

**City of Baltimore
Department of Transportation**



Developer's Agreement

**Frank J. Murphy
Acting Director**

**Right of Way Services Division
Land Conveyance Section
Abel Wolman Municipal Building Room 204
200 N. Holliday Street
Baltimore, MD 21202
Ph: 410-396-3667**

A Developer's Agreement is required for work done in the public right of way or which will be maintained by the City of Baltimore ("City") including 3-inch or larger water services, water mains, developments which require ten (10) or more water supply services of any size, sanitary or storm drain extensions, conduit, or road construction. To downsize water meters 2-inches and smaller in meter size, a Developer's Agreement is not required; a "Water Meter Downsize Request Form for Meters 2-inches and Smaller" can be used instead.

Refer to the Appendix for projects that can be done under a permit rather than a Developer's Agreement, but still require engineering plans that are signed and sealed by a Professional Engineer registered in the State of Maryland.

The Developer's Agreement will describe the type of work and location where it will be done. The Developer will have all work to be constructed in the right of way designed to City standards. An approved estimate of the construction costs will be used to base a 100% performance bond or irrevocable letter of credit to remain as surety for one year after completion. An inspection fee equal to 9% of the surety will be assessed for costs incurred by the City. The Developer will also be responsible for acquiring all other necessary or required permits.

The City of Baltimore will not be liable for incorrectly sized services and meters, and will not assess adequate water supply. The City of Baltimore will make no representation as to the size of meter required for any application. Note that multistory buildings may require on site pumping.

Please note that the Developer, their engineer, or representative will be responsible for selecting the location desired for the fire flow test. Fire flow tests shall be conducted on the same water main where the proposed water service connection will be made. The Developer shall be required to arrange for a new fire flow test in order to determine if there is an adequate water supply for their project. Previous fire flow tests shall be rejected, a new test is required. The engineer shall prepare a sketch of system configuration, hydrant location, and hydraulic zone, and mail it along with the request for the fire flow test to the DPW Water Analysis Office, Mr. Bob Suri, Ashburton Filtration Plant, 3001 Druid Park Drive, Baltimore, Maryland, 21215, Telephone No. 410-396-0239.

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If any underground electrical services are part of the project, design of any needed conduit extension must be included as part of the Developer's Agreement. All conduit design and construction shall be completed in accordance with the City of Baltimore Book Standard Details, Specifications and the Conduits checklists included herein.

The Developer must prepare plans and submit them to the Land Conveyance Section whereby they will be circulated for review and comments from all necessary agencies.

Upon Approval of the plans by all agencies, the Developer's execution of the agreement, and the posting of the bond or letter of credit, the agreement will be submitted to the Board of Estimates for final execution. The estimated time for execution of the agreement is a minimum of one month.

For the most part the approval time for the plans will be determined by the amount of time corrections or comments are addressed by the Developer's engineer. However, a minimum of three months should be anticipated for this entire process.

To begin this process you should make a request in writing to Mr. David Framm, Supervisor, Land Conveyance Section, for any 3-inch or larger meter services, 10 or more water supply services of any size, water main extensions, fire hydrants and/or related water appurtenances, sewer line, storm drain, conduit, or roadway work. For additional information, please contact Ms. Charlene Tyler at 410-396-3667.

PROCEDURES

1. The Developer must verify through the Metered Accounts Division the service account numbers for all existing water services, and show them on the proposed construction plans.
2. The Developer must request a fire flow test through the DPW Water Analysis Office, Mr. Bob Suri, Ashburton Filtration Plant, 3001 Druid Park Drive, Baltimore, Maryland, 21215, Telephone No. 410-396-0239.
3. The Developer must have the proposed construction within the right of way designed to City Standards by a Maryland Registered Professional Engineer. The Developer then submits the following under a cover letter to Mr. David Framm, Supervisor, Land Conveyance Section, Abel Wolman Municipal Building Room 204, 200 N. Holliday Street, Baltimore, MD 21202 a) a copy of the fire flow test results b) 25 copies of "Preliminary" plans and c) a non-refundable submittal fee in the amount of \$200.00 made payable to "Director of Finance".
4. The Land Conveyance Section will assign a Developer's Agreement # and circulate the plans for review and comments.

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5. The Land Conveyance Section will collect all comments and advise the Developer when they may pick up the "Preliminary" comments, or the comments may be emailed to the Developer.
6. The Preliminary Plans shall be consistent with the approved Subdivision Plan, if applicable.
7. Hydraulic modeling of the proposed development will be required for a large development(s). Large developments are those that are deemed to have material impacts to the existing water system. The Developer shall submit the total water demand based on the full build-out.
8. The City may require community outreach for your project depending on the size, duration, parking impacts, detours, location, etc. A representative from DOT will notify the Developer if this is required during the design review stage. If community outreach is required, the Developer will work directly with a Community Liaison from DOT.
9. After Developer receives their "Preliminary" comments, they should then proceed to finalize their plans and address conflicts that might arise with the individual agencies.

NOTE: It is the intention that the Developer will contact the Design Review Personnel (list provided) to work out their conflicts, prior to their semi-final submittal. If an easement is required the Developer should contact the Land Conveyance Section and have proper surveys performed and submit a paper copy of the easement plat for review. Once approved, the easement agreement will be prepared by the Land Conveyance Section. After execution by the Owner, the Land Conveyance Section will have the deed recorded.

10. The Developer shall then submit 25 copies of "Semi-Final" plans for review and comment, and a preliminary construction cost estimate for review and approval.
11. The Land Conveyance Section will then collect all comments and advise the Developer that they may pick-up the 'Semi-Final' comments, or send them in an email.

NOTE: Water Engineering Office comments will include an assigned CWO#, and a Drawing #.

12. The Developer then submits original engineering plans, signed and sealed by a Maryland Registered Professional Engineer, on Mylar, along with two (2) paper sets of the plans, to the Land Conveyance Section.

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13. If all comments have been addressed, the Land Conveyance Section will then prepare five (5) copies of the Developer's Agreement and forward them to the Owner or Developer to be executed (signed and witnessed). The Owner or Developer will then return the executed agreements along with five (5) original Performance Bonds or one (1) original Letter of Credit in the amount of the approved estimated construction cost.
14. The Land Conveyance Section will then concurrently route the plan(s) for signature, and begin the process of Board of Estimates execution of the agreements.
15. After the Agreement has been approved by the Board of Estimates and the original (Mylar) plans have been signed by the City agencies, and any easement properly recorded (when applicable), the copies of the executed agreement plans would be distributed to:
 - a. Board of Estimates (1) (Agreement, plans if requested)
 - b. DPW Office of Engineering and Construction Management/Water Engineering Section (1)
 - c. Water Utility Billing(1) – if needed
 - d. Developer (1)
 - e. Department of Transportation – Land Conveyance Section (1)
 - f. Department of Transportation - TEC Division (1) - if needed
16. The Land Conveyance Section will fill out a Water Meter Request form and obtain approval from the Water Engineering Office. The Developer shall then make application for their water services with the Metered Accounts Division (Room 404 Abel Wolman Municipal Building, 200 N. Holliday Street). The Metered Accounts Division will supply the Developer with a "Cash Slip" in order to release the water meter(s).
17. After the Developer has been given their approved plans and agreement, they must then submit a project schedule to the Office of Permits or Utility Maintenance Division and arrange for a Preconstruction Meeting, which shall include the Contractor and staff inspector. The Department of Public Works will inspect the water installations and the Department of Transportation will inspect all other construction in the public right of way.
18. After all of the previous steps have been followed, the Developer will then be given official notice to proceed by the Land Conveyance Section.
19. The Developer must submit all requests to revise the approved plans to the Land Conveyance Section in writing. If approved, the Land Conveyance Section will send the revised plans to the City's inspector(s). The Developer is not to give copies of revised plans to the City's inspector.

20. Upon completion of the construction, an inspection must be made and the inspector must make written acceptance.
21. The Bond or Letter of Credit shall remain in effect for one year after the written conditional acceptance and all terms and conditions of the agreement have been met. Following the one year warranty period, the Developer shall request the Land Conveyance Section to have a final inspection performed. After the approval by the City inspector, and submission of As-Builts to the City, the surety will be released.

NOTE: All plans will require As-Builts on Mylar that include revisions, signed and sealed by a Maryland Registered Professional Engineer, at the end of the maintenance term and upon final acceptance, and prior to the release of the surety. The Developer shall certify that all field changes are shown in the As-Built drawings. The City may also need scanned images of the As-Built plans from the Developer.

22. The Bond is then released and a Letter of Release is sent to the Developer. If a Letter of Credit applied, then a letter and the original Letter of Credit are sent certified to the issuing Bank and a copy is mailed to the Developer.
23. The Right of Way agent files the final Mylars in the office.

All fees shall be made payable to the Director of Finance.

REQUIREMENTS

A. Design, Review, Execution of Agreement

1. Cover letter requesting a Developer's Agreement
2. Preliminary plans - 25 sets
3. Submittal fee (\$200) (non-refundable)
4. Copy of fire flow test
5. Semi- Final Plans - 25 sets (if needed)
6. Preliminary construction estimate ****Material List shown on plans****
7. If applicable - approved easements and/or approved subdivision plan
8. Letter stating all conflicts have been addressed with one (1) original (Mylar) plans set and two (2) paper sets of the plans for approval routing. Engineering plans are to be signed and sealed.
9. Five copies of executed agreement with Performance Bond (5 originals) or Letter of Credit (1 original).

B. Pre-Construction

1. Pay City Fixed Fees
2. Meter applications, meter costs
3. Construction schedule
4. Confirmation that the Contractor(s) that the Developer intends to utilize on the project are pre-qualified with Baltimore City.

C. Construction

1. Notification to Water and Wastewater Maintenance Division (410-396-7870) at least 2 weeks prior to start-up of construction.
2. Notification to Water and Wastewater Maintenance Division at least 3 working days prior to inspection of 4" and larger meter installations.
3. Notification to Water and Wastewater Maintenance Division at least 7 working days prior to the need for any valve operations.
4. Notification to Water and Wastewater Maintenance Division at least 5 working days prior to the inspection of meters smaller than 4" in the yokes.
5. Notification to Permits Inspection Section (410-396-1675) to arrange a preconstruction conference.

SCHEDULING

The following is a list of City agencies for the coordination of schedules, etc.

1. Routing status, review and design, agreement

Land Conveyance Section

Location: 200 N. Holliday St. Room 204 Abel Wolman Municipal Building

Telephone Number: 410-396-5023

Contact Person: Mr. David Framm

2. Fire Flow Tests

Water Analysis Office

Location: 3001 Druid Park Drive

Telephone Number: 410-396-0239

Contact Person: Mr. Bob Suri

3. Utility Billing Section

Location: 200 N. Holliday St. Room 404 Abel Wolman Municipal Building

Telephone Number: 410-396-5533

Contact Person: Ms. Karen McCargo

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4. Contractors Pre-qualifications

Baltimore Contractors Qualification Committee/Office of Boards & Commissions

Location: 751 Eastern Avenue

Telephone Number: 410-396-6883

Contact Person: Staff

5. Water Meter Pick-Ups

Location: 2331 N. Fulton Street

Telephone Number: 410-396-7870

Contact Person: Staff

6. Inspection - Water Mains/Meter Installations

Water and Wastewater Maintenance

Telephone Number: 410-396-1317

Contact Person: Staff

7. Water Valve Operations

Water and Wastewater Maintenance

Location: 2331 N. Fulton Street

Telephone Number: 410-396-7870

Contact Person: Staff

GENERAL DRAWING REQUIREMENTS

- Drawing sizes shall be limited to the City's standard of 24"x 36".
- An example of a blank plan sheet can be supplied to show how the signature and record block should be shown.

WATER DRAWING REQUIREMENTS

1. All water plan drawings must contain:
 - a. Vicinity Map
 - b. Shutoff diagram
 - c. A written scale, bar scale, and North arrow
 - d. Minimum of three (3) Baltimore City coordinate tic marks
 - e. Baltimore City horizontal and vertical datum information
 - f. All existing or proposed valves, reducers, hydrants and bends must be detailed and the reference must be made to the applicable Baltimore City Standard Detail numbers for the proposed water appurtenances. The

method of the proposed connections and proposed tie-ins must be shown and labeled on the plans. Label all proposed restraints and thrust blocks if applicable.

- g. Profiles based on City data (showing relation to other underground utilities). The profiles shall also show the existing and proposed grades as well as the vertical clearances with any other utilities.
- h. Accurate standard plate numbers
- i. A sequence of construction with valves numbered on the shutoff diagram (if applicable)
- j. Standard notes as shown on the blank plan sheet
- k. Owner, Applicant, and Developers name and address
- l. Tax address (Ward, Section, Block, and Lot)
- m. Size of domestic meter and service size
- n. Fire line size, FM meter or Detector check meter, also if DC is it to be a turbo or compound? Show the applicable Baltimore City Standard Detail numbers on the plans.
- o. All abandoned meters size, service size, meter number, and account number and service address
- p. For all proposed multiple service(s) - a list of service type and size, meter size, and address
- q. An assigned Developer's Agreement Number
- r. Bill of Materials

2. Utility Clearances for Water Work:

- a. Horizontal Clearances
 - i. When available, a minimum 5-foot horizontal clearance is requested between water facilities including appurtenances and other utilities; 3-foot clearances are required.
 - ii. Water mains installed parallel with sanitary sewer mains require a minimum 10-foot clearance unless waived by the State of Maryland.
 - iii. Service installations and all water appurtenances are required to have a minimum 10-foot clearance from sanitary sewers and their appurtenances.
- b. Vertical Clearances
 - i. A vertical clearance of 12 inches is requested between utilities; 6-inch clearances are required. 12-inch clearances are required on water mains larger than 12-inches in diameter and when crossing sanitary sewers.

STANDARD WATER NOTES ON WATER PLANS

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1. The Contractor must notify "Miss Utility" at 1-800-257-7777 at least five (5) days prior beginning work
2. Notify Water and Wastewater Maintenance Division (410-396-7870) at least two (2) weeks prior to startup of construction on the water service. For Sanitary, Conduit, Storm Water Services, contact the Permit Inspection Section (410-396-4059). The Contractor must receive written notice to proceed from Water and Wastewater Maintenance Division or the Permit Inspection Section prior to performing any work.
3. For meter installation, Contractor must notify Baltimore City, Bureau of Water and Wastewater (410-396-1663) 72 hours before starting work. Complete meter installation to be inspected by the Water and Wastewater Maintenance Division representative prior to placement of top slab.
4. The Contractor shall arrange to pick up Meter at the Department of Public Works Meter Shop on Franklinton Road.
5. All existing water valves shall be operated by Water and Wastewater Maintenance Division forces only. Notify Mr. Anthony Stevenson (410-978-5981) at least seven (7) working days in advance of any necessary valve operations.
6. All work shall be done in accordance with the Department of Transportation Developer's Agreement and the City of Baltimore Book of Standards, City of Baltimore Manual of Design Procedure and Criteria.
7. The Contractor shall use extreme caution when working near or over existing water facilities.
8. All services must be flushed prior to setting meters.
9. Service must be capped and the completed service will be visually inspected for leaks.
10. All services to be abandoned must be abandoned at the mains and all meters must be returned to Baltimore City.
11. The Developer must verify through the Utility Billing Section (410-396-5533) the service account and meter numbers for all existing water services to remain or to be abandoned and shown on the proposed plans.
12. Meters are not permitted to be installed in the roadway or driveways.

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13. Contractor must notify BGE (410-281-3507) at least two (2) days prior to construction.
14. Ductile Iron pipe shall be Class 54.
15. The Contractor shall notify the Bureau of Water and Wastewater, Meter Repair Shop (410-396-0170) (for meters 1-1/2" and larger notify Mr. Murray Miller at 410-977-1271 also) at least one (1) week prior to pickup of meters.
16. Meters designated for a specific location or address shall not be relocated without the written permission of the Bureau of Water and Wastewater.
17. The proposed water service connection will be installed a minimum of five (5) feet from sanitary sewer house connection.
18. Standard buttresses for vertical bends and caps shall conform B.C. 837.06 and 837.22.
19. The Contractor shall confirm invert elevations of existing water mains and all utility crossings prior to any new construction. Any deviation noted from test pit information will require Red Line revised plans approved by the Utility Engineering Section prior to any new construction.
20. Ductile Iron Pipe fittings shall meet the latest AWWA C110/A21.10 and C153/A21.51 (Pressure rating shall be 350 psi.).
21. The Contractor shall install non-detectable tape on all restrained joint pipe which shall extend 12" on each side of the restrained joint pipe. Contact Water Engineering Customer Service at 410-396-1483 for detailed specifications of the non-detectable tape for restrained joint pipe."

STANDARD CONDUIT NOTES ON PLANS

In addition to those developed by the designer, the following notes shall be placed on the conduit design documents.

1. Contractor shall notify following at least 14 days prior to starting work.
 - a. Miss Utility 800-257-7777
 - b. Street Light Maintenance 410-396-1311
 - c. Conduit Maintenance 410-396-1515
2. Conduits exist within the work area. The Contractor shall use extreme caution when excavating and installing new utilities. In the event portions of the existing Baltimore City Conduit System are damaged as a result of project construction, repair or replacement of the damaged section shall be in accordance with the

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latest edition of Baltimore City Standards and Specifications. For Split Duct refer to Baltimore City Detail 802.03-4. Repairs will be at the Contractor's expense and approved by a conduit inspector.

3. Contractor to notify all conduit leasees three (3) days prior to performing work. Contact the Conduits Section at 410-396-6914 to get this information.
4. All ducts and manholes must be constructed to conform as close as possible to the standard duct formation called in profiles. All duct bank conduits shall be DB-120 with a wire temperature rating of 90 degrees per Baltimore City specification (26 07 01.1) except on bridges (Schedule 40) and where the duct bank crosses a steam line (fiberglass.)
5. All ducts must leave at 90 degrees to the manhole wall and will proceed at the angle for the minimum of 5'-0" unless otherwise shown.
6. Horizontal bends and sweeps in the conduit shall be a minimum radius of 35' or as otherwise noted if duct sections are to be installed with a radius less than 35', the duct shall be composed of preformed factory-fabricated segmental sections with radii greater than 3', and approved by conduit inspection as per the Baltimore Specifications (26 07 01.04) All vertical bends shall have a minimum radius of 20'
7. Horizontal bends and sweeps in the secondary or uniform size duct system shall be as follow unless noted otherwise on the plans.
 - i. For 5" ID PVC: All sweeps shall have a minimum 35' radius. All bends shall have a minimum 5' radius.
 - ii. For 4" ID PVC: All sweeps shall have a minimum 18' radius. All bends shall have a minimum 3.5' radius.
 - iii. For 3" ID PVC: All sweeps shall have a minimum 15' radius. All bends shall have a minimum 1.5' radius.The contractor shall use only factory-preformed bends.
8. Upon completion of conduit installation, contractor shall clear conduit of dirt, debris, etc. and test adequacy of conduit with an approved mandrel device. Upon correction of deficiency, if any, the contractor shall install in each duct, a braided nylon line having a minimum tensile strength of four hundred (400) pounds.
9. Plug conduit open ends. For Duct Plugs refer to Baltimore City Detail 802.03-3.
10. Full trench compaction of suitable backfill material will be required for all proposed duct banks.
11. The contractor shall temporarily support all excavations as necessary to protect existing utilities and structures to meet OSHA requirements and the Baltimore City Book of Standards (31 23 16.10).

12. The duct section shall have a minimum cover of three feet six inches (3'-6") under roadways and four (4'-0") under sidewalks. The contractor may be required to adjust the depth of the conduit to avoid conflicts with existing or proposed utilities. Where it is not possible to adhere to the minimum cover specified because of an underground obstruction, a protective slab will be needed and the engineer shall give approval before the configuration of the duct section or depth of cover is revised.
13. The City of Baltimore conduit inspection & approval is required prior to BGE & cable installation.
14. All conduit sections shall be per Baltimore City Detail BC 824.01 (Standard Duct Sections) unless otherwise noted.
15. All plans should follow the Conduit Checklist (see below).
16. Contractor shall use extreme caution when working over or near existing utilities. Existing utilities shown on the plans are for the convenience of the contractor. The City does not warrant or guarantee the completeness of the information given. It shall be the responsibility of the Contractor to verify the exact locations to their own satisfaction, prior to commencing work.
17. Should the Contractor discover any discrepancies between the plans and field conditions, the engineer shall be notified immediately. Any deviations from the plans without written authorization from the engineer shall be the responsibility of the contractor. Contractor may be required to adjust the conduit alignment as shown on the plans to avoid conflicts with existing utilities.
18. At all entrances into manholes, the contractor shall furnish and install duct terminators in accordance with Baltimore City Standards.
19. The Contractor shall maintain one complete set of contract prints on which they shall note, in red, the horizontal locations and elevations of all utilities and appurtenances installed. The "As-Built" set of prints shall become the property of the City of Baltimore at the termination of the project.
20. Contractor to remove existing conduit to be abandoned as necessary to perform new construction and plug existing conduit with Mix No. 2 Concrete. Price and payment shall be incidental to the installation of new conduit and manholes.
21. All proposed manholes will be designed for HS-25 loading. Proposed manholes are required to have a minimum of two (2) feet of cover from the proposed ground line to the top of the manhole roof slab Baltimore City Detail 825.11.

22. Furnish and maintain all necessary pumps, flumes, gutters, etc., to keep the excavation free from water at all times during the progress of work. Water shall be directed to a point approved by the city.
23. Trenches for underground duct bank shall be excavated to a uniform grade and braced and sheathed. Water shall be removed as necessary. No conduit shall be laid in water.
24. The contractor shall submit shop drawings of any precast manholes meeting HS-25 load requirements. The shop drawings shall be sealed, dated and signed by a professional engineer registered in the State of Maryland.
25. All concrete duct encasement shall be Mix. No. 1.
26. All underground duct banks shall have magnetically detectable plastic warning taper installed 12" about the duct bank for the entire length of the duct bank.

CONDUITS CHECKLIST

Developer's Agreement vs. Temporary Use of Right of Way (ROW) Permit – Generally, utility permits are only allowed for cable pulls or other conduit work that does not require significant excavation and/or maintenance of traffic. Trench excavation for short runs of conduit placement (up to 100 feet ±) and duct repair are examples of ROW Permit worthy construction activities. Construction of long runs of conduit placement (more than 100 feet) and/or manhole construction will require a Developer's Agreement. Ultimately, the DOT Conduits Section (410-396-6811) shall make the final decision in determining which of the two permits is applicable.

Duct Lease and Franchise Agreements – A Developer's Agreement allows for the construction of a conduit system by a private party in the public right-of-way. The conduit system in the public right-of-way is to be dedicated to the City of Baltimore. A Duct Lease Agreement with that party must be completed before they can put cable in the system. All "private" structures in the public right-of-way need to have a Franchise Agreement or Minor Privilege. Companies that get a Franchise Agreement or Minor Privilege do not get the Duct Lease Agreement.

Spare ducts requirement – For DOT Conduit, the Developer must supply spare ducts for future use. A minimum of two (2) spare ducts shall be required. The size and number of required spare ducts shall be determined by the DOT Conduit Engineering Section on a project by project basis. Note that lateral connections to private properties usually do not require additional spare ducts. However, the applicant or Developer may be required to apply for a minor privilege agreement for the lateral connections. All other conduit required outside of the lateral connection(s) will require the two (2) additional spare ducts, as the proposed conduit is in the public right of way and will consequently become

DOT conduit. The lateral connections will be evaluated on a case by case basis, as it is preferred to run DOT conduit to a manhole near the private property and to keep the lateral connections short.

Directional Boring or Direct Buried for electrical facilities is prohibited in the City of Baltimore.

CONDUIT PLANS

1. Station the horizontal conduit alignment from manhole to manhole or from manhole to end of run.
2. Plans should have general notes and construction notes for the conduit and manholes.
3. Show stations for PC's & PT's on conduit.
4. Show radius bends on conduit. 35' Typical (12' minimum radius for 5" conduit)
5. All conduits should enter the manhole perpendicular with a minimum of 3 feet of tangent at the manhole.
6. Label conduit for type and size.
7. Number each proposed and existing manhole.
8. Show all existing and proposed utilities (screened) and check for conflicts with new conduit line.
9. Show plus and offsets from base line to conduit PC's & PT's for ties.
10. Show north arrow and street names.
11. Provide construction notes.
12. Provide reference notes.
13. Show manhole schedule for number, size, type and location.
14. Dimensions to the manhole are to the center. When the manhole lid has to be offset a detail of the roof slab should be shown showing the lid offset.
15. Maximum distance between manholes should not exceed 500'.
16. Where new conduit is constructed in the roadway a minimum of 3'-6" of cover should be maintained over the conduit. If the conduit has less than 3'-6" of cover, a protective slab for shallow conduit may be required. See 26 07 01.04 3.1, I.
17. If existing curb line is moved back and as a result it puts the existing conduit or manhole in the roadway, the depth of conduit should be checked for adequate cover (3'-6" min. cover). The manhole should slab is not traffic bearing, it will need replacing.
18. DB-120 PVC should be used for all concrete encased conduit, except on bridges (Sch 40) and where the duct bank crosses a high pressure stream line (Use Fiberglass). See 26 07 01.04 2.1, B.

19. Show all test pits on the conduit plans. Add a test pit chart or add a note (For test pit information see specifications).
20. No bend in a conduit run shall be greater than 90 degrees and only two 90 degree bends should be allowed per run. See 26 07 01.04 3.1, H.
21. When possible keep the proposed manholes out of the roadway. When the manholes are constructed in the roadway they should be placed in the center of the travel lane and not in the wheel path.
22. Avoid placing manhole in the parking lanes.

CONDUIT PROFILES

1. Profiles required from manhole to manhole or manhole to end.
2. Show all proposed and existing utility crossings and label.
3. Call out all radii on vertical bends. (12' Minimum)
4. All 5" & 6" conduit should enter in the bottom half of the proposed and existing manholes.
5. All 3" and 4" should enter in the top half of manhole.
6. Where proposed conduit enters in the long side of the manhole and has more than two 5" or 6" conduits, a recessed extension should be used.
7. A clearance of 8" should be maintained from the top, bottom and sides of manhole when conduit enters the manhole.
8. Station profiles in accordance with plan stationing.
9. Where proposed conduit (5" or larger) crosses an existing steam line fiberglass pipe should be used and 5' clearance maintained.
10. Show a floor elevation for the proposed manhole.
11. Two feet (2') minimum cover should be maintained from proposed grade to top of proposed manhole roof slab.
12. Provide stations and elevations along conduit line for construction purposes.
13. All proposed conduits should enter manhole at 90 degrees and have 3' minimum tangent.
14. Label conduit for size and type.
15. Show proposed and existing manhole numbers.
16. Show proposed and existing grades/ground lines.
17. Show cross section of conduit where rollovers occur and number the ducts.
18. Show all street crossing.
19. Maintain 3'-6" cover in roadway and 4' cover in sidewalks for proposed conduit when possible.

CONDUIT DETAILS

1. All appropriate details should be shown.
2. Blowdowns for all proposed and existing manholes affected should be shown.
3. Dimension location of proposed conduit in existing and proposed manholes. 8" minimum should be maintained from the proposed conduit to the bottom, top, and sides of the manhole.
4. Label all proposed conduit on blowdowns in accordance with Standard BC 830.01.
5. 5" and 6" conduit should enter in bottom half of manholes and be stacked vertically when possible. (Example 2 wide by 3 high)
6. The 3" and 4" conduit should enter manhole in the top half when possible. The 3" and 4" duct should stay above the 5" and 6" ducts.
7. Show all lighting and signal conduit on blowdowns and label as appropriate.
8. Need note to add bell end adapters where appropriate.
9. Cross check blow downs to see if conduit agrees with plan and profile.

STANDARD STREET LIGHTING NOTES ON PLANS

1. Unless otherwise noted, all street lighting related work shall be in accordance with the City of Baltimore's Department of Public Works (DPW) Specifications for Materials, Highways, Bridges, Utilities, and Incidental Structures ("Green Book"), the City's Book of Standards, the Building Code of Baltimore City, and the utility Developer's Agreement.
2. For work within the public right-of-way, the Contractor must obtain permits from the Department of Transportation Permits Section, Abel Wolman Municipal Building, Lobby - Room 6, 200 Holliday Street, Baltimore, Maryland, 21202, phone 410-396-6865 or 410-396-4508.
3. Baltimore City's Department of Transportation (DOT) Maintenance Division maintains street lighting poles and the Baltimore Gas and Electric company (BGE) maintains street light cables in the area. The Contractor is required to protect and maintain all existing lighting infrastructure, circuit continuity and conduit facilities during construction.
4. The Contractor is required to notify BGE at 410-281-3507 and the Baltimore City DOT Street Lighting Maintenance Engineering Section at 410-396-4446 two (2) weeks prior to starting any work.
5. If the Contractor uncovers or damages a street light, conduit or cable during construction, the Contractor is required to notify Street Lighting Maintenance Inspections at 410-396-4446 and BGE immediately. Street Lighting Maintenance would affect repairs or direct BGE to make safe conditions and/or replace cables

prior to resuming construction. All such repairs shall be made at the Contractor's expense.

6. If the existing lighting system cannot be maintained in service during construction, the Contractor is required to provide temporary lighting in accordance with Baltimore City standards until the permanent lighting is installed and in satisfactory operation. The total cost of materials and labor for street lighting work, including BGE cable connection work, shall be borne by the Contractor.
7. In areas where the Contractor is to remove the footway where buried cable is present, the Contractor shall notify and coordinate with BGE (410-470-6744). BGE may elect to install new cable prior to the installation of the new footway.
8. Coordination for BGE street lighting construction services requires that the latest Red-Lined or updated drawings (as it pertains to street lighting infrastructure) are provided electronically to Baltimore City's Transportation Maintenance Division. If applicable, the marked up drawings submitted will serve as the basis for determining the probable cost estimate for BGE services. The Contractor shall contact Street Lighting Maintenance (410-396-4446) at least 10 work days prior to starting any work.
9. The Contractor shall contact the Conduit Maintenance Inspections at 410-396-1515 three (3) days before the start of construction. Cable installation by BGE will not be carried out without completion of an inspection by Conduit Maintenance.

STANDARD HIGHWAY NOTES ON PLANS

1. All traffic control must be in accordance with the current edition of the Federal Highway M.U.T.C.D., the Maryland S.H.A. work zone traffic control standards and details, and the City of Baltimore work zone traffic control standards and details. It is the responsibility of the Contractor to supply, install, and maintain all traffic control equipment for the duration of this contract.
2. Pavement repair in (insert street name) shall be in accordance with (insert B.C Standard).
3. Disturbed curbs shall be repaired in-kind to the nearest joint. For new curb installation, a 2-foot stripping detail is required to be shown on the plans.
4. Sidewalks shall be repaired joint-to-joint with 5 inches of Mix No. 2 concrete on 3 inches of CR-6. See City Standard #'s BC 655.01, BC 655.05, and BC 655.10 for sidewalk standard details.

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5. Contractor shall maintain a minimum four (4) foot wide pedestrian footway or implement an appropriate pedestrian detour while actively working in the sidewalk.
6. All excavations and trenches shall be plated at the end of each workday and "Steel Plates Ahead" warning signs displayed in advance. Plates are to be recessed per BC 576.17-2 in the winter to avoid snow plows knocking them out of position.
7. The Contractor must contact the Department of Transportation Staff (410-396-6875) two (2) weeks prior to the start of construction and one (1) week prior to any changes to the Maintenance of Traffic (M.O.T.) plan.
8. The Contractor shall obtain permits for work within the public right of way from the Department of Transportation, Right of Way Permits Section. Applications for permits are accepted at their office (410-396-4508) in the Abel Wolman Municipal Building Lobby, 200 North Holliday Street, Lobby-Room 6. The Contractor may be billed additional traffic inspection fees not related to previous costs.
9. No work or disruptions to traffic between the hours of 7:00 a.m. – 9:00 a.m. and 4:00 p.m. – 6:00 p.m. on weekdays. The Contractor must get approval from the Department of Transportation in writing for any work on Holidays or weekends.

Additional notes may be required on a project by project basis. The Engineer should consult with the appropriate agency for further information.

DESIGN REVIEW CONTACTS

<u>AGENCY</u>	<u>CONTACT INFORMATION</u>	
DOT Land Conveyance Section	Mr. David Framm	410-396-5023
DOT Right of Way Permits Section	Ms. Sarena Townsend	410-396-4508
DPW Ashburton Filtration Plant (fire flow test)	Mr. Bob Suri	410-396-0239
DOT Engineering and Construction Division		
Street Lighting	Mr. Suresh Bhatt	410-396-6946
Design Engineering	Mr. Alvaro Lozano	410-396-6946
Signal Engineering	Mr. Raj Sharma	443-984-2158
Traffic Engineering	Mr. Graham Young	443-984-2150
Bridge Engineering	Mr. Greg Bauer	410-396-6935
Conduit Engineering	Mr. Tavon Braxton	443-984-0098
DOT Maintenance Division	Mr. Kenneth Ching	410-396-1686
DOT Permits Inspection Section	Mr. Tim Knight	410-396-1675
DPW Office of Engineering		
Water Engineering	Mr. Opinder Singh	410-396-1470
Wastewater Engineering	Mr. Wazir Qadri	410-396-3442
Storm Water Engineering	Mr. Azzam Ahmad	410-396-4700
Office of Compliance and Laboratories	Ms. Rosanna LaPlante	410-396-0732
Utility Billing	Ms. Karen McCargo	410-396-5533
DPW Plans Review Section	Ms. Rosanna LaPlante	410-396-0732
Baltimore Development Corp.	Staff	410-779-3804
Verizon	Mr. Bill Blomeier	410-393-6370
Veolia	Ms. Pamela Clark	410-649-2459
BGE – Ken Garvey	Mr. Kenneth Garvey	410-291-3094
BGE – Gas	Mr. Thomas Mitchell	410-470-7863
Parking Authority	Mr. Stanford Leach	443-573-2800

WATER METER PRICING FOR CONTRACT INSTALLATIONS

The meter prices for new applications effective July 1, 1995 are as follows:

<u>METER TYPE</u>	<u>PROPOSED PRICE</u>
5/8" meter	\$50.00
3/4" meter	\$60.00
1" meter	\$80.00
1 1/2" meter	\$220.00
2" meter	\$280.00
3" compound	\$1,100.00
4" compound	\$1,600.00
6" compound	\$2,800.00
4" MFM-MVR	\$3,700.00
6" MFM-MVR	\$5,100.00
8" MFM-MVR	\$7,700.00
10" MFM-MVR	\$12,975.00
12" MFM-MVR	\$13,500.00
4" detector check	\$675.00
6" detector check	\$930.00
8" detector check	\$1,430.00
10" detector check	\$2,720.00

EASEMENTS

If an easement is required the developer/owner will be required to execute the City's standard Right-of-Way Agreement and have prepared a descriptive surveyed plat for attachment. Easements are required in the event the proposed public utility will encroach on the private property of the developer/owner. The easement will assure the City an unencumbered right to access and maintain the proposed construction.

The developer/owner should contact the Land Conveyance Section, 410-396-3667, to obtain an example of a recently approved easement plat, a copy of the standard agreement and any additional information or clarification.

RIGHT OF ENTRY AGREEMENTS

A Right of Entry Agreement is an optional agreement, which can be request by the Developer, in order to allow construction to begin prior to Board of Estimates approval. Any Right of Entry Agreement is strictly at the pleasure of the Department of Transportation. At minimum, the following items **MUST** be completed prior to the release of a Right of Entry:

1. Mylar plans fully approved.
2. Developer's Agreement fully executed with 5 Bonds or 1 Letter of Credit.
3. All fees submitted.

The fee for a Right of Entry is \$750.00.
Execution of a Right of Entry is not guaranteed.