THE CITY OF SURPRISE CONSERVATION GARDENS SITE WILL HARVEST STORM WATER TO SUPPLEMENT THE PROJECT SITE IRRIGATION REQUIREMENTS. THE STORM WATER TANK IS ONE (1) 10,000 GALLON UNDERGROUND FIBERGLASS TANKS THAT WILL ACT AS A SURGE TANK DURING RAIN EVENTS. THE STORM WATER TANK SHALL BE EQUIPPED WITH A 200 GPM PUMP TO TRANSFER WATER TO THE PRIMARY IRRIGATION STORAGE TANKS DURING A STORM AND AFTERWARDS AS PRIMARY STORAGE VOLUME IS DEPLETED. ADDITIONALLY, A SINGLE 10,000 GALLON CORRUGATED STEEL TANK WILL COLLECT RAIN WATER DIRECTLY FROM THE EXISTING BUILDING EAST OF THE GARDEN SITE. THE EXISTING RAIN SCUPPER WILL BE EXTENDED TO FILL THE TANK FROM THE TOP. A SMALL 10 GPM PUMP WILL TRANSFER WATER FROM THE RAIN WATER STORAGE TANK TO THE PRIMARY STORAGE TANKS. THE PUMP MAY BE USED TO IRRIGATE A SMALL EXAMPLE COMMERCIAL GARDEN ON THE SITE.

THE PRIMARY IRRIGATION STORAGE TANKS SHALL CONSIST OF TWO (2) 18,000 GALLON ABOVE GRADE CORRUGATED STEEL TANKS SITUATED AT THE SOUTH END OF THE SITE. A 15 GPM BOOSTER PUMP WILL DISCHARGE IRRIGATION WATER INTO THE IRRIGATION SYSTEM TO THE LIMITS OF LANDSCAPED AREA AS SHOWN. DURING PERIODS WHEN PRECIPITATION AND STORM WATER COLLECTION DO NOT MEET IRRIGATION DEMANDS, LEVEL SENTINEL INSIDE THE TANKS WILL ACTIVATE A CONTROL VALVE CONNECTED TO THE EXISTING RECLAIMED WATER SOURCE ON SITE TO PARTIALLY REFILL THE PRIMARY TANKS TO MEET DAILY IRRIGATION DEMANDS.

THE RESIDENTIAL EXHIBIT AREA WILL UTILIZE TWO (2) 400 GALLON POLYETHYLENE TANKS TO COLLECT RAIN WATER FROM THE RESIDENTIAL ROOF DURING STORM EVENTS. IRRIGATION WATER WILL BE DISCHARGED PASSIVELY INTO ADJACENT SHRUB BEDS USING A SMALL RESIDENTIAL IRRIGATION CONTROLLER AND CONTROL VALVE. A BACKUP IRRIGATION SYSTEM WILL BE INSTALLED TO MEET IRRIGATION DEMANDS BETWEEN RAIN EVENTS.

THE CITY HAS RECENTLY REQUESTED THAT A LARGE CORRUGATED STEEL TANK BE USED TO HOUSE THE WATER HARVESTING EXHIBITS. A LOCKABLE STEEL DOOR WILL ALLOW THE GENERAL PUBLIC TO ENTER THE EXHIBIT DURING BUSINESS HOURS. WATER HARVESTING EXHIBITS AND THE ON SITE SYSTEM WOULD SHOWN ALL IT WATER USE AND COLLECTION DATA ON BEAUTIFUL GRAPHIC LED SCREEN.