

Zone 2

Report to the Zone Commissioners Design and Construction Projects for Calendar Year 2010

By Dusty Williams, General Manager-Chief Engineer
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GENERAL:

Throughout the District (all Zones) during Calendar Year 2010, the Design and Construction Division completed five capital projects with a combined value of \$11.7 million. In Calendar Year 2010 the District also inspected and issued notices of completion for 20 developer-built projects with a total value of almost \$14 million.

As with last year, bids for District construction projects have shown that general contractors are still making very competitive bids. The District will continue to try to leverage this dip in construction costs by pushing hard to complete designs and advertise projects while prices are low.

Eleven capital improvement projects in the FY 2010/2011 budget are scheduled to either commence construction or to purchase right-of-way in Calendar Year 2011. The total cost of these eleven projects exceeds 30 million dollars. Several other drainage projects are being managed by individual Cities with the District participating in funding.

Additionally, we are also underway with six repair projects that require engineered drawings due to the severity of the damage or potential damage to our facilities. Deficiencies range from exposed and rusting rebar to undermined slope paving. As all in-house resources are devoted to our capital improvement projects, these six projects are being designed by outside consulting engineers. The plans for all of these repair projects are essentially complete and we expect to advertise these for construction in the spring of 2011.

Calendar Year 2011 should also see completion of significant changes at the District's office site. The proposed Low Impact Development (LID) Retrofit Project is a three-part project. The completed project will convert the District's Market Street campus into a regional example of green development concepts. The upgraded facility will be used as a regional "green" training center for municipal employees, developers, engineers, and contractors throughout the Inland Empire and Orange County. Currently, there are limited locations and opportunities to demonstrate the proper application of LID BMPs. This facility is uniquely designed to accomplish both demonstration and monitoring of the effectiveness of LID practices. This project is intended to facilitate the support and implementation of LID BMPs by municipalities and developers. The cost of this project is being partially subsidized by a \$475,000 State Proposition 13 grant administered by SAWPA.

Following is a status summary of the capital improvement projects for Zone 2:

Current Year Capital Projects (Budgeted FY 2010/2011)

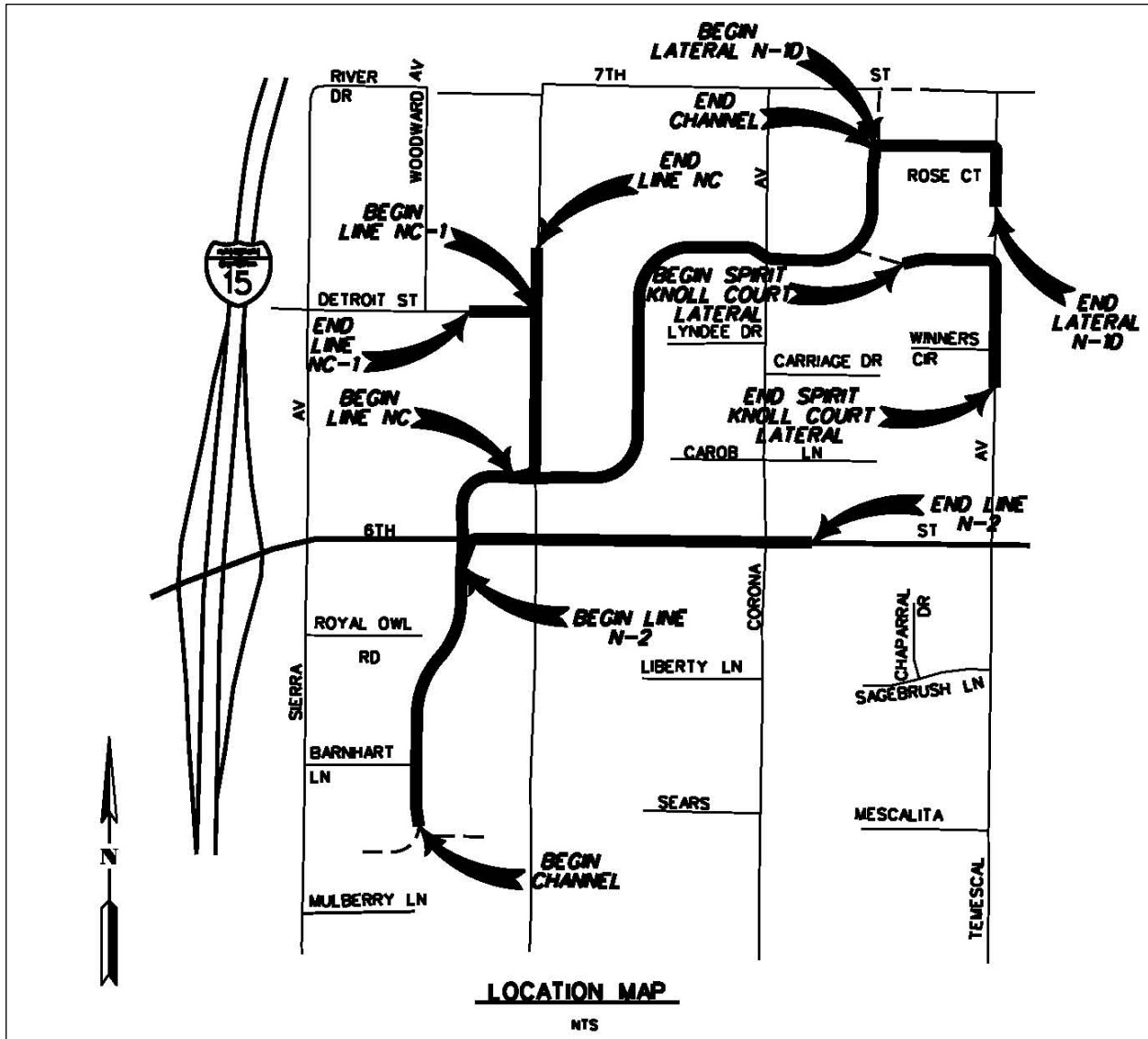
1. **Norco MDP Line NA-3, Stage 1 (2-8-00075-01)** - This project is an underground storm drain which will extend approximately 1,300 feet south in Pedley Avenue from Norco MDP Line NA in Sixth Street. This project will address localized flooding along Pedley Avenue. This project has been advertised for construction in conjunction with Norco MDP Line N-1, Stage 2 as one contract. Construction of this project has begun and we anticipate completion of this combined contract in March 2011.
2. **Santa Ana River, Norco Bluffs [Corps Project] (2-8-00100-00)** - The Norco Streambank Stabilization Project is a Corps of Engineers project that consists of a soil cement toe protection structure constructed to the 100-year flood level at the base of the bluff, and a stable earthen buttress fill constructed to the top of the bluff. The bluff stabilization work extends easterly from the Interstate 15 Bridge to near Center Avenue. The structure was completed in 2004, however, the project experienced severe slope erosion during the 2004-2005 storm season. Funding in the District's FY 2010/2011 Budget is for administration and the District's Local Sponsor share of repair costs. A portion of the repair was completed by the Corps in the spring of 2008. The remaining repairs are still unfinished. The District is continuing to work with the Corps to accept the project for Operation and Maintenance.
3. **Santa Ana Canyon below Prado [Corps Project] (2-8-00105-00)** - This is a feature of the Corps of Engineers' \$1.8 billion Santa Ana River Mainstem Project and is commonly referred to as "Reach 9, Phase 2A and Phase 2B". Phase 2B is currently under construction and includes the installation of slope protection along the 91 Freeway adjacent to Green River Golf Course and Green River Mobile Home Park. Phase 2A is scheduled to begin construction by the summer of 2011 and consists of slope protection adjacent to the Green River Homeowners Estates and Highway 91 just downstream of Highway 71. These improvements will increase flood protection to a 190-year level from the maximum design controlled release from Prado Dam. .

The project also involves the acquisition in fee title or flooding easements within the floodplain resulting under the maximum design controlled release from Prado Dam. The Local Cooperation Agreement (LCA) between the Corps and the Local Sponsors calls for each County to be responsible for providing the right of way, as well as the local cost share of any other elements of this feature that lie within their respective jurisdictional territory. The District is responsible for the acquisition of permanent easements and fee title over State Park, Caltrans, County and private lands in order to construct Phase 2A. In addition, the District is required to provide a 5% cash contribution toward the construction of the project and is required to relocate utilities within the project area.

District staff continues to work with the Corps to oversee the construction of Phase 2B and acquire the right of way for Phase 2A.

Funding in the District's FY 2010/2011 Budget will be for administration, project management, right of way acquisition, construction, utility relocations and environmental review.

4. **North Norco Channel, Stage 11 (2-8-00140-11)** - This project involves ultimate channel improvements for the existing interim channel from 6th Street to the terminus near Rose Court. Based on input from the City of Norco, the project has been up-scoped to include laterals to the existing channel to eliminate frequent flooding problems along Temescal Avenue between 6th and 7th Streets. The drawing sets are being prepared such that the laterals could be constructed independently and in advance of the mainline channel improvements if regulatory issues with the mainline would result in an unacceptable delay.



5. **North Norco Channel, Stage 10 (2-8-00140-10)** - This project involves ultimate improvements to the existing channel between Parkridge Avenue and River Road. The channel is planned as a concrete lined open channel, however, local developers wish to construct an underground facility to accommodate their proposed development. This is a joint project between the District, the City of Norco and local developers. While an agreement has not yet been executed, several meetings have taken place in which responsibilities were discussed. The developers are responsible for design preparation and obtaining all necessary permits from the resource agencies. This developer-driven project has not advanced in any significant way during the past 12 months.

6. **Norco MDP Line N-1, Stage 2 (2-8-00143-02)** - This project is an underground storm drain extending from the existing Stage 1 near Pedley Avenue, east in 7th Street to California Avenue then south in California approximately 800 feet to a sump. This project has been advertised for construction in conjunction with Norco MDP Line NA-3, Stage 1 as one contract. Construction is approximately 90% complete and we anticipate completion of this combined contract in March 2011.
7. **Mockingbird Canyon (2-8-00180-00)** - Initially, the District planned to construct a debris basin on the south side of Van Buren Road to capture sediment being transported along Mockingbird Canyon wash. Upon further investigation, the best long-term solution appears to be the restoration and stream bank stabilization of Mockingbird Canyon wash. Rather than collecting the debris from these areas every year, this approach focuses on improving reaches of the wash so that they become stable and vegetated over time, hence, transporting less sediment. Our field investigation showed that some reaches of the wash are healthy, with good habitat, and with only a few invasive plants. However, some portions of the wash have no vegetation and erode quite heavily. Typically this erosion occurs downstream of private driveway culverts and road crossings. To address this issue, it would be best to work toward restoring the natural wash, which would involve studying the wash as a whole, acquiring right of way, and stabilizing the wash over time. More detailed mapping from Mockingbird Canyon Dam to Pennington Place will be requested to support a more detailed analysis of the wash.
8. **Corona Drains Main Street Storm Drain, Stage 1 (2-8-00203-01)** - An underground storm drain from Eighth to Tenth Streets in Main Street. City of Corona and District executed a design-build cooperative agreement in February 2010. City has identified a design consultant. District to fund both design and construction.
9. **Corona Drains Line 1-G, Stage 2 (2-8-00223-02)** - This project is the extension of Line 1-G 150 feet into Main Street at the intersection of W. Olive Street and S. Main Street. This stage will be constructed as part of the same contract as the Ontario Avenue Storm Drain, Stage 1 project.
10. **Day Creek – Frank Avenue Storm Drain (2-8-00274-01)** - This project is a 1,050-foot drain to dewater a sump in Frank Avenue in the south Mira Loma area. Construction of this drain will enable the removal of a problematic pump-driven drainage system presently operated by the Riverside County Transportation Department. Construction plans are 90% complete. We have been coordinating with utility owners in the relocation of conflicting utilities. Utility relocation plans are being reviewed with actual relocation to begin shortly. We anticipate advertising this project for construction within the next three months.



Frank Avenue's sump and project alignment



11. **Gavilan Hills-Smith Road Channel & Debris Basin Habitat Mitigation Plan (2-8-00290-00)**

- The original project consisted of a 54 acre-foot debris basin at the southerly end of Smith Road and a concrete rectangular channel extending northerly to Cajalco Road. Construction of the dam was completed in 2005. Mitigation required for the basin project includes removal of non-native vegetation, debris and remnants of abandoned structures as well as regrading and establishment of native vegetation. The mitigation work was placed in a separate contract which was awarded to Pacific Restoration Group, Inc., in October 2008. The 1-year "gardening" period to assure that the new native landscape becomes established ends in March 2011, otherwise this project is complete.



January 2009



Spring 2010

12. **Corona Drains Line 52 (2-8-00350-01)** - This project was originally planned as an underground storm drain in the City of Corona extending from East Grand Boulevard north in Joy Street to Temescal Creek Channel. Design began on this project in 2003 at which time it was discovered during a field check of the preliminary drawings that a recently installed Edison conduit in Joy Street overlapped the only viable alignment for the storm drain. The street is so heavily laden

with utilities there is no longer room to install a storm drain unless the line is relocated. The City of Corona is taking the lead on design and construction of this project, therefore, we executed a "design-build" cost-sharing agreement with the City in 2010.

13. **Ontario Avenue Storm Drain, Stage 1 (2-8-00351-01)** - This project is an underground storm drain in Ontario Avenue extending upstream from the District's existing El Cerrito Channel at El Cerrito Road about 3,000 feet to State Street just west of Interstate 15. A relatively strong early season storm on November 30, 2007 produced significant flows which created flooding problems north of Ontario Avenue. The facility was originally planned to cut off flows approaching Ontario Avenue from the south. Because of problems caused by the November 2007 storm the City has asked the District to revise the earlier design concept to accommodate flows from a new shopping center on the north (downhill) side of Ontario Avenue. Collecting flows from the shopping center will require a deeper storm drain than originally contemplated. Deep trenching in a street with major utilities will be a significant construction challenge. The design drawings are essentially complete and the project should be ready to be advertised for bid by the end of February 2011. In conjunction with this project we will be advertising the Ontario Avenue Storm Drain, Stage 2 and the Corona Drains Line 1-G, Stage 2 as a single contract.

14. **Ontario Avenue Storm Drain, Stage 2 (2-8-00351-02)** - This project is an extension of the Stage 1 project that extends the mainline of the system into Rising Sun Avenue. The length of this facility is approximately 1,000 feet and reaches the existing low point in Rising Sun Avenue. This project will be constructed as part of the same contract as the Ontario Avenue Storm Drain, Stage 1 project.

15. **Temescal Creek-Foster Road Storm Drain (2-8-00493-01)** - This project is an underground storm drain in Foster Road extending from Interstate 15 approximately 1,700 lineal feet to Temescal Creek. During the past year the design and environmental studies have focused on the outlet into Temescal Wash where the Riverside-Corona Resource Conservation District operates a conservation easement. The proposed outlet will incorporate an impact type energy dissipater located in an area where Temescal Creek will be widened upstream of the outfall to protect the in-stream resources in Temescal Wash. Staff has developed preliminary plans and the CEQA document is projected to be complete in summer 2011. A geotechnical report is in the works and design is expected to continue.

