



**SECTION G**

**CONTRACT DRAWINGS**

**AYALA PARK  
SPLASH PAD PROJECT**

FOR

**BLOOMINGTON RECREATION AND PARK DISTRICT  
BLOOMINGTON, CALIFORNIA**

**PROJECT NO.: 30.30.0169**



# SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS

## SPECIAL DISTRICTS CSA 70 D1 - AYALA PARK AYALA PARK SPLASH PAD

17909 MARYGOLD AVENUE, BLOOMINGTON, CA 92335  
APN 0330-011-46

**SPLASH PAD MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS**  
DRAWINGS PROVIDED IN THIS SET ARE FOR REFERENCE AND BIDDING PURPOSES ONLY. CONTRACTOR TO COORDINATE WITH SPLASH PAD MANUFACTURER TO OBTAIN FULL MEP DRAWINGS PRIOR TO START OF CONSTRUCTION. SPLASH PAD MEP DRAWINGS SHALL INCLUDE PLUMBING BETWEEN EQUIPMENT VAULTS AND SPLASH PAD, COLLECTION OF WATER FROM SPLASH PAD AND ROUTING TO FILTER TANK, ELECTRICAL CONNECTIONS TO ALL EQUIPMENT, AND ANY OTHER INFORMATION REQUIRED FOR INSTALLATION OF THE SPLASH PAD AND ASSOCIATED EQUIPMENT.

### GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND TO THE LATEST EDITION OF THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A CURRENT AND APPROVED SET OF PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ARRANGEMENTS FOR CONSTRUCTION INSPECTION AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE ITSELF WITH THE JOB SITE AND THE LOCATION OF ALL UNDERGROUND FACILITIES SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIG ALERT REQUESTS AND EXPLORATORY EFFORTS NECESSARY TO VERIFY ANY UNDERGROUND OBSTRUCTIONS. THE CONTRACTOR WILL BE UNILATERALLY RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES THAT ARE SHOWN OR NOT SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE, COUNTY OR LOCAL PERMITS.
- CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT AND ENCRoACHMENT PERMIT OR OTHER REQUIRED PERMITS FROM THE SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS TRANSPORTATION, PRIOR TO ANY WORK WITHIN THE COUNTY RIGHT OF WAY BY CALLING (909) 387-7910.
- THE CONTRACTOR SHALL NOTIFY ALL SERVING UTILITY COMPANIES 48 HOURS PRIOR WHEN WORK IS TO BE PERFORMED NEAR THEIR FACILITIES BY CALLING 811.
- CONTRACTOR SHALL ENSURE THAT EASEMENTS HAVE BEEN RECORDED PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE UNDERSIGNED ENGINEER AND SAN BERNARDINO COUNTY SPECIAL DISTRICTS.
- THE CONTRACTOR AGREES THAT IT SHALL 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 APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER 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 OWNER OR THE ENGINEER.
- ALL STATIONING IS BASED ON THE CENTER LINE OF THE STREET.
- ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY AND ROADS OPEN TO VEHICULAR TRAFFIC UNLESS OTHERWISE APPROVED BY SPECIAL DISTRICTS.
- ALL WORK SHALL BE CONSTRUCTED ACCORDING TO THE VERTICAL AND HORIZONTAL MEASUREMENTS OF THESE PLANS AND EXISTING DESIGN STANDARDS. ADEQUATE STAKES SHALL BE SET UNDER THE DIRECTION OF A LICENSED SURVEYOR/ENGINEER FOR THE CONSTRUCTOR. ALL CONSTRUCTION SURVEYING SHALL BE PERFORMED IN ACCORDANCE TO THE SURVEYING PROCEDURES OF THE SURVEYOR/ENGINEER OF RECORD. IF THIRD PARTY SUBCONTRACTORS PERFORM THE CONSTRUCTION LAYOUT AND SURVEYING FOR THIS PROJECT WITHOUT THE COORDINATION OF THE SURVEYOR/ENGINEER OF RECORD, THEY HAVE ASSUMED THE POSITION OF SURVEYOR/ENGINEER OF RECORD. THE FINAL CHECK OF THIS DESIGN IS TO BE THE CONSTRUCTION STAKING AS THE DESIGN MEETS THE EXISTING CONTROL AND ELEVATIONS. ALL EXISTING DISCREPANCIES TO THE STANDARD DESIGN CRITERIA SHALL BE BROUGHT TO THE SURVEYOR/ENGINEER OF RECORD'S ATTENTION PRIOR TO PROCEEDING WITH CONSTRUCTION. IF CONSTRUCTION CONTINUES WITHOUT VERIFICATION THE CONSTRUCTOR ASSUMES THE RESPONSIBILITY OF THE CORRECTNESS OF THE INTENDED DESIGN.

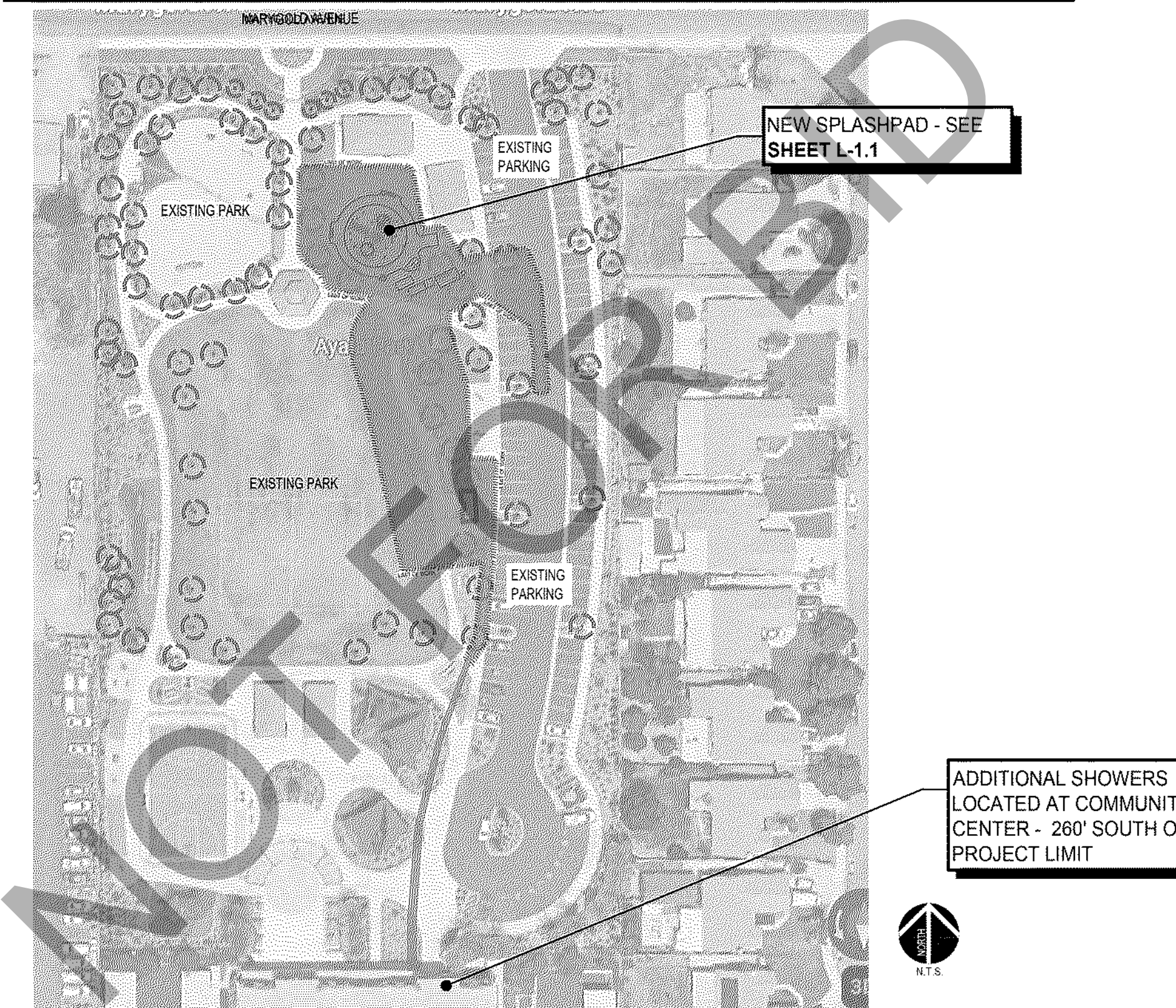
### NOTIFICATIONS

- AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL NOTIFY:
- SPECIAL DISTRICTS - (909) 386-8900
  - PERMIT AGENCY: COUNTY OF SAN BERNARDINO - (909) 387-7910
  - UNDERGROUND SERVICE ALERT (USA); 811
  - ALL OTHER AFFECTED AGENCIES THAT ARE NOT MEMBERS OF USA ALERT

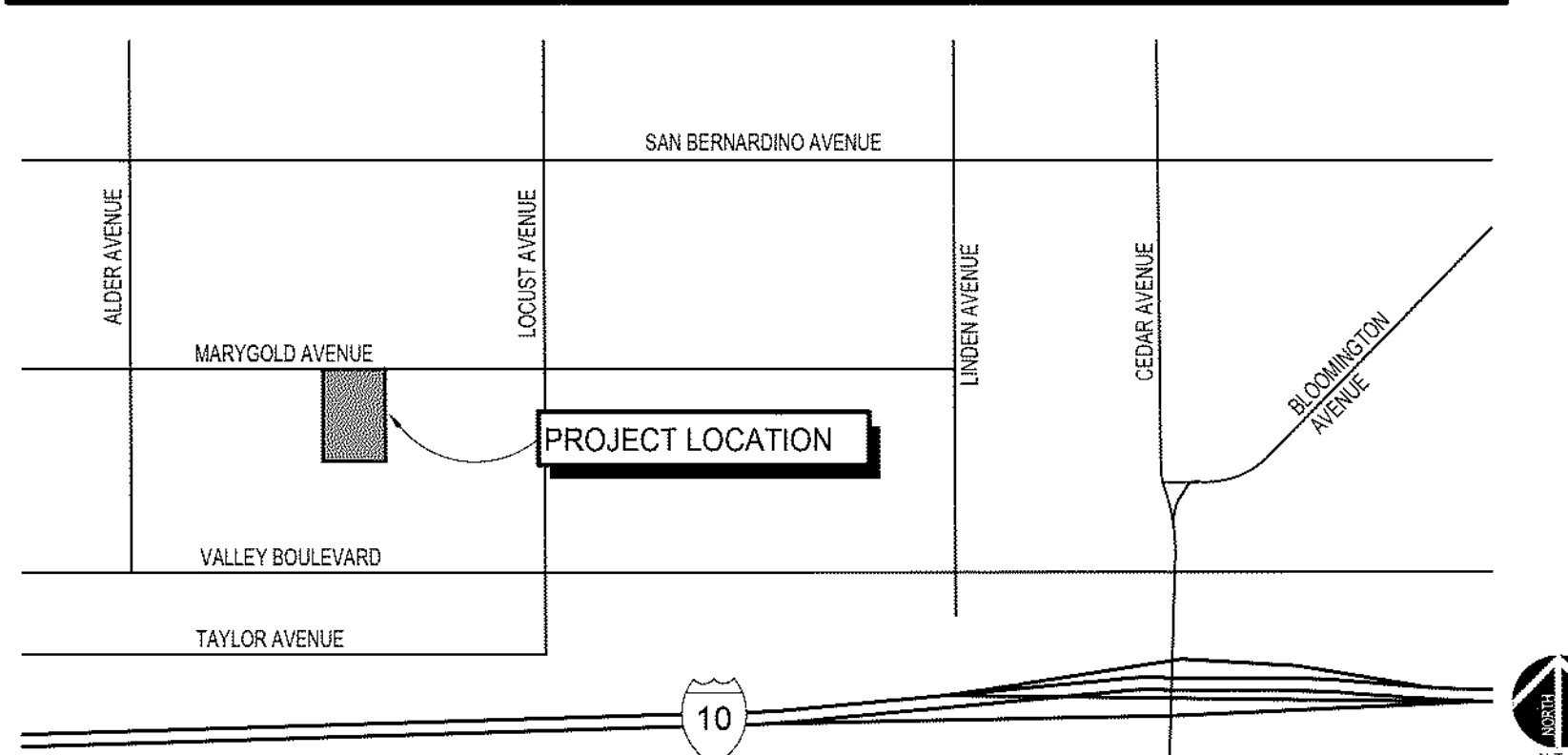
### ERRORS AND OMISSIONS:

ARCHITERRA DESIGN GROUP HEREBY CERTIFIES THAT THE DESIGN, DETAILS AND SPECIFICATIONS AS REPRESENTED HEREIN MEET PROFESSIONAL LANDSCAPE ARCHITECTURAL STANDARDS. ARCHITERRA DESIGN GROUP CANNOT GUARANTEE THE QUALITY OF CONSTRUCTION, INSTALLATION OR MAINTENANCE OF IMPROVEMENTS AS DESIGNED AND/OR SPECIFIED HEREIN AND DISCLAIMS ANY FUTURE LIABILITY RESULTING FROM DEVIATIONS. ARCHITERRA DESIGN GROUP IS NOT RESPONSIBLE FOR THE AMOUNT OR FREQUENCY OF IRRIGATION WATER APPLIED TO THE PROJECT DURING CONSTRUCTION OR THEREAFTER.

### SHEET KEY MAP:



### VICINITY MAP:



### SHEET INDEX:

NO.	SHEET	TITLE
1	L-0.0	TITLE SHEET
2	L-1.1	DEMOLITION PLAN
3	L-2.1	PRECISE GRADE NOTES AND DETAILS
4	L-2.2	PRECISE GRADE PLAN
5	L-2.3	UTILITY PLAN
6	L-3.1	CONSTRUCTION PLAN
7	L-3.2	CONSTRUCTION DETAILS
8	E1.0	ELECTRICAL SITE AND ENLARGED SITE PLAN
9	E1.1	ELECTRICAL SITE AND ENLARGED SITE PLAN
10	E2.0	ELECTRICAL SYMBOL LIST, SINGLE LINE & GENERAL NOTES
11	E3.0	ELECTRICAL SPECIFICATIONS
12	L-4.1	SPLASH PAD LAYOUT (R)
13		SPLASH PAD COLLECTOR TANK (R)
14		SPLASH PAD EQUIPMENT COMPONENT (R)
15		SPLASH PAD RAIN DIVERTER (R)
16		SPLASH PAD ELECTRICAL DIAGRAM (R)
17		SPLASH PAD PLUMBING LAYOUT (R)

(R) = PROVIDED FOR REFERENCE ONLY

### DECLARATION OF LANDSCAPE ARCHITECT OF RECORD

I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL LANDSCAPE ARCHITECTURE STANDARDS AND PRACTICES. AS THE LANDSCAPE ARCHITECT IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS - SPECIAL DISTRICTS (SD) IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THAT THE PLANS COMPLY WITH SD PROCEDURES, APPLICABLE POLICES AND ORDINANCES. THE REVIEWS, RECOMMENDATIONS AND APPROVALS ARE NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT, THEREFORE, RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS. AS LANDSCAPE ARCHITECT OF RECORD, I AGREE TO INDEMNIFY AND HOLD SD, ITS OFFICERS, AGENTS, AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES OR INJURIES TO ANY PERSON OR PROPERTY WHICH MIGHT ARISE FROM THE NEGLIGENCE, ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF RECORD. I HAVE READ AND INFORMED THE PROJECT APPLICANT/DEVELOPER THAT APPROVAL OF THESE PLANS DO NOT RELIEVE THEM FROM THE REQUIREMENTS OF THE DESIGN CONDITIONS.

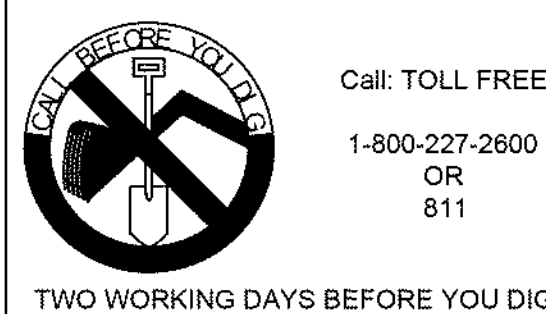
BY: 2834 08-29-24  
NAME RLA NO. DATE

### PREPARED BY:

**ARCHITERRA DESIGN GROUP, INC.**  
LANDSCAPE ARCHITECTURE  
SITE PLANNING  
10221-A TRADEMARK STREET  
RANCHO CUCAMONGA, CALIFORNIA 91730  
TEL.: (909) 484-2800 FAX: (909) 484-2802  
CONTACT: KAY KITE  
EMAIL: KKITE@ARCHITERRADESIGNGROUP.COM

**L-0.0**

### UNDERGROUND SERVICE ALERT

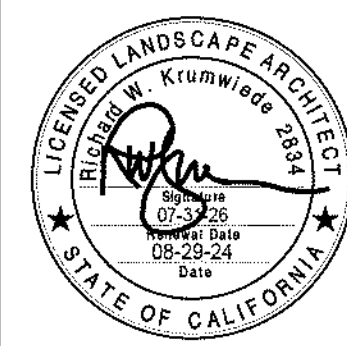


### BENCHMARK:

ELEVATION DETERMINED FROM CORNS CONTROL SITES. POINT #4 - TRAVPT-SET LT SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

### BASIS OF BEARINGS:

CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



### COMPANY ADDRESS AND LOGO

**ARCHITERRA DESIGN GROUP**  
LANDSCAPE ARCHITECTURE AND PLANNING  
10221-A TRADEMARK ST., RANCHO CUCAMONGA, CALIFORNIA 91730 (909) 484-2800  
PREPARED UNDER THE SUPERVISION OF:  
RICHARD W. KRUMWIEDE 2834 08-29-24  
PROFESSIONAL LANDSCAPE ARCHITECT R.L.E. No. DATE

### REVISIONS

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

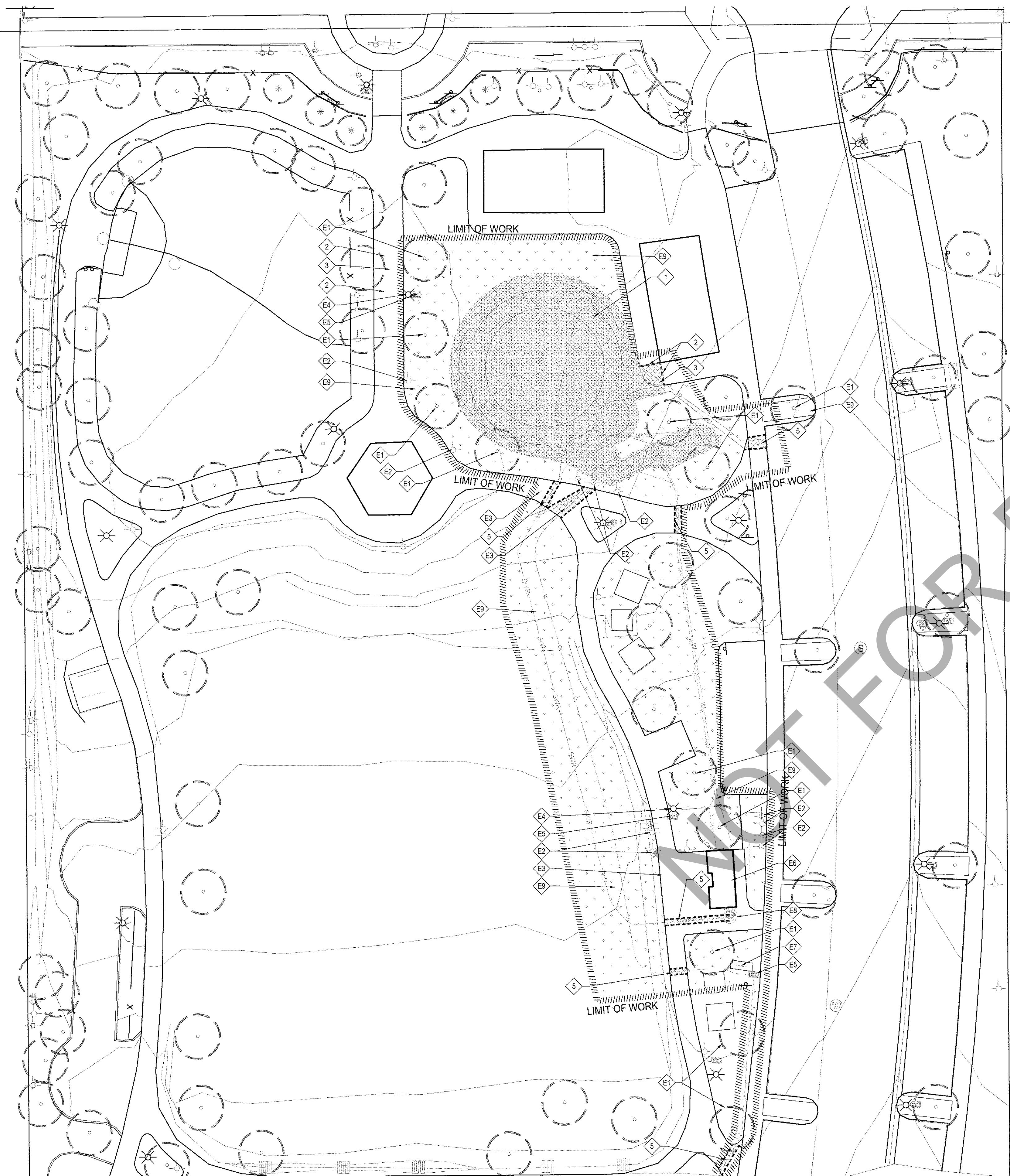
PLANS APPROVED BY:  
SAN BERNARDINO COUNTY - PUBLIC WORKS  
SPECIAL DISTRICTS  
**David Doublet** Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -0700

APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Charles Hernandez		
	OPS, DIVISION MANAGER		
	PM, DIVISION MANAGER	Noel Mondragon	

### TITLE SHEET

AYALA PARK  
SPLASH PAD  
BLOOMINGTON, CALIFORNIA  
TITLE SHEET

DWG NO.  
3620.0009,  
30.30.0165  
FILE NO.  
-  
SHEET 1 OF 17



**DEMOLITION LEGEND:**

- DEMOLITION CALLOUTS:**
- REMOVE TURF. SEE TURF REMOVAL NOTE.
  - SAWCUT CONCRETE PAVING
  - DEMOLISH AND REMOVE CONCRETE PAVING.
  - REMOVE AND PATCH CONCRETE PAVING FOR UTILITY LINES
- EXISTING TO REMAIN:**
- EXISTING TREE TO REMAIN, PROTECT IN PLACE.
  - EXISTING IRRIGATION VALVE TO REMAIN, PROTECT IN PLACE.
  - EXISTING CONCRETE TO REMAIN, PROTECT IN PLACE.
  - EXISTING LIGHT TO REMAIN, PROTECT IN PLACE.
  - EXISTING ELECTRICAL BOX TO REMAIN, PROTECT IN PLACE.
  - EXISTING RESTROOM BUILDING TO REMAIN, PROTECT IN PLACE.
  - EXISTING POTABLE WATER BACKFLOW PREVENTER TO REMAIN, PROTECT IN PLACE.
  - EXISTING SEWER CLEANOUT TO REMAIN, PROTECT IN PLACE.
  - EXISTING LANDSCAPE AND IRRIGATION TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO COORDINATE REPAIR/REPLACEMENT OF TURF AND IRRIGATION DAMAGED BY CONSTRUCTION ACTIVITIES WITH THE COUNTY OF SAN BERNARDINO SPECIAL DISTRICTS

**DEMOLITION NOTES:**

- CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE, ANY DAMAGE, WHETHER INSIDE OR OUTSIDE OF THE PROJECT LIMITS, TO UTILITY SYSTEMS, SURFACE PAVEMENTS, FIXTURES, STRUCTURES, OR VEGETATION THAT IS NOT SPECIFICALLY INDICATED TO BE REMOVED AS PART OF THIS DEMOLITION PLAN. ALL DAMAGED ITEMS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO THE OWNER.
- EXCEPT FOR MATERIALS INDICATED TO BE SALVAGED AND RELOCATED ON SITE, ALL CLEARED MATERIALS SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE REMOVED AND DISPOSED OF LEGALLY OFF-SITE. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NONRECYCLABLE MATERIALS. STORE OR STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.
- THE CONTRACTOR IS TO SUBMIT PHOTOGRAPHS OR VIDEOTAPE, SUFFICIENTLY DETAILED, OF EXISTING CONDITIONS OF TREES AND PLANTINGS, ADJOINING CONSTRUCTION, AND SITE IMPROVEMENTS THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY SITE CLEARING.
- THE CONTRACTOR IS TO SUBMIT RECORD DRAWINGS IDENTIFYING AND ACCURATELY LOCATING CAPPED UTILITIES AND OTHER SUBSURFACE STRUCTURAL, ELECTRICAL, AND MECHANICAL CONDITIONS.
- LOCATE AND CLEARLY FLAG ALL TREES AND VEGETATION TO REMAIN OR BE RELOCATED.
- PROVIDE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
- THE EXISTENCE AND APPROXIMATE LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY THE AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CALL TOLL FREE UNDERGROUND SERVICE ALERT TWO WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
- REMOVE SLABS, PAVING, CURBS, GUTTERS, AND AGGREGATE BASE AS INDICATED. NEATLY SAW CUT EXISTING PAVEMENT TO REMAIN BEFORE REMOVING EXISTING PAVEMENT. PAINT ENDS OF STEEL REINFORCEMENT IN CONCRETE TO REMAIN TO PREVENT CORROSION.

**TREE PROTECTION NOTES:**

- REGARDING THE "SAFE ZONE" FOR EXISTING TREES: BEFORE BEGINNING ANY DEMOLITION OR CONSTRUCTION OPERATIONS, INSTALL A TEMPORARY PLASTIC ORANGE WEB FENCE AROUND ALL EXISTING TREES TO BE PROTECTED IN PLACE. THE FENCE SHALL BE INSTALLED AT A MINIMUM OF 15' AWAY FROM THE TRUNK (OR AS FAR AWAY FROM THE TRUNK AS POSSIBLE); PROTECTION BARRIER SHALL CONSIST OF 3' MINIMUM HIGH PLASTIC WEB FENCING ATTACHED TO #4 REBAR STAKES. ALL CONTRACTORS AND THEIR CREWS SHALL NOT BE ALLOWED INSIDE THIS "SAFE ZONE", NOR SHALL THEY BE ALLOWED TO STORE OR DUMP FOREIGN MATERIALS WITHIN THIS AREA. NO WORK OF ANY KIND, INCLUDING TRENCHING, SHALL BE ALLOWED WITHIN THE SAFE ZONE EXCEPT AS DESCRIBED BELOW. THE FENCING SHALL REMAIN AROUND EACH TREE TO BE SAVED UNTIL THE COMPLETION OF CONSTRUCTION OPERATIONS.
- ALL ELEMENTS TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE IN PLACE. ANY ITEMS OR MATERIALS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN KIND, TO THE SATISFACTION OF THE OWNER.

**TURF REMOVAL NOTES:**

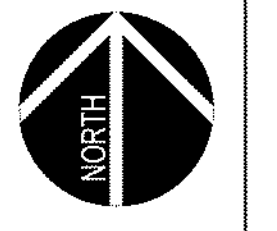
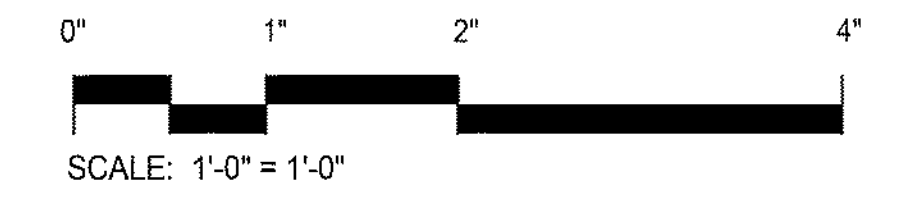
- EXISTING TURF SCHEDULED FOR REMOVAL SHALL BE COMPLETELY AND THOROUGHLY KILLED PRIOR TO REMOVAL USING THE FOLLOWING STEPS:
  - FERTILIZE GRASS AREA TO BE REMOVED WITH SULFATE OF AMMONIA RATIO 21-0-0 AT A RATE OF 5# PER 1000 S.F.
  - IRRIGATE THOROUGHLY USING EXISTING IRRIGATION SYSTEM AND KEEP AREA MOIST FOR 10 DAYS.
  - APPLY SYSTEMIC TYPE HERBICIDE GRASS KILLER (ROUND-UP OR APPROVED EQUAL) TO ALL AREAS. APPLY PER MANUFACTURER'S INSTRUCTIONS. THOROUGHLY WET ALL GRASS WITH HERBICIDE, AND STOP ALL IRRIGATION.
  - AFTER 10 DAYS REMOVE DEAD GRASS MATERIAL AND SCALP TO 1" DEPTH.
- CONTRACTOR TO FIELD VERIFY ALL TURF IN AREA IS COMPLETELY REMOVED.

**CLEARING NOTES:**

- BEFORE ANY CONSTRUCTION OPERATIONS ARE INITIATED THE INDIVIDUAL TREES TO BE PROTECTED SHALL BE CLEARLY TAGGED. THE ZONES BENEATH THE TREE CANOPY SHALL BE PROTECTED AND ARE NOT TO BE USED FOR VEHICLE ACCESS OR PARKING.
- SHRUBS AND GROUND COVER PLANTS THAT ARE SCHEDULED FOR REMOVAL SHALL BE REMOVED COMPLETELY AND THOROUGHLY. ALL ROOTS THAT ARE OVER 1/2" INCH IN DIAMETER SHALL BE GRUBBED AND REMOVED TO 18" BELOW GRADE MINIMUM. ALL ROOTS WITHIN THE TOP 6" OF SOIL SURFACE SHALL BE REMOVED. DO NOT DISTURB ROOTS OF TREES SHOWN TO REMAIN.
- EXPOSED ROOTS OF EXISTING TREES TO REMAIN THAT ARE OVER 1" IN DIAMETER SHALL BE INSPECTED BY A COUNTY-APPROVED ARBORIST TO DETERMINE IF CUTTING IS RECOMMENDED. ANY SUCH INDICATED ROOTS SHALL BE CUT CLEANLY WITH CLEAN SHARP PRUNING TOOLS AND NOT RIPPED, TORN, OR CRUSHED.

**PLAN CROSS REFERENCES:**

FOR NOTES AND LEGENDS, THIS SHEET  
FOR CORRESPONDING CONSTRUCTION PLAN, SEE SHEET L-3.1



**L-1.1**

**UNDERGROUND SERVICE ALERT**

Call: TOLL FREE  
1-800-227-2600  
OR  
811

TWO WORKING DAYS BEFORE YOU DIG

**BENCHMARK:**  
ELEVATION DETERMINED FROM CORS CONTROL SITES. POINT #4 - TRAVPT-SET L/T SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

**BASIS OF BEARINGS:**  
CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0

**COMPANY ADDRESS AND LOGO**

ARCHITERRA DESIGN GROUP  
LANDSCAPE ARCHITECTURE AND PLANNING  
10214 TRUCKEEWAY ST., BAKERSFIELD, CALIFORNIA 93312  
(805) 836-2922

PREPARED UNDER THE SUPERVISION OF:  
RICHARD W. KRUMWIEDE 2834 08-29-24  
PROFESSIONAL LANDSCAPE ARCHITECT R.L.E. No. DATE

REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

PLANS APPROVED BY:  
SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS

**David Doublet**  
Assistant Director

Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -07'00'

APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Charles Hernandez		
	OPS, DIVISION MANAGER		
	PM, DIVISION MANAGER	Noel Mondragon	

**DEMOLITION PLAN**

AYALA PARK  
SPLASH PAD  
BLOOMINGTON, CALIFORNIA

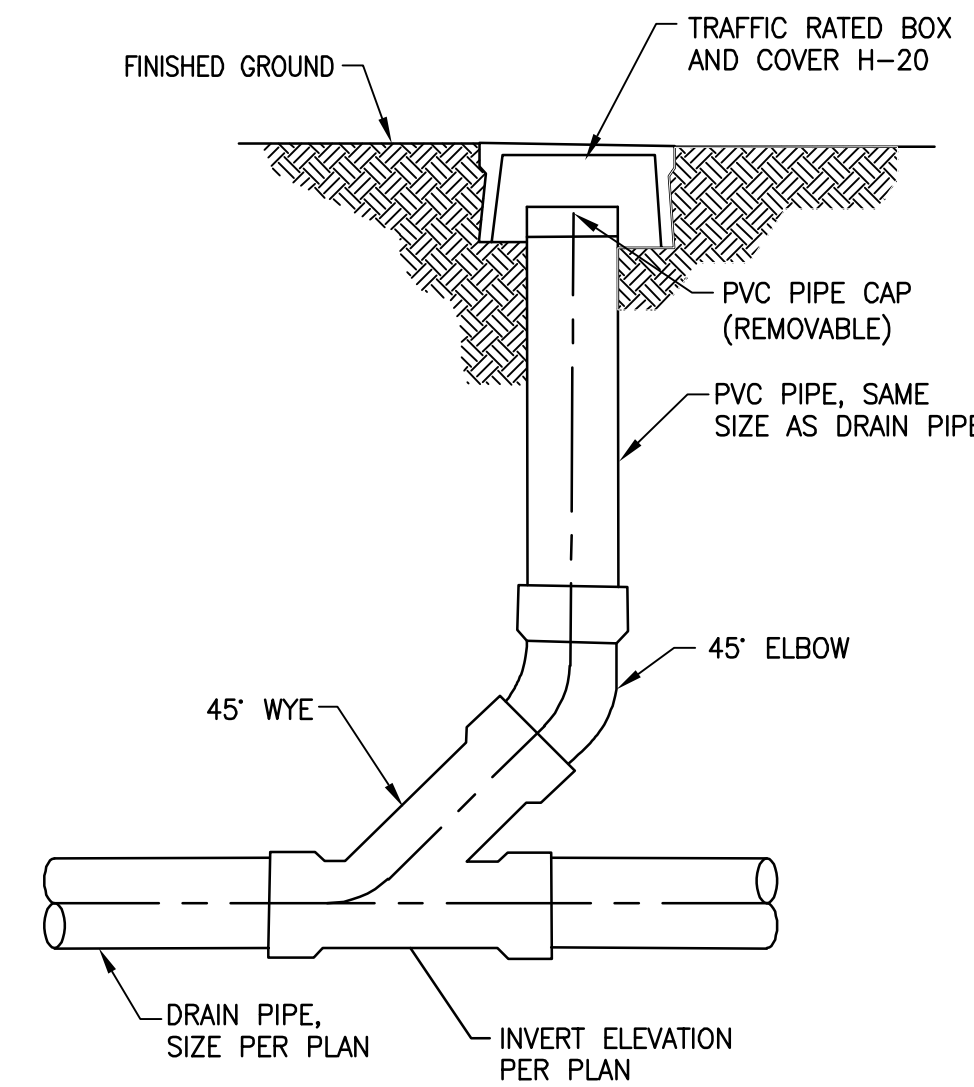
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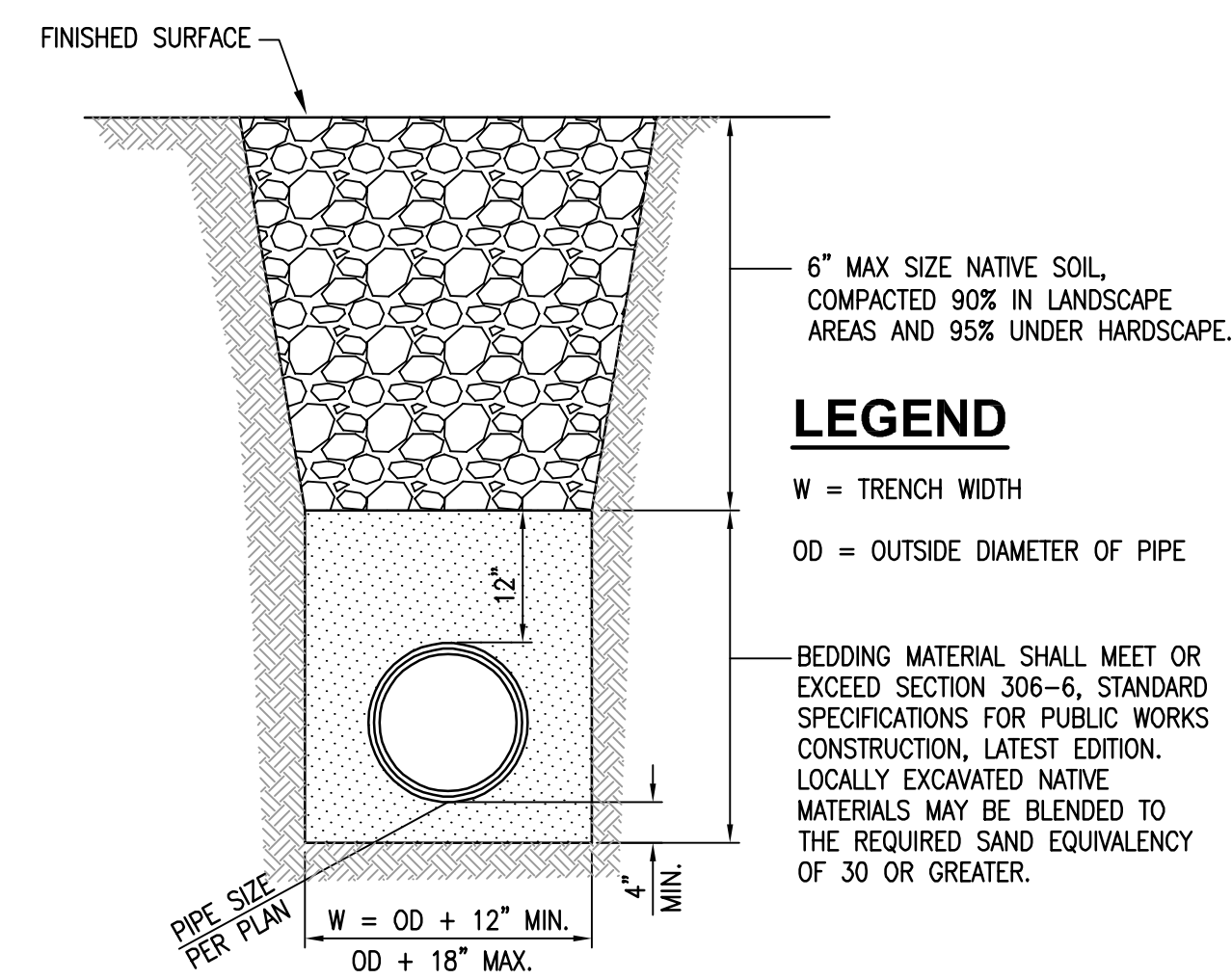
SHEET 2 OF 17

**GENERAL NOTES**

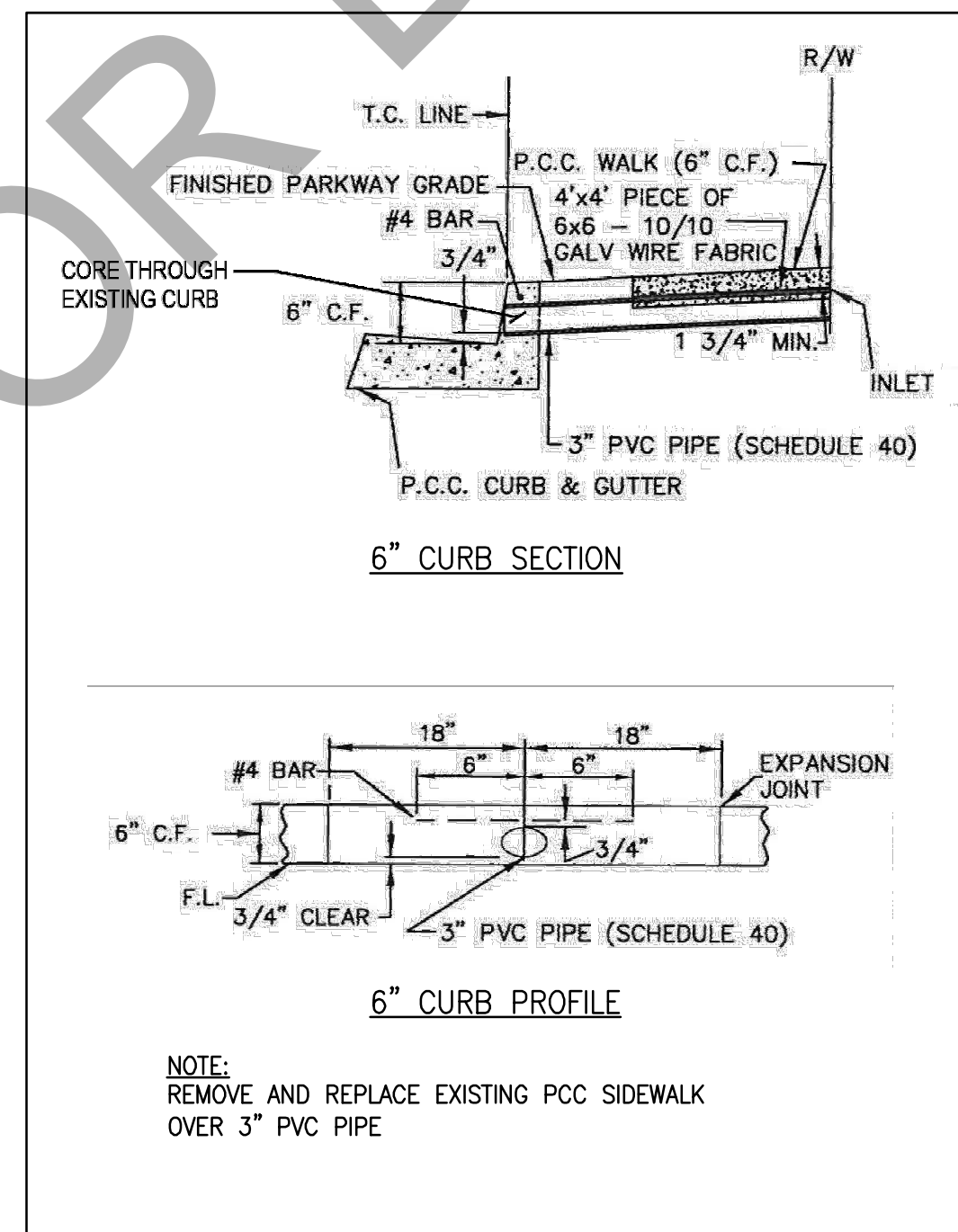
- ALL WORK SHOWN HEREON SHALL BE DONE IN ACCORDANCE WITH CITY OF MONTCLAIR STANDARDS AND SPECIFICATIONS, APPENDIX J OF THE 2022 CALIFORNIA BUILDING CODE, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, DATED 2022, AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2021 EDITION, WITH ANY SUPPLEMENTS.
- ANY CONSTRUCTION PROJECT EQUAL TO OR GREATER THAN ONE ACRE SHALL PROVIDE WASTE DISCHARGE IDENTIFICATION NUMBER (WDID) ON GRADING PLANS PRIOR TO RECEIVING GRADING PERMIT.
- A QUALIFIED SWPPP PRACTITIONERS' (CPSWQ) CONTACT INFORMATION SHALL BE INCLUDED ON TITLE SHEET OF GRADING PLAN.
- PRIOR TO START OF CONSTRUCTION A PREGRADING MEETING AT THE SITE IS REQUIRED. PARTICIPANTS SHALL INCLUDE, AS A MINIMUM, THE INSPECTOR, SOILS ENGINEER, AND GRADING CONTRACTOR.
- WORK SHALL NOT COMMENCE PRIOR TO 7:00 A.M. NOR EXTEND PAST 5:00 P.M., MONDAY THROUGH FRIDAY UNLESS OTHER HOURS ARE AUTHORIZED BY THE CITY BUILDING DEPARTMENT. EQUIPMENT WARM-UP SHALL NOT START PRIOR TO 6:50 A.M.
- ALL SURVEY MONUMENTS SHALL BE PROTECTED AND PERPETUATED IN PLACE. ANY DISTURBED OR COVERED MONUMENTS SHALL BE RESET BY A QUALIFIED CIVIL ENGINEER OR LAND SURVEYOR AT THE EXPENSE OF THE GRADING CONTRACTOR.
- PRIOR TO TAKING WATER FROM ANY FIRE HYDRANT, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE WATER DISTRICT TO OBTAIN A FIRE HYDRANT TO BE METERED, WATER METER LOCATION MAY NOT BE ALTERED WITHOUT WATER DISTRICT'S APPROVAL.
- AT LEAST 48 HOURS PRIOR TO START OF GRADING, CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT 811 AND OBTAIN A USA TICKET NUMBER TO PROVIDE TO BUILDING INSPECTOR.
- UNLESS OTHERWISE DIRECTED BY THE SOILS ENGINEER OR THE SOILS REPORT, EXPOSED SOILS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES, MOISTURE CONDITIONED TO OPTIMUM MOISTURE CONTENT, AND RECOMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY, AS DETERMINED BY ASTM D 1557. THE MOISTURE CONTENT REQUIREMENT SHOULD BE 2% OF OPTIMUM.
- PRIOR TO THE START OF GRADING, ALL EXISTING VEGETATION AND DEBRIS, INCLUDING EXISTING STRUCTURES, FOOTINGS, FOUNDATIONS, RUBBLE, TREES, AND ROOT SYSTEMS, SHALL BE REMOVED FROM THE SITE TO THE SATISFACTION OF THE SOILS ENGINEER AND DISPOSED OF LEGALLY.
- AFTER REMOVAL OF DEBRIS, ANY EXISTING FILL OR DISTURBED NATIVE SOILS SHALL BE EXCAVATED AND REMOVED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS REPORT AND TO THE SATISFACTION OF THE SOILS ENGINEER.
- EXPOSED SOILS SHALL BE INSPECTED BY THE SOILS ENGINEER, AND ANY ADDITIONAL OVER EXCAVATION SHALL THEN BE MADE IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS AS CONTAINED IN THE SOILS REPORT OR AS DIRECTED BY SOILS ENGINEER IN THE FIELD.
- IF ANY UNFORESEEN SUBSURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER AND BUILDING DIVISION BEFORE PROCEEDING FURTHER.
- EROSION CONTROL PLANS SHALL BE PREPARED AND SUBMITTED TO THE CITY ENGINEER FOR APPROVAL CONCURRENT WITH THE GRADING PERMIT APPLICATION AND/OR WITH GRADING PLAN SUBMITTAL UNLESS OTHERWISE WAIVED BY THE CITY ENGINEER. THE EROSION CONTROL PLANS MUST BE APPROVED AND EROSION CONTROL DEVICES INSTALLED AND CERTIFIED AND INSPECTED AS BEING PROPERLY CONSTRUCTED BY THE ENGINEER OF RECORD. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR SO AS NOT TO CAUSE ANY MUD, SILT, OR DEBRIS TO BE DEPOSITED ONTO PUBLIC OR ADJACENT PROPERTY AT ALL TIMES DURING CONSTRUCTION. ANY MUD OR DEBRIS ON PUBLIC PROPERTY SHALL BE REMOVED IMMEDIATELY. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHOD THROUGHOUT THE GRADING AND BUILDING CONSTRUCTION OPERATIONS.
- NO DEMOLITION SHALL COMMENCE WITHOUT OBTAINING A DEMOLITION PERMIT FROM THE CITY BUILDING DIVISION.
- NO GRADING SHALL COMMENCE WITHOUT OBTAINING A GRADING PERMIT FROM THE CITY BUILDING DIVISION AND NOTIFYING BUILDING INSPECTOR 24 HOURS PRIOR TO START OF WORK.
- THE SOILS ENGINEER SHALL ALSO BE RESPONSIBLE TO VERIFY AND REPORT THAT PROPER COMPACTION HAS BEEN OBTAINED BY SUBCONTRACTORS AND UTILITY AGENCIES CONCERNING UTILITY LINE BACKFILL, INCLUDING, BUT NOT LIMITED TO, SEWERS, WATER, ELECTRICAL, GAS, COMMUNICATION, AND LANDSCAPE IRRIGATION LINES.
- ALL CONCRETE USED IN SITE PAVING, SIDEWALKS, DRAINAGE, CURBS, AND/OR GUTTERS SHALL BE TYPE II OR V AND SHALL BE 560-C-3250 UNLESS A HIGHER STRENGTH MIX IS SPECIFIED.
- AN AS-GRADED GRADING PLAN AND CERTIFICATION OF COMPLIANCE WITH SAID GRADING PLAN IS TO BE SUBMITTED TO BUILDING DIVISION PRIOR TO PAVING AND/OR LANDSCAPING.
- ANY AREA SHOWN TO BE GRADED FOR FUTURE WORK SHALL HAVE A MINIMUM GRADE OF ONE PERCENT (1%) TO DRAIN. SEMI-PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED OR CONSTRUCTED AND MAINTAINED AS NECESSARY.
- NO ADJUSTMENT OF ELEVATION SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE BUILDING OFFICIAL AND THE CIVIL ENGINEER OF RECORD.
- ALL P.C.C. WATER CARRYING DEVICES WITH SLOPES LESS THAN 0.5 PERCENT WILL BE WATER TESTED PRIOR TO FINAL FINISH. ANY RESIDUAL FONDING IN EVIDENCE AT TIME OF INSPECTION SHALL BE CAUSE FOR REMOVAL AND REPLACEMENT.
- ALL INSTALLATIONS OF PERVIOUS CONCRETE SHALL MEET ONE OF THE FOLLOWING CRITERIA FOR THE MINIMUM CERTIFICATION FOR EACH PLACEMENT CREW AND THE CONTRACTOR SHALL SUBMIT VERIFICATION OF NATIONAL READY MIXED CONCRETE ASSOCIATION PERVIOUS CONCRETE CERTIFICATION PRIOR SCHEDULING A PERVIOUS CONCRETE POUR. THE PERVIOUS CONCRETE SUBCONTRACTOR SHALL EMPLOY NO LESS THAN ONE (1) NRMCA CERTIFIED PERVIOUS CONCRETE CRAFTSMAN WHO MUST BE ONSITE, ACTIVELY GUIDING AND WORKING WITH EACH PLACEMENT CREW DURING ALL PERVIOUS CONCRETE PLACEMENT. THE PERVIOUS CONCRETE SUBCONTRACTOR SHALL EMPLOY NO LESS THAN THREE (3) ACTIVELY GUIDING AND WORKING WITH PERVIOUS CONCRETE FOR THE PROJECT. THE PERVIOUS CONCRETE SUBCONTRACTOR SHALL EMPLOY NO LESS THAN THREE (3) NRMCA PERVIOUS CONCRETE TECHNICIANS AND ONE (1) PERVIOUS CONCRETE INSTALLER WHO SHALL BE ONSITE, ACTIVELY GUIDING AND WORKING WITH EACH PLACEMENT CREW DURING ALL PERVIOUS CONCRETE PLACEMENT.
- ALL WALLS OVER TWO FEET (2') IN HEIGHT REQUIRE SEPARATE BUILDING PERMITS AND INSPECTION.
- THE GRADING CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER NOT LESS THAN 72 HOURS IN ADVANCE OF THE LOCATION OF ANY SOILS PROPOSED FOR IMPORT. EACH PROPOSED IMPORT SOURCE SHALL BE SAMPLED, TESTED, AND APPROVED BY THE SOILS ENGINEER PRIOR TO DELIVERY OF SOILS FOR USE ON THE SITE.
- NO SOIL MAY BE IMPORTED OR EXPORTED WITHOUT FIRST OBTAINING APPROVAL FROM THE CITY ENGINEER AS TO THE PROPOSED HAUL ROUTE.
- STRICT ADHERENCE TO DUST CONTROL REQUIREMENTS SHALL BE ENFORCED AND ADJACENT STREETS ARE TO BE CLEANED DAILY OF ALL DIRT AND DEBRIS THAT IS THE RESULT OF GRADING OPERATION. SOIL STABILIZATION IS REQUIRED IF THE SITE HAS DISTURBED SOIL FOR MORE THAN ONE MONTH IN ACCORDANCE WITH AQMD'S RULE 403.
- PRIOR TO COMMENCING THE EXCAVATION OF A TRENCH FIVE (5) FEET IN DEPTH OR GREATER INTO WHICH A PERSON WILL BE REQUIRED TO DESCEND, THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT TO DO SO FROM THE DIVISION OF INDUSTRIAL SAFETY PURSUANT TO SUBSECTION 5-7 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2018 EDITION PLUS SUPPLEMENTS. A COPY OF THE PERMIT SHALL BE FILLED WITH THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE.



**CLEANOUT DETAIL A**  
NOT TO SCALE



**TRENCH BACKFILL DETAIL B**  
NOT TO SCALE



**PARKWAY DRAIN DETAIL C**  
NOT TO SCALE

**NOTE:**

NOTIFY LANDSCAPE ARCHITECT PRIOR TO REMOVAL OF ANY EXISTING TREES WHERE CONFLICT WITH PROPOSED SIDEWALK OCCURS



**ENGINEER'S NOTICE TO CONTRACTOR**

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS AND, 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 UTILITIES 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.

**NOTICE TO CONTRACTOR**

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

**CONSTRUCTION NOTES**

- CONSTRUCT 4" THICK PCC SIDEWALK PER LANDSCAPE ARCHITECT PLANS, AND DETAILS A AND B ON SHEET L-3.2
- INSTALL SPLASH PAD PER LANDSCAPE ARCHITECTS PLANS AND DETAIL E ON SHEET L-3.2
- INSTALL 12" NYOPLAST DRAIN WITH 12" X 12" H2O RATED GRATE, PER ADS OR APPROVED EQUAL, SEE DETAIL C ON SHEET L-3.2
- INSTALL STORM DRAIN CLEAN OUT PER DETAIL A ON SHEET L-2.1
- INSTALL 4" DIAMETER PVC SDR 26 DRAIN PIPE. TRENCH & BACKFILL PER DETAIL B ON SHEET L-2.1
- INSTALL PARKWAY DRAIN PER DETAIL C ON SHEET L-2.1
- INSTALL 4" PVC SEWER SDR 13.5
- INSTALL SEWER CLEAN OUT PER DETAIL A ON SHEET L-2.1
- INSTALL 2" PVC SCHEDULE 80 WATER LINE
- INSTALL 2" BALL VALVE PER WATT OR APPROVED EQUAL
- INSTALL THRUST BLOCKS PER SPPWC STD. 508-3
- INSTALL 1" PVC SCHEDULE 80 WATER LINE

**LEGEND**

W = TRENCH WIDTH  
OD = OUTSIDE DIAMETER OF PIPE  
BEDDING MATERIAL SHALL MEET OR EXCEED SECTION 306-6, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION. LOCALLY EXCAVATED NATIVE MATERIALS MAY BE BLENDED TO THE REQUIRED SAND EQUIVALENCY OF 30 OR GREATER.

CONTRACTOR TO POTHOLE EXISTING UTILITIES TO VERIFY LOCATION, PIPE SIZE & ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WITH RESULTS

**DEMOLITION NOTES**

A- SAWCUT/REMOVE EXISTING CONCRETE SIDEWALK

**CIVIL ENGINEER**

L.D. KING INC.  
975 N. HAVEN AVENUE, SUITE 200  
ONTARIO, CA 91764  
(909) 945-0526

**LEGEND**

- PROPOSED PCC SIDEWALK & MAINTENANCE ROAD/BIKE TRAIL
- SAWCUT/REMOVE EXISTING CONCRETE SIDEWALK OR AC PAVEMENT
- EXISTING CONCRETE
- PROPOSED SPLASH PAD
- PROPOSED HANDRAIL
- EXISTING CHAIN LINK FENCE
- EXISTING ELEVATION
- PROPOSED ELEVATION
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- PROPOSED SEWER
- PROPOSED WATER (PVC)
- CONTOUR
- EXISTING PARK LIGHTS
- PROPOSED TRASH RECEPTACLE PER LANDSCAPE PLAN

**ABBREVIATIONS**

- AB - AGGREGATE BASE
- AC - ASPHALT CONCRETE
- AVE - AVENUE
- BC - BEGIN CURVE
- BEG - BEGIN
- CB - CATCH BASIN
- C/L - CENTERLINE
- CF - CURB FACE
- C&G - CURB AND GUTTER
- EC - END CURVE
- EP - EDGE OF PAVEMENT
- EX - EXISTING
- FS - FINISHED SURFACE
- FG - FINISHED GRADE
- FH - FIRE HYDRANT
- FL - FLOW LINE
- GB - GRADE BREAK
- GM - GAS METER
- GW - GUY WIRE
- INV - INVERT
- L - LENGTH
- L/A - LANDSCAPE ARCHITECT
- LAT - LATERAL
- LP - LOW POINT
- MAX - MAXIMUM
- MH - MANHOLE
- MIN - MINIMUM
- MWV - MONTE VISTA WATER DISTRICT
- NTS - NOT TO SCALE
- N/O - NORTH OF
- PCC - PORTLAND CEMENT CONCRETE
- P/L - PROPERTY LINE
- PROP - POWER POLE
- PROP - PROPOSED
- RCP - REINFORCED CONCRETE PIPE
- R - RADIUS
- R/W - RIGHT OF WAY
- S - SLOPE
- SD - STORM DRAIN
- STA - STATION
- STD - STANDARD
- SW - SIDEWALK
- TC - TOP OF CURB
- TW - TOP OF WALL
- TYP. - TYPICAL
- VAR. - VARIES
- W - WIDTH
- WM - WATER METER

95% SUBMITTAL

**UNDERGROUND SERVICE ALERT**  
Call: TOLL FREE  
1-800-227-2600  
OR  
811  
TWO WORKING DAYS BEFORE YOU DIG

**BENCHMARK:**  
ELEVATION DETERMINED FROM CORNS CONTROL SITES. POINT #4 - TRAVPT-SET L/T SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

**BASIS OF BEARINGS:**  
CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



**L.D. KING**  
L.D. KING, INC.  
975 N. HAVEN AVENUE, SUITE 200  
ONTARIO, CA 91764 (909) 945-0526  
*Carla E. Berard*  
CARLA E. BERARD R.C.E. No. 45183 DATE 06/13/2024

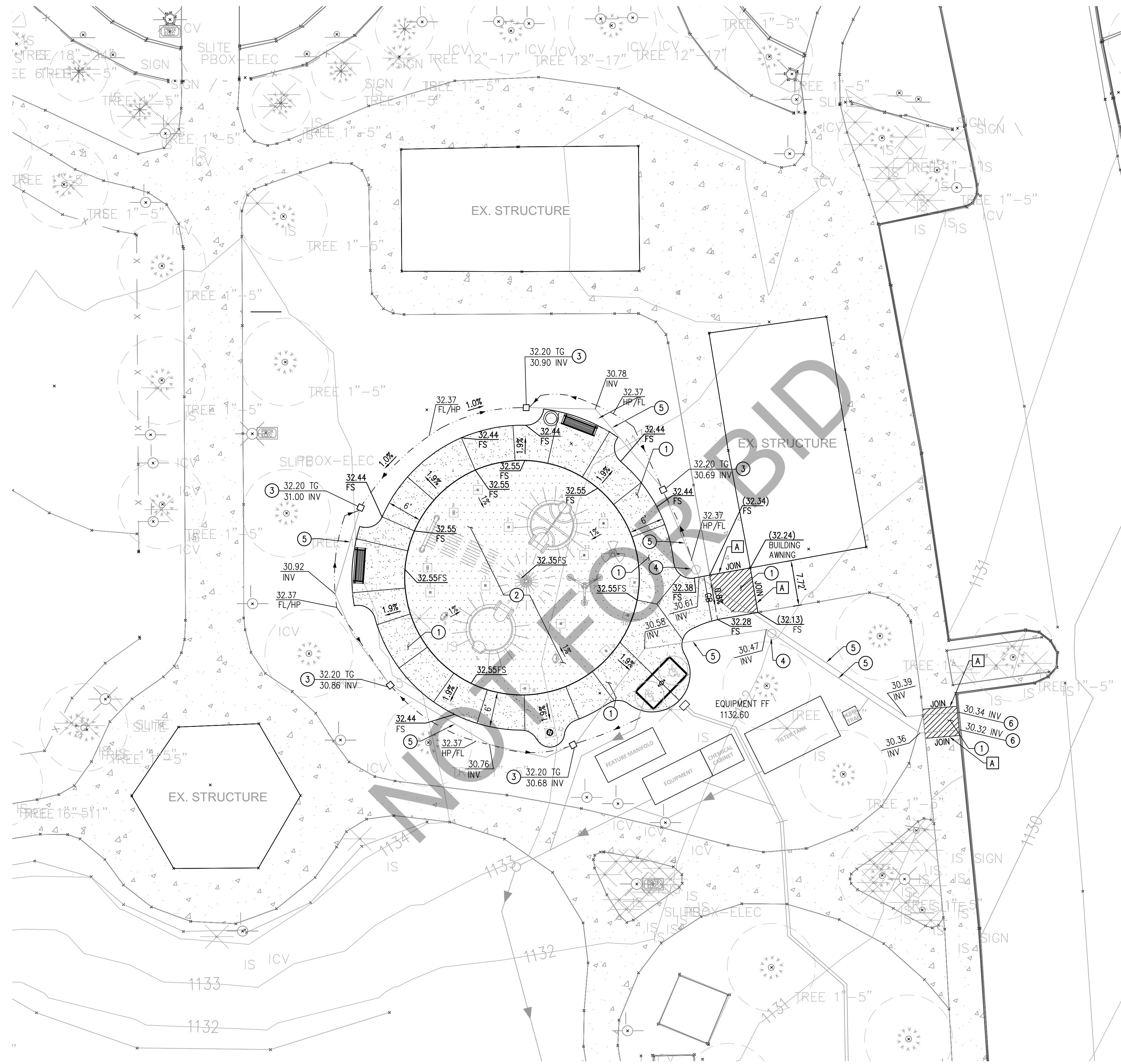
REVISIONS				
MARK	DATE	INITIAL	DESCRIPTION	APPR. DATE

PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS**  
**David Doublet**  
ASSISTANT DIRECTOR  
Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -0700

APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Charles Hernandez		
	OPS, DIVISION MANAGER		
	Novel Mondragon		
	PM, DIVISION MANAGER		

**AYALA PARK  
PRECISE GRADING, DRAINAGE AND UTILITY  
NOTES & DETAILS  
BLOOMINGTON, CALIFORNIA**

DWG NO.  
3620.0009,  
30.30.0165  
FILE NO.  
**L - 2.1**  
SHEET 3 OF 17



**CONSTRUCTION NOTES**

- ① CONSTRUCT 4" THICK PCC SIDEWALK PER LANDSCAPE ARCHITECTS PLANS, AND DETAILS A AND B ON SHEET L-3.2
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**DEMOLITION NOTES**

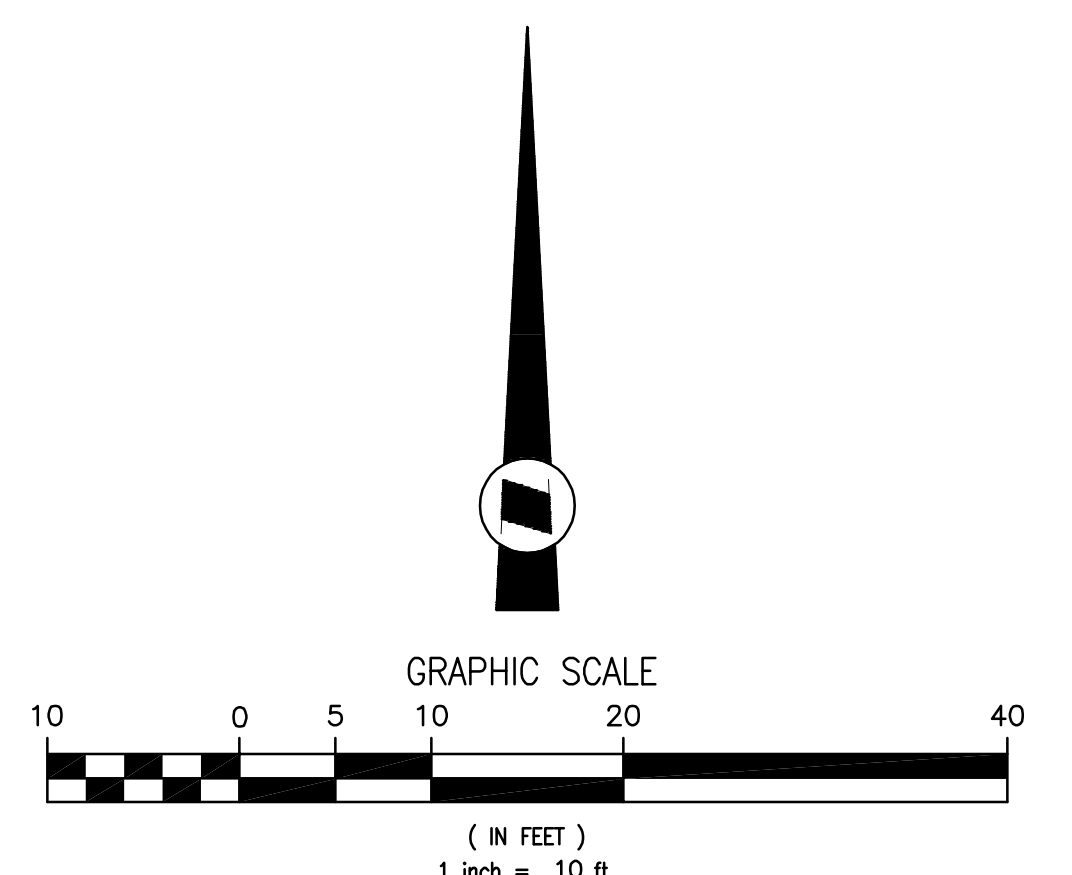
- A SAWCUT/REMOVE EXISTING CONCRETE SIDEWALK

**LEGEND**

- PROPOSED PCC SIDEWALK
- SAWCUT/REMOVE EXISTING CONCRETE SIDEWALK

**NOTE:**

- 1% MIN. SLOPE FOR GRADED SWALE
- WHEN REMOVING AND REPLACING PCC SIDEWALKS CONTRACTOR TO START AND END AT EXISTING WEAKEN PLANE JOINTS



95% SUBMITTAL

**UNDERGROUND SERVICE ALERT**

Call: TOLL FREE  
1-800-227-2600  
OR  
811

TWO WORKING DAYS BEFORE YOU DIG

**BENCHMARK:**  
ELEVATION DETERMINED FROM CORS CONTROL SITES. POINT #4 - TRAVPT-SET L/T SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

**BASIS OF BEARINGS:**  
CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



**LDKING** L.D. KING, INC.  
975 N. HAVEN AVENUE, SUITE 200  
ONTARIO, CA 91764 (909) 945-0526

*Carla Berard*  
CARLA E. BERARD R.C.E. No. 45183 DATE 06/13/2024

REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS**

**David Doublet** Assistant Director  
Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -0700

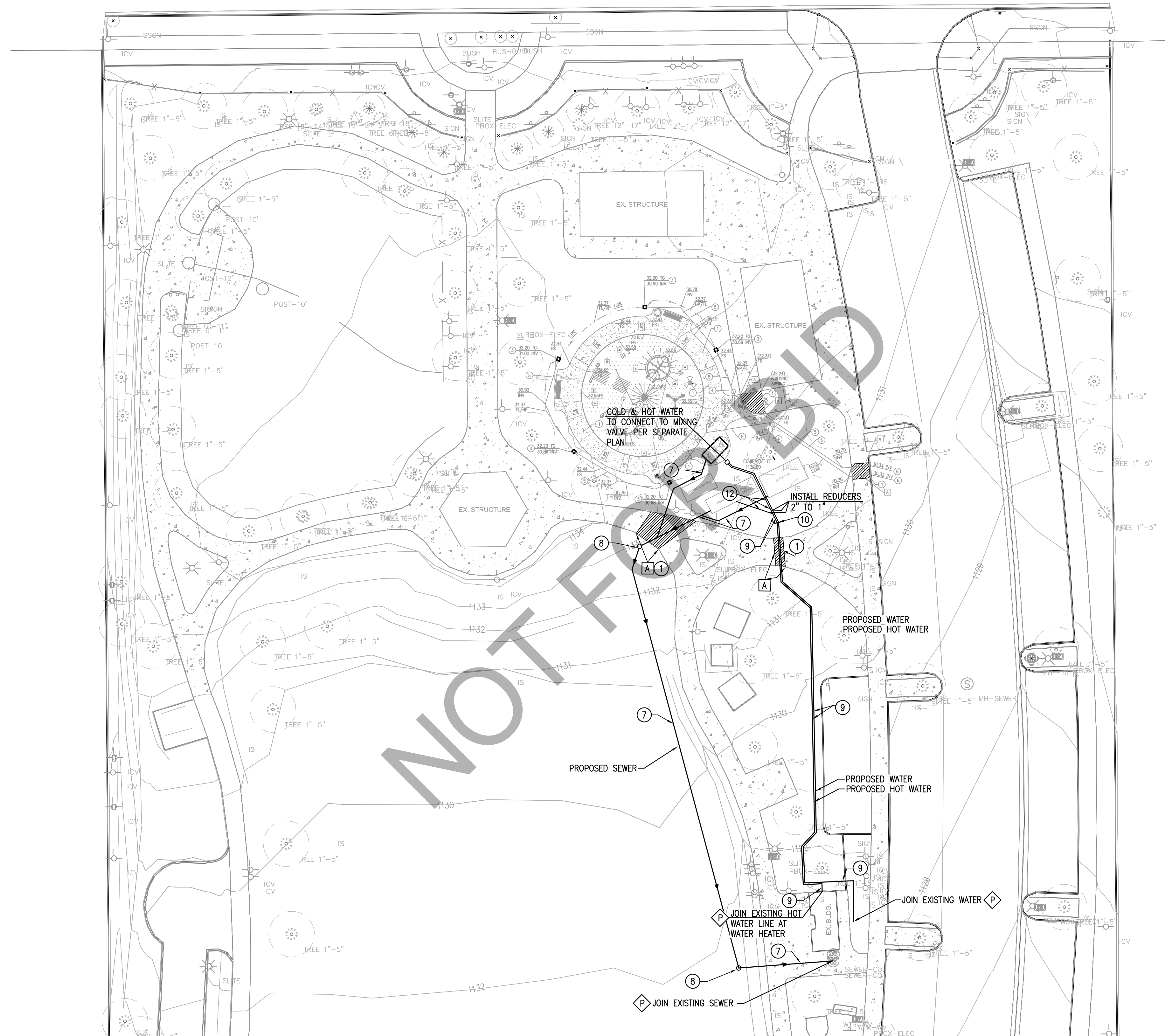
APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Charles Hernandez		
	Noel Mondragon		

**AYALA PARK**  
PRECISE GRADING AND DRAINAGE PLAN  
BLOOMINGTON, CALIFORNIA

DWG NO. 3620.0009, 30.30.0165  
FILE NO. **L - 2.2**  
SHEET 4 OF 17

E:\700-789\758-Arch\Drawings\758-004\_Ayala\_Park\PLANS\DRAWING\CV\358004p02.dwg, Plotted: Aug 29, 2024 - 3:22pm UN 758-004 AYALA PARK

MARYGOLD AVENUE



CONSTRUCTION NOTES

- 1- CONSTRUCT 4" THICK PCC SIDEWALK PER LANDSCAPE ARCHITECT PLANS, AND DETAILS A AND B ON SHEET L-3.2
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**P** CONTRACTOR TO POTHOLE EXISTING UTILITIES TO VERIFY LOCATION, PIPE SIZE & ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WITH RESULTS

DEMOLITION NOTES

**A** SAWCUT/REMOVE EXISTING CONCRETE SIDEWALK

LEGEND

SAWCUT/REMOVE EXISTING CONCRETE SIDEWALK

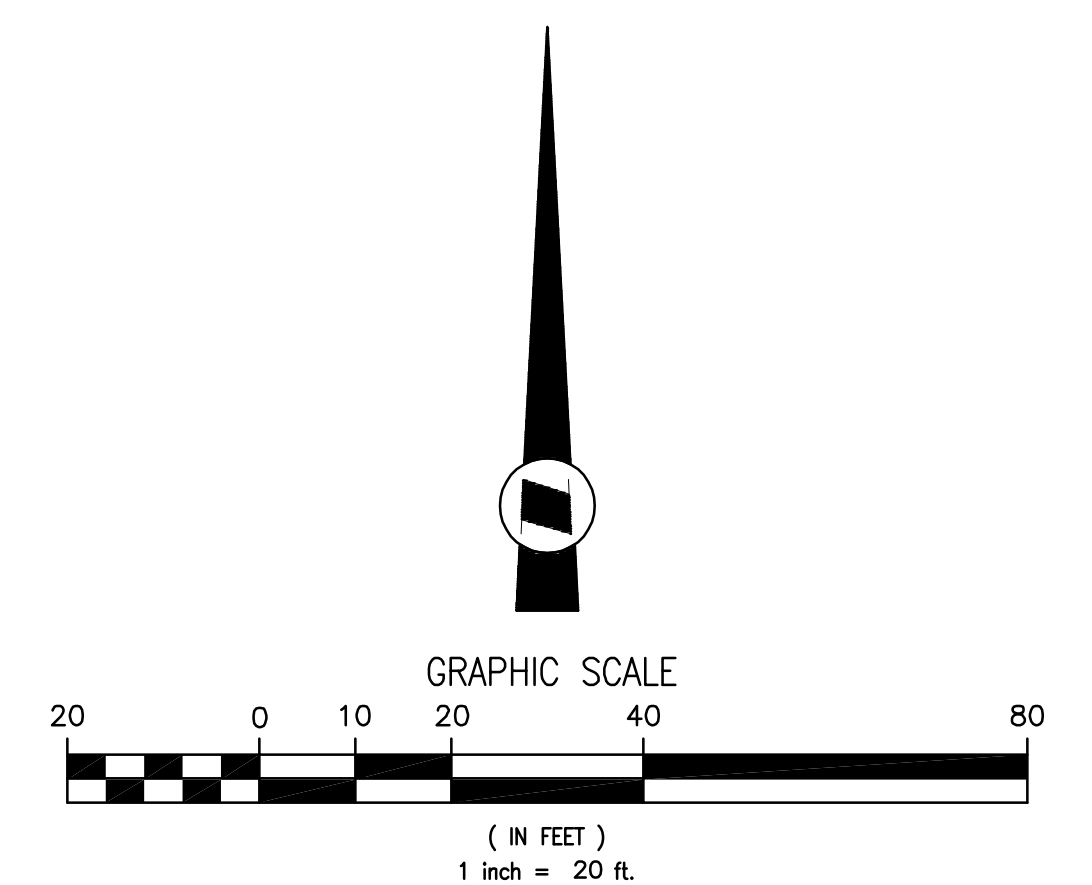
NOTE:

THIS UTILITY PLAN SHOWS THE SEWER AND WATER LATERALS TO A POINT OF CONNECTION FOR THE SPLASH PAD EQUIPMENT CABINETS, VAULTS AND SHOWER. ALL OTHER WATER, SEWER AND DRAIN LINES LINKING THE SPLASH PAD TO THE EQUIPMENT CABINETS, VAULTS AND SHOWER ARE SHOWN ON THE SPLASH PAD MEP PLANS.

1% MIN. SLOPE FOR SEWER LINES.

3' DEPTH OF COVER FOR WATER LINES.

WHEN REMOVING AND REPLACING PCC SIDEWALKS CONTRACTOR TO START AND END AT EXISTING WEAKEN PLANE JOINTS



95% SUBMITTAL



UNDERGROUND SERVICE ALERT  
BENCHMARK:  
ELEVATION DETERMINED FROM CORS CONTROL SITES. POINT #4 - TRAVPT-SET L/T SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

BASIS OF BEARINGS:  
CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



**LKING** L.D. KING, INC.  
975 N. HAVEN AVENUE, SUITE 200  
ONTARIO, CA 91764 (909) 945-0526  
*Carla Berard*  
CARLA E. BERARD R.C.E. No. 45183 DATE 06/13/2024

REVISIONS			
MARK	DATE	INITIAL	DESCRIPTION

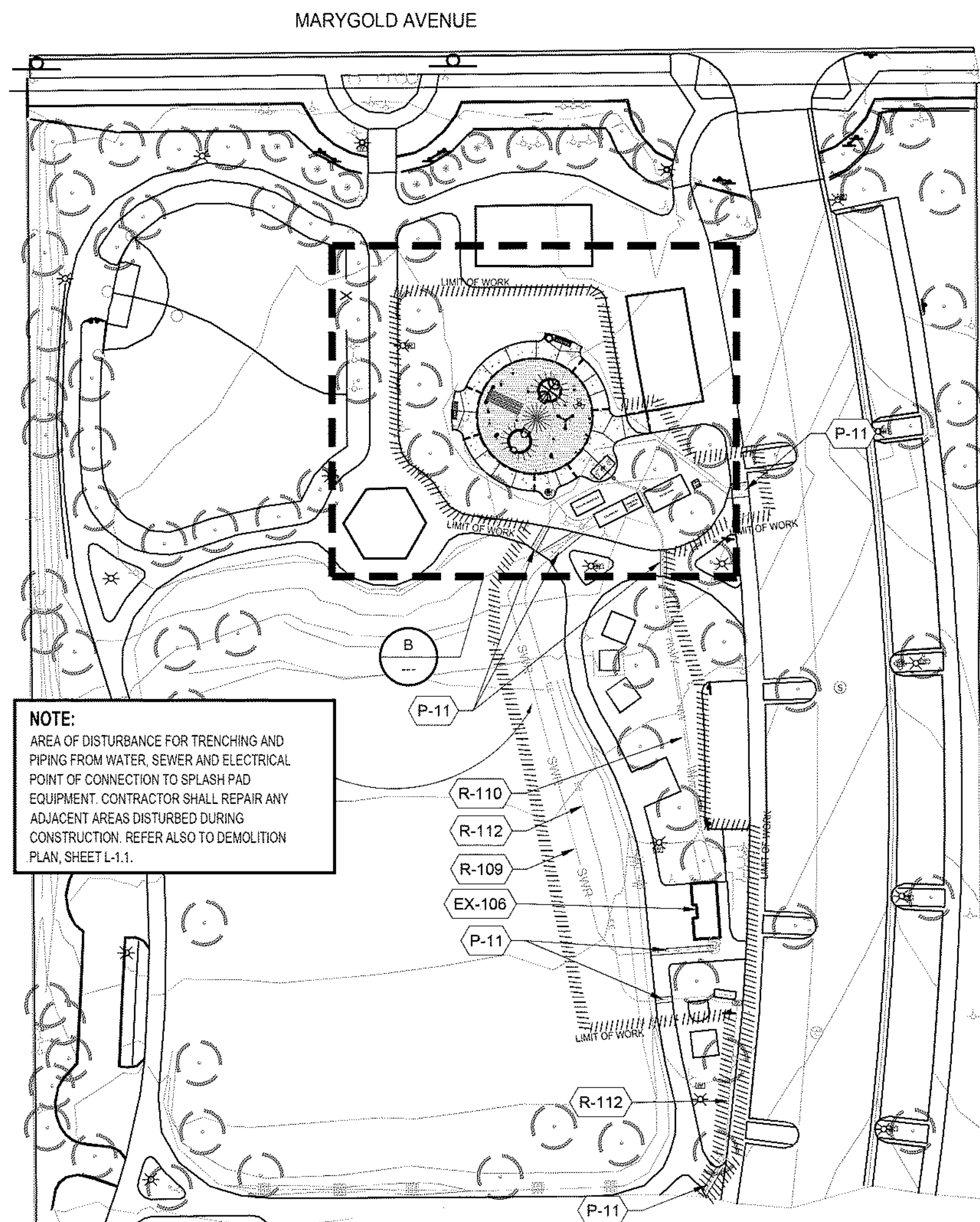
PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS**  
**David Doublet** Assistant Director  
Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -0700

APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Charles Hernandez		
	OPS, DIVISION MANAGER		
	PM, DIVISION MANAGER	Noel Mondragon	

AYALA PARK  
UTILITY PLAN  
BLOOMINGTON, CALIFORNIA

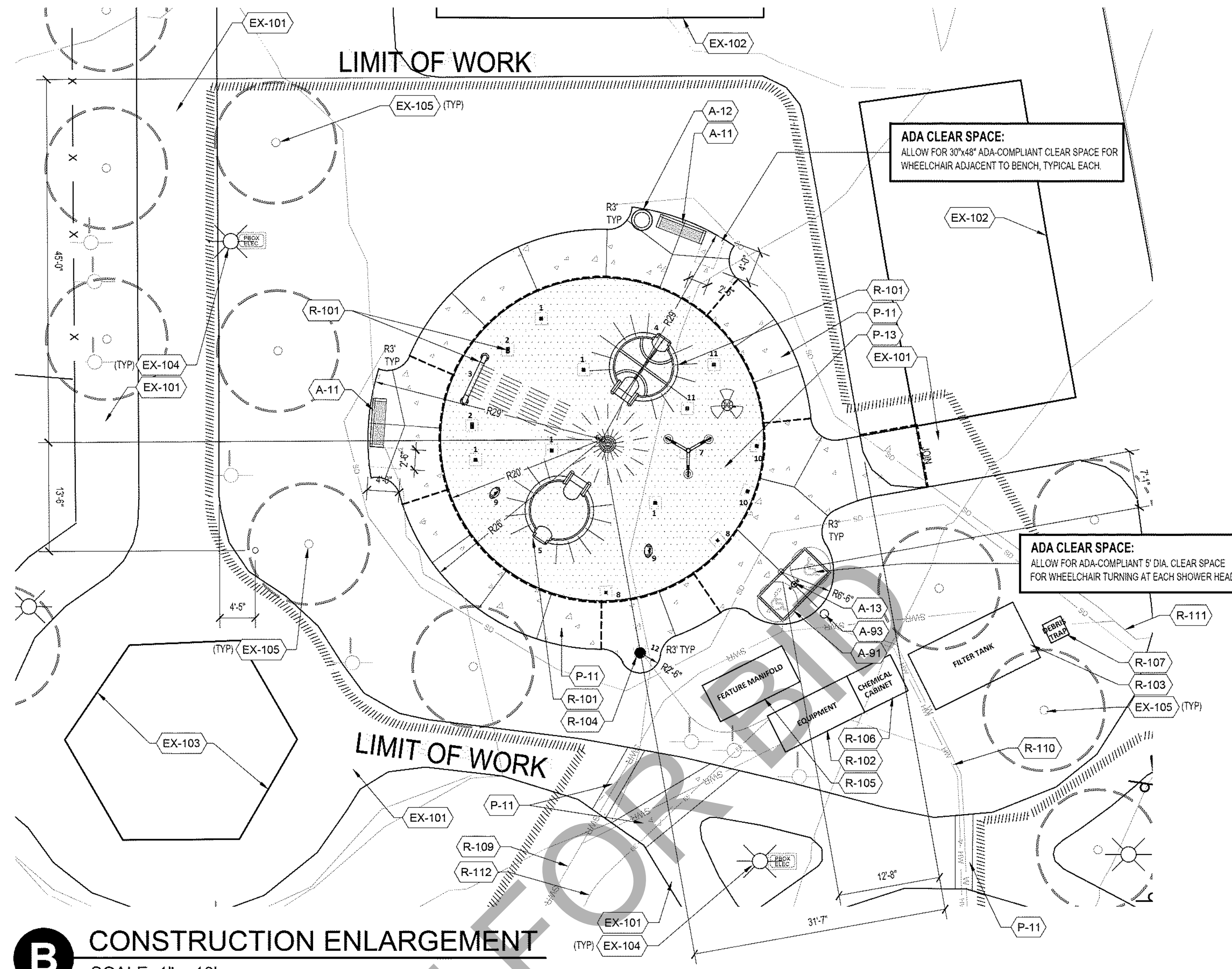
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3620.0009,  
30.30.0165  
FILE NO.  
**L - 2.3**  
SHEET 5 OF 17

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**NOTE:**  
AREA OF DISTURBANCE FOR TRENCHING AND PIPING FROM WATER, SEWER AND ELECTRICAL POINT OF CONNECTION TO SPLASH PAD EQUIPMENT. CONTRACTOR SHALL REPAIR ANY ADJACENT AREAS DISTURBED DURING CONSTRUCTION. REFER ALSO TO DEMOLITION PLAN, SHEET L-1.1.

**A SITE PLAN**  
SCALE: 1" = 40'



**B CONSTRUCTION ENLARGEMENT**  
SCALE: 1" = 10'

- CONSTRUCTION NOTES:**
- CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO A FAILURE TO GIVE SUCH NOTIFICATION.
  - ALL FORMS AND ALIGNMENTS OF PAVING, WALL / FENCE LAYOUT, AND SPECIAL PAVING AREAS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING (GIVE A MINIMUM OF 48 HOURS NOTICE).
  - FOR SITE GRADING, SEE CIVIL ENGINEER'S GRADING PLAN.
  - 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.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH CONSTRUCTION OPERATIONS AS SHOWN.
  - PRIOR TO PLACING CONCRETE, THE CONTRACTOR SHALL SUFFICIENTLY COMPACT THE SUB-GRADE AND PROVIDE SUBSURFACE PREPARATION PER SPECIFICATIONS.
  - CONCRETE SURFACES SHALL BE FORMED WITH LONG, SMOOTH GRADIENT TO REDUCE DIPS, ABRUPT CHANGES AND SHARP TRANSITIONS.
  - ALL CURVILINEAR WALKS, CURBS, HEADER BOARDS, AND WALLS SHALL HAVE A CONTINUOUS SMOOTH CURVE WHERE APPLICABLE. ALL FORMS MUST BE INSPECTED AND APPROVED PRIOR TO BEGINNING THAT PHASE OF WORK.
  - ELECTRICAL CONNECTION TO BUILDING IS NOT SHOWN. CONTRACTOR TO RUN CONDUIT IN PLANTER AREAS WHEREVER POSSIBLE, AVOIDING ALL STRUCTURES, FOOTING, AND PLAY SURFACING. DO NOT INSTALL CONDUIT IN PARKING LOT.

**REFERENCES BY OTHERS SCHEDULE:**

SYMBOL	DESCRIPTION	DETAIL	NOTES
R-101	SPLASH PAD FEATURES		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-102	SPLASH PAD EQUIPMENT CABINET WITH WATER HEATER		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-103	UNDERGROUND WATER STORAGE TANK		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-104	ACTIVATION POST		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-105	SPLASH PAD FEATURE MANIFOLD IN CABINET		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-106	SPLASH PAD CHEMICAL CABINET		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-107	DEBRIS TRAP		PER RECREATIONAL WATER SYSTEMS CONSULTANT
R-109	PROPOSED SEWER LINE		PER CIVIL ENGINEER'S PLANS
R-110	PROPOSED WATER LINES		PER CIVIL ENGINEER'S PLANS
R-111	PROPOSED STORM DRAIN LINE		PER CIVIL ENGINEER'S PLANS
R-112	PROPOSED ELECTRICAL SERVICE		PER ELECTRICAL ENGINEER'S PLANS

**PAVING & SURFACING SCHEDULE:**

SYMBOL	CONCRETE DESCRIPTION	DETAIL	MATERIAL	THICKNESS	EXP. JT. TYPE	EXP. JT. DETAIL	CTL. JT. TYPE	CTL. JT. DETAIL	FINISH	MATERIAL COLOR	SEALER	REMARKS
P-11	CONCRETE PAVING	AL-32	CONCRETE	4"	FULL DEPTH WATERPROOF	BL-32	TOOLED	BL-32	MEDIUM BROOM	NATURAL GREY	N/A	
P-12	RAMP CONCRETE PAVING	AL-32	CONCRETE	4"	FULL DEPTH WATERPROOF	BL-32	TOOLED	BL-32	MEDIUM BROOM	MATCH ADJACENT	N/A	
P-13	SPLASH PAD CONCRETE PAVING	AL-32	CONCRETE	4"	FULL DEPTH WATERPROOF	BL-32	TOOLED	BL-32	MEDIUM BROOM	PER DETAIL	SEE SEALANT NOTES	

**NEW CONCRETE PAVING NOTES:**  
 A. ALL REINFORCING WITHIN NEW CONCRETE PAVING TO BE FIBERGLASS CONNECTED WITH NYLON TIE WIRE.  
 B. CONTRACTOR TO PUT ONE OF THE FOLLOWING ADMIXTURES TO THE CONCRETE LOAD BEING USED FOR THE NEW CONCRETE PAVING: WT-240 BY SIKAUSSA, TEL., 201-933-8800, 21000 BY HYCRETE, TEL., 866-452-7383, KRYSOL INTERNAL MEMBRANE (KIM) BY KRIVTON, TEL., 800-267-8280.  
 C. CONTRACTOR TO SEAL NEW CONCRETE PAVING WITH PENETRATING SEALER: SIKACEM 102 BY SIKAUSSA, TEL., 201-933-8800.

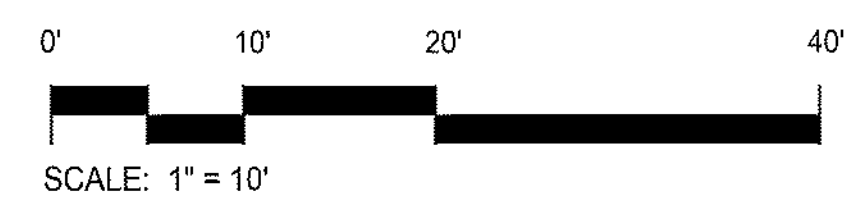
**SITE AMENITIES SCHEDULE:**

SYMBOL	SITE FURNISHINGS DESCRIPTION	DETAIL	MANUF.	MODEL	MATERIAL COLOR 1	MATERIAL COLOR 2	MOUNTING	REMARKS
A-11	6' BENCH (BID ALTERNATE 1)		QCP	ADENVILLE #Q1AV78B	COLOR: CHOCOLATE;	FINISH: LIGHT SANDBLAST	N/A	SET LEVEL
A-12	TRASH RECEPTACLE (BID ALTERNATE 1)		QCP	PALM SQUARE #QS-P82532W-A21	COLOR: CHOCOLATE;	FINISH: LIGHT SANDBLAST	N/A	SET LEVEL
A-13	OUTDOOR SHOWER	DIL-32	MURDOCK	M-PCS25	GREEN	N/A	SURFACE WITH ANCHOR BOLTS	(2) SHOWER HEADS WITH (2) FOOT SPRAY
SYMBOL	LANDSCAPE FEATURES DESCRIPTION	DETAIL	MANUF.	MODEL	MATERIAL COLOR 1	MATERIAL COLOR 2	MOUNTING	REMARKS
A-91	CHANNEL DRAIN WITH GRATE	CL-32	NDS ENGINEER'S PLANS	3" MINI CHANNEL DRAIN	GRATE: "GRAY" DECORATIVE WAVE	N/A	IN-GROUND	CONNECTION TO SITE DRAINAGE PER CIVIL
A-93	THERMOSTATIC MIXING VALVE		WATTS	LFMMVM1-CPVC 1	N/A	N/A	10" ROUND PLASTIC LOCKING VALVE BOX	INSTALL PER MANUFACTURER'S SPECS SET OUTPUT TEMPERATURE TO 80°

**EXISTING SCHEDULE:**

SYMBOL	DESCRIPTION	NOTES
EX-101	CONCRETE PAVING	JOIN NEW PAVING TO EXISTING FLUSH AT SAWCUT EDGE
EX-102	PICNIC SHADE STRUCTURE	PROTECT FROM DAMAGE
EX-103	PAVILION	PROTECT FROM DAMAGE
EX-104	POLE LIGHT	PROTECT FROM DAMAGE
EX-105	TREE	PROTECT FROM DAMAGE
EX-106	RESTROOM BUILDING	PROTECT FROM DAMAGE

**PLAN CROSS REFERENCES:**  
 NOTES AND LEGENDS, THIS SHEET FOR CONSTRUCTION DETAILS, SEE SHEET L-3.2 FOR CORRESPONDING DEMOLITION PLAN, SEE SHEET L-1.1

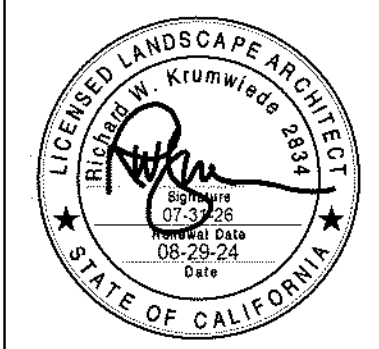


**L-3.1**

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 TWO WORKING DAYS BEFORE YOU DIG

**BENCHMARK:**  
 ELEVATION DETERMINED FROM CORS CONTROL SITES. POINT #4 - TRAVPT-SET L/T SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

**BASIS OF BEARINGS:**  
 CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



**COMPANY ADDRESS AND LOGO**  
**ARCHITERRA DESIGN GROUP**  
 LANDSCAPE ARCHITECTURE AND PLANNING  
 1021-A TRAZEMARK ST. RANCHO OCAYARDIA, CALIFORNIA 92688  
 PREPARED UNDER THE SUPERVISION OF:  
 RICHARD W. KRUMWIEDE 2834 08-29-24  
 PROFESSIONAL LANDSCAPE ARCHITECT R.L.E. No. DATE

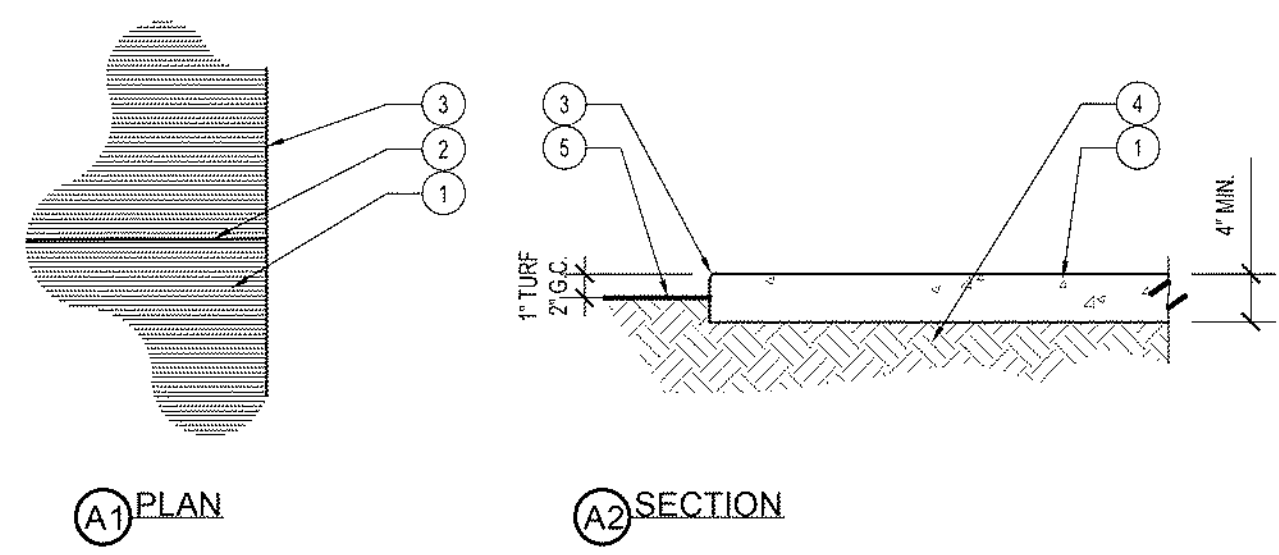
REVISIONS				
MARK	DATE	INITIAL	DESCRIPTION	APPR. DATE

PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS**  
**David Doublet**  
 Assistant Director  
 Digitally signed by David Doublet  
 Date: 2024.09.03 11:11:32 -0700

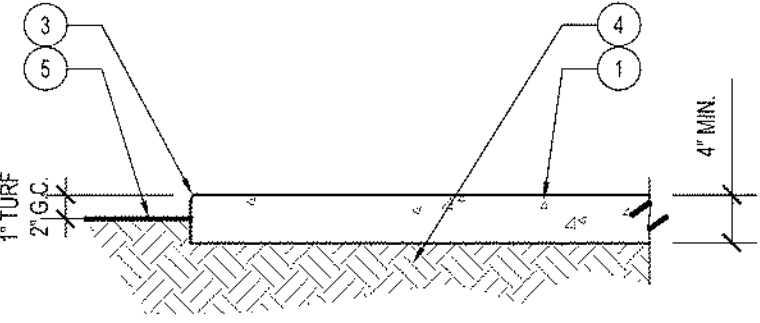
APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Charles Hernandez		
	OPS. DIVISION MANAGER		
	PM. DIVISION MANAGER	Noel Mondragon	

**CONSTRUCTION PLAN**  
**AYALA PARK SPLASH PAD**  
**BLOOMINGTON, CALIFORNIA**

DWG NO. 3620.0009, 30.30.0165  
 FILE NO. -  
 SHEET 6 OF 17



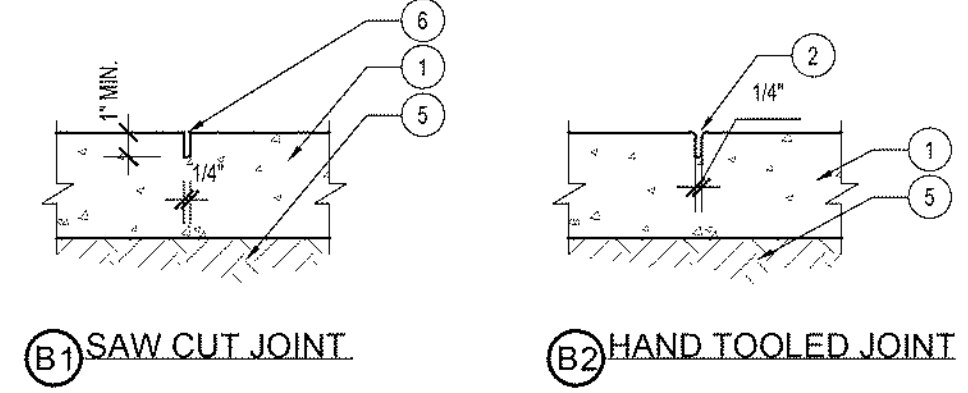
A1 PLAN



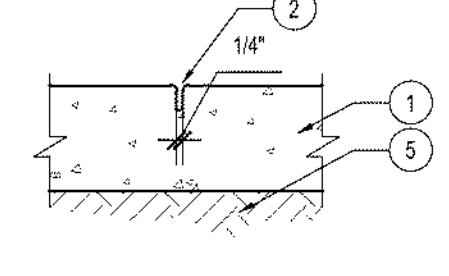
A2 SECTION

- LEGEND:**
1. CONCRETE PAVING, 4" MIN. THICKNESS, RUN MEDIUM-BROOM FINISH PERPENDICULAR TO EDGE OF CONCRETE / PATH OF TRAVEL.
  2. 1" DEEP CONTROL JOINT, SEE CONSTRUCTION PLAN FOR LAYOUT, 6" O.C. MAX.
  3. EDGE OF PAVING- 1/2" RADIUS ALONG ALL EXPOSED EDGES.
  4. COMPACT SUB-GRADE TO 90% RELATIVE COMPACTION UNDER PAVEMENT.
  5. FINISH GRADE AT ADJACENT PLANTING AREA.

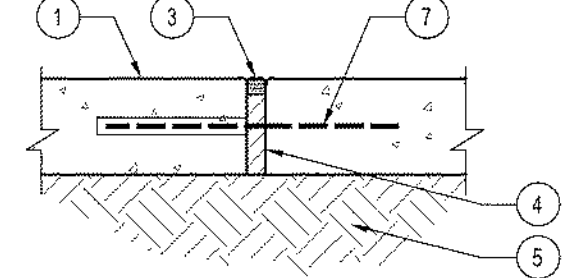
- NOTES:**
- CONTRACTOR SHALL POUR AND FINISH A 2' x 2' SAMPLE OF EACH TYPE OF FINISH FOR APPROVAL BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT.
  - FOR DRIVEWAY THICKNESS, REFER TO CIVIL ENGINEER'S PLANS AND GEOTECHNICAL REPORT.
  - CONCRETE REINFORCEMENT PER GEOTECHNICAL REPORT.



B1 SAW CUT JOINT

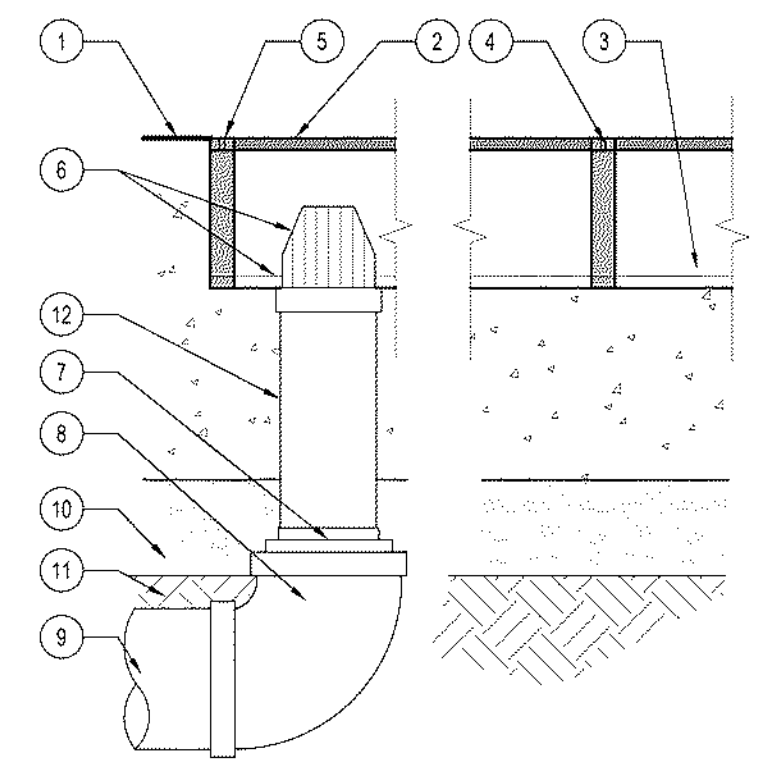


B2 HAND TOOLED JOINT

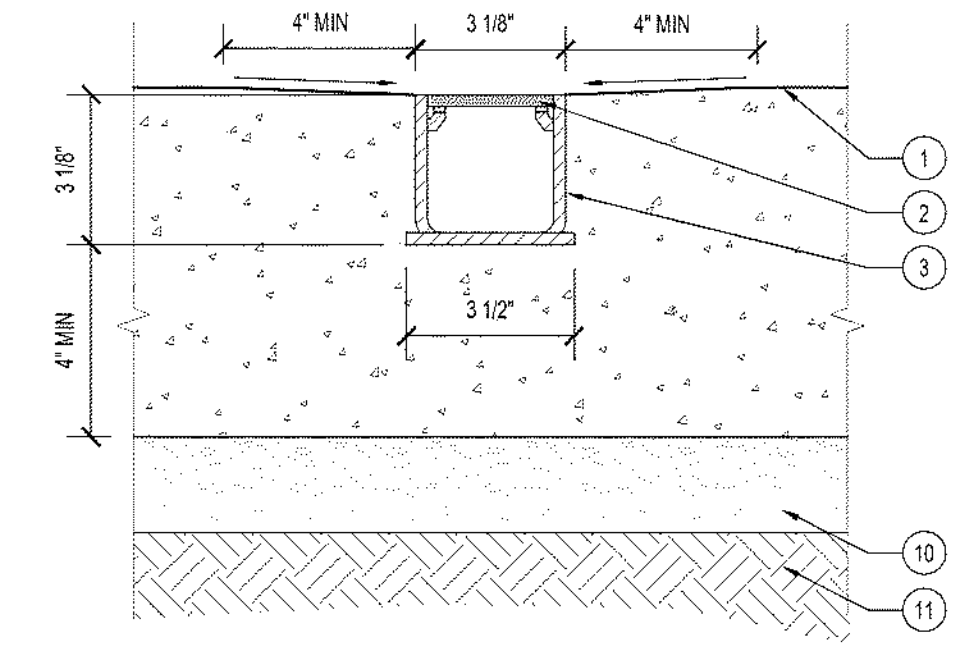


B3 DOWELED EXPANSION JOINT

- LEGEND:**
1. CONCRETE PAVING PER PLAN.
  2. HAND TOOLED JOINT w/ 1/4" TOOLED RADIUS.
  3. POLYURETHANE WATERPROOF SEALANT, COLOR TO MATCH PAVING.
  4. 1/2" EXPANSION JOINT w/ TEAR-AWAY TOP.
  5. COMPACTED SUB-GRADE PER SOIL REPORT.
  6. MACHINE SAW CUT JOINT, 1" DEEP MINIMUM.
  7. SPEED DOWEL (SIKA®), 1/2" LONG AT 18" O.C. INSERT ONE SIDE IN PVC SLEEVE.
  8. 1/2" EXPANSION JOINT w/ TEAR-AWAY TOP.
- NOTES:**
- EXPANSION JOINTS SHALL BE PLACED A MAXIMUM OF 20' APART UNLESS OTHERWISE NOTED ON PLAN.
  - PLACE EXPANSION JOINTS AT ALL ABUTMENTS ADJACENT TO FOUNDATIONS AND SEGMENTED AREAS OF CONCRETE AND AS SHOWN ON PLAN.



C1 SECTION: SIDE



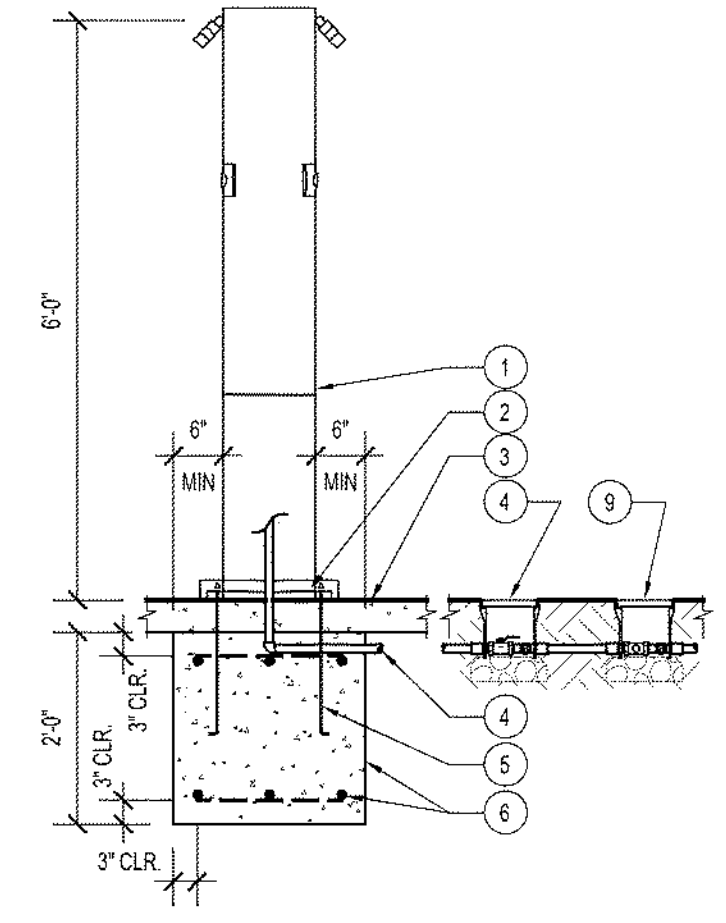
C2 SECTION: FRONT

- LEGEND:**
1. ADJACENT CONCRETE, MINIMUM 4" ALL SIDES.
  2. 2 1/2" x 12" SATIN BRASS NDS MINI CHANNEL GRATE MODEL #502B.
  3. 3 1/8" x 3 1/8" x 6'-0" NDS MINI CHANNEL DRAIN MODEL #50.
  4. 3" NDS CHANNEL COUPLING MODEL #54B.
  5. 3" END CHANNEL CAP MODEL #54T.
  6. 4 1/2" x 4 1/2" x 3'-0" CHANNEL DRAIN WITH 2" SCH 40 PVC OUTLET.
  7. 2" x 3" NDS SCH 40 PVC REDUCER BUSHING MODEL #53Z.
  8. 3" NDS SCH 40 PVC ELL MODEL #3P0Z.
  9. CONNECTION TO STORM DRAIN. ADAPT AS NECESSARY TO MATCH SIZE.
  10. 2" SAND BASE.
  11. COMPACTED SUB-GRADE PER SOIL ENGINEER'S REPORT.
  12. 2" SCH 40 PVC PIPE.

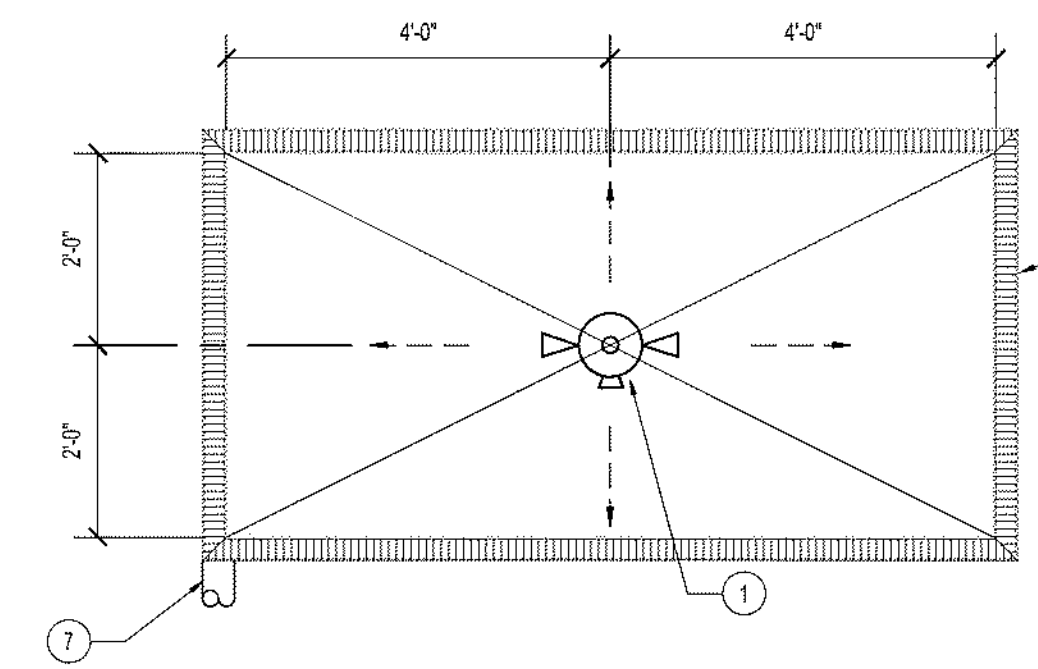
**A PEDESTRIAN CONCRETE PAVING W/ BROOM FINISH**  
 SCALE: 3/4" = 1'-0"  
 REFERENCE NUMBER: P-11, P-12  
 S-CONST-PAV-CONC-01

**B EXPANSION & CONTROL JOINTS**  
 SCALE: 1 1/2" = 1'-0"  
 REFERENCE NUMBER:  
 S-CONST-PAV-CONC-07

**C CHANNEL DRAIN**  
 SCALE: 3" = 1'-0"  
 REFERENCE NUMBER: A-91  
 S-GRA-DRAIN-CHAN-01



D1 ELEVATION



D2 PLAN

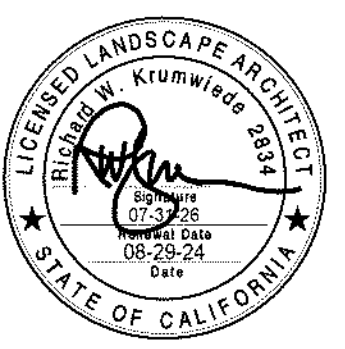
- LEGEND:**
1. 2-HEAD OUTDOOR SHOWER WITH (2) STANDARD HEIGHT HEADS AND (1) FOOT SPIGOT PER PLAN.
  2. FLANGE BASE PLATE AND ANCHOR COVER.
  3. CONCRETE PAVING PER CONSTRUCTION PLAN.
  4. WATER SUPPLY LINE PER MANUFACTURER SPECIFICATIONS. INSTALL WITH MANUAL SHUT-OFF VALVE IN VALVE BOX.
  5. ANCHOR BOLT.
  6. 24" SQ. CONCRETE FOOTING w/ #4 REBAR 12" O.C. EACH WAY AT TOP AND BOTTOM.
  7. DRAIN CONNECTION TO SEWER PER CIVIL ENGINEER'S PLANS.
  8. 3" CHANNEL DRAIN WITH BRONZE GRATE.
  9. THERMOSTATIC MIXING VALVE PER PLAN. INSTALL IN LOCKING VALVE BOX.
- NOTES:**
- INSTALL SHOWER PER MANUFACTURER'S RECOMMENDATIONS.
  - INSTALL SHOWER PER ALL LOCAL CODES.
  - CONTRACTOR TO ENSURE SHOWER PAD DRAINS AWAY FROM SHOWER TOWARD TRENCH DRAIN.

**D 2-HEAD COLUMN SHOWER**  
 SCALE: 1/2" = 1'-0"  
 REFERENCE NUMBER: A-13  
 S-CONST-SA-SHWR-04



**BENCHMARK:**  
 ELEVATION DETERMINED FROM CORNS CONTROL SITES. POINT #4 - TRAVPT-SET L/T SBCo (RP) FLUSH NAVD-88 ELEV = 1131.513'

**BASIS OF BEARINGS:**  
 CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



**COMPANY ADDRESS AND LOGO:**  
 ARCHITERRA DESIGN GROUP  
 LANDSCAPE ARCHITECTURE AND PLANNING  
 1021-A TRAZEMARK ST., RANCHO DUCARBONIA, CALIFORNIA 94702 PH: (925) 424-2002  
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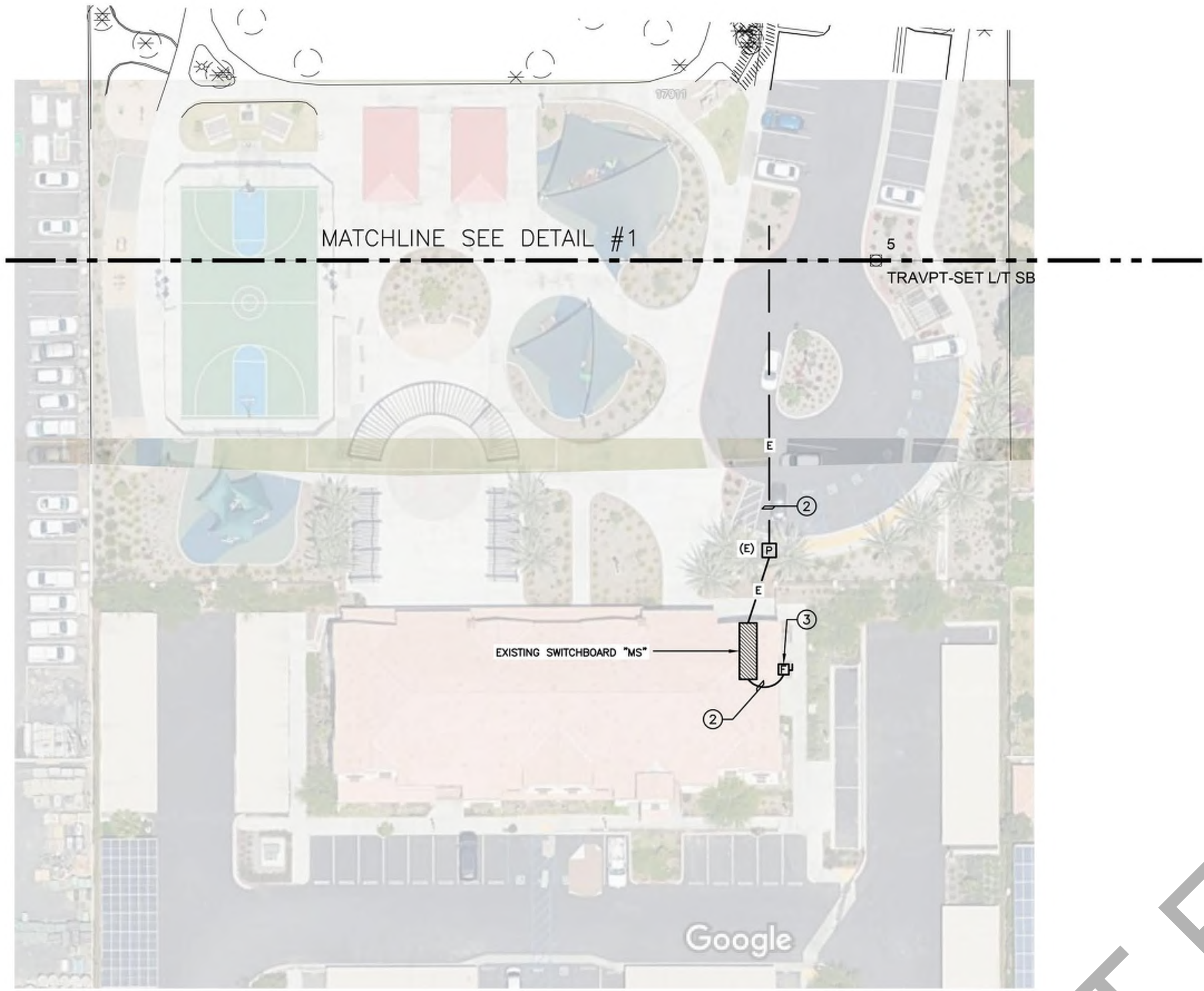
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 David Doublet  
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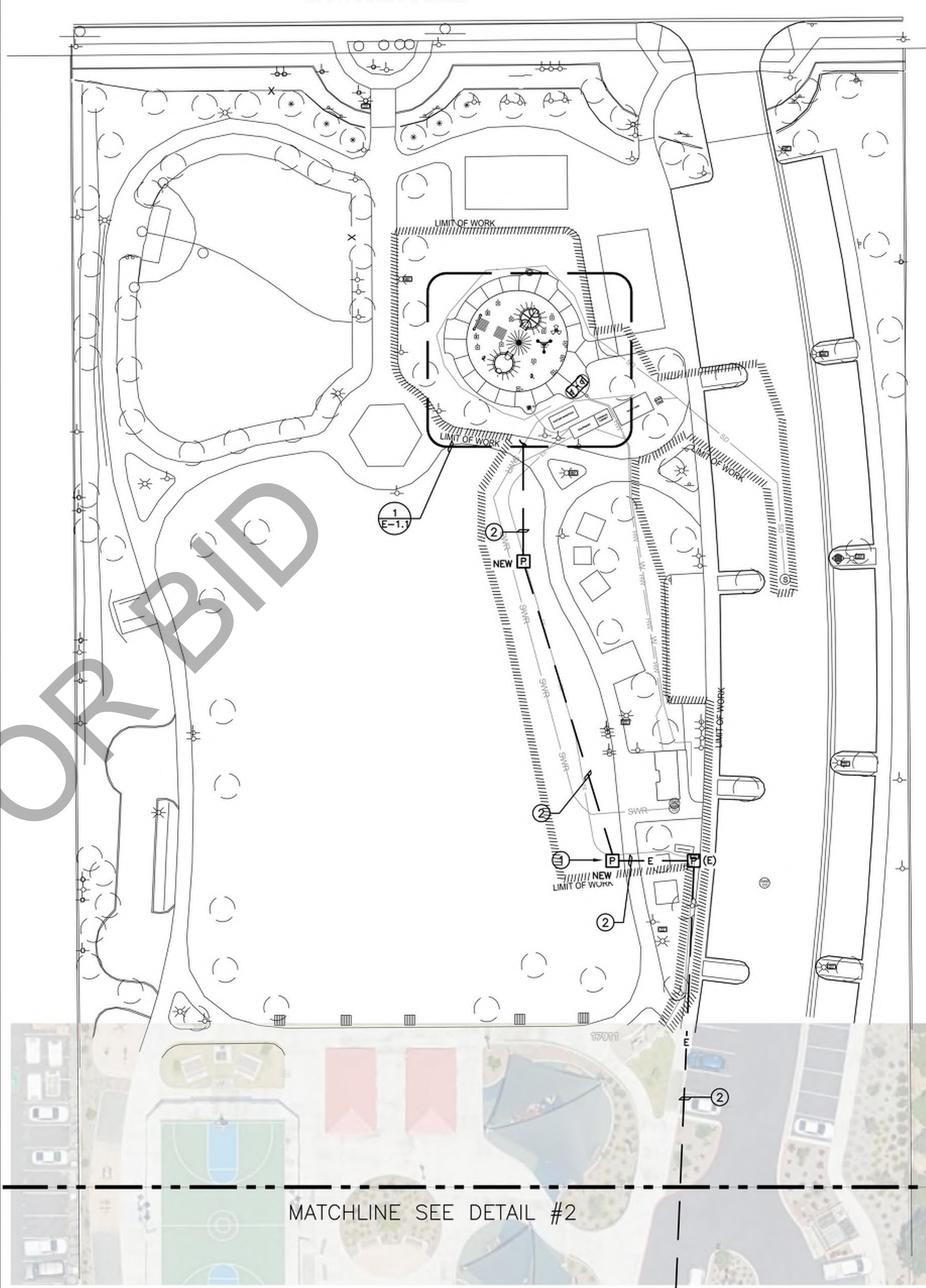
**CONSTRUCTION DETAILS**  
 AYALA PARK  
 SPLASH PAD  
 BLOOMINGTON, CALIFORNIA

**L-3.2**  
 DWG NO. 3620.0009, 30.30.0165  
 FILE NO. -  
 SHEET 7 OF 17





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- PLAN NOTES:**
- ① INTERCEPT EXISTING CONDUIT PROVIDE PULLBOX AND EXTEND AS SHOWN.
  - ② SEE SINGLE LINE DIAGRAM.
  - ③ VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.



**PARTIAL ELECTRICAL SITE PLAN**

SCALE 1"=30'-0" ②

**PARTIAL ELECTRICAL SITE PLAN**

SCALE 1"=30'-0" ①

**UNDERGROUND SERVICE ALERT**

Call: TOLL FREE  
1-800-227-2600  
OR  
811

TWO WORKING DAYS BEFORE YOU DIG



**JCA** Engineering, Inc.  
Electrical Engineering & Consulting  
8048 Palm Ave  
Highland, Ca 92346  
909 864-0223  
Fax 909 864-0280  
james.corns@jcaeng.com

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PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS  
SPECIAL DISTRICTS**

**David Doublet**  
ASSISTANT DIRECTOR

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Date: 2024.09.03 11:11:32 -0700

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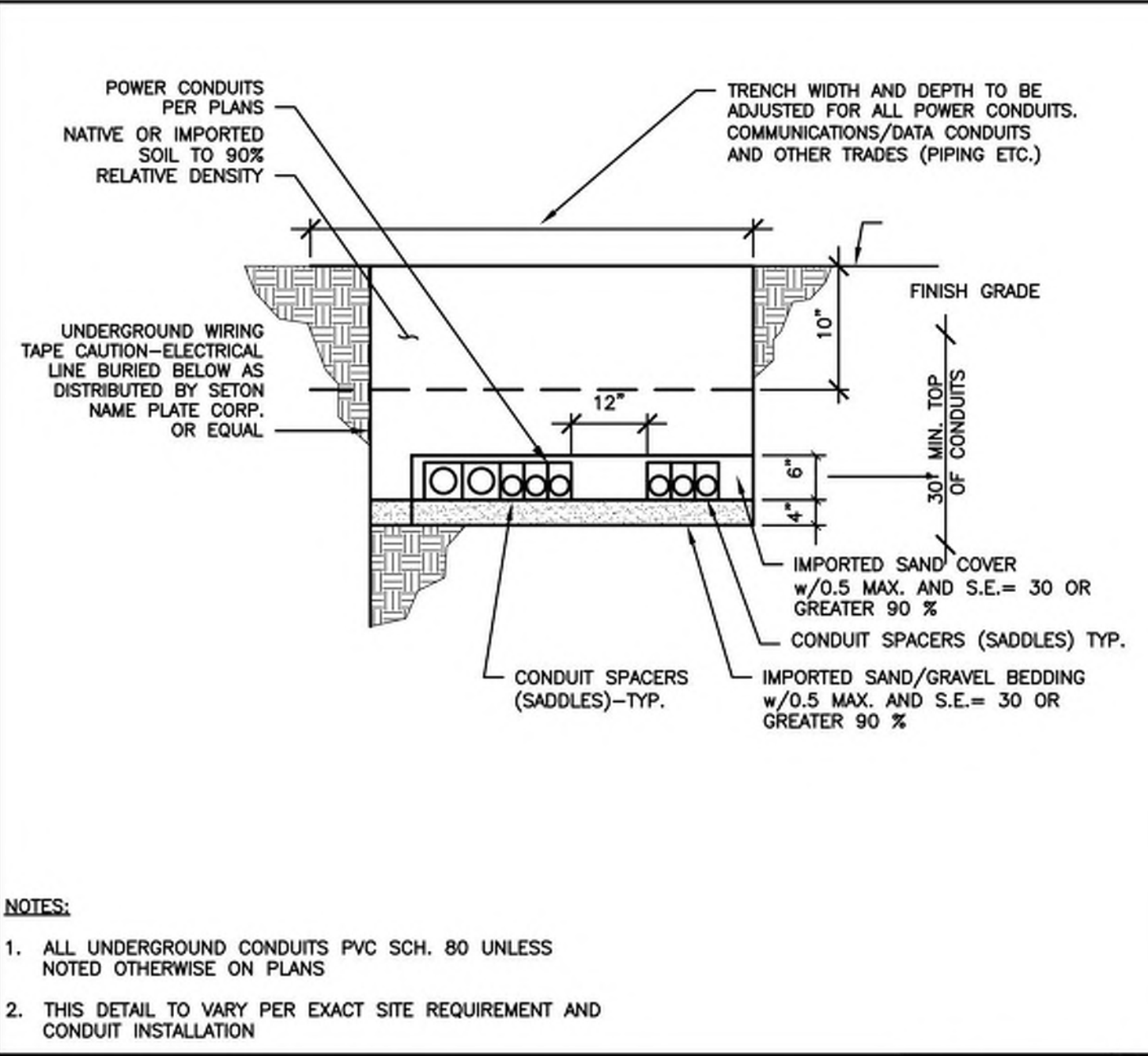
**ELECTRICAL SITE & ENLARGED SITE PLAN**

**AYALA PARK  
SPLASH PAD  
BLOOMINGTON, CALIFORNIA**

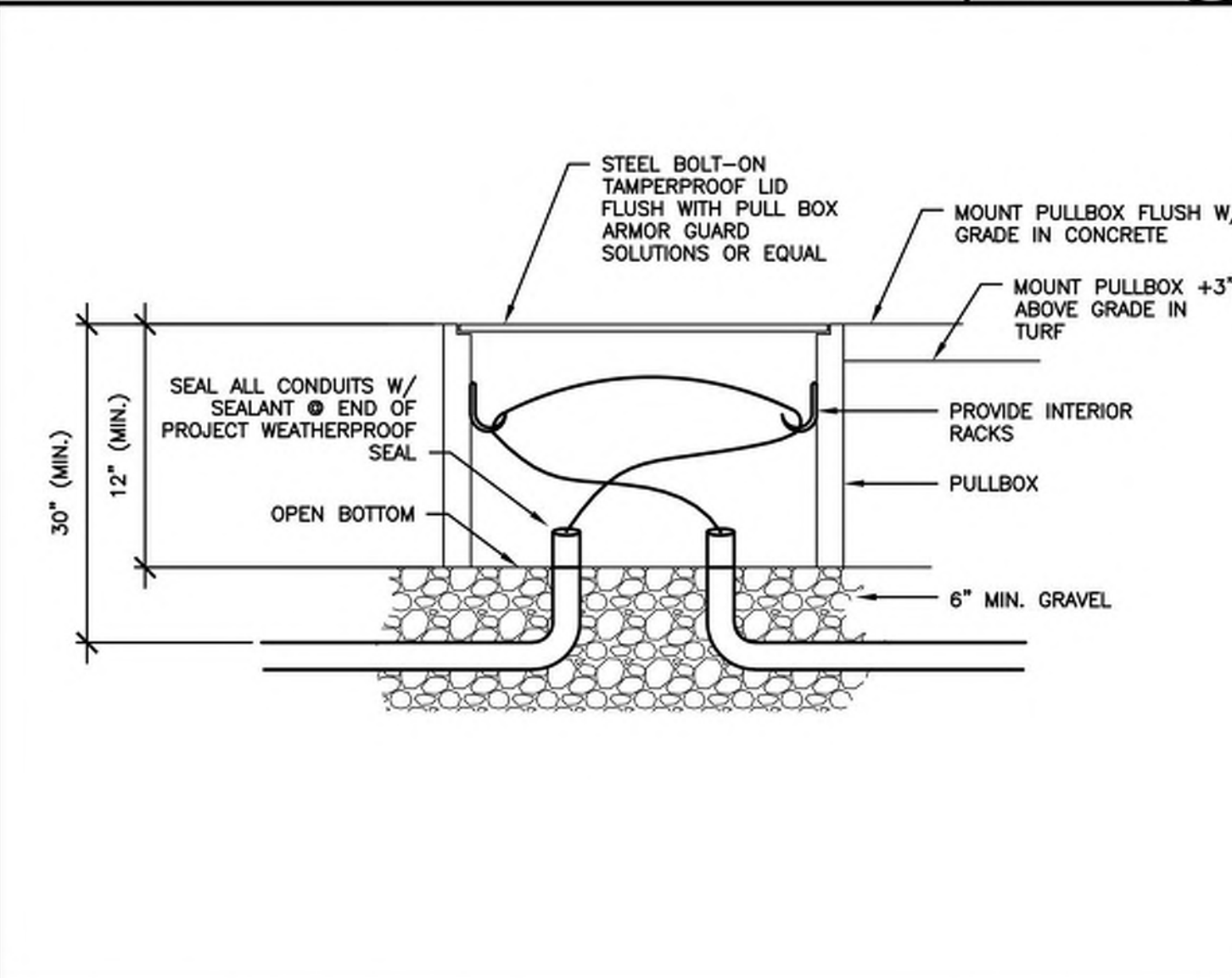
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FILE NO.  

SHEET 1 OF 4

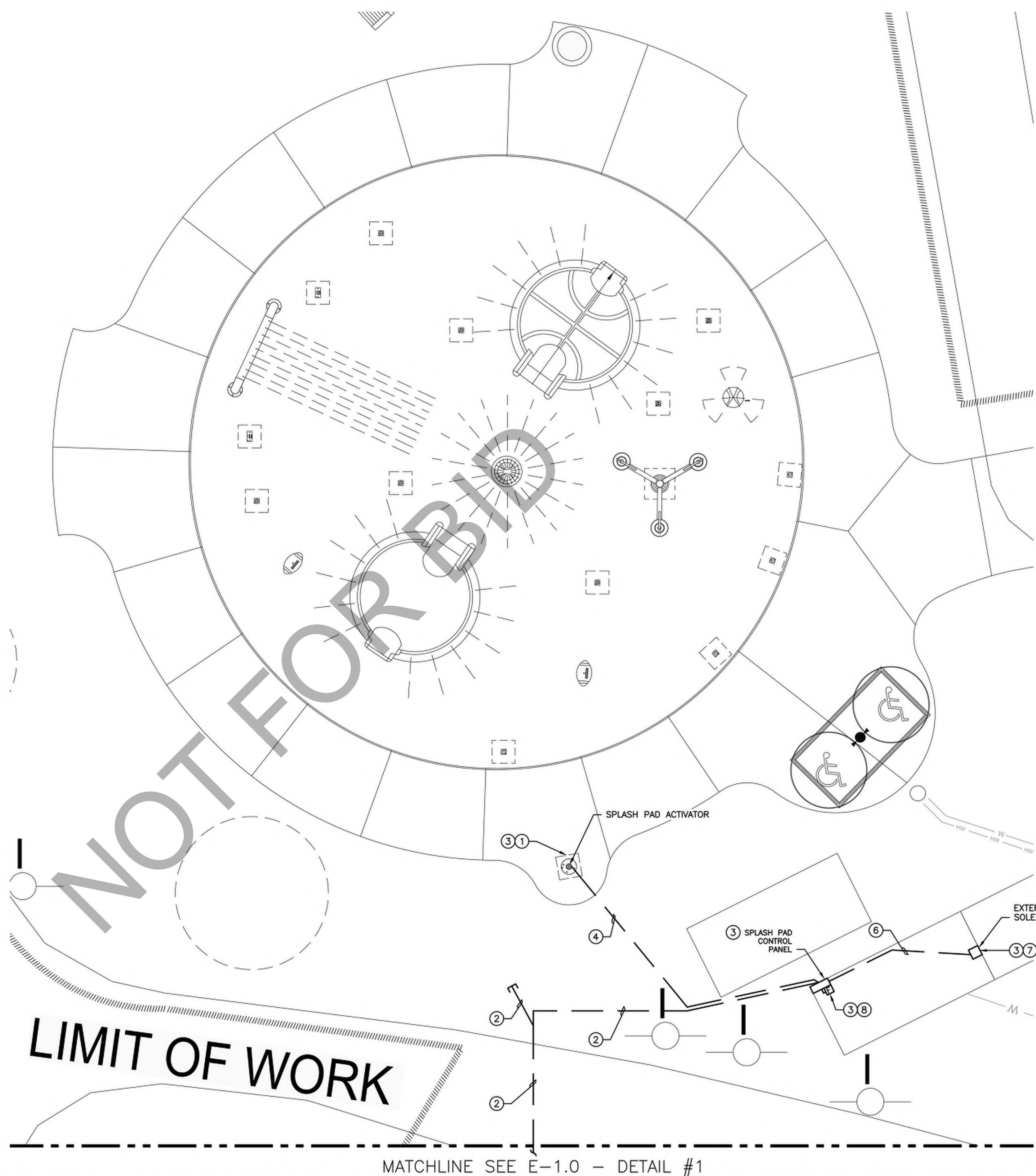


**TRENCH DETAIL** SCALE N.T.S. 2



**PULLBOX DETAIL** SCALE N.T.S. 3

- PLAN NOTES:**
- 1 COMPLETELY CONNECT TO ACTIVATOR.
  - 2 SEE SINGLE LINE DIAGRAM.
  - 3 VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
  - 4 1" C. W/ REQUIRED SYSTEM ACTIVATION CONDUCTORS.
  - 5 COMPLETELY CONNECT TO ACTIVATOR.
  - 6 1" C. W/ REQUIRED SOLENOID VALVE CONTROL CONDUCTORS.
  - 7 COMPLETELY CONNECT TO EXTERIOR SHOWER SOLENOID.
  - 8 COMPLETELY CONNECT TO SPLASH PAD CONTROL PANEL.



**ELECTRICAL SITE PLAN** SCALE 1"=30'-0" 1

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**AYALA PARK  
 SPLASH PAD  
 BLOOMINGTON, CALIFORNIA**

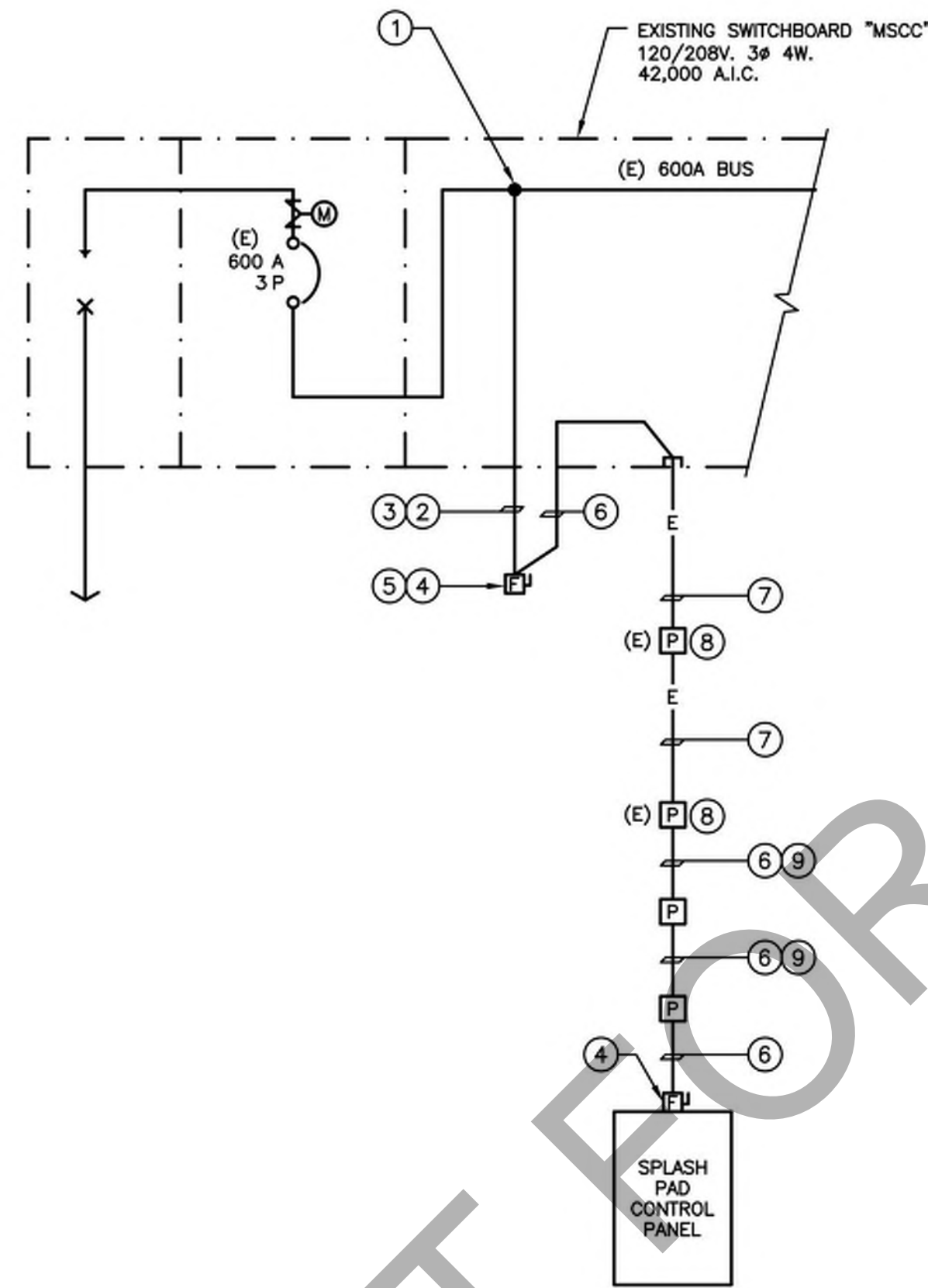
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 FILE NO.    
 SHEET 2 OF 4

**GENERAL NOTES**

- CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, SERVICE REQUIREMENTS AND EXACT LOCATIONS OF SERVICE FACILITIES BEFORE SUBMITTING BID. SUBMITTAL OF BID INDICATES CONTRACTOR ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.
- CONSTRUCTION TERMINOLOGY, AND THE STANDARDS OF INSTALLATION REQUIRED BY THESE CONTRACTOR DOCUMENTS ARE BASED ON PUBLISHED STANDARDS OF N.E.C.A. (NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION), NATIONAL ELECTRICAL SAFETY CODE, AMERICAN NATIONAL STANDARDS INSTITUTE DOCUMENTS, NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, UNDERWRITERS LABORATORIES, AND THE CALIFORNIA ELECTRICAL CODE. SUBMITTAL OF BID INDICATES THE CONTRACTOR IS FAMILIAR OF THESE STANDARDS AND THE REQUIREMENTS NECESSARY TO PERFORM ALL THE WORK AS SET FORTH IN THESE CONTRACT DOCUMENTS AND ACCEPTS THE CONDITIONS.
- SHOP DRAWINGS SHALL BE SUBMITTED WITHIN THIRTY DAYS AFTER AWARD OF THE CONTRACT. THE CONTRACTOR SHALL SUBMIT EIGHT COPIES OF A COMPLETE LIST OF MATERIALS AND EQUIPMENT INCLUDING MANUFACTURER AND MODEL NUMBER PROPOSED FOR THE JOB. SHOP DRAWINGS SHALL INCLUDE JOB DESCRIPTION, ARCHITECT AND ENGINEER IDENTIFICATION, AND ALL DATA WITH CAPACITIES, SIZES, DIMENSIONS, CATALOG NUMBERS, MANUFACTURER'S BROCHURES, AND SUPPORT DATA.
- SUBMIT SHOP DRAWINGS FOR ALL MAJOR PIECES OF ELECTRICAL EQUIPMENT, WHICH INCLUDES, BUT NOT LIMITED TO: ELECTRICAL PRODUCTS
- THESE PLANS ARE DIAGRAMMATIC ONLY. FOLLOW AS CLOSELY AS POSSIBLE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS, STRUCTURAL DETAILS, EXACT EQUIPMENT AND OUTLET LOCATIONS.
- ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES.
- DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL DEVICES OR EQUIPMENT.
- CONTRACTOR SHALL PROVIDE ALL J-BOXES, PULL BOXES, ELLS, OFFSETS ETC., FOR A COMPLETE, CODE APPROVED, INSTALLATION OF ALL CONDUIT. FOOTAGE SHOWN ON ELECTRICAL SINGLE LINES AND RISER DIAGRAMS ARE FOR CALCULATION PURPOSES ONLY, AND ARE NOT FOR BIDDING PURPOSES OR MATERIAL TAKEOFF. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND TO COORDINATE WITH MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR DUCTS, LINES, AND EQUIPMENT.
- ALL MATERIALS SHALL BE NEW, AND OF THE SAME MANUFACTURER FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY THE UNDERWRITERS LABORATORIES FOR THE USE AND ENVIRONMENT, AND SHALL BEAR THE INSPECTION LABEL WHERE SUBJECT TO APPROVAL. MATERIALS SHALL MEET WITH THE APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY, AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY A.N.S.I., U.L., N.E.M.A., AND N.B.F.U. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES, O.S.A., THE PRESENTLY ADOPTED NATIONAL ELECTRICAL CODE, AND PRESENTLY ADOPTED CALIFORNIA ELECTRICAL CODE (C.E.C.).
- COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECTIONS TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL, DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGH-IN IN ALL CONDUIT TO THIS EQUIPMENT.
- EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENING IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAW CUTTING, PATCHING, AND REFINISHING OF EXISTING WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR, OR CEILING. EXACT METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE U.L. APPROVED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAW CUTTING, TRENCHING, BACKFILLING, COMPACTION, AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO PERFORM HIS WORK. ATTENTION IS CALLED TO THE FACT THAT THERE ARE EXISTING UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN TRENCHING FOR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED BY HIM OR HIS WORK.
- ALL CONDUIT SHALL BE INSTALLED CONCEALED WHERE PHYSICALLY POSSIBLE.
- CONCEALED CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (E.M.T.) WITH COMPRESSION TYPE COUPLERS. SECURED WITH ONE-HOLE PIPE STRAPS.
- P.V.C. CONDUIT SHALL BE USED UNDERGROUND ONLY, IF APPROVED BY LOCAL CODE. INSTALL PER ALL REQUIRED LOCAL CODES. ALL UNDERGROUND CONDUIT SWEEPS, UNDERGROUND RISERS, AND STUDS ABOVE GRADE SHALL BE I.M.C. WITH HALF-LAPPED TAPE COVERING OR FACTORY INSTALLED P.V.C. COATING. ROUTE ALL UNDERGROUND CONDUITS AROUND PROPOSED BUILDING AND FUTURE BUILDING LOCATIONS.
- UNDERGROUND CONDUIT INSTALLATION DEPTH SHALL BE PER THE FOLLOWING CURRENT N.E.C. +30" BELOW TURF  
+30" BELOW 2" CONCRETE AND ASPHALT  
+30" BELOW 4" NON VEHICLE CONCRETE OR ASPHALT  
+30" BELOW STREETS, HIGHWAYS, ALLEYS, DRIVEWAYS OR PARKING LOTS
- THE CONTRACTOR SHALL EXCAVATE ALL TRENCH DEPTHS AND WIDTHS PER THE C.E.C. AND SHALL COMPACT ALL EXCAVATIONS IN A CONTINUOUS LAYER OF NOT MORE THEN 6" COMPACTED DEPTH TO THE REQUIRED DENSITY OF NINETY PERCENT (90%). THE CONTRACTOR SHALL ATTAIN THE SPECIFIED COMPACTION DENSITY BY MAINTAINING THE OPTIMUM MOISTURE CONTENT OF THE FILL MATERIAL.
- ATTENTION IS CALLED TO THE FACT THAT THERE ARE EXISTING UNDERGROUND UTILITY LINES THEREFORE, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN TRENCHING FOR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED BY HIM OR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAW CUTTING, TRENCHING, BACKFILLING, COMPACTION, AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO PERFORM HIS WORK.
- ALL CONDUIT ONLY (C.O.) SHALL HAVE A 3/16" PULL WIRE OR ROPE, MINIMUM.
- CONDUIT SHOWN AS EXPOSED OR APPROVED FOR EXTERIOR EXPOSED INSTALLATION SHALL BE INTERMEDIATE METALLIC CONDUIT (I.M.C.), SECURED WITH TWO-HOLE MALLEABLE PIPE STRAPS AND SCREWS. ALL BOXES AND FITTINGS SHALL BE SUPPORTED AND SECURED IN COMPLIANCE WITH C.E.C. ARTICLE 370.
- CONDUIT SHOWN AS EXPOSED OR APPROVED FOR INTERIOR EXPOSED INSTALLATION, IN PUBLIC AREAS, SHALL BE WIREMOLD INSTALLED IN PARALLEL OR IN RIGHT ANGLES WITH ALL REQUIRED MOUNTING ACCESSORIES.
- CONDUIT SHOWN AS EXPOSED OR APPROVED FOR INTERIOR EXPOSED INSTALLATION, IN NON-PUBLIC AREAS, SHALL BE E.M.T. INSTALLED IN PARALLEL OR IN RIGHT ANGLES WITH ALL REQUIRED MOUNTING ACCESSORIES.
- PENETRATIONS TO FIRE-RATED MATERIALS SHALL BE RESTORED TO EQUAL RATING AS REQUIRED BY THE STATE FIRE MARSHAL AND ALL OTHER GOVERNING BODIES.
- WHERE A CONFLICT OCCURS BETWEEN THESE NOTES, THE ELECTRICAL DRAWINGS OR THE ELECTRICAL BOOK SPECIFICATIONS ISSUED AS A PART OF THESE DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL PREVAIL.
- PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL SWITCHBOARDS, PANEL BOARDS, LOAD CENTERS, TRANSFORMERS, AND TERMINAL CABINETS. PLATES SHALL BE 3 PLY, BLACK FACE, WHITE CORE, WITH 1/8" HIGH GOTHIC LETTERING.
- HAND THE OWNER ONE SPARE SET OF EACH SIZE AND TYPE OF FUSE INSTALLED ON THIS PROJECT.

**SINGLE LINE DIAGRAM**

- TAP EXISTING BUS
- 1 1/4" 4 #8 & 1 #10 E/G.
- CONDUCTORS SHALL NOT EXCEED +10'-0" IN LENGTH.
- PROVIDE 250V-2P-60A NEMA 3R FUSED DISCONNECT W/ (2) 60A FUSES.
- VERIFY EXACT LOCATION IN ELECTRICAL ROOM PRIOR TO ROUGH-IN
- 1 1/4" 4 #8 & 1 #10 E/G.
- EXISTING 2"C.O. PULL IN NEW 4 #6 & 1 #10 E/G.
- REPLACE EXISTING PULL BOX WITH TAMPER PROOF BOX - ARMOR GUARD SECURITY SOLUTION OR APPROVED EQUAL.
- 1 1/4"C.O.



**LOAD SUMMARY**

EXISTING HIGH DEMAND	= 34.0 KW
34.0 KW x 1.2	= 40.8 KVA
40.8 KVA x 1.25 (PER N.E.C)	= 51.0 KVA
NEW ADDED LOAD	= 34.6 KVA
	= 85.6 KVA
NEW TOTAL LOAD	OR 238.0 AMPS
	● 120/208V, 3φ 4W.

**ELECTRICAL SYMBOLS LIST**

- JUNCTION BOX, ACCESSIBLE AND MOUNTED TO WALL AT +18" A.F.F.
- CONCRETE PULLBOX WITH STEEL TAMPERPROOF BOLT-ON COVER. SIZE AS REQUIRED BE C.E.C. - ARMOR GUARD SECURITY SOLUTION OR APPROVED EQUAL.
- ▨ DISTRIBUTION SWITCHBOARD REFER TO SINGLE LINE DIAGRAM.
- ⊞ FUSED DISCONNECT SWITCH - HP RATED WITH FUSES PER EQUIPMENT MANUFACTURER AND WEATHERPROOF AS REQUIRED.
- A-1,3,5 HOME RUN TO PANEL. LETTER DESIGNATES PANEL, NUMBER INDICATES CIRCUITS.
- CONDUIT RUN CONCEALED, IN WALLS, FLOOR, OR ABOVE CEILING.
- - - CONDUIT RUN CONCEALED BELOW GRADE, 3/4" MINIMUM.
- CONDUIT STUB OUT, CAP & MARK.
- ③ E-1 DETAIL CALLOUT, "3" INDICATES DETAIL NUMBER "E-1" INDICATES SHEET NUMBER.
- ② PLAN NOTE REFERENCE.
- 1 DEMOLITION PLAN NOTE REFERENCE.
- △ REVISION REFERENCE.
- CO CONDUIT ONLY, WITH PULL ROPE.
- WP WEATHERPROOF, NEMA 3R
- PROVIDE FURNISH, INSTALLED AND CONNECTED, COMPLETE.
- C CONDUIT
- E/G EQUIPMENT GROUND (GREEN)
- UG UNDERGROUND
- GEC GROUNDING ELECTRODE CONDUCTOR
- C.E.C. CALIFORNIA ELECTRICAL CODE
- U.O.N. UNLESS OTHERWISE NOTED

**SPECIAL NOTE:**

LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING, OR CONDUITS, ETC., AND TO PREVENT HAZARD TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN AND INSTALLED BY ANY OTHER CONTACTS. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED BY HIM OR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAW CUTTING, TRENCHING, BACKFILLING, COMPACTION, AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO PERFORM HIS WORK.

**SINGLE LINE DIAGRAM**

SCALE 1 N.T.S.

**UNDERGROUND SERVICE ALERT**

Call: TOLL FREE  
1-800-227-2600  
OR  
811

TWO WORKING DAYS BEFORE YOU DIG



**JCA** Engineering, Inc.  
Electrical Engineering & Consulting  
8048 Palm Ave  
Highland, Ca 92346  
909 864-0223  
Fax 909 864-0280  
james.corns@jcaeeng.com

REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR	DATE

PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS**  
**David Doublet** Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -0700  
ASSISTANT DIRECTOR

APPROVALS	INITIAL	DATE
PROJECT MANAGER	Charles Hernandez	2024.09.03 11:11:32 -0700
OPS, DIVISION MANAGER		
PM, DIVISION MANAGER	Noel Mondragon	

**SYMBOL LIST, SINGLE LINE & GENERAL NOTES**

**AYALA PARK  
SPLASH PAD  
BLOOMINGTON, CALIFORNIA**

DWG NO. **E-2.0**

FILE NO.

SHEET 3 OF 4

# ELECTRICAL SPECIFICATIONS

B. Use galvanized rigid steel on all conduit installed in concrete and masonry walls, 3/4 inch trade size minimum, unless otherwise specified and/or noted on the plans. Verify conduit runs in concrete slab, prior to placement. Otherwise, do not run conduits in slabs.

C. All conduit installed in the dry walls or dry ceilings of the building structures, shall be steel tube (EMT), except that in certain locations and for certain runs where it is impractical to install EMT, and where permission to do so has been given by the Architect, galvanized flexible steel conduit may be used, with a code sized ground conductor.

D. Run conduit so as not to interfere with or contact other piping, fixtures or equipment. Maintain 6" separation from water piping.

E. Cut the ends of all conduit square and carefully ream out to full size, and shoulder in fitting.

F. No running threads will be permitted in locations exposed to the weather, in concrete or underground. Use special watertight union fittings in these locations.

G. Use PVC Schedule 40 or 80 for all underground conduits. Install all underground conduit at a depth of not less than 24 inches below the final finish grade, unless under concrete slabs or otherwise noted and/or specified. Cap PVC conduit with minimum 3 inch concrete cap or provide metallic high voltage tape buried 12" above conduit, except under floor slab or under concrete walls, in which case, install 6" below bottom of slab. Use IMC for all horizontal and vertical sweeps or risers with factory applied PVC coating. Verify with serving utilities for service conduits, bends, depth below grade, back-fill, etc. for specific types. Schedule 80 PVC sweeps are permitted for conduits 4" diameter and greater.

H. Cut and patch all pavements, curbs, sidewalks and gutters, whenever necessary for laying conduit, or whenever damaged by the operations of this trade. Replace materials with quality and finish equal to that removed or damaged.

I. For grouping, use conduit duct spacers, trapezes made up of suitable Unistrut or Kindorf hangers.

J. Support all conduit in intervals not less than 10'-0" and within 36 inches from any outlet and at each side of bends and elbows. Use galvanized, concealed conduit supports, heavy stamped, one hole malleable conduit clamps secured with nuts. On exposed conduit supports, use two hole clamps with screws, or galvanized steel framed channels secured by screws may be used for conduit supports. Perforated iron for supporting conduit is not permitted.

K. Use rigid galvanized steel or I.M.C., threaded, for exposed conduit runs. Install parallel or perpendicular to walls, structural members or intersection of vertical plane and ceilings. Avoid field mode bends and offsets where possible. Do not install crushed or deformed raceways.

L. Provide metal sleeves and install where conduit passes through masonry or concrete walls. Use No. 20 gauge galvanized steel sleeves, no more than 1/2 inch greater in diameter than the outside diameter of the conduit. Caulk conduit into sleeves with stone wool, Duseal or Oakum and weatherproof below grade. Where conduit passes through fire resistive walls, partitions, and floors, pack void spaces between conduits with U.S.G. Thermafiber or equal, as approved by the State Fire Marshal.

M. Provide a heavy nylon cord pull rope in all empty conduits for future use. Leave in place for future use in all runs and tagged with plastic tag at terminating end indicating the location of the opposite end of the conduit.

N. Use factory-manufactured elts, except where noted otherwise. Field bends are permitted for EMT conduit less than 1" diameter. Conduit radius for signal system is ten times the internal diameter of the conduit.

O. Cap or seal-off all conduit only ends until wires are pulled.

P. Seal-off all conduit ends in pullboxes and stub-ups to equipment at completion of project for a watertight installation.

Q. Use watertight gland compression type connectors and couplings on fittings for thin wall metallic conduit. Screw type or crimp type are not permitted.

R. Use approved type-banding machines for PVC conduits. Use of blow torch is prohibited.

S. Use approved conductor pulling machines for all underground conduits. Use of truck is prohibited.

### 3.7 INSTALLATION OF CONDUCTORS:

A. Unless otherwise indicated or specified, do not install conductors of less than No. 12 AWG size. For control conductors protected by 15 ampere or lower overcurrent protection, No. 14 AWG conductors will be installed. Where approved by Code, remote control and signal circuits utilize No. 18 or No. 16 AWG sizes. Increase No. 12 to No. 10 AWG for 120 volt home runs exceeding 75 feet.

B. Color code power wire and cable for feeders and branch circuits.

C. Install all electrical conductors, including signal and communications circuits in an approved raceway.

D. Neatly group conductors in panels, switchgear and terminal cabinets, etc., and form in a manner to fan into terminals with regular spacing. Lace formed groups of conductors with No. 12 waxed twine, or Panduit Co. Nylon Straps Numbers "SST-4-H" or "SST-2". Lace larger conductors with marlin and secure with cleats, or Panduit Co. Nylon Straps Numbers "SSC-4-H" and tie anchors ETA-1, TA-2 or TM-1-2-3.

E. Install U.L. approved covered wire from all lighting fixture lamp sockets into outlet or junction box.

### 3.8 WIRING COLOR CODE 120/240 Volt System

- Phase A - Black
- Phase B - Red
- Phase B - Blue
- Neutral - White
- Equipment Ground - Green

### 3.9 UNDERGROUND PULL BOXES:

- A. Set underground pull boxes at +3" above highest adjacent grade level.
- B. No splices in Fire Alarm or Signal System conductors are permitted.
- C. Size per NEC.
- D. Provide nameplate on all covers.

### "ELEC"

### 3.10 CONDUCTOR JOINTS AND TAPING:

Make joints in conductors smaller than No. 6 AWG with solderless, tapeless, wing nut type pressure cable connector. Join conductors No. 6 AWG and larger together with approved type or pressure connector and tape to provide insulation not less than that of the conductor. Make connections to switch or bus bar with one-piece copper lugs for conductors No. 8 AWG or larger.

### 3.11 GROUNDING:

Provide grounding for entire electrical installation as required by the serving utility and codes mentioned in these specifications. Including:

- A. Conduit.
- B. Neutral or identified conductor of interior wiring system.
- C. Panelboards.
- D. Non-current carrying metal parts or fixed equipment.

END OF SECTION

### 2.2 PANELBOARDS:

- A. Provide the automatic circuit breaker type, quick-make and quick-break panelboards. Provide wiring gutter sides, top and bottom.
- B. Provide panelboards from the same manufacturers as the main switchboard; type, mounting, and size as noted on the drawings with silver-plated copper bussing.
- C. Where space is called for on the panelboard schedules, provide space and mounting for future circuit breaker installation as indicated.
- D. Use trims having doors equipped with flush type combination lock and catch, two milled type keys supplied with each panel, all locks are keyed alike. Provide a clear covered directory frame with a typed identification card, indicating type of circuit and location, in accordance with final circuitry and panel designation on each door. Completely fill in all panel directories, using actual connections, Owners designations or other factual information. Key all doors to Yale LL803, or as directed by Owner.
- E. Where called for on the drawings, provide a separate compartment within the panelboards for electronic time controller.

### 2.3 CIRCUIT BREAKERS:

Provide circuit breakers with inverse time characteristic thermal and magnetic tripping elements, with an interrupting capacity of not less than 10,000 amperes, UL labeled, NEMA rated, molded case type. Use common trip single handle multi-pole breakers. Handle extensions are not permitted. All circuit breakers will have covers sealed on non-interchangeable trip breakers and trip unit covers sealed in interchangeable trip breakers to prevent tampering. Be sure the circuit breaker current rating markings clearly visible after breaker is installed. One manufacturer for all circuit breakers for a given panel. Provide bolt-on circuit breakers unless specifically noted on electrical drawings.

### 2.4 LIGHTING FIXTURES:

Furnish, install and connect lighting fixtures of type designed on the plans.

- A. Verify all fixture locations with Architectural Landscape drawings prior to rough in.
- B. Where there is conflict in fixture quantities on any of the plans the greatest amount will prevail. The description of the lighting fixture supersedes the catalog number and is to be furnished and installed with type to fit description.

### 2.5 CONDUIT AND FITTINGS:

- A. Rigid Conduit (RCS): Hot dipped galvanized or sherardized steel. Republic Steel Co. or approved equal. Intermediate metal conduit may be used, where CEI allowed, in lieu of RCS.
- B. Electrical metallic tubing (EMT): Welded, electro-galvanized thin wall steel tubing. All couplings are gland compression type.
- C. Non-metallic conduit (PVC): Polyvinyl chloride Schedule 40 or 80. Install a copper ground wire, sized per National Electrical Code, in all non-metallic conduit power raceways. Use PVC in underground installations only.
- D. Liquidtight Flexible Metal Electrical Conduit: Hot-dipped galvanized steel with exterior, molded polyvinyl jacket. Use for all final connections to all vibrating equipment, transformers and the like. 1/8" maximum. Provide a code sized ground wire.
- E. Conduit Type Fittings: As manufactured by Crouse Hinds Company, Appleton Electric Company or Pyle National or approved equal, smooth inside and out, taper threaded with integral bushings.

### 2.5 CONDUCTORS:

- A. Provide copper conductors, 600 volt A.C. unless noted otherwise. Aluminum conductors are not permitted.
- B. Use THWN conductors for underground and damp locations, THHN for dry areas.
- C. Deliver conductors to the site in unbroken packages, marked with the manufacturer's name, date of manufacture, voltage and classification letters. Use only wire recently manufactured (10 months or less).
- D. Provide signal service and low voltage control conductors as specified or noted on the drawings.
- E. No conductor supplying 120 volts or more will be smaller than No. 12 AWG unless otherwise noted on the drawings.
- F. Fixture wire to comply with latest requirements of the National Board of Fire Underwriters. The carrying capacity of the wire as per the latest requirements of the National Electrical Code. No fixture wire may be smaller than #18 gauge. Protect wiring with tape or tubing at all points where abrasion is likely to occur.
- G. Install all conductors of each electrical system in an approved raceway. Factory assemblies, non-metallic/pliable/corrugated raceways, type UF cable or multi-conductor assemblies are not approved.
- H. Use solid conductor, size #10 AWG and smaller, stranded for #8 AWG and larger.

### 2.6 JUNCTION AND PULL BOXES:

Above grade level, provide galvanized junction and pull boxes with removable covers, secured with machine screws. The sizes of all boxes determined by the number and size of conductors entering the box, and by the sizes of conduit terminating in the box. All boxes conform to the applicable Electrical Safety Orders, State of California. Pullboxes flush with grade shall be concrete, with bolt down concrete or steel covers, per plans, with engraved or beoweld identification.

### 2.7 OUTLET BOXES:

- A. Where standard boxes are not suitable, provide boxes of special design to fit space.
- B. Cast aluminum or cast iron for outlet boxes exposed to weather, in damp locations, or surface mounted with threaded hubs for conduit connections; cover made watertight with gasket and non-ferrous screws.

### 2.8 NAMEPLATES:

Shall be micaarta or lamacoid plate, 1/8" thick and have approved size, with beveled edges and engraved white letters on black background. Provide nameplates for all items of electrical equipment as well as circuits in the service distribution and power distribution panelboards; lighting distribution panelboards; separately mounted motor starting switches; disconnect switches; motor control pushbutton stations and other similar devices. Each nameplate as approved by the Architect. Use two machine screws for attachment. Cement/adhesive is not approved.

### 3. PART 3. EXECUTION

- 3.1 If construction of building reveals that any part of the Electrical Work would not be readily accessible if installed according to drawings, notify the Architect before proceeding with such installation.
- 3.2 All concrete work such as pull boxes, raised pads, conduit envelopes and other areas where affecting Electrical Work are the responsibility of the Electrical Contractor.
- 3.3 Coordinate layout and installation of electrical work with the overall construction schedule and work schedules of various trades to prevent delay in completion of the project.

A. Verify dimensions and information regarding accurate location of equipment, structural limitations, and finish with other affected sections.

### B. Job Conditions:

The drawings do not always show offsets, bends, special fittings or junctions or pull boxes necessary to meet job conditions. Provide the items as required at no cost to the Owner.

### C. Weatherproof Equipment:

Use weather resistant electrical devices or equipment located in damp, semi-exposed areas. Comply with NEMA Type 3R requirements for enclosures.

D. Where devices are shown diagrammatically in the same location, neatly group them together in a reasonable manner. Provide one-piece plate where such is manufactured.

3.4 Equipment requiring electrical under other sections is part of the Contract. Work includes all necessary connections.

### 3.5 EXCAVATION AND BACKFILLING:

Excavate and backfill in accordance with section in these documents covering that work.

### 3.6 CONDUIT:

A. Install all conduit concealed, except where specifically indicated as exposed. Use rigid galvanized steel or I.M.C. for all exposed conduit. Paint with two coats to match adjacent surroundings, if viewed by the public.

### J. Codes and Regulations:

All work performed under this Section of the Specifications complies with the rules and regulations of the Division of Industrial Safety, State of California, as set forth in the latest edition of the Electrical Safety Orders, the National Electrical Code, NFPA, and all rules and regulations of local codes having jurisdiction, including the presently adopted edition Title 21 and 24 California Administrative Code.

### K. Testing and Adjustment:

Test all circuits, outlets, switches, lights, motors, circuit breakers and any other electrical equipment, upon completion of all electrical work.

### L. Guarantees of Materials and Workmanship:

Furnish and install all materials under this Contract, new and free from all defects, and guaranteed for a period of two years from the date of acceptance of the work. Should any trouble develop during this period due to defective material or faulty workmanship, furnish all necessary labor and materials to correct the trouble without additional cost to the Contract. Correct any defective material or inferior workmanship noticed at the time of installation immediately, to the satisfaction of the Architect.

### M. Removal of Rubbish:

Remove rubbish, excess materials, tools or equipment related to this portion of the work, frequently during construction and upon completion of the work.

### N. Drawings and Specifications:

1. The electrical drawings are considered as part of these specifications, and any work or materials shown on the drawings and not mentioned in the specifications, or vice versa, shall be as if specifically mentioned in both.

2. The data herein specified and shown on the drawings is as exact as could be prepared, but their extreme accuracy is not guaranteed. The drawings and specifications are for assistance and guidance. The installation is essentially as shown and specified. The exact location of the equipment, material, apparatus and devices as well as the distances and levels, are more or less governed by the physical conditions and arrangements of the building. Accept this Contract with this understanding.

3. Make minor changes, when ordered by the Architect, accommodating the installation of the work with other sections of the Contract without additional cost to the Contract.

### O. Safety Conditions:

It is the Contractor's responsibility to prevent any damages to personnel and/or property resulting from contact with new or existing energized circuits, switches, circuit breakers, or other electrical apparatus. All electrical work to be constructed with electrical systems de-energized in the area of work.

### P. Final Inspection and Acceptance:

After all requirements of the specifications and drawings have been fully completed, a representative of the Owner will inspect the work. Provide competent personnel to demonstrate the operation of any item or system involved to the complete satisfaction of each representative.

## 2. PART 2. PRODUCTS

### 2.1 MAIN ELECTRICAL PEDESTAL:

- A. Type and size of the Main Pedestal panels is as indicated on the drawings.
- B. The panel will consist of a completely enclosed, self-supported structure, during installation. Completely enclose the gear on the front sides, top and rear with sufficient louvered openings for proper ventilation. Provide bolted frames and insulating block to support the main horizontal bus for short circuit stresses as indicated on the drawings.
- C. All buses will be 100% rated, made with tin plated copper bars drawn for a current density of not more than 1000 amperes per square inch. Provide a 1/4" x 2" copper ground bus within 12" of neutral bus and connect with a removable link. Where copper bus is shown, bus shall be sized for a maximum current density of 1000A per square inch and be provided with silver plated bus connections.
- D. Identify each device as to what function it performs by an engraved plastic nameplate attached adjacent to the switch or device. Nameplate subject to Architect's approval.
- E. Gray enamel finish on the inside and outside. Rustproof all steel parts before painting.
- F. The manufacturer producing the switchboard must be regularly engaged in the construction of this type of equipment, being equal to Milbanks, Pacific Utility Products, Myers or equal.

## 1. PART 1. GENERAL REQUIREMENTS

### 1.1 SCOPE OF WORK

- A. The work covered by this section consists of furnishing and installing all materials, equipment, fixtures and performing all labor and operations for complete and operable systems.
- B. Provide all new materials, unless noted otherwise, of the best quality, and in perfect condition, and materials of the same make and quality throughout the work, and as hereinafter specified. Comply with the requirements of ASTM, NEMA, U.L., and NBFM for materials and equipment.

C. The intent of these specifications is to establish a standard of quality of materials installed. Include materials as specified without exception in the Base Bid. Submit for approval any proposed substitution, complete descriptive, technical, and cost comparison data and test reports. Do not furnish or install any substitute items without written approval of the time of contract signing. Reimburse the Owner for any additional engineering charges and for any changes in the work of other trades resulting from substitutions. List proposed substitutions on the Bid Form, stating the reasons for substitution. When requested by the Architect or Electrical Engineer, samples, electrically wired at 120V, with plug, or system demonstrations of both specified and proposed items will be submitted for inspection at the Electrical Engineer's office and at a time convenient to all concerned parties.

D. Where a substitution alters the design or space requirements indicated on the plans, Contractor is responsible for all additional cost for Engineering to revise plans.

### E. Verify Drawings and Job Conditions:

- 1. Examine all drawings and specifications in a manner to be fully familiar of all work required.
- 2. Visit the site and verify existing conditions. Where existing conditions differ from drawings, make adjustments and allowances for all necessary equipment to complete all parts of the drawings and specifications.

### F. Shop Drawings:

- 1. Submit drawings in six sets accompanied by letter of transmittal listing the number and dates of the drawings submitted.
- 2. Mark the drawings submitted with the name of the project, numbered consecutively, and bearing approval as evidence that the drawings have been checked. Any drawings submitted without this approval will be returned for resubmission.
- 3. Submit Shop drawings on, but not limited to, the following:
  - a. Service Pedestal
  - b. Electrical Product
  - c. Lighting Fixtures
  - d. Electrical Product
  - e. Lighting Controller
  - f. Panels

### G. Drawings of Record:

Provide and keep up-to-date, a complete record set of blue line prints. Show every change from the original drawings. Keep this set of prints on the job site, and use only as a record set. Do not make changes in the layout without definite instruction in each case. Obtain a set of Contract Drawings from Architect and incorporate all changes as noted on the record set of prints. Deliver this set to the Architect upon completion and acceptance of work.

### H. Accuracy of Plans and Specifications:

Plans and/or specifications showing deviation from standard practice methods or from compliance with codes, and/or any omissions, does not relieve the responsibility of furnishing, making or installing all items required by code and/or intended for the function of the system.

### I. Permits, Fees and Insurance:

Obtain and pay for all insurance, permits, etc. necessary for this Contract.

### UNDERGROUND SERVICE ALERT



Call: TOLL FREE  
1-800-227-2600  
OR  
811

TWO WORKING DAYS BEFORE YOU DIG



Engineering, Inc.  
Electrical Engineering & Consulting  
8048 Palm Ave  
Highland, Ca  
92346  
909 864-0223  
Fax 909 864-0280  
james.corns@jcaeeng.com

REVISIONS					
NO.	DATE	INITIAL	DESCRIPTION	APPR.	DATE

PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS**  
SPECIAL DISTRICTS  
**David Doublet**  
ASSISTANT DIRECTOR

Digitally signed by David Doublet  
Date: 2024.09.03 11:11:32 -07'00'

APPROVALS	DATE	
	INITIAL	DATE
PROJECT MANAGER	Charles Hernandez	2024.09.03 11:11:32 -07'00'
OPS, DIVISION MANAGER		
PM, DIVISION MANAGER	Noel Mondragon	2024.09.03 11:11:32 -07'00'

**ELECTRICAL SPECIFICATIONS**

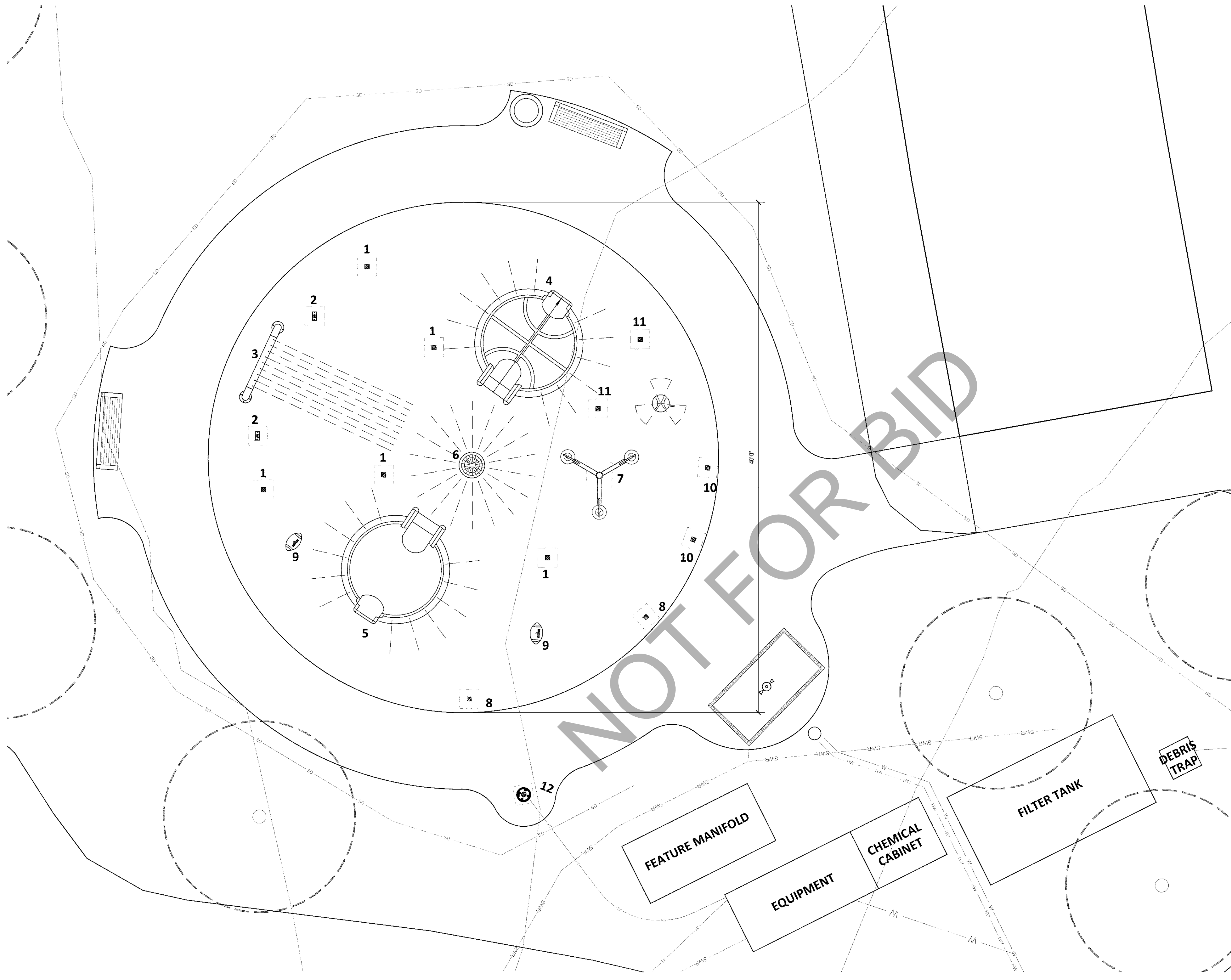
**AYALA PARK  
SPLASH PAD  
BLOOMINGTON, CALIFORNIA**

DWG NO.  
**E-3.0**

FILE NO.

SHEET **4** OF **4**

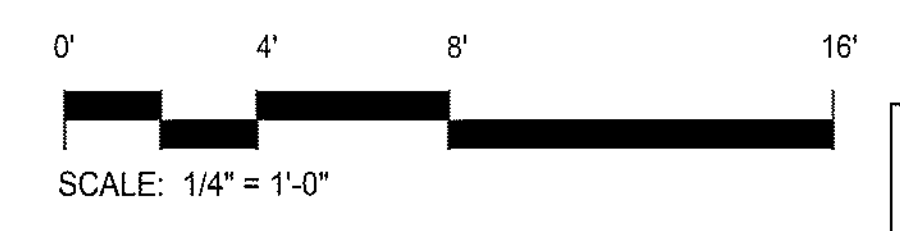
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**FEATURE LIST**

- 1. Aqua Geyser (5)
- 2. Aqua Jell (2)
- 3. Water Rail
- 4. Slam Dunk
- 5. World Cup
- 6. Batter Up
- 7. Aqua Buckets 3
- 8. Aqua Arching Stream (2)
- 9. Blitz (2)
- 10. Aqua Split Stream (2)
- 11. Aqua Bubbler (2)
- 12. Aqua Activator

Total GPM: 257



**L-4.1**

**UNDERGROUND SERVICE ALERT**



Call: TOLL FREE  
1-800-227-2600  
OR  
811

TWO WORKING DAYS BEFORE YOU DIG

**BENCHMARK:**  
ELEVATION DETERMINED FROM CORS  
CONTROL SITES. POINT #4  
- TRAVPT-SET L/T SBCo (RP) FLUSH  
NAVD-88 ELEV = 1131.513'

**BASIS OF BEARINGS:**  
CCS83 ZONE 5, NAD83(2011),  
EPOCH 2010.0



10601 OAK STREET N.E.  
ST PETERSBURG, FL 33716  
(888) 426-8511

REVISIONS				
MARK	DATE	INITIAL	DESCRIPTION	APPR. DATE

PLANS APPROVED BY:  
**SAN BERNARDINO COUNTY - PUBLIC WORKS  
SPECIAL DISTRICTS**  
**David Doublet**  
ASSISTANT DIRECTOR

Digitally signed by David Doublet  
Date: 2024.09.03 11:14:32 -0700

APPROVALS	INITIAL	DATE
PROJECT MANAGER	Charles Hernandez	
OPS. DIVISION MANAGER		
PM. DIVISION MANAGER	Noel Mondragon	

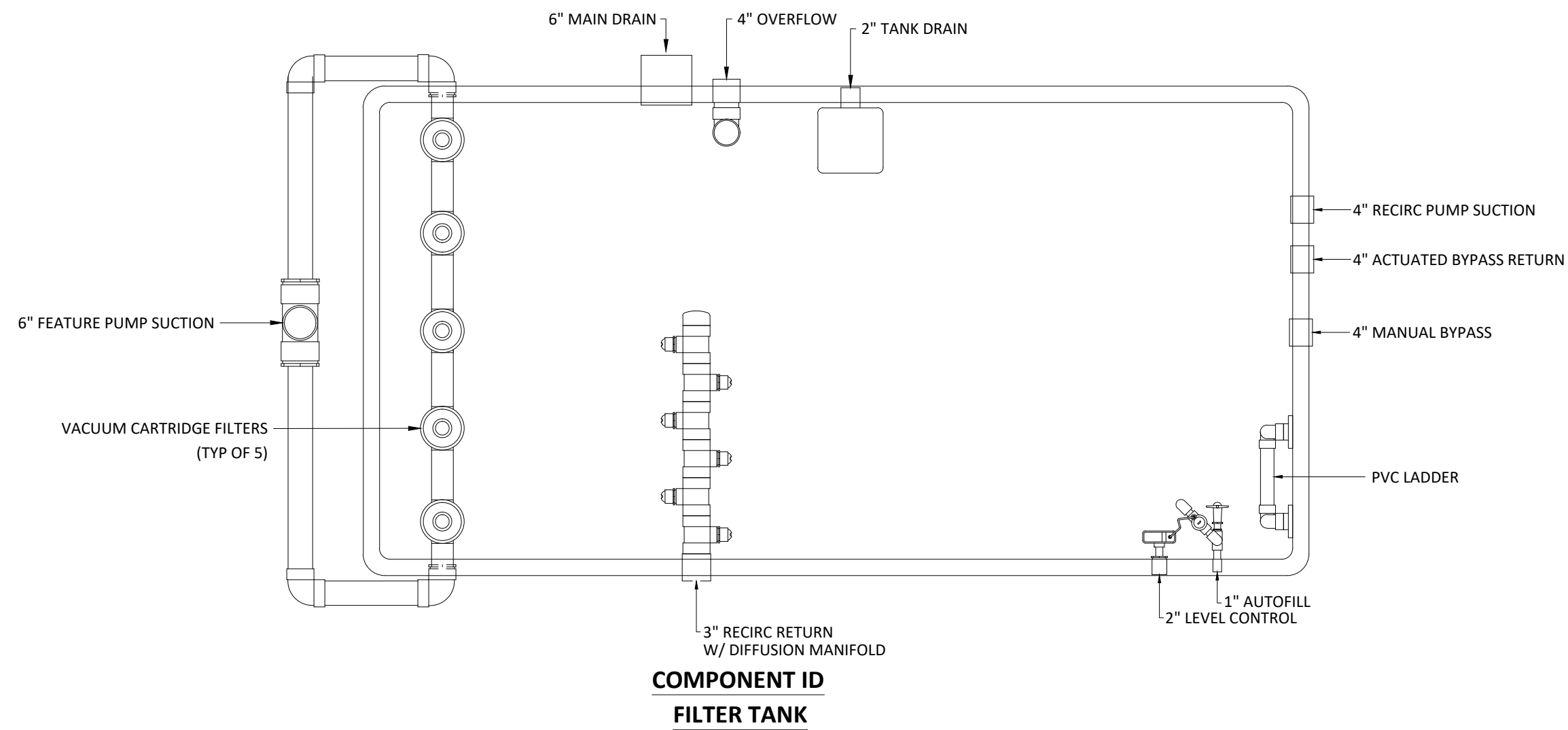
**SPLASH PAD LAYOUT**

AYALA PARK  
SPLASH PAD  
BLOOMINGTON, CALIFORNIA

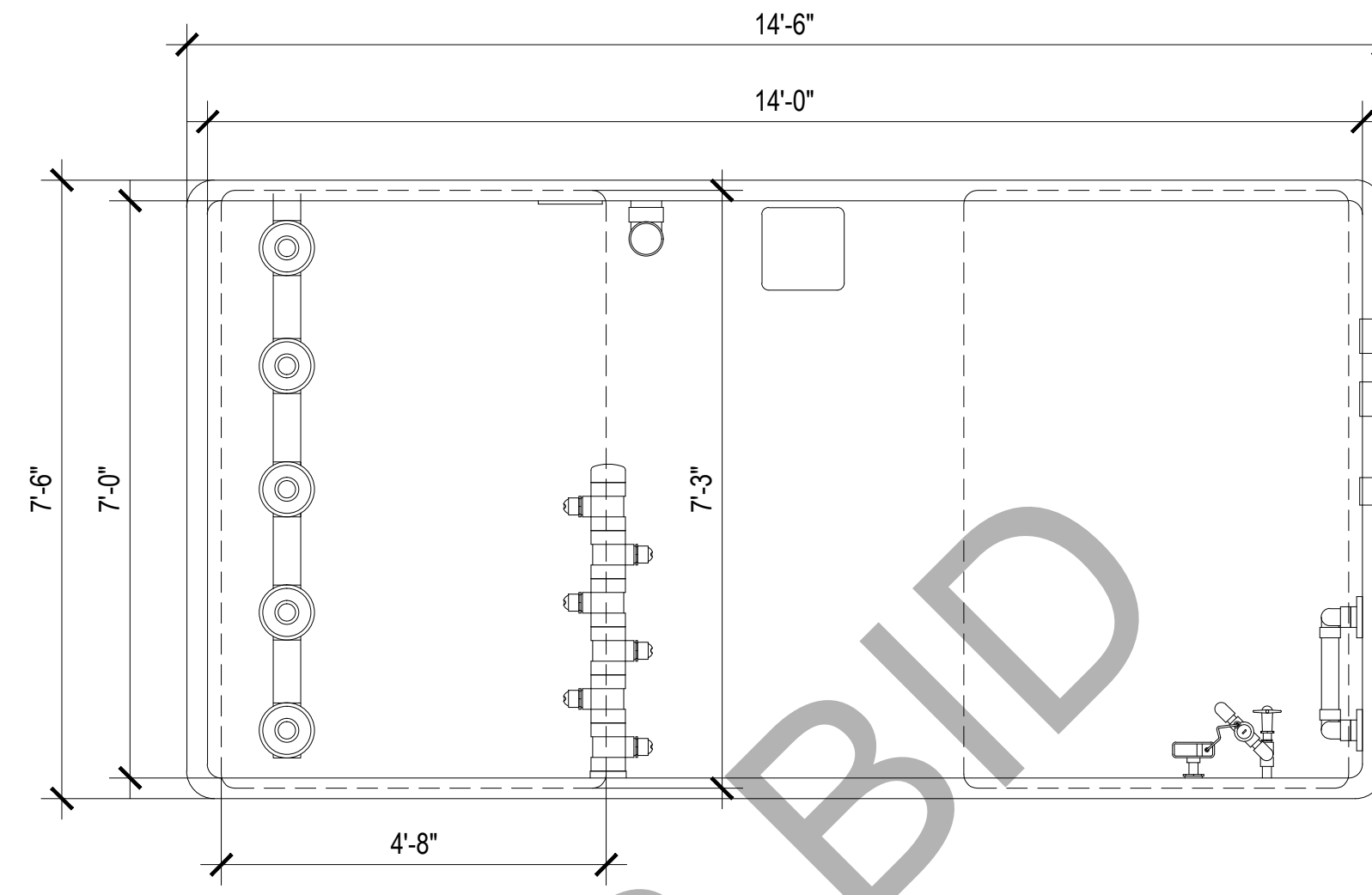
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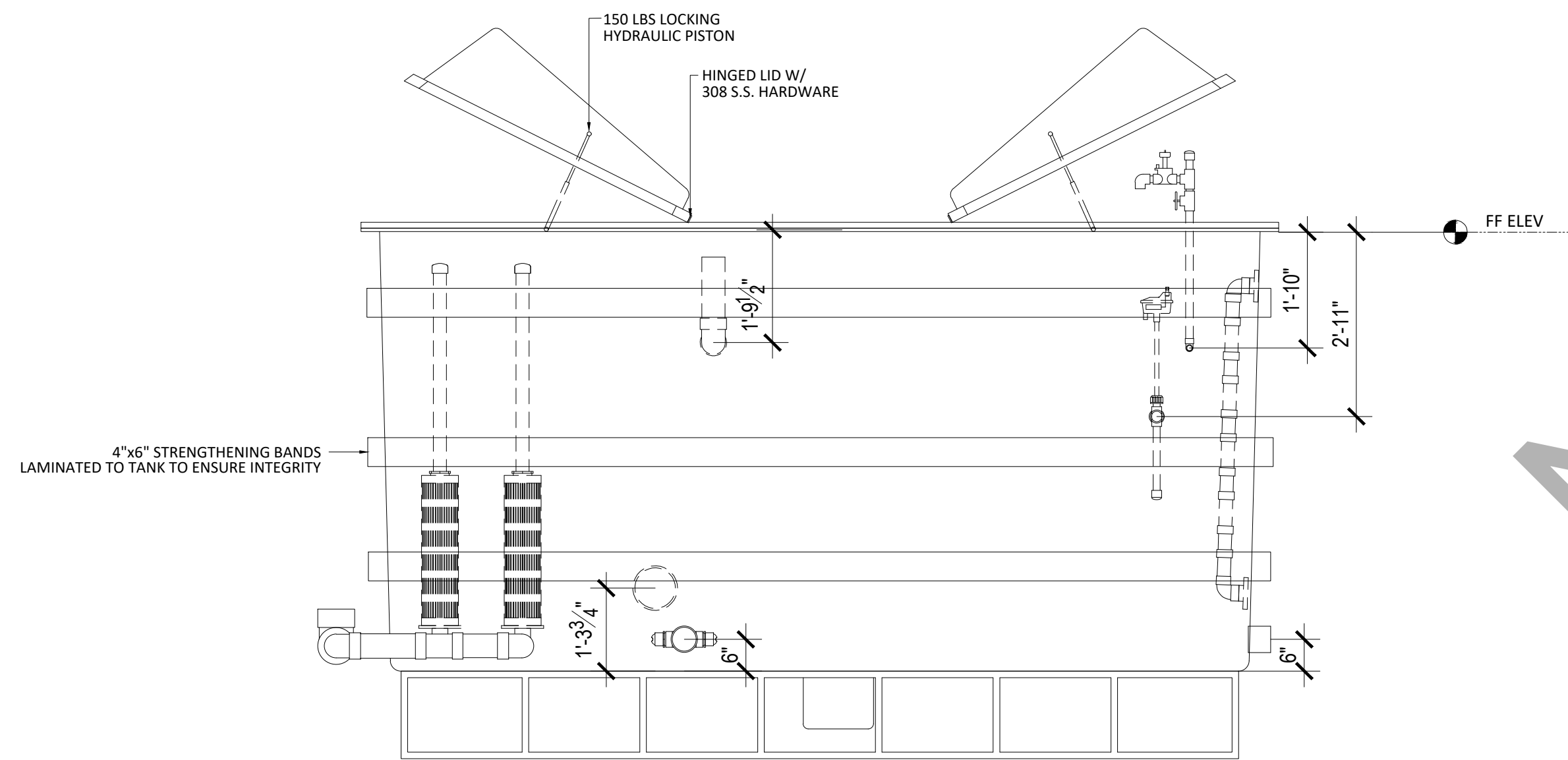
SHEET 12 OF 17



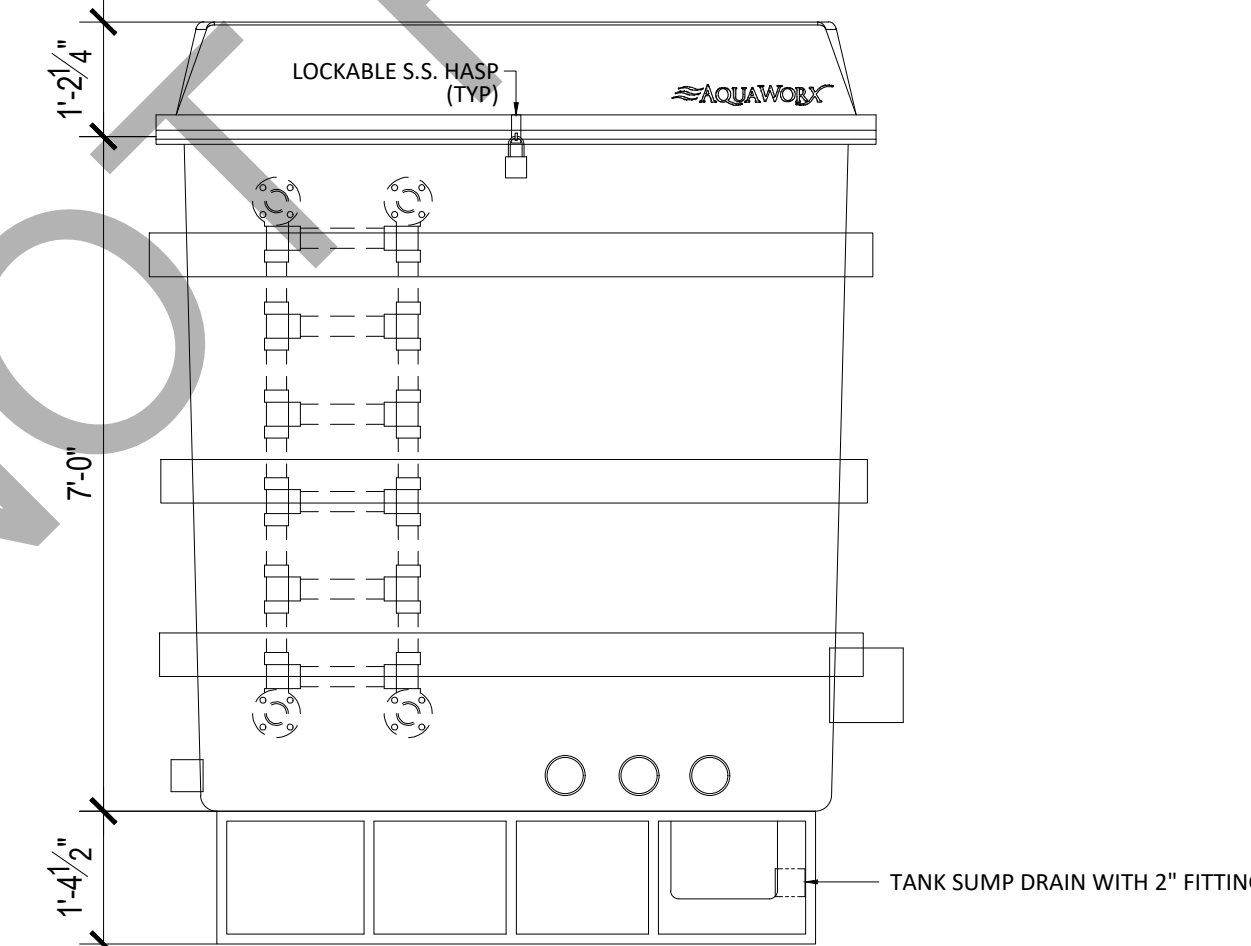
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FILTER TANK



PLAN VIEW  
FILTER TANK



FRONT ELEVATION  
FILTER TANK



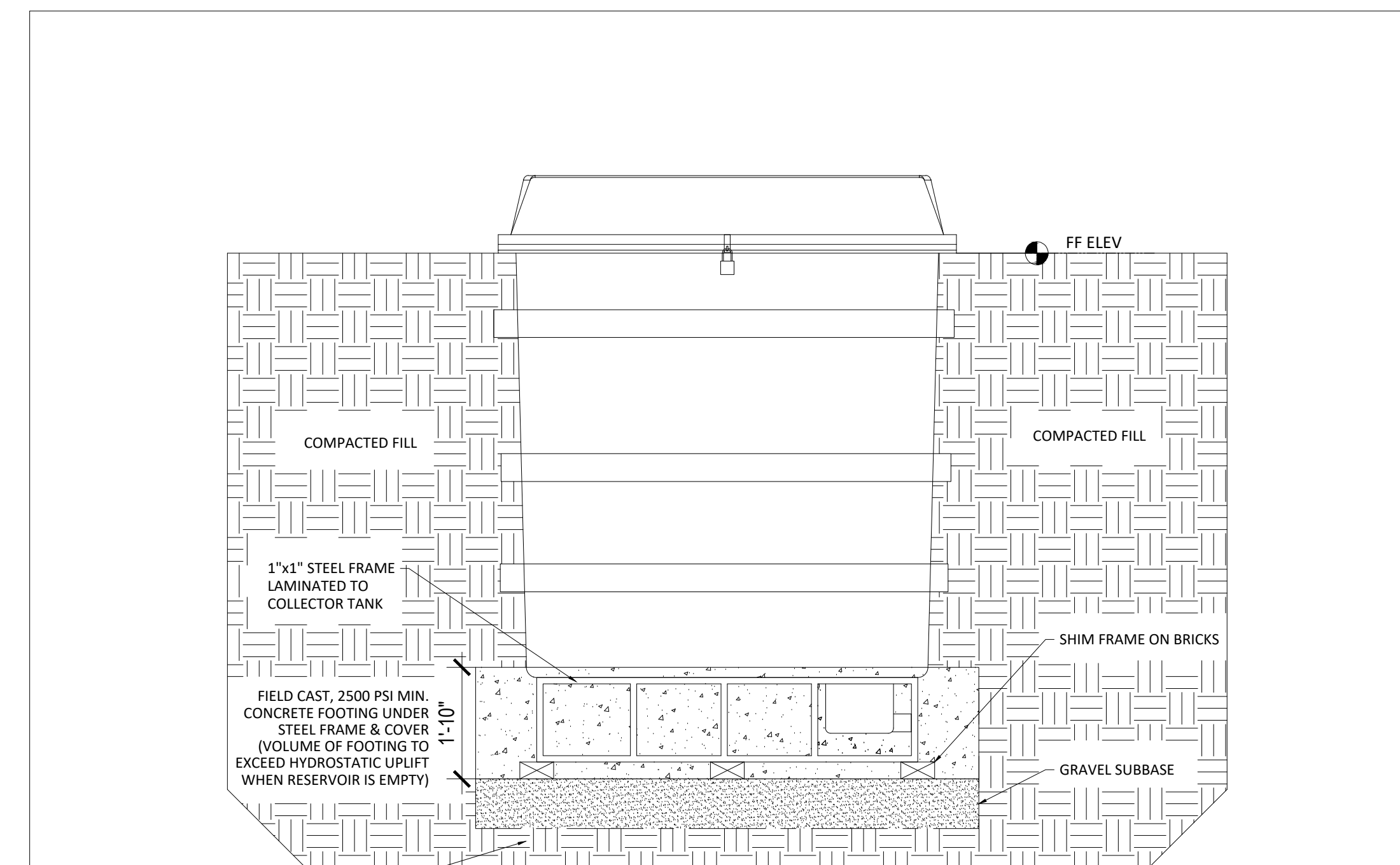
SIDE ELEVATION  
FILTER TANK

NOTES:

1. PLUMBING - ALL PIPE & FITTINGS SHALL BE SCHEDULE 40 PVC PER ASTM D1785 AND N.S.F. APPROVED AND STAMPED FOR POTABLE WATER APPLICATIONS. JOINTS TO BE SOLVENT WELDED PER ASTM D2855. ALL PLUMBING AND MATERIALS TO CONFORM TO LOCAL BUILDING CODE LATEST EDITION.
2. ELECTRICAL - ALL ELECTRICAL EQUIPMENT WIRING, INSTALLATION AND GROUNDING OF POOL COMPONENTS SHALL CONFORM TO NATIONAL FIRE PROTECTION ASSOC. 70, NATIONAL ELECTRICAL CODE (N.E.C.) LATEST EDITION AND ALL APPLICABLE LOCAL CODES. CHEMICAL FEED PUMPS TO BE INTERLOCKED WITH THE RECIRCULATION PUMP.
3. EQUIPMENT - ALL PUMPS, FILTERS AND DISINFECTION EQUIPMENT SHALL BE TESTED AND APPROVED BY THE PERTINENT MANUFACTURER USING THE NSF/ANSI STANDARD 50 AND LISTED AS APPROVED BY THE NSF.
4. THE FILTER ROOM FLOOR IS SLIP RESISTANT AND SLOPED TO FLOOR DRAINS
5. ALL PLASTIC PIPING SUBJECT TO PROLONGED SUNLIGHT EXPOSURE MUST BE COATED TO PROTECT IT FROM ULTRAVIOLET LIGHT DEGRADATION.
6. EACH WASTE LINE SHALL HAVE A UNIQUE AIR GAP. WASTE LINES FROM DIFFERENT SOURCES (E.G. POOL, SPA, OVERFLOW, SUMP PUMP) SHALL NOT BE TIED TOGETHER BUT MAY DISCHARGE INTO A COMMON SUMP OR RECEPTACLE.
7. THE WASTE LINE MUST BE CONNECTED TO AN APPROVED WASTE DISPOSAL SYSTEM ACCORDING TO LOCAL OR STATE CODES.
8. ALL COLLECTOR TANKS SHALL HAVE COVED INTERSECTIONS AND SLOPE TO THE TANK DRAIN.
9. AN AUTOMATIC AND MANUAL WATER MAKEUP CONTROL MUST BE PROVIDED TO MAINTAIN THE WATER LEVEL AT THE DESIRED COLLECTOR TANK VOLUME AND MUST DISCHARGE THROUGH AN AIR GAP INTO A FILL PIPE OR COLLECTOR TANK.
10. A RATE OF FLOW INDICATOR, READING IN GPM, SHALL BE INSTALLED ON THE FILTER RETURN LINE. THE RATE OF FLOW INDICATOR SHALL BE PROPERLY SIZED FOR THE DESIGN FLOW RATE AND SHALL BE CAPABLE OF MEASURING FROM ONE HALF TO AT LEAST ONE-AND-ONE-HALF TIMES THE DESIGN FLOW RATE. THE CLEARANCES UPSTREAM AND DOWNSTREAM FROM THE RATE OF FLOW INDICATOR SHALL COMPLY WITH THE MANUFACTURER'S INSTALLATION SPECIFICATIONS.
11. THESE PLANS HAVE BEEN PREPARED IN COMPLIANCE WITH THE LOCAL BUILDING CODE - LATEST EDITION
12. MANIFOLD SHOULD BE MOUNTED NO FURTHER THAN 15' FROM THE RECIRCULATION EQUIPMENT.

PIPE AND VALVES CHART	
LINE FUNCTION	SIZE
MAIN DRAIN	6"
FRESH WATER FILL	1" (MIN)
STATIC LINE	2"
OVERFLOW	4"
RECIRCULATION PUMP SUCTION	4"
RECIRCULATION RETURN	3"
FEATURE PUMP SUCTION	6"
TANK DRAIN	2"
VACUUM LINE	2"
ACTUATED FEATURE BYPASS	4"
MANUAL FEATURE BYPASS	4"

IWF FILTER TANK EQUIPMENT LIST	
COLLECTOR TANK	4000 GALLON CAPACITY
FILTER ELEMENT (FEATURE)	(5) UNICELL C-7697, 155 SQ FT FILTER AREA EACH (290 GPM MAX)
WATER LEVEL CONTROL	HYDRAULIC VALVE W/ MANUAL FILL VALVE, RESERVOIR
ACCESS HATCHWAY	DUAL 5'x8' FIBERGLASS LOCKABLE HATCHWAY W/ HYDRAULIC ASSIST



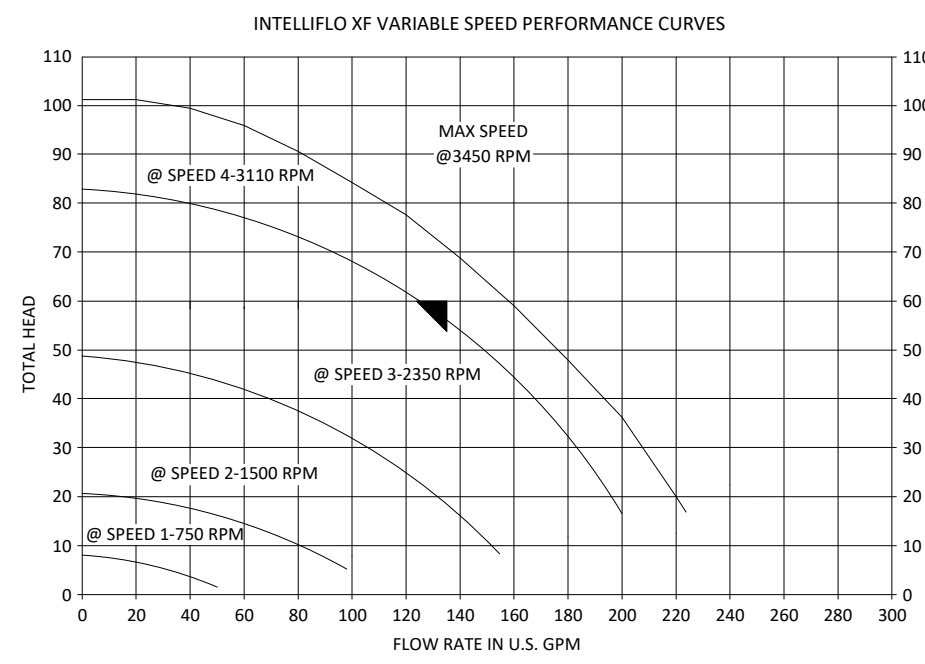
COMPACTED SUBBASE  
NOTE:  
CONTRACTOR TO REFER TO LOCAL SOIL CONDITIONS TO CONFIRM ADEQUATE DENSITY

MOUNTING DETAIL  
(RECOMMENDED)

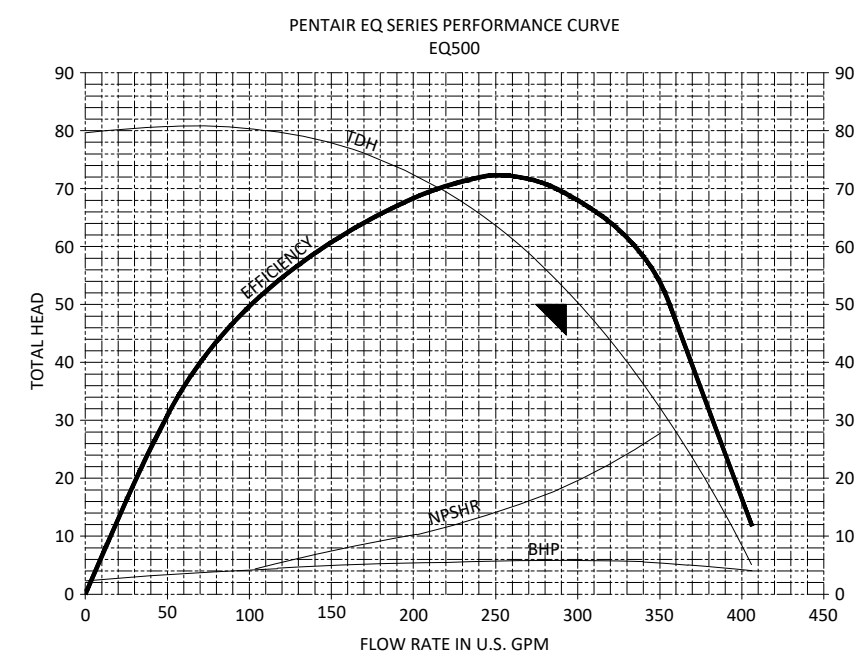
CT  
AWSP-1

SPLASH PAD COLLECTOR TANK RESERVOIR

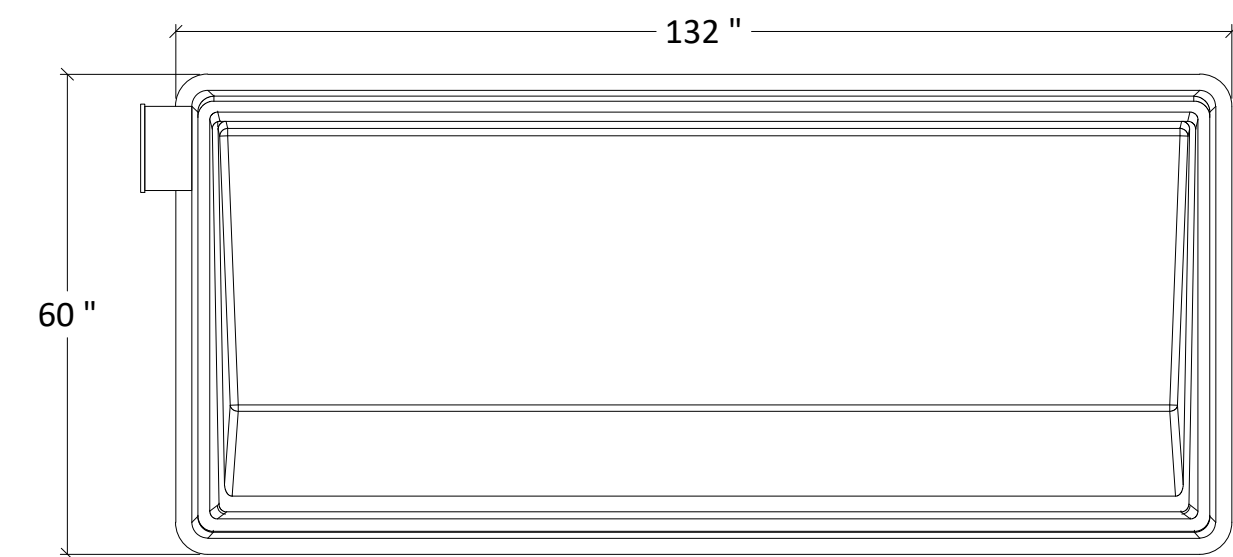
SCALE: 1/2" TO 1"



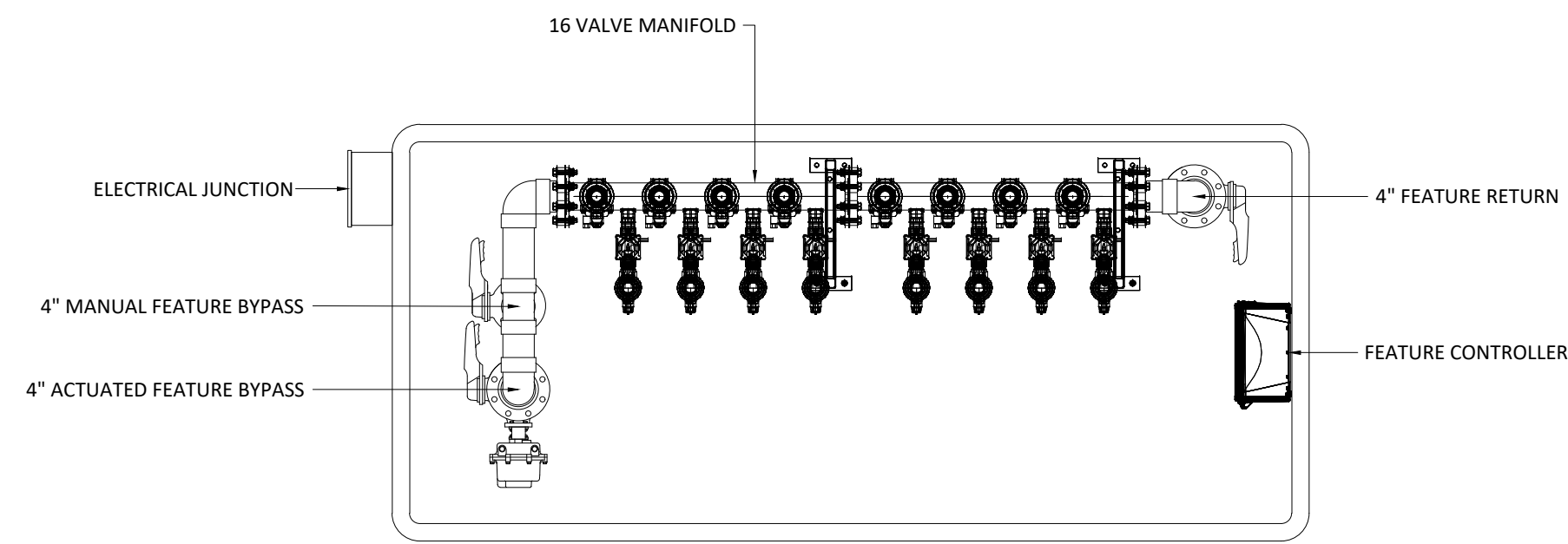
RECIRCULATION PUMP CURVE



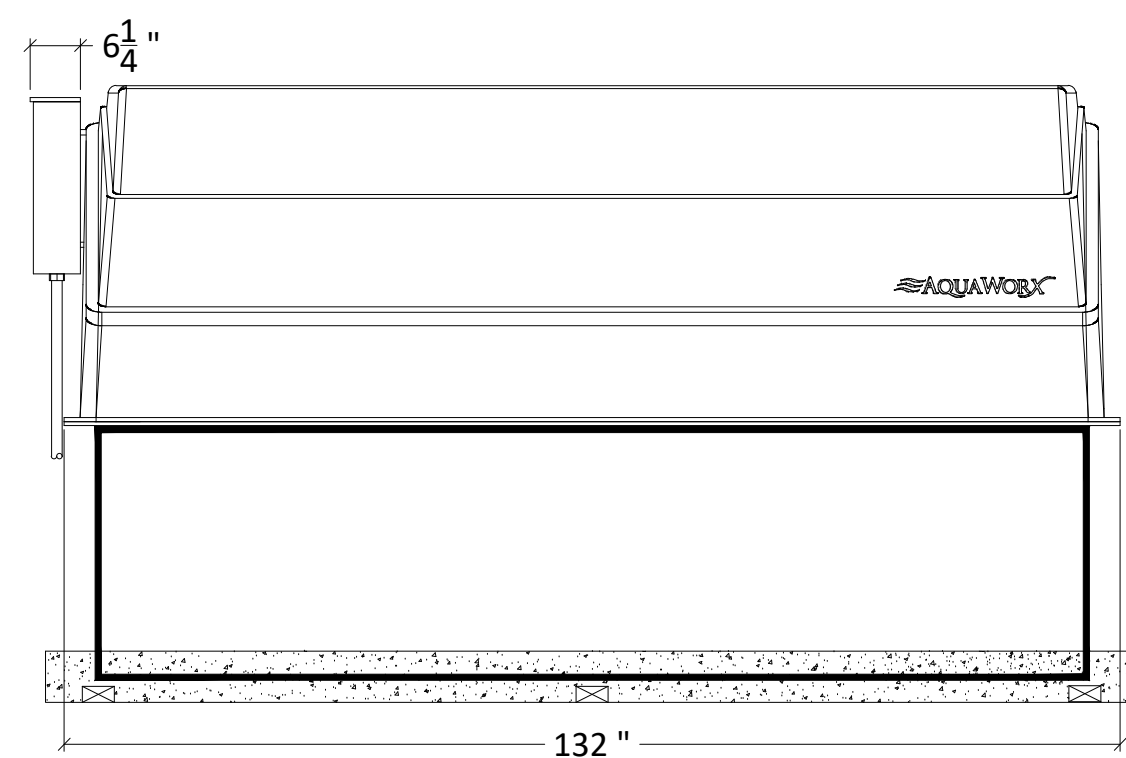
FEATURE PUMP CURVE



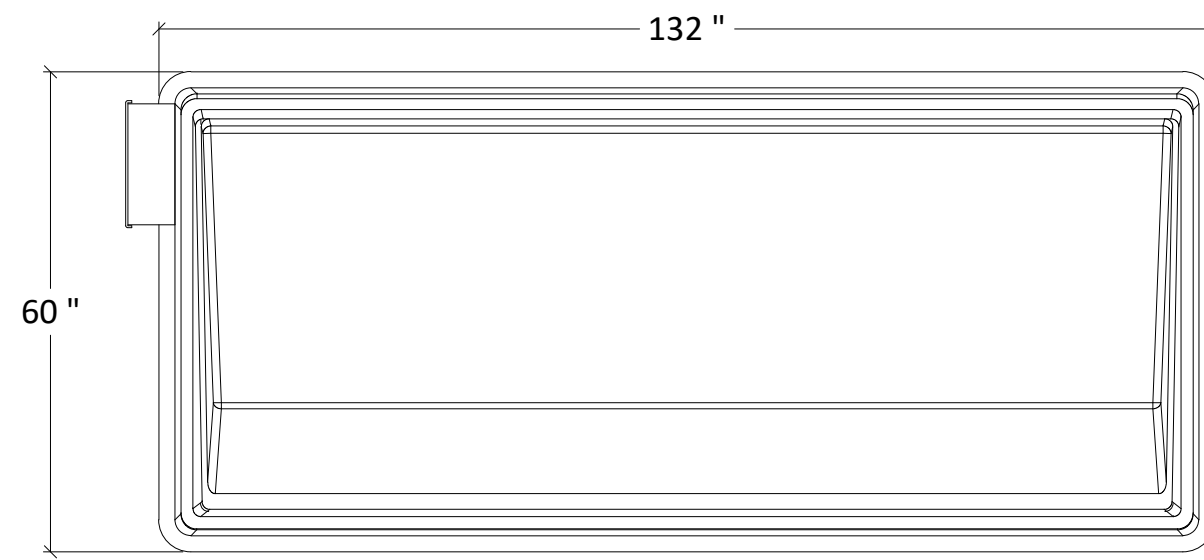
FEATURE MANIFOLD COVER  
PLAN VIEW



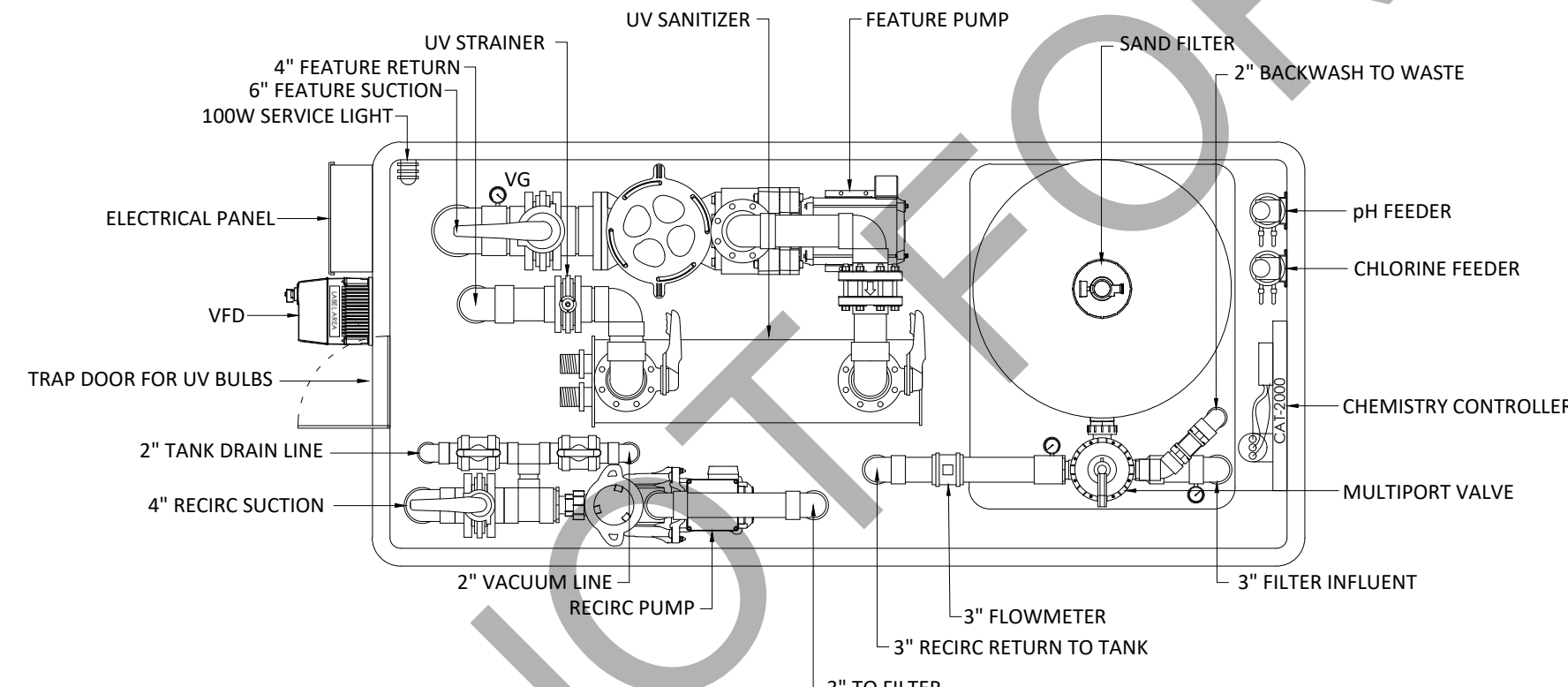
FEATURE MANIFOLD  
COMPONENT ID



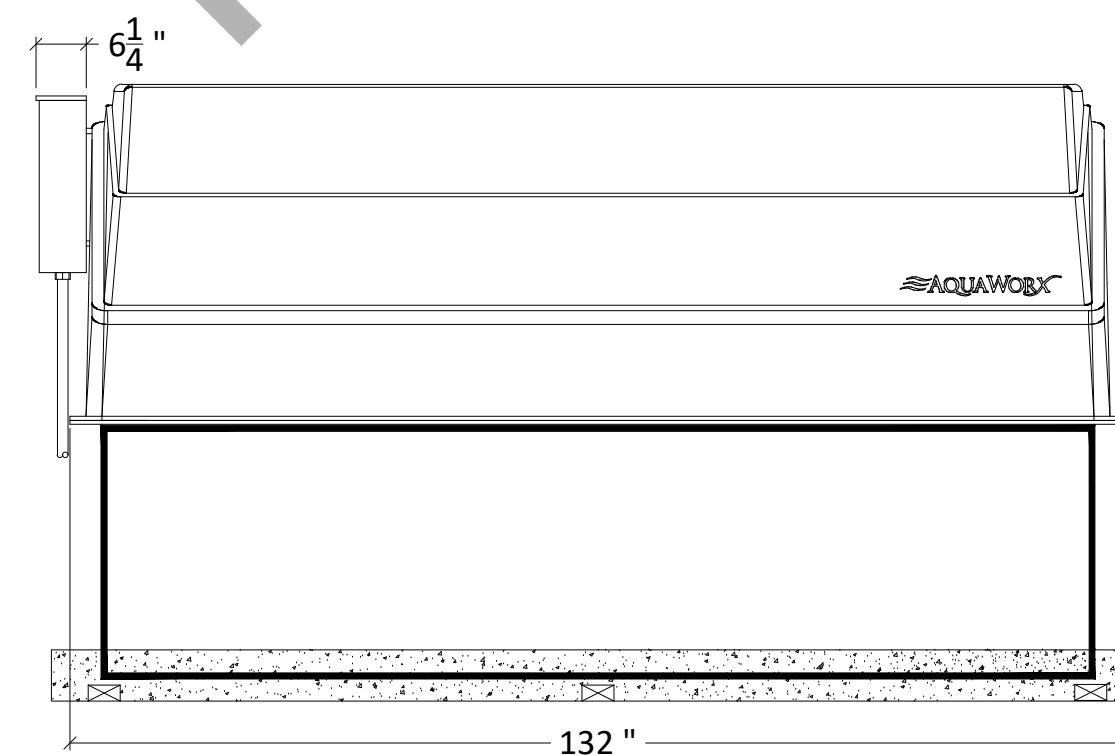
FEATURE MANIFOLD  
FRONT VIEW



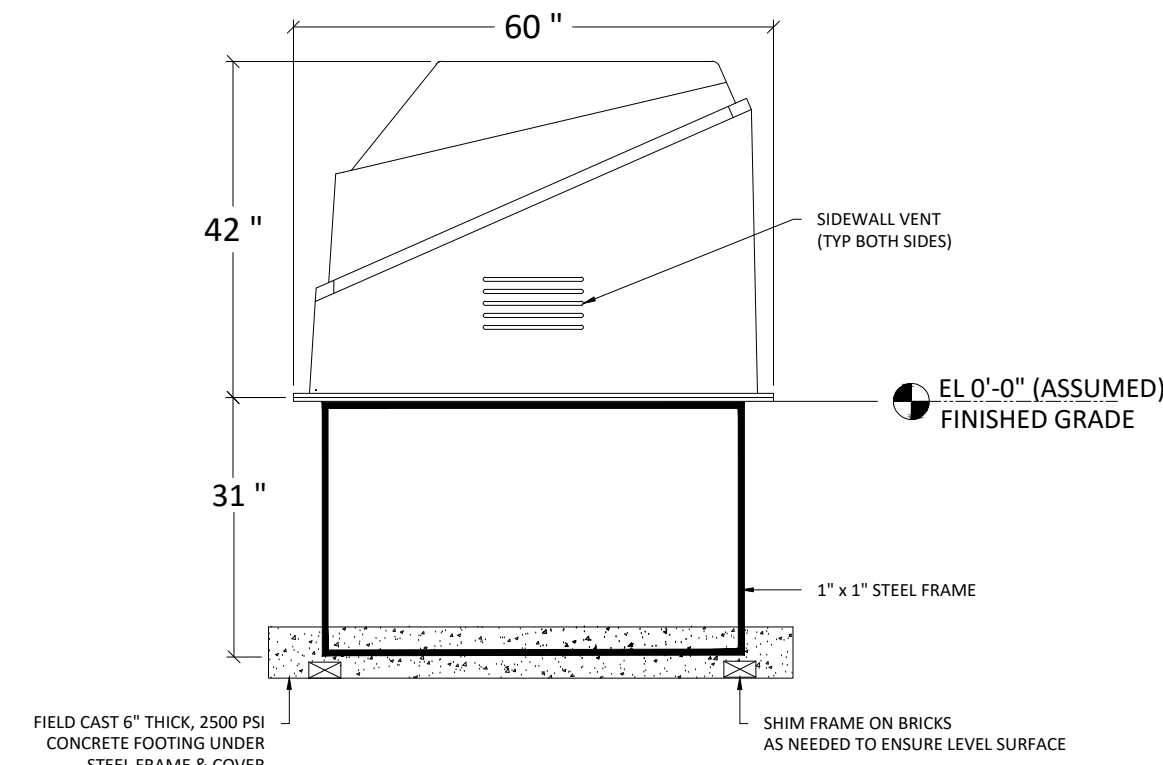
EQUIPMENT COVER  
PLAN VIEW



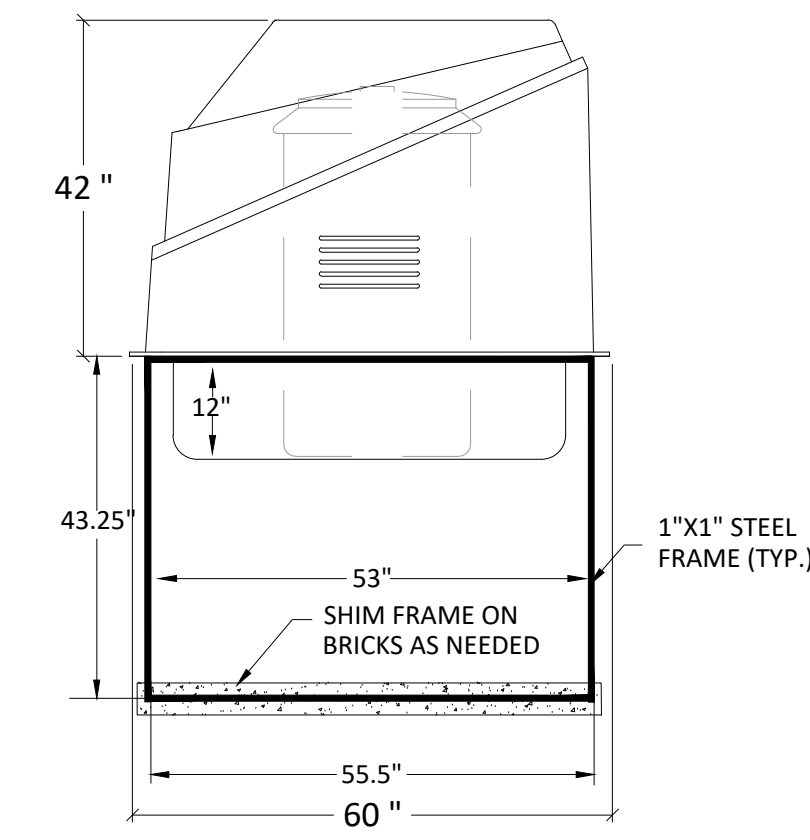
EQUIPMENT COMPONENTS ID  
PLAN VIEW



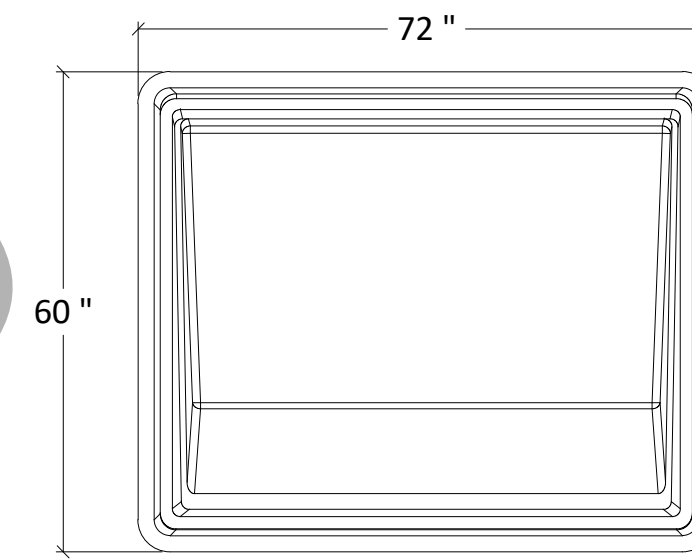
EQUIPMENT COVER  
FRONT VIEW



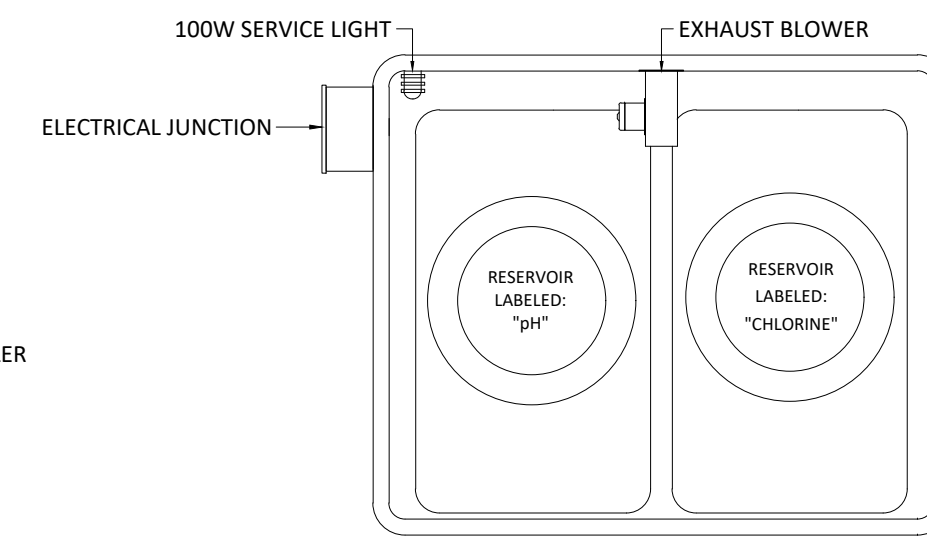
EQUIPMENT COVER  
SIDE VIEW



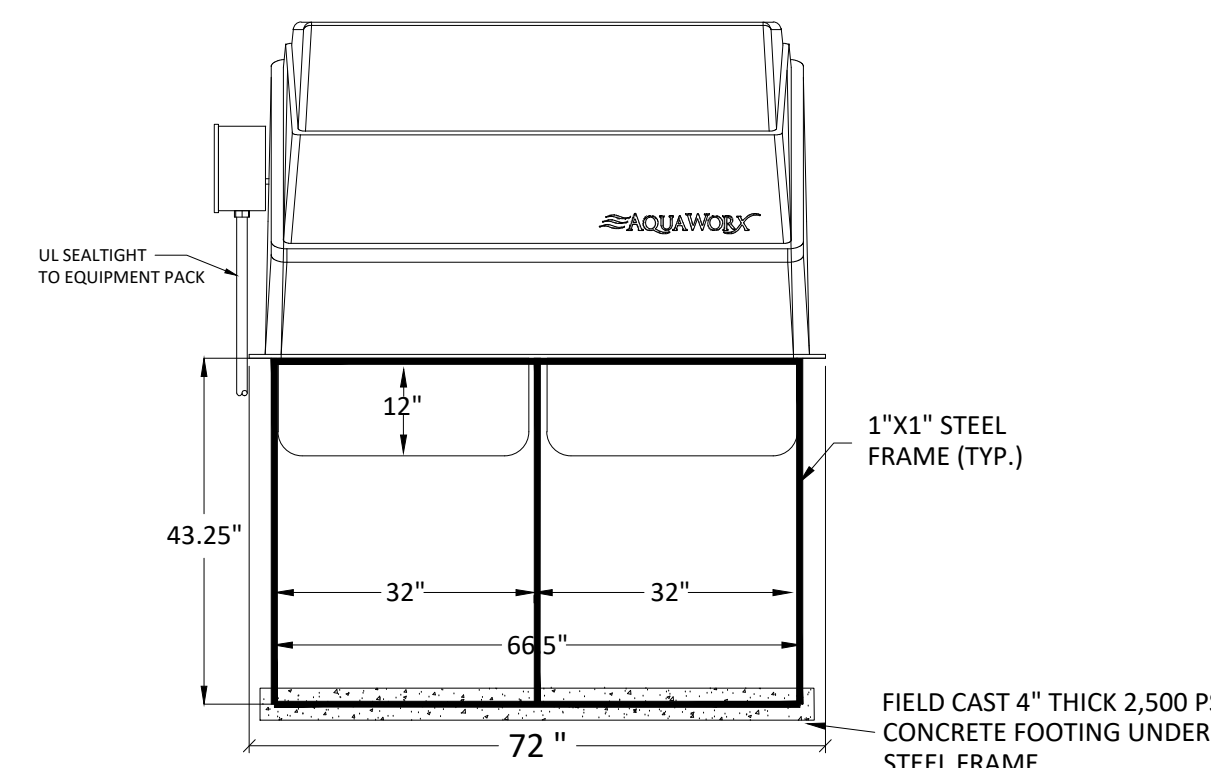
CHEMICAL CABINET  
SIDE ELEVATION



CHEMICAL CABINET  
TOP VIEW



CHEMICAL CABINET  
PLAN VIEW

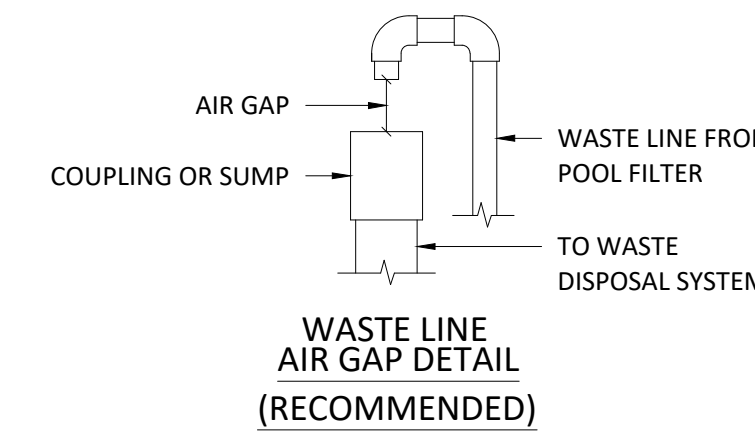


CHEMICAL CABINET  
FRONT ELEVATION

FEATURE/RECIRC CABINET

IWF FILTER EQUIPMENT LIST	
FEATURE PUMP	PENTAIR, EQKT500, 340604, 5 HP WITH INTEGRAL BASKET STRAINER, 257 GPM @ 50' TDH, 208-230/460V, 3Ø, 13.9A
RECIRC PUMP	PENTAIR, INTELLIFLO XF, 023018, 3 HP WITH INTEGRAL BASKET STRAINER, 135 GPM @ 60' TDH, 208-230V, 3Ø, 9.8A
COLLECTOR TANK	AT4000, 4000 GALLON CAPACITY
FILTER ELEMENT (FEATURE)	(5) UNICELL C-7697, 155 SQ FT FILTER AREA EACH (290 GPM MAX)
WATER LEVEL CONTROL	HYDRAULIC VALVE W/ MANUAL FILL VALVE, RESERVOIR
CHLORINE FEEDER	STENNER 45M5, 50 GPD CAPACITY, 110V, 1.7A
CHLORINE RESERVOIR TANK	30 GALLON WITH LOCKABLE LID
pH FEEDER	STENNER 45M2, 10 GPD CAPACITY, 110V, 1.7A
pH RESERVOIR TANK	30 GALLON WITH LOCKABLE LID
VACUUM GAUGE	WIKA, 0-30 IN HG, LIQUID FILLED, 1/4" NPT, 2" FACE DIAMETER
PRESSURE GAUGE	WIKA, 0-60 PSI, LIQUID FILLED, 1/4" NPT, 2" FACE DIAMETER
CHEMISTRY CONTROLLER	HAYWARD, CAT2000
SAND FILTER (RECIRC)	PENTAIR, TRITON, TR140, 7.06 SQ FT FILTER AREA
IWF CONTROLLER	AQUAWORK FEATURE CONTROLLER
RECIRC FLOWMETER	3" BLUE-WHITE, F-30300, 45-240 GPM RANGE
UV SANITIZER	CHLORKING, SAG480, 115V
FEATURE MANIFOLD	AQUAWORK 16 VALVE SCH-80 MANIFOLD- ACTUATED FEATURE RETURNS SIZE VARIES, 4" ACTUATED BYPASS, 4" MANUAL BYPASS
MULTIPORT VALVE	PENTAIR 261050 HI FLOW
SIGHT-GLASS	HAYWARD SP1074S
VFD	DANFOSS, AQUADRIVE VLT, FC-202, 5 HP VFD

PIPE AND VALVES CHART	
LINE FUNCTION	SIZE
MAIN DRAIN	6"
TANK DRAIN	2"
VACUUM LINE	2"
RECIRCULATION PUMP SUCTION	4"
RECIRCULATION PUMP DISCHARGE	3"
RECIRC TO FILTER	3"
RECIRC RETURN	3"
SIGHTGLASS TO WASTE	2.5"
FEATURE PUMP SUCTION	6"
FEATURE DISCHARGE TO MANIFOLD	4"



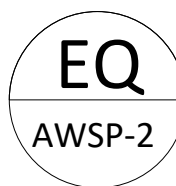
135-257 INTERACTIVE WATER FEATURE  
EQUIPMENT COMPONENT ID

AW081922  
CPS  
EQ DESIGN  
DWG NO

AQUAWORX USA  
A PLAYCORE company

2 of 5  
R2  
EQ  
A  
1  
REV.  
SHEET  
DATE  
VER.

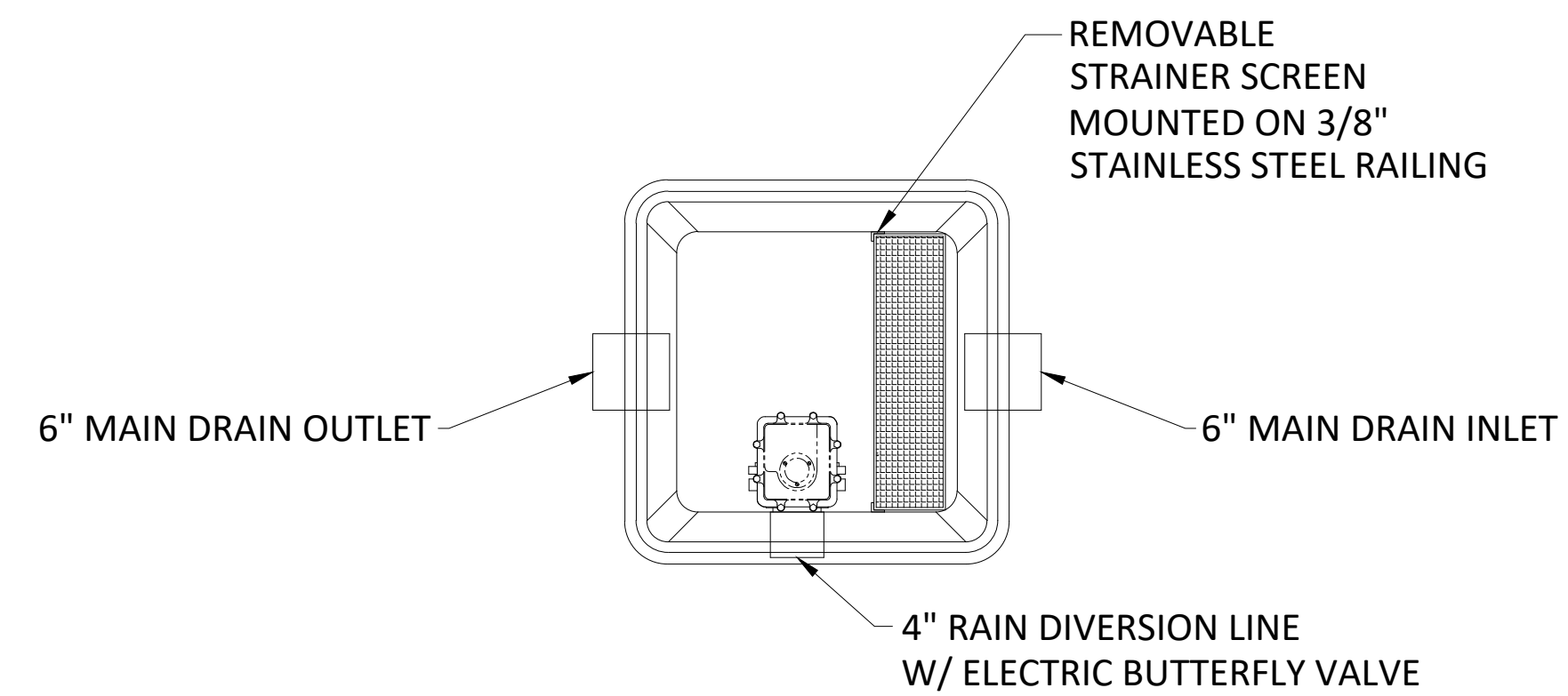
2018-05-16  
2018-05-16-24  
Saint Petersburg, FL 33716  
www.aquaworxusa.com  
Phone 888-426-8511



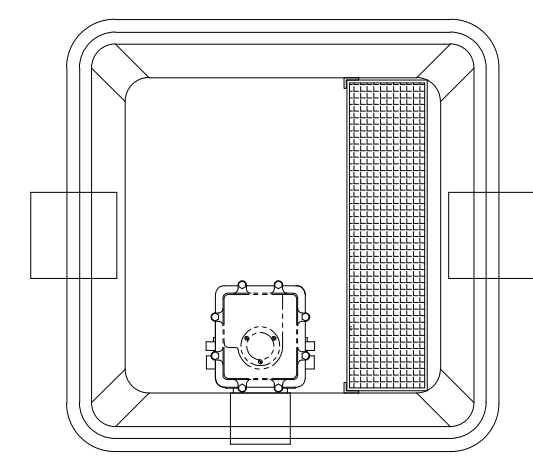
SPLASH PAD RECIRC & FEATURE DETAIL

SCALE: 1/2" TO 1'

PIPE AND VALVES CHART	
LINE FUNCTION	SIZE
MAIN DRAIN TO DEBRIS TRAP	6"
MAIN DRAIN TO COLLECTOR	6"
RAIN DIVERSION LINE	4"

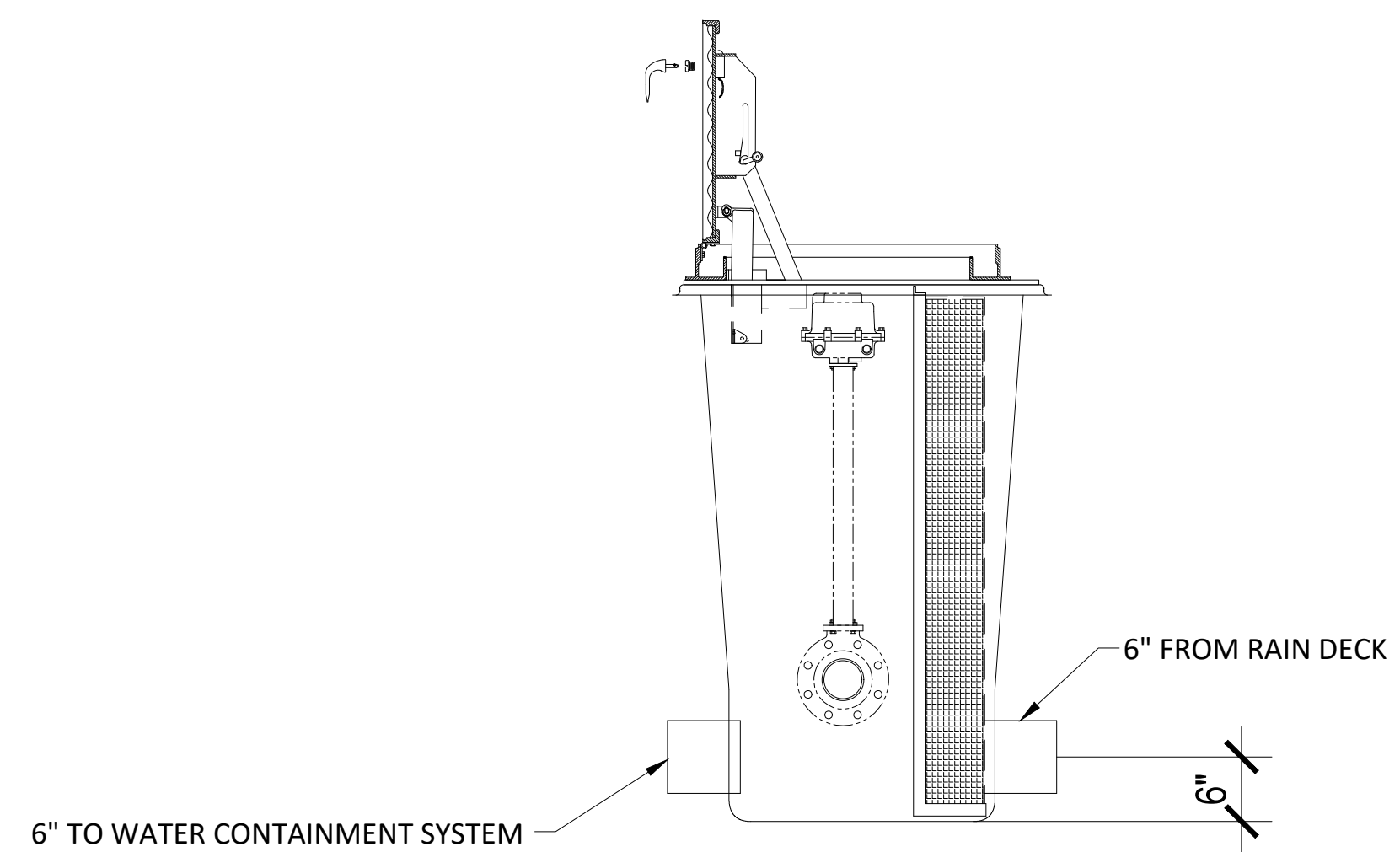


**COMPONENT ID**

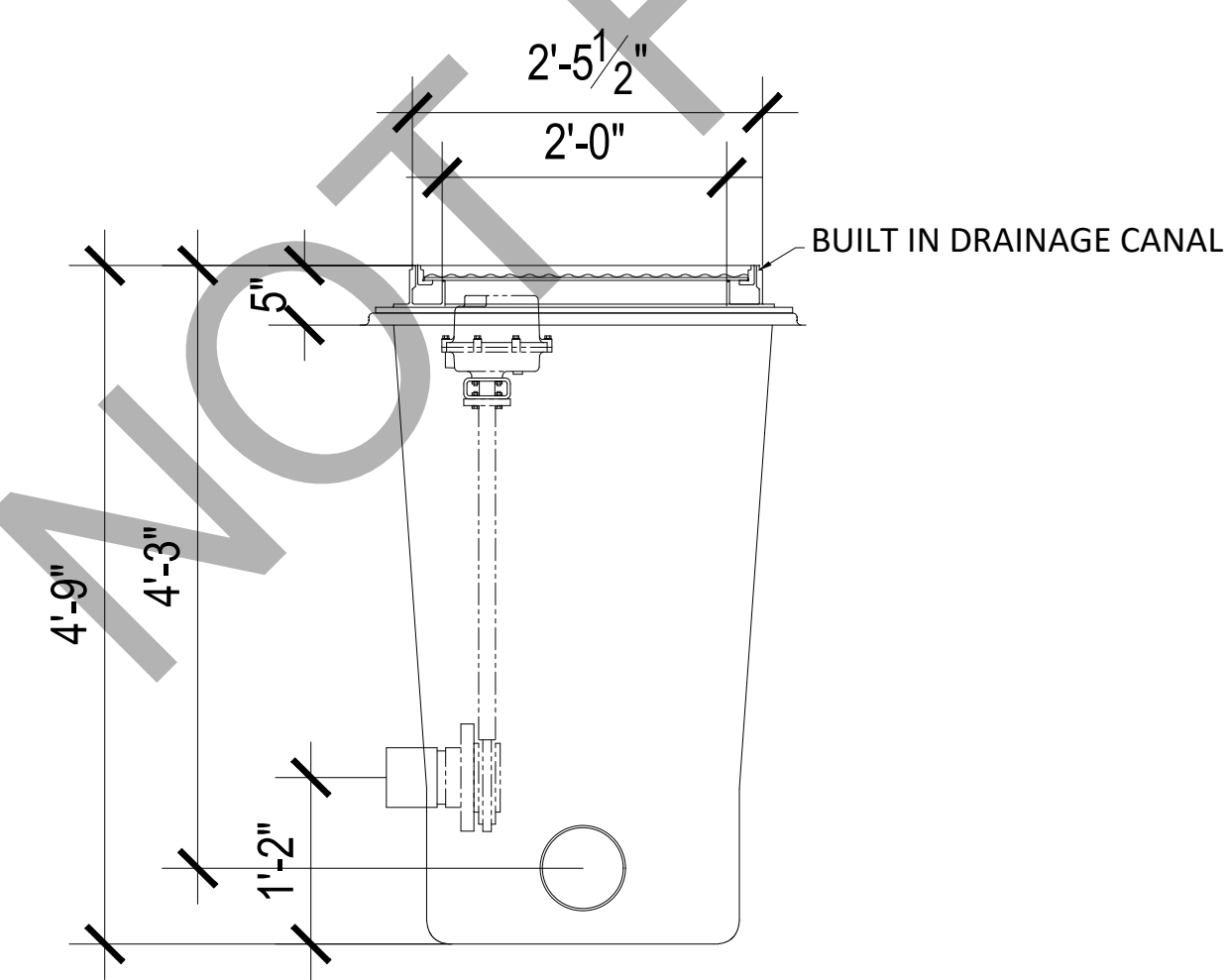


**PLAN VIEW**

**DEBRIS TRAP**  
150 GAL. USEFUL VOLUME



**LEFT SIDE ELEVATION**



**RIGHT SIDE ELEVATION**

DT  
AWSP-3

# DEBRIS TRAP

SCALE: 3/4" TO 1'

135-257 INTERACTIVE WATER FEATURE		DATE
RAIN DIVERTER		3 of 5
AW081922	VER.	1
	OPT.	A
	TYPE	EQ
	REV.	R2
	SHEET	3 of 5
	PHONE	888-426-8511
	WWW	www.aquaworxusa.com
	ADDRESS	10601 Oak Street NE ~ Saint Petersburg, FL 33716
	COMPANY	AQUAWORX INC.
	CPS	
	DWG NO	
	EQ DESIGN	

