

City of Riverside Park and Recreation

Villegas Park Improvements Parking Lot Expansion

GENERAL NOTES

NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHT-OF-WAY, PUBLIC PROPERTY OR EASEMENTS OF THE CITY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT, A STREET OPENING PERMIT, ENCROACHMENT PERMIT AND PUBLIC LANDSCAPE PERMIT AS ISSUED BY THE CITY'S PUBLIC WORKS DEPARTMENT AND/OR PARK AND RECREATION DEPARTMENT

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE WORK AREA IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AND AT NO COST TO THE CITY

CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWINGS, ITS SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION

CONSTRUCTION ON-SITE SHALL BE PER PARK AND RECREATION DEPARTMENT STANDARDS.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY

QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING ANY REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON

WHERE NEW PAVEMENT IS TO JOIN THE EXISTING PAVEMENT, THE EDGE OF THE EXISTING PAVEMENT SHALL BE TRIMMED IN A SMOOTH AND STRAIGHT LINE. CONSTRUCT MATCH-UP PAVING AS SHOWN ON THE PLANS AND OVERLAY PAVING AS DIRECTED IN THE FIELD TO PRODUCE A SMOOTH SECTION

THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE # 1-800-227-2600, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.

GRADING NOTES

ALL GRADING SHALL CONFORM TO APPENDIX CHAPTER 33, VOL. 1 OF THE CURRENT CITY-ADOPTED EDITION OF THE UNIFORM BUILDING CODE

ALL PROVISIONS OF THE PRELIMINARY SOILS REPORT PREPARED BY C.H.J. INC. DATED 6-30-03 SHALL BE COMPLIED WITH DURING GRADING OPERATIONS CITY BUSINESS TAX CERTIF. NO. 004913 EXP. DATE 12-31-05

THE CONTRACTOR IS RESPONSIBLE FOR EROSION, DUST, AND TEMPORARY DRAINAGE CONTROL DURING GRADING OPERATIONS

ANY IMPROVEMENTS CONSTRUCTED IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE A SEPARATE CONSTRUCTION PERMIT AND INSPECTION FROM THE PUBLIC WORKS DEPARTMENT

IT IS THE GRADING CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ADEQUATE COMPACTION HAS BEEN ATTAINED ON THE ENTIRE GRADING SITE, INCLUDING FILL AREAS OUTSIDE THE BUILDING PADS AND ON ALL FILL SLOPES

IT IS THE SOIL ENGINEER'S RESPONSIBILITY TO OBSERVE AND PERFORM COMPACTION TESTING DURING THE GRADING TO EVALUATE THE PREPARATION OF THE NATURAL GROUND SURFACE TO RECEIVE THE FILL AND THE COMPACTION ATTAINED IN THE FILL INCLUDING FILL AREAS OUTSIDE THE BUILDING PADS AND ON ALL FILL SLOPES

GRADING OPERATIONS SHALL BE LIMITED TO BETWEEN THE HOURS OF 7 A.M. AND 7 P.M. ON WEEKDAYS AND BETWEEN 8 A.M. AND 5 P.M. ON SATURDAYS. NO GRADING WILL BE PERMITTED ON SUNDAY OR FEDERAL HOLIDAYS. (RIVERSIDE MUNICIPAL CODE, 7.35.010, ORDINANCE NO. 6273)

ENGINEER'S NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OR THE ENGINEER.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.



VICINITY MAP
N.T.S.

CONSTRUCTION NOTES

- 1 SAWCUT EXIST. PAVEMENT/CONCRETE
- 2 REMOVE EXIST. AC PAVEMENT & BASE MATERIAL
- 3 REMOVE EXIST. CURB, C&G OR GUTTER
- 4 REMOVE EXIST. CONCRETE SIDEWALK
- 5 REMOVE EXIST. SIGN
- 6 CONSTRUCT 6" CONC. CURB PER CITY OF RIVERSIDE STD. NO. 200 (TYPE II)
- 7 CONSTRUCT PCC RIBBON GUTTER PER DETAIL ON SHEET 2
- 8 CONSTRUCT SIDEWALK PER CITY OF RIVERSIDE STD. NO. 325
- 9 CONSTRUCT 0.25" AC PAVEMENT OVER 0.85" AGG. BASE (CL 2)
- 11 PAINT 4" WIDE WHITE STRIP
- 12 INSTALL HC PARKING SIGN & PAVEMENT MARKINGS PER A.D.A. STANDARDS
- 13 CONSTRUCT P.C.C. HC RAMP PER CALTRANS STD. A88, CASE C
- 14 FINISH GRADE, SOIL PREP, TURF & IRRIGATION PER CITY OF RIVERSIDE STDS. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR CITY APPROVAL
- 15 INSTALL W3(LT) SIGN PER CALTRANS STANDARDS
- 16 GRADE SWALE
- 17 CONSTRUCT STRUCTURAL STREET SECTION TO MATCH EXIST. A.C. THICKNESS + 1" & BASE THICKNESS
- 21 CONSTRUCT CONCRETE CURB & GUTTER PER CITY OF RIVERSIDE STD. NO. 200
- 22 INSTALL 4" PVC SLEEVE FOR WATER LINE
- 23 INSTALL 2" PVC SLEEVE FOR ELECTRICAL CONDUITS & WIRES
- 24 INSTALL CONCRETE WHEEL STOP
- 25 CONSTRUCT 6" THICK CONCRETE SLAB

- A PROTECT EXISTING CONCRETE
- B PROTECT EXISTING CONC. SIDEWALK
- C PROTECT EXISTING A.C. PAVEMENT
- D PROTECT EXISTING BLEACHERS
- E PROTECT EXISTING PULL BOX & UNDERGROUND CONDUITS
- F PROTECT EXISTING CHAIN LINK FENCE
- G PROTECT EXISTING LIGHT POLE OR WOODEN POLE

LEGEND

- BLOW-OFF
- CLEANOUT
- AREA DRAIN BOX
- FIRE HYDRANT
- MANHOLE
- ☆ STREET LIGHT
- PULL BOX
- ⊙ WATER VALVE
- ◇ POWER / TELEPHONE POLE
- ← GUY ANCHOR
- WOODEN POST FENCE
- x— CHAIN LINK FENCE
- BOX
- ▨ CONCRETE PAVING
- =— CURB AND GUTTER
- w— WATERLINE
- s— SEWER LINE
- sd— STORM DRAIN LINE
- e— ELECTRICAL CONDUIT
- g— GAS LINE
- t— TELEPHONE CONDUIT
- c— CABLE TELEVISION CONDUIT
- LA LANDSCAPED AREA

INDEX OF SHEETS

- C-1 TITLE SHEET
- C-2 PARKING LOT IMPROVEMENTS PLAN
- T-1 LANDSCAPE TITLE SHEET
- LI-1 THRU LI-3 IRRIGATION PLANS
- LP-1 THRU LP-2 LANDSCAPE PLANS
- E-1 THRU E-3 ELECTRICAL PLANS

SOILS REPORT

PREPARED BY:
CHJ INC.
1355 E. COOLEY DR
COLTON, CA 92324
(909)824-7210

CITY OF RIVERSIDE BUSINESS TAX CERTIFICATE No.60137 EXP. DATE 5-2-09



PLANNING DEPARTMENT
APPROVED BY _____ DATE _____

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



PREPARED UNDER THE DIRECTION OF
Bud Fish
REGISTERED CIVIL ENGINEER NO. 27861
EXPIRATION DATE: 3-31-10 DATE: 1-09-09
CITY PROJECT MANAGER:
BUD FISH - PARK PLANNER
CITY OF RIVERSIDE
3900 MAIN ST.
RIVERSIDE, CA 92522
(951) 826-2027

GFB-FRIEDRICH & ASSOC., INC.
CONSULTING CIVIL ENGINEERS
6529 RIVERSIDE AVENUE, STE. 230
RIVERSIDE, CA 92506
(951) 781-0811, gfb-jof@ebglobal.net

SCALE: N.T.S.
DATE: 1-2009

MARK REVISIONS APPR. DATE
DESIGNED BY J.A.F. DRAWN BY C.R.W. CHECKED BY J.A.F.

CITY OF RIVERSIDE
PARK AND RECREATION

APPROVED BY _____ BY _____ DATE _____
APPROVED BY _____ DATE _____

VILLEGAS PARK
SITE IMPROVEMENTS
3040 ESPARANZA ST.
TITLE SHEET

FOR:

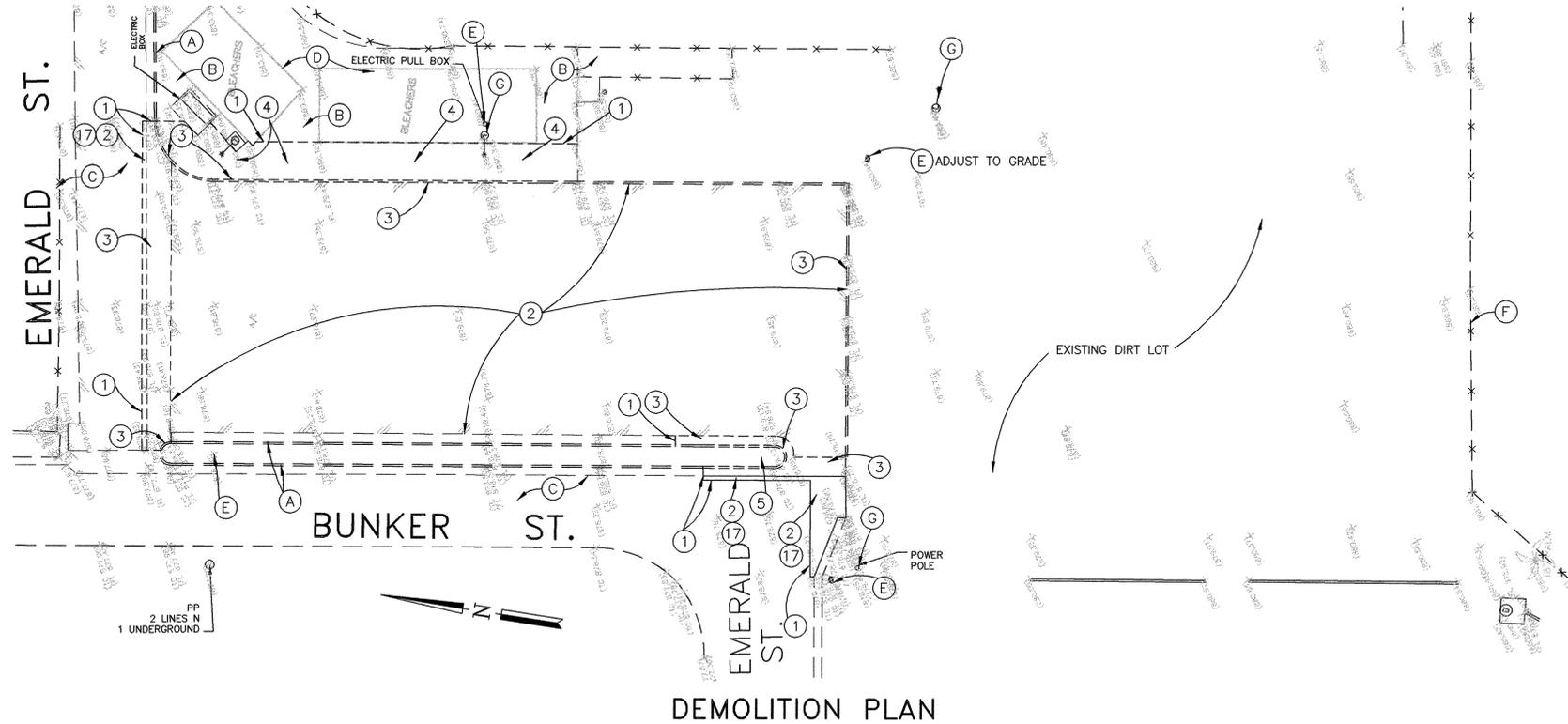
PW08

PROJECT NO.

C.1

SHEET 1 OF 2

FILE NO.:



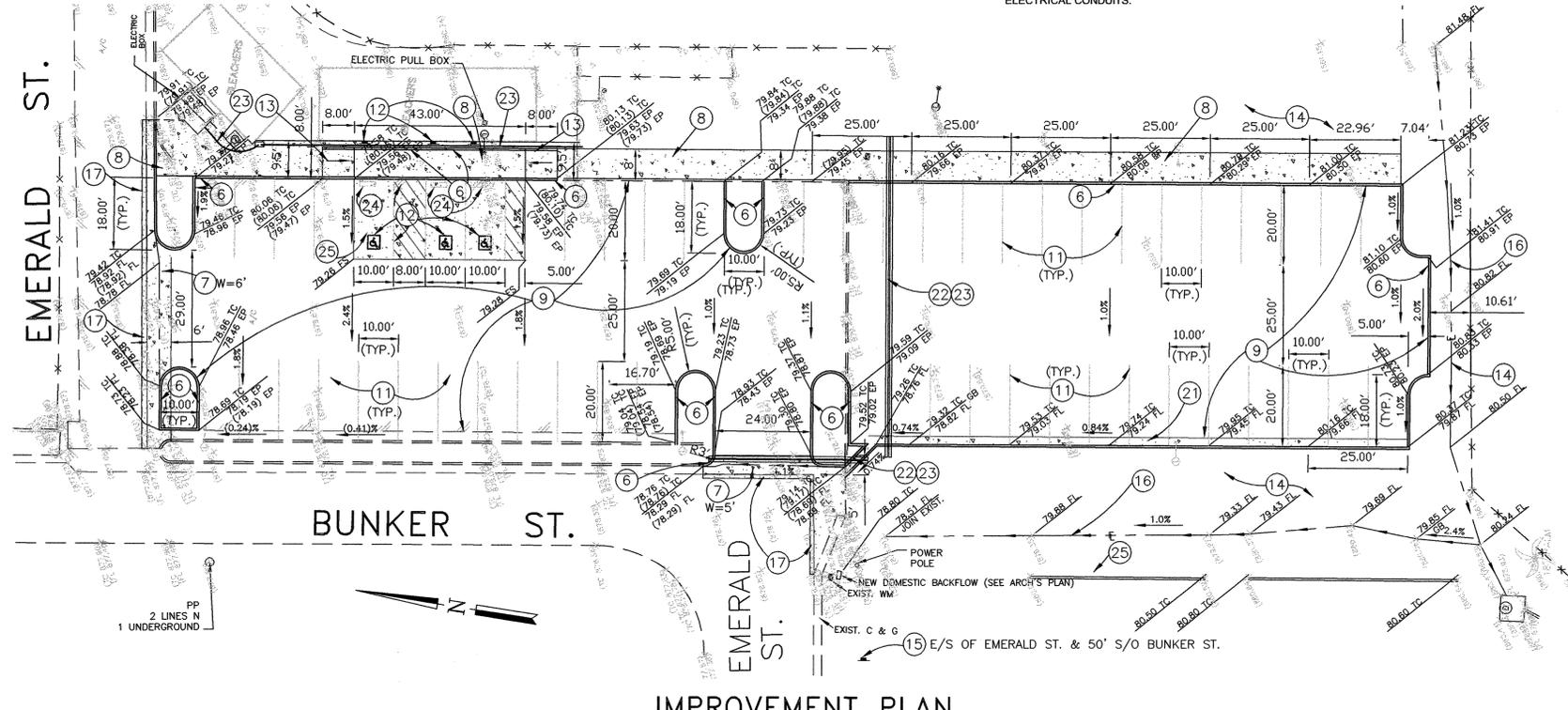
DEMOLITION PLAN

SCALE: 1"=20'

NOTE:
SEE ELECTRICAL PLANS FOR LIGHTING AND ELECTRICAL CONDUITS.

- CONSTRUCTION NOTES**
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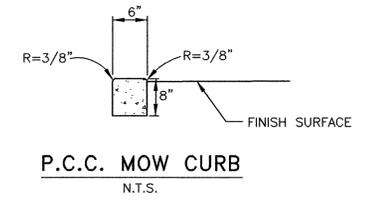
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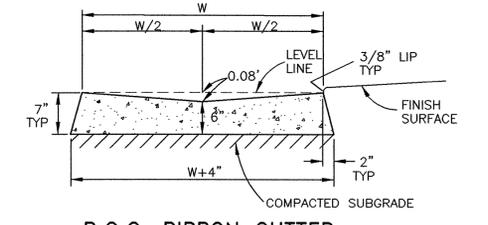
IMPROVEMENT PLAN

SCALE: 1"=20'

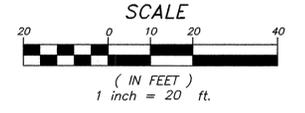
NOTE:
SEE SHEET 3 FOR STORMDRAIN IMPROVEMENTS



P.C.C. MOW CURB
N.T.S.



P.C.C. RIBBON GUTTER
N.T.S.



Underground Service Alert
Call: TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

PLANNING DEPARTMENT
APPROVED BY _____ DATE _____

CITY OF RIVERSIDE BUSINESS TAX CERTIFICATE No.60137 EXP. DATE 5-2-09

BENCH MARK: T.B.M. ELEV. 100.00
CENTER OF RAISED CONC. STAGE

PRIVATE ENGINEERING NOTE
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PREPARED UNDER THE DIRECTION OF:
[Signature]
REGISTERED CIVIL ENGINEER NO. 27861
EXPIRATION DATE: 3-31-10 DATE: 1-09-09

CITY PROJECT MANAGER:
BUD FISH, PARK PLANNER
CITY OF RIVERSIDE
3900 MAIN ST.
RIVERSIDE, CA 92522
(951) 828-2027

GFB-FRIEDRICH & ASSOC., INC.
CONSULTING CIVIL ENGINEERS
6529 RIVERSIDE AVENUE, STE. 230
RIVERSIDE, CA 92506
(951) 781-0811, gfb-jgf@sbglobal.net

SCALE: AS SHOWN
DATE: 1-2009

MARK	REVISIONS	APPR. DATE

DESIGNED BY J.A.F. DRAWN BY G.R.W. CHECKED BY J.A.F.

CITY OF RIVERSIDE
PARK AND RECREATION

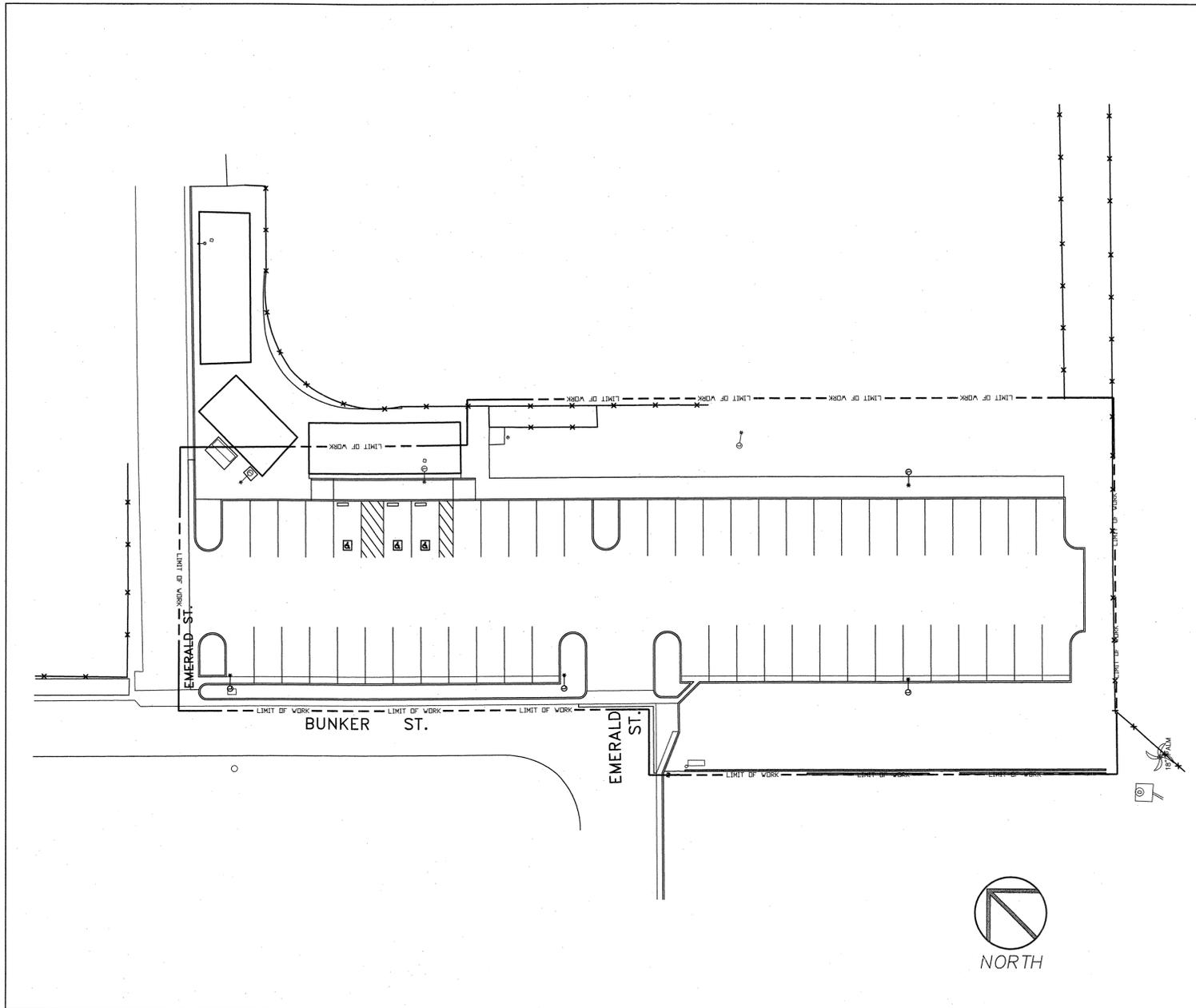
APPROVED BY _____ BY _____ DATE _____
APPROVED BY _____ DATE _____

VILLEGAS PARK
SITE IMPROVEMENTS
3040 ESPARANZA ST.
PARKING LOT IMPROVEMENTS

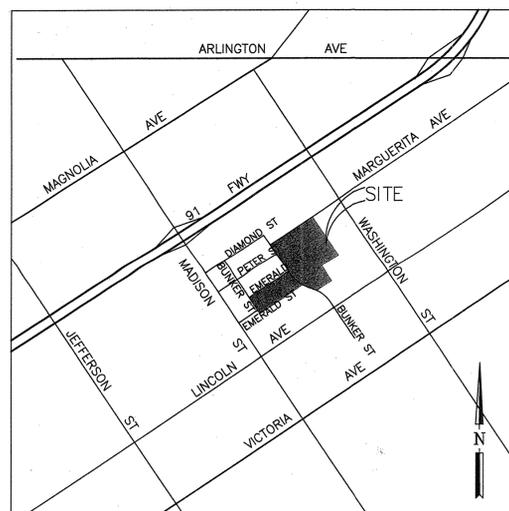
FOR: _____

PW08
PROJECT NO.
C.2
SHEET 2 OF 2
FILE NO.:

SITE PLAN



VICINITY MAP



PROJECT:

VILLEGAS PARK PARKING LOT EXPANSION

3040 ESPERANZA STREET, RIVERSIDE, CA. 92504

ALL NEW WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES: 2007 UBC, 2007 UMC, 2007 UPC, 2007 CA BUILDING CODE, 2007 CA MECHANICAL CODE, 2007 CA PLUMBING CODE, 2007 CA ELECTRICAL CODE

PREPARED FOR:

CITY OF RIVERSIDE
PARK AND RECREATION DEPARTMENT
3936 CHESTNUT STREET
RIVERSIDE, CA 92501
PHONE: (951) 826-2012
FAX: (951) 826-2010
CONTACT: BUD FISH

SHEET INDEX:

DRAWING	DESCRIPTION	DRAWING	DESCRIPTION
T-1	COVER		
LI-1	IRRIGATION PLAN		
LI-2	IRRIGATION DETAILS		
LI-3	IRRIGATION DETAILS		
LP-1	PLANTING PLAN		
LP-2	PLANTING DETAILS		

AGENCY SUBMITTAL:



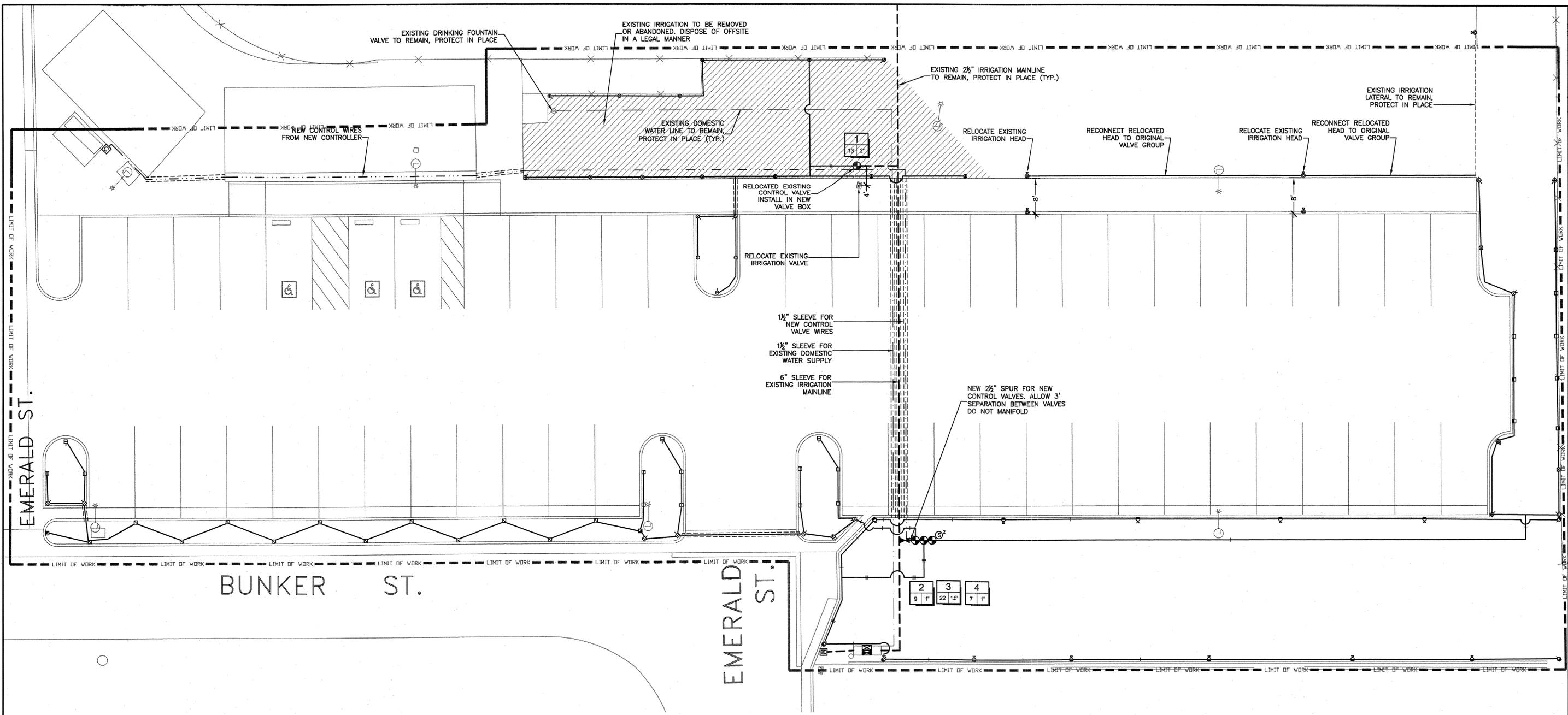
4649 Brockton Avenue
Riverside, CA 92506
(951) 369-0700
Fax (951) 369-4039
<http://www.comworksdg.com>

APPROVALS

PLANNING DEPARTMENT
APPROVED BY: _____
DATE: _____

SHEET TITLE

WDID# _____
T-1
SHEET 1 OF 6
PW _____



EQUIPMENT LEGEND				
SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL	NOTES
	EXISTING PARK WATER METER	2"	N/A	-
	CALSENSE ET2000e-8-LR-RB CONTROLLER LOCATED IN A CALSENSE PD-1 VANDAL RESISTANT ENCLOSURE, CONTRACTOR TO PROVIDE TO THE CITY WITH ONE IR2-IRAN HANDHELD REMOTE	8 STA.	'A', U-2	(1,2)
	EXISTING ZURN-WILKINS IRRIGATION BACKFLOW PREVENTER	2 1/2"	N/A	(4)
	EXISTING ZURN-WILKINS DOMESTIC BACKFLOW PREVENTER	3/4"	N/A	(3)
	NIBCO T-585 BRONZE BALL VALVE	2 1/2"	'B', U-2	(3)
	SUPERIOR 950 SERIES REMOTE CONTROL VALVE	PLAN SIZE	'C', U-2	(3)
	EXISTING IRRIGATION MAINLINE. CONTRACTOR TO VERIFY LOCATION PRIOR TO START OF CONSTRUCTION	2 1/2"	'D', U-2	(3)
	SCH 40 PVC NON-PRESSURE LATERAL LINE - 12" MIN. COVER	PLAN SIZE	'D', U-2	(3)
	SCH 40 PVC IRRIGATION PIPE / WIRE SLEEVE - 24" MIN. COVER	SEE CHART	'E', U-2	(3)
	UF RATED CONTROL WIRE, 12 GA COMMON, 14 GA PILOT	12/14 GA	'F', U-2	-
	SPARE WIRES PULLED	-	'G', U-2	-

(1) LANDSCAPE CONTRACTOR TO COORDINATE ELECTRICAL POWER W/ ELECTRICAL CONTRACTOR
 (2) CONTROLLER TO BE EQUIPPED W/ A HUNTER MINI-CLIK SENSOR GUARD RAIN SENSOR PER MANUF. SPEC.

SPRINKLER LEGEND														
SYMBOL	MANUFACTURER/MODEL #	MP	ROTATOR NOZZLE	RAD.	PSI	FLOW (GPM)						PRECIP. RATE	DETAIL	NOTES
						Q	T	H	TT	TQ	F			
TURF POP-UP SPRAY HEADS														
	TORO 570Z-4P-PR-COM	MP 1000	10'	30	0.11	0.23						0.43	'H', U-2	
	TORO 570Z-4P-PR-COM	MP 2000	17'	30	0.33	0.63						0.39	'H', U-2	
	TORO 570Z-4P-PR-COM	MP 3000	27'	30	0.74	1.58						0.39	'H', U-2	
SHRUB HI-POP SPRAY HEADS														
	TORO 570Z-12P-PR-COM	MP 1000	10'	30	0.11	0.23	0.27					0.43	'A', U-3	(1)
	TORO 570Z-12P-PR-COM	MP 1000	12'	30	0.16	0.32						0.43	'A', U-3	(1)
	TORO 570Z-12P-PR-COM	MP 2000	17'	30	0.33	0.47	0.63					0.39	'A', U-3	(1)
	TORO 570Z-12P-PR-COM	MP LS/RS/SS	5'x30'	30	0.19	0.38						0.48	'A', U-3	(1)

(1) USE BOTTOM INLET IN SHRUB AREA ONLY

SYMBOL	MANUFACTURER/MODEL #	NOZZLE	RAD.	PSI	FLOW (GPM)						PRECIP. RATE	DETAIL	NOTES	
					Q	T	H	TT	TQ	F				Van
	HUNTER I-20-ADS-XX	10,1.5/2.0	31'-34'	40	1.00	1.40	1.80					0.25	'B', U-3	

SCH 40 PVC SLEEVING CHART		
1 1/4" SLEEVE	1-4 WIRES	1/2" PIPE
1 1/2" SLEEVE	5-10 WIRES	3/4" PIPE
2" SLEEVE	11-20 WIRES	1" PIPE
2 1/2" SLEEVE	21-30 WIRES	1 1/4" PIPE
3" SLEEVE	31-40 WIRES	1 1/2" PIPE
4" SLEEVE	41-60 WIRES	2" PIPE
6" SLEEVE	61-99 WIRES	2 1/2"-3" PIPE
8" SLEEVE	100+ WIRES	4" PIPE
10" SLEEVE	N/A	6" PIPE

PIPE SIZING CHART	
3/4" PIPE	1" PIPE
1" PIPE	1 1/4" PIPE
1 1/4" PIPE	1 1/2" PIPE
1 1/2" PIPE	2" PIPE
2" PIPE	2 1/2" PIPE
2 1/2" PIPE	3" PIPE
3" PIPE	4" PIPE
4" PIPE	6" PIPE
6" PIPE	8" PIPE

STATION # / CONTROLLER	
FLOW (GPM)	VALVE SIZE



PLANNING DEPARTMENT
 APPROVED BY _____ DATE _____



PREPARED UNDER THE DIRECTION OF:
 REGISTERED LANDSCAPE ARCHITECT NO. 2110
 EXPIRATION DATE: 10/31/09 DATE: _____
 CITY PROJECT MANAGER:
 BUD FISH - PARK PLANNER
 CITY OF RIVERSIDE
 3500 MAIN ST.
 RIVERSIDE, CA 92522
 (951) 826-2027



4649 Brockton Avenue
 Riverside, CA 92506
 (951) 369-0700
 Fax (951) 369-4039
 http://www.comworksdg.com

SCALE: 1"=10'-0"
 DATE: 1-8-09

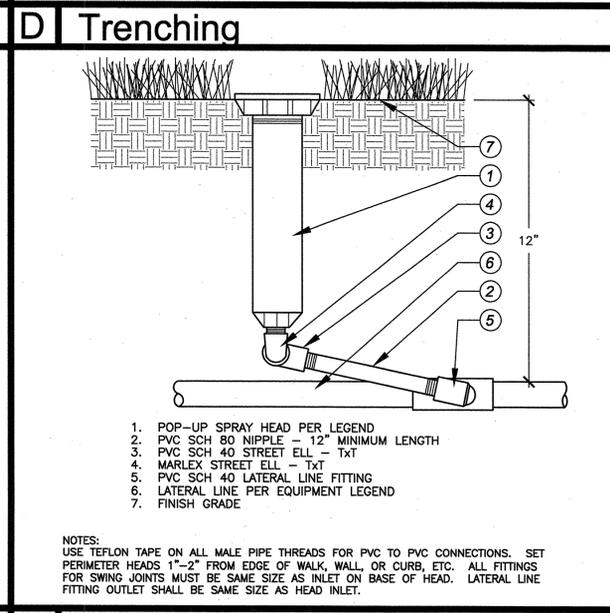
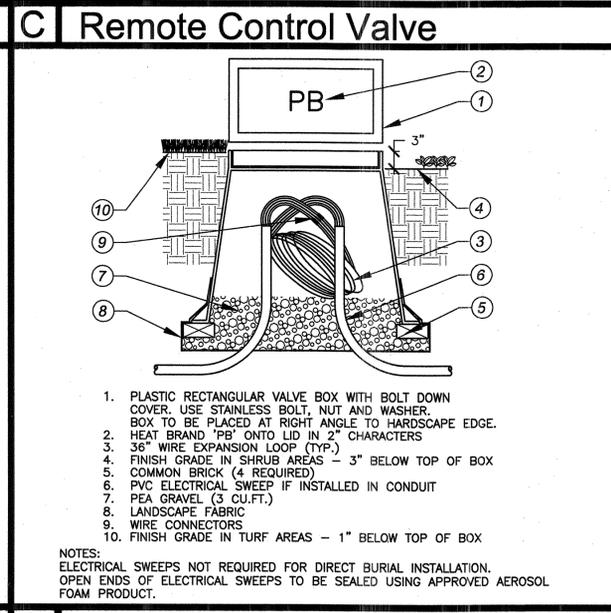
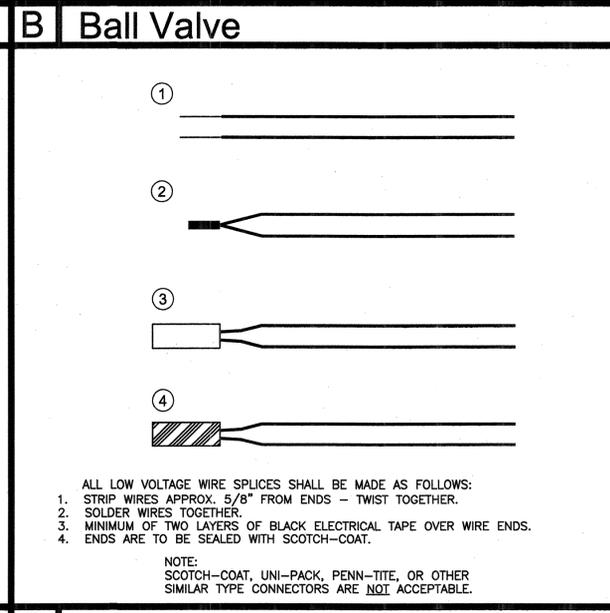
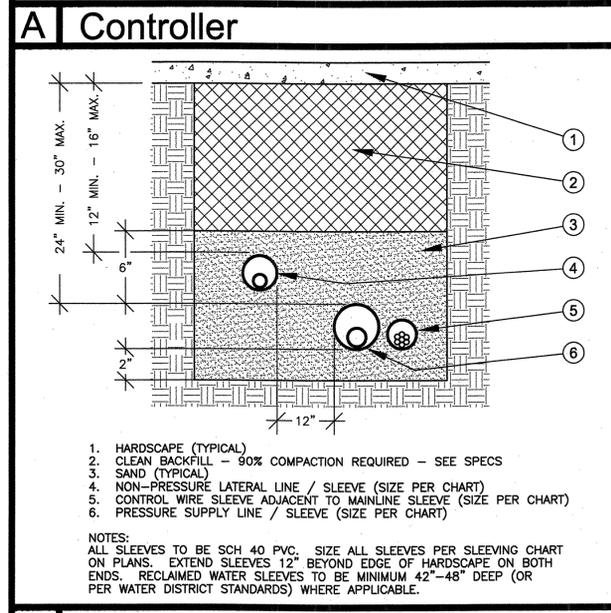
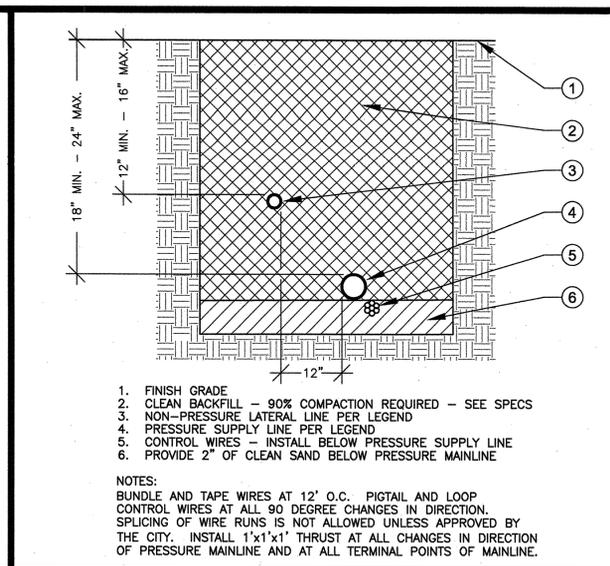
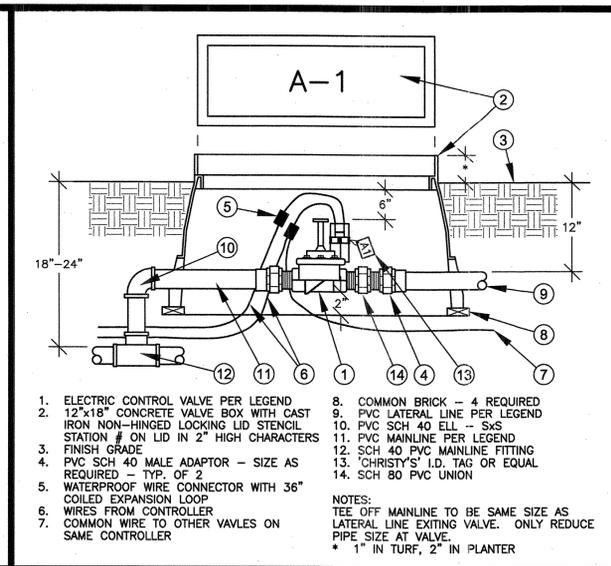
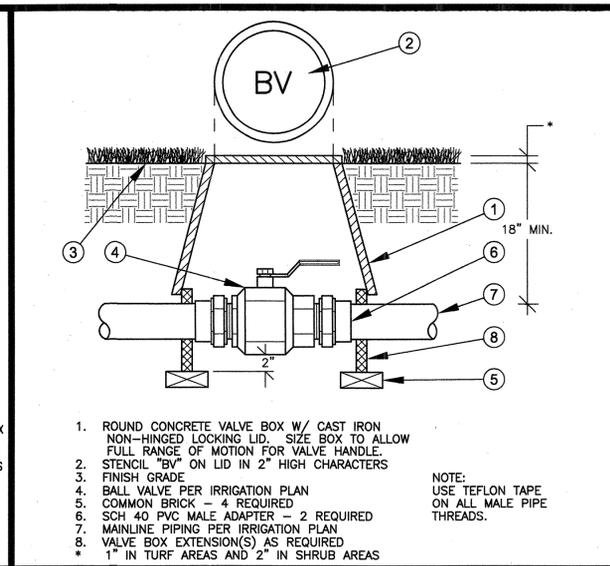
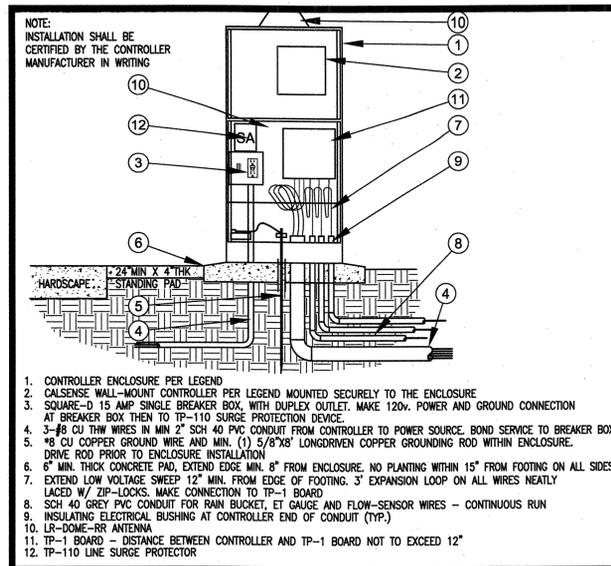
MARK _____ REVISIONS _____ APPR. DATE _____
 DESIGNED BY K.C.K. DRAWN BY K.C.K. CHECKED BY T.I.M.

CITY OF RIVERSIDE
 PARK AND RECREATION
 APPROVED BY _____ BY _____ DATE _____
 APPROVED BY _____ DATE _____

VILLEGAS PARK
 SITE IMPROVEMENTS
 3040 ESPERANZA ST.
 IRRIGATION PLAN
 FOR: _____

PW08
 PROJECT NO. 081044
 LI-1
 SHEET 2 OF 6
 FILE NO. _____





E | Sleeving

F | Wire Connection

G | Wire Pull Box

H | Pop-up Spray Head



PLANNING DEPARTMENT
APPROVED BY _____ DATE _____



PREPARED UNDER THE DIRECTION OF:
REGISTERED LANDSCAPE ARCHITECT NO. 2110
EXPIRATION DATE: 10/31/09 DATE: _____
CITY PROJECT MANAGER:
BUD FISH - PARK PLANNER
CITY OF RIVERSIDE
3900 MAIN ST.
RIVERSIDE, CA 92522
(951) 826-2027

SCALE: N.T.S.
DATE: 1-8-09

4649 Brockton Avenue
Riverside, CA 92506
(951) 369-0700
Fax (951) 369-4039
http://www.comworksdg.com

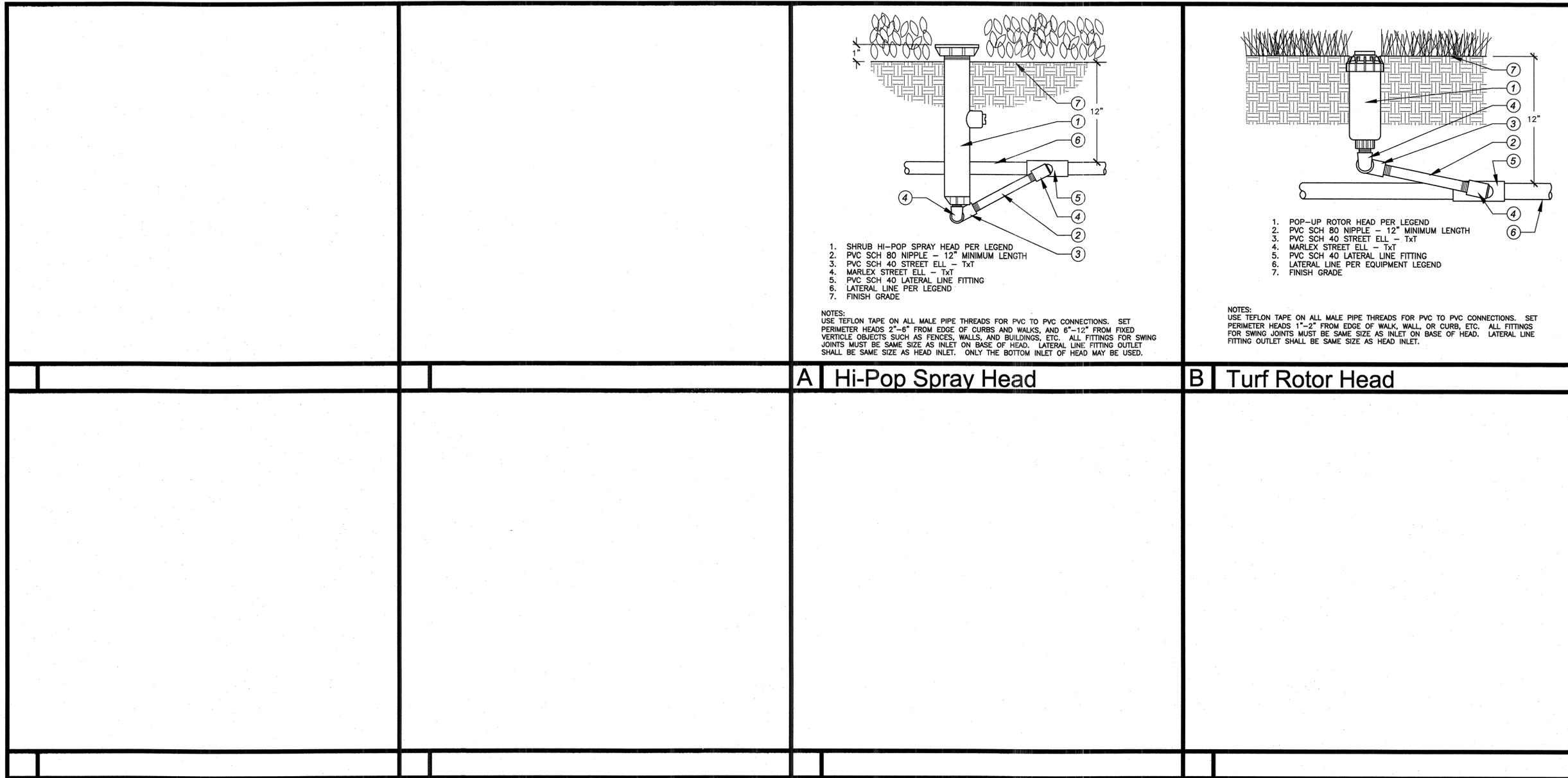
MARK	REVISIONS	APPR.	DATE
DESIGNED BY K.C.K.	DRAWN BY K.C.K.	CHECKED BY T.I.M.	

CITY OF RIVERSIDE
PARK AND RECREATION
APPROVED BY _____ BY _____ DATE _____
APPROVED BY _____ DATE _____

VILLEGAS PARK
SITE IMPROVEMENTS
3040 ESPARANZA ST.
IRRIGATION DETAILS
FOR: _____

PW08
PROJECT NO. 081044
LI-2
SHEET 3 OF 6
FILE NO.:

BENCH MARK: T.B.M. ELEV. 100.00
CENTER OF RAISED CONC. STAGE



PLANNING DEPARTMENT
 APPROVED BY _____ DATE _____

BENCH MARK: T.B.M. ELEV. 100.00
 CENTER OF RAISED CONC. STAGE



PREPARED UNDER THE DIRECTION OF:
 REGISTERED LANDSCAPE ARCHITECT NO. 2110
 EXPIRATION DATE: 10/31/09 DATE: _____
 CITY PROJECT MANAGER:
 BUD FISH - PARK PLANNER
 CITY OF RIVERSIDE
 3900 MAIN ST.
 RIVERSIDE, CA 92522
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CITY OF RIVERSIDE
 PARK AND RECREATION

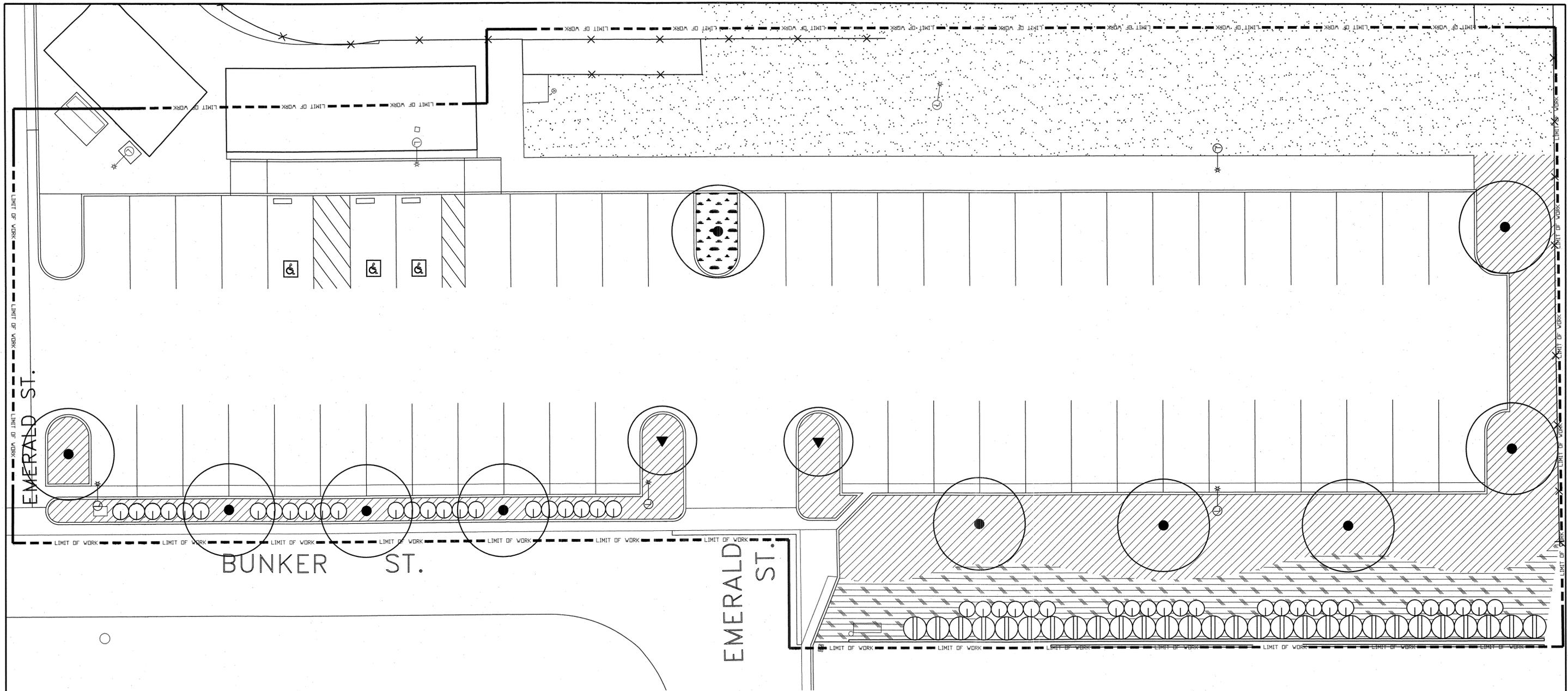
APPROVED BY	BY	DATE	APPROVED BY

DATE _____

VILLEGAS PARK
 SITE IMPROVEMENTS
 3040 ESPERANZA ST.
 IRRIGATION DETAILS

FOR: _____

PW08
 PROJECT NO. 081044
LI-3
 SHEET 4 of 6
 FILE NO. _____



PLANTING LEGEND:

TREES	BOTANIC NAME	COMMON NAME	SIZE / SPACING	DETAIL
	CUPANIOPSIS ANACARDIODES	CARROTWOOD	15 GAL	'A' & 'B', LP-2
	FRUNUS CERASIFERA 'KRAUTER VESUVIUS'	PURPLE LEAFED PLUM	24" BOX	'A' & 'B', LP-2
SHRUBS / VINES	MUHLENBERGIA CAPILLARIS	PINK MUHLY	1 GAL	'D', LP-2
	OSMANTHUS FRAGRANS	SWEET OLIVE	5 GAL	'D', LP-2
GROUNDCOVERS	MYOPORUM PARVIFOLIUM 'PINK'	MYOPORUM	FLATS @ 30" O.C.	'E', LP-2
	ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET'	HUNTINGTON CARPET ROSEMARY	1 GAL @ 24" O.C.	'D' & 'E', LP-2
	SODDED TURF	BALLFIELD MIX 1-A	ACRONO-TEC (801) 876-3680	'F', LP-2

EXISTING TURF TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO REPAIR OR REPLACE ANY TURF DAMAGED BY CONSTRUCTION OPERATIONS

ALL TREES WITHIN 5' OF HARDSCAPE TO RECEIVE ROOTBARRIER PER DETAIL 'C', SHEET LP-2
ALL PLANTER AREAS TO RECEIVE A 3" MINIMUM DEPTH LAYER OF SHREDDED HARDWOOD MULCH



PLANNING DEPARTMENT
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BJD FISH - PARK PLANNER
CITY OF RIVERSIDE
3900 MAIN ST.
RIVERSIDE, CA 92522
(951) 826-2027

SCALE: 1"=10'-0"
DATE: 1-8-09

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MARK _____ REVISIONS _____ APPR. DATE _____
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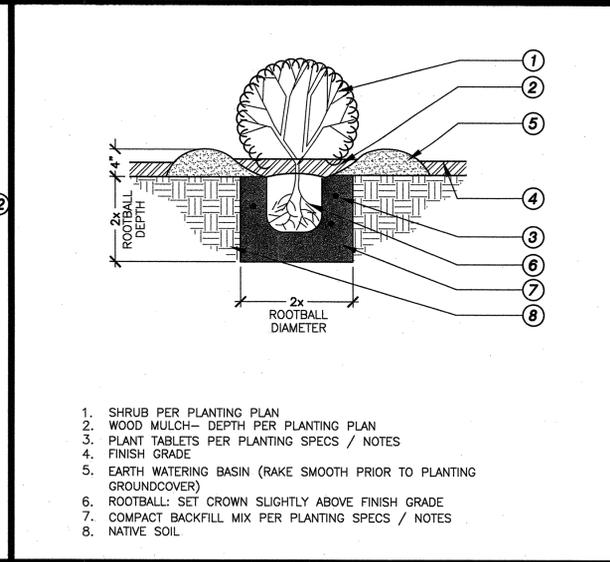
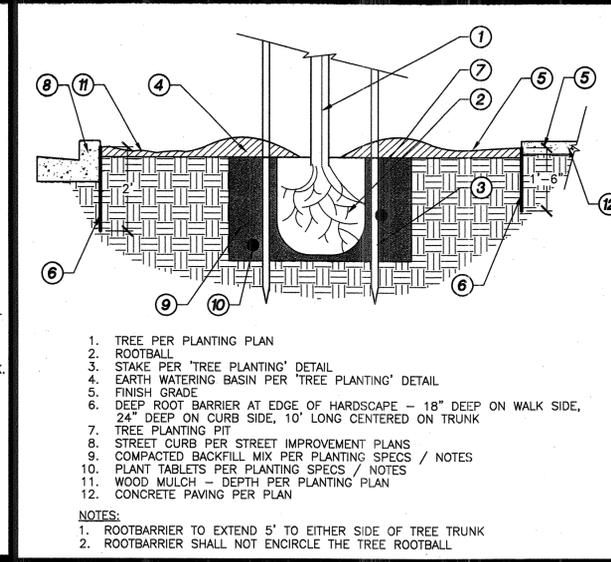
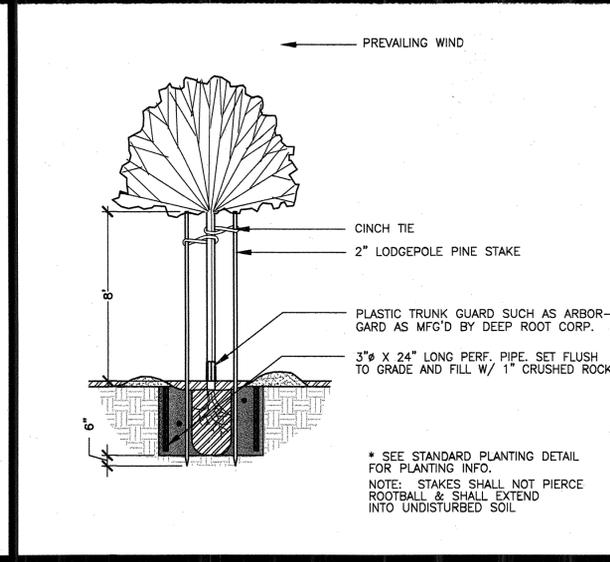
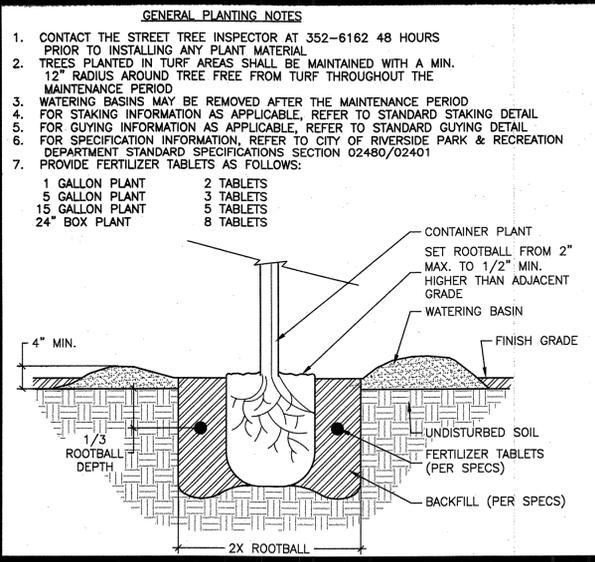
CITY OF RIVERSIDE
PARK AND RECREATION
APPROVED BY _____ BY DATE _____ APPROVED BY _____
DATE _____

VILLEGAS PARK
SITE IMPROVEMENTS
3040 ESPARANZA ST.
PLANTING PLAN
FOR: _____

BENCH MARK: T.B.M. ELEV. 100.00
CENTER OF RAISED CONC. STAGE



PW08
PROJECT NO. 081044
LP-1
SHEET 5 OF 6
FILE NO. _____

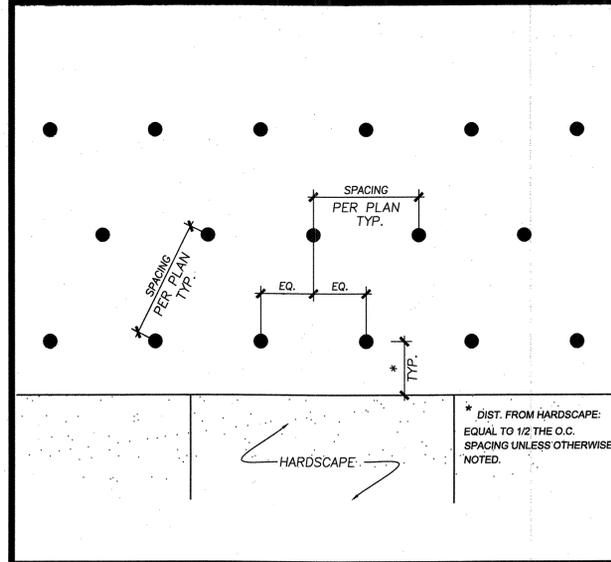


A Tree Planting - City Std 1001

B Tree Staking - City Std 1002

C Linear Root Barrier N.T.S.

D Shrub Planting N.T.S.



SOD NOTE:
TURF GRASS SHALL BE PLANTED BY SOD LAYING AS INDICATED ON THE PLANTING PLAN. TURF SOD SHALL BE BALLFIELD MIX 1-A, OR APPROVED EQUAL.

SODDING: IRRIGATE AREAS TO BE SODDED PRIOR TO INSTALLATION. MOISTURE SHALL BE UNIFORMLY PRESENT TO A DEPTH OF 2". SOD SHALL BE STORED WITHIN A SHADED AREA PRIOR TO INSTALLATION. SOD SHALL CONFORM TO ALL LAWN SHAPES AS DESIGNATED ON THE PLANTING PLANS AND SHALL BE INSTALLED IN SUCH A MANNER AS TO VISUALLY ELIMINATE ALL JOINTS AND EDGES OF SOD STRIPS. FOLLOWING INSTALLATION, IRRIGATE TURF AREAS THOROUGHLY TO PROVIDE GOOD MOISTURE PENETRATION. ROLL ALL SOD WITHIN TWO (2) DAYS FOLLOWING INSTALLATION. SOD SHALL BE UNIFORMLY SMOOTH IN APPEARANCE AND SHALL BE FLUSH WITH THE FINISH GRADE OF ALL WALKS, CURBS, ETC.

FERTILIZER PROGRAM:
THREE (3) FERTILIZER APPLICATIONS ARE TO BE APPLIED TO ALL PLANTING AREAS AT THIRTY (30) DAY INTERVALS USING THE FOLLOWING FORMULA:
5 LBS. 16-16-16 COMMERCIAL FERTILIZER PER 1000 SQ. FT.

AFTER ALL SITE GRADING HAS BEEN COMPLETED, THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, AN AGRONOMIC SOILS TEST. THE TEST SHALL BE PERFORMED BY AN APPROVED SOIL LAB AND SHALL INCLUDE ALL OF THE ABOVE INFORMATION. THE RECOMMENDATIONS OF THIS REPORT SHALL TAKE PRECEDENCE OVER THE ABOVE QUANTITIES ONLY WHEN THEY EXCEED THE SPECIFIED MINIMUMS.

SOIL PREPARATION / BACKFILL NOTE:
TO ALL NEW PLANTING AREAS (SHRUB AND GROUND COVER), ROTOTILL THE FOLLOWING AMENDMENTS:
'NITROMULCH' SOIL AMENDMENT - 3 CU. YDS. PER 1000 SQ. FT.
16-16-16 COMMERCIAL FERTILIZER - 12 LBS. PER 1000 SQ. FT.

BACKFILL MIX FOR TREES, SHRUBS, AND VINES SHALL BE AS FOLLOWS:
6 PARTS BY VOLUME ON-SITE SOIL
4 PARTS BY VOLUME ORGANIC AMENDMENT AS ABOVE
1 LB. 16-16-16 COMMERCIAL FERTILIZER PER CU. YD. OF MIX
2 LBS. IRON SULFATE PER CU. YD. OF MIX

'NITROMULCH' SOIL AMENDMENT AVAILABLE FROM 'KELLOG SUPPLY, INC.' (800) 232-2322

E Groundcover Spacing N.T.S.

F Sodded Turf N/A

G Soil Prep / Fertilizer N/A

H



PLANNING DEPARTMENT
APPROVED BY _____ DATE _____



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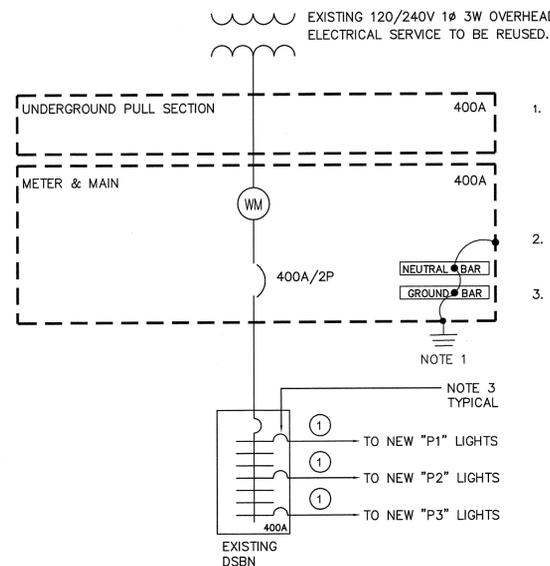
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VILLEGAS PARK
SITE IMPROVEMENTS
3040 ESPERANZA ST.
PLANTING DETAILS
FOR: _____

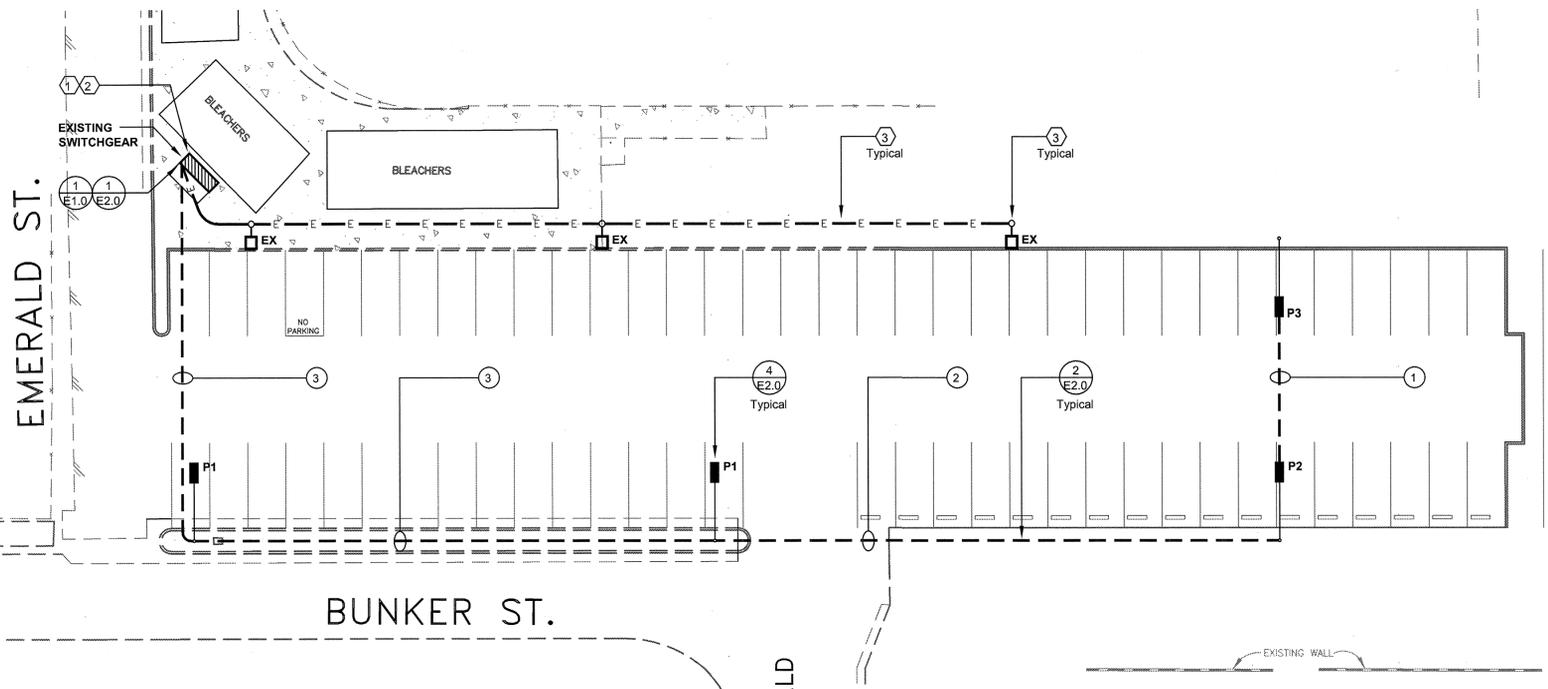
PW08
PROJECT NO. 081044
LP-2
SHEET 6 OF 6
FILE NO.:

BENCH MARK: T.B.M. ELEV. 100.00
CENTER OF RAISED CONC. STAGE



- SWITCHGEAR NOTES:**
- BOND NEUTRAL BUS, GROUNDING BUS, AND SERVICE RACEWAY. CONNECT TO: (1) AN EFFECTIVELY GROUNDING STRUCTURAL METAL MEMBER OF THE STRUCTURE, IF AVAILABLE (2) METAL WATER PIPE (WITHIN FIRST FIVE FEET OF THE WATER PIPE ENTRANCE TO THE BUILDING), IF AVAILABLE (3) OTHER MADE GROUND ELECTRODES (DRIVEN GROUND ROD) SHOWN ON THESE PLANS. USE #2/0 COPPER CONDUCTORS FOR BONDING. GROUNDING CONDUCTOR SIZE PER DRIVEN GROUND ROD DETAIL.
 - QUANTITY OF CIRCUIT BREAKERS SHOWN IS DIAGRAMMATICAL. REF. SITE PLAN AND A.C. BREAKER ASSIGNMENTS FOR QTYS, SIZES OF CIRCUIT BREAKERS, CONDUCTORS AND CONDUIT.
 - E.C. IS TO PROVIDE NEW 20A/2P CIRCUIT BREAKER. TYPE AND AIC RATING TO MATCH EXISTING. E.C. IS TO PROVIDE NEW CONDUCTORS AND CONDUIT AS SHOWN.

A.C. SINGLE LINE DIAGRAM
NO SCALE



- CONSTRUCTION NOTES**
- THE E.C. SHALL PROTECT PROPERTY AND FACILITIES ADJACENT TO THE CONSTRUCTION AREA AND ALL PROPERTY AND FACILITIES WITHIN THE CONSTRUCTION AREA.
 - THE E.C. SHALL RESTORE ALL PUBLIC OR PRIVATELY OWNED IMPROVEMENTS AND FACILITIES (I. E. LANDSCAPING, FENCES, UTILITY LINES, STRUCTURES, IRRIGATION/SPRINKLERS, ETC.) TO THEIR ORIGINAL CONDITION PRIOR TO PROJECT COMPLETION AS DIRECTED BY THE ENGINEER. THE E.C. SHALL RESTORE THESE ITEMS AT HIS OWN EXPENSE. IN THE EVENT IMPROVEMENTS OR FACILITIES ARE DAMAGED, THEY SHALL BE REPLACED WITH NEW MATERIALS EQUAL TO THE ORIGINAL.
 - THE E.C. SHALL PROTECT ANY EXISTING IRRIGATION SYSTEM IN PLACE WHERE POSSIBLE. IF THE LOCATION OF IRRIGATION LINES IS IN CONFLICT WITH THE PROPOSED CONCRETE PAD, THE E.C. SHALL NOTIFY THE CITY TO COORDINATE THE RELOCATION OF THE IRRIGATION LINES AND HEADS. THE RELOCATION IS TO BE DONE BY CITY FORCES.
 - ALL COSTS TO THE E.C. FOR LANDSCAPING AND IRRIGATION WORK REPAIR SHALL BE INCLUDED IN THE CONTRACT PRICE AND INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT, AND PERFORMING ALL WORK NECESSARY TO COMPLETE AND MAINTAIN THE LANDSCAPING AND IRRIGATION WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFOR.
 - IN AREAS WHERE EXISTING PAVEMENT IS TO BE REPLACED, TRENCHING INSTALLATION SHALL BE COMPLETED PRIOR TO PLACING FINAL PAVEMENT LAYER.
 - THE E.C. SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES AS A RESULT OF HIS OPERATIONS. THE LOCATION OF EXISTING UTILITIES, AS SHOWN ON THE PLANS, WAS OBTAINED FROM SEARCH OF AVAILABLE RECORDS. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO NOTIFY UNDERGROUND SERVICE ALERT TO DETERMINE EXACT FIELD LOCATION OF ALL UTILITIES SHOWN OR NOT SHOWN ON THE PLANS WHICH MAY CONFLICT WITH HIS OPERATIONS. POT HOLEING OF EXISTING UTILITIES WILL BE REQUIRED TO DETERMINE EXACT DEPTH AND FIELD LOCATIONS AND SHALL BE THE RESPONSIBILITY OF THE E.C.
 - THE E.C. SHALL EXPOSE ALL UTILITIES FAR ENOUGH IN ADVANCE OF HIS OPERATIONS TO ALLOW FOR ANY NECESSARY ADJUSTMENTS IN GRADE TO CLEAR THESE UTILITIES.
 - ROAD SURFACES, DAMAGED OR REMOVED, SHALL BE REPLACED TO CITY STANDARDS PLAN #604.
 - SIDEWALK AND PLANTED AREAS WHERE NEW PULLBOXES ARE INSTALLED SHALL BE REPLACED TO MATCH THE EXISTING SURFACES.

- EXPOSED CONDUIT NOTES:**
- E.C. IS TO PRIME AND PAINT ALL NEW EXPOSED CONDUIT AND BOXES, TO MATCH COLOR OF SURFACE MOUNTED TO.
 - ALL EXPOSED CONDUIT SWEEPS AND LB'S ARE TO BE KEPT TO MINIMUM POSSIBLE SIZE.

CONDUCTOR SCHEDULE

RUN	CONDUCTOR	GROUND	CONDUIT	% FILL
①	2#12	1#12	3/4"	6.62%
②	4#12	1#12	3/4"	10.67%
③	6#12	1#12	3/4"	13.58%

- KEY NOTES**
- APPROXIMATE LOCATION OF EXISTING MAIN SWITCHBOARD TO BE REUSED. REF. A.C. SINGLE LINE DIAGRAM, A.C. BREAKER ASSIGNMENTS AND DETAIL. E.C. IS TO CONFIRM EXACT LOCATION OF SWITCHGEAR PRIOR TO BIDDING.
 - E.C. IS TO PROVIDE NEW LIGHTING CONTACTOR IN EXISTING LIGHTING CONTROL CABINET AS SHOWN.
 - E.C. IS TO REUSE EXISTING POLE, LUMINAIRE AND CONDUCTORS. PROTECT IN PLACE.

- ELECTRICAL NOTES AND SYMBOLS**
- ALL WORK TO BE DONE IN ACCORDANCE WITH CALIFORNIA ELECTRICAL CODE 2007 EDITION.
 - ALL UNDERGROUND OUTSIDE BRANCH CIRCUIT AND FEEDER CIRCUITS ARE TO BE RUN IN NONMETALLIC CONDUIT SCHEDULE 40, UNLESS OTHERWISE INDICATED, LISTED FOR UNDERGROUND INSTALLATIONS, UL LISTED AND RATED FOR 90° CONDUCTORS. ALL ELECTRICAL CONDUCTORS RUN EXPOSED, SHALL BE RUN IN EMT CONDUIT SUPPORTED AT 10' INTERVALS AND WITHIN 3' OF TERMINATIONS OR BOXES.
 - ALL ELECTRICAL SYMBOLS PER ANSI Y32.9 1972. REAFFIRMED 1989.
 - ALL ELECTRICAL CONDUCTORS ARE TO BE COPPER. INSULATION FOR #12 TO #1 SHALL BE THWN, #1/0 THROUGH #4/0 SHALL BE TYPE XHHW 55miis, AND #250 MCM AND LARGER SHALL BE TYPE XHHW 65miis. GROUNDING CONDUCTOR SHALL BE THWN.
 - UTILITIES AND LIGHTING EQUIPMENT ARE DRAWN DIAGRAMMATICALLY. SCALED DIMENSIONS ARE APPROXIMATE ONLY. BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY DIMENSIONS, IMMEDIATELY NOTIFY ENGINEER OF DISCREPANCIES BETWEEN DRAWINGS OR SPECIFICATIONS AND ACTUAL CONDITIONS, ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, IT IS NOT WITHIN SCOPE OF THE DRAWINGS TO SHOW NECESSARY OFFSETS, OBSTRUCTIONS, OR SITE CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE TO INSTALL WORK IN SUCH A MANNER THAT IT WILL CONFORM TO SITE CONDITIONS, COMPLETE AND IN GOOD WORKING ORDER.
 - ALL BRANCH CIRCUITS AND FEEDERS CIRCUITS SHALL HAVE A GROUNDING CONDUCTOR PULLED WITH THEM. REF. A.C. BREAKER ASSIGNMENTS & LIGHT. AND POWER LAYOUTS FOR SIZE OF GROUNDING CONDUCTOR. THIS COPPER GROUNDING CONDUCTOR SHALL BE TERMINATED TO GROUNDING TERMINALS OF ALL RECEPTACLES & ALL NONCURRENT-CARRYING CONDUCTIVE SURFACES OF FIXED ELECTRIC EQUIPMENT LIKELY TO BECOME ENERGIZED THAT ARE SUBJECT TO PERSONAL CONTACT.
 - ELECTRICAL CONTRACTOR IS TO CONTACT ELECTRICAL UTILITY FOR NEW SERVICES TO THE SITE.

- ① INDICATES DETAIL #
E1 INDICATES SHEET #
- UNDERGROUND CONCRETE PULLBOX #3-1/2 (17.5"x12.5"x12.5") UNLESS OTHERWISE INDICATED. TO BE PREFAB CONCRETE WITH TRAFFIC COVER WHERE SUBJECT TO VEHICULAR TRAFFIC.
- CONDUCTORS W/GROUND RUN UNDERGROUND. REF. SITE PLAN FOR SIZES OF CONDUCTORS AND CONDUITS.
- EXISTING SWITCHGEAR, REF. A.C. SINGLE LINE DIAGRAM, A.C. BREAKER ASSIGNMENTS FOR FURTHER INFO.
- EXISTING PARKING LOT POLE AND LUMINAIRES TO BE PROTECTED IN PLACE.
- PROPOSED PARKING LOT POLE AND LUMINAIRES, REF. DETAIL.

- ABBREVIATIONS**
- EXIST. EXISTING TO BE REUSED E.C. ELECTRICAL CONTRACTOR
 PROV. TO BE FURNISHED AND INSTALLED NEW, BY E.C.
 M.O.C.D. MAIN OVERCURRENT DEVICE

SCOPE OF ELECTRICAL WORK

ELECTRICAL PORTION OF CONTRACT WORK IS TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

ELECTRICAL SERVICE:
E.C. IS TO REUSE EXISTING ELECTRICAL SERVICE AS SHOWN.

ELECTRICAL SWITCHGEAR AND CONTROLS:
E.C. IS TO PROVIDE CIRCUIT BREAKERS AND LIGHTING CONTROLS AS SHOWN.

NEW FEEDER AND NEW BRANCH CIRCUITS:
E.C. IS TO PROV. NEW BRANCH CIRCUITS, TRENCH, CONDUCTORS AND CONDUIT, AS SHOWN ON THESE PLANS.

SECURITY LIGHTING:
E.C. IS TO PROVIDE NEW POLES, LUMINAIRES, FOOTINGS, ETC. E.C. IS TO PROVIDE A COMPLETE AND OPERATIVE LIGHTING SYSTEM AS SHOWN.

SHEET INDEX

E-1.0	ELECTRICAL SITE PLAN
E-2.0	PHOTOMETRIC SITE PLAN
E-3.0	TITLE 24 LTG COMPLIANCE FORMS - OUTDOOR

Underground Service Alert
 Call: TOLL FREE 1-800-227-2600
 TWO WORKING DAYS BEFORE YOU DIG

ELECTRICAL SITE PLAN
 SCALE - 1" = 20' - 0"

PLANNING DEPARTMENT
 APPROVED BY _____ DATE _____

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

PREPARED UNDER THE DIRECTION OF:
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 EXPIRATION DATE: 12-31-09 DATE: _____
 CITY PROJECT MANAGER:
 BUD FISH, PARK PLANNER
 CITY OF RIVERSIDE
 3900 MAIN ST.
 RIVERSIDE, CA 92522
 (951) 526-2027

Dream Engineering Inc.
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 F: 760.245.4884
 www.dreameng.com
 email: info@dreameng.com

SCALE: AS SHOWN
 DATE: 4-2008

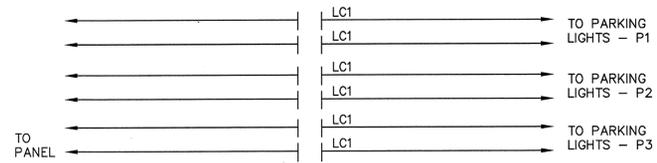
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CITY OF RIVERSIDE
 PARK AND RECREATION

APPROVED BY	BY	DATE	APPROVED BY
MARK	REVISIONS	APPR.	DATE
DESIGNED BY J.A.F.	DRAWN BY G.R.W.	CHECKED BY J.A.F.	DATE

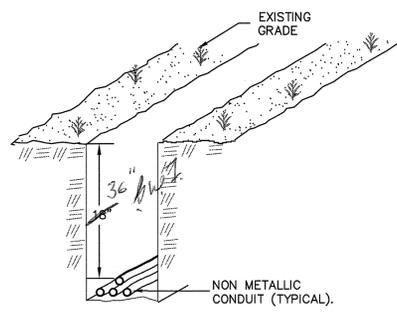
VILLEGAS PARK
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 3040 ESPARANZA ST.
ELECTRICAL SITE PLAN

PW08
 PROJECT NO. 0703081
 SHEET **E1.0** OF 3
 FILE NO.:



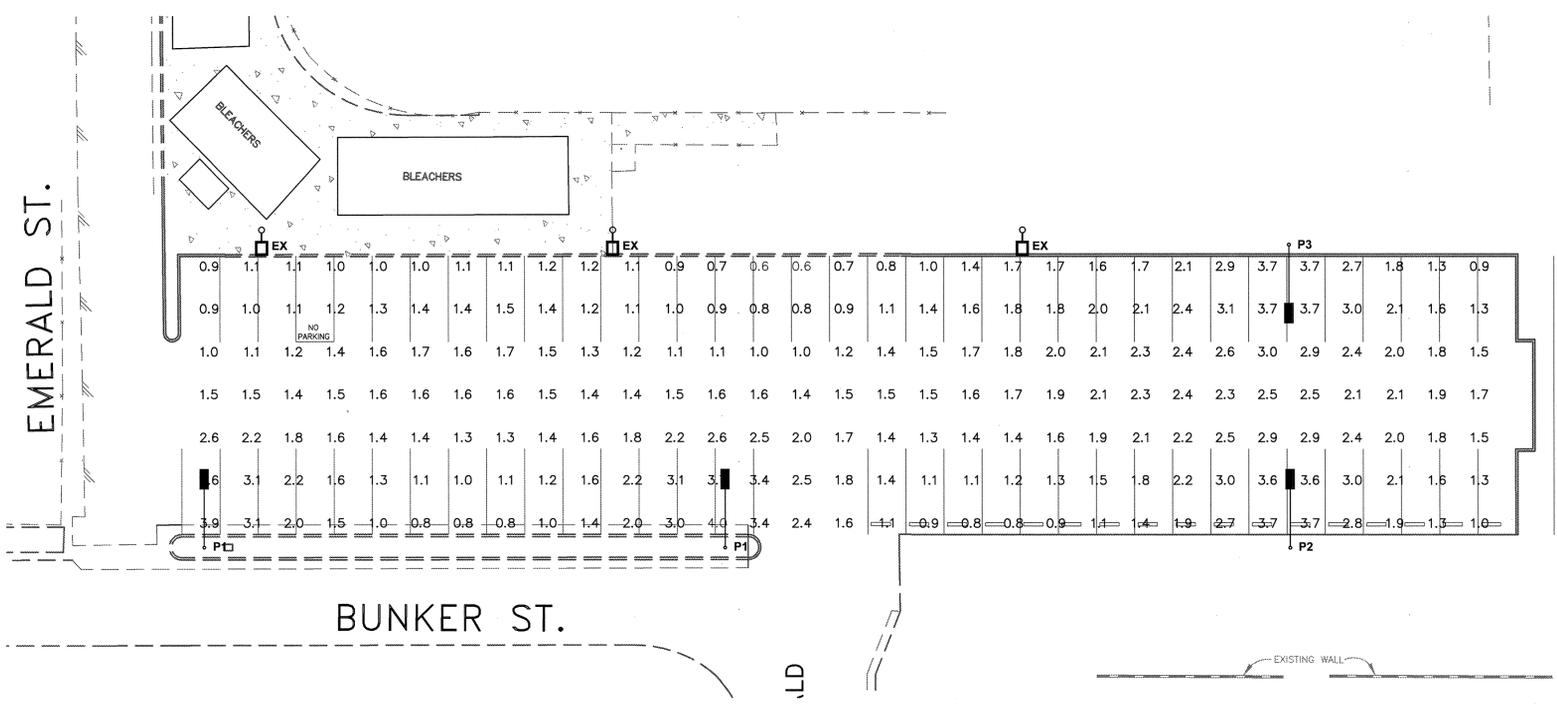
- NOTES:**
- ALL CONTROL WIRING TO BE #12THWN COPPER IN 1/2" C WHERE EXPOSED.
 - E.C. IS TO REUSE EXISTING TIMECLOCK.
 - RATINGS OF CONTACTORS TO MATCH CIRCUIT BREAKER.
 - E.C. IS TO MOUNT NEW CONTACTORS IN EXISTING LIGHTING CONTROL CABINET.
 - ALL EXTERIOR LIGHTS TO BE CONTROLLED BY P.E. CELL ON, TIMECLOCK OFF.
- SYMBOLS:**
- LCn LIGHTING CONTACTOR CONTROLLED BY LCn.
 - TC TIME CLOCK
 - P.E. PHOTOELECTRIC CELL
 - TCn TIMECLOCK CONTACT CONTROLLED BY TCn.

LIGHTING CONTROL DIAGRAM
NO SCALE



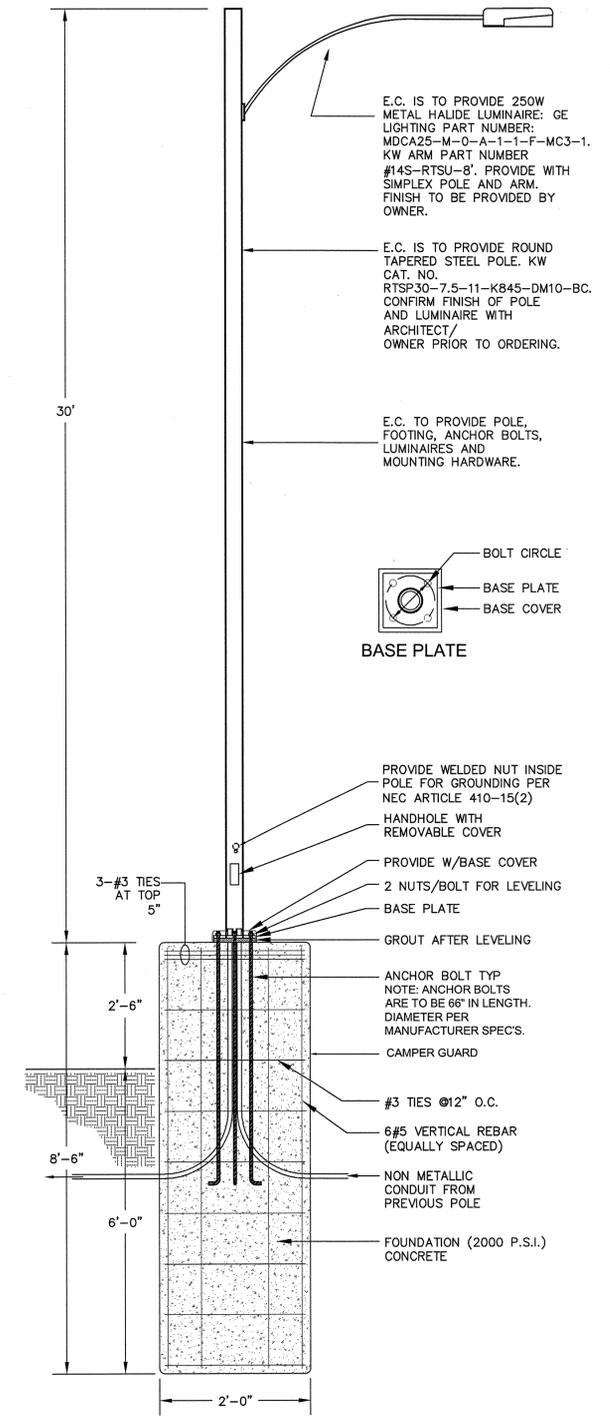
- NOTES:**
- LAY CONDUIT, FILL, COMPACT TO 90% MATCH SURROUNDING.
 - AREAS SUBJECT TO VEHICULAR TRAFFIC, SUCH AS THOROUGHFARES, SHALL HAVE A MINIMUM COVER OF 24 INCHES.

BRANCH CIRCUIT TRENCH DETAIL
NO SCALE



PHOTOMETRIC DATA	
Parking Lot	217 points at z=0, sp 10ft by 10ft
HORIZONTAL FOOTCANDLES	
Average	1.8
Maximum	4.0
Minimum	0.6
Avg: Min	2.94
Max: Min	6.67
Coef Var	0.43
UnifGrad	1.73

3
E2.0



DETAIL - FIXTURE "P1"
PARKING POLE
NO SCALE

4
E2.0

Underground Service Alert
Call: TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

PHOTOMETRIC SITE PLAN
SCALE - 1" = 20' - 0"

PLANNING DEPARTMENT
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DESIGNED BY J.A.F. DRAWN BY G.R.W. CHECKED BY J.A.F.

CITY OF RIVERSIDE
PARK AND RECREATION

APPROVED BY _____ BY _____ DATE _____
APPROVED BY _____ DATE _____

VILLEGAS PARK
SITE IMPROVEMENTS
3040 ESPARANZA ST.
PHOTOMETRIC SITE PLAN

PW08
PROJECT NO. 0703081
SHEET **E2.0** OF **3**
FILE NO.:

CERTIFICATE OF COMPLIANCE (Part 1 of 2) OLTG-1-C

PROJECT NAME: VILLEGAS PARK DATE: 07/03/2008
 PROJECT ADDRESS: RIVERSIDE, CALIFORNIA
 PRINCIPAL DESIGNER-LIGHTING: TELEPHONE: Building Permit #
 DOCUMENTATION AUTHOR: DREAM ENGINEERING INC. TELEPHONE: (760) 245-9997 Checked by/Date: Enforcement Agency Use

GENERAL INFORMATION

DATE OF PLANS: 07/03/2008 OUTDOOR LIGHTING ZONE: L1 L2 L3 L4
 FUNCTION TYPE: OUTDOOR LIGHTING OUTDOOR SIGNS INDOOR SIGNS
 PHASE OF CONSTRUCTION: NEW CONSTRUCTION ADDITION ALTERATION

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists outdoor lighting system specifications need to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to building lighting requirements. The documentation prepare hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR: JUAN A. ARAUJO SIGNATURE: [Signature] DATE: 07/03/2008

The Principal Lighting Designer hereby certifies that the proposed building design (represented in this set of construction documents) is consistent with the other compliance forms and worksheets, with the specifications and with any other calculations submitted with this permit application. The proposed building has been designed to meet the lighting requirements contained in the applicable parts of Sections 110, 119, 130 through 132, 146, and 149 of Title 24, Part 6.

I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer or electrical engineer, or I am a licensed architect.

I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.

I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

PRINCIPAL LIGHTING DESIGNERS NAME: JUAN A. ARAUJO SIGNATURE: [Signature] DATE: DEC. 31, 2009 LIC. # E.E. - 16537

INSTRUCTIONS TO APPLICANT OUTDOOR LIGHTING COMPLIANCE & WORKSHEETS

For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Manual published by the California Energy Commission.

LTG-1-C, Parts 1 of 4 and 2 of 4 Certificate of Compliance. Required on plans for all submittals for outdoor lighting, Part 2 of 2 may be incorporated in schedules on plans.
 Either LTG-1-C or OLTG-1-C may be used for signs as follows:
 1. Use LTG-1-C if the project consists solely of indoor signs
 2. Use LTG-1-C if the project consists of indoor lighting, and outdoor or indoor signs, but no other outdoor lighting
 3. Use OLTG-1-C if the project consists solely of outdoor signs
 4. Use OLTG-1-C if the project consists of outdoor lighting, and indoor or outdoor signs, but no other indoor lighting

OLTG-2-C LIGHTING COMPLIANCE SUMMARY. Applicable Parts required for ALL outdoor lighting allowances (Except for Signs)

OLTG-3-C AREA CALCULATIONS WORKSHEETS. Applicable parts required for all outdoor area calculations.

OLTG-4-C SIGN LIGHTING COMPLIANCE. Required for all internally and externally illuminated signs, for both indoor and outdoor signs.

2005 Nonresidential Compliance Forms April 2005

CERTIFICATE OF COMPLIANCE (Part 2 of 2) OLTG-1-C

PROJECT NAME: VILLEGAS PARK DATE: 07/03/2008

Lighting Schedules on Plans Show that Outdoor Lighting Meets Allowed Lighting Power

Lighting power allowances for general site illumination on OLTG-2-C Part 1 of 4
 Not Applicable

Lighting power allowances for local ordinances or for security multipliers on OLTG-2-C Part 2 of 4
 Not Applicable

Lighting power allowances for specific applications, other than vehicles service stations with canopies on OLTG-2-C Part 3 of 4
 Not Applicable

Lighting power allowances for vehicles service station canopies on OLTG-2-C Part 4 of 4
 Not Applicable

Sign lighting compliance on OLTG-4-C
 Not Applicable

Mandatory Measures on Plans Show that Outdoor Lighting Meets Outdoor Lighting Controls and Equipment

Indicated location on plans of Note Block for Mandatory Measures

Installed lighting power has been determined in accordance with § 130(c)1
 Not Applicable

All permanently installed luminaires with lamps rated over 100 watts either have a lamp efficacy of at least 60 lumens per watt or are controlled by a motion sensor § 132(a)
 Not Applicable

All luminaires with lamps rated greater than 175 watts in hardcape areas, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements of § 132(b)
 Not Applicable

All permanently installed outdoor lighting meets the Control Requirements of § 132(c)1
 Not Applicable

Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements of § 132(c)2
 Not Applicable

MANDATORY LIGHTING MEASURES FOR INTERIOR AND DAYLIT AREAS

CONTROL LOCATION	CONTROL IDENTIFICATION	CONTROL TYPE (Auto Time Switch/ Photosensor, Etc)	AREA CONTROLLED	NOTE TO FIELD
		N/A		

2005 Nonresidential Compliance Forms April 2005

LIGHTING COMPLIANCE SUMMARY (Part 1 of 4) OLTG-2-C

PROJECT NAME: VILLEGAS PARK DATE: 07/03/2008

LIGHTING POWER ALLOWANCES - GENERAL SITE ILLUMINATION - (Table 147-A)

Lighting Applications Category (Table 147-A)	Allotted Watts				Installed Watts															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Total Installed Watts				
Lighting Applications Category (Table 147-A)	Area (ft ²) or Length (ft)	Description	Designation	Lamp Type	Number of Lamps	Watts per Lamp	Number of Luminaires	Watts per Luminaire	ICGC Multiplier	Number of Luminaires	Watts per Luminaire	Number of Luminaires		Watts per Luminaire	Installed Watts (L x N)					
PARKING LOT	24445		0.08	1956	P1	POLE MOUNT	CUTOFF	MH	1	250	1	291	1	174	3			1163		
					EX	POLE MOUNT	CUTOFF	MH	1	150	1							523		
Total Allotted Watts 1956																	Total Installed Watts 1686			

2005 Nonresidential Compliance Forms April 2005

Underground Service Alert
 Call: TOLL FREE 1-800-227-2600
 TWO WORKING DAYS BEFORE YOU DIG

PLANNING DEPARTMENT
 APPROVED BY: DATE:

PRIVATE ENGINEERING NOTE
 CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



PREPARED UNDER THE DIRECTION OF:
 REGISTERED ELECTRICAL ENGINEER NO. 16537
 EXPIRATION DATE: 12-31-09 DATE:
 CITY PROJECT MANAGER:
 BUD FISH, PARK PLANNER
 3900 MAIN ST
 RIVERSIDE, CA 92522
 (951) 826-2027

Dream Engineering Inc.
 Providing Excellent Service Since 1981
 California * Arizona * Nevada * Texas
 15490 Civic Drive Suite 103 Victorville, CA 92392
 V: 760.245.9997 F: 760.245.4884
 www.dreameng.com email: info@dreameng.com

SCALE: AS SHOWN
 DATE: 4-2008

CITY OF RIVERSIDE PARK AND RECREATION

APPROVED BY: BY DATE APPROVED BY

MARK REVISIONS APPR. DATE

DESIGNED BY: J.A.F. DRAWN BY: G.R.W. CHECKED BY: J.A.F.

VILLEGAS PARK SITE IMPROVEMENTS 3040 ESPARANZA ST. TITLE 24 FORMS

FOR:

PROJECT NO. 0703081
 SHEET E3.0 OF 3
 FILE NO.:

SECTION 147 - REQUIREMENTS FOR OUTDOOR LIGHTING
 This section applies to all outdoor lighting, whether attached to buildings, poles, structures or self supporting, including but not limited to, hardcape areas including parking lots, lighting for building entrances, sales and non-sales canopies, lighting for all outdoor sales areas; and lighting for building facades.

EXCEPTIONS TO SECTION 147:
 1. Temporary outdoor lighting.
 2. Lighting required and regulated by the Federal Aviation Administration, and the Coast Guard.
 3. Lighting for public streets, roadways, highways, and traffic signage lighting, including lighting for driveway entrances occurring in the public right-of-way.
 4. Lighting for sports and athletic fields, and children's playground.
 5. Lighting for industrial sites, including but not limited to, rail yards, maritime shipyards and docks, piers and marinas, chemical and petroleum processing plants, and aviation facilities.
 6. Automated Teller Machine lighting.
 7. Lighting of public monuments.
 8. Internally illuminated, externally illuminated, and unfiltered signs.
 9. Lighting used in or around swimming pools, water features, or other locations subject to Article 680 of the California Electrical Code.
 10. Lighting of tunnels, bridges, stairs, and ramps.
 11. Landscape lighting.

(a) **Outdoor Lighting Power.** An outdoor lighting installation complies with this section if the actual outdoor lighting power calculated under Subsection (b) is no greater than the allowed outdoor lighting power calculated under Subsection (c). The allowed outdoor lighting shall be calculated by Lighting Zone as defined in Section 10-114. Local governments may amend lighting zones in compliance with Section 10-114. Trading off lighting power allowances with any indoor areas shall not be permitted.

(b) **Calculation of Actual Lighting Power.** The actual lighting power of outdoor lighting is the total watts of all lighting systems (including ballast or transformer loss).
 (c) **Calculation of Allowed Lighting Power.** The allowed lighting power shall be calculated as follows:
 1. Determine the allowed lighting power for general illumination of the site as follows:
 A. In plan view of the site, determine the illuminated area. The illuminated area is defined as any area within a square pattern around each luminaire or pole that is six times the luminaire mounting height, with the luminaire in the middle of the pattern, less any area that is within a building, under a canopy, beyond property lines, or obstructed by a sign or structure.
 B. Determine a lighting application from Table 147-A for each portion of the illuminated area. Determine the allowed area for each application. Note that the allowed area only applies to illuminated areas. Only portions of the site that are inside the illuminated area determined in step A qualify for allowed lighting power for general illumination. Multiply the allowed area of each lighting application by the allowed lighting power density from Table 147-A. Only applications listed in Table 147-A shall be included. Each portion of the illuminated area shall only be assigned one lighting application, and the assigned lighting applications shall be consistent with the actual use of the area. The allowed area of a site roadway, driveway, sidewalk, walkway or bikeway shall be determined by either of the following methods.
 i. The actual paved area plus 5 feet on either side of the centerline path of travel; or
 ii. A 25 foot wide area running along the axis of the path of travel and including as much of the paved area of the site that are inside the illuminated area determined in step A qualify for allowed lighting power for general illumination. Another lighting application shall be subtracted from the area of the other lighting application. In this case the allowed lighting power is the length of the centerline of the path times the allowed power per unit length.
EXCEPTION 1 to Section 147 (c) 1 B: For hardcape including parking lots, site roadways, driveways, sidewalks, walkways or bikeways, when specific light levels are required by law through a local ordinance, the allowed lighting power densities specified in TABLE 147-C may be used to calculate the allowed lighting power.
EXCEPTION 2 to Section 147 (c) 1 B: For retail parking lots in lighting zones 1, 2, and 3, hardcape areas within 100 feet of the entrance of senior housing facilities, and parking lots and walkways within 60 feet of building entrances for law enforcement, fire, ambulance and emergency vehicle facilities, the allowed lighting power densities specified in TABLE 147-D to establish allowed lighting power for these special applications. Luminaires qualifying for these adjusted allowances shall not be used to determine allowed power for general illumination. The adjusted lighting power allowances shall be separate allotments, which shall be complied with separately without tradeoffs.

Lighting Application Allowed Area Lighting Zone

- Lighting Zone
- Lighting Zone
- Lighting Zone
- Hardscape for automotive vehicular use, including parking lots driveways and site roads

Method (I) Actual paved area plus 5' perimeter of adjacent unpaved land. Includes planters and landscaped areas less than 10' wide that are enclosed by hardcape or at least three sides.
 0.05 0.08 0.15 0.19

Hardscape for pedestrian use, including, plazas, sidewalks, walkways and bikeways
 Method (I) Actual paved area plus 5 feet of unpaved land on either side of path of travel. Shall include all continuous paved area before including adjacent grounds.
 0.06 0.09 0.17 0.21

Hardscape for driveways, site roads, sidewalks, walkways and bikeways
 Method (ii) 25' wide path incorporating as much of the paved area of the site roadway, driveway, sidewalk, walkway or bikeway as possible.
 1.0 w/ 1.5 w/ 4.0 w/ 5.0 w/ 6.0 w/

Building Entrances (without canopy) Width of doors plus 3 ft on either side times a distance of 18 feet outward.
 0.35 0.50 1.0 1.00

Outdoor Sales Lot Actual portion of uncovered outdoor sales lot used exclusively for display of vehicles or other merchandise for sale. All adjacent access driveways, walkway areas, customer parking areas, vehicle service or storage areas that are not surrounded on at least three sides by sales area shall be considered hardcape.
 0.35 0.70 1.25 2.00

TABLE 147-B LIGHTING POWER ALLOWANCES FOR SPECIFIC APPLICATIONS (W/FT UNLESS OTHERWISE NOTED)

Lighting Application Lighting Zone 1 Lighting Zone 2 Lighting Zone 3 Lighting Zone 4
 Building Facades Not allowed 0.18 0.35 0.50
 Outdoor Sales Frontage (Frontage in linear feet)
 Not allowed 22.5 w/ 36.5 w/ 55 w/ 75 w/

Vehicle Service Station with or without Canopies
 0.70 1.15 1.45 2.40

Vehicle Service Station Hardcape 0.05 0.20 0.40 0.60
 All Other Sales Canopies Not allowed 0.70 1.00 1.25

Non-sales canopies 0.12 0.25 0.50 0.70
 Ornamental Lighting Not allowed 0.01 0.02 0.04
 Drive Up Windows 0.12 0.25 0.50 0.70
 Guarded Facilities 0.19 0.40 0.80 1.10
 Outdoor Dining 0.05 0.18 0.35 0.55
 2005 Building Energy Efficiency Standards Page 117

TABLE 147-C ALTERNATIVE POWER ALLOWANCE FOR ORDINANCE REQUIREMENTS
 Required light levels by law through a local ordinance (horizontal foot-candles, average)
 Allowed Lighting Power Density (W/ft²)

0.5 0.05
 1.0 0.07
 1.5 0.10
 2.0 0.12
 3.0 0.18
 4.0 or greater 0.25

TABLE 147-D MULTIPLIERS FOR SPECIAL SECURITY REQUIREMENTS
 Function Multiplier
 Retail parking lots in lighting zones 1, 2, and 3 1.25
 Hardcape areas within 100 feet of the entrance of senior housing facilities in lighting zones 1, 2, and 3 1.25
 Parking lots and walkways within 60 feet of entrances to the building for law enforcement, fire, ambulance and emergency vehicle facilities 2.00