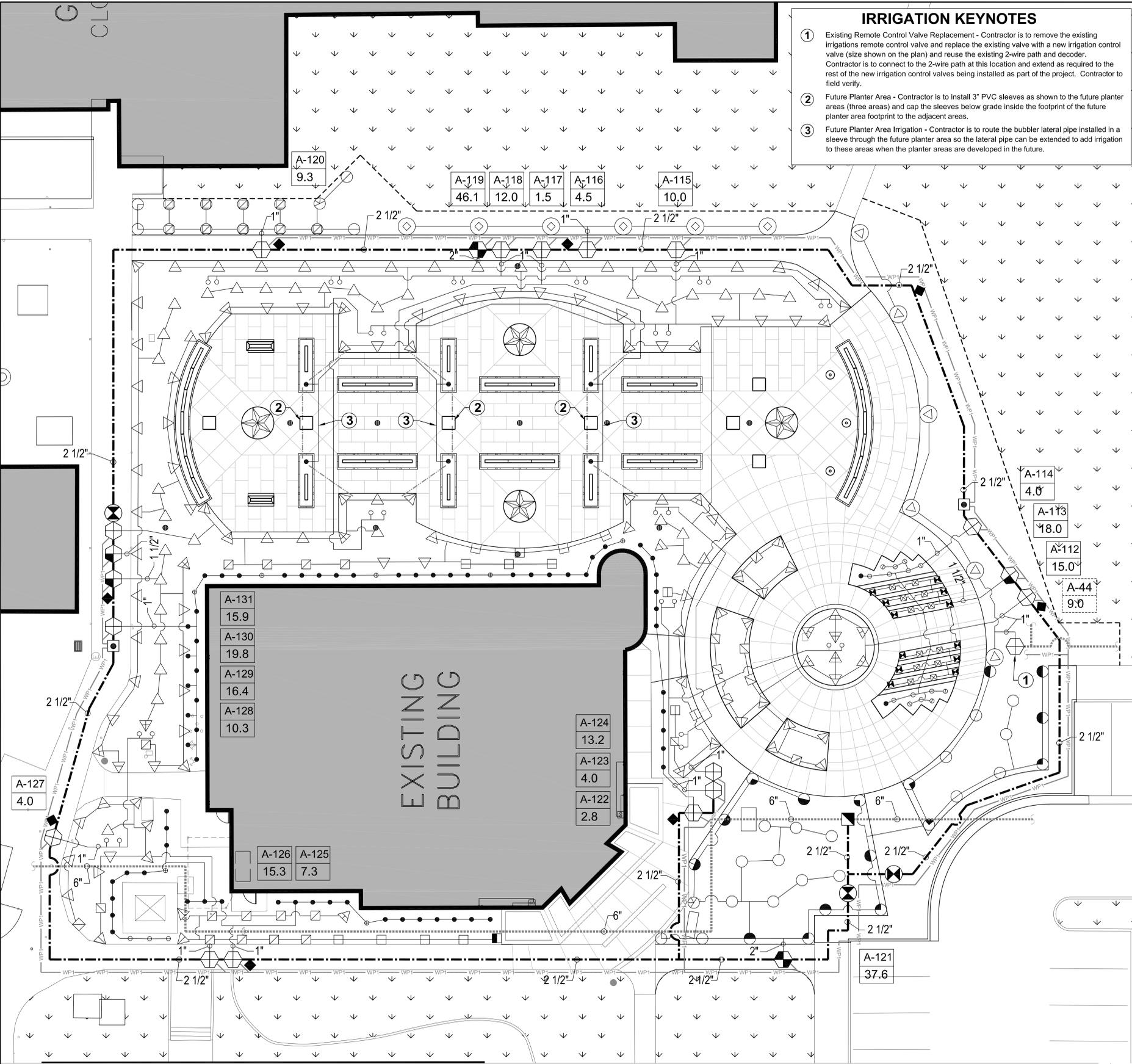


three inches = one foot  
 one and one half inches = one foot  
 one inch = one foot  
 three quarters inch = one foot  
 one half inch = one foot  
 three eighths inch = one foot  
 one eighth inch = one foot

- ### IRRIGATION KEYNOTES
- Existing Remote Control Valve Replacement - Contractor is to remove the existing irrigations remote control valve and replace the existing valve with a new irrigation control valve (size shown on the plan) and reuse the existing 2-wire path and decoder. Contractor is to connect to the 2-wire path at this location and extend as required to the rest of the new irrigation control valves being installed as part of the project. Contractor to field verify.
  - Future Planter Area - Contractor is to install 3" PVC sleeves as shown to the future planter areas (three areas) and cap the sleeves below grade inside the footprint of the future planter area footprint to the adjacent areas.
  - Future Planter Area Irrigation - Contractor is to route the bubbler lateral pipe installed in a sleeve through the future planter area so the lateral pipe can be extended to add irrigation to these areas when the planter areas are developed in the future.

### LANDSCAPE IRRIGATION LEGEND

SYMBOL	DESCRIPTION
	Toro # 570Z-6P-PRX-COM, 6" Pop-up Sprinkler with 12' radius Pressure Compensating Precision Series nozzles, OT-12QP, OT-12TP, OT-12HP, OT-12TTP, OT-12TQP & OT-12FP patterns. Contractor is to adjust arc and radius to prevent overspray onto buildings and other landscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the contractor is to substitute nozzle with 8', 10' or specially pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #01 on Plan Sheet L401.
	Toro # 570Z-6P-PRX-COM, 6" Pop-up Sprinkler with Pressure Compensating Precision Series Special Pattern nozzles, OT-4X9RCSP / OT-4X9LCSP, OT-4X30SSTP & OT-4X18SSTP patterns. See Installation Detail #01 on Plan Sheet L401.
	Toro # 570Z-6P-PRX-COM, 6" Pop-up Sprinkler with 15' radius Pressure Compensating Precision Series nozzles, OT-15QP, OT-15TP, OT-15HP, OT-15TTP, OT-15TQP & OT-15FP patterns. Contractor is to adjust arc and radius to prevent overspray onto buildings and other landscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the contractor is to substitute nozzle with 10', 12' or specially pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #01 on Plan Sheet L401.
	Toro # 570Z-6P-PRX-COM, 6" Pop-up Sprinkler with 12' radius Pressure Compensating Precision Series nozzles, OT-12QP, OT-12TP, OT-12HP, OT-12TTP, OT-12TQP & OT-12FP patterns. Contractor is to adjust arc and radius to prevent overspray onto buildings and other landscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the contractor is to substitute nozzle with 8', 10' or specially pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #01 on Plan Sheet L401.
	Toro # 570Z-6P-PRX-COM, 6" Pop-up Sprinkler with Pressure Compensating Precision Series Special Pattern nozzles, OT-4X9RCSP / OT-4X9LCSP, OT-4X30SSTP & OT-4X18SSTP patterns. See Installation Detail #01 on Plan Sheet L401.
	Toro # 570Z-6P-PRX-COM, 6" Pop-up Sprinkler with MPR Plus Special Pattern nozzles, 4-EST-PC & 2-SST-PC patterns. See Installation Detail #01 on Plan Sheet L401.
	Toro # 570Z-4P-PRX-COM, 4" Pop-up Sprinkler with FB25PC Flood Bubbler nozzle. Use SB-90-PC2 Stream Bubbler nozzle in areas as required. See Installation Detail #04 on Plan Sheet L401.
	Toro # 570Z-4P-PRX-COM, 4" Pop-up Sprinkler with FB50PC Flood Bubbler nozzle. Use SB-180-PC2 Stream Bubbler nozzle in areas as required. See Installation Detail #04 on Plan Sheet L401.
	Toro # 570Z-4P-PRX-COM, 4" Pop-up Sprinkler with SB-2-180-PC2 Stream Bubbler nozzle. See Installation Detail #04 on Plan Sheet L401.
	Rainbird #RWS-B-C-1404 with #1404 (1.0 gpm) bubbler Root Watering System. See Installation Detail #11 on Plan Sheet L401.
	Toro # 570Z-6P-COM, 6" Pop-up Sprinkler with Hunter MP Rotator #MP2000-90 Rotary nozzles. See Installation Detail #05 on Plan Sheet L401.
	Toro # 570Z-6P-COM, 6" Pop-up Sprinkler with Hunter MP Rotator #MP3000-90 Rotary nozzles. See Installation Detail #05 on Plan Sheet L401.
	1" thru 3" NIBCO # T-113 IRR Isolation Gate Valve. Gate Valves are to be line size as noted on the plan. Provide two (2) operating handles (3' min. length) for each type required to the Owner. See Installation Detail #13 on Plan Sheet L401.
	1" Toro #P220-27-94, P-220 Series Electric Remote Control Valve with Pressure Regulator Module and Potted DC Latching Solenoid. Install one valve per valve box. Install line size Y-Filter for all bubbler valves. See Installation Details #02 & #03 on Plan Sheet L401.
	1 1/2" Toro #P220-27-96, P-220 Series Electric Remote Control Valve with Pressure Regulator Module and Potted DC Latching Solenoid. Install one valve per valve box. Install line size Y-Filter for all bubbler valves. See Installation Detail #06 on Plan Sheet L401.
	2" Toro #P220-27-98, P-220 Series Electric Remote Control Valve with Pressure Regulator Module and Potted DC Latching Solenoid. Install one valve per valve box. Install line size Y-Filter for all bubbler valves. See Installation Detail #09 on Plan Sheet L401.
	1" Toro #100-SL-VLC, Quick Coupling Valve, one piece body and locking rubber cover. Contractor is to provide two (2) 100-SLK valve keys with two (2) 075-MHS hose swivels and two (2) LK cover keys. See Installation Detail #10 on Plan Sheet L401.
	2 1/2" PVC SCHEDULE 40 SOLVENT WELD MAINLINE PIPE. Size mainline piping as noted on the plan. Install all pipe in strict accordance with manufacturers instructions. No bending, or curving of pipe will be allowed, except as permitted by the pipe manufacturer. Pipe manufacturer must be approved prior to ordering materials. Sleeve all pipe under paved surfaces per Sleeving Detail #1. All mainline fittings are to be Lasco Schedule 80 Solvent Weld fittings, or approved equal. See Installation Details #18 & #19 on Plan Sheet L402.
	3/4" thru 2" PVC Class 200 Solvent Weld lateral pipe. Sleeve all pipe under paved surfaces over six feet wide with PVC Class 200 pipe a minimum of two times larger than the pipe being sleeved. One pipe per sleeve only. Minimum sleeve size is 2". Wires are to be sleeved separately from pipe. Size lateral piping as noted on the Lateral Pipe Sizing chart, Detail #20 on Plan Sheet L402. Pipe sizing is not to exceed 5.0 feet per second flow velocity. Install all pipe in strict accordance with manufacturers instructions, using appropriate cement and primer for the various pipe sizes and prevailing site conditions. (Note: 1/2" pipes are not allowed to be used on the project.) See Installation Detail #18 & #19 on Plan Sheet L402.
	Controller # / Station # Gallons Per Minute
	New irrigation remote control valve station numbering on the plan starts with the assumed highest numbered open station (112) and proceeds sequentially for new project irrigation valves. Contractor to field verify the highest numbered open station and proceed with station assignments sequentially, from that number, and note the actual station designations on the as built plans.
	Communication Cable: 2 Wire Path (WP1). Toro #P7350D, jacketed decoder communication cables, rated for direct burial with two 14 AWG, solid copper conductors. Install all communication cables adjacent to mainline pipe with junction boxes every two hundred (200') feet, at all changes in direction and at all splices and dead end stubs for future extension. Junction boxes are to be Christy (N-9) concrete body with locking metal covers except for splices made in remote control valve boxes. All communication cable splices are to be located in valve boxes with remote control valves, or in junction boxes (Christy N-9) where splices are required away from remote control valve boxes. All splices, not located adjacent to a remote control valve are to be labeled on the as built drawings. All communication cable splices are to be made with 3M DBR-6 Waterproof Splice Kits. Contractor is to extend the existing 2-Wire path from existing Irrigation Remote Control Valve A-44 as required. Contractor to field verify. See Installation Details #03, #06, #07, #08 & #09 on Plan Sheet L401. See Toro Two-Wire Path & Station Decoder Notes on Plan Sheet L402.
	3" PVC Sch. 40 Sleeves for Future Planter. See Installation Detail #18 on Plan Sheet L402.
	Existing 6" Irrigation Mainline to Remain & Protect. Contractor to field verify.
	Toro #DEC-SG-LINE, Two-Wire Decoder Line surge protector. Install decoder grounding plate 4'-8" from the line surge protector (DEC-SG-LINE). Do not install in same trench as the Two-Wire path communication cable. See Details #03, #06, #07 & #09 on plan sheet L401.
	Irrigation POC: 2" Champion Brass Angle Valve Assembly. Contractor is to install new irrigation mainline tap for project connected to the existing 6" irrigation mainline. Contractor to field verify. See Detail #15 on Plan Sheet L402.
	Existing Irrigation Improvements to Remain and Protect. Contractor is to repair or replace existing irrigation improvements, intended to remain and protect, that are damaged due to construction activities. This includes, but is not limited to, repairing broken pipes, replacing broken sprinklers, repairing or replacing broken low voltage control wiring as required and all other work required to restore the automatic operation of the irrigation system per the irrigation as built plans. This is to include repairs that are required at any area of the VA campus to repair damage caused by any trade or construction related activity. Contractor to field verify.
	NOT SHOWN
	Central Computer Controller Programming Note: Contractor is responsible for all programming to add (input the data required for the existing Toro Sentinel Central) the new irrigation system modifications installed as part of this project to the existing central computer system. In addition to the data input required, the contractor is to perform all programming required for a complete and operational system in an automatic mode. All programming and data input are to be completed by a certified programmer to be approved by the VA (in writing) in advance of performing the work.



LANDSCAPE IRRIGATION PLAN

SCALE: 1" = 10'-0" 5

100% CD - NOT FOR CONSTRUCTION SUBMITTAL	12/23/14
Revisions:	Date

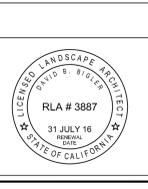
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ARCHITECTS ENGINEERS CONNECTED

Drawing Title	LANDSCAPE IRRIGATION PLAN
Approved: Project Director	

Project Title	VA MONUMENT WALK OF HONOR
Location	FRESNO, CA
Date	12-23-14
Checked	DB
Drawn	SV
Project Number	---
Building Number	---
Drawing Number	L301
Dwg. of	

**Office of Construction and Facilities Management**

Department of Veterans Affairs