

① 01- Site Plan  
1" = 60'-0"

**JDM** CONSULTING, LLC

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16910 Thompson  
Road, 80908

OWTS Design

## Site Map

Project number 21-017

Date 3/3/2021 REV 3/9/2021

Drawn by J.DUMKE

Checked by D.MIZICKO

C1 of 4

Scale 1" = 60'-0"



4" SCH 40 PVC PIPE FROM RESIDENCE  
TO SEPTIC TANK (GRAVITY FLOW IF  
POSSIBLE)

4" SDR 35 PVC PIPE FROM  
SEPTIC TANK TO PUMP TANK

CONCRETE SEPTIC TANK  
1250 GAL SEPTIC TANK  
W/EFFLUENT FILTER

PUMP TANK - 500 GAL MINIMUM.  
SJE RHOMBUS MODEL 112 CONTROL PANEL OR EQUAL.  
ZOELLER MODEL 140 PUMP OR EQUAL  
DESIGN FLOW RATE: 41.1 GPM  
TOTAL DYNAMIC HEAD: 30.3 FT.  
TOTAL DOSE VOLUME: 140 GALLONS

AUTOMATIC DISTRIBUTION VALVE  
CLARUS MODEL 4404 (4 ZONE ONLY) OR EQUAL, MUST BE  
LOCATED AT SYSTEM HIGH POINT TO ALLOW DRAINAGE  
AND PREVENT FREEZING. INSIDE RISER TO GRADE W/  
INSULATED LID.

PRESSURE DISTRIBUTION LINES  
2" SCH 40 PVC PIPE. (1) 3/16 ORIFICE DRILLED @ 42" O.C.  
ALONG ENTIRE LENGTH OF LATERAL. ROTATE ORIFICES  
FROM THE 10-O'CLOCK, 2-O'CLOCK, AND 6-O'CLOCK  
POSITIONS ALONG THE PIPE TO ALLOW EVEN DISTRIBUTION  
AND PROPER DRAINAGE. PROVIDE AN ADDITIONAL ORIFICE  
AT 6-O'CLOCK AT BEGINNING AND END OF EACH LATERAL  
TO ASSIST IN DRAINAGE OF THE LATERAL.

SOIL TREATMENT AREA (BED #1 & BED #2)  
4 LATERALS, 2 ZONES, 2 LATERALS PER ZONE,  
76 ARC36 CHAMBERS (OR EQUAL) TOTAL PER BED  
19 CHAMBERS PER LATERAL  
  
152 TOTAL CHAMBERS OVER TWO BEDS

4" INSPECTION PORTS TO GRADE, LOCATE AT ALL  
FOUR CORNERS OF EACH BED. INSPECTION PORTS  
MUST EXTEND TO INFILTRATIVE SURFACE.

FLUSHING VALVE  
ASSEMBLY

① STA - 4 Row, Pressure Dosed, 2-Beds  
1" = 10'-0"

1  
C3 of 4

2" SCHEDULE 40 PVC PIPE TO STA

AIR VAC/RELEASE VALVE  
MUST BE LOCATED AT SYSTEM HIGH  
POINT. MAY BE OMITTED IF A.D.V. IS  
LOCATED AT SYSTEM HIGH POINT

2  
C3 of 4

1  
C4 of 4

95'-0" BED/SAND FILTER LENGTH

12' - 0" MAX.

6' - 0"

12' - 0" MAX.

WIDTH

MIN.

WIDTH

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## System Layout

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Scale 1" = 10'-0"

CONTROL PANEL AND ALARM PER PLAN  
(LOCATED ON RISER OR POST WITHIN  
LINE OF SIGHT OF PUMP CHAMBER)

PRECAST 500 MIN. GAL. PUMP  
CHAMBER PER HEALTH DEPT.  
REGULATIONS (48" I.D. TYP.)

4" SCH 40 INLET PIPE  
FROM SEPTIC TANK

INLET TEE OR BAFFLE

DOSE  
PER PLAN  
20" MIN.

HIGH WATER  
ALARM

PUMP ON

PUMP OFF

QUICK DISCONNECT COUPLER

WATERTIGHT RISER WITH LID TO  
(EXTEND MIN. 3" ABOVE GRADE)

WATER PROOFING AT ALL  
TANK PENETRATIONS

SCH 40 DISCHARGE  
PIPE, DIA. PER PLAN

1/4" WEEP HOLE TO ALLOW  
DRAINAGE OF DISCHARGE PIPE

FLOAT TREE (FLOATS MAY  
NOT BE LOCATED ON  
DISCHARGE PIPE)

PUMP PER PLAN ON CONCRETE  
BLOCK (4" TYP.)



## 1 Pump Chamber 3/8" = 1'-0"

MINIMUM 12" COVER OVER  
TOP OF CHAMBERS

EXISTING GRADE

NATIVE SOIL - SOIL TYPE 4A  
(MODERATELY CEMENTED)

UPPER INFILTRATIVE SURFACE AT 4'-0"  
BELOW GRADE MAXIMUM

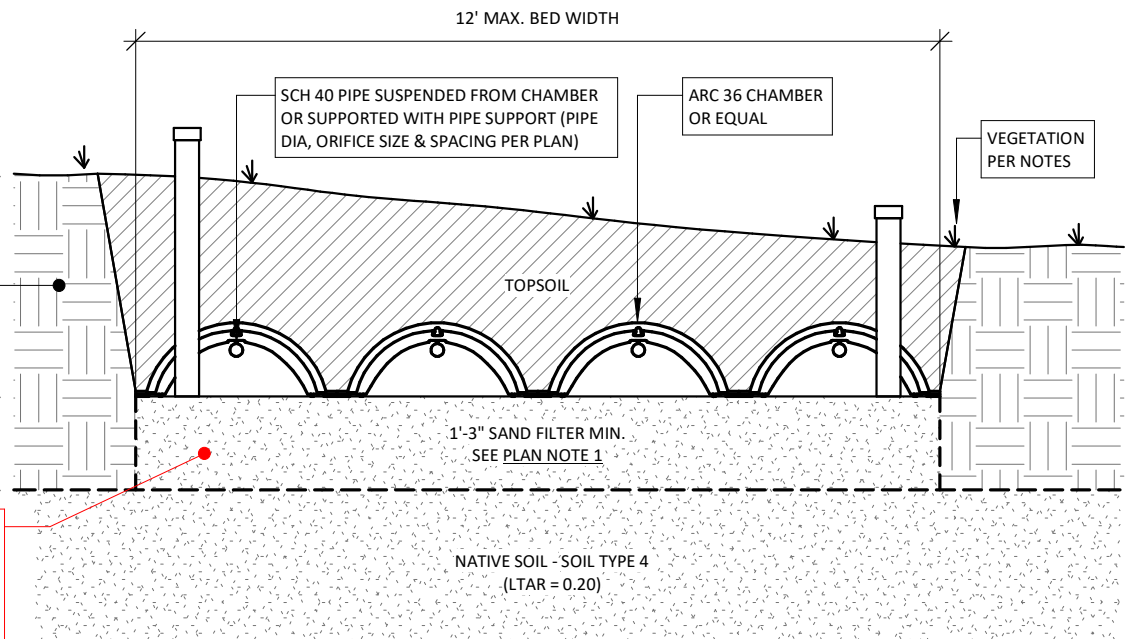
LOWER INFILTRATIVE SURFACE AT 5'-3"  
BELOW GRADE MINIMUM

SAND FILTER TO EXTEND BEYOND ANY  
MODERATELY CEMENTED TYPE 4A MATERIAL INTO  
NATIVE TYPE 4 MATERIAL. JDM CONSULTING TO  
BE NOTIFIED AT TIME OF EXCAVATION  
COMPLETION FOR OPEN EXCAVATION INSPECTION  
BEFORE INSTALLATION OF SECONDARY SAND  
MEDIA MAY BEGIN.

BED #2 NOT SHOWN FOR CLARITY.  
BED #2 MAY STEP DOWN RELATIVE  
TO EXISTING GRADE

### PLAN NOTE 1:

SAND FILTER MEDIA MUST MEET "SECONDARY" SAND MEDIA REQUIREMENTS OUTLINED IN CHAPTER 8 OF THE EL PASO COUNTY BOARD OF HEALTH REGULATIONS. A GRADATION OF THE SAND MEDIA MUST BE PROVIDED. THE GRADATION MUST BE DATED NO MORE THAN ONE MONTH PRIOR TO THE INSTALLATION DATE.  
\*EXACT DEPTH OF SAND FILTER WILL VARY SLIGHTLY OVER THE FOOTPRINT DUE TO VARIATION IN THE NATURAL GRADE ONSITE. DEPTHS SHOWN ARE THE MINIMUM DEPTH REQUIRED TO MEET DESIGN REQUIREMENTS.



## 2 STA Section - 4-Row Bed, Sand Filter, 2-Beds 3/8" = 1'-0"

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## Sections

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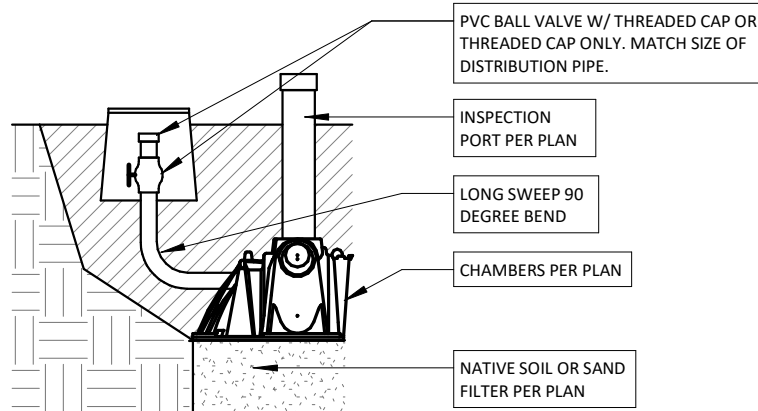
Drawn by J.DUMKE

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Scale 3/8" = 1'-0"





① Flushing Assembly  
1/2" = 1'-0"

#### OPERATION AND SYSTEM MAINTENANCE:

HOMEOWNERS ARE RESPONSIBLE FOR EDUCATING THEMSELVES ABOUT THE COMPONENTS AND OPERATION OF THEIR ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) TO ENSURE THAT THE SYSTEM FUNCTIONS PROPERLY. HOMEOWNERS SHOULD BE ADVISED OF RECOMMENDED MAINTENANCE AND/OR SPECIAL CONSIDERATIONS (EFFLUENT FILTER, DIVERTER VALVES, PUMP CONTROL, INSPECTION PORTS, ETC) FOR THEIR SEPTIC SYSTEM. REFER TO THE EL PASO COUNTY PUBLIC HEALTH DEPARTMENT OR YOUR LOCAL HEALTH DEPARTMENT AUTHORITY FOR MORE INFORMATION REGARDING SEPTIC SYSTEM CARE.

IT IS THE HOMEOWNERS RESPONSIBILITY TO PRACTICE WATER CONSERVATION AS MUCH AS PRACTICAL. REPAIR LEAKING FAUCETS AND TOILETS IMMEDIATELY. LEAKING PLUMBING FIXTURES CAN SATURATE AND ULTIMATELY FAIL A ONSITE WASTEWATER TREATMENT SYSTEM IN A VERY SHORT PERIOD OF TIME.

#### NOTES & LIMITATIONS:

ALL OWTS ELEMENTS MUST MAINTAIN A MINIMUM 10' FROM PROPERTY LINE.

ALL STA ELEMENTS MUST MAINTAIN A MINIMUM 100' SETBACK FROM THE WELL ONSITE (IF APPLICABLE) IN ADDITION TO ANY NEIGHBORING WELLS

THE DESIGN OF THIS SYSTEM HAS BEEN PREPARED IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS OUTLINED BY THE EL PASO COUNTY HEALTH DEPARTMENT. ALL REGULATIONS APPLY TO THIS DESIGN INCLUDING BUT NOT LIMITED TO: PROPERTY LINE SETBACKS, PIPE CLEANOUTS, WELL SETBACKS, ETC. THIS DESIGN MUST BE COORDINATED WITH FINAL AS-CONSTRUCTED CONDITIONS ONSITE (FINAL ELEVATIONS, STRUCTURE LAYOUT, SITE GRADING, DRAINAGE, ETC.) PRIOR TO CONSTRUCTION. IF DURING CONSTRUCTION, UNFORESEEN CIRCUMSTANCES REQUIRE MODIFICATIONS TO THE DESIGN, JDM CONSULTING LLC. MUST BE NOTIFIED IMMEDIATELY TO RE-EVALUATE THE DESIGN. JDM CONSULTING LLC. SHALL NOT BE HELD LIABLE FOR DESIGN CHANGES AND/OR ADDITIONS TO THE DESIGN DUE TO UNFORESEEN CIRCUMSTANCES.

THIS DESIGN IS BASED OFF INFORMATION AVAILABLE AT THE TIME OF DESIGN AND CRITERIA DETERMINED BY THE PROFILE EVALUATION. SOIL CONDITIONS CAN VARY ACROSS AN STA, JDM CONSULTING, LLC. IS NOT RESPONSIBLE FOR VARYING SOIL CONDITIONS ONSITE. PERFORMANCE OF A SYSTEM IS HIGHLY VARIABLE DEPENDING ON HOMEOWNER WATER USE, DRAINAGE, HEAVY RAINFALL OR SNOWFALL, DEEP FREEZE, ETC. DUE TO THE AFOREMENTIONED VARIABLES, NO WARRANTY AGAINST FAILURE IS GIVEN OR IMPLIED BY JDM CONSULTING, LLC.

(HOMEOWNER) RE-ESTABLISH VEGETATION OVER SOIL TREATMENT AREA AS SOON AS POSSIBLE AFTER INSTALLATION. HOWEVER, NO IRRIGATION IS ALLOWED ON SOIL TREATMENT AREA. NATIVE GRASSES AND PLANTS WITH SHALLOW ROOT SYSTEMS ARE RECOMMENDED. CONTACT SOIL CONSERVATION SERVICE OR COUNTY EXTENSION AGENT FOR INFORMATION REGARDING NATIVE VEGETATION.

NO VEHICULAR TRAFFIC OR LIVESTOCK SHOULD BE PERMITTED ON THE SOIL TREATMENT AREA. WITH LAWN CARE EQUIPMENT, SUCH AS A RIDING LAWN MOWER OR TRACTOR, IT IS IMPORTANT NOT TO TRAVEL ON THE SOIL TREATMENT AREA WHEN THE SOIL IS SATURATED. WINTER TRAFFIC ON THE MOUND SHOULD ALSO BE AVOIDED TO MINIMIZE FROST PENETRATION IN COLDER CLIMATE AREAS AND TO MINIMIZE COMPACTION IN OTHER AREAS.

ALL ONSITE DRAINAGE (INCLUDING GUTTERS, DOWNSPOUTS, ETC.) MUST BE DIVERTED TO AVOID THE SOIL TREATMENT AREA.

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## Details & Notes

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Scale As indicated