

2030345.35
752615.316

HORIZONTAL RELATION OF WATER MAINS TO SEWERS
Water mains shall be laid at least 10 feet laterally from existing or sewers, unless the water main is laid in a separate trench, with the elevation of the bottom of the water main at least 18 inches above the top of the sewer.

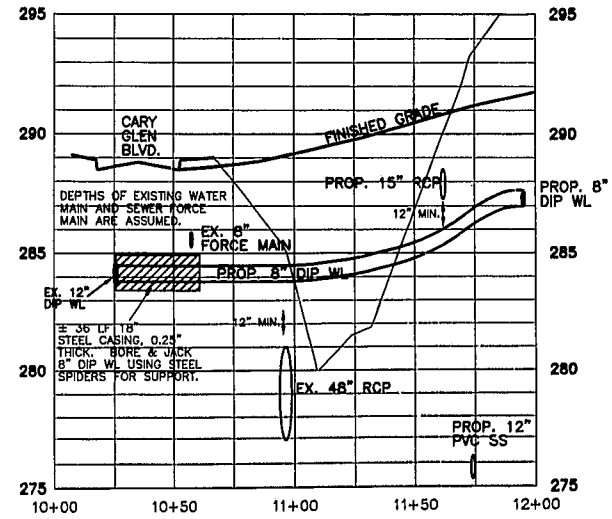
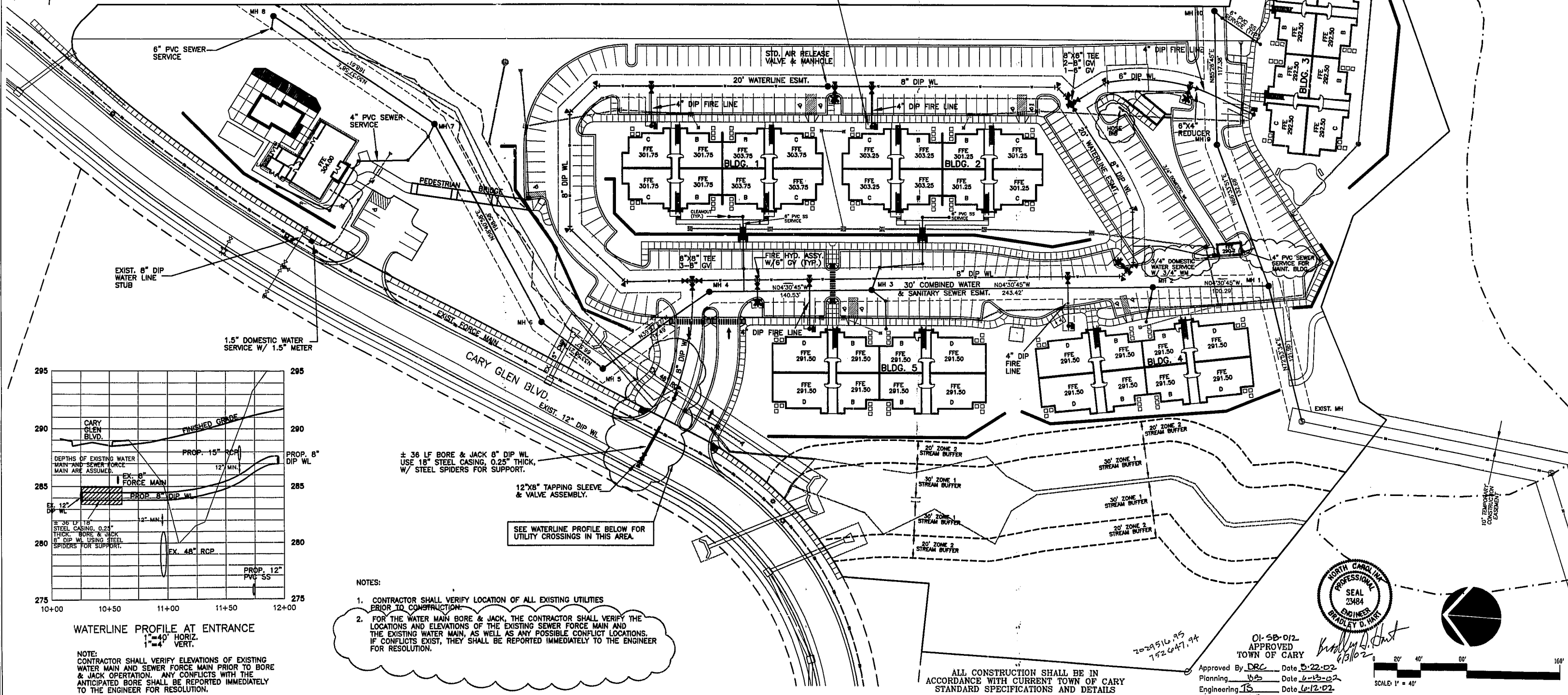
VERTICAL RELATION OF WATER MAINS TO SEWERS
Whenever a water main crosses over a sewer, the water main shall be laid with the elevation of the bottom of the water main at least 18 inches above the sewer, unless both the water main and sewer main shall be constructed of ductile iron and with joints that are equivalent to water main standards for a distance of 10 feet on each side of the crossing. Whenever a water main crosses under a sewer, the water main and the sewer shall be constructed of ductile iron and with joints equivalent to water main standards for a distance of 10 feet on each side of the crossing and maintain a minimum of 18 inch vertical separation. A section of water main pipe shall be centered at the point of crossing.

VERTICAL RELATION OF SANITARY SEWER MAINS & WATER MAINS TO STORM SEWER
Whenever a sanitary sewer or water main is crossing over or under a storm sewer, a vertical separation of 12 inches shall be maintained, unless both lines are of ductile iron or encased in concrete.

UTILITY DATA	
TOTAL LF SEWER MAINS	1039 LF (12" PVC)
	115 LF (12" DIP)
	250 LF (8" PVC)
TOTAL	1404 LF
TOTAL # SEWER MANHOLES	10
TOTAL LF WATER MAINS	
4" DIP	220 LF
6" DIP	160 LF
8" DIP	1390 LF
TOTAL	1770 LF
TOTAL # WATER VALVES	15
TOTAL # FIRE HYDRANTS	4

4" COMBINED FIRE & DOMESTIC WATER SERVICE W/ 2" COPPER DOMESTIC SERVICE W/ 1-1/2" WM (TYPICAL ALL UNITS.) (SEE DETAIL ON SHT. C-8)

2030041.475
753627.012



- NOTES:
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - FOR THE WATER MAIN BORE & JACK, THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND ELEVATIONS OF THE EXISTING SEWER FORCE MAIN AND THE EXISTING WATER MAIN, AS WELL AS ANY POSSIBLE CONFLICT LOCATIONS. IF CONFLICTS EXIST, THEY SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR RESOLUTION.



APPROVED
TOWN OF CARY
Approved By: *[Signature]* Date: 5-22-02
Planning: *[Signature]* Date: 6-13-02
Engineering: *[Signature]* Date: 6-12-02
SJT
6-12-02

2029516.95
7526471.94

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF CARY STANDARD SPECIFICATIONS AND DETAILS

SCALE 1" = 40'

No.	Revision	Date	By	Designer	Scale
1.	PER TDS REVIEW	4/18/02	BDH		1"=40'
2.	PER TDS REVIEW	5/28/02	BDH		
3.	PER TDS REVIEW	8/3/02	BDH		

THE GROVE AT CARY PARK

UTILITY PLAN

WITHERS & RAVENEL
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Sheet No. **C-3**