

MERIDIAN OF SECOND REVISED  
MAP OF WYDALE  
P.B. 3, PG. 293

PAVEMENT REPLACEMENT ONLY  
REQUIRED IF EXISTING 48" LONG PIPE  
STUB REQUIRES REPLACEMENT DUE  
TO SLOPE LIMITATIONS. SEE VDOT  
NOTES SHEET C-02

PROPERTY OF  
BRADLEY D. & TERESA  
S. WYATT  
INSTRUMENT No. 200214271  
TAX No. 076.07-01-21.00

PROPERTY OF  
WHEELER DECLARATION OF TRUST  
RONALD E. WHEELER, TRUSTEE  
D.B. 1956, 1961  
TAX No. 076.07-03-01.00

PROPERTY OF  
DAVID E. McDONALD, JR.  
INSTRUMENT No. 201307497  
TAX No. 076.07-03-02.00

PROPERTY OF  
KENNETH A. & CATHERINE  
L. KEENEY  
D.B. 1602, PG. 1256  
TAX No. 076.07-03-03.00

EXISTING SANITARY SEWER

100	SSMH (WVMA 01B-3234.0) RIM=101.95 INV IN (2)=97.25 INV. OUT=97.20	102	EXIST. SSMH RIM=107.77 INV OUT=102.17	104	EXIST. CAPPED MANHOLE-SEE "INFLOW VERIFICATION NOTE" THIS SHEET TOP=112.06
101	SSMH LIFT STATION RIM=103.37 INV IN=101.87 (8") INV IN=100.87 (6")	103	SSMH (WVMA 01B-3235.0) RIM=120.75 INV. IN=115.00 INV. OUT=114.95		

#### REMOVAL OF EXISTING PRIVATE LIFT STATION

1. THE FIRST STEP IN REMOVAL OF THE EXISTING LIFT STATION WILL BE TO VERIFY THAT THE ONLY INFLOW IS FROM EXISTING SANITARY MANHOLE 102. SEE "INFLOW VERIFICATION NOTE", THIS SHEET.
2. IT IS ASSUMED HERE THAT THE NEW 8" SANITARY LINE HAS BEEN CONSTRUCTED TO WITHIN ONE PIPE JOINT OF THE EXISTING LIFT STATION BEFORE ACTIONS ARE TAKEN TOWARDS LIFT STATION REMOVAL, SUCH THAT BYPASS PUMPING DURATION MAY BE MINIMIZED.
3. UPON VERIFICATION OF INFLOW CONDITIONS, THE CONTRACTOR SHALL ESTABLISH A PLAN FOR BYPASS PUMPING. IT IS SUGGESTED TO PUMP FROM EXISTING MANHOLE 102 TO MANHOLE 103. AS MANHOLE 103 LIES IN THE DRIVEWAY PAVEMENT, TEMPORARY MEASURES WILL BE REQUIRED TO PROTECT THE EFFLUENT LINE FROM VEHICULAR TRAFFIC, MAINTAINING CONTINUOUS VEHICULAR ACCESS.
4. UPON ESTABLISHMENT OF BYPASS PUMPING, THE CONTRACTOR SHALL DRAIN THE LIFT STATION VIA THE FORCE MAIN TO REMOVE AS MUCH SEWERAGE AS POSSIBLE.
5. CONTRACTOR SHALL PERFORM ELECTRICAL DISCONNECTION OF ALL POWER SUPPLY TO THE LIFT STATION. WORK SHALL BE PERFORMED BY LICENSED ELECTRICIAN, WITH ALL WORK IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
6. CONTRACTOR SHALL MAKE PHYSICAL DISCONNECTIONS OF INFLOW PIPING AND FORCE MAIN DISCHARGE LINE, AND REMOVE LIFT STATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL PORTIONS OF THE LIFT STATION FROM THE SITE AND DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS, UNLESS OTHERWISE REQUIRED IN WRITING FROM THE OWNER.
7. UPON REMOVAL OF THE LIFT STATION, THE CONTRACTOR SHALL ENSURE ADEQUATE SUBGRADE CONDITIONS FOR PLACEMENT OF NEW SANITARY MANHOLE. SHOULD SUBGRADE CONDITIONS NOT BE ADEQUATE, THE CONTRACTOR SHALL REMOVE UNSUITABLE MATERIAL AND REPLACE WITH COMPACTED SELECT FILL FOR THE BID PURPOSES. ASSUME NO MORE THAN TWO VERTICAL FEET OF UNSUITABLE MATERIAL AND STONE INFILL / COMPACTION WILL BE REQUIRED. SHOULD ADDITIONAL EXCAVATION / BACKFILL BE REQUIRED, THIS WILL BE PERFORMED AT RATES AGREED UPON PRIOR TO COMMENCEMENT OF WORK.
8. CONTRACTOR SHALL INSTALL THE REMAINDER OF NEW SANITARY LINE 200-201, AND INSTALL NEW SANITARY MANHOLE 201. AS IT IS ANTICIPATED THAT THE VOID LEFT BY LIFT STATION REMOVAL WILL BE LARGER THAN A NORMAL MANHOLE EXCAVATION, THE CONTRACTOR SHALL BACKFILL THE MANHOLE PERIMETER WITH VDOT #57 STONE TO WITHIN TWO VERTICAL FEET OF THE NEW RIM ELEVATION. THE FINAL TWO FEET SHALL BE INFILLED WITH NATIVE MATERIALS TOPPED WITH SIX INCHES OF TOPSOIL.
10. UPON ACCEPTANCE OF STANDARD PRESSURE AND VACUUM TESTING OF THE NEW CONSTRUCTION, THE CONTRACTOR SHALL REMOVE BYPASS PUMPING APPARATUS AND ACTIVATE THE NEW SYSTEM.

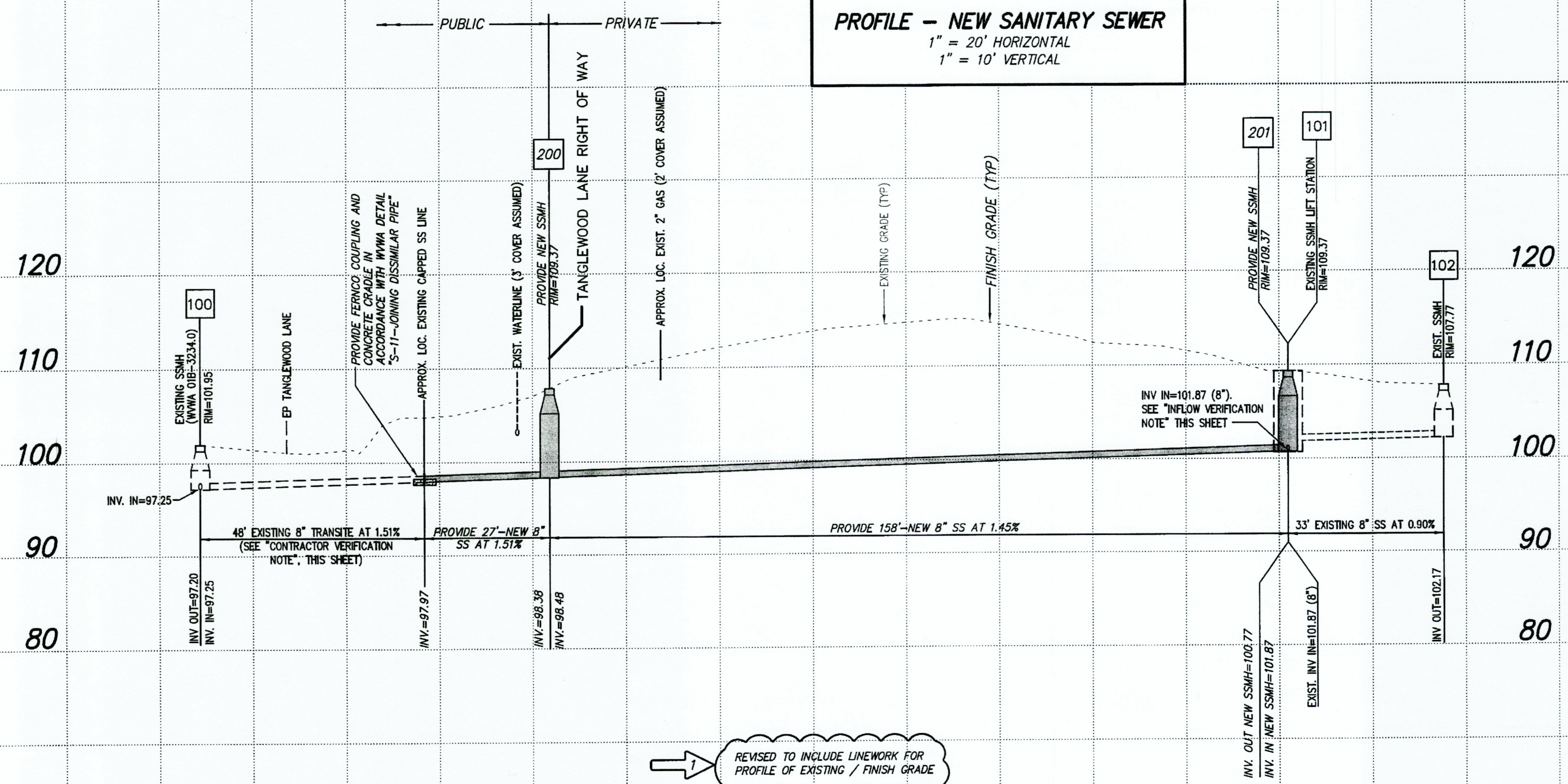
#### FORCE MAIN ABANDONMENT NOTE

1. EXISTING 4" SANITARY FORCE MAIN SHALL BE ABANDONED AT WVMA MANHOLE # 01B-4149.0 IN ACCORDANCE WITH WVMA DETAIL "S-15, SANITARY SEWER PIPE ABANDONMENT AT A MANHOLE".
2. AT LIFT STATION END OF FORCE MAIN, CONTRACTOR SHALL REMOVE FORCE MAIN TO AT LEAST 4' BEYOND THE OUTSIDE WALL OF NEW SANITARY MANHOLE 201, AND SHALL CAP AND PLUG LINE WITH MATERIALS APPROPRIATE TO FORCE MAIN PIPE TYPE.

PROJECT BENCHMARK:  
TOP OF IRON PIN FOUND AT SOUTHEASTERN PROPERTY CORNER OF TAX  
PARCEL 076.07-01-21.00, LOCATED AT TERMINUS OF TANGLEWOOD LANE.  
ELEVATION = 100.00 (ASSUMED DATUM)

#### PROFILE -- NEW SANITARY SEWER

1" = 20' HORIZONTAL  
1" = 10' VERTICAL



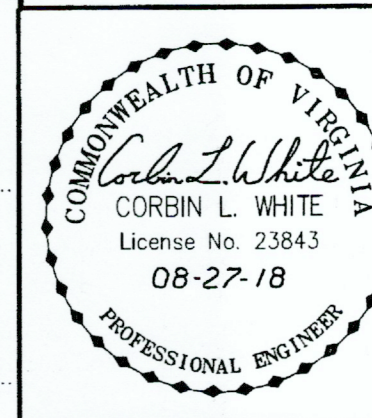
#### CONTRACTOR VERIFICATION NOTE

PER A WESTERN VIRGINIA WATER AUTHORITY TELEVISION INSPECTION PERFORMED, JUNE 01, 2018, THERE IS AN INFLOW LINE INTO THE EXISTING SANITARY MANHOLE LOCATED IN THE CUL-DE-SAC OF TANGLEWOOD LANE. THIS INFLOW LINE IS 48" LONG, 8" DIAMETER TRANSITE PIPE THAT APPEARS TO BE IN GOOD CONDITION, AND IS CAPPED ON THE UPSTREAM END. AS THE "AS-BUILTS" FOR THE PINES APARTMENTS SHOWED THAT A LINE WAS TO BE CONSTRUCTED ALL THE WAY TO THE LIFT STATION, WE CAN ONLY ASSUME THAT THE EXISTING 48" STUB WAS CONSTRUCTED ON A STRAIGHT GRADE FROM EXISTING MANHOLE 100 TO THE INVERT OF THE LIFT STATION, AS SHOWN HEREON.

#### INFLOW VERIFICATION NOTE

BASED ON FIELD DATA AND AVAILABLE RECORDS, THE 6" LINE THAT ENTERS THE EXISTING PUMP STATION FROM THE WEST ORIGINATES AT A MANHOLE AS SHOWN IN THE PLAN VIEW OF THIS SHEET. UPON OPENING THIS MANHOLE, IT IS DISCOVERED THAT THE BARREL IS CAPPED WITH WHAT APPEARS TO BE A SAFETY SLAB, AND A CONCRETE "PLUG" IN THE SAFETY SLAB HOLE. AVAILABLE RECORDS REFLECT THAT THIS MANHOLE HAD NO INFLOW LINES, THEREFORE THE ENGINEER ASSUMES AT THIS TIME THAT THERE IS NO INFLOW TO THE EXISTING LIFT STATION VIA THE EXISTING 6" LINE. THE CONTRACTOR SHALL FIELD-VERIFY THAT THE 6" INFLOW LINE IS INDEED A "DEAD" LINE BY PULLING THE CONCRETE "PLUG" IN THE EXISTING MANHOLE AND VISUALLY VERIFYING FLOW CONDITIONS.

20' 10' 0' 20' 40'  
GRAPHIC SCALE  
1" = 20'



#### PLAN AND PROFILE -- NEW SANITARY SEWER

SHOWING THE CONSTRUCTION OF A NEW SANITARY SEWER MAIN  
TO ALLOW THE REMOVAL OF AN EXISTING PRIVATE SANITARY  
LIFT STATION  
FOR

#### THE PINES APARTMENTS

SITUATE 4630 ROXBURY LANE  
CAVE SPRING MAGISTERIAL DISTRICT  
COUNTY OF ROANOKE, VIRGINIA

CWA  
CALDWELL WHITE ASSOCIATES  
ENGINEERS / SURVEYORS / PLANNERS

Designed: C.L. White  
Drawn: C.L. White  
Checked: As Shown  
Date: August 13, 2018  
Scale: As Shown  
Tax Parcel: 076.07-02-48.00-0000  
Field Book: CH-14  
W.O. No.: 18-0048

4203 MELROSE AVENUE  
P.O. BOX 6260  
ROANOKE, VIRGINIA 24017-0260  
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Revised August 27, 2018 Per 1st County, VDOT and WVMA Review - C.L. White