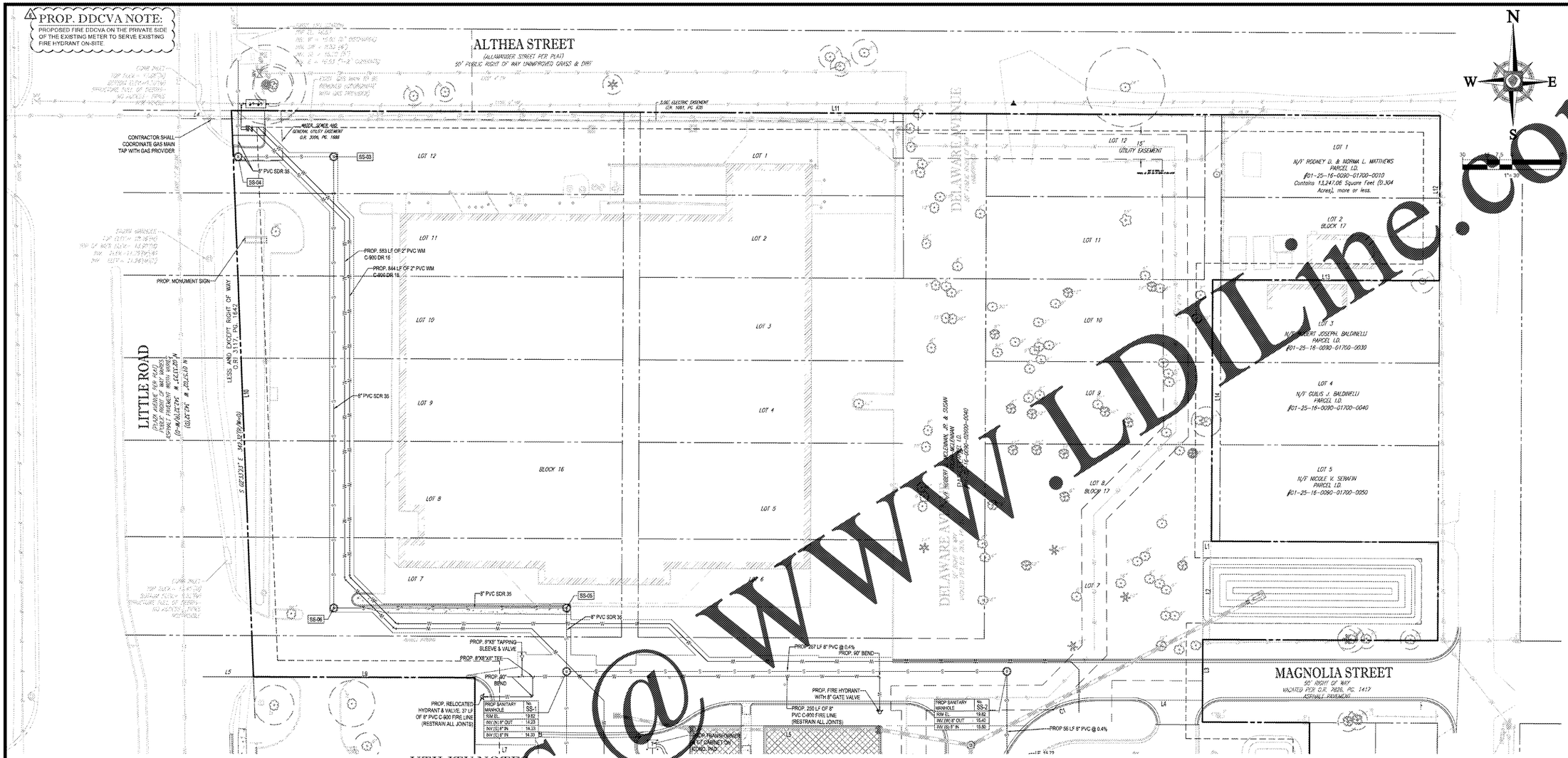

SANITARY SEWER STRUCTURE TABLE

STRUCTURE NUMBER	STRUCTURE TYPE AND DETAILS	PIPES IN	PIPES OUT
SS-03	MANHOLE RIM: 20.15 INV OUT: 9.41 (W) INV IN: 9.51 (S)	FROM SS-06, 8" PVC, INV 9.51 @ 1.0% (S)	TO SS-04, 8" PVC, INV 9.41 @ 1.0% (W)
SS-04	MANHOLE RIM: 18.90 INV IN: 8.83 (E) INV OUT: 8.73 (N)	FROM SS-03., 8" PVC, INV 8.83 @ 1.0% (E)	TO LS., 8" PVC, INV 8.73 @ 1.0% (N)
SS-05	MANHOLE RIM: 20.09 INV IN: 13.86 (S) INV OUT: 13.76 (W)	FROM WAWA, 6" PVC, INV 13.86 @ 1.0% (S)	TO SS-06, 8" PVC, INV [illegible] @ 1.0% (W)
SS-06	MANHOLE RIM: 19.53 INV IN: 12.35 (E) INV OUT: 12.25 (N)	FROM [illegible] 8" PVC, INV [illegible] (E)	TO SS-03, 8" PVC, INV 12.25 @ 1.0% (N)

UTILITY NOTES:

1. ALL FILL MATERIAL IS [illegible] BLACKTOP [illegible] BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY UTILITY AUTHORITY INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   - [illegible] SDR35 PER ASTM D 3034 FOR PIPES LESS THAN 12' DEEP
   - 8" PVC SDR26 PER ASTM D 3034 FOR PIPES MORE THAN 12' DEEP
   - 6" PVC SCHEDULE [illegible] PER AWWA C150
   - [illegible] DUCTION PIPE [illegible] AWWA C150
4. WATER LINES SHALL BE AS FOLLOWS:
   - [illegible] AND LARGER PVC-900 PER ASTM D 2241
   - [illegible] LESS 200 FOOT COUNTY ROADS, OTHERWISE CLASS 150
   - [illegible] AND LARGER DUCTILE IRON PIPE PER AWWA C150
   - [illegible] THAN 6" EITHER COPPER TUBE TYPE "L" (SOFT) PER ANSI 816.22 OR PVC 200 P.S.I. PER ASTM D1784 AND D2241.
5. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
6. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS CALLED OUT IN SPECIFICATIONS.
7. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
8. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4'-0" COVER ON ALL WATERLINES.
9. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE, MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
10. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
11. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS WITH WATER TIGHT LIDS.
12. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
13. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
14. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
15. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES (ANY CITY) WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
16. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
17. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES. THIS AND THE FINAL CONNECTIONS OF THE SERVICE SHALL BE COMPLETED 30 DAYS PRIOR TO STORE POSSESSION.
18. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
19. UTILITIES SHOWN AS EXISTING IN PUBLIC R/W (WATER, SEWER, STORM) AND THE ROADWAYS THEMSELVES ARE NOT CONSTRUCTED AS OF THIS DATE. THIS INFRASTRUCTURE IS PROPOSED TO BE BUILT AS SHOWN (BY OTHERS) BUT MAY NOT ALL BE COMPLETED AT TIME OF CONSTRUCTION.
20. REFER TO BUILDING PLANS FOR SITE LIGHTING ELECTRICAL PLAN.

SANITARY CLEANOUT SCHEDULE:

C.O.1 RIM ELEV = AT GRADE I.E. = 16.40	C.O.2 RIM ELEV = AT GRADE I.E. = 16.12	C.O.3 RIM ELEV = AT GRADE I.E. = 16.04	C.O.4 RIM ELEV = AT GRADE I.E. = 16.61
C.O.5 RIM ELEV = AT GRADE I.E. = 16.02	C.O.6 RIM ELEV = AT GRADE I.E. = 15.77	C.O.7 RIM ELEV = AT GRADE I.E. = 15.88	C.O.8 (2-WAY) RIM ELEV = AT GRADE I.E. = 15.63

UTILITY CROSSING SCHEDULE:

XING 1
TOP UTILITY: 8" STM
STM B/P ELEV = 17.47
BOTTOM UTILITY: 4" SAN
SAN T/P ELEV = 18.19

XING 2
TOP UTILITY: 8" STM
SAN B/P ELEV = 17.33
BOTTOM UTILITY: 4" SAN
STM T/P ELEV = 16.33

XING 3
TOP UTILITY: 8" STM
SAN B/P ELEV = 17.12
BOTTOM UTILITY: 6" SAN
STM T/P ELEV = 16.89

DEWATERING NOTE:

CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO THE DISTRICT 14 DAYS PRIOR TO COMMENCEMENT, SUBJECT PLANS SHALL BE REVISED AS NECESSARY.

WATER DISTRIBUTION NOTES:

1. CONTRACTOR SHALL FOLLOW GUIDELINES AND PROCEDURES OUTLINED BY UTILITY PROVIDER, AND HAVE UTILITY PROVIDER'S MANUAL ON-SITE AT ALL TIMES. THIS POLICY MANUAL SHALL BE CONSIDERED PART OF THE CONSTRUCTION DOCUMENTS AS IT PERTAINS TO APPROVED MATERIALS, INSTALLATION METHODS, INSPECTION NOTIFICATION AND AS-BUILT/PROJECT CLOSEOUT REQUIREMENTS.
2. ALL HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M - 294 LATEST REVISIONS. ALL PIPING TO BE NON-PERFORATED TUBING.

SANITARY SEWER NOTES:

1. DISTANCE AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
2. PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR TO TELEVISE EX. SANITARY SEWER LINE FROM POINT OF CONNECTION THROUGH THE NEXT SEQUENTIAL DOWNSTREAM RUN OF PIPE. ADDITIONALLY, PRIOR TO COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL TELEVISE THE NEWLY INSTALLED SANITARY SEWER MAIN TO ENSURE NO DIPS OR DEBRIS WITHIN LINE.

B. MATERIALS:

1. ALL PVC SEWER PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D 3034, SDR 26, WITH PUSH-ON RUBBER GASKET JOINTS.
2. ALL FITTINGS AND ACCESSORIES SHALL BE AS MANUFACTURED OR SUPPLIED BY THE PIPE MANUFACTURER OR APPROVED EQUAL.
3. ALL SANITARY CLEANOUTS WITHIN PAVEMENT SHALL HAVE A LID THAT IS H20 LOADING.

C. INSTALLATION:

1. PIPE AND FITTINGS:
   - a. SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, AND THE UNI-BELL PLASTICS PIPE ASSOCIATION'S "RECOMMENDED PRACTICE FOR THE INSTALLATION OF PVC SEWER PIPE"
   - b. BEDDING AND INITIAL BACKFILL (12 INCHES) OVER SEWER MAINS AND SERVICES SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEA ROCK OR 3/4 " WASHED ROCK WILL BE USED IN WATER OR WHERE UNSUITABLE BEDDING EXISTS. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.
2. CLEANOUTS
   - a. CLEANOUTS SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM CLEAN SUBGRADE PROVIDING UNIFORM BEARING UNDER THE BASE.
   - b. ALL OPENINGS AND JOINTS SHALL BE SEALED WATER-TIGHT.
3. SERVICE:
   - a. MINIMUM SLOPE OF ALL SERVICE LINES SHALL BE 1.00%.
   - b. EACH SERVICE CONNECTION SHALL BE PLUGGED WATER-TIGHT WITH AN APPROVED PLUG.
   - c. CONNECTION OF SERVICES TO BUILDING'S PLUMBING SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS.
1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.
2. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
3. SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 150 GALLONS PER DAY PER INCH DIAMETER PER MILE IN A TWO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED.

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY DEDICATION
- PROPOSED LOT LINES
- PROPOSED GREASE TRAP
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED TRANSFORMER PAD WITH BOLLARDS
- PROPOSED UNDERGROUND CONDUIT
- PROPOSED UNDERGROUND CONDUIT
- PROPOSED TAMPER SWITCH
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED FIRE LINE
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED DDCVA
- PROPOSED WATER METER AND BFPD
- PROPOSED FORCE MAIN (PERMITTED SEPARATELY)
- PROPOSED ELECTRIC CONDUIT

BOHLER ENGINEERING
SITE CIVIL AND LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
PERMITTING SERVICES
LAND SURVEYING
SUSTAINABLE DESIGN
WITH ARCHITECTURE
CONSTRUCTION SERVICES
◆ NORTHERN VIRGINIA
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◆ CHARLOTTE, NC
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◆ SOUTHERN MARYLAND
◆ UPSTATE NEW YORK
◆ LONG ISLAND
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◆ NEW YORK METRO
◆ PHILADELPHIA, PA
◆ NEW JERSEY
◆ SOUTHEASTERN PA
◆ REHOBOTH BEACH, DE

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REVISIONS

REV	DATE	COMMENT	BY
2	2017-07-11	PER COUNTY, SWFWMD & FDOT COMMENTS	JDP
3	2017-10-13	PER COUNTY COMMENTS	JDP
4	2017-10-27	PER FDOT COMMENTS	JDP
5	2017-11-30	PER COUNTY UTILITY COMMENTS	JDP
6	2018-01-02	PER COUNTY & FDOT COMMENTS	JDP
7	2018-01-25	PER FDOT COMMENTS	JDP
8	2018-02-06	PER FDOT COMMENTS	JDP
9	2018-04-05	HYDRANT PER FIRE MARSHAL	JDP
10	2018-09-07	WAWA BID SET	JDP
11	2018-10-03	PER ROW COMMENTS	SKK

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PERMIT SET

PROJECT No.:	FLT160078
DRAWN BY:	JDP
CHECKED BY:	KSM
DATE:	11/03/2016
SCALE:	1" = 30'
CAD I.D.:	UPD

PROJECT:
WAWA SR 52 & LITTLE RD
FOR
RMC PROPERTY GROUP
LOCATION OF SITE
9021 STATE ROAD 52
HUDSON, FLORIDA 34669
PASCO COUNTY

BOHLER ENGINEERING
3820 NORTHDALE BLVD., SUITE 300B
TAMPA, FLORIDA 33624
Phone: (813) 812-4100
Fax: (813) 812-4101
FLORIDA BUSINESS CERT. OF AUTH. No. 30785
LANDSCAPE ARCHITECT BUSINESS LIC. No LC26000551

10/5/2018

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C-7.1

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