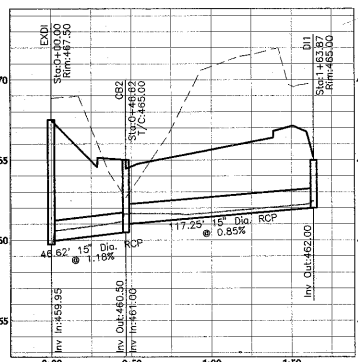


GENERAL NOTES

- 1) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT TOWN OF CARY STANDARDS, SPECIFICATIONS AND DETAILS.
- 2) CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 3) THE PURPOSE OF THIS PLAN IS SHOW PHASE TWO CONSTRUCTION ONLY. THE CONTRACTOR SHALL USE THIS PLAN AND REFERENCE IT IN THE CONTRACT DOCUMENTS.
- 4) ALL STREETS IN FRONT OF PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
- 5) THE TREE PROTECTION FENCING ON THE PROJECT WILL BE INSTALLED AND MAINTAINED BEFORE THE GRADING PERMIT IS ISSUED.
- 6) THERE IS NOT ANY FEMA MAPPED FLOOD PLAIN LOCATED ON THIS PROJECT PER FIRM MAP 371830304 E DATED MARCH 3, 1992.
- 7) ALL WELLS, DELINEATION AND PERMITTING ASSOCIATED WITH THIS PROJECT IS THE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.
- 8) EXISTING TOPOGRAPHY SHOWN IS TAKEN FROM AN ACTUAL SURVEY BY WITHERS & RAVENEL, INC.
- 9) ALL WORK MUST COMPLY WITH NC STATE BUILDING/HANDICAPPED ACCESSIBILITY CODE VOL. 1C. THE MAXIMUM GRADE ON THE HANDICAP PARKING SPACES IS 2.0%.
- 10) ALL STORM DRAINAGE FRAMES, GRATES AND HOODS SHALL BE STAMPED WITH NOTE 'ISSUED TO RIVER' IN ACCORDANCE WITH TOWN OF CARY STANDARDS.
- 11) ALL INLETS TO BE PROTECTED WITH INLET PROTECTION.
- 12) THE TREE PROTECTION FENCE SHALL REMAIN ON-SITE UNTIL ALL WORK COMPLETED AND THE FINAL RESURFACING PRIOR TO THE CERTIFICATE OF OCCUPANCY IS SCHEDULED. THE FENCE SHALL BE REMOVED PRIOR TO THE FINAL RESURFACING.
- 13) TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF BUFFERS AND STREETSCAPES THE CONTRACTOR SHALL CUT MINIMUM 2" TRENCHES ALONG THE LIMITS OF DISTURBANCE SO AS TO CUT RATHER THAN TEAR THE ROOTS.
- 14) CUT AND FILL SLOPES WILL BE STABILIZED WITHIN 15 DAYS OF ANY PHASE OF GRADING OR SO CALLED CROPS, WHICH EVER IS SHORTER.
- 15) ADJUST ALL SANITARY SEWER MANHOLE RIMS TO PROPOSED ELEVATION.
- 16) UTILITY SLEEVES SHALL BE 6" DIA. SCH 40 PVC EXCEPT AS SHOWN. PLACE AS SHOWN A MINIMUM OF 18" TO A MAXIMUM OF 24" BELOW TOP OF CURB. EXISTING SLEEVES 6" BEYOND SLOPE OF CURB OR GREATER AS NOTED. MARK SLEEVE LOCATION ON CURB AND RECORD EXACT LOCATION ON DRAWING TO BE KEPT IN CONST. OFFICE.
- 17) CONTRACTOR TO MAINTAIN ALL SOIL AND EROSION CONTROL DEVICES EXISTING AND IMPROVED THAT ARE IN PLACE BY PHASE 2 CONSTRUCTION. UPON COMPLETION OF WORK, CONTRACTOR IS TO REMOVE SEDIMENT FROM DEVICES AND DISPOSE OF OFFSITE AS DIRECTED BY OWNER.
- 18) A RECENT TOPOGRAPHIC SURVEY WAS PERFORMED ON 7/20/00 BY WITHERS & RAVENEL.
- 19) CONTRACTOR SHALL MATCH FIXTURES AS USED IN PHASE 1 (I.E. FHS, SIGNAGE, STRIPING, ETC.)
- 20) ALL TIES FOR PHASE 2 SHALL BE EITHER VALVED OR PLUGGED (M). VALVES AT 90° SHALL BE INSTALLED WITHOUT POST INDICATOR.
- 21) THIS PROJECT MEETS THE TOWN OF CARY STORMWATER MANAGEMENT REQUIREMENTS FOR ON-SITE PEAK ATTENUATION ACCORDING TO THE ARBORETUM PRIOR TO CONSTRUCTION. THE EXISTING CONCRETE DETENTION STRUCTURE, LOCATED IN THE SOUTHWESTERN CORNER OF THE SITE SERVES TO MEET THIS REQUIREMENT.
- 22) WATERSHED: CRAWFEE CREEK, TRIBUTARY TO HICKORY RIVER BASIN.
- 23) A PRE-CONSTRUCTION CONFERENCE MAY BE REQUIRED BEFORE THE GRADING PERMIT IS ISSUED.

GENERAL NOTES - WATER & SEWER

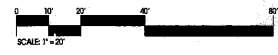
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF CARY STANDARDS, SPECIFICATIONS AND DETAILS.
2. ALL MANHOLES LOCATED OUTSIDE OF PAVEMENT AREAS SHALL HAVE A RIM ELEVATION 1 FOOT ABOVE FINISHED GRADE.
3. SANITARY SEWER MAINS AND SERVICES SHALL BE INSTALLED WITH A MINIMUM COVER OF 3 FEET IN NON-TRAFFIC AREAS OR PIPE SHALL BE FERRUGINOUS MATERIAL.
4. SANITARY SEWER MAINS AND SERVICES SHALL BE PROVIDED WITH A MINIMUM COVER OF 4 FEET BELOW FINISH SUBGRADE IN TRAFFIC AREAS OR SHALL BE OF FERRUGINOUS MATERIAL.
5. SANITARY SEWER MAINS INSTALLED WITH A DEPTH OF COVER OF 14 FEET TO 20 FEET SHALL REQUIRE SPECIAL BEDDING IN ACCORDANCE WITH CARY STANDARD 7.16. SEWER SERVICES INSTALLED WITH A DEPTH OF COVER OF 14 FEET TO 20 FEET SHALL REQUIRE CLASS 1 BEDDING FROM 4 INCHES BELOW THE SERVICE TO 4 INCHES OVER THE SERVICE LINE. SEWER MAINS AND SERVICES INSTALLED WITH A DEPTH OF COVER OVER 20 FEET SHALL REQUIRE DUCTILE IRON PIPE FOR THE ENTIRE RUN BETWEEN MANHOLES OR CLEANOUTS.
6. MINIMUM SLOPE FOR SANITARY SEWER SERVICES SHALL BE 0.6% FOR 8 INCH SEWER SERVICES. CLEANOUTS SHALL BE PROVIDED AS SHOWN ON THE PLANS BUT SHALL BE SPACED AT NO GREATER THAN 100 LF FOR 8 INCH SERVICES. ALL CLEANOUTS SHALL EXTEND MINIMUM OF 6 INCHES ABOVE FINISH GRADE OR MEET THE OPTIONAL CLEANOUT REQUIREMENT METHODS AS SPECIFIED IN CARY STANDARD 7.01. CLEANOUTS LOCATED IN PAVED AREAS MUST HAVE CAST IRON RISERS, FITTINGS AND BRASS CAP.
7. WATER MAINS SHALL BE Laid AT LEAST 10 FEET LATERALLY MEASURED EDGE TO EDGE FROM EXISTING OR PROPOSED SANITARY OR STORM SEWER UNLESS THE ELEVATION OF THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER WITH THE HORIZONTAL SEPARATION OF AT LEAST 3 FEET WHERE WATER MAIN AND SANITARY SEWER CROSS. AND THE VERTICAL SEPARATION IS LESS THAN 18 INCHES OR WHERE THE WATERLINE PASSES UNDER THE SANITARY SEWER, THE SEWER MAIN SHALL BE DUCTILE IRON PIPE.
8. ALL WATER MAINS 4 INCHES AND LARGER SHALL BE DUCTILE IRON PIPE. WATER SERVICES 3 INCHES AND LARGER SHALL BE DUCTILE IRON PIPE. WATER SERVICES LESS THAN 3 INCHES SHALL BE TYPE 'K' COPPER TUBE SERVICE (CTS) BETWEEN THE MAIN AND THE METER OR END OF THE TOWN MAINTENANCE AS INDICATED BY EASMENTS. WATER SERVICES BETWEEN THE METER OR END OF TOWN MAINTENANCE AND THE POINT OF TERMINATION SHOWN ON THE PLANS SHALL BE AS SPECIFIED ON THE PLANS. WHERE A SERVICE TERMINATES FOR CONTINUATION BY A PLUMBING OR FIRE SERVICE CONTRACTOR, CAPING SHALL BE PROVIDED IN COORDINATION WITH THE NEXT CONTRACTOR SO THAT THE EXTENSIONS CAN BE MADE WITHOUT RESTRICTIONS OR RECONFIGURATION.
9. WATER SERVICE IS TO BE TERMINATED 5' OUTSIDE OF BUILDING FOR CONTINUATION BY PLUMBING CONTRACTOR. FIRE SERVICE IS TO BE EXTENDED TO THE RISER ROOM BY THE UTILITY CONTRACTOR. TERMINATING 1 FT ABOVE THE FINISHED FLOOR WITH A PLUMBING CAP. FOR CONTINUATION BY THE SPRINKLER CONTRACTOR. THE FIRE SERVICE SHALL HAVE A HERSEY DODGE 8" DOUBLE DETECTOR CHECK VALVE LOCATED IN THE RISER ROOM. THE DOMESTIC WATER SERVICE SHALL BE PROVIDED WITH A FEBOO 825VD 4" DOUBLE CHECK VALVE LOCATED INSIDE THE BUILDING.
10. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM COVER OF 4 FEET MEASURED FROM THE TOP OF THE PIPE TO THE FINISHED SUBGRADE. WHERE THE STATIC WATER PRESSURE IS IN EXCESS OF 80 PSI A PRESSURE REDUCING VALVE SHALL BE PROVIDED INSIDE THE BUILDING IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLUMBING CODE.
11. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS IS BASED ON THE BEST AVAILABLE INFORMATION BUT CAN BE APPROXIMATE.
12. LANDSCAPING NOT PERMITTED IN VICINITY OF SAMESE CONNECTION.
13. WATERLINE EXTENSION AND SANITARY LINE EXTENSION PERMITS SHALL BE ISSUED PRIOR TO START OF CONSTRUCTION.



Structure Label	Structure Description	Top of Rim (ft)	Bottom Elevation (ft)	Structure Depth (ft)	Drainage Area	Runoff Coefficient
DH	TOC Site Drainage Inlet	465.00	462.00	3	0.2	0.4
CB2	TOC Site Catch Basin	465.00	460.50	4.5	0.5	0.8

Upstream Node	Downstream Node	Flow Q10 (cfs)	Q10	Material	Length (ft)	Invert Elevation	Outlet Elevation	Slope (%)	Constructed V10 (ft/s)	Velocity
CB2	EXIST	3.4	7.6	18" Dia.	RCP	462.50	460.50	4.5	1.8	1.8
DH	CB2	0.8	6.4	18" Dia.	RCP	117.25	462.00	461.00	0.85	2.6

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05-SP-001
APPROVED
TOWN OF CARY

DRC: *[Signature]*
Planning: *[Signature]*
Engineering: *[Signature]*

Date: 7.1.05

No.	Revision	Date	By	Design	Scale
1	TOC FIRST REVIEW COMMENTS	02/27/05	MJH		1" = 20'
2	TOC SECOND REVIEW COMMENTS	03/09/05	JJA		
3	ADD PARKING AREAS TO COMMENTS	06/20/05	MJH		
4	TOC FINAL COMMENTS	06/30/05	MJH		

THE ARBORETUM
PHASE 2
WAKE COUNTY
TOWN OF CARY
NORTH CAROLINA

UTILITY, GRADING, STORM DRAINAGE & EROSION CONTROL PLAN - O&I OUTPARCEL H

WITHERS & RAVENEL
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