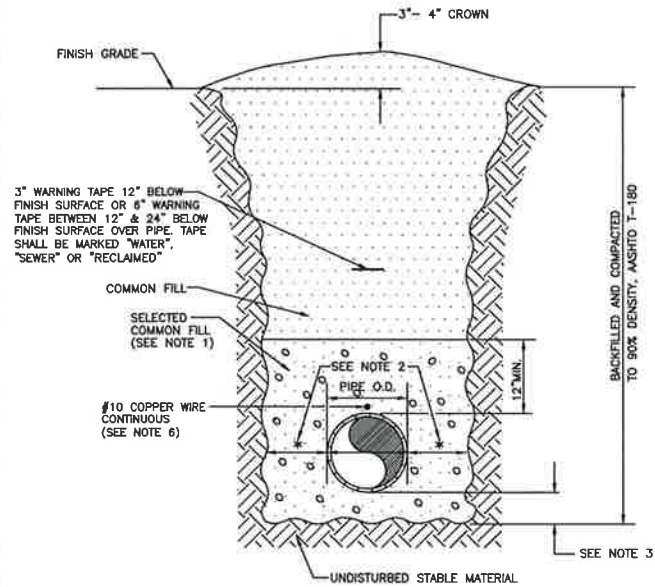


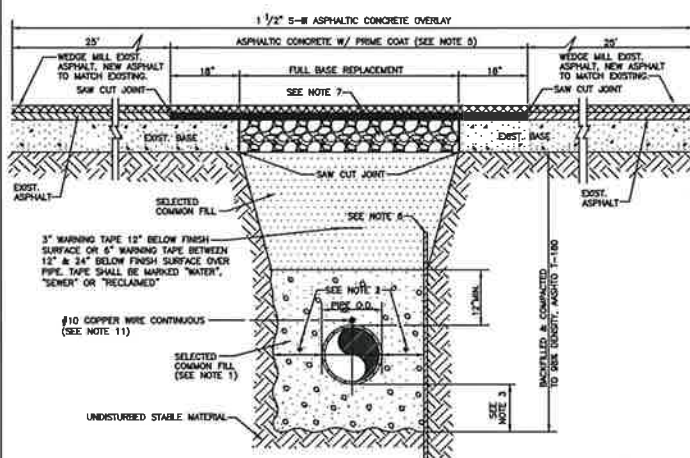
NOTES:

- 1.) USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2.) 10" MAX. FOR PIPE DIAMETER LESS THAN 24"; 12" MAX. FOR PIPE DIAMETER 24" AND LESS THAN 42"; 24" MAX. FOR PIPE DIAMETER 42" AND OVER.
- 3.) 4" MAX. FOR PIPE 16" DIAMETER & LESS; 6" MAX. FOR PIPE 18" TO 36" DIAMETER; AND 9" MAX. FOR PIPE 42" DIAMETER AND LARGER.
- 4.) PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 5.) BACKFILL ASHTO M-145 SHALL BE PLACED IN LAYERS NOT TO EXCEED 6 INCHES FOR SELECTED COMMON FILL AND NOT TO EXCEED 12 INCHES FOR COMMON FILL. EACH LAYER SHALL BE THOROUGHLY TAMPED AND/OR ROLLED TO 98% ASHTO T-180 DENSITY.
- 6.) TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



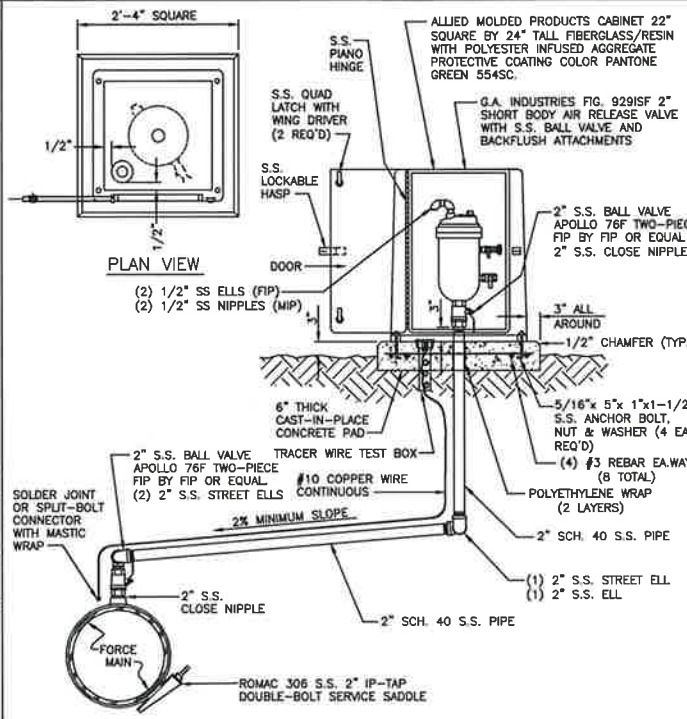
NOTES:

- 1.) USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
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- 4.) PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 5.) ASPHALTIC CONCRETE FRICTION COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF ONE INCH, WHICHEVER IS GREATER.
- 6.) SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
- 7.) BASE SHALL BE 8" MINIMUM THICKNESS CRUSHED CONCRETE, SAND ASPHALT BASE WILL BE AN ACCEPTABLE ALTERNATIVE.
- 8.) BACKFILL ASHTO M-145 SHALL BE PLACED IN LAYERS NOT TO EXCEED 6 INCHES. EACH LAYER SHALL BE THOROUGHLY TAMPED AND/OR ROLLED TO 98% ASHTO T-180 DENSITY.
- 9.) TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIME. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
- 10.) RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
- 11.) TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
- 12.) NOTES 5.) THRU 11.) ARE MINIMUM REQUIREMENTS. REFER TO MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.



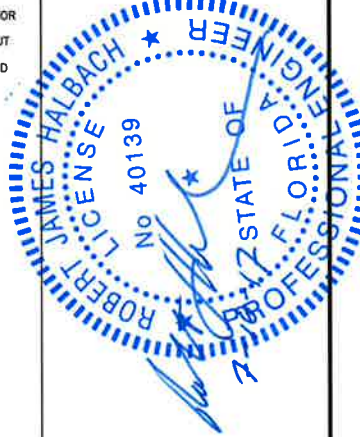
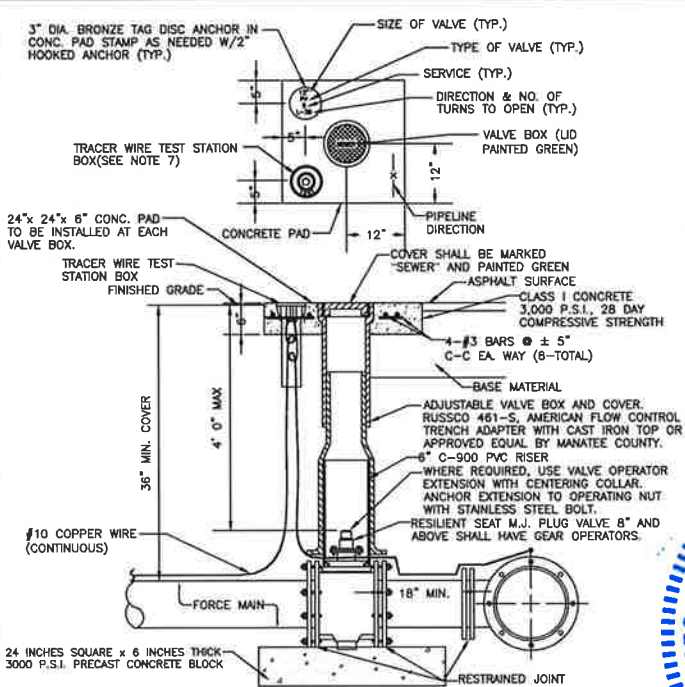
NOTES:

1. AIR RELEASE VALVES TO BE INSTALLED AT HIGH POINTS, OR WHERE AIR WOULD BE ENTRAPPED, ALONG 4" AND LARGER FORCE MAINS.
2. FORCE MAIN VERTICAL ALIGNMENT TO BE DESIGNED SUCH THAT THE MINIMUM NUMBER OF REQUIRED AIR RELEASE VALVES ARE INSTALLED.
3. ALL INCIDENTAL FITTINGS AND HARDWARE TO BE STAINLESS STEEL.
4. ALL PIPE THREADS TO BE SEALED AIR TIGHT.
5. VENT PIPE TO BE LAID ACCURATELY ON SLOPE, WITHOUT HIGH OR LOW POINTS.
6. AIR RELEASE VALVES TO BE IN BELOW-GRADE INSTALLATIONS UNLESS IMPRACTICAL. INSTALLATIONS MAY BE ABOVE-GROUND ONLY WHERE APPROVED AND SPECIFICALLY INDICATED ON THE PLAN.
7. CONCRETE PAD SHALL BE TYPE I CONCRETE W/ 3,000 P.S.I., 28 DAY COMPRESSIVE STRENGTH.



NOTES:

1. "SV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A GREEN DISC WITH "SV" AND A 1/8"x1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE DISTANCE (FT.) FROM THE DISC TO THE VALVE.
2. ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS ESTABLISHED IN THE FIELD.
3. SEWER VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS.
4. PRECAST CONCRETE PADS SHALL NOT BE USED.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
6. PLUG VALVES SHALL NOT BE USED AS A TAPPING VALVE, WHERE AN EXISTING FORCE MAIN IS TO BE TAPPED. USE A TAPPING GATE VALVE FOR THE TAPPING SLEEVE AND VALVE DETAIL.
7. TEST BOX TO BE BINGHAM & TAYLOR P200FG OR EQUAL FOR NORMAL YARD SERVICE, WHERE VALVE WILL BE IN STREET OR UNDER VEHICLE TRAFFIC, USE P525RD CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT	TRENCH WITH UNIMPROVED SURFACE TYPE A-1 PIPE BEDDING	UG-11
REV. BY DATE CLB/KE 02/05 JAA/JB 10/08 JAA/JEA 02/09	MARCH 17, 2009 DATE OF APPROVAL	

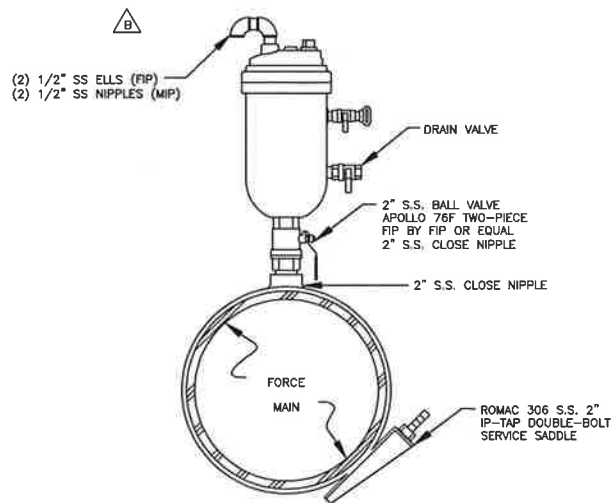
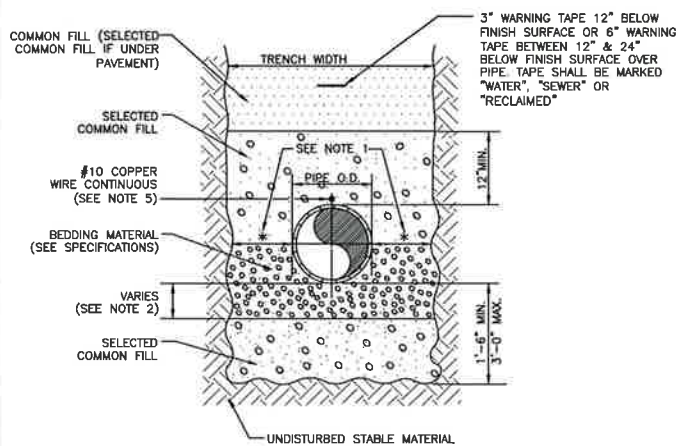
MANATEE COUNTY PUBLIC WORKS DEPARTMENT	TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING	UG-12
REV. BY DATE CLB/KE 02/05 JAA/JB 10/08 JAA/JEA 02/09	MARCH 17, 2009 DATE OF APPROVAL	

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	ABOVE-GROUND AIR RELEASE VALVE ASSY. FOR FORCE MAINS	US-25
REV. BY DATE CLB/KE 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 185

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	PLUG VALVE, BOX, COVER AND TAG	US-12
REV. BY DATE CLB/DOOM 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 152

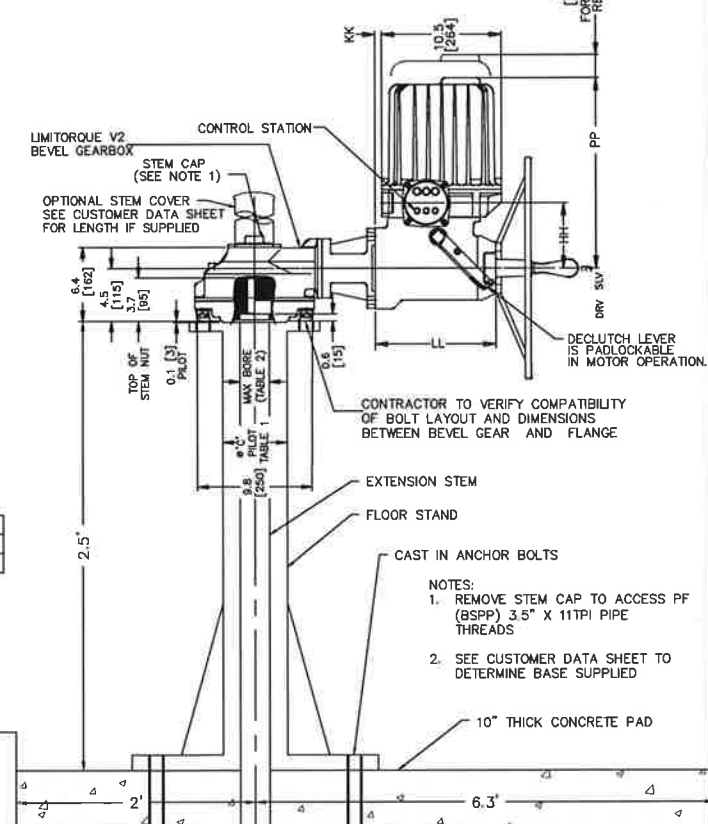
NOTES:

- 1.) 10" MAX. FOR PIPE DIAMETER LESS THAN 24"; 12" MAX. FOR PIPE DIAMETER 24" AND LESS THAN 42"; 24" MAX. FOR PIPE DIAMETER 42" AND OVER.
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- 5.) TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



NOTES:

- ACTUATOR OUTLINE DIMENSIONS (INCH)
- | UNIT SIZE | AA | BB | DD | HH | KK | LL | MM | PP | QQ |
|-----------|-----|------|-----|-----|------|------|-----|------|------|
| L120-20 | 18" | 13.6 | 2.6 | 5.7 | 0.51 | 10.6 | 4.4 | 16.4 | 16.0 |
- NOTE: POSITION ACTUATOR AND BEVEL GEAR ON 10-INCH THICK REINFORCED CONCRETE PAD WITH 6-FT TALL BARR WIRE CHAIN LINK FENCE AROUND PERIMETER. REINFORCED CONCRETE SLAB SHALL BE 8'-6" X 8'-6" WITH BOLLARDS WHERE SHOWN. POSITION HANDWHEEL TOWARDS GATE SIDE.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT	TRENCH WITH TYPE A-3 PIPE BEDDING	UG-16
REV. BY DATE CLB/KE 02/05 JAA/JB 10/08 JAA/JEA 02/09	MARCH 17, 2009 DATE OF APPROVAL	

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	ABOVE-GROUND AIR RELEASE VALVE ASSEMBLY FOR ABOVE GROUND FORCE MAINS	AG-1
REV. BY DATE JGV 04/07		

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	30" GATE VALVE ACTUATOR	AG-2
REV. BY DATE JGV 04/07		

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	30" GATE VALVE ACTUATOR	AG-2
REV. BY DATE JGV 04/07		

DESIGNED BY: RJH DRAWN BY: KG CHECKED BY: RJH CONTRACT ADMIN. BY: JGV WM APPROVED BY:	DATE: JULY 2015 DATE: JULY 2015 DATE: JULY 2015 DATE: JULY 2015 DATE: JULY 2015	CLIENT: MANATEE COUNTY PUBLIC WORKS PROJECT: VILLAGE OF PARRISH MASTER PUMP STATION	DATE: AUGUST 2015 HORIZONTAL SCALE: N/A VERTICAL SCALE: N/A SHEET NUMBER: 9 OF 12	TITLE: WATER & WASTEWATER DETAILS PROJECT NUMBER: 177310561 SHEET NUMBER: 9 OF 12
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