(Code Enforcement)

Second Quarter Q&A 2014

Q) What shape does the house have to be in for an encapsulation inspection?

A) The house needs to be dried in with felt on the roof and the windows in place.

Q) If J bolts are replaced with another type of bolt what is required?

A) The builder needs to supply the data sheet for the replacement bolts.

Q) Is a garage required to meet the thermal envelope if it is heat and/or cooled?

A) Yes if it is heated to 50 degrees or above and/or cooled to 85 degrees or below.

Q) When is a engineer seal required on LVL's?

A) If the size comes out of a span table a seal is not required, a seal is required for multiple LVL's in an engineered design.

Q) Is builder certificate required on residential additions?

A) No

Q) What is the maximum span on a flat ceiling joist?

A) Maximum span of 24".

Q) What is the minimum plan size for residential plans?

A) 9" X 12" but the plans need to be able to be read.

Q) Is blocking required for dormer support?

A) Yes, if the wall of the dormer is not directly supported by a rafter.

Q) Can you use 2" x 4" for let in bracing on 2" X 4" stud wall?

A) No, it would be over notched.

Q) What is required to show the windows meet the energy code?

Residential Consistency
Land Use and Environmental Service Agency
(Code Enforcement)

Second Quarter Q&A 2014

A) The window sticker with that information for the manufacturer must be on the window at the inspection.

Q) Are doors required on site built fireplaces?

A) Yes, see Section R1006 of the Residential Code for combustion air.

Q) Where do you measure the height of a step at exterior doors?

A) From the tread to the top of the threshold not including the compressible gasket on the threshold.

Q) When is the self certification form for the energy code required?

A) It is required to be at the job site for the final inspection.

Q) What is the required spacing for weep holes?

A) The code was changed to require weep holes at 48" on center. The effective date of this change is January 1, 2015; but Mecklenburg County is accepting it now.

Q) What are the requirements for posting an address?

A) It has to be visible from the road and be able to be read.

Q) What are the insulation requirements for a pull down attic stair?

A) The stair system shall be weather striped and have insulation with an R-5 value. Non rigid insulation materials are not allowed.

Q) Does a door between the garage and the house have to have a 20 minuet label?

A) No, it can be a solid core wood door not less than 1 3/8" in thickness.

Commercial Consistency
Land Use and Environmental Service Agency
(Code Enforcement)

Second Quarter Q&A 2014

Q) On an EJ is the Engineer of Record required to perform an inspection of the installation and approve it?

A) Yes, or it can be performed by the SI inspector.

Q) Are exit signs required to be tactile?

A) Yes, as described by Section 1011.3 and ICC ANSI A117.1 2009.

Q) Is a listed gasket required on "S" labeled doors?

A) Yes, if it is called for on the UL label on the door

Q) What need to be on an alternate material or method for it to be valid?

A) There will be a document with the proposed alternate spelled out on site and it will have an approval stamp with the CA's name and address of the project.

Q) Does the exception in Section 903.2.3 apply to both items 1 & 2?

A) No, it only applies to the requirements for sprinklers in the basement.

Q) When does Section 1008.1.9.8 for mag. locks apply?

A) It applies when the mag. Lock is used to secure the door only, not if it is used for access control.

Q) When are vestibules not required under Section 502.4.7 Exception 6?

A) When a building is not over 4 stories and is less than 10,000 sq. ft. in total area.

Q) If a set of plans show a regular slab with spread footings is RTAP required if it is changed to a post tension Slab?

A) Yes.

Q) Does a sprinkler system remove the requirement for egress windows in a single exit R-2 Occupancy?

A) No, an egress window is required with the sprinkler system.

Commercial Consistency

*Land Use and Environmental Service Agency
(Code Enforcement)*

Second Quarter Q&A 2014

Q) Must pool lifts be permanently mounted or can a portable unit be used? How do you get the occupant load for tables with attached seats?

A) No, a permanently mounted lift is required and one must be provided for each pool or spa.

Q) Is egress convergence a concern?

A) Yes, especially in existing buildings and must be looked at on a case by case basis.

CONSISTENCY MEETING

Date: 12/11/2013

DEPARTMENTAL GOALS:

- 85 - 90 % 1 DAY TURN AROUND
- 80 - 85 % CONTRACTOR PASS RATE
- **QUALITY INSPECTIONS!**
- **EXCELLENT CUSTOMER SERVICE!**

SAFETY ISSUES:

REMEMBER COUNTY CELL PHONE POLICY, USE ALL APPROVED SAFETY EQUIPMENT ISSUED TO YOU. (i.e. HARDHAT, SAFETY GLASSES, SAFETY SHOES, PPE)

Q: WHY ARE WE HERE? A: TO SERVE THE CUSTOMER

Consistency Questions

1. A house I wired has an island cabinet in the master closet. There is an incandescent luminaire installed directly above the island. Is the area above the island considered storage space? (Chris Dellinger)

No. The area described in the question does not match the definition of closet storage space found at 410.2. Also, 410.16(B) says the incandescent luminaire is not permitted in the closet.

2. I recently installed a floor heating system in a large master bathroom. The inspector turned the job down because the heating cable was installed in the shower stall. Is this a code violation? (Craig Sloop)

No. The code doesn't cover this installation type specifically so it will depend on the listing of the product and the installation instructions from the manufacturer.

3. I am doing a remodel/addition on a house .The home has power currently but I have to relocate the service due to the addition , will I need to apply for temporary power ? (Matt King)

No, temporary power is not a requirement. It may be energized in its relocated position as long as it meets the NEC and NC Electrical Administrative Code requirements.

4. I am wiring a kitchen that is being remodeled and having the cabinets replaced. There is only one 20A circuit there now and it is a non-grounding circuit. I will be pulling a new (second) 20A circuit to meet code. Can I pull a ground wire through the wall from an adjacent receptacle on the new circuit to ground the existing receptacles? (Gerald Barnes)

Yes, but you must apply 250.120(C)

5. I have a homeowner who wants to replace their old Federal pacific panel .But they do not wish to relocate it. It is currently located over a set of stairs which is now a code violation. Can it be replaced in its current location? (David Rains)

No. In our white book on page 1.14 it states that "Existing residential panels not meeting clearance requirements shall not be allowed to be changed out. It shall be permissible to use these existing panels as junction boxes to re-feed existing circuits when panel is relocated."

6. I am doing a swimming pool job at an existing home. The existing service is a 200 amp service panel with feed thru lugs which serves a 200 amp panel in the garage fed with 4/0 aluminum SE cable which carries the entire load of the house. I would like to feed my pool panel from the outside service panel. Would this change the ampacities of the existing feeder SE cable? (Joe W.)

The 4/0 aluminum appears to be used in this case according to the allowance of 310.15(B)(7). It says "for application of this section, the main power feeder shall be the feeder between the main disconnect and the panelboard that supplies, either by branch circuits or by feeders, or both, all loads that are part or associated with the dwelling unit."

If the pool is added to the outside panel, the 4/0 aluminum must be questioned and verified to still be compliant because it is no longer a main power feeder.

7. I was recently turned down by an inspector for using sheet-metal screws to secure the bonding lugs to the metal frame of a swimming pool. I have bonded countless pools this way in Mecklenburg County for the past 20 years? Has there been a change in policy? (Gary Mullis)

No, there has been a clarification in the NEC. 250.8(A) (5)

8. I am about to submit plans for a horse barn. Would this have to be wired according to NEC Article 547 or could it be wired using any appropriate wiring method in chapter 3? (John West)

It begins with applying the requirements of article 547.

9. I am wiring a barn that will house both horses and cows. The manure present in the stalls constitutes a corrosive condition. At what height would the electrical equipment be considered outside of the corrosive environment? At what height would the equipment be considered not subject to physical damage? (David Rains)

There are no specific heights given in the NEC for either of the scenarios mentioned in the question. We would assumed it's all corrosive unless documentation is provide to give us clear corrosive area limits. We would have to judge physical damage the way we do it on any other project.

10. I installed a generator at a residence on the side of a house. There's a window over the top of the generator. The inspector said I needed to move the generator. Was he correct? (Matt King)

This is not specifically discussed in the code but is sometimes addressed in the manufacturer's installation instructions.

11. I have a 6 story building going up. On the approved plans there is a note for the size of the feeders going to each apartment. The engineer's note states that for a type 1, 2, or 3 building use the next size up for the feeders, and for types 4 and 5 use the size as per table 310.15(B)(16). The building in question is a type 3A. It calls for a 4/0 aluminum feeder for a 150 amp OCP device, but if it was a type 4 or 5 I could use 3/0 aluminum feeder for a 150 amp OCP device. Why does the type of building affect the size of the feeders? (Joe W.)

There is nothing in the NEC that requires or addresses this note on these drawings. You would have to consult the designer of record to find out why this distinction is made.

12. I was turned down for not having an emergency genset load test witnessed by an inspector. I have never done this before. What is the process and what will the inspector be looking for on the system and during the test? (Gary Mullis)

A note is to be added in the plan review approval stage that any NEC article 700 or 701 system will require the Department to witness a two hour load test before a TCO/ CO may be issued. IBA/OTI inspection is the best way to coordinate and insure all necessary personnel are present at the time of the test. Typically we will allow three hours for the test. For testing and maintenance procedures of emergency power supply systems, one should follow the code referenced version of NFPA 110 (currently 2005 is referenced).

13. Can I have an ungrounded service in Mecklenburg County; I have been told I can't. (Gerald Barnes)

You may have an ungrounded system if it complies with the NEC and the serving utility.

NEXT MEETING:

Contractors - Wednesday March 12, 2014

Inspectors - Wednesday January 8, 2013

CONSISTENCY MEETING

Date: 11/13/2013

DEPARTMENTAL GOALS:

- 85 - 90 % 1 DAY TURN AROUND
- 80 - 85 % CONTRACTOR PASS RATE
- **QUALITY INSPECTIONS!**
- **EXCELLENT CUSTOMER SERVICE!**

SAFETY ISSUES:

REMEMBER COUNTY CELL PHONE POLICY, USE ALL APPROVED SAFETY EQUIPMENT ISSUED TO YOU. (i.e. HARDHAT, SAFETY GLASSES, SAFETY SHOES, PPE)

Q: WHY ARE WE HERE? A: TO SERVE THE CUSTOMER

Consistency Questions

1. I am in the process of changing out AC units in a development. Most of the units have Load Control Devices supplied by the local utility company. When the devices were installed, the Class 2 wiring was installed in the disconnect and flex to the unit. Am I required to correct this in order to pass my inspection since I am only changing out the unit like for like? (Gerald Barnes)

Yes in this case the wiring method being re-installed does not meet Code because it has class 1 and class 2 wiring in the same raceway.

2. I have installed a new service mast for a residential property. The height of my weather head is 10' 11" to the bottom. The inspector has failed the installation stating that the service drop did not meet minimum height requirements. Is this correct? (Chris Dellinger)

No. 230.24(B) 1 says to the bottom of the drip loop it should be 10'

3. I am a residential electrical contractor. In one of our developments, the GC is installing cabinetry in the breakfast room with a countertop surface, referring to it as a "Buffet." We are installing receptacles per 210.52(C) with 2' and 4' spacing and feeding them through an AFCI OCD. Are these receptacles, not installed in the kitchen, required to be GFCI protected? (David Rains)

No if there is no sink in the "Buffet"

4. Is there anywhere in the code that says a receptacle can't be installed face up inside a kitchen cabinet? (Matt King)

No; while this is not a good idea there is nothing in the code that prohibits this installation in this area.

5. In a house that has been covered prior to inspection and we have had it Meg tested, why do we still need to AFCI protect circuits? (Joe W)

Because of the lack of inspection before covering this adds an extra level of safety to the installation and is only required for that reason.

6. I have installed a single duplex receptacle for the dishwasher and disposal , pulled 2 separate circuits and the inspector told me I needed to installed a 2 pole breaker or tie-handle for these 2 circuits . Is she correct? (John West)

She is correct.

210.7 Multiple Branch Circuits. Where two or more branch circuits supply devices or equipment on the same yoke, a means to simultaneously disconnect the ungrounded conductors supplying those devices shall be provided at the point at which the branch circuits originate.

7. I have a volleyball net across the pool. The posts supporting the net are 3' long and made of metal. The cups that the metal posts go into are plastic. Do I have to bond these metal posts? (Chris Dellinger)

Yes. 680.26(B) 5 doesn't apply because poles are more than 4" long

8. I wired a pool in Gaston County. I installed a low voltage fiber optic light. The inspector said I needed to bond this light, because it's in the pool water. Is he correct? (Craig Sloop)

If there is metal involved the metal needs to be bonded
No metal...No Bonding

9. I am wiring an LED light in a swimming pool. The voltage to the light is 12 volts. The conduit will run from the pump pad across the yard to the pool. How deep does the PVC conduit going to the fixture need to be? (David Rains)

Column 3 All locations not specified; 18"

10. I recently installed a generator for an emergency system at a local school. I had a 3rd party come to the site and perform a load test. When my inspector came for the Final I presented the load test report. He informed me that the test looked good, but in order to give a Final on the job he would have to witness the load test. Is this correct? (Joe W)

Yes. **700.3 Tests and Maintenance.**

(A) Conduct or Witness Test. The authority having jurisdiction shall conduct or witness a test of the complete system upon installation and periodically afterward.

11. I wired some office furniture in a commercial building that had Square D panels. I used the 'rolling pin' type tie-handles to tie the multi-wire circuit single pole breakers together. The inspector turned me down because the tie-handles didn't provide simultaneous trip. Is this correct? (Gerald Barnes) (Joe W)

No, the code says at 210.4(B) it must have simultaneous disconnect not simultaneous trip. Also 240.15(B) these can only be used for single phase line-to-neutral loads

12. I have a canopy over gasoline pumps. The roof of this canopy is not subject to re-roofing and is not designed to support human weight. Is it permissible to run EMT on the roof of this canopy? (Matt King)

Yes.



13. I'm wiring a concrete plant and my plans are not specific about the type conduit. It is located outdoors on a large concrete pad and I will attach the raceways to the steel beams. Can I install this in PVC? (Craig Sloop)

Yes, If installed per all the requirements of Article 352 and other applicable sections of the NEC

14. I have a 5 story apartment building with horizontal egress on top a podium with 3 levels of parking deck below, two of which are underground. (John West)

1) Can I use NM cable for my wiring method in the 5 story building?

Yes, NEC 334.10 Uses Permitted (2) Multifamily dwellings permitted to be of Types III, IV, V construction. The Building designer will show the building Type on Appendix B, in this case it is a Type IIIA with Automatic Sprinkler System per NCBC Table 503 and 504.2. This information can also be found in the NEC Annex E, but is only informational and may not support the NCBC.

2) Am I required to install standby power for the elevator and the parking deck exhaust fans?

Elevator-answer (no) NCBC 1007.4 states that standby power is required in order for the elevator to be part of the accessible means of egress. However in 1007.2.1 exception (1) states it is not required on floors with a horizontal exit.

Parking Deck Exhaust Fans-answer (no) NCBC 406.4.2 Ventilation for enclosed Parking Garage sends you to the NC Mechanical Code. 502.12 states it shall have the capability of operating continuously. However Mecklenburg County Mechanical Interpretation states that when an alternate source of power is provided either by required (life safety 700) or (auxiliary back up 701, 702) then the Ventilation system would be required to be connected.

NEXT MEETING:

Contractors – Wednesday March 12, 2014

Inspectors – Wednesday December 11, 2013

CONSISTENCY MEETING

Date: 10/9/2013

DEPARTMENTAL GOALS:

- 85 - 90 % 1 DAY TURN AROUND
- 80 - 85 % CONTRACTOR PASS RATE
- **QUALITY INSPECTIONS!**
- **EXCELLENT CUSTOMER SERVICE!**

SAFETY ISSUES:

REMEMBER COUNTY CELL PHONE POLICY, USE ALL APPROVED SAFETY EQUIPMENT ISSUED TO YOU. (i.e. HARDHAT, SAFETY GLASSES, SAFETY SHOES, PPE)

Q: WHY ARE WE HERE? A: TO SERVE THE CUSTOMER

Consistency Questions

1. Do all low voltage devices have to be installed to approve a final?

Yes, No, and Maybe. There are so many varieties of low voltage installations that are going to be installed at so many different stages of construction that it is not feasible to say that ALL low voltage devices must be installed at the final inspection. The following is a guide to what is required:

- All code required low voltage systems must have devices and system fully installed.

- All systems or portions of systems that will be energized when power is turned on must have that system or portions fully installed
- All systems that have wiring un-terminated and for future use, must have that wiring protected and tagged for "future use."
- All components that require grounding must be grounded per code.
- All installed components, devices, etc shall be labeled and listed

2. Can I serve the receptacle for a gas range with an integral down draft from a kitchen Small Appliance circuit?

Yes. See NEC 210.52(B)(2)exception no.2

3. In a residence we have a sub-panel being fed with a feeder from the main panel. The water line coming into the house is plastic then turns to copper after the meter. There are no copper water lines in contact with the earth for more than 3.0 m (10 ft). Is it acceptable to bond the copper water line in the residence from the feeder panel since we are only bonding the copper lines and not grounding?

Can't unless it's in a multiple occupancy building and other requirements of 250.104(A)(2).

4. When there is a kitchen island with a wall, what are the receptacle spacing requirements? This particular island has about 15" overhang. Is a receptacle required at this location? Does the amount of overhang come into the decision? (See Pictures)



The picture above is a freestanding bar type counter and/or wall with a kitchen cabinet attached. The picture below is a 210.52(C)(2) island countertop space.

On the picture above, the requirements of 210.52(A) and maybe (B) must be followed for the wall space, and 210.52(B) and (C) for the cabinet countertop space.

The picture below must comply with the requirements of 210.52(B) and (C) and not the wall space requirements of 210.52(A)



5. I am installing a pole service for an entrance sign and lights for a residential development. I plan on running U/F cable to my sign and lights. What is the min. burial depth requirement for this U/F cable?

24 inches Article: Table 300.5, column 1

6. I am reviewing plans for an apartment building. Disconnects for the A/C units are located behind condenser with about 2' of clearance. A) Are these disconnects required to meet requirements of 110.26? B) Does it make a difference if they are fused or non-fused?

If you call the NFPA Code Making panel they will say yes, 110.26 clearances are required for fused or non-fused disconnects. The current and immediate past Chief Electrical Engineers from DOI have ruled that 110.26 requirements are primarily meant for panelboards, switchboards, switchgear and motor control centers, and that fused and non-fused disconnects need only be accessible and have enough clearance to be worked on easily and comfortably.

RON'S EMAIL

This issue had been discussed at length when Jim Carpenter was the Chief Electrical Engineer/State Electrical Inspector for the North Carolina Department of Insurance. The interpretation then was that Section 110.26(A) and the clearances addressed therein pertained to panelboards and equipment that might require being serviced while energized. Typical "single enclosure" disconnects at A/C condensing units were there to assure energy is turned off for the HVAC Technician to repair or perform maintenance on the unit. Due to the nature of the disconnects used no attempts should be made to work on small enclosures such as these while energized.

Generally, Electrical Contractors install non-fused type disconnects as a method to reduce costs. However, even with a fused disconnect, the circuit originates at a panelboard or switchboard upstream and again this disconnect acts to allow access to the A/C unit while de-energized and that disconnect supervised by the Tech. By comparison, double-pole, horsepower rated snap switches are available up to 30-amperes and would require only to be "readily accessible". If only this type switch were installed would you expect to provide a working clearance addressed by Section 110.26? Again, you would not expect to replace or repair this switch while energized either.

Additionally, if a large apartment complex were required to meet the 30-inch wide space for a single disconnect it may cause A/C condensing units to be spaced out all around the building trying to meet this provision.

As stated, no interpretation has been changed regarding this issue and based on all previous opinions from NC DOI, for a single disconnecting means located for one A/C condensing unit, Section 110.26 would not apply. The accessibility determination would be the responsibility of the AHJ, or the Authority Having Jurisdiction

7. I am wiring 120/208 volt parking lot lights, and putting each circuit on a 20 amp OCP. Several home runs are over 800 ft away from the panel. I increased my wire size from #12 to a #4 for voltage drop and ran #12 for my equipment ground. The inspector turned me down, and she said I needed to increase my equipment ground too. Is she correct? If she is correct what size should my equipment ground be?

Yes she is correct per Article 250.122(B) #4

8. I am doing an unfit on a suite. It is going to be used as a daycare/ after school facility. The electrical inspector informed me that the receptacles will need to be tamper resistant. This is the third one I've wired in Mecklenburg County and this is the first time I have heard this. Is he correct?

If the facility meets the definition of a "Child Care Facility" as in 2011 NEC 406.2 then yes it would need to meet article 406.14

Child Care Facility. A building or structure, or portion thereof, for educational, supervisory, or personal care services for more than four children 7 years old or less.

9. I have a tenant upfit on a strip mall, I am coming out of an existing trough that has a 1200 amp fused disconnect ahead of it. I installed a meter, a 200 amp fused disconnect and 4 - 3/0 cu. with a # 6 cu. ground as the approved plans show. The inspector turned me down for incorrect sized EGC. She stated it needed to be a 3/0 cu from the trough to the fused disconnect. Is she correct?

Yes she is. See NEC 250 122(G) and Table 250.122

10. I have run my unfused service entrance conductors in PVC through a concrete wall and then across a wood ceiling approx.30 foot to my MDP. The inspector turned me down. Was he right? Could I build something around the PVC's and encase them in concrete?

Yes, the inspector is correct. And 2nd part of question, Yes, as per 230.6 Also note if you do use article 230.6 #2 and #3 you will need to get the building inspector and a structure engineer involved in this process due to load requirements within the building.

11. Does the GFCI receptacle for an electric drinking fountain, mounted inside the unit, meet the requirement to be readily accessible, if the bottom is open or has an access hole that allows testing and resetting of the trip unit on the device?

There is nothing in Article 210.8 or 422.52 that require this drinking fountain GFCI to be readily accessible, however, today most GFCI manufacturers require ready access in their installation instructions. With that said, if you can get to that GFCI receptacle and put your tester in it without a requiring tools then it's considered readily accessible.

12. When using SER cable for a feeder to individual apartment units with a voltage of 120/240 single phase do you have to use 60 degrees if it is in contact with insulation?

Maybe and NO, if the feeder meets the requirements of 310.15(B)(7) the 60 degree column is not required to be used; if not, then 338.10(B)(4) must be followed.

13. NFPA 110 (2005) -section 7.2.1.2 states that you cannot have any equipment including architectural appurtenances in the same room with the Emergency Power Supply (EPS) for Level 1 installations, except those that serve that space. If you have a separate room with the main service, can the buss duct from the normal power run through the same room as the EPS if it is run overhead at ceiling level and does not terminate in this room? The room is rated and fire sealed.

Yes.

NEXT MEETING:

Contractors - Wednesday November 13, 2013

Inspectors - Wednesday November 13, 2013

**CODE COMPLIANCE
QUARTERLY
REPORT**



Code Compliance Report Data Summary

	Qtr	Building	Electrical	Mechanical	Plumbing
Job Not Ready	Present	5.95%	7.17%	5.97%	9.64%
	Previous	5.68%	7.29%	4.47%	9.18%
	D	up .27%	down .12%	up 1.5%	up .46%
Roughs	Present	35.45%	20.74%	31.27%	31.78%
	Previous	35.27%	23.02%	31.52%	27.36%
	D	up .18%	down 2.28%	down .25%	up 4.42%
Finals	Present	20.05%	56.92%	57.30%	36.14%
	Previous	19.39%	55.08%	57.27%	33.10%
	D	up .66%	up 1.84%	up .03%	up 3.04%
Repeat %		80.00%	94.00%	80.00%	73.00%



Code Compliance Report Data Summary

1. Building Inspections Top Fifteen Code Defects

Task	Item #	Item	# Defects	% of Total
MS	108	Need Soil/compaction test	384	4.20%
FR	111	Firestop incomplete or missing	369	4.03%
FT	108	Need soil/compaction test	351	3.83%
FR	197	Other defects listed on job	319	3.49%
FI	197	Other defects listed on job	278	3.04%
FR	105	Call clerk or check Meckpermit.com for remarks	213	2.33%
FR	109	Foundation anchors missing	190	2.08%
FR	195	Previous list incomplete	166	1.81%
FI	105	Call clerk or check Meckpermit.com for remarks	141	1.54%
FI	109	Garage separation	136	1.49%
FI	118	Handrail construction	134	1.46%
FR	136	Ledgers/hangers incorrect or missing	121	1.32%
FI	119	Guardrail construction	116	1.27%
FR	104	Not ready for inspection	115	1.26%
FI	104	Not ready for inspection	114	1.25%
		TOTAL – Top 15 / Total # Defects	3147 / 9153	34.38%
Rough 02's			3316	36.23%
Final 02's			2678	29.26%
04's		Job not ready	510	5.57%

2. Building Inspections Top Fifteen Code Defects Previous Quarter

Task	Item #	Item	# Defects	% of Total
MS	108	Need Soil/compaction test	576	5.34%
FR	111	Firestop incomplete or missing	464	4.30%
FR	197	Other defects listed on job	412	3.82%
FT	108	Need soil/compaction test	409	3.79%
FI	197	Other defects listed on job	276	2.56%
FR	109	Foundation anchors missing	269	2.49%
FR	195	Previous list incomplete	217	2.01%
FR	105	Call clerk or check Meckpermit.com for remarks	202	1.87%
FI	105	Call clerk or check Meckpermit.com for remarks	169	1.57%
FR	196	Not per design	163	1.51%
FR	108	Wall bracing	147	1.36%
FR	104	Not ready for inspection	140	1.30%
FI	118	Handrail construction	131	1.21%
FR	131	Engineered roof design, installation, repair	123	1.14%
FI	119	Guardrail construction	117	1.08%
		TOTAL – Top 15 / Total # Defects	3815 / 10794	35.34%
Rough 02's			3826	35.45%
Final 02's			2164	20.05%
04's		Job not ready	642	5.95%



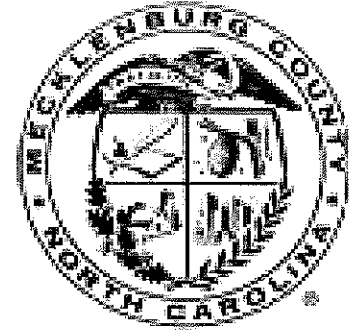
Code Compliance Report Data Summary

1. Electrical Inspections Top Fifteen Code Defects

Task	Item #	Item	# Defects	% of Total
FI	4	Job not ready	226	3.59%
FI	30	Improper wiring methods	202	3.21%
FI	19	Label panel	159	2.53%
RF	37	Need stud guards	158	2.51%
FI	6	Defects not corrected	155	2.47%
FI	W8	Defect caused by others	151	2.40%
FI	9	Grounding	150	2.39%
FI	25	Improper overcurrent protection	138	2.20%
FI	5	Too many to list - insp stopped	124	1.97%
FI	65	AFCI defect	111	1.77%
RF	4	Job not ready	103	1.64%
FI	31	Cable subject to damage	98	1.56%
FI	55	GFCI defect general	98	1.56%
RF	31	Cable subject to damage	88	1.40%
RF	W8	Defect caused by others	86	1.37%
		TOTAL – Top 15 / Total # Defects	2047 / 6287	32.56%
Rough 02's			1319	20.98%
Final 02's			3487	55.46%
04's		Job not ready	499	7.94%

2. Electrical Inspections Top Fifteen Code Defects Previous Quarter

Task	Item #	Item	# Defects	% of Total
FI	19	Label panel	186	3.21%
FI	30	Improper wiring methods	183	3.16%
FI	09	Grounding	182	3.14%
FI	04	Job not ready	170	2.93%
FI	25	Improper overcurrent protection	170	2.93%
FI	W8	Defect caused by others	156	2.69%
FI	65	AFCI defect	138	2.38%
RF	37	Need stud guards	123	2.12%
RF	W8	Defect caused by others	115	1.98%
FI	10	Bonding	111	1.91%
FI	06	Defects not corrected	106	1.83%
FI	05	Too many to list - insp stopped	98	1.69%
FI	55	GFCI defect general	98	1.69%
FI	31	Cable subject to damage	81	1.40%
RF	31	Cable subject to damage	81	1.40%
		TOTAL – Top 15 / Total # Defects	1998 / 5799	34.45%
Rough 02's			1203	20.74%
Final 02's			3301	56.92%
04's		Job not ready	416	7.17%



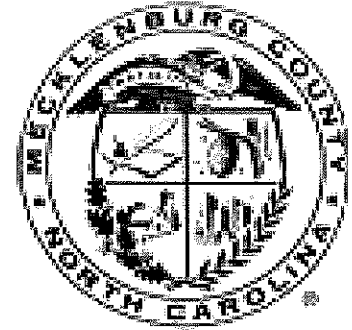
Code Compliance Report Data Summary

1. Mechanical Inspections Top Fifteen Code Defects

Task	Item #	Item	# Defects	% of Total
GT	G03	Gas test not to code or bad gauge	163	4.87%
FI	G03	Gas test not to code or bad gauge	140	4.18%
FI	H01	Damage caused by others	140	4.18%
RF	D06	Duct damaged or restricted	123	3.67%
FI	Z99	Other or no defect code applies	115	3.43%
RF	H01	Damage caused by others	103	3.08%
FI	P01	Primary or secondary drain missing or incorrect	87	2.60%
FI	A04	Job not ready for inspection	80	2.39%
RF	A04	Job not ready for inspection	79	2.36%
RF	Z99	Other or no defect code applies	72	2.15%
FI	A13	Need ladder	68	2.03%
RF	G03	Gas test not to code or bad gauge	60	1.79%
RF	D11	Dryer vent missing or incorrect	49	1.46%
RF	D04	Duct installation incorrect	47	1.40%
RF	D09	Duct for bathroom exhaust missing or incorrect	47	1.40%
TOTAL – Top 15 / Total # Defects			1373 / 3348	41.01%
Rough 02's				
			1094	32.68%
Final 02's				
			1812	54.12%
04's				
Job not ready			199	5.94%

2. Mechanical Inspections Top Fifteen Code Defects Previous Quarter

Task	Item #	Item	# Defects	% of Total
FI	G03	Gas test not to code or bad gauge	171	5.00%
FI	H01	Damage caused by others	151	4.42%
GT	G03	Gas test not to code or bad gauge	148	4.33%
RF	H01	Damage caused by others	128	3.74%
RF	D06	Duct damaged or restricted	94	2.75%
FI	P01	Primary or secondary drain missing or incorrect	91	2.66%
FI	A04	Job not ready for inspection	90	2.63%
RF	A04	Job not ready for inspection	83	2.43%
FI	Z99	Other or no defect code applies	80	2.34%
FI	B03	CO Detector Installation	78	2.28%
FI	A13	Need ladder	73	2.14%
FI	F01	Flue clearance incorrect	67	1.96%
RF	Z99	Other or no defect code applies	59	1.73%
FI	E08	Equipment installation instructions not available	52	1.52%
RF	G03	Gas test not to code or bad gauge	49	1.43%
TOTAL – Top 15 / Total # Defects			1414 / 3419	41.36%
Rough 02's				
			1069	31.27%
Final 02's				
			1959	57.30%
04's				
Job not ready			204	5.97%



Code Compliance Report Data Summary

1. Plumbing Inspections Top Fifteen Code Defects

Task	Item #	Item	# Defects	% of Total
BF	B31	Piping test missing or incorrect	167	10.91%
FI	B31	Piping test missing or incorrect	69	4.51%
RF	41	Not ready	68	4.44%
SL	41	Not ready	44	2.87%
SW	B81	Vent piping, or AAV Size, incorrect	44	2.87%
WD	H01	Damage caused by others	44	2.87%
WH	D31	T & P drain missing or incorrect	40	2.61%
WS	81	Work covered up	37	2.42%
BF	E31	Handicap regulations missing or incorrect	37	2.42%
FI	C21	Piping insulation missing or incorrect	33	2.16%
RF	B31	Piping test missing or incorrect	32	2.09%
SL	C21	Piping insulation missing or incorrect	30	1.96%
SW	C31	Pipe fitting use incorrect	30	1.96%
WD	E71	Fixture installation incorrect	30	1.96%
WS	E81	Backflow requirements incorrect	29	1.89%
TOTAL – Top 15 / Total # Defects			734 / 1531	47.94%
Rough 02's				
			431	28.15%
Final 02's				
			602	39.32%
04's				
Job not ready			165	10.78%

2. Plumbing Inspections Top Fifteen Code Defects Previous Quarter

Task	Item #	Item	# Defects	% of Total
RF	B31	Piping test missing or incorrect	221	12.68%
WD	B31	Piping test missing or incorrect	66	3.79%
FI	041	Not ready	65	3.73%
SL	B31	Piping test missing or incorrect	61	3.50%
RF	B81	Vent piping, or AAV Size, incorrect	55	3.16%
RF	B51	Piping support missing or incorrect	52	2.98%
FI	D31	T & P drain missing or incorrect	47	2.70%
FI	H01	Damage caused by others	45	2.58%
RF	041	Not ready	44	2.52%
FI	C21	Piping insulation missing or incorrect	40	2.29%
FI	E31	Handicap regulations missing or incorrect	38	2.18%
WS	081	Work covered up	35	2.01%
RF	C31	Pipe fitting use incorrect	33	1.89%
FI	J41	Existing conditions not code compliant	33	1.89%
RF	B91	Piping protection missing or incorrect	30	1.72%
TOTAL – Top 15 / Total # Defects			865 / 1743	49.63%
Rough 02's				
			554	31.78%
Final 02's				
			630	36.14%
04's				
Job not ready			168	9.64%

**COMMERCIAL PLAN REVIEW
QUARTERLY
REPORT**

COMMERCIAL PLAN REVIEW QUARTERLY REPORT

4TH QUARTER 2013

PROJECT PASS RATE

Projects passed on 1st review: 69%
Last quarter Pass Rate: 63%

Projects passed on 2nd review: 81%
Last quarter Pass Rate: 80%

Building: 84% (80% last quarter)
Electrical: 83% (81% last quarter)
Mechanical: 79% (80% last quarter)
Plumbing: 78% (81% last quarter)

MOST COMMON DEFECTS

Building: Appendix B
Exit Requirements
UL Assembly
Exit Signs
Remoteness of Exits

Electrical: Services / Feeders
General
Branch Circuits
Grounding and Bonding
Air Cond & Amp; Refrig. Equip.

Mechanical: Fresh Air Requirements
Equipment Location & Install
Exhaust Systems
Duct System Installation
Energy Compliance

Plumbing: Installation of Plumbing Systems
Sanitary Drainage Piping and Materials
Venting System Installation
Minimum Plumbing Fixtures
Water Distribution Piping & Materials

APPROVED AS NOTED (AAN) ALL TRADES: 36% (38% last quarter)

Largest Users: CFD 91%
MCFM 74%

Critical Path Users: Building 20% (36% last quarter)
Electrical 20% (20% last quarter)
Mechanical 22% (17% last quarter)
Plumbing 26% (23% last quarter)

Commercial Plan Review

4th Quarterly Report of 2013

10-1-2013 through 12-31-13

PART ONE

Project Pass Fail Rates

	# of Proj.	# Passed	% Passed	After Cycle	% Passed
First Plan Review	604	415	69%	1st Cycle	63%
Second Plan Review	224	182	81%	2nd Cycle	90%
Third Plan Review	63	56	89%	3rd Cycle	98%
Fourth Plan Review	10	10	100%	4th Cycle	100%
All Cycles	901	663	74%		

Pass Rates By Trade

Building	Count	Passed	% Passed
Cycle 1	742	625	84%
Cycle 2	212	191	90%
Cycle 3	42	40	95%
Cycle 4	5	5	100%
All Cycles	1001	861	86%

Electrical	Count	Passed	% Passed
Cycle 1	634	525	83%
Cycle 2	160	141	88%
Cycle 3	26	24	92%
Cycle 4	1	1	100%
All Cycles	821	691	84%

Mechanical	Count	Passed	% Passed
Cycle 1	424	335	79%
Cycle 2	105	91	87%
Cycle 3	27	27	100%
Cycle 4	1	1	100%
All Cycles	557	454	82%

Plumbing	Count	Passed	% Passed
Cycle 1	382	299	78%
Cycle 2	117	104	89%
Cycle 3	24	21	87%
Cycle 4	3	3	100%
All Cycles	526	427	81%

Commercial Plan Review

4th Quarterly Report of 2013

10-1-2013 through 12-31-13

continued from previous page

CMUD	Count	Passed	% Passed
Cycle 1	196	155	79%
Cycle 2	87	78	90%
Cycle 3	25	24	96%
Cycle 4	5	5	100%
All Cycles	313	262	84%

City Fire	Count	Passed	% Passed
Cycle 1	515	465	91%
Cycle 2	125	110	88%
Cycle 3	31	30	97%
Cycle 4	4	4	100%
All Cycles	672	609	91%

Co. Fire	Count	Passed	% Passed
Cycle 1	115	94	82%
Cycle 2	40	36	90%
Cycle 3	6	6	100%
Cycle 4			
All Cycles	161	136	84%

City Zoning	Count	Passed	% Passed
Cycle 1	160	114	71%
Cycle 2	104	82	79%
Cycle 3	42	34	81%
Cycle 4	10	10	100%
All Cycles	316	240	76%

Co. Zoning	Count	Passed	% Passed
Cycle 1	12	7	58%
Cycle 2	11	10	91%
Cycle 3	2	2	100%
Cycle 4			
All Cycles	25	19	76%

Commercial Plan Review

4th Quarterly Report of 2013

10-1-2013 through 12-31-13

PART TWO

	Top Ten Most Common Defects	Count
Building	1. Appendix B	110
	2. Exit Requirements	51
	3. UL Assembly	48
	4. Exit Signs	45
	5. Remoteness of Exits	40
	6. Egress Illumination	38
	7. Travel Distance	35
	8. Means of Egress	35
	9. Egress Width	35
	10. Type of Rated Walls and Floor Assembly	35
Electrical	1. Services / Feeders	131
	2. General	128
	3. Branch Circuits	119
	4. Grounding and Bonding	107
	5. Air Cond. & Amp; Refrigerating Equipment	13
	6. Motors	13
	7. Emergency Systems	10
	8. Legally Required Standby Systems	6
	9. Transformers	5
	10. Optional Standby Systems	4
Mechanical	1. Fresh Air Requirements	78
	2. Equipment Location and Installation	77
	3. Exhaust Systems	75
	4. Duct System Installation	61
	5. Energy Compliance	56
	6. Gas Piping Sizing and Installation	54
	7. Installation of Gas Equipment	50
	8. Condensate Disposal	49
	9. Fire/Smoke Damper Requirements	48
	10. Cloths Dryer Exhaust Installation	46
Plumbing	1. Installation of Plumbing Systems	100
	2. Sanitary Drainage Piping and Materials	79
	3. Venting System Installation	70
	4. Minimum Plumbing Fixtures	67
	5. Water Distribution Piping and Materials	65
	6. Installation of Traps and Interceptors	60
	7. Protection of Potable Water	55
	8. Water Heater Installation	52
	9. Plumbing Fixture Clearance	52
	10. Indirect Waste Piping	51

Commercial Plan Review

4th Quarterly Report of 2013

10-1-2013 through 12-31-13

OnSchedule

Performance Summary Report	Project		
Trade	Count	On Time	% On Time
Building	512	446	87%
Electrical	470	436	93%
Mechanical	360	340	94%
Plumbing	346	333	96%
BEMP Total	1,688	1,555	92%
City Zoning	178	174	98%
Co. Zoning	18	15	83%
City Fire	467	461	99%
Co. Fire	99	97	98%
All Trades Total	2,450	2,302	94%

PART THREE

	# of	# of	% of
Approved as Noted	Reviews	AAN	AAN
Building	742	147	20%
Electrical	634	126	20%
Mechanical	424	94	22%
Plumbing	382	99	26%
CMUD	196	101	52%
City Fire	512	465	91%
Co. Fire	115	85	74%
City Zoning	160	12	7%
Co. Zoning	12	5	42%
All Trades Total	3,177	1,134	36%