STANDARD SPECIFICATIONS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL WORK SHALL CONFORM WITH THE FOLLOWING STANDARD SPECIFICATIONS AND DRAWINGS:

STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST

2. STANDARD SPECIAL PROVISIONS. 3. CITY OF SANTEE PUBLIC WORKS STANDARDS, SEPTEMBER 1982.

CALIFORNIA DEPARTMENT OF TRANSPORTATION, "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," LATEST

5. STANDARD SPECIFICATIONS OF THE WATER AGENCIES STANDARDS 6. CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA), STORMWATER BEST MANAGEMENT HAND BOOK CONTRUCTION, LATEST EDITION.

STANDARD DRAWINGS: 1. CITY OF SANTEE STANDARD DRAWINGS.

2. SAN DIEGO REGIONAL STANDARD DRAWINGS (S.D.R.S.D.) AS RECOMMENDED BY THE REGIONAL STANDARDS COMMITTEE, MAINTAINED AND PUBLISHED BY THE SAN DIEGO COUNTY DEPARTMENT OF PUBLIC WORKS, LATEST EDITION.

3. STANDARD DRAWINGS OF THE WATER AGENCIES STANDARDS

LEGEND DESCRIPTION STD. DWG. SUBDIVISION BOUNDARY RIGHT OF WAY LOT LINE (9) LOT NO EASEMENT ----図 TYPE "F" CATCH BASIN S.D.R.S.D. D-7 ==== STRAIGHT HEADWALL S.D.R.S.D. D-30 S.D.R.S.D. D-60 TYPE "B" CURB INLET S.D.R.S.D. D-2 STRAIGHT HDWL-TYPE B S.D.R.S.D. D-32 PROPOSED SPOT ELEVATIONS EARTHEN SWALE CUT/FILL LINE TOP/TOE OF SLOPE SLOPE EMBANKMENT (2:1 MAXFILL; T.5:1 MAX. CUT) ---180--- EXISTING CONTOUR FINISH CONTOUR -180-- TYPE B BROW DITCH (WIDTH = 24") 5 D.R.S.D. D-75 BROW DITCH (WIDTH = 12") MOD. S.D.R.S.D. D-75 $\langle \Box$ 453.0 PAD ELEVATION S.D.R.S.D C-6 RETAINING WALL RIP RAP ENEGERY DISSIPATOR S.D.R.S.D. D-40 CURRENT "KEYSTONE" STDS. KEYSTONE RETAINING WALL PRIVATE CATCH BASIN W/ "U.S. CONCRETE" 1212VF W/TRAFFIC GRATE 6" PVC DRAIN PRIVATE CATCH BASIN 6" ATRIUM GRATE ("NDS" OR EQUIV.) W/4" PVC RISER BIORETENTION SWALE

I ECENID OF APPDEVIATIONS

LIMITS OF LANDSCAPE

MAINTENANCE DISTRICT FOR

STORMWATER TREATMENT CONTROL

TC	TOP OF CURB	N.T.S.	NOT TO SCALE
GB	GRADE BREAK	TW	TOP OF WALL
BC	BEGIN CURVE	TF	TOP OF FOOTING
EC	END CURVE	C.I.	CURB INLET
HP	HIGH POINT	C.O.	CLEANOUT
LP	LOW POINT	RCP	REINFORCED CONCRETE PIPE
FL	FLOW LINE	C.B.	CATCH BASIN
ST	STREET	EVC	END VERTICAL CURVE
RT	RIGHT	BVC	BEGIN VERTICAL CURVE
LT	LEFT	FG	FINISHED GRADE
FS	FINISHED SURFACE	PP	POWER POLE
CDS	CUL-DE-SAC	CB	CURB

CITY OF SANTEE FIRE DEPARTMENT 9/29/11 KM KOERNER-MAGEE CONSULTING ENGINEERS Fruer WKU DEPUTY FIRE CHIEF DATE COMMUNITY SERVICES DEPARTMENT 5725 Kearny Villa Rd., Suite D · San Diego CA, 92123 はかえた 10/31/11 PUBLIC SEPVICES MANAGER. DATE Tanolnu (Suis) FOR CITY ENGINEER RCE NO: 42731, EXPIRES/3/31/12

SEWER & WATER AGENCY PADRE DAM/MUNICIPAL WATER DISTRICT

phone: (858) 278-2446 • fax: (858) 571-0562

VALID FOR ONE YEAR FROM DATE OF SIGNATURE.

PLANNING DIVISION IMMA INCU 9-29-2011 PROJECT PLANNER DATE CM romer 9/30/2011 PRINCIPAL TRAFFIC ENGINEER DEPARTMENT OF DEVELOPMENT SERVICES CITY W.O. NO. DRAWING NO 2011-121

GRADING PLAN

EL NOPAL ESTATES II

ENGINEER OF WORK'S DESIGN CERTIFICATION

I, <u>THOMAS H. KOERNER</u>, HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE ENGINEERING DESIGN OF THIS PROJECT AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I, UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SANTEE IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS THE ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER, THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

Thomas H. Koerner

REGISTRATION NO. 65317, MY REGISTRATION EXPIRES ON 09/30/11 KOERNER-MAGEE CONSULTING ENGINEERS ADDRESS: 5725 KEARNY VILLA ROAD, SUITE "D"

SAN DIEGO, CA 92123 TELEPHONE: (858) 278-2446



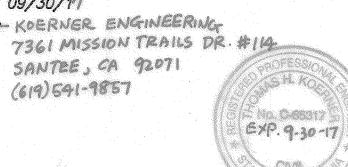
THOMAS H. KOERNER, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE PREPARATION OF THE ENGINEERING PORTION OF THE AS-BUILT DRAWINGS AND THAT THE INFORMATION SHOWN IS BASED ON AN INVESTIGATION AND SURVEY OF THE IMPROVEMENTS BETWEEN THE DATES OF DEC. 2014 AND ANG. 2016 TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE INFORMATION SHOWN ON THESE PLANS PROVIDE AN ACCURATE AND CORRECT REPRESENTATION OF THE AS-BUILT CONDITIONS.

ENGINEER OF WORK'S RECORD DRAWING CERTIFICATION

dhomas H. Kolmer 11-4-16 REGISTRATION NO. 65317, MY REGISTRATION EXPIRES ON 09/30/17

KOERNER-MAGEE CONSULTING ENGINEERS- KOERNER ENGINEERING SANTEE, CA 92071

SAN DIEGO, CA 92123 TELEPHONE: (858) 278-2446



12-21-11

SOIL ENGINEER'S DESIGN CERTIFICATION

MAMADOU SALIOU DIALLO, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOIL MECHANICS, HEREBY CERTIFY THAT A SAMPLING AND STUDY OF THE SOIL CONDITIONS PREVALENT WITHIN THIS SITE WAS MADE UNDER THE DIRECTION OF A REGISTERED CIVIL ENGINEER BETWEEN THE DATES OF 3-21-1990 AND 11-16-1998 . THREE COMPLETE COPIES OF THE SOILS REPORT HAVE BEEN SUBMITTED TO THE OFFICE OF THE DIRECTOR OF DEVELOPMENT SERVICES. I AM SATISFIED WITH THE WORK PERFORMED AND CONCUR WITH THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS THEREIN.

I HAVE REVIEWED THE PROJECT DESIGN AND THE GRADING SHOWN HEREON IS CONSISTENT WITH THE RECOMMENDATIONS CONTAINED IN THE APPROVED SOILS AND GEOTECHNICAL REPORTS FOR THE PROJECT.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER. THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

115-21-11

Mun Biallo DATE: 08-01-11 Weamay. REGISTRATION NO. 54071, MY REGISTRATION EXPIRES ON 12/30/11

FIRM: EAST COUNTY SOIL CONSULTATION AND ENGINEERING, INC. ADDRESS: 10925 HARTLEY ROAD. SUITE

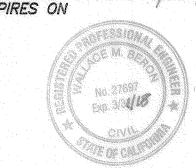
SANTEE, CA. 92071 TELEPHONE: (619) 258-7901



_ , A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA. HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE GEOTECHNICAL ASPECTS OF THE GRADING OF THIS PROJECT. TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE GRADING CONFORMS WITH THE RECOMMENDATIONS CONTAINED IN THE SOILS REPORTS AND PLANS WITH THE EXCEPTION THAT ANY CHANGES OR DEVIATIONS FROM THE PLANS DUE TO UNFORESEEN FIELD CONDITIONS HAVE BEEN IDENTIFIED IN THE FINAL SOILS REPORT FOR THE PROJECT.

REGISTRATION NO. MY REGISTRATION EXPIRES ON

FIRM: ALPINE ENGINEERING ADDRESS: FO BOX 2155 ALPINE CA. 91903 TELEPHONE: 619-445-2024



LANDSCAPE ARCHITECT'S RECORD DRAWING CERTIFICATION

, A REGISTERED LANDSCAPE ARCHITECT IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE PREPARATION OF THESE RECORD DRAWINGS AS THEY PERTAIN TO THE LANDSCAPE IMPROVEMENTS. THE INFORMATION SHOWN IS BASED ON ACTUAL SITE INVESTIGATION AND SURVEY OF THE IMPROVEMENTS BETWEEN THE DATES OF _____ TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE INFORMATION SHOWN ON THESE PLANS PROVIDE AN ACCURATE AND CORRECT REPRESENTATION OF THE AS-BUILT CONDITIONS

REGISTRATION NO. 1816, MY REGISTRATION EXPIRES ON 3/31/12 Lic. 1818 ADDRESS: 1415 MACKINNON AVENUE 13000 /2 CARDIFF, CA. 92007 TELEPHONE: (760) 942-1742

LANDSCAPE ARCHITECT'S DESIGN CERTIFICATION

LANDSCAPE ARCHITECT OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN THE BUSINESS AND PROFESSIONALS CODE, OVER THE DESIGN OF THIS PROJECT AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS IN THE CITY OF SANTEE IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS THE LANDSCAPE ARCHITECT OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER, THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

REGISTRATION NO. 1816, MY REGISTRATION EXPIRES ON 3/31/12

1415 MACKINNON AVENUE CARDIFF, CA. 92007 TELEPHONE: (760) 942-1742

3-51-12 7-14-11

OWNER'S ACCEPTANCE

GREG BROWN AS OWNER OF THE PROPERTY DESCRIBED HEREON ACKNOWLEDGE THESE PLANS HAVE BEEN PREPARED AT MY DIRECTION AND WITH MY FULL CONSENT. I UNDERSTAND ALL CONSTRUCTION MUST CONFORM TO CURRENT CITY STANDARDS AND BE COMPLETED IN ACCORDANCE WITH THESE PLANS. ANY CHANGES TO THE WORK MUST BE APPROVED IN WRITING, IN ADVANCE, IN ACCORDANCE WITH THE CITY'S CONSTRUCTION CHANGE POLICY. I AGREE TO REMOVE AND RECONSTRUCT AT MY COST ANY WORK NOT COMPLETED IN STRICT ACCORDANCE WITH THESE PLANS OR ANY CONSTRUCTION CHANGES APPROVED INCIDENTAL THERETO.

NEW WEST INVESTMENT GROUP, INC. 3511 CAMINO DEL RIO SOUTH #307

TELEPHONE: (619)281-9264

SHEET INDEX

SHEET 1-2 NOTES, DETAILS SHEET 3 ROUGH GRADE PLANS SHEET 4 EROSION CONTROL PLAN SHEET 5 EROSION CONTROL NOTES SHEET 6 PLANTING PLAN SHEET 7 IRRIGATION PLAN WALL AND FENCE PLAN SHEET 8 PLANTING SPECIFICATIONS SHEET 9 IRRIGATION SPECIFICATIONS SHEET 10 PLANTING AND IRRIGATION DETAILS SHEET 1:

SAN DIEGO, CA. 92108

RESIDENTIAL FLOOD STATEMENT

MAST BLVD.

VICINITY MAP

THOS. BROS. 1231/E-3

THOMAS H. KOERNER . A REGISTERED CIVIL ENGINEER/LAND SURVEYOR HEREBY CERTIFY THAT THE PAD ELEVATIONS SHOWN ON THIS AS-BUILT GRADING PLAN HAVE BEEN VERIFIED BY ME AND THAT SAID ELEVATIONS ARE AT OR ABOVE THE BASE FLOOD ELEVATION AS ESTABLISHED BY THE BASE FLOOD DISCHARGE RATES SET FORTH IN THE FLOOD DAMAGE PREVENTION ORDINANCE - CHAPTER 15.52 OF THE SANTEE MUNICIPAL CODE.

Homas H. Germer , MY REGISTRATION EXPIRES ON 9/30/17 REGISTRATION NO. 65317

LEGAL DESCRIPTION

LOTS 5-14 OF EL NOPAL ESTATES II UNIT NO. 2, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 15347, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY ON MAY 22, 2006.

ASSESSOR PARCEL NUMBER 381-750-01 THRU 381-750-10

2 WORKING DAYS BEFORE YOU DIG"

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And a second		N.	XX			

S. AS-BUILT DATE BY CONSTRUCTION RECORD REFERENCES ACPTD DESIGNED BY DRAWN BY **CHECKED BY** SCALE HOLIVE KM DREVISE POMWO APPROVAL DATE IN BENCHMARK STA. NO. 2125 PER ROS NO. 11252, ELEV. 448.85 HORIZ: 7/12/11 Thomas H. Kolmer MINAIM KE A REVISE E'LY PADS & BIO-SWALE JA-CENTER LINE OF INTERSECTION VERT: N/A 4/17/19 KE LA REVISE LOT 8-13 PADS OF EL NOPAL AND HOLBORN

CITY OF SANTEE

ROUGH GRADING PLAN FOR

G-1129 TM 2000-01

SHEET 1 OF 11

No. C-65317

EXP.9-30-17

- SUBDIVISION MONUMENTATION SHALL BE PROTECTED AT ALL TIMES. PRIOR TO ISSUANCE OF GRADING PERMIT THE SUBDIVISION BOUNDARY SHALL BE STAKED AND FLAGGED, WITH LATHES AT LEAST THREE FEET IN HEIGHT, AT ALL SUBDIVISION CORNERS, ANGLE POINTS, AND POINTS OF CURVE. WHERE BOUNDARY LINES EXCEED THREE HUNDRED FEET IN LENGTH STAKES SHALL BE PLACED ON LINE AT NOT OVER THREE HUNDRED FOOT INTERVALS WHERE PERMISSION FOR OFFSITE GRADING HAS BEEN GRANTED THE LIMITS OF OFF-SITE WORK SHALL BE STAKED AND FLAGGED ALSO. OFF-SITE WORK SHALL BE CLEARLY IDENTIFIED WITH DIFFERENT COLOR FLAGGING OR MARKINGS FROM THE SUBDIVISION BOUNDARY FLAGGING. THE CONTRACTOR SHALL AT ALL TIMES PROTECT THE SUBDIVISION BOUNDARY AND OFF-SITE MARKERS AND SHALL IMMEDIATELY REPLACE ANY MARKERS THAT ARE DISTURBED OR DESTROYED.
- ACCEPTANCE OF THIS GRADING PLAN DOES NOT CONSTITUTE ACCEPTANCE OF VERTICAL OR HORIZONTAL ALIGNMENT OF ANY PRIVATE ROAD SHOWN HEREON FOR PUBLIC ROAD PURPOSES
- 3. FINAL ACCEPTANCE OF THESE GRADING PLANS IS SUBJECT TO FINAL ACCEPTANCE OF THE ASSOCIATED IMPROVEMENT PLANS WHERE APPLICABLE FINAL CURB GRADE ELEVATIONS MAY REQUIRE CHANGES IN THESE PLANS.
- 4. IMPORT MATERIAL SHALL BE OBTAINED FROM A LEGAL SITE.
- WASTE MATERIAL GENERATED FROM GRADING OPERATIONS SHALL BE HAULED TO A LEGAL DUMP SITE AS APPROVED BY THE DIRECTOR OF DEVELOPMENT
- 6. AN ENCROACHMENT PERMIT IS REQUIRED PRIOR TO ANY WORK BEING PERFORMED WITHIN THE LIMITS OF THE PUBLIC RIGHT OF WAY.
- 7. ALL SLOPES OVER THREE FEET IN HEIGHT SHALL BE LANDSCAPED AND IRRIGATED IN ACCORDANCE WITH CITY SPECIFICATIONS.
- THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO THE FOLLOWING AGENCIES:

SAN DIEGO GAS & ELECTRIC PACIFIC BELL TELEPHONE COX CABLE TV

1-800-422-4133 1-800-422-4133 1-619-263-5793 1-619-448-3111

PADRE DAM MUNICIPAL WATER DISTRICT (water and sewer)

- 9. REQUESTS FOR RELEASE OF GRADING AND EROSION CONTROL SECURITIES UPON COMPLETION OF THE WORK SHALL BE MADE IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY OF SANTEE LAND DEVELOPMENT MANUAL.
- 10. ACCEPTANCE OF THESE PLANS BY THE DIRECTOR OF DEVELOPMENT SERVICES DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND A VALID GRADING PERMIT HAS BEEN ISSUED.
- 11. THE DIRECTOR OF DEVELOPMENT SERVICES ACCEPTANCE OF THESE PLANS DOES NOT CONSTITUTE THE BUILDING OFFICIALS' ACCEPTANCE OF ANY FOUNDATION FOR STRUCTURES TO BE PLACED IN THE AREA COVERED BY THESE PLANS. NO WAIVER OF THE GRADING ORDINANCE REQUIREMENTS CONCERNING MINIMUM COVER OVER EXPANSIVE SOILS IS MADE OR IMPLIED (SECTION 15.58.590, SANTEE MUNICIPAL CODE).
- 12. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 A.M. AND 7:00 P.M. EACH DAY, MONDAY THROUGH FRIDAY. NO EARTHMOVING OR GRADING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SUNDAY OR CITY HOLIDAYS. WORK ON SATURDAY REQUIRES THE WRITTEN APPROVAL OF THE CITY ENGINEER.
- 13. ALL MAJOR SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A SMOOTH CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
- 14. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE ACCEPTANCE OF THESE GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION, SILTING SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM GRADING DESCRIBED ON THIS PLAN. THE CITY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION ON NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT
- 15. ALL OFFSITE HAUL ROUTES ARE SUBJECT TO THE ACCEPTANCE OF THE CITY ENGINEER. THE CONTRACTOR SHALL MAKE APPLICATION FOR A HAUL PERMIT, IN A FORMAT SUITABLE TO THE DEPARTMENT OF DEVELOPMENT SERVICES, A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK. THE GRADING PERMIT SHALL NOT BE ISSUED PRIOR TO ISSUANCE OF THE HAUL
- 16. SPECIAL CONDITIONS: IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE CITY ENGINEER OF THE DISCOVERY. GRADING OPERATIONS WILL NOT COMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE CITY ENGINEER TO DO SO.
- ALL GRADING SHOWN ON THESE PLANS SHALL BE COMPLETED AS A 17. SINGULAR UNIT WITH NO PROVISION FOR PARTIAL RELEASES. IF ANY PORTION OF THIS PROJECT IS TO BE COMPLETED SEPARATELY, A SEPARATE PLAN AND PERMIT APPLICATION SHALL BE SUBMITTED FOR ACCEPTANCE.
- FINISH GRADING AND PLANTING SHALL BE ACCOMPLISHED ON ALL SLOPES 18. PRIOR TO OCTOBER 1 OR IMMEDIATELY UPON COMPLETION OF ANY SLOPES BETWEEN OCTOBER 1 AND APRIL 1. ALL LANDSCAPING SHALL BE DONE IN ACCORDANCE WITH THE ACCEPTED LANDSCAPING AND IRRIGATION PLANS.

CONSTRUCTION RECORD

CONTRACTOR

- 19. THE CONTRACTOR SHALL NOTIFY THE CITY OF SANTEE-DEPARTMENT OF DEVELOPMENT SERVICES AT (619) 258-4100 A MINIMUM OF 48 HOURS BEFORE ANY WORK COMMENCES AND 24 HOURS PRIOR TO REQUESTS FOR INSPECTION. CALL (619) 258-4100 x 168 FOR ALL INSPECTION REQUESTS. ALL WORK PERFORMED UNDER THIS PERMIT IS SUBJECT TO THE INSPECTION REQUIREMENTS OF THE SANTEE GRADING ORDINANCE. THE CONTRACTOR IS REFERRED TO SECTION 15.58.930 OF THE SANTEE MUNICIPAL CODE FOR A LIST OF DETAILED INSPECTION REQUIREMENTS FAILURE TO PROVIDE ADEQUATE NOTIFICATION TO THE DEPARTMENT OF DEVELOPMENT SERVICES REQUESTING INSPECTION OF THE WORK AT THE APPROPRIATE TIMES MAY RESULT IN ISSUANCE OF A STOP WORK ORDER FOR THE GRADING OPERATIONS.
- 20. TO ENSURE COMPLIANCE WITH THE ACCEPTED GRADING PLAN AND AS A CONDITION OF ACCEPTANCE OF THE GRADING PLAN, THE OWNER, ITS TENANTS, ITS CONTRACTORS, AND ITS SUB-CONTRACTORS SHALL MAINTAIN THE PREMISES SUBJECT TO THE GRADING PLAN OPEN FOR INSPECTION BY CITY REPRESENTATIVES AT ALL TIMES GRADING OPERATIONS ARE OCCURRING AND AT ALL OTHER TIMES, UPON REASONABLE DEMAND BY THE CITY.
- 21. UPON COMPLETION OF THE GRADING WORK SHOWN ON THESE PLANS AND PRIOR TO FINAL ACCEPTANCE OF THE WORK BY THE CITY, THE OWNER SHALL HAVE AS-BUILT GRADING PLANS PREPARED. PLANS SHALL BE PREPARED IN ACCORDANCE WITH THE CITY OF SANTEE-DEPARTMENT OF DEVELOPMENT SERVICES POLICY REGARDING CONSTRUCTION CHANGES AND AS-BUILT DRAWINGS FOR PRIVATE DEVELOPMENT.
- 22. SLOPE RATIOS:

CUT 2:1 FILL 2:1 EXCAVATION: 9,580 C.Y. FILL: 9,580 C.Y. IMPORT: 0 C.Y. (Note: A separate valid permit must exist for either waste or import areas). SHRINKAGE/EXPANSION: %

- 23. EARTHWORK QUANTITIES SHOWN ARE FOR BOND ESTIMATING PURPOSES ONLY. ACTUAL QUANTITIES MAY VARY WITH SHRINKAGE, LOSSES DUE TO CLEARING OPERATIONS, COMPACTION, SETTLEMENT, ETC. CONTRACTOR SHOULD VERIFY QUANTITIES PRIOR TO BIDDING.
- 24. ACCEPTANCE OF THESE PLANS BY THE CITY OF SANTEE IS VALID FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. FAILURE TO COMMENCE CONSTRUCTION WITHIN ONE YEAR VOIDS ACCEPTANCE OF THE PLANS.
- 25. THE FOLLOWING SOILS REPORT(S) SHALL BE CONSIDERED PART OF THIS GRADING PLAN. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN SAID REPORT(S).

A) SOILS REPORT AND UPDATE AND PROJECT FINAL SUMMARY SOILS REPORT PREPARED BY: · FIMAL COMPACTION REPORT

EAST COUNTY SOIL CONSULTATION AND ENGINEERING, INC. DATED FEB. 5, 2004 & APRIL 28, 2010

6" PVC SEWER MAIN

EXISTING

TO REMAIN

EXISTING

GROUND

PROPOSED CURB, GUTTER

DESIGNED BY

TK

SCALE

HORIZ: N/A

VERT: N/A

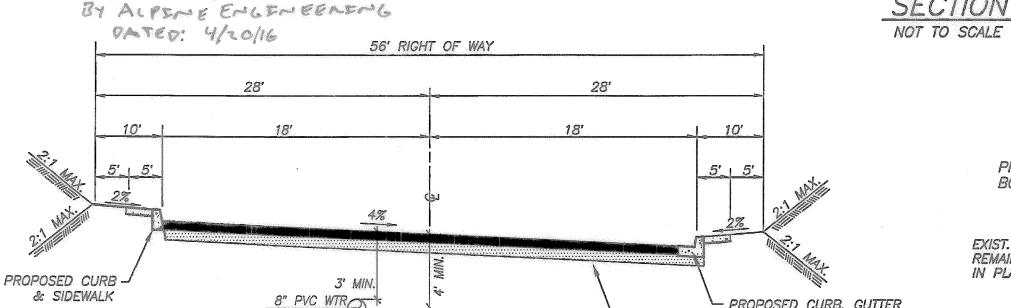
& SIDEWALK

- PROPOSED A.C. PAVEMENT AND BASE

FINISH

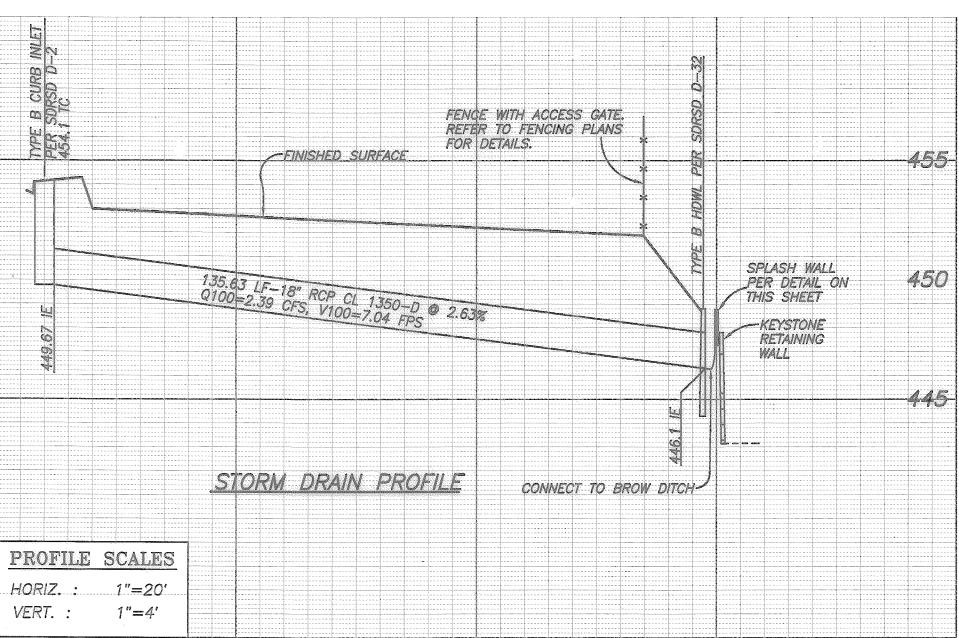
GRADE

MASONRY FENCE-



TYPICAL SECTION - CASA COURT

NOT TO SCALE



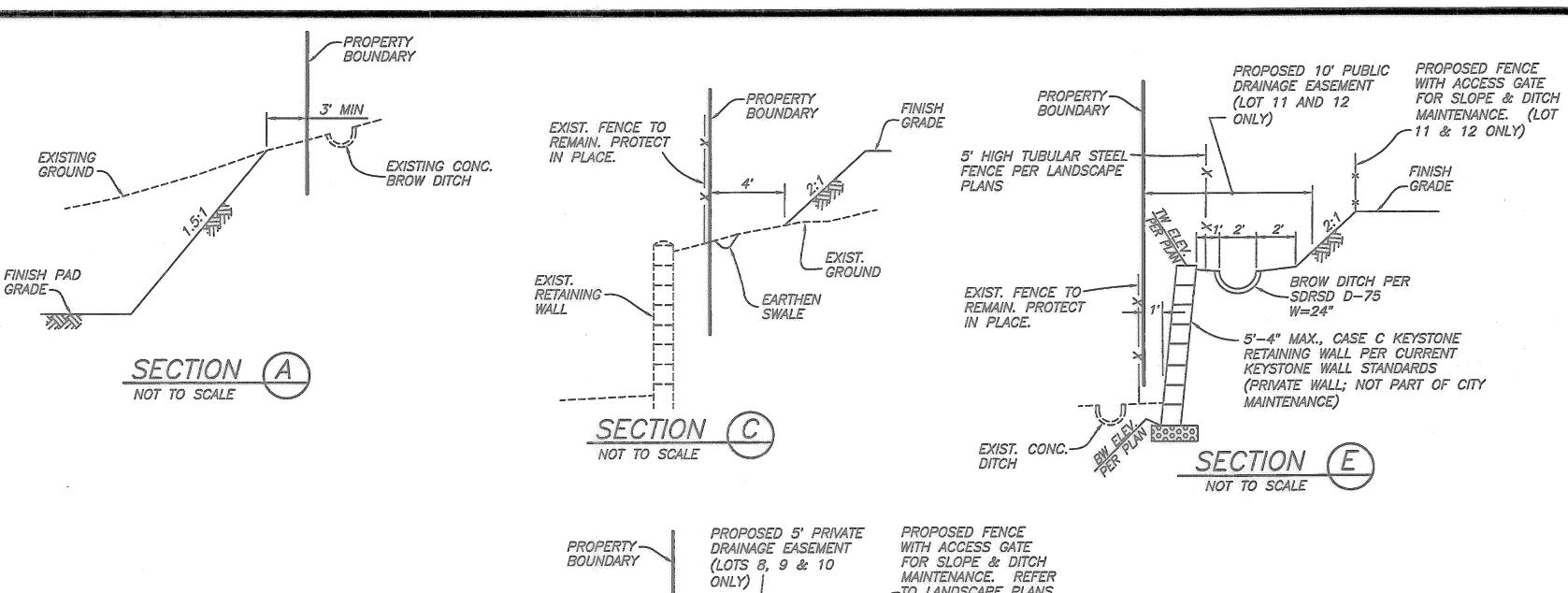
BENCH MARK

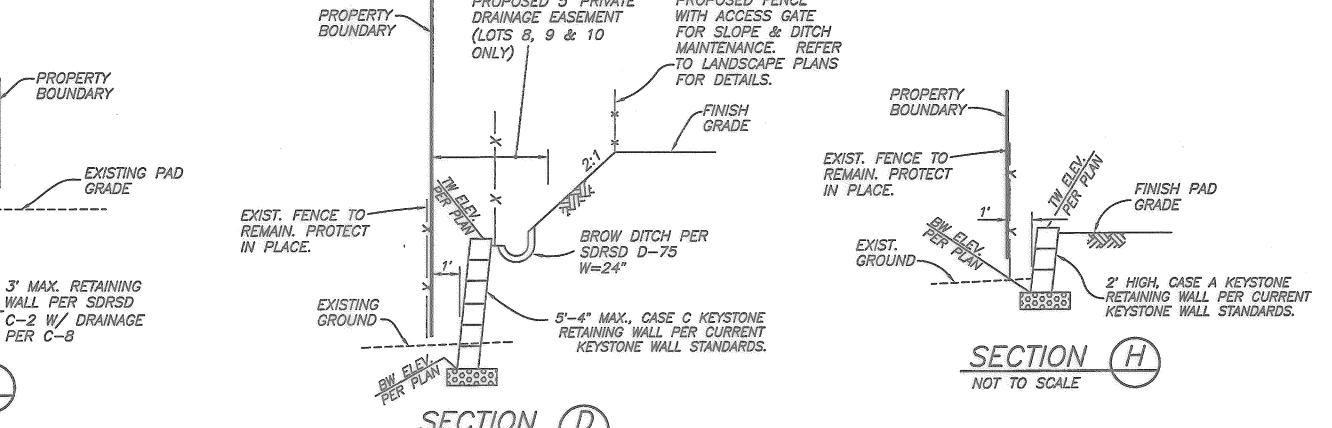
PER ROS NO. 11252, ELEV. 448.85

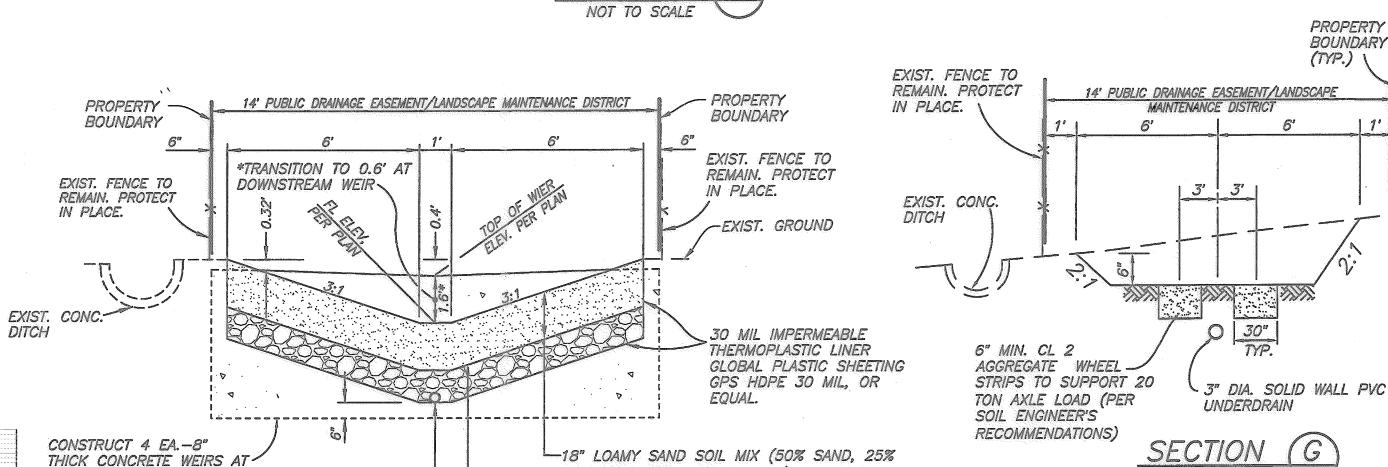
BENCHMARK STA. NO. 2125

CENTER LINE OF INTERSECTION

OF EL NOPAL AND HOLBORN



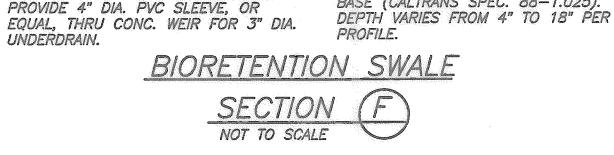


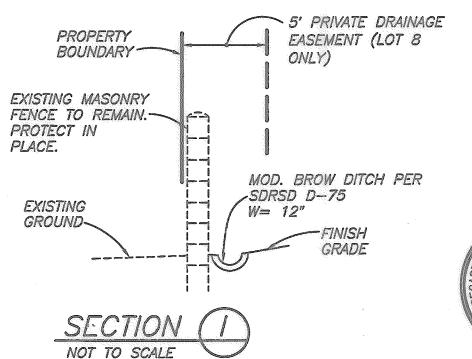


1-18" LOAMY SAND SOIL MIX (50% SAND, 25% THICK CONCRETE WEIRS AT LEAF COMPOST, 25% TOPSOIL) WITH MINIMUM LOCATIONS SHOWN ON LONG-TERM PERC. RATE OF 5"/HR. - FINISH GRADE 1-3" DIA. PERF. PVC UNDERDRAIN

-CL. 2 PERMEABLE

BASE (CALTRANS SPEC. 88-1.025)





WITH OPENINGS ORIENTED DOWNWARD.

UNDERDRAIN.



NOT TO SCALE

ENGINEERING, INC 7361 Mission Trails Dr., #114 · Santee CA, 92071 phone: (619) 322-5541

DATE COMPLETED. C: \Users\TKoerner\Google Drive\Job Files\1400 El Nopal\dwg\Rough Grading Plans\0001RG02.dwg[]Apr-27-2015: 13: 40

DATE BY

4016 KE 3 REPLACEMENT SHEET

INVILL KE I'M AS-BUILT

REVISIONS

ACPTD

REFERENCES

PLANS PREPARED UNDER THE SUPERVISION O _ EXPIRES_

CHECKED BY

4-27-15

DRAWN BY

REVIEWED

ROUGH GRADING PLAN FOR:

CITY OF SANTEE DEPARTMENT OF DEVELOPMENT SERVICES EL NOPAL ESTATES II

CITY W.O. NO.

TM 2000-01

DRAWING NO. G-1129 2011-122 SHEET 2B OF 11

EXIST. FENCE TO

REMAIN. PROTECT

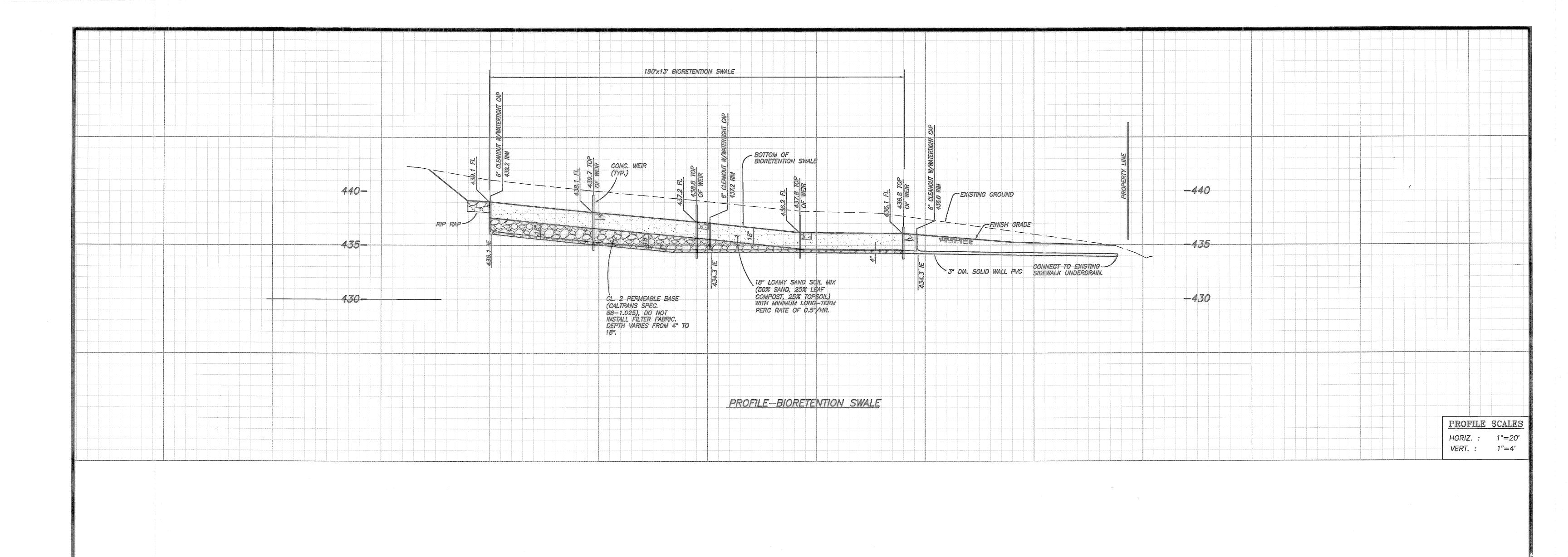
EXIST. GROUND -

IN PLACE.

BOUNDARY

(TYP.)

NOT TO SCALE



KOERNER ENGINEERING, INC 7361 Mission Trails Dr., #114 · Santee CA, 92071 phone: (619) 322-5541

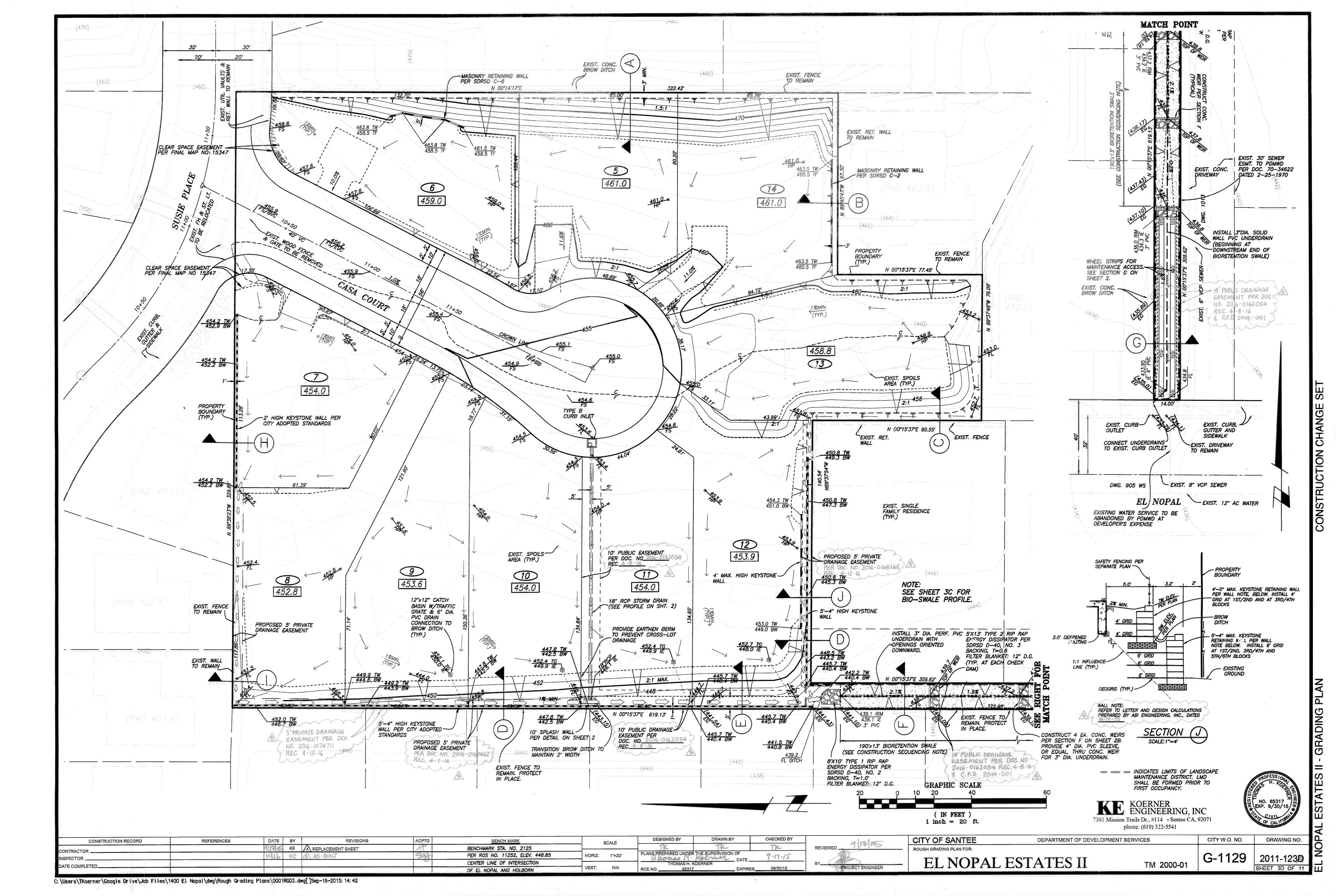
CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD	BENCH MARK	
CONTRACTOR			KE	3 REPLACEMENT SHEET		BENCHMARK STA. NO. 2125	
INSPECTOR			KE	& AS-BUILT	45 C. A	PER ROS NO. 11252, ELEV. 448.85	HORIZ:
DATE COMPLETED.	Control of the contro					CENTER LINE OF INTERSECTION	
						OF EL NOPAL AND HOLBORN	VERT:

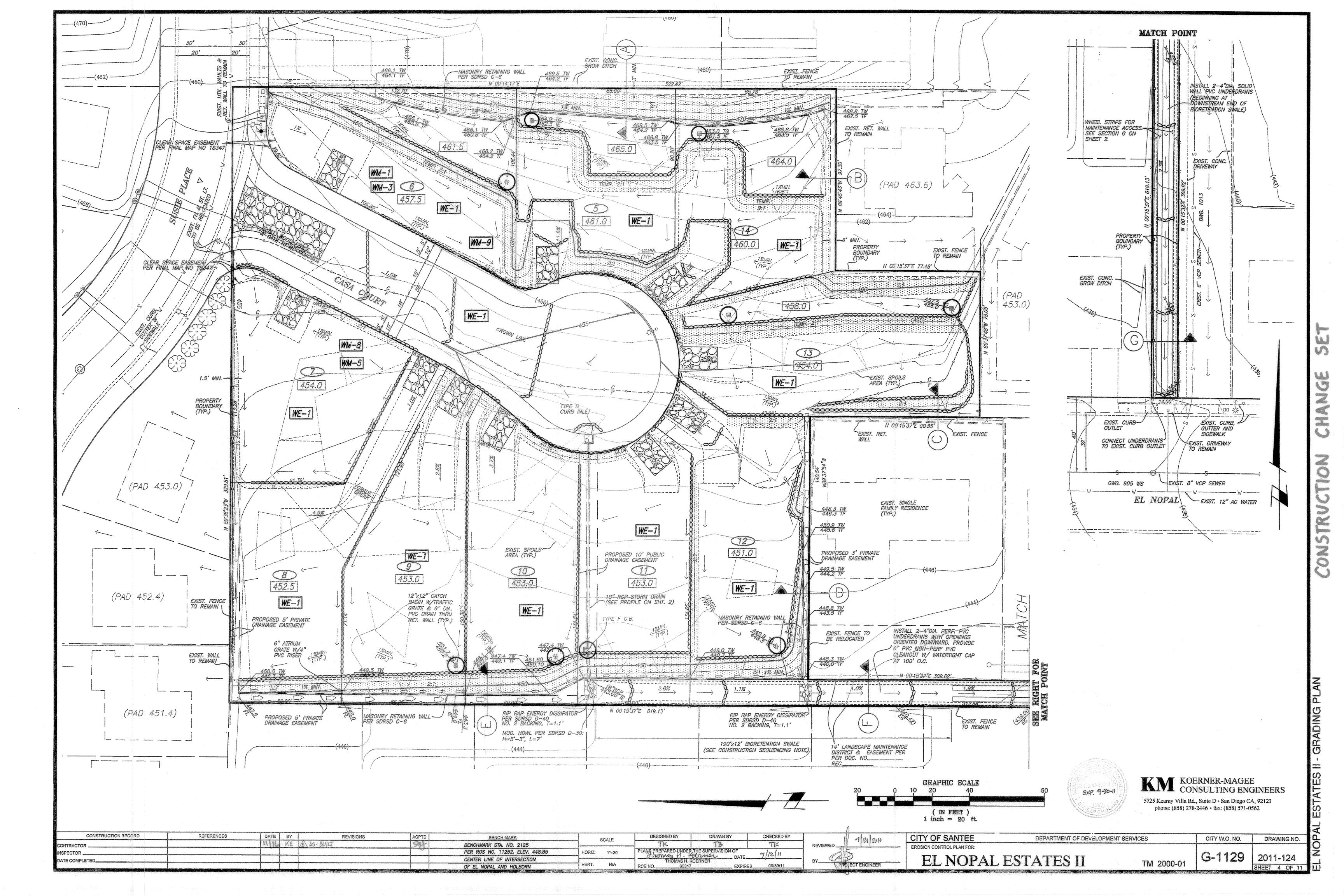
SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
SUALE			The same
HORIZ: 1"=20'	PLANS PREPARED UNDER	THE SUPERVISION OF	4-21-15
VERT: 1"=4'	THOMAS H. KO		509/30/11

CITY OF SANTEE
ROUGH GRADING PLAN FOR: EL NOPAL ESTATES II

CITY W.O. NO. DRAWING NO. DEPARTMENT OF DEVELOPMENT SERVICES TM 2000-01

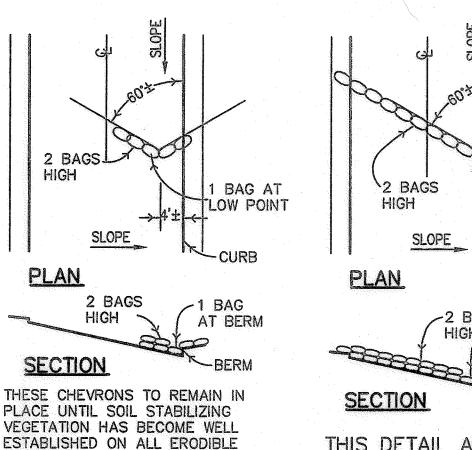
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CONSTRUCTION BMP LEGEND

ITEM	CASQA REF.	SYMBOL
SAND/GRAVEL BAGS:	SE-8/SE-6 & DETAILS G & H	00000
CONSTRUCTION ENTRANCE	E: TC−1	Y
SLOPE STABILIZATION	EC-4	
SILT FENCE/FIBER ROLLS	SE-1/SE-5	
STORM DRAIN INLET PROTECTION	SEE DETAIL	
WIND EROSION CONTROL (WATERING)	WE-1	WE-1
MATERIAL DELIVERY AND STORAGE	WM-1	WM-1
STOCKPILE MANAGEMENT	WM-3	WM-3
SOLID WASTE MANAGEMEN	NT WM-5	WM-5
CONCRETE WASTE MANAGEMENT	WM-8	WM-8
SANITARY WASTE MANAGEMENT	WM-9	WM-9



ESTABLISHED ON ALL ERODIBLE THIS DETAIL APPLIES AFTER PAVING TYP. GRAVEL BAG CHEVRON DETAIL G NO SCALE

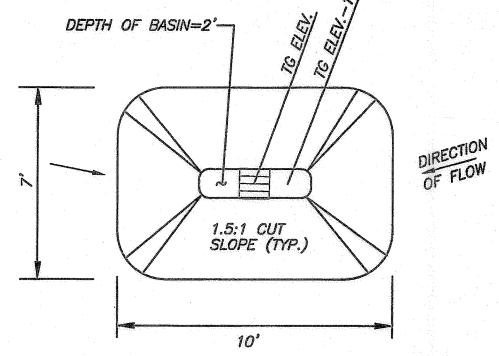
∕2 BAGS HIGH-1 BAG AT LOW POINT **SECTION** THIS DETAIL APPLIES

1 BAG AT

TLOW POINT

AFTER ROUGH GRADING AND BEFORE PAVING

TYP. GRAVEL BAG CHEVRON DETAIL H NO SCALE



DETAIL-STORM DRAIN INLET PROTECTION

REVIEWED_ 7/12/11

CITY OF SANTEE

DEPARTMENT OF DEVELOPMENT SERVICES EROSION CONTROL NOTES FOR:

5725 Kearny Villa Rd., Suite D • San Diego CA, 92123 phone: (858) 278-2446 • fax: (858) 571-0562

KOERNER-MAGEE

CONSULTING ENGINEERS

CITY W.O. NO. DRAWING NO. G-1129 2011-125

CONSTRUCTION RECORD REFERENCES DATE BY ACPTD DESIGNED BY BENCH MARK DRAWN BY CHECKED BY SCALE MILL TK AS-BUILT BENCHMARK STA. NO. 2125 PER ROS NO. 11252, ELEV. 448.85 HORIZ: N/A dhomes H. Kerner CENTER LINE OF INTERSECTION OF EL NOPAL AND HOLBORN _EXPIRES__

EL NOPAL ESTATES II

TM 2000-01

STORMWATER POLLUTION PREVENTION NOTES:

WATER FROM FLOWING OVER THE CRESTS OF SLOPES.

3. CLEAN GRAVEL ONLY WILL BE USED IN GRAVEL BAGS.

AND KEPT FREE OF SOIL ACCUMULATION.

OF PLASTIC SHATTING, OR EQUIVALENT.

CONFORMING TO THE FOLLOWING:

STOCKPILES AROUND THE SITE.

SHALL BE MADE AS NECESSARY.

MAINTAINED UNTIL REMOVAL.

EXP. 9-30-11

PALLETS AND BE COVERED DURING RAIN.

FILLING WATER TRUCKS) WILL BE PREVENTED.

LBS. PER ACRE

91 LBS.

BE IMPLEMENTED AT ALL TIMES.

APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL MEASURES WILL

CATCH BASINS, DESILTING BASINS, GRAVEL BAGS, CHECK DAMS AND STORM DRAIN SYSTEMS SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY ENGINEER. THESE FACILITIES SHALL BE CLEANED ON A REGULAR BASIS,

GRADIENTS IN EXCESS OF 2%, IN OTHER GRADED OR EXCAVATED AREAS AS REQUIRED BY THE DEPARTMENT OF DEVELOPMENT SERVICES, AND AT OR NEAR EVERY POINT WHERE CONCENTRATED FLOWS LEAVE THE DEVELOPMENT.

GRAVEL BAGS SHALL BE PLACED ON THE UPSTREAM SIDE OF ALL DRAINAGE

ROADWAYS AND ENTRANCES TO AND FROM THE SITE SHALL BE SWEPT ON A

2. THE TOPS OF ALL SLOPES SHALL HAVE A DIKE OR TRENCH TO PREVENT

5. GRAVEL BAG CHECK DAMS SHALL BE PLACED IN UNPAVED AREAS WITH

INLETS TO MINIMIZE SILT BUILDUP IN THE INLETS AND PIPES.

7. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY ERODED SLOPES.

REGULAR BASIS TO KEEP THEM FREE OF SOIL ACCUMULATION.

9. CONTRACTOR SHALL HAVE WATER TRUCKS AND EQUIPMENT ON-SITE TO MINIMIZE AIRBORNE DUST CREATED FROM GRADING AND HAULING OPERATIONS OR EXCESSIVE WIND CONDITIONS. WATERING SHALL BE PERFORMED ON A CONTINUOUS BASIS ANY TIME THESE CONDITIONS ARE PRESENT AND AT ALL OTHER TIMES AS DIRECTED BY THE CITY ENGINEER. ADDITIONAL DUST CONTROL MEASURES SHALL BE IMPLEMENTED AS NEEDED.

10. STOCKPILES SHALL BE COVERED AT THE END OF EACH WORKING DAY AND

11. ALL PORTABLE TOILETS SHALL HAVE A SECONDARY CONTAINMENT AND NOT BE LOCATED NEAR A STORM DRAIN (I.E. CATCH BASIN OR STREET).

CALENDAR DAYS OF LAST BEING WORKED, OR ON THE DIRECTION OF THE

LANDSCAPING AS PER APPROVED LANDSCAPE PLANS AS REQUIRED BY THE DEVELOPMENT REVIEW CONDITIONS, OR BY TEMPORARY EROSION CONTROL

NON-IRRIGATED HYDROSEED MIX

SEED_SPECIES

ATRIPLEX GLAUCA PLANTAGE INSULARIS ENCELIS FARINOSA

LOTUS SCOPARIUS

EXCHSCHOLTZIA CALIF.

% PURITY PER ACRE

70% PLS.

SCARIFIED

50% PLS.

14. VEHICLE MAINTENANCE, REPAIR AND STORAGE BMPS WILL BE IMPLEMENTED

15. HEAVY EQUIPMENT WILL NOT BE STORED ON THE PUBLIC RIGHT-OF-WAY.

16. TRASH SHALL BE PLACED IN DUMPSTERS. OFFCUTS FROM FRAMING WILL

17. TRASH DUMPSTERS WILL HAVE LIDS. THE LIDS WILL REMAIN CLOSED AND

18. LIQUID MATERIALS WILL BE STORED IN CLOSED CONTAINERS IN SECONDARY

19. A MATERIALS WASHOUT WILL BE AVAILABLE ONSITE WHENEVER LIQUID

20. DISCHARGE OF POTABLE WATER (SUCH AS FROM POWERWASHING OR

21. 125 PERCENT OF THE MATERIALS REQUIRED TO MAINTAIN STORM WATER BMPS SHALL BE PRESENT ON THE SITE AT ALL TIMES.

22. STORMWATER CONTROL MEASURES SHOWN HEREON ARE BEST MANAGEMENT

PRACTICES FOR THIS SITE BASED ON THE ANTICIPATED PROGRESS OF THE WORK. ADDITIONAL MEASURES MAY BE REQUIRED AT ANY TIME AT THE DISCRETION OF THE CITY ENGINEER AS THE WORK PROGRESSES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ADEQUATE PROTECTION IS IN PLACE AT ALL TIMES TO PREVENT ANY DISCHARGE OF POLLUTANTS, INCLUDING SEDIMENT, FROM THE EXPOSED SITE AREAS. BMPS WILL BE

MATERIALS ARE USED. THE WASHOUT WILL FULLY CONTAIN THOSE

THE DUMPSTERS WILL NOT BE OVERFILLED. ADDITIONAL TRASH PICK UPS

CONTAINMENT AND UNDER COVER. SOLID MATERIALS WILL BE STORED ON

MATERIALS ANT THE SURROUNDING AREA SHALL BE KEPT FREE OF SPILLS.

BE STORED APPROPRIATELY AND NOT ALLOWED TO ACCUMULATE IN

INCLUDING: USE OF DRIP PANS OR EQUIVALENT UNDER VEHICLE STORED

OVERNIGHT; DAILY INSPECTION FOR LEAKS AND SPILLS; PROMPT REMOVAL OF SPILLS; / 'AILABILITY OF OIL-ABSORBENT SPILL REMOVAL MATERIALS ON

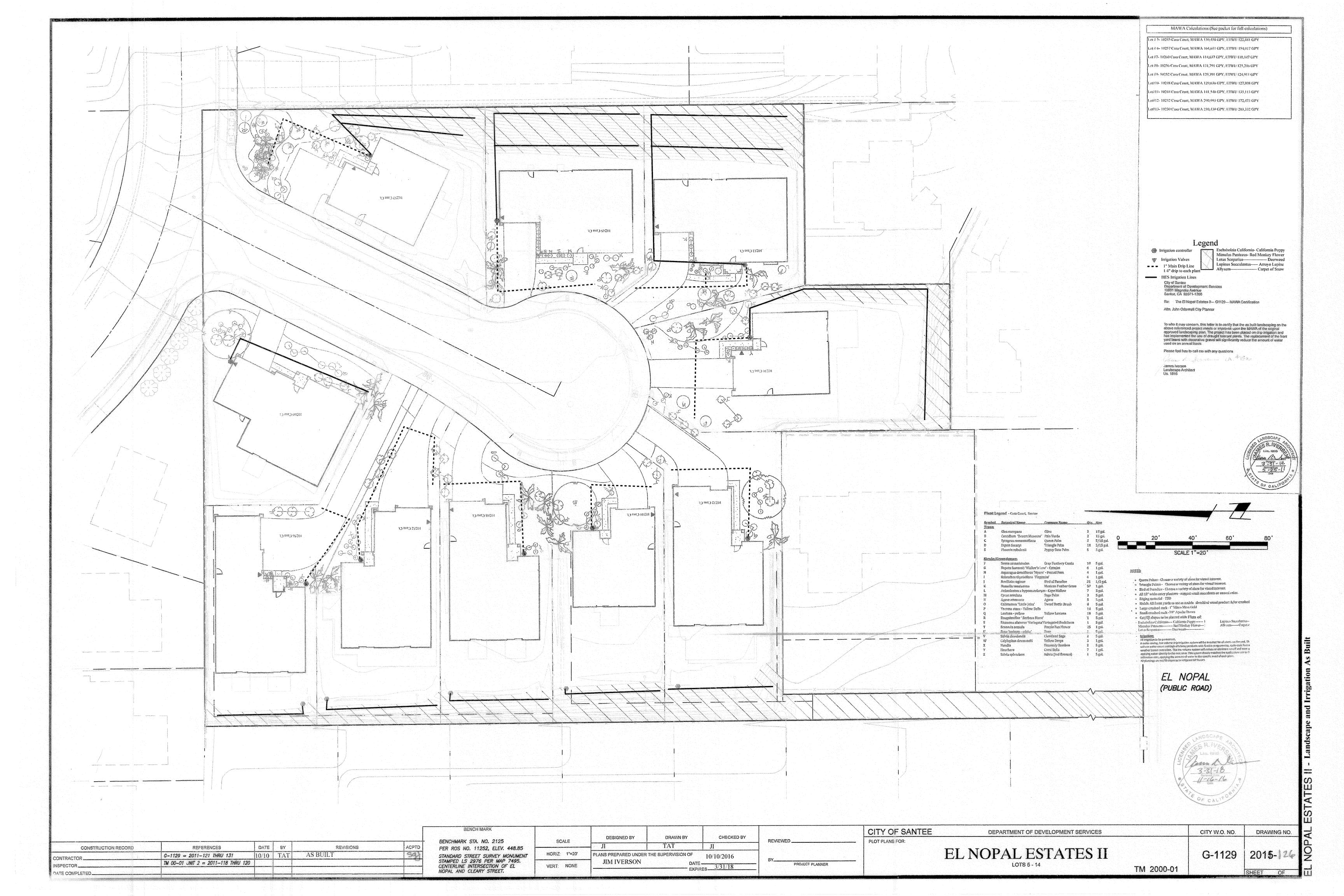
12. INACTIVE SLOPES SHALL BE PROTECTED AND STABILIZED WITHIN 10

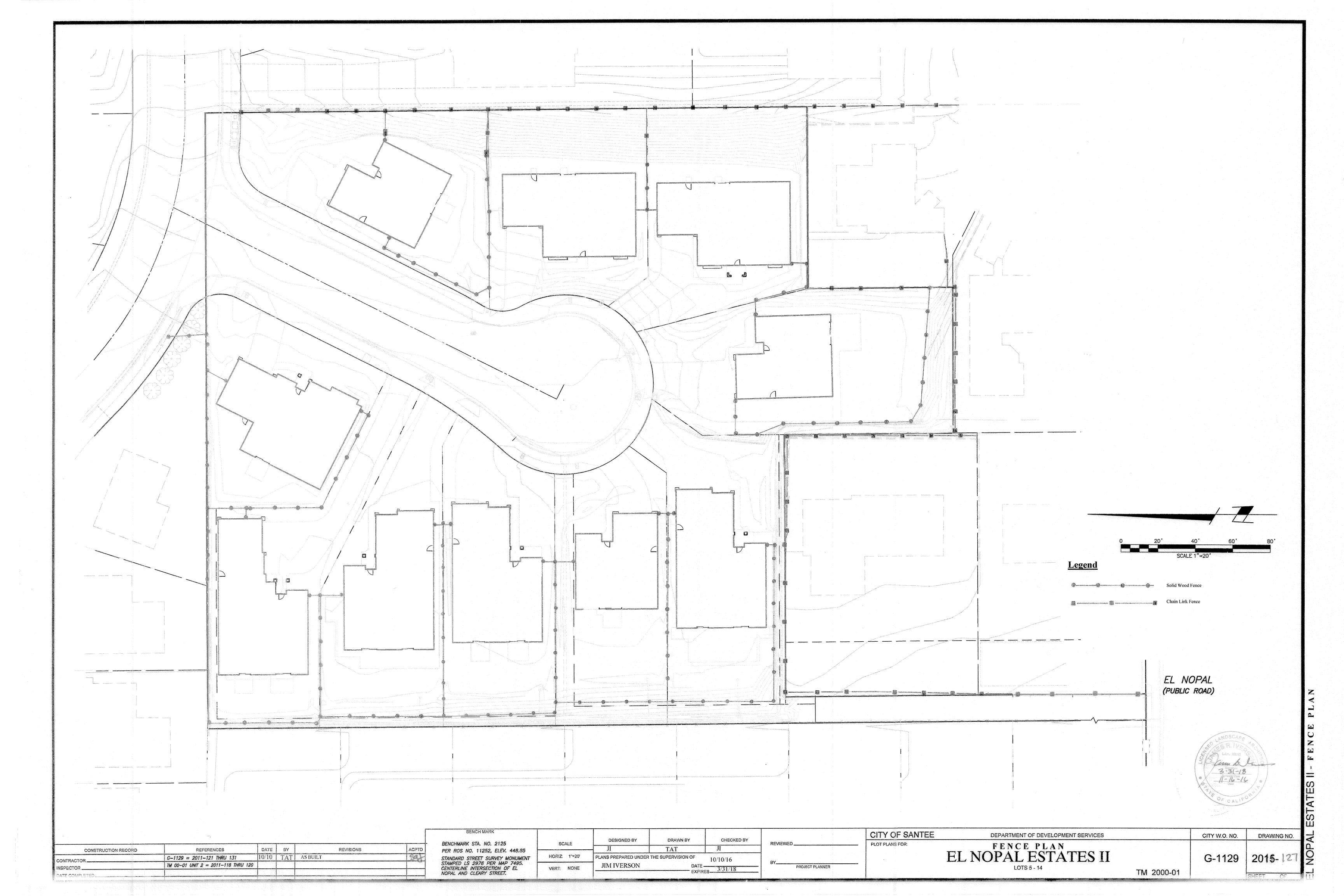
13. EROSION CONTROL ON SLOPES SHALL BE MITIGATED BY INSTALLING

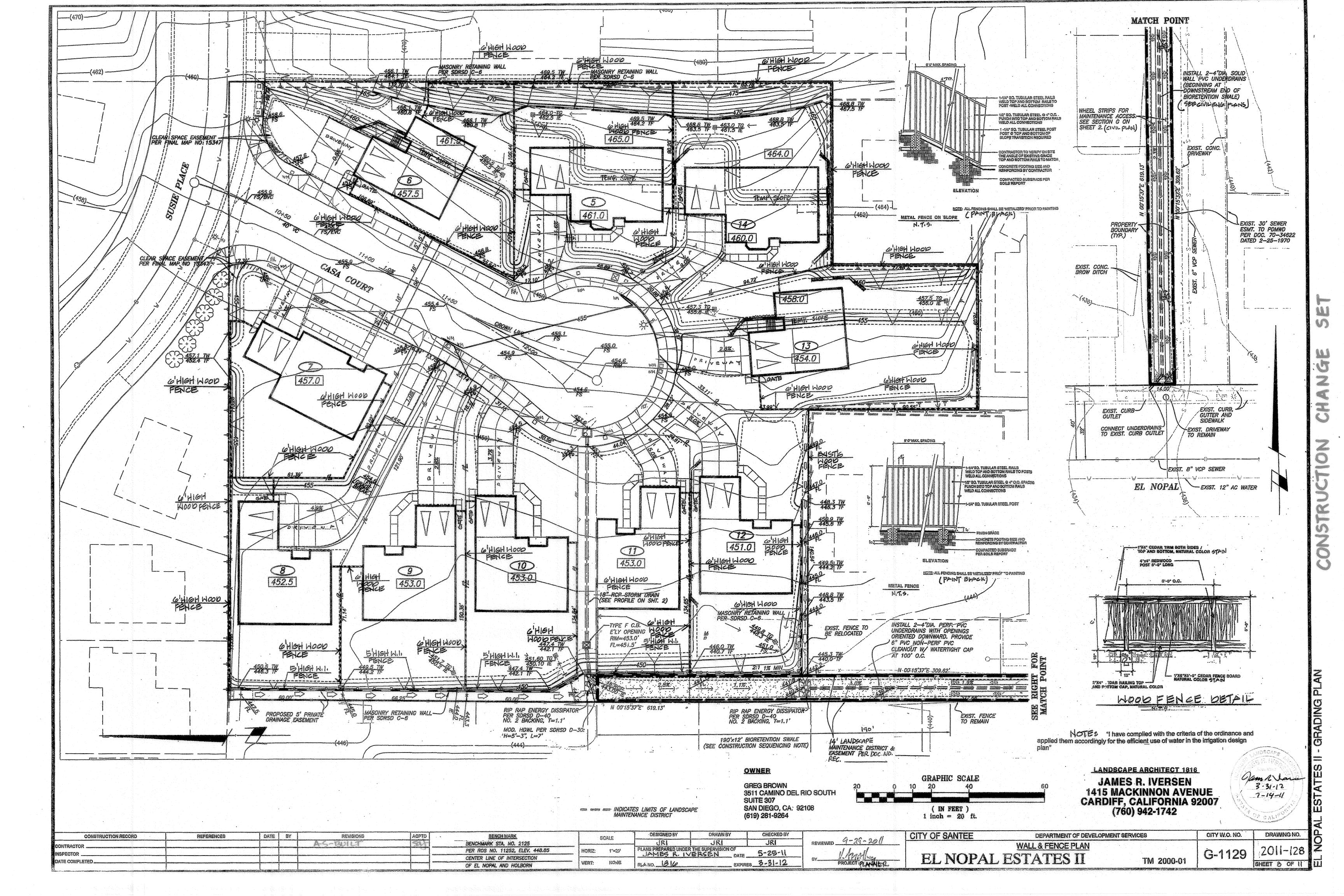
CITY. ACTIVE SLOPES SHALL BE STABILIZED PRIOR TO RAIN.

PRIOR TO PRELICTED RAIN EVENTS. ASPHALT SHALL BE STORED ON A LAYER

SHEET 5 OF 11







- A. THE WORK OF CONSTRUCTING AND INSTALLING THE LANDSCAPING BE ACHIEVED IN AN EFFICIENT AND SATISFACTORY MANNER ACCORDING TO THE HIGHEST WORKMANLIKE STANDARDS.
- B. THAT THE FINISHED INSTALLATION SHALL BE COMPLETE IN EVERY RESPECT TO THE SATISFACTION OF THE OWNER. ACCORDINGLY, THE REQUIREMENTS OF THESE SPECIFICATIONS ARE A PART OF THE LANDSCAPE CONTRACT.

II. SCOPE OF WORK

- A. WORK: THE WORK INCLUDED IN THESE SPECIFICATIONS SHALL CONSIST OF THE FURNISHING OF ALL LABOR, TOOLS, MATERIALS, PERMITS APPLIANCES, TAXES AND ALL OTHER COSTS, FORESEEABLE AND UNFORESEEABLE AT THE TIME OF CONTRACTING, NECESSARY AND APPROPRIATE FOR THE INSTALLATION OF THE LANDSCAPING AS HEREIN SPECIFIED AND SHOWN ON THE ACCOMPANYING DRAWINGS DATED:
- B. DEVIATIONS: NO DEVIATION FROM THESE SPECIFICATIONS, OR FROM THE AGRÉEMENT. OR FROM THE GENERAL CONDITIONS IS AUTHORIZED AND NO SUCH DEVIATION SHALL BE MADE, UNLESS THE WRITTEN AUTHORIZATION THEREFORE, SIGNED BY THE OWNER OR HIS DULY AUTHORIZED REPRESENTATIVE, HAS BEEN OBTAINED IN ADVANCE.

GENERAL CONDITIONS

- A. INTERPRETATION OF PLANS AND SPECIFICATIONS:
- 1. THE LANDSCAPE ARCHITECT WILL INTERPRET THE MEANING OF ANY PART OF THE PLANS AND SPECIFICATIONS ABOUT WHICH ANY MISUNDERSTANDING MAY ARISE, AND HIS DECISION WILL BE FINAL
- 2. SHOULD THERE APPEAR TO BE AN ERROR OR DISCREPANCY IN OR BETWEEN THE PLANS, SPECIFICATIONS, AND PLANTING LISTS, THE CONTRACTOR SHALL REFER THE MATTER TO THE LANDSCAPE ARCHITECT FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. SHOULD THE CONTRACTOR PROCEED WITH THE WORK WITHOUT SO REFERRING THE MATTER, HE DOES SO ON HIS RESPONSIBILITY.
- B. QUALITY OF WORK: THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED AT LEAST TWO DAYS PRIOR TO WORK COMMENCEMENT, BY THE CONTRACTOR AND PRIOR TO INSPECTION VISITS BY THE LANDSCAPE ARCHITECT. ALL WORK SHALL BE DONE IN A GOOD WORKMANLIKE MANNER IN ACCORDANCE WITH ALL PLANS AND SPECIFICATIONS AND BEST CONSIDERED PRACTICE, SHALL MEET WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT AND OWNER, AND SHALL BE IN ACCORDANCE WITH THE-REQUIREMENTS OF LOCAL BUILDING CODES AND LAWS, VA AND FHA SPECIFICATIONS (WHEN APPLICABLE). ANY DEFECTIVE WORK WILL BE REDONE AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- C. PERMITS: THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY AND ALL NECESSARY BUILDING PERMITS FROM THE CITY OR OTHER GOVERNMENTAL AUTHORITIES.
- D. LICENSE REQUIREMENTS: THE CONTRACTOR SHALL CARRY NECESSARY CONTRACTOR'S CALIFORNIA STATE LICENSE OR CERTIFICATE FOR TYPE OF WORK LISTED, SUCH AS THE LANDSCAPE CONTRACTOR'S LICENSE NO. C-27.
- INSURANCE COVERAGE: THE CONTRACTOR SHALL CARRY AL NECESSARY COMPENSATION AND LIABILITY INSURANCE TO COVER HIS WORKMEN AND WORK TO FULLY PROTECT THE OWNER FROM ANY POSSIBLE DAMAGE SUIT OR LIEN ON THE OWNER'S PROPERTY IN THE COURSE OF THE WORK BY THE CONTRACTOR, AND WILL SHOW THE OWNER SUCH EVIDENCE OF ABOVE INDICATED INSURANCE COVERAGE
- F. PROPERTY, ETC., DAMAGE RESPONSIBILITY:
- 1. THE CONTRACTOR IS TO PROTECT AT ALL TIMES ALL EXISTING UTILITIES, STRUCTURES, TREES, PLANTS, AND OTHER FEATURES INTENDED TO REMAIN ON AND ADJACENT TO THE JOB SITE, AND TO REPAIR OR REPLACE ANY DAMAGED ITEM IN A NEAT AND GOOD WORKMANLIKE MANNER DURING AND DUE TO HIS WORK ON THE JOB; AND HE SHALL ASSUME ALL DAMAGE OR INJURY THAT MAY RESULT TO ALL SUCH PROPERTY AND/OR TO PERSONS WHERE SUCH DAMAGE OR INJURY IS CAUSED IN CONNECTION WITH HIS WORK, OR IS DUE TO HIS NEGLIGENCE OR TO HIS LEAVING OPEN OR UNPROTECTED PORTIONS OF STREETS OR ÖTHER PROPERTY.
- 2. SHOULD ANY PART OF THE WORK UNDER THIS CONTRACT BE DAMAGED BY OTHER CONTRACTORS, THE CONTRACTOR AND PARTY CAUSING SUCH DAMAGE SHALL MAKE ADJUSTMENTS BETWEEN THEMSELVES, AND NOT WITH THE OWNER, RELATIVE TO THE REPAIRS OR RECONSTRUCTION AND PAYMENT FOR SAME.
- G. KNOWLEDGE OF SITE: IT IS ASSUMED THAT THE CONTRACTOR HAS VISITED THE SITE AND FAMILIARIZED HIMSELF AS TO THE SITE CONDI-TIONS; AND SHALL HAVE VERIFIED ALL DIMENSIONS, AS WELL AS ASCERTAINING THE MEANS OF GETTING MATERIAL INTO THE SITE, AND ANY OTHER FACTORS AFFECTING THE WORK.
- H. SEGREGATION OF COSTS: AT THE TIME OF EXECUTION OF THE CONTRACT, THE CONTRACTOR SHALL FURNISH TO THE OFFICE OF THE OWNER, FOR PURPOSES OF ACCOUNTING AND SCHEDULING, A SEGREGATED COSTS SCHEDULE OR BREAKDOWN OF THE CONTRACT PRICE, LISTING THE VARIOUS COMPONENTS SPECIFIED. IN A FORM SATISFACTORY TO THE OWNER. THESE SCHEDULES SHALL ALSO BE USED AS A BASIS IN FORMULATING THE PROGRESS PAYMENTS TO BE MADE TO THE CONTRACTOR, AND THESE COST BREAKDOWNS SHALL BE PART OF THE CONTRACT.

- EXTRAS OR CHANGES: ANY EXTRAS OR CHANGES FROM THE CONTRACT ON THE JOB SHALL HAVE THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT AND MUST BE APPROVED IN WRITING BY THE LANDSCAPE
- INCREASED COSTS: IF THE EXTRA OR CHANGE IS TO BE DONE AT AN INCREASED COST OVER AND ABOVE THE CONTRACT FEE. THE OWNER SHALL SIGN THE CONTRACTOR'S WRITTEN REQUEST FOR SUCH ADDITIONAL FUNDS FOR EXTRA WORK PRIOR TO ACTUALLY DOING THIS
- K. SITE CONDITION: THE CONTRACTOR, IN THE COURSE OF HIS WORK, IS TO KEEP THE SITE IN A NEAT AND TIDY CONDITION AS MUCH AS IS PRACTICAL SO AS NOT TO DISTURB THE NORMAL USAGE OF THE SURROUNDING AREAS BY THE OWNER OR BY OTHERS.
- L. SITE CLEARANCE: UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL PROPERLY CLEAN AND TIDY SUCH WORK AND THE SURROUNDING AREAS USED BY HIM AND REMOVE ANY OR ALL EXCESS MATERIALS, DIRT, DEBRIS FROM THE SITE, OR TO DISPOSE OF SAME AS DIRECTED BY THE LANDSCAPE ARCHITECT
- M. OWNER'S MATERIALS: DURING THE COURSE OF THE WORK, ANY MATERIALS, EQUIPMENT AND SERVICES MAY BE PROVIDED BY THE OWNER AND USED BY THE CONTRACTOR IN THE JOB: FOR SUCH MATERIALS, EQUIPMENT AND SERVICES THE CONTRACTOR IS TO GIVE CREDIT TO THE OWNER AT THE STANDARD CURRENT RATE FOR SUCH ITEMS. SUCH CREDIT, IF ANY, WILL APPEAR IN THE FINAL BILLING BY THE CONTRACTOR TO THE OWNER.
- N. PLANS AND SPECIFICATIONS: ALL LANDSCAPING INCLUDING PLANTS, GROUNDCOVERS, SOIL ADDITIVES, AND OTHER MISCELLANEOUS LANDSCAPE ITEMS SHALL BE PROVIDED AND INSTALLED IN STRICT ACCORDANCE WITH PLANS AND SPECIFICATIONS PREPARED BY OWNER DATED:
- O. CHANGES: THE OWNER SHALL HAVE THE RIGHT TO MAKE MINOR CHANGES IN THE LANDSCAPE DESIGN AND INSTALLATION TO INSURE PRACTICALITY OF DESIGN AND FOR AESTHETIC REASONS, AT NO ADDITIONAL COST.

SPECIAL CONDITIONS

- A. GRADING: GRADE ALL AREAS BY FILLING AND/OR REMOVING: SURPLUS SOIL AS NEEDED TO ENSURE PROPER GRADES AND DRAINAGE AS INDICATED ON THE PLANS. UNLESS OTHERWISE NOTED, FINISH GRADES SHALL BE BELOW HARDSCAPE AS FOLLOWS: 2" FOR GROUND COVER AREAS, 1" FOR LAWN AREAS.
- B. MOISTURE CONTENT: THE SOIL SHALL NOT BE WORKED WHEN MOISTURE CONTENT IS: SO GREAT THAT EXCESSIVE COMPACTION WILL OCCUR, NOR SHALL IT BE SO DRY THAT DUST WILL OCCUR AND FORM IN THE AIR OR THAT CLOOS WILL NOT BREAK READILY. WATER SHALL BE APPLIED IF NECESSARY TO PROVIDE IDEAL MOISTURE CONTENT FOR
- C. WEED REMOVAL: WEEDS, PLUS BERMUDA GRASS, ETC., SHALL BE DUG OUT FROM ALL PLANTING AREAS BY THEIR ROOTS WHEREVER POSSIBLE AND REMOVED FROM THE SITE. WHERE NECESSARY TO DISCOURAGE REOCCURRENCE OF THIS MATERIAL THE CONTRACTOR SHALL APPLY ONE OR MORE TREATMENTS OF A SATISFACTORY CHEMICAL PER MANUFACTURER'S DIRECTIONS IN REGARD TO CONCENTRATION, PLUS ALLOWANCE OF AN AMPLE PERIOD OF TIME FOR EFFECTIVE PERFORMANCE PRIOR TO CULTIVATION. THE SITE SHALL BE MAINTAINED IN A WEED AND LITTER FREE CONDITION DURING THE MAINTENANCE PERIOD. WEEDS SHALL BE REMOVED AT FREQUENCIES ADEQUATE TO PREVENT THE MATURATION OF WEED SEEDS.

D. PLANTS:

- 1. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL OR REJECTION BY LANDSCAPE ARCHITECT AT PLACE OF GROWTH AND/OR THE PROJECT SITE AT ANY TIME BEFORE OR DURING PROGRESS OF WORK, FOR SIZE, VARIETY, CONDITION, LATENT DEFECTS AND INJURIES. REJECTED PLANTS SHALL BE REMOVED FROM THE SITE IMMEDIATELY.
- CONDITIONS: PLANTS SHALL BE SYMMETRICAL, TYPICAL FOR VARIETY AND SPECIES, SOUND, HEALTHY, VIGOROUS, FREE FROM PLANT DISEASE, INSECT PESTS OR THEIR EGGS. AND SHALL HAVE HEALTHY, NORMAL ROOT SYSTEMS, WELL FILLING THEIR CONTAINERS, BUT NOT TO THE POINT OF BEING ROOT BOUND.
- E. PROTECTION: MAINTAIN AND PROTECT ALL PLANTS FROM SUN, DROUGHT, WIND, THEFT, RAIN AND HEAT AT ALL TIMES BEFORE AND DURING PLANTING OPERATION.
- F. PLANTING REQUIREMENTS FOR TREES AND SHRUBS: PLANT MATERIALS IN QUANTITIES AND SIZES SPECIFIED SHALL, AFTER GRADING OPERA-TIONS, BE SPOTTED APPROXIMATELY AS SHOWN ON THE LANDSCAPE DRAWINGS AND ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE BEING REMOVED FROM CONTAINERS AND EXCAVATING SOIL FOR PLANTING.

G. SOIL PREPARATION:

- THE FOLLOWING SHALL BE APPLIED PER 1000 SQ. FT. OF PLANTING AREA AND TILLED INTO THE SOIL TO A DEPTH OF 6": (EXCLUDING SLOPES
- a. NITROLIZED WOOD SHAVINGS 3 CH YDS. . 12-8-8 GROPOWER 200 LBS.
- 2. BACKFILL FOR ALL SHRUBS AND TREES SHALL CONSIST OF THE FOLLOWING MATERIALS PER 10-CU YDS.
- a. ON SITE SOIL 6 CU YDS. b. NITROLIZED WOOD SHAVINGS 4 CU YDS. c. 12-8-8 GROPOWER 50 LBS.

3. SUBMIT ALL RECEIPTS AND RETAIN ALL EMPTY BAGS FOR ALL AMENDMENTS FOR APPROVAL BY LANDSCAPE ARCHITECT

H. PLANTING:

- 1. CONTAINER GROWN PLANTS TO BE PLANTED IN PLANT PITS (2) TIMES WIDER THAN PLANT CONTAINER AND A DEPTH OF (1 1/2) TIMES THE HEIGHT OF PLANT CONTAINER. U.O.N. PLANT CROWN TO BE SLIGHTLY HIGHER THAN ITS NATURAL GROWING HEIGHT AFTER
- 2. PRUNE PLANTS AS DIRECTED BY LANDSCAPE ARCHITECT.
- 3. ALL PLANTS SHALL BE WATERED IMMEDIATELY. BEFORE BACKFILLING PLANTING PITS.
- 4. ALL AREAS RECEIVING PLANTS AND/OR HYDROSEEDING SHALL BE MOIST TO A DEPTH OF 6" AT TIME OF PLANTING.
- 5. USE AGRIFORM, 20-10-5; 21 GRAM TABLETS PER MANUFACTURER'S SPECIFICATIONS. WITH ALL SHRUBS AND TREES. 1 PER LINER OR 1 GALLON, 2 PER 5 GALLON, 3 PER 15 GALLON & 4 PER FOOT OF BOX
- 6. PROVIDE (1) "AGRIFORM" 20-10-5 FERTILIZER TABLET WITH EACH FLATTED PLANT - 5 GRAM SIZE.
- 7. PLANT ALL PLANTS 5' MINIMUM FROM IRRIGATION HEADS (SLOPES ONLY).
- 8. SCARIFY THE SIDES OF EACH ROOT BALL PRIOR TO PLANTING IF CIRCULAR ROOT GROWTH IS EVIDENT.
- 9. PLANT QUANTITIES ON THE PLANT LIST ARE FOR THE CONTRACTOR'S CONVENIENCE AND NOT GUARANTEED TO BE ACCURATE.
- 10. PLANT SYMBOLS TAKE PRECEDENCE OVER QUANTITIES SPECIFIED.
- I. FIELD REPRESENTATIVE: ALL WORK SHALL BE AS DIRECTED BY OWNER'S FIELD REPRESENTATIVE WHO SHALL BE APPOINTED PRIOR TO THE COMMENCEMENT OF THE WORK.

MAINTENANCE:

- MAINTENANCE PERIOD SHALL NOT BEGIN UNTIL ENTIRE INSTALLATION IS ACCEPTED BY THE OWNER.
- 2. MAINTENANCE SHALL BE FOR A PERIOD OF 90 DAYS.
- 3. ALL PLANTS AND PLANTING SHALL BE GUARANTEED FOR THE FOLLOWING DURATIONS BEGINNING AT THE FIRST DAY OF THE

TREES A	N	D :	SH	A	JE	S	æ	1	5	C	Ą	i.	50	ρ	N	D	1	L	Q,	ે.	31	21	7					90	DAYS	
SHRUBS	5	G	AL	L	NC	1	h	10	1	SI	3	٨	Ll	_E	F		•										•	90	DAYS	
GROUND																													DAYS	
Lawn .								_							٠.										_			90	DAYS	

- 4. ALL DEAD, DAMAGED OR BROKEN PLANT MATERIAL, INCLUDING SODDED AND SEEDED LAWNS AND GROUND COVER, SHALL BE REPLACED AT TWO WEEK INTERVALS.
- 5. FERTILIZE WITH 2 LBS. ACTUAL NITROGEN PER 1000 SQ. FT. PERFORM LAST FERTILIZATION AT END OF MAINTENANCE PERIOD IN THE PRESENCE OF THE LANDSCAPE ARCHITECT.

LANDSCAPE ARCHITECT 1816 JAMES R. IVERSEN 1415 MACKINNON AVENUE CARDIFF, CALIFORNIA 92007 (760) 942-1742

DEPARTMENT OF DEVELOPMENT SERVICES CITY W.O. NO. DRAWING NO.

PLANTING SPECIFICATIONS

2011-129

CONSTRUCTION RECORD REFERENCES AC 5-1211125 DATE COMPLETED _ **

BENCHMARK STA. NO. 2125 PER ROS NO. 11252, ELEV. 448.85 CENTER LINE OF INTERSECTION OF EL NOPAL AND HOLBORN

HORIZ: 1" = 20"

ANS PREPARED UNDER THE SUPERVISION OF Gene A lover DATE 5-25-11

DRAWN BY

DESIGNED BY

REVIEWED 9-29-2011

CHECKED BY

l. Messellen EL NOPAL ESTATES II

CITY OF SANTEE

TM 2000-01

G-1129

- NOTE: THE GENERAL AND SPECIAL CONDITIONS NOTED HEAEIN ARE AN INTEGRAL PART OF THE LANDSCAPE PLANS AND MUST BE CAREFULLY CONSIDERED IN CONNECTION HEREWITH.
- PURPOSE OF THE SPECIFICATIONS
- IT IS THE INTENT OF THESE SPECIFICATIONS THAT
- A. THE WORK OF ASSEMBLING AND INSTALLING THE SPRINKLER SYSTEMS WILL BE ACHIEVED IN AN EFFICIENT AND SATISFACTORY MANNER ACCORDING TO THE HIGHEST WORKMANLIKE STANDARDS ESTABLISHED FOR SPRINKLER INSTALLATION AND OPERATION.
- B. THAT THE FINISHED SYSTEMS SHALL BE COMPLETE IN EVERY RESPECT AND SHALL BE LEFT READY FOR THE OPERATION TO THE SATISFACTION OF THE OWNER. ACCORDINGLY, THE REQUIREMENTS OF THESE SPECIFICATIONS ARE A PART OF THE SPRINKLER SYSTEM CONTRACT.
- SCOPE OF WORK
 - A. THE WORK INCLUDED IN THESE SPECIFICATIONS SHALL CONSIST OF THE FURNISHING OF ALL LABOR, TOOLS, MATERIALS, PERMITS, APPLIANCES. TAXES AND ALL OTHER COSTS, FORESEEABLE AND UNFORESEEABLE AT THE TIME OF CONTRACTING, NECESSARY AND APPROPRIATE FOR THE INSTALLATION OF A SPRINKLER SYSTEM AS HEREIN SPECIFIED AND SHOWN ON THE ACCOMPANYING DRAWINGS, DATED
- B. NO DEVIATION FROM THESE SPECIFICATIONS, OR FROM THE AGREEMENT OR FROM THE GENERAL CONDITIONS IS AUTHORIZED AND NO SUCH DEVIATION SHALL BE MADE, UNLESS THE WRITTEN AUTHORIZATION THEREFORE, SIGNED BY THE OWNER OR HIS DULY APPOINTED REPRESENTATIVE, HAS BEEN OBTAINED IN ADVANCE.
- GENERAL CONDITIONS

CONSTRUCTION RECORD

DATE COMPLETED.

- A. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS: CONTRACTOR SHALL ABIDE BY, AND COMPLY WITH, THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS TAKEN AS A WHOLE AND SHALL NOT AVAIL HIMSELF TO THE DETRIMENT OF THE WORK OF ANY MANIFEST ERROR OR OMISSION SHOULD ANY EXIST. FIGURES. DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER MEASUREMENTS BY SCALE, AND DETAILED DRAWINGS FURNISHED SHALL TAKE PRECEDENCE OVER GENERAL DRAWINGS SO FURNISHED.
- B. SURVEYS, PERMITS AND REGULATIONS: THE OWNER SHALL FURNISH ALL SURVEYS UNLESS OTHERWISE SPECIFIED. PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK INCLUDING, BUT NOT LIMITED TO, BUILDING PERMITS FROM THE CITY OR COUNTY BUILDING DEPARTMENT AUTHORIZED TO PERMIT THE WORK, SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR.
- C. DRAWINGS AND VERIFICATION OF DIMENSIONS:
- 1. ALL IRRIGATION SHALL BE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS INDICATED ON THE PLOT PLAN. THE CONTRACTOR SHALL ACKNOWLEDGE THAT HE HAS VERIFIED ALL DIMENSIONS AND SHALL ndicate all discrepancies in PLOT PLAN, IF ANY. ANY Indicated DISCREPANCIES WILL BE CHECKED IMMEDIATELY BY THE OWNER BY FIELD MEASUREMENTS AND IF ANY DISCREPANCY BE FOUND, THE OWNER WILL AUTHORIZE, IN WRITING, ALL NECESSARY ADDITIONS OR
- 3. IF THE CONTRACTOR SHOULD FAIL TO NOTIFY THE OWNER, HE SHALL IN ALL EVENTS, SUPPLY ALL ITEMS INDICATED BY THE PLOT PLAN WITHOUT RIGHT TO COMPENSATION FOR ANY NECESSARY ADDITIONS.
- D. SPACING OF SPRINKLER HEADS AND LOCATIONS OF VALVES AND VACUUM BREAKERS SHALL BE AS INDICATED ON THE DRAWINGS WITH CONSIDERATION BEING GIVEN TO PREVAILING WIND CONDITIONS. PLANS ARE DIAGRAMMATIC AND APPROXIMATE. ALL VALVES AND BACKFLOW DEVICES SHALL BE LOCATED IN PLANTING AREAS (LOCATE IN SHRUB AREAS WHEN POSSIBLE). ALL PIPING SHALL BE LOCATED ALONG EDGES OF PLANTING AREAS EXCEPT WHERE INFEASABLE TO DO.
- E. CHANGES: THE OWNER AND CONTRACTOR HEREBY AGREE THAT THE OWNER OR HIS REPRESENTATIVE SHALL HAVE THE RIGHT TO MAKE MINOR CHANGES TO THE IRRIGATION SYSTEMS AND THEIR LOCATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
- F. EXISTING CONDITIONS: PRIOR TO SUBMISSION OF HIS BID, CONTRACTOR SHALL EXAMINE THE SITE AND SATISFY HIMSELF AS TO THE CONDITIONS THEREOF.
- G. SITE CONFERENCE: PRIOR TO COMMENCING WORK ON THE PROJECT. THE CONTRACTOR SHALL ARRANGE AN ON SITE CONFERENCE WITH THE OWNER, AND AT THIS TIME THE CONTRACTOR SHALL LAY OUT THE SYSTEM FOR APPROVAL.
- H. CODES: ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO LOCAL BUILDING AND PLUMBING CODES HAVING JURISDICTION.
- QUANTITIES LISTED ON IRRIGATION LEGEND ARE NOT GUARANTEED AND ARE FOR CONTRACTOR'S CONVENIENCE ONLY.
- PROTECTION OF WORK AND PROPERTY: THE CONTRACTOR SHALL BE LIABLE FOR AND SHALL TAKE THE FOLLOWING ACTIONS. AS THEY MAY BE REQUIRED. WITH REGARD TO DAMAGE TO ANY OF THE OWNER'S
- ANY EXISTING BUILDINGS, EQUIPMENT, PIPING, PIPE COVERING ELECTRICAL SYSTEMS, SEWERS, SIDEWALKS, GROUND, ROADS, LANDSCAPING OR STRUCTURE OF ANY KIND DAMAGED (INCLUDING WITHOUT LIMITATION. DAMAGE FROM LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED BY CONTRACTORI BY THE CONTRACTOR, OR HIS AGENTS, EMPLOYEES, OR SUBCONTRACTORS DURING THE COURSE OF HIS WORK: WHETHER THROUGH NEGLIGENCE OR OTHERWISE, SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE IN A MANNER SATISFACTORY TO THE OWNER, WHICH REPAIR OR REPLACEMENT SHALL BE A CONDITION PRECEDENT TO OWNER'S OBLIGATION TO MAKE FINAL PAYMENT UNDER THE CONTRACT.

REFERENCES

- 2. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DAMAGES TO ANY WORK COVERED BY THESE SPECIFICATIONS BEFORE FINAL ACCEPTANCE OF THE WORK, HE SHALL BECURELY COVER ALL OPENINGS INTO THE SYSTEMS AND COVER ALL APPARATUS. EQUIPMENT AND APPLIANCES, BOTH BEFORE AND AFTER BEING SET IN PLACE TO PREVENT OBSTRUCTIONS: IN THE PIPES AND THE BREAKAGE, MISUSE OR DISFIGUREMENT OF THE APPARATUS, EQUIPMENT OR APPLIANCE.
- 3. CONTRACTOR SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND CONTRACT DOCUMENT.
- K. ACCESS TO AND INSPECTION, TESTING AND APPROVAL OF WORK:
 - 1. CLOSING IN UNINSPECTED WORK: CONTRACTOR SHALL HOT CAUSE OR allow any of his work to be covered or enclosed until it HAS BEEN INSPECTED, TESTED AND APPROVED BY THE OWNER SHOULD ANY OF HIS WORK BE ENCLOSED OR COVERED BEFORE SUCH INSPECTION AND TEST, HE SHALL UNCOVER THE WORK AT HIS OWN EXPENSE IN ORDER TO AFFORD THE NECESSARY INSPECTION BY THE
 - 2. REINSPECTION OR TESTING OF WORK UNAPPROVED OR WORK FAILING INITIAL TESTING OR INSPECTION: WORK WHICH FAILS INITIAL INSPECTION OR TESTING SHALL BE REINSPECTED OR RETESTED. CONTRACTOR WILL PAY FOR ANY ADDITIONAL TRIPS. FOR reinspection or retesting at the rate of \$75:00 per hour of THE OWNER'S (OR HIS AUTHORIZED REPRESENTATIVE'S) TIME ON THE JOB, PLUS EXPENSES. AMOUNTS OWED BY CONTRACTOR HEREUNDER MAY BE DEDUCTED BY THE OWNER FROM THE PROGRESS PAYMENTS DUE THE CONTRACTOR NEXT FOLLOWING THE DATE OF FAILURE OF INSPECTION OR TESTING BASED UPON THE OWNER'S REASONABLE ESTIMATE OF THE TIME REQUIRED FOR REINSPECTION OR RETESTING.
- L SUPERINTENDENCE SUPERVISION: THE CONTRACTOR SHALL KEEP ON HIS WORK, DURING ITS PROGRESS, A COMPETENT SUPERINTENDENT AND ANY NECESSARY ASSISTANTS, ALL SATISFACTORY TO THE OWNER. THE SUPERINTENDENT SHALL REPRESENT THE CONTRACTOR IN HIS ABSENCE AND ALL DIRECTION GIVEN HIM SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR. HE SHALL BE FAMILIAR WITH ALL CONTRACT DOCUMENTS, PLANS, SPECIFICATIONS AND DETAILS AND SHALL HAVE A COMPLETE SET OF PLANS ON THE JOB AT ALL TIMES.
- SPECIAL CONDITIONS
- A. IRRIGATION SYSTEM:
- 1. THE IRRIGATION SYSTEMS SHALL INCLUDE ALL MATERIALS AND THEIR INSTALLATION IN ACCORDANCE WITH PLANS AND SPECIFICATIONS PREPARED BY THE OWNER.
- 2 ALL PRESSURE LINES, NON-PRESSURE LINES, VALVES AND MISCELLANEOUS SPRINKLER HEADS SHALL BE MANUFACTURED, SUPPLIED AND INSTALLED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS DETAILED IN THE HEREIN MENTIONED IRRIGATION PLANS AND SPECIFICATIONS.
- 3. SUBSTITUTION OF MATERIALS: SIZES OR MANUFACTURERS WILL NOT BE ALLOWED UNLESS THE OWNER AND CITY MANAGER AGREE TO ANY PROPOSED CHANGES IN WRITING.
- B. CLEAN UP:
- 1. KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT MATERIALS AND RUBBISH INCIDENTAL TO WORK OF THIS SECTION.
- 2. Upon completion of the work, the contractor shall remove HIS MATERIAL, EQUIPMENT AND WASTE TO THE SATISFACTION OF THE
- C. RÉSPONSIBILITY:
 - PROTECT WORK OF THIS SECTION AND WORK OF OTHERS AT ALL TIMES IN PERFORMANCE OF WORK OF THIS SECTION.
- 2. PROTECT ALL MATERIALS FROM THEFT, ALL CONTROLLERS FROM WEATHER, UNTIL END OF MAINTENANCE PERIOD.
- 3. CAREFULLY NOTE ALL ESTABLISHED GRADES BEFORE COMMENCING WORK ... RESTORE ANY ESTABLISHED GRADE CHANGED DURING COURSE OF THIS WORK TO ORIGINAL CONTOURS.

D. MATERIALS

- GENERAL: MATERIALS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS: ALL PRESSURE SUPPLY LINES, NON-PRESSURE LINES, VARIOUS TYPES OF VALVES, CONTROLLERS, BACK-FLOW PREVENTION UNITS, HOSE BIBBS. AND ALL TYPES OF SPRINKLER HEADS. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, OF DOMESTIC MANUFACTURE AND CONFORM TO PERFORMANCE Standards and/or data herein, and as shown in legend on DRAWINGS, INSTALLED IN STRICT ACCORDANCE WITH CONSTRUCTION DETAILS.
- 2. PIPE LINES (REFER TO DRAWINGS).

BENCHMARK STA. NO. 2125

OF EL NOPAL AND HOLBORN

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- 3. PIPE: EXTRUDED FROM 100% VIRGIN POLYVINYL CHLORIDE PVC, TYPE 1, GRADE II, CLASS 1120 MATERIAL. .
- ALL PLASTIC PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC 1120 AND PRESSURE RATING IN P.S.I.
- MANUFACTURER SHALL MARK DATE OF EXTRUSION ON PIPE. DATING TO BE PERFORMED IN CONJUNCTION WITH RECORDS HELD BY MANUFACTURER COVERING QUALITY CONTROL TESTS, RAW MATERIAL BATCH NUMBER. AND OTHER INFORMATION DEEMED NECESSARY BY
- ALL SOLVENT SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF PIPE FITTING AND AS APPROVED. USE NO SOLVENT FROM CANS WHICH HAVE BEEN OPENED OVERNIGHT.
- 4. FITTINGS:

REVISIONS

Marie and Carl 1 / 27

PLASTIC FITTING: PVC, TYPE I, IPS SCHEDULE 40, NSJ APPROVED ON ALL PRESSURE LINES.

- PVC, TYPE I, IPS SCHEDULE 40 NSF APPROVED ON ALL NOW-PRESSURE LINES.
- COUPLINGS: SHALL BE MADE FROM EXTRUDED STOCK, REAMED WITH
- ALC PLASTIC FITTINGS: A MOLDED FITTING
- GALVANIZED PIPE (STEEL) SHALL BE SCHEDULE 40 GALVANIZED STEE PIPE ASTM A120-61T THREADED, COUPLED AND HOT DIP GALVANIZED STEEL W/150 POUNDS: GALVANIZED MALLEABLE IRON FITTINGS, AND GALVANIZED STEEL COUPLINGS. PIPE SIZE NOMINAL INSIDE DIAMETER unless otherwise noted or indicated.
- STREET ELBOWS MAY BE INSTALLED ONLY AS A PART OF THE adjustable riser assembly under rotor POP-up sprinkler, or WHERE SHOWN ON PLANS.
- 6. ASBESTOS CEMENT PIPE:

GALVANIZED PIPE:

- ALL ASBESTOS CEMENT PIPE SHALL BE AUTOCLAVE CURED AND SHALL CONTAIN NOT MORE THAN ONE PERCENT UNCOMBINED CALCIUM HYDROXIDE SHALL BE IN ACCORDANCE WITH THE APPENDIX TO THE AMERICAN WATER WORKS ASSOCIATION STANDARD.
- . ALL SPRINKLER HEADS: ALL SPRINKLER HEADS SHALL BE OF TYPE AND MODEL AS INDICATED IN THE LEGEND AND SHALL BE INSTALLED AS INDICATED ON DETAILED DRAWINGS.
- 8. GATE VALVES: GATE VALVES 2" IN SIZE AND SMALLER SHALL BE SCREWED, 150 LBS. W.O.G., WITH HANDWHEEL FOR OPERATION. EACH GATE VALVE SHALL BE HOUSED IN A BOX AS NOTED ON PLANS. SEE LEGEND FOR TYPE & MODEL..
- 9. REMOTE CONTROL VALVES AND AUTOMATIC CONTROLLER SHALL BE PER MODEL AND TYPE AS INDICATED ON THE DRAWINGS. VALVES SHALL BE WIRED TO CONTROLLER IN SAME NUMERICAL SEQUENCE as indicated on plans.
- 10. ALL DIRECT BURIAL CONTROL WIRE SHALL BE 600V. SINGLE CONDUCTOR SOLID COPPER, U.F., U.L. APPROVED. 14 GA. MINIMUM PILOT WIRE, PER VALVE MANUFACTURER'S RECOMMENDATIONS. 12 GA. MINIMUM FOR COMMON GROUND RETURN WIRE.

E. SITE CONDITIONS:

- . Exercise extreme care in excavating and working near existing utilities shown on drawings. Contractor shall be responsible for damages to utilities which are caused by his OPERATIONS OR NEGLECT.
- 2. COORDINATE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO INTERFERENCE EXISTING WHICH WOULD HINDER PLANTING, INSTALLATION OF UTILITIES AND OTHER CONSTRUC-
- F. PHYSICAL LAYOUT:
- . PRIOR TO INSTALLATION. CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATIONS OF SPRINKLER
- 2. ALL LAYOUTS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION
- 3. ALL SPRINKLER HEADS SHALL BE SET AT A FINISH HEIGHT TO ACCOMMODATE AND CONSIDER GROWTH OF ADJACENT PLANT MATERIALS. HEADS SHALL NOT BE LOCATED BEHIND ANY PLANT MATERIAL SO THAT FUTURE GROWTH WOULD IMPAIR THE EFFECTIVENESS OF THAT HEAD. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED OF ALL CONFLICTS BEFORE INSTALLATION.
- G. WATER SUPPLY:
- 1. CONNECT SPRINKLER IRRIGATION SYSTEM TO OUTLETS AS INDICATED ON DRAWINGS.
- 2. CONNECTION SHALL BE MADE AT APPROXIMATE LOCATIONS SHOWN ON DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITION.
- 3. WATER SUPPLY SHALL BE CLEAN, FREE OF SUSPENDED PARTICLES ALGAE, OR CHEMICALS THAT MAY FORM INSOLUBLE PRECIPITATES IN THE EQUIPMENT OR MAY BE DETRIMENTAL TO PLANTINGS.
- ASSEMBLIES:

SCALE

HORIZ: 1" = 20'

VERT: N/A

- ROUTING OF PRESSURE SUPPLY LINES AND LATERALS, AS INDICATED ON DRAWINGS, IS DIAGRAMMATIC. INSTALL LINES AND VARIOUS ASSEMBLIES IN SUCH A MANNER AS TO CONFORM WITH PLANS AND DETAILS.
- 2 INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH respective detail in absence of detail drawings or SPECIFICATIONS PERTAINING TO SPECIFIC ITEMS REQUIRED TO **Complete work, Perform Such Work in accordance with Best** Standard Practice with Prior approval of Owner.
- LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM OF SIX (6) INCHES CLEARANCE FROM EACH OTHER, AND FROM LINES OF OTHER TRADES. PARALLEL LINES SHALL NOT BE INSTALLED DIRECTLY OVER ONE ANOTHER.
- DIG TRENCHES STRAIGHT AND SUPPORT PIPE CON-TINUOUSLY ON BOTTOM OF DITCH. LAY PIPE TO AN EVEN GRADE. TRENCHING EXCAVATION SHALL FOLLOW LAYOUT INDICATED ON DRAWINGS AND DETAILS. DEPTH OF PIPE PER PLANS.
- K. TRENCH WIDTH: TRENCHES FOR IRRIGATION PRESSURE LINES SHALL BE EXCAVATED WIDE ENOUGH TO ALLOW A MINIMUM OF FOUR INCHES BETWEEN PARALLEL PIPE LINES AND EIGHT INCHES FROM LINES OF OTHER TRADES. LINES SHALL NOT BE INSTALLED PARALLEL AND DIRECTLY OVER ONE ANOTHER. MAINTAIN THREE INCHES VERTICAL CLEARANCE BETWEEN CROSSING IRRIGATION LINES: MINIMUM TRANSVERSE ANGLE IS 45 DEGREES.

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- ALL PIPE AND WIRE UNDER VEHICULAR PAVING SHALL BE INSTALLED IN PVC SCHEDULED 40 SLEEVES. SLEEVES SHALL BE AT LEAST TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLES TO BE ENCLOSED, WITH A MINIMUM OF TWO INCH SIZE.
- 2. SLEEVING SHALL BE MARKED AT EACH END AT THE TIME OF INSTALLATION WITH A PAINTED SPOT ON THE BACK FACE OF THE CURB OR OTHER SIMILAR MARKING.
- M. MARKING TAPE: METALLIC BACKED LOCATING TAPE SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF THE SLEEVE, 12 INCHES DIRECTLY ABOVE THE SLEEVE. TAPE SHALL BE MARKED "IRRIGATION" IN TWO INCH CAPITAL LETTERS EVERY THREE FEET ALONG THE TAPE.
- BACKFILLING: COMPACT BACKFILL FOR TRENCHING TO DRY DENSITY EQUAL TO ADJACENT UNDISTURBED SOIL AND CONFORM TO ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS OR OTHER IRREGULARI. TIES. PLACE INITIAL BACKFILL ON ALL NON-PRESSURE LINES OF A FINE GRANULAR MATERIAL, NO FORE'ON MATTER LARGER THAN 1/2" IN SIZE WILL BE PERMITTED.
- 1. NO TESTING SHALL TAKE PLACE, NOR SHALL ANY WATER BE ALLOWED INTO ANY SYSTEM, BEFORE THE SOLVENT MANUFACTURER'S RECOMMENDED CURING TIME HAS ELAPSED.
- 2. TEST ALL PRESSURE LINES UNDER HYDROSTATIC PRESSURE OF 125 LBS. PER SQ. IN. AND TEST ALL NON-PRESSURE LINES UNDER EXISTING STATIC PRESSURE TO PROVE BOTH WATER TIGHT
- 3. SUSTAIN PRESSURES IN LINES FOR NOT LESS THAN FOUR HOURS. IF LEAKS DEVELOP, REPLACE JOINTS AND REPEAT TEST UNTIL ENTIRE SYSTEM IS PROVEN WATER TIGHT.
- 4. YESTS SHALL BE OBSERVED AND APPROVED BY ARCHITECT PRIOR TO BACKFILL
- 5. UPON COMPLETION OF EACH PHASE OF WORK, ENTIRE SYSTEM SHALL BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.
- 6. THE ABOVE TESTING SHALL BE COMPLETED AND APPROVED PRIOR TO PLANTING OF ALL PLANTS EXCEPT SPECIMEN TREES.
- 7. HEADS IN PLANTING AREAS SHALL BE ADJUSTED FOR COVERAGE AND HEIGHT AS DIRECTED BY THE LANDSCAPE ARCHITECT
- INSPECTION OF WORK: INSTALLATION AND OPERATIONS MUST BE APPROVED BY ARCHITECT AS SPECIFIED UNDER GENERAL CONDITIONS. FINAL INSPECTION WILL BE MADE AT THE CONCLUSION OF THE LANDSCAPE MAINTENANCE PERIOD.
- COVERAGE TEST: WHEN THE SPRINKLER SYSTEM IS COMPLETED THE CONTRACTOR SHALL PERFORM A COVERAGE TEST IN THE PRESENCE OF THE OWNER TO DETERMINE IF THE COVERAGE IS COMPLETE AND ADEQUATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT INADEQUACIES OF COVERAGE ONLY WHERE DRAWING AND DIRECTION BY OWNER HAVE NOT BEEN FOLLOWED.
- ADJUSTING OF SYSTEM:
- 1. Adjust valves, and alignment and coverage of all sprinkler
- 2. IF IT IS DETERMINED THAT ADJUSTMENTS IN THE IRRIGATION EQUIPMENT WILL PROVIDE PI OPER AND MORE ADEQUATE CUVERAGE Contractor shall make all necessary adjustments prior to FINALIZING PROJECT.
- 3. ALL ADJUSTMENTS SHALL BE MADE TO THE SATISFACTION OF THE
- S. GUARANTEE:
- 1. THE WORK INCLUDED ON THESE PLANS SHALL BE GUARANTEED AGAINST ALL DEFECTS AND MALFUNCTION OF WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER. SHOULD ANY TROUBLE DEVELOP WITHIN THE TIME SPECIFIED ABOVE, ALL NECESSARY REPAIRS AND/OR REPLACEMENTS SHALL BE MADE BY THE CONTRACTOR, IN AN EXPEDIENT MANNER, AT NO ADDITIONAL COST TO THE OWNER. THE OWNER RETAINS THE RIGHT TO MAKE EMERGENCY REPAIRS WITHOUT RELIEVING THE CONTRACTOR'S GUARANTEE OBLIGATIONS.
- 2: IN THE EVENT THE CONTRACTOR DOES NOT RESPOND TO THE OWNER'S REQUEST FOR REPAIR WORK UNDER THIS GUARANTEE WITHIN A PERIOD OF 48 HOURS, THE OWNER MAY MAKE SUCH REPAIRS AS HE MAY DEEM NECESSARY AT THE FULL EXPENSE OF THE CONTRACTOR.
- 3. ANY SETTLING OF BACKFILLED TRENCHES WHICH MAY OCCUR DURING THE GUARANTEE PERIOD SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, INCLUDING A COMPLETE RESTORATION OF ALL DAMAGED PLANTING, PAVING OR OTHER improvements of any kind.
- 4. THE CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE AND FUTURE WAINTENANCE PERSONNEL IN THE OPERATION OF ALL
- 5. THE CONTRACTOR SHALL FURNISH THE OWNER WITH THE FOLLOWING MATERIALS UPON COMPLETION OF THE WORK:
- 1 MANUAL VALVE KEY PER EACH ANGLE CONTROL VALVE.
- 2 CONTROLLER KEYS PER EACH CONTROLLER.
- SET OF "AS-BUILT" DRAWINGS SHALL INCLUDE LOCATIONS OF ALL MAINS, VALVES, SOURCE OF ELECTRICAL POWER FOR CONTROLLER CLOCK, CONTROL WIRE SLEEVES, AND BELOW GRADE HEADS HAVING A RADIUS OF 30'-0"+. LOCATE BY DIMENSIONING FROM TWO (2) FIXED POINTS, ON REPRODUCIBLE MATERIAL
- PLASTIC SEALED DIAGRAMMATIC PLAN OF SYSTEM IDENTIFYING STATION NUMBERS AND AREA THEY WATER. MOUNT A PLAN INSIDE EACH CONTROLLER.
- QUICK COUPLER KEYS & HOSE SWIVELS.
- valve box lid keys

CITY OF SANTEE

9-29-2011

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PROJECTPLANNEL

REVIEWED.

DEPARTMENT OF DEVELOPMENT SERVICES CITY W.O. NO. DRAWING NO. G-1129 2011-130 EL NOPAL ESTATES II

LANDSCAPE ARCHITECT 1816

JAMES R. IVERSEN

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IRRIGATION SPECIFICATIONS

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