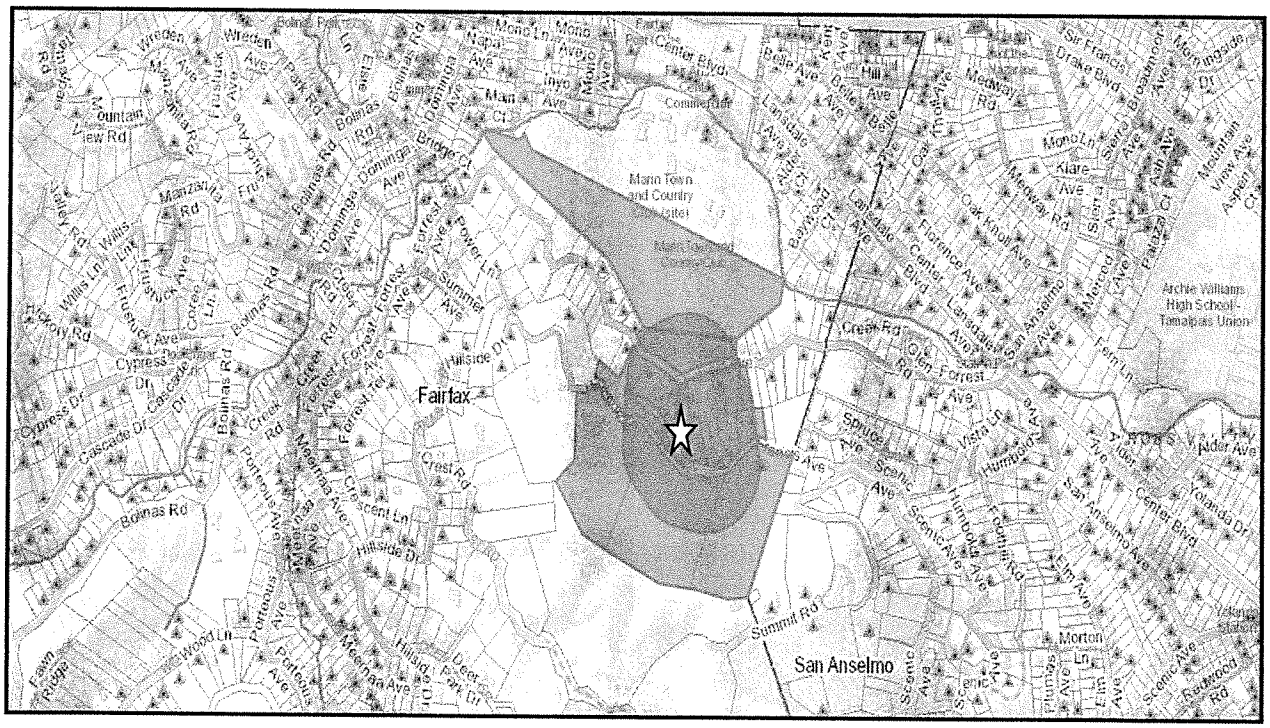
TOWN OF FAIRFAX
STAFF REPORT
Department of Planning and Building Services

TO: Planning Commission
DATE: April 28, 2022
FROM: Linda Neal, Principal Planner
LOCATION: 155 Forrest Avenue; APN # 002-192-50
ZONING: Residential Single-family RS-6
PROJECT: Legalization/expansion of a single-family residence and access driveway
ACTION: Hill Area Residential Development Permit, Design Review, Excavation Permit and Tree Removal Permit; Application # 22-06
APPLICANT: Jeff Kroot, Architect
OWNER: Gary Dowd
CEQA STATUS: Categorical Exemption, § 15301(e) and 15303(a)



155 FORREST AVENUE

AGENDA # 2

RECOMMENDATION

Move to approve Application # 22-06 by adopting Resolution No. 2022-09 setting forth the findings and the conditions for the project approval.

PROJECT DESCRIPTION

Conversion/expansion of an existing, 1,010 square-foot, unpermitted duplex structure into a 2,141 square-foot, five bedroom, three and one-half bathroom, single-family residence with an attached 336 square-foot, one car garage. There is also an existing 878 square-foot, two-bedroom, one bathroom, residence at the front of the site that was originally constructed over the western side property line into the ten-foot-wide public easement that runs the length of the western side of the site. The project includes removing the portion of the structure that extends into the required five-foot side-yard setback, and over the property line into the easement. The remodel and abatement of the encroaching portion of the building will result in a 777 square-foot, one bedroom, one bathroom accessory dwelling unit (ADU) that maintains a six-foot setback from the west side property line. The ADU is not being considered by the Planning Commission because it complies with the Town ADU Ordinance and will be reviewed, approved, and issued ministerially by staff in compliance with State of California and Town of Fairfax Residential Accessory Dwelling Unit and Junior Accessory Dwelling Unit regulations (Town Code Chapter 17.048).

Two existing retaining walls between the two existing structures will be replaced as part of the project. Neither will exceed the permitted six feet in height as is allowed by Town Code § 17.044.080(B)(2).

The proposed residence will comply with the regulations of the RS 6 Zone District as follows:

	Front Setback	Rear Setback	Combined Front/rear Setback	Side Setbacks	Combined Side Setbacks	FAR	Lot Coverage	Height
Required/ Permitted	**6 ft.**	**12 ft.**	**35 ft.**	**5 ft. & 5 ft.**	**20 ft.**	**.40**	**.35**	**28.5 ft. ft., 3 stories**
Proposed	**146 ft.**	**124 ft.**	**270 ft.**	**24 ft. & 57 ft.**	**81 ft.**	**.09 (without ADU)**	**.06**	**26.5 ft., 2 stories**

Note: The site is irregularly shaped with a very narrow lower half while widening at the rear half where the new five bedroom single-family structure is proposed and the driveway from Francis exists. The existing 878 square-foot single-family structure proposed for ADU conversion is located on the narrow lower half. Staff has not included the setbacks for the existing 878 square-foot single-family structure and its decks which predate the current setback regulations. While the existing 878 square-foot single-family structure meets the minimum front and rear setbacks and the combined front/rear setback, it maintains a zero side setback from the west side property line where it

crosses the property line and extends into the ten-foot-wide public easement and an existing deck off the building maintains only a two-foot setback from the east side property line due to the extreme narrowness of this portion of the site. These setbacks are currently legal non-conforming, and the proposed project will increase the side setback for the existing deck by removing the portion of the deck within the five-foot setback. The original residence, which is being converted to an ADU, will maintain an eastern side setback of six feet which exceeds the minimum four-foot side setback required for ADU's.

BACKGROUND

The 35,928 square-foot site slopes up from Forrest Avenue at an average rate of 28%. The original residence located at the front of the site was built in 1908 as a one bedroom, one bathroom summer cottage. In 1989 the Building Department discovered that an unpermitted driveway had been constructed accessing the rear of the property where a two story, garage/storage room structure had been built without planning or building permits. The Town tried to work with the owner for twelve years to try and get these improvements legalized with very little progress being made.

In 2011 the property sold to the current owner and at that time the resale report for the existing permitted residence noted that this structure was in a state of disrepair with major dry-rot and foundation settlement. In 2013 the Town began receiving complaints from the tenant of the permitted residence of the poor condition of her living unit. In August of 2013, the current owner was advised that the Town performed an inspection of the property at the request of that tenant. The inspection revealed that the rear unpermitted structure had been converted into two unpermitted living units. At the same time the Building Official posted the front permitted house as "Not Habitable for Human Occupancy". The Town then began working with the current owner to bring the property into compliance with the Zoning Ordinance and the California Building Code.

On June 24, 2015, the owner submitted his applications for a Hill Area Residential Development Permit, Excavation Permit, and a Design Review Permit for the remodel/construction of a new single-family residence where the unpermitted structure is located at the rear of the site including legalization of the access driveway at the rear of the property.

During the ongoing process of determining how the property would be brought into compliance with all codes, it was determined legalization was going to face the following hurdles:

1. Construction of the driveway at the rear of the property had redirected the natural hillside drainage from above Francis Avenue and from the upper portions of the site onto the neighboring property at 148 Francis Avenue which would have to be legalized with an executed drainage easement.

2. The rear driveway did not meet Marin County driveway standards and plans would have to be submitted and approved by the Ross Valley Fire Department

showing compliance and becoming part of the legalization construction process.

3. The wooden access stairway leading to both the existing permitted residence and the rear unpermitted structure did not comply with fire codes and would have to be replaced with a suitable stairway constructed of fire-resistant materials.

4. Removing the portion of the original permitted structure that crosses the side property line and extends into the ten-foot right-of-way that runs along the entire west side of the property. If the proposed project for a new single-family residence at the rear of the property is approved, this structure will be converted into an accessory dwelling unit under a separate, ministerial, building permit and is not being considered as a part of this project review by the Planning Commission.

5. The site would have to meet Ross Valley Fire Department requirements for fire access. Originally the fire department required that the rear driveway be brought up to access standards so that they could access the buildings from Francis Avenue. Through the review process they have agreed to the owner providing a fire truck staging area at the front of the site on Forrest Avenue as long as a dry stand pipe is provided between the two structures in roughly the middle of the site with the final location to be determined by the Ross Valley Fire Department in the field once the building permit for the project is issued and during construction (this is the standard method for the final placement of a dry stand pipe). Use of the dry stand pipe includes pumping water from the hydrant at the bottom of the site to the fire truck where the pressure is increased and then the pressurized water is pumped back into another pipe at the bottom of the site and pumped up to the dry stand pipe where a fire hose can be attached to the dry stand pipe and the water can then be used to fight any fire (stand pipe and truck staging area shown on site plan, page1 of the plan set).

6. A Ross Valley Sanitary District sewer easement runs through the project area that will have to be abandoned by the Ross Valley Sanitary District before the project can proceed.

DISCUSSION

The project requires the approval of a Hill Area Residential Development, Design Review Permit, and an Excavation Permit.

Hill Area Residential Development Permit (HRD) and Excavation Permit

The purpose of the HRD permit is to encourage maximum retention of natural topographic features such as drainage ways, streams, slopes, ridgelines, rock outcroppings, vistas and natural plant formations and trees, to minimize grading of hillside areas, provide safe ingress and egress for vehicular and pedestrian traffic, minimize water run-off and soil erosion during and after construction, prevent loss of life, minimize the potential of injuries, property damage and economic dislocations from geologic hazards, and to ensure that infill development on hillsides sites is of a size and

scale appropriate to the property and consistent with other properties in the vicinity under the same zone classification [Town Code sections 17.072.010(B)(1) through (6)].

The criteria set forth in the code for reviewing excavation permits shares many aspects of the purpose of the HRD ordinance as follows: eliminating projects that would unlawfully remove the lateral or subjacent support of the adjacent land, result in dangerous topographic conditions, cause seepage or slides, inappropriately divert the flow of drainage waters, create a nuisance, or otherwise endanger the health, safety or property of any other person, despite all precautions which the applicant might be ready, willing and able to take.

The current owner did not own the property and did not participate in creating the now long-standing site modifications (original "stop work" order was posted on 5/24/89) which includes the diversion of the natural seasonal creek onto the neighboring property so the access driveway from Francis Avenue could be constructed and leveling the area of the site where the existing unpermitted two story structure has been constructed. The Town's position since the violations were discovered in 1989, due to the substantial excavation/fill that was undertaken to create these improvements, has been to make the site safe, to legalize what can be legalized, and to abate what cannot be legalized. Historical records of the Town's processes in trying to deal with this situation have not included trying to restore the site to its original condition which at this point would be more invasive and disruptive to the natural environment than legalizing what has been done and bringing the construction into compliance with current code regulations.

The Town Engineer has reviewed the following multiple geotechnical reports/responses to Town Engineer's comments/questions and the memorandums prepared by the two previous Town Engineer's that have been involved in trying to bring the property into compliance, including a hydrology analysis:

Soils reports: Geotech report by Geoengineering dated 11/13/89, Geotech reports by Dennis Furby dated 5/4/93, 9/15/17 and 2/27/19

Hydrology Report: Registered Professional Engineer Michael Watkins dated 3/2/22

Town Engineer memorandums: Drainage memorandum by Town Engineer Ben Albritton dated 6/9/93, Project review by Town Engineer Ray Wrysinski dated 1/5/17, Project review by town consulting engineer Miller Pacific Engineering dated 8/17/18 and 4/1/19, Sewer Pipe Easement comment by Miller Pacific via e-mail dated 11/1/19,

The Ross Valley Fire Department has also performed the following reviews of the site:

Fire Inspector Tim Ecke – 8/9/90, Fire Inspector Michael Denning – undated but some time in 1993, Fire Inspector Ruben Martin – 1/5/17, Fire Inspector Rob Bastianon – 7/17/15 and 4/3/19, Acceptance of Alternate Materials or Methods Proposal – approved by Fire Chief Jason Weber – 6/16/17 (Attachment G).

One of the Town's initial concerns included the existence of a Sanitary District easement and main that runs across the middle of the site past the northwest corner of the unpermitted building. This project proposal includes an expansion that would be built over a portion of the sewer main and sewer easement. The Sanitary District's original position was that the project should be redesigned to avoid covering the sewer main. The owner has worked with the Ross Valley Sanitary District and has preliminary plans which are scheduled to go before the Board for approval soon. The Town has been advised by Phil Benedetti, Ross Valley Sanitary District Associate Engineer, that the Sanitary District is releasing its hold on the project because the owner "is in the process of relocating the sewer main currently within the Sanitary District easement via a Public Sewer Extension project that will address the conflict of our sewer main and the proposed building project" (Attachment B).

All the Town Engineer's that have reviewed the project have been concerned about the natural drainage that has been diverted onto the property at 148 Francis Avenue. The diversion of the water 148 Francis Avenue site has finally been addressed by the recording of the attached drainage easement and maintenance agreement between the current owner and the owners of that property (Attachment C).

Foundation Type/Slope Stability

The project design will be supported on a conventional spread footing foundation which is adequate based on the soil make up found in the geotechnical report test borings and is the foundation type recommended by the project engineer and accepted by the Town Engineer (Attachment D, page 3 of the Dennis Furby 9/15/17 report).

The geotechnical engineer, and the Town Engineer concurs, that there are no active slides on the site and that surface sloughing can be managed by removing loose soils from steep areas and installing an adequate drainage system. The Town Engineer has approved the preliminary drainage plans.

Drainage

Water currently drains to the site from the hillside above and from Francis Avenue, a roadway not constructed or maintained by the Town. The water then runs through a corrugated metal pipe installed underneath Francis Avenue at the top of the project site within the public roadway easement. From there the water runs across the site and along the east side of the property before being diverted onto the property at 148 Francis Avenue where it continues downhill, joins another drainage channel which veers to the west into the property at 153 Forrest, continuing downhill along the east side of 153 Forrest where it eventually flows to Forrest Avenue.

The project engineer has recommended, and the Town Engineer has accepted, the following recommendations for improving the existing site stability: debris and loose material from the slope at the end of the driveway turn-around shall be removed from the site, the slope surface shall be trimmed to expose firm soil which shall then be reseeded to grow erosion resistant vegetation (the planting may require temporary installation of jute mesh or other type of stabilization fabric to resist erosion until the

plantings become established); a new surface drain inlet shall be installed at the top of the slope at the northeast corner of the garage to collect the surface run-off with minor regrading/installation of an earth berm to intercept and divert surface water towards the inlet; the debris pile shall be removed from the inside curve of the driveway and a uniform slope shall be restored with the area planted with erosion-resistant vegetation; enlarge and line the drainage channel along the driveway with cobble rip-rap to maintain a uniform flow towards the natural drainage channel to reduce the risk of further surface erosion; Maintain the existing drainage channel along the uphill side of Francis Avenue and install a trash rack at the inlet to the corrugated metal pipe (Attachment D).

The project engineer in his 5/4/93 project report, page 3, third paragraph, suggested the installation of a trash rack at the inlet to the corrugated metal pipe uphill of the project site, might be the responsibility of the Town of Fairfax. The Fairfax Public Works Department has indicated that the Town has not done any maintenance, including clearing of this pipe in recent history. A search of the Town's historic records, indicate that Francis Avenue has never been accepted or maintained by the Town and was likely built by the developers of the existing residence at 175 Francis Avenue which was built in 1928 prior to the Town's incorporation in 1931. Staff has included in the resolution recommending approval of the project that the applicant be required to install the trash rack recommended by his engineer due to the significant use of Francis Avenue that will occur once the residents of the five-bedroom structure begin accessing the property from the driveway which takes access from Francis Avenue.

The above recommended conditions have been included as conditions in the attached draft resolution 2022-09.

The drainage coming down the hillside and from the graded driveway above the proposed new house will be collected in a concrete swale that will run behind the entire building, collecting the water, and directing it to two new drain inlets one on the east side and the other on the west side of the structure. There will be third drain inlet installed at the end of the driveway on the east side of the site where water from the inlet at the southeastern corner of the garage will travel by underground pipe and will also collect runoff water from the lower portion of the driveway. All the water collected in the previously described new drainage inlets will be collected and routed to the west side yard of the site where it will be directed into a pipe that will run along the west side of the existing residential structure where there will be another storm drain located to capture run-off from the roof of the existing residential structure and all the stormwater collected from above the two buildings will be directed to a stormwater dissipater which will slow the dispersion of the run off down before it is dispersed on the hillside to flow down to Forrest Avenue (see page C3.0 of the project plans).

Driveway Grading/Excavation Permit

Re-grading the driveway to meet Marin County Steep Driveway standards, construction of the additions to the upper structure, site drainage improvements, and installation of the other exterior features including the conforming concrete access stairway and small level behind both the ADU and the single-family residence will result in the excavation of

approximately 176 cubic yards of material and the fill of approximately 97 cubic-yards of material for a total off-haul amount of approximately 79 cubic yards of material. The proposed 273 cubic-yards of excavation/fill is the minimum amount necessary to correct the driveway, remove the portions of the existing structure that are not located on the site and bring it into compliance with setback regulations, install an access stairway that will meet the requirement for emergency response personnel access (concrete), to install the drainage system to improve the overall site drainage and not result in an increase in drainage amounts or drainage velocity crossing adjacent properties or adjacent public roadway improvements and make some minimal improvements to the outdoor living space for the residence and the ADU.

The findings to support staff's recommendation for the approval of the Excavation Permit are contained in Attachment A – Resolution 2022-09.

Neighborhood Context

The table below presents the size of similar sized and sloped properties in the Forrest Avenue neighborhood and their FAR's as well as the property sizes and FAR's maintained by the residences in the immediate vicinity of the proposed project.

155 FORREST AVENUE – SIMILAR PROPERTIES DEVELOPMENT							
APN #	ADDRESS	LOT SIZE	HOUSE SIZE	# BEDROOMS	# BATHS	GARAGE	FAR
002-143-33		30782	1863	4	2	280	.06
002-144-07		17050	2643	2	2.5	0	.16
002-191-36		30745	2151	4	2	0	.07
002-191-37		25336	2324	4	2.5	0	.09
002-191-38		19320	1488	3	2	324	.08
002-192-26		41796	1281	2	2	0	.03
002-192-38		17346	1362	3	2	405	.08
002-192-45		47088	1113	2	2	430	.02
002-192-47		25006	1074	2	2	0	
DEVELOPMENT OF PROPERTIES IN THE IMMEDIATE NEIGHBORHOOD ON FORREST AVENUE							
002-191-12		14740	1284	2	1.5	0	.09
002-191-33		8,220	1365	3	2	220	.17
002-191-35		8346	2480	4	2	0	.30
002-192-06		8100	1384	2	1.5	420	.17
002-192-36		6400	1960	4	2.5	448	.31
002-192-10		8450	1209	1	1	0	.14
002-192-43		11900	901	2	2	0	.08
002-192-44		11424	1093	3	2	0	.10
002-192-49		18960	1553	2	3	0	.08
PROJECT SITE							
002-192-50	155 Forrest Ave.	33164	3928 includes 777 sf. ADU	5	3.5	336	.11 (.09 without ADU)

The site is one of the largest along Forrest Avenue and the new structure will be located over 146 feet back from the Forrest Avenue roadbed with only 40 feet of the structure face presented towards the street and the garage located behind the dwelling. The .11 FAR that the property will maintain if developed as proposed is well below the permitted .40 FAR and similar to the FAR's maintained by other developments on similar sized lots and less than the FAR's maintained by several of the residences in the immediate vicinity.

Design Review Permit
When considering a project application for action on a Design Review Permit the Commission is directed by the code to consider the following design review criteria:

1. The proposed development shall create a well composed design, harmoniously related to other facilities in the immediate area and to the total setting as seen from hills and other key vantage points in the community.

2. Only elements of design which have significant relationship to the exterior appearance of structures and facilities shall be considered; these elements may include height, arrangement on the site, texture, material, color, signs, landscaping and appurtenances.

3. The proposed development shall be of a quality and character appropriate to, and serving to protect the value of, private and public investments in the immediate area.

4. The proposed development shall conform with all requirements for landscaping, screening, usable open space, and the design of parking and off-street loading areas set forth in this title.

5. Where the proposed development is located in an area where a neighborhood plan or precise plan has been adopted by the town, the design of the development shall conform in all significant respects with such plans.

6. There shall exist sufficient variety in the design of the structures and grounds to avoid monotony in external appearance.

7. The size and design of the structure shall be considered for the purpose of determining that the structure is in proportion to its building site and that it has a balance and unity among its external features so as to present a harmonious appearance.

8. The extent to which the structure conforms to the general character of other structures in vicinity insofar as the character can be ascertained and is found to be architecturally desirable.

9. The extent to which ornamentation is to be used and the extent to which temporary and second-hand materials, or materials which are imitative of other materials, are to be used.

10. The extent to which natural features, including trees, shrubs, creeks and rocks, and the natural grade of the site are to be retained.

11. The accessibility of off-street parking areas and the relation of parking areas with respect to traffic on adjacent streets.

12. The reservation of landscaping areas for the purpose of separating or screening service and storage areas from the street and adjoining building sites, breaking up large expanses of paved areas, separating or screening parking lots from the street and adjoining building sites, and separating building areas from paved areas to provide access from buildings to open space areas.

13. In the case of any commercial or industrial structure, the board shall consider its proximity to any residential district and shall consider the effect of the proposed structure upon the character and value of the adjacent residential district area.

14. The design review board may recommend design guidelines to the planning commission and town council for adoption in order to further the objectives of this section and to illustrate design criteria.

The proposed irregular shape of the single-family house, with additions at both the northwest and the southeast corners to the existing approximately square, two-story structure, alternating roof slopes, use of different sized and shaped windows, and upper wrap around deck all result in the building having a lot of articulation which helps minimize the mass of the 2,141 square foot, structure. The longest façade plane of the house, facing north, is further articulated with the eastern half of the front wall plane being stepped back six feet from the western half.

The siding for the residence will be cedar colored fiber cement shingles, the trim will be dark green (Benjamin Moore, Garden Cucumber, #644), the doors and windows will be white (Benjamin Moore, Swiss Coffee, #0C-45). The color palette will complement the surrounding wooded hillside.

Rodham Black LED Outdoor wall lantern sconces are proposed on each side off all the doors (sliding glass and standard) accessing both the lower and upper levels of the house and classic path lights are proposed in various location along the Francis Avenue access driveway and along the main access stairway from Forrest to both the existing and proposed structures (See the lighting plan page of the plan set). Both types of light fixtures direct light downward and are shielded. Staff has included in the conditions of approval contained in Resolution 2022-09 the following standard project condition:

> All the exterior fixtures must be dark sky compliant (fully shielded and emit no light above the horizontal plane with no sag or drop lenses, side light panels or upplight panels) as well as compliance with color temperature to minimize blue rich lighting. The lighting plan shall be submitted with the building permit application and be approved by the Planning Department prior to issuance of the project building permit. The lighting shall not emit direct offsite illumination and shall be the minimum necessary for safety.

The color elevations, lighting plans and colors and materials board can be found as an attachment to the project plans.

The findings to support staff's recommendation for the approval of the Design Review Permit are contained in Attachment A – Resolution 2022-09 for approval of the project.

Tree Removal Permit
At the start of the project the Tree Committee recommendation that only one tree be removed from the site conflicted with the approved Vegetative Management plan that required that 33 trees be removed (32 bays and 1 oak).

The applicant presented an application to Ross Valley Fire for "Acceptance of Alternate Materials or Methods Proposal" that was approved by Fire Chief Jason Weber on 6/16/17. They were then able to submit a revised VMP to fire which only required the removal of the one bay tree at the bottom of the site. The applicant was then able to revise the tree removal plan to the Fairfax Tree Committee proposing the removal of only the one bay tree at the bottom of the site which the Fairfax Tree Committee recommended for removal to the Planning Commission at their 1/27/20 meeting (Attachment F).

Staff recommends that the Planning Commission approve the removal of the one bay tree at the bottom of the site as recommended by the Tree Committee at their 1/27/20 meeting.

The finding to support staff's recommendation for the approval of the Tree Removal Permit are contained in Attachment A – Resolution 2022-09 for approval of the project.

OTHER AGENCY/DEPARTMENT COMMENTS/CONDITIONS

Ross Valley Fire Department (RVFD)
RVFD submitted written requirements, and these are summarized as follows (Attachment G):

- Vegetation and construction materials are to be maintained away from the residence during construction, a fire sprinkler system must be installed throughout the entire building which complies with the National Fire Protection Association (NFPA) 13-R and local standards, smoke and carbon monoxide detectors provided with AC power and interconnected must be installed in all required locations throughout the both the single-family residence and the ADU, address numbers at least four inches tall must be installed adjacent to the front doors of both structures and at the bottom of site where they are visible from Forrest Avenue and both must be illuminated at night, a complying fire truck pull out must be provided on Forrest Avenue along the property frontage and the dry stand pipe must be provided prior to the project final inspection, a new Forrest Avenue address shall be assigned to the residence prior to the project final inspection which will be routed to all agencies with jurisdiction over the project including emergency response agencies, the Ross Valley Fire Department, Fairfax Police Departments and Marin County Fire and the Marin County Sheriff Departments.

- Vegetation Management Plan conditions: all vegetation within the 30-foot zone shall be irrigated, no tree shall be removed without the approval of a tree removal permit, erosion control methods shall be maintained that are in compliance with the Town regulations, vegetation shall be maintained to ensure address numbers are visible from the street and these requirements shall be met prior to the final fire clearance of the project.

Ross Valley Sanitary District (RVSD)
RVSD submitted written requirements, and these are summarized as follows:

Sewer main must be relocated to the public easement that runs the entire length of the western side property line. The plans for this requirement have been reviewed by the RVSD who has requested/suggested some minor changes after which, the plan will be scheduled for approval by the RVSD Board (Attachment B).

Marin Municipal Water District (MMWD)
MMWD submitted written requirements, and these are summarized as follows:

- A copy of the building permit must be provided to the district along with the required application and fees, the foundation must be completed within 120 days of the date of application, all indoor and outdoor requirements or District Code Title 13, Water Conservation must be complied with, any landscaping plans must be reviewed and approved by the District, backflow prevention requirements must be met, Ordinance 420, requiring installation of grey water recycling system when practicable, must be incorporated into the project building permit plans or an exemption letter from the District must be provided to the Town, all of the District's rules and regulations in effect at the time service is requested must be complied.

  Staff has added the following condition to the resolution recommending approval of the project in case MMWD puts into effect a ban on the issuance of new residence water meter permits: If MMWD official puts in place a prohibition on the provision of new water meters for new residential construction, issuance of the building permit for this project shall be withheld until such time as the prohibition is lifted.

Fairfax Building Department
The Town adopted Ordinance # 856 on September 1, 2021, requiring all new buildings to have only electric service, no gas service, after March 1, 2022. The building permit for this project will only allow this structure to be supplied with electric service for heating and other purposes.

The Town received no comments or conditions relating to the project from the Fairfax Police or Public Works Departments.

ATTACHMENTS

Attachment A – Resolution No. 2022-09
Attachment B – e-mails from RVSD and preliminary sewer relocation plans
Attachment C – recorded drainage easement
Attachment D – Project engineer memorandums 2/27/19, 9/15/17, 5/4/93
Attachment E - Hydrology study
Attachment F – Notice of Tree Committee action with attachments including approved VMP
Attachment G – 4/3/19 Ross Valley Fire review, Approved Application for Alternate Materials or Methods application, original 1/5/17 review.
Attachment H – site photos

RESOLUTION NO. 2022-09

A Resolution of The Fairfax Planning Commission Approving Application No. 22-06 for a Hill Area Residential Development Permit, Design Review Permit, Excavation Permit, and Tree Removal Permit for a Residence at 155 Forrest Avenue

WHEREAS, the Town of Fairfax received an application from Gary Dowd to build a two-story, 2,141 square-foot, two-story structure and a 336 square-foot, one car attached garage on June? 24, 2015; and

WEREAS, The application was deemed complete on April 13, 2022; and

WHEREAS, after holding a duly noticed public hearing on the project on April 28, 2022, at which time the Planning Commission determined that the project complies with the Hill Area Residential Development Overlay Ordinance, the Design Review Ordinance and the Excavation Ordinance and that findings can be made to grant the requested permits as well as the Tree Removal Permit to remove one bay tree; and

WHEREAS, the Commission has made the following findings:

The project is consistent with the 2010-2030 Fairfax General Plan as follows:

Policy LU-1.2.3: New and renewed development shall be designed and located to minimize the visual mass. The Town will require exterior materials and colors that blend the exterior appearance of structures with the surrounding natural landscape, allowing for architectural diversity.

Policy LU-4.1.4: New and renewed development shall be designed to minimize run-off in a manner that does not cause undue hardship on neighboring properties.

Policy LU-7.1.5: New and renewed residential development shall preserve and enhance the existing characteristics of the Town's neighborhoods in their diverse architectural style, size and mass.

Policy LU-7.2.2: to the extent feasible natural features including the existing grade, mature trees and vegetation shall be preserved for new and renewed development.

Hill Area Residential Development (Town Code § 17.072.110)

1. The proposed development is consistent with the General Plan (see above) and is consistent with the purpose and intent of the Zoning Ordinance, Title 17, of the Fairfax Town Code.

2. The site planning preserves identified natural features as much as possible while also complying with other agency and department regulations.

ATTACHMENT A

3. Based on the soils report findings, the site can be developed without geologic, hydrologic, or seismic hazards.

4. Vehicular access and parking are adequate.

5. The proposed development harmonizes with the surrounding residential development, meets the design review criteria, and does not result in the deterioration of significant view corridors.

Design Review (Town Code § 17.020.040)

The irregular shape of the house, with additions at both the northwest and the south east corners of the existing approximately square, two story structure, alternating roof slopes, different sized windows and upper wrap around deck and the stepped back front façade of the main front mass stepped back six feet, all result in the building having a lot of articulation which helps minimize the mass of the 2,141 square foot, structure. The exterior materials and colors, green white and cedar, will result in a structure of a quality and character appropriate to the neighborhood and the .09 Floor Area Ratio (FAR) and .06 lot coverage maintained by the overall development of the site results in a development that is in proportion to the 35,928 square foot site and there is balance and unity between the design of the two structures. Therefore, the project complies with the Design Review Criteria set forth in Town Code § 17.020.040.

Excavation Permit (Town Code § 12.20.080(B) (1 through 7)

The excavation permit, which includes; a) re-grading the existing driveway to comply with Marin County Steep driveway standards; b) installation of foundations for the new additions to the rear structure and garage; c) removal of the foundation beneath the portion of the existing structure to remove the portion within the adjacent public easement and required side yard setback; d) installation of concrete access stairs; e) removal of loose soils along the driveway and within the natural drainage channel and installation of the drainage system, including the stormwater dissipater and any excavation required to complete the fire truck staging area will result in the excavation of approximately 176 cubic-yards of material, the fill of approximately 97 cubic-yards of material and the off haul of approximately 79 cubic-yards of material. The proposed approximately 273 cubic yards of excavation/fill is the minimum amount necessary to correct the site violations and allow development of the single-family residence and garage while converting the existing structure into a conforming ADU while also protecting the site and the neighboring properties from increased drainage and soil stability impacts. The excavation permit can be approved based on the following findings:

1. The health, welfare and safety of the public will not be adversely affected by the project.

2. Adjacent properties are adequately protected by project investigation and design

from geologic hazards as a result of the work.

3. Adjacent properties are adequately protected by project design from drainage and erosion problems as a result of the work.

4. The amount of excavation or fill proposed is not more than is required to allow the property owner substantial use of his or her property.

5. The visual and scenic enjoyment of the area by others will not be adversely affected by the project more than is necessary.

6. Natural landscaping will not be removed by the project more than is necessary.

7. Town Code § 17.072.090(C)(4) prohibits initial grading during the raining season from October 1st through April 1st. Therefore, the time of year during which construction will take place is such that work will not result in excessive siltation from storm runoff nor prolonged exposure of unstable excavated slopes.

Tree Removal

The one bay tree being proposed for removal is in compliance with all the considerations listed in Town Code 8.36.060(B) (1 through 7) of the Tree Ordinance.

WHEREAS, the Commission has approved the project subject to the applicant's compliance with the following conditions:

The project is approved based on the following plans and reports:

1. The architectural plans by Jeff Kroot, Architect with the revised site plan approved by both the Ross Valley Fire Department and the Fairfax Planning Commission showing the removal of only one bay at the bottom of the site adjacent to the existing water meter and the detail of the fire department required concrete access stair plan, the record of survey by Tracy Park, Professional Land Surveyor, and the engineering plans by Vlad Iojica, including the erosion control and construction management (drainage) plan, the site improvements and erosion control plan and the two driveway profile plans dated received by the Town on October 16, 2019, the revised lighting and site re-seeding locations plan by Architect Kroot received on 4/20/22.

2. Prior to issuance of any of the building permits for the project the applicant or his assigns shall:

a) Submit a final construction plan to the Public Works Department for their approval. The amended plan shall include but is not limited to the following:

I. Construction delivery routes approved by the Department of Public Works.

II. Construction schedule (deliveries, worker hours, etc.)
III. Notification to area residents (of the estimated project construction start and completion dates)
IV. Emergency access routes
V. Construction worker staging area

3. The applicant shall prepare, and file with the Public Works Director, a video of the roadway conditions on the public construction delivery routes (routes to be pre-approved by Public Works Director).

4. Submit a cash deposit, bond, or letter of credit to the Town in an amount that will cover the cost of grading, weatherization, and repair of possible damage to public roadways. The applicant shall submit contractor's estimates for any grading, site weatherization and improvement plan for approval by the Town Engineer. Upon approval of the contract costs, the applicant shall submit a cash deposit, bond or letter of credit equaling 100% of the estimated construction costs.

5. The foundation and retaining elements shall be designed by a structural engineer certified as such in the state of California. Plans and calculations of the foundation and retaining elements shall be stamped and signed by the structural engineer and submitted to the satisfaction of the Town Structural Engineer.

6. The grading, foundation, retaining, and drainage elements shall also be stamped and signed by the project geotechnical engineer as conforming to the recommendations made by the project Geotechnical Engineer.

7. Prior to submittal of the building permit plans, the applicant shall secure written approval from the Ross Valley Fire Authority, Marin Municipal Water District and the Ross Valley Sanitary District noting the development conformance with their recommendations.

8. Submit 3 copies of the recorded record of survey with the building permit plans.

9. All retaining walls that are visible from the street and are constructed of concrete shall be heavily textured or colorized in a manner approved by the planning staff prior to issuance of the building permit. This condition is intended to mitigate the visual impact of the proposed walls.

10. Prior to the removal of any trees not approved by the Planning Commission through this action, the applicant shall secure a tree cutting permit, if required, from the Fairfax Tree Committee prior to removal of any on-site trees subject to a permit under Town Code Chapter 8.36. To further minimize impacts on trees and significant vegetation, the applicant shall submit plans for any utility installation (including sewer, water, and drainage) which incorporates the services of an ISA certified arborist to prune and treat trees having roots 2 inches or more in diameter that are disturbed during the construction, excavation or

trenching operations. Tree root protection measures may include meandering the line, check dams, rip rap, hand trenching, soil evaluation and diversion dams.

11. During the construction process the following shall be required:

a) The geotechnical engineer and the project arborist shall be on-site during the grading process and both shall submit written certification to the Town Staff that the grading and tree protection measures have been completed as recommended prior to installation of foundation and/or retaining forms and drainage improvements, piers, and supply lines.

b) Prior to the concrete form inspection by the building official, the geotechnical and structural engineers shall field check the forms of the foundations and retaining elements and provide written certification to the Town staff that the work to this point has been completed in conformance with their recommendations and the approved building plans.

c) The Building Official shall field check the concrete forms prior to the pour.

d) All construction-related vehicles including equipment delivery, cement trucks and construction materials shall always be situated off the travel lane of the adjacent public right(s)-of-way. This condition may be waived by the Building Official on a case-by-case basis with prior notification from the project sponsor.

e) Any proposed temporary closures of a public right-of-way shall require prior approval by the Fairfax Police Department and any necessary traffic control, signage or public notification shall be the responsibility of the applicant or his/her assigns. Any violation of this provision will result in a stop work order being placed on the property and issuance of a citation.

12. Prior to issuance of an occupancy permit the following shall be completed:

a) The geotechnical engineer shall field check the completed project and submit written certification to the Town Staff that the foundation, retaining, grading and drainage elements have been installed in conformance with the approved building plans and the recommendations of the soils report.

b) The Planning Department and Town Engineer shall field check the completed project to verify that all and planning commission conditions and required engineering improvements have been complied with including installation of landscaping and irrigation prior to issuance of the certificate of occupancy.

13. Excavation shall not occur between October 1st and April 1st of any year. The Town Engineer has the authority to waive this condition depending upon the weather.

14. The roadways shall be kept free of dust, gravel, and other construction materials by sweeping them, daily, if necessary.

15. Any changes, modifications, additions, or alterations made to the approved set of plans will require a modification of Application # 22-06. Modifications that do not significantly change the project, the project design or the approved discretionary permits ***may*** be approved by the Principal Planner. Any construction based on job plans that have been altered without the benefit of an approved modification of Application # 22-06 will result in the job being immediately stopped and red tagged.

16. Any damages to the public portions of Forrest Avenue, Francis Avenue, Vista Lane (San Anselmo) or Humbolt Avenue (San Anselmo) or other public roadway used to access the site resulting from construction activities shall be the responsibility of the property owner. The applicant shall submit with the building permit application verification from the Town of San Anselmo that they have no roadway damage requirements for projects using any of the above streets or provide evidence that they have complied with any of San Anselmo's roadway damage conditions.

17. The applicant and its heirs, successors, and assigns shall, at its sole cost and expense, defend with counsel selected by the Town, indemnify, protect, release, and hold harmless the Town of Fairfax and any agency or instrumentality thereof, including its agents, officers, commissions, and employees (the "Indemnitees") from any and all claims, actions, or proceedings arising out of or in any way relating to the processing and/or approval of the project as described herein, the purpose of which is to attack, set aside, void, or annul the approval of the project, and/or any environmental determination that accompanies it, by the Planning Commission, Town Council or Planning Director or any other department or agency of the Town. This indemnification shall include, but not be limited to, suits, damages, judgments, costs, expenses, liens, levies, attorney fees or expert witness fees that may be asserted or incurred by any person or entity, including the applicant, third parties and the Indemnitees, arising out of or in connection with the approval of this project, whether or not there is concurrent, passive, or active negligence on the part of the Indemnitees. Nothing herein shall prohibit the Town from participating in the defense of any claim, action, or proceeding. The parties shall use best efforts, acting in good faith, to select mutually agreeable defense counsel. If the parties cannot reach agreement, the Town may select its own legal counsel and the applicant agrees to pay directly, or timely reimburse on a monthly basis, the Town for all such court costs, attorney fees, and time referenced herein, provided, however, that the applicant's duty in this regard shall be subject to the Town's promptly notifying the applicant of any said claim, action, or proceeding.

18. The applicant shall comply with all applicable local, county, state and federal laws and regulations. Local ordinances which must be complied with include, but are not limited to: the Noise Ordinance, Chapter 8.20, Polystyrene Foam, Degradable

and Recyclable Food Packaging, Chapter 8.16, Garbage and Rubbish Disposal, Chapter 8.08, Urban Runoff Pollution Prevention, Chapter 8.32 and the Americans with Disabilities Act and Best Management Practices for Stormwater Pollution Prevention.

19. Conditions placed upon the project by outside agencies, Town department or by the Town Engineer may be eliminated or amended with that agencies, departments, or the Town Engineer's written notification to the Planning Department prior to issuance of the building permit.

20. The building permit plans shall be reviewed and approved by the Town Engineer, at the expense of the applicant, prior to issuance of the building permit. The project shall be inspected by the Town Engineer prior to issuance of the occupancy permit for the residential structure for compliance with the engineering plans.

Ross Valley Fire Department

21. All vegetation and construction materials are to be maintained away from the residence during construction,

22. The project requires installation of a fire sprinkler system that complies with the National Fire Protection Association regulation 13-D and local standards. The system will require a permit from the Fire Department and the submittal of plans and specifications for a system submitted by an individual or firm licensed to design and/or design-build sprinkler systems.

23. The property is located within the Wildland Urban Interface Area for Fairfax and the new construction must comply with Chapter 7A of the California Building Code or equivalent.

24. All smoke detectors in the residence shall be provided with AC power and be interconnected for simultaneous alarm. Detectors shall be located in each sleeping room, outside of each sleeping room in a central location in the corridor and over the center of all stairways with a minimum of 1 detector on each story of the occupied portion of the residence.

25. Carbon monoxide alarms shall be provided in existing dwellings when a permit is required for alterations, repairs, or addition and the cost of the permit exceeds $1,000.00. Carbon monoxide alarms shall be located outside of each sleeping area in the immediate vicinity of the bedrooms and on every level of the dwelling, including basements.

26. The new residence shall be assigned its own address in addition to the 155 Forrest Avenue address which will remain for the structure that is to become the ADU. Address numbers at least 4 inches tall for both the residence and the ADU

must be in place adjacent to the front door. If not clearly visible from the street, additional numbers must be placed in location that is visible from the street. The numbers must be internally illuminated or illuminated by, and adjacent light controlled by a photocell that can be switched off only be a breaker so it will remain illuminated all night.

27. The approved alternatives requests approved by the RVFD, and their supporting documentation, shall be included in the building permit plan sets submitted for final approval by the Fire Department.

28. The dry standpipe location and the completed fire truck staging area along the frontage in the Forrest Avenue right-of-way shall be approved by RVFD prior to the final inspection and issuance of the occupancy permit for the new residence.

Marin Municipal Water District (MMWD)

29. A copy of the building permit must be provided to the district along with the required applications and fees.

30. The foundation must be completed within 120 days of the date of application.

31. All indoor and outdoor requirements or District Code Title 13, Water Conservation must be complied with.

32. Any landscaping plans must be reviewed and approved by the district.

33. Backflow prevention requirements must be met.

34. Ordinance 420., requiring installation of grey water recycling system when practicable, must be incorporated into the project building permit plans or an exemption letter from the district must be provided to the Town.

35. All the District's rules and regulations if effect at the time service is requested must be complied with.

36. If MMWD official puts in place a prohibition on the provision of new water meters for new residential construction, issuance of the building permit for this project shall be withheld until such time as the prohibition is lifted.

Ross Valley Sanitary District (RVSD)

37. A sewer connection permit and a side sewer connection permit are required for all work outside the new building footprint.

38. Fees will include sewer capacity charges as well as permit fees.

39. Test the sewer lateral(s) from the outer face of the building to the connection at the existing sewer main, in accordance with RVSD Ordinance 100 and Standards.

40. Include a sewer cleanout and backwater protection device within 2-feet of the building foundation, the Ross Valley Sanitary Standard Notes shall be shown and are found in Subsection L of Section 3 of the Design and Construction Standards and demonstrate that all materials used in the construction of the sewer improvements are from the approved materials list.

41. A hold will be placed on the property when the building permit is issued and will not be released for occupancy until the district permit and sewer requirements have been fulfilled.

42. A Certificate of Compliance for the lateral must be obtained from the RVSD prior to the project final inspection by the Fairfax Building Department.

43. The sewer main relocation plan shall be approved by the Ross Valley Sanitary District Board and the sewer easement that runs across the property within the new residence footprint shall be vacated by the district prior to issuance of the project building permit.

Fairfax Public Works Department

44. All large trucks with more than 2 axles accessing the site for construction will be limited to the hours of 9 AM to 3 PM.

45. All driveway improvements shall be completed and be signed off by the Building Official and Public Works Manager before construction begins on the house.

46. Complete road closures will be limited to concrete pours and steel placement and will be coordinated with the Fairfax Police Department and Ross Valley Fire Department.

47. A detailed construction management plan must be submitted with the building permit application that includes construction delivery routes, construction schedule (deliveries, worker hours, etc.), notification to area residents, emergency access and egress routes and proposed employee parking locations during construction and be approved by the Department of Public Works.

48. The applicant shall prepare, and file with the Public Works Director, a video of the roadway conditions on the construction delivery routes.

49. A bond will be submitted prior to issuance of the building permit in an amount that will cover the cost of grading, weatherization, and repair of possible roadway

damage in an amount equaling 100% of the estimated construction costs and pay for the Town Engineer's/Plan Checker's time to review and confirm the contractor's estimate.

50. The building permit for this project will only allow this structure to be supplied with electric service for heating and other purposes.

Town Engineer

51. The Town Engineer shall review the final, stamped, and signed project Civil and Structural plans.

52. The project Civil Engineer shall provide a letter certifying that the site grading and drainage improvements and the trash rack required within the Francis Avenue right-of-way adjacent to the corrugated metal pipe that runs beneath Francis Avenue shown but not called out on page C2.0 of the project preliminary engineering plans, have been installed per the site "drainage" plan designed by Vlad Iojica, Registered Professional Engineer prior to the project final inspection.

53. Debris and loose material from the slope at the end of the driveway turn-around shall be removed from the site, the slope surface shall be trimmed to expose firm soil which shall then be re-seeded to grow erosion resistant vegetation if deemed necessary by the Town Engineer/Building Official (the planting may require temporary installation of jute mesh or other type of stabilization fabric to resist erosion until the plantings become established);

Planning Commission Conditions

54. All the exterior fixtures must be dark sky compliant (fully shielded and emit no light above the horizontal plane with no sag or drop lenses, side light panels or upplight panels) as well as compliance with color temperature to minimize blue rich lighting. The lighting plan shall be submitted with the building permit application and be approved by the Planning Department prior to issuance of the project building permit. The lighting shall not emit direct offsite illumination and shall be the minimum necessary for safety.

Miscellaneous

55. The surveyor shall mark the location of all the property lines in the field prior to the start of construction.

56. A drainage system maintenance agreement including a system location plan and required maintenance schedule hall be provided by the applicant for approval by the Town Engineer and then the document shall be recorded at the Marin County Recorder's Office setting forth the required maintenance schedule to ensure the drainage system continues to function as designed. A copy shall be provided to

the Town prior to issuance of the building permit.

57. The project arborist shall submit an inspection schedule with the building permit application that includes at least an initial inspection of the tree protection measures prior to the start of excavation and a second prior to the project final inspection. Once the inspections are completed the arborist shall provide a letter to the Town indicating that he/she performed the required inspections, and their tree protection measures have been complied with.

WHEREAS, pursuant to CEQA Guidelines Section **the project is exempt per California Code of Regulations, Chapter 3, Article 19, categorical exemption number 15301(e) and 15303(a).**

NOW, THEREFORE BE IT RESOLVED, the Planning Commission of the Town of Fairfax hereby finds and determines as follows:

The site can be developed as proposed in compliance with the Hill Area Residential Development, Design Review Permit, Excavation and Tree Removal sections of the Town code and the Commission can make the required legal findings to support development of the hillside property at 155 Forrest Avenue including the correction of the violations associated with the unpermitted construction of the access driveway from Francis Avenue and the two story accessory garage/storage building. Therefore, the project is in conformance with the 2010 – 2030 Fairfax General Plan, the Fairfax Town Code and the Fairfax Zoning Ordinance, Town Code Title 17; and

Construction of the project can occur without causing significant impacts on neighboring residences and the environment.

The foregoing resolution was adopted at a regular meeting of the Planning Commission held in said Town, on the 28th day of April 2022 by the following vote:

AYES:
NOES:

_____

Chair Norma Fragoso

Attest:

_____

Linda Neal, Principal Planner

Linda Neal

From: Philip Benedetti <pbenedetti@rvsd.org>
Sent: Wednesday, September 8, 2021 2:33 PM
To: Linda Neal; Ben Berto
Cc: Gary Dowd; Cristina Velazquez
Subject: RE: 155 Forrest Ave. Sewer Depths

Good Afternoon Linda and Ben,

Please release RVSD's initial hold on the permit for the project referenced below. They are in the process of relocating this sewer main via a Public Sewer Extension project that will address the conflict of our sewer main and the proposed building project.

Let me know if anything else is needed.

Best,

Phil Benedetti, P.E.
Associate Engineer
Ross Valley Sanitary District
2960 Kerner Blvd., San Rafael, CA 94901
Mobile: (415)847-7688
Office: (415)259-2949 x:212

---------- Forwarded message ---------
From: **Gary Dowd** <gary@realisticrealtygroup.com>
Date: Wed, Aug 11, 2021 at 2:46 PM
Subject: Fwd: 155 Forrest Ave. Sewer Depths
To: Linda Neal <lneal@townoffairfax.org>, Ben Berto <bberto@townoffairfax.org>

Hi Linda and Ben,

I received the Town's letter of August 5th 2021, as to 155 Forrest Ave. and the expiration of our application, etc.

I wanted to forward recent correspondence from my Civil Engineer dated July 21, 2021 wherein he has shown the relocated sewer line running down to Francis Ave. and outside of the proposed building area. Sadly it has literally taken months and months just to get this drawing completed despite literally begging for same. The Covid Pandemic has made it extremely difficult to get people's attention let alone get product produced. I will now be submitting this to RVSD for formal action and we have met them on site and discussed it all already. They seem to see no issue with our proposal.

I will also send you a copy of the survey work that was recently completed for the water easement over my uphill neighbors property. That too took literally months to obtain but it is now complete. I will be discussing the easement with my neighbors asap and hope there will be no issue with them granting the easement given the flow has not changed in literally 50 years or more.

Please take this information as a true sign of good faith on our part and **as a formal request to grant a six month extension on our application** (even though I think we will need far less time to hear back from RVSD and our neighbor).

ATTACHMENT B

Linda Neal

From: Linda Neal
Sent: Tuesday, September 14, 2021 8:18 AM
To: Gary Dowd
Cc: Ben Berto
Subject: RE: 155 Forrest Ave. Sewer Depths

Hi Gary,

Yes, if we could get the drawings of the sewer relocation and the water easement electronically, I can get them into your project file.

Sincerely,

Linda Neal
Principal Planner
(415) 453-1584

From: Philip Benedetti <pbenedetti@rvsd.org>
Sent: Wednesday, September 8, 2021 2:33 PM
To: Linda Neal <lneal@townoffairfax.org>; Ben Berto <bberto@townoffairfax.org>
Cc: Gary Dowd <gary@realisticrealtygroup.com>; Cristina Velazquez <cvelazquez@rvsd.org>
Subject: RE: 155 Forrest Ave. Sewer Depths

Good Afternoon Linda and Ben,

Please release RVSD's initial hold on the permit for the project referenced below. They are in the process of relocating this sewer main via a Public Sewer Extension project that will address the conflict of our sewer main and the proposed building project.

Let me know if anything else is needed.

Best,

Phil Benedetti, P.E.
Associate Engineer
Ross Valley Sanitary District
2960 Kerner Blvd., San Rafael, CA 94901
Mobile: (415)847-7688
Office: (415)259-2949 x:212

---------- Forwarded message ---------
From: **Gary Dowd** <gary@realisticrealtygroup.com>
Date: Wed, Aug 11, 2021 at 2:46 PM
Subject: Fwd: 155 Forrest Ave. Sewer Depths
To: Linda Neal <lneal@townoffairfax.org>, Ben Berto <bberto@townoffairfax.org>

Hi Linda and Ben,

I received the Town's letter of August 5th 2021, as to 155 Forrest Ave. and the expiration of our application, etc.

I wanted to forward recent correspondence from my Civil Engineer dated July 21, 2021 wherein he has shown the relocated sewer line running down to Francis Ave. and outside of the proposed building area. Sadly it has literally taken months and months just to get this drawing completed despite literally begging for same. The Covid Pandemic has made it extremely difficult to get people's attention let alone get product produced. I will now be submitting this to RVSD for formal action and we have met them on site and discussed it all already. They seem to see no issue with our proposal.

I will also send you a copy of the survey work that was recently completed for the water easement over my uphill neighbors property. That too took literally months to obtain but it is now complete. I will be discussing the easement with my neighbors asap and hope there will be no issue with them granting the easement given the flow has not changed in literally 50 years or more.

Please take this information as a true sign of good faith on our part and **as a formal request to grant a six month extension on our application** (even though I think we will need far less time to hear back from RVSD and our neighbor).

Grateful for your help,

Gary

---------- Forwarded message ---------
From: **Vlad Iojica** <viojica@via-eng.com>
Date: Wed, Jul 21, 2021 at 7:31 PM
Subject: Re: 155 Forrest Ave. Sewer Depths
To: Gary Dowd <gary@realisticrealtygroup.com>

Hi Gary,

Please let me know if there is anything else needed for this submittal.
Vlad

Vlad Iojica, P.E., QSD
Registered Civil Engineer
ViA Atelier, Inc.
T: 415.774.6776
E: viojica@via-eng.com

On Wednesday, June 23, 2021, 03:39:12 PM PDT, Gary Dowd <gary@realisticrealtygroup.com> wrote:

Hi Vlad,

Gerry was finally able to send some guys up to get the sewer depth for our submittal to RVSD. All mains are the same at 6". Please let me know if you have any questions.

Please see attached. Thank you!

Gary

GENERAL NOTES

1. ALL MATERIAL, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS, STANDARD PLANS AND THE MARIN COUNTY STANDARD PLANS - UNIFORM CONSTRUCTION STANDARDS (UCS) (LATEST REVISION) FOR ANY WORK TO BE PERFORMED ON THE RIGHT-OF-WAY, THE CURRENT COUNTY OF MARIN STANDARD SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE TOWN OF FAIRFAX ENGINEERING DEPARTMENT BEFORE STARTING WORK.
3. THE CONTRACTOR SHALL NOTIFY TOWNS DEPARTMENT OF ENGINEERING TO COORDINATE THE INSPECTOR 48 HOURS BEFORE STARTING WORK. THE COUNTY OFFICE AND THE OWNERS WILL DETERMINE INSPECTIONS FOR REQUIRED NOTIFICATIONS AND APPROVALS BASED ON THE CONDITIONS OF THE PROJECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UNDERGROUND SERVICE ALERT (USA) CALL TOLL-FREE 800-227-2600 AT LEAST 72 HOURS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL UNCOVER EXISTING BURIED UTILITIES WITH UTILITY OWNER TO VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES. BURIED UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, ELECTRICAL, GAS AND TELEPHONE. ALL UTILITIES CONFLICTING WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED PRIOR TO START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE EXCAVATION OF ANY TRENCH OVER FIVE FEET IN DEPTH. ALL UNDERGROUND IMPROVEMENTS SHALL BE INSTALLED AND APPROVED PRIOR TO ROAD SURFACING.
6. RESTORATION OF EXISTING SURFACING DUE TO CONSTRUCTION OF TRENCHES SHALL BE GOVERNED BY THE CONDITIONS IN MARIN COUNTY SPECIFICATIONS AND UCS.
7. TOWN OF FAIRFAX ENGINEERING DEPARTMENT MAY REQUIRE ADDITIONAL WORK OR FACILITIES IN THE COURSE OF THE FINAL APPROVAL AND OF THE CONSTRUCTION OF PROJECT IN ORDER FOR THE IMPROVEMENTS TO REASONABLY PROVIDE FOR THE INTENDED FUNCTION OR FOR PUBLIC SAFETY.
8. ALL PROPERTY CORNERS AND OTHER PERMANENT MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BEFORE THE FINAL ACCEPTANCE OF THE ROAD BY THE DESIGN ENGINEER.
9. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE TYPES, LOCATIONS, SIZES AND DEPTHS OF EXISTING UNDERGROUND FACILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND FACILITIES. HOWEVER, THE ENGINEER AND COUNTY ENGINEERING DEPARTMENT ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND FACILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR FACILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THOSE FACILITIES SHOWN AND ANY WHICH MAY EXIST AND ARE NOT SHOWN PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL EXPOSE ALL UNDERGROUND FACILITIES THAT ARE TO BE CONNECTED TO OR THAT ARE IN THE PATH OF THE PROPOSED IMPROVEMENTS FOR VERIFICATION OF ELEVATION AND LOCATION BY DESIGN ENGINEER AND SHALL DETERMINE THAT THERE IS NO CONFLICT PRIOR TO COMMENCING CONSTRUCTION OF THAT PORTION OF THE WORK AND/OR ANY UPSTREAM WORK THAT WOULD BE AFFECTED BY A CONFLICT WITH THE EXISTING FACILITIES. IF THERE IS INTERFERENCE WITH PLAN UTILITY LOCATION THEN ADJUSTMENT OF NEW UTILITY GRADES ARE REQUIRED. THE ADJUSTED GRADE SHALL BE RECOMMENDED BY THE PROJECT/DESIGN ENGINEER IN WRITING AND SHALL BE APPROVED IN WRITING BY THE DESIGN ENGINEER AND THE CITY PRIOR TO INSTALLATION.
10. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, MEMBER AGENCIES, THE ENGINEER, AND THE TOWN OF FAIRFAX HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
11. UNAUTHORIZED CHANGES OR USES. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS.
12. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
13. IF CONSTRUCTION IS PERFORMED EARLIER THAN APRIL 15 OR LATER THAN OCTOBER 15 IN ANY GIVEN YEAR, AN APPROVED SILTATION CONTROL PLAN DESIGNED BY A CIVIL ENGINEER OR APPROVED, COMPETENT INDIVIDUAL IS REQUIRED.
14. TESTING FOR RELATIVE DENSITIES SHALL BE IN ACCORDANCE WITH ASTM TEST METHODS D2922 AND D3017 FOR DENSITY AND MOISTURE, RESPECTIVELY.
15. BY BIDDING THIS PROJECT, THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS ACKNOWLEDGE THAT THE PLANS ARE COMPLETE AND CAN BE BUILT AS SHOWN ON THE APPROVED PLANS SET. THE GENERAL CONTRACTOR FURTHER AGREES THAT HE ASSUMES RESPONSIBILITY FOR ANY ITEM OR ITEMS THAT ARE NOT INCLUDED OR ARE NOT APPARENT IN THE BIDDING SET. THE CONTRACTORS SHALL MARK ANY AMBIGUOUS AREAS OR AREAS WITHOUT DETAIL DURING THE BIDDING AND PROVIDE A LIST WITH EXHIBITS TO OWNER FOR CONSIDERATION DURING THE BID PROCEEDINGS.
16. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION.
17. NO TREES SHALL BE REMOVED FROM THE SITE PRIOR TO OBTAINING A TREE REMOVAL PERMIT FROM THE COUNTY'S PLANNING DEPARTMENT.

PROJECT SAFETY REQUIREMENTS

1. AT ALL TIMES DURING CONSTRUCTION AND MAINTENANCE (INCLUDING TEMPORARY OR PERMANENT FACILITIES), THE CONTRACTOR AND OWNER SHALL USE PROPER PROCEDURES COMPLYING WITH ALL BUILDING CODES, STATE LAWS, THE NATIONAL ELECTRIC CODE (NEC), THE NATIONAL ELECTRIC SAFETY CODE (ESC), GENERAL INDUSTRY SAFETY ORDERS (GISO), CONSTRUCTION SAFETY ORDERS (CSO), AND THE FEDERAL AND STATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA AND CAL-OSHA) REQUIREMENTS.
2. STRICT COMPLIANCE WITH STATE LAW REGARDING WORKING CLEARANCES WITH ELECTRIC LINE AND GAS LINES IS MANDATORY. UNDER NO CIRCUMSTANCE OR DURING ANY ACTIVITY SHOULD AN UNQUALIFIED PERSON(S) OR THING(S) MAY COME WITHIN TEN (10) FEET, ANY DIRECTION OF LIVE OVERHEAD ELECTRIC LINES OR HIGH PRESSURE GAS LINES, UNLESS EFFECTIVE SAFEGUARDS ARE PUT IN PLACE.
3. THE OPERATION OF EQUIPMENT SUCH AS CRANES, DERRICKS, DRILLING RIGS, LOADERS, EXCAVATORS, OR OTHER SIMILAR EQUIPMENT IN WHICH ANY PART OF WHICH IS CAPABLE OF VERTICAL, LATERAL OR SWINGING MOTION IS FORBIDDEN TO OPERATE WITHIN TEN (10) FEET ANY DIRECTION OF LIVE OVERHEAD ELECTRIC LINES OR UNDERGROUND GAS LINES. UNDER TITLE 8 OF THE CALIFORNIA CODE OF REGULATION, THE GENERAL CONTRACTOR, OWNERS, AND SUB CONTRACTORS ARE LEGALLY RESPONSIBLE FOR SAFETY OF CONSTRUCTION WORKERS, WHICH CARRIES CRIMINAL AND CIVIL LIABILITY.
4. THE OWNER, GENERAL CONTRACTOR, AND THE ASSOCIATION RESPONSIBLE FOR THE TEMPORARY WORK IN THE VICINITY OF ELECTRIC AND GAS LINES MUST NOTIFY THE OPERATOR OF THE LINE(S) AND PG&E AT LEAST 48 HOURS BEFORE THE WORK BEGINS. NO WORK SHALL BEGIN UNTIL THE PERSONS RESPONSIBLE FOR THE TEMPORARY WORK AND PG&E HAVE MADE SATISFACTORY ARRANGEMENTS TO DE-ENERGIZE, GROUND, MOVE, OR RELOCATE THE LINE TO PREVENT ACCIDENTAL CONTACT. GAS LINES MUST BE SHUT DOWN OR HAVE PG&E PERSONNEL ONSITE DURING ALL EXCAVATION TO AVOID ACCIDENTAL CONTACT. SIGNS INDICATING THAT OVERHEAD LINES AND UNDERGROUND GAS LINES ARE WITHIN THE WORK ZONE MUST BE INSTALLED, APPROVED BY PG&E AND LOCATED CONSPICUOUSLY ON SITE DURING CONSTRUCTION.
5. THE GENERAL CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE PROJECT, INCLUDING SAFETY OF ALL PERSONNEL CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
6. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACE". ANY MANHOLE, CULVERT, DROP INLET OR TRENCH THAT IS NOT READILY VENTILATED MAY BE CONSIDERED "CONFINED SPACE".
7. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS AT THE JOB SITE.
8. THE CONTRACTOR SHALL PROVIDE LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.

CONSTRUCTION NOTES

1. ALL STREET MONUMENTS, CPS, LOT CORNER PIPES AND OTHER PERMANENT MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BEFORE THE FINAL ACCEPTANCE OF THE PROJECT BY THE COUNTY OF MARIN ENGINEERING DEPARTMENT.
2. VARIANCES FROM STANDARD DETAILS OF THESE PLANS REQUIRE THE PRIOR WRITTEN APPROVAL OF THE SANITARY DISTRICT ENGINEERING AND ENGINEER OF RECORD.
3. THE PROJECT SHALL COMPLY WITH THE LOCAL TREE ORDINANCES, INCLUDING TREE PROTECTION AND REPLACEMENT REQUIREMENTS.
4. THE PROJECT ENGINEER SHALL HAVE FORTY-EIGHT (48) HOURS NOTICE FOR ANY REQUIRED INSPECTIONS.
5. UNAUTHORIZED CHANGES AND USES. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS.
6. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY TOWN OF FAIRFAX, SANITARY DISTRICTS ENGINEERING DEPARTMENT AND THE PREPARED OF THESE PLANS.
7. THE CONTRACTOR SHALL BE CHARGED FOR THE COST OF ALL LABORATORY AND FIELD TESTS WHERE TEST RESULTS DO NOT MEET SPECIFICATIONS.
8. TREES SHOWN TO BE REMOVED AND ALL DEAD TREES ON-SITE SHALL BE CUT DOWN WITH STUMPS AND ROOTS GROUND UP OR REMOVED TO AN OFF-SITE LOCATION. TREES WITH LIMBS THAT OVERHANG INTO FUTURE STREETS SHOULD BE PRUNED UNDER ARBORISTS SUPERVISION PRIOR TO COMMENCEMENT OF ANY SITE WORK. ALSO, REMOVE DEAD BRANCHES FROM TREES TO BE SAVED.
9. TREES SAVED SHALL BE PROTECTED FROM CONSTRUCTION IMPACTS. PRIOR TO ANY GRADING/CONSTRUCTION ACTIVITIES, A FENCE SHALL BE INSTALLED AT THE DRIPLINES OF TREES TO BE SAVED, OR AT A MODIFIED LOCATION IF APPROVED BY A QUALIFIED ARBORIST. ACTIVITIES WITHIN THE FENCE SHALL BE LIMITED TO THOSE WHICH WILL NOT HARM THE TREE(S). ANY OTHER ACTIVITIES WILL BE PERMITTED ONLY DURING THE SUPERVISION OF A QUALIFIED ARBORIST.
10. CONTRACTOR SHALL COMPLY FULLY WITH THE REQUIREMENTS OF ASSEMBLY BILL (ZENO) DAVIS, ASBESTOS.
11. THE CONTRACTOR SHALL PROVIDE FOR ADEQUATE DUST CONTROL AT ALL TIMES. SEDIMENT AND SILT CONTROL MUST BE MAINTAINED BY THE CONTRACTOR ON A DAILY BASIS BY SWEEPING AND WATERING WITH RECLAIMED WATER IN ACCORDANCE WITH THE REQUIREMENTS OF THE COUNTY'S ENGINEERING DEPARTMENT. NO MUD OR DEBRIS MAY ACCUMULATE IN ANY OF THE SITE ADJACENT STREETS.
12. IN ACCORDANCE WITH THE TOWN'S NOISE ORDINANCE, NOISE-GENERATING CONSTRUCTION ACTIVITY, INCLUDING THE USE OF POWER TOOLS SHALL BE LIMITED TO BETWEEN 8 A.M. AND 5 P.M. MONDAY THROUGH FRIDAY. CONSTRUCTION IS NOT ALLOWED ON SATURDAYS, SUNDAY, OR HOLIDAYS. ALL CONSTRUCTION VEHICLES OR EQUIPMENT, FIXED OR MOBILE, SHALL BE EQUIPPED WITH PROPERLY OPERATING AND MAINTAINED MUFFLERS.
13. ALL TRENCHING SHALL BE PER THE SANITARY DISTRICT STANDARD PLANS AND SPECIFICATIONS.
14. IT IS THE OWNERS RESPONSIBILITY TO MAKE THESE PLANS AVAILABLE TO DESIGN CONSULTANTS WHO MAY PREPARE ANY ADDITIONAL PLANS (BUILDING, FOUNDATION, ETC.) WITHIN THE LIMITS OF THIS DESIGN. THE ENGINEER OF RECORD TAKES NO RESPONSIBILITY FOR CONFLICTS THAT MAY OCCUR IF PLANS ARE NOT PROVIDED TO SAID CONSULTANTS. IT IS THE OWNERS AND OTHER DESIGN CONSULTANTS RESPONSIBILITY TO CONTACT THE ENGINEER IF ADDITIONAL PLANS ARE PREPARED WITHIN THE DESIGN LIMITS OF THESE PLANS.
15. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
16. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE LOCAL AGENCY OR BY THE ENGINEER OF ANY DEVIATIONS OR CHANGES IN THESE PLANS WITHOUT OFFICIAL APPROVAL OF THE CIVIL ENGINEER SHALL ABSOLVE THE CIVIL ENGINEER OF ANY AND ALL RESPONSIBILITY OF SAID DEVIATION OR CHANGE. THE CONTRACTOR MUST NOTIFY THE ENGINEER IN WRITING OF ANY PROPOSED CHANGE OR REVISION, FROM THE APPROVED PLAN SET.
17. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY NOTIFY THE ENGINEERING DEPARTMENTS AT THE SANITARY DISTRICT AND TOWN OF FAIRFAX, AND THE CIVIL ENGINEER UPON DISCOVERY OF ANY FIELD OR PLAN CONFLICTS.
18. ALL CONTRACTORS SHALL BE PROVIDED A COMPLETE SET OF PLANS THAT INCLUDES ALL DRAWINGS AND REPORTS PREPARED BY ALL CONSULTANTS ON THIS PROJECT IN CONJUNCTION WITH ANY BIDDING OR CONSTRUCTION ASPECT.
19. THE ENGINEER OF RECORD TAKES NO RESPONSIBILITY FOR ANY UNAUTHORIZED DUPLICATION OF INFORMATION THAT MAY APPEAR ON ANOTHER PLAN OR MAP.
20. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.
21. LENGTHS OF SANITARY SEWER PIPES ARE HORIZONTAL DISTANCES FROM CENTER TO CENTER OF STRUCTURES, ROUNDED TO THE NEAREST TENTH.
22. THE CONSTRUCTION OF ALL GRAVITY UNDERGROUND LINES SHALL BE INITIATED AT THE MOST DOWNSTREAM END, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL AND ANY PERMITS REQUIRED BY THE SANITARY DISTRICT, TOWN OF FAIRFAX, COUNTY OF MARIN. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO KEEP ALL PERMITS FOR THIS SITE CURRENT.
24. THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, SURROUNDING LANDSCAPING AND OTHER OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTER, AND SIDEWALKS, AND AVOIDING ANY ABRUPT OR APPARENT CHANGES IN GRADE OR CROSS SLOPE, LOW SPOTS, OR HAZARDOUS CONDITIONS.
25. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "TRAFFIC CONTROLS IN CONSTRUCTION MAINTENANCE WORK ZONES" BY THE U.S. DEPARTMENT OF TRANSPORTATION.
26. THE CONTRACTOR OR HIS REPRESENTATIVE MUST APPLY BEST MANAGEMENT PRACTICES DURING CONSTRUCTION TO ENSURE COMPLIANCE WITH THE CLEAN WATER ACT AND MCSTOPP STANDARDS.
27. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT IN PLACE (BY ANY MEANS NECESSARY) ALL EXISTING UTILITIES UNLESS OTHERWISE SPECIFIED ON THESE PLANS OR AS DIRECTED BY THE ENGINEER.
28. MANHOLE, VALVE, AND METER BOX, RIM ELEVATIONS IF SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE RIMS AND COVERS TO THE FINISHED GRADE.
29. IF PORTIONS OF THE SITE ARE TEMPORARILY INACTIVE OR ABANDONED FOR WHATEVER REASON, THE OWNER SHALL PROVIDE DUST CONTROL AND ABATEMENT CONTINUOUSLY DURING SUCH PERIODS OF INACTIVITY.

SANITARY SEWER GENERAL NOTES

1. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE ROSS VALLEY SANITARY DISTRICT STANDARD SPECIFICATIONS AND DRAWINGS.
2. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 48 HOURS PRIOR TO STARTING ANY SEWER WORK.
3. FOR ANY WORK IN A PUBLIC STREET, THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE AGENCY HAVING JURISDICTION.
4. THE LOCATIONS OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS AND DEPTHS WITH APPROPRIATE AGENCIES OR BY POTHOLING. THE CONTRACTOR SHALL CALL USA UNDERGROUND SERVICE ALERT AT LEAST 72 HOURS PRIOR TO COMMENCING WORK.
5. THE CONTRACTOR SHALL POTHOLE ALL UNDERGROUND UTILITIES AND SEWERS PRIOR TO ANY TRENCHING OPERATION.
6. THE CONTRACTOR SHALL NOTIFY THE DISTRICT IMMEDIATELY OF ANY CONFLICT BETWEEN SEWERS AND OTHER UNDERGROUND FACILITIES.
7. THE CONTRACTOR SHALL SHORE ALL EXCAVATIONS IN ACCORDANCE WITH APPLICABLE SAFETY ORDERS.
8. ALL SEWER LATERALS SHALL BE A MINIMUM 4 INCHES INSIDE DIAMETER AND SHALL HAVE A MINIMUM SLOPE OF 2.0% AND MINIMUM DEPTH OF COVER AT THE PROPERTY LINE OF 3.0 FEET (MEASURED FROM THE TOP OF CURB), UNLESS OTHERWISE NOTED ON THESE PLANS.
9. A SEWER PERMIT FROM THE ROSS VALLEY SANITARY DISTRICT IS REQUIRED FOR ALL PROPOSED SEWER CONSTRUCTION. THE CONTRACTOR SHALL APPLY FOR A SEWER PERMIT AT THE DISTRICT OFFICE PRIOR TO THE START OF WORK.
10. NOTIFY THE DISTRICT INSPECTOR 72-HOURS PRIOR TO THE START OF SANITARY SEWER CONSTRUCTION.

SANITARY SEWER CONSTRUCTION NOTES

1. ALL SEWER MAIN AND LATERALS SHALL BE AS SPECIFIED UNDER THE R.V.S.D's STANDARD SPECIFICATIONS, AND AS INDICATED IN THE PIPING SCHEDULES INCLUDED IN THE DISTRICTS APPROVED MATERIAL LISTS.
2. MINIMUM PIPE COVER SHALL BE PROVIDED FOR THE SANITARY SEWER PIPES AS FOLLOWS:
   - MAIN SEWERS: MIN. 3.0 FT.
   - SIDE SEWERS: MIN. 3.0 FT (WITHIN THE PUBLIC R.O.W.) / 18 IN FROM THE PROPERTY LINE TO THE BUILDING PERIMETER.
3. PIPE CLEARANCE:
   - DOMESTIC WATER LINES: 10 FT MIN.
   - OTHER UTILITIES: 5 FT MIN.
4. LOCATOR WIRE AND DETECTION TAPE SHALL BE INSTALLED ABOVE ALL PIPES IN ACCORDANCE WITH THE DISTRICT's STANDARD DETAILS.
5. PIPE MATERIAL
   a. MAIN SEWERS: PVC SOLID WALL C900/C905, WITH BELL AND SPIGOT JOINTS.
   b. SIDE SEWERS: PVC C900/C905, WITH BELL AND SPIGOT JOINTS, OR HDPE DR11, BUTT-FUSION WELDING AT JOINTS

INSPECTIONS

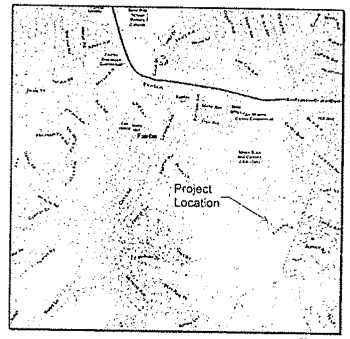
A. THE DISTRICT's REPRESENTATIVES SHALL HAVE ACCESS TO THE WORK WHENEVER IT IS IN PREPARATION OR PROGRESS, AND THE CONTRACTOR SHALL PROVIDE PROPER AND SAFE FACILITIES FOR SUCH ACCESS AND FOR INSPECTION. THE DISTRICT SHALL BE FURNISHED WITH EVERY REASONABLE FACILITY FOR ASCERTAINING THAT THE MATERIALS AND THE WORKMANSHIP ARE IN ACCORDANCE WITH THE REQUIREMENTS AND INTENTIONS OF THE PLANS AND SPECIFICATIONS. ALL WORK DONE AND ALL MATERIALS FURNISHED SHALL BE SUBJECT TO HIS INSPECTION AND APPROVAL.

B. IF THE SPECIFICATIONS, THE DISTRICT'S INSTRUCTIONS, LAWS, ORDINANCES, OR ANY PUBLIC AUTHORITY REQUIRE ANY WORK TO BE SPECIFICALLY TESTED OR APPROVED, THE CONTRACTOR SHALL GIVE THE DISTRICT TIMELY NOTICE OF ITS READINESS FOR INSPECTION, AND IF THE INSPECTION IS BY ANOTHER AUTHORITY THAN THE DISTRICT, OF THE DATE FIXED FOR SUCH INSPECTION. IF ANY WORK SHOULD BE COVERED UP WITHOUT APPROVAL OR CONSENT OF THE DISTRICT, IT MUST, IF REQUIRED BY THE DISTRICT, BE UNCOVERED FOR EXAMINATION AND PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.

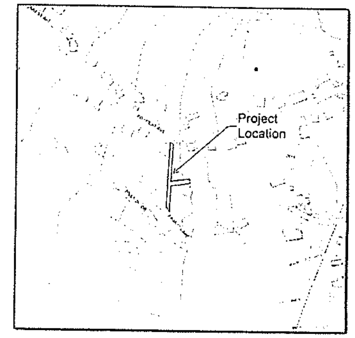
C. THE INSPECTION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF ANY OF HIS OBLIGATIONS TO FULFILL HIS CONTRACT AS PRESCRIBED, AND DEFECTIVE WORK SHALL BE MADE GOOD AND UNSUITABLE MATERIALS MAY BE REJECTED, NOT WITHSTANDING THAT SUCH DEFECTIVE WORK AND MATERIALS HAVE BEEN PREVIOUSLY OVERLOOKED BY THE DISTRICT AND ACCEPTED FOR PAYMENT.

D. ALL INSPECTION REQUESTED OUTSIDE OF NORMAL DISTRICT WORKING HOURS OR DAYS SHALL BE REIMBURSED TO THE DISTRICT BY THE CONTRACTOR AT RATES ESTABLISHED BY THE DISTRICT.

E. WHEN THE WORK CONTEMPLATED BY THE CONTRACT, PERMIT OR AGREEMENT HAS BEEN COMPLETED, THE DISTRICT WILL, UPON REQUEST BY THE CONTRACTOR, MAKE THE FINAL INSPECTION ON THE GROUNDS TOGETHER WITH AN AUTHORIZED REPRESENTATIVE OF ANY AND ALL OTHER AGENCIES HAVING AN INTEREST IN THE WORK.



LOCATION MAP
SCALE: N.T.S.



VICINITY MAP
SCALE: N.T.S.

OFFSITE SANITARY SEWER PLAN INDEX:

1 OF 3	NOTES, LEGEND, ABBREV. AND VICINITY MAP	OS.1
2 OF 3	PLAN AND PROFILE	OS.2
3 OF 3	DETAILS FOR CONSTRUCTION	OS.3

SYMBOLS

- SECTION TAG: DRAWING NUMBER / SHEET NUMBER
- REVISION NUMBER
- KEY NOTE
- DETAIL TAG: DETAIL NUMBER / SHEET NUMBER
- DIMENSION TO FACE OF FINISH

LEGEND:

Symbol	Description
	ROADWAY CENTERLINE
	RIGHT-OF-WAY
	EASEMENT AS NOTED
	SANITARY SEWER MAIN PIPE (PUBLIC)
	SANITARY SEWER MAIN PIPE (PRIVATE)
	SANITARY SEWER MANHOLE
	SANITARY SEWER MAIN PLUG
	WATER MAIN PIPE
	WATER FIRE HYDRANT
	WATER VALVE
	WATER SERVICE AND METER
	STORM DRAIN PIPE
	STORM DRAIN MANHOLE
	STORM DRAIN PIPE PLUG
	VERTICAL CURB AND GUTTER
	ROLL CURB AND GUTTER
	VERTICAL CURB/EXTRUDED CURB
	SIDEWALK
	LOT LINE
449	LOT NUMBER
	RETAINING WALL
TRW=20.87 / TF=17.33	TOP OF RETAINING WALL ELEV / TOP OF FOOTING ELEV
1202.81	EXISTING SPOT ELEVATION
1202.65	PROPOSED SPOT ELEVATION
	PROPOSED CONTOUR (5' INTERVAL)
	PROPOSED CONTOUR (1' INTERVAL)
12+00	ROAD STATION
FL=	FLOW LINE (GUTTER ELEVATION)
TC=	TOP OF CURB ELEVATION
P=	PAVEMENT ELEVATION
HWE=	HIGH WATER ELEVATION
FFE=	FINISH FLOOR ELEVATION
PAD=	FINISH PAD ELEVATION
POT=	POINT OF TANGENCY
POC=	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
BTM=	BASIN BOTTOM ELEVATION
0.75%	ROAD SLOPE INDICATOR
(E)=	EXISTING
L/S=	LANDSCAPE

MAR 15 2022

Plans Prepared By: VIA Atelier, Inc. Engineering Consultants, 4 Brookside Ct., San Anselmo, CA 94960, Ph:(415) 774-6776 E:office@via-eng.com — 3/15/22 Date:

REGISTERED PROFESSIONAL ENGINEER VLAD G. IOVICA C 73861 Exp. 6-30-23 CIVIL STATE OF CALIFORNIA

Sheet Title: CONSTRUCTION NOTES, ABBREVIATIONS, LEGEND

Project: SEWER RELOCATION & IMPROVEMENTS

Address: 155 FORREST AVE., FAIRFAX, CA. APN: 002-192-50

Revisions:	Date:	By:
△ RESPONSE TO REVIEW COMMENTS	15.09.22	VI.

CALL BEFORE YOU DIG 1-800-227-2600

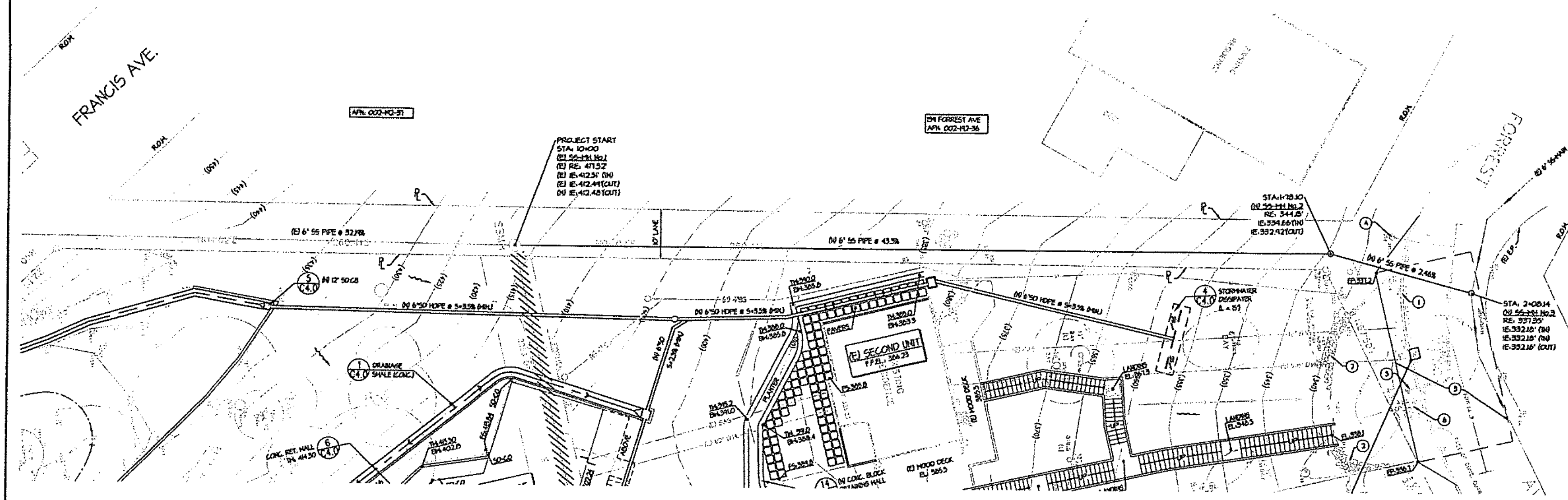
JOB NO. 1607B

DATE: 3/15/22

SHEET: OS.1

1 OF 3

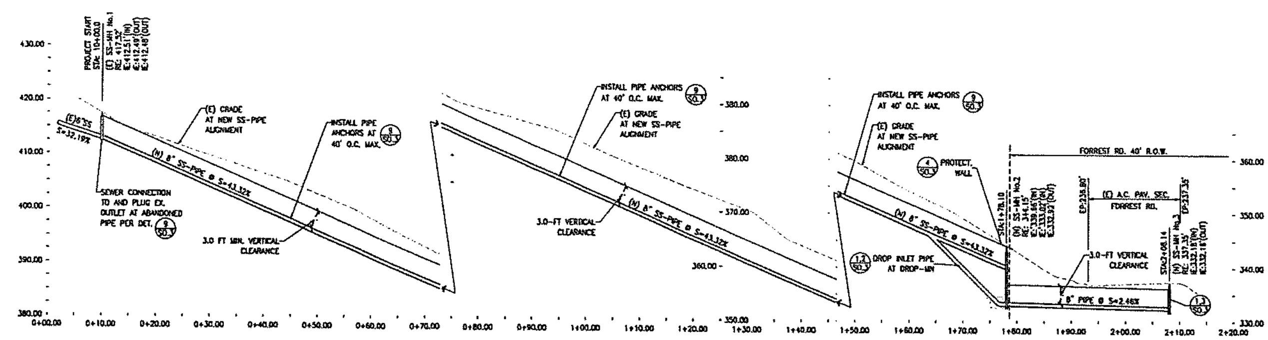
E:\VIA\1607B_155 Forrest Ave, Fairfax\CADD\OS1.dwg Plotted by: Vlad Iovica Mar 15, 2022 3:13pm



PLAN VIEW: SANITARY SEWER IMPROVEMENTS

SCALE: 1" = 10'

SCALE IN FEET
SCALE: 1" = 10'



PROFILE: SANITARY SEWER IMPROVEMENTS

SCALE: 1" = 10' (VERTICAL AND HORIZONTAL)

PLAN NOTES:

1. REMOVE EXIST. CONCRETE CURB
2.
3. OUTLINE OF 20' x 40' FIRE DEPARTMENT TURNOUT
4. EXIST. FIRE HYDRANT TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.
5. EXIST. WATER METER (W.M.) AND W.M. BOX TO REMAIN AND BE ADJUSTED TO NEW GRADE OF PAVEMENT.
6. REMOVE EXISTING BAY TREE.
7. REMOVE (E) CURB OPENING CATCH BASIN AND INSTALL NEW 24" SQ., TRAFFIC RATED CATCH BASIN.

NOTES:

1. * FINISH FLOOR ELEVATIONS (F.F.EL.) FOR MAIN RESIDENCE AND SECOND UNIT TO BE VERIFIED IN THE FIELD BY CONTRACTOR AND COORDINATED WITH THE ENGINEER.

Sheet Title: SANITARY SEWER - PLAN AND PROFILE

Project: SEWER RELOCATION & IMPROVEMENTS

Address: 155 FORREST AVE, FAIRFAX, CA APN: 002-192-50

Revisions:	Date:	By:
△ RESPONSE TO REVIEW COMMENTS	15.03.22	VL

Plans Prepared By: VIA Atelier, Inc., Engineering Consultants, 4 Brookside Ct., San Anselmo, CA 94960, Ph.(415) 774-6776 E:office@via-eng.com

3/15/22 Date:

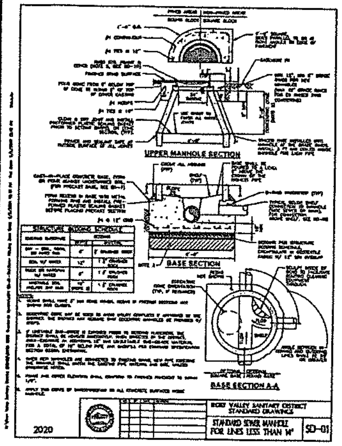
VLAD G. TOJICA, C 73861, Exp. 6-30-23, CIVIL, REGISTERED PROFESSIONAL ENGINEER, STATE OF CALIFORNIA

JOB NO. 1607B

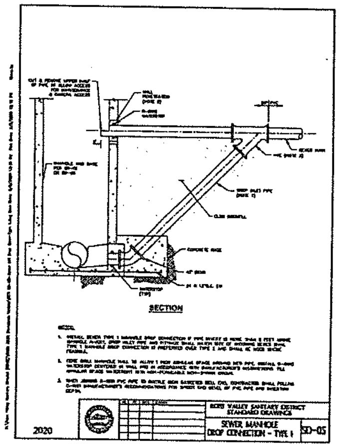
DATE: 3/15/22

SHEET: OS.2

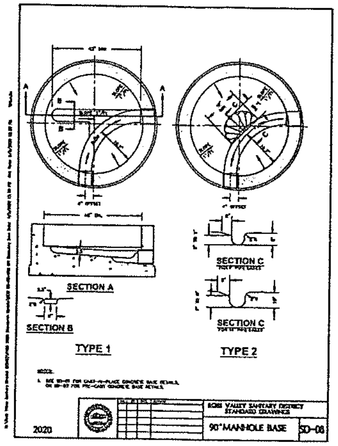
2 OF 5



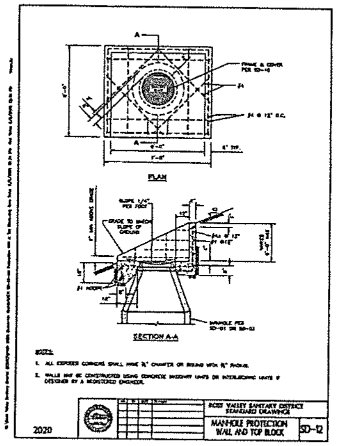
1 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



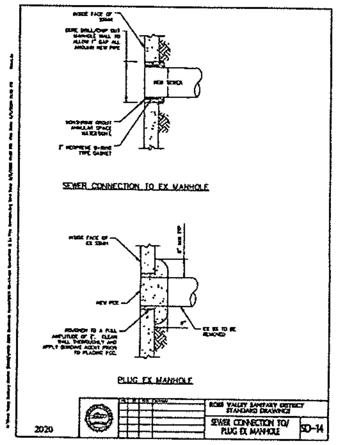
2 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



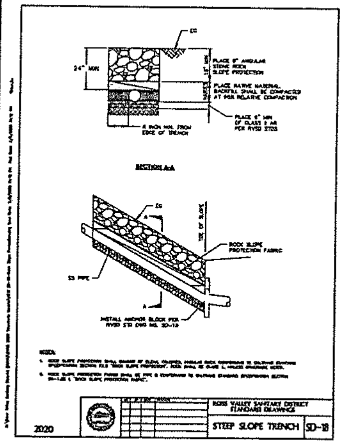
3 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



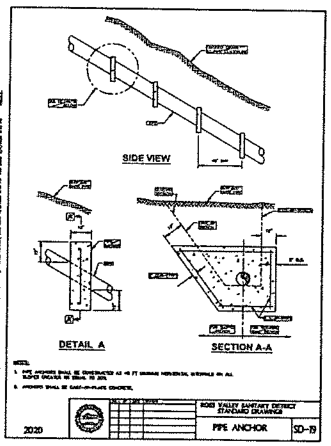
4 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



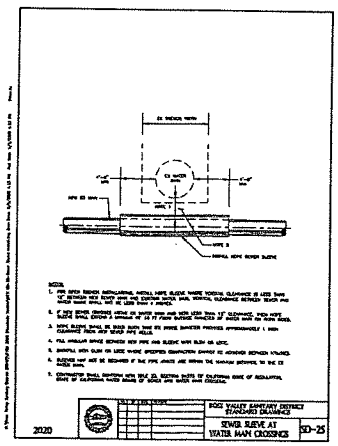
5 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



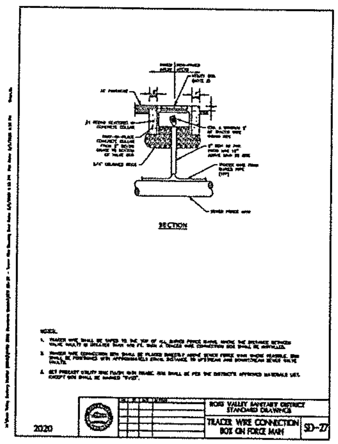
6 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



7 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



8 STD. DETAIL PLAN/SECTION SCALE: NO SCALE



9 STD. DETAIL PLAN/SECTION SCALE: NO SCALE

Revisions: 1 RESPONSE TO REVIEW COMMENTS — Date: 15.03.22 — By: VL

Sheet Title: CONSTRUCTION DETAILS

Project: SEWER RELOCATION & IMPROVEMENTS

Address: 155 FORREST AVE., FAIRFAX, CA. APN. 002-192-50

Plans Prepared By: VIA Atelier, Inc.
Engineering Consultants
4 Brookside Ct., San Anselmo, CA 94960
Ph:(415) 774-6776 E:office@via-eng.com

Date: 3/15/22

VLAD G. IOLICA, REGISTERED PROFESSIONAL ENGINEER, C 73881, Exp. 6-30-23, CIVIL, STATE OF CALIFORNIA

JOB NO. 1607B

DATE: 3/15/22

SHEET:

OS.3

3 OF 5

9

RI
52

2021-0057921

Recorded
Official Records
County of
Marin
SHELLY SCOTT
Assessor-Recorder
County Clerk

01:01PM 16-Sep-2021

REC FEE 52.00
SB2 HOUSING 150.00
DA FRAUD FEE 10.00

a
Page 1 of 9

RECORDING REQUESTED BY and WHEN RECORDED MAIL TO:

Gary Dowd
P.O. Box 325
Larkspur, Ca. 94977

APN: 002-192-44

GRANT OF EASEMENT AND AGREEMENT

Value less than $100.00

THIS GRANT OF EASEMENT AND AGREEMENT is made this 3rd day of September 2021, by and between MELVIN J. DUGGAN and MARTA AGUILAR DUGGAN, TRUSTEES OF THE DUGGAN FAMILY REVOCABLE TRUST, hereinafter referred to as Granters, and GARRETT DOWD, a single man and THOMAS G. HARDIMAN and MELISSA HARDIMAN, TRUSTEES OF THE THOMAS G. HARDIMAN AND MELISSA HARDIMAN REVOCABLE TRUST), dated April 19, 2018, hereinafter referred to as Grantees.

WHEREAS, Grantees are the owner of the real property located in the Town of Fairfax, County of Marin, State of California, being Assessor's Parcel No. 002-192-50, and more particularly described as follows:

PARCEL ONE:
Lot Number 226 as the said lot is delineated and laid down upon that certain map entitled, "Map No. 2, Deer Park, Fairfax, Marin Co., Cal. 1908", filed in the office of the Recorder of Marin County, State of California, October 9, 1908 in Book 2 of Maps at page 131.

PARCEL TWO:
Beginning at the Southwesterly corner of Lot 225, as said lot is laid down and delineated upon that certain map entitled, "Map No. 2 Deer Park, Fairfax, Marin Co., Cal. 1908", and filed in the office of the Recorder of said Marin County on October 9, 1908 in Map Book No. 2 at page 131; thence running along the Southerly line of said Lot 225, North 80° 24' East 50 feet; thence leaving the Southerly line of said Lot South 9° 36' East 216.4 feet to the Northeasterly line of a 30 foot road; thence

ATTACHMENT C

running along said Northeasterly line North 80° 58' West 52.7 feet; thence leaving the line of said road North 9° 36' West 199.6 feet to the point of beginning.

PARCEL THREE:
Beginning at the Southeasterly corner of Lot No. 226 as said lot is laid down and delineated upon that certain Map entitled, "Map No. 2 Deer Park, Fairfax, Marin Co., Cal. 1908", filed in the office of the Recorder of Marin County, State of California, on October 9, 1908 in Book 2 of Maps at page 131; running thence South 9° 36' East 199.6 feet to the Northeasterly line of a 30-foot road; thence along said Northeasterly line North 80° 58' West 6.4 feet and North 70° 44' West 50.1 feet; thence leaving said 30-foot road and running North 9° 36' West 173.6 feet to a point in the Southerly line of said Lot 226; thence along said Southerly line North 80° 24' East 50 feet to the point of beginning.

PARCEL FOUR:
Beginning at a point which point is south 80° 24' West 50 feet from the Northwesterly corner of that certain lot which was conveyed by Crocker Land Company, a corporation, to S. P. Moller and Cecelia Moller, his wife, by Deed dated September 29, 1909 and recorded in the office of the Recorder of Marin County, State of California in Liber 124 of Deeds at page 265; running thence south 9° 36' East 173.6 feet to the Northeasterly line of 30 foot road; thence following the Northeasterly line of said road the following courses and distances; North 70° 44' West 8.9 feet, North 40° 42' West 65.6 feet and North 40° 21' West 22.1 feet to the Easterly line of a 10-foot lane; thence following said Easterly line of said land North 4° 02' East 96.2 feet; thence leaving the line of said lane North 80° 24' East 30 feet to the point of beginning.

WHEREAS, Granters are the owners of the real property located in the Town of Fairfax, County of Marin, State of California, being Assessor's Parcel No. 002-192-44, and more particularly described as:

Lands of Duggan Trust as recorded in Document No. 2003-0100355, Marin County Records, being Lot 224A, as shown upon the Unrecorded portion of Map No. 2, Fairfax Park Tract

WHEREAS, Grantees have requested that Granters grant them an easement across the above-described lands owned by Granters in the Town of Fairfax, County of Marin, State of California, for the purpose

of allowing surface water from an adjacent water channel located on lands of the Grantees to flow onto, across, and over lands of the Grantors; and

WHEREAS, Grantors wish to grant said easement to Grantees.

NOW, THEREFORE, the parties hereto agree as follows:

1. Granters do hereby grant to Grantees an easement for surface water drainage purposes, which easement is more particularly described in the legal description attached hereto as Exhibit "A" and labeled "10' Drainage Easement" on the drawing attached hereto as Exhibit "B".

2. Grantees shall have the right within such easement to maintain, repair, replace and operate an aboveground drainage channel of such reasonable dimensions as Grantees may elect, for the purpose of transmitting natural drainage waters from and over the properties of Granters and Grantees, together with reasonable ingress and egress rights over adjoining lands for the construction, repair, and maintenance of such above ground drainage channel.

3. Said easement shall be appurtenant to and for the benefit of the lands of Grantees, described above.

4. Grantees shall repair and maintain and keep in good repair and condition the drainage channel located in the easement.

5. The easement granted herein shall be and is nonexclusive, and the right is hereby reserved by Granters to use said easement for any and all purposes which will not interfere with or jeopardize the use of the easement for the purposes of Grantee.

6. This Agreement shall be binding on the respective successors and assigns of the parties hereto.

IN WITNESS WHEREOF, Granters and Grantees have executed this Grant of Easement on the day and year first set forth above.

GRANTORS:

MELVIN J. DUGGAN, Trustee

MARTA AGUILAR DUGGAN, Trustee

GRANTEE:

GARRETT DOWD

THOMAS G. HARDIMAN, Trustee

MELISSA HARDIMAN, Trustee

CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

CIVIL CODE § 1189

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which the certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF Marin

On Sept 8, 2021 (Date) before me, J. Cohn Notary Public (Name and Title of Officer (e.g. "Jane Doe, Notary Public"))

personally appeared Garrett Down (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s), whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the Laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

J. COHN
Notary Public - California
Alameda County
Commission # 2222756
My Comm. Expires Dec 20, 2021

Signature [signature] (Signature of Notary Public)

Place Notary Seal Above

OPTIONAL INFORMATION

Description of Attached Document

Title or Type of Document: Grant of Easement And Agreement

Document Date: 9.3.2021 Number of Pages: 6 + 1 Exhibit

Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name: Garrett M. Down

☒ Individual
☐ Corporate Officer – Title(s):
☐ Partner – ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other:

☐ Signer Is Representing:

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name:

☐ Individual
☐ Corporate Officer – Title(s):
☐ Partner – ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other:

☐ Signer Is Representing:

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

CIVIL CODE § 1189

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which the certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF CONTRA COSTA

On SEPTEMBER 3, 2021 (Date) before me, BRITTNEY SHOVAH, NOTARY PUBLIC (Name and Title of Officer (e.g. "Jane Doe, Notary Public"),

personally appeared MELVIN J DUGGAN AND MARTA AGUILAR DUGGAN (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s), whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

BRITTNEY SHOVAH
Notary Public - California
Contra Costa County
Commission # 2316714
My Comm. Expires Dec 21, 2023

I certify under PENALTY OF PERJURY under the Laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Signature of Notary Public)

Place Notary Seal Above

OPTIONAL INFORMATION

Description of Attached Document

Title or Type of Document: GRANT OF EASEMENT AND AGREEMENT

Document Date: 9-3-21 Number of Pages: 10

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Individual
☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
☐ Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____
☐ Individual
☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
☐ Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

CIVIL CODE § 1189

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which the certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF Lake

On September 11, 2021 (Date) before me, C.R Boardman, Notary Public (Name and Title of Officer (e.g. "Jane Doe, Notary Public"),

personally appeared Melissa Hardiman and Thomas J. Hardiman (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s), whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

C.R. BOARDMAN
COMM. #2331486
NOTARY PUBLIC - CALIFORNIA
LAKE COUNTY
My Comm. Expires Aug. 11, 2024

I certify under PENALTY OF PERJURY under the Laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature C R Boardman
Signature of Notary Public

Place Notary Seal Above

OPTIONAL INFORMATION

Description of Attached Document

Title or Type of Document: Grant of Easement and Agreement

Document Date: No date Number of Pages: 8

Signer(s) Other Than Named Above: -0-

Capacity(ies) Claimed by Signer(s)

Signer's Name: Melissa Hardiman
☒ Individual
☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
☐ Signer Is Representing: _____
self
0

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: Thomas J. Hardiman
☒ Individual
☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
☐ Signer Is Representing: _____
self
0

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Exhibit A

STEVEN H JACOBS
LAND SURVEYOR
P.O. BOX 7829
COTATI, CA. 94931
707-795-0733

Legal Description for a Drainage easement

All that real property situated in the County of Marin, State of California, described as follows:

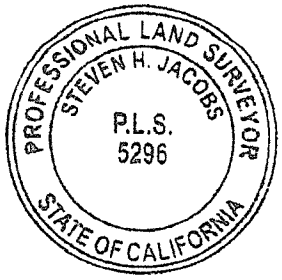
Lying within the lands of Duggan Trust as recorded in Document No.2003-0100355, Marin County Records, being Lot 224A, as shown upon the Unrecorded portion of Map No. 2, Fairfax Park Tract and being a drainage easement for the benefit of the lands of Hardiman Trust as recorded in Document No. 2018-015303, Marin County Records and being more particularly described as follows:

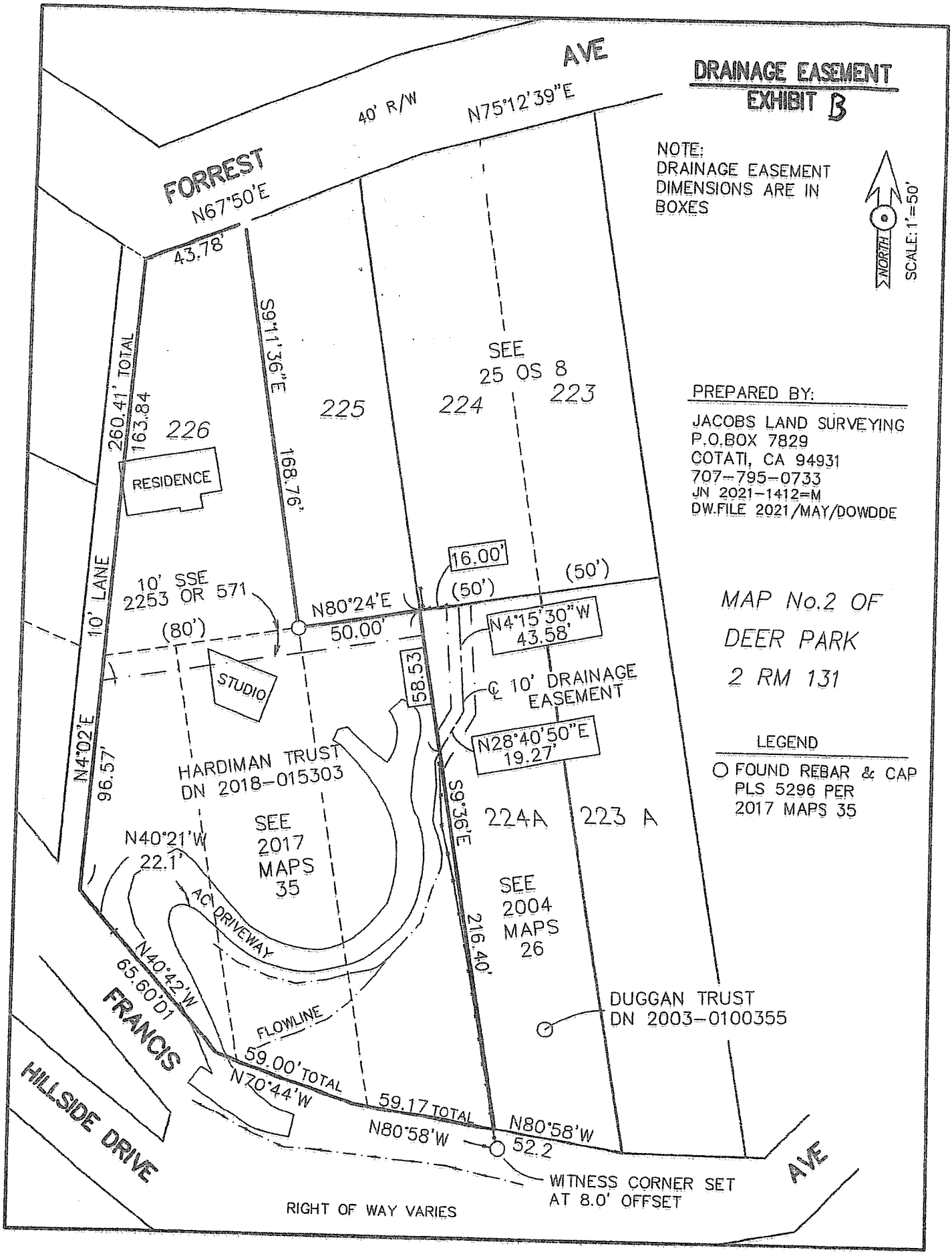
Being an easement 10' wide and lying 5' on each side of the following described centerline, commencing at the northwest corner of said lands of Duggan Trust, now occupied by a solitary 4"x4" post as shown on that Record of Survey recorded in Book 2017 of Maps at Page 35, M.C.R. from which point a found rebar & cap PLS 5296, as shown on said Record of Survey bears S80°24'W, 50.00 feet, thence southerly along the westerly line of said lot, being the line in common with said lands of Hardiman Trust, S9°36'E, 58.53 feet to the true point of beginning, from which point a found rebar and cap PLS 5296 as shown on said Record of Survey bears S9°36'E, 165.87 feet, thence leaving said line N28°40'50"E, 19.27 feet, thence N4°15'30"w, 43.58 feet to a point on the northerly line of Said Lot 224A, being the northerly line of said lands of Duggan Trust and the point of termination of said easement from which point the point of commencement bears S80°24'W, 16.00 feet.

Being a portion of APN 002-192-44

See Exhibit attached.

Steven H Jacobs PLS 5296
Lic. Exp. 12-31-21




DRAINAGE EASEMENT
EXHIBIT B
NOTE:
DRAINAGE EASEMENT DIMENSIONS ARE IN BOXES
NORTH
SCALE: 1"=50'
AVE
40' R/W
N75°12'39"E
FORREST
N67°50'E
43.78'
260.41' TOTAL
163.84
S9°11'36"E
168.76'
SEE
25 OS 8
225
224
223
226
RESIDENCE
10' LANE
10' SSE
2253 OR 571
(80')
N80°24'E
50.00'
16.00'
(50')
(50')
N4°15'30"W
43.58'
STUDIO
58.53
℄ 10' DRAINAGE EASEMENT
N28°40'50"E
19.27'
N4°02'E
96.57'
HARDIMAN TRUST
DN 2018-015303
S9°36'E
224A
223 A
SEE
2017
MAPS
35
N40°21'W
22.1'
AC DRIVEWAY
SEE
2004
MAPS
26
216.40'
N40°42'W
65.60'D1
FRANCIS
DUGGAN TRUST
DN 2003-0100355
FLOWLINE
59.00' TOTAL
N70°44'W
59.17 TOTAL
N80°58'W
N80°58'W
52.2
HILLSIDE DRIVE
WITNESS CORNER SET
AT 8.0' OFFSET
AVE
RIGHT OF WAY VARIES
PREPARED BY:
JACOBS LAND SURVEYING
P.O.BOX 7829
COTATI, CA 94931
707-795-0733
JN 2021-1412=M
DW.FILE 2021/MAY/DOWDDE
MAP No.2 OF
DEER PARK
2 RM 131
LEGEND
O FOUND REBAR & CAP
PLS 5296 PER
2017 MAPS 35

DENNIS H. FURBY, PE
CONSULTING GEOTECHNICAL ENGINEER

February 27, 2019
Job No. 1176-1

Town of Fairfax
142 Bolinas Road
Fairfax, CA 94930

Attn: Linda Neal, Principal Planner

Subject: Geotechnical Engineering Responses
Planning Review Comments
Application for Dowd Property
155 Forrest Avenue, Fairfax, California
(APN: 002-192-50)

This letter documents my geotechnical engineering responses to the Town of Fairfax Planning Review comments regarding the subject property. I am providing services for this project in accordance with my Professional Services Agreement dated January 4, 2015. My comments are based on the following:

- Review of Fairfax letter of August 20 and the MPEG letter of August 17, 2018;
- Review of my Amended Geotechnical Feasibility Evaluations in a letter dated September 20, 2017;
- Review of the various VIA plans, sheets C1.0, -2.0 & -.1, -3.0 thru -.2 and -4.0 & -.1 dated 5/4/18
- Supplemental site reconnaissance performed on August 31, 2018;
- Review of revised VIA plans/details (same sheets as above) dated 02/05/'19; and
- Previous experience with this site and other similar sites in the central Marin County vicinity.

My numbered comments below are keyed to the MPEG letter by page & item number.

- Page 4, Item #4: California Drainage Law provides that the downstream property owner is obligated to accept and make provisions for those waters that are natural flow from the land above, and that the upstream property owner shall not concentrate water where it was not concentrated before without making proper provision for its disposal without damage to the downstream property owner. With the planned grading and drainage improvements on the Dowd property (155 Forrest Avenue) we are complying with both of these elements in accepting surface water runoff from the hillside and Francis Avenue above and passing it thru to the adjacent properties below (153 Forrest Avenue). [It should be noted that over 95% of the runoff passing thru the Dowd property is coming from further uphill via the Francis Avenue right-of-way which the Town does not maintain. Not only is the Dowd project improving these flows by lining the channel and adding check dams & stilling basins, it is actually reducing the quantity of water by diverting a portion of it to the western side of the property where a new storm drain conveys it thru a dissipator to Forrest Avenue below.] This type of situation exists in many locations throughout the hillsides of Marin Co. without creating easements for surface water flows. Therefore, a legal easement for drainage across 153 Forrest Avenue is not required.

- Page 5, Item #9: - My earlier test pits were only for evaluating the extent of weak surface soils with regards to necessary clean-up to remove hazards of debris flow and to determine the depth to rock in the area of the planned

excavation for the new garage (Test Pit #4 adjacent to the shed); no laboratory testing or other evaluations were necessary. Further, the location of these test pits was indicated on my Site Plan but apparently were difficult to see on the reduced print, and the results were provided in the text of the report on Page 3. I judged that formal presentation of Test Pit Logs was not warranted for this evaluation.

- Regarding five feet of undocumented fill, that apparently is a mis-interpretation. There is no area of five feet of fill. However, there appears to have been a total of five feet of combined cut/fill to create the upper entrance road from Francis Avenue down and across the natural hillside. The area between the two residences has some amount of fill (less than three feet) that is currently retained by terraced stone walls that will be replaced with more suitable walls during construction, but this does not impact either of the two residential structures.
- My report does reference the published geologic mapping under Site Conditions on Page 2, along with my evaluation of the geologic conditions. A full geologic study with detailed map is not necessary for a simple addition/renovation of an existing residence.
- There is no extensive re-grading of the entrance driveway; only minor re-grading of the surface of less than one foot to establish a smooth and uniform driving surface with a cross slope to control surface water runoff.
- Additional requested comments are as follows;
  - As indicated in my report of September 20, 2017, the project's exposure to slope instability is limited to that of debris flows from weak near-surface soil and loose debris uphill of the structures. These areas are being eliminated by removal and proper landscaping/drainage control on the property. While we cannot remedy that risk from the undeveloped property uphill from Francis Avenue, I judge that the roadway, the upper driveway and the planned catchment walls all combine to provide adequate debris flow protection for the residences on the Dowd property.
  - Based on my surface reconnaissance and experience, there is not a significant risk of instability of Francis Avenue or the driveway slopes that will negatively impact the planned construction or future access to the residences. These roadways are primarily in stable cuts with little fill along the outside edges and, with proper surface drainage control, they will remain stable under the anticipated construction and residential use.
  - The stability of the drainage channel on the adjacent property (153 Forrest) is not our responsibility – please see my previous comments regarding California Drainage Law. And as I indicated before, our planned drainage improvements for the Dowd property at 155 Forrest Avenue will greatly decrease the flow energies crossing the property line onto 153 Forrest.
  - To the best of my knowledge, there are no undocumented fills within the current building pads; they are all in cut areas with any fill occurring beyond the building foundations.
  - There are currently no indications of instability on the lower slope downhill from the residences. To maintain this stability, the future drainage discharge would be thru an energy dissipator located across the slope and as near as possible to the toe of the slope just uphill from the existing graveled parking/turn-around area adjacent to Forrest Avenue.

- Pg 5, #10: I have reviewed the following civil & structural plans & details and find them to be in conformance with the intent of my recommendations.
  - Site Improvements for 155 Forrest Ave., Fairfax, CA sheets C1.0, -2.0 & -.1, -3.0 thru -.2, and -4.0 &-.1 dated 02/05/'19 prepared by VIA Atelier

Formal documentation of these reviews will be included in my final geotechnical report for this project.

30 Via Holon, #18
Greenbrae, CA 94904

- Pg 6, #13: Grading along the existing driveway from Francis Avenue is NOT changing the alignment, only smoothing out the surface and providing a cross slope into the hillside for drainage control. I will observe this grading and perform field density tests where appropriate to confirm adequate soil compaction.

- Pg 6, #16: I am unsure what "marginally" means. The earlier report and my comments above do address the potential hazards to the extent necessary to mitigate them for this project. The only possible "design-level criteria" not discussed is fill placement and compaction. I will add the following paragraphs to my report to satisfy this requirement.

Areas to be graded must be cleared and stripped to remove vegetation, top soil and debris. I anticipate the depth of stripping will be approximately four to six inches, but deeper grubbing will be required to remove tree and large brush roots. Vegetation and debris should be disposed of off-site but topsoil can be stockpiled for reuse in future landscaping.

Following clearing, stripping and required excavations, the exposed soils within the building areas (extending to five feet beyond perimeter footings and three feet beyond exterior slabs or pavements) should be scarified to a depth of six inches, moisture conditioned to near-optimum moisture content, and compacted to at least 90% relative compaction. (Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density, as determined by laboratory test procedure. Optimum moisture is the water content, by percent of dry soil weight, that corresponds to maximum dry density.) If zones of soft, saturated or porous soils are encountered, they should be removed to expose uniformly firm soil and replaced with properly compacted fill. Soils and rock generated from on-site excavations will be suitable for reuse as fill provided that organic material, debris and over-sized rock (greater than six inches, maximum dimensions) are removed.

New fill should be placed in uniformly thin lifts (four to eight inches depending upon size of compaction equipment) and similarly moisture-conditioned to near-optimum moisture content and compacted to at least 90% relative compaction. Subgrade surfaces for pavement or vehicle parking areas should be further rolled to provide a smooth unyielding surface compacted to at least 95% relative compaction within the upper six inches.

- Not every project requires a full geotechnical investigation with test borings, laboratory testing and detailed analysis. It is possible to utilize appropriate conservative judgements based on over 40 years' experience with the Marin County hillsides. For this particular project, the backhoe test pits have revealed stiff to very stiff Sandy Gravelly Silt (deeply weathered Sandstone) in TP's 1, 2 & 3, and moderately hard, strong and moderately fractured Sandstone rock in TP 4 within one to two feet of the surface. Further, TP 4 is located along the toe of the slope in the area of the planned excavation for the new garage, and the exposed soil/rock conditions correspond to what is already exposed in the cut behind the house in the area of the extension. This is all that is really needed to provide appropriate design criteria for the new footings and retaining walls that will be sited in this cut area.

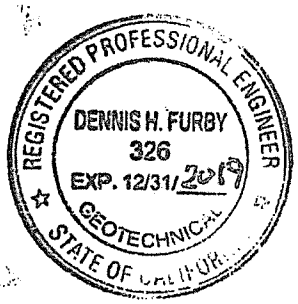
- My Design-Level Geotechnical report will be prepared following Planning Approvals and will include all of the appropriate soil design criteria (either confirm or slightly modify what has already been presented in my Feasibility letter), along with specific recommendations for site grading (both permanent and temporary construction slopes) and drainage improvements. I will also include documenting my review of the appropriate project plans.

- I agree that 500 pcf is not an appropriate passive pressure for loose creep-prone soils. However, this value was intended for the new foundations that will be in Sandstone rock exposed by the planned cuts for the new garage, retaining walls and house extension. We have no foundations in the weak near-surface soils.

This concludes my formal response to the MPEG plan review comments. If you or others have further questions or comments regarding the geotechnical engineering aspects of this project, please feel free to contact me directly.

Yours very truly,

D. H. FURBY, PE
ENGINEERING CONSULTANT



Dennis H. Furby
Geotechnical Engineer – 326
(expires 12/31/2019)

DHF/dhf

1 copy submitted (via Planning Application re-submittal)
cc: Gary Dowd (gary@realisticrealtygroup.com)
Jeff Kroot Architect (jkarch2@comcast.net)
VIA Atelier, Inc. Attn: Vlad Iojica (vlad@via-eng.com)
(additional copies may be printed as required for submittal to the Fairfax Planning Department)

DENNIS H. FURBY, PE
CONSULTING GEOTECHNICAL ENGINEER

September 15, 2017
Job No. 1176-1

Gary Dowd
150 Francis Avenue
Fairfax, CA 94930

Subject: Amended Geotechnical Feasibility Evaluations
Proposed Residential Modifications/Additions
150 Francis Avenue, Fairfax, CA
(APN 02-192-50)

Dear Mr. Dowd:

Introduction

This letter amends/supersedes my earlier preliminary geotechnical evaluations letter dated April 27, 2015, regarding the suitability of your property for the proposed renovations & additions to the two single-family residences; these are designated as the primary residence (uphill structure) and the second unit (lower structure) on the attached copy of the project Site Plan, sheet 1 with latest revision dated 6/17, prepared by Jeff Kroot, Architect. The amendments to this letter primarily respond to comments from the Town of Fairfax regarding the earlier Planning submittal.

The hillside site is situated between Forrest Avenue at the toe of the slope and Francis Avenue at the top. There is a pedestrian stairway access up from Forrest Avenue to the lower unit (155 Forrest Avenue) now designated as the Second Unit, and a driveway access down from Francis Avenue to what is now designated as the main residence (150 Francis Avenue). For the remainder of this report, future references to the property will be to 150 Francis Avenue, but is intended to include both addresses.

Scope of Services

I am providing services for this project in three separate phases (Planning, Design & Construction) in accordance with my Professional Services Agreement dated January 4, 2015. During the current planning phase, my services have included the following:

1. Evaluating the existing site conditions based on surface reconnaissance (including observation of exposed cuts into the slope), research of available geologic data, and my previous experience in the site vicinity;
2. Consulting with the Client and Architect, Jeff Kroot, to determine the approach and preliminary conclusions and recommendations regarding foundations, retaining walls and site drainage improvements;
3. Reviewing an existing Topographic Map (dated August 1989) prepared by Steven Jacobs, Land Surveyor, and preliminary Site Plan, Floor Plans and Elevations (3 sheets dated January & April, 2015) prepared by Jeff Kroot, Architect; and
4. Preparing a Preliminary Geotechnical Feasibility Evaluation dated April 27, 2015, for the initial planning submittal.

Subsequent to the Town of Fairfax's responses to that submittal, I have performed additional exploration and evaluations to address their concerns as follows:

5. Performed backhoe test pits at selected hillside locations to evaluate the stability of the underlying natural soil/rock;

30 Via Holon, #18
Greenbrae, CA 94904

6. Consulted with the project Architect (Jeff Kroot) and Engineer (VIA-Engineering, Inc.) regarding recommended slope stability and drainage improvements for the project;
7. Provided soil design criteria for the new foundations and retaining walls; and
8. Prepared this Amended Feasibility Evaluation for re-submittal to the Fairfax Planning Department.

Major portions of the previous Evaluation are incorporated into this letter for continuity.

Following planning approvals, I will continue my consultations with Jeff Kroot, Architect, and the project engineer (VIA-Engineering), regarding soil engineering recommendations for foundation and retaining walls, and site drainage improvements & guidelines. I also will be reviewing the project plans as they are nearing completion for conformance with the intent of my recommendations, and then formally documenting my evaluations and plan review in a report for the Permit submittal. During construction, I will be providing intermittent site observations of the site preparation & grading, building pad and foundation excavations, retaining wall backfills and final grading & drainage, for conformance with the intent of my recommendations and the approved plans. The results of these construction-related services will be summarized in a summary report upon satisfactory completion.

Project Description

The proposed project consists of additions/renovations to the existing two-story residence on the upper portion of the site, and modifications to the existing one-story second unit, as follows:

Primary Residence:

- Two-story addition to the west end for a lower-level bedroom/bath and upper level living room;
- Two-story addition at the southeast corner for a one-car garage at grade with an upper-level master bedroom/bath;
- Both additions will require excavations into the hillside that will be retained by concrete walls and foundation stem walls.

Second Unit:

- Removal of the west end to restore the required property line set-back;
- Small in-fill on the existing exterior deck to increase the size of the bedroom/bath;
- No new grading will be required for these modifications other than restoring the exterior drainage around the unit, and possible replacement of existing retaining walls.

The previously planned expansion and improvement of the existing driveway down from Francis Avenue for emergency fire equipment has been eliminated as a requirement by the Fire Department. Further, slope clean-up of debris and old fill is currently being implemented as part of normal slope maintenance. However, surface drainage improvements on hillside site are still being planned as part of the property improvements.

Site Conditions

The geologic mapping (California Division of Mines & Geology) for the site vicinity indicates that this hillside area of Fairfax & San Anselmo is underlain by the Franciscan Mélange. This formation typically consists of one to three feet of weak overburden soils (Sandy Gravel, with varying amounts of silt and clay binder) underlain by weathered and highly fractured Sandstone & Shale, which gradually becomes harder and less weathered/fractured with depth. The weak near-surface soils are subject to "creep" (gradual downhill movement) and sloughing (shallow landslides usually less than five feet) when saturated by extended winter rains. However, the bedrock unit of harder and less fractured Sandstone/Shale is relatively stable and not subject to deeper (over five feet) landslides provided that surface drainage is properly controlled.

The hillside property at 150 Francis Avenue slopes down to the north at an average inclination of three to one (horizontal to vertical ratio). Previous grading (cuts and fills of up to approximately five feet) have created terraces for the existing level building pads, the parking area adjacent to the upper residence, and the upper access road that extends down from the end of Francis Avenue. This grading has resulted in locally steeper slopes of two to one, with portions of these cuts and fills being retained by wood & stone walls from three to five feet high. Some of the wood walls, and the property line fences, are failing due to improper construction and deterioration. Surface vegetation beyond the graded areas consists of dense brush & ivy, moderately dense to scattered small bay & elm trees, and a few widely scattered tall redwoods. Beyond the property to the south, the natural hillside continues further uphill above Francis and Hillside Avenues at slightly steeper inclinations, with relatively dense tree and brush vegetation.

On August 5, 2017, I observed the excavation of four (4) backhoe test pits at the locations marked (by small squares) on the attached Site Plan, with the following results:

Test Pits #1 & #2 on the slope inside the loop of the driveway (previous debris & loose soil have been removed)
- 0 to 8" – Dark Brown Sandy Silt, w/ roots, soft to medium stiff, moist
- 8" to 24" - Light Brown Sandy Gravelly Silt, stiff to very stiff, moist, w/ hard rock fragments at 2 feet

Test Pit #3 at top of slope on downhill side of driveway (loose soil and debris still present)
- 0 to 16" – Brown Sandy Silt, soft, moist, w/ roots & debris
- 16" to 24" – Dark Brown Sandy Silt, w/ root hairs, medium stiff, moist
- 24" to 48" - Light Brown Sandy Gravelly Silt, stiff, moist, becoming very stiff w/ hard rock fragments at 3½ ft.

Test Pit #4 at bottom of slope between the house and shed
- 0 to 12" - Dark Brown Sandy Gravelly Silt, soft to medium stiff, moist, w/ roots & rock fragments
- 12" to 42" - Brown Sandstone, moderately hard, moderately fractured, w/ cobble sizes Becomes hard, strong at 42 inches ("refusal" for small backhoe)

No free water or seepage was encountered at this time of year. However, seepage is to be expected within the weak near-surface soil and fractured rock during and following periods of extended rain.

Surface water runoff enters the site from the hillside above via a drain pipe beneath the un-improved Francis Avenue above the property, and as surface water runoff from the road down the driveway. This water is currently being channeled downhill to Forrest Avenue via un-improved shallow ditch along the driveway and the east side of the property, and which extends onto the adjacent property. While there has been previous shallow sloughing of the weak near-surface soils during extended winter rains, and some of the trees are leaning downhill indicating past slope creep, there is currently no evidence of surface erosion or active sloughing or land-sliding on the property.

Conclusions and Discussion

My preliminary evaluations and previous experience in the site vicinity lead me to conclude that the site at 150 Francis Avenue is suitable for the proposed residential modifications and site improvements. The building additions can be safely supported on conventional spread footing bottomed in firm natural soil/weathered rock that will be exposed by the planned excavations. There are no geologic hazards that would preclude the proposed renovations. Faulting is not a hazard for this site as the nearest active fault is the San Andreas over 8½ miles southwest of the site, and no other area faults project to pass thru or very near the site. Neither is flooding a hazard for this hillside property that is relatively high above the near-by Fairfax Creek flood plain.

The primary engineering concerns for improving and maintaining the stability of this hillside site relate to

1) removing the existing zones of old uncontrolled fill and debris that both imped normal surface water runoff and can become saturated by winter rains, thereby contributing to the slope creep, debris flows and sliding; and
2) providing improved control of the site drainage as the large quantities of surface water runoff pass through the property.

These elements, along with providing suitable foundation support and retaining walls for the planned building additions and excavations, respectively, are briefly discussed in the following paragraphs.

Slope Clean-up

- Natural slopes should be cleaned of loose soil and debris to allow relatively uniform surface water runoff and reduce the risk of creep and sloughing of the weak surface soils. Much of this work has already been undertaken by the owner over the last two years, but additional removal is still in progress.

- Exposed soil surfaces on the slopes should be re-seeded to provide erosion-resistant vegetation. Specific options for this will be provided in the final geotechnical report.

Site Drainage Improvements

The following list of remedial drainage measures has been discussed with the project team, and are being implemented into the project plans. These measures are a combination of adding berms to prevent water flow over the tops of slopes, collecting surface water into closed pipes for safer discharge to Forrest Avenue below, improving the existing open-channel ditches to better control surface water runoff, and providing short catchment walls to protect against erosion/sloughing from blocking the drainage facilities. The items are numbered and correspond to the locations shown (small circles) on the attached Site Plan for clarification.

1) Install a trash rack (Marin Co. Dwg. 285) uphill of the drain inlet basin to prevent clogging the pipe and overflow across the road.
2) Re-grade entry driveway and upper parking area to direct surface water runoff to an improved drainage ditch along the uphill sides and a new drain inlet (DI), respectively. The outlet pipe should be tied into other surface drainage improvements that will discharge to Forrest Avenue below.
3) Remove the remaining loose soil and debris from the top of the slope, and install a curb (Marin Co. Dwg. 105, Type E) along the downhill side of the lower loop of the driveway to intercept and divert surface water runoff away from the top of the slope and towards new drain inlets.
4) Improve the existing drainage ditch along the toe of the slope between the driveway loops, and install a short catchment wall (similar to Marin Co. Dwg. 160) two feet high to protect the drainage ditch from slough material.
5) Restore/improve the alignment and flow characteristics of the existing drainage channel by removing obstacles (small tree & roots), adding protection to the larger exposed tree roots, and providing a suitable lining (heavy fabric and cobbles). Also, add at least two small check-dams to slow the velocity of the water flow prior to leaving the property to continue the existing flow down to Forrest Avenue below.
6) Re-grade the lower turn-around and parking area in front of the main residence to drain to a new DI that will discharge into other surface drainage improvements.

7) Provide approximately one foot of free-board and a lined drainage ditch to the top of the new retaining walls behind the garage and main residence additions to intercept and divert surface water runoff from the slope. Also, remove all loose debris from the slope and provide new erosion-resistant surface vegetation.
8) Provide a proper outlet with energy dissipater where the new drain line will discharge near Forrest Avenue at the bottom of the slope.

Foundations

- Conventional spread footings can be used to safely support the lightly-loaded residential structures and retaining walls, but some localized deepening of footing excavations may be required to provide uniformly firm support in order to preclude differential settlement. New footings should be designed in accordance with the following soil criteria:
  - o Minimum dimensions: 12 inches wide by 18 inches below lowest adjacent grade
  - o Bearing capacities: 2500 psf for dead loads
    3000 psf for dead + live loads
    4000 psf for total loads, including wind or seismic forces
  - o Lateral resistance: 0.40 x net vertical dead load for friction
    500 pcf, triangular distribution, for passive pressure
  - o Seismic criteria: Site Class C, dense soil & soft rock
    $S_s = 1.500g$ $F_s = 1.000$ $S_1 = 0.619g$ $F_v = 1.300$

- As a precaution against differential foundation movement during extended strong earthquake-induced ground shaking, the building foundations should be interconnected with either interior wall footings or reinforced concrete gradebeams.

Retaining Walls

- New retaining walls must be constructed to support the planned excavations into the toe of slope for the garage and main residence additions. They should be designed using the following soil criteria:
  - o Active earth pressure: 40 pcf equivalent fluid pressure, triangular distribution
  - o "At-rest" earth pressure: 55 pcf (wall considered fixed against rotation – 0.1% retained height)
  - o Seismic surcharge: 8H, H = retained height of wall

- Elsewhere, any small excavations for landscaping terraces can be retained by short wood walls, grouted stone walls, or timber header boards.

Again, following planning approvals, I should review the project details and then verify or modify the specific recommendations for site preparation & grading, soil design criteria and site drainage improvements. The results of these additional consultations and evaluations will be presented in a formal geotechnical report for the Permit submittal.

September 15, 2017

I trust this provides the information required at this time. Should you or others have further questions regarding the soil engineering aspects of this project, please call me.

Yours very truly,

D. H. FURBY, PE
ENGINEERING CONSULTANT

Dennis H. Furby
Geotechnical Engineer-326
(Expires 12/31/17)

DHF/dhf

Attachment: Copy of Site Plan (marked with test pit and drainage improvement locations)

1 copy submitted (gary@realisticrealtygroup.com)
cc: Jeff Kroot, Architect (jkarch2@comcast.net)
cc: Via-Engineering, Inc., Attn: Vlad Iojica (viojica@via-eng.com)
(additional copies may be made for submittal to Fairfax Planning Department)

30 Via Holon, #18
Greenbrae, CA 94904

DHF

DENNIS H. FURBY, PE.
Engineering Consultant

May 4, 1993
740.1

Conrad Grodsky
P. O. Box 234
Fairfax, CA 94978

Dear Mr. Grodsky:

Subject: Soil Engineering Evaluations
Upper Access Driveway
155 Forrest Avenue, Fairfax, California

This letter summarizes my soil engineering evaluations regarding the existing slope conditions for the driveway at the upper end of your property at 155 Forrest Avenue, Fairfax, California. This driveway leads down and across the slope below Francis Avenue (off Scenic Avenue in San Anselmo) to a new garage/studio building recently constructed uphill of your residence. The property boundaries and the location and alignment of the driveway and other site improvements are shown on the attached Site Plan. This plan is a reduced copy of the topographic survey map (Sheet C-1, dated August 1989) prepared by Steven H. Jacobs, Land Surveyor; I have added the approximate property boundaries and house locations for the adjacent lots at 153 and 145 Forrest Avenue for information.

Purpose and Scope of Services

The purpose of my services is to evaluate the existing conditions in the vicinity of the upper driveway and further downslope, and provide recommendations for remedial measures, as appropriate. These evaluations are being provided in response to the Town of Fairfax's request presented in their letter of April 1, 1993. My scope of services has included 1) research of the file at Fairfax Town Hall regarding your property, 2) discussions with you and Bob Klock (your General Contractor and a previous resident on the property), 3) review of an earlier plan for driveway improvements (1 sheet dated 3/29/90, revised 8/22/91) prepared by Frost, Meglio & Associates, Civil Engineers and Land Surveyors, 4) telephone discussions with both Phil Gorney and Ben Albritton, the Fairfax Planner and Town Engineer, respectively, and 5) a detailed site reconnaissance performed on April 22, 1993. I have not performed subsurface exploration, laboratory testing nor detailed slope stability calculations. My conclusions and recommendations are based solely on my research, site reconnaissance and previous experience in the site vicinity. My recommendations also stipulate that I have the opportunity to re-inspect the property either during or following implementation of remedial measures to verify that the work performed is in accordance with the intent of my recommendations. These supplemental services will also be summarized in a short letter following satisfactory completion.

Site Conditions

The irregularly-shaped parcel is located on the hillside which slopes down to the north from Francis Avenue to Forrest Avenue at an average inclination of 3:1 (horizontal to vertical); elevation contours are shown on the attached plan. The large hillside area above Francis Avenue drains to the ditch along the uphill side of the road and then through a new 12-inch diameter corrugated metal pipe (CMP) which then discharges downslope of the road into the natural drainage ravine. The CMP culvert has concrete headwalls on both sides of the road,

SOIL ENGINEERING
QUALITY ASSURANCE
LOSS PREVENTION

P.O. BOX 659
FAIRFAX, CALIFORNIA 94978
415 · 453 · 0832

but there is no trash rack or other improvements of the Francis Avenue drainage ditch to reduce the risk of plugging the culvert. The natural drainage ravine below the road extends further downslope to the north along the east side of the Grodsky driveway and property line, and then follows along the approximate property line between the residences at 145 and 153 Forrest Avenue before discharging directly into Forrest Avenue below. The natural slope along the drainage ravine is less steep, but portions of the drainage channel have been deeply eroded. The surrounding slope area contains abundant dead tree limbs and branches resulting from previous tree trimming which has not been removed.

The gravel driveway alignment has been formed primarily by excavation into the slope, with the excavated material placed as fill for the upper turn-out near the west property line and for the turn-around area at the lower end of the drive just east of the garage. There are intermittent old wood fences and small wood retaining walls along the downslope side of the drive, portions of which are failing or have already been replaced. There is also a small drainage ditch along the uphill side of the drive which collects both surface water runoff and the discharge from the 12-inch CMP beneath Francis Avenue; this ditch discharges across the east property line and into the natural drainage ravine described above. In addition to the wood fences, there is also other debris and dense vegetation which tends to impede surface water flows within the driveway drainage ditch. Further, there are relatively large debris piles on the inside of the curved portion of the drive and on the old fill slope just downhill from the end of the driveway turn-around. Surface water runoff from the lower portion of the drive and turn-around is currently uncontrolled and flows over this fill and debris slope before entering the natural drainage ravine.

Conclusions and Recommendations

My site reconnaissance and previous experience lead me to conclude that the driveway alignment and existing natural slope appear to be relatively stable. Since I have not observed the actual grading for the drive, I cannot make any specific conclusions as to the adequacy of the previous fill; there is always some level of risk involved with placing fill on hillsides. However, since the driveway and fill have been in place for over 20 years with no apparent problems, I do not believe that the driveway has any current adverse impacts on the overall slope stability within the natural drainage ravine. Further, while the driveway alignment and drainage ditch diverts surface water runoff across the east property line near the end of the drive, this is only water which would normally go into the natural drainage ravine further downslope; there does not appear to be any additional water being diverted into this ravine by the Grodsky driveway that would not naturally reach the ravine through normal surface water runoff.

However, there are two primary geotechnically-related concerns which I feel require remedial measures in order to reduce the risk of future slope instability which might adversely impact downslope properties. First, there is much debris and loose soil on both the fill slope at the end of the driveway and within the natural drainage ravine to the east which could become part of a future debris flow. I realize that some of this debris is from previous tree trimming on the adjacent property to be east, and is not your responsibility; however, these owners should be cautioned that the debris should be cleared before it becomes a problem. Secondly, it is important to maintain good surface drainage control along the drive and on the slopes in order to reduce the risk of future erosion and saturation of weak near-surface soils which could lead to stability problems. Specific remedial measures are itemized below with the corresponding numbers also shown on the attached plan to indicate the location of each item.

1. Remove the debris and loose soil, including the old wood fence, from the slope at the end of the driveway turn-around. The debris should be removed from the site, and the slope surface trimmed to expose firm soil

and then planted with erosion-resistant vegetation. The re-planting may require temporary installation of jute mesh or other type of fabric to resist erosion until the new vegetation is established.

2. Provide a new surface drain inlet (DI) at the top of the slope near the northeast corner of the garage to collect all surface water runoff. Some minor re-grading or installation of an earth berm may be required along the top of the slope at the end of the drive to intercept and divert surface water runoff towards the DI. The DI should discharge through a rigid non-perforated smooth walled pipe (8" diameter) which outlets through cobble rip-rap directly into the natural drainage ravine.

3. Remove the existing debris pile from the inside curve of the driveway and restore a uniform slope surface similarly planted with erosion-resistant vegetation.

4. Remove the old fence and debris which currently blocks the drainage ditch along the driveway. This drainage channel should also be improved by enlarging and lining the channel with cobble rip-rap in order to maintain a uniform flow towards the natural drainage ravine and reduce the risk of further surface erosion.

5. Maintain the existing drainage channel along the uphill side of Francis Avenue and install a trash rack at the inlet to the CMP culvert to reduce the risk of plugging the channel and culvert with debris. (This item may be the responsibility of the Town of Fairfax.)

In addition to these specific items, all slope surfaces and drainage systems must be periodically maintained to reduce the risk of erosion, sloughing and debris flows which could adversely affect slope stability. It is particularly important to remove all loose debris from slope surfaces which could impede normal surface water runoff and/or which could become material for a future debris flow. These are normal precautions for all hillside properties to reduce the risk of slope instability.

I should be notified at the time these remedial measures are being implemented so that I can provide on-site observations to verify that the work is being performed in accordance with the intent of my recommendations, or to modify my recommendations, if appropriate.

I trust this provides the information required at this time. Should you others have further questions regarding the soil engineering aspects of this project, please call me.

Yours very truly,

D. H. FURBY, PE
ENGINEERING CONSULTANT

Dennis H. Furby
Geotechnical Engineer-326

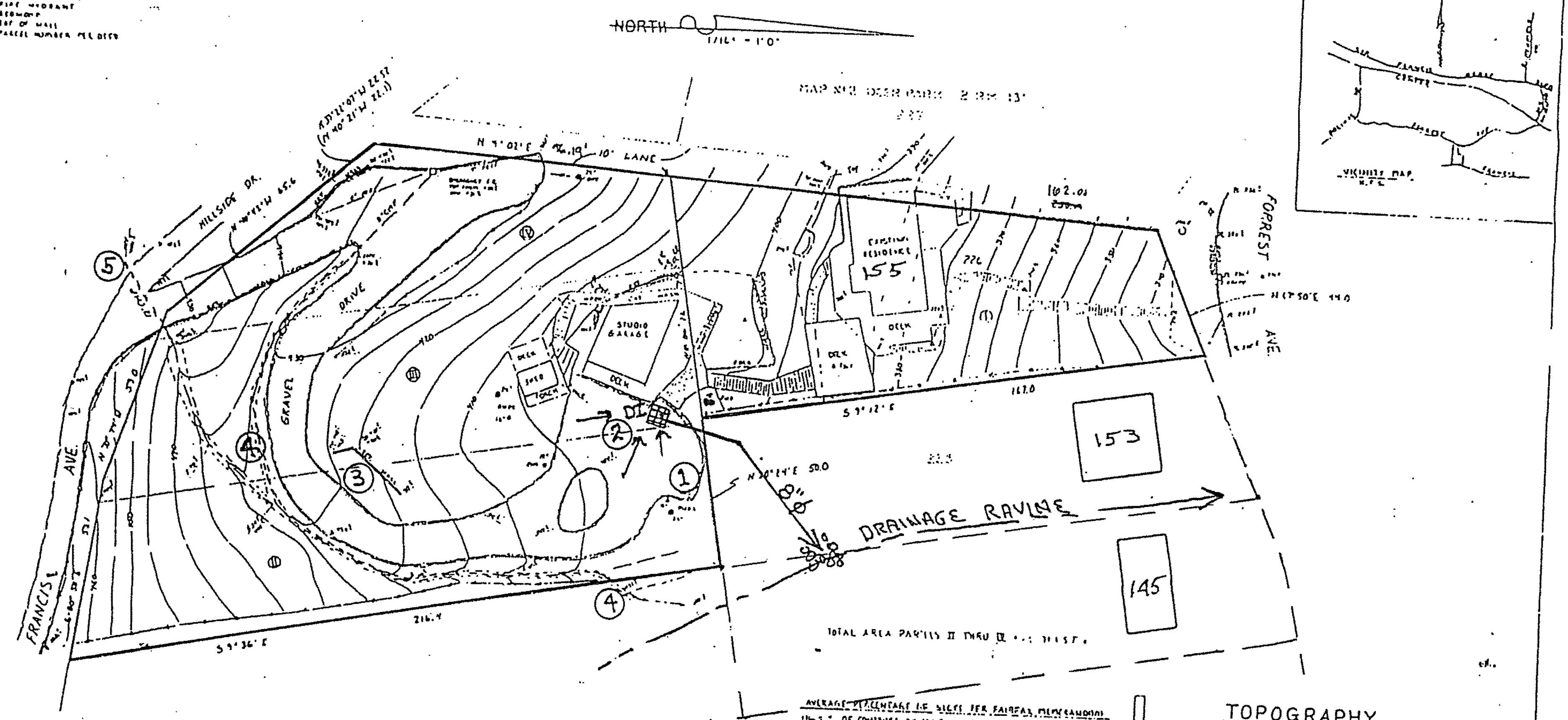
DHF/br

Attachment: Site Plan
3 copies submitted

cc: Bob Klock

LEGEND

- CONTROL POINT
- SPOT ELEVATION
- FIRE HYDRANT
- TOP OF WALL
- PARCEL NUMBER PER DEED



NOTES

1. BOUNDARY IS GRAPHIC ONLY.
2. COUNTOUR INTERVAL IS (5) FIVE FOOT.
3. BOUNDARY REFERENCE: 2 RM 131.
4. ELEVATION DATUM ASSUMED

AVERAGE PERCENTAGE OF SLOPE PER FAIRFAX MEMORANDUM

MAP SCALE

CONTOUR INTERVAL

SQ FT OF LOT

TOPOGRAPHY

LANDS OF GRODSKY 2342 OR 311

SITE ADDRESS: 226 FORREST AVE.

FAIRFAX — MARIN — CALIFORNIA

STEVEN H. JACOBS L S 5296
313 WALNUT STREET
PETALUMA, CA 94952

Steven H Jacobs
STEVEN H JACOBS
LIC. EXP. DATE

SURVEY

C-1

BALLARD WATKINS
CONSTRUCTION SERVICES

HYDROLOGY STUDY FOR PROPOSED IMPROVEMENTS

for

Addition and Remodel

for

Gary Dowd

155 Forrest Avenue
Fairfax, CA 94930

Prepared by:
Michael G. Watkins, PE

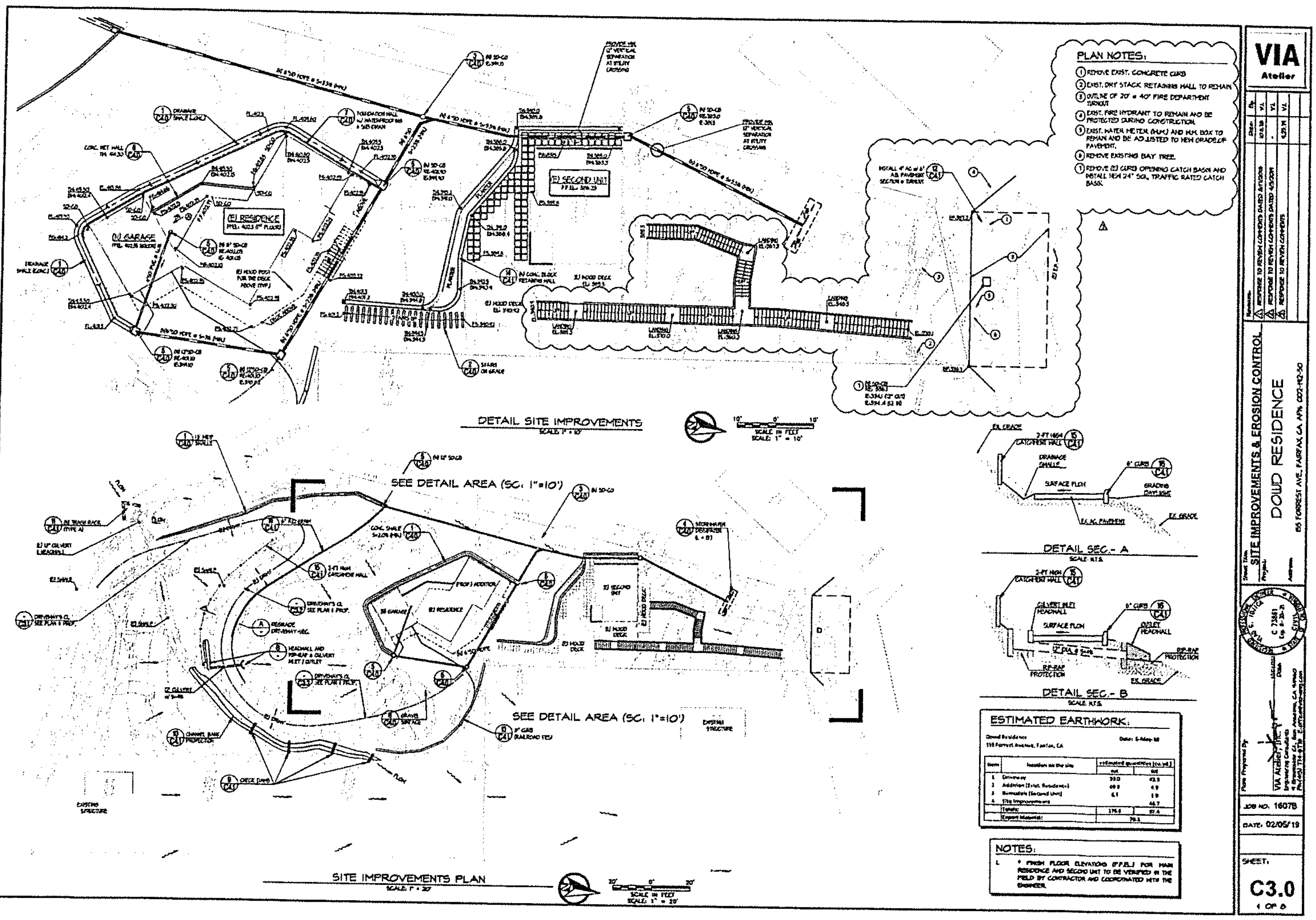
Utilizing

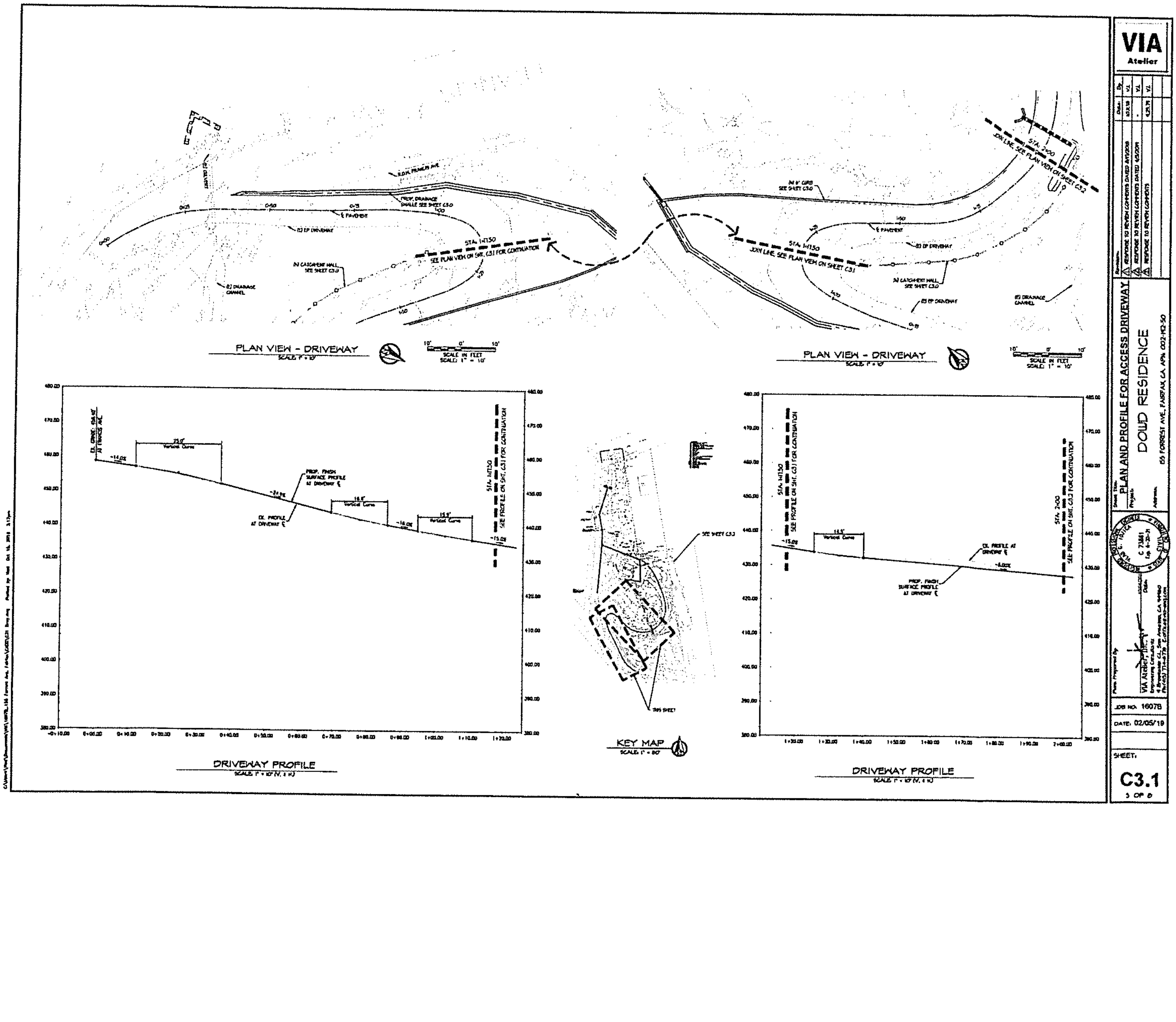
- LMNO Engineering Software - Rational Equation for Peak Discharge
- Caltrans Highway Design Manual 2020 Edition
- NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: CA
- U.S. Department of Transportation Federal Highway Administration
  Hydraulic Engineering Circular No. 15, Third Edition (HEC 15)
  Design of Roadside Channels with Flexible Linings

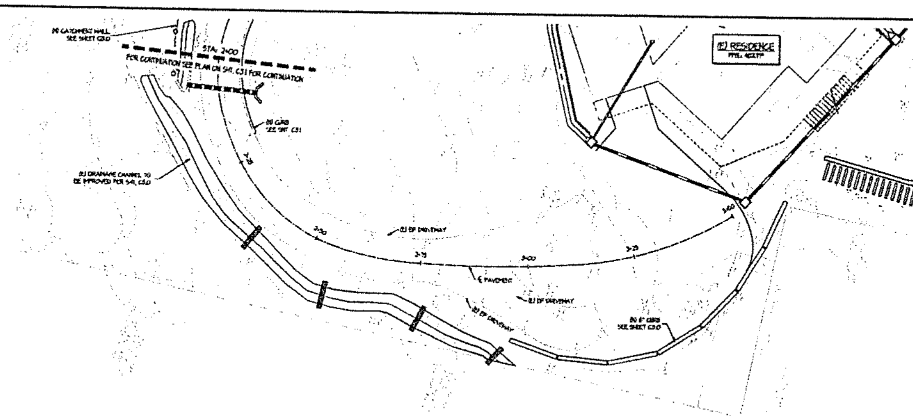
March 2, 2022

174 Pine Street San Anselmo, CA 94960 415-457-3157 FAX

ATTACHMENT E

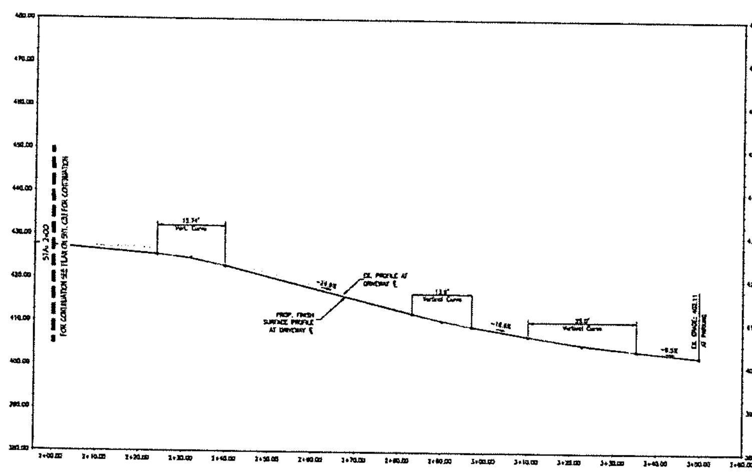

PLAN NOTES:
1 REMOVE EXIST. CONCRETE CURB
2 EXIST. DRY STACK RETAINING WALL TO REMAIN
3 OUTLINE OF 20' x 40' FIRE DEPARTMENT TURNOUT
4 EXIST. FIRE HYDRANT TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.
5 EXIST. WATER METER (W.M.) AND W.M. BOX TO REMAIN AND BE ADJUSTED TO NEW GRADE OF PAVEMENT.
6 REMOVE EXISTING BAY TREE.
7 REMOVE (E) CURB OPENING CATCH BASIN AND INSTALL NEW 24" SQ. TRAFFIC RATED CATCH BASIN.
(E) RESIDENCE
(N) GARAGE
(E) SECOND UNIT
DETAIL SITE IMPROVEMENTS
SCALE: 1" = 10'
SEE DETAIL AREA (SC: 1"=10')
DETAIL SEC.- A
SCALE: N.T.S.
DETAIL SEC.- B
SCALE: N.T.S.
ESTIMATED EARTHWORK:
NOTES:
1. * FINISH FLOOR ELEVATIONS (F.F.E.) FOR MAIN RESIDENCE AND SECOND UNIT TO BE VERIFIED IN THE FIELD BY CONTRACTOR AND COORDINATED WITH THE ENGINEER.
SITE IMPROVEMENTS PLAN
SCALE: 1" = 20'
VIA Atelier
SITE IMPROVEMENTS & EROSION CONTROL
DOWD RESIDENCE
55 FORREST AVE., FAIRFAX, CA APN. 002-112-30
JOB NO. 1607B
DATE: 02/05/19
SHEET:
C3.0
4 OF 8


PLAN VIEW - DRIVEWAY
SCALE: 1" = 10'
SCALE IN FEET
SCALE: 1" = 10'
STA. 1+11.50
SEE PLAN VIEW ON SHT. C3.1 FOR CONTINUATION
JOIN LINE, SEE PLAN VIEW ON SHEET C3.1
STA. 2+00
JOIN LINE, SEE PLAN VIEW ON SHEET C3.2
DRIVEWAY PROFILE
SCALE: 1" = 10' (V. & H)
KEY MAP
SEE SHEET C3.2
THIS SHEET
VIA
Atelier
RESPONSE TO REVIEW COMMENTS
PLAN AND PROFILE FOR ACCESS DRIVEWAY
DOUD RESIDENCE
155 FORREST AVE, FAIRFAX, CA APN: 002-142-50
VIA Atelier, Inc.
JOB NO. 1607B
DATE: 02/05/19
SHEET:
C3.1
3 OF 8



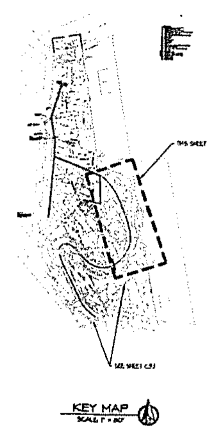
PLAN VIEW - DRIVEWAY

SCALE: 1" = 10'



DRIVEWAY PROFILE

SCALE: 1" = 10' (V. & H.)



KEY MAP

VIA Atelier

Revisions:
- RESPONSE TO REVIEW COMMENTS DATED — V.L.
- RESPONSE TO REVIEW COMMENTS DATED — V.L.
- RESPONSE TO REVIEW COMMENTS — V.L.

Sheet Title: PLAN AND PROFILE FOR ACCESS DRIVEWAY

Project: DOUD RESIDENCE

Address: 155 FORREST AVE., FAIRFAX, CA APN 002-112-50

Plans Prepared By: VIA Atelier, Inc. Engineering Consultants

C 73861

JOB NO. 1507B

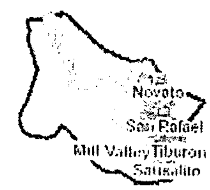
DATE: 02/05/19

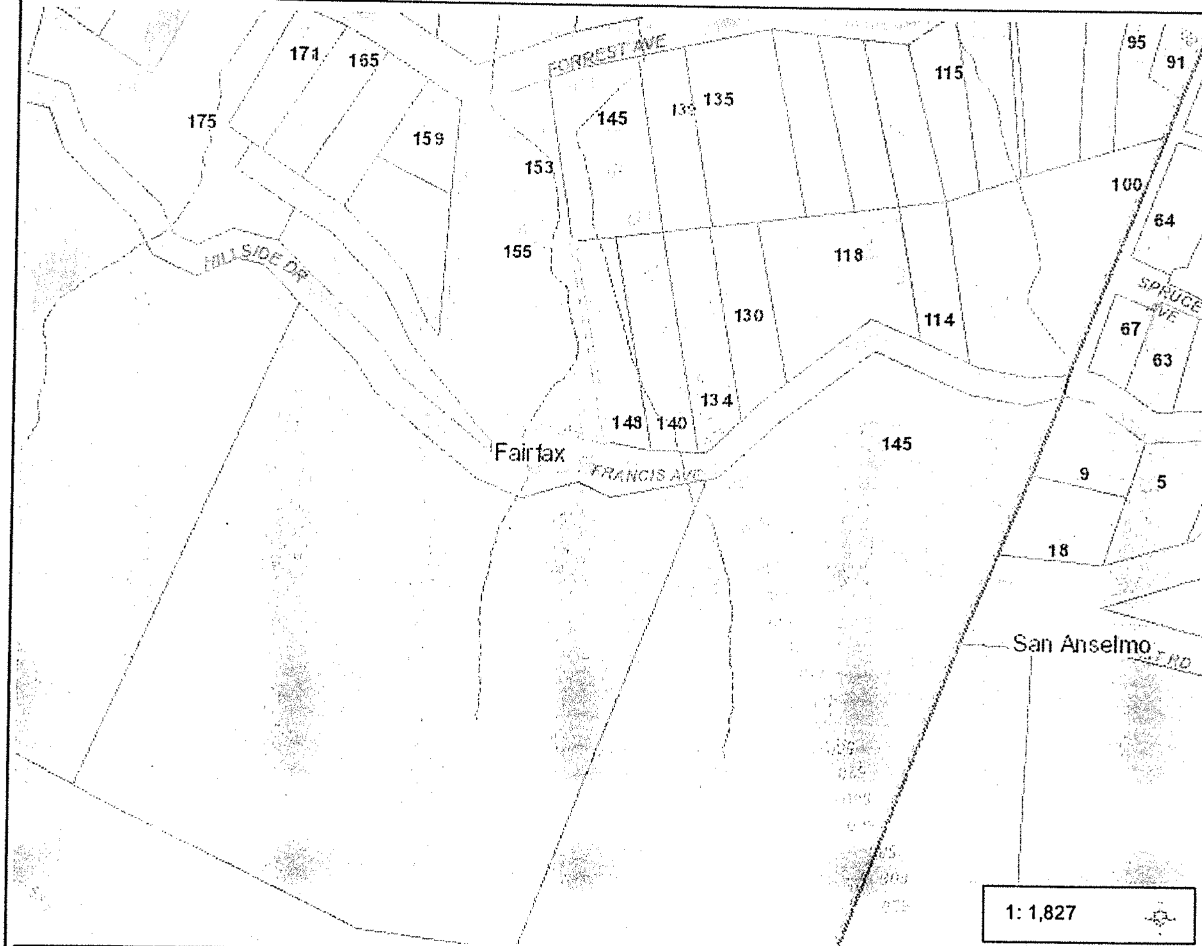
SHEET: C3.2

6 OF 8

Marin Map

Map Report





Legend

Parcel Note

easement

centerline

Address

Parcel

Condominium Common Area

Mobile Home Pad

City

Community

Marin County Legal Boundary

Other Bay Area County

EvacuationRoutes

Primary

Secondary

Stream - Perennial (NHD)

Stream - Ephemeral (NHD)

Blue Line Stream

Ephemeral

Intermittent

Perennial

1: 1,827

Notes

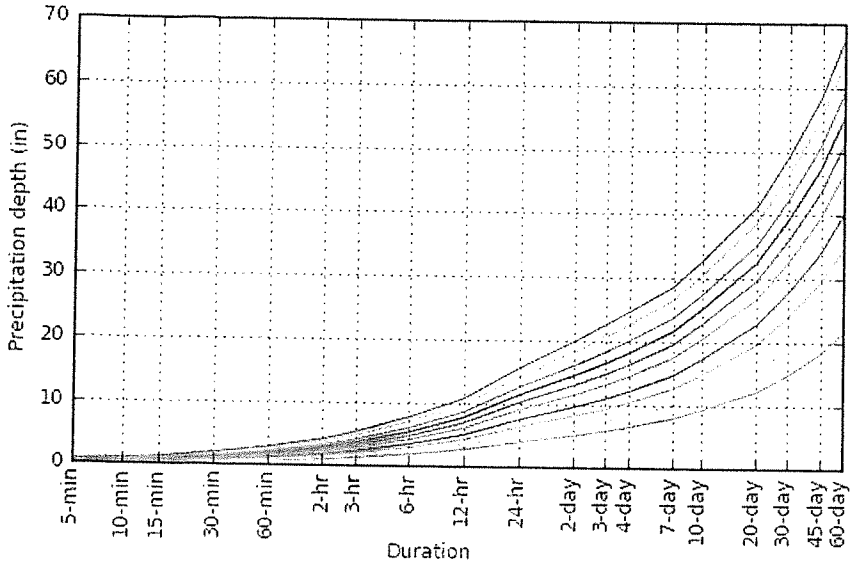
304.5 0 152.24 304.5 Feet

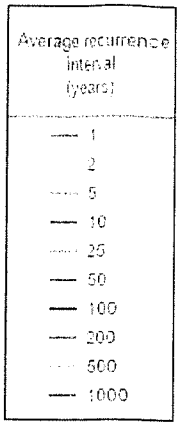
NAD_1983_HARN_StatePlane_California_III_FIPS_0403_Feet

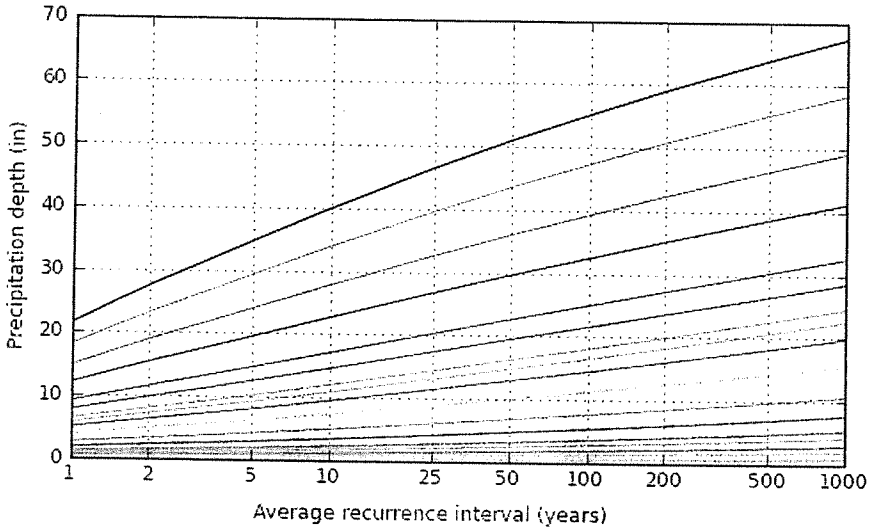
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

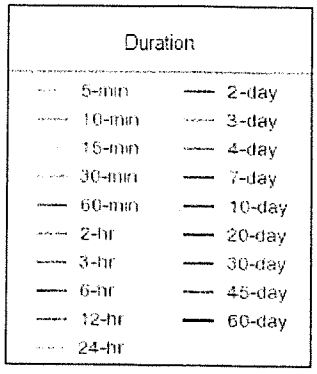
THIS MAP IS NOT TO BE USED FOR NAVIGATION

PDS-based de[illegible]-duration-frequency (DDF) curves
Latitude[illegible].9570°, Longitude: -122.6100°









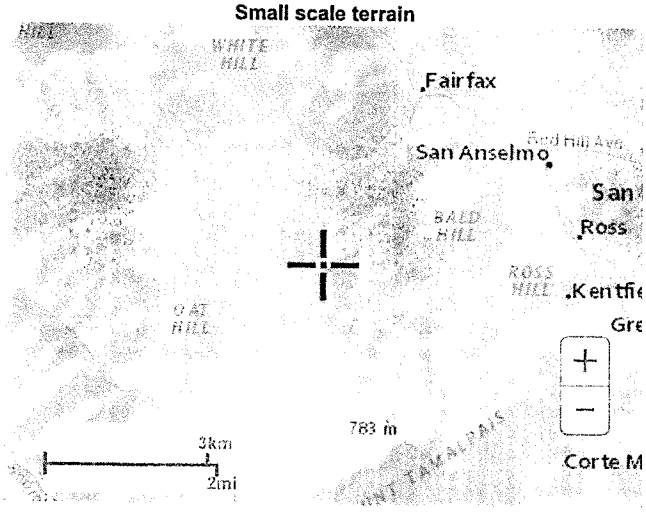
NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Thu Feb 10 17:37:08 2022

Back to Top

Maps & aerials

Small scale terrain



Large scale terrain

General Information
Homepage
Progress Reports
FAQ
Glossary

Precipitation Frequency
Data Server
GIS Grids
Maps
Time Series
Temporals
Documents

Probable Maximum Precipitation
Documents

Miscellaneous
Publications
Storm Analysis
Record Precipitation

Contact Us
Inquiries

USA.gov

NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: CA

Data description

Data type: Precipitation depth | Units: English | Time series type: Partial duration

Select location

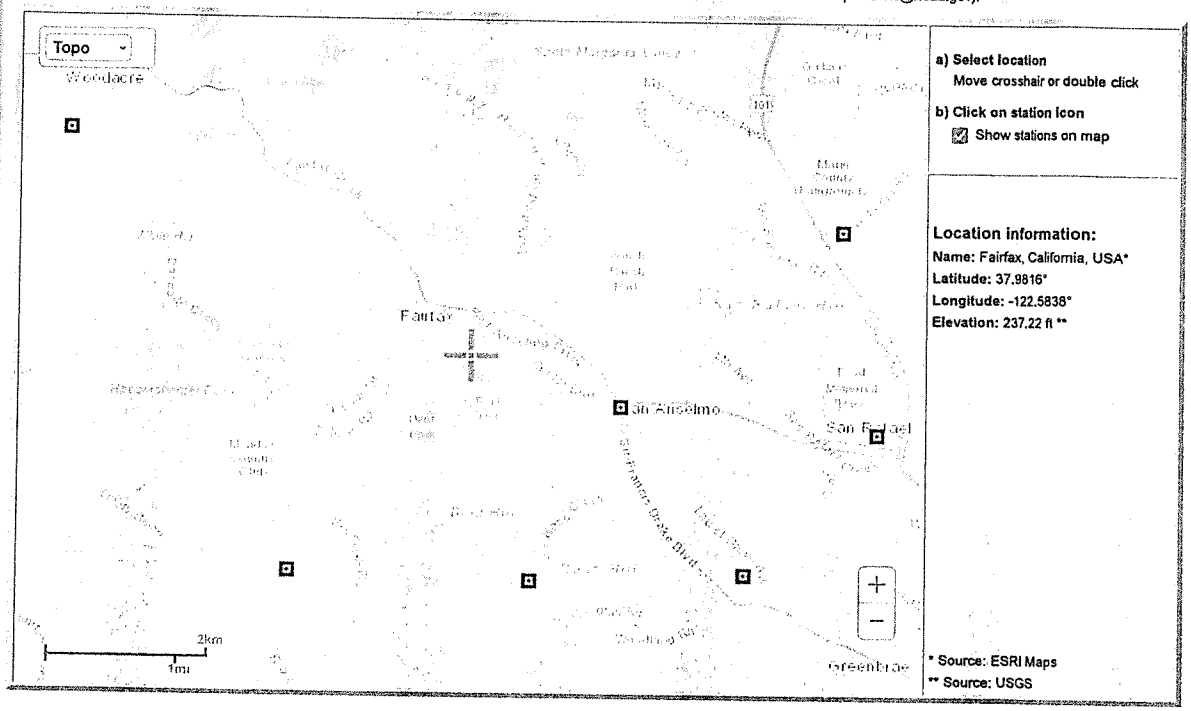
1) Manually:

a) By location (decimal degrees, use "-" for S and W): Latitude: Longitude: Submit

b) By station (list of CA stations): Select station

c) By address: 155 Forrest Ave, Fairfax, CA, 94930

2) Use map (if ESRI interactive map is not loading, try adding the host: https://js.arcgis.com/ to the firewall, or contact us at hdsc.questions@noaa.gov):



POINT PRECIPITATION FREQUENCY (PF) ESTIMATES

WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 6, Version 2

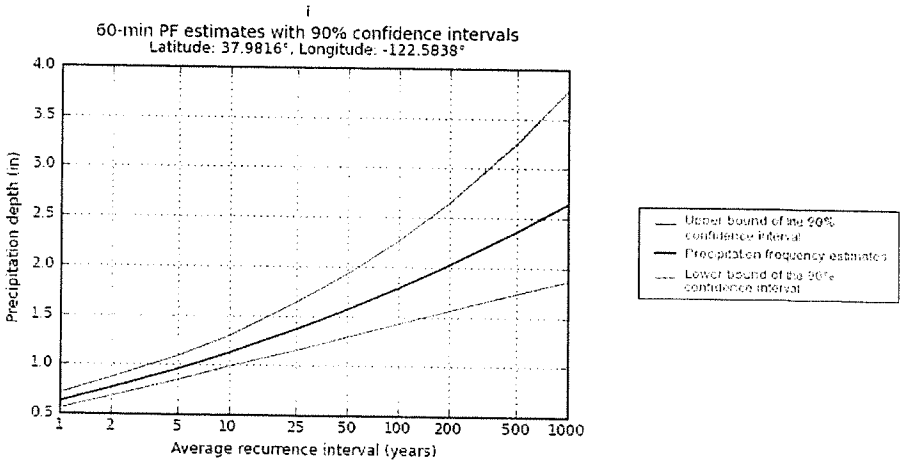
PF tabular | PF graphical | Supplementary information

Print page

Curves

PF estimates with confidence intervals

Duration:
- 5-min
- 10-min
- 15-min
- 30-min
- 60-min
- 2-hr
- 3-hr
- 6-hr
- 12-hr
- 24-hr
- 2-day
- 3-day
- 4-day
- 7-day
- 10-day
- 20-day
- 30-day
- 45-day
- 60-day



NOAA Atlas 14, Volume 6, Version 2 Created (GMT): Thu Feb 10 18:56:58 2022

NOAA Atlas 14, Volume 6, Version 2 BON TEMPE DAM
Station ID: 84-0969
Location name: Fairfax, California, USA*
Latitude: 37.957°, Longitude: -122.61°
Elevation:
Elevation (station metadata): 723 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.149 (0.133-0.169)	0.183 (0.163-0.208)	0.231 (0.205-0.263)	0.272 (0.239-0.313)	0.332 (0.280-0.398)	0.382 (0.314-0.469)	0.435 (0.347-0.551)	0.494 (0.381-0.647)	0.579 (0.425-0.797)	0.650 (0.459-0.932)
10-min	0.214 (0.191-0.243)	0.263 (0.234-0.298)	0.331 (0.293-0.377)	0.390 (0.342-0.449)	0.476 (0.401-0.570)	0.547 (0.450-0.673)	0.624 (0.498-0.790)	0.708 (0.546-0.927)	0.830 (0.610-1.14)	0.932 (0.657-1.34)
15-min	0.259 (0.231-0.293)	0.318 (0.283-0.361)	0.400 (0.355-0.456)	0.471 (0.414-0.542)	0.576 (0.485-0.690)	0.662 (0.544-0.813)	0.755 (0.602-0.955)	0.856 (0.661-1.12)	1.00 (0.737-1.38)	1.13 (0.795-1.62)
30-min	0.439 (0.391-0.498)	0.538 (0.479-0.611)	0.678 (0.601-0.772)	0.799 (0.702-0.920)	0.976 (0.823-1.17)	1.12 (0.922-1.38)	1.28 (1.02-1.62)	1.45 (1.12-1.90)	1.70 (1.25-2.34)	1.91 (1.35-2.74)
60-min	0.655 (0.583-0.742)	0.803 (0.714-0.912)	1.01 (0.897-1.15)	1.19 (1.05-1.37)	1.46 (1.23-1.74)	1.67 (1.38-2.06)	1.91 (1.52-2.42)	2.17 (1.67-2.84)	2.54 (1.87-3.49)	2.85 (2.01-4.09)
2-hr	0.961 (0.856-1.09)	1.18 (1.05-1.34)	1.49 (1.32-1.70)	1.76 (1.54-2.02)	2.15 (1.81-2.57)	2.46 (2.02-3.03)	2.80 (2.24-3.55)	3.17 (2.45-4.15)	3.70 (2.72-5.10)	4.14 (2.92-5.94)
3-hr	1.25 (1.11-1.41)	1.53 (1.37-1.74)	1.94 (1.72-2.21)	2.28 (2.00-2.62)	2.78 (2.34-3.33)	3.18 (2.61-3.91)	3.61 (2.88-4.57)	4.07 (3.14-5.33)	4.74 (3.48-6.52)	5.29 (3.73-7.58)
6-hr	1.88 (1.67-2.13)	2.32 (2.07-2.64)	2.93 (2.60-3.34)	3.44 (3.02-3.96)	4.17 (3.51-5.00)	4.75 (3.90-5.84)	5.36 (4.27-6.78)	6.01 (4.63-7.86)	6.92 (5.08-9.52)	7.66 (5.40-11.0)
12-hr	2.67 (2.38-3.03)	3.35 (2.98-3.80)	4.25 (3.77-4.84)	5.00 (4.39-5.75)	6.03 (5.08-7.22)	6.83 (5.61-8.40)	7.66 (6.11-9.70)	8.53 (6.58-11.2)	9.72 (7.14-13.4)	10.7 (7.52-15.3)
24-hr	3.88 (3.49-4.39)	4.91 (4.42-5.57)	6.27 (5.62-7.13)	7.38 (6.57-8.46)	8.89 (7.68-10.5)	10.1 (8.53-12.1)	11.3 (9.32-13.9)	12.5 (10.1-15.8)	14.2 (11.0-18.6)	15.5 (11.6-21.0)
2-day	5.04 (4.54-5.71)	6.35 (5.71-7.21)	8.08 (7.25-9.19)	9.50 (8.46-10.9)	11.4 (9.87-13.5)	12.9 (10.9-15.6)	14.4 (12.0-17.8)	16.0 (12.9-20.2)	18.2 (14.1-23.8)	19.8 (14.9-26.9)
3-day	5.80 (5.22-6.57)	7.29 (6.56-8.27)	9.25 (8.30-10.5)	10.9 (9.67-12.4)	13.0 (11.3-15.4)	14.7 (12.5-17.7)	16.5 (13.6-20.3)	18.2 (14.7-23.1)	20.7 (16.1-27.1)	22.5 (17.0-30.6)
4-day	6.42 (5.78-7.28)	8.07 (7.26-9.16)	10.2 (9.18-11.6)	12.0 (10.7-13.7)	14.4 (12.4-17.0)	16.2 (13.7-19.5)	18.1 (15.0-22.2)	20.0 (16.1-25.2)	22.5 (17.5-29.6)	24.5 (18.5-33.3)
7-day	7.80 (7.03-8.85)	9.86 (8.87-11.2)	12.5 (11.2-14.2)	14.6 (13.0-16.7)	17.4 (15.0-20.5)	19.5 (16.5-23.4)	21.5 (17.8-26.5)	23.6 (19.1-29.9)	26.4 (20.5-34.7)	28.5 (21.5-38.7)
10-day	9.13 (8.22-10.3)	11.6 (10.4-13.1)	14.7 (13.2-16.7)	17.1 (15.2-19.6)	20.3 (17.5-24.0)	22.6 (19.2-27.2)	24.9 (20.7-30.7)	27.2 (22.0-34.4)	30.3 (23.5-39.7)	32.5 (24.5-44.1)
20-day	12.0 (10.8-13.7)	15.4 (13.9-17.5)	19.5 (17.5-22.2)	22.7 (20.2-26.0)	26.7 (23.1-31.6)	29.6 (25.1-35.7)	32.4 (26.9-40.0)	35.2 (28.4-44.5)	38.7 (30.0-50.8)	41.2 (31.0-55.9)
30-day	14.8 (13.3-16.7)	19.0 (17.0-21.5)	24.0 (21.5-27.3)	27.8 (24.8-31.9)	32.6 (28.2-38.5)	36.0 (30.5-43.4)	39.3 (32.5-48.4)	42.4 (34.2-53.6)	46.3 (36.0-60.8)	49.2 (37.0-66.6)
45-day	18.1 (16.3-20.5)	23.2 (20.9-26.4)	29.4 (26.3-33.4)	33.9 (30.2-38.9)	39.6 (34.2-46.8)	43.6 (36.9-52.5)	47.3 (39.2-58.3)	50.8 (41.1-64.3)	55.2 (42.9-72.5)	58.3 (43.9-79.1)
60-day	21.5 (19.3-24.3)	27.5 (24.8-31.2)	34.7 (31.1-39.4)	40.0 (35.6-45.8)	46.5 (40.1-54.9)	50.9 (43.2-61.4)	55.1 (45.7-67.9)	59.1 (47.7-74.6)	63.9 (49.7-83.9)	67.3 (50.6-91.2)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

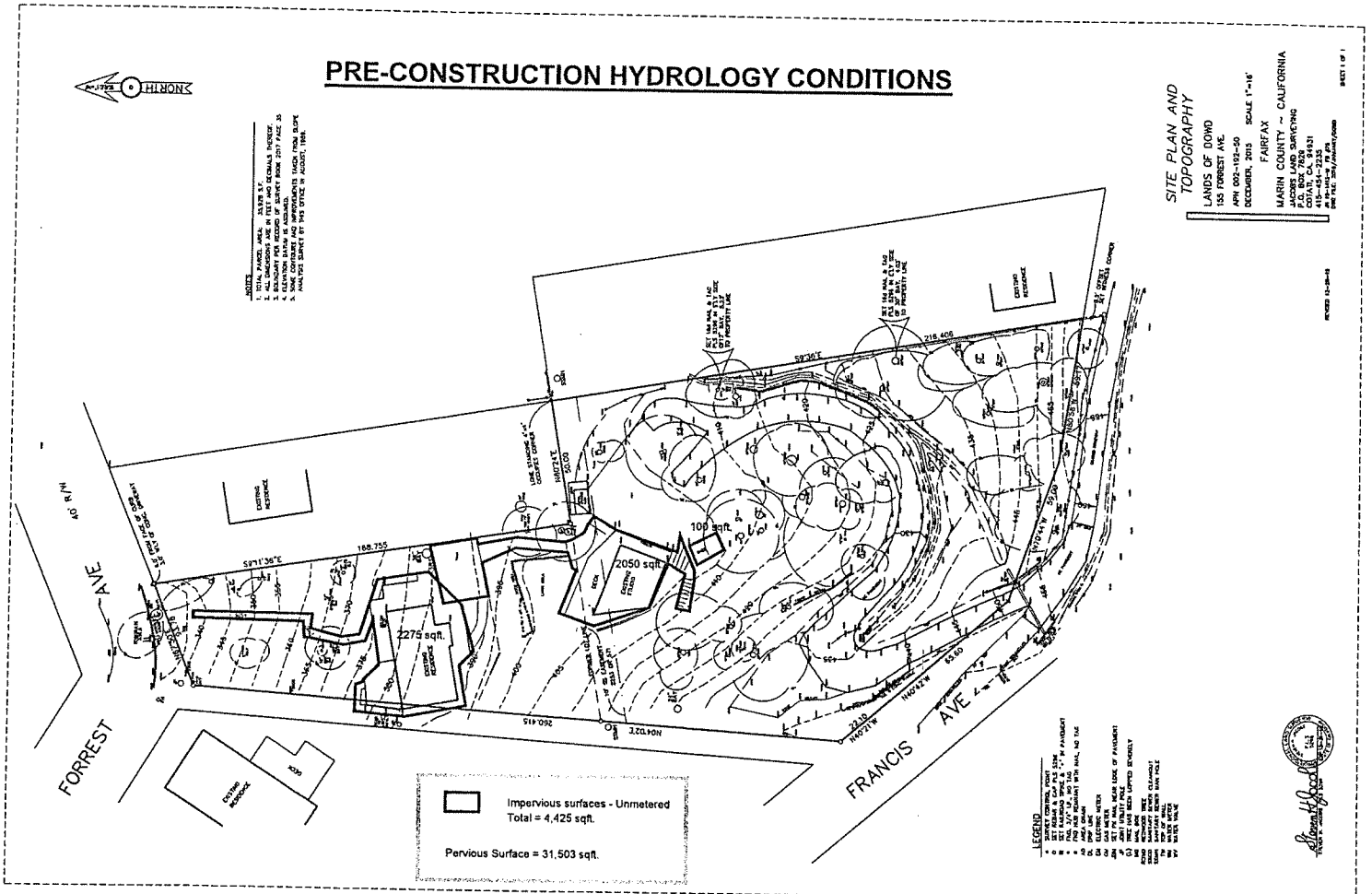
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

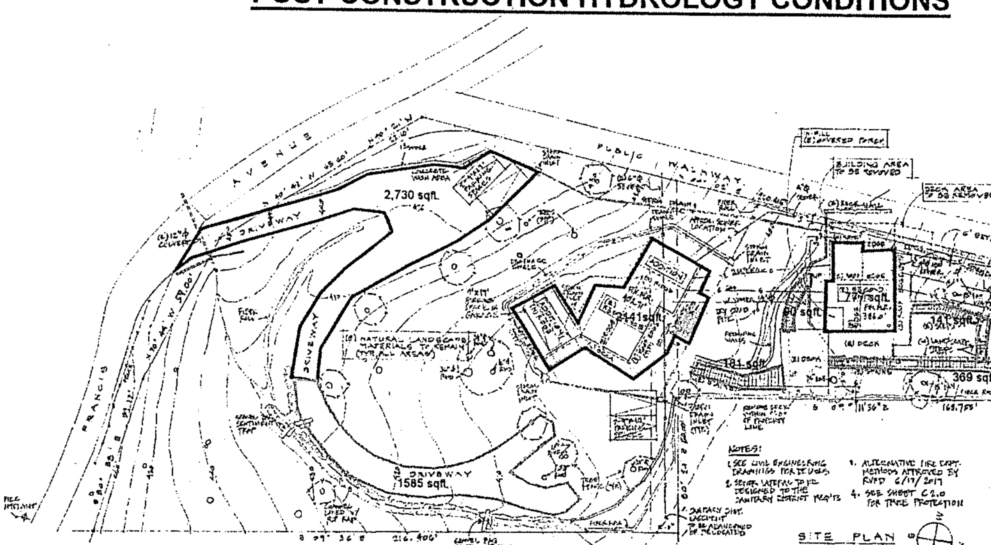
PRE-CONSTRUCTION HYDROLOGY CONDITIONS

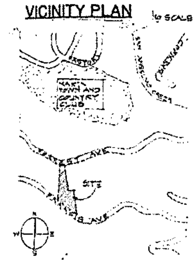


SITE PLAN AND TOPOGRAPHY

LANDS OF DOWD
153 FORREST AVE.
APN 002-192-20
DECEMBER, 2015 SCALE 1"=10'
FAIRFAX
MARIN COUNTY ~ CALIFORNIA

POST-CONSTRUCTION HYDROLOGY CONDITIONS



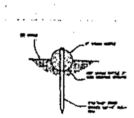


Impervious surfaces - metered	Total = 5648 sqft.
Impervious surfaces - unmetered	Total = 2336 sqft.

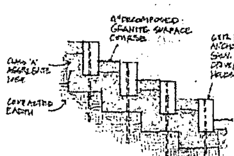
Pervious surfaces = 27,944 sqft.

SITE INFORMATION:

APN:	002-192-50
ZONING :	RS 6
LOT AREA:	35,928 SF
AREAS:	
I. RESIDENCE:	
(E) LOWER FLOOR:	505 SF
(E) UPPER FLOOR:	505 SF
SUB TOTAL:	1010 SF
(N) LOWER FLOOR:	431 SF
(N) UPPER FLOOR:	700 SF
SUB TOTAL:	1131 SF
TOTAL RESIDENCE	2,141 SF
(N) GARAGE:	336 SF
(E) DECK:	540 SF
DECK REMOVED:	(155) SF
(N) DECK:	106 SF
TOTAL:	491 SF
II. SECOND UNIT:	
(E) FLOOR AREA:	878 SF
FLOOR AREA REMOVED:	(101) SF
TOTAL:	777 SF
(E) DECK:	575 SF
DECK REMOVED:	(167) SF
TOTAL:	408 SF
COVERAGE AND FLOOR AREA RATIO	
(E) LOT COVERAGE:	6.95 %
(E) FLOOR AREA RATIO:	5.25 %
(N) LOT COVERAGE:	8.21 %
(N) FLOOR AREA RATIO:	8.12 %



STRAW WATTLE



TYPICAL LANDSCAPE STEPS
3/4" = 1'-0"

NOTES:

1. ALL RISER TO BE EQUAL IN EACH RUN.
2. MAX RISE TO BE 7 1/4"
3. ALL TREADS TO BE EQUAL IN EACH RUN.
4. MINIMUM RUN 10".
5. LANDSCAPE STEPS ARE SCHEMATIC - SEE SHEET C4.0 DETAIL (2) FOR 'SITE STAIRCASE'

SHEET INDEX:

1. SITE PLAN and SITE INFORMATION
2. RESIDENCE FLOOR PLANS and ELEVATIONS
3. SECOND UNIT FLOOR PLANS and ELEVATIONS
4. AS BUILT RESIDENCE FLOOR PLANS AND ELEVATIONS
5. AS BUILT SECOND UNIT FLOOR PLANS AND ELEVATIONS
6. SITE PLAN and TOPOGRAPHY 1" = 16'
7. SITE PLAN and TOPOGRAPHY 1" = 10' (sheet 1 of 2)
8. SITE PLAN and TOPOGRAPHY 1" = 10' (sheet 2 of 2)
9. RECORD of SURVEY

C1.0. COVER SHEET MAP and NOTES
C2.0. SITE EROSION & CONSTRUCTION MANAGEMENT PLAN
C2.1. EROSION CONTROL DETAILS
C3.0. SITE IMPROVEMENTS & EROSION CONTROL
C3.1 PLAN and PROFILE FOR ACCESS DRIVEWAY
C3.2 PLAN and PROFILE FOR ACCESS DRIVEWAY
C4.0 CONSTRUCTION DETAILS
C4.1 CONSTRUCTION DETAILS

CONSULTANTS:

VIA ATELIER, INC.
CIVIL ENGINEER and HYDROLOGIST
9 BROOKSIDE CT.
SAN ANSELMO, CA 94960
(415) 774-6776

JACOBS LAND SURVEYING
P.O. BOX 7829
COTATI, CA 94931
(415) 454-2235

DENNIS FURBY
GEOTECHNICAL ENGINEER
30 VIA HOLON, #18
GREENBRAE, CA 94904
(415) 306-7218

JEFF KROOT ARCHITECT & ASSOCIATES

SITE PLAN
SITE INFORMATION
VICINITY PLAN

ADDITIONS AND REMODEL FOR:
GARY DOWD
155 FORREST AVE., FAIRFAX, CA
APN 002-192-50

REPORT	DATE
Hydraulic Analysis of Drainage	February 25, 2022
PROJECT	BY
155 Forrest Avenue Fairfax, CA	MG. Watkins, PE

SITE DEVELOPMENT CALCULATIONS

TOTAL SITE AREA:	35,928 sqft.	=	0.825 acre	
EXISTING AREA:				
Total Impervious:	4,425 sqft.	=	0.102 acre	
Total Pervious:	31,741 sqft.	=	0.729 acre	
PROPOSED AREA:				
Total Impervious:	8,026 sqft.	=	0.184 acre	
Total Pervious:	27,902 sqft.	=	0.641 acre	
NET CHANGE OF IMPERVIOUS AREAS:				
	3,839 sqft.	=	0.088 acre	**(Net Increase)**

BREAKDOWN OF DEVELOPED AREA

Existing:	
Building Roof	2,497 sqft.
Driveway & Parking	0 sqft.
Impervious Patios, Walkways & Pads	1,115 sqft.
Deck & Stairs	575 sqft.
Total	**4,187 sqft.**
Proposed:	
Building Roof	2,950 sqft.
Driveway & Parking	4,275 sqft.
Impervious Patios, Walkways & Pads	899 sqft.
Deck & Stairs	781 sqft.
Total	**8,026 sqft.**

REPORT	DATE
Hydraulic Analysis of Drainage	February 25, 2022
PROJECT	BY
155 Forrest Avenue Fairfax, CA	MG. Watkins, PE

SITE HYDROLOGY CALCULATION SUMMARY

Calculations based on a 100 year event with a 60 minutes Initial Time of Concentration

"C" Values

Impervious Areas: C= 0.90

Pervious Areas = C= 0.30

Rain Fall Intensity (I)

I = 1.910 in/hr (From NOAA Web Site)

Pre-Construction:

Impervious = 4,425 sqft. = 0.102 acre

Q = 0.175 cfs

Pervious = 31,503 sqft. = 0.723 acre

Q = 0.414 cfs

Q=ciA
Q=peak discharge, cfs
c= Rational method runoff coefficient
i= Rainfall intensity, inch/hour
A= Drainage area, acre

Total Pre-Construction Run-off = 0.589 c.f.s.

Post-Construction Without Retention:

Impervious = 7,984 sqft. = 0.183 acre

Q = 0.316 cfs

Pervious = 27,944 sqft. = 0.641 acre

Q = .367 cfs

Total Post-Construction Run-off = 0.683 c.f.s. Without Metering

Change in Run-Off from Pre-Construction condition Without Retention

$\Delta Q = Q_{POST} - Q_{PRE}$

ΔQ = 0.094 c.f.s. **(NET INCREASE)**

Runoff Mitigation Measures

The following runoff mitigation measures are utilized to address the added .094 c.f.s. runoff on this site:

1) Rip-rap is utilized in the natural stream course to prevent erosion of the stream bed, and to slow the speed of the water runoff in the stream bed. See Sheet C3.2.
2) Rip rap check dams are installed across the natural stream course to minimize erosion, and to create weirs which will slow the water down in the stream course and provide retention during high storm flows. See Sheet C3.2 and C4.1.
3) A 2 feet high catchment wall and downslope V ditch are proposed to collect any water which may run off the middle section of the driveway and pass it under the driveway to be deposited in rock dissipater where it can be absorbed into the native vegetation at the center of the site. See See Sheet C3.0, C3.1, and C3.2.
4) 18" V ditches are installed upslope of the impervious structures and these are served by drop inlets which feed 6" storm water drainage systems to collect the water and dissipate it at a rock dissipaters at the lower part of the site. This will insure that the water is collected responsibly and deposit it on the site in a manner that will minimize site erosion and optimize infiltration. See the Civil Sheets C3.0, C4.0, and C4.1.

While it is possible to do calculations for each component of this system, the calculations are extensive and tedious, and it is reasonable to validate this system by observation and general calculations of flow rates.

REPORT	DATE
Hydraulic Analysis of Drainage	February 25, 2022
PROJECT	BY
155 Forrest Avenue Fairfax, CA	MG. Watkins, PE

RETENTION CALCULATIONS
Calculations based on a 100 year event with a 60 minutes Initial Time of Concentration

DESIGN CRITERIA

Retain and Meter runoff from a 100 year storm event with a 60 minutes initial time of concentration without increasing the peak runoff rate above the un-developed condition flow rate

TOTAL POST-CONSTRUCTION RUNOFF ALLOWED (Must be Equal to or Less than Pre-Construction Rate)

Pre-Construction Without Metering:

Impervious Area	9,890 sqft 0.227 acre	Q =	0.253 cfs
Pervious Area	13,320 sqft 0.306 acre	Q =	0.114 cfs
Total Runoff Rate For Pre-Cons		Q =	0.367 cfs

Post-Construction Without Metering:

Impervious = Q =	7,984 sqft. 0.316 c.f.s.	=	0.183 acre
Pervious = Q =	27,944 sqft. .367 c.f.s.	=	0.641 acre

Total Post-Construction Run-off = 0.683 c.f.s. Without Metering

OK

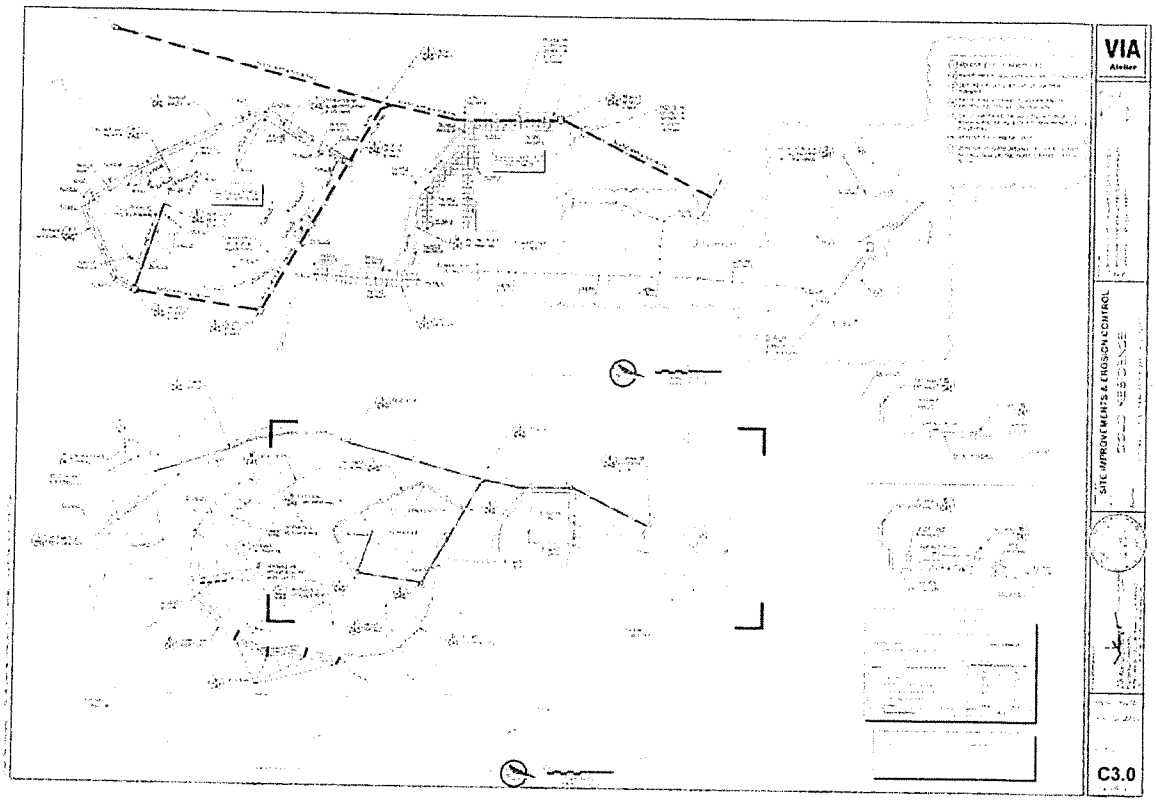
METERED WATER REQUIRED

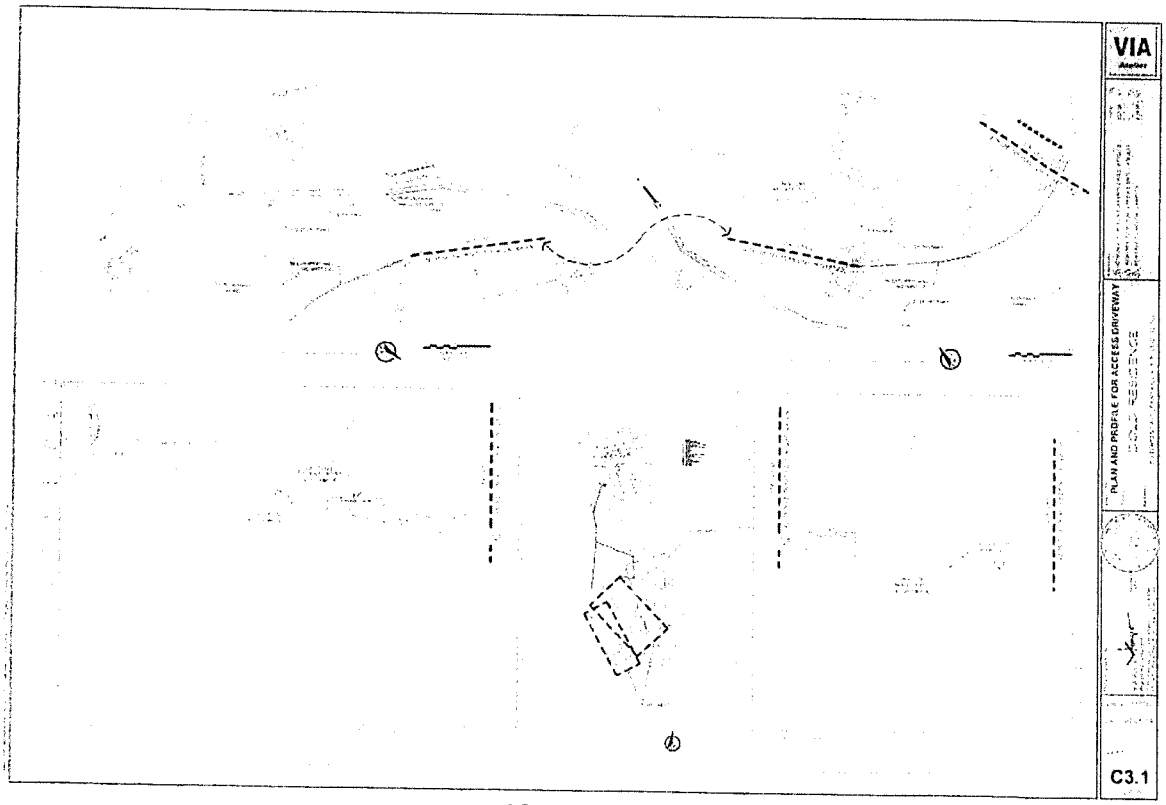
Impervious Area	5,648 sqft. 0.130 acre	Q =	0.316 cfs
(Captured) Pervious Area	0 sqft 0 acre	Q =	0.0fs
(Captured)	Total Captured	Q =	0.316 cfs

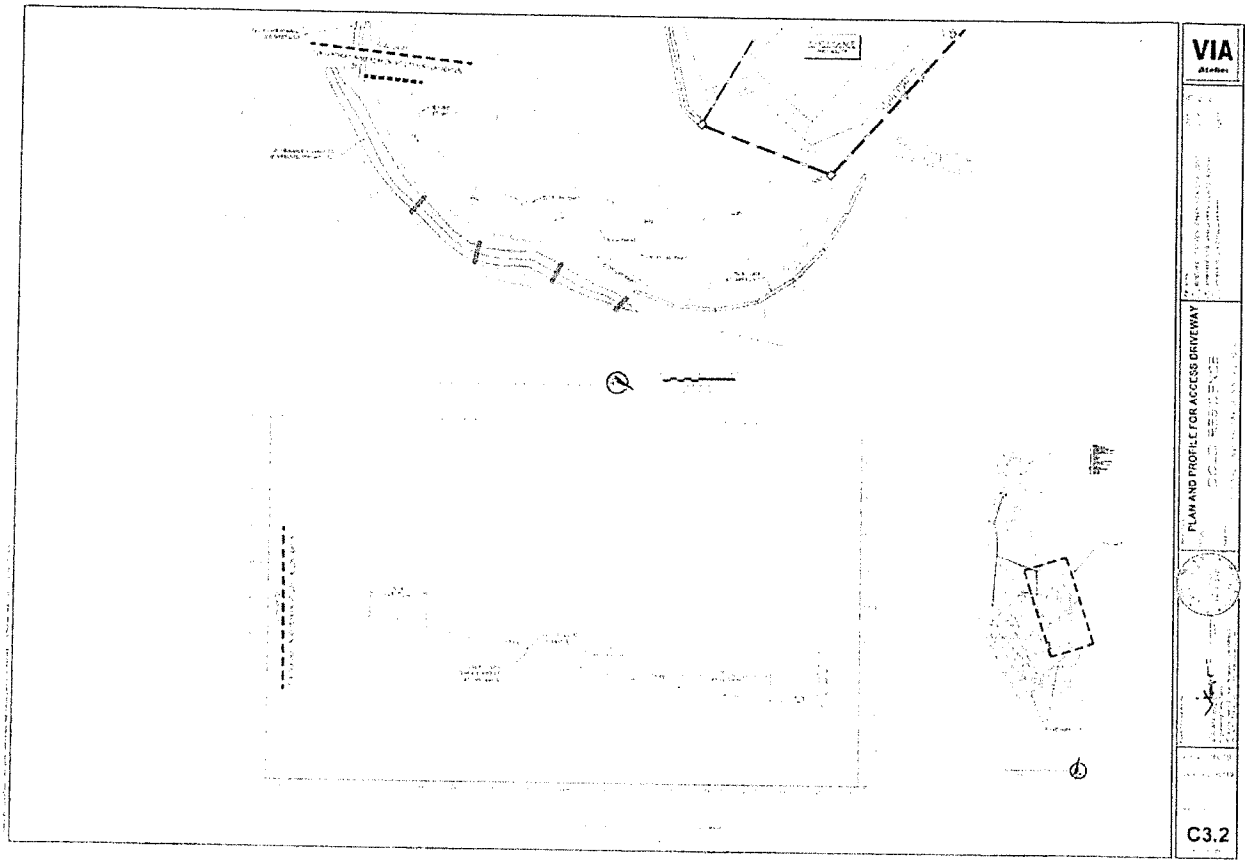
Difference in Runoff Rate (Unmetered - metered = .683 c.f.s. - .316 c.f.s. = .367 c.f.s

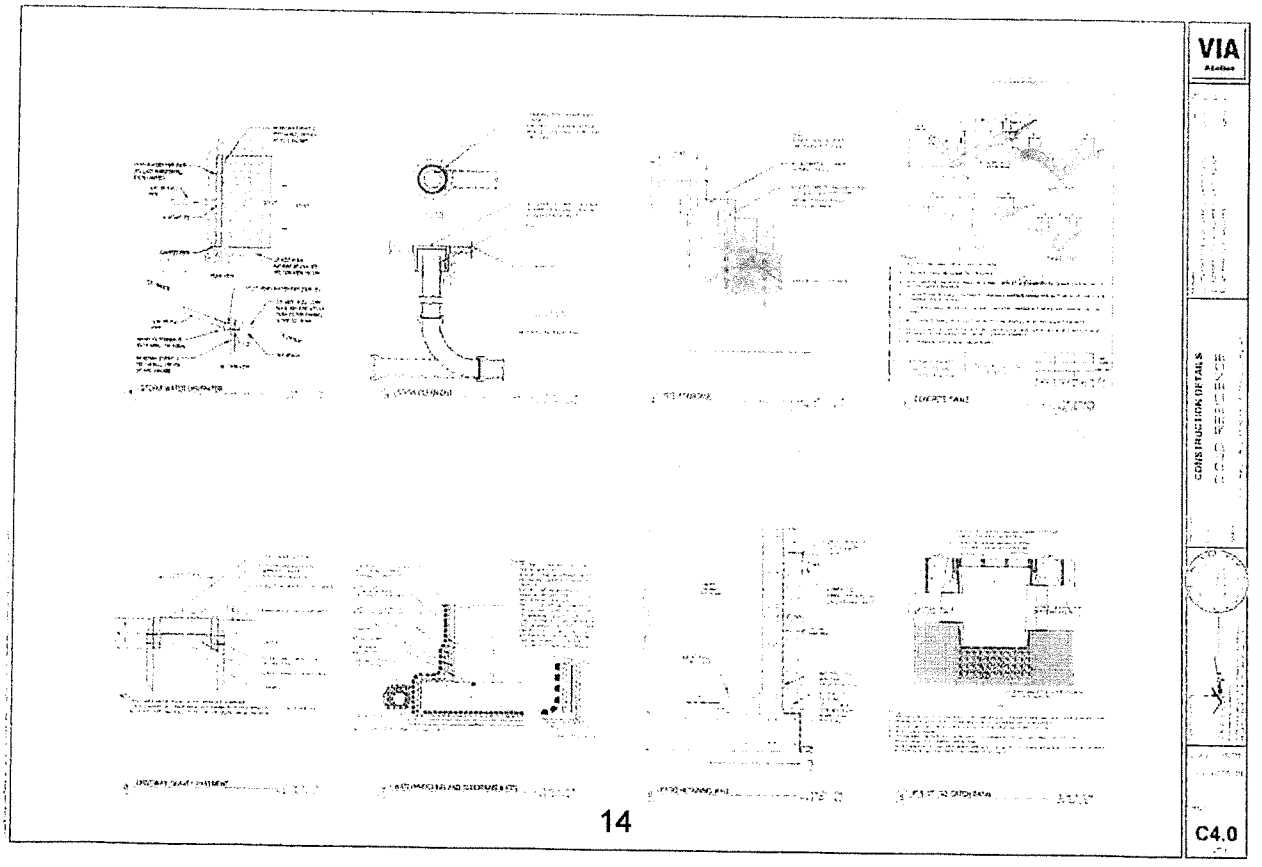
Acceptance Criteria - The Post-construction Runoff rate must be less than or equal to the Post- Construction Runoff Rate

Total Pre-construction Runoff rate = Post Construction Runoff Rate - OK

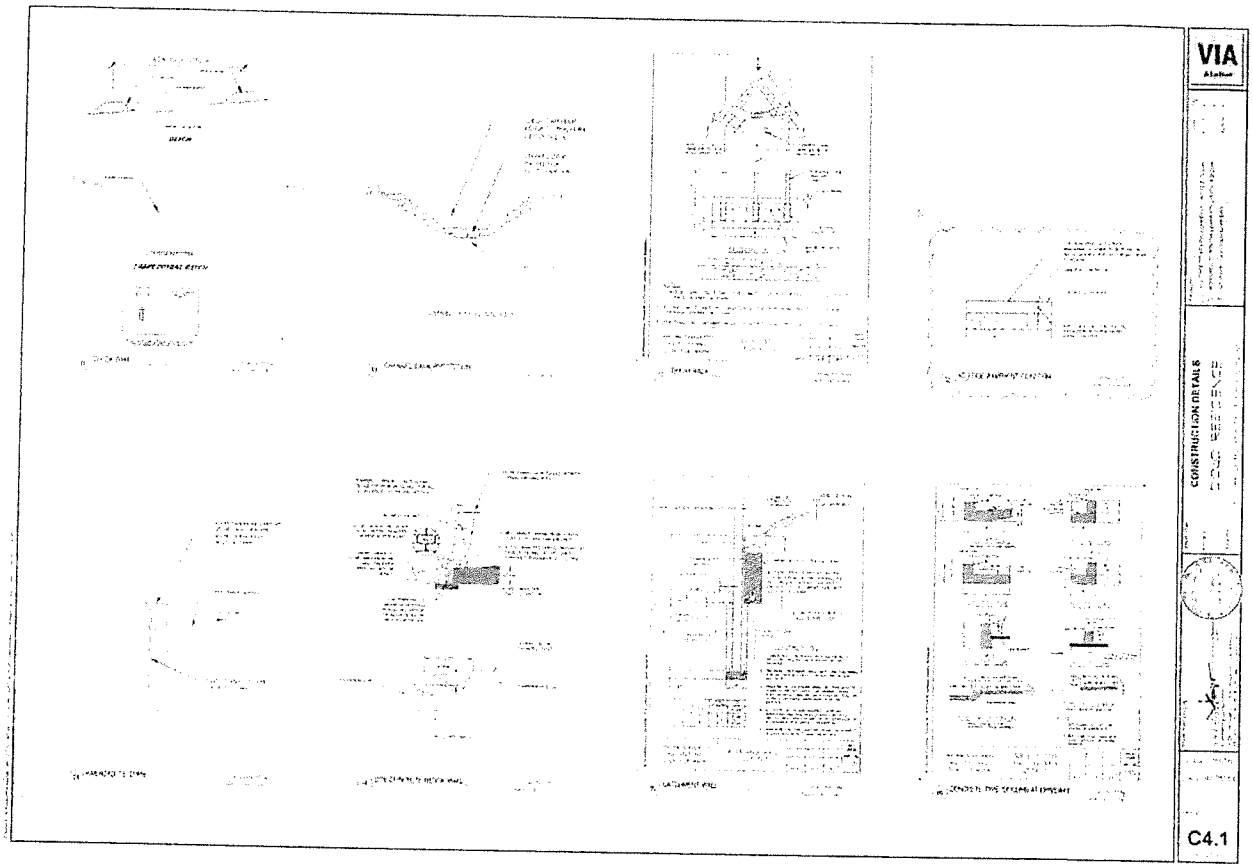

VIA
SITE IMPROVEMENTS & EROSION CONTROL
C3.0


VIA
PLAN AND PROFILE FOR ACCESS DRIVEWAY
C3.1


VIA
PLAN AND PROFILE FOR ACCESS DRIVEWAY
C3.2


VIA
CONSTRUCTION DETAILS
C4.0

REPORT	DATE
Hydraulic Analysis of Drainage	February 25, 2022
PROJECT	BY
155 Forrest Avenue Fairfax, CA	MG. Watkins, PE



TOWN OF FAIRFAX
142 BOLINAS ROAD, FAIRFAX, CALIFORNIA 94930
(415) 453-1584/FAX (415) 453-1618

Date: January 30, 2019 20

Permit #19-T-114

NOTICE OF TREE COMMITTEE ACTION

This action may be appealed to the Fairfax Town Council within 10 days of the Tree Committee decision. This permit is not in effect until the 10 day appeal period is over.

Request for a tree permit to remove: (32) Bay

Address of Tree(s) to be removed: 155 Forrest Ave

Applicant's Phone: Gary Dowd (415) 747-1466

On January 30 27, 2020 the Fairfax Tree Committee took the following action on the above referenced tree permit application:

____X____**FOR RECOMMENDATION TO PLANNING COMMISSION –**

Richardson-Mack made a motion to recommend that the only tree to be removed be the single bay tree identified on the RVFD approved plans submitted to the Town and not per the plans submitted with the application. Additionally it is recommended that per section 8.36.060 (D) of the Town Code, the removed trees be replaced at a minimum ratio of 1:1. The motion was seconded by Benson and voted on.

Vote:
Benson- Aye
Flores- Aye
Pugh- Aye
Richardson-Mack- Aye
Romaidis- Aye

Vote: Ayes- 5, Noes- 0

_____ APPROVED

REMINDER: PLEASE KEEP PERMIT NOTICE UP DURING THE 10 DAY WAITING PERIOD

_____CONTINUED

_____ DENIED

ATTACHMENT F

FOR RECOMMENDATION ONLY
(See Transmittal Dept. Planning & Building Services)

NOV 12 2019

TOWN OF FAIRFAX
142 BOLINAS ROAD, FAIRFAX, CA 94930
(415) 453-1584 / FAX (415) 453-1618

APPLICATION FOR TREE REMOVAL OR ALTERATION

A permit is required to remove or alter one or more trees on any parcel in the Town of Fairfax. All trees for which a permit is requested shall be tagged with an orange ribbon, a minimum of 10 days prior to the Tree Advisory Committee meeting date. Applicants must also post a notice of intent to alter or remove the marked Tree(s) in a prominent location visible along the frontage of the affected property.

APPLICANT INFORMATION

OWNER (APPLICATIONS MUST BE FILED BY PROPERTY OWNER): GARY DOWD	DATE OF APPLICATION: NOV. 12, 2019
JOB ADDRESS/ASSESSOR'S PARCEL NO. IF SITE IS VACANT 155 FORREST AVE.	PHONE NUMBER: (415) 747-1466
EMAIL ADDRESS: GARY@REALISTICREALTYGROUP.COM	FAX NUMBER:
PROPERTY OWNER'S ADDRESS IF DIFFERENT FROM ABOVE P.O.BOX 325, LARKSPUR 94977	ALTERNATE PHONE NUMBER:

mail to

TREE INFORMATION

SPECIES AND DESIGNATION OF HERITAGE/SPECIMEN/UNDESIRABLE TREE: BAY TREES ARE TO BE REMOVED AS REQUIRED BY THE RVFD	CIRCUMFERENCE BREAST HEIGHT: 32 BAYS 6"Ø TO 36"Ø
	REASON FOR REMOVAL/ALTERATION REQUIRED BY THE FIRE DEPT.
SPECIES AND DESIGNATION OF HERITAGE/SPECIMEN/UNDESIRABLE TREE:	CIRCUMFERENCE BREAST HEIGHT: FOR FIRE PROTECTION
	REASON FOR REMOVAL/ALTERATION
SPECIES AND DESIGNATION OF HERITAGE/SPECIMEN/UNDESIRABLE TREE:	CIRCUMFERENCE BREAST HEIGHT:
	REASON FOR REMOVAL/ALTERATION
SPECIES AND DESIGNATION OF HERITAGE/SPECIMEN/UNDESIRABLE TREE:	CIRCUMFERENCE BREAST HEIGHT:
	REASON FOR REMOVAL/ALTERATION

Please attached a site plan to this application showing the location and species of all trees with a diameter of 4 inches (circumference of 12 inches or more), measured 4.5feet above grade at tree base, property boundaries and easements, location of structures, foundation lines of neighboring structures and paved areas including driveways, .

AGENDA ITEM #

Any tree company used for the removal or alteration must have a current and valid Fairfax Business license. Please include the name, address, and phone number of the person or company doing the above listed work:

NAME: TBD	PHONE NUMBER:
ADDRESS:	CONTRACTOR BUSINESS LICENSE NUMBER

Please note the Tree Advisory Committee may require applicants to submit their application to a Qualified Arborist for a report or recommendation at the expense of the applicant. A Qualified Arborist is defined as a Certified Arborist, A Certified Urban Forester, a Registered Consulting Arborist, or a Registered Professional Forester.

OWNER'S STATEMENT

I understand that in order to properly process and evaluate this application, it may be necessary for Town personnel to inspect the property, which is the subject of the application. I also understand that due to time constraints it may not always be possible for Town personnel to provide advanced notice of such inspections. Therefore, this application will be deemed to constitute my authorization to enter upon the property for the purpose of inspecting the same, provided that Town personnel shall not enter any building on the property except in my presence or the presence of any other rightful occupant of such building. I understand that my refusal to permit reasonable inspection of any portion of the property by town personnel may result in a denial of this application due to the lack of adequate information regarding the property.

Signature of Property Owner

NOVEMBER 12, 2019

Date

[AREA BELOW FOR STAFF USE ONLY]

Permit Number: 19-T-114	
Date Received: 11-12-19	Received by: S Walker
Conditions of Approval:	
Tree Committee Action:	Date:

Tree Committee Actions can be appealed to the Town Council within 10 days of the Tree Committee Action. Contact Town Hall for more information.

MARIN TREE SERVICE
Specializing in Tree Preservation

Landscape Tree Inspection Report

155 Forrest Avenue
Fairfax, CA

Prepared for:

Gary Dowd

Prepared on:

August 06, 2019

Prepared by:

Robert Morey
ISA Certified Arborist
WC-0167

Marin Tree Service, Inc.
34 DeLuca Place, Suite M
San Rafael, CA 94901

Scope and Limitations

On August 6, 2019 I inspected the landscape trees at 155 Forrest Avenue, Fairfax, CA. The inspection of all trees was made from the ground and involved inspection of the external features only. No invasive, diagnostic or laboratory testing was carried out. The identification of these trees was based on broad features visible at the time of inspection.

I have also examined the existing site plan in order to assess the impact of the proposed construction on the trees. Where recommendations are made in this report including those recommendations contained in the Tree Protection Guidelines it is essential that these recommendations be able to be implemented. Any additional drawings, details or redesign that impact on the ability to do so may negate the conclusions made in this report.

Arborists are specialists who use their education, knowledge, experience, and training to provide proper care and professional evaluations and diagnosis of individual trees. Arborists attempt to minimize the risk of living near trees while enhancing and maintaining the overall beauty and health of the trees. Recommendations by the arborist may be accepted or disregarded by the client.

Trees inherently pose a certain degree of hazard and risk from breakage, failure, or other causes and conditions. Marin Tree Service makes recommendations, to minimize or reduce these hazardous conditions but cannot guarantee to eliminate them, especially in the event of a storm or other act of nature. While a detailed inspection normally results in the detection of hazardous conditions, there can be no guarantee or certainty that all hazardous conditions will be detected.

There always will be some risk involved with all trees. With proper monitoring and care, trees can be managed. The only way to eliminate all risks is to remove the trees.

If you have any questions, please do not hesitate to contact Marin Tree Service for assistance.

Observations and Tree Schedule

There is a new garage planned for construction which will be located approximately 15' from the closest 24" Redwood in the schedule below. The foundation consists of a spread footing construction. The soil structure appears to have good drainage since there are no surface roots. At that distance there should only be minimal root loss on one side of the closest tree. This root loss will not be enough to compromise the vitality and structural integrity of the Redwood. There will be some improvements to the grade of the existing driveway but the driveway will not come any closer to the existing California Bay Laurels. There are other trees on this property which will not be affected by the construction. The Tree Protection Guidelines in Appendix A should be followed to protect all of the trees on the property during construction.

Scientific Name	Condition	Location	DBH	Recommendation
Coast Redwood (Sequoia sempervirens)	Four trees that are regrowth from the original Redwood in a stump circle typically referred to as a "fairy ring". All trees are of normal vitality and structural integrity.	Located to the southeast of the residence.	16", 24", 24", 36"	Follow the Tree Protection Guidelines in Appendix A.

Scientific Name: Identification is made on the basis of visual features visible from ground level at the time of inspection.

DBH (Diameter at Breast Height): The trunk diameter at approximately 4 ½' above ground or at the point at which the trunk develops a constant diameter.

Appendix A –Tree Protection Guidelines

Before development, avoid tree damage during construction by protecting the root zone. The following should be considered:

A) Physical protection of the trees can be accomplished in stages during the progression of work:

- Installing an inexpensive chain link, wire mesh, or wood fence around the drip line of trees is the most effective way to protect trees and help with tree preservation. This fence should be installed at the drip line during the initial stages of development.
- As development progresses, the fence can be moved to within 6 feet of the trunks.
- If continued progress requires access closer than 6 feet to the trunk, other precautions can be taken, such as placing hay bales around the trunks so the bark is not struck with equipment or placing 8' lengths of 2' X 4' lumber around the tree and wrapping them with orange plastic fencing.

B) Signage: all sections of fencing should be clearly marked with signs that the area within is a tree protection zone and no one is allowed to disturb the area.

C) Root Pruning: Whenever roots over 1 inch (2.5 cm) in diameter must be severed, they should be cut flush to eliminate jagged edges. There are three methods of root pruning:

- Soil excavation using supersonic air tools, pressurized water or hand tools, followed by selective root cutting.
- Cutting through the soil along a determined line on the surface using a tool specifically designed to cut roots.
- Mechanically excavating (with trenching machine or backhoe) the soil and pruning what is left of the exposed roots.

D) Irrigate the root zone with a soaker hose allowing water to penetrate the soil to the depth of the tree roots, generally the upper 6-18" (15-45 cm) of soil.

E) Aerate the root zone: improve aeration and reduce compaction. Spread organic mulch or wood chips (2-4 inches) over the surface to reduce evaporation and conserve soil moisture and temperature.

F) Fertilization of the preserved trees before construction is recommended if nutrient deficiencies exist to boost the trees vigor and tolerance.

G) Preventive pesticide applications to reduce pest attacks should be initiated prior to construction and continued until trees have recovered from construction related stress.

H) Alternative trenching methods are available to avoid unnecessary root damage. Boring machines that tunnel under root systems and allow the installation of pipes and wires without root severance are a good alternative to trenching. If digging trenches is unavoidable, dig trenches and tunnels by hand to avoid unnecessary root damage.

I) Avoid adding backfill over the root zones of existing trees to avoid root suffocation and die back.

J) Avoid compacting soil over the root zones. Do not traffic with heavy equipment, pile debris or materials or leave equipment standing over the root zones of the trees.

K) Crown cleaning before construction is recommended to reduce the risk of branch failures in areas where people, structures, and equipment are within striking distance. When removing large limbs, the final cut should not be flush with the trunk of the tree. This removes the branch collar that contains a chemical barrier zone that controls rotting organisms. Traditional surgery paint should not be used. It is of no value and may promote rot.

L) Roots absorb oxygen from the atmosphere through the soil and in return release carbon dioxide (gas exchanges). Therefore, adding backfill, compressing soil, paving, etc. retards gas exchanges and limits water percolation through the soil to the roots, promoting root die back. This form of chronic stress may cause trees to die prematurely within five to twenty years after development, depending on the degree of impact. Compensation can be attempted through fertilizing, soil mulching and aerating the soil using high-pressure equipment.

Ross Valley Fire Department
777 San Anselmo Avenue, San Anselmo, CA 94960

Mark Mills
FIRE CHIEF

January 23, 2020

Address: 155 Forrest, FWX
Applicant: Jeff Kroot
Application #: 19-0214 #3

The revised Vegetation Management Plan submitted for review by the Ross Valley Fire Department is **APPROVED** with conditions.

Plans do not show any existing vegetation other than trees. A site visit has determined that very little vegetation is present other than trees. Any planting of vegetation shall be in compliance with RVFD Standard #220 and shall be reviewed and approved by Ross Valley Fire prior to planting.

Please do not remove any tree that requires a permit from the town without first securing such permit.

Please note that all vegetation within the 30 foot zone shall be irrigated. Seasonal grasses within the 30 foot zone are not permitted unless regularly irrigated. If not kept as green grass the area shall be covered in a weed barrier which should be covered in a layer of mulch.

Every effort shall be taken to ensure erosion control efforts are in compliance with standards established by Town regulations.

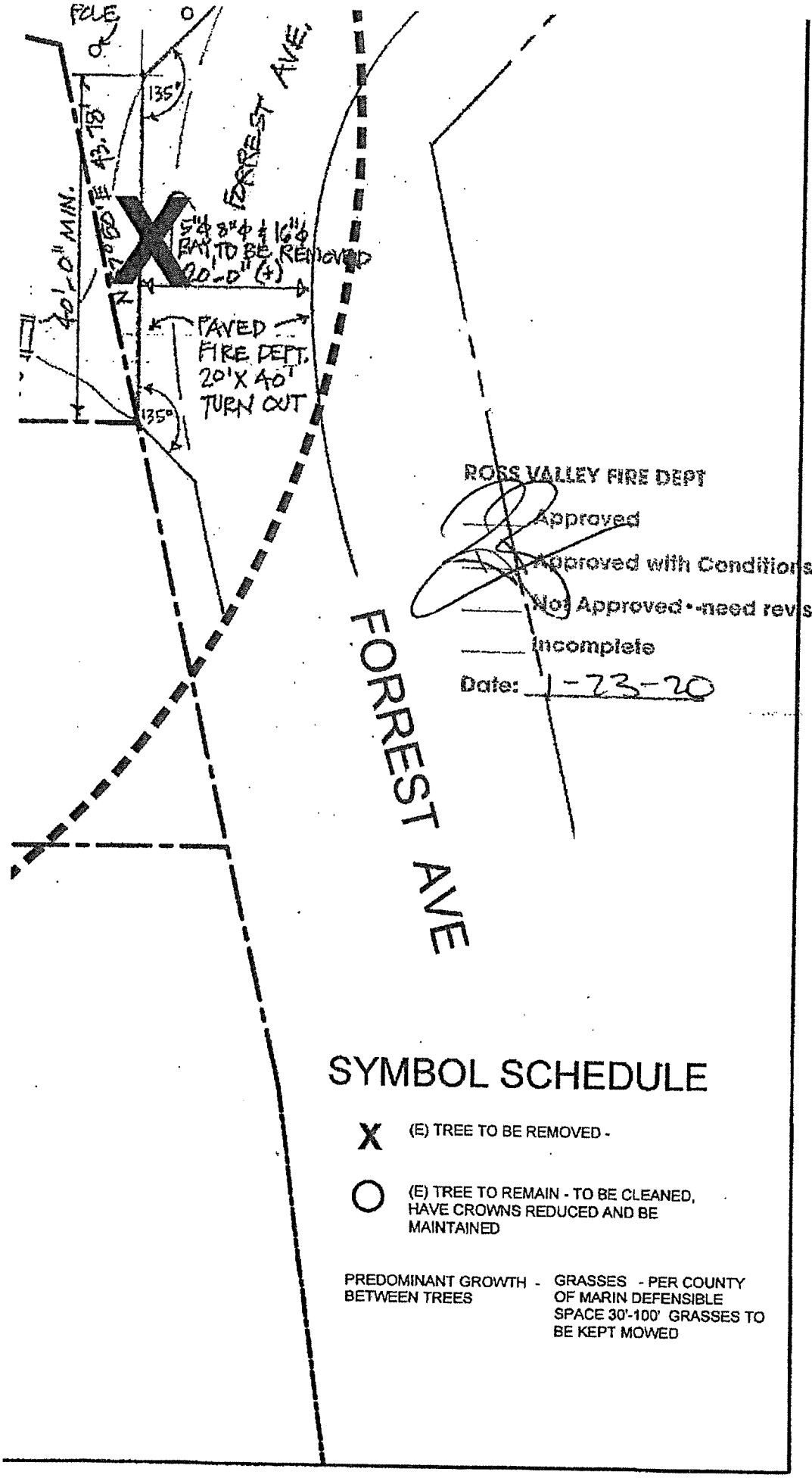
The approved plan is to last the life of the property. Any changes to the plan now or in the future will require Fire Department review. It is recommended that if the applicant has plans to landscape in the future that those plans be intermingled into this plan.

Vegetation shall be maintained to ensure address numbers are visible from both angles of approach.

Minimum standards shall be in place prior to final fire clearance.

If you have any questions about any of the items listed above please call me. I am available to meet with you on site to help you develop a plan. Please contact me to schedule (415) 453-1289 Ext 21 if you desire my assistance.

Sincerely,



ROSS VALLEY FIRE DEPT

____ Approved

____ Approved with Conditions

____ Not Approved - need revision

____ Incomplete

Date: 1-23-20

SYMBOL SCHEDULE

X (E) TREE TO BE REMOVED -

O (E) TREE TO REMAIN - TO BE CLEANED, HAVE CROWNS REDUCED AND BE MAINTAINED

PREDOMINANT GROWTH BETWEEN TREES - GRASSES - PER COUNTY OF MARIN DEFENSIBLE SPACE 30'-100' GRASSES TO BE KEPT MOWED

VEGETATION

ADDITION AND REMODEL FOR:

GARY DOWD

155 FORREST AVE, FAIRFAX, CA

APN: 002-192-50

Date	JULY 2019
Scale	1"=16'
Drawn	DMS
Job	DOWD
Sheet	1
of	1

ROSS VALLEY FIRE DEPARTMENT

Developed by
Robert Bastianon, Fire Inspector
Approved by
Roger Meagor, Fire Chief

Fire Protection Standard 220

Vegetation Fuels Management Plan

Date: 9/28/09
Revision:
Page: 4 of 6

Figure I

HAZARD ASSESSMENT MATRIX

Hazard Points	1	2	3	4	5	6	7	8	Points
Aspect	NE, E	NW, N	SE, W	S	SW				4
Slope		0-10		11-20		21-30		31+	6
Fuel 0-30	Specimen Garden	Hardwood	Grass	Mostly Grass	Mostly Brush	Pyrophoric Hardwoods Chaparral	Conifer	Conifer w/brush under story	2
Fuel 31-100	Grass, Mostly Grass	Mostly Brush		Pyrophoric Hardwoods Chaparral	Conifer with brush under story				1

Total Hazard Points 13

Minimum Horizontal Modification Requirement in feet 30 FT

Hazard Points:

1 2 3 4 5 6 7	8 9 10 11 12 13 14	15 16 17 18 19 20 21 22 23 24 25 >
30x30x30 ft.	30x30x50 ft	50x50x100 ft.

V. Fuel Types:

A. Specimen Garden: a well-maintained ornamental garden, usually irrigated. Trees and shrubs are well spaced or clustered, thinned and free of deadwood. The lawn is mowed and clean. No pyrophytic plants within 10 ft. of house.
B. Hardwood (Model 9): Broadleaf (non-pyrophytic) trees such as oaks, maples, ash, etc.
C. Grass (Model 1): Wild field grass dominates; trees and shrubs occupy less than 1/3 of the area.
D. Mostly Grass (Model 2): Brush and tree reproduction occupy more than 1/3 and less than 2/3 of the area.
E. Mostly Brush (Model 5): Brush and tree reproduction occupies 2/3 of the area. Includes young chaparral, coastal scrub and broom stands.
F. Pyrophytic Hardwoods (Model 12): Broadleaf trees that is high in volatile oils, which produce heavy debris and burn intensely. May have some conifers mixed in but the flammable hardwoods dominate the fire behavior.
G. Chaparral (Model 4): Six foot and taller old, pyrophytic brush with excessive deadwood. Includes mixed chaparral of Manzanita, scrub oak, chaparral pea, tall ceanothus, chamise, etc. Often has some young Douglas fir or pines.
H. Conifer (Model 8): Needleleaf trees typically with heavy litter, low branches and plentiful deadwood. Often mixed with some hardwoods or even pyrophytic hardwoods, but conifers dominated and carry the fire.

A. INTRODUCTION

The following report is the Vegetation Fuels Management Plan for Gary Dowd at his property at 155 Forrest Ave., Fairfax, Calif. The project is a two-story addition to the existing residence and the remodel and reduction of an existing one-story accessory dwelling unit. This report describes the project and outlines the measures being taken to provide effective fire hazard mitigation. The plan accompanying this report shows the property boundaries, existing trees, the residence, accessory dwelling unit, decks, driveway, fire turnout as well as the diagram of the defensible space and proposed treatments of the defensible space and plantings.

B. SITE DESCRIPTION

The 35,928 sq.ft. parcel is bordered by Forrest Ave. at the north side and by Francis Ave. on the south side. The west side of the parcel is bordered by a public walkway. The property slopes uphill from Forrest Ave. to Francis Ave. at a slope of approximately 27%. The property is a mixture of grasses, bay and redwood trees. There are adjacent residences to the east and west of the property. It is proposed to remove 6 bay trees. The remaining trees will be cleaned, and the crowns of the bay trees will be reduced and maintenance program will be created to manage the cleaning of the trees yearly.

C. ASSESSMENT

Defensible spaces or fire fuel breaks are required around all residences to provide fire suppression personnel with adequate time to protect homes and neighborhoods during wildland fires. The size of these defensible spaces is determined by using the Hazard Assessment Matrix from the property. The matrix uses factors of slope, aspect, vegetation fuel type to dictate the size of these defensible spaces. See the Hazard Assessment Matrix attached. The Dowd property scored 13 points requiring a protection zone of 30 feet around north and south sides and 50' at the south side of the residence as defined by the fire protection standards.

D. VEGETATION AND VEGETATION MANAGEMENT DEFENSIBLE 1 & 2

1. Zone 1: 0' to 30' from the residence.
The zone is the area surrounding the residence to a point appr from the residence. This are will have no pyrophytic trees, shru groundcovers or plants. Install weed barrier and cover with mu crowns shall be trimmed to maintain a minimum of 10' betwee

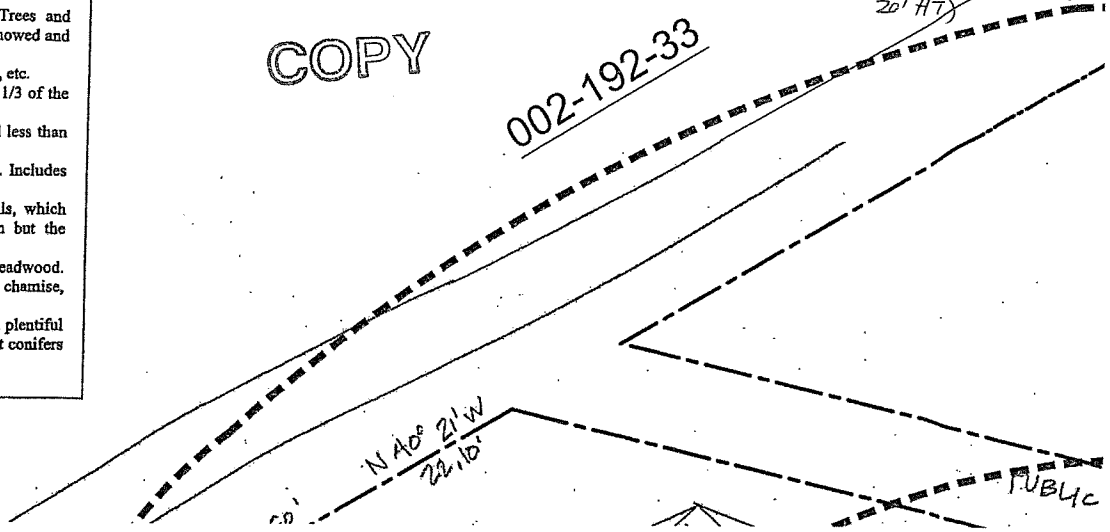
The owner will initiate a dialog with the eastern and western n explore vegetation management on the neighboring property.

Elements:

a. Remove all dead grasses, weeds, plants & foliage.
b. Remove all fallen leaves, needles, twigs, bark, cones a branches.
c. Remove "Gorilla Hair" or shredded bark mulch
d. Use only compost or heavy bark mulch over weed bar soil moisture, or for erosion control.
e. Choose only fire-resistant plants and keep them healt irrigated.
f. Remove fire-prone plants.
g. Provide spacing between shrubs at least 2 times the h mature plant. Add space on steeper slopes.
h. Trim trees to remove limbs 6' to 10' from the ground.
i. Remove branches that overhang the roof or within 10'
j. Move firewood & lumber out of Zone 1, or cover in a fi enclosure.
k. Remove combustables around and under decks and av
l. Clear vegetation around fences, sheds and outdoor fur
m. Outbuildings should have at least 10' of clearance.
n. Maintain regularly, focusing on the areas closest to the
o. REMOVE ALL TREES UNDER 4"Ø
p. CLEAR THE BASE OF ALL BAY TRE (ALL BAY TREES TO 20' HT)

COPY

002-192-33

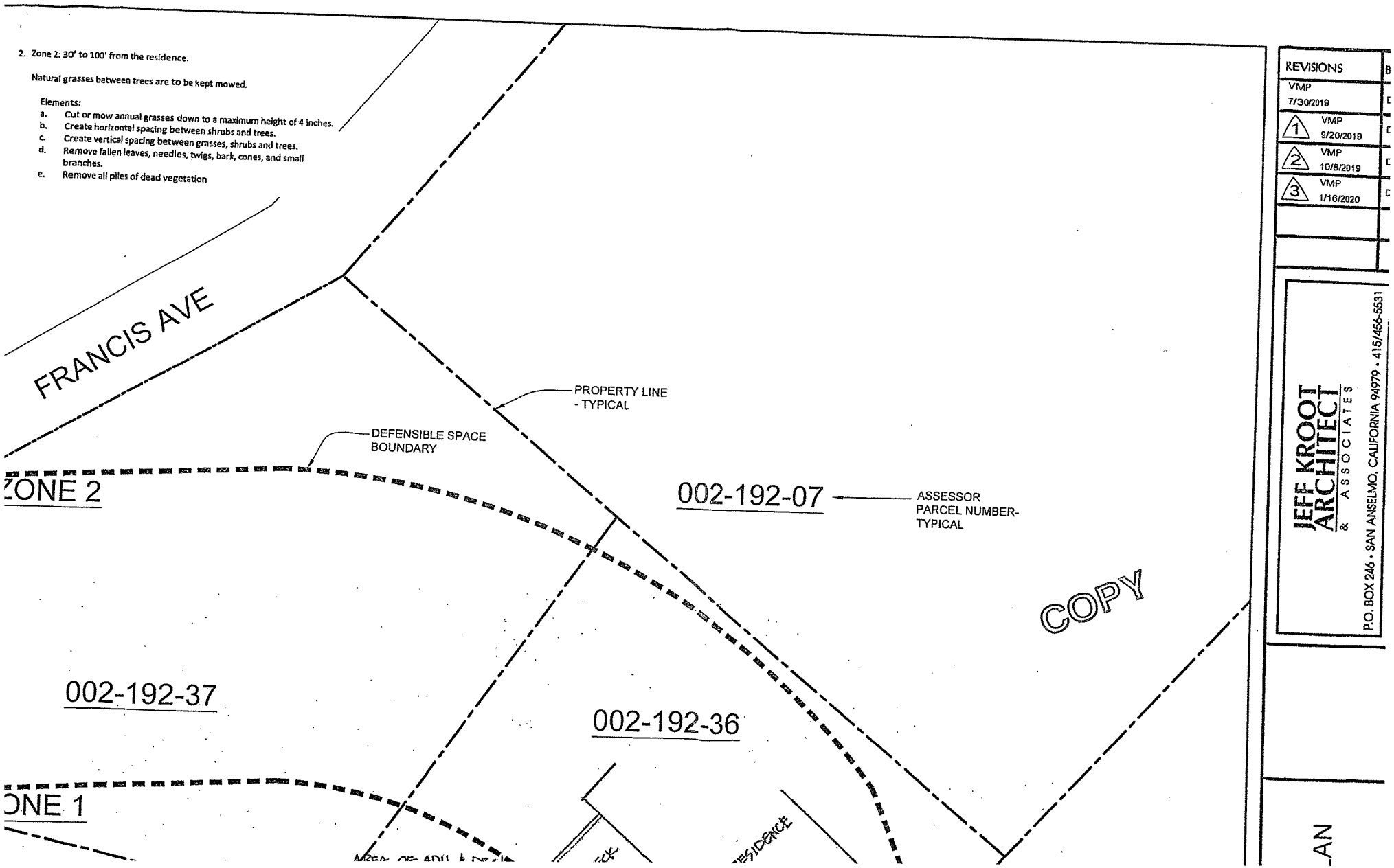


2. Zone 2: 30' to 100' from the residence.

Natural grasses between trees are to be kept mowed.

Elements:

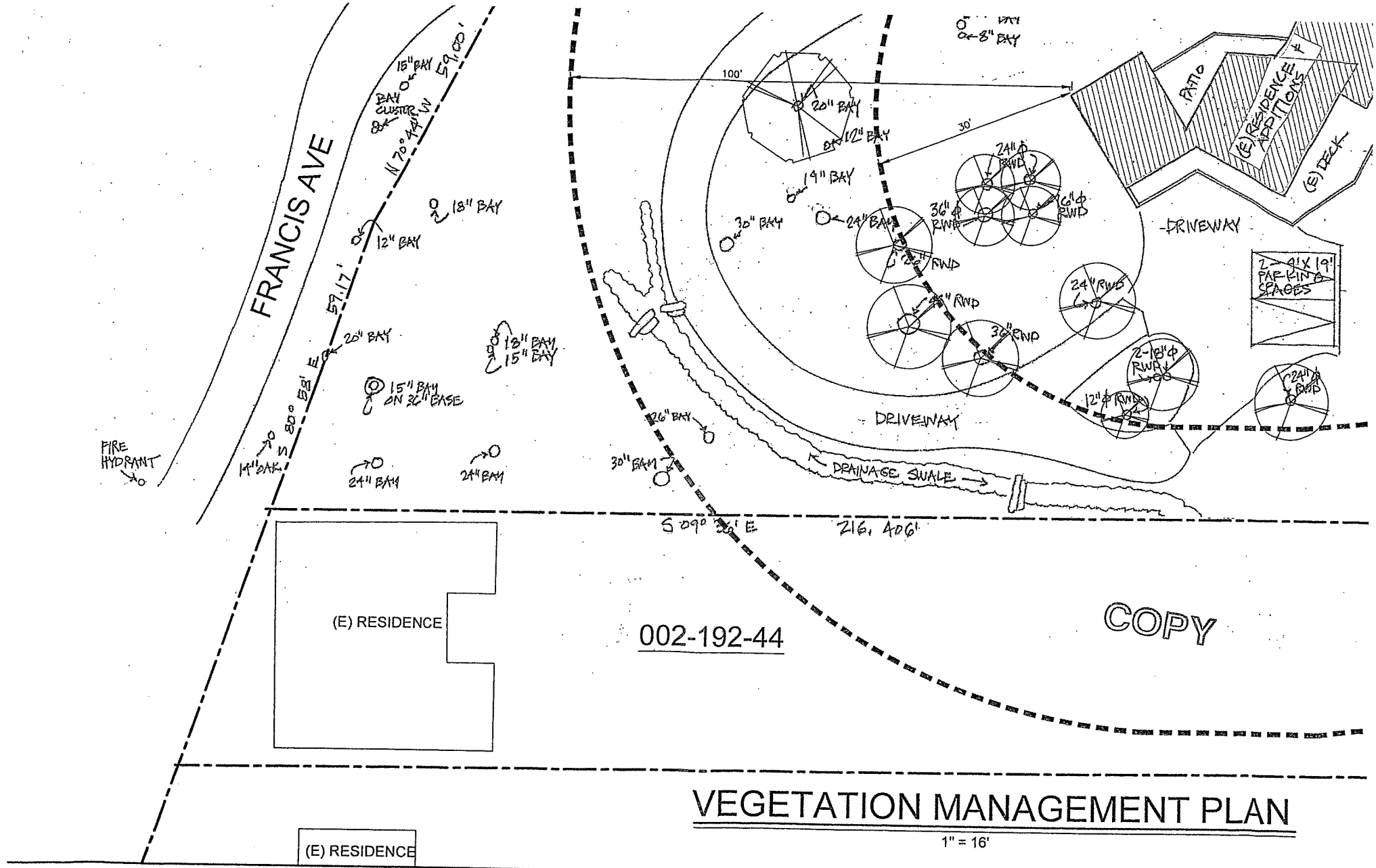
a. Cut or mow annual grasses down to a maximum height of 4 inches.
b. Create horizontal spacing between shrubs and trees.
c. Create vertical spacing between grasses, shrubs and trees.
d. Remove fallen leaves, needles, twigs, bark, cones, and small branches.
e. Remove all piles of dead vegetation



REVISIONS	
VMP 7/30/2019	
1 VMP 9/20/2019	
2 VMP 10/8/2019	
3 VMP 1/16/2020	

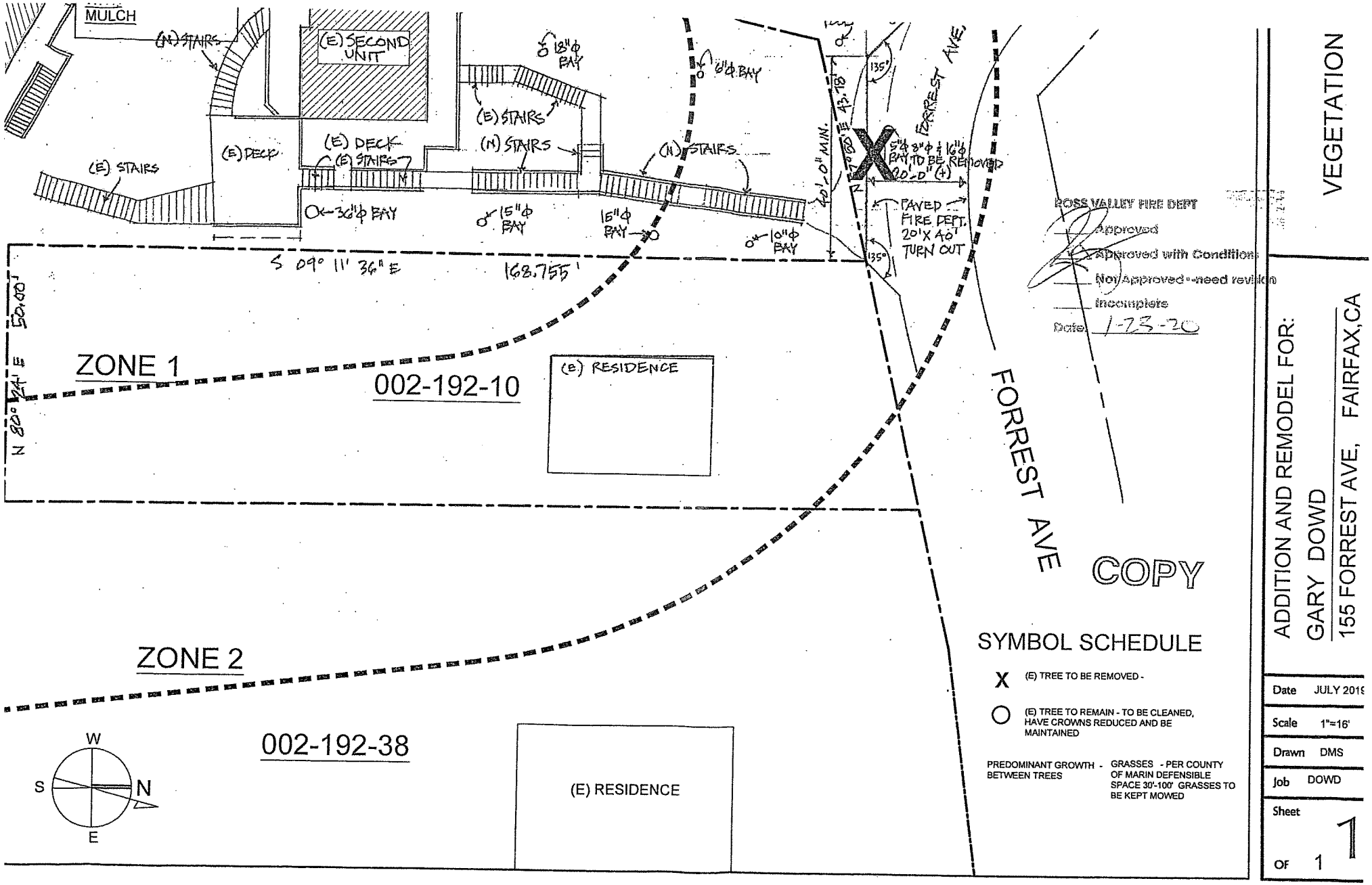
JEFF KROOT ARCHITECT & ASSOCIATES
P.O. BOX 246 • SAN ANSELMO, CALIFORNIA 94979 • 415/456-5531

AN



VEGETATION MANAGEMENT PLAN

1" = 16'



SYMBOL SCHEDULE

X (E) TREE TO BE REMOVED -

○ (E) TREE TO REMAIN - TO BE CLEANED, HAVE CROWNS REDUCED AND BE MAINTAINED

PREDOMINANT GROWTH BETWEEN TREES - GRASSES - PER COUNTY OF MARIN DEFENSIBLE SPACE 30'-100' GRASSES TO BE KEPT MOWED

VEGETATION

ADDITION AND REMODEL FOR:
GARY DOWD
155 FORREST AVE, FAIRFAX, CA

Date	JULY 2019
Scale	1"=16'
Drawn	DMS
Job	DOWD
Sheet	1
OF	1

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Single Family Dwelling
ADDRESS: 155 Forrest Ave
Fairfax, CA.

Page:1of 3
Date:04/03/19
Reviewed by: R Bastianon
(415) 258-4686 Ext 12
Email:rbastianon@rossvalleyfire.org

TYPE OF REVIEW: Planning
Building Dept. 03/05/19 Fire Dept. # 19-0074 Review No. 1

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

Applicant*: Jeff Kroot
Address PO Box 246, San Anselmo Ca 94960 415-456-5531

Applicant is responsible for distributing these Plan Review comments to the Design Team.

Occupancy Class: **R-3**	Fire Flow Req: **1000 GPM**	Sprinklers Required: **YES**
Type of Construction: **V-B**	On-site Hyd. Req: **YES**	Fire Alarm Required: **NO**
Bldg Area: **2141sf**	Fire Lane Req: **YES**	Permits Required: **Sprinkler,**
Stories: **2**	Fire Flow Test Required: **NO**	**Standpipe, VMP**
Height:	Wildland Urban Interface: **YES**	

The project listed above has been reviewed and determined to be:

( ) **APPROVED** (no modifications required)
( ) **APPROVED AS NOTED** (minor modifications required - review attached comments)
( ) **NOT APPROVED** (revise per attached comments and resubmit)
(X) **INCOMPLETE** (provide additional information per attached comments and resubmit)

NOTE: *Please review the comments and make corrections and/or add notes as required. Changes and/or additions shall be clouded and referenced by date on a legend. Approval of this plan does not authorize any deviation from the applicable regulations. Final approval is subject to field inspection. Approved plans shall be on site and available for review at all times.*

ROSS VALLEY FIRE DEPT

_____ Approved
_____ Approved with Conditions
_____ Not Approved - need revision
_X_ Incomplete
Date: 4/3/19

Inspections required:

(X) Access/Water Supply prior to delivery of combustibles
(X) Defensible Space/Vegetation Management Plan
(X) Sprinkler Hydro/Final
(X) Final

ATTACHMENT G

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Single Family Dwelling
ADDRESS: 155 Forrest Ave
Fairfax, CA.

Date:04/03/19
Reviewed by: R Bastianon
(415) 258-4686 Ext 12
Email:rbastianon@rossvalleyfire.org
Review No. 1

TYPE OF REVIEW: Planning
Building Dept. 03/05/19 Fire Dept. # 19-0074

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
1		Per the planning transmittal sheet sent to fire for review, the project is described as the applicant is applying to legalize the driveway, and expand and convert the unpermitted structure at the rear of the site into a single family residence with one car garage. The existing residence would then be converted to a legal 2nd unit.	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
2		This project has an approved alternate methods and materials request. The alternate requires the following: • Address change so both structures are addressed from Forrest Ave • A new permanent and substantially constructed stairway leading from Forrest Ave to the main house. Design and materials shall be approved by the Fire Department, Town Engineer and the Building Official. • Both units shall have a residential fire sprinkler system installed which meets or exceeds minimum requirements of NFPA 13R and local standards. • All existing exterior siding to be replaced with WUI complaint materials • 5/8" Type "X" sheet rock shall be used in all areas with exception of moisture resistant required areas • Improvement of Forrest Ave and lower portion of property for staging of fire ground operations. • A dry standpipe serving both structures **Approved alternate and supporting documentation shall be included in the plan set.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
3		Your project is located within a designated wildland urban interface zone within the Town of Fairfax. All construction shall comply with the 2016 California Residential Code Section R337, 2006 Wildland Urban Interface Code and the 2016 California Fire Code as amended by the Town of Fairfax. **Shall be noted on plans.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Single Family Dwelling
ADDRESS: 155 Forrest Ave
Fairfax, CA.

Date:04/03/19
Reviewed by: R Bastianon
(415) 258-4686 Ext 12
Email:rbastianon@rossvalleyfire.org
Review No. 1

TYPE OF REVIEW: Planning
Building Dept. 03/05/19 Fire Dept. # 19-0074

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
4		Fire apparatus staging area, standpipe and new stairway shall be installed and made service able prior to construction. **Shall be noted on plans**	
		Submitters Response: **Correction has been completed. See Sheet ____of___ Plans**	
5		Fire apparatus access turnout is required for this project. The access shall be located along the property frontage at Forrest Ave. The turnout as designed does not meet minimum fire code requirements. **Please review RVFD Standard #210, redesign and resubmit for review.** **The location of the turnout is approved as a condition of the approved alternate request.**	
		Submitters Response: Correction has been completed. See Sheet ____of__ Plans	
6		A fire hydrant capable of supplying not less than 500 gpm shall be located within 350 feet from all portions of the structure. A dry standpipe is required for this project as an alternate to providing a hydrant within 350 feet. A separate deferred fire permit is required for this system. Plans shall be submitted directly to the fire department for review. **Standpipe shall be noted as a deferred submittal**	
		Submitters Response: Correction has been completed. See Sheet ___of__ Plans	
7		A Vegetation Management Plan (VMP) designed in accordance with Ross Valley Fire Standard #220 is required for this project. A separate deferred permit is required for this plan. Please submit directly to the Fire Department for review. **Town of Fairfax requires the approval of VMPs prior to planning approval.**	
		Submitters Response: Correction has been completed. See Sheet __of____ Plans ____ Calculations	
7		A fire sprinkler system shall be installed throughout each unit which complies with the requirements of the National Fire Protection Association (NFPA) 13-R and local standards. A separate deferred permit shall be	

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Single Family Dwelling
ADDRESS: 155 Forrest Ave
Fairfax, CA.

Date:04/03/19
Reviewed by: R Bastianon
(415) 258-4686 Ext 12
Email:rbastianon@rossvalleyfire.org

TYPE OF REVIEW: Planning
Building Dept. 03/05/19 Fire Dept. # 19-0074 Review No. 1

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
		required for each system. Plans and specifications for the system shall be submitted by an individual or firm licensed to design and /or design-build sprinkler systems. **Sprinkler system shall be noted on plans as deferred submittal**	
		Submitter's Response: Correction has been completed. See Sheet ____of ☐Plans ☐Calculations.	
8		All smoke detectors in the residence shall be provided with AC power and be interconnected for simultaneous alarm. Detectors shall be located in each sleeping room, outside of sleeping rooms centrally located in the corridor and over the center of all stairways with a minimum of one detector per story of the occupied portion of the residence.	
		Submitter's Response: Correction has been completed. See Sheet ____of ☐Plans ☐Calculations.	
9		Carbon monoxide alarms shall be provided in existing dwellings when a permit is required for alterations, repairs, or addition exceeds one thousand dollars. CO alarms shall be located outside of each dwelling unit sleeping are in the immediate vicinity of the bedroom(s) and on every level of a dwelling unit including basements.	
		Submitter's Response: Correction has been completed. See Sheet ____of ☐Plans ☐Calculations.	
10		Address numbers at least 4" tall must be in place adjacent to the front door. If not clearly visible from the street, additional numbers are required at the street and along the path of travel to the residences. . Residential numbers must be internally illuminated (backlit), placed to a light or be reflective numbers. If your project is a new house or substantial remodel, they may only be internally illuminated or illuminated an adjacent light controlled by a photocell and switched only by a breaker so it will remain illuminated all night. If not currently as described, they must be installed as part of this project. **Both units shall be address from Forrest Ave.**	
		Submitter's Response: Correction has been completed. See Sheet ____of ☐Plans ☐Calculations.	

If re-submittal is required, all conditions listed above shall be included in revised drawings.
Fire and life safety systems may require a separate permit. Fire permits may be noted as deferred.

Ross Valley Fire Department
777 San Anselmo Avenue, San Anselmo, CA 94960

Roger Meagor
FIRE CHIEF

APPLICATION FOR
ACCEPTANCE OF ALTERNATE MATERIALS OR METHODS

Application Date: 5-9-17

Project Information

Name: Gary Dowd

Address: 155 Forrest Ave, Fairfax

Permit Number: _____

Applicant Information

Name: Gary Dowd

Address: 607 Magnolia Ave, Larkspur, CA

Phone Number (415) 747-1466

Email Address: gary@realistic realtygroup.com

DESCRIPTION OF ALTERNATE MATERIALS OR METHODS (Include code section)

See attached

JUSTIFICATION OF ALTERNATE MATERIALS OR METHODS, (Describe, in detail, the equivalency of your proposed alternate, use additional pages if necessary and attach two site/floor plans)

See attached

Signed G.M. Dowd
Applicant

- ☒ Approved
- ☐ Denied
- ☐ Comments / Additional Mitigation(s):

Signed: _____
Fire Marshal

Date: 6-16-17

Acceptance of an alternate for Fire Department requirements does not establish, or override, requirements of other Town departments.

In regard to the project at 150 Francis Avenue, the existing unsprinklered older home sits on the upper portion of the lot with a smaller second unit situated on the lower portion of the lot approximately 100 feet from Forrest Avenue. We fully acknowledge the difficult nature of this existing non-conforming structure on the upper portion of this lot. In conjunction with the Fire District's desire to provide service to both structures from Forrest Avenue, eliminating the need to utilize the existing nonconforming Francis Avenue, we propose to improve on the current situation in the following manner. In order to reduce any confusion regarding the new preferred access to the structures, both units will be provided with addresses from Forrest Avenue. A new access stairway of permanent and substantial construction shall be built and maintained near the southern edge of the property providing as direct of a route as the terrain shall allow to the upper residence. The existing lower unit will be reduced in size to approximately 700 square feet. Both units will be equipped throughout with an automatic fire sprinkler system designed and installed in accordance with NFPA 13R standards and local requirements. This will, in a practical sense, double the capability of the required NFPA 13D system. The project will replace all existing exterior siding with siding that complies with W.U.I. requirements. The project will also use 5/8" Type "X" sheetrock in all areas that are not required to be moisture resistant (i.e., bathrooms). While we are not proposing a one-hour structure complete with dampers and penetration protection, the 5/8" Type "X" sheetrock provides superior protection from fire intrusion to the structural elements of the dwelling from any fire originating in the interior of the dwelling. The lower portion of the lot abutting Forrest Avenue will be improved to provide additional room for staging fire ground operations. Additionally, the project will install a dry standpipe. The standpipe will originate at the staging area on Forrest Avenue and provide an outlet near the lower unit and terminate with another outlet at the top of the stairs near the upper main residence with exact locations to be approved by Ross Valley Fire. We are asking that the additional measures outlined above be considered for the alternate means of protection. We believe this will result in a more fire-safe situation than currently exists.

Description of alternate materials or methods:

For CFC Section 503.1.1 exception 1.2

The automatic fire sprinkler system to be installed throughout the dwelling shall be upgraded from the required NFPA 13D standard, to the NFPA 13R standard. In addition, all existing and new exterior siding, shall meet or exceed W.U.I. standards. All sheetrock shall be 5/8" Type "X" sheetrock in areas that are not required to be moisture resistant (i.e., bathrooms). A dry standpipe system shall be installed from the staging area on Forrest Avenue to the top of the stairs at the upper building pad with exact locations to be approved by Ross Valley Fire. The upper residence shall be assigned a new address from Forrest Avenue.

Justification:

CFC Section 503.1.1 specifically allows an increase in the 150-foot distance when any of the following conditions occur:

1. The building is equipped throughout with an approved automatic fire sprinkler system of NFPA 13D, 13R, or commercial 13 system standards. This would apply to commercial or residential occupancies.
2. There are not more than two Group R-3 or Group U occupancies. This would apply with or without an automatic fire sprinkler system.
3. When fire apparatus roads cannot be installed because of topography or non-negotiable grades or other conditions and an approved alternate means of fire protection is provided.

As the unique situation of this property presents some unusual difficulties, we understand the Fire Code Official's hesitancy to utilize the first two exceptions and believe this alternate means provides for a safer environment than the current situation, if left unaltered. The increase in the design of the automatic fire sprinkler system, and the use of fire resistive Type "X" sheetrock substantially increases the ability for these components to control a fire originating within the structure allowing fire fighting forces additional time. The "hardening" of the exterior of the structure through the increased fire resistive nature of the siding will slow the ability of any fire originating outside the structure from involving the structure itself. This will allow arriving fire fighting forces additional time to engage an approaching wildland fire. The new dry standpipe system will save firefighters valuable time and resources when deploying hose lines at the site. If you consider this as you would a mid-rise building, where firefighting forces climb stairs to access fires above the first floor, then the measures above mimic what would be required. The structures will have an automatic fire sprinkler system installed in accordance with Section 903.3.1.2 and local standards, additional fire resistive construction built in, and a standpipe system will be in place for firefighters when they arrive at the fire level. The assignment of a new address will minimize any confusion as to the proper access for firefighting resources allowing them to start fire ground operations faster than trying to access the structure from Francis Avenue, and provides access to a hydrant with superior fire flow to the one on Francis Avenue as well.

SITE IMPROVEMENTS FOR
155 FORREST AVE., FAIRFAX, CA
A.P.N. No: 002-192-50

ABBREVIATIONS:

AC	AGRE OR ASPHALTIC
AGG.	AGGREGATE
AV	ACCESSIBLE VAN STALL
BR	BOTTOM OF RAMP
BS	BOTTOM OF STAIRS
BW	BACK OF WALK OR BOTTOM OF WALL
CLR.	CLEARANCE
C	CENTER LINE
CL.	CLASS
CO	CLEAN OUT
DCV	DETECTOR CHECK VALVE
DIA.	DIAMETER
(E)	EXISTING
(E)XX.XX	INTERPOLATED ELEVATIONS
EJ	EXPANSION JOINT
FC	FACE OF CURB
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FG	FINISH GRADE
FL	FLOWLINE
FN	FENCE
F.O.B.	FACE OF BUILDING
GM	GAS METER
GN	GROUND
GR	GRATE
GV	GATE VALVE
HB	HEADER BOARD
HGL	HYDRAULIC GRADE LINE
I.E. OR INV.	INVERT ELEVATION OR FLOWLINE OF PIPES
ICV	IRRIGATION CONTROL VALVE
LF	LINEAR FEET
LIP	LIP OF GUTTER
LRP	LEGALLY RESPONSIBLE PERSON
MON	MONUMENT
O.C.	ON CENTER
(P)	PROPOSED
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
(R)	RECORD
R	RADIUS
RIM	GRATE OF CATCH BASIN, MANHOLE OR AREA DRAIN RIM ELEVATION
SDCB	STORM DRAIN CATCH BASIN
SDMH	STORM DRAIN MANHOLE
SJ	SCORE JOINT
SV	SHUT-OFF VALVE
SSMH	SANITARY SEWER MANHOLE
SWPPP PLAN	STORMWATER POLLUTION PREVENTION PLAN
T	TRANSFORMER
TB	THRUST BLOCK
T.B.D.I.F.	TO BE DETERMINED IN FIELD
(TBR)	TO BE REMOVED
TC	TOP OF CURB
TP	TOP OF PAVEMENT
TR	TOP OF RAMP
TS	TOP OF STAIR
TH	TOP OF HALL
U.N.O.	UNLESS NOTED OTHERWISE

SITE LOCATION (SEE VICINITY MAP)

TPWN OF FAIRFAX
SCALE: 1" = 1,500'

N

155 FORREST AVE. (A.P.N.: 002-192-50)

VICINITY MAP
SCALE: 1" = 400'

N

CIVIL ENGINEERING SHEET INDEX

1.	COVER SHEET	C1.0
⚠ 2.	EROSION CONTROL & CONSTRUCTION MGMT.	C2.0
3.	EROSION & CONTROL DETAILS	C2.1
4.	SITE IMPROVEMENTS PLAN	C3.0
5.	PLAN AND PROFILE - DRIVEWAY	C3.1
6.	PLAN AND PROFILE - DRIVEWAY	C3.2
7.	CONSTRUCTION DETAILS	C4.0
8.	CONSTRUCTION DETAILS	C4.1

PROJECT TEAM:

PROPERTY OWNER:

GARY DOWD

P.O. Box 325
Larkspur, Ca. 94977

CONTACT:
GARY DOWD

CIVIL ENGINEER:

VIA ATELIER, INC.
9 BROOKSIDE CT.
SAN ANSELMO, CA
T: (415) 714-6716
E: OFFICE@VIA-ENG.COM

CONTACT:
VLAD IOJICA

ARCHITECT:

JEFF KROOT ARCHITECT & ASSOCIATES

P.O. BOX 246
SAN ANSELMO, CA 94979
T: (415) 456-5531

CONTACT:
JEFF KROOT

LAND SURVEYOR:

JACOBS LAND SURVEYING
P.O. BOX 1829
COTATI, CA 94931

T: (415) 454-2235

CONTACT:
STEVEN JACOBS

CONSTRUCTION NOTES:

1. DAMAGE TO ANY KNOWN EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
2. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
3. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING ALL NECESSARY & REQUIRED PERMITS FOR THIS WORK.
4. CONTRACTOR TO COORDINATE WORK STAGING AND STORAGE AREAS WITH OWNER PRIOR TO CONSTRUCTION.
5. EXCAVATION OF 5 FEET OR MORE IN DEPTH WILL REQUIRE AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY.
6. ATTENTION IS CALLED TO: SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 5402), ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, WHICH STATES: "PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE BY THE CONTRACTOR TO DETERMINE WHETHER UNDERGROUND INSTALLATION I.E., SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND, IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION."
7. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF HIS CONTRACT. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICES TO THE PROJECT.
8. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, ENGINEER, AND THE GOVERNMENTAL AGENCY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS ABOUT CONSTRUCTION NOISE.
10. CONSTRUCTION EQUIPMENT, TOOLS, ETC. SHALL NOT BE CLEANED OR RINSED INTO A STREET, GUTTER, STORM DRAIN OR STREAM. SHOVEL OR VACUUM SAW-CUT SLURRY AND REMOVE FROM SITE. CONCRETE / GRANITE TRUCKS AND CONCRETE / PLASTER FINISHING OPERATIONS SHALL NOT DISCHARGE WASH WATER INTO THE STREET GUTTERS OR DRAINS.
11. ALL CONSTRUCTION DEBRIS SHALL BE GATHERED ON A REGULAR BASIS AND PLACED IN A DUMPSTER WHICH IS EMPTIED OR REMOVED WEEKLY. WHEN FEASIBLE, TARPS SHALL BE USED ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORMWATER POLLUTION. ANY TEMPORARY ON-SITE CONSTRUCTION PILES SHALL BE SECURELY COVERED WITH A TARP OR OTHER DEVICE TO CONTAIN DEBRIS.
12. ALL CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS WITH RESPECT TO MATERIALS AND PRODUCT, NECESSITATED BY A LACK OF THE SPECIFIED PRODUCT, UNACCEPTABLE DELIVERY TIMES, AND/OR VALUE ENGINEERING BY THE OWNER, CONTRACTOR OR SUBCONTRACTORS, SHALL BE SUBMITTED TO THE PROJECT ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL IN ADVANCE OF ORDERING AND PRIOR TO USE OR INSTALLATION.
13. NO METAL PIPING OR OTHERWISE SHALL BE IN DIRECT CONTACT WITH EARTH.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO ORDERING MATERIALS, FABRICATING SYSTEMS OR ANY INSTALLATION.
15. CONTRACTOR SHALL REPLACE ALL EXISTING GRATES, FRAMES AND COVERS FOR VAULTS, UTILITY BOXES AND CATCH BASINS, WITH ONES THAT ARE VEHICULAR-RATED IN ALL PROPOSED TRAFFIC ACCESSIBLE AREAS.
16. CLEANOUTS, CATCH BASINS, MANHOLES AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, PLANTERS, BUILDING UTILITIES, AND/OR CURB LAYOUT, NOT BY THE LENGTH OF PIPE SPECIFIED ON THE DRAWINGS. (MAGH IS APPROXIMATE)
17. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES, CORROSION PROTECTION & LABOR NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
18. PRIOR TO STAKING AND INSTALLATION, THE CONTRACTOR AND/OR CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR REVIEWING AND COORDINATING ALL PROPOSED BUILDING HVLP, PLAN UTILITY POINTS OF CONNECTION LOCATIONS, INVERT ELEVATIONS AND SIZES WITH THOSE SHOWN ON THE CIVIL ENGINEER'S SITE UTILITY PLANS AND ADVISE THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS.
19. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE TO, OR WHERE NEW UTILITIES WILL BE CROSSING SO THAT EXISTING FLOWLINE ELEVATIONS, TOP OF PIPES, ETC., AND LOCATIONS CAN BE FIELD VERIFIED BEFORE THE START OF ANY CONSTRUCTION. ADVISE CIVIL ENGINEER OF ANY DISCREPANCIES.

LEGEND:

EXISTING	PROPOSED	
	o	CLEAN OUT TO GRADE
SS	SS	SANITARY SEWER
SD	SD	STORM DRAIN
E	E	ELECTRIC
FS	FS	FIRE SERVICE
DW	DW	DOMESTIC WATER SERVICE
G	G	NATURAL GAS
IW	IW	IRRIGATION
X	X	FENCE
JT	JT	JOINT TRENCH
⊙	●	FOUND MONUMENT
WV	WV	WATER VALVE
GV	GV	GAS VALVE
WM	WM	WATER METER, VALVE BOX
AD	AD	AREA DRAIN
CB	CB	CATCH BASIN
FH	FH	FIRE HYDRANT
		BENCHMARK
		DETAIL REFERENCE
		DANDY BAG
SD	SD	STORM DRAIN MANHOLE
SS	SS	SANITARY SEWER MANHOLE
		SIGN

Revisions	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 8/7/2018	10/1/18	V.I.
2 RESPONSE TO REVIEW COMMENTS DATED 4/5/2019	-	V.I.
3 RESPONSE TO REVIEW COMMENTS	4.29.19	V.I.

Sheet Title: COVER SHEET, MAP AND NOTES

Project: DOWD RESIDENCE

Address: 155 FORREST AVE, FAIRFAX, CA, APN: 002-192-50

Plans Prepared By:

VIA Atelier, Inc.
Engineering Consultants
9 Brookside Ct. San Anselmo, CA 94960
Ph.(415) 714-6716 E-office@via-eng.com

10/01/2018
Date:

JOB NO. 1607B

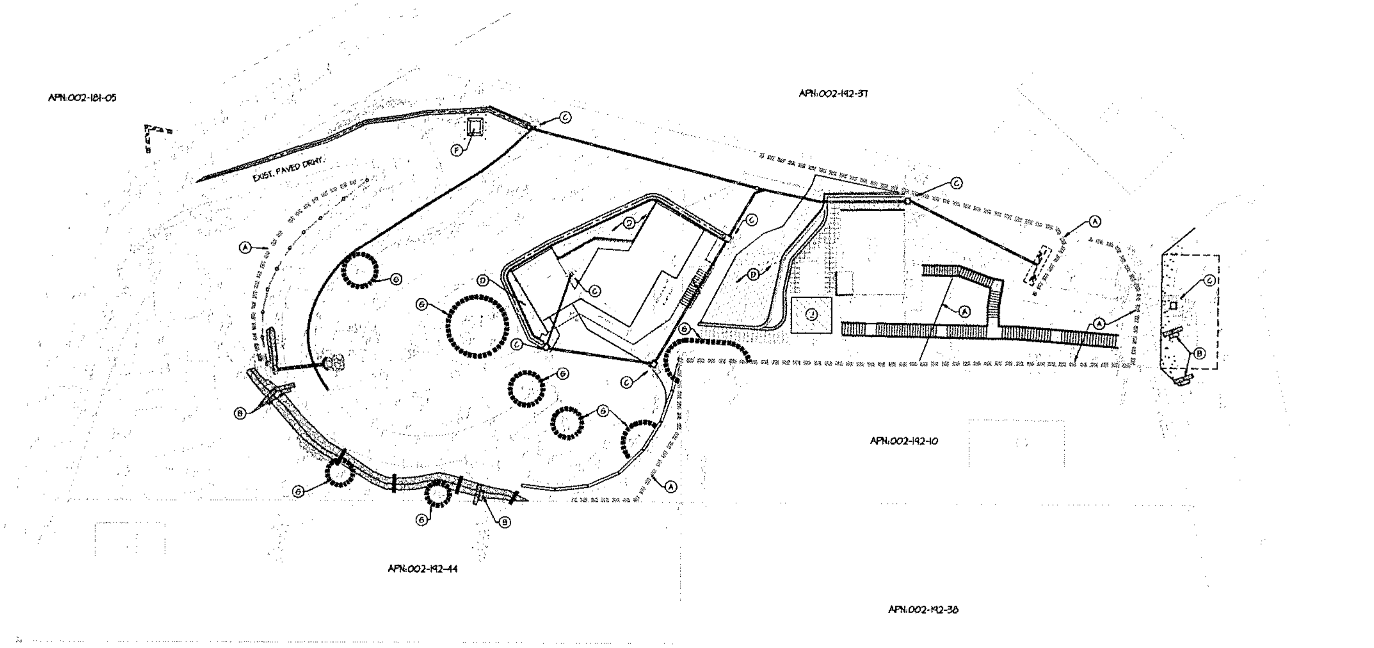
DATE: 02/05/19

SHEET:

C1.0

1 OF 8

C:\Users\Vlad\Documents\VIA\1607B_155 Forrest Ave, Fairfax\CADD\C1.0 Cover.dwg Plotted by: Vlad Oct 15, 2019 2:11pm



EROSION & CONSTRUCTION MANAGEMENT PLAN

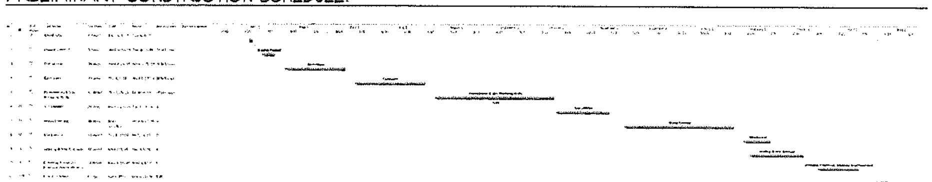
SCALE: 1" = 20'

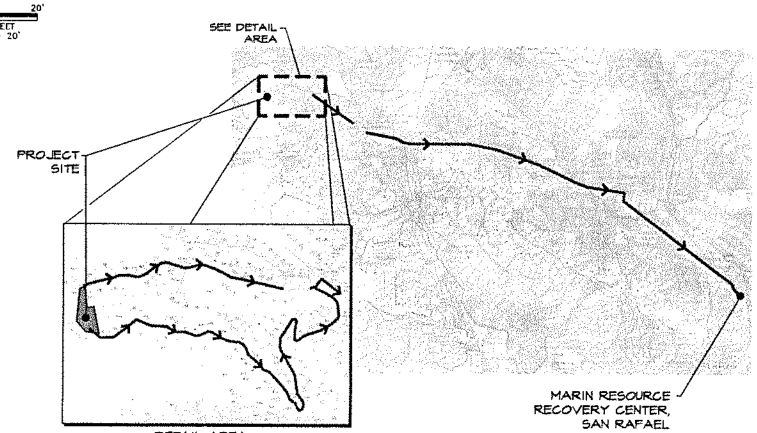
20' 0' 20'
SCALE IN FEET
SCALE: 1" = 20'

LEGEND:

- (A) INSTALL FIBER ROLLS PER CASQA SE-5 — 1/C2.1
- (B) INSTALL GRAVEL BAG SEDIMENT TRAP DURING CONSTRUCTION TO PREVENT SEDIMENT TRANSPORT PER CASQA SE-6. — 2/C2.1
- (C) INSTALL STORM DRAIN INLET PROTECTION PER CASQA SE-10 — 3/C2.1
- (D) IMMEDIATELY REVEGETATE WITH LANDSCAPING OR UTILIZE GEOTEXTILE MATTING (PER CASQA EC-7) OF DISTURBED SOILS UNTIL LANDSCAPE IMPROVEMENTS ARE COMPLETED. APPROX. LIMITS SHOWN. — 4/C2.1
- (E) CONSTRUCTION ENTRANCE PER CASQA TC-1 (NOT USED)
- (F) CONCRETE WASH AREA — 6/C2.1
- (G) TREE FENCE (Tree Protection Zone) — 7/C2.1
- CONSTRUCTION STORAGE AREAS — 8/C2.1
- (H) WIND EROSION CONTROL, PER CASQA WE-1 — 9/C2.1
- (I) SANITARY WASTE MANAGEMENT, PER CASQA WM-9 — 10/C2.1
- (J) SCHEDULING PER CASQA EC-1 — 10/C2.1
- (K) STOCKPILE MANAGEMENT, PER CASQA WM-3 — 10/C2.1
- (L) MATERIAL DELIVERY & STORAGE, PER CASQA WM-1 — 10/C2.1

PRELIMINARY CONSTRUCTION SCHEDULE:





DETAIL AREA

PRELIMINARY HAULING ROUTE MAP:

VIA Atelier

Revisions:	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 6/7/2018	10/11/18	V.I.
2 RESPONSE TO REVIEW COMMENTS DATED 4/3/2019	-	V.I.
3 RESPONSE TO REVIEW COMMENTS	9.25.19	V.I.

Sheet Title: **EROSION CONTROL & CONSTRUCTION MGMT.**

Project: DOWD RESIDENCE

Address: 155 FORREST AVE., FAIRFAX, CA. APN: 002-192-50

REGISTERED PROFESSIONAL ENGINEER VLAD C. IOTICA C 73861 Exp. 6-30-21 CIVIL STATE OF CALIFORNIA

Plans Prepared By:
VIA Atelier, Inc.
Engineering Consultants
4 Brookside Ct., San Anselmo, CA 94960
Ph:(415) 774-6776 E:office@via-eng.com
Date:

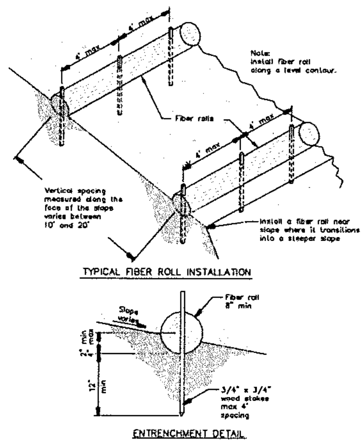
JOB NO. 1607B

DATE: 02/05/19

SHEET:

C2.0

2 OF 8



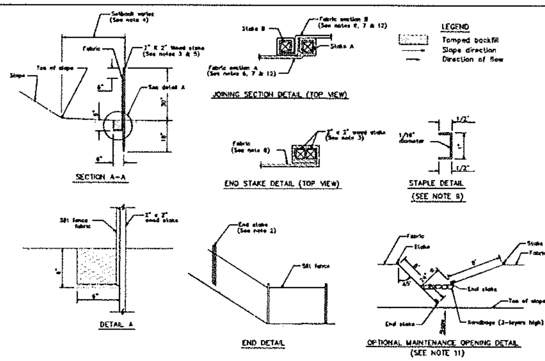
Purpose:
A fiber roll consists of straw, coir, or other biodegradable materials bound into a tight tubular roll wrapped by netting, which can be biodegradable or natural. Additionally, gravel core fiber rolls are available, which contain an imbedded ballast material such as gravel or sand for additional weight when staking the rolls are not feasible (such as use as inlet protection). When fiber rolls are placed at the toe and on the face of slopes along the contours, they intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff (through sedimentation). By interrupting the length of a slope, fiber rolls can also reduce sheet and rill erosion until vegetation is established.

Application:
- Along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- At the end of a downward slope where it transitions to a steeper slope.
- Along the perimeter of a project.
- As check dams in unlined ditches with minimal grade.
- Down-slope of exposed soil areas.
- At operational storm drains as a form of inlet protection.
- Around temporary stockpiles.

Installation:
Follow manufacturer's recommendations for installation. In general, these will be as follows:
Locate fiber rolls on level contours spaced as follows:
- Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft.
- Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective).
- Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective).
- Prepare the slope before beginning installation.
- Dig small trenches across the slope on the contour. The trench depth should be ¼ to 1/3 of the thickness of the roll, and the width should equal the roll diameter, in order to provide area to backfill the trench.
- It is critical that rolls are installed perpendicular to water movement, and parallel to the slope contour.
- Start building trenches and installing rolls from the bottom of the slope and work up.
- It is recommended that pilot holes be driven through the fiber roll. Use a straight bar to drive holes through the roll and into the soil for the wooden stakes.
- Turn the ends of the fiber roll up slope to prevent runoff from going around the roll.
- Stake fiber rolls into the trench.
  - Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center.
  - Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
- If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.

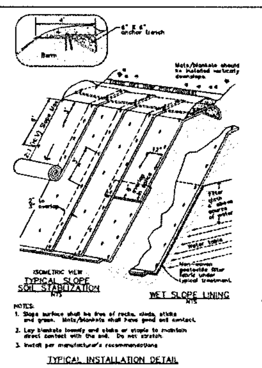
Inspection and maintenance:
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that, at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Repair or replace split, torn, unraveling, or slumping fiber rolls.
- If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-third the designated sediment storage depth.
- If fiber rolls are used for erosion control, such as in a check dam, sediment removal should not be required as long as the system continues to control the grade. Sediment control BMP's will likely be required in conjunction with this type of application.
- Repair any rills or gullies promptly.

(1) FIBER ROLL — CASQA-BMP SE-5 — SECTION — SCALE: NO SCALE



Notes:
1. Construct the length of each reach so that change in base elevation along the reach does not exceed 1/3 the height of the linear barrier. In no case shall the reach length exceed 500'.
2. The last 8'-0" of fence shall be turned up slope.
3. Stake dimensions are nominal.
4. Dimensions may vary to fit field conditions.
5. Stakes shall be spaced at 8'-0" maximum and shall be positioned on downstream side of fence.
6. Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
7. Stakes shall be driven tightly together to prevent potential flow-through of sediment at joint. The tops of the stakes shall be secured with wire.
8. For end stake, fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
9. Minimum 4 staples per stake. Dimensions shown are typical.
10. Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the barrier.
11. Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
12. Sandbag rows and layers shall be offset to eliminate gaps.
13. Add 3-4 bags to cross barrier on downgradient side of silt fence as needed to prevent bypass or undermining and as allowable based on site limits of disturbance.

(2) SILT FENCE — CASQA-BMP SE-1 — SECTION/ELEVATIONS — SCALE: NO SCALE



NOTES:
1. Slope surface shall be free of rocks, clods, sticks and grass. Mats/blankets shall have good soil contact.
2. Lay blankets loosely and stake or staple to maintain direct contact with the soil. Do not stretch.
3. Install per manufacturer's recommendations.

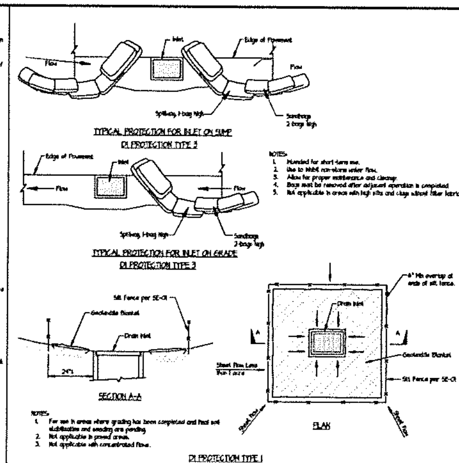
Purpose:
Mattings, or Rolled Erosion Control Products (RECPs), can be made of natural or synthetic materials or a combination of the two. RECPs are used to cover the soil surface to reduce erosion from rainfall impact, hold soil in place, and absorb and hold moisture near the soil surface. Additionally, RECPs may be used to stabilize soils until vegetation is established or to reinforce non-woody surface vegetation.

Application:
RECPs are typically applied on slopes where erosion hazard is high and vegetation will be slow to establish. Mattings are also used on stream banks, swales and other drainage channels where moving water at velocities between 3 ft/s and 6 ft/s are likely to cause scour and wash out new vegetation, and in areas where the soil surface is disturbed and where existing vegetation has been removed. RECPs may also be used when seeding cannot occur (e.g., late season construction and/or the arrival of an early rain season). RECPs should be considered when the soils are fine grained and potentially erosive. RECPs should be considered in the following situations.
- Steep slopes, generally steeper than 3:1 (H:V)
- Slopes where the erosion potential is high
- Slopes and disturbed soils where mulch must be anchored
- Disturbed areas where plants are slow to develop
- Channels with flows exceeding 3.3 ft/s
- Channels to be vegetated
- Stockpiles
- Slopes adjacent to water bodies

Installation:
Installation should be in accordance with the manufacturer's recommendations. In general, these will be as follows:
- Begin at the top of the slope and anchor the blanket in a 6 in. deep by 6 in. wide trench. Backfill trench and tamp earth firmly.
- Unroll blanket down slope in the direction of water flow.
- Overlap the edges of adjacent parallel rolls 2 to 3 in. and staple every 3 ft (or greater, per manufacturer's specifications).
- When blankets must be spliced, place blankets end over end (shingle style) with 6 in. overlap. Staple through overlapped area, approximately 12 in. apart.
- Lay blankets loosely and maintain direct contact with the soil. Do not stretch.
- Staple blankets sufficiently to anchor blanket and maintain contact with the soil. Staples should be placed down the center and staggered with the staples placed along the edges. Steep slopes, 1:1 (H:V) to 2:1 (H:V), require a minimum of 2 staples/yd². Moderate slopes, 2:1 (H:V) to 3:1 (H:V), require a minimum of 1 ½ staples/yd². Check manufacturer's specifications to determine if a higher density staple pattern is required.

Inspection & Maintenance:
- RECPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Areas where erosion is evident shall be repaired and BMPs reapplied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require reapplication of BMPs.
- If washout or breakage occurs, re-install the material after repairing the damage to the slope or channel.
- Make sure matting is uniformly in contact with the soil.
- Check that all the lap joints are secure.
- Check that staples are flush with the ground.

(4) GEOTEXTILES & MATS — CASQA-BMP EC-7 — PLAN — SCALE: NO SCALE



NOTES:
1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed.
5. Not applicable in areas with high silts and clays without filter fabric.

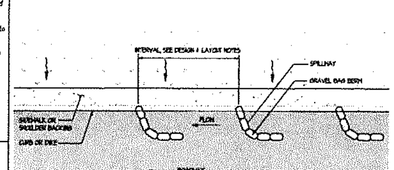
NOTES:
1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

Purpose:
Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Application:
Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Inspection & Maintenance:
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.
  - Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

(3) STORM DRAIN INLET PROTECTION — CASQA-BMP SE-10 — SCALE: NO SCALE



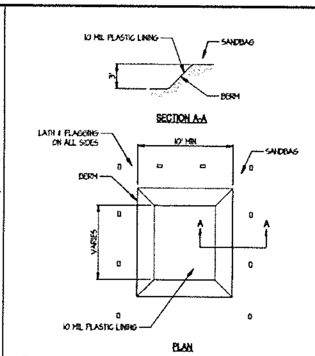
Purposes:
A gravel bag berm is a series of gravel-filled bags placed on a level contour to intercept sheet flows. Gravel bags pond sheet flow runoff, allowing sediment to settle out, and release runoff slowly as sheet flow, preventing erosion.

Application:
- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes
  - As sediment traps at culvert/pipe outlets
  - Below other small cleared areas
  - Along the perimeter of a site
  - Down slope of exposed soil areas
  - Around temporary stockpiles and spoil areas
  - Parallel to a roadway to keep sediment off paved areas
  - Along streams and channels
- As a linear erosion control measure:
  - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
  - At the top of slopes to divert runoff away from disturbed slopes.
  - As chevrons (small check dams) across mildly sloped construction roads. For check dam use in channels, see SE-4, Check Dams.

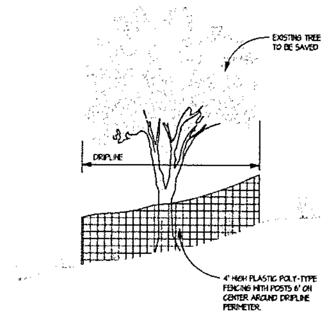
Design and Layout:
- When used for slope interruption, the following slope/sheet flow length combinations apply:
  - Slope inclination of 4:1 (H:V) or flatter: Gravel bags should be placed at a maximum interval of 20 ft, with the first row near the slope toe.
  - Slope inclination between 4:1 and 2:1 (H:V): Gravel bags should be placed at a maximum interval of 15 ft. (a closer spacing is more effective), with the first row near the slope toe.

Inspection and Maintenance:
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Gravel bags exposed to sunlight will need to be replaced every two to three months due to degrading of the bags.
- Reshape or replace gravel bags as needed.
- Repair washouts or other damage as needed.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Remove gravel bag berms when no longer needed and recycle gravel fill whenever possible and properly dispose of bag material. Remove sediment accumulation and clean, re-grade, and stabilize the area.

(5) GRAVEL BAG FLOW DIVERSION — CASQA-BMP SE-6 — SCALE: NO SCALE



(7) CONCRETE WASTE MANAGEMENT — PLAN/SECTION — SCALE: NO SCALE



(8) TREE PROTECTION DETAIL — ELEVATION — SCALE: NO SCALE

Implementation

Dust Control Practices

Dust control BMPs generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. The following table presents dust control practices that can be applied to varying site conditions that could potentially cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching can be employed for areas of occasional or no construction traffic. Preventive measures include minimizing surface areas to be disturbed, limiting onsite vehicle traffic to 15 mph or less, and controlling the number and activity of vehicles on a site at any given time.

Site Condition	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt	Temporary Gravel Construction Entrances/Equipment Wash Down	Synthetic Covers	Minimize Extent of Disturbed Area
[illegible]	x	x	x	x	x			x
[illegible]			x	x	x	x		x
[illegible]		x	x	x			x	x
[illegible]			x			x	x	
[illegible]			x	x				x
[illegible]			x	x	x	x	x	
[illegible]					x	x		

Chemical dust suppressants include: mulch and fiber based dust palliatives (e.g. paper mulch with gypsum binder), salts and brines (e.g. calcium chloride, magnesium chloride), non-petroleum based organics (e.g. vegetable oil, lignosulfonate), petroleum based organics (e.g. asphalt emulsion, dust oils, petroleum resins), synthetic polymers (e.g. polyvinyl acetate, vinyls, acrylic), clay additives (e.g. bentonite, montmorillonite) and electrochemical products (e.g. enzymes, ionic products).

Additional preventive measures include:

Schedule construction activities to minimize exposed area (see EC-1, Scheduling).

Quickly treat exposed soils using water, mulching, chemical dust suppressants, or stone/gravel layering.

Identify and stabilize key access points prior to commencement of construction.

Minimize the impact of dust by anticipating the direction of prevailing winds.

Restrict construction traffic to stabilized roadways within the project site, as practicable.

Water should be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.

All distribution equipment should be equipped with a positive means of shutoff.

Unless water is applied by means of pipelines, at least one mobile unit should be available at all times to apply water or dust palliative to the project.

If reclaimed waste water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality

(5) DUST CONTROL — CASQA-BMP WE-1 — SCALE: NO SCALE

C:\Users\Vlad\Documents\VIA\1607B_155 Forrest Ave, Fairfax\CADD\C21 ECD.dwg Plotted by: Vlad Oct 15, 2019 3:16pm

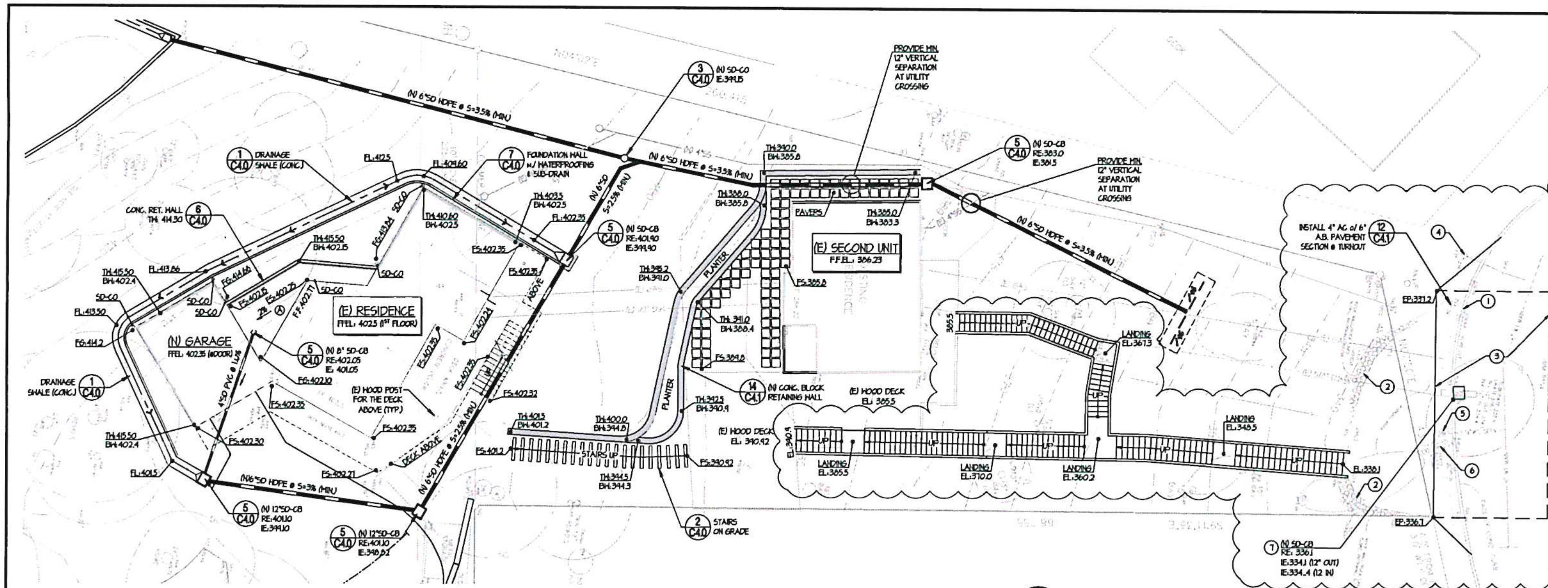
Revisions:	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 8/17/2018	10.11.18	V.I.
2 RESPONSE TO REVIEW COMMENTS DATED 4/3/2014	-	V.I.
3 RESPONSE TO REVIEW COMMENTS	4.25.14	V.I.

Sheet Title: EROSION CONTROL DETAILS
Project: DOWD RESIDENCE
Address: 155 FORREST AVE. FAIRFAX, CA. APN: 002-192-50

Plans Prepared By: VIA Atelier, Inc. Engineering Consultants, 4 Brookside Ct., San Anselmo, CA 94960, Ph:(415) 714-6716 E:office@via-eng.com
Date: 10/01/2019
REGISTERED PROFESSIONAL ENGINEER VLAD G. IOUICA C 73861 Exp. 6-30-21 CIVIL STATE OF CALIFORNIA

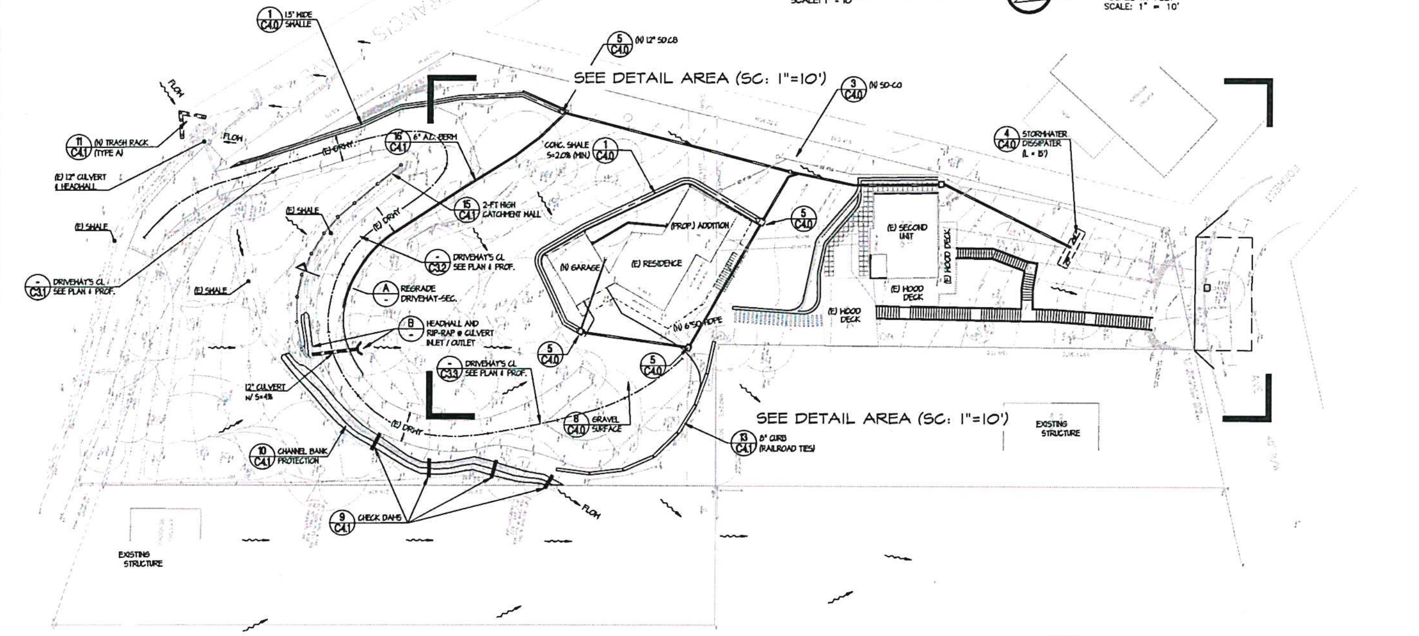
VIA Atelier

JOB NO: 1607B
DATE: 02/05/19
N.CELDRAN V.IOUICA
SHEET: C2.1
3 OF 8



DETAIL SITE IMPROVEMENTS

SCALE: 1" = 10'



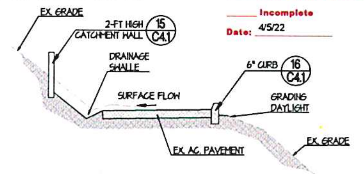
SITE IMPROVEMENTS PLAN

SCALE: 1" = 20'

PLAN NOTES:

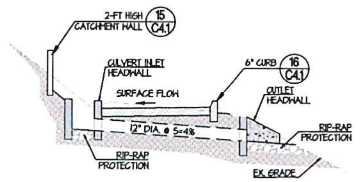
1. REMOVE EXIST. CONCRETE CURB
2. EXIST. DRY STACK RETAINING WALL TO REMAIN
3. OUTLINE OF 20' x 40' FIRE DEPARTMENT TURNOUT
4. EXIST. FIRE HYDRANT TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.
5. EXIST. WATER METER (W.M.) AND W.M. BOX TO REMAIN AND BE ADJUSTED TO NEW GRADE OF PAVEMENT.
6. REMOVE EXISTING BAY TREE.
7. REMOVE (E) CURB OPENING CATCH BASIN AND INSTALL NEW 24" SQ. TRAFFIC RATED CATCH BASIN.

ROSS VALLEY FIRE DEPT
Approved
Approved with Conditions
Not Approved - need revision
Incomplete
Date: 4/5/22



DETAIL SEC.- A

SCALE: N.T.S.



DETAIL SEC.- B

SCALE: N.T.S.

ESTIMATED EARTHWORK:

Dowd Residence
155 Forrest Avenue, Fairfax, CA

Date: 5-May-18

Item	location on the site	estimated quantities [cu.yd.] cut	fill
1	Driveway	99.0	43.9
2	Addition (Exist. Residence)	69.9	4.9
3	Remodels (Second Unit)	6.7	1.9
4	Site Improvements		46.7
	Totals:	175.6	97.4
	Export Material:	78.2	

NOTES:

1. * FINISH FLOOR ELEVATIONS (F.F.EL.) FOR MAIN RESIDENCE AND SECOND UNIT TO BE VERIFIED IN THE FIELD BY CONTRACTOR AND COORDINATED WITH THE ENGINEER.

VIA Atelier

Revisions:	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 8/17/2018	10.11.18	V.I.
2 RESPONSE TO REVIEW COMMENTS DATED 4/3/2019	-	V.I.
3 RESPONSE TO REVIEW COMMENTS	9.25.19	V.I.

Sheet Title: **SITE IMPROVEMENTS & EROSION CONTROL**

Project: DOWD RESIDENCE

Address: 155 FORREST AVE., FAIRFAX, CA. APN: 002-192-50

REGISTERED PROFESSIONAL ENGINEER VLAD G. IOJICA C 73861 Exp. 6-30-21 CIVIL STATE OF CALIFORNIA

Date: 10/01/2019

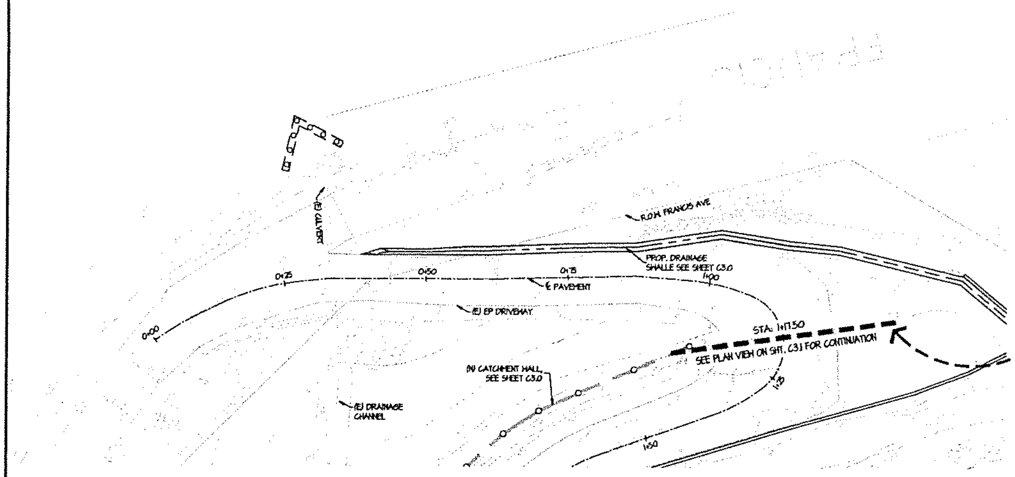
Plans Prepared By:
VIA Atelier, Inc.
Engineering Consultants
4 Brookside Ct., San Anselmo, CA 94960
Ph.(415) 774-6716 E:office@via-eng.com

JOB NO.: 1607B

DATE: 02/05/19

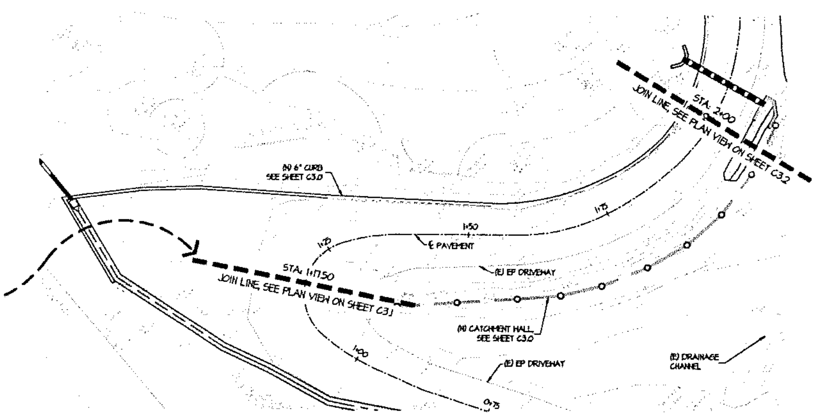
SHEET: C3.0

4 OF 8



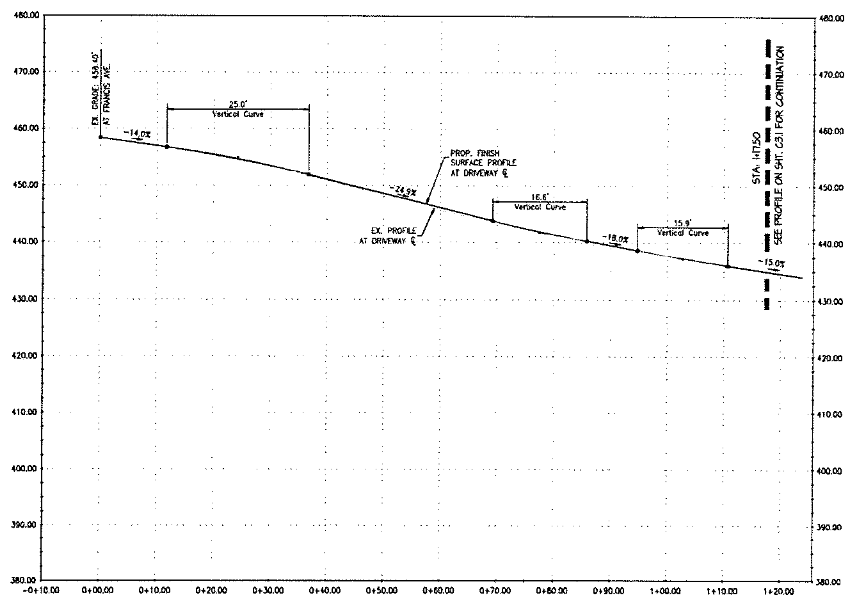
PLAN VIEW - DRIVEWAY
SCALE: 1" = 10'

SCALE IN FEET
SCALE: 1" = 10'

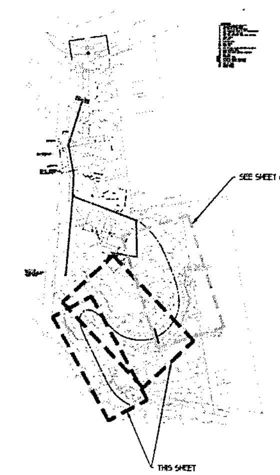


PLAN VIEW - DRIVEWAY
SCALE: 1" = 10'

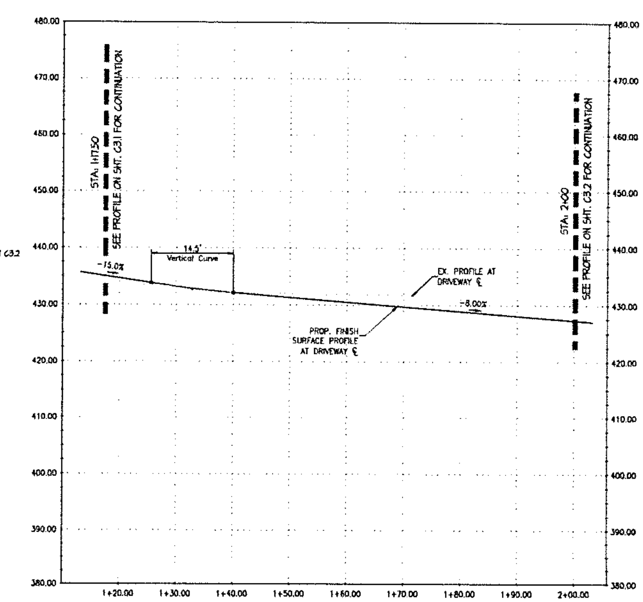
SCALE IN FEET
SCALE: 1" = 10'



DRIVEWAY PROFILE
SCALE: 1" = 10' (V. & H.)



KEY MAP
SCALE: 1" = 80'



DRIVEWAY PROFILE
SCALE: 1" = 10' (V. & H.)

VIA Atelier

Revisions:	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 8/17/2018	10.11.18	V.I.
2 RESPONSE TO REVIEW COMMENTS DATED 4/3/2019	-	V.I.
3 RESPONSE TO REVIEW COMMENTS	4.25.19	V.I.

Sheet Title: **PLAN AND PROFILE FOR ACCESS DRIVEWAY**

Project: DOWD RESIDENCE

Address: 155 FORREST AVE., FAIRFAX, CA, APN: 002-112-50

REGISTERED PROFESSIONAL ENGINEER, VLAD G. IOLTICA, C 73861, Exp. 6-30-21, CIVIL, STATE OF CALIFORNIA

Plans Prepared By:
Date: 10/01/2019

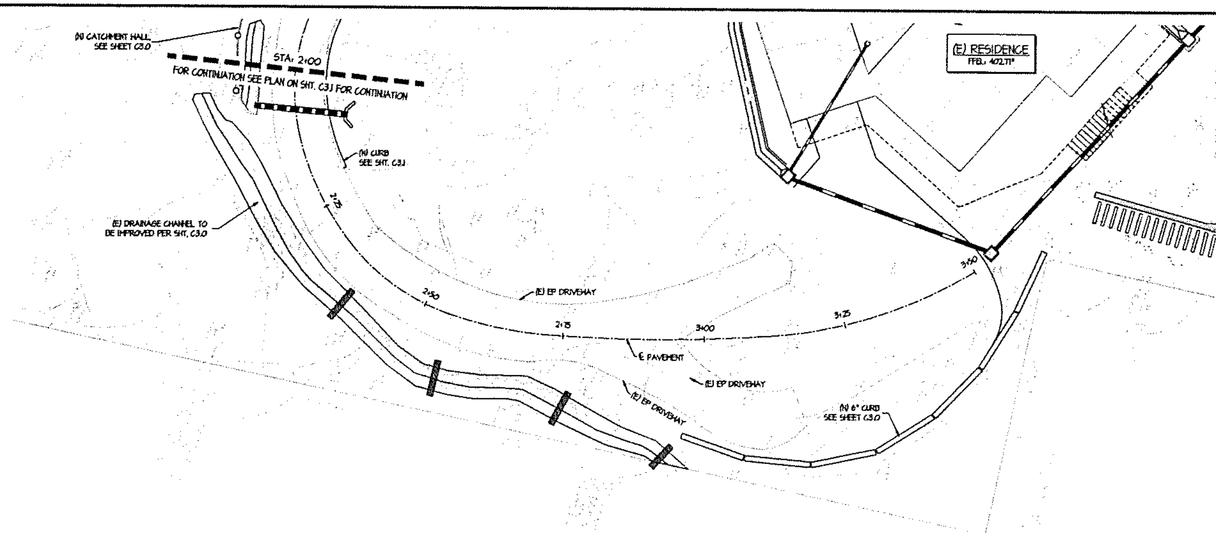
VIA Atelier, Inc.
Engineering Consultants
4 Brookside Ct., San Anselmo, CA 94960
Ph.(415) 774-6776 E.office@via-eng.com

JOB NO. 1607B

DATE: 02/05/19

SHEET: **C3.1**
5 OF 8

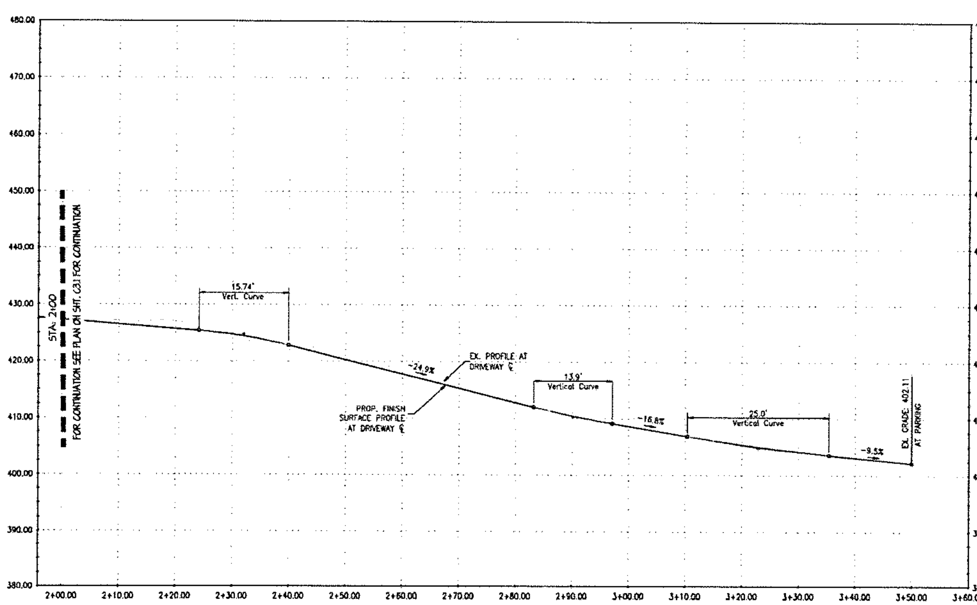
C:\Users\Vlad\Documents\VIA\1607B_155 Forrest Ave, Fairfax\CADD\C31 Drwg.dwg   Plotted by: Vlad   Oct 15, 2019 3:17pm



PLAN VIEW - DRIVEWAY

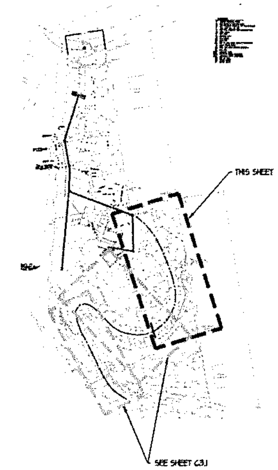
SCALE: 1" = 10'

SCALE IN FEET
SCALE: 1" = 10'



DRIVEWAY PROFILE

SCALE: 1" = 10' (V. & H.)



KEY MAP

SCALE: 1" = 60'

VIA Atelier

Revisions:	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 8/17/2018	10.11.18	V.I.
2 RESPONSE TO REVIEW COMMENTS DATED 4/3/2019	-	V.I.
3 RESPONSE TO REVIEW COMMENTS	4.25.19	V.I.

Sheet Title: **PLAN AND PROFILE FOR ACCESS DRIVEWAY**

Project: DOWD RESIDENCE

Address: 155 FORREST AVE., FAIRFAX, CA. APN: 002-112-50

REGISTERED PROFESSIONAL ENGINEER VLAD C. IOTICA C 73861 Exp. 6-30-21 CIVIL STATE OF CALIFORNIA

Plans Prepared By:
VIA Atelier, Inc.
Engineering Consultants
4 Brookside Ct, San Anselmo, CA 94960
Ph:(415) 774-6716 E:office@via-eng.com

Date: 10/01/2019

JOB NO.: 1607B

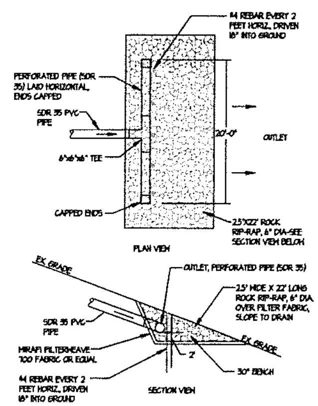
DATE: 02/05/19

SHEET:

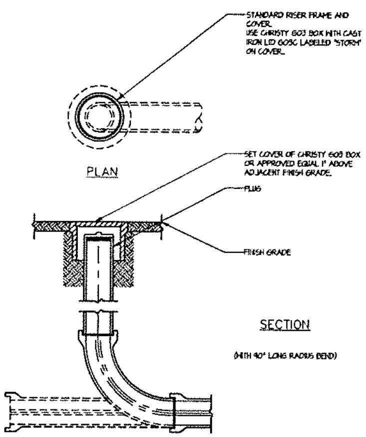
C3.2

6 OF 8

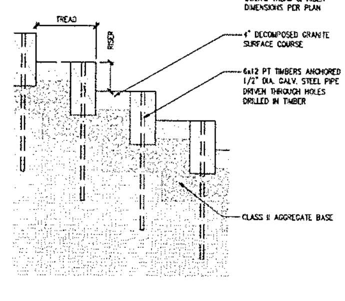
ROSS VALLEY FIRE DEPT
[X] Approved
[ ] Approved with Conditions
[ ] Not Approved - need revision
[ ] Incomplete
Date: 4/5/22



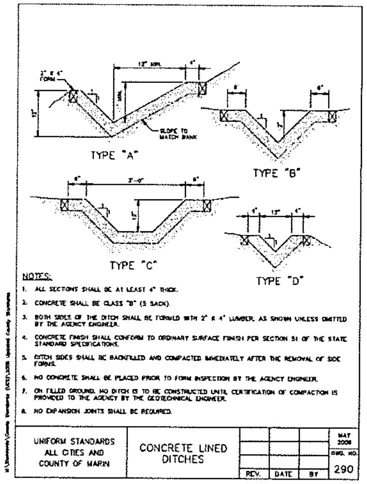
4 STORM WATER DISIPPATER — PLAN/SECTION, SCALE: NO SCALE



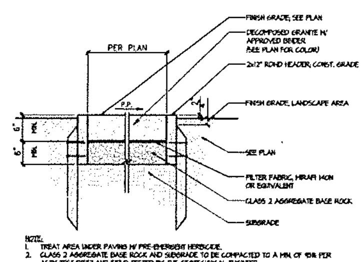
3 SD/SS CLEAN-OUT — PLAN/SECTION, SCALE: NO SCALE



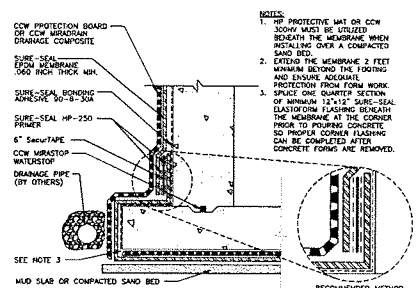
2 SITE STAIRCASE — PLAN/SECTION, SCALE: NO SCALE



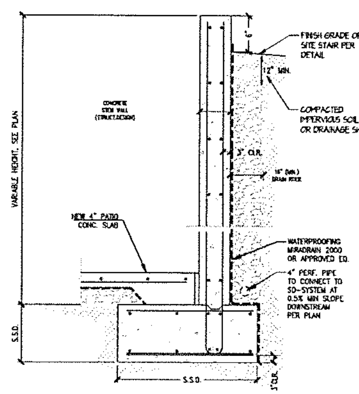
1 CONCRETE SWALE — PLAN/SECTION, SCALE: NO SCALE



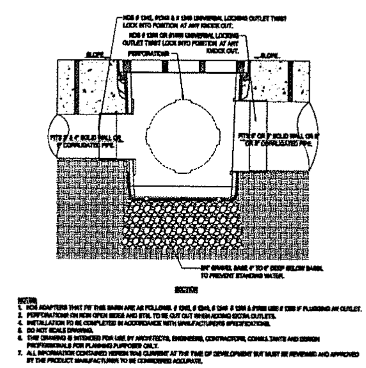
8 DRIVEWAY GRAVEL PAVEMENT — PLAN/SECTION, SCALE: NO SCALE



7 WATERPROOFING AND SUBDRAINS @ FTG. — PLAN/SECTION, SCALE: NO SCALE



6 PATIO RETAINING WALL — PLAN/SECTION, SCALE: NO SCALE



5 8" & 12" SQ. CATCH BASIN — PLAN/SECTION, SCALE: NO SCALE

Revisions:	Date:	By:
1 RESPONSE TO REVIEW COMMENTS DATED 8/17/2018	10.11.18	VJ.
2 RESPONSE TO REVIEW COMMENTS DATED 4/9/2019	-	VJ.
3 RESPONSE TO REVIEW COMMENTS	9.25.19	VJ.

Sheet Title: CONSTRUCTION DETAILS

Project: DOWD RESIDENCE

Address: 155 FORREST AVE., FAIRFAX, CA. APN: 002-192-50

Plans Prepared By:

VIA Atelier, Inc.
Engineering Consultants
4 Brookside Ct., San Anselmo, CA 94960
Ph.(415) 714-6716 E:office@via-eng.com

Date: 10/01/2019

REGISTERED PROFESSIONAL ENGINEER — VLAD C. IOLTEA — C 73861 — Exp. 6-30-21 — CIVIL — STATE OF CALIFORNIA

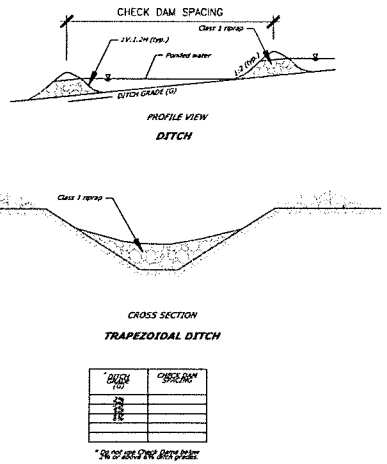
JOB NO. 1607B

DATE: 02/05/19

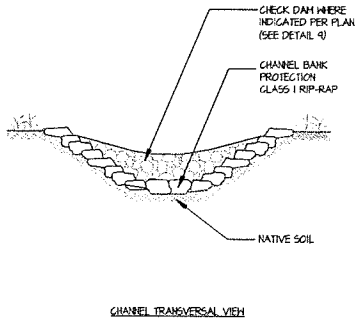
SHEET: C4.0

7 OF 8

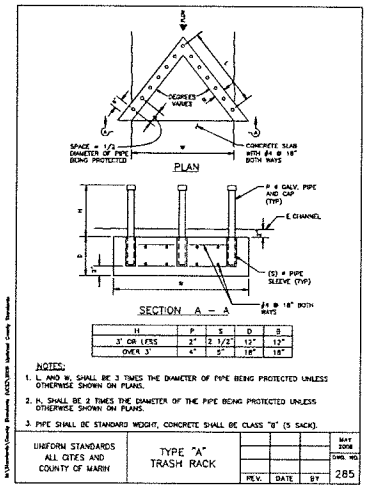
C:\Users\Vlad\Documents\VIA\1607B_155 Forrest Ave. Fairfax\CADD\C40-41 Details.dwg Plotted by: Vlad Oct 15, 2019 3:18pm



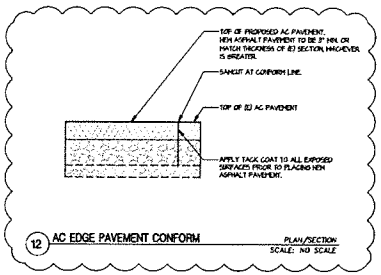
9 CHECK DAM — PLAN/SECTION — SCALE: NO SCALE



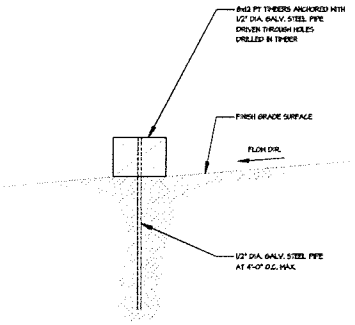
10 CHANNEL BANK PROTECTION — PLAN/SECTION — SCALE: NO SCALE



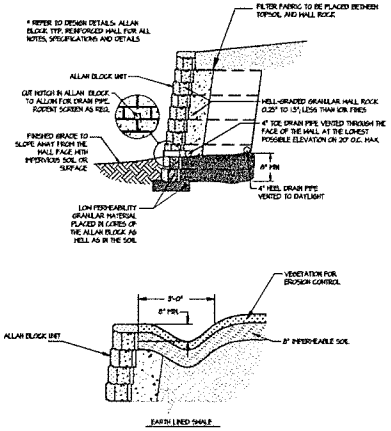
11 TRASH RACK — PLAN/SECTION — SCALE: NO SCALE



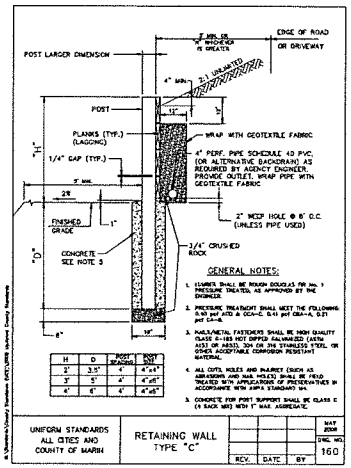
12 AC EDGE PAVEMENT CONFORM — PLAN/SECTION — SCALE: NO SCALE



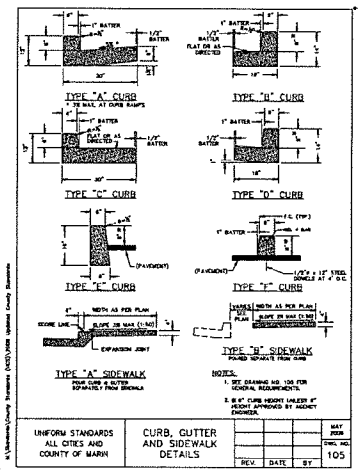
13 RAILROAD TIE CURB — PLAN/SECTION — SCALE: NO SCALE



14 SITE CONCRETE BLOCK WALL — PLAN/SECTION — SCALE: NO SCALE



15 CATCHMENT WALL — PLAN/SECTION — SCALE: NO SCALE



18 CONCRETE TYPE "D" CURB AT DRIVEWAY — PLAN/SECTION — SCALE: NO SCALE

VIA Atelier

Revisions:
1 RESPONSE TO REVIEW COMMENTS DATED 5/7/2008 — Date: 10/1/18 — By: V.L.
2 RESPONSE TO REVIEW COMMENTS DATED 4/8/2019 — - — V.L.
3 RESPONSE TO REVIEW COMMENTS — 4/29/19 — V.L.

Sheet Title: CONSTRUCTION DETAILS
Project: DOWD RESIDENCE
Address: 155 FORREST AVE., FAIRFAX, CA APN: 002-142-50

PROFESSIONAL ENGINEER — No. C 73851 — Exp. 6-30-21 — CIVIL — STATE OF CALIFORNIA

Plans Prepared By:
VIA Atelier, Inc.
Engineering Consultants
9 Brookside Ct., San Anselmo, CA 94960
Ph: (415) 754-6176 E: office@via-eng.com
Date: 10/01/2018

JOB NO: 1607B
DATE: 02/05/19
SHEET: C4.1
8 OF 8

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Residence/Remodel of Existing
ADDRESS: 150 Francis
Fairfax, CA

Date: 01/05/2017
Reviewed by: Ruben Martin
(415) 258-4686 Ext 21
E-mail: rmartin@rossvalleyfire.org
Review No. 1

TYPE OF REVIEW: Planning
Bldg. Dept. 12/20/16 Fire Dept. # 17-0002

Fire Department Standards can be found at: ***www.rossvalleyfire.org***

Applicant*: GARY DOWD

Applicant is responsible for distributing these Plan Review comments to the Design Team.

Occupancy Class: **R-3**	Fire Flow Req: **1000 GPM**	Sprinklers Required: **YES**
Type of Construction: **V-B**	On-site Hyd. Req: **YES**	Fire Alarm Required: **NO**
Bldg Area: **2141sf + 696sf 2ND Unit**	Fire Lane Req: **YES**	Permits Required: **Sprinkler**
Stories: **+2**	Fire Flow Test Required: **YES**	**VMP**
Height: +ft.	Wildland Urban Interface: **YES**	

The project listed above has been reviewed and determined to be:

( ) **COMPLETE** (no modifications required)
( ) **APPROVED AS NOTED** (minor modifications required - review attached comments)
( ) **NOT APPROVED** (revise per attached comments and resubmit)
(X) **INCOMPLETE** (provide additional information per attached comments and resubmit)

NOTE: *Please review the comments and make corrections and/or add notes as required. Changes and/or additions shall be clouded and referenced by date on a legend. Approval of this plan does not approve any omission or deviation from the applicable regulations. Final approval is subject to field inspection. Approved plans shall be on site and available for review at all times.*

ROSS VALLEY FIRE DEPT.
REVIEWED
DATE: 1-5-17

Inspections required:
(X) Access/Water Supply prior to delivery of combustibles
(X) Defensible Space/Vegetation Management Plan
(X) Sprinkler Hydro/Final
(X) Final

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Residence/Remodel of Existing
ADDRESS: 150 Francis
Fairfax, CA

Date: 01/05/2017
Reviewed by: Ruben Martin
(415) 258-4686 Ext 21
E-mail: rmartin@rossvalleyfire.org

TYPE OF REVIEW: Planning
Bldg. Dept. 12/20/16 Fire Dept. # 17-0002
Review No. 1

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
1		The scope of work for this project consists of a conversion, expansion and remodel of an existing unpermitted 1010sf two story structure (originally illegally constructed as a detached garage with storage room on the second floor) into a 2141sf , two story, 4 bedroom, 31/2 bath, single family home with an attached 1 car garage. Project also includes the remodel of the existing single family home and conversion into a 2nd living unit. **This project shall be designed to meet minimum 2006 Wildland Urban Interface and 2013 California Fire Codes as amended and adopted by the Town of Fairfax. Please note on the cover sheet that the project was designed to these codes in addition to other required construction codes.** **This project as currently designed does not meet minimum code requirements. Please review the following comments below, make necessary corrections and resubmit for review.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
2		**Both structures scope of work were found to fall within the definition of a substantial remodel. The unpermitted structure shall be considered new.** A "Substantial Remodel" is defined as follows: The renovation of any structure, which combined with any additions to the structure, affects a floor area which exceeds fifty percent of the existing floor area of the structure. When any changes are made in the building, such as walls, columns, beams or girders, floor or ceiling joists and coverings, roof rafters, roof diaphragms, foundations, piles or retaining walls or similar components, the floor area of all rooms affected by such changes shall be included in computing floor areas for purposes of applying this definition. This definition does not apply to the replacement and upgrading of residential roof coverings.	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
3		Properties located in the Wildland Urban Interface shall be constructed using fire resistant materials. Material and methods shall meet CBC Chapter 7A & CRC Chapter 337 requirements or equivalent. **Please provide details how compliance will be met.**	

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Residence/Remodel of Existing
ADDRESS: 150 Francis
Fairfax, CA

Date: 01/05/2017
Reviewed by: Ruben Martin
(415) 258-4686 Ext 21
E-mail: rmartin@rossvalleyfire.org
Review No. 1

TYPE OF REVIEW: Planning
Bldg. Dept. 12/20/16 Fire Dept. # 17-0002

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
4		Current access road is not a Town of Fairfax maintained road and does not meet, and was not constructed to meet Fire Code requirements for fire apparatus access (20 feet required, 10 feet actual). Fire apparatus access to the property shall meet Wildland Urban Interface Code Section 402.2.1. *402.2.1. Access Individual structures hereafter constructed, substantial remodels, or relocated into or within wildland urban interface areas shall be provided with fire apparatus access in accordance with the California Fire Code and driveways in accordance with Section 403.2.* **Current driveway was constructed unpermitted and substandard.** *403.2 Driveways. Driveways shall be provided when any portion of an exterior wall of the first story of a building is located more than 150 feet from a fire apparatus access road. Driveways shall provide a minimum unobstructed width of 16 feet and a minimum unobstructed height of 13 feet 6 inches. Driveways in excess of 150 feet in length shall be provided with turnarounds. Driveways in excess of 300 feet in length and less than 20 feet in width shall be provided with turnouts in addition to turnarounds. A driveway shall not serve in excess of five dwelling units.* *Exception: When such driveways meet the requirements for an access road in accordance with the California Fire Code.* *Driveway turnarounds shall have inside turning radius of not less than 27 feet and outside turning radii of not less than 45 feet. Driveways that connect with a road or roads at more than one point may be considered as having a turnaround if all changes of direction meet the radii requirements for driveway turnarounds. Driveway turnouts shall be an all-weather road surface at least 10 feet wide and 30 feet long, not including the approach or departure ramps. Driveway turnouts shall be located as required by the code official. Vehicle load limits shall be posted at both entrances to bridges on driveways and private roads. Design loads for bridges shall be established by the code official.* **Please review Ross Valley Standard 210 for specific design requirements and Standard 204 for how to properly mark the fire lane.**	

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Residence/Remodel of Existing
ADDRESS: 150 Francis
Fairfax, CA

Date: 01/05/2017
Reviewed by: Ruben Martin
(415) 258-4686 Ext 21
E-mail: rmartin@rossvalleyfire.org
Review No. 1

TYPE OF REVIEW: Planning
Bldg. Dept. 12/20/16 Fire Dept. # 17-0002

*Fire Department Standards can be found at: **www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
		Please provide a detailed plan showing how minimum code requirements will be met. **It shall be noted on the plans submitted for permit that access shall be installed and made serviceable prior to delivery of combustible materials to the site.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
5		A fire hydrant capable of supplying 1000 GPM @ 20PSI shall be provided so that no portion of the structure is greater than 350 feet from the closest hydrant if one does not already exist. Distance shall be measured along the path of travel as a hose would lie. (Closest hydrant located on Francis is approximately 420 feet to the base of the driveway, with a Flow of 365 GPM). **If a new hydrant is needed, please put a note that reads "new hydrant installation to be coordinated with Marin Municipal Water District".** **It shall be noted on the plans submitted for permit that the hydrant shall be installed and made serviceable prior to delivery of combustible materials to the site.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
6		A fire sprinkler system shall be installed throughout both buildings which complies with the requirements of the National Fire Protection Association (NFPA) 13-D and local standards. A separate deferred permit shall be required for this system. Plans and specifications for the system shall be submitted by an individual or firm licensed to design and /or design-build sprinkler systems. **Shall be noted on the plans submitted for permit.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
7		A Vegetation Management Plan designed in accordance with Ross Valley Fire Standard #220 is required for this project. A separate deferred permit shall be required for this plan. Please submit directly to the Fire Department for review. **Shall be noted as deferred submittal**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	

Ross Valley Fire Department
777 San Anselmo Ave
San Anselmo, Ca 94960
Ph. 415-258-4686

FIRE DEPARTMENT PLAN REVIEW

PROJECT: New Residence/Remodel of Existing
ADDRESS: 150 Francis
Fairfax, CA

Date: 01/05/2017
Reviewed by: Ruben Martin
(415) 258-4686 Ext 21
E-mail: rmartin@rossvalleyfire.org
Review No. 1

TYPE OF REVIEW: Planning
Bldg. Dept. 12/20/16 Fire Dept. # 17-0002

Fire Department Standards can be found at: ***www.rossvalleyfire.org***

ITEM #	SHEET	COMMENTS	Corr. Made
8		All smoke detectors in the residence shall be provided with AC power and be interconnected for simultaneous alarm. Detectors shall be located in each sleeping room, outside of sleeping rooms centrally located in the corridor and over the center of all stairways with a minimum of one detector per story of the occupied portion of the residence. **Shall be noted on the plans submitted for permit.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
9		Carbon monoxide alarms shall be provided in existing dwellings when a permit is required for alterations, repairs, or addition exceeds one thousand dollars. CO alarms shall be located outside of each dwelling unit sleeping are in the immediate vicinity of the bedroom(s) and on every level of a dwelling unit including basements. **Shall be noted on the plans submitted for permit.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
10		Address numbers at least 4" tall must be in place adjacent to the front door. If not clearly visible from the street, additional numbers are required. Residential numbers must be internally illuminated (backlit), placed to a light or be reflective numbers. If your project is a new house or substantial remodel, they may only be internally illuminated or illuminated an adjacent light controlled by a photocell and switched only by a breaker so it will remain illuminated all night. If not currently as described, they must be installed as part of this project. **Shall be noted on the plans submitted for permit.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
11		A class A rated roof assembly is required for this project. **Shall be noted on the plans submitted for permit.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	
12		**Applicant may propose alternate materials or method in accordance with Section 103.3. All approved alternates requests and supporting documentation shall be included in the plans set submitted for final approval.**	
		Submitter's Response: Correction has been completed. See Sheet ____ of ☐Plans ☐Calculations.	

If re-submittal is required, all conditions listed above shall be included in revised drawings.
Fire and life safety systems may require a separate permit. Fire permits may be noted as deferred.

TOWN OF FAIRFAX
DEPARTMENT OF PLANNING AND BUILDING SERVICES

142 Bolinas Road, Fairfax, California 94930
Phone (415) 453-1584 FAX (415) 453-1618

LETTER OF TRANSMITTAL

From: Fairfax Planning and Building Services Department

Date: December 20, 2016

To:
- ☐ Town Engineer
- ☐ Fairfax Police Dept.
- ☐ Marin County Open Space Dist.
- ☐ Town Attorney
- ☐ Sanitary Dist. 1
- ☐ Other – Building Official
- ☐ MMWD
- ☐ Public Works Dept.
- ☒ Ross Valley Fire
- ☐ Marin County Health Dept.

Address and Parcel No: 150 Francis Avenue/155 Forrest Avenue; Assessor's Parcel No. 002-192-50

Project Description: Conversion/expansion/remodel of an existing unpermitted, 1,010 square foot two story structure (originally illegally constructed as a garage with a storage room on the second floor) into a 2,141 square foot, two story, 4 bedroom, 3 ½ bath, single-family residence with attached 1 car garage ***accessed from Francis Avenue***. Project includes remodel/demolition of the existing 2 bedroom, 1 bath, single-family resident that is currently ***accessed from Forrest Avenue*** from an 878 square foot structure to a 696 square foot, 1 bedroom, 1 bath second residential unit.

These plans are being transmitted for review either: a) prior to public hearings on discretionary permits before the Fairfax Design Review Board and Planning Commission; or, for review prior to issuance of a building permit. Please provide your comments on the completeness and adequacy of the submittal for your agencies reviewing purposes within 10 days.

1	11/16	preliminary development plans

REMARKS

Rob and/or Rubin, These guys are trying to say that they will be accessing the large, 4 bedroom home proposed at the rear of the site from Forrest Avenue (see how they crossed the 150 Francis Avenue out on the plans), but all their parking is accessed from Francis via the illegally improved driveway. Just so you know.

Please respond by January 5th, 2016. Thanks

If you have any questions please contact: Linda Neal, Principal Planner, lneal@townoffairfax.org, (415) 453-1584.

ROSS VALLEY FIRE DEPARTMENT		
Developed by Robert Bastianon, Fire Inspector Approved by Roger Meagor, Fire Chief	**Fire Protection Standard 204** **Fire Lanes**	Date: 11/6/09 Revision: Page: 1 of 5

This standard has been developed pursuant to Chapter 5, California Fire Code as adopted the Towns of San Anselmo and Fairfax. It is intended that this standard be used as a guide for installation and placement of signs and markings designated as a "Fire Lane", where required by the Fire Marshal, in order to provide adequate Fire Department vehicle access.

I. General

A. "No Parking Fire Lane" signs and curb markings shall conform to the requirements specified in Option #1 or Option #2 outlined below as required by the Fire Marshal.

B. Signs and curb markings shall be installed on any highway, at any curb, or in any location in a publicly or privately owned or operated off-street parking facility, required to be posted by the Fire Marshal, in order to provide the necessary unobstructed width and adequate turning radius of Fire Department apparatus.

C. All signs and curb markings are to be installed and maintained by the property owner.

D. All curbs adjoining Fire Lanes or posted areas shall be painted red and labeled "No Parking Fire Lane". Curb markings and lettering shall conform to Figure IV.

E. Detailed plans of the proposed Fire Lane markings shall be provided to the Fire Marshal for review prior to installation.

F. Signs and curb lettering are subject to the approval of the Fire Marshal.

II. Option #1 – No Parking Signs –Figure VI - Sign #1

A. Location

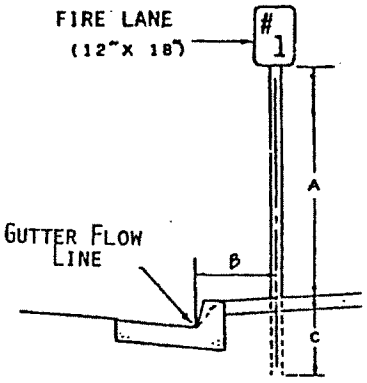
1. Signs marking Fire Lanes are to be spaced so they are within 3 feet of each end of curbed areas and spaced a minimum of fifty (50) feet apart thereafter (see Figures I and II.).

2. In addition, 1 sign is required for each island adjacent to a Fire Lane or access road if the road width is less than 20 feet (see reference A, Figure II).

3. Signs are to face oncoming vehicular traffic.

4. All curbs adjoining Fire Lanes or posted areas shall be painted red and labeled (see Figure IV).

Figure I



POST INSTALLATION

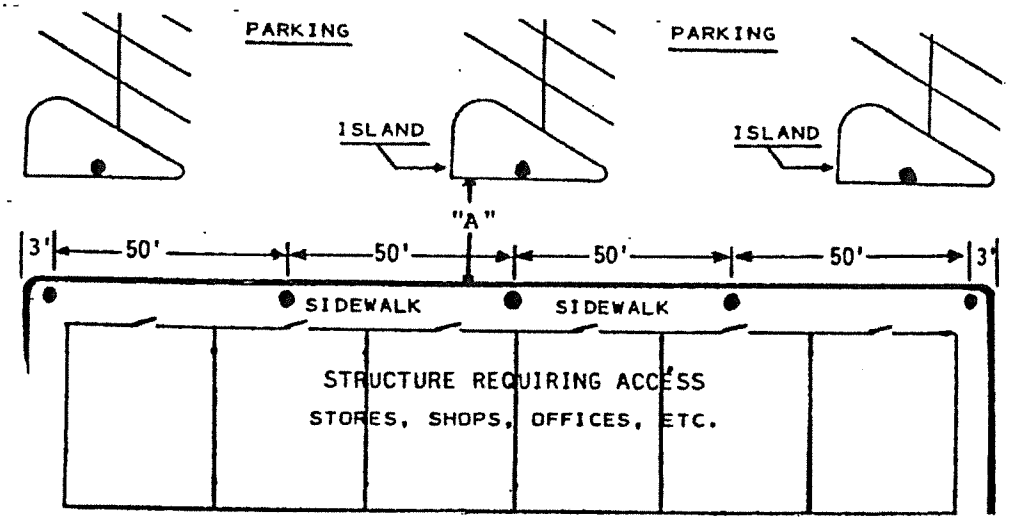
A = 7' in sidewalk or pedestrian areas

B = 18" with standard curb, 24" width rolled curb, to center of post.

C = 24" minimum embedment

Note: Signs may be mounted on existing posts or buildings, if post or building is no more than 24" from curb or edge of road surface.

Figure II



III. Option #2 – Entrance Signs (see figure III, sign #2)

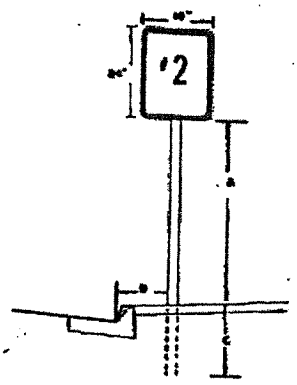
A. Sign #2 Locations

1. One (1) sign is required at all points of entry to properties with marked parking stalls. (see Figures III and V).

2. Signs are to face oncoming vehicular traffic.

3. All curbs adjoining fire lanes or posted areas to be painted red and labeled (see Figures IV and V).

Figure III



SIGN AND POST INSTALLATION

Sign #2

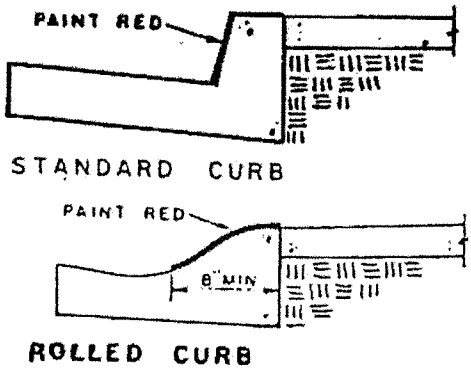
A = 7' in sidewalk or pedestrian areas

B = 18" Standard Curb
24" Rolled Curb

C = 24" minimum embedment

Note: Signs may be mounted on entrance gates, building, or existing posts if the above are within 24" of the curb or edge of road surface.

Figure IV

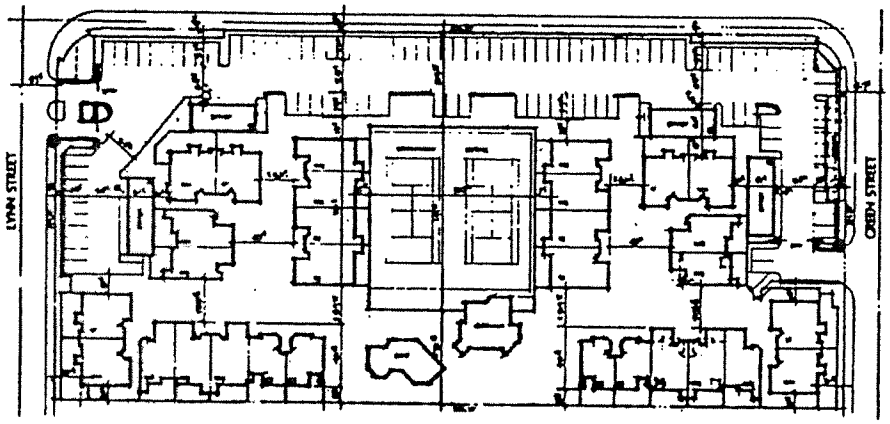


NO PARKING FIRE LANE ↕ 4"

CURB LETTERING

All raised curbs in "No Parking" areas shall be painted RED with acceptable red curb paint and lettered to the above standards. Lettering shall be 3" high, white and have a ¾" stroke.

Figure V



● = POST WITH SIGN #2 ▬▬ = RED CURBS

Figure VI

Sign #1

Fire Lane Sign

12 X 18"
Red on White
Reflectorized
.063 Gauge

Sign #2

Entrance Sign

18" X 24"
Red on White
Reflectorized
.080 Gauge

Note: Change U.F.C. SEC. 902.2.4.1. To C.F.C. SEC. 503.3
All other information on signs must appear as shown.

ATTACHMENT H