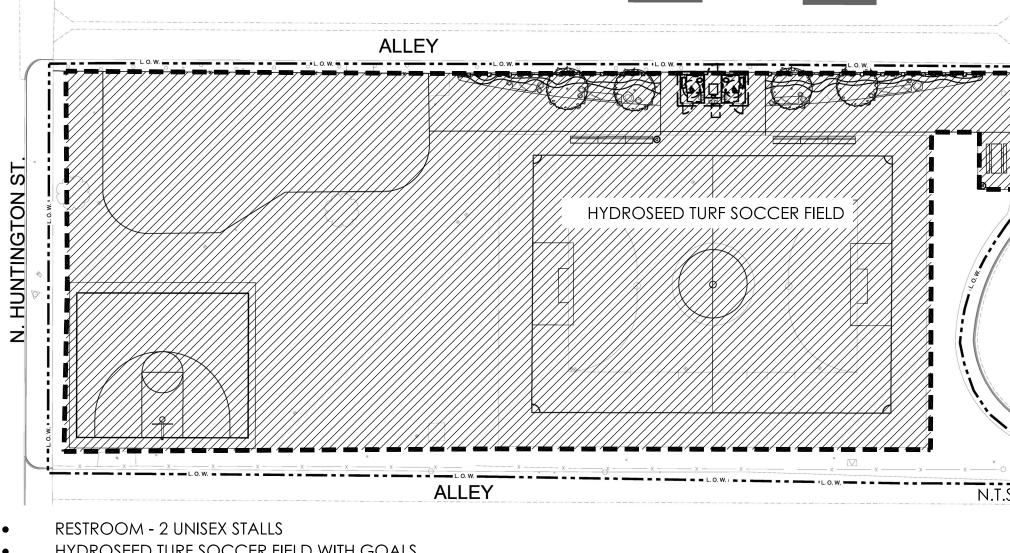
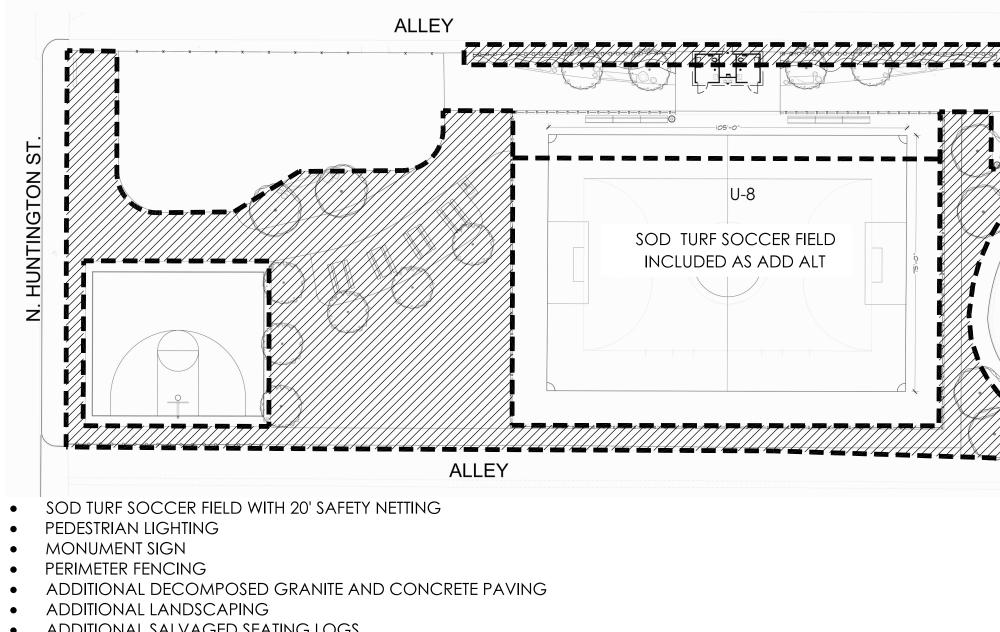
CITY OF SAN FERNANDO LAYNE PARK REVITALIZATION JOB NO. 7616 PLAN NO. 737

BASE BID PROJECT EXTENTS



- HYDROSEED TURF SOCCER FIELD WITH GOALS
- BASKETBALL HALF COURT
- PLAY AREA SHADE WITH EQUIPMENT UPGRADES
- SALVAGED SEATING LOGS
- PICNIC TABLE
- DROUGHT TOLERANT LANDSCAPING
- PEDESTRIAN LIGHTING

ADD ALTERNATES PROJECT EXTENTS

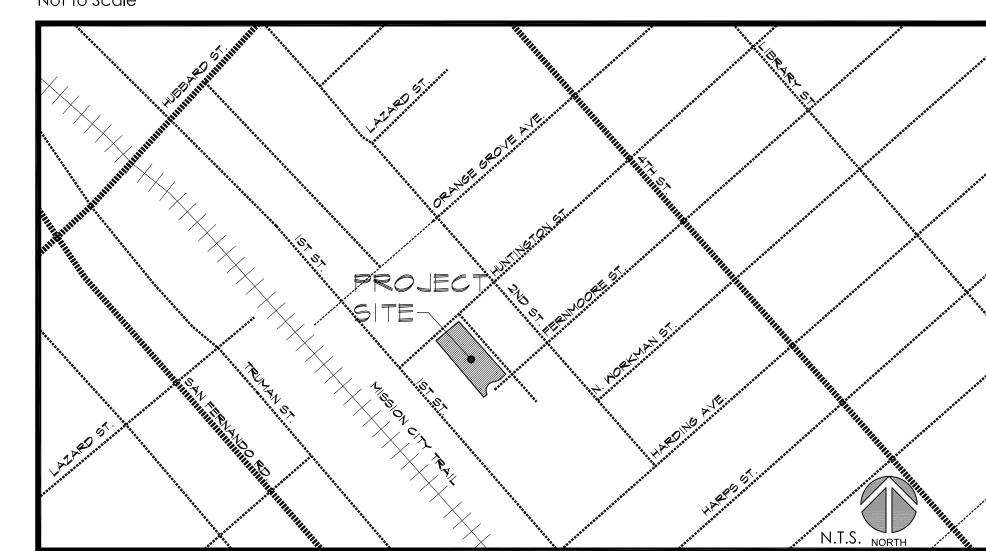


ADDITIONAL SALVAGED SEATING LOGS

CITY OF SAN FERNANDO APPROVAL	_	CITY OF SAN FERNANDO APPROVAL
DESIGN ENGINEER	DATE	DIRECTOR OF PUBLIC WORKS R.C.E * EXP.

VICINITY MAP

Not to Scale



PUBLIC UTILITIES

WATER

CITY OF SAN FERNANDO 120 MACNEIL STREET SAN FERNANDO, CA 91340 DANNY GARCIA OR ALEX MENDEZ (818) 898-1298

SEWER

CITY OF SAN FERNANDO 120 MACNEIL STREET SAN FERNANDO, CA 91340 ROBERT DAVIDSON OR RICHARD DE LA PENA (818) 898-1293

ELECTRICITY

SOUTHERN CALIFORNIA EDISON COMPANY EMERGENCY CALLS (800) 6||-|9||

GAS SOUTHERN CALIFORNIA GAS COMPANY EMERGENCY CALLS (8|8) 70|-3342

TELEPHONE FRONTIER EMERGENCY CALLS (818) 365-3128

<u>CABLE</u> SPECTRUM EMERGENCY CALLS (8|8) 700-6|00

<u>POLICE</u> CITY OF SAN FERNANDO NON-EMERGENCY PHONE NUMBER (818) 898-1267 EXT. O

FIRE CITY OF LOS ANGELES FIRE DEPARTMENT 14430 POLK STREET LOS ANGELES, CA 91342 NON-EMERGENCY PHONE NUMBER (818) 756-8691

NOTES

NOTICE TO CONTRACTOR

IMPROVEMENTS INCLUDING CONCRETE/LANDSCAPE DURING CONSTRUCTION.

GENERAL NOTES



. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OR AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE CITY DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE WITHIN THE LIMITS OF THE PROJECT 2. THE CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OR THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. EXCEPTING LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

PROJECT TEAM

LANDSCAPE ARCHITECT

MOORE IACOFANO GOLTSMAN, INC. 617 WEST SEVENTH ST, SUITE 304 LOS ANGELES, CA 90017 TEL: (213) 694-3800

CIVIL ENGINEER

CWE 1561 E. ORANGETHORPE AVE SUITE 240 FULLERTON, CA 9283 TEL: (714) 526-7500 FAX: (714) 526-7004

DATE



DRAWING INDEX

SHEET NO.	DWG NO.	Sheet name
	Τ-Ι	COVER SHEET
2	CI.00	CIVIL TITLE SHEET
З	CI.IO	GENERAL GRADING NOTES
4	C2.10	EX. TOPOGRAPHICAL PLAN
5	C2.II	DEMO PLAN
6	C2.11A	ADD ALT DEMO PLAN
7	C2.I2	GRADING PLAN
8	C2.12A	ADD ALT GRADING PLAN
9	C2.13	UTILITIES PLAN
10	C2.14	DETAILS PLAN
11	C2.15	HORIZONTAL CONTROL PLAN
12	C2.I5A	ADD ALT HORIZONTAL CONTROL PLAN
13	C2.16	EROSION CONTROL TITLE SHEET
4	C2.17	EROSION CONTROL PLAN
15	L2.0	CALLOUT PLAN
16	L2.I	ADD ALT CALLOUT PLAN
17	L3.0	IRRIGATION LEGEND
18	L3.I	IRRIGATION NOTES
19	L3.2	IRRIGATION PLAN
20	L3.2a	ADD ALT IRRIGATION PLAN
21	L3.3	IRRIGATION DETAILS
22	L3.4	IRRIGATION DETAILS
23	L3.5	IRRIGATION DETAILS
24	L3.6	IRRIGATION DETAILS & MWELO CALC'S
25	L4.0	PLANTING PLAN
26	L4.I	ADD ALT PLANTING PLAN
27	LD-I	CONSTRUCTION DETAILS
28	LD-2	CONSTRUCTION DETAILS
29	LD-3	CONSTRUCTION DETAILS
30	LD-4	CONSTRUCTION DETAILS
31	LD-5	CONSTRUCTION DETAILS
32	LD-6	ADD ALT CONSTRUCTION DETAILS
33	EO.I	ELECTRICAL POWER COVER SHEET
34	E0.2	ELECTRICAL POWER COVER SHEET
35	EI.O	ELECTRICAL SITE PLAN
36	E2.0	ELECTRICAL SINGLE LINE DIAGRAM & DETAIL

IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CALL THE USA UNDERGROUND 811 ALERT FOR LOCATIONS OF EXISTING UTILITIES NO LESS THAN TWO DAYS NOR MORE THAN 7 DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY DAMAGE DONE TO EXISTING UTILITIES OR STREET

ELECTRICAL & PLUMBING ENGINEER

INTEGRAL 15760 VENTURA BLVD SUITE 1902 ENCINO, CA 91436 TEL: (323) 825-9955



FULLERTON, CA 9283 CONSULTANT:

PROJECT TEAM LANDSCAPE ARCHITECT **MOORE IACOFANO GOLTSMAN, INC CIVIL ENGINEER ELECTRICAL & PLUMBING ENGINEER** INTEGRAL GROUP

> LAYNE PARK

120 N. HUNTINGTON ST. SAN FERNANDO CA. 91340

SHEET TITLE

TITLE SHEET

DATE REVISION 10-11-21 50% CD SUBMITTAL

1-10-22 95% CD SUBMITTAL 5-2-22 BID SET SUBMITTAL

STAMP / SED LANDSCAPE

Date Date OF CALIFORT <u>D/ Z/ ZUZZ</u> Date

CHECKED BY DATE 0.J. 5-2-22 **DRAWN BY** JOB NO. O.J. 05566.00 SHEET

SHEET 1 OF 36 SHEETS

CITY OF SAN FERNANDC LAYNE PARK REVITALIZAT JOB NO. 7616 PLAN NO. 737

NOTICE TO CONTRACTOR:

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN IN OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" THE U.S. DEPARTMENT OF LABOR, AND WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS". THE CITY ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTOR OR SUBCONTRACTOR'S COMPLIANCE WITH SAID REGULATIONS AND ORDERS. CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO THE NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER. THE CITY AND CITY ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

PROFESSIONAL ENGINEER'S NOTE:

THE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED BY <u>CWE</u> USING AVAILABLE RECORD PLANS AND MAPS AND BASED ON FIELD RECONNAISSANCE OF EXISTING CONDITIONS. KNOWN UTILITIES AND OWNERS OF OTHER STRUCTURES IN THE STREET RIGHT OF WAYS HAVE BEEN GIVEN WRITTEN NOTICE OF THE PROJECT. HOWEVER, THE CITY OF SAN FERNANDO ARE NOT RESPONSIBLE FOR THE TOTAL ACCURACY AND/OR CORRECTNESS OF THE SHOWN INFORMATION. THE CONTRACTOR BY SIGNING THE CONSTRUCTION CONTRACT FOR THIS PROJECT ACCEPTS AND ASSUMES FULL RESPONSIBILITY FOR THE WORK AND ITS IMPACT ON THE EXISTING FACILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND DESCRIBED IN THE SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE TO MAKE HIS OWN INVESTIGATION AND INSPECTION INCLUDING POT HOLING AND SUCH OTHER METHODS HE DEEMS NECESSARY TO ALLOW HIM TO PROCEED ON THE CONSTRUCTION OF THIS PROJECT IN COMPLIANCE WITH THE LAWS, ORDINANCES AND REGULATIONS APPLICABLE TO THE PROJECT, INCLUDING STATE SAFETY ORDERS AND PROCEDURES OF USA.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY SURVEYS REQUIRED TO ESTABLISH HORIZONTAL AND VERTICAL CONTROLS PRIOR AND DURING CONSTRUCTION, AND TO REPLACE DISTURBED OR COVERED EXISTING STREET SURVEY MONUMENTS.

UNAUTHORIZED CHANGES AND USES:

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS.

BASIS OF BEARINGS:

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "WMAP" AND "VNCX" BEING NORTH 59'-40'- 13" WEST, AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, On MAY 12, 2021, WAS USED AS THE BÉARINGS FOR THIS SURVEY.

BENCHMARK:

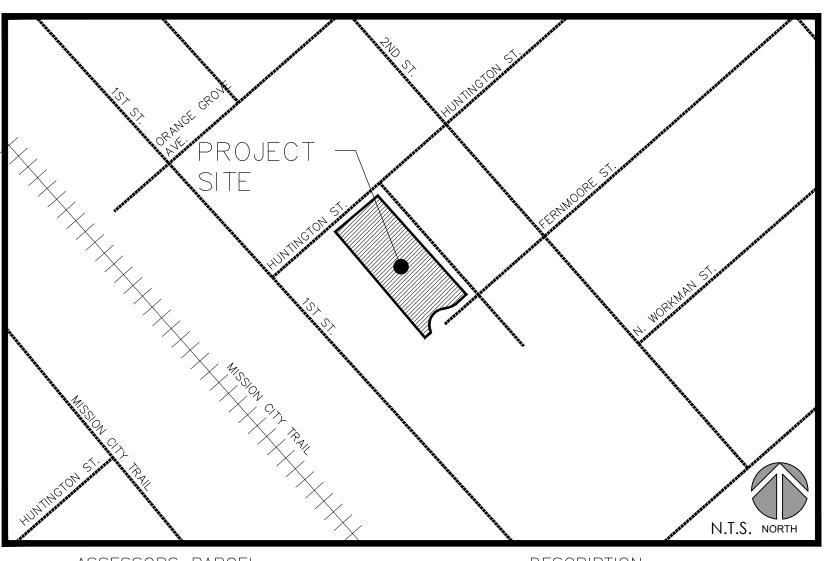
la city BM: 03-02428; 2010 ADJ NAVD 88 ELEVATION =(1100.176) FEET CONC. NAIL IN LEAD; N.W. COR HUBBARD AVE AT BC CURB RET SW/O TRUMAN ST.

NOTE PT# 101 & 102 ARE TO BE USED AS T.B.M FOR THIS PROJECT.

COORDINATES ARE BASED UPON C.C.S. 83, STATE PLANE COORDINATE SYSTEM, ZONE 5. EPOCH 2017.5

VICINITY MAP

Not to Scale



ASSESSORS PARCEL A.P.N. 2520-010-900

DESCRIPTION: OTS 32, 33, 34, 39, 40, & 41 OF TRACT 13291, M.B. 268-39

NCORPORATED AUG. 31 1911
)N

	109 W. UNION AVE. FULLERTON, CA 92832	
	CONSULTANT:	
	EWE	
	1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com	
	PROJECT TEAM: LANDSCAPE ARCHITECT MOORE IACOFANO GOLTSMAN, INC. CIVIL ENGINEER	
	CWE ELECTRICAL & PLUMBING ENGINEER INTEGRAL GROUP	2
	LAYNE PARK	
	120 N. HUNTINGTON ST. SAN FERNANDO CA, 91340	dwg.
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CALIFORNIA	SHEET 2 OF 36 SHEETS	Plotted

T LEAST BEFORE YO UNDERGROUND SERVICE ALERT OF SOUTHERN

GENERAL NOTES

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS, THE PROJECT SPECIFICATIONS, STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION), AND CALTRANS STANDARD PLANS AND SPECIFICATIONS (LATEST EDITION) INCLUDING ADDITIONS AND SUPPLEMENTS.
- 2. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY OF SAN FERNANDO AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF HIS/HER WORK ON THIS PROJECT.
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR ANY PERMITS REQUIRED BY THE CITY OF SAN FERNANDO PUBLIC WORKS DEPARTMENT AND RELEVANT OTHER AGENCIES IN ORDER TO DO THE WORK SHOWN ON THESE PLANS.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SURVEYING MONUMENTS IN PLACE, AND THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR RESETTING DAMAGED OR DESTROYED MONUMENTS.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE JOB SITE AND ANY UNDERGROUND UTILITIES/FACILITIES, WHETHER SHOWN OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811 TO LOCATE UTILITY FACILITIES AT LEAST TWO (2) WORKING DAYS BEFORE DOING ANY EXCAVATION. ALL PIPELINES, SUBSTRUCTURES, OR UTILITIES OF ANY KIND, WHETHER SHOWN ON THESE PLANS OR NOT, SHALL BE PROTECTED IN PLACE, OR IF REQUIRED, BE REMOVED, RELOCATED OR REINFORCED TO THE SATISFACTION OF THE CITY ENGINEER BY THE OWNER OF THE FACILITY. PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND SUBSTRUCTURES.
- 6. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE CITY ENGINEER.
- 7. THE CONTRACTOR SHALL GIVE THE CITY OF SAN FERNANDO PUBLIC WORKS DEPARTMENT AT LEAST THREE (3) WORKING DAYS ADVANCE NOTICE PRIOR TO ALL INSPECTION REQUESTS AT (818) 898-1222.
- 8. CONSTRUCTION TRAFFIC CONTROL AND TEMPORARY SIGNING SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH CALTRANS TRAFFIC ENGINEERING MANUAL, MUTCD 2009 AND CALIFORNIA SUPPLEMENT AND AS APPROVED BY THE CITY ENGINEER. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS AS SPECIFIED.
- 9. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES EXCEPT WHEN PRECLUDED BY NECESSARY CONSTRUCTION FOR REASONABLE PERIODS OF TIME AS PRE-APPROVED BY THE CITY ENGINEER.
- 10. THE CONTRACTOR SHALL REMOVE FROM THE VICINITY OF THE COMPLETED WORK ALL PLANTS, BUILDING RUBBISH, UNUSED MATERIALS, CONCRETE FORMS, AND EQUIPMENT BELONGING TO THE CONTRACTOR OR USED UNDER HIS/HER DIRECTION DURING CONSTRUCTION.
- 11. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM THE CONTRACTOR'S OPERATIONS.
- 12. ASPHALT CONCRETE REMOVALS AND/OR JOINTS SHALL BE CONSTRUCTED TO CLEAN STRAIGHT LINÉS BY SAW CUTTING TO A FULL DEPTH OF PAVEMENT.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING ALL REGULATORY AND WARNING SIGNS.
- 14. INSTALL EXPANSION JOINTS AT ALL JOIN POINTS TO EXISTING PORTLAND CONCRETE AND AT 10' INTERVALS IN NEW CONCRETE.
- 15. THESE PLANS HAVE BEEN CHECKED BY THE CITY OF San Fernando ONLY FOR CONFORMANCE WITH THE CITY STANDARDS AND SPECIFICATIONS, COMPLIANCE WITH DEVELOPMENT CONDITIONS AND FOR GENERAL CONCEPTUAL APPROVAL OF THE STREET AND DRAINAGE DESIGN AS SHOWN THERE ON. NO DETAILED MATHEMATICAL CHECK WAS MADE FOR THE ACCURACY OF THE EXISTING OR PROPOSED DIMENSION LINES OR GRADES SHOWN, INCLUDING ALL EXISTING UTILITIES SHOWN OR NOT SHOWN.
- 16. CONTRACTOR SHALL NOTIFY ALL PARTIES THAT USE VEHICULAR ACCESS FROM ALLEY THAT DURING CURE TIME OF CONCRETE RIBBON GUTTER THEY NEED TO PARK ELSEWHERE IN THAT ALLEY WILL BE CLOSED DURING FIRST 5 DAYS AFTER POUR.
- 17. CONTRACTOR SHALL USE EARLY HIGH STRENGTH 3250 PSI WITH FAST CURE ADDITIVE CONCRETE FOR LONGITUDINAL GUTTER IN ALLEY ONLY.
- 18. CONTRACTOR SHALL SCHEDULE WORK BY BLOCK SUCH THAT PERIOD FROM FIRST DAY OF REMOVAL OF EXISTING ALLEY IMPROVEMENTS TO END OF DAYS PLACEMENT OF AC BASE COURSE SHALL NOT EXCEED 8 CALENDAR DAYS.
- 19. WHERE NO EDGE WALLS OR FENCES OR PAVEMENT EXIST INSTALL 2"X6" REDWOOD EDGE BOARD WITH 18" REDWOOD STAKES AT 4' SPACING PER DETAIL IN THIS SHEET.
- 20. CONTRACTOR SHALL REMOVE AC PAVEMENT FROM ALL MANHOLE COVERS.

GENERAL CONSTRUCTION NOTES:

- 1. PROVIDE ACCESS AT ALL TIMES AND PROTECT-IN-PLACE EXISTING UTILITIES.
- 2. PROTECT-IN-PLACE EXISTING SURFACE AND UNDERGROUND UTILITIES, POLES, VALVES, COVERS, AND OTHER MISCELLANEOUS FACILITIES, UNLESS OTHERWISE INDICATED.
- 3. BEFORE STARTING WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES BY CONTACTING UNDERGROUND SERVICE ALERT BY CALLING 811, AT LEAST 48 HOURS IN ADVANCE.
- 4. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 48 HOURS PRIOR TO START ANY FIELD REMOVALS.
- 5. THE CONTRACTOR SHALL VERIFY THE EXACT LIMITS AND LOCATION OF SAWCUTTING TO REMOVE AND REPLACE EXISTING CONCRETE WALK AND PAVEMENT WITH CITY ENGINEER.
- 6. THE CONTRACTOR SHALL ADJUST/REPLACE EXISTING IRRIGATION SYSTEM WITHIN PARKWAY IN THE PROPOSED IMPROVEMENT AREAS.
- 7. GRIND OFF AC FROM EXISTING CONCRETE GUTTER SURFACE PER CITY ENGINEER'S INSTRUCTIONS, HAUL AWAY AND DISPOSE.
- 8. SPRAY WEEDS AND GRASS KILLER IN SIDEWALK JOINTS.

GENERAL GRADING NOTES:

- 1. NO WORK SHALL BE STARTED IN OR ABOUT A GRADING PROJECT WITHOUT FIRST NOTIFYING THE AGENCY.
- 2. NO GRADING WORK, INCLUDING IMPORT AND EXPORT, SHALL BE DONE OUTSIDE OF CITY SPECIFIED CONSTRUCTION HOURS, EXCEPT IN EMERGENCIES. A HAUL ROUTE SHALL BE PREPARED BY THE CONTRACTOR SATISFACTORY TO THE PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION.
- 3. NO PERSON SHALL. WHEN HAULING ANY EARTH. SAND. GRAVEL. ROCK, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET. ALLEY OR OTHER PUBLIC PLACE. ALLOW SUCH MATERIALS TO BLOW OR SPILL OVER AND UPON THE PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE OR ADJACENT PRIVATE PROPERTY.
- 4. THE LOADING OR DUMPING OF EXCESS SOIL SHALL BE APPROVED BY THE CITY PRIOR TO STARTING EXCAVATION.
- 5. PRIOR TO PLACING FILL, SLOPES SHALL BE PROPERLY PREPARED BY BRUSHING AND BENCHING.
- 6. IF AT ANY STAGE OF WORK ON AN EXCAVATION OR FILL THE CITY DETERMINES THAT FURTHER WORK AS AUTHORIZED BY AN EXISTING PERMIT IS LIKELY TO ENDANGER ANY PROPERTY OR PUBLIC WAY THE CITY MAY REQUIRE, AS A CONDITION TO ALLOW THE WORK TO CONTINUE, THAT PLANS FOR SUCH WORK BE AMENDED TO INCLUDE ADEQUATE SAFETY PRECAUTIONS.
- 7. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM CALIFORNIA DIVISION OF INDUSTRIAL SAFETY FOR THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE FEET OR DEEPER. SHEETING. SHORING, AND BRACING FOR THE TRENCH EXCAVATION SHALL CONFORM TO THE REQUIREMENTS OF "CONSTRUCTION SAFETY ORDERS," TITLE 8, DIVISION OF INDUSTRIAL SAFETY, STATE OF CALIFORNIA.
- 8. A COPY OF THE GRADING PERMIT AND APPROVED PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
- 9. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THIS PLAN SET, TECHNICAL SPECIFICATIONS, PROVISIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SPPWC), AND ALL REFERENCES.
- 10. FILL PLACEMENT AREAS SHALL BE INSPECTED AND APPROVED BY THE CITY ENGINEER PRIOR TO PLACEMENT OF ANY FILL.
- 11. GRADING SHALL BE DONE UNDER THE SUPERVISION OF THE CITY ENGINEER WHO SHALL CERTIFY THAT ALL FILL HAS BEEN PROPERLY PLACED AND WHO SHALL SUBMIT A FINAL COMPACTION REPORT FOR ALL FILLS OVER ONE FOOT DEEP.
- 12. THE EXISTING TOPOGRAPHY AS DELINEATED ON THESE DRAWINGS SHALL BE UTILIZED AS THE BASIS FOR ALL EARTHWORK COMPUTATIONS. SAID TOPOGRAPHY SHALL BE PRESUMED TO BE ACCEPTABLE TO ALL INTERESTED PARTIES UNLESS A DEVIATION IS FOUND PRIOR TO THE START OF GRADING IN ANY SPECIFIC AREAS. ANY DEVIATION SO DETERMINED SHALL BE PROMPTLY TRANSMITTED TO ALL INTERESTED PARTIES.
- 13. OVER-EXCAVATION AND/OR EXCESS BACKFILLING OR DUPLICATION OF GRADING ACTIVITIES IS NOT A BASIS FOR ADDITIONAL COMPENSATION. THIS ALSO APPLIES WHERE MATERIAL IS TO BE REMOVED AND REPLACED TO REDUCE MOISTURE CONTENT.
- 14. THE QUANTITIES FOR THESE PLANS ARE BASED UPON 0% SHRINKAGE AND 0% SUBSIDENCE. SHRINKAGE PERCENTAGE IS SHOWN FOR REFERENCE ONLY. ACTUAL SHRINKAGE VOLUMES MAY VARY CONSIDERABLY.

CONCRETE REMOVAL NOTES:

- WHERE REINFORCEMENT IS REQUIRED TO EXTEND THROUGH THE NEW JOINT, CONCRETE SHALL BE REMOVED IN THE FOLLOWING SEQUENCE.
- 1. A SAWCUT SHALL BE MADE ONE AND ONE-HALF INCHES DEEP AT THE REMOVAL LIMITS. CARE SHALL BE EXERCISED IN SAWING AT THE REMOVAL LIMITS SO AS NOT TO CUT THE REINFORCING STEEL IN THE REMAINING SLAB. THE EXISTING REINFORCING STEEL SHALL BE RETAINED AND EXTENDED INTO THE NEW CONSTRUCTION AS INDICATED ON THE PLANS.
- 2. USING HANDHELD EQUIPMENT, THE CONCRETE SHALL BE CAREFULLY REMOVED FOR THE FULL DEPTH OF THE WALL OR SLAB AND FOR A MINIMUM DISTANCE FROM THE SAWCUT EQUAL TO THE LONGEST EXTENSION OF THE EXISTING BARS TO BE EXTENDED INTO THE NEW CONSTRUCTION. THIS EXTENSION SHALL BE 30 BAR DIAMETERS, UNLESS OTHERWISE SHOWN.
- 3. EXISTING REINFORCEMENT SHALL BE CUT TO THE REQUIRED BAR EXTENSION.
- 4. THE REMAINING CONCRETE SHALL BE REMOVED BY ANY SUITABLE METHOD UPON APPROVAL OF THE ENGINEER, WHO SHALL BE THE SOLE JUDGE OF THE USE OF ANY CONCRETE REMOVAL EQUIPMENT. WRECKING BALLS OR OTHER SIMILAR DEVICES, WHICH ARE LIKELY TO DAMAGE THE CONCRETE TO BE LEFT IN PLACE, SHALL NOT BE USED.

EARTHWORK QUANTITIES

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.

NPDES NOTES:

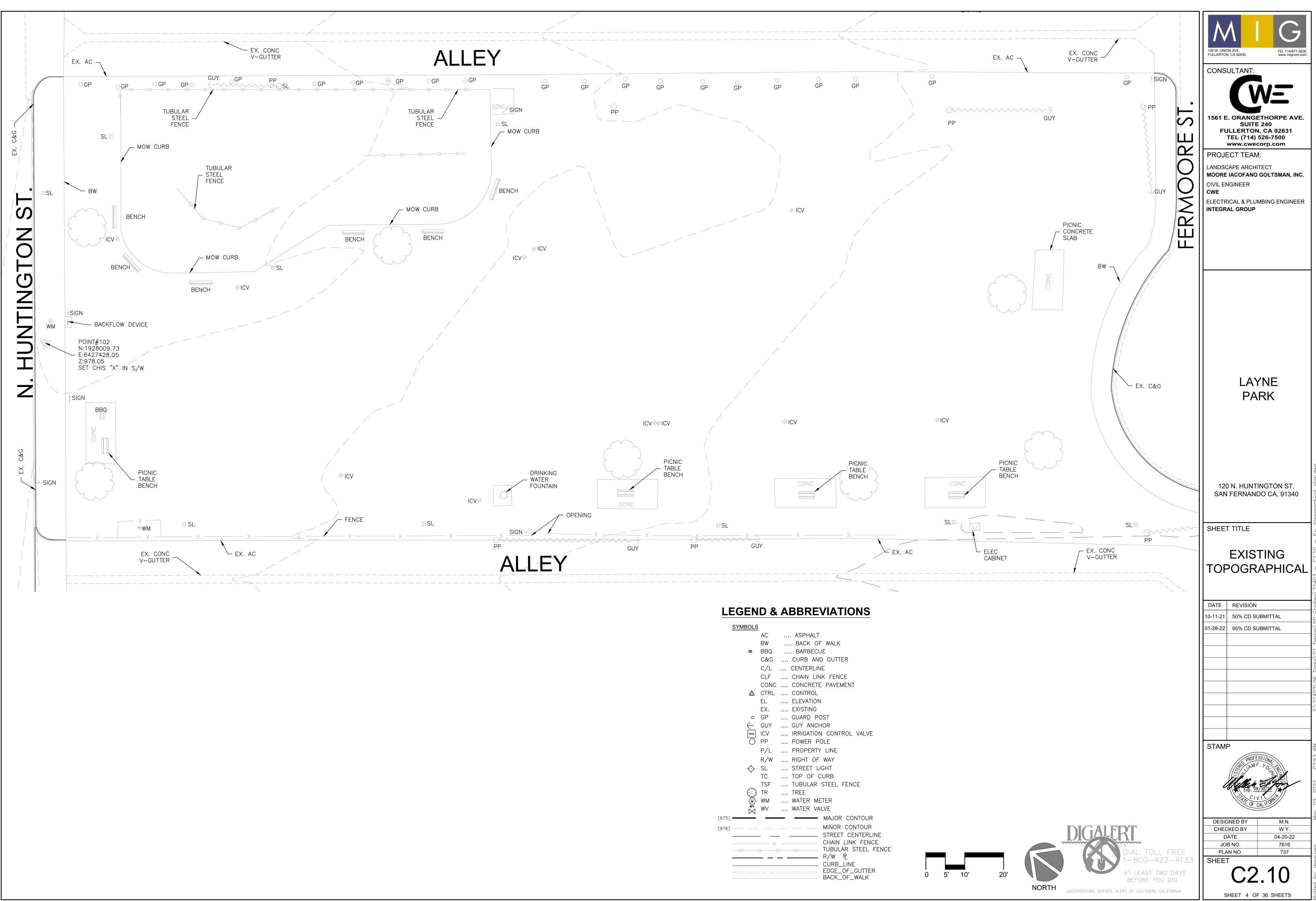
- 2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
- 3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE 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.
- 4. 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.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION BY RAINWATER AND DISPERSAL BY WIND.
- 6. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- 7. THE CONSTRUCTION WORK WITHIN CALTRANS RIGHT-OF-WAY MUST COMPLY WITH CONSTRUCTION SITE BEST MANAGEMENT PRACTICE (BMPs) AS PER CALTRANS PROJECT PLANING AND DESIGN GUIDE (PPDG) DATED JULY 2016, INCLUDING LATER REVISIONS AND ADDENDUMS.
- WORKS RELATED TO DRAINAGE SYSTEM, WATER POLLUTION 8. CONTROL AND EROSION CONTROL WITHIN THE STATE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST CALTRANS STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. THE TEMPORARY DRAINAGE INLET PROTECTION SHALL COMPLY WITH THE CALTRANS STANDARD SPECIAL PROVISIONS, SSP 130620.
- 9. THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO. THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY TASK FORCE. SACRAMENTO, CALIFORNIA 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY INSPECTOR)

EARTHWORK QUANTITIES:	<u>CUT</u>	<u>FILL</u>
RAW VOLUMES:	88 CY	110 CY
SUBTOTAL	88 CY	110 CY
10% SHRINKAGE	-8 CY	0 CY
SUBSIDANCE (0.10 FT)	0 CY	53 CY
GRAND TOTAL: TOTAL IMPORT= 83 CY	80 CY	163 CY

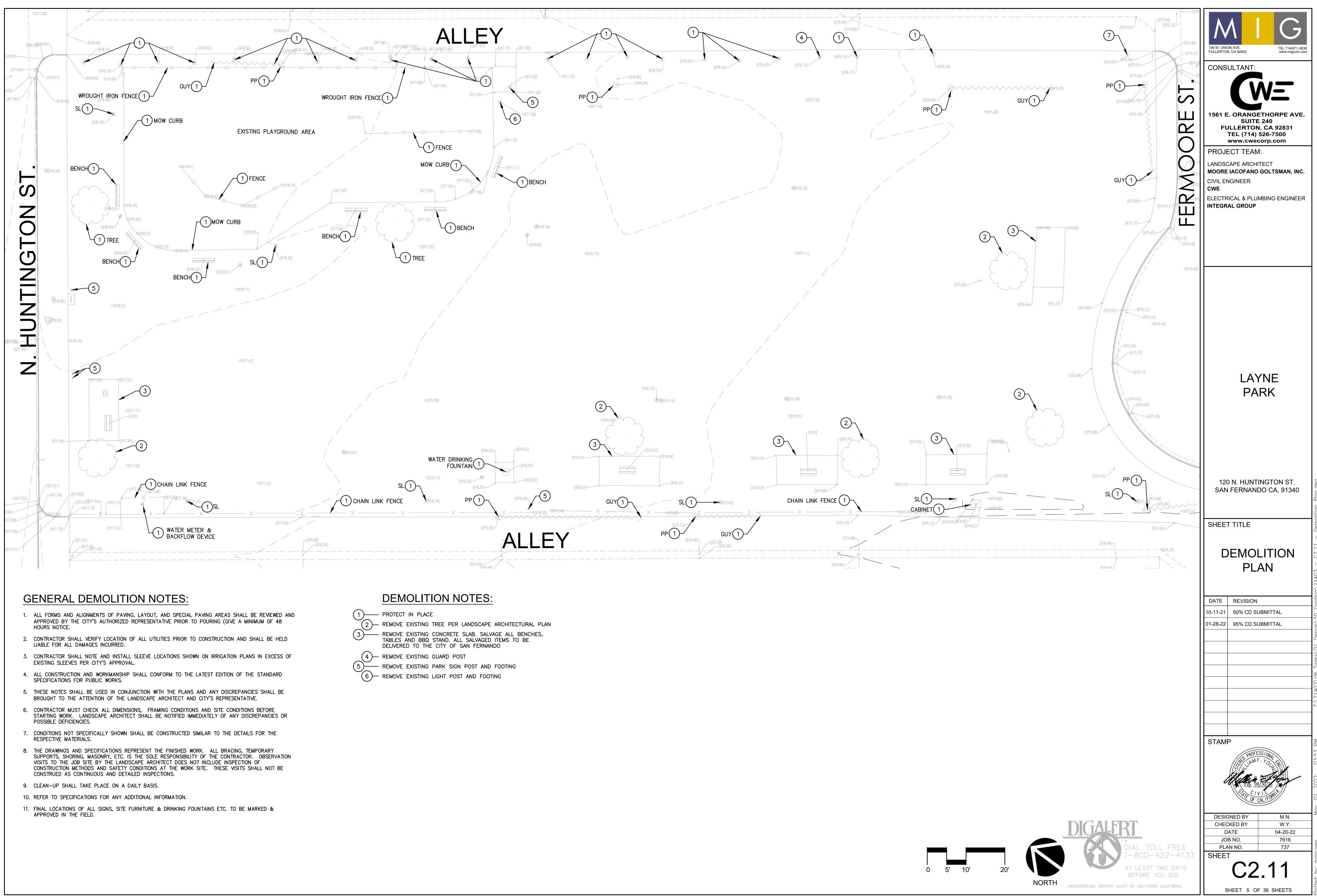
NOTE: CONTRACTOR TO VERIFY VOLUMES PRIOR TO EXCAVATION HAUL ROUTE AND DISPOSAL SITE TO BE DETERMINED AT THE PRE-GRADE MEETING TO THE SATISFACTION OF THE COUNTY INSPECTOR

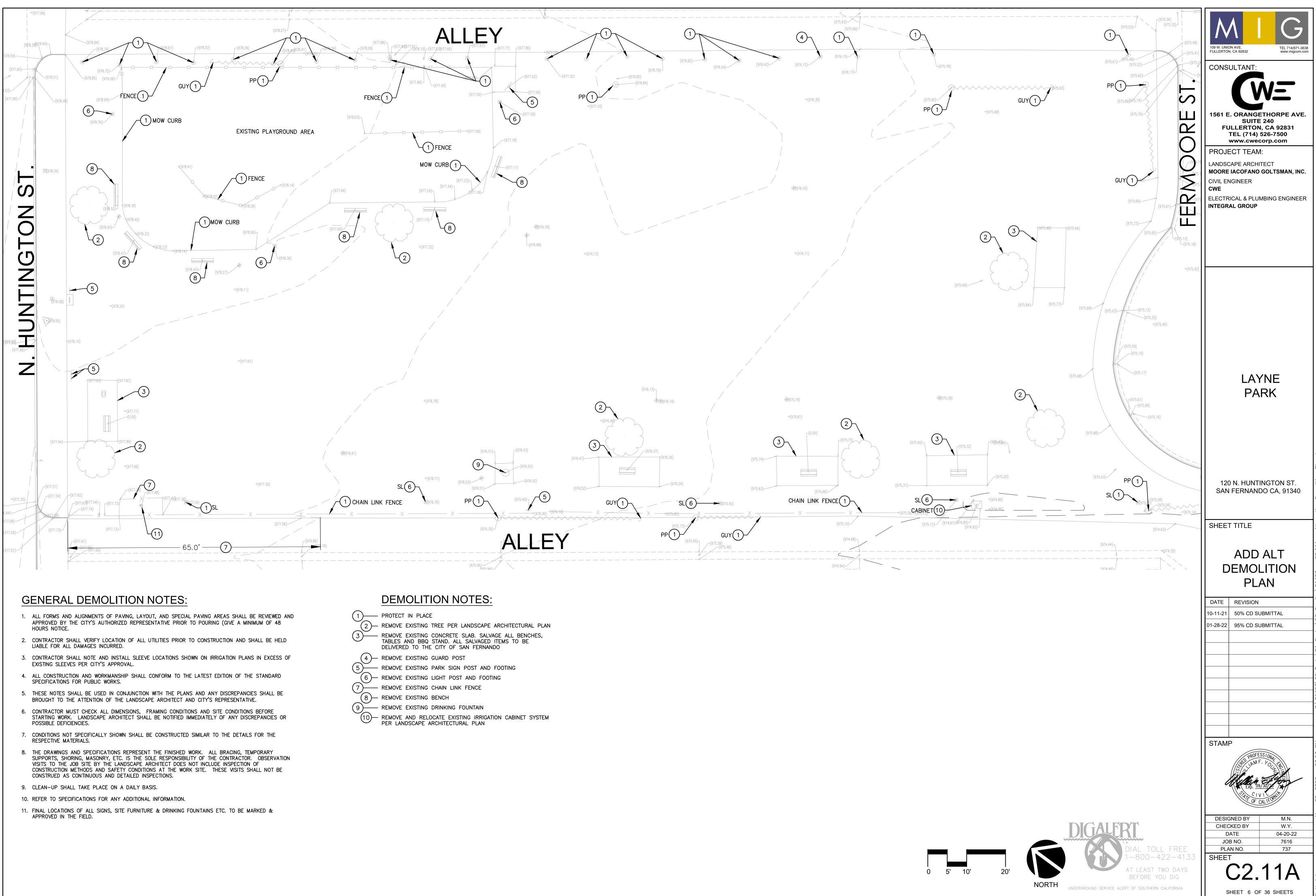
	109 W. UNION AVE. FULLERTON, CA 92832
	CONSULTANT:
	LAYNE PARK
	120 N. HUNTINGTON ST. SAN FERNANDO CA, 91340 SHEET TITLE
	GENERAL NOTES
	DATE REVISION 10-11-21 50% CD SUBMITTAL 01-28-22 95% CD SUBMITTAL
	STAMP
	DESIGNED BY M.N.
DIAL TOLL FREE DIAL TOLL FREE 1-800-422-4133 AT LEAST TWO DAYS BEFORE YOU DIG RT OF SOUTHERN CALIFORNIA	CHECKED BY W.Y. DATE 04-20-22 JOB NO. 7616 PLAN NO. 737 SHEET C1.10 SHEET 3 OF 36 SHEETS

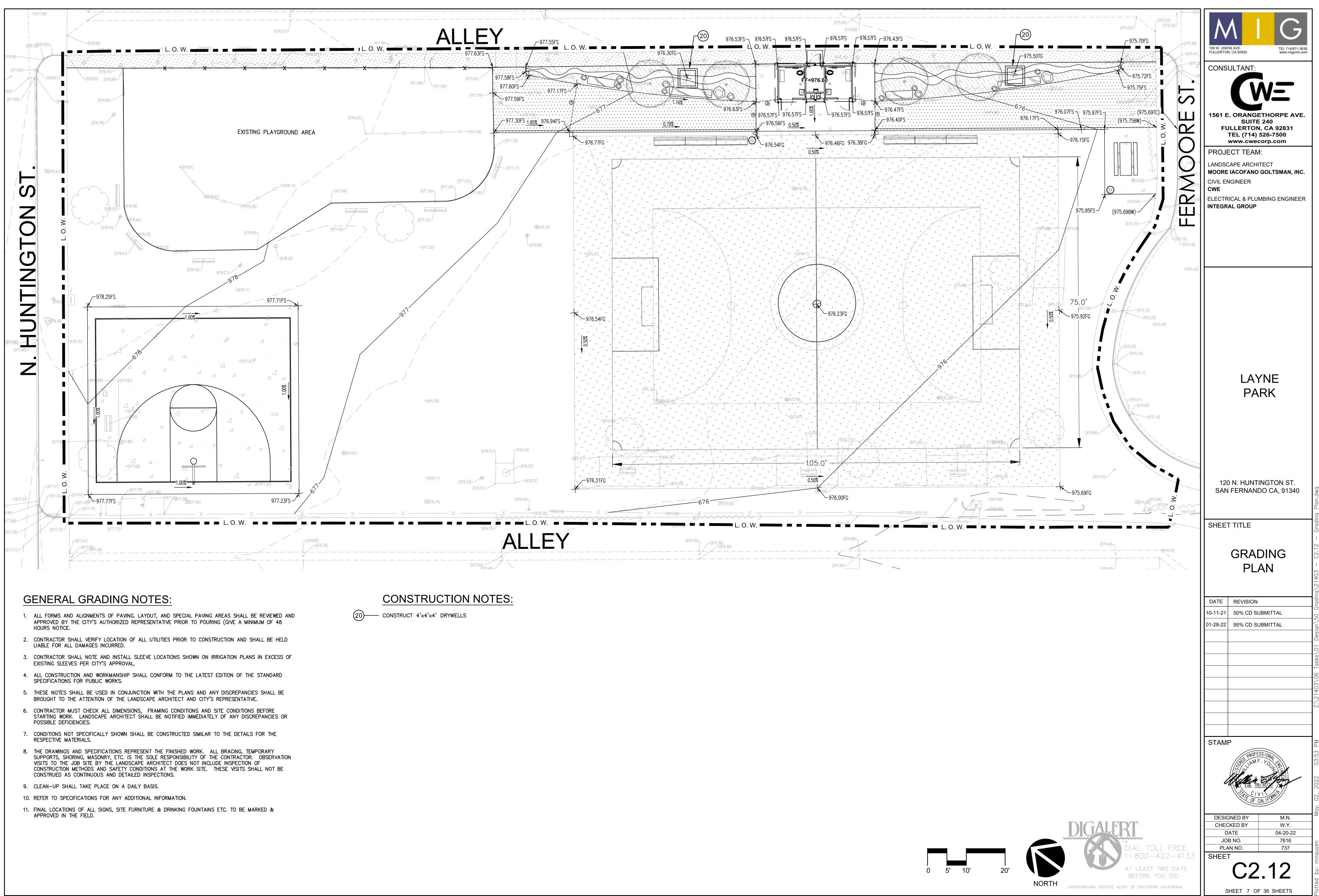
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

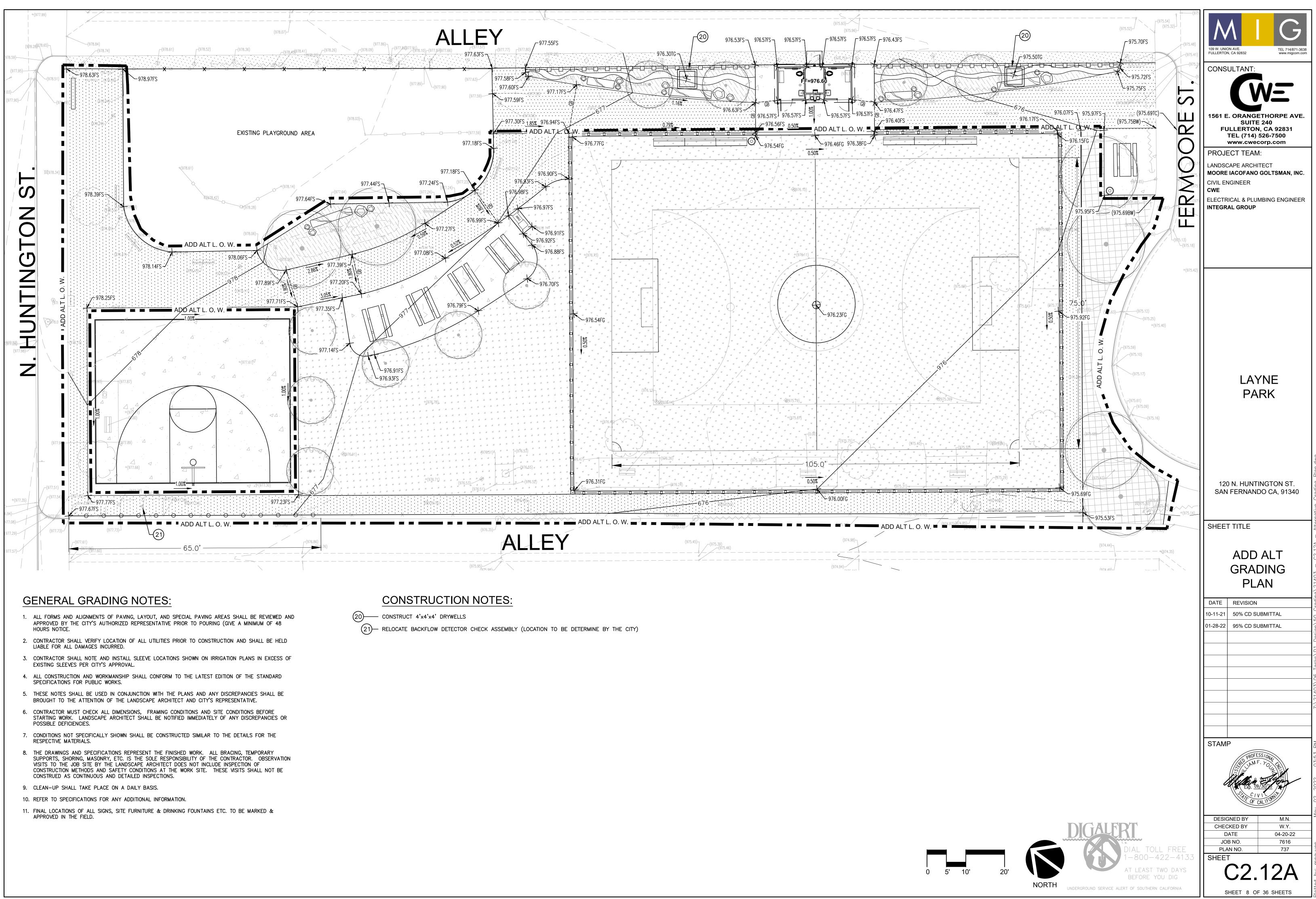


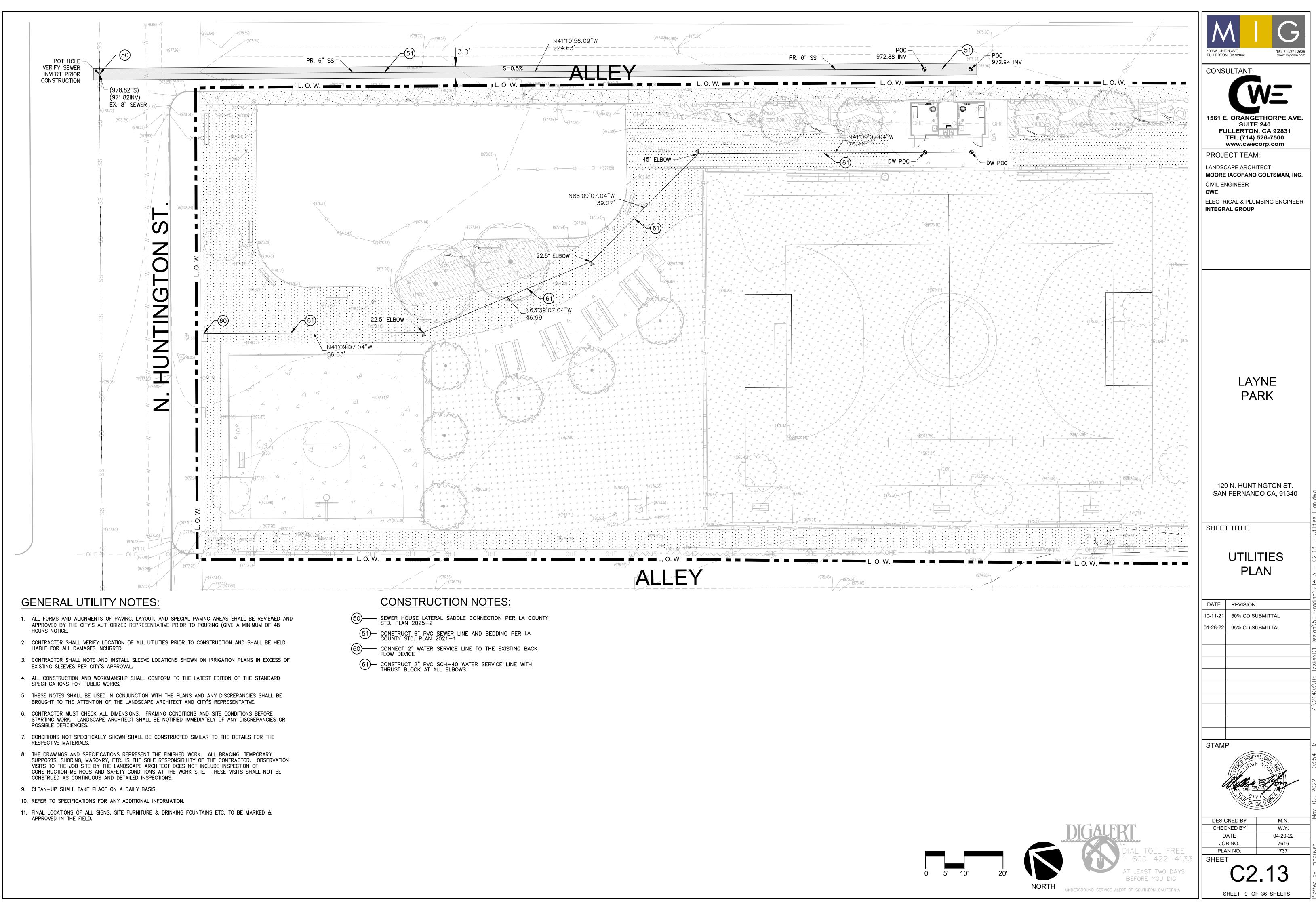
BOLS	5	
	AC	ASPHALT
	BW	BACK OF WALK
Ø	BBQ	BARBECUE
	C&G	CURB AND GUTTER
	C/L	CENTERLINE
	CLF	CHAIN LINK FENCE
	CONC	CONCRETE PAVEMENT
\triangle	CTRL	CONTROL
	EL	ELEVATION
	EX.	EXISTING
0	GP	GUARD POST
\in		GUY ANCHOR
		IRRIGATION CONTROL VALVE
Ο	PP	POWER POLE
	•	PROPERTY LINE
	R/W	RIGHT OF WAY
	SL	STREET LIGHT
·	TC	TOP OF CURB
~	TSF	TUBULAR STEEL FENCE
£.}		TREE
$\langle W \rangle$		WATER METER
\bowtie	WV	WATER VALVE
		MAJOR CONTOUR
		MINOR CONTOUR
		STREET CENTERLIN
	— X	CHAIN LINK FENCE
	0(TUBULAR STEEL FE
		R/W PL
		R/W L CURB_LINE EDGE_OF_GUTTER
		■ BW BBQ C&G C/L CLF CONC ▲ CTRL EL EX. O GP GUY ICV O PP P/L R/W ↓ SL TC TSF TR WM WW WV

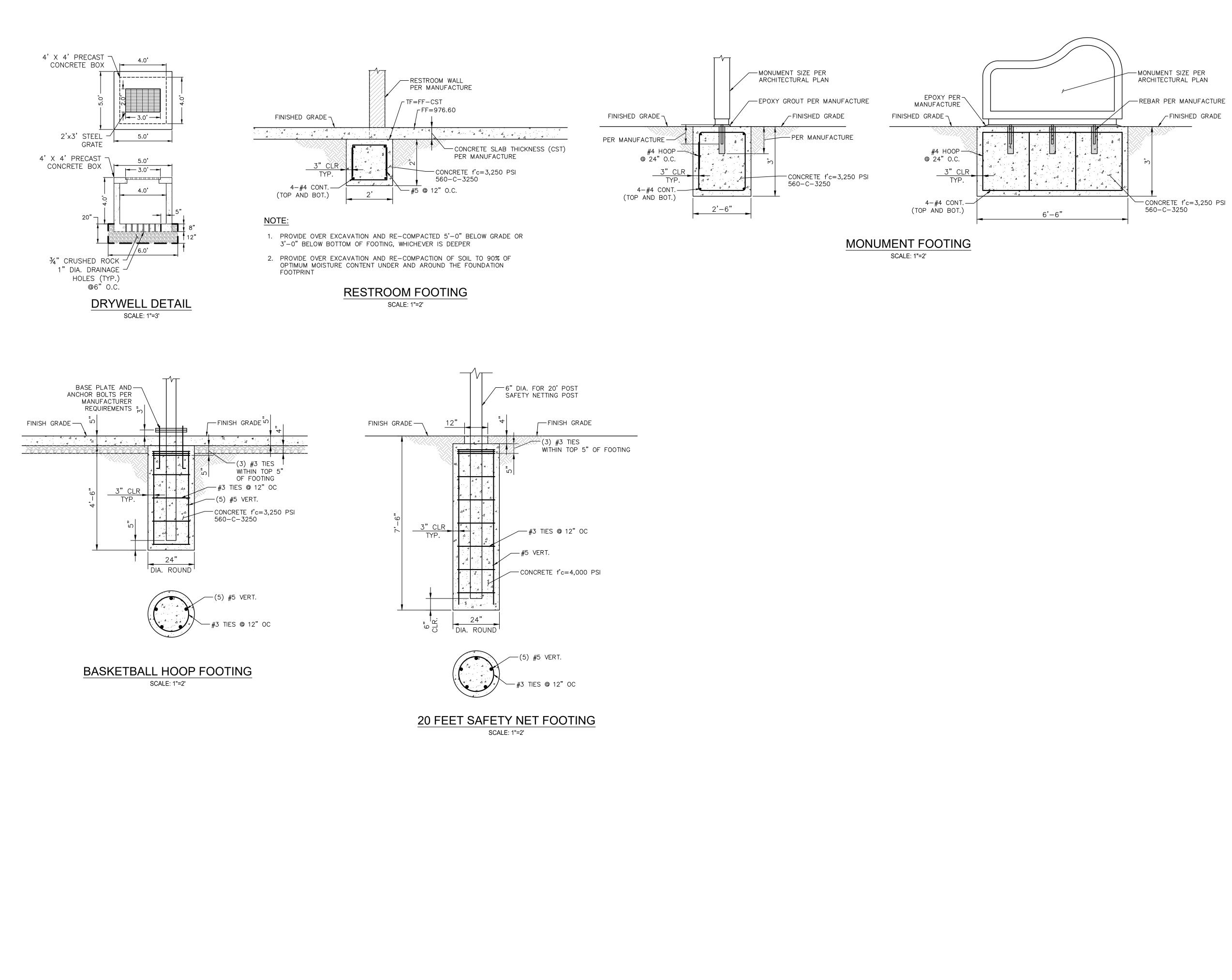




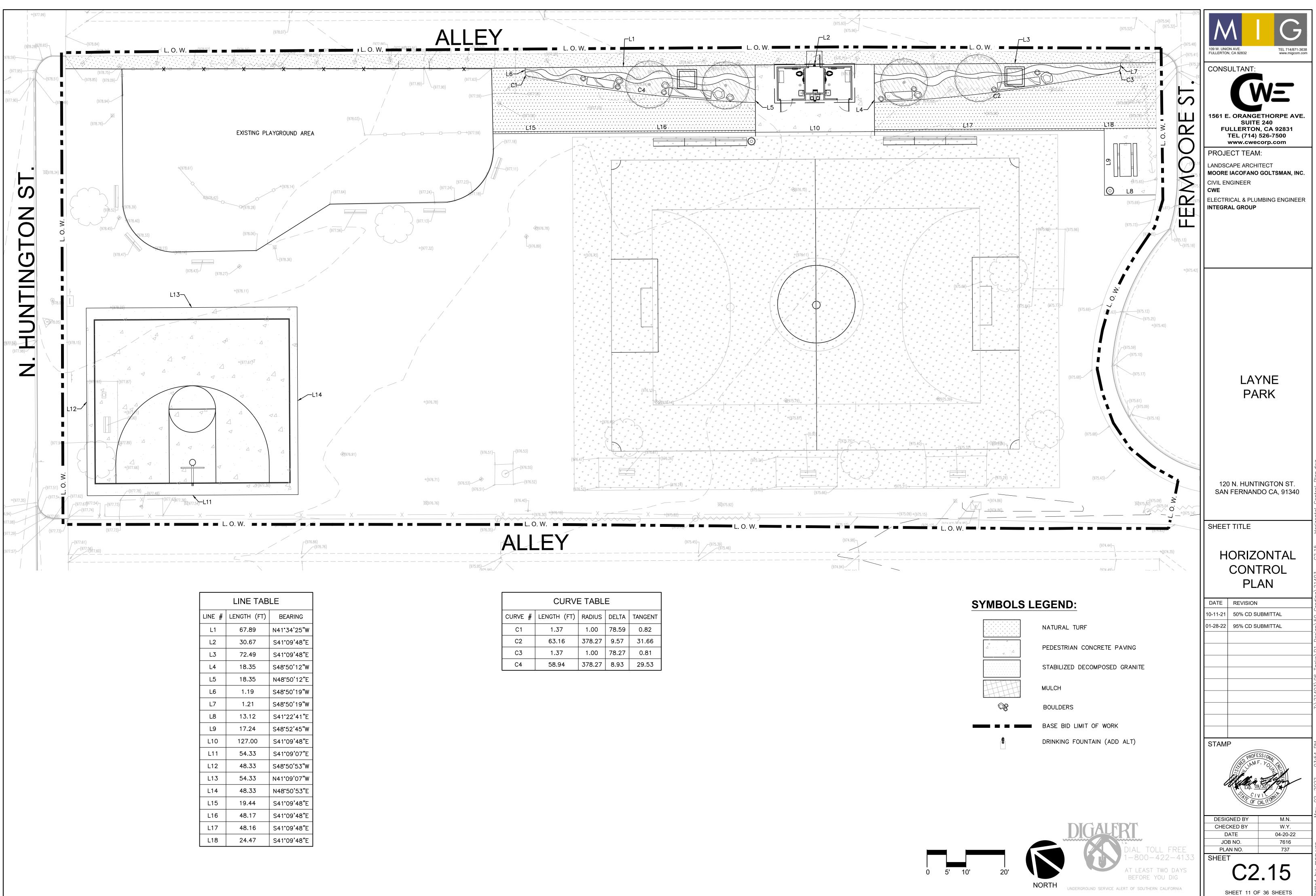






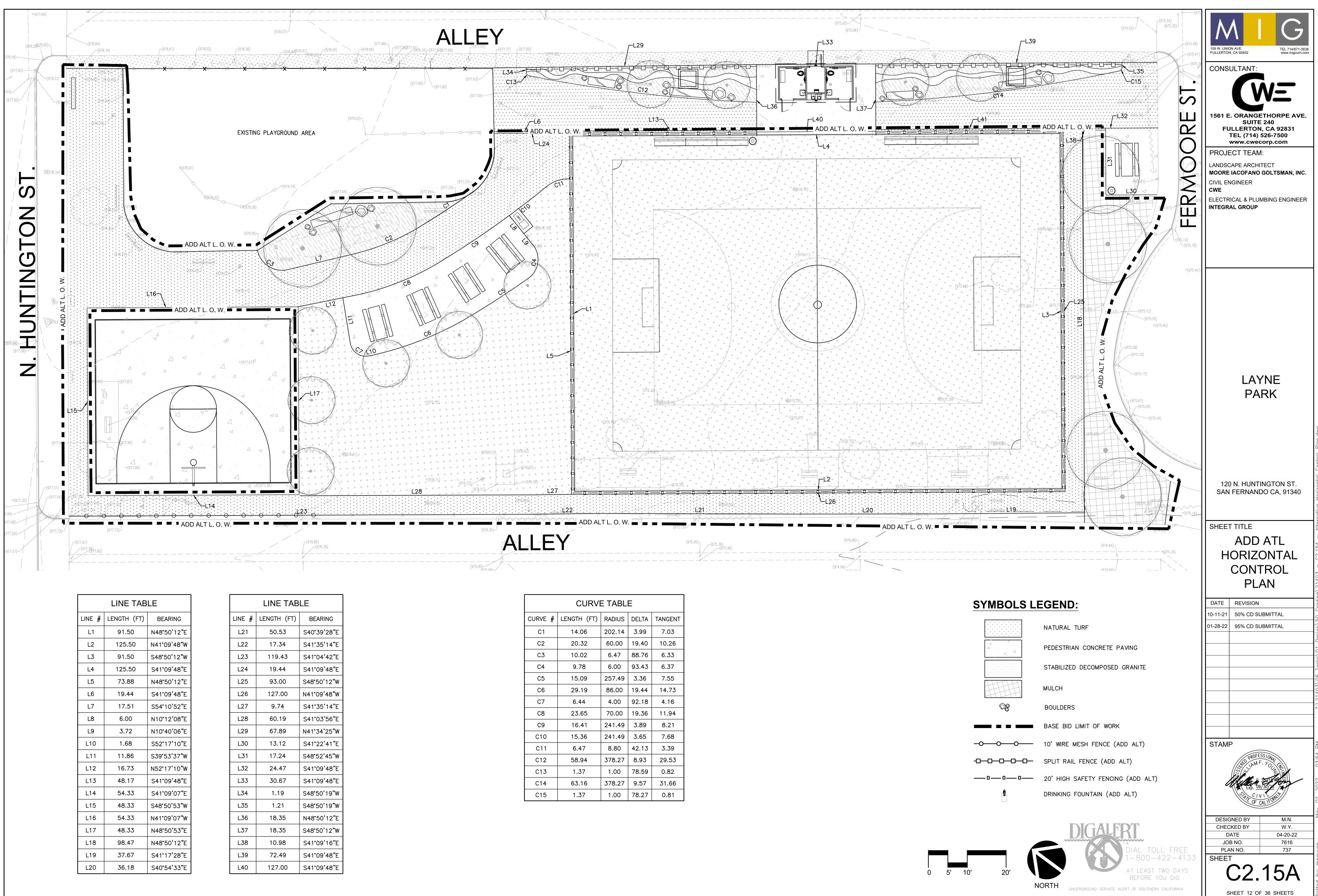


	109 W. UNION AVE. TEL 714/871-3638
	TEL 714/871-3638 WWW.migcom.com CONSULTANT:
	LAYNE PARK
	120 N. HUNTINGTON ST. SAN FERNANDO CA, 91340
	CIVIL DETAILS DATE REVISION
	10-11-21 50% CD SUBMITTAL 09 01-28-22 95% CD SUBMITTAL 09 01-28-29 95% CD SUBMITTAL<
	STAMP
	PROFESSION PROFESSION Exp. 09/30/20 Exp. 09/30/20 DESIGNED BY M.N. DESIGNED DY M.N.
DIAL TOLL FREE DIAL TOLL FREE 1-800-422-4133 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	CHECKED BY W.Y. DATE 04-20-22 JOB NO. 7616 PLAN NO. 737 SHEET C2.14 SHEET 10 OF 36 SHEETS Topped



LINE TABLE				
LINE #	LENGTH (FT)	BEARING		
L1	67.89	N41°34'25"W		
L2	30.67	S41°09'48"E		
L3	72.49	S41 ° 09'48"E		
L4	18.35	S48*50'12"W		
L5	18.35	N48 ° 50'12"E		
L6	1.19	S48 ° 50'19"W		
L7	1.21	S48 * 50'19"W		
L8	13.12	S41°22'41"E		
L9	17.24	S48*52'45"W		
L10	127.00	S41 ° 09'48"E		
L11	54.33	S41°09'07"E		
L12	48.33	S48°50'53"W		
L13	54.33	N41°09'07"W		
L14	48.33	N48°50'53"E		
L15	19.44	S41°09'48"E		
L16	48.17	S41°09'48"E		
L17	48.16	S41°09'48"E		
L18	24.47	S41°09'48"E		

CURVE TABLE					
CURVE #	LENGTH (FT)	RADIUS	DELTA	TANGENT	
C1	1.37	1.00	78.59	0.82	
C2	63.16	378.27	9.57	31.66	
C3	1.37	1.00	78.27	0.81	
C4	58.94	378.27	8.93	29.53	



CURVE TABLE							
CURVE # LENGTH (FT) RADIUS DELTA TANGENT							
C1	14.06	202.14	3.99	7.03			
C2	20.32	60.00	19.40	10.26			
C3	10.02	6.47	88.76	6.33			
C4	9.78	6.00	93.43	6.37			
C5	15.09	257.49	3.36	7.55			
C6	29.19	86.00	19.44	14.73			
C7	6.44	4.00	92.18	4.16			
C8	23.65	70.00	19.36	11.94			
C9	16.41	241.49	3.89	8.21			
C10	15.36	241.49	3.65	7.68			
C11	6.47	8.80	42.13	3.39			
C12	58.94	378.27	8.93	29.53			
C13	1.37	1.00	78.59	0.82			
C14	63.16	378.27	9.57	31.66			
C15	1.37	1.00	78.27	0.81			

EROSION AND SEDIMENT CONTROL NOTES:

SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON-SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF. VEHICLE TRACKING, OR WIND.

WASTE AND MATERIALS MANAGEMENT CONTROL NOTES:

APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON-SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NOTES:

IN THE CASE OF EMERGENCY, CALL:

AT WORK PHONE #

AT HOME PHONE #

SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON-SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE

STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.

APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS, OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFE.

RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES. UNLESS TREATED, TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.

ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS

AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.

CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.

POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING.

DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.

DEWATERING OF CONTAMINATED GROUNDWATER. OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGION WATER QUALITY CONTROL BOARD.

GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.

THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.

THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.

THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES. AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.

EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.

SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON-SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.

APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS, OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON-SITE TO MINIMIZE TRANSPORT FROM THE SITES TO STREETS. DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

AS THE PROJECT OWNER OR AUTHORIZED AGENT OF THE OWNER. I HAVE READ AND UNDERSTAND THE REQUIREMENT TO CONTROL STORM WATER POLLUTION FROM SEDIMENTS. EROSION, AND CONSTRUCTION MATERIALS, AND I CERTIFY THAT I WILL COMPLY WITH THESE REQUIREMENTS. I. OR MY REPRESENTATIVE, CONTRACTOR, DEVELOPER, OR ENGINEER WILL MAKE CERTAIN THAT ALL BMPs SHOWN ON THIS PLAN WILL BE FULLY IMPLEMENTED, AND ALL EROSION CONTROL DEVICES WILL BE KEPT CLEAN AND FUNCTIONING. PERIODIC INSPECTION OF THE BMPs WILL BE CONDUCTED AND A CURRENT LOG. SPECIFYING THE EXACT NATURE OF THE INSPECTION AND ANY REMEDIAL MEASURES, WILL BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES AND WILL BE AVAILABLE FOR THE REVIEW BY THE APPROPRIATE OFFICIAL(S).

AS THE PROJECT OWNER OR AUTHORIZED AGENT OF OWNER, "I CERTIFY THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASE ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE INFORMATION SUBMITTED IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT SUBMITTING FALSE AND/OR INACCURATE INFORMATION, FAILING TO UPDATE THE SWPPP TO REFLECT CURRENT CONDITIONS, OR FAILING TO PROPERLY AND/OR ADEQUATELY IMPLEMENT THE EROSION CONTROL PLAN MAY RESULT IN REVOCATION OF GRADING AND/OR OTHER PERMITS OR OTHER SANCTION PROVIDED BY LAW."

STORM WATER POLLUTION PLAN NOTES:

- PROJECT SITE AT ALL TIMES. TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES,
- OR WIND.
- DRAINAGE SYSTEM.
- DISPOSED OF AS SOLID WASTE.

- INHIBIT EROSION BY WIND AND WATER.
- THESE REQUIREMENTS.

PRINT NAME:

SIGNATURE:	
DATE:	

CONTROL PLAN. FOR REVISIONS CONTACT THE PROJECT QSD. QSD: ADDRESS: _____

THE FOLLOWING BMPs FROM THE LATEST ADDITION OF THE CASQA CONSTRUCTION BMP HANDBOOK (NOVEMBER 2009) MUST BE IMPLEMENTED AS APPLICABLE FOR ALL CONSTRUCTION ACTIVITIES. ADDITIONAL INFORMATION IS AVAILABLE AT WWW.CABMPHANDBOOKS.COM

EROSION CONTROL

EC-1	SCHEDULING
EC-2	PRESERVATION OF EXI
EC-3	HYDRAULIC MULCH
EC-4	HYDROSEEDING
EC-5	SOIL BINDERS
EC-6	STRAW MULCH
EC-7	GEOTEXTILES & MATS

- EC-8 WOOD MULCHING
- EC-10 VELOCITY DISSIPATION DEVICES
- EC-11 SLOPE DRAINS EC-12 STREAMBANK STABILIZATION
- EC-14 COMPOST BLANKETS
- EC-15 SOIL PREPERATION/ROUGHENING EC-16 NON-VEGETATIVE STABILIZATION

TEMPORARY SEDIMENT CONTROL

- SE-1 SILT FENCE SE-2 SEDIMENT BASIN
- SE-3 SEDIMENT TRAP
- SE-4 CHECK DAM SE-5 FIBER ROLLS
- SE—6 GRAVEL BAG BERM
- SE-8 SANDBAG BARRIER
- SE-9 STRAW BALE BARRIER SE-10 STORM DRAIN INLET PROTECTION
- SE-12 TEMPORARY SILT DIKE SE-13 COMPOST SOCKS AND BERMS

SE-14 BIOFILTER BAGS

WIND EROSION CONTROL

WE-1 WIND EROSION CONTROL

NOTES:

- SURFACES.
- GREATLY IMPROVE EFFICIENCY.
- ENTRANCE SITES.

1. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORM WATER FROM THE 2. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON-SITE AND MAY NOT BE

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

5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON-SITE UNTIL THEY CAN BE

6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER 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 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

9. AS THE PROJECT OWNER OR AUTHORIZED AGENT OF THE OWNER, I HAVE READ AND UNDERSTAND THE REQUIREMENTS LISTED ABOVE, NECESSARY TO CONTROL STORM WATER POLLUTION FROM SEDIMENTS, EROSION, AND CONSTRUCTION MATERIALS, AND I CERTIFY THAT I WILL COMPLY WITH

CHANGES TO THIS PLAN CAN ONLY BE MADE BY THE QSD WHO DEVELOPED THIS EROSION AND SEDIMENT

EXISTING VEGETATION

EC-9 EARTH DIKES AND DRAINAGE SWALES

SE-7 STREET SWEEPING AND VACUUMING

NS-15 DEMOLITION ADJACENT TO WATER NS-16 TEMPORARY BATCH PLANTS WASTE MANAGEMENT & MATERIAL **POLLUTION CONTROL**

EQUIPMENT TRACKING CONTROL

TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT

NON-STORMWATER MANAGEMENT

TC-2 STABILIZED CONSTRUCTION ROADWAY

TC-3 ENTRANCE/OUTLET TIRE WASH

NS-1 WATER CONSERVATION PRACTICES

NS-3 PAVING AND GRINDING OPERATIONS

NS-8 VEHICLE AND EQUIPMENT CLEANING

NS-10 VEHICLE AND EQUIPMENT MAINTENANCE

NS-9 VEHICLE AND EQUIPMENT FUELING

NS-14 MATERIAL AND EQUIPMENT USE

NS-4 TEMPORARY STREAM CROSSING

NS-6 ILLICIT CONNECTION/DISCHARGE

NS-7 POTABLE WATER/IRRIGATION

NS-2 DEWATERING OPERATIONS

NS-5 CLEAR WATER DIVERSION

NS-12 CONCRETE CURING

NS-13 CONCRETE FINISHING

WM-1 MATERIAL DELIVERY AND STORAGE WM-2 MATERIAL USE

- WM-3 STOCKPILE MANAGEMENT
- WM-4 SPILL PREVENTION AND CONTROL WM-5 SOLID WASTE MANAGEMENT
- WM-6 HAZARDOUS WASTE MANAGEMENT
- WM-7 CONTAMINATION SOIL MANAGEMENT WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY/SEPTIC WASTE MANAGEMENT WM-10 LIQUID WASTE MANAGEMENT

1. SEDIMENTS AND OTHER MATERIALS SHALL BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC, THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC ROADS. DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.

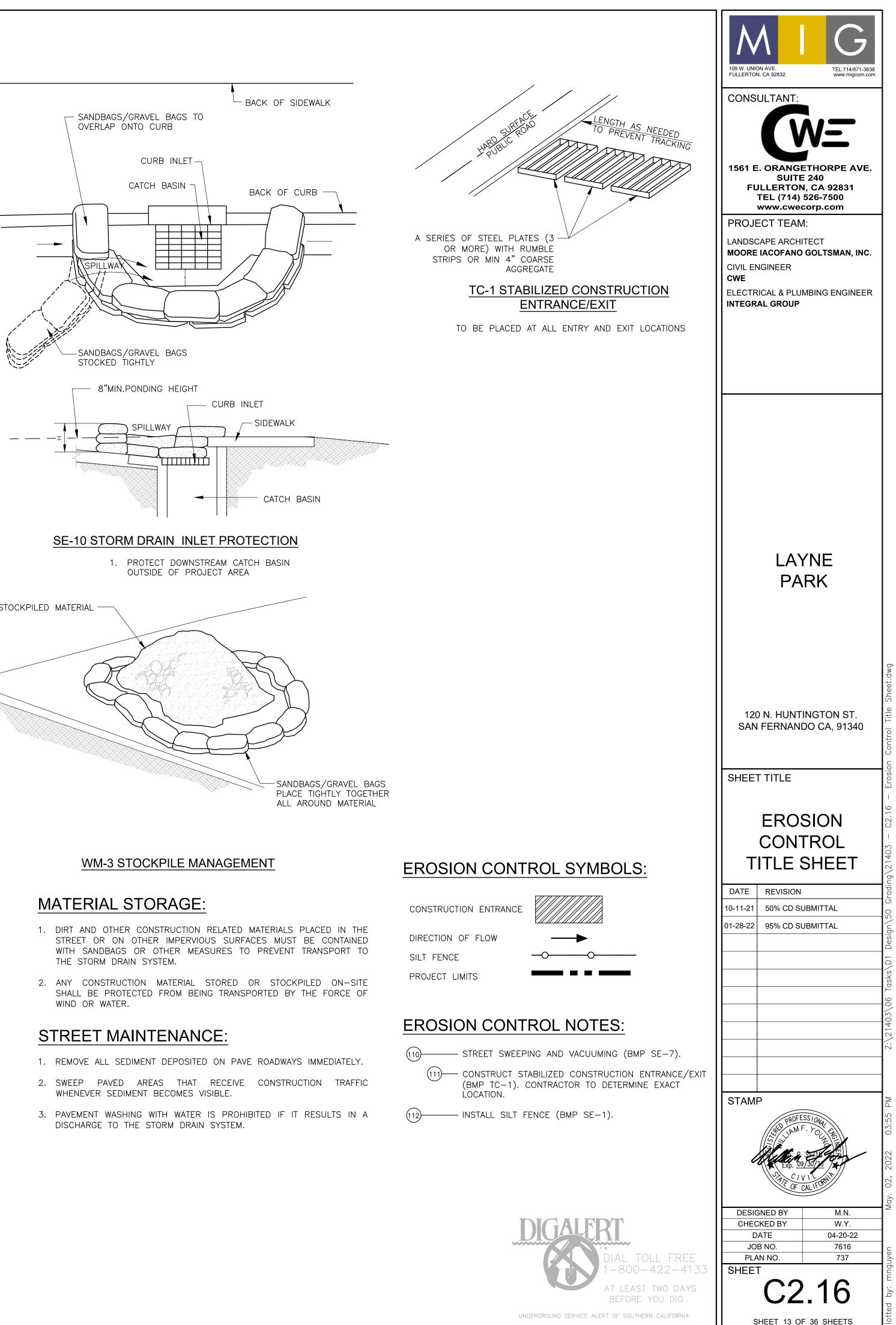
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:

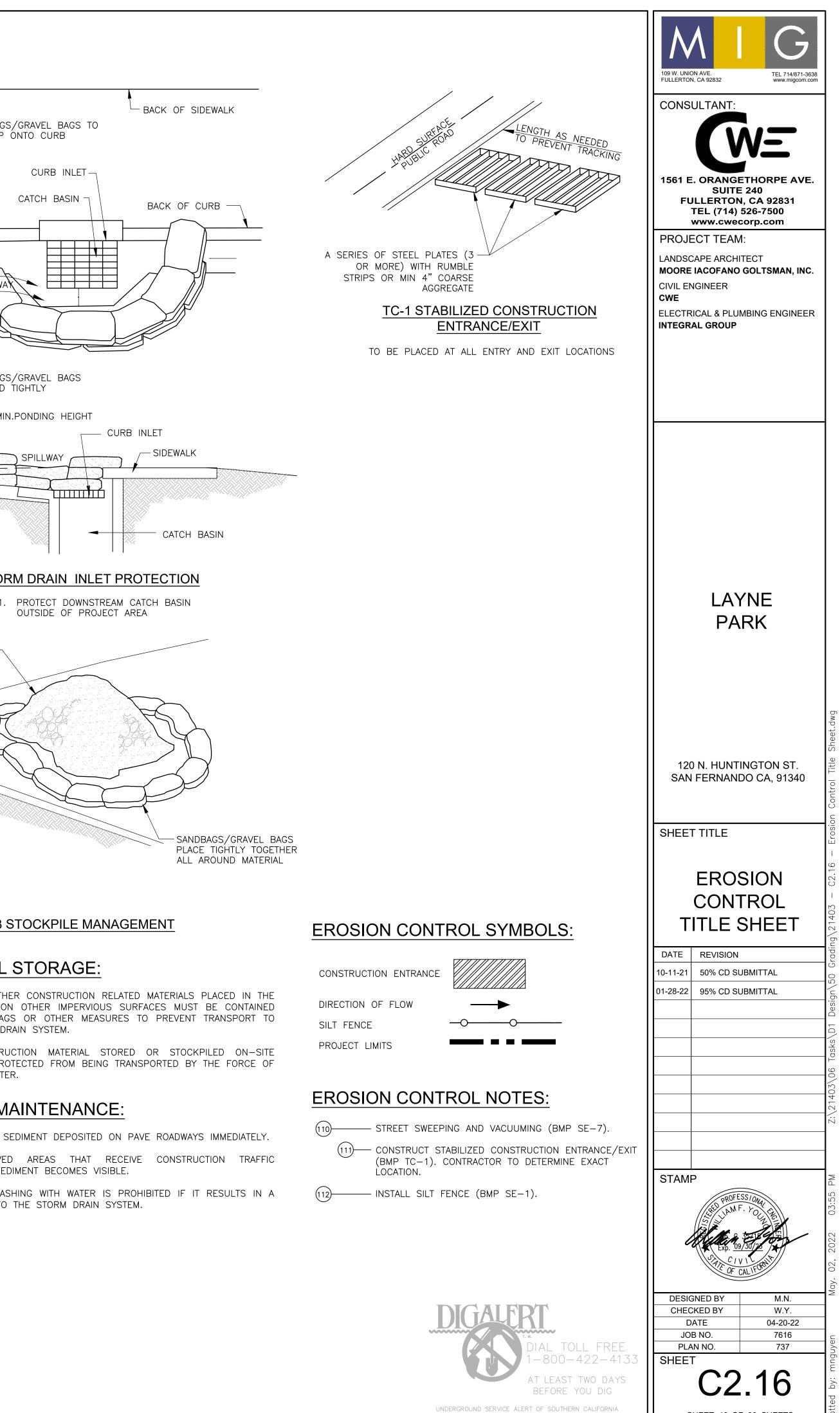
A. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE ROAD OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARKING AREA.

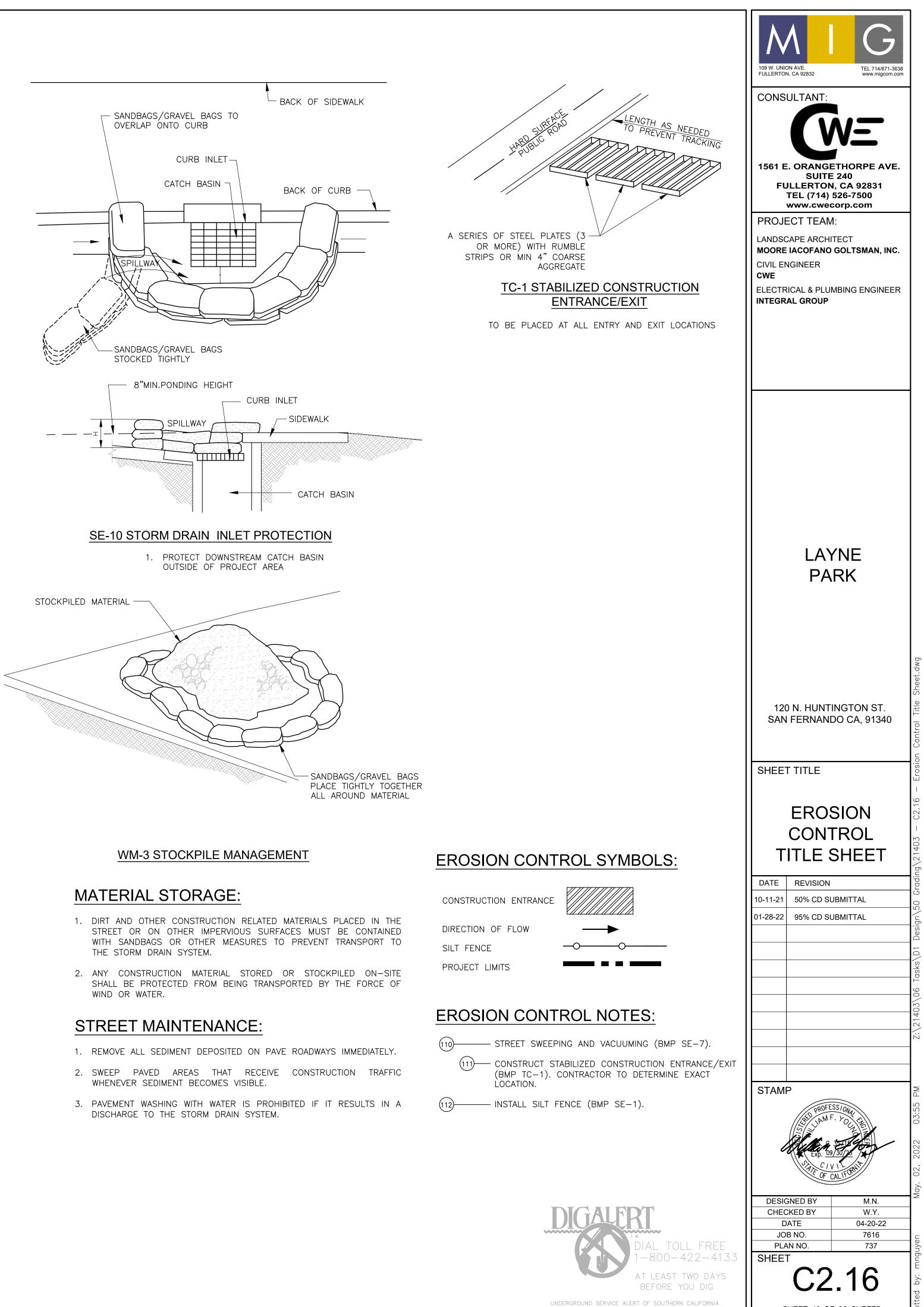
B. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN 4" COARSE AGGREGATE WITH LENGTH, WIDTH, & THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED

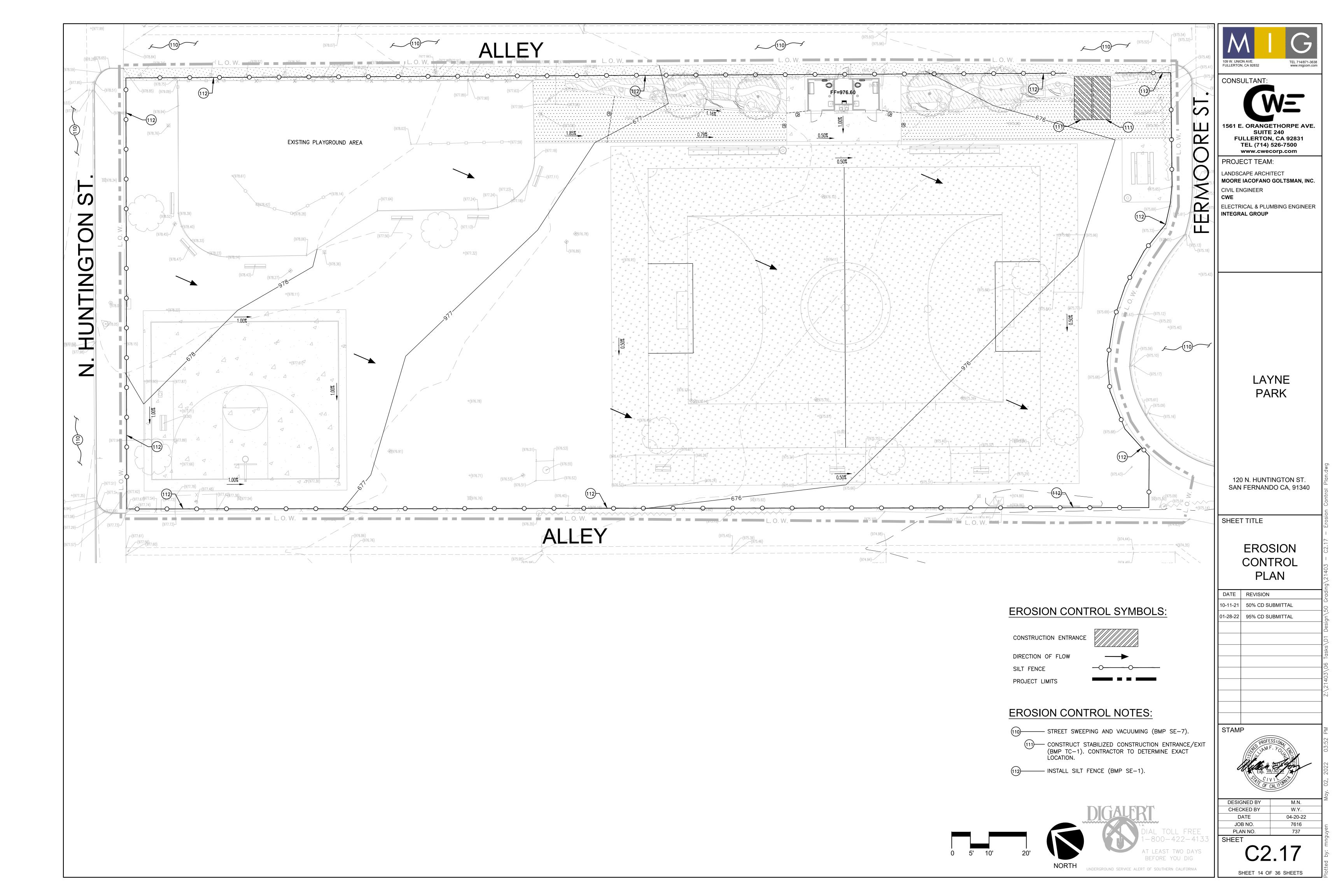
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN

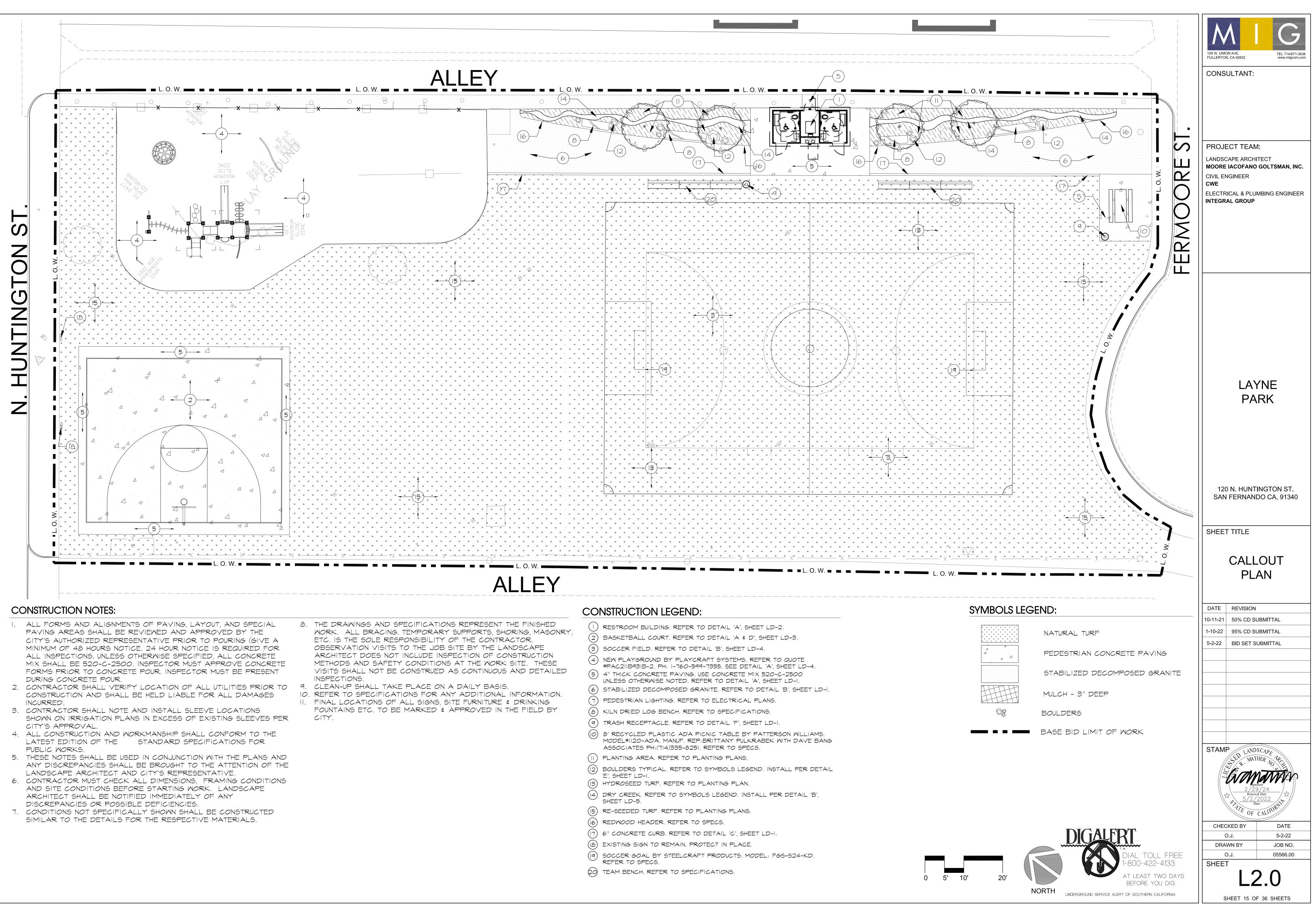
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION

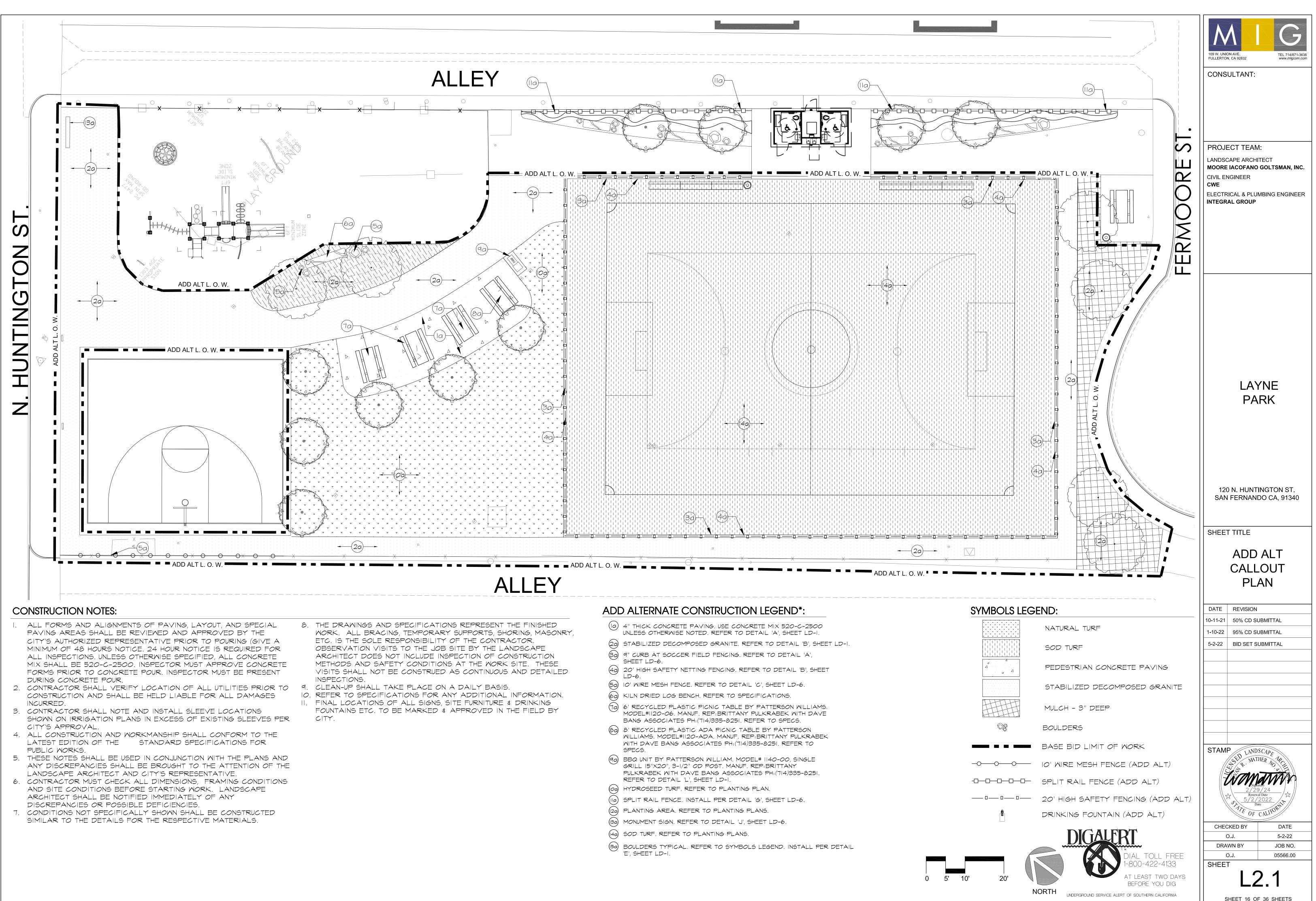












NDS		1	N EQUIPMENT LEGEND		1		DSCAPE IRRIGATI	UN EQUIPIVIEINT LEG		NI				
YMBOL	MFG'R (OR APPR	MODEL # OVED EQUAL)	DESCRIPTION	REMARKS	DETAIL	OVERH		- VARIABLE ARC NOZZLE SPRAY	SPRINKLER AT P			FLOW (GPM)		
	N/A	N/A	EXISTING DEDICATED IRRIGATION WATER METER AND SERVICE LINE	1.5" SIZE. FIELD VERIFY EXACT LOCATION, SIZE AND STATIC PRESSURE. 80 PSI MINIMUM PRESSURE REQUIRED.	N/A	SYMBO	DL MFG'R MODEL # (OR APPROVED EQUAL)	DESCRIPTION	N	OZZLE OPERATII		90° 180° 270° 360°	DETAIL	FULLERTON, CA 92832
*	N/A	N/A	IRRIGATION POINT-OF-CONNECTION (POC) TO EXISTING WATER METER.	SIZE PER PLAN. INSTALL GATE VALVE AS SHOWN ON PLANS. GATE VALVE SHALL BE MAINLINE SIZE. FIELD VERIFY SIZE, LOCATION AND STATIC PRESSURE.	N/A		1806-SAM-PRS RAIN BIRD WITH NOZZLE	ADJUSTABLE ARC NOZZLE, AND FACTOR	ED BODY WITH	-VAN-08 30 -VAN-10 30		0.29 0.59 0.88 1.17 0.45 0.89 1.34 1.78	-	CONSULTANT:
	WILKINS	975XLSEU	BACKFLOW PREVENTION DEVICE, PRESSURE REGULATOR AND WYE STRAINER/ ENCLOSURE	1.5" SIZE. REDUCED PRESSURE TYPE WITH PRESSURE REGULATOR AND WYE STRAINER. LEAD FREE. INSTALL PER DETAIL AND AS REQUIRED BY LOCAL CODES. INSTALL WITHIN	5/L3.4	(12V) (15V)	LISTED AT RIGH	IT CHECK VALVE. USE 6" POP-UP HEIGHT A WHERE INDICATED ON PLANS.		-VAN-12 30 -VAN-15 30		0.591.181.772.370.931.852.783.70	-	
	NIBCO	T-113-BHW	MAINLINE ISOLATION GATE VALVE (2-1/2-INCH AND SMALLER)	SBBC-30-ALI SECURITY ENCLOSURE. MAINLINE SIZE. INSTALL WITHIN PLASTIC VALVE BOX AND BOLT DOWN COVER.	5/L3.3 3,4/L3.3	SUBSU	RFACE DRIP IRRIGATION EQU	JIPMENT			MAX.			PROJECT TEAM:
NOT HOWN	SUPERIOR	BSBV		2" AND SMALLER, BRONZE, NON-RISING STEM, THREADED. INSTALL WITHIN VALVE BOX AS DETAILED. MATCH MAIN LINE PIPE	6/L3.3 3,4/L3.3	SYMBO	DL MFG'R MODEL # (OR APPROVED EQUAL)	DESCRIPTION	OP. P		EMITTER ALLOWE SPACING HOZIN. SPACING	ED BURIAL I. DEPTH	DETAIL	LANDSCAPE ARCHITECT MOORE IACOFANO GOLTSM. CIVIL ENGINEER
Ŕ	SUPERIOR	QB44AR	QUICK COUPLER VALVE	1-INCH SIZE (NPT); SINGLE SLOT WITH YELLOW TUFF TOP AND ANTI-ROTATION FEATURE. SUPPLY WITH (2) 1-INCH NPT MALE x 3/4-INCH FEMALE KEYS AND MATCHING 1-INCH MALE HOSE X 1"	4/L3.4 3,4/L3.3		RAIN BIRD XFS-CV-06-12	INLINE EMITTER DRIPLINE W/ COPPER SE PROTECTION, ANTI-SIPHON, PRESSURE COMPENSATING, SELF-FLUSHING EMITTI CHECK VALVE.	20	0.60 1	12-INCHES 12-INCHE	ES 6-INCHES	4,6/L3.5 1/L3.6	ELECTRICAL & PLUMBING EN
<u> </u>				FEMALE PIPE HOSE SWIVELS. INSTALL WITHIN PLASTIC VALVE BOX AND BOLT DOWN COVER.		SYMBO	DL MFG'R MODEL# (OR APPROVED EQUAL)	DESCRIPTION			REMARKS		DETAIL	
$\langle \mathbf{A} \rangle$	CALSENSE	CS3-24-S/CS3-G R-KIT/COMM-5YR -2/CS3-SSBP/ FM1.5	AUTOMATIC IRRIGATION CONTROLLER WITH CELLULAR COMMUNICATION. INCLUDES FLOW METER- REFER TO SYMBOL BELOW.	INSTALL 24 STATION INTERIOR WALL MOUNTED CS3000 CONTROLLER LISTED AT LEFT WITHIN UTILITY CLOSET IN RESTROOM BUILDING. SYNC WITH RAIN SWITCH 'R'. WIRE TO FLOW METER, MASTER VALVE AND CONTROL VALVES.	5/L3.5	F	NIBCO 4660-S	MANUAL FLUSH BALL VALVE	SUPPLY		AUST HEADER. HEADEF TO PLAN. REFER TO G RMATION.		2/L3.5	
				WIRELESS RAIN SWITCH. DISTANCE FROM CONTROLLER SHALL NOT EXCEED 200-FEET. REFER TO PLAN FOR ADDITIONAL INFO.	PER		RAIN BIRD OPERIND	OPERATION/PRESSURE INDICATOR STAK	E PLUMB	TO DRIP TUBING, ONE	PER DRIP ZONE.		3/L3.5	-
$\langle \mathbf{R} \rangle$	HUNTER	WRS-KIT	WIRELESS RAIN SENSOR.	SENSOR SHALL BE FIELD LOCATED ON SOUTH FACING BUILDING FASCIA. LOCATE TO PROVIDE OPTIMAL EXPOSURE TO WEATHER ELEMENTS AS PER MANUFACTURER'S RECOMMENDATIONS.	MANUF'R		MFG'R MODEL #	NOZZLE OPERATING PRESSURE	RADIUS FL	ow	FLOW		DETAIL	
(E)	CALSENSE	EXISTING	EXISTING PEDESTAL MOUNTED AUTOMATIC IRRIGATION CONTROLLER.	REMOVE, SALVAGE EXISTING CALSENSE CONTROLLER AND RETURN TO THE CITY OF SAN FERNANDO. DISCONNECT AND REMOVE EXISTING POWER SUPPLY AT EXISTING PEDESTAL CONTROLLER LOCATION.	N/A	•	RAIN BIRD RWS-B-1402	AS SUPPLIED 30 PSI	N/A 0.	50 CONTRACTO	PR TO INSTALL (2) RW	WS PER TREE.	6/L3.4	
NOT HOWN	-	-	PULL/ SPLICE BOXES	LOCATE PULL BOXES AT ENDS OF ALL SLEEVES, AND AS DIRECTED BY OWNER REPRESENTATIVE. ALL WIRING SHALL BE INSTALLED IN GRAY SCH. 40 PVC CONDUIT W/ SWEEPS	7/L3.5									
	-	-	FLOW SENSOR AND MASTER CONTROL VALVE WIRES IN CONDUIT	#14 WIRE (2 FOR FLOW METER, 2 FOR MASTER CONTROL VALVE) IN 1" GRAY SCH. 40 PVC CONDUIT AND SWEEPS. LOCATE PULL BOXES EVERY 200' O.C. AND AS DIRECTED BY OWNER'S REPRESENTATIVE. SPLICES, WHEN APPROVED, SHALL USE WATER TIGHT DIRECT BURY ELECTRICAL SPLICE KITS PER SPECS.	8/L3.4									LAYNE PARK
Μ	SUPERIOR	3200-1.5"	MASTER CONTROL VALVE (MCV)	1.5" SIZE. 24 VOLT, NORMALLY CLOSED, BRASS, GLOBE, FLOW CONTROL, DIAPHRAGM ACTIVATED VALVE WITH NPT INLET AND	7/L3.4				GENE	ERAL IRRIGAT	ION LEGEND			
F	CALSENSE	FM1.5B	T-TYPE FLOW METER	OUTLET. WIRE TO CONTROLLER 'A'. 1.5" SIZE. BRASS, WIRE DIRECTLY TO CONTROLLER 'A'. 2 GALLON PER MINUTE MINIMUM FLOW REQUIRED TO REGISTER FLOW.	7/L3.4		SCHEDULE 40 IPS U	RAL PIPE SIZING CHART		<u>NG</u> : REFER TO IRRIG R TYPE AND SIZE.	GATION LEGEND AND	O CHART ON SHEET	_	
•	RAIN BIRD	100-PEB (1") 150-PEB (1.5")	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 WITH POP-UP ROTORS, SPRINKLERS AND	1/L3.4 3,4/L3.3		PIPE SIZE 3/4 -INCH	NCE USE ONLY) MAXIMUM GALLONS PER MINUTE 0 - 6	(#)M (#)L (#)W (#)S	MAINLINE PIP LATERAL PIP WIRE/CONDU	PE SLEEVE QUANTITY E SLEEVE QUANTITY JIT SLEEVE QUANTIT RE) SLEEVE QUANTIT	ί ΤΥ		120 N. HUNTINGTON
2	RAIN BIRD	XCZ-100-PRB-LC	DRIP REMOTE CONTROL VALVE ASSEMBLY (DRCV)	TREE BUBBLERS. 1" SIZE. GLASS-FILLED NYLON AUTOMATIC GLOBE VALVE SHALL BE INSTALLED WITH INLINE PRESSURE REGULATING SCREEN BASKET FILTER (40PSI). USE QKCHK-100M BASKET FILTER (NO REGULATOR) WHEN UPSTREAM PRESSURE IS LESS THAN 50 PSI. INSTALL WITHIN PLASTIC JUMBO VALVE BOX AND BOLT DOWN COVER. INSTALL WITHIN MANIFOLD WHEN GROUPED WITH OTHER VALVES. SIZE MANIFOLD TO MATCH LARGEST LATERAL LINE SIZE. USE WITH DRIP ZONES ONLY. FLOW RANGE: 0.3 - 20 GPM.	1/L3.5 3,4/L3.3		1 - INCH 1-1/4 - INCHES 1-1/2 - INCHES 2 - INCHES	7 - 12 13 - 20 21 - 30 31 - 50	CON	FLOW (GPM) G PRESSURE (PSI) ZONE WATER-USE	L 0.85 - PRECIF	E SIZE ATION METHOD (BELOW P. RATE (IN./HR.) OZONE AREA (SF)	()	SAN FERNANDO CA, S SHEET TITLE
	PW PIPE	-	PRESSURE MAINLINE PIPE	2-INCH SIZE UNLESS NOTED DIFFERENTLY ON PLANS. USE SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 SOLVENT WELD FITTINGS FOR MAINLINE PIPE 2-INCHES OR SMALLER. INSTALL WITH TRACE WIRE. MAINLINE COVER DEPTH: 18"	1/2/L3.3	_	CLASS 315 & SCH. 40 IF	NE PIPE SIZING CHART PS U.S. PVC PLASTIC PIPE INCE USE ONLY)	RV DF RC	TION METHOD: VS - TREE ROOT WATE RP - SUB-SURFACE DR DT - POP-UP ROTOR /N - POP-UP STREAM F	RIP GRID			LEGEND
	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"			PIPE SIZE 3/4 -INCH	MAXIMUM GALLONS PER MINUTE 0 - 6	H	N - POP-UP SPRAY				DATE REVISION 10-11-21 50% CD SUBMITTAL
	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 L3.00)	2/L3.3		1 - INCH 1-1/4 - INCHES	7 - 12 13 - 20	GENE	RAL NOTES				1-10-2295% CD SUBMITTAL5-2-22BID SET SUBMITTAL
RHEAD	IRRIGATION	I EQUIPMENT -	ROTORS AT SPORTSFIELD				1-1/2 - INCHES 2 - INCHES	21 - 30 31 - 50				GEND ON L3.0 AND TH 3.1 FOR ADDITIONAL II		
YMBOL	MFG'R (OR APPR	MODEL # OVED EQUAL)	DESCRIPTION	NOZZLEOPERATING PSIRADIUS FEET/ PATTERNFLOW GPM	DETAIL							IEETS L3.3, L3.4, L3.5 /	AND L3.6	
⁰⁸	RAIN BIRD		6" POP-UP WITH ADJUSTABLE ARC, STAINLESS STEEL RISER, AND CHECK VALVE. ALL PATTERNS ARE ZONED TOGETHER- DO NOT MIX QUARTER,	8 (LT. GREEN) 45'-50'/ FULL 8.2 8 (LT. GREEN) 60 45'-50'/ HALF 8.2	2/L3.4			EEVE SIZING CHART NCE USE ONLY)	3. ALI		L PIPE, VALVES, AND	D OTHER IRRIGATION ED AREA IS FOR GRAI		
08 08			HALF OR FULL CIRCLE HEADS- VALVE SEPARATELY.	8 (LT. GREEN) 45'-50'/ QUARTER 8.2			SCHEDULE 40 PVC PIPE SLEEVE SIZE	MAXIMUM IRRIGATION PIPE/WIRE CONDUIT SIZE	CL/ VA	ARITY ONLY. CONTRA LVES AND ALL IRRIGA	ACTOR TO PLACE MA	AINLINE, LATERAL PIF NCES WITHIN ADJACE	PE,	
ERHEAD		I	STREAM ROTORS AT PASSIVE TURF		<u> </u>		2 - INCHES 2-1/2 - INCHES	1 - INCH 1-1/4 - INCH				AISE ON THE PLANS. ON MAINLINE, LATERA	AL PIPE	STAMP LANDSCAPE
YMBOL	MFG'R (OR APPR	MODEL # OVED EQUAL)	DESCRIPTION	NOZZLE OPERATING PSI RADIUS FLOW (GPM) 90° 180° 270° 360°	DETAIL	_	3 - INCHES 4 - INCHES	1-1/2 - INCH 2 - INCHES	AN DR	D SLEEVES AROUND AINAGE FACILITIES, I	ALL SERVICE LINES ETC. IN ORDER TO A	,	SIN	Extensional Contraction
18 18F 24	RAIN BIRD	1806-SAM-PRS45 WITH NOZZLE LISTED AT RIGHT	6" POP-UP, 45 PSI PRESSURE REGULATED BODY WITH ADJUSTABLE ARC STREAM NOZZLE, AND FACTORY INSTALLED CHECK VALVE. USE 6" POP-UP HEIGHT AT TURF AREAS WHERE INDICATED ON PLANS.	R-VAN-18 45 16'-18' 0.5 1.01 1.51 R13-18F 45 16'-18' 1.96 R-VAN-1724 45 17'-24' 0.91 1.83 2.73	- 3/L3.4			3 - INCHES ARGEST SLEEVE AT SAME CROSSING CATION.				IAL DEPTH REQUIREN		2/29/24 Renewal Date 5/2/2022 Date PARTIN PARTIN
24F				R17-24F 45 17'-24' 3.67		_						ALFRT		CHECKED BY D/ O.J. 5-2
	MFG'R (OR APPR	MODEL #	DESCRIPTION 6" POP-UP, 45 PSI PRESSURE REGULATED BODY	NOZZLE OPERATING PSI RADIUS FLOW (GPM) R-VAN-LCS 45 5' X 15' 0.24	DETAIL							DIAL TO 1-800-42	LL FREE 2-4133	DRAWN BY JOE O.J. 0550 SHEET
RC SS	RAIN BIRD	1806-SAM-PRS45 WITH NOZZLE LISTED AT RIGHT	WITH ADJUSTABLE ARC STREAM NOZZLE, AND FACTORY INSTALLED CHECK VALVE. USE 6" POP-UP HEIGHT AT TURF AREAS WHERE	R-VAN-LCS 45 5' X 15' 0.24 R-VAN-RCS 45 5' X 15' 0.24 R-VAN-SST 45 5' X 30' 0.48	3/L3.4							AT LEAST DEFORE Y	TWO DAYS YOU DIG	L3.0



UNCERGROUND	SERVICE	ALERT	OF (BOUTH	ern (XLF	OFINIA

AUTO	MATIC 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

- OWNER'S REPRESENTATIVE AT THE START OF WORK.
- 2. CONTRACTOR SHALL FIELD VERIFY (POTHOLE IF NECESSARY) SIZE, OF DEMOLITION.
- IRRIGATION SYSTEMS DIRECTLY ADJACENT AND OUTSIDE OF THE BE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- AUTOMATIC PROGRAMMED WATERING SCHEDULES THROUGHOUT REPRESENTATIVE.
- OF NEW IRRIGATION SYSTEM INSTALLATION.
- CITY'S REPRESENTATIVE UPON COMPLETION OF WORK.
- PER CITY'S REPRESENTATIVE APPROVAL.

EXISTING UTILITIES NOTES

- SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- COSTS AND LIABILITY IN CONNECTION HEREIN.
- EXISTING UTILITIES.
- SAME.
- AS SOON AS POSSIBLE.

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

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

3. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ANY EXISTING 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

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 CONSTRUCTION AND SHALL BE SUPPLEMENTED BY MANUAL WATERING ONLY WHEN REQUIRED OR REQUESTED BY THE OWNER'S AUTHORIZED

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

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

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

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

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

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

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

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

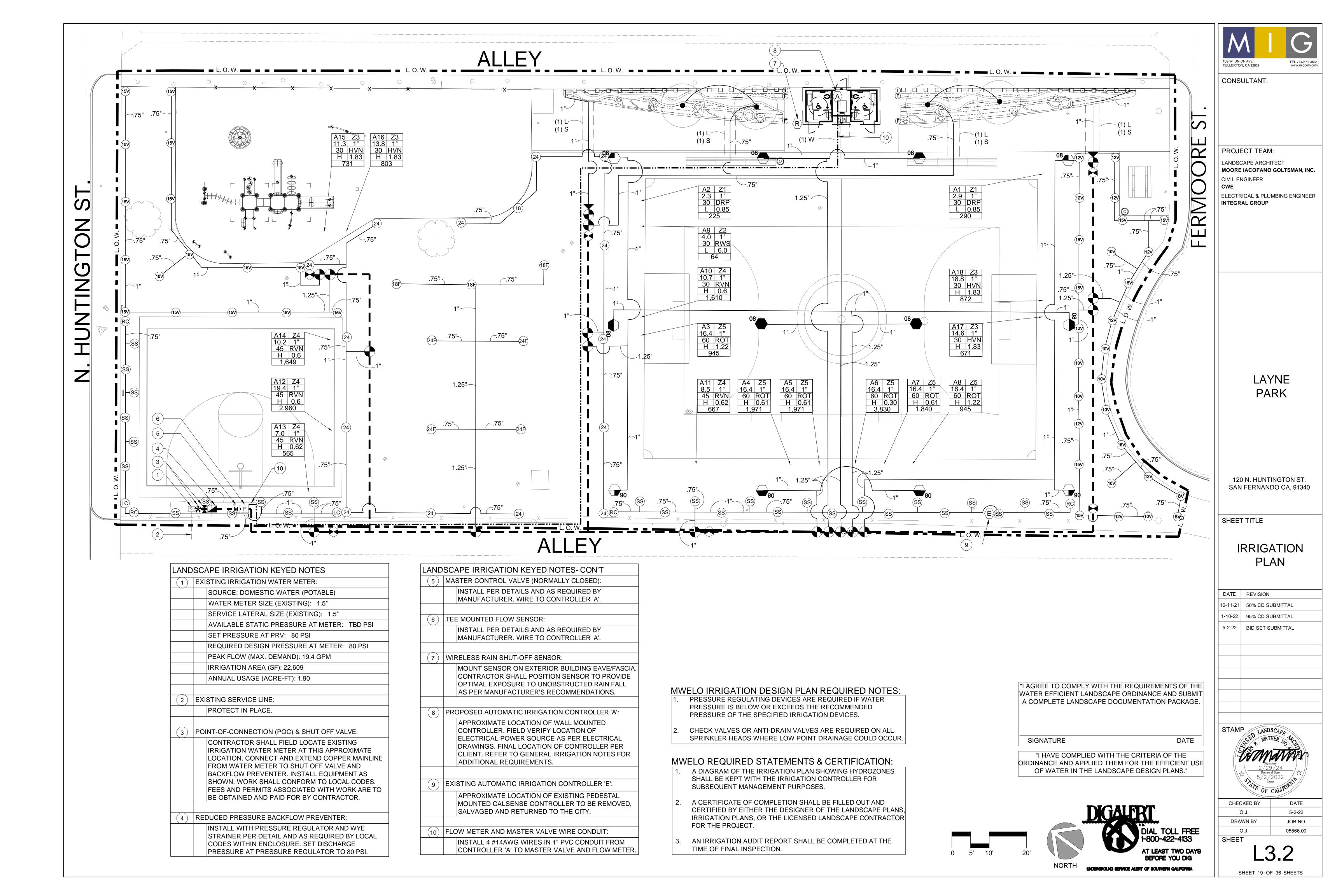
GENERAL LANDSCAPE IRRIGATION NOTES:

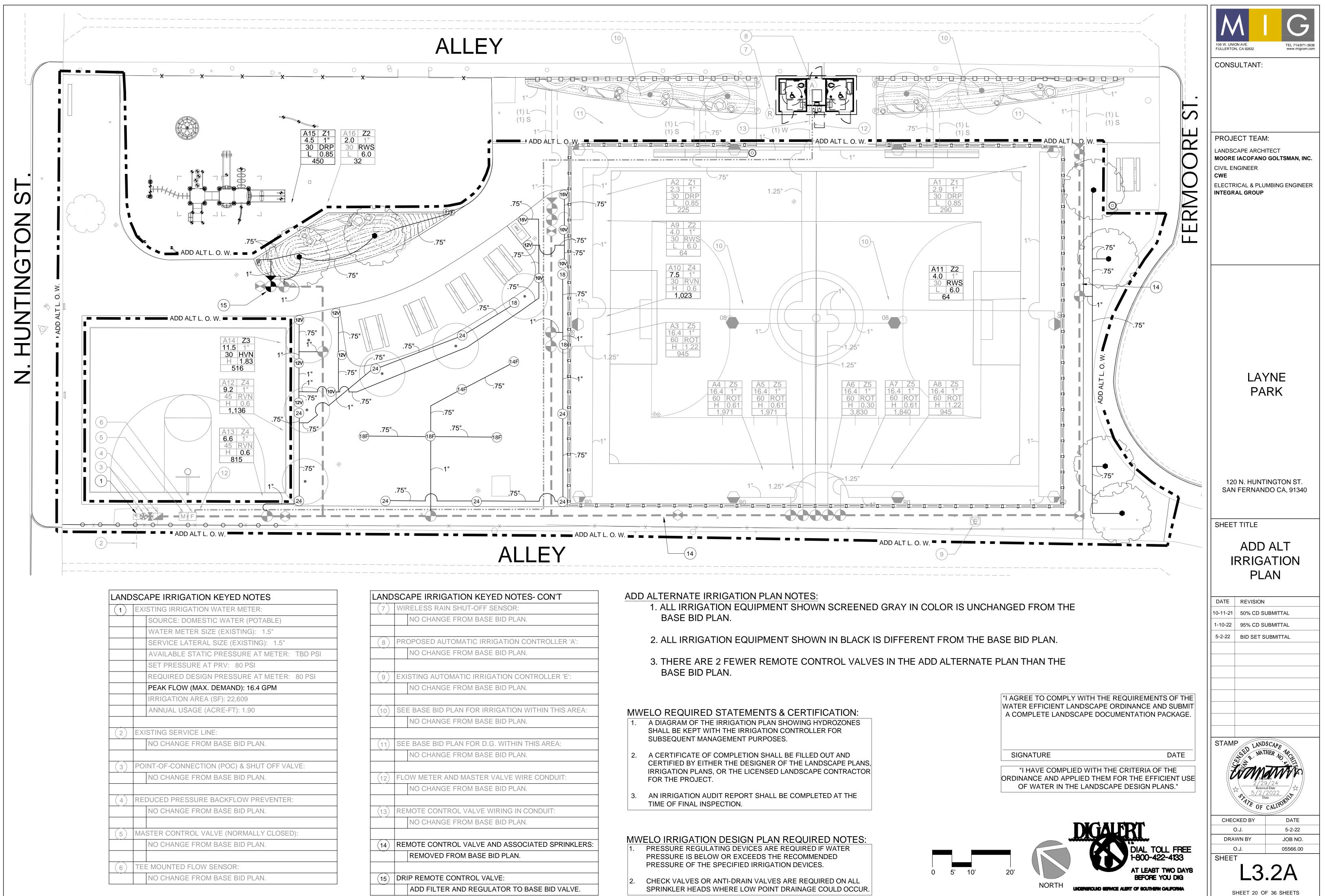
- 1. THE CONTRACTOR SHALL OBTAIN ANY PERTINENT ENGINEERING AND/OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR THE ACQUISITION OF ALL NECESSARY PERMITS ASSOCIATED WITH THE CONSTRUCTION WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- 3. THE IRRIGATION SYSTEM DESIGN 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.

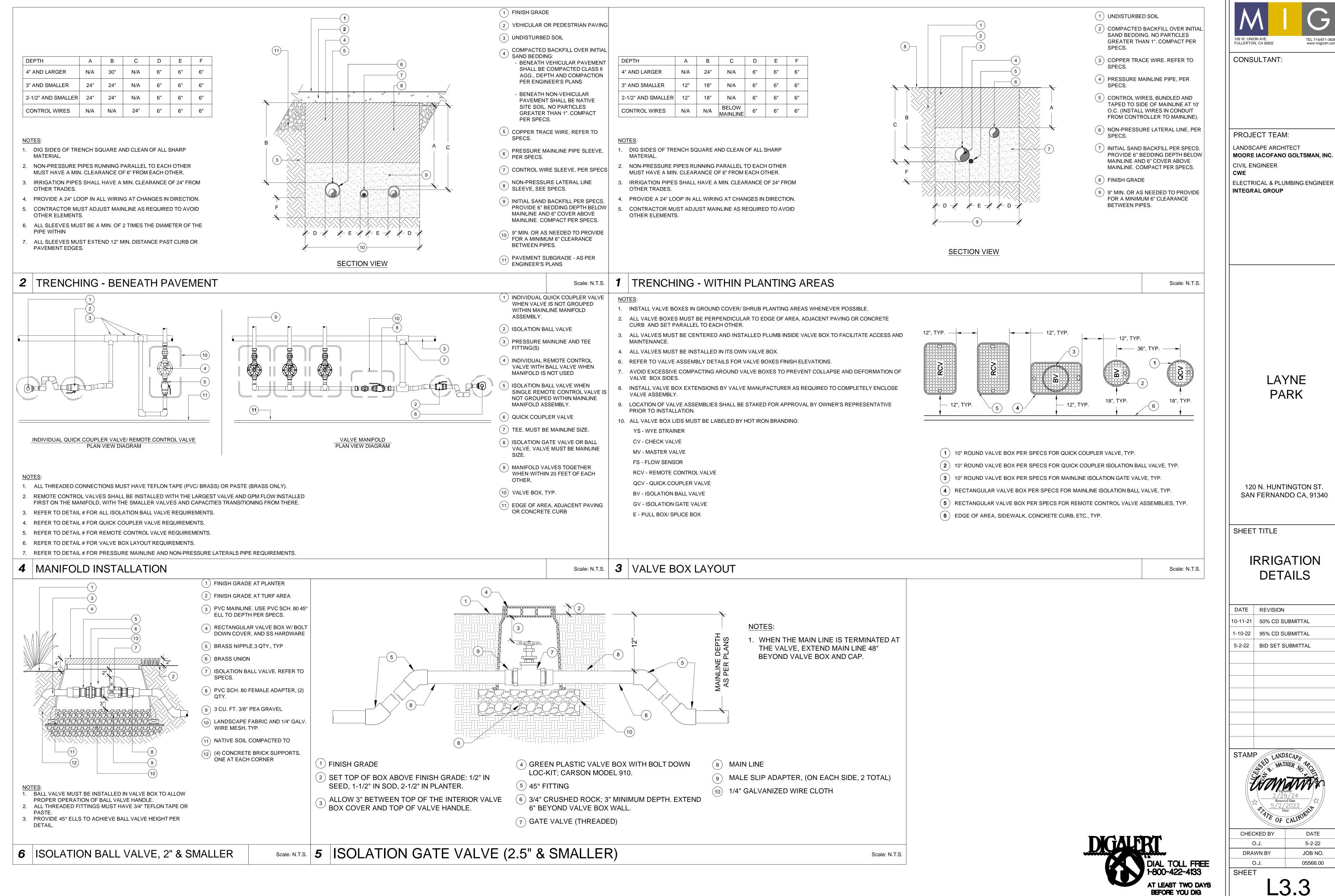
- 10. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE DRIPLINE LAYOUT AS PER ACTUAL FIELD CONDITIONS TO ACHIEVE FULL COVERAGE OF ALL PLANTED AREAS. THE CONTRACTOR WILL BE RESPONSIBLE OF INSTALLING ADDITIONAL DRIPLINE, AS NEEDED, TO PROVIDE ADEQUATE COVERAGE, AT NO ADDITIONAL COST TO THE CLIENT. REFER TO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



109 W. UNIO FULLERTOR			C TEL 714/871-3638 www.migcom.com
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5-2-22	BID SE	T SUBMIT	TAL
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	D.J.		JOB NO. 05566.00
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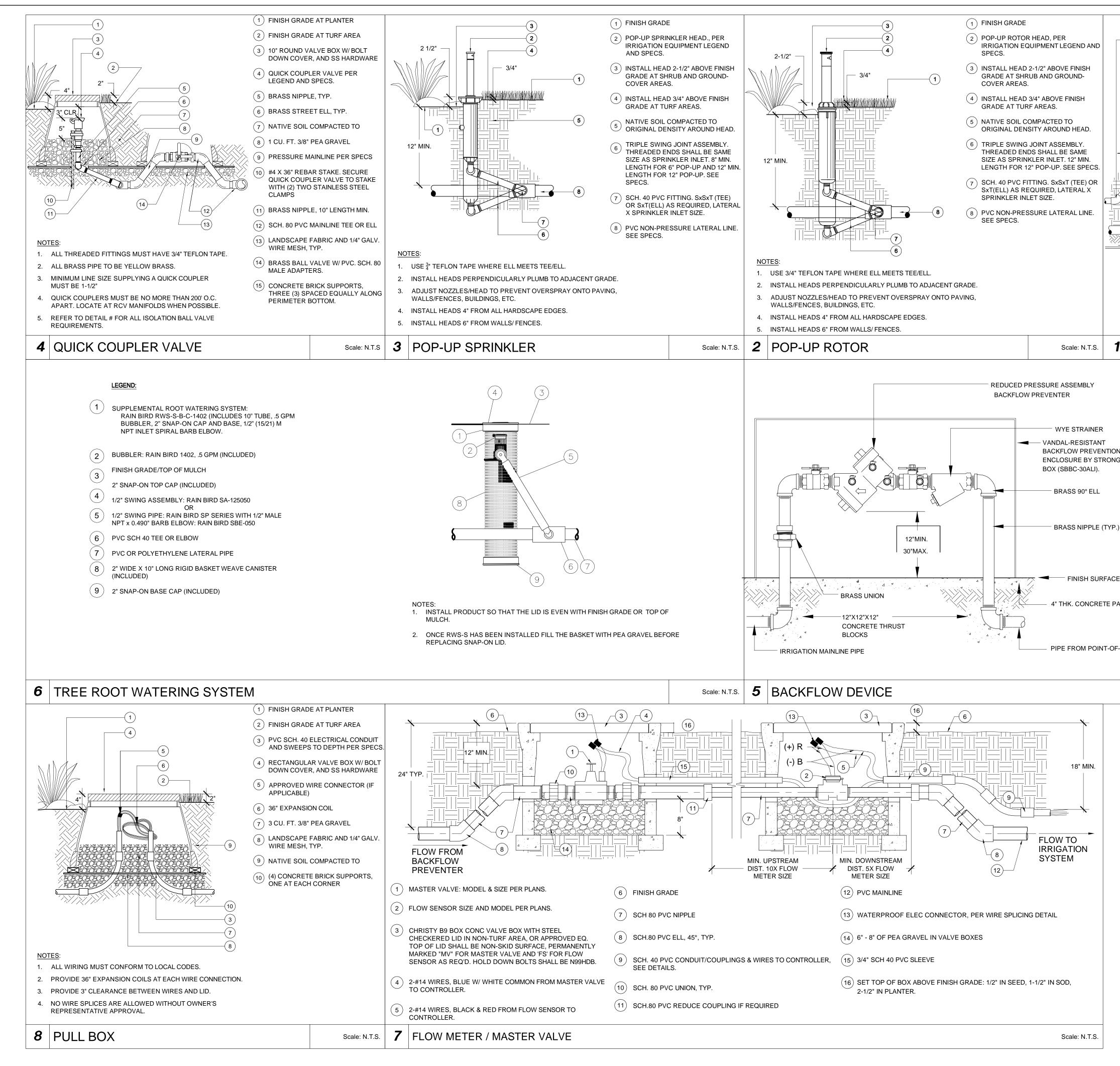




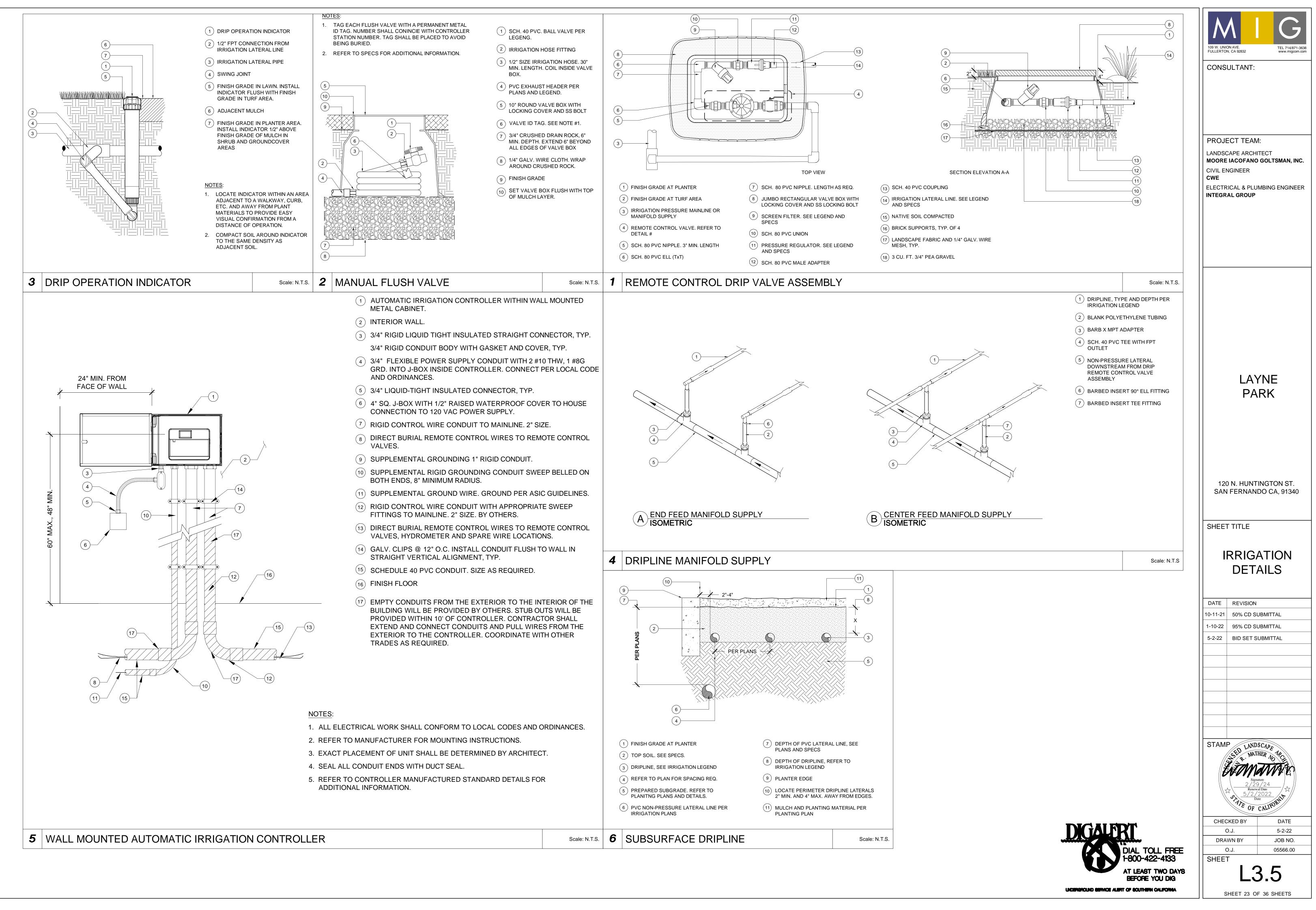
AT LEAST TWO DAYS BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

SHEET 21 OF 36 SHEETS



	(1) FINISH GRADE AT PLANTER (2) FINISH GRADE AT TURF AREA (3) PVC MAINLINE. USE PVC SCH. 40 45° ELL (1) (3) (2) INISH GRADE AT TURF AREA (3) PVC MAINLINE. USE PVC SCH. 40 45° ELL (1) (4) (3) PVC MAINLINE. USE PVC SCH. 40 45° ELL (1) (4) (2) FINISH GRADE AT TURF AREA (3) PVC MAINLINE. USE PVC SCH. 40 45° ELL (1) (4) (2) GECTANGULAR VALVE BOX (6) (5) (7) (6) (7) (6) (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 (14) PRESSURE MAINLINE, PER SPECS. (15) SCH. 80 MAINLINE FITTING	Image: None of the second s
DEPARTMENT. VERIFY LOCAL F N 2. APPROVED TEFLON TAPE- 3/4 G CONNECTIONS. 3. ALL PIPE AND FITTINGS SHAL 4. REDUCED PRESSURE PRINCIF	E Scale: N.T.S. TER AS REQUIRED BY LOCAL CODES AND HEALTH REQUIREMENTS PRIOR TO INSTALLATION. 4" WIDE SHALL BE USED ON ALL THREADED	LAYNE PARK 120 N. HUNTINGTON ST.
AD F-CONNECTION	Scale: N.T.S.	SAN FERNANDO CA, 91340 SHEET TITLE IRRIGATION DETAILS DATE REVISION
		10-11-21 50% CD SUBMITTAL 1-10-22 95% CD SUBMITTAL 5-2-22 BID SET SUBMITTAL 5-2-22 BID SET SUBMITTAL STAMP LANDSCAPS NATHER 10 2/29/24 Renewal Date 5/2/2022 Date CHECKED BY OF CALIFURNT CHECKED BY OF CALIFURNT CHECKED BY JOB NO. O.J. 5-2-22 DRAWN BY JOB NO. O.J. SHEET L3.44 SHEET 22 OF 36 SHEETS



WATER ALLOWANCES/ WATER USE COMPARISON, BASE BID PLAN

POC	CONTROLLER		NAME OF CITY:	San Fernando	
	٨		PROJECT NAME:	-	
P1	A	WATER N	WATER TYPE:	120 N Huntington S	:
		, , , , , , , , , , , , , , , , , , ,		g	
		MAXIMUN	APPLIED WAT	ER ALLOWANCE	E (MAW
FORMULA:					
MAWA =	(Eto)(0.62)[(0.45	x LA) + (0.55 x SL	A) = GALLONS P	ER YEAR	
					40. 00 lov 10
	n n		-	rass for play. Refer nest water use condi	
			e _ia piani iae ingli		
52.00	_			TION IN INCHES F	
0.62				ONS PER SQUAR	
0.45				MENT FACTOR AN	ND IRRIG
LA			EA INCLUDING S	· · ·	
0.55 SLA			ADJUSTMENT F/ SCAPE AREA (SC	ACTOR FOR SPE	CIAL LAN
JLA	=	SPECIAL LANDS	CAPE AREA (30	(. F I.)	
SUMMARY OF L	ANSCAPE AREA	BY IRRIGATION	METHOD OR SLA	١	
			-	n Landscape Area	
				ation Landscape A	rea (ft²)
Total	Landscape Area:	22,030	SLA (ft ²)		
Total	Lanuscape Alea.	22,009			
RESULTS					
MAWA = (Et	to) x (0.62) x [(0.4	5 x LA) + ((1.0 - 0	.45) x SLA))]		Gallons
				96,069.17	
				960.69	
					Acre-fee Millions
				0.72	
		EST	MATED TOTAL	WATER USE (ET	WU)
FORMULA:					
ETWU =	(Eto) x (0.62) x [(ETAF x Landscap	be Area)]		
52.00	=		APOTRANSPIRA	TION IN INCHES F	PER YEA
0.62				ONS PER SQUAR	
VARIES		PF (WUCOLS IV)			
		0.1 - 0.3	LOW WATER-US		
			MEDIUM WATER		
VARIES		0.7 - 1.0	HIGH WATER-US	SE PLANIS	
VARIES	=		SPRAY		
			DRIP/BUBBLER		
VARIES	=			NT FACTORS AN	D IRRIG
		SLA ETAF = 1.0			
VARIES	=	LANDSCAPE AR	EA FOR SPECIF	C HYDROZONE	
DETAILED SUMN	ARY BY HYDRC	ZONE TYPE			
REFERENCE EV	APOTRANSPIRA	TION (Eto):	52.00		
Hydrozone	Plant Factor	Irrigation	Irrigation Efficiency	ETAF	Lansca
Туре	(PF)	Method	(IE)	(PF/IE)	(5
Regular Landscap					
ZONE 1					
Shrubs/ GC					_
(Low	0.3	DRIP	0.81	0.37	5
Water-Use)					
ZONE 2		ROOT			
Trees	0.3	WATERING	0.81	0.37	6
(Low Water-Use)		SYSTEM			
Water USC)					
				Totals:	
Special Landscap	e Areas				
		Water-Use Spray)	1	1	
		Water-Use Stream		1	
		Water-Use Rotor)	,	1	
		· · · · · · · · · · · · · · · · · · ·			
				Totals:	
RESULTS	$(Eto) \times (0.62) \times 10$	(FTAE V Londone	Aroa)]	647 050	Galland
EIVVU =	נ⊏נט) x (U.02) X [((ETAF x Landscap	ned)]	617,958 82,609.02	Gallons
				826.09	
					Acre-fee
					Millions
					MAWA
				100,689	Surplus
		ETAF Calculations	3		
		ular Landscape A			
	Total ETAF x Are		214		Total E1

Total Area Average ETAF

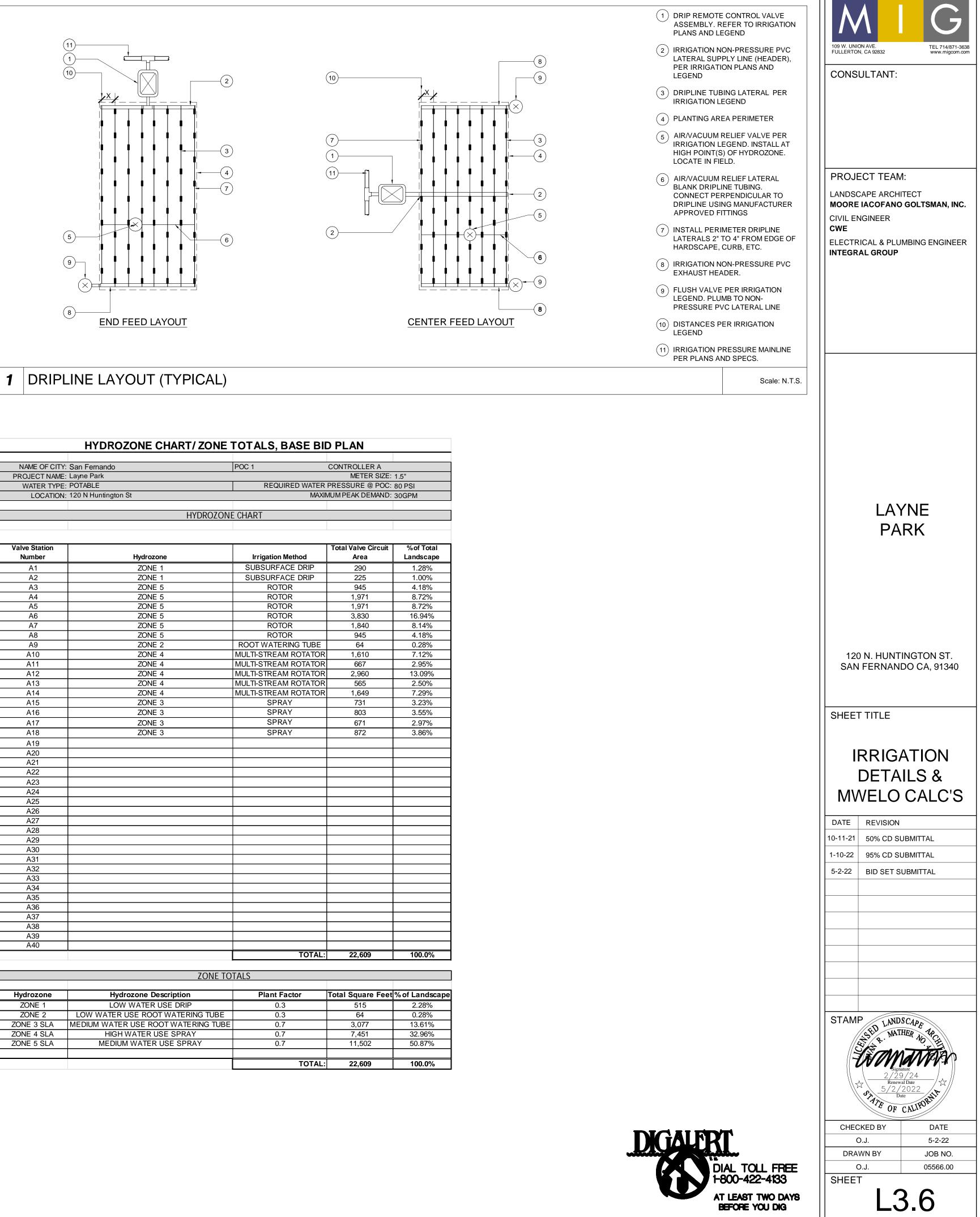
579 0.37

	METER SIZE:	
	ATER PRESSURE:	
MAXIMU	M PEAK DEMAND:	30 GPM
'A)	1	
	= GALLONS PE	R YEAR
tion belov	<i>V</i> .	
R (SOUF	RCE: CIMIS)	
(
ATION E	FFICIENCY (ETAP	-)
	, , , , , , , , , , , , , , , , , , ,	,
IDSCAPE	AREAS	

s of Gallons

AR (SOURCE: CIMIS)
AR (SOURCE: CIMIS)
AR (SOURCE: CIMIS)
ATION EFFICIENCY)

	Lanscape Area (sf ²)	ETAF x Area	ETWU
	515	191	6,149
	64	24	764
s:	579	214	6,914
			· · · · · · · · · · · · · · · · · · ·
	3,077	3,077	
	7,451	7,451	240,220
	11,502	11,502	370,824
s:	18,953	18,953	611,04
	Gallons		
	Cubic Feet		
	HCF		
	Acre-feet Millions of Gallons	2	
52		5	
47	MAWA		
39	Surplus		
_			
		ETAF Calculations	
	Total ETAF x Area	II Landscape Area	
	Total Area	a	19,167 19,532
	Sitewide ETAF		0.37
			5.0

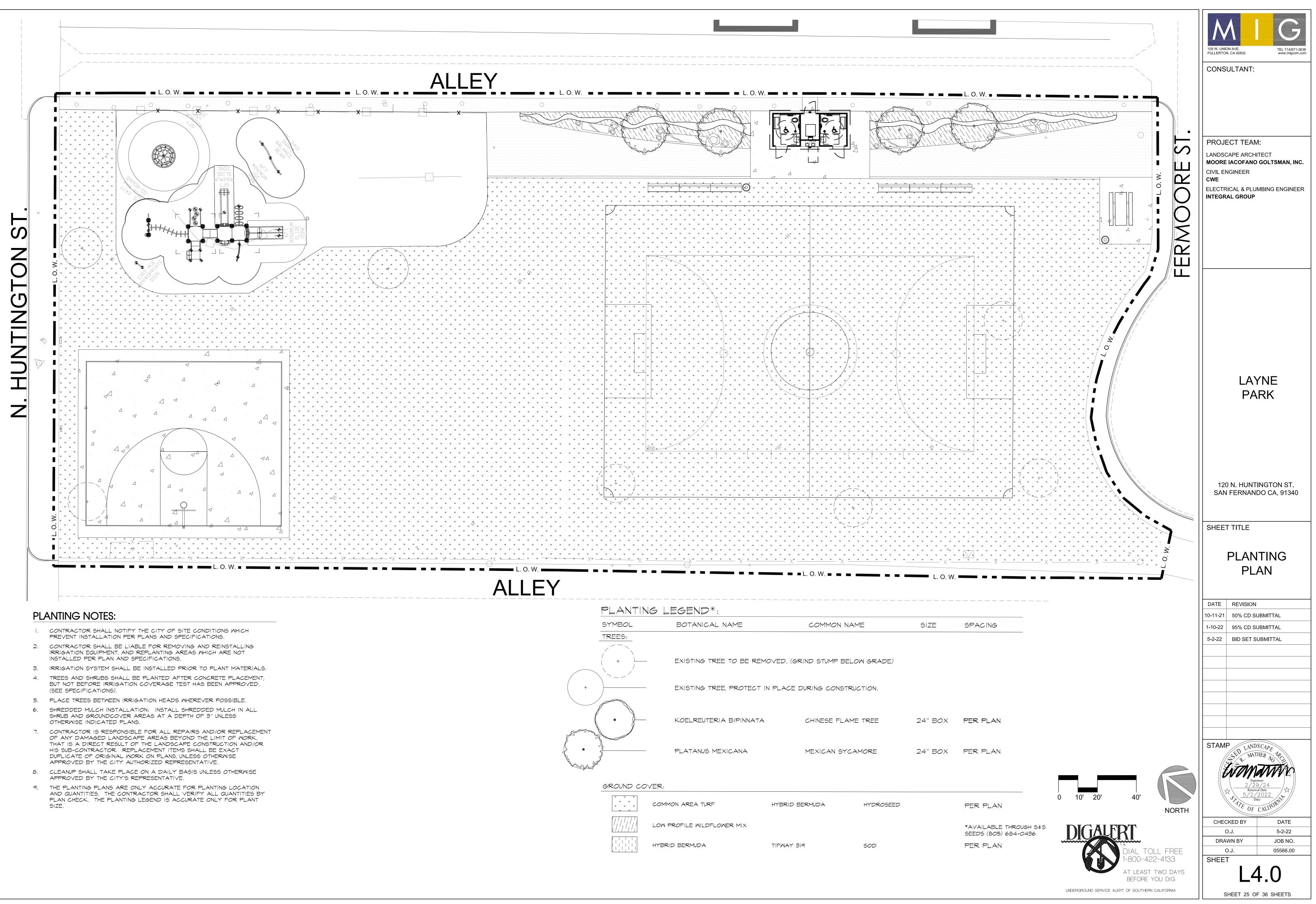


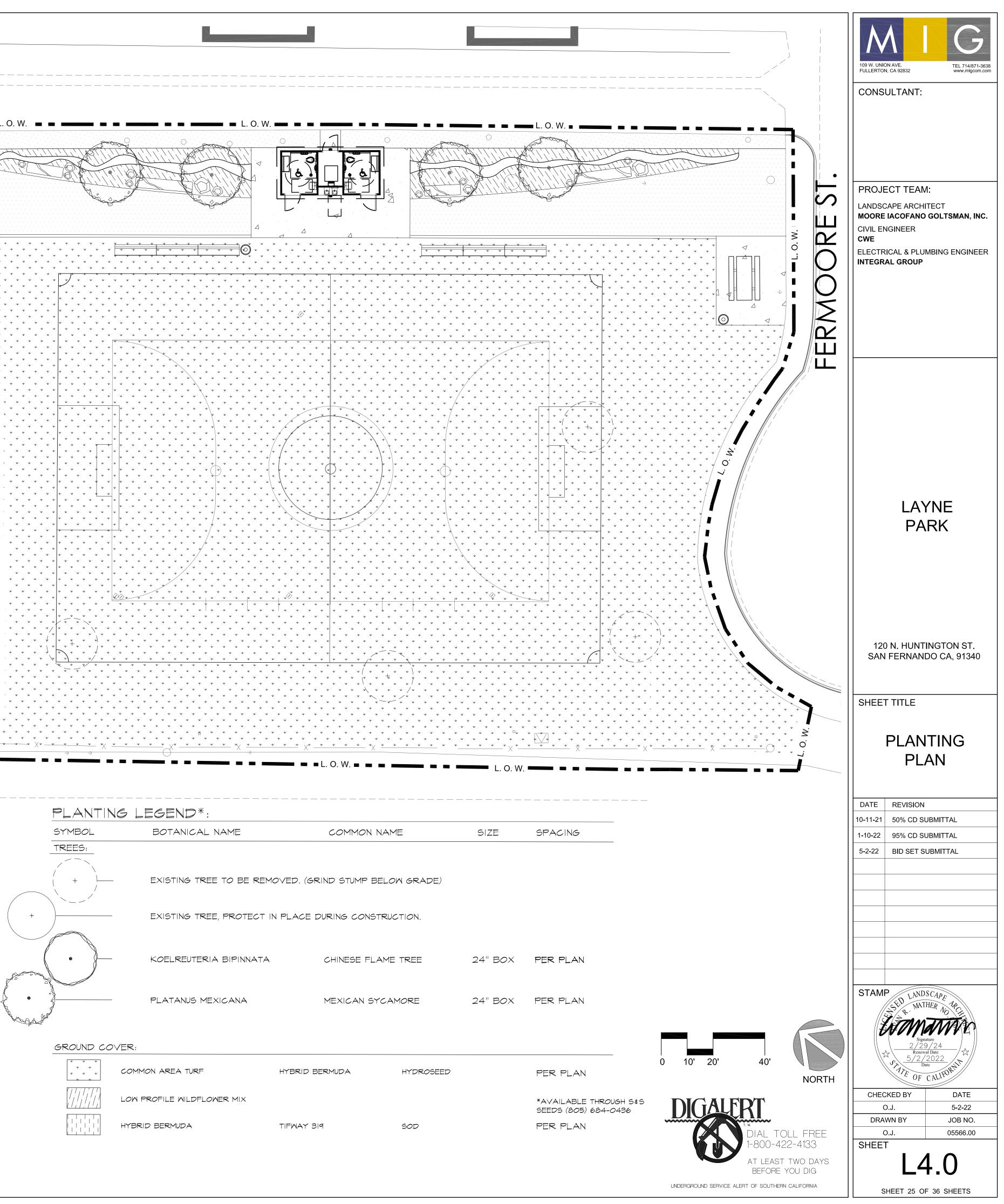
	HYDROZONE CHART/	ZONE TOTALS, BASE BI	D PLAN	
NAME OF CITY:	San Fernando	POC 1	CONTROLLER A	
PROJECT NAME:			METER SIZE:	1.5"
WATER TYPE:		REQUIRED WATER	PRESSURE @ POC:	
LOCATION:	120 N Huntington St		MUM PEAK DEMAND:	
	HYE	DROZONE CHART		
Valve Station			Total Valve Circuit	%
Number	Hydrozone	Irrigation Method	Area	La
A1	ZONE 1	SUBSURFACE DRIP	290	
A2	ZONE 1	SUBSURFACE DRIP	225	
A3	ZONE 5	ROTOR	945	
A4	ZONE 5	ROTOR	1,971	
A5	ZONE 5	ROTOR	1,971	
A6	ZONE 5	ROTOR	3,830	1
A7	ZONE 5	ROTOR	1,840	
A8	ZONE 5	ROTOR	945	
A9	ZONE 2	ROOT WATERING TUBE	64	
A10	ZONE 4	MULTI-STREAM ROTATOR	1,610	
A11	ZONE 4	MULTI-STREAM ROTATOR	667	
A12	ZONE 4	MULTI-STREAM ROTATOR	2,960	1
A13	ZONE 4	MULTI-STREAM ROTATOR	565	
A14	ZONE 4	MULTI-STREAM ROTATOR	1,649	
A15	ZONE 3	SPRAY	731	
A16	ZONE 3	SPRAY	803	
A17	ZONE 3	SPRAY	671	
A18	ZONE 3	SPRAY	872	
A19			012	
A 19 A 20				
A20 A21				
A21 A22				
A23				
A24				
A25				
A26				
A27				
A28				
A29				
A30				
A31				
A32				
A33				
A34				
A35				
A36				
A37				
A38				
A39				
A40				
		TOTAL:	22,609	1

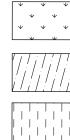
	ZONE TO	TALS		
Hydrozone	Hydrozone Description	Plant Factor	Total Square Feet	% o
ZONE 1	LOW WATER USE DRIP	0.3	515	
ZONE 2	LOW WATER USE ROOT WATERING TUBE	0.3	64	
ZONE 3 SLA	MEDIUM WATER USE ROOT WATERING TUBE	0.7	3,077	
ZONE 4 SLA	HIGH WATER USE SPRAY	0.7	7,451	
ZONE 5 SLA	MEDIUM WATER USE SPRAY	0.7	11,502	
		TOTAL:	22,609	

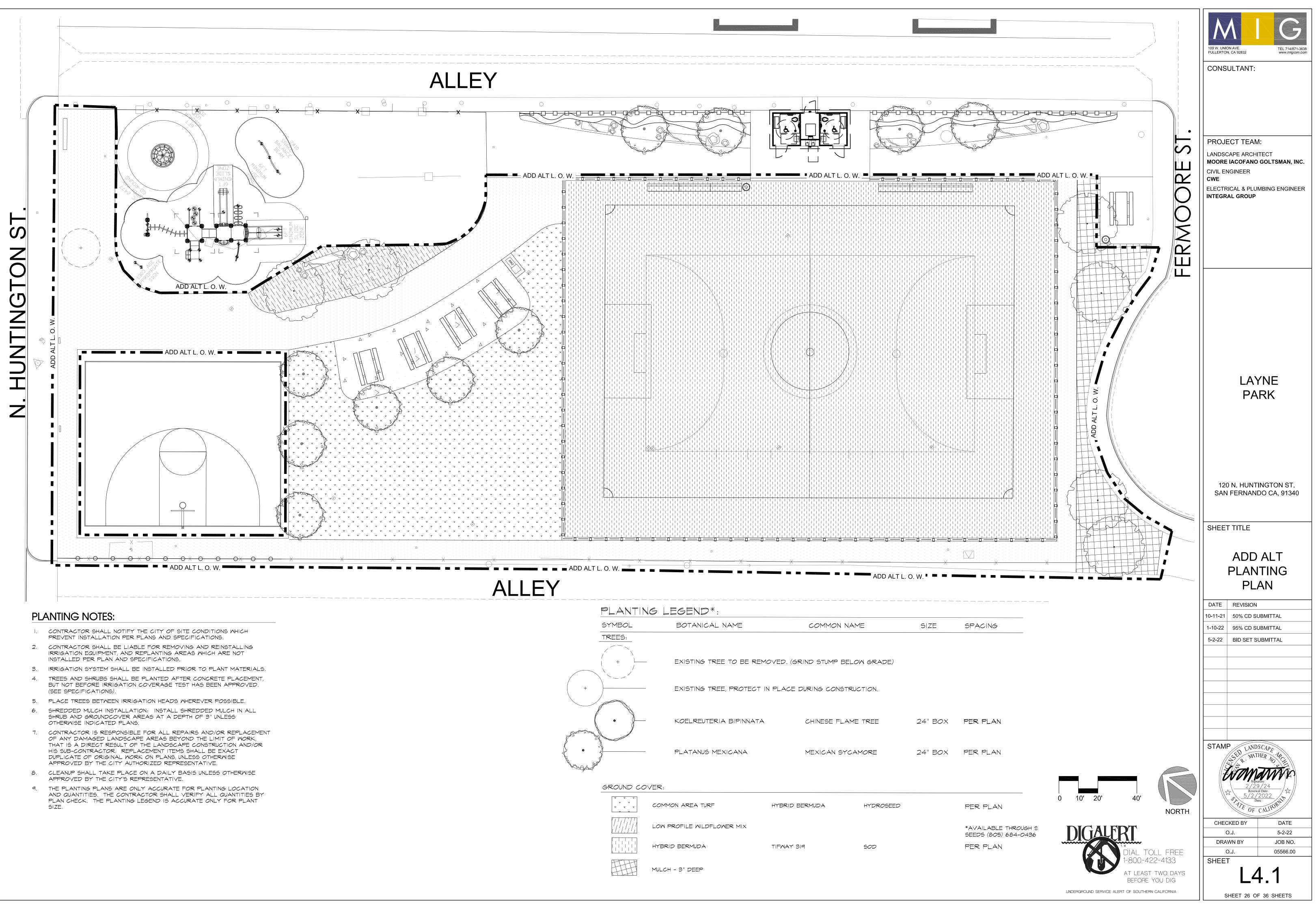
UNDERGROUND REFINCE ALERT OF SOUTHERN CALIFORNIA

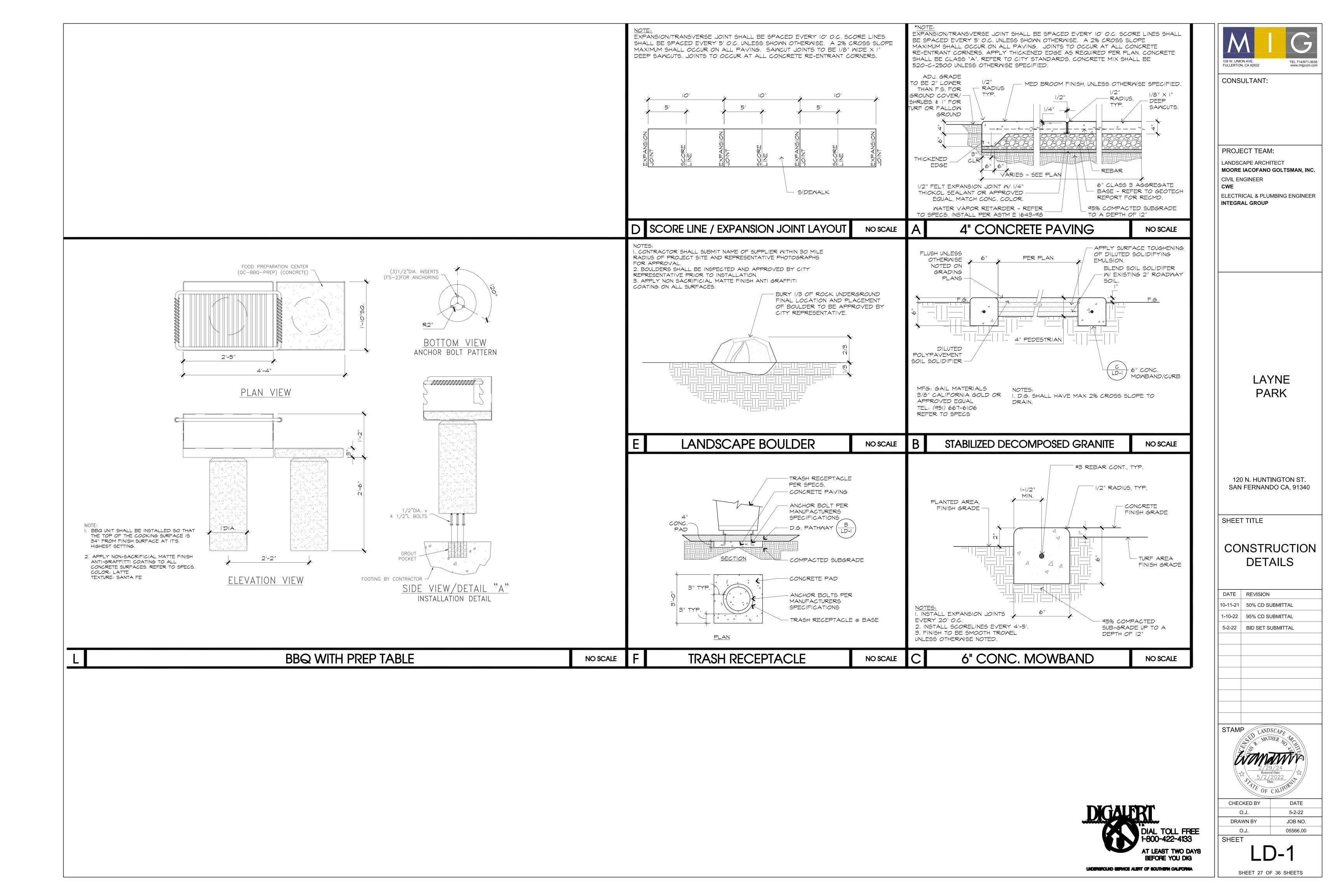
SHEET 24 OF 36 SHEETS



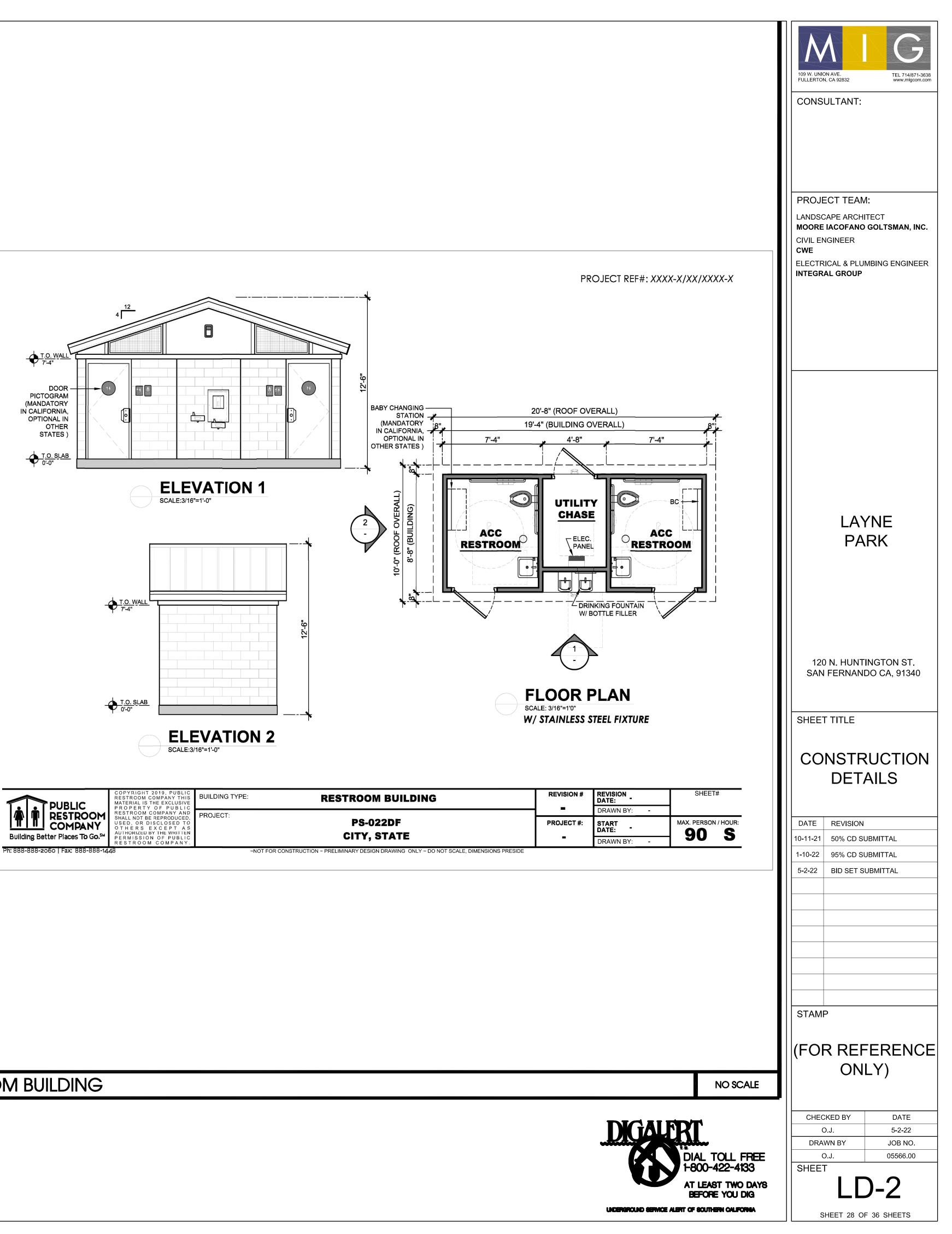




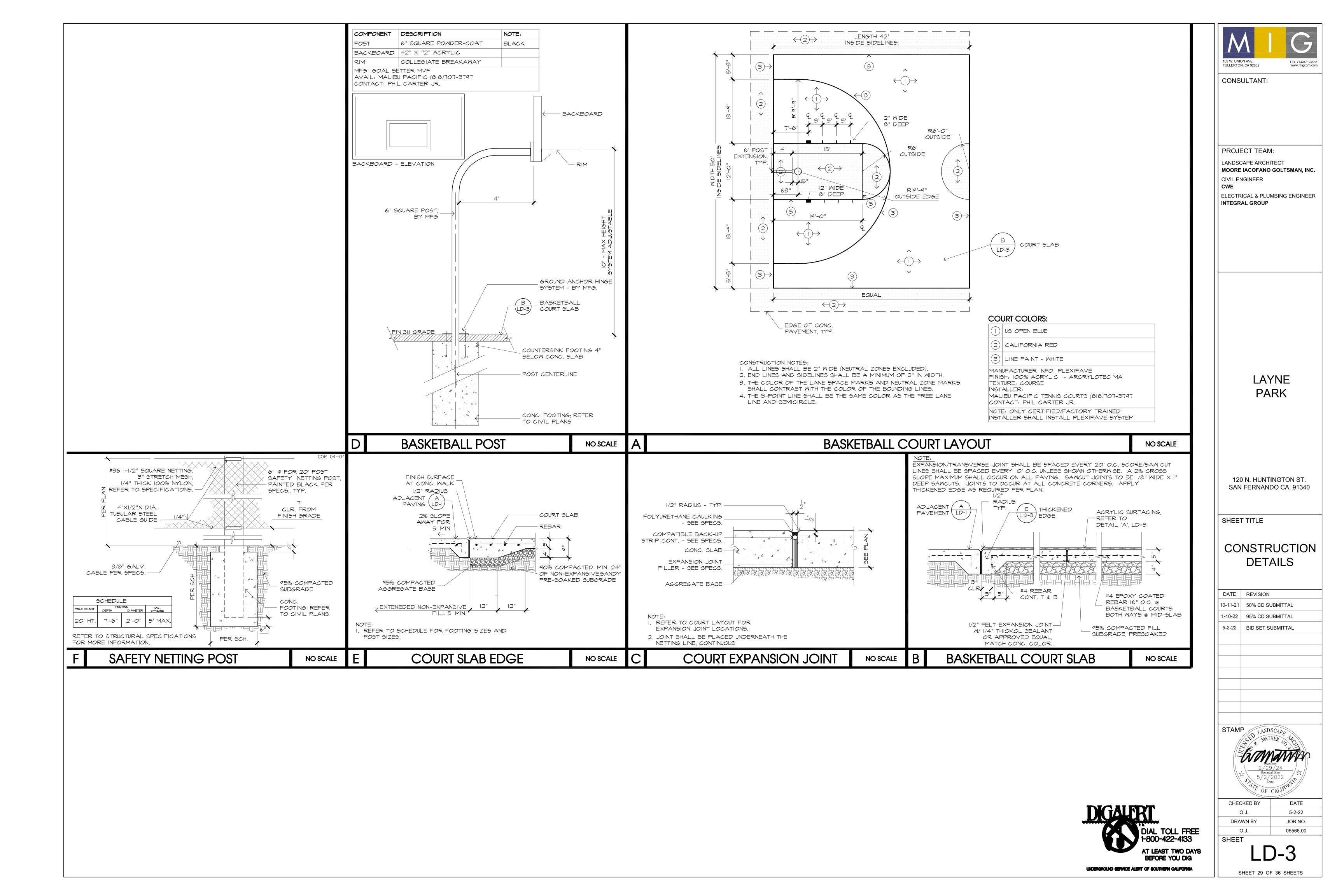


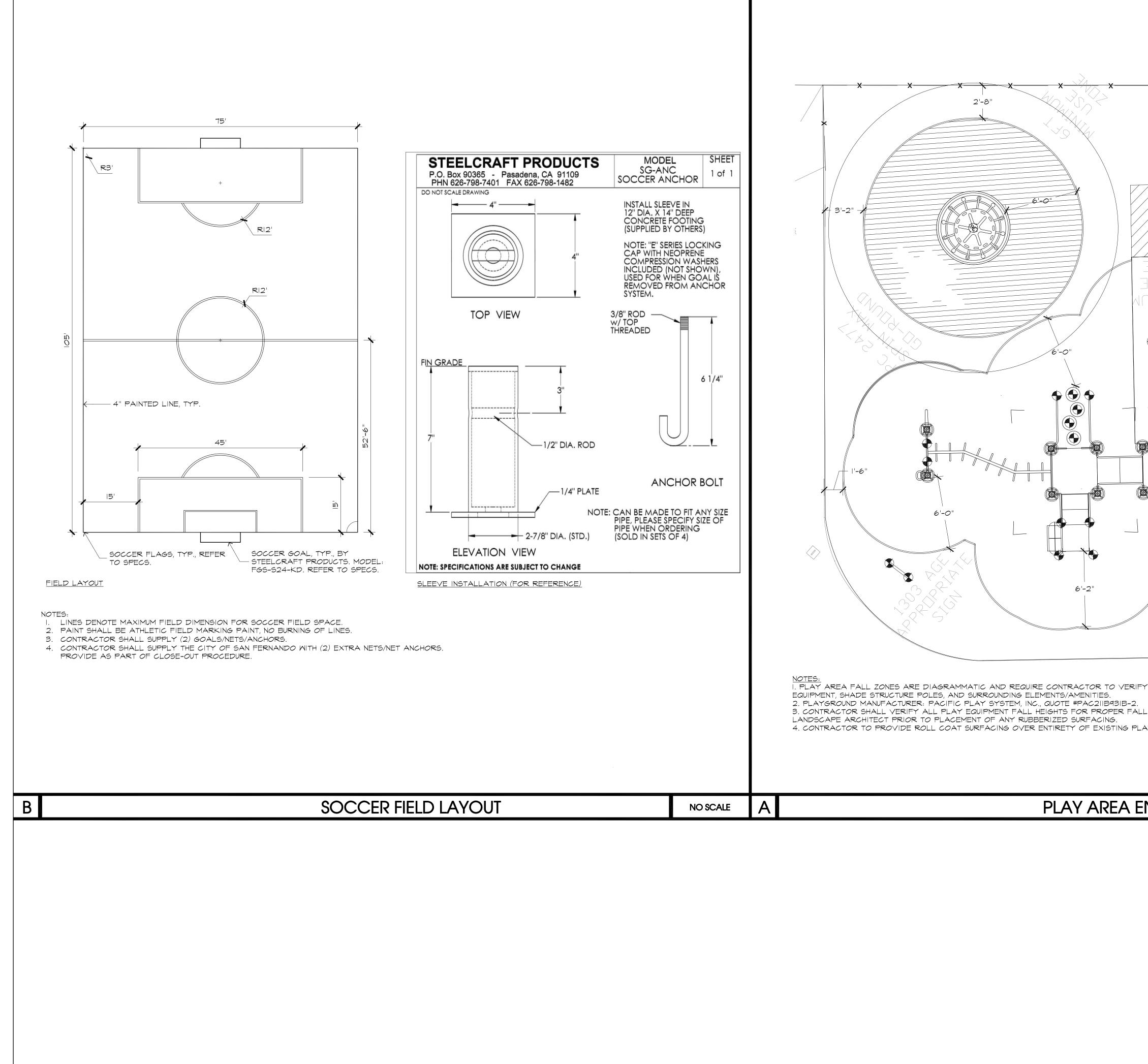






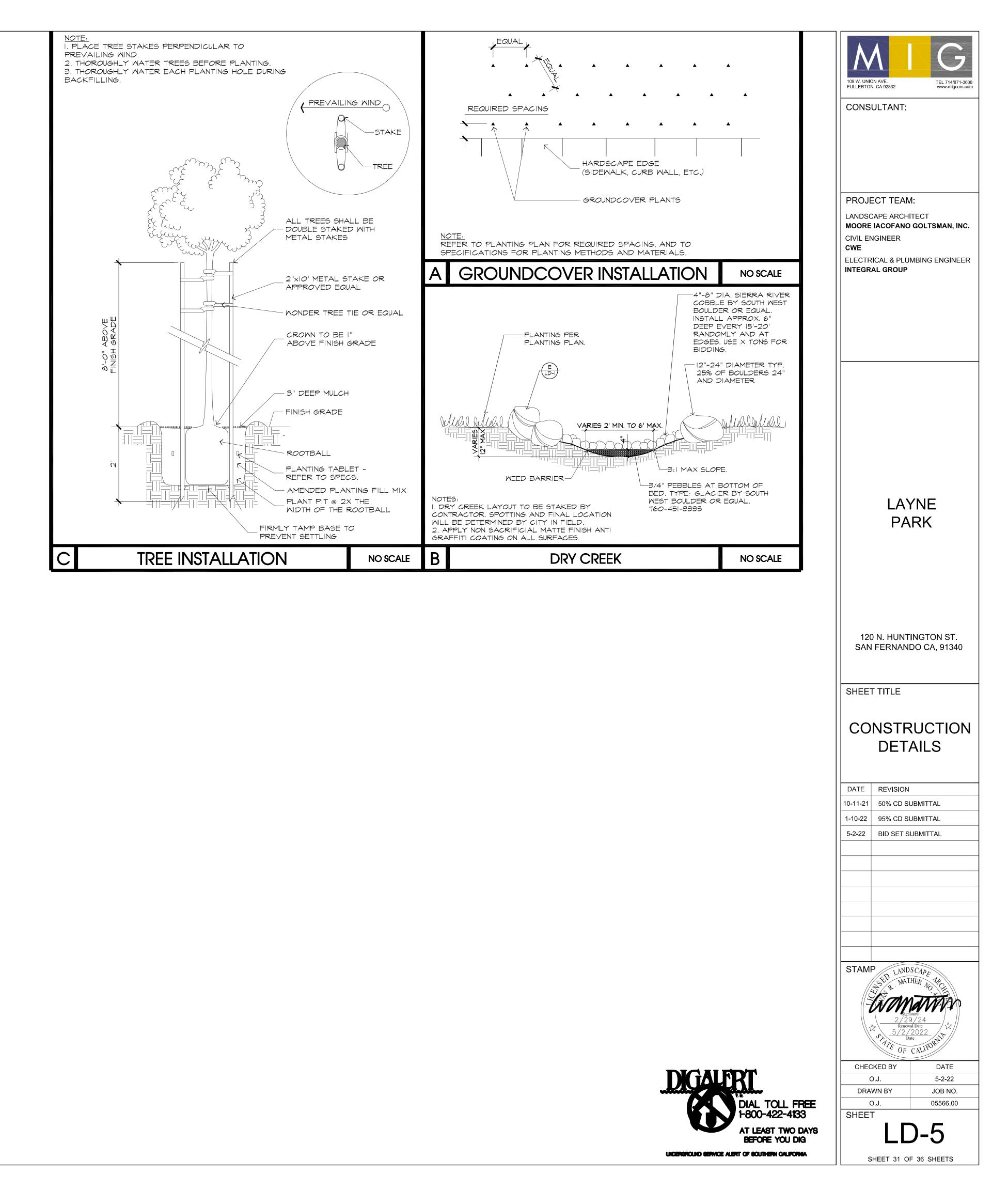
RESTROOM BUILDING

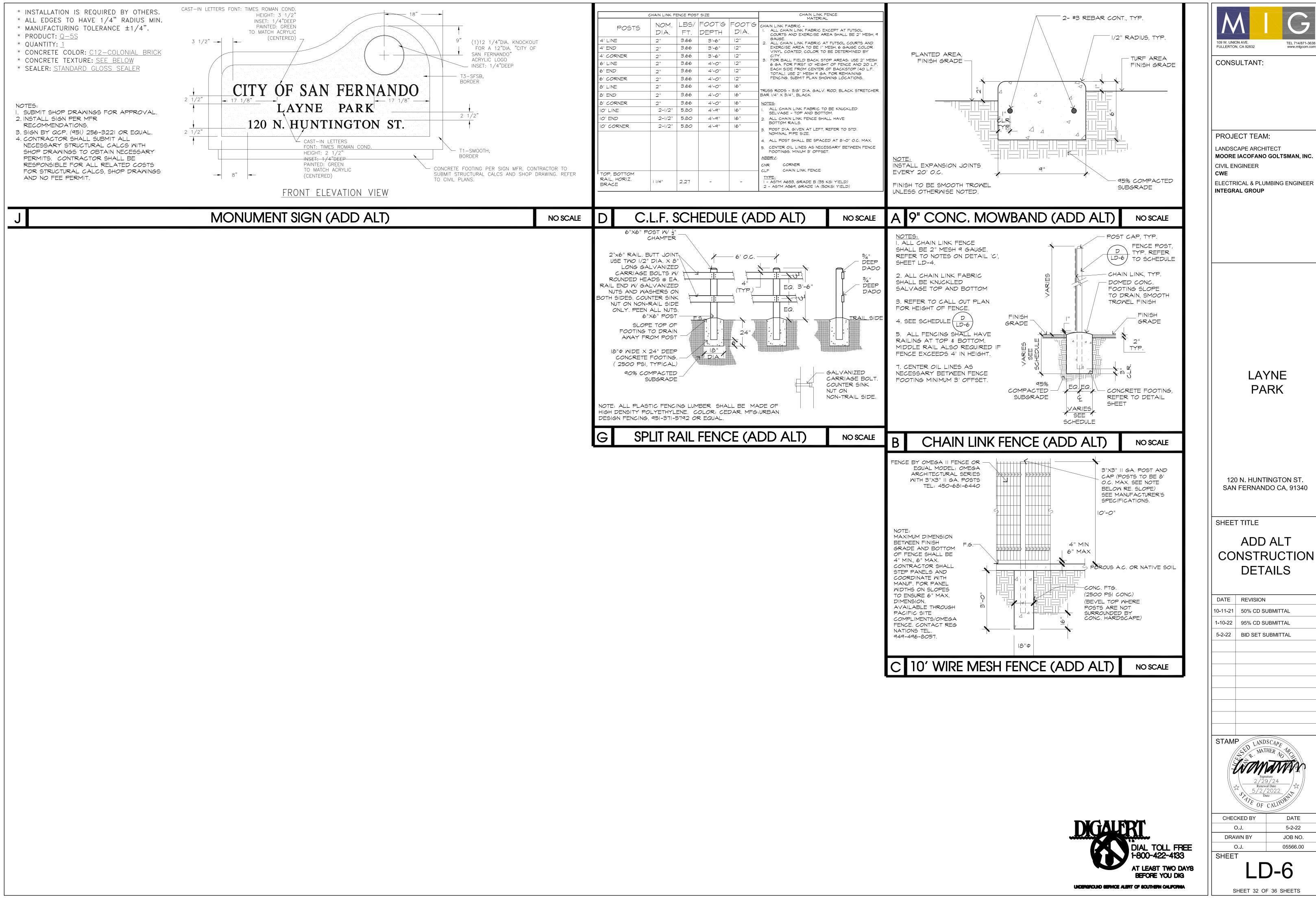




Dig	TAL TOLL FREE HAL TOLL FREE HADO-422-4133	STAMP STAMP (FOR REFERENCI ONLY) CHECKED BY DATE O.J. 5-2-22 DRAWN BY JOB NO. O.J. 05566.00 SHEET
AY AREA SURFACING. REFER TO MANUFACTURE QUOTE #PAC		DATEREVISION10-11-2150% CD SUBMITTAL1-10-2295% CD SUBMITTAL5-2-22BID SET SUBMITTAL
TY DIMENSIONS AND ANY OBSTRUCTIONS PRIOR TO INSTALLA	TION OF	LAYNE PARK 120 N. HUNTINGTON ST. SAN FERNANDO CA, 91340 SHEET TITLE CONSTRUCTION DETAILS
× × × × × × × × × × × × × × × × × × ×		W. UNION AVE. 10 W. UNION AVE. FULLERTON, CA 92832 TEL 714/871-365 CONSULTANT: PROJECT TEAM: LANDSCAPE ARCHITECT MOORE IACOFANO GOLTSMAN, INC. CIVIL ENGINEER CWE ELECTRICAL & PLUMBING ENGINEER INTEGRAL GROUP







 INSTALATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIPED OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END, CONTROLS SHALL THE EXCHAPTION ALL DESCRIPTION OF DESCRIPTION OF ALL PERFORMANCE SHALL BE ALTHORITY HAVING JURISDICTION. INSTALATION ACCEPTRALE TO THE AUTHORITY HAVING, JURISDICTION. INSTALATION ACCEPTRALE TO THE AUTHORITY HAVING, JURISDICTION. INSTALATION ACCEPTRALE OF CONSTRUCTIONS, JURISDICTION. INSTALATION ACCEPTRALE TO THE AUTHORITY HAVING, JURISDICTION. INSTALATION ACCEPTRALE DURING THE AUTHORITY HAVING, SHALL BE PREPARED UNDER THE DIRECTION OF AN ELECTRON. INSTALATION ACCEPTRALE DURING THE AUTHORITY AUT		GENERAL NOTES	DELEGATED DESIGN ELEMENTS
 A LANSAUCH FULL TOTAL AND ALL AND	A.	INSTALLATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END, CONTRACTOR SHALL FURNISH ALL LABOR AND TOOLS NECESSARY, FURNISH AND INSTALL ALL APPARATUS, MATERIALS, AND EQUIPMENT IN A MANNER COMPLYING WITH ALL APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NECESSARILY SHOWN, SUCH AS LAMPS, COUPLINGS, HANGERS,	DOCUMENTATION ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION. B. REFER TO SPECIFICATION FOR DELEGATED DESIGN DOCUMENTATION AND SUBMISSION REQUIREMENT
 With Arrest State, California State, State		ALL CONDUCTORS SHALL BE COPPER, TYPE "THWN/THNN" 90 DEGREE INSULATION. ALL LUGS SHALL BE 75 DEGREE MINIMUM. ALL CONDUIT SHALL BE EMT OR RIGID STEEL. USE OF FLEX IS NOT ALLOWED EXCEPT UP TO 6 FOOT MAXIMUM FOR FINAL CONNECTION TO LIGHTING FIXTURES OR VIBRATING EQUIPMENT. BEFORE SUBMITTING THE BID PROPOSAL, CONTRACTOR SHALL VISIT THE JOB SITE TO FULLY FAMILIARIZE	LICENSED IN THE STATE OF CALIFORNIA. D. DELEGATED DESIGN ELEMENTS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING, REFER TO CONSTRUCTION DOCUMENTS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND SUBMISSION REQUIREMENTS:
 Denter Hendrick A. Hanken K. Hanken K	D.	WORK, WHETHER SHOWN ON DRAWING(S) OR NOT, BUT REQUIRED FOR PROVIDING A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS AND CONTROL WIRING DIAGRAMS FOR ITEMS AND DEVICES TO BE FURNISHED, INSTALLED AND/OR CONNECTED FOR A COMPLETE AND OPERABLE HEATING,	 WEIGHT OF ALL RACEWAYS AND SUPPORT COMPOUNDS. D.B. DESIGN HOUSEKEEPING PADS AND SUPPORT OF EQUIPMENT ATTACHED TO PAD TO WITHS SEISMIC FORCES IMPOSED UPON THE EQUIPMENT. D.C. DESIGN SUPPORTS FOR WALL MOUNTED ELECTRICAL EQUIPMENT. D.D. DESIGN SUPPORTS FOR CEILING MOUNTED ELECTRICAL EQUIPMENT.
 POP LL PAGE, AL, DOS P. LEAR ALL OS INFLUE, ALCHER TOR INFL. BLANDER THE INFLUE. PAGE STATE STATE IN REALTS IN A THE INFLUE ALCHER TOR INFL. BLANDER THE INFL. ALCHER TOR STATE ACCOUNTS AND ALCHERAR AND ALCHER	F. G.	CONDUIT TERMINATION AT EQUIPMENT WITH MECHANICAL CONTRACTOR. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE LOCATION OF OUTLETS AND EQUIPMENT THOUGH NOT NECESSARILY INDICATING THE ACTUAL ROUTES OF CONDUITS, THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS PROPER COORDINATION WITH THE WORK OF OTHER TRADES AND SPACE WILL PERMIT. SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE FOR VISUAL AND STRUCTURAL REASONS. IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, BENDS, PULL BOXES AND OBSTRUCTIONS. THE DRAWINGS ARE NOT INTENDED TO BE SCALED AND THE CONTRACTOR SHALL REFER TO THE GENERAL CONSTRUCTION DRAWINGS FOR DIMENSIONS. ALL PERMITS SHALL BE PROCURED FROM ALL LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTION AND PAY ALL COSTS FOR FEES AND TESTS IN CONNECTION THEREWITH, COMPLY WITH CODES. PRESENT THE SIGNED CERTIFICATE OF FINAL INSPECTION TO THE OWNER'S REPRESENTATIVE PRIOR TO PRESENTING THE WORK FOR FINAL ACCEPTANCE. CONTRACTOR SHALL ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS WHERE REQUIRED FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES ABOUT THE BUILDING.	 SIZES. D.F. PROVIDE ELECTRICAL COORDINATION STUDY USING ACTUAL EQUIPMENT PURCHASED FOR T PROJECT. D.G. PROVIDE ARC FLASH STUDY USING ACTUAL EQUIPMENT, FEEDER LENGTHS AND SIZES. E. INFORMATION COORDINATION DOCUMENTS REQUIRED TO DEMONSTRATE COORDINATION BETWEEN ELECTRICAL AND WORK OF OTHER TRADES. E.A. 1/4" SCALE EQUIPMENT LAYOUT DRAWINGS FOR ALL ELECTRICAL SPACES. DRAWING SHA INCLUDE THE FOLLOWING INFORMATION: E.A.A. FLOOR PLANS LOCATING ALL EQUIPMENT, HOUSEKEEPING PADS, NEC REQUIRED WORKING SPACE AND MANUFACTURERS RECOMMENDED WORKING AND OPERATION REQUIREMENTS. E.A.B. ARCHITECTURAL, STRUCTURAL ELEMENTS AND WORK OF OTHER TRADES THAT ARE LOCATED WITHIN THE ELECTRICAL SPACES. E.A.C. WALL ELEVATIONS OF ALL WALL THAT INCLUDE ELECTRICAL EQUIPMENT AND ATTAC RECOMMENDATION FOR MOUNTING EQUIPMENT TO WALLS.
Butter Liss Twik isse Descession is environmental procession Bergin Structure Structure Structure Structure March Structure Structure Control to Exploration Structure Structure March Structure Structure Bergin Structure Structure Structure Structure March Structure Structure Location of Exploration Structure Structure March March Structure Structure Bergin Structure Structure Structure March March Structure Location of Exploration Structure March March Structure Bergin Structure Structure Bergin Structure Location of Exploration Structure Bergin Structure Bergin Structure Bergin Structure Location of Exploration Structure Bergin Structure Bergin Structure Bergin Structure Image: Structure Bergin Structure Bergin Structure Bergin Structure Bergin Structure Image: Structure Bergin Structure Bergin Structure Bergin Structure Bergin Structure Image: Structure Bergin Structure Bergin Structure Bergin Structure Bergin Structure Image: Structure Bergin Structure Bergin Structure Bergin Structure Bergin Structure Image: Structure Bergin Structure Bergin Structure Bergin Structure Bergin Structure		FOR ALL TRADES. ALL COSTS OF LABOR AND COST MATERIAL REQUIRED FOR THE TEMPORARY ELECTRICAL SERVICE SHALL BE INCLUDED IN THE ELECTRICAL CONTRACT.	
 A. HONE & COLE OFFICIENT ENSINE IN ENGINE WITH NEED OF SATE WORK. THE ENSINE IN EAST OFFICE AND COLORIS AND CONSTRUCT THE DEPARTMENT OF THE PRESENCE OF EAST OFFICE. AND CONSTRUCT SATE WAS AND CONSTRUCT THE PRESE OFFICE SATE AND CONSTRUCT THE PRESE OFFICE AND CONSTRUCT THE PRESE OFFICE AND CONSTRUCT THE PRESE OFFICE AND CONSTRUCT THE OFFICE SATE AND CONSTRUCT THE OFFICE AND CONSTRUCT THE OFFICE SATE AND CONSTRUCT T	I. J.	RATED LESS THAN 150 DEGREES SHALL BE PROVIDED WITH 1-HOUR FIRE-RATED ENCLOSURE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS, ACCEPTABLE MATERIALS,	
 Constructive Switt First ALL MERK AND CONSTRUCTIVE SALES CARDING AND CARDING	К.	PROVIDE A CODE APPROVED DISCONNECT SWITCH OR BREAKER WITHIN SIGHT OF EVERY MOTOR. FOR LOCATION OF DISCONNECT SWITCH, COORDINATE WITH DIVISION 15 CONTRACTOR TO DETERMINE THE BEST	
 PROME FOLL RUPE IN ALL PARTY CONDUTES. PROME FOLL RUPE IN ALL PARTY CONDUTES. PROME EQUIPMENT GOLDANDIG OF RACEARS FILLERS AND HOMERUNG IN COOPERATION WITH THE WORK OF OTHER NEWSON. PROME EQUIPMENT GOLDANDIG CONDUCTOR IN ALL LIGHTING AND POINTE CONDUTES. PROME FOLLER AND RUPE AND LIGHTING AND POINTE CONDUTES. PROME FOLLER AND RUPE AND LIGHTING AND POINTE CONDUTES. NO MORE THAN THEFE CONCURS FOR HOME DIG SUBJURGT. NO MORE THAN THEFE CONCURS FOR HOME RULE ON AUTOCIDERS WITHOUT FROM APPROVAL. NO MORE THAN THEFE CONCURST FOR AND RULE AND RUPE AND RUP	L.	CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY, GROUNDS, SHORT CIRCUITS, AND OTHER DEFECTS BEFORE ANY EQUIPMENT OR FIXTURES ARE CONNECTED THERETO. CABLES SHALL BE	
TROOES 0. PROME EXAMPLAND GROUNDER OWALLIGHTIKA AND POWER COMPUTES 1. BERGES DECRAVES ON ADDI SMULL EL AMBENT TEMERATINE COMPOSEDED ES NED TALE 3.10-15(0)(2)(2) BERD URAN LIDARI OF RECENSE DESSED TO SUMURIT. 0. NO ARCE THAN THEE CRECUES PER HOLE RUN. DO NOT COMBINE HONDRUNG MITHOUT PROR APPROAL. 1. NO INTERMEDIATE SPLCING OF FEEDOSE OF BRANCH CRECUES SHALL EL COME WITHOUT PROR APPROAL. 2. NOURCE 3. PROVEE COMPRETE PLUS (MINIANUS 3' HIGH OR AS INDUCATIO) FOR ALL ROOK MOUNTED ELECTREAL COMPUTED IN DUFFECT FORMS AND IN VIDOS SISCEPTIBLE TO BERNO WIT OR HOSED DIDON TO INSTUDIES SHALL BE CONCERNITE ON BURGENS FOR PROVAL. 5. PROVEE COMPRETE PLUS (MINIANUS 3' HIGH OR AS INDUCATIO) FOR ALL ROOK MOUNTED ELECTREAL COMPUTED THAN THAN SISCEPTIBLE TO BERNO WIT OR HOSED DIDON TO INSTUDIES SHALL BE CONCERNITE ON HIGH OWER THAN SINCE PROVIDE DIDON TO INSTUDIES SHALL BE CONCERNITE ON HIGH OWER OF RECEIPTIONES FOR TO RECEIPTIONES THAN AND THAN SINCE PROVIDE OF COMPUTED OF COMPUT	М.		
 P. DRIVED ANGEWINS ON ROOK SHALL BE AMBERT TEMPERATURE COMPRISABLE FOR NECT Faile xind-tagle(2)(c) BRED LIFKE HOW EXAMPLE FOR REATIONS ENTREED TO SUNLAFF. NO MORE THAN THREE DRUIDS OF REDIESS ON BRANCH ORCUTS SHALL BE DORE WITHOUT FROM APRICAL. NO INTERMENTE SUCCES OF REDIESS ON BRANCH ORCUTS SHALL BE DORE WITHOUT FROM APRICAL. NO INTERMENTE SUCCES OF REDIESS ON BRANCH ORCUTS SHALL BE DORE WITHOUT FROM APRICAL. SA PROBE DOREST FOR QUARKEM Y' AND OR AN INDEEDS OF RELEASED OR WITHOUT FROM APRICAL. PORER SA PROBE DOREST FOR QUARKEM Y' AND OR AN INDEEDS OF RELEASED OR WITHOUT FROM APRICAL PORER SA PROBE DOREST FOR QUARKEM Y' AND OR AN INDEEDS OF RELEASED TO SUMMITED LECTIONAL BLOCATING OF ALL DOREST SHALL BE TO RELEASED OF RELEASED SA PROBE DOREST FOR QUARKEM Y' AND ON ANY PROSENT FOR PROPOXAL SA PROBE DOREST FOR QUARKEM Y' AND ON ANY PROSENT FOR PROPOXAL SA PROBE DOREST FOR QUARKEM Y' AND ONDER OF PROFESSIONER TO RESOLUTION ONLY. SA PROBE DOREST FOR QUARKES AND ARE TOR VOLVES FOR PROFILES, WINGS SA PROBE DORE OF ANY OTHER PROPESSION. SA PROBE DORE AND AND OF THE PROFESSION OF TRANSFORM FOR PROPESSION OF THE ALL DORAGEM FOR TOWARD OF CONCECTORS SA PROBE DOR AND OF THE AND DOXED AND OF CONCECTORS OF ANY OTHER PROFESSION. SA PROBE DOR AND OF THE PROFESSION OF TRANSFORM FOR PROBE PROFE PROFESSION OF TRANSFORM FOR PROFESSION OF TRANSFORMED OF CONCECTORS SHALL BE PERTONDING DOXED BETTER PROFESSION OF CONCECTORS SHALL BE PERTONDING ON AND THE LIFE THE THE STREE PROFESSIONE DOXED THE CONCECTORS SHALL BE PERTONDIN	N.	TRADES.	
 R. NO INTERVENEE SPLONG OF FEEDERS OR BRANCH CIRCUITS SHUL BE DONE WITHOUT FROM APPROVAL S. PROME CONCRETE PADS (WINNUM 3" HIGH OR AS INDIGATED) FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPACIENT INSTALLED IN COMMANY TAXABLE AND AN ARXIS STREPTING TO ERROR TO REDUCE DOWN. SUBJECT TO ADDILLES SHALL BE CONCOMPANIES IN HARMEN AND AND AND AND AND AND AND AND AND AN		EXPOSED RACEWAYS ON ROOF SHALL BE AMBIENT TEMPERATURE COMPENSATED PER NEC TABLE	
 W. COORDINATION: W.A. THERE IS NO ASSURANCE THAT THE LOCATION OF SUBSTRUCTURES SHOWN ON THIS DRAWING ARE ACCURATE, OR THAT ALL EXISTING SUBSTRUCTURES ARE SHOWN ON THIS DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL SUBSTRUCTURES WHETHER SHOWN OR NOT. ANY DAMAGE TO THE EXISTING SUBSTRUCTURES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. W.B. CONTRACTOR TO CLEAR PROJECT SITE AREA WITHIN THE CONFINES OF THE DEMOLITION LIMIT LINE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITIES, STRUCTURES, PLANTERS, TREES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN. W.C. COORDINATE WITH LANDSCAPE CONSULTANT FOR TREE LOCATIONS. DO NOT DISTURB ROOT BALL. 	R. S. T. U.	 No INTERMEDIATE SPLICING OF FEEDERS OR BRANCH CIRCUITS SHALL BE DONE WITHOUT PRIOR APPROVAL. POWER: S.A. PROVIDE CONCRETE PADS (MINIMUM 3" HIGH OR AS INDICATED) FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT INSTALLED IN EQUIPMENT ROOMS AND IN AREAS SUSCEPTIBLE TO BEING WET OR HOSED DOWN. SUBMIT PAD DETAIL PLANS INCLUDING. J.B. THE LOCATION OF ALL OUTERTS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS BY THE CONTRACTOR PROR. TO INSTALLATION. MOUNTING HEGHTS OF RECEPTICLES, SWITCHES, WIRING DEVICES AND DEDICATED EQUIPMENT OUTERS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS BY THE CONTRACTOR PROR. TO INSTALLATION. ALL FEEDER LENGTH SHOWN ON SINGLE LINE DIAGRAM ARE FOR VOLTAGE DROP CALCULATION ONLY. DO NOT USE FOR ANY OTHER PURPOSES. E. WERFY AND COORDINATE EACT LOCATION, POWER REQUIREMENTS AND METHOD OF CONNECTION OF ALL MECHANICAL EQUIPMENT AND PRETINENT TENS AND DEVICES PRIOR TO INSTALLATION. J.F. PROVIDE A MINIUM OF 12" SEPARATION BETWEEN POWER AND COMMUNICATION CONDUITS, WHERE THEY ARE INSTALLATION OF 12" SEPARATION BETWEEN POWER AND COMMUNICATION CONDUITS, WHERE THEY ARE INSTALLED AND PARALLE OR IN THE SAME THE SPECIFICATION. J.B. PROVIDE A MINIUM 24' HORZONTAL SEPARATION THAT USUALLY PAPILIES BETWEEN BOXES INSTALLED ON OPPOSITE SUES OF THE WALL IN ORDER TO MANTAIN THE FIRE-RESISTIVE RATING OF ASSEMBLES WHERE PENETRATION OR OPENINGS ARE MADE. GROUNDING: TA THE EQUIPMENT GROUNDING CONDUCTOR SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WHE SHALL BE PIRTATION OR OPENINGS ARE MADE. GROUNDING: TA THE EQUIPMENT GROUNDING CONDUCTOR SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WHE SHALL BE PIRTATION OR OPENINGS ARE MADE. GROUNDING: TA THE EQUIPMENT GROUNDING CONDUCTOR SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WHE SHALL BE PIGTALED TO BOX AND DEVICE. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED PARALLEL OR	

GN ELEMENTS

IC

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DOCUMENTATION AND SUBMISSION REQUIREMENTS. ARED UNDER THE DIRECTION OF AN ENGINEER IOT LIMITED TO THE FOLLOWING, REFER TO OR ADDITIONAL INFORMATION AND SUBMISSION SYSTEMS CAPABLE OF SUPPORTING THE COMBINED COMPOUNDS. F OF EQUIPMENT ATTACHED TO PAD TO WITHSTAND PMENT. ECTRICAL EQUIPMENT. ELECTRICAL EQUIPMENT. TUAL EQUIPMENT FEEDER LENGTHS AND FEEDER USING ACTUAL EQUIPMENT PURCHASED FOR THIS EQUIPMENT, FEEDER LENGTHS AND SIZES.

MENT, HOUSEKEEPING PADS, NEC REQUIRED ERS RECOMMENDED WORKING AND OPERATION SPACE NTS AND WORK OF OTHER TRADES THAT ARE

ACES. AT INCLUDE ELECTRICAL EQUIPMENT AND ATTACHMENT QUIPMENT TO WALLS.

CONSIDERING FORCES IMPOSED ON THE POLE AND

A AMP AC AF AFC AFC AFG AIC ANN AS AT ATS AWG	AMPERE AMPERE ALTERNATING CURRENT AMPERE FRAME AMPERE FUSE ABOVE FINISHED CEILING ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AMPERE INTERRUPTING CAPACITY ANNUNCIATOR AMPERE SWITCH AMPERE TRIP AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE
BATT	Battery
BC	Bare Copper
BCW	Bare Copper Wire
BKBD	Backboard
BKR	Breaker
BLDG	Building
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CEC	CALIFORNIA ELECTRICAL CODE
CKT	CIRCUIT
CLG	CEILING
CO	CONDUIT ONLY
COM	COMMON
COMM	COMMUNICATIONS
CONN	CONNECT
CONV	CONVENIENCE
CT	CURRENT TRANSFORMER
CU	COPPER
DB	DIRECT BURIED
DEF	DUAL ELEMENT FUSE
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DP	DISTRIBUTION PANEL
DPDT	DOUBLE-POLE DOUBLE-THROW
DWG	DRAWING
elec	ELECTRICAL
Em	EMERGENCY
Emer	EMERGENCY
Emt	ELECTRICAL METALLIC TUBING
Encl	ENCLOSURE
Epo	EMERGENCY POWER OFF
Equip	EQUIPMENT
Ex	EXISTING
Exist	EXISTING
F	FUSE(D)
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FLR	FLOOR
G	GROUND
GALV	GALVANIZE(D)
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE.
Hoa	HAND-OFF-AUTOMATIC
HP	HORSEPOWER, HEAT PUMP
HPF	HIGH POWER FACTOR

HAND-OFF-AUTOMATIC HORSEPOWER, HEAT PUMP HIGH POWER FACTOR

HPF HIGH PRESSURE SODIUM HPS

HIGH VOLTAGE HEATING, VENTILATING AND AIR CONDITIONING HV HVAC HZ HERTZ

INTERRUPTING CAPACITY IN AMPS RMS ISOLATED GROUND

JB

KA



KW KWH KVAR
LCL LRA LTG
M MAX MC MCB MCC MCM MDP MFR MH MI MIN MLO MTD MTR MTS
N, (N) NB NEC NF NIC NO NC NTS
P PF PNL PRI PT PWR Ø/PH
r Recp Rgs R RM RMS RT
SCA SEC SFD SPKR SQ FT SUSP SWBD SWBD SWBD
TC TEL TEMP TTB TMH TRANSF. TYP TVSS
UG UON UNO
V

ABBREVIATIONS

KCMIL KVA

Thousand Circular Mils Kilovolt–Ampere Kilowatt Kilowatt–Hour Kilovar
LONG CONTINUOUS LOAD LOCKED ROTOR AMP LIGHTING
MAGNETIC STARTER COIL MAXIMUM METAL CLAD CABLE MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER THOUSAND CIRCULAR MILS MAIN DISTRIBUTION PANEL MANUFACTURER METAL HALIDE MINERAL INSULATED MINIMUM MAIN LUGS ONLY MOUNTED MOTOR MANUAL TRANSFER SWITCH
NEW, NEUTRAL NEUTRAL BUS NATIONAL ELECTRIC CODE NON-FUSED NOT IN CONTRACT NORMALLY OPEN NORMALLY CLOSED NOT TO SCALE
POLE(S) POWER FACTOR PANEL PRIMARY POTENTIAL TRANSFORMER POWER PHASE
RELOCATE OR REMOVE RECEPTACLE RIGID GALVANIZED STEEL CONDUIT RELOCATE OR REMOVE ROOM ROOMS RADIOTOUCH SYSTEM
SHORT CIRCUIT AMPS SECONDARY SMOKE FIRE DAMPER SPEAKER SQUARE FEET SUSPEND(ED) SWITCH SWITCHBOARD SWITCHGEAR
TIME CLOCK TELEPHONE TEMPORARY TELECOMMUNICATIONS BACKBOARD TELECOMMUNICATIONS MANHOLE

BACKBOARD MANHOLE TRANSFORMER TYPICAL TRANSIENT VOLTAGE SUPPRESSION SYSTEM

Underground Unless otherwise noted Unless noted otherwise

Volt, volts Volt-amperes Variable air volume VARIABLE FREQUENCY DRIVE

WATERTIGHT WATT OR WIRE WITH WEATHER PROOF

TRANSFORMER

SYMBOL LIST

VA VAV VFD

WT

W

- W/

WP

XFMR

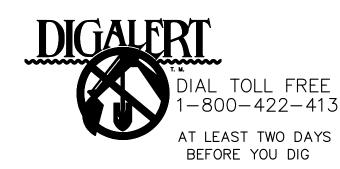
RECESSED	SURFACE	GENERAL ELECTRICAL SYMBOLS				
		LIGHTING OR POWER PANEL BOARD.				
		SINGLE LINE DIAGRAM				
	m m	TRANSFORMER, AS NOTED ON SINGLE LINE DIAGRAM.				
	$\frac{m}{m}$	SPECIAL TRANSFORMER, AS NOTED ON SINGLE LINE DIAGRAM.				
		CIRCUIT BREAKER, 3 POLE UNLESS NOTED OTHERWISE.				
		MOTOR STARTER WITH OVERCURRENT PROTECTION, 3 POLE UNLESS NOTED OTHERWISE.				
+FC		MOTOR STARTER WITH OVERCURRENT PROTECTION, 3 POLE UNLESS NOTED OTHERWISE.				
	┢╋╋	CIRCUIT BREAKER WITH GROUND FAULT RELAY AND SHUNT TRIP RELAY				
		CIRCUIT BREAKER WITH SHUNT TRIP RELAY				
		NON-FUSED DISCONNECT SWITCH, 30 AMP, 3P UNLESS NOTED OTHERWISE.				
٤	\mathbb{M}	DEMAND TYPE KWH METER WITH CURRENT COIL				

	RACEW	AY APPLICATIONS				
ENVIR⊡NMENT		RACEWAYS	BOXES, ENCLOSURES, AND CABINETS			
DRY LOCATIONS, CONCEALED		IC, EMT, FMC (12), MC (12), WW	SM, FS/FD; NEMA1			
DRY LOCATIONS, EXPOSED, SUBJECT TO DAMAGE (11)		RMC, IMC	SM, FS/FD; NEMA1			
DRY LOCATIONS, EXPOSED, NOT SUBJECT TO DAMAGE (11)		C, EMT, FMC (12), MC (12), WW	SM, FS/FD; NEMA1			
WET LOCATIONS, SUBJECT TO DAMAGE (11)		C, EMT, FMC (12), MC (12), WW	FS/FD; NEMA 4, 4X			
WET LOCATIONS, NOT SUBJECT TO DAMAGE		, IMC (3), EMT (3), D), LFMC (12), WW (7)	FS/FD; NEMA 4, 4X			
OUTDOOR LOCATIONS, EXPOSED TO RAIN, SLEET, WINDBLOWN DUST, AND EXTERNAL ICING	RM	IC, IMC, RNC	SCTE 77			
OUTDOOR LOCATIONS, SUBMERGED	RMC (3), IMC (3), RNC	NEMA 6, 6P			
OUTDOOR LOCATIONS, EMBEDDED IN CONCRETE9		MC, EMT (4), RNC	FS/FD			
UNDER CONCRETE SLAB		, IMC, EMT (4) 3), IMC (3), RNC	N/A SCTE 77			
BURIAL (9) EMBEDDED BURIAL (9)	RMC. II	MC, EMT (4), RNC	N/A			
INDUSTRIAL LOCATION, GENERAL		, IMC (3), EMT (3), LFMC (12)	NEMA 4X, 11			
INDUSTRIAL LOCATION, SUBJECT TO CORROSION	RMC, IM	C, LFMC, RNC (10)	FS/FD; NEMA 13			
HAZARDOUS CLASS I, DIVISION 1 (8)	RMC	, IMC, FMC (9)	NEMA 7, 8			
HAZARDOUS CLASS I, DIVISION 2 (8)		C, LFMC (12), FMC 12), WW (5)	FS/FD; NEMA 1, 7, 8, 12			
HAZARDOUS CLASS II, DIVISION 1 (8)	RMC, IMC,	LFMC (12), WW (6)	NEMA 9			
HAZARDOUS CLASS II, DIVISION 2 (8)	RMC, IMC,	LFMC (12), WW (6)	FS/FD; NEMA 1, 9, 12			
HAZARDOUS CLASS III (8)	RMC, IMC,	LFMC (12), WW (6)	FS/FD; NEMA 12			
LEGEND:			NDTES:			
EMT:ELECTRICALMETALLICTENT:ELECTRICALNONMETALLEMC:FLEXIBLEMETALCONDULTES/FD:CAST-METALBOXMC:INTERMEDIATEMETALCOFMC:LIQUIDTIGHTFLEXIBLENCONDUITFNC:LIQUIDTIGHTFLEXIBLENONMETALLICCONDUITJ/A:NOTAPPLICABLENEMA:REFERSTONEMANC:RIGIDMETALCONDUITRMC:RIGIDMETALCONDUITRNC:RIGIDNONMETALLICBOXRMC:RIGIDNONMETALLICCOSCTE77:DESIGNEDANDTER15LOADINGACFOSCTE77SPECIFICATIONSM:SHEETMETALBOXWW:WIREWAYWIREWAY	ic tubing Jit DNDUIT /Etal Type NDUIT D For Cording R	 BUILDING FINISHES MUST PROVIDE A BARRIER WITH A 15-MINUTE FIRE RATING. FOR BUILDINGS NOT MORE THAN THREE STORIES ABOVE GRADE. CORROSION PROTECTION IS REQUIRED. WITH FITTINGS FOR PURPOSE. ENCLOSED AND GASKETED. DUST-TIGHT WIREWAY ONLY. RAINTIGHT WIREWAY ONLY. SUITABLE FOR HAZARDOUS LOCATION. ALUMINUM MATERIALS ARE NOT PERMITTED. SCHEDULE 80. "SUBJECT TO DAMAGE" DENOTES ENVIRONMENTS WHERE EXPOSED RACEWAYS MAY BE IMPACTED BY TRAFFIC, BY CLEANING OR MAINTENANCE OPERATIONS, OR BY SIMILAR INFLUENCES. USED FOR CONNECTION TO LIGHTING FIXTURES OR VIBRATING EQUIPMENT. MAXIMUM LENGTH 72". 				

ELECTRICAL DRAWING LIST

DWG	TITLE	SCALE
E0.1 E0.2	ELECTRICAL NOTES, SYMBOL AND ABBREVIATIONS ELECTRICAL SPECIFICATIONS	NONE NONE
E1.0	ELECTRICAL SITE PLAN	1"-10'-0"
E2.0	ELECTRICAL SINGLE LINE DIAGRAM AND DETAILS	NONE

RACEWAY APPLICATIONS MATRIX



LAYNE PARK 120 N. HUNTINGTON ST. SAN FERNANDO CA, 91340 SHEET TITLE ELECTRICAL NOTES, SYMBOL AND ABBREVIATIONS DATE REVISION 04-20-22 95% CD STAMP CHECKED BY DATE 04-20-22 I.G. DRAWN BY JOB NO. DIAL TOLL FREE I.G. 1-800-422-4133 SHEET 05500.00 I.G. E0.1

SHEET 33 OF 36 SHEETS

G

TEL 714/871-3638 www.migcom.com

109 W. UNION AVE. FULLERTON, CA 92832

CONSULTANT:

PROJECT TEAM:

CIVIL ENGINEER

INTEGRAL GROUP

CWE

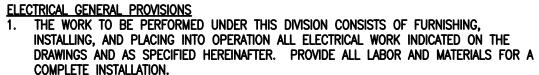
LANDSCAPE ARCHITECT

MOORE IACOFANO GOLTSMAN, INC.

ELECTRICAL & PLUMBING ENGINEER

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

ELECTRICAL SPECIFICATIONS



2. INSTALLATION OF ALL ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE FOLLOWING REGULATIONS, CODES, ETC.: i) California building code - CBC

- ii) California electrical code Cec
- iii)CALIFORNIA ENERGY CODE CENC iv)CALIFORNIA FIRE CODE - CFC
-) California state fire marshal requirements CSFM
- *i*)[CALIFORNIA ADMINISTRATIVE CODE, TITLE 24 CAC TITLE 24]
- 3. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES, AND PAY ALL FEES AS REQUIRED FOR EXECUTION OF THE CONTRACT. ARRANGE FOR NECESSARY INSPECTIONS AND PRESENT CERTIFICATES OF APPROVAL TO THE OWNER.
- 4. DRAWINGS: 4.1. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE ELECTRICAL WORK. EXAMINE THE ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS AND BECOME FAMILIAR WITH AND COORDINATE WITH ALL CONDITIONS AFFECTING ELECTRICAL WORK.
- 4.2. COORDINATE ALL WORK WITH THE WORK OF OTHER TRADES. 5. STANDARDS FOR MATERIALS AND WORKMANSHIP:
- 5.1. ALL MATERIAL SHALL BE NEW (UNLESS SPECIFICALLY INDICATED TO BE REUSED). 5.2. THE MATERIALS OF THE SAME TYPE SHALL BE THE PRODUCT OF ONE MANUFACTURER. 5.3. THE PUBLISHED STANDARDS AND REQUIREMENTS OF THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATIONS, THE AMERICAN NATIONAL STANDARDS INSTITUTE, THE INSTITUTES OF ELECTRICAL AND ELECTRONIC ENGINEERS AND THE AMERICAN SOCIETY OF TESTING MATERIALS SHALL APPLY WHERE APPLICABLE.
- 5.4. SPECIFIED CATALOG NUMBERS AND TRADE NAMES ARE INTENDED TO DESCRIBE THE MATERIAL, DEVICES OR APPARATUS DESIRED. SIMILAR MATERIALS OF OTHER MANUFACTURERS, IF OF EQUAL QUALITY, CAPACITY, AND CHARACTER, MAY BE USED UPON OWNER'S APPROVAL. SUBSTITUTIONS FROM MANUFACTURES WITH INADEQUATE LOCAL SUPPORT OR MARKET SHARE MAY BE REJECTED.
- 6. UNDERWRITER'S LABEL AND LISTING: 6.1. ALL TYPES OF MATERIALS WHICH ARE COMMONLY UL LISTED SHALL BE UL LISTED, AND SHALL BEAR THE INSPECTION LABEL OF UNDERWRITER'S LABORATORIES, INC. (UL). WHERE CUSTOM BUILT EQUIPMENT IS SPECIFIED AND THE UL LABEL OR LISTING IS NOT APPLICABLE TO THE COMPLETED PRODUCT, ALL COMPONENTS USED IN THE CONSTRUCTION OF SUCH EQUIPMENT SHALL BE LABELED OR LISTED BY UL AS APPLICABLE.
- SHOP DRAWINGS AND ENGINEERING DATA: 7.1. COMPLETE SHOP DRAWINGS AND ENGINEERING DATA ON ALL EQUIPMENT AND MATERIALS TO BE USED IN THE WORK OF THIS DIVISION SHALL BE SUBMITTED FOR
- THE ARCHITECT/ENGINEER'S APPROVAL IN ACCORDANCE WITH THE CONTRACT DRAWINGS. 7.2. SUBMISSIONS SHALL BE STAMPED AS APPROVED BY THE CONTRACTOR AND HAVE ALL
- FEATURES, OPTIONS, ACCESSORIES, AND CATALOG NUMBERS CLEARLY INDICATED. 8. TESTS:
- 8.1. AT THE COMPLETION OF THE ELECTRICAL INSTALLATION AND AT SUCH TIME AS THE ARCHITECT OR OWNER MAY DIRECT. THE CONTRACTOR FOR THE DIVISION SHALL CONDUCT AN OPERATING TEST FOR APPROVAL. ALL EQUIPMENT SHALL BE DEMONSTRATED TO OPERATE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AS INTENDED, PROVING SYSTEM INTEGRITY.
- 9. FINAL INSPECTION: 9.1. WHEN THE WORK ON THE PROJECT HAS BEEN COMPLETED AND IS READY FOR FINAL INSPECTION, SUCH AN INSPECTION WILL BE MADE. AT THIS TIME THE CONTRACTOR SHALL DEMONSTRATE THAT THE REQUIREMENTS OF THIS DIVISION HAVE BEEN MET.

- 1. THE COMPONENTS OF THE ELECTRICAL SYSTEMS SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE THEREOF EITHER FOR BENEFICIAL USE OR FINAL ACCEPTANCE, WHICHEVER IS EARLIER, AGAINST DEFECTIVE MATERIALS, DESIGN, AND WORKMANSHIP.
- RACEWAYS AND FITTINGS CONDUIT SHALL BE GALVANIZED RMC, IMC, OR EMT, RIGID GALVANIZED STEEL OR INTERMEDIATE METALLIC CONDUIT SHALL BE USED WHERE SUBJECT TO DAMAGE OR EXPOSED OUTSIDE OF BUILDING. EMT MAY BE USED ABOVE CONCEALED CEILINGS OR WITHIN WALLS, AND EXPOSED IN DRY, INTERIOR LOCATIONS. TYPE MC CABLE WITH GROUND MAY BE USED IN LIEU OF EMT BETWEEN WIRING DEVICES WHERE CONCEALED AND PERMITTED BY CODE.
- 2. RACEWAYS SHALL BE INSTALLED AS A COMPLETE SYSTEM AND SHALL BE CONTINUOUS FROM OUTLET TO OUTLET, UNLESS NOTED OTHERWISE. RACEWAYS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO ALL BOXES AND FITTINGS. RACEWAYS AND BOXES SHALL BE SUPPORTED FROM STRUCTURAL STEEL AND NOT SUPPORTED FROM THE CEILING GRID OR ROOF DECKING PER NEC.
- 3. EMT COUPLINGS & CONNECTORS SHALL BE STEEL SET-SCREW OR COMPRESSION TYPE CONNECTORS. SHALL HAVE INSULATED THROATS. DIE-CAST FITTINGS ARE NOT ACCEPTABLE.
- 4. ALL CONDUIT SHALL BE INSTALLED CONCEALED EXCEPT IN UNFINISHED SPACES OR WHERE SHOWN OTHERWISE. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH.
- 6. A NYLON PULL CORD SHALL BE INSTALLED IN ALL CONDUITS IN WHICH CONDUCTORS ARE NOT INSTALLED. A 24 INCH LENGTH OF THE FISH CORD SHALL BE COILED IN EACH END OF THE CONDUIT AND CONDUIT SHALL BE CAPPED TO PREVENT
- CONTAMINATION 7. FLEXIBLE LIQUID-TIGHT METAL CONDUIT SHALL BE USED FOR CONNECTIONS TO ALL MOTORS, DRY-TYPE TRANSFORMERS AND ANY EQUIPMENT WHERE REQUIRED BECAUSE OF VIBRATION OR RELATIVE MOTION.
- 8. SURFACE RACEWAY MAY ONLY BE USED WHERE SPECIFICALLY SHOWN ON DRAWINGS OR APPROVED BY ARCHITECT/ENGINEER. WHERE PERMITTED, RACEWAY SHALL BE METAL AND ATTACHED TO THE WALL USING METAL FASTENERS. VERTICAL RUNS SHALL BE IN CORNERS OR AGAINST VERTICAL MOLDINGS, SUCH AS DOOR TRIM. PROVIDE MULTI-CHANNEL RACEWAY WHERE COMMUNICATIONS AND POWER ARE REQUIRED. PROVIDE ALL TRIM, FACEPLATES, AND ACCESSORIES FOR A FINISHED LOOK AND COMPLETE INSTALLATION. SYSTEM SHALL BE COMPATIBLE WITH OWNER'S COMMUNICATIONS DEVICES.
- CONDUCTORS: CONDUCTORS SHALL BE COPPER OF 98% CONDUCTIVITY, NO. 12 MINIMUM, 600 VOLTS, UNLESS INDICATED OTHERWISE.
- 2. CONDUCTORS NO. 10 AND SMALLER MAY BE SOLID TYPE THHN/THWN INSULATION; NO. 8 AND LARGER SHALL BE STRANDED WITH TYPE XHHW OR THHN/THWN-2 INSULATION. 3. WHERE A 20A, SINGLE PHASE BRANCH CIRCUIT IS SHOWN, BUT CONDUCTOR SIZE IS NOT
- INDICATED, THE FOLLOWING CONDUCTOR SIZES SHALL BE ASSUMED (DISTANCES ARE TO THE CENTER OF THE LOAD WHERE DISTRIBUTED; SIZES PERTAIN TO HOT, NEUTRAL, AND GROUNDING CONDUCTORS):
- 3.1. 120V, <75': #12 277V, <175': #12 3.2. 120V, 75'-120': #10 277V, 175'-270': #10
- 3.3. 120V, >120': #8 277V, >270': **#**8 4. MATCH EXISTING COLOR CODES USED IN THE BUILDING. IN THE ABSENCE OF A
- CONSISTENT EXISTING COLOR CODE, NEW CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:

<u>120/240V</u> PHASE A - BLACK Phase B - Red

- NEUTRAL WHITE
- GROUND GREEN 5. DO NOT SHARE NEUTRALS FOR THE FOLLOWING 120V BRANCH CIRCUITS: WORKSTATION RECEPTACLES (EXCEPT MODULAR FURNITURE, TELECOMMUNICATIONS EQUIPMENT, AND ANY
- HARMONIC PRODUCING LOADS. 6. LABEL CONDUCTORS WITH EQUIPMENT DESIGNATION IN EACH FEEDER JUNCTION BOX. 7. ALL CONDUCTORS SHALL BE INSTALLED IN RACEWAY.
- JUNCTION BOXES: 1. PULL BOXES SHALL BE INSTALLED AT ALL NECESSARY POINTS. WHETHER INDICATED ON THE DRAWINGS OR NOT. PROVIDE WHERE REQUIRED FOR A PROPER INSTALLATION AND TO PREVENT INJURY TO THE CONDUCTORS THAT MIGHT RESULT FROM PULLING. MINIMUM DIMENSIONS SHALL NOT BE LESS THAN NEC REQUIREMENTS.
- 2. ALL INDOOR AND DRY LOCATIONS BOXES SHALL BE GALVANIZED STEEL, RIGIDLY SECURED IN POSITION TO THE STRUCTURE. CAST IRON WITH THREADED HUB OUTLET BOXES SHALL BE USED FOR OUTDOOR, EXPOSED, AND WET LOCATIONS. 3. PROVIDE BOXES. COMPLETE WITH COVER OR DEVICE PLATE FOR SWITCHES. RECEPTACLES.
- OR OTHER DEVICES. OR WHERE REQUIRED FOR JOINING BRANCH CIRCUIT WIRING. 4. CONDUIT BODIES MAY BE USED ON EXPOSED CONDUIT. WHERE ALLOWED BY THE NEC.

WIRING DEVICES:

- SINGLE MANUFACTURER EXCEPT AS SPECIFICALLY STATED OTHERWISE. ALL LINE VOLTAGE LIGHT SWITCHES SHALL BE TOGGLE TYPE, SPECIFICATION GRADE INSTALLED 48 INCHES ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED. SWITCHES SHALL BE HUBBELL CSB120 SERIES (SINGLE POLE); HUBBELL #CSB320 SERIES (3-WAY),
- OR APPROVED EQUAL. 3. ALL RECEPTACLES SHALL BE DUPLEX OUTLETS, GROUNDING TYPE, SPECIFICATION GRADE, INSTALLED 18 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- 4. SPECIAL AND HEAVY-DUTY TYPE RECEPTACLES SHALL BE PROVIDED AS SUITABLE FOR THE INTENDED USE. 120V AND 250V, 15A AND 20A, NON-LOCKING RECEPTACLES USED IN DAMP AND WET LOCATIONS SHALL BE WEATHER-RESISTANT AND LABELED BY
- MANUFACTURER AS SUCH. 5. COLOR OF DEVICES AND COVERPLATES SHALL BE AS DIRECTED BY THE ARCHITECT OR OWNER.

SUPPORTING DEVICES:

- EDITION OF THE NEC. 2. LAYOUT EQUIPMENT TO MAINTAIN HEADROOM, NEAT MECHANICAL APPEARANCE, AND TO SUPPORT EQUIPMENT LOADS REQUIRED.
- SAFETY SWITCHES: 1. FUSED AND NONFUSED SAFETY SWITCHES SHALL BE PROVIDED AS REQUIRED. SUCH SWITCHES SHALL BE OF THE PROPER SIZE AND NUMBER OF POLES FOR USE WITH THE EQUIPMENT REQUIRING THE SWITCH. WHERE THE MOTOR CONTROLLER IS NOT WITHIN SIGHT OF THE MOTOR OR OVERCURRENT PROTECTION, PROVIDE TWO SWITCHES AS REQUIRED.
- 2. SAFETY SWITCHES SHALL BE THE ENCLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD-LOCKING OPERATING HANDLE.ALL SWITCH ENCLOSURES SHALL BE NEMA TYPE 1, EXCEPT SWITCHES EXPOSED TO THE WEATHER SHALL HAVE NEMA TYPE 3R, RAINTIGHT ENCLOSURES. 3. COMBINATION STARTER/DISCONNECTS AND CIRCUIT BREAKER DISCONNECTS MAY ALSO BE USED FOR MOTOR LOADS.

- 1. RACEWAYS, BOXES, OUTLETS, AND ENCLOSURES SHALL BE BOUND TOGETHER TO FORM A CONTINUOUS METALLIC GROUNDING CIRCUIT IN ACCORDANCE WITH NEC ART. 250.
- BE LARGER ON THE DRAWINGS. 3. GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL BRANCH CIRCUITS AND
- FEEDERS. NO EXCEPTIONS! EXTEND AND CONNECT TO EACH DEVICE AND EQUIPMENT. PANELBOARDS: 1. EXISTING PANELBOARDS SHALL REMAIN AND BE RE-USED. WHERE NEW CIRCUIT
- BREAKERS ARE INDICATED ON SCHEDULES, PROVIDE SAME TYPES AND INTERRUPTING RATINGS AS EXISTING CIRCUIT BREAKERS. 2. PROVIDE COMPLETE TYPE-WRITTEN PANELBOARD DIRECTORIES INDICATING LOAD TYPE AND
- LOCATION WITH FIELD CHANGES RECORDED. 3. PANELBOARDS SHALL BE OF THE BOLT-ON CIRCUIT BREAKER TYPE, SINGLE PHASE, THREE WIRE, 120/240V. WITH 100%% RATED NEUTRAL UNLESS SCHEDULED OTHERWISE. ALL BUS BARS SHALL BE COPPER. THE NEUTRAL AND GROUNDING BUSES SHALL UTILIZE SET-SCREWS TO BOND THE CONDUCTORS TO THE BUS THROUGH HOLES DRILLED IN THE BUS BARS. PANELS AND BREAKERS SHALL BE RATED FOR THE AVAILABLE
- INTERRUPTING CURRENT AND IN NO CASE BE LESS THAN 10,000 AMPERES RMS SYMMETRICAL INTERRUPTING CAPACITY. 4. CIRCUIT BREAKERS SHALL BE COMBINATION THERMAL AND MAGNETIC MOLDED CASE TYPE, QUICK-MAKE AND QUICK-BREAK. ALL MULTI-POLE
- BREAKERS SHALL BE INTERNAL COMMON TRIP. 5. PANELBOARDS SHALL BE SURFACE MOUNTED OR RECESSED AS SCHEDULED, WITH BAKED-ON ENAMEL TRIM, ADJUSTABLE TRIM CLAMPS AND DOOR WITH LOCK AND CATCH. PROVIDE COMPLETE TYPED WRITTEN PANELBOARD DIRECTORIES INDICATING LOAD TYPE AND LOCATION WITH FIELD CHANGES RECORDED.
- 6. PANELBOARDS SHALL BE BY SQUARE D, SIEMENS, GENERAL ELECTRIC, OR EATON.
- 1. FUSES SHALL CONFORM TO THE LATEST EDITIONS OF NEMA, UL, AND NEC. FUSES
- SHALL BE DUAL-ELEMENT, CURRENT LIMITING, AND SUITABLE FOR USE WITH DOWNSTREAM CIRCUIT BREAKERS, AS APPLICABLE.
- 2. FURNISH AND INSTALL COMPLETE SETS OF FUSES FOR ALL SWITCHES REQUIRING SAME, INCLUDING THOSE REQUIRED IN SWITCHBOARDS AND MOTOR CONTROLLERS.
- 3. UNLESS NOTED OTHERWISE, FUSES SERVING ONLY MOTOR LOADS SHALL BE CLASS RK5;
- FUSES SERVING DISTRIBUTION SHALL BE CLASS RK1 OR L. 4. PROVIDE 1 SPARE SET OF EACH TYPE/SIZE FUSE

MOTOR STARTERS (CONTROLLERS)

- 1. ALL MOTORS STARTERS SHALL CONFORM TO THE LATEST APPLICABLE STANDARDS OF NEMA, ANSI, AND IEEE. STARTERS SHALL BE FULLY ENCLOSED (NEMA 1 MINIMUM) AND RATED FOR THE ENVIRONMENT. PROVIDE NEMA 3R OR BETTER OUTSIDE OF BUILDING. STARTERS SHALL PROVIDE OVERLOAD PROTECTION FOR MOTOR SERVED. COORDINATE OVERLOAD PROTECTION RATINGS WITH NEC REQUIREMENTS AND THE ACTUAL NAMEPLATE LOAD. PROVIDE STARTER FOR TYPE, SIZE, AND DUTY AS SPECIFICALLY APPLIED. 2. ISOLATED MOTORS SHALL BE PROTECTED BY MEANS OF COMBINATION MOTOR
- STARTER/DISCONNECT 3. MOTORS 1/2 HORSEPOWER AND LARGER SHALL BE SERVED AT 480 VOLTS, 3 PHASE (AS AVAILABLE) AND MOTORS SMALLER THAN 1/2 HORSEPOWER SHALL BE SERVED AT 120 VOLTS, SINGLE PHASE OR AS SCHEDULED. 4. MOTOR STARTERS SHALL BE LINE-VOLTAGE MAGNETIC TYPE WITH SUITABLE THERMAL
- OVERLOAD RELAYS, RESET, AUXILIARY CONTACTS, HAND-OFF-AUTO SELECTOR SWITCHES, 120 VOLT AC CONTROL TRANSFORMER, AND INDICATING LIGHTS ON THE COVER. 5. MANUAL STARTERS SHALL BE PROVIDED COMPLETE WITH THERMAL OVERLOAD PROTECTION
- IN ALL PHASES. EACH SHALL BE EQUIPPED WITH A QUICK-BREAK OPERATING MECHANISM AND SILVER CONTACTS, IN NEMA 1 ENCLOSURE.

I. COORDINATION

- 1.1. BEFORE ANY CABLING, BOXES, CONDUIT, OUTLETS, EQUIPMENT, LIGHTING FIXTURES, ETC. ARE LOCATED IN ANY AREA, COORDINATE THE SPACE REQUIREMENTS OF ALL TRADES. SUCH SHALL BE ARRANGED SO THAT SPACE CONDITIONS WILL ALLOW ALL TRADES TO INSTALL THEIR WORK, AND WILL ALSO PERMIT ACCESS FOR FUTURE MAINTENANCE AND REPAIR.
- 1.2. SO THAT NO PIPING, DUCTWORK, ETC. IS WITHIN DEDICATED EQUIPMENT OR WORKING SPACES. VERIFY CLEARANCES PER ARTICLE 110-26 OF THE NEC. LIGHTING SHALL NOT BE INSTALLED ABOVE PIPING, DUCTS, OR OTHER 1.3. OBSTRUCTIONS.
- PROTECTION OF MATERIAL
- 2.1. ALL CONDUIT AND OTHER OPENINGS SHALL BE KEPT PROTECTED TO PREVENT ENTRY OF FOREIGN MATTER. FIXTURES, EQUIPMENT AND APPARATUS SHALL BE KEPT COVERED FOR PROTECTION AGAINST DIRT, WATER, CHEMICAL, AND MECHANICAL DAMAGE BEFORE AND DURING CONSTRUCTION. THE ORIGINAL FINISH, INCLUDING SHOP COAT OF PAINT OF FIXTURE, APPARATUS OR 2.2. EQUIPMENT THAT HAS BEEN DAMAGED, SHALL BE RESTORED. 3. FIRESTOPPING
- 3.1. ALL CORE DRILLS IN SLAB OR CUTTING OF FIRE RATED WALLS SHALL BE RESTORED TO THEIR ORIGINAL FIRE RATING. FIRESTOP ALL PENETRATIONS THROUGH FIRE WALLS PER IBC 712 AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. PROVIDE FIRE-PROOFING MATERIAL APPROPRIATE FOR THE APPLICATION AND AS SHOWN IN THE LATEST EDITION OF THE UL FIRE RESISTANCE DIRECTORY.
- 3.2. STOP CABLE TRAY AT WALL ON EACH SIDE. PROVIDE COMPLETE INTUMESCENT TYPE CABLE FIRE-STOP SYSTEM, WITH 4-HOUR RATING, IN WALL ABOVE TRAY. LOWEST POINT OF TRIM FLANGE SHALL BE SLIGHTLY HIGHER THAN TOP OF TRAY. SYSTEM SHALL ALLOW CABLES TO BE ADDED AND REMOVED WITHOUT ADJUSTING FIRE-STOP MATERIAL. PROVIDE NUMBER OF UNITS AS REQUIRED FOR EQUIVALENT CABLES AS
- DO NOT REDUCE THE FIRE RATING OF FIRE WALLS WITH RECESSED BOXES OR FIXTURES. WHERE SMALL, RECESSED, STEEL, 1 & 2 GANG DEVICE BOXES ARE LOCATED BACK-TO-BACK ON FIRE RATED WALLS. THEY SHALL BE A MINIMUM OF 24" APART HORIZONTALLY, OR PROVIDE PUTTY PADS OF ADEQUATE FIRE RATING.

WIRING DEVICES SHALL BE COMPLETE WITH ALL MOUNTING DEVICES AND OTHER APPURTENANCES AS REQUIRED. ALL WIRING DEVICES SHALL BE THE PRODUCT OF A

1. ALL CONDUITS SHALL BE PROPERLY SUPPORTED IN ACCORDANCE WITH THE LATEST

2. THE MINIMUM SIZE OF GROUNDING CONDUCTOR SHALL BE PER NEC UNLESS NOTED TO

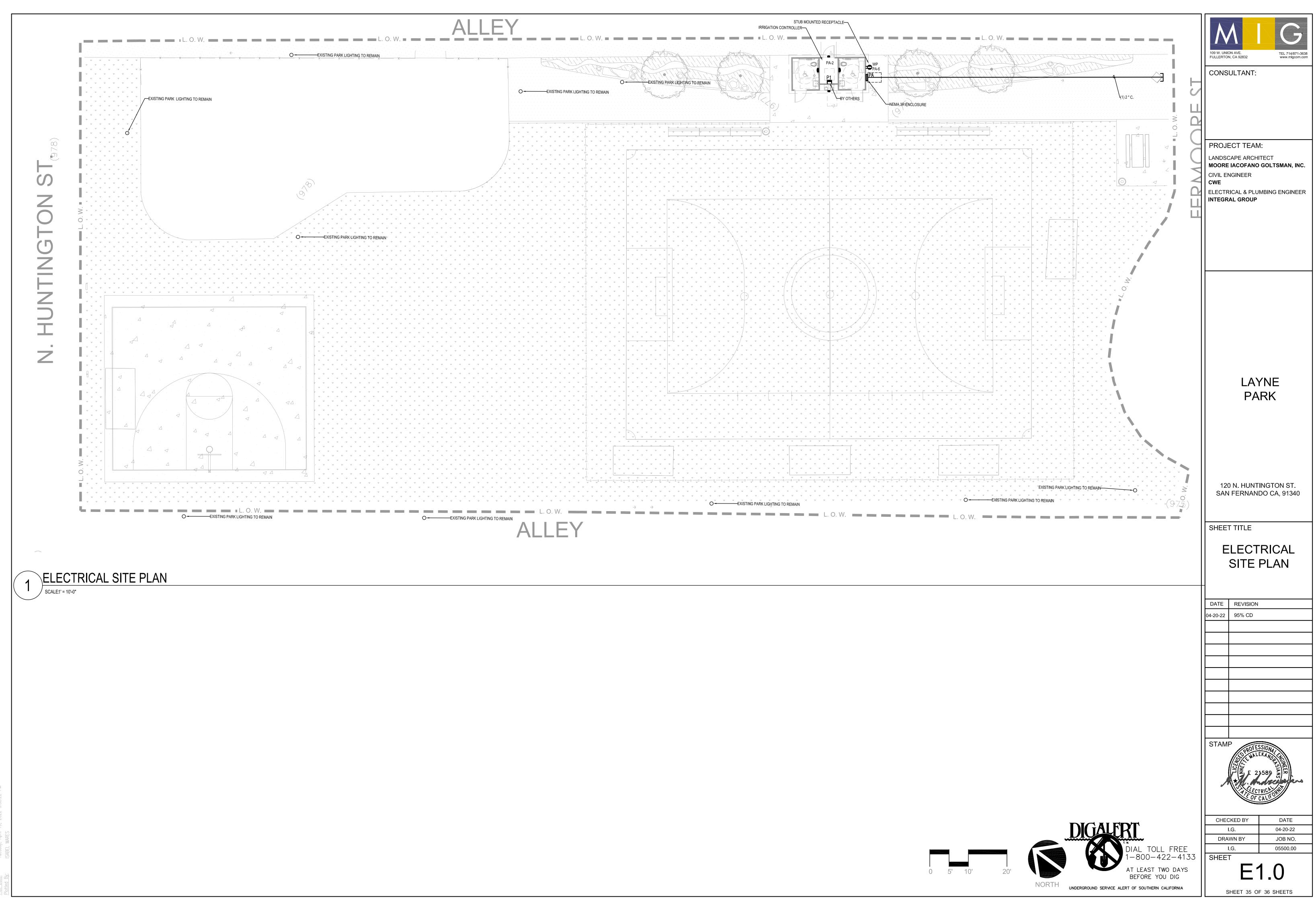
COORDINATION OF SPACE REQUIREMENTS WITH ALL TRADES SHALL BE PERFORMED

WHERE CABLE TRAY SYSTEM (GROUP OF OVER 25 CABLES) PASSES A FIRE WALL: TRAY CAPACITY. EQUAL TO WIREMOLD FLAMESTOPPER OR STI EZ-PATH SYSTEMS.

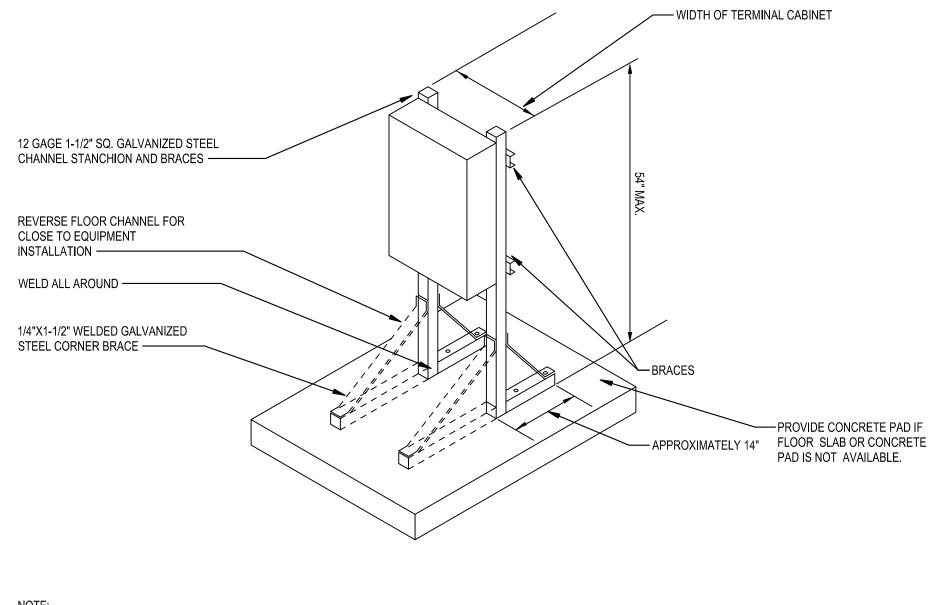
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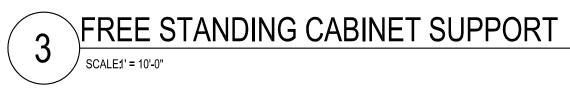


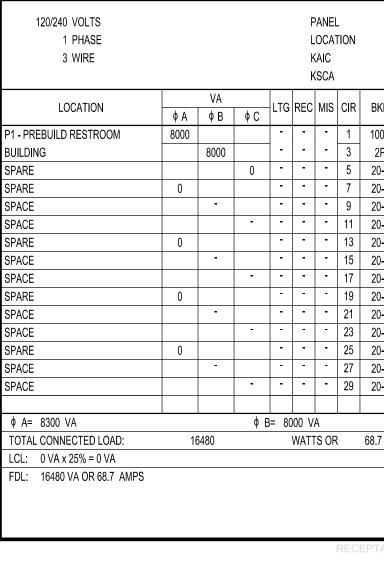


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NOTE: FOR REFERENCE ONLY. REFER TO STRUCTURAL CONSULTANT'S DRAWINGS FOR EXACT DETAILED INFORMATION.

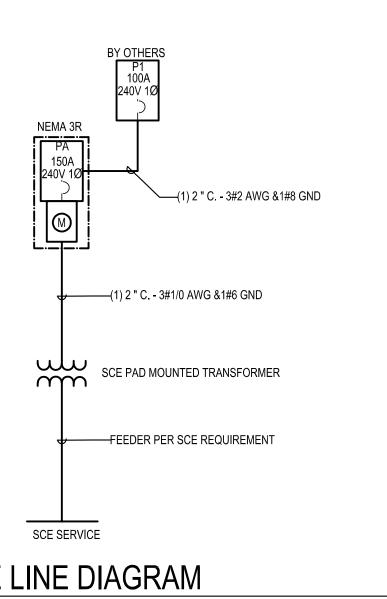


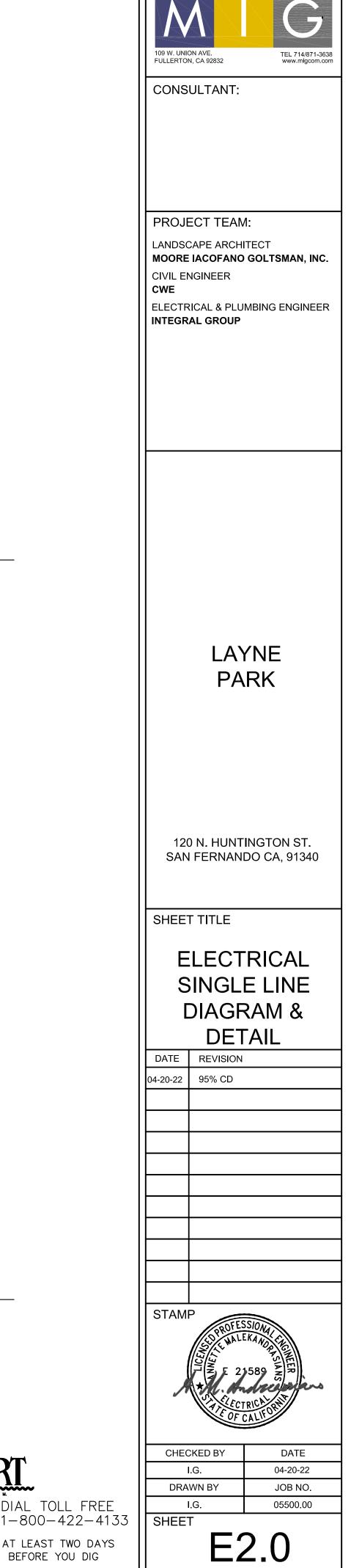




ELECTRICAL SINGLE LINE DIAGRAM / SCALE1' = 10'-0"

F	PA Park											150A 225A	MAIN BREAKER AMP BUSSING
6	65											100% WITHOUT	NEUTRAL BUS IG BUS
BKR				BKR	CIR	MIS	REC	LTG	φA	VA Ø B	φC	LO	CATION
100A	-	-	+	20-1	2	-	-	-	300			IRRIGATION CO	NTROLLER
2P			+	20-1	4	-	-	-		0		HIGH LEG	
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