COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060
(831) 454-2580

NOTICE OF PENDING ACTION

The Planning Department has received the following application. The identified planner may be contacted for specific information on this application.

APPLICATON NUMBER: 131053 **APN: 042-202-36**

Proposal to construct a two story, 3,244 square foot, two-story, single family dwelling including a 480 square foot two-car garage and a182 square foot covered patio; construct an 84 square foot detached non-habitable accessory structure (greenhouse) and three 2,500 gallon water storage tanks. Requires a Coastal Development Permit and Determination of Environmental Exemption Pursuant to the California Environmental Quality Act. Property located on the south side of Shoreview Drive (206 Shoreview), approximately 750 feet northwest of Spreckels Drive.

OWNER: James & Lori Patterson
APPLICANT: James & Lori Patterson
SUPERVISORIAL DISTRICT: **2**
PLANNER: Sheila McDaniel, (831) 454-2255
EMAIL: Sheila.McDaniel@santacruzcounty.us

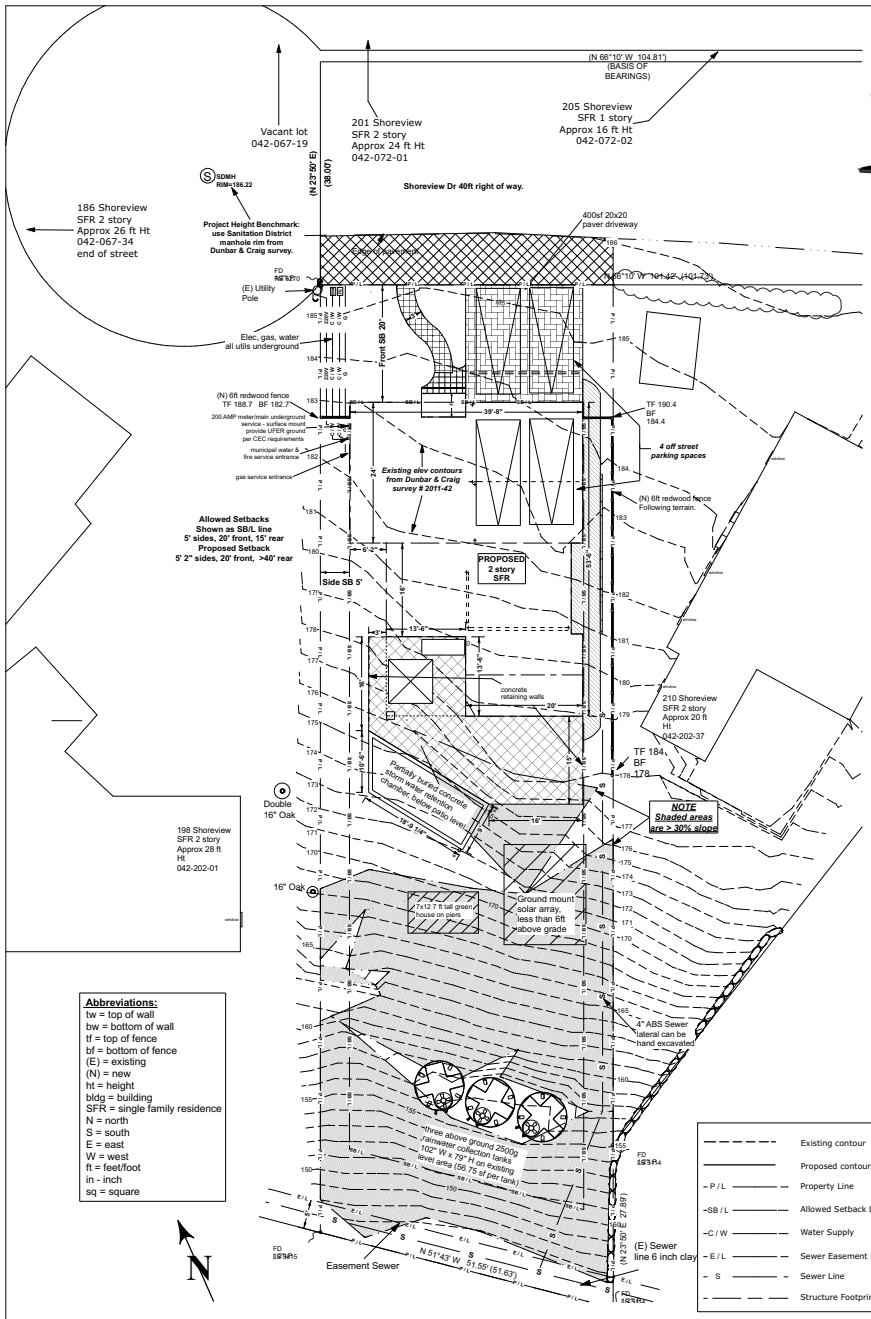
Public comments must be received by 5:00 p.m. June 4, 2019.

A decision will be made on or shortly after June 5, 2019.

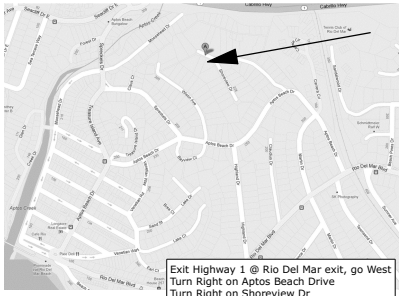
Appeals of the decision will be accepted until 5:00 p.m. two weeks after the decision date.

Information regarding the appeal process, including required fees, may be obtained by phoning (831) 454-2130.

For more information, call the project planner identified above.



Abbreviations:
tw = top of wall
bw = bottom of wall
tf = top of fence
bf = bottom of fence
(E) = existing
(N) = new
ht = height
bldg = building
SFR = single family residence
N = north
S = south
E = east
W = west
ft = feet/foot
in - inch
sq = square



Exit Highway 1 @ Rio Del Mar exit, go West
Turn Right on Aptos Beach Drive
Turn Right on Shoreview Dr
Continue Straight to end of street
Subject parcel is on the left

SUMMARY TABLE	
APN: 042-202-36 206 Shoreview Dr. Aptos - 50 ft wide lot	
Zone R1-4 Allowed:FAR: 50%, lot coverage: 40%	
allowed setbacks = 20 ft Front, 5 ft sides, 15 ft rear	
proposed setbacks: 20 ft Front, 5 ft 2 in sides, > 40 ft rear	
Designer: Jim Patterson (owner)	
Surveyor: Dunbar & Craig (now Bowman & Williams)	831-426-3560
Geotechnical: Haro Kasunich & Assoc. (project SC10210)	831 722-4175
Arborist: Nigel Belton	831 688-1239
Water: Soquel Creek Water	
Sewer: County Sanitation	
Fire: Aptos-La Selva Fire (LRA)	
Building Info	
Footprint SFR	1708
Max building height to grade (28ft allowed) - See A5	**25.44**
Lot Coverage 40% allowed	
Lot size per survey	8385
buildings: SFR + greenhouse =1708+84	1792
Lot coverage of buildings: =1792/8385	21.4%
structures over 18"	
patio(includes deck above, hot tub, etc) < 3 1/2 ft tall	642
retention chamber, entry landing 192+30	222
3 water tanks, 102" diameter = 57 sf ea	171
total =1792+642+222+171	**2827**
Lot Coverage: =2827/8385	**33.7%**
FAR (see FAR calcs table on sheet A2)	
Total building sq footage	**3355.7**
FAR ALLOWED: 50% Lot*.5 =(8385*0.5)	4192.5
FAR Percentage	**40.0%**
Impervious Area in sq ft	
Existing Impervious	0.0
Residence (fed to water tanks, overflow to retention chamber)	1708.0
Semi pervious paver driveway 400sf -50% credit	200.0
N & E walkways and entry landing	317.0
Stormwater retention chamber (top is above ground)	192.0
S patio	642.0
Impervious area in sq ft	**3059**
Estimated Grading Quantities cu yds- see A7	
Cut volume	87.0
Fill volume	70.0
Net grading - excess cut	17.0
Retaining walls	
Patio - max ht 3ft3", min ht 6" ft ~ 70 linear ft	

P1

PROJECT OVERVIEW:
APN: 042-202-36 206 Shoreview Dr. Aptos (unimproved lot)

Construct new 2 Story 3 bedroom, 3.5 bath approx 2760 sf SFR with attached 480 sf garage, patio, 182 sf 2nd story deck, non-habitable underfloor utility room.
Construct a 7 x12 ft 7 ft tall greenhouse on piers, a ground mounted solar array less than 6ft in height, 3 2500gal 102" W by 79" H rainwater collection tanks, construct partially buried concrete storm water retention chamber, including top. Construct retaining walls from 6 in to less than 3 1/2 ft tall for patio.

Rainwater storage will flush toilets, fill self-contained hot tub and fountain, and irrigate landscape . Whole house graywater system (collecting showers, laundry, tub, and bathroom washbasins) will irrigate fruit trees on lower slope above rainwater tanks by gravity flow, the trees will provide screening for the water tanks, and aid in slope stability.

CONSTRUCTION NOTES :
All construction will comply with the 2016 Editions of all applicable California Codes.
Wood light frame platform construction with conventional perimeter deepen spread footing foundation
NOTES:
A. Install signage on lot for public notice of project development application, per Santa Cruz County Neighborhood Notification Guidlines, within 7 days after application is complete per Planning dept. After the sign is installed, submit the county certificate attesting that I have placed the sign.

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Revision Table

Num	Description	By	Date
1	incomplete app of 03-13-13	JEP	10/28/2017
2	Planning incomplete letter Dec 1,2017	JEP	9/27/2018

OWNERS: James & Lori Patterson
1253 GREEN Street Santa Cruz, CA 95062
Hm: 408 252-2385 Mob: 408 964-0992
jpatterson195@comcast.net

PATTERSON RESIDENCE
APPL: 131053 042-202-36
206 Shoreview Dr. Aptos

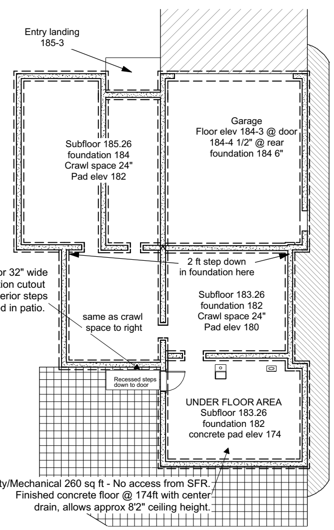
SITE PLAN,
SUMMARY TABLE
AREA MAPS

Date Prepared: 9/27/18

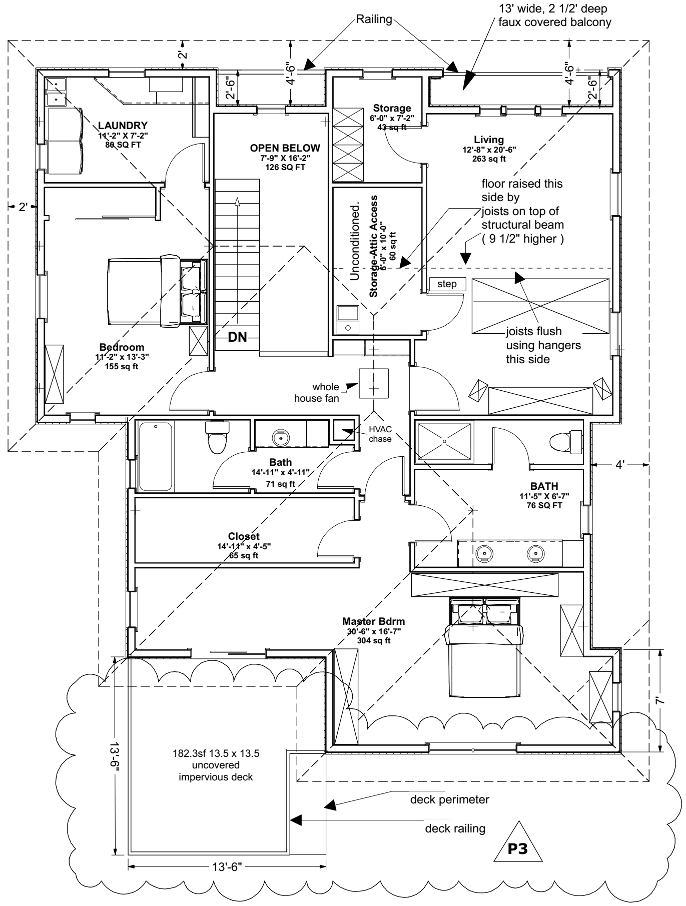
Drawn By: J Patterson

Scale: 1 in=10 ft

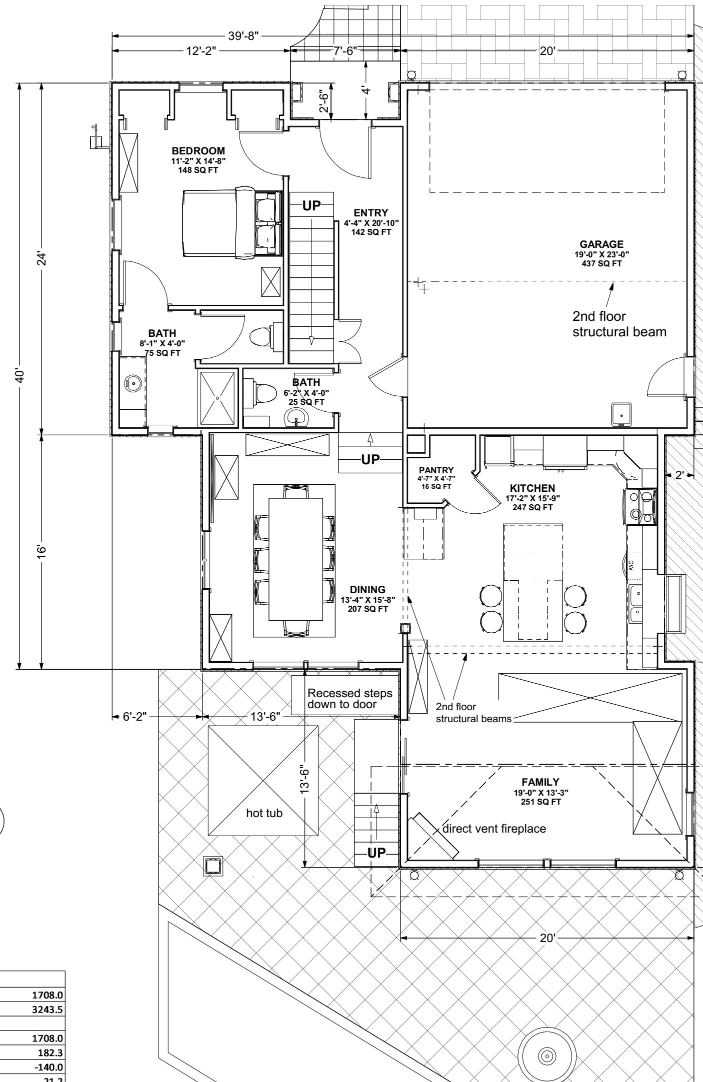
Sheet
A1
1 of 9



Foundation | 1/8 in = 1 ft



2nd Floor



1st Floor

FAR calcs : SFR eaves = 2'	
Footprint SFR	1708.0
Gross unadjusted SFR Floor area total(includes garage)	3243.5
Gross SFR floor area 1st floor	1708.0
add S covered patio 13.5x13.5 ft	182.3
subtract from S covered patio: 140 ft allowance	-140.0
add S covered patio 50% of charged area = (182.3-140)*.5	21.2
subtract garage credit of 225	-225.0
SFR adjusted sq footage 1st floor	**1546.5**
Gross SFR floor area 2nd floor (footprint -140- 32.5 balcony)	1535.5
Subtract stairway area (counts 1x) =(36w*130l)/144	-32.5
add eave > 3ft: N = 1.5*20.5	30.8
add eave > 3ft: E = 1*15.5	15.5
SFR adjusted sq footage 2nd floor	**1549.3**
Underfloor area > 7'-6" height	**260.0**
FAR building total sq footage	**3355.7**
FAR ALLOWED: 50% Lot*.5 =(8385*0.5)	4192.5
FAR Percentage =3355.7/8385	**40.0%**

P3

Exterior Details	Description	Color
Siding	Stucco	light brown/peachy tan
Roofing	composition	reddish brown
Railing and Guards	42" high, all metal including newels & balusters	dark: gray, black or bronze
Windows	Fiberglass	brown
Window Trim	styrofoam or FRP	stucco color
Belt Moulding	styrofoam or FRP	stucco color
Doors		Window color, except front entry & garage-dark brown/mahogony
Door trim	styrofoam or FRP - except front entry which has a biege marble look trim	window color - except front entry - see left entry color
gutters/eaves/faschia	All hip roof so gutters on all eaves	dark brown
Fencing	redwood fence and lattice top	Natural color

N

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jpatterson195@comcast.net

PATTERSON RESIDENCE
APPL: 131053 042-202-36
206 Shoreview Dr. Aptos

FLOOR PLANS & EXTERIOR DETAILS

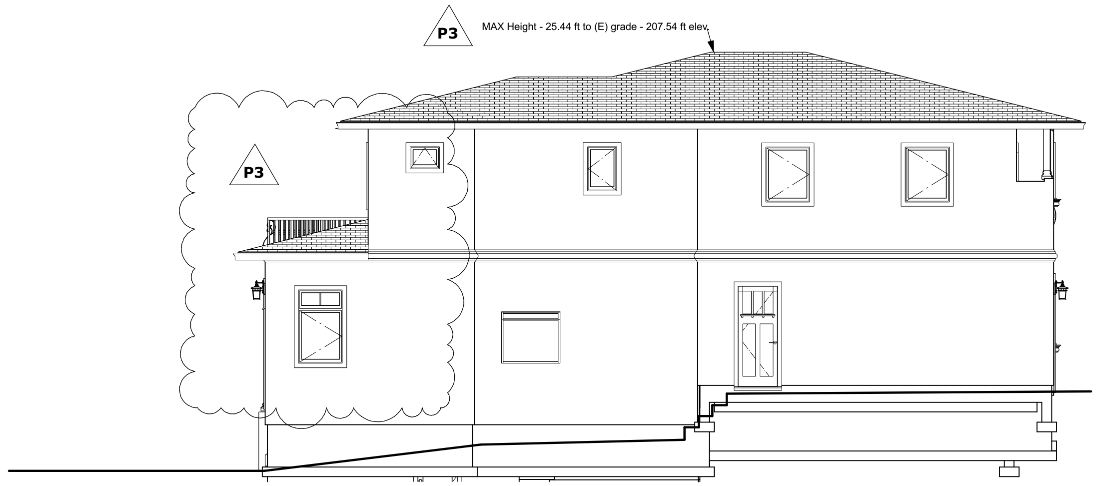
Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/4 in=1 ft

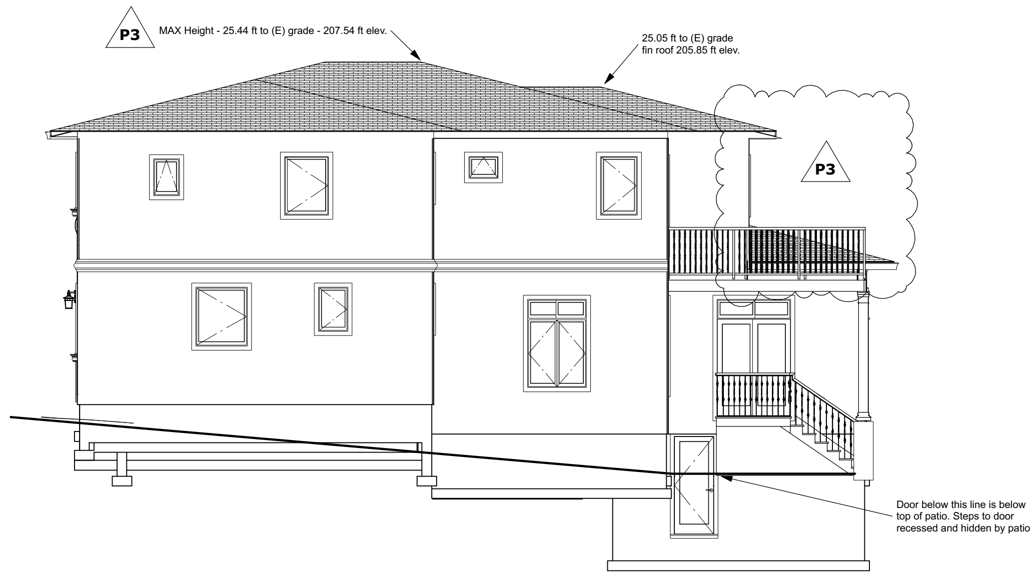
Sheet A2

North Elevation



East Elevation

South Elevation



West Elevation

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PATTERSON RESIDENCE
APPL: 131053 042-202-36
206 Shoreview Dr. Aptos

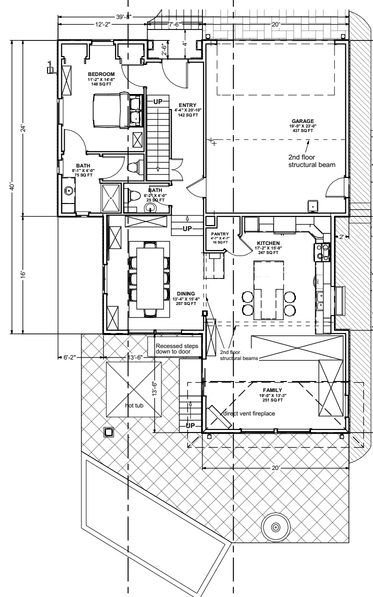
ELEVATIONS

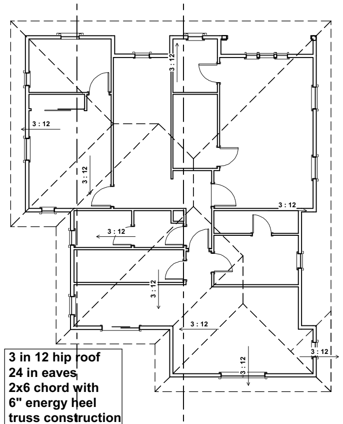
Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/4 in=1 ft

Sheet
A3
3 of 9

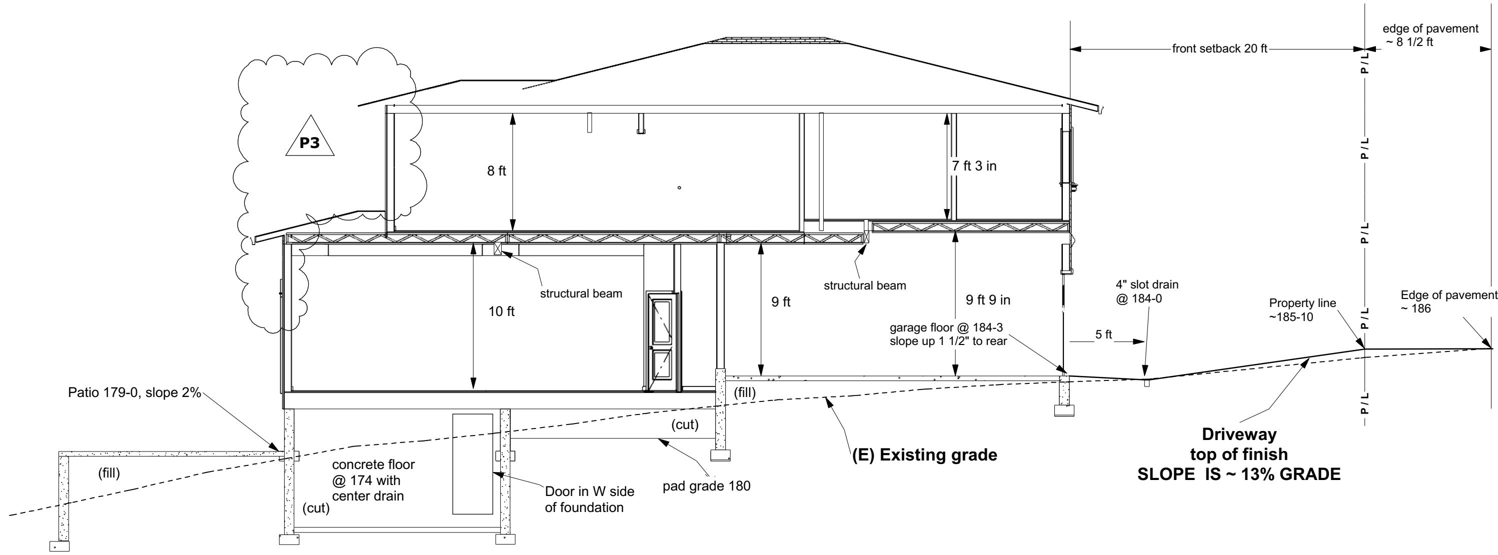




1 A4 2 A4

N

top 1st fl, bot 2nd fl
1/8 in = 1 ft



2 A4 East Cross Section

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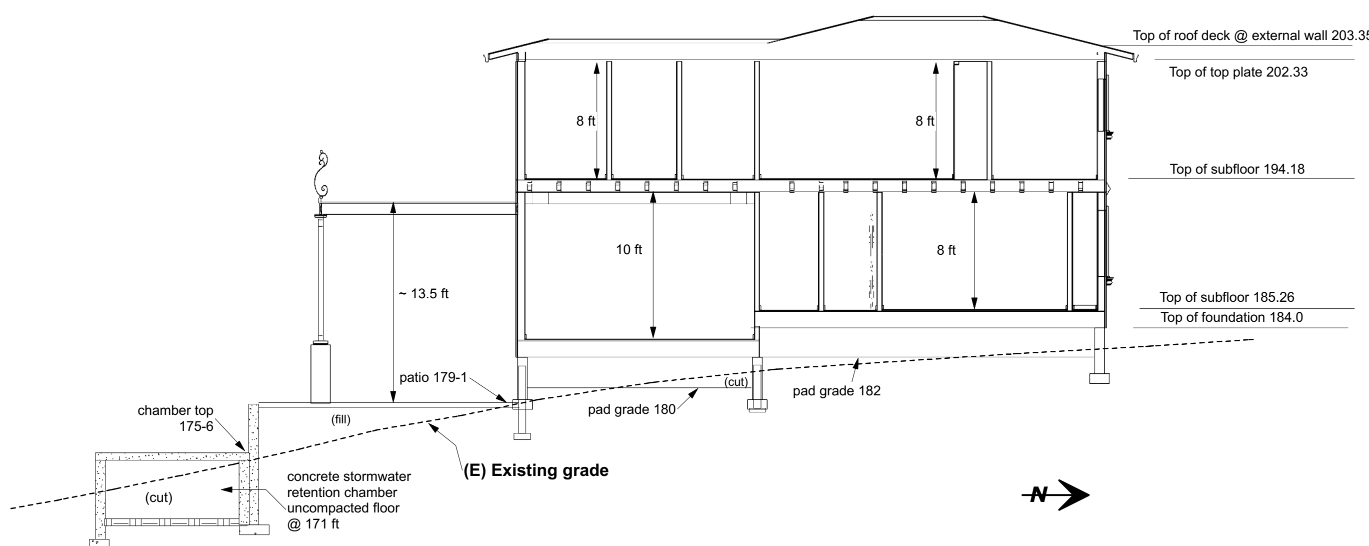

N

1 A4 West Cross Section

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jpatterson195@comcast.net

PATTERSON RESIDENCE
APPL: 131053 042-202-36
206 Shoreview Dr. Aptos

CROSS SECTIONS, ROOF PLAN

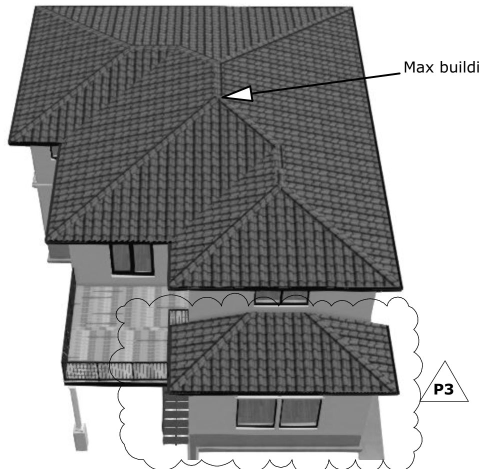
Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/4 in=1 ft

Sheet A4

4 of 9



3D roof perspective South view

Building height calcs , adding up building components from top of stem wall, including finished floors, and roof ridges -- 2nd floor top plates all one level, since 2 ft step down in foundation is added to 1st floor height on South 29 1/2 ft of bldg. ***MAX HEIGHT = 25.44 FT ON S END OF***	element height in *inches*	element ht above N stem wall,feet	building elevation in feet	exist or fin grade elev for ht diff - feet	bldg ht calcs from exist or fin grade,feet
foundation stem wall ht N 24ft of bldg (2ft step down for S end of bldg)	=====	=====	**184.00**		
termite flashing/seal	0.05				
treated sill plate - use 3x6	2.50				
subfloor 1 use 11 7/8in joist or truss & 3/4in decking	12.63				
subfloor height/elevation 1st floor	-------->	1.26	**185.26**		
1st floor wall	96.75				
subfloor 2 - use 9.5 in ijoist or truss & 3/4in decking	10.25				
subfloor height/elevation 2nd floor	-------->	10.18	**194.18**		
2nd floor wall- addn 1 inch for xps thermal block on ceiling	97.75				
rafter ht at external wall - 2x6 roof truss +6" energy heel (plumb ht 5.69 + 6)	11.69				
roof deck 5/8in	0.63			fin grade	
Roof height/elevation at external walls all same height)	-------->	19.35	**203.35**	178.33	**25.02**
roof pitch multiplier- 3 in 12 = .25					
horiz span to High ridge from outside edge of external walls 16ft-9in = 201in					
roof rise calculated from pitch = .25 *201	50.25			exist grade	
- MAX HEIGHT - roof height/elevation High ridge	-------->	23.54	***207.54***	182.10	***25.44***
horiz span to Low ridge from outside edge of external walls 10 ' = 120"					
roof rise calculated from pitch = .25*120	30.00			***exist grade***	
roof height/elevation Low ridge	-------->	21.85	**205.85**	180.80	**25.05**

P3

Building Height Calculations:
All structural elements in vertical order starting from top of NW foundation wall @ 184ft height.

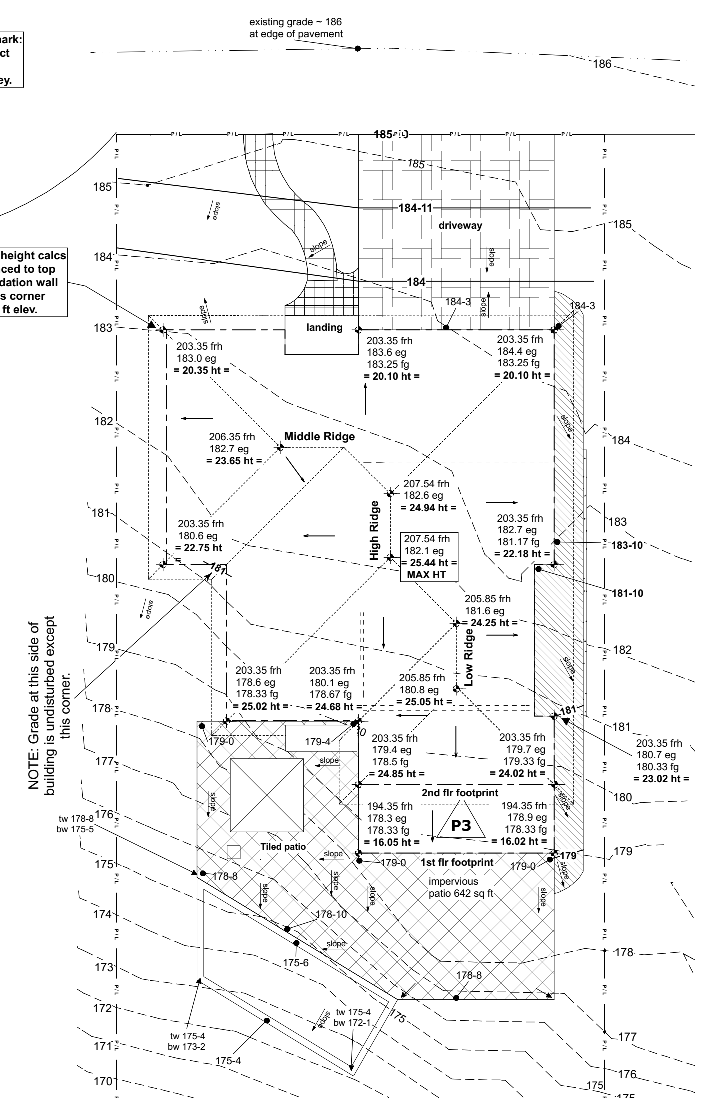
SDMH
RIM=186.22

Project Height Benchmark: use Sanitation District manhole rim from Dunbar & Craig survey.

ROOF HEIGHT NOTES

1. THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE CONFORMANCE OF THE PROPOSED RESIDENCE WITH THE COUNTY OF SANTA CRUZ BUILDING HEIGHT ORDINANCE (13.10.510(d) AND 13.10.700-H), CONSISTENT WITH INTERPRETATION HT-01 REVISED FEBRUARY 4, 2010.
2. AT THE PERIMETER OF THE FOUNDATION AND BEYOND, THE HEIGHT OF THE STRUCTURE IS DEFINED AS THE VERTICAL DISTANCE BETWEEN THE ORIGINAL (NATURAL) OR FINISHED GRADE, WHICHEVER IS LOWER, TO THE UPPERMOST POINT OF THE STRUCTURE DIRECTLY ABOVE ANY GIVEN POINT.
3. WITHIN THE FOOTPRINT OF THE STRUCTURE, INSIDE THE PERIMETER OF THE FOUNDATION, THE HEIGHT MEASUREMENTS ARE TAKEN FROM THE ORIGINAL (NATURAL) GRADE TO THE HIGHEST POINT OF THE STRUCTURE DIRECTLY ABOVE.
4. UNNECESSARY GRADING, FOR THE PURPOSE OF MEETING HEIGHT RESTRICTIONS, IS PROHIBITED.
5. THE MAXIMUM ALLOWABLE HEIGHT FOR THIS ZONE DISTRICT IS 28'-0".
6. ELEVATIONS OF ROOF POINTS WERE CALCULATED TO THE NEAREST 1/100TH OF A FOOT.
7. THE ORIGINAL GRADE ELEVATIONS USED IN THESE CALCULATIONS IS FROM DUNBAR & CRAIG SURVEY #2011-42 WHICH HAS 1 FT INTERVAL ELEVATION LINES.
8. THE FINISHED SUBGRADE USED FOR CALCULATIONS USED FINISHED SURFACE ELEVATION MINUS 8 IN FOR PATIO AND WALKWAYS, AND MINUS 12 IN FOR DRIVEWAY.
9. THE DESIGNER, JIM PATTERSON USED THE DIGITAL FILE OF THE SURVEY, AND ALL DRAWINGS ARE MADE UTILIZING THE SURVEY.

LEGEND	
frh	= finished roof height
eg	= existing grade
fg	= finished grade
= xx.x ht =	= building height
- - - -	= existing countour
———	= proposed contour
- 181.33	= spot finish elev. decimal ft
- 179-7	= spot finish elev. ft - in



Height exhibit - Roof Plan (3 in 12 hip) Topographic Survey | 1/6 in = 1 ft

N

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DESIGNER: James Patterson - JEP (initials)
12020 Plumas Dr Saratoga, CA 95070
Hm: 408 252-2385 Mob: 408 964-0992
jpatterson195@comcast.net

PATTERSON RESIDENCE
APPL: 131053 042-202-36
206 Shoreview Dr. Aptos

HEIGHT EXHIBIT: ROOF PLAN with Topographic survey

Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/6 in=1 ft

Sheet A5

PLANT SCHEDULE								
	plant designations from WUCOLS III Aug 2000							
	Region 1 water needs		REGIONAL EVALUATIONS					
TYPE	**BOTANICAL NAME**	**COMMON NAME**	***1***	2	3	4	5	6
Gc P	Keckiella antirhinnoides	yellow penstemmon	***?***	?	L	L	/	/
Gc P	Keckiella cordifolia	heart-leaved penstemmon	***?***	?	VL	L	/	/
P	Asclepias (wild species)	milk/silk weed	***L***	L	L	L	L	L
P	Brodiaea spp.	brodiaea	***VL***	VL	L	L	/	/
P	Epilobium spp.(Zauchneria)	California fuchsia	***L***	L	VL	L	M	M
P	Festuca idahoensis	Idaho fescue	***VL***	L	?	?	?	?
P	Helictotrichon sempervirens	blue oat grass	***L***	L	M	M	M	M
P	Iris spp.	Douglas iris hybrids	***L***	L	M	M	H	/
P	Kniphofia uvaria	red hot poker	***M***	M	L	L	/	M
P	Monardella macrantha	scarlet monardella	***L***	?	?	?	?	?
P	Paeonia spp.	peony	***M***	M	/	/	/	/
P	Papaver pilosum	poppy	***L***	/	M	?	?	?
P	Penstemon hybrids	penstemon (hybrids)	***M***	M	M	M	M	M
P	Penstemon wild spp.	penstemon (wild)	***L***	L	L	L	L	L
P	Salvia chamaedryoides	blue sage	***L***	L	L	L	M	M
P	Salvia dorrii	purple sage	***/***	M	L	?	L	L
P	Sisyrinchium bellum	blue-eyed grass	***VL***	VL	L	L	M	M
P	Sisyrinchium californicum	golden-eyed grass	***M***	M	M	M	M	M
P	Stachys byzantina	lamb's ears	***L***	L	M	M	/	M
S	Justicia californica	chuparosa	***M***	/	VL	L	L	M
S	Lavandula spp.	lavender	***L***	L	L	L	M	M
S	Lonicera hispidula	honeysuckle (hispidula)	***L***	?	L	VL	?	?
S	Lupinus albifrons	silver lupine	***VL***	L	/	L	/	/
S	Malacothamnus fasciculatus	bush mallow	***VL***	L	VL	L	/	/
S	Mimulus fascicularis(shrubby)	monkey flower	***L***	L	L	L	/	/
S	Phormium maori maiden	New Zealand flax	***L***	M	M	M	/	M
S Gc	Arctostaphylos cultivars	manzanita cultivars	***L***	L	L	L	/	/
S P	Eriogonum grande rubenscens	buckwheat	***L***	L	VL	L	L	L
S P	Protea spp.	protea	***M***	/	M	M	/	/
S P	Trichostema lanatum	woolly/mountain blue curls	***VL***	VL	VL	L	/	M
T	4 or 5 dwarf fruit and citrus trees	at 162ft elev above H2o tanks - water with gray water only						
V	Solanum xantii	purple nightshade	***L***	L	L	L	/	L

Soquel Creek Water District: New service - SFR - 206 Shoreview Dr APN 042-202-36

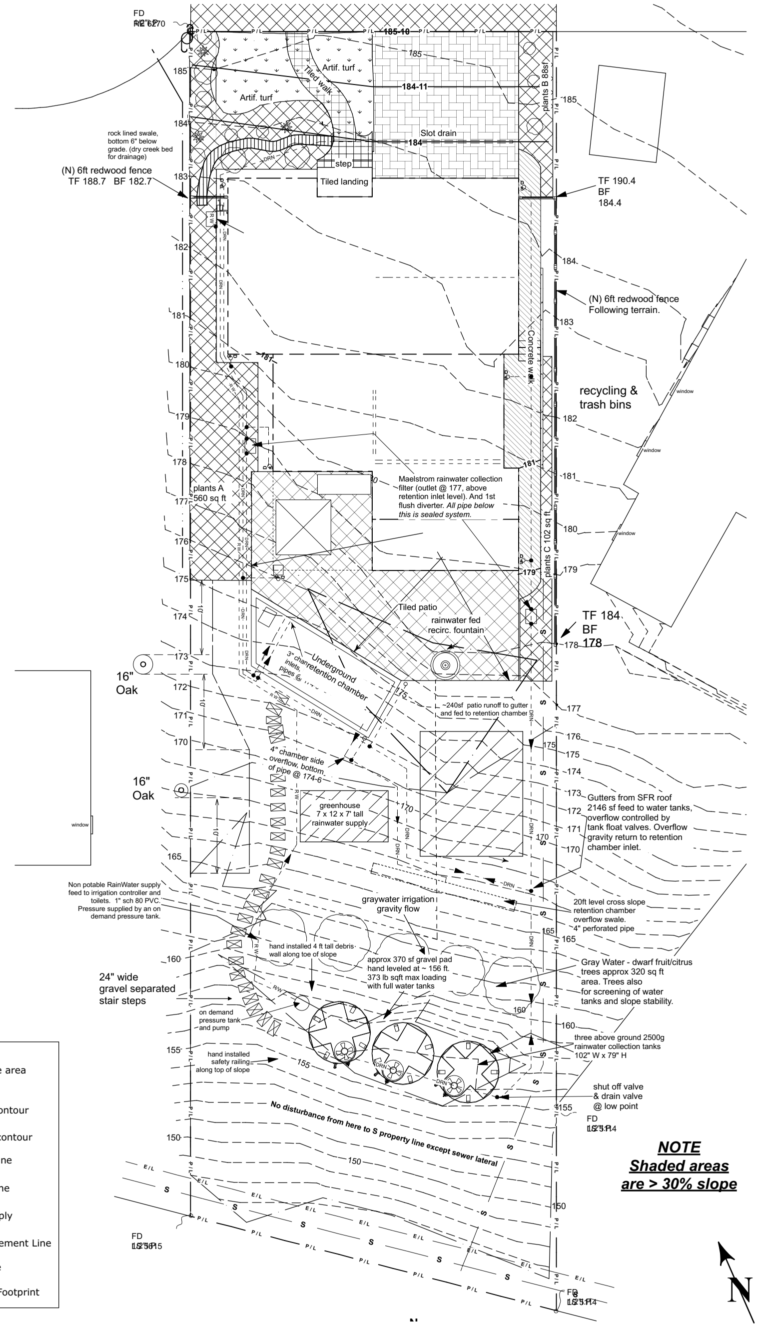
Will include both rainwater collection and whole house graywater systems. Graywater will irrigate fruit trees south of and below patio level via gravity flow. Rainwater will flush toilets, fill hot tub and fountain, and irrigate greenhouse & remaining landscaping.

Landscape details

- Tier 1 (Soquel Creek Water District) , 8385 sq ft Lot
- No turf area – Instead have ~160 sq ft artificial turf in front yard.
- All moderate, low, or very low water usage plants
- All irrigation south of/ below the rear patio area will use graywater with gravity flow.
- Water features: four ft diameter recalculating fountain (manual fill only from rainwater), 84 sf greenhouse using rainwater supply, and self contained hot tub/spa with cover.
- **Total NON graywater plant area 750 sq ft**
- Total graywater plant area 320 sq ft
- Total water features (fountain) 13 sq ft
- Total ALL landscape and water features 1083 sq ft
- Landscape irrigation will be controlled by a weather based irrigation timer, with rain shutoff.

Legend:

- Landscape area
- Existing contour
- Proposed contour
- P / L Property Line
- SB / L Setback Line
- C / W Water Supply
- E / L Sewer Easement Line
- S Sewer Line
- Structure Footprint



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206 Shoreview Dr. Aptos

LANDSCAPE PLAN

Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/8 in=1 ft

Sheet A6

1st Floor

TREE PROTECTION NOTES: For 2 oaks just beyond West property line. See TPZ

1. Tree Protection fencing must be installed before any clearing, stripping, or grading work begins. This fencing must remain in place during the entire construction period and must not be removed during that time without the approval of the project arborist. No equipment can enter this protection zone nor can any grading work or trenching activity be done within its perimeter either. This fence should consist of plastic snow fencing attached to steel standards. See placement dimensions this sheet, marked TPZ.
2. The project arborist must inspect the fencing before any site work begins.
3. The excavation equipment for the retention chamber should access the work site through the footprint of the proposed house/patio and then be stationed on the east side of the retention chamber location. This action will reduce impacts to the root zones of these trees located outside the TPZ fencing. Materials used for construction of the retention chamber should also be routed through the house/patio footprint.
4. Any roots located within the excavation areas that exceed two inches diameter must be cut cleanly with a saw back to undamaged tissue at or behind the edge of the excavation line.
5. Keep grading and disturbance as close as possible to the retention chamber and patio walls along their West sides. If possible, bury the drain and water pipes in the excavated space from the placing the concrete forms for these walls.

GENERAL GRADING AND DRAINAGE NOTES

1. All grading shall be done in conformance with the recommendations of the geotechnical report sc10210 dated October 2011, prepared by Haro, Kasunich, and Assoc.
2. All grading and excavation operations shall be observed by the project geotechnical engineer per their recommendations and the requirements of the county of Santa Cruz.
3. The geotechnical engineer must be notified at least 4 working days before any site clearing or grading.
4. All fill placed on the project site shall be engineered fill, compacted to a minimum of 90 percent relative compaction.
5. All excavated material not reused on the project site shall be hauled to a county approved disposal site.
6. A digital copy of the existing site survey and existing topography used in these drawings was prepared by Dunbar & Craig survey file #2011-42.
7. The finish ground surface shall have a slope away from the building foundation of at least 5 percent for a minimum distance of at least 10 feet. Where obstructions or lot lines prevent this, see plans for details.
9. Impervious surfaces within 10 feet of the building foundation shall be sloped at least 2 percent away from the building.
10. New driveway shall connect smoothly to existing paved roadway.
11. Rain gutters shall be installed around all roof eaves and drain through downspouts into rigid PVC drain pipes flowing to rainwater collection tanks, as indicated on plans.
12. Drain pipes shall be provided behind all new retaining walls, unless noted otherwise, and shall be directed to a safe place of release.
13. Runoff from decks and driveway areas shall be collected and piped to storm water retention chamber, as indicated on the plans.
14. No improvements shall obstruct or divert runoff to the detriment of an adjacent, downstream, or down slope property.
15. Contractor shall verify grades around existing and proposed structures for conformance with architectural and structural plans.
16. A portion of topsoil scraped for site grading shall be stockpiled and saved for reuse.

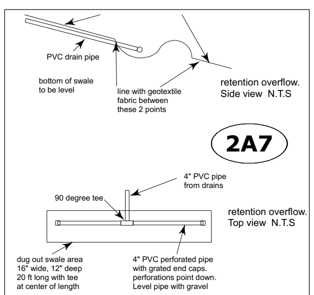
P3

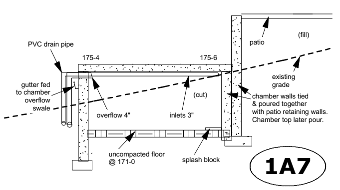
Impervious Area in sq ft	
Residence (fed to water tanks, overflow to retention chamber)	1708
Paver driveway 400sf (fed to ret chamber) -50% credit	200
N & E walkways and entry landing	317
Storm water retention chamber (top is above ground)	192
S patio	642
Impervious area in sq ft	**3059**
% impervious to retention = (SFR + driveway + deck + SE patio) / impervious area =(1708+200+182+240)/3059	76%
Note: Actual % is higher because roof gutter area is 2146 sf	
Retention chamber collection areas in sq ft	
SFR gutters filtered & fed to water tanks until full, then overflow gravity return to retention.	2146
paver driveway not overhung by eaves fed to retention (actual runoff may be less due to semi pervious pavers)	360
deck not overhung by eaves fed to retention.	132
SE portion of patio E of chamber top not overhung by eaves fed to retention (240-32)	208
Total sq ft fed to retention chamber	**2846**
Remaining impervious management in sq ft	
SW portion of patio not covered by deck flows to retention chamber top ~ 220 sq ft	
Retention chamber top (192 sf) plus flow from patio above are fed to retention chamber overflow =(192+220)	412
N & E walkways and entry landing not overhung by eaves is not collected =(317- ((57.5*2) + (7.5*4.5) + (15.5 *2)))	137
Rainfall capacities	
Retention Chamber volume cu ft (152sf x 3.5ft effec depth)	532
cu ft into chamber per inch rain =(2846 * .62)/7.48 (when water tanks are full)	236
capacity in inches of rain (ignoring infiltration) = 532/236	**2.3**
Rainwater tanks volume in cu ft =7500/7.48	**1003**
cu ft into water tanks per inch rain =(2146 * .62)/7.48	178
Water tanks capacity in inches of rain =(1003/178)	**5.6**

GRADING ESTIMATES NOTES:

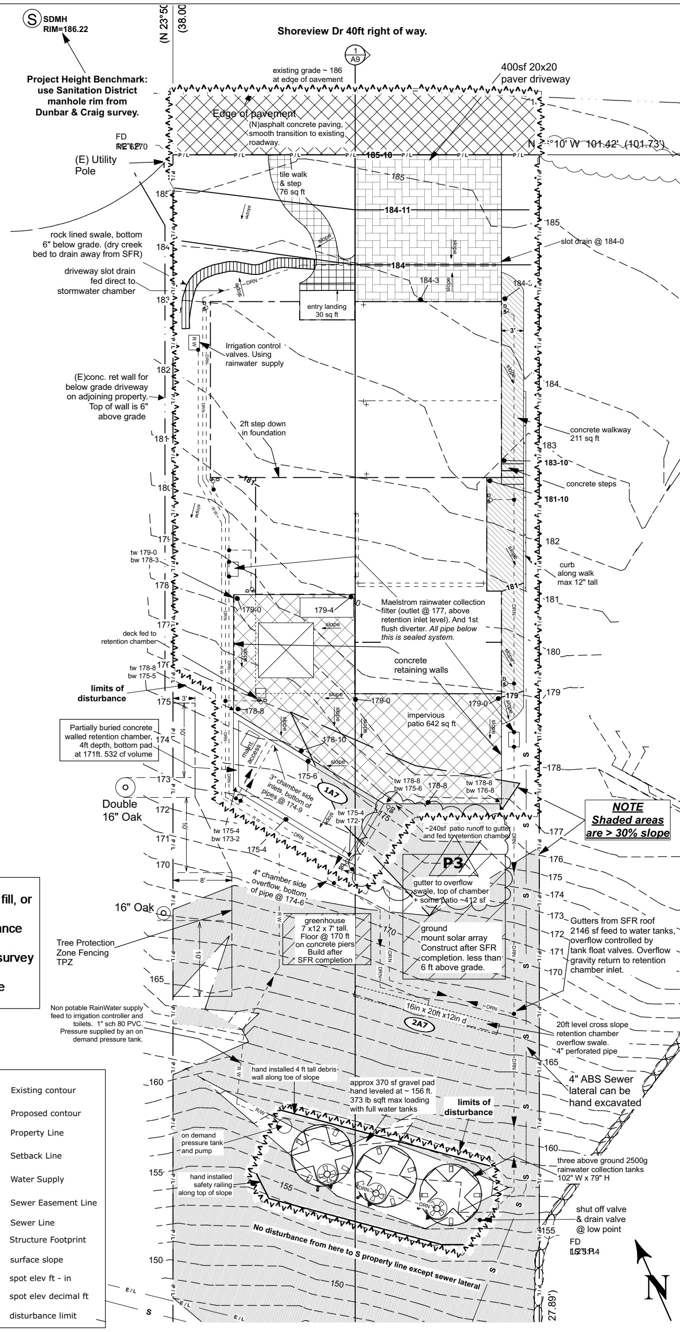
"The estimates do not include stripping of organic topsoil, scarifing for engineered fill, or cuts for foundations or utility trenches.
Using 6 inch depth for stripping of organic topsoil over the limits of grading disturbance area will reduce these estimated cut quantities.
The existing grade elevations used in these calculations are from Dunbar & Craig survey #2011-42 which has 1 ft interval elevation lines.
The designer, Jim Patterson used the digital file of the survey, and all drawings are made utilizing the survey."

Grading Estimates Cu Yd	cut	fill
Front Setback Including Driveway	0.9	5.6
garage slab	0.0	19.3
East walkway	0.7	3.3
Underfloor utility room	61.6	0.0
Patio	1.7	37.1
Concrete storm water retention chamber	16.9	0.0
Hand leveling of water tank flat area ~ 10yds max	5.0	5.0
Total Cut	87	
Total Fill		70
Total Grading add cut and fill	157	
Net Grading cut - fill = Net cut	**17**	**cut**





Concrete Retention Chamber Detail
N.T.S.



- - - - - -	Existing contour
———	Proposed contour
——— P / L ——	Property Line
——— SB / L ——	Setback Line
——— C / W ——	Water Supply
——— E / L ——	Sewer Easement Line
——— S ——	Sewer Line
— — ——— —	Structure Footprint
◄ slope	surface slope
179-0	spot elev ft - in
179.3	spot elev decimal ft
-^v^v^v^v^v-	disturbance limit

Revision Table

Num	Description	By	Date
1	incomplete app of 03-13-13	JEP	10/28/2017
2	Planning incomplete letter Dec 1,2017	JEP	9/27/2018

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GRADING AND DRAINAGE

Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/8 in=1 ft

Sheet A7

Construction housekeeping

A. Construction materials

1. All loose stockpiled construction materials that are not actively being used (I.E. Soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.) Shall be covered and bermed.
2. All chemicals shall be stored in watertight containers (with appropriate secondary containment to prevent any spoilage or leakage) or in a storage shed (completely enclosed).
3. Exposure of construction materials to precipitation shall be minimized. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions.
4. Best management practices to prevent the off-site tracking of loose construction and landscape material shall be implemented.

B. Waste management

1. Disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system shall be prevented.
2. Sanitation facilities shall be contained (e.g. portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.
4. Cover waste disposal containers at the end of every business day and during a rain event.
5. Discharges from waste disposal containers to the storm water drainage system or receiving water shall be prevented.
6. Stockpiled waste material shall be contained and securely protected from wind and rain at all times unless actively being used.
7. Procedures that effectively address hazardous and non-hazardous spills shall be implemented.
8. Equipment and materials for cleanup of spills shall be available on site and spills and leaks shall be cleaned up immediately and disposed of properly.
9. Concrete washout areas and other washout areas that may contain additional pollutants shall be contained so there is no discharge into the underlying soil and onto the surrounding areas.

Vehicle storage and maintenance

1. Measures shall be taken to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters.
2. All equipment or vehicles, which are to be fueled, maintained, and stored onsite, shall be in a designated area fitted with appropriate BMP'S.
3. Leaks shall be immediately cleaned and leaked materials shall be disposed of properly.

Landscape materials

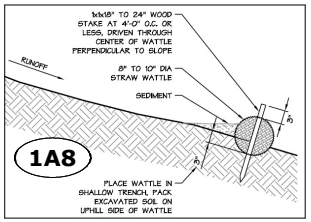
1. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.
2. Contain fertilizers and other landscape materials when they are not actively being used.
3. Discontinue the application of erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.
4. Apply erodible landscape material at quantities and application rates according to manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel.
5. Stack erodible landscape material on pallets and cover or store such materials when not being used or applied.

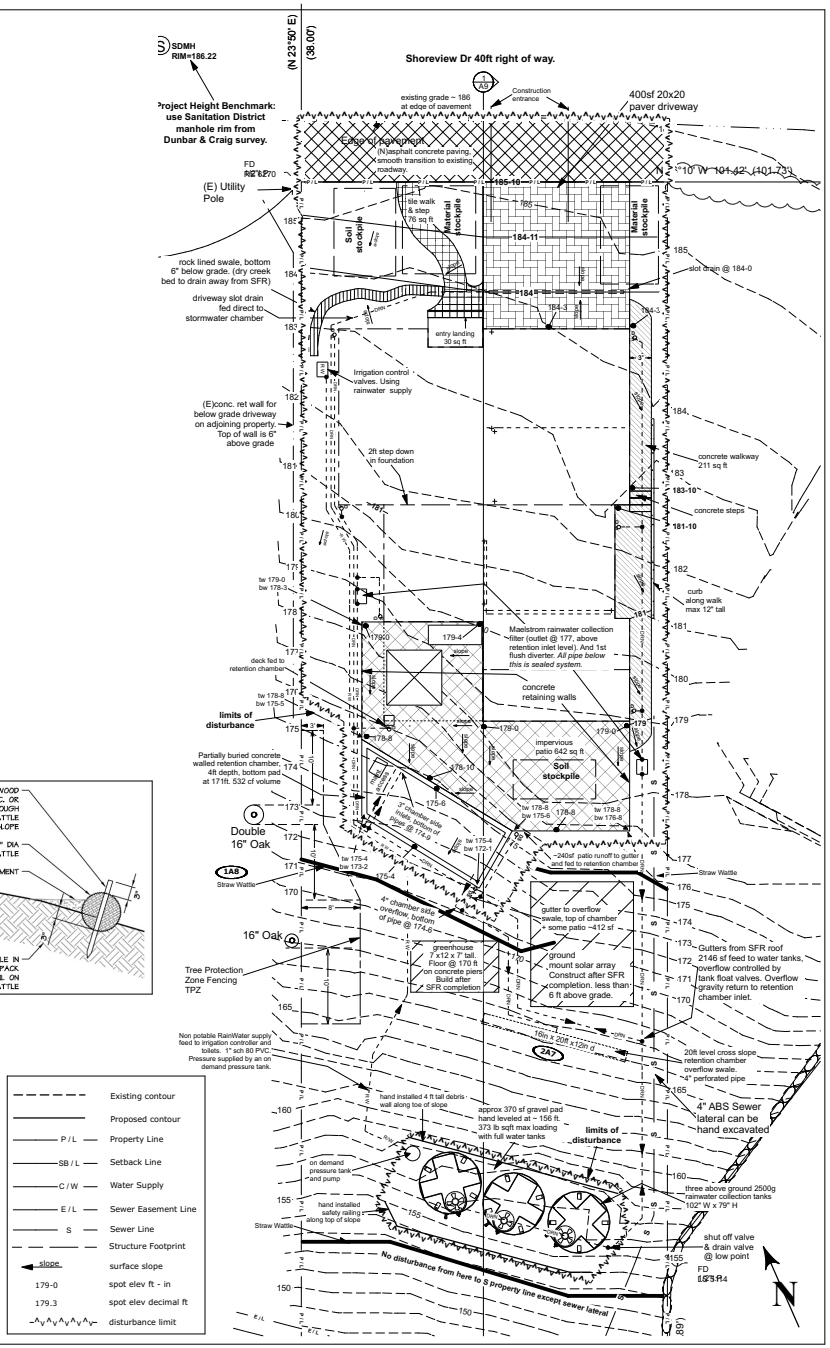
A. Erosion control notes

1. All construction shall conform to part 1, section c, "erosion control requirements, "of the santa cruz county design criteria. (summarized and supplemented here)
2. The project general contractor shall be responsible for site erosion control.
3. No clearing, grading, or excavation shall take place between October 15 and April 15 without review and approval of a separate winter erosion control plan by the environmental planning section of the planning department prior to beginning such construction. Winter erosion control plans shall be submitted to the environmental planning section a minimum of 30 days before construction is to begin.
4. Disturbance and removal of vegetation shall not exceed the minimum necessary to complete operations.
5. All disturbed soil (particularly cut and fill slopes) shall be seeded with annual winter barley seed at a rate of 5 lbs/1000 square feet and covered with 2 to 4 inches of straw (2-3 bales/1000 square feet). Incorporate straw into the soil with a studded roller or anchor it with a tackified stabilizing emulsion. Seed and straw shall be installed prior to October 15. The mulch cover shall be maintained until a good vegetative cover has been established.
6. For steep slopes (greater than 3h:1v) apply annual winter barley seed and cover with an erosion control blanket.
7. When permanent landscaping has been installed but is not fully established, any exposed soil shall be mulched between October 15 and April 15.
8. Erodible materials stockpiled on-site shall be covered with plastic between October 15 and April 15 or during other periods of rain.
10. The desired end result of these measures is to control site erosion and prevent sediment transport off the site. It is the contractor's responsibility to see that any additional measures necessary to meet this goal are implemented. If field inspections by county staff show this goal is not being met, additional measures will be required.
11. Drainage structures including catch basins, energy dissipaters. Etc. Shown on the grading and drainage plans shall be installed prior to the rainy season. contractor shall keep all drainage structures and culverts free of silt and debris.
12. Contractors shall take reasonable precautions to ensure that vehicles do not track or spill earth materials into f'ubl1c streets and shall immediately remove such materials if this occurs.
13. Every effort shall be made to ensure that site stabilization is permanent.
14. Top soil shall be stockpiled and redistributed to areas with slopes less than 20% within the graded area after rough grading to provide a suitable base for seeding and planting.
15. Emergency conditions - should increased sediment discharge occur or become imminent, contractor shall take all necessary steps to control such discharge. Such steps may include construction of additional facilities or removal or alteration of facilities required by approved erosion and sediment control plans. Facilities removed shall be restored as soon as possible afterward or appropriate changes in the plan shall be immediately requested. Contractor shall take prompt action to resolve emergency problems.

Silt barrier installation and maintenance notes

1. Silt barrier shall be installed as shown on the erosion control plan, but at the least, located at the lower perimeter of the construction area.
2. Silt barrier shall be placed along the contours of the slope, where possible.
3. Silt barrier shall be oriented in order to best prevent the flow of silt beyond the construction area.
4. The ends of the barrier shall be angled slightly down the slope to prevent ponding at the mid-section.
5. Stakes may be 1" diameter willow cuttings or sawn lumber and shall be driven securely into the ground.
6. One stake shall be installed at each end of each wattle and at 4'-0" 0.c. Or less.
7. Joints in straw wattles shall be butted tight but not overlapped. Each end shall be separately staked with the second stake angled toward the first wattle.
8. Wattles shall be embedded into the ground as shown to prevent silt flow below barrier.
9. Silt and debris shall be removed periodically during construction to prevent damage to the silt barrier or overflow.
10. Silt barrier shall be inspected and immediately repaired, as needed, no less than weekly and also before and after each significant rainstorm.
11. Removed silt shall either be hauled to an approved disposal facility or deposited on-site where it can be permanently stabilized with vegetation and mulch.





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Num	Description	By	Date
1	incomplete app of 03-13-13	JEP	10/29/2017
2	Planning incomplete letter Dec 1,2017	JEP	9/27/2018

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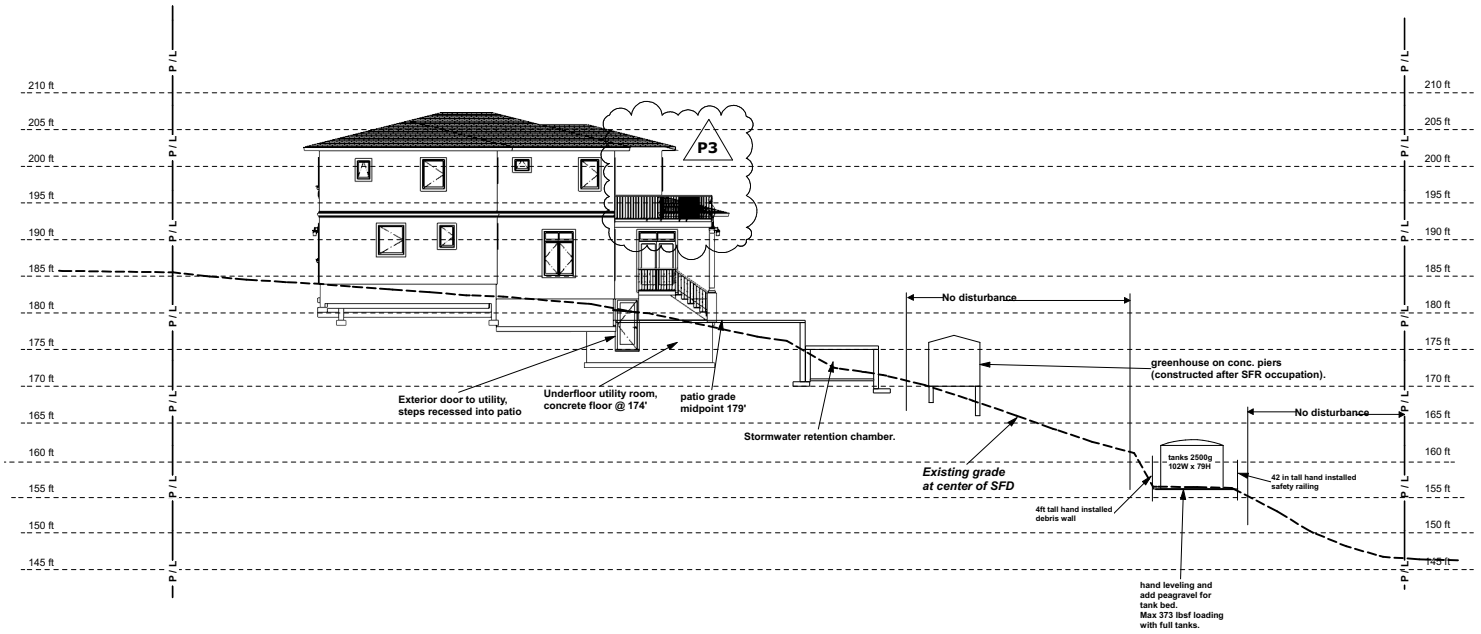
STORMWATER & CONSTRUCTION POLLUTION CONTROL

Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/8 in=1 ft

Sheet A8



1/A9 cross section - thru center of lot

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SITE SECTION

Date Prepared: 9/27/18

Drawn By: J Patterson

Scale: 1/8 in=1 ft

Sheet
A9
9 of 9