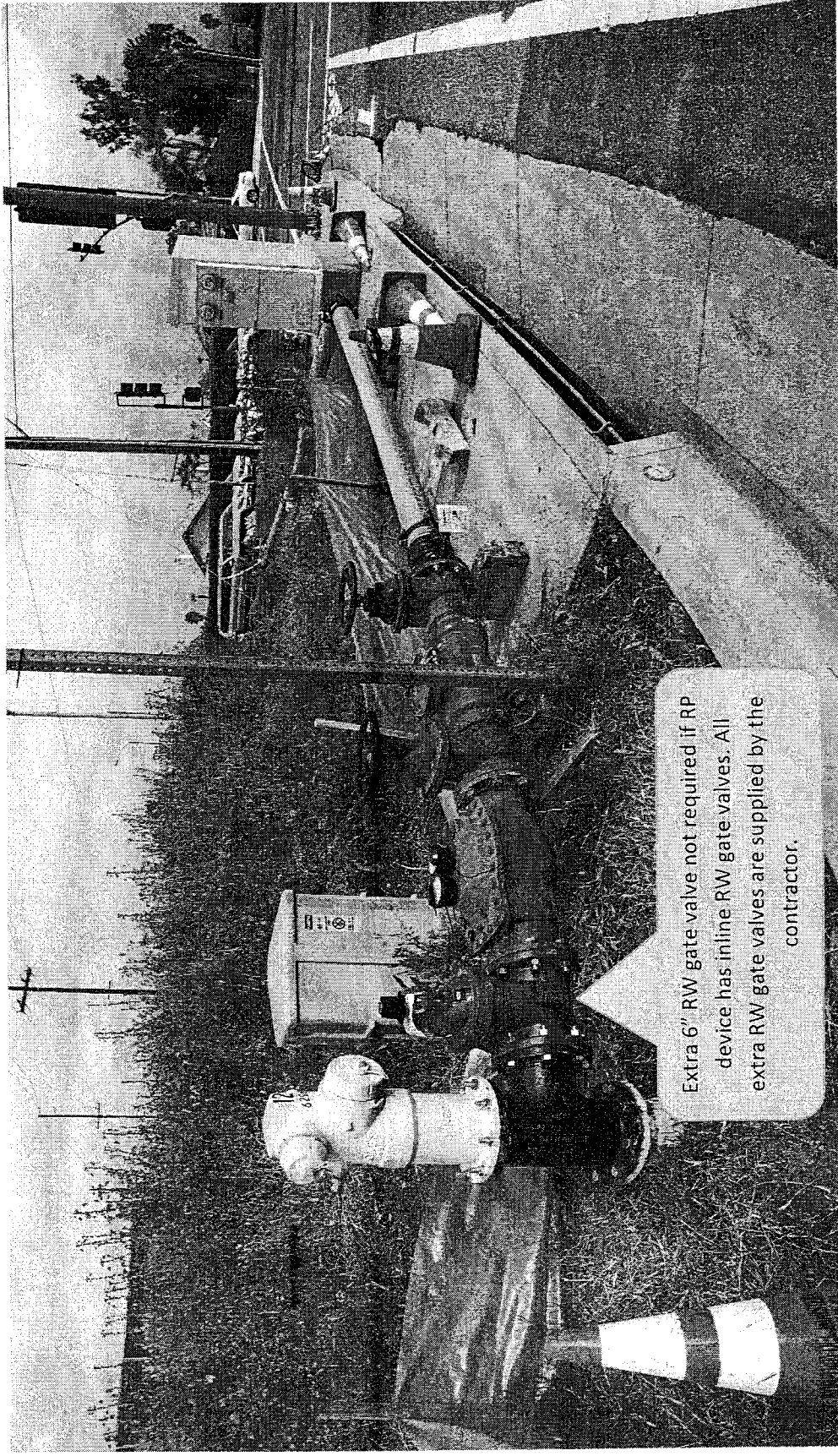






**EXHIBIT B: TYPICAL SUPPLY SOURCE SETUP FOR WATERLINE FLUSHING & DISINFECTION**



ELSINORE VALLEY MUNICIPAL WATER DISTRICT (EVMWD)  
TEMESCAL CANYON ROAD WIDENING PROJECT  
RELOCATION OF 42-INCH DIAMETER TVP POTABLE WATERLINE

TECHNICAL SPECIFICATIONS

SECTION 01010	SUMMARY OF WORK
SECTION 15044	HYDROSTATIC TESTING OF PRESSURE PIPE
SECTION 15076	CEMENT-MORTAR LINED AND COATED STEEL PIPE
SECTION 15100	BUTTERFLY VALVES

ELSINORE VALLEY MUNICIPAL WATER DISTRICT (EVMWD)  
TEMESCAL CANYON ROAD WIDENING PROJECT  
RELOCATION OF 42-INCH DIAMETER TVP POTABLE WATERLINE

TECHNICAL SPECIFICATIONS

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ELSINORE VALLEY MUNICIPAL WATER DISTRICT (EVMWD)  
TEMESCAL CANYON ROAD WIDENING PROJECT  
RELOCATION OF 42-INCH DIAMETER TYP POTABLE WATERLINE  
TECHNICAL SPECIFICATIONS

SECTION 01010	SUMMARY OF WORK
SECTION 15044	HYDROSTATIC TESTING OF PRESSURE PIPE
SECTION 15076	CEMENT-MORTAR LINED AND COATED STEEL PIPE
SECTION 15100	BUTTERFLY VALVES

**PART 1 – GENERAL**

**1.1 PROJECT LOCATION**

Relocation of EVMWD's 42-inch diameter CML&C steel potable water pipeline, known as the Temescal Valley Pipeline (TVP), is located on Temescal Canyon Road, north of Dawson Canyon Road in Corona, CA.

**1.2 WORK COVERED BY CONTRACT DOCUMENTS**

Relocation of EVMWD's 42-inch diameter CML&C steel potable water pipeline, including but not limited to sheeting, shoring, bracing, trenching, excavation, backfilling, preparing Notice of Intent (NOI) and securing this permit from Santa Ana Regional Water Quality Control Board for draining the pipeline and legally disposing of water, relocating the existing 42-inch diameter waterline, installing the 60-inch diameter steel casing, casing spacers, blown sand, installation of casing end seals, installation of 42-inch buried butterfly valve, air/vacuum valves, blowoff, disinfection, hydrostatic testing, connections to existing 42-inch diameter waterline, pipe specials, painting, coatings, linings, welding, earthwork, civil site work, and all other work as indicated on the Construction Drawings, and as specified herein, and as necessary to complete the waterline relocation in its entirety. The work includes furnishing all labor, equipment, material, and transportation services to the satisfaction of the EVMWD, which may include, but is not limited to the items of work described herein.

**PART 2 – MEASUREMENT AND PAYMENT**

**2.1 GENERAL**

The Contractor shall provide all labor, materials, equipment and incidentals for the work described within these specifications and construction drawings. Payment for each bid item shall be included in the contract unit price or lump sum price shown on the Bidder's proposal. Measurement for payment of lump sum items will be based on the component parts listed in the Bid Items, as required in this specification. Payment for component parts will be based on the Schedule of Values approved by the OWNER. The cost breakdown shall include quantities and items aggregating the Bid Item in payments during construction. All measurements of quantities shall be approved by OWNER. Payment for each bid item shall include full compensation for all labor, materials, tools, and equipment necessary to complete the work as shown on the construction drawings and within these specifications and no additional compensation shall be allowed. This includes the cost of work not specifically listed in the Bid Schedule or Schedule of Values but is necessary to complete the project as described and shown in the Contract Documents. Work for which no separate payment has been provided will be considered a subsidiary obligation of the Contractor, and the cost therefore shall be included in the applicable contract price for the item to which the work applies. All measurements of work done will be made by OWNER or its representative.

2.2 SCHEDULE A - BASE BID

2.2.1 BID ITEM NO. A1 - SHEETING, SHORING, AND BRACING (LUMP SUM)

Payment for Sheeting, Shoring, and Bracing, or equivalent, shall be paid for at the contract lump sum price, complete and in accordance with the Contract Documents, and as directed by EVMWD. The contract price for work under this item shall include, but not be limited to, furnishing all labor, materials, tools and equipment, and doing all work involved in providing work and material protection during the relocation. Payment shall include the cost of preparation and submittal of plans by a Professional Engineer licensed to work in the State of California and obtaining the required permit from the State Division of Industrial Safety and other agencies having jurisdiction.

2.2.2 BID ITEM NO. A2 - RELOCATION OF 42-INCH CML&C STEEL POTABLE WATER PIPELINE (=\$0.3125") (UNIT PRICE)

Payment for Relocation of 42-inch CML&C Steel Potable Water Pipeline (=\$0.3125") shall be made at the contract unit price, complete in accordance with the Contract Documents, and as directed by EVMWD. The contract price for work under this item shall include, but not be limited to furnishing all labor, material, tools and equipment and performing all work necessary for the installation of 42-inch CML&C steel transmission main piping, including pipe, coatings, linings, flanges, fittings, weld testing, thrust restraints, pipe joints, gaskets, nuts, bolts, insulating flange kits, connections to existing pipelines, pressure testing and disinfection required for full complete installation, preparing Notice of Intent (NOI) and securing the permits from Santa Ana Regional Water Quality Control Board for draining the pipeline and legally disposing of water, site work including but not limited to trench excavation, compaction testing, pavement saw cutting and pavement disposal, rock removal not included elsewhere, sheeting, shoring, and bracing, not included elsewhere, overexcavation up to six inches below upgrade shall be included, granular bedding with specified backfill, compaction, and all other items as shown on the Approved Plans, and described in the Contract Documents. This contract price for work under this item shall include, but not be limited to, all start-up and testing and disinfection required for a fully installed, completely operational system. OWNER reserves the right to vary quantities plus or minus 5% using the bid unit price to accommodate conditions encountered in the field. These adjustments are considered to be within the original contract scope and as such will not be considered as a basis for extra work, extra cost, or extra time.

Progress payment for the pipe lengths actually installed by the Contractor shall be measured along a centerline projection into a horizontal plane with deductions for structures.

2.2.3 BID ITEM NO. A3 - 60-INCH STEEL CASING (=\$0.75") (UNIT PRICE)

Payment for the 60-inch (=\$0.75") Steel Casing shall be made at the contract unit price, complete and in accordance with the Contract Documents and as directed by EVMWD. The contract price for work under this item shall include, but not be limited to, furnishing all labor, material, tools and equipment, and performing all work required to encase the 42-inch CML&C steel pipeline, including welding, casing spacers, sand, end seals, installation of annular space grout, monitoring, permits, and all other work necessary to complete this item of work as described in the Contract Documents.

EVMWD reserves the right to vary quantities plus or minus 5% using the bid unit price to accommodate conditions encountered in the field. These adjustments are considered to be within the original contract scope and as such will not be considered as a basis for extra work, extra cost, or extra time.

**2.2.4 BID ITEM NO. A5 – 6-INCH COMBINATION AIR RELEASE AND AIR/VACUUM VALVE (UNIT PRICE)**

Payment for 6-inch Combination Air Release and Air/Vacuum Valve shall be made at the contract unit price, complete and in accordance with the Contract Documents, and as directed by EVMWD. The contract price for work under this item shall include, but not be limited to, furnishing all labor, material, tools, and equipment and performing all work required for the installation of combination air release and air/vacuum valves, including but not limited to valves, coatings, linings, corrosion protection, gaskets, nuts, bolts, copper tubing, corporation stop, and any other fittings required, and incidentals per EVMWD's Standard Detail, required for full complete installation of the valve assembly, and all other work necessary to complete this item of work as described in the Contract Documents.

**2.2.5 BID ITEM NO. A6 – 6-INCH BLOWOFF ASSEMBLY (UNIT PRICE)**

Payment for 6-inch Blowoff Assembly shall be made at the contract unit price, complete and in accordance with the Contract Documents and as directed by the EVMWD. The contract price for work under this item shall include, but not be limited to, furnishing all labor, material, tools and equipment, and performing all work required for the installation of blowoff assemblies, including but not limited to, blowoff assemblies, coatings, linings, corrosion protection, concrete, gaskets, flanges, insulating flange kits, nuts, bolts, valve box, curb stops, copper tubing, corporation stop, service clamp, and any other fittings required, trench excavation and pavement replacement including sidewalk, concrete, curbs, gutters, and incidentals per EVMWD's Standard Detail, required for full complete installation of the blowoff assemblies, and all other work necessary to complete this item of work as described in the Contract Documents and EVMWD's Standard Detail, and not included elsewhere in the Contract Documents.

EVMWD reserves the right to vary quantities plus or minus 5% using the bid unit price to accommodate conditions encountered on the project. These adjustments are considered to be within the original contract scope and as such will not be considered as a basis for extra work, extra cost, or extra time.

**2.2.6 BID ITEM NO. A7 – RECORD DRAWINGS**

Payment for the Record Drawings documenting changes made in the field and/or changes made during the submittal process, will be made at the contract lump sum price complete, in accordance with the Contract Documents and as directed by EVMWD. The Contractor is required to survey the installed pipeline and provide centerline coordinates for the valves and appurtenances.

2.3 SCHEDULE B - BID ALTERNATES

2.3.1 BID ITEM NO. B1 - 42-INCH BUTTERFLY VALVE (CLASS 350) (UNIT PRICE)

Payment for 42-inch Butterfly Valve (Class 350) shall be made at the contract unit price, complete and in accordance with the Contract Documents and as directed by EVMWD. The contract price for work under this item shall include, but not be limited to, furnishing all labor, material, tools and equipment, and performing all work required for the installation of 42-inch butterfly valve, including but not limited to valve, valve stem, valve can, valve supports, valve actuator, coatings, linings, corrosion protection, testing, gaskets, nuts, bolts, concrete, and incidentals required for full complete installation of the valve, all other work necessary to complete this item of work as described in the Contract Documents and EVMWD's Standard Detail.

EVMWD reserves the right to vary quantities plus or minus 100% using the bid unit price. These adjustments are considered to be within the original contract scope and as such will not be considered as a basis for extra work, extra cost, or extra time.

2.3.2 BID ALTERNATE ITEM NO. B2 - OVEREXCAVATION AND REPLACEMENT OF UNSUITABLE MATERIAL (UNIT PRICE)

Payment for Overexcavation and Replacement of Unsuitable Material shall be made at the contract unit price, complete and in accordance with the Contract Documents and as directed by EVMWD. The contract price for work under this item shall include, but not be limited to, furnishing all labor, materials, tools and equipment, and performing work required for excavation, and over-excavation of trench, replacement and compaction of crushed rock, placement of geotextiles in accordance with product manufacturer's recommendations and the Approved Plans, removal, storage, disposal, stockpiling, transporting off-site, and all work required for legally disposing of unsuitable soil material encountered during execution of the work, and all other work necessary to complete this item of work as described in the Contract Documents. EVMWD reserves the right to vary quantities plus or minus 100% using the bid unit price to accommodate conditions encountered in the field. These adjustments are considered to be within the original contract scope and as such will not be considered as a basis for extra work, extra cost, or extra time.

This item shall be required when directed by the Engineer and includes up to 24-inches of overexcavation beyond that included elsewhere in the Contract Documents. Contractor shall not overexcavate the trench without prior approval and Contractor shall not be compensated unless approval has been granted in advance of performing overexcavation.

PART 3 - EXECUTION

3.1 SEQUENCE OF WORK

A. Relocation of the 42-inch TVP pipeline shall only occur in the month of January. The Contractor shall execute the relocation work within ten (10) working days from when the two existing 42-inch butterfly valves are shut to when the 42-inch waterline is complete, in its entirety, reenergized, online, and accepted by EVMWD. No exceptions or extensions to the ten (10) working days shall be allowed.

B. The Contractor shall provide EVMWD with a written schedule showing, at minimum, with begin and end dates, the following sequence of work:

- a. Contractor shall field locate the existing 42-inch butterfly valves and pipeline appurtenances, including the 6-in air release/vacuum valves and 6-in blowoffs, that will be utilized to drain approximately 5,700 linear feet of existing 42-inch TVP pipeline. Approximate locations of existing appurtenances are provided on the Approved Plans (DWG UD-5).

- b. Contractor shall utilize the "EXHIBIT A – SAMPLE NOI LETTER" to prepare and submit a Notice of Intent (NOI) to the Santa Ana Regional Water Quality Review Board for the de Minimus permit. Contractor shall provide a copy of the approved permit to EVMWD granting the Contractor approval to discharge the potable water when draining the existing 42-inch pipeline prior to scheduling the relocation work.

- c. Contractor shall pothole all existing utilities as required on the Approved Plans (DWG UD-5). Contractor's Potholing Report shall be approved by EVMWD confirming the design prior to Submittals.

- d. Contractor shall provide Submittals to EVMWD and receive complete approval, "NO EXCEPTIONS TAKEN" for all Submittals related to the relocation work, as indicated herein, and as required in EVMWD Standards, Approved Plans, and Specifications. Contractor shall receive approval by EVMWD of all Submittals prior to ordering materials.

- e. Contractor shall provide EVMWD, in writing, a schedule of the onsite fabrication of the steel pipe for inspection purposes.

- f. Contractor shall provide EVMWD written notice, within 24-hours of delivery, that approved materials were delivered and are available for on-site inspection and approval by EVMWD. Contractor shall receive approval by EVMWD of delivered materials prior to construction.

- g. Contractor shall execute the relocation per the approved plan as approved by EVMWD.

- h. Contractor shall survey installed work for Record Drawings and receive approval by EVMWD of completed installation prior to backfilling.

- i. Contractor shall refer to EVMWD's Testing Protocol and Specification Section 15044 for hydrostatic pressure testing and disinfection as required on the Approved Plans. Contractor shall perform all testing and receive approval by EVMWD prior to connecting to the existing 42-inch TVP pipeline.

- j. Contractor shall provide EVMWD written notice 48-hours in advance of installing the connections and shall not proceed with connections without the presence of EVMWD's inspector. Contractor shall install connections as

SECTION 01010 - SUMMARY OF WORK

required in EVMWD Standards, Approved Plans, and Specifications. Contractor shall survey installed work for Record Drawings and receive approval by EVMWD of completed work prior to backfilling.

k. Contractor shall provide EVMWD a written request to reenergize the 42-inch TVP pipeline. Contractor shall complete final inspections and receive final approval from EVMWD prior to acceptance of this portion of the work.

**\*\*END OF SECTION\*\***



XXXX XX, 2018

State Water Resources Control Board  
Division of Water Quality  
NPDES Permitting Unit  
1001 I Street, 15<sup>th</sup> Floor  
Sacramento, CA 95814

**Subject:** Notice of Intent for Planned Discharges of the XXX Project in Wildomar, California

To Whom It May Concern:

This letter is intended to address discharging procedures for the well and pump development activities of the Palomar Well No. 2 maintained by Eisinore Valley Municipal Water District. The Palomar Well No. 2 is located along Timothy Lane, approximately 200 feet east of Palomar Road, respectively, in the City of Wildomar, California (see Figure 1). Contractor Name has been tasked to perform this well development work. This work will include redevelopment of the wells by swabbing and airlifting, as well as pump development and aquifer pump testing which will require discharge of waste fluids to an onsite sewer line and adjacent storm drains, respectively.

**Discharge to Sewer During Initial Well Development by Swab and Airlift**

During the initial redevelopment of each well by swab and airlift, it is anticipated that waste fluids generated from the well will be highly turbid. Therefore, Contractor Name intends to convey waste fluids to a 21,000-gal settling tank where solid material can settle and residual acid can be neutralized before being discharged. Discharge of this waste fluid will be hauled off to a XXX Station for disposal. It is anticipated that approximately XX hours of initial development by swabbing and airlifting will occur at discharge rates of approximately XXX to XXX gallons per minute (gpm). It should be noted that if water generated from the wells cleans up faster than anticipated, these total volumes could be less. This work is scheduled to occur between XXXX XX and XXXX XX, 2018.

**Discharge to Storm Drain during Final Pump Development**

Following initial redevelopment by swabbing and airlift, final development by pumping and surging will be performed at each well. It is anticipated that approximately XX to XX hours of redevelopment by pumping and surging will be performed at each well at rates ranging from XXX to XXX gpm. This work is followed by up to XX hours of aquifer pumping tests at rates ranging from XXX to XXX gpm. This work is scheduled to begin XXXX XX, 2018 and be completed by XXXX XX, 2018.

During final development and aquifer testing activities, waste fluids generated will initially be conveyed to onsite storage tanks until the water being generated meets acceptable levels to be discharged

**“EXHIBIT A – SAMPLE NOI LETTER”**

XXXXXX XX, 2018

State Water Resources Control Board  
Division of Water Quality  
NPDES Permitting Unit  
1001 I Street, 15<sup>th</sup> Floor  
Sacramento, CA 95814

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**Discharge to Storm Drain during Final Pump Development**

Following initial redevelopment by swabbing and airlift, final development by pumping and surging will be performed at each well. It is anticipated that approximately XX to XX hours of redevelopment by pumping and surging will be performed at each well at rates ranging from XXX to XXX gpm. This work is followed by up to XX hours of aquifer pumping tests at rates ranging from XXX to XXX gpm. This work is scheduled to begin XXXX XX, 2018 and be completed by XXXX XX, 2018.

During final development and aquifer testing activities, waste fluids generated will initially be conveyed to onsite storage tanks until the water being generated meets acceptable levels to be discharged

through an existing well flushing pipeline to the locations shown in Figure 1. Monitoring and reporting protocols will be in accordance with Attachment E of the Statewide General NPDES Permit and detailed in the Tables E-1 and E-2 below.

**Table E-1. Event Monitoring of Superchlorinated Discharges, Well Development and/or Rehabilitation, and Individual Discharge Events Greater than 325,850 Gallons**

Parameter	Units	Sampling <sup>2</sup>	Sample Type
Chlorine, Total Residual <sup>1,3,4</sup>	mg/L	1/Event	Grab <sup>1</sup>
Volume	Gallons	1/Event	Estimate <sup>5</sup>
pH <sup>6</sup>	Standard Units	1/Event	Grab
Turbidity	NTU	1/Event	Visual Estimate
Turbidity for Well Development and/or Rehabilitation Only <sup>7</sup>	NTU	1/Event	Grab <sup>1</sup>

<sup>1</sup> A handheld field meter shall be used, provided the meter utilizes a US EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. The Discharger shall maintain a calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program.  
<sup>2</sup> Sampling shall take place downstream of management practices, as feasible.  
<sup>3</sup> Total chlorine shall be monitored with a method sensitive to and accurate at a minimum level of 0.1 mg/L. False positives are acceptable if explanation of the cause is included.  
<sup>4</sup> Total Chlorine Residual monitoring is not required of non-chlorinated discharges.  
<sup>5</sup> Calculated estimate using available meter reading information or visual estimate.  
<sup>6</sup> pH monitoring is required for Superchlorinated discharges only.

**Table E-2. Event Monitoring of Superchlorinated Discharges, Well Development and/or Rehabilitation, and Individual Discharge Events Greater than 325,850 Gallons**

Duration of Discharge	Sampling Requirements
Less than 20 minutes	One sample is required during the first 10 minutes of the discharge.
20 minutes to 60 minutes	One sample is required during the first 10 minutes of the discharge, plus a second sample is required within the last 10 minutes of the discharge.
Greater than 60 minutes	One sample is required within the first 10 minutes, a second sample is required within the next 50 minutes, and a third sample is required approximately within the last 10 minutes of the discharge or as close to the end as is feasible.

Tables 3 provide estimated daily and total discharge to the storm drain for Palomar Well No. 2 during the course of final development and testing.

**Table 3 - Summary of Estimated Discharges for Palomar Well No. 2 Redevelopment by Pumping and Surging and Aquifer Testing**

Task / Discharge Event	Duration Work Days	Hours	Discharge Rate (gpm)	Discharge (gpd)
Final Development Pumping				
Day 1	X	X	XXX	XXX
Step Drawdown Testing				
Day 1	X	X	XXX	XXX
Constant Rate Test				
Day 1	X	X	XXX	XXX
Day 1	X	X	XXX	XXX
TOTAL:	X	X		XXX

Should you have any questions, please do not hesitate to call me at (XXX) XXX-XXX.

Sincerely,

Name and signature

SECTION 15044 - HYDROSTATIC TESTING OF PRESSURE PIPE

PART 1 - GENERAL

1.1 WORK OF THIS SECTION

The Work of this Section shall include, but not be limited to, furnishing all labor, materials, tools, and equipment required for hydrostatic testing of pressure pipe, for the Work shown in the Approved Plans and described in the Contract Documents.

Contractor shall refer to the Approved Plans for test pressure.

1.2 CONTRACTOR SUBMITTALS

A. CONTRACTOR'S Testing Plan shall be submitted prior to testing. The Plan shall include, at minimum, the following:

- a. Testing dates.
- b. Piping systems and section(s) to be tested.
- c. Test type.
- d. Method of isolation.
- e. Calculation of maximum allowable leakage for piping section(s) to be tested.

B. Certifications of Calibration: Testing equipment.

C. Certified Test Report.

PART 2 - MATERIALS (NOT USED)

PART 3 - EXECUTION

3.1 NOTIFICATION

A. Notify ENGINEER in writing five (5) working days in advance of testing. Perform testing in presence of ENGINEER.

3.2 PRESSURE TESTING

A. General:

- 1. Complete installation of piping system, including all thrust restraint, prior to pressure testing.
  - a. If thrust blocking is specified, wait 5 days minimum after concrete thrust blocking is installed to perform pressure tests. If high-early strength cement is used for thrust blocking, wait may be reduced to 2 days.
- 2. **Hydrostatic testing against valves shall not be permitted.**
- 3. Prior to test, remove and replace with pipe spools or suitably isolate appurtenant instruments or devices that could be damaged by pressure testing.

TEMESCAL CANYON ROAD WIDENING PROJECT  
 RELOCATION OF EVMWD EXIST 42" TVP POTABLE WATERLINE  
 HYDROSTATIC TESTING  
 OF PRESSURE PIPE  
 SECTION 15044 - 1 of 3

SECTION 15044 - HYDROSTATIC TESTING OF PRESSURE PIPE

4. New Piping Connected to Existing Piping: Isolate new piping with grooved-end pipe caps, spectacle blinds, blind flanges, or as acceptable to ENGINEER.
5. Piping to be Pressure Tested and Test Pressure: as indicated on Piping Schedule.
6. CONTRACTOR is responsible for obtaining, legally disposing of, and paying for the necessary test water. This includes securing the construction meter from the appropriate Agency.

B.

1. Fluid: Clean, potable water.
2. Pipeline Protection:
  - a. Maximum Filling Velocity: 0.25 foot per second, applied over full area of pipe.
  - b. Vent piping during filling. Open vents at high points of piping system or loosen flanges, using at least four bolts, or use equipment vents to purge air pockets.
3. Exposed Piping:
  - a. Perform testing on insulated piping prior to application of insulation. Maintain hydrostatic test pressure continuously for 60 minutes, minimum, and for such additional time as necessary to conduct examinations for leakage.
  - c. Examine joints and connections for leakage.
    - 1) Correct visible leakage and retest as specified.
    - 2) Empty pipe of water prior to final cleaning or disinfection.

4. Buried Piping:
  - a. Test after backfilling has been completed.
  - b. Expel air from piping system during filling.
  - c. Apply and maintain specified test pressure with hydraulic force pump. Valve off piping system when test pressure is reached.
  - d. Maintain hydrostatic test pressure continuously for 2 hours minimum, reopening isolation valve only as necessary to restore test pressure.
  - e. Determine actual leakage by measuring quantity of water necessary to maintain specified test pressure for duration of test.
  - f. Maximum Allowable Leakage:
 
$$L = \frac{SD(P)^{1/2}}{133,200}$$

where:

- L = Allowable leakage, in gallons per hour.
  - S = Length of pipe tested, in feet.
  - D = Nominal diameter of pipe, in inches.
  - P = Test pressure during leakage test, in pounds per square inch.
- g. Correct leakage greater than allowable, and retest as specified.

A. All pressure tests shall be witnessed by ENGINEER. CONTRACTOR shall keep a pipe pressure testing log to document the pressure testing and ENGINEER'S acceptance of such.

1. Specific details of the contents and format pipe pressure testing log shall be determined by the CONTRACTOR and accepted by the ENGINEER.
2. At a minimum, pipe pressure testing log shall record, on a daily basis for any day when pipe pressure testing is performed:
  - a. Test Report Documentation:
    - 1) Test date.
    - 2) Description and identification of piping tested.
    - 3) Test fluid.
    - 4) Test pressure.
    - 5) Remarks, including:
      - a) Leaks (type, location).
      - b) Repair/replacement performed to remedy excessive leakage.

3. Pipe pressure testing log shall be kept on-site. Pipe pressure testing log shall be signed on a daily basis, for any day when pipe pressure testing log work is performed, by the supervisor of the CONTRACTOR's field crew and by the ENGINEER.
4. Any piping system which was pressure tested, but which was not recorded in the pipe pressure testing log shall be re-tested at the ENGINEER'S discretion at the CONTRACTOR'S expense.

**\*\*END OF SECTION\*\***

TEMESCAL CANYON ROAD WIDENING PROJECT  
 RELOCATION OF EVMWD EXIST 42" TYP POTABLE WATERLINE

HYDROSTATIC TESTING  
 OF PRESSURE PIPE  
 SECTION 15044 - 3 of 3



SECTION 15076 – CEMENT-MORTAR LINED AND COATED (CML&C) STEEL PIPE

PART 1 – GENERAL

1.1 WORK OF THIS SECTION

A. The Work of this Section shall include, but not be limited to, furnishing all labor, materials, tools, and equipment required to install 6-inch and larger above ground or buried steel piping, for the Work shown in the Approved Plans and described in the Contract Documents.

B. Contractor shall supply, deliver, and install all miscellaneous piping, fittings, and appurtenances (regardless of size) including services. This shall include, but not be limited to, welding inside and outside joints, installation of harnessing and special couplings, mortar linings, and tape wrap or coating systems outside of all pipe (except at valves that may have flanged ends) complete as shown in the Approved Plans and described in the Contract Documents.

0.1 RELATED WORK SPECIFIED ELSEWHERE

The Work of the following Sections also applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.

A. Section 15044 – Hydrostatic Testing of Pressure Pipelines

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

1. American Water Works Association (AWWA)
  - a. AWWA C200 - Steel Water Pipe-6 in. (150 mm) and Larger
  - b. AWWA C203 – Coal-Tar Protective Coatings and Linings for Steel Water Pipelines – Enamel and Tape – Hot Applied
  - c. AWWA C205 - Cement-Mortar Protective Lining and Coating for Steel Water Pipe -4 in. (100 mm) and Larger - Shop Applied
  - d. AWWA C206 - Field Welding of Steel Water Pipe
  - e. AWWA C207 - Steel Pipe Flanges for Waterworks Service - Sizes 4 in. Through 144 in
  - f. AWWA C208 - Dimensions for Fabricated Steel Water Pipe Fittings
  - g. AWWA C209 - Cold-Applied Tape Coatings for Steel Water Pipe, Special Sections, Connections, and Fittings
  - h. AWWA C214 - Tape Coating Systems for Steel Water Pipe
  - i. AWWA C222 – Polyurethane Coatings for Interior and Exterior of Steel Water Pipe and Fittings
  - j. AWWA M11 - Steel Water Pipe - A Guide for Design and Installation (Manual of Water Supply Practices)
2. American Society for Testing and Materials (ASTM)
  - a. ASTM A36 - Standard Specification for Carbon Structural Steel
  - b. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

TEMESCAL CANYON ROAD WIDENING PROJECT  
 RELOCATION OF EVMWD EXIST 42" TYP POTABLE WATERLINE  
 CEMENT-MORTAR LINED AND COATED (CML&C) STEEL PIPE  
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- c. ASTM A139 - Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe (NPS 4 and Over)
- d. ASTM A1011 Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength
- e. ASTM A1018 Standard Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Carbon, Commercial, Drawing, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength
- 3. American National Standards Institute (ANSI)
  - a. ANSI B16.5 - Steel Pipe Flanges and Flanged Fittings
  - b. ANSI B16.9 - Factory-Made Wrought Steel Butt Welding Fittings

1.4 CONTRACTOR SUBMITTALS

A. Shop Drawings:

- 1. Product data sheets for each piping system.
  - a. Include information on pipe, fittings and joint systems. Complete catalog information, descriptive literature, specifications, and identification of materials of construction.
  - 3. Complete descriptions and data for all linings and coatings.
  - 4. Tests and inspection data for pipe and linings and coatings.
  - 5. Pipeline Layout schedule and details shall include:
    - a. Complete and dimensional working drawings of all pipe layouts, including pipe stationing, invert elevation at changes in grade or horizontal alignment, all elements of curves and bends, both in horizontal alignment and vertical position.
    - b. The grade of material; size, wall thickness of the pipe and fittings; type and location of fittings, specials, and valves; and the type and limits of the lining, lining reinforcing, and coating systems of the pipe and fittings. Methods and procedures recommended by the coating manufacturer shall be documented, particularly, as it pertains to minimizing voids at weld seams, application procedures, and locations of weld seam tape if required. Seam tape is not required if the manufacturer can demonstrate adequate control of weld bead height. Maximum weld seam height will be 1/16-in. Submit affidavit of compliance that tape coating systems comply with reference standards (AWWA C214 or C209, as applicable).
    - c. Joint details; methods, and locations of supports; and complete information concerning type, size, and location of all welds. Shop and field welds shall be clearly differentiated, and welds will be clearly detailed with preparation procedures for all pipe and parent metal comprising each weld. Critical welding procedures shall be identified along with methods for controlling welding stresses and distortions. Locations and proposed joint details or butt straps used to control temperature stresses in the shop and field shall also be clearly identified.

d. Small outlets; complete details and dimensions; reinforcement calculations; materials; coatings; linings; reinforcements; wall thickness, shall also be clearly identified.

6. Stilling  
 a. The details of the stilling assembly shall be submitted for review by the CONTRACTOR prior to the start of pipe manufacture.

B. Prior to each shipment of pipe, submit certified copies of mill tests confirming the type of materials used in steel plates, mill pipe flanges, and shop testing of pipe to show compliance with the requirements of the applicable standards, along with an affidavit of compliance that the pipe linings and coatings comply with the referenced standards.

1.5 QUALITY ASSURANCE

A. The materials specified under this Section shall be furnished by a manufacturer who has the following experience, qualifications, and has been engaged in the design and supply of (or fabrication) of the items to be furnished as specified below. The manufacturer submitted shall meet the following minimum criteria:

1. Certification by the Steel Plate Fabricators Association (SPFA) or certification under International Standards Organization (ISO) quality control standards at the discretion of the ENGINEER.
2. Experience that includes successful fabrication (followed by installation, acceptance and service) to AWWA C200 standards of at least 10,000-lineal-feet of 4-in diameter or larger pipe, with wall thickness of 0.25-in or greater, within the past 5 years. Qualifying experience shall be provided by the specific plant facility manufacturing pipe specified herein.
3. Experience that includes successful fabrication (followed by installation, acceptance, and service) of at least 50 fittings in compliance with AWWA C208 standards with similar linings and coatings and wall thickness as the adjacent pipe, within the past 5 years. Qualifying experience shall be provided by the specific plant facility manufacturing pipe specified herein.

B. All fabricated pipe and associated fittings described in this Section shall be designed and supplied by a single manufacturer. No exceptions shall be allowed.

C. Material tests shall be performed and all costs associated with such test shall be paid for by the CONTRACTOR. The OWNER'S Representative may witness all testing conducted on pipe or materials used in manufacture and fabrication. OWNER may request additional samples of material such as concrete, lining, coating, etc. for independent testing and all costs associated with furnishing and conducting such testing shall be paid for by the CONTRACTOR.

D. Design calculations for pipe and fittings including wall thickness and stress analysis shall be submitted. Calculations shall be signed and sealed by a professional engineer registered in the State of California.

E. All automatic and manual welding procedures used in fabrication of pipe, fittings, and appurtenances shall be prequalified under ANSI/ASME Boiler and Pressure Vessel Code or AWS B2.1. Welders shall be qualified under the provisions of AWS D1.1 and AWWA C206 by an independent local, approved testing agency in advance of any pipe production.

F. In addition to the tests required in AWWA C200, a minimum of two weld tests shall be conducted and paid for by the CONTRACTOR.

G. ENGINEER and/or OWNER will inspect the pipe and fittings after delivery to ensure compliance with the Contract Documents. The pipe and fittings shall be subject to rejection at any time shall the ENGINEER find that the pipe or fittings failed to meet any of the requirements specified herein, even though sample pipe and fittings may have been accepted as satisfactory at the place of manufacture. Pipe rejected after delivery (including for defects from manufacturing or delivery/transportation) shall be marked for identification and shall be removed from the job at once and replace pipe and fittings and paid for by the CONTRACTOR.

H. Shop Testing  
 All straight pipe sections shall be hydrostatically tested at the place of manufacturer to the test pressures determined by AWWA C200 after fabrication and prior to application of the specified protective coatings or wrappings. Other nondestructive shop test methods approved by the ENGINEER may be used in lieu of hydrostatic testing of fittings and specials. If the fittings are made from hydrostatically tested pipe then only NSF approved dye testing or wet magnetic particle testing, in compliance with ASTM E709, of the welds is required.

1.6 SYSTEM DESCRIPTION

A. Dimensions and elevations for all buried and above grade piping shall be field verified by the CONTRACTOR.  
 B. Minimum test pressure shall be as noted in the Contract Documents.  
 C. CONTRACTOR shall be responsible for ensuring compatibility between pipe, flanges, valves, etc. All flanges and valves shall be AWWA Class F.

1.7 MARKINGS, HANDLING, AND STORAGE

A. Legibly mark all pipes, fittings, specials, and appurtenances to be consistent with laying schedule and marking drawings. Each pipe shall be identified with sequential numbering and each marked pipe shall match the shop drawings corresponding to the identified locations for installation. Special fittings, bends, and appurtenances requiring a specific orientation shall be appropriately marked with the words "TOP" in the correct position and in the corresponding location.

B. CONTRACTOR shall exercise care when loading, transporting, and unloading to prevent damage to the pipe, coatings, and linings. CONTRACTOR shall refer to AWWA C214 and/or C222 and the referenced AWWA manual for shipping.

- C. All pipe and fittings shall be thoroughly cleaned and shall be kept clean until they are used in the work.
- D. Coated and lined pipe shall be suitably protected from exposure and heating of the sun at all times following procedures recommended by the coating system manufacturer. Exposure shall not be allowed (except for short periods such as installation, assembly, and coating repairs).
- E. CONTRACTOR shall follow recommended procedure by the manufacturer for handling the pipe.

**PART 2 – MATERIALS**

**2.1 MORTAR LINING AND COATING**

- A. Cement used in mortar lining and coating shall be Portland Cement per ASTM C150, Type V for coating and Type II or Type V for lining.
- B. Cement mortar shall be reinforced in accordance with AWWA C205.
- C. Cement mortar lining thickness shall be in accordance with AWWA C205.
- D. NSF Certification – All materials which may be in contact drinking water shall be in compliance with NSF/ANSI 61, Drinking Water System Component.

**2.2 STEEL PIPE, FITTINGS, AND SPECIALS**

- A. Steel pipe and specials shall be fabricated in accordance with AWWA C200 and C208 for minimum fitting dimensions and AWWA M11, unless modified herein.
- B. Steel plate for fabricated cylinders shall conform to ASTM A 36/ 36M, ASTM A 1011/A 1011M, Grade 36, or ASTM A 1018/A 1018 M, Grade 36 with carbon content of 0.25% maximum. Use steel plate and sheet having a thickness with a maximum allowable variation of not more than 0.01-inch less than the minimum thickness specified.
- C. Steel plates shall be manufactured using continuous casting process.

D. All fittings and specials shall be the same material and thickness as the adjoining steel pipe.

2.3 METHOD OF MANUFACTURE

A. Fabricated Steel Pipe:

1. Except for seamless mill-type pipe, all piping shall be made from steel plates rolled into cylinders or sections thereof with not more than two longitudinal butt-welded seams or shall be spirally formed and butt welded. Girth seams shall be butt welded and shall not be closer than 6-ft except in specials and fittings. All welding shall utilize an approved electro-fusion weld process.
2. Pipe shall be furnished principally in 40-ft net laying lengths with special lengths as required.

2.4 WALL THICKNESS DESIGN

- A. Wall Thickness - Steel pipe 6-in diameter or greater.
  1. Fabricated steel pipe shall be designed in accordance with the latest edition of AWWA M11.
  2. Wall thickness design shall be based on:
    - a. Operating pressures shown on the Plans
    - b. Maximum external loads for buried pipe design shall include HS-20 and Cooper E-80 (where applicable) loading at minimum earth cover
    - c. Maximum soil density as per the Geotechnical report
    - d. Deflection calculation based on the modified Iowa formula per AWWA M11
  3. In no case shall wall thickness be less than indicated on the Plans, based on yield strength of steel no greater than 42 ksi.
  4. Bends, fittings, branch connections, wall pieces with integral thrust flange, and special sections where fabricated shall be reinforced or shall have their shell thickness increased so that the combined stresses due to operations and/or testing are in accordance with the requirements noted above.
  - B. Diameter. Nominal pipe diameter shall be as shown on the Plans. The inside diameter after lining shall not be less than the nominal diameter specified or shown.

2.4 FITTINGS/JOINTS

- A. General
  1. Fittings and specials shall be fabricated in accordance with AWWA C200 including nondestructive testing by NSF approved dye penetrant or wet magnetic particle testing of welds not previously tested in the straight pipe. Fittings shall conform to the dimensions of AWWA C208 or may be fabricated into standard pipe lengths.
  2. Angles up to 5 degrees may be accomplished using joint deflections or mitered end joints as proposed by the manufacturer. Elbows 5- to 22-1/2-

- degrees shall be two piece, greater than 22-1/2- to 45-degrees shall be three piece, greater than 45 to 67-1/2-degrees shall be four piece, and greater than 67-1/2- to 90-degrees shall be five piece.
- 4. All tees, laterals, and outlets shall be reinforced in accordance with AWWA M11.
- 5. Fittings and specials not detailed on the Plans shall conform to the details furnished by the CONTRACTOR as approved by the ENGINEER.

- B. Flanged Connections
  - 1. Flanges shall be provided at all valve connections and as otherwise indicated on the Plans.
  - 2. Flanges and gaskets shall be capable of meeting or exceeding the operating and test pressures cited in the pipe schedule on the Plans.
  - 3. Use AWWA Class F steel flanges for pipe diameters 26 through 42 inches. Coordinate flange connections with mating surfaces.
  - 4. Flanges of all classes shall be flat-faced and coated, without projection or raised face. Either a serrated concentric or serrated spiral finish having at least four (4) grooves finish shall be used to aid in gasket retention per MSS SP-6.
  - 5. All flanges, after welding to the pipe, shall be measured and shall be refaced, if necessary, to bring them within the specified tolerances. Flanges shall only be welded in the shop.
  - 6. Bolts and hardware shall be ASTM A193, Grade B7 and ASTM A194, Grade 2H (nuts), installed length to project approximately 1/2-in beyond surface of nuts.
  - 7. Use proper lubricants, washers and torque procedures in assembly of flanges in accordance with AWWA M11.
  - 8. Flange insulating kits shall be utilized between all dissimilar metals and where otherwise noted.

- C. Field Welded/Fabricated Joints
  - 1. General:
    - b. Butt-welded fittings shall comply with ANSI B16.9.
    - c. Wrought carbon steel fittings of seamless or welded construction shall comply with ASTM A234.
    - d. Fabricated steel fittings shall comply with AWWA C-200, shall be of the same material as pipe, and shall comply with AWWA C208.
    - e. For field welded joints, design stresses shall not exceed 50 percent of specified minimum yield strength of the grade of steel utilized for the part being examined when longitudinal thrust is assumed to be uniformly distributed around the circumference of the joint.
  - 2. Thermal Control:
    - a. Unless otherwise allowed, control of thermal stresses shall consist of proper temperature control and shading unbackfilled weld joints and use of controlled closure welds. Properly supported awnings or other suitable materials shall be used to protect all unbackfilled joint areas for a minimum period of 2 hours prior to beginning the welding operations and until the weld has been completed. Good air circulation shall be maintained around the pipe throughout the



shading period. Shading may be eliminated when ambient air temperatures drop below 45 degrees F.

3. Butt Straps:
  - a. Butt straps shall conform with AWWA C200 and C206 and the thickness and material shall be the same as the adjoining wall, but not less than 10 gauge (0.14") and a minimum width of 10". Straps shall be fabricated to snugly fit over the plain pipe ends, and shall be centered over the ends of the pipe sections to be joined. Weld one or more standard 5", 3000 lb threaded half-couplings to the butt strap section as shown on the Approved Plans. Provide two couplings for pipes 18" and larger. Provide a threaded steel plug for each half-coupling as shown on the Approved Plans.
  - b. Prior to butt-strap welding, the pipe and pipe joint shall be properly positioned in the trench using line-up dams so that, in the finished joint, the abutting pipe sections shall not be misaligned by more than 1/16".

2.5 SMALL BRANCH CONNECTIONS

- A. Outlets shall be designed per AWWA M11 and as a minimum shall conform to the pressure rating, grade of steel and cylinder thickness of the adjoining standard pipe sections. Reinforcing collars, wrappers, croch plates, and anchor rings shall be designed and fabricated per AWWA M11.

- B. Outlets may be built into the wall of the pipe or may be fabricated as steel plate specials. Outlets to be installed on straight pipe lengths shall be welded to the steel cylinder of the pipe prior to application of mortar coating to the cylinder. Outlets shall use a tee or nozzle with a flanged outlet. All outlets shall be provided with steel reinforcing collars, wrapper plates, or croch plates per AWWA M11. At the option of the manufacturer, wrappers may be used in place of collars, and croch plates may be used in place of collars or wrappers. Pipe couplings shall not be used for outlets.

- C. All outlets, including appurtenance piping, fittings, valves, and flanges for appurtenances, in their entirety, shall be rated for the same test pressure as indicated on the Approved Plans for the main line test pressure.

2.6 SUPPLEMENTAL RESTRAINED JOINTS ON STEEL PIPE

- A. Where harnesses are required for sleeve-type couplings, they shall be in accordance with the requirements of AWWA M-11 as modified on the Plans. Pipe ends for mechanical couplings shall conform to AWWA C200 and in accordance with manufacturers' recommendations. The shop applied outside coating shall be held back as required for field assembly of the mechanical coupling or to harness lugs and rings. Harness lugs or rings and pipe ends shall be painted with field joint coating materials same as the pipeline. The inside lining shall be continuous to the end of the pipe.

2.7 SHOP LININGS AND COATINGS, SURFACE PREPARATION

A. Fittings, specials and joints that cannot be machine coated, shall be coated in accordance with AWWA C209. Alternate coating methods for fittings, specials and field joints are shrink sleeves per AWWA C216, fusion bond epoxy per AWWA C213, or polyurethane per AWWA C222.

2.8 STULLING

1. The manufacturer shall provide adequate struts and cross bracing on all specials, fittings, and straight pipe so as to avoid damage to the pipe and fittings during handling, storage, and hauling.

2. Prior to placement of pipe in the trench, each section of pipe shall be stilled with timber stulls, each consisting of a timber struct provided with end blocks shaped to fit the interior surface of the pipe.

3. Pipe to be encased in concrete or steel casing, including bends and steel-plate specials shall be braced to prevent distortion and in such a manner that the diameter of the pipe shall not vary more than 0.5 percent from the specified diameter. These supports shall remain in place until their removal is authorized by the ENGINEER.

4. The CONTRACTOR and manufacturer shall determine the dimensions, spacing, and configuration of stulls in order to resist transport and backfill loads encountered without structural failure of the still members or damage to the pipe coating or lining.

5. The details of the stulling assembly shall be submitted for review by the CONTRACTOR prior to the start of pipe manufacture.

6. Any pipe damaged during handling, hauling, storage, or unloading due to improper stulling shall be repaired or replaced.

PART 3 – EXECUTION

3.1 GENERAL

A. All piping and fittings shall be installed in accordance with referenced standards, including the referenced AWWA manual, unless modified herein, true to alignment and supports, anchorage and thrust restraints shall be provided where required. If any defective pipe is discovered after it has been installed it shall be removed and replaced with a sound pipe in a satisfactory manner. Each length of pipe shall be cleaned out before installation.

B. When cutting of pipe is required and acceptable to the ENGINEER, the cutting shall be done by machine in a neat workmanlike manner without damage to the pipe. Cut

ends shall be smooth and at right angle to the axis of the pipe and lining and coatings repaired.

3.2 CONNECTION OF PIPE JOINTS

- A. Threaded:
  - 1. Comply with ANSI B2.1, NPT.
  - 2. Cut threads full and clean with sharp dies, with not more than three threads exposed at each connection.
  - 3. Ream ends of pipe after threading and before assembly to remove burrs.
  - 4. Use joint compound or thread tape on male threads only. After having been set up, a joint must not be backed off unless the joint is completely broken, the threads cleaned, and new compound applied.
- B. Welded:
  - 1. General:
    - a. All field welding shall be in accordance with the American Welding Society Standards performed by welders certified under the provisions of AWS D1.1. Welding and welder qualifications shall also conform to the requirements of AWWA C206, the latest revision. The field weld shall develop the full yield strength of the pipe.
    - b. During welding, the coating shall be protected by draping an 18-in wide strip of heat resistant material over the top half of the pipe on each side of the coating holdback to avoid damage to the coating by hot weld splatter. No welding ground shall be made on the coated part of the pipe.
    - c. Prior to welding, the pipes and pipe joints shall be properly positioned in the trench and backfilled sufficiently to prevent pipe movement (carefully avoiding the deposit of any backfill in the joints). Any tack welds used to position the pipe shall be removed and any annular space between the facing surfaces of the bell and spigot shall be equally distributed around the circumference of the joint. As welding progresses, the metal shall be deposited in successive layers so that there will be at least two passes or beads in the completed welds. Not more than 1/4-in of metal shall be deposited on each pass. Each individual pass, including the final one, shall be thoroughly cleaned by wire brushing and/or hammering to remove dirt, slag, or flux. Automatic welds shall provide a single pass 3/8-in fillet weld that fully develops the strength of the adjacent joints of pipe.
    - d. Welding shall not be performed under any weather condition that would impair the strength of the weld, such as wet surface, rain or snow, dust or high winds, unless the work is properly protected and the appropriate preheating is performed.
  - 2. Lap Welded:
    - a. Preheating procedures for both lap and fillet welds shall be adhered to as stated in AWWA C206 and particular attention will be given to proper head control for pipe of wall thicknesses exceeding 1/2-in.
    - b. All welds shall be sound and free from embedded scale or slag, shall have tensile strength across the weld not less than that of the thinner

of the connected sections, and shall be watertight. All field welds shall comply with AWWA C206.

- 3. Butt Straps:
  - a. Butt strap closure joints shall be installed where shown on the Approved Plans in accordance with AWWA C206.
  - b. Butt straps shall be field welded to the outside plain end of the pipe along both edges with a full circumferential weld. A minimum of two weld passes shall be used.
  - c. The interior of the joints shall be filled with a rapid-set mortar and finished off smoothly to match the pipe interior diameter.
  - d. Joints shall be wrapped in accordance with AWWA C209. The joints shall be cleaned, primed and wrapped with two wraps of tape with a 35-mil thickness each and holiday tested.
  - d. Seal weld the steel plug to the hand hole after the interior of the joint has been inspected and approved by EVMWD.

- C. Flanged
  - 1. Tighten flange bolts so gasket is uniformly compressed and sealed. Do not distort flanges. Do not over torque flange bolts to achieve seal and follow procedures in AWWA M-11.
  - 2. Leave flange bolts with ends projecting approximately 1/2-in beyond face of nut after tightening.

- D. Pipe ends, linings, and coatings.
  - 1. After installation of pipe, fittings, and specials, all unlined or uncoated ends adjacent to welded field joints, including the weld proper, shall be cleaned, primed, and lined and coated as specified for the pipe adjacent to the weld.
  - 2. Preparation of surfaces to be lined and coated shall be as stipulated for shop application of coal tar primers and enamels in AWWA C203 except that all foreign matter, including all damaged lining or coating materials, shall be removed by scraping, chipping, or brushing and the surfaces cleaned to bright metal free of all rust, slag, and scale by means of wire brushing or sandblasting.
  - 3. Linings shall be made continuous across all joints. Where cement mortar linings are applicable, the entire joint shall be wetted and the interior concrete mortar allowed to absorb the moisture. A curing agent as recommended by the mortar manufacturer shall also be employed subsequent to application.
  - 4. Field joints shall be wrapped in accordance with AWWA C209. The joints shall be cleaned, primed and wrapped with two wraps of tape with a 35-mil thickness each and holiday tested. An acceptable 70 mil thickness shrink wrap sleeve in accordance with AWWA C216 may used in lieu of field tape.
  - 5. Any damage to the pipe or the protective coating from any cause during the installation of the pipeline shall be repaired and holiday tested as acceptable to the ENGINEER.
  - 6. Pipe shall be sound and clean before laying. When laying is not in progress for any period exceeding two hours and at the end of the work day, the open ends of the pipe shall be closed by watertight plug or other approved means. Good alignment shall be preserved in laying. The deflections at joints shall

not exceed that recommended by the manufacturer. Fittings, in addition to those shown on the Plans, shall be provided as necessary.

- E. Insulating Flanges, Couplings, and Dielectric Unions:
  - 1. Applications: Provide insulating flange, coupling or dielectric union for all joints at the following locations:
    - a. Dissimilar metal piping connections.
    - b. Cathodically protected piping penetration to buildings.
    - c. Submerged to unsubmerged metallic piping connections.
    - d. Where required for electrically insulated connection.
  - 2. Installation:
    - a. Insulating joints connecting immersed piping to non-immersed piping shall be installed above maximum water surface elevation.
    - b. Align and install insulating joints according to manufacturer's recommendations to avoid damaging insulating materials.

3.3 INSTALLATION

- A. Pipe
  - 1. Piping Layout
    - a. Install as shown on the Plans, per fabricator's shop drawings, and in accordance with the applicable specifications including the referenced AWWA manual.
    - b. In placing the pipe, hold pipe by one or more padded slings. Handle in a manner that will prevent damage to the pipe or the protective coating. Support pipe adequately while being fitted and joined with adjoining pipe section.
    - c. After each section of pipe has been set into position, attach to the adjoining section as specified or shown on the Plans.
    - 2. Provide drains and high point vents to facilitate pressure testing.
    - 3. Install valves with operator positioned to permit access for operation.
- C. Prior to the backfilling or beginning the welding procedure, any tack welds or joint stops used to position the pipe during laying shall be removed. Any annular space between the facing surfaces of the bell and spigot shall be equally distributed around the circumference of the joint by shimming, jacking, or other suitable means. The weld shall then be made in accordance with ANSI/AWWA C206. Where more than one pass is required, all dirt, slag, and flux shall be removed before the succeeding bead is applied.
- D. Repair of Welds: All welds that are defective shall be repaired by the CONTRACTOR to meet the requirements of this section at no additional cost to the OWNER. Defects in welds or defective welds shall be removed, and that section of the joint shall then be re-welded. Only sufficient removal of defective material that is necessary to correct the defect is required. After the repair is made, the joint shall be checked by repeating the original test procedure. Welds deficient in size shall be repaired by adding weld metal.

3.4 SMALL BRANCH CONNECTIONS

- A. Small branch connections shall be located so as not interfere with joints, supports, or other details.

3.5 FIELD TESTING

- A. See Specs section 15044 for Hydrostatic Testing of Pressure Pipelines.

- B. Tests of compliance with the specifications shall be made on each joint of pipe as soon as practical after completion of the joint welding. The CONTRACTOR shall employ an AWS-certified welding inspector certified in accordance with AWS QC1 with a minimum of 3 years' experience. All welded joints shall receive visual inspection by the certified welding inspector prior to performance testing. Test procedures for welded joints shall be as follows:
  1. Double welded lap joints/Single welded lap joints with seal weld - All double welded lap and single lap with seal weld joints shall be drilled and tapped for air pressure testing based on the procedures documented in AWWA C206. A threaded plug shall be installed through the lap or bell end of the pipe to introduce pressure between the two joint fillet welds. Air pressure shall be brought up gradually to a test pressure of 40 psi and maintained for 10 minutes. Any leaks found at lower pressures and the test pressure will be repaired. If defective, defective welds shall be removed, repaired, and retested until the joint passes the performance test. The ENGINEER will have the full and final decision as to the suitability of all welds tests.

- C. Electrical Continuity
  1. Furnish all necessary equipment and labor for carrying out a continuity check of the pipeline. This check shall be conducted prior to introduction of water into the pipeline for hydrostatic pressure and leakage testing.

**\*\*END OF SECTION\*\***

PART 1 - GENERAL

1.1 WORK OF THIS SECTION

A. The Work of this Section shall include, but not be limited to, furnishing all labor, materials, tools, and equipment required to install the 42-inch butterfly valve for buried service, for the Work shown in the Approved Plans and described in the Contract Documents.

1.2 CONTRACTOR SUBMITTALS

- A. Shop Drawings:
  - 1. Product data sheets for make and model.
  - 2. Complete catalog information, descriptive literature, specifications, and identification of materials of construction.
  - 3. Certificate of Compliance for: Butterfly valves; full compliance with AWWA C504.
- B. Tests and inspection data.
- C. Operation and maintenance data shall be submitted, and shall include, but not be limited to, the following information:
  - 1. Manufacturer's installation and operating instructions.
  - 2. Manufacturer's maintenance procedures.
  - 3. List of special tools.
  - 4. Schedule of valves indicating valve identification and location.
  - 5. Spare Parts List: A spare parts list shall be provided with information for each valve assembly.
  - 6. Factory Test Data: Where indicated, signed, dated, and certified factory test data for each valve requiring certification shall be submitted before shipment of the valve. The data shall also include certification of quality and test results for factory-applied coatings.
- D. Valve Support: Submit concrete mix, calculations for the bearing area, and concrete block size, and anchor design details. The CONTRACTOR shall refer to the project Geotechnical Report and recommendations provided by the Soils Engineer.

PART 2 - MATERIALS

2.1 GENERAL

A. All valves shall be the same size as the pipe in which they are installed, unless specifically noted otherwise on the Plans.

B. Each valve shall be marked to identify the manufacturer, rating designation, materials of construction and special service limitations imposed by the manufacturer. They are used for product identification and to assist in the proper



SECTION 15100 - BUTTERFLY VALVE (BURIED SERVICE, CLASS 350)

application. Valves shall be cast or stamped with preferred high-pressure side on the valve body, if applicable.

C. Direction of flow shall be cast or stamped on the valve body, unless the valve is bidirectional.

D. Coordinate the drilling pattern and orientation of bolt holes between valves and adjacent flanges. Use only flat-faced flanges for all valves.

E. All valves shall include all appurtenant parts (operators, chainwheels, handwheels, valve stems, floor stands, gear boxes, operating nut, etc.) for a complete operating valve. Valve shall be, as much as practical, fully factory assembled.

F. All valves shall open by turning counter-clockwise. Maximum force required for operation shall be no more than 150 foot pounds.

G. Valves shall be certified to NSF-61.

2.2 FLANGE CONNECTIONS

A. Use AWWA Class F steel flanges for pipe diameters 26 through 42 inches. Coordinate flange connections with mating surfaces.

B. Flanges of all classes shall be flat-faced and coated with suitable anti corrosion material, without projection or raised face. Either a serrated concentric or serrated spiral finish having at least four (4) grooves finish shall be used to aid in gasket retention per MSS SP-6.

2.3 COATINGS AND LININGS

A. Provide factory-applied coatings as described herein.

B. Where liquid epoxy coatings are specified, coatings shall conform to AWWA C550.

2.4 NUTS, BOLTS AND WASHERS

1. Hex Bolts: ASTM A320/A320M, Type 304 stainless steel, Grade B8, Class 2
2. Nuts: ASTM F594, Type 304 stainless steel, Grade B8, Class 2
3. Washers: Type 304 stainless steel

2.5 BUTTERFLY VALVE

A. Butterfly valves shall be regularly manufactured and marketed for a full differential pressure of 350 psig and will be capable of operating at pressures of 350 psi. AWWA Class 250 valves one time tested to 350 PSI will not be acceptable.

a. Valve Body

The body shall be constructed of Ductile Iron ASTM A536 Gr. 64-45-12, with flanged end connections drilled in accordance with ANSI B16.1, Class 250. The body wall thickness shall be in strict accordance with AWWA C504.

b. Valve Disc

The disc shall utilize an off-center shaft and flow through design, cast from Ductile Iron ASTM A536 Gr. 65-45-12. The disc edge shall be stainless steel type 316. Discs shall be retained by pins that extend through the full diameter of the shaft. The pin material shall be the same as the shaft material. Torque plugs or tangential fasteners shall not be allowed.

c. Valve Stem

The shaft shall be made of ASTM A-564 Type 360 condition H-1150. The shaft seals shall be "V" type packing. Shaft seals shall be of a design allowing replacement without removing the valve shaft. No O-ring or "U" cup packing shall be allowed. The bearing shall be a stainless steel backed Teflon material. Bearing load shall not exceed 1/5 of the compressible strength of the bearing or shaft material.

d. Butterfly valves shall be Pratt Model HP350 or EVMWD approved equal.

2.6 MANUAL ACTUATORS

A. Provide enclosed gear actuators, gear type. Gear actuators shall be enclosed, lubricated with oil or grease, and provided with seals on shafts to prevent entry of dirt and water into the actuator.

B. Valve actuators in buried service shall have operating nuts and extension stems to valve boxes at grade level as shown on the Plans. Attach a 2-inch, square operating nut to the actuator input shaft with a keyway and hex set screw.

C. Worm and gear actuators shall permit operation of the valve under full differential pressure rating of the valve with a maximum rim pull of 80 pounds on the handwheel or chainwheel and a maximum input of 150 feet-pounds on wrench nut. Design gear actuators assuming that the differential pressure across the disc is equal to the pressure rating of the valve.

D. Provide stop limiting devices in the actuators in the open and closed positions. Design actuator components between the input and the stop-limiting devices to withstand, without damage, an input torque of 300 foot-pounds for operating nuts when operating against the stops.

E. Actuators shall be self-locking type, one-piece design made of gear bronze material (ASTM B427), accurately machine cut. The worm shall be hardened alloy steel (ASTM A322, Grade G41500; or ASTM A148, Grade 105-85), with thread ground and polished. Helix angle of worm and gear shall be designed and cut at 3.5 degrees or less to prevent creep, unless other means to prevent creep are employed and are approved by the ENGINEER. The actuator shall prevent

creeping of the valve under all flow conditions. Support worm gear shaft at each end by ball or tapered roller bearings. Provide reduction gearing to meet maximum torque and pull design requirement. The reduction gearings shall run in a proper lubricant.

F. Manual actuators shall be Limitorque, Auma, Rotork or EVMWD approved equal.

2.7 VALVE SUPPORT

A. CONTRACTOR shall provide valve support and anchor block reinforcement. Concrete shall be 2,500 psi and shall be poured with forms to avoid contact with valve connections, flanges, outlets, or other adjacent appurtenances. Reinforcement bars, one on each side of valve, shall be No. 5 or greater, and shall be positioned per EVMWD Standard Detail W-15.

B. CONTRACTOR shall calculate bearing area and submit calculations for approval. The CONTRACTOR shall use existing soil conditions and recommendations provided in the Geotechnical Report for the project.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Cleaning:

1. Clean all mating faces of valve (threads, flange faces, etc.) prior to assembly.
2. Remove all debris from valve body prior to assembly.
3. Take extra care to clean mating faces of existing pipe and fittings which may have corrosion, dirt, debris and mineral build-up which should be removed for a proper fit.

B. Apply joint compound, lubricant, etc. as recommended by valve manufacturer for proper installation prior to installation.

C. Install valves where shown on Plans per manufacturer's recommendations.

3.2 TESTS AND INSPECTION

A. Valve may be either tested while testing pipelines, or as a separate step.

B. Test that valves open and close smoothly under operating pressure conditions. Test that two-way valves open and close smoothly under operating pressure conditions from both directions.

C. Inspect air release and vacuum valves as pipe is being filled to verify venting and seating is fully functional.

D. Count and record number of turns to open and close valve; account for any discrepancies with manufacturer's data.

E. Set, verify, and record set pressures for all relief and regulating valves.

\*\*END OF SECTION\*\*

**Temescal Canyon Road Widening Projects**  
Dawson Canyon Road to 0.7 Mile North, Dos Lagos Drive to Leroy Road, and

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0.7 Miles North of Dawson Canyon Road to Leroy Road, Project No. C5-0072, C6-0066  
State Project No. LPPSB1L-5956(267); and

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## **ATTACHMENT "E"**

### **CONTRACTOR QUESTIONS AND RESPONSES**

The Questions and Responses information document is available on the County website at the following link during the advertisement period for this project:

<http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids>

This (downloadable) file is provided for reference only. For any discrepancy written on this Questions and Responses document, the Contractor shall conform to the contract documents.

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
<b>1</b>	Question	<p>We are requesting additional information to calculate the Final Pay earthwork quantities:</p> <p>Bid Item 36(F) (Base Bid 1) – Roadway Excavation. Please provide cross sections at 50 ft centers or grading/digital/first generation PDF files so this final pay quantity can be confirmed.</p> <p>Bid Item 37(F) (Base Bid 1) – Roadway Excavation (Cut slope Per Sheet G-1). Please provide digital/first generation PDF Files so this final pay quantity can be accurately confirmed. The excessive line work on the printed sheet make it difficult to accurately digitize.</p>
	Response	<p>Cross Sections plans/information are posted on our Notice Inviting webpage. URL: <a href="http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids">http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids</a></p> <p>Document(s) can be downloaded from the Supplemental Project Information for this project.</p>
<b>2</b>	Question	In order to allow sufficient time for the most accurate and competitive bids, will the County please extend the bid date for two to three weeks from the current bid date of August 8, 2018?
	Response	See Addendum No. 2 for revised bid opening date.
<b>3</b>	Question	<p>While downloading documents from the website there was an error while trying to open #3. SWPPP (Widening Project). Can you please look into this?</p> <p>Additionally, under #5 Tree Removal Plan there are no documents. There is just "pending..." in the place where a document should be. When will this document be available?</p>

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	SWPPP documents can now be downloaded with three options: zip file of individual pdf using URL: <a href="http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids">http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids</a> (we too notice problems downloading using Internet Explorer that we have not been able to resolve), or scanned pdf copy of SWPPP documents, or link to FTP to download individual pdf documents  Supplemental documents for Tree Removal Plan were made available 7/30/18. URL: <a href="http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids">http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids</a>
4	Question	Reference Bid Item # 61, 60" X 38" ELLIPTICAL RCP W/ WATER TIGHT JOINTS (CLASS III). The profile for Line B calls for 60" x 36" Elliptical RCP while the item and construction note is for 60" x 38". Please confirm diameter.
	Response	The elliptical pipe size is: 38" high x 60" wide. Refer to Addendum No. 3 for revisions made to plans.
5	Question	The project has various water appurtenances that are to be relocated. Should the contractor assume running the new appurtenance from the existing mainline?
	Response	Yes, new appurtenances will be required of the same size as existing and shall be installed in accordance with the appropriate Water District's Standard Details and Approved Materials List. Connections at mainlines will be at the existing corporation stops or valves with no new hot taps.
6	Question	With relation to the relocation of existing water appurtenances, should the contractor use new materials or is it acceptable to reuse the existing?
	Response	Yes, new materials in accordance with the appropriate Water District's Approved Materials List will be required.
7	Question	Reference Section 73-4.04, page 76, of the project Special Provisions. Payment for Stamped Concrete shall be paid as a unit bid price by the square foot. There currently is no bid item for Stamped Concrete. Please review.
	Response	The bid item and estimated quantity for "Textured Concrete and Colored Concrete Surfaces" will be added to the bid schedule by addendum. Refer to Addendum No. 3, revised proposal.

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
<b>8</b>	Question	Please reference Bid Item # 146 (Rock Energy Dissipater). There isn't a construction Note on the plans for this work, however, there is ¼ Ton Grouted Rip Rap. Is this the same work? Additionally, the quantity is over-stated. Please review and advise.
	Response	Yes, the 1/4-ton rip rap (Construction Note 17) is the Rock Energy Dissipater. The plan shows the Rip-Rap as being 38' x 11' x 3' deep, which is equivalent to 46.4 CY; the proposal lists 50 CY. Refer to Addendum No. 2, the spec will be updated to reference the grout as also being included under this bid item.
<b>9</b>	Question	Reference Section 2 Bidding, page 22 of the project Special Provisions. Chart indicates that plans for Traffic and Stage Construction, Water Relocations and Architectural Surface Design will be issued by addendum. When can we expect the plans?
	Response	These additional plans are included in Addendum No. 3; with the exception of the Traffic Control Plans. The contractor will be required to prepare the Traffic Control plans.
<b>10</b>	Question	Please review and verify the Items of work that are included with Bid Item # 143 (Reinforced Concrete Box Culvert)?
	Response	Refer to Addendum No. 2. Specs will be updated to include payment clause to clearly define items of work included for the installation of the Reinforced Concrete Box Culvert; will be similar to payment clause for reinforced concrete pipe.
<b>11</b>	Question	Please provide a rebar detail for the Wingwall / Cutoff Walls for the RCB, as shown on X-1 of the Drainage Improvement Plans at Coldwater Creek.
	Response	Rebar for wingwalls/headwalls will be placed in accordance with Caltrans Standard D85 per construction note 8.
<b>12</b>	Question	Please reference Section 16 in the Instructions to Bidders (Like Bid Items). Will Base Bid Schedule 3 be subject to this Section, as the schedule is not considered an alternate? Please review and advise.

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	Base Bid Schedules 1 and 2 will be subject to the "Like Bid Items" application in accordance with Section 16 of the Instructions to Bidders. Base Bid Schedule 3 will not be subject to "Like Bid Items."  Refer to Revised Proposal, issued by Addendum No. 3 "Like Bid Items" have been identified.
13	Question	Will bid items (139) Roadway Excavation, (141) Class 2 Aggregate Base, (142) Hot Mix Asphalt and other items in Base Bid Schedule 3 be held to the Instruction to Bidders section 16 'Like Bid Items' given their remote location and independent schedule from the rest of the project?
	Response	Base Bid Schedules 1 and 2 will be subject to the "Like Bid Items" application in accordance with Section 16 of the Instructions to Bidders. Base Bid Schedule 3 will not be subject to "Like Bid Items."  Refer to Revised Proposal, issued by Addendum No. 3 "Like Bid Items" have been identified.
14	Question	Special Provision section 2-1.06B indicates the Traffic Control and Construction Staging Plans were incorporated into the Special Provisions by addendum. Additional, Special Provision section 12-4.02C(3)(d) states that "Contractor shall implement the construction staging and traffic control plans that are provided as part of the contract documents." We are unable to locate the Traffic Control and Construction Staging Plans within the Special Provisions. Please provide the Traffic Control and Construction Staging Plans.
	Response	Stage Construction plans are included in Addendum No. 3. Please note: the contractor will be required to prepare Traffic Control Plans.
15	Question	Instruction to Bidders section 13 states the projects working hours to be 7:00 am. and 6:00 pm Monday through Friday, however Special Provision section 00-1.03(A) MODIFIED HOURS OF WORK: (NOT USED) prohibit the contractor from beginning work prior to 9:00am Monday through Friday. Please Clarify the intended work hours for the project and if section 00-1.03(A) MODIFIED HOURS OF WORK: (NOT USED) is to be considered used or not used.



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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	See Section 13 for the statement, "...or as revised in the Special Provisions..." Refer to Special Provision 00-1.03(A) for modified work hours. Refer to Addendum No. 2. The table of contents and page 3 of the Special Provisions will be modified by addendum to change the heading from "00-1.03(A) MODIFIED HOURS OF WORK: (NOT USED)" to "00-1.03(A) MODIFIED HOURS OF WORK."
16	Question	Special Provision section 00-1.04 LIQUIDATED DAMAGES: stipulates that liquidated damages of \$800.00 per day for each and every calendar day delay in receiving Traffic Signals equipment furnished by the Contractor, within sixty (60) calendar days of the contract award date will be assessed. Given the 12-14 week lead time once the equipment submittal is approved and the potential 5 week review period allowed for in 87-1(D), does the county see procuring traffic signals equipment within 60 days as realistic?
	Response	Refer to Addendum No. 3 for a change to the special provisions for liquidated damages. The time period has been changed from 60 to 120 calendar days.
17	Question	Special Provision 00-1.07 OBTAIN ENCROACHMENT PERMIT mentions obtaining an encroachment permit from Caltrans. Please clarify what scope of the project is within Caltrans right-of-way. Additionally, please provide cost information regarding the Caltrans encroachment permit.
	Response	The Caltrans permit will include the placement of changeable message signs on the Interstate 15 freeway. No other work will be performed in state right-of-way. See Addendum No. 3: The permit fee will be reimbursed to the Contractor under through the Miscellaneous Work pay item.
18	Question	Appendix D contains a NOTIFICATION OF LAKE OR STREAMBED ALTERATION from the State of California Department of Fish and Wildlife. The indicated fee is \$5,145.75. Please clarify if this fee has already been paid for by the county or if payment of the fee is the contractor's responsibility.
	Response	The County has already paid the fee to California Department of Fish and Wildlife.
19	Question	Special Provision 12-3.32C requires that portable changeable message sign (CMS) start to be displayed 14 days prior to start of construction for the Temescal Canyon Road Widening Project however 00-1.05 requires that tree removal begin 13 days after award. Please clarify if CMS should be placed prior to award.

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	See Addendum No. 3 for updated language in the Special Provisions.
20	Question	It is typical for OH utility pole relocations to take approximately 100 days. Please clarify the schedule and allowed days for utility owners to relocate their utilities and what support the contractor must provide to facilitate their relocations.
	Response	The allowed days for utility owners to relocate their utilities, as well as the required number of days for the contractor to provide advance notice to the utility companies, is included in the Utility Relocation and Contractor-Arranged Time for the Relocation table included in Addendum No. 3. The contractor will provide utility companies with the required advanced notice and the contractor will provide traffic control to accommodate the utility companies' work
21	Question	Is there an addendum out yet showing the utility relocation plans?
	Response	Refer to Addendum No. 3 for utility relocation plans.
22	Question	Please clarify storm drain and water pipeline backfill requirements.

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	<p>Storm drain backfill requirements are shown on the Drainage Detail Sheets.</p> <p>Backfill requirements for water pipelines are covered in these documents in the order listed:</p> <p>Special Provisions for Temescal Canyon Roadway Improvement Waterline Relocations and Waterline Service Changes City of Corona Department of Water and Temescal Valley Water District</p> <p>City of Corona Department of Water and Power (DWP) Design Policy and Standard Drawings herein after referred to as "DWP Design Specifications" and</p> <p>Temescal Valley Water District Standard Drawings 9-2015, Lee Lake Water District Water System Facility Requirements, August 2008, herein after referred to as "TVWD Design Specifications" and</p> <p>Standard Specifications for Public Works Construction ("Greenbook"), 2015 Edition, including all current supplements, addenda, and revisions thereof (hereinafter referred to as "Standard Specifications"</p>
23	Question	Is slurry backfill required or is native trench backfill allowed above pipe zone bedding?
	Response	Structural Backfill as shown on the Drainage Details sheets is required above the bedding material.
24	Question	Special Provision section 30-2.04 states that Grinding Asphalt Concrete in Place is to be paid for by the square yard. There appears to be no bid item relating to pulverizing the Asphalt Concrete in place. Please clarify how pulverizing is to be paid.
	Response	See Addendum No. 3. Section 30-2 PULVERIZED ROADBED (Grinding Asphalt Concrete in Place) of the Special Provisions has been updated to state that the payment for Grinding Asphalt Concrete will be included in Roadway Excavation.
25	Question	Special Provision section 30-2.03 say to place pulverized asphalt concrete where shown on the plans. The plans are unclear on what to do with the pulverized material, please clarify what the contractor is to do with the pulverized material?

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	Material resulting from grinding existing AC can be used for roadway embankment or base material providing the material meets the specifications for Class 2 Aggregate Base.
26	Question	The Base bid item 50 and alternate bid items, 111,112, and 118 have LF for the unit measure. The quantity is 1. Are we to include a unit price per linear foot and the item will be paid for quantity installed, or is intended to be a LS item of payment?
	Response	Refer to revised proposal issued by Addendum No. 3. This items is intended to be a LS item of payment.
27	Question	Sheet 45 of 63 shows the contractor installing a new 42" water line within the same alignment as the existing. Is the proposed line to be assembled and tested above ground prior to taking the existing line out of service for connections or can the existing line be taken out of service for an extended period of time?
	Response	The shut down for the 42" waterline will be limited to occurring between November 26, 2018 through December 20, 2018 or January 8, 2019 through January 31, 2019 for a two (2) week period.
28	Question	The utility drawings U-1 Thru U-3 show all of the relocation work by the utility companies... there are bid items to relocate existing fire hydrants, blow offs, backflow preventers, PRV Units and water services. Where are these located at on the plans?
	Response	Waterline relocations, water service transfers, and pressure regulating stations are shown on the UD sheets that are included in Addendum No. 3. Relocating waterline appurtenances (i.e. fire hydrants, blow offs, combined ARVV assemblies, etc.) are shown on the Street Improvement plans.
29	Question	EVMWD Technical Specs (Sections 01010, 15044, 15076, 15100) came with a SUMMARY OF WORK with Bid Items A-1 thru A7 that are not included in the project Bid Proposal. Where are the following EVMWD bid items in the Temescal Cyn Rd Widening project proposal? BID ITEM NO. A3 – 60-INCH STEEL CASING (t=0.75") BID ITEM NO. A5 – 6-INCH COMBINATION AIR RELEASE AND AIR/VACUUM VALVE BID ITEM NO. A6 – 6-INCH BLOWOFF ASSEMBLY BID ITEM NO. B1 – 42-INCH BUTTERFLY VALVE (CLASS 350)

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
	Response	EVMWD Technical Specs are included in Addendum No. 3.
30	Question	There is a 350 psi 42" butterfly valve on this project that calls out <b>Pratt</b> as a manufacturer. <b>Dezurik</b> is the primary competitor and is likely the only other manufacturer that can manufacture this item. I am not sure if it is the intention of the engineer to specify a Pratt only specification, but EVMWD spec section 15100-2.5-A makes this project "Pratt only" as they are the only one that "markets" 350 psi butterfly valves such as this. Would Dezurik be considered as an "or equal" to Pratt for the 42" butterfly valve?
	Response	Per EVMWD technical specifications (included in Addendum No. 3), section 15100, 2.5 Butterfly Valve, Butterfly valves shall be Pratt Model HP350 or <u>EVMWD approved equal</u> . Contact EVMWD for approval of proposed equivalent product.
31	Question	Project plans reference County of Riverside Sidewalk and Curb Standard Drawing number 401 for curb, gutter and sidewalk on the project. This standard states that AB is to be placed under all new curb, gutter, sidewalk where underlying soil is expansive in nature. Are the existing soils on this project classified as expansive per this requirement, and will base with 6 mil plastic be required under curb, gutter and sidewalk?
	Response	The existing soils on the project are not classified as expansive. Therefore, AB and 6 mil plastic are not required under the new curb, gutter and sidewalk
32	Question	The proposed 6" COMB AV/AR shown to be installed on the 42" EVMWD Waterline Relocation on sheets UD-5 and UD-6 appears to be undersized given the size of the waterline (42"). Please confirm the design criteria showing that a 6" COMB AV/AR is adequate for this size line.
	Response	The contractor shall provide 6-inch high pressure air release per the Contract documents.
33	Question	Sheet UD-5 and UD-6 showing the 42" EVMWD Waterline Relocation reference section 15076 for various appurtenances. Section 15076 has not been provided in the project specifications. Please provide this specification section.
	Response	Specifications for the 42" EVMWD Waterline Relocation are included in Addendum No. 3.

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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
34	Question	Please provide the project plans and specifications for the 14" and 18" CML Pipe crossings to be priced under bid items 111, 112, and 113.
	Response	Plans for the 14" and 18" CML Pipe crossings are included in Addendum No. 3.
35	Question	Bid items 111, 112, and 113 are all given as 1 LF for pay quantity and unit. Should this be changed to 1 LS or will a pay quantity in LF be provided in a future addendum?
	Response	Please see the updated bid items included in Addendum No. 3.
36	Question	The project specifications include a Utility Relocation and Contractor-Arranged Time for the Relocation table. This table has no schedule or durations and is called out as to be provided by addendum. Please provide the completed table along with start dates for utility relocation work to be done by others. Relocation of the existing OH lines and poles will have a significant impact on project staging, phasing, and schedule.
	Response	The Utility Relocation and Contractor-Arranged Time for the Relocation table is included in Addendum No. 3. This table includes advance notification and working window timeframes.
37	Question	Under COUNTY STREET CLOSURE REQUIREMENTS AND CONDITIONS of the specifications under section Temescal Canyon Road Widening Projects, the following is stated: Contractor shall implement the construction staging and traffic control plans that are provided as part of the contract documents. Will the County be providing these construction staging and traffic control plans to bidders for bidding purposes?
	Response	Stage Construction plans are included in Addendum No. 3. Please note: the contractor will be required to prepare Traffic Control plans.
38	Question	The existing islands in the Dawson Canyon Rd / Temescal Canyon Rd Intersection on sheet L-1 of the Dawson Canyon to Leroy plans are not shown as to be removed. These islands are within the footprint of the proposed islands and will interfere with the new lane alignments. Please confirm that they are to remain or provide a revised drawing showing them to be removed.
	Response	The existing islands are to be removed. Updated plans are included in Addendum No. 3.

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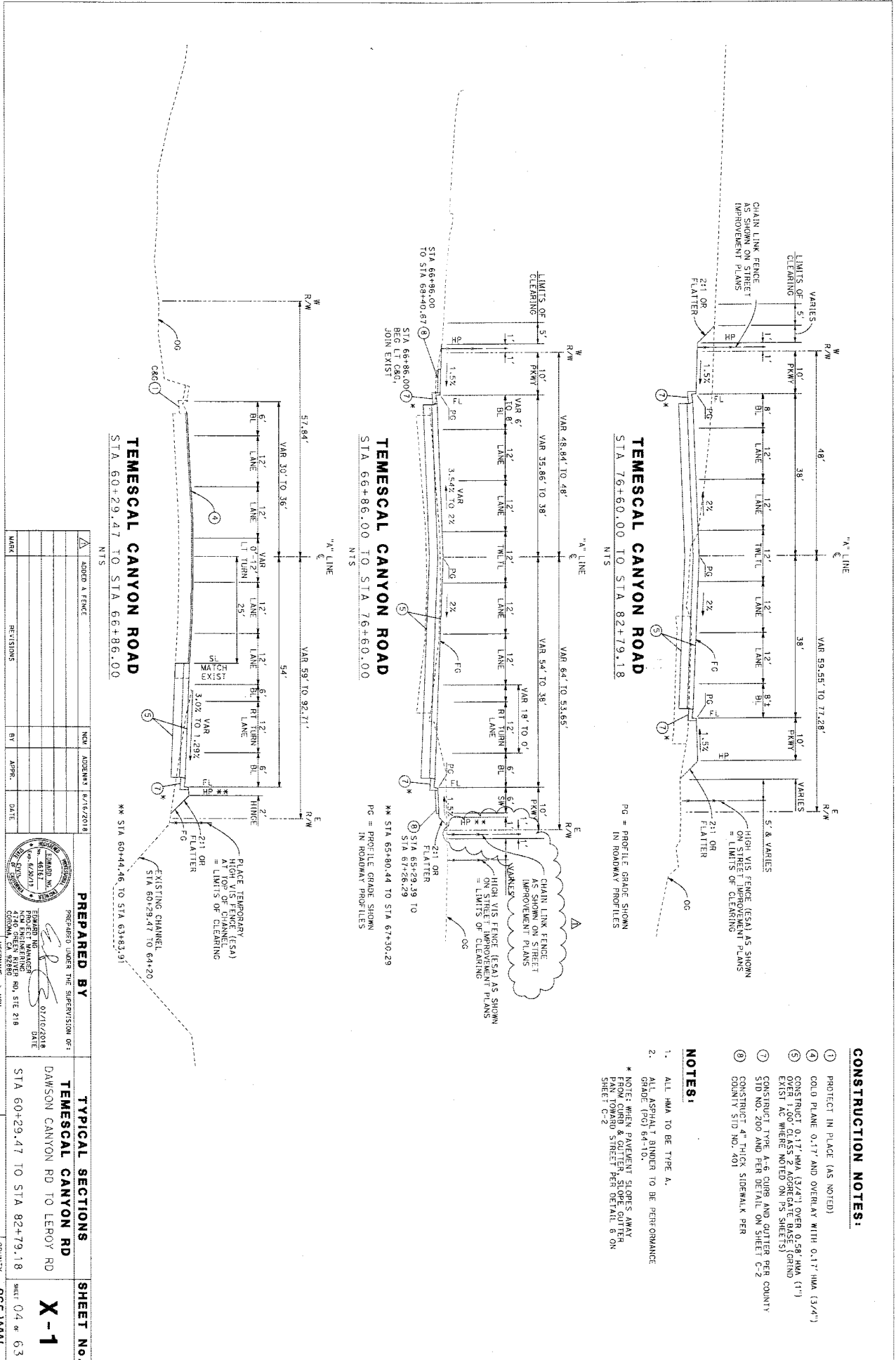
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<b>CONTRACTOR QUESTIONS AND RESPONSES</b>		
<b>39</b>	Question	It's my opinion as well as Pratt's engineering group that has determined that the size of this [6"] air valve [on Sheet UD-6] is too small for this application. I would go up in size to a 10" or 12" air valve.
	Response	Bids shall be based on the stated 6" sized air valve.
<b>40</b>	Question	I cannot locate the specifications for the butterfly valves and the coating spec as well?
	Response	The specifications for the butterfly valve and coatings are included in Addendum No. 3.









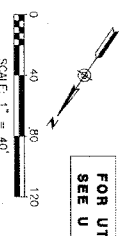
**CONSTRUCTION NOTES:**

- ① PROTECT IN PLACE (AS NOTED)
- ② GOLF PLANE 0.17" HMA (3/4") OVER 0.17" HMA (3/4")
- ③ CONSTRUCT 0.17" HMA (3/4") OVER 0.58" HMA (1") OVER 1.00" CLASS 2 AGGREGATE BASE (GRIND EXIST AC WHERE NOTED ON PS SHEETS)
- ④ CONSTRUCT TYPE A-6 CURB AND GUTTER PER COUNTY STD NO. 200 AND PER DETAIL ON SHEET C-2
- ⑤ CONSTRUCT 4" THICK SIDEWALK PER COUNTY STD NO. 401

**NOTES:**

1. ALL HMA TO BE TYPE A.
  2. ALL ASPHALT BINDER TO BE PERFORMANCE GRADE (PG) 64-10.
- \* NOTE WHEN PAVEMENT SLOPES AWAY FROM CURB & GUTTER, SLOPE GUTTER PAN TOWARD STREET PER DETAIL 6 ON SHEET C-2

<p>ADDED &amp; FENCE</p>		<p>NOV 6/16/2018</p>	<p>ADDRESS</p>
<p>REVISIONS</p>		<p>BY</p>	<p>DATE</p>
<p><b>PREPARED BY</b></p>			
<p>PREPARED UNDER THE SUPERVISION OF:</p>			
<p>EDWARD M. ...</p>		<p>07/16/2018</p>	<p>DATE</p>
<p><b>TYPICAL SECTIONS</b></p>			
<p>TEMESCAL CANYON RD</p>			
<p>DAWSON CANYON RD TO LEROY RD</p>			
<p>STA 60+29.47 TO STA 82+79.18</p>		<p>SHEET 04 OF 63</p>	<p>FILE NO. 965-WW</p>



FOR UTILITY INFORMATION  
SEE U SHEETS

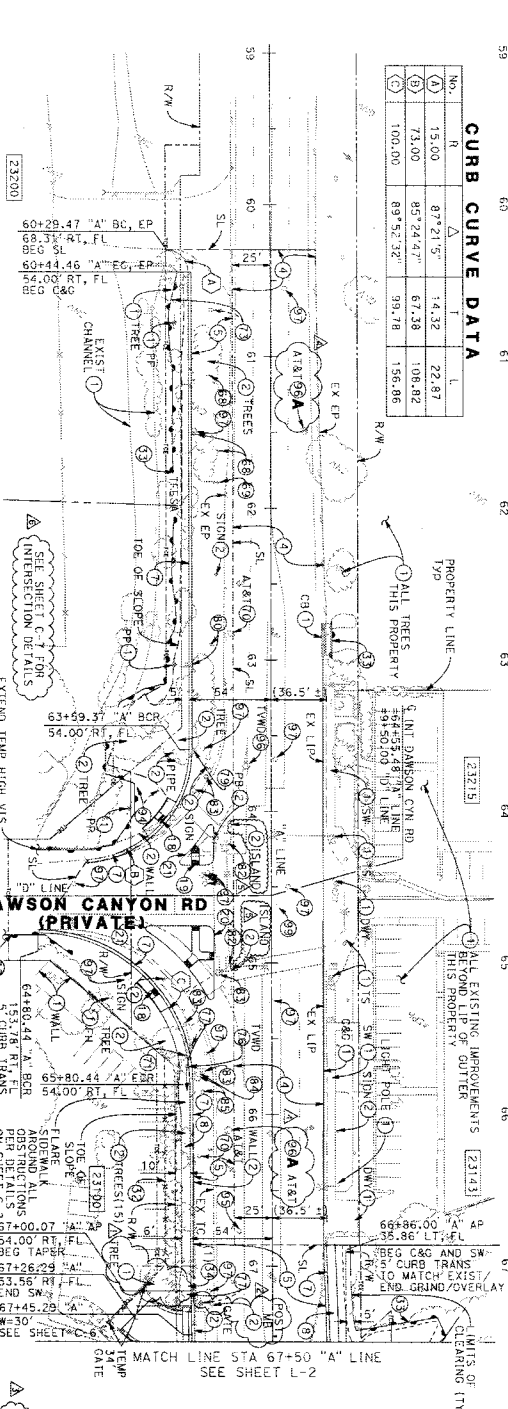
TEMESCAL CANYON RD  
PLAN

NO.	DATE	BY	REVISIONS
1	07/16/2018	ADDENDUM	ADDED NOTE FOR TREE TO BE PROTECTED
2	07/16/2018	ADDENDUM	ADDED NOTE 5
3	07/16/2018	ADDENDUM	REVISED CONSTRUCTION NOTES
4	07/16/2018	ADDENDUM	ADDED CONSTRUCTION NOTE
5	07/16/2018	ADDENDUM	ADDED NOTE TO PLAN VIEW
6	07/16/2018	ADDENDUM	DECISIONS

NO.	DATE	BY	REVISIONS
1	07/16/2018	ADDENDUM	ADDED NOTE FOR TREE TO BE PROTECTED
2	07/16/2018	ADDENDUM	ADDED NOTE 5
3	07/16/2018	ADDENDUM	REVISED CONSTRUCTION NOTES
4	07/16/2018	ADDENDUM	ADDED CONSTRUCTION NOTE
5	07/16/2018	ADDENDUM	ADDED NOTE TO PLAN VIEW
6	07/16/2018	ADDENDUM	DECISIONS

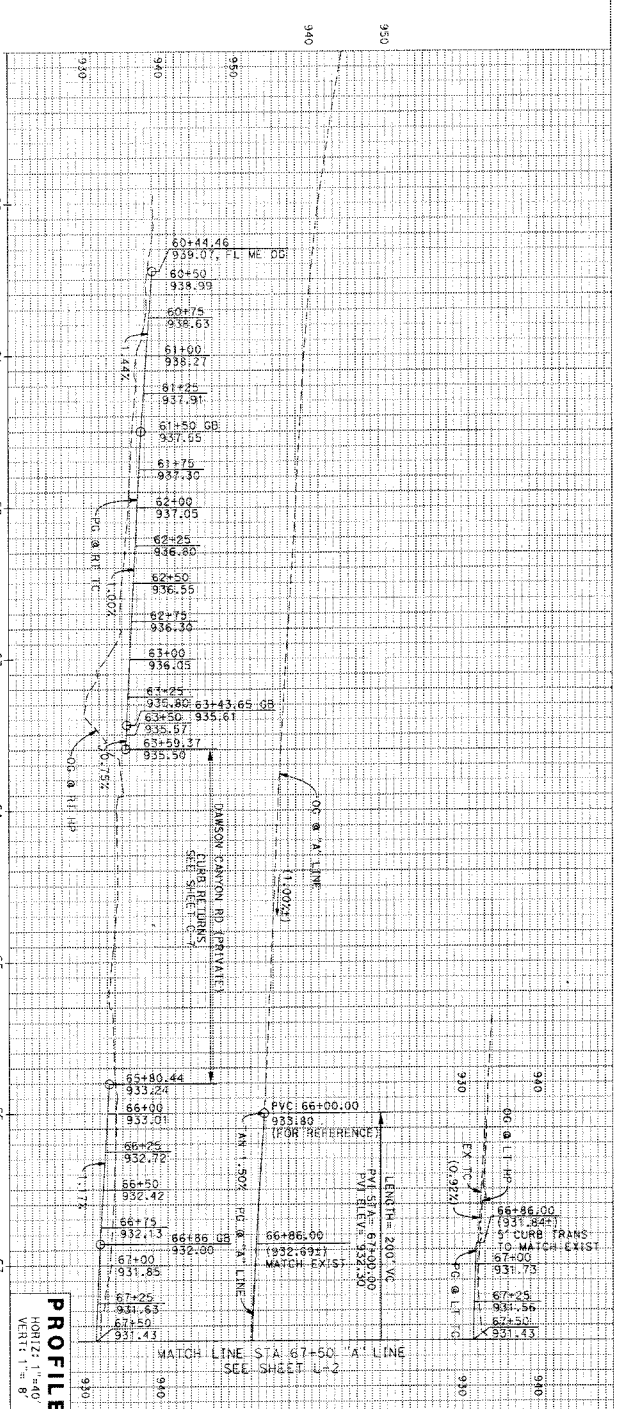
**PREPARED BY**  
  
 EDWARD M. GALT  
 PROJECT MANAGER  
 4710 GREEN RIVER RD, STE 218  
 CORONA, CA 92709  
 DATE: 07/16/2018

STREET IMPROVEMENT PLANS SHEET NO.  
**TEMESCAL CANYON RD**  
 DAWSON CANYON RD TO LEROY RD  
**L-1**  
 SHEET 07 OF 63  
 COUNTY: 965-WVV  
 FILE NO.: WG 03-0012



**CURB CURVE DATA**

No.	R	Δ	L	TS	PT	PC	LS	ES	EC
(A)	15.00	87°21'5"	14.32	22.87					
(B)	73.00	95°24'47"	67.38	108.82					
(C)	100.00	89°52'32"	99.78	156.86					



**CONSTRUCTION NOTES:**

- PROJECT IN PLACE (AS NOTED)
- REMOVE (AS NOTED)
- COLD PLANE 0.17" HMA (3/4") OVER 0.58" HMA (1 1/2") OVER 1.00" CLASS 2 AGGREGATE BASE (GRIND EXIST AC WHERE NOTED ON OC SHEETS)
- CONSTRUCT TYPE A-B CURB AND GUTTER PER COUNTY STD NO. 200 AND DETAIL ON SHEET C-2
- CONSTRUCT 4" THICK SIDEWALK PER COUNTY STD NO. 401
- CONSTRUCT RESIDENTIAL DRIVEWAY APPROACH PER COUNTY STD NO. 207 AND DETAIL ON SHEET G-1
- CONSTRUCT DRIVEWAY TIE-IN WITH 0.25" (1/2") HMA OVER 0.50" CLASS 2 AGGREGATE BASE
- CONSTRUCT CURB RAMP, CASE B, PER COUNTY STD NO. 403
- CONSTRUCT ISLAND PASSAGEWAY, TYPE B, PER CALTRANS STD PLAN 488B (MOO. PASSAGEWAY = 5' WIDE)
- CONSTRUCT ISLAND PASSAGEWAY, TYPE C, PER CALTRANS STD PLAN 488B (MOO. PASSAGEWAY = 5' WIDE)
- CONSTRUCT 6" TYPE "D" CURB PER COUNTY STD NO. 204
- INSTALL TEMPORARY FENCE (TYPE CL-6)
- INSTALL TEMPORARY FENCE (TYPE CL-6)
- INSTALL UTILITY MARKER
- RELOCATE ROADSIDE SIGN, SEE PD SHEETS
- RELOCATE PEDESTAL SIGN, SEE PD SHEETS
- RELOCATE ELECTRICAL PULL BOX BY SOL
- RELOCATE ELECTRICAL PULL BOX BY SOL
- RELOCATE MAILBOX
- RELOCATE COMBINED ARMY ASSEMBLY (TOWER AS NOTED)
- POWER POLE TO BE RELOCATED, SEE U SHEETS
- RELOCATE WATER METER AND PROVIDE WATER METER ENCLOSURE (CONCRETE BOX BY A&E)
- RELOCATE TELEPHONE BOX BY A&E
- REMOVE AND SAVE WALKWAY TRAFFIC SIGNAL POLE, SEE SHEET E-1
- RELOCATE TRAFFIC SIGNAL PULL BOX, SEE SHEET E-1
- RELOCATE ELECTRICAL SIGNAL CABINET, SEE SHEET E-1
- RELOCATE ELECTRICAL CABINET, SEE SHEET E-1
- RELOCATE DECOMMISSIONED POLE
- ADJUST GAS VALVE COVER TO GRADE
- ADJUST MANHOLE TO GRADE BY A&E
- ADJUST WATER VALVE COVER TO GRADE
- ADJUST CLEAN OUT TO GRADE

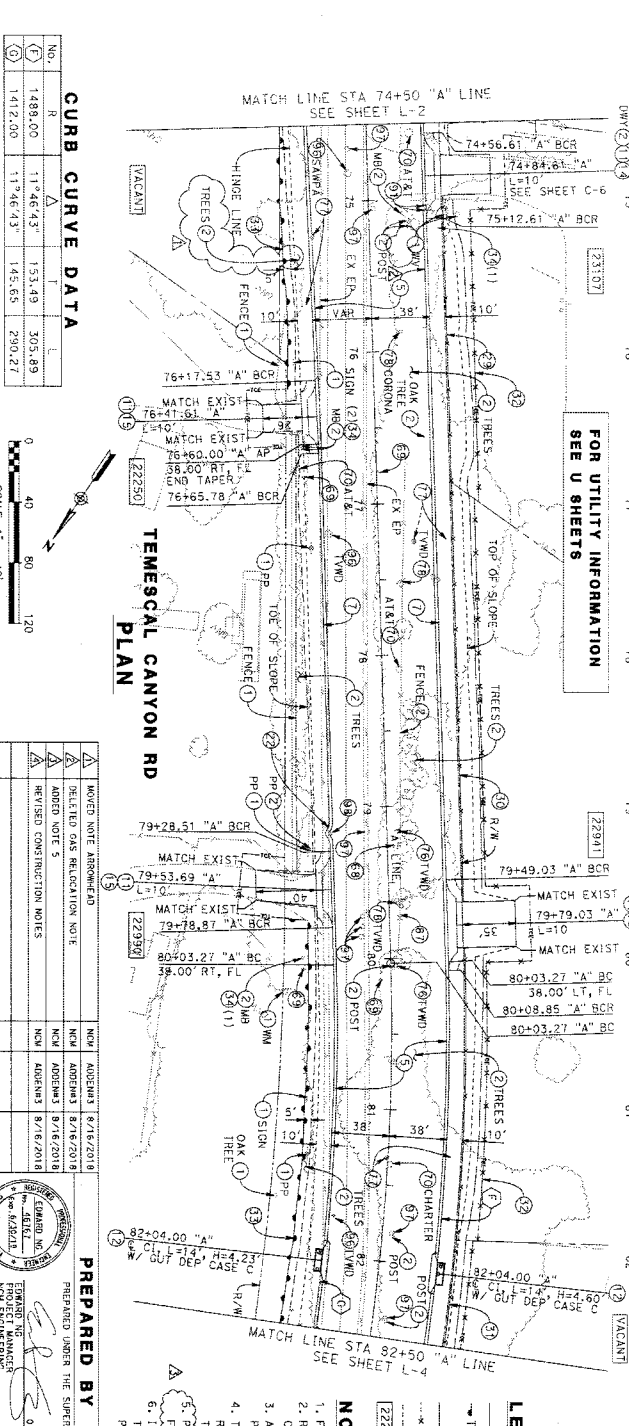
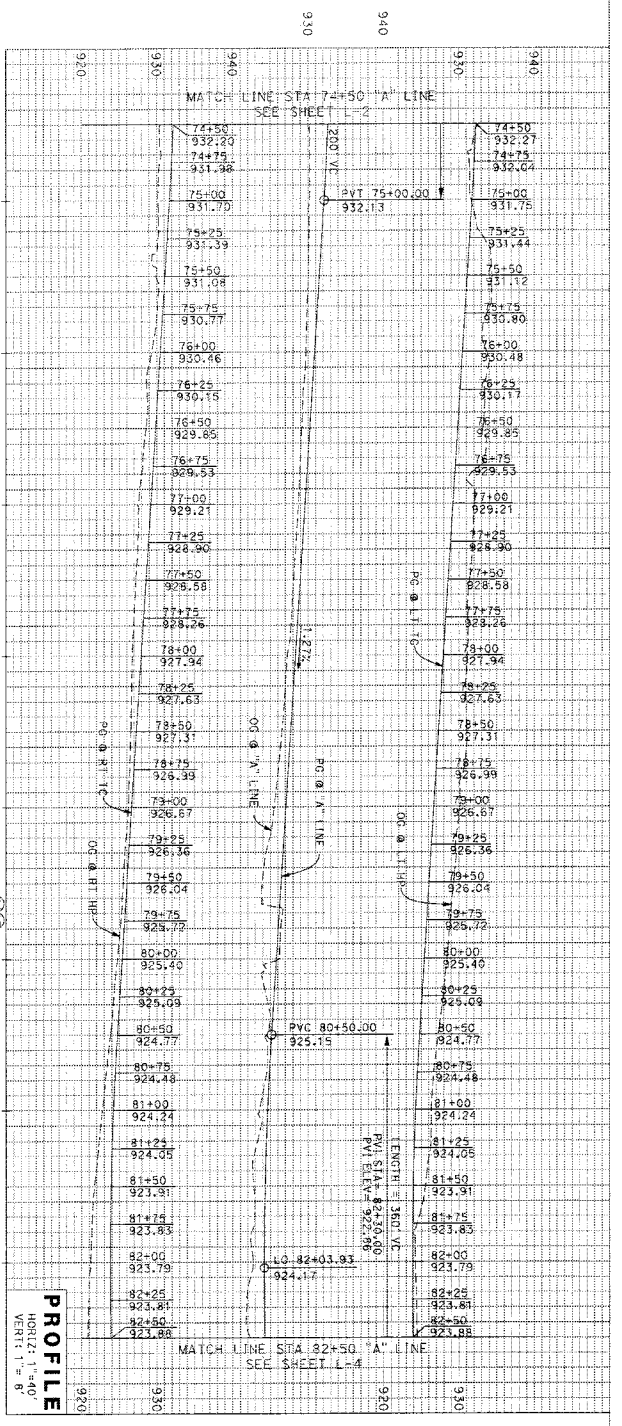
**LEGEND:**

- LIMITS OF CLEARING (WHERE SHOWN)
- FESSA - LIMITS OF CLEARING W/ TEMP HIGH VIS FENCE (ESAL) (WHERE SHOWN)
- PERMANENT FENCE
- TEMPORARY FENCE (TYPE CL-6)
- TEE
- STREET NUMBER ALONG TEMESCAL CANYON ROAD

**NOTES:**

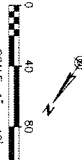
- FOR CENTRELINE ALIGNMENT DATA SEE SHEET PG-1.
- REMOVE ALL TREES, BUSHES, SHRUBS, AND VEGETATION WITHIN LIMITS OF CLEARING UNLESS NOTED OTHERWISE.
- ALL TREES AND VEGETATION OUTSIDE LIMITS OF CLEARING TO REMAIN AND BE PROTECTED AT ALL TIMES.
- TEMPORARY IMPACTS TO AREAS WITHIN ETER FENCE TO BE MITIGATED BY REVEGETATION WITH HERO-SEEDING AFTER CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
- PROVIDE TO ACTUAL APPROVAL, THE CONTRACTOR SHALL MARK TREES IN THE FIELD AND OBTAIN APPROVAL FROM THE ENGINEER.
- FOR SIGNAGE, POLE AND EQUIPMENT MODIFICATIONS, SEE SHEET E SHEETS.





**CURB CURVE DATA**

No.	R	Δ	L
1	1489.00	11°46'43"	153.49
2	1412.00	11°46'43"	145.65
			290.27



**REVISIONS**

NO.	DATE	BY	REVISIONS
1	8/18/2018	NOR	ADDED NOTE 5
2	8/18/2018	NOR	REVISED CONSTRUCTION NOTES

**PREPARED BY**  
 PROJECT MANAGER  
 NICK ADDENDUM  
 2018  
 02/10/2018  
 DATE

**STREET IMPROVEMENT PLANS SHEET NO.**  
**TEMESCAL CANYON RD**  
 DAWSON CANYON RD TO LEROY RD  
**L-3**  
 SHEET 09 OF 63

DATE PLOTTED 8/19/2018  
 TIME PLOTTED 11:19:05 AM

**FOR UTILITY INFORMATION**  
 SEE U SHEETS

**PROFILE**  
 HORIZ: 1" = 40'  
 VERT: 1" = 8'

**CONSTRUCTION NOTES:**

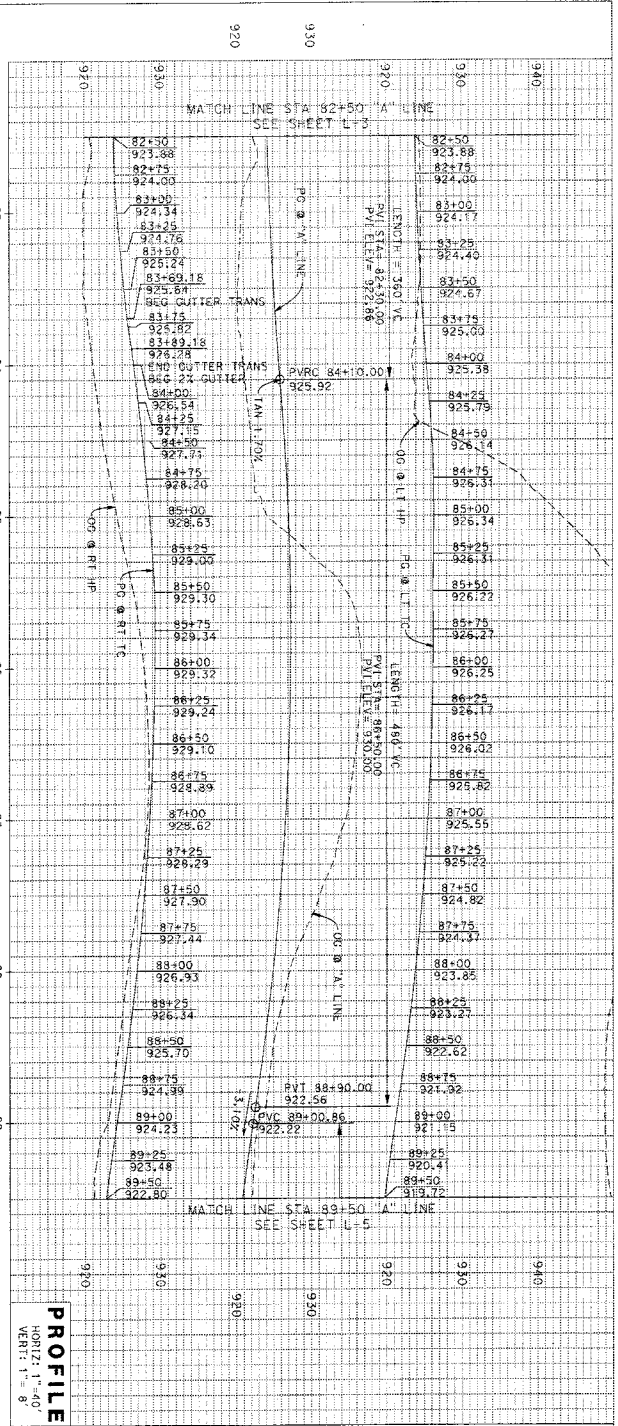
1. PROTECT IN PLACE (AS NOTED)
2. REMOVE (AS NOTED)
3. CONSTRUCT 0.17' HMA (3/4") OVER 0.58' HMA (1") OVER 1.00' CLASS 2 AGGREGATE BASE (GRIND EXIST AC WHERE NOTED ON PG SHEETS)
4. CONSTRUCT TYPE A-6 CURB AND GUTTER PER COUNTY STD NO. 200 AND DETAIL ON SHEET C-2
5. CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER COUNTY STD NO. 201A AND DETAIL ON SHEET C-1
6. CONSTRUCT CURB INLET CATCH BASIN PER COUNTY STD NO. 300, WITH FULL TRASH CAPTURE DEVICE
7. CONSTRUCT DRIVEWAY TIE-IN WITH 0.17' HMA (3/4") OVER 0.33' HMA (1") OVER 1.10' CLASS 2 AGGREGATE BASE
8. CURVE CURB AROUND EXISTING MANHOLE COVER WITH 3" CLEAR SLOPE
9. INSTALL 6" HIGH CHAIN LINK FENCE WITH TOP RAIL PER SPWC STD PLAN 600-3
10. INSTALL 6" HIGH CHAIN LINK FENCE WITH BARBED WIRE PER SPWC STD PLAN 600-3
11. INSTALL 6" HIGH CHAIN LINK FENCE WITH TOP RAIL AND BARBED WIRE PER SPWC STD PLAN 600-3
12. INSTALL TEMPORARY FENCE (TYPE CL-6)
13. INSTALL TEMPORARY HIGH VISIBILITY FENCE (ESA)
14. INSTALL MAILBOX (# OF MAILBOXES)
15. REMOVE UTILITY MARKER
16. RELOCATE PEDESTAL SIGN, SEE PG SHEETS
17. RELOCATE PEDESTAL BY OTHERS (AS NOTED)
18. RELOCATE COMBINED HWY ASSEMBLY (OWNER AS NOTED)
19. REMOVE POLE TO BE RELOCATED, SEE U SHEETS
20. RELOCATE WATER METER (OWNER AS NOTED)
21. RELOCATE WROUGHT IRON GATE
22. RELOCATE HOSE AIS
23. ADJUST MANHOLE TO GRADE (OWNER AS NOTED)
24. ADJUST WATER VALVE COVER TO GRADE
25. RECONSTRUCT TOP OF MANHOLE (OWNED BY TWD)

**LEGEND:**

- LIMITS OF CLEARING (WHERE SHOWN)
- FENCE - LIMITS OF CLEARING W/ TEMP HIGH VIS FENCE (ESA) (WHERE SHOWN)
- PERMANENT FENCE
- TEMPORARY FENCE (TYPE CL-6)
- STREET NUMBER ALONG TEMESCAL CANYON ROAD

**NOTES:**

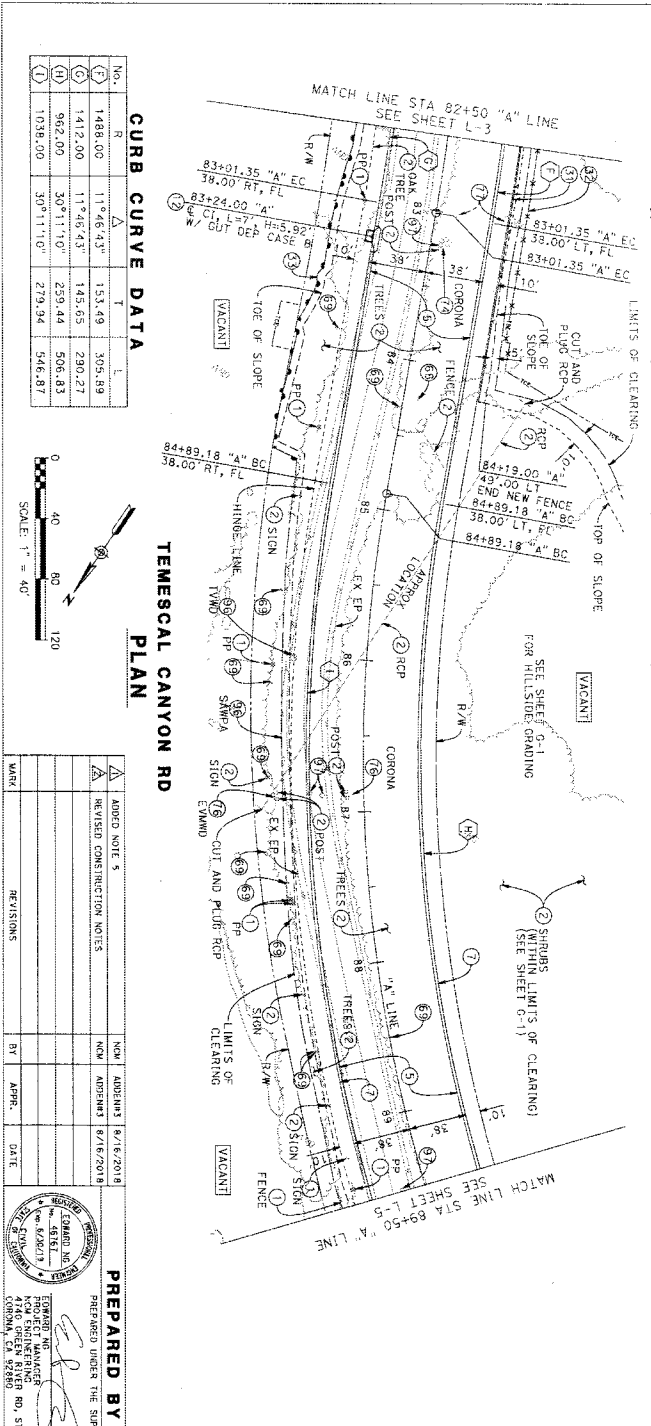
1. FOR CENTERLINE ALIGNMENT DATA SEE SHEET PG-1.
2. REMOVE ALL TREES, BUSHES, SHRUBS, AND VEGETATION WITHIN LIMITS OF CLEARING UNLESS NOTED OTHERWISE.
3. ALL TREES AND VEGETATION OUTSIDE LIMITS OF CLEARING TO REMAIN AND BE PROTECTED AT ALL TIMES.
4. TEMPORARY IMPACTS TO AREAS WITHIN ESA FENCE TO BE MITIGATED BY REVEGETATION WITH HYDRO-SEEDING AFTER CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
5. PRIOR TO ACTUAL REMOVAL, THE CONTRACTOR SHALL MARK TREES IN THE FIELD AND OBTAIN APPROVAL FROM THE ENGINEER.
6. INSTALL ONE TYPE OF FENCE AS SHOWN PER PROPERTY, CHANGE THE FENCE TYPE AND APPEARANCES ONLY AT THE BOUNDARY BETWEEN ADJACENT PROPERTIES.



**CONSTRUCTION NOTES:**

- PROTECT IN PLACE (AS NOTED)
- REMOVE (AS NOTED)
- CONSTRUCT 0.17' MM (3/4") OVER 0.58' HMA (1") OVER 1.00' CLASS 2 AGGREGATE BASE (GRADE EXIST AC WHERE NOTED ON PC SHEETS)
- CONSTRUCT TYPE A-4 CURB AND GUTTER PER COUNTY STD NO. 280 AND DETAIL ON SHEET C-2
- CONSTRUCT CURB INLET CATCH BASIN PER COUNTY STD NO. 300 WITH FULL BRUSH CAPTURE DEVICE
- INSTALL 6" HIGH CHAIN LINK FENCE WITH TOP RAIL AND BARBED WIRE PER SPWPC STD PLAN 600-3
- INSTALL TEMPORARY FENCE (TYPE CL-6)
- RELOCATE TEMPORARY HIGH VISIBILITY FENCE (ESA)
- REMOVE UTILITY MARKER
- RELOCATE ROADSIDE SIGN, SEE PD SHEETS
- RELOCATE COMBINED ARMY ASSEMBLY (OWNER AS NOTED)
- RELOCATE SIGN TO BE RELOCATED (SEE U SHEETS)
- ADJUST SIGN TO GRADE (OWNER AS NOTED)
- ADJUST WATER VALVE COVER TO GRADE

**FOR UTILITY INFORMATION**  
SEE U SHEETS



**CURB CURVE DATA**

No.	R	L	T
(1)	1488.00	11°46'43"	153.49
(2)	1412.00	11°46'43"	145.65
(3)	962.00	30°11'10"	239.44
(4)	1038.00	30°11'10"	279.94

**LEGEND:**

- LIMITS OF CLEARING (WHERE SHOWN)
- THESA - LIMITS OF CLEARING W/ TEMP HIGH VIS FENCE (ESA) (WHERE SHOWN)
- PERMANENT FENCE
- TEMPORARY FENCE (TYPE CL-6)
- TOE
- STREET NUMBER ALONG TEMESCAL CANYON ROAD

**NOTES:**

- FOR CENTERLINE ALIGNMENT DATA SEE SHEET PG-1.
- REMOVE ALL TREES, BUSHES, SHRUBS, AND VEGETATION WITHIN LIMITS OF CLEARING UNLESS NOTED OTHERWISE.
- ALL TREES AND VEGETATION OUTSIDE LIMITS OF CLEARING TO REMAIN AND BE PROTECTED AT ALL TIMES.
- TEMPORARY IMPACTS TO AREAS WITHIN ESA FENCE TO BE MITIGATED BY REVEGETATION WITH HINO-SEEDING AFTER CONSTRUCTION AS NOTED ON THE REVEGETATION SHEETS.
- PRIOR TO ACTUAL REMOVAL, THE CONTRACTOR SHALL MARK TREES IN THE FIELD AND OBTAIN APPROVAL FROM THE ENGINEER.

**STREET IMPROVEMENT PLANS SHEET NO. TEMESCAL CANYON RD TO LEROY RD L-4**

DATE PLOTTED: 8/16/2018  
TIME PLOTTED: 11:19:07 AM

ISSUED BY ADDENDUM No. 3, ATTACHMENT "F"

BORDER LAST REVISED 07/21/2015

PREPARED BY: [Signature] 07/10/2018

FOR PROJECT MANAGER: [Signature] 07/10/2018

DATE: 07/10/2018

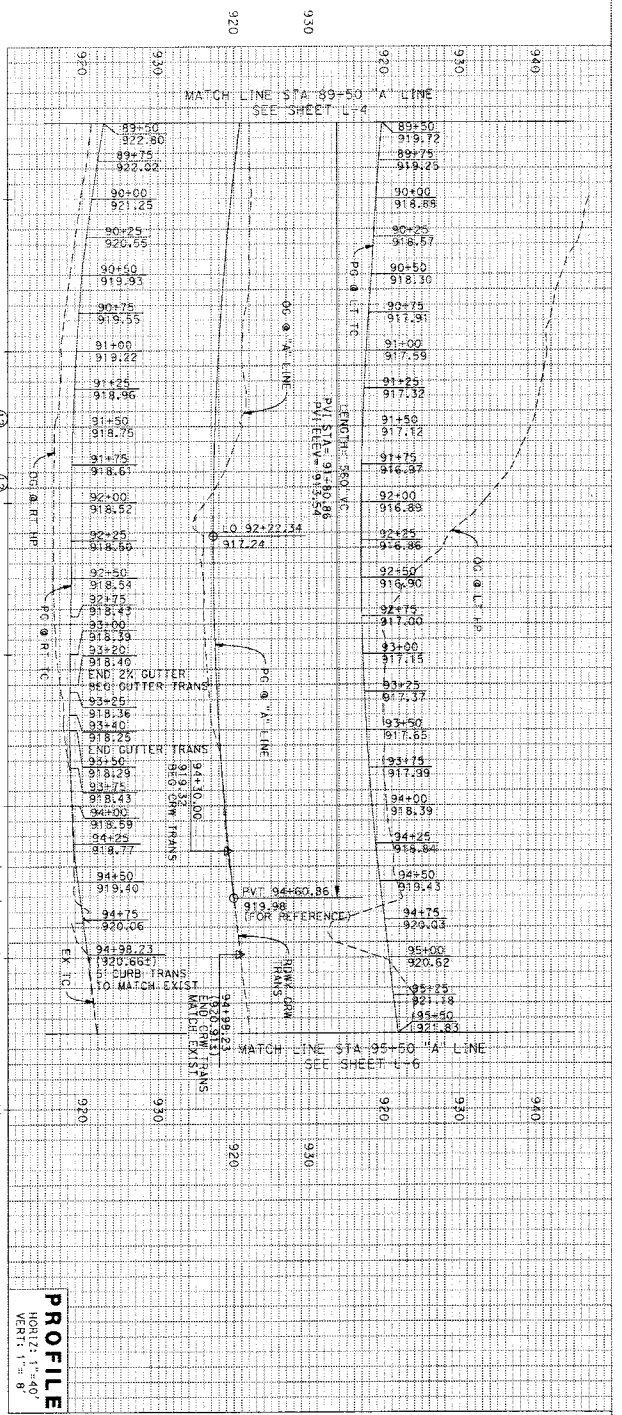
NO. CS-0012

COUNTY NO. 965-VW

DATE PLOTTED: 8/16/2018

TIME PLOTTED: 11:19:07 AM





**CONSTRUCTION NOTES:**

- PROTECT IN PLACE (AS NOTED)
- REMOVE (AS NOTED)
- COLOR PLANE 0.17' HMA (3/4")
- CONSTRUCT 0.17' HMA (3/4") OVER 0.58' HMA (1") OVER 1.00' CLASS 2 AGGREGATE BASE (GRIND EXIST AC WHERE NOTED ON PG SHEETS)
- CONSTRUCT TYPE A-6 CURB AND GUTTER PER COUNTY STD NO. 200 AND DETAIL ON SHEET C-2
- CONSTRUCT 4" THICK SIDEWALK PER COUNTY STD NO. 401
- CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER COUNTY STD NO. 207A AND DETAIL ON SHEET C-1
- CONSTRUCT CURB INLET CATCH BASIN PER COUNTY STD NO. 300, WITH FULL TRASH CAPTURE DEVICE
- CONSTRUCT DRIVEWAY TIE-IN WITH 0.17' HMA (3/4") OVER 0.58' HMA (1") OVER 1.10' CLASS 2 AGGREGATE BASE
- REMOVE UTILITY MARKER
- RELOCATE EXISTING SIGN, SEE PG SHEETS
- RELOCATE ELECTRICAL, PULL BOX BY SEE SHEETS
- RELOCATE BLOW OFF (OWNER AS NOTED)
- RELOCATE MANHOLE (OWNER AS NOTED)
- POWER POLE TO BE RELOCATED, SEE U SHEETS
- RELOCATE TELEPHONE MANHOLE BY AT&T
- RELOCATE STREET LIGHT BY SEE U SHEETS
- RELOCATE WATER PRESSURE RELIEF VALVE (OWNER AS NOTED)
- RELOCATE MANHOLE TO POUL BOX BY CHARTER
- ADJUST MANHOLE TO GRADE (OWNER AS NOTED)
- ADJUST WATER VALVE COVER TO GRADE
- RECONSTRUCT TOP OF MANHOLE (OWNED BY TOWN)

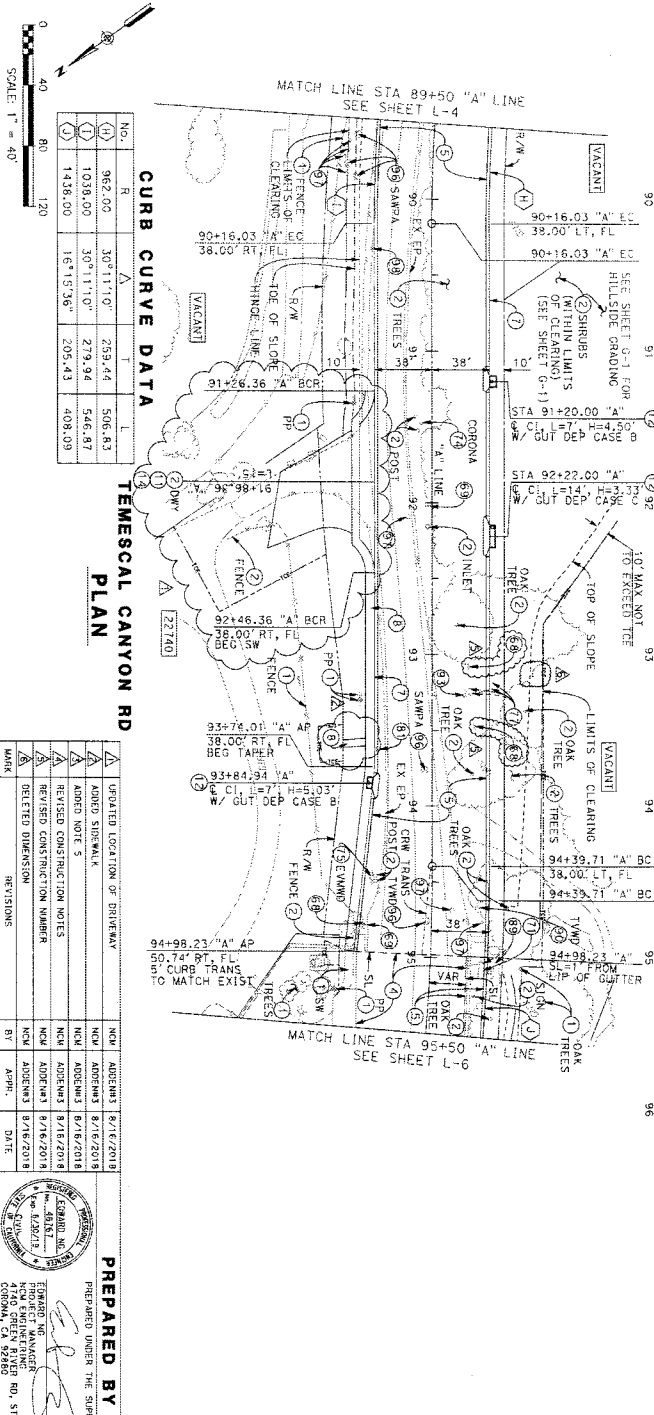
**FOR UTILITY INFORMATION  
SEE U SHEETS**

**LEGEND:**

- LIMITS OF CLEARING (WHERE SHOWN)
- TREES - LIMITS OF CLEARING W/ TEMP HIGH (HS) FENCE (HSA) (WHERE SHOWN)
- PERMANENT FENCE
- TEMPORARY FENCE (TYPE CL-6)
- TCE
- STREET NUMBER ALONG TEMESCAL CANYON ROAD

**NOTES:**

- FOR CENTERLINE ALIGNMENT DATA SEE SHEET PC-1.
- REMOVE ALL TREES, BUSHES, SHRUBS, AND VEGETATION WITHIN LIMITS OF CLEARING UNLESS NOTED OTHERWISE.
- ALL TREES AND VEGETATION OUTSIDE LIMITS OF CLEARING TO REMAIN AND BE PROTECTED AT ALL TIMES.
- TEMPORARY IMPACTS TO AREAS WITHIN ESA FENCE TO BE MITIGATED AS DESCRIBED IN THE SPECIFICATIONS.
- PRIOR TO ANY REMOVAL, THE CONTRACTOR SHALL MARK TREES IN THE FIELD AND OBTAIN APPROVAL FROM THE ENGINEER.



**STREET IMPROVEMENT PLANS SHEET NO. L-5**

**DAWSON CANYON RD TO LEROY RD**

**"A" LINE STA 80+50 TO 95+50**

**NO. 11 OF 63**

**DATE PLOTTED: 8/16/2018**

**TIME PLOTTED: 11:19:09 AM**

**ISSUED BY ADDENDUM No. 3, ATTACHMENT "F"**

**CURB CURVE DATA**

NO.	R	Δ	L	Δ/2	Δ/4	Δ/8
(H)	962.00	30°11'10"	259.44	506.83		
(1)	1038.00	30°11'10"	279.94	546.87		
(1)	1438.00	16°15'36"	205.43	408.09		

**REVISIONS**

MARK	REVISIONS	DATE
Δ	UPDATED LOCATION OF DRIVEWAY	8/16/2018
Δ	ADDED SIDEWALK	8/16/2018
Δ	ADDED NOTE 5	8/16/2018
Δ	REVISED CONSTRUCTION NOTES	8/16/2018
Δ	REVISED CONSTRUCTION NUMBER	8/16/2018
Δ	DELETED DIMENSION	8/16/2018

**PREPARED BY**

Prepared under the supervision of:

PROJECT MANAGER  
EDWARD MC  
1710 GREEN RIVER RD, STE 218  
CORNWALL, MASSACHUSETTS 01923

DATE: 07/10/2018

**STREET IMPROVEMENT PLANS SHEET NO. L-5**

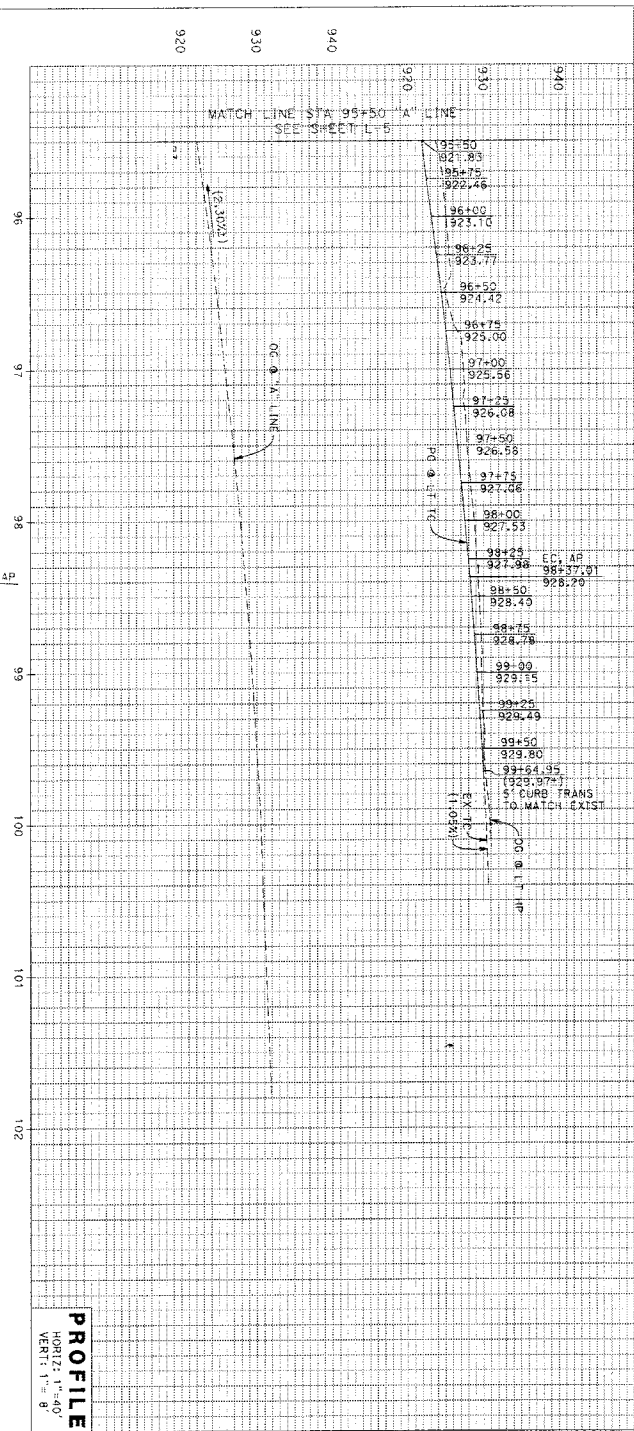
**DAWSON CANYON RD TO LEROY RD**

**"A" LINE STA 80+50 TO 95+50**

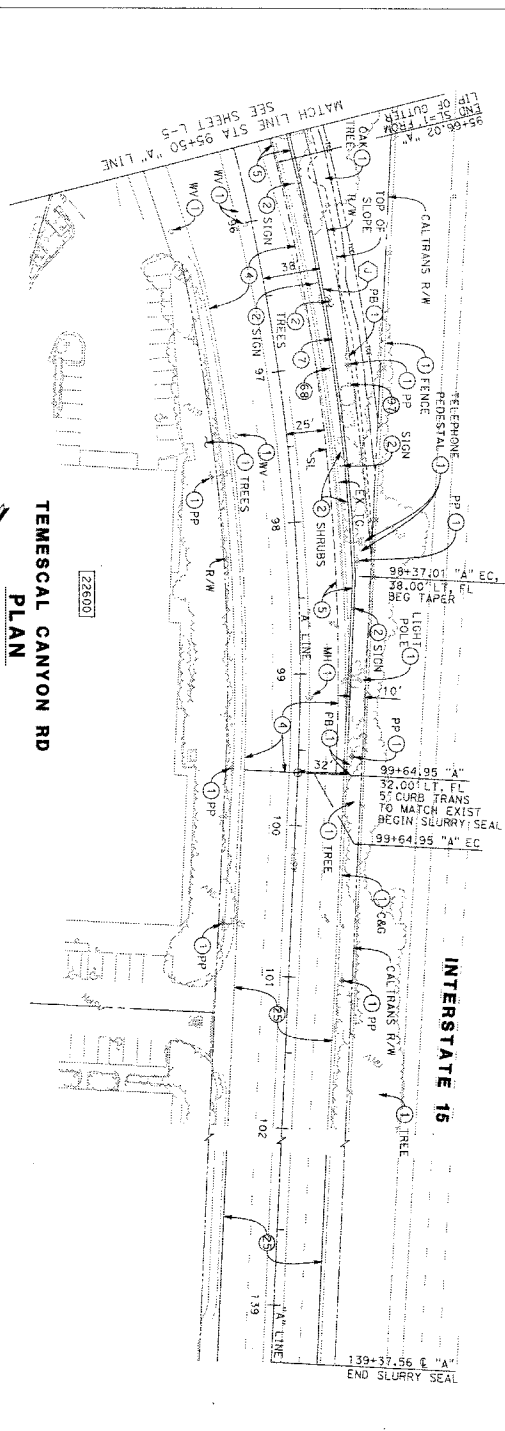
**NO. 11 OF 63**

**DATE PLOTTED: 8/16/2018**

**TIME PLOTTED: 11:19:09 AM**



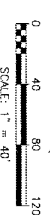
**PROFILE**  
HORIZ: 1"=40'  
VERT: 1"=8'



**TEMESCAL CANYON RD  
PLAN**

**CURB CURVE DATA**

No.	R	L	PC	PT	LC
1	1433.00	1615.36"	205.43	408.09	



NO.	REVISIONS	BY	APP.	DATE

ADDED NOTE 5				
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--	--	--	--	--



PREPARED BY  
**TEMESCAL CANYON RD**  
DAWSON CANYON RD TO LEROY RD  
DATE: 07/16/2018

STREET IMPROVEMENT PLANS SHEET NO.  
**L-6**  
"A" LINE STA 95+50 TO 99+64.95  
SHEET 12 OF 63

DATE PLOTTED: 8/16/2018  
TIME PLOTTED: 11:15:12 AM

- CONSTRUCTION NOTES:**
1. PROTECT IN PLACE (AS NOTED)
  2. REMOVE (AS NOTED)
  3. G.O.D. PLANE: 0.17' AND OPEN AT WITH 0.17' HMA (1.5"/1")
  4. CONSTRUCT 0.17' HMA (1.5"/1") OVER 0.59' HMA (1") OVER 1.00' CLASS 2 AGGREGATE BASE (EXIST EXIST AC WHERE NOTED ON PC SHEETS)
  5. CONSTRUCT TYPE A-6 CURB AND GUTTER PER COUNTY STD NO. 208 AND DETAIL ON SHEET C-2
  6. APPLY SLURRY SEAL, TYPE 2
  7. REMOVE UTILITY MARKER
  8. ADJUST WATER VALVE COVER TO GRADE

**FOR UTILITY INFORMATION  
SEE U SHEETS**

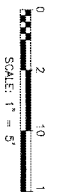
- LEGEND:**
- LIMITS OF CLEARING
  - - - - - LIMITS OF CLEARING W/ HIGH VIS FENCE (ESA)
  - PERMANENT FENCE
  - - - - - TEMPORARY FENCE
  - ICE
  - [23222] STREET NUMBER ALONG TEMESCAL CANYON ROAD

- NOTES:**
1. FOR CENTERLINE ALIGNMENT DATA SEE SHEET PC-1.
  2. REMOVE ALL TREES, BUSHES, SHRUBS, AND VEGETATION WITHIN LIMITS OF CLEARING UNLESS NOTED OTHERWISE.
  3. ALL TREES AND VEGETATION OUTSIDE LIMITS OF CLEARING TO REMAIN AND BE PROTECTED AT ALL TIMES.
  4. TEMPORARY IMPACTS TO AREAS WITHIN ESA FENCE TO BE MITIGATED BY REVEGETATION WITH HYDRO-SEEDING AFTER CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
  5. PRIOR TO ACTUAL REMOVAL, THE CONTRACTOR SHALL MARK TREES IN THE FIELD AND OBTAIN APPROVAL FROM THE ENGINEER.



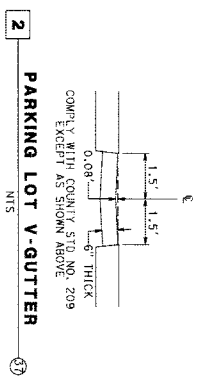
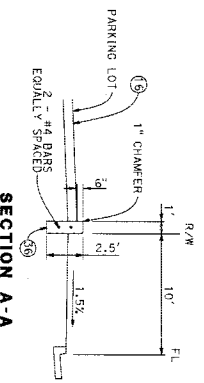
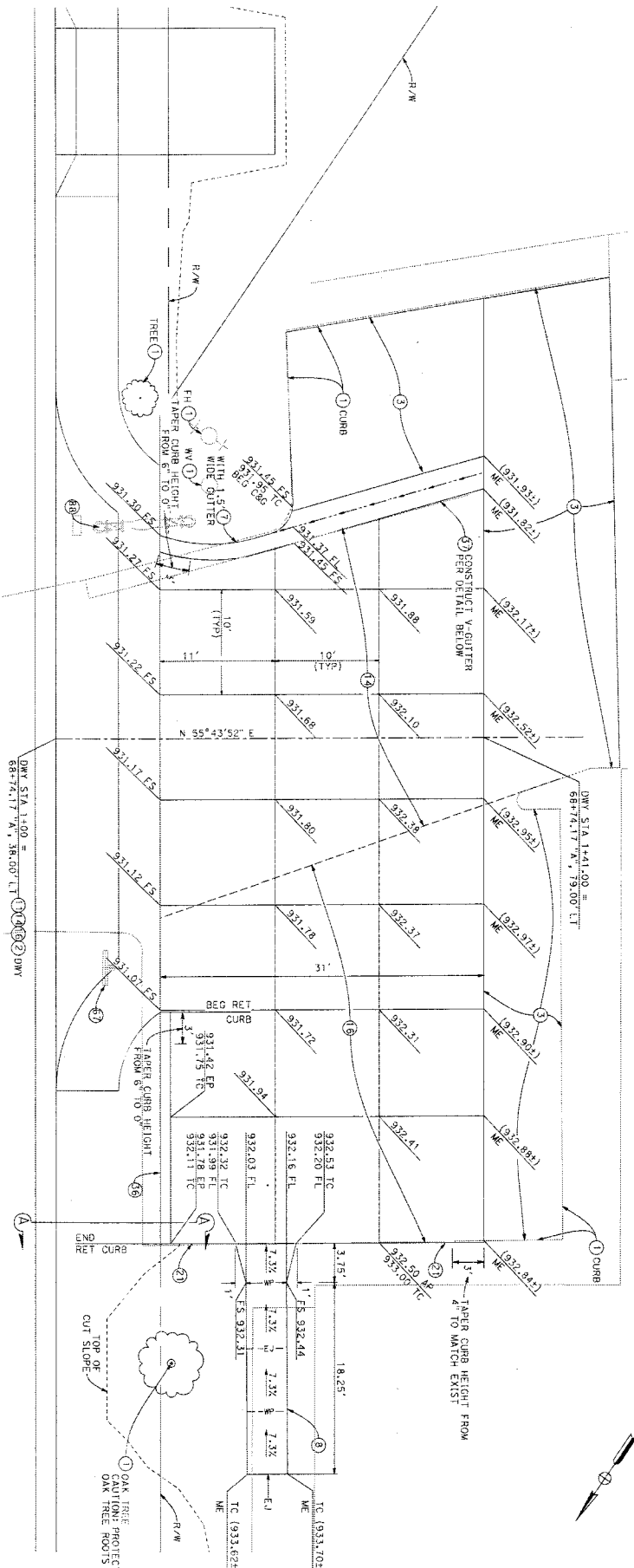
**CONSTRUCTION NOTES:**

- 1 PROTECT IN PLACE (AS NOTED)
- 2 REMOVE AS NOTED
- 3 ADD PLANE 0.10' AND OVERLAY WITH 0.10" HMA (1/2")
- 4 CONSTRUCT TYPE A-6 CURB AND GUTTER PER COUNTY STD NO. 200 AND DETAIL ON SHEET C-2
- 5 CONSTRUCT 4" THICK SIDEWALK PER COUNTY STD NO. 401
- 6 CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER COUNTY STD NO. 207A AND DETAIL ON SHEET C-1
- 7 CONSTRUCT DRIVEWAY TIE-IN WITH 0.17" HMA (3/4") OVER 0.33" HMA (1") OVER 1.10" CLASS 2 AGGREGATE BASE
- 8 CONSTRUCT DRIVEWAY TIE-IN WITH 0.25" (1/2") HMA OVER 0.50" CLASS 2 AGGREGATE BASE
- 9 CONSTRUCT "C" TYPE "C" CURB PER COUNTY STD NO. 204
- 10 CONSTRUCT RETAINING CURB, SEE DETAIL ON THIS SHEET
- 11 CONSTRUCT PARKING LOT V-GUTTER, SEE DETAIL ON THIS SHEET
- 12 RELOCATE PRIVATE SIGN
- 13 RELOCATE BACKFLOW PREVENTER ASSEMBLY (S), SEE UD SHEETS



**TEMESCAL CANYON RD  
AT STA 68+74.17**

1" = 5'-0"



**LEGEND:**

- WEAVERED PLANE JOINT PER COUNTY STD NO. 205
- EXPANSION JOINT PER COUNTY STD NO. 205

SEE SHEET C-4 FOR PAVEMENT DELINEATION

NO.	REVISIONS	BY	DATE
1	ADDED CONSTRUCTION NOTE 2		

NO.	REVISIONS	BY	DATE
1	ADDED CONSTRUCTION NOTE 2		

NO.	REVISIONS	BY	DATE
1	ADDED CONSTRUCTION NOTE 2		

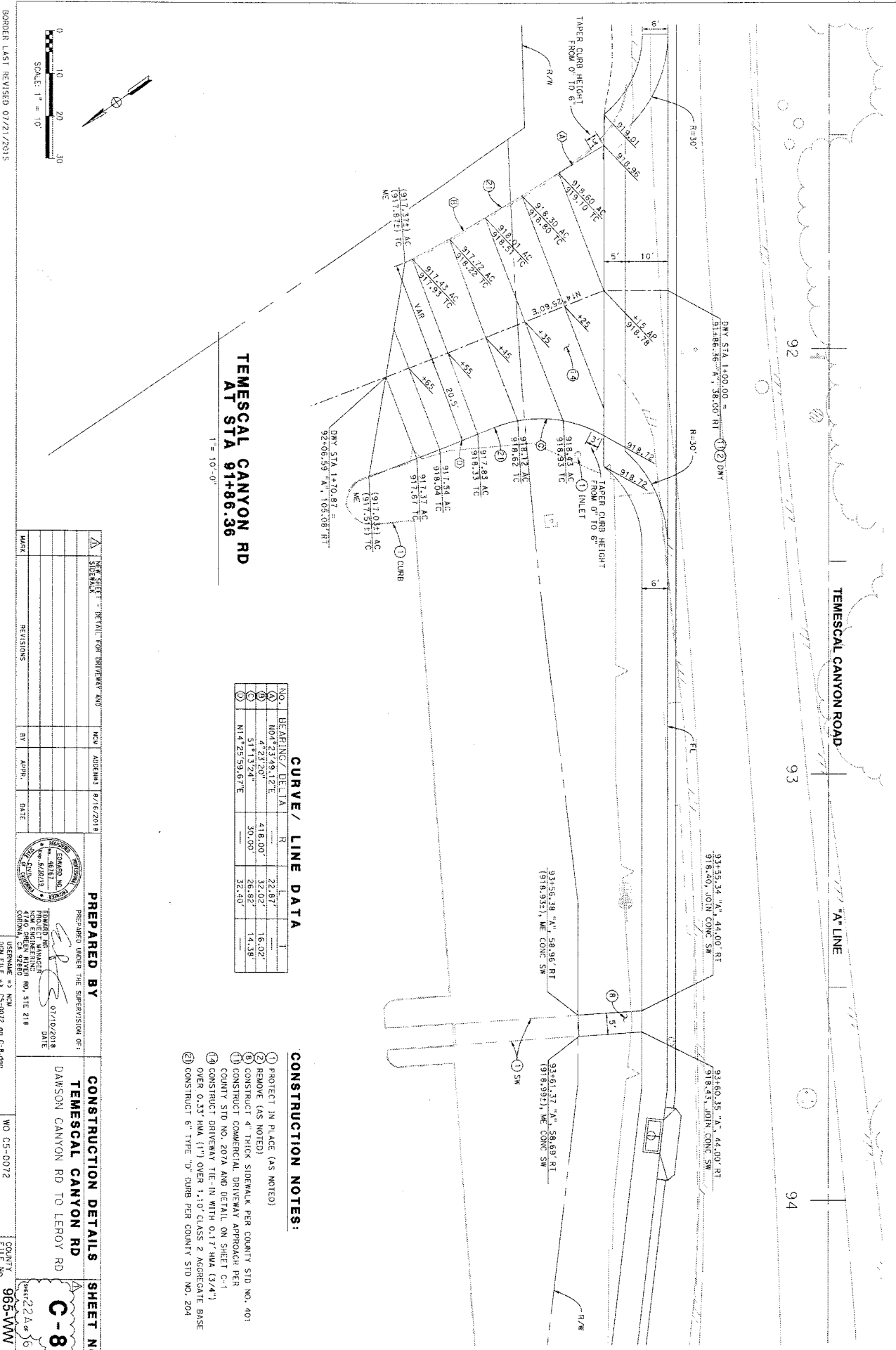
**PREPARED BY**

EDWARD W. ...  
PROJECT MANAGER  
DATE: 07/10/2018

**CONSTRUCTION DETAILS**

TEMESCAL CANYON RD  
DAWSON CANYON RD TO LEROY RD

**SHEET NO. C-3**



**TEMESCAL CANYON RD  
AT STA 91+86.36**

1" = 10'-0"

**CURVE / LINE DATA**

NO.	BEARING / LABEL	R	L
1	N04°23'49.12"E	418.00'	22.87'
2	S1°13'24"	30.00'	16.02'
3	N14°25'59.67"E	32.40'	28.82'
			14.38'

**CONSTRUCTION NOTES:**

- 1 PROTECT IN PLACE (AS NOTED)
- 2 REMOVE (AS NOTED)
- 3 CONSTRUCT 4" THICK SIDEWALK PER COUNTY STD NO. 101
- 4 CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER COUNTY STD NO. 207A AND DETAIL ON SHEET C-1
- 5 CONSTRUCT DRIVEWAY THE-1A WITH 0.17% (2.4") OVER 0.33% (1") OVER 1.10 CLASS 2 AGGREGATE BASE
- 6 CONSTRUCT 6" TYPE 'D' CURB PER COUNTY STD NO. 204

**REVISIONS**

NO.	DATE	BY	APP.	REVISIONS

**PREPARED BY**

PROPOSED UNDER THE SUPERVISION OF

**CONSTRUCTION DETAILS**

**TEMESCAL CANYON RD**

DAWSON CANYON RD TO LEROY RD

DATE: 07/19/2018

PROJECT MANAGER: [Signature]

4740 SHEEN AVENUE, STE 218

CORONA, CA 92729

CONTRACT NO. 05-0072

WO 05-0072

DATE PLOTTED: 8/19/2018

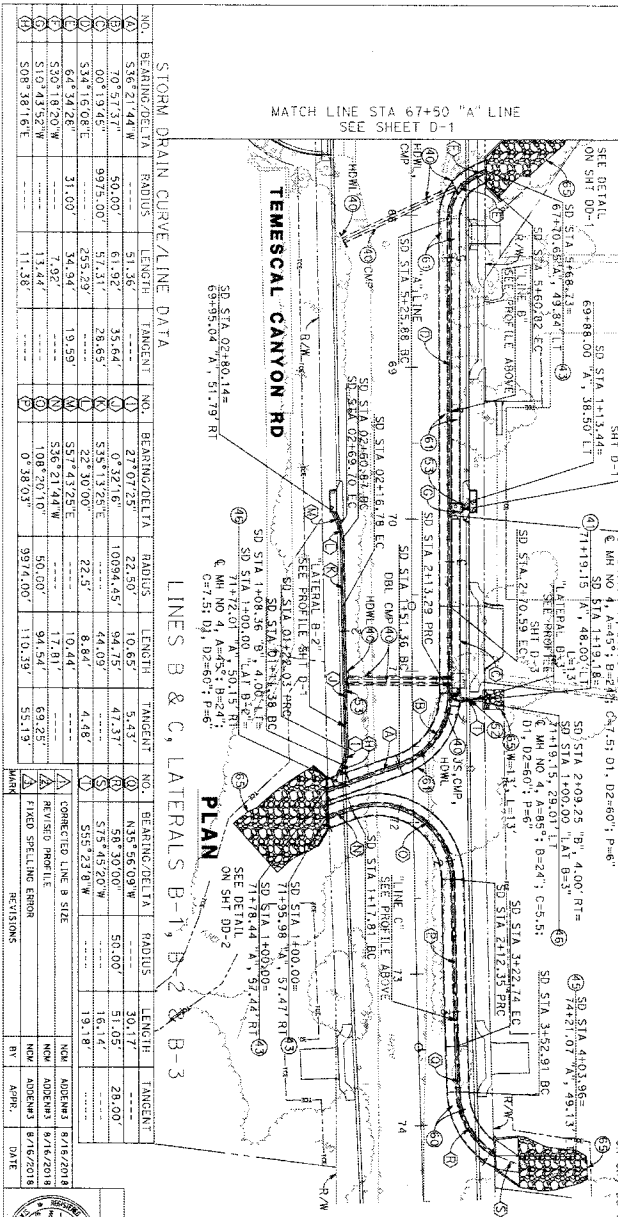
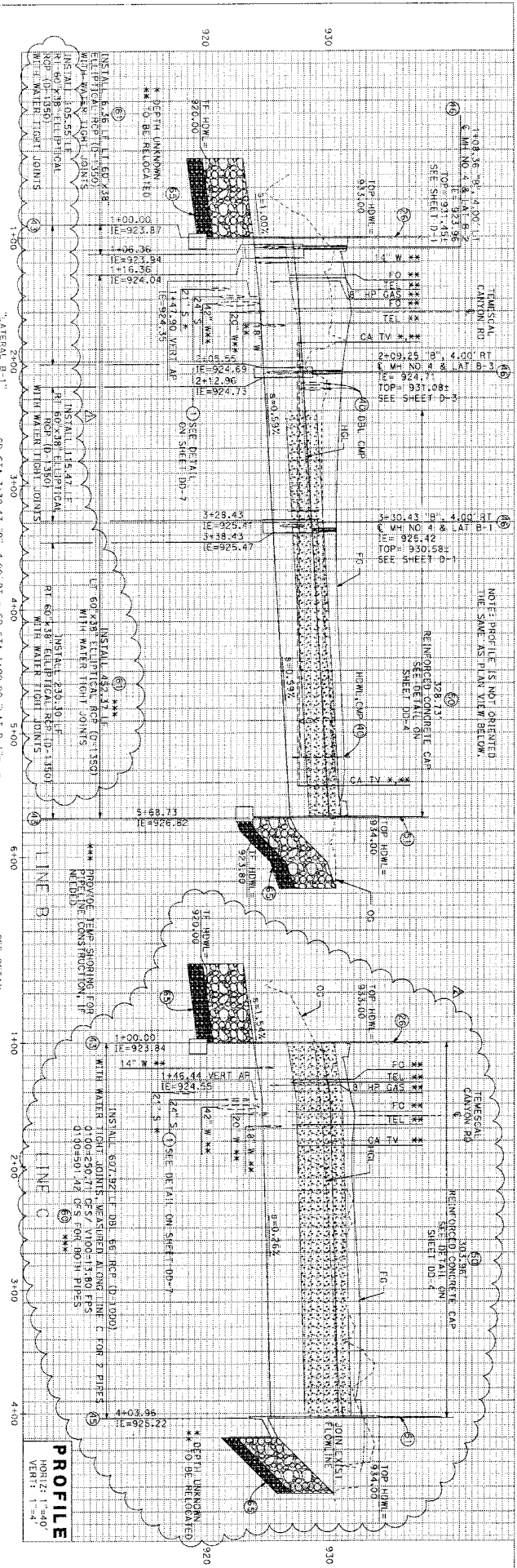
TIME PLOTTED: 11:19:15 AM

**SHEET NO.**

**C-8**

OF 63

965-WW



**STORM DRAIN CURVE/LINE DATA**

NO.	BEARING/Delta	RADIUS	LENGTH	TANGENT	NO.	BEARING/Delta	RADIUS	LENGTH	TANGENT
1	S 16 21' 44" W	51.36	51.36	51.36	1	S 16 21' 44" W	51.36	51.36	51.36
2	S 79 57' 37" E	50.00	61.92	35.64	2	S 79 57' 37" E	50.00	61.92	35.64
3	S 34 16' 08" E	9975.00	57.31	28.65	3	S 34 16' 08" E	9975.00	57.31	28.65
4	S 64 34' 26" E	31.00	295.29	19.59	4	S 64 34' 26" E	31.00	295.29	19.59
5	S 10 43' 52" W	11.44	7.92	3.94	5	S 10 43' 52" W	11.44	7.92	3.94
6	S 08 38' 16" E	11.38	11.38	11.38	6	S 08 38' 16" E	11.38	11.38	11.38

**CONSTRUCTION NOTES:**

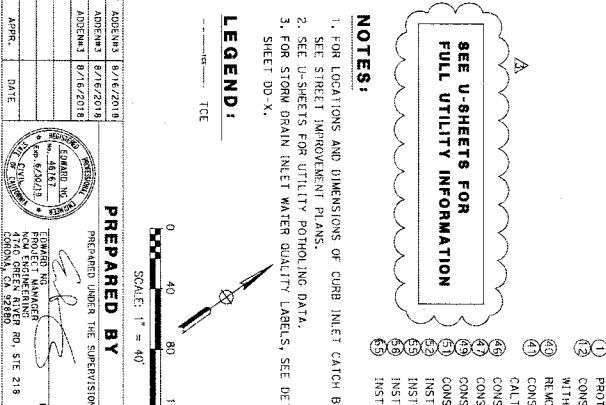
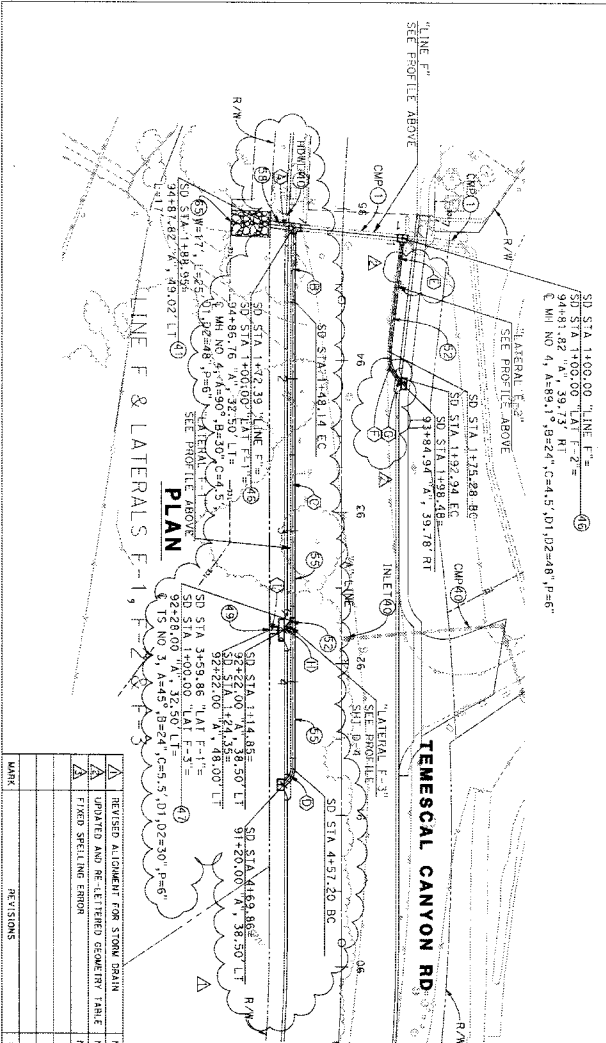
- INSTALL 5' HIGH CHAIN LINK FENCE PER SPWC STD PLAN 800-3
- REMOVE DRAINAGE FACILITY (AS NOTED)
- CONSTRUCT PIPE CULVERT HEADWALL, STRAIGHT, SINGLE PIPE PER CALTRANS STD PLAN 088
- CONSTRUCT PIPE CULVERT HEADWALL, TYPE A, PER CALTRANS STD PLAN 080
- CONSTRUCT HEADWALL WITH WARPED WINDOW, PER CALTRANS STD PLAN 0868
- CONSTRUCT MANHOLE NO. 4 PER REC STD DWG NO. MW-254
- CONSTRUCT REINFORCED CONCRETE CAP (MINOR CONCRETE)
- CONSTRUCT METAL HAND RAILING, TYPE B, PER SPWC STD PLAN 606-4
- INSTALL 24" RCP (D-3000)
- INSTALL 24" RCP (D-3000) WITH WATER TIGHT JOINTS
- INSTALL 60" X 36" ELLIPTICAL RCP (D-1350) WITH WATER TIGHT JOINTS
- INSTALL ROCK SLOPE PROTECTION (LADON AND NO. 2 LAYERS, METHOD 8)

**NOTES:**

- FOR LOCATIONS AND DIRECTIONS OF CURB INLET-CATCH BASINS, SEE STREET IMPROVEMENT PLANS.
- SEE U-SHEETS FOR UTILITY POT-HOLING DATA.
- FOR STORM DRAIN INLET WATER QUALITY LABELS, SEE DETAIL ON SHEET DD-X.

**LEGEND:**

- SEE U-SHEETS FOR FULL UTILITY INFORMATION

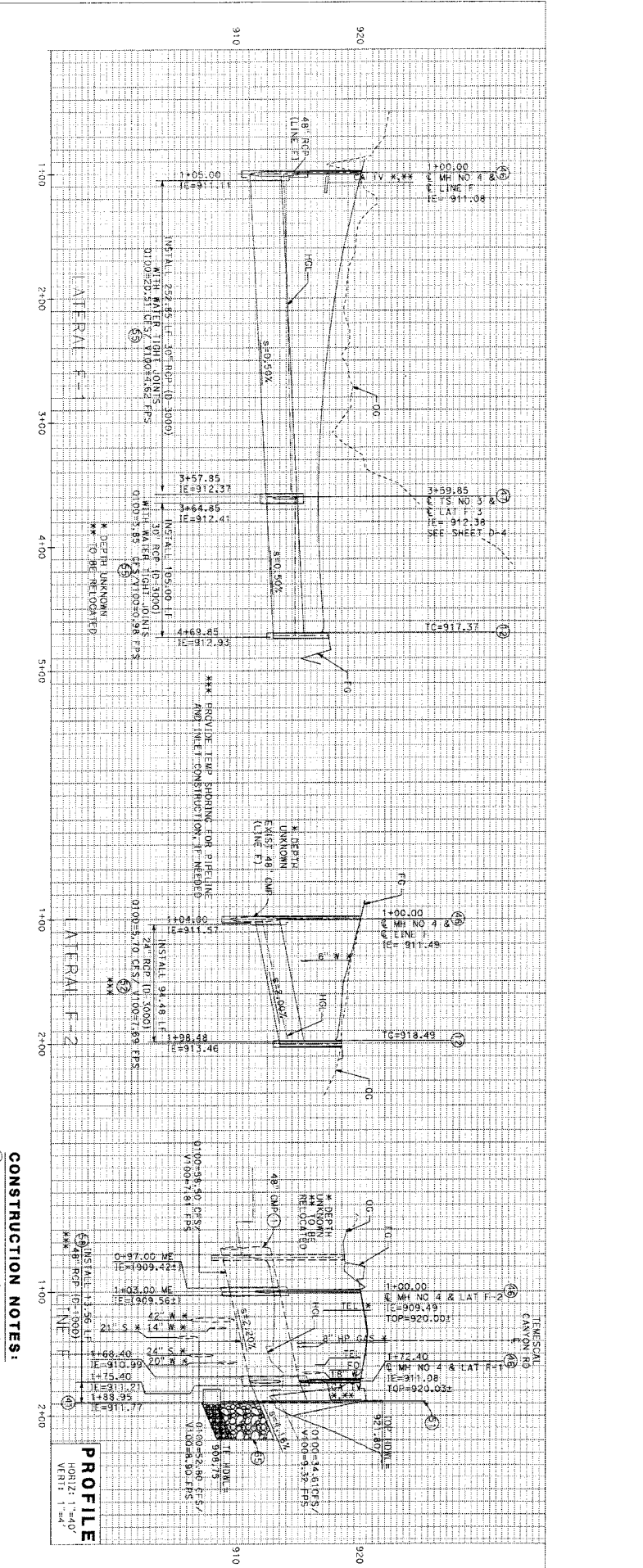


**CONSTRUCTION NOTES:**

- PROTECT IN PLACE (AS NOTED)
- CONSTRUCT CURB INLET CATCH BASIN PER COUNTY STD NO. 300, WITH FULL TRASH CAPTURE DEVICE
- REMOVE DRAINAGE FACILITY (AS NOTED)
- CONSTRUCT PIPE CULVERT HEADWALL, STRAIGHT, SINGLE PIPE PER CALTRANS STD PLAN D89
- CONSTRUCT MANHOLE NO. 4 PER RCP STD Dwg NO. MH54
- CONSTRUCT TRANSITION STRUCTURE NO. 3 PER RCP STD Dwg NO. 15303
- CONSTRUCT TOP OF SLOPE DITCH INLET PER DETAIL ON SHEET DD-3
- CONSTRUCT METAL HAND RAILING, TYPE B, PER SPRING STD PLAN 606-4
- INSTALL 24" RCP (D=3000)
- INSTALL 30" RCP (D=3000) WITH WATER TIGHT JOINTS
- INSTALL 48" RCP (D=1000)
- INSTALL ROCK SLOPE PROTECTION (1/4 TON AND NO. 2 LAYERS METHOD B) STORM DRAIN CURVE/LINE DATA

**LEGEND:**

MARK	REVISIONS	BY	APPR.	DATE
△	REVISED ALIGNMENT FOR STORM DRAIN	NCM	ADDENDUM	8/16/2018
△	UPDATED AND RE-LETTERED GEOMETRY TABLE	NCM	ADDENDUM	8/16/2018
△	FIXED SPELLING ERROR	NCM	ADDENDUM	8/16/2018



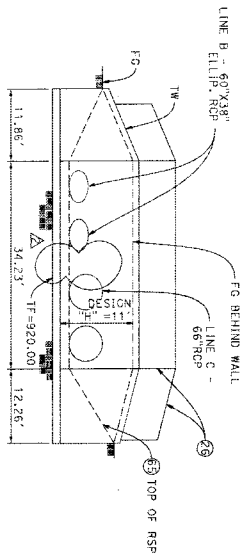
**CONSTRUCTION NOTES:**

- PROTECT IN PLACE (AS NOTED)
- CONSTRUCT CURB INLET CATCH BASIN PER COUNTY STD NO. 300, WITH FULL TRASH CAPTURE DEVICE
- REMOVE DRAINAGE FACILITY (AS NOTED)
- CONSTRUCT PIPE CULVERT HEADWALL, STRAIGHT, SINGLE PIPE PER CALTRANS STD PLAN D89
- CONSTRUCT MANHOLE NO. 4 PER RCP STD Dwg NO. MH54
- CONSTRUCT TRANSITION STRUCTURE NO. 3 PER RCP STD Dwg NO. 15303
- CONSTRUCT TOP OF SLOPE DITCH INLET PER DETAIL ON SHEET DD-3
- CONSTRUCT METAL HAND RAILING, TYPE B, PER SPRING STD PLAN 606-4
- INSTALL 24" RCP (D=3000)
- INSTALL 30" RCP (D=3000) WITH WATER TIGHT JOINTS
- INSTALL 48" RCP (D=1000)
- INSTALL ROCK SLOPE PROTECTION (1/4 TON AND NO. 2 LAYERS METHOD B) STORM DRAIN CURVE/LINE DATA

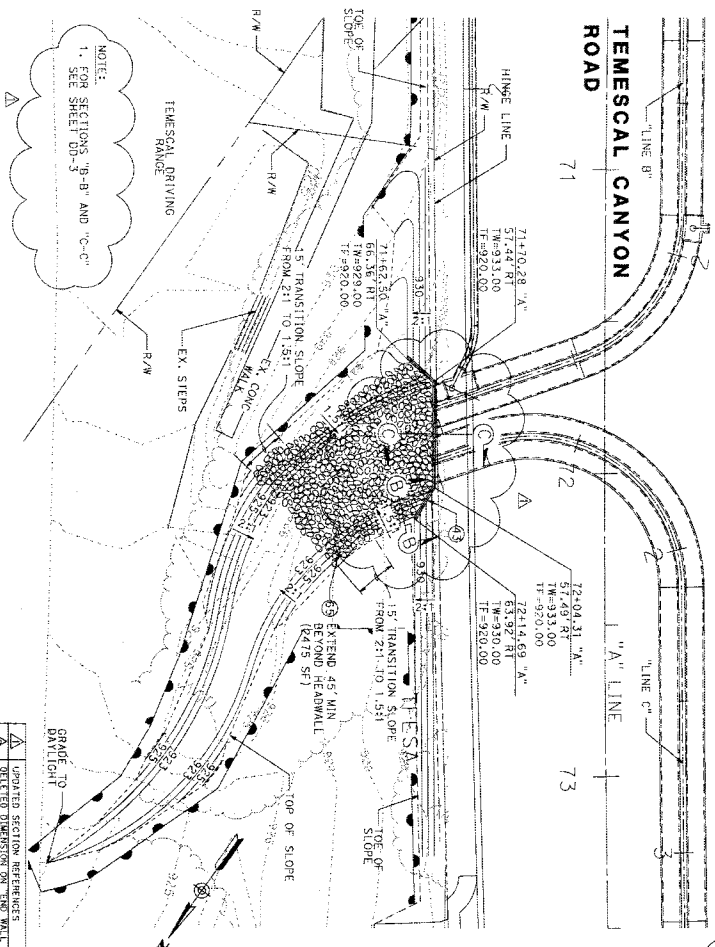
**LEGEND:**

MARK	REVISIONS	BY	APPR.	DATE
△	REVISED ALIGNMENT FOR STORM DRAIN	NCM	ADDENDUM	8/16/2018
△	UPDATED AND RE-LETTERED GEOMETRY TABLE	NCM	ADDENDUM	8/16/2018
△	FIXED SPELLING ERROR	NCM	ADDENDUM	8/16/2018

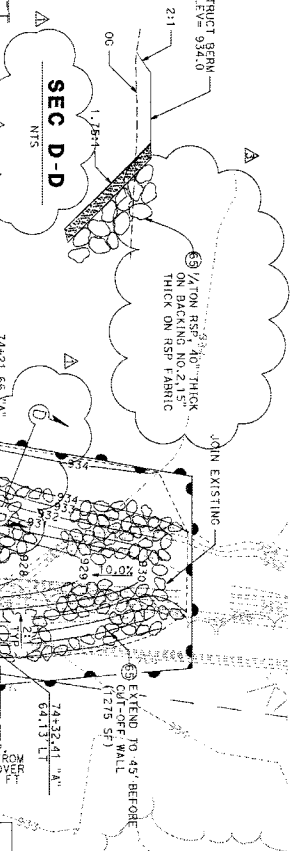
**DRAINAGE PLAN & PROFILE SHEET NO. D-5**  
 TEMESCAL CANYON RD TO LEROY RD  
 "A" LINE STA 89450 TO 95+50  
 SHEET 28 OF 63  
 COUNTY FILE NO. 965-WW



**ENDWALL AND WINGWALL - LINES B & C**  
NTS



**OUTLET PLAN - LINES B AND C**  
1" = 20'



**INLET PLAN - LINE C**  
1" = 10'

**CONSTRUCTION NOTES:**

- 43 INSTALL 5' HIGH CHAIN LINK FENCE PER SPWQ STD PLAN 600-3
- 43 CONSTRUCT PIPE CULVERT HEADWALL, TYPE A, PER CALTRANS STD PLAN 090
- 49 CONSTRUCT HEADWALL WITH WARPED WINGWALL PER CALTRANS STD PLAN D868
- 49 INSTALL ROCK SLOPE PROTECTION (1/4 TON AND NO. 2 LAYERS, METHOD B)

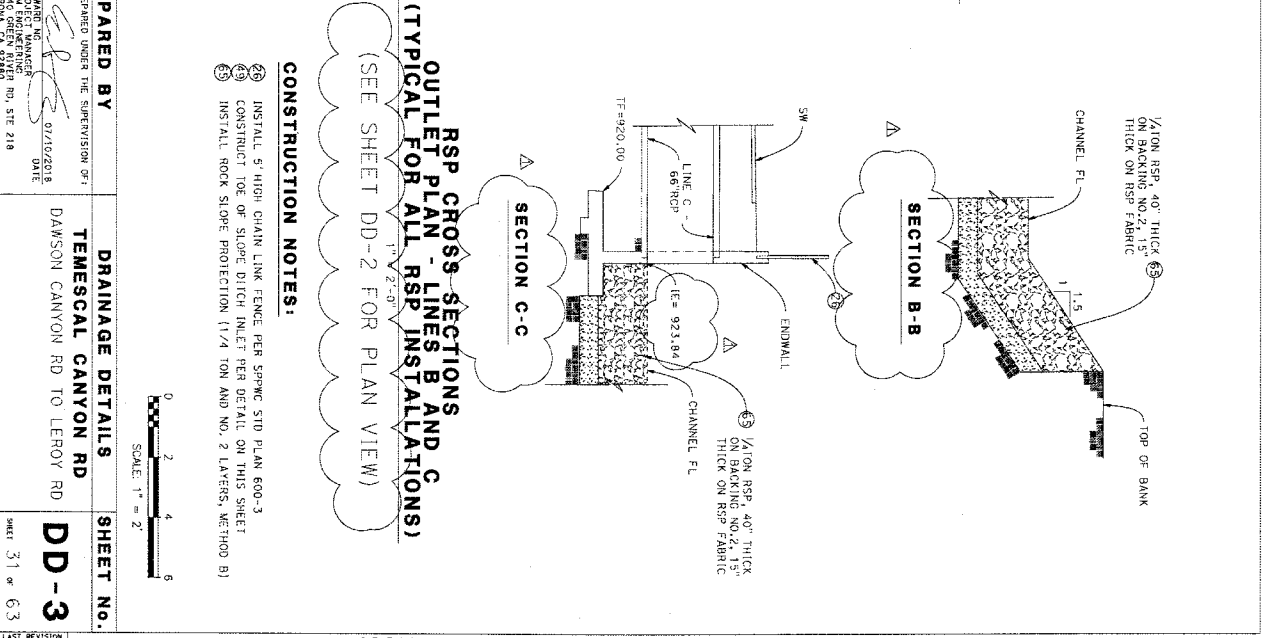
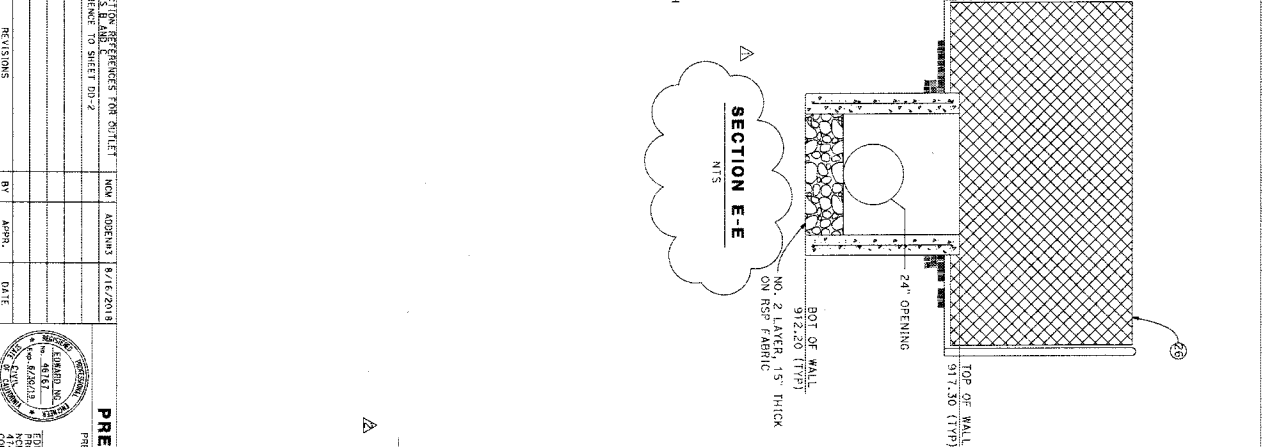
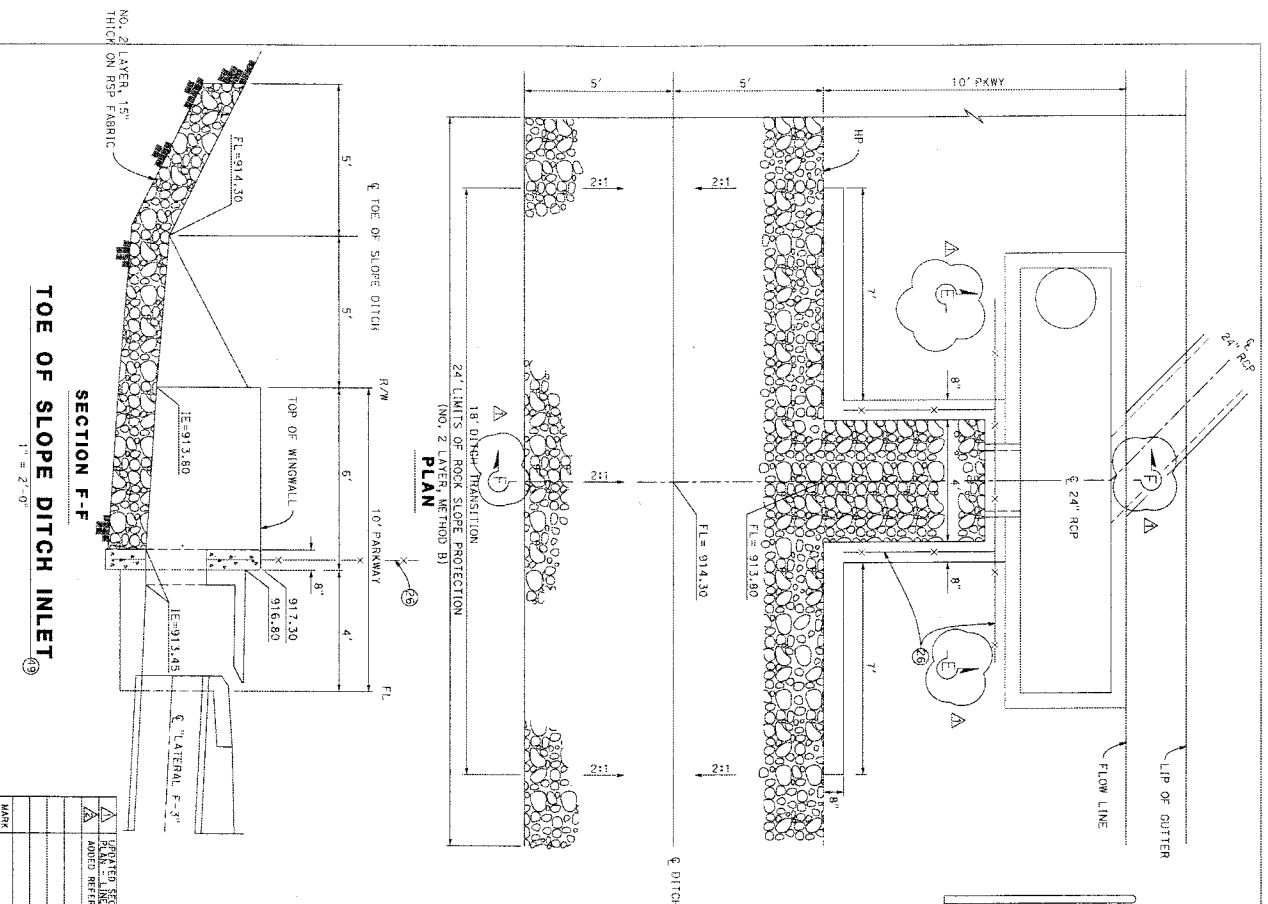
MARK	REVISIONS	BY	DATE
Δ	UPDATED SECTION REFERENCES	NON	ADDENDUM 3
Δ	CHANGED R/SF CALCULATED ON SEC D-D	NON	ADDENDUM 3

DATE	BY	APP. DATE	NON	APP. DATE
07/16/2018	NON	07/16/2018	NON	07/16/2018
07/16/2018	NON	07/16/2018	NON	07/16/2018

DATE	BY	APP. DATE	NON	APP. DATE
07/16/2018	NON	07/16/2018	NON	07/16/2018
07/16/2018	NON	07/16/2018	NON	07/16/2018

PREPARED BY: DRAINAGE DETAILS  
PROJECT MANAGER: TEMESCAL CANYON RD  
DATE: 07/16/2018  
SHEET NO. 30 OF 63

BORDER LAST REVISED 01/21/2015



**RSP CROSS SECTIONS OUTLET PLAN - LINES B AND C (TYPICAL FOR ALL RSP INSTALLATIONS)**  
 (SEE SHEET DD-2 FOR PLAN VIEW)

**CONSTRUCTION NOTES:**  
 28 INSTALL 5' HIGH CHAIN LINK FENCE PER SP99C STD PLAN 600-3  
 29 CONSTRUCT TOE OF SLOPE DITCH INLET PER DETAIL ON THIS SHEET  
 30 INSTALL ROCK SLOPE PROTECTION (1/4 TON AND NO. 2 LAYERS, METHOD B)

**PREPARED BY** [Signature] **DATE** 07/10/2018  
**PROJECT MANAGER** [Signature] **DATE** 07/10/2018  
**ENGINEER** [Signature] **DATE** 07/10/2018

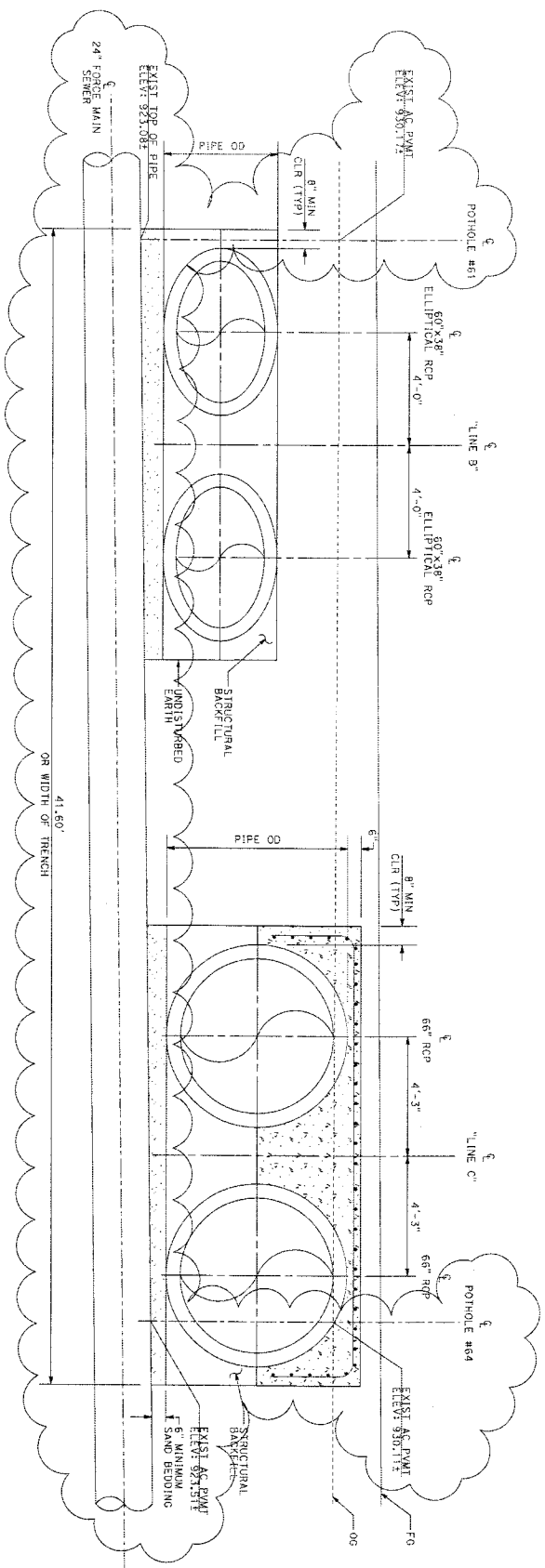
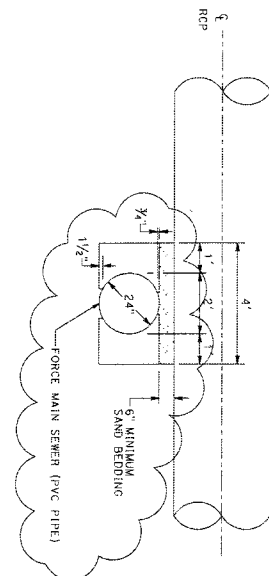
**DRAINAGE DETAILS** TEMESCAL CANYON RD  
 DAWSON CANYON RD TO LEROY RD

**SHEET NO.** DD-3  
**SHEET 31 OF 63**

**SCALE:** 1" = 2'-0"

**DATE PLOTTED =>** 8/16/2019  
**TIME PLOTTED =>** 11:19:27 AM

**ISSUED BY ADDENDUM No. 3, ATTACHMENT "F"**



**24" FORCE MAIN SEWER LINE CONCRETE PROTECTION AT LINE B AND LINE C**

1" = 2'-0"

MARK	REGISTRATION	RT	APPR.	DATE

**PREPARED BY**

DRAINAGE ENGINEERING  
PROJECT MANAGER  
4500 UNIVERSITY AVENUE  
CORONA, CA 92780

DATE: 07/19/2018

USERNAME: g3 NCN  
JOB FILE: g3-0072 to 03-1-090

**DRAINAGE DETAILS**

TEMESCAL CANYON RD  
DAWSON CANYON RD TO LEROY RD  
24" FORCE MAIN  
SEWER PROTECTION

**SHEET NO.**

DD-7

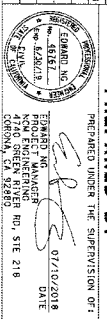
SHEET 35 OF 63



NOTES: LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL INFORMATION PROVIDED TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL MAINTAIN ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ADVISE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ADVISE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ADVISE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ADVISE ALL UNDERGROUND UTILITIES.

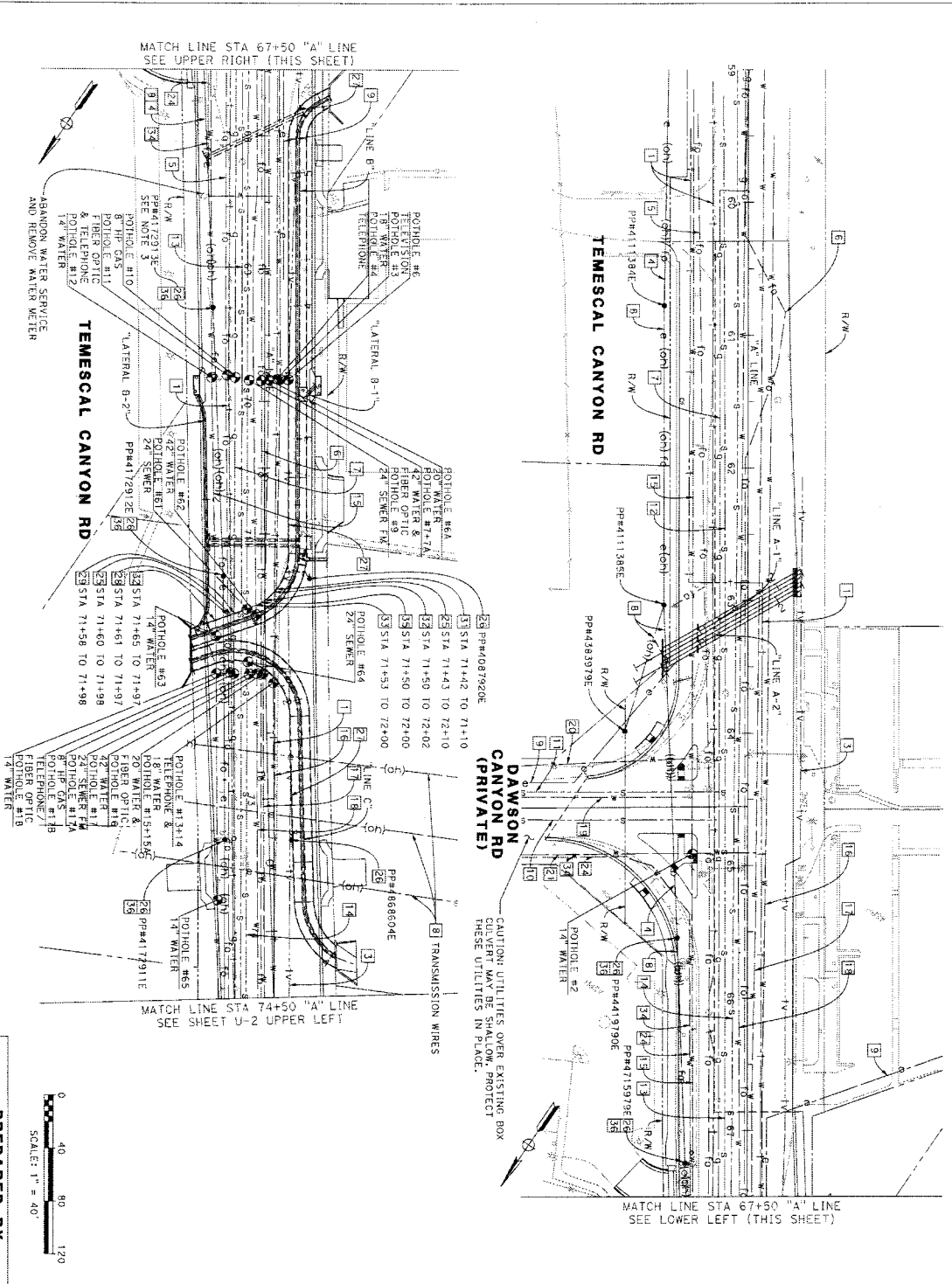
ABANDON WATER SERVICE AND REMOVE WATER METER

MARK	REVISIONS	NO.	APPROX.	DATE
Δ	CHANGED UTILITY OWNER			8/16/2018



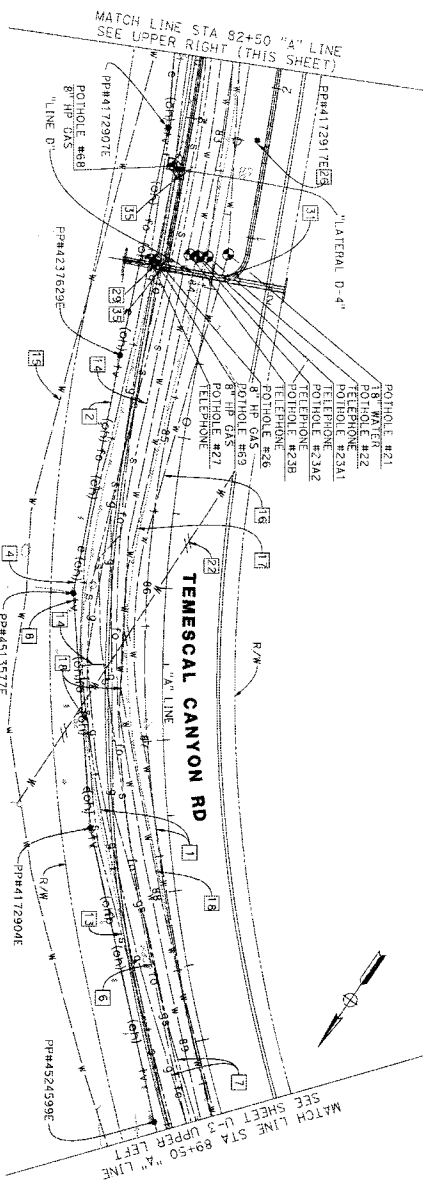
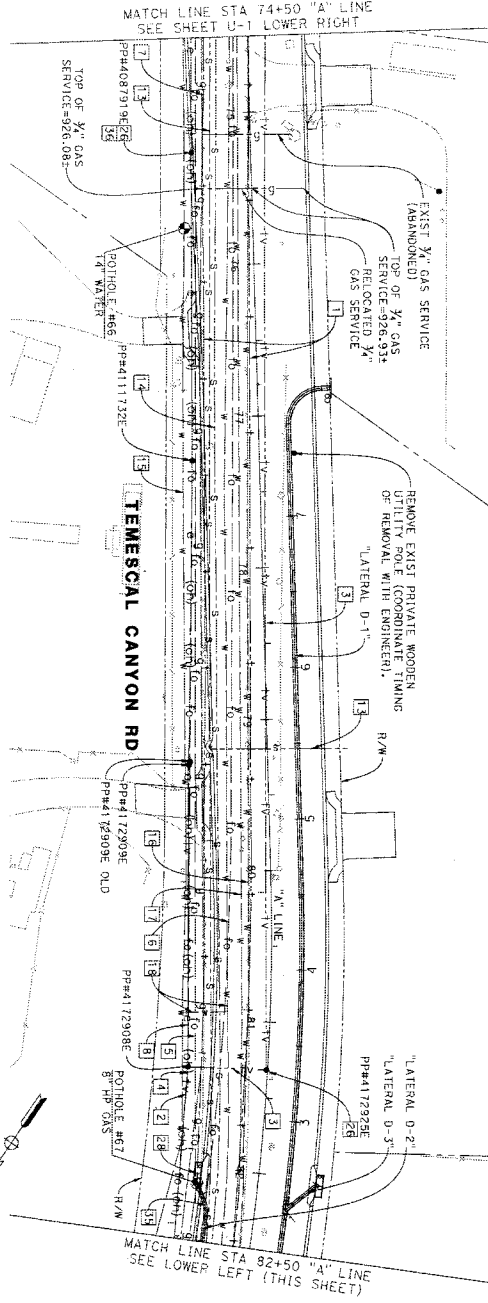
PREPARED BY: TEMESCAL CANYON RD TO LEROY RD  
"A" LINE STA 59+00 TO 74+50  
DATE: 07/10/2018  
PROJECT MANAGER: DAVID A. SMITH  
NO. 46827  
STATE OF ILLINOIS  
MECHANICAL ENGINEERING  
100 N. LAUREL ST., SUITE 218  
CORONA, CA 92688  
PHONE: 951-218-1999  
FAX: 951-218-1998  
E-MAIL: DAVID@DASMECH.COM  
DRAWING NO.: 965-WW

DATE PLOTTED: 8/16/2019  
TIME PLOTTED: 11:19:29 AM



- UTILITY LEGEND**
- 1 TELEPHONE (A1&T)
  - 2 OH CABLE TV (CHARTER)
  - 3 CABLE TV (CHARTER)
  - 4 OH FIBER OPTIC (SUNESYS)
  - 5 FIBER OPTIC (A1&T) Δ
  - 6 FIBER OPTIC (CENTURYLINK)
  - 7 GAS - 8" HIGH PRESSURE (SOG)
  - 8 OH ELECTRIC (SCE)
  - 9 OH ELECTRIC (SCE)
  - 10 UC ELECTRIC (SCE)
  - 11 SEWER - 4" DIP (EWMWD)
  - 12 SEWER - 6" DIP (EWMWD)
  - 13 SEWER - 18" (TWD)
  - 14 SEWER - 21" (TWD)
  - 15 SEWER - 24" FORCE MAIN (SAMPWA)
  - 16 WATER - 14" OML (TWD)
  - 17 WATER - 18" OML (CORONA)
  - 18 WATER - 20" (TWD)
  - 19 WATER - 42" (EWMWD)
  - 20 WATER - 4" (USA WASTE)
  - 21 WATER - 16" (TWD)
  - 22 WATER - 16" POTABLE (TWD)
  - 23 WATER - 36" (TWC) ABANDONED
  - 24 WATER - 12" PVC (TWD)
  - 25 WATER - 3/4" USA WASTE
- UTILITY NOTES:**
- 1 POHOLE LOCATION (SEE TABLE ON SHEET U-4)
  - 2 RELOCATE TELEPHONE BY AT&T
  - 3 RELOCATE POWER POLE BY SCE
  - 4 RELOCATE CABLE TV BY CHARTER
  - 5 RELOCATE FIBER OPTIC BY (A1&T) Δ
  - 6 RELOCATE GAS BY SO CAL GAS
  - 7 RELOCATE STREET LIGHT BY SCE
  - 8 RELOCATE WATER BY CITY OF CORONA
  - 9 RELOCATE WATER BY TWD
  - 10 RELOCATE WATER BY EWMWD
  - 11 REMOVE 3/4" WATER (USA WASTE), SEE NOTE 2
  - 12 RELOCATE FIBER OPTIC BY CENTURYLINK
  - 13 RELOCATE OH FIBER OPTIC BY SUNESYS
- NOTES:**
1. FOR UTILITY RELOCATIONS AND ADJUSTMENTS OF SURFACE FEATURES, SEE STREET IMPROVEMENT PLANS.
  2. REMOVE 3/4" WATER (USA WASTE) AFTER CONNECTION TO 18" CORONA WATER LINE IS SHUT OFF AND WATER METER IS REMOVED.
  3. POWER POLE IS IMMEDIATELY ADJACENT TO EXISTING 14" WATER. TO AVOID DAMAGE TO WATERLINE, CUT OFF POWER POLE 3' BELOW OG. (DO NOT PULL OUT POWER POLE).





**UTILITY LEGEND**

- 1 TELEPHONE (A1&T)
- 2 TV
- 3 OH CABLE TV (CHARTER)
- 4 CABLE TV (CHARTER)
- 5 OH FIBER OPTIC (SUNESTYS)
- 6 FIBER OPTIC (A1&T) Δ
- 7 FIBER OPTIC (CENTURILINK)
- 8 GAS - 8" HIGH PRESSURE (SCG)
- 9 OH ELECTRIC (SCE)
- 10 OH ELECTRIC (SCE)
- 11 SEWER - 4" DIP (EVMWD)
- 12 SEWER - 6" DIP (EVMWD)
- 13 SEWER - 18" (TVMWD)
- 14 SEWER - 24" (TVMWD)
- 15 SEWER - 24" FORCE MAIN (SAMPWA)
- 16 WATER - 14" GAL (TVMWD)
- 17 WATER - 18" GAL (CORONA)
- 18 WATER - 20" (TVMWD)
- 19 WATER - 42" (EVMWD)
- 20 WATER - 4" (USA WASTE)
- 21 WATER - 16" (TVMWD)
- 22 WATER - 16" POTABLE (TVMWD)
- 23 WATER - 36" (TMC) ABANDONED
- 24 WATER - 12" PVC (TVMWD)
- 25 WATER - 3/4" (USA WASTE)

**UTILITY NOTES:**

- 23 RELOCATE TELEPHONE BY A1&T
- 24 RELOCATE POWER POLE BY SCE
- 25 RELOCATE CABLE TV BY CHARTER
- 26 RELOCATE FIBER OPTIC BY (A1&T) Δ
- 27 RELOCATE GAS BY SO CAL GAS
- 28 RELOCATE STREET LIGHT BY SCE
- 29 RELOCATE WATER BY CITY OF CORONA
- 30 RELOCATE WATER BY TVWD
- 31 RELOCATE WATER BY EVMWD
- 32 REMOVE 3/4" WATER (USA WASTE), SEE NOTE 2
- 33 RELOCATE FIBER OPTIC BY CENTURILINK
- 34 RELOCATE OH FIBER OPTIC BY SUNESTYS

**NOTES:**

- 1. FOR UTILITY RELOCATIONS AND ADJUSTMENTS OF SURFACE FEATURES, SEE STREET IMPROVEMENT PLANS.
- 2. REMOVE 3/4" WATER (USA WASTE) AFTER CONNECTION TO 18" CORONA WATER LINE IS SHUT OFF AND WATER METER IS REMOVED.
- 3. POWER POLE IS IMMEDIATELY ADJACENT TO EXISTING 14" WATER. TO AVOID DAMAGE TO WATERLINE, CUT OFF POWER POLE 3' BELOW OG. DO NOT PULL OUT POWER POLE.

**DIGALERT**  
 800-4-A-DIGALERT  
 408-232-5131  
 408-232-5131  
 408-232-5131  
 408-232-5131

NOTE: LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL UTILITIES AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL UTILITIES AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL UTILITIES AT ALL TIMES.

CHANGED UTILITY OWNER	NEW	ADDENDUM	DATE
		9/16/2018	

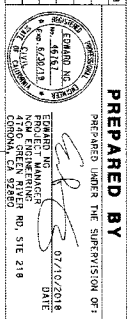
**PREPARED BY**  
 PREPARED UNDER THE SUPERVISION OF:  
 PROJECT MANAGER  
 DATE: 07/10/2018  
 PROJECT NO. 18-00000000  
 SHEET NO. 37 OF 63

**UTILITY PLAN**  
**SHEET NO. U-2**  
 TEMESCAL CANYON RD TO LEROY RD  
 "A" LINE STA 74+50 TO 89+50  
 COUNTY: 965-WW  
 SHEET 37 OF 63



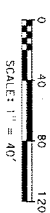
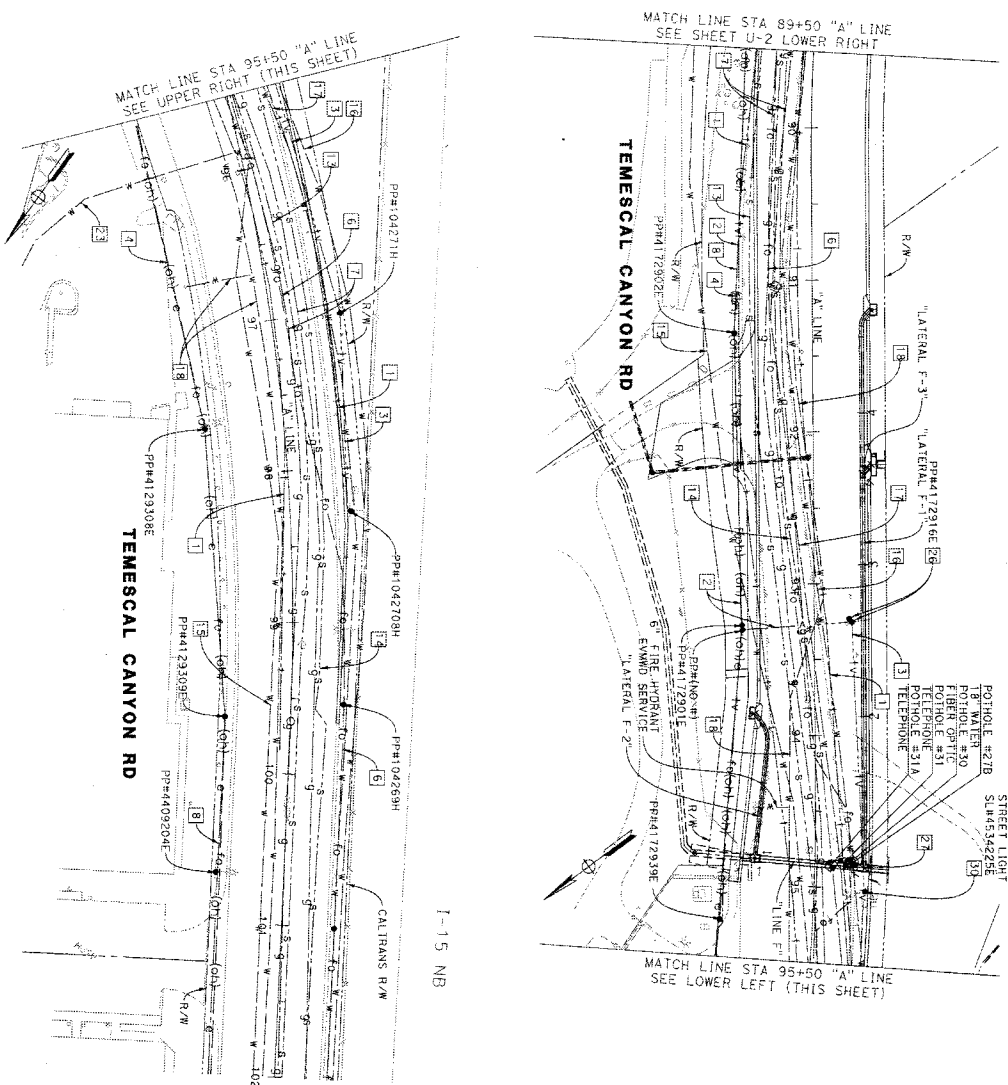
NOTE: LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL ADVANCE OF EXCAVATION. CALL UNDERGROUND SERVICE ALERT AT 811.

CHANGED UTILITY OWNER	NO.	ADDRESS	DATE
			8/16/2018



PREPARED BY  
 EDWARD M. DAWSON  
 PROJECT MANAGER  
 07/10/2018 DATE  
 4140 GREEN RIVER RD, STE 218  
 CORONA, CA 92689  
 CON FILE # CS-0072-KG-U-1-99F

UTILITY PLAN  
 TEMESCAL CANYON RD TO LEROY RD  
 "A" LINE STA 89+50 TO 102+00  
 SHEET 38 OF 63  
 COUNTY FILE NO. 965-WW



- UTILITY LEGEND**
- 1 TELEPHONE (AT&T)
  - 2 TV
  - 3 OH CABLE TV (CHARTER)
  - 4 OH FIBER OPTIC (SUNESYS)
  - 5 FIBER OPTIC (AT&T)
  - 6 FIBER OPTIC (CENTURYLINK)
  - 7 GAS - 8" HIGH PRESSURE (SOG)
  - 8 OH ELECTRIC (SCE)
  - 9 OH ELECTRIC (SCE)
  - 10 SEWER - 4" DIP (EWMWD)
  - 11 SEWER - 6" DIP (EWMWD)
  - 12 SEWER - 18" (TVM)
  - 13 SEWER - 21" (TVM)
  - 14 SEWER - 24" FORCE MAIN (SAMPRA)
  - 15 WATER - 14" OIL (TVM)
  - 16 WATER - 18" OIL (CORONA)
  - 17 WATER - 20" (TVM)
  - 18 WATER - 42" (EVMWD)
  - 19 WATER - 4" (USA WASTE)
  - 20 WATER - 16" (TVM)
  - 21 WATER - 16" POTABLE (TVM)
  - 22 WATER - 36" (TWC) ABANDONED
  - 23 WATER - 12" PVC (TVM)
  - 24 WATER - 3" (USA WASTE)
- UTILITY NOTES:**
- 1 POTHOLE LOCATION (SEE TABLE ON SHEET U-4)
  - 2 RELOCATE TELEPHONE BY AT&T
  - 3 RELOCATE POWER POLE BY SCE
  - 4 RELOCATE CABLE TV BY CHARTER
  - 5 RELOCATE FIBER OPTIC BY (AT&T)
  - 6 RELOCATE GAS BY SO CAL GAS
  - 7 RELOCATE STREET LIGHT BY SCE
  - 8 RELOCATE WATER BY CITY OF CORONA
  - 9 RELOCATE WATER BY TVMD
  - 10 REMOVE 3/4" WATER (USA WASTE), SEE NOTE 2
  - 11 RELOCATE FIBER OPTIC BY CENTURYLINK
  - 12 RELOCATE OH FIBER OPTIC BY SUNESYS
- NOTES:**
1. FOR UTILITY RELOCATIONS AND ADJUSTMENTS OF SURFACE FEATURES, SEE STREET IMPROVEMENT PLANS.
  2. REMOVE 3/4" WATER (USA WASTE) AFTER CONNECTION TO 18" CORONA WATER LINE IS SHUT OFF AND WATER METER IS REMOVED.
  3. POWER POLE IS IMMEDIATELY ADJACENT TO EXISTING 14" WATER. TO AVOID DAMAGE TO WATERLINE, DO NOT POWER POLE 3' BELOW OR (90) NOT FULL OUT POWER POLE.



NOTE: LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ADVANCE OF EXCAVATION CALL UNDERGROUND SERVICE ALERT AT 811.

CHANGED UTILITY OWNERS

MARK	REVISIONS	BY	DATE
Δ	NEW NOTE		

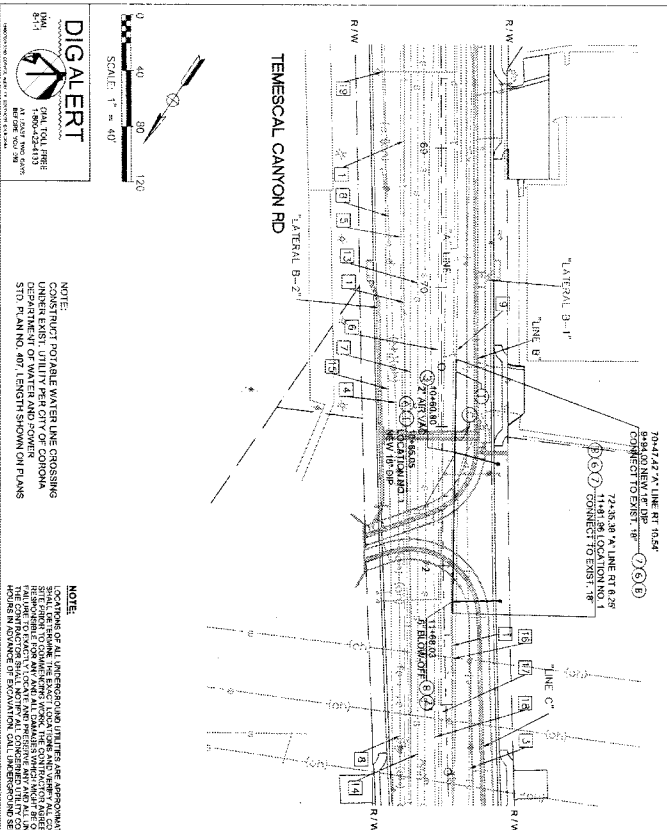
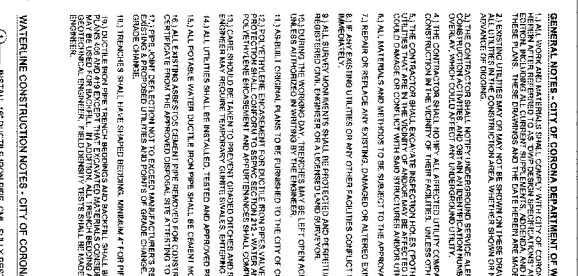
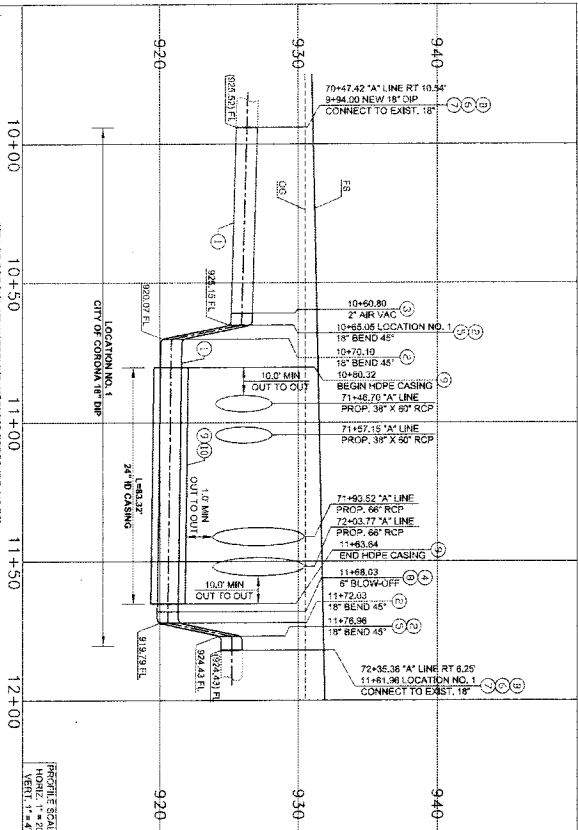
NO.	ADDRESS	DATE
1	ADDENDUM 3	9/16/2018

PREPARED BY  
 PREPARED UNDER THE SUPERVISION OF:  
 TEMESGAL CANYON RD TO LEPOY RD  
 PROJECT MANAGER  
 4710 GREEN RIDGE RD, STE 218  
 CORONA, CA 92580  
 DATE: 07/10/2018

UTILITY PLAN  
 SHEET NO. U-4  
 SHEET 39 OF 63

NO.	SHEET	UTILITY	MATERIAL	OWNER	DRAINAGE CROSSING	ALIGN	STATION	OFF-SET	ELEV.	REMARKS
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PH WAS NOT NEEDED PER BILL INVESTIGATION.
2	U-1	14" WATER	CML	TWD	NONE	N/A	64+91.02	41.90' RT	925.87	NO REMARKS.
3	U-1	18" WATER	CML	CORONA	SD LATERAL B-2	N/A	69+83.36	11.95' LT	927.52	NO REMARKS.
4	U-1	TELEPHONE	CML	A1&1	SD LATERAL B-2	N/A	69+83.11	9.36' LT	925.97	NO REMARKS.
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT USED.
6	U-1	TELEVISION	Δ CHARTER	Δ CHARTER	SD LATERAL B-2	N/A	69+83.43	18.04' LT	927.58	UTILITY IS DEEPER THAN 10'. FO IS IN A SLURRY, 0.70' TO TOP AND 3.6' TO BOTTOM.
7	U-1	42" WATER	Δ CHARTER	Δ CHARTER	SD LATERAL B-2	N/A	69+84.25	2.31' RT	929.56	NO REMARKS.
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT USED.
9	U-1	24" SEWER FORCE MAIN	N/A	SANPA	SD LATERAL B-2	N/A	69+83.90	11.76' RT	922.48	NO REMARKS.
10	U-1	8" HP GAS	SCG	SCG	SD LATERAL B-2	N/A	69+81.75	22.29' RT	926.15	NO REMARKS.
11	U-1	FIBER OPTIC	Δ A1&1	Δ A1&1	SD LATERAL B-2	N/A	69+80.00	28.61' RT	926.59	IN DUCT RUN WITH TELEPHONE.
12	U-1	14" WATER	CML	TWD	SD LATERAL B-2	N/A	69+81.85	40.20' RT	922.94	NO REMARKS.
13	U-1	TELEPHONE	CML	A1&1	SD LINE C	N/A	72+12.17	5.65' LT	927.22	NO REMARKS.
14	U-1	18" WATER	CML	CORONA	SD LINE C	N/A	72+12.17	5.65' LT	926.02	NO REMARKS.
15	U-1	20" WATER	CML	TWD	SD LINE C	N/A	72+05.15	1.96' RT	925.14	NO REMARKS.
16	U-1	42" WATER	Δ CENTURYLINK	Δ CENTURYLINK	SD LINE C	N/A	72+05.06	6.66' RT	924.11	NO REMARKS.
17	U-1	24" SEWER FORCE MAIN	SANPA	SANPA	SD LINE C	N/A	72+05.54	12.60' RT	923.78	SEWER PIPE IS IN PEA GRAVEL. ELEVATION OF UTILITY IS ABOUT 1-2' BELOW DEPTH DUG TO.
18	U-1	8" HP GAS	SCG	SCG	SD LINE C	N/A	72+04.10	24.07' RT	925.85	NO REMARKS.
19	U-1	14" WATER	CML	TWD	SD LINE C	N/A	72+03.12	27.11' RT	927.02	NO REMARKS.
20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT USED.
21	U-2	18" WATER	CML	CORONA	SD LINE D	N/A	83+75.58	7.44' LT	916.60	NO REMARKS.
22	U-2	TELEPHONE (FIBER OPTIC)	CML	A1&1	SD LINE D	N/A	83+79.65	5.89' RT	918.12	NO REMARKS.
23	U-2	TELECOM	A1&1	A1&1	SD LINE D	N/A	83+80.80	11.31' RT	919.94	UNABLE TO GET TO WATER BELOW BECAUSE OF CONCRETE ENCASED TELECOM LINE ABOVE.
24	U-2	TELECOM	Δ CHARTER	Δ CHARTER	SD LINE D	N/A	83+80.68	12.98' RT	919.82	DEPTH IS TO TOP OF CONCRETE.
25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT USED.
26	U-2	8" HP GAS	SCG	SCG	SD LINE D	N/A	83+81.77	38.98' RT	916.67	NO REMARKS.
27	U-2	TELEPHONE	CML	A1&1	SD LINE D	N/A	83+83.32	43.32' RT	918.06	NO REMARKS.
28	U-3	18" WATER	CML	CORONA	SD LINE F	N/A	94+83.44	25.19' LT	916.79	NO REMARKS.
29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT USED.
30	U-3	FIBER OPTIC	Δ CENTURYLINK	Δ CENTURYLINK	SD LINE F	N/A	94+83.43	23.08' LT	917.74	NO REMARKS.
31	U-3	TELEPHONE	A1&1	A1&1	SD LINE F	N/A	94+83.97	18.87' LT	916.52	NO REMARKS.
32	U-3	TELEPHONE	A1&1	A1&1	SD LINE F	N/A	94+85.46	10.63' LT	918.73	NO REMARKS.
33	U-1	24" SEWER FORCE MAIN	SANPA	SANPA	SD LINE B	N/A	71+56.44	13.69' RT	923.08	NO REMARKS.
34	U-1	14" WATER	CML	TWD	SD LINE B	N/A	71+76.61	6.54' RT	924.29	NO REMARKS.
35	U-1	24" SEWER FORCE MAIN	SANPA	SANPA	SD LINE C	N/A	71+96.22	13.56' RT	923.51	NO REMARKS.
36	U-2	14" WATER	CML	TWD	N/A	N/A	73+75.23	40.30' RT	925.31	NO REMARKS.
37	U-2	8" HP GAS	SCG	SCG	SD LATERAL D-2	N/A	83+25.10	37.79' RT	916.79	NO REMARKS.
38	U-2	8" HP GAS	SCG	SCG	SD LATERAL D-4	N/A	83+25.10	37.79' RT	916.79	NO REMARKS.
39	U-2	8" HP GAS	SCG	SCG	SD LINE D	N/A	83+88.97	39.39' RT	917.19	NO REMARKS.

NOTE: DUE TO COMPANY MESSAGES SOME UTILITY COMPANIES HAVE CHANGED NAMES IN THE RECENT PAST  
 CURRENT NAME (PREVIOUS NAME)  
 1. CENTURYLINK (LEVEL 3)  
 2. CHARTER (SPECTRUM, TIME WARNER)  
 3. CROWN CASTLE FIBER (SINEXYS)  
 4. FRONTIER (VENTON)



**GENERAL NOTES - CITY OF CORONA DEPARTMENT OF WATER AND POWER**

1. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CORONA DEPARTMENT OF WATER AND POWER STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.
2. EXISTING UTILITIES MAY OR MAY NOT BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BY EXCAVATING AT THE LOCATIONS SHOWN ON THESE DRAWINGS AND BY USING OTHER AVAILABLE INFORMATION.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BY EXCAVATING AT THE LOCATIONS SHOWN ON THESE DRAWINGS AND BY USING OTHER AVAILABLE INFORMATION.
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**UTILITY LEGEND**

1	TELEPHONE (A/R)
2	OH CABLE TV (CHARTER)
3	CABLE TV (CHARTER)
4	OH FIBER OPTIC (SANTOS)
5	FIBER OPTIC (SANTOS)
6	FIBER OPTIC (SANTOS)
7	CAS - 8" HIGH PRESSURE (SOS)
8	OH ELECTRIC (SOS)
9	UG ELECTRIC (SOS)
10	SEWER - 4" DIA (TOWN)
11	SEWER - 6" DIA (TOWN)
12	SEWER - 18" (TOWN)
13	SEWER - 24" FORCE MAIN (SANTOS)
14	WATER - 14" OULC (TOWN)
15	WATER - 18" OULC (CORONA)
16	WATER - 20" (TOWN)
17	WATER - 42" (TOWN)
18	WATER - 4" (USA WASTE)
19	WATER - 16" (TOWN)
20	WATER - 18" POTABLE (TOWN)
21	WATER - 36" (TOWN) ABANDONED
22	

**REMOVE NOTES**

1. ABANDON WATER LINE AND REFER TO SECTION 18.04.
2. ABANDON WATER LINE AND REFER TO SECTION 18.04.
3. REMOVE REFERENCING PORTIONS OF WATERLINE.
4. EXIST DRAINAGE FACILITY TO BE REMOVED.

**DUCTILE IRON PIPE WATER LINE GENERAL NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA DEPARTMENT OF WATER AND POWER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA DEPARTMENT OF WATER AND POWER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA DEPARTMENT OF WATER AND POWER.
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20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA DEPARTMENT OF WATER AND POWER.

**GENERAL NOTES - CITY OF CORONA DEPARTMENT OF WATER AND POWER**

1. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
2. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
3. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
4. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
5. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
6. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
7. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
8. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
9. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
10. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
11. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
12. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
13. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
14. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
15. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
16. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
17. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
18. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
19. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.
20. INSTALL 18" DUCTILE IRON PIPE, ONE (1) DAY EXPOSURE JOINTS, CLASS 200.

**UTILITY DETAILS**

TEMESCAL CANYON RD  
DAWSON CANYON RD TO LEROY RD  
RELOCATE CITY OF CORONA  
18" WATERLINE

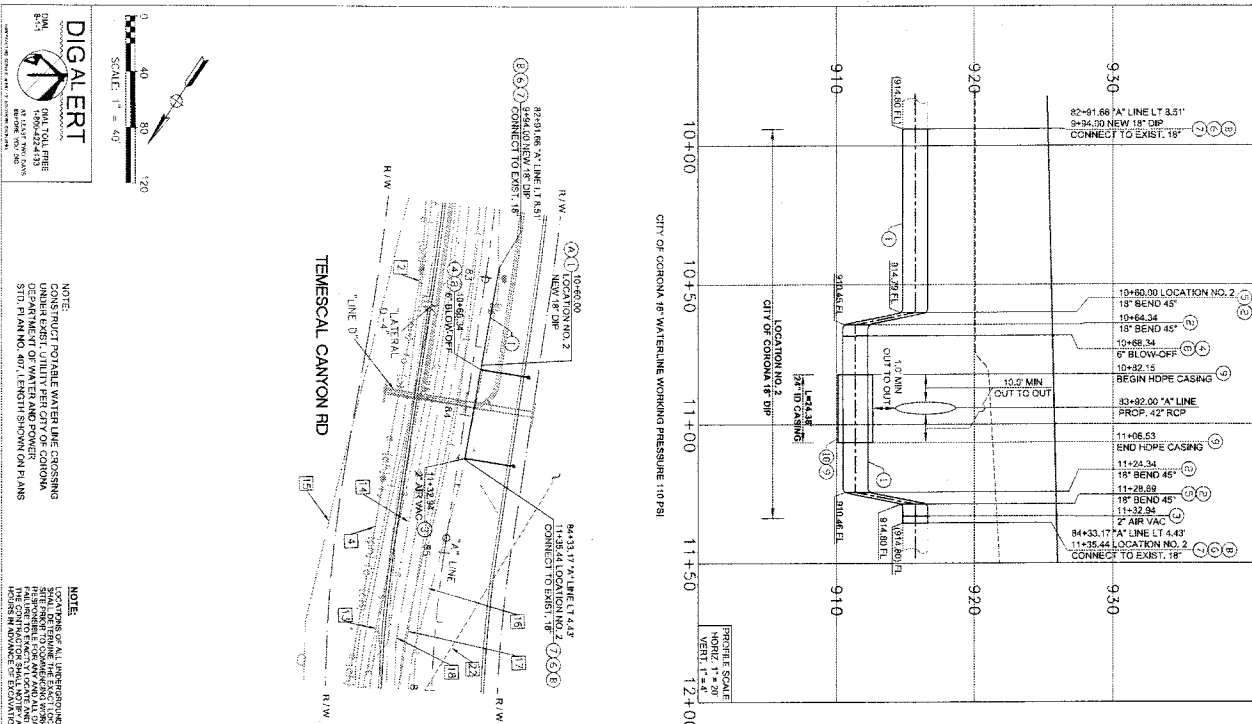
**SHEET NO.** UDW-1  
40 of 63

**DATE PLOTTED** 08/10/2018  
**DATE** 08/10/2018

**PREPARED BY** [Signature]  
**PROJECT MANAGER** DAWSON CANYON RD  
**DATE** 08/10/2018  
**PROJECT MANAGER** DAWSON CANYON RD  
**DATE** 08/10/2018

**APPROVED BY** [Signature]  
**PROJECT MANAGER** DAWSON CANYON RD  
**DATE** 08/10/2018

**FILE NO.** 965-WW



**GENERAL NOTES - CITY OF CORONA DEPARTMENT OF WATER AND POWER**

- 2.1 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.2 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.3 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.4 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.5 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.6 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.7 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.8 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.9 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.
- 2.10 EXISTING UTILITIES SHALL BE SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES NOT SHOWN ON THESE DRAWINGS.

**UTILITY LEGEND**

1	TELEPHONE (A&T)
2	OH CABLE TV (CARTER)
3	CABLE TV (COMCAST)
4	OH FIBER OPTIC (SUNBELT)
5	OH FIBER OPTIC (SUNBELT)
6	FIBER OPTIC (SUNBELT)
7	FIBER OPTIC (LEVEL 3)
8	CAS - 8" HIGH PRESSURE (S&S)
9	OH ELECTRIC (S&S)
10	US ELECTRIC (S&S)
11	SEWER - 4" DIP (E&W)
12	SEWER - 18" (E&W)
13	SEWER - 24" (E&W)
14	SEWER - 24" FORCE MAIN (S&W)
15	WATER - 14" OIL (E&W)
16	WATER - 18" OIL (CORONA)
17	WATER - 20" (E&W)
18	WATER - 42" (E&W)
19	WATER - 4" (USA WASTE)
20	WATER - 16" (E&W)
21	WATER - 18" POTABLE (E&W)
22	WATER - 36" (E&W) ABANDONED

**REMOVAL NOTES**

1. ABANDON WATER LINE AND APPURTENANCES PER SECTION 906.6.
2. ABANDON WATER LINE AND APPURTENANCES PER SECTION 906.6.
3. REMOVE INTERFERING PERIODS OF WATER LINE.

**DUCTILE IRON PIPE WATER LINE GENERAL NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA AND THE STATE OF CALIFORNIA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA AND THE STATE OF CALIFORNIA.
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20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA AND THE STATE OF CALIFORNIA.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA AND THE STATE OF CALIFORNIA.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CORONA AND THE STATE OF CALIFORNIA.

**PREPARED BY**  
 PREPARED UNDER THE SUPERVISION OF  
 DAWSON CANYON RD  
 RELOCATE CITY OF CORONA  
 18" WATERLINE

**UTILITY DETAILS**

**SHEET NO.**  
 UD-2  
 41 OF 63

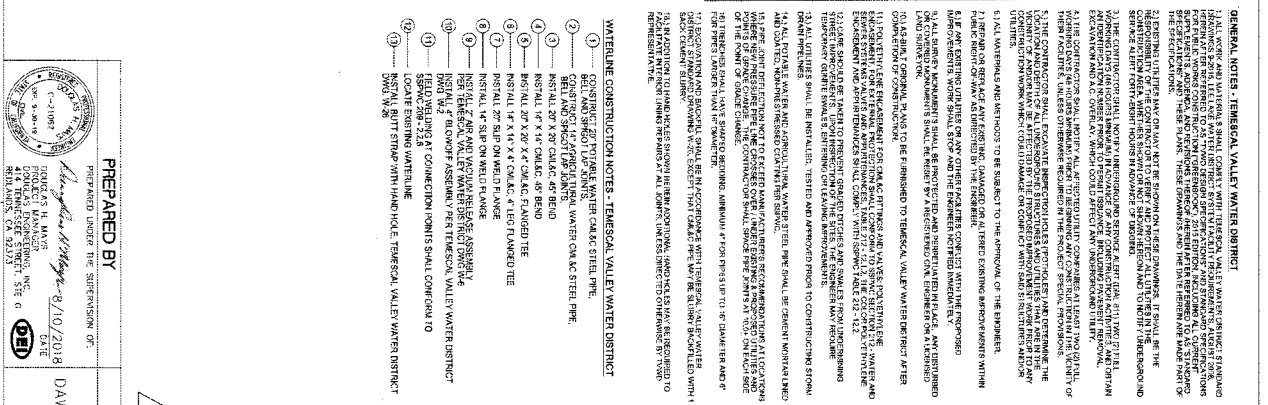
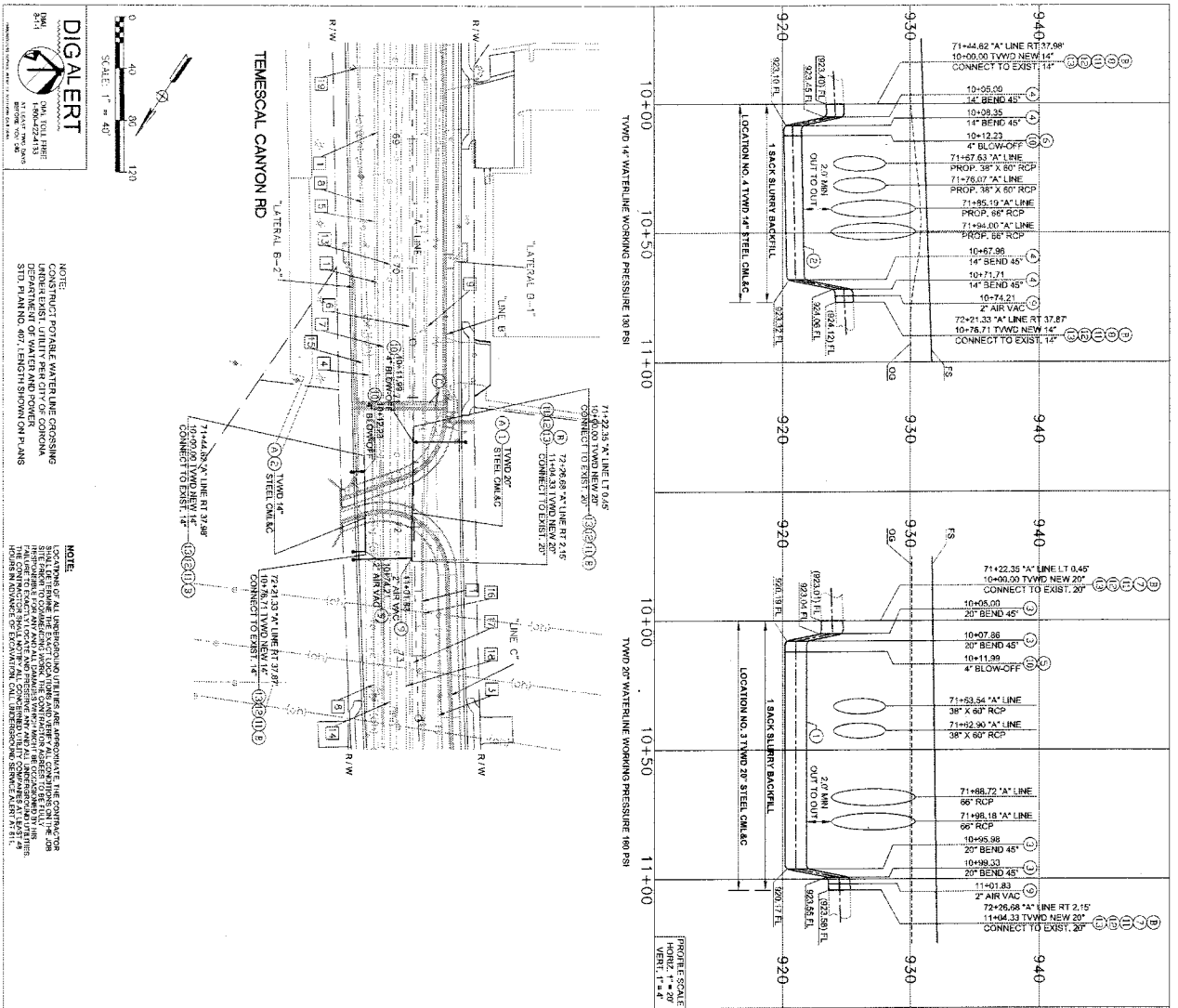
**DATE PLOTTED**  
 00-00-00

**TIME PLOTTED**  
 00-00-00

**FILE NO.**  
 965-WW

**DATE PLOTTED**  
 00-00-00

**TIME PLOTTED**  
 00-00-00



**GENERAL NOTES - TEMESCAL VALLEY WATER DISTRICT**

1. ALL WORK AND MATERIALS SHALL COMPLY WITH TEMESCAL VALLEY WATER DISTRICT STANDARD SPECIFICATIONS FOR WATER SUPPLY SYSTEMS, LATEST EDITION, AND THE STANDARD SPECIFICATIONS FOR WATER SUPPLY SYSTEMS, LATEST EDITION, AND THE STANDARD SPECIFICATIONS FOR WATER SUPPLY SYSTEMS, LATEST EDITION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
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8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
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10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TEMESCAL VALLEY WATER DISTRICT AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.

**UTILITY LEGEND**

1	TELEPHONE (AT&T)
2	OH CABLE TV (CHARTER)
3	CABLE TV (COMCAST)
4	OH FIBER OPTIC (SUNBELT)
5	FIBER OPTIC (TELECOM)
6	FIBER OPTIC (LEVEL 3)
7	OH ELECTRIC (SCE)
8	OH ELECTRIC (SCE)
9	OH ELECTRIC (SCE)
10	SEWER - 4\"/>

**WATERLINE CONSTRUCTION NOTES - TEMESCAL VALLEY WATER DISTRICT**

1. ALL WATER MAINS SHALL BE INSTALLED WITH 14\"/>

**REMOVAL NOTES**

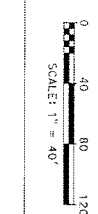
1. REMOVE EXISTING WATER MAINS AND APPURTENANCES AS SHOWN ON SHEET.
2. REMOVE EXISTING PORTIONS OF WATER MAINS.
3. REMOVE EXISTING PORTIONS OF WATER MAINS.











NO.	REVISIONS	DATE	BY	APP'R.
1	DELETED SIGN NOTES			

**PREPARED BY**

PREPARED UNDER THE SUPERVISION OF:

**EDWARD J. MANNING**  
 PROJECT MANAGER  
 4740 GREEN OVEN RD, STE 218  
 CORONA, CA 92603  
 951-261-1122

DATE: 07/10/2018

**PAYEMENT DELINEATION & SIGNING SHEET NO.**

**TEMESCAL CANYON RD**

DAWSON CANYON RD TO LEROY RD

"A" LINE STA 89+50 TO 102+00

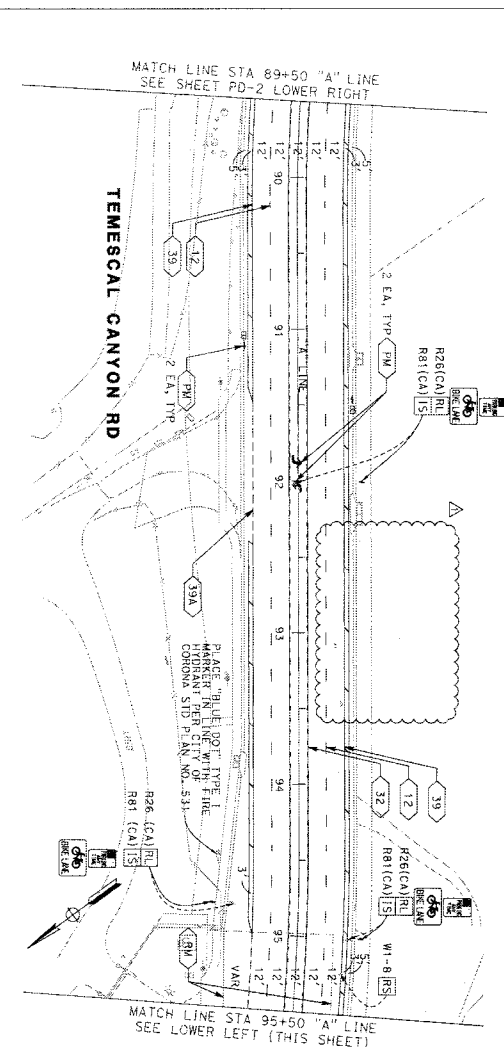
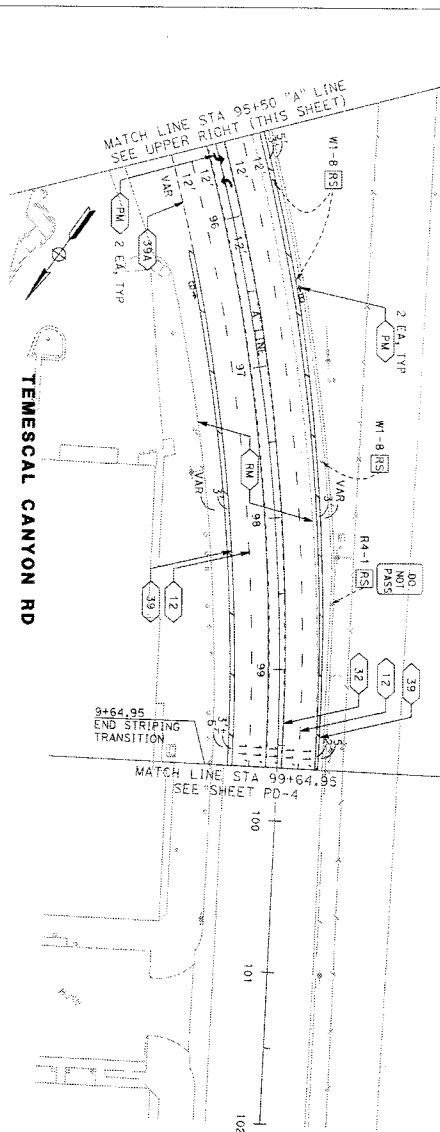
**PD-3**

SHEET 50 OF 63

WO C5-0072

COUNTY FILE NO. 965-WW

DATE PLOTTED => 8/16/2016  
 TIME PLOTTED => 11:19:27 AM



- NOTES:**
- PLACE "BLUE DOT" TYPE I MARKER IN LINE WITH FIRE HYDRANT PER CITY OF CORONA STD PLAN NO. 531

- SIGNING NOTES:**
- RS REMOVE/SALVAGE SIGN
  - RL RELOCATE SIGN
  - IS INSTALL SIGN

- STRIPING NOTES:**
- 12 PAINT 4" WHITE LANE LINE AND INSTALL TYPE C ONE-WAY CLEAR RETROREFLECTIVE MARKERS PER CALTRANS STD PLAN A204, DETAIL 12
  - 32 PAINT 4" YELLOW TWO-WAY LEFT TURN LANES AND INSTALL TYPE D TWO-WAY YELLOW RETROREFLECTIVE MARKERS PER CALTRANS STANDARD A208, DETAIL 32
  - 33 PAINT TWO 6" WHITE BIKE LANE LINES PER CALTRANS STD PLAN A200, DETAIL 39, AND PER DETAIL ON SHEET PD-1
  - 39 PAINT ONE 6" WHITE INTERSECTION LINE BIKE LANE LINE PER CALTRANS STD PLAN A200, DETAIL 39A
  - RM INSTALL THERMOPLASTIC PAVEMENT MARKINGS AS SHOWN PER CALTRANS STD A24A FOR ARROWS, A24C FOR BIKE LANE SYMBOL, WITH PERSON, AND A24E FOR LIMIT LINE
  - REMOVE CONFLICTING TRAFFIC STRIPES, PAVEMENT MARKERS AND/OR THERMOPLASTIC PAVEMENT MARKINGS

- LEGEND:**
- TYPE IV (L) ARROW
  - BIKE LANE ARROW AND BIKE LANE SYMBOL WITH PERSON

**TYPICAL ALLEY SECTION**

NOTE: 1. SEE GENERAL NOTES FOR MATERIALS AND CONSTRUCTION DETAILS. 2. SEE GENERAL NOTES FOR DIMENSIONS AND TOLERANCES.

ITEM	DESCRIPTION	QUANTITY
1	CONCRETE CURB	1.00
2	ASPHALT DRIVE	1.00
3	GRAVEL DRIVE	1.00

APPROVED BY: *[Signature]*  
DATE: 8/16/2018

CITY OF CORONA  
ALLEY

STANDARD PLAN NUMBER: 114

**GENERAL ELEVATION**

NOTE: 1. SEE GENERAL NOTES FOR MATERIALS AND CONSTRUCTION DETAILS. 2. SEE GENERAL NOTES FOR DIMENSIONS AND TOLERANCES.

**GENERAL ELEVATION**

NOTE: 1. SEE GENERAL NOTES FOR MATERIALS AND CONSTRUCTION DETAILS. 2. SEE GENERAL NOTES FOR DIMENSIONS AND TOLERANCES.

**GENERAL ELEVATION**

NOTE: 1. SEE GENERAL NOTES FOR MATERIALS AND CONSTRUCTION DETAILS. 2. SEE GENERAL NOTES FOR DIMENSIONS AND TOLERANCES.

**GENERAL ELEVATION**

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**GENERAL ELEVATION**

NOTE: 1. SEE GENERAL NOTES FOR MATERIALS AND CONSTRUCTION DETAILS. 2. SEE GENERAL NOTES FOR DIMENSIONS AND TOLERANCES.

PREPARED BY: *[Signature]* DATE: 8/16/2018

PROJECT MANAGER: EDWARD MC KEENE  
4140 GREEN RIVER RD, S1E 218  
CORONA, CA 92626

DATE: 8/16/2018

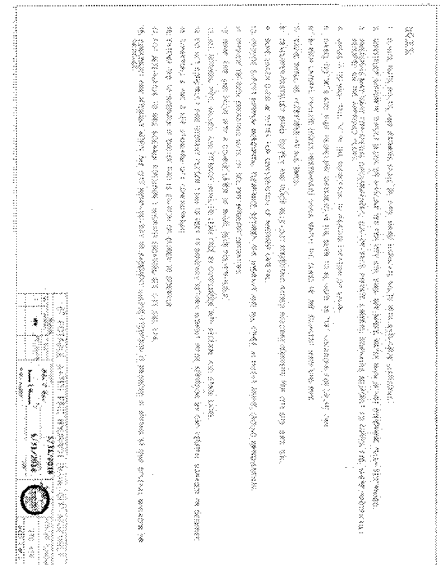
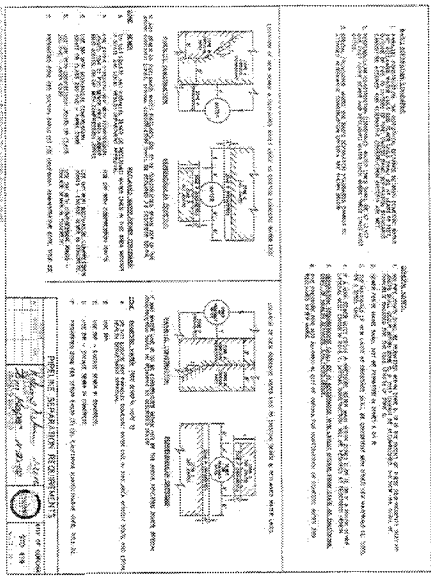
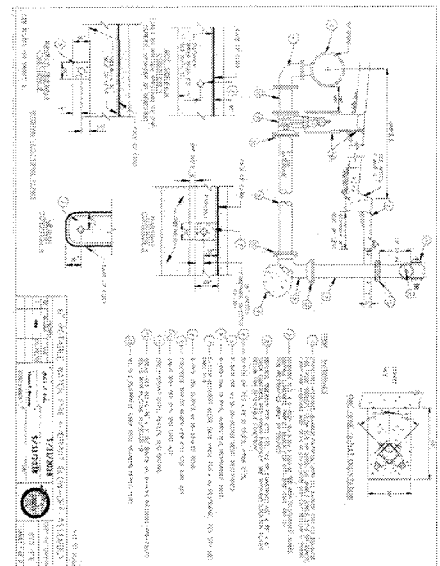
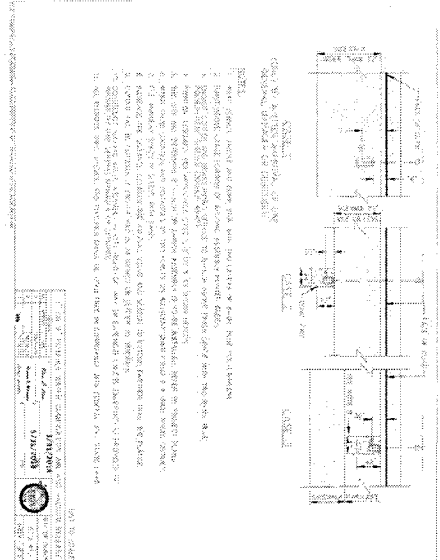
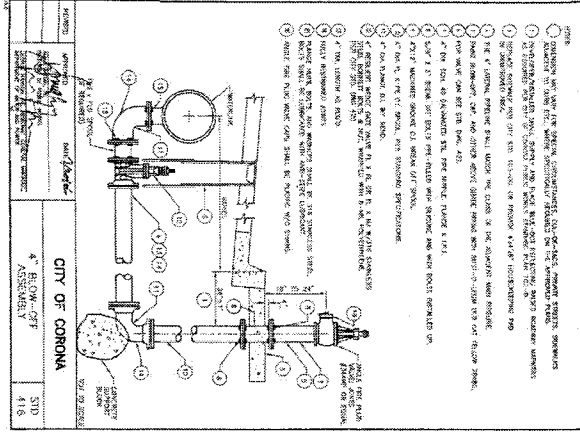
REFERENCE STANDARD PLANS SHEET NO. SP-4

DAWSON CANYON RD TO LEROY RD  
CITY OF CORONA

SHEET 57 OF 63

DATE PLOTTED => 8/16/2018  
TIME PLOTTED => 11:19:38 AM

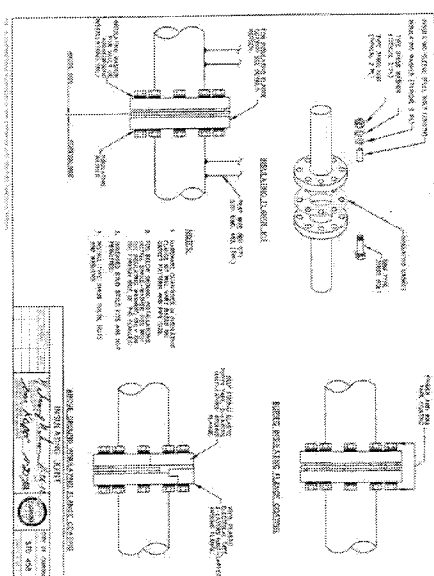
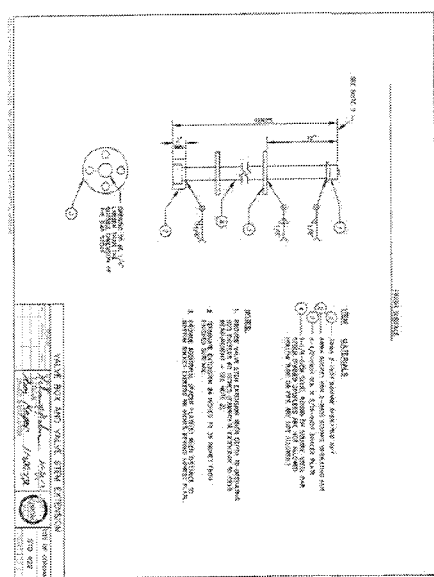
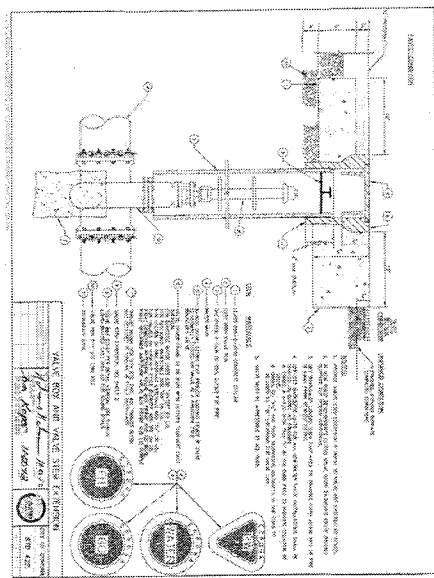
ISSUED BY ADDENDUM No. 3, ATTACHMENT "F"



DATE	BY	REVISIONS

**PREPARED BY**  
 PREPARED UNDER THE SUPERVISION OF:  
 PROJECT MANAGER  
 DATE: 07/10/2018  
 4140 GREEN RIVER RD, STE 218  
 CORONA, CA 92520

**REFERENCE STANDARD PLANS SHEET NO.**  
**TEMESGAL CANYON RD**  
 DAWSON CANYON RD TO LEROY RD  
 CITY OF CORONA  
**SP-5**  
 SHEET 58 OF 63



**BLUE DOT TYPE I MARKER PLACEMENT NOTES**

1. THE REFLECTIVE SHE SHALL HAVE THE FOLLOWING SPECIFICATIONS:
2. THE REFLECTIVE SHELL SHALL BE MADE WITH THE FOLLOWING SPECIFICATIONS: EXACTLY 1/8" THICK
3. THE REFLECTIVE SHELL SHALL BE MADE WITH THE FOLLOWING SPECIFICATIONS: EXACTLY 1/8" THICK
4. A MARKED REFLECTIVE SHELL SHALL BE USED FOR ALL MARKERS. THE REFLECTIVE SHELL SHALL BE MADE WITH THE FOLLOWING SPECIFICATIONS: EXACTLY 1/8" THICK
5. THE REFLECTIVE SHELL SHALL BE MADE WITH THE FOLLOWING SPECIFICATIONS: EXACTLY 1/8" THICK
6. THE REFLECTIVE SHELL SHALL BE MADE WITH THE FOLLOWING SPECIFICATIONS: EXACTLY 1/8" THICK

APPROVED BY: [Signature] DATE: 8/16/2018  
 CITY OF CORONA  
 BLUE DOT TYPE I MARKER PLACEMENT

**STREET INTERSECTION**

APPROVED BY: [Signature] DATE: 8/16/2018  
 CITY OF CORONA  
 BLUE DOT TYPE I MARKER PLACEMENT

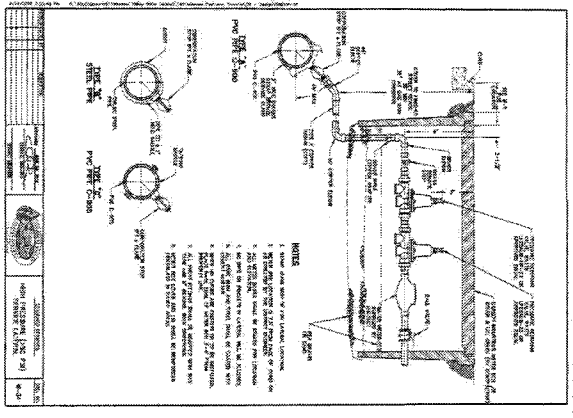
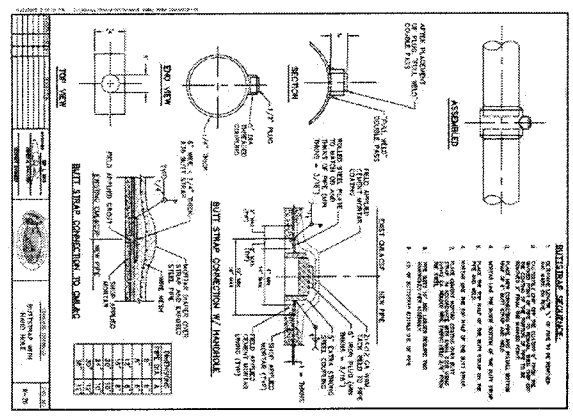
**STREET WITH TURN LANE**

APPROVED BY: [Signature] DATE: 8/16/2018  
 CITY OF CORONA  
 BLUE DOT TYPE I MARKER PLACEMENT

NO.	REVISIONS	BY	DATE
1	CHANGED SHEET AND PAGE NUMBER	ADDENDUM 3	8/16/2018

**PREPARED BY** [Signature] DATE: 07/16/2018  
**REFERENCE STANDARD PLANS SHEET NO.** TEMESCAL CANYON RD TO LEROY RD  
 CITY OF CORONA





NO.	REVISIONS	BY	DATE
1	FOR THE SHEET WITH NEW STANDARD PLANS		8/16/2018

**PREPARED BY**

EDWARD H. ...  
 PROJECT MANAGER  
 4170 GREEN RIVER RD, SIE 218  
 COLUMBIA, SC 29228

DATE: 8/16/2018

**REFERENCE STANDARD PLANS SHEET NO.**

TEMESCAL CANYON RD  
 DAWSON CANYON RD TO LEROY RD  
 TEMESCAL VALLEY WATER DISTRICT

**SP-8**  
 SHEET 61 OF 63

BORDER LAST REVISED 07/21/2015

APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS

**LEGEND:**

- CONSTRUCTION THIS STAGE
- ALTERNATIVE TEMPORARY CRASH CUSHION (TS 14)
- TEMPORARY CRASH CUSHION ABSORB 350
- TEMPORARY RAILING (TYPE K)
- CHANNELIZER (SURFACE MOUNTED)
- TYPE II BARRICADE (CONSTRUCTION AREA SIGN AS NOTED ON PLANS)
- TYPE III BARRICADE (CONSTRUCTION AREA SIGN AS NOTED ON PLANS)
- CONSTRUCTION AREA SIGN - ONE POST
- CONSTRUCTION AREA SIGN - TWO POST
- FLASHING ARROW SIGN (TYPE II)
- DIRECTION OF TRAFFIC
- EXIST LANE DIMENSIONS
- LANE DIMENSION IN PLACE THIS STAGE (PERMANENT OR TEMPORARY)
- STAGE CONSTRUCTION NOTE
- CONSTRUCTION AREA SIGN (SIGN AS NOTED ON PLANS)
- PLACED IN PREVIOUS STAGE (TYPE AS NOTED ON PLANS)
- TEMPORARY PAVEMENT DELINEATION DETAIL NUMBER
- 12" WHITE LIMIT LINE
- 12" WHITE CROSSWALK
- PAVEMENT MARKING
- BEGINNING OR END OF PAVEMENT DELINEATION DETAIL
- CHANGE OF PAVEMENT DELINEATION DETAIL
- EXISTING POWER POLE

**ABBREVIATIONS:**

- FAS FLASHING ARROW SIGN
- K-RAIL TEMPORARY RAILING (TYPE K)
- SNM SURFACE MOUNTED

**LEGEND FOR SECTIONS:**

- TEMPORARY RAILING (TYPE K)
- CHANNELIZER (SURFACE MOUNTED)

**GENERAL NOTES:**

1. ALL CONFLICTING PAVEMENT DELINEATION, TEMPORARY RAILING (TYPE K) AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED PRIOR TO STARTING WORK ON EACH STAGE. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED.
2. LOCATIONS FOR CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. ALL APPROACH TAPERES FOR TEMPORARY RAILING (TYPE K) SHALL BE AT A 10:1 OR FLATTER AND SHALL HAVE APPROACH CRASH CUSHIONS AS SHOWN ON THE PLANS. THE LAST TEMPORARY RAILING (TYPE K) SECTION SHALL BE STAKED OR SECURED AS DETERMINED BY THE ENGINEER AS REQUIRED FOR PUBLIC SAFETY. ADDITIONAL LOCATIONS REQUIRED STAKED TEMPORARY RAILING (TYPE K) ARE SHOWN ON STANDARD PLAN 13A AND 13B.
4. NON-CONFLICTING EXISTING DRAINAGE SYSTEMS SHALL REMAIN IN PLACE UNTIL NEW DRAINAGE SYSTEM IS IN PLACE AND OPERATIONAL. NEW DRAINAGE INLETS CONSTRUCTED PRIOR TO THE CONSTRUCTION OF THE CONNECTING PIPE SHALL BE CAPPED UNTIL THE CONNECTING PIPE IS IN PLACE AND OPERATIONAL. PERMANENT DRAINAGE SYSTEMS MAY BE INSTALLED DURING STAGE CONSTRUCTION UPON APPROVAL BY THE ENGINEER AND ONLY WHERE THEY DO NOT INTERFERE WITH FUTURE STAGE CONSTRUCTION.
5. STAGE CONSTRUCTION PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED.
6. MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES UNLESS NOTED OTHERWISE ON THE PLANS.
7. LOCATION OF TEMPORARY RAILING (TYPE K) OPENINGS TO DRIVEWAYS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
8. CONTRACTOR TO COORDINATE RELOCATIONS WITH EACH UTILITY. REMOVAL OF TEMPORARY RAIL MAY BE REQUIRED TO ALLOW RELOCATIONS. CONTRACTOR'S TRAFFIC CONTROL PLAN TO FACILITATE UTILITY RELOCATIONS MUST BE SUBMITTED TO ENGINEER FOR REVIEW.

**SIGN LEGEND:**

- RIGHT LANE MUST YIELD
- ROAD WORK AHEAD
- NARROW LANE AHEAD
- END ROAD WORK
- LEFT LANE MUST YIELD
- LANE CLOSED
- LANE CLOSED ONLY
- NO U-TURN

**STAGE 1:**

WORK THIS STAGE:  
 PLACE TEMP K-RAIL ALONG TEMESCAL CANYON RD  
 RELOCATE EXISTING POWER POLES AT TEMESCAL CANYON RD  
 CONSTRUCT MEDIAN AT TEMESCAL CANYON RD AND DAWSON CANYON RD

**STAGE 1A:**

WORK THIS STAGE:  
 PLACE TEMP K-RAIL ALONG TEMESCAL CANYON RD  
 RELOCATE EXISTING POWER POLES AT TEMESCAL CANYON RD  
 CONSTRUCT MEDIAN AT TEMESCAL CANYON RD AND DAWSON CANYON RD

**STAGE 2:**

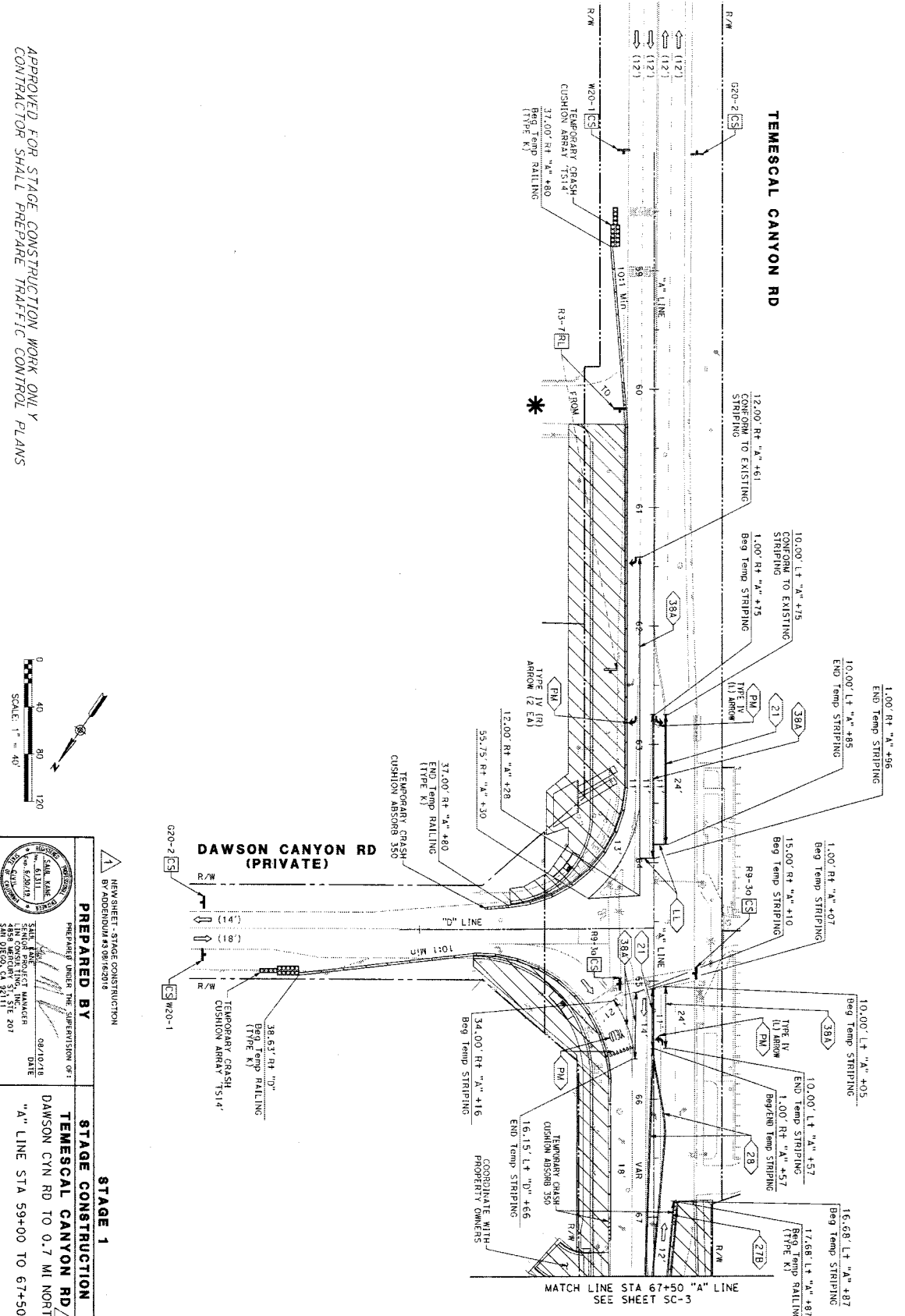
WORK THIS STAGE:  
 PLACE TEMP K-RAIL ALONG TEMESCAL CANYON RD  
 RELOCATE EXISTING POWER POLES AT TEMESCAL CANYON RD  
 CONSTRUCT CURB AND DRAINAGE NB TEMESCAL CANYON RD AT DAWSON CANYON RD

NEW SHEET - STAGE CONSTRUCTION BY ADDENDUM #3 08-16-2018		<b>COUNTY APPROVAL</b> DATE: _____ DIRECTOR OF TRANSPORTATION COUNTY OF INDIANAPOLIS		<b>STAGE CONSTRUCTION</b> TEMESCAL CANYON RD TO 0.7 MI NORTH NOTES AND LEGEND		<b>SHEET NO.:</b> SC-1 SHEET 01 OF 19	
<b>PREPARED BY</b> [Signature] SENIOR PROJECT MANAGER 488 W. WASHINGTON ST. STE 207 INDIANAPOLIS, IN 46204		PREPARED UNDER THE SUPERVISION OF: DATE: 08/10/18		NO CS-0072		COUNTY FILE NO. 965-WW	

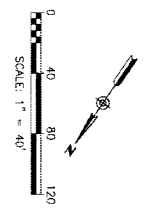


**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



**STAGE 1**

PREPARED BY: [Signature]

DATE: 02/12/16

PROJECT: TEMESCAL CANYON RD

STATIONING: "A" LINE STA 59+00 TO 67+50

**STAGE CONSTRUCTION**

TEMESCAL CANYON RD

DAWSON CYN RD TO 0.7 MI NORTH

"A" LINE STA 59+00 TO 67+50

**SHEET NO.**

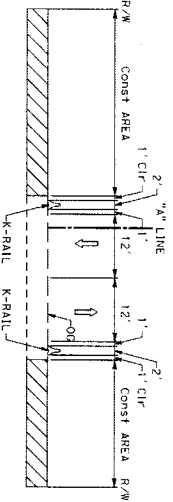
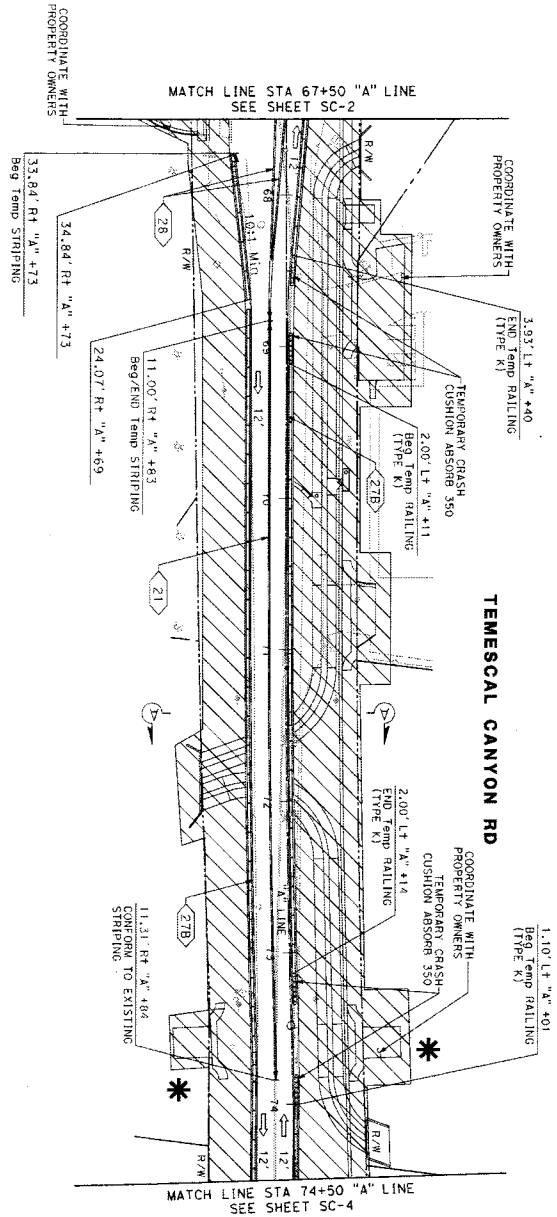
SC-2

OF 19

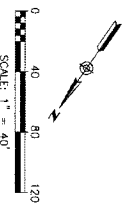
DATE PLOTTED: 3/12/2018  
 TIME PLOTTED: 10:44:07 AM

**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS

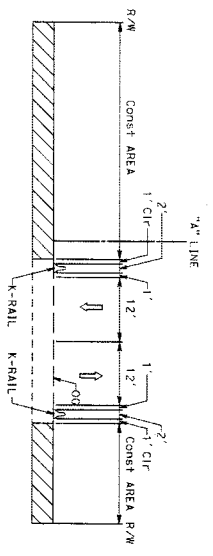
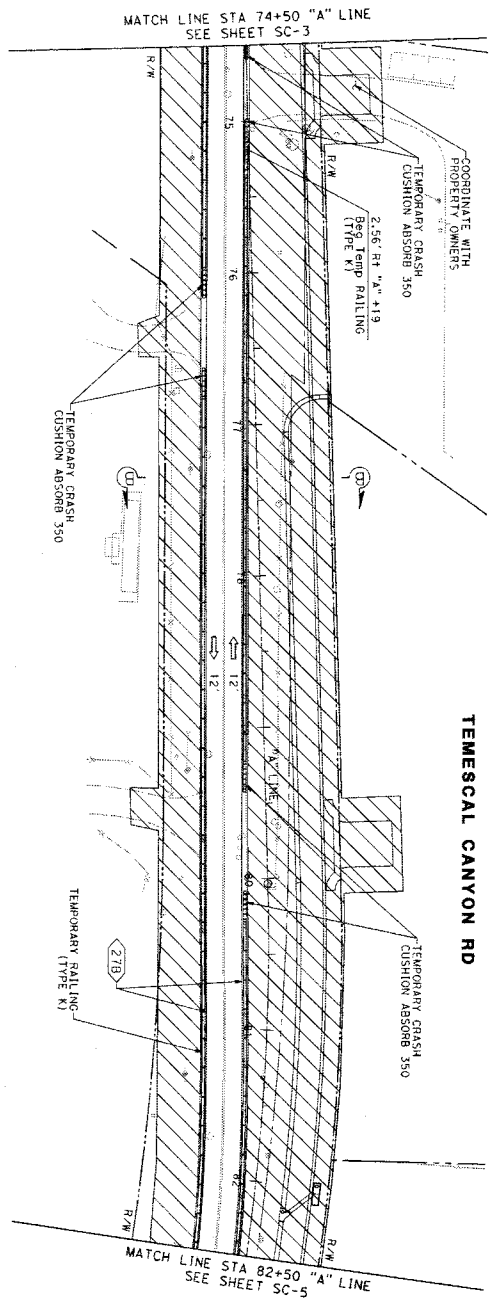


	PREPARED UNDER THE SUPERVISION OF: R. B. DORNBOM, CIVIL ENGINEER	<b>STAGE 1</b> <b>STAGE CONSTRUCTION</b>	<b>SHEET NO.</b> <b>SC-3</b>
	<b>PREPARED BY</b> 	TEMESCAL CANYON RD DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 67+50 TO 74+50	COUNTY FILE NO. 955-WW

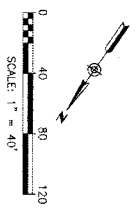
BORDER LAST REVISED 07/27/2015

**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



	PREPARED BY SCOTT E. KELLI SENIOR PROJECT MANAGER 485 WILSON ST, STE 207 SAN DIEGO, CA 92111	DATE 08/15/18	<b>STAGE 1</b> <b>STAGE CONSTRUCTION</b> <b>TEMESCAL CANYON RD</b> DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 74+50 TO 82+50	<b>SHEET No.</b> <b>SC-4</b> 04 of 19
	NEW SHEET - STAGE CONSTRUCTION BY ADDENDUM #3 08/18/2018	SUPERVISOR OF TEMESCAL CANYON RD PROJECT		

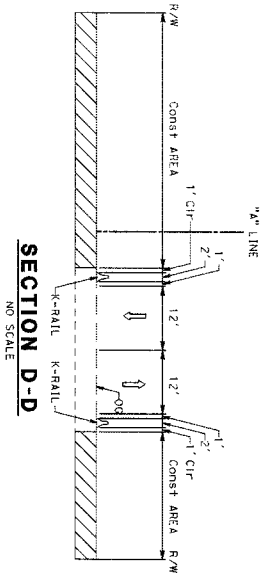
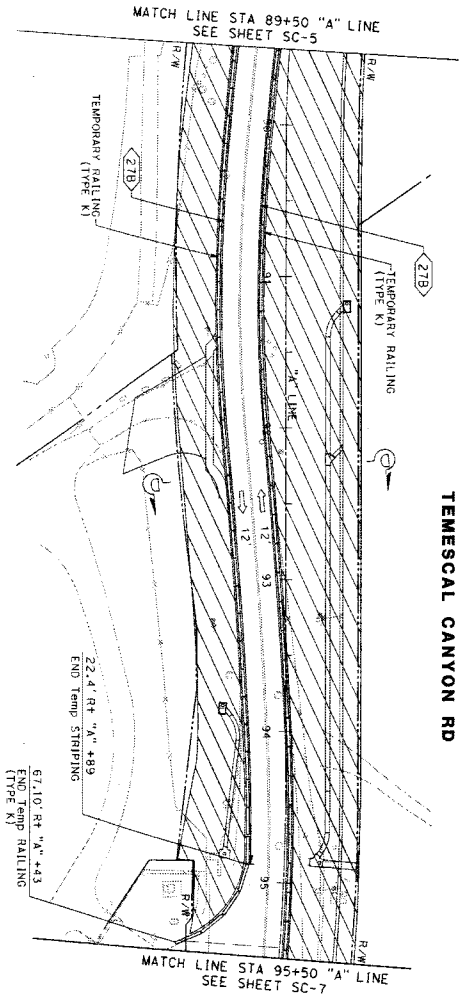
90908R LAST REVISED 07/21/2015

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 TIME PLOTTED => 10:44:08 AM

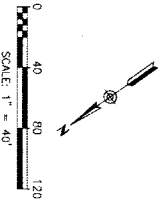


**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



	<b>PREPARED BY</b> ANDREW M. ORNELAS CIVIL ENGINEER 4858 MERCURY ST, STE 207 SAN JOSE, CA 95128	<b>DATE</b> 08/10/2018
	<b>STAGE 1</b> <b>STAGE CONSTRUCTION</b> <b>TEMESCAL CANYON RD</b> DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 89+50 TO 95+50	<b>SHEET NO.</b> <b>SC-6</b> SHEET 06 OF 19

BORDER LAST REVISED 07/21/2015

ISSUING: 03-0072 PROJECT: MO SC-6-DP1

NO: CS-0072

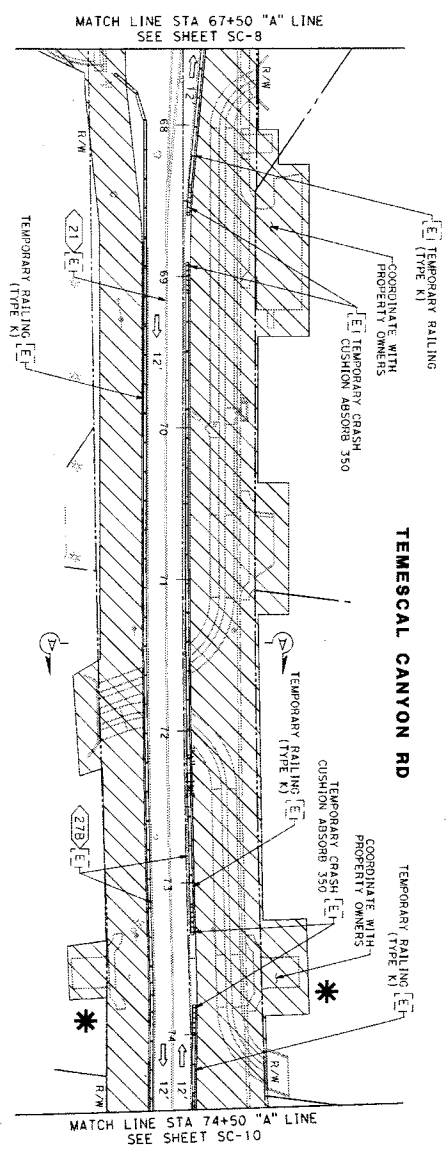
COMMITTEE: FILE NO. 955-WW



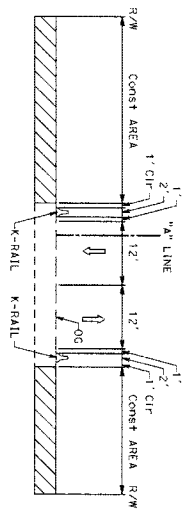


**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

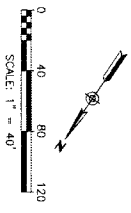
**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



**SECTION A-A**  
 NO SCALE



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



	PREPARED BY SCOTT E. WILLIAMS 489 WILMINGTON ST, STE 207 SAN DIEGO, CA 92111 DATE: 08/10/18	STAGE 1A STAGE CONSTRUCTION TEMESCAL CANYON RD DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 67+50 TO 74+50	SHEET NO. <b>SC-9</b> 08 of 19
	NEW SHEET - STAGE CONSTRUCTION BY ADDENDUM 3, 08/10/2018	PREPARED UNDER THE SUPERVISION OF: [Signature] DATE: 08/10/18	PROJECT NO. WU-C5-0072

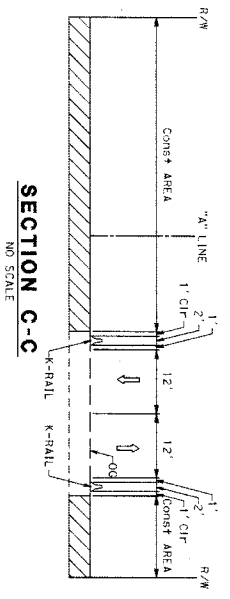
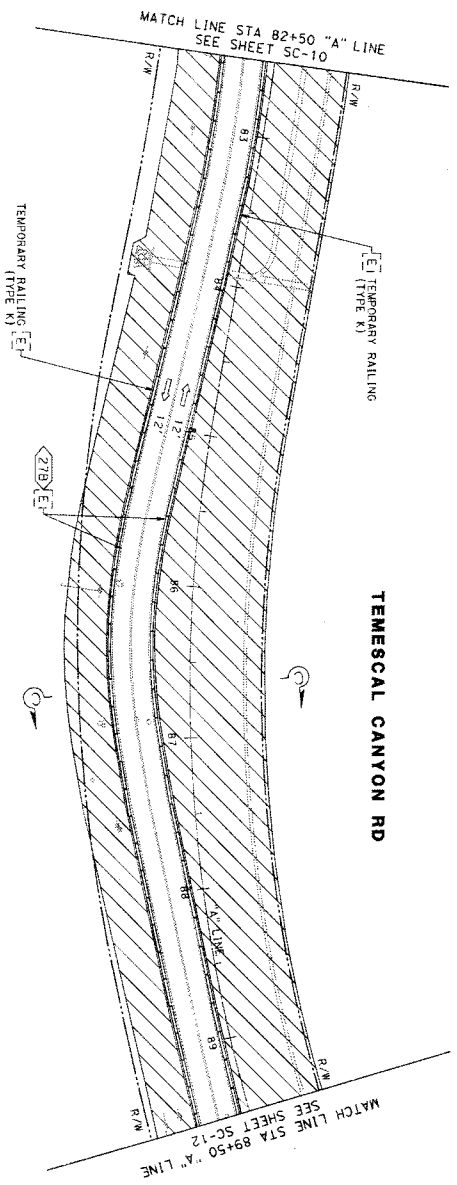
BORDER LAST REVISED 07/27/2015



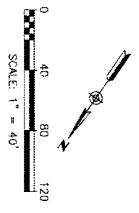


**NOTES:**  
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**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS

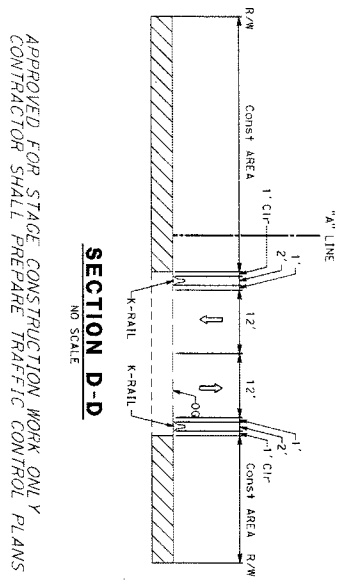
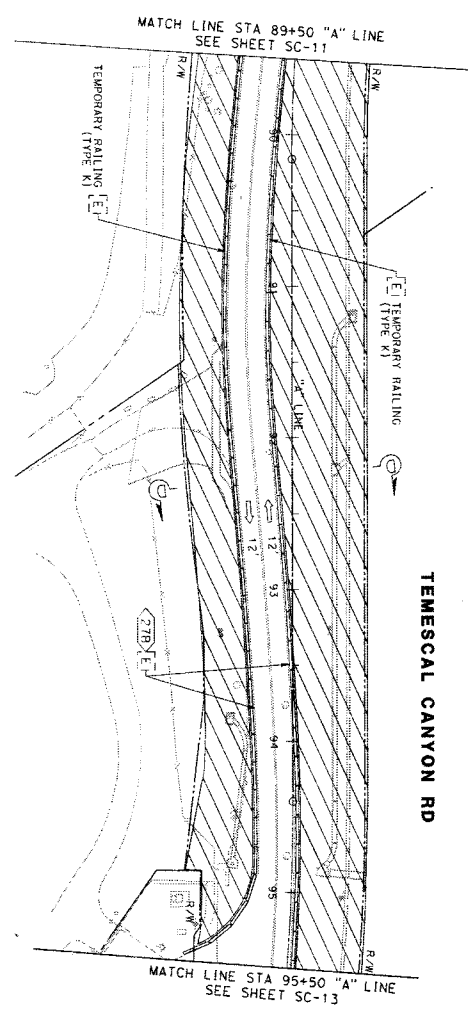


PREPARED BY Andrew A. Stapp SENIOR PROJECT MANAGER 4889 JEFFERSON ST, STE 207 SAN DIEGO, CA 92116 PHONE: 619-444-1111 FAX: 619-444-1112 E-MAIL: a.stapp@stapp.com	DATE 08/10/18
STAGE 1A TEMESCAL CANYON RD DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 82+50 TO 89+50	
SHEET NO. SC-11 OF 18	SHEET NO. 965-MW

BORDER LAST REVISED 07/21/2015

**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



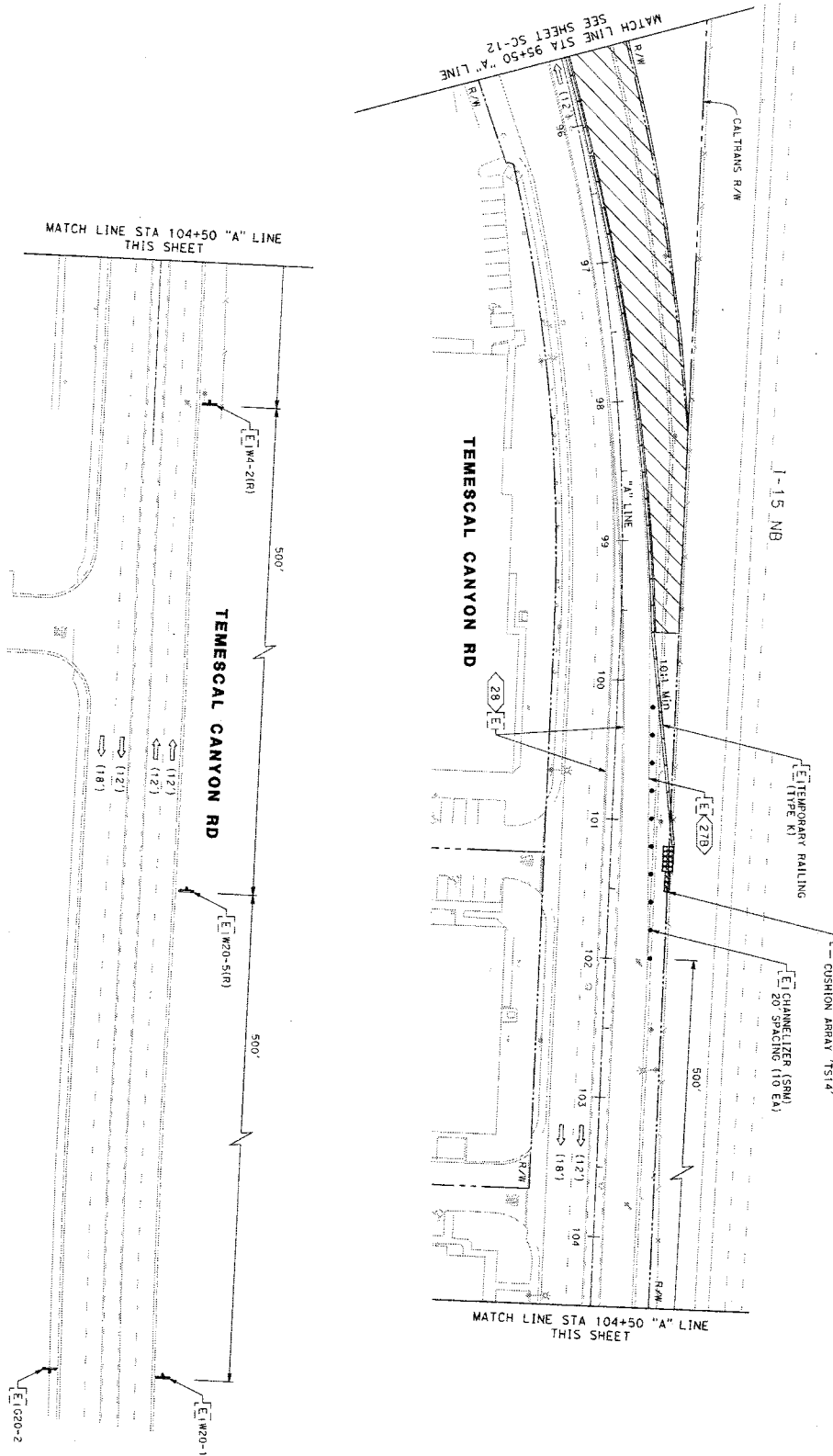
APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS

	PREPARED BY SAUL J. KLINE 4858 WILSON BLVD, SUITE 207 SAN DIEGO, CA 92114	DATE 08/10/18
	PREPARED UNDER THE SUPERVISION OF: DAVIDSON CYN RD TO 0.7 MI NORTH "A" LINE STA 89+50 TO 95+50	DATE 08/10/18

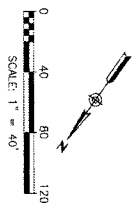
BORDER LAST REVISED 07/21/2015

**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



NEW SHEET - STAGE CONSTRUCTION  
 BY ADDENDUM #3 08/16/2018

PREPARED BY: [Signature]  
 PREPARED UNDER THE SUPERVISION OF: [Signature]  
 DATE: 08/16/18

SEAL AND SIGNATURE OF PROJECT MANAGER  
 4818 WENTWORTH ST, STE 207  
 SAN DIEGO, CALIF. 92108

<b>STAGE 1A</b>	<b>SHEET NO.</b>
<b>STAGE CONSTRUCTION</b>	<b>SC-13</b>
<b>TEMESCAL CANYON RD</b>	<b>13</b>
<b>DAWSON CYN RD TO 0.7 MI NORTH</b>	<b>OF 19</b>
<b>"A" LINE STA 95+50 TO 104+50</b>	

BORDER LAST REVISED 07/21/2015

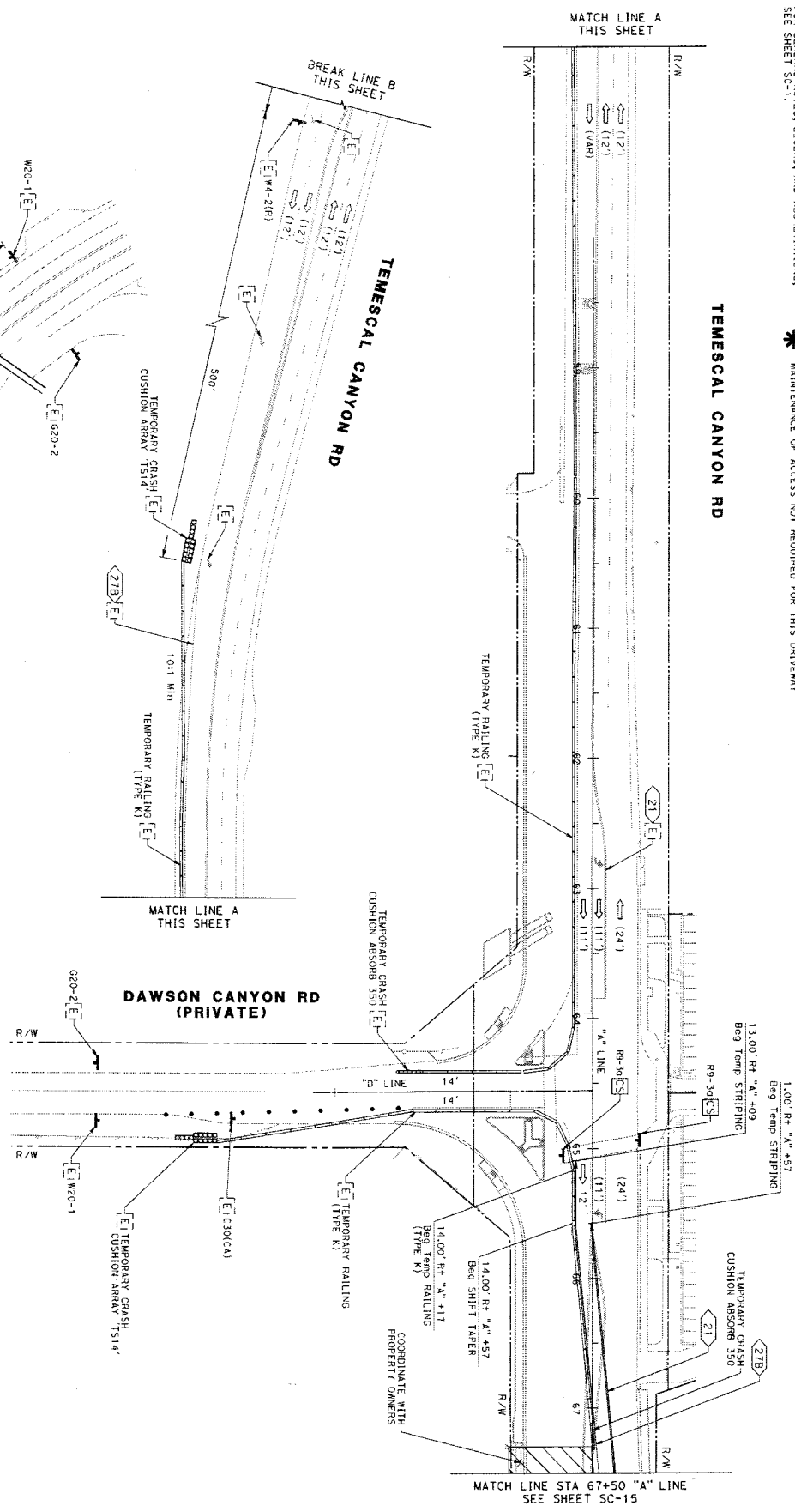
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 TIME PLOTTED: 10:44:12 AM

ISSUED BY ADDENDUM No. 3, ATTACHMENT "F"

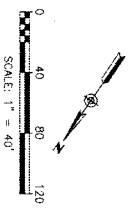
**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY

**TEMESCAL CANYON RD**



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



	PREPARED UNDER THE SUPERVISION OF: PAUL ALAN SMITH SENIOR PROJECT MANAGER 4899 WILSON AVENUE, SUITE 207 SAN DIEGO, CA 92111	DATE: 08/10/18
	STAGE 2 <b>TEMESCAL CANYON RD</b> DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 59+00 TO 67+50	SHEET NO. <b>SC-14</b> OF 19

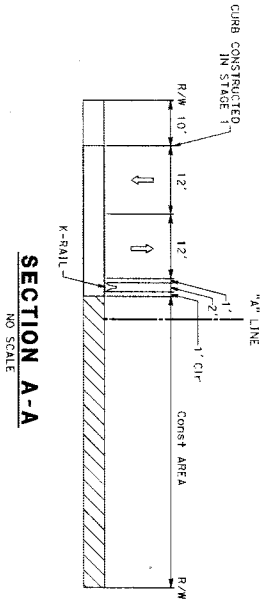
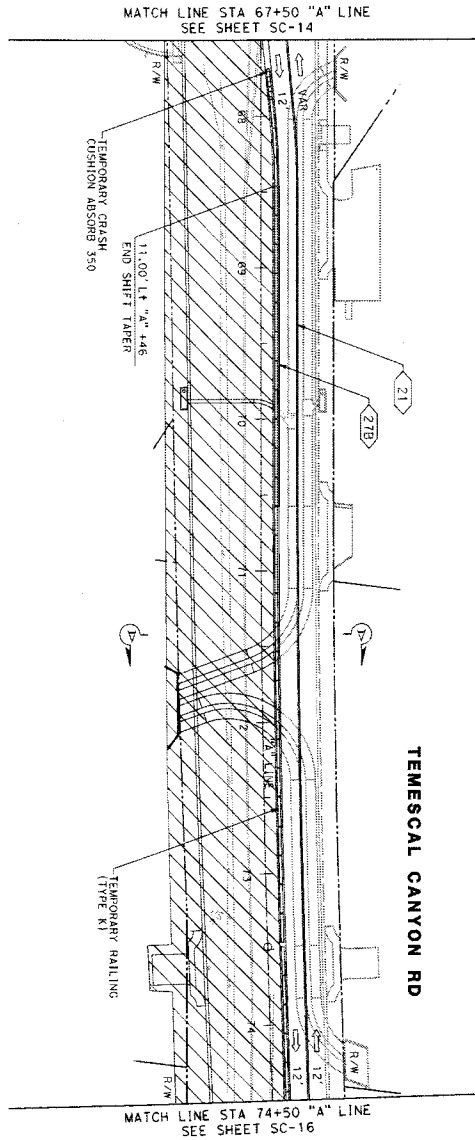
ORDER LAST REVISED 07/21/2015

WO CS-0012

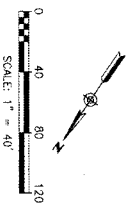
965-WW

**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-11.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



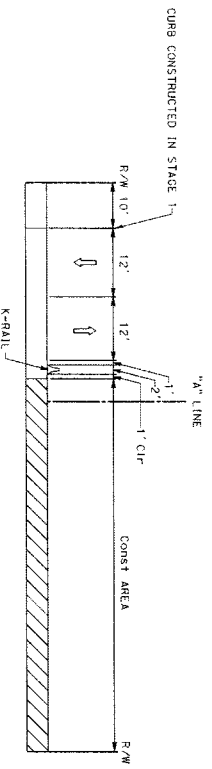
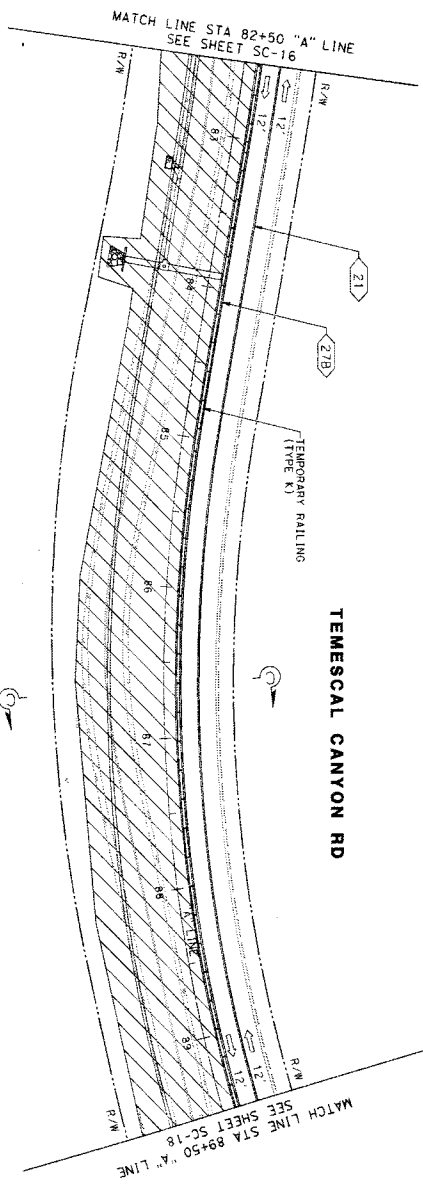
	NEW SHEET - STAGE CONSTRUCTION BY ADDENDUM #3 08/16/2018	<b>STAGE 2</b> <b>STAGE CONSTRUCTION</b>	<b>SHEET NO.</b> <b>SC-15</b>
	<b>PREPARED BY</b> PREPARED UNDER THE SUPERVISION OF: SENIOR PROJECT MANAGER DATE: 08/10/18 4850 SAN DIEGO, CA 92111	<b>STAGE CONSTRUCTION</b> TEMESCAL CANYON RD DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 67+50 TO 74+50	COUNTY FILE NO. 965-WW

BORDER LAST REVISED 07/27/2015

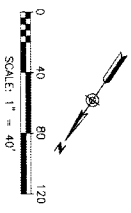


**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
 \* MAINTENANCE OF ACCESS NOT REQUIRED FOR THIS DRIVEWAY



APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



NEW SHEET - STAGE CONSTRUCTION  
 BY ADDENDUM #3/8/10/2018  
**PREPARED BY**  
 PREPARED UNDER THE SUPERVISION OF:  
 SAM ALAN  
 SENIOR PROJECT MANAGER  
 4825 MERCURY ST, STE 207  
 SAN DIEGO, CA 92116  
 DATE: 08/10/18  
 SHEET NO. 17 OF 19

**STAGE 2**  
**STAGE CONSTRUCTION**  
 TEMESCAL CANYON RD  
 DAWSON CYN RD TO 0.7 MI NORTH  
 "A" LINE STA 82+50 TO 89+50

**SHEET NO. SC-17**  
 OF 19

BOBBER LAST REVISED 07/27/2015

SON FILE # C-19072 and SC-17.Stage2.dgn

NO C5-00172

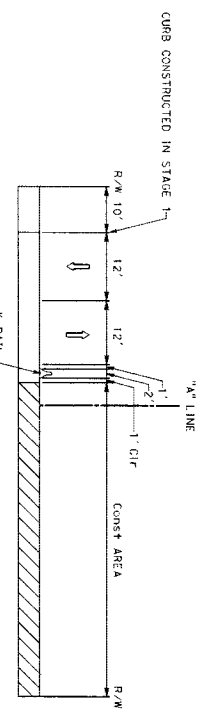
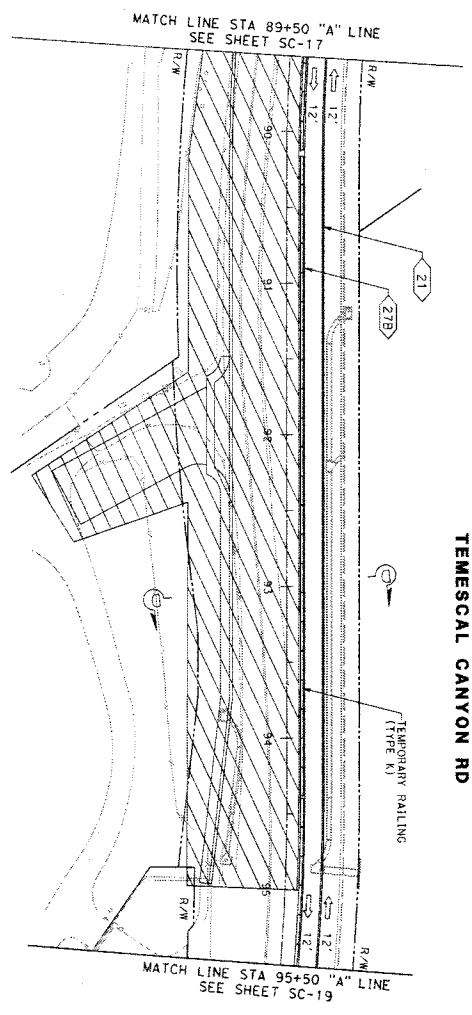
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965-WW

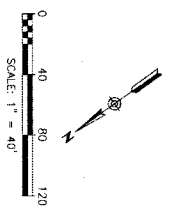


**NOTES:**  
 1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS, SEE SHEET SC-1.

**LEGEND:**  
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APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS

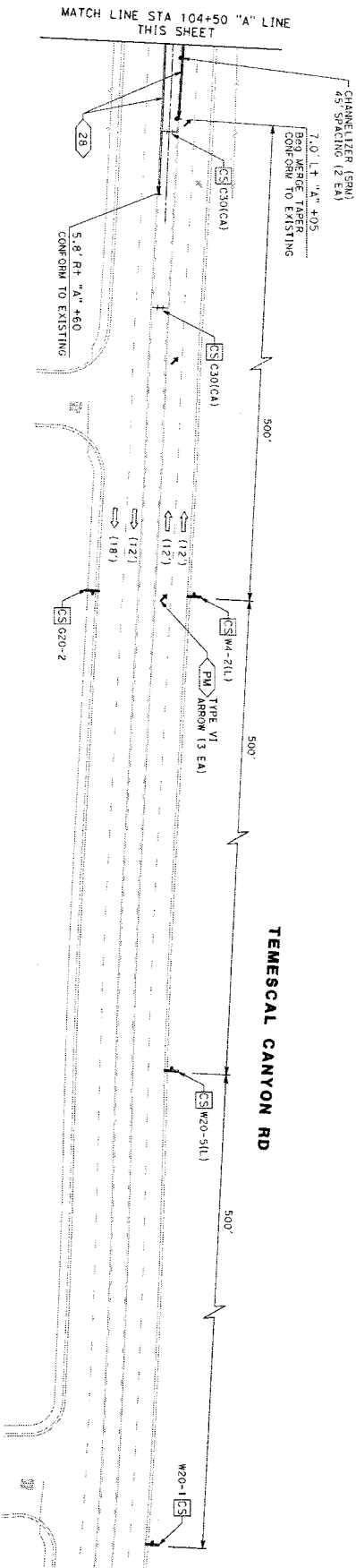
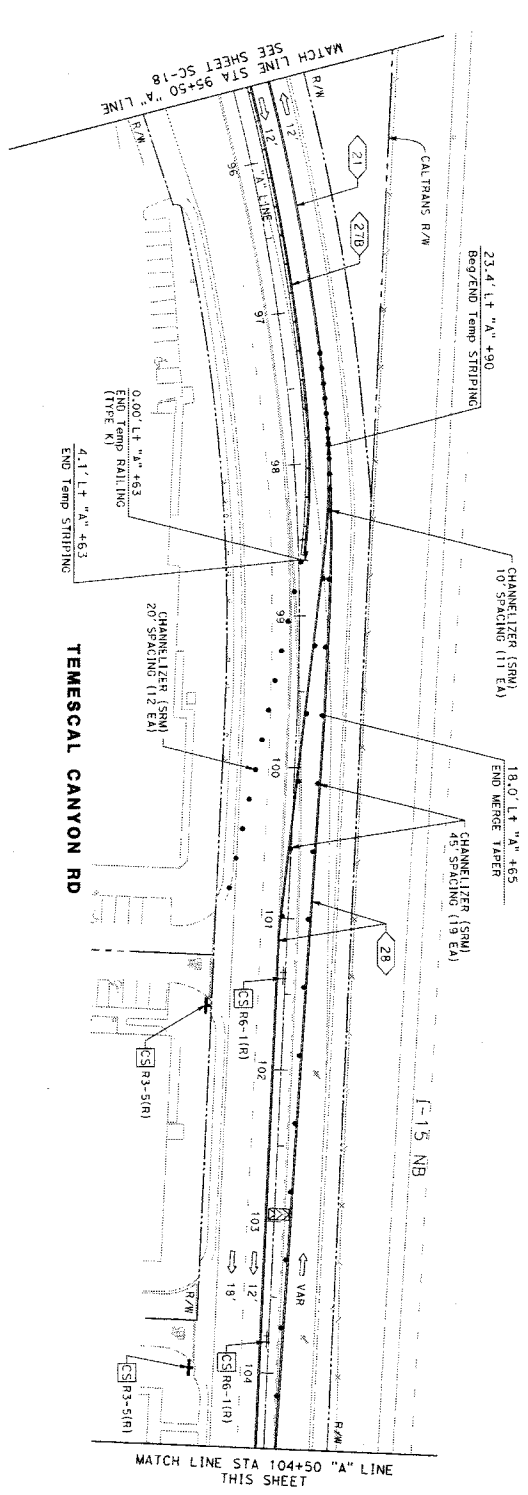


PREPARED BY SCOTT K. HILL SENIOR PROJECT MANAGER 4859 MERCURY ST, SUITE 207 SAN DIEGO, CA 92131	DATE 08/10/18
PREPARED UNDER THE SUPERVISION OF: [Signature]	
<b>STAGE 2</b>	
<b>STAGE CONSTRUCTION</b>	
<b>TEMESCAL CANYON RD</b>	
DAWSON CYN RD TO 0.7 MI NORTH	
"A" LINE STA 89+50 TO 95+50	
<b>SHEET NO.</b>	
<b>SC-18</b>	
SHEET 18 OF 19	

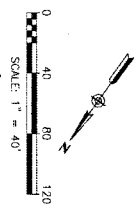
BORDER LAST REVISED 07/21/2015  
 DATE PLOTTED => 8/10/2018  
 TIME PLOTTED => 10:44:14 AM  
 COUNTY FILE NO. 965-WW  
 WO C5-0072

**NOTES:**  
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**LEGEND:**  
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APPROVED FOR STAGE CONSTRUCTION WORK ONLY  
 CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS



	<b>PREPARED BY</b> SAUL ALAN SENIOR PROJECT MANAGER DATE: 08/10/18	<b>STAGE CONSTRUCTION</b> TEMESCAL CANYON RD DAWSON CYN RD TO 0.7 MI NORTH "A" LINE STA 95+50 TO 104+50	<b>SHEET NO.</b> SC-19 19 OF 19
	<b>STAGE 2</b> NEW SHEET - STAGE CONSTRUCTION BY ADDENDUM #3 08/16/2018	PREPARED UNDER THE SUPERVISION OF: DAN R. SMITH SENIOR PROJECT MANAGER DATE: 08/10/18	COUNTY: MO FILE NO.: C5-00172

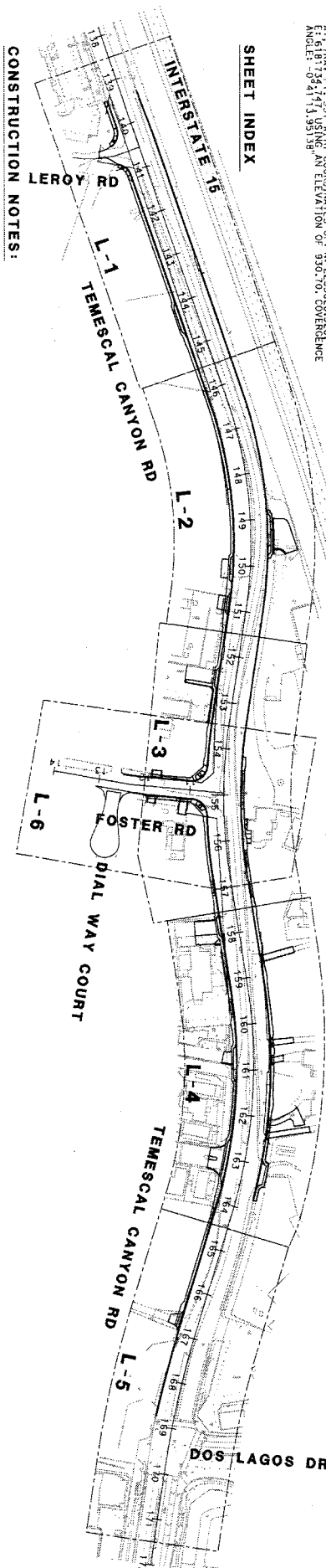
BOORDER LAST REVISED 07/21/2015



**BASIS OF BEARING**

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA BASED LOCALLY ON CONTROL STATION(S):  
 NGS P.D. 1479694, CSNG SITE CODE "BLLP"  
 NGS P.D. 1479695, CSNG SITE CODE "RHPB"  
 NGS P.D. 1479696, CSNG SITE CODE "WOPK"  
 AND DISTANCES SHOWN ON THIS MAP ARE GRID-DIOTED BEARINGS AND DISTANCES FROM REFERENCE MAPS OR DEEDS ARE SHOWN PER DISTANCES UNLESS SPECIFIED OTHERWISE. GRID DISTANCES MAY BE OBTAINED BY CALCULATING THE GROUND DISTANCE MADE AT A TRAVEL OF 157 WITH COORDINATES OF N: 235928.42E AND E: 161734.11E WITH AN ELEVATION OF 930.10'. COVERAGE AT SCALE 1"=34' 1.15911

**SHEET INDEX**



**CONSTRUCTION NOTES:**

- 1 PROTECT IN PLACE (AS NOTED)
- 2 REMOVE (AS NOTED)
- 3 COLD PLANE 0.10" AND OVERLAY 0.10" HMA (1 1/2")
- 4 CLASS 2 AGGREGATE BASE (IGNHD EXIST AC WHERE NOTED ON PS SHEETS)
- 5 CONSTRUCT 0.17" HMA (3/4") OVER 0.50" HMA (1") OVER 0.83" CLASS 2 AGGREGATE BASE (IGNHD EXIST AC WHERE NOTED ON PS SHEETS)
- 6 REMOVE EXISTING AC, REGRADE BASE TO ACCEPT 0.30" PAVING, RECOMPACT EXISTING BASE TO 95% MIN RELATIVE COMPACTION, CONSTRUCT 0.30" HMA (3/4") IN 2 LIFTS
- 7 CONSTRUCT TYPE A-6 CURB AND GUTTER PER COUNTY STD NO. 500-0 AND DETAIL ON SHEET C-2
- 8 CONSTRUCT 4" THICK SIDEWALK WITH RETAINING CURB, PER COUNTY STD NO. 401 AND DETAIL ON SHEET C-1
- 9 CONSTRUCT RESIDENTIAL DRIVEWAY APPROACH PER COUNTY STD NO. 207 AND DETAIL ON SHEET C-1
- 10 CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER COUNTY STD NO. 207A AND DETAIL ON SHEET C-1
- 11 CONSTRUCT CURB INLET CATCH BASIN PER COUNTY STD NO. 300, WITH FULL TRASH CAPTURE DEVICE
- 12 CONSTRUCT PARKING TIE-IN WITH 0.25" HMA (1 1/2") OVER 0.50" CLASS 2 AGGREGATE BASE
- 13 CONSTRUCT DRIVEWAY TIE-IN WITH 0.75" CLASS 2 AGGREGATE BASE
- 14 GRIND EXISTING AC, REGRADE AND RECOMPACT EXISTING BASE TO 95% MIN RELATIVE COMPACTION, ADJUST SLOPE/RADE AS REQUIRED TO CONSTRUCT 0.45" HMA (3/4") IN 2 LIFTS
- 15 CONSTRUCT 6" RC C DRIVEWAY TIE-IN
- 16 CONSTRUCT CURB RAMP, CASE A, PER COUNTY STD NO. 403
- 17 CONSTRUCT CURB RAMP, CASE B, PER COUNTY STD NO. 403
- 18 CONSTRUCT CURB RAMP, CASE C, PER CAL TRANS STD PLAN RSP 0484
- 19 CONSTRUCT 6" TYPE "D" CURB PER COUNTY STD NO. 204
- 20 CURVE CURB AROUND EXISTING MANHOLE COVER WITH 3" CLEAR ON SHEET DD-2
- 21 CONSTRUCT MASONRY RETAINING WALL PER SPPCC STD PLAN 618-3 AND DETAIL ON SHEET C-5 OR C-9
- 22 CONSTRUCT IMPROVED CONCRETE RETAINING WALL AND ASSOCIATED IMPROVEMENTS PER DETAILS ON R-SHEETS
- 23 INSTALL 5" HIGH CHAIN LINK FENCE PER SPPCC STD PLAN 600-3
- 24 INSTALL 6" HIGH CHAIN LINK FENCE WITH TOP RAIL AND BARBED WIRE PER SPPCC STD PLAN 600-3
- 25 INSTALL 6" HIGH CHAIN LINK FENCE PER SPPCC STD PLAN 600-3
- 26 COLD PLANE 0.17" AND VARIES UP TO 0.20" AND OVERLAY VARIABLE THICKNESS HMA (1 1/2") UP TO 0.40" THICK
- 27 INSTALL 6" HIGH CHAIN LINK FENCE WITH BARBED WIRE PER SPPCC STD PLAN 600-3
- 28 INSTALL 6" HIGH CHAIN LINK FENCE WITH TOP RAIL AND BARBED WIRE PER SPPCC STD PLAN 600-3
- 29 CONSTRUCT IMPROVED CONCRETE RETAINING WALL AND ASSOCIATED IMPROVEMENTS PER DETAIL ON SHEET DD-1
- 30 CONSTRUCT METAL HAND RAILING, TYPE B, PER SPPCC STD PLAN 606-4
- 31 REMOVE AND RECONSTRUCT CROSS-GUTTER AND SPANBELLS PER COUNTY STD. NO. 209
- 32 INSTALL 30" RCP (D-3000) (NOT USED)
- 33 INSTALL 24" RCP (D-1000)
- 34 EXTEND EXISTING 24" CULVERT
- 35 INSTALL 18" RCP (D-1800) NO. 2 (LAYERS, METHOD B)
- 36 CONSTRUCT REINFORCED CONCRETE CAP (MINOR CONCRETE) 18" BITUMINOUS COATED CORRUGATED STEEL PIPE RISER (0.139 THICK)
- 37 INSTALL 18" RCP (D-3000)
- 38 INSTALL 12" PLASTIC PIPE, SDR=23.5
- 39 INSTALL PRECAST DRAINAGE INLET TYPE G1 PER CAL TRANS STD PLAN RSP 0738
- 40 INSTALL PRECAST 24" X 24" INLET, FRAME AND GRATE STD NO. 303
- 41 CONSTRUCT FLAT OUTLET DRAINAGE STRUCTURE PER COUNTY STD NO. 303
- 42 RELOCATE 20'-6" WIDE ROLLING GATE
- 43 RELOCATE ROADSIDE SIGN, SEE PD SHEETS
- 44 RELOCATE TELEPHONE PEDestal BY OTHERS (AS NOTED)
- 45 RELOCATE ELECTRICAL PULL BOX BY SGC
- 46 RELOCATE GAS METER BY SGC
- 47 RELOCATE MALLBOX
- 48 RELOCATE BLOW OFF (OWNER AS NOTED)
- 49 RELOCATE HYDRANT (OWNER AS NOTED)
- 50 RELOCATE COMBINED ANY ASSEMBLY (OWNED BY EWARD)
- 51 OWNER TO BE RELOCATED BY SEE U SHEETS
- 52 RELOCATE WATER METER (OWNER AS NOTED)
- 53 RELOCATE FIBER OPTIC DRAINAGE CASE IN PLACE (MND)
- 54 RELOCATE LIGHT POLE BY PRIVATE OWNER
- 55 RELOCATE SIGN, WATCH EXISTING
- 56 RECONSTRUCT SIGN, WATCH EXISTING
- 57 REMOVE TRAFFIC SIGNAL PULL BOX, SEE SHEET E-1
- 58 RELOCATE FIBER OPTIC PULL BOX BY OTHERS (AS NOTED)
- 59 ADJUST TRAFFIC SIGNAL VIDEO DETECTION ZONES, SEE SHF E-1
- 60 ADJUST GAS VALVE COVER TO GRADE
- 61 ADJUST MANHOLE TO GRADE (OWNER AS NOTED)
- 62 ADJUST MANHOLE TO GRADE BY AT&T
- 63 ADJUST WATER VALVE COVER TO GRADE
- 64 ADJUST UTILITY COVER TO GRADE
- 65 ADJUST STORM DRAIN MANHOLE TO GRADE
- 66 RELOCATE TELEPHONE POLE BY AT&T, SEE U SHEETS

MARK	REVISIONS	BY	APPR.	DATE
Δ	REVISED CONSTRUCTION NOTES			

**PREPARED BY**  
 PREPARED UNDER THE SUPERVISION OF:  
 NEW ENGINEERING  
 1000 S. GARDEN ST.  
 CORONA, CA 92709  
 DATE: 07/10/2018

**KEY MAP & NOTES**  
 TEMESCAL CANYON RD  
 DOS LAGOS DR TO LEROY RD  
 SHEET 02 OF 73  
**K-1**

