



Spring 2016
Water and Stormwater
Pre-Construction Meeting

WELCOME!

City of Rockford
Public Works Department
Water and Storm Water Pre-Construction Meeting
April 6, 2016 9:30 a.m.
City Yards Conference Room

Agenda

- 1. Staff Introduction – Jamie Rott**
- 2. Street/Forestry – Mark Stockman**
- 3. Water Main Construction**
 - a. Section 12 – Jamie Rott**
 - b. Illinois EPA Water Construction Permit – Jamie Rott**
 - c. Illinois EPA Water Operating Permit – Jamie Rott**
 - d. Water System Shutdowns – Jamie Rott**
 - e. Valve Operation – Greg Cassaro**
 - f. Service Connections – Greg Cassaro**
 - g. Inspection – Greg Cassaro**
 - h. Disinfection – Nadine Miller**
 - i. Sampling and Analysis – Nadine Miller**
- 4. Hydrant Use Program: Jennifer Jackson**
 - a. Permitting process**
 - b. Meter rental**
- 5. Development – Marcy Leach**
- 6. Erosion and Sediment Control - Brad Holcomb**

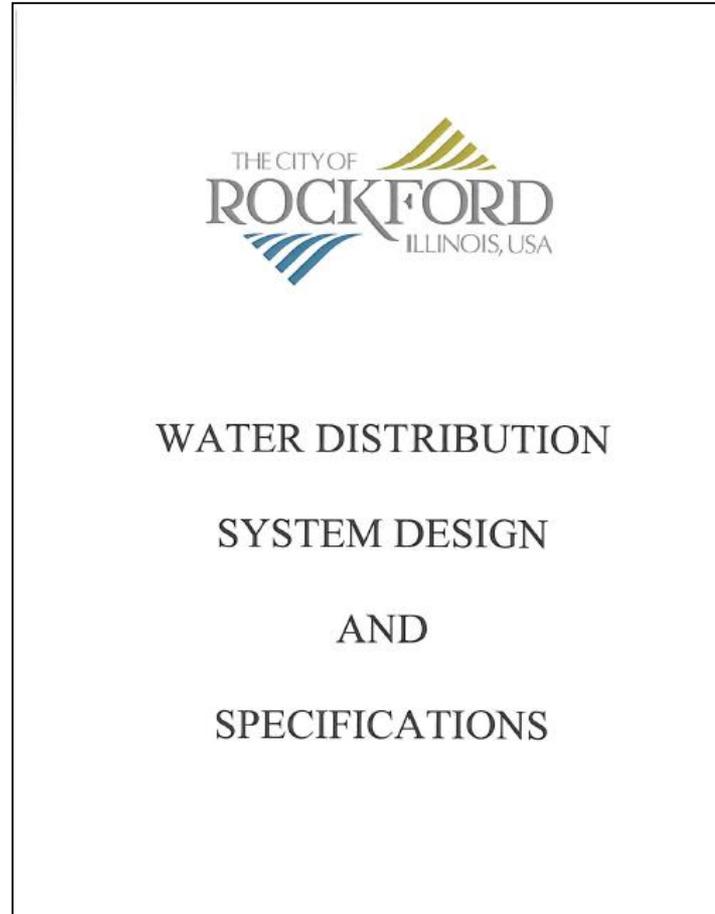
Street/Forestry Contacts

Street & Transportation Superintendent:
Mark Stockman – (779) 348-7631

Forestry Supervisor:
Mitch Leatherby – (779) 348-7636



Water Distribution System Design and Specifications (Section 12)



***Current Version is available on the City Website (rockfordil.gov) under City Departments – Public Works – Water – Water Engineering**

Water Distribution System Design and Specifications (Section 12)

12.02 Pressure Connections

Pressure connections or wet tap connections will not be permitted if the existing main is the same size or smaller than the proposed main that is to tee into the existing.

12.5 Protection of Water Supplies

When it is impossible to accomplish the vertical separation required above, both the water main and the sewer must be constructed of water main materials and the sewer must be pressure tested for water tightness at the maximum expected surcharge head before backfilling. Wherever the water main is less than ten (10) feet from the sewer, a full twenty (20) foot length of water main pipe shall be centered at the point of sewer crossing. Rubber gasketed sewer will not be accepted as a water main quality material.

Water Distribution System Design and Specifications (Section 12)

12.14 Fire Hydrants - Harrington Integral Hydrant Storz Nozzle

All fire hydrants, public and private, shall have a Harrington Integral Hydrant Storz nozzle installed on hydrants during assembly and shall meet or exceed the requirements of AWWA C502 regarding material and pressure testing.



Water Distribution System Design and Specifications (Section 12)

12.31 Polyethylene Encasement of Water Main

- Poly Wrap required on ALL Projects
- Water main, **services (ductile iron only)** valves, fittings, hydrant barrels, and appurtenances, shall be fully encased
- Film shall be furnished in tube form
- Installed on the pipe prior to being lowered into the trench
- Overlap at all joints of one foot or more
- Overlap shall be secured in place with plastic adhesive tape wrapped
- Slack in the tubing film shall be folded over at the top of the pipe held in place with plastic adhesive tape applied at intervals of approximately three (3) feet along the pipe



Illinois EPA Water Construction Permit

- New Development: An approved Subdivision Plat and Engineering Plans are required prior to IEPA permit approval
- 2 copies of the permit shall be submitted to the City Engineer
- Prior to starting any water main construction the Contractor shall notify Engineering
- Prior to starting any water main construction the Public Water Supply Construction permit must be approved

Illinois EPA Water Construction Permit

Excellence Everywhere



Matthew Vitner, P.E.
Interim Director/City Engineer
Public Works Department

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: ROCKFORD (Winnebago County – 2010300)

Permit Issued to:

PERMIT NUMBER: XXc-XX

DATE ISSUED: Month XX, 2016
PERMIT TYPE: Water Main

The issuance of this permit is based on plans and specifications prepared by the engineers/architects indicated, and are identified as follows. This permit is issued for the construction and/or installation of the public water supply improvements described in this document, in accordance with the provisions of the "Environmental Protection Act," Title IV, Sections 14 through 17, and Title X, Sections 39 and 40, and is subject to the conditions printed on the last page of this permit and the ADDITIONAL CONDITIONS listed below.

FIRM:

NUMBER OF PLAN SHEETS:

TITLE OF PLANS:

PROPOSED IMPROVEMENTS:

Install approximately XXXX LF of 8" DI Water main, X - X" water service, X fire hydrants

ADDITIONAL CONDITIONS:

1. This project has been reviewed for conformance with the requirements of the State of Illinois' Environmental Protection Agency and has been Generally Found to be Acceptable.
2. All water mains shall be satisfactorily disinfected prior to use. In accordance with the requirements of AWWA C651-99, at least one set of samples shall be collected from every 1,200 feet of new water main, plus one set from the end of the line and at least one set from each branch. Satisfactory disinfection shall be demonstrated in accordance with the requirements of 35 Ill. Adm. Code 652.203.
3. There are no further conditions to this permit.

Matthew Vitner, P.E.
Interim Director/City Engineer
Department of Public Works

City of Rockford, Illinois USA
Lawrence J. Morrissey, Mayor

426 East State Street, Rockford, Illinois 61104-1068 USA
(779) 348-7300 (815) 967-7058 fax www.rockfordil.gov

Illinois EPA Water Operating Permit

- The City of Rockford issues an Operating Permit once the water main has passed all tests and has been accepted by the Water Engineer.
- This permit is kept on file with the Public Works Department

Illinois EPA Water Operating Permit

Excellence Everywhere


Matthew Vitner, P.E.
Interim Director/City Engineer
Public Works Department

WATER MAIN OPERATING PERMIT
ROCKFORD (Winnebago County – 2010300)

1. Permit Number: _____ DATE ISSUED: _____
2. Title of Plans: _____
3. Design Engineering Firm: _____
4. Contractor: _____
5. Project Completion Date: _____
6. Bacteriological Test Passage Date: _____
7. Certified Water Operator Designated in Responsible Charge:
Name _____ Certified Operator Classification _____
8. Owner of the Completed Project City of Rockford
425 E State St. Rockford IL 61104
Street City State Zip Code

Signature _____ Date _____

Title _____

Certificate by Owner of Completed Project (or his agent). I/We hereby certify that the project named and described in Items 2 through 5 above has been constructed in accordance with plans and specifications approved by the Illinois Environmental Protection Agency and will be operated in accordance with the provisions of the Illinois Environmental Protection Act and Rules and Regulations adopted by the Illinois Pollution Control Board pursuant to provisions of the Act.

*****For City of Rockford Use Only*****

This Operating Permit: _____ is issued on _____. This permit is valid only for the work completed under the Construction Permit of the same number.

City of Rockford Public Works

City of Rockford, Illinois USA
Lawrence J. Morrissey, Mayor

425 East State Street, Rockford, Illinois 61104-1068 USA
(779) 348-7300 (815) 967-7058 fax: www.rockfordil.gov

Water System Shutdowns

Water Main Shut Off

- Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off
- Section 1.6.1 - Requirements for Unscheduled (Emergency) Water Main Valve Shut Off

This section can be found on the City website under City Departments – Public Works – Water – Water Engineering

Water System Shutdowns

Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off:

- Must obtain permission of the Water Superintendent, or his designee, prior to any water main valve shut off.
- Meet with Water Division personnel at least five (5) days prior to start of construction
- Coordinate exercising valves and determining valve shut off patterns during construction.
- The shut down shall be allowed to proceed only after the Water Division representative has determined that the required valves are functioning.

Water System Shutdowns

Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off (Cont.):

- Minimum 24 hour notification to all customers of boil order (tags)
- For larger businesses, schools, etc. coordinate shutdown in advance with Property Owner and Project Manager

Water System Shutdowns

Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off (Cont.):

- Notify the Water Division Operations Center **(779-348-7368)** prior to water main valve shut off and provide the following:
 - Streets and boundaries of shut down
 - Time of shut down
 - Approximate duration of shut down
 - Number of customers affected
 - If non-residential customers (hospitals, nursing homes, restaurants, etc.) are affected, a count of how many individuals affected.
- Notify Water Division Operations Center Operator upon completion of repairs and restoration of water service.

Water System Shutdowns

Section 1.61 - Requirements for Unscheduled Water Main Valve Shut Off:

- In the event the Contractor must perform an unscheduled water main valve shut off; the Contractor shall notify the Water Division Operations Center Operator **(779-348-7368)** as soon as possible.

Water System Shutdowns

Section 1.61 - Requirements for Unscheduled Water Main Valve Shut Off (cont.):

- Notify Water Division Operations Center **(779-348-7368)** A.S.A.P.
- Notify all customers of boil order (tags)
- Provide the following:
 - Streets and boundaries of shut down
 - Time of shut down
 - Approximate duration of shut down
 - Number of customers affected
 - If non-residential customers (hospitals, restaurants, etc.) a count of how many individuals affected.
- Notify Water Division Operations Center Operator upon completion of repairs and restoration of water service.

Valve Operation

- All valves inside the scope of work, shall be exercised and a condition assessment made by City of Rockford Distribution staff.
- If any line stops are used, a fall back valve on both sides of the line stop will be identified and the above criteria shall apply.
- In the event of a line stop failure, the fall back valves will be used and all unforeseen shutdown provisions will apply.
- The primary contact for Water Distribution will be Greg Cassaro (779) 537-3219.
- All Hi-Lo Valves are marked with a special manhole cover, and all operation of these valves shall be by City of Rockford staff **ONLY!**

HI-LOW Valve Manhole Covers

"HEAVY"



"LIGHT"



Service Connections and Tapping of Live Water Mains

- Service taps are to be made only by the City of Rockford or upon approval from the Water Division for a licensed contract plumber to perform
- Freezing of a service is the approved method of use for the City of Rockford
- All services boxes shall be placed at the property line
- Anyone performing a live tap must notify Engineering

Water Main Inspection

- All requests will be coordinated by the project manager.
- All inspections will be performed by the City of Rockford or their designee.
- All Illinois EPA and Plumbing regulations shall apply for inspection purposes.
- All requests for inspections shall be no less than 24 hour advance notice.
- All Components needing inspections shall remain exposed until inspection is complete.

Disinfection

American Water Works Association (AWWA)

- **C651 – Water Main Disinfection**
 - B300 – Standard for Hypochlorite
 - B301 – Standard for Liquid Chlorine

Disinfection

- Administrative Code Title 35; Section 602
- Administrative Code Title 35; Section 652
- City of Rockford Chapter II; Section 12
- Standard Specifications for Water & Sewer Main Construction in Illinois

Make sure the hydrant is sufficiently flushed to one ppm free chlorine before submitting your BacT sample

Bacteriological Sampling and Analysis

The City of Rockford will perform **ALL** BacT analysis for City of Rockford construction projects.

- Sampling Requirements

- water main repair (no permit): 1 BacT sample - P&A (presence & absence method)
- upsizing or relocation of main (needing a permit): 1 BacT sample - MF (membrane filtration method)
- new construction (not routine & needing a permit): 1 BacT sample - MF ((membrane filtration method)

Rockford Water Division Environmental Laboratory

- Location : 1111 Cedar Street
- Hours of Operation: 8:00 am – 2:00 pm, Monday – Thursday
- Bacteriological Analysis Pricing
 - Membrane filtration: \$18.00
 - Presence & Absence: \$13.00

Environmental Laboratory

- Samples will be submitted in laboratory approved containers that are available at 1111 Cedar Street
- Samples will not be accepted without properly completed paperwork



Hydrant Permits & Hydrant Meter Requests

Initial requests can be made:

On line <http://www.rockfordil.gov/>

OR

By Phone (779) 348 -7152

What do we need?

- **Information needed for Permit:**
 - Contractor name, address, phone number
 - Hydrant Location- you are requesting
 - Project Name
 - Project Location
 - Project Purpose
 - Dates the hydrant is needed

Approval

- All requests for hydrant use must be approved by the **Water Engineer** and **Water Quality Supervisor**
- *** before you can pick up your meter and permits.***
- **Please Allow 24 Hours to process requests**

Approval

The Engineering and Water Quality Department reviews your choice for the hydrant location request for the following:

- The meter size
- How long it will be used
- How it will affect the water main
- How it will affect possible traffic flow when filling a water tanker truck



PAYING FOR YOUR METER

Payment and Pick-up:

- Make your payment at **City Hall 425 E. State St.**
- When approval is made- we will contact you by phone for meter pick-up
- Bring your receipt to **Water Operations** building located at **1111 Cedar St.**

What will it cost ?

Costs: \$600.00 – 1 inch Meter

\$1000.00 – 2 inch Meter

- \$10.00 per month Hydrant use permit fee
- Water is billed \$5.27 per unit.
- Damage to meters is deducted from deposit

Bringing it Back

- **RETURNING YOUR METER:**

Bring To-

- Water Operations building located at **1111 Cedar Street**

WE will

- Read the meter
- Document your contract with the meter read
- Check for any damages to the meter
- Give you a signed copy as your receipt
- **ALL CONTRACTS EXPIRE 12-31-16 -YOU MUST RETURN YOUR METER AND UPDATE YOUR FORMS FOR THE 2017 SEASON**

TIPS FOR PROPER USE

Do

- Open/Close Hydrant slowly
- Use hydrant wrench provided
- Keep a copy of permit on-site
- Brace bottom of meter
- Store in warm place to avoid freezing
- Please report any problems to the Water division

Do not

- Leave meter unattended
- Move to a different hydrant-
or use unless approved



ILLEGAL USE OF HYDRANT

Using a hydrant without authorization from the City of Rockford Engineer or Water Quality Dept. could result in a fine.

Permits and Hydrants

QUESTIONS ?



CITY OF ROCKFORD CONSENT DECREE

- A negotiated settlement between the USEPA, US Department of Justice, Illinois EPA and the City of Rockford for lack of compliance with the City's National Pollutant Discharge Elimination System (NPDES) Permit.
- Rockford neither admits nor denies any liability to the United States or the State of Illinois arising out of the transactions or occurrences alleged in the Complaint.
- Per the Consent Decree the City was fined \$329,395.
- City can ask for termination of the Consent Decree once they have achieved 3 years of substantial compliance with the Consent Decree. The City projects this to be in year 2022.
- The City will be closely monitored by the Illinois & US EPA for the duration of this decree which means all projects, public and private, will be as well!

CITY OF ROCKFORD CONSENT DECREE

Record Collection Retention

- All contractors who perform stormwater related services must receive a copy of the Consent Decree (CD).
 - All contractors will be required to sign a form indicating they have accessed the City's website and obtained a copy of the CD or has requested and received a copy.
- All contractors must retain their records 3 years after termination of the consent decree. At least 7 years if not more. This language is within the City bid documents

Development

Stormwater Management Ordinance & Stormwater Technical Manual

- New Flood Insurance Rate Maps effective February 17, 2016
- In special flood hazard areas will need to construct lowest opening or floodproof to 2 ft. above the base flood elevation
- If stormwater detention calcs result in an orifice less than 4" then detention is not required but best management practices for water quality control must be used on site
- A Post Construction Management Plan is required for all sites with stormwater drainage systems
- Aggressive enforcement policy

Development

Permitting

- All sites will require a Stormwater Management Permit
- Sites will require a soils report completed for public roadway design
- All sites will require erosion & sediment control measures
- Sites 1 acre or more disturbance will require a SWPPP. Permit will not be issued until IEPA has approved the SWPPP
- For work in the right-of-way you must contact Warren Stahl or Justin Kink prior to starting work. Insurance, bonding and traffic control plan (for closures) must be submitted and approved prior to starting work in the right-of-way **(779-348-7174)**

Development

- If work does not commence within 2 weeks of the listed start date on the Grading Permit then the permit is no longer valid until the City of Rockford is informed of the new start date. Permit is valid for two (2) years from date construction commences. Projects that extend beyond 2 years a new permit application and fee shall be submitted.

Development

Inspections

- **Prior to starting grading on a site you must contact the Stormwater number at (779)348-7175 or (stormwater@rockfordil.gov)**
- Prior to starting any other construction on a site you must contact Jason Irvin at (779)348-7655; jason.irvin@rockfordil.gov or Warren Stahl at (779)348-7670; warren.stahl@rockfordil.gov
- Lack of notification may result in a stop work order and/or code hearing where a fine is issued and may result in work not being accepted
- Street Lighting will require a 30-day burn in period prior to acceptance

Erosion and Sediment Control

- NPDES Municipal Separate Storm Sewer System (MS4) Stormwater permits requires municipalities to implement an erosion and sediment control inspection and enforcement program.
- All projects within City of Rockford limits must comply with the City's Subdivision review process as well as the Public Works Department - Engineering Division's Plat and Plan Review Process. Construction shall not begin until the City has completed its review process and has issued approvals.
 - For City projects, SWPPP's and erosion control plans must be reviewed by the Stormwater & Environmental Team
 - IEPA approval of permits does not mean the City has approved a permit as well.

Erosion and Sediment Control

- All projects requiring an IEPA General Construction Permit (ILR10) must submit the Notice of Intent (NOI) and SWPPP with the IEPA a minimum of 30 days prior to starting construction. A fee is required along with the submittal. **The City will not permit a project until it has been approved by IEPA.**
 - All City projects requiring a IEPA construction permit shall submit the NOI through the City's construction login page.
 - IEPA will not approve the permit without the SWPPP being electronically submitted.
 - City projects will also receive regulatory inspections and be inspected with same frequencies as private projects.
- **City must be notified a minimum of 48 hours before grading to perform a pre-grading inspection.**

Erosion and Sediment Control

Inspections

- Unless requested all inspections are surprise visits. Appointments are not made.
- **If work does not commence within 2 weeks of the start date on the Grading and Stormwater discharge Application the permit is no longer valid until the City is informed of the new start date. Permit is valid for 2 years.**
- The City will inspect any size construction site regardless of IEPA permitting requirements.



Erosion and Sediment Control

Inspection Types:

- ***Pre-Grading Inspection:*** BMP's must be installed **prior** to the start of construction except in areas where clearing and grubbing is necessary for installation.
- ***Drive Through Inspections:*** A visual observation assessing site conditions and BMP's installations.
- ***Full Erosion and Sediment Control Inspection:*** Complete review of SWPPP, inspection records, ESC plan and site conditions.



Erosion and Sediment Control

- **WE EXPECT FULL COMPLIANCE AT THE TIME OF THE VISIT!**
- Compliance does not start when the regulatory inspector shows up.
- *Follow the erosion control plan and the BMP's that were specified!*
- *Remove all BMP's when the project is completed!*



Erosion and Sediment Control

Discharge Point?

- Is the outlet stabilized?
- Are there indications of offsite discharges?
 - Sediment deposits
 - Sediment laden water
 - Downstream erosion
- See Title 35 of the Illinois Pollution Control Board,
 - Offensive Conditions (Part 302.203)
 - Offensive Discharges (Part 304.106)



Erosion and Sediment Control

Best Management Practices

Inlet Protection

- Do all inlets that received water from disturbed areas have protection?
- Are there affected inlets without protection?
- Is the inlet protection being maintained?
- **Maintain Inlet Protection after EVERY rainfall!**



Erosion and Sediment Control

Best Management Practices

Perimeter Protection

- Is perimeter protection in place and functional
- Is it being maintained?
- Was it installed prior to the start of grading?



Erosion and Sediment Control

Best Management Practices

Stabilized Construction Entrances

- Are they installed
 - Are they being used
- Are they installed properly
 - Properly sized stone
 - Fabric installed underneath
 - Proper size



Erosion and Sediment Control

Best Management Practices

Street Sweeping

- Installing the stabilized construction entrance as specified can significantly reduce sweeping costs.
- If too much sediment is entering the street you need to determine why.



Erosion and Sediment Control

Best Management Practices

Stabilization

- Are areas not under construction stabilized?
- Is there adequate mulch cover until germination?
- Weeds are not considered stabilization!



Erosion and Sediment Control

Best Management Practices

Concrete Washouts

- Are washouts in place and being maintained?
- Are there any inlets near the washout?
- Improper concrete waste disposal is a violation of City codes as well as a federal clean water act violation.

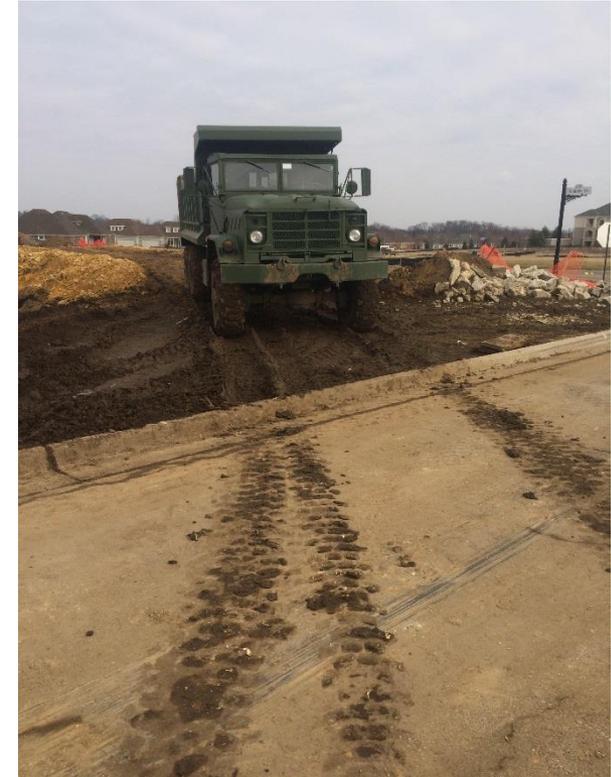


Erosion and Sediment Control

Best Management Practices

Other potential storm water contaminants

- Poorly maintained/leaky equipment
- Port-A-John location
- Fuel can/tank placement
- Trash & Debris



Erosion and Sediment Control

Terminating Permits

Where a site has completed final stabilization and all authorized stormwater discharges from construction activities are eliminated the permittee **MUST** submit a completed notice of termination.

- Final Stabilization All soil disturbing activities have been completed and:
- A uniform perennial vegetative cover with a density of 70% for the area has been established on all unpaved areas.
- or
- Equivalent permanent stabilization measures (riprap, gabions, or geotextiles) have been employed.



Important Contacts

- Stormwater/Erosion Control
Brad Holcomb (779) 348-7611
- Watermain Design/Construction
Jamie Rott (779) 348-7654
- Development
Marcy Leach (779) 348-7663 & Warren Stahl (779) 348-7670
- Development Inspection
Jason Irvin (779) 348-7655 & Warren Stahl (779) 348-7670
- Right-of-Way
General Line (779) 348-7174

Questions?