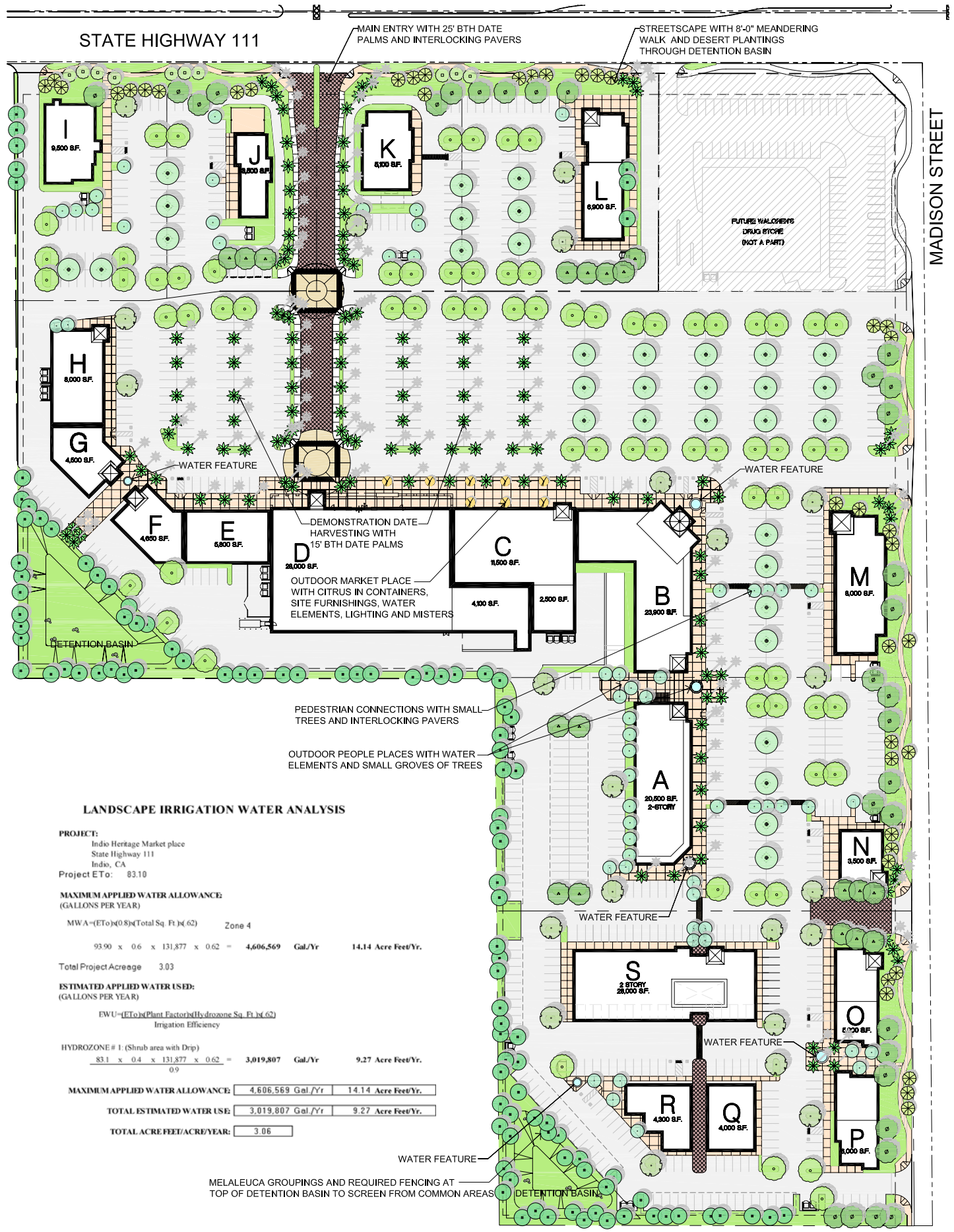

LANDSCAPE IRRIGATION WATER ANALYSIS

PROJECT:
Indio Heritage Market place
State Highway 111
Indio, CA

Project ETo: 83.10

MAXIMUM APPLIED WATER ALLOWANCE:
(GALLONS PER YEAR)

MWA=(ETo)x(0.8)x(Total Sq. Ft.)x(.62) Zone 4

93.90 x 0.6 x 131,877 x 0.62 = **4,606,569 Gal./Yr** **14.14 Acre Feet/Yr.**

Total Project Acreage 3.03

ESTIMATED APPLIED WATER USED:
(GALLONS PER YEAR)

EWU=(ETo)x(Plant Factor)x(Hydrozone Sq. Ft.)x(.62) / Irrigation Efficiency

HYDROZONE # 1: (Shrub area with Drip)

83.1 x 0.4 x 131,877 x 0.62 / 0.9 = **3,019,807 Gal./Yr** **9.27 Acre Feet/Yr.**

MAXIMUM APPLIED WATER ALLOWANCE:	4,606,569 Gal./Yr	14.14 Acre Feet/Yr.
TOTAL ESTIMATED WATER USE:	3,019,807 Gal./Yr	9.27 Acre Feet/Yr.
TOTAL ACRE FEET/ACRE/YEAR:	3.06	

PLANT LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	HYDROZONE FACTOR	QUANTITY	DESCRIPTION
TREES					
	ACACIA STENOPHYLLA / SHOESTRING ACACIA	24" BOX SINGLE TRUNK	LOW (0.2)	58	SMALL WEEPING EVERGREEN TREE
	CERCIDIUM FLORIDUM / BLUE PALO VERDE	24" BOX SINGLE TRUNK	LOW (0.2)	10	SMALL DECIDUOUS CANOPY TREE
A	OLEA E. 'SWAN HILL' / SWAN HILL OLIVE	36" BOX SINGLE TRUNK	MODERATE (0.5)	18	MULTI-TRUNK EVERGREEN SPECIMEN TREE
	PROSOPIS GLANDOLOSA / TEXAS HONEY MESQUITE	24" BOX SINGLE TRUNK	LOW (.03)	34	PARKING AREA EVERGREEN CANOPY TREE
	QUERCUS VIRGINIANA 'HERITAGE' / SOUTHERN LIVE OAK	24" BOX SINGLE TRUNK	MODERATE (0.5)	71	LARGE EVERGREEN CANOPY TREE
	QUERCUS ILEX / HOLLY OAK	24" BOX SINGLE TRUNK	MODERATE (0.5)	22	LARGE EVERGREEN CANOPY TREE
	X CHITALPA TASHKENTENSIS / NCN	24" BOX SINGLE TRUNK	MODERATE (0.5)	40	SMALL MULTI-TRUNK FLOWERING TREE
	SCHINUS MOLLE / CALIFORNIA PEPPER TREE	24" BOX SINGLE TRUNK	MODERATE (0.5)	31	LARGE EVERGREEN CANOPY TREE
	PHOENIX DACTYLIFERA 'MEDJOOL' / MEDJOOL DATE PALM	15' / 25' BHT	HIGH (0.7)	131	PALM TREE ACCENT
E	MELALEUCA QUINQUENERVIA / CAJEPUT TREE	15 GAL MUTI-TRUNK	MODERATE (0.5)	106	VERTICAL EDGE TREE
Y	CITRUS SPP.	24" BOX	HIGH (0.7)	8	VARIED CITRUS IN LARGE PLANT CONTAINERS

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE / SPACING	HYDROZONE		QUANTITY	DESCRIPTION
SHRUBS AND GROUNDCOVER						
	AGAVE DESERTI / DESERT AGAVE	5 GAL. / 5' O.C.	LOW (0.2)	X		EMPHATIC
	BOUGAINVILLEA 'CRIMSON JEWEL' BOUGAINVILLEA	5 GAL. / 6' O.C.	MODERATE (0.5)	X		LOW FLOWERING MASS
	BACCHARIS 'STARN' / COYOTE BRUSH	5 GAL. / 5' O.C.	LOW (0.2)	X		EVERGREEN MAT
	BACCHARIS SAROTHROIDES / DESERT BROOM	5 GAL. / 6' O.C.	LOW (0.2)	X		BACKGROUND SHRUB
	CAESALPINIA PULCHERRIMA / RED BIRD OF PARADISE	5 GAL. / 8' O.C.	MODERATE (0.5)	X		VERTICAL ACCENT SHRUB
	CALLIANDRA CALIFORNICA / BAJA FAIRY DUSTER	5 GAL. / 5' O.C.	MODERATE (0.5)	X		FOREGROUND SHRUB
	CASSIA ARTEMISIOIDES / FEATHERY CASSIA	5 GAL. / 5' O.C.	LOW (0.2)	X		BACKGROUND SHRUB
	DALEA GREGGI / TRAILING INDIGO BUSH	1 GAL. 5' O.C.	LOW (0.2)	X		SPREADING GROUNDCOVER
	FOUQUIERIA SPLENDENS / OCOTILLO	2-3 CANES / 5' - 6' HT.	LOW (0.2)	X		EMPHATIC
	HESPERALOE PARVIFLORA RED YUCCA	1 GAL. 3' O.C.	LOW	X		LOW ACCENT SHRUB
	LANTANA MONTEVIDENSIS / LANTANA	5 GAL. / 6' O.C.	MODERATE (0.5)	X		FLOWERING MASS
	LEUCOPHYLLUM F. 'SPRING BOUQUET' / TEXAS SAGE	5 GAL. / 5' O.C.	MODERATE (0.5)	X		BACKGROUND SHRUB
	SALVIA LEUCANTHA / MEXICAN BUSH SAGE	1 GAL. / 5' O.C.	MODERATE (0.5)	X		BACKGROUND SHRUB
	DECOMPOSED GRANITE MULCH COLOR TO BE SOUTHWEST BOULDER AND STONE - ADOBE SUNSET 3/8" MINUS (11% FINES), WETTED, ROLLED AND COMPACTED TO BE FURNISHED IN ALL PLANTER AREAS	2-1/2" THICK				
	2', 3' AND 5' BOULDERS					

PLANTING NOTES:

1. PLANTS SHALL BE SPACED NOT FURTHER THAN 4' O.C. UNLESS THE INTENDED USE OF THE PLANT MATERIAL IS AS AN ACCENT.
2. TREES SHALL BE PLANTED A MINIMUM OF 5'-0" FROM WALLS, WALKS OR BUILDINGS.
3. THE PARKING AREAS WILL BE SCREENED FROM THE PERIMETER STREETS BY USING WALLS, BERMS, HEDGES OR A COMBINATION WITH THE INTENT OF PROVIDING A 4'-0" VISUAL SCREEN.
4. ALL SITE LANDSCAPE SHALL BE MAINTAINED IN PERPETUITY.

AGRICULTURAL COMMISSIONER'S NOTE:

DROUGHT TOLERANT AND NATIVE PLANT SPECIES SHALL BE PREFERRED OVER NON-DROUGHT TOLERANT OR NON-NATIVE SPECIES; HOWEVER, THE QUANTITY AND EXTENT OF THESE SPECIES SHALL DEPEND ON THE PROJECT'S CLIMATIC ZONE. ALTERNATIVE TYPES OF LOW VOLUME IRRIGATION ARE ENCOURAGED TO BE USED IN ORDER TO CONSERVED WATER. REVIEW OF THE LANDSCAPING AND IRRIGATION PLANS ANY APPLICABLE WATER UTILITY FOR THE ABOVE STANDARDS MAY BE REQUIRED PRIOR TO PLANNING DEPARTMENT APPROVAL.

WATER CONSERVATION NOTES

THE FOLLOWING WATER CONSERVATION TECHNIQUES SHALL BE EMPLOYED IN THIS PROJECT:

- WATER CONSERVING PLANTS, AND PLANTS NATIVE TO HOT, DRY SUMMERS UTILIZED IN 75% OF THE TOTAL PLANTED AREA.
- USE OF HYDROZONES WITH PLANTS GROUPED BASED UPON AMOUNT OF WATER NEEDED TO SUSTAIN THEM.
- DECOMPOSED GRANITE MULCH UTILIZED IN THE LANDSCAPE - 2-1/2" DEPTH MIN.
- IRRIGATION SYSTEM TO BE DESIGNED TO COMPLETE CYCLE WITHIN 8 HOURS.
- RECOMMEND THAT THE AUTOMATIC IRRIGATION SYSTEM ADJUSTED SEASONALLY AND WITH WATERING HOURS BETWEEN 10:00 P.M. AND 6:00 A.M.
- IRRIGATION SYSTEM DESIGNED TO WATER DIFFERENT HYDROZONES OF THE LANDSCAPE ON SEPARATE VALVES.
- IRRIGATION DESIGN SENSITIVE TO SLOPE FACTORS, AIR TEMPERATURE AND EXPOSURE.
- RECOMMENDATIONS GIVEN FOR ANNUAL IRRIGATION SCHEDULE.
- LANDSCAPE WATER USE CERTIFICATION WITH SUPPORTING DATA IN COMPLIANCE WITH STATE OF CALIFORNIA WATER EFFICIENCY ORDINANCE FOR APPROVAL SHALL
- BE SUBMITTED WITH LANDSCAPE CONSTRUCTION DOCUMENT SUBMITTAL TO THE CITY.
- AN AUTOMATIC IRRIGATION SYSTEM WILL BE PROVIDED.

LANDSCAPE TABULATIONS

STREET FRONTAGE:
(1) TREE PER 20 L.F. REQUIRED
CAN BE COMBINED WITH PARKING LOT TREES

TOTAL STREET FRONTAGE	1,724 L.F.
REQUIRED STREET FRONTAGE TREES =	87 TREES
TOTAL STREET FRONTAGE TREES PROVIDED =	87 TREES

PARKING LOT TREES:
(1) TREE PER 4 PARKING SPACES REQUIRED

PARKING SPACES =	984 L.F.
REQUIRED PARKING LOT TREES =	249 TREES
TOTAL PARKING LOT TREES PROVIDED =	259 TREES

LANDSCAPE AREA:

TOTAL LANSCAPE AREA =	131,877 S.F.
PERCENTAGE OF SITE =	15.74%

LANDSCAPE CONCEPTS

ENTRY DRIVE

-25' BTH PALM TREES WITH BOUGAINVILLEA TRAINED UP THE TRUNK AND UPLIGHTS.
-CONCRETE PAVERS PROVIDE ACCENT TO THE ENTRY DRIVE AND PROVIDE A PERVIOUS SURFACE.
-DRIVE THROUGH AISLES SCREENED BY LOWER PLANTINGS.

OUTDOOR MARKETPLACE

-A VARIETY OF 15' BTH DATE PALMS FOR DEMONSTRATION AND HARVESTING.
-LARGE PLANT CONTAINERS WITH A VARIETY OF CITRUS TREES.
-OUTDOOR FURNISHINGS INCLUDING BENCHES, TRASH AND ASH RECEPTACLES PROVIDED.
-THEMATIC LIGHTING.
-WATER ELEMENTS.
-MISTERS UNDER BUILDING ARCADE.

STREETSCAPE

-MEANDERING WALK.
-DETENTION BASIN LANDSCAPED WITH DESERT PLANT MATERIALS AND BOULDER GROUPINGS.
-DECIDUOUS SMALL FLOWERING ACCENT TREES.
-RANDOM GROVES OF LARGE EVERGREEN CANOPY TREES.

PEDESTRIAN CONNECTIONS

-CONCRETE PAVERS ACCENTUATE CROSSINGS AND PROVIDE PERVIOUS PAVING SURFACE.
-SMALL TREES DENOTE CROSSINGS.

OFFICE AREA OUTDOOR PEOPLE SPACES

-SMALL WATER ELEMENTS, MISTERS PROVIDE COOLING ENVIRONMENT.
-SMALL INFORMAL GROVES OF TREES PROVIDE SHADE.
-ENHANCED PAVING.
-PEDESTRIAN SCALE LIGHTING.

0 25 50 100 150

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Indio Heritage Market Place
Indio, CA.
PRELIMINARY LANDSCAPE PLAN

Revision Dates

Issue Dates
Planning
Design Development
Plan Check
Bid Set
Permit Set
Construction Set

Drawing Date	04/18/06
Check By	RS
Drawn By	WM/LA
Scale	PER PLAN
Job Number	X
Sheet Number	LI.1