PROJECT INFORMATION

PROJECT ADDRESS: 2382 Rainbow Ct. (APN:) 425-41-29
Hayward, CA 94542

SCOPE OF WORK: Construct a (N)5404ft2 3-story SFD w/Rooftop Terrace per Plans/Specifications

ZONING: RS Single-family Residential 5000ft2
TYPE OF CONSTRUCTION: V-B
TYPE OF OCCUPANCY: R3/U
CONSTRUCTION AREA: 3412ft2 Habitable, 1192ft2 3-car Garage, 770ft2 Rooftop Terrace = 5404ft2
TOTAL:
FOOTPRINT: 2083ft2
LOT SIZE: 104'x53'avg. (5227ft2) 2083ft2/5227ft2 = Lot Coverage 40%

OWNERS:
H&M Ventures LLC
43393 Bryant St.
Fremont, CA 94539

AFES: Yes, (deferred submittal)

INDEX

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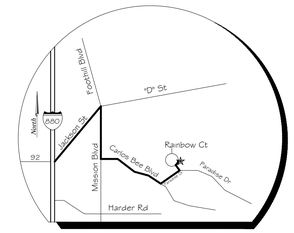
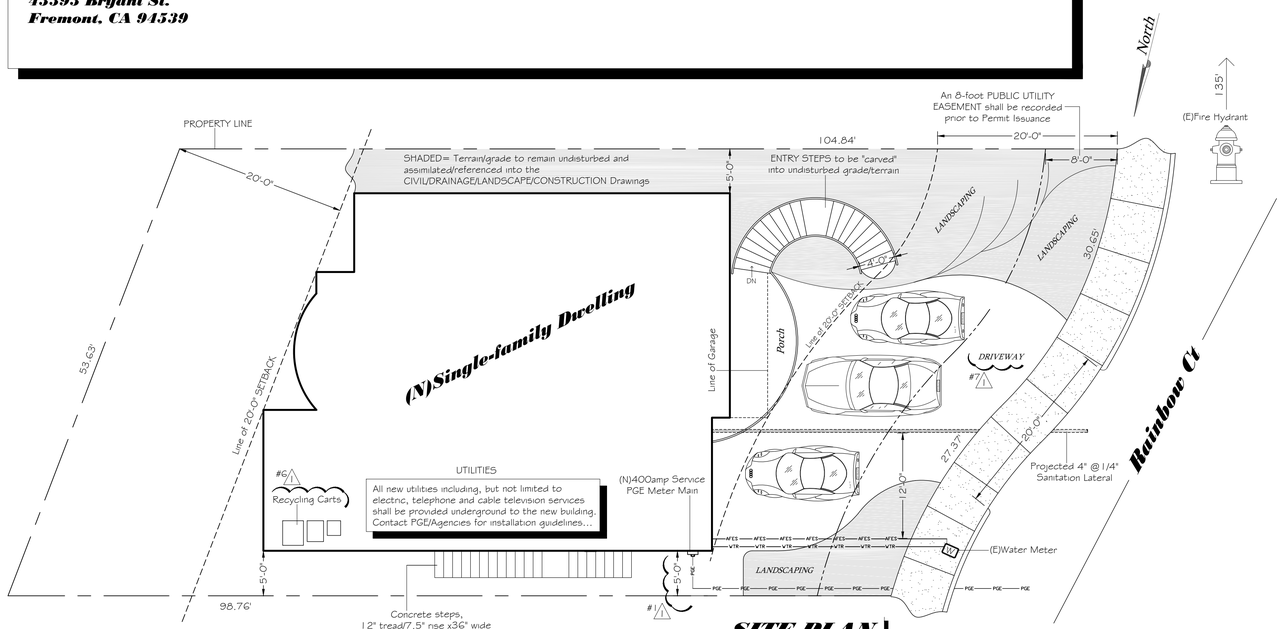
C2 DRAINAGE CONSTRUCTION DETAILS
C3 EROSION CONTROL
SU SURVEY/TOPOGRAPHY PLAN
V1 SUBJECT LOT PHOTOS



EMERGENCY PHONE: _____
_____



SITE PLAN
1/8"=1'-0"

(STORM DRAINS) CGBC 4.106.2

1. The applicant shall be responsible for litter control of all paved surfaces. All on-site storm drains shall be cleaned immediately before the start of the rainy season beginning October 15 of each year, subject to the review and approval of the Building/ Public Works Inspector.
2. The property owner shall be made aware of the educational materials on storm water pollution prevention (as furnished by the City).
3. Outdoor washing shall be managed in such a way that there is no discharge of soaps, solvents, cleaning agents or other pollutants to the storm drains. Wash water shall discharge to the sanitary sewer, subject to review and approval of the Union Sanitary District.

ROOF TRUSSES - deferred submittal

Manufactured Truss drawings and calculations shall be prepared by a civil or structural engineer licensed in the State of California. The design shall be submitted to the responsible design professional in charge who shall review them and forward them to the Building Official with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building without any corrections.

BEST MANAGEMENT PRACTICES

The contractor shall implement all applicable Best Management Practices (BMP's) from the California Best Management Practices Handbook for Construction Activities for the duration of all activity. Additional BMP's may be required by the City Engineer as necessary to minimize the pollution of the storm water runoff from the project area.

Hose bibs shall have non-removable backflow devices

CONSTRUCTION/DEMOLITION (CD) RECYCLING

Because of the amount of construction debris that will be generated by the work proposed in the application, this project is subject to /chapter 15.44 of the Newark Municipal Code, Green Building and Construction and Demolition Debris Recycling. One hundred percent (100%) of all concrete and fifty percent (50%) of remaining construction and/or demolition debris generated by this project shall be recycled. The applicant shall complete the attached Waste Management Plan and return it to the Building Inspection office prior to the issuance of a Certificate of Occupancy. Included with the Waste Management Plan is a list of recyclers that serve the South Bay Area.

If the contractor will be hiring a subcontractor or vendor to haul any construction debris off the site they must use the City of Hayward authorized construction debris hauler which is Waste Management of Alameda County (WMAC).

NOTE: Debris Boxes must be provided by (WMAC) per the City of Hayward Franchise Agreement with the Waste Management of Alameda County (WMAC)

AFES + FIRE DEPARTMENT NOTES

1. Approved address numbers shall be visible and legible from street frontage and shall contrast with background...see A3
2. Fire Department Access must be provided and maintained serviceable prior to and during construction...note "emergency number" Sheet A1.
3. Provide approved street signs prior to building permit issuance.
4. The roof shall be fire stopped to preclude entry of flames or embers under roof covering.
5. Approved smoke detectors shall be installed/located as required by CBC 310.9 and interconnected to sound simultaneously. For specific location requirements of approved smoke alarms, see CFC 907.2.11.5. & [2013 CRC 315]. Carbon Monoxide Alarms shall be installed per manufacturer installation instructions.
6. A residential fire sprinkler system compliant with NFPA 13D is required.
7. A separate submittal for permit is required prior to work on any fire protection system or component. Submit (3) sets of "AFES" design shop drawings, calculations and specifications to the Development Services Center for review and approval.
8. The inspection, hydrostatic test, and flushing of the "AFES" shall be witnessed by the building inspector specialist/Fire Marshall. Do not cover/conceal until an inspection has been completed.

ENCROACHMENT PERMIT/BOND

Any proposed work, such as driveway modifications, utility tie-ins, and landscaping, within the Rainbow Ct. right-of-way will require the issuance of a City of Hayward encroachment permit. The encroachment permit must be obtained prior to the issuance of a building permit. Conditions of issuance of this permit include the following submittal:
a. Three copies of the approved site, utility, and grading and drainage plan, clearly showing any work in the public right-of-way.
b. An itemized cost estimate for the proposed work within the public right-of-way.
c. A performance bond in the amount of 120% of the cost of off-site construction. The bond must remain in effect for a period of one year after acceptance of the project to ensure completion of work and the correction of any construction deficiencies.
d. Submittal of a completed encroachment permit application and payment of the permit fee as determined based on the cost estimate.
e. Insurance endorsements meeting the City's minimum requirements.

UTILITIES

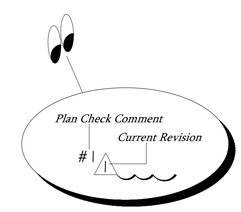
All new utilities including, but not limited to, electric, telephone and cable television services shall be provided underground to the new building

PUBLIC WORKS

The work during construction has the potential to damage the existing private improvements along the shared boundary lines and public improvements along Poplar St., such as the curb, gutter, sidewalk , asphalt, etc. It is the responsibility of the contractor to repair any private improvements and any damage to existing street improvements caused by this construction prior to the issuance of a Certificate of Occupancy...

This home is subject to the height restrictions per recorded Tract Map 3992 which limits the height of any part of the home to 606 feet MSL for buildings on lots 7-10. The height of the home shall be surveyed prior to issuance of a Certificate of Occupancy to confirm that the elevations of the home is an elevation of 606 feet MSL or less, prior to issuance of the CofO. This condition of approval shall also be included on the building permit set, and shall be underlined and in bold lettering.

Grading and construction activities shall be conducted in a manner that causes no cracking, undermining, or destruction of landscape features and outbuildings located on the adjacent property at 26144-26148 Parkside Drive. Any damage shall be repaired or corrected by the contractor/applicant prior to Issuance of a Certificate of Occupancy.



GENERAL NOTES

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL INCLUDE, BUT IS NOT NECESSARILY LIMITED TO FURNISHING ALL LABOR, MATERIALS, ACCESSORIES, TOOLS, AND TRANSPORTATION.
JOBSITE TO BE RELATIVELY CLEAN AT ALL TIMES...

DIMENSIONS AND QUANTITIES
ALL DIMENSIONS ARE TO FACE OF STUD UNLESS OTHERWISE SHOWN OR NOTED. THE CONTRACTOR SHALL NOT SCALE DRAWINGS. ALL DIMENSIONS TO TAKE PRECEDENCE OVER SCALED DRAWINGS. THE CONTRACTOR AND ALL HIS SUBCONTRACTORS SHALL VERIFY ALL GRADE ELEVATIONS, DIMENSIONS, AND CONDITION OF THE PROJECT BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY THE DESIGNER/ENGINEER IMMEDIATELY IN THE EVENT OF DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THAT OF THE DRAWINGS FOR CLARIFICATION.

OMISSIONS
IF STRUCTURAL FEATURES OF THE CONSTRUCTION ARE NOT SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS OR GENERAL NOTES, THE CONSTRUCTION SHALL BE THE SAME AND OF SIMILAR CONDITIONS AS SHOWN ON THE DRAWINGS. IN THE ABSENCE OF ANY MATERIAL DESCRIPTION IN PART OR WHOLE, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL COMPONENTS NECESSARY FOR COMPLETION OF THE WORK OR SYSTEM IN SIMILAR QUALITY TO SPECIFIED CONSTRUCTION, TO THE SATISFACTION OF THE OWNER, THE DESIGNER AND OR ENGINEER.

THE CONTRACTOR SHALL CONTACT THE DESIGNER IF ANY QUESTIONS ARISE. ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS SHALL BE COORDINATED WITH THE DESIGNER/ENGINEER. THE DESIGNER AND/OR ENGINEER SHALL BE EXEMPT FROM LIABILITY IF CHANGES IMPACT THE WORK AREA OR RELATED AREAS WITHOUT PRIOR CONSENT AND WRITTEN APPROVAL FROM SAID PARTIES.

CODES AND ORDINANCES
CODES AND ORDINANCES OF JURISDICTIONAL BODIES OR TRIBUNAL SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND SHALL TAKE PRECEDENCE OVER CONTRACT DOCUMENTS WHICH INADVERTENTLY, MAY BE PREPARED AT VARIANCE WITH THE CODES AND ORDINANCE REQUIREMENTS. HENCE, THEY SHALL TAKE PRECEDENCE THEREOF.

THE FOLLOWING CODES SHALL PREVAIL:
- 2019 CA BUILDING CODE (Based on the 2019 IBC) as amended by City Ordinance
- 2019 CA RESIDENTIAL CODE (Based on the 2019 IRC) - as amended by City Ordinance
- 2019 CA FIRE CODE (Based on the 2019 IFC)
- 2019 CA GREEN BUILDING STANDARDS CODE - as amended by City Ordinance
- 2019 ELECTRICAL CODE (Based on the 2019 NEC)
- 2019 CA PLUMBING CODE (Based on the 2019 UPC) - as amended by City Ordinance
- 2019 CA MECHANICAL CODE (Based on the 2019 UMC) - CA Code of Regulations Title 24 Part 4
- 2019 CA ENERGY CODE - CA Code of Regulations Title 24 Part 6
- AND ANY APPLICABLE CITY OF HAYWARD CODES/ORDINANCES/ OR AMENDMENTS.

SUBCONTRACTOR
Each subcontractor is considered a specialist in his respective field and shall, prior to the submission of his bid or performance of his work, notify the General Contractor, who is to subsequently inform the Designer and Owner of any work called out in the drawings that cannot be fully guaranteed...

1. TRADE NAMES AND MANUFACTURERS REFERRED TO, ARE FOR QUALITY STANDARDS ONLY. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE OWNER OR DESIGNER.
2. WORK SHALL NOT BE PERFORMED WHEN WEATHER CONDITIONS MAY CREATE HAZARDOUS WORKING CONDITIONS THAT MAY LEAD TO FAILURE IN WORKMANSHIP.---WATER AND ELECTRICITY DO NOT MIX!---
3. THE CONTRACTOR/SUBCONTRACTORS WARRANT THAT THEIR WORK AND ALL MATERIALS FURNISHED UNDER THEIR RESPECTIVE CONTRACTS, AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP.
4. UPON WRITTEN NOTICE OF ANY DEFECT IN MATERIALS OF WORKMANSHIP, THE CONTRACTOR SHALL, AT THE OPTION OF THE DESIGNER AND OR OWNER/ENGINEER REPAIR OR REPLACE SAID DEFECT AND ANY DAMAGE TO OTHER WORK AS A RESULT OF THE CORRECTION. REPLACEMENT OF REPAIR SHALL BE WITHOUT COST TO THE OWNER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL WORK UNDER THE CONTRACT IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS.
6. IN ACCORDANCE WITH THE GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS WITHIN THE JOB SITE AND PROPERTY DURING THE PERFORMANCE OF HIS WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND BE LIMITED TO NORMAL WORK HOURS.

0 10 20 30 40
5 15 25 35

architecturalradii@yahoo.com
ARCHITECTURAL Radii
DESIGN BUILD
Martin Christiansen, DESIGNER

H&M Ventures LLC
2382 Rainbow Ct.
Hayward, CA 94542
(408)373-3385

No.	Revision/Issue
1	PC Letter 9/16/20

Designed/Drafted by
MARTIN CHRISTIANSEN
33418 4th St.
UNION CITY, CA 94587
(510) 334-1959
architecturalradii@yahoo.com

Scope of Work
See Sheet A1 PROJECT INFORMATION...

Project 19K
Date 19.7-1
Scale AS NOTED
Sheet A1

FRONT ELEVATION

1/4" = 1'-0"

REAR ELEVATION

1/4" = 1'-0"

architecturalradii@yahoo.com
ARCHITECTURAL Radii
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UNION CITY, CA 94587
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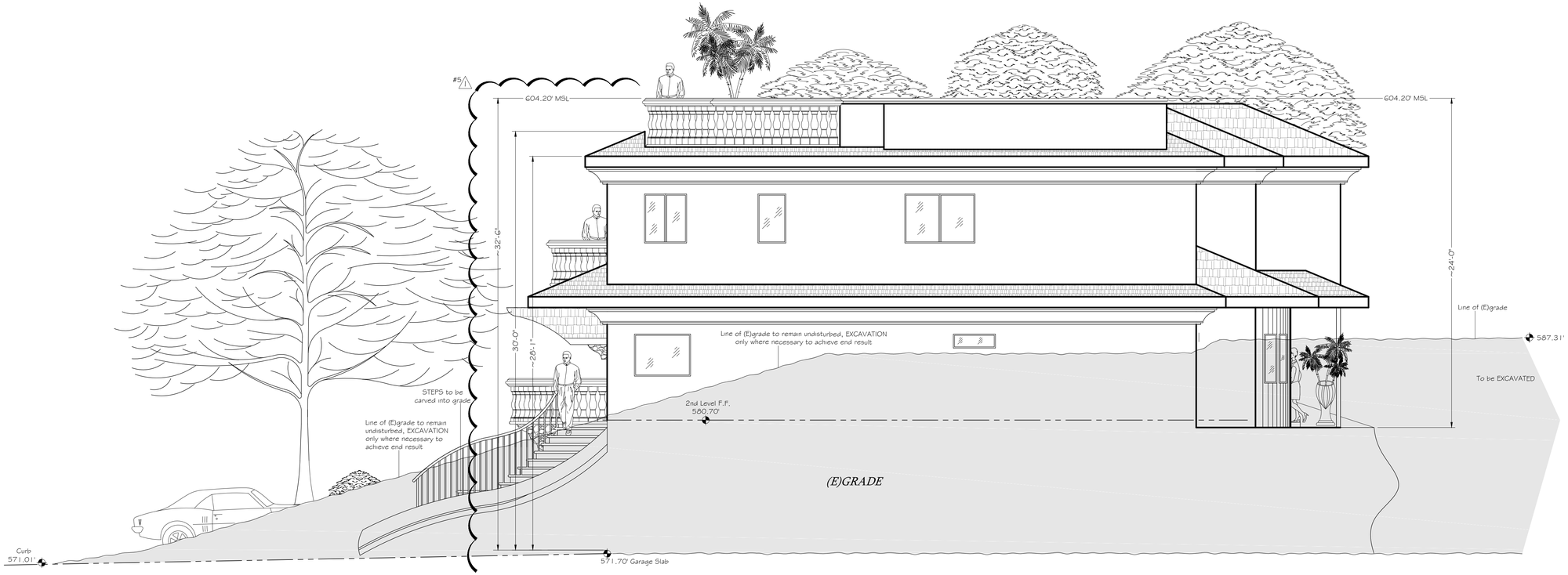
Scope of Work

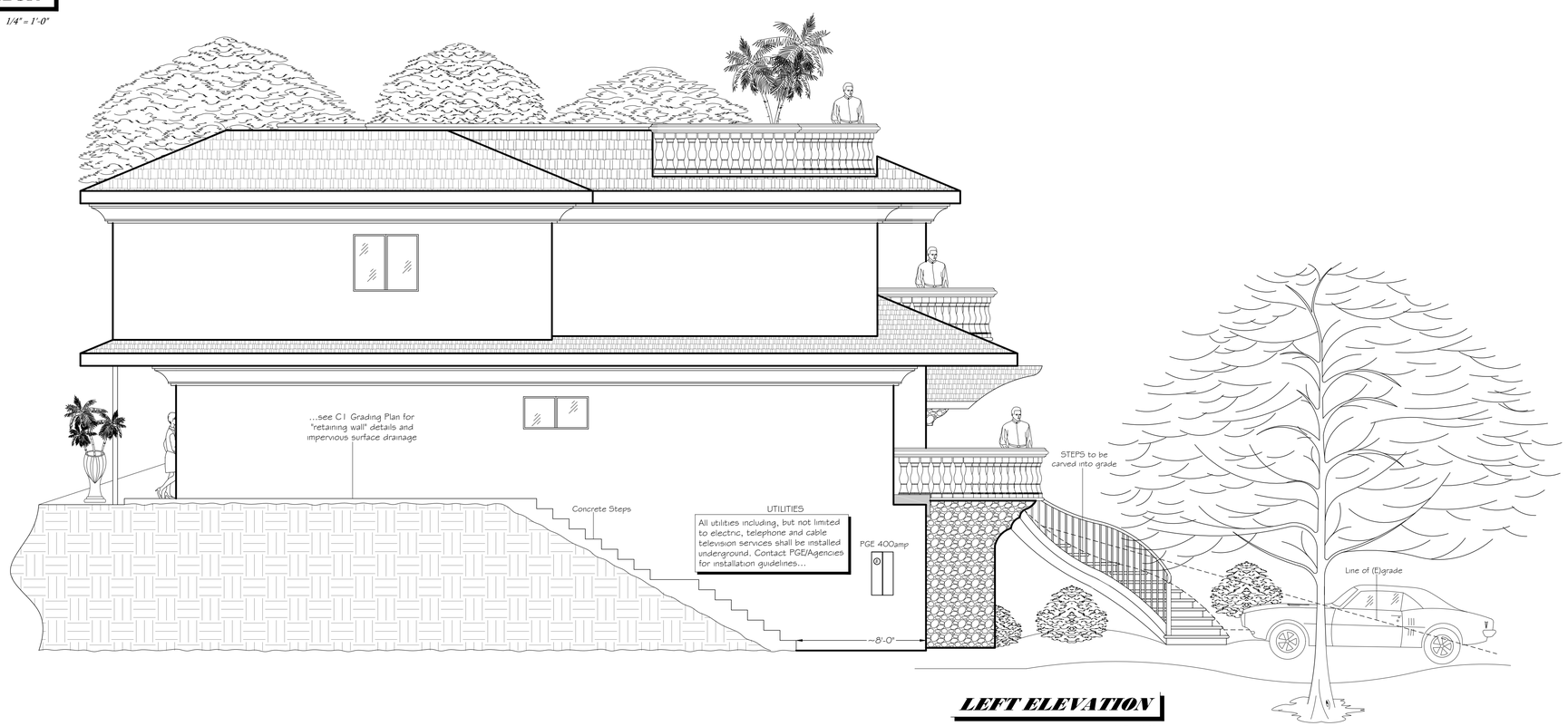
See Sheet A1 PROJECT INFORMATION...

Project 19K	Sheet A2
Date 19.7-1	
Scale AS NOTED	



RIGHT ELEVATION

1/4" = 1'-0"



LEFT ELEVATION

1/4" = 1'-0"

architecturalradii@yahoo.com

ARCHITECTURAL Radii

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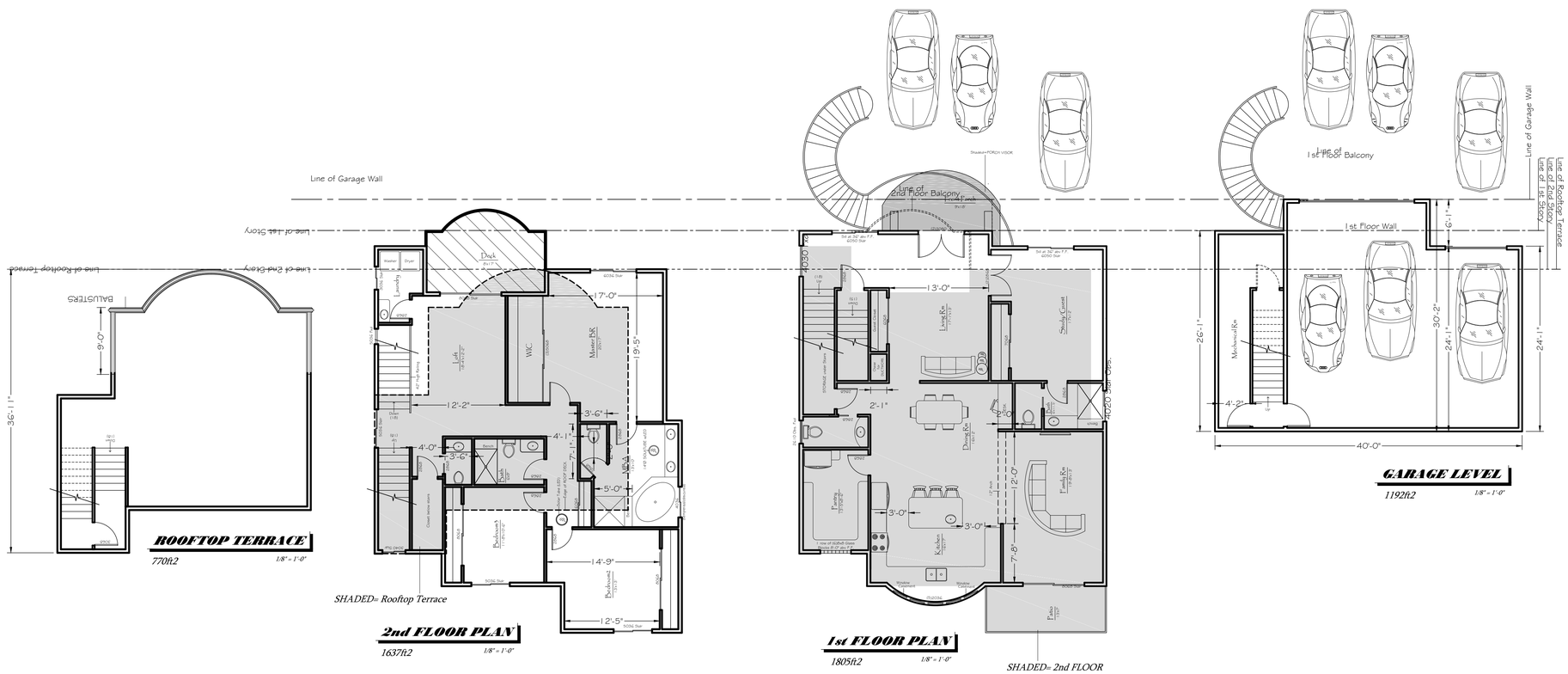
Scope of Work

See Sheet A1 PROJECT INFORMATION...

Project 19K	Sheet A3
Date 19.7-1	
Scale AS NOTED	



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ARCHITECTURAL Radii
DESIGN & DRAFTING
Martin Christiansen, DESIGNER

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33418 4th St.
UNION CITY, CA 94587
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architecturalradii@yahoo.com

Scope of Work

See Sheet A1 PROJECT INFORMATION...

Project 19K	Sheet A4
Date 19.7-1	
Scale AS NOTED	

GRADING & DRAINAGE NOTES:

NOTE: THIS DRAWING IS APPROVED SUBJECT TO:

1. ALL GRADING IS SUBJECT TO OBSERVATION BY THE CITY. PERMITTEE OR REPRESENTATIVE SHALL NOTIFY THE CITY OF HAYWARD DEPARTMENT OF PUBLIC WORKS PROJECT INSPECTOR AT LEAST 48 HOURS BEFORE START OF ANY GRADING.
2. APPROVAL OF THIS PLAN APPLIES ONLY TO (A) THE EXCAVATION, PLACEMENT, AND COMPACTION OF NATURAL EARTH MATERIALS, (B) THE INSTALLATION OF ON-SITE (I.E. PRIVATE PROPERTY) STORM WATER CONVEYANCE AND TREATMENT FACILITIES THAT ARE OUTSIDE OF THE 5-FOOT BUILDING ENVELOPE, AND (C) THE INSTALLATION OF RETAINING STRUCTURES. THIS APPROVAL DOES NOT CONFER ANY RIGHTS OF ENTRY TO EITHER PUBLIC PROPERTY OR THE PRIVATE PROPERTY OF OTHERS. APPROVAL OF THIS PLAN ALSO DOES NOT CONSTITUTE APPROVAL OF ANY IMPROVEMENTS WITH THE EXCEPTION OF THOSE LISTED ABOVE. PROPOSED IMPROVEMENTS, WITH THE EXCEPTION OF THOSE LISTED ABOVE, ARE SUBJECT TO REVIEW AND APPROVAL BY THE RESPONSIBLE AUTHORITIES AND ALL OTHER REQUIRED PERMITS SHALL BE OBTAINED.
3. UNLESS OTHERWISE NOTED ON THE PLAN, ANY DEPICTION OF A RETAINING STRUCTURE ON THIS PLAN SHALL NOT CONSTITUTE APPROVAL FOR CONSTRUCTION OF THE RETAINING STRUCTURE UNLESS A SEPARATE STRUCTURAL REVIEW, BY THE DEPARTMENT OF PUBLIC WORKS IS COMPLETED AND APPROVED.
4. IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE OR AGENT TO IDENTIFY, LOCATE AND PROTECT ALL UNDERGROUND FACILITIES.
5. THE PERMITTEE OR AGENT SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHTS-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
6. ALL GRADING SHALL BE PERFORMED IN SUCH A MANNER AS TO COMPLY WITH THE STANDARDS ESTABLISHED BY THE AIR QUALITY MANAGEMENT DISTRICT FOR AIRBORNE PARTICULATES.
7. IN THE EVENT THAT HUMAN REMAINS AND/OR CULTURAL MATERIALS ARE FOUND, ALL PROJECT-RELATED CONSTRUCTION SHOULD CEASE WITHIN A 100-FOOT RADIUS. THE CONTRACTOR SHALL, PURSUANT TO SECTION 7050.5 OF THE HEALTH AND SAFETY CODE, AND SECTION 5097.94 OF THE PUBLIC RESOURCES CODE OF THE STATE OF CALIFORNIA, NOTIFY THE MARIN COUNTY CORONER IMMEDIATELY.
8. THIS PLAN DOES NOT APPROVE THE REMOVAL OF TREES. APPROPRIATE TREE REMOVAL PERMITS AND METHODS OF TREE PRESERVATION SHOULD BE OBTAINED FROM THE CITY'S PLANNING DEPARTMENT AND THE CITY ARBORIST.
9. FOR NON-RESIDENTIAL PROJECTS, ANY NON-HAZARDOUS EXPORT RESULTING FROM PROJECT RELATED EXCAVATION OR LAND CLEARING SHALL BE 100% REUSED AND RECYCLED PER CALIFORNIA GREEN BUILDING STANDARDS CODE SECTION 5.408.
10. ALL GRADING WORK SHALL CONFORM TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT AND/OR THE PROJECT SOIL ENGINEER. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE SOIL ENGINEER.
    REPORT DATE:
    REPORT NUMBER:
    SOILS ENGINEERING COMPANY;
    CONTACT INFORMATION:
11. THE SOIL ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE BEGINNING ANY GRADING. UNOBSERVED AND/OR UNAPPROVED GRADING WORK SHALL BE REMOVED AND REPLACED UNDER OBSERVATION.
12. PERIMETER BUILDING GRADES SHALL SLOPE AWAY FROM BUILDINGS AT LEAST 5% MINIMUM
13. ALL DOWNSPOUTS SHALL HAVE SPLASH BOXES AS SHOWN ON THE GRADING AND DRAINAGE PLAN. DIRECTION OF THE FLOW SHALL BE AWAY FROM THE BUILDING.

BENCH MARK

DESCRIPTION: ASSUMED BENCHMARK, MAG NAIL ON STREET, NEAR THE SOUTHWESTERLY CORNER OF LOT AS SHOWN: ELEV.: 100.00'

ALL TOPOGRAPHIC FEATURES AND ELEVATIONS HAD BEEN TAKEN FROM SURVEYS BY OTHERS, PROVIDED BY THE OWNER

EARTHWORK QUANTITIES		
DESCRIPTION	CUT (−)	FILL (+)
BUILDING FOOTPRINT	580 C.Y.	0 C.Y.
SITE WORK (EXCLUDES BUILDING FOOTPRINT)	385 C.Y.	4 C.Y.
TOTALS RAW:	965 C.Y.	4 C.Y.
20% SHRINKAGE FACTOR (ASSUMED)		1 C.Y.
TOTAL ADJUSTED:	965 C.Y.	5 C.Y.
NET EXPORT = CUT − FILL	960 C.Y. (IN-PLACE C.Y)	

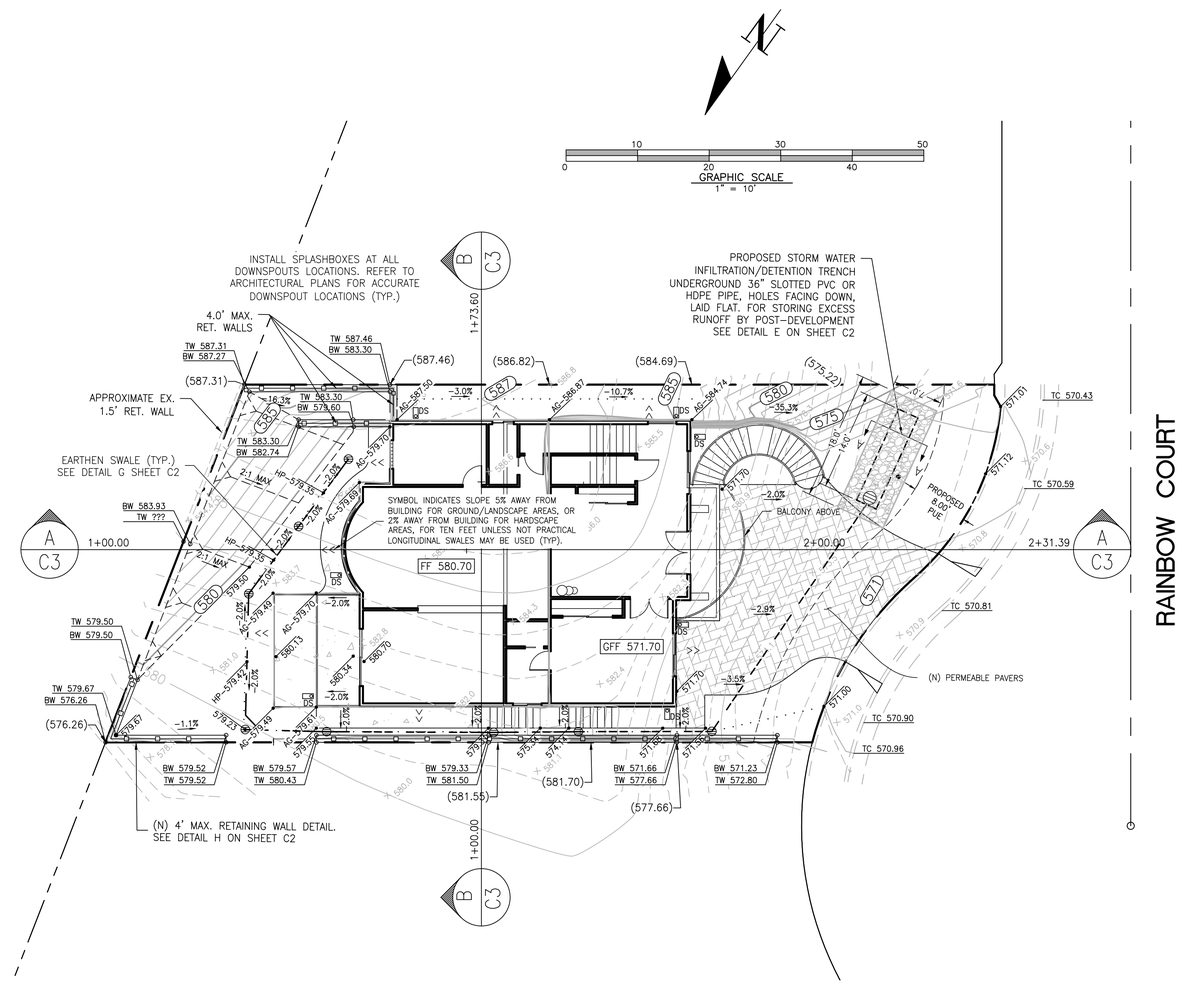
NOTE: EARTHWORK QUANTITIES SHOWN ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INDEPENDENTLY ESTIMATE QUANTITIES FOR HIS/HER OWN USE.

ABBREVATIONS

AC = ASPHALT CONCRETE
AD = AREA DRAIN
BC = BEGIN CURVE
BS = BOTTOM OF STAIR
BU = BUBBLE UP
BVC = BEGIN VERTICAL CURVE
BRW = BOTTOM OF RETAINING WALL
CB = CATCH BASIN
CL = CENTERLINE
CO = CLEANOUT
DS = DOWNSPOUT WITH SPLASH BOX
EC = END CURVE
ELEV. = ELEVATION
EVC = END VERTICAL CURVE
EX. = EXISTING
F/C = FACE OF CURB
FF = FINISHED FLOOR ELEVATION
FH = FIRE HYDRANT
FL = FLOW LINE
GB = GRADE BREAK
GFF = GARAGE FINISH FLOOR
HP = HIGH POINT
HC = HANDICAP UNIT
INV = INVERT
LP = LOW POINT
PAD = PAD ELEVATION
PCC = PORTLAND CEMENT CONCRETE
PL = PROPERTY LINE
PV = PAVEMENT GRADE
PVC = POLYVINYL CHLORIDE PIPE
PVI = POINT OF VERTICAL INTERSECTION
RCP = REINFORCED CONCRETE PIPE
ROW = RIGHT OF WAY
S=.004>- SLOPE
SD = STORM DRAIN
SDMH = STORM DRAIN MANHOLE
SG = SUBGRADE ELEVATION
SS = SANITARY SEWER
SSMH = SANITARY SEWER MANHOLE
STA = STATION
TC = TOP OF CURB
TF = TOP OF FENCE
TRW = TOP OF RETAINING WALL
TS = TOP OF STAIR
TW = TOP OF WALL
VCP = VITRIFIED CLAY PIPE
WM = WATER METER
WV = WATER VALVE

LEGEND

DESCRIPTION	SYMBOL
BOUNDARY LINE	
LOT LINE	
EASEMENT LINE	
SIDEWALK	
WOOD FENCE	X X
CHAIN LINK FENCE	
RETAINING WALL	
DRIVEWAY DRAIN INLET	
AREA DRAIN	
DROP INLET	
MONUMENT	
FIRE HYDRANT	
ELECTROLIER	
WATER METER	
AC UNIT	
SANITARY SEWER LATERAL	
STORM DRAIN	SD
SANITARY SEWER	SS
STREET LIGHT CONDUITS	SL
WATER	W
JOINT TRENCH	JT
HOUSE SERVICE	SVC
SLOPE ARROW	
EXISTING CONTOUR	100
PROPOSED CONTOUR	100
OVERLAND RELEASE	
DIRECTION OF SURFACE DRAINAGE	
5% SLOPE AWAY FROM BUILDING	>>
GAS LINE	GAS
OVERHEAD ELECTRICAL LINE	OE
UNDERGROUND ELECTRICAL LINE	UE
DOWNSPOUTS W/SPLASH BOX	



PERVIOUS AND IMPERVIOUS SURFACE COMPARISON TABLE			
a. Project Phase Number: (N/A, 1, 2, etc.)	N/A	b. Total Site (acres):	0.12
c. Total Site Existing Impervious Surfaces (square feet):	0	d. Total Area of Site Disturbed (acres):	0.12

e Impervious Surfaces	Existing Condition of Site Area Disturbed (+/- sq.ft.)	Proposed Condition of Site Area Disturbed (+/- sq.ft.) Replaced (1)	New (2)
Roof Area(s)	0	0	2,019
Parking/Driveways	0	0	0
Sidewalks, Patios, etc.	0	0	469
Streets (Public) Roadway Projects	0	0	0
Streets (Private)	0	0	0
Total Impervious Surfaces:	e.1 0	e.2 0	e.3 2,488
f. Pervious Surfaces			
Landscape Areas	5,190	0	2,702
Pervious Pavers	0	0	0
Other Pervious Surfaces (green roof, etc.)	0	0	0
Total Pervious Surfaces:	f.1 5,190	f.2 0	f.3 2,702

g. Total Proposed Replaced + New Impervios Surfaces (e.2 + e.3):	2,488
h. Total Proposed Pervious Surfaces = Total Proposed Replaced + New Pervious Surfaces:	2,702

i Percent of Replacement of Impervious Area in Redevelopment Projects (e.2/c x 100)	0%
j Percent of Impervious Area of proposed Projects (g.2/c x 100)	48%

SLOPE CALCULATIONS

571	26	23	49
572	53		53
573	52		52
574	54		54
575	53		53
576	53		53
577	53		53
578	54		54
579	54		54
580	54		54
581	53		53
582	115		115
583	106		106
584	98		98
585	88		88
586	75		75
587	42		42
			1106 FT

S=PERCENT (%) SLOPE = (I * L*100)/A

I = INTERVAL OF CONTOURS 1

L = LENGTH OF SUM OF CONTOURS 1106 FT

A = GROSS AREA IN SQUARE FEET 5190 SF

SO:

S = 21.3 %

TOPOGRAPHIC CONTOURS AND ELEVATIONS HAD BEEN TAKEN FROM SURVEYS BY OTHERS, PROVIDED BY THE OWNER

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 MAY BE AFFECTED BY THE CONSTRUCTION WORK. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER 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.

REVISIONS	BY	CITY	DATE

REGISTERED PROFESSIONAL ENGINEER PORFIRIO OSCAR OSUNA No. 70829 Exp. 6-30-21 CIVIL STATE OF CALIFORNIA

P. Oscar Osuna
PORFIRIO OSCAR OSUNA
RCE 70829 EXP. 6-30-21

OSUNA ENGINEERING INC.
Planning | Surveying | Civil Engineering
CONSULTING CIVIL ENGINEERS & LAND SURVEYORS
117 BERNAL RD. STE. 70-336
SAN JOSE, CA 95119
TEL. (408) 772-4381
info@osunaengineering.com

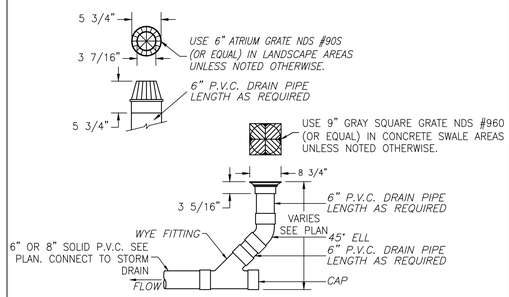
GRADING & DRAINAGE PLAN
2382 RAINBOW COURT
HAYWARD, CALIFORNIA

Project No.: 1937 | Designed: O.O. | Checked: O.O. | Date: 11/20/20

SHEET C1 OF 4 SHEETS

N.T.S.

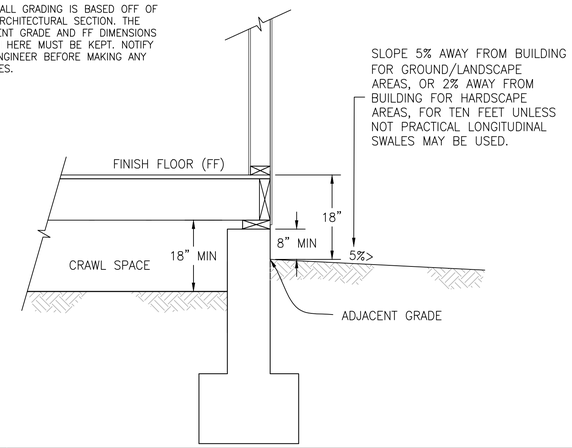
A NOT USED



LANDSCAPE DRAIN DETAIL
N.T.S.

B AREA DRAIN DETAIL

NOTE: ALL GRADING IS BASED OFF OF THIS ARCHITECTURAL SECTION. THE ADJACENT GRADE AND FF DIMENSIONS SHOWN HERE MUST BE KEPT. NOTIFY THE ENGINEER BEFORE MAKING ANY CHANGES.



C TYPICAL FOUNDATION/FF/GROUND SECTION

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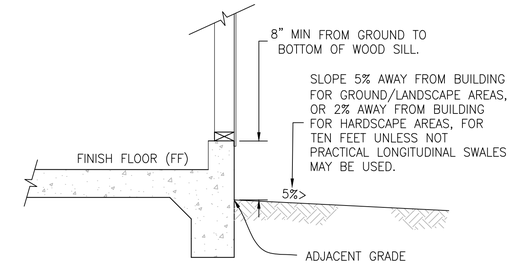
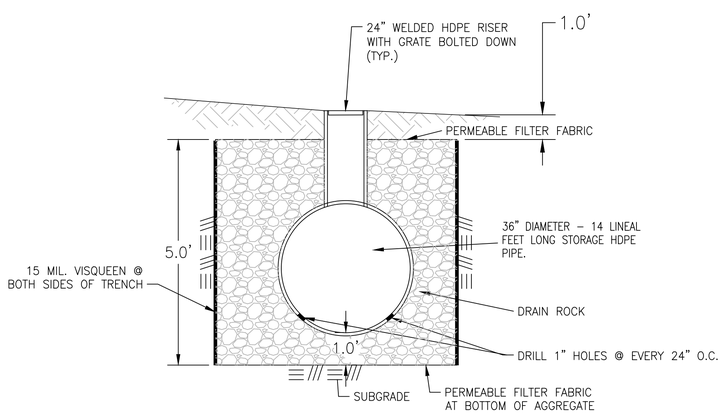


N.T.S.

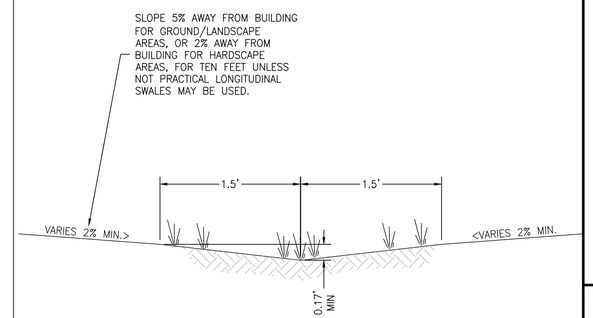
D TYPICAL FOUNDATION/GFF/GROUND SECTION



N.T.S.

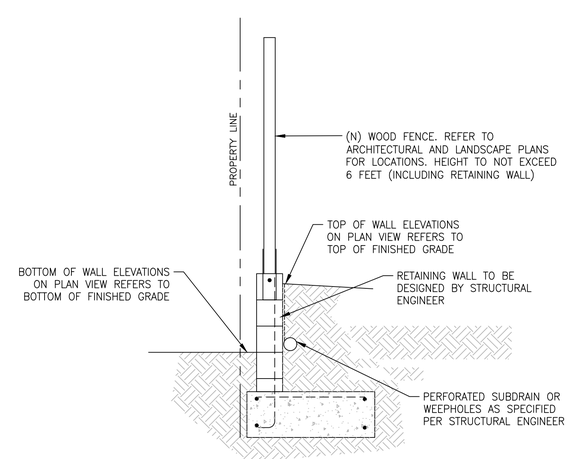
E STORM WATER INFILTRATION/DETENTION TRENCH DETAIL

F NOT USED

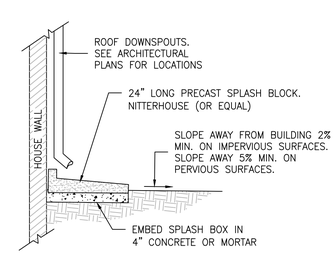


N.T.S.

G EARTHEN SWALE DETAIL



H GENERIC RETAINING WALL DETAIL



SPLASH BLOCK/DOWNSPOUT DETAIL
N.T.S.

N.T.S.

I SPLASH BLOCK/DOWNSPOUT DETAIL

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 MAY BE AFFECTED BY THE CONSTRUCTION OF THE WORK, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER 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.

REVISIONS	DATE	CITY	BY

REGISTERED PROFESSIONAL ENGINEER PORFIRIO OSCAR OSUNA No. 70829 Exp. 6-30-21 CIVIL STATE OF CALIFORNIA

P. Oscar Osuna
PORFIRIO OSCAR OSUNA
RCE 70829 EXP. 6-30-21

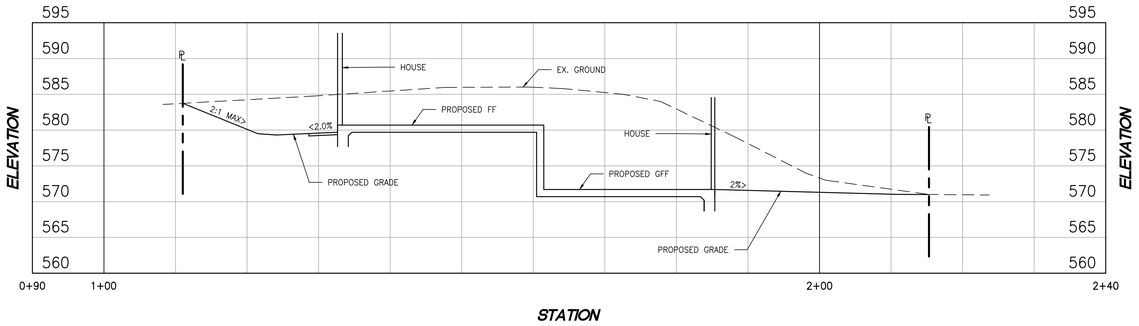
OSUNA ENGINEERING INC.
Planning | Surveying | Civil Engineering
CONSULTING CIVIL ENGINEERS & LAND SURVEYORS
117 BERNAL RD. STE. 70-336
SAN JOSE, CA 95119
TEL. (408) 772-4381
info@osunaengineering.com

GRADING & DRAINAGE PLAN
CONSTRUCTION DETAILS
2382 RAINBOW COURT
HAYWARD, CALIFORNIA

Project No.: 1937 | Designed: J.O. | Checked: O.O. | Date: 11/20/20

SHEET
C2
OF 4 SHEETS

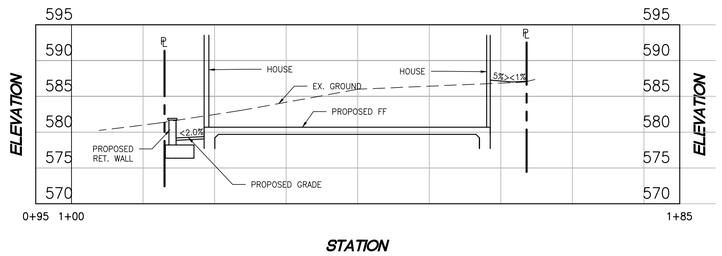
SECTION A PROFILE



SCALE: H:1"=10'; V:1"=10'

A SECTION A

SECTION B PROFILE



SCALE: H:1"=10'; V:1"=10'

B SECTION B

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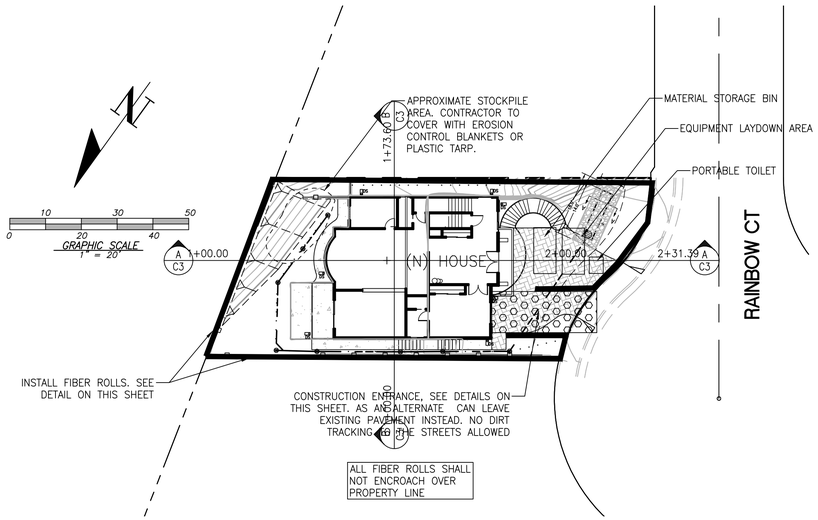
GRADING & DRAINAGE PLAN
SECTIONS
2382 RAINBOW COURT
HAYWARD, CALIFORNIA

Project No.: 1937 | Designed: J.O | Checked: O.O | Date: 11/20/20

SHEET
C3
OF 4 SHEETS



NOTES:
1. PROTECT ALL INLETS IN THE PUBLIC STREETS SURROUNDING THE SITE.
2. ALL ON-SITE LANDSCAPE AREA DRAINS TO BE CAPPED OR PROTECTED UNTIL LANDSCAPING IS FINISHED.

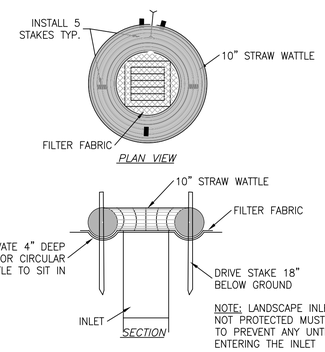
LEGEND

PROPOSED	DESCRIPTION
	SITE BOUNDARY
	STABILIZED CONSTRUCTION ENTRANCE 2"–3" ROCK (MIN)
	FIBER ROLL
	INLET PROTECTION

MAINTENANCE NOTES

MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:

1. REPAIR DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION AT THE END OF EACH WORKING DAY.
2. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
3. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
4. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1 FOOT.
5. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
6. RILLS AND GULLIES MUST BE REPAIRED.



NOTE: LANDSCAPE INLETS THAT ARE NOT PROTECTED MUST BE CAPPED TO PREVENT ANY UNTREATED FLOW ENTERING THE INLET

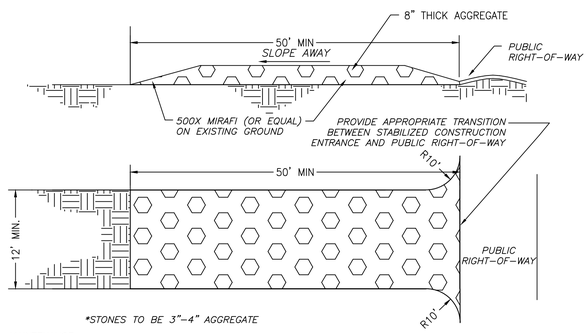
ALTERNATE FIBER ROLL INLET PROTECTION MAY BE USED IN LANDSCAPE AREA DRAINS
N.T.S.

EROSION & SEDIMENT CONTROL NOTES

1. NOT USED
2. THE DEVELOPER IS RESPONSIBLE FOR ENSURING THAT ALL CONTRACTORS AND SUBCONTRACTORS ARE AWARE OF ALL STORM WATER QUALITY MEASURES AND IMPLEMENT SUCH MEASURES. FAILURE TO COMPLY WITH THE APPROVED CONSTRUCTION BEST MANAGEMENT PRACTICES WILL RESULT IN THE ISSUANCE OF CORRECTION NOTICES, CITATIONS, AND/OR STOP ORDERS.
3. ANY VEHICLE OR EQUIPMENT WASHING/STEAM CLEANING MUST BE DONE AT AN APPROPRIATELY EQUIPPED FACILITY WHICH DRAINS TO THE SANITARY SEWER. OUTDOOR WASHING MUST BE MANAGED IN SUCH A WAY THAT THERE IS NO DISCHARGE OF SOAPS, SOLVENTS, CLEANING AGENTS OR OTHER POLLUTANTS TO THE STORM DRAINS. WASH WATER SHALL DISCHARGE TO THE SANITARY SEWER, SUBJECT TO REVIEW AND APPROVAL OF UNION SANITARY DISTRICT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LITTER CONTROL AND SWEEPING OF ALL PAVED SURFACES DURING CONSTRUCTION.
5. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1 TO APRIL 15. EROSION CONTROL MEASURES ARE TO BE FUNCTIONAL PRIOR TO OCTOBER 1ST OF ANY YEAR GRADING OPERATIONS HAVE LEFT AREAS UNPROTECTED FROM EROSION.
6. ALL ON-SITE STORM DRAINS SHALL BE CLEANED IMMEDIATELY BEFORE THE START OF THE RAINY SEASON BEGINNING ON OCTOBER 1ST EACH YEAR, SUBJECT TO THE REVIEW OF THE BUILDING/ENGINEERING INSPECTOR.
7. IF RAINY WEATHER BECOMES IMMINENT, GRADING OPERATIONS SHALL BE STOPPED AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PROTECT DISTURBED AREAS.
8. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
9. CONSTRUCTION ENTRANCES SHALL CONSIST OF A MINIMUM 8" THICK LAYER OF 3"–4" FRACTURED STONE AGGREGATE UNLAID WITH GEOTEXTILE LINER FOR A MINIMUM DISTANCE OF 50 FEET, AND IS TO BE PROVIDED AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. THE DEPTH AND LENGTH OF AGGREGATE MAY NEED TO BE ADJUSTED IN THE FIELD TO ENSURE NO TRACKING OF SEDIMENT ONTO EXISTING PAVED STREETS. CONSTRUCTION ENTRANCES SHALL SLOPE AWAY FROM EXISTING PAVED STREETS.
10. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL MEASURES ARE TO BE BLOCKED UNLESS THE AREA DRAINED IS UNDISTURBED OR STABILIZED.
11. BORROW AREAS AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTORL MEASURES TO THE SATISFACTION OF THE CITY ENGINEER.
12. NO STRAW BALES OR SILT FENCES SHALL BE USED AS EROSION CONTROL MEASURES. SILT FENCES MAY ONLY BE USED AS A PHYSICAL BARRIER TO PREVENT VEHICULAR AND PEDESTRIAN TRAFFIC FROM USING NON-APPROVED ACCESS POINTS (E.G. – ALONG RIGHT-OF-WAY).
13. ALL DISTURBED AREAS INCLUDING FLAT PADS ARE TO BE TREATED WITH STRAW AND TACKIFIER AT A RATE OF 2 TONS PER ACRE APPROXIMATELY 3 INCHES THICK.

SUPPLEMENTAL EROSION & SEDIMENT CONTROL NOTES

1. SEE STANDARD EROSION & SEDIMENT CONTROL NOTES ABOVE.
2. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1 TO APRIL 30. FACILITIES ARE TO BE OPERABLE PRIOR TO OCTOBER 1 OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
3. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE WAYS.
4. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE CITY.
5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT.
6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. NOTIFY THE CITY REPRESENTATIVE OF ANY FIELD CHANGES.



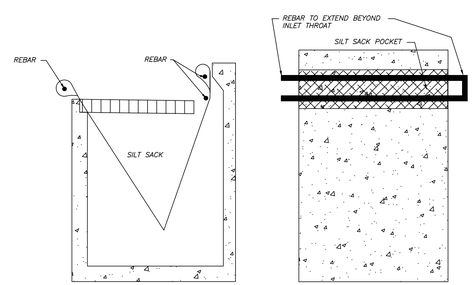
MAINTENANCE:

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY MEASURES USED TO TRAP SEDIMENT.

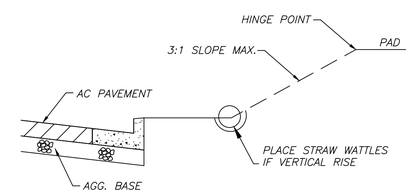
ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.

WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. THIS SHALL BE DONE AT AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

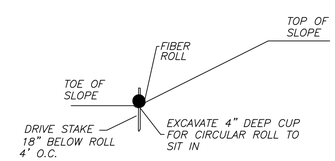
STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



CALIFORNIA MODIFIED SILT SACK
REED & GRAHAM, INC. (OR EQUAL)
BEFORE & AFTER STREETS ARE PAVED
N.T.S.



FRONT YARD SLOPE DETAIL AFTER STREET ARE PAVED
N.T.S.



FIBER ROLL INSTALLATION DETAIL
N.T.S.

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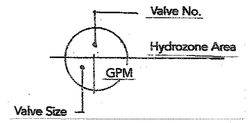
GRADING & DRAINAGE PLAN
EROSION CONTROL
2382 RAINBOW COURT
HAYWARD, CALIFORNIA

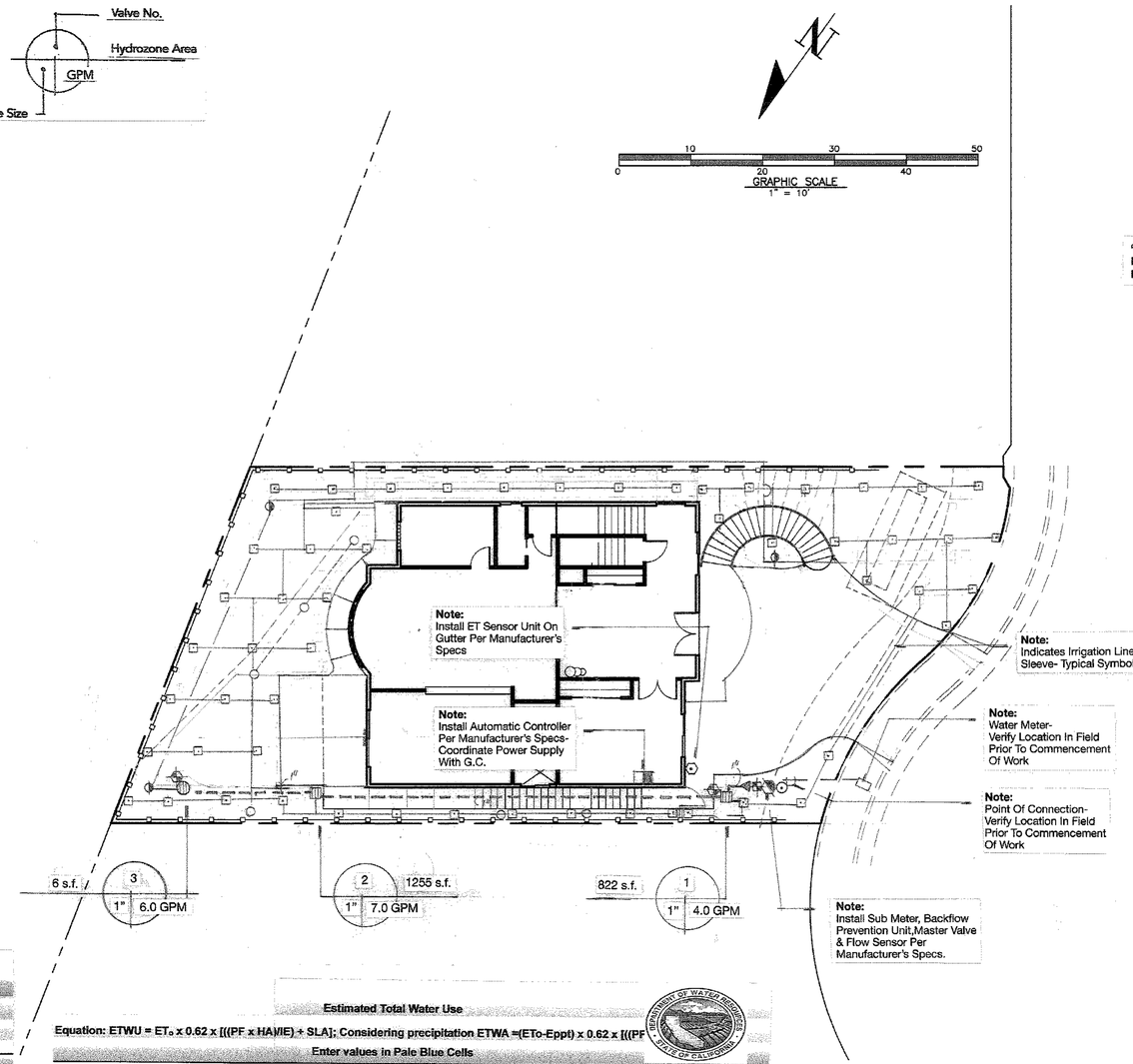
Project No.: 1937 | Designed: J.O | Checked: O.O | Date: 11/20/20

SHEET
C3
OF 4 SHEETS

Irrigation Legend:

SYMBOL	HEADTYPE	PSI.	GPM P.R.	MANUF.	MODEL No.
	Drip Emitter	25	2 GPH	Hunter	MPE-20 Pressure Compensating Multi Port Emitter With 6 Ports Per Emitter Install With Hunter Multi Purpose Box
	Flood Bubbler	20 1.5 GPM		Hunter	AFB
	Remote Control Valve			Hunter	PGV 1" Install Per Manufacturer's Specs.
	Master Valve			Hunter	ICV-101G Install Per Manufacturer's Specs.
	Drip Zone Valve Kit			Hunter	ICZ- 101 Install Per Manufacturer's Specs.
	Quick Coupler Valve			Rainbird	33DRC Series 3/4" Size
	Automatic Controller			Hunter	I-Core 6 Station Wall Mount-Power By Others
	ET Sensor			Hunter	Wireless 'Solar Sync' Install On Gutter Per Manuf. Specs
	Flow Sensor			Hunter	HFS Install Per Manufacturer's Specs
	Backflow Prevention Unit			Febco	Model 825Y Install Per Manufacturer's Specs.
	Sub Meter			Zenner	Model MJ Water Meter- 1" Size
	Mainline			PVC Sch. 40	Size Per Plan Bury 18" Min. Below Grade
	Lateral Line			PVC Sch. 40	Size Per Plan Bury 12" Min. Below Grade
	Irrigation Line Sleeve			PVC Sch. 40	Size To Accommodate Irrigation Lines- 24" Depth





IRRIGATION NOTES:

1. System is designed for 65 PSI static pressure at meter. Maximum flow is 7.0 GPM. Contractor shall run pressure tests at each point of connection before commencing work. Any discrepancies between actual pressure and design pressure shall be reported to the landscape architect and owner prior to further work being done.
2. All applicable governmental plumbing and health code regulations shall have precedence over these plans and specifications.
3. Location of valves, back flow prevention units, mainline, lateral line and automatic controllers are shown schematically due to scale of the plans. Install in planter areas where ever possible or in the most appropriate location. Install mainline and lateral line in the same trench (with a 6" min. separation vertically) wherever possible.
4. Contractor shall verify all points of connection (POC) in the field prior to commencement of work. If discrepancies exist between existing conditions and those indicated on the plans, contractor shall contact the landscape architect and owner immediately before continuing work. Likewise, contractor shall verify configuration and dimensions of areas to be irrigated before commencement of work.
5. All irrigation lines in and around existing trees shall be **HAND TRENCHED** and care shall be taken not to damage existing tree roots.
6. All irrigation lines under paving shall be placed in sch. 40 PVC sleeves, size to accommodate irrigation lines adequately, for the full width of the paving.
7. All changes in direction of irrigation pipe shall be accomplished with the use of proper fittings. NO PIPE SHALL BE BENT.
8. In no case shall the spacing of heads exceed the recommended spacing of the manufacturer.
9. Minimum depth of PVC lateral lines shall be 12"(twelve inches) below grade. Minimum depth of PVC main line shall be 18"(eighteen inches) below grade.
10. Prior to any planting operations, a coverage test shall be performed by the contractor in the presence of the landscape architect and owner. Contractor shall furnish all materials and provide all labor necessary to correct inadequate coverage.
11. Contractor shall be responsible for the procurement of all necessary permits and shall provide owner with an 'As Built' plan (reproducible) of the installed irrigation system upon completion of the project.
12. All installation shall comply with Chapter 10 Article 12 of the **Bay Friendly Water Efficient Landscape Ordinance**

Maximum Applied Water Allowance Calculations for New and Rehabilitated Residential Landscapes

Enter ... s

Me ... s

Click on the blue cell on right to Pick City Name	San Jose	Name of City
ET_o of City from Appendix A	45.30	ET_o (inches/year)
	0	Overhead Landscape Area (ft²)
	2083	Drip Landscape Area (ft²)
	0	SLA (ft²)
Total Landscape Area	2,083.00	
Results:		
$(ET_o) \times (0.62) \times [(0.55 \times LA) + (1.0 - 0.55) \times SLA)]$	-	Gallons
	-	Cubic Feet
	-	HCF
	-	Acre-feet
	-	Millions of Gallons
MAWA calculation incorporating Effective Precipitation (Optional)		
Precipitation (Optional)		
ET_o of City from Appendix A	45.30	ET_o (inches/year)
Total Landscape Area	2,083.00	LA (ft²)
Special Landscape Area	0.00	SLA (ft²)
	14	Total annual precipitiation (inches/year)
Enter Effective Precipitation	3.50	Eppt (in/yr)(25% of total annual precipitation)
Results:		
$MAWA = [(ET_o - Eppt) \times (0.62)] \times [(0.55 \times LA) + ((1.0 - 0.55) \times SLA)]$	29,695.25	Gallons
	3,969.69	Cubic Feet
	39.70	HCF
	0.09	Acre-feet
	0.03	Millions of Gallons

Estimated Total Water Use

Equation: $ETWU = ET_o \times 0.62 \times [((PF \times HA)/IE) + SLA]$; Considering precipitation $ETWA = (ETo - Eppt) \times 0.62 \times [((PF$

Enter values in Pale Blue Cells

Tan Cells Show Results

Messages and Warnings

Irrigation Efficiency Default Value f

Plant Water Use Type	Plant Factor
Very Low	0 - 0.1
Low	0.2 - 0.3
Medium	0.4 - 0.6
High	0.7 - 1.0
SLA	1

Hydrozone	Select System From the Dropdown List click on cell below	Plant Water Use Type (s) (low, medium, high)	Plant Factor (PF)	Hydrozone Area (HA) (ft²) Without SLA	Irrigation Efficiency (IE)	(PF x HA (ft²))/IE
Zone 1	Drip	Low	0.30	822	0.81	304
Zone 2	Drip	Low	0.30	1,255	0.81	465
Zone 3	Drip	Low	0.30	6	0.81	2
						771
		SLA		0		0
			Sum	2,083		

ETWU=	19,997	Gallons
	2,673	Cubic Feet
	27	HCF
	0	Acre-feet
	0	Millions of Gallons

ETWU complies with MAWA

"I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN AND IRRIGATION DESIGN PLAN"

Landscape Documentation Package For :

Residence
2382 Rainbow Court
Hayward, CA 94542

Applicant: Thomas Scherer Landscape Architect
P.O. Box 68
Aptos, CA 95001
(831) 688-8913
zekets@earthlink.net

Owner: Ravi Joondula
2382 Rainbow Court
Hayward, CA 94542
(408) 373-3385
ravijo@gmail.com

Total Landscape Area: 2,083 s.f.
Drought Tolerant Shrubs/Ground cover : 2,083 s.f.
Turf Area: 0 s.f.
Total: 2,083 s.f.

Project Type: New
Water Supply Type: Potable
Water Supply : City of Hayward, CA

"I agree to comply with the requirements of the Water Efficient Landscape Ordinance and submit a complete landscape documentation package."

11·24·2020 Date
Thomas Scherer

See Sheet L-1: Irrigation Design Plan, Water Efficient Landscape Worksheet,
See Sheet L-2: Planting Design Plan
See Sheet L-3: Irrigation & Planting Details

RAINBOW COURT

THOMAS SCHERER ASSOCIATES
Landscape Architecture
P.O. Box 68, Aptos, CA 95001
Tel (831) 688-8913

REVISIONS	DATE	CITY	BY

OSUNA ENGINEERING INC.
Planning | Surveying | Civil Engineering
CONSULTING CIVIL ENGINEERS & LAND SURVEYORS
117 BERNAL RD. STE. 70-336
SAN JOSE, CA 95119
TEL. (408) 772-4381
info@osunaengineering.com

IRRIGATION PLAN
LEGEND & NOTES
2382 RAINBOW COURT
HAYWARD, CALIFORNIA

Project No.: 1937 | Designed: TS | Checked: O.O. | Date: 6-1-2020

SHEET
L-1
OF __ SHEETS

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 FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL 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.

Planting Legend:

Symbol	Botanical Name	Common Name	Size	H2O	Quan.	Comment
Trees:						
A	Hymenosporum flavum	Sweetshade	15 g.c.	M	1	
B	Lagerstroemia h'Tuscorora'	Crape Myrtle	15 g.c.	L	1	
C	Arbutus 'Marina'	Strawberry Tree	15 g.c.	L	1	
Shrubs:						
1	Agave 'Blue Flame'	Agave	5 g.c.	L	7	
2	Salvia leucantha	Mexican Sage	5 g.c.	L	15	
3	Xylosma c.'Compacta'	Shiny Xylosma	5 g.c.	L	10	
4	Escallonia fradesi	N.C.N.	5 g.c.	M	6	
5	Osmanthus fragrans	Sweet Olive	5 g.c.	M	4	

Groundcovers:

- Sedum rubrotinctum, Pork & Beans, Plant 1 g.c. @ 18" o.c., L
- Cistus p.'Sunset', Magenta Rockrose, Plant 1 g.c. @ 48" o.c., L
- Cistus salvifolius 'Prostratus', Sageleaf Rockrose, Plant 1 g.c. @ 48" o.c., L
- Ceanothus g. 'Diamond Heights, Diamond Heights Carmel Creeper, Plant 1 g.c. @ 48" o.c., L

Water Use Key:

VL	Very Low
L	Low
M	Medium
H	High

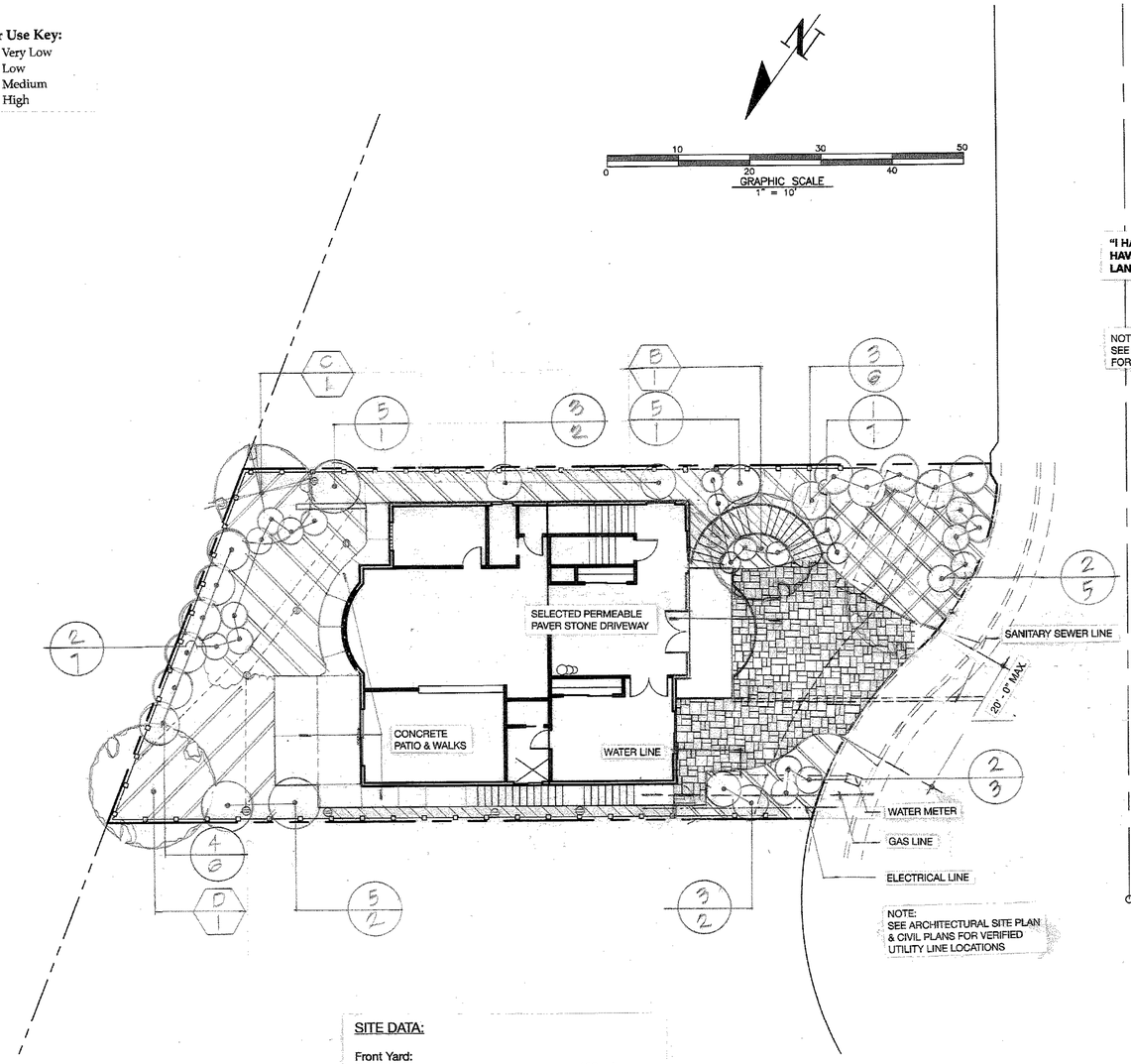
Tree — Symbol / Quantity

Shrub — Symbol / Quantity

% WATER USE PLANTS:

High Use:	0 %
Medium Use:	29%
Low Use:	71%

Total Landscape Area:	**2,083 s.f.**
Turf Area:	0 s.f.
Drought Tolerant Shrubs/Ground cover :	2,083 s.f.
Total:	2,083 s.f.



NOTE:
SEE CIVIL ENGINEER'S PLANS FOR GRADING & DRAINAGE

NOTE:
SEE ARCHITECTURAL SITE PLAN & CIVIL PLANS FOR VERIFIED UTILITY LINE LOCATIONS

"I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN AND IRRIGATION DESIGN PLAN"

SITE DATA:

Front Yard:	
Total Area:	1,468 s.f.
Proposed Paverstone Driveway:	646 s.f. (44%)
Rear Yard:	
Total Area:	1,649 s.f.
Proposed Walks & Patio:	386 s.f. (23%)

Planting Notes:

1. Circles shown indicate approximate mature size of plant material.
2. Contractor shall be responsible for adequate erosion control measures during construction.
3. Care shall be taken to avoid construction activity and/or staging under the drip line of existing trees in order to prevent soil compaction, root or tree damage. All work to be done under the drip line of trees shall be done by hand.
4. No plant shall be planted in a drainage swale regardless of position on plan.
5. FINISH GRADING: Till all planter areas to an 6 inch depth. Break up or remove all compacted lumps of soil, rocks larger than 1 inch in diameter, and all deleterious material from planter areas. Finish grade all areas to a smooth, even surface free of abrupt changes in grade. Make minor grading changes as required to insure positive drainage (1% minimum).
6. SOIL PREPARATION: Thoroughly incorporate the following amendments into the top 6 (six) inches of all areas to be planted, except where indicated otherwise. Amounts given are per 1000 square feet:
   1. 4 cubic yards of nitrogen stabilized shavings.
   2. 2 cubic yards of Nitrohumus or Gro-power.
   3. 8 pounds of all purpose fertilizer (8-8-4).
7. No plant shall be installed until a fully automatic drip irrigation system, covering all planter areas, is installed, tested and is fully operational.
8. PLANTING OF TREES, SHRUBS & VINES: Unless otherwise noted,
   All Street Trees shall be planted per City of Hayward Detail SD-122
   All trees shall be planted per detail____1____
   All shrubs shall be planted per detail____2____
   All planter pits shall receive the following back fill mix:
   1. 60% soil of the site
   2. 20% nitrogen stabilized redwood shavings
   3. 20% Nitrohumus or Gro-power or equal
      Acid loving plants shall receive peat moss
   4. Fertilizer tablets (Agriform 21 gram: 20-10-5) or equal, applied per manufacturer's recommendations.
   5. Add Coarse Pumice Or Perlite To 6" Depth For Succulents
9. Contractor shall guarantee all small trees, shrubs ,vines, ground covers and turf to live and grow in an acceptable condition for a period of 90 (ninety) days from the date of installation completion. Contractor shall also guarantee all trees and shrubs 24 box size and larger for a period of 1(one) year from the date of installation completion.
10. Upon completion of planting operations, contractor shall apply an approved pre-emergent herbicide (Ronstar or equal) as weed control per manufacturer's specifications. In addition, a 3 inch layer of approved mulch shall be installed over the finish grade of all planter areas.
11. MAINTENANCE PERIOD: Contractor shall maintain the site for a period of ____90____ calendar days after acceptance by owner. Maintenance shall include weekly mowing of turf areas; weeding of all turf and ground cover areas removal of all trash and debris from planter areas and hardscape areas; pruning and trimming of all plant materials required; replacement of all dead or dying plant material & 2 applications of fertilizer.
12. Contractor shall comply with all features of Chapter 10 Article 12 of the **Bay Friendly Water Efficient Landscape Ordinance.**

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 AND ENGINEER 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.

THOMAS SCHERER ASSOCIATES
Landscape Architecture
P.O. Box 68, Aptos, CA 95001
Tel (831) 688-8920

BY	CITY	DATE	REVISIONS

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Planning|Surveying|Civil Engineering
CONSULTING CIVIL ENGINEERS & LAND SURVEYORS
117 BERNAL RD. STE. 70-336 SAN JOSE, CA. 95119
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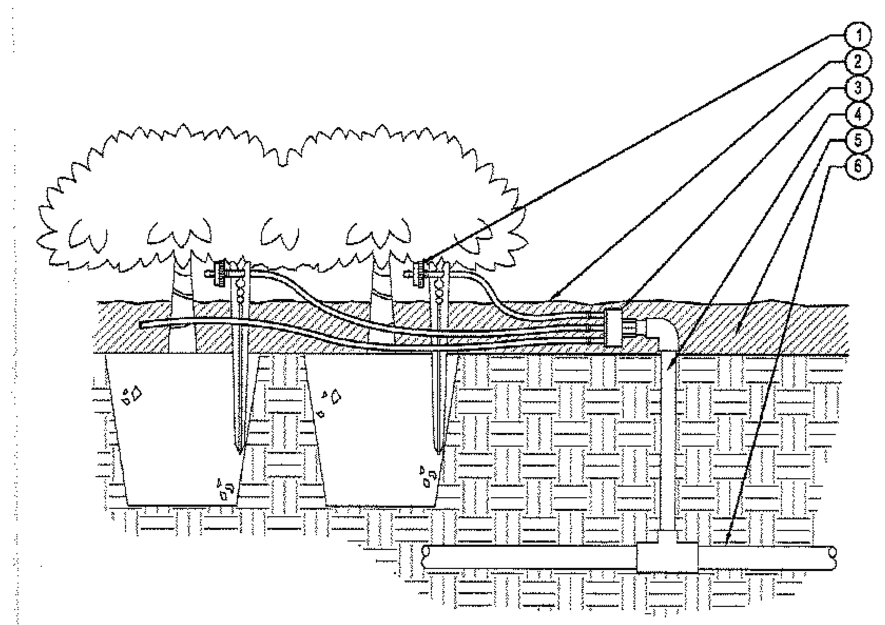
PLANTING PLAN
LEGEND & NOTES;

2382 RAINBOW COURT
HAYWARD, CALIFORNIA

Project No.: 1937 | Designed: TS | Checked: O.O. | Date: 6-1-2020

SHEET
L-2
OF ___SHEETS

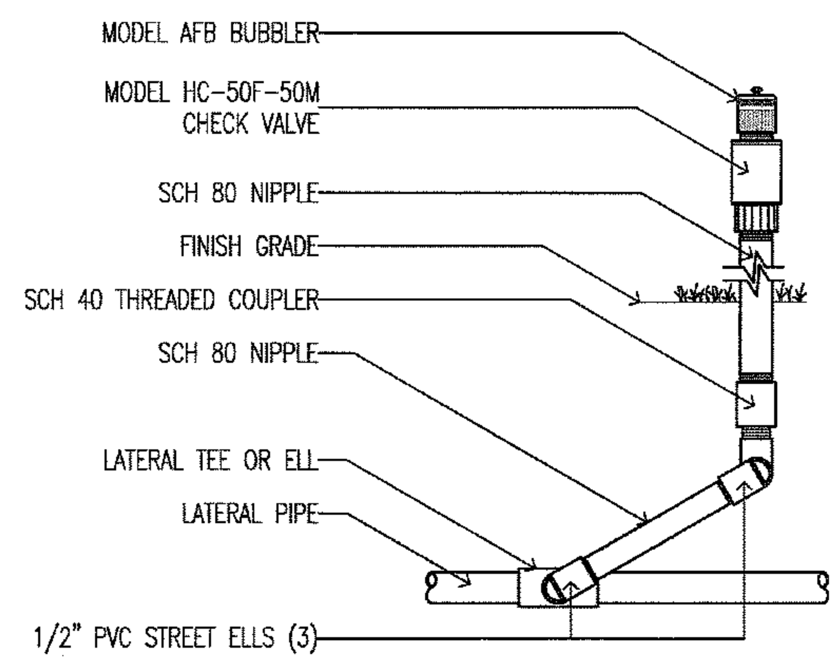


LEGEND:

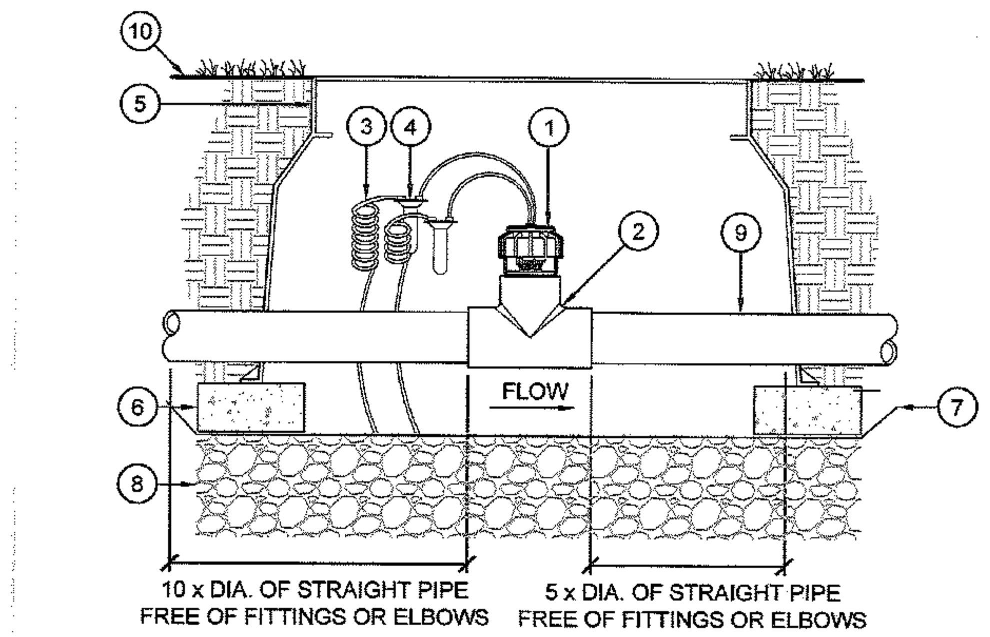
1. EMITTERS
2. SCH 80 PVC NIPPLE
3. MULTI-PORT EMITTER
4. PVC RISER
5. ADJACENT MULCH
6. PVC LATERAL AS PER PLAN

A — MULIT-PORT EMITTER - SIDE OFF PVC

Hunter HM.MPM.02 — NOT TO SCALE



E — AFB BUBBLER

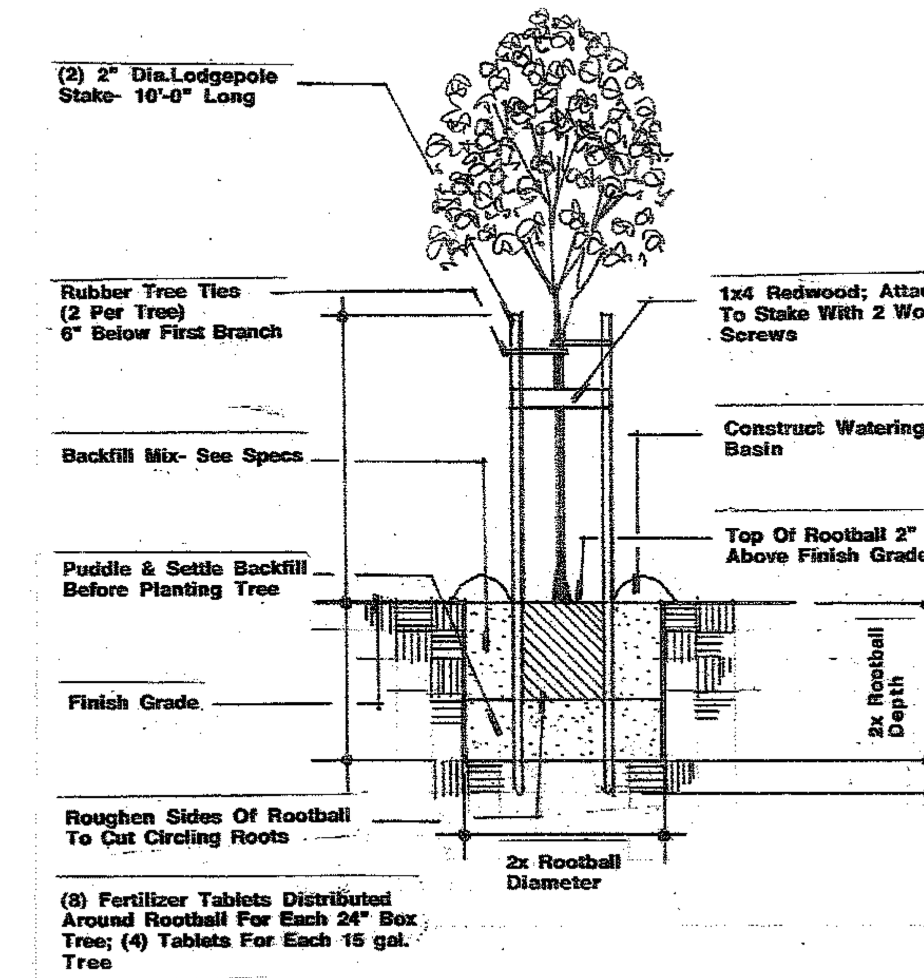


DETAIL LEGEND:

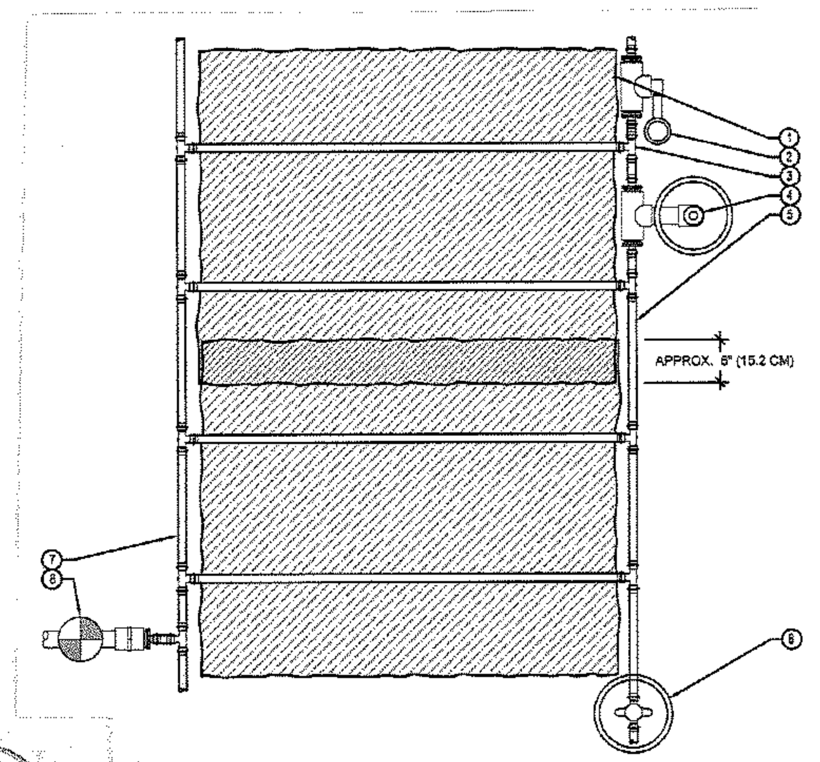
1. FLOW SENSOR PER PLAN (HFS)
2. RECEPTACLE TEE (FCT), SIZE PER PLAN
3. MIN. 18/2 WIRE PER PLAN TO CONTROLLER SENSOR TERMINALS. MAXIMUM WIRE DISTANCE RUN OF 1,000'
4. DBRY-6 WIRE SPLICE
5. RECTANGULAR VALVE BOX PER PLAN
6. BRICK SUPPORTS AT EACH CORNER (4)
7. FILTER FABRIC
8. GRAVEL BASE, DEPTH PER PLAN
9. MAIN LINE AND SOIL COVER PER PLAN
10. FINISHED GRADE

I — HFS FLOW SENSOR

Hunter S.HFS.01 — NOT TO SCALE



1 — Tree Staking



LEGEND:

1. ECO-MAT PER PLAN
2. ECO-INDICATOR ON SWING ARM
3. PLD OR PLD-LOC FITTINGS TYP.
4. AIR RELIEF VALVE IN VALVE BOX
5. PLD BLANK TUBING EXHAUST HEADER
6. FLUSH POINT (PLD-BV) IN SUBTERRANEAN BOX PER PLAN
7. PLD BLANK TUBING SUPPLY HEADER
8. DRIP CONTROL ZONE KIT PER PLAN

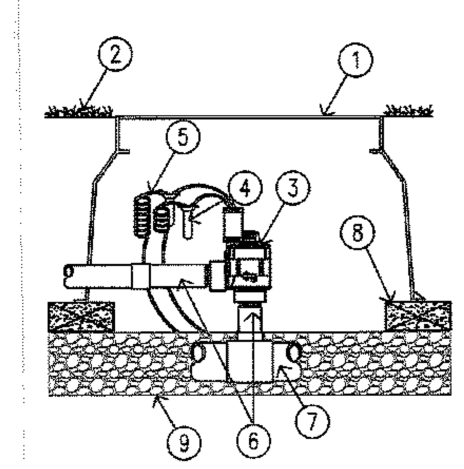
NOTES
AIR RELIEF VALVE (PLD-AVR) INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.

ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.

FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

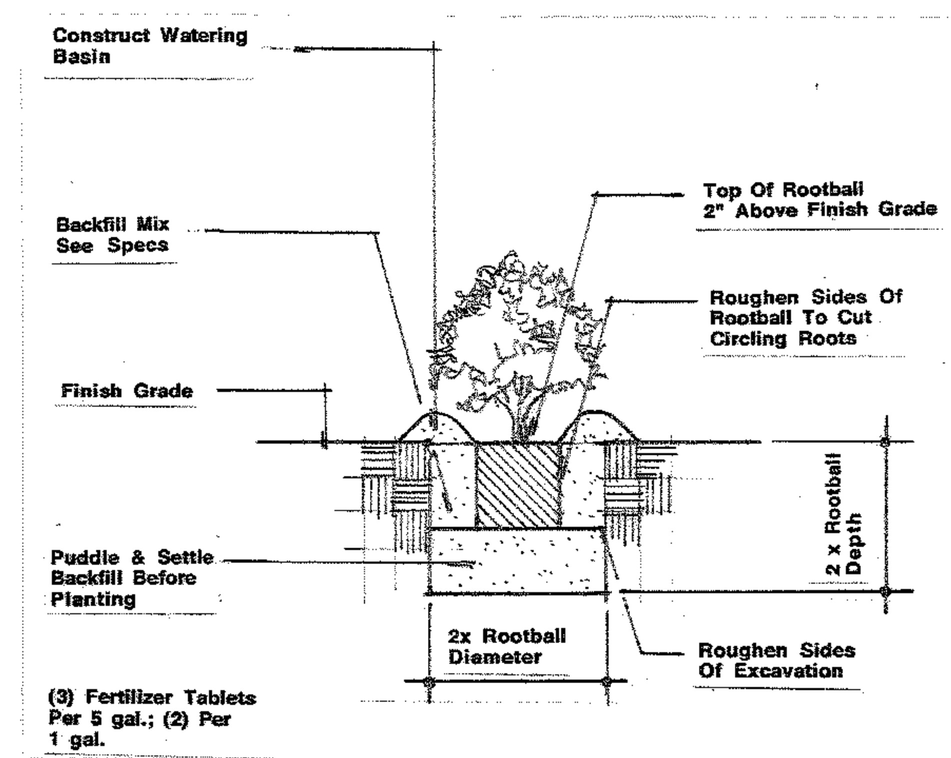
B — ECO-MAT - PLAN VIEW WITH BLANK PLD HEADER AND EXHAUST AT MAT GRADE

Hunter HM.EM.03 — NOT TO SCALE

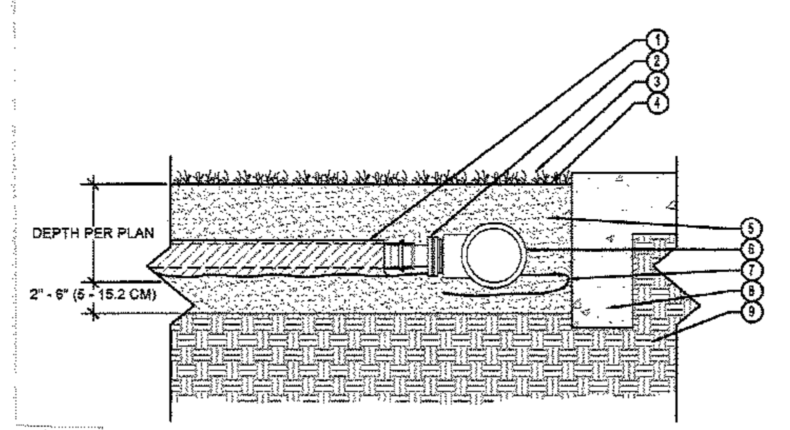


1. STANDARD VALVE BOX
2. FINISH GRADE
3. REMOTE CONTROL VALVE MODEL PGV-101A WITH FLOW CONTROL
4. WATERPROOF CONNECTORS (2)
5. 18-24" COILED WIRE
6. SCH 80 T.O.E. NIPPLE
7. MAIN LINE PIPE & FITTINGS
8. BRICK SUPPORTS (4)
9. 3/4" MINUS WASHED GRAVEL

F — PGV ANGLE VALVE



2 — Shrub Planting



LEGEND:

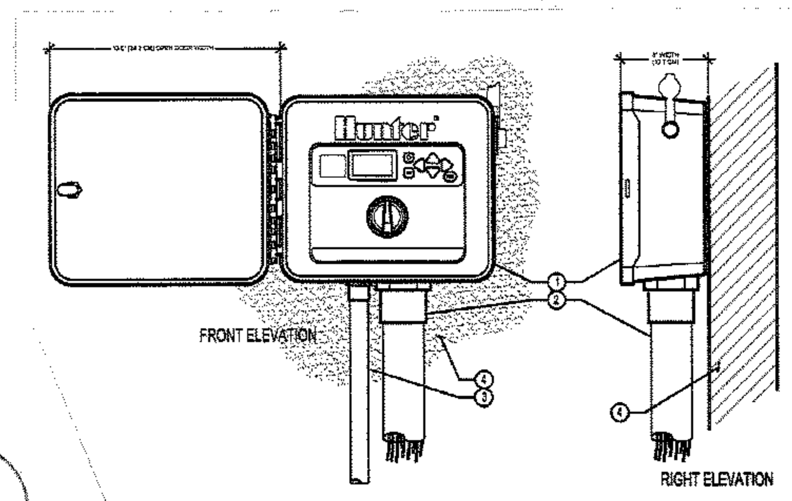
1. ECO-MAT PER PLAN
2. PLD OR PLD-LOC FITTING
3. PLANT MATERIAL (SEE PLANTING PLAN)
4. FINISHED GRADE
5. AMENDED SOIL MEDIA TYPE AND DEPTH SPECIFIED PER SOILS REPORT
6. PVC SUPPLY HEADER - SIZE PER PLAN
7. FOLD EXCESS FLEECE UNDER MAT ADJACENT TO HARDSCAPE EDGE
8. NATIVE SOIL

NOTES
RECOMMENDED INSTALLATION DEPTH BY PLANT TYPE
TURF AREAS: 4" - 8" (10.2 CM - 20.4 CM)
GROUND COVER AREAS: 6" - 8" (15.2 CM - 20.4 CM)
SHRUB AREAS: 12" (30.5 CM)

EXTEND MAT BEYOND RISER CONNECTION TO ENSURE ADEQUATE COVER IN IRRIGATED SPACE

C — ECO-MAT - PVC AT MAT GRADE CONNECTION ADJACENT TO HARDSCAPE

Hunter HM.EM.09 — NOT TO SCALE



LEGEND:

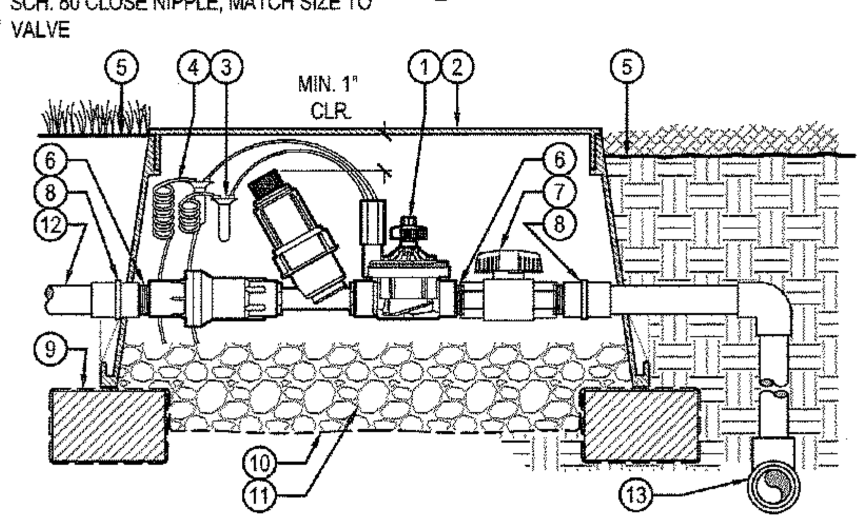
1. IRRIGATION CONTROLLER (I CORE) PER PLAN
2. IRRIGATION CONTROL WIRE IN CONDUIT SIZE AND TYPE PER LOCAL CODES
3. ELECTRICAL SUPPLY CONDUIT CONNECT TO POWER SOURCE, J-BOX INSIDE CONTROLLER
4. ADJACENT SURFACE TO MOUNT CONTROLLER PER PLAN

NOTE
MOUNT CONTROLLER LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 VAC POWER SOURCE

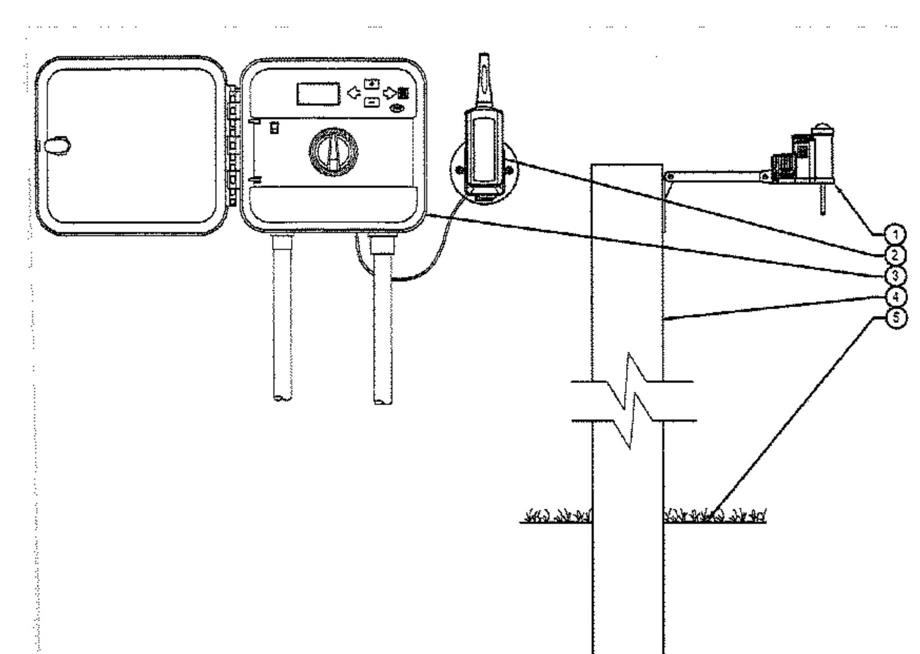
G — I CORE - WALL MOUNT

LEGEND

1. HUNTER REMOTE CONTROL VALVE (ICZ) WITH FILTER REGULATOR
2. IRRIGATION VALVE BOX: HEAT STAMP LID WITH 'RCV' IN 2" LETTERS
3. WATERPROOF CONNECTORS (2)
4. 18"-24" COILED WIRE TO CONTROLLER
5. FINISH GRADE AT ADJACENT SURFACE (TURF OR MULCH)
6. SCH. 80 CLOSE NIPPLE, MATCH SIZE TO VALVE
7. ISOLATION VALVE, SIZE AND TYPE PER PLAN
8. PVC SLIP X MPT ADAPTOR
9. BRICK SUPPORTS (4)
10. FILTER FABRIC - WRAP TWICE AROUND BRICK SUPPORTS
11. 3/4" WASHED GRAVEL - 4" MIN. DEPTH
12. IRRIGATION LATERAL
13. MAINLINE LATERAL AND FITTINGS



D — DRIP CONTROL ZONE KIT (ICZ-101) WITH ISOLATION VALVE

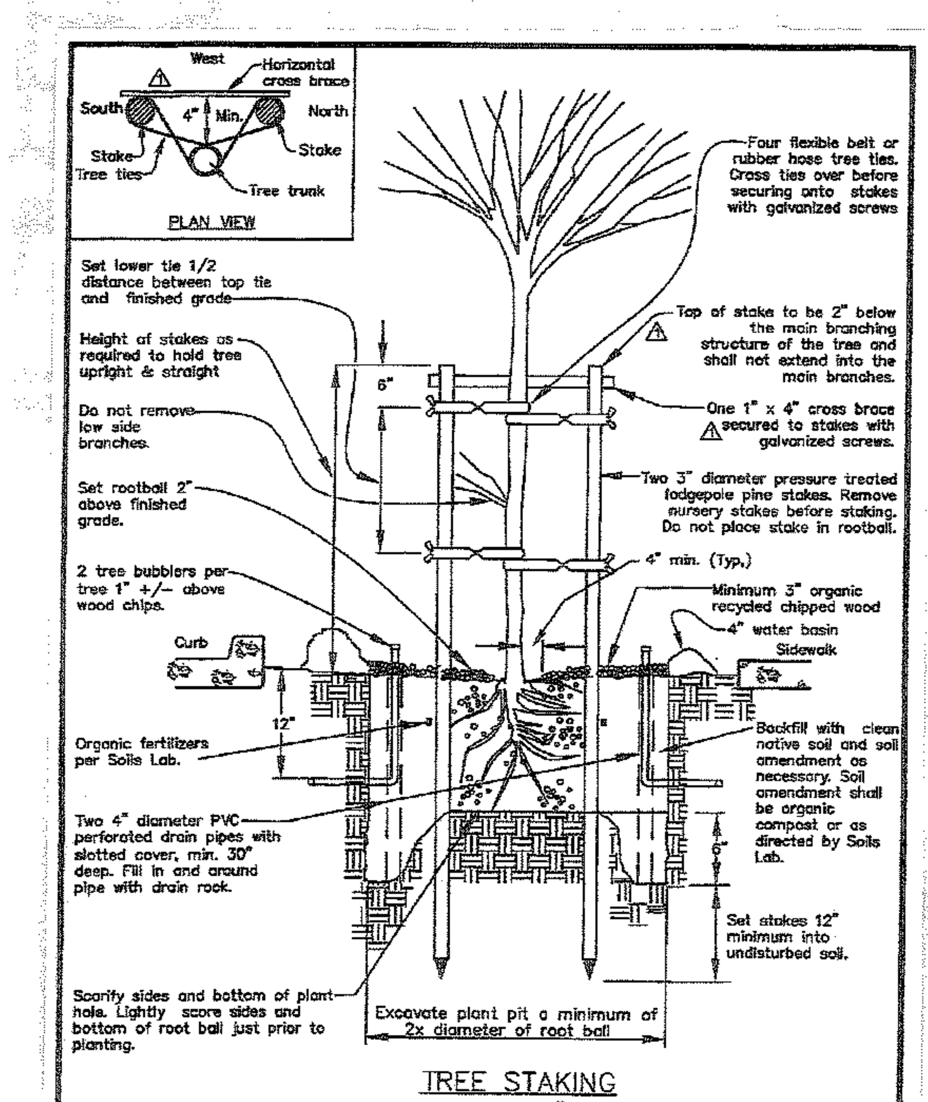


LEGEND:

1. SOLAR SYNC WIRELESS SENSOR
2. SOLAR SYNC WIRELESS RECEIVER
3. SOLAR SYNC COMPATIBLE CONTROLLER
4. POST OR SUITABLE MOUNTING SURFACE
5. FINISHED GRADE

H — SOLAR SYNC WIRELESS WITH GENERIC WALL MOUNT CONTROLLER

Hunter S.SS.04 — NOT TO SCALE



TREE STAKING
15 GALLON OR 24" BOX TREE

CITY OF HAYWARD PUBLIC WORKS DEPT. — DRAWN BY: HGM; DATE: 08/03/08; CHECKED BY: MK; APPD. BY: CITY ENGINEER; DIR. PUBLIC WORKS; REV 6/23/11 AL	STANDARD STREET TREE PLANTING — DWG. NO. SD-122; FILED; SHT. 1 OF 2

SD-122

STREET TREE PLANTING SPECIFICATIONS:

1. Tree shall be healthy, disease and insect-free, well rooted, and properly trained with a straight trunk that can stand upright without support. Tree shall exhibit a central leader, or a main branch that can be trained as a central leader. Branches shall be well-developed and shall be evenly and radially distributed around the trunk. Root ball shalll not exhibit kinked or circling roots.
2. Tree shall comply with federal and state laws requiring inspection for plant diseases and pest infestation. Clearance from the county agricultural commissioner, as required by law, shall be obtained before planting trees delivered from outside the county.
3. Prior to planting tree, determine the location of existing or future underground utilities. Locate tree a minimum of 5 feet from lateral service lines and driveways. Locate tree a minimum of 15 feet from a light pole, and a minimum of 30 feet from the face of a traffic signal, or as otherwise specified by the City.
4. Tree pit shall be tested for proper drainage prior to planting tree. Fill pit with water; if water remains after a 24-hour period, auger three 4"-diameter by 3-foot deep holes at the bottom of the tree pit. Backfill with drain rock.
5. Set tree in an upright and plumb position. As much as possible, tree shall be positioned such that dominant branches are parallel to the roadway and are oriented away from potential conflicts.
6. If required by the City, a pressure-compensating bubbler, or drip emitters, shall be provided to each tree.
7. Depending on the planter strip width, or the tree well size and the tree species being planted, a 24" deep root-barrier may be required by the City to be placed between the root-ball and the curb and/or sidewalk. Length of strip barrier or size of the box barrier will be specified by the City.
8. Stakes are to be removed when the tree diameter meets or exceeds the diameter of the stake.

CITY OF HAYWARD PUBLIC WORKS DEPT. — DRAWN BY: JT; DATE: 05/13/08; CHECKED BY: MHW; APPD. BY: CITY ENGINEER; DIR. PUBLIC WORKS	STANDARD STREET TREE PLANTING — DWG. NO. SD-122; FILED; SHT. 2 OF 2

SD-122

REVISIONS	BY	CITY	DATE
△			
△			
△			
△			
△			

THOMAS SCHERER ASSOCIATES
Landscape Architecture
P.O. Box 68, Aptos, CA 95001
Tel (831) 688-8913

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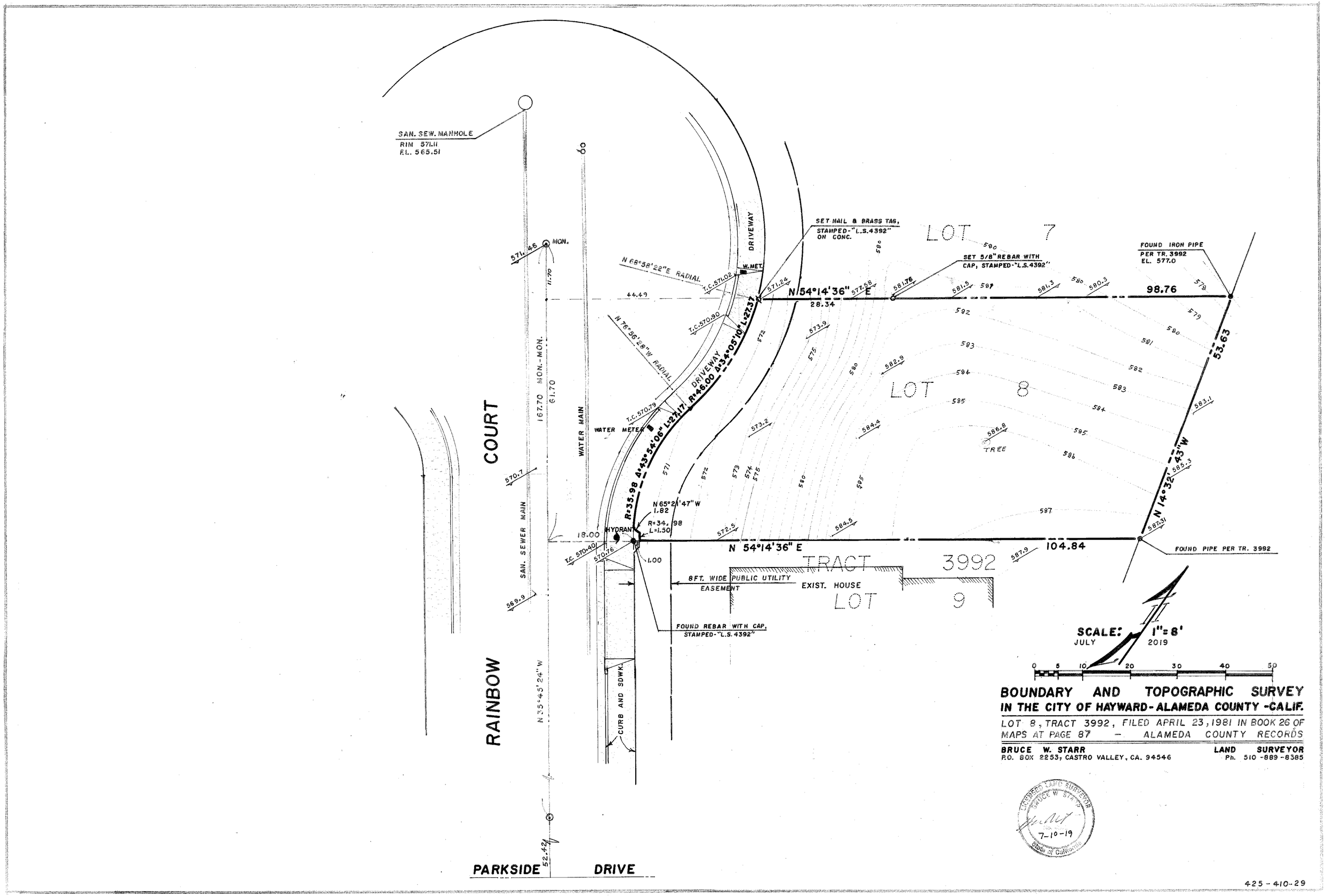
IRRIGATION & PLANTING DETAILS

2382 RAINBOW COURT

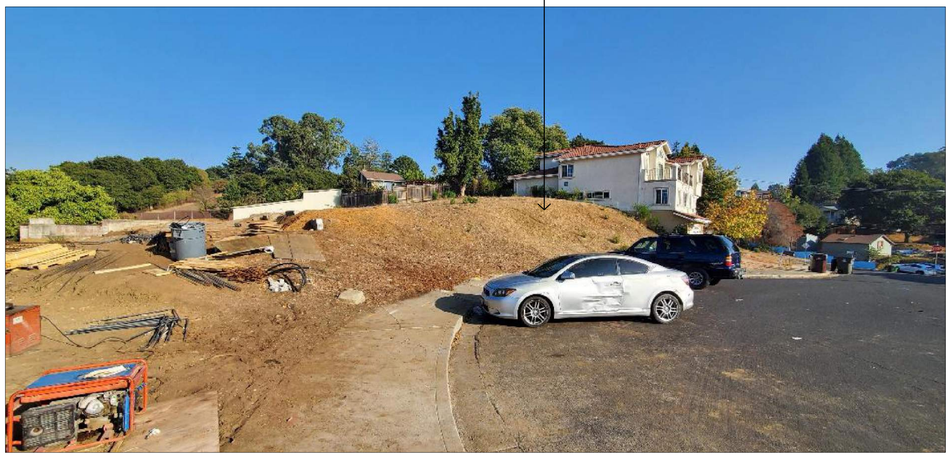
HAYWARD, CALIFORNIA

Project No.: 1937 | Designed: TS | Checked: O.O. | 6-1-2020

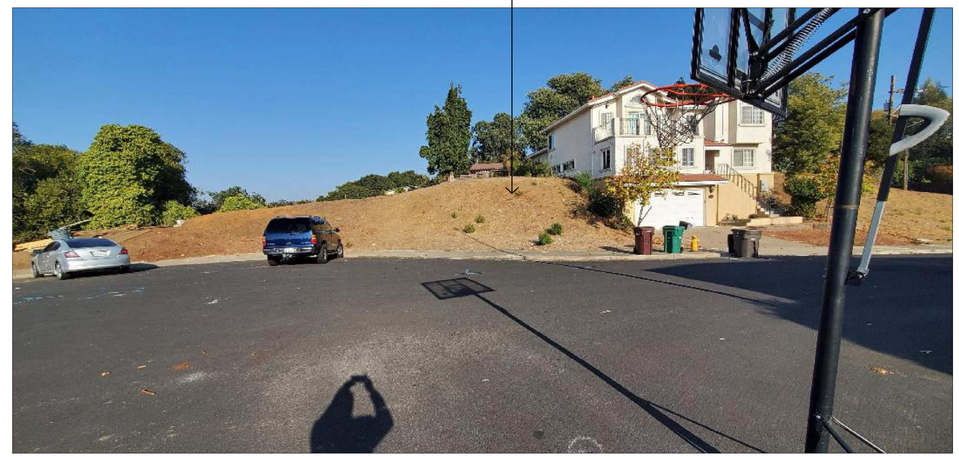
SHEET L-3 OF ___ SHEETS


SAN. SEW. MANHOLE
RIM 571.11
F.L. 565.51
MON.
571.46
11.70
N 68°58'22"E RADIAL
T.C. 571.02
W. MET.
DRIVEWAY
SET NAIL & BRASS TAG, STAMPED-"L.S.4392" ON CONC.
SET 5/8" REBAR WITH CAP, STAMPED-"L.S.4392"
FOUND IRON PIPE PER TR. 3992 EL. 577.0
LOT 7
44.49
N 54°14'36" E
28.34
577.58
581.76
98.76
53.63
N 76°56'28"W RADIAL
T.C. 570.90
DRIVEWAY
Δ=34°05'10" L=27.37
R=46.00
T.C. 570.79
Δ=43°54'06" L=27.17
R=35.98
WATER METER
167.70 MON.-MON.
61.70
WATER MAIN
COURT
LOT 8
TREE
N 14°32'43"W
585.3
587.31
N 65°21'47"W
1.82
R=34.98
L=1.50
HYDRANT
18.00
T.C. 570.40
570.76
1.00
N 54°14'36" E
104.84
FOUND PIPE PER TR. 3992
TRACT 3992
8 FT. WIDE PUBLIC UTILITY EASEMENT
EXIST. HOUSE
LOT 9
FOUND REBAR WITH CAP, STAMPED-"L.S. 4392"
SAN. SEWER MAIN
N 35°45'24"W
CURB AND SDWK.
RAINBOW
PARKSIDE DRIVE
52.42
SCALE: 1"=8'
JULY 2019
0 5 10 20 30 40 50
BOUNDARY AND TOPOGRAPHIC SURVEY
IN THE CITY OF HAYWARD-ALAMEDA COUNTY-CALIF.
LOT 8, TRACT 3992, FILED APRIL 23, 1981 IN BOOK 26 OF MAPS AT PAGE 87 - ALAMEDA COUNTY RECORDS
BRUCE W. STARR
P.O. BOX 2253, CASTRO VALLEY, CA. 94546
LAND SURVEYOR
Ph. 510-889-8385
LICENSED LAND SURVEYOR
BRUCE W. STARR
7-10-19
State of California
425-410-29

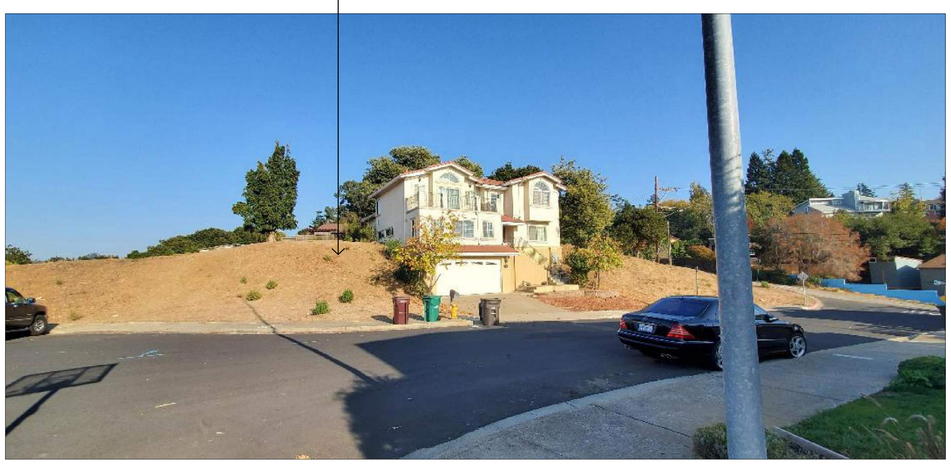
SUBJECT LOT



SUBJECT LOT



SUBJECT LOT



VIEW OF THE BAY

architecturalradii@yahoo.com

ARCHITECTURAL Radii

Martin Christiansen, DESIGNER

H&M Ventures LLC
2382 Rainbow Ct.
Hayward, CA 94542
(408)373-3385

No.	Revision/Issue	Date

Designed/Drafted by

MARTIN CHRISTIANSEN
33418 4th St.
UNION CITY, CA 94587
(510) 334-1959
architecturalradii@yahoo.com

Scope of Work

See Sheet A1
PROJECT
INFORMATION...

Project 19K	Sheet V1
Date 19.7-1	
Scale AS NOTED	