

WATER EFFICIENT LANDSCAPE WORKSHEET							
REFERENCE EVAPOTRANSPIRATION (ET <sub>0</sub> ):		51.2					
HYDROZONE / PLANTING DESCRIPTION	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF / IE)	LANDSCAPE AREA (sq. ft.)	ETAF x AREA	ESTIMATED TOTAL WATER USE (ETWU)
<b>REGULAR LANDSCAPE AREAS:</b>							
LOW WATER USE	0.3	DRIP	0.81	0.3703703	85620	31711.10509	1006637.3
MEDIUM WATER USE	0.5	BUBBLER	0.81	0.6172839	1935	1194.444347	37916.4
					<b>TOTALS:</b>	<b>87555</b>	<b>32906</b>
<b>SPECIAL LANDSCAPE AREAS:</b>							
REC. AREA				0	0	0	0
WATER FEATURE 1				0	0	0	0
WATER FEATURE 2				0	0	0	0
					<b>TOTALS:</b>	<b>0</b>	<b>0</b>
						<b>ETWU TOTAL:</b>	<b>1,044,554</b>
<b>MAXIMUM ALLOWED WATER ALLOWANCE (MAWA):</b>							<b>1,250,706</b>
<b>ETAF CALCULATIONS:</b>							
<b>REGULAR LANDSCAPE AREAS:</b>							
TOTAL ETAF x AREA	32,906		NOTE: AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS MUST BE 0.55 OR BELOW FOR RESIDENTIAL AREAS, AND 0.45 OR BELOW FOR NON-RESIDENTIAL AREAS.				
TOTAL LANDSCAPE AREA	87,555						
AVERAGE ETAF	0.38						
<b>ALL LANDSCAPE AREAS:</b>							
TOTAL ETAF x AREA	32,906						
TOTAL LANDSCAPE AREA	87,555						
SITEWIDE ETAF	0.38						

**STREET TREES:**

ACER FREEMANII 'RED SUNSET' (RED SUNSET MAPLE) - ATHERON DRIVE  
 ZELKOVA SERRULATA 'VILLAGE GREEN' (ZELKOVA) - MAIN STREET

**PRIMARY CANOPY TREE:**

PISTACIA CHINENSIS (CHINESE PISTACHE)

**PROJECT THEME TREE:**

OLEA EUROPA 'SWAN HILL' (FRUITLESS OLIVE)

**BROADLEAF EVERGREEN TREE:**

ARBUTUS 'MARINA' (ARBUTUS)

**TALL NARROW CANOPY TREE:**

CARPINUS BETULUS 'FRANS FONTAINE' (EUROPEAN HORNBEAM)

**PRIMARY ACCENT TREE:**

LAGERSTROEMIA INDICA 'TUSCARORA' (CRAPE MYRTLE)


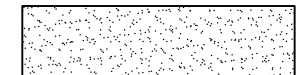
**SECONDARY ACCENT TREE:**

PRUNUS CERASIFERA 'KRAUTER VESUVIUS' (PURPLE-LEAF PLUM)

**GENERAL PLANTING NOTES:**

- TOTAL IRRIGATED LANDSCAPE AREA: 69,934 SQ. FT.
- CITY REQUIREMENT THAT ALL PROPOSED TREES BE A MINIMUM OF 15 GALLON SIZE, WITH 25% OF ALL PROPOSED TREES BEING 24" BOX SIZE.  
  
TOTAL NUMBER OF TREES: 215  
NUMBER OF 24" BOX TREES: 61 (28%)
- ALL PROPOSED PLANTING SHALL BE WATERED BY A FULL AUTOMATIC, WATER-CONSERVING IRRIGATION SYSTEM, COMPRISED OF DRIP AND BUBBLER APPLICATION (NO TURF); SYSTEM OPERATED BY A WEATHER BASED CONTROLLER WITH RAIN SENSOR CONTROL.
- ALL PLANTING AREAS SHALL RECEIVE A 3" DEEP MINIMUM LAYER OF BARK MULCH DRESSING, EXCEPT: PLANTER AREAS WITH DECOMPOSED GRANITE SPECIFIED; AND STORMWATER BASINS WHICH SHALL RECEIVE A 2" LAYER OF 3/8" PEBBLE COVER.

**PLANT MATERIALS LIST:**

SYMBOL	BOTANICAL NAME	COMMON NAME	MUCOLS WATER NEEDS	MATURE SIZE
<b>TREES: TO BE 24" BOX SIZE (56 TOTAL COUNT)</b>				
LAG 24B	LAGERSTROEMIA 'TUSCARORA' (STANDARD)	CRAPE MYRTLE	LOW	25H x 20W
OLE EUR	OLEA EUROPA 'SWAN HILL' (STANDARD)	FRUITLESS OLIVE	VERY LOW	30H x 25W
<b>TREES: TO BE 15 GALLON SIZE (199 TOTAL COUNT)</b>				
ACE FRE	ACER FREEMANII 'RED SUNSET'	RED SUNSET MAPLE	MED	35H x 35W
ARB MAR	ARBUTUS 'MARINA'	ARBUTUS	LOW	30H x 28W
CAR BET	CARPINUS BETULUS 'FRANS FONTAINE'	EUROPEAN HORNBEAM	MED	30H x 8'W
LAG TUS	LAGERSTROEMIA 'TUSCARORA' (STANDARD)	CRAPE MYRTLE	LOW	25H x 20W
PIS CHI	PISTACIA CHINENSIS	CHINESE PISTACHE	LOW	35H x 30'W
PRU CER	PRUNUS CERASIFERA 'KRAUTER VESUVIUS'	PURPLE-LEAF PLUM	MED	20H x 20W
ZEL SER	ZELKOVA SERRULATA 'VILLAGE GREEN'	ZELKOVA	MED	45H x 35W
<b>SHRUBS: TO BE 5 GALLON SIZE</b>				
ARC HAR	ARCTOSTAPHYLOS 'HARMONY'	HARMONY MANZANITA	LOW	4H x 5'W
CIS HYB	CISTUS HYBRIDUS	CRIMSON ROCKROSE	LOW	3H x 4'W
ELA PUN	ELAEAGNUS PUNGENS 'MACULATA'	GOLDEN LEAF ELAEAGNUS	LOW	6H x 6'W
FRA CAL	FRANQUILA CALIFORNICA 'EVE CASE'	CALIFORNIA COFFEEBERRY	LOW	4H x 9'W
HET ARB	HETEROMELES ARBUTIFOLIA	TOYON	LOW	8H x 8'W
MYR COM	MYRTUS COMMUNIS 'COMPACTA'	DWARF MYRTLE	LOW	3H x 3'W
NAN DOM	NANDINA DOMESTICA	HEAVENLY BAMBOO	LOW	5H x 3'W
PHO DAZ	PHORMIUM 'DAZZLER'	NEW ZEALAND FLAX	LOW	4H x 5'W
PHO DUE	PHORMIUM 'DUET'	DWARF FLAX	LOW	3H x 3'W
PHO MAO	PHORMIUM 'MAORI QUEEN'	NEW ZEALAND FLAX	LOW	5H x 6'W
ROS TUS	ROSMARINUS 'TUSCAN BLUE'	TUSCAN ROSEMARY	LOW	4H x 5'W
SAL LEU	SALVIA LEUCOPHYLLA	MEXICAN SAGE	LOW	4H x 4'W
SAL NEM	SALVIA NEMEROSA	PURPLE SAGE	LOW	2H x 2'W
TEU FRU	TEUCRIUM FRUTICOSA	BUSH GERMANDER	LOW	4H x 5'W
WES FRU	WESTRINGIA FRUTICOSA	COAST ROSEMARY	LOW	4H x 5'W
<b>PERENNIALS AND GRASSES: TO BE ONE GALLON SIZE, UNLESS OTHERWISE NOTED BELOW</b>				
DIE BIC	DIETES BICOLOR	FORTNIGHT LILY	LOW	3H x 3'W
MUH RIG	MUHLENBERGIA RIgens	DEER GRASS	LOW (5 GAL)	4H x 4'W
PEN BUN	PENNISETUM 'RED BUNNY TAILS'	DWARF FOUNTAIN GRASS	LOW	2H x 3'W
PEN RUB	PENNISETUM 'RUBRUM'	FOUNTAIN GRASS	LOW (5 GAL)	4H x 4'W
<b>VINES: TO BE 5 GALLON SIZE</b>				
FIC PUM	FIGUS PUMILA	CREEPING EVERGREEN FIG	MED	
<b>GROUNDCOVERS: SIZE AND SPACING NOTED BELOW</b>				
1	LAVANDULA STOCHAS ONE GALLON CANS @ 30" O.C. SPACING	SPANISH LAVENDER	LOW	
2	JUNCUS PATENS ONE GALLON CANS @ 30" O.C. SPACING	GRAY RUSH	LOW (STORMWATER BASINS)	
3	FESTUCA CALIFORNICA ONE GALLON CANS @ 30" O.C. SPACING	CALIFORNIA FESCUE	LOW (STORMWATER BASINS)	
4	NASSELLA PULCHRA ONE GALLON CANS @ 30" O.C. SPACING	PURPLE NEEDLE GRASS	LOW (STORMWATER BASINS)	
5	ROSMARINUS 'PROSTRATUS' ONE GALLON CANS @ 36" O.C. SPACING	PROSTRATE ROSEMARY	LOW	
6	MYOPORUM PARVIFOLIUM ONE GALLON CANS @ 48" O.C. SPACING	PROSTRATE MYOPORUM	LOW	
7	TEUCRIUM LUCIDRYS ONE GALLON CANS @ 36" O.C. SPACING	DWARF GERMANDER	LOW	
	 TYPICAL STORMWATER BASIN PLANTER SHALL RECEIVE A 2" DEEP LAYER OF 3/8" PEBBLE COVER ON BOTTOM OF BASIN			
	 TYPICAL DECOMPOSED GRANITE SURFACE (GOLD COLOR) IN SELECTED PLANTER AREAS 2" DEEP LAYER OF 3/8" DECOMPOSED GRANITE GRAVEL COVER			



**STREET TREE:**  
 ACER FREEMANII 'RED SUNSET' (RED SUNSET MAPLE)  
 DECIDUOUS CANOPY TREE; 45-50 FT. HEIGHT



**STREET TREE:**  
 ZELKOVA SERRULATA 'VILLAGE GREEN' (ZELKOVA)  
 DECIDUOUS CANOPY TREE; 45-50 FT. HEIGHT



**PRIMARY CANOPY TREE:**  
 PISTACIA CHINENSIS (CHINESE PISTACHE)  
 DECIDUOUS CANOPY TREE; 30-35 FT. HEIGHT



**BROADLEAF EVERGREEN TREE:**  
 ARBUTUS 'MARINA' (ARBUTUS)  
 BROADLEAF EVERGREEN TREE; 25-30 FT. HEIGHT



**PRIMARY ACCENT TREE:**  
 LAGERSTROEMIA INDICA 'TUSCARORA' (CRAPE MYRTLE)  
 DECIDUOUS, FLOWERING TREE; 25 FT. HEIGHT



**SECONDARY ACCENT TREE:**  
 PRUNUS CERASIFERA 'KRAUTER VESUVIUS' (PURPLE-LEAF PLUM)  
 DECIDUOUS, FLOWERING TREE; 20 FT. HEIGHT



**TALL NARROW CANOPY TREE:**  
 CARPINUS BETULUS 'FRANS FONTAINE'  
 DECIDUOUS TREE; 30 FT. HEIGHT, 6 FT. SPREAD



**PROJECT THEME TREE:**  
 OLEA EUROPA 'SWAN HILL' (FRUITLESS OLIVE)  
 BROADLEAF EVERGREEN TREE; 30 FT. HEIGHT

REVISION:

MANTECA  
 COMMERCIAL DEVELOPMENT  
 WEST ATHERTON DR. & SOUTH MAIN ST. MANTECA, CA

OWNER:  
 PACIFIC DEVELOPMENT GROUP II  
 P.O. BOX 3060  
 NEWPORT BEACH, CA 92658

SHEET TITLE:  
 PLANT LIST  
 AND MWEL  
 CALCULATIONS

CHK BY:  
 DATE: 10-24-16  
 SHEET: