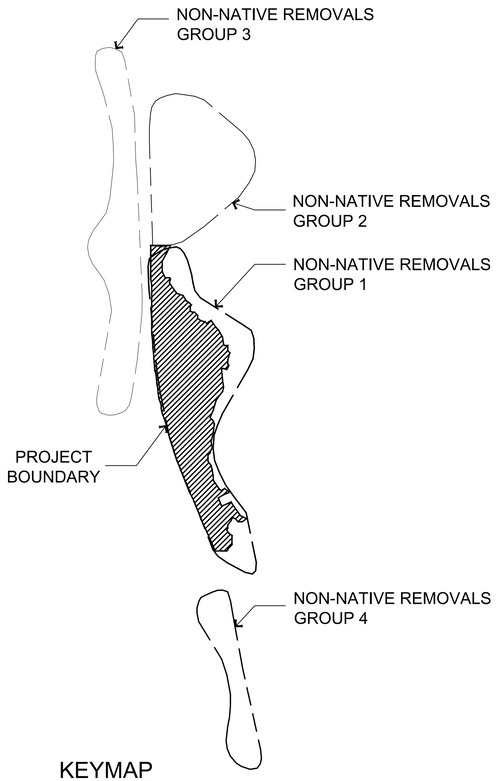
SUBMITTED	APPROVED
	M. KRIS MARKARIAN, P.E. DATE CITY ENGINEER REGISTERED CIVIL ENGINEER NO. C57442 REGISTRATION EXPIRES DECEMBER 31, 2019

REGISTERED PROFESSIONAL ENGINEER
M. KRIS MARKARIAN
No. C57442
Exp. 12/31/2019
CIVIL
STATE OF CALIFORNIA

CITY OF PASADENA
DEPARTMENT OF PUBLIC WORKS

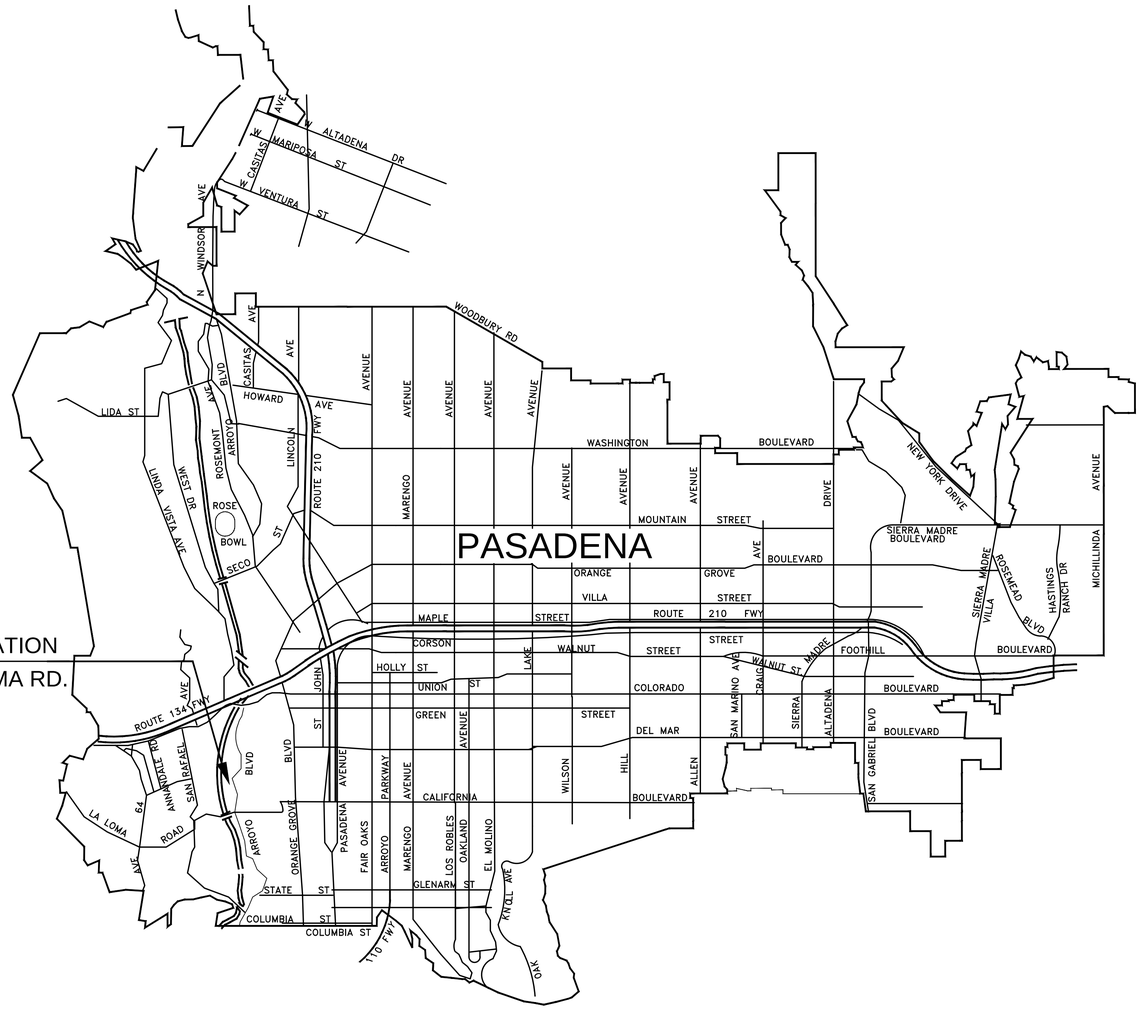
LOWER ARROYO/VAN DE KAMP BRIDGE

HABITAT RESTORATION



KEYMAP

PROJECT LOCATION
ARROYO BLVD. AT LA LOMA RD.



GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2015 EDITION GREENBOOK, INCLUDING ANY SUPPLEMENT, THE CITY OF PASADENA SUPPLEMENTS AND MODIFICATIONS TO THE ABOVE WHICH IS AVAILABLE ONLINE AT http://ww5.cityofpasadena.net/public-works/engineering-and-construction/engineering/forms-and-applications/ AND THE "PROJECT SPECIFICATIONS FOR GRANT PARK VARIOUS IMPROVEMENTS, IN THE CITY OF PASADENA, CALIFORNIA."

INDEX OF SHEETS

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1	TITLE SHEET
2	NON-NATIVE TREE REMOVAL PLAN
3	IRRIGATION/PLANTING PLAN
4	IRRIGATION/PLANTING PLAN
5	IRRIGATION/PLANTING PLAN
6	IRRIGATION DETAILS
7	IRRIGATION / LANDSCAPE DETAILS
8	PLANTING DETAILS

IMPORTANT NOTICE

Section 4216/4217 of the Government "Code requires a Dig Alert Identification Number be issued before a Permit to Excavate" will be valid For your Dig Alert I.D. Number Call Underground Service Alert TOLL FREE-1-800-422-4133 Two working days before you dig.

1000 0 1000 2 3 4 5 6000
ONE MILE
SCALE IN FEET

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714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE ■ URBAN DESIGN ■ PLANNING ■ RESOURCE ANALYSIS

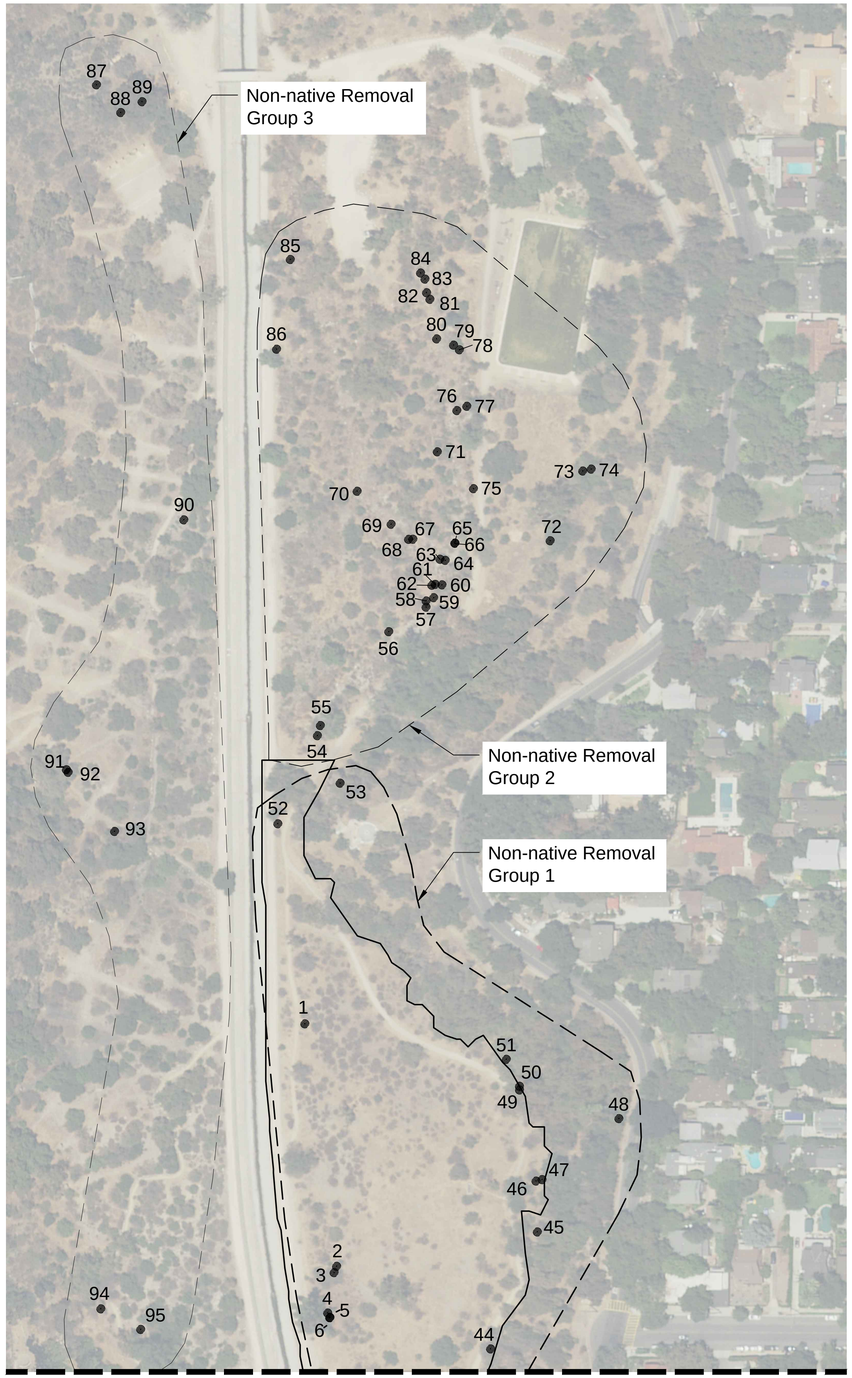
LICENSED LANDSCAPE ARCHITECT
DON WILSON
No. 1746
Registered
28 February 2021
Renewal Date
Date
STATE OF CALIFORNIA

TITLE SHEET

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 1 OF 8
DRAWN BY:							LIMITS -	DWG. NO. #
CHECKED BY:			AS BUILT				SCALE / ACCOUNT NO. -	

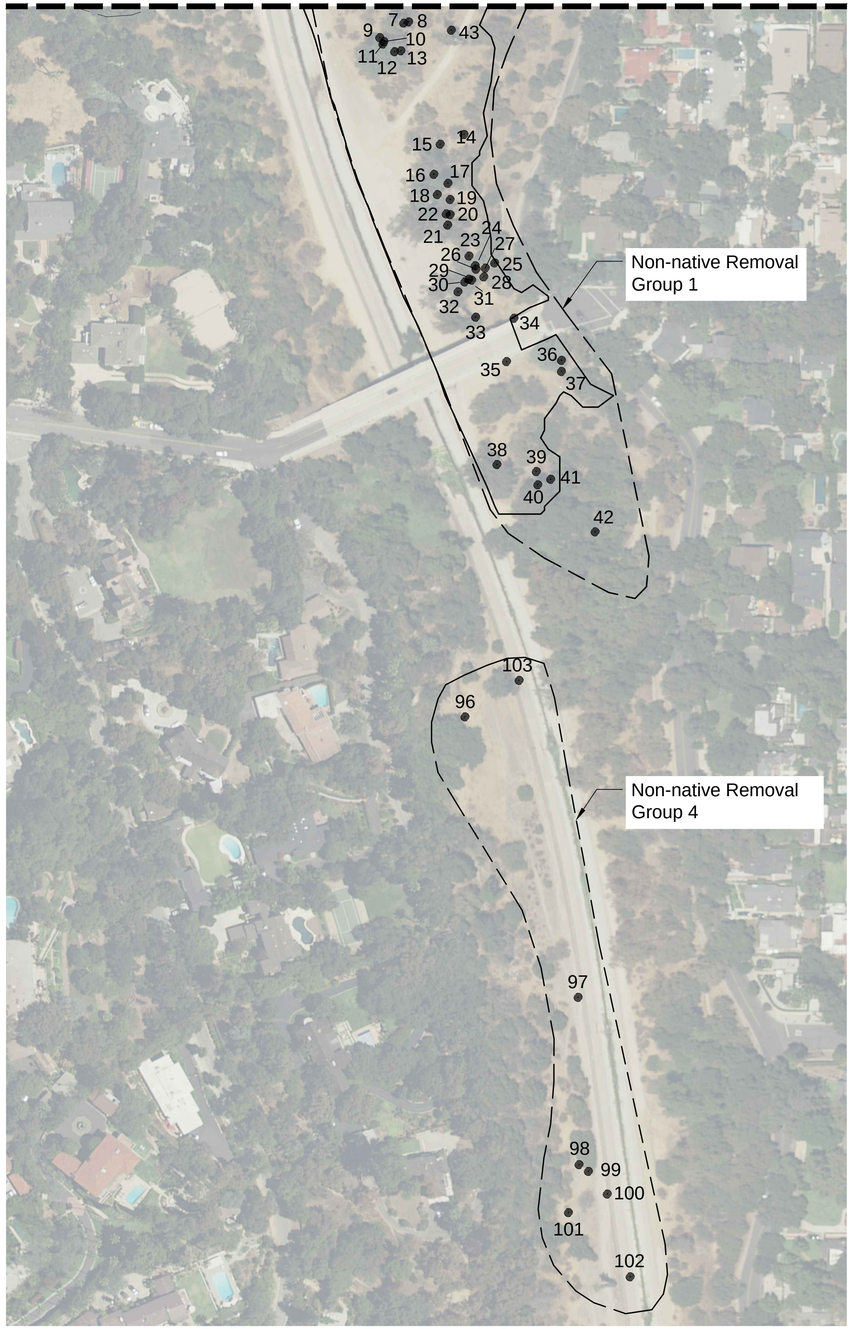
10/23/18

SUBMITTED



MATCH LINE, SEE RIGHT ABOVE

MATCH LINE, SEE LEFT BELOW



LEGEND - NON-NATIVE TREE/ PLANT REMOVAL

78	Brazilian Peppertree (*Schinus terebinthifolius*)
4-13,43	Canary Island Pine (*Pinus canariensis*)
76	Carrotwood (*Cupaniopsis anancardioides*)
56,59, 72-74,96	Chinese Elm (*Ulmus parvifolia*)
53	Chinese Flame Tree (*Koelreuteria bipinnata*)
58,62	Common Fig (*Ficus carica*)
63	Crimson Bottlebrush (*Callistemon citrinus*)
97	Cyclops Acacia (*Acacia cyclops*)
64,67,70,71, 77,81,83	Date Palm (*Phoenix sp.*)
36,37	Deodar Cedar (*Cedrus deodara*)
42,44,51	European Hackberry (*Celtis australis*)
98,99,101	Golden Wattle (*Acacia longifolia*)
48,66,69,75, 82,85,102	Mexican Fan Palm (*Washingtonia robusta*)
79	Mulberry (*Morus alba*)
2,3,15,25,45-47, 49,50,52,93,94	Olive (*Olea europaea*)
80,84	Pampas Grass (*Cortaderia selloana*)
16-24,26-33,38-41, 87-89,95,103	Red Gum (*Eucalyptus camaldulensis*)
54,55,57,60, 61,65,68	Shamel Ash (*Fraxinus uhdei*)
100	Snag
1,14,86,90-92	Tree of Heaven (*Ailanthus altissima*)
34,35	Tree Tobacco (*Nicotiana glauca*)

Project Boundary

NOTE:
REFER TO SPECIFICATIONS II.8.02 & II.8.03, AND TABLE #2 FOR ADDITIONAL INFORMATION.

40' 20' 0 40' 80'
1" =40'-0"

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714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE ▪ URBAN DESIGN ▪ PLANNING ▪ RESOURCE ANALYSIS

LICENSED LANDSCAPE ARCHITECT DON WILSON NO 1746 Registered 28 February 2021 Renewal Date Date STATE OF CALIFORNIA

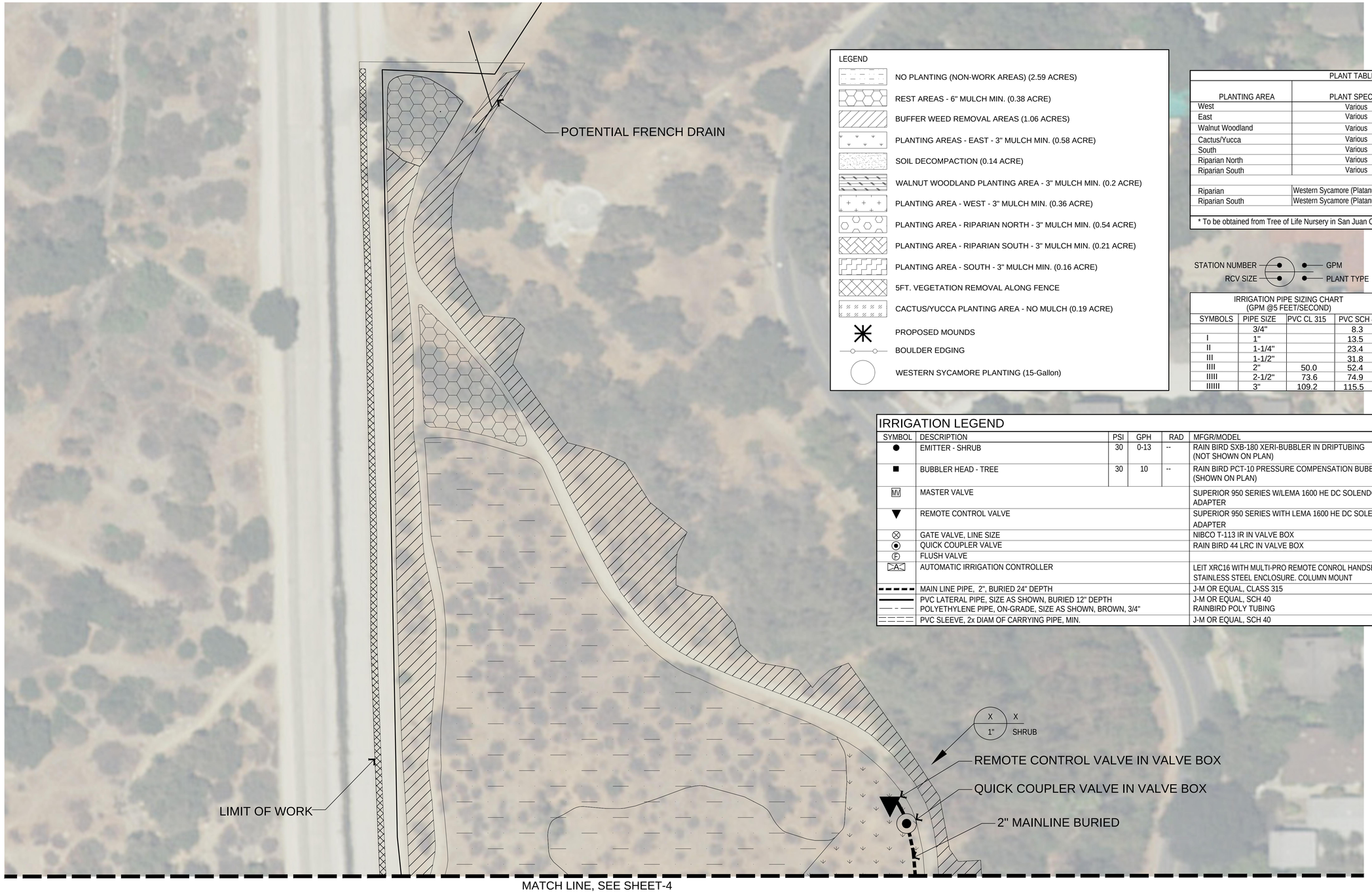
NON-NATIVE TREE/PLANT REMOVAL PLAN

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS
DRAWN BY:	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT
CHECKED BY:			AS BUILT				LIMITS -
							SCALE 1"=40' ACCOUNT NO. -

SHEET 2 OF 8
DWG. NO. #

10/23/18

SUBMITTED



LEGEND

- NO PLANTING (NON-WORK AREAS) (2.59 ACRES)
- REST AREAS - 6" MULCH MIN. (0.38 ACRE)
- BUFFER WEED REMOVAL AREAS (1.06 ACRES)
- PLANTING AREAS - EAST - 3" MULCH MIN. (0.58 ACRE)
- SOIL DECOMPACTION (0.14 ACRE)
- WALNUT WOODLAND PLANTING AREA - 3" MULCH MIN. (0.2 ACRE)
- PLANTING AREA - WEST - 3" MULCH MIN. (0.36 ACRE)
- PLANTING AREA - RIPARIAN NORTH - 3" MULCH MIN. (0.54 ACRE)
- PLANTING AREA - RIPARIAN SOUTH - 3" MULCH MIN. (0.21 ACRE)
- PLANTING AREA - SOUTH - 3" MULCH MIN. (0.16 ACRE)
- 5FT. VEGETATION REMOVAL ALONG FENCE
- CACTUS/YUCCA PLANTING AREA - NO MULCH (0.19 ACRE)
- PROPOSED MOUNDS
- BOULDER EDGING
- WESTERN SYCAMORE PLANTING (15-Gallon)

PLANT TABLE

PLANTING AREA	PLANT SPECIES	SIZE	QUANTITY
West	Various	1-Gallon	226
East	Various	1-Gallon	550
Walnut Woodland	Various	1-Gallon	220
Cactus/Yucca	Various	1-Gallon	205
South	Various	1-Gallon	131
Riparian North	Various	1-Gallon	587
Riparian South	Various	1-Gallon	81
		TOTAL	2,000
Riparian	Western Sycamore (Platanus racemosa)*	15-Gallon	15
Riparian South	Western Sycamore (Platanus racemosa)*	15-Gallon	2
		TOTAL	17

* To be obtained from Tree of Life Nursery in San Juan Capistrano, CA

STATION NUMBER — GPM
RCV SIZE — PLANT TYPE

IRRIGATION PIPE SIZING CHART
(GPM @5 FEET/SECOND)

SYMBOLS	PIPE SIZE	PVC CL 315	PVC SCH 40
	3/4"		8.3
I	1"		13.5
II	1-1/4"		23.4
III	1-1/2"		31.8
IIII	2"	50.0	52.4
IIIII	2-1/2"	73.6	74.9
IIIIII	3"	109.2	115.5

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	PSI	GPH	RAD	MFGR/MODEL	DETAILS
●	EMITTER - SHRUB	30	0-13	--	RAIN BIRD SXB-180 XERI-BUBBLER IN DRIPTUBING (NOT SHOWN ON PLAN)	SHEET 6, DETAIL K
■	BUBBLER HEAD - TREE	30	10	--	RAIN BIRD PCT-10 PRESSURE COMPENSATION BUBBLER ON RISER (SHOWN ON PLAN)	SHEET 7, DETAIL A
MV	MASTER VALVE				SUPERIOR 950 SERIES W/LEMA 1600 HE DC SOLENDOID ACTUATOR & ADAPTER	SHEET 6, DETAIL B
▼	REMOTE CONTROL VALVE				SUPERIOR 950 SERIES WITH LEMA 1600 HE DC SOLENOID ACTUATOR & ADAPTER	SHEET 6, DETAIL J
⊗	GATE VALVE, LINE SIZE				NIBCO T-113 IR IN VALVE BOX	SHEET 6, DETAIL E
⦿	QUICK COUPLER VALVE				RAIN BIRD 44 LRC IN VALVE BOX	SHEET 6, DETAIL G
Ⓕ	FLUSH VALVE					SHEET 6, DETAIL D
A	AUTOMATIC IRRIGATION CONTROLLER				LEIT XRC16 WITH MULTI-PRO REMOTE CONROL HANDSET STAINLESS STEEL ENCLOSURE. COLUMN MOUNT	SHEET 6, DETAIL I
- - -	MAIN LINE PIPE, 2", BURIED 24" DEPTH				J-M OR EQUAL, CLASS 315	SHEET 6, DETAIL A
———	PVC LATERAL PIPE, SIZE AS SHOWN, BURIED 12" DEPTH				J-M OR EQUAL, SCH 40	
— - —	POLYETHYLENE PIPE, ON-GRADE, SIZE AS SHOWN, BROWN, 3/4"				RAINBIRD POLY TUBING	SHEET 6, DETAIL A
═══	PVC SLEEVE, 2x DIAM OF CARRYING PIPE, MIN.				J-M OR EQUAL, SCH 40	SHEET 6, DETAIL A

30' 15' 0 30' 60'
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LANDSCAPE ARCHITECTURE ▪ URBAN DESIGN ▪ PLANNING ▪ RESOURCE ANALYSIS

LICENSED LANDSCAPE ARCHITECT
DON WILSON
No. 1746
Exp. 28 February 2020
Renewal Date
Date
STATE OF CALIFORNIA

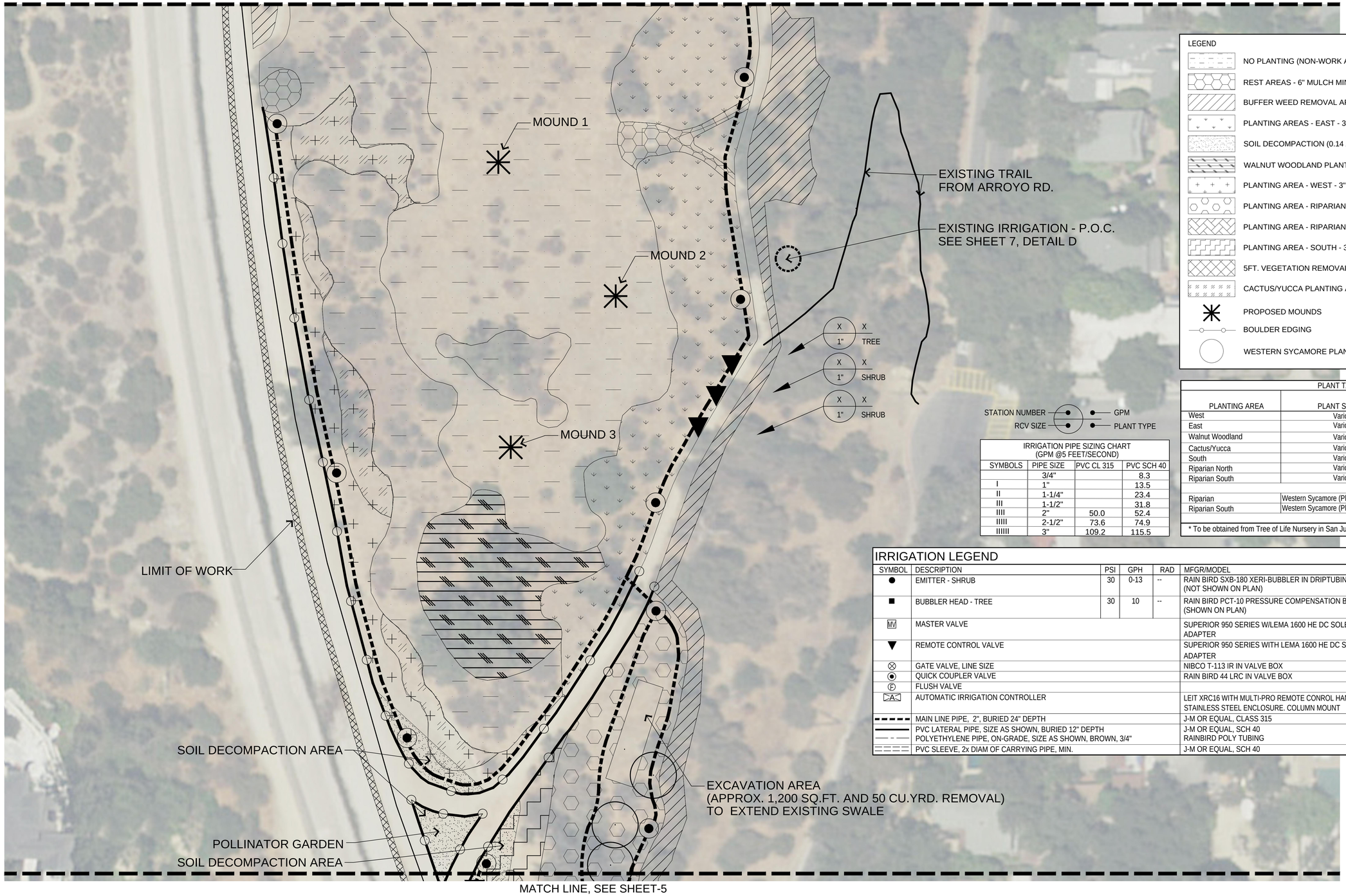
IRRIGATION/ PLANTING PLAN

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
DRAWN BY:	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 3 OF 8
CHECKED BY:			AS BUILT				LIMITS -	DWG. NO. #
							SCALE 1"=30'	ACCOUNT NO. -

10/23/18

SUBMITTED

MATCH LINE, SEE SHEET-3



MATCH LINE, SEE SHEET-5

LEGEND

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STATION NUMBER — GPM
RCV SIZE — PLANT TYPE

IRRIGATION PIPE SIZING CHART
(GPM @5 FEET/SECOND)

SYMBOLS	PIPE SIZE	PVC CL 315	PVC SCH 40
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* To be obtained from Tree of Life Nursery in San Juan Capistrano, CA

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■	BUBBLER HEAD - TREE	30	10	--	RAIN BIRD PCT-10 PRESSURE COMPENSATION BUBBLER ON RISER (SHOWN ON PLAN)	SHEET 7, DETAIL A
MV	MASTER VALVE				SUPERIOR 950 SERIES W/LEMA 1600 HE DC SOLENDOID ACTUATOR & ADAPTER	SHEET 6, DETAIL B
▼	REMOTE CONTROL VALVE				SUPERIOR 950 SERIES WITH LEMA 1600 HE DC SOLENOID ACTUATOR & ADAPTER	SHEET 6, DETAIL J
⊗	GATE VALVE, LINE SIZE				NIBCO T-113 IR IN VALVE BOX	SHEET 6, DETAIL E
◉	QUICK COUPLER VALVE				RAIN BIRD 44 LRC IN VALVE BOX	SHEET 6, DETAIL G
F	FLUSH VALVE					SHEET 6, DETAIL D
CA	AUTOMATIC IRRIGATION CONTROLLER				LEIT XRC16 WITH MULTI-PRO REMOTE CONROL HANDSET STAINLESS STEEL ENCLOSURE. COLUMN MOUNT	SHEET 6, DETAIL I
▬ ▬ ▬	MAIN LINE PIPE, 2", BURIED 24" DEPTH				J-M OR EQUAL, CLASS 315	SHEET 6, DETAIL A
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LICENSED LANDSCAPE ARCHITECT
DOUGLAS WILLIAM BALLOU
No. 1766
Signature
28 February 2021
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
DRAWN BY:	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 4 OF 8
CHECKED BY:							LIMITS -	DWG. NO. #
			AS BUILT				SCALE 1"=30'	ACCOUNT NO. -

IRRIGATION/ PLANTING PLAN

10/23/18

MATCH LINE, SEE SHEET-4

SUBMITTED

LEGEND

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STATION NUMBER — GPM
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IRRIGATION PIPE SIZING CHART
(GPM @5 FEET/SECOND)

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IRRIGATION LEGEND

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MV	MASTER VALVE				SUPERIOR 950 SERIES W/LEMA 1600 HE DC SOLENDOID ACTUATOR & ADAPTER	SHEET 6, DETAIL B
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CA	AUTOMATIC IRRIGATION CONTROLLER				LEIT XRC16 WITH MULTI-PRO REMOTE CONROL HANDSET STAINLESS STEEL ENCLOSURE. COLUMN MOUNT	SHEET 6, DETAIL I
- - - -	MAIN LINE PIPE, 2", BURIED 24" DEPTH EXCEPT AS SHOWN				J-M OR EQUAL, CLASS 315	SHEET 6, DETAIL A
———	PVC LATERAL PIPE, SIZE AS SHOWN, BURIED 12" DEPTH				J-M OR EQUAL, SCH 40	
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═══	PVC SLEEVE, 2x DIAM OF CARRYING PIPE, MIN.				J-M OR EQUAL, SCH 40	SHEET 6, DETAIL A

X TREE / X 1" — SOIL DECOMPACTION AREA

BUBBLERS FOR WESTERN SYCAMORE TREES AND DRIP FOR ALL OTHER CONTAINER PLANTINGS

X 1" SHRUB / X — BUBBLERS FOR WESTERN SYCAMORE TREES AND DRIP FOR ALL OTHER CONTAINER PLANTINGS

X 1" TREE / X

X 1" SHRUB / X

LIMIT OF WORK

EAST BRIDGE ABUTMENT SLOPE - MULCH

BURY PIPE 36" BELOW GRADE

WEST BRIDGE ABUTMENT SLOPE - MULCH

X 1" TREE / X

X 1" TREE / X

BUBBLERS FOR WESTERN SYCAMORE TREES AND DRIP FOR ALL OTHER CONTAINER PLANTINGS

EXISTING TRAIL FROM ARROYO ROAD

30' 15' 0 30' 60'
1" =30'-0"

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LANDSCAPE ARCHITECTURE ▪ URBAN DESIGN ▪ PLANNING ▪ RESOURCE ANALYSIS

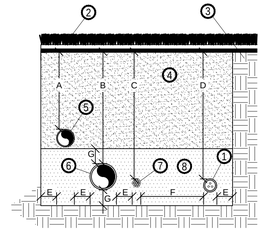
LICENSED LANDSCAPE ARCHITECT DON WILSON No. 1746 — 28 February 2020 — Renewal Date — State of California

IRRIGATION/ PLANTING PLAN

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
DRAWN BY:	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 5 OF 8
CHECKED BY:							LIMITS -	DWG. NO. #
			AS BUILT				SCALE 1"=30' ACCOUNT NO. -	

10/23/18

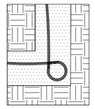
SUBMITTED



DIMENSION	A	B	C	D	E	F	G
1/2" TO 1 1/2" SIZE	12	18"	20"	18"	6"	24"	6"
2" TO 2 1/2" IN SIZE	12"	18"	20"	18"	6"	24"	6"
3" AND LARGER	18"	24"	26"		6"	24"	6"

1. 120V POWER WIRES IN SCH 40 CONDUIT
2. FINISH GRADE
3. UNDISTURBED SOIL
4. CLEAN COMPACTED BACKFILL
5. LATERAL PIPE
6. PRESSURE MAIN LINE PIPE
7. CONTROL CABLE. INSTALL AT BASE OF MAINLINE
8. CLEAN SAND BACKFILL

TIE A 36" LOOP IN ALL WIRING AT ALL CHANGES OF DIRECTION GREATER THAN 30 DEGREES, UNTIE AFTER ALL CONECTIONS HAVE BEEN MADE

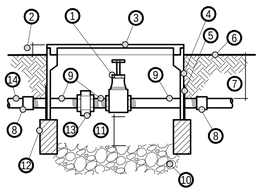


PLAN VIEW - NTS

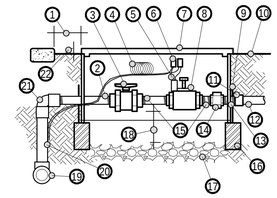
SNAKE ALL PLASTIC PIPING WITHIN TRENCHES
INSTALL ALL PIPE IN ACCORD WITH MANUFACTURERS SPECIFICATIONS

A PIPE & WIRE TRENCHING

NTS



1. GATE VALVE W/ CROSS HANDLE, LINE SIZE
2. 3" CLEAR
3. PLASTIC VALVE BOX W/ LOCKING COVER MARKED "GV"
4. EXTENSIONS AS REQUIRED
5. COVER OPENINGS WITH 15# FELT OR FIBERGLASS MATTING
6. FINISH GRADE
7. SEE SPECS
8. SCH 80 PVC ADAPTER (FxF)
9. SCH 80 PVC NIPPLE (TxT, NO CLOSE NIPPLES, LENGTH AS REQUIRED)
10. 2 CU FT PEA GRAVEL MIN.
11. 2" MIN 6" MAX CLEAR
12. SET BOX ON FOUR BRICKS
13. BRASS UNION
14. PVC MAIN

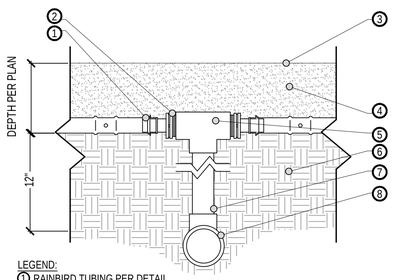


SEE SPECIFICATIONS FOR PIPE DEPTHS

1. 6" MIN, 12" MAX FROM FIXED IMPROVEMENTS
2. SCH 80 PVC NIPPLE (TxT)
3. TRUE UNION BALL VALVE (PER PLAN)
4. 18" MIN EXPANSION LOOPS
5. SOLENOID WIRING
6. EPOXY CONNECTORS
7. VALVE BOX W/ LOCKING COVER MARKED "MCV"
8. MASTER CONTROL VALVE
9. COVER OPENINGS W/ 15# FELT OR FIBERGLASS MATTING
10. FINISH GRADE
11. SCH 80 ADAPTER (FxF)
12. LATERAL PIPING
13. 2 - 3" SCH 80 NIPPLES (TxT)
14. UNION
15. 3" SCH 80 PVC NIPPLE (TxT)
16. SET VALVE BOX ON FOUR (4) BRICKS
17. 2 CU. FT. PEA GRAVEL
18. 2" MIN. 6" MAX CLEAR
19. PVC SCH 80 TEE OR ELL AT MAIN
20. SCH 80 PVC PIPE. LENGTH AS REQ'D
21. SCH 80 PVC ELL (SxT)
22. 3" CLEAR

B MASTER CONTROL VALVE

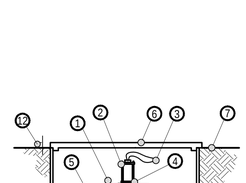
NTS



LEGEND:
1. RAINBIRD TUBING PER DETAIL
2. PLD OR PLD-LOC FITTING
3. FINISHED GRADE
4. MULCH (AS SPECIFIED)
5. PVC TEE
6. SOIL
7. PVC RISER - SIZE AND LENGTH AS REQUIRED
8. SCH 40 PVC LATERAL, MIN. 3/4"

CONNECTION TO PVC LATERAL LINE WITH PVC RISER AND TEE

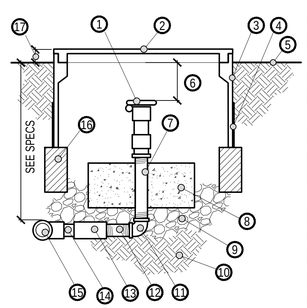
NTS



1. PVC FITTINGS AS REQUIRED
2. FLOW METER
3. WIRES TO CONTROLLER
4. INSTALL PER MANUFACTURERS REQUIREMENTS
5. MAIN LINE (3 FT CLEAR OF OTHER EQUIPMENT ON EITHER SIDE OF FLOW METER)
6. VALVE BOX W/ LOCKING COVER MARKED "FV"
7. FINISH GRADE
8. 2" MIN, 6" MAX CLEAR
9. UNDISTURBED OR 95% COMPACTED SOIL
10. 2 CU FT MIN PEA GRAVEL
11. SET BOX ON 4 BRICKS
12. 2" MIN, 3" MAX IN GROUND COVER

C FLOW SENSOR

NTS



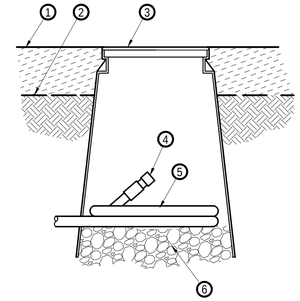
QUICK COUPLER VALVE W/ LOCKING RUBBER
1. CAP
2. PLASTIC VALVE BOX W/ LOCKING COVER MARKED "QCV"
3. EXTENSIONS AS REQUIRED
4. COVER OPENINGS WITH 15# FELT OR LANDSCAPE FABRIC
5. FINISH GRADE
6. 3" MIN., 6" MAX TO CLEAR USE OF KEY
7. THREADED BRASS RISER. LENGTH AS REQUIRED
8. 1 CU FT CONCRETE BASE
9. 2 CU FT PEA GRAVEL MIN.
10. UNDISTURBED OR 95% COMPACTED SOIL
11. BRASS ELL
12. 3" LONG THREADED BRASS NIPPLE
13. SCH 80 PVC ADAPTER (SxT)
14. SCH 80 PVC PIPE. LENGTH AS REQUIRED
15. SCH 80 PVC TEE OR ELL AT MAIN
16. SET BOX ON FOUR BRICKS
17. 3" CLEAR

ALL BRASS FITTINGS TO BE RED BRASS

SEE SPECIFICATIONS FOR TRENCH DEPTHS

G QUICK COUPLER VALVE

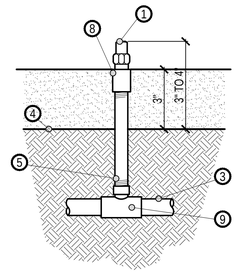
NTS



1. TOP OF MULCH LAYER
2. FINISH GRADE
3. EMITTER BOX
4. COMPRESSION FITTING AND FLUSH CAP
5. 12" LENGTH OF SOLID DRIP HOSE
6. 3-INCH MIN. DEPTH OF 3/4" WASHED GRAVEL

D FLUSH VALVE

NTS



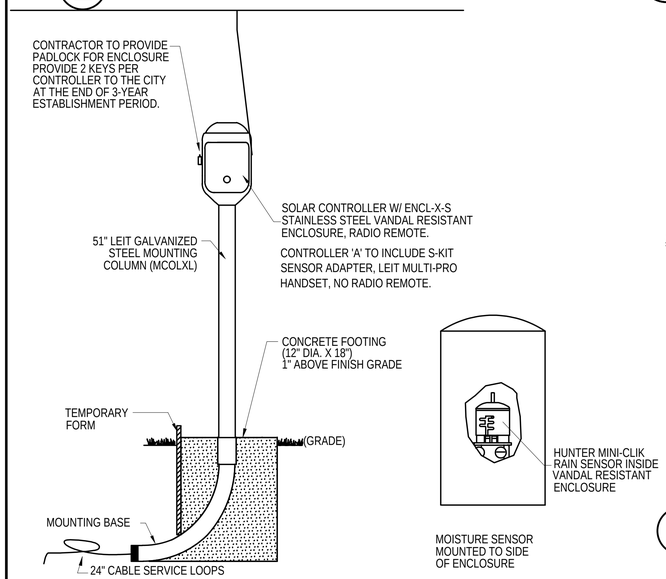
1. BUBBLER HEAD
2. NOT USED
3. LATERAL PIPING
4. FINISH GRADE
5. SCH 40 FLEX RISER
6. 3" MULCH
7. NOT USED
8. ANTI DRAIN VALVE
9. TRIPLE SWING JOINTS

H BUBBLER HEAD WITH FLEX RISER (BURIED)

NTS

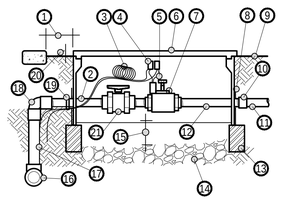
E GATE VALVE 2 1/2" AND SMALLER

NTS



I SOLAR IRRIGATION CONTROLLER

NTS



NOTE: ONE BALL VALVE MAY PRECEED A GROUP OF VALVES IN A MANIFOLD.

SEE SPECIFICATIONS FOR PIPE DEPTHS

1. 6" MIN, 12" MAX FROM FIXED IMPROVEMENTS
2. 3" MIN. SCH 80 PVC NIPPLE (TxT)
3. 18" MIN EXPANSION LOOPS
4. EPOXY CONNECTORS
5. SOLENOID WIRING
6. VALVE BOX W/ LOCKING COVER MARKED "RCV"
7. REMOTE CONTROL VALVE
8. COVER OPENINGS W/ 15# FELT OR FIBERGLASS MATTING
9. FINISH GRADE
10. SCH 80 ADAPTER (FxF)
11. LATERAL PIPING
12. 3" MIN. SCH 80 NIPPLE (TxT)
13. SET VALVE BOX ON FOUR (4) BRICKS
14. 2 CU. FT. PEA GRAVEL
15. 2" MIN. 6" MAX CLEAR
16. PVC SCH 80 TEE OR ELL AT MAIN
17. SCH 80 PVC PIPE. LENGTH AS REQ'D
18. SCH 80 PVC ELL (SxT)
19. BUNDLE & TAPE CONTROL WIRES TO PIPE
20. 3" CLEAR
21. TRUE UNION BALL VALVE

J REMOTE CONTROL VALVE

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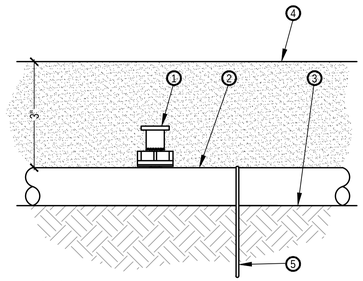


1. PRESSURE-COMPENSATING MODULE BARB INLET X BARB OUTLET XERI-3U33LER WITH PC DIFFUSER CAP
2. ½" POLYETHYLENE TUBING: RAIN BIRD XF SERIES TUBING (BROWN)
3. FINISH GRADE
4. 3" MULCH
5. 6" WIRESTAKE

NOTES:
USE RAIN BIRD XERIMAN TOOL XM-TOOL TO INSERT EMITTER DIRECTLY INTO 3/4" POLYETHYLENE TUBING.

K EMITTER: PRESSURE-COMPENSATING XERI-3U33LER DIFFUSER CAP INTO 1/2-INCH TUBING

NTS

CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd. Santa Ana, CA 92701
714. 973. 2200 Voice
714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE ▪ URBAN DESIGN ▪ PLANNING ▪ RESOURCE ANALYSIS

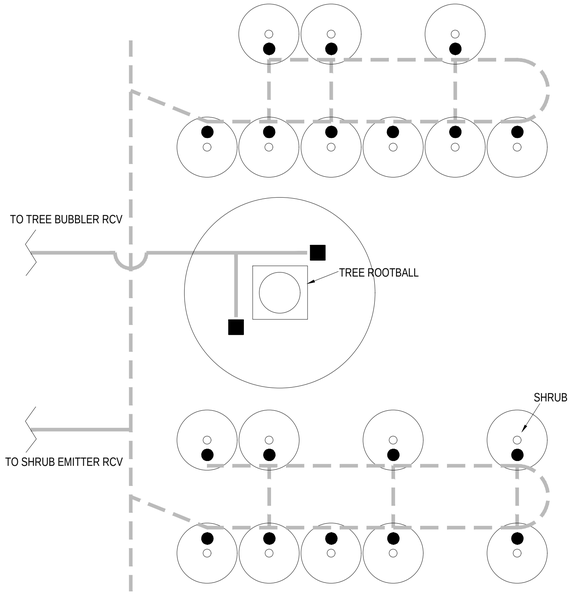
LICENSED LANDSCAPE ARCHITECT — DON WILSON — NO. 1760 — 28 February 2021 — Renewal Date — STATE OF CALIFORNIA

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 6 OF 8
DRAWN BY:							LIMITS -	DWG. NO. #
CHECKED BY:			AS BUILT				SCALE AS NOTED	ACCOUNT NO. -

IRRIGATION DETAILS

10/23/18

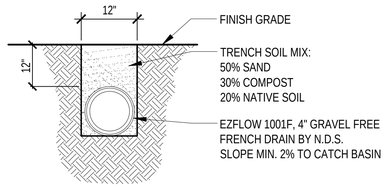
SUBMITTED



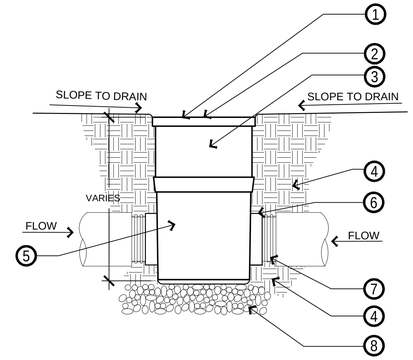
IRRIGATION LEGEND

- ● BUBBLER HEAD - SHRUB
- ■ BUBBLER HEAD - TREE
- LATERAL PIPE, BURIED, SIZE AS SHOWN
- DRIP TUBING ON GRADE

A BUBBLER LAYOUT
NTS

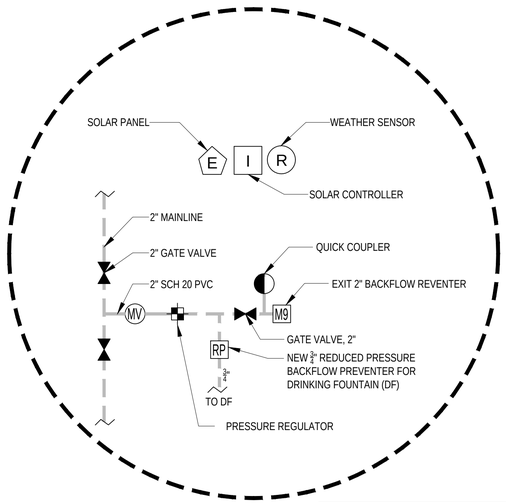


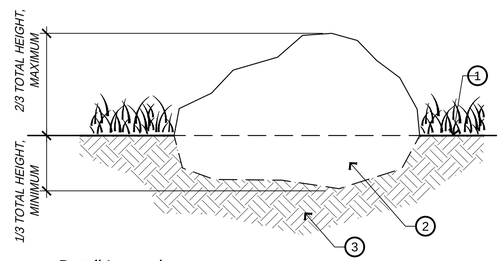
B FRENCH DRAIN SECTION / ELEVATION
NTS



1. TOP OF GRATE ELEVATION
2. NDS CAST IRON GRATE
3. NDS 6" RISER WHERE REQUIRED
4. 90% COMPACTED SUBGRADE WHERE OCCURS
5. NDS 12" SQUARE CATCH BASIN
6. NDS UNIVERSAL LOCKING OUTLET
7. 4" EZFLOW DRAIN PIPE BY NDS
8. 4" DEPTH CRUSHED ROCK

C 12" X 12" Catch Basin #1200, Grate #1213,
NTS





Detail Legend

1. FINISHED GRADE
2. SET BOULDER BELOW FINISH GRADE
3. UNDISTURBED SUBGRADE

E LANDSCAPE BOULDER
NTS

SLEEVING NOTE:
INSTALL SLEEVES FOR MAINLINES AND LATERALS AT ALL VEHICULAR CROSSINGS PRIOR TO INSTALLATION AND PLACEMENT. PROVIDE SEPARATE SLEEVES FOR CONTROL WIRES WHERE CROSSING PAVING. ALL SLEEVES CROSSING VEHICULAR PAVING SHALL HAVE A MINIMUM OF 36" COVER.

POINT OF CONNECTION NOTE:
MAKE POINT OF CONNECTION IMMEDIATELY DOWNSTREAM OF EXITING 2" BACK FLOW PREVENTER. REFER TO UTILITY PLANS FOR ADDITIONAL INFORMATION. EXTEND NEW TYPE 'K' COPPER PIPE (OR AS REQUIRED PER LOCAL CODE) TO LINE SIZED FATE VALVES AS SHOWN.

STATIC WATER PRESSURE:	100 PSI
SYSTEM DESIGNED PRESSURE:	XX PSI
MAXIMUM IRRIGATION DEMAND:	XX PSI

D POINT OF CONNECTION ENLARGEMENT
NTS

CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd. Santa Ana, CA 92701
714. 973. 2200 Voice
714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE • URBAN DESIGN • PLANNING • RESOURCE ANALYSIS

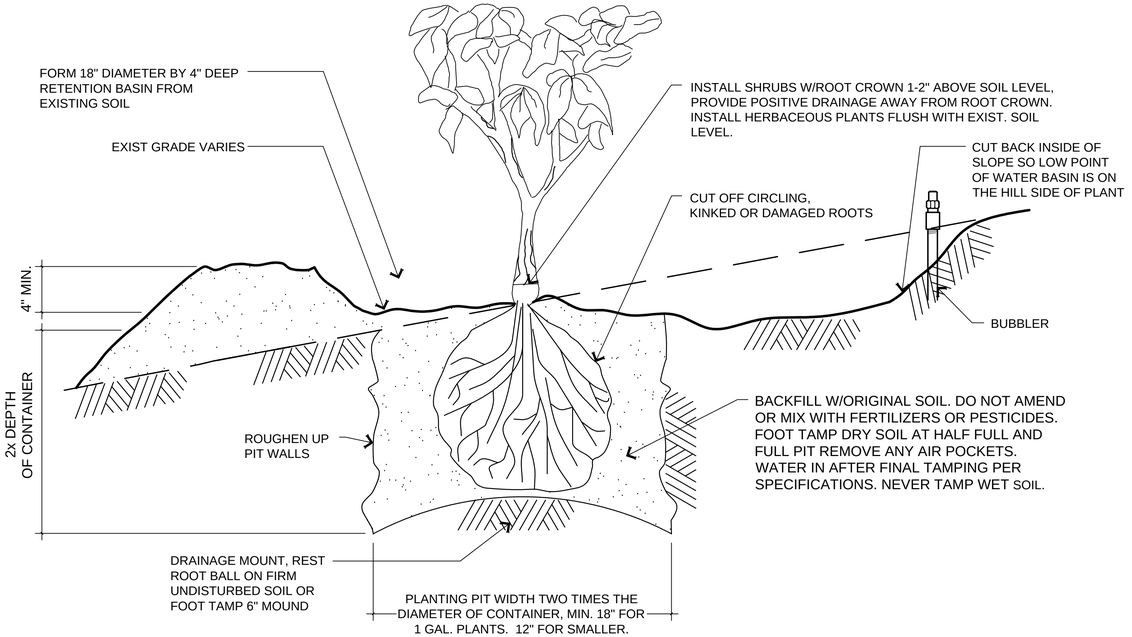
LICENSED LANDSCAPE ARCHITECT
DON WILSON
NO 1746
Signature
28 February 2021
Renewal Date
Date
STATE OF CALIFORNIA

IRRIGATION / LANDSCAPE DETAILS

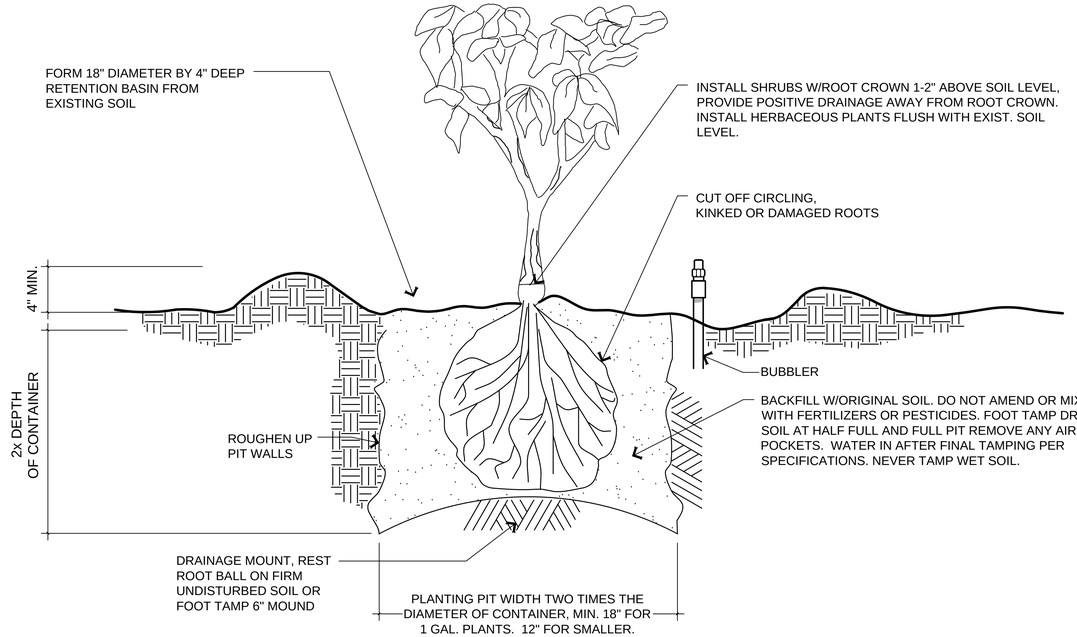
DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 7 OF 8
DRAWN BY:							LIMITS -	DWG. NO. #
CHECKED BY:			AS BUILT				SCALE 1"=40' ACCOUNT NO. -	

10/23/18

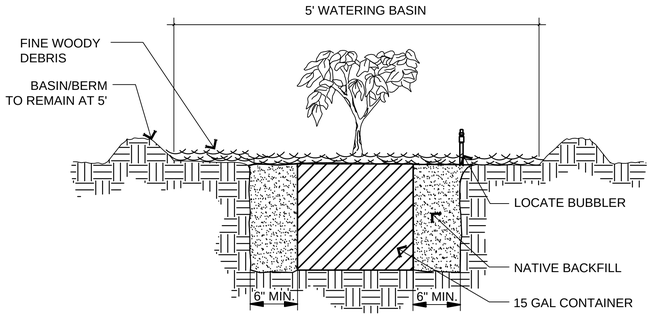
SUBMITTED



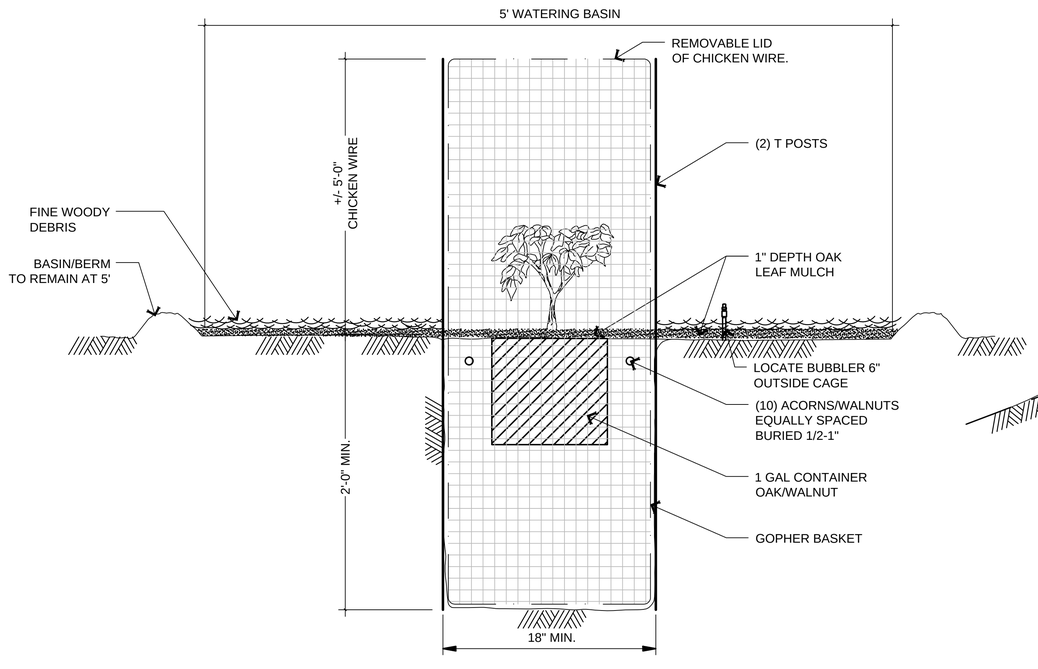
A *SHRUB/ HERBACEOUS SP. PLANTING DETAIL - SLOPES*
N.T.S.



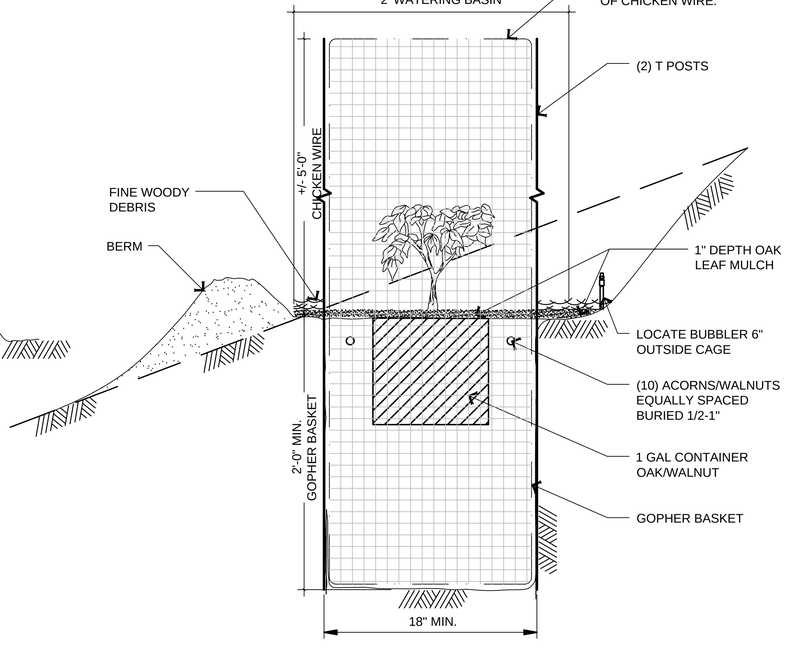
B *SHRUB/ HERBACEOUS SP. PLANTING DETAIL - LEVEL GROUND*
N.T.S.



C *15G WESTERN SYCAMORE PLANTING*
N.T.S.



D *TYPE 1 OAK/WALNUT EXCLOSURE- LEVEL GROUND*
N.T.S.



E *TYPE 2 OAK/WALNUT EXCLOSURE- SLOPES*
N.T.S.

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951 E Santa Ana Blvd.
Santa Ana, CA 92701
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714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE ▪ URBAN DESIGN ▪ PLANNING ▪ RESOURCE ANALYSIS

LICENSED LANDSCAPE ARCHITECT — DON WILSON — No. 1746 — Exp. 28 February 2001 — Renewal Date — Date — STATE OF CALIFORNIA

DESIGNED BY:	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS		
	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT LOWER ARROYO SECO / VAN DE KAMP BRIDGE HABITAT RESTORATION PROJECT	SHEET 8 OF 8	
DRAWN BY:							LIMITS -	DWG. NO. #	
CHECKED BY:			AS BUILT				SCALE AS NOTED	ACCOUNT NO. -	

PLANTING DETAILS

10/23/18