PRE-CONSTRUCTION MEETING

Project:
PWC Plan # SA
PWCSA Utility Inspector:
Phone: Email:

Construction:

All water and sanitary sewer construction will be done in strict accordance with the Service Authority's Utility Standards Manual, Dated: ***July 19, 2019*** along with the Project Plans and Specifications. The contractor is responsible for knowing and following the requirements.

Permits:

The contractor is responsible for having all of the permits and approvals necessary to construct this project. This may include, but not limited to Prince William County (PWC) Land Disturbance Permit, Plumbing Permit, and Erosion and Sediment Control Permit, Corps of Engineers Wetlands Permit, and Virginia Department of Health's Certificate to Construct.

PWCSA Utility Permit Issued. If not, work cannot begin. Contact Karla Coker with the Engineering Department @ (703) 335-7930 to obtain current permit fees.

- ❑ Yes
- ❑ No

Does Contractor/Developer have copy of USM? If not, then must obtain one prior to beginning construction. A copy can be obtained from the pwcsa.org web site.

- ❑ Yes
- ❑ No

Safety:

It is the Contractor/Developer's responsibility to comply with all VOSHA requirements pertaining to his project. If an unsafe condition is identified on the job site, The Service Authority's utility inspector will advise the highest-ranking member of the contractor's staff at the project of the violation. Under no circumstances will the Service Authority's utility inspector provide directions of any kind on how to correct the problem, other then declaring an unsafe condition exist. Inspection services will not be rendered until such time as the problem has been corrected. Failure to correct an unsafe condition or repeated conditions will result in notification to the Virginia Occupational Safety and Hazard Association.

Over-Time Requests for the convenience of the Contractor:

Requests for inspection services outside of regular hours *(7:30am to 3:30pm Monday through Friday)* are to be made thru the Project Inspector along with a signed Service Authority Overtime Request Sheet no later than 3 days prior to the scheduled work. If contractor chooses to work outside these business hours (All) work is to be left open for inspection as the Inspectors schedule allows. All costs for inspection services provided outside of regular working hours for the convenience of the contractor will be reimbursed to the Service Authority. The Utility Inspections Supervisor shall compute all overtime costs. The overtime rate will include hourly wages, including overtime, holiday pay, and equipment costs. The contractor will be invoiced for the costs of the inspection services on a monthly basis, or at the discretion of the Utility Inspections Supervisor, upon conclusion of the work. *All Service Authority overtime must be paid in full prior to Service Authority Giving Partial Beneficial Use or Full Beneficial Use Approval Status.*

The Service Authority reserves the right to refuse request for overtime services at any time.

Field Changes:

Service Authority Utility Inspectors are empowered to request and obtain minor field changes to the approved plans. This usually consists of additional valves, changes in grade, or other adjustments, which will not affect easements, reduce hydraulic capacity or change the alignment. For such minor changes, the utility inspector will simply note the change on the Field Drawings.

In most cases however, the Developer or their Engineer initiates field changes. In such situations, and where substantive changes to approved construction drawings are necessary, a formal field change will be required to be submitted to the Service Authority's Engineering Department for review and approval prior to installation.

Materials:

It is the intent of the Service Authority specifications to describe definitely and fully the character of materials and to require new materials in all particulars.

No reuse of materials without the prior approval of the Service Authority. The Authority also reserves the right to salvage any and all existing materials.

A materials list will be required at the start of the job. This will need to contain the manufacturers name, sizes, etc. This will be required for all fire hydrants, tees, valves,

Fittings, pipe, manholes and any other materials used for the installation of water and sewer. The Service Authority Inspector will need to check this list with the materials onsite, prior to starting the work.

Special Conditions:

Interruption of Water Service – The Authority's goal is not to interrupt service unless it is absolutely necessary. All other options shall be taken into account when considering a service interruption, however, should it be necessary, then the following requirements must be followed:

1) Hold a pre-interruption meeting with Developer/Contractor to discuss overall plans for making tie-in. Attendees are as follows:

   - Representatives from the Developer/Contractor developing site, Authority's Utility Inspections Supervisor and the Project Inspector, Representative from the Authority's Operations & Maintenance Division, and others as required. (VDOT Inspector, etc.)

   Agenda:

   a.) Discuss responsibilities for operating existing facilities. (O&M Department)
   b.) ONLY PWCSA employees are allowed to operate PWCSA valves and fire hydrants.
   c.) Discuss responsibilities for Notification of Interruption to existing customers.
   d.) Discuss in depth the procedure for the proposed work. This will include time of day when tie-in can be made, type of materials that will be used, equipment that will be on-site and the necessary manpower needed to perform the work. We will also discuss the need for additional manpower should the work extend into the late hours of the night, as well as the estimated maximum time needed to complete the work. We will also discuss which home owners/business, if any, which will require continuous service.
   e.) All work will be done in strict accordance with the USM.
   f.) Advise the contractor/developer that they are responsible for paying all overtime costs accrued by Service Authority employees.
   g.) Advise the contractor/developer that the interruption will be canceled if the field inspector is not satisfied that all of the requirements have been adequately met.

2) The developer/contractor must submit in writing fifteen (15) days in advance of any construction, a detailed schedule outlining the procedures, techniques, personnel, materials and equipment they are planning to use to perform this tie-in.

3) The developer/contractor must notify the Authority's Project Inspector seven (7) working days prior to making the actual tie-in so that the ***Interruption Notice*** can be prepared and hand delivered three (3) days in advance of the actual interruption. Depending on the

Number of notices that have to be delivered, the contractor/developer may be required to assist the inspector in delivering the notices.

4) A meeting will be scheduled with the developer/contractor and a representative from the Authority's Operations & Maintenance department on the day prior to the actual tie-in. The purpose of the meeting is to finalize the procedures and verify that all of the required equipment and materials are on hand as outlined in the Required Materials List and Procedure Plan. *(Remember that the developer/contractor is responsible for having on-site, all of the necessary equipment and materials as well as any backup equipment and materials needed to perform the scheduled work. If at any time the inspector determines that the contractor/developer is not ready and does not have the adequate equipment and materials on site to perform this work, he may cancel the interruption.)*

***Special Provisions**:*

- There will be a maximum allowable time to complete the work as agreed upon in the **Approved Procedure Plan**.

- If it is determined by the Service Authority's Field Inspector that the work will not be completed within the agreed upon time allotment, the Service Authority reserves the right to remove the contractor and complete the work with its own forces or contractor. In the event this occurs, the contractor/developer will be billed for all costs incurred as a result of this action.

- The Service Authority reserves the right to require the contractor/developer to maintain service to facilities that have special needs at all times such as restaurants, health care facilities, residents that have special needs, etc. This may require installation of temporary lines.

- It is the practice of the Service Authority (SA) that assets in Partial Beneficial Use, Beneficial Use, or accepted by the SA **SHALL NOT** be accessed, used, operated, or adjusted by non-SA personnel.

- In the event that an Applicant for or holder/assignee of ("Holder") a Utility Permit commits an Unauthorized Use of or obtains Unauthorized Access to Service Authority facilities or assets, the Applicant and/or Holder, shall be liable for all of the following costs and fees: (i) all of the Service Authority's costs in responding to incidents arising from an Unauthorized Use or Unauthorized Access; (ii) any fees imposed by any federal, state, or local regulatory agency as a result of Applicant and/or Holder's Unauthorized Access or Unauthorized Use; and (iii) the costs to Service Authority customers arising from the loss of service caused by an Unauthorized Use or Unauthorized Access.

- "Unauthorized Use" means any use of Service Authority facilities or assets not authorized by a Utility Permit. "Unauthorized Access" means any obtaining access to Service Authority facilities or assets in a manner that is not authorized by a Utility Permit or other permission of the Service Authority (including, but not limited to, any easements, rights of entry, license, or similar privilege).

- Service shall not be authorized until water and/or sewer lines are installed, inspected and have received written Beneficial Use Status in accordance with Service Authority and County specifications.

- It is the responsibility of the Owner/Developer to make all improvements, both on-site and off-site, to the water and sanitary sewer systems necessary to service the property.

- The Builder/Developer shall be responsible for temporary construction meter accounts. This includes replacement costs for damaged, lost or stolen meters. The Builder/Developer shall be responsible for payment of water and sewer bills associated with temporary construction meter accounts.

- The act of diverting or wasting public water, tampering with a metering device, damaging or intentionally destroying water facilities is illegal (Virginia Code Section 18.2-162, 163). Any person opening a fire hydrant without a metering device, excluding Service Authority and fire-fighting personnel, will be subject to an Unauthorized Use Charge.

Sewer Re-routing and/or Pump around – The Authority's purpose is to minimize the impact a pump around has on both the development and the surrounding community.

1) Hold a meeting with Developer/Contractor to discuss overall plans for re-routing sewer and pump around requirements. Developer/Contractor responsible for submitting by-pass pumping design to the Authority for approval prior to start of work. Design will reflect actual existing sewer flows through manhole as measured by the contractor including projected flows for peak flow conditions and an allowance for inflow and infiltration during a rain event. Design will also take into account the required storage needed to operate the recommended pumps during their operation. If it is determined by the Develop/Contractor That additional storage is needed to accommodate the pump around, then it will be their responsibility to provide the storage via a means acceptable to the Authority.

Attendees are as follows:

- Representatives from the Developer/Contractor developing site, Authority's Utility Inspections Supervisor and the Project Inspector, Representative from the Authority's Operations & Maintenance Division, and others as required. (VDOT Inspector, etc.)

Agenda:

a. Discuss responsibilities for operating existing facilities. (O&M Department)
b. Discuss in depth the procedure for the proposed work. This will include time of day when main can be interrupted and pump around started, type of pump (silent vs. standard) and back-up pump requirements, 24 hour run test and back-up pump run test, monitoring procedure for pump run time to include manually monitoring pumps on a 2 hour interval vs. auto dialing system and required emergency contact numbers, pre-inspection of piping and coupling system for leaks, and emergency spill plan.
c. All work will be done in strict accordance with the USM.
d. Advise the contractor/developer that they are responsible for paying all overtime costs accrued by Service Authority employees.
e. Advise the contractor/developer that the interruption and pump around procedure will be canceled if the field inspector is not satisfied that all of the requirements have been adequately met.

2) The developer/contractor must submit in writing fifteen (15) days in advance of any construction, a detailed schedule outlining the procedures, techniques, personnel, materials and equipment they are planning to use to perform this task.

Full Beneficial Use

The term **"Full Beneficial Use"** is used to describe the situation during the construction of development or VDOT projects whenever a pipeline or pumping facility is used to support one or more Service Authority customers and the project has not received bond release for final acceptance. This is predominantly the case in subdivisions when homes in a residential section are sold and occupied before the subdivision is complete. The inspection process for **"Full Beneficial Use"** is triggered by the request from the owner/contractor/developer by filling out the **"Full Beneficial Use"** request letter attached to this paperwork prior to the setting of any water meters in the subdivision or project site.

It is possible for pipelines and pumping facilities to be in "**Full Beneficial Use"** for years prior to performance bond releases.

While in Beneficial Use all problems will be corrected by the site contractor. In the absence of a timely response by the site contractor/developer, Operations and Maintenance (O&M) will repair problems affecting water and sanitary sewer services to the customer. If this occurs, the Authority will bill the owner/developer/contractor for all costs associated with the repairs.

PROCEDURE

Once the contractor/developer has installed and tested all of the water and sewer mains and their appurtenances in accordance with the approved plans and specification, the following steps must be taken by the owner/contractor/developer in order to place the project in a **"Full Beneficial Use"** status:

Step 1 The owner/contractor/developer will request in writing to the Beneficial Use (BU) Inspector/Project Inspector, that the project be placed in a **"Full Beneficial Use"** status. A sample copy of the letter is attached to this paperwork.

Step 2 If necessary, the BU Inspector will review the request with the Project Inspector to make sure that the utilities are in fact installed, tested, and ready for use as requested and that the drawing provided by the contractor/developer has all of the necessary information in order to track the process. The BU Inspector/Project Inspector has 30 days upon request to generate a **"Full Beneficial Use"** punch list for the owner/contractor/developer. Corrections to the **"Full Beneficial Use"** punch list are to be completed by the owner/contractor/developer prior to meter requests or installations.

Step 3 Upon notification from the site owner/contractor/developer that all of the deficiencies identified during the initial inspection have been corrected, the BU inspector will:

a.) Notify the site owner/contractor/developer via an approved letter advising them that they can now begin requesting construction meters.

b.) Notify the following internal offices via copy of the approval letter that the project has been placed in **"Full Beneficial Use"** status and is now ready for water meters.

- Utility Services
- Plan Review
- O&M
- Mapping

Partial Beneficial Use

The term "**Partial Beneficial Use"** is used to describe the situation of a **"Full Beneficial Use"** but for only a portion of or certain lots of the site. In this case, the owner/builder/contractor will follow the same steps for a **"Full Beneficial Use"** with the following differences.

- When filling out the attached paperwork instead of marking the sheet for **"Full Beneficial Use"** you will mark it as **"Partial Beneficial Use"** and add the lot numbers, street names and /or the section you would like to be inspected.
- Fill out the attached DCSM fire flow and hydrant coverage sheet with an engineer approved stamp and signature attached.
- Fill out the attached CCTV Additional Inspection Request form.

All **"Partial Beneficial Use"** requests will require a $600.00 fee with the exception of the final **"Partial Beneficial Use"** which will then put the entire site into **"Full Beneficial Use".** $600.00 fee must be paid to Utility Services prior to any inspections. You can contact Utility Services at 703-335-7930.

SPECIAL NOTE:

"Full/Partial Beneficial Use" *status does not in any way constitute final acceptance of the system, but only allows the developer/contractor to place the water and sewer mains in use while the development is under construction. The developer/contractor is still responsible for all maintenance and repair of the system until it has been bond released and turned over to the Authority for ownership and operation. All Service Authority overtime must be paid in full prior to Service Authority Giving Partial Beneficial Use or Full Beneficial Use Approval Status.* (*No Meters will be set prior to FBU / PBU Status).*

Sanitary Sewer Mains – Per the USM:

Construction:

- Cut sheets will be submitted to the utility inspector for review and approval prior to construction.
- All materials will be inspected to assure that they meet Service Authority standards.
- Handling of materials in the field by the contractor will be done as recommended by the manufacturer.
- Chock haunches of pipe. *(No bellies accepted)* this includes both mains and laterals.
- 5-foot diameter manholes are required when using inside drop connection.
- Do not parge joints, boots, and castings inside manhole with mortar.
- All DIP pipe for sewer will be poly wrapped per the Dippra guides attached, tape shall be poly tape only and the bolts and DIP fittings with bare metal showing will be coated with Roscote R-28 coating.

Laterals:

- Increase grade on laterals when possible *(i.e. vertical jump)* refer to the USM.

Backfill:

- Backfill in areas subject to vehicular traffic will be compacted to 95% dry density; areas not subject to vehicular loads will be compacted to 90%.
- The first 2-foot lift over the pipe will be of stone pieces no larger then 1-inch in and dimension. Backfill will be placed in 8-inch lifts compacted as specified in the USM.
- Rocks larger then 10-inches in any dimension will not be used in the backfill of any sewers or structures.
- Backfill in existing right-of-ways controlled by VDOT are subject to their standards.

Testing:

- All mains, laterals, manholes will be tested in accordance with the USM prior to acceptance.

Water Mains - Per the USM:

Construction:

- Cut sheets will be submitted to the utility inspector for review and approval prior to construction.
- No *"USED"* materials *(i.e. fire hydrants, pipe, fittings, etc.)*.
- All materials will be inspected to assure that they meet Service Authority standards.
- Handling of materials in the field by the contractor will be done as recommended by the manufacturer.
- Service Authority staff will operate all existing valves.
- Open end of pipe to be covered in trench and plugged overnight.
- Concrete thrust blocks may be required along with mega-lugs at the utility inspector's request.
- Restraint schedule will be shown on plans and/or cut sheet.
- All DIP pipe water line pipe will be poly wrapped per the Dippra guide attached, tape shall be poly tape only and the bolts, and DIP fittings with bare metal showing will be coated with Roscote R-28 coating.
- All water main fittings and service lines will be inspected prior to placing backfill.

Water Services:

- No water meters will be released to project until all testing and flushing of both water and sanitary sewer mains have been completed and the Service Authority **"Full/Partial Beneficial Use"** process has been completed.
- Curb & Gutter must be in place prior to installing water services.
- Property line must be marked for installation of water meter setting.
- Stone dust suitable for backfill for water services *(if no suitable dirt available)*.
- No bluestone is allowed in or under meter box.

Backfill:

- Backfill in areas subject to vehicular traffic will be compacted to 95% dry density; areas not subject to vehicular loads will be compacted to 90%.
- The first 2-foot lift over the pipe will be of stone pieces no larger then 1-inch in and dimension. Backfill will be placed in 8-inch lifts compacted as specified in the USM.
- Where excavation is made in rock, boulders, or other unsuitable materials, the sub-grade will be made by backfilling with minimum 4-inches of gravel or clean selected soil, which shall be thoroughly compacted.
- Backfill in existing right-of-ways controlled by VDOT are subject to their standards.

Testing:

- Proper test equipment *(gauges, meter, clean barrel or tank)* required.
- All testing must be satisfactorily completed *(this includes bacteria)* before water services can be installed.

Resolution of Problems:

The contractor will make effort to resolve any problems encountered in the field with the utility inspector. If a problem cannot be resolved, the utility inspector will bring it to the attention of the Assistant Utility Inspection Supervisor.

Contacts: Conrad Holtslag, Utility Inspection's Area Manager at 703-335-7937 or 703-898-3433.

The conditions' listed above have been explained to me and I understand my responsibility as the contractor/developer.

_____ _____

Signature (Contractor/Developer) Date

_____ _____

Signature (PWCSA)

(Your Company Letter Head)

SAMPLE LETTER

Date

Mr. (Site inspector's name)
Prince William County Service Authority
P.O. Box 2266
Woodbridge, VA 22193-0266

Re: Project Name
PWC Plan #

Dear Mr. (Site inspector's name):

We have substantially completed the water and sewer infrastructure for the above referenced project, as of this date, and are now requesting that the Authority to place it in:

(*Please check appropriate box*)

☐ "Full Beneficial Use" status. (All **Lots**)

☐ "Partial Beneficial Use" status

- (**Please list the Address of Lot you want in the Partial Beneficial Use**)
- **(Attach the fire protection certification sealed by a Professional Engineer for lots to be placed in Partial Beneficial Use and Prince William County Approval)**
- **Attach an exhibit highlighting those facilities proposed to be placed in Partial Beneficial Use Status**

Please take the necessary steps to begin the process as soon as possible. I understand, and am in agreement, that the ***"Full/Partial Beneficial Use"*** status is solely for the purpose of using the facilities while the project is under construction. I am also aware that I must follow the established guideline for final bond release upon the completion of my project.

If you have any questions, please contact me at (123) 456-7890.

Yours truly,

Your name
Title

(Letterhead)

(SEAL)

(Date)

Ms. Samantha Kearney, P.E.
Development Manager
Prince William County Service Authority
4 County Complex court
Woodbridge, VA 22192

Re: (Plan Name)
(Plan Number)
(Lots Numbers or Building Identifiers to be placed in Partial Beneficial Use)

Dear Ms. Kearney:

I, (Name), a duly licensed professional engineer in the commonwealth of Virginia, do hereby certify the available fire flow in accordance with the DCSM (Water Systems and Fire Flow Requirements) and fire protection/hydrant coverage in accordance with the DCSM (Fire Hydrants in Relation to Buildings, reference to Table 3-2) for the above referenced lots/buildings. The information certified below is made by knowing the limited portion of the water system that is installed and to be put into operation with the occupancy of the referenced lots/buildings.

❑ The required DCSM fire flow and hydrant coverage for the project **is** available. The water system constructed with the above referenced lots is able to deliver a minimum fire flow of _____ gpm at 20 psi.

- ❑ Estimated available fire flow has been determined by adjusting the hydraulic model previously accepted by Service Authority to match the installed water system that is to be placed in operation with the occupancy of the above referenced lots/buildings. The adjusted water model meets all Service Authority requirements referenced in the effective Prince William County Design and Construction Standards Manual and the Service Authority Utility Standards Manual.

- ❑ Estimated available fire flow has been determined by an on-site fire flow test from hydrants that provide coverage to the referenced lots/building. Test results have been extrapolated to all points of the installed water system that is to be placed in operation and adjusted for the low hydraulic grade line of the system, friction loss in the pipe, and elevation of the hydrant locations.

❑ The required DCSM fire flow is **not** available. The water system constructed with the above referenced lots is able to deliver a minimum fire flow of _____ gpm at 20 psi.

- ❑ Estimated available fire flow has been determined by adjusting the hydraulic model previously accepted by Service Authority to match the installed water system that is to be placed in operation with the occupancy of the above referenced lots/buildings. The adjusted water model meets all Service Authority requirements referenced in the effective Prince William County Design and Construction Standards Manual and the Service Authority Utility Standards Manual.

- ❑ Estimated available fire flow has been determined by an on-site fire flow test from hydrants that provide coverage to the referenced lots/building. Test results have been extrapolated to all points of the installed water system that is to be placed in operation and adjusted for the low hydraulic grade line of the system, friction loss in the pipe, and elevation of the hydrant.

Disclaimer:

☐

NOTICE TO ALL
BUILDERS, DEVELOPERS & CONTRACTORS

Effective July 1, 2011 the Service Authority will institute a CCTV return trip fee. The Service Authority performs a CCTV inspection on all gravity sewer mains prior to acceptance by the Service Authority. The builder is responsible for ensuring that the gravity mains are free of debris and gravel to allow the CCTV camera to pass through the mains to complete the inspection.

Occasionally, a CCTV inspection is requested by the builder, but the inspection cannot be performed due to debris and/or gravel in the mains. To recover the Service Authority's remobilization costs, effective July 1, 2011, builders will be charged a CCTV return trip fee if they request a CCTV inspection, but the CCTV crew finds debris and/or gravel in the main that prevents completion of the inspection. The CCTV return trip fee will only be assessed in cases where the sewer mains are not cleaned to allow the CCTV camera to pass through.

The fee shall be as follows:

CCTV Return Trip Fee* - $600

* All fees are subject to change with associated costs and are posted online at www.pwcsa.org.

Please be advised if the builder is assessed a CCTV return trip fee, the fee must be paid prior to requesting additional CCTV inspections.

Please contact me with any questions you might have.

Sincerely,
Karla Coker,
Utility Services Manager

For a pocket-size version of this Guide, please contact your local DIPRA Regional Engineer, or visit the DIPRA web site at http://www.dipra.org to order your copy.

POLYETHYLENE ENCASEMENT INSTALLATION GUIDE

Effective, Economical Protection for Ductile Iron Pipe In Corrosive Environments

DIPRA
DIPRA
DIPRA
DIPRA®

A STEP-BY-STEP GUIDE FOR INSTALLING POLYETHYLENE ENCASEMENT ON DUCTILE IRON PIPE

THIS POLYETHYLENE SLEEVE (polywrap) is placed on Ductile Iron pipe to prevent corrosion. It does not have to be sealed watertight, but it should be installed so that no dirt or bedding material comes in contact with the pipe. All lumps of clay, mud, cinders, etc., on the pipe surface should be removed before the pipe is covered with polyethylene. If the polyethylene is damaged, it must be repaired before the trench is backfilled.

Small holes or tears can be repaired with a piece of tape placed over the hole. Large holes or tears should be repaired by taping another piece of polyethylene over the hole.

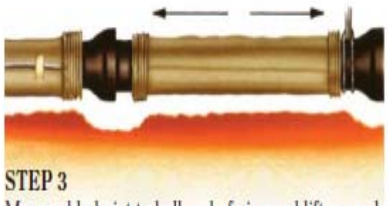
Overlaps, ends, and repairs can be held in place with tape or plastic tie straps until the trench is backfilled.

Other general tips for proper installation include: • When lifting polywrapped pipe with a backhoe, use a fabric-type "sling" or padded cable to protect the polyethylene. • When installing polywrap below the water table or in areas subject to tidal action, seal as thoroughly as possible both ends of each polyethylene tube with adhesive tape or plastic tie straps at the joint overlap. Also, place tape or plastic tie straps around the pipe at two (2) foot intervals. • Quality of installation is more important than the actual sequence followed.

FOLLOW THESE STEPS FOR EASY INSTALLATION

STEP 1
Clean all dirt, cinders, etc., from the surface of the pipe. Cut polyethylene two (2) feet longer than the pipe. Slip polyethylene over spigot end and bunch as shown above.

STEP 2
Dig bell holes at joint locations, lower pipe into trench and make up joint.



STEP 3
Move cable hoist to bell end of pipe and lift enough to slip polyethylene along pipe as shown above.

STEP 4
Pull polyethylene forward from previous joint over the bell and secure in place as shown.

STEP 5
Pull polyethylene from new pipe over this same bell, providing a double layer of polyethylene and secure in place as shown.

STEP 6
Take up slack in the tube along the pipe barrel, making a snug but not tight fit. Fold over on top of pipe and secure in place about every three (3) feet as shown.

STEP 7
Make sure any tears in the polyethylene are repaired with tape or another piece of polyethylene secured over the damaged area.

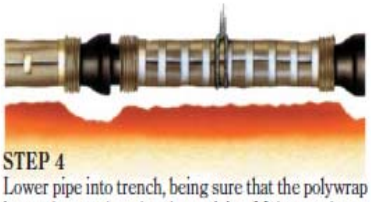
STEP 8
Backfill the trench according to specifications, being careful not to damage the polyethylene while tamping around pipe. Backfill should not contain material that might damage the polyethylene.

Wet Trench Installation

STEP 1
Cut the polyethylene tube two (2) feet longer than pipe and slip over pipe as shown above.

STEP 2
Spread the polyethylene tube as shown so that enough is left to provide a one (1) foot overlap at each end of pipe.

STEP 3
Take up slack in the tube to make a snug but not tight fit and secure every two (2) feet with tape or plastic tie straps completely around the pipe.



STEP 4
Lower pipe into trench, being sure that the polywrap is not damaged, and make up joint. Make overlap at joints as shown before. Be sure to secure the ends of the polyethylene with tape or plastic tie straps.

Tapping Polywrapped Pipe

When tapping polywrapped Ductile Iron pipe, the following procedure is recommended.

STEP 1
Wrap two or three layers of tape completely around the pipe where the tapping machine will be placed.

STEP 2
Mount the tapping machine on the taped area and make the tap directly through the tape and polywrap. Install corporation stop.

STEP 3
Inspect the entire area for damage and repair if necessary.

STEP 4
Wrap any connected copper service line within three (3) feet of the pipe with polyethylene.

STEP 5
Backfill trench as described before.

Remember: If you have any problems or questions about installing polyethylene encasement, contact DIPRA or one of its member companies.

DIPRA MEMBER COMPANIES

American Cast Iron Pipe Company
P.O. Box 2727
Birmingham, Alabama 35202-2727

Atlantic States Cast Iron Pipe Company
183 Sitgreaves Street
Phillipsburg, New Jersey 08865-3000

Canada Pipe Company, Ltd.
1757 Burlington Street East
Hamilton, Ontario L8N 3R5 Canada

Clow Water Systems Company
P.O. Box 6001
Coshocton, Ohio 43812-6001

McWane Cast Iron Pipe Company
1201 Vanderbilt Road
Birmingham, Alabama 35234

Pacific States Cast Iron Pipe Company
P.O. Box 1219
Provo, Utah 84603-1219

United States Pipe and Foundry Company
P.O. Box 10406
Birmingham, Alabama 35202-0406

DUCTILE IRON PIPE RESEARCH ASSOCIATION

An association of quality producers dedicated to highest pipe standards through a program of continuing research.
245 Riverchase Parkway East, Suite O
Birmingham, Alabama 35244-1856
Telephone 205 402-8700 FAX 205 402-8730
http://www.dipra.org

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