general notes:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR PERMITTEE TO CONTACT "UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA" BY PHONE AT 8-1-1 FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION FOR LOCATION OF POWER, TELEPHONE, OIL AND NATURAL GAS UNDERGROUND FACILITIES. CONTRACTOR OR PERMITTEE SHALL ALSO CONTACT THE APPROPRIATE AGENCY FOR THE LOCATION OF CABLE T.V., WATER, SEWER, DRAINAGE OR UNDERGROUND FACILITIES.

2. THE CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE AT THE TIME OF BID OPENING.

datum:

HORIZONTAL CONTROL FOR POINTS _____ & _____ AS PUBLISHED IN THE CITY OF SAN LUIS OBISPO 2007 HORIZONTAL CONTROL NETWORK. CITY NETWORK IS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83) EPOCH DATE 1991.35, ZONE 5 CALIFORNIA.

VERTICAL CONTROL BENCHMARK NO. 5A WITH AN ELEVATION OF 223.64' AS PUBLISHED IN THE CITY OF SAN LUIS OBISPO 2007 BENCHMARK SYSTEM. CITY'S BENCHMARK SYSTEM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

index to plans

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LC101	CONSTRUCTION PLAN
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LP501	PLANTING DETAILS
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W2.01	LAKE DEMOLITION PLAN
W3.01	LAKE UTILITY PLAN
W4.01	LAKE CONSTRUCTION DETAILS
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Reference Documents:
City Standard Specifications - August 2020 Edition
City Engineering Standards - August 2020 Edition

san luis obispo county, california

CHENG PARK REVITALIZATION

APPROVED BY

[MO DAY, YEAR]

Brian Nelson, City Engineer *R.C.E. XXXXX* *Approved Date*

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SPECIFICATION NO.	DATE	SHEET
91385-10	DECEMBER 2021	G001
	FILE NO./LOCATION	

TOPOGRAPHIC SURVEY

BEING A TOPOGRAPHIC SURVEY OF A PORTION OF LOT
16 & 17 IN BLOCK 109 IN THE CITY OF SAN LUIS OBISPO
APN 002-443-005

BENCH MARK:

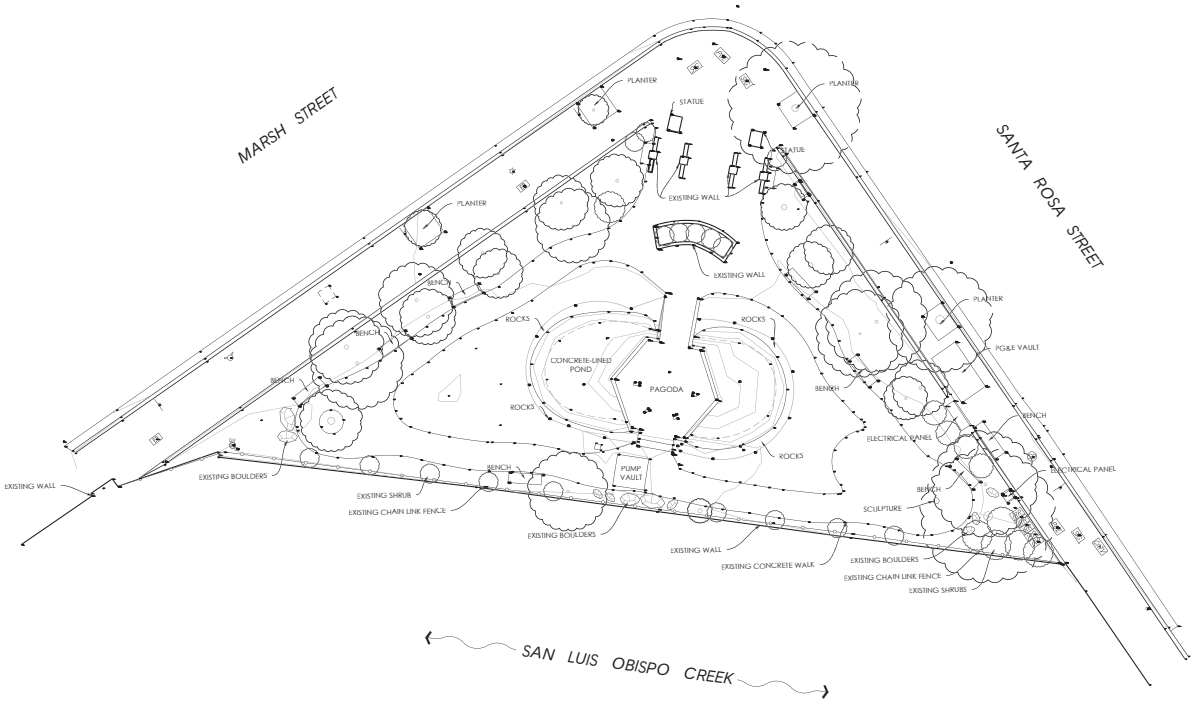
VERTICAL DATUM FOR THIS SURVEY IS BASED ON SAN LUIS OBISPO CITY BENCHMARK NO. SA A 2' ALUMINUM DISC 16 FEET NORTHERLY OF THE B.C.R. AND THE NW CORNER OF SANTA ROSA AND MARSH STREET HAVING AN ELEVATION OF 223.64 FEET

LEGEND

- EXISTING FIRE HYDRANT
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- SIGN
- WATER VALVE
- GAS VALVE
- WATER METER
- IRRIGATION VALVE
- IRRIGATION BOX
- CABLE TV BOX
- PG&E BOX
- SIGNAL BOX
- ELECTRICAL BOX

SURVEYORS NOTES

1. NO TITLE SEARCH (TITLE REPORT) WAS PROVIDED TO THE SURVEYOR. EASEMENTS WHICH MAY AFFECT THE SUBJECT PROPERTY HAVE NOT BEEN PLOTTED.
2. ONLY THE SURFACE EVIDENCE OF UNDERGROUND UTILITIES HAVE BEEN MEASURED IN THE FIELD ON THIS SURVEY. IF APPROXIMATE UNDERGROUND ALIGNMENTS ARE SHOWN, I MAKE NO WARRANTEE AS TO THE ACTUAL LOCATION, TYPE OR DEPTH OF THOSE UNDERGROUND UTILITIES. CALL UNDERGROUND SERVICE ALERT (USA) AT 1-800-642-2444 TO VERIFY THE ACTUAL LOCATION OF UTILITIES PRIOR TO ANY EXCAVATION. THE SURVEYOR ALSO HAS MADE NO INVESTIGATION AS TO SUBSURFACE ENVIRONMENTAL CONDITIONS THAT WOULD AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY.
3. IT WILL BE THE ARCHITECT'S RESPONSIBILITY TO VERIFY SETBACK AND HEIGHT RESTRICTIONS WITH THE LOCAL GOVERNING AGENCY.
4. THE SIGNED AND SEALED ORIGINAL DRAWING OF THIS MAP CONSTITUTES THE FINAL WORK PRODUCT. RRM DESIGN GROUP WILL NOT BE LIABLE FOR ELECTRONIC VERSIONS OF THIS MAP PROVIDED TO OTHER PARTIES.
5. THE BOUNDARY LINES SHOWN HEREON WERE COMPILED FROM RECORD INFORMATION (I.E. RECORDED MAPS OR DEEDS) AND ARE NOT INTENDED TO REPRESENT THE TRUE OR ACTUAL BOUNDARY LINES OF THE SUBJECT PROPERTY. TO DETERMINE THE ACTUAL BOUNDARIES OF THE PARCEL WILL REQUIRE A COMPLETE BOUNDARY SURVEY, THE SETTING OF PROPERTY MONUMENTS AND THE FILING OF A CORNER RECORD OR RECORD OF SURVEY IN CONFORMANCE WITH STATE LAW (LS ACT SEC. 8762).



0 5 10
GRAPHIC SCALE

DATE 05/07/21 SCALE 1" =10'

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CITY OF SAN LUIS OBISPO

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: EXISTING CONDITIONS

LICENSED LANDSCAPE ARCHITECT
LEE McKAY No. 4937
Signature
4/30/22
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	SS
CHECKED BY:	###
APPROVED BY:	LM
SCALE:	1" = 10"
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	G101

CONSTRUCTION NOTES

1. APPROVED PLANS - NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS APPROVED BY OWNER. THE OWNER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. ANY CONSTRUCTION DONE WITHOUT APPROVED PLANS OR WITHOUT NOTIFICATION TO THE OWNER MAY BE REJECTED AND WILL BE AT THE CONTRACTOR'S AND/OR OWNER'S RISK. THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED PLANS FOR THIS PROJECT ON THE SITE AT ALL TIMES, AND SHALL BE FAMILIAR WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS.

2. UNDERGROUND UTILITIES - PRIOR TO BEGINNING ANY EXCAVATION OR BORING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO THE EXCAVATION. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA), TOLL FREE AT 811 AT LEAST 48 HOURS PRIOR TO THE START OF ANY EXCAVATION.

3. EXISTING UNDERGROUND UTILITIES - THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND FACILITIES, WHERE SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORDS, AND MAY NOT ACCURATELY REFLECT THE ACTUAL LOCATION OR ELEVATION. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR LOCATING OR PROTECTING THE SAME DURING THE COURSE OF THE PROJECT. ANY DEVIATIONS FROM THE LOCATIONS SHOWN ON THE PLAN SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CITY GENERAL SERVICES AGENCY.

4. SAFETY - THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR SAFETY OF THE JOB SITE AND THE CONSTRUCTION WORK. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CITY INSPECTOR MAY NOTIFY THE CONTRACTOR OF ANY UNSAFE CONDITIONS WHICH MAY BE OBSERVED, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATELY TAKING ALL SUCH MEASURES AS WILL CORRECT THE UNSAFE CONDITION.

5. PROTECTION OF PROPERTY - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PUBLIC AND PRIVATE PROPERTY IN THE VICINITY OF HIS WORK, AND SHALL EXERCISE DUE CAUTION TO ITS ORIGINAL CONDITION. ALL IMPROVEMENTS OR PROPERTY WHICH IS DAMAGED OR REMOVED (UNLESS DESIGNATED FOR REMOVAL ON THE PLANS) AS A RESULT OF HIS OPERATIONS.

6. SITE CONDITIONS - THE CONTRACTOR SHALL CONTINUALLY REVIEW JOB SITE CONDITIONS. CONDITIONS REQUIRING CONSTRUCTION DIFFERENT FROM THAT SHOWN ON THE PLANS SHALL BE REPORTED TO THE ENGINEER OF RECORD. ALL SUCH CHANGES TO THE CONSTRUCTION SHALL BE APPROVED BY THE OWNER PRIOR TO PROCEEDING WITH THE CONSTRUCTION.

7. CONTRACTOR'S RECORD OF CHANGES - THE CONTRACTOR SHALL MAINTAIN A CURRENT, COMPLETE, AND ACCURATE RECORD OF ALL CHANGES FROM THE CONSTRUCTION AS SHOWN ON THESE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING THE ENGINEER OF RECORD WITH A BASIS FOR THE PREPARATION OF RECORD DRAWINGS.

8. EXISTING SURVEY MONUMENTS - THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OR PROPER RESETTING OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS. ANY SURVEY MONUMENTS DESTROYED BY THE CONTRACTOR SHALL BE REPLACED IN ACCORDANCE WITH THE STATE LAND SURVEYOR'S ACT AT THE CONTRACTOR'S OWN EXPENSE.

9. OFF-SITE GRADING OR OTHER CONSTRUCTION WORK NOT PERMITTED WITHOUT PRIOR PERMISSION OF THE OFF-SITE PROPERTY OWNER AND THE CITY OF SAN LUIS OBISPO BUILDING DEPARTMENT.

10. THE CONTRACTOR SHALL BE RESPONSIBLE DURING CONSTRUCTION FOR CLEANING CITY/STATE STREETS, CURBS, GUTTERS AND SIDEWALKS OF DIRT TRACKED FROM THE SUBJECT SITE. THE FLUSHING OF DIRT AND DEBRIS TO STORM DRAIN OR SANITARY SEWER FACILITIES SHALL NOT BE PERMITTED. THE CLEANING SHALL BE DONE AFTER EACH DAY'S WORK OR AS DIRECTED BY THE PROJECT INSPECTOR.

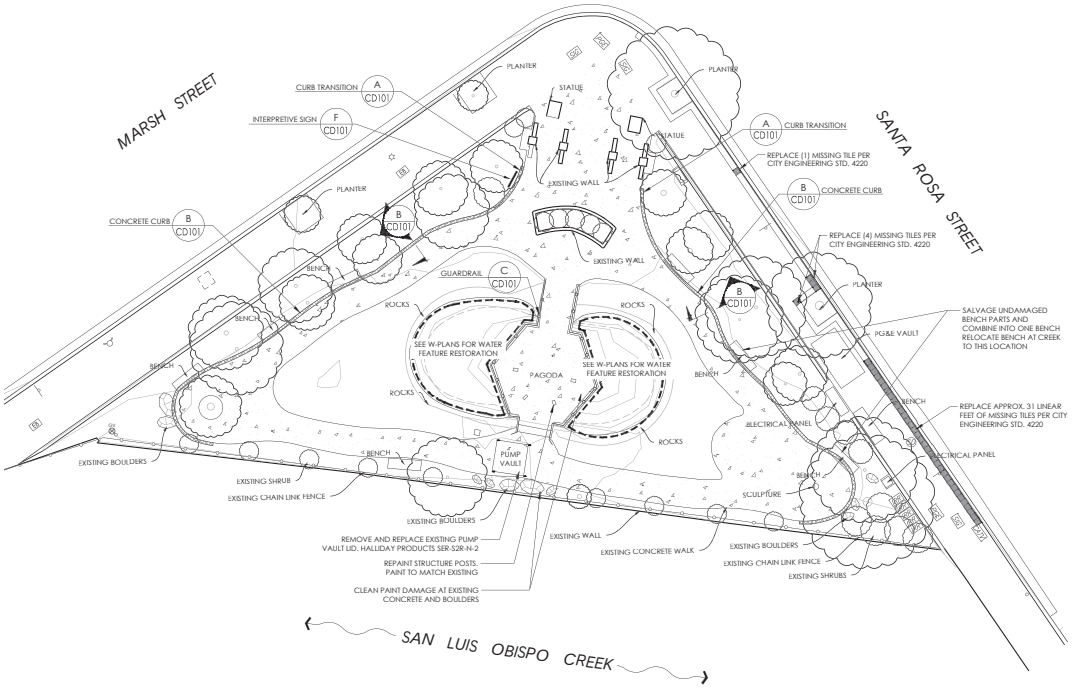
11. ALL LARGE CONSTRUCTION EQUIPMENT IS TO BE EQUIPPED WITH "CRITICAL" GRADE NOISE MUFFLERS. NOISE LEVEL REDUCTIONS ASSOCIATED WITH THE USE OF "CRITICAL" RATHER THAN "STOCK" GRADE MUFFLERS CAN BE AS HIGH AS 5dBA. ENGINES WILL BE TUNED TO INSURE LOWEST POSSIBLE NOISE LEVELS. BACK UP BEEPERS ARE TO BE TUNED TO INSURE LOWEST POSSIBLE NOISE LEVELS AS ALLOWED BY OSHA.

12. IN THE EVENT THAT GRADING OR OTHER OPERATIONS DO UNCOVER BURIED ARTIFACTS, ALL CONSTRUCTION ACTIVITIES SHALL BE HALTED TO PREVENT FURTHER DISRUPTION OF THE NEWLY DISCOVERED ARCHAEOLOGICAL SITE. A QUALIFIED ARCHAEOLOGIST SHOULD THEN EVALUATE THE DISCOVERY AND RECOMMEND THE APPROPRIATE DISPOSITION OF THE RESOURCES. THE CITY GENERAL SERVICES AGENCY SHALL BE NOTIFIED. ALL STATE AND FEDERAL LAWS SHALL BE COMPLIED WITH.

13. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING AT LEAST 7 DAYS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CITY OF GOLETA BUILDING INSPECTORS, OR THE CITY'S AUTHORIZED REPRESENTATIVE, AND THE ENGINEER OF RECORD 24 HOURS PRIOR TO THE MEETING. THIS MEETING SHALL INCLUDE THE SPECIAL INSPECTION REPORTING REQUIREMENTS, DISCUSSION OF THE EROSION CONTROL, DISABLED ACCESS COMPLIANCE & REPORTS REQUIRED. CALL CITY OF SAN LUIS OBISPO FOR INSPECTIONS.

14. CONCRETE CUTTING REQUIRES COMPLETE RECOVERY OF THE SLURRY VIA VACUUM SYSTEM OR OTHER LIKE SYSTEM.

15. WHEN POURING OR PATCHING CONCRETE, WASHOUT IS REQUIRED TO BE USED ONSITE.



LEGEND

SYMBOL	DESCRIPTION	DETAIL
	EXISTING CONCRETE PAVING TO REMAIN, PROTECT IN PLACE	
	NEW CONCRETE CURB	B CD101

0 5 10
GRAPHIC SCALE
SCALE 1" =10'

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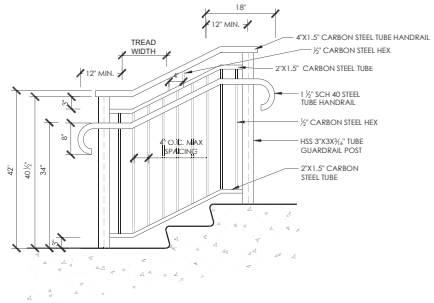
CITY OF SAN LUIS OBISPO

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: CONSTRUCTION PLAN

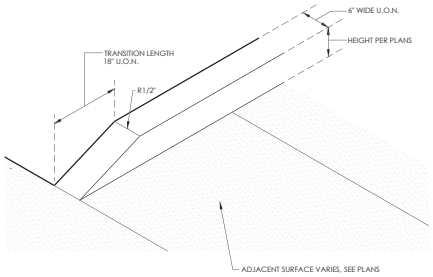
LICENSED LANDSCAPE ARCHITECT
LEE McKAY No. 4937
Signature
4/30/22
Date
STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	SS
CHECKED BY:	###
APPROVED BY:	LM
SCALE:	1" = 10"
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	LC101



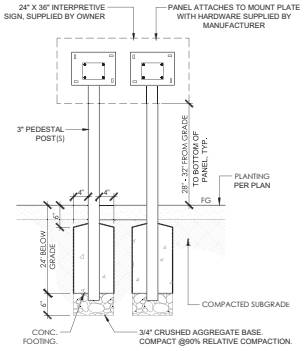
GUARDRAIL AT STEPS

NOTES:
1. ALL STEEL CONNECTIONS TO BE WELDED
2. PAINT TO MATCH EXISTING ADJACENT PAVILLION STRUCTURE



A CURB TRANSITION

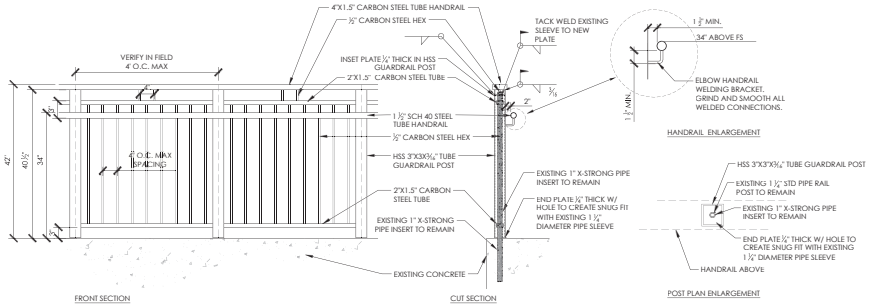
1" = 1'-0" RRM-CHG-01



NOTES:
1) INTERPRETIVE TRAIL SIGNS SHALL BE OWNER FURNISHED AND CONTRACTOR INSTALLED
2) LOCATION PER PLAN

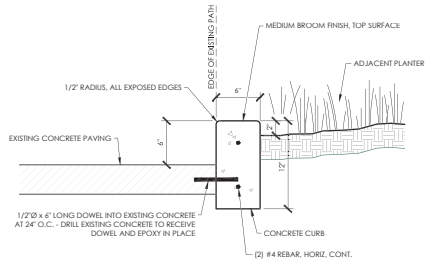
D INTERPRETIVE SIGN

3/4" = 1'-0" RRM-CHG-04



C GUARDRAIL

3/4" = 1'-0" RRM-CHG-03



NOTE: PROVIDE EXPANSION JOINTS AT 10' O.C.

B CONCRETE CURB

1 1/2" = 1'-0" RRM-CHG-02

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CITY OF SAN LUIS OBISPO

CHENG PARK REVITALIZATION

CONSTRUCTION DETAILS

PROJECT TITLE:

SHEET TITLE:

LICENSED LANDSCAPE ARCHITECT
LEE McKAY No. 4937
Signature
4/30/22
Issued Date
Date
STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	SS
CHECKED BY:	###
APPROVED BY:	LM
SCALE:	1" = 10"
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	LC501

PLANT SCHEDULE

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT
	2	ACACIA COGNATA 'COUSIN ITT'	COUSIN ITT LITTLE RIVER WATTLE	5 GAL
	5	CAMELLIA JAPONICA 'DEBUTANTE'	DEBUTANTE CAMELLIA	15 GAL
	4	CAMELLIA SASANQUA 'SHISHI GASHIRA'	SHISHI GASHIRA CAMELLIA	15 GAL
	23	CAREX TUMULICOLA	FOOTHILL SEDGE	4"POT
	8	CHONDROPETALUM TECTORUM 'EL CAMPO'	EL CAMPO SMALL CAPE RUSH	5 GAL
	5	CLEMATIS ARMANDII	EVERGREEN CLEMATIS	5 GAL
	6	LIRIOPE GIGANTEA	GIANT LIRIOPE	5 GAL
	18	LOMANDRA LONGIFOLIA 'LOMLON'	LIME TUFF DWARF MAT RUSH	1 GAL
	11	LOMANDRA LONGIFOLIA 'PLATINUM BEAUTY'	MAT RUSH	5 GAL
	2	PINUS MUGO	MUGO PINE	15 GAL
	29	SEDUM REFLEXUM 'BLUE SPRUCE'	BLUE SPRUCE-LEAVED STONECROP	1 GAL
	7	TRACHELOSPERMUM JASMINOIDES	CHINESE STAR JASMINE	5 GAL

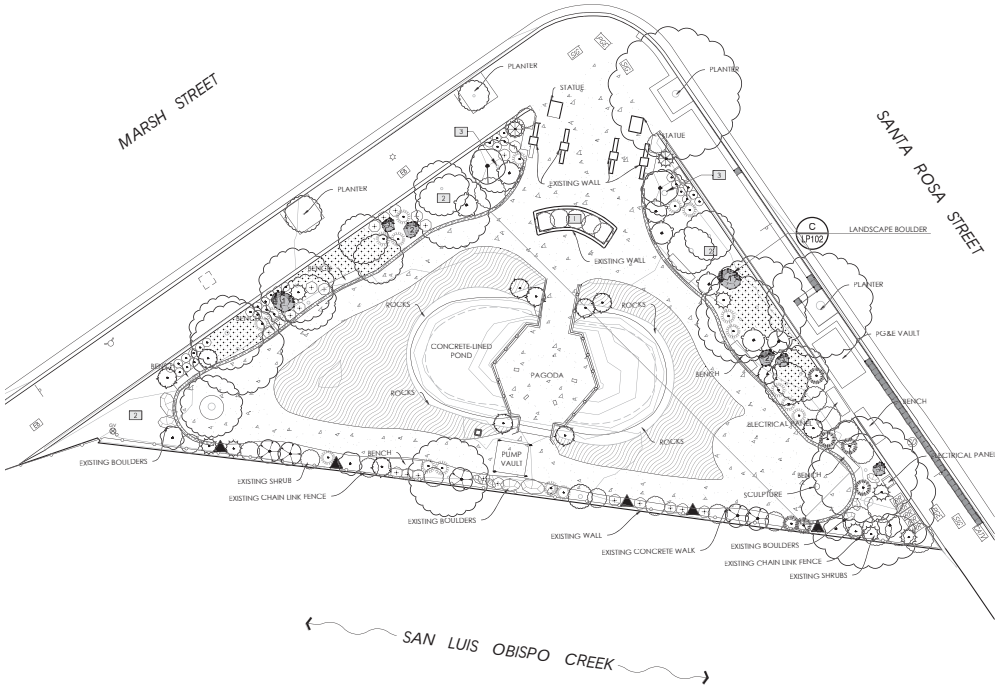
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
	988	CAREX TUMULICOLA	FOOTHILL SEDGE	4" POT	12" o.c.
	58	JUNIPERUS CONFERTA 'BLUE PACIFIC'	BLUE PACIFIC SHORE JUNIPER	1 GAL	24" o.c.

REFERENCE NOTES

SYMBOL	DESCRIPTION
1	THIN EXISTING BAMBOO BY REMOVING 50% OF CANES DISTRIBUTED EVENLY THROUGH PLANTER
2	EXISTING PLANTING TO REMAIN
3	REMOVE EXISTING TREE AND REPLACE. SEE PLANTING SCHEDULE.

PLANTING NOTES

1. PRESERVE EXISTING IRRIGATION VALVES AND PROVIDE NEW DRIP TUBING TO NEW PLANTING PER CITY STANDARD 8660. DEMONSTRATE SYSTEM OPERATES AT FULL CAPACITY PRIOR TO PLANTING INSTALLATION.
2. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED IN PLACE. REFER TO CITY STANDARDS FOR TREE PROTECTION REQUIREMENTS.
3. NEW PLANTING AREAS SHALL BE AMENDED. SCARIFY COMPACTED SOIL TO DEPTH OF 4" PRIOR TO PLANTING. CONTRACTOR TO AMEND BY HAND BENEATH EXISTING TREES, TAKING CARE NOT TO SEVER ROOTS GREATER THAN 1" DIA. BACKFILL TO BE COMPRISED OF 50% COMPOST AND 50% NATIVE SOIL MIX. SEE PLANTING DETAILS.
4. PLANT LIST IS FOR CONVENIENCE OF CONTRACTOR ONLY. IN CASE OF DISCREPANCIES BETWEEN THE PLANS AND THE LIST, PLANS SHALL PREVAIL.
5. PLANT LOCATIONS SHOWN ON THE PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL LOCATE ALL PLANT MATERIAL UNDER THE DIRECTION OF THE OWNER OR AUTHORIZED REPRESENTATIVE PRIOR TO PLANTING HOLE EXCAVATION.
6. ALL GROUNDCOVER SHALL BE TRIANGULARLY SPACED UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL INSTALL A 3" LAYER OF STINGY CEDAR BARK MULCH IN ALL SHRUB PLANTING AREAS.



0 5 10
GRAPHIC SCALE
SCALE 1" =10'

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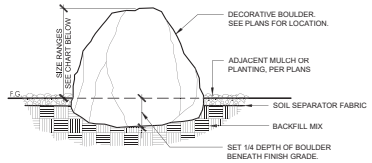
CITY OF SAN LUIS OBISPO

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: PLANTING PLAN

LICENSED LANDSCAPE ARCHITECT
LEE McKAY No. 4937
Signature
4/30/22
Date
STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	SS
CHECKED BY:	###
APPROVED BY:	LM
SCALE:	1' = 10"
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	LP101



BOULDER SIZING:
PROVIDE QUANTITIES OF BOULDERS PER QUANTITIES SHOWN ON PLANS. BOULDER SIZES ARE LABELED ON PLANS PER THE SYMBOLS SHOWN BELOW.

SYMBOL	SIZE RANGE (H, L & W)
1:	12- 24"
2:	24- 36"
3:	36- 48"

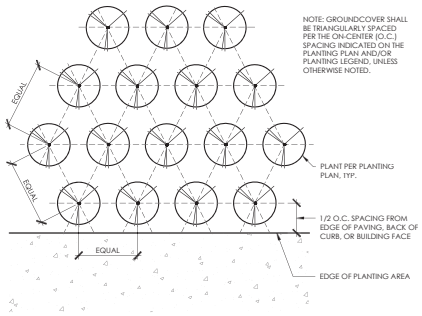
TYPICAL GROUPING

NOTE:
PROVIDE TYPICAL PHOTOGRAPHS OF BOULDERS FOR SUBMITTAL PRIOR TO APPROVAL.

LANDSCAPE ARCHITECT SHALL BE PRESENT WHILE PLACING BOULDERS.

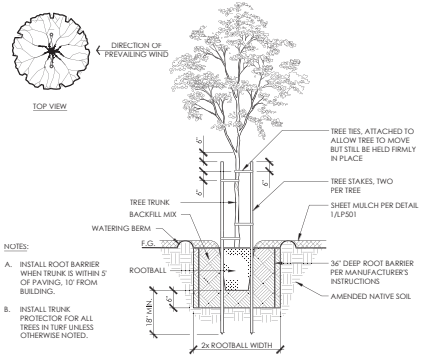
C LANDSCAPE BOULDER

3/4" = 1'-0" RRM-04



A GROUNDCOVER SPACING

1 1/2" = 1'-0" RRM-01



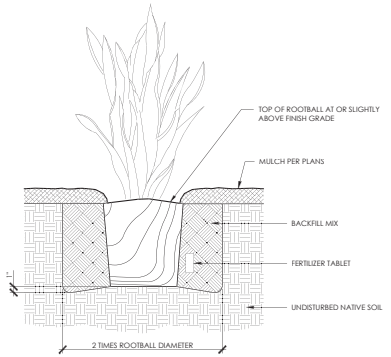
NOTES:

A. INSTALL ROOT BARRIER WHEN TRUNK IS WITHIN 5' OF PAVING, 10' FROM BUILDING.

B. INSTALL TRUNK PROTECTOR FOR ALL TREES IN TURF UNLESS OTHERWISE NOTED.

D TREE PLANTING WITH WOOD STAKING

1/2" = 1'-0" RRM-02



B SHRUB PLANTING

1 1/2" = 1'-0" RRM-12

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CITY OF SAN LUIS OBISPO

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: PLANTING DETAILS

LICENSED LANDSCAPE ARCHITECT
LEE McKAY No. 4937
Signature
4/30/22
Date
STATE OF CALIFORNIA

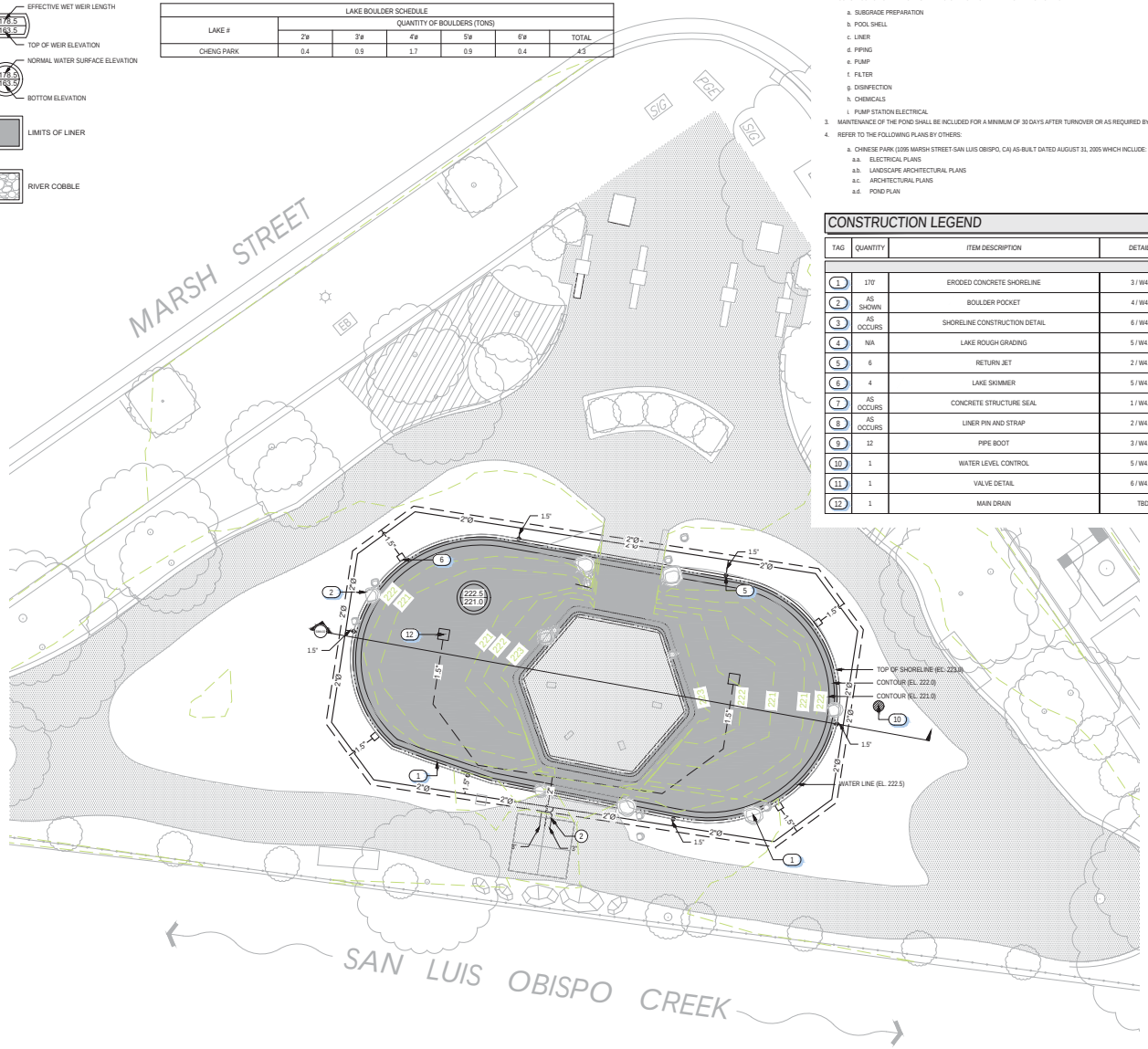
DESIGNED BY:	SS/LM
DRAWN BY:	SS
CHECKED BY:	###
APPROVED BY:	LM
SCALE:	1" = 10"
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	LP501

LEGEND:

- EFFECTIVE WET WEIR LENGTH (417.5 / 416.5)
- TOP OF WEIR ELEVATION
- NORMAL WATER SURFACE ELEVATION (417.5 / 416.5)
- BOTTOM ELEVATION
- LIMITS OF LINER
- RIVER COBBLE

CHENG PARK - PRELIMINARY POND DATA					
#	WATER SURFACE ELEVATION	AREA (SQUARE FEET)	DEPTH (FT)	PERIMETER (FT)	VOLUME (GAL)
A	223	745	1.50	170'	7,660

LAKE BOULDER SCHEDULE						
LAKE #	QUANTITY OF BOULDERS (TONS)					
	2'ø	3'ø	4'ø	5'ø	6'ø	TOTAL
CHENG PARK	0.4	0.9	1.7	0.9	0.4	4.3



POND SCOPE OF WORK

1. CONSTRUCTION OF THE RENOVATED POND SHALL INCLUDE ALL COMPONENTS FOR A FULLY OPERATIONAL AND CODE COMPLIANT SYSTEM PER THESE PLANS.
2. CONSTRUCTION OF THE POND SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
   - a. SUBGRADE PREPARATION
   - b. POOL SHELL
   - c. LINER
   - d. PIPING
   - e. PUMP
   - f. FILTER
   - g. DISINFECTION
   - h. CHEMICALS
   - i. PUMP STATION ELECTRICAL
3. MAINTENANCE OF THE POND SHALL BE INCLUDED FOR A MINIMUM OF 30 DAYS AFTER TURNOVER OR AS REQUIRED BY THE OWNER.
4. REFER TO THE FOLLOWING PLANS BY OTHERS:
   - a. CHINESE PARK (1005 MARSH STREET-SAN LUIS OBISPO, CA) AS-BUILT DATED AUGUST 31, 2005 WHICH INCLUDE:
     - a.a. ELECTRICAL PLANS
     - a.b. LANDSCAPE ARCHITECTURAL PLANS
     - a.c. ARCHITECTURAL PLANS
     - a.d. POND PLAN

CONSTRUCTION LEGEND

TAG	QUANTITY	ITEM DESCRIPTION	DETAIL
1	170'	ERODED CONCRETE SHORELINE	3 / W4.01
2	AS SHOWN	BOULDER POCKET	4 / W4.01
3	AS OCCURS	SHORELINE CONSTRUCTION DETAIL	6 / W4.01
4	N/A	LAKE ROUGH GRADING	5 / W4.02
5	6	RETURN JET	2 / W4.02
6	4	LAKE SKIMMER	5 / W4.02
7	AS OCCURS	CONCRETE STRUCTURE SEAL	1 / W4.03
8	AS OCCURS	LINER PIN AND STRAP	2 / W4.03
9	12	PIPE BOOT	3 / W4.03
10	1	WATER LEVEL CONTROL	5 / W4.03
11	1	VALVE DETAIL	6 / W4.03
12	1	MAIN DRAIN	TBD

GENERAL LAKE NOTES

1. CONCRETE FOR LAKE CONSTRUCTION UNLESS OTHERWISE SPECIFIED ON PLANS SHALL BE 6 SACK MINIMUM PEA GRAVEL PUMP MIX AND SHALL BE ABLE TO BE PUMPED AT A 2" SLUMP WITH A TRAILER MOUNTED GROUT PUMP WITH A 2" HOSE. THESE PLANS ARE INTENDED FOR LAKE CONSTRUCTION ONLY. SEE DRAWINGS BY OTHERS FOR SPECIFIC ASPECTS OF CONSTRUCTION.
2. VERIFY ELEVATIONS OF THE TOP OF CONCRETE SHORELINES AND HINGE POINTS PER THE ROUGH GRADING SECTIONS. CONFIRM THAT THE ELEVATIONS ARE WITHIN ±0.10' OF THE MAXIMUM WATER SURFACE ELEVATION SHOWN ON THE PLANS.
3. LAKE CONTRACTOR IS RESPONSIBLE FOR FINISHED GRADES PER PLAN.
4. CONTRACTOR TO STAKE ALL CRITICAL POINTS INCLUDING TOP OF SHORELINE, PIPING LOCATIONS, AND ALL LAKE COMPONENTS SHOWN ON THE PLANS.
5. LAKE CONTRACTOR TO COORDINATE WITH THE GRADING CONTRACTOR AND LAYOUT THE LAKE EDGE ON THE GROUND.
6. WATER LEVELS SHOWN INDICATE WATER SURFACE ELEVATIONS DURING OPERATION. ELEVATIONS MAY DIFFER DURING SHUTDOWN CONDITIONS.
7. ALL MANUFACTURER PRODUCT CALL-OUTS SHOWN IN THESE PLANS SHALL BE CONSIDERED "OR APPROVED EQUAL" UNLESS OTHERWISE NOTED. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF SUBSTITUTIONS FOR APPROVAL.
8. THE LAKE CONTRACTOR SHALL VERIFY THE AVAILABLE ELECTRICAL POWER PRIOR TO PURCHASING EQUIPMENT.
9. REFER TO LANDSCAPE ARCHITECT SPECIFICATIONS FOR COLOR, TYPE OF BOULDERS TO BE USED, AND INSTALLATION REQUIREMENTS. THE LAKE CONTRACTOR SHALL FURNISH AND INSTALL BOULDERS SUBJECT TO APPROVAL OF THE OWNER. NOTIFY OWNER'S REPRESENTATIVE PRIOR TO SETTING ANY BOULDERS TO WITNESS THE BOULDER INSTALLATION AND TO MAKE ADJUSTMENTS AS NECESSARY.
10. CRITICAL ELEVATIONS INCLUDING TOP OF CONCRETE SHORELINE & CONTROL WEIR ELEVATIONS SHALL BE INSTALLED ±0.05' OF ELEVATION PER PLAN.
11. GENERAL PIPELINE NOTES:
    - 11.1. ALL RE-CIRCULATION PIPE SHALL BE INSTALLED WITHOUT HIGH POINTS. PREVENT AIR TRAPS AND PROVIDE A 3'-0" (MIN) COVER OUTSIDE WATER FEATURE LIMITS AND A 1'-0" (MIN) COVER WITHIN UNLESS OTHERWISE NOTED ON THE PLANS.
    - 11.2. ALL PVC PIPE SHALL BE PER THE FOLLOWING SCHEDULE UNLESS OTHERWISE NOTED:

30"Ø AND LARGER	80 PSI PVC PIPE OR AS SPECIFIED ON PLAN
15"Ø - 27"Ø	80 PSI PVC IRRIGATION PIPE (P.I.P.)
10"Ø - 12"Ø	100 PSI PVC IRRIGATION PIPE (P.I.P.)
8"Ø	RING-TITE (RT) CLASS 160
6"Ø AND SMALLER	SCHEDULE 40 IPS PVC PIPE

    - 11.3. PROVIDE THRUST BLOCK ON PIPE BENDS IF REQUIRED. PIPELINES WITH PUSH ON JOINTS REQUIRE THRUST BLOCKS. ALL SOLVENT WELDED PIPELINE DO NOT REQUIRE THRUST BLOCKS. REFER TO THE THRUST BLOCK DETAIL.
    - 11.4. PAINT ALL EXPOSED PVC PIPE WITHIN THE LAKE AREA WITH BLACK OR DARK BLUE PAINT SUITABLE FOR PIPE MATERIAL.
12. GENERAL LINER NOTES:
    - 12.1. THE GEOMEMBRANE LINER SHALL BE 30MIL REINFORCED POLYETHYLENE (RPE) - SEE LINER SPECIFICATIONS FOR ADDITIONAL INFORMATION.
    - 12.2. THE SUBGRADE TO BE COMPACTED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

LINER SEAMING NOTES

1. THE LINER SPECIFIED SHALL BE PER PLANS.
2. PANEL LAYOUT DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL SHOWING DIRECTION OF FACTORY SEAMS AND THE LENGTH OF EACH SHEET OF GEMEMBRANE USED IN THE PANEL.
3. THE SUBGRADE SHOULD BE PROPERLY PREPARED PRIOR TO INSTALLATION OF THE LINER.
4. ALL SURFACES IN CONTACT WITH THE LINER MUST BE FREE OF SHARP STONES, OBJECTS OVER 3/8" IN DIAMETER, STICKS AND OTHER DEBRIS THAT CAN PUNCTURE OR TEAR THE LINER.
5. NO STANDING WATER, MUD, SNOW, FROST/FROZEN SOILS, OR EXCESSIVE MOISTURE SHOULD BE ON THE SUBGRADE WHEN THE LINER IS DEPLOYED.
6. THE SUBGRADE SHOULD BE CONSTRUCTED OF A FIRM AND STABLE SMOOTH BASE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
7. DESSICATION CRACKS SHOULD NOT EXCEED ½" IN WIDTH.
8. THE LINER SHOULD BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS BETWEEN 32° AND 122° FAHRENHEIT.
9. THE SEAMING SURFACES MUST BE CLEAN AND DRY.
10. LINER SEAMED IN THE FIELD SHALL HAVE THERMAL WELDS USING A HOT WEDGE OR HOT AIR WELDERS.
11. THE MINIMUM SEAM WIDTH FOR HOT WEDGE WELDING IS 2" WITH NO LOOSE FLAP ON THE TOP SIDE.
12. THE EFFECTIVE BONDED SEAM WIDTH SHOULD BE NO LESS THAN 1.5".
13. THE WEDGE IS ELECTRICALLY HEATED AND PASSES BETWEEN TWO SHEETS OF LINER. AS IT MELTS, SURFACE PRESSURE IS APPLIED, AND THE SEAM IS FORMED.
14. WRINKLES IN SEAMS CAUSED BY ACCUMULATED UNBONDED MATERIALS, PLEATS, FOLDS, AND SIMILAR DEFECTS SHALL NOT BE PERMITTED.
15. ALL DEFECTIVE SEAMS AND HOLES SHALL BE PATCHED AND REPAIRED.
16. AT A MINIMUM AIR LANCE TESTING IS REQUIRED FOR LINER INSTALLATION.

ROUGH GRADING NOTES

1. THE LAKE SHALL BE EXCAVATED BY THE GRADING CONTRACTOR. REFER TO THE ROUGH GRADING SECTION (PLUS 2 INCHES OR AS OTHERWISE NOTED).
2. USE THE TOP OF CONCRETE SHORELINE FINISH GRADE ELEVATION PER PLAN (VARIES DEPENDING ON THE TYPE OF SHORELINE) AS THE CONTROL LINE ON PLAN VIEW.
3. STAKE CRITICAL POINTS SUCH AS TOP OF SHORELINE, HINGE POINTS, AND LAKE BOTTOM ELEVATIONS.
4. MARK TOP OF SHORELINE ON THE GROUND FOR APPROVAL BY OWNER OR AUTHORIZED REPRESENTATIVE. WATERLINE SHALL BE WITHIN ±2" FROM THE ELEVATION SHOWN ON PLANS.
5. EXCAVATE USING THE MARKED TOP OF SHORELINE AS THE STARTING POINT. START FROM TOP OF SHORELINE & GRADE ACCORDING TO ROUGH GRADE SLOPES & OFFSETS AS SHOWN ON THE ROUGH GRADING SECTIONS.
6. LAKE CONTRACTOR TO COMPLETE LAKE LINER FOLLOWING UNDERGROUND PIPE INSTALLATION. FINAL LINER GRADES TO BE PER PLAN (PLUS 2 INCHES).
7. FOLLOW GEOTECHNICAL ENGINEER'S RECOMMENDATIONS FOR ROUGH GRADING OPERATIONS. REFER TO THE LATEST GEOTECHNICAL REPORT.
8. THE ON SITE GEOTECHNICAL ENGINEER TO MAKE RECOMMENDATIONS BASED ON EXISTING CONDITIONS FOUND DURING ROUGH GRADING OPERATIONS.
9. GENERAL OR GRADING CONTRACTOR TO PREPARE LAKE GRADES PER LAKE ROUGH GRADING PLANS.
10. LAKE CONTRACTOR IS RESPONSIBLE FOR APPROVING AND ACCEPTING THE ROUGH GRADE. GENERAL CONTRACTOR TO MAKE THE GRADING CHANGES PER LAKE CONTRACTOR'S DIRECTION.
11. CONTRACTOR TO REMOVE SEDIMENT ON TOP OF THE EXISTING LINER PRIOR TO ROUGH GRADING. SEDIMENT TO BE REMOVED FOR DISPOSAL.

CONSTRUCTION NOTES

1. REFER TO BOULDER SCHEDULE FOR SIZE AND QUANTITIES. BOULDER TYPE PER LANDSCAPE ARCHITECT.
2. PIPE SIZE PER PLAN. PIPE TRANSITIONS TO 2"Ø PIPE INSIDE PUMP STATION.

0 2.5 5 10
Scale: 1"= 5'-0"

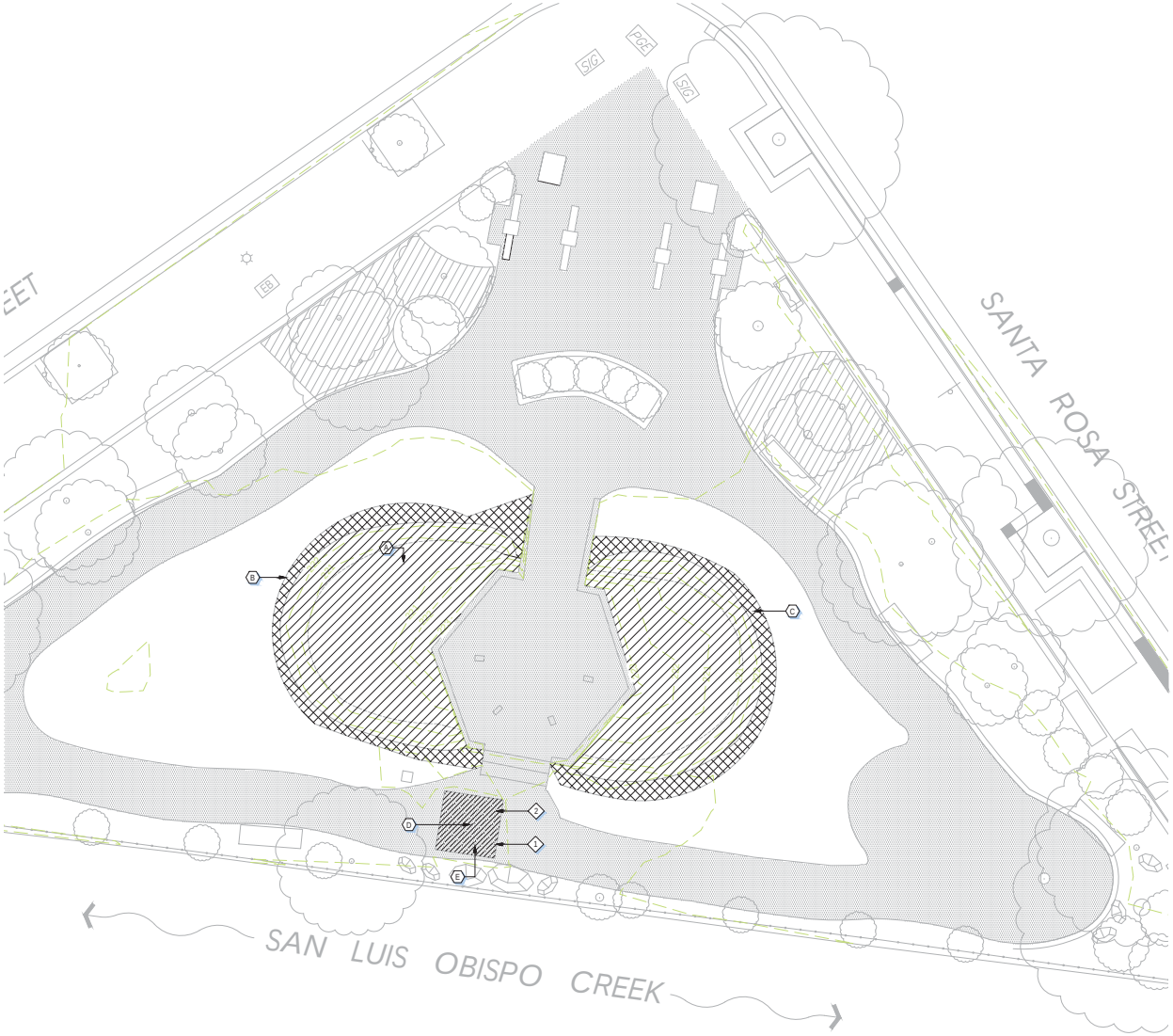
CITY OF SAN LUIS OBISPO

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: PROPOSED LAKE PLAN

REGISTERED PROFESSIONAL ENGINEER SONNY O. SIM No. C59816 Exp. 12-31-23 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	SOS
DRAWN BY:	SAS
CHECKED BY:	KT
APPROVED BY:	LM
SCALE:	1" = 5'-0"
DATE:	DECEMBER 20, 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	W1.01



DEMOLITION NOTES

1. CONTRACTOR SHALL REVIEW AND CONFIRM WITH LANDSCAPE ARCHITECT, ANY AND ALL DEMOLITION NOTES BELOW THAT ARE APPLICABLE PER PROJECT SCOPE.
2. THE DEMOLITION CONTRACTOR SHALL VERIFY ALL PROPERTY LINES, LIMITS OF WORK LINES, AND LOT LINES PRIOR TO COMMENCING ANY DEMOLITION WORK.
3. THE DEMOLITION CONTRACTOR SHALL COORDINATE ALL WORK THROUGH THE GENERAL CONTRACTOR AND THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH DEMOLITION WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR CONDITIONS EXIST THAT MAY NOT HAVE BEEN KNOW DURING PREPARATION OF THESE PLANS.
4. NO CHANGE IN CONTRACT AMOUNT SHALL BE ALLOWED DUE TO ACTUAL OR CLAIMED DISCREPANCIES BETWEEN EXISTING CONDITIONS, AND THOSE SHOWN ON THE PLAN, INCLUDING QUANTITIES CALLED OUT ON PLAN, UNLESS SUCH DISCREPANCIES ARE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE IN WRITING.
5. ALL EXISTING PLANT MATERIAL NOT SPECIFICALLY CALLED OUT TO BE BOXED-UP, OR PROTECTED IN PLACE SHALL BE REMOVED BY THE DEMOLITION CONTRACTOR INCLUDING A REASONABLE AMOUNT OF THE ROOT BALL WITH EACH TREE, OR SHRUB. ALL PLANT MATERIAL REMOVED SHALL BE DISPOSED OF LEGALLY OFF-SITE.
6. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS AS NOTED HERE OFF-SITE IN A LEGAL MANNER.
7. THE DEMOLITION BASE SHEET WAS PREPARED FROM EXISTING INFORMATION DOCUMENTED IN THE FIELD. THE INFORMATION REPRESENTED ON THIS PLAN IS NOT FROM 'AS-BUILT' PLANS, THEREFORE ALL CONDITIONS SHALL BE VERIFIED BY CONTRACTOR. THE CONTRACTOR SHALL CONFIRM ALL CONDITIONS IN THE FIELD AFFECTING THE SATISFACTORY COMPLETION OF ALL DEMOLITION WORK DESCRIBED ON THE PLAN AND REPORT ANY AND ALL DISCREPANCIES TO THE OWNER/LANDSCAPE ARCHITECT IMMEDIATELY. THE OWNER/LANDSCAPE ARCHITECT SHALL PROVIDE RESOLUTION DIRECTION PRIOR TO PROCEEDING WI ANY FURTHER DEMOLITION WORK.
8. THIS PLAN IS FOR THE PURPOSE OF IDENTIFYING THE PRESERVATION, REMOVAL, DEMOLITION AND OR SALVAGE OF LANDSCAPE AND HARDSCAPE CONSTRUCTION ITEMS ONLY. REFER TO PLANS BY CIVIL ENGINEER, ARCHITECT AND OR LIGHTING DESIGNERS FOR ADDITIONAL INFORMATION.
9. THE CONTRACTOR SHALL PROTECT-IN-PLACE ALL ADJACENT PROPERTIES AND IMPROVEMENTS. NOTIFY ADJACENT PROPERTY OWNERS A MINIMUM OF TWENTY-FOUR (24) HOURS IN ADVANCE IF ENCROACHMENT ONTO ADJACENT PROPERTY IS NECESSARY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND REPLACEMENT OF ANY DAMAGE TO ADJACENT PROPERTIES CAUSED BY HIS OPERATIONS.
11. THE CONTRACTOR SHALL PERFORM ALL CLEARING AND GRUBBING WORK NECESSARY TO ALLOW FOR ALL NEW CONSTRUCTION.
12. THE DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED, DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
13. THE CONTRACTOR SHALL CONFIRM AND PROTECT ALL EXISTING UTILITY SERVICES & METERS IN PLACE
14. THE CONTRACTOR SHALL CONTACT DIG ALERT PRIOR TO ANY DEMOLITION OR CONSTRUCTION FOR VERIFICATION OF UNDERGROUND UTILITIES.

DEMOLITION LEGEND

TAG	SYMBOL	ITEM DESCRIPTION
TO BE REMOVED		
A		EXISTING LAKE CONCRETE SHELL
B		CONCRETE SHORELINE
C		BOULDERS/COBBLE (PART OF SHORELINE)
D		VAULT LID - LID TO BE REMOVED
E		EXISTING LAKE EQUIPMENT (PUMP, SAND FILTER, PIPING, AND VALVES) - ALL ITEMS TO BE REMOVED FROM VAULT

PROTECT IN PLACE LEGEND

TAG	SYMBOL	ITEM DESCRIPTION
TO REMAIN		
1		PRE-CAST CONCRETE VAULT
2		ELECTRICAL SWITCH FOR PUMP - CONNECT NEW PUMP TO SWITCH

0 2.5 5 10

Scale: 1"= 5'-0"

PROJECT TITLE:

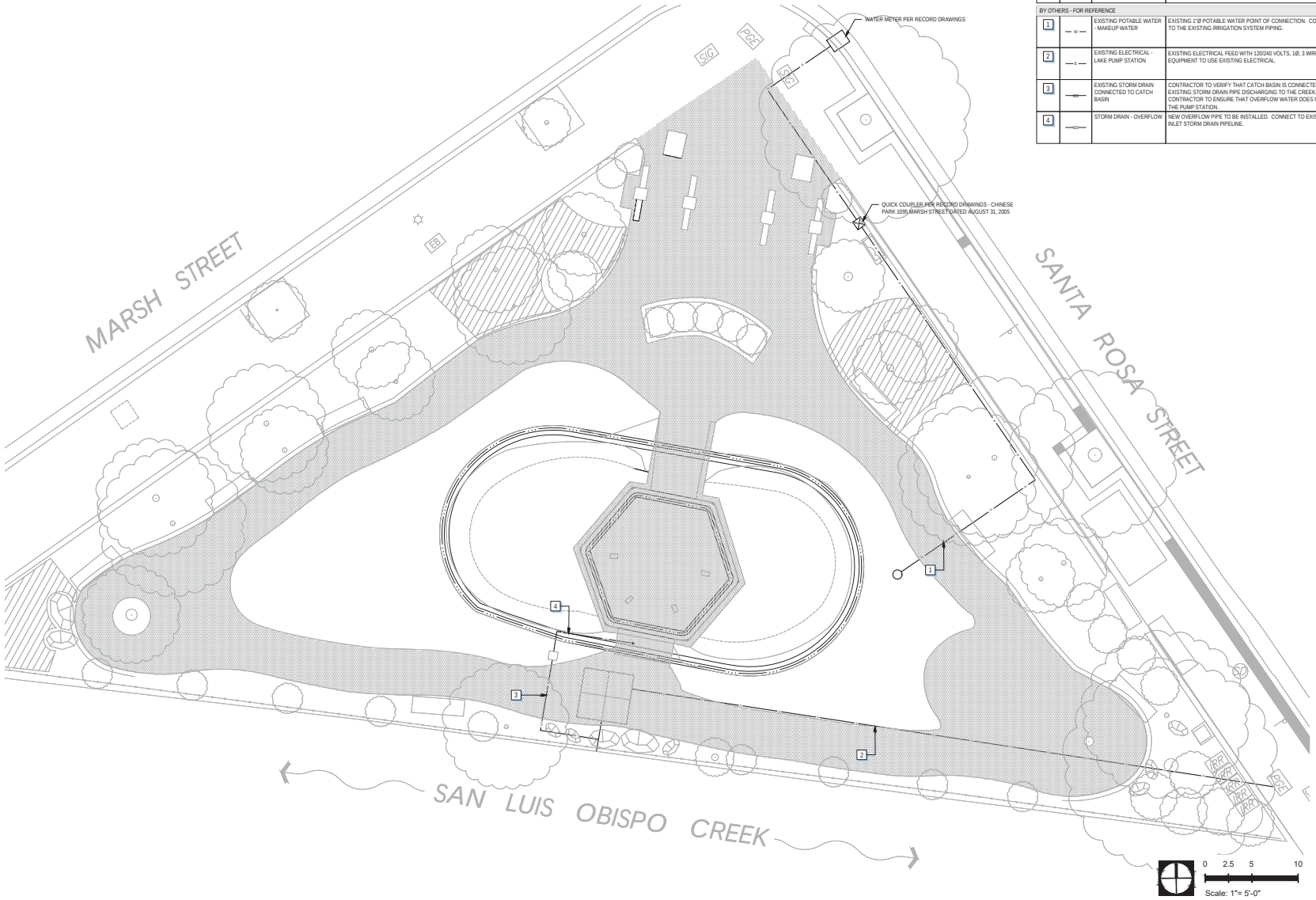
CHENG PARK REVITALIZATION

SHEET TITLE:

LAKE DEMOLITION PLAN

REGISTERED PROFESSIONAL ENGINEER
SONNY O. SIM
No. C59816
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

DESIGNED BY:	SOS
DRAWN BY:	SAS
CHECKED BY:	KT
APPROVED BY:	LM
SCALE:	1" = 5'-0"
DATE:	DECEMBER 20, 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	W2.01



UTILITY REQUIREMENTS

TAG	SYMBOL	ITEM DESCRIPTION	REMARKS
BY OTHERS - FOR REFERENCE			
1	— w —	EXISTING POTABLE WATER - MAKEUP WATER	EXISTING 1"Ø POTABLE WATER POINT OF CONNECTION. CONNECTED TO THE EXISTING IRRIGATION SYSTEM PIPING.
2	— e —	EXISTING ELECTRICAL - LAKE PUMP STATION	EXISTING ELECTRICAL FEED WITH 120/240 VOLTS, 1Ø, 3 WIRE. NEW EQUIPMENT TO USE EXISTING ELECTRICAL.
3	— sd —	EXISTING STORM DRAIN CONNECTED TO CATCH BASIN	CONTRACTOR TO VERIFY THAT CATCH BASIN IS CONNECTED TO THE EXISTING STORM DRAIN PIPE DISCHARGING TO THE CREEK. CONTRACTOR TO ENSURE THAT OVERFLOW WATER DOES NOT ENTER THE PUMP STATION.
4	—o—	STORM DRAIN - OVERFLOW	NEW OVERFLOW PIPE TO BE INSTALLED. CONNECT TO EXISTING DRAIN INLET STORM DRAIN PIPELINE.

PROJECT TITLE:
CHENG PARK REVITALIZATION

SHEET TITLE:
LAKE UTILITY PLAN

REGISTERED PROFESSIONAL ENGINEER
SONNY O. SIM
No. C59816
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

DESIGNED BY:	SOS
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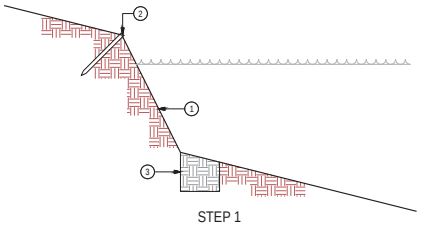
SHEET NO.	**W3.01**

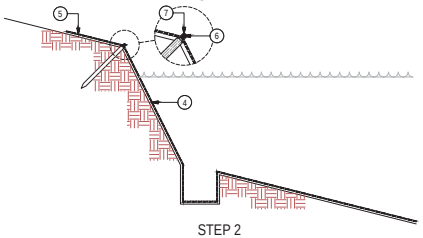
11. INSTALL CONCRETE VENEER PER THICKNESS ON SHORELINE DETAIL. VERTICAL CONCRETE THICKNESS TO BE ERODED TO SIMULATE A LAKE BANK. CONTRACTOR TO PROVIDE A 10' MOCK UP OF THE SHORELINE FOR APPROVAL PRIOR TO INSTALLATION OF THE REMAINING SHORELINE. STAIN WITH PERMEON ROCK AND CONCRETE COLOR SYSTEM PER "SOIL TECH"

6. INSTALL #2 BAR CONTINUOUS ON TOP OF WOODEN STAKE
7. CONNECT #2 BAR WITH HOG RINGS
8. FOLD LINER BACK OVER #2 BAR
9. INSTALL WIRE MESH
10. FINISH GRADE TO COVER TOP OF CONCRETE SHORELINE

1. ROUGH GRADE BY GRADING CONTRACTOR
2. INSTALL WOODEN STAKES AT 3'-0" ON CENTER
3. REMOVE 8"X8" KEYWAY PER SHORELINE DETAIL IF REQUIRED
4. INSTALL GEOMEMBRANE LINER
5. PROVIDE EXCESS LINER (12" MIN)



STEP 1



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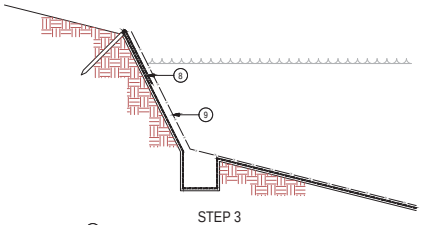
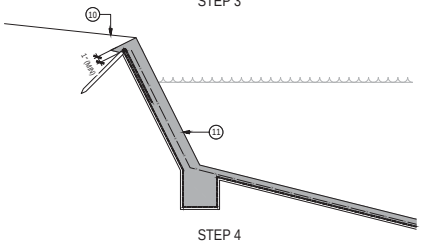


STEP 3

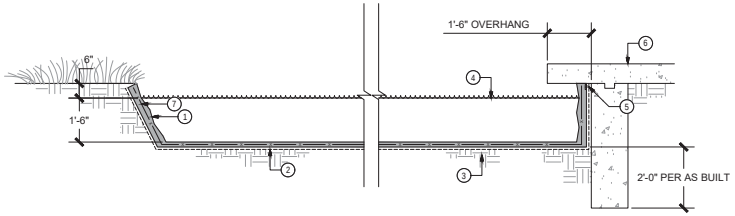


STEP 4

06 SHORELINE CONSTRUCTION

SCALE: 1"=1'-0"

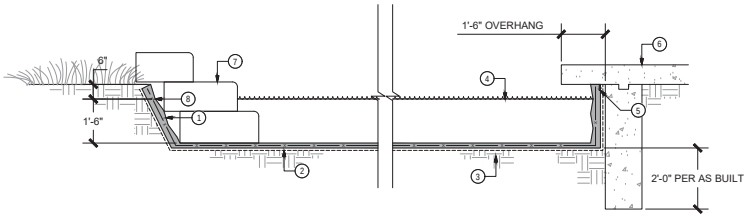
1. ERODED CONCRETE - STAINED TO MATCH COLOR OF EXISTING SOIL AND ERODED TO SIMULATE AN ERODED BANK.
2. NEW GEOMEMBRANE LINER
3. PREPARED SUBGRADE
4. WATER SURFACE ELEVATION 222.5
5. PIN AND STRAP PER DETAIL 2 / W4.02
6. PAGODA FINISHED FLOOR
7. REFER TO SHORELINE CONSTRUCTION DETAIL PER DETAIL 6 / W4.01



03 ERODED CONCRETE SHORELINE

SCALE: 1/2"=1'-0"

1. ERODED CONCRETE - STAINED TO MATCH COLOR OF EXISTING SOIL AND ERODED TO SIMULATE AN ERODED BANK.
2. NEW GEOMEMBRANE LINER
3. PREPARED SUBGRADE
4. WATER SURFACE ELEVATION 222.5
5. PIN AND STRAP PER DETAIL 2 / W4.02
6. PAGODA FINISHED FLOOR
7. BOULDERS - FILL ADJACENT VOIDS BETWEEN ROCKS WITH COBBLE AND GRAVEL. REFER TO BOULDER SCHEDULE ON W1.01
8. REFER TO SHORELINE CONSTRUCTION DETAIL PER DETAIL 6 / W4.01



04 BOULDER POCKET

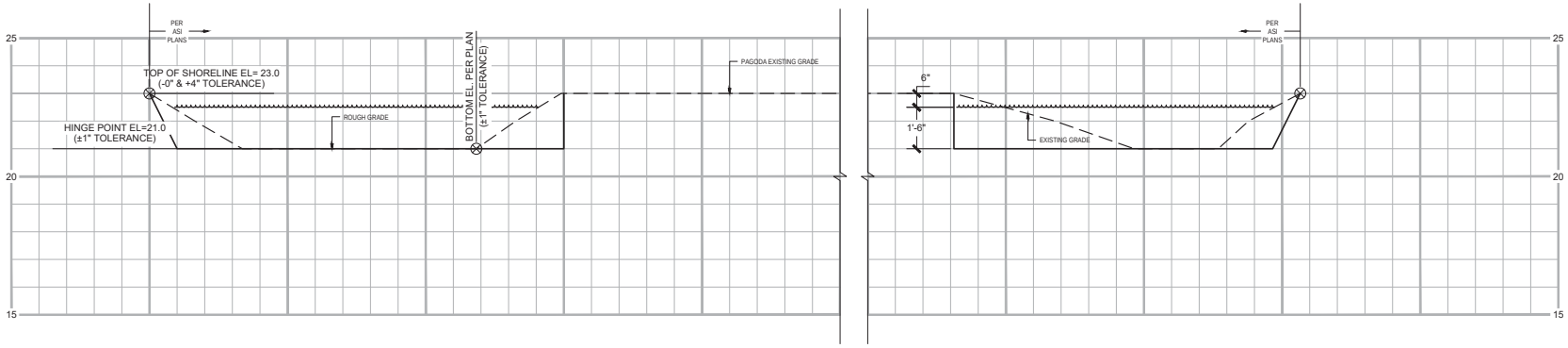
SCALE: 1/2"=1'-0"

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: LAKE CONSTRUCTION DETAILS

REGISTERED PROFESSIONAL ENGINEER SONNY O. SIM No. C59816 Exp. 12-31-23 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	SOS
DRAWN BY:	SAS
CHECKED BY:	KT
APPROVED BY:	LM
SCALE:	1/2" = 1'-0"
DATE:	DECEMBER 20, 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	W4.01



05 LAKE ROUGH GRADING

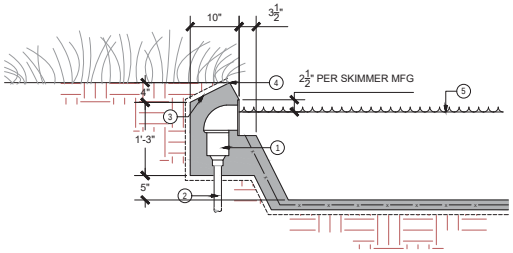
SCALE: 1/2"=1'-0"

06 NOT USED

NOTES

1. PROVIDE 2" MINIMUM CONCRETE COVER AROUND SKIMMER.

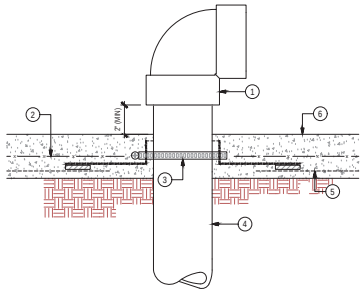
1. FRONT ACCESS SKIMMER PER "FOUNTAIN PEOPLE", MODEL FSK-150J
2. 1 1/2" CONNECTION TO SKIMMER - REFER TO PIPING PLAN FOR CHANGE IN PIPE SIZE
3. PROVIDE SLOPE TO ALLOW GROUND COVER TO GROW ABOV E CONCRETE STRUCTURE
4. TOP OF CONCRETE SHORELINE PER PLAN
5. NORMAL WATER SURFACE ELEVATION PER PLAN



05 LAKE SKIMMER

SCALE: 1"=1'-0"

1. 90° ELBOW (PAINT ALL EXPOSED SURFACES BLACK)
2. CONCRETE VENEER WITH REINFORCEMENT PER PLAN
3. PIPE BOOT
4. DISCHARGE PIPE (SIZE PER PLAN)
5. GEOMEMBRANE LINER
6. TOP OF CONCRETE



02 RETURN JET

SCALE: 3"=1'-0"

CITY OF SAN LUIS OBISPO

CHENG PARK REVITALIZATION

PROJECT TITLE:

LAKE CONSTRUCTION DETAILS

SHEET TITLE:

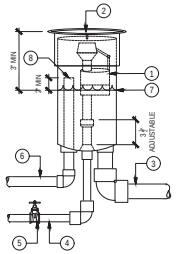
REGISTERED PROFESSIONAL ENGINEER
SONNY O. SIM
No. C59816
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

DESIGNED BY:	SOS
DRAWN BY:	SAS
CHECKED BY:	KT
APPROVED BY:	LM
SCALE:	1/2" = 1'-0"
DATE:	DECEMBER 20, 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	W4.02

NOTES

1. REFER TO LANDSCAPE ARCHITECT PLANS FOR LID DIMENSIONS AND TYPE.
2. CONTRACTOR TO CONFIRM THAT THE POTABLE WATER LINE IS CONNECTED TO AN APPROPRIATE BACK FLOW DEVICE REQUIRED BY CODE.
3. INSTALL WATER LEVEL CONTROL PER MANUFACTURER'S RECOMMENDATIONS.
4. CONNECT THE 1" OVERFLOW PIPE TO THE NEAREST STORM DRAIN.
5. 1 1/2" EQUALIZER PIPE TO BE CONNECTED TO POOL AND USE AN INLET FITTING AT THE END OF THE PIPE.

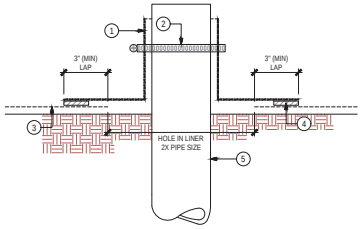
1. WATER LEVEL CONTROL PER "POOL MISER" MODEL PM-101, (707)763-7613, INCLUDES TANK
2. AUTO FILL LID - PROVIDE SHOP DRAWINGS FOR APPROVAL
3. 1 1/2"Ø EQUALIZER PIPE CONNECTED TO POOL
4. 3/4"Ø POTABLE WATER FILL LINE
5. INSTALL SHUTOFF VALVE
6. 1"Ø OVERFLOW PIPE TO STORM DRAIN
7. WATER LEVEL AT TANK EQUAL TO POOL WATER LEVEL
8. TOP OF OVERFLOW PIPE TO BE SET A MINIMUM OF 2" ABOVE POOL WATER LEVEL



05 WATER LEVEL CONTROL

SCALE: N.T.S.

1. PIPE BOOT TO FIT PIPE OUTSIDE DIAMETER PER GEOMEMBRANE MANUFACTURER
2. STAINLESS STEEL CLAMP - PROVIDE BUTYL TAPE BETWEEN CLAMP AND PIPE BOOT
3. GEOMEMBRANE LINER
4. THERMAL WELD
5. PIPE (4"Ø OR SMALLER)

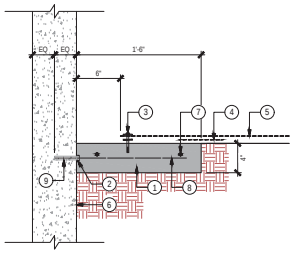


03 PIPE BOOT

SCALE: 3"=1'-0"

6. CAST IN PLACE CONCRETE STRUCTURE
7. (2) #4 BARS CONTINUOUS
8. #4 BARS @12" O.C.
9. DRILL 3/8"Ø HOLES @ 12" O.C. TO RECEIVE REBAR AND PACK WITH EPOXY

1. 4" THICK CONCRETE PAD
2. WATERSTOP RX102 PER "CETCO" (3/8" X 3/8")
3. PIN AND STRAP PER DETAIL
4. 6" WIDE GEOMEMBRANE LINER - USE AS CUSHION BETWEEN CONCRETE AND LINER
5. GEOMEMBRANE LINER

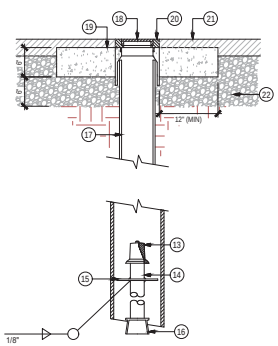


01 CONCRETE STRUCTURE SEAL

SCALE: 1 1/2"=1'-0"

NOTES

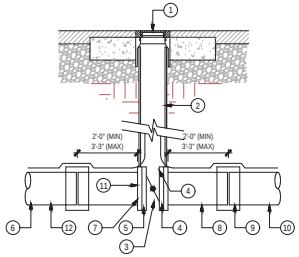
1. BUTTERFLY VALVES SHALL BE USED ON ALL MAINS WITH ADIAMETER OF 18" OR GREATER. RESILIENT WEDGE GATE VALVES SHALL BE USED ON MAINS WITH A DIAMTER OF 12 INCHES OR SMALLER.
2. VALVE BODY AND GEAR BOX SHALL BE CAST IRON OR DUCTILE IRON.
3. ALL FLANGE BOLTS SHALL BE TYPE 316 STAINLESS STEEL COATED WITH ANTI-SEIZE COMPOUND.
4. 24" BUTTERFLY VALVES SHALL BE SUPPLIED WITH A WORM GEAR MANUAL OPERATOR SPECIFICALLY DESIGNED FOR BURIED SERVICE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RAISING VALVE BOXES TO GRADE.
6. VALVE ANCHORS SHALL BE PROVIDED FOR VALVES 16" AND SMALLER. VALVE ANCHORS SHALL NOT BE USED ON VALVES WHICH ARE FLANGED TO TEES OR CROSSES WHICH HAVE THRUST BLOCKS.
7. PROVIDE VALVE STEM EXTENSION WHEN DEPTH TO OPERATING NUT EXCEEDS 48".
8. VALVE EXTENSION SHALL BE OF SOLID DESIGN, PINNED COUPLER ARE UNACCEPTABLE.
9. 2" SQUARE OPERATING NUT SHALL BE AT LEAST 24" BELOW FINISHED GRADE.



17. 8"Ø SCHEDULE 40 PVC PIPE
18. CAST IRON FRAMES AND COVERS SHALL BE CIRCULAR, BROOKS #3RT OR EQUAL
19. CONCRETE COLLAR
20. FINISHED GRADE
21. MATCH EXISTING FINISHED MATERIAL
22. 3/4" AGGREGATE BASE ROCK MATERIAL

9. FOR DI PIPE AND 16" & LARGER PVC PIPE: DI LONG PATTERN MECHANICAL JOINT SOLID SLEEVE WITH JOINT RESTRAINT
10. FOR DI PIPE AND 16" & LARGER PVC PIPE: DI PIPE (FOR 16" PVC PIPE: DI SPOOL (PEx/PUSHON) TO TRANSITION TO PVC)
11. FOR 12" AND SMALLER PVC PIPE: VALVE SHALL HAVE PUSHON OR MJ ENDS UNLESS OTHERWISE SHOWN ON THE PLANS
12. FOR 12" AND SMALLER PVC PIPE: PVC PIPE
13. 2" AWWA SQUARE OPERATING NUT
14. 1 1/2"Ø STEEL SHAFT EXTENSION - MACHINE TO MATCH NUT
15. 6 1/2"Ø X 1/2" FLAT PL CENTERING GUIDE 12" BELOW TOP OF OPERATING NUT
16. ADAPTER TO FIT AWWA SQUARE NUT

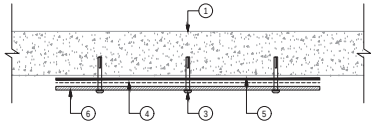
1. VALVE BOX COVER AND RISER PER DETAIL
2. INSTALL 8" PVC SCHEDULE 40
3. INSTALL BUTTERFLY VALVE/RESILIENT GATE WEDGE VALVE (SEE NOTE 1)
4. ALL BONNET SCREWS AND CAP NUTS SHALL BE TYPE 316 STAINLESS STEEL
5. FOR STEEL PIPE: VALVE SHALL HAVE FLANGED ENDS
6. FOR STEEL PIPE: CML&C STEEL PIPE
7. FOR DI PIPE AND 16" & LARGER PVC PIPE: VALVE SHALL HAVE MECHANICAL JOINT ENDS WITH JOINT RESTRAINT OR FLANGED ENDS
8. FOR DI PIPE AND 16" & LARGER PVC PIPE: DI SPOOL (PEx/PE) OR (FLG x/PE)



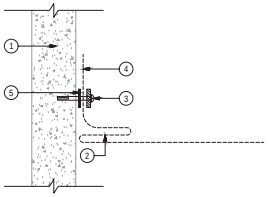
06 VALVE DETAIL

SCALE: NTS

1. CONCRETE STRUCTURE
2. LINER FOLD FOR TENSION RELIEF (3" MIN)
3. 3/8" X 1 1/2" ONE PIECE NAIL DRIVE ANCHOR
4. GEOMEMBRANE LINER
5. BUTYL TAPE
6. 1 1/2" x 1/2" STAINLESS STEEL OR ALUMINUM BAND - DRILL 3/8"Ø HOLES @ 6" O.C. & SECURE TO CONCRETE



PLAN VIEW



SECTION

02 PIN AND STRAP

SCALE: 3"=1'-0"

CHENG PARK REVITALIZATION

LAKE CONSTRUCTION DETAILS

PROJECT TITLE:

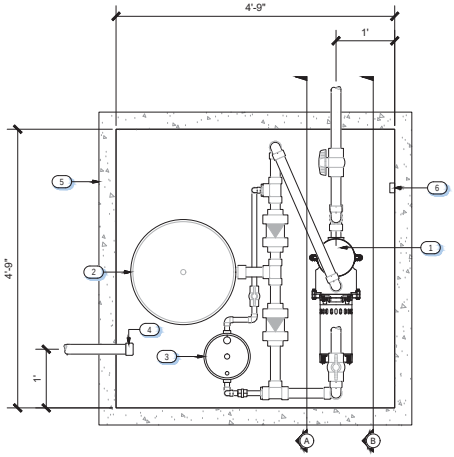
SHEET TITLE:

REGISTERED PROFESSIONAL ENGINEER SONNY O. SIM No. C59816 Exp. 12-31-23 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	SOS
DRAWN BY:	SAS
CHECKED BY:	KT
APPROVED BY:	LM
SCALE:	1/2" = 1'-0"
DATE:	DECEMBER 20, 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	W4.03

EQUIPMENT SCHEDULE

ITEM	NAME	MANUFACTURER / CONTACT	MODEL	QUANTITY	NOTES
1	FILTER PUMP	PENTAIR	WATERFALL SPECIALTY PUMP MODEL AFP-120	1	100 GPM @ 17.5' TDH, 115/230V, 9.6/4.8 FLA, 2" X 2" NPT PORT SIZE
2	CARTRIDGE FILTER	PENTAIR	CLEAN AND CLEAR PLUS MODEL CCP320	1	REQUIRES 62" VERTICAL CLEARANCE FOR FILTER MAINTENANCE. 320 SQUARE FEET FILTER AREA
3	HIGH CAPACITY CHLORINE FEEDER	PENTAIR	RAINBOW HC-3330	1	30 LB MAXIMUM CAPACITY, 17 GPM TO 34 GPM. CONTRACTOR TO PROVIDE CALCIUM HYPOCHLORITE
4	SEWER LINE CAP	SPEARS	N/A	1	CAP EXISTING 2" SEWER LINE
5	EXISTING PRE-CAST CONCRETE VAULT	N/A	N/A	1	USE EXISTING VAULT WITH NEW EQUIPMENT PER PLAN
6	EXISTING PUMP SWITCH	N/A	N/A	1	CONTRACTOR TO CONNECT NEW PUMP TO SWITCH
7	ALUMINUM ACCESS HATCH 5' X 5'	HALLIDAY PRODUCTS	PROVIDE SHOP DRAWINGS - TO MATCH CITY STANDARD HATCH	1	CONTRACTOR TO MAKE MODIFICATIONS TO THE VAULT AS REQUIRED TO ACCOMODATE NEW HATCH



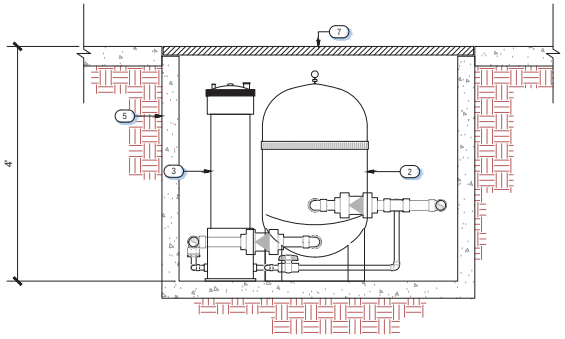
PUMP STATION - PLAN
Scale: 1" = 1'-0"

PUMP STATION CONSTRUCTION NOTES

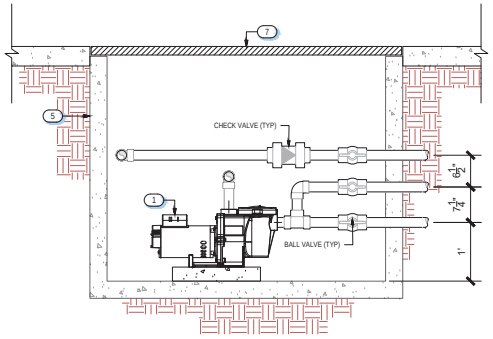
1. ALL EQUIPMENT SPECIFIED SHALL MEET THE APPLICATION FOR WHICH IT IS BEING UTILIZED PER MANUFACTURER'S RECOMMENDATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL COMPONENTS FOR A FULLY FUNCTIONING SYSTEM SHOWN ON THOSE SHEETS. NOT ALL COMPONENTS MAY BE SHOWN ON THE SCHEMATIC.
3. EPOXY COAT REQUIRED FOR ALL WET SURFACES ON ALL PUMPS.
4. CONTRACTOR TO VERIFY ALL EQUIPMENT DIMENSIONS PRIOR TO PURCHASE AND INSTALLATION OF EQUIPMENT.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW FOR EACH CONTRACTOR SUPPLIED EQUIPMENT ITEM PRIOR TO INSTALLATION.
6. INSTALLATION DETAILS FOR ALL EQUIPMENT ITEMS SHALL BE PER RESPECTIVE EQUIPMENT MANUFACTURER'S SHOP DRAWINGS AND RECOMMENDED INSTALLATION REQUIREMENTS.
7. ALL EQUIPMENT INCLUDING VALVES SHALL BE IDENTIFIED BY CORROSION RESISTANT PERMANENT TAGS THAT CORRESPOND TO THE DESIGNATION ON THE AS-BUILT DRAWINGS AND DOCUMENTATION.
8. SERVICE FLANGES, VALVES, OR UNIONS SHALL BE PROVIDED FOR ALL COMPONENTS OF THE SYSTEM (I.E., PUMPS, FILTERS, UV EQUIPMENT, HEAT EXCHANGERS, SOLENOID VALVES, ETC.) THAT REQUIRES MAINTENANCE OR REPLACEMENT TO ALLOW FOR QUICK REMOVAL FROM SYSTEM WITHOUT THE NEED TO CUT OR BREAK PIPING.
9. ALL VALVES SHALL BE ROTATEDIORIENTED PER MANUFACTURE'S RECOMMENDATIONS.
10. ADD CHECK VALVES AS SHOWN ON THE DRAWINGS.
11. ALL ANCHORING SYSTEMS SHALL BE 316 S.S. REGARDLESS OF LOCATION UNLESS NOTED OTHERWISE.

PUMP STATION PIPING NOTES

1. CONTRACTOR TO PROVIDE PIPE SUPPORTS PER EQUIPMENT MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS AND PER THE PROJECT SPECIFICATIONS.
2. ALL D.I.P. SHALL BE CLASS 350 UNLESS NOTED OTHERWISE.
3. ALL UNDERGROUND MECHANICAL JOINT FITTINGS SHALL BE SUPPLIED WITH RESTRAINING BOLTS (RJ FITTINGS).
4. ALL BURIED PVC PIPE GREATER THAN 6"Ø SHOWN ON PLANS SHALL BE C900 UNLESS NOTED OTHERWISE. ALL BURIED PVC PIPE 4"Ø OR LESS SHALL BE SCH 40 PVC.
5. ALL PVC PIPE ABOVE GRADE SHALL BE SCH 80 PVC FOR ALL SIZES.
6. ALL STAINLESS STEEL PIPE SHOWN ON PLANS SHALL BE MINIMUM TYPE 304L SCH 10 UNLESS NOTED OTHERWISE.
7. REFER TO MEP OR CIVIL ENGINEER PLANS FOR PIPE CONNECTIONS NOT SHOWN ON THESE PLANS.
8. ALL PIPING SHALL BE LABELED FOR FUNCTION (I.E., FILTER DISCHARGE, SKIMMER SUCTION, ETC.) AND FOR FLOW DIRECTION.
9. CONTRACTOR SHALL PROVIDE AIR RELIEF VALVES FOR ALL PIPING HIGH POINTS WITHIN THE PUMP STATION.



PUMP STATION - SECTION A
Scale: 1" = 1'-0"



PUMP STATION - SECTION B
Scale: 1" = 1'-0"

PROJECT TITLE:
CHENG PARK REVITALIZATION

SHEET TITLE:
LAKE PUMP STATION PLAN

REGISTERED PROFESSIONAL ENGINEER
SONNY O. SIM
No. C59816
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: SOS
DRAWN BY: SAS
CHECKED BY: KT
APPROVED BY: LM
SCALE: 1" = 1'-0"
DATE: DECEMBER 20, 2021
CITY SPECIFICATION NO. 91385-10
PLAN FILE NO. / LOCATION
SHEET NO. W5.01

05 NOT USED

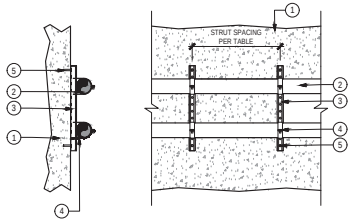
03 PIPE SUPPORT AT WALL

SCALE: 1"=1'-0"

KWIK BOLT TABLE

PVC PIPE SIZE	MAX. HANGING LOAD RATING (LBS)	STRUT SPACING	"HILTI" KWIK BOLT MODEL #	DIAMETER	EMBED
3/8" TO 1/2"	400	4'-0"	KB-TZ (SS)	3/8"Ø	2"
3/4" TO 1 1/4"	600	4'-5"	KB-TZ (SS)	3/8"Ø	2"
1 1/2" TO 3"	800	5'-3/4"	KB-TZ (SS)	1/2"Ø	2"
3 1/2" TO 5"	1000	8'-1/4"	KB-TZ (SS)	1/2"Ø	3-1/4"
6" TO 8"	1000	10'-0"	KB-TZ (SS)	1/2"Ø	3-1/4"

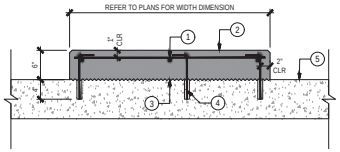
1. CONCRETE WALL (6" MINIMUM THICKNESS)
2. PIPE LAYOUT AND SIZE PER PLAN
3. PIPE CLAMP PER "UNISTRUT" 1-5/8" SERIES (SIZED TO MATCH PIPE)
4. 12 GAGE CHANNEL PER "UNISTRUT" P1000 SERIES (1-5/8" X 1-5/8")
5. KWIK BOLT PER "HILTI" - SEE KWIK BOLT TABLE



01 EQUIPMENT PAD

SCALE: 1"=1'-0"

1. #4 @ 18" O.C. E.W.
2. EQUIPMENT PAD
3. ROUGHEN SURFACE
4. #4 A.D. W/ STD HK @ 3'-0" MAX EW (TYP)
5. SLAB ON GRADE



06 NOT USED

05 NOT USED

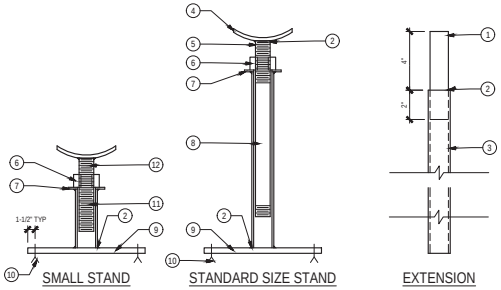
02 PIPE STAND

SCALE: 3"=1'-0"

NOTES
1. PAINT ENTIRE ASSEMBLY WITH PRIMER PAINT.
2. SMALL STAND SIMILAR IN CONSTRUCTION TO STANDARD SIZE STAND WITH EXCEPTIONS NOTED BELOW.

7. 1" X 3" WASHER WELD TO PIPE
8. 1-1/4"Ø X 2'-0" PIPE
9. 3/8" X 8" X 8" PLATE WITH FOUR 1/2"Ø KWIK BOLT PER "HILTI", KB-TZ (SS)
10. KWIK BOLT PER "HILTI", EMBED 2"
11. 1-1/4"Ø X 4" PIPE
12. 1"Ø X 5" LONG BOLT THREADED THRU-OUT

1. 1-1/4"Ø STEEL BAR
2. WELD
3. 1-1/4"Ø X 6", 12", OR 24" LONG STEEL PIPE
4. 1" WIDE X ¼" THICK X 4" LONG PLATE, BEND AT 4" RADIUS
5. 1"Ø X 12" LONG BOLT THREADED THRU-OUT
6. 1"Ø NUT



SMALL STAND | STANDARD SIZE STAND | EXTENSION

CITY OF SAN DIEGO

CHENG PARK REVITALIZATION

PROJECT TITLE:

PUMP STATION DETAILS

SHEET TITLE:

REGISTERED PROFESSIONAL ENGINEER SONNY O. SIM No. C59816 Exp. 12-31-23 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	SOS
DRAWN BY:	SAS
CHECKED BY:	KT
APPROVED BY:	LM
SCALE:	1" = 1'-0"
DATE:	DECEMBER 20, 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	W5.02

GENERAL NOTES

1. CODE COMPLIANCE: ALL WORK SHALL CONFORM TO AND BE PERFORMED IN ACCORDANCE WITH CODES, STANDARDS, AND ORDINANCES AS SET FORTH BY THE AUTHORITIES HAVING JURISDICTION AND THEIR LATEST ADOPTED EDITIONS (IN EFFECT AT TIME OF BUILDING PERMIT APPLICATION) OF THE FOLLOWING PUBLICATIONS:

   A. CALIFORNIA CODE OF REGULATIONS TITLE 24; INCLUDES 2019 CALIFORNIA ELECTRICAL CODE, 2019 CALIFORNIA FIRE CODE, 2019 CALIFORNIA BUILDING CODE, ETC. WITH LOCAL AMENDMENTS AS APPLICABLE.

   B. AMERICANS WITH DISABILITIES ACT (ADA).

2. SAFETY: THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED FOR SAFETY. THE CONTRACTOR SHALL HOLD ALL PARTIES HARMLESS OF NEGLIGENT SAFETY PRACTICES, WHICH MAY CAUSE INJURY TO OTHERS ON OR NEAR THE JOB SITE.

3. FIRE RATED ASSEMBLIES SHALL MAINTAIN RATINGS AS SPECIFIED IN THE CALIFORNIA BUILDING CODE CHAPTER 7. CONTRACTOR SHALL PROVIDE AND INSTALL PHYSICAL ENCLOSURE AROUND FIXTURES, PANELS, ETC. AS REQUIRED. ALL ASSEMBLIES TO BE PENETRATED SHALL BE INSTALLED WITH APPLICABLE THROUGH-PENETRATION FIRESTOP SYSTEM AS DETERMINED BY UL CLASSIFICATION. BEFORE CONSTRUCTION, VERIFY AND COMPLY WITH REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION.

4. MOUNTING HEIGHTS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:

   +15" AFF: RECEPTACLES, TELEPHONE, TV & DATA OUTLETS. (MEASURED BOTTOM OF OUTLET BOX)
   +46" AFF: OUTLET ABOVE COUNTER (MEAUSRED TOP OF OUTLET BOX)
   +48" AFF: LIGHT SWITCHES. (MEASURED TOP OF OUTLET BOX)
   +48" AFF: FIRE ALARM MANUAL PULL STATIONS, T-STATS. (MEASURED TOP OF OUTLET BOX)
   THE LOWER OF +80" AFF TO BOTTOM OF LENS, OR 6" BELOW CEILING: FIRE ALARM VISUALS.

LEGEND

NOTE: INTERPRET IN CONTEXT

LIGHT FIXTURES

- CEILING SURFACEMOUNT
- WALL SURFACEMOUNT
- PENDANT MOUNT
- RECESSED DOWNLIGHT
- RECESSED WALLWASH
- RECESSED FIXTURE
- SURFACE FIXTURE
- STRIP FIXTURE
- TRACK LIGHT
- DIRECTIONAL FLOOD
- EMERGENCY FIXTURE
- POLE LIGHT
- POLE LIGHT- DECORATIVE
- UPLIGHT- FLUSH IN GRADE
- BOLLARD
- TANDEM-WIRED LAMPS
- UNDERCABINET LIGHT
- WALL SURFACEMOUNT LINEAR TYPE
- PENDANT LINEAR FIXTURE
- RECESSED WALLMOUNT
- WALLPACK
- EXIT LIGHT- WALL
- EXIT LIGHT- CEILING (ARROW INDICATES DIRECTION)
- A — LETTER ADJACENT INDICATES FIXTURE TYPE

POWER/COMM.

- SINGLE RECEPT.
- DUPLEX RECEPT.
- DUPLEX- HALF SWITCHED
- DOUBLE DUPLEX, HALF SWITCHED
- DOUBLE DUPLEX
- SPECIAL CONFIGURATION
- FLOORMOUNT 208V, 1Ø RECEPT
- DUPLEX- FLOOR OUTLET
- GFI — GROUND FAULT CIRCUIT INTERRUPT
- MOUNTED ABOVE COUNTER
- J — JUNCTION BOX
- TELEPHONE OUTLET
- DATA OUTLET
- PHONE/DATA COMBO OUTLET
- MOUNTED ABOVE COUNTER
- TV — TELEVISION OUTLET
- SAFETY DISCONNECT
- DROP CORD RECEPT
- JC — ABOVE-CLGMOUNT J-BOX
- TV — TV OUTLET-FLOORMOUNT
- TELEPHONE FLOOR OUTLET
- DATA FLOOR OUTLET
- PHONE/DATA COMBO FLOOR OUTLET
- IDF — INTERMEDIATE DISTRIBUTION FRAME
- MDF — MAIN DISTRIBUTION FRAME
- AP — ACCESS POINT

CONDUIT/WIRE

- NEW
- UNDERGROUND
- NEW POWER HOMERUN (3 HOTS & NEUT SHOWN)
- ISOLATED GROUND
- E — EXISTING TO REMAIN
- (E) POWER HOMERUN
- WIRE LINE- CONTINUES
- CONDUIT STUB (W/MARKER)
- VERTICAL CONDUIT RUN
- CONDUIT SEAL
- FLEXIBLE CONNECTION
- LV — LOW VOLTAGE
- SURFACEMOUNT RACEWAY
- INDICATES LINE CONTINUES
- CORD W/PLUG

SWITCHES

- $ — SPST
- $2 — DPST
- $3 — 3-WAY
- $4 — 4-WAY
- $D — DIMMER
- TIMER SWITCH
- $T — W/THERMAL OVERLOAD
- $P — W/PILOT LIGHT
- $K — KEY OPERATED
- $$ — DUAL LEVEL SWITCHING
- ,a — SWITCHLEG DESIGNATION

MISCELLANEOUS

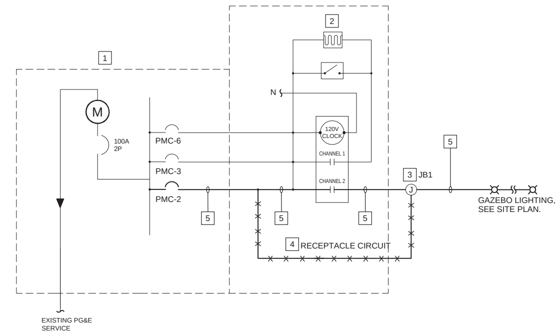
- MOTOR
- T — THERMOSTAT
- CIRCUIT BREAKER
- FUSIBLE SWITCH
- GROUND
- Ø — PHASE
- FLUSHMOUNT PANEL
- SURFACEMOUNT PANEL
- FLUSHMOUNT CABINET
- SURFACEMOUNT CABINET

ABBREVIATIONS

A	AMPERE
AB	AMP BREAKER
ABAND	ABANDONED
ABV	ABOVE
AC	ALTERNATING CURRENT
AC-#	AIR CONDITIONER
ADJ	ADJACENT
AF	AMP FUSE, AMP FRAME
AFF	ABOVE FINISH FLOOR
AFG	BOVE FINISH GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AI	ALUMINUM
AS	AMP SWITCH RATING
ATS	AUTOMATIC TIME SWITCH
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIBLE/AUDIO VISUAL
AWG	AMERICAN WIRE GAGE
BFG	BELOW FINISH GRADE
BIL	BASIC IMPULSE LEVEL
BLDG	BUILDING
C	CONDUIT
-C-	CATV CONDUIT
CAB'T	CABINET
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER, CODE BLUE
CBC	CA. BUILDING CODE
CEC	CA. ELECTRICAL CODE CA. ENERGY COMMISSION
CF	COMPACT FLUORESCENT
CFC	CALIFORNIA FIRE CODE
CLG	CEILING
CL	CENTER LINE
CKT	CIRCUIT
CNT'R	CONTRACTOR
C.O.	CONDUIT ONLY (W/PULLROPE)
COND	CONDUIT, CONDUCTOR
CR	CRITICAL BRANCH
CSFM	CALIFORNIA SFM
CT	CURRENT TRANSFORMER
Cu	COPPER
CU-#	CONDENSING UNIT
D	DEPTH
DC	DIRECT CURRENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DPST	DOUBLE POLE SINGLE THROW
DW	DISHWASHER
EM	EMERGENCY
(E)	EXISTING
EA	EACH
EB	ELECTRONIC BALLAST
EC	ELECTRICAL CONTRACTOR
EC-#	EVAPORATIVE COOLER
EF-#	EXHAUST FAN
EL	EVENING LIGHT
ELEC	ELECTRICAL
EM	EMERG BATTERY BACKUP EMERGENCY BALLAST
EMERG	EMERGENCY
EOL	END OF LINE
EQUIP'T	EQUIPMENT
ES	ENERGY SAVING
(EXN)	(E) IN (N) LOCATION
(EXR)	(E) TO BE (R)
EXT	EXTERIOR
F	FLUORESCENT
(F)	FUTURE
F-#	FURNACE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FAT	FIRE ALARM TERMINAL
FAU	FORCED AIR UNIT

FBO	FURNISHED BY OTHERS
FC-#	FAN COIL
FLA	FULL LOAD AMPS
FLR	FLOOR
FLUOR	FLUORESCENT
FS	FUSIBLE SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
G	GROUNDING CONDUCTOR
GC	GENERAL CONTRACTOR
GD	GARBAGE DISPOSAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
GWS	GANG WITH SWITCH
H	HEIGHT, HIGH
HACR	HEATING, AC & REFRIG
HID	HIGH INTENSITY DISCHARGE
HO	HIGH OUTPUT
HOA	HAND-OFF-AUTO
hp	HORSEPOWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
IC	INTERCOM
ID	IDENTIFICATION
IDF	INTERMEDIATE DISTRIBUTION FRAME
IF	INSIDE FROST
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
k	QUANTITY 1000
kVA	KILOVOLTAMPS
kW	KILOWATT
LC	LIGHTING CONTACTOR
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LS	LIFE SAFETY BRANCH
LT	LIGHT
LTG	LIGHTING
LV	LOW VOLTAGE
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CKT AMPS
MCB	MAIN CIRCUIT BREAKER
MCTB	MAIN CATV TERMINAL BOARD
MCTC	MAIN CATV TERMINAL CABINET
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MFR	MANUFACTURER
MFS	MAIN FUSIBLE SWITCH
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OCP
MSB	MAIN SWITCHBOARD
MT	MOUNT
MT HT	MOUNTING HEIGHT
MTS	MANUAL TRANSFER SWITCH
MTTB	MAIN TELEPHONE TERMINAL BOARD
MTTC	MAIN TELEPHONE TERMINAL CABINET
MW	MICROWAVE
N	NEUTRAL (GROUNDED CONDUCTOR)
(N)	NEW
N3R	NEMA 3R
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NAT'L ELEC MANUFACTURER'S ASSOC
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NPF	NORMAL POWER FACTOR
NTS	NOT TO SCALE

OC	ON CENTER
OCP	OVERCURRENT PROTECTION
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OSA	OFFICE of the STATE ARCHITECT
OSHPD	OFFICE of STATEWIDE HEALTH PLANNING & DEVELOPMENT
OVLD	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULLBOX
PC	PULL CHAIN
PC	PHOTOCELL
PC	PLUMBING CONTRACTOR
ph	PHASE
PNL	PANEL
POC	POINT OF CONNECTION
-PP-	POWER PRIMARY
-PS-	POWER SECONDARY
PV	PHOTOVOLTAIC
(R)	RELOCATE(D)
RECEPT	RECEPTACLE
REF	REFRIGERATOR
REQ'D	REQUIRED
RLA	RATED LOAD AMPS
RM	ROOM
RMC	RIGID METAL CONDUIT
RMV	REMOVE
RPLC	REPLACE
RS	RAPID START
SC	SIGNAL CABINET
SCC	SHORT CKT CURRENT
SFM	STATE FIRE MARSHAL
SHT	SHEET
SL	SLIMLINE, SWITCH LEG
SPEC	SPECIFICATION
SPST	SINGLE POLE SINGLE THROW
SQ	SQUARE
STR'G	STORAGE
SURF	SURFACE
SVC	SERVICE
SW	SWITCH
T	TRANSFORMER, TERMINAL
-T-	TELEPHONE CONDUIT
(TBR)	TO BE REMOVED
TC	TIME CLOCK
TEL	TELEPHONE
TELCO	TELEPHONE COMPANY
TS	TIME SWITCH
TSO	TIME SWITCH OVERRIDE
TSP	TWISTED SHIELDED PAIR
TTB	TELEPHONE TERMINAL BOARD
TTC	TELEPHONE TERMINAL CABINET
TX	TRANSFORMER
TYP	TYPICAL
TYP SIM	TYPICAL SIMILAR
UC	UNDERCABINET, UNDERCOUNTER
UG	UNDERGROUND
UGPS	UNDERGROUND PULL SECTION
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
USA	UG SVC ALERT 800-642-2444
V	VOLT
VA	VOLT AMPERES
VAC	VOLT ALTERNATING CURRENT
VHO	VERY HIGH OUTPUT
VOLT	VOLTAGE
VR	VANDAL-RESISTANT
W	WIDTH, WATT, WIRE
WH-#	WATER HEATER
WP	WEATHERPROOF (NEMA 3R)
XFMR	TRANSFORMER
+48	INDICATES MOUNTING HEIGHT AFF



REFERENCE NOTES

1. EXISTING METER / MAIN WITH DISTRIBUTION PANEL "PMC", 100A, 120/240V, 1Ø, 3W, NEMA 3R.
2. EXISTING LIGHTING CONTROLS INTEGRAL TO METER / MAIN TO BE REUSED.
3. EXISTING JUNCTION BOX JB1 AT GAZEBO, SEE SITE PLAN.
4. EXISTING RECEPTACLE CONDUCTORS RUNNING FROM JUNCTION BOX JB1 TO 'PWC' TO BE REMOVED.
5. EXISTING LIGHTING BRANCH CIRCUIT CONDUCTORS TO BE REMOVED AND REPLACED WITH NEW CONDUCTORS RUN CONTINUOUSLY FROM DISTRIBUTION PANEL 'PWC' TO NEW LIGHTING FIXTURES, ROUTE CONDUCTORS THROUGH EXISTING LIGHTING CONTROLS, EXISTING AND NEW CONDUITS, SEE SITE PLAN FOR ADDITIONAL INFORMATION.

SINGLE LINE DIAGRAM

NTS

REGISTERED PROFESSIONAL ENGINEER — WILLIAM A. THOMA — NO. 10757 — ELECTRICAL — STATE OF CALIFORNIA
EXPIRES: 06/30/23
THOMA #21-8059

thoma ENGINEERING
THOMA ELECTRIC, INC.
P.O. Box 1167 - 3562 Empleo St.
San Luis Obispo, CA 93406
Phone: (805) 543-3850
Fax: (805) 543-3829
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CITY OF SAN LUIS OBISPO

PROJECT TITLE: **CHENG PARK REVITALIZATION**

SHEET TITLE: ELECTRICAL GENERAL NOTES, LEGEND AND ABBREVIATIONS

LICENSED LANDSCAPE ARCHITECT — LIEF McKAY No. 4937 — Signature — 4/30/22 Renewal Date — Date — STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	TR
CHECKED BY:	CJ
APPROVED BY:	XX
SCALE:	AS NOTED
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	E1 of

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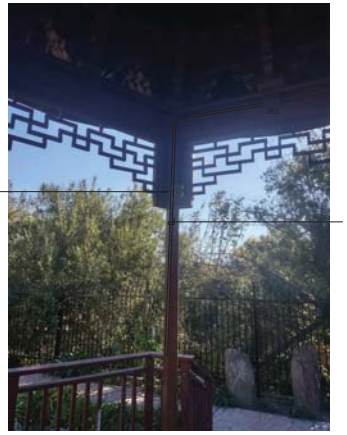

JB2 TO BE REMOVED

NEW GALVANIZED RIGID STEEL CONDUIT FROM JB3 TO JB1, SEE DETAIL 1 ON THIS SHEET, PROVIDE 2-HOLE PIPE STRAPS EVERY 36" ON NEW CONDUIT, FIELD BEND CONDUIT AS REQUIRED, PAINT CONDUIT TO MATCH EXISTING GAZEBO.

3 EXISTING JUNCTION BOXES JB2 AND JB3

NOT TO SCALE

PROVIDE AND INSTALL NEW GALVANIZED RIGID STEEL CONDUIT FROM JB1 TO JB3, SEE DETAIL 3 ON THIS SHEET, PROVIDE 2-HOLE PIPE STRAPS EVERY 36" ON NEW CONDUIT, PAINT CONDUIT TO MATCH EXISTING GAZEBO.

REMOVE EXISTING LIGHTING BRANCH CIRCUIT CONDUCTORS INSTALLED IN TUBE STEEL COLUMN RUNNING FROM BACK OF JB1 TO JB2

REMOVE ALL EXISTING RECEPTACLE AND LIGHTING BRANCH CIRCUITS BACK TO METER / MAIN DISTRIBUTION PANEL PMC, EXISTING OUTLET BOX TO REMAIN,AND BE REUSED FOR NEW CONDUCTOR ROUTING, CONTRACTOR TO WELD BLANK COVER PLATES OVER FRONT, AND SIDES OF EXISTING OUTLET BOX.

EXISTING CONDUITS TO REMAIN AND BE USED FOR INSTALLATION OF NEW LIGHTING BRANCH CIRCUIT CONDUCTORS.

1 EXISTING JUNCTION BOX JB1

NOT TO SCALE

EXISTING LIGHTING FIXTURE TO BE REMOVED AND REPLACED WITH NEW FIXTURE IN SAME LOCATION, SHOWN FOR REFERENCE, TYPICAL OF 6.

4 EXISTING TYPE A FIXTURE INFORMATION

NOT TO SCALE

EXISTING JUNCTION BOX JB2 AND ALL ASSOCIATED CONDUIT AND CONDUCTORS RUNNING FROM JB2 TO JUNCTION BOX JB3 TO BE REMOVED.

EXISTING JUNCTION BOX JB3 TO REMAIN AND BE USED FOR NEW CONDUCTOR INSTALLATION.

2 EXISTING JUNCTION BOXES JB2 AND JB3

NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER WILLIAM A. THOMA NO. 10757 ELECTRICAL STATE OF CALIFORNIA

EXPIRES: 06/30/23
THOMA #21-8059

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CITY OF SAN LUIS OBISPO

PROJECT TITLE: CHENG PARK REVITALIZATION

SHEET TITLE: ELECTRICAL DETAILS

LICENSED LANDSCAPE ARCHITECT LEE McKAY No. 4937 STATE OF CALIFORNIA
Signature
4/30/22
Renewal Date
Date

DESIGNED BY:	SS/LM
DRAWN BY:	TR
CHECKED BY:	CJ
APPROVED BY:	XX
SCALE:	AS NOTED
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	E2 of

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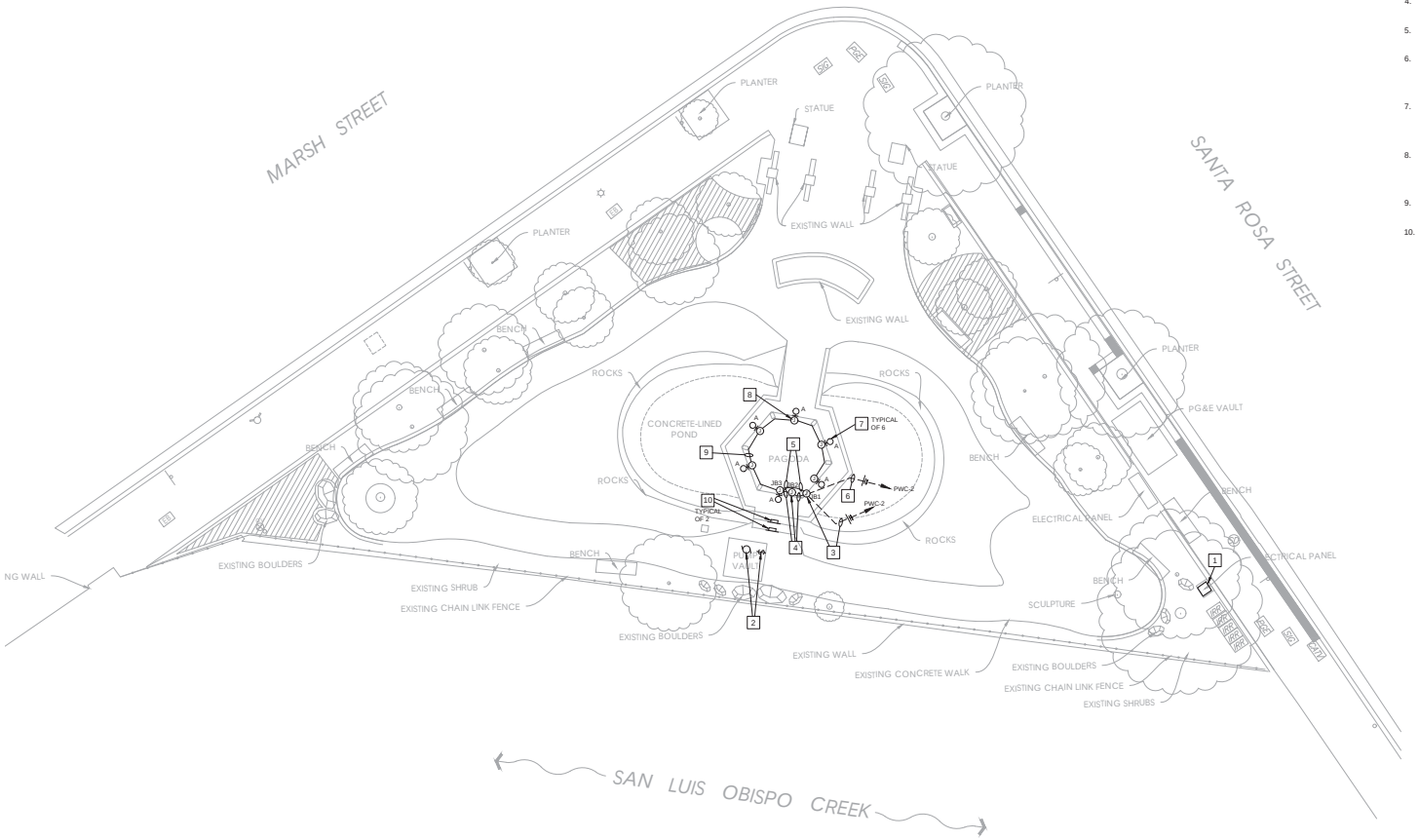

REFERENCE NOTES

1. EXISTING METER / MAIN WITH DISTRIBUTION PANEL 'PWC', SEE SINGLE LINE DIAGRAM.
2. EXISTING BRANCH CIRCUIT TO POND CIRCULATION PUMP EQUIPMENT TO BE DISCONNECTED AND RECONNECTED TO NEW PUMP EQUIPMENT.
3. EXISTING RECEPTACLE CONDUCTORS RUNNING FROM EXISTING JUNCTION BOX JB1 TO DISTRIBUTION PANEL 'PWC' TO BE REMOVED, SEE SINGLE LINE DIAGRAM.
4. EXISTING JUNCTION BOX JB2 AND ALL ASSOCIATED CONDUIT RUNNING FROM JB1 TO JB3 TO BE REMOVED, SEE DETAILS 1 AND 2 ON SHEET E2.
5. NEW GRS CONDUIT RUN FROM JUNCTION BOX JB1 TO JB3, SEE DETAILS 1 AND 3 ON SHEET E2.
6. EXISTING LIGHTING BRANCH CIRCUIT CONDUCTORS TO BE REMOVED AND REPLACED WITH NEW CONDUCTORS RUN CONTINUOUSLY FROM DISTRIBUTION PANEL 'PWC' TO NEW LIGHTING FIXTURES, ROUTE CONDUCTORS THROUGH EXISTING LIGHTING CONTROLS.
7. EXISTING LIGHTING FIXTURES TO BE REMOVED AND REPLACED WITH NEW LIGHTING FIXTURE IN SAME LOCATION COMPLETE WITH ALL REQUIRED MOUNTING HARDWARE. NEW A TYPE FIXTURE TO BE BEGA #33242.
8. EXISTING JUNCTION BOXES SERVING LIGHTING FIXTURES TO REMAIN AND BE REUSED FOR NEW CONDUCTORS, CONDUCTORS MAY BE SPLICED ONLY IN EXISTING JUNCTION BOXES MOUNTED HIGH IN GAZEBO.
9. EXISTING CONDUIT SERVING LIGHTING FIXTURE HIGH IN GAZEBO TO REMAIN AND BE REUSED FOR NEW CONDUCTORS.
10. EXISTING STEP LIGHT TO BE REMOVED, INFILL SPACE WITH CONCRETE.

NORTH

ELECTRICAL SITE PLAN

SCALE: 1/8"=1'-0"

REGISTERED PROFESSIONAL ENGINEER WILLIAM A. THOMA NO. 10757 ELECTRICAL STATE OF CALIFORNIA

EXPIRES: 06/30/23
THOMA #21-8059

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CITY OF SAN LUIS OBISPO

PROJECT TITLE: **CHENG PARK REVITALIZATION**

SHEET TITLE: ELECTRICAL SITE PLAN

LICENSED LANDSCAPE ARCHITECT LEE McKAY No. 4937 STATE OF CALIFORNIA
Signature 4/30/22 Renewal Date Date

DESIGNED BY:	SS/LM
DRAWN BY:	TR
CHECKED BY:	CJ
APPROVED BY:	XX
SCALE:	AS NOTED
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	E3 of

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STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 3 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2I, only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included).

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1, 2]	How is Wattage determined	Total number luminaires[3]	Luminaire Status[3]	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 6,200 initial lumen output §130.2(b)[4]	Field Inspector	
										Pass	Fail
A	A	☐ Linear	18	Mfr. Spec	6	New	☐	108	NA: < 6200 lumens	☐	☐
							Total Design Watts:	108			

[*] NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue: EXCEPTION 2 to §140.2(b)

[1]FOOTNOTES: *Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)*

[2] *For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*

[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstated" for existing luminaires which are being removed and reinstalled as part of the project scope.*

[4] *Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by §130.2(b)*

G. CUTOFF REQUIREMENTS (BUG)

This section does not apply to this project.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20200601 | Report Generated: 2021-12-10 08:50:49

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 1 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

A. GENERAL INFORMATION

01	Project Location (city)	SAN LUIS OBISPO	04	Total Illuminated Hardscape Area (ft^2)	277
02	Climate Zone	5			
03	Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Rural Areas	☐	LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
☐	LZ-1: Low - Developed Parkland	☒ LZ-3: Moderately High - Urban Areas			

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2I for alterations.

My Project Consists of:

01	02	
☐ New Lighting System	Must Comply with Allowances from §140.7	
☒ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	● Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%		

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20200601 | Report Generated: 2021-12-10 08:50:49

STATE OF CALIFORNIA

Outdoor Lighting

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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 4 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Mandatory Controls

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector	
				Pass	Fail
OTHER ENTRANCE/EXIT	Photocontrol	Yes	NA: Wall >=24 ft	☐	☐

[*] NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off: EXCEPTION 2 to §140.2(c)

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20200601 | Report Generated: 2021-12-10 08:50:49

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 2 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: if any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2I.												Compliance Results			
01		02		03		04		05		06		07		08	09
General Hardscape Allowance §140.7(d)1i (See Table I)	+	Per Application §140.7(d)2 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2 (See Table L)	+	Per Specific Area §140.7(d)2 (See Table M)	OR	Existing Power Allowance §141.0(b)2i (See Table N)	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
375.43	+	—	+	—	+	—	+	—	OR	—	=	375.43	≥	108	COMPLIES
Cutoff Compliance (See Table G for Details)															N/A
Controls Compliance (See Table H for Details)															COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20200601 | Report Generated: 2021-12-10 08:50:49

REGISTERED PROFESSIONAL ENGINEER WILLIAM A. THOMA NO. 10757 ELECTRICAL STATE OF CALIFORNIA

EXPIRES: 06/30/23
THOMA #21-8059

Thoma ENGINEERING
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San Luis Obispo, CA 93406
Phone: (805) 543-3850
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cad@thomaelec.com

CITY OF SAN LUIS OBISPO

PROJECT TITLE: **CHENG PARK REVITALIZATION**

SHEET TITLE: CALIFORNIA TITLE 24 OUTDOOR COMPLIANCE FORMS

LICENSED LANDSCAPE ARCHITECT LEE McKAY No. 4917 Signature 4/30/22 Renewal Date Date STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	TR
CHECKED BY:	CJ
APPROVED BY:	XX
SCALE:	AS NOTED
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	E4 of

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STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 7 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: William Thoma	Documentation Author Signature:
Company: Thoma Electric, Inc	Signature Date:
Address: 3852 Empleo, Suite C	CEA/ HERS Certification Identification (if applicable): E10757
City/State/Zip: San Luis Obispo CA 93401	Phone: 805-543-3850

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: William Thoma	Responsible Designer Signature:
Company: Thoma Electric, Inc.	Date Signed: 2021-12-10
Address: 3562 Empleo Street	License: E10757
City/State/Zip: San Luis Obispo CA 93401	Phone: 805-543-3850

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 5 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

I. LIGHTING POWER ALLOWANCE (per §140.7)

This table includes areas using allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

	01			
	☒ General Hardscape Allowance Table I (below)	"Use it or lose it" Allowance (select all that apply) (select all that apply)		
		☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 0, 1 & 4)

This section does not apply to this project.

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 2 & 3)

02	03	04	05	06	07	08	09	10
		Area Wattage Allowance (AWA)			Area Wattage Allowance (AWA)			
Area Description	Surface Type	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	Total General AWA = LWA (Watts)
PEDESTRIAN HARDSCAPE	Asphalt	277	0.03	6.925	74	0.4	18.5	25.425
							Initial Wattage Allowance for Entire Site (Watts):	350
							Total General Hardscape Allowance (Watts):	375.425

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	CHENG PARK REVITALIZATION	Report Page:	(Page 6 of 7)
Project Address:	SANTA ROSA STREET	Date Prepared:	12/10/2021

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
●	○	NRCI-LTO-01-E - Must be submitted for all buildings	☐	☐
●	○	NRCI-LTO-02-E- Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
●	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	☐	☐

REGISTERED PROFESSIONAL ENGINEER WILLIAM A. THOMA NO. 10757 ELECTRICAL STATE OF CALIFORNIA

EXPIRES: 06/30/23
THOMA #21-8059

Thoma ENGINEERING
THOMA ELECTRIC, INC.
P.O. Box 1167 - 3562 Empleo St.
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CITY OF SAN LUIS OBISPO

PROJECT TITLE: **CHENG PARK REVITALIZATION**

SHEET TITLE: CALIFORNIA TITLE 24 OUTDOOR COMPLIANCE FORMS

LICENSED LANDSCAPE ARCHITECT LEE MCKAY NO. 4917 Signature 4/30/22 Renewal Date Date STATE OF CALIFORNIA

DESIGNED BY:	SS/LM
DRAWN BY:	TR
CHECKED BY:	CJ
APPROVED BY:	XX
SCALE:	AS NOTED
DATE:	DECEMBER 2021
CITY SPECIFICATION NO.	91385-10
PLAN FILE NO. / LOCATION	
SHEET NO.	E5 of

Dec 20, 2021 - 9:12am - rogar - K:\ENGV2021\21-8059\21-8059_E100_TITLE 24 ENERGY COMPLIANCE FORMS.dwg