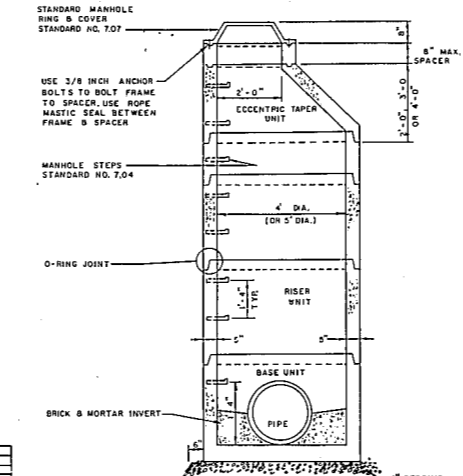


NOTE: CLEANOUTS PLACED WITHIN PAVED AREAS SHALL HAVE A CAST IRON STANDPIPE ABOVE THE WYE WITH A BRASS CAP. SAN SEWER SERVICES WHICH ARE 14 TO 20 FEET DEEP SHALL REQUIRE BEDDING IN ACCORDANCE W/ DETAIL 7.19. SERVICES OVER 20' DEEP SHALL REQUIRE D.I.P.

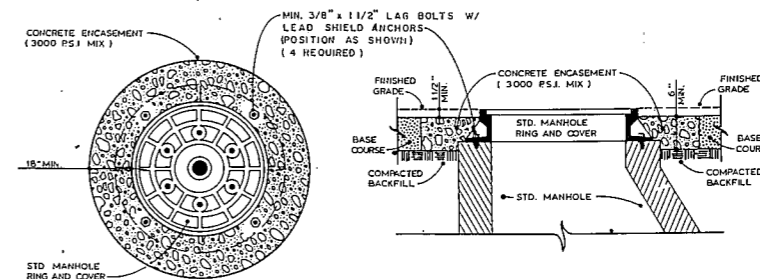
REVISIONS	DATE	DESCRIPTION
01/24/88	01/24/88	REVISED TO SHOW 1/8\"/>

STANDARD SANITARY SEWER TAP AND SERVICE STD. NO. 7.01



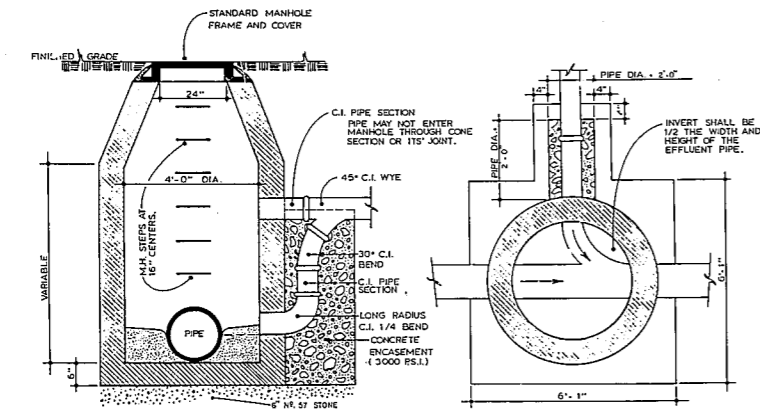
REVISIONS	DATE	DESCRIPTION
01/24/88	01/24/88	REVISED TO SHOW 1/8\"/>

STANDARD PRECAST CONCRETE MANHOLE STD. NO. 7.03



REVISIONS	DATE	DESCRIPTION
01/24/88	01/24/88	REVISED TO SHOW 1/8\"/>

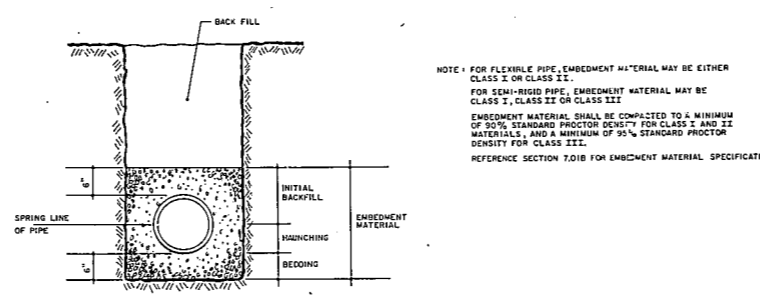
STANDARD MANHOLE RING AND COVER ENCASEMENT STD. NO. 7.08



NOTE TO CONTRACTOR: TO BE CONSTRUCTED FOR ALL DROPS OVER 30\"/>

REVISIONS	DATE	DESCRIPTION
01/24/88	01/24/88	REVISED TO SHOW 1/8\"/>

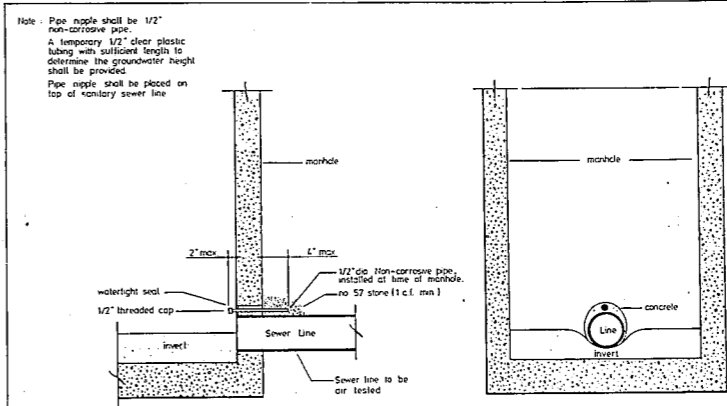
STANDARD OUTSIDE DROP MANHOLE STD. NO. 7.09



NOTE: FOR FLEXIBLE PIPE, EMBEDMENT MATERIAL MAY BE EITHER CLASS II OR CLASS III. FOR SEM-RIGID PIPE, EMBEDMENT MATERIAL MAY BE CLASS I, CLASS II OR CLASS III. EMBEDMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY FOR CLASS I AND II MATERIALS, AND A MINIMUM OF 95% STANDARD PROCTOR DENSITY FOR CLASS III. REFERENCE SECTION 7.010 FOR EMBEDMENT MATERIAL SPECIFICATIONS.

REVISIONS	DATE	DESCRIPTION
01/24/88	01/24/88	REVISED TO SHOW 1/8\"/>

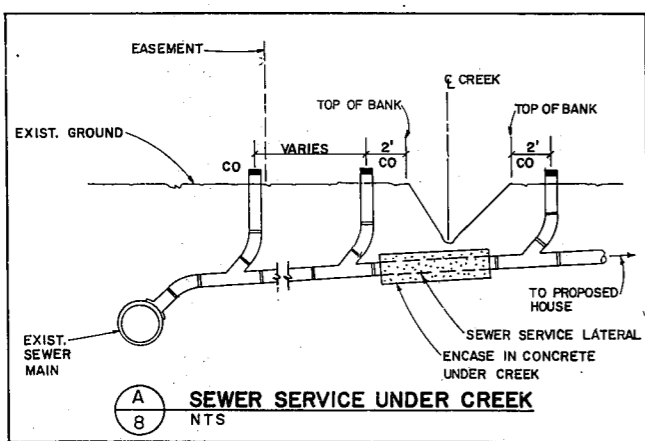
BEDDING FOR FLEXIBLE & SEMIRIGID SANITARY SEWER PIPE STD. NO. 7.19



Note: Pipe nipple shall be 1/2\"/>

REVISIONS	DATE	DESCRIPTION
01/24/88	01/24/88	REVISED TO SHOW 1/8\"/>

STANDARD SANITARY SEWER EXFILTRATION TEST STD. NO. 7.13



- SPECIAL NOTES**
- ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH AN APPROVED EROSION CONTROL PLAN.
 - ALL CONSTRUCTION AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE TOWN OF CARY STANDARDS, SPECIFICATIONS AND REQUIREMENTS, WITH THE EXCEPTION OF DEFINITION OF MATERIALS AS IT RELATES TO PAYMENT OF CONSTRUCTION WORK BY THE DEVELOPERS.
 - HORIZONTAL RELATION OF WATER MAINS TO SANITARY SEWERS:
 - LATERAL SEPARATION OF SEWERS AND WATER MAINS - WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION, IN WHICH CASE:
 - A) THE WATER MAIN IS LAID IN A SEPARATE TRENCH WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 1" ABOVE THE TOP OF THE SEWER; OR
 - B) THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER.
 - VERTICAL RELATION OF WATER MAINS TO SANITARY SEWERS:
 - CROSSING A WATER MAIN OVER A SEWER - WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS PREVENT AN 18" VERTICAL SEPARATION, IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET EACH SIDE OF THE POINT OF CROSSING.
 - CROSSING A WATER MAIN UNDER A SEWER - WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER BOTH THE MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET EACH SIDE OF THE POINT OF CROSSING.
 - VERTICAL RELATION OF SANITARY SEWERS AND WATER MAINS TO STORM SEWERS:
 - WHEN A SANITARY SEWER OR WATER MAIN CROSSES UNDER OR OVER A STORM SEWER, A VERTICAL SEPARATION OF 12" SHALL BE MAINTAINED UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 12" VERTICAL SEPARATION, IN WHICH CASE THE SANITARY SEWER OR WATER MAIN SHALL BE OF A FERROUS MATERIAL FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE STORM SEWER OF THE POINT OF CROSSING.
 - GENERAL VERTICAL CLEARANCE:
 - WHEN OTHER UNDERGROUND UTILITIES ARE ENCOUNTERED, MAINTAIN A MINIMUM OF 12" VERTICAL CLEARANCE UNLESS BOTH LINES ARE OF A FERROUS MATERIAL.

- GENERAL NOTES**
- THE CONTRACTOR SHALL CONTACT THE TOWN OF CARY PRIOR TO BEGINNING WORK AND PRIOR TO CONNECTING TO EXISTING UTILITIES AND STREETS.
 - THE CONTRACTOR SHALL INSTALL MEASURES AS NECESSARY DURING CONSTRUCTION FOR SEDIMENTATION AND EROSION CONTROL.
 - ALL EXISTING UTILITIES HAVE BEEN LOCATED FROM THE BEST INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY LOCATE HORIZONTALLY AND VERTICALLY ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. COST TO REPAIR DAMAGED UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL EXERCISE CARE IN MAKING TIE-INS AND CONNECTIONS TO EXISTING STREETS, DAMAGES TO EXISTING STREETS AND OTHER PORTIONS OF THE INFRASTRUCTURE IN ADJACENT PROPERTIES CAUSED BY THE FAULT OF THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF TOWN OF CARY AT THE CONTRACTOR'S EXPENSE.
 - VERTICAL CONTROL FOR THIS PROJECT IS REFERENCED TO DATUM AT MEAN SEA LEVEL. BENCH MARKS (TBM) FOR VERTICAL CONTROL ARE SHOWN ON THE PLANS.
 - LOCATION OF WATER SERVICES, SEWER SERVICES, AIR RELEASE VALVES, BLOW-OFFS, AND FIRE HYDRANTS SHALL BE VERIFIED AND APPROVED BY THE TOWN OF CARY PRIOR TO INSTALLATION.
 - FIRE HYDRANTS SHALL HAVE THE NATIONAL STANDARD THREADS.
 - LOCATION OF WATER SERVICES, SEWER SERVICES, AIR RELEASE VALVES, BLOW-OFFS, AND FIRE HYDRANTS SHALL BE VERIFIED AND APPROVED BY THE TOWN OF CARY PRIOR TO INSTALLATION.
 - CONTRACTOR IS CAUTIONED THAT AIR RELEASE VALVES SHALL BE LOCATED IN THE FIELD AT THE CONSTRUCTED HIGH POINT OF THE WATERLINE AND THAT THE WATER LINE DEPTH SHALL BE ADJUSTED TO ALLOW FOR PROPER DEPTH OF THE INSTALLATION OF THE AIR RELEASE VALVE AND MANHOLE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LAYOUT WORK REQUIRED TO PROPERLY CONSTRUCT THE JOB; EXCLUDING CONSTRUCTION STAKOUT PROVIDED BY THE OWNER.

APR 1 1988



Dewberry & Davis
Architects Engineers Planners Surveyors

TRACT M-6
PARKWAY P.U.D., CARY, N.C.
RICHLAND PROPERTIES

STANDARD SANITARY SEWER DETAILS

Scale AS SHOWN
Sheet **7** of 9
Date JULY 1988
File Number 86016