# LA CHOLLA BOULEVARD
# RUTHRAUFF ROAD TO RIVER ROAD

## Pima County Project No. 4LCITR


Richard Elias, Chair
District 5

Ann Day
District 1

Ramón Valadez
District 2

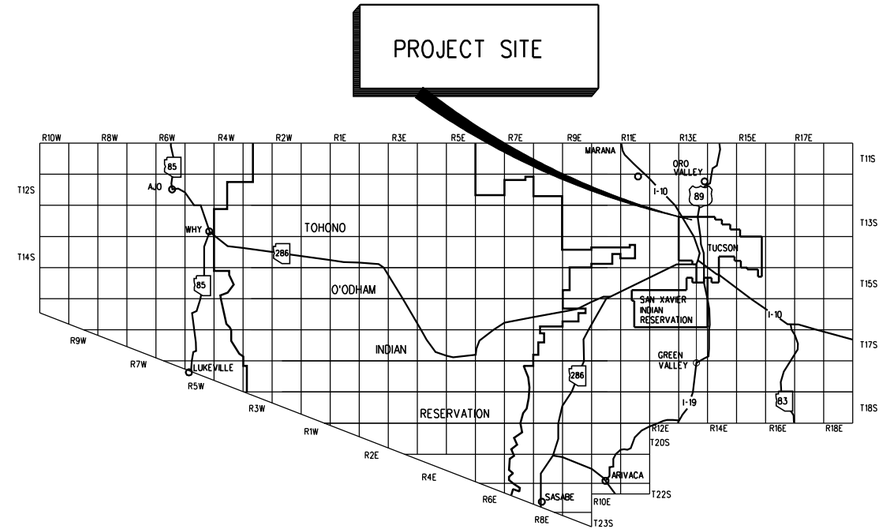
Sharon Bronson
District 3

Raymond J. Carroll
District 4


This Project is Located in Supervisor District #1 & #3

## General Project Description

Reconstruction of approximately one mile of La Cholla Blvd. between Ruthrauff Rd. and River Rd. into six-lane divided roadway. Improvements include: widening approximately four-tenths of a mile of Ruthrauff Rd., storm drain, intersection lighting, public art, signing & striping, 2-3 Lane bridges crossing Rillito River, and landscaping. Other improvements include bike path, soil-cement, and traffic signal modifications.




### Location Map
NTS

Section 15 & 16
T-13-S, R-13-E,
G & S R M
Pima County, Arizona

### SHEET INDEX

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| 47-52 | T1-T6 | Pavement Marking Plan Sheets |
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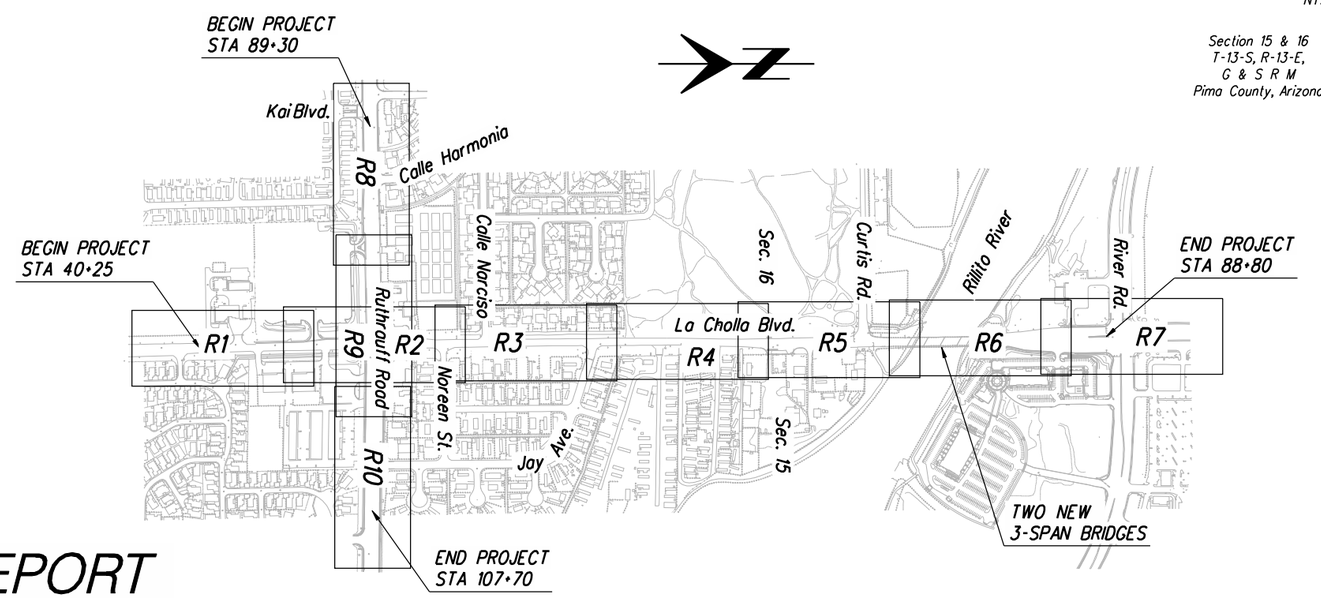


### INDEX TO PLAN SHEETS
NTS

# DESIGN CONCEPT REPORT
# APPENDIX C
# STAGE I (15%) CONSTRUCTION PLANS

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

Approved for Construction of Public Sanitary Sewers — Date


HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600


| No. | Revisions | Engineer | Date |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| No. | As Built | Engineer | Date |
| | | | |
| | | | |
| | | | |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

Pima County
Department of Transportation
201 N. Stone Avenue — Tucson, Arizona 85701
Priscilla S. Cornelio, P.E., Director

| Reviewed by | Engineer | Date |
|---|---|---|
| Mgr. Design Engr. | | |
| Mgr. Traffic Engr. | | |
| Mgr. Field Engr. | | |

Approved: _____ 20__

Priscilla S. Cornelio, P.E.

Project No. 4LCITR — Sheet No. CS1 of CS1 — Page No. 1 of 56

La Cholla Blvd.: Ruthrauff Rd. to River Rd. No. 4LCITR

## GENERAL NOTES

1. A.) Horizontal control is based upon Pima County geodetic control points AL13, AN13, and AJ11. The project surface coordinates were established by applying a combined grid factor of 1.000118934 to grid values at geodetic control point AL13. To achieve grid values divide the herein contained project coordinates by the combined grid factor.

   B.) HDR based the vertical control on City of Tucson bench mark documented on field book 1989-B-1, Pg. 67 & also known as Pima County geodetic control point AL-13. Point being a found 2" BCSM punch only located at the intersection of La Cholla Blvd. & Curtis Rd. Elevation = 2265.62 (NAVD 88)

2. All stationing is along construction centerline unless noted otherwise.

3. All construction shall conform to 2003 Pima County Standard Specifications and Details for Public Improvements except as modified in the contract specifications or plans. Referenced ADOT standards are per the 1992 Structures Section Standard Drawings, 2007 Construction Standard Drawings, & 2002 Signing and Marking Standard Drawings with their current updated revisions.

4. Utility locations shown on the plans were compiled based on the best information available to the Department. Utility locations are not intended to be exact or complete. Prior to commencing construction, the contractor shall verify the locations of all utilities with the appropriate organization. Contact " Blue Stake" at (800-782-5348) two (2) full working days prior to beginning construction.

5. Existing overhead electric, telephone and cable T.V. utilities and underground electric, gas, T.V. and telephone installations will be moved by others.

6. All water valve boxes and covers shall be adjusted to finished pavement grade.

   Adjustment shall conform with Tucson Water Section of Pima County/City of Tucson standard details W-300 & W-305 with attention to water service notes W-309. This work shall be considered incidental to the other items of work, except when the bidding schedule contains specific items on a unit basis.

7. Right-of-way encroachments shall be removed only by order of Pima County, unless otherwise noted.

8. Survey monuments will be furnished and placed by the contractor per Std. Dtl. 103 with frame and cover.

9. Changes in location or length of depressed curbs may be made by the Engineer.

10. Radii are measured to front face of curb per PCDOT standards.

11. Construction zone traffic control shall conform to the requirements of the "Manual on Uniform Traffic Control Devices", U.S. Department of Transportation, Federal Highway Administration, 2003 edition with current updated revisions, and the special provisions.

12. Removal of all cacti and native plants shall be in accordance with the provisions of the "Arizona Native Plant Law", A.R.S., Chapter 7, and The Pima County Native Plant Preservation Ordinance.

13. Soils information will be made available to prospective bidders upon request of the Pima County Department of Transportation. Soils information so provided shall be for information purposes only and is not to be considered a part of the contract documents. This information was developed as accurately as possible by the methods utilized. Pima County accepts no responsibility for any conditions encountered which vary from information provided.

14. Contractor shall obtain all permits required by all governmental agencies unless otherwise noted. However, since this project has been prepared in accordance with Pima County floodplain and grading ordinance requirements, the contractor will not be required to apply for either of these permits. For work beyond the scope of these project limits, plans or specifications, the contractor shall obtain a separate floodplain and/or grading permit prior to commencing such work.

15. Contractor shall comply with all applicable occupational safety and health administration regulations.

16. The permanent traffic control signing shall be furnished and installed by the contractor. Existing pavement markings shall be obliterated as directed by the Engineer, in accordance with County Standards. Permanent pavement markings shall be installed by the contractor.

17. Remove and relocate, as directed by the Engineer, all mailboxes, fences, gates, signs, posts, pipes, etc., within the right-of-way and construction easement areas. The cost of this work shall be considered as incidental to the other items of work, except when the bidding schedule contains specific items on a unit basis.

## SANITARY SEWER NOTES

1. Immediately report any release of sewage, and/or any damage to, or the dropping of debris into, the public sanitary sewage conveyance system to either PCRWRD Field Engineering (740-2651) or PCRWRD Field Operations (326-4333). On weekends, holidays, or between 5:00 PM and 8:00 AM, immediately call Pima County Sheriff's Communication Center at 295-4595 or 741-4900 and request a PCRWRD representative to be dispatched to the site. Take immediate action to prevent or contain the sanitary sewage overflow (SSO) from the sewer system. The contractor shall be responsible for all costs to repair the system, for all expenses to mitigate the release and to disinfect the release areas, and for any regulatory penalties levied on PCRWRD because the SSO entered a natural or constructed storm water drainage system. The contractor shall repair all damage as directed and approved by PCRWRD.

2. Engineering Directive, ENG2006-09, applies to any project that requires trenching within 6' horizantal or 2' verticle of an existing public sewer main. It is the responsibility of the contractor to (A) Identify and include all flow management costs in the construction bid, and (B) Provide a flow management plan at the pre-construction meeting with wastewater field engineering prior to beginning any work that may impact a live sewer. Refer to detail WWM A-5 for flow management plan requirements. Call Pima County Wastewater Field Engineering at 740-2651 for all questions regarding the preparation of flow management plans.

3. It is the contractors responsibility to adjust all sanitary sewer manhole structures to finished grade. All ring and cover adjustments are to be in accordance with city of Tucson/Pima County standard details for public improvements WWM 304, WWM 305 or WWM 306 (as applicable) and WWM 307. While adjusting the manhole to finished grade, it is the contractor's responsibility to ensure that rings and covers are cleaned of any and all attached materials (asphalt, concrete, etc.) and ensure that any vent holes are open and clear of obstructions. If the frame and cover are damaged and cannot be completely cleaned, then a new frame and cover is to be put into place, and cost associated with these actions are the responsibility of the contractor. Refer to details WWM 213.0-214.3 for requirements for rings and covers.

4. House or business connection sewers (HCS or BCS) are not part of the public sanitary sewer conveyance system. Private connection sewers constructed prior to January 2006 are not required to be blue staked. Any HCS/BCS encountered during construction shall be protected, repaired, or rerouted, as the situation dictates (COT/PC SD WWM 404), at no expense to the property owner or the Pima County Regional Wastewater Reclamation Department.

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1
SUBMITTAL
OCTOBER 2008
PRELIMINARY
NOT FOR
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OR RECORDING

HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

GENERAL NOTES
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.

| Scales | Horiz. = NTS<br>Vert. = NTS | Sheet | GN1 of GN2 | Page | 2 of 56 |
|---|---|---|---|---|---|

## DESIGN DATA

| | 2007 ADT | 2030 ADT |
|---|---|---|
| La Cholla Blvd.: Ruthrauff Rd. to River Rd. | 28,400 | 44,000 |
| Ruthrauff Rd.: At La Cholla Blvd. Intersection | 28,200 | 37,000 |

Design Speed — 50 MPH - La Cholla North of Ruthrauff Rd.
40 MPH - La Cholla South of Ruthrauff Rd.
45 MPH - Ruthrauff Rd.

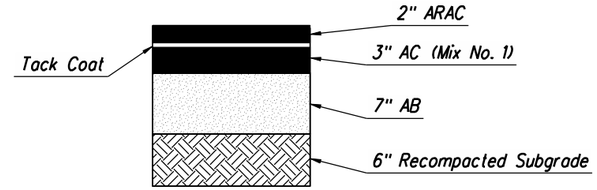
Design Vehicle — WB-50

## LENGTH OF PROJECT

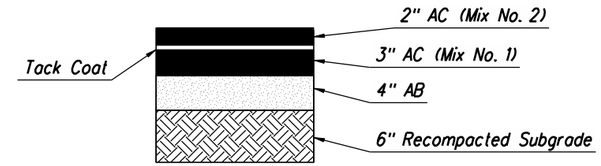
La Cholla Blvd.:
Sta. 40+25.00 to 88+80.00 — 4855 LF = 0.92 Miles

Ruthrauff Rd.:
Sta. 89+30.00 to 107+70.00 — 1840 LF = 0.35 Miles

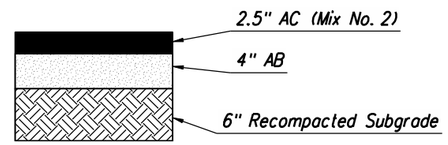
Total = 6695 LF = 1.27 Miles



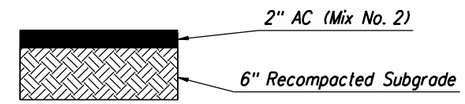

**PAVEMENT STRUCTURE NO. 1**
NTS
La Cholla Boulevard
Ruthrauff Road




**PAVEMENT STRUCTURE NO. 2**
NTS
Curtis Road




**PAVEMENT STRUCTURE NO. 3**
NTS
Noreen Street, Calle Narciso,
Jay Avenue, Frontage Roads




**PAVEMENT STRUCTURE NO. 4**
NTS
Driveways, Bike Paths

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | L. Borelo | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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OCTOBER 2008
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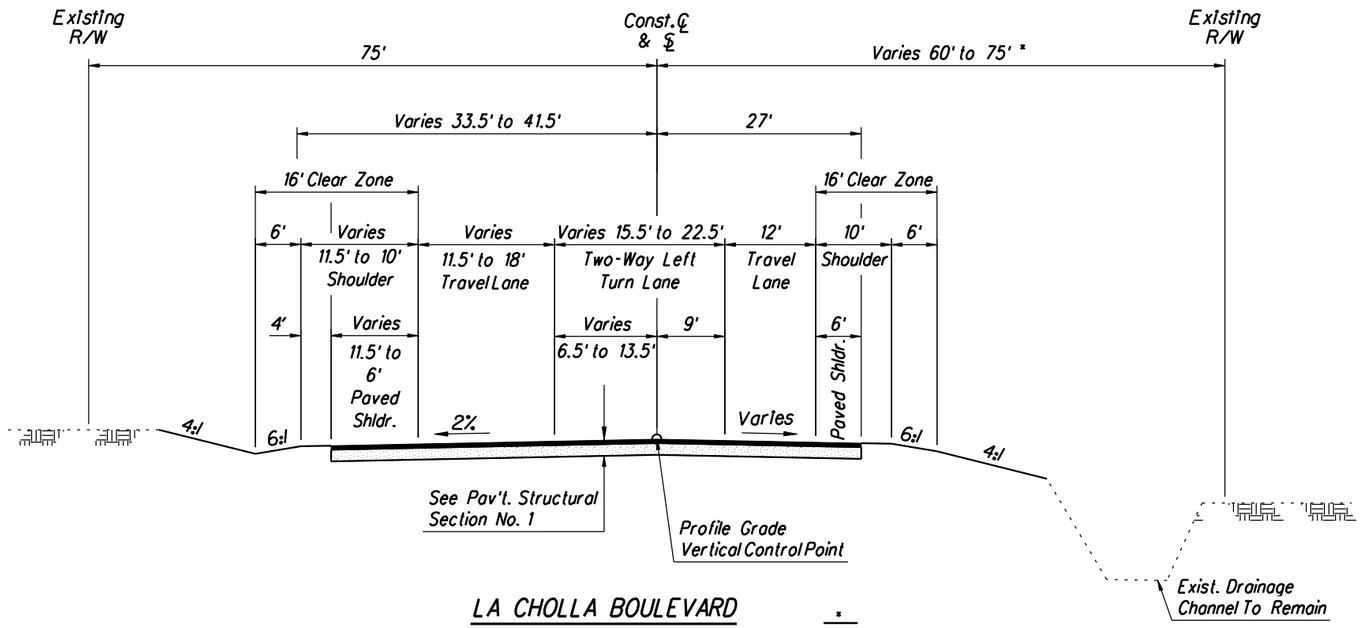
Tucson, AZ 85711-4459
(520) 584-3600

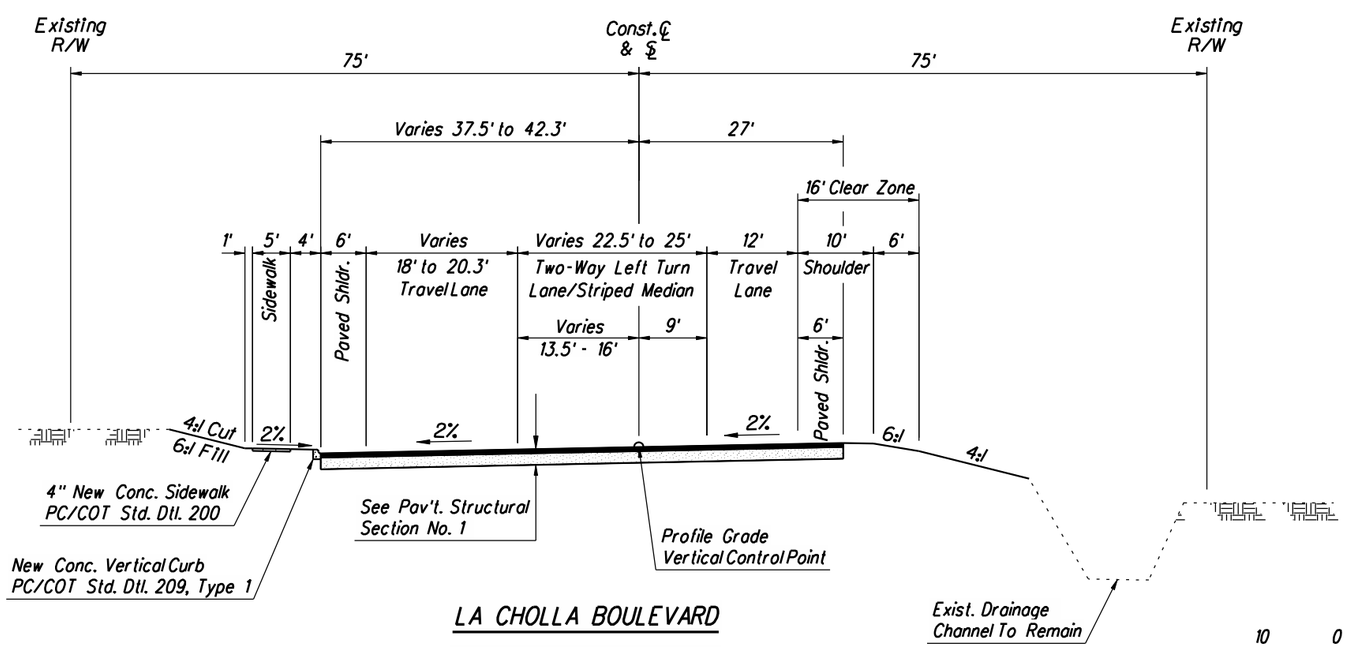
GENERAL NOTES
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.

| Scales | Horiz. = NTS<br>Vert. = NTS | Sheet GN2 of GN2 | Page 3 of 56 |
|---|---|---|---|




## LA CHOLLA BOULEVARD

| | * |
|---|---|
| Sta. 40+25.00 to Sta. 43+37.06 | 60' |
| Sta. 43+37.06 to Sta. 43+75.00 | 75' |




Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

## LA CHOLLA BOULEVARD

Sta. 43+75.00 to Sta. 45+00.00

10 0 10 20

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1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS1 of TS14 | Page | 4 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

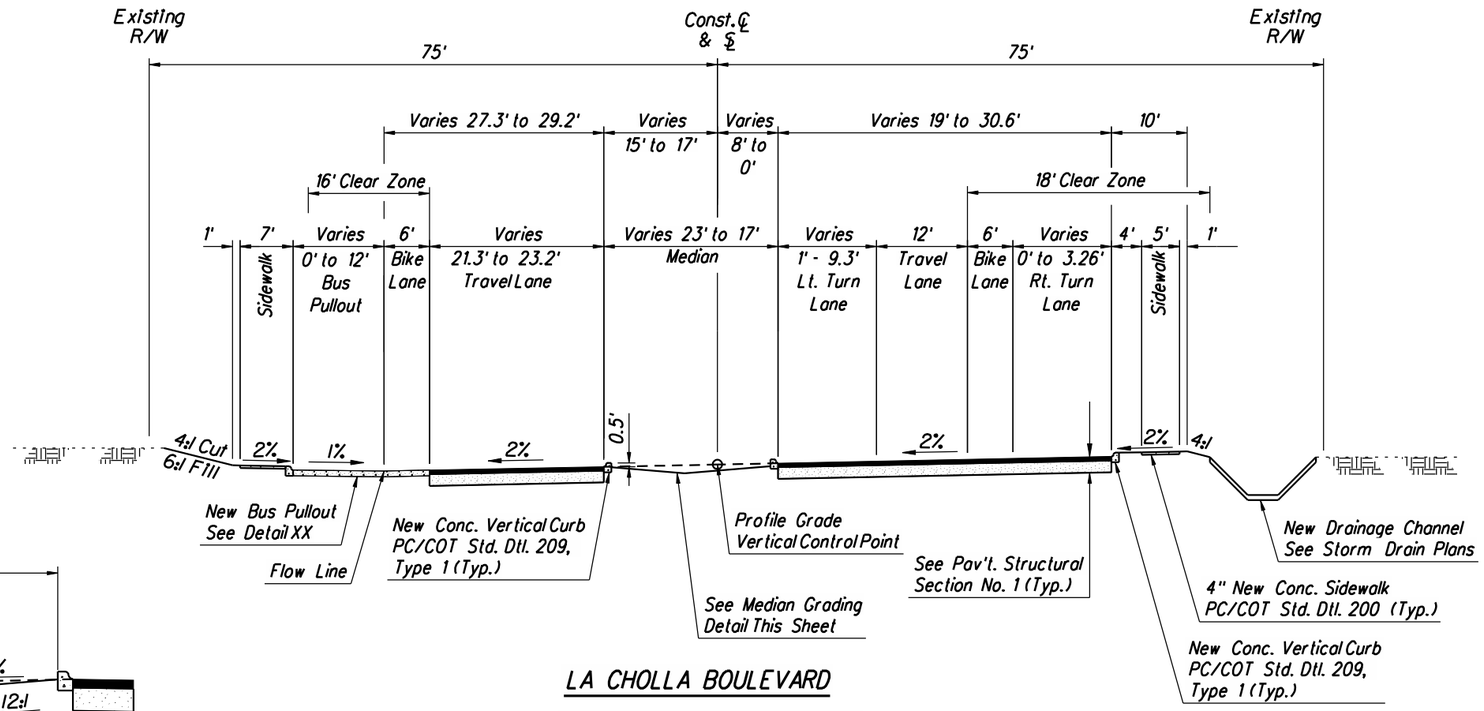
LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR LA CHOLLA BLVD.

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

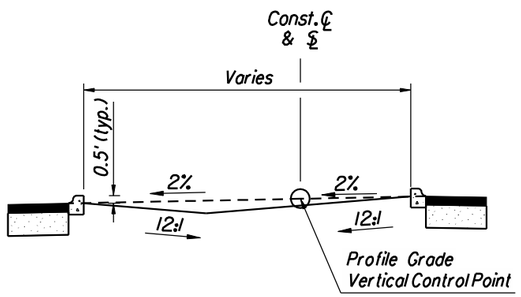
| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |



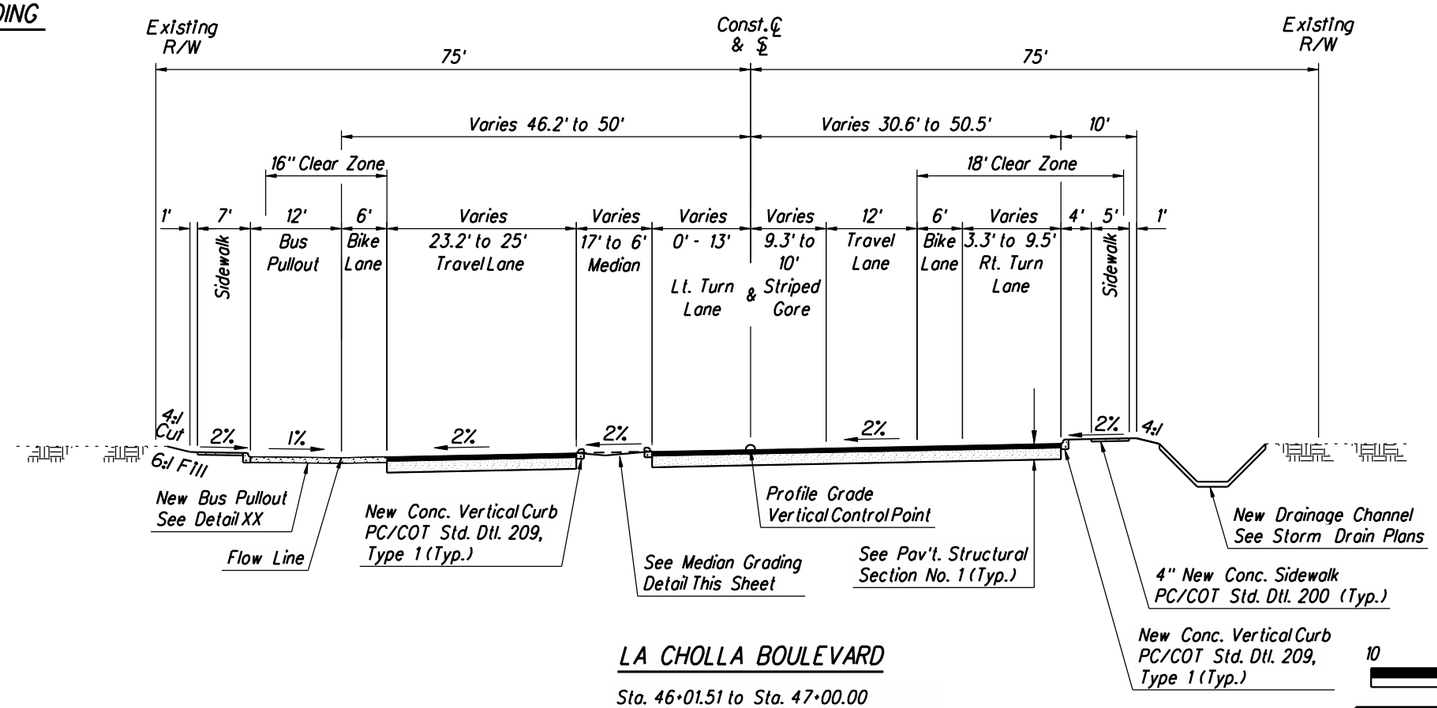

## LA CHOLLA BOULEVARD

Sta. 45+00.00 to Sta. 46+01.51




## TYPICAL DETAIL: MEDIAN GRADING

N.T.S.




## LA CHOLLA BOULEVARD

Sta. 46+01.51 to Sta. 47+00.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

10 0 10 20

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS2 of TS14 | Page | 5 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
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STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

HDR Engineering, Inc.
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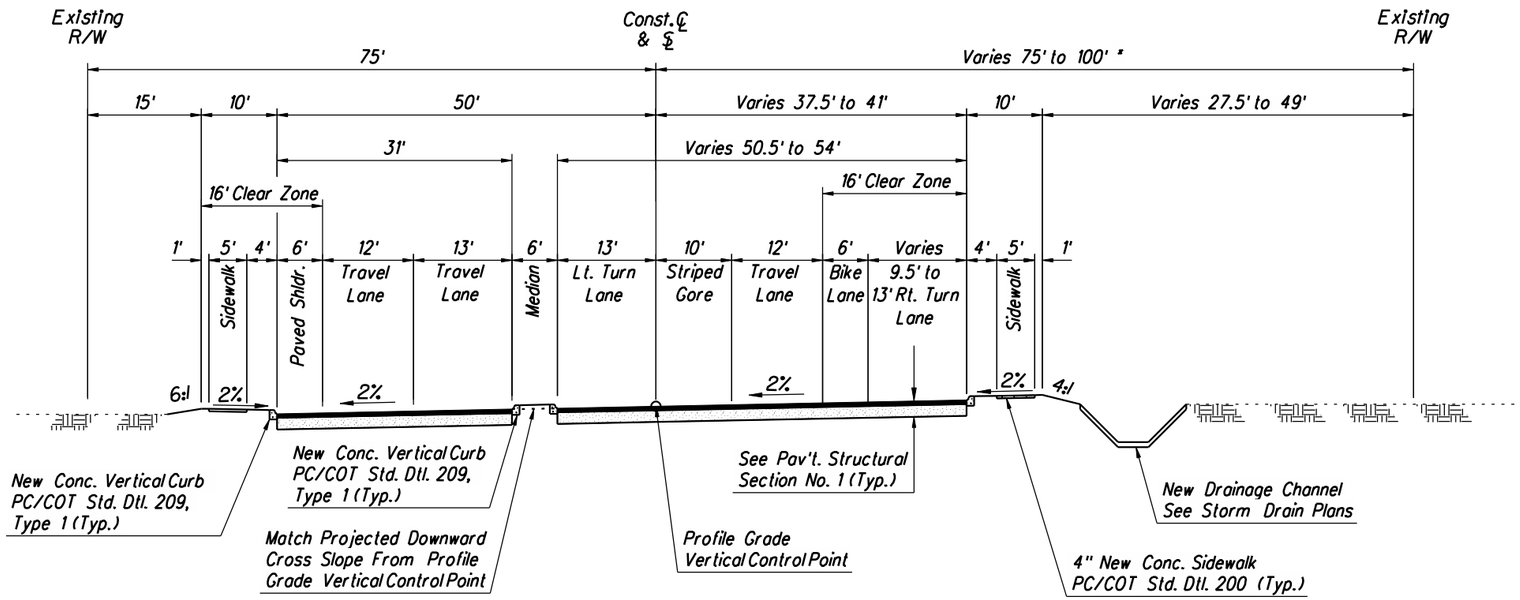
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BL VD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR LA CHOLLA BL VD.

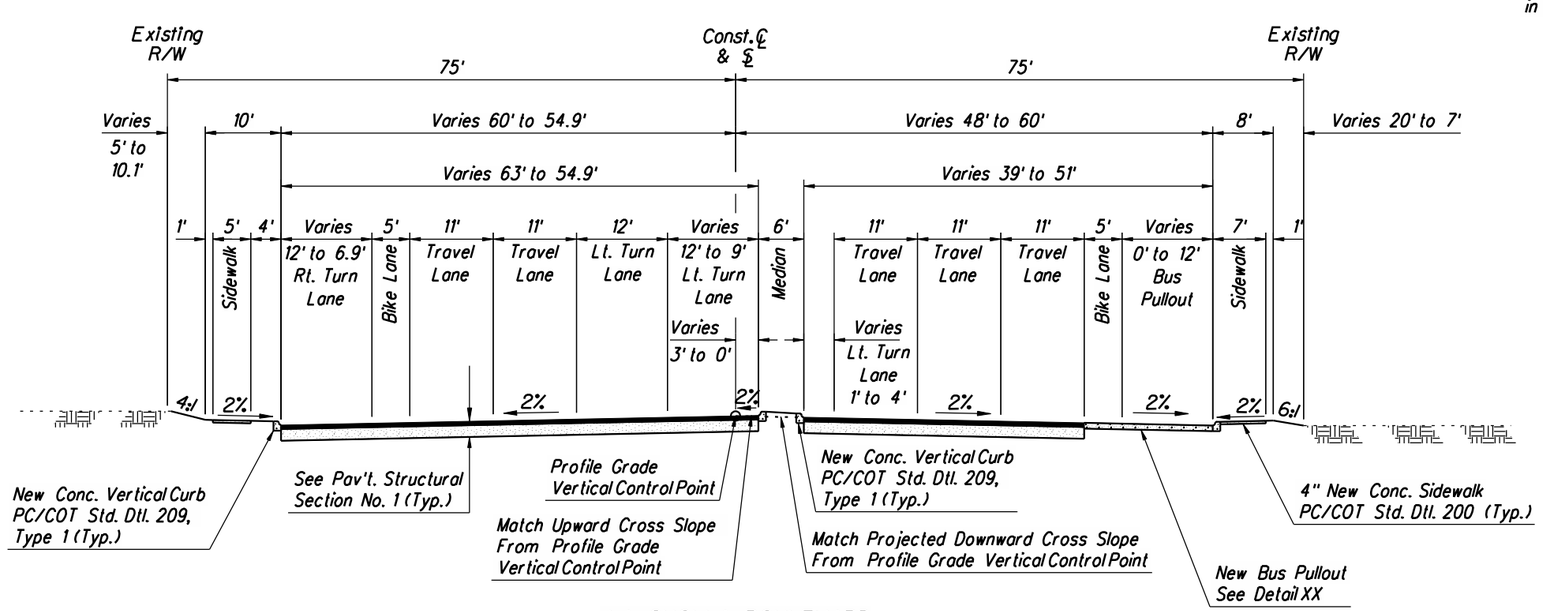



## LA CHOLLA BOULEVARD

| | * |
|---|---|
| Sta. 47+00.00 to Sta. 47+11.97 | 75' |
| Sta. 47+11.97 to Sta. 49+50.00 | 100' |

Note:
See Plan Sheets R11 to R15
for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.




## LA CHOLLA BOULEVARD

Sta. 50+50.00 to Sta. 53+85.48

10 0 10 20

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS3 of TS14 | Page | 6 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
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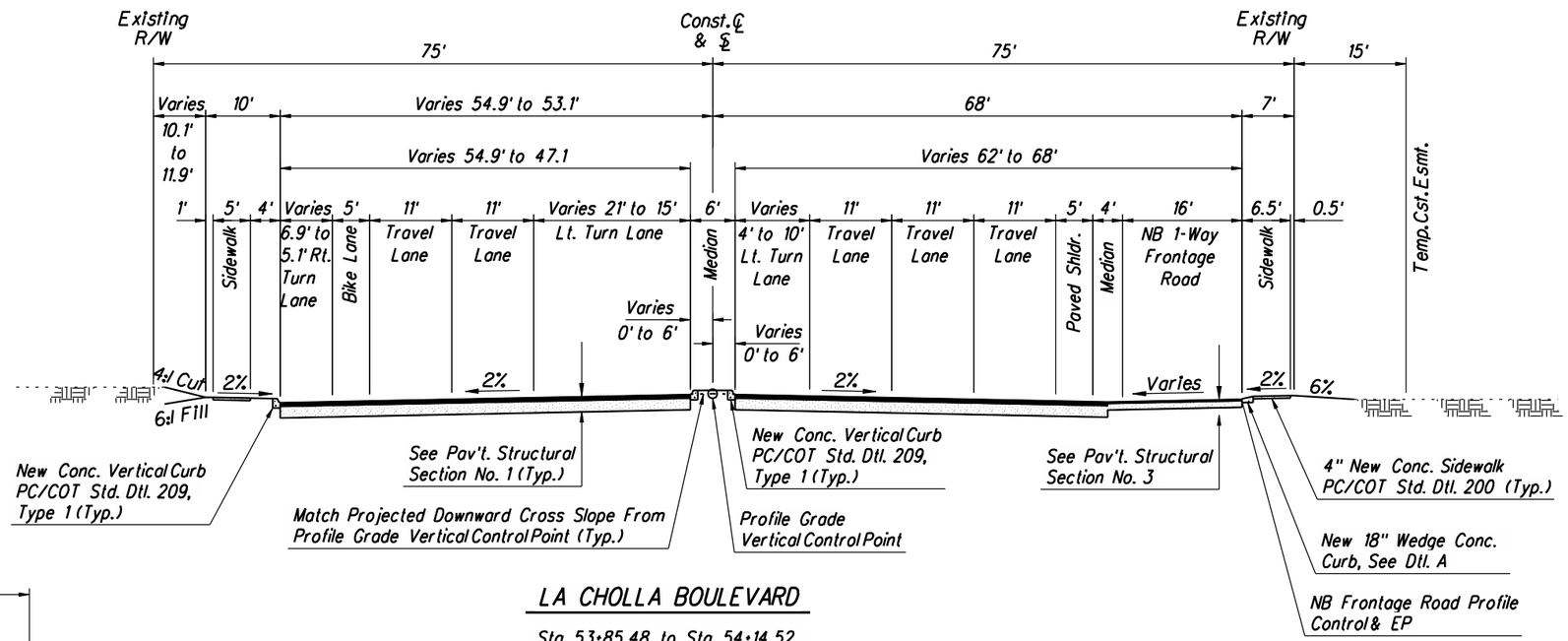
LA CHOLLA BL VD.:
RUTHRAUFF RD. TO RIVER RD.
ROADWAY TYPICAL SECTIONS
FOR LA CHOLLA BL VD.

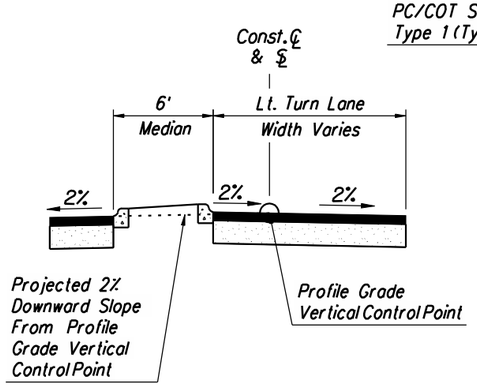



## LA CHOLLA BOULEVARD

Sta. 53+85.48 to Sta. 54+14.52

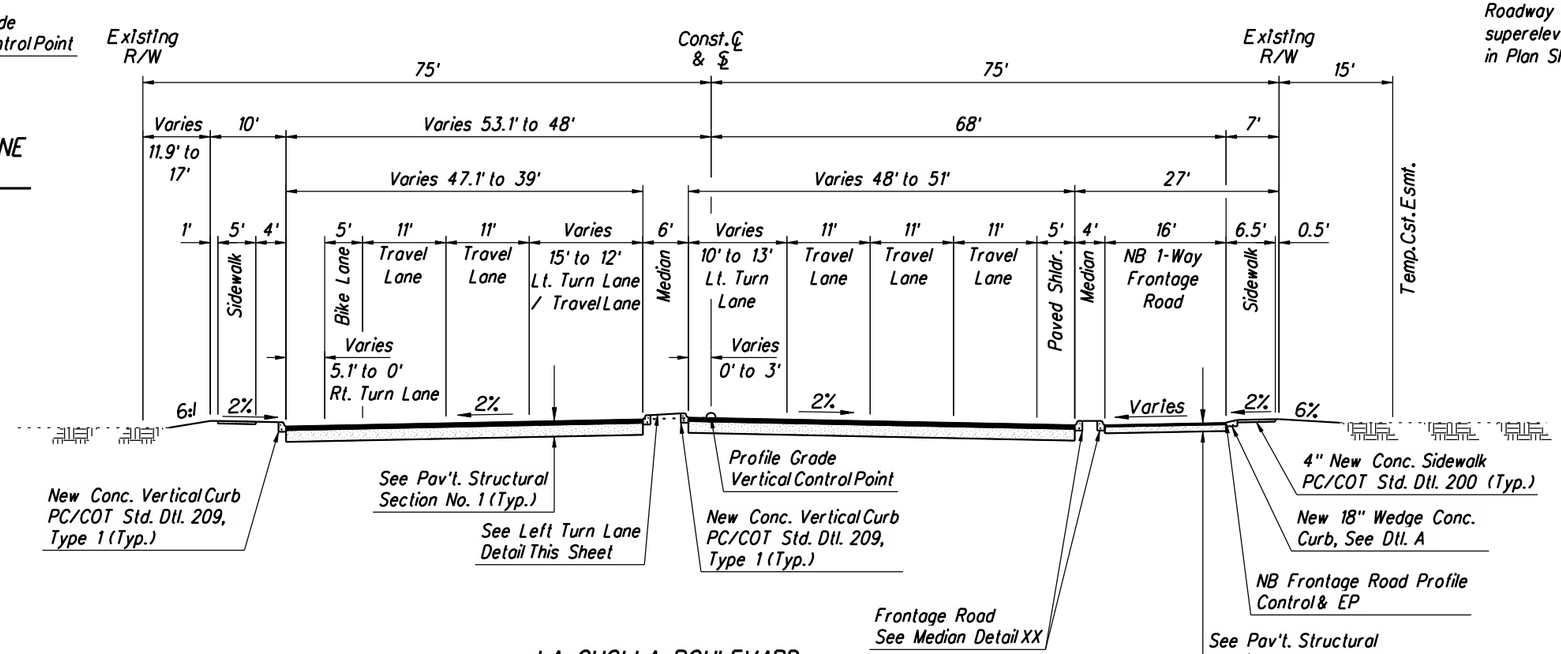
Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.




## TYPICAL DETAIL: LEFT TURN LANE WITH UNEVEN MEDIAN

N.T.S.




## LA CHOLLA BOULEVARD

Sta. 54+14.52 to Sta. 56+00.00

10 0 10 20

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS4 of TS14 | Page | 7 of 56 |
|---|---|---|---|---|---|

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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| Designed | L. Borelo | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

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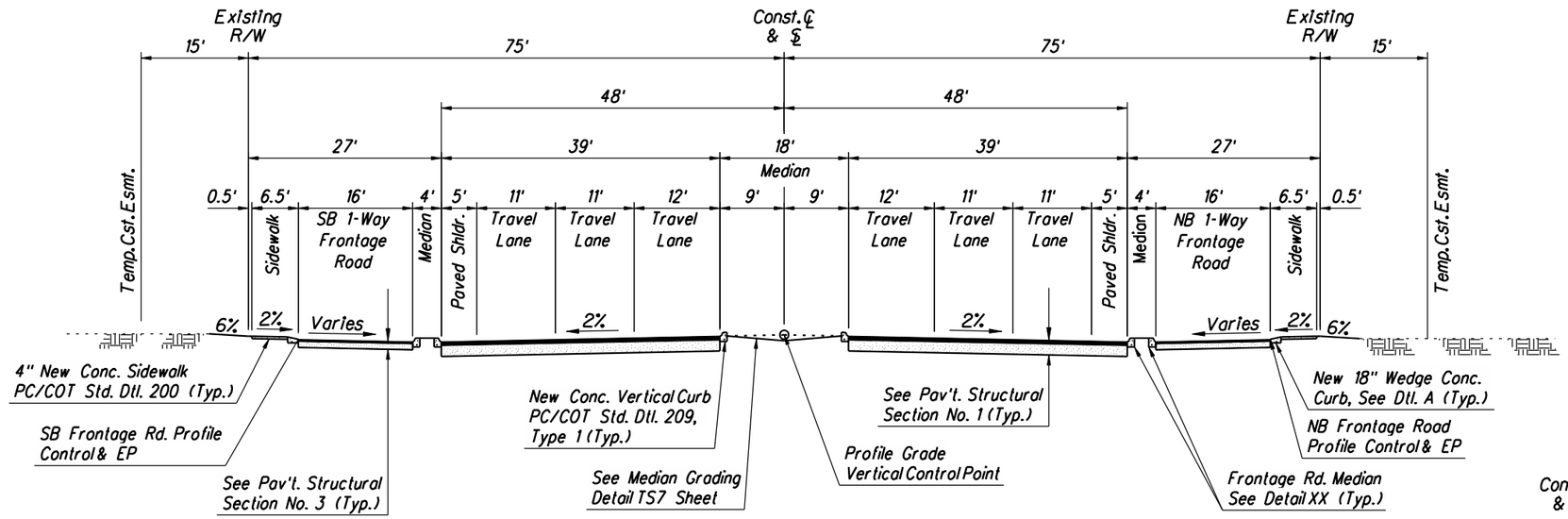
Tucson, AZ 85711-4459
(520) 584-3600

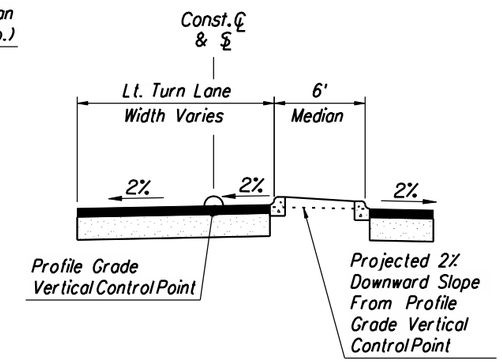
Pima County Department of Transportation

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR LA CHOLLA BLVD.



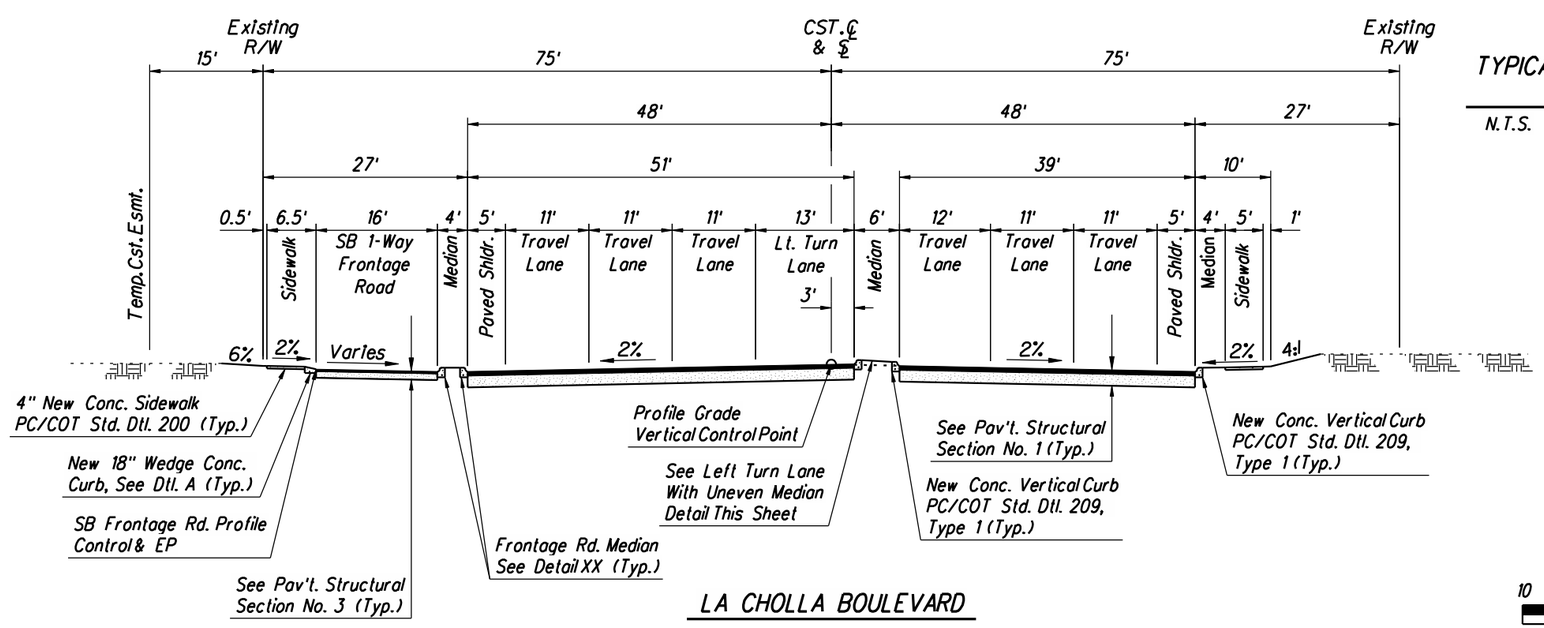

## LA CHOLLA BOULEVARD

Sta. 56+00.00 to Sta. 61+50.00




## TYPICAL DETAIL: LEFT TURN LANE WITH UNEVEN MEDIAN

N.T.S.




## LA CHOLLA BOULEVARD

Sta. 61+50.00 to Sta. 63+50.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

10 0 10 20

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
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| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS5 of TS14 | Page | 8 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | L. Borelo | Sept./2008 |
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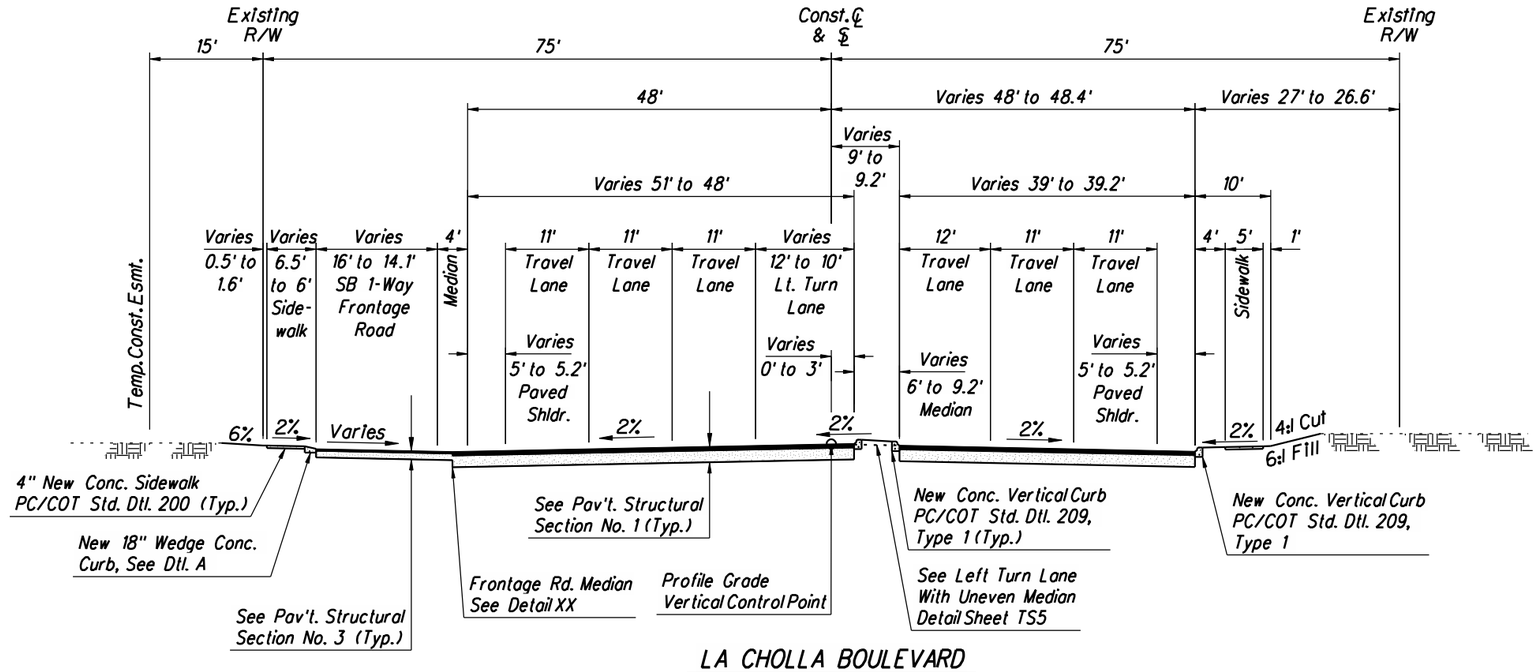
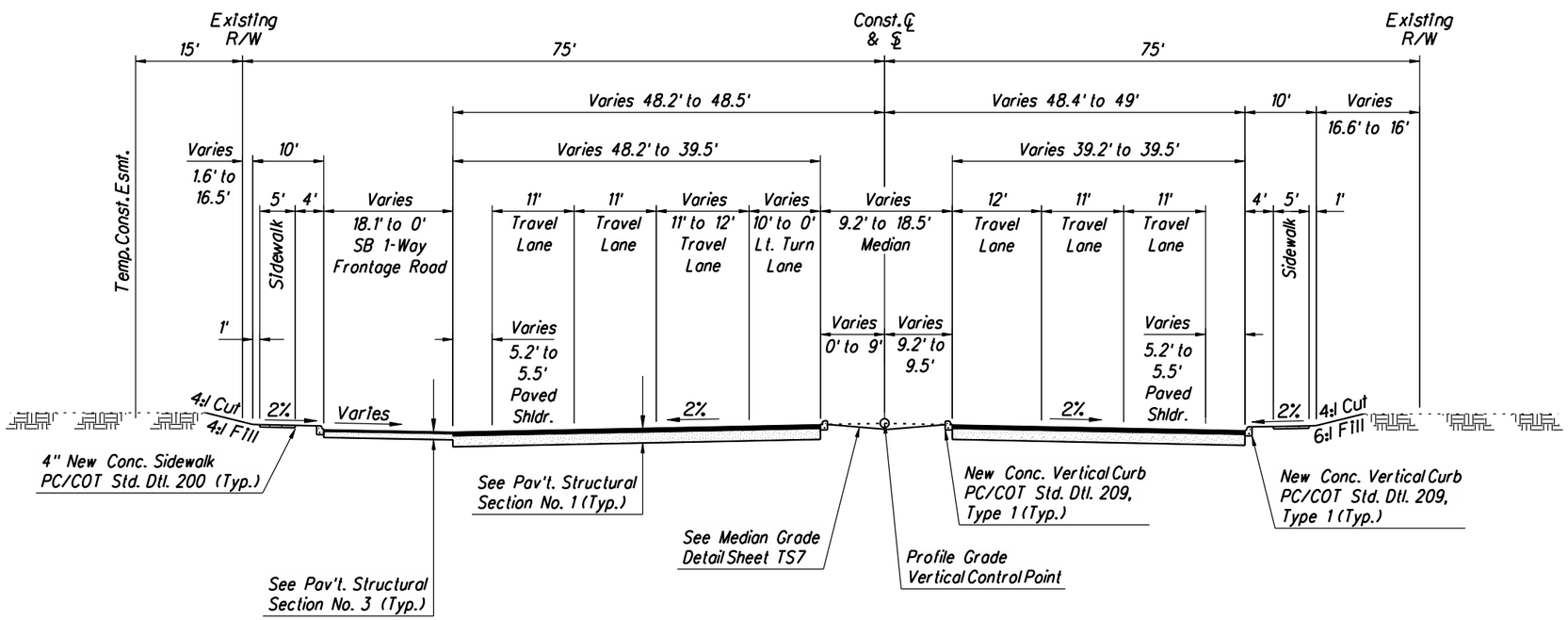
(520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTION FOR LA CHOLLA BLVD.




## LA CHOLLA BOULEVARD

Sta. 63+50.00 to Sta. 64+10.48




## LA CHOLLA BOULEVARD

Sta. 64+10.48 to Sta. 64+80.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

10 0 10 20

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1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS6 of TS14 | Page | 9 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

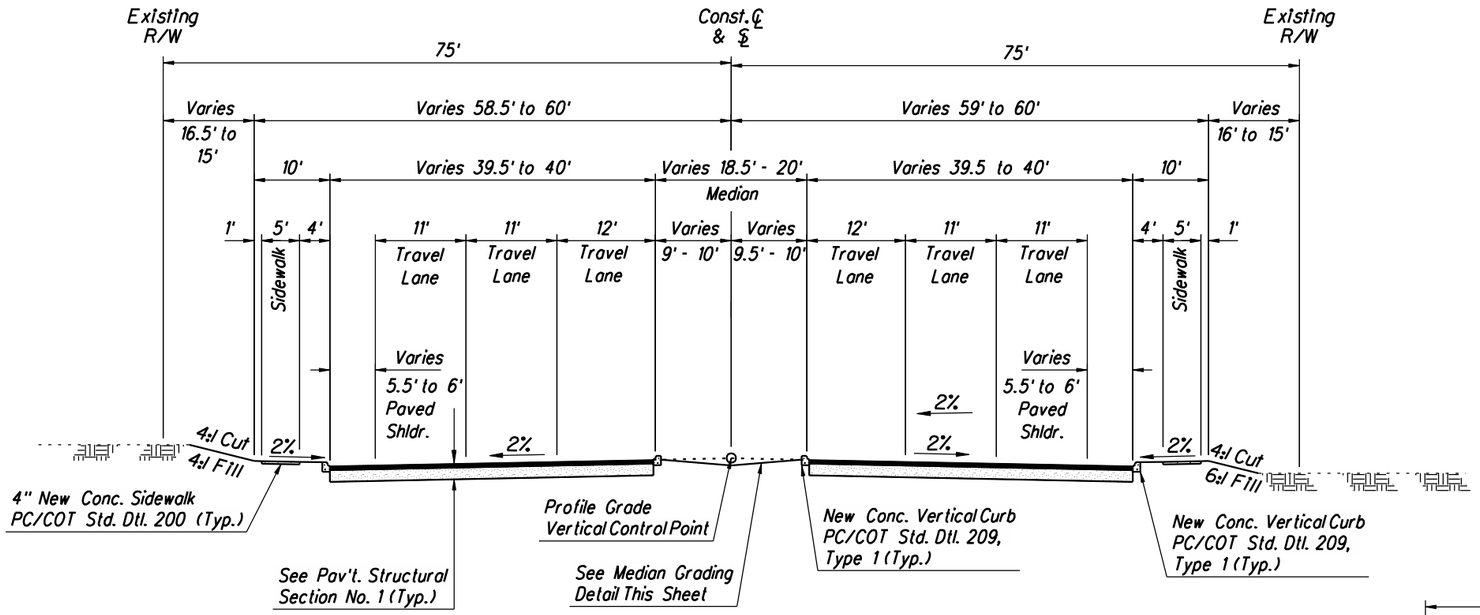
| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

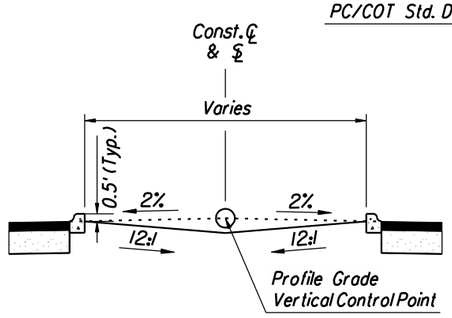
HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTION FOR LA CHOLLA BLVD.



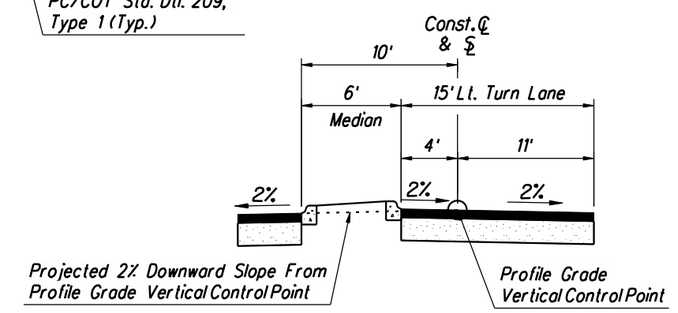

## LA CHOLLA BOULEVARD

Sta. 64+80.00 to Sta. 66+00.00



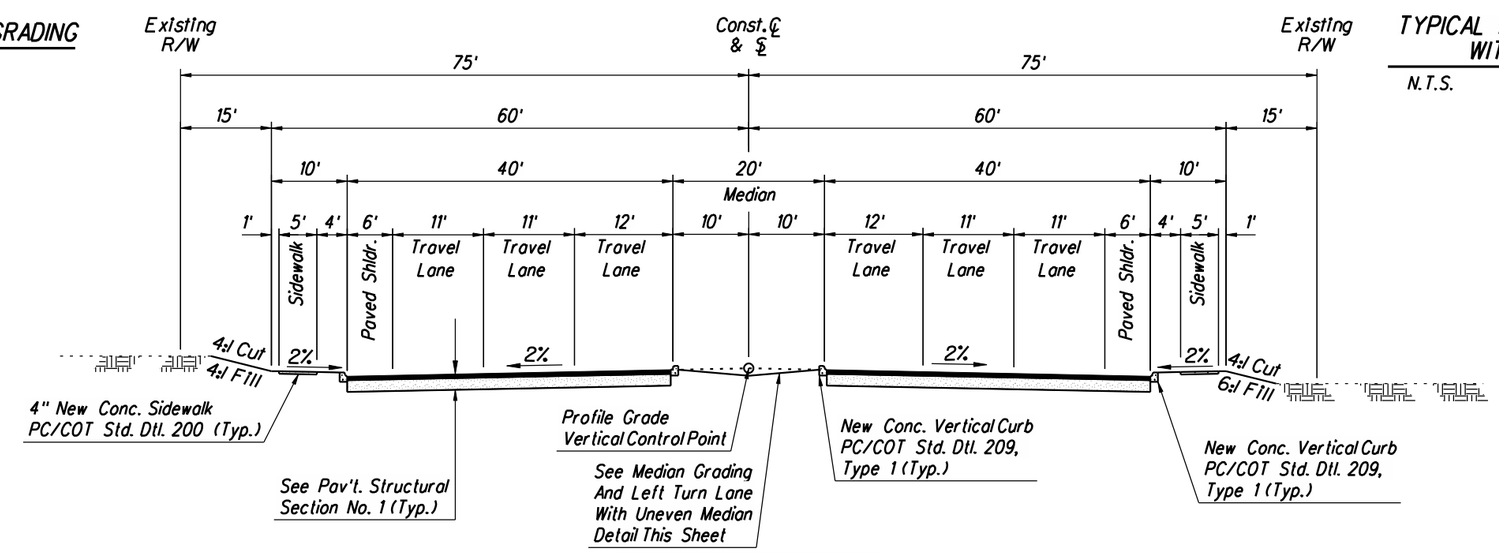

## TYPICAL DETAIL: MEDIAN GRADING

N.T.S.




## TYPICAL DETAIL: LEFT TURN LANE WITH UNEVEN MEDIAN

N.T.S.




## LA CHOLLA BOULEVARD

Sta. 66+00.00 to Sta. 75+75.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

10 0 10 20

Arizona Blue Stake
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| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS7 of TS14 | Page | 10 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

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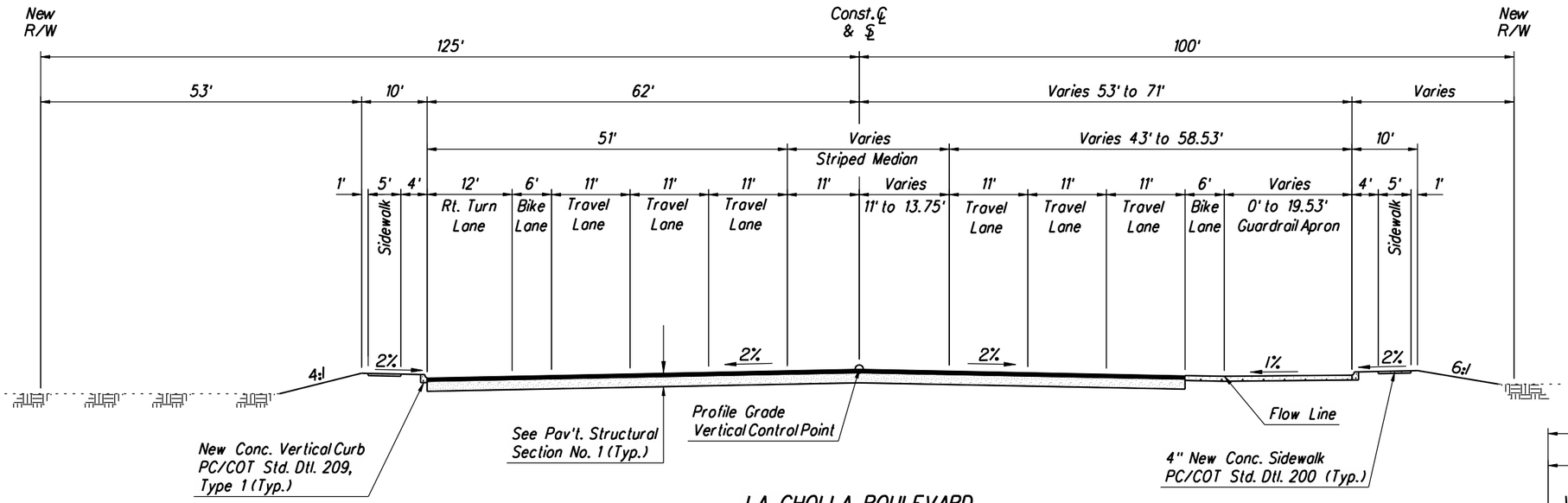
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTION FOR LA CHOLLA BLVD.

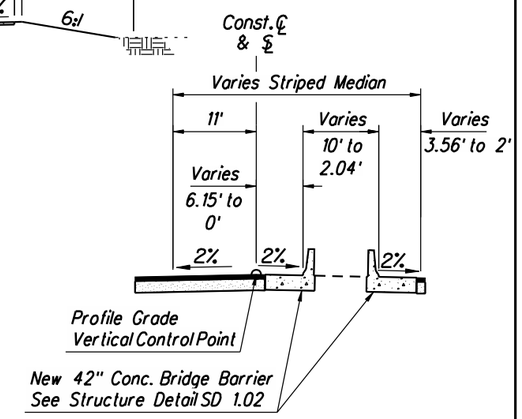



## LA CHOLLA BOULEVARD

Sta. 75+75.00 to Sta. 77+16.25

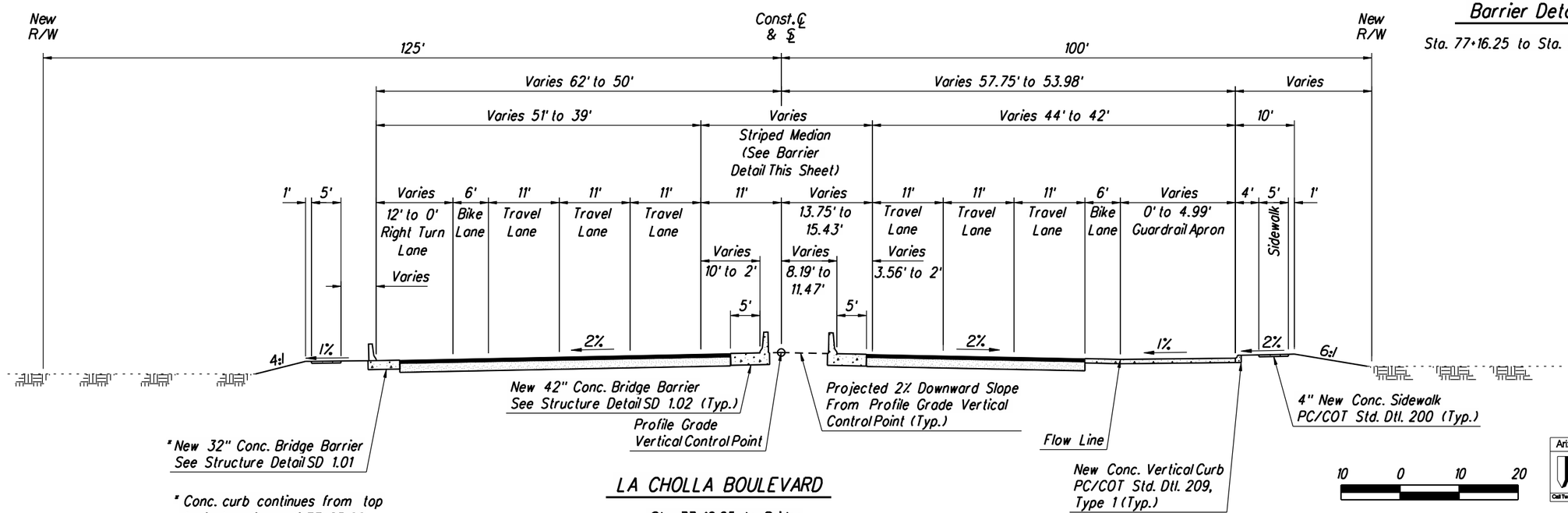
Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.




## Barrier Detail

Sta. 77+16.25 to Sta. 77+19.41




## LA CHOLLA BOULEVARD

Sta. 77+16.25 to Bridge

* Conc. curb continues from top typical section until 77+25.00

10 0 10 20

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1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Verl. 1"=10' | Sheet | TS8 of TS14 | Page | 11 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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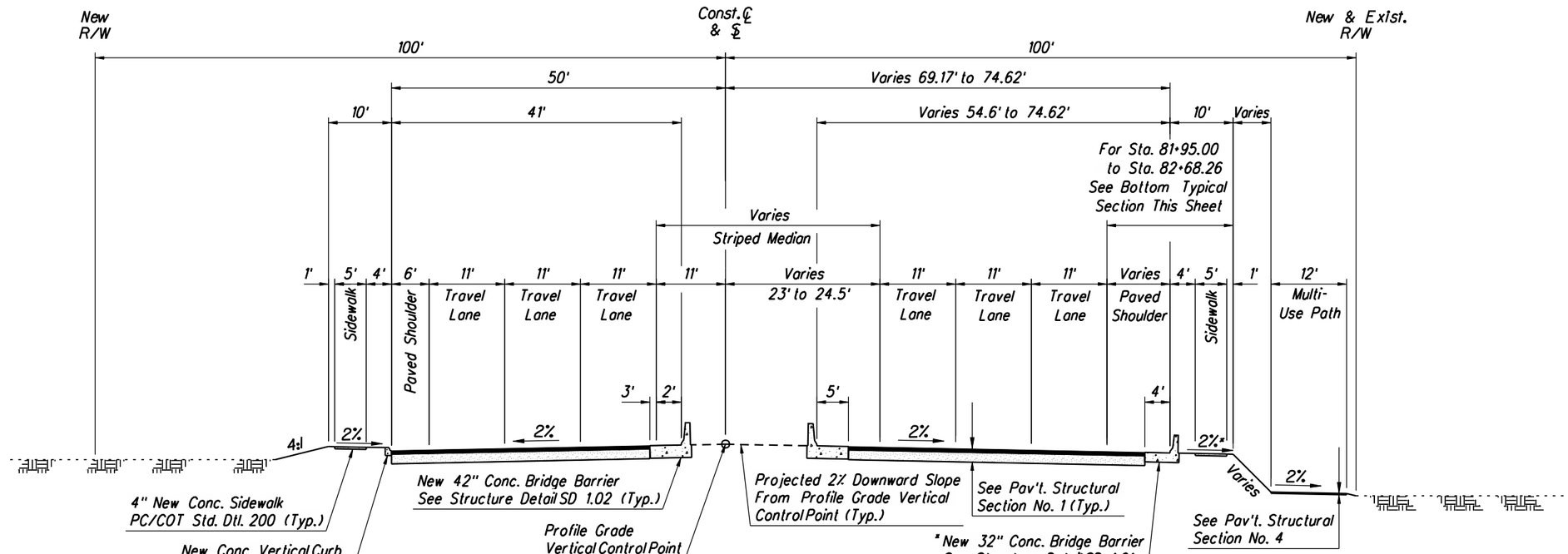
Tucson, AZ 85711-4459
(520) 584-3600

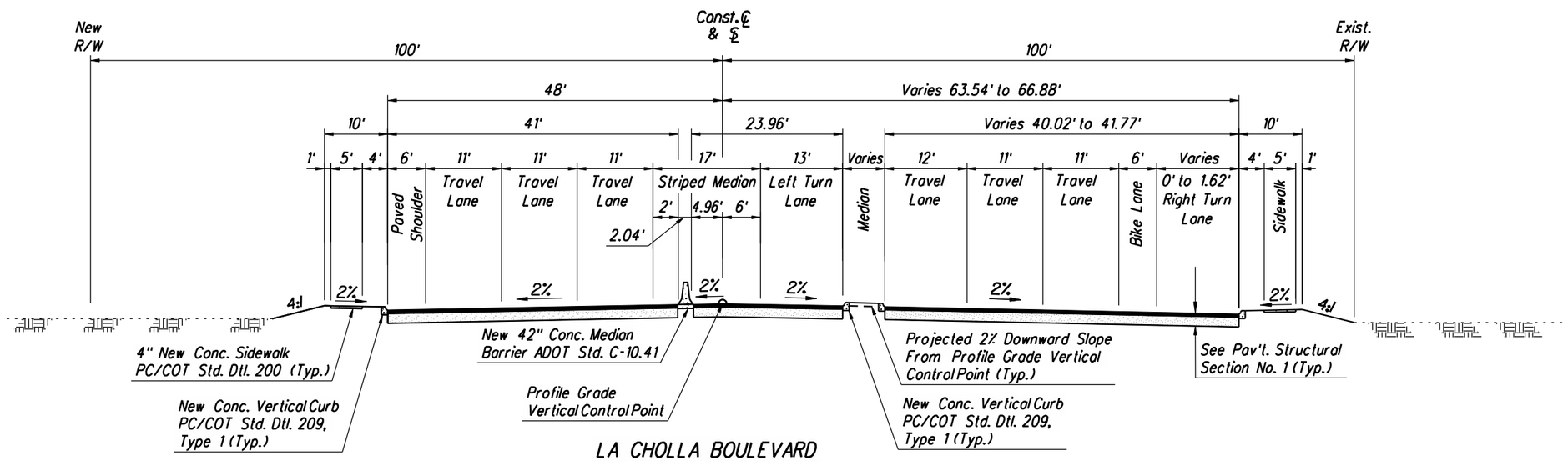
LA CHOLLA BL VD.:
RUTHRAUFF RD. TO RIVER RD.
ROADWAY TYPICAL SECTIONS
FOR LA CHOLLA BL VD.




## LA CHOLLA BOULEVARD

Bridge to Sta. 82+68.26

* Concrete barrier ends and concrete vertical curb begins at Sta. 81+95.00 see bottom typical section of this sheet for curb and sidewalk layout.




## LA CHOLLA BOULEVARD

Sta. 82+68.26 to Sta. 83+50.00

10 0 10 20

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Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS9 of TS14 | Page | 12 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

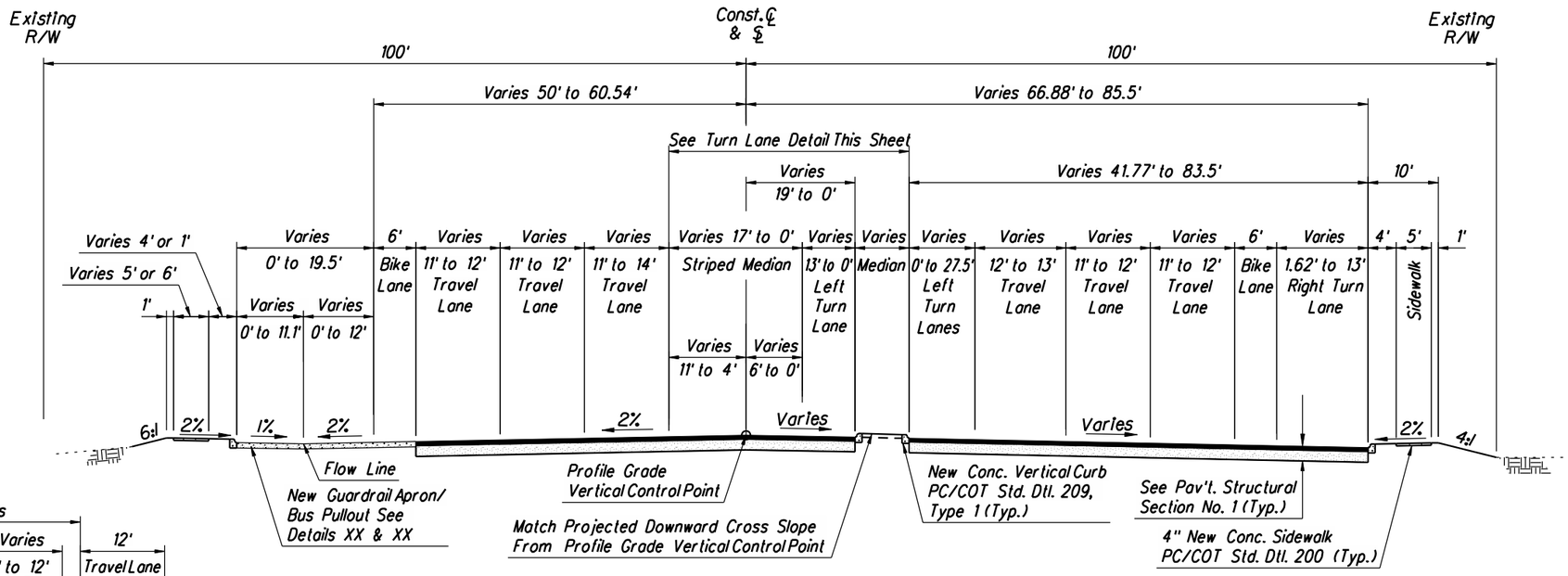
| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

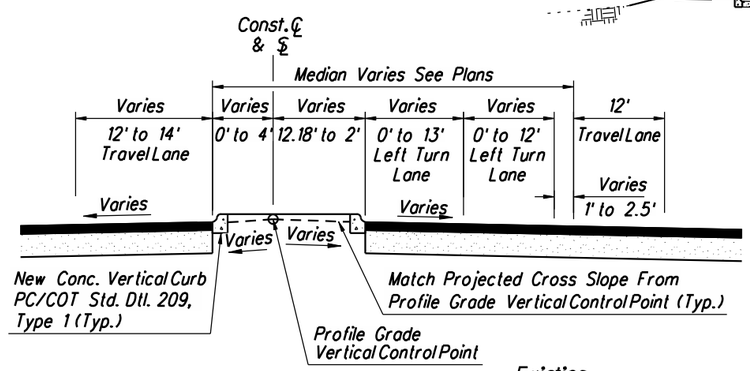
HDR Engineering, Inc. 5210 East Williams Circle, Suite 530 Tucson, AZ 85711-4459 (520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR LA CHOLLA BLVD.




## LA CHOLLA BOULEVARD

Sta. 83+50.00 to Sta. 87+75.00

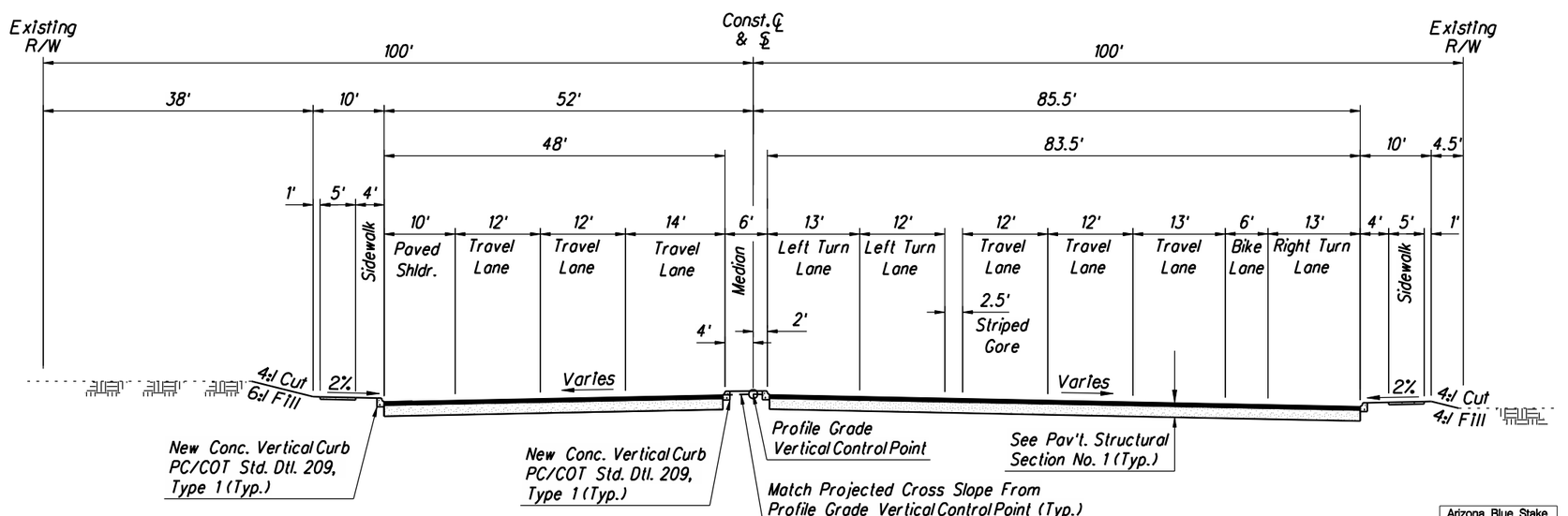



## TURN LANE DETAIL

Sta. 86+23.11 to Sta. 87+75.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies. See superelevation diagram on profiles in Plan Sheets R1 to R15.




## LA CHOLLA BOULEVARD

Sta. 87+75.00 to Sta. 88+80.00

10 0 10 20

Arizona Blue Stake
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| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet TS10 of TS14 | Page 13 of 56 |
|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

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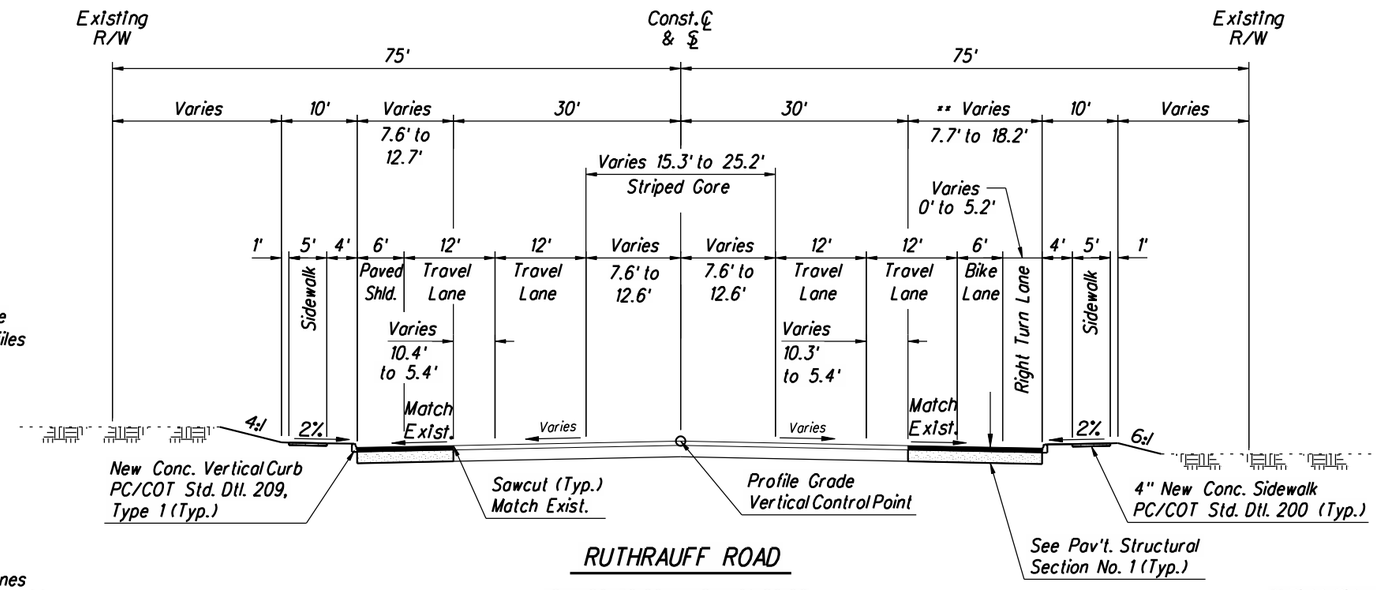
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR LA CHOLLA BLVD.

Note:
See Plan Sheets R11 to R15
for side street typical sections.

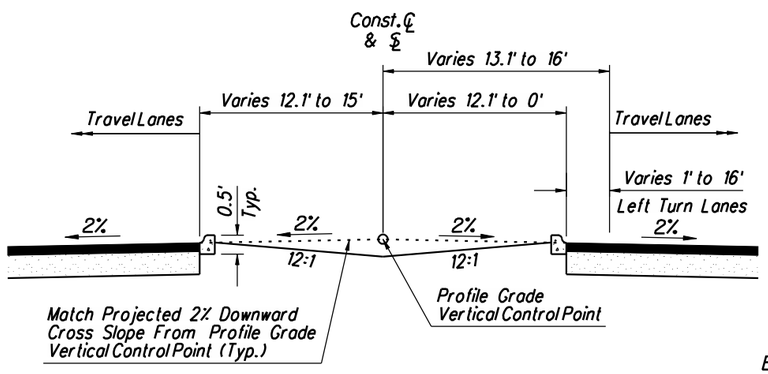
Roadway cross slope varies see
superelevation diagram on profiles
in Plan Sheets R1 to R15.




## RUTHRAUFF ROAD

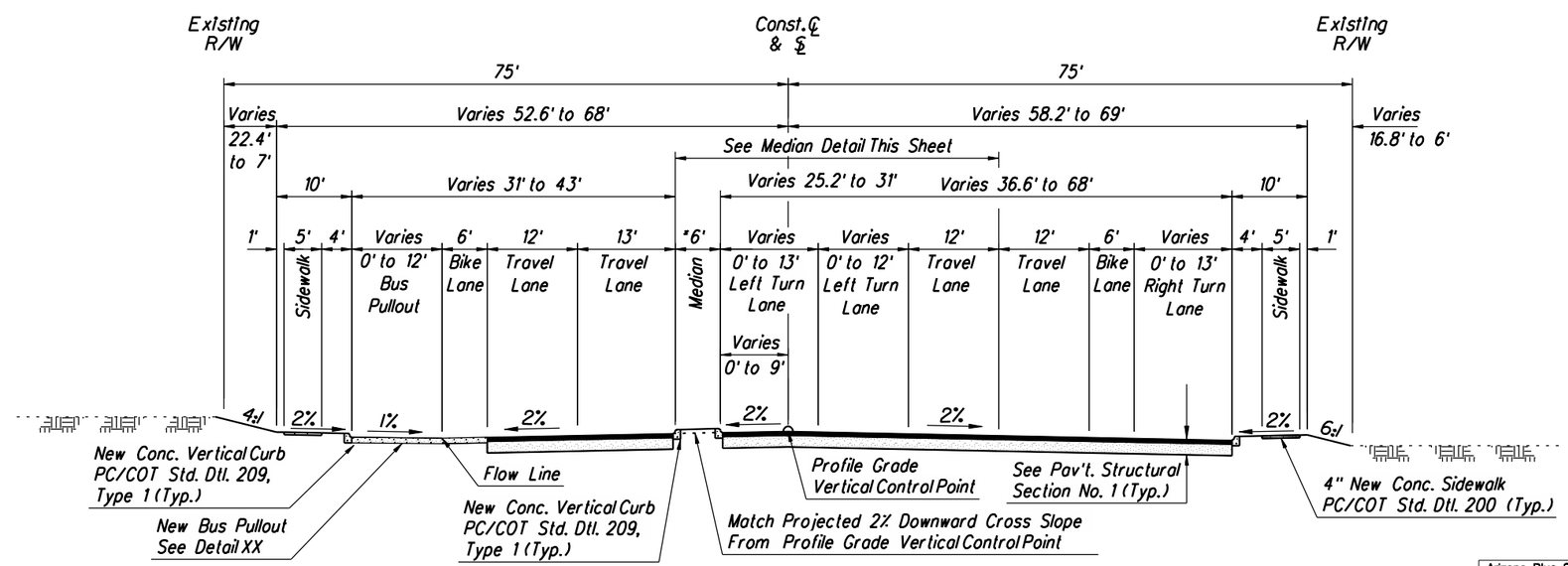
Sta. 89+30.00 to Sta. 91+80.00

** Right Side Widening
Begins at Sta. 89+35.00




## MEDIAN DETAIL

Sta. 92+05.00 to Sta. 94+49.04




## RUTHRAUFF ROAD

Sta. 91+80.00 to Sta. 100+00.00

* Median Width Varies from
Sta. 91+80.00 to Sta. 95+10.00

10 0 10 20

Arizona Blue Stake
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Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS11 of TS14 | Page | 14 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

STAGE 1
SUBMITTAL
OCTOBER 2008
PRELIMINARY
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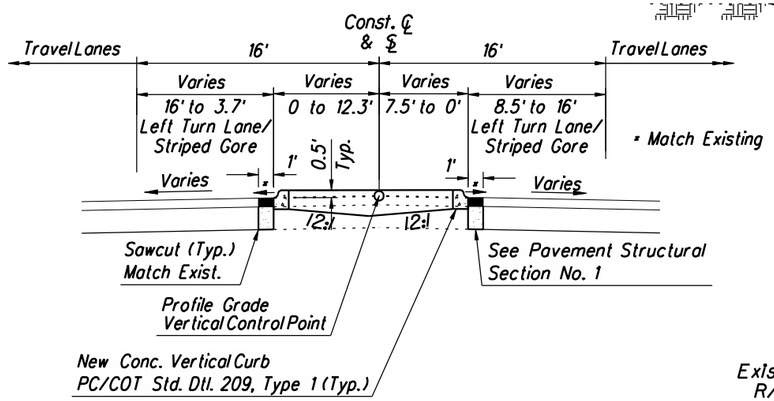
OR RECORDING

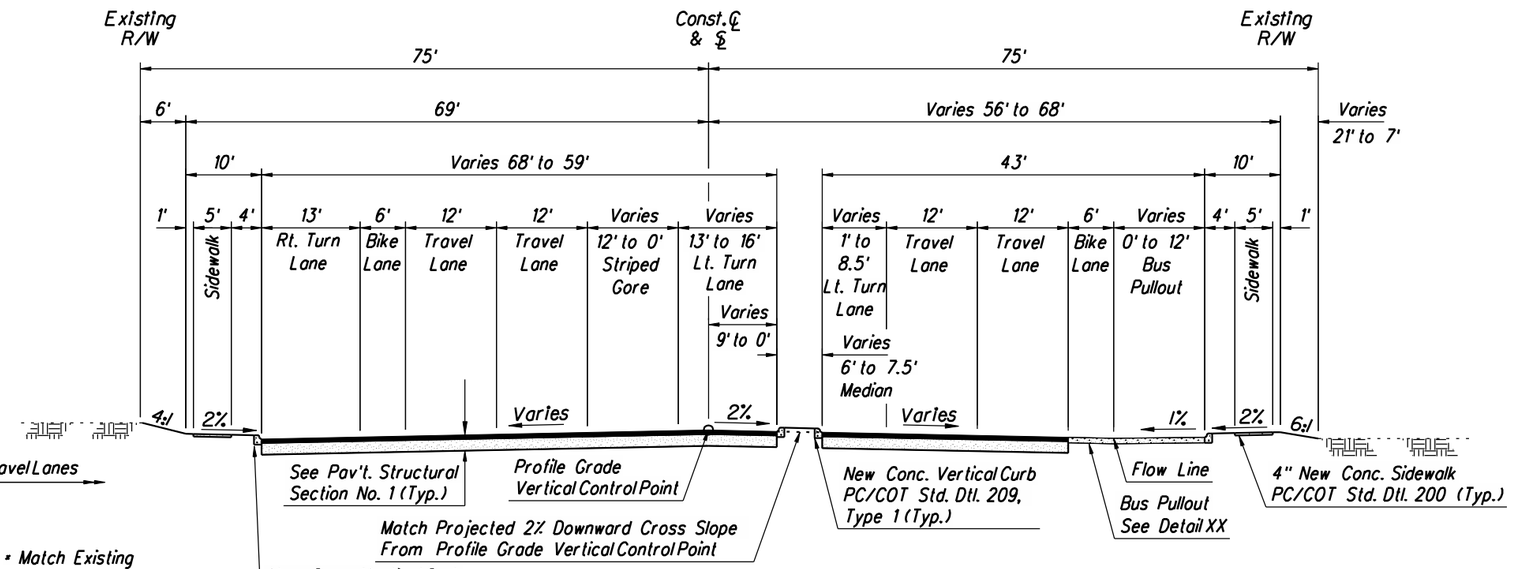
HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.
ROADWAY TYPICAL SECTIONS
FOR RUTHRAUFF RD.




## LEFT TURN DETAIL

Sta. 103+26.00 to Sta. 103+62.93

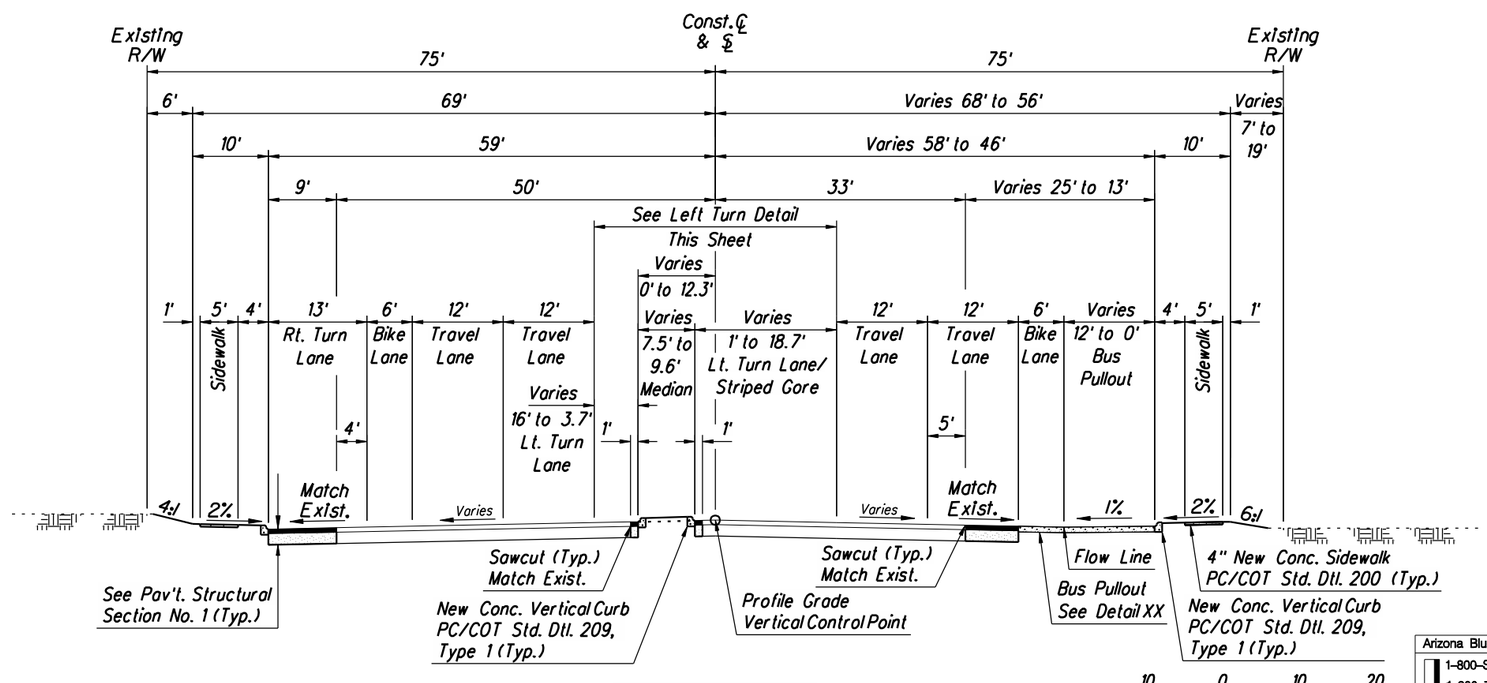



## RUTHRAUFF ROAD

Sta. 100+00.00 to Sta. 103+26.00

Note: See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.




## RUTHRAUFF ROAD

Sta. 103+26.00 to Sta. 103+83.00

10 0 10 20

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet TS12 of TS14 | Page 15 of 56 |
|---|---|---|---|

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

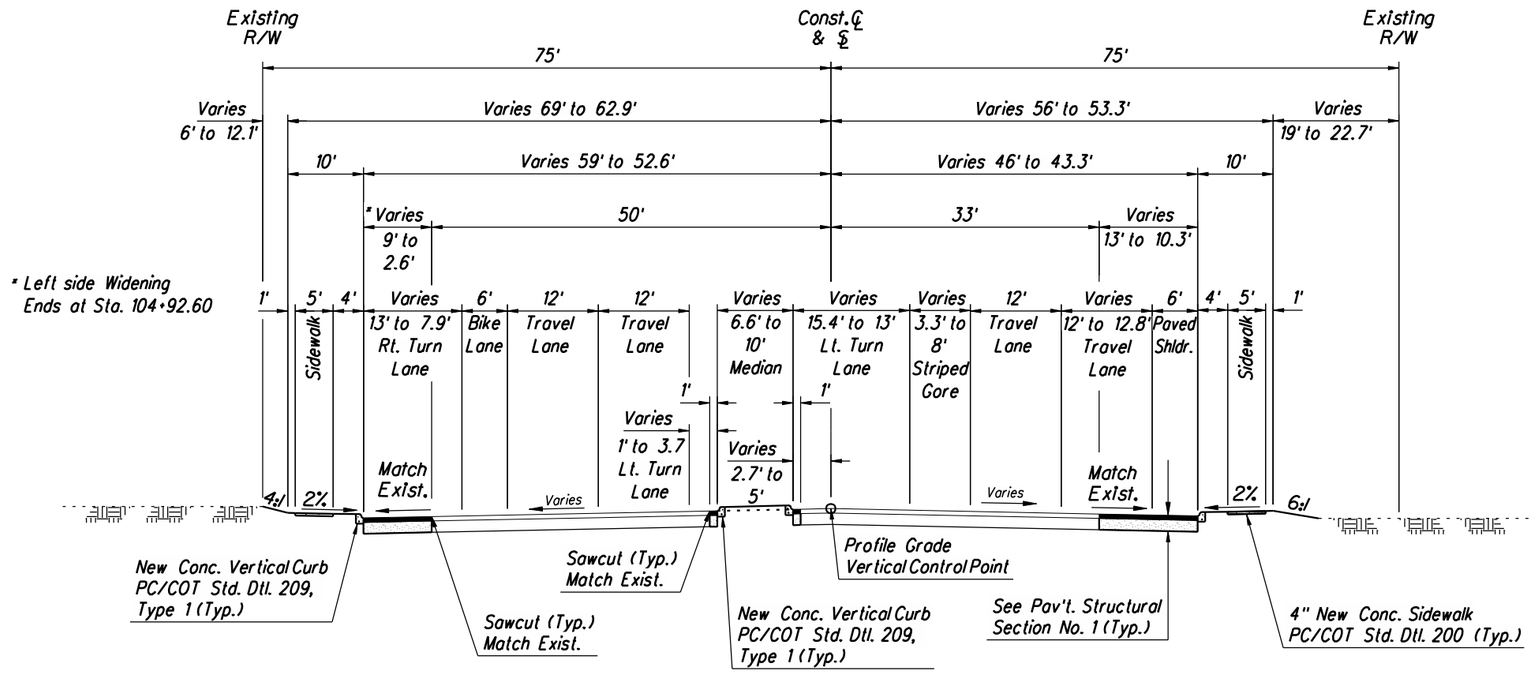
| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

HDR Engineering, Inc. 5210 East Williams Circle, Suite 530 Tucson, AZ 85711-4459 (520) 584-3600

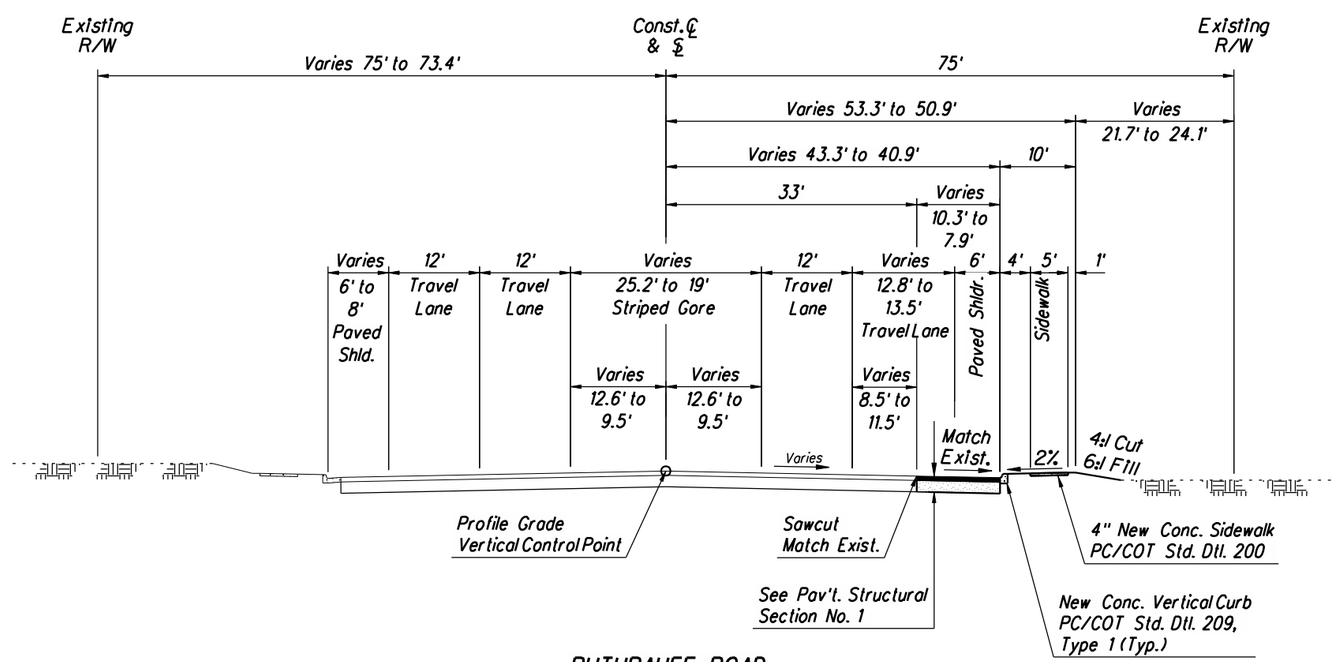
Pima County Department of Transportation

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR RUTHRAUFF RD.




## RUTHRAUFF ROAD

Sta. 103+83.00 to Sta. 106+07.00




## RUTHRAUFF ROAD

Sta. 106+07.00 to Sta. 107+70.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

10 0 10 20

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | L. Barela | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

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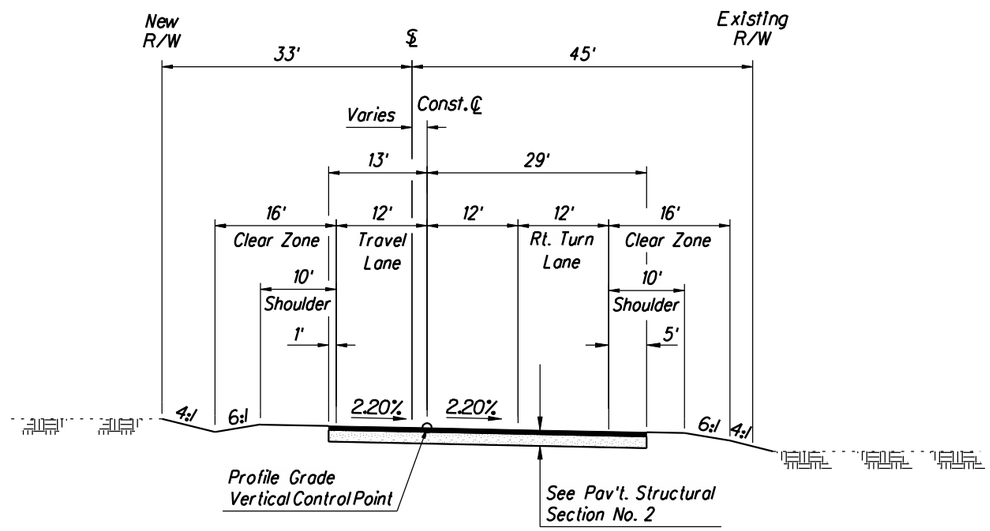
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR RUTHRAUFF RD.

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet | TS13 of TS14 | Page | 16 of 56 |
|---|---|---|---|---|---|




## CURTIS ROAD

Sta. 7+70.00 to Sta. 9+47.00

Note:
See Plan Sheets R11 to R15 for side street typical sections.

Roadway cross slope varies see superelevation diagram on profiles in Plan Sheets R1 to R15.

10 0 10 20

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Call Two Working Days Before You Dig

| Scales | Horiz. 1"=10' Vert. 1"=10' | Sheet TS14 of TS14 | Page 17 of 56 |
|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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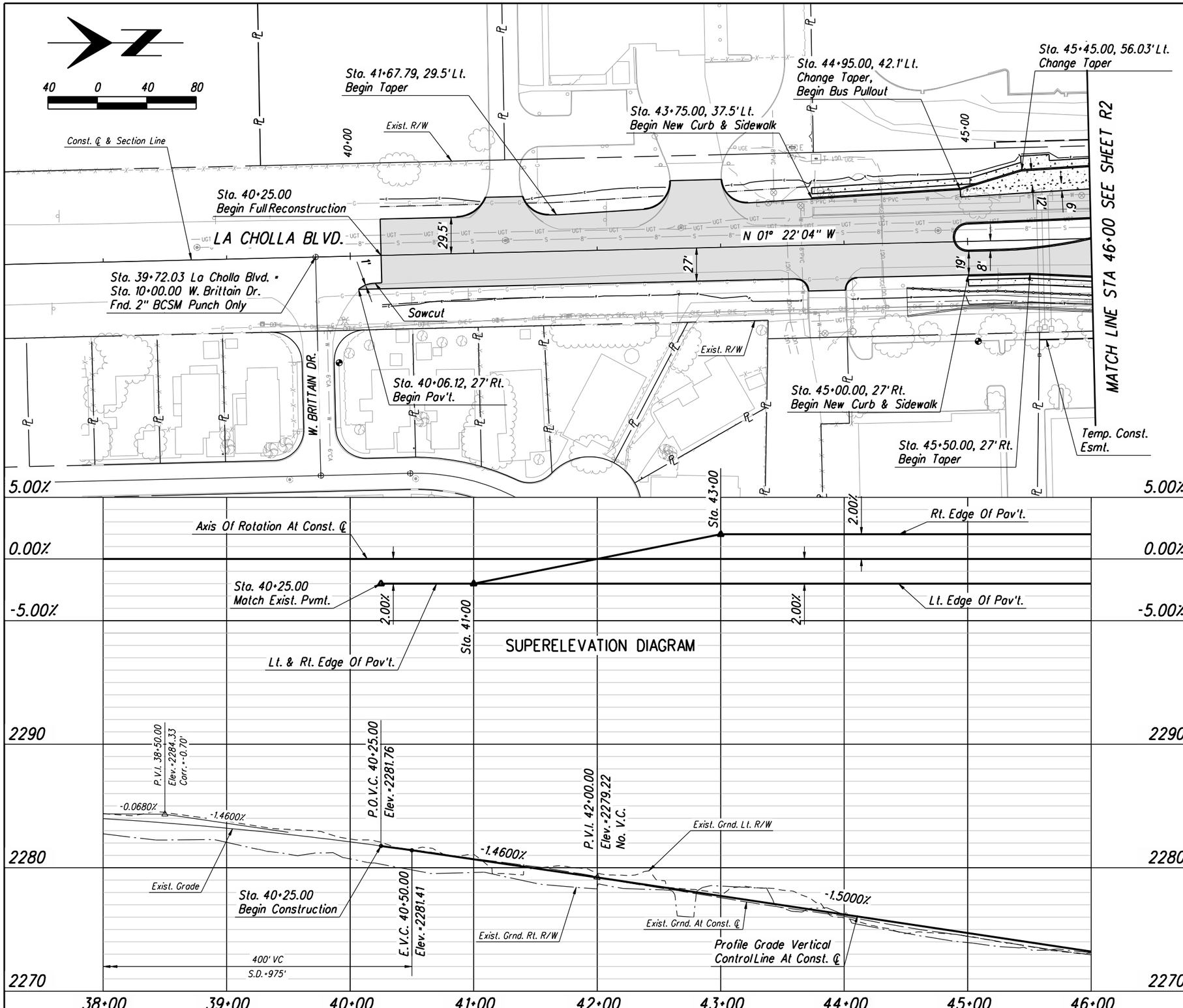
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.: RUTHRAUFF RD. TO RIVER RD. ROADWAY TYPICAL SECTIONS FOR CURTIS RD.




Arizona Blue Stake
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Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| | | |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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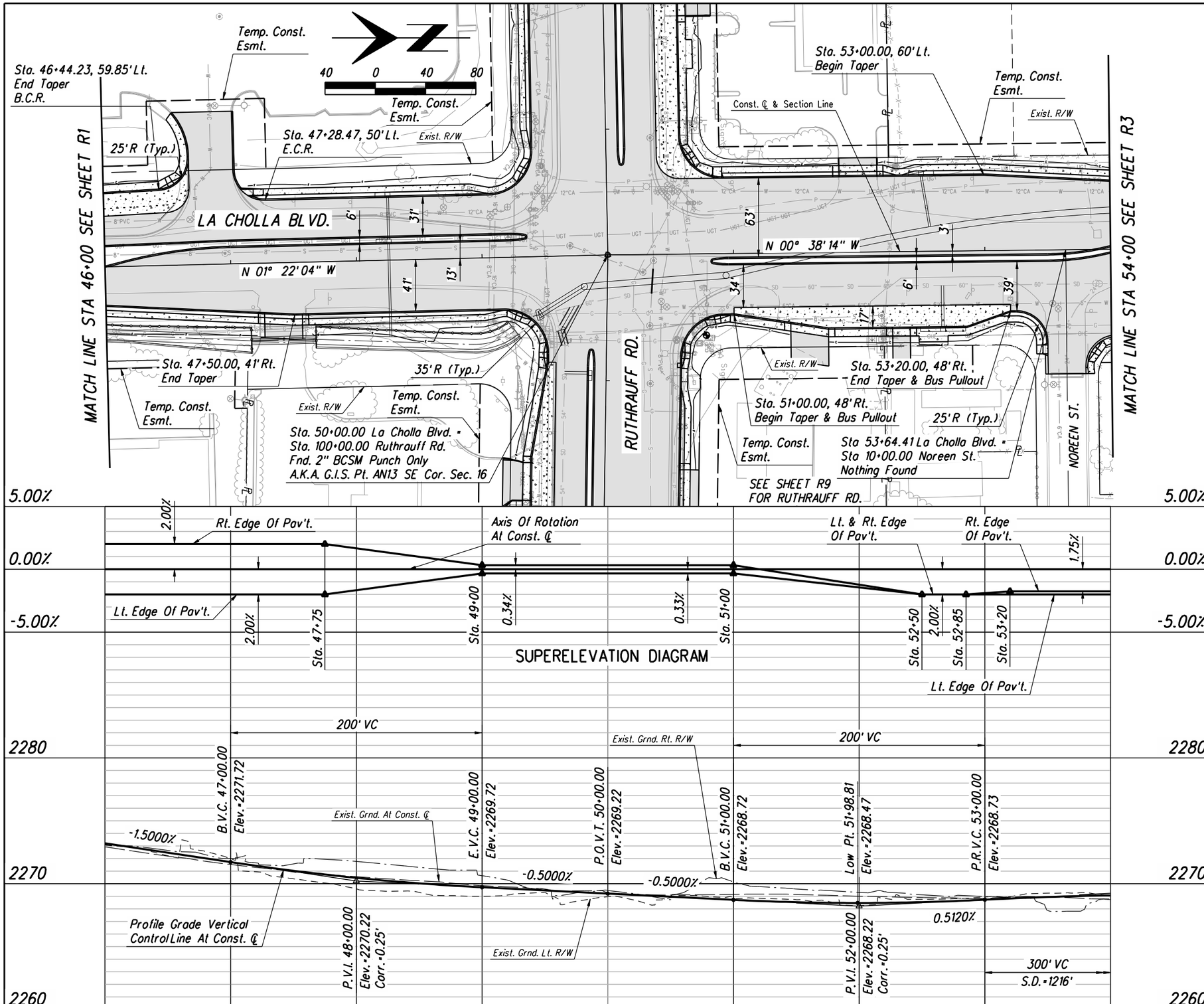
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

| Scales | Horiz. 1"=40' | Sheet | R1 of R15 | Page | 18 of 56 |
|---|---|---|---|---|---|
| | Vert. 1"=4' | | | | |

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Pima County Department of Transportation

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|---|---|---|---|
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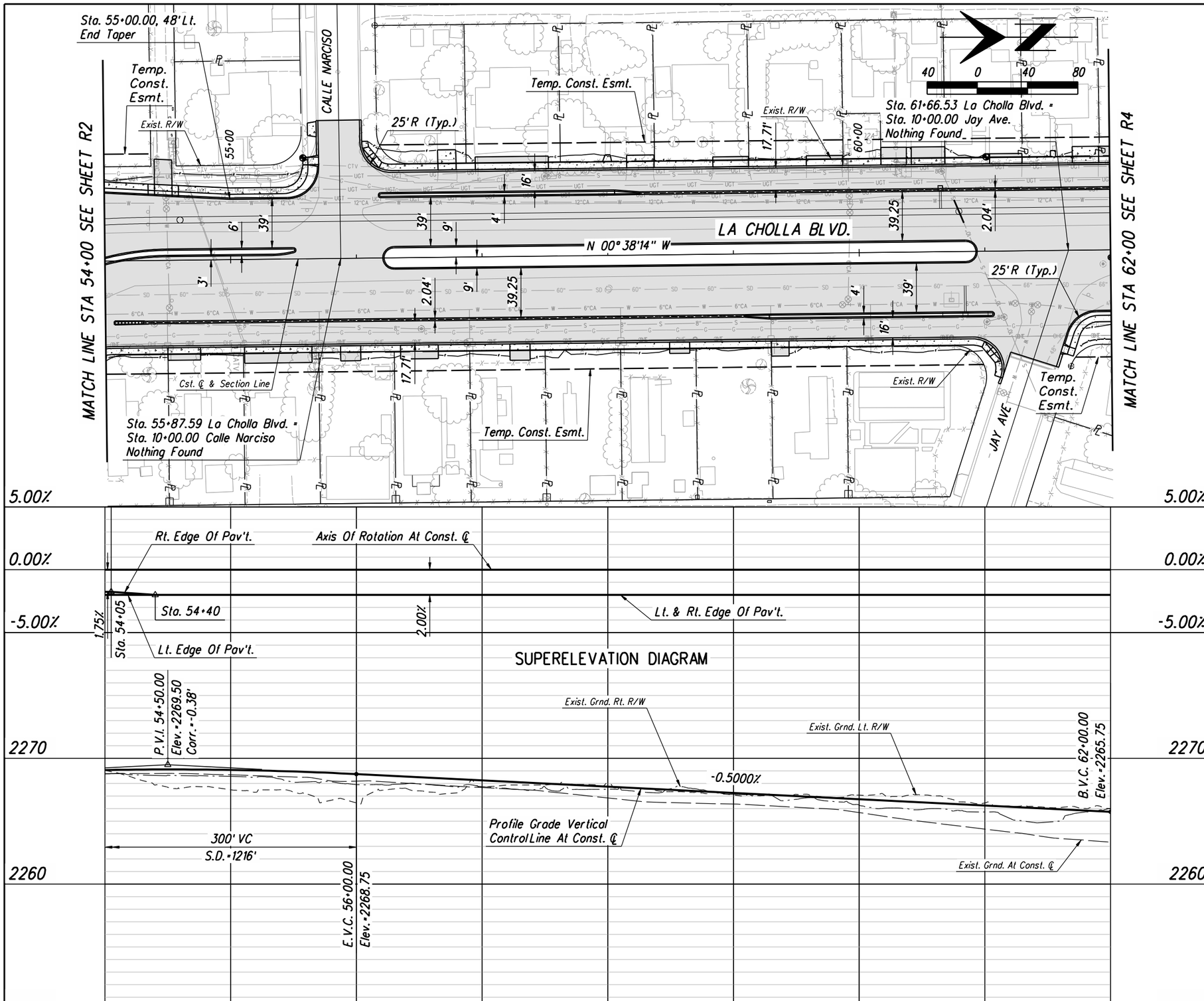
LA CHOLLA BL VD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | R2 of R15 | Page | 19 of 56 |
|---|---|---|---|---|---|

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|---|---|---|---|
| | | | |

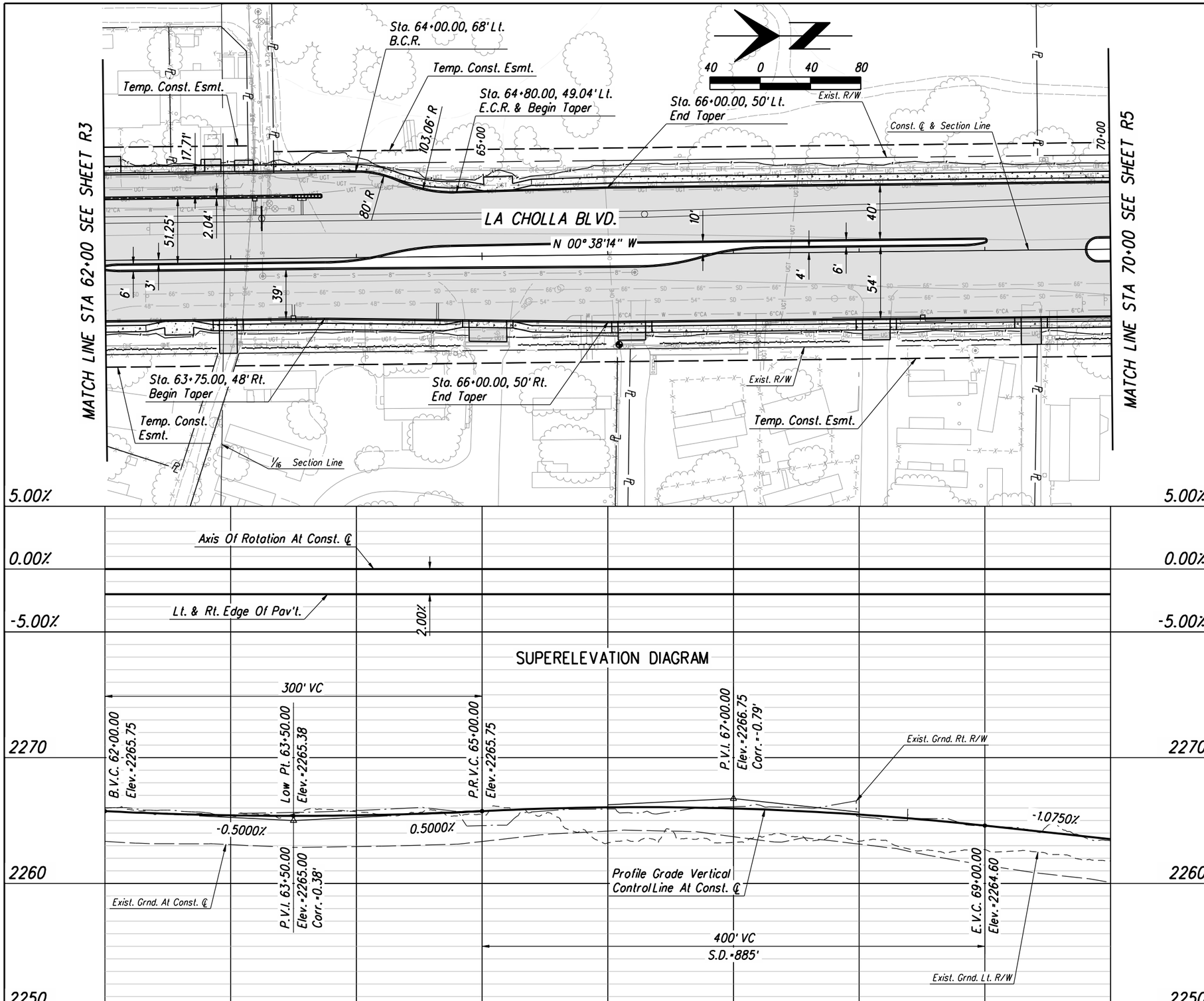
| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1
SUBMITTAL
OCTOBER 2008
PRELIMINARY
NOT FOR
CONSTRUCTION
OR RECORDING

HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | R3 of R15 | Page | 20 of 56 |
|---|---|---|---|---|---|




Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | R4 of R15 | Page | 21 of 56 |
|---|---|---|---|---|---|

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1
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OCTOBER 2008
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(520) 584-3600

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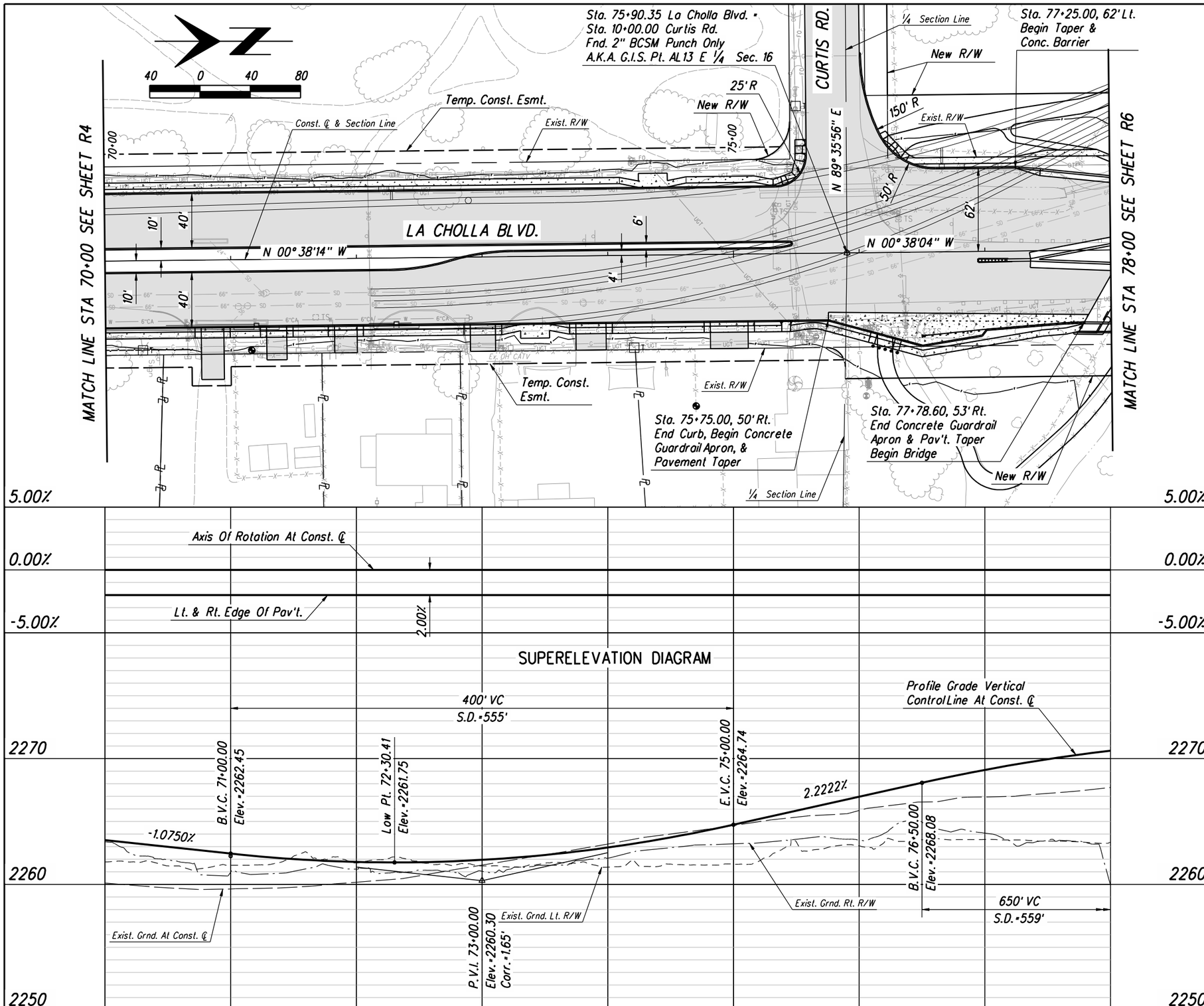
ROADWAY PLANS

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1-800-782-5348
Call Two Working Days Before You Dig

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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ROADWAY PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | R5 of R15 | Page | 22 of 56 |
|---|---|---|---|---|---|

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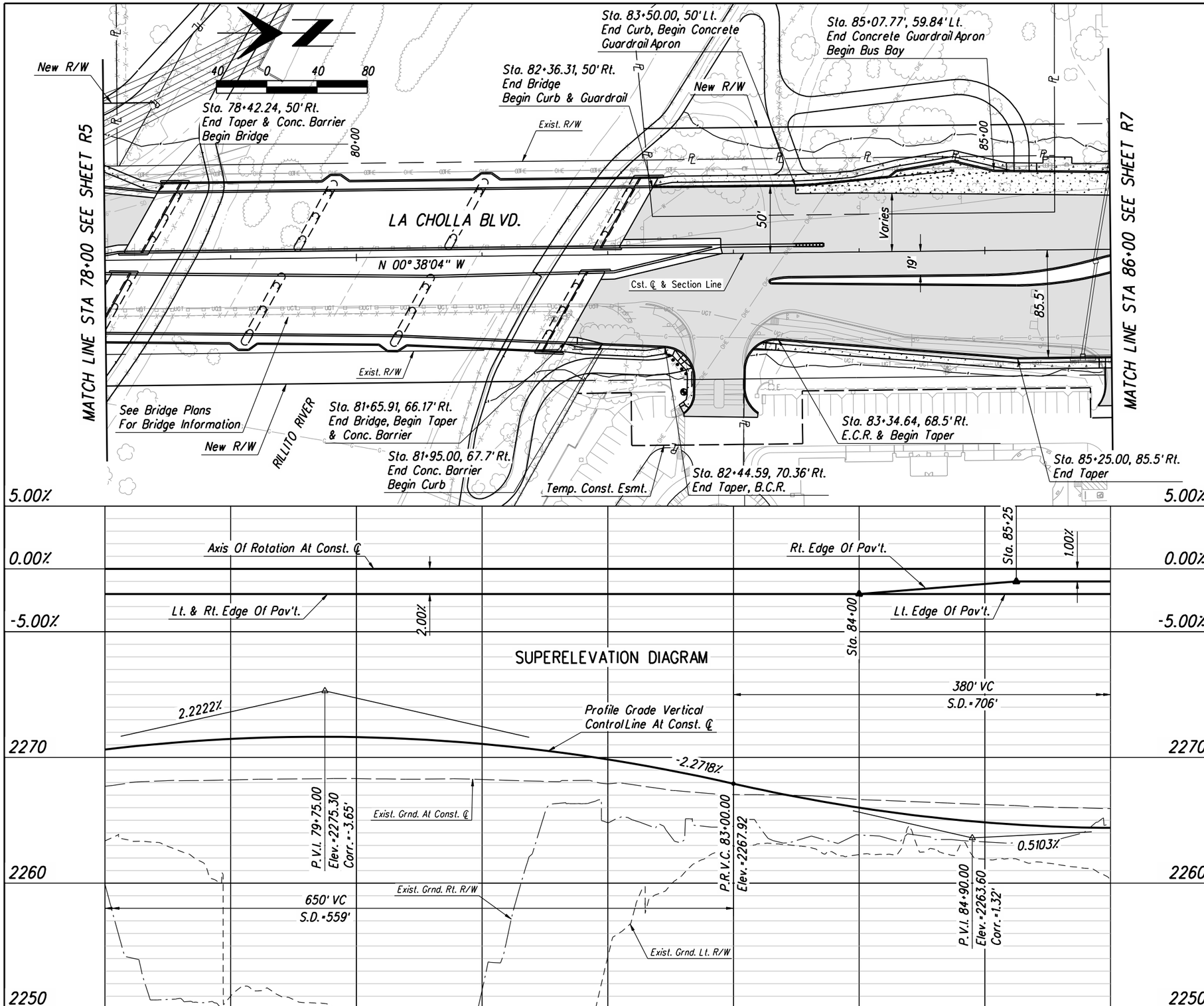
Project = 4LCITR




Arizona Blue Stake
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1-800-782-5348
Call Two Working Days Before You Dig

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | R6 of R15 | Page | 23 of 56 |
|---|---|---|---|---|---|

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1
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OCTOBER 2008
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OR RECORDING

HDR

HDR Engineering, Inc.
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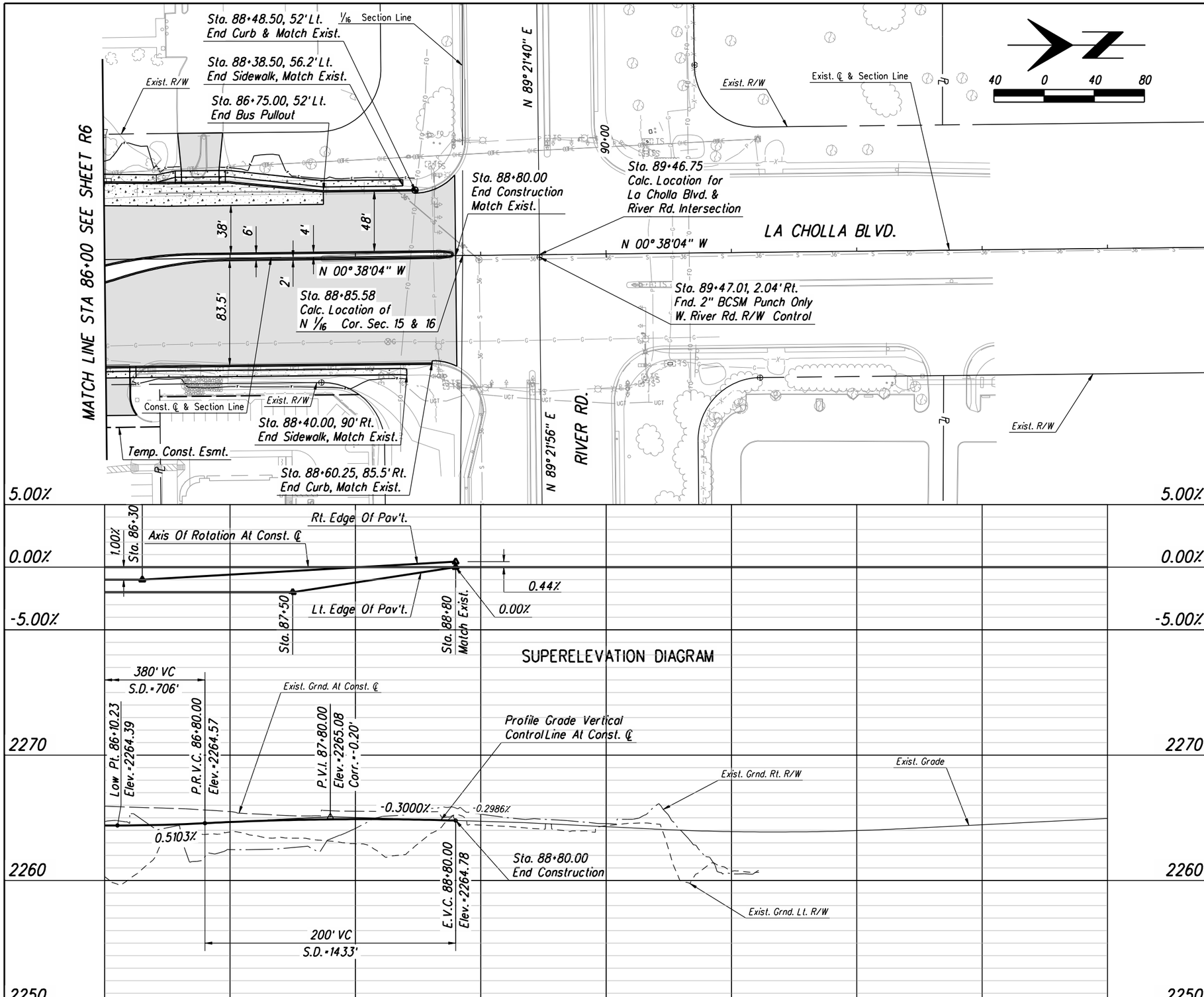
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BL VD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

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1-800-782-5348
Call Two Working Days Before You Dig

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Barela | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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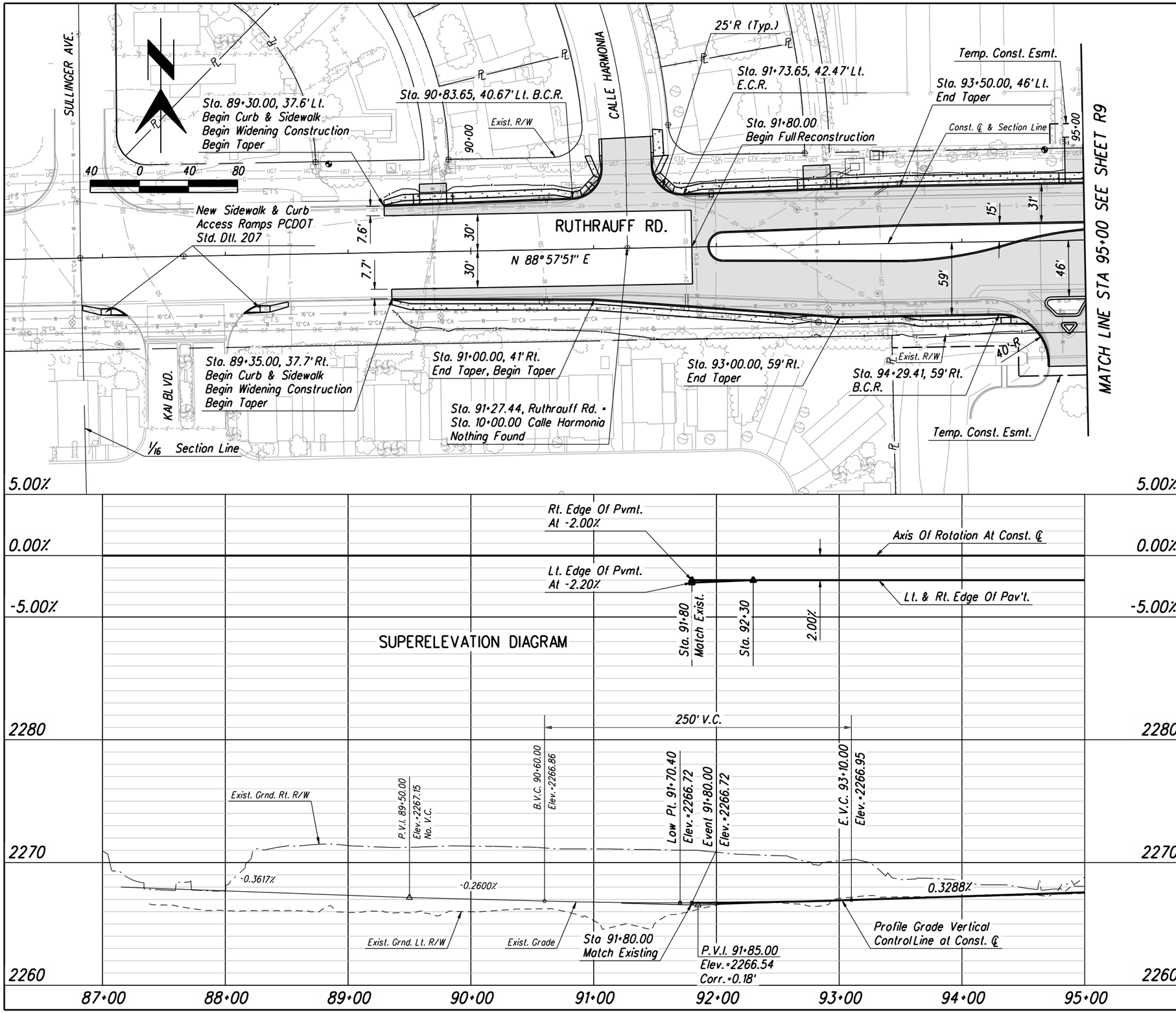
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

| Scales | Horiz. 1"=40' Verl. 1"=4' | Sheet | R7 of R15 | Page | 24 of 56 |
|---|---|---|---|---|---|




Arizona Blue Stake
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1-800-782-5348
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| Scales | Horiz. 1"=40' | Sheet | R8 of R15 | Page | 25 of 56 |
|---|---|---|---|---|---|
| | Vert. 1"=4' | | | | |

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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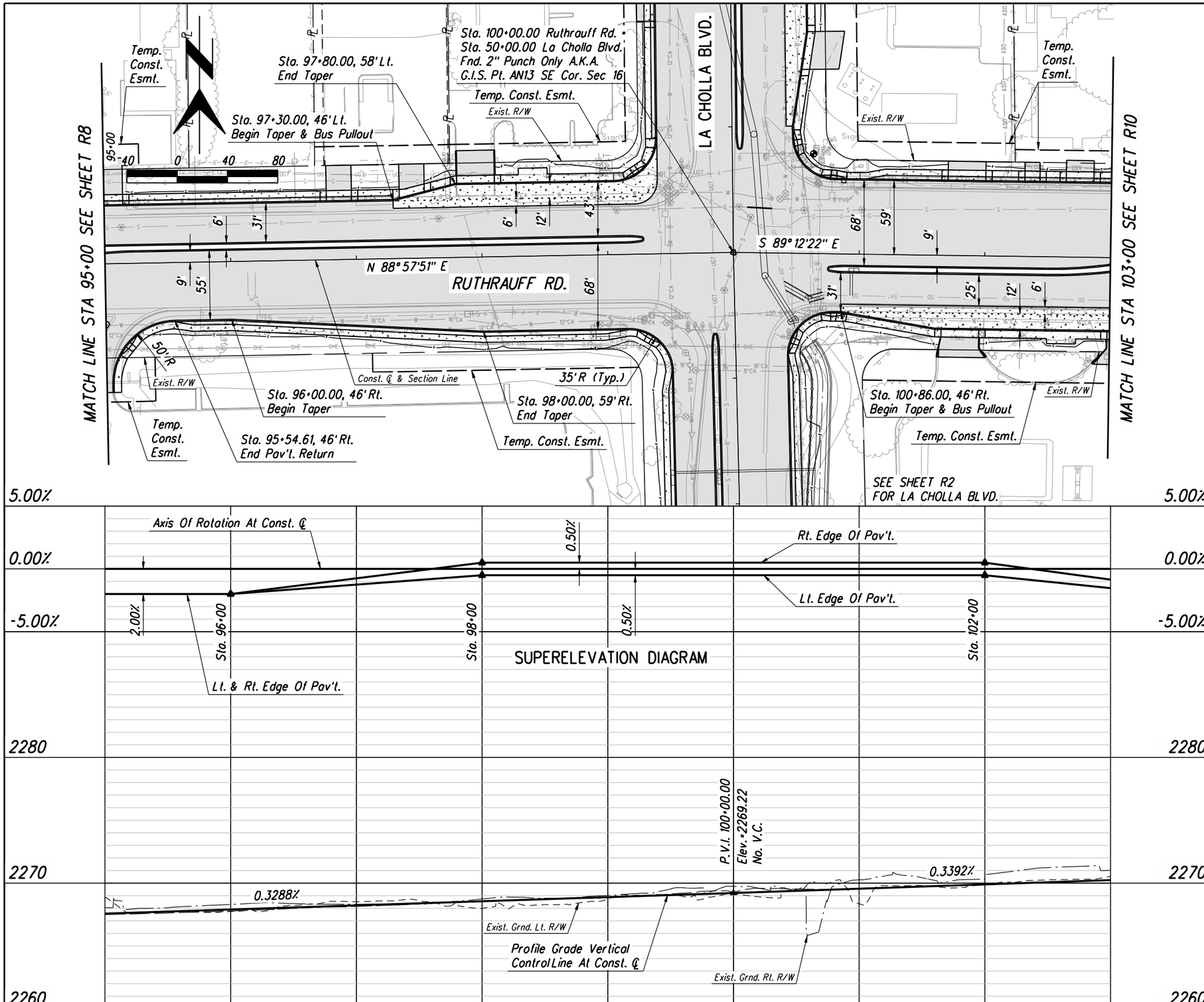
LA CHOLLA BL VD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

10/9/2008 ...\PHX\dms42759\02C-08.dgn

Project • 4LCITR

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Call Two Working Days Before You Dig

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1
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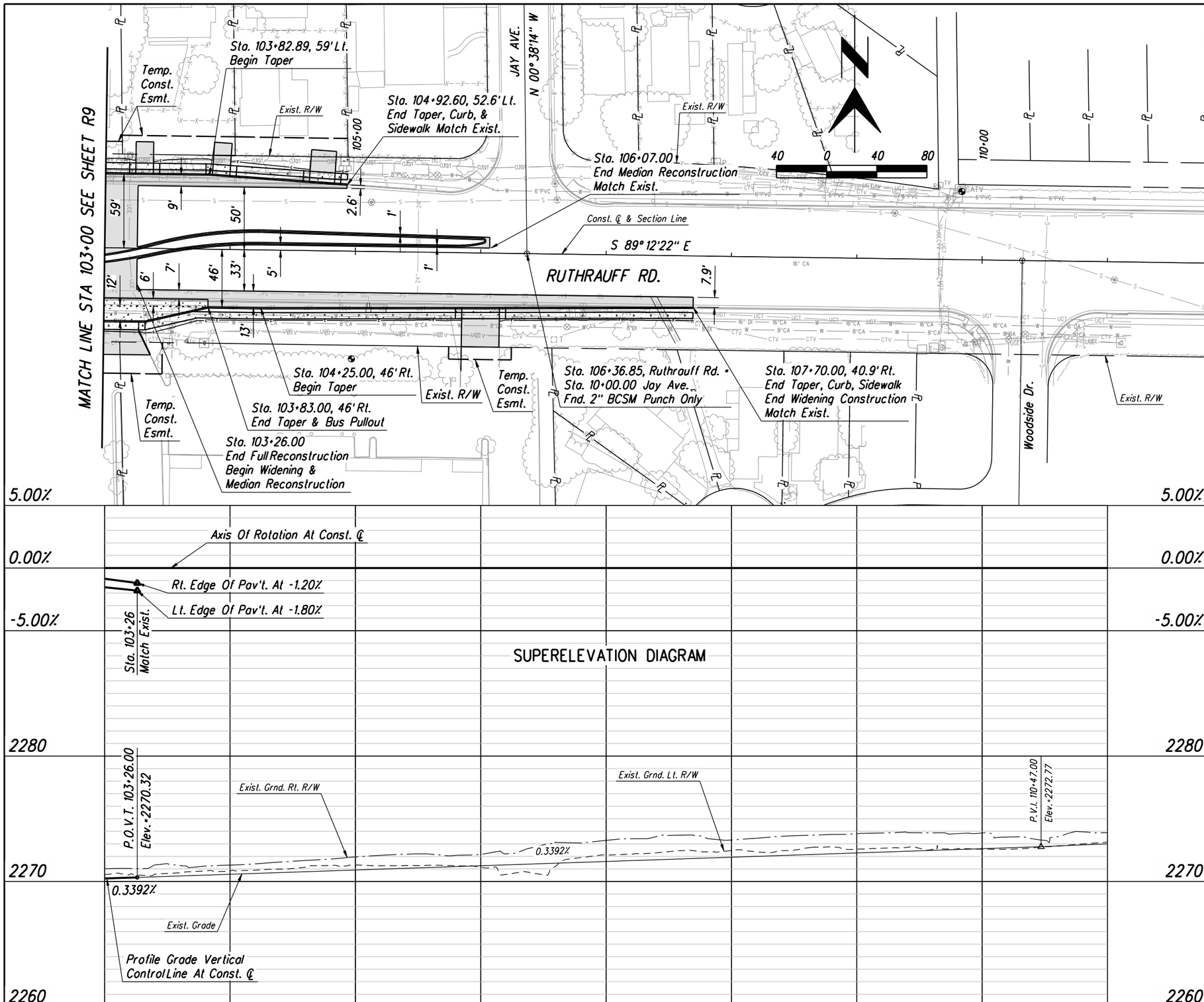
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
ROADWAY PLANS

| Scales | Horiz. 1"=40' | Sheet | R9 of R15 | Page | 26 of 56 |
|---|---|---|---|---|---|
| | Vert. 1"=4' | | | | |

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Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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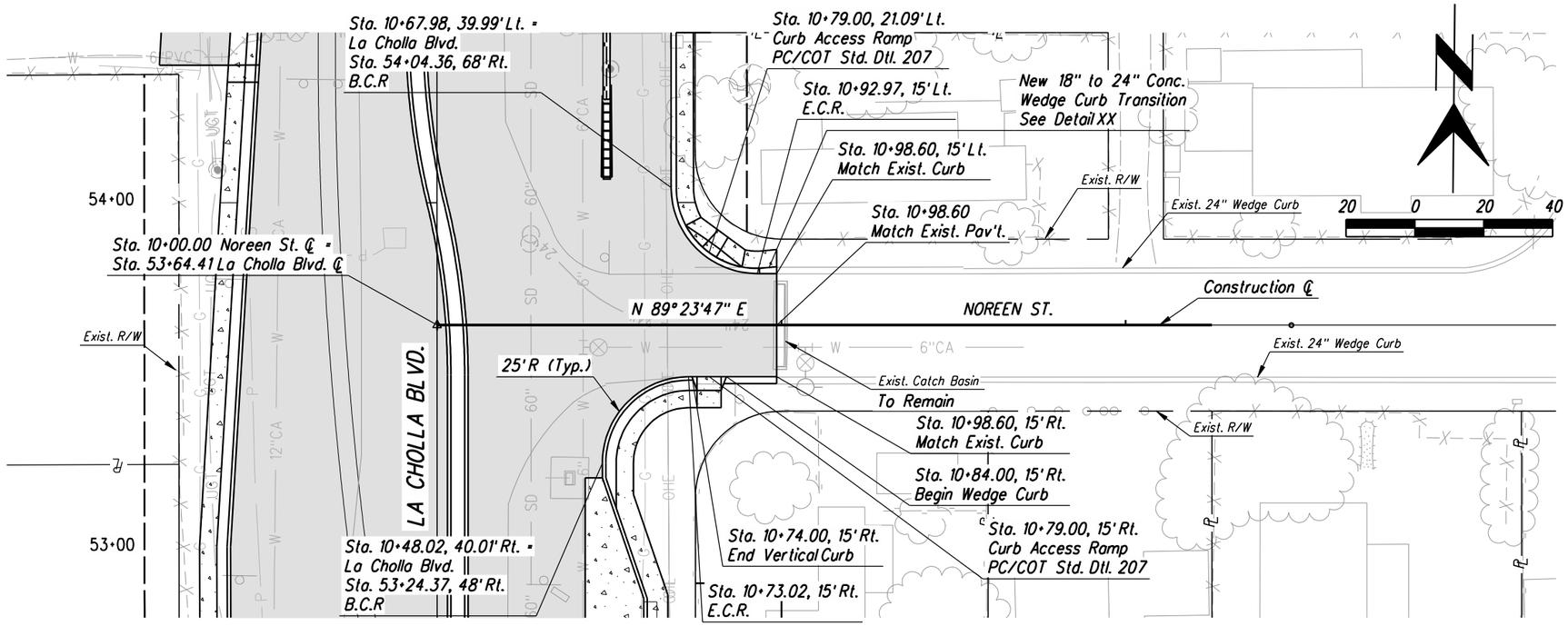
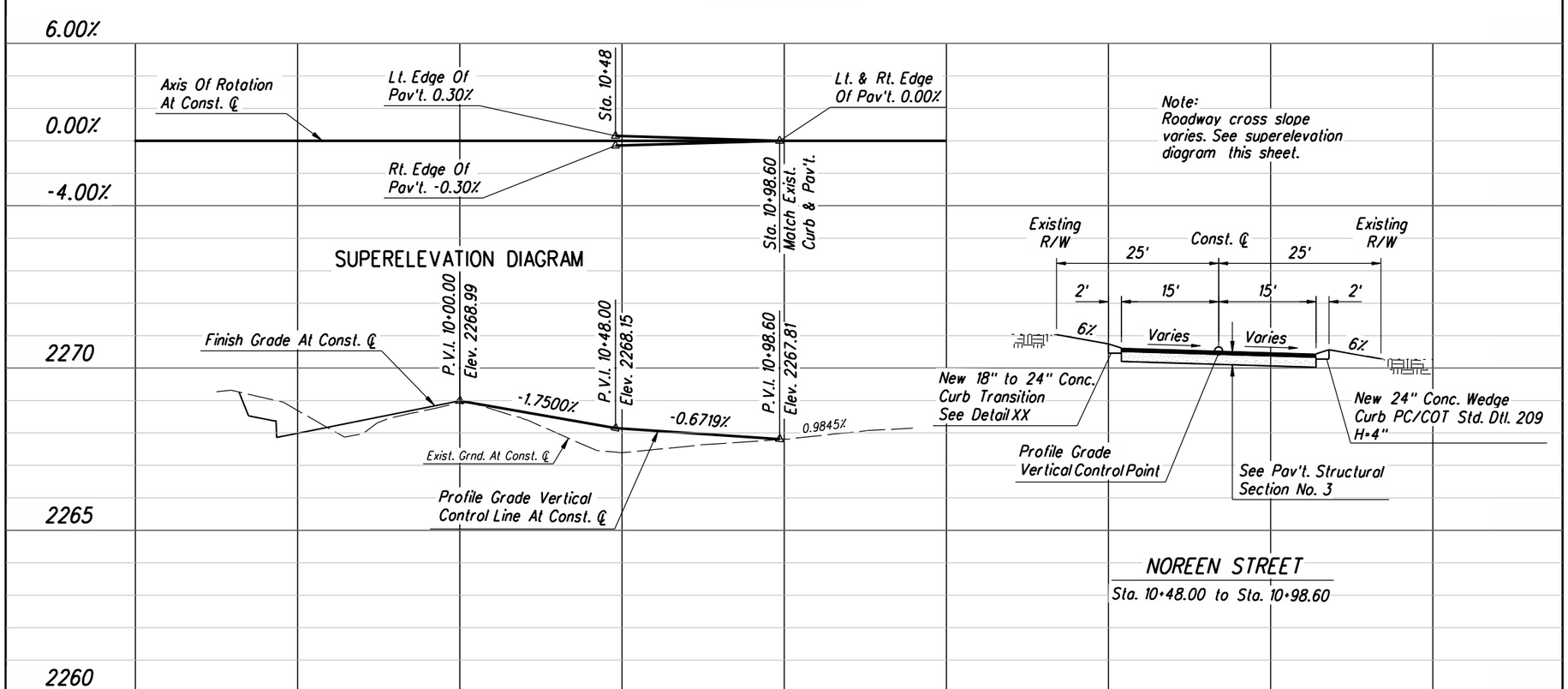
ROADWAY PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | R10 of R15 | Page | 27 of 56 |
|---|---|---|---|---|---|

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Young | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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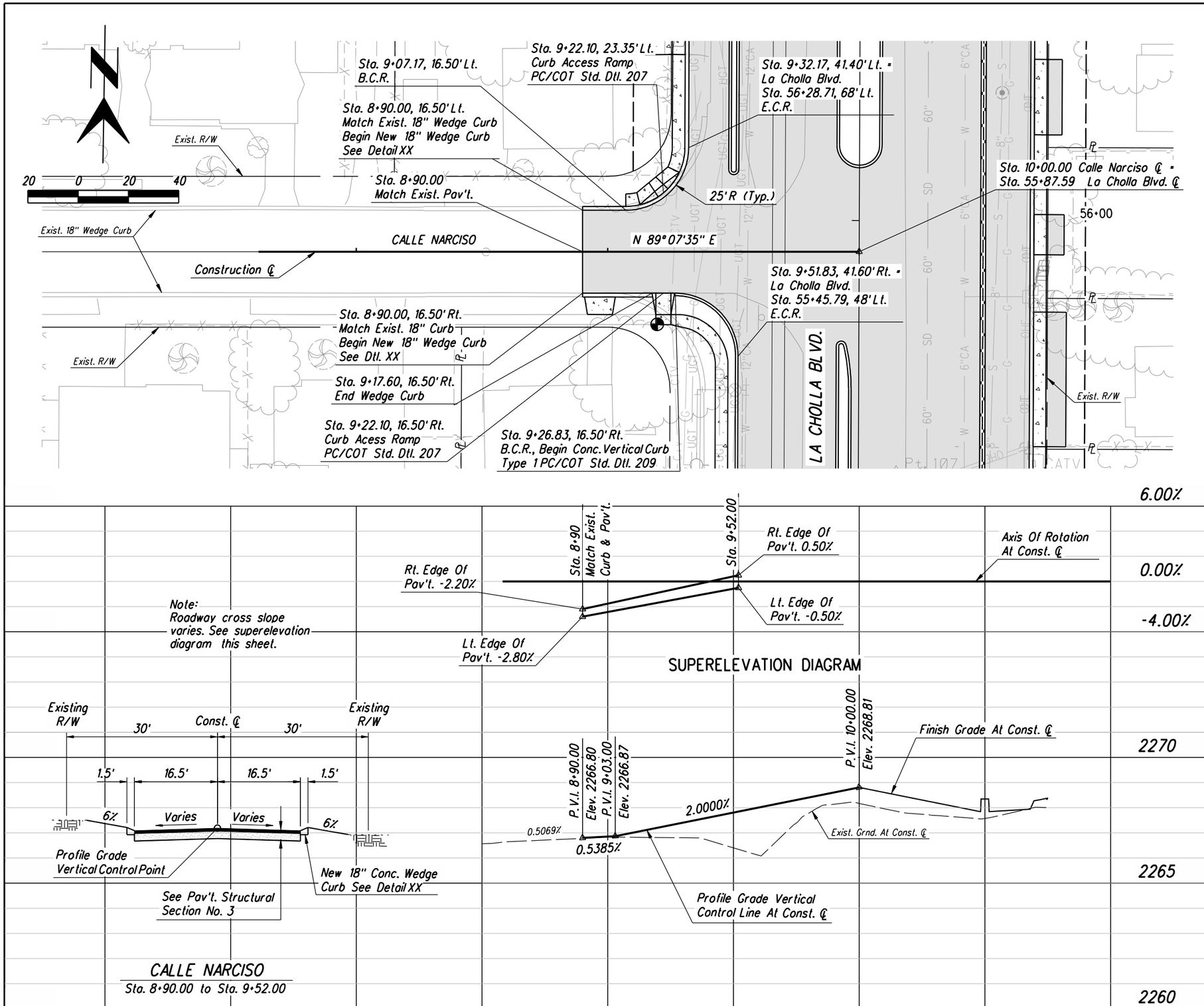
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
SIDESTREET PLANS
NOREEN ST.

| Scales | Horiz. 1" = 20' Vert. 1" = 2' | Sheet | R11 of R15 | Page | 28 of 56 |
|---|---|---|---|---|---|

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Young | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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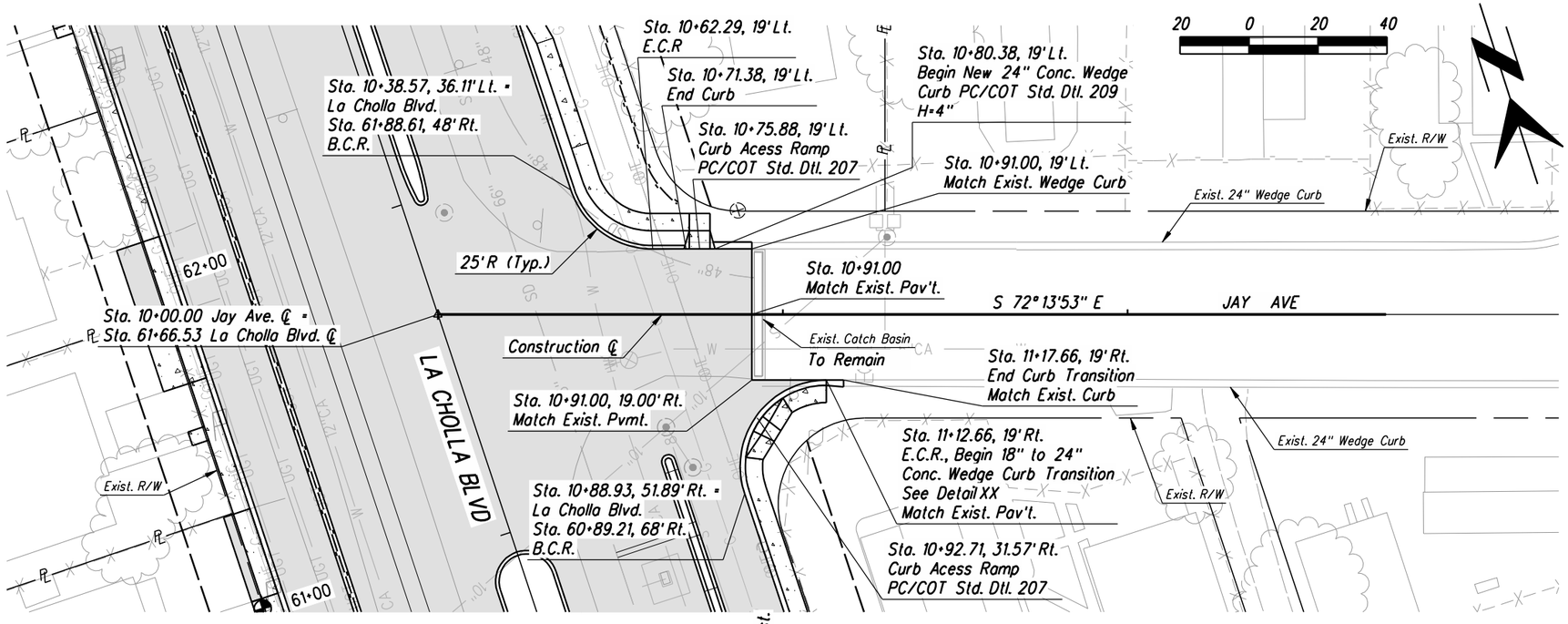
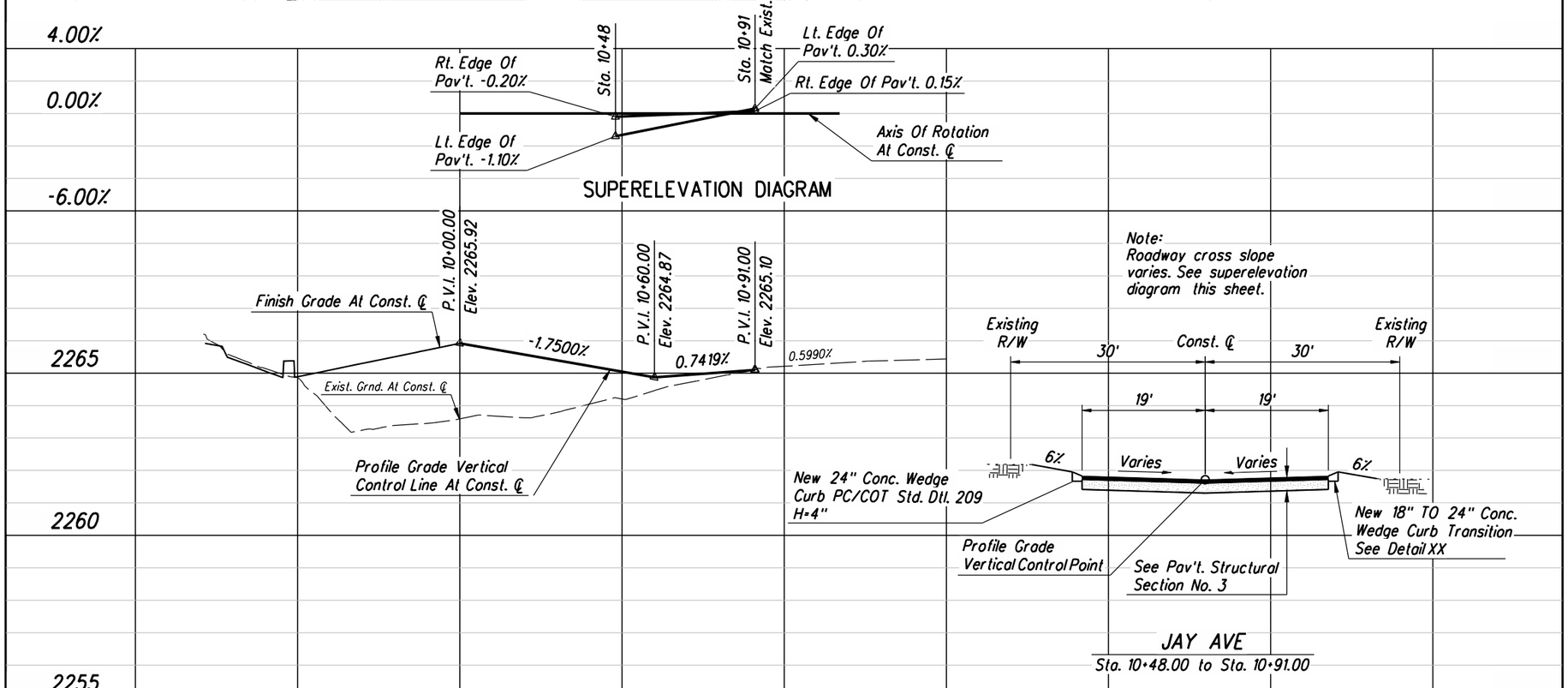
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
SIDESTREET PLANS
CALLE NARCISO

| Scales | Horiz. 1" = 20' Vert. 1" = 2' | Sheet | R12 of R15 | Page | 29 of 56 |
|---|---|---|---|---|---|

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1-800-782-5348
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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Young | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

STAGE 1
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OCTOBER 2008
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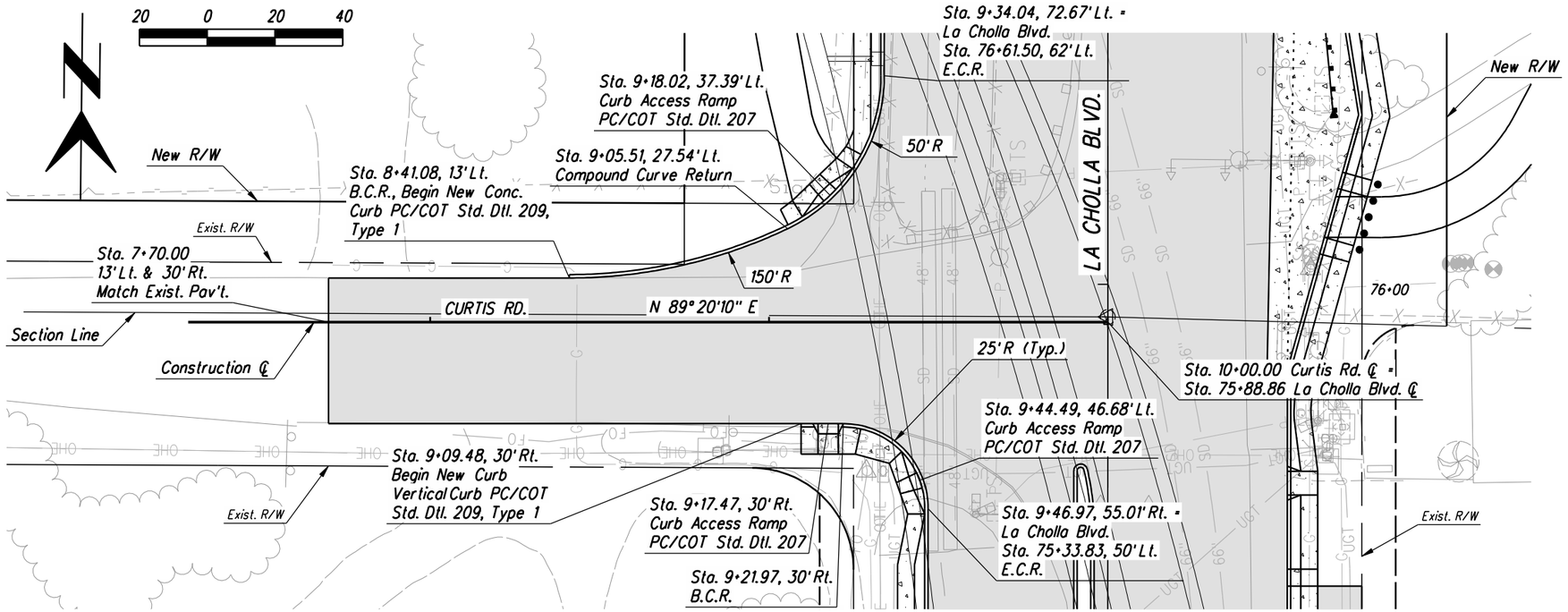
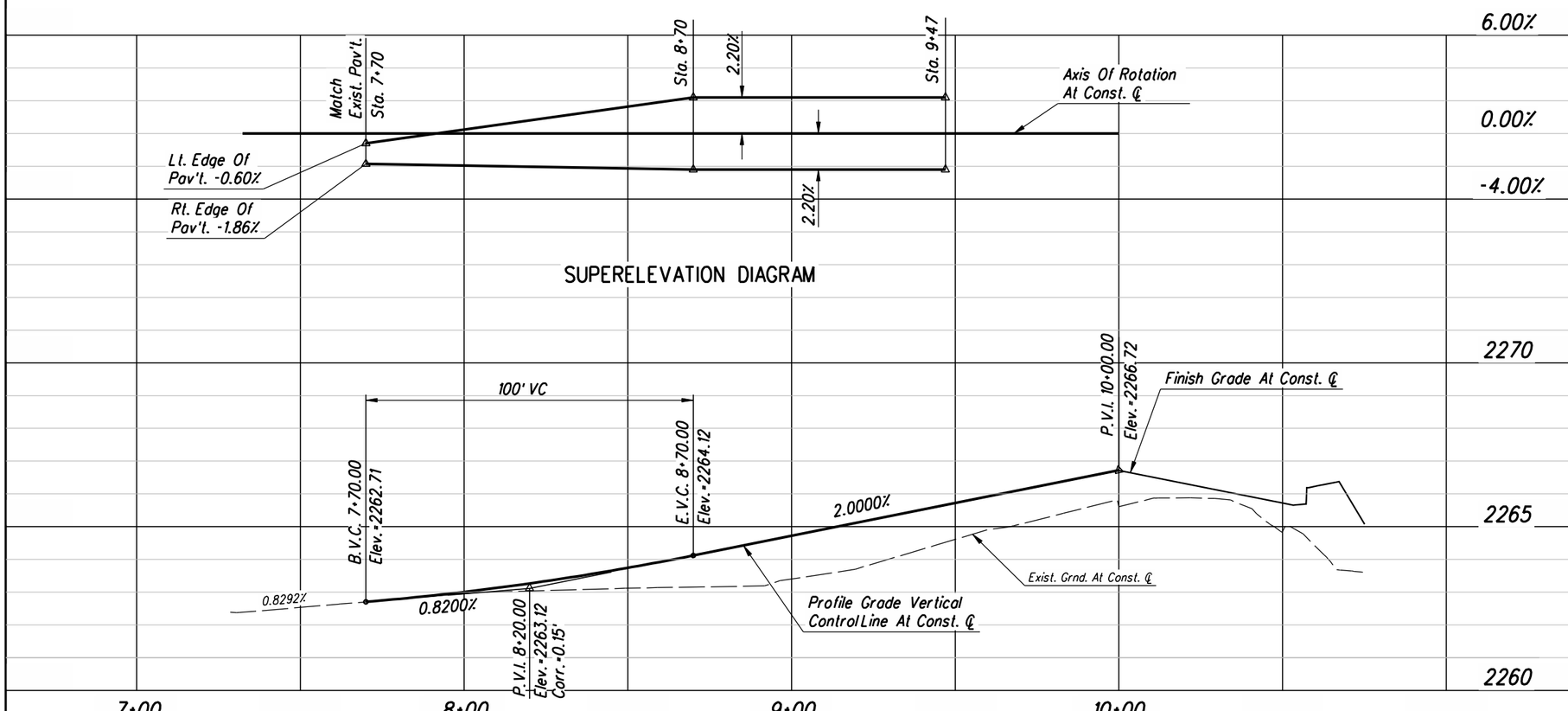
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
SIDESTREET PLANS
JAY AVE

Scales: Horiz. 1" = 20' Vert. 1" = 2' | Sheet R13 of R15 | Page 30 of 56

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1-800-782-5348
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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L.Borelo | Sept./2008 |
| Drawn | A.Young | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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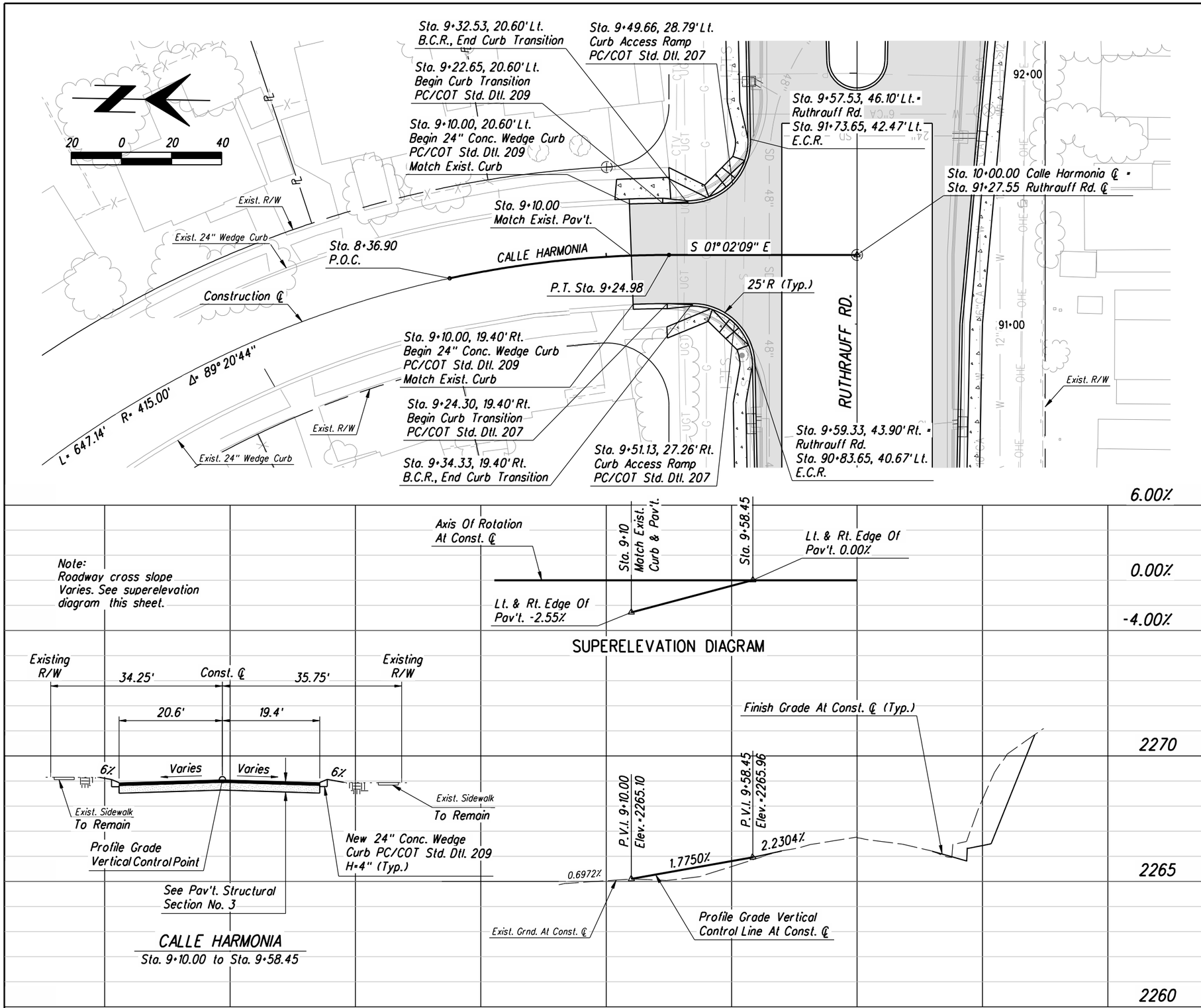
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
SIDESTREET PLANS
CURTIS ROAD

| Scales | Horiz. 1"= 20' Vert. 1"= 2' | Sheet | R14 of R15 | Page | 31 of 56 |
|---|---|---|---|---|---|

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1-800-782-5348
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Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | L. Borelo | Sept./2008 |
| Drawn | A. Young | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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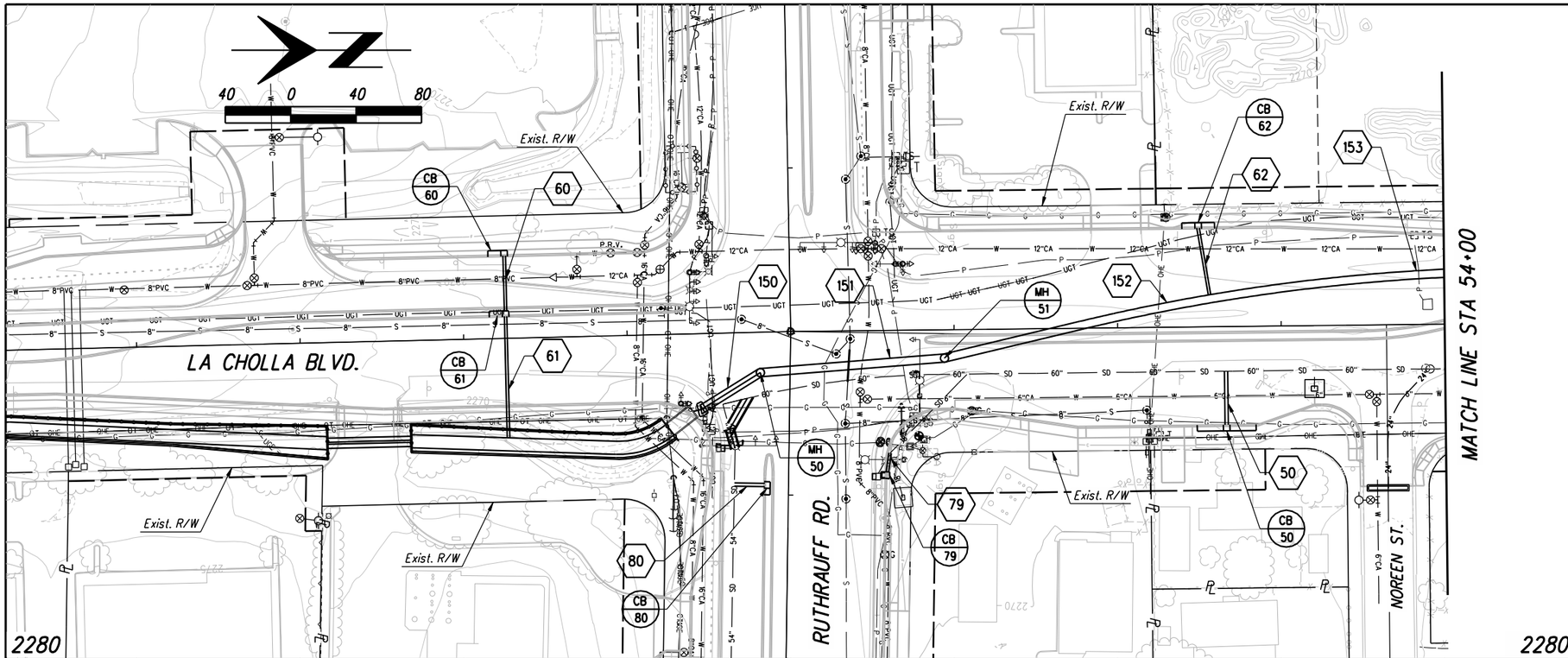
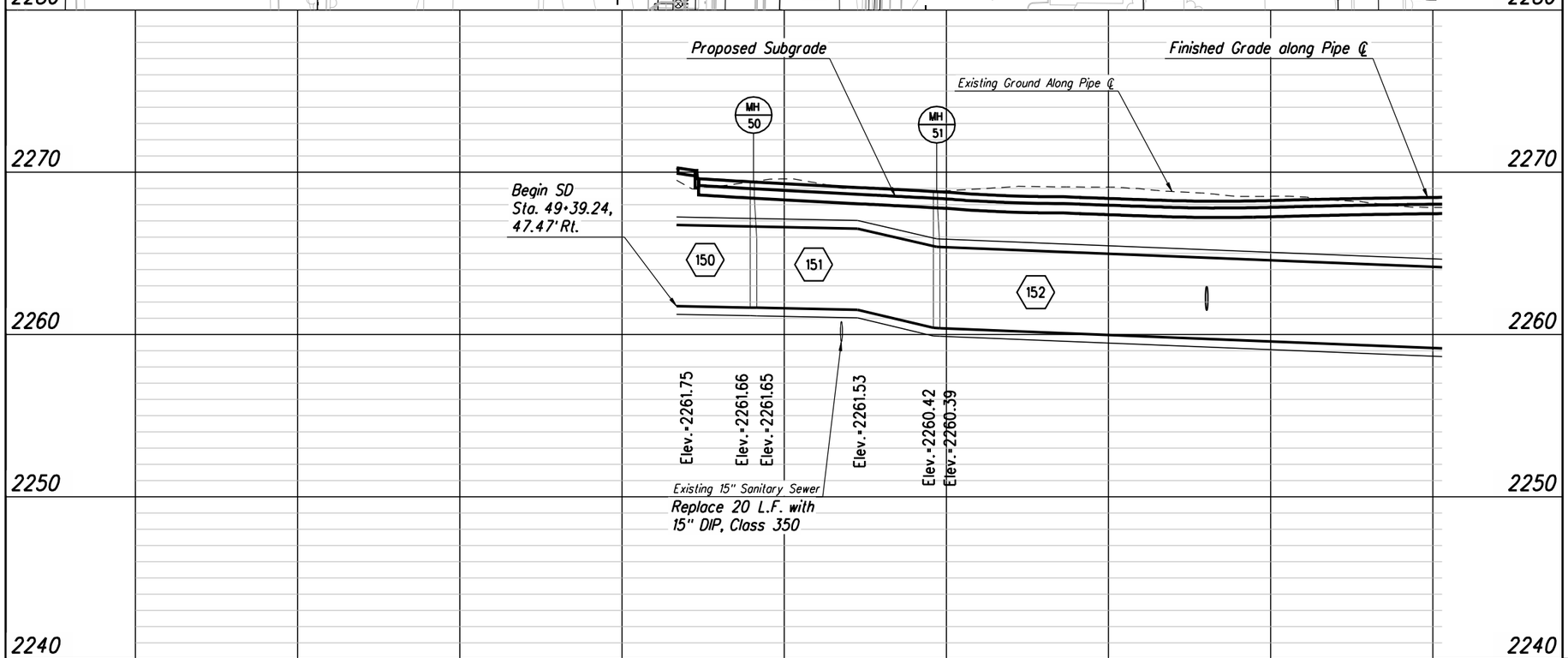
(520) 584-3600

Pima County Department of Transportation

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
SIDESTREET PLANS
CALLE HARMONIA

| Scales | Horiz. 1" = 20' Vert. 1" = 2' | Sheet | R15 of R15 | Page | 32 of 56 |
|---|---|---|---|---|---|




CB 60 — Sta. 48+26.00, 50' Lt. Catch Basin Type 3

CB 61 — Sta. 48+26.00, 13' Lt. Catch Basin Type 3

CB 62 — Sta. 52+49.91, 60' Lt. Catch Basin Type 3

CB 50 — Sta. 52+66.00, 60' Rt. Catch Basin Type 3

CB 79 — Sta. 100+87.02, 59' Lt. Catch Basin Type 5

CB 80 — Sta. 100+94.04, 15' Rt. Catch Basin Type 3

MH 50 — Sta. 49+80.93, 24.71' Rt., Rim Elev. = 2269.41

MH 51 — Sta. 50+93.92, 17.33' Rt., Rim Elev. = 2268.82

150 — 60" RCP, 46 l.ft., S=0.20%

151 — 60" RCP, 62 l.ft., S=0.20%
60" RCP, 47 l. ft., S=2.37%

152 — 60" RCP, 366 l.ft., S=0.40%

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesmo | Sept./2008 |
| Drawn | A. Ledesmo | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borelo | October/08 |

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LA CHOLLA BLVD.
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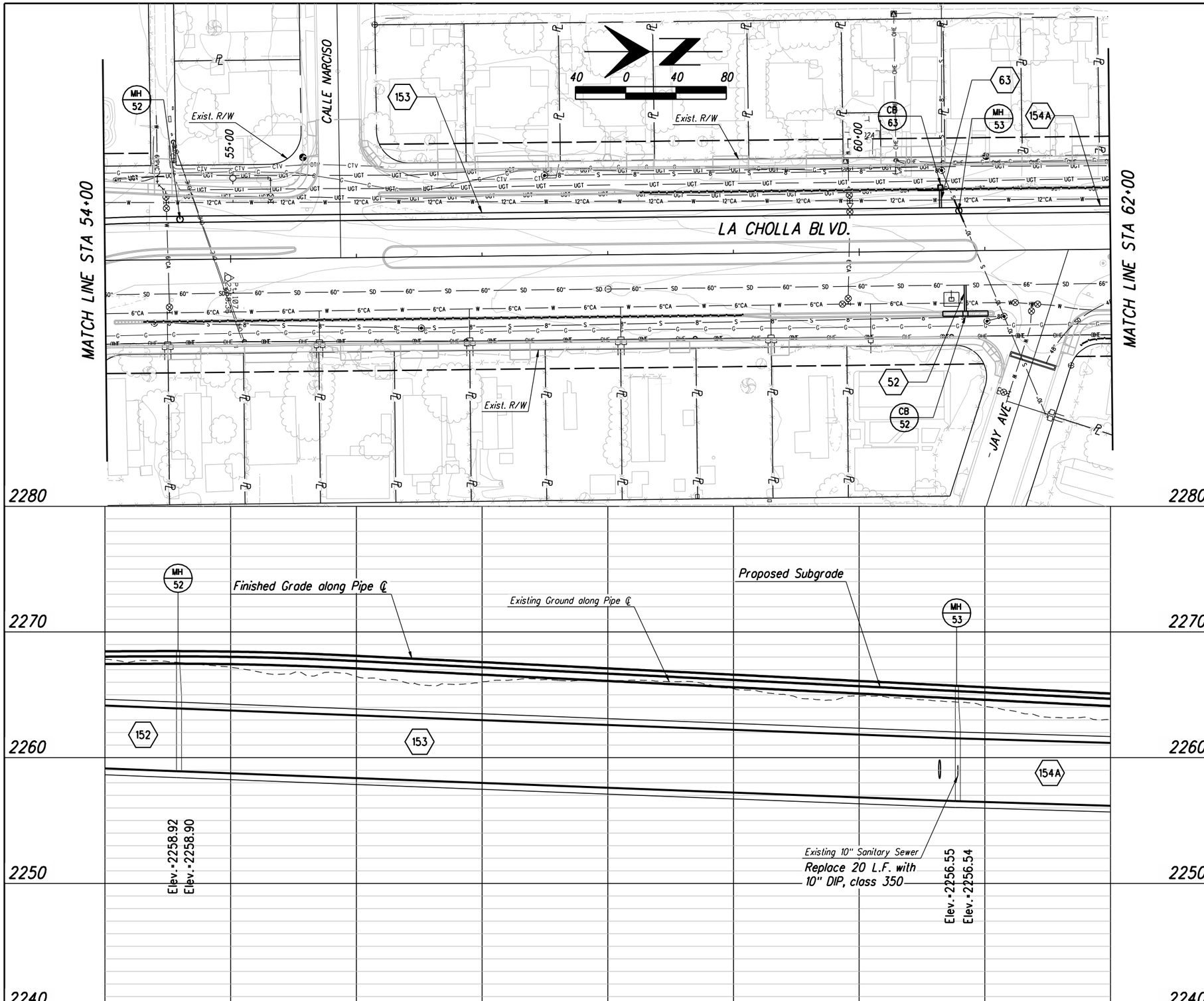
STORM DRAIN PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD1 of SD14 | Page | 33 of 56 |
|---|---|---|---|---|---|




CB 63 — Sta. 60+65.14, 52.54' Lt., Catch Basin Type 5

CB 52 — Sta. 60+84.00, 52' Rt., Catch Basin Type 3

MH 52 — Sta. 54+60.08, 32' Lt., Rim Elev. = 2268.48

MH 53 — Sta. 60+79.69, 32' Lt., Rim Elev. = 2265.72

153 — 60" RCP, 616 l.f.t., S=0.38%

154A — 60" RCP, 241 l.f.t., S=0.30%

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
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Priscilla S. Cornelio, P.E., Director

| | |
|---|---|
| Designed | A. Ledesma |
| Drawn | A. Ledesma |
| Checked | R. Britain |
| Proj. Eng. | L. Barela |

| Date |
|---|
| Sept./2008 |
| Sept./2008 |
| October/08 |
| October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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OCTOBER 2008
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Pima County Department of Transportation

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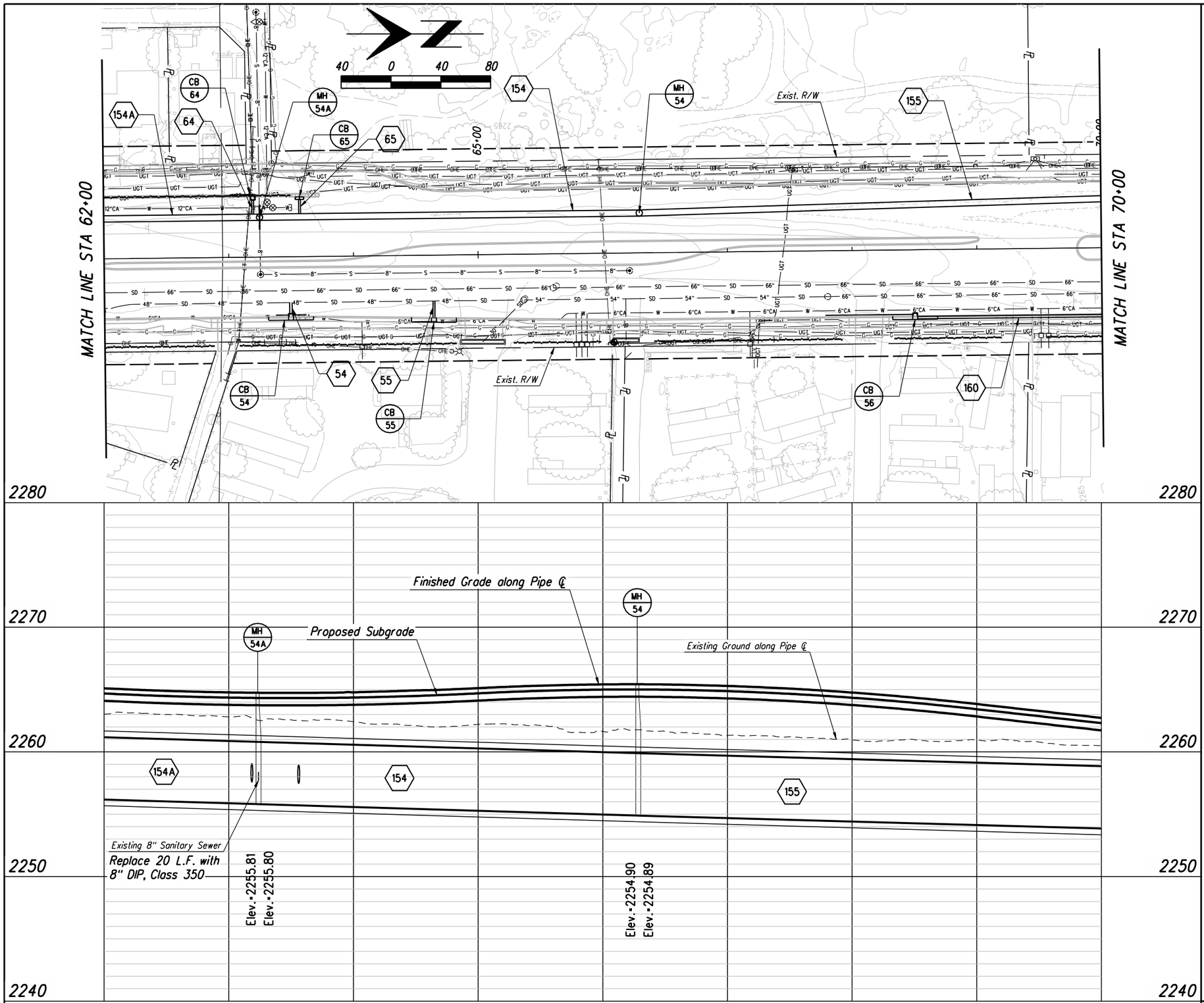
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BL VD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD2 of SD14 | Page | 34 of 56 |
|---|---|---|---|---|---|




CB 64 — Sta. 63+19.69, 48.25' Lt., Catch Basin Type 5

CB 54 — Sta. 63+49.42, 48' Rt., Catch Basin Type 5

CB 65 — Sta. 63+57.22, 45.89' Lt., Catch Basin Type 4

CB 55 — Sta. 64+64.00, 49.98' Rt., Catch Basin Type 3

CB 56 — Sta. 68+50.00, 53' Rt., Catch Basin Type 5

MH 54A — Sta. 63+25.04, 32' Lt., Rim Elev. = 2264.75

MH 54 — Sta. 66+29.61, 32' Lt., Rim Elev. = 2265.43

154 — 60" RCP, 301 l.ft., S=0.30%

155 — 60" RCP, 655 l.ft., S=0.28%

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Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesmo | Sept./2008 |
| Drawn | A. Ledesmo | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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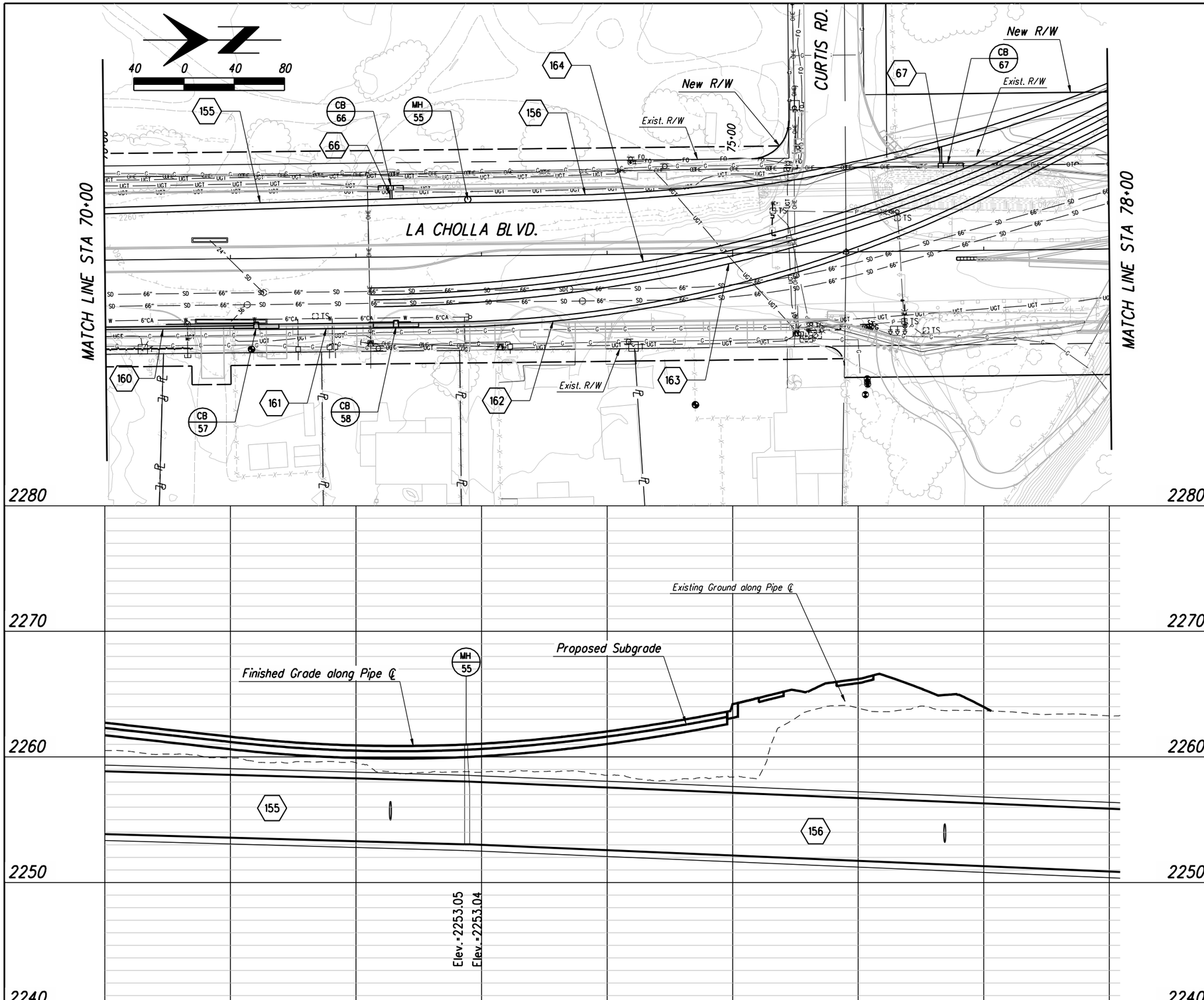
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD3 of SD14 | Page | 35 of 56 |
|---|---|---|---|---|---|




CB 57 — Sta. 71+20.00, 53' Rt., Catch Basin Type 5

CB 66 — Sta. 72+28.39, 53' Lt., Catch Basin Type 3

CB 58 — Sta. 72+31.27, 53' Rt., Catch Basin Type 5

CB 67 — Sta. 76+66.50, 66' Lt., Catch Basin Type 3

MH 55 — Sta. 72+89.60, 45' Lt., Rim Elev. = 2260.99

156 — 60" RCP, 686 l.ft., S=0.42%

163 — 66" RCP, 759 l.ft., S=20%

164 — 66" RCP, 771 l.ft., S=20%

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Scales: Horiz. 1"=40'; Vert. 1"=4'

Sheet SD4 of SD14

Page 36 of 56

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesmo | Sept./2008 |
| Drawn | A. Ledesmo | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Borela | October/08 |

STAGE 1
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OCTOBER 2008
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OR RECORDING

HDR Engineering, Inc.
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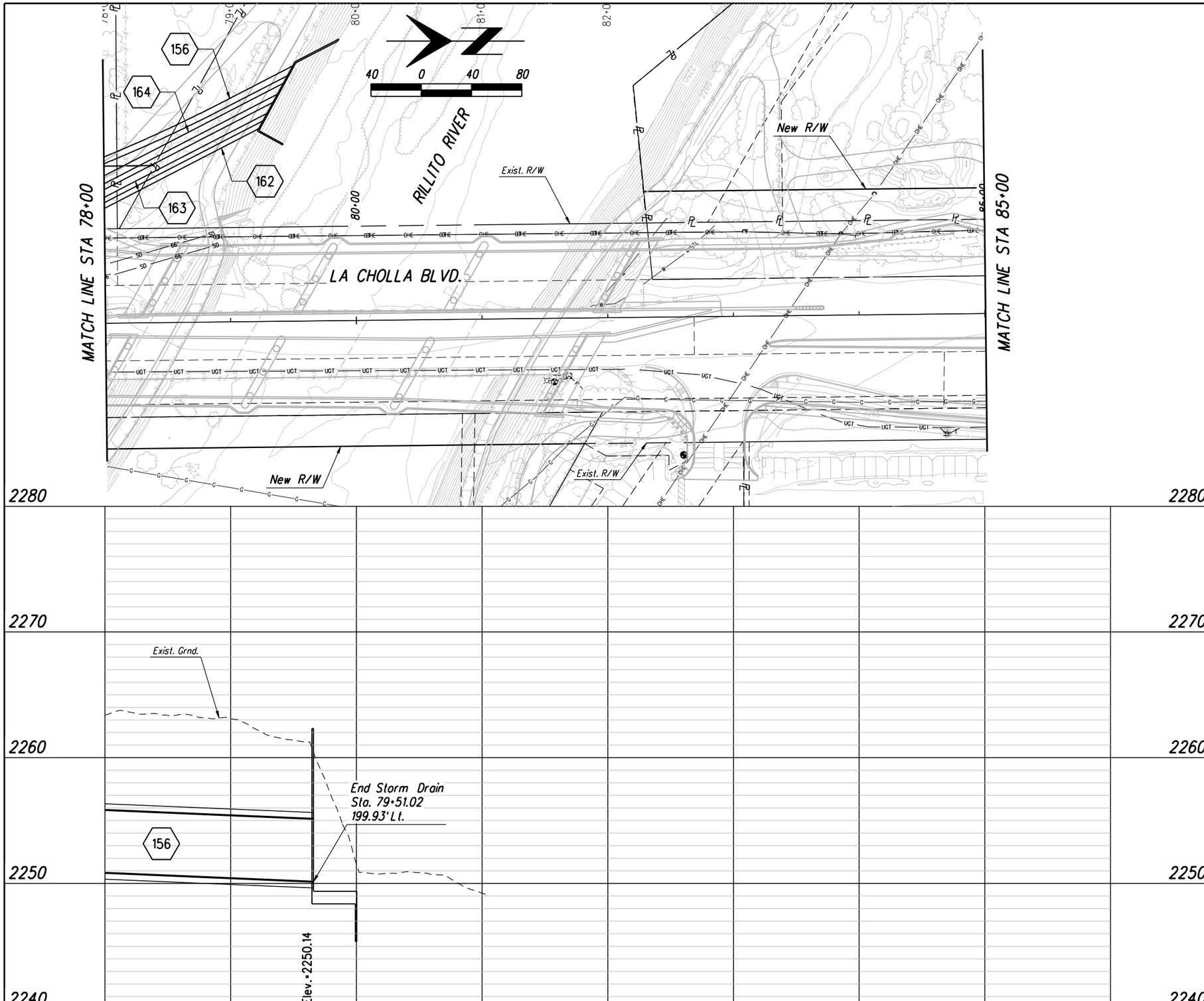
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS




Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesmo | Sept./2008 |
| Drawn | A. Ledesmo | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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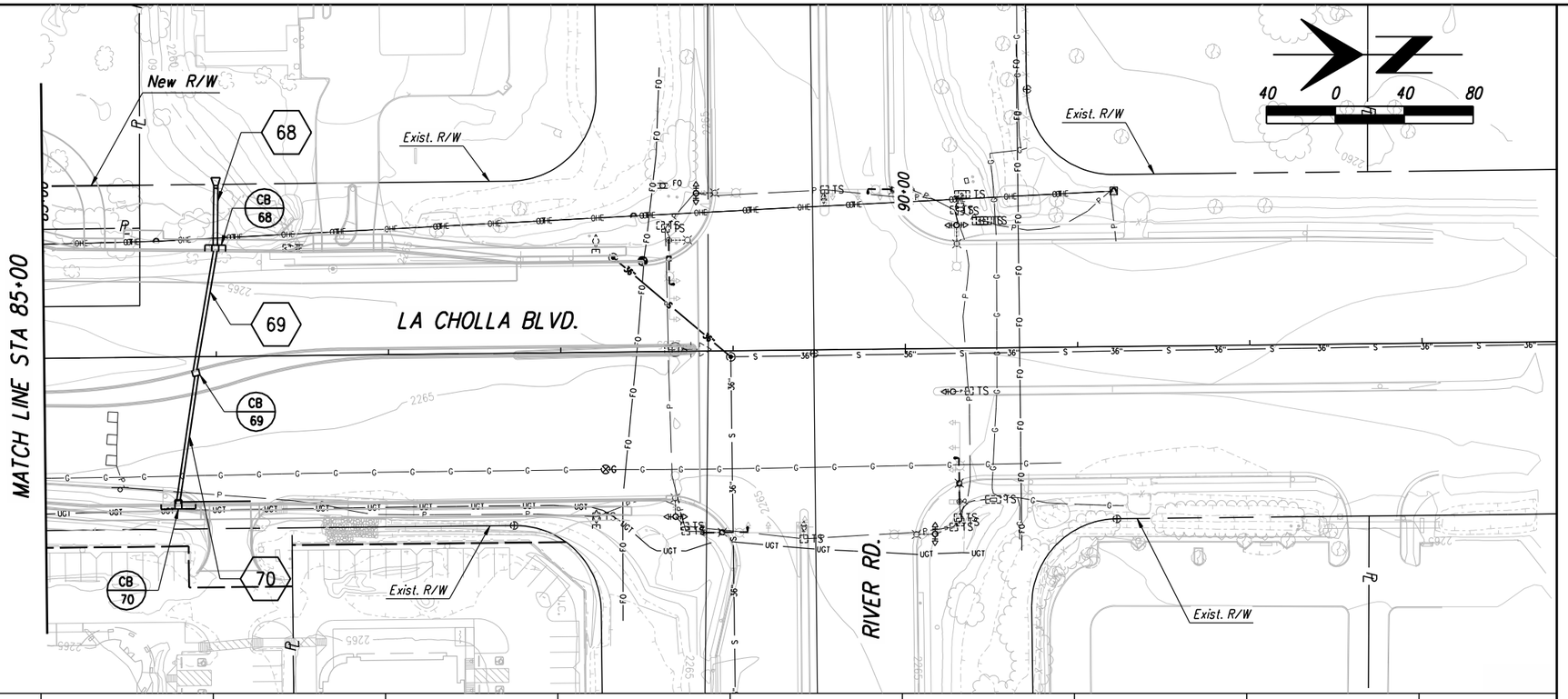
(520) 584-3600

Pima County Department of Transportation

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

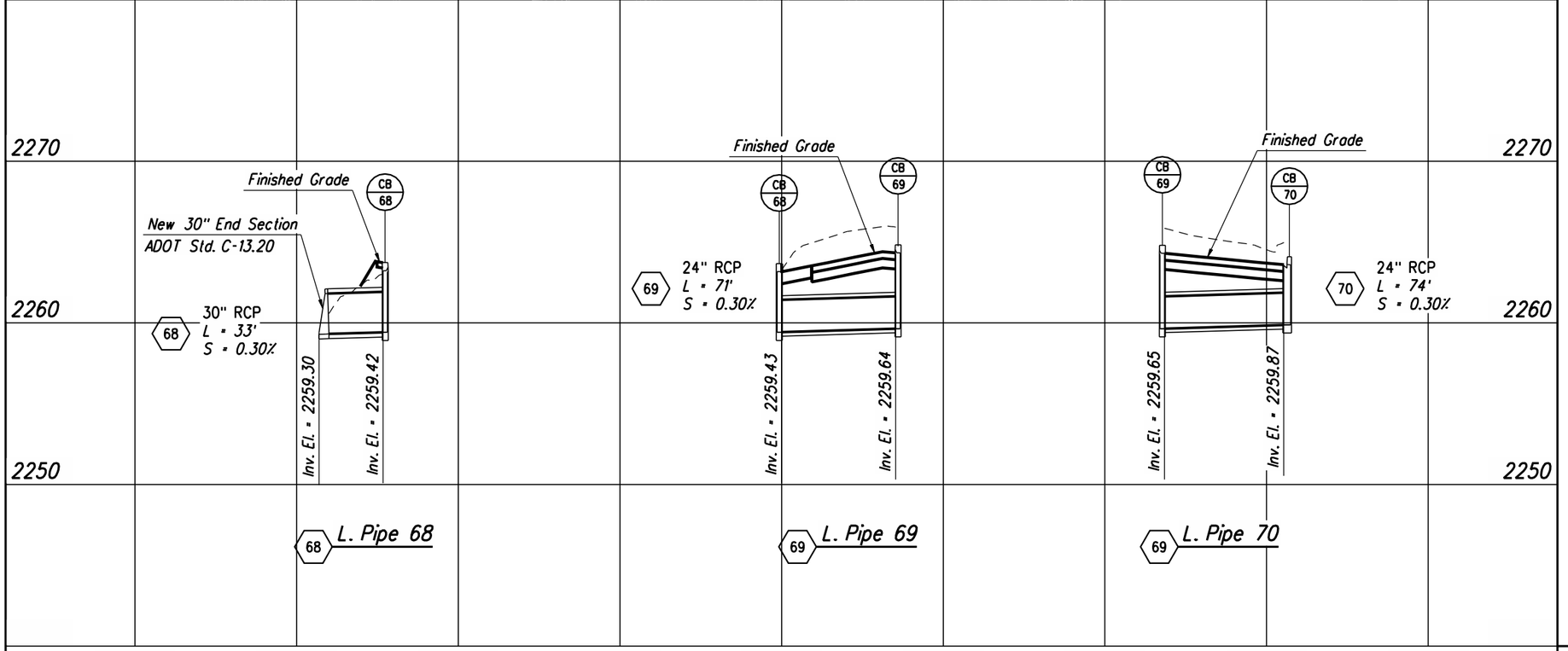
| Scales | Horiz. 1"=40' | Sheet | SD5 of SD14 | Page | 37 of 56 |
|---|---|---|---|---|---|
| | Vert. 1"=4' | | | | |




CB 68 — Sta. 86+00.02, 61' Lt., Catch Basin Type 3

CB 69 — Sta. 85+87.50, 7.5' Rt., Catch Basin Type 3

CB 70 — Sta. 85+77.00, 85.5' Rt., Catch Basin Type 5

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | A. Ledesma | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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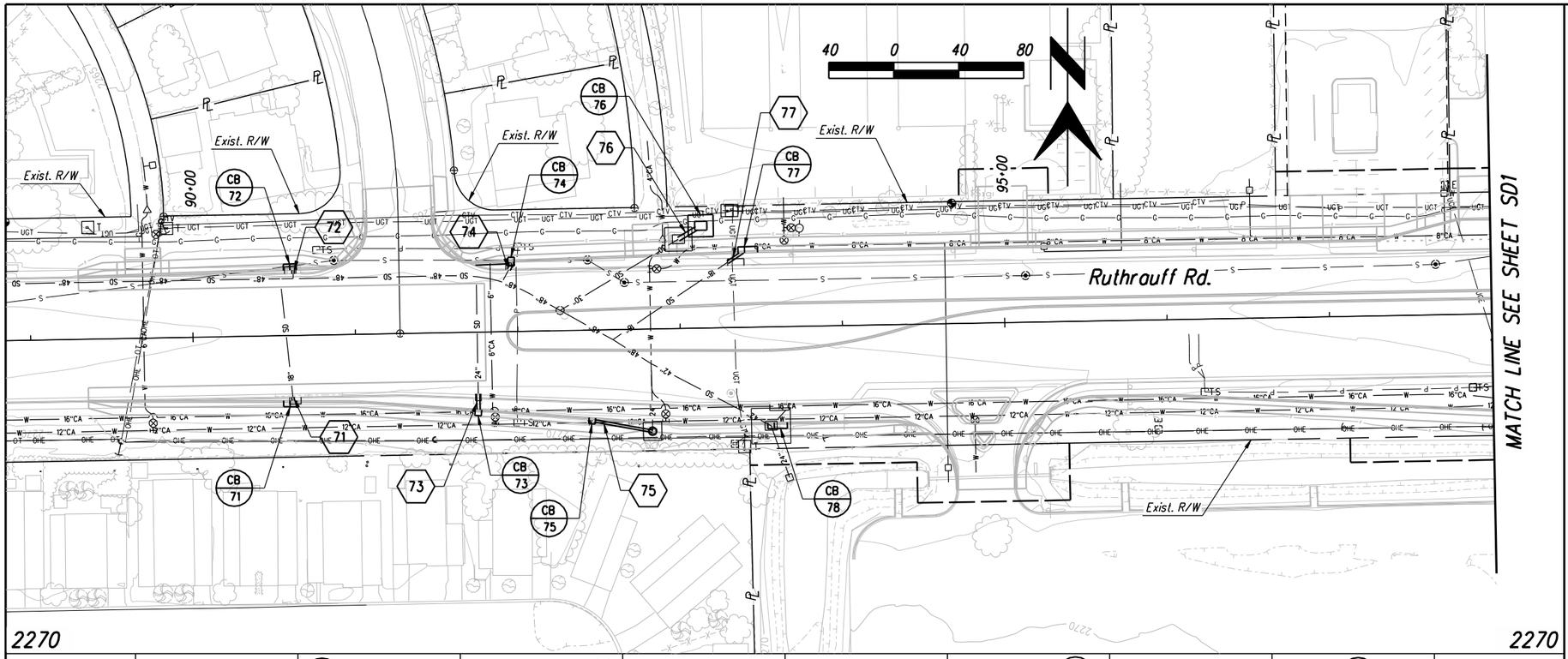
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD6 of SD14 | Page | 38 of 56 |
|---|---|---|---|---|---|




CB 71 — Sta. 90+61.05, 40.22' Rt.
Catch Basin Type 3

CB 72 — Sta. 90+62.35, 40.25' Lt.
Catch Basin Type 3

CB 73 — Sta. 91+75.00, 47.66' Rt.
Catch Basin Type 3

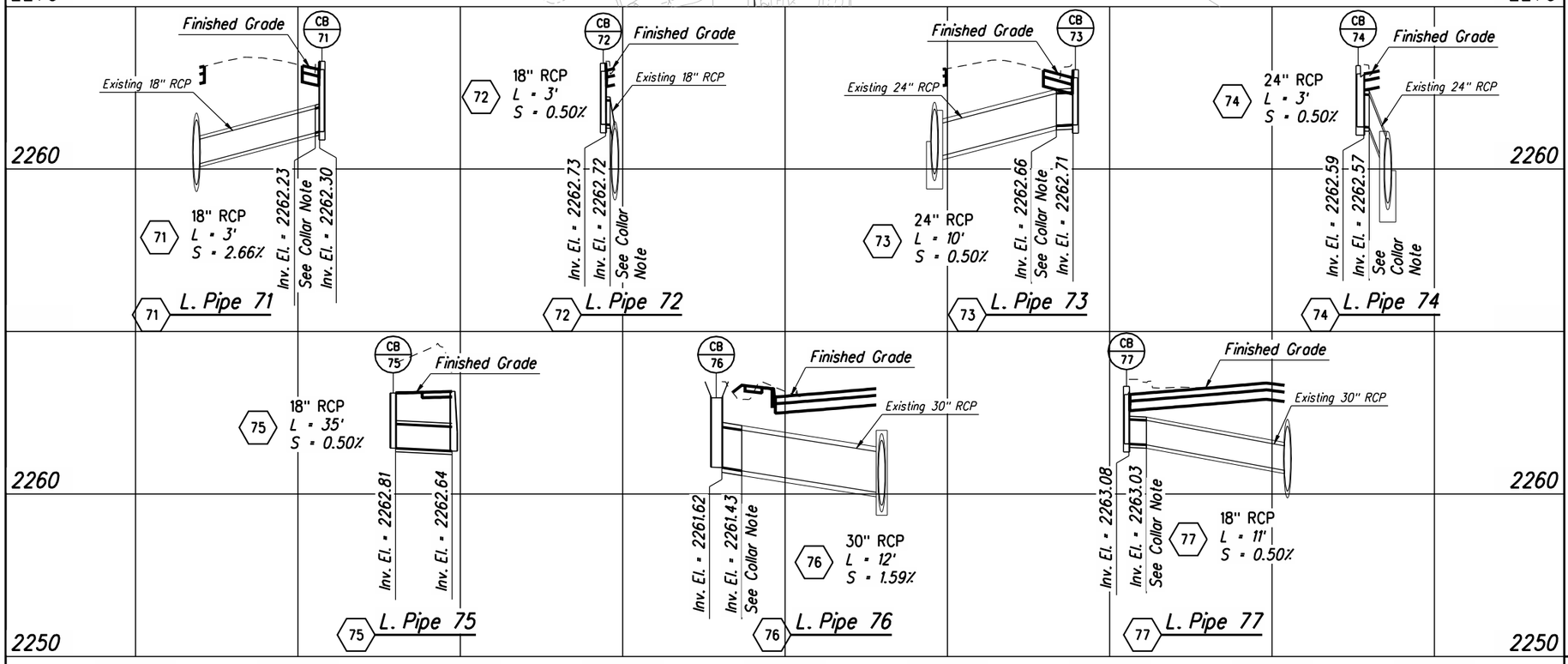
CB 74 — Sta. 91+96.68, 42.93' Lt.
Catch Basin Type 5

CB 75 — Sta. 92+45.03, 54.05' Rt.
Catch Basin Type 3

CB 76 — Sta. 93+13.86, 63' Lt.
Catch Basin Type 4

CB 77 — Sta. 93+38.62, 45.77' Lt.
Catch Basin Type 3

**Collar Note:**
Connect new pipe to existing pipe with concrete collar per ADOT Std. Dwg. C-13.80

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Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesma | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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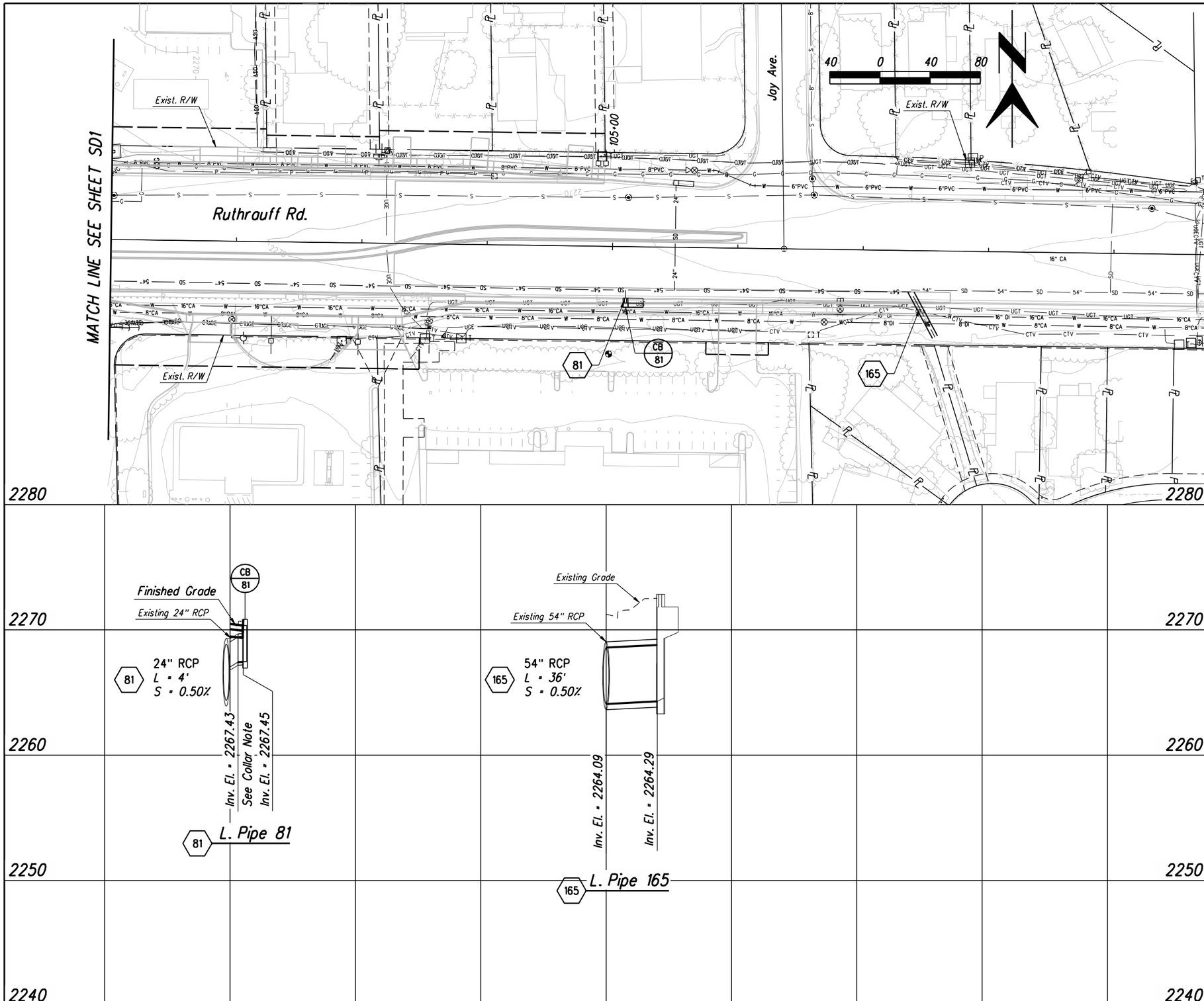
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD7 of SD14 | Page | 39 of 56 |
|---|---|---|---|---|---|




CB 81 Sta. 105+10.98, 44.73' Rt.
Catch Basin Type 3

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesma | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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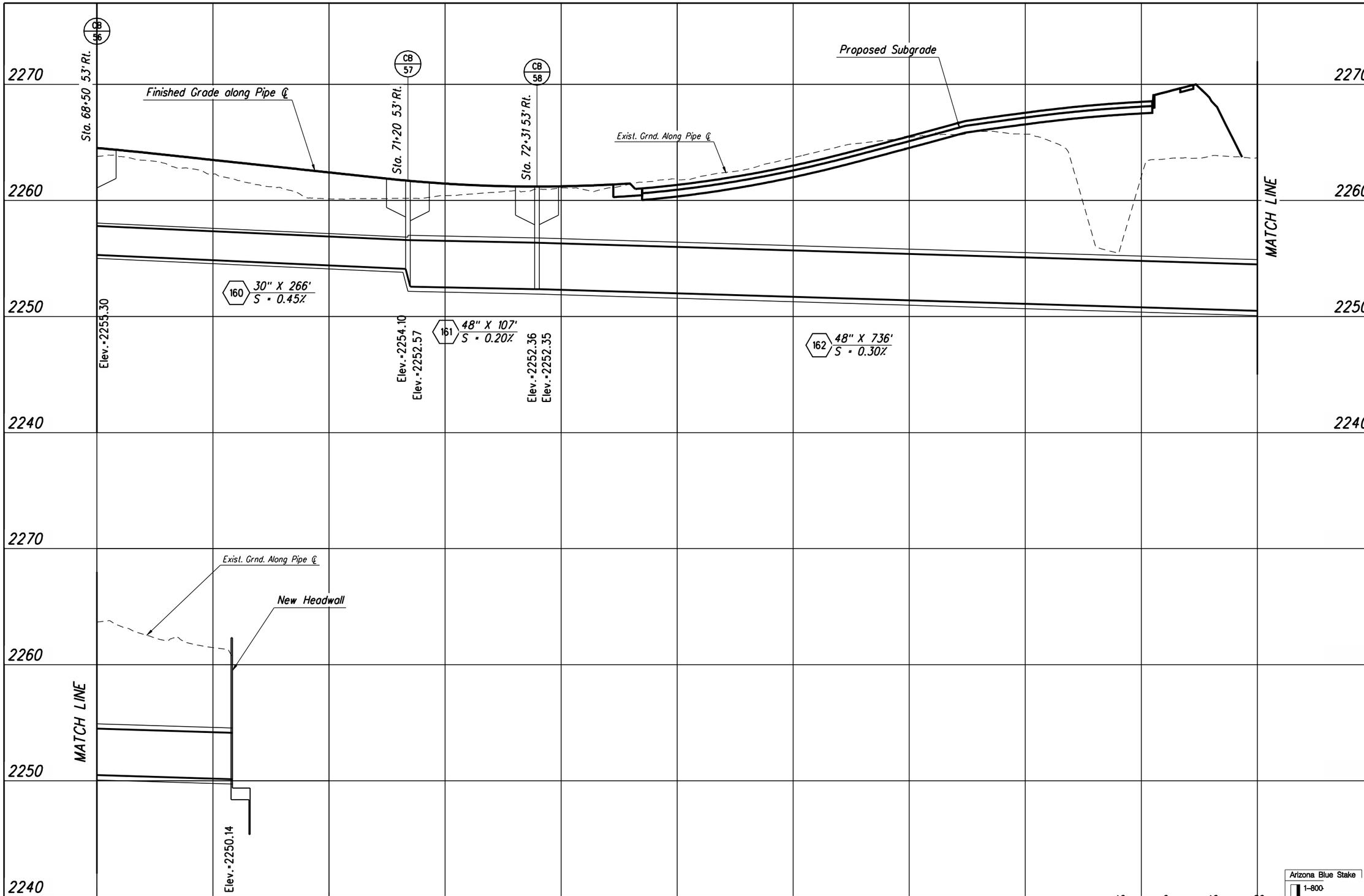
| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD8 of SD14 | Page | 40 of 56 |
|---|---|---|---|---|---|

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1-800-782-5348
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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | A. Ledesma | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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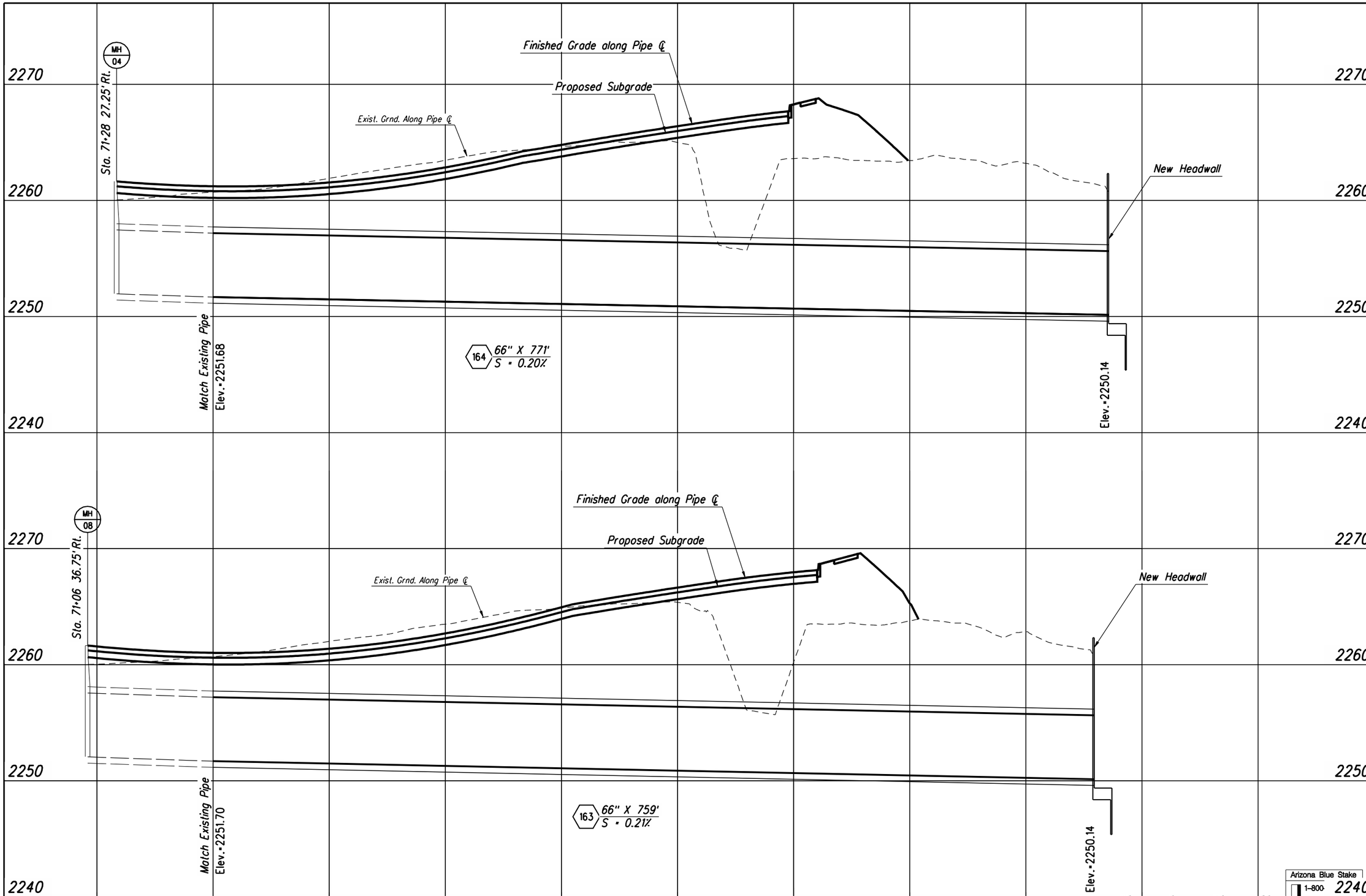
STORM DRAIN PROFILE
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD9 of SD14 | Page | 41 of 56 |
|---|---|---|---|---|---|




Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | A. Ledesma | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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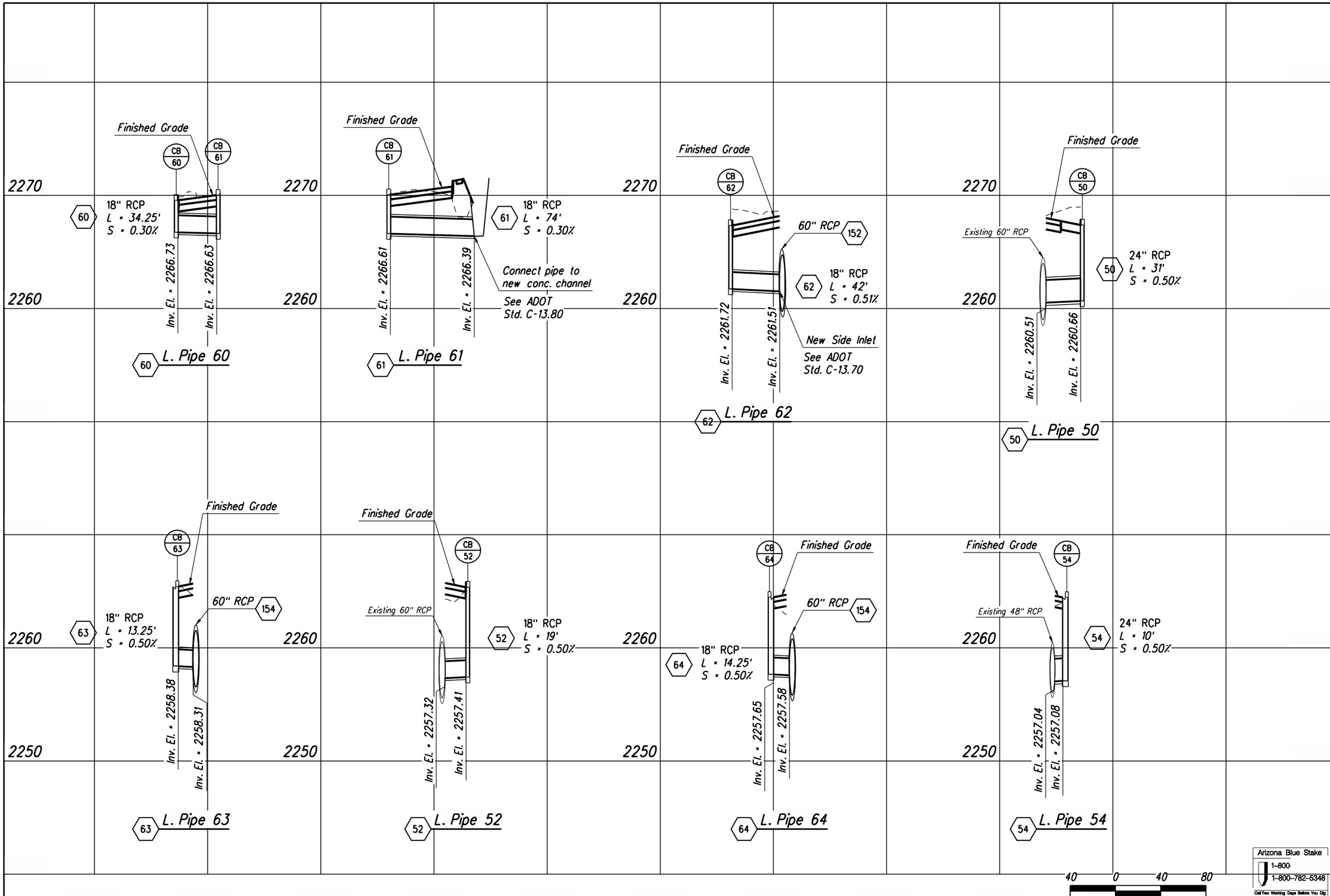
STORM DRAIN PROFILE
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.

| Scales | Horiz. 1"=40' | Sheet | SD10 of SD14 | Page | 42 of 56 |
|---|---|---|---|---|---|
| | Vert. 1"=4' | | | | |




Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | A. Ledesma | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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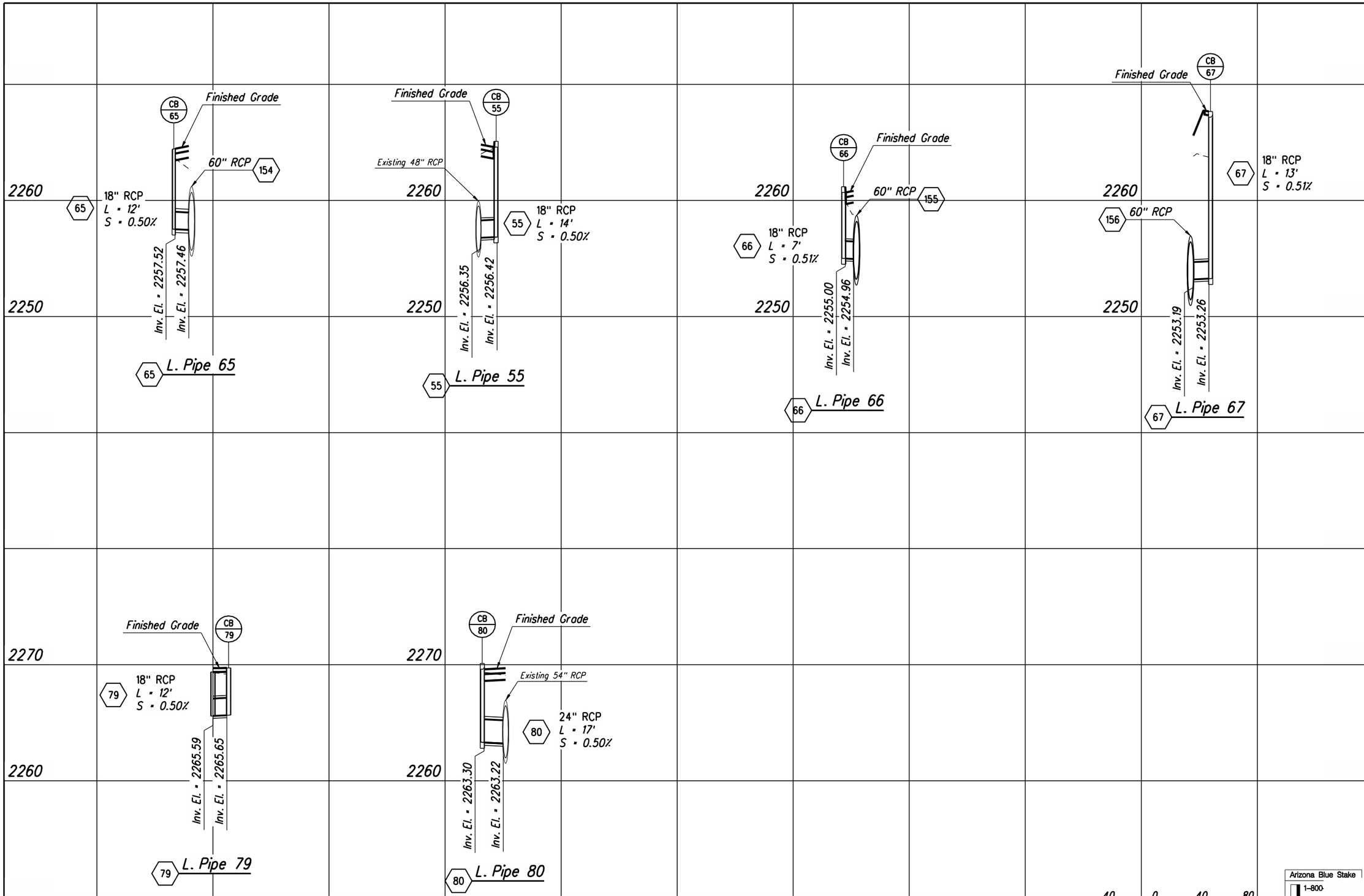
(520) 584-3600

STORM DRAIN LATERAL PIPE PROFILES
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet | SD11 of SD14 | Page | 43 of 56 |
|---|---|---|---|---|---|




Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| Designed | A. Ledesma | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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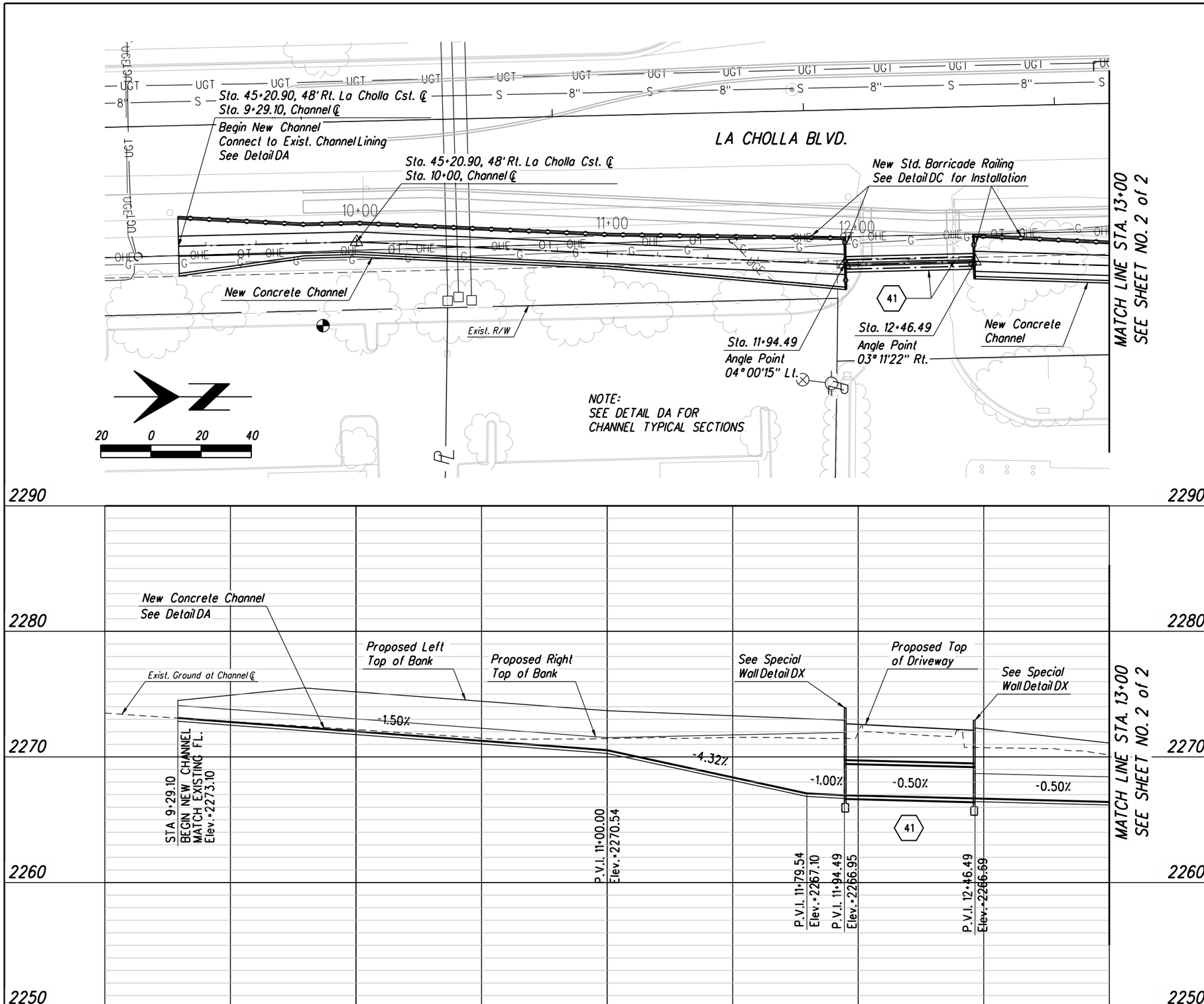
STORM DRAIN LATERAL PIPE PROFILES
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.

| Scales | Horiz. 1"=40' Vert. 1"=4' | Sheet SD12 of SD14 | Page 44 of 56 |
|---|---|---|---|




41 2 - 30" RCP, 52 LF, S=0.50%

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | J. Amos | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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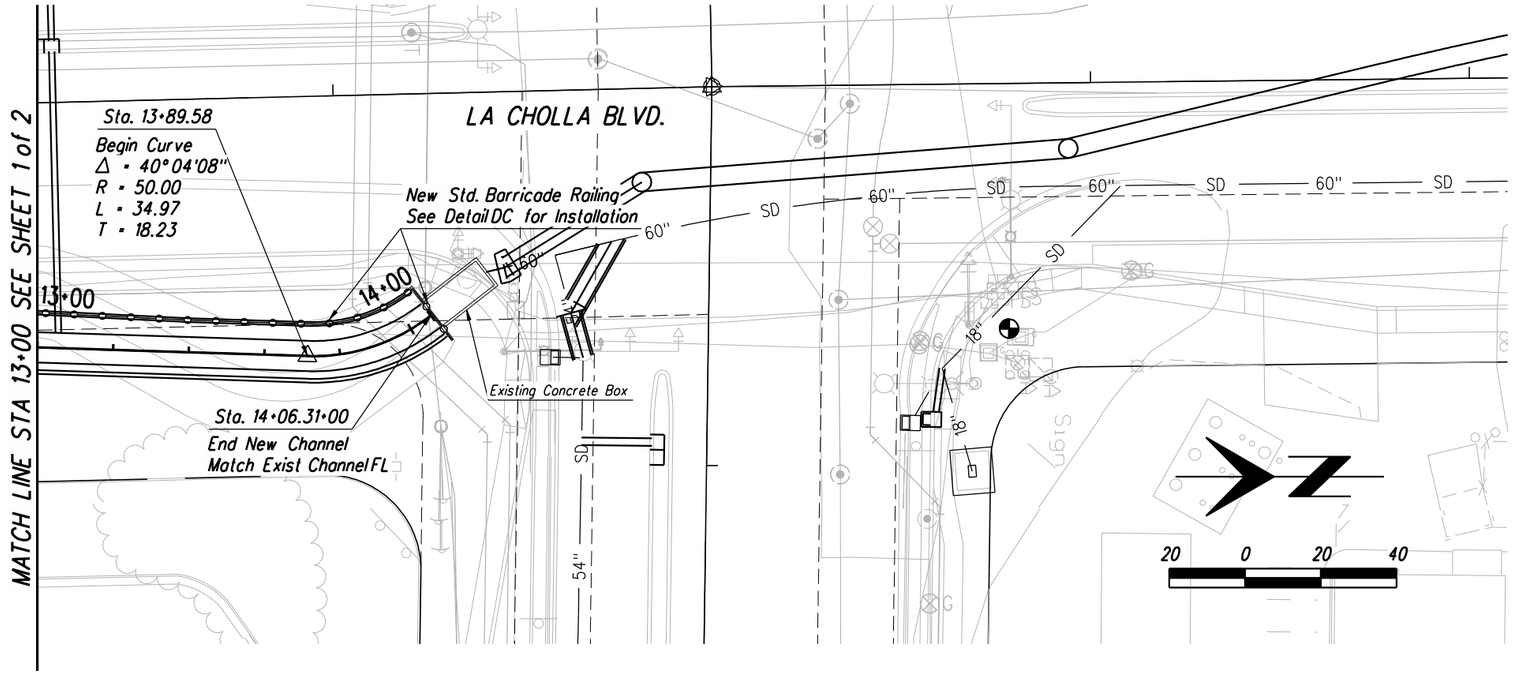
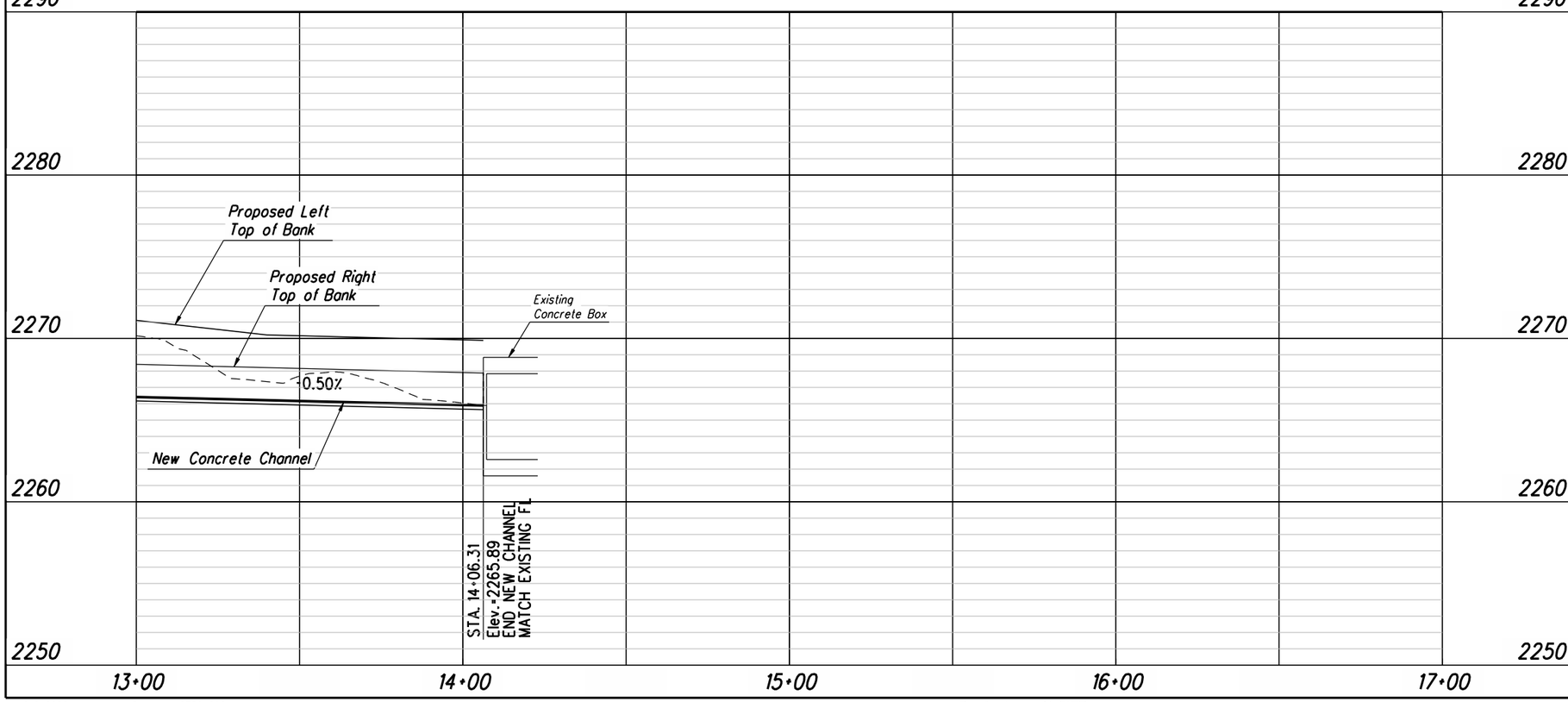
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

| Scales | Horiz. 1"=20' Vert. 1"=2' | Sheet | SD13 of SD14 | Page | 45 of 56 |
|---|---|---|---|---|---|

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | J. Amos | Sept./2008 |
| Drawn | J. Amos | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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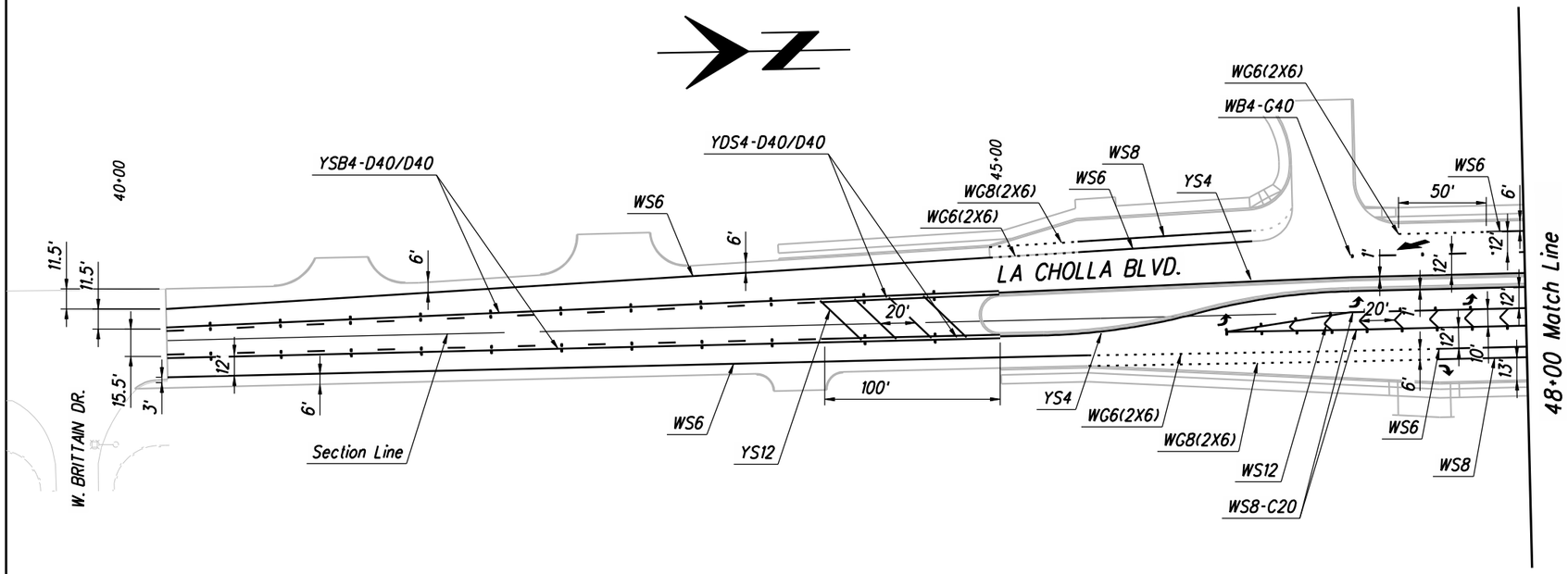
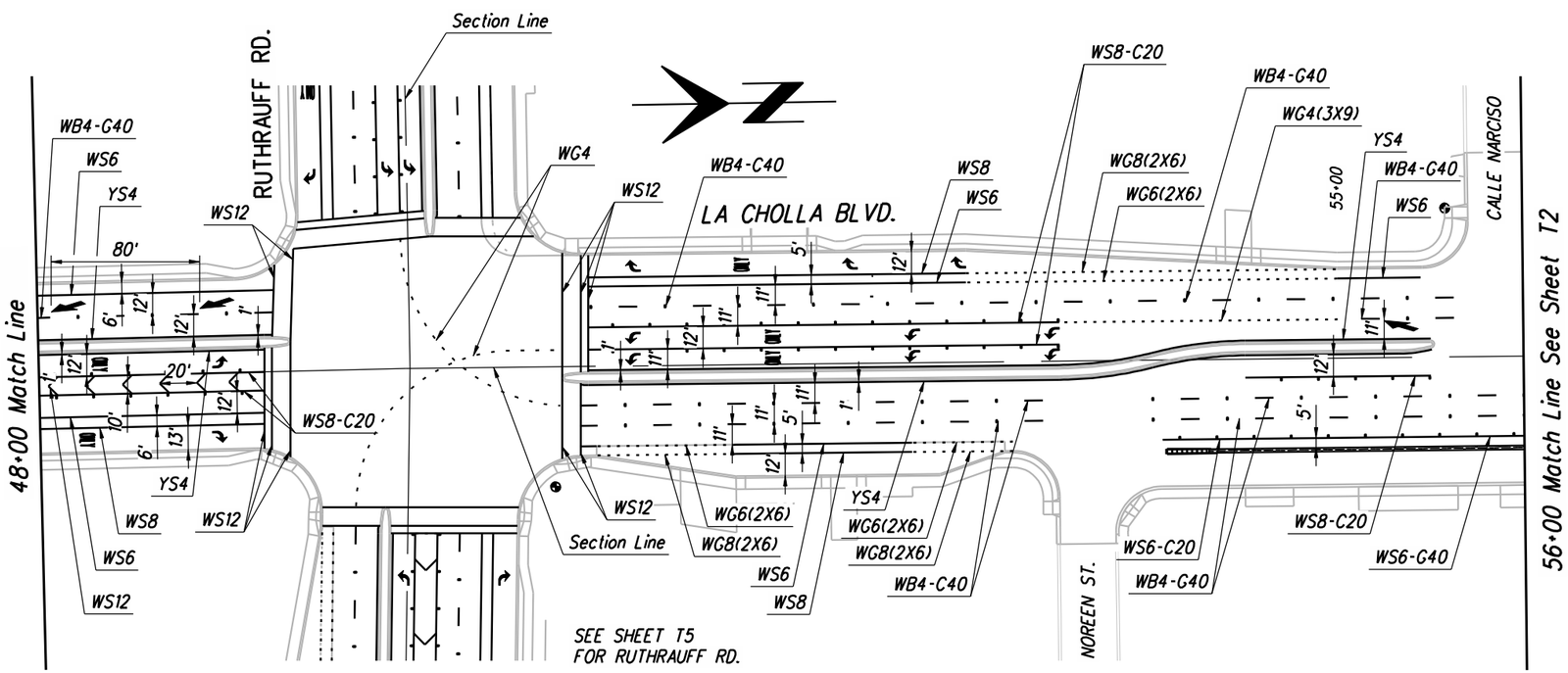
LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
STORM DRAIN PLANS

| Scales | Horiz. 1"=20' Vert. 1"=2' | Sheet SD14 of SD14 | Page 46 of 56 |
|---|---|---|---|




40 0 40 80

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Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | H. Schneider | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Brittain | October/08 |
| Proj. Eng. | L. Borela | October/08 |

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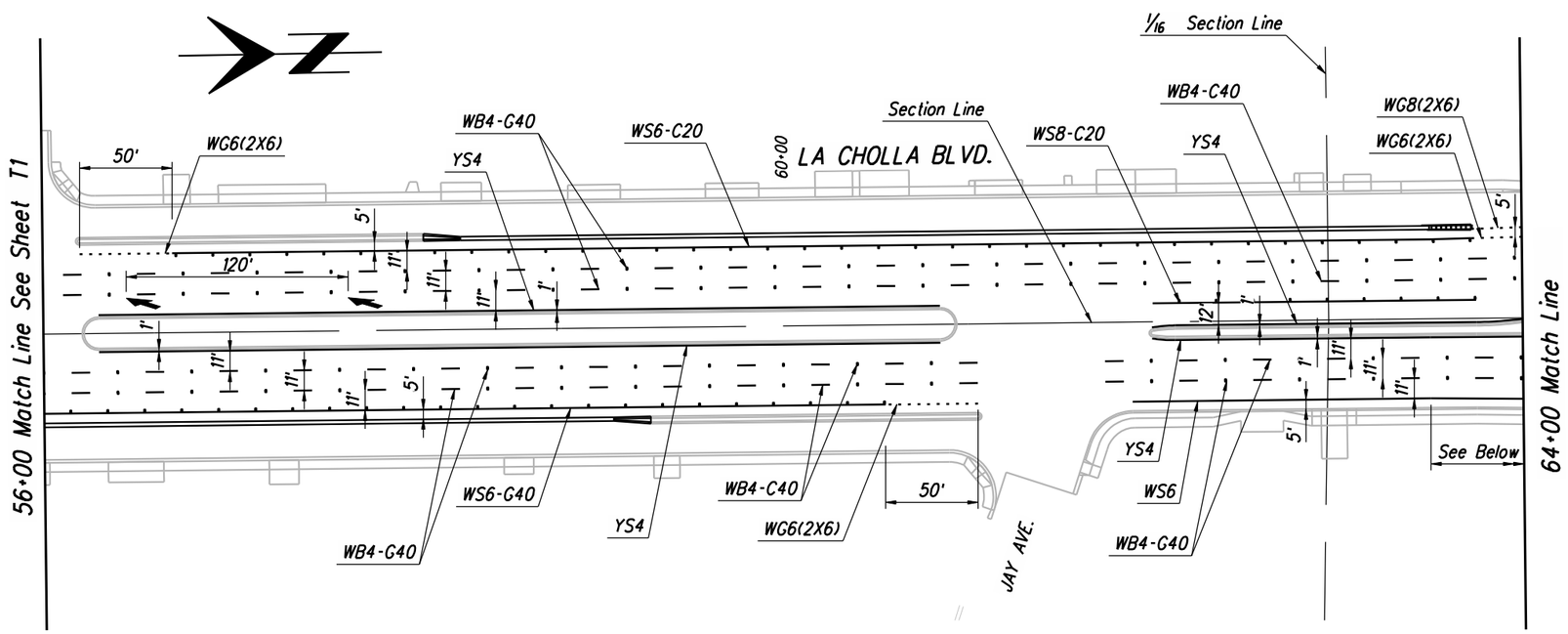
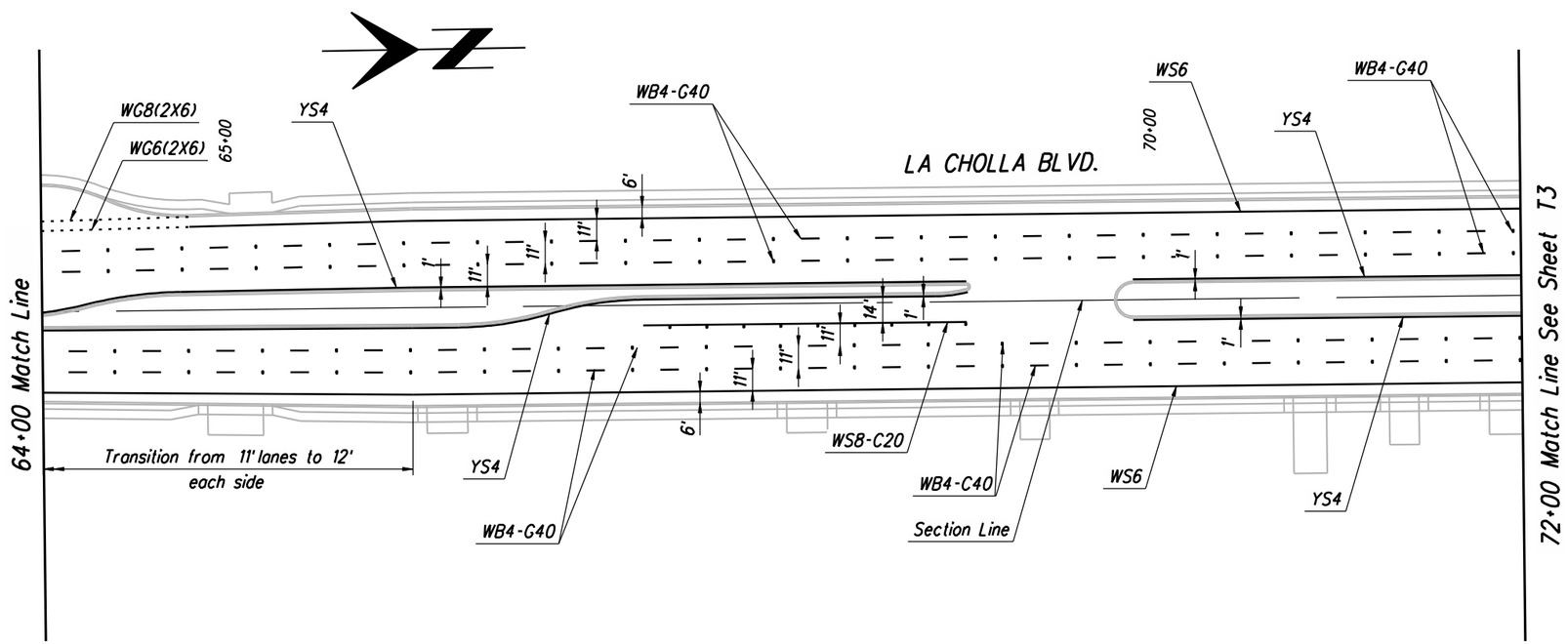
(520) 584-3600

LA CHOLLA BLVD.
RUTHRAUFF RD. TO RIVER RD.
PAVEMENT MARKING & SIGNING PLANS
FOR LA CHOLLA BLVD.

| Scales | Horiz. 1"=40'<br>Vert. 1"=NA | Sheet | T1 of T6 | Page | 47 of 56 |
|---|---|---|---|---|---|

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1-800-782-5348
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40 0 40 80

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | H. Schneider | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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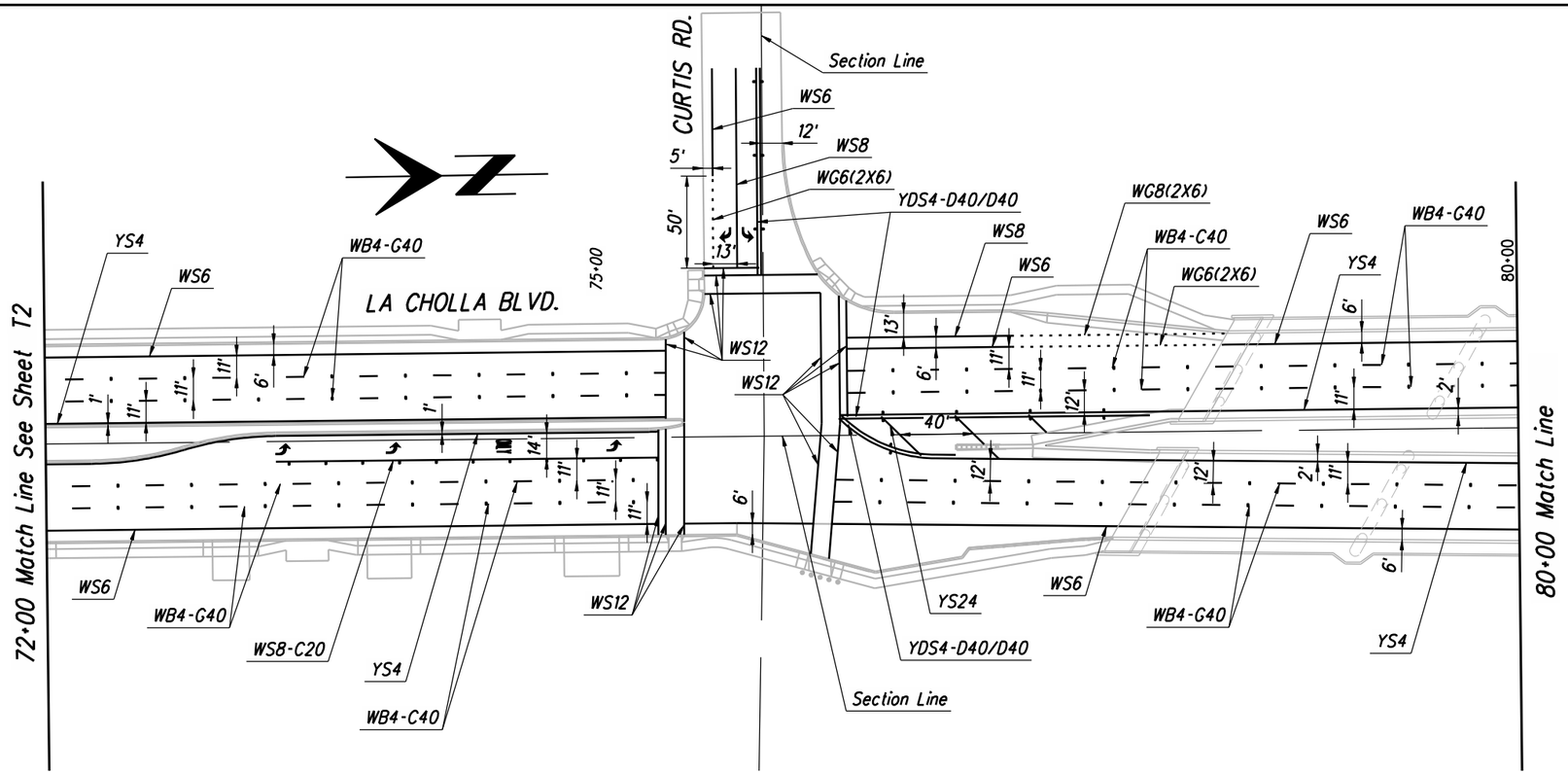
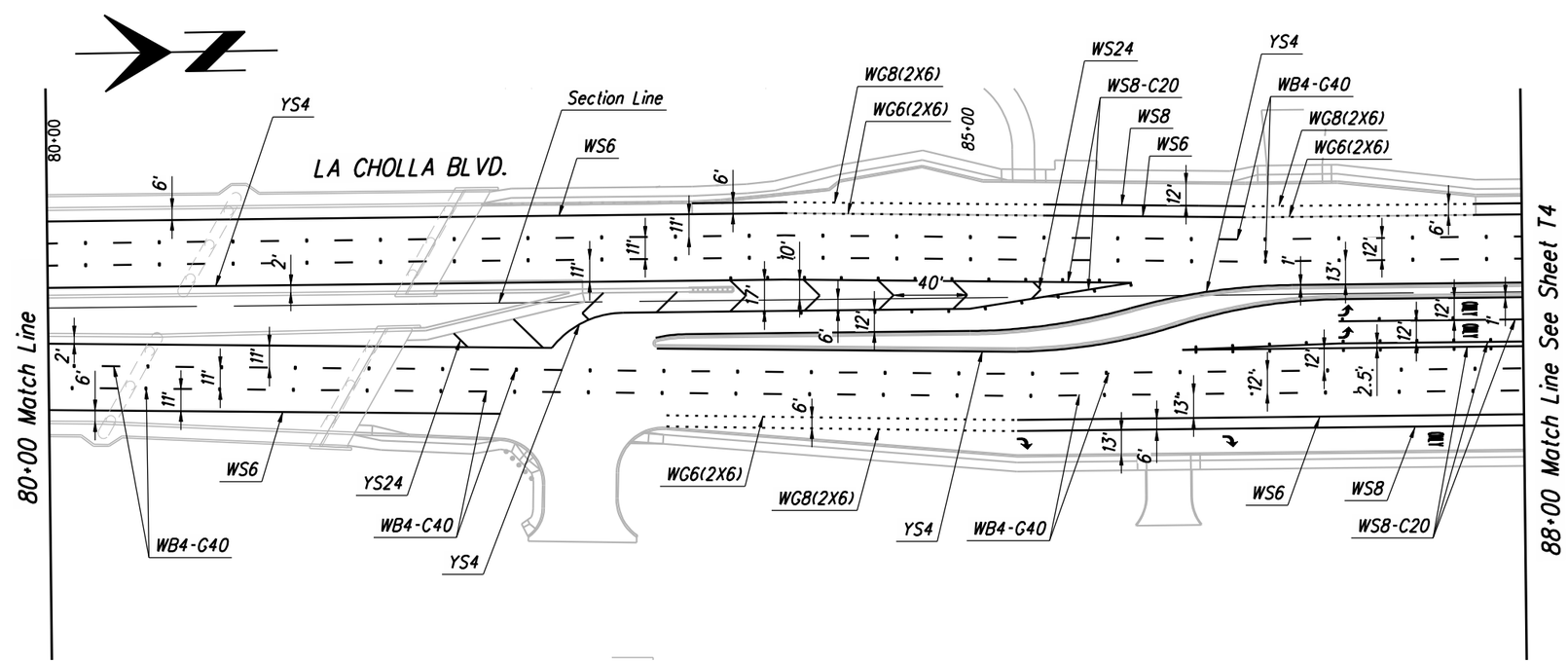
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.
PAVEMENT MARKING & SIGNING PLANS
FOR LA CHOLLA BLVD.

| Scales | Horiz. 1"=40' Vert. 1"=NA | Sheet | T2 of T6 | Page | 48 of 56 |
|---|---|---|---|---|---|




40 0 40 80

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

Scales: Horiz. 1"=40' Vert. 1"=NA

Sheet T3 of T6

Page 49 of 56

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | H. Schneider | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

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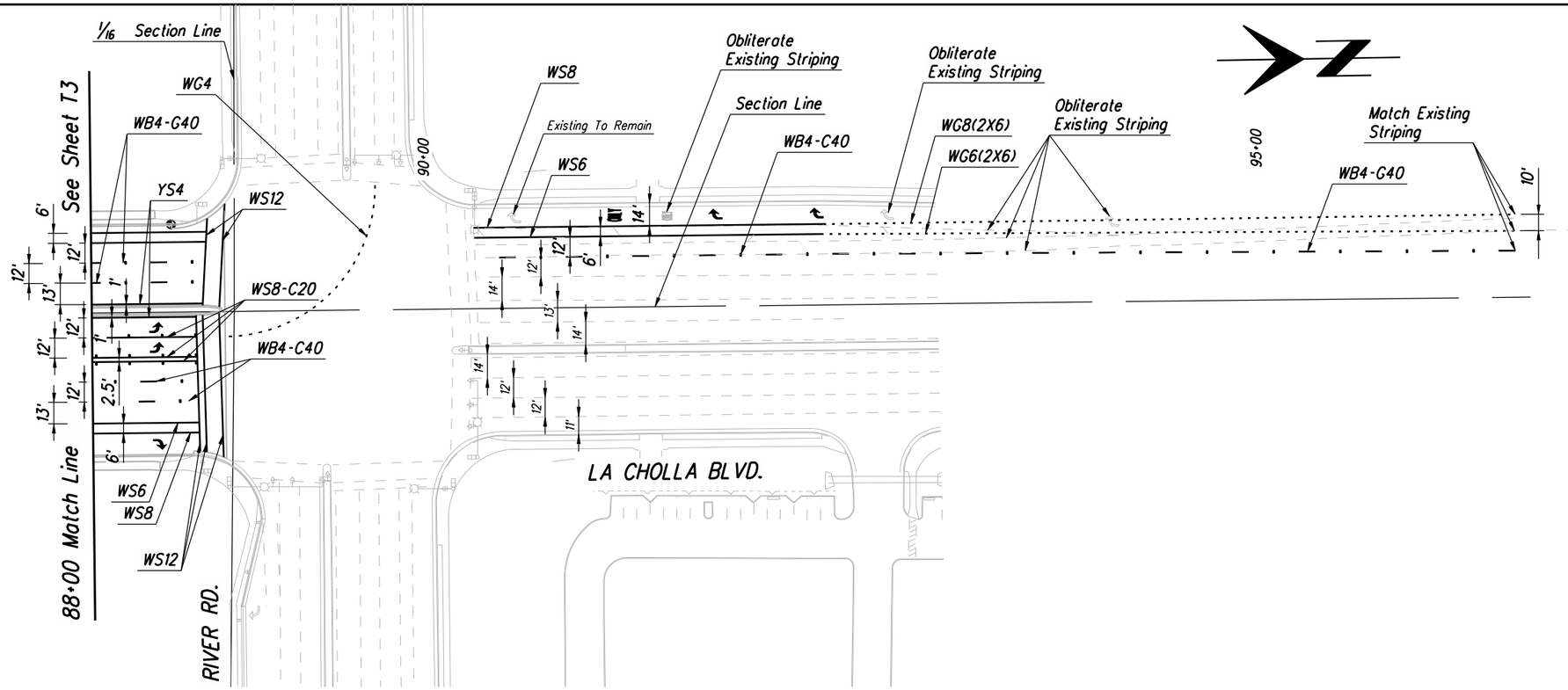
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.
PAVEMENT MARKING & SIGNING PLANS
FOR LA CHOLLA BLVD.




40 0 40 80

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Priscilla S. Cornelio, P.E., Director

| Designed | H. Schneider | Sept./2008 |
|---|---|---|
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

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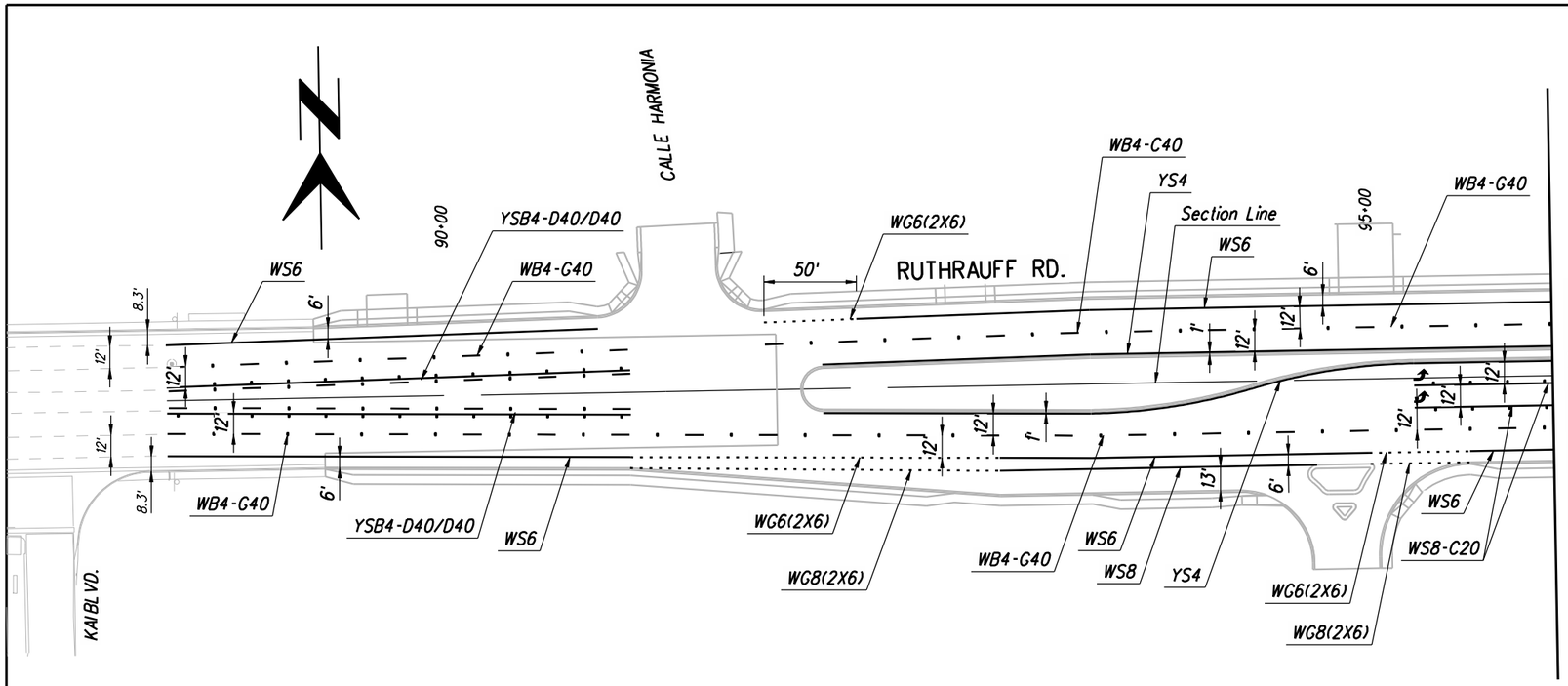
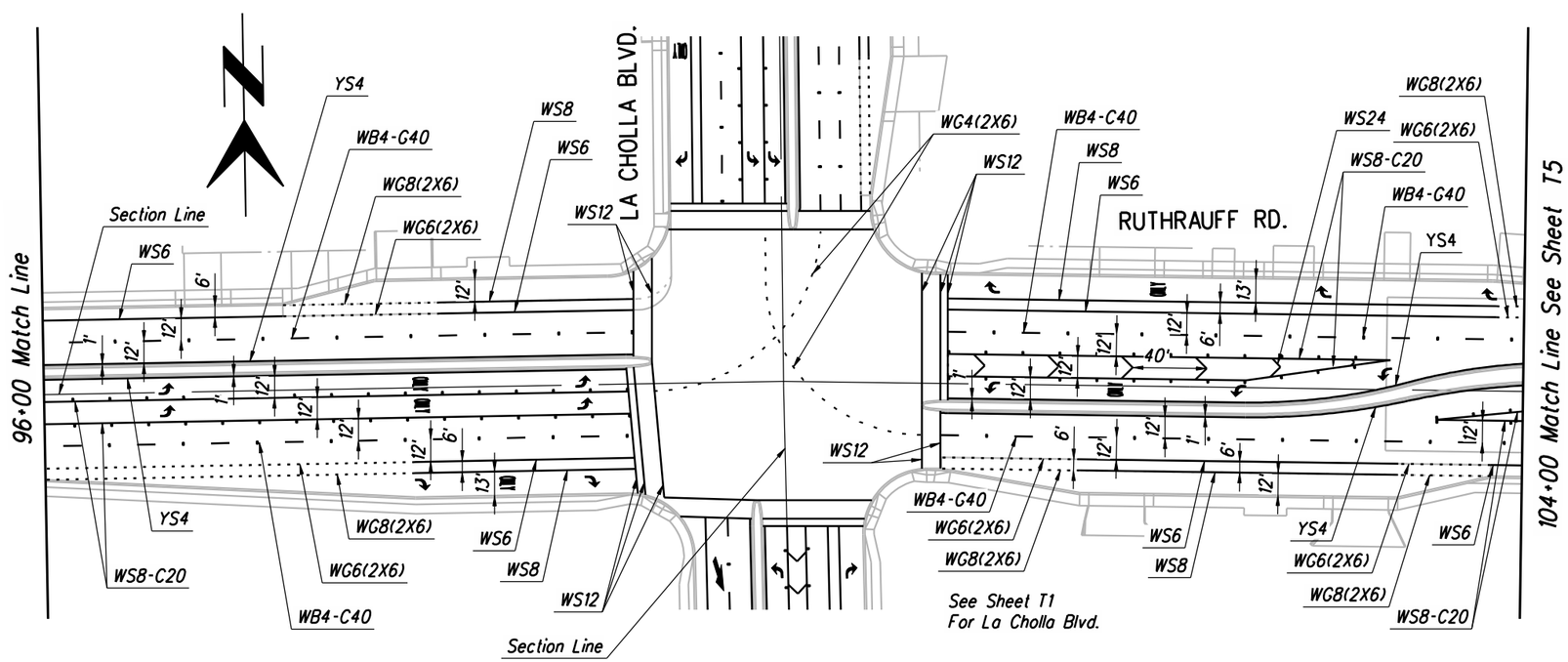
LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.
PAVEMENT MARKING & SIGNING PLANS
FOR LA CHOLLA BLVD.

| Scales | Horiz. 1"=40' Vert. 1"=NA | Sheet | T4 of T6 | Page | 50 of 56 |
|---|---|---|---|---|---|

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Arizona Blue Stake
1-800-STAKE-IT
1-800-782-5348
Call Two Working Days Before You Dig

Priscilla S. Cornelio, P.E., Director

Pima County Department of Transportation

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

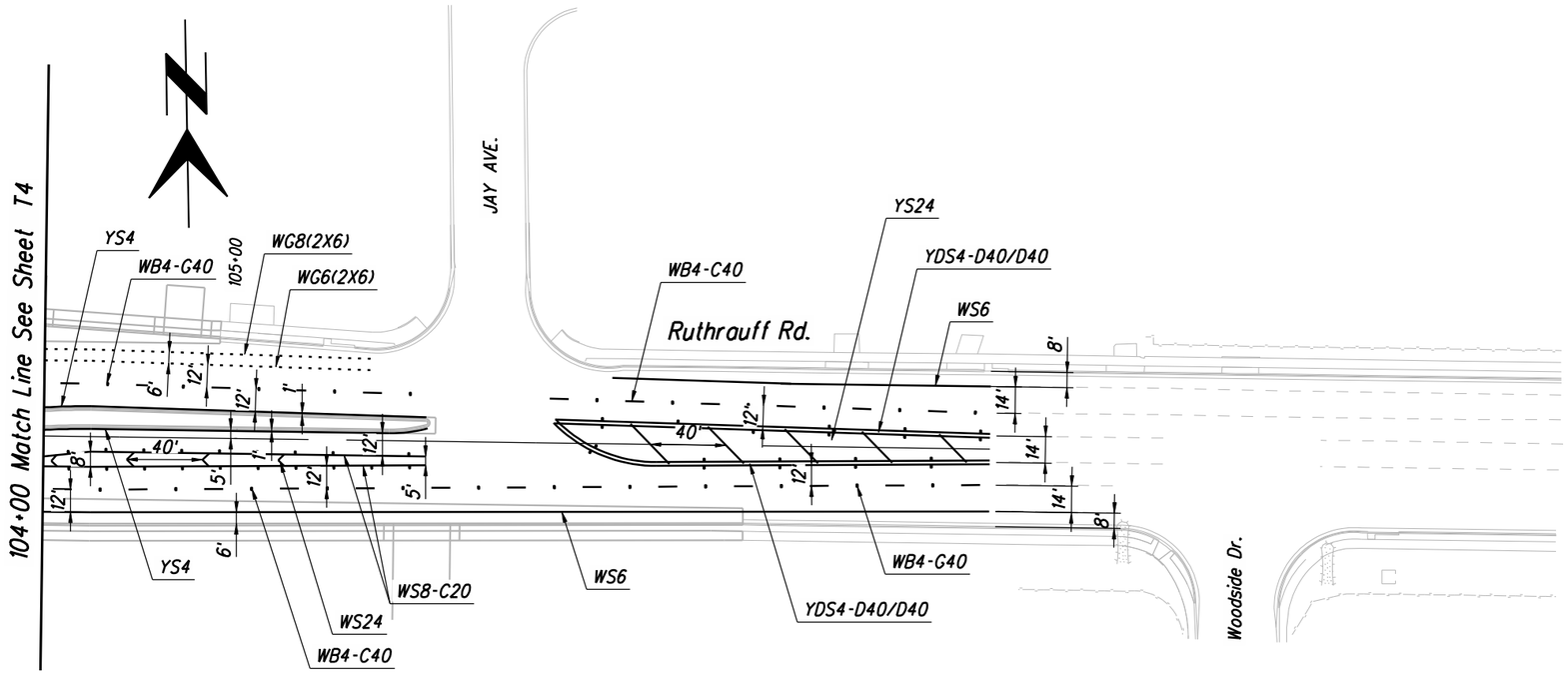
| | | Date |
|---|---|---|
| Designed | H. Schneider | Sept./2008 |
| Drawn | A. Ledesma | Sept./2008 |
| Checked | R. Britain | October/08 |
| Proj. Eng. | L. Barela | October/08 |

STAGE 1
SUBMITTAL
OCTOBER 2008
PRELIMINARY
NOT FOR
CONSTRUCTION
OR RECORDING

HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

LA CHOLLA BLVD.:
RUTHRAUFF RD. TO RIVER RD.
PAVEMENT MARKING & SIGNING PLANS
FOR RUTHRAUFF RD.

| Scales | Horiz. 1"=40' Vert. 1"=NA | Sheet | T5 of T6 | Page | 51 of 56 |
|---|---|---|---|---|---|




40 0 40 80

Arizona Blue Stake
1-800-STAKE-IT
1-800-782-6348
Call Two Working Days Before You Dig

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
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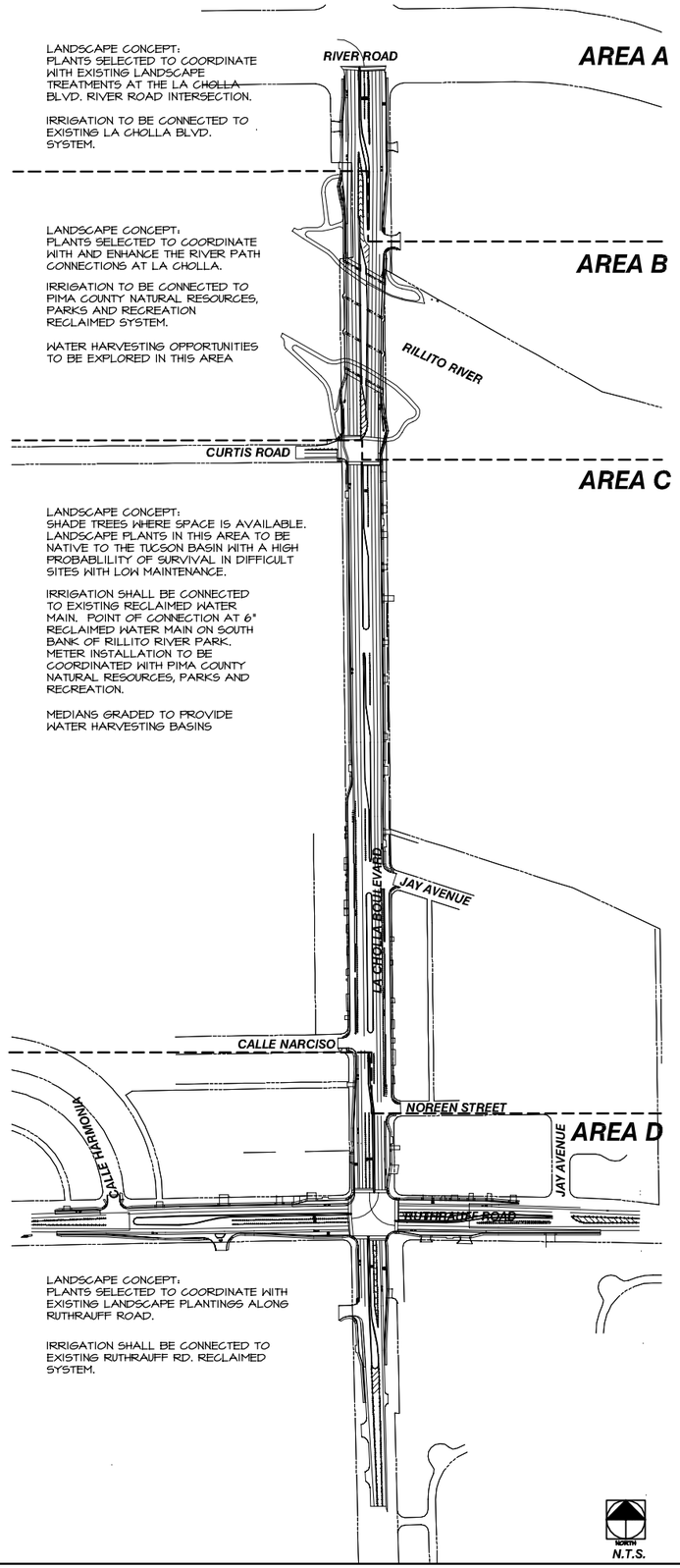
PAVEMENT MARKING & SIGNING PLANS
FOR RUTHRAUFF RD.

| Scales | Horiz. 1"=40' Vert. 1"=NA | Sheet | T6 of T6 | Page | 52 of 56 |
|---|---|---|---|---|---|




LANDSCAPE CONCEPT:
PLANTS SELECTED TO COORDINATE WITH EXISTING LANDSCAPE TREATMENTS AT THE LA CHOLLA BLVD. RIVER ROAD INTERSECTION.

IRRIGATION TO BE CONNECTED TO EXISTING LA CHOLLA BLVD. SYSTEM.

LANDSCAPE CONCEPT:
PLANTS SELECTED TO COORDINATE WITH AND ENHANCE THE RIVER PATH CONNECTIONS AT LA CHOLLA.

IRRIGATION TO BE CONNECTED TO PIMA COUNTY NATURAL RESOURCES, PARKS AND RECREATION RECLAIMED SYSTEM.

WATER HARVESTING OPPORTUNITIES TO BE EXPLORED IN THIS AREA

LANDSCAPE CONCEPT:
SHADE TREES WHERE SPACE IS AVAILABLE. LANDSCAPE PLANTS IN THIS AREA TO BE NATIVE TO THE TUCSON BASIN WITH A HIGH PROBABLILITY OF SURVIVAL IN DIFFICULT SITES WITH LOW MAINTENANCE.

IRRIGATION SHALL BE CONNECTED TO EXISTING RECLAIMED WATER MAIN. POINT OF CONNECTION AT 6" RECLAIMED WATER MAIN ON SOUTH BANK OF RILLITO RIVER PARK. METER INSTALLATION TO BE COORDINATED WITH PIMA COUNTY NATURAL RESOURCES, PARKS AND RECREATION.

MEDIANS GRADED TO PROVIDE WATER HARVESTING BASINS

LANDSCAPE CONCEPT:
PLANTS SELECTED TO COORDINATE WITH EXISTING LANDSCAPE PLANTINGS ALONG RUTHRAUFF ROAD.

IRRIGATION SHALL BE CONNECTED TO EXISTING RUTHRAUFF RD. RECLAIMED SYSTEM.

NATIVE PLANT INVENTORY AND MITIGATION SUMMARY
PROJECT NAME: LA CHOLLA BOULEVARD - RUTHRAUFF ROAD TO RIVER ROAD
JOB NO. PCDOT # 4LCITR

| CATEGORY | BOTANICAL NAME | COMMON NAME | INVENTORIED QUANTITY OF VIABLE PLANTS (PLANTS RATED LOW, MEDIUM, AND HIGH VIABILITY) | INVENTORIED QUANTITY OF LOW VIABILITY PLANTS | INVENTORIED OF MEDIUM AND HIGH VIABILITY PLANTS (SPECIMEN PLANTS) | PERCENTAGE OF SPECIMEN PLANTS ON SITE | QUANTITY TO BE PRESERVED-IN-PLACE (PIP) | QUANTITY TO BE TRANS-PLANTED ON-SITE (TOS) | QUANTITY OF SPECIMIN PLANTS TO BE REMOVED FROM SITE (RFS) | PERCENTAGE OF SPECIMEN PLANTS TO BE REMOVED FROM SITE | QUANTITY OF LOW VIABILITY PLANTS TO BE REMOVED FROM SITE | MITIGATION REQUIREMENT FOR TOS AND RFS SPECIMEN PLANTS | TOTAL PLANTS ON SITE AFTER COMPLETION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TREES | | | | | | | | | | | | | |
| | ACACIA GREGGII | CATCLAW ACACIA | 3 | 0 | 3 | 100% | 3 | 0 | 0 | 0% | 0 | 0 | 3 |
| | CHILOPSIS LINEARIS | DESERT WILLOW | 5 | 2 | 3 | 60% | 1 | 0 | 2 | 67% | 2 | 5 | 8 |
| | PARKINSONIA FLORIDUM | BLUE PALO VERDE | 8 | 0 | 8 | 100% | 4 | 0 | 4 | 50% | 0 | 7 | 11 |
| | PROSOPIS VELUTINA | VELVET MESQUITE | 10 | 5 | 5 | 50% | 3 | 0 | 2 | 40% | 2 | 9 | 17 |
| CACTI | | | | | | | | | | | | | |
| | CARNEGIEA GIGANTEA | SAGUARO | 1 | 0 | 1 | 100% | 0 | 1 | 0 | 0% | 0 | 1 | 2 |
| | | | | | | | | | | | | | |
| TOTALS | | | 27 | 7 | 20 | | 11 | 1 | 8 | | 4 | 22 | 41 |

## LANDSCAPE SCHEDULE

| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | QUANTITY | # EMITTER OUTLETS/ FLOW RATE | NOTES |
|---|---|---|---|---|---|---|
| TREES | | | | | | |
| | ACACIA BERLANDIERI | GUAJILLO | 24" BOX<br>15 GAL | XX<br>XX | 6 / 1-GPH<br>6 / 1-GPH | SEE DETAILS |
| | ACACIA GREGGII * | CATCLAW ACACIA | 24" BOX<br>15 GAL | XX<br>XX | 6 / 1-GPH<br>6 / 1-GPH | " |
| | CHILOPSIS LINEARIS * | DESERT WILLOW | 24" BOX | 5 | 6 / 1-GPH | " |
| | EYSENHARDTIA ORTHOCARPA * | KIDNEYWOOD | 24" BOX<br>15 GAL | XX<br>XX | 6 / 1-GPH<br>6 / 1-GPH | " |
| | PARKINSONIA FLORIDA * | BLUE PALO VERDE | 24" BOX | 7 | 6 / 1-GPH | " |
| | PROSOPIS VELUTINA * | VELVET MESQUITE | 24" BOX<br>15 GAL | 9<br>XX | 6 / 1-GPH<br>6 / 1-GPH | " |
| | PITHECELLOBIUM MEXICANUM | MEXICAN EBONY | 24" BOX<br>15 GAL | XX<br>XX | 6 / 1-GPH<br>6 / 1-GPH | " |
| LARGE SHRUBS | | | | | | |
| | LARREA TRIDENTATA * | CREOSOTE | 5 GAL. | XX | 1 / 1-GPH | SEE DETAILS |
| | SIMMONDSIA CHINENSIS * | JOJOBA | 5 GAL. | XX | 1 / 1-GPH | " |
| | TECOMA STANS V. ANGUSTATA * | YELLOW BELLS | 5 GAL. | XX | 1 / 1-GPH | " |
| SMALL SHRUBS | | | | | | |
| | AMBROSIA DELTOIDEA * | TRIANGLE-LEAF BURSAGE | 1 GAL. | XX | 1 / 1-GPH | SEE DETAILS |
| | ASCLEPIAS SUBULATA | DESERT MILKWEED | 1 GAL. | XX | 1 / 1-GPH | " |
| | ASCLEPIAS LINARIA * | PINELEAF MILKWEED | 1 GAL. | XX | 1 / 1-GPH | " |
| | CALIANDRA ERIOPHYLLA * | FAIRY DUSTER | 1 GAL. | XX | 1 / 1-GPH | " |
| | DALEA PULCHRA * | BUSH DALEA | 1 GAL. | XX | 1 / 1-GPH | " |
| | ENCILIA FARINOSE * | BRITTLEBUSH | 1 GAL. | XX | 1 / 1-GPH | " |
| | JUSTICIA CALIFORNICA * | CHUPAROSA | 1 GAL. | XX | 1 / 1-GPH | " |
| | SPHAERALCEA AMBIGUA * | DESERT GLOBEMALLOW | 1 GAL. | XX | 1 / 1-GPH | " |
| | SENNA COVESII | DESERT SENNA | 1 GAL. | XX | 1 / 1-GPH | " |
| CACTI AND ACCENT PLANTS | | | | | | |
| | CARNEGIEA GIGANTEA * | SAGUARO | 5 GAL. | XX | 1 / 0.5-GPH | SEE DETAILS |
| | AGAVE ANGUSTIFOLIA V. MARGINATA | VARIEGATED CENTURY PLANT | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | AGAVE CHRYSANTHA * | GOLDEN-FLOWERED AGAVE | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | DASYLIRION WHEELERI * | DESERT SPOON | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | FEROCACTUS WISLIZENI * | FISHHOOK BARREL | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | HESPERALOE FUNIFERA | GIANT YUCCA | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | HESPERALOE PARVIFLORA | RED YUCCA | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | OPUNTIA SANTA RITA * | PURPLE PRICKLY PEAR | 5 GAL. | XX | 1 / 0.5-GPH | " |
| | YUCCA BACCATA * | BANANA YUCCA | 5 GAL. | XX | 1 / 0.5-GPH | " |
| INORGANIC SURFACING | | | | | | |
| | ROCK MULCH SURFACING, 1-1/4" SCREENED GRADATION, SEE SPECIAL PROVISIONS | | | | | |

* PLANTS NATIVE TO THE TUCSON BASIN

## NOTES:

PLANT SET-BACKS AND DENSITIES TO FOLLOW PCDOT LANDSCAPE AND IRRIGATION GUIDELINES (APRIL 2008 EDITION)

Two working days before you dig.
CALL FOR THE BLUE STAKES
1-800-782-5348
Blue Stake Center
CALL COLLECT

Pima County Department of Transportation

Priscilla S. Cornelio, P.E., Director

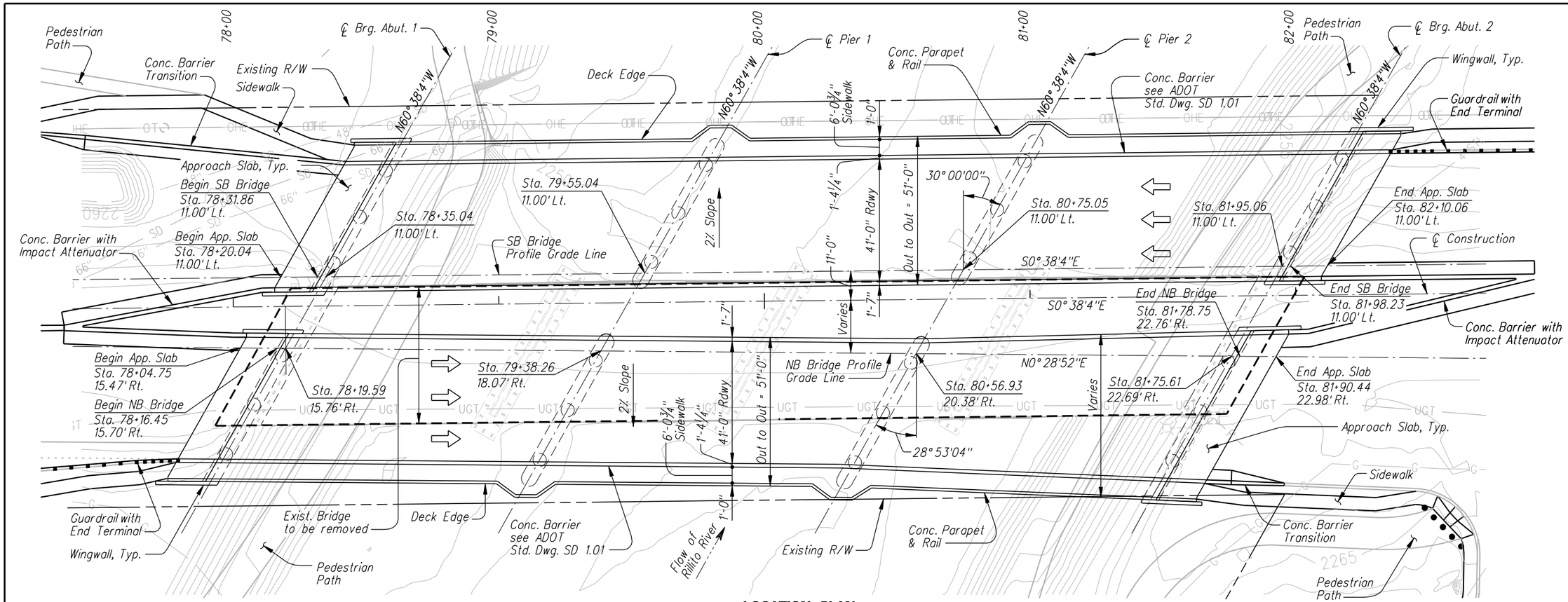
| | | Date |
|---|---|---|
| Designed | DDS | 10/08 |
| Drawn | PB | 10/08 |
| Checked | DKM | 10/08 |
| Proj. L.A. | DDS | 10/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

STAGE I
SUBMITTAL
OCTOBER 2008
PRELIMINARY
NOT FOR
CONSTRUCTION
OR RECORDING

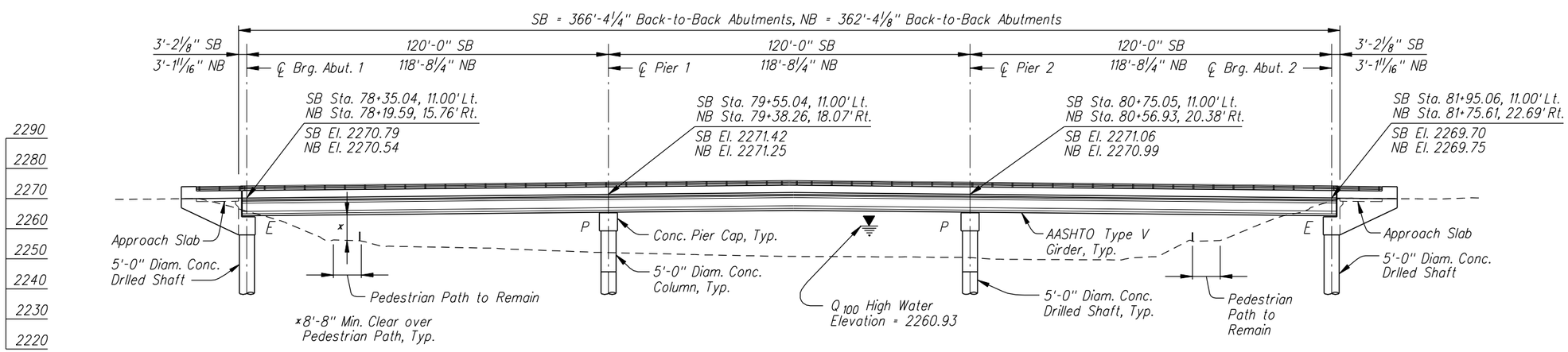
McGann & Associates
Landscape Architects and Planners
6914 North Oracle Rd. Suite 210
Tucson, Arizona 85704
Telephone: (520) 297-9540 Fax: (520) 297-9545

LA CHOLLA
RUTHRAUFF RD. TO RIVER RD.
W.O. 4LCITR




**LOCATION PLAN**

Scale 1" = 20'-0"
Two New Three Span Precast Prestressed AASHTO Type V Girder Bridges
SB Skew = 30°00'00" w/ respect to SB BPGL
NB Skew = 28°53'04" w/ respect to NB BPGL
Contour Interval = 1'-0"




**BRIDGE ELEVATION (SB BRIDGE SHOWN, NB BRIDGE SIMILAR)**

Scale 1" = 20'-0"
Stations are along the La Cholla Boulevard Construction Centerline.
Dimensions and Elevations are along the SB or NB Bridge Profile Grade Line at top of Deck unless noted otherwise.

Date: 10/9/2008

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Pima County Department of Transportation

Priscilla S. Cornelio, P.E. Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

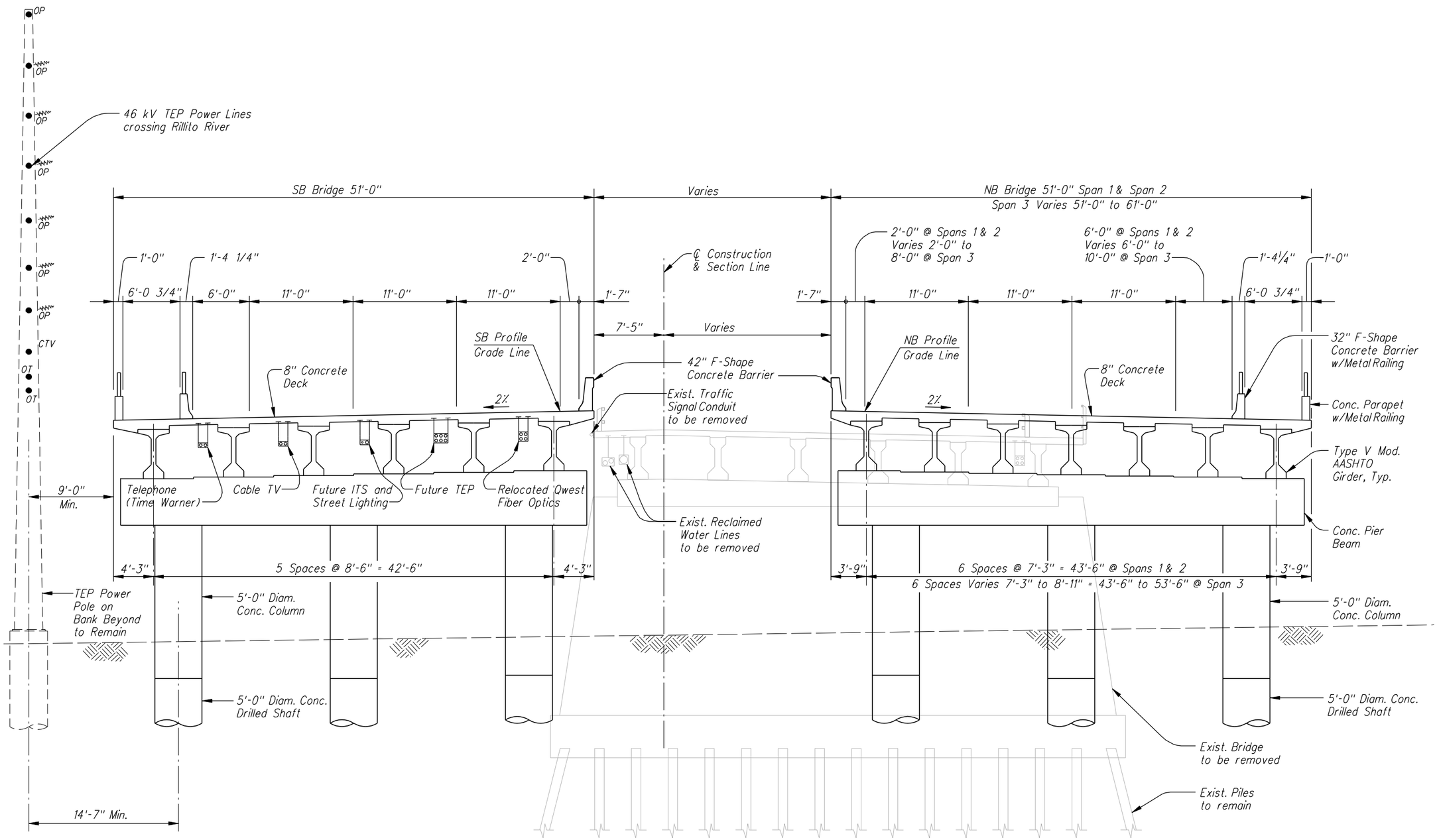
| | | Date |
|---|---|---|
| Designed | MJD/CRM | 10/08 |
| Drawn | TRK | 10/08 |
| Checked | TWB | 10/08 |
| Proj. Engr. | TWB | 10/08 |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

**LOCATION PLAN & ELEVATION**
**LA CHOLLA BOULEVARD BRIDGE**
**RUTHRAUFF RD. TO RIVER RD.**
**PROJECT NO. 4LCITR**

| Scales | Horiz. 1"= Vert. N/A | Sheet S1 of S3 | Page 54 of 56 |
|---|---|---|---|




**TYPICAL SECTION – NEW SB & NB BRIDGE** (1)

Scale 3/16" = 1'-0"

Priscilla S. Cornelio, P.E. Director

| Designed | MJD/CRM | Date 10/08 |
|---|---|---|
| Drawn | TRK | 10/08 |
| Checked | TWB | 10/08 |
| Proj. Engr. | TWB | 10/08 |

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

STAGE 1 SUBMITTAL OCTOBER 2008 PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

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5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 594-3600

Pima County Department of Transportation

TYPICAL SECTION
LA CHOLLA BOULEVARD BRIDGE
RUTHRAUFF RD. TO RIVER RD.
PROJECT NO. 4LCITR

| Scales | Horiz. 1"= Vert. N/A | Sheet S2 of S3 | Page 55 of 56 |
|---|---|---|---|

Date: 10/9/2008

File: C:\PWworking\PHX\dms42758\20S-SC-51.dgn

| Approximate Quantities - Southbound Structure | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item | Class 'S' Concrete | | Reinforcing Steel | AASHTO Type V Mod. Girders | Drilled Shaft | | | | Metal Bicycle Railing | Metal Pedestrian Railing |
| | 4000 psi | 4500 psi | | | 5'-0" Diam. | | 6'-0" Diam. | | | |
| | CU. YD. | CU. YD. | LB | LIN. FT. | LF | NO. | LF | NO. | LIN. FT. | LIN. FT. |
| Abutment 1 | 184 | - | 129,163 | - | 255 | 3 | - | - | - | - |
| Pier 1 | 166 | - | 186,217 | - | 360 | 3 | - | - | - | - |
| Pier 2 | 167 | - | 186,218 | - | 360 | 3 | - | - | - | - |
| Abutment 2 | 184 | - | 129,163 | - | 255 | 3 | - | - | - | - |
| Superstructure | - | 570 | 93,087 | 2,515 | | | - | - | 360 | 360 |
| Total | 701 | 570 | 723,848 | 2,515 | 1230 | 12 | - | - | 360 | 360 |
| As Built Total | | | | | | | | | | |

Deck Joint Assembly..... 130 LF
F-Shaped Barrier (32") ..... 360 LF
F-Shaped Barrier (42") ..... 360 LF
Concrete Parapet..... 360 LF
Approach Slab (ADOT SD 2.01)..... 1940 SF
Restrainers, Vertical Earthquake (Expansion)..... 14 EA

Notes:

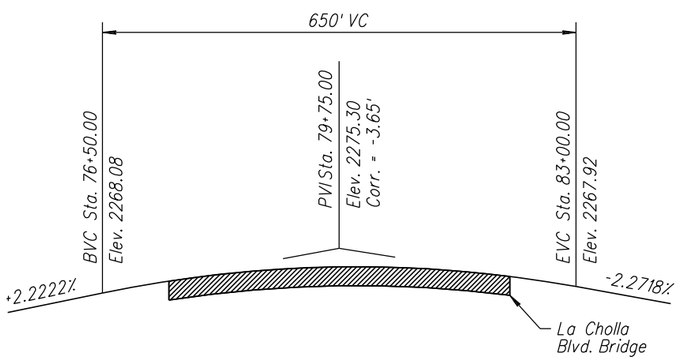
1. Wingwall quantities are included in abutment quantities.

| Approximate Quantities - Northbound Structure | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item | Class 'S' Concrete | | Reinforcing Steel | AASHTO Type V Mod. Girders | Drilled Shaft | | | | Metal Bicycle Railing | Metal Pedestrian Railing |
| | 4000 psi | 4500 psi | | | 5'-0" Diam. | | 6'-0" Diam. | | | |
| | CU. YD. | CU. YD. | LB | LIN. FT. | LF | NO. | LF | NO. | LIN. FT. | LIN. FT. |
| Abutment 1 | 184 | - | 129,163 | - | 255 | 3 | - | - | - | - |
| Pier 1 | 166 | - | 186,217 | - | 360 | 3 | - | 3 | - | - |
| Pier 2 | 167 | - | 186,218 | - | 360 | 3 | - | 3 | - | - |
| Abutment 2 | 194 | - | 131,162 | - | 255 | 3 | - | - | - | - |
| Superstructure | - | 599 | 96,990 | 2,843 | | | - | - | 356 | 356 |
| Total | 711 | 599 | 729,750 | 2,843 | 1230 | 12 | - | 6 | 356 | 356 |
| As Built Total | | | | | | | | | | |

Deck Joint Assembly..... 139 LF
F-Shaped Barrier (32") ..... 356 LF
F-Shaped Barrier (42") ..... 356 LF
Concrete Parapet..... 356 LF
Approach Slab (ADOT SD 2.01)..... 2079 SF
Restrainers, Vertical Earthquake (Expansion)..... 16 EA

Notes:

1. Wingwall quantities are included in abutment quantities.



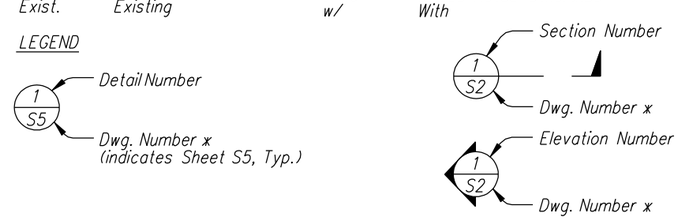

**LA CHOLLA BLVD. PROFILE GRADE LINE AT CONSTR. ℄**

No Scale

Abbreviations

| | | | |
|---|---|---|---|
| Abut. | Abutment | Ftg. | Footing |
| Approx. | Approximately | N.T.S | Not to Scale |
| b\b | Back to Back | PL | Plate |
| Brg. | Bearing | psf | Pounds per Square Foot |
| Bott. | Bottom | psi | Pounds per Square Inch |
| ℄ | Center Line | PVC | Point of Vertical Curve |
| Clr. | Clear | PVI | Point of Vertical Intersect |
| Conc. | Concrete | Reinf. | Reinforcing |
| Const. | Construction | Std. | Standard |
| CY | Cubic Yard | Typ. | Typical |
| El. | Elevation | u.n.o | Unless Noted Otherwise |
| Exist. | Existing | w/ | With |

LEGEND




* "-" indicates Section or Detail is located on same drawing.

## General Notes

Construction Specifications

Pima County/City of Tucson Standard Specifications for Public Improvements 2003 Edition, revised to date, and The Special Provisions.

Design Specifications

AASHTO Standard Specifications for Highway Bridges, 17 Edition 2002.

Bridge Loading

Dead Load - Dead Load includes allowance of 25 pounds per square foot (psf) for future wearing surface.
Loading Class - AASHTO HS20-44.
Composite Design - Dead load carried by girders only.
Seismic Performance Category "A", acceleration coefficient A = 0.05.
Girders designed using transformed section properties.

Concrete

All concrete shall be Class "S" unless noted otherwise.
Construction joints shall be permitted only at indicated locations.
Additional construction joints or changes to those shown shall be approved by the Engineer. Sandblast all construction joints prior to placement of adjacent concrete.
Chamfer all exposed corners 3/4" per ADOT Std B19.10, u.n.o.

Reinforcing Steel

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing steel shall be furnished as Grade 60.
All bend dimensions for reinforcing steel shall be out-to-out of bars.
All placement dimensions for reinforcing steel shall be to center of bars, unless noted otherwise.
All reinforcing steel shall have 2" clear cover, unless noted otherwise.
All bends and hooks shall meet the requirements of AASHTO Article 8.23.

Structural Steel

Structural steel shall conform to ASTM A36 unless noted otherwise.
Structural rectangular tubing shall conform to ASTM A-500, Grade B. All welding shall conform to American Welding Society, ANSI/AASHTO/AWS D1.5-2002 Bridge Welding Code.

Stresses

| | | |
|---|---|---|
| Deck Concrete | f'c = | 4500 psi (fc=1400 psi) |
| Abutments, Piers | f'c = | 4000 psi |
| Drilled Shafts | f'c = | 4000 psi |
| All other Class "S " Concrete | f'c = | 3000 psi |
| Grade 60 reinforcing | fs = | 24,000 psi |
| | (fs = | 20,000 psi for transv. deck reinf.) |
| Prestressing steel | f's = | 270,000 psi |
| | | (0.6" diameter 7-wire low relaxation strand) |

Foundations

Foundations shall be constructed in accordance with the construction specifications and project special provisions.
Foundations were designed in accordance with the final geotechnical report by NCS Consultants dated September 15, 2008. It is the Contractor's responsibility to review the Geotechnical Report and adhere to its contents.

Miscellaneous

Dimensions shall not be scaled from drawings.

ADOT Standard Drawings

Wall drainage and Corner chamfer, ADOT Standard B19.10.
Approach slab, ADOT Standard SD 2.01.

Existing Conditions

Contractor shall coordinate all existing conditions during construction of project. Utility information shown on the plans may not be complete or accurately depict the location of the facilities shown. The Contractor shall coordinate the location of all existing, new, relocated and abandoned utilities with the project plans and notify respective owners before commencing the work of excavation, including any drilling or piling required for temporary shoring. Conflicts shall be brought to the attention of the Engineer and resolved prior to proceeding with the work. See roadway and utility drawings for additional information.

Existing Bridge

Existing Bridge - The Contractor shall completely remove the existing bridge in accordance with Section 202 of the Standard Specifications except as noted on the project plans and in the Special Provisions. The existing bridge, Structure No. 8636, was built in 1981, Pima County Work Order No. 4-BLARI.

Priscilla S. Cornelio, P.E. Director

| No. | Revision Description | Engineer | Date |
|---|---|---|---|
| | | | |

| | | Date |
|---|---|---|
| Designed | MJD/CRM | 10/08 |
| Drawn | TRK | 10/08 |
| Checked | TWB | 10/08 |
| Proj. Engr. | TWB | 10/08 |

STAGE I
SUBMITTAL
OCTOBER 2008
PRELIMINARY
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OR RECORDING

HDR Engineering, Inc.
5210 East Williams Circle, Suite 530
Tucson, AZ 85711-4459
(520) 584-3600

Pima County Department of Transportation

**GENERAL NOTES & QUANTITIES**
**LA CHOLLA BOULEVARD BRIDGE**
**RUTHRAUFF RD. TO RIVER RD.**
**PROJECT NO. 4LCTR**

| Scales | Horiz. 1"= / Vert. N/A | Sheet | S3 of S3 | Page | 56 of 56 |
|---|---|---|---|---|---|

Date: 10/9/2008

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