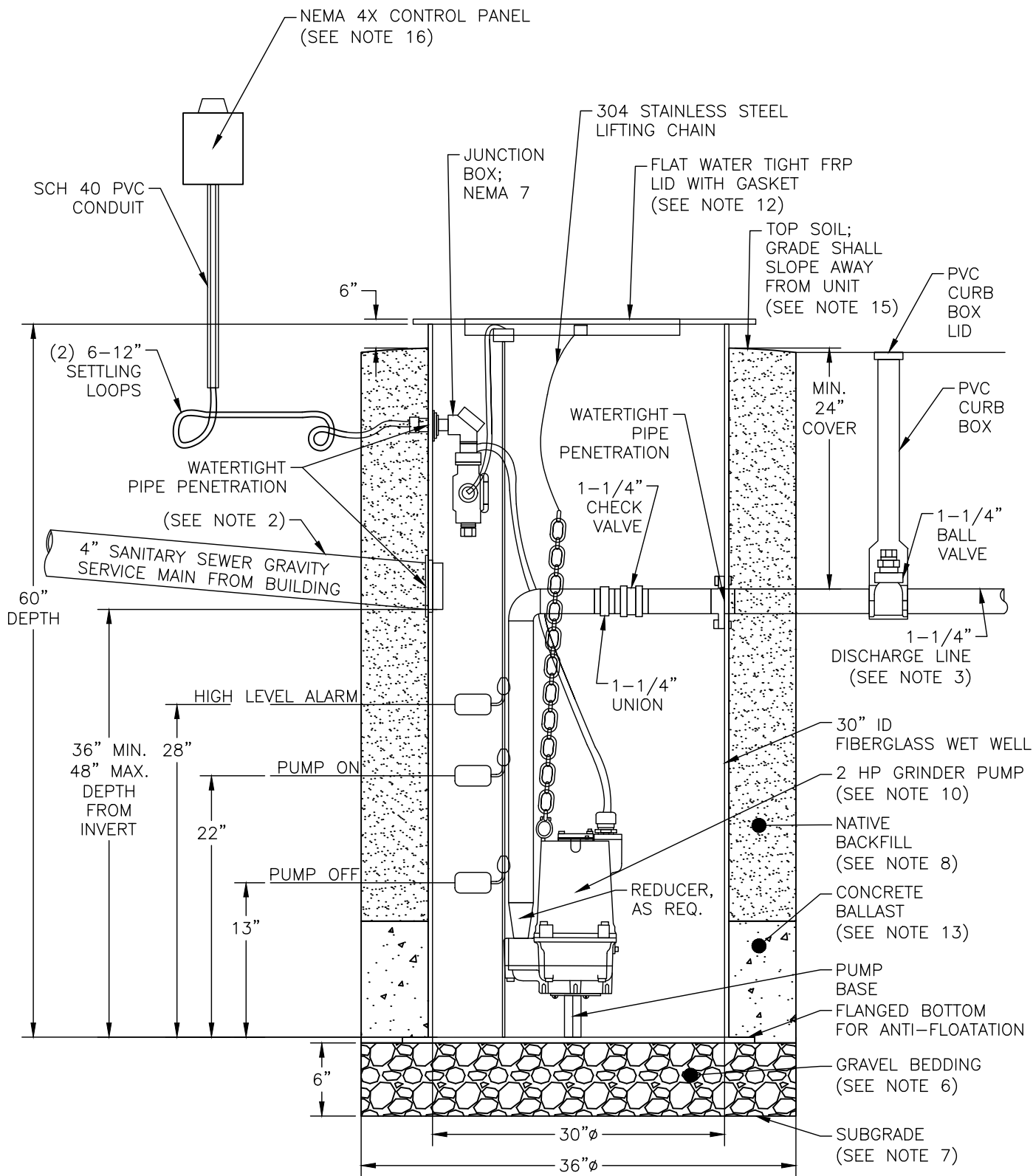


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TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE STANDARD DETAILS

TYPICAL SIMPLEX GRINDER PUMP STATION (1 OF 3)

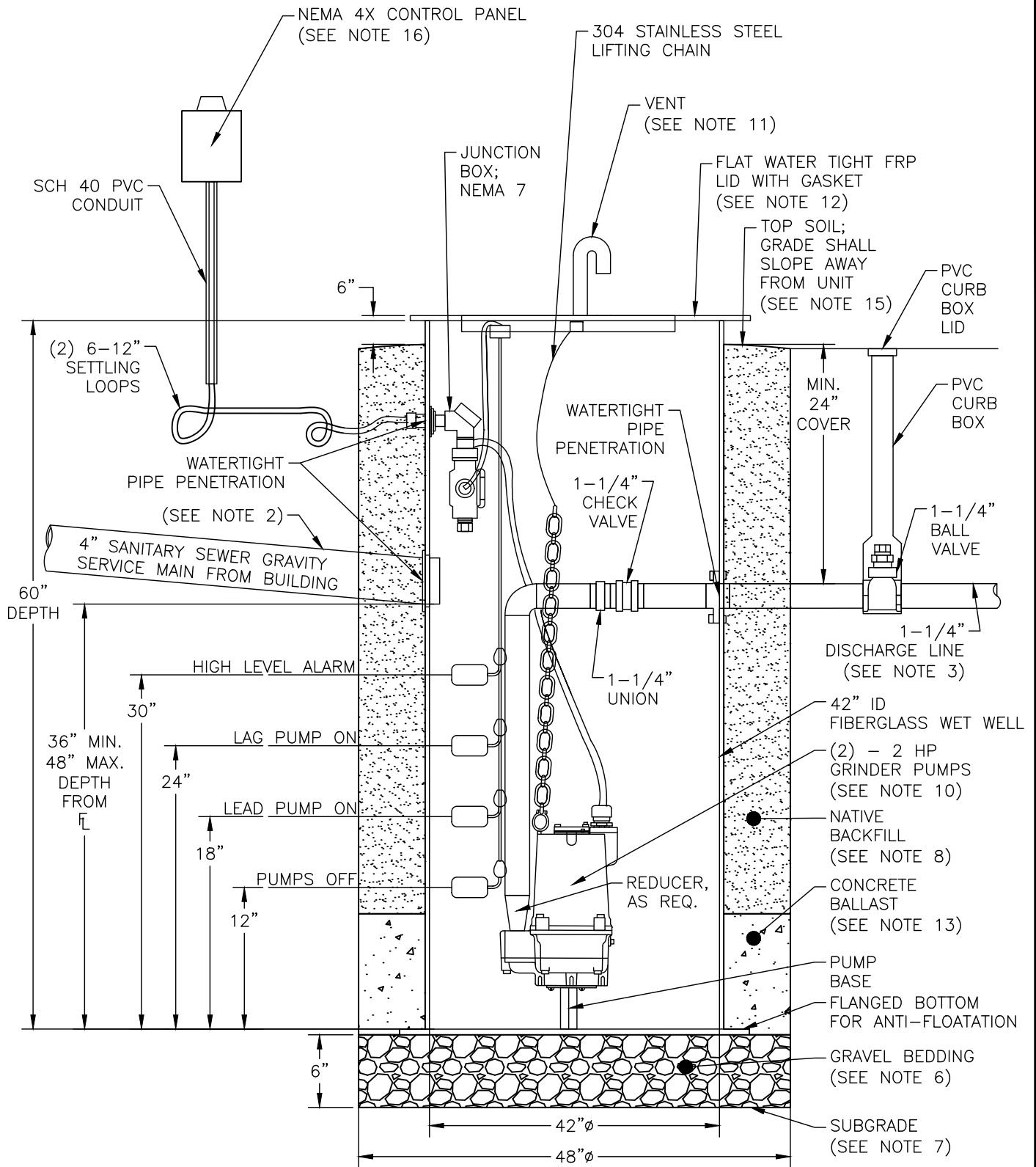
REVISED:
DECEMBER 2023

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

DETAIL NO.
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TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE STANDARD DETAILS

TYPICAL DUPLEX GRINDER PUMP STATION (2 OF 3)

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DETAIL NO. WW-1



NOTES:

1. ALL EQUIPMENT AND MATERIALS INSTALLED AS PART OF THE GRINDER PUMP SYSTEM SHALL MEET THE REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) CHAPTER 217, THE INTERNATIONAL PLUMBING CODE (IPC) AND NATIONAL ELECTRIC CODE (NEC) AS ADOPTED BY THE VILLAGE OF POINT VENTURE, AND THE STANDARD DETAILS AS SHOWN HEREIN.
2. ALL SANITARY SEWER GRAVITY SERVICE MAINS SHALL BE 4-INCH DIAMETER ASTM D 3034 SDR 26 PVC AND INSTALLED AT A MINIMUM 1% GRADIENT. DETECTABLE UNDERGROUND WARNING TAPE SHALL BE PLACED DIRECTLY OVER THE CENTERLINE OF THE PIPE, IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.
3. ALL SANITARY SEWER LOW PRESSURE SERVICE MAINS SHALL BE 1-1/4 INCH DIAMETER HDPE SDR 11 WITH FUSED JOINTS, ASTM D 2241 SDR 21 PVC WITH SOLVENT WELDED JOINTS, OR SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS AND INSTALLED AT A MINIMUM COVER OF 24 INCHES. DETECTABLE UNDERGROUND WARNING TAPE SHALL BE PLACED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE, IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE. PRIOR TO THE SYSTEM BEING PLACED INTO OPERATION, ALL PIPE SHALL BE PRESSURE TESTED IN ACCORDANCE WITH TCEQ §217.97(e)(1).
4. EACH GRINDER PUMP STATION DISCHARGE LINE SHALL TAP INTO THE LOW PRESSURE COLLECTION MAIN INDEPENDENTLY. NO SHARING OF TIE-INS WILL BE ALLOWED.
5. DISCHARGE LINE WILL REMAIN ON HOUSEHOLD PROPERTY, UNLESS APPROVED BY THE TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE REPRESENTATIVE AND AGREED TO BY OTHER PROPERTY OWNER.
6. ALL SANITARY SEWER SERVICE MAINS AND APPURTENANCES SHALL BE BEDDED IN PEA GRAVEL. BEDDING SHALL BE COMPACTED AROUND THE PIPE IN ITS ENTIRETY AND FULLY ENCASE THE PIPE ON ALL SIDES. BEDDING BELOW THE PIPE SHALL BE PLACED AT A DEPTH OF 6" BELOW THE INVERT OF THE PIPE. PIPE BEDDING ON THE SIDES OF THE PIPE SHALL EXTEND THE WIDTH OF THE TRENCH. 4" OF BEDDING SHALL BE PLACED AND ON OVER THE TOP OF THE PIPE BEFORE NATIVE BACKFILL WILL BE PLACED. 8" OF LOOSE NATIVE MATERIAL SHALL BE PLACED BEFORE COMPACTION. BEDDING SHALL MEET ALL REQUIREMENTS AND STANDARDS IN CITY OF AUSTIN SPECIFICATION 510.2(5).
7. SUBGRADE SHALL BE SCARIFIED AND COMPACTED TO WITHIN 95% RELATIVE DENSITY AS DETERMINED BY TXDOT TEST METHOD TEX-114-E.
8. SELECT BACKFILL, IN-SITU BACKFILL, AND BORROW MATERIAL SHALL BE FREE OF STONES, ROCKS AND OTHER DELETERIOUS MATERIALS AND SHALL HAVE A PLASTICITY INDEX OF LESS THAN 20. THE MOISTURE CONTENT AT THE TIME OF COMPACTION SHALL BE WITHIN 2% OF OPTIMUM AS DETERMINED BY TXDOT TEST METHOD TEX-114-E.
9. DESIGN AND INSTALLATION OF THE PROPERTY OWNER'S GRINDER PUMP SYSTEM, AS WELL AS ALL ASSOCIATED PLUMBING AND APPURTENANCES, SHALL BE REVIEWED, APPROVED, AND INSPECTED BY THE TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE REPRESENTATIVE PRIOR TO OPERATION AND ACCEPTANCE. THE SYSTEM SHALL BE DESIGNED AS A COMPLETE SYSTEM INCLUDING ALL CONNECTIONS, PUMPS, AND APPURTENANCES FOR LOTS BEING SERVED BY THE SANITARY SEWER SYSTEM. INSTALLATION AND OPERATION OF GRINDER PUMP SYSTEM SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
10. THE GRINDER PUMP SHALL BE: BARNES MODEL SGVH 2022L, 2 HP, 240 VOLTS, 1 PHASE; PENTAIR HYDROMATIC MODEL HVR200, 2 HP, 230 VOLTS, 1 PHASE; OR AN APPROVED EQUAL, AND SHALL BE A CENTRIFUGAL TYPE PUMP. VORTEX TYPE PUMPS ARE PROHIBITED.
11. FOR TOWNHOMES, DUPLEX PUMP SYSTEMS SHALL BE INSTALLED. SIMPLEX PUMP SYSTEMS ARE PROHIBITED FOR THREE OR MORE UNITS. DUPLEX PUMP SYSTEM RECEIVING THREE OR MORE UNITS SHALL INCLUDE VENTILATION CONFORMING TO TCEQ 217.60(d)(1). VENTILATION SHALL CONSIST OF A SCH. 40 PVC GOOSENECK AIR VENT SIZED MINIMUM 2-INCHES AND INCLUDE CORROSION-RESISTANT INSECT SCREENING INSTALLED ON VENT DISCHARGE. VENT DISCHARGE SHALL BE MINIMUM 2-FEET ABOVE GRADE.
12. THE WET WELL COVER SHALL HAVE A LOAD RATING OF NOT LESS THAN 150 POUNDS PER SQUARE FOOT (PSF) AND EXTEND 6-INCHES ABOVE NATURAL GROUND ELEVATION.
13. THE WET WELL SHALL BE EQUIPPED WITH EITHER CONCRETE BALLAST OR ANTI-FLOATATION COLLARS TO RESIST BUOYANCY FORCES. INSTALLER SHALL SUBMIT BUOYANCY CALCULATIONS TO THE TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE FOR REVIEW AND APPROVAL. CONCRETE BALLAST SHALL BE 2,500 POUNDS PER SQUARE INCH (PSI) MINIMUM STRENGTH.
14. THE GRINDER PUMP SYSTEM SHALL BE INSTALLED AT LOCATIONS OUTSIDE OF NATURAL DRAINAGE WAYS OR ANY AREAS SUBJECT TO FLOODING.
15. GROUND ADJACENT TO THE GRINDER PUMP SYSTEM SHALL BE CONTOURED TO DRAIN FREELY AWAY FROM GRINDER PUMP SYSTEM AND COMPONENTS.
16. CONTROL PANEL SHALL INCLUDE HAND-OFF-AUTO SWITCH, MAIN SERVICE DISCONNECT BREAKER, AND AN EXTERNAL AUDIOVISUAL ALARM SYSTEM CONSISTING OF A HORN AND FLASHING RED BEACON. ALARM SHALL ACTIVATE FOR PUMP FAILURE OR HIGH WATER LEVEL. MOUNT CONTROL PANEL ON BUILDING EXTERIOR OR ON A 304 STAINLESS STEEL UNISTRUT. CONTROL PANEL SHALL BE A MINIMUM 2-FEET ABOVE GROUND FLOOR ELEVATION OF THE BUILDING BEING SERVED. ALL CONDUIT OR WIRE WAY ENTRANCES INTO THE CONTROL PANEL SHALL BE SEALED TO PREVENT CORROSIVE GASES ENTERING THE CONTROL PANEL. ONE GFCI OUTLET SHALL BE PROVIDED.
17. FINAL CONNECTION TO SANITARY SEWER SYSTEM SHALL NOT TAKE PLACE UNTIL ALL SYSTEM COMPONENTS ARE IN PLACE, INSPECTED, AND ACCEPTED TO THE SATISFACTION OF THE TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE REPRESENTATIVE.

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TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT POINT VENTURE STANDARD DETAILS

TYPICAL GRINDER PUMP STATION NOTES (3 OF 3)

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WW-1