

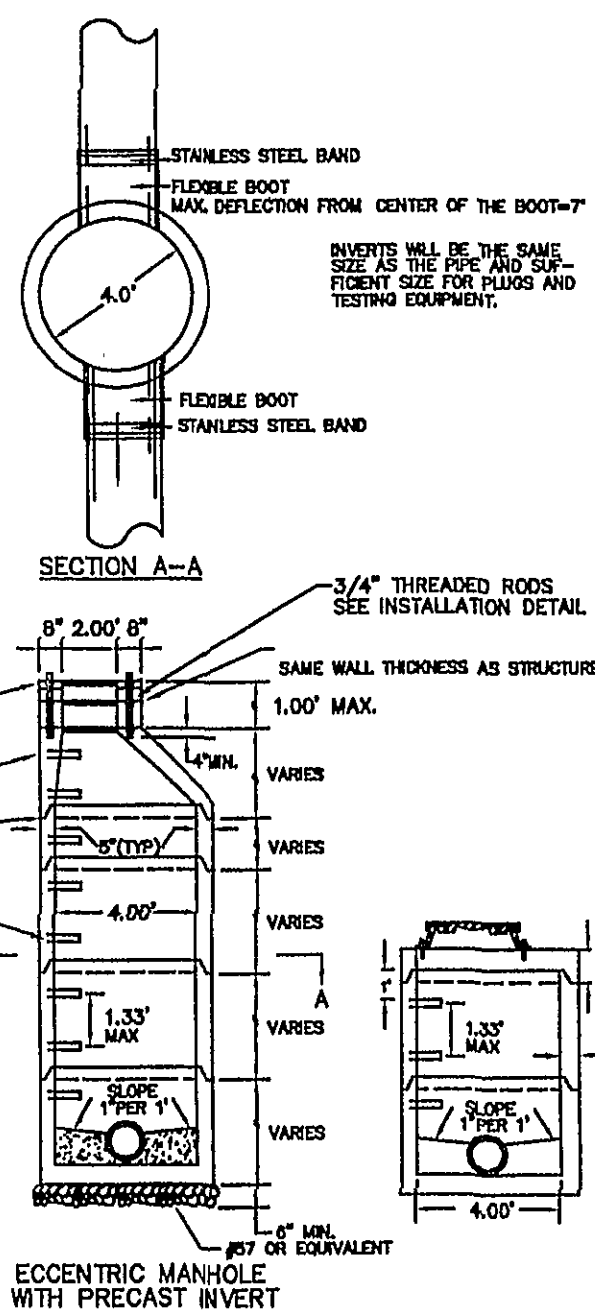
UTILITY NOTES:
CURB AND GUTTER, PAVEMENTS, AND SIDEWALK THAT HAVE TO BE TRENCHED TO INSTALL WATER OR SEWER, SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

UTILITY NOTES:

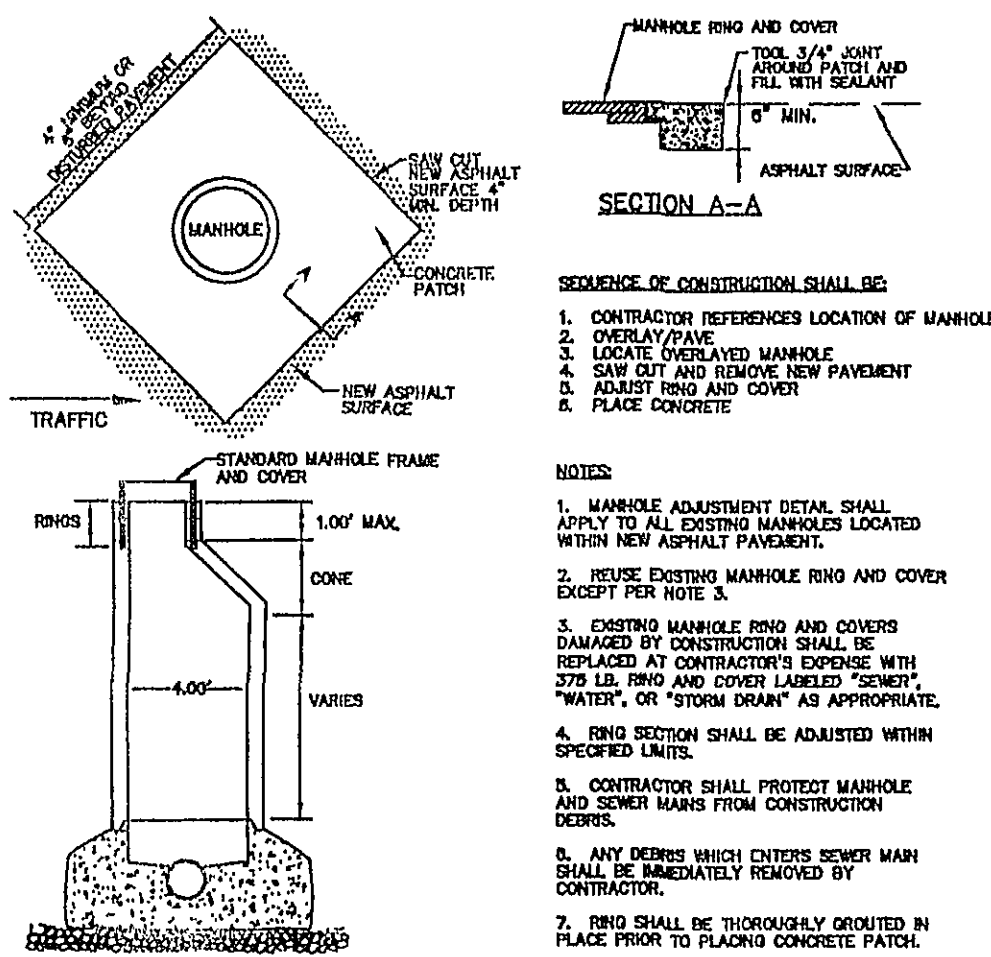
1. THE CONTRACTOR IS RESPONSIBLE FOR THE STREET OPENING PERMITS AND COMPLETE INSTALLATIONS OF THE SEWER FROM THE BUILDING TO THE PUBLIC SEWER MAIN. THE CITY OF ROANOKE'S UTILITY SERVICES WILL MAKE THE CONNECTION TO THE PUBLIC SEWER MAIN FOLLOWING EXCAVATION AND SHORING PER OSHA REGULATIONS BY THE CONTRACTOR. A SEWER TAP FEE WILL BE CHARGED. TO SCHEDULE THE TAP OF THE SEWER MAIN OR MANHOLE, CONTACT UTILITY SERVICES AT 540-853-2792, TWO WORKING DAYS PRIOR TO THE ANTICIPATED DATE THE MANHOLE IS NEEDED. SEWER FEES SHOULD BE PAID AT LEAST ONE WEEK PRIOR TO THE DATE SEWER HOOKUP IS NEEDED.

2. THE WATER CONNECTION IS TO BE DONE BY THE CITY OF ROANOKE. A CONNECTION FEE WILL BE CHARGED WHICH WILL INCLUDE THE PUBLIC SERVICE LINE FROM MAIN TO METER, METER VAULT AND WATER METER AT THE PROPERTY LINE. IT IS THE OWNER'S RESPONSIBILITY TO INSTALL WATER SERVICE LINE FROM THE METER TO THE BUILDING UNDER PROVISIONS OF THE PLUMBING CODE. PLEASE CONTACT THE CITY OF ROANOKE'S BILLINGS AND COLLECTIONS OFFICE AT 540-853-8818 TO COORDINATE PAYMENT OF THE ABOVE REFERENCE WATER AND SEWER FEES. WATER FEES SHOULD BE PAID APPROXIMATELY EIGHT WEEKS PRIOR TO THE DATE WATER IS NEEDED.

- NOTES:**
1. ALL MANHOLE FRAMES AND COVERS SHALL BE DOWNEY BROTHERS, INC. (MFR-3000) IN NON-PAVED AREAS. REQUIRED WATERPROOF FRAME & COVERS AND MFR-3000-WT IN PAVED AREAS, OR APPROVED EQUAL.
 2. THE FIRST STEP SHALL BE 1 FOOT FROM THE COVER.
 3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
 4. ALL SAMPLING MANHOLES SHALL BE CONSTRUCTED AS PER MANHOLE COVERS. WHEN NECESSARY, THE FLAT TOP MANHOLE MAY BE SUBSTITUTED WITH EXISTING COVERING AT STEPS.
 5. FLAT TOP TO BE USED APPROVED FOR TRAFFIC BEARING WHEN USED IN AREAS SUBJECT TO TRAFFIC OF 10,000 LBS.



4" STANDARD MANHOLE FOR PIPE 15" OR SMALLER



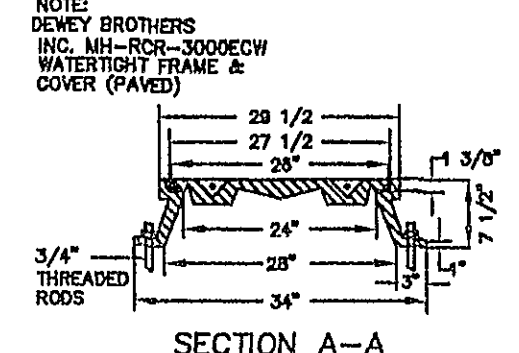
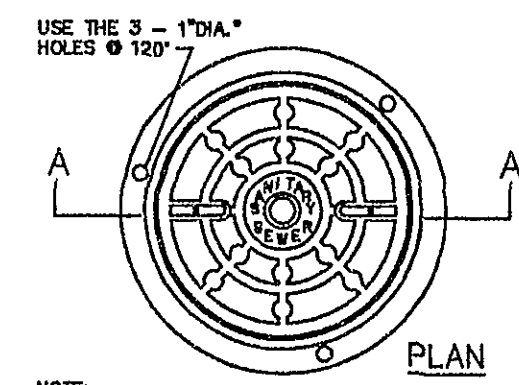
SECTION A-A

SEQUENCE OF CONSTRUCTION SHALL BE:

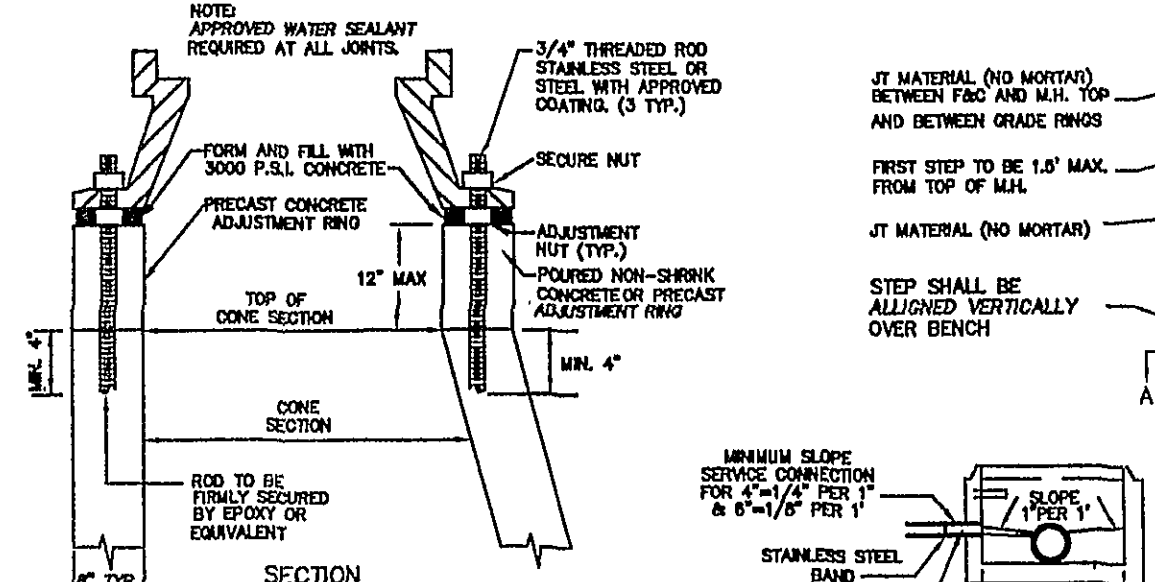
1. CONTRACTOR REFERENCES LOCATION OF MANHOLE
2. OVERLAYING
3. LOCATE OVERLAPED MANHOLE
4. SAW OUT AND REMOVE NEW PAVEMENT
5. ADJUST RING AND COVER
6. PLACE CONCRETE

- NOTES:**
1. MANHOLE ADJUSTMENT DETAIL SHALL APPLY TO ALL EXISTING MANHOLES LOCATED WITHIN NEW ASPHALT PAVEMENT.
 2. REUSE EXISTING MANHOLE RING AND COVER DAMAGED BY CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE WITH 372 LB. RING AND COVER LABELED "SEWER", "WATER", OR "STORM DRAIN" AS APPROPRIATE.
 3. EXISTING MANHOLE RING AND COVERS DAMAGED BY CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE WITH 372 LB. RING AND COVER LABELED "SEWER", "WATER", OR "STORM DRAIN" AS APPROPRIATE.
 4. RING SECTION SHALL BE ADJUSTED WITHIN SPECIFIED LIMITS.
 5. CONTRACTOR SHALL PROTECT MANHOLE AND SEWER MAINS FROM CONSTRUCTION DEBRIS.
 6. ANY DEBRIS WHICH ENTERS SEWER MAIN SHALL BE IMMEDIATELY REMOVED BY CONTRACTOR.
 7. RING SHALL BE THOROUGHLY DRYED IN PLACE PRIOR TO PLACING CONCRETE PATCH.

- MANHOLE FRAME & COVER**



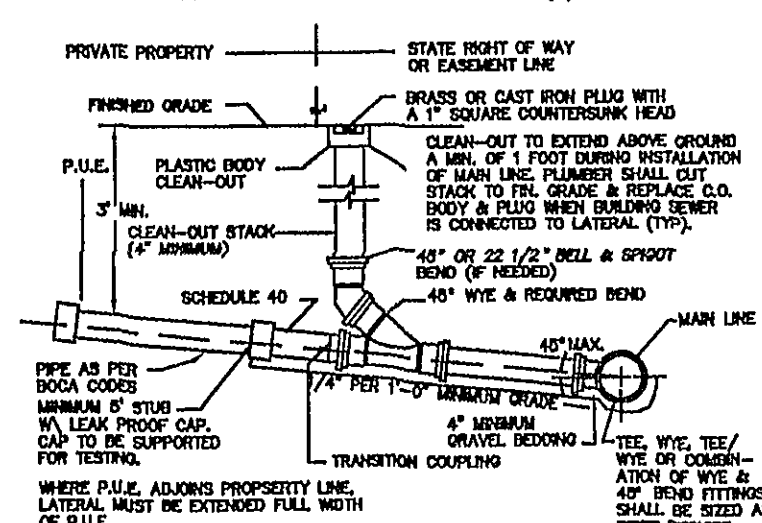
MANHOLE FRAME & COVER



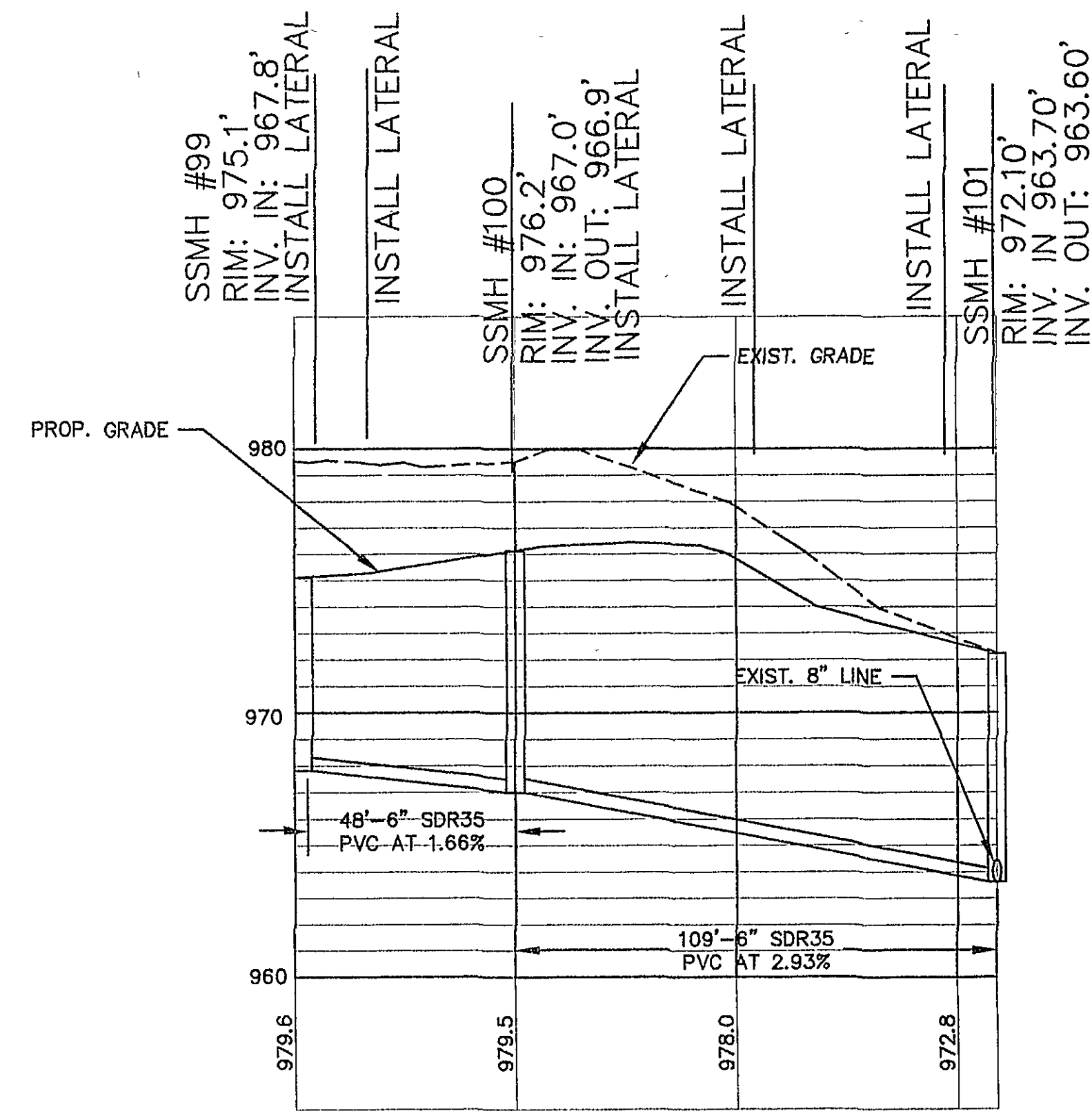
INSTALLATION DETAIL FOR ALL FRAMES & COVERS

JACK ST. CLAIR INC.
AS-BUILT FOR ROANOKE REDEVELOPMENT & HOUSING AUTHORITY
12TH ST. NW & MELROSE AVE NW - PROJECT
SIGNATURE: *William H. White*
DATE: 08/11/05

- GENERAL NOTES:**
1. TRAFFIC BEARING BOX REQUIRED IN TRAFFIC AREAS.
 2. ALL PIPE AND FITTINGS SHALL BE OF SIMILAR MATERIAL.
 3. ALL PIPE SHALL BE OF SAME SIZE.
 4. NO REPAIRS ARE ALLOWED IN THE LATERAL FROM THE MAIN TO THE CLEAN-OUT STACK WYE (EXCEPT AS NOTED).
 5. ALL MAIN LINE TIES ON ACTIVE MAINS WILL BE PERFORMED BY THE CITY OF ROANOKE UTILITY DEPARTMENT.
 6. LATERAL MUST BE MIN. 18" FROM PROPERTY CORNER.
 7. LATERAL USE MINIMUM 4" FOR RESIDENTIAL SERVICE AND 6" FOR NON-RESIDENTIAL SERVICE.
 8. MINIMUM COVER FOR ALL SEWER LATERALS SHALL BE THREE (3) FEET.



NTS



SCALE: 1" = 30' HORIZ
1" = 5' VERT