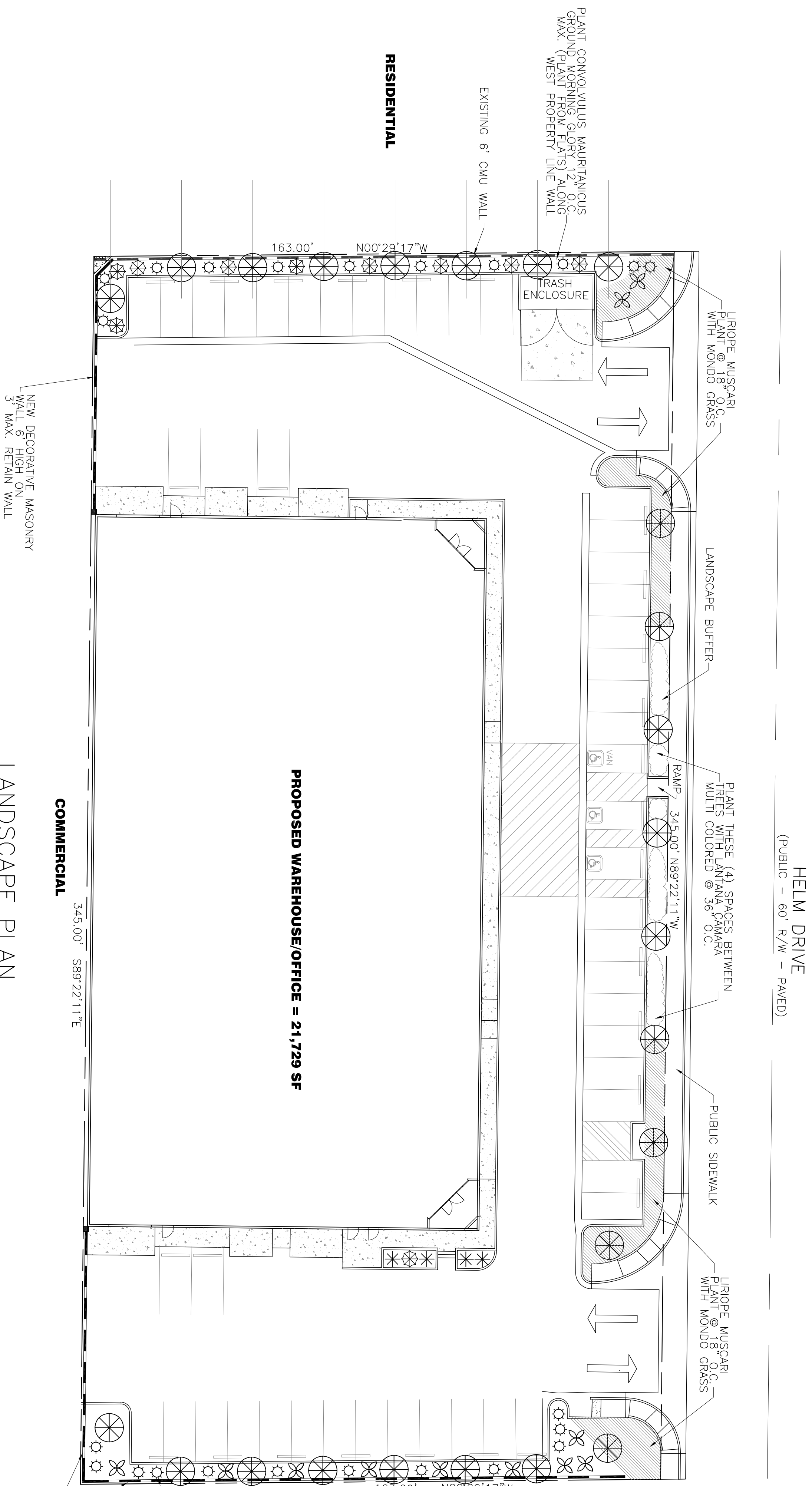


LANDSCAPE IRRIGATION DESIGN NOTES AND SPECIFICATIONS

- NEW SYSTEM TO BE INSTALLED PER PLANTING LAYOUT WITH ELECTRIC SOLENOID CONTROLLED UNDERGROUND IRRIGATION SYSTEM WHICH IS TO BE CONNECTED TO NEW WATER SUPPLY (SOURCE).
- PROVIDE INSTRUCTION OPERATOR'S AND MAINTENANCE FOR SYSTEM AND CONTROLS ALONG WITH MANUFACTURER'S PARTS CATALOGS.
- PROVIDE SCHEDULE INDICATING LENGTH OF TIME EACH VALVE IS REQUIRED TO OPERATE. SCHEDULES TO BE BASED UPON THE EXPOSURE AND PHYSICAL CONDITION SURROUNDING THE SITE AND BUILDING.
- PROVIDE RAINBIRD PRODUCTS, HEADER VALVES, QUICK COUPLERS, BUBBLERS AND CONTROLLERS.
- PIPE TO BE PVC IN ACCORDANCE WITH ASTM D1785, SCHEDULE 40 PRESSURE RATED FOR MAINLINE AND LATERAL LINE PIPING. SOLVENT WELD SOCKETS.
- SOLVENT CEMENT: ANSI/ASTM D2564 FOR PVC PIPE AND FITTINGS.
- SLEEVE MATERIAL: SCHEDULE 40 PVC IN ACCORDANCE WITH ASTM D2241.
- TRENCH AND BACKFILL:
 - TRENCH-EXCAVATE (2) INCHES AND FILL TO DISPERSED LEVEL WITH 1/8" MINUS SAME.
 - PROVIDE MINIMUM 4" SAND BELOW MAIN LINE AND 4" ABOVE.
 - TOP MAIN LINES SHOULD BE 24" TO 50" DEEP.
 - TOP LATERAL LINES SHOULD BE 15" TO 24" DEEP.
 - MINIMUM TRENCH WIDTH AND 12" MINIMUM DEPTH.
 - INSTALL DRIP IRRIGATION, 1/2" PVC PIPING.
- INSTALL BACKFLOW PREVENTER IN ACCORDANCE WITH LAS VEGAS VALLEY WATER DISTRICT UPDACS CODE.
- CONNECTION OF UTILITIES TO POINT OF CONNECTION MUST BE BRASS PIPE. EXTEND BACK FLOW DEVICE OUT DIS/BACKSIDE SIDE PAST ENCLOSURE A MINIMUM OF 2'.
- ADJUST CONTROL SYSTEM TO ACHIEVE TIME CYCLES REQUIRED.
- PRIOR TO PLANTING PROVIDE AN IRRIGATION AUDIT FOR ALL SPRAY AND SPRAY SYSTEMS. MINIMUM DISTRIBUTION UNIFORMITY WILL BE 55% FOR ANY SPRAY SYSTEM AND 70% FOR ANY ROTARY SYSTEM. TO BE CONNECTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE LANDSCAPE IRRIGATION ADDITION HANDBOOK.
- VALVES
 - GATE VALVE: MILWAUKEE OR NIBCO BRONZE CONSTRUCTION, NON-RISING STEM.
 - VALVE BOX AND COVER: AMETEK, CARSON, BROS. RECTANGULAR HEAVY DUTY BOX.
 - KEYS WITH DRIP EMITTERS.
 - PRESSURE REGULATION ATTACHED DOWNSTREAM FROM VALVES ON ALL LINES WITH DRIP EMITTERS.
- AUTOMATIC CONTROL, INDEPENDENT STATION CONTROLLER WITH WATERPROOF, WATERIGHT, WITH LOCKABLE ACCESS DOOR.
- INSTALL CONTROLLER WITH 6' EXPANSION COIL AT EACH VALVE TO WHICH CONTROLS ARE CONNECTED AND AT 100' INTERVALS.
 - GROUND CLOCKS WITH 55' OF 44 COPPER WIRING.
 - DO NOT STACK PIPING IN SAME TRENCH.
 - VALVE BOXES IN TURF/SOD ARE TO BE 1" BELOW GRADE.
 - CONNECT TO WATER AND ELECTRICAL SERVICE.
 - PROVIDE ELECTRICAL SERVICE TO EACH VALVE ELEVATIONS.
 - PROVIDE FOR THERMAL MOVEMENTS OF COMPONENTS IN SYSTEM.
 - USE THERMAID NIPPLES FOR RISERS TO EACH OUTLET TO FACILITATE EASY REPLACEMENT.
 - PULL A PUMP START WIRE FOR EVERY CONTROLLER TO PUMP. SET TIME OF DELAY AT 60 SECONDS OR LESS.
 - FLUSH SYSTEM AFTER INSTALLING HEADS. OPEN VALVES AND FLUSH SYSTEM WITH FULL HEAD OF WATER.
 - INSTALL QUICK COUPLERS, NON-POTABLE, OFF MAIN LINE WITH AN ANGLE VALVE. SWING JOINT FITTING TO BE SCHEDULE 80 TOE OR ELLS.
 - PROVIDE EXTRA MATERIALS TO OWNER.
 - QUICK COUPLER KEYS.
 - KEYS CONTROLLER.
 - ROTO HEADS FOR EACH HEAD.
 - INSTRUCT OWNER MAINTENANCE STAFF IN OPERATION AND MAINTENANCE OF THE SYSTEM, INCLUDING ADJUSTING OF SPRINKLER HEADS. USE OPERATION AND MAINTENANCE MATERIAL AS BASIS FOR DEMONSTRATION.
 - PROVIDE OWNER WITH GUARANTEE FOR ENTIRE SYSTEM FOR A (1) YEAR PERIOD FROM CERTIFICATE OF COMPLETION. CONTRACTOR WILL REPLACE AND/OR REPAIR ANY FAULTY EQUIPMENT WITHIN 24 HOURS AFTER NOTIFICATION BY OWNER.

NOTE

24" BOX EVERGREENS WILL BE PLANTED ADJACENT TO ANY RESIDENTIAL USE. NO STRUCTURE, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER 24" IN HEIGHT IN ANY SIGHT ZONE.



LANDSCAPE LEGEND:

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	REMARKS
	PROSOPIS ALBA	ARGENTINE MESQUITE	24	24" BOX	PLANT @ 30' O.C.
	RAPHIOLEPIS INDIACA	INDIAN HAWTHORN	11	3 GAL. MIN.	
	YUCCA GLOIOSA	SPANISH DAGGER	4	5 GAL. MIN.	
	LIROPE MUSCARI WITH MONDO GRASS	GROUND MORNING GLORY			PLANT 12" O.C WHERE SHOWN
	CONVOLVULUS MAURITIANICUS				PLANT 18" O.C WHERE SHOWN
	LIROPE MUSCARI WITH MONDO GRASS				PLANT 36" O.C WHERE SHOWN
	LATANA CAMARA MULTI COLORED				

NOTES:

- ALL PLANTING BEDS CALLED FOR TO RECEIVE 1/2" TO 3/4" RED ROCK MIN. 2" DEEP. SUBMIT SAMPLE FOR APPROVAL.
- ALL PLANTING, IRRIGATION SYSTEM AND PLANTS TO RECEIVE MIN. 12 MONTH GUARANTEE. GUARANTEE TO START WHEN CERTIFICATE OF COMPLETION IS ISSUED.
- ALL TREES ARE TO HAVE ROOT SHIELDS PER CLARK COUNTY TITLE 30, FIG. 30-64-2

PROPERTY ANALYSIS

SITE	345' X 163' = 56,235 SQ. FT.
PLANTING	4,295 SQ. FT. = 8%
BUILDING	21,729 SQ. FT. = 39%
DRIVEWAY/PARKING	30,211 SQ. FT. = 53%
TOTAL	= 100%

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JOB No.	2008-17
DESIGNED:	AKN 4/09
DRAWN:	
CHECKED:	AKN 4/09

LANDSCAPE PLAN WAREHOUSE/OFFICE

APN 177-02-201-013
1519 HELM DRIVE
LAS VEGAS, NEVADA 89119

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REV	DATE	BY	REVISION	APPROVAL