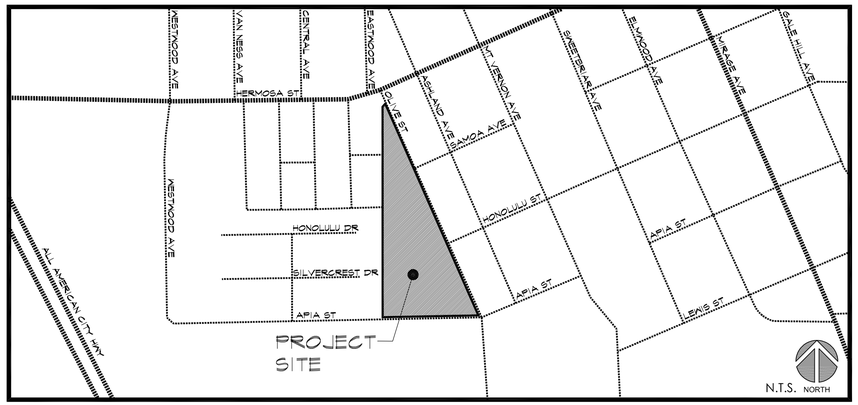
CITY OF LINDSAY
OLIVE BOWL / KAKU PARK REVITALIZATION

VICINITY MAP

Not to Scale



PUBLIC UTILITIES

WATER & SEWER
CITY OF LINDSAY
CITY SERVICES & PLANNING DEPARTMENT
150 N MIRAGE AVE
LINDSAY, CA 93247
559-562-7102 EXT 4

ELECTRICITY
SOUTHERN CALIFORNIA EDISON COMPANY
(800) 665-4555

GAS
SOUTHERN CALIFORNIA GAS COMPANY
EMERGENCY CALLS
(818) 701-3342

TELEPHONE
AT&T
(877) 754-8711
VERIZON
(559) 268-2100

ADDITIVE ALTERNATES

ADDITIVE ALTERNATE NO. 1. INCLUDE ALL LABOR, MATERIALS, SERVICES AND EQUIPMENT NECESSARY FOR COMPLETION OF THE CONSTRUCTION OF A 6' HIGH BLOCK WALL IN LIEU OF THE 6' CLF AT THE WEST SIDE OF THE PROPERTY AS INDICATED ON THE PLANS.

ADDITIVE ALTERNATE NO. 2. INCLUDE ALL LABOR, MATERIALS, SERVICES AND EQUIPMENT NECESSARY FOR COMPLETION OF THE CONSTRUCTION OF 4" CONCRETE IN LIEU OF THE STABILIZED DECOMPOSED GRANITE TRAIL AS INDICATED ON THE PLANS.

ADDITIVE ALTERNATE NO. 3. INCLUDE ALL LABOR, MATERIALS, SERVICES AND EQUIPMENT NECESSARY FOR COMPLETION OF THE CONSTRUCTION OF 7" VEHICULAR CONCRETE PAVING IN LIEU OF ASPHALT PAVING AT THE WEST SIDE OF THE SITE AS INDICATED ON THE PLANS.

ADDITIVE ALTERNATE NO. 4. INCLUDE ALL LABOR, MATERIALS, SERVICES AND EQUIPMENT NECESSARY FOR COMPLETION OF THE CONSTRUCTION OF SYNTHETIC TURF SURFACING AT THE BULL PENS IN LIEU OF DG AS INDICATED ON THE PLANS.

DRAWING INDEX

CITY OF LINDSAY APPROVAL

CITY SERVICES & PLANNING DIRECTOR _____ DATE _____

PROJECT TEAM

LANDSCAPE ARCHITECT	MOORE IACOFANO GOLTSMAN, INC. 109 W. UNION AVE. FULLERTON, CA 92831 TEL: 714/871-3638	ELECTRICAL ENGINEER	LRA ENGINEERS 1326 BOTTLEBRUSH STREET CORONA, CA 92882 TEL: 951/737-4569
CIVIL ENGINEER	BKF 4675 MACARTHUR CT SUITE 400 NEWPORT BEACH, CA 92660 TEL: 949/526-8487	SKATE PARK DESIGNER	SPOHN RANCH SKATEPARKS 6824 S. CENTINELA LOS ANGELES, CA 90230 TEL: 626-330-5803

DIGALERT
DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.
ELECTRICAL ENGINEER
LRA ENGINEERS
CIVIL ENGINEER
BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

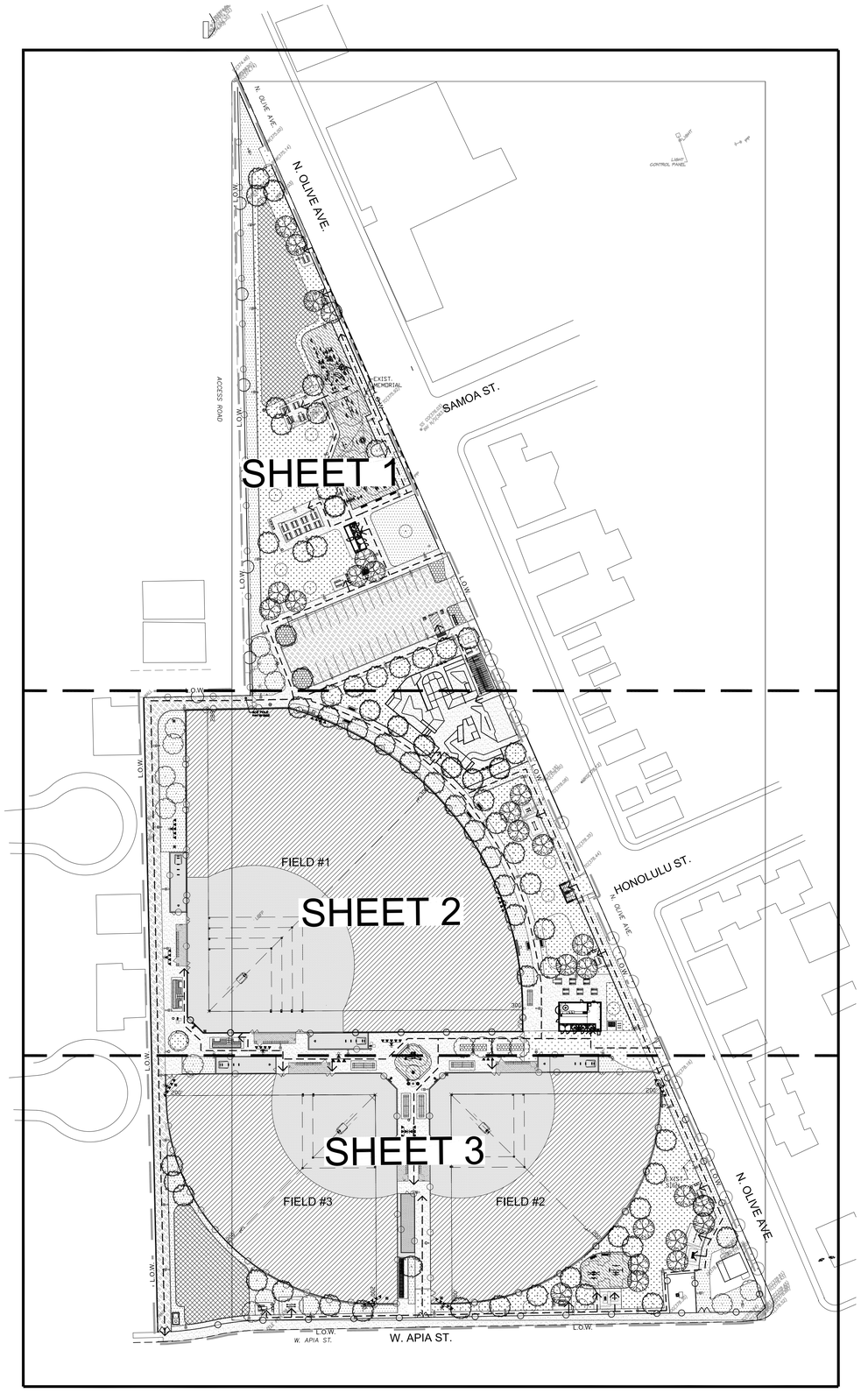
TITLE SHEET

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
T-1
SHEET 1 OF 85 SHEETS



SYMBOLS LEGEND:

- BALL FIELD TURF
- STABILIZED D.G
- INFIELD STABILIZED D.G.
- 4" CONCRETE
- 7" CONCRETE
- A.C. PAVEMENT
- RUBBERIZED SURFACING
- GENERAL TURF
- PLANTING AREA
- BASIN TURF
- NEW TREE
- EXISTING TREE
- SHEET MATCHLINE
- ADA PATH OF TRAVEL

0 30' 60' 120'

NORTH

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BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

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OVERALL SITE PLAN

DATE	REVISION
10-18-21	50% CD Submittal
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2-13-23	100% CD Submittal

STAMP

REGISTERED LANDSCAPE ARCHITECT
STEVEN N. LANG NO. 4941
SIGNATURE OF
11-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

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SHEET 2 OF 85 SHEETS

RENOVATION & EXPANSION PLAN

OLIVE BOWL/KAKU PARK PROJECT

18 NORTH OLIVE AVENUE, LINDSAY, CA 93247

VICINITY MAP

SCALE: N.T.S.

SHEET INDEX:

GENERAL GRADING NOTES:

1. ALL GRADING AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE UNLESS SPECIFICALLY NOTED ON THESE PLANS.
2. ANY MODIFICATIONS OF OR CHANGES TO THE APPROVED GRADING PLANS SHALL BE APPROVED BY THE CITY ENGINEER.
3. SLOPES SHALL BE A MAXIMUM 2:1, UNLESS OTHERWISE APPROVED AND CERTIFIED BY THE GEOTECHNICAL ENGINEER.
4. SLOPES SHALL BE STRAIGHT GRADE FROM CONTOURS TO ELEVATIONS SHOWN.
5. TRENCHES AND SLOPES WITH A VERTICAL HEIGHT GREATER THAN 4 FT SHALL BE PROPERLY PROTECTED PER OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.
6. A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
7. PRIOR TO GRADING, SITE BOUNDARIES, EASEMENTS, DRAINAGE DEVICES, AND RESTRICTED USE AREAS SHALL BE LOCATED PER CONSTRUCTION STAKING BY THE CIVIL ENGINEER OR LICENSED SURVEYOR.

PROPERTY INFORMATION TABLE:

PROPERTY INFORMATION
- ADDRESS: 18 NORTH OLIVE AVENUE, LINDSAY, CA 93247
- AREA: 9.7 ACRES
- OWNER: CITY OF LINDSAY

CONSULTANT INFORMATION

ARCHITECT
- MIG
  109 WEST UNION AVENUE
  FULLERTON, CA 92832
  (714) 871-3638

CIVIL ENGINEER
- BKF ENGINEERS
  4675 MACARTHUR COURT, SUITE 400
  NEWPORT BEACH, CA 92660
  (949) 526-8460

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
APN	ASSESSOR'S PARCEL NUMBER
BLDG	BUILDING
BFP	BACKFLOW PREVENTER
BW	BACK OF WALK
CF	CURB FACE
℄	CENTERLINE
CO	CLEANOUT
CONC	CONCRETE
CTRL	CONTROL
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
DEMO	DEMOLITION
DI	DRAINAGE INLET
E	ELECTRIC
EB	ELECTRIC BOX
EG	EXISTING GRADE
EP	EDGE OF PAVEMENT
EX	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOWLINE
FS	FINISHED SURFACE
GB	GRADEBREAK
GR	GRATE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
HYD	HYDRANT
INV	INVERT
IRR	IRRIGATION
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
LF	LINEAR FEET
LG	LIP OF GUTTER
LS	LANDSCAPING
MA	MATCH
MIN	MINIMUM
NTS	NOT TO SCALE
PCC	PORTLAND CEMENT CONCRETE
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PLNT	PLANTING
POC	POINT OF CONNECTION
PR	PROPOSED
PVC	POLYVINYL CHLORIDE
R/W	RIGHT-OF-WAY
S	SLOPE
SC	SAWCUT
SDCB	STORM DRAIN CATCH BASIN
SDMH	STORM DRAIN MANHOLE
SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STLT	STREETLIGHT
STND	STANDARD
SW	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TF	TOP OF FOOTING
TG	TOP OF GRATE
TMH	TOP OF MANHOLE
TP	TOP OF PAVEMENT
TR	TREE
TV	CABLE TELEVISION
TW	TOP OF WALL
TYP	TYPICAL
UB	UTILITY BOX
UT	UTILITY
VLT	VAULT
W	WATER
WM	WATER METER
WV	WATER VALVE

NOTE TO CONTRACTOR:

"THERE SHALL BE NO TRENCHES NOR EXCAVATIONS FIVE (5) OR MORE IN DEPTH, INTO WHICH A PERSON IS REQUIRED TO DESCEND; OR OBTAIN A PERMIT FROM THE STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY, AND HEALTH ADMINISTRATION (CAL/OSHA). THIS PERMIT AND ANY OTHER SAFETY PERMIT SHALL BE OBTAINED PRIOR TO THE COMMENCEMENT OF ANY WORK." CONTACT CAL/OSHA AT 714-558-4451 FOR ADDITIONAL INFORMATION."

BASIS OF BEARINGS & COORDINATES:

CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 4, DERIVED FROM GPS OBSERVATIONS

THE FOLLOWING CORS STATIONS WERE USED BY OPUS TO DETERMINE THE COORDINATES:

PID DP2483 CAASN SANTA BARBARA CORS ARP
PID DE6246 CMOD MODESTO COOP CORS ARP
PID DE6586 JPLM JPL MESA CORS ARP

THE EPOCH USED WAS 2010.00 AND THE GEOID WAS GEOID12B

THE COMBINED SCALE FACTOR IS 0.99995495. TO CONVERT GRID DISTANCES TO GROUND DISTANCES DIVIDE THE GRID DISTANCE BY THE COMBINED SCALE FACTOR

BENCHMARK:

CITY BENCHMARK No. 68
EAST END CURB RETURN AT
SOUTHEAST CORNER CENTRAL AND KERN
ELEV = 372.57 (NGVD)

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1-800-422-4133
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CIVIL ENGINEER
BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

TITLE SHEET

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12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KYRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C1.0
SHEET 3 OF 85 SHEETS

CAUTION:

1. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION– PHONE (800) 642–2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

GENERAL SITE NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
2. THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK)", LATEST EDITION INCLUDING SUPPLEMENTS THERETO, IS HEREBY MADE A PART OF THIS PLAN.
3. ALL WORK ON–SITE AND IN THE PUBLIC RIGHT–OF–WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.
4. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO PROJECT MANAGER.
5. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
6. CONTRACTOR AGREES THAT HE 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 CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE CLIENT, THE CONSULTING ENGINEER AND THE TOWN 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 CLIENT OR THE CONSULTING ENGINEER.

DEMOLITION NOTES :

1. CONTRACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL(S).
2. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
5. BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
6. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
7. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.
8. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
9. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.
10. COORDINATE WITH ELECTRICAL, MECHANICAL, LANDSCAPING AND ARCHITECTURAL DRAWINGS FOR UTILITY SHUT–DOWN/DISCONNECT LOCATIONS. CONTRACTOR IS TO SHUT OFF ALL UTILITIES AS NECESSARY PRIOR TO DEMOLITION. CONTRACTOR IS TO COORDINATE SERVICE INTERRUPTIONS WITH THE CLIENT. DO NOT INTERRUPT SERVICES TO ADJACENT OFF–SITE OWNERS. ALSO SEE ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.
11. THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF ALL EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THIS PLAN MAY OR MAY NOT ACCURATELY REFLECT THE TYPE OR EXTENT OF THE ITEMS TO BE ENCOUNTERED AS THEY ACTUALLY EXIST. WHERE EXISTING FEATURES ARE NOT SHOWN, IT IS NOT IMPLIED THAT THEY ARE NOT TO BE DEMOLISHED OR REMOVED. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUANTITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.

RECORD DRAWINGS:

1. THE CONTRACTOR SHALL KEEP UP–TO–DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE TOWN ENGINEER AND DEVELOPER'S CIVIL ENGINEER PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE TOWN ENGINEER.

TREE/PLANT PROTECTION NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY AND PROTECT EXISTING TREES AND PLANTS DESIGNATED AS TO REMAIN.
2. PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIAL; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE TOWN'S ENGINEER/INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.

SITE MAINTENANCE:

1. REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
2. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON–SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED–ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.
3. CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIALS USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM THROUGH EITHER BEING WIND–BLOWN OR IN THE EVENT OF A MATERIAL SPILL.
4. NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
5. ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.
6. UPON PROJECT COMPLETION THE CLIENT SHALL BE SOLELY RESPONSIBLE TO ROUTINELY INSPECT AND MAINTAIN ALL ON–SITE STORM DRAIN FACILITIES. STORM DRAIN SYSTEM SHALL BE CLEANED AND/OR FLUSHED ON A BIANNUAL BASIS OR AS FOUND NECESSARY.

DUST CONTROL:

1. WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR IN ORDER TO INSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
2. ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEPT ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR, OR TO THE SATISFACTION OF THE TOWN'S DEPARTMENT OF PUBLIC WORKS.
3. ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS.
4. WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL DEMONSTRATE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE CONSTRUCTION MANAGER. THIS SHALL ASSIST IN REDUCING SHORT–TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403 (FUGITIVE DUST).
6. GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH THE PROJECT NPDES AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CLIENT RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS.

NPDES REQUIREMENTS:

1. ALL CONSTRUCTION ON OFF–SITE OR ON–SITE IMPROVEMENTS SHALL ADHERE TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
2. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
3. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
4. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT–OF–WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND.
7. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT–OF–WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
8. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
9. CLEAN UP ALL SPILLS USING DRY METHODS.
10. SWEEP ALL GUTTERS AT THE END OF EACH WORKING DAY. GUTTERS SHALL BE KEPT CLEAN AFTER LEAVING CONSTRUCTION SITE.
11. CALL 911 IN CASE OF A HAZARDOUS SPILL.
12. BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA, JANUARY 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY TOWN INSPECTORS).
13. UPON SATISFACTORY COMPLETION OF THE WORK, THE ENTIRE WORK SITE SHALL BE CLEANED BY THE CONTRACTOR AND LEFT WITH A SMOOTH AND NEATLY GRADED SURFACE FREE OF CONSTRUCTION WASTE, RUBBISH, AND DEBRIS OF ANY NATURE.

SITE FENCE NOTES:

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.
2. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.
3. CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS ONLY FOR VISUAL CONFORMANCE OF THIS CONSTRUCTION SITE TO THE TOWN STANDARDS. CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES TO KEEP THE SITE SECURE AND SAFE.

GENERAL UTILITY SYSTEM NOTES :

1. ALL TRENCHES SHALL BE BACK FILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES.
2. CLEAN OUTS, CATCH BASINS AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, FLATWORK, ROOF DRAINS, AND/OR CURB LAYOUT, NOT BY THE LENGTH OF PIPE SPECIFIED IN THE DRAWINGS (WHICH IS APPROXIMATE).
3. CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (BACKFLOW PREVENTOR, SATELLITE DISH, TRANSFORMER, GAS METER, ETC.) AND MEET WITH CLIENT TO REVIEW LOCATION PRIOR TO INSTALLATION. PLANNING DEPARTMENT MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH THE INSTALLATION.
4. CONTRACTOR SHALL PREPARE AN ACCURATE COMPOSITE UTILITY PLAN THAT TAKES INTO ACCOUNT THE ACTUAL LOCATION OF EXISTING UTILITIES AS DETERMINED DURING THE DEMOLITION WORK, THE UTILITIES SHOWN ON THE CIVIL DRAWINGS, AND THE SITE POWER, CONDUITS AND LIGHTING SHOWN ON THE ELECTRICAL PLANS. THE FIRE SPRINKLER SYSTEM SHALL BE INCLUDED AS DESIGNED BY THE DESIGN/BUILD UNDERGROUND FIRE SPRINKLER CONTRACTOR.
5. CATHODIC PROTECTION MAY BE REQUIRED ON ALL METALLIC FITTINGS AND ASSEMBLIES THAT ARE IN CONTACT WITH THE SOIL, IF RECOMMENDED BY THE GEOTECHNICAL REPORT. CONTRACTOR IS RESPONSIBLE TO FULLY ENGINEER AND INSTALL THIS SYSTEM AND COORDINATE ANODE AND TEST STATION LOCATIONS WITH OWNER'S PROJECT MANAGER.
6. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES AND WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
7. UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND EXTENT BASED UPON RECORD INFORMATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CLIENT, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED.
8. CONTRACTOR SHALL VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORKS UP STREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY. CONTRACTOR SHALL VERIFY LOCATION OF SANITARY SEWER LATERAL WITH OWNER PRIOR TO CONSTRUCTION.
9. EXISTING UTILITY CROSSINGS OF NEW PIPELINE ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. GAS, WATER AND SEWER SERVICE LATERALS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE, LOCATION AND DEPTH OF ALL THE UTILITY CROSSING (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING AND SHALL PROTECT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) FROM DAMAGE DUE TO HIS OPERATION.
10. VERTICAL SEPARATION REQUIREMENTS:

    A MINIMUM OF SIX (6) INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYPICALLY INSTALLED TO CROSS ABOVE/OVER EXISTING SANITARY SEWER PIPELINES.

    WHERE NEW WATER PIPELINES ARE REQUIRED TO CROSS UNDER EXISTING AND/OR NEW SANITARY SEWER PIPELINES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12 INCHES. WATER LINE PIPE ENDS SHALL BE INSTALLED NO CLOSER THAN 10' MINIMUM HORIZONTAL DISTANCE FROM CENTERLINE OF UTILITY CROSSINGS, WHERE FEASIBLE.

11. HORIZONTAL SEPARATION REQUIREMENTS:

    A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EXISTING UTILITIES SHALL BE 5' FEET, EXCEPT THAT THE MINIMUM HORIZONTAL SEPARATION FOR WATER AND SANITARY SEWER PIPELINES SHALL BE 10' MINIMUM, UNLESS OTHERWISE NOTED.

    A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND JOINT TRENCH SHALL BE 5 FEET.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITIES AND REQUESTING VERIFICATION OF SERVICE POINTS, FIELD VERIFICATION OF LOCATION, SIZE, DEPTH, ETC. FOR ALL THEIR FACILITIES AND TO COORDINATE WORK SCHEDULES.
13. ANY EXISTING UNDERGROUND UTILITY LINES TO BE ABANDONED, SHOULD BE REMOVED FROM WITHIN THE PROPOSED BUILDING ENVELOPE AND THEIR ENDS CAPPED OUTSIDE OF THE BUILDING ENVELOPE.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL ASSUME THE CONCEPTS ON THE EROSION CONTROL PLAN, IF PROVIDED, ARE SCHEMATIC MINIMUM REQUIREMENTS, THE FULL EXTENT OF WHICH ARE TO BE DETERMINED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR THE EXACT DESIGN AND EXTENT OF THE EROSION CONTROL SYSTEM SO THAT IT WORKS WITH THE CONTRACTOR'S INTENDED USE AND MANAGEMENT OF THE CONSTRUCTION SITE.
2. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED, AS REQUIRED, AT THE CONCLUSION OF EACH WORKING DAY. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL FACILITIES AND MAKE NECESSARY REPAIRS PRIOR TO ANTICIPATED STORMS AND AT REASONABLE INTERVALS DURING STORMS OF EXTENDED DURATION. REPAIRS TO DAMAGED FACILITIES SHALL BE MADE IMMEDIATELY UPON DISCOVERY.
3. AS SOON AS PRACTICAL FOLLOWING EACH STORM, THE CONTRACTOR SHALL REMOVE ANY ACCUMULATION OF SILT OR DEBRIS FROM THE EROSION CONTROL SEDIMENT BASINS AND SHALL CLEAR THE OUTLET PIPES OF ANY BLOCKAGE.
4. STOCKPILED MATERIAL SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT MAY BE SEEDED OR PLANTED TO PROVIDE GROUND COVER.
5. PRIOR TO THE COMMENCEMENT OF ANY CLEARING, GRADING, OR EXCAVATION, THE CONTRACTOR SHALL VERIFY THAT THE CLIENT HAS SUBMITTED TO THE STATE WATER RESOURCES CONTROL BOARD A NOTICE OF INTENT (NOI) FOR COVERAGE UNDER THE STATE CONSTRUCTION STORM WATER GENERAL PERMIT, IF REQUIRED BY THE STATE. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE NOI ON THE CONSTRUCTION SITE.
6. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
7. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING OR OTHER MEASURES AS APPROPRIATE.
8. CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN, DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. DEVELOPER SHALL BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN'S RIGHT–OF–WAY IS PERMITTED.
9. ALL EROSION CONTROL MATERIALS SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS OTHERWISE NOTED.
10. PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY DRAINAGE SWALES, SILT FENCES, EARTH BERMS, STORM DRAIN INLET FILTERS AND/OR STRAW BALES USED ONLY IN CONJUNCTION WITH PROPERLY INSTALLED SILT FENCES.

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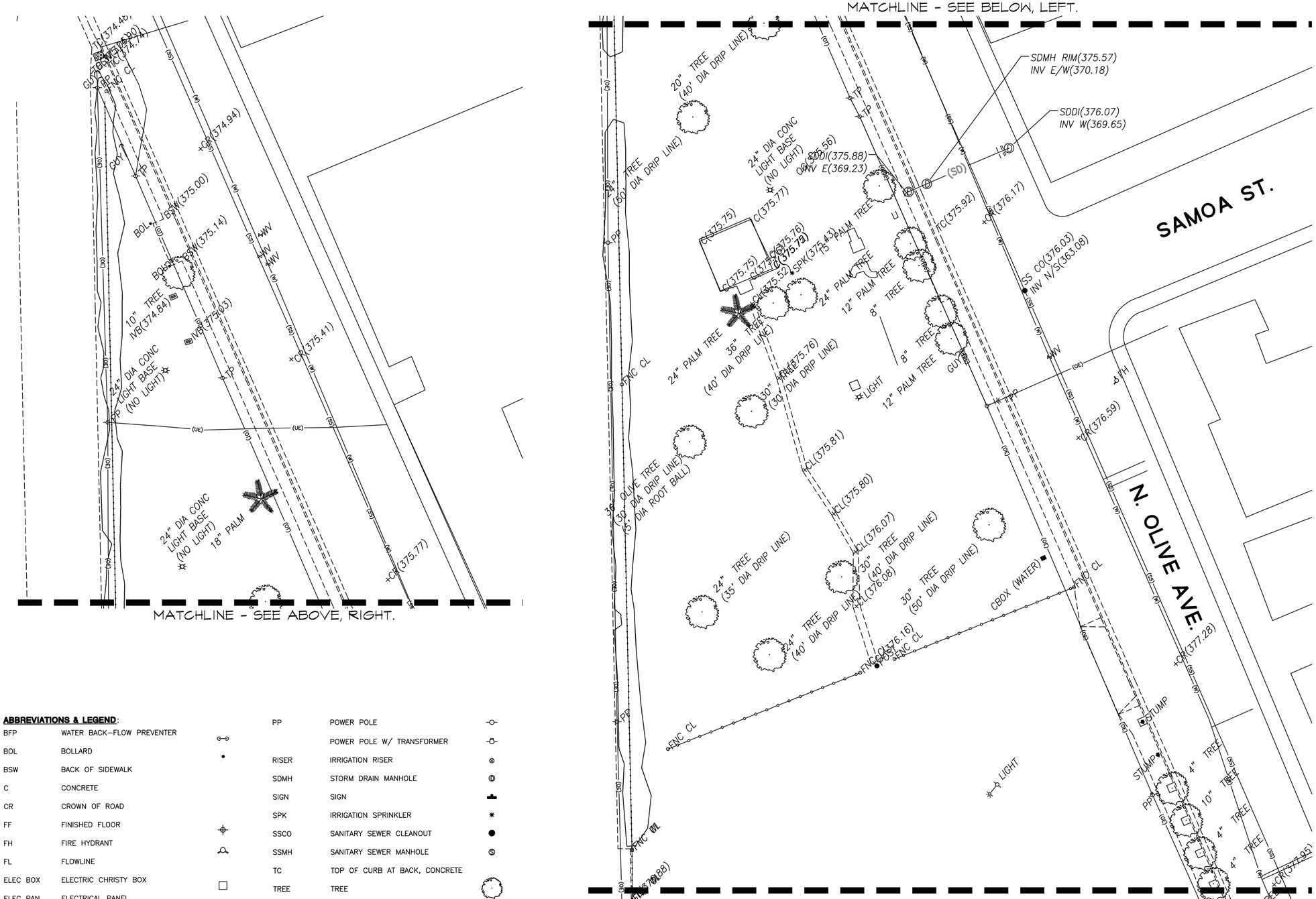
SHEET

C1.1



ABBREVIATIONS & LEGEND:

BFP	WATER BACK-FLOW PREVENTER
BOL	BOLLARD
BSW	BACK OF SIDEWALK
C	CONCRETE
CR	CROWN OF ROAD
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FL	FLOWLINE
ELEC BOX	ELECTRIC CHRISTY BOX
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BASIS OF BEARINGS & COORDINATES:

CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 4, DERIVED FROM GPS OBSERVATIONS

THE FOLLOWING CORS STATIONS WERE USED BY OPUS TO DETERMINE THE COORDINATES:

PID DP2483 CAASN SANTA BARBARA CORS ARP
PID DE6246 CMOD MODESTO COOP CORS ARP
PID DE6586 JPLM JPL MESA CORS ARP

THE EPOCH USED WAS 2010.00 AND THE GEOID WAS GEOID12B

THE COMBINED SCALE FACTOR IS 0.99995495. TO CONVERT GRID DISTANCES TO GROUND DISTANCES DIVIDE THE GRID DISTANCE BY THE COMBINED SCALE FACTOR

BENCHMARK:

CITY BENCHMARK No. 68
EAST END CURB RETURN AT
SOUTHEAST CORNER CENTRAL AND KERN
ELEV = 372.57 (NGVD)

GRAPHIC SCALE

10 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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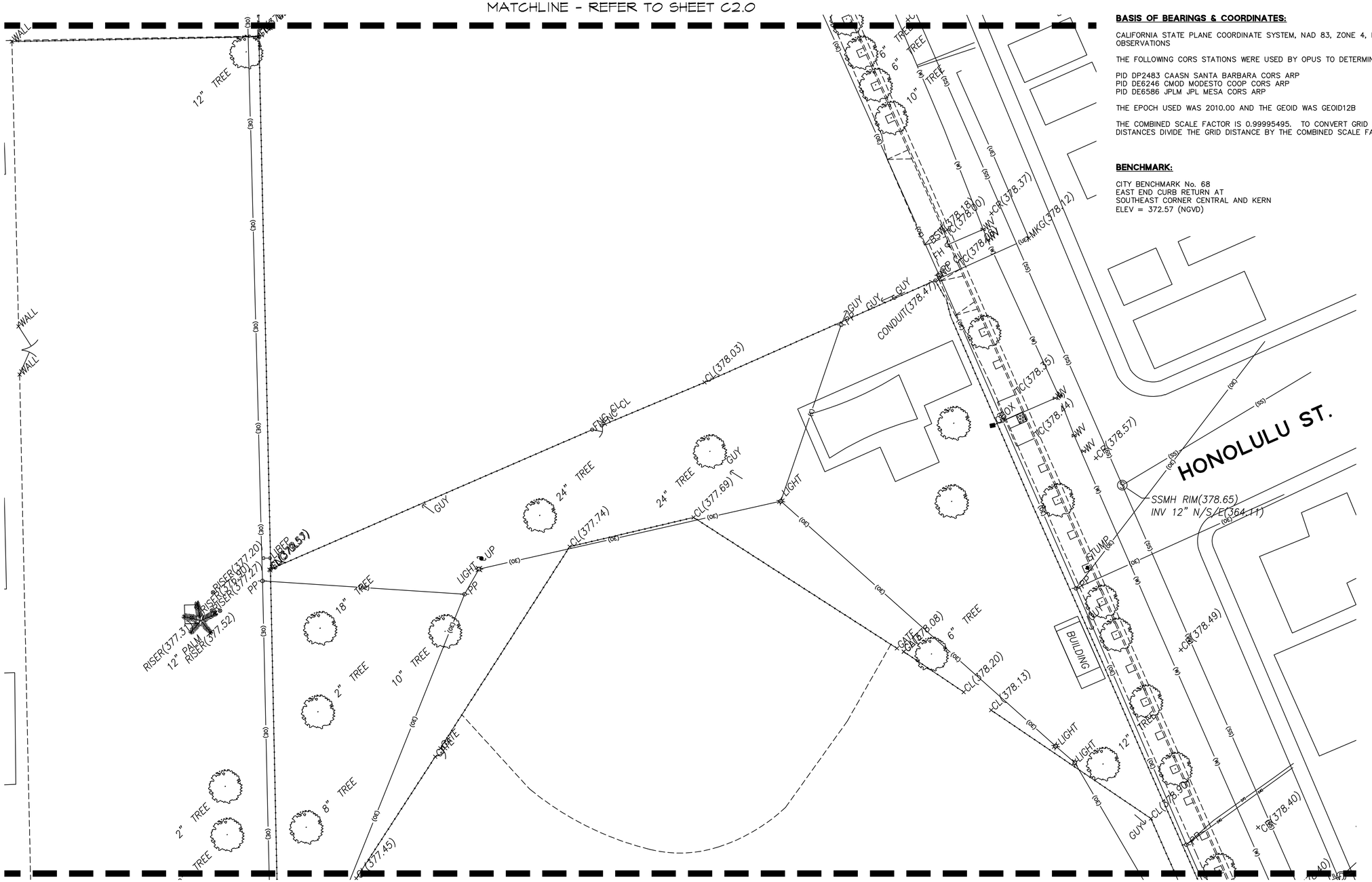
SHEET
C2.0
SHEET 5 OF 85 SHEETS

MATCHLINE - REFER TO SHEET C2.0



MATCHLINE - REFER TO SHEET C2.2

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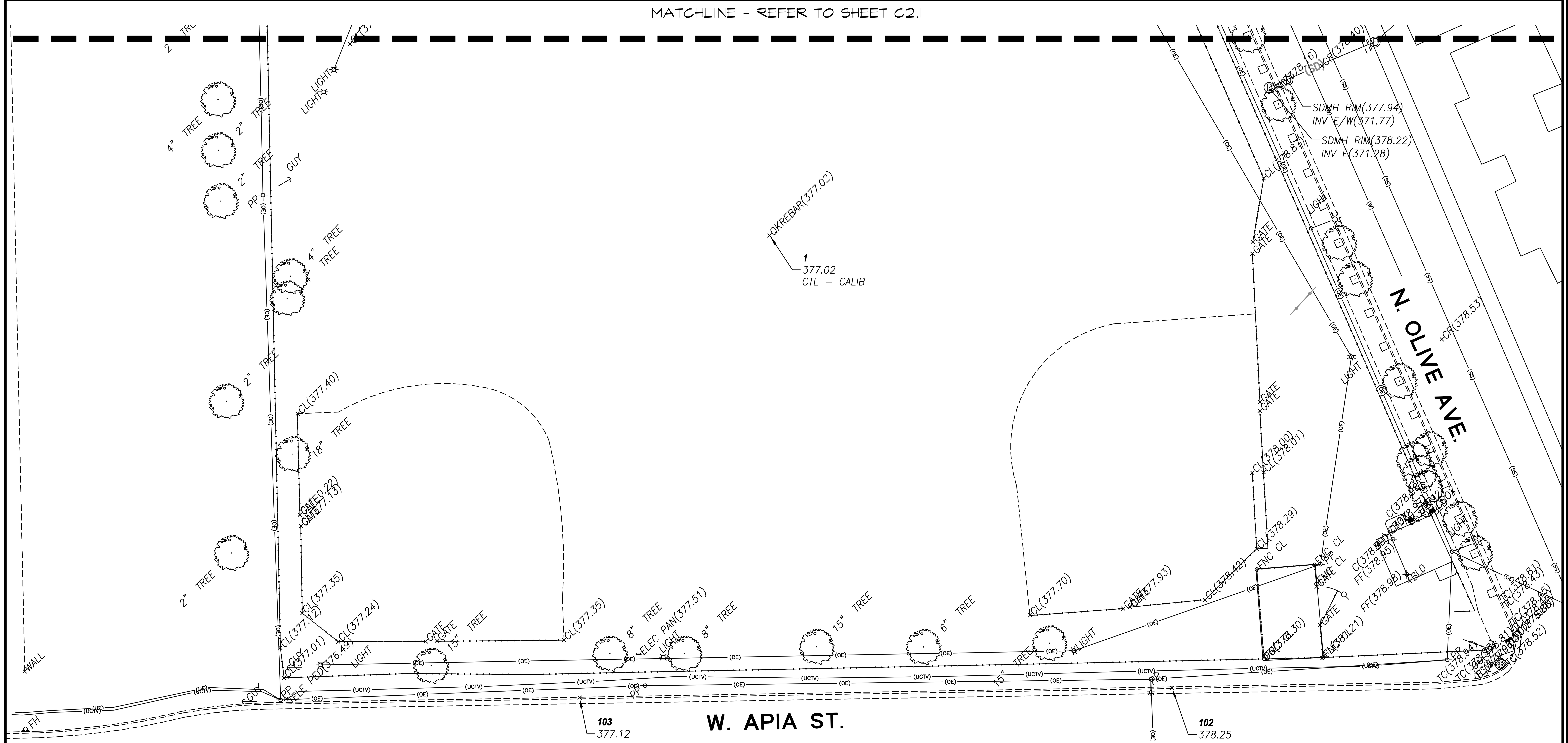

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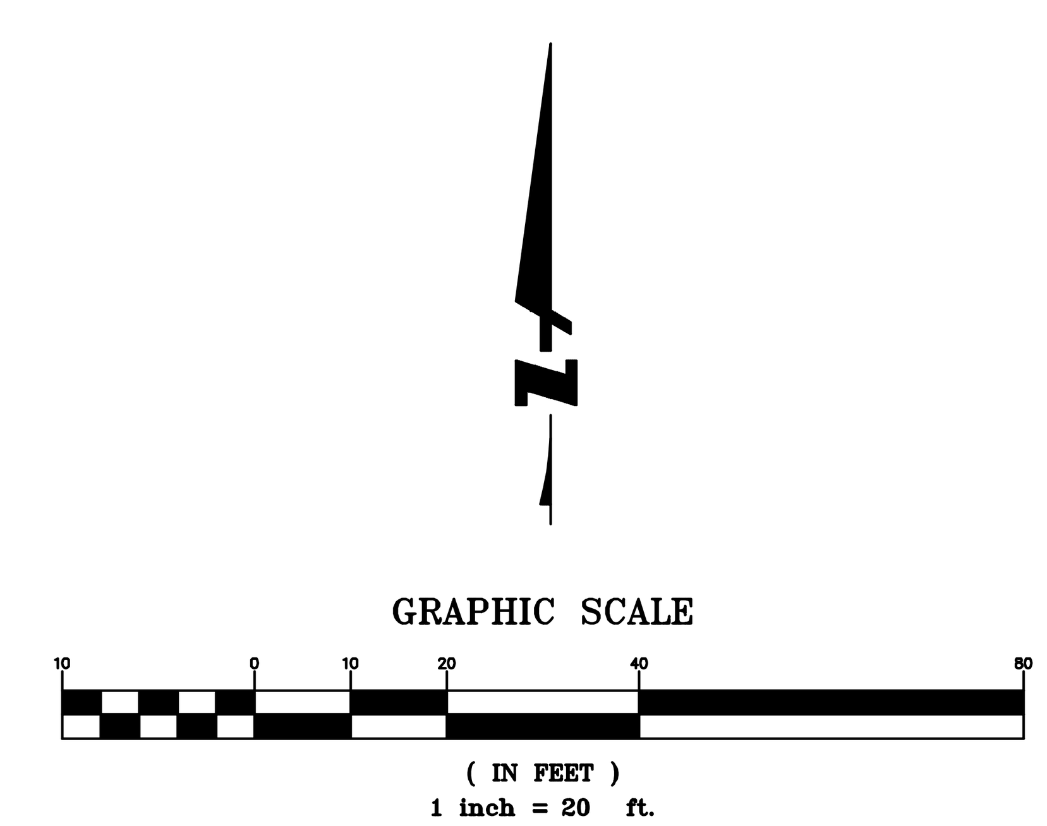

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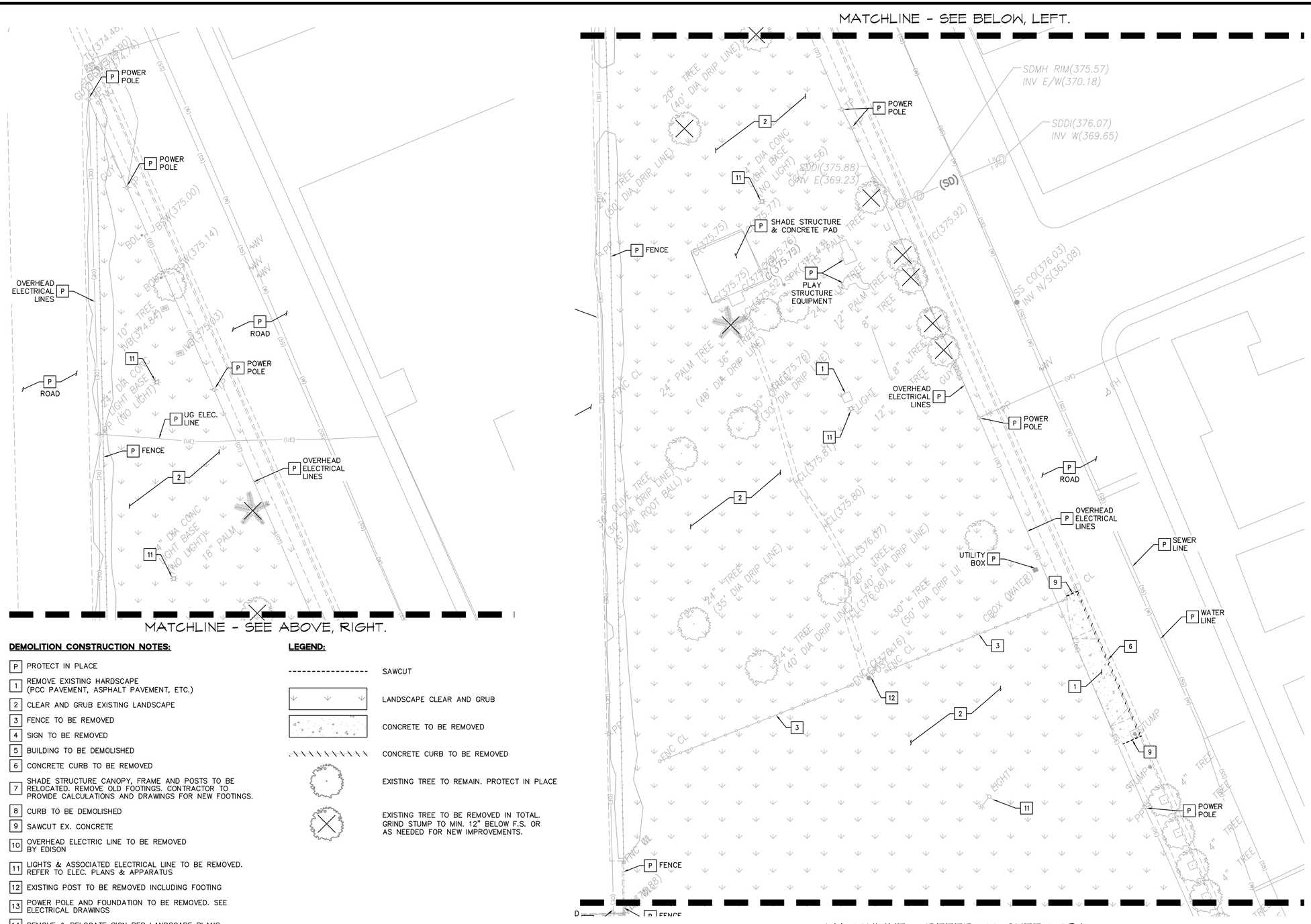

DEMOLITION CONSTRUCTION NOTES:

- P PROTECT IN PLACE
- 1 REMOVE EXISTING HARDSCAPE (PCC PAVEMENT, ASPHALT PAVEMENT, ETC.)
- 2 CLEAR AND GRUB EXISTING LANDSCAPE
- 3 FENCE TO BE REMOVED
- 4 SIGN TO BE REMOVED
- 5 BUILDING TO BE DEMOLISHED
- 6 CONCRETE CURB TO BE REMOVED
- 7 SHADE STRUCTURE CANOPY, FRAME AND POSTS TO BE RELOCATED. REMOVE OLD FOOTINGS. CONTRACTOR TO PROVIDE CALCULATIONS AND DRAWINGS FOR NEW FOOTINGS.
- 8 CURB TO BE DEMOLISHED
- 9 SAWCUT EX. CONCRETE
- 10 OVERHEAD ELECTRIC LINE TO BE REMOVED BY EDISON
- 11 LIGHTS & ASSOCIATED ELECTRICAL LINE TO BE REMOVED. REFER TO ELEC. PLANS & APPARATUS
- 12 EXISTING POST TO BE REMOVED INCLUDING FOOTING
- 13 POWER POLE AND FOUNDATION TO BE REMOVED. SEE ELECTRICAL DRAWINGS
- 14 REMOVE & RELOCATE SIGN PER LANDSCAPE PLANS

LEGEND:

- SAWCUT
- LANDSCAPE CLEAR AND GRUB
- CONCRETE TO BE REMOVED
- CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO REMAIN. PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED IN TOTAL. GRIND STUMP TO MIN. 12" BELOW F.S. OR AS NEEDED FOR NEW IMPROVEMENTS.

DEMOLITION NOTES:

1. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
4. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.
5. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
6. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR THE OWNER'S REPRESENTATIVE.
7. THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK AS SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUALITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.
8. REFER TO ELECTRICAL PLANS FOR ADDITIONAL EXISTING ELECTRICAL REMOVALS AND NOTES

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

DEMOLITION PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

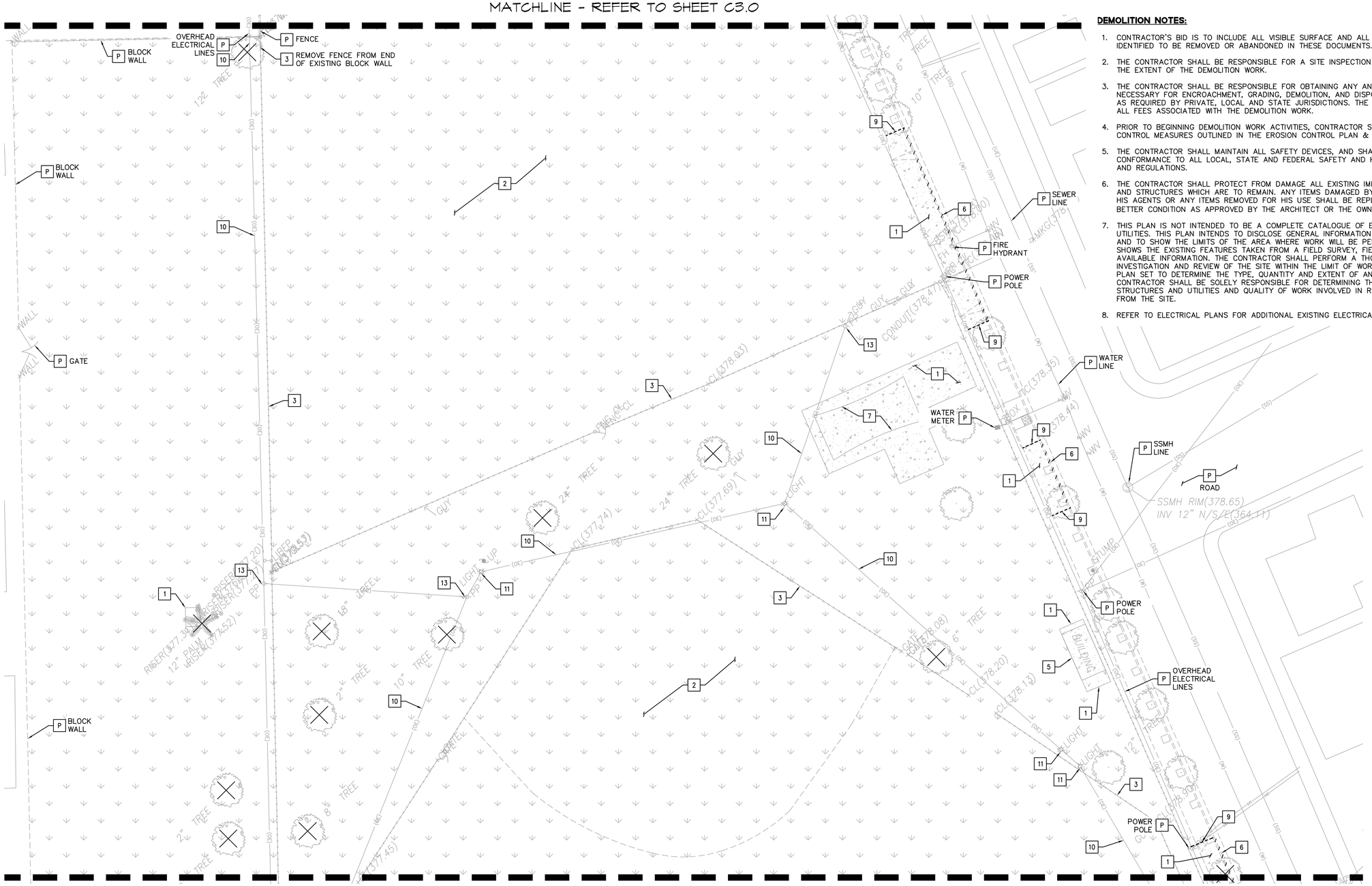
STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C3.0
SHEET 8 OF 85 SHEETS

MATCHLINE - REFER TO SHEET C3.0



MATCHLINE - REFER TO SHEET C3.2

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3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
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- 2 CLEAR AND GRUB EXISTING LANDSCAPE
- 3 FENCE TO BE REMOVED
- 4 SIGN TO BE REMOVED
- 5 BUILDING TO BE DEMOLISHED
- 6 CONCRETE CURB TO BE REMOVED
- 7 SHADE STRUCTURE CANOPY, FRAME AND POSTS TO BE RELOCATED. REMOVE OLD FOOTINGS. CONTRACTOR TO PROVIDE CALCULATIONS AND DRAWINGS FOR NEW FOOTIN
- 8 CURB TO BE DEMOLISHED
- 9 SAWCUT EX. CONCRETE
- 10 OVERHEAD ELECTRIC LINE TO BE REMOVED BY EDISON
- 11 LIGHTS & ASSOCIATED ELECTRICAL LINE TO BE REMOVED REFER TO ELEC. PLANS & APPARATUS
- 12 EXISTING POST TO BE REMOVED INCLUDING FOOTING
- 13 POWER POLE AND FOUNDATION TO BE REMOVED. SEE ELECTRICAL DRAWINGS
- 14 REMOVE & RELOCATE SIGN PER LANDSCAPE PLANS

LEGEND:

- SAWCUT
- LANDSCAPE CLEAR AND GRUB
- CONCRETE TO BE REMOVED
- CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO REMAIN. PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED IN TOTAL. GRIND STUMP TO MIN. 12" BELOW F.S. OR AS NEEDED FOR NEW IMPROVEMENTS.

GRAPHIC SCALE

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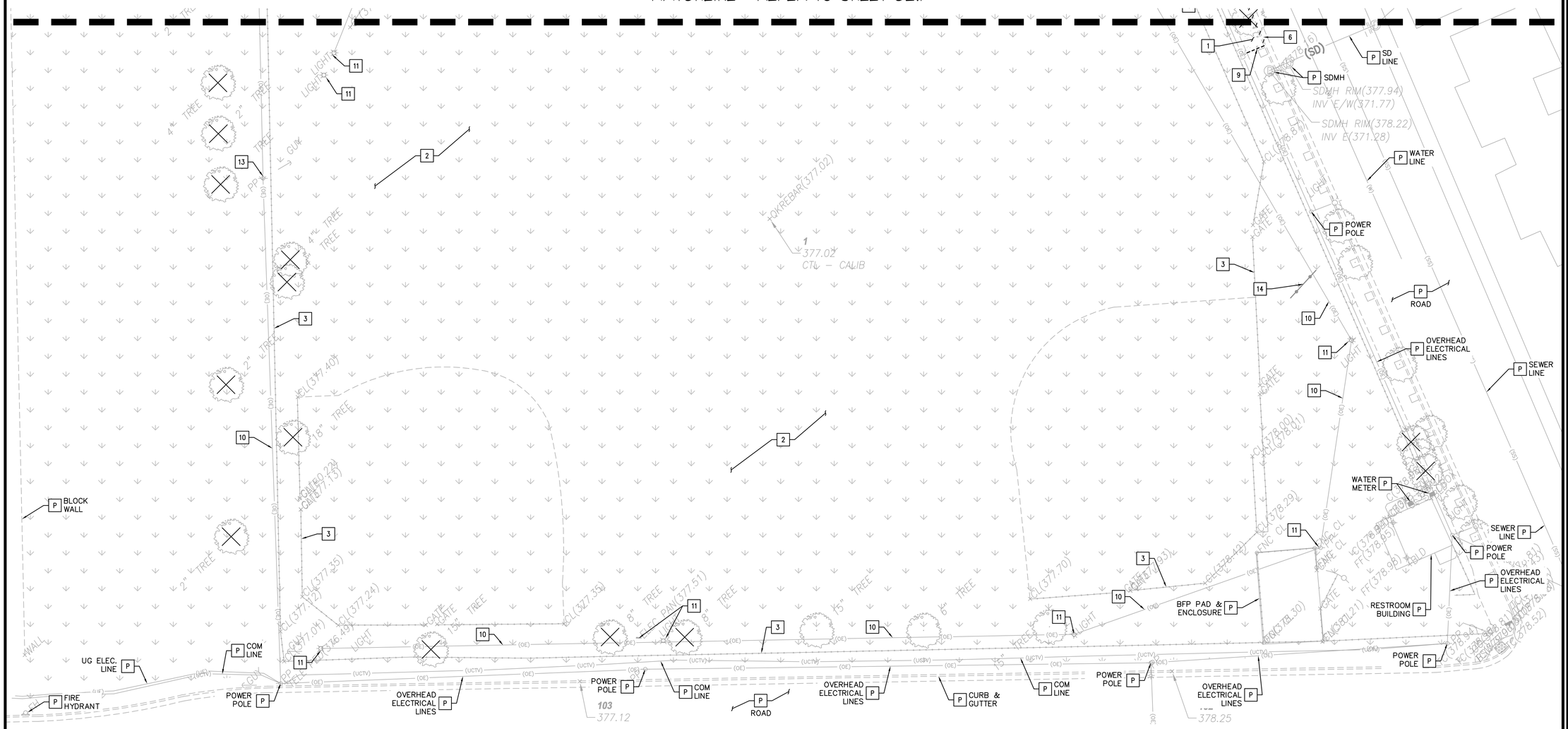
V.L.	05500.00

SHEET
C3.1
SHEET 9 OF 85 SHEETS



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SPOHN RANCH

OLIVE BOWL
KAKU
PARK

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DEMOLITION PLAN

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REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C3.2
SHEET 10 OF 85 SHEETS

LEGEND:

- MATCH LINE
- FENCE
- FENCE (ADD ALTERNATIVE 6' BLOCK WALL)
- AC PAVEMENT
- STABILIZED DECOMPOSED GRANITE
- PEDESTRIAN CONCRETE
- RUBBERIZED SURFACE
- GENERAL TURF
- HEAVY DUTY CONCRETE
- BIO-FILTRATION BASIN
- PLAY FIELD
- BUILDING
- PLANTING AREA
- AC PAVEMENT (ADD ALTERNATIVE 7" CONCRETE)
- STABILIZED DECOMPOSED GRANITE (ADD ALTERNATIVE 4" CONCRETE)

CONSTRUCTION NOTES:

1. JOIN EXISTING PAVEMENT
2. CONSTRUCT CURB & GUTTER PER DETAIL 8/C8.0
3. CONSTRUCT AC PAVEMENT PER DETAIL 2/C8.0
4. CONSTRUCT STABILIZED DECOMPOSED GRANITE PER LANDSCAPE PLANS
5. CONSTRUCT FIELD PER LANDSCAPE DRAWINGS
6. CONSTRUCT CURB RAMP PER DETAIL 2 (CASE A)/C8.1
7. CONSTRUCT ACCESSIBLE STALL AND MARKINGS PER DETAIL 5/C8.0
8. CONSTRUCT CURB INLET PER DETAIL 6/C8.0
9. PAINT 4" WIDE PARKING STALL STRIPE. COLOR PER LANDSCAPE PLANS.
10. CONSTRUCT DRIVEWAY PER DETAIL 1/C8.0
11. CONSTRUCT STORM DRAIN INLET PER DETAIL 4/C8.0
12. LANDSCAPING PER LANDSCAPE PLANS
13. WOODCHIP SURFACE MATERIAL PER LANDSCAPE PLANS
14. RUBBERIZED RAMP PER LANDSCAPE PLANS
15. TRASH ENCLOSURE PER CITY STANDARD MI-1
16. CONSTRUCT CURB PER DETAIL 1/C8.1
17. CONSTRUCT CMU WALL TO MATCH EXISTING
18. CONSTRUCT MOW CURB PER LANDSCAPE PLANS
19. PROPOSED RESTROOM/CONCESSION BUILDING PER LANDSCAPE PLANS
20. PROPOSED BIO-FILTRATION BASIN PER GRADING PLAN
21. RELOCATED SIGN, SEE LANDSCAPE PLANS
22. CONSTRUCT STORM DRAIN MANHOLE PER DETAIL 5/C8.1
23. CONSTRUCT CONCRETE PAVEMENT PER LANDSCAPE DRAWINGS
24. CONSTRUCT PLAY AREA CURB PER LANDSCAPE DRAWINGS

NOTES:

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4. SEE ARCHITECTURAL FLOOR PLANS FOR ALL BUILDING DIMENSIONS.

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SITE IMPROVEMENT PLAN

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No. C 42393
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STATE OF CALIFORNIA

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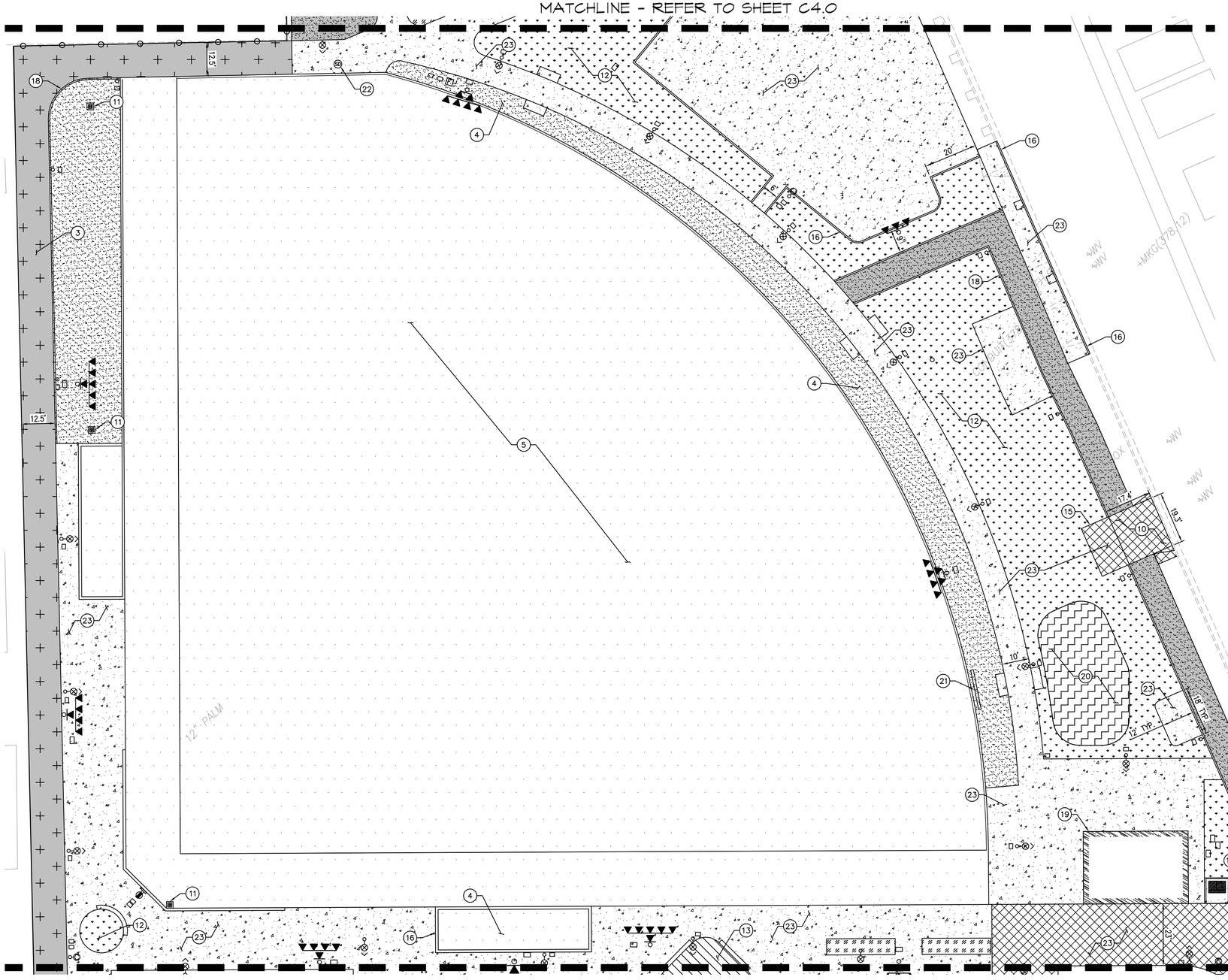
V.L.	05500.00

SHEET
C4.0
SHEET 11 OF 85 SHEETS



LEGEND:

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N

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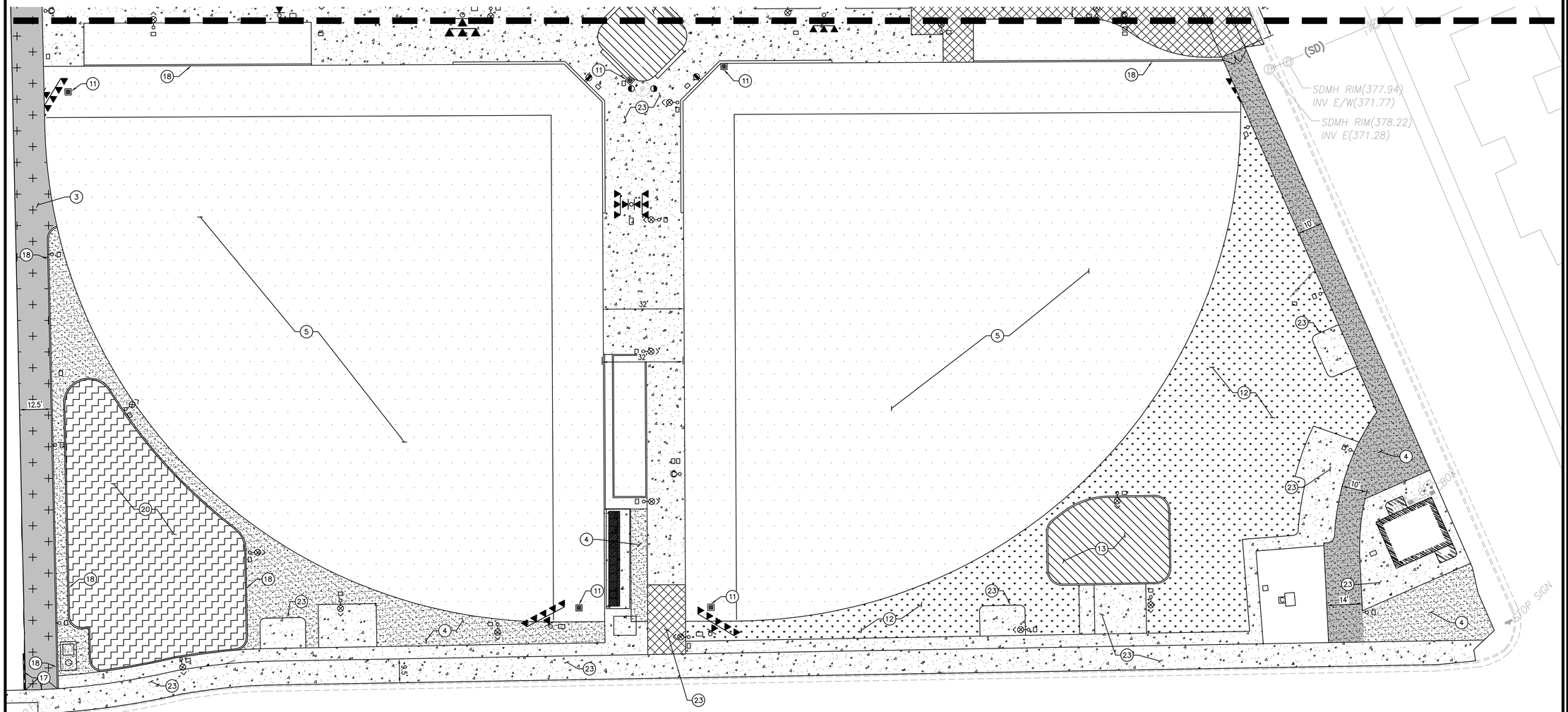
NO. C 42383
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C4.1
SHEET 12 OF 85 SHEETS



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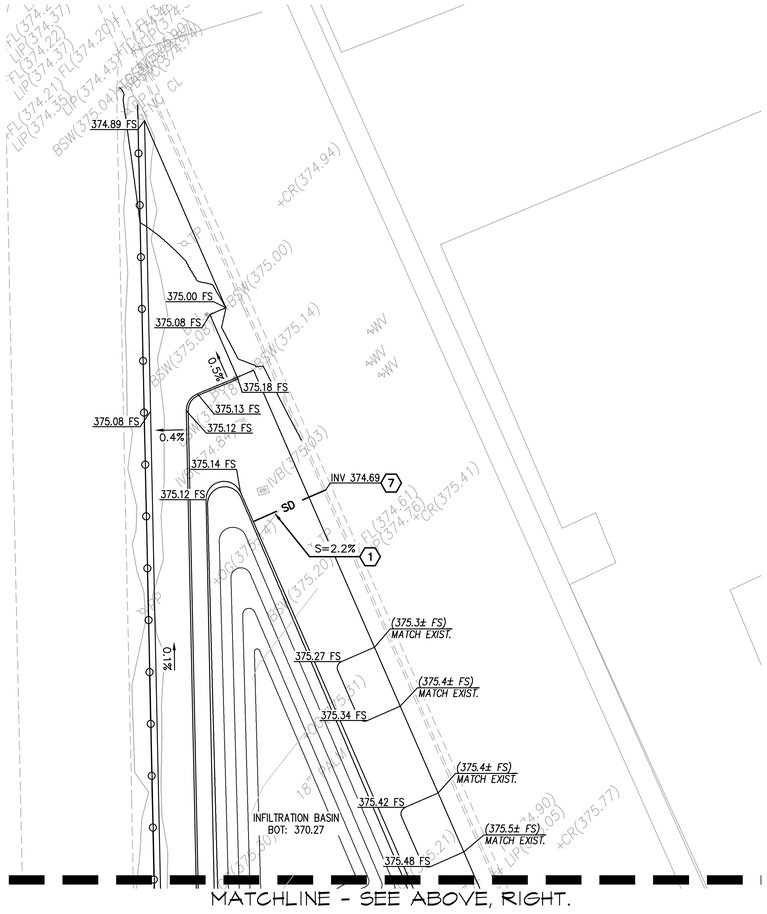
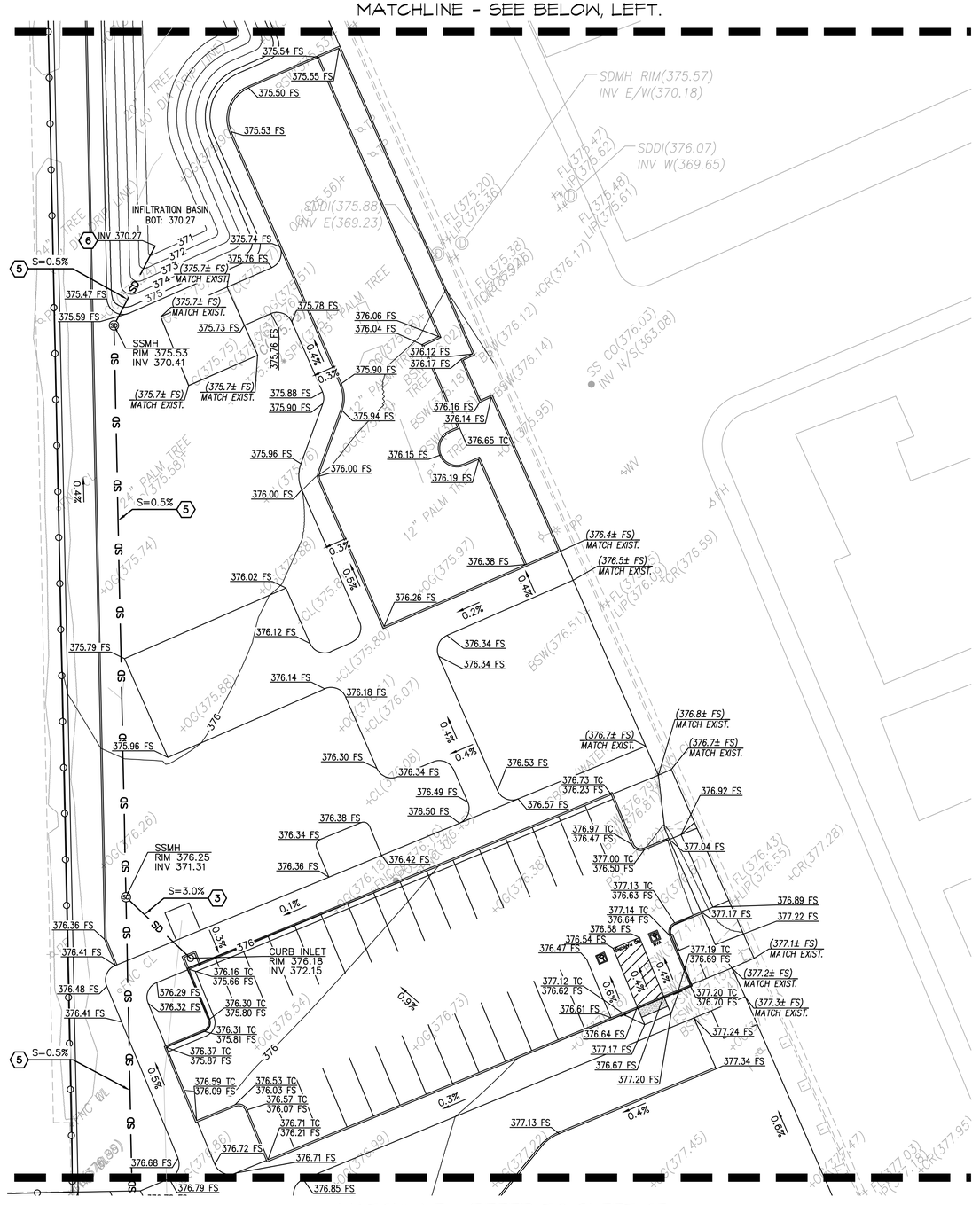
SHEET
C4.2
SHEET 13 OF 85 SHEETS





LEGEND:

BKF LIMIT OF WORK	
MATCH LINE	
GB	GRADE BREAK
XXX	EXISTING CONTOUR LINE
XXX	PROPOSED CONTOUR LINE
XXX.XX FS	PROPOSED GRADE ELEVATION
X.X%	PROPOSED GRADE SLOPE
	UTILITY MANHOLE
	UTILITY CLEAN OUT
	STORM DRAIN CURB INLET
	STORM DRAIN AREA DRAIN
	STORM DRAIN DROP INLET
SD	PROPOSED STORM DRAIN LINE

NOTES:

1. ALL DESIGN ELEVATIONS SHOWN ON THE GRADING SHEETS ARE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.
2. ALL EXISTING UTILITY STRUCTURES WITHIN GRADING LIMITS SHALL BE ADJUSTED TO NEW PROPOSED GRADES.
3. GRADING SHALL NOT EXCEED A 4:1 MAXIMUM SLOPE.
4. SEE LANDSCAPE PLANS FOR PAD ELEVATION

CONSTRUCTION NOTES:

1. INSTALL 3" SDR35 PVC PIPE AND FITTINGS
2. INSTALL 6" SDR35 PVE PIPE AND FITTINGS
3. INSTALL 10" SDR35 PVC PIPE AND FITTINGS
4. INSTALL 12" SDR35 PVC PIPE AND FITTINGS
5. INSTALL 15" SDR35 PVC PIPE AND FITTINGS
6. INSTALL MITERED DRAIN PER DETAIL 3, SHEET C8.1
7. INSTALL CURB DRAIN PER DETAIL 6, SHEET C8.1
   USE THE CENTERLINE OF DETAIL AT THIS LOCATION.

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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PROJECT TEAM:
LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.
ELECTRICAL ENGINEER
LRA ENGINEERS
CIVIL ENGINEER
BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

GRADING & DRAINAGE PLAN

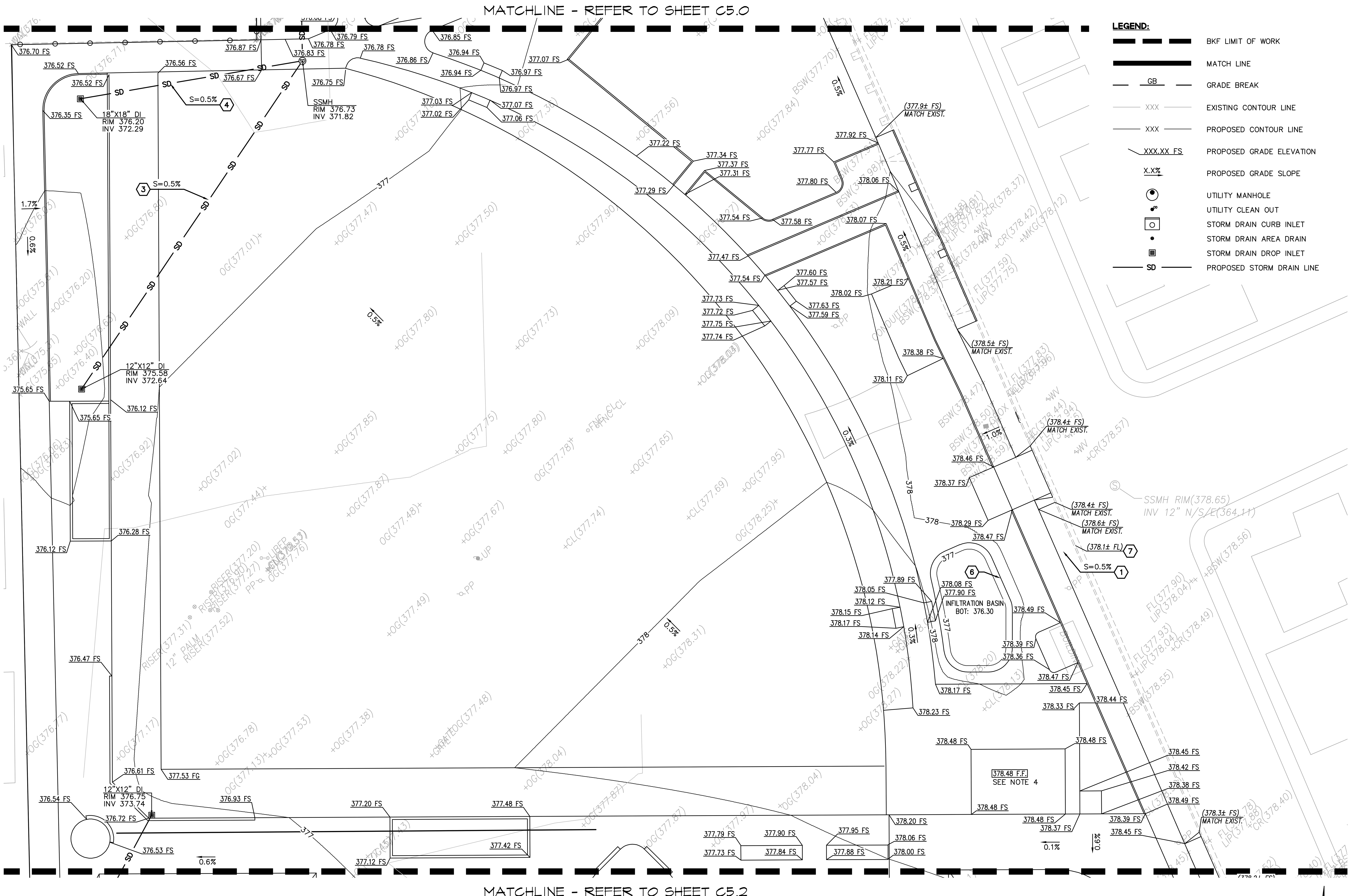
DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42353
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C5.0
SHEET 14 OF 85 SHEETS



LEGEND:

- BKF LIMIT OF WORK
- MATCH LINE
- GB — GRADE BREAK
- XXX — EXISTING CONTOUR LINE
- XXX — PROPOSED CONTOUR LINE
- XXX.XX FS — PROPOSED GRADE ELEVATION
- X.X% — PROPOSED GRADE SLOPE
- UTILITY MANHOLE
- UTILITY CLEAN OUT
- STORM DRAIN CURB INLET
- STORM DRAIN AREA DRAIN
- STORM DRAIN DROP INLET
- SD — PROPOSED STORM DRAIN LINE

NOTES:

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3. GRADING SHALL NOT EXCEED A 4:1 MAXIMUM SLOPE.
4. SEE LANDSCAPE PLANS FOR PAD ELEVATION

CONSTRUCTION NOTES:

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GRAPHIC SCALE

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

GRADING & DRAINAGE PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

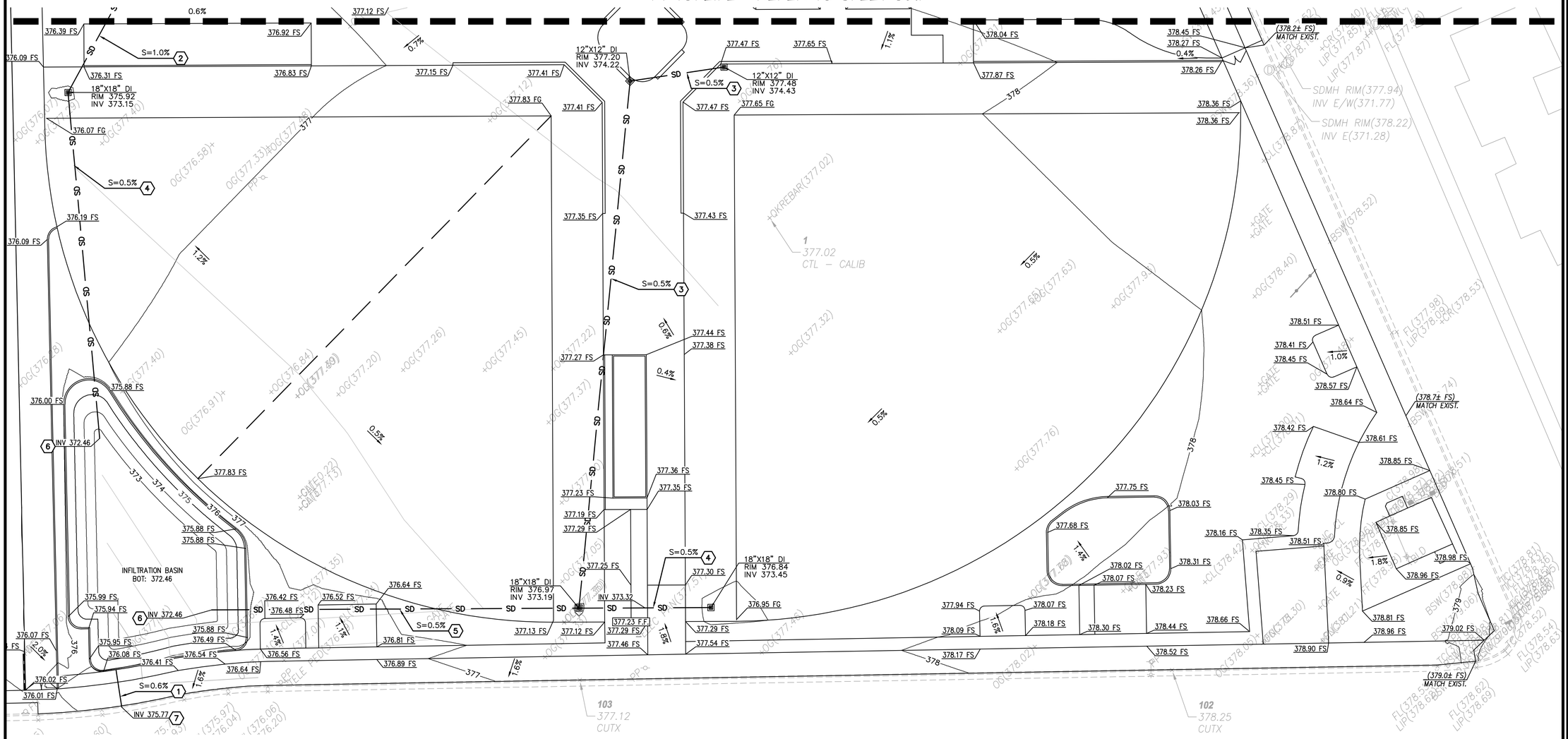
REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET

C5.1

MATCHLINE - REFER TO SHEET C5.1



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CONSTRUCTION NOTES:

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7. INSTALL CURB DRAIN PER DETAIL 6, SHEET C8.1 USE THE CENTERLINE OF DETAIL AT THIS LOCATION.

N

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
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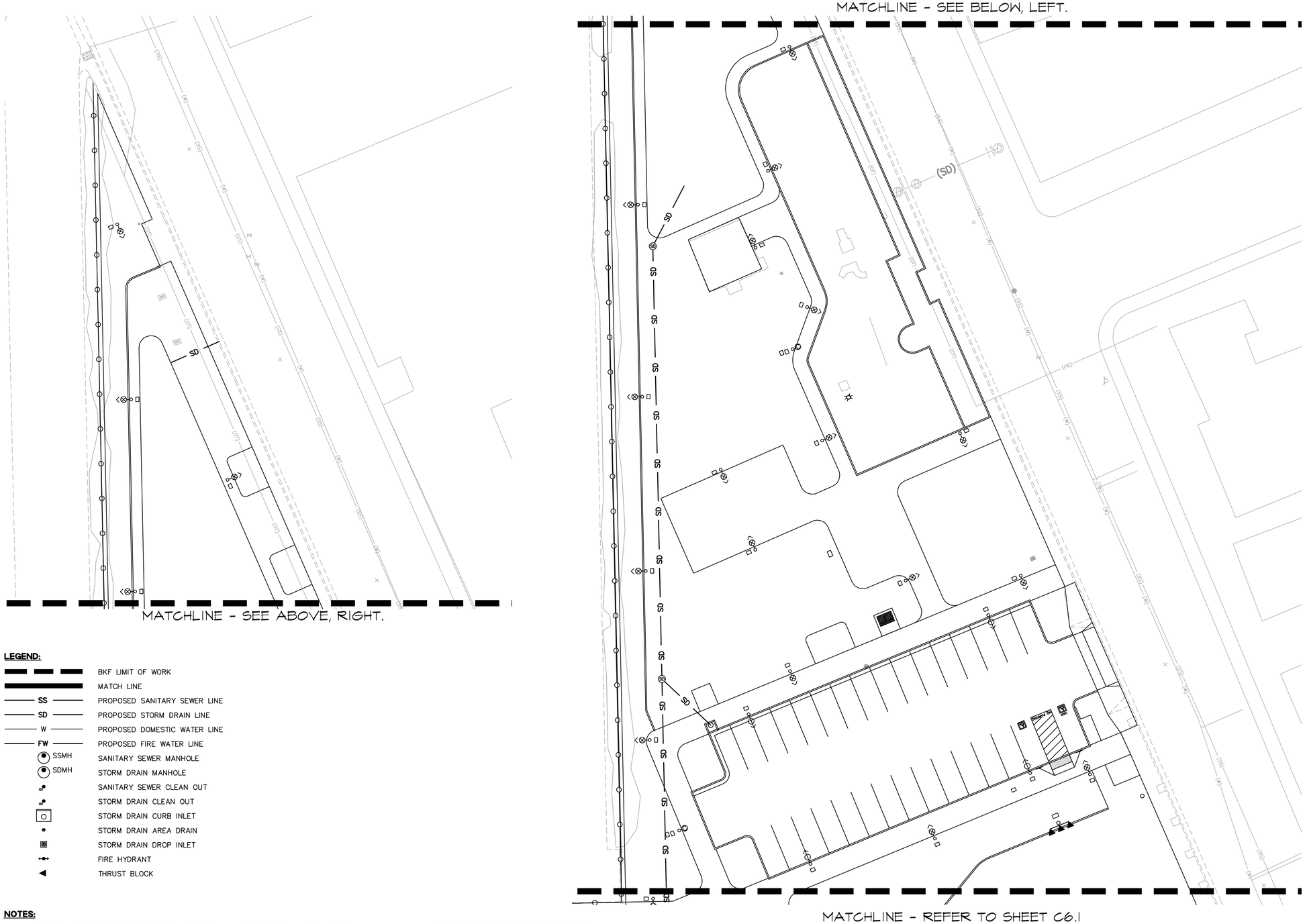
SHEET

C5.2

SHEET 16 OF 85 SHEETS



LEGEND:

- BKF LIMIT OF WORK
- MATCH LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- W — PROPOSED DOMESTIC WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SSMH — SANITARY SEWER MANHOLE
- SDMH — STORM DRAIN MANHOLE
- SANITARY SEWER CLEAN OUT
- STORM DRAIN CLEAN OUT
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- FIRE HYDRANT
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NOTES:

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2. CONTRACTOR SHALL VERIFY ALL EX INV ELEVATIONS AND LATERAL LOCATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT, AND WORKS UPSTREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY.
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   A MIN OF 6 INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MIN VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYP INSTALLED TO CROSS ABOVE/OVER EX SANITARY SEWER PIPELINES.

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(IN FEET)
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LINDSAY, CA
93247

UTILITY PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

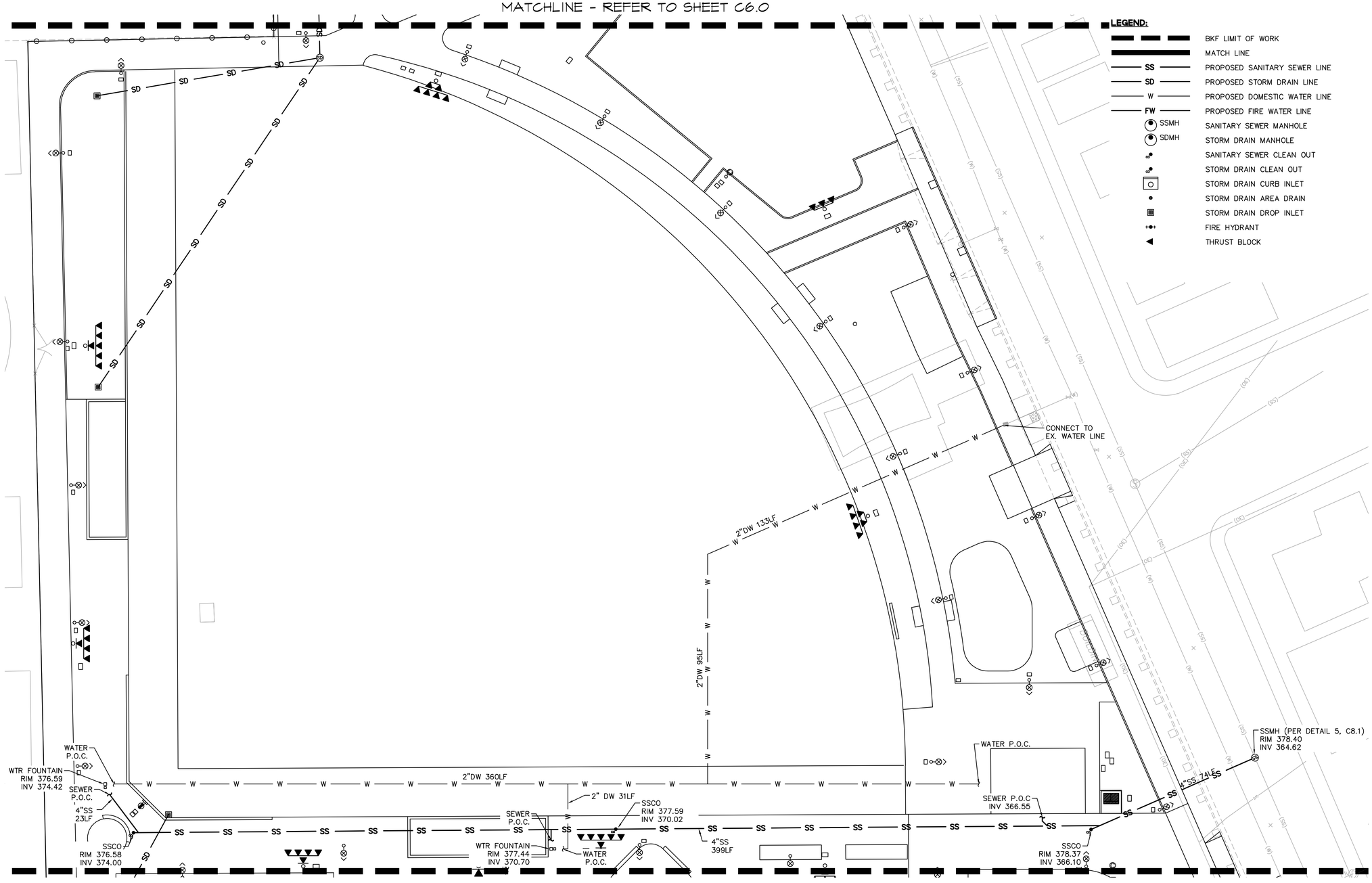
REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
NO. C 42383
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET

C6.0

SHEET 17 OF 85 SHEETS



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10 0 10 20 40 80

(IN FEET)
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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

UTILITY PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
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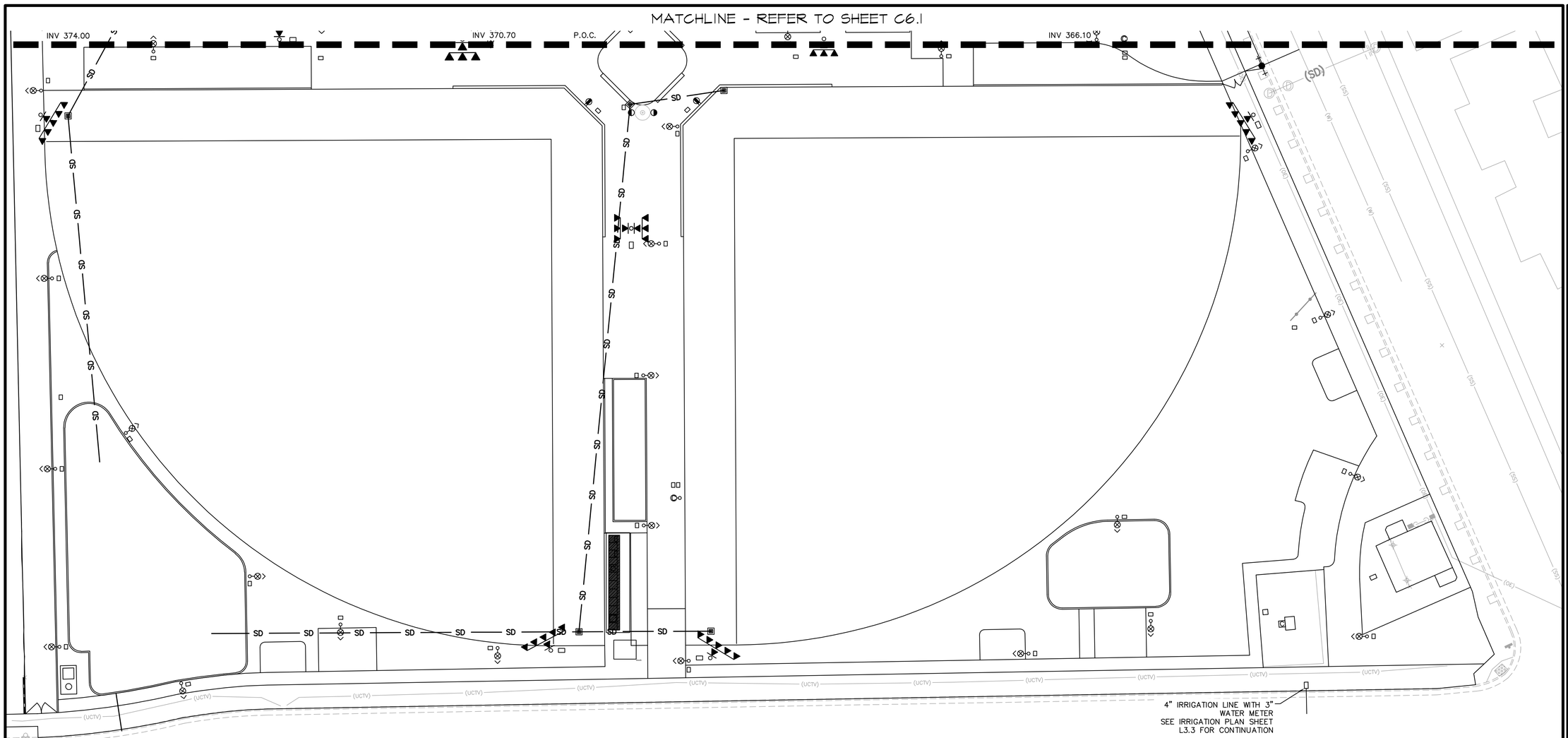
STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C6.1
SHEET 18 OF 85 SHEETS



LEGEND:

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UTILITY PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
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REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42395
CIVIL
STATE OF CALIFORNIA

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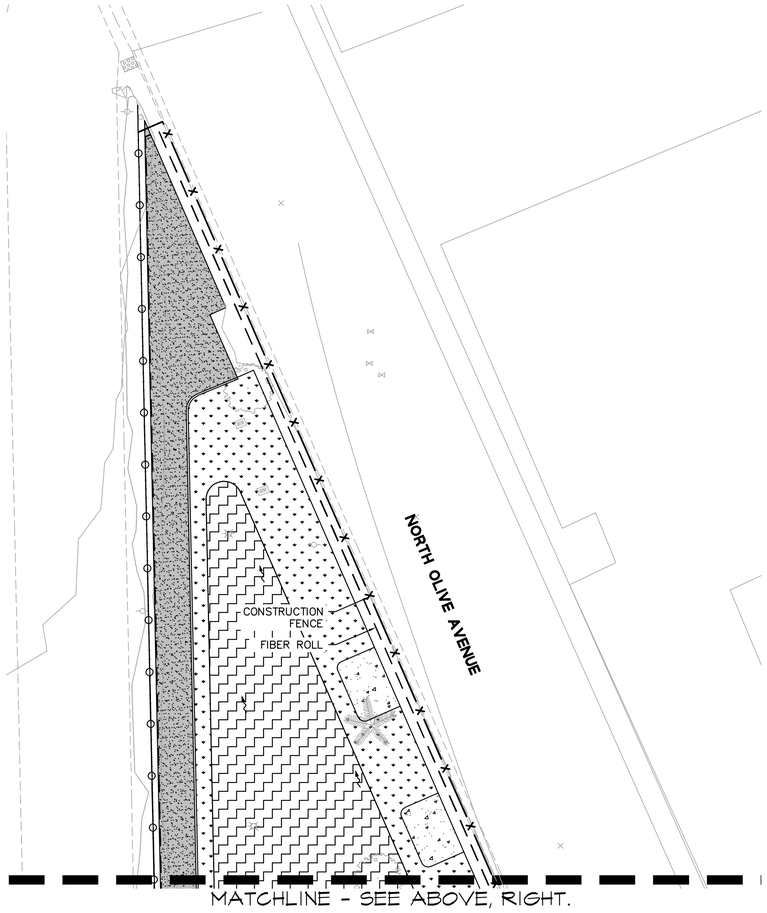
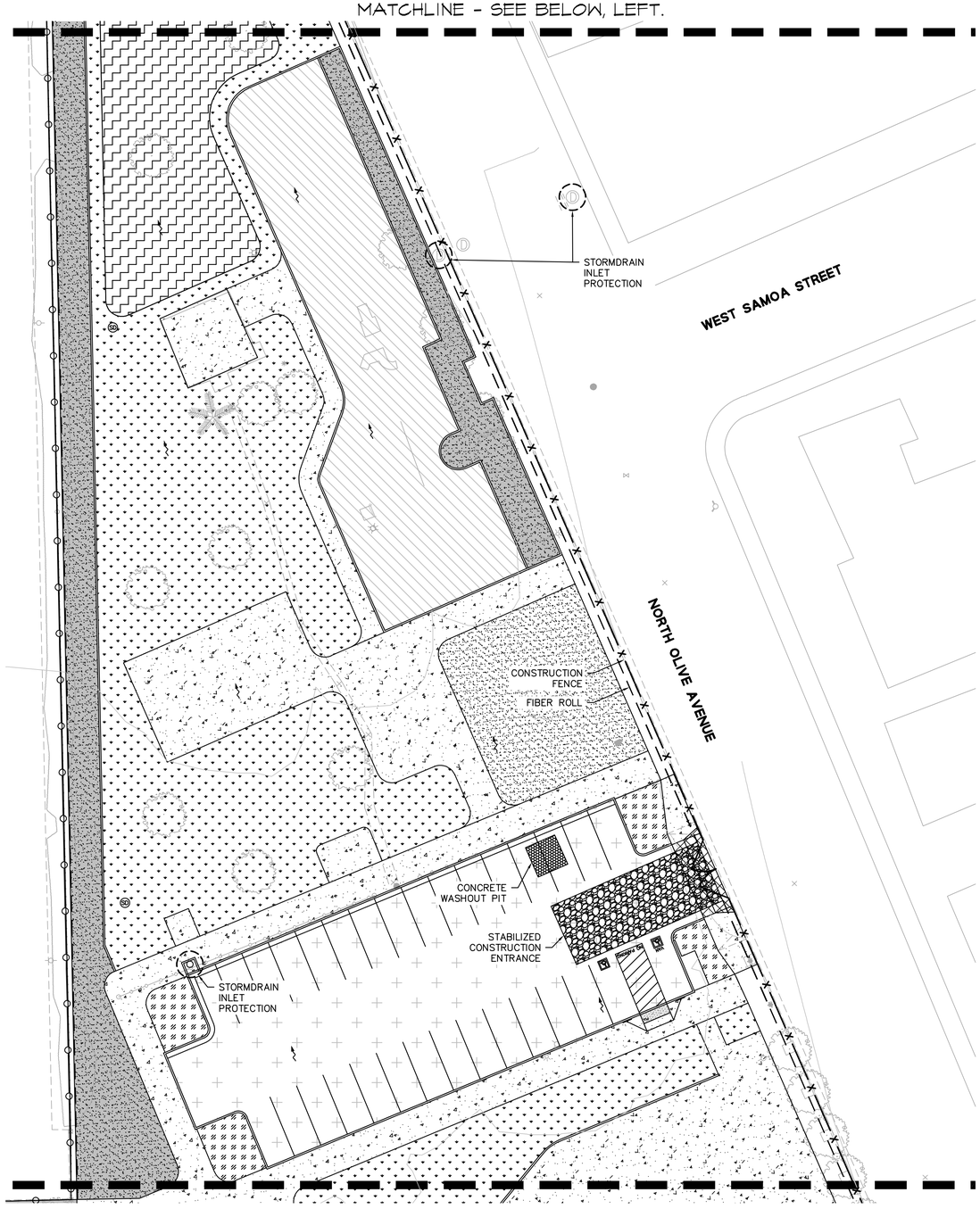
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C6.2
SHEET 19 OF 85 SHEETS





LEGEND:

- FIBER ROLL (SE-5)
- CONSTRUCTION FENCE TO BE PLACED BY CONTRACTOR
- STORM DRAIN INLET PROTECTION (SE-10)
- STABILIZED CONSTRUCTION ENTRANCE (TC-1). LOCATION VARIES BY CONTRACTOR.
- CONCRETE WASHOUT PIT (NS-8). LOCATION VARIES BY CONTRACTOR.

NOTES:

1. SITE ACCESS SHOWN ON THIS PLAN IS PROVIDED FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL LOCATE CONSTRUCTION ACCESS DRIVEWAYS AS NECESSARY.
2. LOCATION OF CONSTRUCTION FENCING SHOWN ON THIS PLAN IS APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE SITE AND INSTALLING NEW CONSTRUCTION FENCING AS NECESSARY.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN EFFECT AND MAINTAINED BY THE CONTRACTOR ON A YEAR-ROUND BASIS UNTIL ALL DISTURBED AREAS ARE STABILIZED UNLESS OTHERWISE PERMITTED BY THE COUNTY INSPECTOR.
4. ALL INLETS RECEIVING STORM WATER RUNOFF FROM THE PROJECT AREA MUST BE EQUIPPED WITH REQUIRED INLET PROTECTION.
5. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO TO MINIMIZE SEDIMENT LADEN RUNOFF ENTERING THE STORM DRAIN SYSTEM.
6. STOCKPILED EARTHEN MATERIAL SHALL BE EITHER COVERED WITH A TARP OR WATERED SUFFICIENTLY TO ELIMINATE DUST.
7. CONSTRUCTION AREAS SHOWN ARE CONCEPTUAL. ACTUAL PLACEMENT TO BE DETERMINED BY CONTRACTOR BASED ON CURRENT BEST MANAGEMENT PRACTICES. CONTRACTOR SHALL SUBMIT A CONSTRUCTION STAGING PLAN.

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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EROSION CONTROL PLAN

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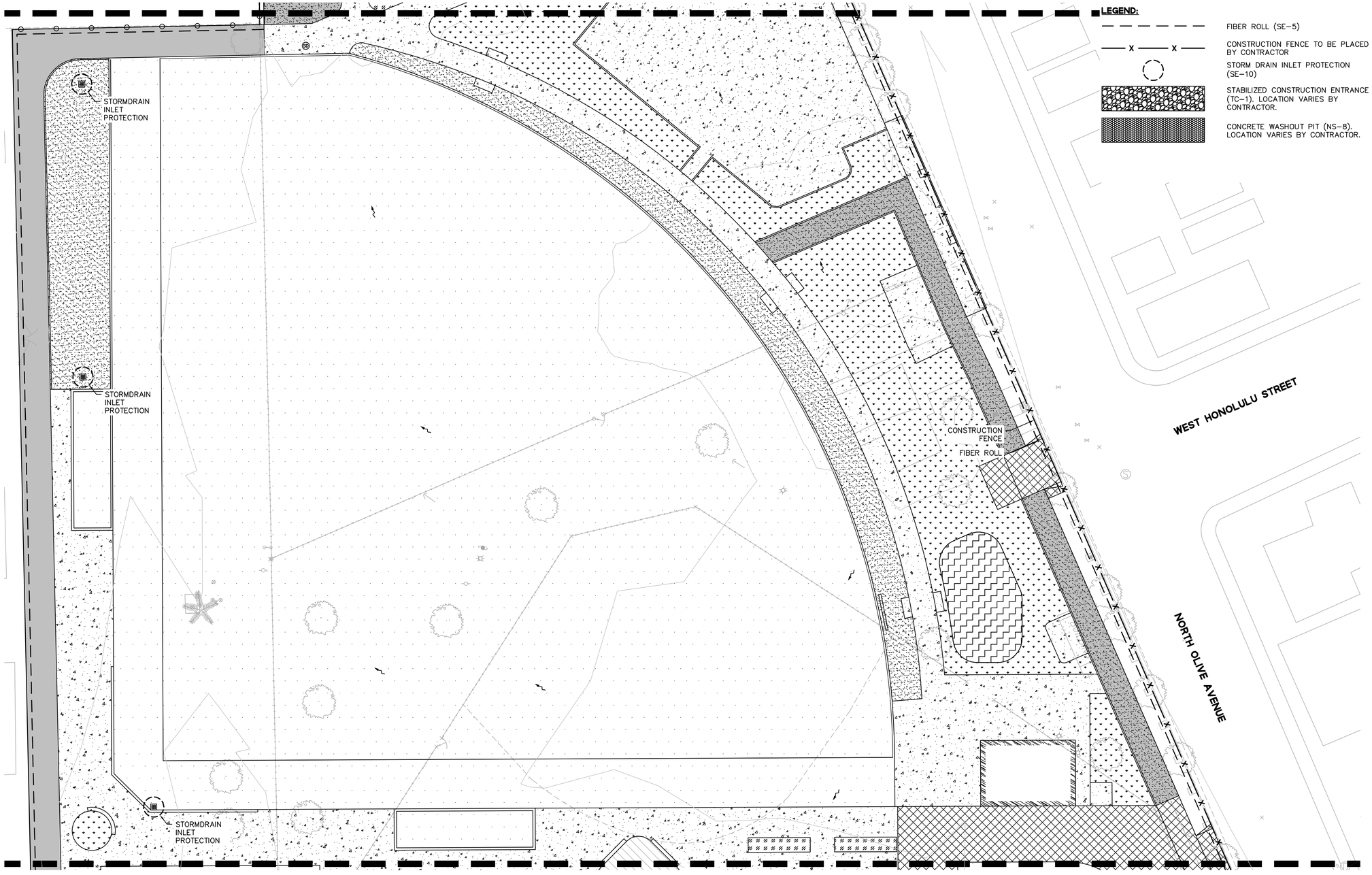
SHEET
C7.0
SHEET 20 OF 85 SHEETS

MATCHLINE - REFER TO SHEET C7.0



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- STORM DRAIN INLET PROTECTION (SE-10)
- STABILIZED CONSTRUCTION ENTRANCE (TC-1). LOCATION VARIES BY CONTRACTOR.
- CONCRETE WASHOUT PIT (NS-8). LOCATION VARIES BY CONTRACTOR.

MATCHLINE - REFER TO SHEET C7.2

NOTES:

1. SITE ACCESS SHOWN ON THIS PLAN IS PROVIDED FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL LOCATE CONSTRUCTION ACCESS DRIVEWAYS AS NECESSARY.
2. LOCATION OF CONSTRUCTION FENCING SHOWN ON THIS PLAN IS APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE SITE AND INSTALLING NEW CONSTRUCTION FENCING AS NECESSARY.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN EFFECT AND MAINTAINED BY THE CONTRACTOR ON A YEAR-ROUND BASIS UNTIL ALL DISTURBED AREAS ARE STABILIZED UNLESS OTHERWISE PERMITTED BY THE COUNTY INSPECTOR.
4. ALL INLETS RECEIVING STORM WATER RUNOFF FROM THE PROJECT AREA MUST BE EQUIPPED WITH REQUIRED INLET PROTECTION.
5. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO TO MINIMIZE SEDIMENT LADEN RUNOFF ENTERING THE STORM DRAIN SYSTEM.
6. STOCKPILED EARTHEN MATERIAL SHALL BE EITHER COVERED WITH A TARP OR WATERED SUFFICIENTLY TO ELIMINATE DUST.
7. CONSTRUCTION AREAS SHOWN ARE CONCEPTUAL. ACTUAL PLACEMENT TO BE DETERMINED BY CONTRACTOR BASED ON CURRENT BEST MANAGEMENT PRACTICES. CONTRACTOR SHALL SUBMIT A CONSTRUCTION STAGING PLAN.

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

MIG
109 W. UNION AVE.
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CONSULTANT:

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PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

EROSION CONTROL PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

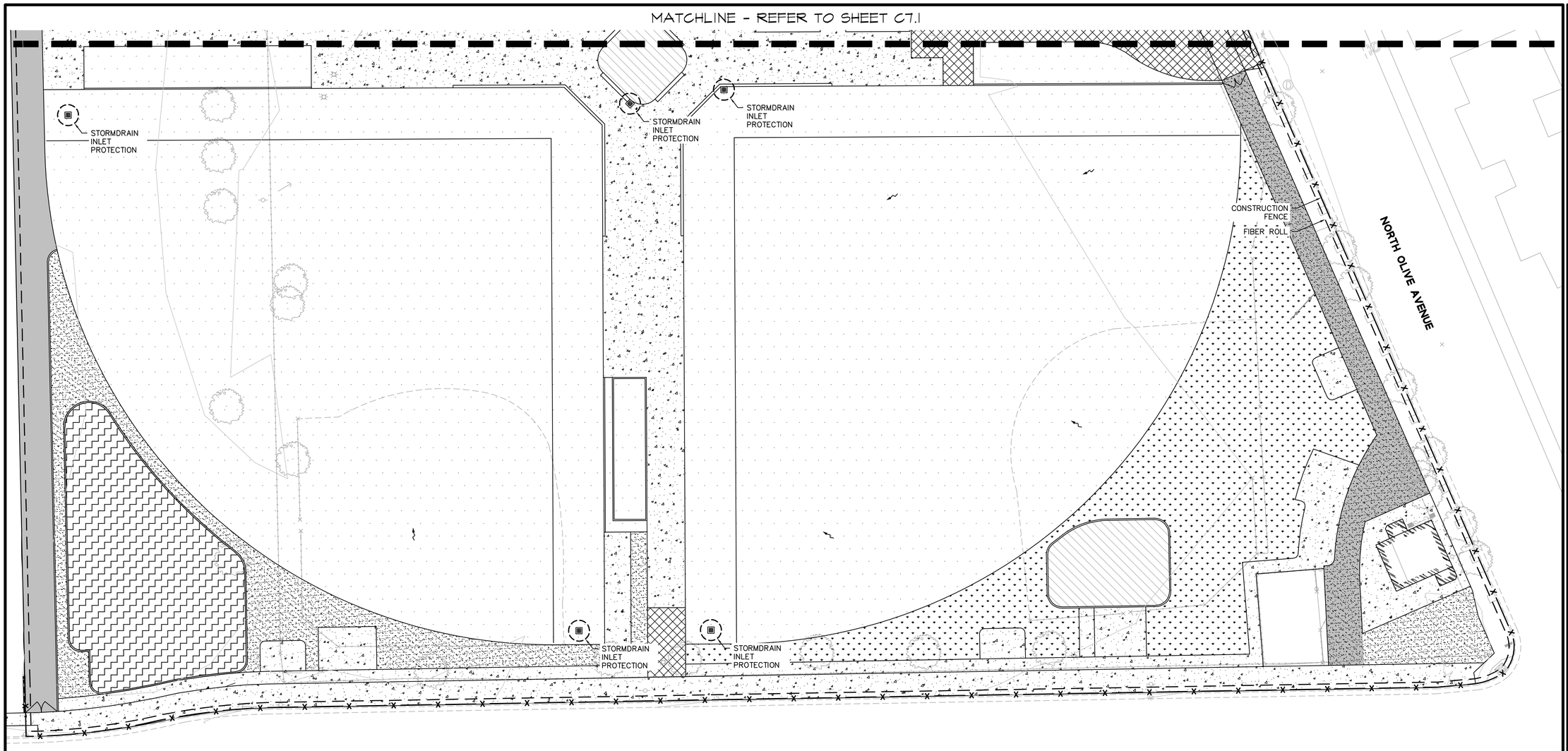
REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
NO. C 42383
CIVIL
STATE OF CALIFORNIA

CHECKED BY	DATE
B.K.	2-13-23
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET

C7.1

SHEET 21 OF 85 SHEETS



LEGEND:

- FIBER ROLL (SE-5)
- CONSTRUCTION FENCE TO BE PLACED BY CONTRACTOR
- STORM DRAIN INLET PROTECTION (SE-10)
- STABILIZED CONSTRUCTION ENTRANCE (TC-1). LOCATION VARIES BY CONTRACTOR.
- CONCRETE WASHOUT PIT (NS-8). LOCATION VARIES BY CONTRACTOR.

NOTES:

1. SITE ACCESS SHOWN ON THIS PLAN IS PROVIDED FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL LOCATE CONSTRUCTION ACCESS DRIVEWAYS AS NECESSARY.
2. LOCATION OF CONSTRUCTION FENCING SHOWN ON THIS PLAN IS APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE SITE AND INSTALLING NEW CONSTRUCTION FENCING AS NECESSARY.
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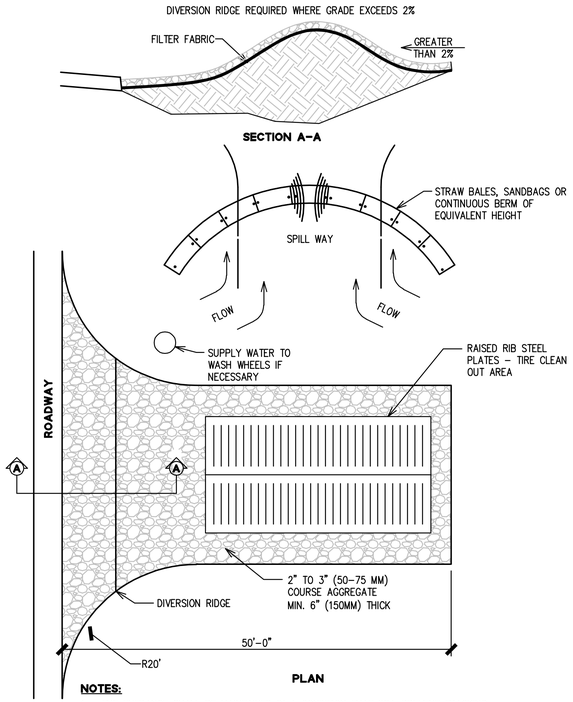
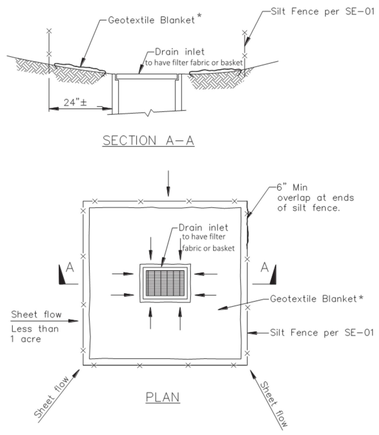
SHEET
C7.2
SHEET 22 OF 85 SHEETS



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRED TOP DRESSING, REPAIR AND / OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ONTO AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

1 – STABILIZED CONSTRUCTION ENTRANCE
NTS

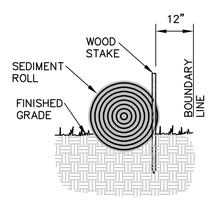


DI PROTECTION TYPE 1
NOT TO SCALE

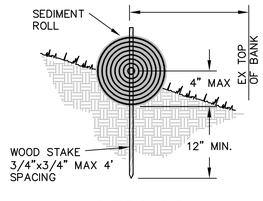
NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

2 – STORM DRAIN INLET PROTECTION
NTS



ENTRENCHMENT DETAIL IN FLAT AREA

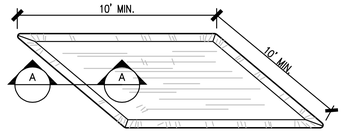


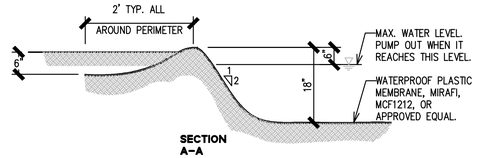
ENTRENCHMENT DETAIL IN SLOPE AREA

INSTALLATION PROCEDURE:

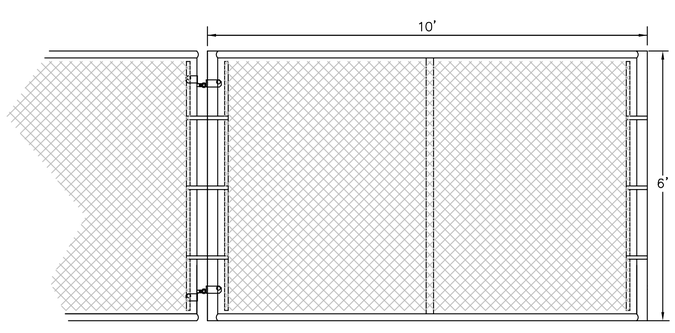
1. FIBER ROLLS ARE TUBES MADE FROM POROUS BIODEGRADABLE FIBER STUFFED IN A PHOTO-DEGRADABLE OPEN WEAVE NETTING. THEY ARE APPROX. 8" DIAMETER.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2"-4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. ROLLS SHOULD BE ABUTTED SECURELY TO PROVIDE A TIGHT JOINT, NOT OVERLAPPED.

3 – FIBER ROLL DETAIL
NTS





4 – WASHOUT PIT
NTS



NOTE:

1. CONTRACTOR TO PROVIDE TEMPORARY CHAIN LINK CONSTRUCTION FENCE WITH SAND BAGS FOR ANCHORING.
2. INSTALL "CONSTRUCTION SITE, NO TRESPASSING" SIGNS. ENSURING SIGNS ARE LEGIBLE FROM 5' AWAY.

5 – CONSTRUCTION FENCE
NTS

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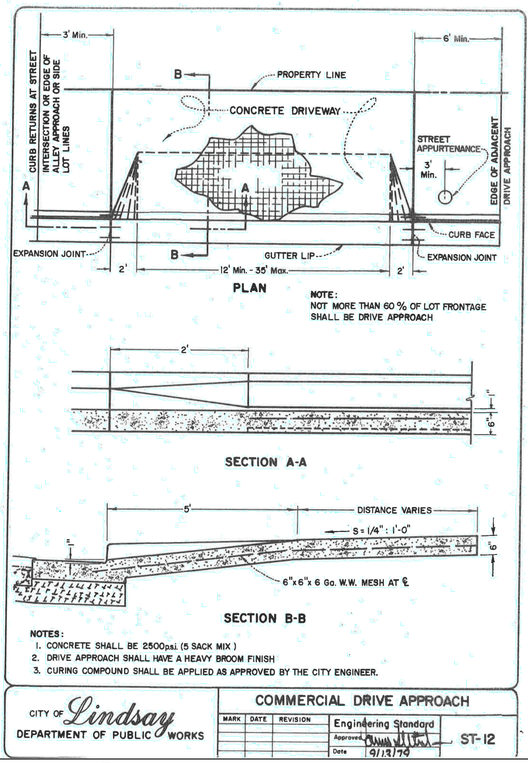
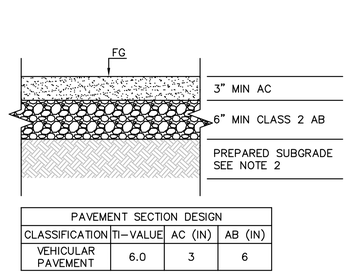
SHEET
C7.3
SHEET 23 OF 85 SHEETS



1 — VEHICULAR CONCRETE SECTION
NTS

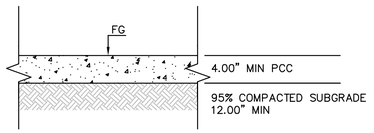


PAVEMENT SECTION DESIGN			
CLASSIFICATION	TI–VALUE	AC (IN)	AB (IN)
VEHICULAR PAVEMENT	6.0	3	6

NOTES:

1. THIS SECTION TO BE USED IN LOCATIONS WHERE NEW ASPHALT PAVEMENT IS REQUIRED.
2. SUBGRADE IS TO BE COMPACTED NATIVE SOIL AT 95% RELATIVE COMPACTION FOR 12.00" MIN. KEEP THE MOISTURE CONTENT SLIGHTLY ABOVE OPTIMUM.
3. POSITIVE DRAINAGE SHOULD BE PROVIDED AWAY FROM ALL PAVEMENT AREAS TO PREVENT SEEPAGE OF SURFACE AND/OR SUBSURFACE WATER INTO THE PAVEMENT BASE AND/OR SUBGRADE
4. THE EXPANSION POTENTIAL OF THE SITE SOILS SHOULD BE VERIFIED AFTER GRADING. IF THE EXPANSION POTENTIAL OF MIXED SOIL IS FOUND TO BE ABOVE 20, CONVERSE RECOMMENDS MIXING ON–SITE SOIL USED FOR SUPPORT OF WALKWAYS AND PAVEMENTS WITH 5% CEMENT TO REDUCE EXPANSION POTENTIAL.

2 — VEHICULAR ASPHALT SECTION
NTS

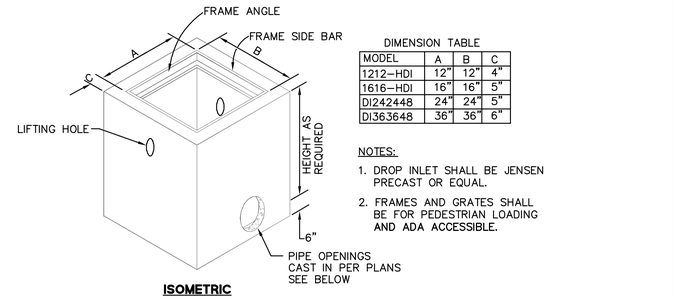


PAVEMENT SECTION DESIGN		
CLASSIFICATION	PCC (IN)	AB (IN)
PEDESTRIAN PAVEMENT	4	0

NOTES:

1. THIS SECTION TO BE USED IN LOCATIONS WHERE NEW CONCRETE PAVEMENT IS REQUIRED FOR PEDESTRIAN TRAFFIC, SUCH AS SIDEWALKS AND WALKWAYS.
2. SUBGRADE IS TO BE COMPACTED NATIVE SOIL AT 95% RELATIVE COMPACTION. KEEP THE MOISTURE CONTENT SLIGHTLY ABOVE OPTIMUM.
3. REFER TO LANDSCAPE DRAWINGS FOR CONCRETE FINISHING, SCORE LINE & EXPANSION JOINT INFORMATION.
4. POSITIVE DRAINAGE SHOULD BE PROVIDED AWAY FROM ALL PAVEMENT AREAS TO PREVENT SEEPAGE OF SURFACE AND/OR SUBSURFACE WATER INTO THE PAVEMENT BASE AND/OR SUBGRADE
5. THE EXPANSION POTENTIAL OF THE SITE SOILS SHOULD BE VERIFIED AFTER GRADING. IF THE EXPANSION POTENTIAL OF MIXED SOIL IS FOUND TO BE ABOVE 20, CONVERSE RECOMMENDS MIXING ON–SITE SOIL USED FOR SUPPORT OF WALKWAYS AND PAVEMENTS WITH 5% CEMENT TO REDUCE EXPANSION POTENTIAL.

3 — PEDESTRIAN CONCRETE SECTION
NTS

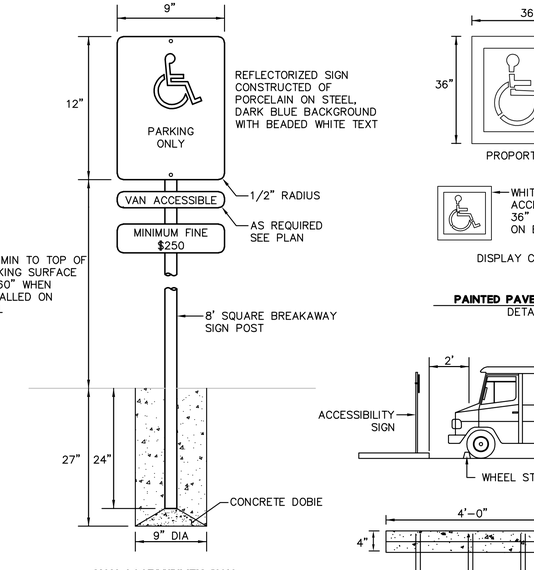


DIMENSION TABLE			
MODEL	A	B	C
1212–HDI	12"	12"	4"
1616–HDI	16"	16"	5"
DI242448	24"	24"	5"
DI363648	36"	36"	6"

NOTES:

1. DROP INLET SHALL BE JENSEN PRECAST OR EQUAL.
2. FRAMES AND GRATES SHALL BE FOR PEDESTRIAN LOADING AND ADA ACCESSIBLE.

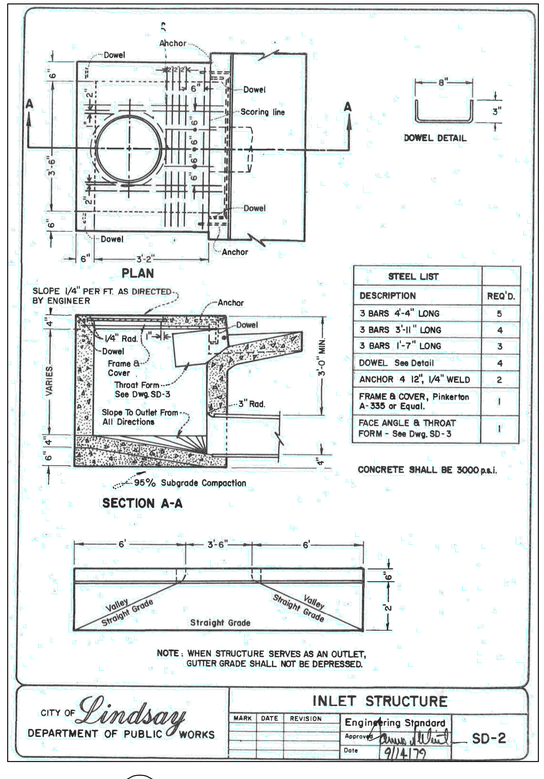
4 — DROP INLET
NTS



NOTES:

1. EACH PARKING SPACE RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR OCCUPANT IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA AND WHEN IN A PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80 INCHES FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON THE WALL AT THE INTERIOR OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 36 INCHES FROM THE PARKING SPACE FINISHED GRADE, GROUND, OR SIDEWALK.
2. VAN STALLS TO BE LABELED ON PAVEMENT IN 12" HIGH LETTERS WITH WHITE PAINT AND BE DESIGNATED BY AN ADDITIONAL SIGN STATING "VAN ACCESSIBLE" MOUNTED BELOW THE REFLECTORIZED SIGN.

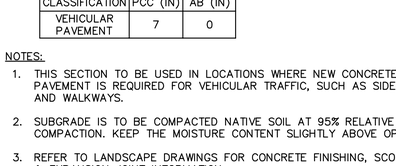
5 — AMERICANS WITH DISABILITIES ACT (ADA) VAN ACCESSIBLE PARKING STALL
NTS



STEEL LIST	
DESCRIPTION	REQ'D.
3 BARS 4'-4" LONG	5
3 BARS 3'-11" LONG	4
3 BARS 1'-7" LONG	3
DOWEL See Detail	4
ANCHOR 4 12", 1/4" WELD	2
FRAME & COVER, Pinkerton A-335 or Equal.	1
FACE ANGLE & THROAT FORM - See Dwg. SD-3	1

CONCRETE SHALL BE 3000 p.s.i.

6 — CURB INLET
NTS



PAVEMENT SECTION DESIGN		
CLASSIFICATION	PCC (IN)	AB (IN)
VEHICULAR PAVEMENT	7	0

NOTES:

1. THIS SECTION TO BE USED IN LOCATIONS WHERE NEW CONCRETE PAVEMENT IS REQUIRED FOR VEHICULAR TRAFFIC, SUCH AS SIDEWALKS AND WALKWAYS.
2. SUBGRADE IS TO BE COMPACTED NATIVE SOIL AT 95% RELATIVE COMPACTION. KEEP THE MOISTURE CONTENT SLIGHTLY ABOVE OPTIMUM.
3. REFER TO LANDSCAPE DRAWINGS FOR CONCRETE FINISHING, SCORE LINE & EXPANSION JOINT INFORMATION.
4. POSITIVE DRAINAGE SHOULD BE PROVIDED AWAY FROM ALL PAVEMENT AREAS TO PREVENT SEEPAGE OF SURFACE AND/OR SUBSURFACE WATER INTO THE PAVEMENT BASE AND/OR SUBGRADE
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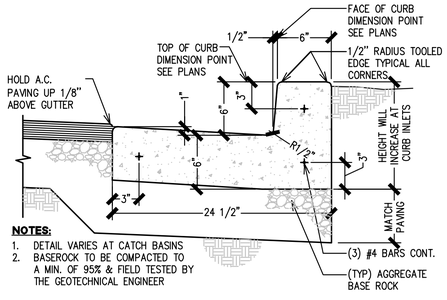
6. CONCRETE SECTION TO BE APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

7 — VEHICULAR CONCRETE SECTION
NTS



NOTES:

1. DETAIL VARIES AT CATCH BASINS
2. BASEROCK TO BE COMPACTED TO A MIN. OF 95% & FIELD TESTED BY THE GEOTECHNICAL ENGINEER

8 — CURB & GUTTER
NTS

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SHEET

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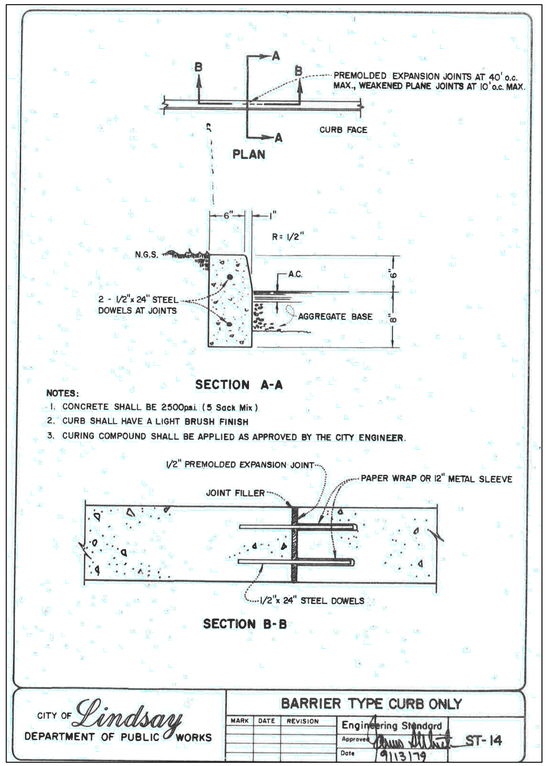
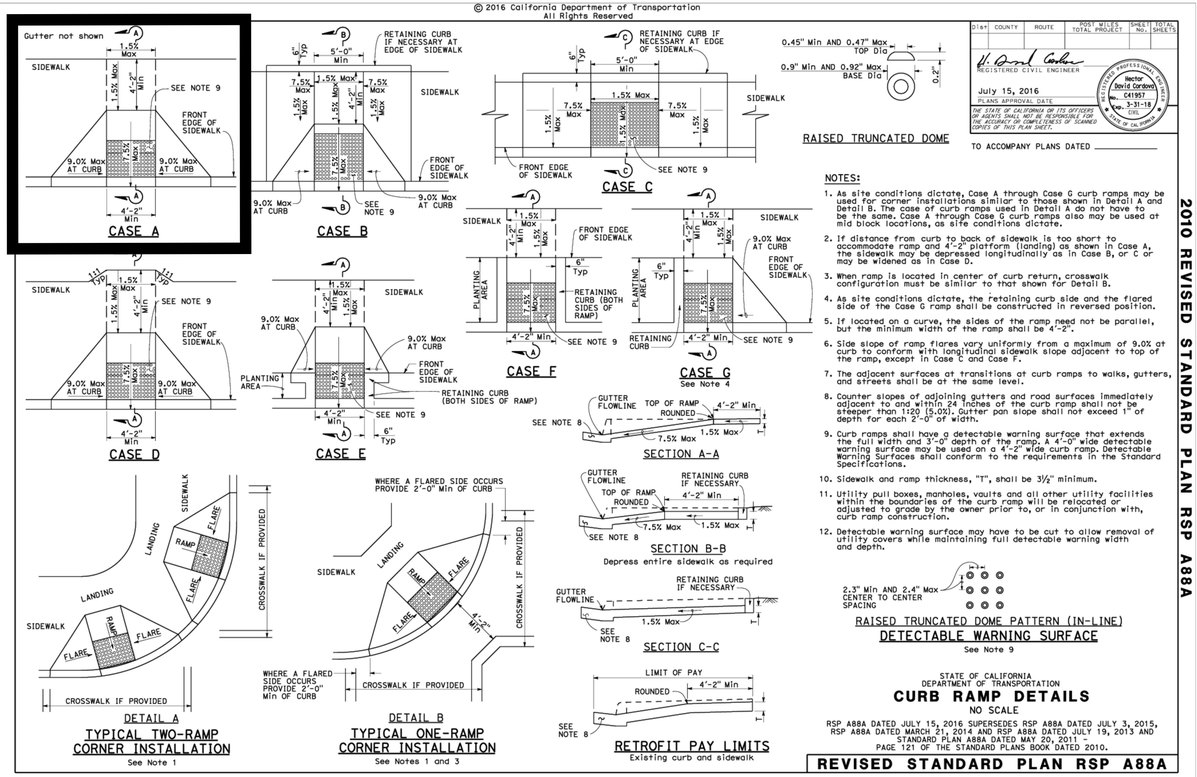
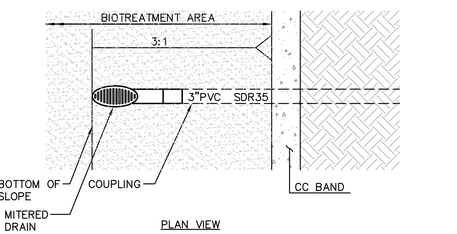
SHEET 24 OF 85 SHEETS



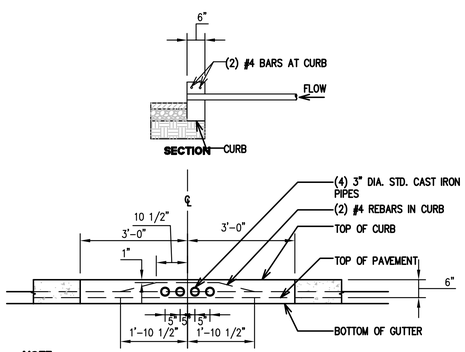
1 — VERTICAL CURB
NTS



2 — CURB RAMPS
NTS

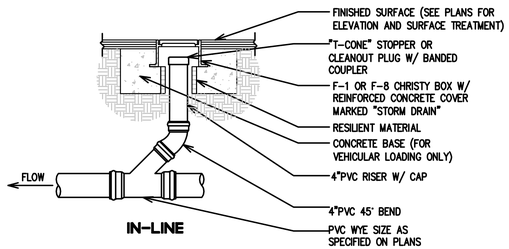


3 — BIORETENTION BASIN & MITERED DRAIN
NTS



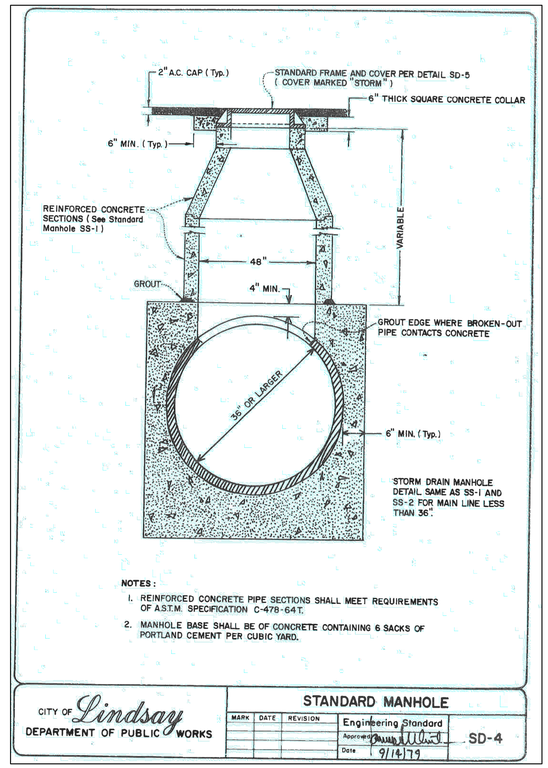
NOTE:
1. MATCH THE CENTERLINE TO THE PLAN LOCATION.

6 — CURB DRAIN
NTS



NOTE:
GLUED FITTINGS MAY BE SUBSTITUTED FOR GASKETED FITTINGS AT THE OPTION OF THE INSTALLATION CONTRACTOR.

4 — CLEANOUT
NTS



5 — MANHOLE

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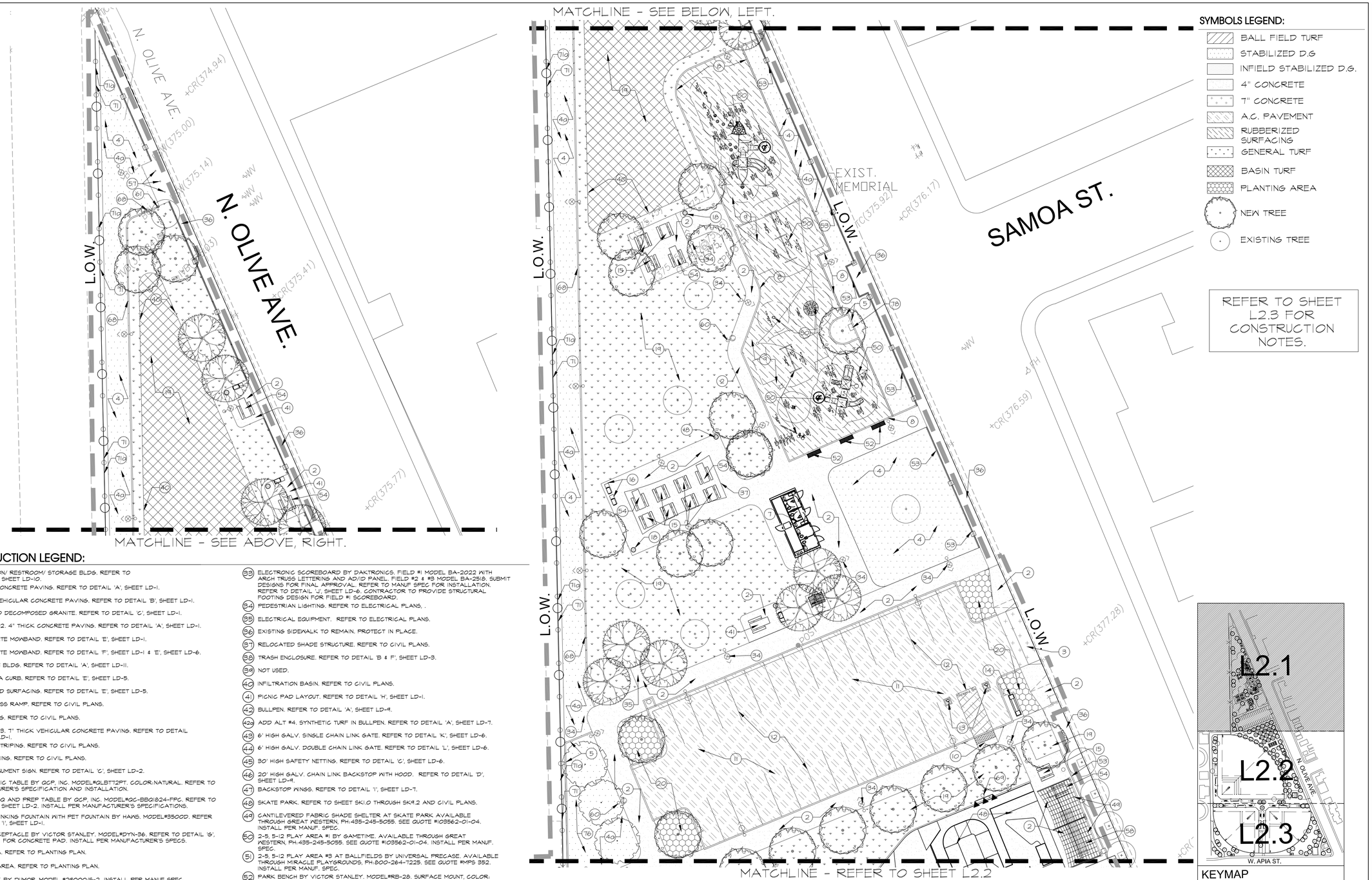
DRAWN BY	JOB NO.
V.L.	05500.00

SHEET
C8.1
SHEET 25 OF 85 SHEETS



SYMBOLS LEGEND:

- BALL FIELD TURF
- STABILIZED D.G
- INFIELD STABILIZED D.G.
- 4" CONCRETE
- 7" CONCRETE
- A.C. PAVEMENT
- RUBBERIZED SURFACING
- GENERAL TURF
- BASIN TURF
- PLANTING AREA
- NEW TREE
- EXISTING TREE

CONSTRUCTION LEGEND:

1. CONCESSION/ RESTROOM/ STORAGE BLDG. REFER TO DETAIL 'A', SHEET LD-10.
2. 4" THICK CONCRETE PAVING. REFER TO DETAIL 'A', SHEET LD-1.
3. 7" THICK VEHICULAR CONCRETE PAVING. REFER TO DETAIL 'B', SHEET LD-1.
4. STABILIZED DECOMPOSED GRANITE. REFER TO DETAIL 'G', SHEET LD-1.
4a. ADD ALT #2. 4" THICK CONCRETE PAVING. REFER TO DETAIL 'A', SHEET LD-1.
5. 6" CONCRETE MONBAND. REFER TO DETAIL 'E', SHEET LD-1.
6. 9" CONCRETE MONBAND. REFER TO DETAIL 'F', SHEET LD-1 & 'E', SHEET LD-6.
7. RESTROOM BLDG. REFER TO DETAIL 'A', SHEET LD-11.
8. PLAY AREA CURB. REFER TO DETAIL 'E', SHEET LD-5.
9. RUBBERIZED SURFACING. REFER TO DETAIL 'E', SHEET LD-5.
10. ADA ACCESS RAMP. REFER TO CIVIL PLANS.
11. A.C. PAVING. REFER TO CIVIL PLANS.
11a. ADD ALT #3. 7" THICK VEHICULAR CONCRETE PAVING. REFER TO DETAIL 'B', SHEET LD-1.
12. PARKING STRIPING. REFER TO CIVIL PLANS.
13. ADA PARKING. REFER TO CIVIL PLANS.
14. ENTRY MONUMENT SIGN. REFER TO DETAIL 'C', SHEET LD-2.
15. PARK PICNIC TABLE BY GCP, INC. MODEL#GLBT72PT. COLOR:NATURAL. REFER TO MANUFACTURER'S SPECIFIGATION AND INSTALLATION.
16. FAMILY BBQ AND PREP TABLE BY GCP, INC. MODEL#GC-BBQ1824-FPC. REFER TO DETAIL 'B', SHEET LD-2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
17. HI-LOW DRINKING FOUNTAIN WITH PET FOUNTAIN BY HANS. MODEL#3500D. REFER TO DETAIL 'I', SHEET LD-1.
18. TRASH RECEPTACLE BY VICTOR STANLEY. MODEL#DYN-36. REFER TO DETAIL 'G', SHEET LD-1 FOR CONCRETE PAD. INSTALL PER MANUFACTURER'S SPECS.
19. TURF AREA. REFER TO PLANTING PLAN.
20. PLANTED AREA. REFER TO PLANTING PLAN.
21. BIKE RACK BY DUMOR. MODEL #29000/S-2. INSTALL PER MANUF SPEC.
22. 8' HIGH GALV. CHAIN LINK FENCE (CLF) WITH CONC. MONBAND. REFER TO DETAIL 'E', SHEET LD-6.
23. 8' HIGH GALV. SINGLE CHAIN LINK GATE. REFER TO DETAIL 'K', SHEET LD-6.
24. 8' HIGH GALV. DOUBLE CHAIN LINK GATE. REFER TO DETAIL 'L', SHEET LD-6.
25. 30' HIGH GALV. CHAIN LINK BACKSTOP WITH HOOD. REFER TO DETAIL 'B', SHEET LD-7.
26. 30' H CHAINLINK BACKSTOP FOOTING. REFER TO DETAIL 'E', SHEET LD-7.
27. INFIELD MIX. REFER TO DETAIL 'J', SHEET LD-7.
28. INFIELD ENLARGEMENT. REFER TO DETAIL 'A & B', SHEET LD-8.
29. DUGOUT. REFER TO DETAIL 'I & K', SHEET LD-9.
30. 30' FOUL BALL POLE BY TOMARK. FOOTING MOUNTED. MODEL: TB-K-30241. REFER TO MANUF SPEC FOR INSTALLATION. REFER TO DETAIL 'D', SHEET LD-6.
31. 4-ROW ALUMINUM SPECTATOR BLEACHERS WITH 2 DOUBLE WHEEL CHAIR SPACE BY KAY PARK REC. MODEL#BLA4A27V4F4 AHR48 2DNC. INSTALL PER MANUFACTURER'S SPECS.
32. SPORTS FIELD LIGHTING POLES. REFER TO ELECTRICAL PLANS.
33. ELECTRONIC SCOREBOARD BY DAKTRONICS. FIELD #1 MODEL BA-2022 WITH ARCH TRUSS LETTERING AND AD/ID PANEL. FIELD #2 & #3 MODEL BA-2518. SUBMIT DESIGNS FOR FINAL APPROVAL. REFER TO MANUF SPEC FOR INSTALLATION. REFER TO DETAIL 'J', SHEET LD-6. CONTRACTOR TO PROVIDE STRUCTURAL FOOTING DESIGN FOR FIELD #1 SCOREBOARD.
34. PEDESTRIAN LIGHTING. REFER TO ELECTRICAL PLANS, .
35. ELECTRICAL EQUIPMENT. REFER TO ELECTRICAL PLANS.
36. EXISTING SIDEWALK TO REMAIN. PROTECT IN PLACE.
37. RELOCATED SHADE STRUCTURE. REFER TO CIVIL PLANS.
38. TRASH ENCLOSURE. REFER TO DETAIL 'B & F', SHEET LD-3.
39. NOT USED.
40. INFILTRATION BASIN. REFER TO CIVIL PLANS.
41. PICNIC PAD LAYOUT. REFER TO DETAIL 'H', SHEET LD-1.
42. BULLPEN. REFER TO DETAIL 'A', SHEET LD-9.
42a. ADD ALT #4. SYNTHETIC TURF IN BULLPEN. REFER TO DETAIL 'A', SHEET LD-7.
43. 6' HIGH GALV. SINGLE CHAIN LINK GATE. REFER TO DETAIL 'K', SHEET LD-6.
44. 6' HIGH GALV. DOUBLE CHAIN LINK GATE. REFER TO DETAIL 'L', SHEET LD-6.
45. 30' HIGH SAFETY NETTING. REFER TO DETAIL 'C', SHEET LD-6.
46. 20' HIGH GALV. CHAIN LINK BACKSTOP WITH HOOD. REFER TO DETAIL 'D', SHEET LD-9.
47. BACKSTOP WINGS. REFER TO DETAIL 'I', SHEET LD-7.
48. SKATE PARK. REFER TO SHEET SK1.0 THROUGH SK9.2 AND CIVIL PLANS.
49. CANTILEVERED FABRIC SHADE SHELTER AT SKATE PARK AVAILABLE THROUGH GREAT WESTERN, PH.435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
50. 2-5, 5-12 PLAY AREA #1 BY GAMETIME. AVAILABLE THROUGH GREAT WESTERN, PH.435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
51. 2-5, 5-12 PLAY AREA #3 AT BALLFIELDS BY UNIVERSAL PRECASE. AVAILABLE THROUGH MIRACLE PLAYGROUNDS, PH.800-264-1225. SEE QUOTE #MPS 352. INSTALL PER MANUF. SPEC.
52. PARK BENCH BY VICTOR STANLEY. MODEL#RB-28. SURFACE MOUNT. COLOR: BLACK. REFER TO DETAIL 'J', SHEET LD-1.
53. 4' HIGH TUBE STEEL FENCE. REFER TO DETAIL 'A', SHEET LD-2.
54. ADA PICNIC TABLE BY GCP, INC. MODEL#GLBT102ADA.
55. POUR IN PLACE CONCRETE SEATWALL WITH RECYCLE PLASTIC SEAT TOPPER. REFER TO DETAIL 'A', SHEET LD-3.
56. 3-ROW ALUMINUM SPECTATOR BLEACHERS BY KAY PARK REC. MODEL#BLA3A2I. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
57. COLLAPSIBLE BOLLARD BY TRAFFIC GUARD. MODEL#HRP36. COLOR: YELLOW. REFER TO DETAIL 'F'. SHEET LD-2. INSTALL PER MANUF SPEC.
58. 3-ROW ALUMINUM SPECTATOR BLEACHERS BY KAY PARK REC. MODEL#BLA3A2I. INSTALL PER MANUF SPEC.
59. FLAG POLE BY STEELCRAFT. MODEL#EC45. REFER TO DETAIL 'E', SHEET LD-3. INSTALL PER MANUF SPEC.
60. SECURITY CAMERA. REFER TO ELECTRICAL PLANS.
61. PET WASTE BAG DISPENSER. BELSON DOGIPOT STATION #DP-1003-L (3) TOTAL. CONTACT BELSON OUTDOORS INC, TEL: (800) 323-5664. INSTALL PER MANUF. SPECS.
62. FITNESS EQUIPMENT BY TRIAGTIVE USA. PARALLEL BARS, MODEL #PBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)504-0547. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
63. FITNESS EQUIPMENT BY TRIACTIVE USA. MULTI BENCH, MODEL #PHRS. CONTACT LUCAS RIPHAGEN, TEL: (800)504-0547. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
64. FITNESS EQUIPMENT BY TRIACTIVE USA. MULTI BARS, MODEL #MBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)504-0547. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
65. FITNESS EQUIPMENT BY TRIACTIVE USA. BACK EXTENSION, MODEL #BEXT. CONTACT LUCAS RIPHAGEN, TEL: (800)504-0547. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
66. FITNESS EQUIPMENT BY TRIACTIVE USA. HORIZONTAL BAR, MODEL #HBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)504-0547. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
67. FITNESS EQUIPMENT BY TRIACTIVE USA. PULL UP AND DIP STATION, MODEL #PDIP. CONTACT LUCAS RIPHAGEN, TEL: (800)504-0547. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
68. PERMALOC CLEANLINE ALUMINUM EDGING. SIZE $\frac{3}{16}$" X 4", COLOR: MILL FINISH OR EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
69. SKATE PARK LIGHTING POLES. REFER TO ELECTRICAL PLANS.
70. 2-5, 5-12 PLAY AREA #2 AT BALLFIELD BY GAMETIME. AVAILABLE THROUGH GREAT WESTERN PH.435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
71. 6' HIGH GALV. CHAIN LINK FENCE (CLF). REFER TO DETAIL 'E', SHEET LD-6.
71a. ADD ALT #1. 6' HIGH BLOCK WALL. REFER TO DETAIL 'K', SHEET LD-1.
72. BATTING CAGE. REFER TO DETAIL 'K', SHEET LD-12.
73. FIELD DRAINAGE. REFER TO CIVIL PLANS.
74. EXISTING OLIVE BOWL SIGNAGE TO BE REMOVED, RELOCATED AND RENOVATED TO OUTFIELD OF FIELD #1 W/ NEW PEDESTAL MEMORIAL. REFER TO DETAIL 'E', LD-4.
75. BATTER'S EYE SCREEN. 6' HIGH BLACK TUFFY WINDSCREEN BY BSN SPORTS. ATTACH TO TOP OF C.L.F., 40' WIDE. INSTALL PER MANUF. SPEC.
76. DECOMPOSED GRANITE FOR PLANTING AREA. REFER TO DETAIL 'G', SHEET LD-1.
77. CANTILEVERED FABRIC SHADE SHELTER AT BASEBALL BLEACHERS AVAILABLE THROUGH GREAT WESTERN, PH.435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
78. EXISTING MEMORIAL AND PEDESTAL AT PLAYGROUND TO BE REMOVED, RELOCATED AND INSTALLED AT GRADE.

0 10' 20' 40'

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LAUREN N. LANG NO. 6471
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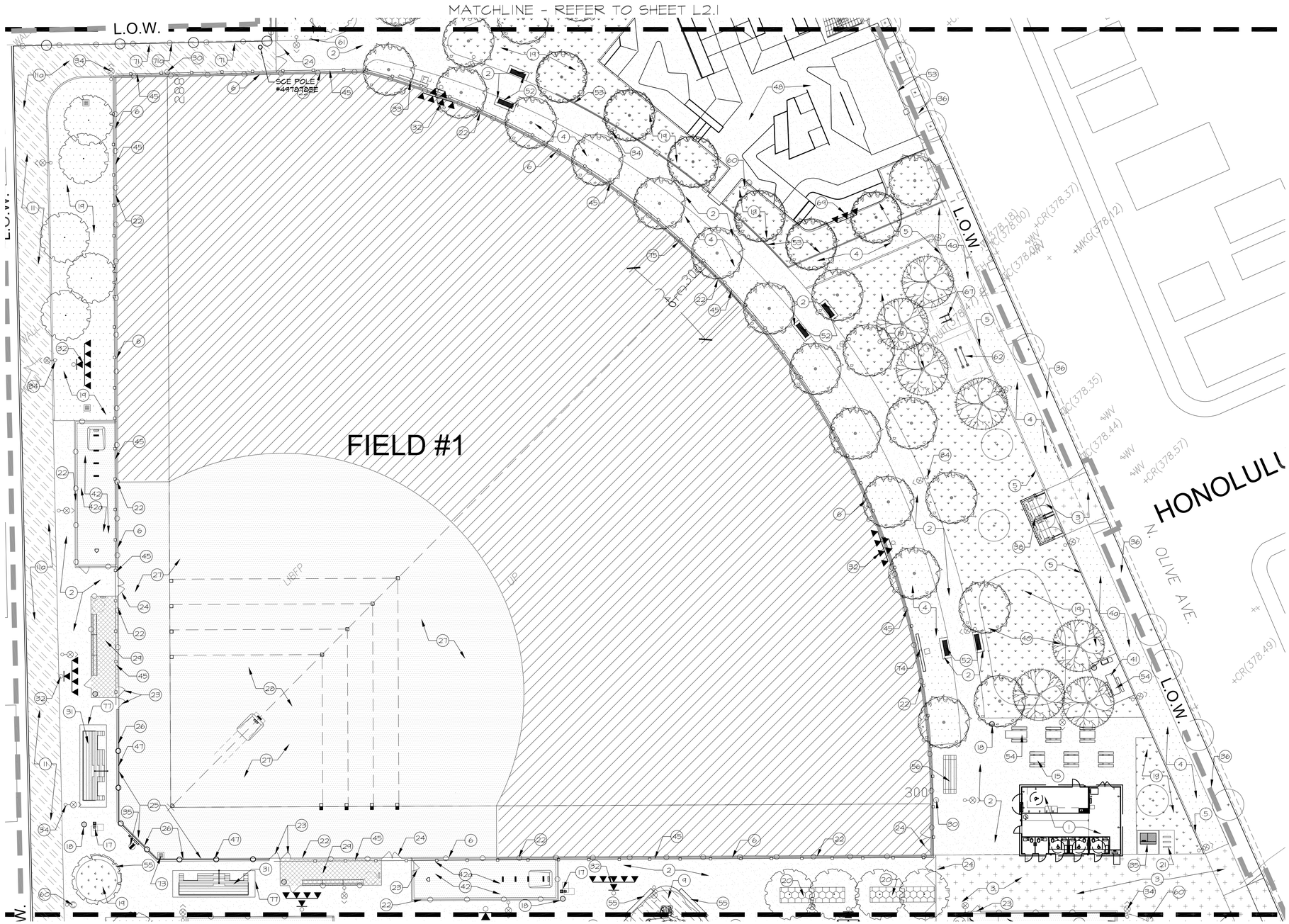

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2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE HELD LIABLE FOR ALL DAMAGES INCURRED.
3. CONTRACTOR SHALL NOTE AND INSTALL SLEEVE LOCATIONS SHOWN ON IRRIGATION PLANS IN EXCESS OF EXISTING SLEEVES PER CITY'S APPROVAL.
4. ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE 2010 EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.
5. THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE PLANS AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND CITY'S REPRESENTATIVE.
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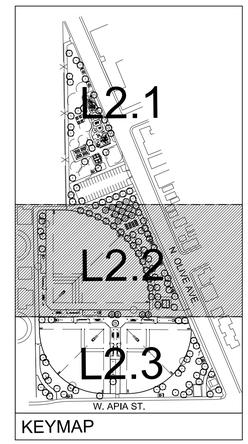

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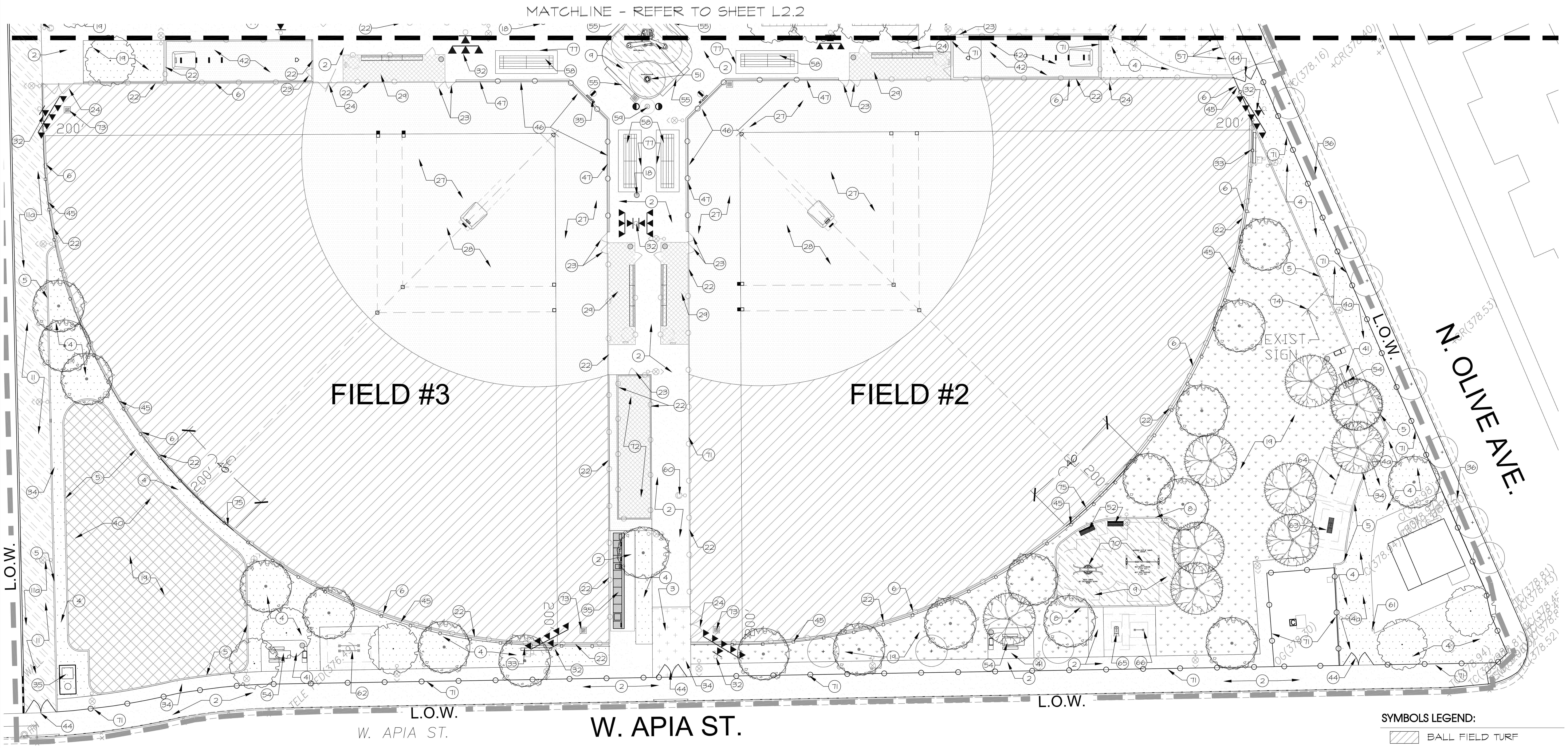

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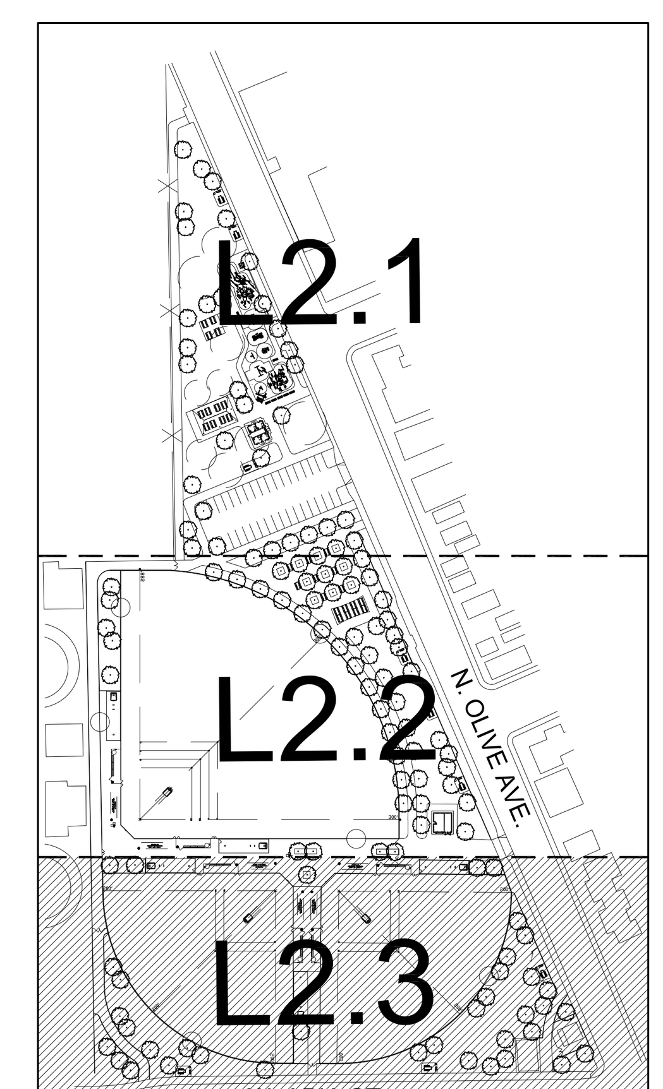

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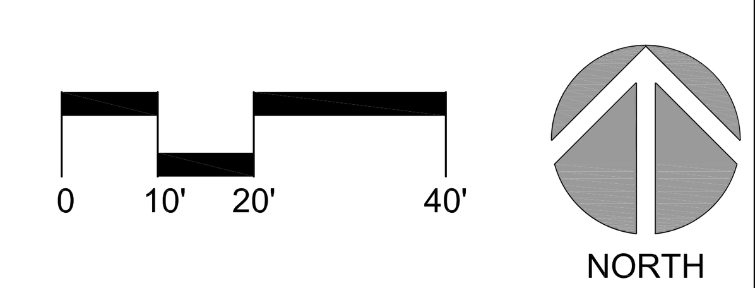

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IRRIGATION EQUIPMENT LEGEND

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	DESCRIPTION	REMARKS	DETAIL
	N/A	N/A	DEDICATED IRRIGATION WATER METER AND SERVICE LINE FOR SECONDARY WATER SOURCE (200 GPM DEMAND AT 54 PSI)	3" SIZE. LOCATION PER PLAN. WILL FILL IRRIGATION STORAGE TANK IF PRIMARY WELL WATER SUPPLY IS UNAVAILABLE. VERIFY PRESSURE PRIOR TO CONSTRUCTION.	2QT 12H N/A 12F
❄	N/A	N/A	IRRIGATION POINT-OF-CONNECTION (POC) TO EXISTING IRRIGATION WELL.	WELL LOCATION PER PLAN. INSTALL SHUT OFF VALVE AS SHOWN ON PLANS. GATE VALVE SHALL BE MAINLINE SIZE. FIELD VERIFY SIZE, LOCATION. ADJUST LAYOUT AS REQUIRED.	N/A
	ZURN WILKINS	375-4"	BACKFLOW PREVENTION DEVICE (FOR SECONDARY DOMESTIC WATER SUPPLY)	4" SIZE. REDUCED PRESSURE TYPE. LEAD FREE. INSTALL PER DETAIL AND AS REQUIRED BY LOCAL CODES. INSTALL WITH WEATHER BLANKET WITHIN FENCED WELL EQUIPMENT AREA.	9/L3.5
F	WATER-TRONICS	INCLUDED WITH BOOSTER PUMP	AUTOMATIC SELF FLUSHING FILTER.	4" AUTOMATIC SELF-FLUSHING FILTER WITH 100 MICRON SCREEN OR AS REQUIRED BASED UPON WATER QUALITY TEST.	1/L3.7
	NIBCO	P-619-RW	MAINLINE ISOLATION GATE VALVE (3" -INCH AND LARGER)	CAST IRON, RESILIENT WEDGE, SQUARE OPERATING NUT, PUSH-ON GASKETED. INSTALL WITHIN VALVE BOX AS DETAILED. MATCH SIZE OF MAINLINE PIPE.	8/L3.5
	NIBCO	T-113-BHW	MAINLINE ISOLATION GATE VALVE (2-1/2-INCH AND SMALLER)	BRONZE, NON-RISING STEM, THREADED. INSTALL WITHIN VALVE BOX AS DETAILED. MATCH MAIN LINE PIPE SIZE.	5/L3.4
P	WATER-TRONICS	SHFV-1-5K-20-480-3-200-85	IRRIGATION BOOSTER PUMP, 5000 GALLON IRRIGATION STORAGE TANK, SELF FLUSHING FILTER	SKY HARVESTER VFD BOOSTER PUMP ASSEMBLY IN STAINLESS STEEL ENCLOSURE WITH 4" INLET AND DISCHARGE PIPES. 20HP. CONNECT TO 480 VOLT A.C., PHASE 3 POWER AT BOOSTER PUMP LOCATION. INSTALL PER DETAILS AND MANUFACTURER'S INSTRUCTIONS. INCLUDES TANK, FILTER AND CONTROLS.	1/L3.7
M	GRISWOLD	2000-N-E	SECONDARY MASTER CONTROL VALVE (NORMALLY CLOSED)	3" FIPT CAST IRON, EPOXY COATED MASTER CONTROL VALVE. LOCATE DOWNSTREAM FROM BACKFLOW PREVENTER. THIS VALVE WILL OPEN WHEN THE TANK FLOAT REACHES LOW LEVEL MARK.	1/L3.5
	RAIN BIRD	44-LRC	QUICK COUPLING VALVE (QCV)	1-INCH SIZE; DOUBLE TRACK KEY LUG WITH THERMOPLASTIC TOP. SUPPLY WITH (2) VALVE KEYS (MODEL #44-DK) AND MATCHING HOSE SWIVELS (MODEL #SH-0). INSTALL WITH HARCO QUICK COUPLER ANTI-ROTATION ANCHOR. LOCATE QCV AS SHOWN ON PLANS, BUT NO MORE THAN 250' O.C. ACTIVATE PUMP & MASTER VALVE TO USE.	4/L3.5 3,4/L3.4
A	HIT	LP-128S-C/L-PED /LP-HHRP /L-RP-ID /LP-SPD-F /LP-RAD-COM	AUTOMATIC IRRIGATION CONTROLLER WITH HAND HELD REMOTE.	128 STATION 2-WIRE CONTROLLER WITH STAINLESS STEEL PEDESTAL, HAND HELD RECEIVER (DECODER) PROGRAMMER, IDENTIFICATION TAG SET, SURGE PROTECTION LINE DEVICES (INSTALL WITH GROUNDING ROD EVERY 300'-500' AND AT CONTROLLER AND AT ENDS OF WIRE RUNS), AND A COMMANDER RADIO REMOTE UNIT KIT. SYNC WITH RAIN SWITCH 'R'. WIRE TO CONTROL VALVES WITH #12AWG DIRECT BURIAL WIRES PER MANUFACTURER'S RECOMMENDATIONS.	1,2,3/L3.6
R	HUNTER	WRS-KIT	WIRELESS RAIN SENSOR.	WIRELESS RAIN SWITCH. DISTANCE FROM CONTROLLER SHALL NOT EXCEED 200-FEET. REFER TO PLAN FOR ADDITIONAL INFO. SENSOR SHALL BE FIELD LOCATED ON SOUTH FACING FENCE POST. LOCATE TO PROVIDE OPTIMAL EXPOSURE TO WEATHER ELEMENTS AS PER MANUFACTURER'S RECOMMENDATIONS.	PER MANUFT'R
M	GRISWOLD	2000-P-E	PRIMARY MASTER CONTROL VALVE (NORMALLY CLOSED)	4" CAST IRON, EPOXY COATED MASTER CONTROL VALVE. LOCATE DOWNSTREAM FROM BOOSTER PUMP. THIS VALVE WILL OPEN AT THE SAME TIME AS THE BOOSTER PUMP. FLOW: .1-200 GPM.	4/L3.6
H	NETAFIM	LS360CT04GAL-NO	OCTAVE ULTRASONIC WATER METER	4-INCH SIZE, NO OUTPUT FOR FLOW (METER ONLY), MINIMUM OPERATING FLOW OF 1 GPM AND A MAXIMUM OPERATING FLOW OF 200 GPM. THIS DEVICE WILL RECORD WELL WATER USE.	4/L3.6
NOT SHOWN	HIT	BVT SERIES	MAINIFOLD ISOLATION BALL VALVE (2" AND SMALLER)	PVC, FULL PORT. MATCH REMOTE CONTROL VALVE SIZE. NPT THREADED ENDS. USE ONLY ON MANIFOLD SUB-MAINLINES.	6/L3.4
	RAIN BIRD	100-PESB (1") 150-PESB (1.5") 200-PESB (2")	REMOTE CONTROL VALVE (RCV)	GLASS FILLED NYLON AUTOMATIC GLOBE VALVE. SIZE AS INDICATED ON PLANS. INSTALL WITHIN PLASTIC VALVE BOX AND BOLT DOWN COVER. INSTALL WITHIN MANIFOLD WHEN GROUPED WITH OTHER VALVES. SIZE MANIFOLD TO MATCH LARGEST LATERAL LINE SIZE. USE INCLUDED DBC-BR SPLICE KITS FOR WIRE CONNECTIONS TO 2-WIRE PATH. INSTALL WITH LP-RP RECEIVER (2-WIRE DECODER). LATCHING SOLENOID NOT REQUIRED.	1/L3.5 3,4/L3.4
	PW PIPE	-	PRESSURE MAINLINE PIPE	4-INCH SIZE UNLESS NOTED DIFFERENTLY ON PLANS. USE CLASS 200 GASKETED PVC PIPE WITH DEEP BELL DUCTILE IRON GASKETED FITTINGS AND JOINT RESTRAINTS FOR PIPING 3" AND LARGER. USE SCHEDULE 40 PVC FOR MAINLINE PIPE 2-1/2-INCH AND SMALLER. MINIMUM DEPTH OF COVER IS 24". INSTALL WITH COPPER TRACE WIRE ABOVE ALL MAINLINE PIPE. 3" AND LARGER MAINLINE SHALL BE INSTALLED WITH THRUST BLOCKS IF NOT USING JOINT RESTRAINTS.	1,2/L3.4
	PW PIPE	-	SOLVENT WELD NON-PRESSURE LATERAL PIPE	SIZE PER PLAN; SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS FOR LATERAL LINE, 3/4" MIN. SIZE. LATERAL COVER DEPTH 12"	
	PW PIPE	-	IRRIGATION PIPE/ CONTROL WIRES/ SENSOR WIRE SLEEVE	QUANTITIES SHOWN ON PLANS ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL PROVIDE SIZE AND QUANTITY AS REQUIRED. REFER TO PIPE/WIRE SLEEVING CHART FOR SIZE (SHEET L3.0)	2/L3.4
NOT SHOWN	N/A	N/A	CONCRETE THRUST BLOCK	TO BE INSTALLED WITH 3" AND LARGER MAINLINE (IF NOT USING JOINT RESTRAINTS).	7/L3.5

GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

#M MAINLINE PIPE SLEEVE QUANTITY
#L LATERAL PIPE SLEEVE QUANTITY
#S EMPTY SLEEVE QUANTITY
#W WIRE SLEEVE QUANTITY

VALVE CALLOUT:

CONTROLLER NUMBER
GALLONS PER MINUTE
VALVE SIZE

RWS - TREE ROOT WATERING SYSTEM
ROT - POP-UP ROTOR
MPR - POP-UP STREAM ROTOR
SPR - POP-UP SPRAY
BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT

GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.4, L3.5, L3.6 AND L3.7 FOR ADDITIONAL INFORMATION.
3. REFER TO THE MWELO WATER USE CALCULATIONS AND HYDROZONE CHART ON SHEET L3.8 FOR ADDITIONAL INFORMATION.
4. ALL MAINLINE, LATERAL PIPE, VALVES, AND OTHER IRRIGATION SYSTEM APPURTENANCES SHOWN IN PAVED AREA IS FOR GRAPHICAL CLARITY ONLY. CONTRACTOR TO PLACE MAINLINE, LATERAL PIPE, VALVES AND ALL IRRIGATION APPURTENANCES WITHIN ADJACENT PLANTING AREAS UNLESS NOTED OTHERWISE ON THE PLANS.
5. CONTRACTOR SHALL ROUTE ALL IRRIGATION MAINLINE, LATERAL PIPE AND SLEEVES AROUND ALL SERVICE LINES, UTILITIES, STORM DRAINAGE FACILITIES, ETC. IN ORDER TO AVOID ANY CONFLICTS IN THE FIELD. INSTALL IRRIGATION PIPE BELOW STORM DRAINAGE PIPES WHERE REQUIRED TO MAINTAIN THE MINIMAL DEPTH REQUIREMENTS.

OVERHEAD POP-UP ROTOR SPRINKLERS (ADJUSTABLE ARC)

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	DESCRIPTION	NOZZLE	OPER. PSI	RADIUS (FEET)	FLOW (GPM)	DETAIL
	HUNTER	I-25-06-SS-10	**TURF AREAS:** FULL-CIRCLE 6-INCH POP-UP ROTOR BODY W/ STAINLESS STEEL RISER AND STANDARD NOZZLE	10	60	52	11.1	2/L3.5
	HUNTER	I-25-06-SS-23		23	60	64	21.9	2/L3.5

OVERHEAD POP-UP ROTOR SPRINKLERS (ADJUSTABLE ARC)

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	DESCRIPTION	NOZZLE	OPER. PSI	RADIUS (FEET)	FLOW (GPM)	DETAIL
	HUNTER	I-25-06-SS-23	**TURF AREAS:** FULL-CIRCLE 6-INCH POP-UP ROTOR BODY W/ STAINLESS STEEL RISER AND STANDARD NOZZLE	23	60	64	21.9	2/L3.5

OVERHEAD POP-UP ROTATING STREAM SPRAY SPRINKLERS (ADJUSTABLE ARC)

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	DESCRIPTION	NOZZLE	OPER. PSI	RAD.	FLOW (GPM) 45°	90°	180°	210°	270°	360°	DETAIL
11	HUNTER	PROS-##-PRS40-CV-F-MP1000-#	**TURF AREAS:** ROTATING STREAM SPRAY NOZZLE ON 6-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED DRAIN CHECK VALVE, 40 PSI IN-STEM PRESSURE REGULATION, AND FLOGUARD TECHNOLOGY (PROS-06-PRS-CV-F). **SHRUB AREAS:** ROTATING STREAM SPRAY NOZZLE ON 12-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED DRAIN CHECK VALVE, 40 PSI IN-STEM PRESSURE REGULATION, AND FLOGUARD TECHNOLOGY (PROS-12-PRS-CV-F).	MAROON	40	8'-15'		0.21	0.42	0.49			3/L3.5
10	HUNTER	PROS-##-PRS40-CV-F-MP1000-#		OLIVE	40	8'-15'						0.84	3/L3.5
21	HUNTER	PROS-##-PRS40-CV-F-MP2000-#		BLACK	40	13'-21'		0.43	0.77	0.86			3/L3.5
20	HUNTER	PROS-#3-PRS40-CV-F-MP2000-#		RED	40	13'-21'						1.48	3/L3.5
31	HUNTER	PROS-##-PRS40-CV-F-MP3000-#		BLUE	40	22'-30'		0.86	1.82	2.12			3/L3.5
30	HUNTER	PROS-##-PRS40-CV-F-MP3000-#		GRAY	40	22'-30'						3.64	3/L3.5
MC	HUNTER	PROS-##-PRS40-CV-F-MPCORNER		TURQUOISE	40	8'-15'	0.19	0.39	0.45				3/L3.5

OVERHEAD POP-UP SPRAY SPRINKLERS (FIXED ARC)

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	DESCRIPTION	NOZZLE	OPER. PSI	RAD.	FLOW (GPM) 90°	120°	180°	240°	270°	360°	DETAIL
15Q 15H 15F	HIT RAIN-PRO	90#-CKV- PRD30 M- 501-1##	**TURF AREAS:** SPRAY NOZZLE ON 6-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (906-CKV-PRD30). **SHRUB AREAS:** SPRAY NOZZLE ON 12-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (912-CKV-PRD30).	M-501-11# (BLACK)	30	15'	0.91	1.21	1.81	2.40	2.70	3.60	3/L3.5
12Q 12H 12F	HIT RAIN-PRO	90#-CKV- PRD30 M- 501-1##		M-501-1## (BROWN)	30	12'	0.60	0.81	1.21	1.60	1.85	2.45	3/L3.5
10Q 10H 10F	HIT RAIN-PRO	90#-CKV- PRD30 M- 501-1##		M-501-1## (BLUE)	30	10'	0.40	0.51	0.77			1.54	3/L3.5

OVERHEAD POP-UP SPRAY SPRINKLERS (FIXED SPECIAL PATTERN)

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	DESCRIPTION	NOZZLE	OPER. PSI	RAD.	FLOW (GPM) SST	EST	CST	DETAIL
15E	HIT RAIN-PRO	90#-CKV- PRD30 M- 501-133	**TURF AREAS:** SPRAY NOZZLE ON 6-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (906-CKV-PRD30).	M-501-133 (15EST)	30	4'X15'		0.60		3/L3.5
15C	HIT RAIN-PRO	90#-CKV- PRD30 M- 501-134	**SHRUB AREAS:** SPRAY NOZZLE ON 12-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (912-CKV-PRD30).	M-501-134 (15CST)	30	4'X30'			1.20	3/L3.5

TREE ROOT WATERING SYSTEMS AND VINE BUBBLERS

SYMBOL	MFG'R (OR APPROVED EQUAL)	MODEL # (OR APPROVED EQUAL)	TREE/ VINE LOCATION	OPERATING PRESSURE	RADIUS	FLOW (GPM)	FLOW	DETAIL
⊕	RAIN BIRD	RWS-B-1402	LANDSCAPE AREAS	30 PSI	N/A	0.50	INSTALL (2) RWS PER TREE. 1.0 GPM TOTAL FLOW PER TREE.	5,6/L3.5
⊕	RAIN BIRD	RWS-B-1401	DECOMPOSED GRANITE	30 PSI	N/A	0.25	INSTALL (4) RWS PER TREE. 1.0 GPM TOTAL FLOW PER TREE.	5,6/L3.5
■	HUNTER	IH-18-60-CV	VINE POCKETS	30 PSI	N/A	0.1	INSTALL (1) LOW FLOW BUBBLER PER VINE ON A FLEX RISER. LOCATE BUBBLER ON TOP OF ROOT BALL.	2/L3.7

NON-PRESSURE LATERAL PIPE SIZING CHART
SCHEDULE 40 IPS U.S. PVC PLASTIC PIPE (FOR REFERENCE USE ONLY)

PIPE SIZE	MAXIMUM GALLONS PER MINUTE
3/4 -INCH	0 - 6
1 - INCH	7 - 12
1-1/4 - INCHES	13 - 20
1-1/2 - INCHES	21 - 30
2 - INCHES	31 - 45
2-1/2 - INCHES	46 - 70
3 - INCHES	71 - 100

PRESSURE MAINLINE PIPE SIZING CHART
CLASS 200 & SCH. 40 IPS U.S. PVC PLASTIC PIPE (FOR REFERENCE USE ONLY)

PIPE SIZE	MAXIMUM GALLONS PER MINUTE
1 - INCH	0 - 12
1-1/4 - INCHES	13 - 20
1-1/2 - INCHES	21 - 30
2 - INCHES	31 - 45
2-1/2 - INCHES	46 - 70
3 - INCHES	71 - 100
4 - INCHES	101 - 200

CONDUIT/PIPE SLEEVE SIZING CHART
(FOR REFERENCE USE ONLY)

SCHEDULE 40 PVC PIPE SLEEVE SIZE	MAXIMUM IRRIGATION PIPE/WIRE CONDUIT SIZE
2 - INCHES	1 - INCH
2-1/2 - INCHES	1-1/4 - INCH
3 - INCHES	1-1/2 - INCH
4 - INCHES	2 - INCHES
6 - INCHES	3 - INCHES
8 - INCHES	4 - INCHES
SPARE SLEEVE SIZE TO MATCH LARGEST SLEEVE AT SAME CROSSING LOCATION.	

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CIVIL ENGINEER
BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE
IRRIGATION LEGEND

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP
LICENSED LANDSCAPE ARCHITECT
OLIVIA JANE JO
SIGNATURE
RENEWAL DATE 8-30-24
DATE 2-13-23
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
L3.0
SHEET 29 OF 85 SHEETS

AUTOMATIC IRRIGATION CONTROLLER NOTES

1. CONTROLLERS SHALL BE INSTALLED AT THE APPROXIMATE LOCATIONS SHOWN ON THE IRRIGATION PLANS. FINAL LOCATION SHALL BE APPROVED BY OWNER'S REPRESENTATIVE. REFER TO THE ELECTRICAL ENGINEERING DWGS FOR THE POINT OF CONNECTION TO THE POWER SOURCE.

2. ALL CABLES AND CONDUCTORS MUST BE INSTALLED IN CONDUIT AND SEALED PER NOTE 7 BELOW. EXTEND CONDUITS ALONG WITH APPROPRIATE CABLES/CONDUCTORS TO LOCATIONS SHOWN ON PLANS. REMOTE CONTROL WIRES SHALL BE DIRECT BURIAL.

3. PRIOR TO CONSTRUCTION, CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE, CONTROLLER REPRESENTATIVE, AND OTHER NECESSARY PARTIES ASSOCIATED WITH THE INSTALLATION OF IRRIGATION EQUIPMENT.

4. IRRIGATION CONTROLLER ASSEMBLY BY CALSENSE.

5. ALL CONDUCTORS AND WIRING SHALL BE NEATLY ARRANGED AND ORDERED SO THAT CLEAR ACCESS TO ALL EQUIPMENT IS MAINTAINED.

6. PROVIDE ENGRAVED SCREW-ON PHENOLIC NAMEPLATE ON DEVICE BOX INDICATING LOCATION AND NAME OF ORIGINATING ELECTRICAL PANEL AND BRANCH CIRCUIT IDENTIFICATION NUMBER.

7. CONTRACTOR SHALL SEAL OFF ENDS OF CONDUIT AFTER INSTALLING CONDUCTORS/WIRES WITH DUCT SEAL, AND CAP ENDS OF ALL SPARE CONDUITS. EXTEND SPARE CONDUITS 24" BEYOND FOUNDATION AND CAP WITH BRASS CAP.

8. THE CONTRACTOR SHALL INSTALL THREE (3) SPARE CONTROL WIRES FROM THE CONTROLLER ALONG THE ENTIRE LENGTH OF MAIN LINE PIPE, AND PROVIDE 36" OF EXTRA WIRE WITHIN FURTHEST VALVE BOX(ES) ON EACH BRANCH OF MAIN LINE PIPE. THE SPARE WIRES SHALL BE A DIFFERENT COLOR THAN THE ACTIVE CONTROL WIRES OR THE COMMON WIRE. CAP SPARE WIRES WITH WIRE NUTS WRAPPED WITH VINYL ELECTRICAL TAPE. LABEL "SPARE".

9. CONTROLLER SHALL BE COVERED BY A 5 YEAR MINIMUM MANUFACTURER'S WARRANTY.

10. CONTRACTOR TO FURNISH, INSTALL, AND TEST COMPLETE ITS AUTOMATIC IRRIGATION CONTROLLER ASSEMBLY CONSISTING OF CONTROLLER(S), ENCLOSURE, TERMINAL INTERFACE BOARDS, 120 VOLT GFI OUTLET, ON/OFF SWITCH, CABLING, TRANSFORMERS, SURGE ARRESTERS, AND ALL OTHER ITEMS SPECIFIED.

11. REFER TO IRRIGATION LEGEND SHEET FOR OTHER IRRIGATION SYSTEM COMPONENTS AND MATERIALS REQUIRED FOR PROJECT.

12. UPON COMPLETION OF INSTALLATION, CONTACT CONTROLLER REPRESENTATIVE TO PERFORM A SITE VISIT TO VERIFY THE SYSTEM HAS BEEN INSTALLED PER MANUFACTURER'S INSTRUCTIONS. THE SYSTEM WILL NOT BE ACCEPTED UNTIL THE REPRESENTATIVE HAS INDICATED THAT THE SYSTEM HAS BEEN INSTALLED CORRECTLY AND IS OPERATING SATISFACTORILY. CONTRACTOR TO PROVIDE PROGRAMMING OF CONTROLLER, WITH TRAINING (AT NO CHARGE) FROM CONTROLLER MANUFACTURER.

13. CONTRACTOR SHALL PROVIDE TWO KEYS FOR EACH OF THE THE CONTROLLER ENCLOSURES, AND SECURE THE ENCLOSURES WITH THE LOCK DURING CONSTRUCTION AND MAINTENANCE. LOCKS SHALL BE KEYED TO THE OWNER'S NUMBER ASSIGNED. IMMEDIATELY PRIOR TO PROJECT ACCEPTANCE, THE CONTRACTOR SHALL TURN THE KEYS OVER TO THE CITY.

EXISTING LANDSCAPE IRRIGATION NOTES

1. IRRIGATION DESIGN IS BASED ON CITY PROVIDED INFORMATION AND MAY NOT REFLECT ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF SITE CONDITIONS WHICH MAY PREVENT INSTALLATION OF WORK PER PLANS, DETAILS AND SPECIFICATIONS. ALL EXISTING IRRIGATION SYSTEM LAYOUT SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AT THE START OF WORK.

2. CONTRACTOR SHALL FIELD VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL MAINLINES THAT ARE TO BE CONNECTED TO OR CROSSED AT THE START OF WORK AND PROVIDE FINDINGS TO OWNER'S REPRESENTATIVE IN WRITING PRIOR TO THE START OF DEMOLITION.

3. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ANY EXISTING IRRIGATION SYSTEMS DIRECTLY ADJACENT AND OUTSIDE OF THE LIMIT-OF-WORK AREAS PRIOR TO THE START OF WORK. CONTRACTOR SHALL DOCUMENT ANY BROKEN OR MALFUNCTIONING PIECE OF IRRIGATION EQUIPMENT AND PROVIDE THE OWNER'S REPRESENTATIVE WITH A WRITTEN REPORT. ANY REPAIRS REQUIRED TO COMPONENTS NOT NOTED IN THE REPORT DURING OR AFTER DEMOLITION IS COMPLETED SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR AND ALL REPAIR WORK SHALL BE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING IRRIGATION SYSTEM TO REMAIN CAUSED BY EITHER THEIR OR THEIR SUB-CONTRACTORS OPERATIONS OR NEGLECT. IN CASE OF DAMAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ANY REQUIRED REPAIRS AS SOON AS POSSIBLE. REPAIRS SHALL BE THE DIRECTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND SHALL BE TO THE EXACT DUPLICATE OF ORIGINAL WORK OR HIGHER QUALITY.

5. EXISTING IRRIGATION OUTSIDE OF AREAS OF WORK SHALL REMAIN FULLY OPERATIONAL. NO DISRUPTION OF THE EXISTING IRRIGATION SYSTEM'S WATERING OR OPERATION SHALL BE ALLOWED DURING THE COURSE OF CONSTRUCTION. THE EXISTING IRRIGATION SYSTEM SHALL MAINTAIN AUTOMATIC PROGRAMMED WATERING SCHEDULES THROUGHOUT CONSTRUCTION AND SHALL BE SUPPLEMENTED BY MANUAL WATERING ONLY WHEN REQUIRED OR REQUESTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

6. PROTECT ALL EXISTING MAINLINE, CONTROL VALVES AND WIRES, AND IRRIGATION EQUIPMENT, INCLUDING BY NOT LIMITED TO PRESSURE REDUCING VALVES, MASTER VALVES, FLOW SENSORS, ETC., NECESSARY FOR THE OPERABILITY OF THE EXISTING IRRIGATION SYSTEM TO REMAIN. REMOVE EXISTING IRRIGATION EQUIPMENT ONLY WHEN REQUIRED AS PART OF NEW IRRIGATION SYSTEM INSTALLATION.

7. ANY EXISTING IRRIGATION CONTROL VALVES CONNECTED TO EXISTING CONTROLLER(S) SHALL REMAIN CONNECTED UNLESS OTHERWISE NOTED ON PLANS. CONFIRM PROPER EXISTING CONTROLLER OPERATION WITH CITY'S REPRESENTATIVE UPON COMPLETION OF WORK.

8. EXISTING EQUIPMENT MAY BE RELOCATED FROM THE AREA OF WORK IF REQUIRED IN ORDER TO MAINTAIN OPERABILITY OF THE EXISTING IRRIGATION SYSTEM DURING AND AFTER CONSTRUCTION. RELOCATE EXISTING EQUIPMENT ONLY AS REQUIRED TO REMAIN FUNCTIONAL AND AS PER CITY'S REPRESENTATIVE APPROVAL.

EXISTING UTILITIES NOTES

1. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, VERIFY THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, STRUCTURES, AND SERVICES WHICH MAY AFFECT CONTRACTOR'S OPERATION DURING CONSTRUCTION BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.

2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND POWER AND/OR TELEPHONE, WATER, GAS, OIL, SEWER, ETC., SO AS TO SAFELY PROTECT ALL UTILITIES, PERSONNEL, AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION HEREIN.

3. WHERE IT IS NECESSARY TO EXCAVATE IN AREAS OF EXISTING UTILITIES, THE CONTRACTOR SHALL POTHOLE TO CONFIRM EXACT LOCATIONS OF EXISTING UTILITIES.

4. IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE SAME.

5. IN CASE OF INTERRUPTION OF UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION OR NEGLECT, THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR RECONSTRUCT DAMAGED ITEMS TO THE OWNER'S AND/OR UTILITY'S REPRESENTATIVE SATISFACTION AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE THE UTILITIES IN SERVICE AS SOON AS POSSIBLE.

GENERAL LANDSCAPE IRRIGATION NOTES:

1. THE CONTRACTOR SHALL OBTAIN ANY PERTINENT ENGINEERING AND/OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.

2. THE CONTRACTOR IS RESPONSIBLE FOR THE ACQUISITION OF ALL NECESSARY PERMITS ASSOCIATED WITH THE CONSTRUCTION WORK INDICATED HEREIN BEFORE BEGINNING WORK.

3. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT THE POINT-OF-CONNECTION. THE CONTRACTOR SHALL VERIFY WATER PRESSURE FOR APPROVAL BY OWNER'S REPRESENTATIVE AND PRIOR TO CONSTRUCTION AND PRIOR TO ORDERING MATERIALS. CONTRACTOR SHALL REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER's REPRESENTATIVE. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS, AND COSTS ASSOCIATED WITH SAID REVISIONS.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH EXISTING CONDITIONS, EXISTING IRRIGATION SYSTEM TO REMAIN AND BE MODIFIED, GRADE DIFFERENCES, AND LOCATIONS OF ARCHITECTURAL FEATURES, INCLUDING BUT NOT LIMITED TO WALLS, PAVING, FENCING, ETC. CONTRACTOR SHALL COORDINATE WORK WITH ALL TRADES FOR LOCATION OF PIPE SLEEVES THROUGH WALLS, UNDER PAVING, STRUCTURES, ETC.

3. IN ADDITIONAL TO SLEEVES SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF PIPE SLEEVEING FOR ALL PIPE UNDER PAVED AREAS, HARDSCAPE, AND AS DIRECTED BY OWNER'S REPRESENTATIVE. SLEEVING SHALL BE OF ADEQUATE SIZE BUT NO LESS A MINIMUM OF TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE CARRIED. SLEEVES SHALL EXTEND AT LEAST 12" PAST THE EDGE OF PAVING. REFER TO SLEEVING CHART FOR MORE INFORMATION.

4. THE CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE LANDSCAPE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS AND TRADES FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT, AND SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING, STRUCTURES, ETC., BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REQUIRED REVISIONS.

5. IRRIGATION COMPONENTS SHOWN WITHIN PAVED AREAS ARE FOR GRAPHIC CLARITY ONLY. PLACE ALL PIPING, VALVES, QUICK COUPLING VALVES, AND OTHER IRRIGATION COMPONENTS WITHIN LIMIT OF WORK BOUNDARIES AND IN SHRUB PLANTING AREAS EXCEPT WHERE PIPES CROSS PAVING OR AS NOTED. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM AND TREES, PLANTINGS, SITE FEATURES AND UTILITIES INCLUDING STORM DRAINAGE.

6. INSTALLATION OF THE IRRIGATION SYSTEM UNDER THIS CONTRACT SHALL CONFORM TO ALL LOCAL, COUNTY, AND STATE PROVISIONS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THE WORK TO BE PERFORMED AND ARE HEREBY INCORPORATED INTO AND MADE PART OF THESE CONSTRUCTION DOCUMENTS AND SHALL BE CARRIED OUT BY THE CONTRACTOR. IN THE EVENT OF DIFFERENCES BETWEEN THE CODE COMPLIANCE REQUIREMENTS OF THIS CONTRACT, THE BETTER QUALITY, HIGHER STANDARD, LARGER SIZE, AND MORE STRINGENT REQUIREMENT SHALL PREVAIL.

7. PRIOR TO ANY TRENCHING THE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL NEW AND EXISTING UNDERGROUND UTILITY LINES. CALL 811 A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.

8. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER TO MAINTAIN GOOD PLANT HEALTH, APPEARANCE AND REASONABLE GROWTH. THE AMOUNT OF SUPPLEMENTAL WATER A PLANT REQUIRES IS DEPENDENT ON SOIL TYPE, PLANT MATERIAL, ROOTING DEPTH, CLIMATE, SEASONAL CHANGES, SLOPES, MOUNDS, SUN, SHADE AND WIND. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE IRRIGATION SCHEDULE AND ET VARIABLES AS NEEDED. IN ADDITION, THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL WATER TO ACCOMMODATE SPECIAL WATERING NEEDS OF PLANT MATERIAL THROUGH THE MAINTENANCE PERIOD. ACTUAL STATION RUN TIMES MAY VARY IN ACCORDANCE WITH VARYING SITE CONDITIONS.

9. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, STRUCTURES, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF NOZZLE WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS. WHEN VERTICAL OBSTRUCTIONS (PROPS, STREET LIGHTS, TREES, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE SPRINKLER HEADS PREVENTING PROPER COVERAGE, THE CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER CIRCLE OR HALF CIRCLE SPRINKLER HEAD ON EACH SIDE OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NO EXTRA PAYMENT WILL BE MADE WHERE PIPING MUST BE OFFSET TO AVOID EXISTING CONDITIONS, OTHER WORK OR WHERE CHANGES ARE NECESSARY TO FACILITATE INSTALLATION.

10. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE DRIPLINE LAYOUT AS PER ACTUAL FIELD CONDITIONS TO ACHIEVE FULL COVERAGE OF ALL PLANTED AREAS. THE CONTRACTOR WILL BE RESPONSIBLE OF INSTALLING ADDITIONAL DRIPLINE, AS NEEDED, TO PROVIDE ADEQUATE COVERAGE, AT NO ADDITIONAL COST TO THE CLIENT. REFER TO IRRIGATION EQUIPMENT LEGEND FOR MAXIMUM ALLOWED VERTICAL DRIPLINE SPACING.

11. IRRIGATION SYSTEM SHALL BE OPERATIONAL & COVERAGE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF PLANTING MATERIAL.

12. THE CONTRACTOR SHALL ADJUST THE PRESSURE REGULATOR ON EACH REMOTE CONTROL VALVE SO THAT THE SPRINKLER HEAD FARTHEST AND HIGHEST IN ELEVATION FROM ITS RESPECTIVE CONTROL VALVE OPERATES WITHIN THE OPERATING PRESSURE SHOWN ON THE IRRIGATION LEGEND. NOT TO EXCEED FIVE (5) PSI ABOVE THE GIVEN OPERATING PRESSURE FROM THE SPECIFIED PRESSURE LOCATED ON THE IRRIGATION LEGEND.

13. THE CONTRACTOR SHALL FLUSH ALL EMISSION EQUIPMENT FOR OPTIMUM PERFORMANCE TO PROVIDE OPTIMAL EVEN DISTRIBUTION OF WATER, AND TO PROVIDE PROPER COVERAGE.

14. DRIPLINE EMITTER FLOW RATE, EMITTER SPACING AND LATERAL SPACING IS BASED ON TYPICAL SOILS ENCOUNTERED IN THE AREA. THE CONTRACTOR SHALL MAKE ANY MODIFICATION TO EMITTER FLOW RATE, EMITTER SPACING, AND LATERAL SPACING AS REQUIRED TO COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR AN EVEN WETTED PATTERN, BASED ON ACTUAL SOIL ANALYSIS. REFER TO DRIPLINE MANUFACTURER RECOMMENDATIONS FOR ADDITIONAL INFORMATION. FINAL EMITTER SPACING AND FLOW RATE TO BE APPROVED BY THE CLIENT REPRESENTATIVE

15. DRAINAGE OF IRRIGATION WATER THROUGH DRIP EMITTERS WILL NOT BE ALLOWED. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL ADDITIONAL IN-LINE CHECK VALVES AS REQUIRED IN ANY AREA WHERE EMISSION DEVICES SHOW SIGNS OF DRAINAGE AFTER IRRIGATION SYSTEM HAS OPERATED FROM AN ON TO OFF POSITION. INSTALLATION OF ADDITIONAL IN-LINE CHECK VALVES SHALL BE INCLUDED IN THE BID PRICE WITHOUT ADDITIONAL COST TO THE CLIENT.

16. CONTRACTOR SHALL ADJUST THE DRIPLINE LAYOUT, WHEN PLANTER SLOPE IS GREATER THAN 5 PERCENT,TO PROVIDE LATERAL ROW SPACING THAT IS 25 PERCENT GREATER WITHIN THE BOTTOM ONE-THRID OF THE SLOPE.

17. LOCATIONS AND THE QUANTITIES OF FLUSH VALVES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING FOR INSTALLING ADDITIONAL FLUSH VALVES, AS NEEDED, ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

18. ALL VALVES PROVIDING IRRIGATION TO SLOPES AREAS SHALL BE SCHEDULED IN MULTIPLE, SHORT CYCLES TO HELP ELIMINATE IRRIGATION WATER RUNOFF.

19. SHOULD FIELD CONDITIONS REQUIRE PIPE INSTALLATION OTHER THAN THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL LIMIT EXCESS FLOW AND SIZE ALL PIPE NOT TO EXCEED A VELOCITY OF 5-FEET PER SECOND (FPS) IN PVC PIPE. PIPE THROUGH ANCILLARY EQUIPMENT, BRASS AND COPPER PIPE SHALL NOT EXCEED A VELOCITY OF 7-1/2 FPS. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER, UNLESS PREVIOUSLY APPROVED BY THE OWNER.

20. MAINLINE PIPE SIZE DOWNSTREAM OF LAST PIPE SIZE INDICATED TO BE THE SAME AS INLET OF PRODUCT IT SUPPLIES, BUT NOT LESS THAN 1-INCH. LATERAL PIPE SIZES DOWNSTREAM OF LAST PIPE SIZE CALL OUT SHALL BE SAME AS THE LAST PIPE SIZE CALLED OUT, BUT NO LESS THAN 3/4-INCH.

21. ALL IRRIGATION EQUIPMENT SHALL BE AS LISTED OR EQUAL AS APPROVED BY THE OWNER'S REPRESENTATIVE.

22. SEE IRRIGATION DETAILS, TECHNICAL SPECIFICATIONS AND PLANTING PLANS AS PART OF THESE CONSTRUCTION DOCUMENTS.

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93247

SHEET TITLE

IRRIGATION NOTES

DATE	REVISION
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12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
L3.0A
SHEET 30 OF 85 SHEETS

GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.4, L3.5, L3.6 AND L3.7 FOR ADDITIONAL INFORMATION.
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5. CONTRACTOR SHALL ROUTE ALL IRRIGATION MAINLINE, LATERAL PIPE AND SLEEVES AROUND ALL SERVICE LINES, UTILITIES, STORM DRAINAGE FACILITIES, ETC. IN ORDER TO AVOID ANY CONFLICTS IN THE FIELD. INSTALL IRRIGATION PIPE BELOW STORM DRAINAGE PIPES WHERE REQUIRED TO MAINTAIN THE MINIMAL DEPTH REQUIREMENTS.

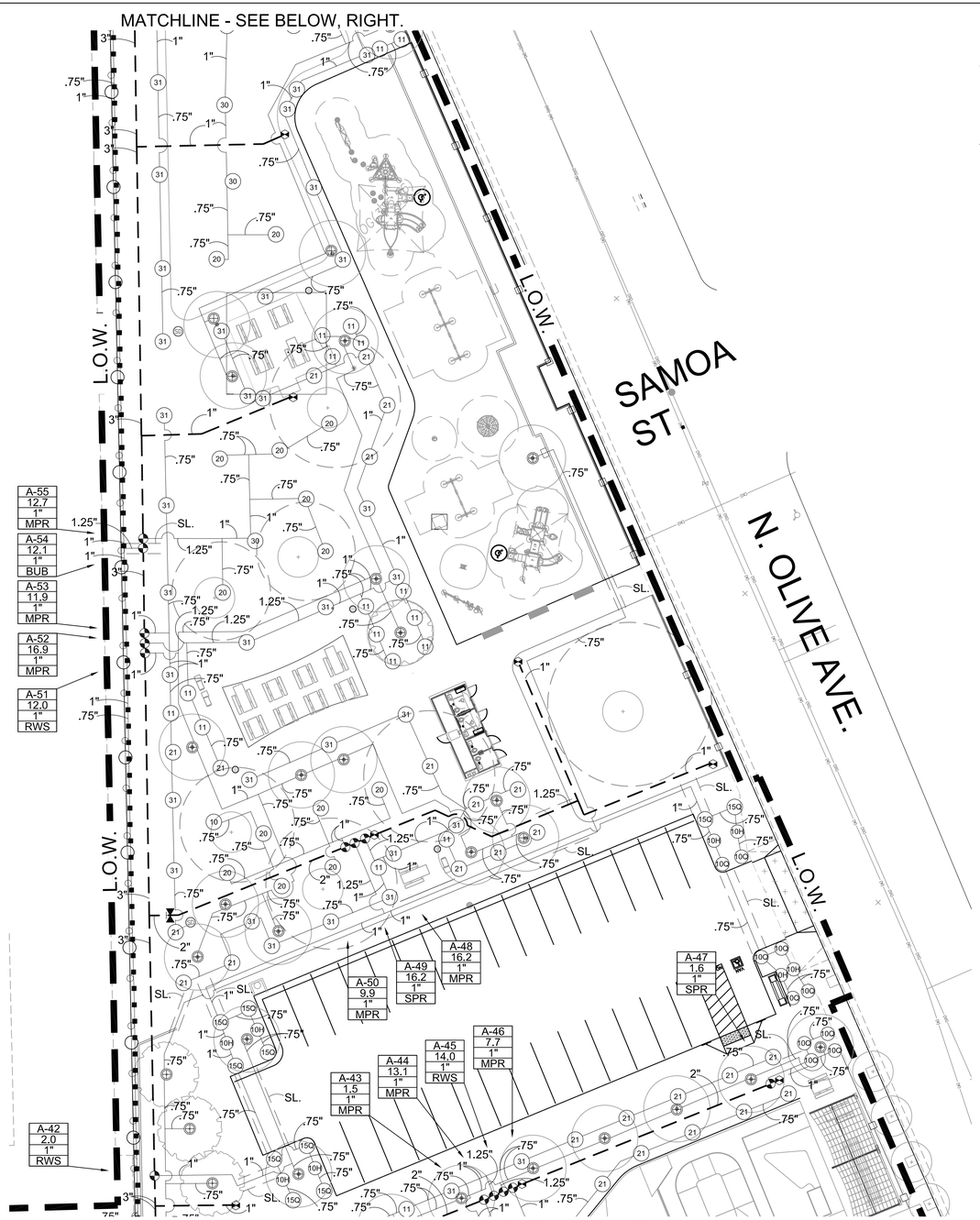
GENERAL IRRIGATION LEGEND

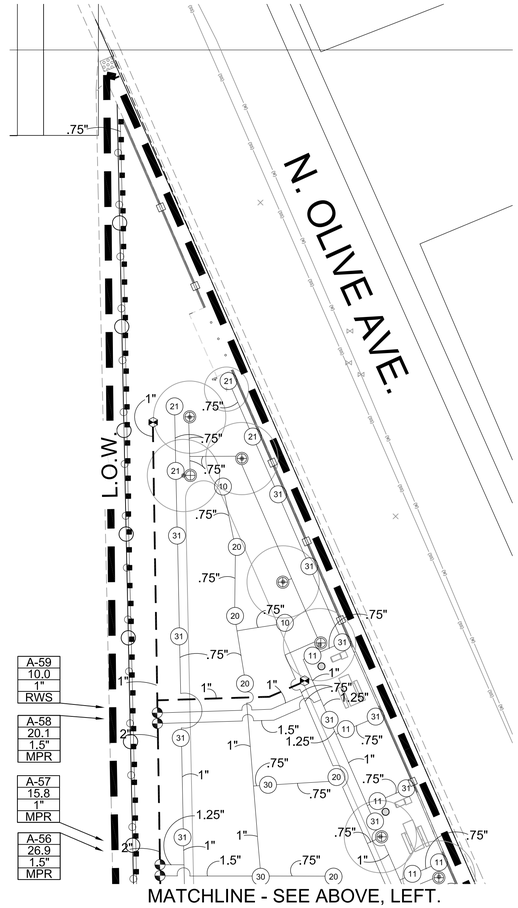
SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

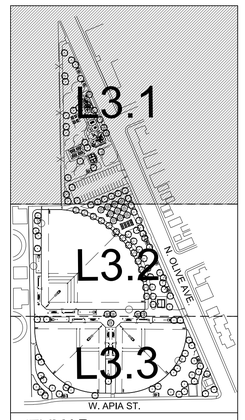
#M	MAINLINE PIPE SLEEVE QUANTITY
#L	LATERAL PIPE SLEEVE QUANTITY
#S	EMPTY SLEEVE QUANTITY
#W	WIRE SLEEVE QUANTITY

VALVE CALLOUT:

CONTROLLER NUMBER
GALLONS PER MINUTE
VALVE SIZE
RWS - TREE ROOT WATERING SYSTEM
ROT - POP-UP ROTOR
MPR - POP-UP STREAM ROTOR
SPR - POP-UP SPRAY
BUB - VINE BUBBLER
1-1/2" PIPE SIZING CALL-OUT







KEYMAP

MWELO IRRIGATION DESIGN PLAN REQUIRED NOTES:

1. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
2. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.

MWELO REQUIRED STATEMENTS & CERTIFICATION:

1. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
2. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
3. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

"I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE.

SIGNATURE DATE

"I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS."

0 10' 20' 40'

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ISE
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SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

IRRIGATION PLAN

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12-8-21	90% CD Submittal
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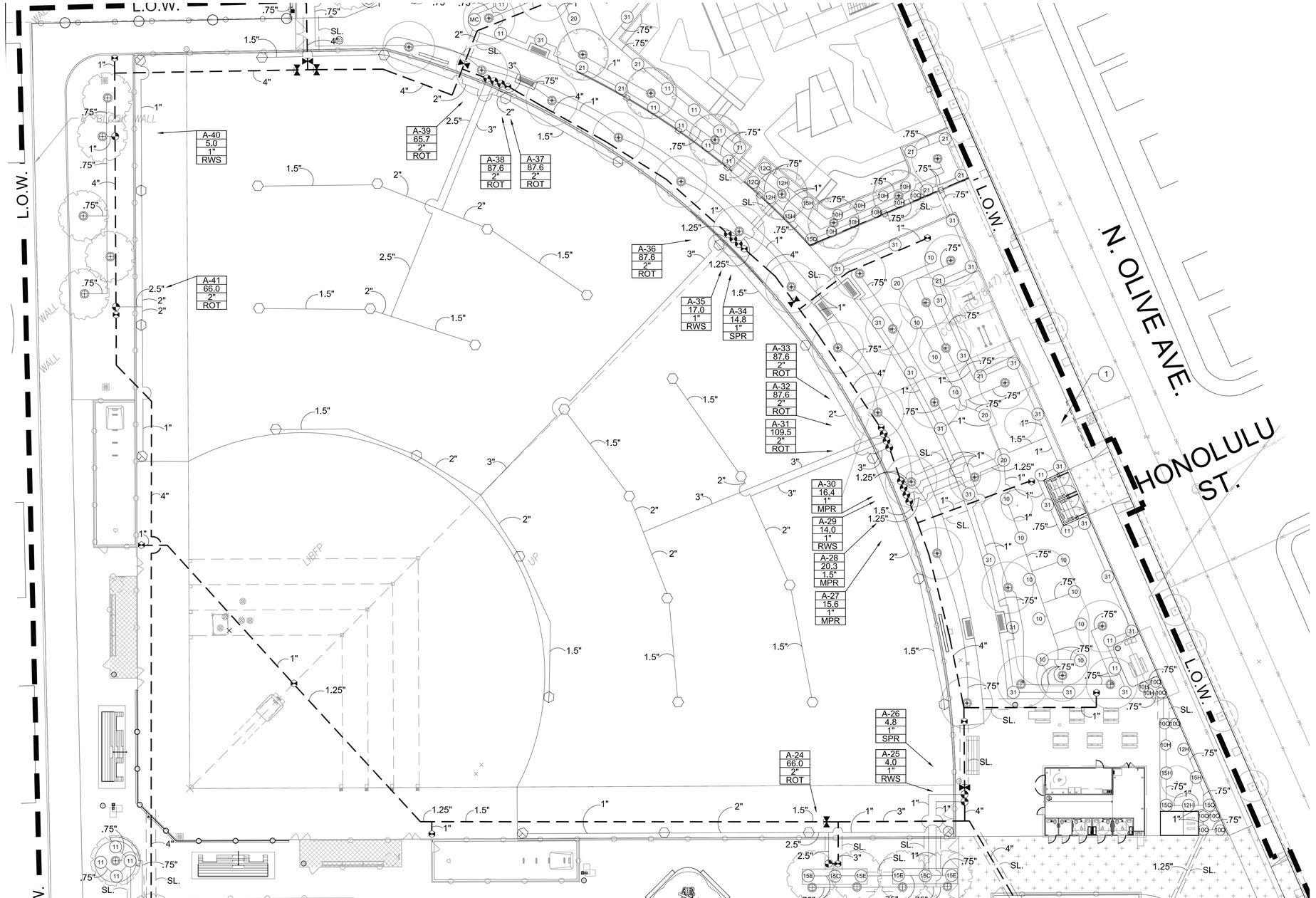
STAMP

LANDSCAPE ARCHITECT
LAUREN N. LANG NO. 6471
SIGNATURE
11-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
L3.1
SHEET 31 OF 85 SHEETS

MATCHLINE - REFER TO SHEET L3.1



MATCHLINE - REFER TO SHEET L3.3

GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

#M	MAINLINE PIPE SLEEVE QUANTITY
#L	LATERAL PIPE SLEEVE QUANTITY
#S	EMPTY SLEEVE QUANTITY
#W	WIRE SLEEVE QUANTITY

VALVE CALLOUT:

- CONTROLLER NUMBER
- GALLONS PER MINUTE
- VALVE SIZE

RWS - TREE ROOT WATERING SYSTEM
ROT - POP-UP ROTOR
MPR - POP-UP STREAM ROTOR
SPR - POP-UP SPRAY
BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT

IRRIGATION KEYED NOTES FOR SHEET L3.2

1	EXISTING 2" DOMESTIC WATER METER: REFER TO UTILITY PLANS.

GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.4, L3.5, L3.6 AND L3.7 FOR ADDITIONAL INFORMATION.
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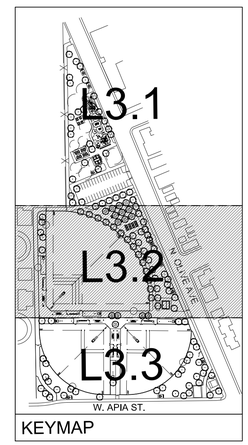

KEYMAP

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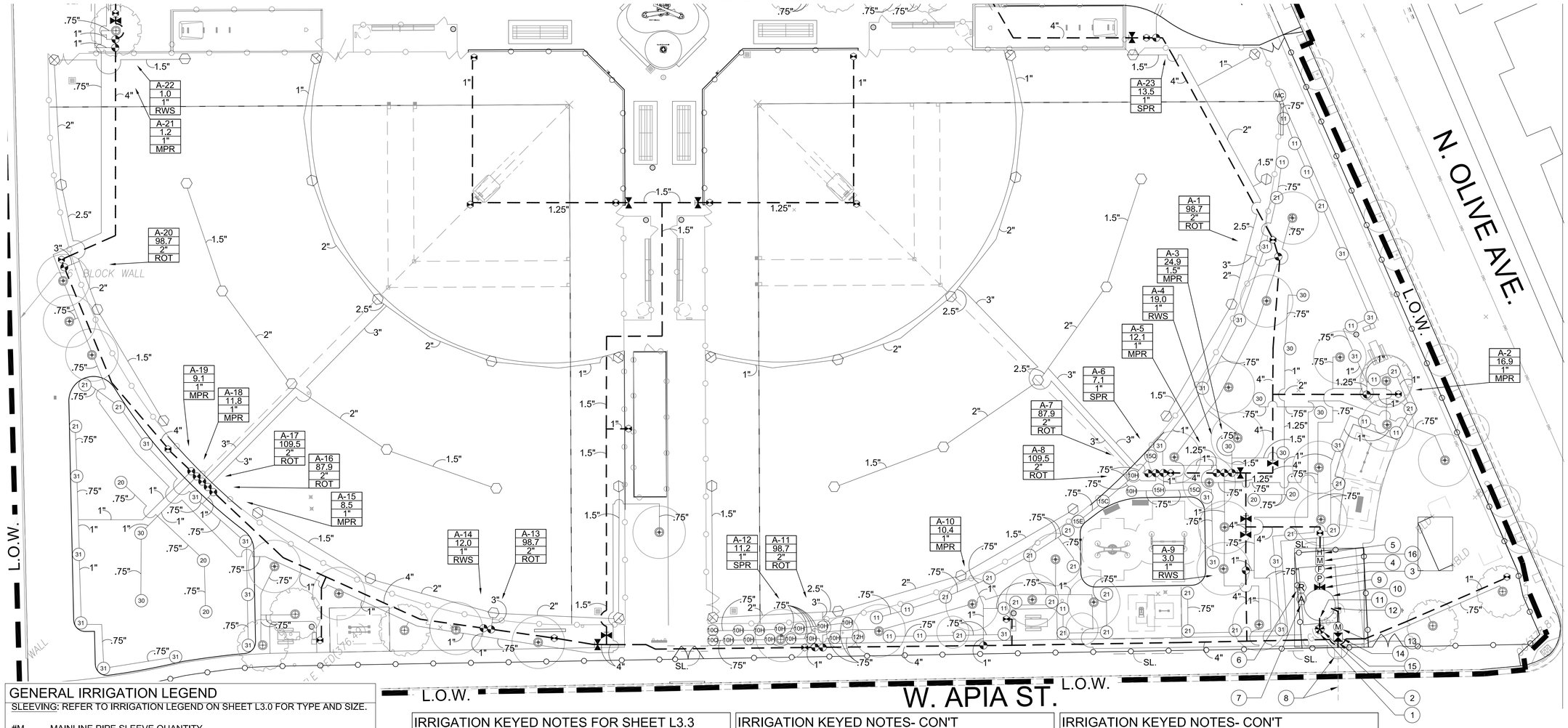
H.D.	05500.00

SHEET
L3.2
SHEET 32 OF 85 SHEETS

MATCHLINE - REFER TO SHEET L3.2



GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

#M MAINLINE PIPE SLEEVE QUANTITY
#L LATERAL PIPE SLEEVE QUANTITY
#S EMPTY SLEEVE QUANTITY
#W WIRE SLEEVE QUANTITY

VALVE CALLOUT:

- CONTROLLER NUMBER
- GALLONS PER MINUTE
- VALVE SIZE
- RWS - TREE ROOT WATERING SYSTEM
  ROT - POP-UP ROTOR
  MPR - POP-UP STREAM ROTOR
  SPR - POP-UP SPRAY
  BUB - VINE BUBBLER
- 1-1/2" PIPE SIZING CALL-OUT

GENERAL NOTES

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IRRIGATION KEYED NOTES FOR SHEET L3.3

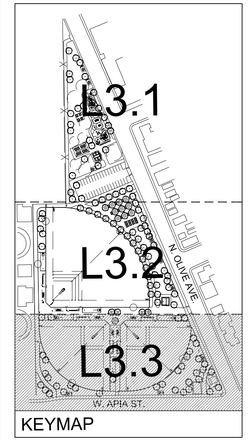
1	IRRIGATION SYSTEM PRIMARY WATER SUPPLY:
	SOURCE: EXISTING WELL- NO PUMP
	PUMP TO BE PROVIDED BY WELL SPECIALIST (BY CITY) TO MOVE WATER FROM THE EXISTING WELL INTO THE IRRIGATION STORAGE TANK AT RATE OF 200GPM
	WELL DISCHARGE PIPE SIZE (BY WELL SPECIALIST): 4"
	WELL CASING DIAMETER (PER CITY): 14"
	WELL DEPTH/ DEPTH TO WATER: 550'/ 159'
2	POINT-OF-CONNECTION (POC) TO WELL WATER SUPPLY:
	CONTRACTOR TO PROVIDE 4" DISCHARGE PIPE FROM EXISTING WELL TO IRRIGATION STORAGE TANK LOCATION. PIPE WILL BE INSTALLED UP SIDE OF TANK AND INTO TOP OF TANK WITH BULKHEAD FITTING. PROVIDE MINIMUM 12" AIR GAP FROM PIPE TO HIGH WATER LEVEL IN TANK. SEE NOTE 11.
3	IRRIGATION BOOSTER PUMP:
	INSTALL PER DETAILS AND AS REQUIRED BY MANUFACTURER. CONNECT TO NEW 480 VOLT, 3 PHASE POWER SUPPLY PER ELECTRICAL DRAWINGS. BOOSTER PUMP WILL PROVIDE 200GPM @ 85PSI.
4	AUTOMATIC SELF FLUSHING FILTER:
	INSTALL FILTER ASSEMBLY PER MANUFACTURE'S INSTRUCTIONS. 120 VOLT POWER REQUIRED. 2" CONNECTION TO DRAIN OR GRAVEL SUMP FOR BACK FLUSH CYCLE.
5	OCTAVE ULTRASONIC WATER METER:
	NO OUTPUT FOR FLOW (METER ONLY). MINIMUM OPERATING FLOW OF 1 GPM AND A MAXIMUM OPERATING FLOW OF 200 GPM. THIS DEVICE WILL RECORD WELL WATER USE.

IRRIGATION KEYED NOTES- CON'T

6	WIRELESS RAIN SHUT-OFF SENSOR:
	MOUNT SENSOR ON TOP OF FENCE POST. CONTRACTOR SHALL POSITION SENSOR TO PROVIDE OPTIMAL EXPOSURE TO UNOBSTRUCTED RAIN FALL AS PER MANUFACTURER'S RECOMMENDATIONS.
7	AUTOMATIC IRRIGATION CONTROLLER 'A':
	APPROXIMATE LOCATION OF PEDESTAL MOUNTED CONTROLLER. CONNECT TO NEW 120V ELECTRICAL POWER SOURCE AS PER ELECTRICAL DRAWINGS. FINAL LOCATION OF CONTROLLER PER CLIENT. REFER TO GENERAL IRRIGATION NOTES FOR ADDITIONAL REQUIREMENTS.
8	PROPOSED 3" DOMESTIC WATER METER FOR IRRIGATION:
	THIS WATER SUPPLY IS A SECONDARY WATER SOURCE, ONLY TO BE USED IF THERE IS AN ISSUE WITH THE PRIMARY WELL WATER SUPPLY.
	STATIC PRESSURE AT WATER METER (PER CITY): 54 PSI
	MINIMUM REQUIRED DESIGN PRESSURE: 85 PSI
	PEAK FLOW (MAX. DEMAND): 200 GPM
	IRRIGATION AREA (SF): 173,839
	ANNUAL USAGE (ACRE-FT): 16.33
9	4" IRRIGATION SHUT OFF VALVE AT TANK DISCHARGE PIPE:
	INSTALL GATE VALVE TO BE USED WHEN TANK WATER SUPPLY REQUIRES TO BE SHUT OFF. THIS VALVE WILL REMAIN OPEN IN NORMAL OPERATING CONDITIONS.
10	5000 GALLON IRRIGATION STORAGE TANK:
	INSTALL TANK ON 6" REINFORCED CONCRETE PAD AS DETAILED AND AS DIRECTED BY MANUFACTURER.

IRRIGATION KEYED NOTES- CON'T

11	4" WELL WATER FILL PIPE TO IRRIGATION STORAGE TANK:
	LOCATION OF BULKHEAD FITTING AND 12" MINIMUM AIR GAP ABOVE HIGH WATER LINE IN TANK.
12	4" DOMESTIC WATER FILL PIPE TO IRRIG. STORAGE TANK:
	LOCATION OF BULKHEAD FITTING AND 12" MINIMUM AIR GAP ABOVE HIGH WATER LINE IN TANK.
13	4" NORMALLY CLOSED DOMESTIC WATER FILL VALVE:
	IF FLOAT IN THE TANK REACHES THE LOW LEVEL WATER MARK, THE WELL PUMP WILL BE TURNED OFF AND THIS FILL VALVE WILL BE OPENED FOR THE IRRIGATION CYCLE.
14	4" REDUCED PRESSURE BACKFLOW PREVENTER:
	INSTALL AS DETAILED AND AS REQUIRED BY LOCAL CODES.
15	4" DOMESTIC WATER PIPE FOR SECONDARY WATER SUPPLY:
	INSTALL PIPE FROM DOMESTIC WATER METER TO BACKFLOW PREVENTER, FROM BACKFLOW PREVENTER TO NORMALLY CLOSED DOMESTIC WATER FILL VALVE AND FROM NORMALLY CLOSED DOMESTIC WATER FILL VALVE TO IRRIGATION STORAGE TANK. SEE NOTE 12.
16	4" NORMALLY CLOSED MASTER CONTROL VALVE:
	CONTROLLER OPENS THIS VALVE WHEN EVER THE BOOSTER PUMP START RELAY IS ACTIVATED .



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SHEET TITLE

IRRIGATION
PLAN

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LAUREN N. LANG NO. 6411
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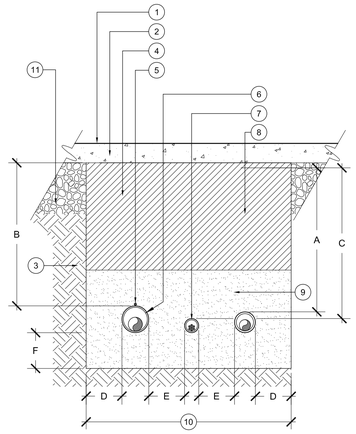
SHEET
L3.3
SHEET 33 OF 85 SHEETS

DEPTH	A	B	C	D	E	F
4" AND LARGER	N/A	30"	N/A	6"	6"	6"
3" AND SMALLER	24"	24"	N/A	6"	6"	6"
2-1/2" AND SMALLER	24"	24"	N/A	6"	6"	6"
CONTROL WIRES	N/A	N/A	24"	6"	6"	6"

NOTES:

1. DIG SIDES OF TRENCH SQUARE AND CLEAN OF ALL SHARP MATERIAL.
2. NON-PRESSURE PIPES RUNNING PARALLEL TO EACH OTHER MUST HAVE A MIN. CLEARANCE OF 6" FROM EACH OTHER.
3. IRRIGATION PIPES SHALL HAVE A MIN. CLEARANCE OF 24" FROM OTHER TRADES.
4. PROVIDE A 24" LOOP IN ALL WIRING AT CHANGES IN DIRECTION.
5. CONTRACTOR MUST ADJUST MAINLINE AS REQUIRED TO AVOID OTHER ELEMENTS.
6. ALL SLEEVES MUST BE A MIN. OF 2 TIMES THE DIAMETER OF THE PIPE WITHIN
7. ALL SLEEVES MUST EXTEND 12" MIN. DISTANCE PAST CURB OR PAVEMENT EDGES.

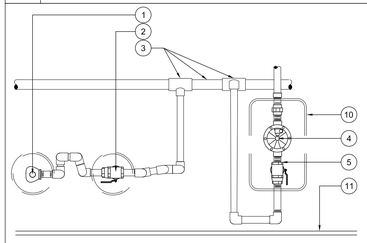


SECTION VIEW

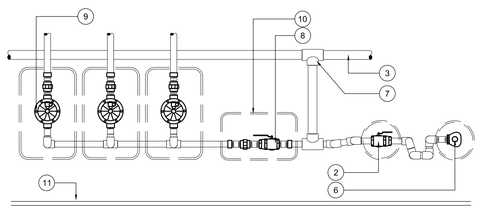
1. FINISH GRADE
2. VEHICULAR OR PEDESTRIAN PAVING
3. UNDISTURBED SOIL
4. COMPACTED BACKFILL OVER INITIAL SAND BEDDING:
   - BENEATH VEHICULAR PAVEMENT SHALL BE COMPACTED CLASS II AGG., DEPTH AND COMPACTION PER ENGINEER'S PLANS
   - BENEATH NON-VEHICULAR PAVEMENT SHALL BE NATIVE SITE SOIL, NO PARTICLES GREATER THAN 1". COMPACT PER SPECS.
5. COPPER TRACE WIRE, REFER TO SPECS.
6. PRESSURE MAINLINE PIPE SLEEVE, PER SPECS.
7. CONTROL WIRE SLEEVE, PER SPECS
8. NON-PRESSURE LATERAL LINE SLEEVE, SEE SPECS.
9. INITIAL SAND BACKFILL PER SPECS. PROVIDE 6" BEDDING DEPTH BELOW MAINLINE AND 6" COVER ABOVE MAINLINE. COMPACT PER SPECS.
10. 9" MIN. OR AS NEEDED TO PROVIDE FOR A MINIMUM 6" CLEARANCE BETWEEN PIPES.
11. PAVEMENT SUBGRADE - AS PER ENGINEER'S PLANS

2 TRENCHING - BENEATH PAVEMENT

Scale: N.T.S.



INDIVIDUAL QUICK COUPLER VALVE/ REMOTE CONTROL VALVE
PLAN VIEW DIAGRAM



VALVE MANIFOLD
PLAN VIEW DIAGRAM

1. INDIVIDUAL QUICK COUPLER VALVE WHEN VALVE IS NOT GROUPED WITHIN MAINLINE MANIFOLD ASSEMBLY.
2. ISOLATION BALL VALVE
3. PRESSURE MAINLINE AND TEE FITTING(S)
4. INDIVIDUAL REMOTE CONTROL VALVE WITH BALL VALVE WHEN MANIFOLD IS NOT USED
5. ISOLATION BALL VALVE WHEN SINGLE REMOTE CONTROL VALVE IS NOT GROUPED WITHIN MAINLINE MANIFOLD ASSEMBLY.
6. QUICK COUPLER VALVE
7. TEE. MUST BE MAINLINE SIZE.
8. ISOLATION GATE VALVE OR BALL VALVE. VALVE MUST BE MAINLINE SIZE.
9. MANIFOLD VALVES TOGETHER WHEN WITHIN 20 FEET OF EACH OTHER.
10. VALVE BOX, TYP.
11. EDGE OF AREA, ADJACENT PAVING OR CONCRETE CURB

NOTES:

1. ALL THREADED CONNECTIONS MUST HAVE TEFLON TAPE (PVC/ BRASS) OR PASTE (BRASS ONLY).
2. REMOTE CONTROL VALVES SHALL BE INSTALLED WITH THE LARGEST VALVE AND GPM FLOW INSTALLED FIRST ON THE MANIFOLD, WITH THE SMALLER VALVES AND CAPACITIES TRANSITIONING FROM THERE.
3. REFER TO DETAIL # FOR ALL ISOLATION BALL VALVE REQUIREMENTS.
4. REFER TO DETAIL # FOR QUICK COUPLER VALVE REQUIREMENTS.
5. REFER TO DETAIL # FOR REMOTE CONTROL VALVE REQUIREMENTS.
6. REFER TO DETAIL # FOR VALVE BOX LAYOUT REQUIREMENTS.
7. REFER TO DETAIL # FOR PRESSURE MAINLINE AND NON-PRESSURE LATERALS PIPE REQUIREMENTS.

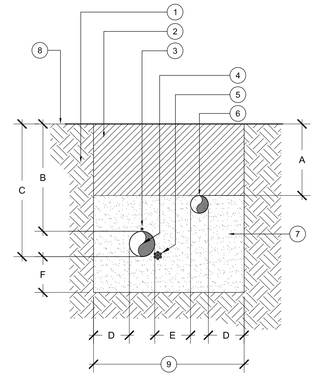
4 MANIFOLD INSTALLATION

Scale: N.T.S.

DEPTH	A	B	C	D	E	F
4" AND LARGER	N/A	24"	N/A	6"	6"	6"
3" AND SMALLER	12"	18"	N/A	6"	6"	6"
2-1/2" AND SMALLER	12"	18"	N/A	6"	6"	6"
CONTROL WIRES	N/A	N/A	BELOW MAINLINE	6"	6"	6"

NOTES:

1. DIG SIDES OF TRENCH SQUARE AND CLEAN OF ALL SHARP MATERIAL.
2. NON-PRESSURE PIPES RUNNING PARALLEL TO EACH OTHER MUST HAVE A MIN. CLEARANCE OF 6" FROM EACH OTHER.
3. IRRIGATION PIPES SHALL HAVE A MIN. CLEARANCE OF 24" FROM OTHER TRADES.
4. PROVIDE A 24" LOOP IN ALL WIRING AT CHANGES IN DIRECTION.
5. CONTRACTOR MUST ADJUST MAINLINE AS REQUIRED TO AVOID OTHER ELEMENTS.



SECTION VIEW

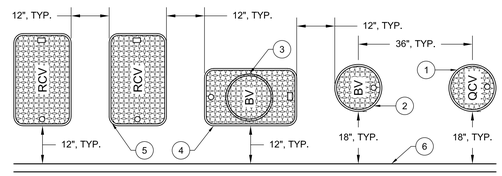
1. UNDISTURBED SOIL
2. COMPACTED BACKFILL OVER INITIAL SAND BEDDING. NO PARTICLES GREATER THAN 1". COMPACT PER SPECS.
3. COPPER TRACE WIRE. REFER TO SPECS.
4. PRESSURE MAINLINE PIPE, PER SPECS.
5. CONTROL WIRES, BUNDLED AND TAPED TO SIDE OF MAINLINE AT 10' O.C. (INSTALL WIRES IN CONDUIT FROM CONTROLLER TO MAINLINE).
6. NON-PRESSURE LATERAL LINE, PER SPECS.
7. INITIAL SAND BACKFILL PER SPECS. PROVIDE 6" BEDDING DEPTH BELOW MAINLINE AND 6" COVER ABOVE MAINLINE. COMPACT PER SPECS.
8. FINISH GRADE
9. 9" MIN. OR AS NEEDED TO PROVIDE FOR A MINIMUM 6" CLEARANCE BETWEEN PIPES.

1 TRENCHING - WITHIN PLANTING AREAS

Scale: N.T.S.

NOTES:

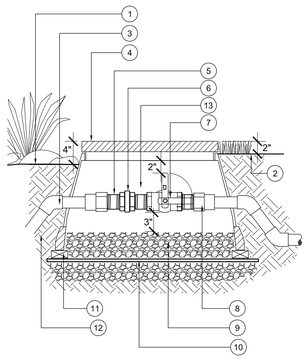
1. INSTALL VALVE BOXES IN GROUND COVER/ SHRUB PLANTING AREAS WHENEVER POSSIBLE.
2. ALL VALVE BOXES MUST BE PERPENDICULAR TO EDGE OF AREA, ADJACENT PAVING OR CONCRETE CURB AND SET PARALLEL TO EACH OTHER.
3. ALL VALVES MUST BE CENTERED AND INSTALLED PLUMB INSIDE VALVE BOX TO FACILITATE ACCESS AND MAINTENANCE.
4. ALL VALVES MUST BE INSTALLED IN ITS OWN VALVE BOX.
5. REFER TO VALVE ASSEMBLY DETAILS FOR VALVE BOXES FINISH ELEVATIONS.
6. AVOID EXCESSIVE COMPACTING AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
7. INSTALL VALVE BOX EXTENSIONS BY VALVE MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE VALVE ASSEMBLY.
8. LOCATION OF VALVE ASSEMBLIES SHALL BE STAKED FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
9. ALL VALVE BOX LIDS MUST BE LABELED BY HOT IRON BRANDING:
   - YS - WYE STRAINER
   - CV - CHECK VALVE
   - MV - MASTER VALVE
   - FS - FLOW SENSOR
   - RCV - REMOTE CONTROL VALVE
   - QCV - QUICK COUPLER VALVE
   - BV - ISOLATION BALL VALVE
   - GV - ISOLATION GATE VALVE
   - E - PULL BOX/ SPLICE BOX



1. 10" ROUND VALVE BOX PER SPECS FOR QUICK COUPLER VALVE, TYP.
2. 10" ROUND VALVE BOX PER SPECS FOR QUICK COUPLER ISOLATION BALL VALVE, TYP.
3. 10" ROUND VALVE BOX PER SPECS FOR MAINLINE ISOLATION GATE VALVE, TYP.
4. RECTANGULAR VALVE BOX PER SPECS FOR MAINLINE ISOLATION BALL VALVE, TYP.
5. RECTANGULAR VALVE BOX PER SPECS FOR REMOTE CONTROL VALVE ASSEMBLIES, TYP.
6. EDGE OF AREA, SIDEWALK, CONCRETE CURB, ETC., TYP.

3 VALVE BOX LAYOUT

Scale: N.T.S.



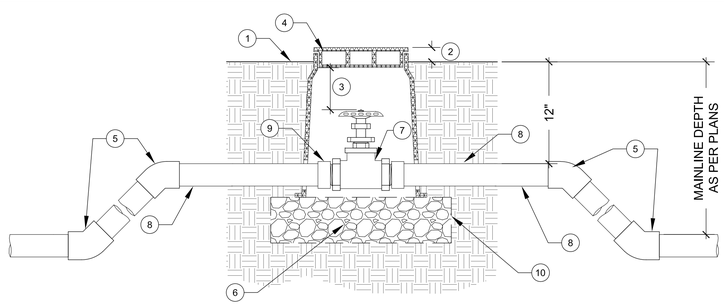
1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. PVC MAINLINE. USE PVC SCH. 80 45° ELL TO DEPTH PER SPECS.
4. RECTANGULAR VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
5. BRASS NIPPLE.3 QTY., TYP
6. BRASS UNION
7. ISOLATION BALL VALVE. REFER TO SPECS.
8. PVC SCH. 80 FEMALE ADAPTER, (2) QTY.
9. 3 CU. FT. 3/8" PEA GRAVEL
10. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
11. NATIVE SOIL COMPACTED TO
12. (4) CONCRETE BRICK SUPPORTS, ONE AT EACH CORNER

NOTES:

1. BALL VALVE MUST BE INSTALLED IN VALVE BOX TO ALLOW PROPER OPERATION OF BALL VALVE HANDLE.
2. ALL THREADED FITTINGS MUST HAVE 3/4" TEFLON TAPE OR PASTE.
3. PROVIDE 45° ELLS TO ACHIEVE BALL VALVE HEIGHT PER DETAIL.

6 ISOLATION BALL VALVE, 2" & SMALLER

Scale: N.T.S.



NOTES:

1. WHEN THE MAIN LINE IS TERMINATED AT THE VALVE, EXTEND MAIN LINE 48" BEYOND VALVE BOX AND CAP.

1. FINISH GRADE
2. SET TOP OF BOX ABOVE FINISH GRADE: 1/2" IN SEED, 1-1/2" IN SOD, 2-1/2" IN PLANTER.
3. ALLOW 3" BETWEEN TOP OF THE INTERIOR VALVE BOX COVER AND TOP OF VALVE HANDLE.
4. GREEN PLASTIC VALVE BOX WITH BOLT DOWN LOC-KIT; CARSON MODEL 910.
5. 45° FITTING
6. 3/4" CRUSHED ROCK; 3" MINIMUM DEPTH. EXTEND 6" BEYOND VALVE BOX WALL.
7. GATE VALVE (THREADED)
8. MAIN LINE
9. MALE SLIP ADAPTER, (ON EACH SIDE, 2 TOTAL)
10. 1/4" GALVANIZED WIRE CLOTH

5 ISOLATION GATE VALVE (2.5" & SMALLER)

Scale: N.T.S.

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STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

IRRIGATION DETAILS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

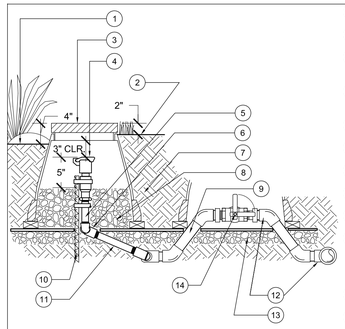
LICENSED LANDSCAPE ARCHITECT
STEVEN N. LANG NO. 5117
SIGNATURE
9-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET

L3.4

SHEET 34 OF 85 SHEETS



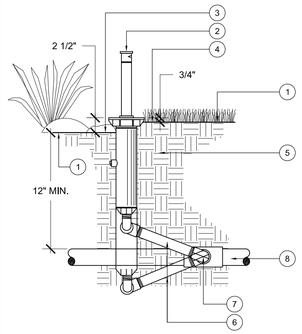
1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. 10" ROUND VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
4. QUICK COUPLER VALVE PER LEGEND AND SPECS.
5. BRASS NIPPLE, TYP.
6. BRASS STREET ELL, TYP.
7. NATIVE SOIL COMPACTED TO
8. 1 CU. FT. 3/8" PEA GRAVEL
9. PRESSURE MAINLINE PER SPECS
10. #4 X 36" REBAR STAKE. SECURE QUICK COUPLER VALVE TO STAKE WITH (2) TWO STAINLESS STEEL CLAMPS
11. BRASS NIPPLE, 10" LENGTH MIN.
12. SCH. 80 PVC MAINLINE TEE OR ELL
13. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
14. BRASS BALL VALVE W/ PVC. SCH. 80 MALE ADAPTERS.
15. CONCRETE BRICK SUPPORTS, THREE (3) SPACED EQUALLY ALONG PERIMETER BOTTOM.

NOTES:

1. ALL THREADED FITTINGS MUST HAVE 3/4" TEFLON TAPE.
2. ALL BRASS PIPE TO BE YELLOW BRASS.
3. MINIMUM LINE SIZE SUPPLYING A QUICK COUPLER MUST BE 1-1/2"
4. QUICK COUPLERS MUST BE NO MORE THAN 200' O.C. APART, LOCATE AT RCV MANIFOLDS WHEN POSSIBLE.
5. REFER TO DETAIL # FOR ALL ISOLATION BALL VALVE REQUIREMENTS.

4 QUICK COUPLER VALVE

Scale: N.T.S



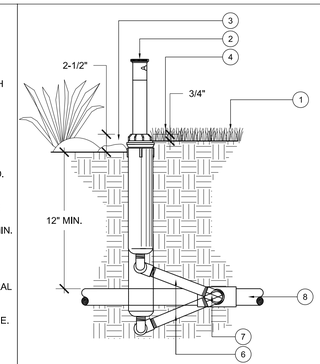
1. FINISH GRADE
2. POP-UP SPRINKLER HEAD., PER IRRIGATION EQUIPMENT LEGEND AND SPECS.
3. INSTALL HEAD 2-1/2" ABOVE FINISH GRADE AT SHRUB AND GROUND-COVER AREAS.
4. INSTALL HEAD 3/4" ABOVE FINISH GRADE AT TURF AREAS.
5. NATIVE SOIL COMPACTED TO ORIGINAL DENSITY AROUND HEAD.
6. TRIPLE SWING JOINT ASSEMBLY. THREADED ENDS SHALL BE SAME SIZE AS SPRINKLER INLET. 8" MIN. LENGTH FOR 6" POP-UP AND 12" MIN. LENGTH FOR 12" POP-UP. SEE SPECS.
7. SCH. 40 PVC FITTING. SxSxT (TEE) OR SxT(ELL) AS REQUIRED, LATERAL X SPRINKLER INLET SIZE.
8. PVC NON-PRESSURE LATERAL LINE. SEE SPECS.

NOTES:

1. USE ¾" TEFLON TAPE WHERE ELL MEETS TEE/ELL.
2. INSTALL HEADS PERPENDICULARLY PLUMB TO ADJACENT GRADE.
3. ADJUST NOZZLES/HEAD TO PREVENT OVERSPRAY ONTO PAVING, WALLS/FENCES, BUILDINGS, ETC.
4. INSTALL HEADS 4" FROM ALL HARDSCAPE EDGES.
5. INSTALL HEADS 6" FROM WALLS/ FENCES.

3 POP-UP SPRINKLER

Scale: N.T.S.



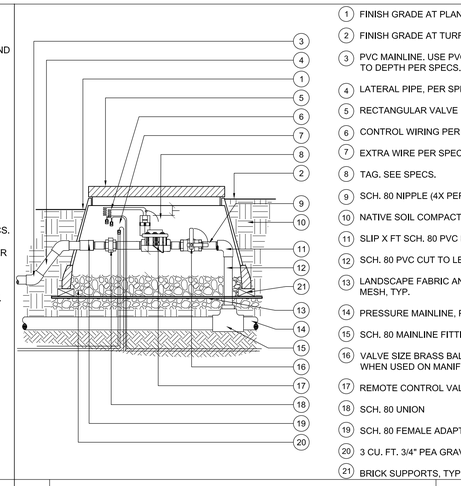
1. FINISH GRADE
2. POP-UP ROTOR HEAD, PER IRRIGATION EQUIPMENT LEGEND AND SPECS.
3. INSTALL HEAD 2-1/2" ABOVE FINISH GRADE AT SHRUB AND GROUND-COVER AREAS.
4. INSTALL HEAD 3/4" ABOVE FINISH GRADE AT TURF AREAS.
5. NATIVE SOIL COMPACTED TO ORIGINAL DENSITY AROUND HEAD.
6. TRIPLE SWING JOINT ASSEMBLY. THREADED ENDS SHALL BE SAME SIZE AS SPRINKLER INLET. 12" MIN. LENGTH FOR 12" POP-UP. SEE SPECS.
7. SCH. 40 PVC FITTING. SxSxT (TEE) OR SxT(ELL) AS REQUIRED, LATERAL X SPRINKLER INLET SIZE.
8. PVC NON-PRESSURE LATERAL LINE. SEE SPECS.

NOTES:

1. USE 3/4" TEFLON TAPE WHERE ELL MEETS TEE/ELL.
2. INSTALL HEADS PERPENDICULARLY PLUMB TO ADJACENT GRADE.
3. ADJUST NOZZLES/HEAD TO PREVENT OVERSPRAY ONTO PAVING, WALLS/FENCES, BUILDINGS, ETC.
4. INSTALL HEADS 4" FROM ALL HARDSCAPE EDGES.
5. INSTALL HEADS 6" FROM WALLS/ FENCES.

2 POP-UP ROTOR

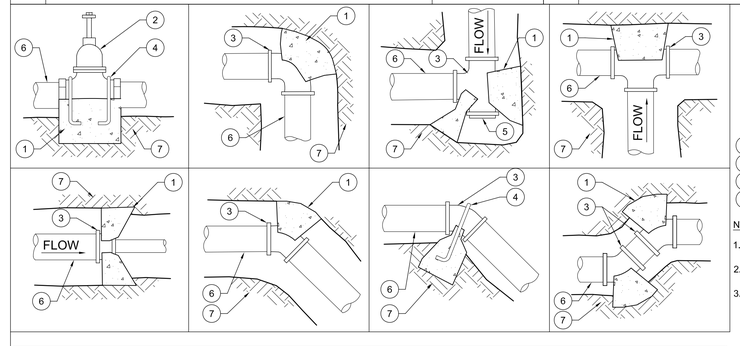
Scale: N.T.S.

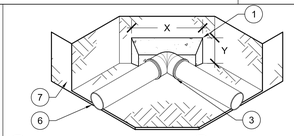


1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. PVC MAINLINE. USE PVC SCH. 40 45° ELL TO DEPTH PER SPECS.
4. LATERAL PIPE, PER SPECS.
5. RECTANGULAR VALVE BOX
6. CONTROL WIRING PER SPECS.
7. EXTRA WIRE PER SPECS.
8. TAG. SEE SPECS.
9. SCH. 80 NIPPLE (4X PER VALVE)
10. NATIVE SOIL COMPACTED
11. SLIP X FT SCH. 80 PVC ELL
12. SCH. 80 PVC CUT TO LENGTH
13. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
14. PRESSURE MAINLINE, PER SPECS.
15. SCH. 80 MAINLINE FITTING
16. VALVE SIZE BRASS BALL VALVE. OMIT WHEN USED ON MANIFOLD.
17. REMOTE CONTROL VALVE
18. SCH. 80 UNION
19. SCH. 80 FEMALE ADAPTER
20. 3 CU. FT. 3/4" PEA GRAVEL.
21. BRICK SUPPORTS, TYP. OF 4

1 REMOTE CONTROL VALVE

Scale: N.T.S.





1. CONCRETE THRUST BLOCK
2. VALVE
3. PIPE FITTING
4. ANCHOR ROD
5. CAP
6. MAINLINE
7. UNDISTURBED SOIL

NOTES:

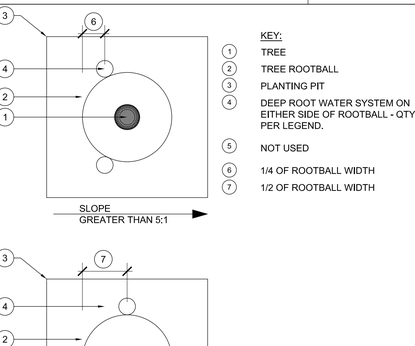
1. INSTALL AND TEST MAINLINE IN ACCORDANCE TO MANUFACTURER'S INSTALLATION SPECIFICATIONS.
2. USE #4 REBAR WITH MASTIC COATING WHERE PIPE MUST BE ANCHORED TO THRUST BLOCK.
3. CONCRETE THRUST BLOCKING, CAST-IN-PLACE, TO EXTEND FROM BELLS OF FITTINGS TO UNDISTURBED SOIL AND ENTIRE BEARING AREA MUST BE AGAINST UNDISTURBED SOIL. INSTALL THRUST BLOCK WITH A MINIMUM THICKNESS FROM THE PIPE TO THE UNDISTURBED SOIL TWO TIMES THE DIAMETER OF THE PIPE.
4. THRUST BLOCK SHALL BE FORMED ON THE SIDES TO ESTABLISH A DEFINITE SHAPE AND LIMIT ON HEIGHT AND WIDTH SUBJECT TO APPROVAL BY OWNER'S REPRESENTATIVE BEFORE ORDERING CONCRETE.
5. THRUST BLOCK SIZING ASSUMES TEST PRESSURE OF 200 PSI, A MAXIMUM VELOCITY OF 5 FPS, AND A HORIZONTAL SOIL BEARING CAPACITY OF 1000 LBS/SQUARE FOOT.
6. SAFE BEARING LOAD OF SOIL FOR HORIZONTAL THRUST SHALL NOT BE EXCEEDED.
7. PROVISIONS SHALL BE MADE TO INSURE THAT PIPE JOINTS, FITTINGS AND VALVES ARE NOT COVERED UNNECESSARILY.

THRUST BLOCK SURFACE AREA (SF) AGAINST UNDISTURBED SOIL (X" x Y")

FITTING SIZE	11-1/4° BEND (SF)	22-1/2° BEND (SF)	45° BEND (SF)	90° BEND (SF)	TEE OR DEAD END (SF)
3"	1.0	1.0	1.0	1.4	1.0
4"	1.0	1.0	1.2	2.3	1.6
6"	1.4	1.4	2.7	5.0	3.6
8"	2.3	2.3	4.5	8.3	5.9

7 THRUST BLOCKS FOR PLASTIC PIPE (3" AND LARGER)

Scale: N.T.S.



KEY:

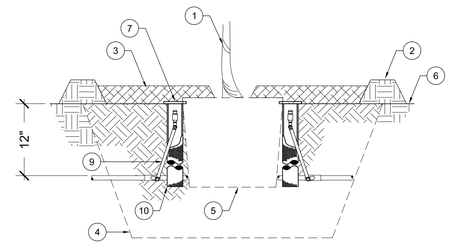
1. TREE
2. TREE ROOTBALL
3. PLANTING PIT
4. DEEP ROOT WATER SYSTEM ON EITHER SIDE OF ROOTBALL - QTY. PER LEGEND.
5. NOT USED
6. 1/4 OF ROOTBALL WIDTH
7. 1/2 OF ROOTBALL WIDTH

6 TREE BUBBLER ASSEMBLY PLAN

Scale: N.T.S.

NOTES:

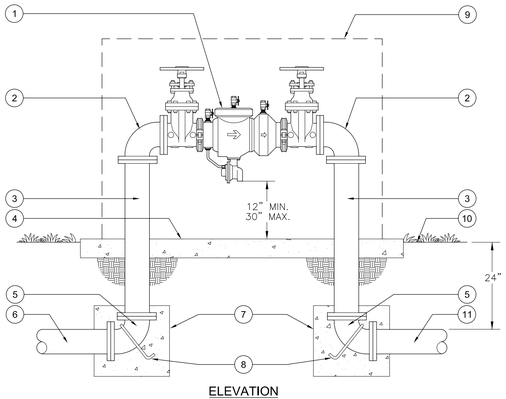
1. REFER TO LANDSCAPE PLANTING DETAILS FOR DEPTH OF MULCH COVER, ETC.



1. TREE
2. BERM
3. MULCH
4. PLANTING PIT
5. TREE ROOTBALL
6. FINISH GRADE
7. ROUND PLASTIC DRAIN GRATE
8. NOT USED
9. SWING PIPE
10. DEEP ROOT WATER SYSTEM

5 TREE BUBBLER ASSEMBLY SECTION

Scale: N.T.S.



ELEVATION

LEGEND

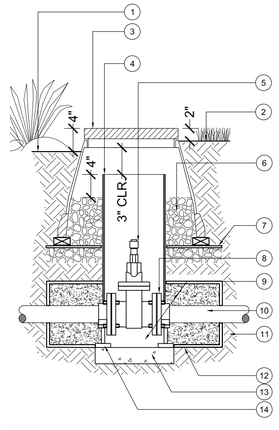
1. REDUCED PRESSURE BACKFLOW ASSEMBLY- REFER TO LEGEND FOR MODEL NUMBER.
2. DUCTILE IRON FLANGED 90 DEGREE ELBOW WITH GASKET AND BOLTS.
3. 48" LONG DUCTILE IRON SPOOL WITH GASKETS AND BOLTS.
4. FINISH SURFACE OF 4" REINFORCED CONCRETE SLAB. INSTALL ONLY IF SECURITY ENCLOSURE IS SPECIFIED. EXTEND 6" BEYOND LIMITS OF ENCLOSURE.
5. DUCTILE IRON FLANGED 90 DEGREE ELBOW WITH GASKET AND BOLTS.
6. DUCTILE IRON SPOOL FROM WATER METER. LENGTH AS REQUIRED. SEE PLAN FOR SIZE.
7. CONCRETE THRUST BLOCK. REFER TO THRUST BLOCK DETAIL.
8. REBAR ANCHOR ROD. REFER TO THRUST BLOCK DETAIL.
9. SECURITY ENCLOSURE (WHEN SPECIFIED). REFER TO IRRIGATION LEGEND.
10. FINISH GRADE, 1" BELOW LEVEL OF CONCRETE SLAB.
11. DUCTILE IRON SPOOL /GASKETED PIPE TO IRRIGATION STORAGE TANK. SEE PLAN FOR SIZE AND LOCATION.

NOTES:

1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.
2. INSTALL 4" CONCRETE SLAB WHEN ENCLOSURE IS SPECIFIED.

9 REDUCED PRESSURE BACKFLOW ASSEMBLY (2-1/2" AND LARGER)

Scale: N.T.S.



1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. RECTANGULAR VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
4. 8" PVC CL 160 PIPE.
5. ISOLATION GATE VALVE WITH 2" OPERATING NUT PER SPECS AND IRRIGATION LEGEND
6. 3 CU. FT. 3/4" PEA GRAVEL
7. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH BELOW BOX, TYP.
8. SCH. 80 FLANGE, BOLT & GASKET, TYP., (2) QTY.
9. ROUNDED PEA GRAVEL OVER DOUBLE WRAPPED PIPING AND VALVE.
10. SOLVENT WELD PVC PIPE PER SPECS AND IRRIGATION LEGEND
11. NATIVE SOIL COMPACTED TO
12. MIRAFY FILTER FABRIC
13. 14" X 14" X 4" CONC. SUPPORT
14. STEEL POWDER COATED VALVE STAND (2) QTY., TYP.

NOTES:

1. CONTRACTOR SHALL PROVIDE (1) 5-FOOT TEE WRENCH WITH 2" SQUARE NUT FOR VALVE OPERATION.

8 ISOLATION GATE VALVE (3" - 4")

Scale: N.T.S.

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

IRRIGATION DETAILS

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STAMP

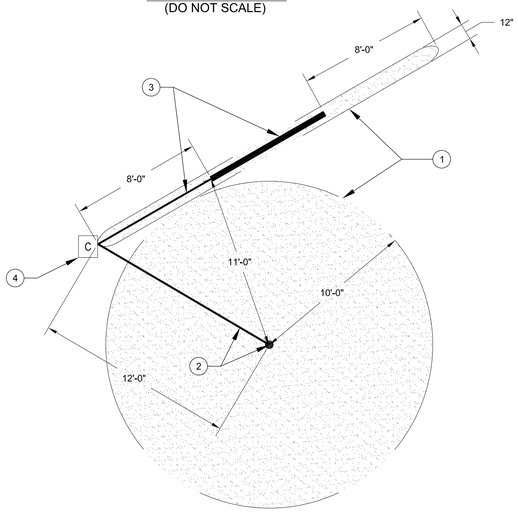
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

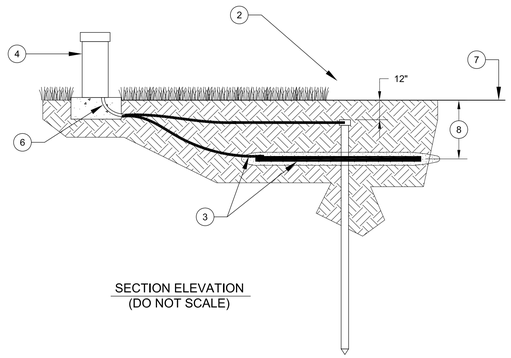
SHEET

L3.5

SHEET 35 OF 85 SHEETS

PLAN VIEW
(DO NOT SCALE)





SECTION ELEVATION
(DO NOT SCALE)

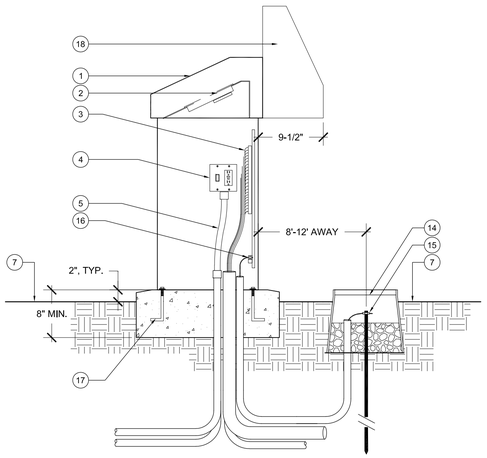
1. ELECTRODE SPHERE OF INFLUENCE BOUNDARIES.
2. GROUND ROD WITH PRE-WELDED INSULATED CONDUCTOR (5/8" DIA. X 10' LONG). DRIVE INTO GROUND IN A VERTICAL POSITION OR AN OBLIQUE ANGLE NOT TO EXCEED 45°. USE WHEN POSSIBLE TO DRIVE STAKE INTO GROUND.
3. COPPER GROUND PLATE WITH PRE-WELDED INSULATED CONDUCTOR (SIZE: 4" X 96" X 0.0625"). USE WHEN IMPOSSIBLE TO DRIVE STAKE INTO GROUND OR WHEN DIRECTED BY CONTROLLER MANUFACTURER.
4. AUTOMATIC IRRIGATION CONTROLLER. REFER TO IRRIGATION LEGEND AND DWGS.
5. PVC SWEEP ELL, 1-1/2" MIN.
6. EARTH CONTACT MATERIAL
7. FINISH GRADE
8. 30" MINIMUM OR BELOW FROST LINE, WHICHEVER IS DEEPER.

NOTES:

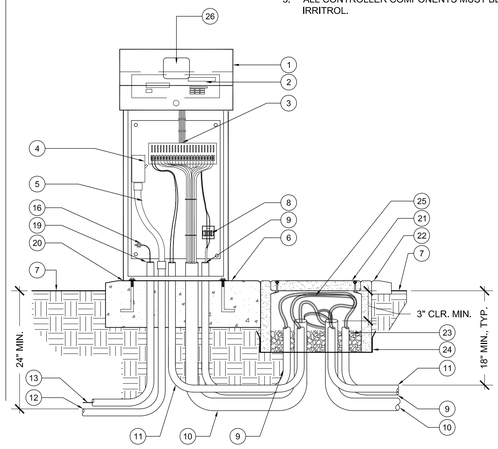
1. THE GROUND GRID COMPONENTS MUST BE INSTALLED WITH THE DIMENSIONAL RELATIONSHIP SHOWN IN THE DETAIL. DO NOT INSTALL ANY OTHER WIRES, CABLES, AND ELECTRONIC EQUIPMENT WITHIN THE SPHERE OF INFLUENCE OF THE GROUNDING ELECTRODES.
2. INSTALLATION OF ALL COMPONENTS AND MUST MEET OR EXCEED THE AMERICAN SOCIETY OF IRRIGATION CONSULTANTS (ASIC) EARTH GROUNDING GUIDELINES AND BE AS APPROVED BY AUTOMATIC IRRIGATION CONTROLLER MANUFACTURER'S.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONNECT THE CONTROLLER TO EARTH GROUND IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NEC).
4. WHEN UTILIZING THE COPPER GROUND PLATE METHOD, THE CONTRACTOR SHALL UTILIZE A MINIMUM OF 100 LBS OF EARTH CONTACT MATERIAL. SPREAD MATERIAL SO THAT IT SURROUNDS THE COPPER PLAT EVENLY ALONG ITS LENGTH WITHIN A 6" WIDE TRENCH.
5. SALTS, FERTILIZERS, BENTONITE CLAY, CEMENT, CODE, CARBON, AND OTHER CHEMICALS ARE NOT BE BE USED TO IMPROVED SOIL CONDUCTIVITY.
6. ALL GROUNDING ELECTRODES SHALL BE UL LISTED OR MANUFACTURED TO MEET NEC CODE.
7. NO SPLICES ALLOWED UNLESS USING EXOTHERMIC WELDING PROCESS AND APPROVED BY CITY'S REPRESENTATIVE.
8. INSTALL ALL GROUNDING CIRCUIT COMPONENTS IN STRAIGHT LINES. WHEN NECESSARY TO MAKE A TURN OR BEND, IT SHALL BE DONE IN A SWEEPING CURVE WITH A MINIMUM RADIUS OF 8" AND A MINIMUM INCLUDED ANGLE OF 90°.
9. THE EARTH-TO-GROUND RESISTANCE IS TO BE MEASURED USING A MEGGER OR OTHER SIMILAR INSTRUMENT, AND THE READING IS TO BE NO MORE THAN 10 OHMS. IF THE RESISTANCE IS MORE THAN 10 OHMS, ADDITIONAL GROUND PLATES AND EARTH CONTACT MATERIAL ARE TO BE INSTALLED USING ASIC GUIDELINES.
10. IT IS REQUIRED THAT THE SOIL SURROUNDING COPPER ELECTRODES WITHIN THE SPHERE OF INFLUENCE BE KEPT AT A MNIMUM MOISTURE LEVEL OF 15% (BY VOLUME) AT ALL TIMES.
11. ALL GROUNDING COMPONENTS MUST BE CONNECTED TO THE EQUIPMENT BEFORE ANY OTHER CONNECTION IS MADE.

2 GROUNDING ROD/PLATE — Scale: N.T.S.

SECTION ELEVATION
(SIDE VIEW)



SECTION ELEVATION
(FRONT VIEW)

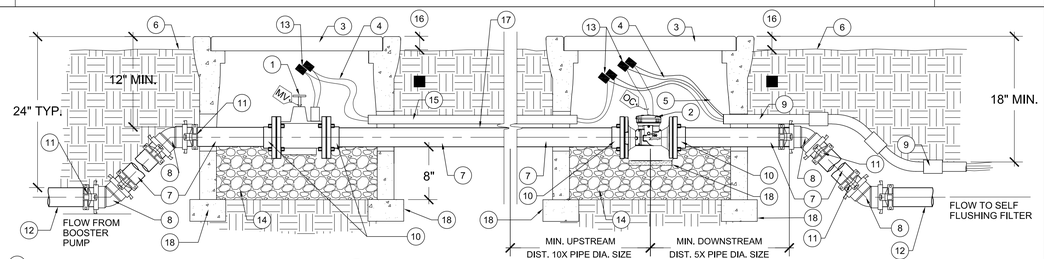


NOTES:

1. CONTRACTOR SHALL ADJUST ALL IRRIGATION TO PREVENT OVERSPRAY ON CONTROLLER ENCLOSURE IF APPLICABLE.
2. CONTACT IRRITROL PRIOR TO ORDERING TO CONFIRM SPECIFIC CONTROLLER MODEL NUMBER AND ASSOCIATED COMPONENTS.
3. ALL CONTROLLER COMPONENTS MUST BE CERTIFIED BY IRRITROL.

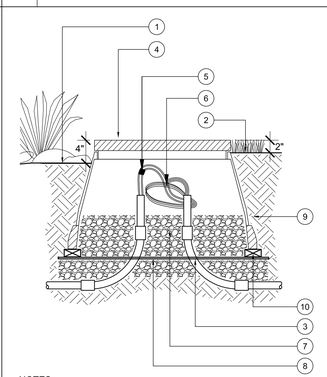
1. TOP ENTRY 16" WIDE STAINLESS STEEL NEMA 3R RAINPROOF ENCLOUSRE (UL LISTED). SHOWN WITH TOP IN CLOSED POSITION. ENCLOSURE DIMENSIONS 16" WIDE X 38" HIGH X 15.5" DEEP).
2. CONTROLLER PANEL. MOUNTED FLUSH ON FACE OF ENCLOSURE. ASSEMBLED IN ENCLOSURE BY AUTHORIZED DISTRIBUTOR
3. TERMINAL STRIP FOR REMOTE CONTROL VALVE WIRE CONNECTIONS. ACTUAL STRIP MAY VARY BASED ON CONTROLLER OPTIONS SPECIFIED
4. POWER SWITCH/ GFCI RECEPTACLE
5. ELECTRICAL FLEX CONDUIT FOR POWER
6. 8" MIN. THICK, POURED-IN-PLACE CONCRETE PAD WITH ANCHOR BOLTS PER MANUFACTURER RECOMMENDATIONS. BEVEL EDGES, TYP. (LIGHT BROOM FINISH). SLOPE PAD WAY FROM CONTROLLER TO DRAIN. PAD SIZE TO BE 26" WIDE x 24" DEEP MIN. SIZE
7. FINISH GRADE
8. FLOW SENSOR TERMINAL BOARD
9. 1" SCH. 40 PVC CONDUIT AND SWEEP ELL WITH FLOW SENSOR CABLE
10. 3" SCH. 40 PVC CONDUIT AND SWEEP FOR REMOTE CONTROL WIRES
11. 1" SCH, 40 PVC CONDUIT AND SWEEP ELL WITH MASTER VALVE WIRE
12. 1" SCH. 40 PVC CONDUIT AND SWEEP FOR 110VAC POWER CONDUCTOR. 24" MIN. BURIAL DEPTH. REFER TO ELECTRICAL DWGS.
13. 1" SCH. 40 PVC CONDUIT AND SWEEP ELL FOR GROUND WIRE
14. 10" ROUND VALVE BOX AROUND GROUND ROD. FILL WITH 3/4" WASHED PEA GRAVEL.
15. 5/8" DIAMETER X 8' LONG COPPER CLAD GROUND ROD WITH #6 GROUND WIRE AND CLAMP. LOCATE 8'-12' FROM ENCLOSURE.
16. #6 GROUND WIRE SECURED TO BACKBOARD GROUNDING TERMINAL.
17. ANCHOR BOLTS. SET IN WET CONCRETE FOOTING USING TEMPLATE.
18. LID IN OPEN POSITION
19. SEAL INTERIOR OF CABINET WITH DUCT SEAL
20. SEAL ENDS WITH DUCT SEAL AFTER WIRE INSTALLATION, TYP.
21. #6 PRECAST CONCRETE PULL BOX. LOCATE DIRECTLY ADJACENT TO CONCRETE FOOTING.
22. 6" DEEP CONCRETE COLLAR, TYP. OF (3) EDGES.
23. 3 CU. FT. 3/8" PEA GRAVEL
24. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
25. PROVIDE 36" EXPANSION COILS AT ALL WIRE RUNS.
26. PROVIDE CUSTOM DECAL AND CONTROLLER ID ON THE EXTERIOR FRONT FACE OF THE CONTROLLER. REFER TO DETAIL #.

1 AUTOMATIC IRRIGATION CONTROLLER (PEDESTAL MOUNT) — Scale: N.T.S.



1. FLANGED MASTER VALVE: MODEL & SIZE PER LEGEND.
2. ULTRASONIC FLOW SENSOR- SIZE AND MODEL PER LEGEND.
3. PLASTIC RECTANGULAR JUMBO VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 24" X 33", OR APPROVED EQ. TOP OF LID SHALL BE PERMANENTLY MARKED "MV" FOR MASTER VALVE AND 'OC' FOR OCTAVE FLOW SENSOR AS REQ'D.
4. 4-#14 WIRES, FROM MASTER CONTROL VALVE AND OCTAVE FLOW METER TO IRRIGATION CONTROLLER. MAKE CONNECTIONS AT APPROPRIATE TERMINALS.
5. LOW VOLTAGE CONTROL WIRES TO CONTROLLER LOCATION.
6. FINISH GRADE.
7. GASKETED PVC PIPE. REFER TO LEGEND. SIZE PER PLAN, LENGTH AS REQUIRED.
8. 4 DUCTILE IRON 45° FITTINGS (4" X 4") FOR USE WITH GASKETED PVC PIPE. SAME SIZE AS INSERTED PIPE.
9. SCH. 40 PVC CONDUIT/COUPLINGS & WIRES TO CONTROLLER, REFER TO CONTROLLER DETAIL.
10. FLANGED CONNECTOR TO PVC GASKETED CONNECTION. SEE LEGEND FOR SIZE.
11. PIPE JOINT RESTRAINTS, TYPICAL AT ALL DUCTILE IRON FITTINGS. REFER TO LEGEND AND SPECIFICATIONS.
12. PVC MAINLINE. REFER TO LEGEND.
13. WATERPROOF ELEC CONNECTOR, PER WIRE SPLICING DETAIL.
14. 6" - 8" OF PEA GRAVEL IN VALVE BOXES.
15. 3/4" SCHEDULE 40 PVC CONDUIT.
16. SET TOP OF BOX ABOVE FINISH GRADE: 1/2" IN SEED, 1-1/2" IN SOD, 2-1/2" IN PLANTER.
17. INSTALL AIR VENT 18" UPSTREAM OF OCTAVE METER..
18. COMMON BRICK UNDER EACH CORNER OF BOX AND PAVER UNDER OCTAVE METER.

4 FLANGED MASTER CONTROL VALVE AND OCTAVE FLOW METER (TO MEASURE WELL WATER USE) — Scale: N.T.S.



1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. PVC SCH. 40 ELECTRICAL CONDUIT AND SWEEPS TO DEPTH PER SPECS.
4. RECTANGULAR VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
5. APPROVED WIRE CONNECTOR (IF APPLICABLE)
6. 36" EXPANSION COIL
7. 3 CU. FT. 3/8" PEA GRAVEL
8. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
9. NATIVE SOIL COMPACTED TO
10. (4) CONCRETE BRICK SUPPORTS, ONE AT EACH CORNER

NOTES:

1. ALL WIRING MUST CONFORM TO LOCAL CODES.
2. PROVIDE 36" EXPANSION COILS AT EACH WIRE CONNECTION.
3. PROVIDE 3" CLEARANCE BETWEEN WIRES AND LID.
4. NO WIRE SPLICES ARE ALLOWED WITHOUT OWNER'S REPRESENTATIVE APPROVAL.

3 PULL BOX — Scale: N.T.S.

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

IRRIGATION DETAILS

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10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
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STAMP

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

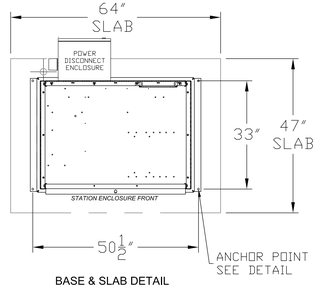
SHEET

L3.6

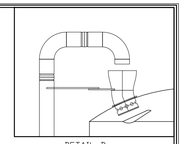
PUMP STATION SPECIFICATIONS:
NAME: *LINDSAY OLIVE BOWL*
STATION MODEL: SHFV-1-5K-20-480-3-200-85
STATION TOTAL PERFORMANCE: 200 GPM @ 85 PSI
REGULATE PRESSURE: 85 PSI
DYNAMIC INLET PRESSURE: 0 PSI (FLOODED)
24V PUMP START RELAY CONFIGURATION
PUMP HORSEPOWER:
PUMP NO.1 20HP (3600RPM)
CHECK VALVE SIZES:
PUMP NO.1 3"
ISOLATION VALVE SIZES:
DISCHARGE ISOLATION VALVE SIZE: 3"
DISCHARGE MANIFOLD SIZE: 3"

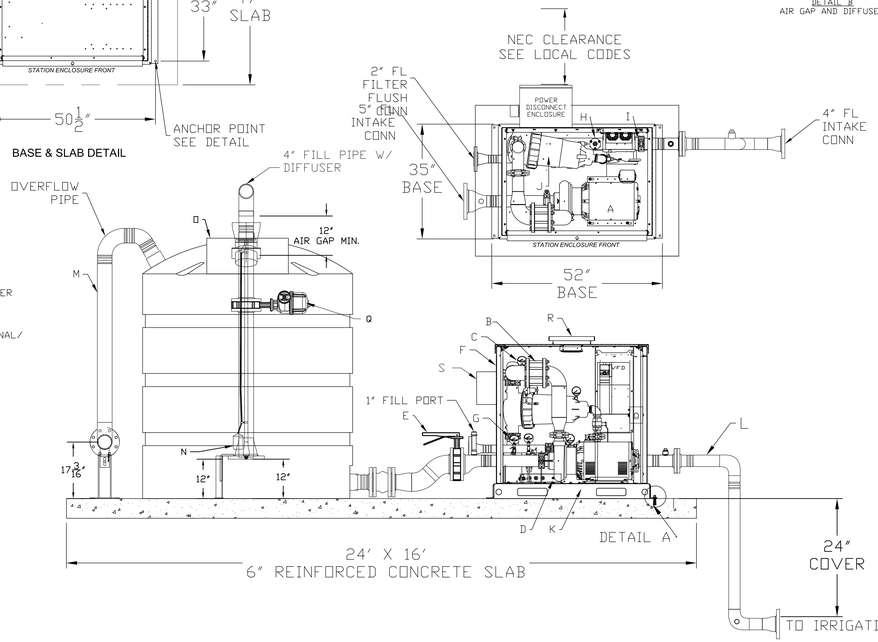
POWER REQ: 480 V, 60 HZ, 3 PHZ, 36 FLA

STATION COMPONENTS:
A 20HP PUMP AND MOTOR
B CHECK VALVE
C PRESSURE TRANSDUCER WITH GAUGE
D TEMP SENSOR
E INLET ISOLATION VALVE
F MARINE GRADE ALUMINUM ENCLOSURE (UNPAINTED)
G SUCTION GAUGE
H FLOW SENSOR
I PUMP DISCHARGE ISOLATION VALVE
J V-200PA AUTOMATIC FILTER W/ 200 MICRON SCREEN
K STAINLESS STEEL BASE (UNPAINTED)
L 3" FL X 4" FL DISCHARGE DROP PIPE
M OVER FLOW PIPE 4" FLANGE
N LEVEL SENSOR W/ FLOAT SWITCH
O 5000 GALLON POLY TANK
P 4" TANK FILL PIPE W/ 6" FLG CONNECTION TO WATER SOURCE
Q ELECTRONIC BUTTERFLY VALVE (TANK FILL VALVE)
R STATION FAN (HOOD MOUNTED)
S J-BOX FOR 24V PUMP START RELAY / 24V MV SIGNAL/ OPTOCOUPLER



BASE & SLAB DETAIL





PIPE SUPPORTS FOR FILL AND OVERFLOW PLUMBING SUPPLIED BY WATERTRONICS

DETAIL A
CONCRETE ANCHOR BOLTS (x4) LOCATIONS

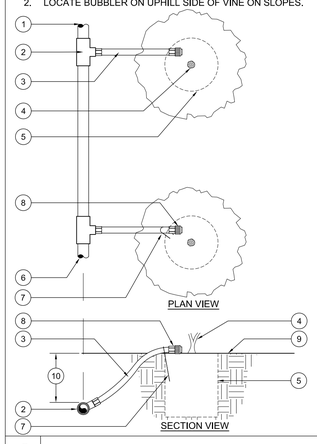
CONCEPT DRAWING ONLY
DRAWING NOT TO SCALE

REF: 2022305

☐ APPROVED AS SUBMITTED	7			DRAWN BY: IPB	DATE:11/14/2022
☐ APPROVED AS NOTED	6			CHECKED BY:	DATE:
☐ REVISE AND RESUBMIT	5			THIS DRAWING AND DESIGN, IS THE PROPERTY OF WATERTRONICS AND IS NOT TO BE REPRODUCED IN WHOLE OR PART, NOR EMPLOYED FOR ANY PURPOSE OTHER THAN SPECIFICALLY PERMITTED IN WRITING BY WATERTRONICS.THIS DRAWING LOANED AND SUBJECT TO RETURN ON DEMAND	TITLE: LINDSAY OLIVE BOWL SHFV-1-5K-20-480-3-200-85
SIGNATURE:	4				WATERTRONICS
NAME:	3				
DATE:	2				SCALE: NTS / SHEET 1 OF 1 SHEETS
	1				JOB NO.: . / DRAWING NO. PRSH11489
	NO.	DATE	BY	DESCRIPTION	

1 BOOSTER PUMP, SELF FLUSHING FILTER AND STORAGE TANK DETAIL — Scale: N.T.S.

NOTES:
1. LOCATE BUBBLER ON TOP OF VINE ROOT BALL.
2. LOCATE BUBBLER ON UPHILL SIDE OF VINE ON SLOPES.



1. PVC LATERAL LINE PIPE FROM REMOTE CONTROL VALVE.
2. SCHEDULE 40 PVC TEE OR ELL WITH 1/2" FPT CONNECTION.
3. HUNTER FLEXIBLE PVC HOSE RISER WITH 1/2" MPT THREADS, BOTH ENDS. MODEL NUMBER PER LEGEND.
4. TRUNK OF VINE.
5. ROOT BALL OF VINE.
6. PVC LATERAL LINE PIPE TO ADDITIONAL VINE BUBBLERS AS INDICATED ON PLAN.
7. STAKE RISER TO ROOT BALL WITH GALVANIZED STAKE TO HOLD IN PLACE.
8. BUBBLER- ONE PER VINE. MODEL NUMBER PER LEGEND.
9. FINISH GRADE.
10. 12" MINIMUM DEPTH OR AS STATED IN SPECIFICATIONS.

2 VINE BUBBLER — Scale: N.T.S.

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STAMP
LICENSED LANDSCAPE ARCHITECT
HELEN N. LANG NO. 5117
SIGNATURE
9-30-24
RENEWAL DATE
5-9-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
L3.7
SHEET 37 OF 85 SHEETS

HYDROZONE CHART/ ZONE TOTALS

NAME OF CITY:	Porterville	POC 1	CONTROLLER: A
PROJECT NAME:	Olive Bowl Park		WATER METER SIZE: 3"
WATER TYPE:	Well		REQUIRED WATER PRESSURE: 60 PSI @ rotor
LOCATION:	W. Apia Street		MAXIMUM PEAK DEMAND: 200 GPM

HYDROZONE CHART

Valve Station Number	Hydrozone	Irrigation Method	Total Valve Circuit Area (SQ. FT.)	% of Total Landscape
A1	ZONE 2 - SLA	ROTOR	5,336	3.07%
A2	ZONE 1	MULTI-STREAM ROTATOR	3,580	2.06%
A3	ZONE 1	MULTI-STREAM ROTATOR	3,130	1.80%
A4	ZONE 5	ROOT WATERING TUBE	304	0.17%
A5	ZONE 1	MULTI-STREAM ROTATOR	2,359	1.36%
A6	ZONE 6	SPRAY	424	0.24%
A7	ZONE 2 - SLA	ROTOR	5,579	3.21%
A8	ZONE 2 - SLA	ROTOR	10,730	6.17%
A9	ZONE 5	ROOT WATERING TUBE	48	0.03%
A10	ZONE 1	MULTI-STREAM ROTATOR	2,141	1.23%
A11	ZONE 2 - SLA	ROTOR	5,770	3.32%
A12	ZONE 6	SPRAY	525	0.30%
A13	ZONE 2 - SLA	ROTOR	5,880	3.38%
A14	ZONE 5	ROOT WATERING TUBE	192	0.11%
A15	ZONE 1	MULTI-STREAM ROTATOR	1,589	0.91%
A16	ZONE 2 - SLA	ROTOR	5,570	3.20%
A17	ZONE 2 - SLA	ROTOR	10,730	6.17%
A18	ZONE 1	MULTI-STREAM ROTATOR	2,317	1.33%
A19	ZONE 1	MULTI-STREAM ROTATOR	1,820	1.05%
A20	ZONE 2 - SLA	ROTOR	5,247	3.02%
A21	ZONE 1	MULTI-STREAM ROTATOR	209	0.12%
A22	ZONE 5	ROOT WATERING TUBE	16	0.01%
A23	ZONE 6	SPRAY	713	0.41%
A24	ZONE 2 - SLA	ROTOR	5,139	2.96%
A25	ZONE 5	ROOT WATERING TUBE	64	0.04%
A26	ZONE 4	SPRAY	307	0.18%
A27	ZONE 1	MULTI-STREAM ROTATOR	3,344	1.92%
A28	ZONE 1	MULTI-STREAM ROTATOR	2,755	1.58%
A29	ZONE 5	ROOT WATERING TUBE	224	0.13%
A30	ZONE 1	MULTI-STREAM ROTATOR	2,354	1.35%
A31	ZONE 2 - SLA	ROTOR	6,547	3.77%
A32	ZONE 2 - SLA	ROTOR	8,971	5.16%
A33	ZONE 2 - SLA	ROTOR	8,076	4.65%
A34	ZONE 4	SPRAY	838	0.48%
A35	ZONE 5	ROOT WATERING TUBE	272	0.16%
A36	ZONE 2 - SLA	ROTOR	6,246	3.59%
A37	ZONE 2 - SLA	ROTOR	4,995	2.87%
A38	ZONE 2 - SLA	ROTOR	8,892	5.12%
A39	ZONE 2 - SLA	ROTOR	6,431	3.70%
A40	ZONE 5	ROOT WATERING TUBE	80	0.05%
A41	ZONE 2 - SLA	ROTOR	4,075	2.34%
A42	ZONE 5	ROOT WATERING TUBE	32	0.02%
A43	ZONE 1	MULTI-STREAM ROTATOR	314	0.18%
A44	ZONE 1	MULTI-STREAM ROTATOR	2,277	1.31%
A45	ZONE 5	ROOT WATERING TUBE	224	0.13%
A46	ZONE 1	MULTI-STREAM ROTATOR	1,472	0.85%
A47	ZONE 6	SPRAY	110	0.06%
A48	ZONE 1	MULTI-STREAM ROTATOR	2,834	1.63%
A49	ZONE 4	SPRAY	1,020	0.59%
A50	ZONE 1	MULTI-STREAM ROTATOR	1,842	1.06%
A51	ZONE 5	ROOT WATERING TUBE	192	0.11%
A52	ZONE 1	MULTI-STREAM ROTATOR	2,976	1.71%
A53	ZONE 1	MULTI-STREAM ROTATOR	1,878	1.08%
A54	ZONE 3	BUBBLER	1,029	0.59%
A55	ZONE 1	MULTI-STREAM ROTATOR	2,476	1.42%
A56	ZONE 1	MULTI-STREAM ROTATOR	4,924	2.83%
A57	ZONE 1	MULTI-STREAM ROTATOR	2,867	1.65%
A58	ZONE 1	MULTI-STREAM ROTATOR	3,393	1.95%
A59	ZONE 5	ROOT WATERING TUBE	160	0.09%
			TOTAL:	**173,839**	**100.0%**

ZONE TOTALS

Hydrozone	Hydrozone Description	Plant Factor	Total Square Feet	% of Landscape
ZONE 1	HIGH WATER USE STREAM ROTOR	0.7	52,851	30.40%
ZONE 2 SLA	HIGH WATER USE ROTOR	0.7	114,214	65.70%
ZONE 3	LOW WATER USE BUBBLER	0.3	1,029	0.59%
ZONE 4	LOW WATER USE SPRAY	0.3	2,165	1.25%
ZONE 5	LOW WATER USE ROOT WATERING TUBE	0.3	1,808	1.04%
ZONE 6	HIGH WATER USE SPRAY	0.7	1,772	1.02%
		TOTAL:	**173,839**	**100.0%**

WATER ALLOWANCES/ WATER USE COMPARISON

POC	CONTROLLER		
P1	A	NAME OF CITY: Porterville	
		PROJECT NAME: Olive Bowl Park	WATER METER SIZE: 3"
		WATER TYPE: Well	REQUIRED WATER PRESSURE: 60 PSI @ rotor
		WATER METER LOCATION: W. Apia Street	MAXIMUM PEAK DEMAND: 200 GPM

MAXIMUM APPLIED WATER ALLOWANCE (MAWA)

FORMULA:

MAWA = (Eto)(0.62)[(0.45 x LA) + (0.55 x SLA) = GALLONS PER YEAR

NOTE: TOTAL AREA OF SPORTS FIELD TURF HAS BEEN CALCULATATED AS A SPECIAL LANDSCAPE AREA AS IT QUALIFIES UNDER FIELD PLAY AREAS WITHIN THE PARK.

52.10	= REFERENCE EVAPOTRANSPIRATION IN INCHES PER YEAR (SOURCE: CIMIS)
0.62	= CONVERSION FACTOR TO GALLONS PER SQUARE FEET
0.45	= EVAPOTRANSPIRATION ADJUSTMENT FACTOR AND IRRIGATION EFFICIENCY (ETAF)
LA	= LANDSCAPE AREA INCLUDING SLA (SQ. FT.)
0.55	= ADDITIONAL Eto ADJUSTMENT FACTOR FOR SPECIAL LANDSCAPE AREAS
SLA	= SPECIAL LANDSCAPE AREA (SQ. FT.)

SUMMARY OF LANSCAPE AREA BY IRRIGATION METHOD OR SLA

	56,788	Overhead Irrigation Landscape Area (ft^2)
	2,837	Drip/Bubbler Irrigation Landscape Area (ft^2)
	114,214	SLA (ft^2)
Total Landscape Area:	173,839	

RESULTS

MAWA = (Eto) x (0.62) x [(0.45 x LA) + ((1.0 - 0.55) x SLA))]

5,495,000	**Gallons**
734,574.63	*Cubic Feet*
7,345.77	*HCF*
16.86	*Acre-feet*
5.49	*Millions of Gallons*

ESTIMATED TOTAL WATER USE (ETWU)

FORMULA:

ETWU = (Eto) x (0.62) x [(ETAF x Landscape Area)]

52.10	= REFERENCE EVAPOTRANSPIRATION IN INCHES PER YEAR (SOURCE: CIMIS)	
0.62	= CONVERSION FACTOR TO GALLONS PER SQUARE FEET	
VARIES	= PF (WUCOLS IV)	
		0.3 LOW WATER-USE PLANTS
		0.5 MEDIUM WATER-USE PLANTS
		0.7 HIGH WATER-USE PLANTS
VARIES	= IE (IRRIGATION EFFICIENCY)	
		0.75 STREAM ROTOR/ SPRAY
		0.81 DRIP/BUBBLER
VARIES	= ETAF (ET ADJUSTMENT FOR PLANT FACTORS AND IRRIGATION EFFICIENCY)	
	SLA ETAF = 1.0	
VARIES	= LANDSCAPE AREA FOR SPECIFIC HYDROZONE	

DETAILED SUMMARY BY HYDROZONE TYPE

REFERENCE EVAPOTRANSPIRATION (Eto): 52.10

Hydrozone Number/ Type	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Lanscape Area (sf^2)	ETAF x Area	ETWU
Regular Landscape Area							
ZONE 1 Passive Turf (High Water-Use)	0.7	MULTI STREAM ROTOR	0.75	0.92	52,851	48,623	1,570,618
ZONE 3 Vines (Low Water-Use)	0.3	BUBBLER	0.81	0.36	1,029	368	11,900
ZONE 4 Shrubs/GC (Low Water-Use)	0.3	SPRAY	0.75	0.39	2,165	837	27,041
ZONE 5 Trees (Low Water-Use)	0.3	RWS	0.81	0.36	1,808	647	20,909
ZONE 6 Passive Turf (High Water-Use)	0.7	SPRAY	0.75	0.92	1,772	1,630	52,660
				LANDSCAPE Totals:	**57,853**	**50,476**	**1,630,468**
Special Landscape Areas							
ZONE 2 SLA				1	114,214	114,214	3,689,341
SPORTS FIELD TURF AREAS		ROTOR			As Noted Above		
				SLA Totals:	**114,214**	**114,214**	**3,689,341**

RESULTS

ETWU = (Eto) x (0.62) x [(ETAF x Landscape Area)]

5,319,809	**Gallons**
711,155.01	*Cubic Feet*
7,111.57	*HCF*
16.33	*Acre-feet*
5.32	*Millions of Gallons*

5,495,000	**MAWA**
175,191	*Surplus*

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BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

MWELO CALCULATIONS AND CHARTS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

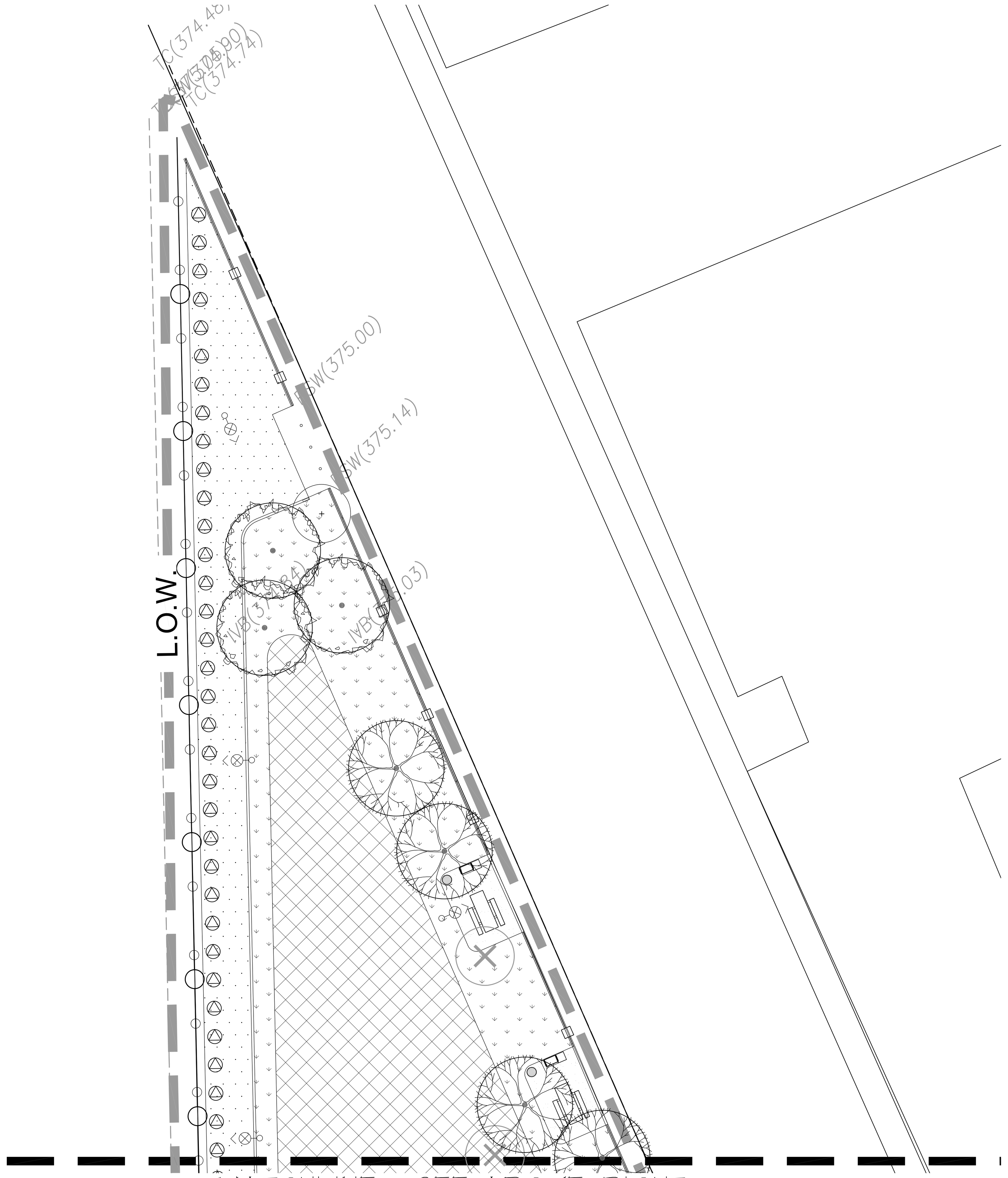
STAMP

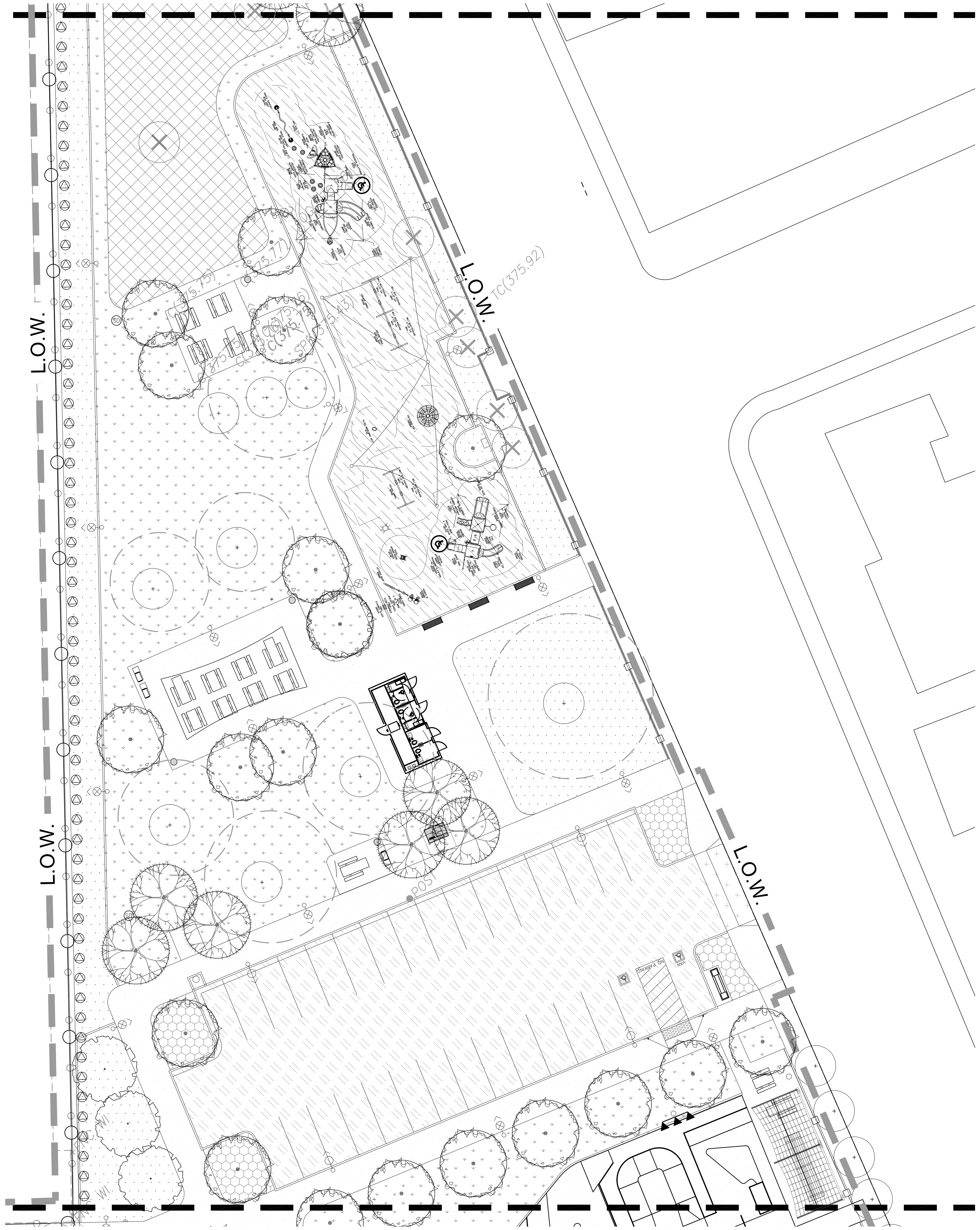
LICENSED LANDSCAPE ARCHITECT
LAUREN N. LANG NO. 6471
SIGNATURE
11-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET

L3.8





PLANTING NOTES:

1. CONTRACTOR SHALL NOTIFY THE AGENCY OF SITE CONDITIONS WHICH PREVENT INSTALLATION PER PLANS AND SPECIFICATIONS.
2. CONTRACTOR SHALL BE LIABLE FOR REMOVING AND REINSTALLING IRRIGATION EQUIPMENT, AND REPLANTING AREAS WHICH ARE NOT INSTALLED PER PLAN AND SPECIFICATIONS.
3. IRRIGATION SYSTEM SHALL BE INSTALLED PRIOR TO PLANT MATERIALS.
4. TREES AND SHRUBS SHALL BE PLANTED AFTER CONCRETE PLACEMENT, BUT NOT BEFORE IRRIGATION COVERAGE TEST HAS BEEN APPROVED. (SEE SPECIFICATIONS).
5. PLACE TREES BETWEEN IRRIGATION HEADS WHEREVER POSSIBLE.
6. SHREDDED MULCH INSTALLATION: INSTALL SHREDDED MULCH IN ALL SHRUB AND GROUNDCOVER AREAS AT A DEPTH OF 2" UNLESS OTHERWISE INDICATED PLANS.
7. CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF ANY DAMAGED LANDSCAPE AREAS BEYOND THE LIMIT OF WORK, THAT IS A DIRECT RESULT OF THE LANDSCAPE CONSTRUCTION AND/OR HIS SUB-CONTRACTOR. REPLACEMENT ITEMS SHALL BE EXACT DUPLICATE OF ORIGINAL WORK ON PLANS, UNLESS OTHERWISE APPROVED BY THE AGENCY AUTHORIZED REPRESENTATIVE.
8. CLEANUP SHALL TAKE PLACE ON A DAILY BASIS UNLESS OTHERWISE APPROVED BY THE AGENCY'S REPRESENTATIVE.
9. THE PLANTING PLANS ARE ONLY ACCURATE FOR APPROXIMATE PLANTING LOCATION AND QUANTITIES. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES BY PLAN CHECK. THE PLANTING LEGEND IS ACCURATE ONLY FOR PLANT SIZE.
10. THE PLANTING PLAN TREE LOCATIONS ARE DIAGRAMMATIC. FINAL LOCATIONS TO BE STAKED AND APPROVED BY CITY STAFF PRIOR TO INSTALLATION. CENTER OF TREE TRUNK TO BE A MINIMUM OF 5' CLEAR OF ALL UTILITIES.
11. CONTRACTOR SHALL COORDINATE WITH PARK SUPERVISOR PRIOR TO IMPLEMENTING ANY WATER OR ELECTRICAL SHUTDOWNS.
12. CONTRACTOR SHALL ENSURE THAT THE EXISTING IRRIGATION SYSTEM CONTINUES TO OPERATE WITH THE CURRENT RUN TIMES AND SCHEDULES THROUGHOUT CONSTRUCTION.
13. CONTRACTOR SHALL REPLACE ANY PLANT MATERIAL WHICH IS LOST/DAMAGED BY CONTRACTOR'S OPERATIONS OR LOST/DAMAGED AS A RESULT OF DISCONTINUITY OF THE IRRIGATION SYSTEM DUE TO DAMAGE OR SHUT DOWNS DUE TO THE CONTRACTOR'S OPERATIONS.
14. DECOMPOSED GRANITE NOT TO CONTAIN STABILIZER SURROUNDING ROOT ZONE OF OF ALL PLANTS UP TO A 2' DIAMETER OF PLANT STALK.

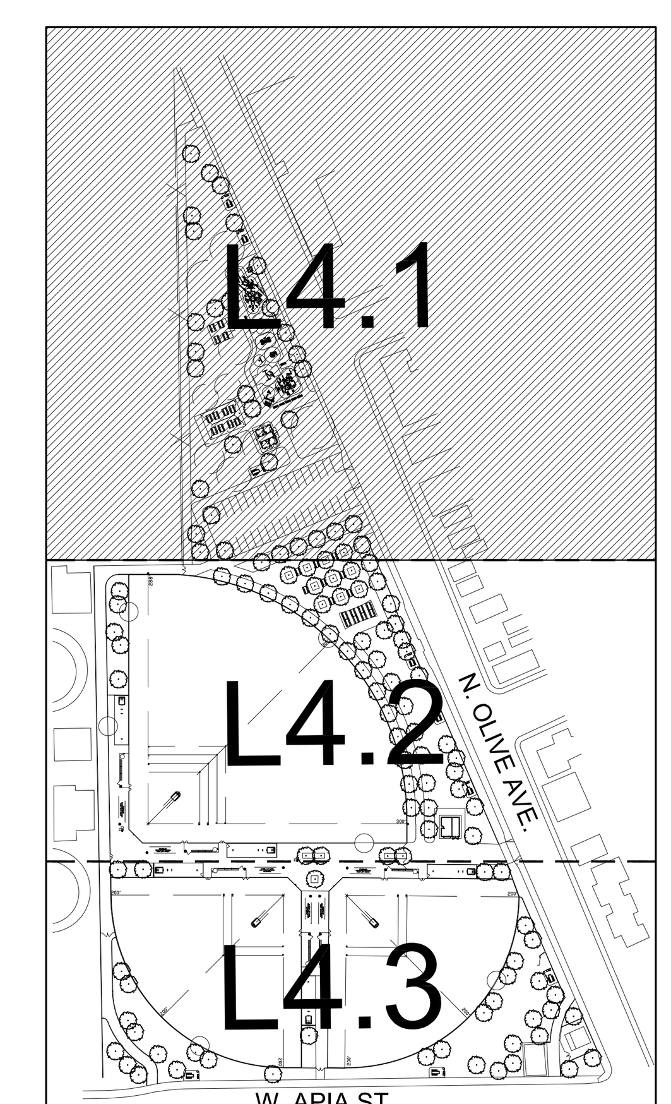
PLANT MATERIAL LEGEND

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	PLATANUS MEXICANA	MEXICAN SYCAMORE	24" BOX	PER PLAN
	ULMUS AMERICANA	AMERICAN ELM	24" BOX	PER PLAN
	QUERCUS ILEX	HOLLY OAK	24" BOX	PER PLAN

SHRUBS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	LOMANDRA LONGIFOLIA	DWARF MAT RUSH	1 GAL.	PER PLAN
	FICUS PUMILA	CLIMBING FIG	1 GAL.	PER PLAN
	GENERAL TURF HYDROSEED BASIN TURF HYDROSEED	-	(TBD) CELEBRATION BERMUDA GRASS AVAILABLE FROM A-G SOD. PH:888-800-8483.	
	BALLFIELD TURF - SOD	HYBRID BERMUDA - SOD	REFER TO SPECIFICATIONS	
	STABILIZED DECOMPOSED GRANITE	-	-	-



KEYMAP

0 10' 20' 40'

NORTH

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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

PLANTING PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N LANG NO. 1771
SIGNATURE
11-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
L4.1

MATCHLINE - REFER TO SHEET L4.1

L.O.W.

SCE POLE #49787B5E

L.O.W.

WALL

WALL

FIELD #1

LIP

LIP

L.O.W.

TC(378.18)

TC(378.00)

TC(378.08)

TC(378.35)

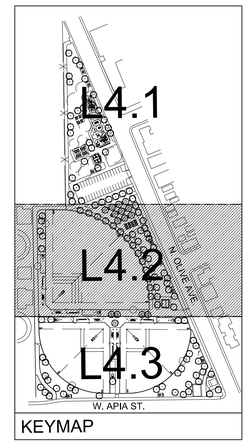
TC(378.44)

L.O.W.

W.

MATCHLINE - REFER TO SHEET L4.3

REFER TO SHEET L4.1 FOR PLANTING LEGEND AND NOTES.



KEYMAP

0 10' 20' 40'

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STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

PLANTING PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N. LANG NO. 5117
SIGNATURE
3-30-24
RENEWAL DATE
3-31-25
DATE
STATE OF CALIFORNIA

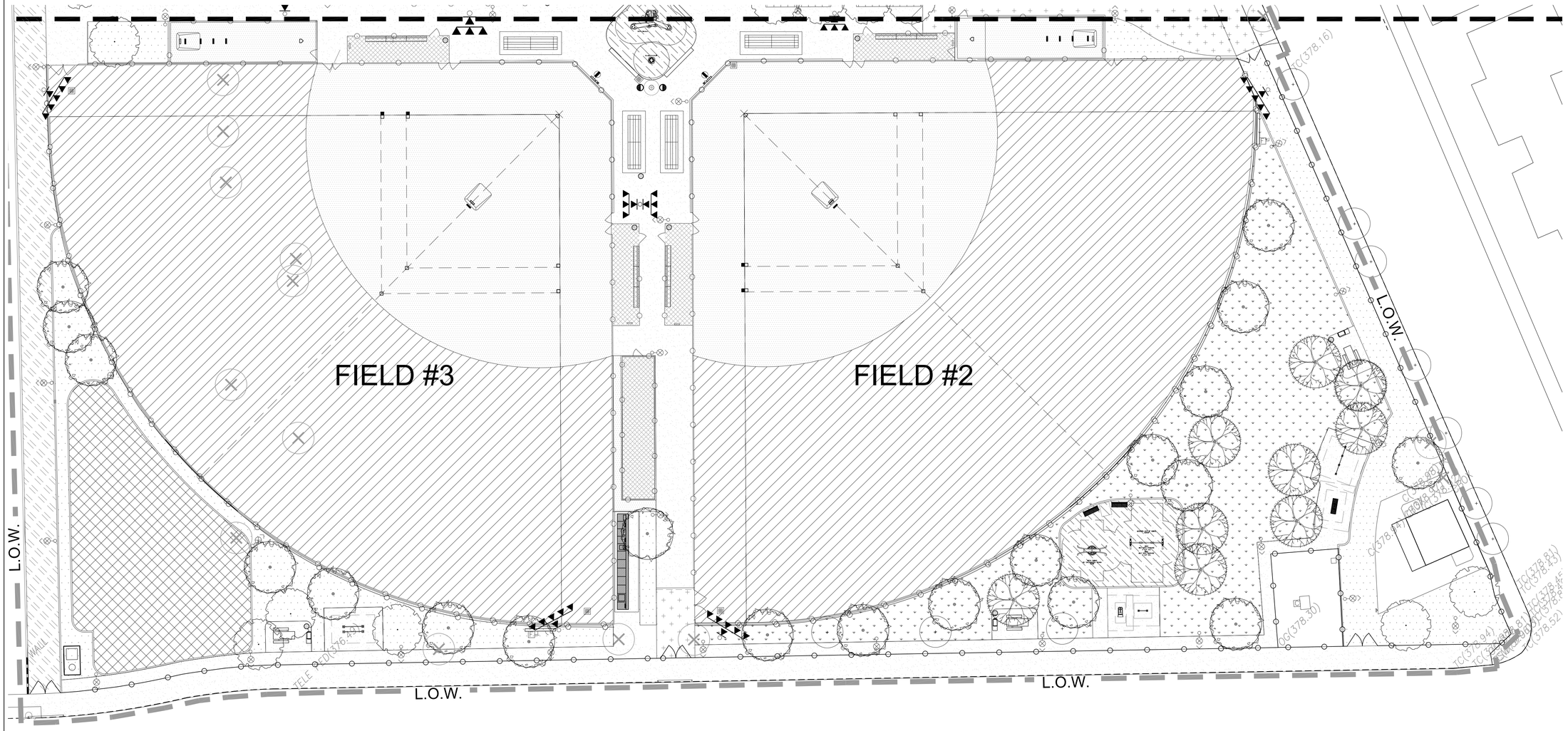
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET

L4.2

SHEET 40 OF 85 SHEETS

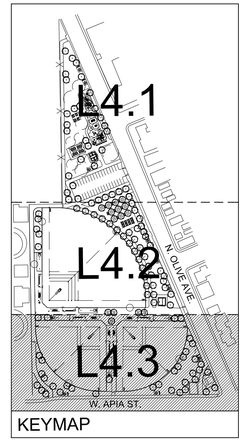
MATCHLINE - REFER TO SHEET L4.2



PLANT MATERIAL LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
TREES				
	PLATANUS MEXICANA	MEXICAN SYCAMORE	24" BOX	PER PLAN
	ULMUS AMERICANA	AMERICAN ELM	24" BOX	PER PLAN
	QUERCUS ILEX	HOLLY OAK	24" BOX	PER PLAN
SHRUBS				
	LOMANDRA LONGIFOLIA	DWARF MAT RUSH	1 GAL.	PER PLAN
	FICUS PUMILA	CLIMBING FIG	1 GAL.	PER PLAN
	GENERAL TURF HYDROSEED BASIN TURF HYDROSEED	-	(TBD) CELEBRATION BERMUDA GRASS AVAILABLE FROM A-G SOD. PH:888-800-8483.	
	BALLFIELD TURF - SOD	HYBRID BERMUDA - SOD	REFER TO SPECIFICATIONS	
	STABILIZED DECOMPOSED GRANITE	-	-	-

REFER TO SHEET L4.1 FOR PLANTING NOTES.



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0 10' 20' 40'

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

PLANTING PLAN

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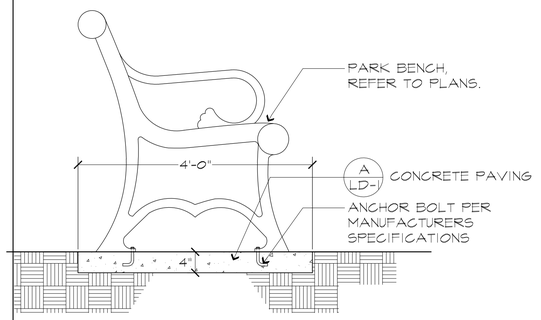
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

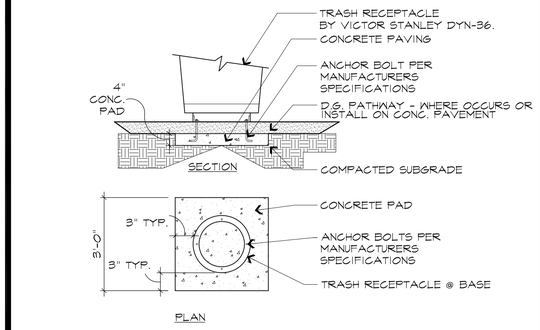
REGISTERED LANDSCAPE ARCHITECT
LAUREN N. LANG NO. 6471
SIGNATURE
11-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
L4.3
SHEET 41 OF 85 SHEETS

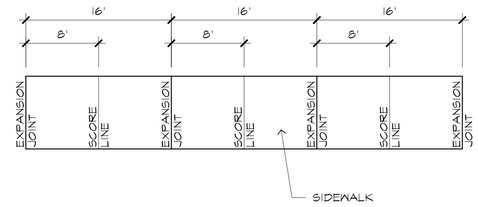


J PARK BENCH — NO SCALE



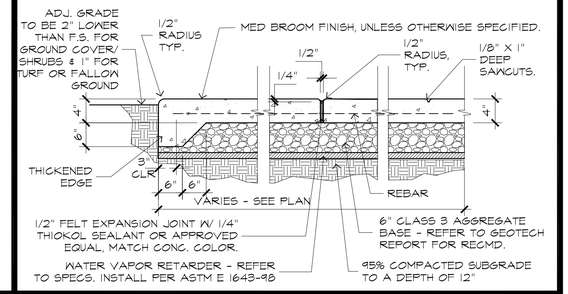
G TRASH RECEPTACLE PAD — NO SCALE

NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 16' O.C. SCORE LINES SHALL BE SPACED EVERY 8' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. SAWCUT JOINTS TO BE 1/8" WIDE X 1" DEEP SAWCUTS. JOINTS TO OCCUR AT ALL CONCRETE RE-ENTRANT CORNERS.

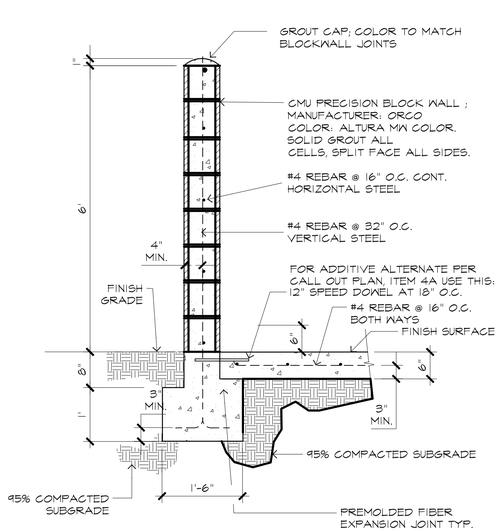


D SCORE LINE / EXPANSION JOINT LAYOUT — NO SCALE

*NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 16' O.C. SCORE LINES SHALL BE SPACED EVERY 8' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. JOINTS TO OCCUR AT ALL CONCRETE RE-ENTRANT CORNERS. APPLY THICKENED EDGE AS REQUIRED PER PLAN. CONCRETE SHALL BE CLASS "A". REFER TO CITY STANDARD ST-9.

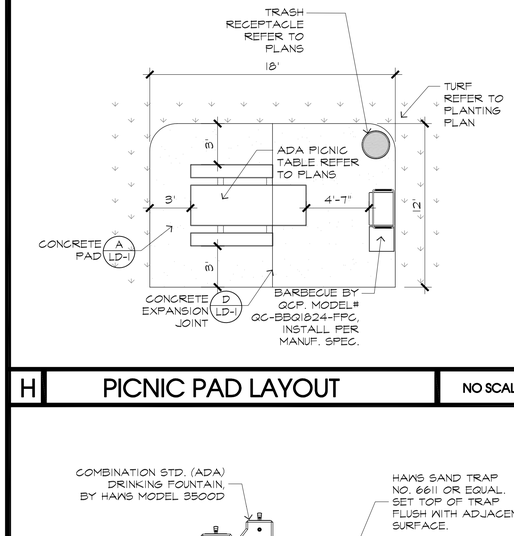


A 4" CONCRETE PAVING — NO SCALE

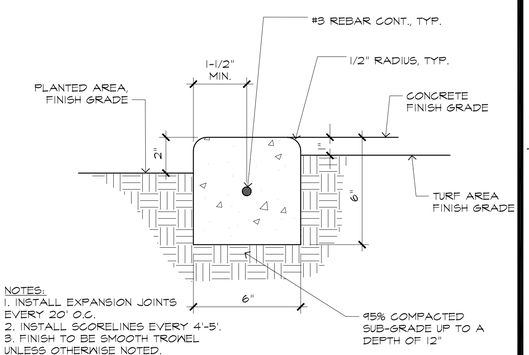


NOTES:
1. THIS WALL DESIGN IS NOT TO BE USED FOR RETAINING EARTH.
2. INSPECTION REQUIRED PRIOR TO PLACING CONCRETE AND ALL GROUTING.
3. CONCRETE - PER 520-C-2500.
4. GROUT ALL CELLS SOLID.
5. LAP ALL REINFORCEMENT STEEL A MINIMUM OF 40 BAR DIAMETER (15" FOR #3 BAR 20" FOR #4 BAR)
6. SOIL SHALL HAVE A MINIMUM BEARING VALUE OF 1,000 P.S.F.
7. MAINTAIN 1 BAR DIAMETER MINIMUM CLEARENCE IN WALL AND 3" MINIMUM CLEARENCE IN FOOTING.
8. ALL WORKMANSHIP AND MATERIAL TO CONFORM WITH THE STANDARD SPECIFIGATIONS FOR PUBLIC WORKS.
9. ALL CONCRETE CORNERS TO BE 1/4" RADIUS.
10. CONTRACTOR SHALL SUBMIT ALL NECESSARY STRUCTURAL CALCS WITH SHOP DRAWINGS TO OBTAIN NECESSARY PERMITS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED COSTS FOR STRUCTURAL CALCS, SHOP DRAWINGS AND NO FEE PERMIT.
11. CONTRACTOR TO COORDINATE WITH ADJACENT PROPERTY OWNERS

K 6' HIGH BLOCK WALL - ADD ALT #1 — NO SCALE



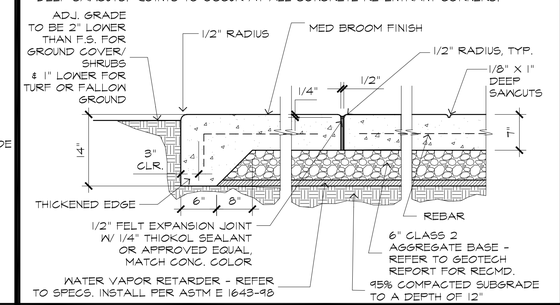
H PICNIC PAD LAYOUT — NO SCALE



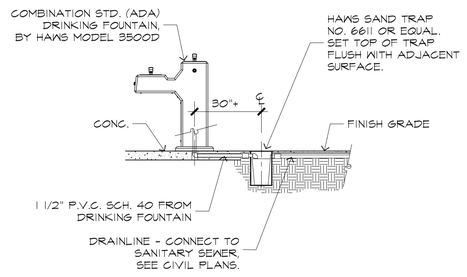
NOTES:
1. INSTALL EXPANSION JOINTS EVERY 20' O.C.
2. INSTALL SCORELINES EVERY 4'-5'.
3. FINISH TO BE SMOOTH TROWEL UNLESS OTHERWISE NOTED.

E 6" CONC. MOWBAND — NO SCALE

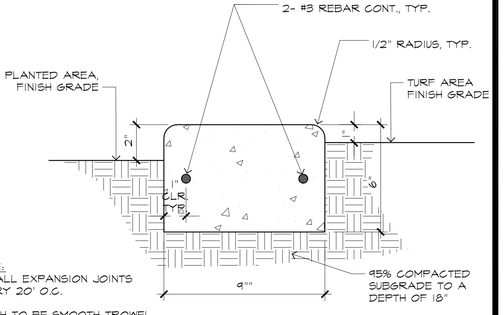
NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 16' O.C. SCORE LINES SHALL BE SPACED EVERY 8' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. SAWCUT JOINTS TO BE 1/8" WIDE X 1" DEEP SAWCUTS. JOINTS TO OCCUR AT ALL CONCRETE RE-ENTRANT CORNERS.



B 7" CONCRETE PAVING — NO SCALE



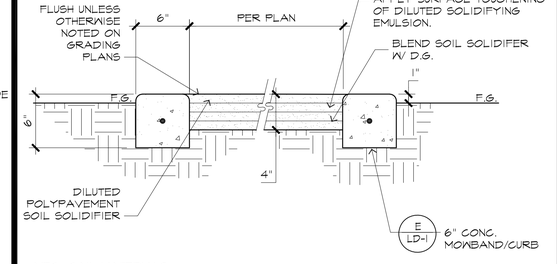
I DRINKING FOUNTAIN — NO SCALE



NOTE:
INSTALL EXPANSION JOINTS EVERY 20' O.C.

FINISH TO BE SMOOTH TROWEL UNLESS OTHERWISE NOTED.

F 9" CONC. MOWBAND — NO SCALE



MFG: GAIL MATERIALS
3/8" CALIFORNIA GOLD OR APPROVED EQUAL
TEL: (951) 667-6106
REFER TO SPECS

NOTES:
1. D.G. SHALL HAVE MAX 2% CROSS SLOPE TO DRAIN.
2. D.G. STABILIZER NOT REQUIRED FOR PLANTING AREAS AS INDICATED ON PLANS.

C STABILIZED DECOMPOSED GRANITE — NO SCALE

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714.871.3638
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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

DATE	REVISION
10-18-21	50% CD Submittal
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12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N LANG NO. 5117
SIGNATURE
5-30-24
RENEWAL DATE
2-15-23
DATE
STATE OF CALIFORNIA

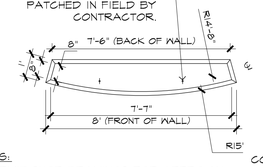
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-1
SHEET 42 OF 85 SHEETS

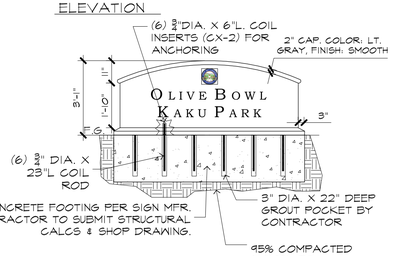
C ENTRY MONUMENT SIGN — NO SCALE

PLAN

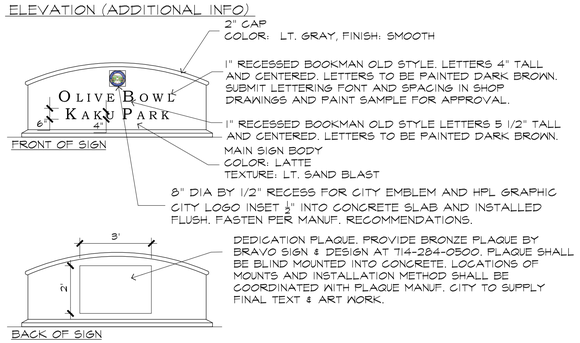
(2) $\frac{3}{4}$" DIA. COIL INSERTS (CX-2) FOR LIFTING. PATCHED IN FIELD BY CONTRACTOR.



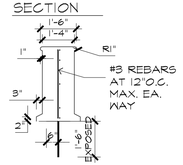
ELEVATION



ELEVATION (ADDITIONAL INFO)

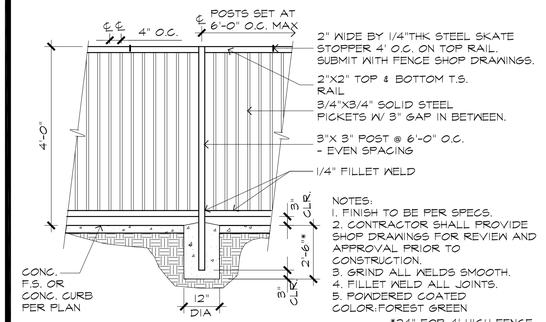


SECTION

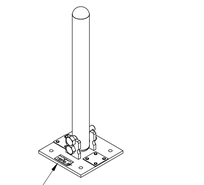


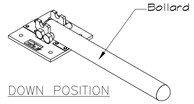
NOTES:
1. SUBMIT SHOP DRAWINGS FOR APPROVAL.
2. INSTALL SIGN PER MFR RECOMMENDATIONS.
3. SIGN IS TWO SIDED.
4. SIGN BY BRAVO SIGNS, CONCRETE COLOR: LATTE, TEL: (714) 284-0500
5. CONTRACTOR SHALL SUBMIT ALL NECESSARY STRUCTURAL CALCS WITH SHOP DRAWINGS TO OBTAIN NECESSARY PERMITS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED COSTS FOR STRUCTURAL CALCS, SHOP DRAWINGS AND NO FEE PERMIT.
6. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITTI COATING TO ALL SIGN SURFACES. REFER TO SPECS.
7. HPL GRAPHIC CITY LOGO BY BRAVO SIGNS - FRANK FIORE 714-284-0500. FINAL ARTWORK FOR HPL CITY LOGO TO BE PROVIDED BY CITY.

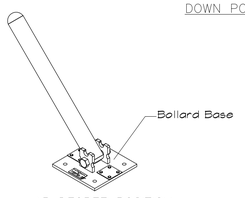
A 4' HIGH TUBE STEEL FENCE — NO SCALE



F COLLAPSIBLE BOLLARD — NO SCALE

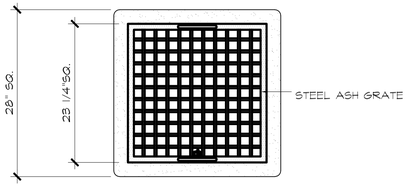




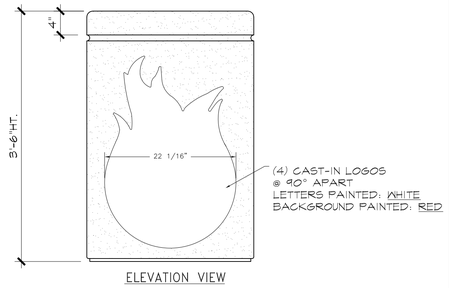


NOTES
1. COLLAPSIBLE VEHICULAR BOLLARDS BY TRAFFIC GUARD MODEL: RFP6660 R - IN-GROUND MOUNT, YELLOW POWDER COATED. BOLLARDS TO BE SPACED 4' ON CENTER. CONTACT: JON SCHRAM WITH TRAFFICGUARD DIRECT, IN. PH: 1-877727-7347

D HOT ASH CONTAINER — NO SCALE



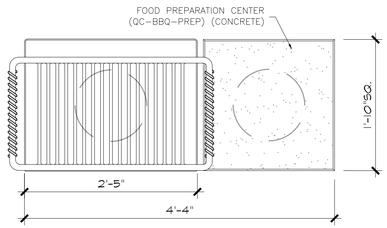
PLAN VIEW



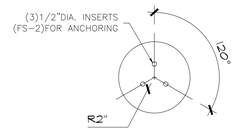
ELEVATION VIEW

NOTE:
1. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITTI COATING TO ALL CONCRETE SURFACES. REFER TO SPECS.

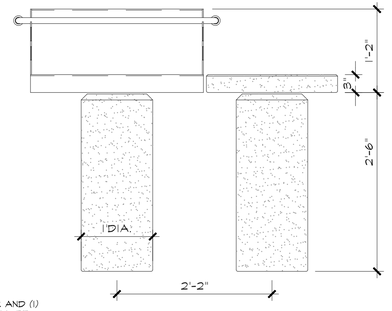
B BBQ WITH PREP TABLE — NO SCALE



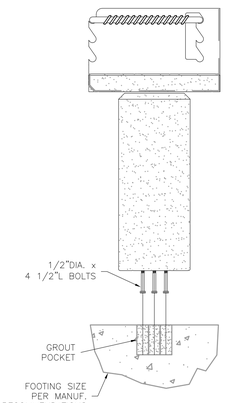
PLAN VIEW



BOTTOM VIEW
ANCHOR BOLT PATTERN



ELEVATION VIEW



SIDE VIEW/DETAIL "A"
INSTALLATION DETAIL

NOTE:
1. (1) BBQ UNIT AT EACH SHELTER AND (1) INDIVIDUAL PICNIC PAD SHALL BE INSTALLED SO THAT THE TOP OF THE COOKING SURFACE IS 34" FROM FINISH SURFACE AT IT'S HIGHEST SETTING.
2. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITTI COATING TO ALL CONCRETE SURFACES. REFER TO SPECS. COLOR: NATURAL TEXTURE: SANTA FE

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
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CONSULTANT:

PROJECT TEAM:

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ELECTRICAL ENGINEER
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ISE

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SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

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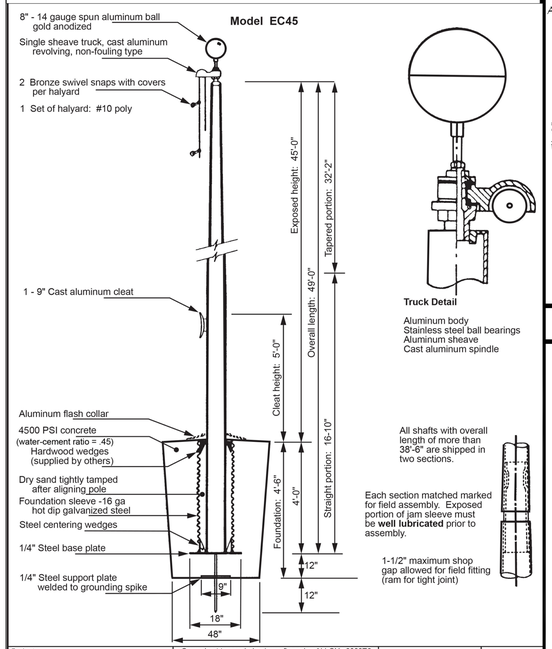
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-2

NOTES:
1. CONTRACTOR TO PROVIDE STRUCTURAL CALCULATIONS FOR FOOTING. FOOTING SHOWN FOR BIDDING PURPOSES ONLY.



Truck Detail

Aluminum body
Stainless steel ball bearings
Aluminum sheave
Cast aluminum spindle

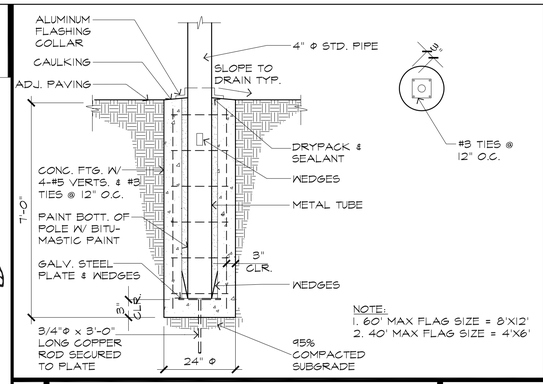
All shafts with overall length of more than 38'-8" are shipped in two sections.

Each section matched marked for field assembly. Exposed portion of jam sleeve must be **well lubricated** prior to assembly.

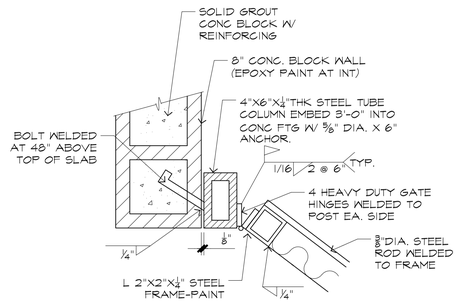
1-1/2" maximum shop gap allowed for field fitting (ram for tight joint)

Project:	Ground set tapered aluminum flagpole: ALLOY: 6063T6			Date:
Location:	Exposed height: 45'-0"	Overall height: 49'-0"		Revision:
Architect:	Ship in 2 sections	Butt diameter: 8"		
Contractor	Top diameter: 3-1/2"	Wall thickness: .188"		
Customer:	Finish: 100 grit polish			Job:

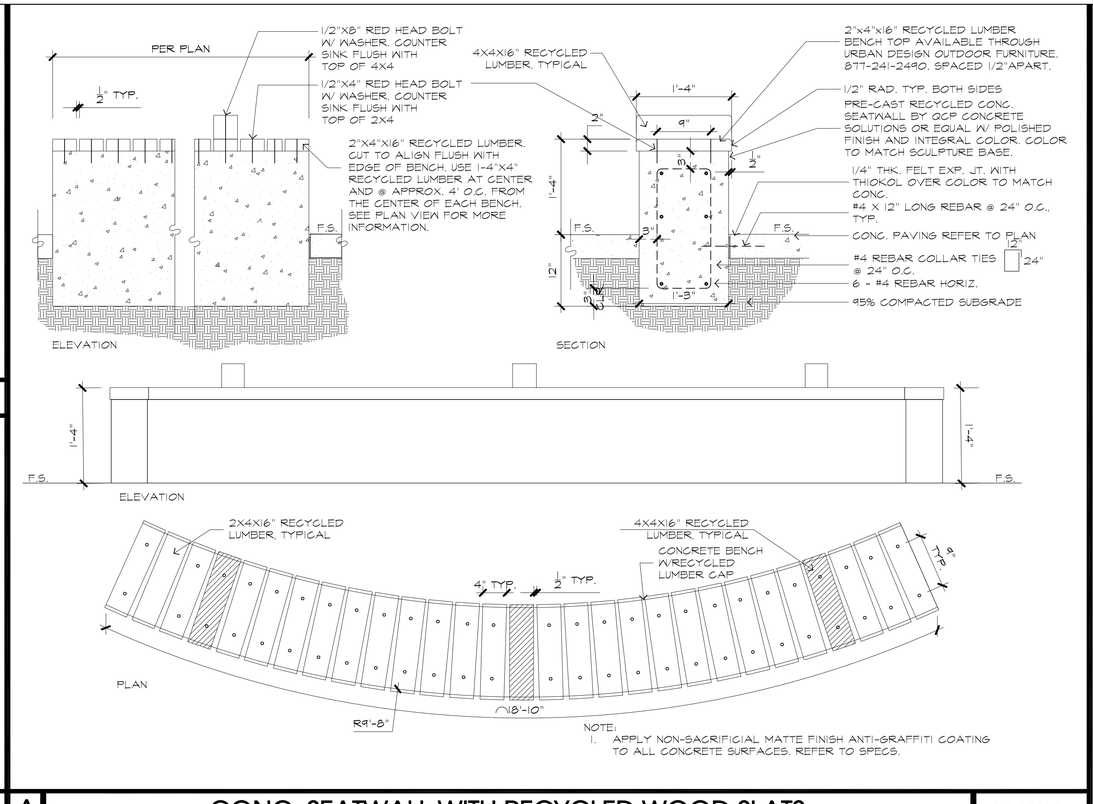
E FLAG POLE - LA STEELCRAFT NO SCALE



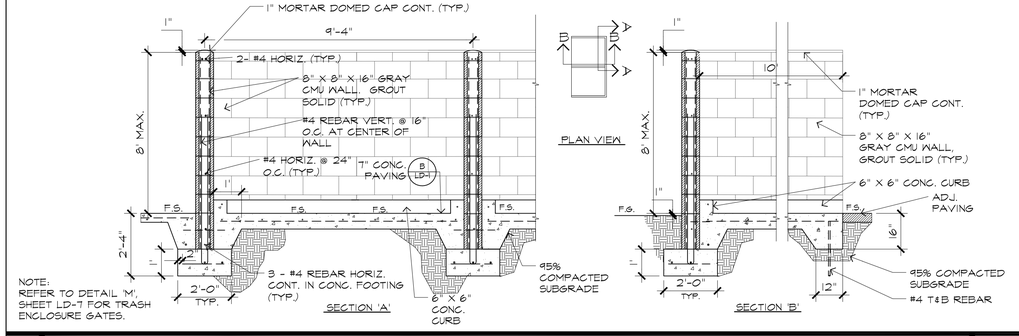
C FLAG POLE NO SCALE



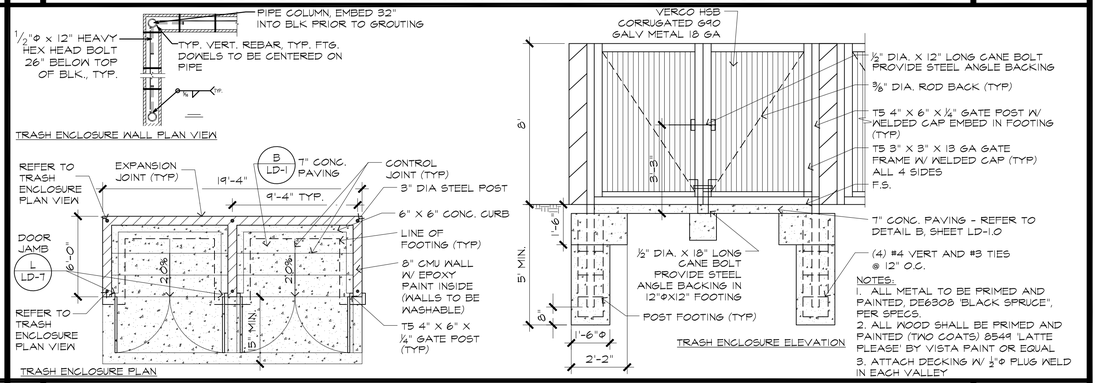
D TRASH ENCLOSURE JAMB NO SCALE



A CONC. SEATWALL WITH RECYCLED WOOD SLATS NO SCALE



F TRASH ENCLOSURE NO SCALE



B TRASH ENCLOSURE GATES NO SCALE

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109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

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CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

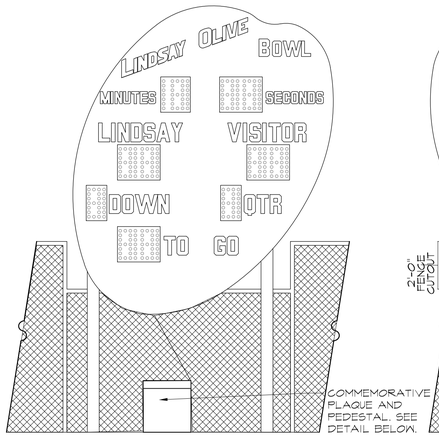
SHEET
LD-3
SHEET 44 OF 85 SHEETS

-	NOT USED	NO SCALE

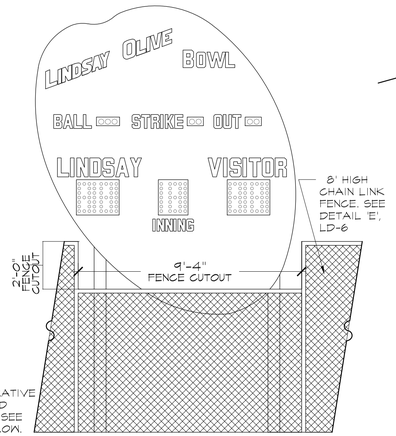
-	NOT USED	NO SCALE

-	NOT USED	NO SCALE

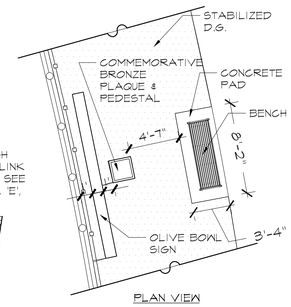
-	NOT USED	NO SCALE



FACING WALKWAY



FACING BALLFIELD



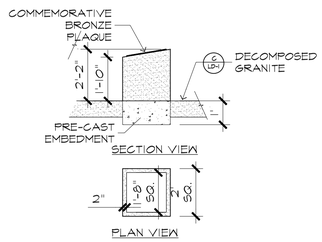
PLAN VIEW

GENERAL NOTES REGARDING EXISTING OLIVE BOWL SIGN CONTRACTOR TO:

1. DECOMMISSION ALL ELECTRICAL CONNECTIONS TO SIGN AND SAFE.
2. REMOVE LOWER WHITE PANEL.
3. REMOVE ALL POSTS AND FOOTINGS AND RELOCATE UPPER PORTION TO NEW LOCATION AS SHOWN ON THE PLANS.
4. COVER BACK OF SIGN PANEL AND ELECTRICAL WITH ALUMINUM CABINET WITH INTERNAL STRUCTURE TO MATCH FRONT WITH 090 ALUMINUM. PAINT AND DECORATE AS SHOWN.
5. PAINT ALL SIGN, POSTS AND HARDWARE - COLOR:PANTONE 426 - BLACK
6. ADD WHITE GRAPHICS TO CREATE STATIC SCORES.
7. PROVIDE STEEL POST SYSTEM TO SUPPORT SIGN. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCS FOR SIGN, POSTS AND SIGN FOOTINGS(S).
8. SIGN RESTORATION/REPAIR WILL REQUIRE COMPLETE FIELD SURVEY TO BE SURE OF ALL PARTS FIT. CONTRACTOR TO PROVIDE SUBMITTAL DRAWINGS TO SHOW ALL NEW DETAILS.
9. REFER TO EXISTING SIGN FOR FINAL DIMENSIONS.
10. SIGN MANUF. BRAVO SIGNS CONTACT: FRANK FIORE (714) 284-0500

NOTES:

1. CAST BRONZE PLAQUES SHALL BE 5/16" X 1'-8" SQ. AVAIL: BRAVO SIGNS (714)284-0500
2. PLAQUE SHALL BE BLIND MOUNTED DIRECTION INTO PRE-CAST CONCRETE. LOCATIONS OF MOUNTS AND INSTALLATION METHOD SHALL BE COORDINATED WITH PLAQUE MANUF. CITY TO SUPPLY FINAL TEXT & ART WORK.
3. PROVIDE SHOP DRAWINGS/PROOFS FOR FINAL APPROVAL.
4. PRE-CAST CONCRETE AVAIL: BRAVO SIGNS. COLOR: NATURAL GRAY, SMOOTH FINISH.
6. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITTI COATING TO ALL SIGN SURFACES. REFER TO SPECS.
7. CITY TO SUPPLY FINAL TEXT & ART WORK.



E	EXISTING OLIVE BOWL SIGNAGE	NO SCALE

-	NOT USED	NO SCALE

-	NOT USED	NO SCALE

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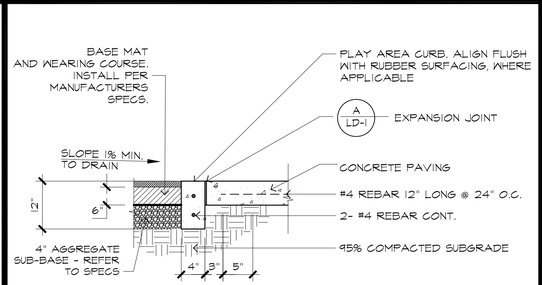
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET

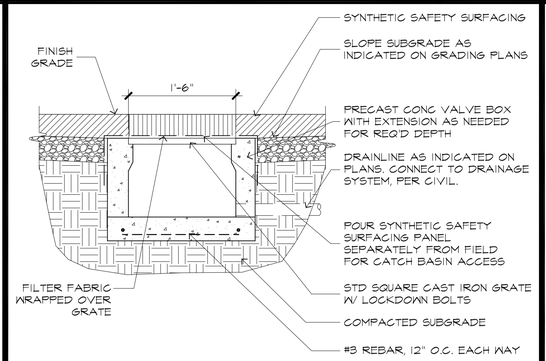
LD-4

SHEET 45 OF 85 SHEETS

-	NOT USED	NO SCALE	-	NOT USED	NO SCALE	-	NOT USED	NO SCALE	-	NOT USED	NO SCALE
-	NOT USED	NO SCALE	-	NOT USED	NO SCALE	-	NOT USED	NO SCALE	-	NOT USED	NO SCALE
-	NOT USED	NO SCALE	E	RUBBERIZED SURFACING	NO SCALE	C	PLAY AREA SUMP DRAIN	NO SCALE	-	NOT USED	NO SCALE



NOTE:
1. WEAR COURSE, VERIFY DEPTH WITH PLAY GROUND EQUIPMENT MANUFACTURER FOR FALL HEIGHTS. REFER TO SPECS.



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SPOHN RANCH

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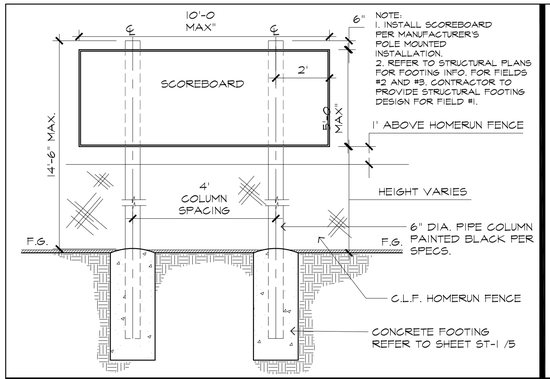
STAMP

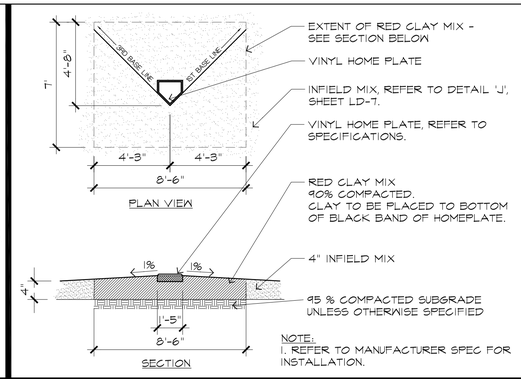
LANDSCAPE ARCHITECT
STEVEN N LANG No. 5141
SIGNATURE
6-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

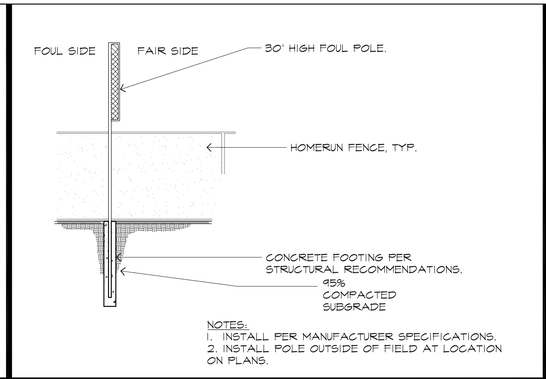
SHEET
LD-5



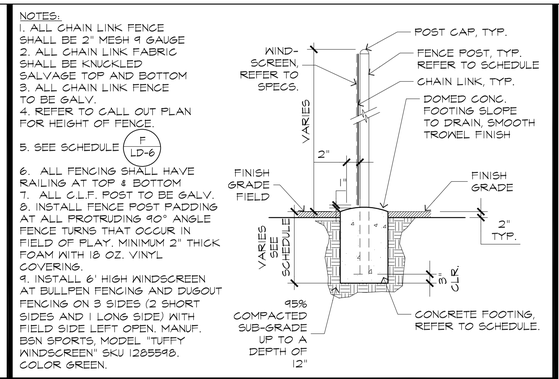
J SCOREBOARD — NO SCALE



G HOME PLATE — NO SCALE



D FOUL BALL POLE — NO SCALE

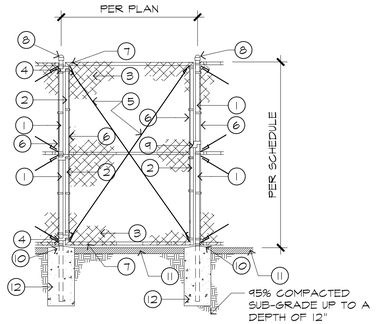


A CHAINLINK FENCE — NO SCALE

NOTES:

1. REFER TO SPECS. FOR CHAIN LINK FENCE MATERIALS AND INSTALLATION.
2. CONCRETE FOOTINGS TO BE ALLOWED TO SET FOR SEVEN DAYS PRIOR TO INSTALLATION OF GATE.
3. ALL C.L.F. FABRIC TO BE GALV.
4. ALL POSTS AND RAILS TO BE GALV.
5. GATE MATERIALS MANUFACTURERD BY: HOOVER FENCE CO. PH#(800)355-2335 WEBSITE: www.hooverfence.com OR APPROVED EQUAL

SCHEDULE	
POST HEIGHT	FOOTING
8' HT.	12"ø X 3'-6"
10' HT.	12"ø X 4'-0"



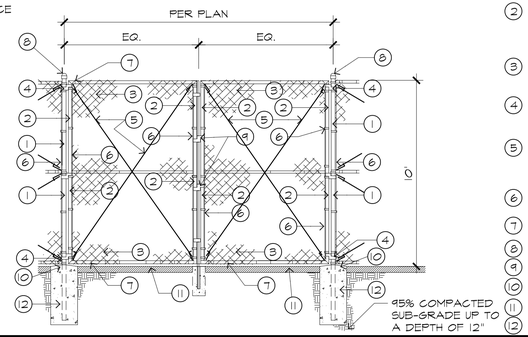
GATE MATERIALS

1. POSTS: POST 3-1/2 IN. O.D., GALV.
2. GATE FRAMES: TOP, BOTTOM AND SIDE MEMBERS 2-3/8 IN. O.D., MID RAIL 1 5/8" O.D. MITER GATE FRAME CORNERS WELD AND GRIND SMOOTH.
3. FABRIC: 9 GAUGE, 2 IN. MESH, KNUCKLE TOP AND BOTTOM, PLACE ON ACTIVITY OR TURF SIDE OF GATES, GALV.
4. HINGES: INDUSTRIAL BULLDOG HINGES (180° SWING), 2 HINGES PER GATE, ONE AT TOP AND BOTTOM.
5. TRUSS ROD: 3/8" DIA. THREADED AT BOTH ENDS AND TENSIONED WITH TWO INDUSTRIAL TRUSS TIGHTENERS SECURED TO GATE FRAME.
6. STRETCHER BAR: 3/16" X 3/4" WITH 1/8" X 1" TENSION BANDS AT 1'-0" O.C.
7. TIE WIRES: 11 GAUGE AT 1'-6" O.C. AT GATE FRAME TOP, BOTTOM AND MID RAILS.
8. POST CAPS SHALL BE CAST ALUMINUM
9. PRESSED STEEL GALV. SINGLE GATE FORK LATCH (LOCKABLE)
10. PROVIDE A 1" CROWN AT TOP OF ALL POST FOOTING
11. PAVING, REFER TO CALL OUT PLAN
12. POST FOOTING REFER TO SCH., THIS DETAIL

K CHAINLINK SINGLE GATE — NO SCALE

NOTES:

1. REFER TO SPECS. FOR CHAIN LINK FENCE MATERIALS AND INSTALLATION.
2. CONCRETE FOOTINGS TO BE ALLOWED TO SET FOR SEVEN DAYS PRIOR TO INSTALLATION OF GATES.
3. ALL C.L.F. FABRIC TO BE GALV.
4. ALL POSTS & RAILS TO BE GALV.
5. GATE MATERIALS MANUFACTURED BY: HOOVER FENCE CO. PH# (800)355-2335 WEBSITE: www.hooverfence.com OR APPROVED EQUAL.



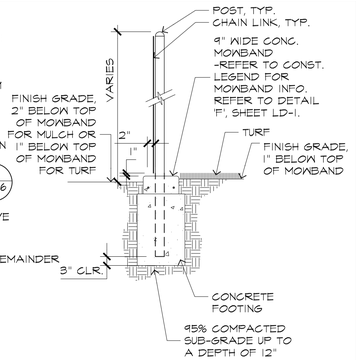
GATE MATERIALS

1. POSTS: POST 3-1/2 IN. O.D., GALV.
2. GATE FRAMES: TOP, BOTTOM AND SIDE MEMBERS 2-3/8 IN. O.D., MID RAIL 1 5/8" O.D. MITER GATE FRAME CORNERS WELD AND GRIND SMOOTH, GALV.
3. FABRIC: 9 GAUGE, 2 IN. MESH, KNUCKLE TOP AND BOTTOM, PLACE ON ACTIVITY OR TURF SIDE OF GATES, GALV.
4. HINGES: INDUSTRIAL BULLDOG HINGES (180° SWING), 2 HINGES PER GATE, ONE AT TOP AND BOTTOM.
5. TRUSS ROD: 3/8 IN. DIAM. THREADED AT BOTH ENDS AND TENSIONED WITH TWO INDUSTRIAL TRUSS TIGHTENERS SECURED TO GATE FRAME.
6. STRETCHER BAR: 3/16 X 3/4 IN. WITH 1/8 X 1 IN. TENSION BANDS AT 1'-0" O.C.
7. TIE WIRES: 11 GAUGE AT 1'-6" O.C. AT GATE FRAME TOP, BOTTOM AND MID RAILS.
8. POST CAPS SHALL BE CAST ALUMINUM
9. DROP ROD LATCH (LOCKABLE)
10. PROVIDE A 1" CROWN AT TOP OF ALL POST FOOTING
11. PAVING, REFER TO CALL OUT PLAN
12. 12" ø X 4'-0" DEEP CONC. POST FOOTING

L CHAINLINK DOUBLE GATE — NO SCALE

NOTES:

1. ALL CHAIN LINK FENCE SHALL BE 2" MESH 9 GAUGE
2. ALL CHAIN LINK FENCE SHALL BE KNUCKLED SALVAGE TOP AND BOTTOM
3. ALL CHAIN LINK FENCE TO BE GALV.
4. REFER TO CALL OUT PLAN FOR HEIGHT OF FENCE.
5. SEE C.L.F. SCHEDULE F LD-6
6. ALL FENCING SHALL HAVE RAILING AT TOP & BOTTOM
7. SEE DETAIL A LD-6 FOR REMAINDER OF NOTES.



E CHAINLINK FENCE W/ MOWBAND — NO SCALE

CLASS	CHAINLINK FENCE POST SIZE: POSTS	NOM. DIA.	LBS/ FT.	FOOT'G DEPTH	FOOT'G DIA.
IA	3'-6" LINE	1 1/2"	2.72	3'-0"	1'-0"
IA	3'-6" END	1 1/2"	2.72	3'-0"	1'-0"
IA	3'-6" CORNER	1 1/2"	2.72	3'-0"	1'-0"
IA	6' LINE	2"	3.66	3'-0"	1'-0"
IA	6' END	2"	3.66	3'-0"	1'-0"
IA	6' CORNER	2"	3.66	3'-0"	1'-0"
IA	8' LINE	2-1/2"	5.78		
IA	8' END	2-1/2"	5.78		
IA	8' CORNER	2-1/2"	5.78		
IA	8' LINE W/ WS	3-1/2"	9.12		
IA	8' END W/ WS	3-1/2"	9.12		
IA	8' CNR W/ WS	3-1/2"	9.12		
IA	10' LINE	3"	7.58		
IA	10' END	3"	7.58		
IA	10' CORNER	3"	7.58		
IA	10' LINE W/WS	4"	10.8		
IA	10' END W/ WS	4"	10.8		
IA	10' CORNER W/ WS	4"	10.8		
IA	TOP, MIDDLE, BOTTOM RAIL, HORIZ. BRACE	1 1/4"	2.27	-	-

CHAIN LINK FENCE MATERIAL

CHAIN LINK FABRIC - 2" MESH, 9 GA, TRUSS RODS - 5/8" DIA. GALV. ROD STRETCHER BAR 1/4" X 3/4".
CHAIN LINK FABRIC @ BULLPEN - 1" MESH, 9 GA, TRUSS RODS - 3/8" DIA. GALV. ROD STRETCHER BAR 1/4" X 3/4".

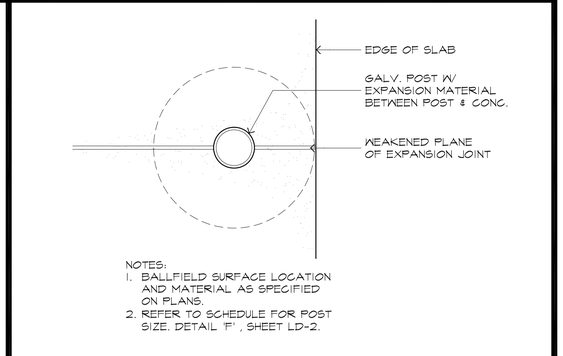
NOTES:

1. ALL CHAIN LINK FABRIC TO BE KNUCKLED SELVAGE - TOP AND BOTTOM.
2. ALL CHAIN LINK FENCE SHALL HAVE BOTTOM RAILS.
3. POST DIA. GIVEN AT LEFT, REFER TO STD. NOMINAL PIPE SIZE.
4. ALL CHAIN LINK FABRIC TO BE GALV., UNLESS NOTED.
5. ALL POSTS & RAILS TO BE GALV., UNLESS NOTED.
6. FOR C.L.F. W/ WINDSCREEN, REFER TO POST DIA. & FTG. DEPTH & DIA. AT LEFT.
7. ALL POST SHALL BE SPACED AT 8'-0" O.C. MAX.
8. ALL FENCING OVER 8' IN HEIGHT SHALL HAVE MIDDLE RAIL.

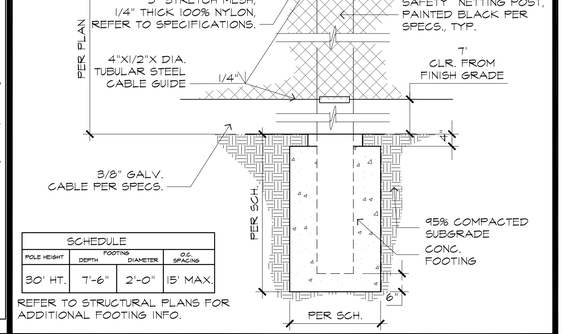
ABBRV.

WS	WINDSCREEN
CNR	CORNER
CLF	CHAIN LINK FENCE

F CHAINLINK SCHEDULE — NO SCALE



B POST TO REBAR CONNECTION — NO SCALE



SCHEDULE			
POLE HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	O.C. SPACING
30' HT.	7'-6"	2'-0"	15' MAX.

REFER TO STRUCTURAL PLANS FOR ADDITIONAL FOOTING INFO.

C 30' HIGH SAFTEY NETTING POST — NO SCALE

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
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STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

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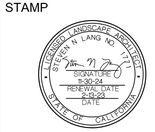
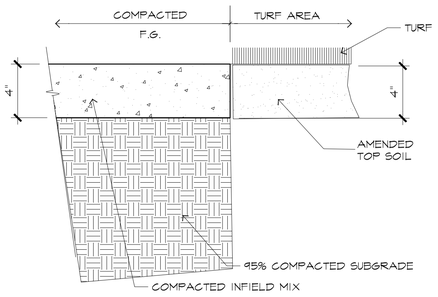
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP



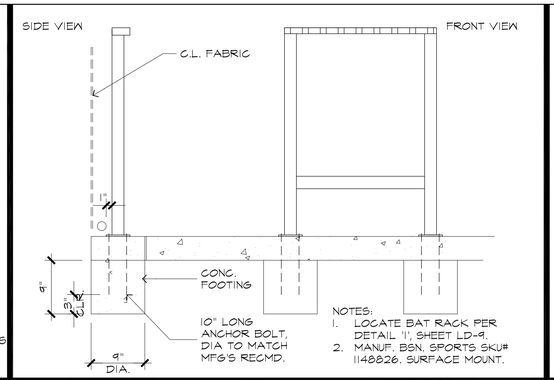
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-6
SHEET 47 OF 85 SHEETS



NOTE:
1. REFER TO SPECIFCATIONS FOR ALL TYPE, COLOR AND MANUFACTURER APPLICATIONS.
2. SEE CONSTRUCTION CALLOUT PLANS FOR LOCATIONS.

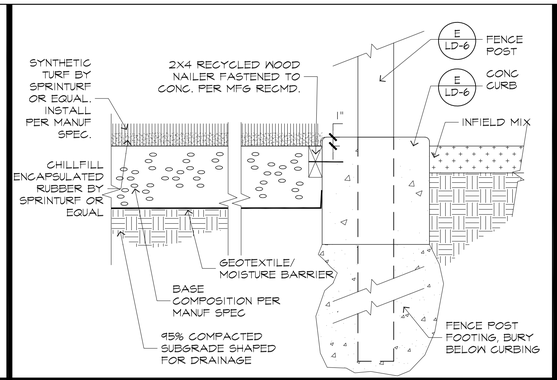
J INFIELD/WARNING TRACK MIX — NO SCALE



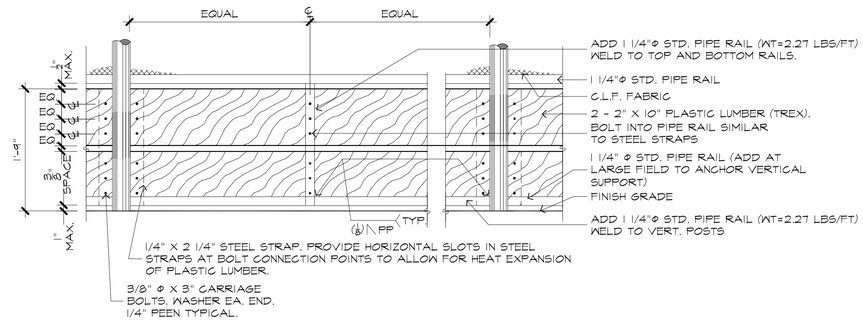
NOTES:
1. LOCATE BAT RACK PER DETAIL '1', SHEET LD-9.
2. MANUF. BSN. SPORTS SKU# 1148826. SURFACE MOUNT.

G BAT RACK — NO SCALE

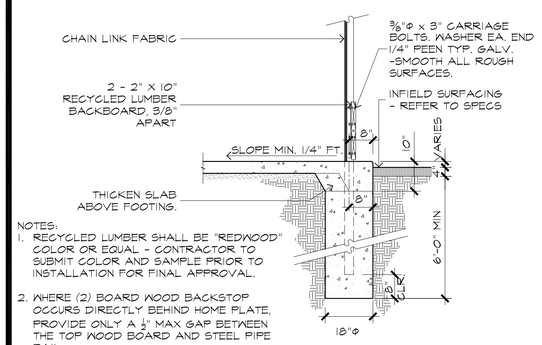
- NOT USED — NO SCALE



A SYNTHETIC TURF - ADD ALT #4 — NO SCALE

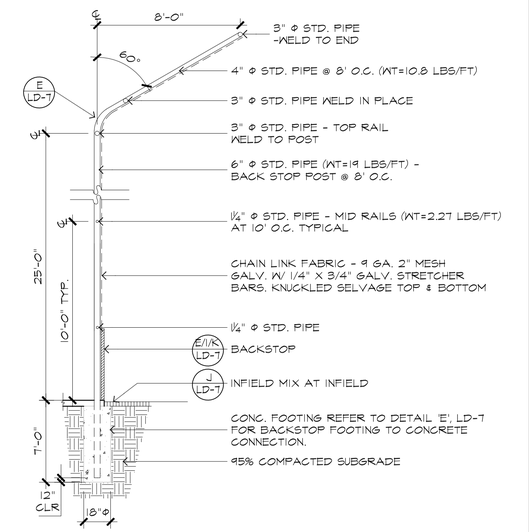


K BACKSTOP ELEVATION WINGS — NO SCALE



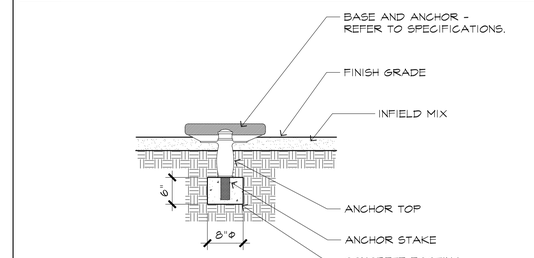
NOTES:
1. RECYCLED LUMBER SHALL BE "REDWOOD" COLOR OR EQUAL - CONTRACTOR TO SUBMIT COLOR AND SAMPLE PRIOR TO INSTALLATION FOR FINAL APPROVAL.
2. WHERE (2) BOARD WOOD BACKSTOP OCCURS DIRECTLY BEHIND HOME PLATE, PROVIDE ONLY A 1/2" MAX GAP BETWEEN THE TOP WOOD BOARD AND STEEL PIPE RAIL.

E BACKSTOP SECTION — NO SCALE



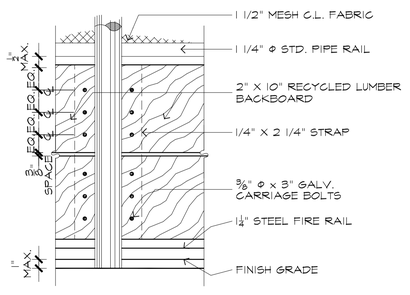
NOTES:
1. PAINT ALL WELDS W/ GALVICON AFTER CLEANING.
2. GRIND SMOOTH ALL WELD AREAS.
3. REFER TO STRUCTURAL PLANS FOR MORE INFO.

B BACKSTOP HOOD - 30' HIGH — NO SCALE



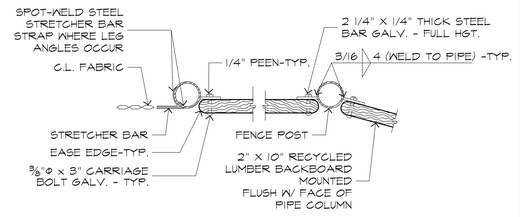
NOTES:
1. REFER TO SPECIFICATIONS FOR MANUFACTURER AND INSTALLATION.

L BASE ANCHOR — NO SCALE



NOTES:
1. BOLTS TO BE GALVANIZED.

I WOOD BACKSTOP WINGS — NO SCALE



F BACKSTOP PLAN — NO SCALE

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

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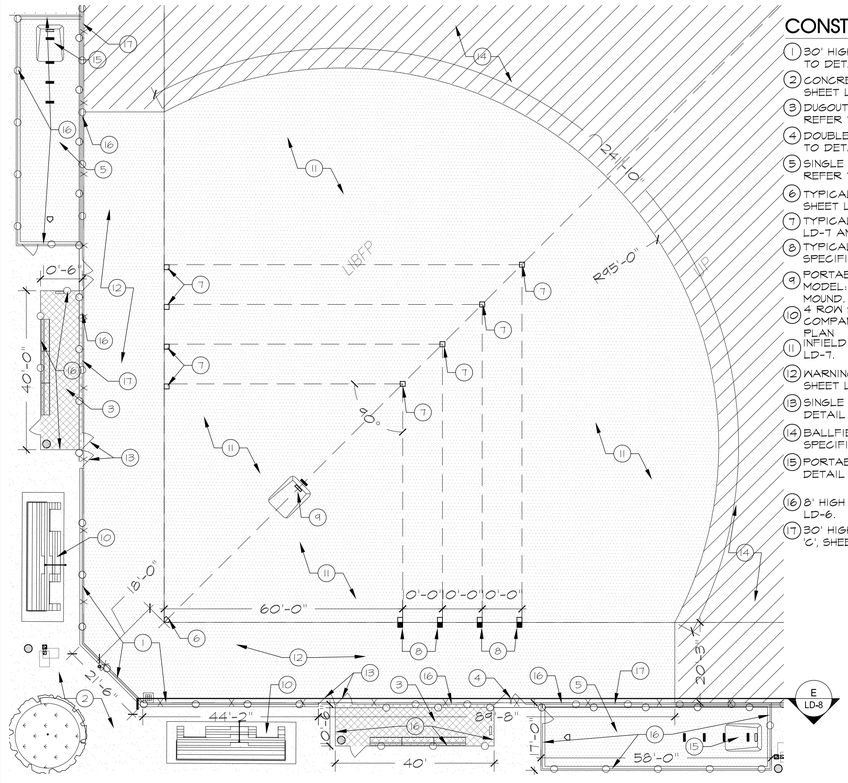
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N LANG NO. 5117
SIGNATURE
5-30-24
RENEWAL DATE
2-15-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

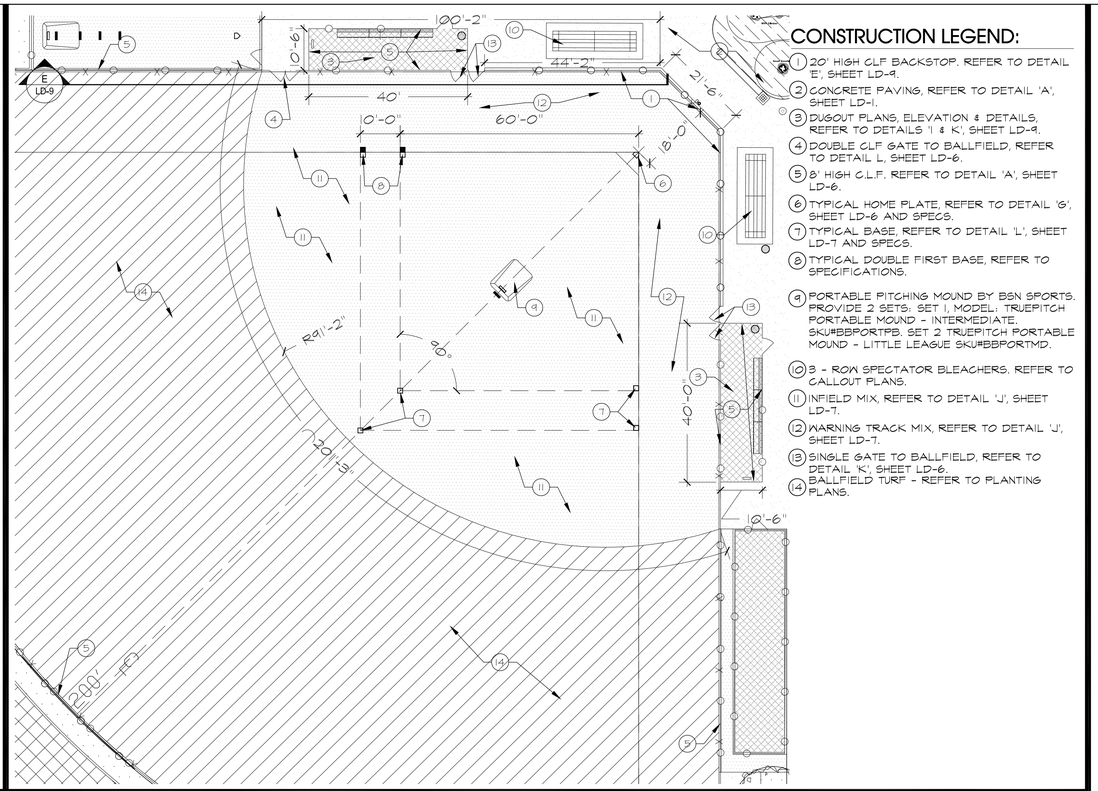
SHEET
LD-7



CONSTRUCTION LEGEND:

1. 30' HIGH CLF BACKSTOP & NETTING, REFER TO DETAIL 'B', SHEET LD-7.
2. CONCRETE PAVING, REFER TO DETAIL 'A', SHEET LD-1.
3. DUGOUT PLANS, ELEVATION & DETAILS, REFER TO DETAILS 'I & K', SHEET LD-9.
4. DOUBLE CLF GATE TO BALLFIELD, REFER TO DETAIL L, SHEET LD-6.
5. SINGLE BULLPEN ELEVATION & PLAN VIEW, REFER TO DETAIL 'A', SHEET LD-9.
6. TYPICAL HOME PLATE, REFER TO DETAIL 'G', SHEET LD-6 AND SPECS.
7. TYPICAL BASE, REFER TO DETAIL 'L', SHEET LD-7 AND SPECS.
8. TYPICAL DOUBLE FIRST BASE, REFER TO SPECIFICATIONS.
9. PORTABLE PITCHING MOUND BY BSN SPORTS. MODEL: TRUEPITCH PORTABLE - SENIOR MOUND. SKU# BBPORTRE
10. 4 ROW SPECTATOR BLEACHERS W/ ADA COMPANION SEATING, REFER TO CALLOUT PLAN
11. INFIELD MIX, REFER TO DETAIL 'J', SHEET LD-7.
12. WARNING TRACK MIX, REFER TO DETAIL 'J', SHEET LD-7.
13. SINGLE GATE TO BALLFIELD, REFER TO DETAIL 'K', SHEET LD-6.
14. BALLFIELD TURF - REFER TO SPECIFICATIONS AND PLANTING PLANS.
15. PORTABLE BULLPEN MOUND. REFER TO DETAIL 'A', SHEET LD-9.
16. 8' HIGH C.L.F. REFER TO DETAIL 'A', SHEET LD-6.
17. 30' HIGH SAFETY NETTING, REFER TO DETAIL 'C', SHEET LD-6.

A INFIELD #1 ENLARGEMENT — NO SCALE

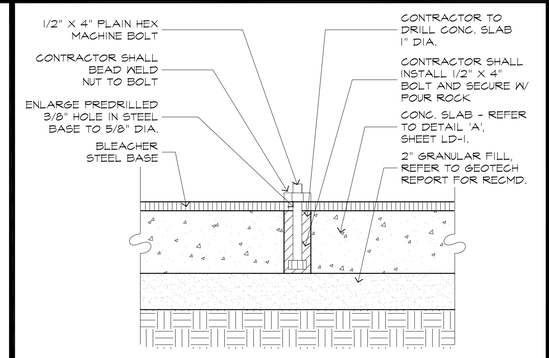


CONSTRUCTION LEGEND:

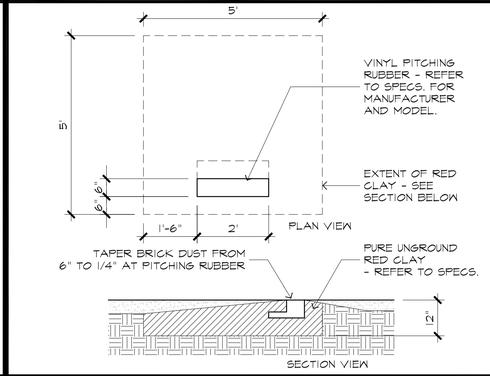
1. 20' HIGH CLF BACKSTOP. REFER TO DETAIL 'E', SHEET LD-9.
2. CONCRETE PAVING, REFER TO DETAIL 'A', SHEET LD-1.
3. DUGOUT PLANS, ELEVATION & DETAILS, REFER TO DETAILS 'I & K', SHEET LD-9.
4. DOUBLE CLF GATE TO BALLFIELD, REFER TO DETAIL L, SHEET LD-6.
5. 8' HIGH C.L.F. REFER TO DETAIL 'A', SHEET LD-6.
6. TYPICAL HOME PLATE, REFER TO DETAIL 'G', SHEET LD-6 AND SPECS.
7. TYPICAL BASE, REFER TO DETAIL 'L', SHEET LD-7 AND SPECS.
8. TYPICAL DOUBLE FIRST BASE, REFER TO SPECIFICATIONS.
9. PORTABLE PITCHING MOUND BY BSN SPORTS. PROVIDE 2 SETS: SET 1, MODEL: TRUEPITCH PORTABLE MOUND - INTERMEDIATE. SKU#BBPORTPB. SET 2 TRUEPITCH PORTABLE MOUND - LITTLE LEAGUE SKU#BBPORTMD.
10. 3 - ROW SPECTATOR BLEACHERS. REFER TO CALLOUT PLANS.
11. INFIELD MIX, REFER TO DETAIL 'J', SHEET LD-7.
12. WARNING TRACK MIX, REFER TO DETAIL 'J', SHEET LD-7.
13. SINGLE GATE TO BALLFIELD, REFER TO DETAIL 'K', SHEET LD-6.
14. BALLFIELD TURF - REFER TO PLANTING PLANS.

B INFIELD #2 & #3 ENLARGEMENT (TYPICAL) — NO SCALE

C NOT USED — NO SCALE

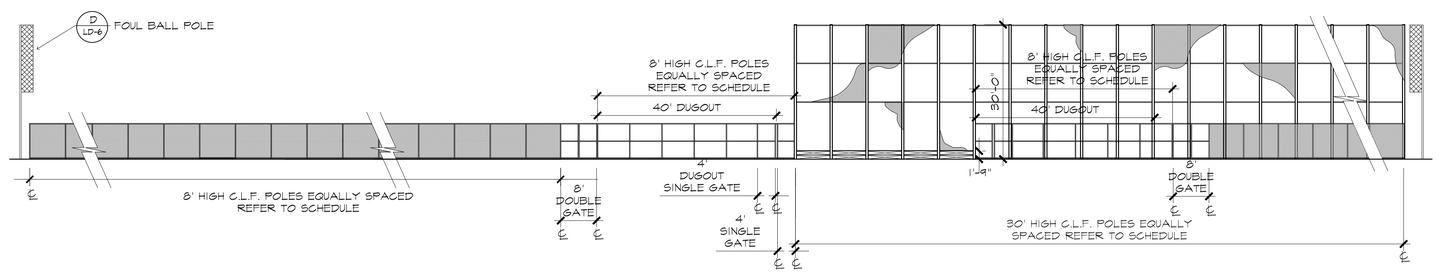


D BLEACHER CONNECTION — NO SCALE



F PITCHING RUBBER — NO SCALE

X NOT USED — NO SCALE



E FIELD #1 FENCING ELEVATION — NO SCALE

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CONSULTANT:

PROJECT TEAM:

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SHEET TITLE

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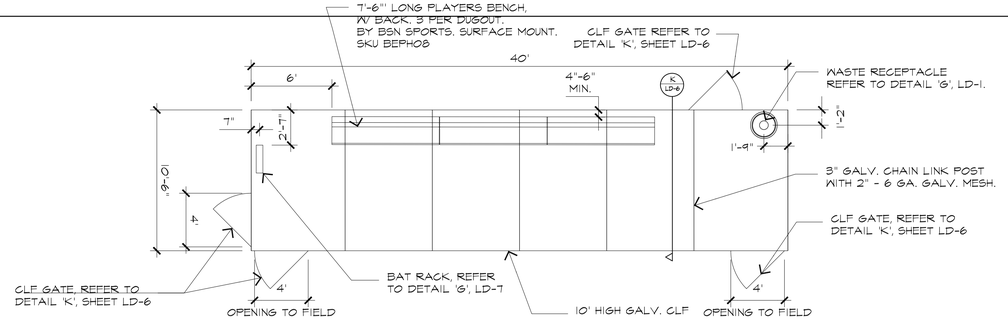
STAMP

LANDSCAPE ARCHITECT — STEVEN N LANG No. 4711 — STATE OF CALIFORNIA
SIGNATURE
8-30-24
RENEWAL DATE
2-13-23
DATE

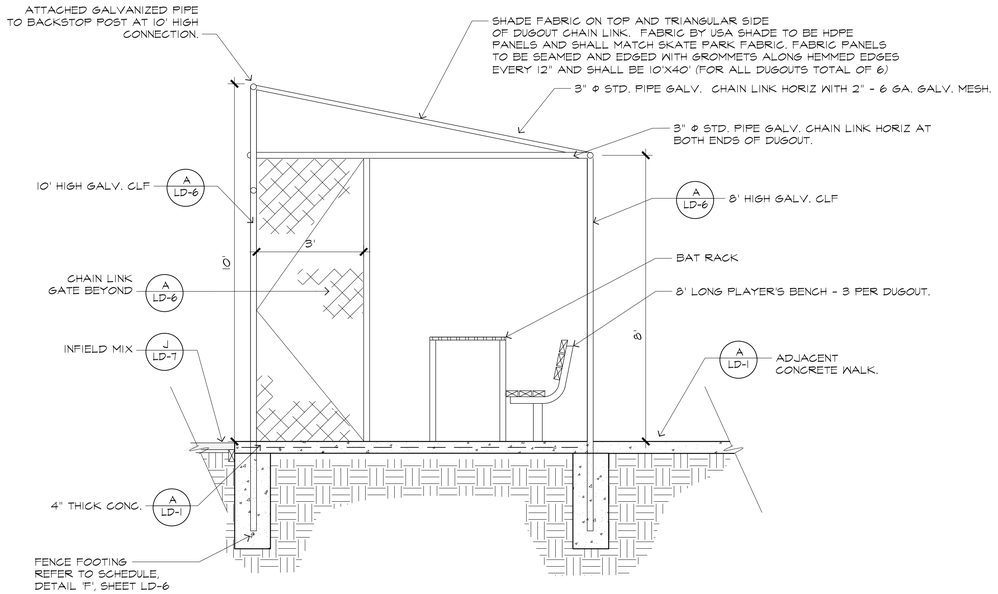
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-8
SHEET 49 OF 85 SHEETS

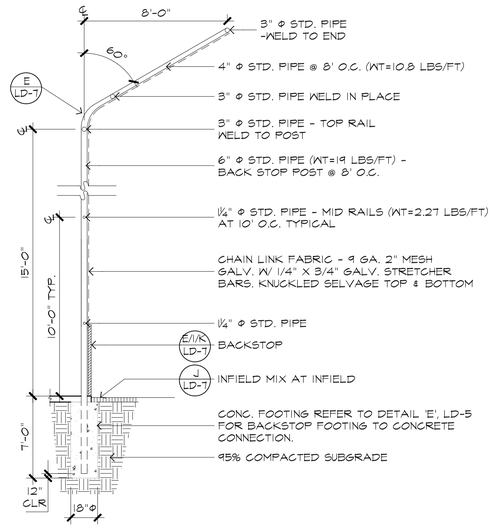


1 DUGOUT PLAN VIEW — NO SCALE

NOTE: INSTALL 6' HIGH WINDSCREEN AT BULL PEN FENCING AND DUGOUT FENCING ON 3 SIDES (2 SHORT SIDES AND 1 LONG SIDE) WITH FIELD SIDE LEFT OPEN. MANUF. BSN SPORTS, MODEL "TUFFY WINDSCREEN" SKU 1285598. COLOR GREEN.

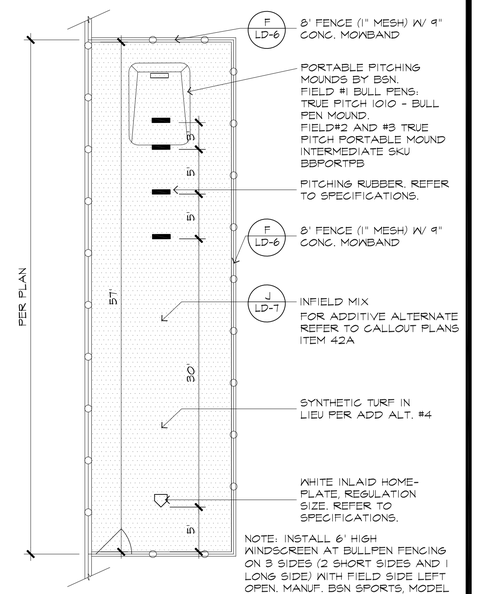


K DUGOUT SECTION — NO SCALE



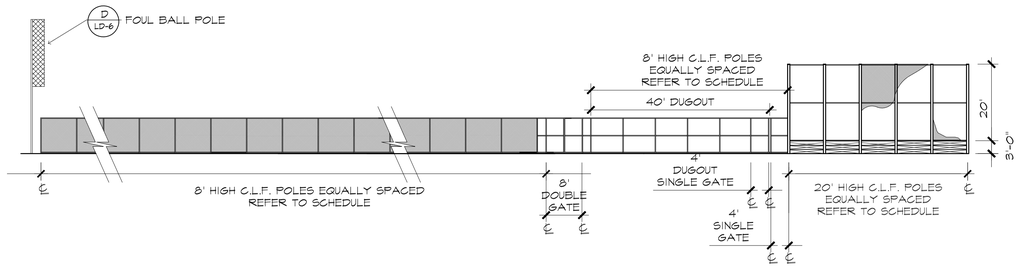
NOTES:
1. PAINT ALL WELDS W/ GALVICON AFTER CLEANING.
2. GRIND SMOOTH ALL WELD AREAS.
3. REFER TO STRUCTURAL PLANS FOR MORE INFO.

D BACKSTOP HOOD - 20' HIGH — NO SCALE



NOTE: INSTALL 6' HIGH WINDSCREEN AT BULLPEN FENCING ON 3 SIDES (2 SHORT SIDES AND 1 LONG SIDE) WITH FIELD SIDE LEFT OPEN. MANUF. BSN SPORTS, MODEL "TUFFY WINDSCREEN" SKU 1285598. COLOR GREEN.

A SINGLE BULLPEN — NO SCALE



E FIELD #2 & 3 FENCING ELEVATION — NO SCALE

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CONSULTANT:

PROJECT TEAM:

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CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

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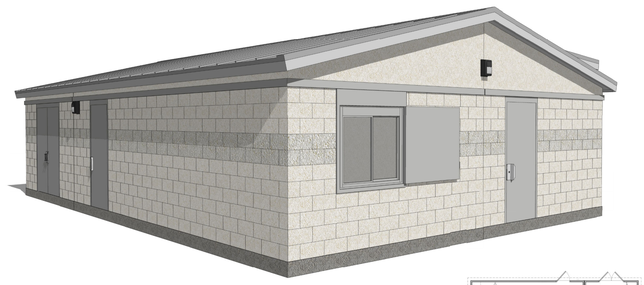
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

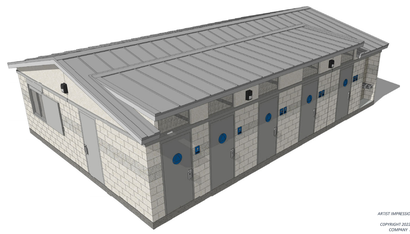
STAMP

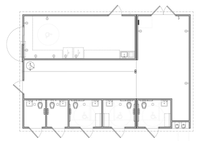
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-9
SHEET 50 OF 85 SHEETS

PROJECT REF#: 11018D-11/22/2022-1







FLOOR PLAN
SCALE: NOT TO SCALE

RESTROOM/ CONCESSION/
STORAGE BUILDING
LINDSAY, CALIFORNIA
OLIVE BOWL PARK

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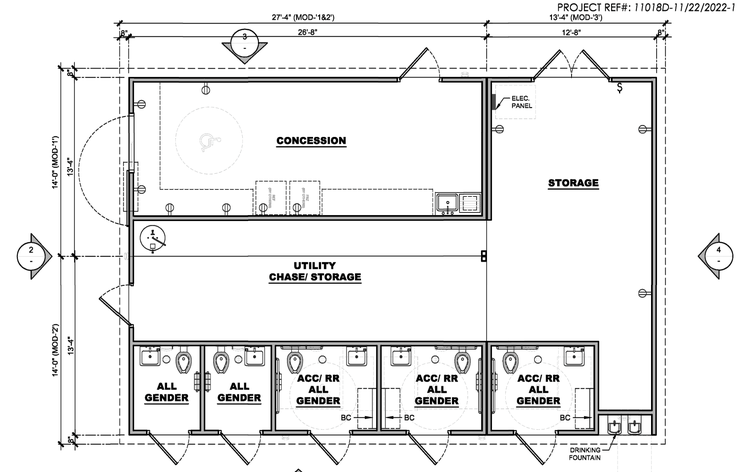
PROJECT REF#: 11018D-11/22/2022-1

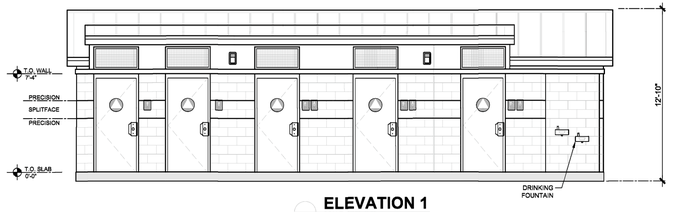


FLOOR PLAN
SCALE: 3/16"=1'-0"

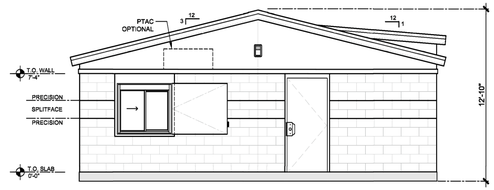
PUBLIC RESTROOM COMPANY Building Better Places To Go.℠ PH: 888-888-2060 | Fax: 888-888-1448		BUILDING TYPE: RESTROOM/ CONCESSION/ STORAGE BUILDING PROJECT: OLIVE BOWL PARK, LINDSAY, CA	REVISION #: 1 PROJECT #: 11018D	REVISION DATE: 11/22/2022 DRAWN BY: EOR START DATE: 5/14/2021 DRAWN BY: EOR	SHEET#: A-1 MAX. PERSON / HOUR: 180 M

-NOT FOR CONSTRUCTION - PRELIMINARY DESIGN DRAWING ONLY - DO NOT SCALE, DIMENSIONS FREEDE

PROJECT REF#: 11018D-11/22/2022-1



ELEVATION 1
SCALE: 3/16"=1'-0"



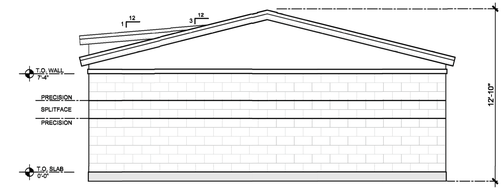
ELEVATION 2
SCALE: 3/16"=1'-0"

PUBLIC RESTROOM COMPANY Building Better Places To Go.℠ PH: 888-888-2060 | Fax: 888-888-1448		BUILDING TYPE: RESTROOM/ CONCESSION/ STORAGE BUILDING PROJECT: OLIVE BOWL PARK, LINDSAY, CA	REVISION #: 1 PROJECT #: 11018D	REVISION DATE: 11/22/2022 DRAWN BY: EOR START DATE: 5/14/2021 DRAWN BY: EOR	SHEET#: A-2 MAX. PERSON / HOUR: 180 M

-NOT FOR CONSTRUCTION - PRELIMINARY DESIGN DRAWING ONLY - DO NOT SCALE, DIMENSIONS FREEDE

PROJECT REF#: 11018D-11/22/2022-1

ELEVATION 3
SCALE: 3/16"=1'-0"



ELEVATION 4
SCALE: 3/16"=1'-0"

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-NOT FOR CONSTRUCTION - PRELIMINARY DESIGN DRAWING ONLY - DO NOT SCALE, DIMENSIONS FREEDE

NOTES:

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   - -STRUCTURAL CALCULATIONS FOR VERTICAL AND LATERAL PER ASCE7-16
   - - DETAILED CONNECTION FROM FOUNDATION TO PRE FAB STRUCTURE.
   - -SHOW HOW DESIGN COMPLIES WITH T-24 DISABLED ACCESS REQUIREMENTS.
2. CONTRACTOR SHALL SUBMIT ALL NECESSARY PLANS (MINIMUM SHEET SIZE 18"X24") AND STRUCTURAL CALCS (CAN BE 8.5"X11" PACKET) FOR PERMITTING AND APPROVAL.
3. APPLY NON-SACRIFICIAL MATTE FINISH ANTI GRAFFITI COATING TO ALL BUILDING SURFACES, EXTERIOR AND INTERIOR, INCLUDING BUT NOT LIMITED TO DOORS, WALLS AND CEILING.

A — RESTROOM / CONCESSION BUILDING/STORAGE — NO SCALE

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OLIVE BOWL
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93247

SHEET TITLE

CONSTRUCTION DETAILS

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10-18-21	50% CD Submittal
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2-13-23	100% CD Submittal

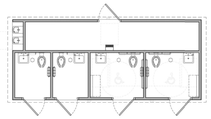
STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N. LANG No. 6117
SIGNATURE
5-30-24
RENEWAL DATE
2-13-23
DATE
STATE OF CALIFORNIA

CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-10
SHEET 51 OF 85 SHEETS

PROJECT REF#: 11018A-11/22/2021-2



FLOOR PLAN
SCALE: NOT TO SCALE

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OLIVE BOWL PARK

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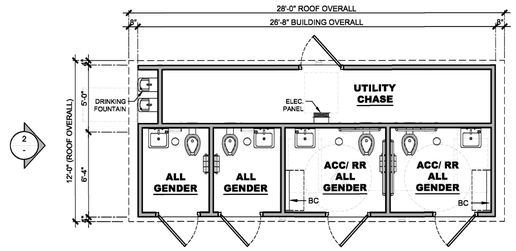
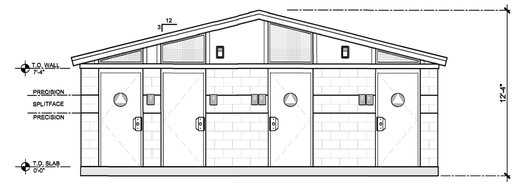


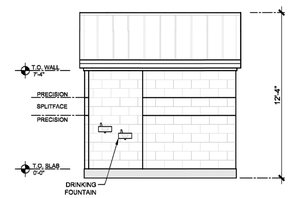
FLOOR PLAN
SCALE: 3/16"=1'0"

BUILDING TYPE:	RESTROOM BUILDING	REVISION # 2	REVISION DATE: 11/22/2022	SHEET#	A-1
PROJECT:	OLIVE BOWL PARK LINDSAY, CA	PROJECT #: 11018A	START DATE: 5/14/2021	MAX. PERSON / HOUR:	180 M
			DRAWN BY: EOR	DRAWN BY: EOR	

PROJECT REF#: 11018A-11/22/2022-2



ELEVATION 1
SCALE: 3/16"=1'-0"



ELEVATION 2
SCALE: 3/16"=1'-0"

BUILDING TYPE:	RESTROOM BUILDING	REVISION # 2	REVISION DATE: 11/22/2022	SHEET#	A-2
PROJECT:	OLIVE BOWL PARK LINDSAY, CA	PROJECT #: 11018A	START DATE: 5/14/2021	MAX. PERSON / HOUR:	180 M
			DRAWN BY: EOR	DRAWN BY: EOR	

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A | RESTROOM | NO SCALE

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SHEET TITLE

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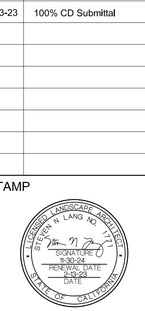


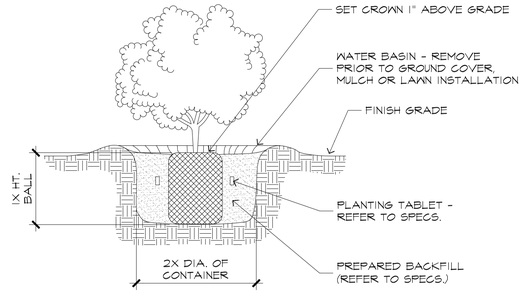
CHECKED BY	DATE
O.J.	2-13-23
DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-11
SHEET 52 OF 85 SHEETS

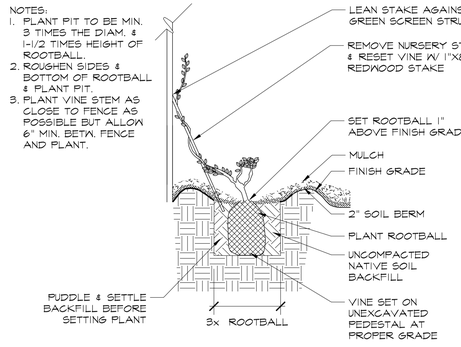
I NOT USED — NO SCALE

F NOT USED — NO SCALE

C SHRUB INSTALLATION — NO SCALE



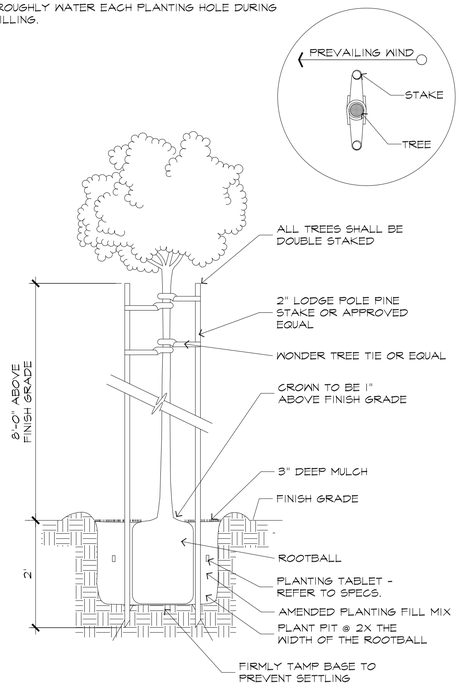
D GROUNDCOVER INSTALLATION — NO SCALE



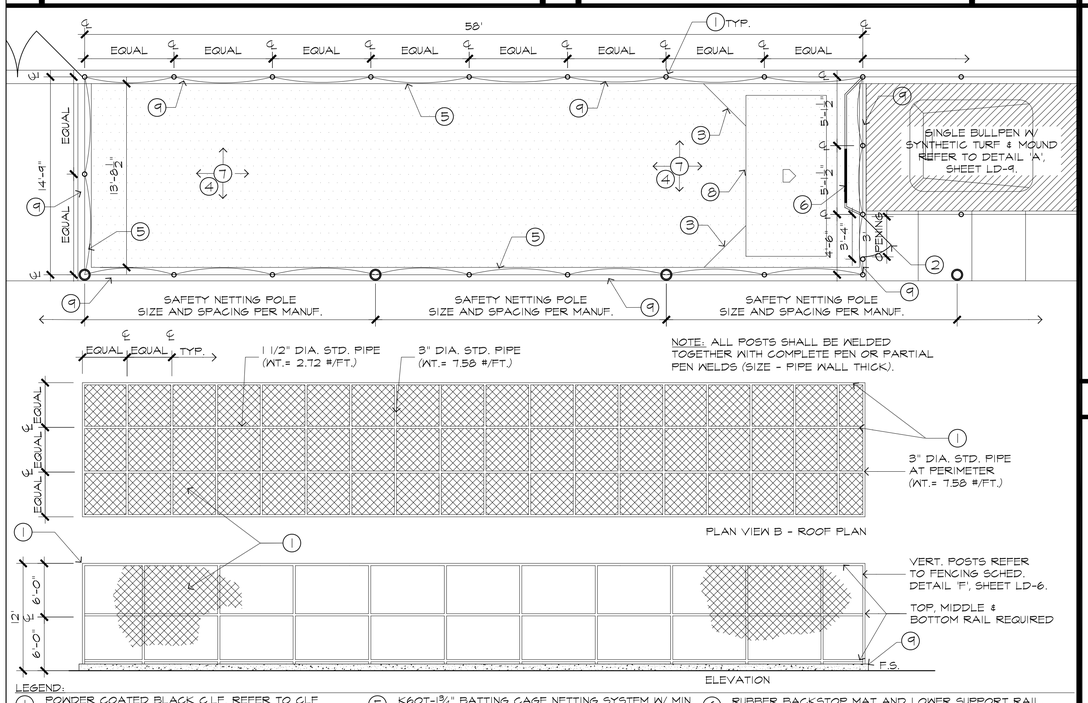
NOTE:
REFER TO PLANTING PLAN FOR REQUIRED SPACING, AND TO SPECIFICATIONS FOR PLANTING METHODS AND MATERIALS

A TREE INSTALLATION — NO SCALE

NOTE:
1. PLACE TREE STAKES PERPENDICULAR TO PREVAILING WIND.
2. THOROUGHLY WATER TREES BEFORE PLANTING.
3. THOROUGHLY WATER EACH PLANTING HOLE DURING BACKFILLING.



K BATTING CAGE — NO SCALE

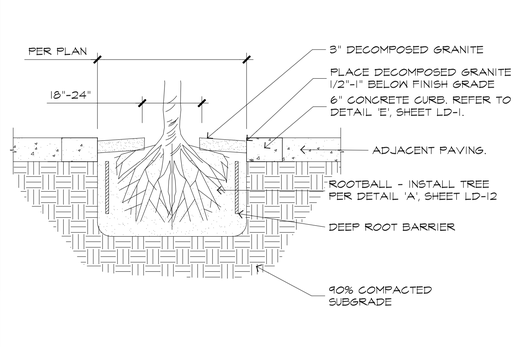


LEGEND:

1. POWDER COATED BLACK C.L.F. REFER TO CLF SCHEDULE.
2. 8' HIGH C.L.F. GATE, REFER TO DETAIL 'K', SHEET LD-6.
3. INLAID SYNTHETIC TURF FOUL LINES - 4" WHITE
4. 4" THICK CONCRETE PAVING, REFER TO DETAIL 'A', SHEET LD-1.
5. K60T-1¾" BATTING CAGE NETTING SYSTEM W/ MIN. 475LBS BREAK STRENGTH. NETTING SHALL ENCOMPASS THE ENTIRE BATTING CAGE. NETTING SYSTEM IS A DESIGN/BUILD APPLICATION BY THE NETTING MANUFACTURER, ALL CONNECTIONS, HARDWARE AND OPENINGS BY MFG.
6. RUBBER BACKSTOP MAT AND LOWER SUPPORT RAIL.
7. SYNTHETIC TURF BY SPRINTURF FOR BATTING CAGE APPLICATIONS. GREEN IN COLOR AND FULL GLUE DOWN TO CONCRETE FLOORING
8. DIAMOND TURF BATTERS MAT 6'X12' COLOR: CLAY,
9. 6" CONCRETE CURB ALONG BASE OF OUTSIDE PERIMETER, REFER TO DETAIL 'E', SHEET LD-6.

E VINE INSTALLATION — NO SCALE

B TREE INSTALLATION IN D.G. — NO SCALE



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DRAWN BY	JOB NO.
H.D.	05500.00

SHEET
LD-12
SHEET 53 OF 85 SHEETS

CONCRETE EXPOSURE REQUIREMENTS

ACI 318-14 TABLE 19.3.1.1 - EXPOSURE CATEGORIES AND CLASSES			
CATEGORY	CLASS	CONDITION	
F FREEZING AND THAWING	F0	CONCRETE NOT EXPOSED TO FREEZING-AND-THAWING CYCLES	
	F1	CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH LIMITED EXPOSURE TO WATER	
	F2	CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER	
	F3	CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER AND EXPOSURE TO DEICING CHEMICALS	
S SULFATE		WATER SOLUBLE SULFATE (SO_4^{2-}) IN SOIL, PERCENT BY WEIGHT	DISSOLVED SULFATE (SO_4^{2-}) IN WATER, PPM
	S0	$SO_4^{2-} < 0.10$	$SO_4^{2-} < 150$
	S1	$0.10 \leq SO_4^{2-} < 0.20$	$150 \leq SO_4^{2-} < 1500$ OR SEAWATER
	S2	$0.20 \leq SO_4^{2-} \leq 2.0$	$1500 \leq SO_4^{2-} \leq 10,000$
	S3	$SO_4^{2-} > 2.00$	$SO_4^{2-} > 10,000$
W IN CONTACT WITH WATER	W0	CONCRETE DRY IN SERVICE CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED	
	W1	CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED	
C CORROSION PROTECTION OF REINFORCEMENT	C0	CONCRETE DRY OR PROTECTED FROM MOISTURE	
	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDES	
	C2	CONCRETE EXPOSED TO MOISTURE AND AN EXTERNAL SOURCE OF CHLORIDES FROM DEICING CHEMICALS, SALT, BRACKISH WATER, SEAWATER, OR SPRAY FROM THESE SOURCES	

ACI 318-14 TABLE 19.3.2.1 - REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS						
EXPOSURE CLASS	MAX W/CM	MIN f'c	ADDITIONAL MINIMUM REQUIREMENTS			
			AIR CONTENT			LIMITS ON CEMENTITIOUS MATERIALS
F0	N/A	2500	N/A			N/A
F1	0.55	3500	PER TABLE 19.3.3.1			N/A
F2	0.45	4500	PER TABLE 19.3.3.1			N/A
F3	0.40 (2)	5000 (2)	PER TABLE 19.3.3.1			26.4.2.2(b)
			CEMENTITIOUS MATERIALS - TYPES			CALCIUM CHLORIDE ADMIXTURE
			ASTM C150	ASTM C595	ASTM C1157	
S0	N/A	2500	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO RESTRICTION
S1	0.50	4000	II (4,5)	TYPES IP, IS, OR IT WITH (MS) DESIGNATION	MS	NO RESTRICTION
S2	0.45	4500	V (5)	TYPES IP, IS, OR IT WITH (HS) DESIGNATION	HS	NOT PERMITTED
S3	0.45	4500	V PLUS POZZOLAN OR SLAG CEMENT (6)	TYPES IP, IS, OR IT WITH (HS) DESIGNATION PLUS POZZOLAN OR SLAG CEMENT (6)	HS PLUS POZZOLAN OR SLAG CEMENT (6)	NOT PERMITTED
W0	N/A	2500	NONE			
W1	0.50	4000	NONE			
			MAXIMUM WATER SOLUBLE CHLORIDE ION (CL^-) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENT (7)		ADDITIONAL PROVISIONS	
			NON-PRESTRESSED-ISSUED CONCRETE	PRESTRESSED CONCRETE		
CO	N/A	2500	1.00	0.06	NONE	
C1	N/A	2500	0.30	0.06		
C2	0.40	5000	0.15	0.06	CONCRETE COVER (8)	

1. THE MAXIMUM W/CM LIMITS IN TABLE 19.3.2.1 DO NOT APPLY TO LIGHTWEIGHT CONCRETE.
2. FOR PLAIN CONCRETE, THE MAXIMUM W/CM SHALL BE 0.45 AND THE MINIMUM f'c SHALL BE 4,500 PSI.
3. ALTERNATIVE COMBINATIONS OF CEMENTITIOUS MATERIALS TO THOSE LISTED IN TABLE 19.3.2.1 ARE PERMITTED WHEN TESTED FOR SULFATE RESISTANCE AND MEETING THE CRITERIA IN 26.4.2.2(c).
4. FOR SEAWATER EXPOSURE, OTHER TYPES OF PORTLAND CEMENTS WITH TRI-CALCIUM ALUMINATE (C_3A) CONTENTS UP TO 10 PERCENT ARE PERMITTED IF THE W/CM DOES NOT EXCEED 0.40.
5. OTHER AVAILABLE TYPES OF CEMENT SUCH AS TYPE I OR TYPE III ARE PERMITTED IN EXPOSURE CLASSES S1 OR S2 IF THE C_3A CONTENTS ARE LESS THAN 8 PERCENT FOR EXPOSURE CLASS S1 OR LESS THAN 5 PERCENT FOR EXPOSURE CLASS S2.
6. THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT THAT HAS BEEN DETERMINED BY SERVICE RECORD TO IMPROVE SULFATE RESISTANCE WHEN USED IN CONCRETE CONTAINING TYPE V CEMENT. ALTERNATIVELY, THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT TESTED IN ACCORDANCE WITH ASTM C1012 AND MEETING THE CRITERIA IN 26.4.2.2(c).
7. WATER-SOLUBLE CHLORIDE ION CONTENT THAT IS CONTRIBUTED FROM THE INGREDIENTS INCLUDING WATER, AGGREGATES, CEMENTITIOUS MATERIALS, AND ADMIXTURES SHALL BE DETERMINED ON THE CONCRETE MIXTURE BY ASTM C1218 AT AGE BETWEEN 28 AND 42 DAYS.
8. CONCRETE COVER SHALL BE IN ACCORDANCE WITH 20.6.

CONCRETE REQUIREMENTS					
SULFATE EXPOSURE (EXPOSURE CLASS)	WATER SOLUBLE SULFATE (SO4) IN SOIL, PERCENTAGE BY WEIGHT	SULFATE (SO4) IN WATER, PPM	CEMENT TYPE	MAX W/C RATIO	MIN CONCRETE STRENGTH, f'c
NEGLIGIBLE (S0)	0.00-0.10	0-150	II OR V	0.65	3,000
MODERATE (S1)	0.10-0.20	150-1,500	II OR V	0.50	4,000
SEVERE (S3)	0.20-2.00	1,500-1,0000	V	0.45	4,500
VERY SEVERE (S4)	OVER 2.00	OVER 10,000	V PLUS POZZOLAN[2]	0.45	4,500

NOTES:
1. A LOWER W/C RATIO OR HIGHER STRENGTH MAY BE REQUIRED FOR LOW PERMEABILITY OR FOR PROTECTION AGAINST CORROSION OF EMBEDDED ITEMS OR FREEZING AND THAWING PER ACI 318 TABLE 19.3.2.1.
2. THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT THAT HAS BEEN DETERMINED BY SERVICE RECORD TO IMPROVE SULFATE RESISTANCE.
3. CONCRETE EXPOSURE CLASSES FOR THE CONCRETE STRENGTHS NOTED ABOVE ARE PERMITTED TO BE F0, W0, C0, & C1. IF ANY OTHER EXPOSURE CLASSES ARE PRESENT, THE MIN CONCRETE STRENGTH SHALL BE 5,000 PSI AND THE MAX W/C RATIO SHALL BE 0.40.

EARTHWORK AND FOUNDATIONS

1. GEOTECHNICAL REPORT: PERFORM SOILS WORK COMPLYING WITH FOUNDATION DESIGN BASED ON RECOMMENDATIONS IN SOILS REPORT. SEE STRUCTURAL COVER SHEET FOR SOILS REPORT NUMBER AND DATE.
2. ALLOWABLE FOUNDATION DESIGN VALUES PER GEOTECHNICAL REPORT: VALUES BELOW MAY BE INCREASED 33 PERCENT FOR TRANSIENT LOADING.
   A. BEARING CAPACITY: SEE PROJECT DESIGN CRITERIA
   B. PASSIVE LATERAL BEARING PRESSURE: SEE PROJECT DESIGN CRITERIA
   C. COEFFICIENT OF FRICTION: SEE PROJECT DESIGN CRITERIA
3. GRADING, EXCAVATIONS, BACKFILL AND COMPACTION OF BACKFILL: COMPLY WITH GEOTECHNICAL REPORT AND REQUIREMENTS OF GOVERNING CODE AUTHORITY AND PERFORMED ONLY UNDER CONTINUOUS SPECIAL INSPECTION OF GEOTECHNICAL ENGINEER.
4. PREPARATION OF SOIL UNDER BUILDING PAD: SEE GEOTECHNICAL REPORT FOR OVER-EXCAVATION OF EXISTING SOIL AND INSTALLATION OF PROPERLY COMPACTED BACKFILL.
5. FOUNDATION EXCAVATIONS: FOUNDATIONS ARE TO BEAR ON FIRM EXISTING SOIL OR APPROVED COMPACTED FILL AS INDICATED IN GEOTECHNICAL REPORT. EXCAVATIONS ARE TO BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL AND FORMWORK. ENSURE EXCAVATIONS ARE CLEANS, DRY AND FREE OF DEBRIS OR LOOSE SOIL. SLOPE SIDES OF EXCAVATION NOT LESS THAN MINIMUM SLOPE INDICATED IN GEOTECHNICAL REPORT. CAST CONCRETE DIRECTLY AGAINST EXCAVATED SURFACES.
6. BACKFILLING OF RETAINING WALLS: PLACE AFTER COMPLETION AND INSPECTION OF WATERPROOFING. ADEQUATELY SHORE RETAINING WALLS DURING BACKFILL OPERATION. UNLESS ADEQUATELY SHORED, DO NOT PLACE BACKFILL BEHIND BUILDING STRUCTURE RETAINING WALLS (EXCLUDING SITE RETAINING WALLS) UNTIL CONCRETE AT ELEVATED FLOOR LEVELS ADJACENT TO WALLS ARE COMPLETELY POURED (IN AREA) AND HAVE CURED FOR AT LEAST 7 DAYS.
7. WATER EXPOSURE AT BUILDING PERIMETER FOOTINGS: AT AREAS WHERE SIDEWALKS OR PAVING DO NOT IMMEDIATELY ADJOIN STRUCTURE, PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE AT BUILDING PERIMETER. LANDSCAPE IRRIGATION IS NOT PERMITTED WITHIN FIVE FEET OF BUILDING PERIMETER FOOTINGS EXCEPT WHEN ENCLOSED IN PROTECTED PLANTERS WITH DIRECT DRAINAGE AWAY FROM STRUCTURE OR WHICH COMPLIES WITH APPLICABLE CODE. DISCHARGE FROM DOWN SPOUTS, ROOF DRAINS AND SCUPPERS IS NOT PERMITTED ONTO UNPROTECTED SOILS WITHIN FIVE FEET OF BUILDING PERIMETER. REFER TO GEOTECHNICAL REPORT FOR COMPLETE REQUIREMENTS.

CONCRETE

1. CONCRETE COMPRESSIVE STRENGTH: ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH AS SHOWN IN THE TABLE 2 BELOW AT 28 DAYS, U.N.O. ON PLANS. SEE ALSO SULFATE CONTENT NOTES.
2. AGGREGATES IN CONCRETE: SHALL BE NATURAL SAND AND ROCK (150 LB/CU. FT) CONFORMING TO ASTM C33. AGGREGATE SHALL HAVE PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.04% PER ASTM C-157. DO NOT CHANGE SOURCE OF AGGREGATE DURING COURSE OF WORK WITHOUT WRITTEN CONSENT OF ENGINEER.
3. CEMENT: SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150. CEMENT SHALL BE TYPE II OR AS REQUIRED TO SATISFY SITE SOIL CONDITIONS. REFER TO TABLE 4 FOR CONCRETE CEMENT REQUIREMENTS ON SOIL CONTAINING SULFATE. REFER TO TABLE 2 FOR MAXIMUM WATER TO CEMENT RATIO.

CONCRETE STRENGTH			
CONDITION	STRENGTH, f'c	WATER / CEMENT RATIO	MAX. SLUMP
SIGN AND POLE FOOTINGS	2,500 PSI	PER MIX DESIGNER	PER MIX DESIGNER

4. REBAR CLEAR COVER IN CONCRETE: THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE MAINTAINED UNLESS NOTED OTHERWISE:

REBAR CLEAR COVER FOR CAST-IN-PLACE CONCRETE MEMBERS			
CONCRETE EXPOSURE	MEMBER	REINFORCEMENT	SPECIFIED COVER
SLAB ON GRADE	ALL	ALL	CENTER OF SLAB OR 2" MIN
CONCRETE AGAINST & PERMANENTLY IN CONTACT WITH GROUND:	ALL	ALL	3"
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL	No. 6 THROUGH No. 18 BARS	2"
		No. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1-1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, JOISTS, AND WALLS	No. 14 AND No. 18 BARS	1-1/2"
		No. 11 BAR AND SMALLER	3/4"
	BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1-1/2"

5. VIBRATION: VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH GENERAL PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATION ST26.
6. CURING: CONCRETE SHALL BE MAINTAINED AT IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER ITS PLACEMENT. FOR CONCRETE OTHER THAN SLAB ON GRADE, APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING. ONLY IF APPROVED BY THE ENGINEER OR ARCHITECT.
7. INSPECTIONS, TESTING & QUALITY ASSURANCE: REFER TO STRUCTURAL NOTE SHEETS FOR DEPUTY SPECIAL INSPECTION, TESTING & STRUCTURAL OBSERVATION REQUIREMENTS. A MINIMUM OF ONE COMPRESSION TEST AT 7 DAYS AND 2 TESTS AT 28 DAYS FOR ALL CONCRETE SAMPLES. TAKE TEST AT A FREQUENCY OF ONCE EVERY 150 CU. YDS OR 5,000 SQ. FT MINIMUM.
8. ANCHOR BOLTS, DOWELS, INSERTS: SHALL BE TIED IN PLACE PRIOR TO POURING CONCRETE.
9. CONSTRUCTION AND POUR JOINTS: LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO POURING CONCRETE.
10. FLY ASH: SHALL NOT BE USED IN CONCRETE.
11. FORMWORK: FORMWORK TOLERANCE SHALL IN ACCORDANCE WITH THE C.B.C. AND A.C.I. STANDARDS.
12. HOT AND COLD WEATHER CONCRETING:
    A. HOT WEATHER CONCRETING: WHEN AIR TEMPERATURE RISES ABOVE 80° F AND HUMIDITY FALLS BELOW 25, THE CONTRACTOR SHALL FOLLOW HOT WEATHER CONCRETING IN ACCORDANCE WITH ACI 305 5-77. CONTRACTOR SHALL BE PREPARED TO USE FOG SPRAY OR OTHER PRECAUTIONS ACCEPTABLE TO ARCHITECT WHEN RATE OF EVAPORATION EQUALS OR EXCEEDS 0.2 POUNDS PER SQUARE FOOT PER HOUR.
    B. COLD WEATHER CONCRETING: ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER. ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS FILLERS AND GROUND WITH WHICH THE CONCRETE IS TO CONTACT SHALL BE FREE FROM FROST. FROZEN MATERIAL OR MATERIALS CONTAINING ICE SHALL NOT BE USED. COLD WEATHER CONCRETING SHALL BE DONE IN ACCORDANCE WITH ACI 306 R-78. (LATEST EDITION)
13. PIPES IN CONCRETE: PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN. PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN THE STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
14. EXPOSED CORNERS: PROVIDE 3/4" CHAMFERS AT ALL EXPOSED CORNERS.
15. ARCHITECTURAL DETAILS: REFER TO ARCHITECTURAL DRAWINGS FOR REVEALS, AREAS OF TEXTURED CONCRETE OR SPECIAL FINISHES, ITEMS REQUIRED TO BE CAST INTO THE CONCRETE, CURBS AND SLAB DEPRESSIONS.
16. DRYPACK OR GROUT: SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AND BE COMPOSED OF ONE PART PORTLAND CEMENT TO NOT MORE THAN THREE PARTS SAND.

GENERAL NOTES

1. FIELD VERIFICATION: FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) IN CASE OF DISCREPANCIES.
2. DESIGN INTENT: CONTRACT DOCUMENTS INDICATE DESIGN INTENT FORE STRUCTURE IN ITS COMPLETED STATE. THEY DO NOT INDICATE METHOD OF CONSTRUCTION. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER), PRIOR TO PROCEEDING WITH WORK, IF DESIGN INTENT REQUIRES FURTHER CLARIFICATION.
3. DEVIATIONS, MODIFICATIONS AND SUBSTITUTIONS TO APPROVED STRUCTURAL DRAWINGS: MUST BE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER) AND APPROVED BY GOVERNING CODE AUTHORITY. NO DEVIATION, MODIFICATION OR SUBSTITUTION WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.
4. PROCEDURES OF CONSTRUCTION: CONTRACTOR IS RESPONSIBLE FOR PROCEDURES OF CONSTRUCTION COMPLYING WITH NATIONAL, STATE AND LOCAL SAFETY ORDINANCES. SITE VISITS (INCLUDING STRUCTURAL OBSERVATION) BY ARCHITECT (STRUCTURAL ENGINEER) DO NOT CONSTITUTE SUPERVISIONS OF METHODS OF CONSTRUCTION.
   A. PROTECTION OF UTILITIES: LOCATE EXISTING UTILITIES, INCLUDING THOSE NOT SHOWN ON CONTRACT DOCUMENTS, AND PROTECT THEM FROM DAMAGE. CONTRACTOR BEARS EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES IN CONJUNCTION WITH EXECUTION OF WORK.
   B. EXCAVATIONS: PROTECT STRUCTURE, ADJACENT STRUCTURES, ADJACENT PROPERTIES, STREETS, AND UTILITIES DURING EXCAVATION UTILIZING LAGGING, SHORING, UNDERPINNING AT SIDES AND RELATED PROCEDURES AS MAY BE REQUIRED. PROVIDE NECESSARY SUPPORTS FOR SOIL EXCAVATIONS. CONTRACTOR AND AFFECTED TRADES SHALL REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION.
   C. PROTECTION OF STRUCTURE: PROVIDE NECESSARY MEASURES TO PROTECT STRUCTURE DURING EXECUTION OF WORK.
   D. CONTRACTOR PROPOSED REVISIONS: WHERE A REVISION OF STRUCTURAL DESIGN OR CONNECTION IS PROPOSED BY CONTRACTOR TO ACCOMMODATE CONSTRUCTION TOLERANCES, CONSTRUCTION SEQUENCE AND/OR DIMENSION MODIFICATIONS, CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN STATE OF CALIFORNIA TO PERFORM DESIGN. SUBMIT STAMPED AND SIGNED DESIGN DRAWINGS AND CALCULATIONS TO THE ARCHITECT (STRUCTURAL ENGINEER) FOR REVIEW AND THE GOVERNING CODE AUTHORITY FOR APPROVAL.
   E. ERECTION PLANS: DETERMINE PHASES OF WORK REQUIRING ERECTION PLANS ACCORDING TO APPLICABLE SAFETY REGULATIONS. MAINTAIN CERTIFIED COPIES OF ERECTION PLANS AT SITE DURING CONSTRUCTION.
   F. SHORING, BRACING, AND OTHER TEMPORARY SUPPORTS: DESIGN AND ERECT SHORING, BRACING, AND OTHER TEMPORARY SUPPORTS WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH AND AS REQUIRED FOR SAFE ERECTION. ENSURE FLOOR, ROOF, AND WALL MEMBERS ARE SECURELY SHORED AND BRACED DURING CONSTRUCTION. PROVIDE SHORING AT ELEVATED BEAMS AND SLABS SUPPORTING CONCRETE OR MASONRY WALLS DURING AND AFTER WALL POUR UNTIL WALL ATTAINS DESIGN STRENGTH.
   G. TEMPORARY LOADING: ENSURE CONSTRUCTION LOADS DO NOT EXCEED INDICATED DESIGN LIVE LOAD VALUES. NOTIFY AFFECTED SUB-CONTRACTOR TRADES OF THESE DESIGN LOAD LIMITS.
   H. FABRICATION, SHIPMENT, AND ERECTION OF STRUCTURAL STEEL: ENSURE STRESSES OCCURRING DURING FABRICATION, SHIPMENT, AND ERECTION OF STRUCTURAL STEEL ARE TEMPORARY AND ARE LESS THAN DESIGN AND ALLOWABLE STRESS CAPACITIES OF INDIVIDUAL MEMBERS. DO NOT IMPAIR FULL DESIGN AND LOAD CARRYING CAPACITY OF MEMBERS DUE TO FABRICATION, SHIPMENT, OR ERECTION. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING ERECTION SEQUENCE, ERECTION PROCEDURE, TEMPERATURE DIFFERENTIALS AND WELD SHRINKAGE TO MINIMIZE RESIDUE STRESSES. PROVIDE ADDITIONAL MATERIALS FOR THE ERECTION OF STRUCTURAL STEEL SUCH AS TEMPORARY BRACING AND GUY CABLES AS MAY BE NECESSARY AT NO ADDITIONAL COST. REMOVE THESE MATERIALS UNLESS APPROVED IN WRITING BY OWNER. DO NOT TIGHTEN BOLTS IN TYPICAL BEAM TO COLUMN CONNECTIONS FOR ERECTION PURPOSES.
   I. SECURING REINFORCING STEEL, DOWELS, ANCHOR BOLTS AND EMBEDS: FIRMLY SUPPORT AND ACCURATELY PLACE COMPLYING WITH ACI STANDARDS PRIOR TO CASTING CONCRETE OR GROUT IN MASONRY WALLS. USE TIES AND SUPPORT BARS IN ADDITION TO REINFORCING STEEL SHOWN WHERE NECESSARY. NO WELDING OR REINFORCING STEEL, INCLUDING TACK WELDING, IS PERMITTED UNLESS OTHERWISE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER). PROVIDE PLASTIC OR PLASTIC COATED CHAIRS AND SPACERS WHEN RESTING ON EXPOSED SURFACES.
5. COORDINATION RESPONSIBILITY: CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF WORK INCLUDING THAT OF SUB-CONTRACTOR TRADES.
6. SUBMITTALS: SUBMIT TO ARCHITECT (STRUCTURAL ENGINEER) AS INDICATED ON STRUCTURAL DRAWINGS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL REVIEW SUBMITTAL FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS PRIOR TO SUBMISSION.
   A. REQUEST FOR INFORMATION (RFI) SUBMITTALS: ACCOMPANY RFI'S WITH PARTIAL STRUCTURAL FOUNDATION OR FRAMING PLANS SHOWING LOCATION IN QUESTION AND AFFECTED STRUCTURAL MEMBERS. COPY PARTIAL PLAN FROM STRUCTURAL DRAWINGS AND INDICATE GRID LINE LOCATIONS AND FLOOR LEVEL. ALSO PROVIDE PROPERLY DRAWN ENGINEERING SKETCHES ILLUSTRATING ISSUES AND CONTRACTOR'S PROPOSED SOLUTIONS. PHOTOGRAPHS ARE NOT ACCEPTABLE SUBSTITUTES TO ENGINEERING SKETCHES.
7. CONTRACT DOCUMENTS USE: REVIEW CONTRACT DOCUMENTS IN THEIR ENTIRETY BEFORE PERFORMING STRUCTURAL RELATED WORK AND BEFORE DEVELOPING SHOP DRAWINGS. BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF ARCHITECT (STRUCTURAL ENGINEER) BEFORE STARTING WORK.
   A. SCALING OF DRAWINGS: NOT PERMITTED.
   B. ADDITIONAL STRUCTURAL REQUIREMENTS: SEE SPECIFICATIONS.
   C. BUILDING GEOMETRY: SEE ARCHITECTURAL DRAWINGS FOR BUILDING GEOMETRY INCLUDING, BUT NOT LIMITED TO, TOP OF FLOOR AND ROOF ELEVATIONS; DEPRESSIONS; SLOPES; CURBS; DRAINS; TRENCHES; SLAB AND DECK EDGE LOCATIONS; WALL OVERALL DIMENSIONS; AND SIZE AND LOCATIONS OF OPENINGS IN FLOORS, ROOF AND WALLS.
   D. NON-STRUCTURAL ITEMS REQUIRING SPECIAL PROVISIONS: SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS REQUIRING SPECIAL PROVISIONS DURING CONSTRUCTION. THEY INCLUDE, BUT ARE NOT LIMITED TO, NON-STRUCTURAL WALLS; SIZE AND LOCATIONS OF OPENINGS AND SLEEVES PENETRATING STRUCTURE; SIZE AND LOCATION OF CONCRETE CURBS AND PADS; AND SIZE AND LOCATION OF PIPING, DUCTWORK, AND EQUIPMENT ANCHORAGES MOUNTED OR SUSPENDED FROM STRUCTURE. VERIFY EXACT SIZE AND LOCATION OF EQUIPMENT WITH EQUIPMENT MANUFACTURER.
8. MATERIALS: FURNISH AND INSTALL IN COMPLIANCE WITH LEGALLY CONSTITUTED PUBLIC AUTHORITIES HAVING JURISDICTION INCLUDING COUNTY AND LOCAL ORDINANCES AND SAFETY ORDERS OF STATE INDUSTRIAL ACCIDENT COMMISSION, OSHA.
9. PENETRATIONS, EMBEDMENT, AND OPENINGS IN STRUCTURAL MEMBERS: NO PENETRATION, EMBEDMENT, OPENING, SLEEVE, PIPE, OR CONDUIT SHALL OCCUR IN STRUCTURAL MEMBERS INCLUDING FOOTINGS, SLABS, WALLS, COLUMNS, AND BEAMS UNLESS SPECIFICALLY SHOWN OR INDICATED ON STRUCTURAL DRAWINGS.
10. TYPICAL DETAILS: DETAILS ON SD SERIES SHEETS ARE APPLICABLE THROUGHOUT PROJECT WHEREVER THE DESCRIBED CONDITION OCCURS AND MAY OR MAY NOT BE SPECIFICALLY REFERENCED ON STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE DETAILS AND UNDERSTANDING EXTENT OF THEIR APPLICATION PRIOR TO PERFORMING WORK.
11. WATERPROOFING & DRAINAGE: WATERPROOFING AND DRAINAGE IS OUTSIDE INNOVATIVE STRUCTURAL ENGINEERING'S SCOPE, EXPERIENCE, AND PROFESSIONAL EXPERTISE. INNOVATIVE STRUCTURAL ENGINEERING RECOMMENDS HIRING A WATERPROOFING & DRAINAGE PROFESSIONAL. IF NO WATERPROOFING PROFESSIONAL IS HIRED, OWNER AND CONTRACTOR ASSUME RESPONSIBILITY OF ALL WATERPROOFING & DRAINAGE REQUIREMENTS. INNOVATIVE STRUCTURAL ENGINEERING ACCEPTS NO LIABILITY AND SHALL BE HELD HARMLESS FOR ALL WATERPROOFING AND DRAINAGE REQUIREMENTS.

SHEET INDEX

PROJECT DESIGN CRITERIA	
BUILDING CODE:	2019 CBC
LOCATION (LATITUDE / LONGITUDE):	36.200953, -119.09525
GEOTECHNICAL PARAMETERS:	
SOILS ENGINEER:	BSK ASSOCIATES
REPORT NUMBER:	G21-320-11F
DATE:	OCTOBER 25, 2021
ALLOWABLE FRICTIONAL RESISTANCE (POLE FOOTINGS)	$53DL^2$
ALLOWABLE PASSIVE PRESSURE:	300PCF
SEISMIC DESIGN PARAMETERS:	
RISK CATEGORY:	I
SITE CLASS:	D
SHORT PERIOD SPECTRAL ACCELERATION, S_S:	0.535
1s PERIOD SPECTRAL ACCELERATION, S_1:	0.214
SPECTRAL RESPONSE COEFFICIENT, S_{D1}:	0.310
SHORT PERIOD SPECTRAL RESPONSE, S_{DS}:	0.489
SITE COEFFICIENT, F_a:	1.372
SITE COEFFICENT, F_v:	2.172
SEISMIC DESIGN CATEGORY:	D
SEISMIC IMPORTANCE FACTOR, I_e:	1.00
WIND DESIGN PARAMETERS:	
RISK CATEGORY:	I
WIND EXPOSURE CATEGORY:	C
ULTIMATE DESIGN WIND SPEED (3-SECOND GUST), V_{ULT}:	89
NOMINAL DESIGN WIND SPEED (3-SECOND GUST), V_{ASD}:	74 MPH
INTERNAL PRESSURE COEFFICIENT, GC_{pi}:	±0.18

REINFORCING STEEL

1. REINFORCING STEEL:
   A. ALL BARS, U.N.O.: ASTM A615, GRADE 60
   B. BARS TO BE WELDED: ASTM A706, GRADE 60
   C. ADDITIONAL REQUIREMENTS FOR BARS, EXCLUDING TIES, IN DUCTILE MOMENT RESISTING FRAMES AND BOUNDARY ELEMENTS IN SHEAR WALLS: NO ADDITIONAL REQUIREMENTS IF ASTM A706, GRADE 60 BARS USED. ASTM615, GRADE 60 BARS ARE PERMITTED PROVIDED ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.
2. WIRE AND SPIRAL REINFORCING:
   A. SMOOTH WELDED WIRE FABRIC (W.W.F.): ASTM A185, FY=65 KSI, FLAT SHEETS ONLY. DO NOT USE ROLLED MESH. LAP SPACES (1 FOOT MINIMUM). OFFSET LAPS IN ADJACENT SHEETS TO AVOID CONTINUOUS LAPS.
   B. DEFORMED WIRE STIRRUPS (D4 AND LARGER ONLY): ASTM A497, FY=65 KSI.
   C. SPIRAL REINFORCING: ASTM A82, GRADE 60
3. SHOP DRAWINGS: ACI 315, PART B. SHOW REINFORCING STEEL PLACEMENT INCLUDING SIZES, QUANTITIES, SPACING, CLEARANCES, SPLICE LOCATIONS, LAP LENGTHS, AND CONCRETE COVERAGE AND SUBMIT TO ARCHITECT (STRUCTURAL ENGINEER). PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO DEVELOPING SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCES BETWEEN REINFORCING STEEL AND OTHER CONGESTION IS ENCOUNTERED. NOTIFY SPECIAL INSPECTOR OF ADJUSTMENTS MADE FORM APPROVED CONTRACT DOCUMENTS WHICH ARE INDICATED ON ACCEPTED SHOP DRAWINGS THAT FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.
4. SPLICE LOCATIONS: SPLICE #5 BARS AND LARGER ONLY AT LOCATIONS INDICATED. IF ADDITIONAL SPLICE LOCATIONS ARE PROPOSED, PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO DEVELOPING SHOP DRAWINGS.
   A. SPLICES IN WALLS: LOCATE SPLICES IN HORIZONTAL BARS AT WELL-STAGGERED LOCATIONS. DO NOT SPLICE VERTICAL BARS EXCEPT AT HORIZONTAL SUPPORTS SUCH AS FLOOR AND ROOF DIAPHRAGMS.
5. MINIMUM CLEARANCES BETWEEN PARALLEL REINFORCING STEEL INCLUDING DISTANCE BETWEEN SETS OF SPLICED BARS: 1" OR 1 db, WHICHEVER IS GREATER. 1 1/2" OR 1 1/2 db WHICHEVER IS GREATER, AT COLUMNS, PIERS, AND PILASTERS ONLY. FOR BUNDLED BARS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLED BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.
7. DOWELS AT CONSTRUCTION JOINTS: PROVIDE DOWELS MATCHING SIZE AND QUANTITY OF REINFORCING STEEL INTERRUPTED AT CONSTRUCTION JOINTS, UNLESS DETAILED OTHERWISE.
8. PLACEMENT OF BARS IN WALLS: PLACE VERTICAL BARS CLOSEST TO WALL SURFACES AT CURTAINS CONTAINING VERTICAL AND HORIZONTAL BARS OF THE SAME SIZE. IN CURTAINS WHICH VERTICAL AND HORIZONTAL BARS ARE OF DIFFERENT SIZES OR SPACING, PLACE LAYER WITH MOST STEEL AREA CLOSEST TO NEAR WALL SURFACE.
9. BARS TERMINATING AT WALLS, COLUMNS, BEAMS, AND FOUNDATIONS: EXTEND BARS TO WITHIN 2" (3" AT CONCRETE POURED AGAINST EARTH) OF FAR FACE OF WALL, COLUMN, BEAM OR FOUNDATION AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
10. BARS INTERRUPTED BY STRUCTURAL STEEL: EXTEND BARS TO WITHIN 2" OF STEEL FACE AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
11. WELDING: AWS D1.4, EXCEPT AS MODIFIED BY APPLICABLE CODE STANDARD 19-1. SEE RGA #3-77 OF CITY OF LOS ANGELES "R" BOOK FOR ADDITIONAL REQUIREMENTS IF GOVERNING CODE AUTHORITY IS CITY OF LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY.
    A. ACCEPTABLE REINFORCING STEEL FOR WELDING ASTM A706: IF WELDING OF REINFORCING STEEL OTHER THAN A706 IS DESIRED, SUBMIT PROPOSED PROCEDURE, INDICATING CONFORMANCE TO APPLICABLE CODE AND REQUIREMENTS OF GOVERNING CODE AUTHORITY, TO ARCHITECT (STRUCTURAL ENGINEER) FOR ACCEPTANCE AND TO GOVERNING CODE AUTHORITY FOR APPROVAL PRIOR TO EXECUTION.
    B. WELDER CERTIFICATION: GOVERNING CODE AUTHORITY.
12. BENDING: BEND COLD UNLESS OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). DO NOT FIELD-BEND REINFORCING STEEL BARS EMBEDDED IN CONCRETE UNLESS OTHERWISE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER).
13. LAP SPLICES: PROVIDE CLASS B SPLICES UNLESS INDICATED OTHERWISE.

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PROJECT TEAM:
LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.
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LRA ENGINEERS
CIVIL ENGINEER
BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

STRUCTURAL NOTES

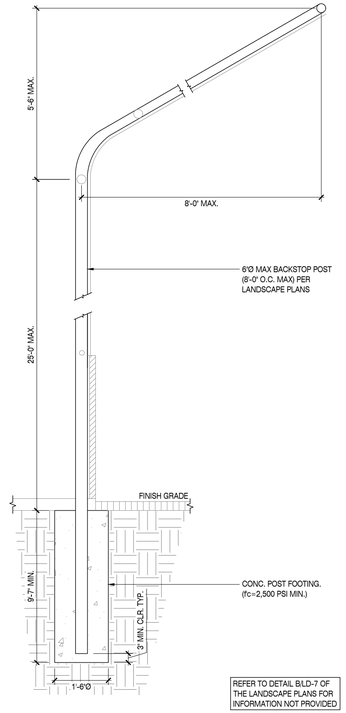
DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
Exp. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

CHECKED BY	DATE
TS	2-13-23
DRAWN BY	JOB NO.
HB	21-6937

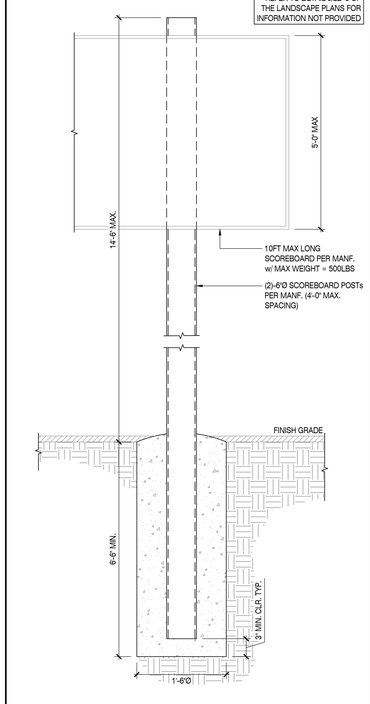
SHEET
ST-0



BACKSTOP HOOD POST FOOTING

SCALE: N.T.S.

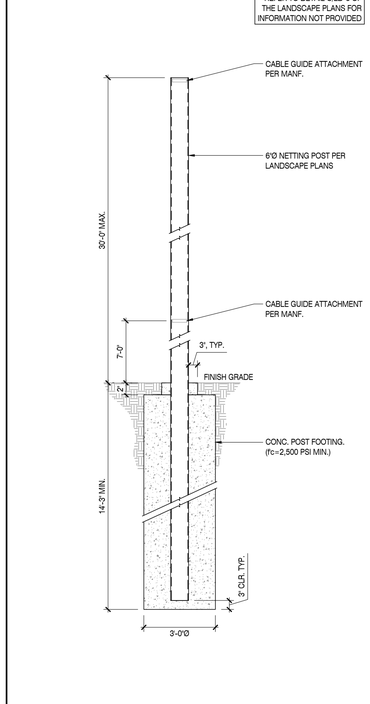
7



SCOREBOARD POST FOOTING

SCALE: N.T.S.

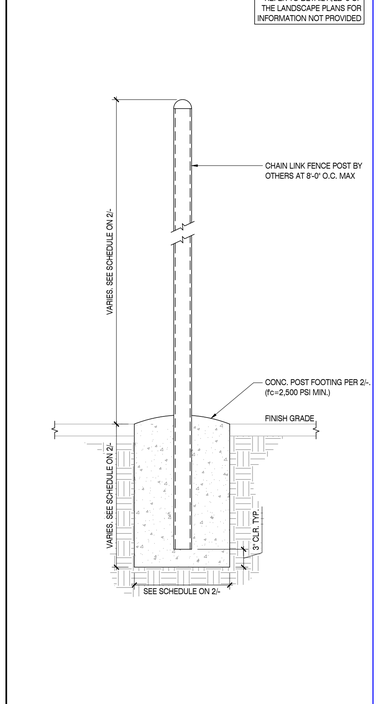
5



30' HIGH SAFETY NETTING POST FOOTING

SCALE: N.T.S.

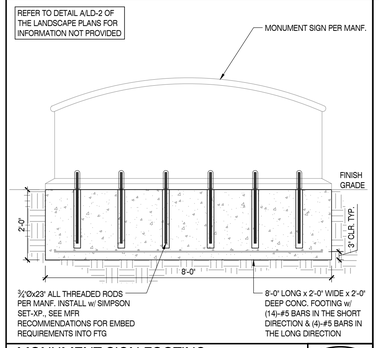
3



CHAIN LINK FENCE POST FOOTING

SCALE: N.T.S.

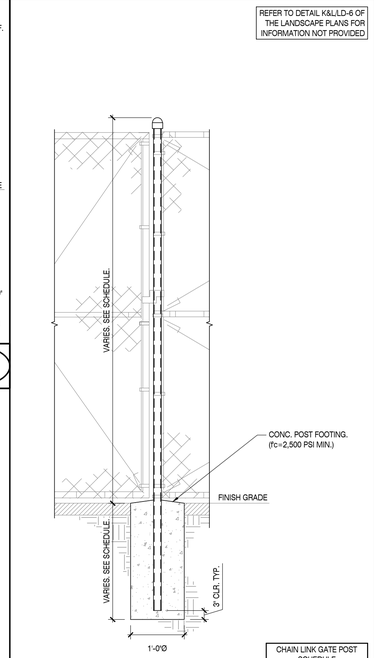
1



MONUMENT SIGN FOOTING

SCALE: N.T.S.

8

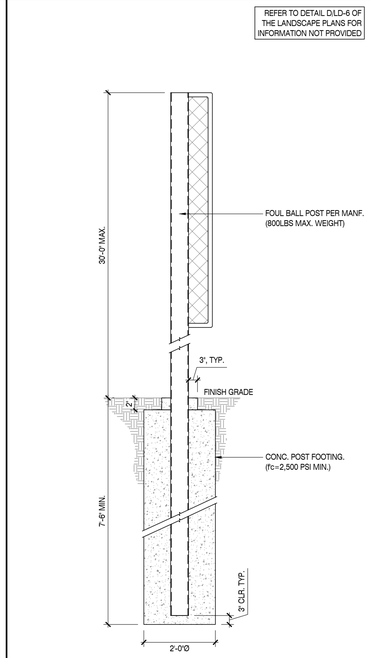


CHAIN LINK GATE POST SCHEDULE	
POST HEIGHT	FOOTG DEPTH
8'-0"	PER DETAIL 2/-
10'-0"	PER DETAIL 2/-

CHAIN LINK GATE POST FOOTING

SCALE: N.T.S.

6



FOUL BALL POLE FOOTING

SCALE: N.T.S.

4

CHAIN LINK FENCE POST FOOTING SCHEDULE			
MAX FENCE HEIGHT	FUTURE SCREEN[2]	FOOTG DEPTH	FOOTG DIA.
3'-6"	NO	2'-0"	1'-0"
3'-6"	YES	3'-6"	1'-0"
6'	NO	2'-0"	1'-0"
6'	YES	4'-8"	1'-0"
8'	NO	2'-3"	1'-0"
8'	YES	5'-8"	1'-0"
10'	NO	3'-3"	1'-0"
10'	YES	6'-5"	1'-0"

NOTES:

1. REFER TO DETAIL F/LD-6 FOR ADDITIONAL INFORMATION.
2. WIND SCREEN FOOTING SHOULD BE USED FOR ANY FENCE THAT WILL HAVE OVER 50% BLOCKAGE FROM SIGNAGE OR FABRIC WRAP PREVENTING WIND PASSING THRU OVER THE LIFE OF THE FENCE.

CHAIN LINK FENCE POST FOOTING SCHEDULE

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2

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BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

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93247

SHEET TITLE

STRUCTURAL DETAILS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY DOUGLAS SCOTT
No. S7527
Exp. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

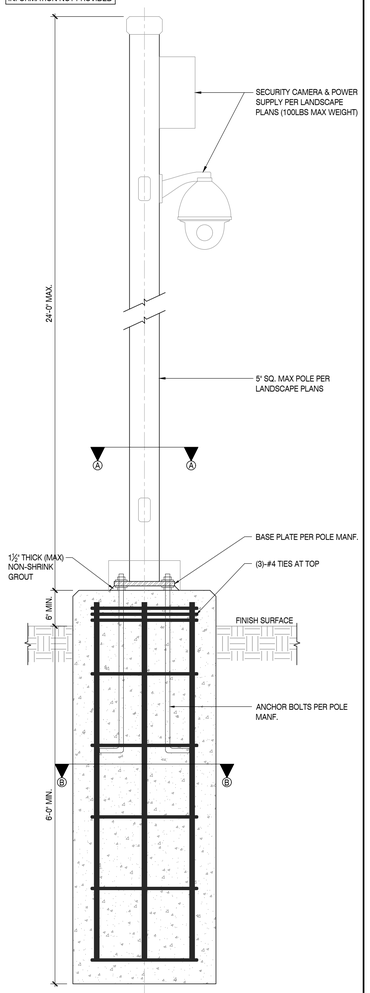
CHECKED BY	DATE
TS	2-13-23
DRAWN BY	JOB NO.
HB	21-6937

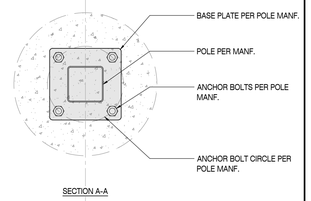
SHEET

ST-1

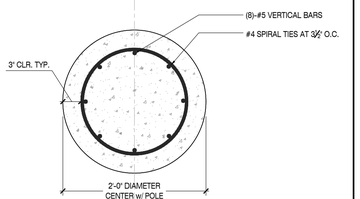
SHEET 55 OF 85 SHEETS

REFER TO DETAIL B/E-0.7 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED





SECTION A-A



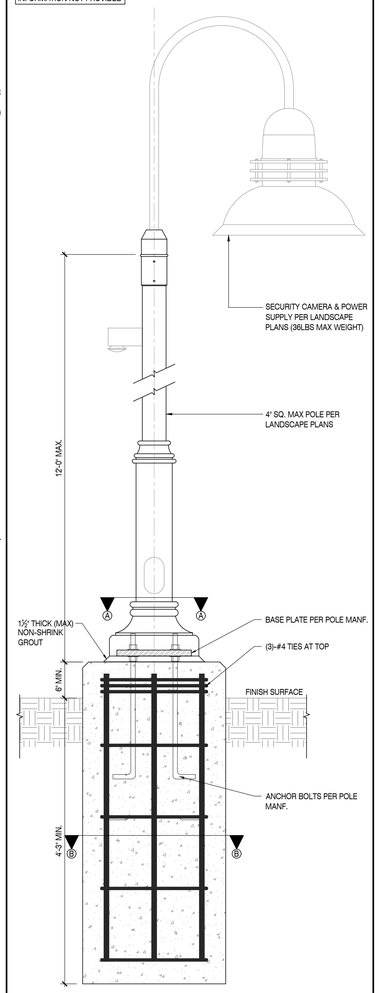
SECTION B-B

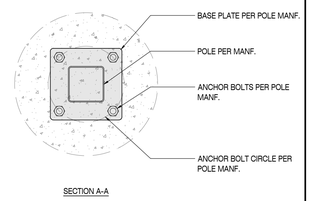
POLE MOUNTED SECURITY CAMERA FOOTING

SCALE: N.T.S.

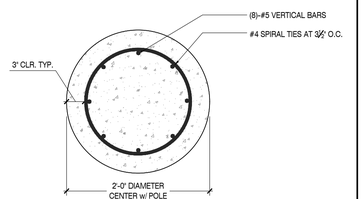
3

REFER TO DETAIL E/E-2.0 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED





SECTION A-A



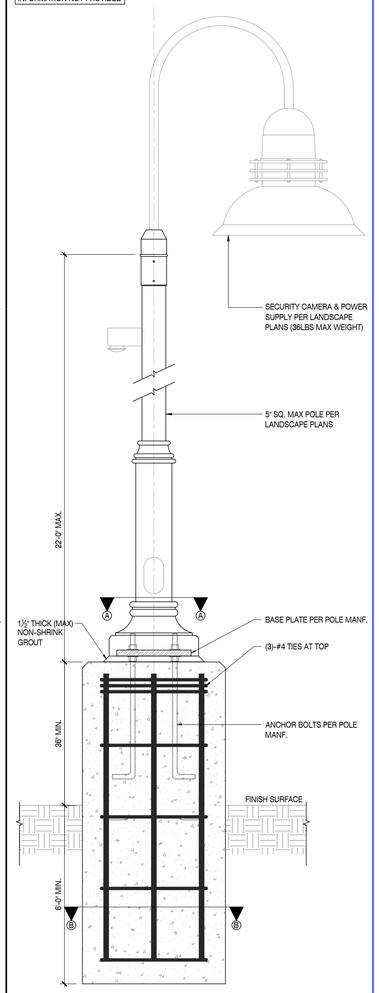
SECTION B-B

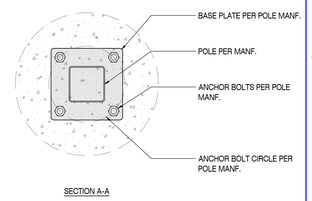
WALKWAY LIGHT POLE FOOTING

SCALE: N.T.S.

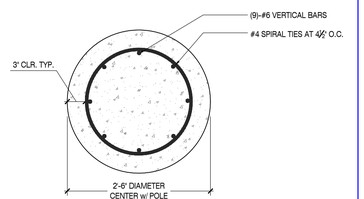
2

REFER TO DETAIL F/E-2.0 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED





SECTION A-A



SECTION B-B

PARKING AREA LIGHT POLE FOOTING

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1

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STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

STRUCTURAL DETAILS

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12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

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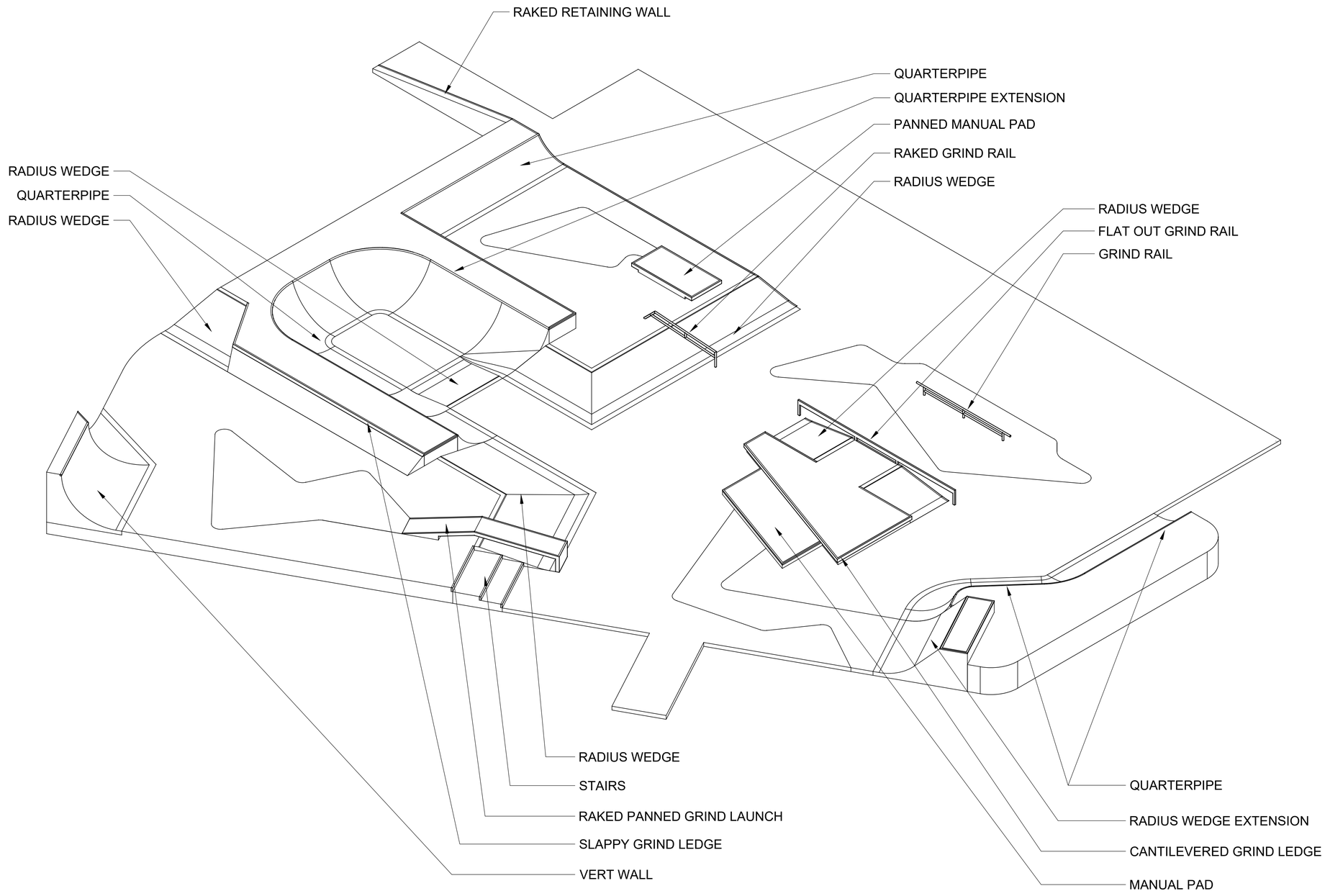
CHECKED BY	DATE
TS	2-13-23
DRAWN BY	JOB NO.
HB	21-6937

SHEET

ST-2

SHEET 56 OF 85 SHEETS



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BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

3D PERSPECTIVE

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

CHECKED BY	DATE
DH	2-13-23
DRAWN BY	JOB NO.
ZM, DM	05500.00

SHEET

SK1.0

SHEET 57 OF 85 SHEETS

GENERAL NOTES

DESIGN CRITERIA

1. THESE GENERAL NOTES APPLY UNLESS NOTED OTHERWISE ON CONSTRUCTION DRAWINGS.
2. COMPLY WITH CURRENT LOCAL BUILDING CODE EXCEPT AS NOTED HEREIN.
3. TESTING SERVICES: OWNER TO BEAR ALL ASSOCIATED COSTS FOR TESTING SERVICES. COORDINATE THE FOLLOWING TESTING WITH THE OWNER SELECTED TESTING AGENCY (IF REQUIRED BY THE PROJECT SPECIFICATIONS):
   A. MATERIAL EVALUATIONS TESTS FOR CONCRETE MIX, AGGREGATE BASE, SUBGRADE, AND STRUCTURAL FILL.
   B. INSPECTION OF STRUCTURAL FILL PLACEMENT AND COMPACTION.
   C. INSPECTION OF FINAL SUBGRADE.
   D. BASE MATERIAL COMPACTION TEST FOR EVERY 2500 S.F. OF CONCRETE FLATWORK IN SKATEPARK AREA TO ENSURE 95% COMPACTION IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATIONS AND TESTING AGENCY RECOMMENDATIONS.

SHOP DRAWINGS

1. THE SHOP DRAWING REVIEW IS INTENDED TO HELP THE SKATEPARK DESIGNER VERIFY THEIR DESIGN CONCEPT. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH DESIGN DRAWINGS & SPECIFICATIONS, WHICH HAVE A PRIORITY OVER SHOP DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMED & CORRELATED DIMENSIONS, FABRICATION PROCESSES, MEANS, METHODS, TECHNIQUES, SAFETY, AND COORDINATION OF THE WORK WITH OTHER TRADES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK THE ACCURACY OF HIS OWN SHOP DRAWINGS AND THOSE OF HIS SUBCONTRACTORS, PRIOR TO SUBMITTAL.
2. THE SHOP DRAWINGS WILL BE RETURNED FOR RESUBMITTAL IF A CURSORY REVIEW SHOWS MAJOR ERRORS WHICH SHOULD HAVE BEEN FOUND BY THE CONTRACTOR'S CHECKING. ALL SHOP DRAWINGS SHALL INCLUDE PLAN LAYOUTS SHOWING LOCATIONS OF ITEMS DETAILED ON THE SHOP DRAWINGS. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE CLOUDED ON SHOP DRAWINGS. ANY OF THE CHANGES WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED REVIEWED AFTER SKATEPARK DESIGNER'S REVIEW UNLESS NOTED ACCORDINGLY.
3. ANY RESUBMITTAL OF A DETAIL SHEET WITH CHANGED INFORMATION SHALL BE ACCOMPANIED BY LOCATION PLAN IDENTIFYING THE MEMBERS INVOLVED, AND CLOUDING AROUND CHANGED INFORMATION.
4. ANY ENGINEERING SUBMITTED FOR REVIEW SHALL BE APPROPRIATELY SEALED. FULL RESPONSIBILITY OF SUCH ENGINEERING RESTS WITH THE PERSON SEALING THE DESIGN.

EARTHWORK

1. ESTABLISH AND MAINTAIN REQUIRED LINES AND GRADE ELEVATIONS.
2. REMOVE UPPER FOUR TO SIX INCHES OR MORE OF TOPSOILS CONTAINING SURFICIAL VEGETATION, GRASS, ROOTS, AND ORGANIC MATERIAL FROM WITHIN AND TO A POINT AT LEAST FIVE FEET BEYOND THE BUILDING LINES/SKATEPARK LIMITS. THESE SOILS ARE GENERALLY NOT CONSIDERED SUITABLE FOR RE-USE AS STRUCTURAL FILL AND SHOULD BE STOCKPILED IN DESIGNATED AREAS BEYOND THE CONSTRUCTION LIMITS, OR REMOVED FROM THE SITE. COORDINATE STOCKPILE LOCATION WITH OWNER. IF REMOVED FROM SITE, DISPOSE OF IN A LEGAL MANNER.
3. COMPACT THE EXPOSED SUBGRADE ACROSS THE SITE TO ESTABLISH A FIRM AND UNYIELDING SURFACE. UNDER SUPERVISION OF CITY PROVIDED GEOTECHNICAL ENGINEER, PROOF-ROLL EXPOSED SUBGRADES WITH CONSTRUCTION EQUIPMENT TO ASSIST IN THE EVALUATION OF THE SUBGRADES ACROSS THE SITE. IF UNSTABLE AREAS ARE DETECTED, AN INITIAL ATTEMPT SHOULD BE MADE TO AERATE (12 INCHES MIN.) AND DENSIFY THE SUBGRADE BY RECOMPACTION WHERE NATURAL MOISTURE CONTENTS ARE AT APPROPRIATE LEVELS. IF THIS PROCEEDURE IS INEFFECTIVE, THE DISTURBED SOILS SHOULD BE UNDERCUT AND REPLACED WITH CLEAN FILL AND/OR STABILIZING MATERIALS. COMPACT TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 STANDARD PROCTOR METHOD. FILL AND CONSOLIDATE DEPRESSED AREAS. A FIRM, NON-YIELDING SUBGRADE SHOULD BE ESTABLISHED PRIOR TO PROCEEDING WITH FILL PLACEMENT.
4. SOIL COMPACTION SHALL BE ACHIEVED BY MEANS OF PNEUMATIC TIRE ROLLERS, HOE PACKS, RIDE-ON DRUM ROLLER OR OTHER MECHANICAL TAMPERS (PLATE, RAMMER, OR WALK BEHIND ROLLER).
5. PROVIDE STRUCTURAL FILL AS REQUIRED TO MEET PROPOSED SUBGRADE ELEVATIONS IN ACCORDANCE WITH GRADING PLAN.
6. BUILD UP SUBGRADE USING STOCKPILED MATERIAL AND/OR APPROVED MATERIAL WITH LOW PLASTICITY. THE FILL SHOULD BE PLACED IN LIFTS THIN ENOUGH TO ATTAIN THE SPECIFIED COMPACTION LEVEL THROUGHOUT THE ENTIRE LIFT THICKNESS. PRIOR TO COMPACTION, MOISTURE CONDITION AS NEEDED. COMPACT EACH LIFT TO AT LEAST 90 PERCENT OF ASTM D698.
7. THE EARTHWORK SHALL BE DONE UNDER SUPERVISION OF A SOILS ENGINEER RETAINED BY THE OWNER (IF REQUIRED BY THE PROJECT), WHO SHALL VERIFY ABOVE SPECIFICATIONS FOR THE SUPPORT OF SLAB ON GRADE AND FOR THE CONTROL OF SOIL SWELLING. FIELD DENSITY TESTS TO DETERMINE THE LEVEL OF COMPACTION BEING ACHIEVED IN THE FILL SHALL BE PERFORMED ON EACH LIFT AT THE BEGINNING OF FILL PLACEMENT AND AT A FREQUENCY MUTUALLY AGREED UPON BY THE PROJECT TEAM FOR THE REMAINDER OF THE PROJECT.
8. EXCAVATION AND COMPACTION OF FILL SHALL EXTEND TO MINIMUM 2' FEET BEYOND SKATE PARK FOOTPRINT.
10. PROCEED WITH SUB-BASE AS REQUIRED ONLY AFTER NONCONFORMING CONDITIONS HAVE BEEN CORRECTED AND SUBGRADE HAS BEEN INSPECTED. A FIRM, NON-YIELDING SUBGRADE SHOULD BE ESTABLISHED PRIOR TO BASE COURSE PLACEMENT.
11. PROVIDE THE SPECIFIED DEPTH OF COMPACTED AGGREGATE BASE MATERIAL IF REQUIRED. COMPACT AGGREGATE BASE TO 90% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 STANDARD PROCTOR METHOD IF REQUIRED.
12. PROCEED WITH CONCRETE ONLY AFTER NONCONFORMING CONDITIONS HAVE BEEN CORRECTED, SUBGRADE HAS BEEN INSPECTED, AND FORMWORK AND FIELD MOCK-UPS HAVE BEEN REVIEWED.
13. A SOILS REPORT DOES EXIST FOR THIS PROJECT. OWNER SHALL RETAIN A SOILS ENGINEER IF SO REQUIRED BY THE PROJECT, TO VERIFY EXCAVATIONS FOR ASSUMED ALLOWABLE SOIL BEARING, LOW SETTLEMENT AND SWELL POTENTIAL, AND TO MAKE ANY ADDITIONAL RECOMMENDATIONS.

FORMS

1. FORM MATERIALS: PLYWOOD, METAL, METAL-FRAMED PLYWOOD, OR OTHER APPROVED PANEL-TYPE MATERIALS FREE FROM DEFECTS AND DISTORTION, AND TO PROVIDE FULL-DEPTH, CONTINUOUS, STRAIGHT, SMOOTH EXPOSED SURFACES.
2. USE FLEXIBLE OR CURVED FORMS AS REQUIRED TO PROVIDE VERTICAL AND HORIZONTAL RADII AS INDICATED IN THE DRAWINGS.
3. PROVIDE 2" NOMINAL THICKNESS, SURFACED PLANK WOOD FORMS FOR STRAIGHT SECTIONS. USE FLEXIBLE METAL, 1" LUMBER, OR PLYWOOD FORMS FOR RADIUS BENDS. DO NOT OVERLAP FORMS, CREATING AN OFFSET FINISHED EDGE.
4. FORM-RELEASE AGENT: COMMERCIALLY FORMULATED FORM-RELEASE AGENT THAT WILL NOT BOND WITH, STAIN, OR ADVERSELY AFFECT CONCRETE SURFACES AND WILL NOT IMPAIR SUBSEQUENT TREATMENTS OF CONCRETE SURFACES.
5. EDGE FORMS AND SCREED CONSTRUCTION
   A. SET, BRACE, AND SECURE EDGE FORMS, BULKHEADS, AND INTERMEDIATE SCREED GUIDES FOR PAVEMENT TO REQUIRED LINES, GRADES, AND ELEVATIONS. INSTALL FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK.
   B. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE.

REINFORCING

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60. FOR REINFORCING THAT IS TO BE WELDED, CONFORM TO ASTM A706 GRADE 60. USE ASTM A-108 GRADE 60 FOR ALL WELDED ANCHORS.
2. JOINT DOWEL BARS: PLAIN STEEL DOWELS, ASTM A 615/A 615M, GRADE 60. CUT BARS TRUE TO LENGTH WITH ENDS SQUARE AND FREE OF BURRS.
3. SLIP DOWEL SLEEVES ARE ACCEPTABLE, SUCH AS SPEED DOWELS BY GREENSTREAK, INC., OR APPROVED EQUAL.
4. BAR SUPPORTS: BOLSTERS, CHAIRS, SPACERS AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCEMENTS BARS, AND DOWELS IN PLACE. MANUFACTURE BAR SUPPORTS ACCORDING TO CRSI'S "MANUAL OF STANDARD PRACTICE" FROM STEEL WIRE, PLASTIC, OR PRECAST CONCRETE OR FIBER-REINFORCED CONCRETE OF GREATER COMPRESSIVE STRENGTH THAN CONCRETE.
5. ALL REINFORCING BARS TO BE DEFORMED. CLEAR CONCRETE COVERAGES TO ANY REINFORCING INCLUDING TIES ARE AS FOLLOWS:
   A. 2" FORMED CONCRETE EXPOSED TO EARTH OR WEATHER.
   B. 1" SLABS AND JOISTS NOT EXPOSED TO WEATHER.
   C. 1-1/2" ALL OTHER.
6. SMALLER CLEARANCES PERMISSIBLE FOR PRECAST OR PRESTRESSED.
7. TENSION LAP SPLICES IN CONCRETE: UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING:
   A. #3, 9"; #4, 12". 30X DIAMETER FOR TOP BARS
8. MINIMUM CLEAR COVER FOR SPLICED REINFORCING IS GREATER THAN ONE BAR DIAMETER, AND MINIMUM CLEAR SPACING IS GREATER THAN TWO BAR DIAMETERS. SPLICE BOTTOM BAR OVER SUPPORTS AND TOP BAR AT MIDSPAN ONLY. WHERE BARS ARE SHOWN SPLICED, THEY MAY RUN CONTINUOUS AT CONTRACTOR'S OPTION.

CONCRETE

1. PROVIDE MIX DESIGNS THAT WILL MEET THE MINIMUM REQUIREMENTS LISTED HEREIN:
   A. MINIMUM 28-DAY STRENGTH: 4000 PSI
   B. TYPE I/II CEMENT
   C. SMALL TO MEDIUM AGGREGATE (1" MAX.)
   D. WATER/CEMENT RATIO OF .45 OR LESS
   E. MIX DESIGNS CONTAINING FLY ASH: THE AMOUNT OF FLY ASH USED SHALL NOT EXCEED 20% BY WEIGHT OF THE COMBINED WEIGHT OF FLY ASH PLUS CEMENT.
   F. AIR ENTRAINMENT NOT TO EXCEED 3%.
2. DO NOT INSTALL CONCRETE WORK OVER SATURATED, MUDDY, OR FROZEN SUBGRADE.
3. PROTECT ADJACENT WORK AND PROVIDE TEMPORARY BARRICADES AS REQUIRED FOR PROTECTION OF PROJECT WORK AND PUBLIC SAFETY.
4. MECHANICALLY VIBRATE ALL CONCRETE FLATWORK WHEN PLACED, EXCEPT THAT SLABS ON GRADE AND SLABS ON DECK NEED TO BE VIBRATED ONLY AROUND EMBEDDED ITEMS.
5. CONCRETE CYLINDERS SHALL BE TAKEN AND TESTED PER THE ACI CODE, WHEN REQUIRED BY THE PROJECT. FREQUENCY= 1 SET OF CYLINDERS PER 50 CY'S PLACED. OWNER TO BEAR ALL COSTS.
6. ALL REINFORCING, INCLUDING DOWELS AND ANCHOR BOLTS, SHALL BE SECURELY TIED IN LOCATION BEFORE PLACING CONCRETE OR GROUT. DOWELS WILL NOT BE ALLOWED TO BE "STABBED" IN.
7. IN AN EFFORT TO CONTROL SHRINKAGE AND QUALITY, FLATWORK/FLOORS SHOULD BE PLACED IN SECTIONS OF 25 CY'S OR LESS.
8. CONDUITS, PIPES, AND SLEEVES EMBEDDED IN CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 6.3.

CONCRETE PLACEMENT

1. CONSOLIDATE CONCRETE BY MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND-SPADING, RODDING OR TAMPING. USE EQUIPMENT AND PROCEDURES TO CONSOLIDATE CONCRETE ACCORDING TO RECOMMENDATIONS IN ACI 309R.
   A. CONSOLIDATE CONCRETE ALONG FACE OF FORMS AND ADJACENT TO TRANSVERSE JOINTS WITH AN INTERNAL VIBRATOR. KEEP VIBRATOR AWAY FROM JOINT ASSEMBLIES, REINFORCEMENT, OR SIDE FORMS. USE ONLY SQUARE-FACED SHOVELS FOR HAND-SPREADING AND CONSOLIDATION. CONSOLIDATE WITH CARE TO PREVENT DISLOCATING REINFORCEMENT, DOWELS, AND JOINT DEVICES.
2. COLD WEATHER PLACEMENT: COMPLY WITH ACI 306.1 AND AS FOLLOWS. PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES.
   A. WHEN AIR TEMPERATURE HAS FALLEN TO OR IS EXPECTED TO FALL BELOW 40 DEG F, UNIFORMLY HEAT WATER AND AGGREGATES BEFORE MIXING TO OBTAIN A CONCRETE MIXTURE TEMPERATURE OF NOT LESS THAN 50 DEG F AT POINT OF PLACEMENT.
   B. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW.
   C. DO NOT USE CALCIUM CHLORIDE, SALT, OR OTHER MATERIALS CONTAINING ANTIFREEZE AGENTS OR CHEMICAL ACCELERATORS, UNLESS OTHERWISE SPECIFIED AND APPROVED IN MIX DESIGNS.
3. HOT-WEATHER PLACEMENT: PLACE CONCRETE ACCORDING TO RECOMMENDATION IN ACI 305R AND AS FOLLOWS WHEN HOT-WEATHER CONDITIONS EXIST:
   A. COOL INGREDIENTS BEFORE MIXING TO MAINTAIN CONCRETE TEMPERATURE AT TIME OF PLACEMENT BELOW 100 DEG FAHRENHEIT. CHILLED MIXING WATER OR CHOPPED ICE MAY BE USED TO CONTROL TEMPERATURE, PROVIDED WATER EQUIVALENT OF ICE IS CALCULATED TO TOTAL AMOUNT OF MIXING WATER. USING LIQUID NITROGEN TO COOL CONCRETE IS CONTRACTORS OPTION.
   B. FOG-SPRAY FORMS, REINFORCEMENT STEEL, AND SUBGRADE JUST BEFORE PLACING CONCRETE. KEEP SUBGRADE MOISTURE UNIFORM WITHOUT STANDING WATER, SOFT SPOTS, OR DRY AREAS.
4. **FINISH: ALL EXPOSED CONCRETE SURFACES ARE TO BE HARD STEEL TROWEL FINISH UNLESS OTHERWISE NOTED. TROWEL UNTIL ALL VISIBLE POURS ARE CLOSED. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT BROOM FINISH AND DO NOT TROWEL BURN SURFACE.**
   a. ALL EDGE TOOLING SHOULD BE 1/8 INCH RADIUS UNLESS OTHERWISE SPECIFIED.
5. COLOR: ALL CONCRETE SURFACES ARE TO BE NATURAL GRAY COLOR UNLESS OTHERWISE NOTED. MINOR VARIATIONS IN APPEARANCE OF COLORED CONCRETE, WHICH ARE SIMILAR TO NATURAL VARIATIONS IN COLOR AND APPEARANCE OF UNCOLORED CONCRETE, ARE ACCEPTABLE. DO NOT BROOM FINISH AND DO NOT TROWEL BURN SURFACE.

CONCRETE PROTECTION AND CURING

1. GENERAL: PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. COMPLY WITH ACI 306.1 FOR COLD-WEATHER PROTECTION AND FOLLOW RECOMMENDATIONS IN ACI 305R FOR HOT-WEATHER PROTECTION DURING CURING. KEEP MOIST FOR NECESSARY AMOUNT OF TIME TO REACH CONCRETE STRENGTH AND INHIBIT MOISTURE LOSS AFTER PLACING.
2. EVAPORATION RETARDANT: WATERBORNE, MONOMOLECULAR FILM FORMING, MANUFACTURED FOR APPLICATION TO FRESH CONCRETE, SUCH AS EUCOBAR EVAPORATION RETARDANT BY THE EUCLID CHEMICAL COMPANY. APPLY EVAPORATION RETARDANT TO CONCRETE SURFACES IF HOT, DRY, OR WINDY CONDITIONS CAUSE MOISTURE LOSS BEFORE AND DURING FINISHING OPERATIONS. APPLY TO EXPOSED SURFACE OF CONCRETE ACCORDING TO MANUFACTURERS WRITTEN INSTRUCTIONS AS NECESSARY.
3. BEGIN CURING AFTER FINISHING CONCRETE, BUT NOT BEFORE FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE.
4. CURING METHODS: CURE CONCRETE BY CURING COMPOUND, MOISTURE CURING, MOISTURE-RETAINING-COVER CURING, OR A COMBINATION OF THESE AS FOLLOWS:
   A. CURING COMPOUND: MEET REQUIREMENTS OF MANUFACTURER'S CURRENT PRINTED APPLICATION INSTRUCTIONS AND COVERAGE RATE CHART. FOR HORIZONTAL APPLICATIONS, IMMEDIATELY APPLY AFTER ALL SURFACE WATER HAS DISAPPEARED AND THE CONCRETE SURFACE IS HARD ENOUGH TO WALK ON. FOR VERTICAL APPLICATIONS, APPLY IMMEDIATELY AFTER REMOVING THE CONCRETE FORMS. APPLY IN A UNIFORM AND CONTINUOUS MANNER. AVOID OVER-APPLICATION OR PUDDLING OF CURING COMPOUND. PROTECT SURFACE FROM WATER, ADJACENT SHOTCRETE WORK, AND DEBRIS.
   B. MOISTURE CURING: KEEP SURFACES CONTINUOUSLY MOIST FOR NOT LESS THAN SEVEN DAYS WITH THE FOLLOWING MATERIALS:
      - WATER.
      - CONTINUOUS WATER-FOG SPRAY.
      - ABSORPTIVE COVER, WATER SATURATED, AND KEPT CONTINUOUSLY WET. COVER CONCRETE SURFACES AND EDGES, OVERLAP SEAMS MIN. 6" BETWEEN ADJACENT ABSORPTIVE COVERS.
   C. MOISTURE-RETAINING-COVER CURING: COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER FOR CURING CONCRETE, PLACED IN WIDEST PRACTICABLE WIDTH, WITH SIDES AND ENDS LAPPED AT LEAST 6 INCHES.

CURING MATERIALS

1. ABSORPTIVE COVER: AASHTO M 182, CLASS 2, BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING APPROXIMATELY 9OZ./SQ. YD. DRY.
2. MOISTURE-RETAINING COVER: ASTM C 171, POLYETHYLENE FILM OR WHITE BURLAP-POLYETHYLENE SHEET (BUR LENE).
3. WATER: POTABLE.
4. CURING COMPOUND: ASTM C-309, CLEAR, WATER-BASED, NO VOLATILE, NON-STAINING, MEMBRANE-FORMING, COMPATIBLE WITH SUBSEQUENT CONCRETE TREATMENTS. ACCEPTABLE PRODUCT: W.R. MEADOWS 1100-CLEAR, OR APPROVED EQUAL.

JOINT MATERIALS

1 EXPANSION AND ISOLATION JOINT FILLER STRIPS: EXPANSION JOINT MATERIALS SHALL BE FLEXIBLE POLYETHYLENE CLOSED CELL FOAM OR SIMILAR AND SUPPLIED BY CONCRETE CONTRACTOR. DECK-O-FOAM OR EQUIVALENT.

2 EXPANSION JOINT SEALANT: SIKAFLEX - 1A NS TG POLYURETHANE ELASTOMERIC SEALANT, OR APPROVED EQUAL. COLOR OF CAULK SHOULD RESEMBLE NATURAL COLOR OF CONCRETE (ALUMINUM GRAY OR LIMESTONE).

3 SAW CUT JOINT SEALANT: SIKAFLEX-1C SL HIGH PERFORMANCE, SELF-LEVELING, 1-PART POLYURETHANE SEALANT, OR APPROVED EQUAL. COLOR OF CAULK SHOULD RESEMBLE NATURAL COLOR OF CONCRETE (ALUMINUM GRAY OR LIMESTONE)

JOINTS

1. GENERAL: CONSTRUCT CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED.
2. EXPANSION JOINTS: FORM EXPANSION JOINTS OF SPECIFIED JOINT-FILLER STRIPS WHERE INDICATED
   A. LOCATE EXPANSION JOINTS AS INDICATED ON DRAWINGS.
   B. EXTEND JOINT FILLERS FULL WIDTH AND DEPTH OF JOINT.
3. INSTALL DOWEL BARS AND SUPPORT ASSEMBLIES AT JOINTS WHERE INDICATED. LUBRICATE OR ASPHALT-COAT ONE-HALF DOWEL LENGTH TO PREVENT CONCRETE BONDING TO ONE SIDE OF JOINT.
4. CONTROL JOINTS: FORM WEAKENED-PLANE JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTROL JOINTS FOR A DEPTH AS INDICATED IN THE DRAWINGS (GENERALLY 1/3 OF THE PAVEMENT THICKNESS), AS FOLLOWS:
   A. SAWED JOINTS: FORM CONTROL JOINTS WITH POWER SAWS EQUIPPED WITH SHATTERPROOF ABRASIVE OR DIAMOND-RIMMED BLADES. CUT 1/8 INCH WIDE JOINTS INTO CONCRETE WHEN CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE SURFACE AN BEFORE DEVELOPING RANDOM CONTRACTION CRACKS. EARLY SAW CUTS ARE APPROXIMATELY 1 INCH DEEP, REGARDLESS OF PAVEMENT THICKNESS. REFER TO CONTROL JOINT GUIDE DRAWING OF PLAN SET IF APPLICABLE.
   B. IF SKATEPARK PROJECT DESIGN UTILIZES POURED STEPS, CONTROL JOINTS MUST BE CUT 3 - 4 FEET FROM THE EDGE OF THE TOP STEP.
5. POST CURE DETAIL WORK (AS NEEDED): GRIND SMOOTH ANY INCONSISTENCIES IN THE FINISH OR HIGH SPOTS BETWEEN POURS.

METALS

1. FURNISH MATERIALS AND PERFORM LABOR REQUIRED TO EXECUTE THIS WORK AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING, BUT NOT LIMITED TO BOWL STEEL COPING, LEDGE STEEL EDGING, HANDRAILS, AND GRIND RAILS.
2. USING SKILLED WORKERS, FORM AND FABRICATE ITEMS OF WORK AS INDICATED AND AS REQUIRED TO MEET INSTALLATION CONDITIONS. MAKE PROVISIONS TO CONNECT WITH OR RECEIVE THE WORK OF OTHER TRADES.
3. USE MATERIALS OF SIZE AND THICKNESS SHOWN OR, IF NOT SHOWN, OF REQUIRED SIZE AND THICKNESS TO PRODUCE STRENGTH AND DURABILITY IN THE FINISHED PRODUCT.
4. UNLESS OTHERWISE INDICATED, WELD OR BOLT CONNECTIONS BETWEEN MEMBERS. WHERE POSSIBLE, CONCEAL CONNECTIONS ON THE FINISHED WORK. FIT OR MITER EXPOSED JOINTS TO HAIRLINE TOLERANCE OR USE WELDED JOINTS. ON FINISHED SURFACES, GRIND ALL WELDS SMOOTH AND FLUSH WITH BASE METAL.
5. WELD CONNECTIONS WHICH ARE NOT TO BE LEFT AS EXPOSED JOINTS, BUT CANNOT BE SHOP WELDED BECAUSE OF SHIPPING SIZE LIMITATIONS.
6. CAP ALL EXPOSED TUBE OR PIPE ENDS. USE SIZE AND THICKNESS OF MATERIAL SHOWN. PROPERLY FIT AND WELD CAP AT JOINT, GRIND WELD SMOOTH AND FLUSH WITH BASE METAL.
7. BEND PIPE OR TUBING WITHOUT COLLAPSING OR DEFORMING THE WALLS, SO AS TO PRODUCE A SMOOTH UNIFORM CURVED SECTION AND MAINTAIN UNIFORM SECTIONAL SHAPE.
8. WHERE ITEMS ARE TO BE IMBEDDED IN CONCRETE OR MASONRY, PROVIDE WELDED-ON ANCHORS OR LUGS AS INDICATED OR REQUIRED.
9. PROVIDE TEMPORARY BRACING OR ANCHORS IN FORMWORK FOR ITEMS WHICH ARE TO BE BUILT INTO CONCRETE OR SIMILAR CONSTRUCTION.
10. FASTENING TO IN-PLACE CONSTRUCTION: PROVIDE ANCHORING DEVICES AND FASTENERS WHERE NECESSARY FOR SECURING MISCELLANEOUS METAL FABRICATIONS TO IN-PLACE CONSTRUCTION INCLUDING THREADED FASTENERS FOR CONCRETE INSERTS, OR OTHER CONNECTORS AS REQUIRED.
11. GALVANIZING REPAIR--USE A HIGH ZINC DUST CONTENT PAINT FOR RE-GALVANIZING WELDS IN GALVANIZED STEEL. HOT GALVANIZED SOLDER IS ALSO ACCEPTABLE. USE RUST-OLEUM COLD GALVANIZING COMPOUND SPRAY, OR SIMILAR.
12. ALL WELDING SHALL CONFORM TO REQUIREMENTS OF AWS STANDARDS. ALL WELDING SHALL BE SHIELDED METAL ARC WELDING. WELDS IN FINISH WORK SHALL BE FILLED OUT FLUSH, GROUND AND DISTRESSED.
13. ASTM A-36 FOR C, MC, ANGLES, AND PLATES.
14. ASTM A-53 GRADE B OR A-500 GRADE B OR A-501 GRADE B FOR STEEL PIPES.
15. ASTM A-123 STANDARD SPECIFICATION FOR ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS
16. ASTM A-780 STANDARD PRACTICE FOR REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT-DIP GALVANIZED COATINGS.

SUPPLEMENTARY NOTES

1. THESE CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE IMPROVEMENTS, WORKERS, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, MEANS AND METHODS, BRACING, SHORING, FORMS, SCAFFOLDING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD ELEMENTS IN PLACE DURING CONSTRUCTION. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
2. OPTIONS AND SUBSTITUTIONS (APPROVED BY OWNER/SKATEPARK DESIGNER/ARCHITECT) ARE FOR CONTRACTOR'S CONVENIENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING ALL CHANGES AND ADDITIONAL COSTS NECESSARY AND SHALL COORDINATE ALL DETAILS WITH SKATEPARK DESIGNER THROUGH PRIME CONTRACTOR.
3. ANY ENGINEERING DESIGN PROVIDED BY CONTRACTOR OR OTHERS AND SUBMITTED FOR REVIEW SHALL BE WET SIGNED AND STAMPED BY AN INSURED REGISTERED STRUCTURAL OR CIVIL ENGINEER LICENSED IN THE STATE OF WHICH THE PROJECT IS LOCATED, IF REQUIRED BY CITY OR COUNTY.
4. UNLESS NOTED OTHERWISE, DETAILS ON CONSTRUCTION DRAWINGS ARE TYPICAL AS INDICATED BY CUTS, REFERENCES, OR TITLES. ALL DETAILS SHOWN SHALL BE IMPORTED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY INDICATED OR NOT. TYPICAL DETAILS MAY OR MAY NOT BE REFERENCED ON THE DOCUMENTS, BUT SHALL APPLY AT ALL LOCATIONS, UNLESS NOTED OTHERWISE. WHERE NO DETAIL CUTS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK SHOWN ELSEWHERE ON THE PROJECT. FOR BIDDING PURPOSES, WHERE ANY SHOWN MEMBER OR STRUCTURAL ELEMENT IS NOT SIZED ON THE DOCUMENTS, THE LARGEST SIMILAR MEMBER USED IN THE PROJECT SHALL BE UTILIZED.
5. ALL DIMENSIONS AND ELEVATIONS SHOWN ON CONSTRUCTION DRAWINGS SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS (IF REQUIRED BY THE PROJECT). RESOLVE ALL DISCREPANCIES WITH SKATEPARK DESIGNER AND PRIME CONTRACTOR PRIOR TO START OF CONSTRUCTION. DO NOT SCALE DRAWINGS.
6. CONTRACTOR SHALL ESTABLISH AND VERIFY IN FIELD ALL EXISTING CONDITIONS AFFECTING NEW CONSTRUCTION. CONTACT SKATEPARK DESIGNER AND PRIME CONTRACTOR IMMEDIATELY IF EXISTING CONDITIONS ARE NOT AS DEPICTED IN DRAWINGS.
7. ***SKATE FEATURE DESIGN AND LAYOUT ARE THE RESPONSIBILITY OF THE SKATEPARK DESIGNER.**

PAVEMENT TOLERANCES

4. CONTRACTOR MUST ACHIEVE POSITIVE DRAINAGE FOR ALL SURFACES WITHIN THE SKATEPARK AREA WHENEVER POSSIBLE.

REPAIRS AND PROTECTION

1. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE, OR DOES NOT MEET REQUIREMENTS IN THIS SECTION. THE CONTRACTOR SHALL FIX ALL CRACKS AND DISPLACEMENTS LARGER THAN 3/16" UP TO THE PROJECT COMPLETION.
2. PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED, MAINTAIN PAVEMENT AS CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE OF MATERIALS AS THEY OCCUR.
3. MAINTAIN CONCRETE PAVEMENT OF FREE STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL.

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LINDSAY, CA
93247

SHEET TITLE
SPECIFICATIONS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

CHECKED BY	DATE
DH	2-13-23
DRAWN BY	JOB NO.
ZM, DM	05500.00

SHEET
SK2.0
SHEET 58 OF 85 SHEETS

SHOTCRETE SPECIFICATIONS

PART 1- GENERAL

1.1 SUMMARY

A. SPECIALTY CONSTRUCTION:

A.A. DESCRIPTION: SHOTCRETE APPLICATION, CUTTING, SCULPTING AND FINISH WORK HAS BEEN DEEMED AS SPECIALTY CONSTRUCTION WORK WITHIN THE CONSTRUCTION DOCUMENTS. ALL WORK RELATED TO THE SPECIALTY CONSTRUCTION SHALL BE COORDINATED BY THE PROJECT ENGINEER, AND THE PRE-QUALIFIED SPECIALTY CONTRACTOR, PRIOR TO THE START OF CONSTRUCTION.

1.2 QUALITY ASSURANCE

A. STANDARDS: COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE FOLLOWING CODES AND STANDARDS, EXCEPT AS HEREIN MODIFIED:

A.A. AMERICAN CONCRETE INSTITUTE (ACI): 506, CHAPTER 13, WET METHOD. CHAPTER 5, SHOTCRETE CREW

A.B. ASTM: "AMERICAN SOCIETY FOR TESTING MATERIALS"

1.3 REFERENCE STANDARDS

A. ACI 305- RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING.

B. ACI 306- RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING.

C. ASTM C33- CONCRETE AGGREGATES

D. ASTM C94- READY-MIXED CONCRETE

E. ASTM C143- TEST FOR SLUMP OF PORTLAND CEMENT CONCRETE

F. ASTM C150- PORTLAND CEMENT

G. ASTM C260- AIR-ENTRAINING ADMIXTURES FOR CONCRETE

H. ASTM C494- CHEMICAL ADMIXTURES FOR CONCRETE

I. ASTM C618- FLY ASH AND RAW OR CALCINED NATURAL POZZOLANS FOR USE IN PORTLAND CEMENT CONCRETE.

1.4 JOB CONDITIONS

A. COORDINATION:

A.A. COORDINATE SCHEDULES OF CONCRETE WORK TO ALLOW ADEQUATE TIME FOR INSTALLATION OF OTHER RELATED WORK.

A.B. VERIFY THAT ANCHOR BOLTS AND OTHER EMBEDDED STEEL ITEMS TO BE CAST INTO CONCRETE ARE PROPERLY PLACED.

A.C. COORDINATE EARTHWORK AND SOILS REPORT RECOMMENDATIONS WITH PLACEMENT REQUIREMENTS.

A.D. COORDINATE WITH FORM-WORK AND FINISHES SECTIONS TO PROVIDE FINISH FLOORLEVELNESS AND FLATNESS AS SPECIFIED HEREIN. SLOPE TO DRAINS AT GRADES AND PERCENT SLOPE SHOWN IN THE CONSTRUCTION DRAWINGS.

PART 2- SHOTCRETE WORK

2.1 SHOTCRETE MIX DESIGN

A. PROVIDE MIX DESIGNS THAT WILL MEET THE MINIMUM REQUIREMENTS LISTED HEREIN:

A.A. MINIMUM 28-DAY STRENGTH: 4000 PSI

A.B. TYPE I/II CEMENT

A.C. SMALL AGGREGATE (1/2" MAX.)

A.D. WATER/CEMENT RATIO OF .45 OR LESS

A.E. AIR ENTRAINMENT NOT TO EXCEED 3%

B. MIX DESIGNS FOR SHOTCRETE CONTAINING FLY ASH: THE AMOUNT OF FLY ASH USED SHALL NOT EXCEED 20% BY WEIGHT OF THE COMBINED WEIGHT OF FLY ASH PLUS CEMENT.

2.2 CONCRETE APPLICATION EQUIPMENT

A. FOR WET MIX SHOTCRETE:

A.A. MIXING EQUIPMENT: CAPABLE OF THOROUGHLY MIXING AGGREGATE, CEMENT AND WATER IN SUFFICIENT QUANTITY TO MAINTAIN CONTINUOUS PLACEMENT.

A.B. AIR SUPPLY: CLEAN AIR ADEQUATE FOR MAINTAINING SUFFICIENT NOZZLE VELOCITY FOR PARTS OF WORK, AND FOR SIMULTANEOUS OPERATION OF BLOW PIPE FOR CLEANING AWAY REBOUND.

A.C. DELIVERY EQUIPMENT: CAPABLE OF DISCHARGING AGGREGATE-CEMENT-WATER MIXTURE ACCURATELY, UNIFORMLY, AND CONTINUOUSLY THROUGH DELIVERY HOSE.

PART 3- EXECUTION

3.1 INSPECTION

A. EXAMINATION: EXAMINE CONCRETE FORMWORK AND VERIFY THAT IT IS TRUE TO LINE AND DIMENSION, ADEQUATELY BRACED AGAINST VIBRATION, AND CONSTRUCTED TO PERMIT ESCAPE OF AIR AND REBOUND BUT TO PREVENT LEAKAGE DURING SHOTCRETING. CORRECT DEFICIENCIES.

B. NOTIFICATION: NOTIFY OTHER TRADES INVOLVED IN AMPLE TIME TO PERMIT THE PROPER INSTALLATION OF THEIR WORK. COOPERATE IN SETTING SUCH WORK.

C. EXISTING SURFACES: EXAMINE EXISTING CONCRETE SURFACES FOR UNSOUND MATERIAL. CORRECT DEFICIENCIES.

3.2 PREPARATION FOR INSTALLATION OF CONCRETE

A. FORMS: USE A FORM-COATING MATERIAL ON REMOVABLE FORMS TO PREVENT ABSORPTION OF MOISTURE AND TO PREVENT BOND WITH SHOTCRETE.

3.3 CONCRETE BATCHING AND MIXING

A. PROPORTIONS: MIX PROPORTIONS SHALL BE CONTROLLED BY WEIGHT BATCHING.

B. SCHEDULING: CONCRETE SHALL NOT EXCEED A TEMPERATURE OF 100 DEGREES FAHRENHEIT AT TIME OF PLACEMENT UNLESS PRE-APPROVED BY THE PROJECT ENGINEER.

3.4 CONCRETE PLACEMENT

A. PLACEMENT: USE SUITABLE DELIVERY EQUIPMENT AND PROCEDURES THAT WILL RESULT IN SHOTCRETE IN PLACE MEETING THE REQUIREMENTS OF THIS SPECIFICATION. DETERMINE OPERATING PROCEDURES FOR PLACEMENT IN, EXTENDED DISTANCES, AND AROUND ANY OBSTRUCTIONS WHERE PLACEMENT VELOCITIES AND MIX CONSISTENCY MUST BE ADJUSTED.

B. PLACEMENT TECHNIQUES:

B.A. CONTROL THICKNESS, METHOD OF SUPPORT, AIR PRESSURE, AND/OR WATER CONTENT OF SHOTCRETE TO PRECLUDE SAGGING OR SLOUGHING OFF. DISCONTINUE SHOTCRETING OR PROVIDE SUITABLE MEANS TO SCREEN THE NOZZLE STREAM IF WIND OR AIR CURRENTS CAUSE SEPARATION OF THE NOZZLE STREAM DURING PLACEMENT.

B.B. HOLD NOZZLE AS PERPENDICULAR TO SURFACE AS WORK WILL PERMIT, TO SECURE MAXIMUM COMPACTION WITH MINIMUM REBOUND.

B.C. IN SHOTCRETING WALLS, BEGIN APPLICATION AT BOTTOM. ENSURE WORK DOES NOT SAG.

B.D. LAYERING:

B.D.A. BUILD UP LAYERS BY MAKING SEVERAL PASSES OF NOZZLE OVER WORK AREA.

B.D.B. MAKE SURE SURFACE IS ADEQUATELY ROUGH TO WHICH, AFTER HARDENING, ADDITIONAL LAYERS OF SHOTCRETE ARE TO BE BONDED.

B.D.C. DAMPEN SURFACE (ACHIEVE SATURATED SURFACE DRY (SSD) CONDITION) JUST PRIOR TO APPLICATION OF SUCCEEDING LAYERS.

B.D.D. ALLOW EACH LAYER OF SHOTCRETE TO TAKE INITIAL SET BEFORE APPLYING SUCCEEDING LAYERS.

B.D.E. USE RADIAL TEMPLATES TO INSURE EXACT RADII FROM FLAT BOTTOM OF BOWL/PIPE TO FACE OF COPING. TEMPLATE SHALL BE FABRICATED FROM STEEL OR 3/4" MINIMUM PLYWOOD. CHECK EVERY HORIZONTAL FOOT WHEN APPLYING SHOTCRETE FOR CONFORMANCE OF INTENDED WALL RADII. BRACE TEMPLATE AND PLACE LEVELS AT ARC TO TANGENT CONNECTIONS TO INSURE NO KINKS WILL BE FORMED. KINKS AT THE BOTTOM OF BOWLS WILL NOT BE ACCEPTABLE. SLUMPING OF THE SHOTCRETE CAUSING COPING SETBACK WILL NOT BE ACCEPTABLE.

B.D.F. REMOVE ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE FROM SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY SUCCEEDING LAYERS OF SHOTCRETE. REBOUND SHALL NOT BE USED AS AGGREGATE.

B.E. PLACEMENT AROUND REINFORCEMENT:

B.E.A. HOLD THE NOZZLE AT SUCH DISTANCE AND ANGLE TO PLACE MATERIALS BEHIND REINFORCEMENT BEFORE ANY MATERIAL IS ALLOWED TO ACCUMULATE ON ITS FACE.

B.F. ACCESS: ALLOW EASY ACCESS TO SHOTCRETE SURFACES FOR SCREEDING AND FINISHING, PERMITTING UNINTERRUPTED APPLICATION.

3.14 REMOVAL OF SURFACE DEFECTS IN CONCRETE

A. GENERAL: REMOVE AND REPLACE SHOTCRETE WHICH LACKS UNIFORMITY, EXHIBITS SEGREGATION, HONEYCOMBING, OR LAMINATION, OR WHICH CONTAINS ANY DRY PATCHES, SLUGS, VOIDS OR POCKETS. REMOVE DEFECTIVE AREAS.

3.15 SHOTCRETE FINISH

A. FINISH: ALL EXPOSED SHOTCRETE SURFACES ARE TO BE HARD STEEL TROWEL FINISH UNLESS OTHERWISE NOTED. TROWEL UNTIL ALL VISIBLE POURS ARE CLOSED. CEASE TROWEL BEFORE GLASS FORMS ON SURFACE. DO NOT BROOM FINISH AND DO NOT BURN SURFACE.

B. GRINDING THE SURFACES WILL NOT BE AN ACCEPTABLE MEANS OF ACHIEVING THE INTENDED RADII/ANGLE.

C. COLOR: ALL SHOTCRETE SURFACES ARE TO BE NATURAL GRAY COLOR UNLESS OTHERWISE NOTED. MINOR VARIATIONS IN APPEARANCE OF COLORED CONCRETE, WHICH ARE SIMILAR TO NATURAL VARIATIONS IN COLOR AND APPEARANCE OF UNCOLORED CONCRETE, ARE ACCEPTABLE. DO NOT BROOM FINISH AND DO NOT TROWEL BURN SURFACE.

D. DURING THE CURING PERIOD, CONCRETE SHALL BE MAINTAINED AT A TEMPERATURE ABOVE 40 DEGREES FAHRENHEIT AND IN MOIST CONDITION. FOR INITIAL CURING, CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER PLACEMENT IS COMPLETE. FINAL CURING SHALL CONTINUE FOR SEVEN DAYS AFTER PLACEMENT. COVER CONCRETE WITH POLYETHYLENE PLASTIC TO MAINTAIN TEMPERATURE IF NECESSARY. LAP SEAMS IN THE PLASTIC 6" AND WEIGH DOWN.

E. THE CONTRACTOR SHALL FIX ALL CRACKS AND DISPLACEMENTS LARGER THAN 3/16" UP TO THE PROJECT COMPLETION.

3.16 CONCRETE PROTECTION AND CURING

1. NERAL: PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. COMPLY WITH ACI 306.1 FOR COLD-WEATHER PROTECTION AND FOLLOW RECOMMENDATIONS IN ACI 305R FORHOT-WEATHER PROTECTION DURING CURING. KEEP MOIST FOR NECESSARY AMOUNT OF TIME TO REACH CONCRETE STRENGTH AND INHIBIT MOISTURE LOSS AFTER PLACING.
2. EVAPORATION RETARDANT: WATERBORNE, MONOMOLECULAR FILM FORMING, MANUFACTURED FOR APPLICATION TO FRESH CONCRETE, SUCH AS EUCOBAR EVAPORATION RETARDANT BY THE EUCLID CHEMICAL COMPANY. APPLY EVAPORATION RETARDANT TO CONCRETE SURFACES IF HOT, DRY, OR WINDY CONDITIONS CAUSE MOISTURE LOSS BEFORE AND DURINGFINISHING OPERATIONS. APPLY TO EXPOSED SURFACE OF CONCRETE ACCORDING TO MANUFACTURERS WRITTEN INSTRUCTIONS AS NECESSARY.
3. BEGIN CURING AFTER FINISHING CONCRETE, BUT NOT BEFORE FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE.
4. CURING METHODS: CURE CONCRETE BY CURING COMPOUND, MOISTURE CURING, MOISTURE-RETAINING-COVER CURING, OR A COMBINATION OF THESE AS FOLLOWS:

A. CURING COMPOUND: MEET REQUIREMENTS OF MANUFACTURER'S CURRENT PRINTED APPLICATION INSTRUCTIONS AND COVERAGE RATE CHART. FOR HORIZONTAL APPLICATIONS, IMMEDIATELY APPLY AFTER ALL SURFACE WATER HAS DISAPPEARED AND THE CONCRETE SURFACE IS HARD ENOUGH TO WALK ON. FOR VERTICAL APPLICATIONS, APPLY IMMEDIATELY AFTER REMOVING THE CONCRETE FORMS. APPLY IN A UNIFORM AND CONTINUOUS MANNER. AVOID OVER-APPLICATION OR PUDDLING OF CURING COMPOUND. PROTECT SURFACE FROM WATER, ADJACENT SHOTCRETE WORK, AND DEBRIS.

B. MOISTURE CURING: KEEP SURFACES CONTINUOUSLY MOIST FOR NOT LESS THAN SEVEN DAYS WITH THE FOLLOWING MATERIALS:

B.A. WATER.

B.B. CONTINUOUS WATER-FOG SPRAY.

B.C. ABSORPTIVE COVER, WATER SATURATED, AND KEPT CONTINUOUSLY WET. COVER CONCRETE SURFACES AND EDGES, OVERLAP SEAMS MIN. 6" BETWEEN ADJACENT ABSORPTIVE COVERS.

C. MOISTURE-RETAINING-COVER CURING:

C.A. COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER FOR CURING CONCRETE, PLACED IN WIDEST PRACTICABLE WIDTH, WITH SIDES AND ENDS LAPPED AT LEAST 6 INCHES.

3.17 CURING MATERIALS

1. ABSORPTIVE COVER:

   AASHTO M 182, CLASS 2, BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING APPROXIMATELY 9OZ./SQ. YD. DRY.
2. MOISTURE-RETAINING COVER:

   ASTM C 171, POLYETHYLENE FILM OR WHITE BURLAP-POLYETHYLENE SHEET (BUR LENE).
3. WATER: POTABLE.
4. CURING COMPOUND: ASTM C-309, CLEAR, WATER-BASED, NO VOLATILE, NON-STAINING, MEMBRANE-FORMING, COMPATIBLE WITH SUBSEQUENT CONCRETE TREATMENTS. ACCEPTABLE PRODUCT: W.R. MEADOWS 1100-CLEAR, OR APPROVED EQUAL.

3.18 CONCRETE JOINTS

A. CLEANING: THE ENTIRE JOINT SHALL BE THOROUGHLY CLEANED AND WETTED PRIOR TO THE APPLICATION OF ADDITIONAL SHOTCRETE.

B. REINFORCEMENT: MAKE JOINTS PERPENDICULAR TO THE MAIN REINFORCEMENT. CONTINUE REINFORCEMENT ACROSS JOINTS.

3.19 CRACKING

A. SAW CUT CONTROL JOINTS AND CONSTRUCTION JOINTS MAY BE SHOWN IN THE CONSTRUCTION DRAWINGS FOR DIAGRAMMATIC PURPOSES ONLY. THE CONTRACTOR MAY, WITH APPROVAL OF THE SKATEPARK DESIGNER, RECOMMEND AND DETAIL ADDITIONAL JOINTS TO HELP PREVENT CRACKING.

B. THE CONTRACTOR SHALL FIX ALL CRACKS AND DISPLACEMENTS LARGER THAN 3/16" UP TO PROJECT COMPLETION.

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CONSULTANT:
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PROJECT TEAM:
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ELECTRICAL ENGINEER
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ISE
SKATEPARK DESIGNER
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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

SPECIFICATIONS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
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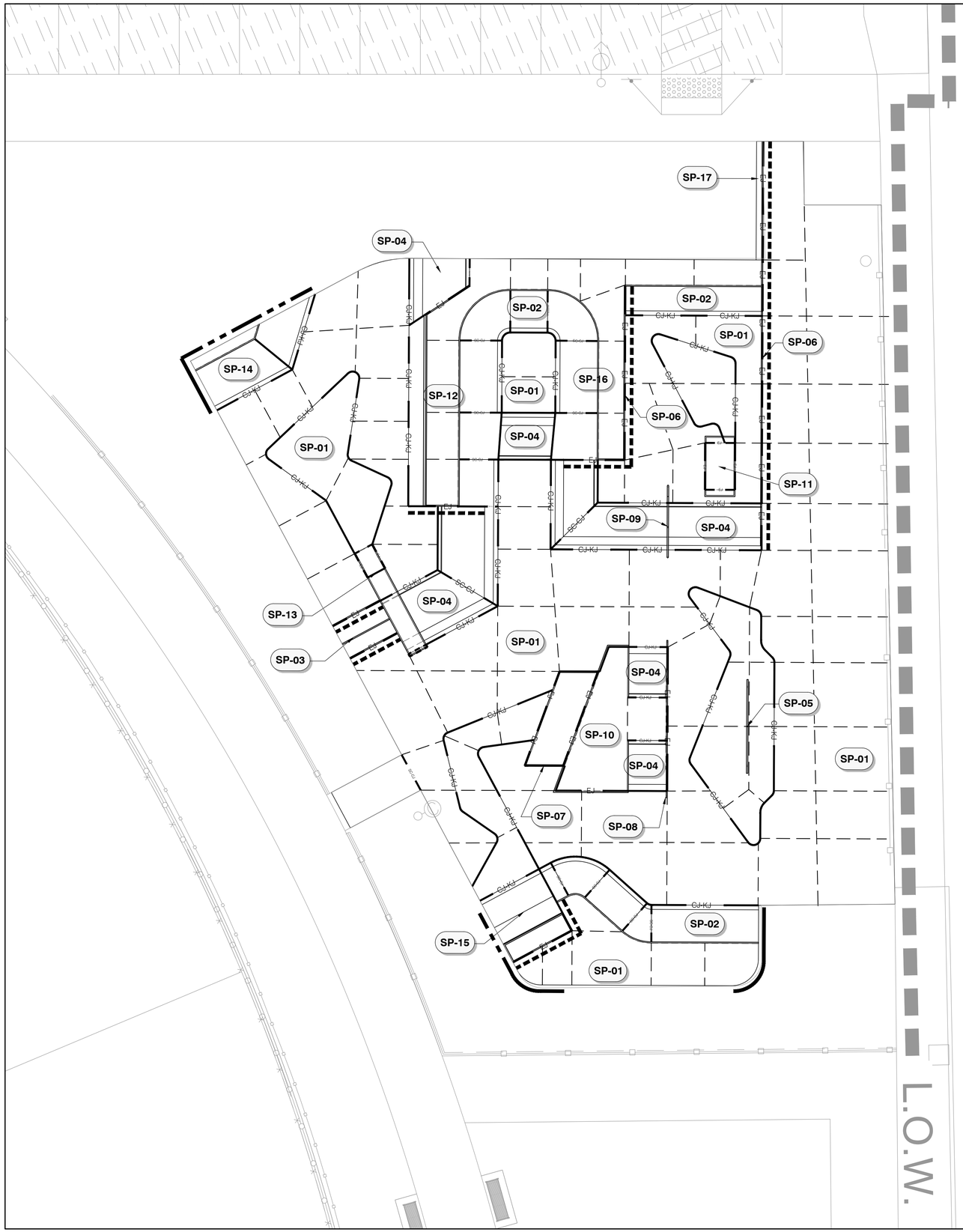
SHEET

SK2.1

SHEET 59 OF 85 SHEETS



SKATEPARK SCHEDULE

SYMBOL	DESCRIPTION	DETAIL	SECTION
SP-01	4" THICK CONCRETE FLATWORK		
SP-02	QUARTERPIPE	1/SK9.1	H, V
SP-03	STAIRS	5/SK9.2	B
SP-04	RADIUS WEDGE	2/SK9.1	C, G, I, L, R
SP-05	FLAT GRIND RAIL	3/SK9.2	T
SP-06	GRIND LEDGE	6/SK9.2	P
SP-07	MANUAL PAD	6/SK9.2	O, P, Q
SP-08	FLAT GRIND OUT RAIL	4/SK9.2	S
SP-09	RAKED GRIND RAIL	2/SK9.2	N
SP-10	CANTILEVERED GRIND LEDGE	8/SK9.1	Q
SP-11	PANNED MANUAL PAD	1/SK9.2	M
SP-12	QUARTERPIPE EXTENSION WITH SLAPPY	6/SK9.1	E
SP-13	PANNED RADIUS GRIND LAUNCH	7/SK9.1	D
SP-14	VERT WALL	5/SK9.1	A
SP-15	RADIUS WEDGE EXTENSION	3/SK9.1	U
SP-16	QUARTERPIPE EXTENSION	4/SK9.1	J
SP-17	RAKED RETAINING WALL		

JOINTING SCHEDULE

EJ — EJ — EJ
CJ-KJ — CJ-KJ
SC-CJ — SC-CJ

SYMBOL	DESCRIPTION	QTY	DETAIL
H-01	EXPANSION JOINT	278 LF	6/SK9.0
H-02	COLD JOINT OR KEY JOINT	630 LF	7/SK9.0
H-03	SAWCUT JOINT	906 LF	8/SK9.0
H-04	TURNDOWN EDGE AT FINISH SURFACE	129 LF	4/SK9.0
H-05	TURNDOWN EDGE AT FINISH GRADE	66 LF	5/SK9.0
H-06	SC OR CJ - FIELD DETERMINED	108 LF	

**JOINT PLAN HAS BEEN DEVELOPED TO PROVIDE GUIDANCE TO THE CONTRACTOR FOR THE USE OF SAW CUTS, COLD & EXPANSION JOINTS. ACTUAL FIELD VARIANCES WILL TAKE PRECEDENCE OVER THIS GUIDE. CONTRACTOR SHALL CUT SLAB AS NEEDED TO MINIMIZE CRACKING.

ALIGN SAW CUTS WITH EXPANSION AND COLD JOINTS AND START FROM CORNERS WHERE POSSIBLE TO PREVENT EXCESS CRACKING. SAW CUTS SHALL BE NO MORE THAN 10' X 12' AND/OR NOT TO EXCEED 120 SQUARE FEET AND A 2:1 MAX. RATIO BETWEEN SAW CUTS AND COLD OR EXPANSION JOINTS.

ALL SAW CUTS TO BE FILLED WITH SELF-LEVELING POLYURETHANE SEALANT AND TOOLED FLAT. MASK ALL SAW CUT/CONSTRUCTION JOINT EDGES TO PROTECT SURROUNDING CONCRETE FROM EXCESS SEALANT. EXPANSION JOINTS TO BE FILLED WITH POLYURETHANE BASED NON- SAGGING ELASTOMERIC SEALANT AND TOOLED FLAT. COLOR OF CAULK SHOULD RESEMBLE COLOR OF CONCRETE (ALUMINUM GRAY OR SIMILAR)

** PROVIDE ⅛" TOOLED EDGES TO JOINTS - SEE TYPICAL DETAILS & CONSTRUCTION SPECIFICATIONS FOR JOINT INFORMATION & INSTALLATION

NOTES:

1. SEE SHEET SK4.0 FOR COLOR PLAN.
2. THE SLAB CONFIGURATION, NOTES, LOCATION OF EXPANSION JOINTS, COLD JOINTS, SAW CUTS, DETAIL REFERENCES, AND APPLICABLE DETAILS HAVE BEEN INCLUDED FOR CLARITY. JOINTS AND DETAILS SHOWN ARE FOR THE SKATEPARK ONLY. REFER TO THE LANDSCAPE PLANS FOR SCOPES BEYOND THE SKATEPARK.
3. SUGGESTED ORDER OF CONSTRUCTION FOR CONCRETE ELEMENTS WITHIN THE SKATEPARK FOOTPRINT:
   A. SUBSURFACE DRAINAGE
   B. SUBGRADE PREP - GRADE, MOISTURE CONDITION, AND COMPACT SKATEPARK FOOTPRINT TO +/- .1' OF SPECIFIED SUBGRADE ELEVATIONS.
   C. FINE GRADING
   D. LEDGES AND MANUAL PADS
   E. BANKS AND TRANSITIONS
   F. GRIND RAIL FOOTING INSTALLATION
   G. FLOOR SLAB/FLATWORK
4. ALL EXPOSED CONCRETE AND SHOTCRETE SURFACES TO BE NATURAL GRAY IN COLOR WITH HARD STEEL TROWEL FINISH UNLESS OTHERWISE SPECIFIED.

0 4' 8' 16'
Scale: 1/8" = 1'-0"

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OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

INFORMATION PLAN

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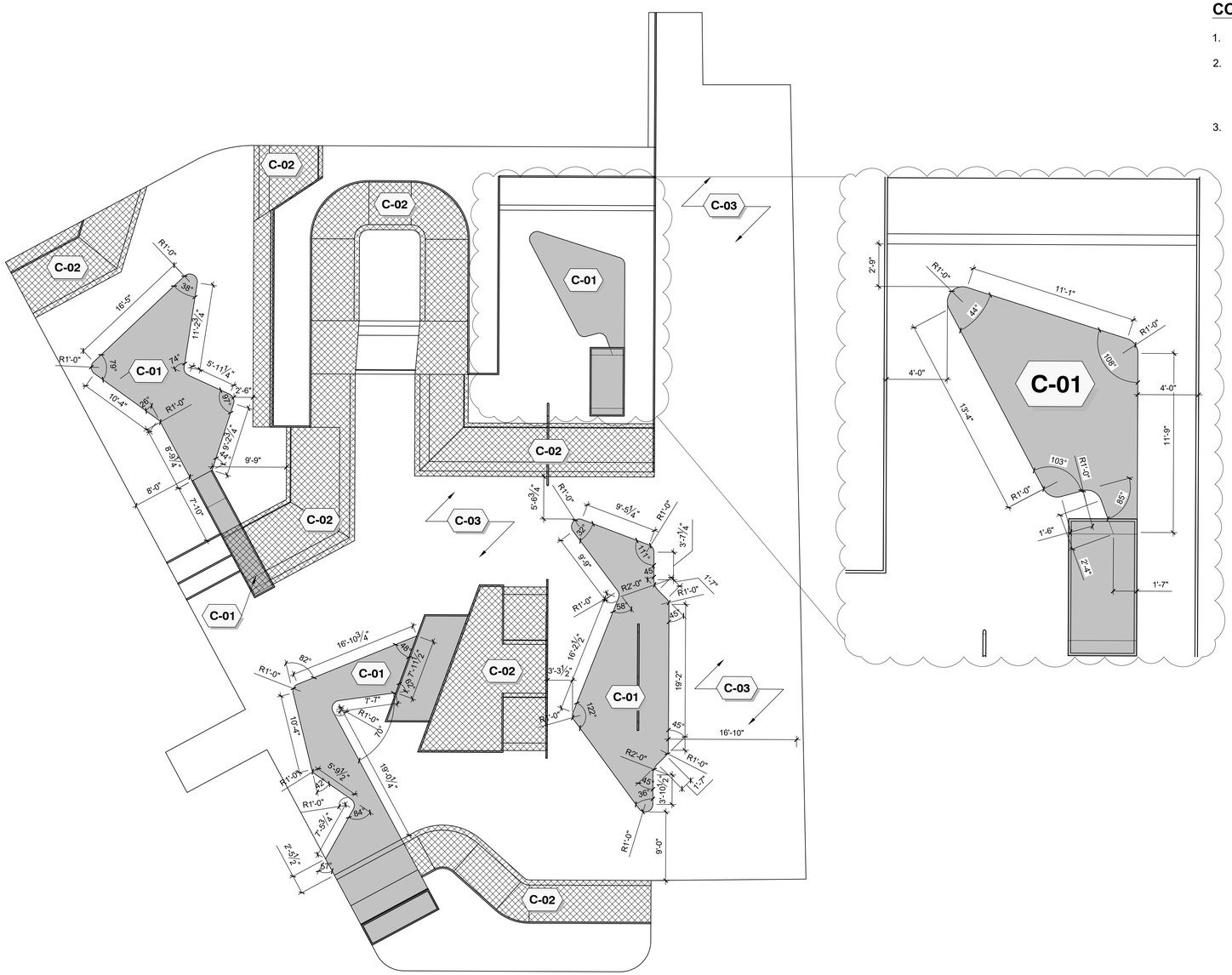
SHEET
SK3.0
SHEET 60 OF 85 SHEETS

COLOR SCHEDULE

SYMBOL	COLOR DESCRIPTION	QTY
C-01	COLORED CAST-IN-PLACE CONCRETE TO BE `LETS ROLL CHARCOAL` BY EA PIGMENTS OR APPROVED EQUAL	1,104 SF
C-02	COLORED CAST-IN-PLACE CONCRETE TO BE `PALOMINO` BY EA PIGMENTS OR APPROVED EQUAL	1,624 SF
C-03	ALL OTHER CAST-IN-PLACE CONCRETE TO BE NATURAL GRAY	

COLOR NOTES:

1. CONCRETE COLOR AVAILABLE FROM EA PIGMENTS 1-888-222-7501 OR APPROVED EQUAL.
2. FINISH: ALL EXPOSED CONCRETE SURFACES ARE TO BE HARD STEEL TROWEL FINISH UNLESS OTHERWISE NOTED. TROWEL UNTIL ALL VISIBLE PORES ARE CLOSED. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT BROOM FINISH AND DO NOT TROWEL BURN SURFACE.
3. REFER TO STEEL PLAN ON SHEET SK7.0 FOR STEEL FINISH.



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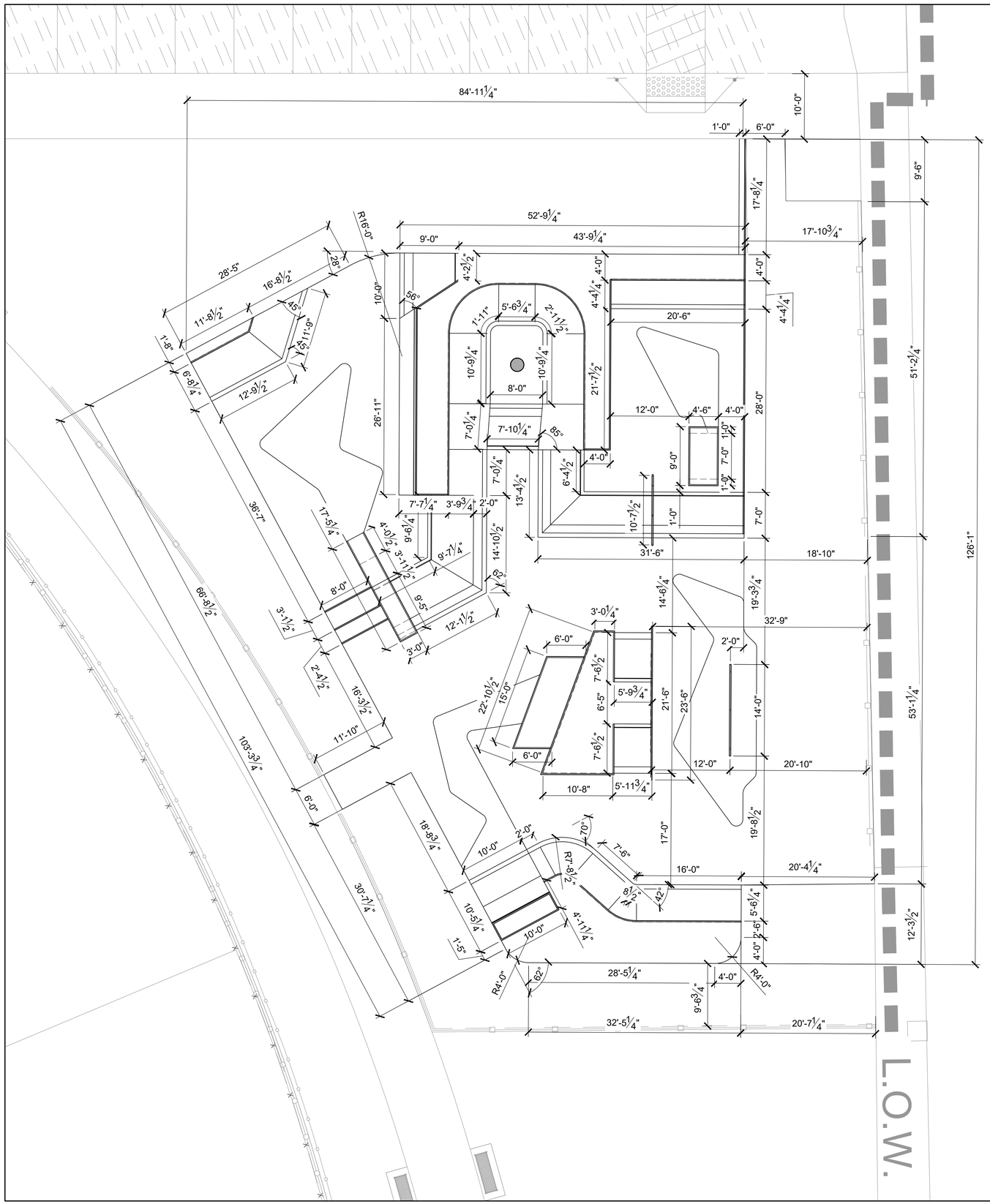

CONSTRUCTION NOTES:

1. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO ALL APPLICABLE GOVERNING CODES AND ORDINANCES.
2. ALL FORMS AND ALIGNMENTS OF PAVING, LAYOUT, AND SPECIAL PAVING AREAS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING (GIVE A MINIMUM OF 24 HOURS NOTICE)
3. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PUBLIC IMPROVEMENTS, INCLUDING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN-KIND ALL PUBLIC IMPROVEMENTS DAMAGED, BROKEN, OR REMOVED DURING CONSTRUCTION
4. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS (UNLESS OTHERWISE NOTED).
5. ALL REBAR CROSSINGS TO BE TIED.
6. ALL CONSTRUCTION TO BE PLUMB AND TRUE, UNLESS OTHERWISE NOTED OR INDICATED.
7. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE SKATE PARK DESIGNER, OWNER/BUILDER OR OWNER'S REPRESENTATIVE.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS AND FOR SAFETY CONDITIONS AT THE WORK SITE.
9. ALL BRACING, TEMPORARY SUPPORTS, SHORING, ETC.. ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. OBSERVATION VISITS TO THE JOB SITE BY THE SKATE PARK DESIGNER OR OWNER, DO NOT INCLUDE INSPECTION OF CONSTRUCTION PROCEDURES. THE VISIT SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
11. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED SIMILAR TO THE DETAILS FOR THE RESPECTIVE MATERIALS.
12. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED CONSTRUCTION PRODUCT. THESE DOCUMENTS, ALTHOUGH PREPARED WITH CARE AND DILIGENCE, MAY CONTAIN ERRORS, OMISSIONS, CONTRADICTIONS, ETC. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS THOROUGHLY AND SHALL NOTIFY THE SKATE PARK DESIGNER IMMEDIATELY UPON ANY SUCH DISCOVERY OR DISCREPANCY. GOVERNING CODES SHALL THEN APPLY.
13. ALL SCALE DIMENSIONS ARE APPROXIMATE. WRITTEN DIMENSIONS AND DETAILS TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SITE DIMENSIONS PRIOR TO PROCEEDING WITH WORK AND CLARIFY WITH SKATE PARK DESIGNER, OWNER IF NECESSARY.
14. DESIGN, MATERIAL, EQUIPMENT AND PRODUCTS OTHER THAN THOSE DESCRIBED OR INDICATED ON DRAWINGS MAY BE CONSIDERED FOR USE. APPROVAL FOR SUBSTITUTIONS SHALL BE OBTAINED FROM THE SKATE PARK DESIGNER.
15. SHOP DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE CLARIFICATION OF DESIGN CONCEPT DETAILS & SUBSTITUTIONS.
16. DURING WORK AND THROUGH ITS COMPLETION, THE CONTRACTOR SHALL KEEP THE SITE CLEAN TO THE SATISFACTION OF THE OWNER.
17. FINAL MATERIAL, FINISHES AND COLOR SHALL BE APPROVED BY OWNER AND SKATE PARK DESIGNER PRIOR TO INSTALLATION.
18. CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS.
19. REFER TO SPECIFICATIONS FOR ANY ADDITIONAL INFORMATION.

**ALL COLD JOINTS AT THE BOTTOM OF ALL RADIUS TRANSITIONS & RADIUS BANKS SHALL BE LOCATED 8" MAX. FROM THE POINT OF TANGENCY. SEE TYPICAL DETAILS FOR CLARIFICATION.

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

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93247

SHEET TITLE

LAYOUT PLAN

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
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SK5.0

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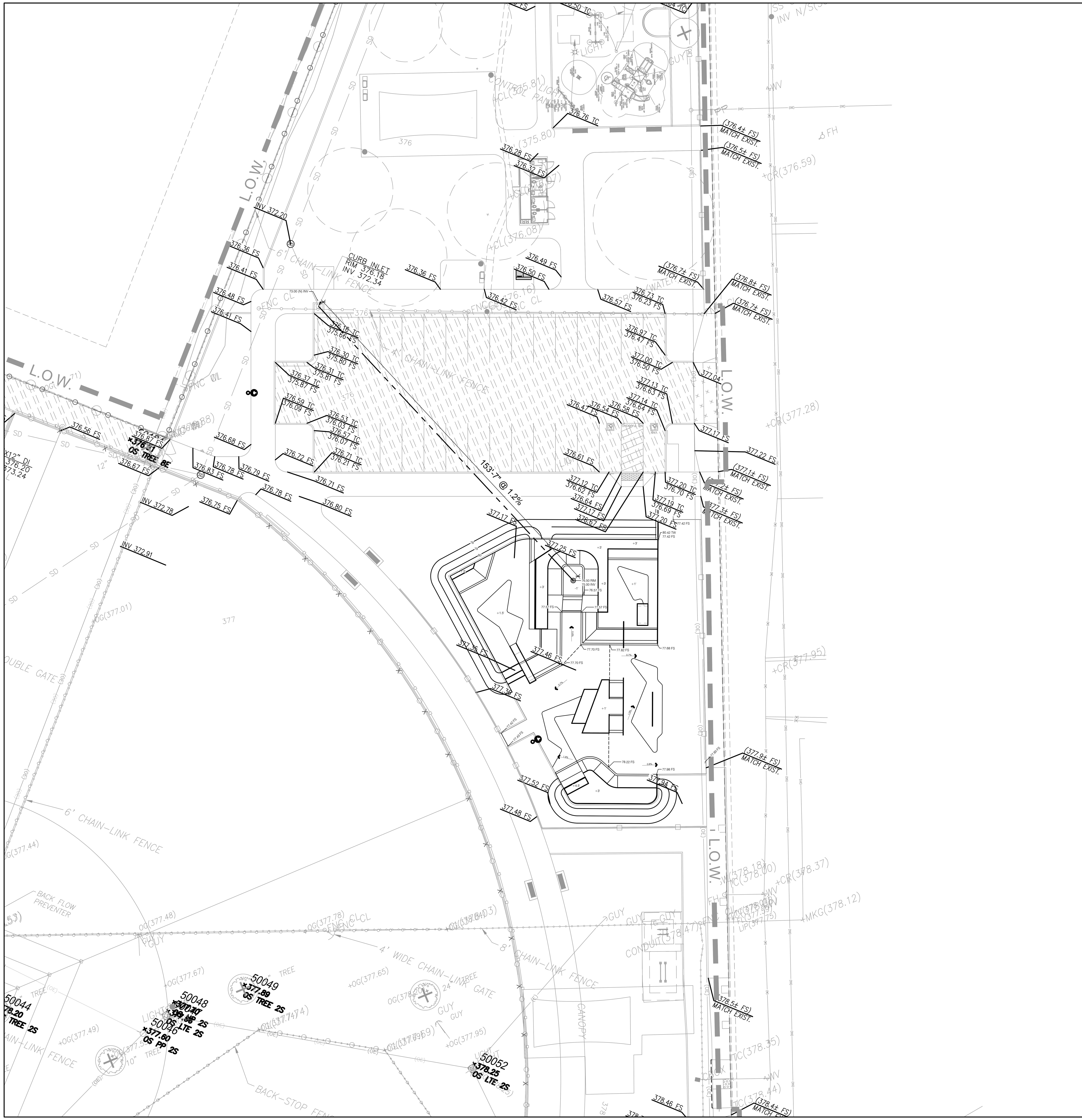

GRADING NOTES

1. ALL GRADING SHALL BE IN ACCORDANCE WITH THE LOCAL GRADING CODE AND ANY SPECIAL REQUIREMENTS OF THE GRADING PERMIT.
2. CONTRACTOR TO VERIFY GRADES AND NOTIFY OWNER'S CONSTRUCTION ADMINISTRATOR PRIOR TO START OF GRADING WORK.
3. SLOPES SHALL BE NO STEEPER THAN 3' HORIZONTAL TO 1' VERTICAL (3:1) AND SHALL HAVE NOT LESS THAN 90% COMPACTION OUT TO THEIR FINISH SURFACES.
4. ALL PAVED AREAS SHALL SLOPE AS SHOWN ON PLANS WITH A 2% MAXIMUM FALL. PLANTED AREAS SHALL HAVE A MINIMUM 2% FALL.
5. FINISH GRADE SHALL HAVE A UNIFORM SURFACE, FREE OF LUMPS, BUMPS AND DEPRESSIONS AND ANY OBJECTS THAT MAY PREVENT A POSITIVE FLOW TO DRAIN.
6. ALL PROPOSED PAVING SURFACES SHALL MEET EXISTING PAVING SURFACES WITH SMOOTH AND CONTINUOUS TRANSITIONS AND FLUSH ALONG ENTIRE EDGE.
7. CONCRETE WALKS TO HAVE A MAXIMUM CROSS SLOPE OF 2% AND SHALL MEET ALL CITY AND COUNTY REQUIREMENTS.
8. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS, EXISTING DRAINAGE STRUCTURES, PARKING LOT IMPROVEMENTS, AND FINISH FLOOR ELEVATIONS. NOTIFY THE OWNER'S CONSTRUCTION ADMINISTRATOR IMMEDIATELY UPON NOTING ANY DISCREPANCIES.
9. FINISH GRADE AT TURF AREAS SHALL BE ONE INCH BELOW FINISH SURFACE OF SIDEWALKS, CURBS OR PAVED AREAS. PLANTING AREA FINISH GRADE SHALL BE 2" BELOW SAME UNLESS OTHERWISE SPECIFIED.
10. ALL CONSTRUCTION AREAS SHALL BE FREE OF ROCK, DEBRIS, ETC. ALL EXISTING WEEDS SHALL BE REMOVED.

GRADING LEGEND:

EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED GRADE BREAK
XXX.XX FS — PROPOSED ELEVATIONS
PROPOSED FLOW DIRECTION
PROPOSED 4" SDR 35 DRAIN LINE
PROPOSED AREA DRAIN SEE **1/SK9.0**

BS	BOTTOM OF STEP
FG	FINISH GRADE
FS	FINISH SURFACE
HP	HIGH POINT
INV	INVERT ELEVATION (MAY CHANGE IN FIELD)
PA	PLANTING AREA
TD	TOP OF DRAIN
TL	TOP OF LEDGE
TP	TOP OF PAD
TR	TOP OF RAIL
TS	TOP OF STEP

(XXX.X) EXISTING ELEVATION (VERIFY IN FIELD)

**SLOPE AREAS TO BE BLENDED IN FIELD

0 10' 20' 40'
Scale: 1" = 20'-0"

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UNDERGROUND DRAINAGE PLAN

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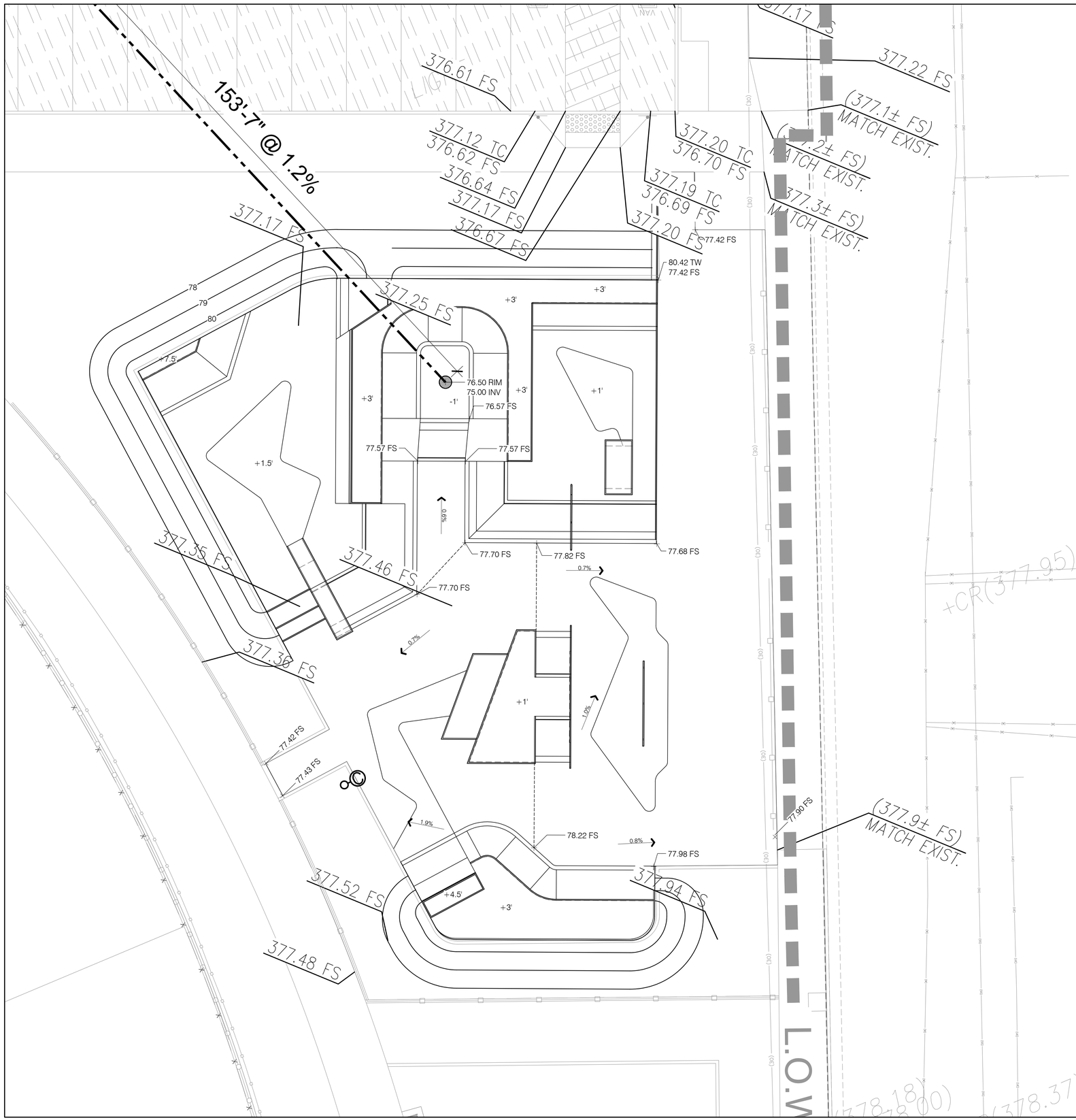

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GRADING LEGEND:

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED GRADE BREAK
- XXX.XX FS — PROPOSED ELEVATIONS
- PROPOSED FLOW DIRECTION
- PROPOSED 4" SDR 35 DRAIN LINE
- PROPOSED AREA DRAIN SEE **1/SK9.0**

BS	BOTTOM OF STEP
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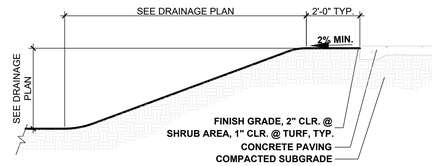
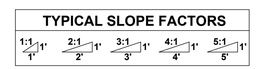


NOTES

1. **TYPICAL SLOPE DETAIL FOR INFORMATIONAL PURPOSES ONLY. ALL SLOPE GRADING AND DRAINAGE SHALL CONFORM TO APPROVED GRADING PLAN.**

TYPICAL SLOPE FACTORS



1 TYPICAL SLOPE DETAIL

3/4" = 1'-0" P-PIP-LINDSAY-15

0 4' 8' 16'
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GRADING + DRAINAGE PLAN

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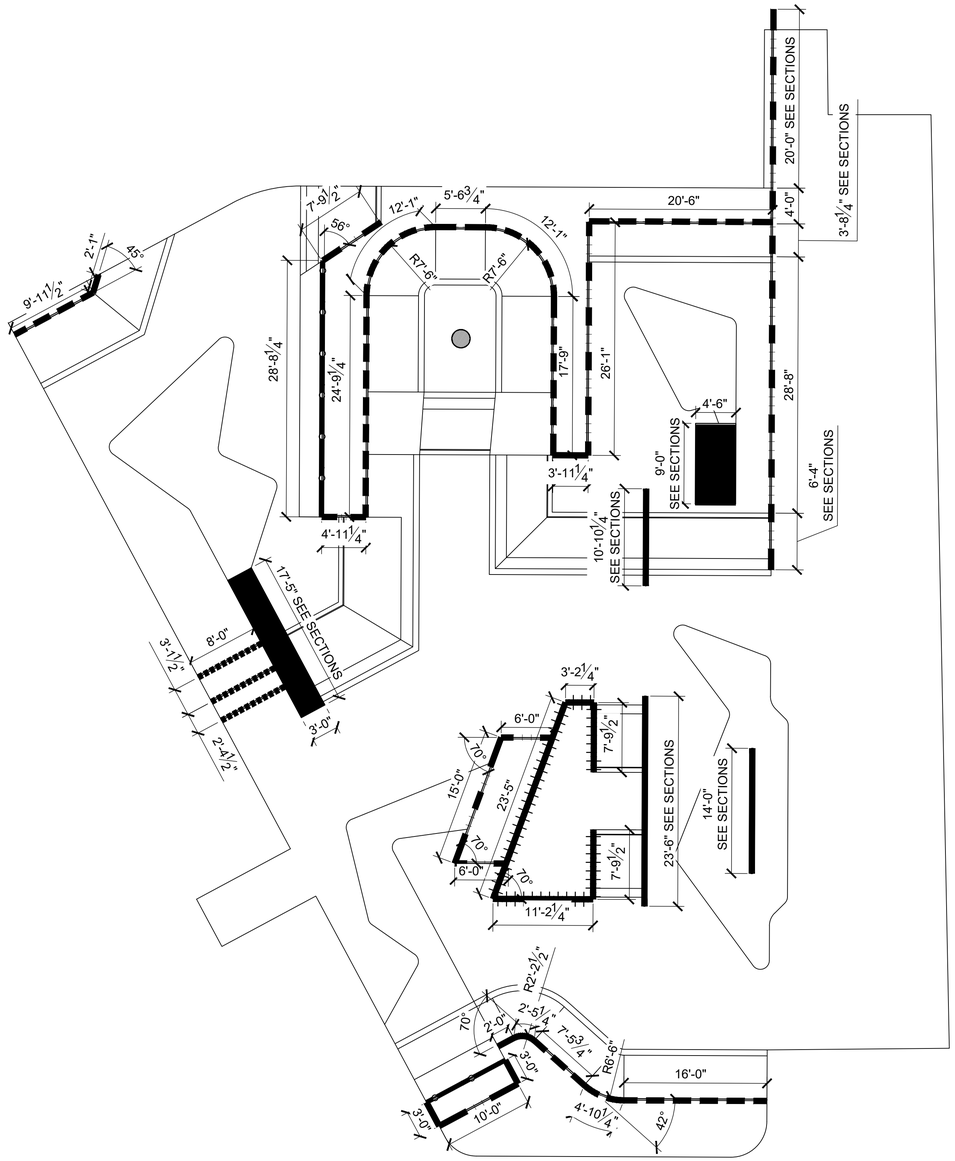


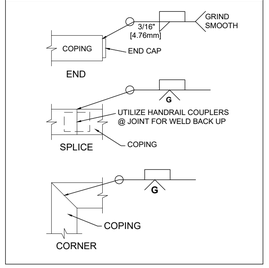
STEEL SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL	FINISH
S-01	2-3/8" SCH. 40 STEEL COPING	138 LF	12/SK10.0	HOT DIPPED GALVANIZED
S-02	1.5 X 2 X 3/16" THICK STEEL EDGING	149 LF	9/SK10.0	POWDER COAT RAL #6018
S-03	2" STEEL STRAP	39 LF	10/SK10.0	POWDER COAT RAL #6018
S-04	6 X 2 X 3/16" THICK STEEL STAIR RISER	24 LF	13/SK10.0	POWDER COAT RAL #6018
S-05	2 X 5 X 3 X .125" THICK CANTILEVER STEEL EDGING	53 LF	11/SK10.0	POWDER COAT RAL #6018
S-06	GRIND RAIL	48 LF		POWDER COAT RAL #6018
S-07	STEEL PANNED ELEMENT	26 LF		POWDER COAT RAL #6018

NOTES :

1. STEEL FINISH TO BE HOT DIPPED GALVANIZED OR POWDER COATED RAL #6018 (YELLOW GREEN) AS INDICATED IN LEGEND FINISH.
2. FINISH MUST OCCUR AFTER ALL WELDING IS COMPLETE.
3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
4. ALL WELDS TO BE ALL AROUND.
5. GRIND ALL WELDS SMOOTH BEFORE FINISHING.
6. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
7. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
8. POWDER COATING REPAIR - USE AN APPROPRIATELY COLOR MATCHED POWDER COAT TOUCH-UP SPRAY PAINT ON WELDED OR DAMAGED POWDER COATED SURFACES.
9. HOT DIPPED GALVANIZE REPAIR - FIELD WELDS SHALL BE GROUND SMOOTH AND TREATED WITH COLD GALVANIZING SPRAY.
10. SEE SHEET SK2.0 FOR SKATEPARK STEEL SPECIFICATIONS.

COPING / RAIL JOINT WELDS



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93247

SHEET TITLE

STEEL PLAN

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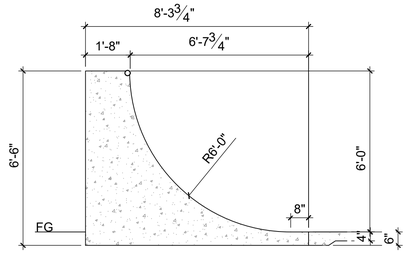
ZM, DM	05500.00

SHEET

SK7.0

SHEET 65 OF 85 SHEETS



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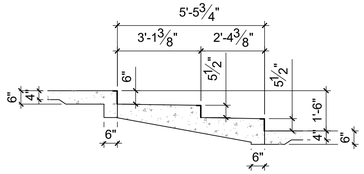

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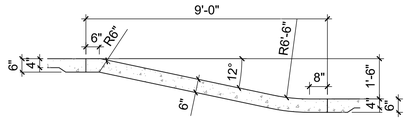

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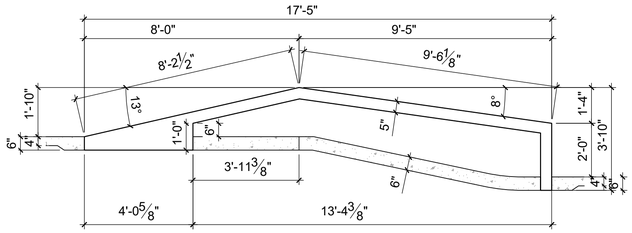

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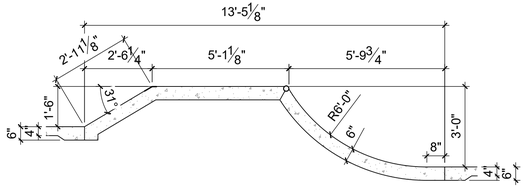

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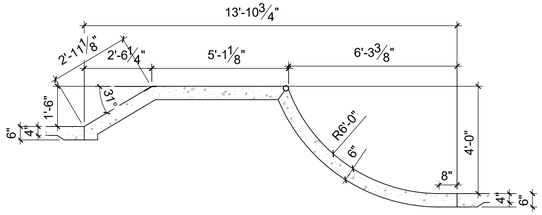

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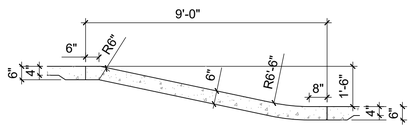

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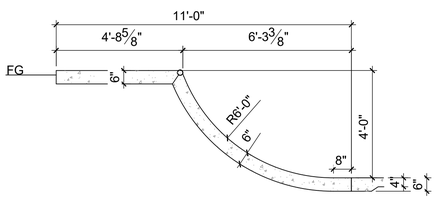

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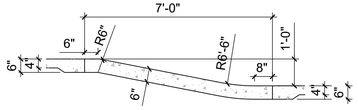
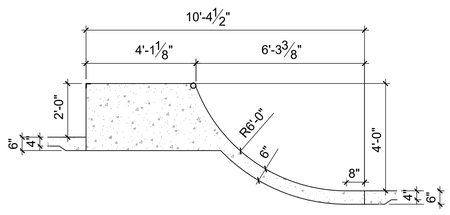


SECTION I



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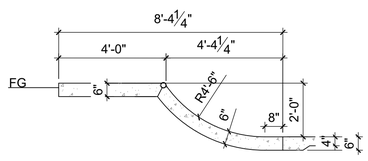

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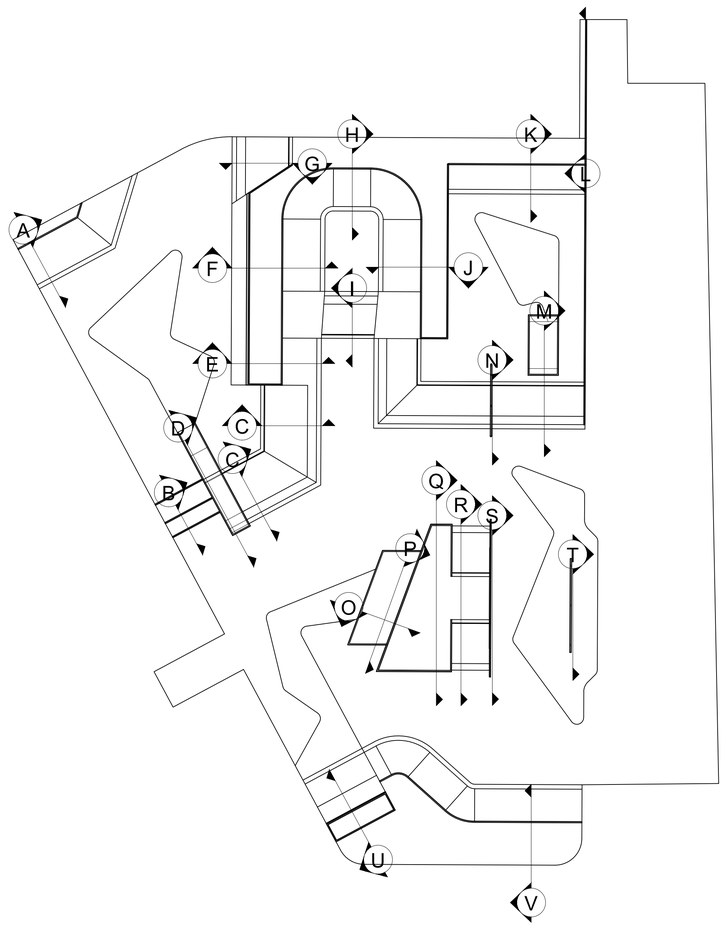

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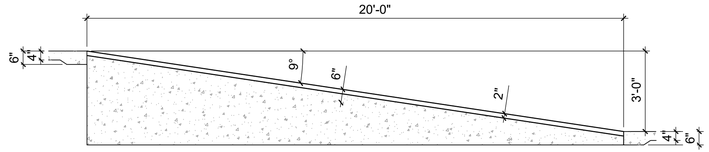
SHEET

SK8.0

SHEET 66 OF 85 SHEETS



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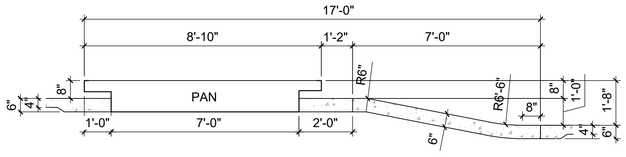

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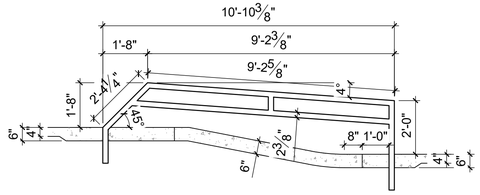

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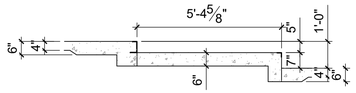

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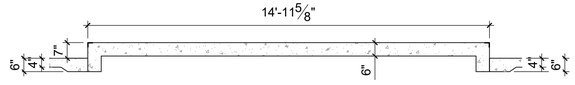

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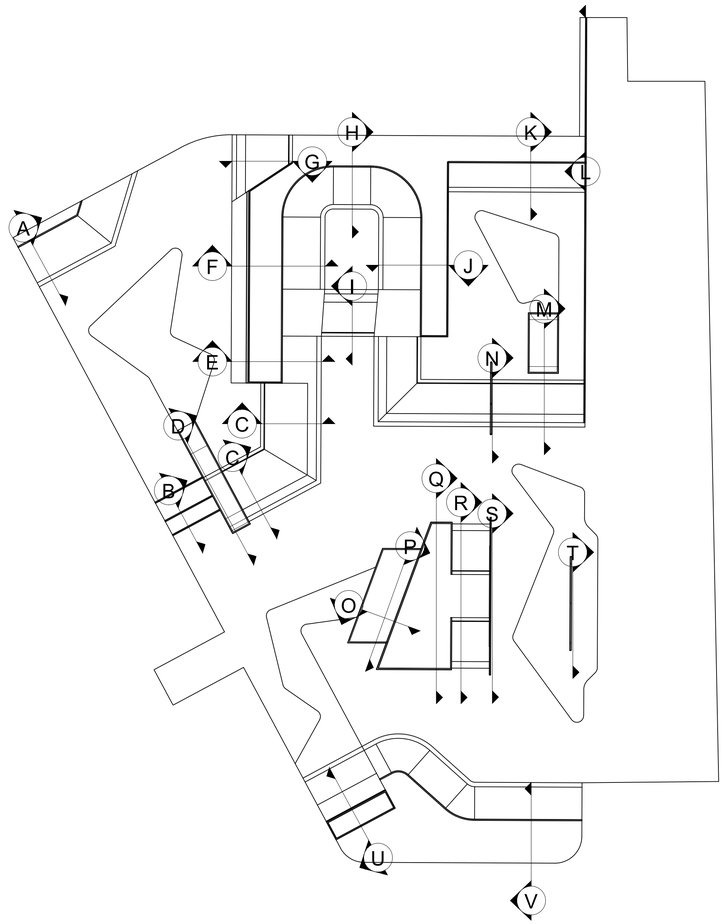

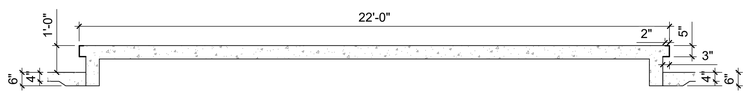

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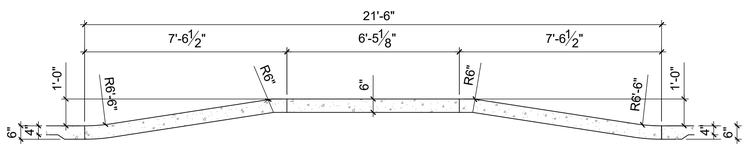

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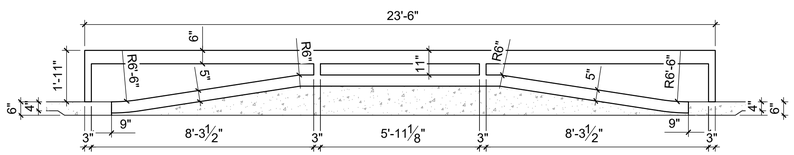

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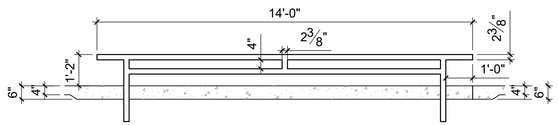

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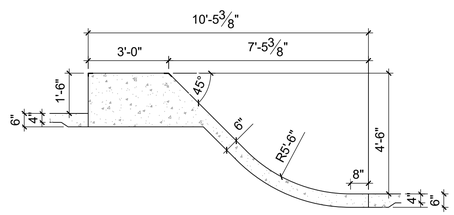

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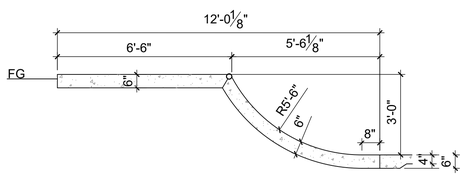

SECTION V

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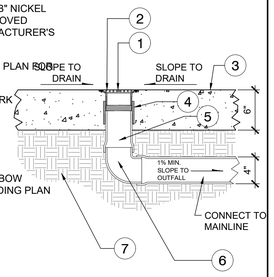
SHEET

SK8.1

SHEET 67 OF 85 SHEETS

1. ZURN FD2210-PV4-NT ADJUSTABLE FLOOR DRAIN WITH 5" "TYPE B" NICKEL BRONZE STRAINER, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. TOP OF DRAIN. SEE GRADING PLAN FOR ELEVATION
3. 4000 PSI CONCRETE FLATWORK
4. 4" ADJUSTABLE PVC OUTLET CONNECTION
5. 4" SDR-35 DRAIN LINE, TYP.
6. PVC DRAINLINE, 4" 90 DEG ELBOW INVERT ELEVATION PER GRADING PLAN
7. COMPACTED SUB-GRADE



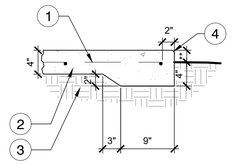
1 AREA DRAIN

3/4" = 1'-0" P-PIP-LINDSAY-32

1. #3 REBAR @ 16" O.C. BOTH WAYS
2. 4000 PSI CONCRETE FLATWORK*
3. 95% COMPACTED SUBGRADE
4. 1/2 TOOLED EDGE ONLY AT F.G. EDGE

*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE

** - DIMENSION SHALL BE 1" BELOW FINISH SURFACE IF SLAB EDGE IS ADJACENT TO TURF & 2" BELOW FINISH SURFACE IF SLAB EDGE IS ADJACENT TO PLANTING AREA

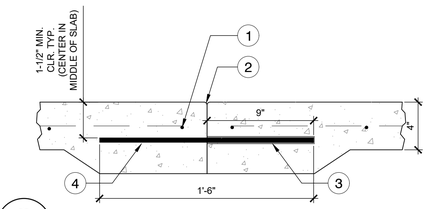


2 SLAB EDGE

1" = 1'-0" P-PIP-LINDSAY-09

1. #3 REBAR @ 16" O.C. BOTH WAYS
2. COLD OR EXPANSION JOINT
3. SLEEVE FOR SLIP DOWEL OR WRAP/GREASE ONE END
4. 1/2" SMOOTH DOWEL OR REBAR DROP. SPACE 2'-6" O.C. ALONG JOINT

*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE.

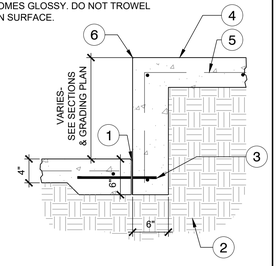


3 SLIP DOWEL

1" = 1'-0" P-PIP-LINDSAY-10

1. EXPANSION JOINT 1/8" TOOLED EDGE. APPLY POLYURETHANE BASED NON-SAGGING ELASTOMERIC SEALANT AND TOOL FLAT. PRE-COMPRESSED EXPANSION MATERIAL
2. 95% COMPACTED SUBGRADE
3. SLIP DOWEL
4. 4000 PSI CONCRETE FLAT WORK*
5. #3 REBAR @ 16" O.C. BOTH WAYS
6. 1/2" TOOLED EDGE

*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE.

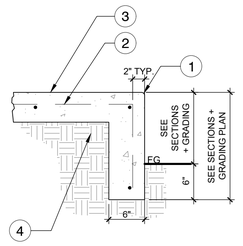


4 TURNDOWN EDGE AT FINISHED SURFACE

1" = 1'-0" P-PIP-LINDSAY-12

1. 1/2" TOOLED EDGE ONLY AT F.G. EDGE
2. #3 REBAR @ 16" O.C. BOTH WAYS
3. 4000 PSI CONCRETE FLAT WORK*
4. COMPACTED SUBGRADE

*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE.

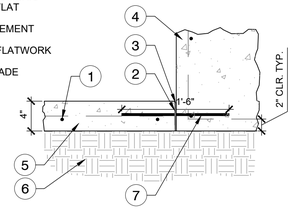


5 TURNDOWN EDGE AT FINISH GRADE

1" = 1'-0" P-PIP-LINDSAY-11

1. #3 REBAR @ 16" O.C. BOTH WAYS
2. PRE-COMPRESSED EXPANSION MATERIAL
3. EXPANSION JOINT 1/8" TOOLED EDGE -APPLY POLYURETHANE BASED NON-SAGGING ELASTOMERIC SEALANT AND TOOL FLAT
4. CONCRETE SKATE ELEMENT
5. 4000 PSI CONCRETE FLATWORK
6. COMPACTED SUB-GRADE
7. SLIP DOWEL

*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE.

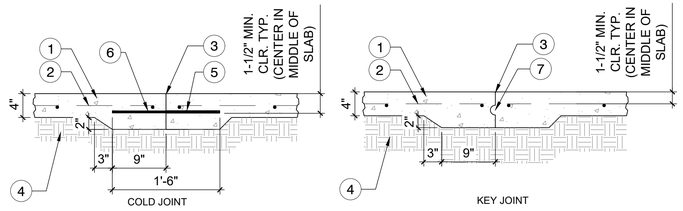


6 EXPANSION JOINT

1" = 1'-0" P-PIP-LINDSAY-13

1. 4000 PSI CONCRETE FLAT WORK*
2. #3 REBAR @ 16" O.C. BOTH WAYS
3. COLD JOINT - 1/8" TOOLED EDGE BOTH SIDES
4. COMPACTED SUBGRADE
5. SLEEVE FOR SLIP DOWEL OR WRAP/GREASE ONE END
6. 1/2" SMOOTH DOWEL OR REBAR DROP. SPACE 2'-6" O.C. ALONG JOINT
7. KEY JOINT 1-5/8" O.D.

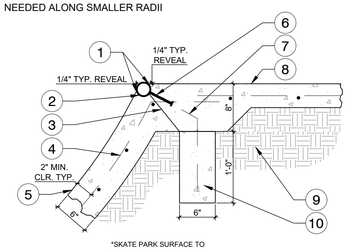
*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE



7 COLD JOINT / KEY JOINT

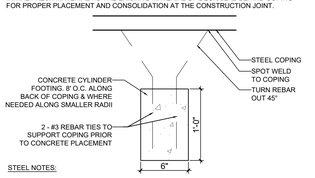
1" = 1'-0" P-PIP-LINDSAY-14

1. 1/8" TOOLED EDGE BOTH SIDES OF COPING
2. STEEL COPING - SEE STEEL PLAN FOR LOCATION
3. CONSTRUCTION JOINT HAND SHAPED PRIOR TO CONCRETE CURING
4. TYPICAL STEEL REINFORCEMENT
5. BOWL TRANSITION
6. COPING ANCHOR, 3/8" X 4" MIN. NELSON STUD OR SIMILAR@ 18" O.C.
7. 2 - #3 REBAR TIES TO SUPPORT COPING PRIOR TO CONCRETE PLACEMENT
8. 4000 PSI CONCRETE FLAT WORK
9. COMPACTED SUB-GRADE
10. CONCRETE CYLINDER FOOTING. 8' O.C. ALONG BACK OF COPING & WHERE NEEDED ALONG SMALLER RADII



*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE

CONSTRUCTION NOTE: WHEN BUILDING SLAB/DECK BEHIND COPING CONSTRUCTION JOINT, FIRST SATURATE SURFACE DRY (SSD) PREVIOUSLY PLACED CONCRETE MATERIAL AND THEN UTILIZE SHOTCRETE PLACEMENT METHOD FOR THE INITIAL FRESH MATERIAL TO THE EXISTING MATERIAL OF DECK/SLAB BEHIND COPING FOR PROPER PLACEMENT AND CONSOLIDATION AT THE CONSTRUCTION JOINT.



STEEL NOTES:

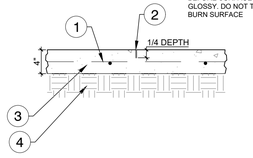
1. STEEL FINISH TO BE HOT DIPPED GALVANIZED UNLESS OTHERWISE NOTED.
2. GALVANIZATION MUST OCCUR AFTER ALL WELDING IS COMPLETE.
3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
4. ALL WELDS TO BE ALL AROUND.
5. GRIND ALL WELDS SMOOTH BEFORE GALVANIZATION.
6. VENT ADEQUATELY FOR HOT DIP GALVANIZATION.
7. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
8. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
9. FIELD WELDS SHALL BE GROUND SMOOTH AND TREAT WITH COLD GALVANIZING SPRAY.

12 STEEL COPING

1" = 1'-0" P-PIP-LINDSAY-19

1. #3 REBAR @ 16" O.C. BOTH WAYS
2. 1/8" SAW CUT - FILL JOINT WITH SELF LEVELING SEALANT AND TOOL FLAT. PROTECT SURROUNDING SURFACE FROM EXCESS SEALANT.
3. 4000 PSI CONCRETE FLAT WORK
4. COMPACTED SUB-GRADE

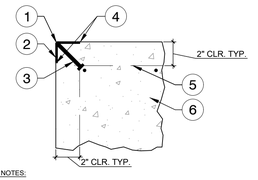
*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE



8 SAWCUT JOINT

1" = 1'-0" P-PIP-LINDSAY-17

1. 1/8" MIN. ROUTED EDGE GROUND SMOOTH
2. 1.5" x 2" x 3/16" THICK STEEL EDGING -SEE STEEL PLAN FOR LOCATION
3. COPING ANCHOR, 3/8" X 4" MIN. NELSON STUD OR SIMILAR @ 18" O.C.
4. 1/8" TOOLED EDGE BOTH SIDES
5. TYPICAL STEEL REINFORCEMENT
6. SKATE ELEMENT



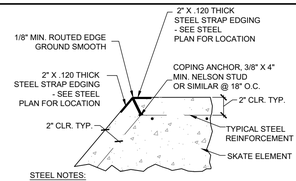
STEEL NOTES:

1. STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
2. POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE.
3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
4. ALL WELDS TO BE ALL AROUND.
5. GRIND ALL WELDS SMOOTH BEFORE POWDER COATING.
6. VENT ADEQUATELY FOR HOT DIP POWDER COATING.
7. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
8. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
9. POWDER COATING REPAIR - USE AN APPROPRIATELY COLOR MATCHED POWDER COAT TOUCH-UP SPRAY PAINT ON WELDED OR DAMAGED POWDER COATED SURFACES.

9 STEEL EDGING

1" = 1'-0" P-PIP-LINDSAY-20

1. 2" X .120 THICK STEEL STRAP EDGING - SEE STEEL PLAN FOR LOCATION
2. COPING ANCHOR, 3/8" X 4" MIN. NELSON STUD OR SIMILAR @ 18" O.C.
3. 2" CLR. TYP.
4. TYPICAL STEEL REINFORCEMENT
5. SKATE ELEMENT



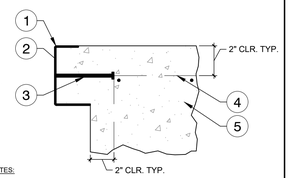
STEEL NOTES:

1. STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
2. POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE.
3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
4. ALL WELDS TO BE ALL AROUND.
5. GRIND ALL WELDS SMOOTH BEFORE POWDER COATING.
6. VENT ADEQUATELY FOR HOT DIP POWDER COATING.
7. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
8. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
9. POWDER COATING REPAIR - USE AN APPROPRIATELY COLOR MATCHED POWDER COAT TOUCH-UP SPRAY PAINT ON WELDED OR DAMAGED POWDER COATED SURFACES.

10 STEEL STRAP

3/4" = 1'-0" P-PIP-LINDSAY-21

1. 1/8" MIN. ROUTED EDGE GROUND SMOOTH
2. 2" X 5" X 3" X .125 THICK STEEL EDGING -SEE STEEL PLAN FOR LOCATION
3. COPING ANCHOR, 3/8" X 4" MIN. NELSON STUD OR SIMILAR @ 18" O.C.
4. TYPICAL STEEL REINFORCEMENT
5. SKATE ELEMENT



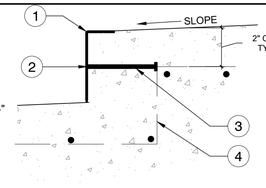
STEEL NOTES:

1. STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
2. POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE.
3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
4. ALL WELDS TO BE ALL AROUND.
5. GRIND ALL WELDS SMOOTH BEFORE POWDER COATING.
6. VENT ADEQUATELY FOR HOT DIP POWDER COATING.
7. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
8. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
9. POWDER COATING REPAIR - USE AN APPROPRIATELY COLOR MATCHED POWDER COAT TOUCH-UP SPRAY PAINT ON WELDED OR DAMAGED POWDER COATED SURFACES.

11 CANTILEVERED STEEL EDGING

1" = 1'-0" P-PIP-LINDSAY-27

1. 1/8" MIN. ROUTED EDGE GROUND SMOOTH
2. 6" OR 3" X 2" X 3/16" STEEL EDGING -SEE STEEL PLAN FOR LOCATION
3. COPING ANCHOR, 3/8" X 4" MIN. NELSON STUD OR SIMILAR @ 18" O.C.
4. TYPICAL STEEL REINFORCEMENT



STEEL NOTES:

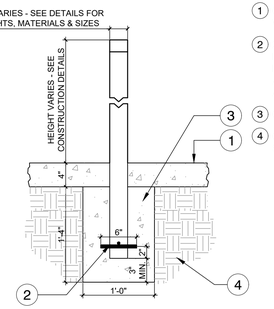
1. STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
2. POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE.
3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
4. ALL WELDS TO BE ALL AROUND.
5. GRIND ALL WELDS SMOOTH BEFORE POWDER COATING.
6. VENT ADEQUATELY FOR HOT DIP POWDER COATING.
7. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
8. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
9. POWDER COATING REPAIR - USE AN APPROPRIATELY COLOR MATCHED POWDER COAT TOUCH-UP SPRAY PAINT ON WELDED OR DAMAGED POWDER COATED SURFACES.

13 STEEL STAIR RISER

1" = 1'-0" P-PIP-LINDSAY-92

SIZE VARIES - SEE DETAILS FOR HEIGHTS, MATERIALS & SIZES

1. CONCRETE FLAT WORK
2. 2 - #3 REBAR @ 6" LONG. DRILLED THROUGH AND CROSSED ABOVE TO STABILIZE
3. CONCRETE FOOTING
4. COMPACTED SUB-GRADE



14 TYPICAL GRIND RAIL FOOTING

1" = 1'-0" P-PIP-LINDSAY-53

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LRA ENGINEERS
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BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

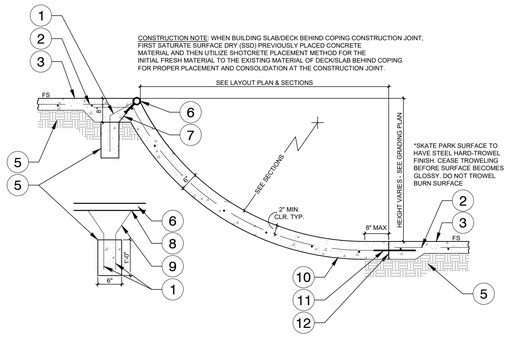
CHECKED BY	DATE
DH	2-13-23
DRAWN BY	JOB NO.
ZM, DM	05500.00

SHEET

SK9.0

SHEET 68 OF 85 SHEETS

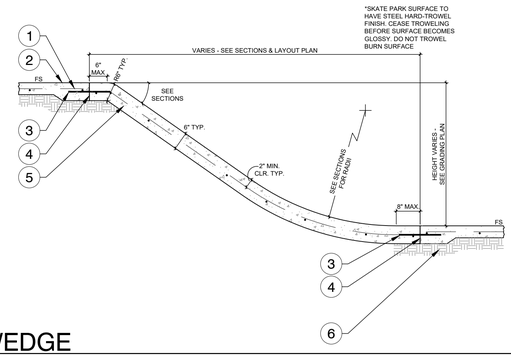
1. 2 - #3 REBAR TIES TO SUPPORT COPING PRIOR TO CONCRETE PLACEMENT
2. #3 REBAR @ 16" O.C. BOTH WAYS
3. 4000 PSI CONCRETE FLAT WORK
4. BASE COURSE
5. CONCRETE CYLINDER FOOTING. 8' O.C. ALONG BACK OF COPING & WHERE NEEDED ALONG SMALLER RADII
6. STEEL COPING
7. CONSTRUCTION JOINT
8. SPOT WELD TO COPING
9. TURN REBAR OUT 45°
10. 4000 PSI SHOTCRETE WITH #3 REBAR CONTINUOUS BOTH WAYS @ 12" O.C.
11. SLIP DOWEL
12. COLD JOINT



1 TYPICAL QUARTER PIPE

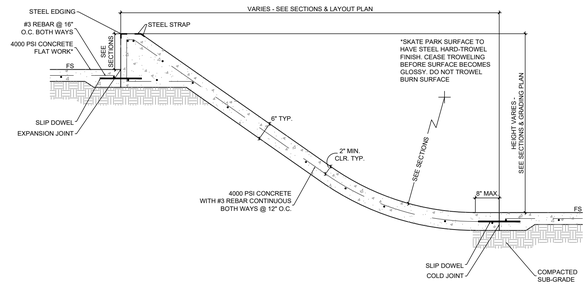
1/2" = 1'-0" P-PIP-LINDSAY-22

1. #3 REBAR @ 16" O.C. BOTH WAYS
2. 4000 PSI CONCRETE FLAT WORK*
3. SLIP DOWEL
4. COLD JOINT
5. 4000 PSI CONCRETE WITH #3 REBAR CONTINUOUS BOTH WAYS @ 12" O.C.
6. COMPACTED SUB-GRADE



2 TYPICAL RADIUS WEDGE

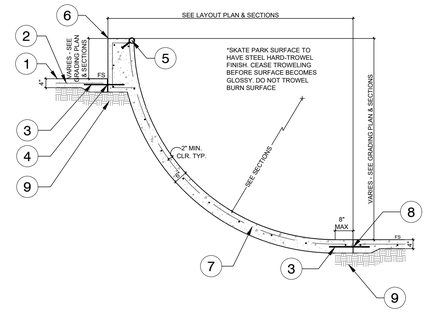
1/2" = 1'-0" P-PIP-LINDSAY-56



3 TYPICAL RADIUS WEDGE EXTENSION

1/2" = 1'-0" P-PIP-LINDSAY-57

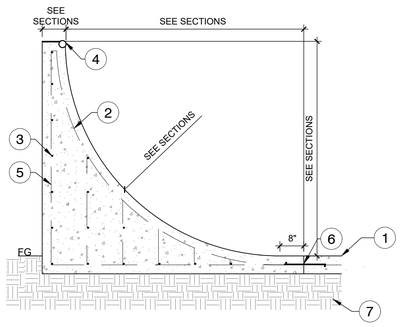
1. 4000 PSI CONCRETE FLAT WORK
2. #3 REBAR @ 16" O.C. BOTH WAYS
3. SLIP DOWEL
4. EXPANSION JOINT
5. STEEL COPING
6. STEEL EDGING
7. 4000 PSI SHOTCRETE WITH #3 REBAR CONTINUOUS BOTH WAYS @ 12" O.C.
8. COLD JOINT
9. COMPACTED SUB-GRADE



4 QUARTERPIPE EXTENSION

3/8" = 1'-0" P-PIP-LINDSAY-29

1. 4000 PSI CONCRETE FLATWORK*
2. #3 REBAR LONG BAR @ 16" O.C.
3. #3 REBAR SHORT BAR @ 12" O.C.
4. STEEL COPING WELDED TO 3/16" THK. STEEL PLATE
5. PROVIDE VERT. BAR SUPPORTS WELDED TO STEEL PAN @ 18" O.C. SPACING (ALONG LONG BARS)
6. SLIP DOWEL @ 16" O.C.
7. COMPACTED SUB-GRADE

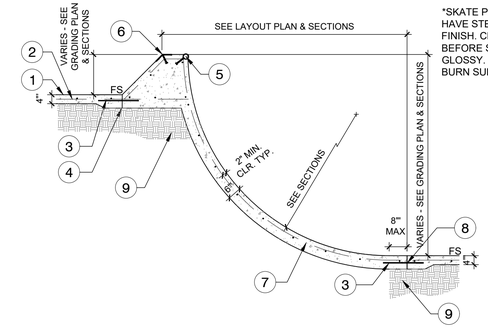


*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE

5 VERT. WALL

1/2" = 1'-0" P-PIP-LINDSAY-99

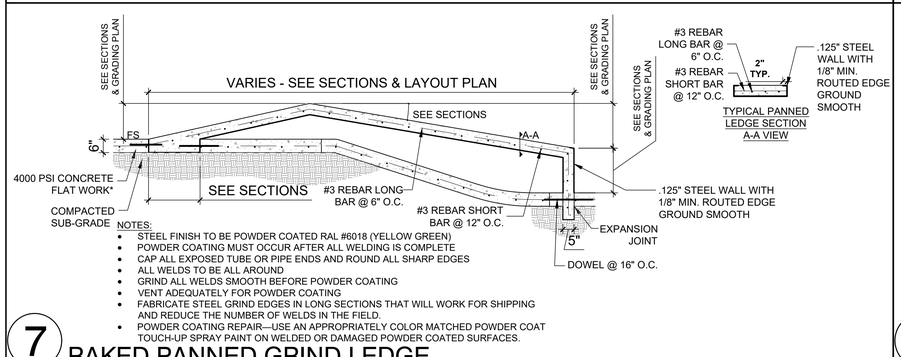
1. 4000 PSI CONCRETE FLAT WORK
2. #3 REBAR @ 16" O.C. BOTH WAYS
3. SLIP DOWEL
4. EXPANSION JOINT
5. STEEL COPING
6. STEEL STRAP
7. 4000 PSI SHOTCRETE WITH #3 REBAR CONTINUOUS BOTH WAYS @ 12" O.C.
8. COLD JOINT
9. COMPACTED SUB-GRADE



*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE

6 QUARTERPIPE EXTENSION WITH SLAPPY

3/8" = 1'-0" P-PIP-LINDSAY-24



NOTES:
- STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN)
- POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE
- CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES
- ALL WELDS TO BE ALL AROUND
- GRIND ALL WELDS SMOOTH BEFORE POWDER COATING
- VENT ADEQUATELY FOR POWDER COATING
- FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
- POWDER COATING REPAIR--USE AN APPROPRIATELY COLOR MATCHED POWDER COAT TOUCH-UP SPRAY PAINT ON WELDED OR DAMAGED POWDER COATED SURFACES.

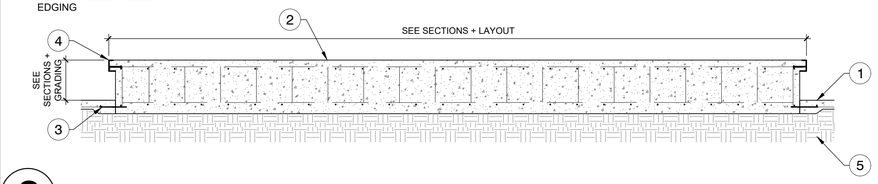
7 RAKED PANNED GRIND LEDGE

3/8" = 1'-0" P-PIP-LINDSAY-26

1. 4000 PSI CONCRETE FLATWORK*
2. 4000 PSI CONCRETE WITH #3 REBAR @ 12" O.C. BOTH WAYS
3. SLIP DOWEL
4. 2" x 5" x 3" x.125" THK. CANTILEVERED STEEL EDGING
5. COMPACTED SUB-GRADE

*SKATEPARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE.

NOTES:
- STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
- CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES
- ALL WELDS TO BE ALL AROUND
- FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.



8 CANTILEVERED GRIND LEDGE

3/8" = 1'-0" P-PIP-LINDSAY-33

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ISE
SKATEPARK DESIGNER
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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
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SHEET TITLE

CONSTRUCTION DETAILS

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2-13-23	100% CD Submittal

STAMP

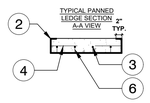
CHECKED BY	DATE
DH	2-13-23
DRAWN BY	JOB NO.
ZM, DM	05500.00

SHEET

SK9.1

SHEET 69 OF 85 SHEETS

1. 4000 PSI CONCRETE
2. .125" STEEL WALL WITH 1/8" MIN. ROUTED EDGE GROUND SMOOTH
3. #3 REBAR LONG BAR @ 6" O.C.
4. #3 REBAR SHORT BAR @ 12" O.C.
5. COMPACTED SUB-GRADE
6. PROVIDE VERT. BAR SUPPORTS WELDED TO STEEL PAN @ 18" O.C. SPACING (ALONG LONG BARS)
7. SLIP DOWEL @ 16" O.C.



NOTES:
- STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN)
- POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE
- CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES
- ALL WELDS TO BE ALL AROUND
- GRIND ALL WELDS SMOOTH BEFORE POWDER COATING
- VENT ADEQUATELY FOR POWDER COATING
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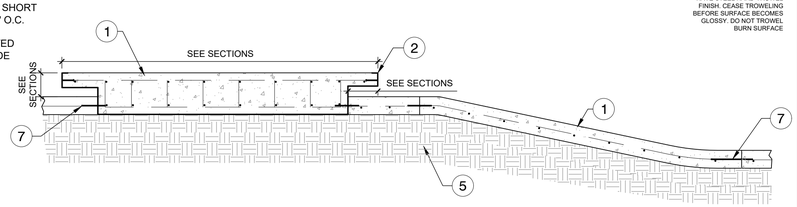
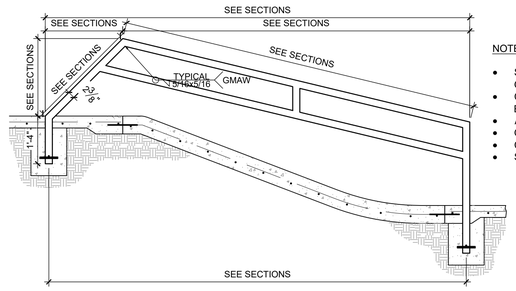
*SKATE PARK SURFACE TO HAVE STEEL HARD-TROWEL FINISH. CEASE TROWELING BEFORE SURFACE BECOMES GLOSSY. DO NOT TROWEL BURN SURFACE



1 PANNED MANUAL PAD

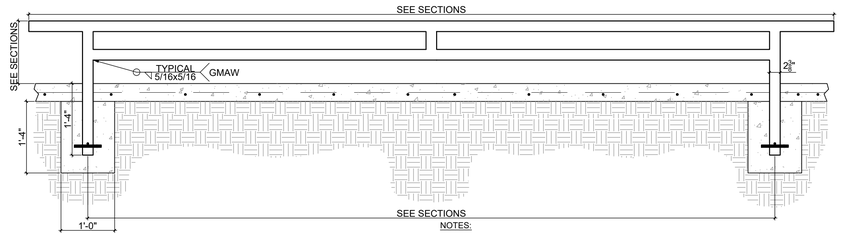
1/2" = 1'-0" P-PIP-LINDSAY-39



NOTES:
- STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
- CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES
- ALL WELDS TO BE ALL AROUND
- GRIND RAIL TO BE 2-3/8" O.D. SCH 40 PIPE
- CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
- SEE TYPICAL CONCRETE FOOTING DETAIL 14/SK9.0

2 RAKED GRIND RAIL

1/2" = 1'-0" P-PIP-LINDSAY-94



NOTES:
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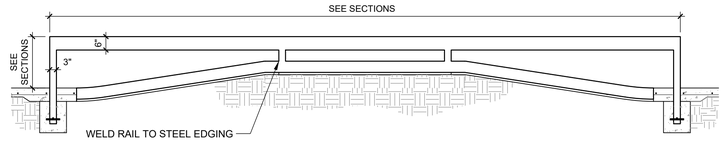
- POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE.
- CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES
- ALL WELDS TO BE ALL AROUND
- GRIND RAIL TO BE 2-3/8" O.D. SCH 40 PIPE
- VENT ADEQUATELY FOR POWDER COATING
- CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
- SEE TYPICAL CONCRETE FOOTING DETAIL 14/SK9.0

3 FLAT DOUBLE BAR GRIND RAIL

3/4" = 1'-0" P-PIP-LINDSAY-23

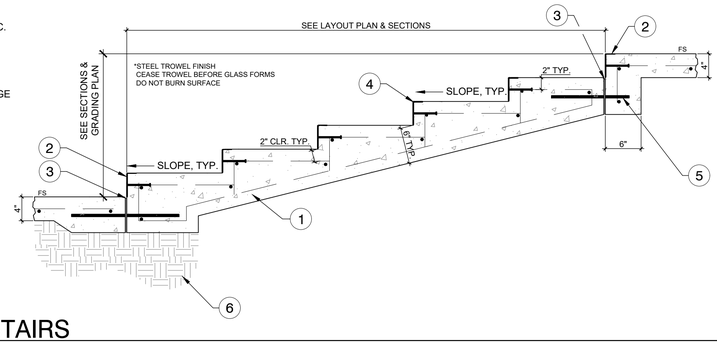
NOTES:
- STEEL FINISH TO BE POWDER COATED RAL #6018 (YELLOW GREEN).
- POWDER COATING MUST OCCUR AFTER ALL WELDING IS COMPLETE.
- CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES
- ALL WELDS TO BE ALL AROUND
- GRIND RAIL TO BE 2-3/8" O.D. SCH 40 PIPE
- VENT ADEQUATELY FOR POWDER COATING
- CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
- SEE TYPICAL CONCRETE FOOTING DETAIL 14/SK9.0



4 FLAT GRIND OUT RAIL

3/8" = 1'-0" P-PIP-LINDSAY-00

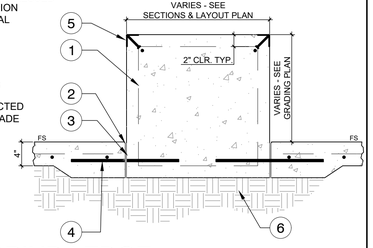
1. 4000 PSI CONCRETE WITH #3 REBAR CONTINUOUS BOTH WAYS @ 16" O.C.
2. STEEL RISER
3. EXPANSION JOINT
4. TYP. 1/2" TOOLED EDGE
5. SLIP DOWEL
6. COMPACTED SUB-GRADE



5 TYP. STAIRS

1" = 1'-0" P-PIP-LINDSAY-67

1. 4000 PSI CONCRETE WITH #3 REBAR CONTINUOUS BOTH WAYS @ 16" O.C.
2. 1/8" TOOLED EDGE. APPLY POLYURETHANE BASED NON-SAGGING ELASTOMERIC SEALANT AND TOOL FLAT
3. PRE-COMPRESSED EXPANSION MATERIAL
4. SLIP DOWEL
5. STEEL EDGING
6. COMPACTED SUB-GRADE



6 GRIND LEDGE

1" = 1'-0" P-PIP-LINDSAY-28

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PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

CHECKED BY	DATE
DH	2-13-23
DRAWN BY	JOB NO.
ZM, DM	05500.00

SHEET

SK9.2

SHEET 70 OF 85 SHEETS

LIGHTING FIXTURE SCHEDULE

TYPE	FIXTURE: INCAND.	FIXTURE: FLUOR.	FIXTURE: H.I.D.	FIXTURE: LED	VOLTS	LAMPS: NO.	LAMPS: WATTS AND TYPE	MOUNTING: REC.	MOUNTING: C.L.G.	MOUNTING: PEND.	MOUNTING: POLE	DESCRIPTION & VARIATIONS	MANUFACTURER & CATALOG NUMBER (OR APPROVED EQUAL)
A2 / 60				•	277	1	55W LED 5000K				•	WALKWAY/SECURITY LED LIGHT FIXTURE AND POLE. WITH TYPE 2 DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "E" ON SHEET E-2.0.	ARCHITECTURAL AREA LTG. FIXTURE: #UGM2-SR-BEL-36L-460-5KT-2-BLT-SLAT-CL-SF-SCP-20F-UNV POLE:#DB6-4R12-226-12'-BLT
A4 / 60				•	277	1	55W LED 5000K				•	WALKWAY/SECURITY LED LIGHT FIXTURE AND POLE. WITH TYPE 4N DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "E" ON SHEET E-2.0.	ARCHITECTURAL AREA LTG. FIXTURE: #UGM2-SR-BEL-36L-460-5KT-4N-BLT-SLAT-CL-SF-SCP-20F-UNV POLE:#DB6-4R12-226-12'-BLT
A5 / 60				•	277	1	55W LED 5000K				•	WALKWAY/SECURITY LED LIGHT FIXTURE AND POLE. WITH TYPE 5N DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "E" ON SHEET E-2.0.	ARCHITECTURAL AREA LTG. FIXTURE: #UGM2-SR-BEL-36L-460-5KT-5N-BLT-SLAT-CL-SF-SCP-20F-UNV POLE:#DB6-4R12-226-12'-BLT
B2 / 120				•	277	1	111W LED 5000K				•	PARKING AREA LED LIGHT FIXTURE AND POLE. WITH TYPE 2 DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "F" ON SHEET E-2.0.	ARCHITECTURAL AREA LTG. FIXTURE: #UCL2-SR-BEL-72L-480-5KT-2-BLT-SLAT(5)-CL-SF-UNV POLE: #DB10-5R22-250-22'-BLT
C / 44				•	277	-	44W LED 5000K				•	IN-GROUND LED FLAGPOLE UP LIGHT. SEE DETAIL "D" ON SHEET E-2.0.	KIM LIGHTING #LTVBIFF-SP-36L-5K-UV-SR-RGAB1

LIGHTING FIXTURE NOTES

1. ALL LUMINAIRES SHALL MEET THE REQUIREMENTS OF THE 2022 BUILDING ENERGY EFFICIENCY STANDARDS, TITLE 24.
2. SUBMIT LIGHTING FIXTURE CUT SHEETS FOR CITY/ARCHITECT OR ENGINEER'S APPROVAL.
3. THE CONTRACTOR SHALL VERIFY/CHECK THE ANCHOR BOLTS AND POLE BASE DETAILS PREPARED BY THE STRUCTURAL ENGINEER BEFORE ORDERING AND INSTALLING THE ANCHOR BOLTS.
4. ALL EXTERIOR LIGHTING FIXTURES SHALL HAVE THE APPROPRIATE WET LOCATION LABELS PER 2022 C.E.C. 410.10(A).

UNDERGROUND PULL BOX LEGEND

PA ▭ TRAFFIC RATED UNDERGROUND PULL BOX, 16" X 22" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 14" X 20" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "ELECTRIC". CHRISTY #B1017 OR APPROVED EQUAL.

PB ▭ TRAFFIC RATED UNDERGROUND PULL BOX, 19" X 30" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 16" X 27" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "ELECTRIC". CHRISTY #B1324 OR APPROVED EQUAL.

PC ▭ TRAFFIC RATED UNDERGROUND PULL BOX, 16" X 22" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 14" X 20" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "COMMUNICATION". CHRISTY #B1017 OR APPROVED EQUAL.

PD ▭ TRAFFIC RATED UNDERGROUND PULL BOX, 19" X 30" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 16" X 27" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "COMMUNICATION" / "TELEPHONE" (AS REQUIRED). CHRISTY #B1324 OR APPROVED EQUAL.

PEV ▭ TRAFFIC RATED UNDERGROUND PULL BOX, 16" X 22" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 14" X 20" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "EV CAPABLE". CHRISTY #B1017 OR APPROVED EQUAL.

NOTES:

1. PULL BOX SHOWN ON PLAN WITHOUT LETTERS ADJACENT SHALL BE TYPE "PA".
2. SEE PULL BOX DETAIL "A" ON SHEET E-2.0.

ELECTRICAL SYMBOL LIST

SPORT LIGHT POLE AND LUMINAIRES

A1 — POLE NUMBER
HS1-1,3,5 — CIRCUIT NUMBER
A/E-3.0 — DETAIL NO./SHEET NO.

- PARKING AREA LIGHT FIXTURE AND POLE
- WALKWAY/SECURITY LIGHT FIXTURE AND POLE
- IN-GROUND FLAG POLE UP LIGHT
- PA ▭ UNDERGROUND PULL BOX, "PA" INDICATES TYPE OF PULL BOX, SEE UNDERGROUND PULL BOX LEGEND ON THIS SHEET
- DOME TYPE SECURITY CAMERA, POLE MOUNTED
- DUPLEX RECEPTACLE MOUNTED AT +15" TO BOTTOM OF BOX OR AS NOTED, GROUNDING TYPE
- GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE DUPLEX RECEPTACLE MOUNTED AS INDICATED ON PLANS
- SPECIAL PURPOSE RECEPTACLE AS INDICATED ON PLANS
- JUNCTION BOX, STANDARD OUTLET WITH BLANK COVER PLATE, WALL MOUNTED
- JUNCTION BOX, CEILING MOUNTED
- FUSED DISCONNECT SWITCH, HEAVY DUTY, LOCKABLE TYPE
- ENCLOSED CIRCUIT BREAKER
- MOTOR STARTER
- LIGHTING OR RECEPTACLE PANELBOARD
- SWITCHBOARD AS INDICATED ON PLANS
- A2 / 60 LIGHT FIXTURE DESIGNATION, "A2" = FIXTURE TYPE, 60 = TOTAL POWER IN VOLT AMPERES
- CONDUIT RUN CONCEALED ABOVE CEILING OR WALL
- CONDUIT RUN CONCEALED IN OR BELOW FLOOR OR GRADE
- FLEXIBLE CONDUIT
- HS1-1,3,5 — HOMERUN TO PANEL "HS1", CIRCUITS #1, 3, 5 WITH WIRES AS NOTED
- STUB, CAP AND MARK END OF CONDUIT FOR FUTURE USE. MANDREL CONDUIT WITH INSPECTOR PRESENT AND INSTALL MEASURING/PULLING TAPE, 2500# TENSILE STRENGTH, IN CONDUIT.
- 2 — PLAN NOTE #2

A.F.G.	INDICATES ABOVE FINISHED GRADE
A.F.F.	INDICATES ABOVE FINISHED FLOOR
C.O.	INDICATES CONDUIT ONLY
GFI	INDICATES GROUND FAULT INTERRUPTER
U.N.O.	UNLESS NOTED OTHERWISE
WP	INDICATES WEATHERPROOF

NOTE: NOT ALL SYMBOLS MAY BE USED.

ELECTRICAL SHEET INDEX

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SHEET TITLE
ELECTRICAL SYMBOL LIST & LIGHTING FIXTURE SCHEDULE

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2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET
E-0.1
SHEET 71 OF 85 SHEETS

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH ALL STATE, COUNTY, LOCAL CODES, RULES AND REGULATIONS OF GOVERNING GOVERNMENT AGENCIES HAVING JURISDICTION AND THE 2022 EDITION OF THE CALIFORNIA ELECTRICAL CODE (CEC).

2. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, CHARGES, AND INCIDENTAL COSTS NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY STATE, COUNTY LOCAL GOVERNMENT AGENCIES.

3. ALL UTILITY WORK (POWER AND TELEPHONE) SHALL BE IN COMPLIANCE WITH THESE DRAWINGS AND THE REQUIREMENTS OF THE SERVING UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE SERVING UTILITY TO RECEIVE COMPLETE INFORMATION ON THEIR REQUIREMENTS PRIOR TO SUBMISSION OF THE BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE SERVING UTILITY AND THE CONTRACT DOCUMENTS.

4. ALL ITEMS SUCH AS SERVICE CONDUIT, CONDUCTORS, DUCTS, CONCRETE PADS, TRANSFORMERS, RISERS, MANHOLES, PULL BOXES, AND PROTECTIVE COVERING FROM SERVICE LOCATIONS SHALL BE PROVIDED AND INSTALLED, AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY, AND SHALL PAY ALL CHARGES LEVIED BY THE SERVING UTILITY COMPANY FOR HIS SERVICE EXCEPT THE FIRST BILLING DEPOSIT. WHERE THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE, THE DOCUMENTS SHALL GOVERN.

5. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS, ADDENDA, DRAWINGS, AND SPECIFICATIONS. HE SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

7. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:

   ALL LOCAL CODES HAVING JURISDICTION
   AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
   AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
   AMERICAN STANDARD ASSOCIATION (ASA)
   CALIFORNIA BUILDING CODE (CBC)
   CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS
   CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
   CALIFORNIA ELECTRICAL CODE (CEC)
   CALIFORNIA GREEN BUILDING STANDARD CODES (CGBSC)
   INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)
   INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
   NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
   NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

8. SHOP DRAWINGS SHALL BE SUBMITTED WITHIN FIFTEEN DAYS AFTER AWARD OF THE CONTRACT. THE CONTRACTOR SHALL SUBMIT SIX COPIES OF A COMPLETE LIST OF MATERIALS AND EQUIPMENT INCLUDING MANUFACTURER AND MODEL NUMBER PROPOSED FOR THE JOB. SHOP DRAWINGS SHALL INCLUDE JOB DESCRIPTION AND ENGINEER IDENTIFICATION, AND ALL DATA WITH CAPACITIES, SIZES, DIMENSIONS, CATALOG NUMBERS, AND MANUFACTURER'S BROCHURES. SHOP DRAWINGS SHALL BE SUBMITTED FOR ITEMS LISTED IN SPECIFICATIONS. PARTIAL, INCOMPLETE, OR UNBOUND SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. CONTRACTOR SHALL SUBMIT A SCHEDULE OF ALL SHOP DRAWINGS AND SUBMITTALS WHICH ARE TO BE REVIEWED WITHIN FIFTEEN DAYS OF CONTRACT AWARD.

9. THE CONTRACTOR SHALL PROVIDE AND KEEP UP-TO-DATE A COMPLETE RECORD SET OF DRAWINGS. THESE PRINTS SHALL BE CORRECTED DAILY AND SHOW EVERY CHANGES FROM THE ORIGINAL DRAWINGS. THIS SET OF DRAWINGS SHALL BE KEPT ON THE JOB SITE AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTOR TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE CITY, AND ALL CHANGES AS NOTED ON THE RECORD SET OF DRAWINGS SHALL BE INCORPORATED THEREON WITH BLACK INK IN A NEAT, LEGIBLE, UNDERSTANDABLE AND PROFESSIONAL MANNER. FAILURE TO KEEP RECORD DRAWINGS UP-TO-DATE SHALL CONSTITUTE CAUSE FOR WITHHOLDING OF PROGRESS PAYMENTS.

10. IN SOME INSTANCES, IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER OR BUILDING AUTHORITY. THEREFORE, WHENEVER IT BECOMES NECESSARY FOR THE CONTRACTOR TO PERFORM WORK UNDER THIS CONTRACT IN EXISTING AREAS IN WHICH THE OWNER'S WORK IS BEING PERFORMED, THE CONTRACTOR SHALL ADVISE THE ARCHITECT AND THE OWNER RELATIVE TO THIS REQUIREMENT AND SHALL FOLLOW CLOSELY THE DIRECTIVE ISSUED BY THE ARCHITECT INSOFAR AS TIME AND PROCEDURE ARE CONCERNED. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL PREMIUM TIME TO WHICH HE MAY BE SUBJECTED FOR PERFORMING WORK IN SUCH PROCEDURE AND AT SUCH TIMES AS MAY BE NECESSARY TO CAUSE THE LEAST INTERFERENCE WITH THE OPERATIONS OF THE OWNER.

11. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER 14 DAYS PRIOR TO THE OUTAGE. ANY OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.

12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL FEEDERS OR SYSTEM BEING DISCONNECTED IN ORDER TO MAINTAIN SYSTEMS IN OPERATION OR WHERE SAID FEEDERS OR SYSTEMS REQUIRE EMERGENCY STANDBY POWER.

13. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AT THE SITE. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE DRAWINGS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

14. COORDINATE WITH OTHER TRADES AS TO EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECTION 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 ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

15. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.

16. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, MATERIALS, ETC., ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE CITY AND ENGINEER.

17. DRAWINGS ARE DIAGRAMMATIC ONLY. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER SECTIONS. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY EXISTING ELECTRICAL OR EXISTING FEATURES.

18. REFER TO SINGLE LINE DIAGRAM AND FEEDER SCHEDULES FOR CONDUIT AND CONDUCTOR SIZE TO PANELS, TRANSFORMERS, EQUIPMENT, ETC. CONDUIT RUNS MAY NOT BE SHOWN ON DRAWINGS, BUT ARE PART OF THIS CONTRACT.

19. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, 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 UL APPROVED.

20. FIRE STOPPING MATERIAL (PENETRATION SEALING) IS REQUIRED FOR EACH PENETRATION THROUGH A FIRE RATED WALL PER CBC/CEC.

21. CONNECTIONS TO VIBRATING EQUIPMENT AND SEISMIC SEPARATIONS:

    LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS.
    LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS.

    PROVIDE A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN FLEXIBLE CONDUIT RUNS. MAXIMUM LENGTH SHALL BE SIX FEET UNLESS OTHERWISE NOTED.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BACKFILLING AND COMPACTION 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. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO LOCATE AND PROTECT IN PLACE ALL EXISTING UNDERGROUND CONDUITS WITHIN THE PARK.

23. CONDUITS INSTALLED USING DIRECTIONAL BORING EQUIPMENT SHALL BE APPROVED FOR THE PURPOSE. THE HORIZONTAL DRILLING METHOD OF CONDUIT INSTALLATION SHALL INCLUDE ALL SERVICES, EQUIPMENT, MATERIALS AND LABOR FOR THE COMPLETE AND PROPER INSTALLATION OF UNDERGROUND CONDUITS.

24. RECEPTACLES SHALL BE SPECIFICATION GRADE, 20 AMP, NEMA 5-20R GROUNDING TYPE HUBBELL #5362, OR EQUAL BY PASS AND SEYMOUR OR GENERAL ELECTRIC. COLOR SHALL BE SELECTED BY ARCHITECT.

25. WEATHERPROOF CONVENIENCE OUTLET SHALL CONSIST OF A GROUND FAULT CIRCUIT INTERRUPTER (GFCI), 20 AMP, NEMA 5-20R GROUNDING TYPE DUPLEX RECEPTACLE MOUNTED IN A 4" BOX WITH SINGLE RING OF TYPE AS REQUIRED AND LOCKABLE WHILE-IN USE TYPE COVER.

26. PANELBOARDS SHALL BE COMPLETELY FACTORY BUILT AND TESTED, TOTALLY ENCLOSED, DEAD FRONT, CIRCUIT BREAKER TYPE. SPACES SHALL BE COMPLETE WITH BUS AND HARDWARE READY FOR INSTALLATION OF FUTURE BREAKERS. CIRCUIT BREAKERS SHALL BE BOLT-ON, THERMAL MAGNETIC TYPE WITH A.I.C. RATING AS SHOWN ON THE DRAWINGS. CIRCUIT DIRECTORY FRAME WITH NEATLY TYPED DIRECTORY CARD WITHIN PLASTIC COVERING ON INSIDE DOOR SHALL BE PROVIDED. ALL BUSSINGS SHALL BE COPPER.

27. ALL UNDERGROUND CONDUIT RUNS SHALL BE PVC SCHEDULE 40 WITH RIGID STEEL RISERS. ALL CONDUIT RUNS MADE UP IN PART OR ENTIRELY WITH PVC SHALL CONTAIN A GREEN GROUNDING CONDUCTOR. ALL STUB UPS INTO PANEL CABINET AND LIGHTS SHALL BE RIGID STEEL CONDUIT WITH GROUND BUSHINGS PROPERLY GROUNDED. ALL STUB UPS SHALL BE TERMINATED WITH NON-CEMENTED APPROVED PVC PIPE CAPS. UNDERGROUND CONDUITS SHALL BE INSTALLED 30" MINIMUM DEPTH WHERE SUBJECTED TO VEHICULAR TRAFFIC AND 24" MINIMUM UNDER ANY OTHER CIRCUMSTANCES. A 6" WIDE RED DETECTABLE WARNING TAPE "CAUTION BURIED ELECTRIC LINE BELOW" SHALL BE INSTALLED 6" BELOW FINISHED GRADE IN ALL TRENCHES. CONDUITS EXPOSED TO WEATHER SHALL BE RIGID STEEL WITH STEEL ELLS AND RISERS. ALL ELLS 45 DEGREES AND LARGER SHALL BE FACTORY MADE SWEEP BENDS. ALL EMPTY CONDUIT RUNS FOR FUTURE USE SHALL BE IDENTIFIED WITH CONDUIT MARKER TAG AT BOTH ENDS. MANDREL CONDUIT WITH INSPECTOR PRESENT AND PROVIDE AND INSTALL A MEASURING/PULLING TAPE, 2500 POUNDS TENSILE STRENTH, IN EACH EMPTY CONDUIT.

28. RIGID GALVANIZED STEEL CONDUIT SHALL BE FULL WEIGHT THREADED TYPE. ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN DRY WALLS OR CEILING SPACES WHERE NOT SUBJECT TO MECHANICAL DAMAGE. PVC SCHEDULE 40 SHALL BE INSTALLED BENEATH SLAB OR BELOW GRADE. FLEXIBLE STEEL CONDUIT MAY BE USED AT FIXTURE AND OUTLET CONNECTIONS WITH NO RUNS LONGER THAN SIX FEET. AN EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED IN ALL CONDUIT RUNS. METAL-CLAD CABLE TYPE MC IS NOT ACCEPTABLE.

29. RIGID GALVANIZED STEEL CONDUIT FITTINGS SHALL BE THREADED AND THOROUGHLY GALVANIZED. ELECTRICAL METALLIC TUBING (EMT) CONDUIT FITTINGS SHALL BE STEEL, RAINTIGHT THREADLESS COMPRESSION TYPE. DIE CAST, SET SCREW, OR INDENTER TYPES ARE NOT ACCEPTABLE. FLEXIBLE STEEL CONDUIT FITTINGS SHALL BE MALLEABLE IRON CLAMP, SQUEEZE TYPE OR OR STEEL TWIST-IN TYPE WITH INSULATED THROAT. SET SCREW TYPE IS NOT ACCEPTABLE.

30. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM SIZE, TYPE XHHW-2, CROSS-LINKED POLYETHYLENE (XLPE) INSULATION, 600 VOLTS, 90 DEGREE CELSIUS, WET OR DRY LOCATIONS, UL APPROVED, LISTED AND SHALL BEAR THE UL LABEL, UNLESS NOTED OTHERWISE. CONDUCTORS #12 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #10 AND LARGER SHALL BE STRANDED.

31. THE EQUIPMENT GROUNDING CONDUCTOR SHOWN ON CONDUIT RUNS SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN CONDUCTORS. ALTERNATE METHODS OF IDENTIFICATION SHALL NOT BE USED. CONTRACTOR SHALL NOTIFY THE CITY TO EXAMINE CONDUCTOR INSTALLATION PRIOR TO INSTALLATION OF DEVICE.

32. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

33. WHERE SIZE OF FEEDER AND BRANCH CIRCUIT CONDUCTORS ARE INCREASED TO MEET THE ALLOWED VOLTAGE DROP, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REDUCE THE SIZE OF THE CONDUCTORS BEFORE THE POINT OF TERMINATION TO MATCH THE SIZE OF THE CIRCUIT BREAKER OR EQUIPMENT DISCONNECT SWITCH TERMINAL LUGS. THE AMPACITY OF WIRES AT TERMINATIONS SHALL BE EQUAL OR GREATER THAN THE CIRCUIT BREAKER OR FUSE TRIP AMPERE RATING. PROVIDE JUNCTION BOX OR PULL BOX ADJACENT TO SWITCHBOARDS, PANELBOARDS AND EQUIPMENT DISCONNECT SWITCHES, AS REQUIRED. SPLICES INSIDE THE SWITCHBOARDS, PANELBOARDS AND EQUIPMENT DISCONNECT SWITCHES ARE NOT ALLOWED.

34. EXISTING CONDUIT RUNS SHOWN ON THE DRAWINGS WERE TAKEN FROM EXISTING RECORD DRAWINGS AND ARE NOT ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL CONDUIT ROUTING.

35. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AFFECTED BY THE REMODELED AREA. THIS WILL INCLUDE REROUTING OR THE EXTENSION OF EXISTING CONDUIT AND FEEDERS WHERE NECESSARY TO MAINTAIN CONTINUITY OF SERVICE TO EXISTING REMAINING EQUIPMENT.

36. THE CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING ELECTRICAL LIGHTING AND POWER PULL BOXES.

37. PARK ELECTRICAL POWER AND LIGHTING SHALL BE OPERABLE DURING CONSTRUCTION.

38. IDENTIFICATION NAMEPLATES SHALL BE MICARTA 1/8 INCH THICK AND OF APPROVED SIZE WITH BEVELED EDGES AND ENGRAVED WHITE LETTERS A MINIMUM OF 1/4 INCH HIGH ON BLACK BACKGROUND. NAMEPLATES SHALL BE PROVIDED FOR ALL CIRCUITS IN THE SERVICE DISTRIBUTION AND POWER DISTRIBUTION SWITCHBOARDS OR PANELBOARDS, LIGHTING DISTRIBUTION PANELBOARDS, LIGHTING CONTROL PANELS, DISCONNECTING SWITCHES, TRANSFORMERS, TERMINAL CABINETS, TELEPHONE CABINETS, ETC. ALL NAMEPLATES SHALL BE ATTACHED WITH SCREWS. PULL BOXES, JUNCTION BOXES, AND DEVICE BOXES SHALL BE MARKED WITH A PERMANENT MARKER.

39. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL MAJOR PIECES OF ELECTRICAL EQUIPMENT BUT NOT LIMITED TO THE FOLLOWING: SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, LIGHTING CONTROL EQUIPMENT, LIGHT FIXTURES, POLES, RECEPTACLES, PULL BOXES, CONDUITS AND WIRES.

40. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVE OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPONENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.

41. PROVIDE THE CITY WITH ONE (1) SET OF COMPLETE ELECTRICAL "AS-BUILT" DRAWINGS AT THE COMPLETION OF THE PROJECT, SHOWING ACTUAL CONDUIT RUNS, DEPTHS AND LOCATIONS.

42. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
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CONSULTANT:

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Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

ELECTRICAL
GENERAL NOTES

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER C. REGALADO
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET

E-0.2

LOAD SUMMARY

MAIN SWITCHBOARD "MSA"

MSA-1	TRANSF "TS"	15.0	KVA
MSA-2	PANEL "HS1"	74.6	KVA
MSA-3	PANEL "HS2"	77.3	KVA
SUB-TOTAL		166.9	KVA
SPARE, 25%		42.0	KVA
TOTAL "MSA"		208.9	KVA
		251.3	AMPS
		@ 480/277V, 3Φ, 4W	

MAIN SWITCHBOARD "MSB"

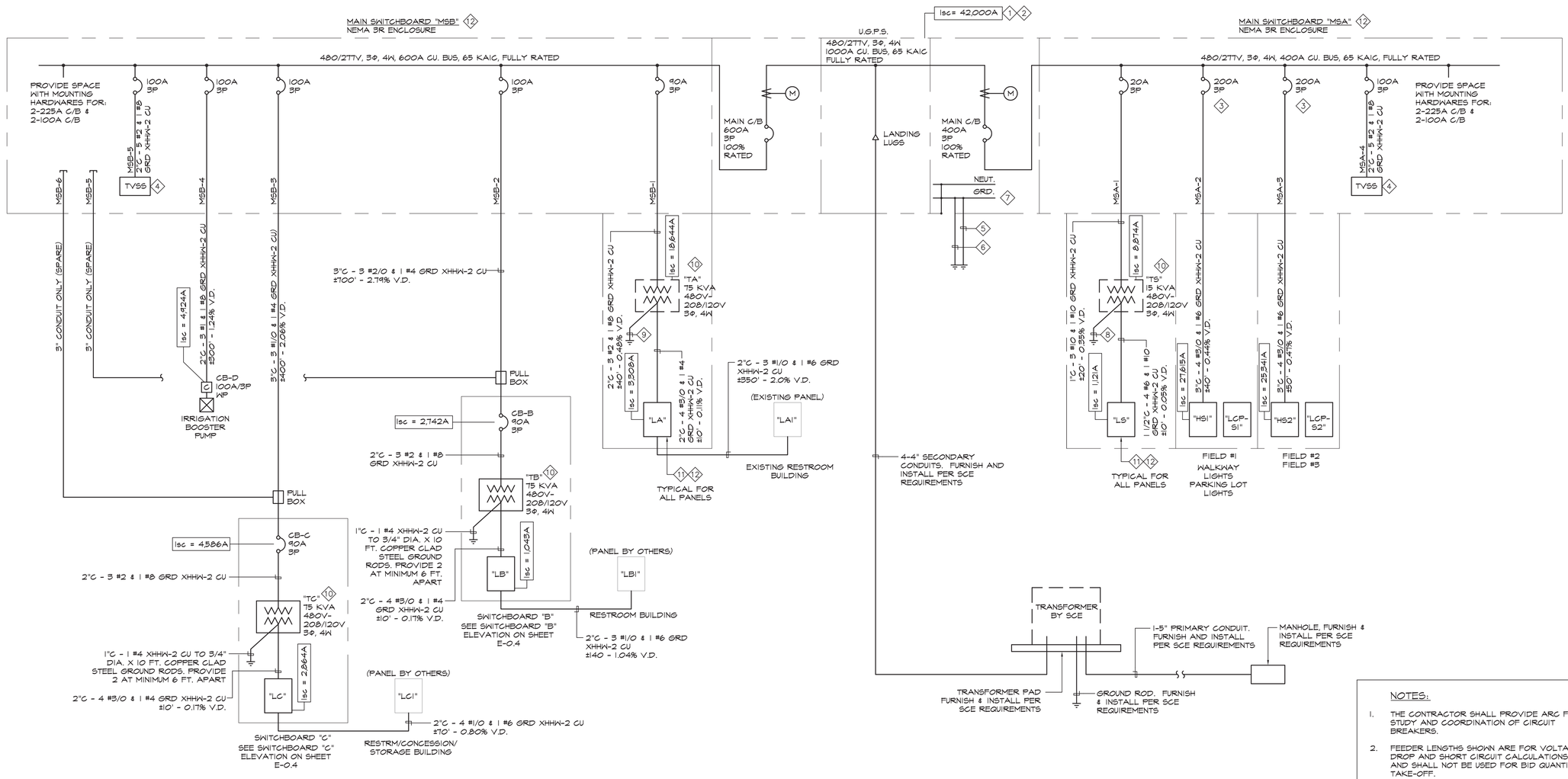
MSB-1	TRANSF "TA"	75.0	KVA
MSB-2	TRANSF "TB"	75.0	KVA
MSB-3	TRANSF "TC"	75.0	KVA
MSB-4	IRRIG. BOOSTER PUMP, 40 HP	43.2	KVA
SUB-TOTAL		268.2	KVA
SPARE, 25%		67.1	KVA
25% OF LARGEST MOTOR		10.8	KVA
TOTAL "MSB"		346.1	KVA
		416.3	AMPS
		@ 480/277V, 3Φ, 4W	

UNDERGROUND PULL SECTION "UGPS"

MAIN SWITCHBOARD "MSA"	208.9	KVA
MAIN SWITCHBOARD "MSB"	346.1	KVA
TOTAL "UGPS"	555.0	KVA
	668	AMPS
	@ 480/277V, 3Φ, 4W	

SINGLE LINE DIAGRAM NOTES

1. THE MAXIMUM AVAILABLE FAULT CURRENT PER POWER COMPANY IS 42,000 AMPERES.
2. ALL BUSSINGS IN SWITCHBOARD SHALL BE BRACED FOR A MINIMUM OF 65,000 A.I.C.
3. DISTRIBUTION CIRCUIT BREAKERS SHALL BE SERIES RATED WITH THE PANELBOARD CIRCUIT BREAKERS. THE EQUIPMENT ENCLOSURE SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING. THE MARKINGS SHALL BE READILY VISIBLE AND STATE "CAUTION - SERIES RATED SYSTEM 42,000 AMPS. AVAILABLE. IDENTIFIED REPLACEMENT COMPONENT REQUIRED."
4. TRANSIENT VOLTAGE SURGE SUPPRESSOR. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
5. FURNISH AND INSTALL 20 FT. OF 1 #3/0 B.C. TO UFER GROUND. 2" MINIMUM CONCRETE ENCASEMENT AT BOTTOM OF SWITCHBOARD CONCRETE PAD.
6. FURNISH AND INSTALL 1"C - 1 #3/0 XHHW-2 CU TO DRIVEN GROUND RODS. PROVIDE MINIMUM OF FOUR (4) 3/4" DIA. X 10 FT. COPPER CLAD STEEL GROUND RODS AT 6 FT. APART MINIMUM.
7. CONTINUOUS COPPER GROUND BUS.
8. FURNISH AND INSTALL 3/4"C - 1 #8 XHHW-2 CU TO MAIN SWBD. "MSA" GROUND BUS.
9. FURNISH AND INSTALL 1"C - 1 #4 XHHW-2 CU TO MAIN SWBD. "MSB" GROUND BUS.
10. ENERGY EFFICIENT DRY TYPE TRANSFORMER, COPPER WINDINGS, 150° RISE. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
11. ALL PANELBOARDS AND DISCONNECT SWITCHES SHALL BE PERMANENTLY MARKED ON THE OUTSIDE IDENTIFYING THE PANELBOARD AND DISCONNECT SWITCH, VOLTAGE AND SOURCE OR WHERE THE POWER ORIGINATES.
12. SWITCHBOARD, PANELBOARDS, LIGHTING CONTROL PANELS AND DISCONNECT SWITCHES THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKINGS SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT. 2022 CEC 110.16.



NOTES:

1. THE CONTRACTOR SHALL PROVIDE ARC FAULT STUDY AND COORDINATION OF CIRCUIT BREAKERS.
2. FEEDER LENGTHS SHOWN ARE FOR VOLTAGE DROP AND SHORT CIRCUIT CALCULATIONS ONLY AND SHALL NOT BE USED FOR BID QUANTITY TAKE-OFF.

A

SINGLE LINE DIAGRAM NOT TO SCALE

MIG
109 W. UNION AVE. FULLERTON, CA 92832
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STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

SHEET TITLE

SINGLE LINE DIAGRAM

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER C. REGALADO No. E16914 Exp. 6-30-23 ELECTRICAL STATE OF CALIFORNIA

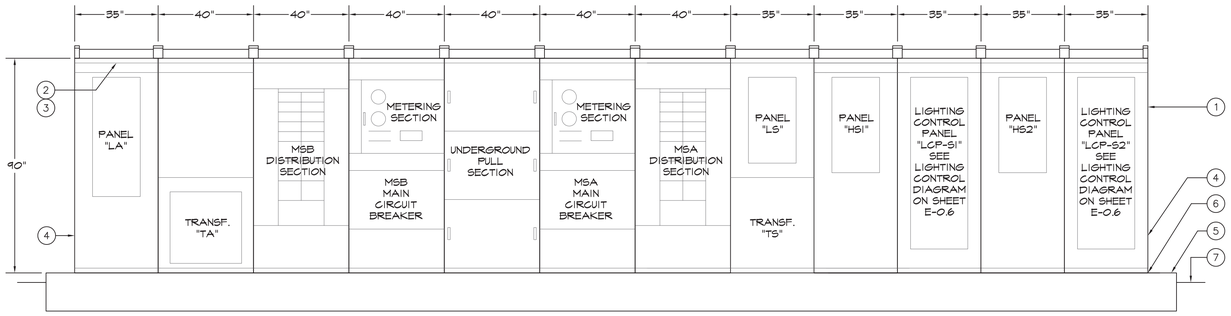
2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

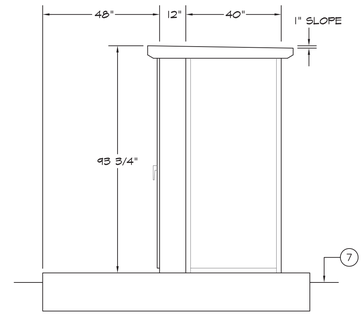
SHEET

E-0.3

SHEET 73 OF 85 SHEETS

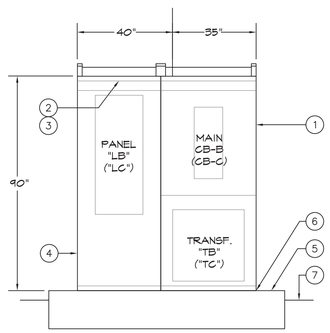


FRONT ELEVATION

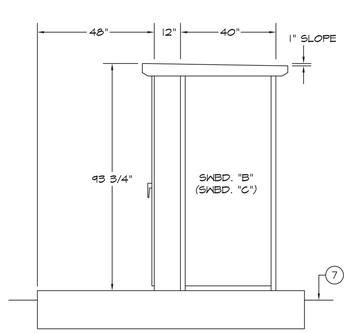


SIDE ELEVATION

A | MAIN SWITCHBOARD "MSA"/"MSB" ELEVATIONS | NOT TO SCALE



FRONT ELEVATION



SIDE ELEVATION

B | TYPICAL SWITCHBOARD "B" & "C" ELEVATIONS | NOT TO SCALE

SWITCHBOARD ELEVATION REFERENCE NOTES

1. NEMA 3R ENCLOSURE. NON-WALK IN TYPE.
2. 4-5/8" X 25" X 4-3/4" HIGH ABUSE LED LIGHTING FIXTURE. LIGHT FIXTURE SHALL BE MOUNTED INSIDE THE SWITCHBOARD HOUSING. PROVIDE ONE LIGHT PER SWITCHBOARD SECTION. NEW STAR LIGHTING #5IHA2-LI-40-I-B-I2. PROVIDE BRANCH CIRCUIT CONDUIT AND WIRES AND CONNECT TO:
   SWBD. "MSA" - PANEL "LS", CIRCUIT LS-1
   SWBD. "MSB" - PANEL "LA", CIRCUIT LA-1
   SWBD. "B" - PANEL "LB", CIRCUIT LB-1
   SWBD. "C" - PANEL "LC", CIRCUIT LC-2
3. PROVIDE HEAVY DUTY 0 TO 2 HOURS MANUAL TIME SWITCH FOR EACH SWITCHBOARD SECTION OR PER TWO SECTIONS TO CONTROL LIGHT(S).
4. GFI TYPE DUPLEX RECEPTACLE MOUNTED INSIDE THE SWITCHBOARD HOUSING. MOUNT AT 15" FROM TOP OF CONCRETE PAD TO BOTTOM OF RECEPTACLE BOX. PROVIDE BRANCH CIRCUIT CONDUIT AND WIRES AND CONNECT TO:
   SWBD. "MSA" - PANEL "LS", CIRCUIT LS-3
   SWBD. "MSB" - PANEL "LA", CIRCUIT LA-3
   SWBD. "B" - PANEL "LB", CIRCUIT LB-3
   SWBD. "C" - PANEL "LC", CIRCUIT LC-4
5. CAST IN PLACE 16" THICK CONCRETE PAD (4" ABOVE GRADE & 12" BELOW FINISHED GRADE) WITH #4 @12" O.C. EW TOP & BOTTOM. EXTEND MIN. 12" BEYOND OUTSIDE DIMENSION OF EQUIPMENT ENCLOSURE WITH MINIMUM 1.2% SLOPE AWAY FROM ENCLOSURE FOR DRAINAGE.
6. PROVIDE 1/2" DIA. HILTI KB-TZ (STAINLESS) INTO FOOTING. MINIMUM 3 1/4" EFF. EMBEDMENT. PROVIDE A MINIMUM OF 4 ANCHORS PER SWITCHBOARD SECTION.
7. FINISHED GRADE.

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SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

SWITCHBOARD ELEVATIONS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO '98
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET
E-0.4
SHEET 74 OF 85 SHEETS

PANEL "HS1"

MAIN: L.O. | BUSS: 225A, CU | SERVICE: 480/277V, 3Φ, 4W | LOCATION: SNBD, "MSA" | MOUNTING: SNBD. | A.I.C.: 42,000 OR SERIES RATED

DESCRIPTION	VOLT AMPS A	B	C	LTG	RCP	MSC	BKR POLE	AMP	CKT NO.	A	B	C	CKT NO.	BKR POLE	AMP	LTG	RCP	MSC	VOLT AMPS A	B	C	DESCRIPTION
POLE A1	3200			2				30	1				2		20	15			780			WALKWAY LIGHTS
FIELD #1		2400		2					3				4			12				720		WALKWAY LIGHTS
----			1600	1			3		5				6	3							720	WALKWAY LIGHTS
POLE A2	1600			1				30	7				8		20	12			720			WALKWAY LIGHTS
FIELD #1		2400		2					9				10			15				780		WALKWAY LIGHTS
----			3200	2			3		11				12	3		12					720	WALKWAY LIGHTS
POLE B1	3600			2				30	13				14		20	12			240			PARKING LOT LIGHTS
FIELD #1		4000		2					15				16			1				120		PARKING LOT LIGHTS
----			2800	2			3		17				18	3		1					120	PARKING LOT LIGHTS
POLE B2	2800			2				30	19				20		20				-			SPARE
FIELD #1		3600		2					21				22							-		----
----			4000	2			3		23				24	3							-	----
POLE C1	2800			2				30	25				26	1	20	2			200			FLAG POLE UP LIGHTS
FIELD #1		2800		2					27				28	1	20					-		SPARE
----			4000	2			3		29				30	1	20						-	SPARE
POLE C2	4000			2				30	31				32	1	-				-			SPACE
FIELD #1		2800		2					33				34	1	-					-		SPACE
----			2800	2			3		35				36	1	-						-	SPACE
SPACE	-						1	-	37				38	1	-				-	-	-	SPACE
SPACE		-					1	-	39				40	1	-					-	-	SPACE
SPACE			-				1	-	41				42	1	-						-	SPACE
TOTALS:	18000	18000	18400																1940	1620	1560	

TOTALS: A 1994 | B 1620 | C 1996

(19,960 X 3) 59,880 V.A. (L.G.L.) X 1.25 = 74,850 V.A.

OTHER LOAD = - V.A.

TOTAL = 74,850 V.A. TOTAL AMPS 90

PANEL "HS2"

MAIN: L.O. | BUSS: 225A, CU | SERVICE: 480/277V, 3Φ, 4W | LOCATION: SNBD, "MSA" | MOUNTING: SNBD. | A.I.C.: 42,000 OR SERIES RATED

DESCRIPTION	VOLT AMPS A	B	C	LTG	RCP	MSC	BKR POLE	AMP	CKT NO.	A	B	C	CKT NO.	BKR POLE	AMP	LTG	RCP	MSC	VOLT AMPS A	B	C	DESCRIPTION
POLE A3	1600			1				30	1				2		30	1			1200			POLE A4
FIELD #2		1200		1					3				4			1				1600		FIELD #3
----			2000	2			3		5				6	3		2					2000	----
POLE A4	2000			2				30	7				8		30	2			2000			POLE A6
FIELD #2		1200		1					9				10			1				1200		FIELD #3
----			1600	1			3		11				12	3		1					1600	----
POLE B3	3200			2				30	13				14		30	2			3200			POLE B5
FIELD #2		2800		2					15				16			2				2800		FIELD #3
----			2400	2			3		17				18	3		2					2400	----
POLE B4	2400			2				30	19				20		30	2			2400			POLE B6
FIELD #2		2800		2					21				22			2				2800		FIELD #3
----			3200	2			3		23				24	3		2					3200	----
POLE P1	1100			1				20	25				26	1	-				-			SPACE
SKATE PARK		1100		1					27				28	1	-					-		SPACE
----			1100	1			3		29				30	1	-						-	SPACE
POLE P2	1100			1				20	31				32	1	-				-			SPACE
SKATE PARK		1100		1					33				34	1	-					-		SPACE
----			1100	1			3		35				36	1	-						-	SPACE
SPACE	-						1	-	37				38	1	-				-			SPACE
SPACE		-					1	-	39				40	1	-					-		SPACE
SPACE			-				1	-	41				42	1	-						-	SPACE
TOTALS:	11400	10200	11400																8800	8400	9200	

TOTALS: A 20200 | B 18600 | C 20600

(20,600 X 3) 61,800 V.A. (L.G.L.) X 1.25 = 77,250 V.A.

OTHER LOAD = - V.A.

TOTAL = 77,250 V.A. TOTAL AMPS 93

PANEL "LS"

MAIN: 50A/3P | BUSS: 100A, CU | SERVICE: 208/120V, 3Φ, 4W | LOCATION: SNBD, "MSA" | MOUNTING: SNBD. | A.I.C.: 10,000

DESCRIPTION	VOLT AMPS A	B	C	LTG	RCP	MSC	BKR POLE	AMP	CKT NO.	A	B	C	CKT NO.	BKR POLE	AMP	LTG	RCP	MSC	VOLT AMPS A	B	C	DESCRIPTION
SNBD LTS	450			A			1	20	1				2	1	20				-			SPARE
SNBD GFI RECEP		180			1		1	20	3				4	1	20					-		SPARE
LCP-S1			500			1	1	20	5				6	1	20						-	SPARE
LCP-S2	500					1	1	20	7				8	1	20				-			SPARE
SPARE		-					1	20	9				10	1	20					-		SPARE
SPARE			-				1	20	11				12	1	20						-	SPARE
SPACE	-						1	-	13				14	1	-				-			SPACE
SPACE		-					1	-	15				16	1	-					-		SPACE
SPACE			-				1	-	17				18	1	-						-	SPACE
SPACE	-						1	-	19				20	1	-				-			SPACE
SPACE		-					1	-	21				22	1	-					-		SPACE
SPACE			-				1	-	23				24	1	-						-	SPACE
SPACE	-						1	-	25				26	1	-				-			SPACE
SPACE		-					1	-	27				28	1	-					-		SPACE
SPACE			-				1	-	29				30	1	-						-	SPACE
SPACE									31				32									
SPACE									33				34									
SPACE									35				36									
SPACE									37				38									
SPACE									39				40									
SPACE									41				42									
TOTALS:	950	180	500																-	-	-	

TOTALS: A 950 | B 180 | C 500

(950 X 3) 2,850 V.A. (L.G.L.) X 1.25 = 3,563 V.A.

OTHER LOAD = - V.A.

TOTAL = 3,563 V.A. TOTAL AMPS 10

PANEL "LA"

MAIN: 200A/3P | BUSS: 225A, CU | SERVICE: 208/120V, 3Φ, 4W | LOCATION: SNBD, "MSB" | MOUNTING: SNBD. | A.I.C.: 10,000

DESCRIPTION	VOLT AMPS A	B	C	LTG	RCP	MSC	BKR POLE	AMP	CKT NO.	A	B	C	CKT NO.	BKR POLE	AMP	LTG	RCP	MSC	VOLT AMPS A	B	C	DESCRIPTION
SNBD LTS	200			4			1	20	1				2	1	20				-			SPARE
SNBD GFI RECEP		180			1		1	20	3				4	1	20					-		SPARE
FIELD #1 SCOREBOARD			500			1	1	20	5				6	1	20						-	SPARE
FIELD #1 GFCI RECEP	180				1		1	20	7				8	1	-				-			SPACE
FIELD #2 SCOREBOARD		500				1	1	20	9				10	1	-					-		SPACE
FIELD #2 GFCI RECEP			180		1		1	20	11				12	1	-						-	SPACE
FIELD #3 SCOREBOARD	500					1	1	20	13				14	1	-				-			SPACE
FIELD #3 GFCI RECEP		180			1		1	20	15				16	1	-					-		SPACE
IRRIG. CONTROLLER			500			1	1	20	17				18	1	-						-	SPACE
SPARE	-						1	20	19				20	1	-				-			SPACE
SPARE		-					1	20	21				22	1	-					-		SPACE
SPARE			-				1	20	23				24	1	-						-	SPACE
SPACE	-						1	-	25				26	1	-				-			SPACE
SPACE		-					1	-	27				28	1	-					-		SPACE
SPACE			-				1	-	29				30	1	-						-	SPACE
SPACE	-						1	-	31				32	1	-				-			SPACE
SPACE		-					1	-	33				34	1	-					-		SPACE
SPACE			-				1	-	35				36	1	-						-	SPACE
SPACE	-						1	-	37				38	2	40				2000			(E) SIGN
SPACE		-					1	-	39				40	2	125					6000		PANEL "LA1"
SPACE			-				1	-	41				42	2	125						6000	(E) RESTRM. BLDG.
TOTALS:	880	860	1180																2000	6000	8000	

TOTALS: A 2880 | B 6860 | C 9180

(9,180 X 3) 27,540 V.A. (L.G.L.) X 1.25 = 34,425 V.A.

OTHER LOAD = - V.A.

TOTAL = 34,425 V.A. TOTAL AMPS 96

PANEL "LB"

MAIN: 200A/3P | BUSS: 225A, CU | SERVICE: 208/120V, 3Φ, 4W | LOCATION: SNBD, "B" | MOUNTING: SNBD. | A.I.C.: 10,000

DESCRIPTION	VOLT AMPS A	B	C	LTG	RCP	MSC	BKR POLE	AMP	CKT NO.	A	B	C	CKT NO.	BKR POLE	AMP	LTG	RCP	MSC	VOLT AMPS A	B	C	DESCRIPTION
SNBD LIGHTS	100			2			1	20	1				2		40			1	2500			FUTURE EVSE
SNBD GFI RECEP		180			1		1	20	3				4	2						2500		----
SPARE			-				1	20	5				6		40			1			2500	FUTURE EVSE
SPARE	-						1	20	7				8	2					2500			----
SPARE		-					1	20	9				10	1	-					-		SPACE
SPARE			-				1	20	11				12	1	-						-	SPACE
SPACE	-						1	-	13				14	1	-				-			SPACE
SPACE		-					1	-	15				16	1	-					-		SPACE
SPACE			-				1	-	17				18	1	-						-	SPACE
SPACE	-						1	-	19				20	1	-				-			SPACE
SPACE		-					1	-	21				22	1	-					-		SPACE
SPACE			-				1	-	23				24	1	-						-	SPACE
SPACE	-						1	-	25				26	1	-				-			SPACE
SPACE		-					1	-	27				28	1	-					-		SPACE
SPACE			-				1	-	29				30	1	-						-	SPACE
SPACE	-						1	-	31				32	1	-				-			SPACE
SPACE		-					1	-	33				34	1	-					-		SPACE
SPACE			-				1	-	35				36	1	-						-	SPACE
SPACE	-						1	-	37				38	1	125			1	10000			PANEL "LB1"
SPACE		-					1	-	39				40		125			1		10000		PANEL "LB1"
SPACE			-				1	-	41				42	2							6000	RESTRM. BLDG.
TOTALS:	100	180	-																5000	2500	2500	

TOTALS: A 5100 | B 2680 | C 2500

(5,100 X 3) 15,300 V.A. (L.G.L.) X 1.25 = 19,125 V.A.

OTHER LOAD = - V.A.

TOTAL = 19,125 V.A. TOTAL AMPS 53

PANEL "LC"

MAIN: 200A/3P | BUSS: 225A, CU | SERVICE: 208/120V, 3Φ, 4W | LOCATION: SNBD, "C" | MOUNTING: SNBD. | A.I.C.: 10,000

DESCRIPTION	VOLT AMPS A	B	C	LTG	RCP	MSC	BKR POLE	AMP	CKT NO.	A	B	C	CKT NO.	BKR POLE	AMP	LTG	RCP	MSC	VOLT AMPS A	B	C	DESCRIPTION
POLE #51 SEC CAMERA	200						1	20	1				2	1	20	2			100			SNBD LIGHTS
POLE #52 SEC CAMERA		200					1	20	3				4	1	20			1		180		SNBD GFI RECEP
POLE #53 SEC CAMERA			200				1	20	5				6	1	20						500	IRRIG. CONTROLLER
POLE #54 SEC CAMERA	200						1	20	7				8	1	20				-			SPARE
POLE #55 SEC CAMERA		200					1	20	9				10	1	20					-		SPARE
POLE #56 SEC CAMERA			200				1	20	11				12	1	20						-	SPARE
VIDEO RECORDER	500						1	20	13				14	1	-				-			SPACE
SPARE		-					1	20	15				16	1	-					-		SPACE
SPARE			-				1	20	17				18	1	-						-	SPACE
SPACE	-						1	-	19				20	1	-				-			SPACE
SPACE		-					1	-	21				22	1	-					-		SPACE
SPACE			-				1	-	23				24	1	-						-	SPACE
SPACE	-						1	-	25				26	1	-				-			SPACE
SPACE		-					1	-	27				28	1	-					-		SPACE
SPACE			-				1	-	29				30	1	-						-	SPACE
SPACE	-						1	-	31				32	1	-				-			SPACE
SPACE		-					1	-	33				34	1	-					-		SPACE
SPACE			-				1	-	35				36	1	-						-	SPACE
SPACE	-						1	-	37				38	1	125			1	10000			PANEL "LC1"
SPACE		-					1	-	39				40							10000		RR/CONC/STO BLDG PNL
SPACE			-				1	-	41				42	3							10000	
TOTALS:	900	400	400																10100	10180	10500	

TOTALS: A 11000 | B 10580 | C 10900

(11,000 X 3) 33,000 V.A. (L.G.L.) X 1.25 = 41,250 V.A.

OTHER LOAD = - V.A.

TOTAL = 41,250 V.A. TOTAL AMPS 115

PANEL DIRECTORY

"HS1"	"HS2"	"LS"
"LA"	"LB"	"LC"

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CONSULTANT:

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Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

PANELBOARD SCHEDULES

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

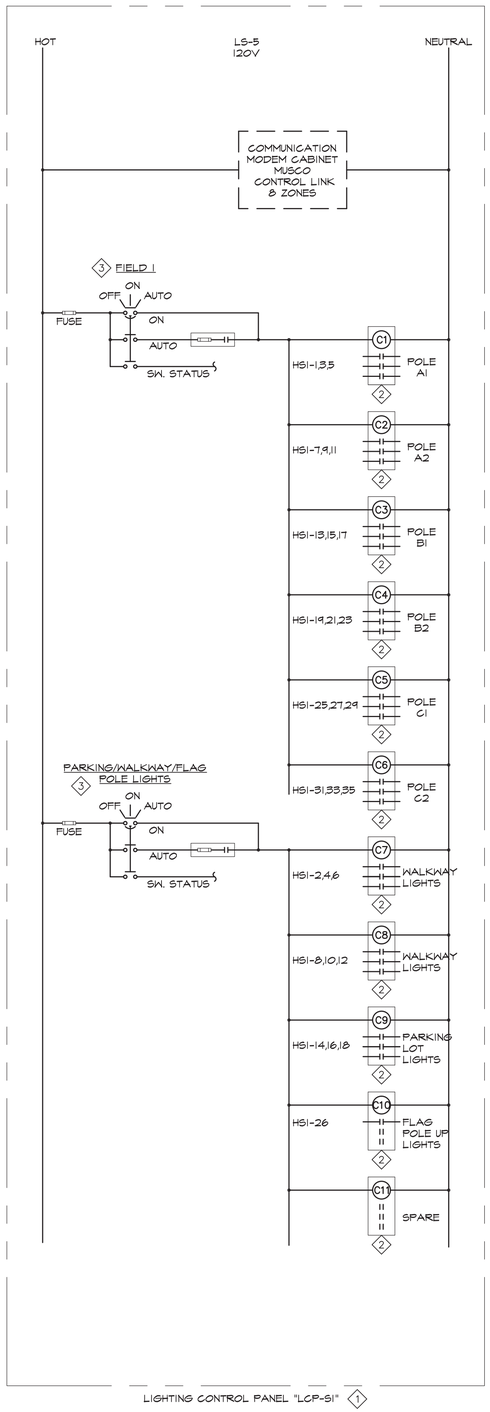
STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO '98
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

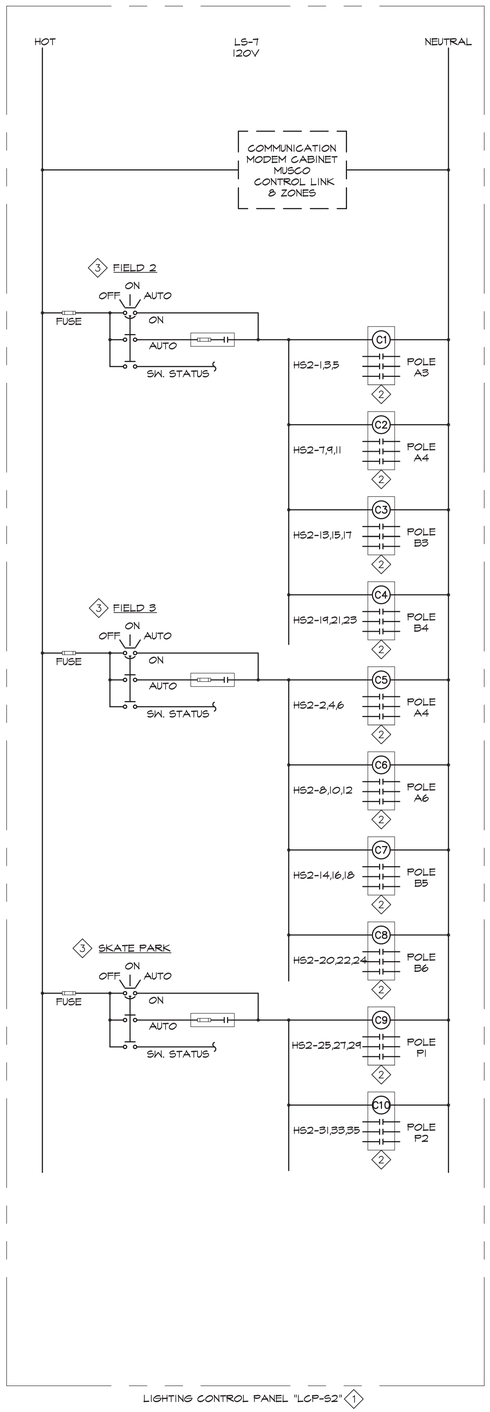
2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET
E-0.5
SHEET 75 OF 85 SHEETS



FIELD 1, PARKING, WALKWAY & FLAG POLE LIGHTS



FIELD 2, FIELD 3 & SKATE PARK

REFERENCE NOTES:

1. MUSCO LIGHTING CONTROL AND MONITORING CABINET COMPLETE WITH LIGHTING CONTACTORS. NEMA TYPE 4 ENCLOSURE. ENTIRE ASSEMBLY SHALL BE FACTORY WIRED, PROGRAMMED AND TESTED.
2. 30A, 3P ELECTRICALL HELD CONTACTOR, 100% RATED, 120V COIL.
3. OFF-ON-AUTOMATIC SWITCH MOUNTED ON CABINET DOOR. SWITCH SHALL BE FACTORY WIRED TO TERMINAL BLOCKS. PROVIDE SWITCH WITH NAMEPLATE.

GENERAL NOTES:

1. PROVIDE NAMEPLATES TO IDENTIFY ALL EQUIPMENT IN THE LIGHTING CONTROL PANELS.
2. LIGHTING CONTROL "ON AND OFF" SCHEDULES SHALL BE AS DIRECTED BY THE CITY OF LINDSAY.

A | SPORTS FIELDS, WALKWAYS, PARKING LOT & FLAG POLE LIGHTING CONTROL DIAGRAMS | NOT TO SCALE

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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

LIGHTING CONTROL DIAGRAMS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

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REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER C. REGALADO JR.
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
C.R.	2-13-23
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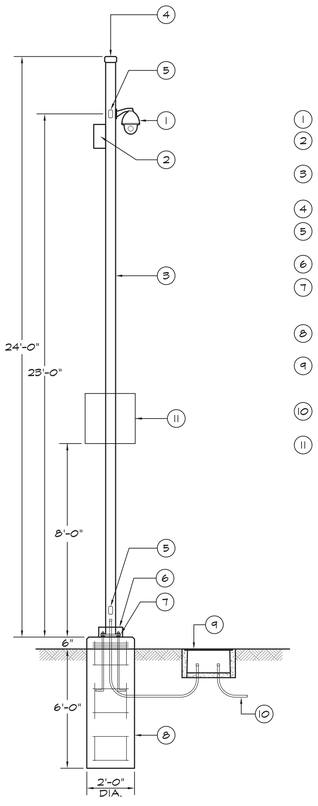
LRA	05500.00

SHEET
E-0.6
SHEET 76 OF 85 SHEETS



REFERENCE NOTES:

1. DOME TYPE SECURITY CAMERA
2. SECURITY CAMERA POWER SUPPLY, NEMA 4/4X, IP66-11 ENCLOSURE RATED FOR OUTDOOR USE
3. 5" SQUARE OT GA. STRAIGHT GALVANIZED STEEL POLE, LSI #5SQB5-SOTG-24-MSV-GA-5BG
4. GALVANIZED STEEL POLE CAP
5. HANDHOLE WITH GROUNDING LUG AND GASKETED COVER
6. TWO-PIECE ALUMINUM BASE COVER
7. BASE PLATE WITH (4) 1" X 36" X 4" HOT DIPPED GALVANIZED ANCHOR BOLTS, 52" MINIMUM INTO FOOTING
8. 24" DIAMETER CONCRETE BASE. SEE DETAIL 3 ON SHEET ST-2.
9. UNDERGROUND PRECAST CONCRETE PULL BOX. PROVIDE PULL BOX WHERE INDICATED ON ELECTRICAL SITE PLAN
10. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLAN FOR SIZE.
11. SIGN: "WARNING - CCTV CAMERAS IN OPERATION". PROVIDE COMPLETE WITH POLE MOUNTING STRAPS. MINIMUM 18" X 18" METAL SIGN. MANUFACTURER TO BE APPROVED BY THE CITY. SUBMIT SHOP DRAWINGS FOR APPROVAL.

NOTE:

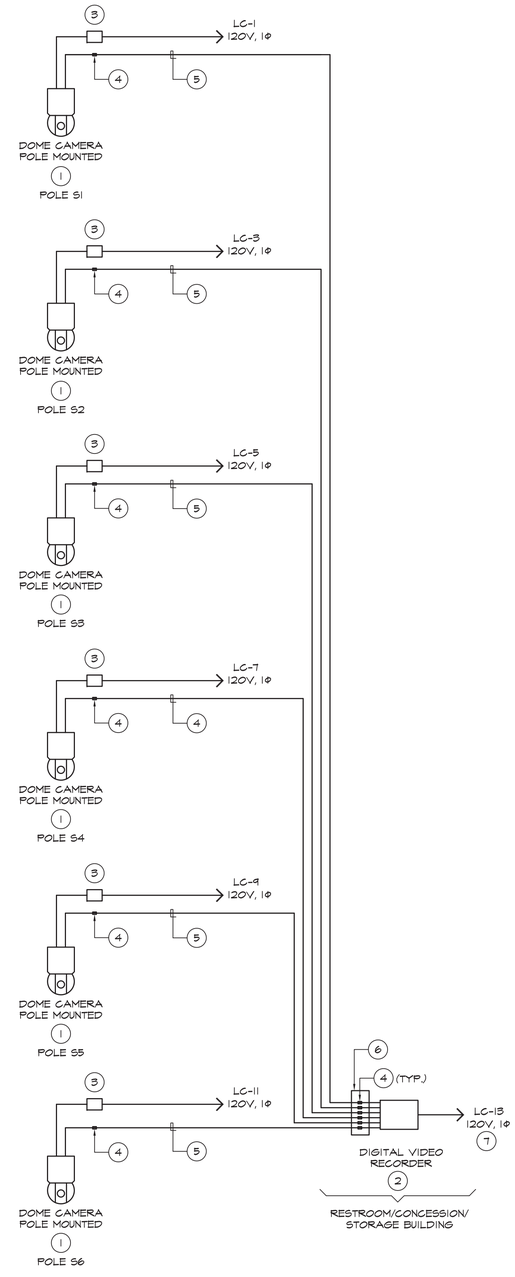
SEE POLE FOUNDATION DETAILS PREPARED BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING AND INSTALLING THE ANCHOR BOLTS. REFER TO DETAIL 3 ON SHEET ST-2.

B SECURITY CAMERA MOUNTING DETAIL NOT TO SCALE

SECURITY SYSTEM GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE AND OPERABLE THE SECURITY / SURVEILLANCE SYSTEM FOR OLIVE BOWL / KAKU PARK. ALL ITEMS REQUIRED TO COMPLETE THE INSTALLATION WHETHER DETAILED IN THIS PLAN OR IN THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACT.
2. PROVIDE ALL EQUIPMENT INCLUDING CONDUITS, OUTLET BOXES, CABLES AND ACCESSORIES AS SHOWN ON PLANS. COORDINATE ALL LOCATIONS AND REQUIREMENTS WITH THE CITY AND SECURITY VENDOR.
3. ALL SECURITY SYSTEM WIRING SHALL BE IN MINIMUM 1 1/2" CONDUIT.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CITY OF LINDSAY, CA.
5. SECURITY SYSTEM CONTACT / VENDOR:

ELECTRONIC DESIGN SOLUTIONS INC.
41785 ELM STREET, SUITE 201
MURIETTA, CA
TEL. (888) 611-1741



REFERENCE NOTES:

1. PAN/TILT/ZOOM SPEED DOME CAMERA. OUTDOOR POLE MOUNTED. PROVIDE COMPLETE WITH VANDAL RESISTANT OUTDOOR HOUSING, POLE MOUNTING BRACKET AND ACCESSORIES.

   CAMERA MODULE
   - 4 MEGAPIXEL RESOLUTION, 1/2.5" PROGRESSIVE SCAN CMOS
   - F=4.8-120MM LENS, 25X OPTICAL ZOOM
   - TRUE DAY/NIGHT WITH IR RANGE UP TO 328 FT.
   - 1 /15-1 /10,000S SHUTTER SPEED
   - 3.6S (OPTICAL ZOOM, WIDE TELE)
   - HORIZONTAL: 55°~2.4° (WIDE TELE), VERTICAL: 35°~1.4° (WIDE TELE), DIAGONAL: 61.5°~2.8° (WIDE TELE)

   PTZ
   - 360° ENDLESS PAN RANGE
   - PAN SPEED CONFIGURABLE, FROM 0.1~80°/S; PRESET SPEED: 120°/S
   - 0° TO 90° TILT RANGE
   - TILT SPEED CONFIGURABLE, FROM 0.1°~70°/S; PRESET SPEED: 120°/S
   - PROPORTIONAL ZOOM
   - 8 CRUISES, UP TO 16 PRESETS FOR EACH CRUISE
   - 4 TRACKS, RECORD TIME OVER 3 MINUTES FOR EACH TRACE

   NETWORK
   - 2560 X 1440 MAXIMUM RESOLUTION
   - H.265/H.264/MJPEG VIDEO COMPRESSION
   - G.711A/U AUDIO COMPRESSION
   - UP TO 6 CHANNELS SIMULTANEOUS LIVE REVIEW
   - UP TO 16 USERS, 3 LEVELS: ADMINISTRATOR, ADVANCE USER AND NORMAL USER
   - USER AUTHENTICATION (ID AND PW), HOST AUTHENTICATION (MAC ADDRESS); HTTPS ENCRYPTION, IEEE802.1 X PORT-BASED NETWORK ACCESS CONTROL; IP ADDRESS FILTERING

   GENERAL
   - POWER: DC24V, AC24V OR POE++ (802.3.BT, CLASS 6), (MAX. 34W, INCLUDE IR, HEATER, HEATER, FAN WORKING, MAX 12W FOR IR)
   - WORKING CONDITION: -22°F~140°F (-30°C~60°C), 90% RH LESS (NON-CONDENSING), COLD START AT 125°C
   - STORAGE CONDITION: -40°F~149°F (-40°~65°C)
   - PROTECTION: IP66, 6000V LIGHTNING PROTECTION, SURGE PROTECTION AND VOLTAGE TRANSIENT PROTECTION
   - MATERIAL: ALUMINUM ALLOY + PLASTIC
   - DIMENSIONS: Φ7.7 INCH X 12.5 IN (Φ196MM X 317MM)
   - WEIGHT: APPROX. 8.3I LB (3.7 KG)
   - CERTIFICATION: IP66, ROHS, CE, FC

   MANUFACTURER
   - INNOVATIVE VIDEO TECHNOLOGY MODEL PAR-P4PTZXIR25NH-AI: 4 MEGAPIXEL IP PLUG & PLAY, OUTDOOR PTZ.

2. DIGITAL VIDEO RECORDER COMPLETE WITH 17.2"W X 21"D X 5"H LOCK BOX & WALL MOUNTING ARMS
   - SYSTEM: 16 CH NVR WITH 16 PLUG AND PLAY PORTS, 96 MBPS, 10 TERABYTE HARD DRIVE FOR 24/7 RECORDING FOR 43 DAYS
   - OS: EMBEDDED LINUX

   VIDEO
   - NETWORK INPUT: 16 CH IPC INPUT
   - NETWORK INPUT RESOLUTION: 8MP/6MP/5MP/4MP/3MP/1080P/1280X1024/960P/720/960H/D1/CIF
   - OUTPUT: HDMI X 1:3840 X 2160 /1920 X 1080 /1280 X 1024 /1024 X 768 VGA: 1920 X 1080 /1280 X 1024 /1024 X 768
   - COMPRESSION: H.265S / H.265+ /H.265 /H.264

   AUDIO
   - NETWORK INPUT: 16 CH AUDIO INPUT
   - 2-WAY AUDIO: RCA X 1
   - LOCAL OUTPUT: RCA X 1
   - COMPRESSION: G.711 (U/A)

   RECORD
   - RESOLUTION: 8MP/6MP/5MP/4MP/3MP/1080P/1280 X 1024/960P/720P/960H/D1/CIF
   - FRAME RATE: N:30FPS; P:25FPS

   PLAYBACK
   - SIMULTANEOUS PLAYBACK: MAX. 16 CH
   - SEARCH: TIME SLICE / TIME / EVENT / TAG SEARCH /SMART SEARCH
   - FUNCTION: PLAY, PAUSE, FF, FB, DIGITAL ZOOM, ETC.
   - LIVE VIEW / PLAYBACK: 1CH 8MP; 4CH 1080P

   ALARM
   - MODE: MANUAL, SENDOR, MOTION, EXCEPTION, SMART EVENTS
   - INPUT: SUPPORTS 1PC ALARM INPUT
   - OUTPUT: SUPPORTS 1PC ALARM OUTPUT
   - TRIGGERING: RECORD, SNAP, PRESET, E-MAIL, ETC.

   OTHER FUNCTIONS
   - PLATE RECOGNITION: YES
   - HUMAN/VEHICLE CLASSIFICATION: YES

   NETWORK
   - INTERFACE: RJ 45 1000MBPS X 1
   - PROTOCOL: TCP / IP, PPPOE, DHCP, DNS, DDNS, UPNP, NTP, SMTP, HTTP, HTTPS, 802.1S, RTSP, SNMP, ONVIP, ETC.
   - INCOMING/OUTGOING BANDWIDTH: 96MBPS /96MBPS
   - CLIENT CONNECTION: MAX. 10 USERS

   MOBILE DEVICE
   - IOS, ADROID

   MANUFACTURER
   - INNOVATIVE VIDEO TECHNOLOGY MODEL FNIA-16X16-2NH: 16 CH NVR WITH 16 PLUG & PLAY PORTS, 10 TERABYTE HARD DRIVE

3. POWER SUPPLYCOMPLETE WITH NEMA 4/4X, IP66-11 ENCLOSURE RATED FOR OUTDOOR USE. 120VAC - 24VAC/28VAC. FURNISH AND INSTALL COMPLETE WITH POLE MOUNTING HARDWARES. ALTRONIX WAYPOINTIOA.
4. LONG RANGE ETHERNET EXTENDER/ADAPTER, RATED 100MBPS, UL LISTED. ALTRONIX PACEIPRMT.
5. (1) CATEGORY 6 DIRECT BURIAL DATA COMMUNICATION CABLE. UL LISTED OR ETL TYPE CMX, CMR, UL 444 & 1666.
6. TERMINAL BOX, SIZE AS REQUIRED, LOCKABLE, WALL MOUNTED.
7. PROVIDE A DEDICATED BRANCH CIRCUIT CONDUIT AND WIRES TO PANEL LC. MINIMUM 1"C - 2 #10 & 1 #10 GRD. XHHA-2. PROVIDE A 20A, 125V, DUPLEX RECEPTACLE WITH LOCKABLE WP WHILE IN USE COVER (ADJACENT TO THE DIGITAL VIDEO RECORDER) AS REQUIRED.

A SECURITY SYSTEM BLOCK DIAGRAM NOT TO SCALE

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LINDSAY, CA
93247

SHEET TITLE

SECURITY SYSTEM BLOCK DIAGRAM

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
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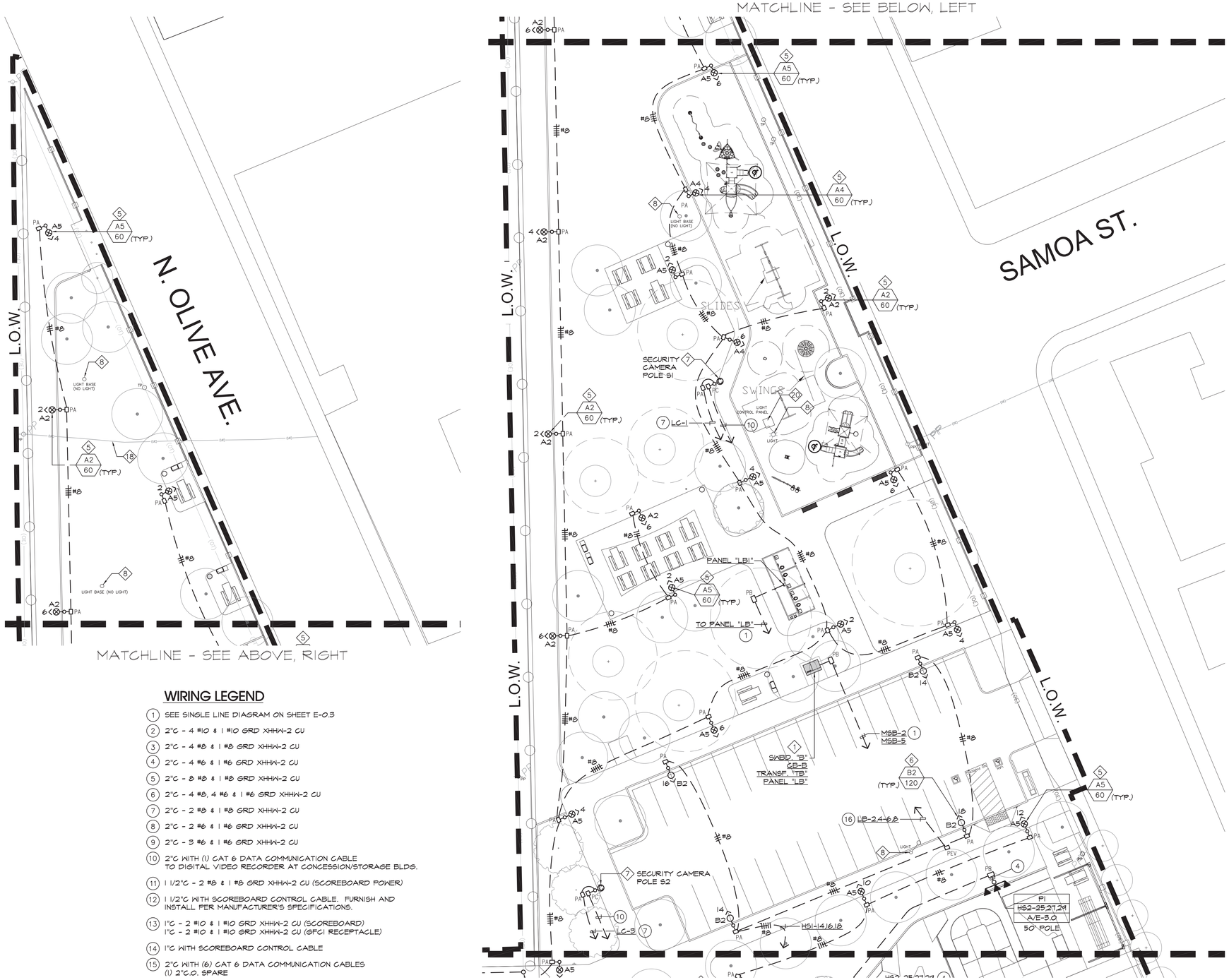
LRA	05500.00

SHEET
E-0.7
SHEET 77 OF 85 SHEETS



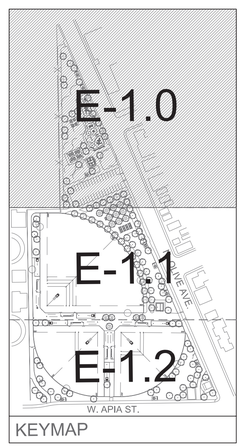
WIRING LEGEND

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3
2. 2"C - 4 #10 & 1 #10 GRD XHHW-2 CU
3. 2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
4. 2"C - 4 #6 & 1 #6 GRD XHHW-2 CU
5. 2"C - 8 #8 & 1 #8 GRD XHHW-2 CU
6. 2"C - 4 #8, 4 #6 & 1 #6 GRD XHHW-2 CU
7. 2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
8. 2"C - 2 #6 & 1 #6 GRD XHHW-2 CU
9. 2"C - 3 #6 & 1 #6 GRD XHHW-2 CU
10. 2"C WITH (1) CAT 6 DATA COMMUNICATION CABLE TO DIGITAL VIDEO RECORDER AT CONCESSION/STORAGE BLDG.
11. 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU (SCOREBOARD POWER)
12. 1 1/2"C WITH SCOREBOARD CONTROL CABLE. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
13. 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (SCOREBOARD)
    1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (GFCI RECEPTACLE)
14. 1"C WITH SCOREBOARD CONTROL CABLE
15. 2"C WITH (6) CAT 6 DATA COMMUNICATION CABLES (1) 2"C.O. SPARE
16. (2) 1 1/2" C.O. FOR FUTURE EV SUPPLY EQUIPMENT (EVSE)
17. (1) 5"C.O. FURNISH AND INSTALL PER SCE REQUIREMENTS.

- #10 — 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU
- #8 — 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
- #8 — 1 1/2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
- #8 — 1 1/2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
- PA — PULL BOX TO TYPE "A2", "A4", "A5" & "B2" LIGHT FIXTURE
  1 1/2"C - 2 #10 & 1 #10 GRD XHHW-2 CU

PLAN NOTES

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3 AND SWITCHBOARD ELEVATIONS ON SHEET E-0.4.
2. TRANSFORMER PAD. FURNISH AND INSTALL PER SCE REQUIREMENTS.
3. SECONDARY SERVICE CONDUITS. FURNISH AND INSTALL PER SCE REQUIREMENTS.
4. PRIMARY SERVICE CONDUIT. FURNISH AND INSTALL PER SCE REQUIREMENTS.
5. WALKWAY LIGHT AND POLE. SEE TYPICAL WALKWAY LIGHT AND POLE STANDARD DETAIL "E" ON SHEET E-2.0.
6. PARKING AREA LIGHT AND POLE. SEE TYPICAL PARKING AREA LIGHT AND POLE STANDARD DETAIL "F" ON SHEET E-2.0.
7. POLE MOUNTED SECURITY CAMERA. SEE SECURITY SYSTEM BLOCK DIAGRAM AND DETAIL ON SHEET E-0.7.
8. EXISTING LIGHT, POWER POLE AND CONCRETE FOUNDATION TO BE REMOVED. REMOVE ASSOCIATED CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
9. EXISTING METER AND PANEL TO BE REMOVED. EXISTING ELECTRICAL LOADS TO REMAIN SHALL BE RECONNECTED TO MAIN SWBD. "MSB"/PANEL "LA". PROVIDE TRANSFORMERS, CONDUITS, WIRES, PULL BOXES, LIGHTING CONTROLS AND ACCESSORIES AS REQUIRED. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
10. TELEPHONE SERVICE CONDUIT & PULL BOX. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS.
11. TELEPHONE TERMINAL CABINET. 24"W X 36"H X 6.75"D, GA. 16 GALV. STEEL COMPLETE WITH 3/4" THICK TREATED PLYWOOD BACKBOARD, DOUBLE DUPLEX RECEPTACLE AND #6 UFER GROUND. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS. PROVIDE 20A, 120V DEDICATED BRANCH CIRCUIT CONDUIT AND WIRES TO PANEL "LC1".
12. SCOREBOARD. VERIFY EXACT LOCATION WITH THE CITY.
13. 30A5/20AF/IPSN/WP. CONNECT TO SCOREBOARD PER MANUFACTURER'S SPECIFICATIONS.
14. WIRE CIRCUIT VIA "ON-OFF" POWER CONTROL SWITCH AT SCOREBOARD CONTROL CABINET.
15. TO CONTROL JACK AT SCOREBOARD CONTROL CABINET. FURNISH AND INSTALL PER SCOREBOARD MANUFACTURER'S SPECIFICATIONS.
16. SCOREBOARD CONTROL CABINET WITH GFCI TYPE DUPLEX RECEPTACLE. SEE DETAIL "C" ON SHEET E-2.0.
17. FLAG POLE UP LIGHT. SEE DETAIL "D" ON SHEET E-2.0.
18. EXISTING UNDERGROUND ELECTRICAL LINE, PROTECT IN PLACE. SEE CIVIL PLANS.
19. SEE IRRIGATION PLANS.
20. REMOVE EXISTING ELECTRICAL PANEL/LIGHTING CONTROL PANEL AND TURN OVER TO THE CITY. REMOVE ASSOCIATED CONCRETE FOOTING, CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY.
21. SEE SECURITY SYSTEM BLOCK DIAGRAM ON SHEET E-0.7.
22. RUN SECURITY SYSTEM DATA CONDUITS THROUGH THIS PULL BOX.
23. CONTRACTOR TO COORDINATE WITH SCE. SCE REQUIRES 48-HOUR ADVANCE NOTICE BEFORE EXCAVATION AND 48-HOUR ADVANCE NOTICE BEFORE OPEN TRENCH INSPECTION. CONTRACTOR TO ALLOW SCE 4 TO 12 WEEKS TO COMPLETE THEIR WORK (INSTALL 12 KV CABLES, SWITCHGEAR, ETC.).



0 10' 20' 40'

NORTH

DIGALERT
DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

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109 W. UNION AVE.
FULLERTON, CA 92832
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Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:
LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.
ELECTRICAL ENGINEER
LRA ENGINEERS
CIVIL ENGINEER
BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

PARTIAL ELECTRICAL SITE PLAN

DATE	REVISION
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12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

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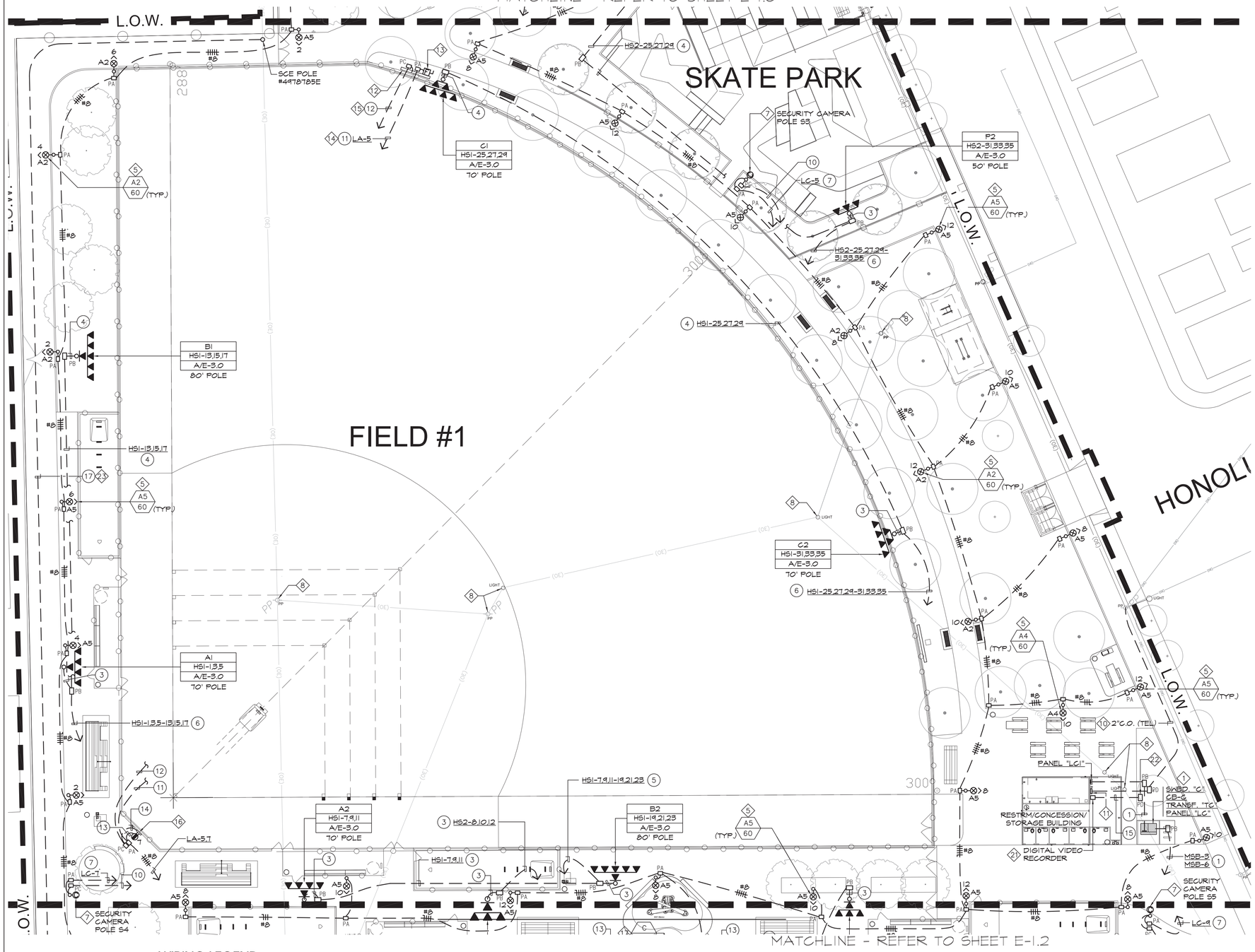
REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO JR.
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET
E-1.0
SHEET 78 OF 85 SHEETS



PLAN NOTES

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3 AND SWITCHBOARD ELEVATIONS ON SHEET E-0.4.
2. TRANSFORMER PAD. FURNISH AND INSTALL PER SCE REQUIREMENTS.
3. SECONDARY SERVICE CONDUITS. FURNISH AND INSTALL PER SCE REQUIREMENTS.
4. PRIMARY SERVICE CONDUIT. FURNISH AND INSTALL PER SCE REQUIREMENTS.
5. WALKWAY LIGHT AND POLE. SEE TYPICAL WALKWAY LIGHT AND POLE STANDARD DETAIL "E" ON SHEET E-2.0.
6. PARKING AREA LIGHT AND POLE. SEE TYPICAL PARKING AREA LIGHT AND POLE STANDARD DETAIL "F" ON SHEET E-2.0.
7. POLE MOUNTED SECURITY CAMERA. SEE SECURITY SYSTEM BLOCK DIAGRAM AND DETAIL ON SHEET E-0.7.
8. EXISTING LIGHT, POWER POLE AND CONCRETE FOUNDATION TO BE REMOVED. REMOVE ASSOCIATED CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
9. EXISTING METER AND PANEL TO BE REMOVED. EXISTING ELECTRICAL LOADS TO REMAIN SHALL BE RECONNECTED TO MAIN SWBD. "MSB"/PANEL "LA". PROVIDE TRANSFORMERS, CONDUITS, WIRES, PULL BOXES, LIGHTING CONTROLS AND ACCESSORIES AS REQUIRED. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
10. TELEPHONE SERVICE CONDUIT & PULL BOX. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS.
11. TELEPHONE TERMINAL CABINET. 24"W X 36"H X 6.75"D, GA. 16 GALV. STEEL COMPLETE WITH 3/4" THICK TREATED PLYWOOD BACKBOARD, DOUBLE DUPLEX RECEPTACLE AND #6 UFER GROUND. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS. PROVIDE 20A, 120V DEDICATED BRANCH CIRCUIT CONDUIT AND WIRES TO PANEL "LC1".
12. SCOREBOARD. VERIFY EXACT LOCATION WITH THE CITY.
13. 30A/3/20AF/1PSN/NP. CONNECT TO SCOREBOARD PER MANUFACTURER'S SPECIFICATIONS.
14. WIRE CIRCUIT VIA "ON-OFF" POWER CONTROL SWITCH AT SCOREBOARD CONTROL CABINET.
15. TO CONTROL JACK AT SCOREBOARD CONTROL CABINET. FURNISH AND INSTALL PER SCOREBOARD MANUFACTURER'S SPECIFICATIONS.
16. SCOREBOARD CONTROL CABINET WITH GFCI TYPE DUPLEX RECEPTACLE. SEE DETAIL "C" ON SHEET E-2.0.
17. FLAG POLE UP LIGHT. SEE DETAIL "D" ON SHEET E-2.0.
18. EXISTING UNDERGROUND ELECTRICAL LINE, PROTECT IN PLACE. SEE CIVIL PLANS.
19. SEE IRRIGATION PLANS.
20. REMOVE EXISTING ELECTRICAL PANEL/LIGHTING CONTROL PANEL AND TURN OVER TO THE CITY. REMOVE ASSOCIATED CONCRETE FOOTING, CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY.
21. SEE SECURITY SYSTEM BLOCK DIAGRAM ON SHEET E-0.7.
22. RUN SECURITY SYSTEM DATA CONDUITS THROUGH THIS PULL BOX.
23. CONTRACTOR TO COORDINATE WITH SCE. SCE REQUIRES 48-HOUR ADVANCE NOTICE BEFORE EXCAVATION AND 48-HOUR ADVANCE NOTICE BEFORE OPEN TRENCH INSPECTION. CONTRACTOR TO ALLOW SCE 4 TO 12 WEEKS TO COMPLETE THEIR WORK (INSTALL 12 KV CABLES, SWITCHGEAR, ETC.).

WIRING LEGEND

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2. 2"C - 4 #10 & 1 #10 GRD XHHW-2 CU
3. 2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
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6. 2"C - 4 #8, 4 #6 & 1 #6 GRD XHHW-2 CU
7. 2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
8. 2"C - 2 #6 & 1 #6 GRD XHHW-2 CU
9. 2"C - 3 #6 & 1 #6 GRD XHHW-2 CU
10. 2"C WITH (1) CAT 6 DATA COMMUNICATION CABLE TO DIGITAL VIDEO RECORDER AT CONCESSION/STORAGE BLDG.
11. 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU (SCOREBOARD POWER)
12. 1 1/2"C WITH SCOREBOARD CONTROL CABLE. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
13. 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (SCOREBOARD)
    1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (GFCI RECEPTACLE)
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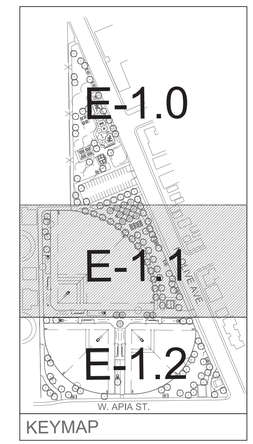
15. 2"C WITH (6) CAT 6 DATA COMMUNICATION CABLES (1) 2"C.O. SPARE
16. (2) 1 1/2" C.O. FOR FUTURE EV SUPPLY EQUIPMENT (EVSE)
17. (1) 5"C.O. FURNISH AND INSTALL PER SCE REQUIREMENTS.

#10 / #8 — 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU
#8 / #8 — 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
#8 / #8 / #8 — 1 1/2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
#8 / #8 / #8 / #8 — 1 1/2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
PA — PULL BOX TO TYPE "A2", "A4", "A5" & "B2" LIGHT FIXTURE
1 1/2"C - 2 #10 & 1 #10 GRD XHHW-2 CU

0 10' 20' 40'

NORTH



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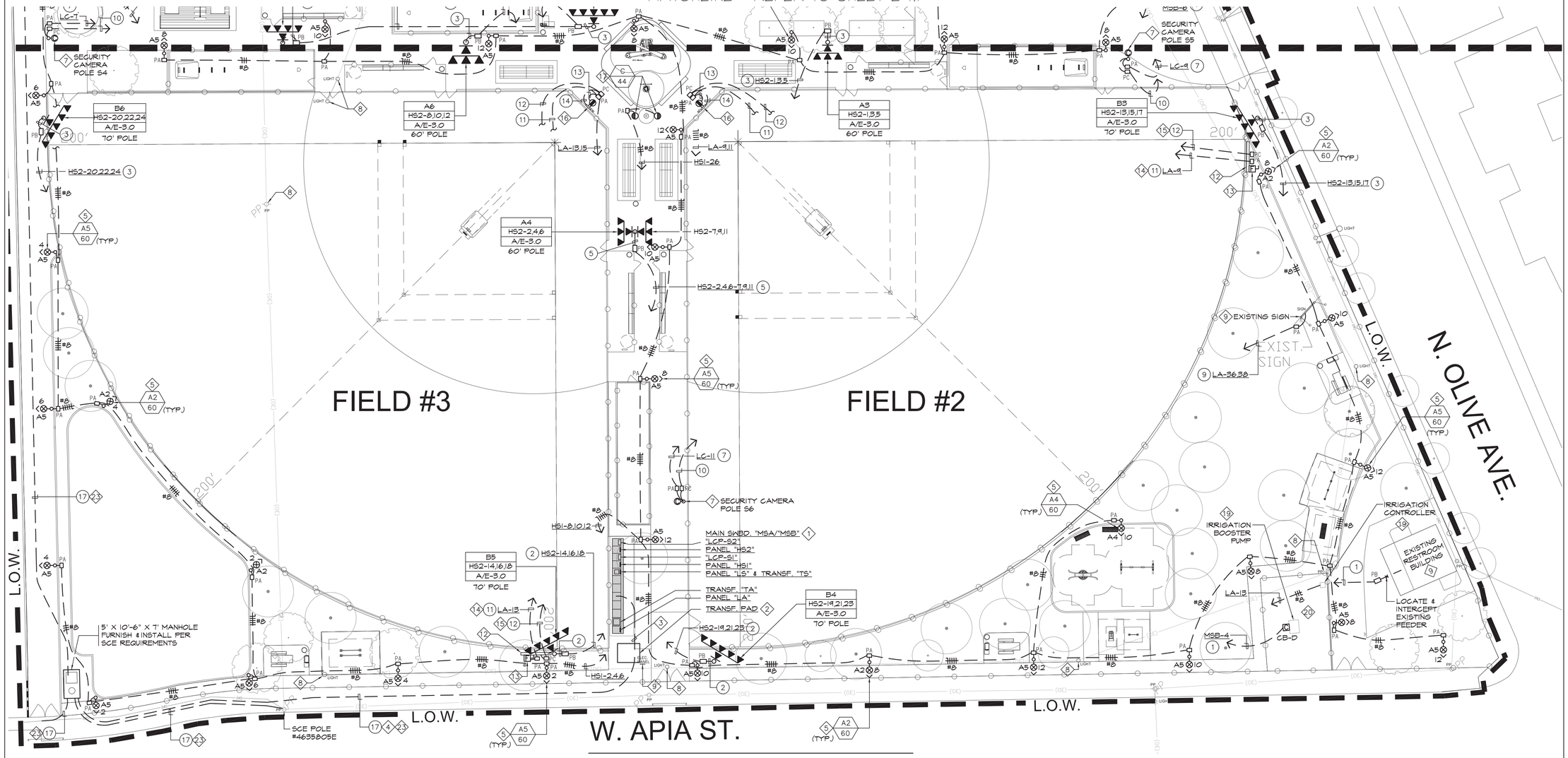

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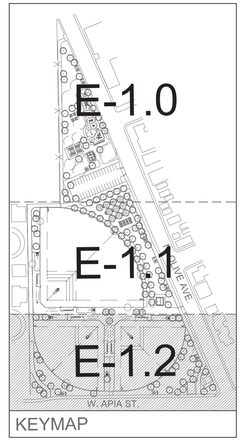
ELECTRICAL SITE PLAN GENERAL NOTES

1. ALL UTILITY WORK SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE CITY AND THE SERVING UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CITY AND THE SERVING UTILITY COMPANY TO RECEIVE COMPLETE INFORMATION ON THEIR REQUIREMENTS PRIOR TO THE SUBMISSION OF THE BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE CITY, THE SERVING UTILITY COMPANY AND THE CONTRACT DOCUMENTS.
2. ALL ITEMS SUCH AS SERVICE CONDUIT, CONDUCTORS, CONCRETE PADS, PULL BOXES, MANHOLES AND PROTECTIVE COVERING FROM SERVICE LOCATION SHALL BE PROVIDED AND INSTALLED, AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY.



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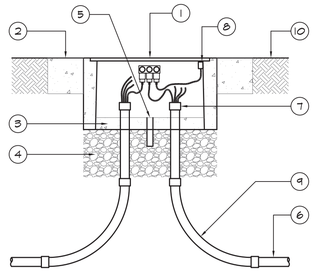


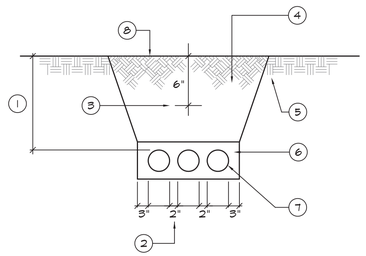
REFERENCE NOTES:

1. TRAFFIC RATED UNDERGROUND PULL BOX. CONCRETE BODY WITH FLUSH STEEL COVER. SIZE AS NOTED ON PLANS.
2. 6" X 6" CONCRETE APRON AROUND THE BOX IF NOT SURROUNDED BY SIDEWALK.
3. 2" THICK MORTAR BED TO SEAL PULL BOX BOTTOM.
4. 3/4" CRUSHED ROCK UNDER BOX, 8" THICK
5. 3/4" PVC DRAIN TO GRAVEL
6. PVC CONDUIT, SIZE AND QUANTITY AS NOTED ON PLANS.
7. CONDUITS MUST BE SEALED AFTER PULLING WIRES (TYPICAL).
8. BOND TO PULL BOX STEEL FRAME AND COVER.
9. 18" MINIMUM RADIUS FOR CONDUITS EXTENDING TO PULL BOXES OR PEDESTALS.
10. FINISHED GRADE.

NOTES:

1. SPLICES IN PULL BOXES SHALL BE MADE WITH MULTI TAP WATERTIGHT CONNECTORS SUITABLE FOR DIRECT BURIAL IN EARTH OR CONCRETE. ILSCO PED-SS SERIES. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. PROVIDE AND INSTALL PULL BOXES AS INDICATED ON THE DRAWINGS.

A TYPICAL UNDERGROUND PULL BOX DETAIL NOT TO SCALE



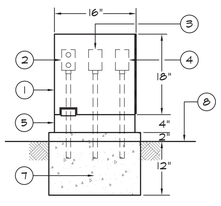
REFERENCE NOTES:

1. 30" MIN. WHERE SUBJECTED TO VEHICULAR TRAFFIC AND MUST BE 24" MIN. UNDER ANY CIRCUMSTANCES.
2. INCREASE TO 12" BETWEEN POWER & SIGNAL/COMMUNICATION CONDUITS.
3. 6" WIDE RED DETECTABLE BURIED WARNING TAPE "CAUTION BURIED ELECTRICAL LINE BELOW".
4. COMPACTED EARTH BACKFILL, FREE FROM LARGE ROCKS AND DEBRIS.
5. UNDISTURBED EARTH
6. 3" MINIMUM SAND
7. SCHEDULE 40 PVC CONDUIT. REFER TO DRAWINGS FOR CONDUIT SIZES & QUANTITIES. SEE NOTE 1 BELOW.
8. FINISHED GRADE

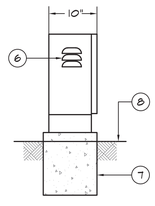
NOTES:

1. REFER TO POWER AND TELEPHONE CO. DRAWINGS FOR UNDERGROUND CONDUIT REQUIREMENTS.
2. PROVIDE UNDERWRITER'S LABORATORIES (UL) LISTED CONDUIT SPACERS AS REQUIRED.

B TYPICAL UNDERGROUND CONDUIT SECTION NOT TO SCALE



FRONT VIEW

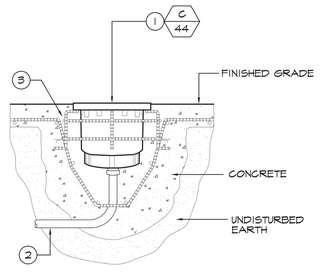


SIDE VIEW

REFERENCE NOTES:

1. SCOREBOARD CONTROL CABINET, 16" WIDE X 18" HIGH X 10" DEEP, NEMA 3R, STAINLESS STEEL, VANDAL RESISTANT, LOCKABLE WITH CITY STANDARD PADLOCK, WITH SIDE LOUVERS AND PRE-DRILLED BACKBOARD. V.I.T. PRODUCTS, INC. ENCLOSURE: PART NO. SB-1618SW, PEDESTAL AND BASE: PART NO. PED -1618
2. 20A, 125V, 2P, 3W GROUNDING TYPE GFCI TYPE DUPLEX RECEPTACLE, SHALL BE LISTED WEATHER-RESISTANT TYPE. PROVIDE WEATHERPROOF WHILE-IN USE COVER PER 2022 CEC 406.9(B)(1) AND UL REQUIREMENTS FOR WET LOCATION. PROVIDE WEATHERPROOF OUTLET BOX.
3. SCOREBOARD POWER "ON-OFF SWITCH", SINGLE POLE, 277VAC, TOGGLE TYPE. PROVIDE WEATHERPROOF COVER AND OUTLET BOX.
4. SCOREBOARD CONTROLLER JACK. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROVIDE WEATHERPROOF COVER AND OUTLET BOX.
5. 4" RISER PEDESTAL.
6. SIDE LOUVERS.
7. POURED CONCRETE BASE, EXTEND 4" BEYOND OUTSIDE DIMENSION OF ENCLOSURE WITH MINIMUM 1/2% SLOPE FOR DRAINAGE.
8. FINISHED GRADE.

C SCOREBOARD CONTROL CABINET DETAIL NOT TO SCALE

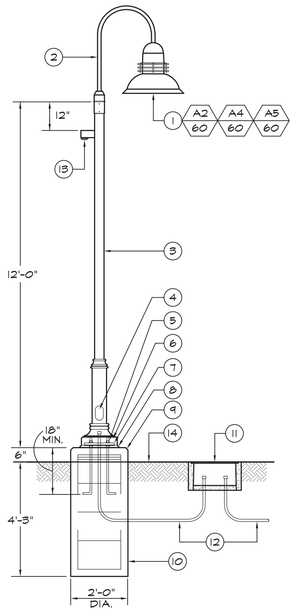


REFERENCE NOTES:

1. LED IN-GROUND UP LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON THIS SHEET.
2. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLANS FOR WIRING REQUIREMENTS.
3. REBAR CAGE ANCHOR TIES INTO REBAR TO SUPPORT FIXTURE DURING CONCRETE POUR.

D FLAG POLE UP LIGHT MOUNTING DETAIL NOT TO SCALE

SYMBOLS ON SITE PLAN:



REFERENCE NOTES:

1. LED WALKWAY/SECURITY LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
2. CONTEMPORARY ARM, SLIPS OVER 4" POLE. FINISH TO MATCH LIGHT FIXTURE.
3. 4" O.D. POLE. FINISH TO MATCH LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
4. 4" X 6" REINFORCED HANDHOLE WITH GROUNDING LUGS, GASKETED WEATHERPROOF COVER AND TAMPERPROOF SCREWS.
5. PROVIDE 2 NUTS FOR EACH ANCHOR BOLT FOR LEVELING.
6. 15.25" DIA. BASE COVER.
7. 15.25" DIA. X 1" THICK BASE PLATE WITH (4) 3/4" X 24" X 3" GALVANIZED ANCHOR BOLTS BY POLE MANUFACTURER ON 10" DIA. BOLT CIRCLE.
8. GROUT UNDER ENTIRE BASE.
9. 1" CHAMFER ALL AROUND.
10. REINFORCED CONCRETE FOOTING. SEE DETAIL 2 ON SHEET ST-2.
11. PROVIDE PULL BOX AS INDICATED ON PLANS.
12. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLANS FOR SIZE.
13. SENSOR CONTROL PROGRAMMABLE.
14. TOP OF WALKWAY.

NOTE:

SEE POLE BASE DETAILS PREPARED BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING AND INSTALLING THE ANCHOR BOLTS. REFER TO DETAIL 2 ON SHEET ST-2.

NOT TO SCALE

E TYPICAL WALKWAY LIGHT AND POLE STANDARD DETAIL

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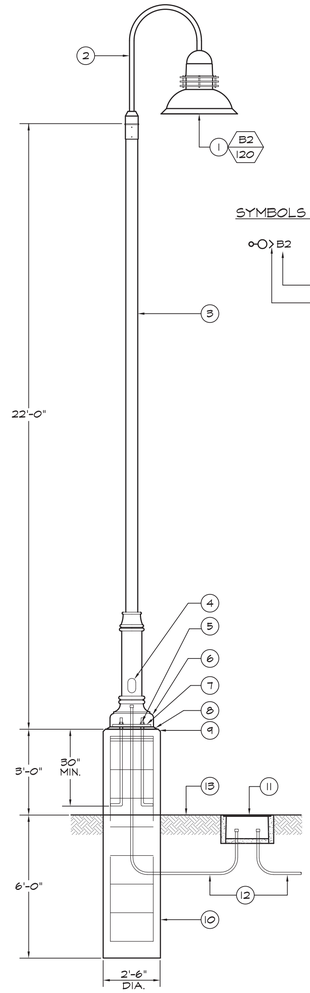

REFERENCE NOTES:

1. LED PARKING AREA LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
2. CONTEMPORARY ARM, SLIPS OVER 5" POLE. FINISH TO MATCH LIGHT FIXTURE.
3. 5" O.D. POLE. FINISH TO MATCH LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
4. 4" X 6" REINFORCED HANDHOLE WITH GROUNDING LUGS, GASKETED WEATHERPROOF COVER AND TAMPERPROOF SCREWS.
5. PROVIDE 2 NUTS FOR EACH ANCHOR BOLT FOR LEVELING.
6. 18.625" DIA. BASE COVER.
7. 18" DIA. X 1" THICK BASE PLATE WITH (4) 1" X 36" X 4" GALVANIZED ANCHOR BOLTS BY POLE MANUFACTURER ON 12 1/2" DIA. BOLT CIRCLE.
8. GROUT UNDER ENTIRE BASE.
9. 1" CHAMFER ALL AROUND.
10. REINFORCED CONCRETE FOOTING. SEE DETAIL 1 ON SHEET ST-2.
11. PROVIDE PULL BOX AS INDICATED ON PLANS.
12. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLANS FOR SIZE.
13. TOP OF PARKING LOT.

NOTE:

SEE POLE BASE DETAILS PREPARED BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING AND INSTALLING THE ANCHOR BOLTS. REFER TO DETAIL 1 ON SHEET ST-2.

NOT TO SCALE

F TYPICAL PARKING AREA LIGHT & POLE STANDARD DETAIL

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FULLERTON, CA 92832
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PROJECT TEAM:

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BKF
STRUCTURAL ENGINEER
ISE
SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

ELECTRICAL DETAILS

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA

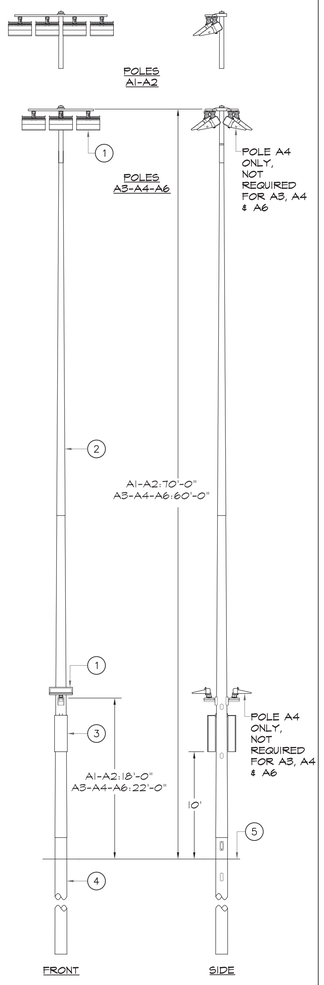
2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET

E-2.0

SHEET 81 OF 85 SHEETS



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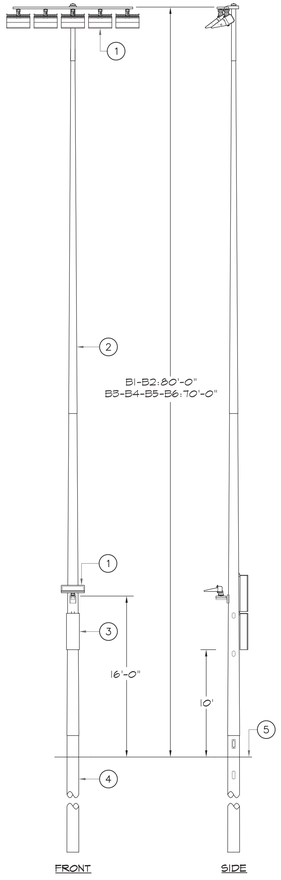
A1-A2-A3-A4-A6



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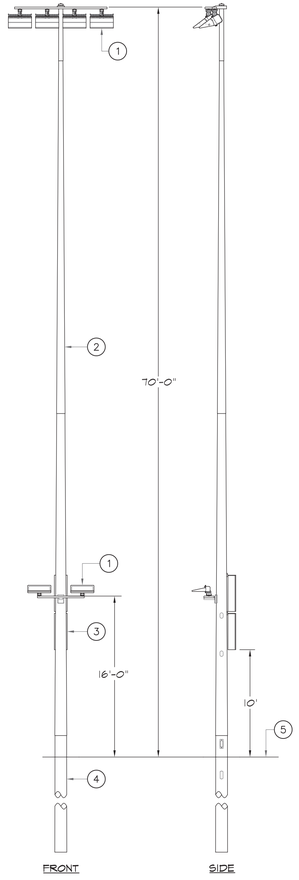
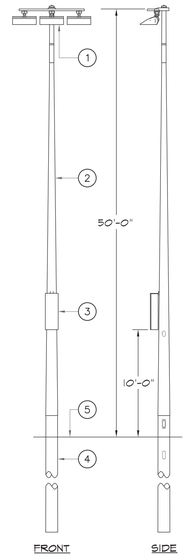
B1-B2-B3-B4-B5-B6



POLES
C1-C2



POLES
P1-P2

POLE DETAILS REFERENCE NOTES:

1. LED SPORTS LIGHT FIXTURES
2. GALVANIZED STEEL POLE (WIRE HARNESS INSIDE POLE)
3. ELECTRICAL COMPONENTS ENCLOSURE (LED DRIVERS, CONTROLLERS, SURGE PROTECTORS, FUSING, PRIMARY LANDING LUGS, DISCONNECT SWITCH, ETC.)
4. CONCRETE FOUNDATION. SEE ELECTRICAL SPECIFICATIONS FOR GROUNDING REQUIREMENTS.
5. GROUND LEVEL

POLE DETAILS GENERAL NOTES:

1. POLE AND LUMINAIRE DETAILS SHOWN ARE FOR REFERENCE ONLY. FURNISH AND INSTALL POLES, LUMINAIRES, CONCRETE FOUNDATION AND ACCESSORIES PER MUSCO SPORTS LIGHTING'S SPECIFICATIONS.
2. REFER TO SPORTS FIELD POLE & FEEDER SCHEDULE ON THIS SHEET FOR POLE HEIGHT, FIXTURE MOUNTING HEIGHT, TYPE AND QUANTITY OF FIXTURES PER POLE.

A | FIELD #1, #2, #3 & SKATE PARK POLE DETAILS NOT TO SCALE

SPORTS FIELD LIGHT, POLE & FEEDER SCHEDULE

POLES		LUMINAIRES - QUANTITY								SPORTS FIELD	ELEC. LOAD KVA	FEEDER DESCRIPTION				
POLE HEIGHT	POLE ID	MTG. HEIGHT	TLC-LED-1500	TLC-LED-1200	TLC-LED-900	TLC-BT-575	TLC-LED 600	TLC-LED 400	TOTAL			PANEL CIRCUIT NO.	WIRE SIZE (XHHW-2, CU)	LENGTH FEET	%V.D. SEGMENT	%V.D. TOTAL
70 FT.	A1	70 FT.		4						FIELD #1	7.2	HS1-1,3,5	#8	500	1.43	1.88
		18 FT.				1			5							
70 FT.	A2	70 FT.		4						FIELD #1	7.2	HS1-7,9,11	#8	370	1.06	1.51
		18 FT.				1			5							
60 FT.	A3	60 FT.		1	2					FIELD #2	4.8	HS2-1,3,5	#8	310	0.53	0.98
		22 FT.				1			4							
60 FT.	A4	60 FT.		1	2					FIELD #2	4.8	HS2-7,9,11	#8	160	0.27	0.73
		22 FT.				1			4							
		60 FT.		1	2					FIELD #3	4.8	HS2-2,4,6	#8	160	0.27	0.73
		22 FT.				1			4							
60 FT.	A6	60 FT.		1	2					FIELD #3	4.8	HS2-8,10,12	#8	270	0.46	0.91
		22 FT.				1			4							
80 FT.	B1	80 FT.	4	1						FIELD #1	10.4	HS1-13,15,17	#6	630	1.45	1.90
		16 FT.				1			6							
80 FT.	B2	80 FT.	4	1						FIELD #1	10.4	HS1-19,21,23	#8	240	0.86	1.31
		16 FT.				1			6							
70 FT.	B3	70 FT.		4	1					FIELD #2	8.4	HS2-13,15,17	#8	340	0.97	1.42
		16 FT.				1			6							
70 FT.	B4	70 FT.		4	1					FIELD #2	8.4	HS2-19,21,23	#10	90	0.38	0.84
		16 FT.				1			6							
70 FT.	B5	70 FT.		4	1					FIELD #3	8.4	HS2-14,16,18	#10	80	0.34	0.79
		16 FT.				1			6							
70 FT.	B6	70 FT.		4	1					FIELD #3	8.4	HS2-20,22,24	#8	320	0.91	1.37
		16 FT.				1			6							
70 FT.	C1	70 FT.	4							FIELD #1	9.6	HS1-25,27,29	#6	700	1.61	2.06
		16 FT.				2			6							
70 FT.	C2	70 FT.	4							FIELD #1	9.6	HS1-31,33,35	#8	460	1.64	2.09
		16 FT.				2			6							
50 FT.	P1	50 FT.					2	1	3	SKATE PK	3.3	HS2-25,27,29	#6	650	0.41	0.93
50 FT.	P2	50 FT.					2	1	3	SKATE PK	3.3	HS2-31,33,35	#8	550	0.54	1.06
	TOTAL 15 POLES		TOTAL 16	TOTAL 30	TOTAL 12	TOTAL 16	TOTAL 4	TOTAL 2	TOTAL 80							

NOTES :

1. FEEDER LENGTHS SHOWN ARE FOR VOLTAGE DROP CALCULATIONS ONLY AND SHALL NOT BE USED FOR BID QUANTITY TAKE-OFF.
2. LUMINAIRES SHALL BE MUSCO'S "LED LUMINAIRE", 277 VOLTS, COMPLETE WITH LED DRIVERS, CONTROLLERS, SURGE PROTECTORS, FUSING, DISCONNECT SWITCHES, WIRING AND ACCESSORIES.
   TLC-BT-575 - 5700K, 75 CRI, 575W, 52,000 LUMENS
   TLC-LED-1500 - 5700K, 75 CRI, 1430W, 160,000 LUMENS
   TLC-LED-1200 - 5700K, 75 CRI, 1170W, 136,000 LUMENS
   TLC-LED-900 - 5700K, 75 CRI, 890W, 84,800 LUMENS
   TLC-LED-600 - 5700K, 75 CRI, 580W, 65,600 LUMENS
   TLC-LED-400 - 5700K, 75 CRI, 400W, 38,600 LUMENS
3. SERVICE TO EACH POLE IS 480/277V, 3Ø, 4W, CONNECT THE LUMINAIRES EQUALLY BETWEEN PHASES.

B | SPORTS FIELD LIGHT, POLE & FEEDER SCHEDULE

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LINDSAY, CA
93247

SHEET TITLE

SPORTS FIELD
POLE DETAILS

DATE	REVISION
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12-8-21	90% CD Submittal
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2-13-23	100% CD Submittal

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CHRIS C. REGACHO JR.
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STATE OF CALIFORNIA

2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET

E-3.0

SHEET 82 OF 85 SHEETS

POLE FOUNDATION SCHEDULE
(SEE LIGHT POLE FOUNDATION DETAIL)

TYPE	ASD GROUNDLINE FORCES (MAXIMUM)			C.I.P. DEEP FOUNDATION	
	MOMENT (M) KIP–FT	SHEAR (V) KIPS	VERTICAL (P) KIPS *	DIAMETER INCHES	EMBEDMENT FEET
LSS60–AA	27.97	0.798	0.968	30"	10'–0"
LSS60–A	37.75	1.058	1.461	30"	10'–0"
LSS70–A	47.15	1.090	1.557	30"	12'–0"
LSS80–A	67.47	1.383	2.317	30"	14'–0"

* VERTICAL FORCE DOES NOT INCLUDE WEIGHT OF PRECAST BASE. VERTICAL (P) LOAD IS THE DRESSED POLE WEIGHT FOR ERECTION PURPOSES.

PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	WEIGHT LBS	OVERALL LENGTH FEET	HEIGHT ABOVE GRADE FEET	EMBEDMENT IN C.I.P. DEEP FOUNDATION FEET	OUTSIDE DIAMETER INCHES
2B	1,840	17'–3"	7'–3"	8'–0"	12.00"
3B	2,670	20'–0"	8'–0"	10'–0"	13.375"
4B	3,710	22'–0"	8'–0"	12'–0"	15.750"

POLE IDENTIFICATION

LOCATION MARK	POLE TYPE	PRECAST BASETYPE	FIXTURE CONFIGURATION (MAX # OF FIXTURES PER CROSSARM)	FIXTURE EPA (MAXIMUM)
A3, A6	LSS60–AA	2B	3 [2 LED900, 1 LED1200]	6.9
A4	LSS60–A	2B	6 [3(2 LED900, 1 LED1200)/3(2 LED900, 1 LED1200)]	10.7
A1, A2	LSS70–A	3B	4 LED1200	10.5
B3, B4, B5, B6			5 LED1200	
C1, C2			4 LED1500	
B1, B2	LSS80–A	4B	5 LED1500	12.5

LED 1500 FIXTURE: EPA = 2.5 SQ–FT MAX & WEIGHT = 80 LBS (FIXTURE ALONE), PER MUSCO LIGHTING, INC.

LED 1200 FIXTURE: EPA = 2.4 SQ–FT MAX & WEIGHT = 45 LBS (FIXTURE ALONE), PER MUSCO LIGHTING, INC.

LED 900 FIXTURE: EPA = 2.4 SQ–FT MAX & WEIGHT = 40 LBS (FIXTURE ALONE), PER MUSCO LIGHTING, INC.

POLE AUXILIARY ATTACHMENTS

LOCATION MARK	ATTACHMENT TYPE & QUANTITY	ATTACHMENT ELEVATION A.G.L. – FT
A1, A2, A3, A6, B1, B2, B3, B4, B5, B6	(1) LED 575	15.5
A4	2 (1/1) LED 575	15.5
C1, C2	(2) LED 575	15.5

GENERAL NOTES

ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE CALIFORNIA BUILDING CODE, 2019 EDITION.

WIND– ASCE 7–16, Vult = 95 MPH (EXPOSURE C); Vasd = 74 MPH (EXPOSURE C), RISK CATEGORY II

SEISMIC – SS=0.535; S1=0.214; SDS=0.489; SD1=0.310; RISK CATEGORY=II; I=1.0; SITE CLASS=D; Fa=1.5; SEISMIC DESIGN CATEGORY=D; DESIGN METHOD=SIMPLIFIED; STRUCTURE=LIGHT BUILDING STRUCTURE, NOT SIMILAR TO BUILDINGS; ANALYSIS PROCEDURE=EQUIVALENT LATERAL FORCE PROCEDURE.

REFERENCE POLE LOCATION DRAWING FOR ACTUAL POLE PLACEMENT AND SITE LOCATION.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION PROCEDURES AND SAFETY CONDITIONS AT THE JOB SITE.

SOIL DESIGN PARAMETERS

REFERENCE GEOTECHNICAL ENGINEERING INVESTIGATION PREPARED BY BSK ASSOCIATES, DATED OCTOBER 25, 2021; BSK ASSOCIATES PROJECT NO. G21–320–11F.

ALLOWABLE VERTICAL SOIL CAPACITY = $53D^2$ WHERE D IS PILE DIAMETER (FEET) AND L IS TOTAL EMBEDMENT LENGTH (FEET). IGNORE UPPER 2–FEET OF SOIL.

ALLOWABLE LATERAL PASSIVE SOIL BEARING PRESSURE: 300 PSF/FT. IGNORE UPPER 2–FEET OF SOIL.

A REPRESENTATIVE OF BSK ASSOCIATES SHOULD BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY EXIST. POLE FOUNDATIONS MAY NEED TO BE REANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST.

IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY.

ALL PRECAST BASES AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM, UNDISTURBED SOIL OR AS APPROVED BY A GEOTECHNICAL ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND PLACEMENT OF CONCRETE. SOIL RETAINING CASING MAY BE REQUIRED IF CAVING OCCURS. IN SUCH A CASE, APPROVAL BY A GEOTECHNICAL ENGINEER IS REQUIRED.

ALL EXCAVATIONS MUST BE FREE OF WATER OR CONCRETE SHALL BE PLACED WITH A TREMIE PIPE IN ACCORDANCE WITH ACI STANDARD 336. CONCRETE PLACED BY THE TREMIE METHOD SHALL HAVE A MINIMUM ULTIMATE STRENGTH OF 1,000 PSI GREATER THAN REQUIRED UNDER "CONCRETE BACKFILL BELOW.

CONCRETE BACKFILL

CONCRETE BACKFILL WITHOUT STEEL REINFORCEMENT SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS OF 3,000 PSI (2,500PSI USED FOR STRUCTURAL DESIGN). SEE STATEMENT OF SPECIAL INSPECTIONS REQUIRED.

CONCRETE BACKFILL SHALL ATTAIN A MINIMUM STRENGTH OF 2,500 PSI PRIOR TO STEEL POLE ERECTION.

USE TYPE II/V PORTLAND CEMENT OR AS RECOMMENDED BY THE ENGINEER.

MIX IN CONFORMANCE WITH ASTM C–94

AGGREGATES PER ASTM C–33. (1" MAX AGG. SIZE). 3/8" MAX AGG. SIZE ACCEPTABLE WHERE PUMP MIXES ARE USED FOR UNREINFORCED CONCRETE BACKFILL.

PLACE CONCRETE IMMEDIATELY AFTER COMPLETION OF EXCAVATION AND INSPECTION BY THE GEOTECHNICAL ENGINEER. NO EXCAVATIONS SHALL BE LEFT UNPROTECTED OR OPEN OVERNIGHT.

CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION (NO CONSTRUCTION JOINT) TO GRADE WITH SPECIAL EQUIPMENT WITH A MAXIMUM FREEFALL OF 5 FT. AND TO PREVENT CONCRETE FROM STRIKING THE SIDES OF THE EXCAVATION. VIBRATE TOP 5 FT.

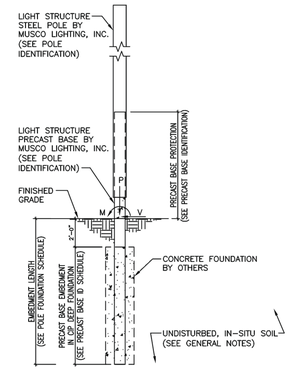
MISCELLANEOUS

FIXTURES MUST BE LOCATED TO MAINTAIN 10'–0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION.

POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS, PLATFORMS, SPECIFICATIONS, AND INSTALLATION PER MUSCO LIGHTING, INC.

REGISTERED PROFESSIONAL ENGINEER – JOSEPH D. DAMPIER – No. 5606 Exp. 6–30–23 – STRUCTURAL – STATE OF CALIFORNIA

POLE SUPPORT FOUNDATION	MUSCO LIGHTING, INC. 2107 STEWART ROAD MUSCATINE, IOWA 52761 MUSCO No. 212337	DATE 11/03/21
OLIVE BOWL KAKU PARK EXPANSION LINDSAY, CA	KNA STRUCTURAL ENGINEERS 9931 MUIRLANDS BLVD. IRVINE CA, 92618 KNA No. 363.905	SHEET C1 OF 2



LIGHT POLE FOUNDATION DETAIL
SCALE: NO SCALE

STATEMENT OF SPECIAL INSPECTIONS*

ITEM	CONTINUOUS/PERIODIC	SCOPE
1. PIER FOUNDATIONS	CONTINUOUS	INSPECT INSTALLATION OF DRILLED PIER FOUNDATIONS. VERIFY DIAMETER, EMBEDMENT DEPTHS AS SCHEDULED, DEPTHS OF FILL, AND BEARING STRATA
2. CONCRETE PLACEMENT	CONTINUOUS	INSPECT PLACEMENT OF CONCRETE FOR PROPER APPLICATION TECHNIQUES. VERIFY THAT CONCRETE CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION. VERIFY THAT CONCRETE IS PROPERLY CONSOLIDATED.
3. CRETEX PRECAST/ PRESTRESSED CONCRETE BASES	(PCI CERTIFIED)	FABRICATOR EXEMPT.** REFERENCE ICC ESR–3765.
4. STRUCTURAL STEEL	(L.A. CITY APPROVED)	FABRICATOR EXEMPT.** REVIEW CERTIFIED MILL TESTS REPORTS AND IDENTIFICATION MARKINGS.

* The Special Inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the Building Official, for inspection of the particular type of construction or operation requiring special inspection.
**Special inspections shall not be required when the work is done on the premises of a fabricator registered and approved by the City to perform such work without special inspection.

REGISTERED PROFESSIONAL ENGINEER – JOSEPH D. DAMPIER – No. 5606 Exp. 6–30–23 – STRUCTURAL – STATE OF CALIFORNIA

POLE SUPPORT FOUNDATION	MUSCO LIGHTING, INC. 2107 STEWART ROAD MUSCATINE, IOWA 52761 MUSCO No. 212337	DATE 11/03/21
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SPORTS FIELD POLE FOUNDATION DETAILS

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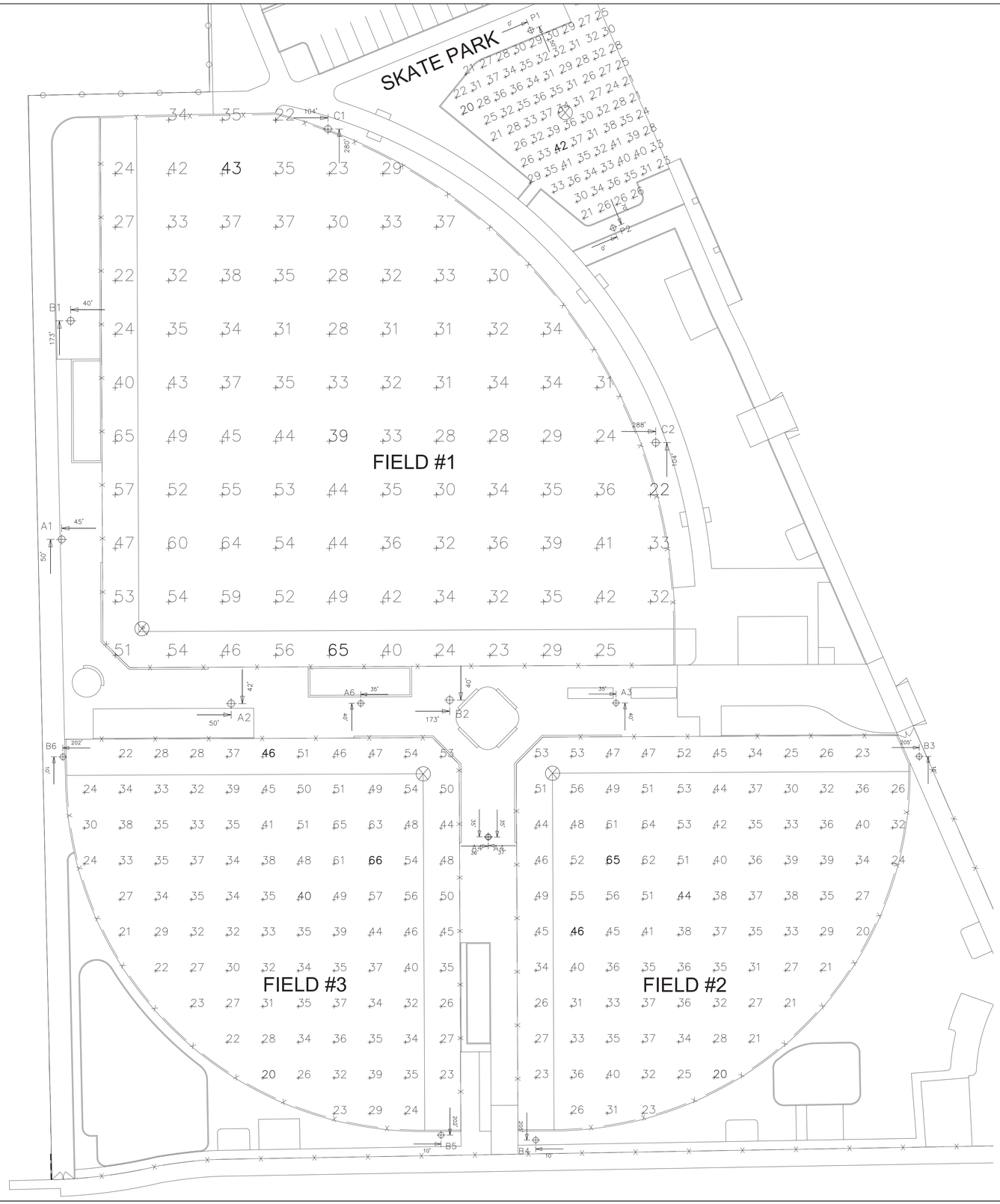
SHEET
E-3.1

SHEET 83 OF 85 SHEETS



GRID SUMMARY

NAME: FIELD #1
SIZE: IRREGULAR 288'/301'/300'
SPACING: 30.0' x 30'
HEIGHT: 3.0' ABOVE GRADE

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	INFIELD	OUTFIELD
GUARANTEED AVERAGE	50	30
SCAN AVERAGE:	52.40	32.57
MAXIMUM:	65	43
MINIMUM:	39	22
AVERAGE / MINIMUM:	1.34	1.48
GUARANTEED MAX / MIN:	2	2.5
MAXIMUM / MINIMUM:	1.66	1.94
UG (ADJACENT POINTS)	1.33	1.79
CU:	0.75	
NO. OF POINTS:	25	71

GRID SUMMARY

NAME: FIELD #2
SIZE: 200'/200'/200' - BASEPATH 60"
SPACING: 20.0' x 20'
HEIGHT: 3.0' ABOVE GRADE

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	INFIELD	OUTFIELD
GUARANTEED AVERAGE	50	30
SCAN AVERAGE:	52.46	32.97
MAXIMUM:	65	46
MINIMUM:	44	20
AVERAGE / MINIMUM:	1.19	1.68
GUARANTEED MAX / MIN:	2	2.5
MAXIMUM / MINIMUM:	1.48	2.36
UG (ADJACENT POINTS)	1.28	1.57
CU:	0.7	
NO. OF POINTS:	25	71

GRID SUMMARY

NAME: FIELD #3
SIZE: 200'/200'/200' - BASEPATH 60"
SPACING: 20.0' x 20'
HEIGHT: 3.0' ABOVE GRADE

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	INFIELD	OUTFIELD
GUARANTEED AVERAGE	50	30
SCAN AVERAGE:	52.26	32.54
MAXIMUM:	66	46
MINIMUM:	40	20
AVERAGE / MINIMUM:	1.30	1.60
GUARANTEED MAX / MIN:	2	2.5
MAXIMUM / MINIMUM:	1.65	2.28
UG (ADJACENT POINTS)	1.32	1.54
CU:	0.69	
NO. OF POINTS:	25	71

GRID SUMMARY

NAME: SKATE PARK
SIZE: 104' x 110'
SPACING: 10.0' x 10'
HEIGHT: 3.0' ABOVE GRADE

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	ENTIRE GRID
GUARANTEED AVERAGE	30
SCAN AVERAGE:	30.9
MAXIMUM:	42
MINIMUM:	20
AVERAGE / MINIMUM:	1.52
GUARANTEED MAX / MIN:	2.5
MAXIMUM / MINIMUM:	2.05
UG (ADJACENT POINTS)	1.44
CU:	0.73
NO. OF POINTS:	88

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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

SPORTS FIELD
LIGHTING
PHOTOMETRIC

DATE	REVISION
10-18-21	50% CD Submittal
12-8-21	90% CD Submittal
12-14-22	90% CD Submittal
2-13-23	100% CD Submittal

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS C. REGALADO JR.
No. E16914
Exp. 6-30-23
ELECTRICAL
STATE OF CALIFORNIA
2-9-23

CHECKED BY	DATE
C.R.	2-13-23
DRAWN BY	JOB NO.
LRA	05500.00

SHEET
E-4.0
SHEET 84 OF 85 SHEETS

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
	A2	14	UCM2-ANG-36L-460-5K7-2-CL	UNIVERSE COLLECTION MEDIUM 2.0 WITH CLEAR LENS	C-70-CRI DATA SHOWN IS ABSOLUTE.	UCM2-ANG-36L-460-5K7-2-CL.ies	6145	0.91	54.9
	A4	4	UCM2-ANG-36L-460-5K7-4W-CL	UNIVERSE COLLECTION MEDIUM 2.0 WITH CLEAR LENS	C-70-CRI DATA SHOWN IS ABSOLUTE.	UCM2-ANG-36L-460-5K7-4W-CL.ies	6076	0.91	54.9
	A5	56	UCM2-ANG-36L-460-5K7-5W-CL	UNIVERSE COLLECTION MEDIUM 2.0 WITH CLEAR LENS	C-70-CRI DATA SHOWN IS ABSOLUTE.	UCM2-ANG-36L-460-5K7-5W-CL.ies	6187	0.91	54.9
	B2	4	UCL2-ANG-72L-480-5K7-2-CL	UNIVERSE COLLECTION LARGE 2.0 WITH CLEAR LENS	C-70-CRI DATA SHOWN IS ABSOLUTE.	UCL2-ANG-72L-480-5K7-2-CL.ies	11587	0.91	110.7

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
1 - NORTH WALKWAY	+	1.6 fc	6.4 fc	0.0 fc	N / A	N / A
2 - SOUTH WALKWAY	+	1.6 fc	6.2 fc	0.0 fc	N / A	N / A
3 - PARKING	+	3.3 fc	4.8 fc	1.6 fc	3.0:1	2.1:1

LED LUMINAIRE - LUMENS - EFFICACY - WATTS - BUG SUMMARY

AAL LIGHTING CATALOG NUMBER	DELIVERED LUMENS	EFFICACY	WATTAGE	BUG RATING
UCM2-ANG-36L-460-5K7-2-CL	6145	111.9	54.9	B1-U0-G1
UCM2-ANG-36L-460-5K7-4W-CL	6076	110.7	54.9	B1-U0-G3
UCM2-ANG-36L-460-5K7-5W-CL	6187	112.7	54.9	B3-U0-G1
UCL2-ANG-72L-480-5K7-2-CL	11587	104.7	110.7	B2-U0-G2

0 25' 50' 100'

NORTH

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

LRA ENGINEERS
Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:

LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL ENGINEER
LRA ENGINEERS

CIVIL ENGINEER
BKF

STRUCTURAL ENGINEER
ISE

SKATEPARK DESIGNER
SPOHN RANCH

OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

SITE LIGHTING PHOTOMETRIC

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SHEET 85 OF 85 SHEETS