

June 2, 2023
Updated August 10, 2024

Project No. 192851-14A
Confirmation No. PR #8007

Dr. Milan Chakrabarty
CHAKRABARTY, LLC
1003 East Florida Avenue, Suite 101
Hemet, CA 92543

Subject: Updated Onsite Wastewater Treatment System Report and Design for Onsite Water Treatment Utilizing an Advanced Treatment System (ATS), Proposed Commercial Development, Assessor Parcel Number 476-010-060, Located on the South West Corner of Winchester Road and Keller Road, City of Winchester, Riverside County, California

Reference: County of Riverside, Community Health Agency, Department of Environmental Health, *Local Agency Management Program for Onsite Wastewater Treatment Systems*, 2022.

Earth Strata Geotechnical Services, Inc. is pleased to present this updated onsite wastewater treatment system (OWTS) report for the proposed commercial development referenced above, located on the southwest corner of Winchester Road and Keller Road, Assessor Parcel Number 476-010-060, in the City of Winchester, Riverside County, California. The purpose of our feasibility study was to determine the percolation rates and physical characteristics of the subsurface earth materials within the vicinity of the proposed drip field. We have provided guidelines for the design of an onsite wastewater treatment system, where applicable. This evaluation is intended to provide adequate data to satisfy the County of Riverside, Community Health Agency, Department of Environmental Health guidelines, and Local Agency Management Program (LAMP) guidelines for commercial development approval.

PROPERTY DESCRIPTION AND LOCATION

The subject property is located on the southwest corner of Winchester Road and Keller Road in the City of Winchester, Riverside County, California, see Figure 1. The subject property consists of an undeveloped parcel of land with relatively flat terrain. The site is bounded by Keller Road to the north, by Winchester Road to the east and southeast, and by residential parcels to the west.

There is an existing well on the parcel to the west. The location of the well is delineated on the ATS plans.

PROPOSED CONSTRUCTION

Based on information provided, the proposed development includes a self-storage commercial development with an office, complete with an onsite wastewater treatment system utilizing an advanced treatment system (ATS). The estimated waste flow for the project is based on the UPC table H201.1 and attached in Appendix E.

The proposed septic system will consist of an Advanced Treatment System (ATS) due to the shallow bedrock encountered on the property. The Upper 4 feet of bedrock were decomposed; however, refusal and termination of excavations were encountered at 5 feet below grade.

SUBSURFACE EXPLORATION AND PERCOLATION TESTING

PERCOLATION TESTING

A total of nine (9) percolation tests were conducted on March 24, 2023 to evaluate the feasibility of utilizing GeoFlow drip fields for advanced treatment systems. The percolation tests were performed in general accordance with the referenced guidelines.

The percolation tests were performed at the bottom of 1 foot deep, 8- inch diameter tests holes. The locations of the percolation test holes are indicated on the attached Percolation Location Map, Plate 1. The percolation test holes were located by property boundary measurements and by using geographic features.

The final percolation test reading is summarized in the following table and the test data recorded in the field is included in Appendix B. Percolation testing was performed per the reference Riverside County local Agency Management Program (LAMP) guidelines.

PERCOLATION TEST SUMMARY

TEST NUMBER	PERCOLATION HOLE DIAMETER (IN.)	HOLE DEPTH (FT.)	FINAL PERCOLATION RATE (MPI)	EARTH MATERIAL DESCRIPTION
P-1	8	1	20	Silty SAND
P-2	8	1	24	Silty SAND
P-3	8	1	20	Silty SAND
P-4	8	1	24	Silty SAND
P-5	8	1	15	Silty SAND
P-6	8	1	12	Silty SAND
P-7	8	1	20	Silty SAND

TEST NUMBER	PERCOLATION HOLE DIAMETER (IN.)	HOLE DEPTH (FT.)	FINAL PERCOLATION RATE (MPI)	EARTH MATERIAL DESCRIPTION
P-8	8	1	30	Silty SAND
P-9	8	1	12	Silty SAND

FINDINGS

EARTH MATERIALS

A general description of the earth materials observed on site is provided below:

Quaternary Alluvium (Qa): Quaternary Alluvium was encountered directly from the surface to a maximum depth of 5 feet. These materials were found to be light brown and in a dry, dense state.

Metasedimentary Rocks (ms): The bedrock deposits were encountered below the alluvium materials to the full depth of the excavation. This bedrock unit consists predominately of interbedded light to medium brown, fine to medium grained silty sand, fine to coarse grained sandstone, with occasional siltstone and claystone layers.

PERCOLATION TEST RESULTS

The final measured percolation test design rate is 30 minutes per inch (mpi). A hydraulic rate of 0.533 gal/sq. ft/ day will be used for the design.

GROUNDWATER / BEDROCK

Groundwater was NOT encountered in the exploratory test pits to a maximum depth of 5 feet below grade. Decomposed granitic bedrock started at 1.5 feet below grade and hit impermeable hard granitic bedrock at 5 feet below grade. Please see the attached Photos in Appendix G. Please see the attached test pit log included in Appendix I.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

Based on the data presented in this report and using the recommendations set forth, it is the judgment of this professional that there is sufficient area on each lot to support a to support a Norweco Model 960-500 GPD advanced treatment sewage disposal system in those areas with test results that will meet the current standards of the Department of Environmental Health and the Regional Water Quality Control Board (RWQCB). The design system shall be located in natural undisturbed soil at the depth of the tests performed. The natural occurring body of minerals and organic matter at the proposed wastewater disposal area contains earthen materials having more than 50% of its volume composed of particles smaller than 0.08 inches (2mm) in size.

Based on the data presented in this report and the testing information accumulated, it is the judgment of this professional that the groundwater table will not encroach within the current allowable limit set forth by County and State requirements.

SEWAGE DISPOSAL DESIGN RECOMMENDATIONS

The proposed sewage disposal system should consist of a Norweco Model 960-500 GPD Advanced Treatment unit, a 750-gallon pump chamber, and a drip field disposal area. The area for a primary system is required along with the expansion area and is outlined on Plate 1. Descriptions of the general design and construction of sewage disposal systems is provided below.

Estimated Daily Flow: The Estimated Daily flow is based on number of employees and the fixture units in the facility. There will be 14 fixture units and four (4) employees at the facility and an estimated 10 guests per day. Total effluent is estimated at 230 GPD for the employees and the guests and 750 gallons for the fixture units for a conventional system. However, the project will be utilizing A 500 GPD Advanced Treatment Unit that is more than sufficient to handle the proposed waste flows at the facility. Please see the attached Estimated Waste Flow Calculations Appendix E.

Septic Tank Capacity: The minimum septic tank capacity for the advanced treatment system is determined, in accordance with Riverside County Department of Environmental Health Guidelines and the UPC Table H201.1 by the total number of employees and visitors at the facility.

Allowable Design Percolation Rate: To determine the approximate square footage of each GeoFlow drip, the individual percolation and loading rates for each area that meets the requirements of Riverside County Department of Environmental Health Guidelines and the proposed septic tank capacity, may be used as a guideline.

Primary System: Primary system consist of a Norweco Wastewater Treatment System, Model 960-500 GPD, 750-gallon pump chamber, and a drip field disposal area. The drip lines are constructed within trenches excavated into native materials. The minimum leach field absorption area is based upon the proposed daily flow and the percolation (soil loading) rate of the near surface soils.

The design of the Norweco Model 960-500 GPD for the proposed site is based upon the guidelines provided by Norweco. The details for the treatment system standard detail is included in Appendix D, Norweco Model 960-500 GPD Standard Details. The calculations for dripline dispersal and pump size are presented in Appendix C. The calculations indicate the pump size should be ½ horsepower.

The drip field is designed per the GeoFlow Design Manual Recommendations. The details of the GeoFlow Drip Area are specified in the attached Appendix C. The Design Sheets include the proposed daily effluent, loading rates, type of drip lines, values, spacing of lines, emitters, friction losses, etc.

A pump chamber for the pressurized system should be installed close to the drip field. The pump chamber should have a capacity of 750 gallons. The tank should be located at an elevation such that the return lines can flow back into the tank by gravity.

An annual maintenance contract needs to be established between the property owner and an approved contractor. The Norweco Model 960-500 GPD system can be programmed to alert the maintenance contractor when a problem has occurred. This option should be implemented.

Expansion System: The expansion system is identical to the primary system and will follow the same guidelines if needed in the future.

GRADING PLAN REVIEW AND CONSTRUCTION SERVICES

This report has been prepared for the exclusive use of **Dr. Milan Chakrabarty** and their authorized representative. It likely does not contain sufficient information for other parties or other uses. Earth Strata Geotechnical Services should be engaged to review the final design plans and specifications prior to construction. This is to verify that the recommendations contained in this report have been properly incorporated into the project plans and specifications. Should Earth Strata Geotechnical Services, Inc. not be accorded the opportunity to review the project plans and specifications, we are not responsible for misinterpretation of our recommendations.

We recommend that Earth Strata Geotechnical Services be retained to provide geologic and geotechnical engineering services during grading and foundation excavation phases of the work. In order to allow for design changes in the event that the subsurface conditions differ from those anticipated prior to construction.

Earth Strata Geotechnical Services should review any changes in the project and modify and approve in writing the conclusions and recommendations of this report. This report and the drawings contained within are intended for design input purposes only and are not intended to act as construction drawings or specifications. In the event that conditions encountered during grading or construction operations appear to be different than those indicated in this report, this office should be notified immediately, as revisions may be required.

REPORT LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists, practicing at the time and location this report was prepared. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

Earth materials vary in type, strength, and other geotechnical properties between points of observation and exploration. Groundwater and moisture conditions can also vary due to natural processes or the works of man on this or adjacent properties. As a result, we do not and cannot have complete knowledge of the subsurface conditions beneath the subject property. No practical study can completely eliminate uncertainty with regard to the anticipated geotechnical conditions in connection with a subject property.

The conclusions and recommendations within this report are based upon the findings at the points of observation and are subject to confirmation by Earth Strata Geotechnical Services based on the conditions revealed during grading and construction.

This report was prepared with the understanding that it is the responsibility of the owner or their representative, to ensure that the conclusions and recommendations contained herein are brought to the attention of the other project consultants and are incorporated into the plans and specifications. The owners' contractor should properly implement the conclusions and recommendations during grading and construction, and notify the owner if they consider any of the recommendations presented herein to be unsafe or unsuitable.

Respectfully submitted,

EARTH STRATA GEOTECHNICAL SERVICES, INC.

Stephen M. Poole, PE 40219
President
Principal Engineer



SMP/GW

Distribution: (4) Addressee

Attachments: Figure 1 – Site Location Map (*Rear of Text*)
Appendix A – References (*Rear of Text*)
Appendix B – Percolation Test Results (*Rear of Text*)
Appendix C – GeoFlow Drip Field Calculations (*Rear of Text*)
Appendix D – Norweco Model 960-500 GPD Standard Details (*Rear of Text*)
Appendix E – Estimated Waste Flow Calculations (*Rear of Text*)
Appendix F – Proposed Development Plans (*Rear of Text*)
Appendix G – Photos (*Rear of Text*)
Appendix H – NOT USED (*Rear of Text*)
Appendix I – Test Pit Log (*Rear of Text*)
Plate 1 –Percolation Location Map (*Rear of Text*)



Legend

ESRS_RIV_CO

RivCo_Well_Permits

Riverside County
PARCELS_CREST

California Streams

Esri Community Maps Contributors, Loma Linda University, County
Riverside, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE
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Land Management, EPA, NPS, US Census Bureau, USDA, Maxar

Earth Strata Geotechnical Services, Inc.

Geotechnical, Environmental and Materials Testing Consultants

www.ESGSINC.com (951) 397-8315

APPENDIX A

REFERENCES

APPENDIX A

References

County of Riverside, Department of Environmental Health, Environmental Protection and Oversight Division, Land Use and Water Resources Program, 2022, *Local Agency Management Program for Onsite Wastewater Treatment Systems*, dated November 17.

Geoflow Subsurface Drip Systems, 2007, *Design Installation and Maintenance Guidelines*, Version 2, October.

Norweco. 2007, *Norweco Singulair Bio-Kinetic Wastewater Treatment System Model 960-1000 GPD*, dated January 29.

APPENDIX B

PERCOLATION TEST RESULTS

(ATU)

Test No. P-2 Depth 1'

Time	Time Interval	Initial	Final	Drop	MPI	
9:40	30	4	6.5	2.500	12.0	
10:10						
10:12	30	6.5	8.5	2.000	15.0	
10:42						
10:43	30	5	6.5	1.500	20.0	
11:13						
11:15	30	6.5	8	1.500	20.0	
11:45						
11:47	30	4	5.5	1.500	20.0	
12:17						
12:18	30	5.5	6.75	1.250	24.0	
12:48						
12:50	30	6.75	8	1.250	24.0	
13:20						
13:21	30	4	5.25	1.250	24.0	
13:51						
13:52	30	5.25	6.5	1.250	24.0	
14:22						
14:23	30	6.5	7.75	1.250	24.0	
14:53						
14:54	30	4	5.25	1.250	24.0	
15:24						
15:25	30	5.25	6.5	1.250	24.0	
15:55						

(ATU)

LOT NO.:

Test No.	P-6	Depth	1'
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Time	Time Interval	Initial	Final	Drop	MPI	
9:42	30	4	7.5	3.500	8.6	
10:12						
10:14	30	5	8.5	3.500	8.6	
10:44						
10:45	30	4.5	7.75	3.250	9.3	
11:15						
11:17	30	4	6.75	2.750	11.0	
11:47						
11:49	30	6.75	9.25	2.500	12.0	
12:19						
12:20	30	5	7.75	2.750	11.0	
12:50						
12:52	30	4	6.5	2.500	12.0	
13:22						
13:23	30	6.5	9	2.500	12.0	
13:53						
13:54	30	4.5	7	2.500	12.0	
14:24						
14:25	30	7	9.5	2.500	12.0	
14:55						
14:56	30	5	7.5	2.500	12.0	
15:26						
15:27	30	7.5	10	2.500	12.0	
15:57						

Test No. P-8 Depth 1'

Time	Time Interval	Initial	Final	Drop	MPI	
9:46	30	6.5	8.5	2.000	15.0	
10:16						
10:18	30	5	7	2.000	15.0	
10:48						
10:49	30	5	7	2.000	15.0	
11:19						
11:21	30	4.5	6.5	2.000	15.0	
11:51						
11:52	30	6.5	8.5	2.000	15.0	
12:22						
12:23	30	5	6.75	1.750	17.2	
12:53						
12:54	30	6.75	8	1.250	24.0	
13:24						
13:26	30	4.5	5.75	1.250	24.0	
13:56						
13:57	30	5.75	6.75	1.000	30.0	
14:27						
14:28	30	6.75	7.75	1.000	30.0	
14:58						
14:59	30	5	6	1.000	30.0	
15:29						
15:31	30	6	7	1.000	30.0	
16:01						

PROJECT NO.: 192851-14A TEST TYPE (SP) (LL) (ATU)

TRACT: LOT NO.:

TESTED BY: JMR

Test No.	P-9	Depth	1'
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Time	Time Interval	Initial	Final	Drop	MPI	
9:47	30	6	9.25	3.250	9.3	
10:17						
10:19	30	6	9.25	3.250	9.3	
10:49						
10:50	30	5.5	9	3.500	8.6	
11:20						
11:22	30	6	9	3.000	10.0	
11:52						
11:53	30	6	9	3.000	10.0	
12:23						
12:24	30	5	7.75	2.750	11.0	
12:54						
12:55	30	7.75	10.5	2.750	11.0	
13:25						
13:27	30	6	8.5	2.500	12.0	
13:57						
13:58	30	8.5	11	2.500	12.0	
14:28						
14:29	30	6.25	8.75	2.500	12.0	
14:59						
15:00	30	5	7.5	2.500	12.0	
15:30						
15:32	30	7.5	10	2.500	12.0	
16:02						

Test No.	Depth
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[illegible]

Test No.	Depth
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[illegible]

Test No.	Depth
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[illegible]

APPENDIX C

GEOFLOW DRIPFIELD CALCULATIONS

FIELD FLOW

Job Description:	192851-14A
Contact:	GADALLA GADALLA
Prepared by:	JOSHUA GADALLA
Date:	28-Mar-23

Please fill in the shaded areas and drop down menus:

This spreadsheet serves as a guide, and is not a complete hydraulic design.

Worksheet 1- Field Flow

Total field

Total Quantity of effluent to be disposed per day	500	gallons / day
Hydraulic loading rate	0.533	gallons / sq.ft. / day
Minimum Dispersal Field Area	938	square ft.
Total Dispersal Field Area	938	square ft.

Flow per zone

Number of Zones	2	zone(s)
Dispersal area per zone	469	square ft.
Choose line spacing between WASTEFLOW lines	2	ft.
Choose emitter spacing between WASTEFLOW emitters	2	ft.
Total linear ft. per zone (minimum required)	235	ft. per zone
Total number of emitters per zone	117	emitters per zone
Select Wasteflow dripline (16mm)	Wasteflow PC - 1/2gph	dripline
Pressure at the beginning of the dripfield	35	psi
Feet of Head at the beginning of the dripfield	80.85	ft.
What is the flow rate per emitter in gph?	0.53	gph
Dose flow per zone	1.04	gpm

Note: A few States or Counties require additional flow for flushing. Please check your local regulations.

Flush velocity calculation below is for PC dripline. Classic dripline requires less flow to flush than PC.

Please refer to Geoflow's spreadsheet "Design Flow and Flush Curves" at www.geoflow.com or call 800-828-8288

If required, choose flush velocity	0.5	ft/sec
How many lines of WASTEFLOW per zone?	8	lines
Fill in the <i>actual</i> length of longest dripline lateral	29	ft.
Flush flow required at the end of each dripline	0.37	gpm
Total Flow required to achieve flushing velocity	2.96	gpm
Total Flow per zone- worst case scenario	4.00	gpm

Select Filters and zone valves

Select Filter Type	BioDisc Filter	
Recommended Filter (item no.)	BioDisc-150	1.5" Disc Filter 0-30gpm
Select Zone Valve Type	Electric Solenoid	-
Recommended Zone Valve (item no.)	SVLVB-100	1-in. Solenoid valve

Dosing

Number of doses per day / zone:	12	doses
Timer ON. Pump run time per dose/zone:	20.07	mins:secs
Timer OFF. Pump off time between doses	1:39	hrs:mins
Per Zone - Pump run time per day/zone:	4:01	hrs:mins
All Zones - Number of doses per day / all zones	24	doses / day

PUMP SIZING

Job Description:	192851-14A
Contact:	GADALLA GADALLA
Prepared by:	JOSHUA GADALLA
Date:	3/28/2023

Pressure losses may be grossly overstated, particularly if designing with WASTEFLOW Classic
The letters on the diagram(right) match the letters in section 2 below.

Worksheet - Pump Sizing

Section 1 - Summary from Worksheet 1		
Flow required to dose field	1.04	gpm
Flow required to flush field	2.96	gpm
Flow required to dose & flush field	4.00	gpm
Filter	BioDisc-150	
No. of Zones	2	zones
Zone valve	SVLVB-100	
Dripline	Wasteflow PC - 1/2gph	
Dripline longest lateral	29.32	ft.

Section 2	Ft of head	Pressure
A. Flush line - Losses through return line		
Size of flush line in inches	.5 inch	
Length of return line	200 ft.	
Equivalent length of fittings	5 ft.	
Elevation change. (if downhill enter 0)	0 ft.	
Pressure loss in 100 ft of pipe	24.30 ft.	10.52 psi
Total pressure loss from end of dripline to return tank	49.8 ft.	21.57 psi
B. Dripline - Losses through Wasteflow dripline		
Length of longest dripline lateral	29 ft.	
Minimum dosing pressure required at end of dripline	23.10 ft.	10.00 psi
Loss through dripline during flushing	1.13 ft.	0.49 psi
Total minimum required dripline pressure	24.23 ft.	0.49 psi
A+B. Minimum Pressure required at beginning of dripfield		
CALCULATED pressure required at beginning of dripfield	74.05 ft.	32.06 psi
SPECIFIED pressure at beginning of dripfield (from worksht 1)	80.9 ft.	35.00 psi
Great! SPECIFIED Pressure is greater than CALCULATED Pressure requirement. Go to next step		
C. Drip components - Losses through headworks		
Filter	4.6 ft.	2.00 psi
Zone valve pressure loss (not in diagram)	0.46 ft.	0.20 psi
Flow meter pressure loss (not in diagram)	ft.	- psi
Other pressure losses	ft.	- psi
Total loss through drip components	5.08 ft.	2.20 psi
D. Supply line - Minimum Pressure head required to get from pump tank to top of dripfield		
Size of supply line in inches	.5 inch	
Length of supply line	0 ft.	
Equivalent length of fittings	5 ft.	
Height from pump to tank outlet	5 ft.	
Elevation change. (if downhill enter 0)	0 ft.	
Pressure loss/gain in 100 ft. of pipe	42.36 ft.	18.34 psi
Total gain or loss from pump to field	7.1 ft.	3.08 psi
Total dynamic head	93.1 ft.	40.28 psi
Pump capacity *	4.0 gpm	
Pump Model Number		
Voltz / Hp / phase		

* Note: Pump capacity flow assumes flow in dripline does not change during a dose cycle. With Wasteflow
For more accurate flows please see Geoflow's **Flushing worksheet**.

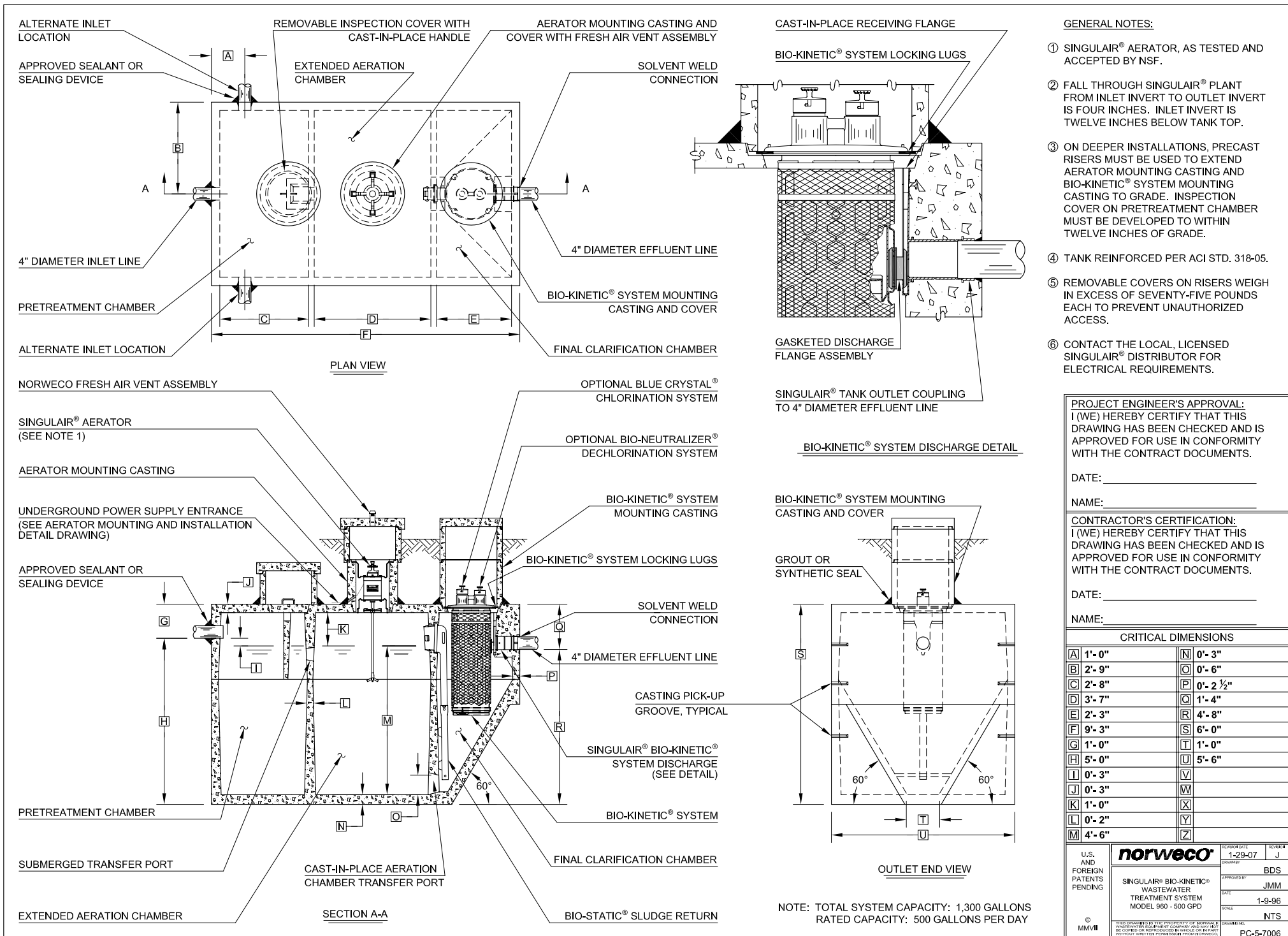
If you need assistance designing for this additional flow, please

a. See Geoflow flushing worksheet or

b. Contact Geoflow at 800-828-3388.

APPENDIX D

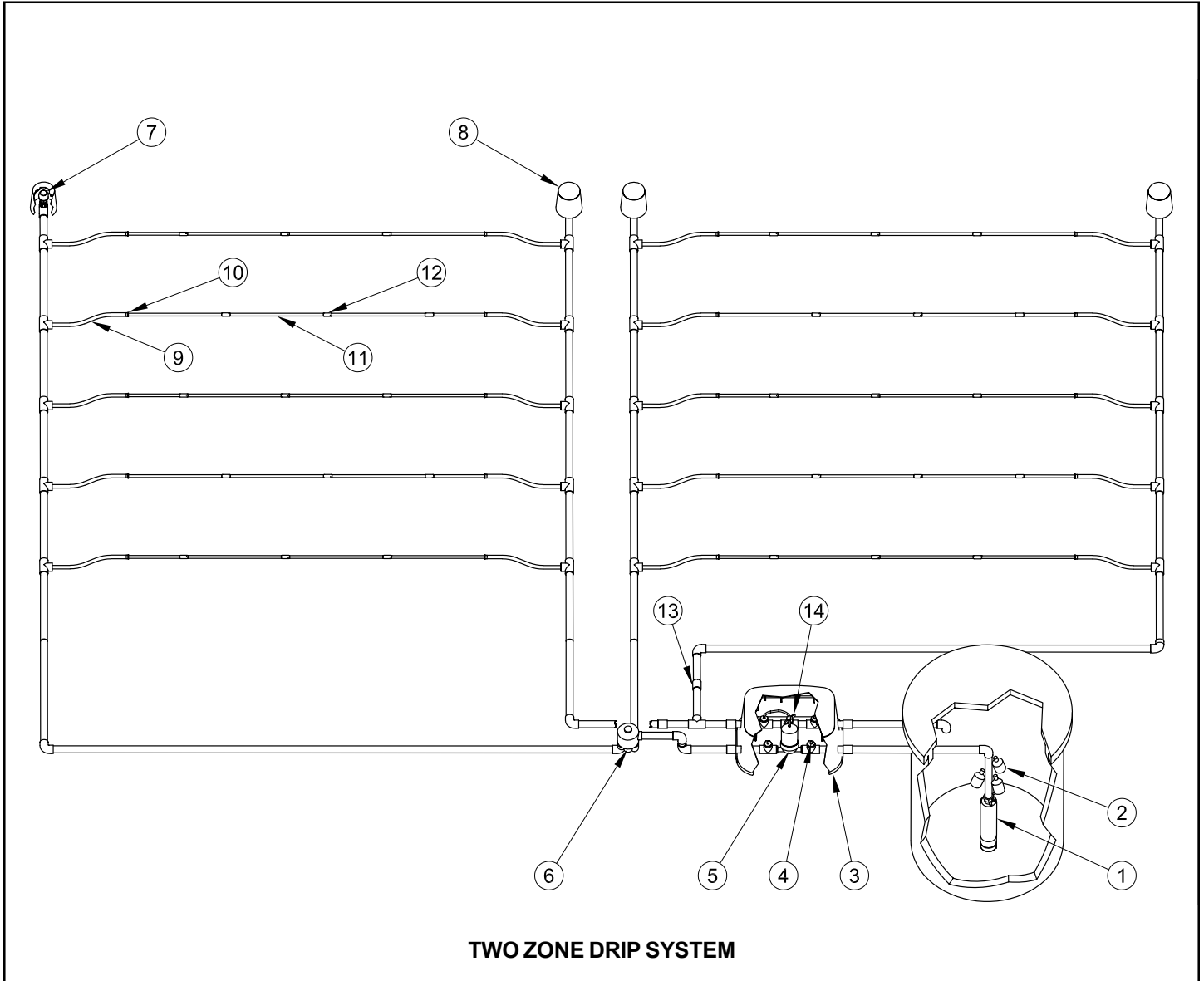
NORWECO MODEL 960-500 GPD STANDARD DETAILS AND SPECIFICATIONS



norweco[®] **SINGULAIR**[®]

SUBSURFACE DRIP DISPOSAL SYSTEMS

PRE-ENGINEERED DESIGNS PARTS LIST



1	HB105 Submersible Effluent Pump	8	Relief Valve Enclosure
2	Pump Float Switches	9	Flexible PVC Hose
3	Headworks Enclosure	10	Compression Fitting
4	Schrader Valve	11	Drip Emitter Tubing
5	1" Disc Filter	12	Pressure Compensating Drip Emitter
6	Zone Indexing Valve	13	PVC Check Valve
7	Air/Vacuum Relief Valve	14	PVC Flush Valve

PRE-ENGINEERED DESIGNS PARTS LIST (Page 2 of 4)

INTEGRATED SYSTEM CONTROLS

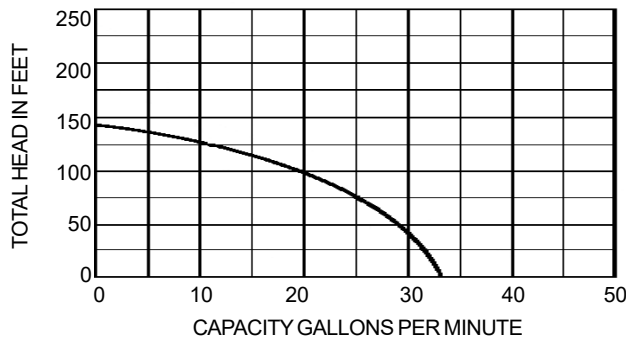
Integrated system controls (ISC) by Norweco eliminate the need to install and maintain separate controls for different components of the treatment system. One control center manages it all.

Certified and listed by NSF and CSA, ISC control centers bring together into one enclosure alarm/pump test switches, alarm silence switches, audible/visual alarms, failsafe features, remote monitoring, telemetry and aerator/pump timers.



EFFLUENT PUMP SPECIFICATIONS

The pump shall be a Norweco Model HB105 high head submersible pump, designed to handle filtered effluent and be capable of passing 1/16" spherical solids. The 115 volt, single phase, 60 cycle pump shall be UL and CSA listed and capable of running dry for short durations without damage to the motor or pump end.



The pump motor shall be 1/2 horsepower rated and operate at 3450 RPM. The motor assembly shall have corrosion

resistant stainless steel exterior construction and incorporate a dual action starting switch to provide automatic torque reversal. Electrical surge protection shall be provided. Automatic motor overload protection shall be included at the top end of the motor windings and shall be wired in series to automatically cease operation when the motor winding temperature reaches 266° F. The 10 foot long motor power cord shall be 14-3, jacketed, type SJOW. The power cord shall be sealed at the motor entrance by means of a rubber grommet and stainless steel



compression plate. The pump impeller shall be of the six vane enclosed type, constructed of engineered thermoplastic. The impeller shall have a hexagonal I.D. and be positively driven by a hexagonal 300 series stainless steel pump shaft. The pump shall be warranted by the manufacturer against defects in material and workmanship for a period of one year under normal use and service.

FLOAT SWITCH

The mechanically-activated, wide-angle pump control switch provides automatic operation of the effluent dosing pump. This commercial duty float switch is not sensitive to rotation or turbulence, allowing it to be used in both calm and turbulent applications. Float switch features consist of UL recognition, NSF Standard 61 listing, CSA certification and Water Quality Association approval. **NOTE:** This switch is not recommended for controlling non-arcing electric loads or electric loads less than <100 milliamps, 12 VAC. Switch must be used with pumps that provide integral thermal overload protection.



FLOAT SWITCH TECHNICAL DATA

Cable	Flexible 16 Gauge, 2 Conductor SJOW, Water Resistant
Float Housing	2.74" Diameter x 4.83" Long, High Impact, Corrosion Resistant, Polypropylene
Water Depth	30 Feet
Electrical	120/125 VAC 50/60 Hz Single Phase
Maximum Pump Starting Current	78 Amps
Maximum Pump Running Current	13 Amps
Maximum Pump HP	1/2 HP

MANUFACTURED BY

norweco

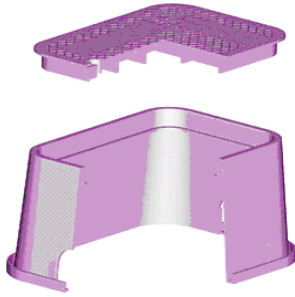
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www.norweco.com

PRE-ENGINEERED DESIGNS PARTS LIST (Page 3 of 4)

HEADWORKS ENCLOSURE

The headworks enclosure is purple in color and rectangular in shape. Green enclosures are available if state and local regulations permit. All hydraulic system control components are contained within this open bottom enclosure. Components are conveniently arranged so that all necessary connections can be accessed from grade during routine service.



HEADWORKS ENCLOSURE TECHNICAL DATA

Enclosure Length	15"
Enclosure Width	21"
Enclosure Depth	12"
Enclosure Color (Standard)	Purple

SCHRADER VALVE

Schrader valves are manufactured with viton and PTFE threaded seals and are used with a liquid pressure gauge to accurately monitor system operating pressure. Located upstream and downstream of the disc filter and upstream of the flush valve.



SCHRADER VALVE TECHNICAL DATA

Connection	1/4" NPT
Maximum Pressure	200 PSI
Temperature Range	40° F to 300° F
Thread Size	0.305" - 32

1" DISC FILTER



The disc filter is completely corrosion resistant and designed to capture and retain effluent suspended solids. 1" disc filters are manufactured specially for small flow applications. A built-in tap allows for continuous flushing of filtered solids to the return line. Operation is automatic and requires no special tools.

1" DISC FILTER TECHNICAL DATA

	Metric	Imperial
Maximum Pressure	10 Bar	145 PSI
Flow Rate	6 m ³ /h	26 GPM
Flow Rate	4 m ³ /h	18 GPM
Filtration Surface Area	316 cm ²	49 in ²
Filtration Volume	440 cm ³	27 in ³
Filter Length	237 mm	9 11/32"
Filter Width	158 mm	6 7/32"
Distance Between Connections	158 mm	6 7/32"
Weight	1 kg	2.2 lbs.

ZONE INDEXING VALVE

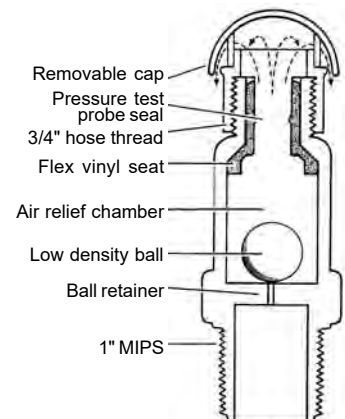
Zone indexing valves offer a reliable and economical way to automate multiple zoned residential and small commercial effluent drip disposal systems. Indexing valves are constructed of high strength, noncorrosive ABS polymer for long service life. Available in four and six outlet models, these valves make it easy to change from two to six disposal zones. Valves are easily maintained and serviced for long product life due the simplicity of the design. Reliably automates multiple zoned residential and small commercial effluent disposal systems with flows as low as 10 GPM and pressures of 25-75 PSI.



AIR/VACUUM RELIEF VALVE

Air/vacuum relief valves are installed at the high points of the drip field to keep soil from being pulled into the drip emitters due to back siphoning or back pressure. They are also used for proper draining of the supply and return lines in freezing conditions.

The air/vacuum relief valve provides instant and continuous vacuum relief and noncontinuous air relief. Both the body and the removable cover shall be constructed of molded plastic. The body and the cover shall be connected with a 3/4" hose thread.



PRE-ENGINEERED DESIGNS PARTS LIST (Page 4 of 4)



RELIEF VALVE ENCLOSURE

Manufactured from low density polymer resin, this 6" round enclosure provides a secure housing for the relief valve.



FLEXIBLE PVC HOSE

Designed to be glued into Schedule 40 PVC fittings, this flexible hose is used to connect drip tubing to supply and return lines. The hose is also used in single trench disposal zones to make loops in the drip tubing. Saves time and labor. Requires fewer fittings than rigid pipe. Smooth bore construction allows unrestricted flow. Use with recommended PVC primer and cement.



COMPRESSION FITTING



Compression fittings and adapters are specifically designed for use in subsurface effluent drip disposal systems. Manufactured from high strength polymer resin, these fittings simplify the installation of the emitter tubing.

COMPRESSION FITTING TECHNICAL DATA

1/2" Slip x 1/2" Drip Line

Weight: 0.005 lbs.

DRIP EMITTER TUBING

The drip tubing shall consist of nominal sized 1/2" linear low density, polyethylene tubing with turbulent flow drip emitters bonded to the inside wall. The drip emitter flow passage shall be 0.032" x 0.045" square. The tubing shall have an outside diameter (O.D.) of approximately 0.64" and an inside diameter (I.D.) of approximately 0.55". The tubing shall consist of three

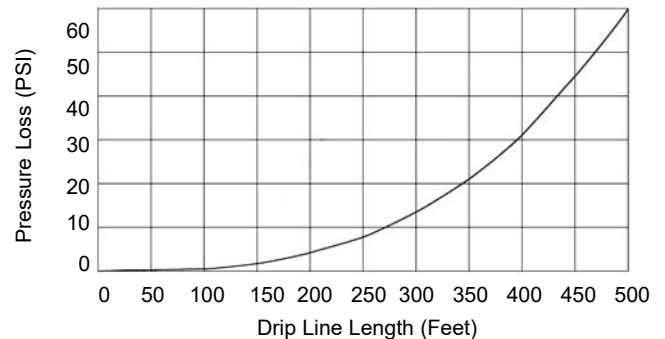


Flow Rate vs. Pressure / TDH

Drip Tubing	Head	Pressure
1.02 GPH	16 - 139 Feet	7 - 60 PSI

layers; the inside layer shall be a bactericide protection, the middle layer shall be black and the outside layer shall be purple striped for easy identification. The pressure compensating emitters shall be molded from virgin polyethylene resin with a silicone rubber diaphragm and shall have a nominal discharge rate of 1.02 gallons per hour. Each emitter shall be impregnated with a root growth inhibitor to protect against root intrusion.

Pressure Loss vs. Length of Drip Line



CHECK VALVE

PVC (Polyvinyl Chloride) check valves prevent effluent from flowing into resting disposal zones when active zones are being dosed. The check valves also allow maintenance to be performed without losing pressure in the system ahead of the maintenance.



Check valves are a vital component in multi-zone effluent drip disposal systems. The check valves are available as a union check valve combination, allowing a convenient connect/disconnect location anywhere in the system.

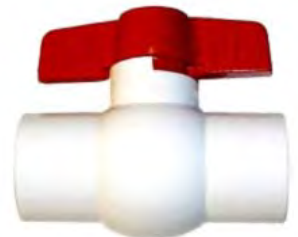
FLUSH VALVE

The flush valve is used to establish system operating pressure, allowing a continuous flow through the disposal field.

FLUSH VALVE TECHNICAL DATA

Size: 1 1/4" PVC Ball Valve (Standard)

Rated for 150 PSI at 73° F



MANUFACTURED BY

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SUBSURFACE DRIP
DISPOSAL SYSTEM

SUBSURFACE DRIP



INCREASE EFFLUENT DISPOSAL OPTIONS WITH PROVEN PERFORMANCE...

Now even properties with marginal soils can be economically developed using Norweco wastewater treatment systems and drip disposal technology. Engineered to uniformly apply treated effluent below the surface of the ground, drip distribution relies on proven techniques originally developed for agricultural irrigation. This method of pressure distribution is well suited for all types of subsurface wastewater disposal systems, as treated effluent is delivered directly to the infiltration surface. The unique features of drip disposal increase the options available for onsite treatment system design. USEPA and environmental protection agencies throughout the world have determined that subsurface drip disposal is a reliable and efficient method of effluent distribution. Even the most difficult sites can be utilized by taking advantage of gradual soil absorption, nutrient uptake by vegetation and evapotranspiration.

ONE INTEGRATED CONTROL CENTER, PRE-WIRED FOR AUTOMATIC OPERATION OF ALL SYSTEM COMPONENTS...

All system controls are integrated to combine breakers, alarms, timers, aerator circuitry, pump wiring and control switches into one lockable, weatherproof enclosure. Consolidating all electrical controls into a single UL listed enclosure eliminates the need for separate control panels and simplifies installation. Aerator and pump timers provide maximum flexibility for system operation, while audible and visual alarms clearly identify high water conditions. Operation of the pump is controlled throughout the day by an electronic timer that insures a precise amount of effluent is evenly dosed to the drip field. Timed dosing fully utilizes the hydraulic conductivity of the soil and is critical to the proper operation of a drip disposal system.

RELIABLE HB105 PUMP DESIGNED SPECIFICALLY FOR HIGH PRESSURE APPLICATIONS...

Manufactured from the finest materials and electrical components, the Norweco Model HB105 pump is designed to handle treated wastewater in high head effluent disposal applications. UL and CSA listed, this 1/2 horsepower, 3450 RPM submersible pump operates on 115 volt, single phase electrical power and is able to deliver 20 gallons per minute (GPM) at 30 pounds per square inch (psi). The stainless steel motor housing resists rust and corrosion, assuring exceptional operating life in a demanding environment. A dual action start switch provides automatic torque reversal to clear the impeller, while an electrical overload protector causes the pump to cease operation should an overload condition occur. The pump is equipped with a 10 foot long, 14-3, jacketed, type SJOW motor power cord.



FEATURES AND ADVANTAGES OF DRIP DISPOSAL

Homeowner or User

- Reliable and economical
- Installation does not harm trees or landscaping
- No unsightly mounds in yard
- Pump and alarm test switches simplify service

Engineer or Designer

- Solves limited area and soil problems
- Can be used in freezing conditions
- Reduced footprint over gravity drainfields
- Allows development of marginal lots
- Single home, community or commercial systems
- Design calculations and drawings available

Professional Contractor

- Flexible and easy to install
- Adaptable to lot shape and ground contours
- No hauling of sand or gravel
- Easily programmed for automatic operation
- Installation by trenching machine or vibratory plow

Health Officials and Community

- Works better than conventional disposal systems
- Pressure compensating emitters for uniform distribution
- Allows effluent re-use for landscape irrigation
- Optimum conditions for groundwater recharge
- Installation and service by factory-trained experts

DISPOSAL SYSTEM

Headworks Assembly



The headworks assembly includes an enclosure, lid, supply and return line connections, disc filter, three pressure monitoring valves and a flush valve. The enclosure and lid are manufactured from synthetic polymer that includes UV inhibitors to protect structural integrity. Designed for direct burial at grade, the enclosure can safely handle a 500 pound live wheel load. Schrader valves are installed upstream and downstream of the disc filter to indicate when filter service is required. A third Schrader valve is installed upstream of the flush valve to monitor operating pressure. The flush valve is installed in the return line for operational adjustments and routine service of the system.

Disc Filter



The disc filter contains 100 micron grooved rings that screen out debris and protect the drip field from any solids remaining in the effluent. Capable of handling flows up to 22 gallons per minute, the filter cartridge can be easily removed, cleaned and reinstalled when service is required.

Schrader Valves

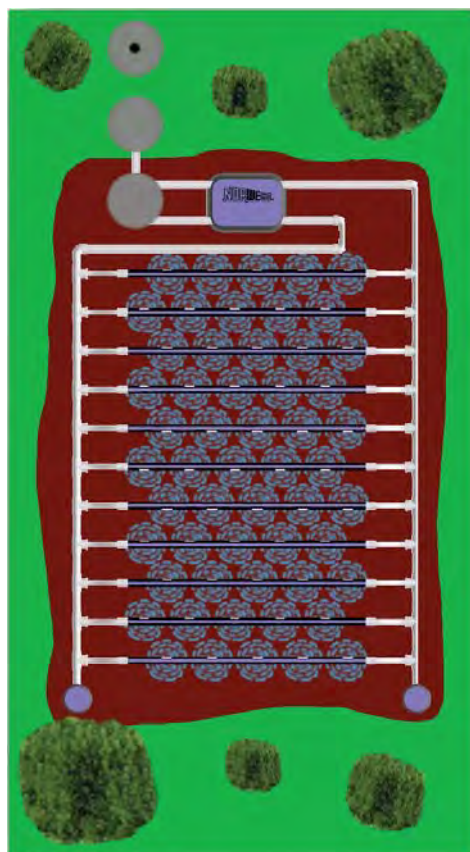


Designed to be connected to a liquid pressure gauge during system start-up and service, the Schrader valves allow system operating pressure to be accurately monitored.

Drip Emitter Tubing



At the heart of the drip disposal system, this linear low density polyethylene tubing delivers treated effluent to the disposal area. Turbulent flow emitters, bonded to the inside wall, are spaced 24 inches apart for consistent effluent dosing to the disposal field. The interior of the tubing is coated with an antimicrobial agent that inhibits biological growth and extends system life.



Drip Field Valve Enclosure

The drip field valve enclosure is used in each supply line and return line to provide a secure housing for the air/vacuum relief valves. The enclosure can also be used to house an optional zone indexing valve. Suitable for burial at grade, the drip field valve enclosure and lid are manufactured from low density polymer resin that includes UV inhibitors to protect structural integrity. This open-bottom enclosure and matching lid are available in six inch and ten inch diameter, and are colored purple if required, designating a source of non-potable water. When extreme cold weather conditions are anticipated, the drip field valve enclosure can be insulated to protect the air/vacuum relief valve or zone indexing valve from freezing.



Effluent Emitter

Turbulent flow path emitters assure uniform distribution by delivering 1.0 gallons per hour per emitter to the soil. The pressure compensating design equalizes flow even on sloped or rolling terrain.

Drip Disposal Fittings



All fittings and connectors are specifically designed for use with drip emitter tubing and are molded from high strength polymer resin. The flexible connectors simplify tubing connections and drip field assembly.

Air/Vacuum Relief Valves



One relief valve is installed in the drip field at the highest point in the supply line and one relief valve is installed at the highest point in the return line. The valves provide temporary air relief during field pressurization and continuous vacuum relief during field evacuation.





OTHER EQUIPMENT FROM NORWECO

SINGULAIR® HOME TREATMENT PLANTS

Individual home wastewater treatment systems for use in non-sewered suburban and rural areas. Norweco SINGULAIR plants automatically reduce all household wastewater to a clear, odorless effluent in just 24 hours. Treatment capacities up to 1,500 GPD.

MODULAIR® WASTEWATER TREATMENT PLANTS

For semi-commercial applications - 1,500 to 100,000 GPD. Tanks are precast concrete covered with galvanized metal grating. MODULAIR equipment is factory assembled and tested. Ideal for small subdivisions, factories, schools, shopping centers, etc.

TRAVALAIR® WASTEWATER TREATMENT PLANTS

Featuring Norweco's exclusive TRAVALAIR sludge return and surface skimming system. Flexible in design - capable of serving communities of 10,000 people. Automatic sludge collection and return completely eliminate hopper scraping.

BIO-KINETIC® WASTEWATER MANAGEMENT SYSTEMS

The solution to managing onsite treatment system performance that makes any septic system, tile field or filter bed work better and last longer. Protects sand filters, mounds, irrigation systems, constructed wetlands or any effluent disposal device. Treatment capacities up to 2,000 GPD.

EASY TO DESIGN, INSTALL AND MAINTAIN FOR RELIABLE OPERATION...

Subsurface drip disposal systems are specifically engineered for each site by a design professional and are constructed in compliance with local rules and regulations. Drip emitter tubing is installed in shallow, narrow excavations using a trenching machine or vibratory plow so that existing trees and vegetation are not disturbed.

Drip disposal fields are adaptable to irregularly shaped lots or difficult site constraints. The shallow depth at which the drip emitter tubing is installed allows more of the soil to be used for treatment. The controlled manner in which effluent is distributed allows the use of marginal soils and land that would not be suitable for development using conventional wastewater disposal methods.

Drip distribution systems should be maintained by a trained service technician. Performing routine service insures that all components operate at peak efficiency. When properly maintained, Norweco subsurface drip disposal systems will provide effective and reliable service for the operational life of approved secondary treatment systems.

EQUIPMENT PACKAGE AND COMPONENTS BACKED BY A COMPREHENSIVE LIMITED WARRANTY...

Norweco drip disposal equipment is designed, manufactured and tested to provide the most effective performance for domestic wastewater applications. System owners, installing contractors and service providers can be assured that all components are constructed to maximize the operational life of each system and provide years of trouble-free service.

Drip disposal system equipment is warranted against defects in material and workmanship under normal use and service for a period of two years from the date of purchase. The Norweco limited warranty provides secure, single-source protection and covers all components of the subsurface drip disposal system, including headworks assembly, disc filter, valves, pump, integrated system controls, drip tubing, fittings and enclosures.

Detailed warranty and service information are available from your licensed, factory-trained Norweco distributor, authorized dealer or service provider.

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APPENDIX E

ESTIMATED WASTE FLOW CALCULATIONS

Earth Strata Geotechnical Services, Inc.

Geotechnical, Environmental and Materials Testing Consultants

www.ESGSINC.com (951) 461-4028

ESIMATED WASTEWATER CALCULATIONS AND EXPLANATION

			Count	Gallons / Unit Count	Gallons
1	WASTE FLOW BASED ON OCCUPANCY	A. Employees / Staff	4	20	80
		B. Visitors / Guests	10	15	150
				Total	230

2 WASTE FLOW BASED ON FIXTURE UNITS

TABLE 702.1
DRAINAGE FIXTURE UNIT VALUES (DFU)

PLUMBING APPLIANCES, APPURTENANCES, OR FIXTURES	MINIMUM SIZE TRAP AND TRAP ARM ⁷ (inches)	PRIVATE	PUBLIC	ASSEMBLY ⁸	NO ON PLANS	Units	TOTAL FOR FIXTURE
Bathtub or Combination Bath/Shower	1 1/2	2.0	2.0	-		--	--
Bidet	1 1/4	1.0	-	-		--	--
Bidet	1 1/2	2.0	-	-		--	--
Clothes Washer domestic standpipe ⁵	2	3.0	3.0	3.0		--	--
Dental Unit, cuspidor	1 1/4	-	1.0	1.0		--	--
Dishwasher domestic, with independent drain ²	1 1/2	2.0	2.0	2.0		--	--
Drinking Fountain or Water Cooler	1 1/4	0.5	0.5	1.0		--	--
Food Waste Grinder commercial	2	-	3.0	3.0		--	--
Floor Drain emergency	2	-	0.0	0.0		--	--
Floor Drain (for additional sizes see Section 702.0)	2	2.0	2.0	2.0		--	--
Shower single-head trap	2	2.0	2.0	2.0		--	--
Multi-head each additional	2	1.0	1.0	1.0		--	--
Lavatory, single	1 1/4	1.0	1.0	1.0	2	1	2.0
Lavatory, in sets of two or three	1 1/2	2.0	2.0	2.0		--	--
Wash fountain	1 1/2	-	2.0	2.0		--	--
Wash fountain	2	-	3.0	3.0		--	--
Mobile Home tran ⁹	3	12.0	-	-		--	--
Receptor indirect waste ^{1,3}	1 1/2	See footnote ^{1,3}				--	--
Receptor indirect waste ^{1,4}	2	See footnote ^{1,4}				--	--
Receptor indirect waste ¹	3	See footnote ¹				--	--
Sinks	-	-	-	-		--	--
Bar	1 1/2	1.0	-	-		--	--
Bar2	1 1/2	-	2.0	2.0		--	--
Clinical	3	-	6.0	6.0		--	--
Commercial with food waste ²	1 1/2	-	3.0	3.0		--	--
Special Purpose ²	1 1/2	2.0	3.0	3.0		--	--
Special Purpose	2	3.0	4.0	4.0		--	--
Special Purpose	3	-	6.0	6.0		--	--
Kitchen, domestic ² (with or without food waste grinder, dishwasher, or both)	1 1/2	2.0	2.0	-		--	--
Laundry ² (with or without discharge from a clothes washer)	1 1/2	2.0	2.0	2.0		--	--
Service or Mop Basin	2	-	3.0	3.0		--	--
Service or Mop Basin	3	-	3.0	3.0		--	--
Service flushing rim	3	-	6.0	6.0		--	--
Wash each set of faucets	-	-	2.0	2.0		--	--
Urinal integral trap 1.0 GPF ²	2	2.0	2.0	5.0		--	--
Urinal, integral trap greater than 1.0 GPF	2	2.0	2.0	6.0		--	--
Urinal, exposed trap ²	1 1/2	2.0	2.0	5.0		--	--
Water Closet 1.6 GPF Gravity Tank ⁶	3	3.0	4.0	6.0		--	--
Water Closet 1.6 GPF Flushometer Tank ⁶	3	3.0	4.0	6.0		--	--
Water Closet 1.6 GPF Flushometer Valve ⁶	3	3.0	4.0	6.0		--	--
Water Closet greater than 1.6 GPF Gravity Tank ⁶	3	4.0	6.0	8.0	2	6	12.0
Water Closet greater than 1.6 GPF Flushometer Valve ⁶	3	4.0	6.0	8.0		--	--

For SI units: 1 inch = 25 mm

Notes:

- ¹ Indirect waste receptors shall be sized based on the total drainage capacity of the fixtures that drain therein to, in accordance with Table 702.2(b).
- ² Provide a 2 inch (50 mm) minimum drain.
- ³ For refrigerators, coffee urns, water stations, and similar low demands.
- ⁴ For commercial sinks, dishwashers, and similar moderate or heavy demands.
- ⁵ Buildings having a clothes-washing area with clothes washers in a battery of three or more clothes washers shall be rated at 6 fixture units each for purposes of sizing common horizontal and vertical drainage piping.
- ⁶ Water closets shall be computed as 6 fixture units where determining septic tank sizes based on Appendix Hof this code.
- ⁷ Trap sizes shall not be increased to the point where the fixture discharge is capable of being inadequate to maintain their self-scouring properties.
- ⁸ Assembly [Public Use (see Table 422.1)].
- ⁹ *[HCD 2/ For drainage fixture unit values related to mobile home parks in all parts of the State of California, see California Code of Regulations, Title 25 , Division 1, Chapter 2, Article 5, Section 1268. For drainage fixture unit values related to special occupancy parks in all parts of the State of California, see California Code of Regulations, Title 25, Division 1, Chapter 2.2 , Article 5 , Section 2268.*

TOTAL FIXTURES 14.00

Per the plumbing code:

The estimated waste flow is 230 Gallons based on The California plumbing Code and Appendix H201.1
Septic tank size per the referenced plumbing code is 230 Gallons
Please note that the Capacity of the 500GPD Advanced Treatment Tank is 1300 Gallons, and treats 500 Gallons / Day

PROPOSED ATS SIZE IS 500 GALLONS

APPENDIX F

PROPOSED DEVELOPMENT PLANS

APPENDIX G

PHOTOS











APPENDIX H
NOT USED

APPENDIX I
TEST PIT LOG

Geotechnical Log Test Pit

Date: May 13, 2021	Project Name: Winchester and Keller - Winchester	Page: 1 of 1
Project Number: 192851-11A	Logged By: GW	
Drilling Company: Drilling IT	Type of Rig: BACKHOE	
Drive Weight (lbs): -	Drop (in): -	Hole Diameter (in): -
Top of Hole Elevation (ft): See Map	Hole Location: See Geotechnical Map	

Depth (ft)	Blow Count Per Foot	Sample Depth	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						Quaternary Alluvium (Qa):
					SM	Silty SAND; light brown, dry, dense, fine to coarse sand with gravel, 10YR 3/3
						Metasedimentary Rocks (ms):
					CL	yellowish brown, dry, hard, fine to coarse grained, breaks down to clay, 10YR 6/8
5						very hard / refusal at 5 feet
						see attached photos
10						
15						
20						
25						
30						

42184 Remington Avenue, Temecula, CA 92590

Geotechnical Log Test Pit		
Date: May 13, 2021	Project Name: Winchester and Keller - Winchester	Page: 1 of 1
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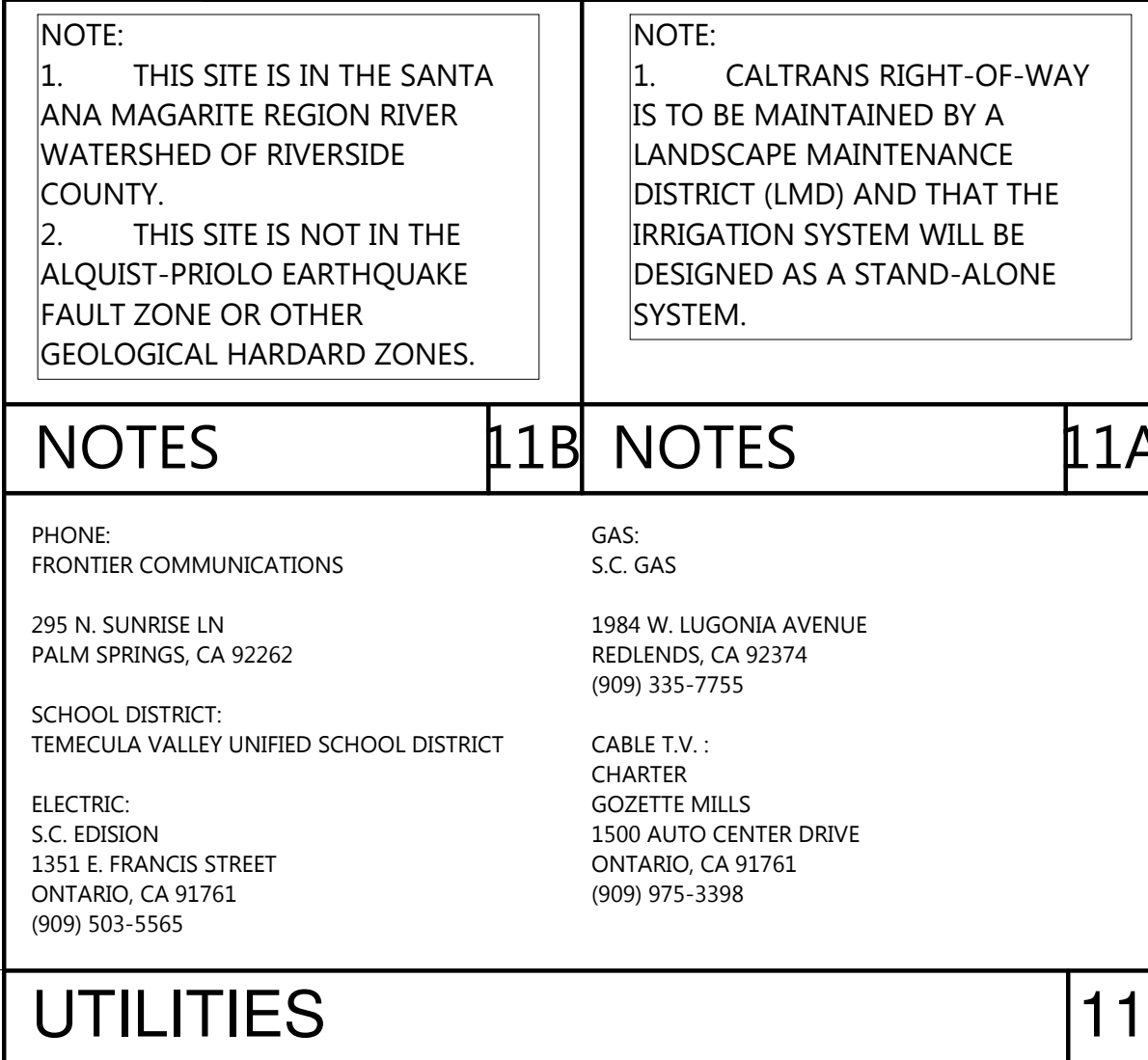
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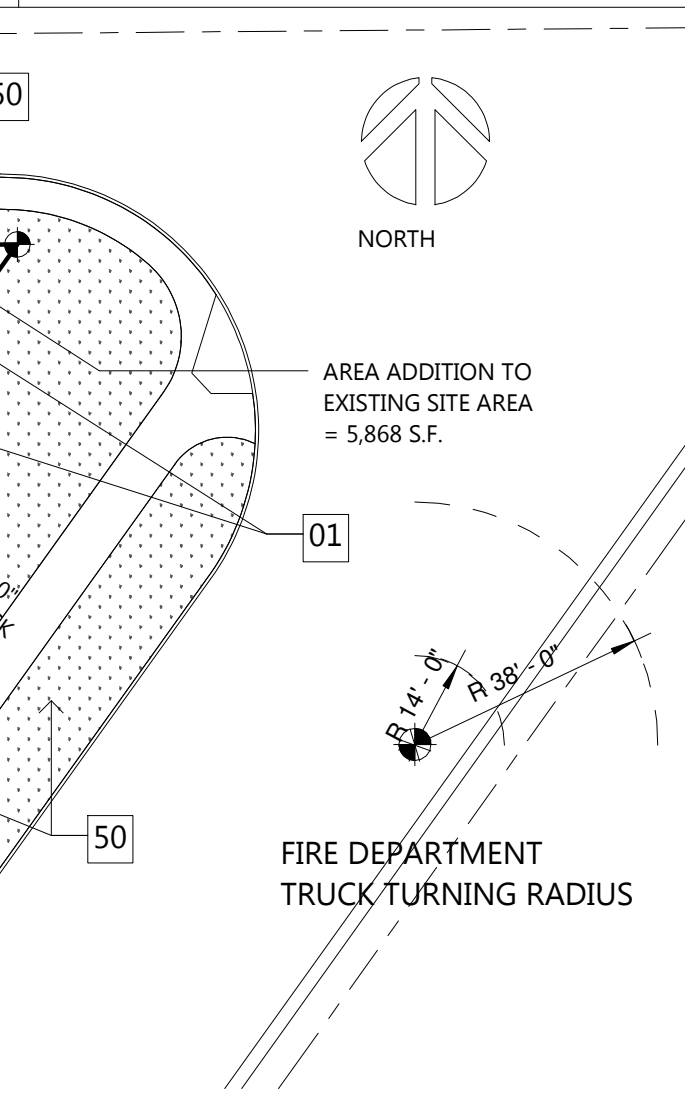
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Geotechnical, Environmental and Materials Testing Consultants
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PA-1



	001	PA-1	SITE PLAN
	002	PA-11	FIRE TRUCK AND VEHICLE TRAVEL ROUTE
	003	PA-3	FIRST AND SECOND FLOOR
	004	PA-3	ROOF PLANS
	005	PA-31	NET AREA AND HALLWAY AREA
	006	PA-4	OFFICE AND BLDG ELEVATIONS
	007	PA-5	OFFICE ELEVATIONS
	008	PA-4	BUILDING B & C
	009	PA-7	BUILDING C, D, E, F, I & F-2
	010	PA-8	BUILDING B & C
	011	PA-8	BUILDING D, E, F, I & F-2
	012	PA-10	BUILDING H
	013	PA-11	SECTIONS
	014	C-1	TITLE SHEET
	015	C-2	PRELIMINARY GRADING PLAN
	016	E-1	PHOTOGRAPHIC PLAN
	017	L-1	PRELIMINARY LANDSCAPE PLAN
	018	PA-12	COLOR ELEVATIONS
	019	PA-13	COLOR ELEVATIONS (11' x 17')
	020	PA-13	COLOR VIEWS (11' x 17')
	021	PA-3A1	SITE MAPS
	022	PA-3A2	SITE MAPS
	023	PA-3A3	SITE MAPS
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DISABLED ACCESS NOTES			
1.	THE MAX. SLOPE OF THE PARKING SURFACE AT THE ACCESSIBLE SPACE, IN ANY DIRECTION, IS <1/4" PER FT. (2.0%). THE MAX. SLOPE AT THE PASSENGER LOADING ZONE IS TO BE <2%.		
2.	WALKS ALONG AN ACCESSIBLE ROUTE OF TRAVEL ARE REQUIRED TO BE >48" MIN. IN WIDTH AND HAVE RESISTANT SLIP SURFACES.		
3.	THE MAX. PERMITTED CROSS SLOPE SHALL BE <1/4".		
4.	ABRUPT LEVEL CHANGES WILL BE <1/2" ALONG ANY ACCESSIBLE ROUTE OF TRAVEL WHEN CHANGES OCCUR. THEY SHALL BE BEVELED WITH A SLOPE OF <1:2. LEVEL CHANGES OF <1/4" MAY BE VERTICAL.		
5.	A 60" x 60" LEVEL AREA IS PROVIDED AT AREAS WHERE A DOOR (OR GATE) SWINGS TOWARD THE WALK IN THE ACCESSIBLE ROUTE OF TRAVEL. THE WALK SHALL EXTEND >24" BEYOND THE STRIKE		
6.	EDGE OF ANY DOOR (OR GATE) THAT SWINGS TOWARD THE WALK.		
7.	ANY PATH OF TRAVEL WITH A SLOPE >1:20 (5%) MUST COMPLY WITH PEDESTRIAN RAMP REQUIREMENTS.		
8.	ALLOWABLE SLOPE FOR AN ACCESSIBLE RAMP IS <1:12 (8.33%).		
9.	THE ALLOWABLE CROSS SLOPE AT PEDESTRIAN RAMP SURFACES SHALL BE <1/4" PER FOOT (2%).		
10.	RAMP SURFACES SHALL BE SLIP RESISTANT.		
11.	RAMPS SHALL HAVE A MIN. WIDTH OF 48" & SHALL NOT ENCROACH INTO ACCESSIBLE PARKING SPACES.		
12.	INSTALL H/V C SYMBOLS AT ALL H/V ACCESSIBLE ENTRY DOORS		
13.	H/V PATH OF TRAVEL TO PUBLIC R.O.W. SHALL HAVE ONE FOOT-CANDLE MIN. LIGHTING.		
14.	ACCESSIBLE PATH OF TRAVEL SLOPE SHALL NOT EXCEED 5% IN TRAVEL DIRECTION AND 2% CROSS SLOPE.		

ACCESSIBLE NOTES			7
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CIVIL ENGINEER: THE PRIZM GROUP 310 N. COTA ST. SUITE I, CORONA, CA 92880 PHONE: (951) 737-4406 TPG@THE-PRIZM-GROUP.COM				CEQA CONSULTANT MATTHEW FEGAN MATTHEW FEGAN CONSULTANT SERVICES, INC. 42011 AVENIDA VISTA LADERA TEMECULA, CA 92591 951-265-5428. MATTHEWFEGAN@ROADRUNNER.COM			
LANDSCAPE ARCHITECT: ROYAL OAK DESIGN SYLVIA E. LYONS, LANDSCAPE ARCHITECT 2456 HUMMINGBIRD WAY LA VERNE, CA 91750-2371 TEL: (909) 593-4158 EMAIL: ROYAL.OAK.DESIGN@VERIZON.NET				CULTURAL & PALEONTOLOGICAL CONSULTANT MICHAEL HOGAN CRM TECH 1016 E. COOLEY DRIVE, SUITE B, COLTON, CA 92324			
FIRE PROTECTION CONSULTANT CHIP LINDLEY, CWBSP LINDLEY FIRE 2200 E. VIA BURTON ANAHEIM, CA 92806 (OFFICE) 714-535-5761 (DIRECT) 714-881-4529 CHIP@LINDLEYFIRE.COM				BIOLOGICAL CONSULTANT TIM SEARL SEARL BIOLOGICAL SERVICES 43430 E. FLORIDA AVENUE, #F PMB 291, HEMET, CA 92344 951-805-2028 TSEARL@SEARLBIO.COM			
GEOTECHNICAL REPORT SOIL REPORT STEPHEN M. POOLE 42184 REMINGTON AVENUE TEMECULA, CA 92590 (951) 461-4028 ESG@SINC.COM				TRIP GENERATION STUDY ALEX TABRIZI PK ENGINEERING GROUP, INC. 4000 WESTERLY PLACE, SUITE 280 NEWPORT BEACH, CA 92660 TEL: 949-474-0809 FAX: 949-474-0902 NOISE IMPACT STUDY - AIRQUALITY & GREEN HOUSE GAS IMPACT STUDY BRYAN ESTRADA TEL: 949-474-0809 EXT. 202			
ELECTRICAL ENGINEERING: MIKE RECINO, PE, LEED AP CONSTRUCTION DESIGN SERVICES, INC. PO BOX 34051, RENO, NV 89533 775-636-0080							

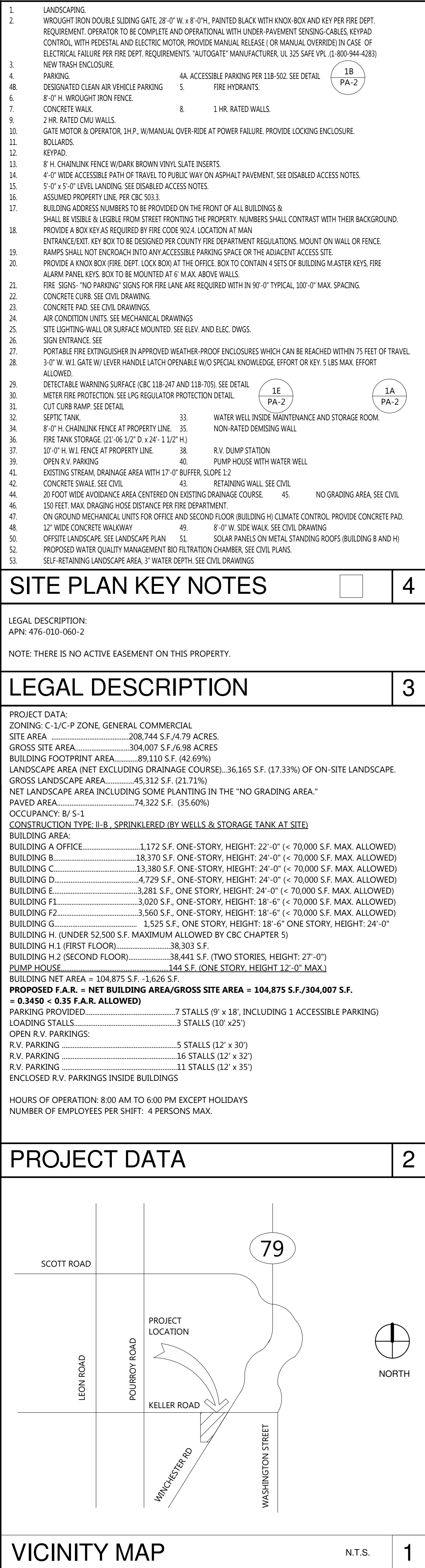
CONSULTANTS			6
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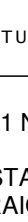
2019 CALIFORNIA BUILDING CODE (CBC) 2019 CALIFORNIA FIRE CODE (CFC) 2019 CALIFORNIA ENERGY CODE (CEC) 2019 CALIFORNIA GREEN BUILDING STANDARD CODE (CGBSC) THE 2019 CALIFORNIA BUILDING CODES IS IN EFFECT AS JANUARY 1ST, 2020.			
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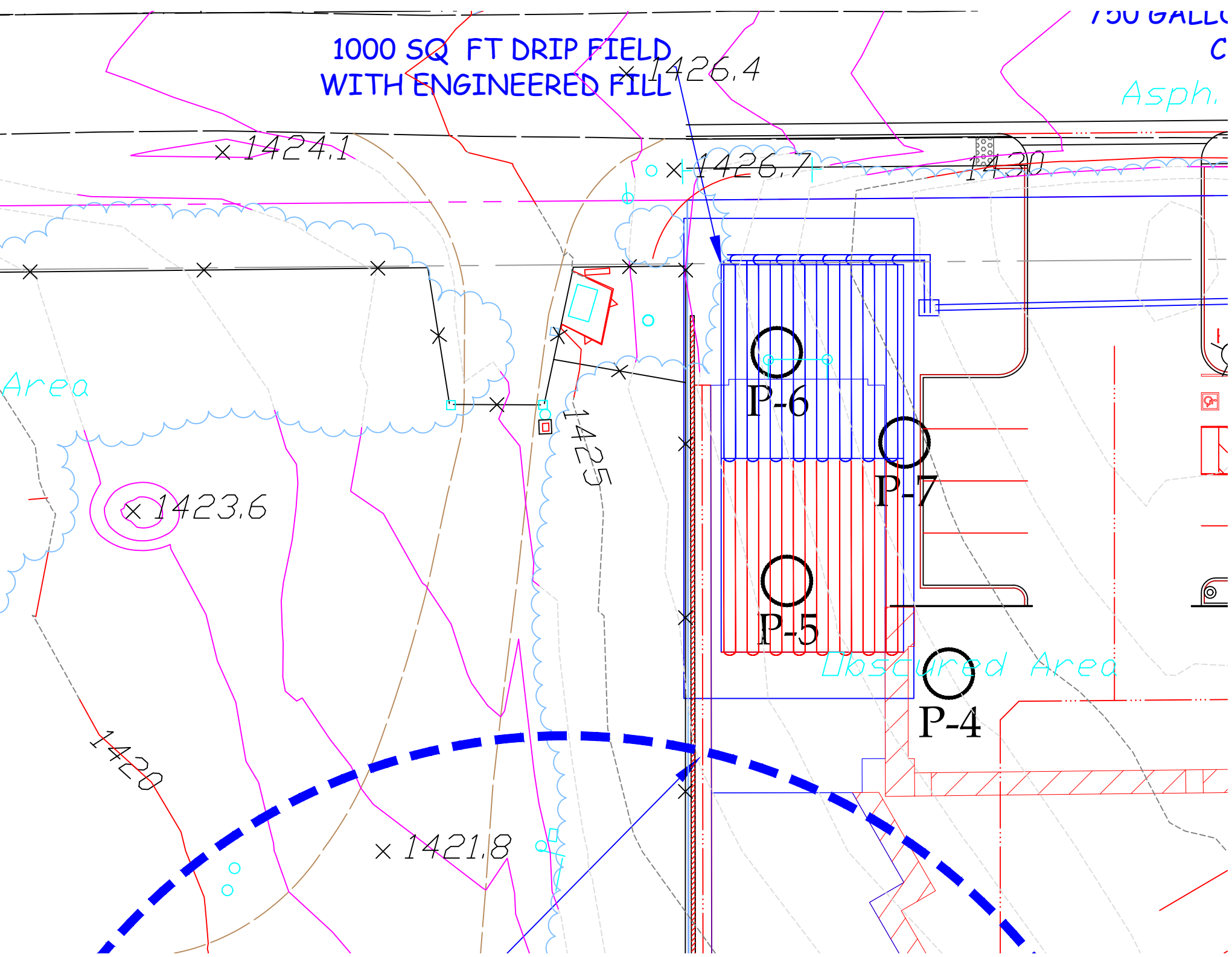
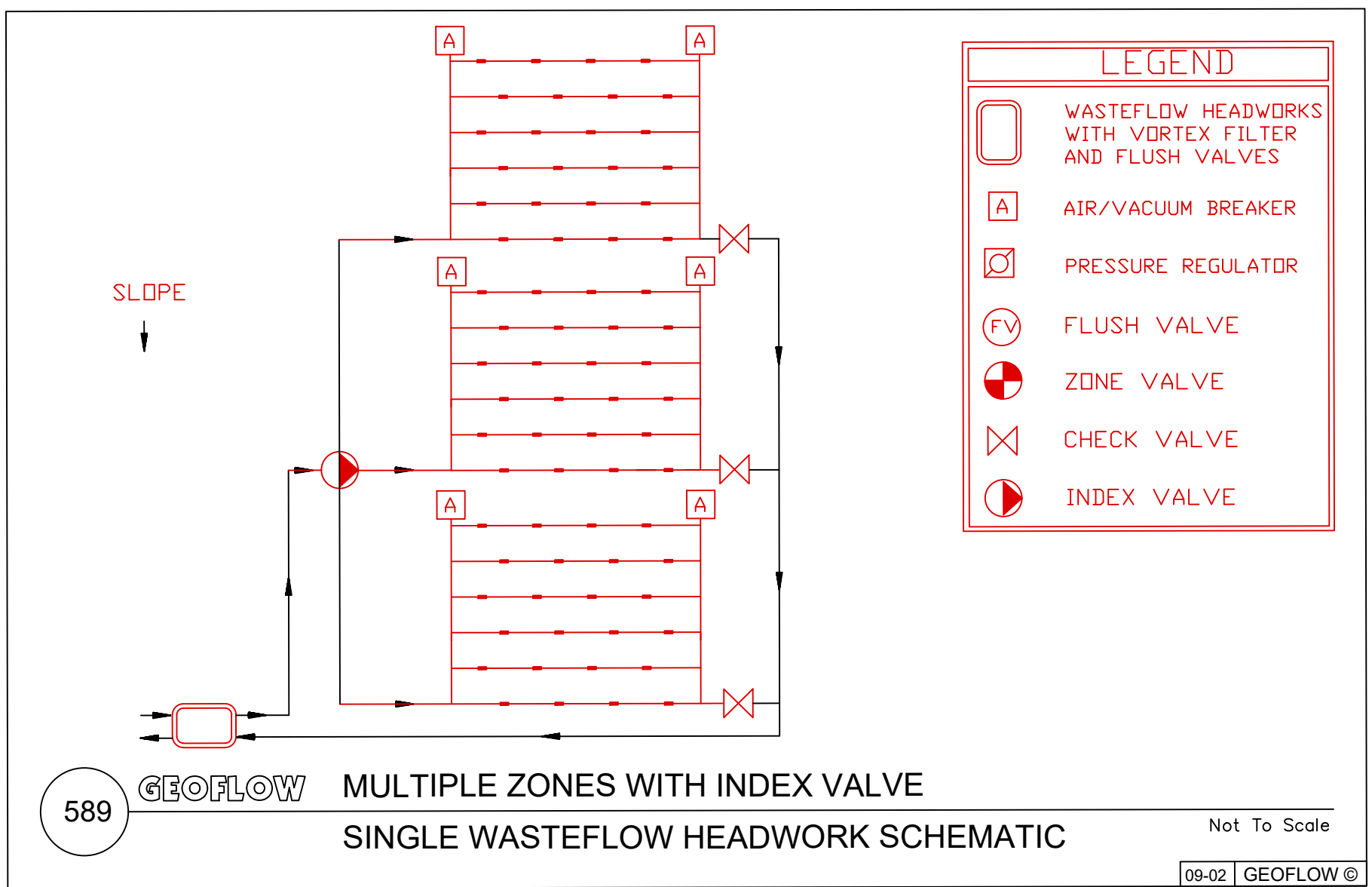
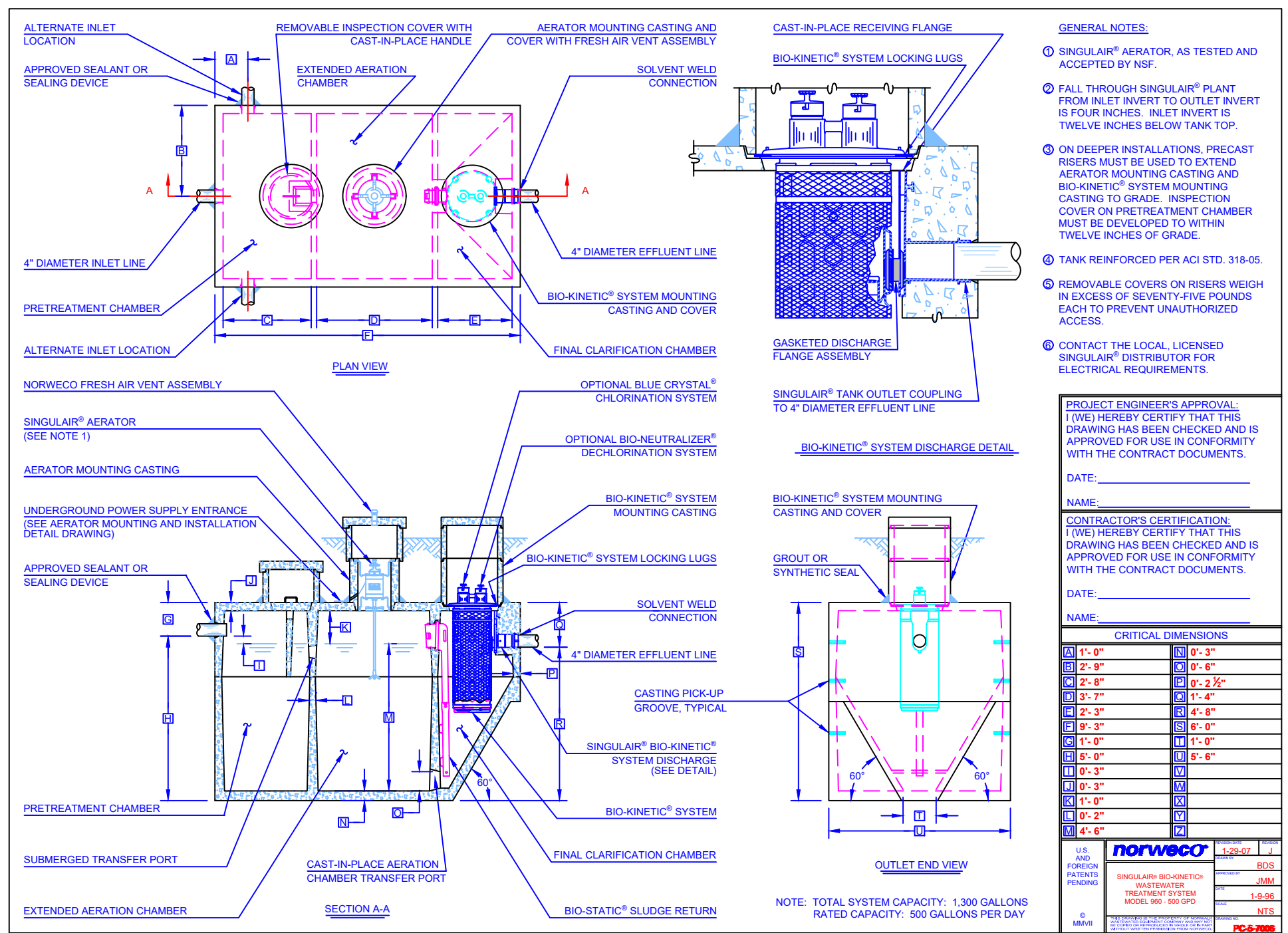
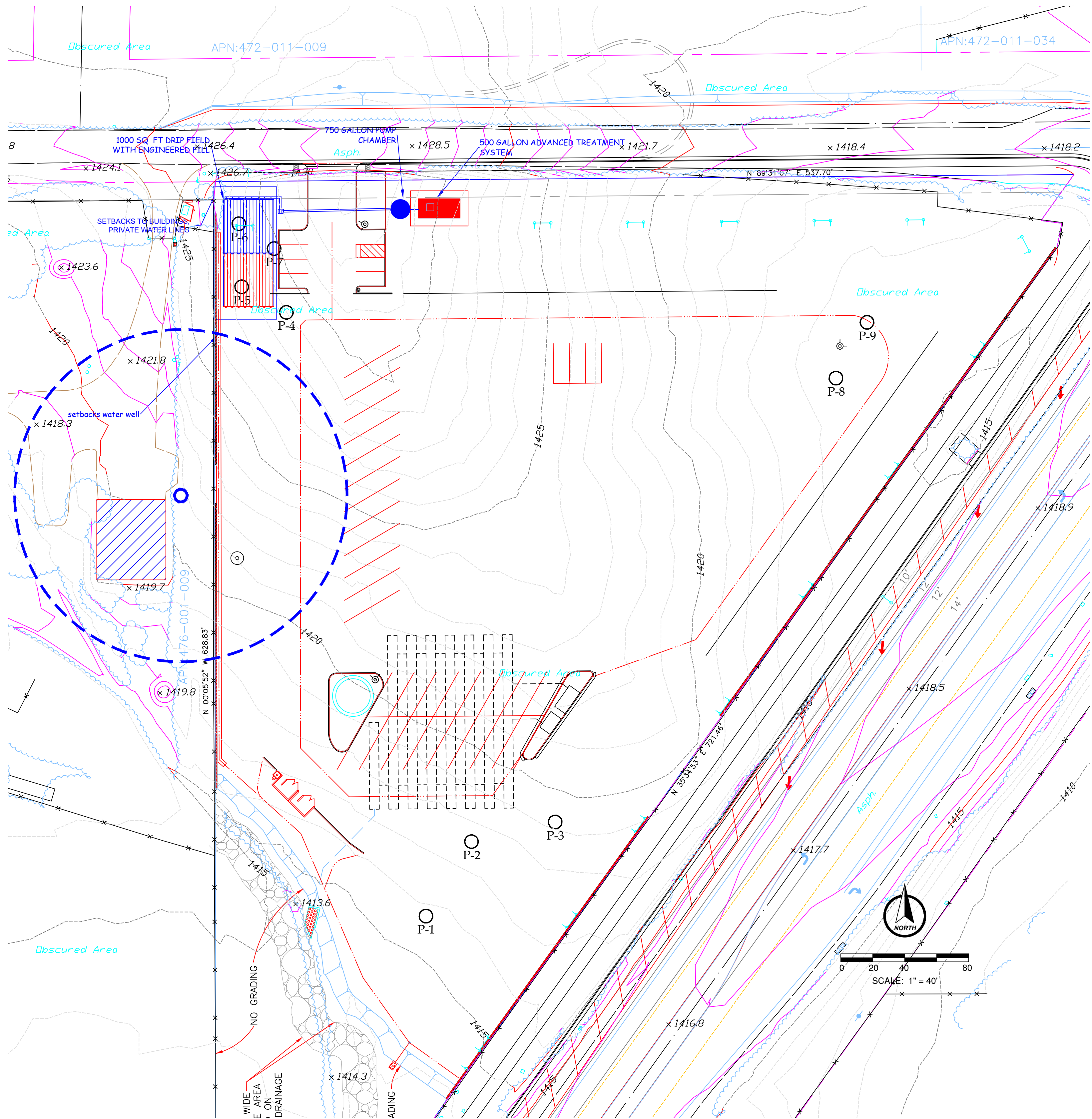
APPLICABLE CODES			5A
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PROPOSED CONSTRUCTION OF A SELF-STORAGE PROJECT CONSISTING OF AN OFFICE, SEVEN ONE-STORY BUILDINGS AND ONE TWO-STORY BUILDING. TOTALLING 185,468 S.F. HYDROLOGY: FLOOD PLAIN REVIEW: OUTSIDE FLOODPLAIN REVIEW NOT REQUIRED FLOOD CONTROL DISTRICT: RIVERSIDE COUNTY FLOOD CONTROL WATERSHED: SANTA MARGARITA WATER DISTRICT: EASTERN MUNICIPAL WATER DISTRICT GEOLOGIC FAULT ZONE: NOT IN A FAULT ZON FAULTS: NOT IN A FAULT LINE LIQUEFACTION POTENTIAL: LOW SUBSIDENCE: SUSCEPTIBLE PALEONTOLOGICAL SENSITIVITY: UNDETERMINED POTENTIAL (U): AREAS UNDERLAIN BY SEDIMENTARY ROCKS FOR WHICH LITERATURE AND UNPUBLISHED STUDIES ARE NOT AVAILABLE HAVE UNDETERMINED POTENTIAL FOR CONTAINING SIGNIFICANT PALEONTOLOGICAL RESOURCES. THESE AREAS MUST BE INSPECTED BY A FIELD SURVEY CONDUCTED BY A QUALIFIED VERTEBRATE PALEONTOLOGIST. MISCELLANEOUS: SCHOOL DISTRICT: TEMECULA VALLEY UNIFIED			
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PROJECT DESCRIPTION			5
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 J. Craig Mann ARCHITECT		
ARCHITECTURE . PLANNING . INTERIOR		
1931 NEWPORT BLVD. SUITE M COSTA MESA, CA 92626 JCRAIGM@GMAIL.COM STUDIOM.JCMA@GMAIL.COM		
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CLIENT DR. MILAN S. CHAKRABARTY		
CHAKRABARTY, LLC 1003 E. FLORIDA AVENUE. SUITE 101 HEMET, CA 92543 (951) 652-2252		
PROJECT TITLE SPACE - X SELF-STORAGE & RV CONDITIONAL USE PERMIT 32242 KELLER ROAD WINCHESTER, RIVERSIDE COUNTY, CA 92596		
SHEET TITLE SITE PLAN		
CUP 190012		
SIGN BY 		
DELTA	REVISION	DATE
	ISSUED TO PLANNING	03/16/22
	REVISION	09/13/22
	PLANNING CORRECTION	11/17/22
	REVISION	12/08/22
	SEPTIC TANK REMOVED	04/24/23
	BLDG-F-1&2 ROOF	05/17/23
	SEPTIC SYSTEM	05/18/23
DATE: 03/17/21		
JOB NUMBER 18-825		
PA-1		



LEGEND

Locations are Approximate

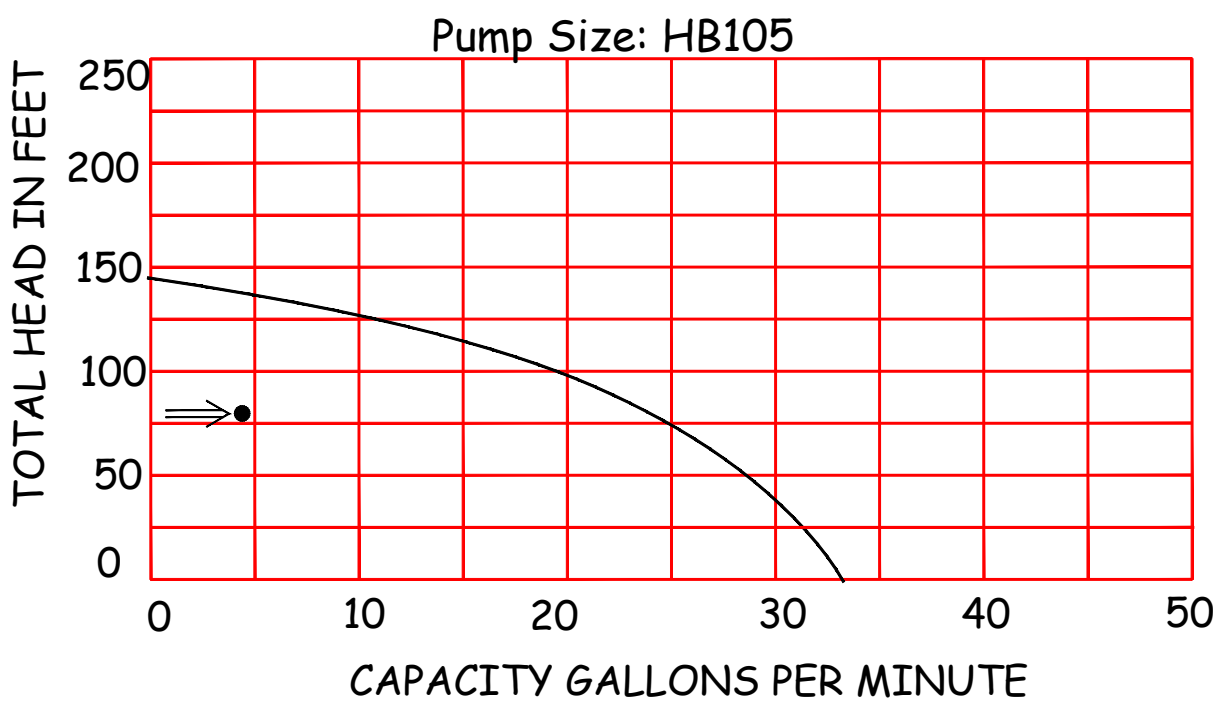
Symbols

- Limits of Report
- Percolation Test Location

NOTES:

ADVANCED TREATMENT SYSTEM NORWECO - SINGULAR BIO KINETIC WASTEWATER TREATMENT SYSTEM MODEL 960-500 GPD

- PROPOSED STORAGE FACILITY, 2 EMPLOYEES AND OCCASIONAL CUSTOMERS
 - ESTIMATED TOTAL EFFLUENT 500 GPD
 - PRIMARY: LOADING FACTOR = 0.533 GAL/SQ FT/DAY
TOTAL AREA REQUIRED IS 750 SQUARE FEET
1- ZONES, 750 SQ FT / ZONE.
8 LINES @ 60 LONG / ZONE
0.6 INCHES IN DIAMETER AND 2 FEET APART
 - 100% EXPANSION: LOADING FACTOR = 0.533 GAL/SQ FT/DAY
TOTAL AREA REQUIRED IS 750 SQUARE FEET
1- ZONE, 938 SQ FT / ZONE.
8 LINES @ 60 LONG / ZONE
0.6 INCHES IN DIAMETER AND 2 FEET APART
- AIR VACUUM RELIEF VALVE
 - DRIP LINES AREA 938 SQUARE FEET, (2A) PRIMARY, (2B) EXPANSION
 - SUPPLY MANIFOLD
 - RETURN MANIFOLD
 - CONTROL PANEL
 - 500 GALLON ADVANCED TREATMENT SYSTEM
 - HEADWORKS
 - INDEX VALVE
 - CHECK VALVE



ATS MAP

LOCATED ON THE SOUTH WEST CORNER OF WINCHESTER ROAD
AND KELLER ROAD, WINCHESTER, RIVERSIDE COUNTY, CALIFORNIA
APN 476-010-060

PROJECT	PROPOSED COMMERCIAL DEVELOPMENT		
CLIENT	DR. MILAN CHAKRABARTY		
PROJECT NO.	192851-14A		
DATE	MAY 2023		
SCALE	1:40		
DWG XREFS			
REVISION			
DRAWN BY	JDG	PLATE	1 OF 1

Earth Strata Geotechnical Services, Inc.

Geotechnical, Environmental and Materials Testing Consultants

www.ESGSINC.com (951) 397-8315

Stephen M. Bole

