GENERAL NOTES

- 2. THE EXISTING TOPOGRAPHY IS A COMBINATION OF SURVEY FIELD RUN TOPO PREPARED BY MORRIS AND RITCHIE ASSOCIATES, INC. DATED 12/28/2011 AND HOWARD COUNTY GIS TOPO (CIRCA 2006) FOR AREAS OUTSIDE OF THE PROPERTY LINE, BOUNDARY INFORMATION IS BASED ON A FIFTD RUN BOUNDARY SURVEY PERFORMED BY MORRIS AND RITCHIE ASSOCIATES, INC. DATED DECEMBER, 2011 MDR PLAT NO. 14470 RECORDED (10/16/2000)
- 3. THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM (HORZ, NAD83, VERT, NAVD 88), HOWARD COUNTY MONUMENT No.'S 42BM2 AND 42BMT8 WERE USED FOR THIS PROJECT.
- 4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTRACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM
- FOR DETAILS NOT SHOWN ON THE DRAWING. AND FOR MATERIALS AND CONSTRUCTION METHODS. USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB. ALSO, REFERENCE SDP-17-041 FOR CONSTRUCTION DETAILS.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- 8. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - BGE (CONTRACTOR SERVICES)......410-637-8713 BGE (EMERGENCY)
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCTAED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE
- 10. THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION, PAYMENT FOR SUCH REMOVAL SAHLL BE INCLUDED IN THE UNIT PRICE
- 11. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING ANY COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS, THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.
- 12. SDP-17-041 WAS APPROVED BY THE PLANNING BOARD ON MARCH 11, 2019 AND APPROVED BY THE DIRECTOR OF PLANING AND ZONING ON OCTOBER 15, 2019.
- 13. EROSION AND SEDIMENT CONTROL WAS APPROVED BY THE SOIL CONSERVATION DISTRICT ON SEPTEMBER 11, 2019. REFER TO SDP-17-041.
- 14. F-14-018 WAS APPROVED BY THE DIRECTOR OF PLANNING AND ZONING ON OCTOBER 7, 2019 AND THE PLAT WAS RECORDED ON OCTOBER 11, 2019 (PLAT NO. 25188 & 25189).

PART II - WATER CONSTRUCTION NOTES

- ALL WATER MAINS SHALL BE PVC UNLESS OTHERWISE NOTED.
- 2. TOPS OF ALL WATER PIPES SHALL HAVE NOT LESS THAN 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE PLANS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTIONS 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. CONTRACTOR SHALL CALL HOWARD COUNTY BUREAU OF UTILITIES AT
- TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATIONS TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPES SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. 17 POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. 12 POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.
- 10. PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS. THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL.
- 11. ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE ON FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING. PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 1/2-DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTEED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL. FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR 18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (IPEX) BLUE BRUTE DR18 OR EQUAL.
- 12. WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C-900 PVC PIPELINES. THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGREE SWEEPS, BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATES AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBAA IRON, INC. OR APPROVED EQUAL.

PART III - SEWER CONSTRUCTION NOTES

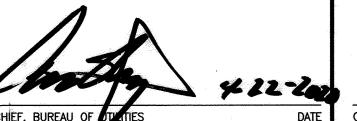
- 1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- 2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 3. FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER. STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THE CELLAR CANNOT BE SERVED.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-17-041. SPECIFICATIONS ARE REFERENCED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 2017.

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND



CHIEF, DEVELOPMENT ENGINEERING DIVISION NAC DATE



MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 1220-C EAST JOPPA ROAD, SUITE 505 TOWSON, MARYLAND 21286 (410) 821-1690

WATER ZONE: 550

TEST GRADIENT: 827

TEST PRESSURE: 219 PSI

FAX: (410) 821-1748 MRAGTA.COM Copyright 2020 Morris & Ritchie Associates, Inc. PROFESSIONAL CERTIFICATION - I, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE

LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38291, EXPIRATION DATE: 01/13/2022.



FINAL PUBLIC WATER AND SEWER CONSTRUCTION

ROYAL FARMS STORE #186 & CANTON CARWASH

E.G.U. SUBDIVISION~SECTION 2~AREA 2~LOT 22

PLAT NO. 25188 & 25189

CONTRACT NO. 24-5134-D

HOWARD COUNTY, MARYLAND

LOCATION MAP

QUANTITIES (PUBLIC)

WATER - PUBLIC

10 LF

QUANTITIES QUANTITIES

8" PVC WATER (C900 DR 14) | 288 LF | 288 LF | C900 DR 14 | JM EAGLE

SCALE: 1"=600"

FSTIMATED

10 LF

1 EA

1 EA

1 EA

2 EA

2 EA

4 EA

2 EA

40 LF

11 LF

1 EA

1 EA

1 EA

NAME OF UTILITY CONTRACTOR: HOPKINS AND WAYSON, INC. / CTG

SEWER - PUBLIC

40 LF

SURVEY AND

DRAFTING DIV.

ITEMS

6" CLASS 54 DIP WATER

8"x8" TAPPING SLEEVE

VALVE AND VAULT

8" RSGV (FOR TSV&V)

8"x6" FIRE HYDRANT TEE

6" RSGV (FOR FH)

6" FIRE HYDRANT

8" RSGV (FOR SERVICES)

8"x8" TEE AND BUTTRESS

(FOR SERVICES)

8" CAP 8" 1/8 HORIZ. BEND

AND BUTTRESS 8" 1/8 VERT. BEND

AND BUTTRESS

8" SAN PVC SCH 40

6" SAN PVC SCH 40

48" PRECAST MANHOLE

48" PRECAST TYPE 'A'

DROP DOGHOUSE MANHOLE

24" HEAVY TRAFFIC AND

WATER TIGHT F/C

24" WATER TIGHT F/C

1200

(FULL SIZE)

C900 DRI4

MJTH 0806

MJ GATE

MJ GATE

MJC08

SCH 40

SCH 40

PRECAST

PRECAST

MJB4506

5 ORANGE

MJ TAPPING MUELLER

MUELLER

MUELLER

STARPIPE

STARPIPE

STARPIPE

JM EAGLE

US FOUNDRY BRS

CHECK BOX

AS-BUILT DATE

8x8 SSTS

	JOB NO.: 17297	DATE			REVISIONS	
	DATE: 04/09/2020					
		Sa galas A				COVER SHEET
	DRAWN BY: THS					
	DESIGN BY: THS					
	REVIEW BY: MGC	1/2021	WRA	\triangle	AS - BUILT	
			BY	NO.		600' SCALE MAP NO. 33 BLOCK NO. C6

TYPE OF BUILDINGS: CONVENIENCE STORE, CAR WASH

NUMBER OF LOTS: 1 (LOT #22)

NUMBER OF W.H.C.: 2

NUMBER OF S.H.C.: 2

BRS

BRS

DRAINAGE AREA: LITTLE PATUXENT

TREATMENT PLANT: LITTLE PATUXENT WRP

COVER SHEET

ROYAL FARMS STORE #186 & CANTON CAR WASH FINAL PUBLIC WATER AND SEWER CONTRACT NO. 24-5134-D

> LIBER 14229 FOLIO 00059 PLAT NO. 25188, 25189 ZONED NT ~ TAX MAP 42 ~ GRID 9 ~ PARCEL 375 ~ LOT 22 TAX ASSESSMENT DISTRICT 3 ~ 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

VICINITY MAP

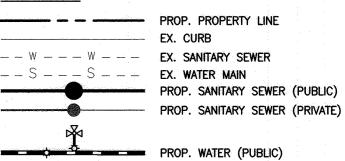
SCALE: 1"=2,000'

COPYRIGHT ADC THE MAP PEOPLE PERMITTED USE No. 21006237 MAP No. 33. GRID C6

DESCRIPTION: BOX IN CONC. WALK LOCATED ON WESTERN SIDE OF LOCATED APPROX 300' N OF BERGER ROAD ON SOUTH SIDE OF

*NOTE: NORTHINGS AND EASTINGS FROM BENCHMARKS WERE NOT GIVEN PER HOWARD COUNTY GEODETIC CONTROL WEBSITE. INFORMATION APPROXIMATED

LEGEND



DESIGN & DRAWING BASED ON

MARYLAND COORDINATE SYSTEM:

HORIZONTAL NAD 83 (1991)

VERTICAL NAVD 88

TWO FARMS INC. 3611 ROLAND AVENUE

PHONE: (410) 889-0200

DEVELOPERS 3611 ROLAND AVENUE 1101 PONCA STREET

BALTIMORE, MARYLAND 21211 BALTIMORE, MARYLAND 21211 BALTIMORE, MARYLAND 2122 ATTN: JACK WHISTED ATTN.: MR. TOM DEBACCO PHONE: (410) 889-0200 PHONE: (410) 960-8573

AS SHOWN

1 OF 2

