



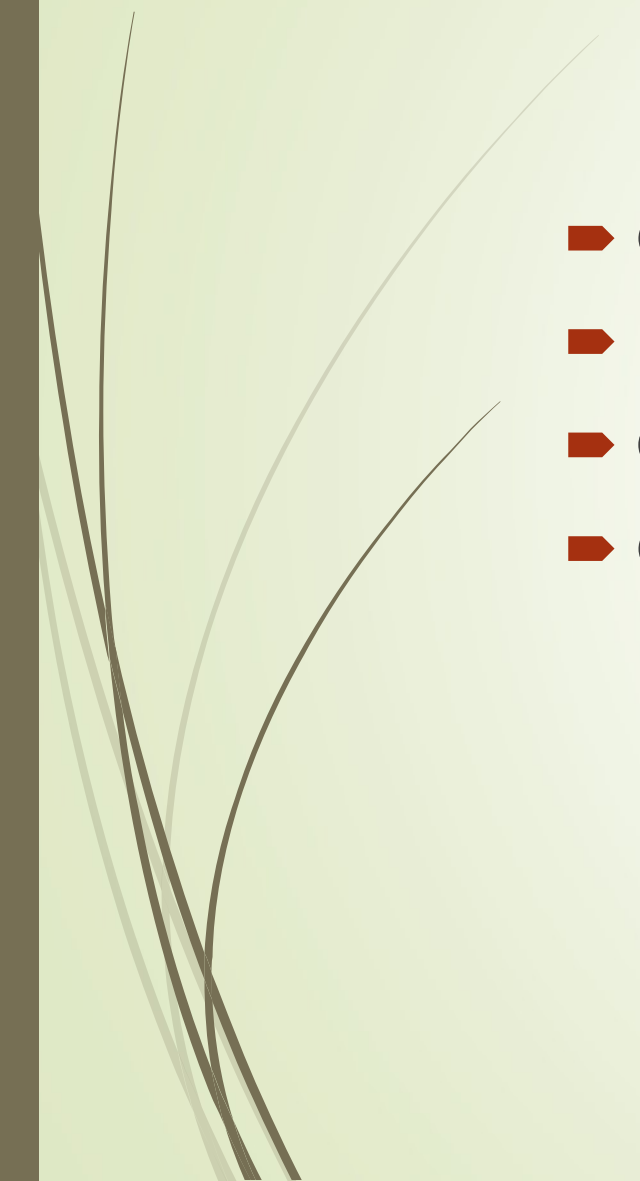
Vallemar Bluff Home Project Application Review

Midcoast Community Council – Revised Application Package and Response
to comments from December 9, 2015 meeting

October 26, 2016



Vallemar Bluff Project – Agenda

- Overview
 - Project Team Introduction
 - Current proposed project response to issues raised
 - Questions and Discussion
- 



Overview



- Significant site requiring special care
- Data collection and site research began by current team in 2013.
- 2.3~ acre site containing 7 legal lots of record within Mid-Coast Urban Limit Line.
- Proposal does not impact public access to bluff top trail
- Grassland habitat on site is seriously degraded. Status quo would continue degradation. Adjacent County property contains sensitive plants. Project implementation would improve outcomes of both public and private lands.
- Application revised based on comments received at Dec 2015 MCCC meeting and County Staff

Overview





Project Team

- Larry Pearson – Pearson Design Group (Architecture)
 - Mark Baginski – Verde Design (Landscape Architecture)
 - Rodney Cahill – Mesiti-Miller Engineering (Civil Engineering)
 - Mark Foxx – Haro, Kasunich & Associates (Geotech and Coastal Erosion)
 - Jodi McGraw - Jodi McGraw Consulting (Biotic Consulting)
- 



Comments addressed from December Meeting

- Lot legality/Utility availability
- Site design update
- Visual analysis
- Protection of sensitive habitat
- Shoreline setbacks
- Site access and future shore path protection
- Storm water design and mitigation



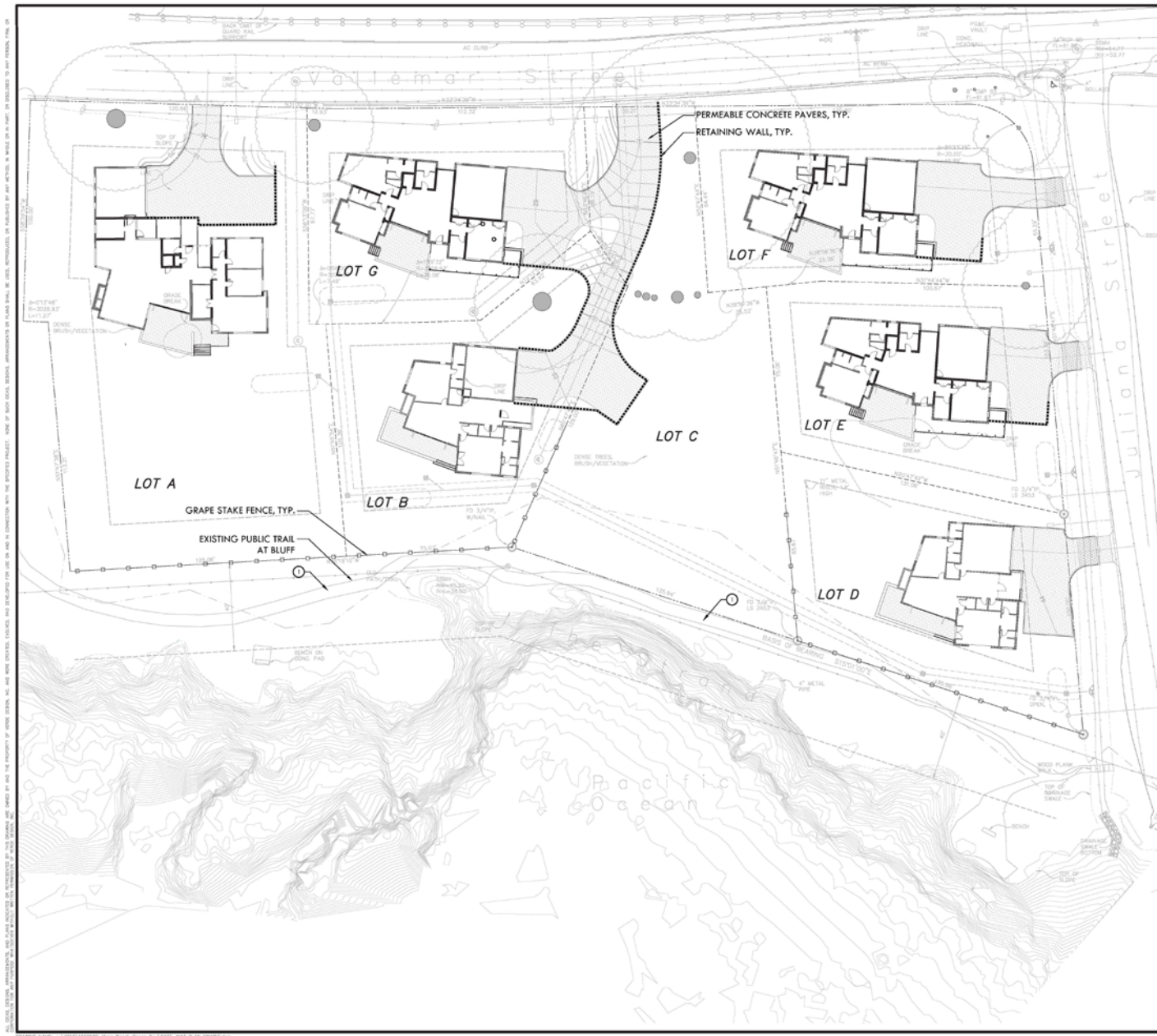
Lot legality/Utility availability

- Concern: Current lot configuration was not done in compliance with state map act. Sewer may not be available to CZ-RM properties.
- Response: Research by County Counsel concludes that lots were configured consistent with State Map Act law in effect. Final action in 1991 (corrected in 1994). Sewer is available per Coastal Commission and MWSD.



Updated Project Design

- ▶ Concern: Project Density
- ▶ Response: **Proposed Project reduced from 6 to 5 homes.** Project approval would result in the sensitive portions of Lots A, B, C & D becoming permanently protected open space and protected grassland habitat. This is not a county requirement. Developments rights on lots B & C are proposed to be held by a non-profit Land Conservancy.



MATERIAL LEGEND		
SYM.	DESCRIPTION	DTL. REF.
	PERMEABLE CONCRETE PAVERS	144
	GRAPE STAKE FENCE	144
	RETAINING/LANDSCAPE WALL	144
	EXISTING PUBLIC TRAIL AT BLUFF	

VERDE DESIGN
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 CIVIL ENGINEERING
 SPORT PLANNING & DESIGN

3425 The Alameda
 Suite 100, CA 95050
 Tel: 408.963.7200
 Fax: 408.963.7260
 www.VerdeDesign.com

STAMP

CONSULTANT

SHEET TITLE

MATERIAL AND DETAIL REFERENCE PLAN

PROJECT NAME

MOSS BEACH OCEAN DEVELOPMENT

PROJECT ADDRESS

**VALLEMAR ST. & JULIANA AVE
 MOSS BEACH, CA**

SUBMITTAL	DATE
DESIGN REVIEW APPLICATION	06/21/15

NO.	REVISIONS	DATE

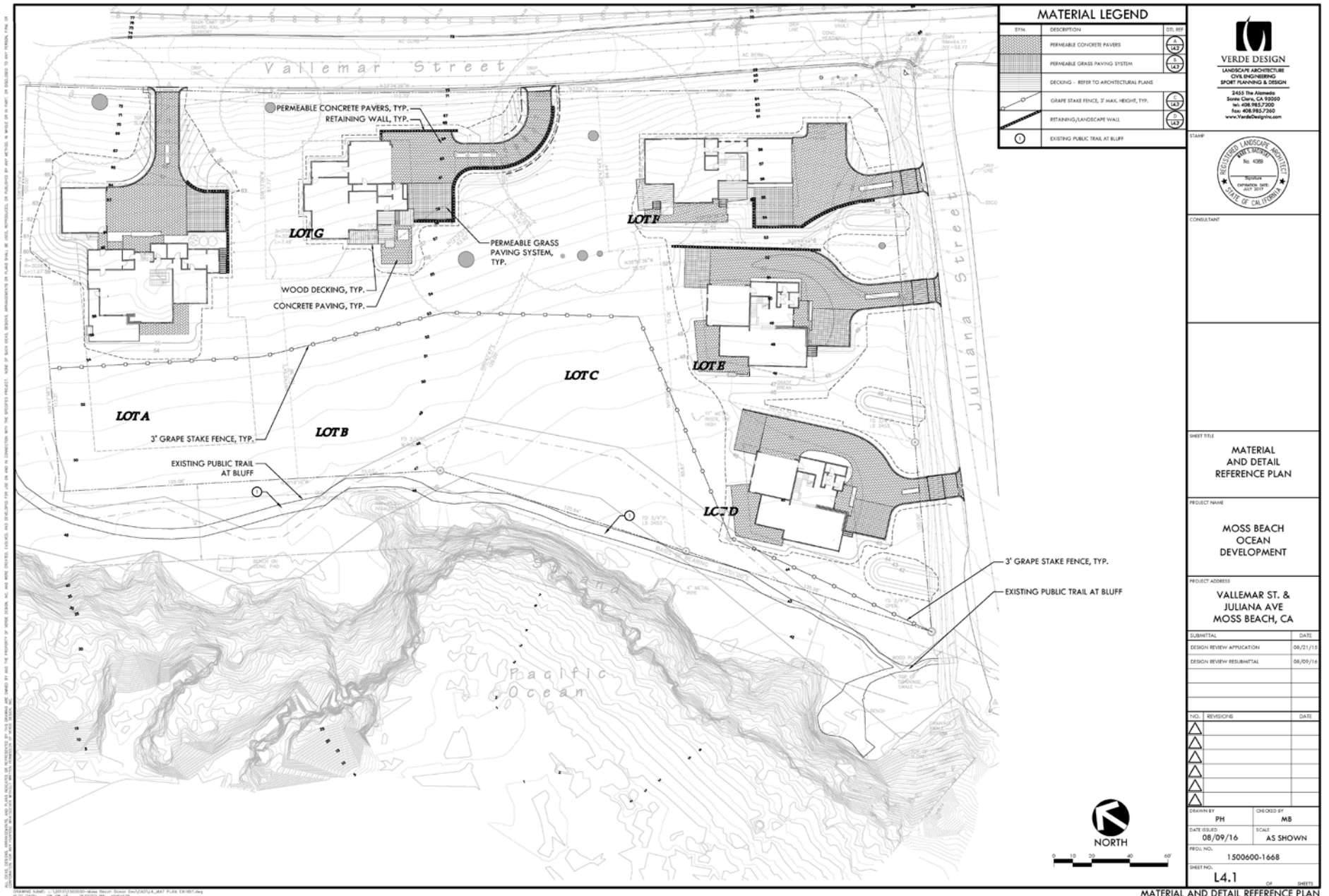
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DATE ISSUED 06/21/15	SCALE AS SHOWN
PROJ. NO. 1500600-1668	
SHEET NO. L4.1	



DATE: 06/21/15 11:20:03 AM User: ph Design: 1500600_1668 Plot: L4.1.dwg
 PLOT: 06/21/15 08:28:15 16.0133 891 488x343

MATERIAL AND DETAIL REFERENCE PLAN

Previous Site Plan



MATERIAL LEGEND		
SYMB	DESCRIPTION	DTL. REF.
[Pattern]	PERMEABLE CONCRETE PAVERS	(L4.1)
[Pattern]	PERMEABLE GRASS PAVING SYSTEM	(L4.2)
[Pattern]	DECKING - REFER TO ARCHITECTURAL PLANS	(L4.3)
[Pattern]	GRAPE STAKE FENCE, 3' HAK, HEIGHT, TYP.	(L4.4)
[Pattern]	RETAINING/LANDSCAPE WALL	(L4.5)
[Symbol]	EXISTING PUBLIC TRAIL AT BLUFF	(L4.6)

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LANDSCAPE ARCHITECT
 No. 4289
 EXPIRES 07/31/17
 STATE OF CALIFORNIA

CONSULTANT

SHEET TITLE
MATERIAL AND DETAIL REFERENCE PLAN

PROJECT NAME
MOSS BEACH OCEAN DEVELOPMENT

PROJECT ADDRESS
**VALLEMAR ST. & JULIANA AVE
 MOSS BEACH, CA**

SUBMITTAL	DATE
DESIGN REVIEW APPLICATION	08/21/15
DESIGN REVIEW RESUBMITTAL	08/09/16

NO.	REVISIONS	DATE

DESIGNED BY PH	CHECKED BY MB
DATE ISSUED 08/09/16	SCALE AS SHOWN
PROJ. NO. 1500600-1668	
SHEET NO. L4.1	

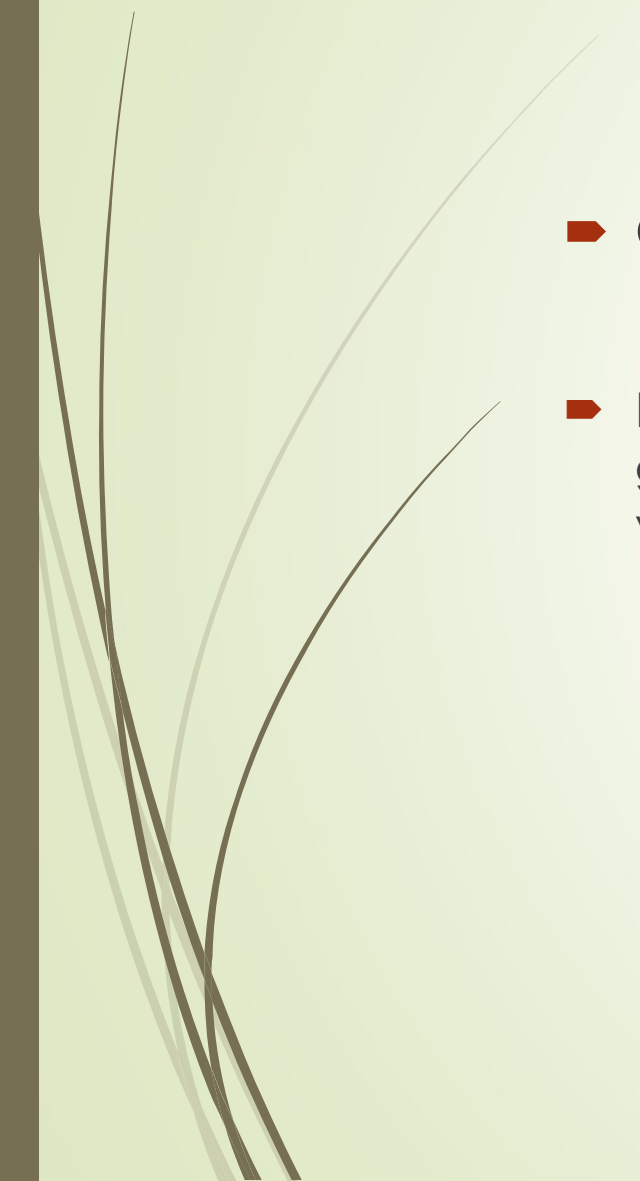


MATERIAL AND DETAIL REFERENCE PLAN

Updated Project Design



Visual analysis

- ▶ Concern: Visual impacts from public spaces
 - ▶ Response: The project is designed to use site topography to minimize grading, blending into the site. The use of natural materials reduces the visual intrusion. Less impact on the adjacent homes
- 



VALLEMAR ST. PERSPECTIVE

Visual Analysis



Visual Analysis



JULIANA AVE. PERSPECTIVE

Visual Analysis



Visual Analysis




Visual Analysis

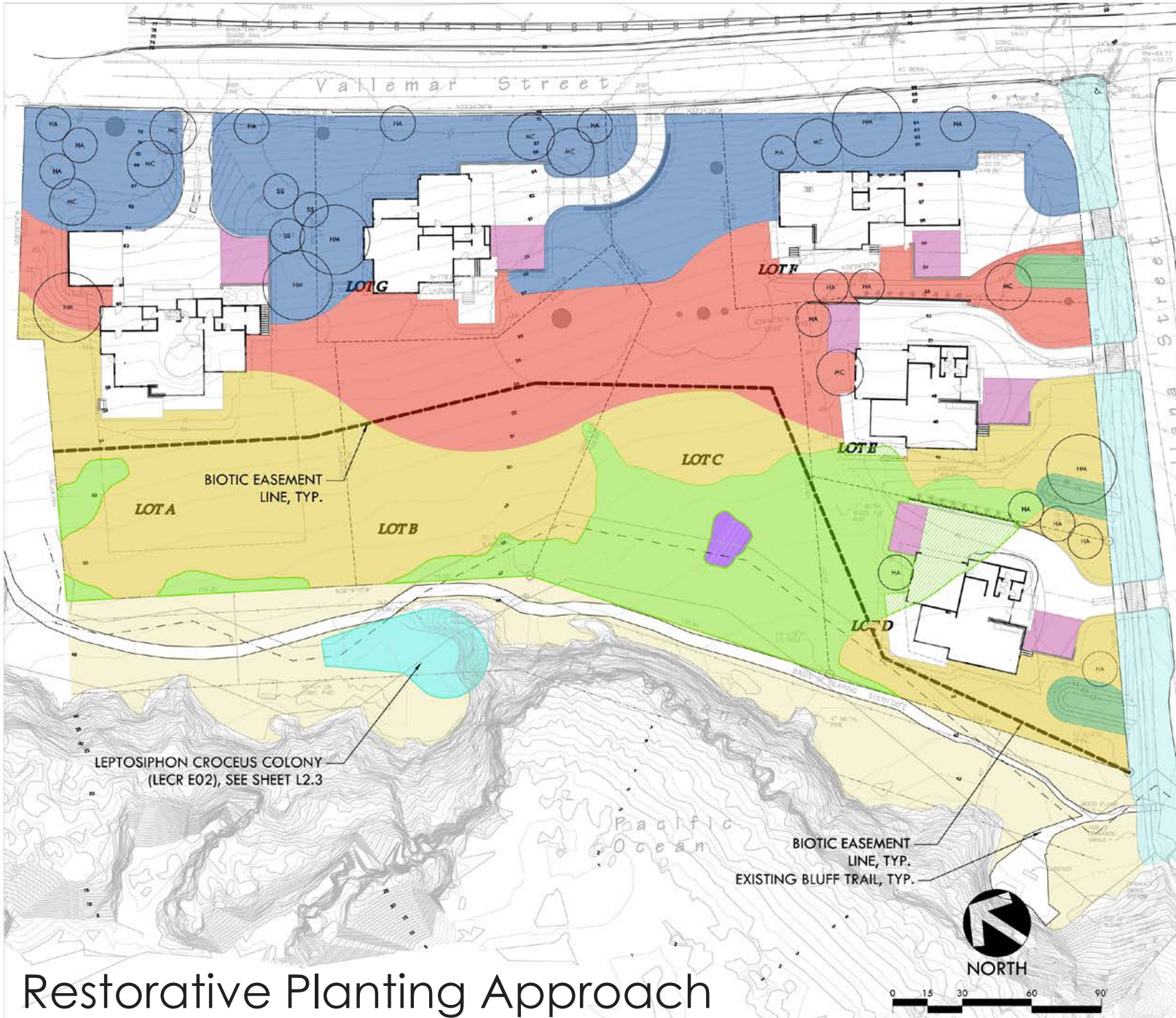


Protection of sensitive habitat

Concern: project could impact sensitive plant species

Response: A Management Plan for the Grasslands on public (in concert with County Parks) and private properties. The plan proposes to enhance the habitat with the removal of invasive species, encouraging the return of native species and permanently protected with conservation easements held by a nonprofit Land Trust. This is an improvement over the status quo or “no project”.





Restorative Planting Approach

PLANTING NOTES

- PLANTING PLAN HAS BEEN REVIEWED BY PROJECT BIOLOGIST, FAIRFAX ASSOCIATES ENVIRONMENTAL CONSULTANTS, ON SEPTEMBER 1, 2015, AND APPROVED WITHIN THE RECOMMENDATION LETTER DATED SEPTEMBER 1, 2015.
- ALL NON-TREE PLANTING AREAS SHALL RECEIVE A 3" LAYER OF BARK MULCH TOP DRESS (UNLESS NOTED OTHERWISE); REFER TO SPECIFICATIONS.
- WHEN WORK HAS TO OCCUR UNDER THE DISRUPTION OF EXISTING TREES NOT SCHEDULED FOR REMOVAL, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO THE TREES AND TREE ROOTS. GRADE IN LINES ADJACENT TO THE EXISTING TREES SHALL BE HANDLED. ALL PARTIAL CUTS OR TRIMS SHALL BE FILLED WITHIN TWO HOURS AFTER EXCAVATION, BUT WHERE THIS IS NOT POSSIBLE, THE SIZE OF THE TRIMMINGS ADJACENT TO THE TREE, AND ANY EXPOSED ROOTS SHALL BE KEPT SHADDED AND MOIST WITH DAMPENED BURLAP OR CANVAS.
- ALL TREES, SHRUBS AND PLANTINGS TO RECEIVE SOLE AMENDMENTS AND SOIL PREPARATION PER SPECIFICATIONS UNLESS OTHERWISE NOTED.

EXISTING VEGETATION			
SYM	QTY	SIZE	
12,543 SF	N/A	N/A	ZONE A - COASTAL PRAIRIE GRASSLAND TO REMAIN AND BE PROTECTED
1196 SF	N/A	N/A	ZONE A - COASTAL PRAIRIE GRASSLAND TO BE REMOVED AND REPLACED (SEE COASTAL PRAIRIE LEGEND BELOW)
325 SF	N/A	N/A	BEACH STRAWBERRY TO REMAIN AND BE PROTECTED

TREE & LARGE SHRUBS PLANTING LEGEND					
SYM	QTY	SIZE	BOTANICAL/COMMON NAME	SPACING/SPREAD	HEIGHT
TREES					
HM	4	24" BOX	HESPEROCYPRESS MACROCARPA MONTEREY CYPRESS	33' O.C.	60'
HA	22	24" BOX	HETEROMELES ARBUTIFOLIA TOYON	33' O.C.	15'
MC	10	24" BOX	MORELLA CALIFORNICA PACIFIC WAX MYRTLE	15' O.C.	20'
SS	3	24" BOX	SAIK SCOLYBRIANA SCOLLER'S WILLOW	15' O.C.	15'

SHRUBS/GRASSES PLANTING LEGEND					
SYM	QTY	SIZE	BOTANICAL/COMMON NAME	SPACING/ COMMENTS	HEIGHT & SPREAD
ORNAMENTAL NATIVES					
30%	1 GAL		ACHILLEA MIELEFOLIUM FARRIGNO	AS SHOWN	2' X 2'
30%	1 GAL		ARTEMISA MARITIMA SEA THISTLE	AS SHOWN	1' X 1'
30%	1 GAL		BACCHARIS FOLLICULARIS DWARF COYOTE BRUSH	AS SHOWN	3' X 6'
30%	1 GAL		FRANCOISA CALIFORNICA EVE CASE COFFEEBERRY	AS SHOWN	8' X 8'
30%	1 GAL		EREBUS ALBIFLORUS OCEANIC CURLEAF	AS SHOWN	6' X 6'
COASTAL PRAIRIE / NATIVE MIX					
30%	4" POTS		CAREX PRACORACIS FIELD SEDGE	AS SHOWN	2' X 2'
15%	4" POTS		ERIGERON GLAUCLUS SEASIDE DAISY	AS SHOWN	1' X 1'
10%	4" POTS		FRAGARIA CHENSIS BEACH STRAWBERRY	AS SHOWN	6" X 2'
30%	4" POTS		HELIOPSIS SCABERRIMA CALIFORNIA MILK	AS SHOWN	3' X 1'
15%	4" POTS		SEVERNONIUM BELLUM BLUE-STEMMED GRASS	AS SHOWN	2' X 2'
ON-SITE COASTAL PRAIRIE RESTORATION					
80%	4" POTS		DANthonIA CALIFORNICA CALIFORNIA OAT GRASS	N/A	N/A
10%	4" POTS		DESCHAMPSIA CESPITOSA PACIFIC HARBOR GRASS	N/A	N/A
10%	4" POTS		STIPA PULCHRA PURPLE NEEDLE GRASS	N/A	N/A
BLUFF COASTAL PRAIRIE RESTORATION (SUBJECT TO COUNTY APPROVAL)					
80%	4" POTS		DANthonIA CALIFORNICA CALIFORNIA OAT GRASS	N/A	N/A
10%	4" POTS		DESCHAMPSIA CESPITOSA PACIFIC HARBOR GRASS	N/A	N/A
10%	4" POTS		STIPA PULCHRA PURPLE NEEDLE GRASS	N/A	N/A
DRAINAGE PLANTING (SUBJECT TO COUNTY APPROVAL)					
6,183 SF	30%	1 GAL	JUNCIUS EFFRUSUS COMMON RUSH	AS SHOWN	
	50%	1 GAL	JUNCIUS PATENS CALIFORNIA GRAY RUSH	AS SHOWN	
NO-RETENTION SWALE PLANTING					
1,478 SF	50%	1 GAL	JUNCIUS EFFRUSUS COMMON RUSH	AS SHOWN	
	50%	1 GAL	JUNCIUS PATENS CALIFORNIA GRAY RUSH	AS SHOWN	
NATIVE GRASS IN GRASS PAVING SYSTEM					
2,575 SF	100%	SEED	PASPALLUM VAGINATUM SEASHORE PASPALLUM	AS SHOWN	
EXISTING VEGETATION TO REMAIN AND BE PROTECTED					
1,777 SF	N/A	N/A	LEPTOSIPHON CROCEUS - LECK ELEMENT OCCURRENCE 02 SEE CALIFORNIA NATIVE PLANT SOCIETY MEMORANDUM, 3/23/2016	N/A	



ALL SPECIES, PLANTING ARRANGEMENTS, AND PLANTING RECOMMENDATIONS ARE THE PROPERTY OF VERDE DESIGN, INC. AND HAVE BEEN CHECKED, REVISED, AND DEVELOPED FOR USE IN CONNECTION WITH THE SPECIFIED PROJECT. NONE OF SUCH CHECKS, REVIEWS, AND DEVELOPMENTS OF PLANS SHALL BE USED, REPRODUCED, OR PUBLISHED BY ANY PERSON, FIRM, OR ANY OTHER ENTITY WITHOUT THE WRITTEN PERMISSION OF VERDE DESIGN, INC.

TREES / LARGE SHRUBS



ORNAMENTAL NATIVES



COASTAL PRAIRIE / NATIVE MIX



COASTAL PRAIRIE GRASSES



DRAINAGE PLANTING



Native Species List

PLANTING NOTES

1. PLANTING PLAN HAS BEEN REVIEWED BY PROJECT BIOLOGIST, ZANDER ASSOCIATES ENVIRONMENTAL CONSULTANTS, ON SEPTEMBER 1, 2015, AND APPROVED WITHIN THE RECOMMENDATION LETTER DATED SEPTEMBER 1, 2015.
2. ALL NON-TREE PLANTING AREAS SHALL RECEIVE A 3" LAYER OF BARK MULCH TOP DRESS (UNLESS NOTED OTHERWISE, REFERS TO SPECIFICATIONS).
3. WHEN WORK HAS TO OCCUR UNDER THE DIRTLINE OF EXISTING TREES NOT SCHEDULED FOR REMOVAL, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO THE TREES AND TREE ROOTS. GRADE IN LINES RADIAL TO THE EXISTING TREES RATHER THAN PERPENDICULAR. ALL PARTIAL CUTS OR TEARS THROUGH ROOTS TWO INCHES IN DIAMETER AND LARGER SHALL BE CUT CLEAN. TRINCHES ADJACENT TO TREES SHALL BE FILLED WITHIN 24 HOURS AFTER EXCAVATION, BUT WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRINCH ADJACENT TO THE TREE, AND ANY EXPOSED ROOTS SHALL BE KEPT GRADED AND MOIST WITH DAMPENED BURLAP OR CANVAS.
4. ALL TREES, MULCH AND PLANTERS TO RECEIVE SOIL AMENDMENTS AND SOIL PREPARATION PER SPECIFICATIONS UNLESS OTHERWISE NOTED.

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 LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
 SPORT PLANNING & DESIGN
 2455 The Alameda
 Santa Clara, CA 95050
 TEL: 408.983.7200
 FAX: 408.983.7240
 www.VerdeDesign.com

EXISTING VEGETATION

SYM	QTY	SIZE	
12.543 SF	N/A	N/A	ZONE A - COASTAL PRAIRIE GRASSLAND TO REMAIN AND BE PROTECTED
119.6 SF	N/A	N/A	ZONE A - COASTAL PRAIRIE GRASSLAND TO BE REMOVED AND REPLACED (SEE COASTAL PRAIRIE LEGEND BELOW)
325 SF	N/A	N/A	BEACH STRAWBERRY TO REMAIN AND BE PROTECTED

TREE & LARGE SHRUBS PLANTING LEGEND

SYM	QTY	SIZE	BOTANICAL/COMMON NAME	SPACING/SPREAD	HIGHT
HM	4	24" BOX	HEPEROCYPARIS MACROCARPA MONTEREY CYPRESS	30' O.C.	60'
HA	22	24" BOX	HETEROMELES ARBUTIFOLIA TOYON	20' O.C.	15'
MC	10	24" BOX	MORELLA CALIFORNICA PACIFIC WAX MYRTLE	15' O.C.	20'
SS	3	24" BOX	SALIX SCOULERIANA SCOULER'S WILLOW	15' O.C.	15'

SHRUBS / GRASSES PLANTING LEGEND

SYM	QTY	SIZE	BOTANICAL/COMMON NAME	SPACING/COMMENTS	HIGHT & SPREAD
ORNAMENTAL NATIVES					
19,472 SF	20%	1 GAL	ACHILLEA MILLEFOLIUM YARROW	AS SHOWN	2' X 2'
	20%	1 GAL	ARMERIA MARITIMA SEA THRIFT	AS SHOWN	1' X 1'
	20%	1 GAL	BACCHARIS PILULARIS 'YIGEON POINT' DWARF COYOTE BRUSH	AS SHOWN	3' X 4'
	20%	1 GAL	FRANGULA CALIFORNICA 'EVE CASE' COFFEEBERRY	AS SHOWN	8' X 8'
	20%	1 GAL	TRIBES AUREUM GRACILLIMUM GOLDEN CURRANT	AS SHOWN	6' X 6'
COASTAL PRAIRIE / NATIVE MIX					
17,821 SF	30%	4" POTS	CAREX PRAEGRACILIS FIELD SEDGE	AS SHOWN	2' X 2'
	15%	4" POTS	ERIGERON GLAUCUS SEASIDE DAISY	AS SHOWN	1' X 1'
	10%	4" POTS	FRAGARIA CHILOENSIS BEACH STRAWBERRY	AS SHOWN	4' X 2'
	30%	4" POTS	MELICA CALIFORNICA CALIFORNIA MELIC	AS SHOWN	3' X 1'
	15%	4" POTS	SISYRINCHIUM BELLUM BLUE-EYED GRASS	AS SHOWN	2' X 2'

ON-SITE COASTAL PRAIRIE RESTORATION					
25,748 SF	80%	4" POTS	DANTHONIA CALIFORNICA CALIFORNIA OAT GRASS	N/A	N/A
	10%	4" POTS	DESCHAMPSIA CESPITOSA 'HOLCIFORMIS' PACIFIC HAIRGRASS	N/A	N/A
	10%	4" POTS	STIPA PULCHRA PURPLE NEEDLE GRASS	N/A	N/A

BLUFF COASTAL PRAIRIE RESTORATION (SUBJECT TO COUNTY APPROVAL)					
16,108 SF	80%	4" POTS	DANTHONIA CALIFORNICA CALIFORNIA OAT GRASS	N/A	N/A
	10%	4" POTS	DESCHAMPSIA CESPITOSA 'HOLCIFORMIS' PACIFIC HAIRGRASS	N/A	N/A
	10%	4" POTS	STIPA PULCHRA PURPLE NEEDLE GRASS	N/A	N/A

DRAINAGE PLANTING (SUBJECT TO COUNTY APPROVAL)					
4,182 SF	50%	1 GAL	JUNCUS EFFUSUS COMMON RUSH	AS SHOWN	
	50%	1 GAL	JUNCUS PATENS CALIFORNIA GREY RUSH	AS SHOWN	

NATIVE GRASS IN GRASS PAVING SYSTEM					
2578 SF	100%	SEED	PASPALUM VAGINATUM SEASHORE PASPALUM	AS SHOWN	

EXISTING VEGETATION TO REMAIN AND BE PROTECTED					
2578 SF	N/A	N/A	LEPTOSIPHON CROCEUS - LEON BLEMENT OCCURRENCE 02 PER CALIFORNIA NATIVE PLANT SOCIETY MEMORANDUM, 5/25/2016	N/A	

STAMP

REGISTERED LANDSCAPE ARCHITECT
 No. 4285
 VERDE DESIGN
 EXPIRES 09/30/17
 STATE OF CALIFORNIA

CONSULTANT

SHEET TITLE

TREE AND SHRUB PLANT IMAGES

PROJECT NAME

MOSS BEACH OCEAN DEVELOPMENT

PROJECT ADDRESS

**VALLEMAR ST. & JULIANA AVE
MOSS BEACH, CA**

SUBMITTAL DATE

DESIGN REVIEW APPLICATION 08/21/15

DESIGN REVIEW RESUBMITTAL 08/09/16

NO.	REVISIONS	DATE
▲		
▲		
▲		
▲		
▲		

DRAWN BY PH CHECKED BY MB

DATE ISSUED 08/09/16 SCALE AS SHOWN

PROJ. NO. 1500600-1668

SHEET NO. **L3.4** OF SHEETS



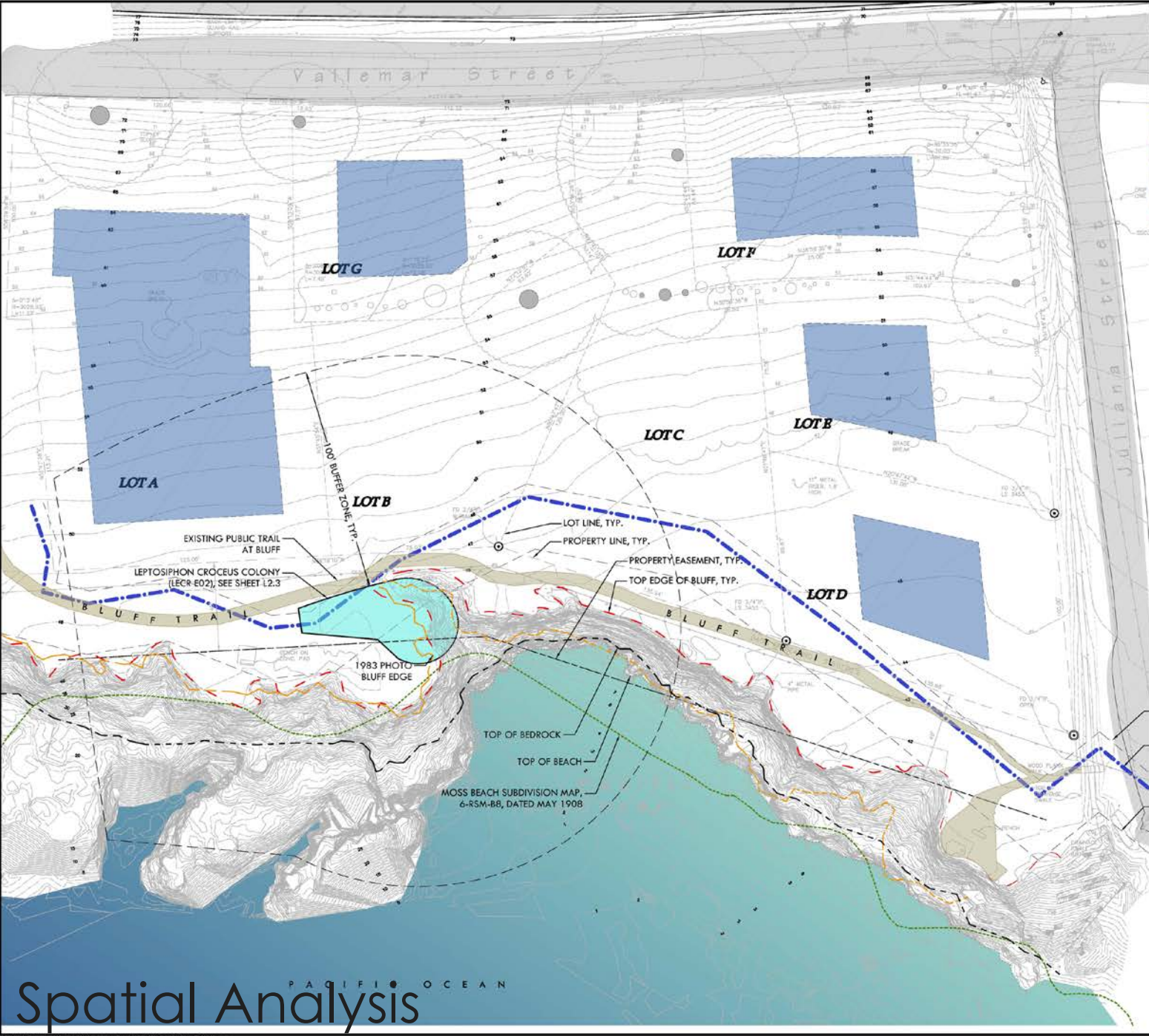
Shoreline setbacks

Concern: Project is too close to the bluff top

Shoreline setbacks are based on report by Haro, Kasunich & Associates, outlining setback requirements



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SITE PLAN LEGEND	
SYMBOL	DESCRIPTION
	TOP OF BEDROCK
	TOP OF BEACH
	ESTIMATED 50-YR BLUFF RECESSION SETBACK
	TOP EDGE OF BLUFF
	1983 BLUFF EDGE
	MOSS BEACH HEIGHTS SUBDIVISION MAP 6-RSM-BB, DATED MAY 1908
	PROPOSED BUILDING ENVELOPE
	EXISTING PLANT COLONY



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Santa Clara, CA 95050
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Fax: 408.983.7200
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CONSULTANT

SHEET TITLE

SITE CONSTRAINTS PLAN

PROJECT NAME

MOSS BEACH OCEAN DEVELOPMENT

PROJECT ADDRESS

**VALLEMAR ST. & JULIANA AVE
MOSS BEACH, CA**

SUBMITTAL	DATE
DESIGN REVIEW APPLICATION	08/21/15
DESIGN REVIEW RESUBMITTAL	08/09/16

NO.	REVISIONS	DATE

DRAWN BY	PH	CHECKED BY	MB
DATE ISSUED	08/09/16	SCALE	AS SHOWN
PROJ. NO.	1500600-1668		
SHEET NO.	L2.2 OF SHEETS		

ESTIMATED 50 YEAR BLUFF RECESSION SETBACK INCLUDING SEA LEVEL RISE INFLUENCE

ESTIMATED 50 YEAR BLUFF RECESSION SETBACK BASED ON HISTORICAL RATE SINCE 1908

1.5:1 H/V SLOPE STABILITY SETBACK LINE (OR BLUFF EDGE WHERE BLUFF IS STABLE)




Spatial Analysis

PACIFIC OCEAN

DATE: 08/09/16
DRAWN BY: PH
CHECKED BY: MB
SCALE: AS SHOWN
PROJECT NO: 1500600-1668
SHEET NO: L2.2



Site access and future shore path protection

- Concern: Project impacts public use of the shoreline trail
 - Response: We are in discussions with the County. Plan to maintain the current trail and to provide space on Lots B & C that maybe needed to maintain the trail into the future. (Subject to any requirements that may be imposed by others to protect the sensitive plant communities)
- 



Storm Water design and mitigation

Concern: Storm Water impacts


Response: Storm water Design Goals:

- ▶ Clean water
- ▶ Reduce coastal erosion
- ▶ Enhance native vegetation
- ▶ Preserve soil moisture
- ▶ Reduce runoff & keep runoff to predevelopment levels.
- ▶ Beautify landscape

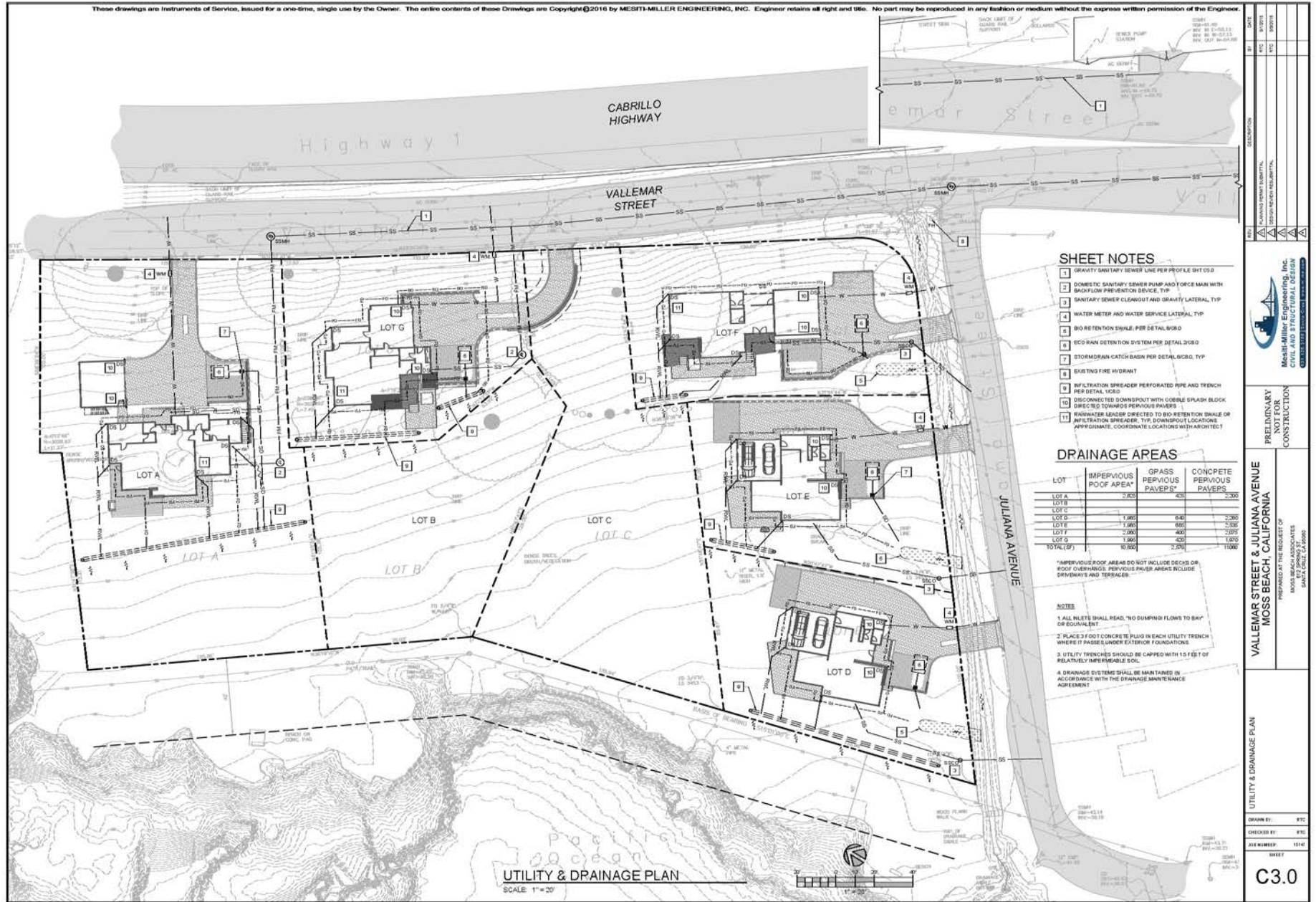


Storm water design and mitigation

Low Impact Development Strategies

- Filtration
 - Maximum Permeability
 - Storage
 - Infiltration
 - Dispersion
 - Planting
- 

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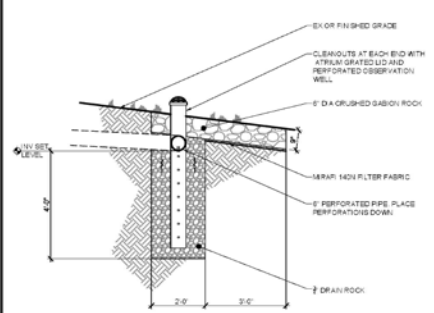


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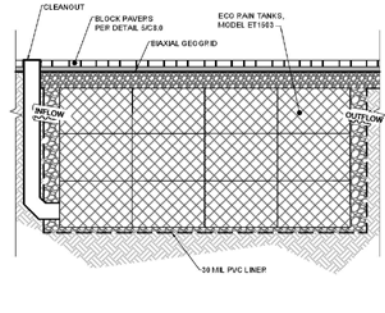
Stormwater Design



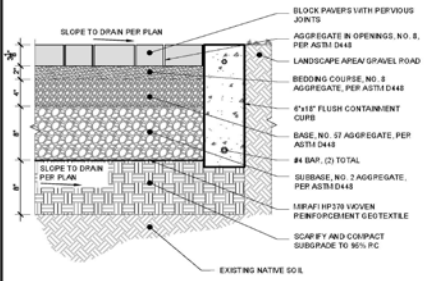
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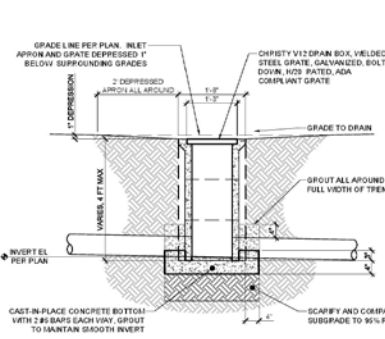
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SCALE: NTS



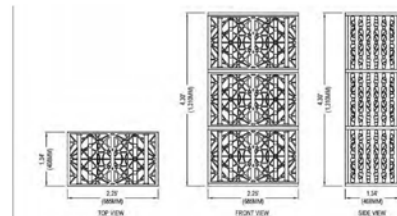
GRAVEL DETENTION SYSTEM
SCALE: NTS



VEHICULAR PERVIOUS PAVERS
SCALE: 1 1/2" = 1'-0"



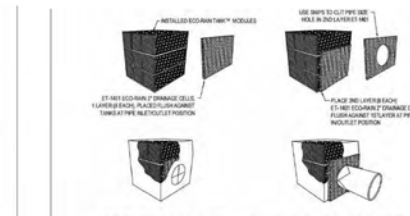
CATCH BASIN
SCALE: 3/4" = 1'-0"



3 ECO-RAIN TANKS
ET-1983 ECO-RAIN TRAP TANK

NOTES:
 1. THIS IS A CONCEPTUAL TANK LAYOUT ONLY. THE PROJECT ENGINEER SHALL DETERMINE THE ACTUAL LAYOUT.
 2. THE FINAL LAYOUT SHALL NOT RESULT IN VOID BEING FORMED ON SOILS OF TYPES.
 3. REFER TO DRAWING ET-1071 FOR ADDITIONAL INFORMATION.
 4. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 5. ALL CONNECTIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
 6. DO NOT SCALE DRAWING.
 7. THESE DRAWINGS ARE NOT FOR CONSTRUCTION PURPOSES AND ARE FOR INFORMATION PURPOSES ONLY. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT AND MAY BE REVISED AND APPROVED BY THE PRODUCT MANUFACTURER. THIS CONSIDERED VOID.
 8. CONTRACTOR NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT WWW.COLUMBIAN.COM
 REFERENCE NUMBER: 60-840

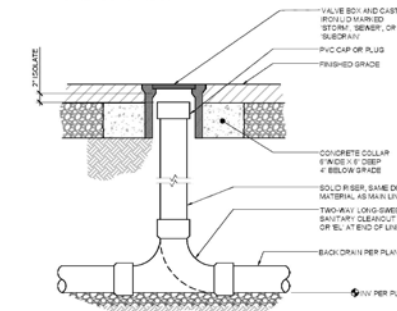
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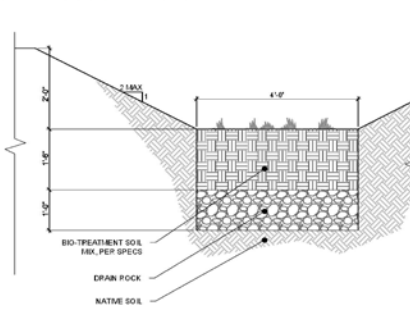
4 PIPE CONNECTIONS
ET-1071 ECO-RAIN TANK INLET OUTLET AND LARGEST PIPE ASSEMBLY DETAIL

NOTES:
 1. SEE DETAIL ET-1071 FOR COMPLETE INFORMATION REGARDING THIS ASSEMBLY DETAIL.
 2. ALL CONNECTIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
 3. DO NOT SCALE DRAWING.
 4. THESE DRAWINGS ARE NOT FOR CONSTRUCTION PURPOSES AND ARE FOR INFORMATION PURPOSES ONLY. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT AND MAY BE REVISED AND APPROVED BY THE PRODUCT MANUFACTURER. THIS CONSIDERED VOID.
 5. CONTRACTOR NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT WWW.COLUMBIAN.COM
 REFERENCE NUMBER: 60-840

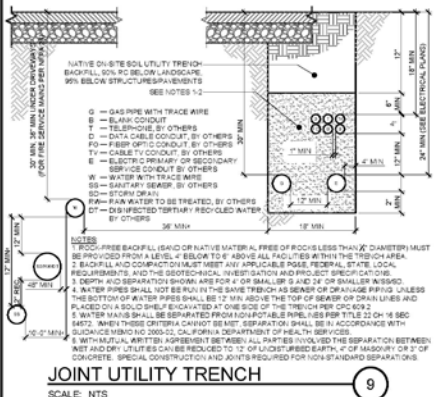
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CLEANOUT
SCALE: NTS



BIORETENTION SECTION
SCALE: 3/4" = 1'-0"



JOINT UTILITY TRENCH
SCALE: NTS

REV.	DATE	BY	CHKD.



PRELIMINARY CONSTRUCTION
VALLEMAR STREET & JULIANA AVENUE
MOSS BEACH, CALIFORNIA

DESIGNED BY: ALK	DATE: 10/11/17
CHECKED BY: RLC	DATE: 10/11/17
DATE: 10/11/17	DATE: 10/11/17

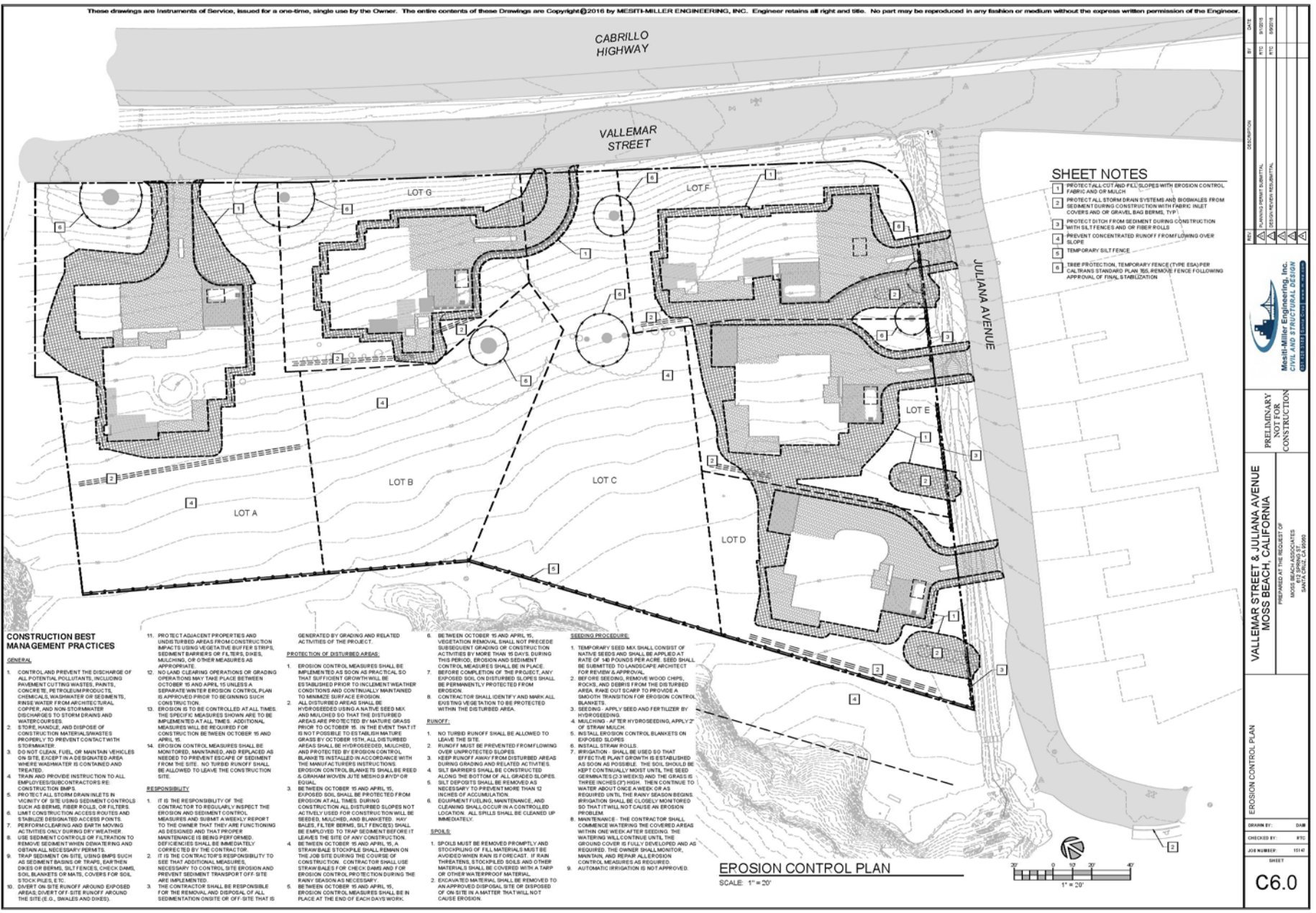
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WATER MAIN SEPARATION REGULATION (TITLE 22 CHAPTER 16 § 4487)

Stormwater Design Details

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- ### SHEET NOTES
1. PROTECT ALL CUT AND FILL SLOPES WITH EROSION CONTROL FABRIC AND OR MULCH
 2. PROTECT ALL STORM DRAIN SYSTEMS AND BORNALS FROM SEDIMENT DURING CONSTRUCTION WITH FABRIC, SILT COVERS AND OR GRAVEL BAG BERMS, ETC.
 3. PROTECT EARTH FROM SEDIMENT DURING CONSTRUCTION WITH SILT FENCES AND OR FIBER ROLLS
 4. PREVENT CONCENTRATED RUNOFF FROM FLOWING OVER SLOPE
 5. TEMPORARY SILT FENCE
 6. TREE PROTECTION, TEMPORARY FENCE (TYPE ESA) PER CALTRANS STANDARD PLAN 765, REMOVE FENCE FOLLOWING APPROVAL OF FINAL STABILIZATION

CONSTRUCTION BEST MANAGEMENT PRACTICES

- GENERAL**
1. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASHWATER OR SEDIMENTS, WASTE WATER FROM AERATORS AND COPPER, AND NON STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.
 2. STORE, HANDLE AND DISPOSE OF CONSTRUCTION MATERIALS/WASTES PROPERLY TO PREVENT CONTACT WITH STORMWATER.
 3. DO NOT CLEAN, FUEL, OR MAINTAIN VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA WHERE WASHWATER IS CONTAINED AND TREATED.
 4. TRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES/CONTRACTORS RE: EROSION CONTROL BMPs.
 5. PROTECT ALL STORM DRAIN LINES IN VICINITY OF SITE USING SEDIMENT CONTROLS SUCH AS BERM, FIBER ROLLS, OR FILTERS.
 6. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE SEDIMENT ACCESS POINTS.
 7. PERFORM CLEANING AND EARTH MOVING ACTIVITIES ONLY DURING DRY WEATHER.
 8. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING AND OTHER ALL NECESSARY PERMITS.
 9. TRAP SEDIMENT ON SITE USING BMPs SUCH AS SEDIMENT BASINS, TRAPS, LEATHEN DRES OR BERMS, SILT FENCES, CHECK DAMS, SOIL BLANKETS OR MATS, COVERS FOR SOIL STOCK PILES, ETC.
 10. DIVERT ON SITE RUNOFF AROUND EXPOSED AREAS, DIVERT OFF SITE RUNOFF AROUND THE SITE (E.G., SWALES AND DIKES).

11. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FIBER ROLLS, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
12. NO LAND CLEARING OPERATIONS OR GRADING OPERATIONS MAY TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS A SEPARATE WINTER EROSION CONTROL PLAN IS APPROVED PRIOR TO BEGINNING SUCH CONSTRUCTION.
13. EROSION IS TO BE CONTROLLED AT ALL TIMES. THE SPECIFIC MEASURES SHOWN ARE TO BE IMPLEMENTED AT ALL TIMES. ADDITIONAL MEASURES WILL BE REQUIRED FOR CONSTRUCTION BETWEEN OCTOBER 15 AND APRIL 15.
14. EROSION CONTROL MEASURES SHALL BE MONITORED, MAINTAINED, AND REPLACED AS NEEDED TO PREVENT ESCAPE OF SEDIMENT FROM THE SITE. NO TURBED RUNOFF SHALL BE ALLOWED TO LEAVE THE CONSTRUCTION SITE.

- RESPONSIBILITY**
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REGULARLY INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES AND SUBMIT A WEEKLY REPORT TO THE OWNER THAT THEY ARE FUNCTIONING AS DESIGNED AND THAT PROPER MAINTENANCE IS BEING PERFORMED. DEFICIENCIES SHALL BE IMMEDIATELY CORRECTED BY THE CONTRACTOR.
 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ADDITIONAL MEASURES ARE NECESSARY TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF SITE. ANY IMPLEMENTED MEASURES SHALL BE REPAIR OR REPLACED FOR THE REMOVAL AND DISPOSAL OF ALL SEDIMENT ON-SITE OR OFF-SITE THAT IS GENERATED BY GRADING AND RELATED ACTIVITIES OF THE PROJECT.

- PROTECTION OF DISTURBED AREAS**
1. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS SOON AS PRACTICAL, SO THAT SUFFICIENT GROWTH WILL BE ESTABLISHED PRIOR TO INCLEMENT WEATHER CONDITIONS AND CONTINUALLY MAINTAINED TO MINIMIZE SURFACE EROSION.
 2. ALL DISTURBED AREAS SHALL BE HYDROSEEDING USING A NATIVE SEED MIX AND MULCHED SO THAT THE DISTURBED AREAS ARE PROTECTED BY MATURE GRASS PRIOR TO OCTOBER 15. IN THE EVENT THAT IT IS NOT POSSIBLE TO ESTABLISH MATURE GRASS BY OCTOBER 15TH, ALL DISTURBED AREAS SHALL BE HYDROSEEDING, MULCHED, AND PROTECTED BY EROSION CONTROL BLANKETS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. EROSION CONTROL BLANKETS SHALL BE REED & GRAHAM WOVEN JUTE MESH #1000 #1000 OR EQUIV.
 3. BETWEEN OCTOBER 15 AND APRIL 15, CONSTRUCTION SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION ALL DISTURBED SLOPES NOT ACTIVELY USED FOR CONSTRUCTION WILL BE SEEDER, MULCHED, AND BLANKETED. HAY BALE, FILTER BERMS, SILT FENCES SHALL BE EMPLOYED TO TRAP SEDIMENT AND PREVENT LEAKS THE SITE OF ANY CONSTRUCTION.
 4. BETWEEN OCTOBER 15 AND APRIL 15, A STRAW BALE STOOPPLE SHALL REMAIN ON THE JOB SITE DURING THE COURSE OF CONSTRUCTION. CONTRACTOR SHALL USE STRAW BALES FOR CHECK DAMS AND FOR EROSION CONTROL PROTECTION DURING THE RAINY SEASON AS NECESSARY.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL SEDIMENT ON-SITE OR OFF-SITE THAT IS

- SEEDING PROTOCOLS**
1. TEMPORARY SEED MIX SHALL CONSIST OF NATIVE SEEDS AND SHALL BE APPLIED AT RATE OF 50 POUNDS PER ACRE. SEED SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT FOR REVIEW & APPROVAL.
 2. BEFORE SEEDING, REMOVE WOOD CHIPS, ROCKS, AND DEBRIS FROM THE DISTURBED AREA. MAKE OUTSLOPE TO PROVIDE A SMOOTH TRANSITION FOR EROSION CONTROL BLANKETS.
 3. SEEDING: APPLY SEED AND FERTILIZER BY HYDROSEEDING.
 4. MULCHING: AFTER HYDROSEEDING, APPLY 2" OF STRAW MULCH.
 5. INSTALL EROSION CONTROL BLANKETS ON EXPOSED SLOPES.
 6. IRRIGATION: SHALL BE USED SO THAT EFFECTIVE PLANT GROWTH IS ESTABLISHED AS SOON AS POSSIBLE. THE SOIL SHOULD BE KEPT CONTINUALLY MOIST UNTIL THE SEED GERMINATES (2-3 WEEKS) AND THE GRASS IS THREE INCHES HIGH. THEN CONTINUE TO WATER ABOUT ONCE A WEEK OR AS REQUIRED UNTIL THE RAINY SEASON BEGINS. IRRIGATION SHALL BE CLOSELY MONITORED SO THAT IT WILL NOT CAUSE AN EROSION PROBLEM.
 7. MAINTENANCE: THE CONTRACTOR SHALL COMMENCE WATERING THE COVERED AREAS WITHIN ONE WEEK AFTER SEEDING. THE WATERING WILL CONTINUE UNTIL THE GRASS COVER IS FULLY DEVELOPED AND AS REQUIRED. THE OWNER SHALL MONITOR, MAINTAIN, AND REPAIR ALL EROSION CONTROL MEASURES AS REQUIRED.
 8. AUTOMATIC IRRIGATION IS NOT APPROVED.

- SLOPE**
1. SPILLS MUST BE REMOVED PROMPTLY AND STRAW BALE STOOPPLES MUST BE AUGGED WHEN RAIN IS FORECAST. IF RAIN THREATENS, STOOPPLES, ROCKS AND OTHER MATERIALS SHALL BE COVERED WITH A TARP OR OTHER WEATHERPROOF MATERIAL.
 2. EXCAVATED MATERIAL SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE OR DISPOSED OF ON-SITE IN A MANNER THAT WILL NOT CAUSE EROSION.



EROSION CONTROL PLAN
SCALE: 1" = 20'

DATE	BY	CHK	APP
DESCRIPTION	PRELIMINARY EROSION CONTROL PLAN SECTION: MOSS BEACH, CALIFORNIA PROJECT: VALLEMAR STREET & JULIANA AVENUE MOSS BEACH, CALIFORNIA		
PREPARED BY: MESSI-MILLER ENGINEERING, INC. CIVIL AND STRUCTURAL DESIGN 1005 BEACH ASSOCIATES SANTA CRUZ, CA 95060	CHECKED BY: [Signature] JOB NUMBER: 15141 SHEET: C6.0		

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Erosion Control and BMPs



Questions & Discussion

- Wrap up and follow up
- 