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1	3/8/06	WTA	
2	5/1/06	WTA	
3	6/22/06	WTA	

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SITE DEVELOPMENT PLANS  
RESIDENCE INN - WINSTON HOTELS  
**DETAILS - WESTERN VIRGINIA WATER AUTHORITY**  
CITY OF ROANOKE, VIRGINIA

Vertical Scale:  
N/A

Horizontal Scale:  
N/A

Commission Number:  
2522

Sheet No.:  
**C-11**

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**BEDDING AND BACKFILL UNDER PAVEMENT** G-02

NOTES:

- IN ROANOKE COUNTY, THE CONTRACTOR SHALL REPLACE THE OPEN CUT WITH A MINIMUM TOP COURSE OF 2" VDOT 88.5A BASE COURSE OF 2" VDOT 88.5A, AND SUBBASE OF 8" VDOT 21B, OR AS REQUIRED BY VDOT. IN ROANOKE CITY, CONTRACTOR SHALL MATCH EXISTING PAVEMENT LAYERS OR AS REQUIRED BY CITY STANDARDS.
- ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE AS SPECIFIED BY VDOT OR APPLICABLE LOCALITY.
- PRIOR TO CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM VDOT AND/OR APPLICABLE LOCALITY.
- ALL WATER LINES BENEATH PAVEMENT SHALL BE DUCTILE IRON UNLESS INSTALLED IN CASING PIPE OR BY DIRECTIONAL BORING.
- IN AREAS SUBJECT TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS AND SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 1558.
- ALL SERVICE LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**SPRINKLER SERVICE** W-06

NOTES:

- SETTER TO BE A.Y. McDONALD #20-215 WDL33, FORD VHS127-10W1133 OR APPROVED EQUAL.
- BACKFLOW PREVENTER TO BE RP2 MEETING ASSE STANDARD 1015.
- CUSTOMER IS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF BACKFLOW PREVENTER.
- METER BOX MUST BE MID-STATES PLASTICS, INC. PLASTIC BOX WITH FORD #227 (ELECTRONIC READ ID) OR A.Y. McDONALD MODEL #M200-TO CAST IRON BASE & COVER OR APPROVED EQUAL.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**4" STANDARD MANHOLE FOR PIPE 15" OR SMALLER** S-01

NOTES:

- ALL MANHOLE FRAMES AND COVERS SHALL BE EAST JORDAN IRON WORKS, INC. WATER TIGHT MANHOLE FRAME MODELS 1000RZ, WATER TIGHT COVER MODELS 1000RZ AND 1000RZ-1. DOWN MANHOLE BOULDER MODEL TO BE USED IN AREAS SUBJECT TO FLOODING OR BY CITY STANDARDS.
- STEPS TO BE VERTICALLY ALIGNED.
- THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT SPACING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
- FLAT TOP MANHOLES IN TRAFFIC AREAS SHALL BE SUBSTITUTED WITH THE PERIMETER OF THE UTILITY EQUIPMENT WHEN USED, THE ECCENTRIC OPENING MUST LINE UP WITH THE STEP.
- SAMPLING MANHOLES IN TRAFFIC AREAS SHALL BE SUBSTITUTED WITH THE PERIMETER OF THE UTILITY EQUIPMENT WHEN USED, THE ECCENTRIC OPENING MUST LINE UP WITH THE STEP.
- FLUXIBLE JOINT MANHOLE CONNECTION SHALL BE AS REQUIRED BY THE MANUFACTURER'S RECOMMENDATION OR EQUAL.
- CRUIT ANULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**WATER LINE VALVE INSTALLATION** W-08

NOTES:

- VALVE TO BE A.Y. McDONALD #20-215 WDL33, FORD VHS127-10W1133 OR APPROVED EQUAL.
- BACKFLOW PREVENTER TO BE RP2 MEETING ASSE STANDARD 1015.
- CUSTOMER IS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF BACKFLOW PREVENTER.
- METER BOX MUST BE MID-STATES PLASTICS, INC. PLASTIC BOX WITH FORD #227 (ELECTRONIC READ ID) OR A.Y. McDONALD MODEL #M200-TO CAST IRON BASE & COVER OR APPROVED EQUAL.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**COMMERCIAL WATER SERVICE** W-05

NOTES:

- VALVE TO BE A.Y. McDONALD #20-215 WDL33, FORD VHS127-10W1133 OR APPROVED EQUAL.
- BACKFLOW PREVENTER TO BE RP2 MEETING ASSE STANDARD 1015.
- CUSTOMER IS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF BACKFLOW PREVENTER.
- METER BOX MUST BE MID-STATES PLASTICS, INC. PLASTIC BOX WITH FORD #227 (ELECTRONIC READ ID) OR A.Y. McDONALD MODEL #M200-TO CAST IRON BASE & COVER OR APPROVED EQUAL.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**SAMPLING STRUCTURE DETAIL** S-07

NOTES:

- NOT ACCEPTABLE FOR USE IN TRAFFIC AREAS OR AREAS SUBJECT TO FLOODING.
- VALUUM OR EXFILTRATION TESTING SHALL BE USED. VALUUM TESTING SHALL MEET THE REQUIREMENTS FOR CONCRETE MANHOLES EXFILTRATION TESTING SHALL HAVE NO LEAKAGE WITHIN 15 MINUTES.
- WATER MAIN ACCESS CHAMBERS MAY BE SUBSTITUTED WITH TRAFFIC BEARING BOXES WILL BE REQUIRED IF INSTALLED IN TRAFFIC AREAS. TESTING OF MANHOLES SHALL BE BY APPLICABLE PLUMBING CODE FOR SEWER LATERALS.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**AUTOMATIC AIR RELEASE ASSEMBLY** W-12

NOTES:

- VALVE TO BE A.Y. McDONALD #20-215 WDL33, FORD VHS127-10W1133 OR APPROVED EQUAL.
- BACKFLOW PREVENTER TO BE RP2 MEETING ASSE STANDARD 1015.
- CUSTOMER IS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF BACKFLOW PREVENTER.
- METER BOX MUST BE MID-STATES PLASTICS, INC. PLASTIC BOX WITH FORD #227 (ELECTRONIC READ ID) OR A.Y. McDONALD MODEL #M200-TO CAST IRON BASE & COVER OR APPROVED EQUAL.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**MANHOLE FRAME AND COVER** W-17

NOTES:

- VALVE TO BE A.Y. McDONALD #20-215 WDL33, FORD VHS127-10W1133 OR APPROVED EQUAL.
- BACKFLOW PREVENTER TO BE RP2 MEETING ASSE STANDARD 1015.
- CUSTOMER IS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF BACKFLOW PREVENTER.
- METER BOX MUST BE MID-STATES PLASTICS, INC. PLASTIC BOX WITH FORD #227 (ELECTRONIC READ ID) OR A.Y. McDONALD MODEL #M200-TO CAST IRON BASE & COVER OR APPROVED EQUAL.

**WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS**

REVISION DATE: 07/01/04

**FIRE HYDRANT ASSEMBLY** W-18

NOTES:

- MAIN BODY OF HYDRANT MUST BE PAINTED SILVER WITH RED REFLECTIVE CAPS AND BONNET.
- FIRE HYDRANT SHALL BE INSTALLED 2" MIN. AND 2" MAX. FROM BACK OF CURB OR 8" MIN. AND 12" MAX. FROM CURB TO FRONT OF HYDRANT. IT SHALL BE INSTALLED WITHIN 10' OF ANY OR EASEMENT LINE.
- AREA AROUND HYDRANT AT A RADIUS OF 4' TO BE LEVEL AND UNOBSTRUCTED.
- WATERPROOF BASE SHALL BE PLACED OVER ALL NEWLY INSTALLED FIRE HYDRANTS.
- HIGH PRESSURE (OVER 120 PSI) REQUIRES THE USE ALL 3 RESTRAINTS.