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**Before the Zoning Administrator
in and for the County of Monterey, State of California**

In the matter of the application of:

GREER (PLN170624)

RESOLUTION NO. 18 - 046

Resolution by the Monterey County Zoning
Administrator:

- 1) Finding that the project qualifies as a Class 3 Categorical Exemption pursuant to Section 15301(b) of the CEQA Guidelines, and there are no exceptions pursuant to Section 15300.2; and
- 2) Approving a Coastal Administrative Permit to allow the conversion of an existing test well to a permanent well to deliver fresh water to a future single-family residence (not part of this application).
- 3) Approving a Design Approval as it applies to the appurtenant components: an electric powered pump, two (2) 119-gallon bladder storage tanks to regulate water pressure, a water filtration system that removes iron and manganese from the water, and a 5,000-gallon polyurethane water storage tank installed on a gravel pad.

(PLN170624), William L. Greer Trust, 124 Fern Canyon, Carmel, Carmel Land Use Plan, Coastal Zone (APNs: 241-131-024--000)

The Greer application (PLN170624) came on for a public hearing before the Monterey County Zoning Administrator on August 9, 2018. Having considered all the written and documentary evidence, the administrative record, the staff report, oral testimony, and other evidence presented, the Zoning Administrator finds and decides as follows:

FINDINGS AND EVIDENCE

1. **FINDING:** **CONSISTENCY** - The proposed project and/or use, as conditioned, is consistent with the policies of the Local Coastal Program (LCP) and other County health, safety, and welfare ordinances related to land use development. The project is in conformance with the public access and public recreation policies of the Coastal Act and Local Coastal Program, and does not interfere with any form of historic public use or trust rights (see 20.70.050.B.4). No access is required as part of the project as no substantial adverse impact on access, either individually or cumulatively, as described in Section 20.70.050.B.4.c of the Monterey County Coastal Implementation Plan, can be demonstrated. The site is physically suitable for the development proposed, and no violations exist on the property.
- EVIDENCE:** a) No conflicts were found to exist. No communications were received during the course of review of the project indicating any inconsistencies with the text, policies, and regulations in these documents. However, communications were received requesting this well conversion be presented before a public hearing.

- b) The project has been reviewed for site suitability by the following departments and agencies: RMA-Planning, Carmel Highlands FPD, RMA-Public Works, RMA-Environmental Services, Environmental Health Bureau, and Water Resources Agency. There has been no indication from these departments/agencies that the site is not suitable for the proposed development. Conditions recommended have been incorporated.
- c) The property is located at 124 Fern Canyon Road, Carmel (APN: 241-131-024-000) Carmel Area Land Use Plan. Zoning on the property is, Low Density Residential, one acre per unit, with a Design Control District zoning overlay, in the Coastal Zone (LDR/1-D(CZ)). The property owners, William L Greer Trust, have applied for a permit to allow the conversion of a previously permitted test well to a single-connect residential production well on the property. The test well, and a septic system design, were permitted under file number PLN030642 approved by the Board of Supervisors under Resolution No. 04-307. Water systems facilities including wells and storage tanks serving 14 or fewer service connections are principally permitted uses subject to a Coastal Administrative Permit pursuant to 20.14.040.J, of the Coastal Zoning Ordinance (Title 20 of the Monterey County Code). Therefore, the conversion of the test well to a single-connection production well is an allowed use on the property.
- d) A test well was permitted on the property under PLN030642 (Resolution No. 04-307). The test well has been constructed. A source capacity test was completed in 2017 and the well has been given a credit of 4.98 gallons per minute which is adequate capacity to serve the intended residential use of the property. Treatment of water quality for iron and manganese is proposed as part of this application. Additionally, Perchlorate testing will be required prior to permitting any future development or use of the property. With treatment installed, the well is adequate to serve the intended residential use of the property pursuant to standards contained in Title 15.04 of the Monterey County code.
- e) The test well was drilled in fractured rock. No evidence has been found or submitted during review of the project indicating that use of the well for a single-connection residential use will directly impact hydrology or indirectly impact biological resources in the area. Test results indicate that the well can provide enough water for one (1) single-family dwelling, or 4.98 gallons of water per minute.
- f) The project is not located within any viewshed or sensitive habitat, and no trees are proposed for removal beyond those previously permitted for the test well construction under Resolution No. 04-307.
- g) There is no public access required on this property. The well is located within a residential subdivision and is not in a location where the Carmel Area Land Use Plan requires access (Figure 3). There is no existing public access on the property and the property is not in a location where access is needed pursuant to Section 20.146.130.B of the Coastal Implementation Plan, Part 4. Therefore, the project meets the public access policies as described in Section 20.70.050.B.4.c of

the Monterey County Coastal Implementation Plan and in 5.3 of the Carmel Area Land Use Plan.

- h) The project was not referred to the Carmel Unincorporated/Highlands Land Use Advisory Committee (LUAC) for review. Based on the LUAC Procedure guidelines adopted by the Monterey County Board of Supervisors, this application did not warrant referral to the LUAC because the project is exempt from environmental review and does not involve a Lot Line Adjustment, Variance, or Design approval requiring a public hearing. The project proposal was elevated to a public hearing at the request of a third party.
- i) The application, plans, and supporting materials submitted by the project applicant to Monterey County RMA-Planning for the proposed development are found in Project File PLN170624.

2. **FINDING:** **HEALTH AND SAFETY** - The establishment, maintenance, or operation of the project applied for will not under the circumstances of this particular case be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

- EVIDENCE:**
- a) The project was reviewed by RMA-Planning, Carmel Highlands FPD, RMA-Public Works, RMA-Environmental Services, Environmental Health Bureau, and Water Resources Agency, which concluded the project will not have an adverse effect on the health, safety, and welfare of persons either residing or working in the neighborhood.
 - b) Adequate water quantity currently exists from the well to serve one (1) residential use of the property and adequate water quality will be provided through use of appropriate treatment facilities.
 - c) The Environmental Health Bureau has imposed a condition requiring a deed restriction alerting current and future owners of the property's potential unsustainable water supply due to geologic considerations.

3. **FINDING:** **NO VIOLATIONS** - The subject property is in compliance with all rules and regulations pertaining to zoning uses, subdivision, and any other applicable provisions of the County's zoning ordinance. No violations exist on the property.

- EVIDENCE:**
- a) Staff reviewed Monterey County RMA-Planning and RMA-Building Services records and is not aware of any violations existing on subject property.
 - b) The application, plans and supporting materials submitted by the project applicant to Monterey County RMA-Planning for the proposed development are found in Project File PLN170624.

4. **FINDING:** **DESIGN** - The design of the proposed project assures protection of the public viewshed, is consistent with neighborhood character, and assures visual integrity without imposing undue restrictions on private property.

- EVIDENCE:**
- a) The Applicant proposes to convert an existing test well to a permanent well. The well includes appurtenant components

consisting of an electrical pump, two (2) 119 gallon bladders to regulate water pressure; a filtration system to remove manganese and iron, and a 5,000 gallon polyurethane water storage tank placed on a gravel pad.

- b) The appurtenant components are placed in a way that will allow future development of the site that would accommodate and reflect the neighborhood character. The appurtenant components will be screened from public views emanating from Fern Canyon Road.
- c) The project planner reviewed the application materials, plans, and County GIS records to verify that the proposed project on the subject parcel conforms to the applicable plans and MCC, and will not adversely impact the neighborhood character or scenic/visual resources.

5. **FINDING:** **CEQA (Exempt):** - The project is categorically exempt from environmental review and no unusual circumstances were identified to exist for the proposed project.
- EVIDENCE:**
- a) California Environmental Quality Act (CEQA) Guidelines Section 15301 (b) categorically exempts the conversion of test well to a permanent well where negligible or no expansion of the well.
 - b) The applicant is proposing the conversion of a test well to a permanent, single connection well for a future single-family residence (residential development is not part of this permit). The County Health Department concluded the test well, with treatment, is adequate for one single-family unit. Therefore, the project can be categorically exempt because there will be minor expansion of capacity.
 - c) No adverse environmental effects were identified during staff review of the development application.
 - d) None of the exceptions under CEQA Guidelines Section 15300.2 apply to this project. The project does not involve a designated historical resource, a hazardous waste site, development located near or within view of a scenic highway, unusual circumstances that would result in a significant effect or development that would result in a cumulative significant impact.

6. **FINDING:** **APPEALABILITY** - The decision on this project may be appealed to the Monterey County Board of Supervisors.
- EVIDENCE:**
- a) Pursuant to Section 20.86.030 of the Monterey County Zoning Ordinance (Title 20), an appeal may be made to the Board of Supervisors by any public agency or person aggrieved by a decision of an Appropriate Authority other than the Board of Supervisors.
 - b) California Coastal Commission: Pursuant to Section 20.86.080.A of the Monterey County Zoning Ordinance (Title 20), the project is not subject to appeal by/to the California Coastal Commission because the proposal is a principally allowed use and it is not located in an area where development is appealable.

DECISION

NOW, THEREFORE, based on the above findings and evidence, the Zoning Administrator does hereby:

- A. Find that the project qualifies as a Class 3 Categorical Exemption pursuant to Section 15303(b) of the CEQA Guidelines, and there are no exceptions pursuant to Section 15300.2; and
- B. Approve Coastal Administrative Permit to allow the conversion of a test well to a permanent, single connection well, in general conformance with the attached sketch and subject to the conditions, both being attached hereto and incorporated herein by reference.
- C. Approve Design Approval as it applies to the appurtenant components: an electric powered pump, two (2) 119-gallon bladder storage tanks to regulate water pressure, a water filtration system that removes iron and manganese from the water, and a 5,000-gallon polyurethane water storage tank installed on a gravel pad

PASSED AND ADOPTED this 9th day of August 2018.



Mike Novo, Zoning Administrator

COPY OF THIS DECISION MAILED TO APPLICANT ON AUG 09 2018.

THIS APPLICATION IS APPEALABLE TO THE BOARD OF SUPERVISORS.

IF ANYONE WISHES TO APPEAL THIS DECISION, AN APPEAL FORM MUST BE COMPLETED AND SUBMITTED TO THE CLERK TO THE BOARD ALONG WITH THE APPROPRIATE FILING FEE ON OR BEFORE AUG 20 2018.

THIS PROJECT IS LOCATED IN THE COASTAL ZONE AND IS NOT APPEALABLE TO THE COASTAL COMMISSION.

This decision, if this is the final administrative decision, is subject to judicial review pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6. Any Petition for Writ of Mandate must be filed with the Court no later than the 90th day following the date on which this decision becomes final.

NOTES

1. You will need a building permit and must comply with the Monterey County Building Ordinance in every respect.

Additionally, the Zoning Ordinance provides that no building permit shall be issued, nor any use conducted, otherwise than in accordance with the conditions and terms of the permit granted or until ten days after the mailing of notice of the granting of the permit by the appropriate authority, or after granting of the permit by the Board of Supervisors in the event of appeal.

Do not start any construction or occupy any building until you have obtained the necessary permits and use clearances from Monterey County RMA-Planning and RMA-Building Services offices in Salinas.

2. This permit expires 3 years after the above date of granting thereof unless construction or use is started within this period.

Monterey County RMA Planning

Conditions of Approval/Implementation Plan/Mitigation Monitoring and Reporting Plan

PLN170624

1. PD001 - SPECIFIC USES ONLY

Responsible Department: RMA-Planning

Condition/Mitigation Monitoring Measure: This Coastal Administrative Permit and Design Approval (PLN70624) allows the conversion of a test well to a permanent, single connection well and appurtenant components for the future construction of a single-family home (not part of this application). The property is located at 124 Fern Canyon Road, Carmel (APN: 241-131-024-000) Carmel Area Land Use Plan. This permit was approved in accordance with County ordinances and land use regulations subject to the terms and conditions described in the project file. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of RMA - Planning. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled. (RMA - Planning)

Compliance or Monitoring Action to be Performed: The Owner/Applicant shall adhere to conditions and uses specified in the permit on an ongoing basis unless otherwise stated.

2. PD002 - NOTICE PERMIT APPROVAL

Responsible Department: RMA-Planning

Condition/Mitigation Monitoring Measure: The applicant shall record a Permit Approval Notice. This notice shall state:
"A Coastal Administrative Permit (Resolution Number 18-046) was approved by Zoning Administrator for Assessor's Parcel Number 241-131-024-000 on August 9, 2018. The permit was granted subject to five (5) conditions of approval which run with the land. A copy of the permit is on file with Monterey County RMA - Planning."

Proof of recordation of this notice shall be furnished to the Chief of RMA - Planning prior to issuance of grading and building permits, Certificates of Compliance, or commencement of use, whichever occurs first and as applicable. (RMA - Planning)

Compliance or Monitoring Action to be Performed: Prior to the issuance of grading and building permits, certificates of compliance, or commencement of use, whichever occurs first and as applicable, the Owner/Applicant shall provide proof of recordation of this notice to the RMA - Planning.

3. PD003(A) - CULTURAL RESOURCES NEGATIVE ARCHAEOLOGICAL REPORT

Responsible Department: RMA-Planning

Condition/Mitigation Monitoring Measure: If, during the course of construction, cultural, archaeological, historical or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. Monterey County RMA - Planning and a qualified archaeologist (i.e., an archaeologist registered with the Register of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for recovery.
(RMA - Planning)

Compliance or Monitoring Action to be Performed: The Owner/Applicant shall adhere to this condition on an on-going basis.

Prior to the issuance of grading or building permits and/or prior to the recordation of the final/parcel map, whichever occurs first, the Owner/Applicant shall include requirements of this condition as a note on all grading and building plans. The note shall state "Stop work within 50 meters (165 feet) of uncovered resource and contact Monterey County RMA - Planning and a qualified archaeologist immediately if cultural, archaeological, historical or paleontological resources are uncovered."

When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.

4. CC01 INDEMNIFICATION AGREEMENT

Responsible Department: County Counsel

Condition/Mitigation Monitoring Measure: The property owner agrees as a condition and in consideration of approval of this discretionary development permit that it will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the County of Monterey or its agents, officers and employees from any claim, action or proceeding against the County or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The property owner will reimburse the County for any court costs and attorney's fees which the County may be required by a court to pay as a result of such action. The County may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his/her/its obligations under this condition. An agreement to this effect shall be recorded upon demand of County Counsel or concurrent with the issuance of building permits, use of property, filing of the final map, recordation of the certificates of compliance whichever occurs first and as applicable. The County shall promptly notify the property owner of any such claim, action or proceeding and the County shall cooperate fully in the defense thereof. If the County fails to promptly notify the property owner of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the property owner shall not thereafter be responsible to defend, indemnify or hold the County harmless. (County Counsel)

Compliance or Monitoring Action to be Performed: Upon demand of County Counsel or concurrent with the issuance of building permits, use of the property, recording of the final/parcel map, or recordation of Certificates of Compliance, whichever occurs first and as applicable, the Owner/Applicant shall submit a signed and notarized Indemnification Agreement to the County Counsel for review and signature by the County.

Proof of recordation of the Indemnification Agreement, as outlined, shall be submitted to the Office of County Counsel.

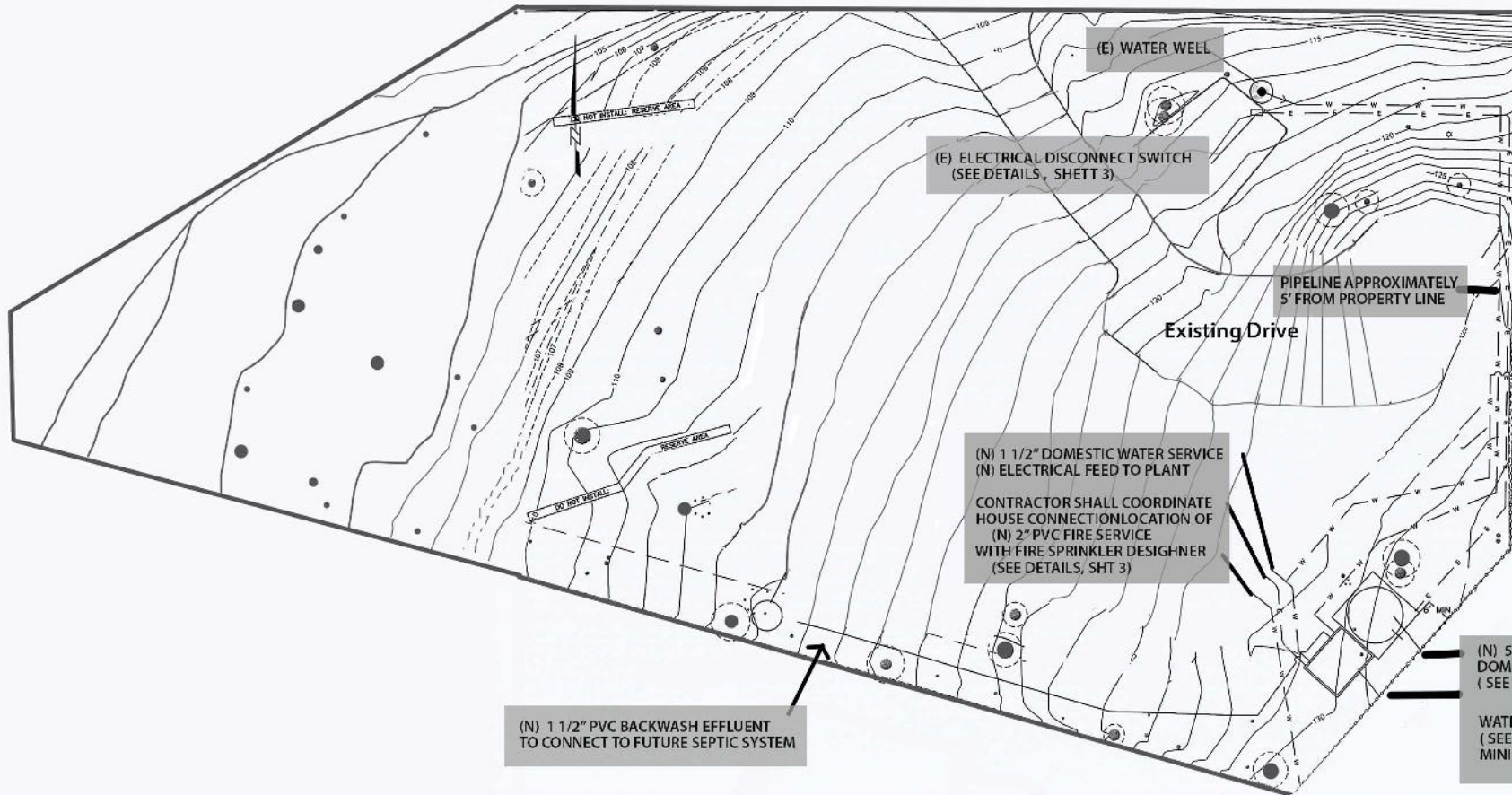
5. EHSP01 - LONG-TERM WATER SUPPLY DEED RESTRICTION (Non-Standard)

Responsible Department: Health Department

Condition/Mitigation Monitoring Measure: The applicant shall record a deed restriction which includes the statement: Well yields in fractured rock or non-alluvial aquifer systems have been shown to decline significantly over time due to their meager ability to store and transmit water. Therefore, with the intrinsic uncertainties regarding the long-term sustainability of an on-site well proposed to provide a source of domestic potable water on this parcel, the present and any future owners of this property are hereby given notice that additional water sources may be required in the future. (Environmental Health)

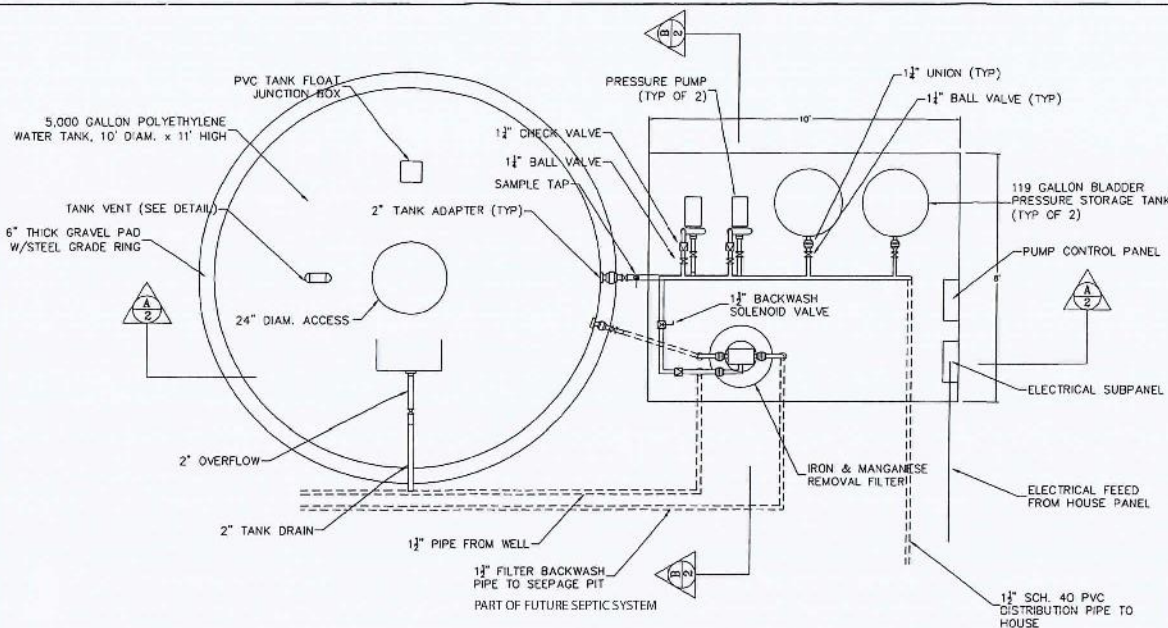
Compliance or Monitoring Action to be Performed: Prior to issuance of construction permits, the applicant shall provide a legal description for the parcel and a copy of the Grant Deed to the Environmental Health Bureau ("EHB") and pay applicable deed restriction preparation fees to the EHB. The EHB will prepare the deed restriction form.

Prior to final inspection of construction permits, the property owner shall sign and notarize the deed restriction form obtained from the EHB. Record the notarized deed restriction with the Monterey County Recorder. Proof of recordation shall be provided to the EHB.



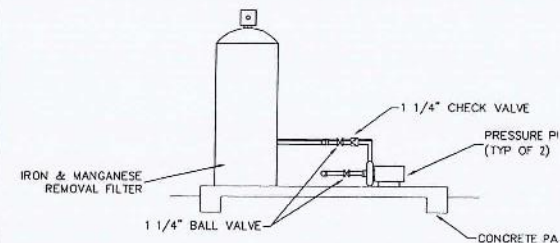
SITE PLAN

PROJECT: Fern Canyon
 OWNER: Timothy and Constance Glass
 LOCATION: 124 Fern Canyon Drive
 APN: 241-131-005
 DATE: August 1, 2018



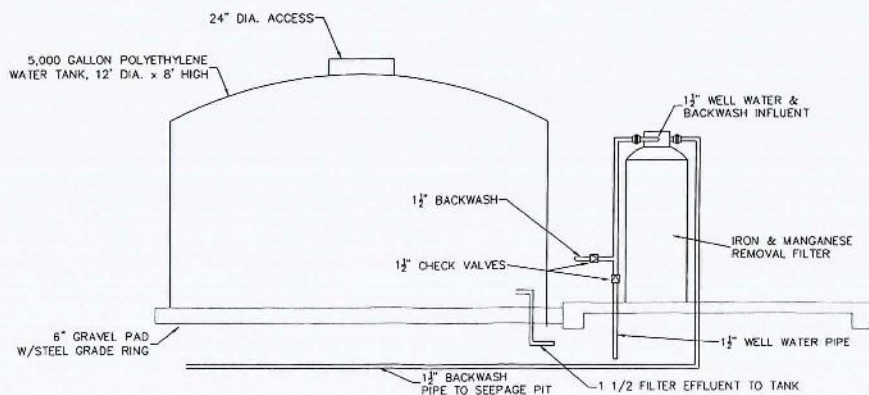
WATER PLANT - PLAN

SCALE: 1" = 2'



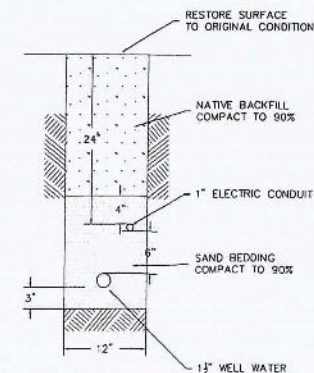
WATER PLANT - SECTION B-B

SCALE: 1" = 2'



WATER PLANT - SECTION A-A

SCALE: 1" = 2'

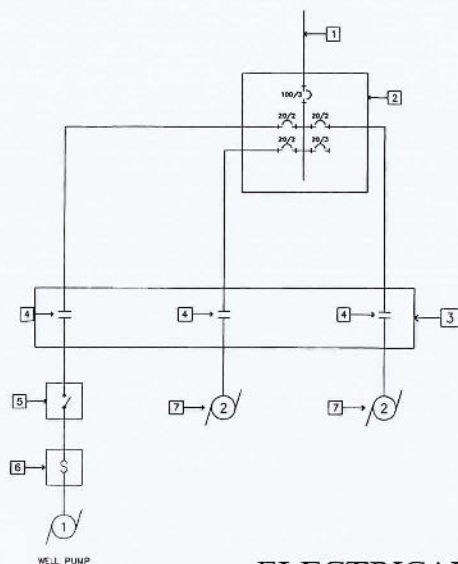


TRENCH SECTION

SCALE: NONE

SITE PLAN

PROJECT: Fern Canyon
 OWNER: Timothy and Constance Glass
 LOCATION: 124 Fern Canyon Drive
 APN: 241-131-005
 DATE: August 1, 2018

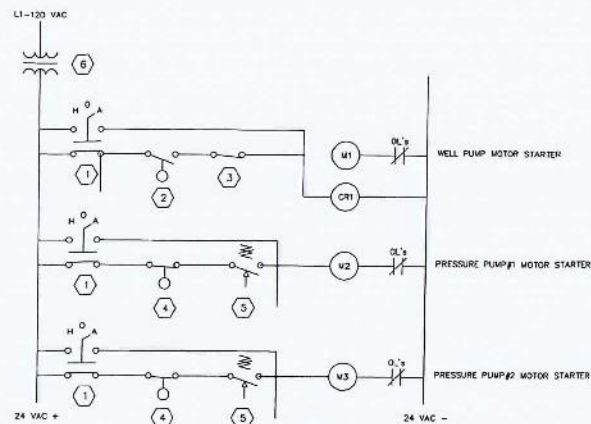


- # ELECTRICAL NOTES

1. SUBFEED FROM HOUSE ELECTRICAL PANEL
2. NEW 125 A 1 ϕ , 3W, 120/240 SUBPANEL, NEMA 3
3. NEW PUMP CONTROL PANEL, NEMA 1
4. 20 A, 2 POLE DEFINITE PURPOSE CONTACTOR, 24 VAC COIL
5. EXISTING 30 A, 2 POLE SAFETY SWITCH
6. EXISTING PUMP CONTROL BOX & MOTOR PROTECTOR
7. NEW 2 HP PUMPS, 1 ϕ , 230 V, STARTER DSS4HC PRESSURE PUMPS

ELECTRICAL SINGLE LINE DIAGRAM

SCALE: NTS



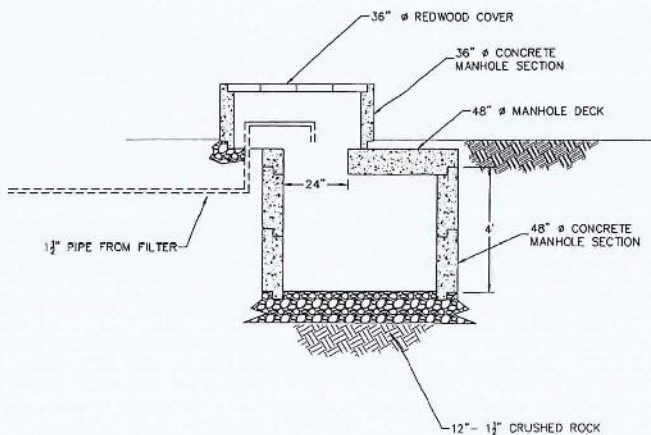
WELL & PUMP CONTROL

- ### CONTROL NOTES

1. HAND-OFF-AUTO SWITCH IN PANEL DOOR
2. STORAGE TANK FLOATSWITCH, CLOSSES ON FALLING LEVEL
3. FILTER BACKWASH SWITCH, OPENS ON BACKWASH.
4. STORAGE TANK FLOAT SWITCH, OPENS ON LOW LEVEL
5. DISCHARGE PRESSURE SWITCH, CLOSSES ON LOW PRESSURE
6. 120VAC-24 VAC, 0.40 mA DRY TRANSFORMER

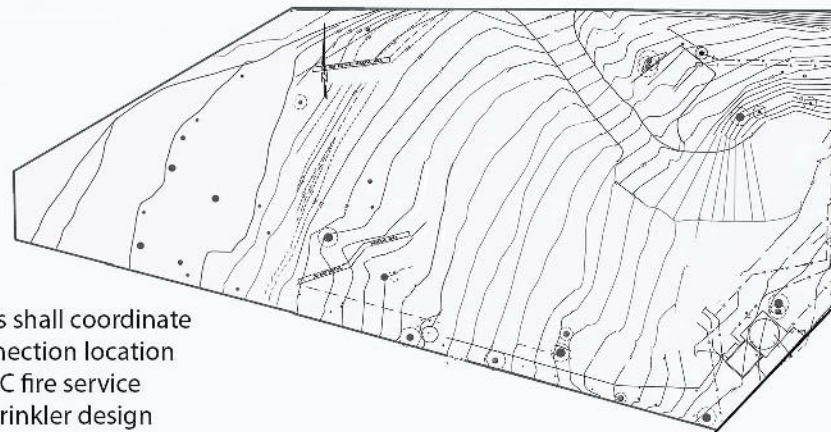
CONTROL DIAGRAM

SCALE: NTS



BACKWASH SEEPAGE PIT DETAIL

SCALE: NTS



FIRE SERVICE LOCATIONS (TYP OF 2)

SCALE: 1" = 200'

SITE PLAN

PROJECT: Fern Canyon
OWNER: Timothy and Constance Glass
LOCATION: 124 Fern Canyon Drive
APN: 241-131-005
DATE: August 1, 2018

NOTES

1. CONTRACTOR SHALL NOTIFY THE MONTEREY COUNTY HEALTH DEPARTMENT, ENVIRONMENTAL HEALTH DIVISION (EHD) FOR INSPECTION AT LEAST 24 HOURS BEFORE COVERING ANY EXCAVATION.
2. ALL COMPONENTS SHALL BE ANSI/NSF APPROVED FOR USE WITH POTABLE WATER.
3. ALL CONSTRUCTION, COMPONENTS AND MATERIALS SHALL CONFORM TO MONTEREY COUNTY CODE 15.04, AWWA STANDARDS AND CALIFORNIA WATERWORKS STANDARDS, AS APPROPRIATE. IN CASE OF CONFLICT, THE STRICTEST STANDARDS SHALL APPLY.
4. PRIOR TO DOMESTIC USE, ALL NEW WATER SYSTEM CONSTRUCTION SHALL BE DISINFECTED ACCORDING TO AWWA STANDARDS 651-99 AND C652-92. WATER FROM NEW MAINS SHALL BE TESTED FOR BACTERIOLOGICAL QUALITY, PER TITLE 22, CHAPTER 15, STANDARDS AND RESULTS SUBMITTED TO EHD FOR REVIEW. THE CHLORINE RESIDUAL OF THE TEST SAMPLE MUST BE NON DETECT AND MUST BE REPORTED WITH THE BACTERIOLOGICAL RESULT. EHD APPROVAL MUST BE GRANTED BEFORE USE OF THE WATER FOR DOMESTIC PURPOSES.
5. EASEMENTS ARE SHOWN ON THE DRAWINGS FOR THE WATER FACILITIES.
6. CONTRACTOR SHALL COORDINATE WITH THE FIRE SPRINKLER DESIGNER TO DETERMINE THE EXACT LOCATIONS OF THE HOUSE CONNECTIONS OF THE FIRE SERVICES.

MATERIAL SPECIFICATIONS

THE ACCOMPANIED PLANS PRESENT THE GENERAL LAYOUT, TREATMENT AND PUMPING CONFIGURATION, AND CONSTRUCTION DETAILS FOR THE 124 FERN CANYON WATER SYSTEM. THE FOLLOWING ARE MATERIAL SPECIFICATIONS FOR THE SYSTEM COMPONENTS. ALL MATERIALS USED FOR THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AND AS DESCRIBED IN THE ACCOMPANIED PLANS:

1. WATER STORAGE TANK

THE TANK SHALL BE CONSTRUCTED OF POLYETHYLENE & HAVE 5,000 GALLONS CAPACITY. THE TANK SHALL INCLUDE A 24-INCH MANWAY ACCESS HATCH. TANK FITTINGS SHALL BE POLYETHYLENE. THE TANK SHALL BE WATERTIGHT AND FIELD TESTED AFTER INSTALLATION. THE TANK SHALL BE BE BY POLY PROCESSING OR AN APPROVED EQUIVALENT.

2. PIPE

WATER PIPE AND FITTINGS SHALL BE SCHEDULE 40 PVC FOR BURIED INSTALLATION AND SCHEDULE 80 PVC FOR ABOVE GROUND, NSF STANDARD 61, APPROVED FOR POTABLE WATER. GLUED SOCKET AND/OR THREADED FITTINGS SHALL BE USED. ABOVE GROUND PIPE SHALL BE INSTALLED VERTICALLY OR HORIZONTALLY AND PRIMER AND GLUE SHALL BE EXPOSED AT THE PIPE JOINTS. BALL VALVES SHALL BE BRONZE WITH STAINLESS STEEL BALL RATED AT 200 PSI.

3. TREATMENT EQUIPMENT

IRON AND MANGANESE FILTER SHALL BE:

PRESSURE VESSEL: FIBERGLASS RATED AT 100 PSI WORKING PRESSURE, 21" DIAM X 74" HIGH
MEDIA TYPE: PYROLOX SUPPORTED ON A GRAVEL AND SAND BASE.
MEDIA VOLUME: 7 CUBIC FT TOTAL, 6 CUBIC FT, PYROLOX
CONTROL VALVE: FLECK 2850 (OR APPROVED EQUIVALENT)
PIPE INLET/OUTLET SIZE: 1 1/2" DIAMETER
VOLTAGE: 115V
FLOW RATE PER SQUARE FOOT: 4.1 GPM/SF @ 10 GPM FLOW.
BACKWASH FLOW RATE: 25 GPM
BACKWASH FREQUENCY: ESTIMATED AT 3,000 GALLONS PER CU. FT. OR 18,000 GALLONS
BACKWASH WATER USED PER BACKWASH: 300-400 GALLONS

SYSTEM OPERATION: A FLOAT SWITCH IN THE STORAGE TANK SHALL CONTROL CURRENT THROUGH THE COIL OF THE WELL PUMP CONTACTOR LOCATED IN THE CONTROL PANEL. THE COIL CURRENT SHALL ALSO PASS THROUGH A BACKWASH INTERRUPT SWITCH LOCATED IN THE FILTER VALVE HOUSING. WHEN THE LEVEL OF WATER IN THE STORAGE TANK DROPS THE FLOAT SWITCH CONTACTS SHALL CLOSE CAUSING THE CONTACTOR TO ENERGIZE AND START THE WELL PUMP. THE WELL WATER FLOWS THROUGH THE FILTER INTO THE STORAGE TANK. BASED ON THE AMOUNT OF WATER USED, PERIODIC BACKWASH SHALL OCCUR. A SWITCH ON THE FILTER CONTROL CAM SHALL OPEN WHEN THE FILTER IS BACKWASHING TO PREVENT THE WELL PUMP FROM OPERATING. CONCURRENTLY, THE NORMALLY CLOSED BACKWASH SOLENOID VALVE SHALL OPEN ALLOWING TREATED WATER FROM THE PRESSURE PUMPS TO BACKWASH AND RINSE THE FILTER.

4. BOOSTER PUMP & PRESSURE CANS

PRESSURE PUMPS SHALL BE STA-RITE MODEL D554GH, RATED AT 42 GPM AT 60 PSI OR AN APPROVED EQUIVALENT. MOTOR SHALL BE 2 HP, 230 VAC, SINGLE PHASE, OPEN DRIP-PROOF.

PRESSURE STORAGE TANKS SHALL BE EPOXY COATED STEEL WITH AN INTERNAL BLADDER, WITH A NOMINAL CAPACITY OF 119 GALLONS, PROVIDING APPROXIMATELY 30 GALLONS OF STORAGE PER TANK AND A WORKING PRESSURE RATING OF 125 PSI.

5. ELECTRICAL SUBPANEL, CONTROL PANEL & CONDUIT

ELECTRICAL SUBPANEL SHALL BE SQUARE-D, MODEL HOM612L100F/S, 100 AMP, NEMA 3, 120/240 VAC, SINGLE PHASE WITH SPACE FOR 12 SINGLE BREAKERS, OR APPROVED EQUAL. BREAKERS SHALL BE SQUARE-D TYPE HOM. BREAKERS SHALL BE PROVIDED AS SHOWN ON THE SINGLE-LINE DIAGRAM.

CONTROL PANEL SHALL BE STEEL OR MOLDED FIBERGLASS, NEMA 3, 15" X 16" MINIMUM SIZE, WITH HINGED COVER AND STEEL BACKPANEL FOR MOUNTING CONTROLS. MOTOR CONTACTORS SHALL BE SQUARE-D DEFINITE PURPOSE CONTACTORS, MODEL B9100P12, 2 POLE, RATED AT 20 AMPS, WITH 24 VAC COILS. ONE CONTACTOR SHALL BE PROVIDED FOR EACH PUMP. ONE HAND-OFF-AUTO SWITCH, LOCATED IN THE PANEL COVER SHALL BE PROVIDED FOR EACH PUMP.

MATERIAL SPECIFICATIONS (CONTINUED):

ELECTRICAL CONDUITS SHALL BE SCHEDULE 40 PVC. CONDUITS CONNECTING TO MOTORS SHALL BE LIQUDTIGHT, FLEXIBLE PVC CONDUIT. DEVICE, OUTLET AND JUNCTION BOXES SHALL BE MOLDED PVC WITH GASKETED COVERS. CONDUIT SHALL BE SECURELY ANCHORED TO WALLS AND CEILING WITH APPROPRIATE CLAMPS. PERFORATED "PLUMBER'S TAPE" IS NOT ACCEPTABLE.

7. FLOAT CONTROL SWITCHES

TANK FLOAT CONTROL SWITCHES SHALL BE SJE PUMPMASTER OR AN APPROVED EQUAL WITH FLEXIBLE 18-GAUGE, 2 CONDUCTION SJOW CABLE, RATED FOR USE WITH POTABLE WATER.

8. PRESSURE SWITCHES

PRESSURE SWITCHES SHALL BE SQUARE-D, MODEL 9013FSG2J24.

9. REDUCED PRESSURE PRINCIPLE BACKFLOW DEVICE

RPBF DEVICE SHALL BE A 2-INCH ZURN/WILKINS MODEL 975 XL OR APPROVED EQUIVALENT CONFORMING TO AWWA C511-89. RPBF DEVICE SHALL BE PROVIDED WITH A STRAINER AND MOUNTED 12" TO 36" ABOVE GROUND AT THE LOCATION SHOWN ON THE PLANS. ALL ABOVE GROUND PIPE AND FITTINGS SHALL BE COPPER OR RED BRASS AND SHALL BE PAINTED WITH TWO (2) COATS OF RUST PREVENTATIVE ENAMEL. A 4-INCH THICK REINFORCED CONCRETE PAD SHALL BE PROVIDED, EXTENDING 12-INCHES EACH WAY BEYOND THE LAY LENGTH OF THE RPBF DEVICE AND 12-INCHES EACH WAY FROM THE CENTERLINE OF THE PIPE. PIPE IN CONTACT WITH THE CONCRETE PAD SHALL BE WRAPPED WITH 2-INCH WIDE, 8-MIL POLYETHYLENE TAPE.

RPBF DEVICES SHALL BE LOCATED OFF THE DRIVEWAY/ROADWAY AND SHALL BE ENCLOSED IN "GUARDSHACK" HEAVY STEEL ROLLED TUBING ENCLOSURE SIZED TO ACCOMMODATE THE LENGTH OF THE DEVICE, FITTINGS AND SPOOL PIECES. ENCLOSURE SHALL BE INSTALLED ON AND HINGED AT ONE END TO A CONCRETE PAD.

10. CONCRETE

CONCRETE FOR TREATMENT SLAB AND TANK SLAB SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

CONCRETE FOR MISCELLANEOUS PURPOSES, SUCH AS PIPE ANCHORS AND THRUST BLOCKS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.

REINFORCING STEEL FOR CONCRETE SLABS SHALL BE GRADE 40.

SITE PLAN

PROJECT: Fern Canyon
OWNER: Timothy and Constance Glass
LOCATION: 124 Fern Canyon Drive
APN: 241-131-005
DATE: August 1, 2018

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