



Luis A. Heredia  
Director Public Affairs

July 22, 2008

Scott Altherr, P.E., Public Works Director  
Santa Cruz County  
County Complex, Suite 117  
PO Box 1150  
Nogales, AZ 85628

RE: Status of the Palo Parado Crossing

Dear Mr. Altherr:

This letter is to inform your office of Union Pacific's decision to permit a public crossing of its tracks and right-of-way where they intersect with Palo Parado Road. A report on crossings with recommendations will be sent to the County this week and Union Pacific will seek the County's cooperation to address critical issues.

*- File an executed agreement w/ an application once the railroad issues the agreement*

Any agreements to provide a public crossing will require the cooperation of the County and the private developers who have agreed to construct the road so that it will meet County standards. According to your office, the developers have yet to finalize the design work for Palo Parado Road. Please include Aziz Aman, Manager of Industry and Public Projects, as design work progresses.

Union Pacific anticipates that a complete diagnostic will need to be scheduled involving Union Pacific, County representatives, and Arizona Corporation Commission Rail Safety Staff. That diagnostic should address the engineering and design issues for a public crossing at this location.

Union Pacific would also ask for the County's cooperation in scheduling and hosting two or three Operation Lifesaver presentations to residents of Rio Rico to educate the general public in that area about crossing safety.

The creation of a new public crossing at Palo Parado is a unique and rare situation. The 2004 Secretary of Transportation's Action Plan for Highway-Rail Crossing Safety and Trespass Prevention identifies as an important national objective closing crossings and limiting the creation of new crossings. Notably, the American Association of State Highway and Transportation Officials (AASHTO) is on record as supporting crossing closures and consolidations. Union Pacific will continue to work with the County to seek ways to identify and mitigate redundant private crossings in the County.

*BK 20, PG 48*

Please provide a written response to this letter advising whether the foregoing is acceptable to the County. Thank you for your cooperation.

Sincerely,



Luis A. Heredia, Director Public Affairs  
Union Pacific Railroad Company-Corporate Relations

Cc:  
Senator Jon Kyl  
Congresswoman Gabrielle Giffords  
Congressman Raul M. Grijalva  
Dennis Burke, Chief of Staff-Governor Janet Napolitano's Office  
Chairman Gleason, Arizona Corporation Commission  
Commissioner Hatch-Miller  
Commissioner Mundell  
Commissioner Mayes  
Commissioner Pierce  
Santa Cruz County Supervisor John Maynard  
Arizona Department of Transportation  
Greg Lucero, Santa Cruz County Manager  
Leslie Spira, Santa Cruz Deputy County Attorney



# Arizona Nogales Subdivision



## Santa Cruz County Crossings Analysis

*July 22, 2008*

To: Aziz Aman - UPRR	
From: Jennifer Crumbliss – HDR	Project: UPRR ACC Support Task
CC:	
Date: July 22, 2008 (revised)	Job No: HDR #61262

RE: UNION PACIFIC'S NOGALES SUBDIVISION in SANTA CRUZ COUNTY CROSSINGS ANALYSIS

**BACKGROUND:**

This memorandum is being submitted to Union Pacific Railroad (UPRR) as a response to the recent issues raised in Santa Cruz County at the Palo Parado Private Crossing (MP 1034.40). The Santa Cruz County and several local individuals are interested in utilizing this crossing for the public's access from Interstate 19 (Exit 25) east to Pendelton Drive. The position held by the railroad is that if this crossing becomes a public crossing, one other public crossing or two private crossings would need to be closed. In support of this position, HDR performed a field visit on 6/25/08, 7/10/08 and a records search on 6/30/08. This memo summarizes the issues, the information gathered to date, and our recommendations.

**Current Crossings**

A matrix of crossing data was developed from various sources and is shown in the **Appendix A** and will be referenced often in this analysis. Aerial based graphics were produced to depict the existing crossings and potential closures along with their alternate access routes, see **Sheets 1 through 11**. These aerial graphics show box summaries of information at each crossing. Sheets 1 and 2 are overviews of the entire Nogales Subdivision.

Most of the Nogales Subdivision is located east of the Santa Cruz River and east of Interstate-19 passing through Amado, Tubac, Rio Rico, and Nogales, Arizona ending at the United States/Mexico border. There is a single mainline track with a few siding locations along this route. There are thirty-three (33) crossings in the UPRR's database with DOT Numbers and Milepost references. There are an estimated sixteen (16) public crossings, sixteen (16) private crossings and one (1) international boundary. The crossings within the City of Nogales, Arizona are not part of this analysis for crossing closures, but data was collected and is provided for information only. Santa Cruz County currently has jurisdiction over six (6) of the public crossings including the following:

SANTA CRUZ COUNTY CROSSINGS		
Mile Post	DOT #:	Street
1021.35	742002M	AGUA CALIENTE RD (Amado Montrosa Rd)
1025.65	742005H	CHAVEZ SIDING ROAD
1027.95	742007W	RIVER AVE EAST (Bridge Road)
1038.8	742022Y	RIO RICO DR
1042.23	753573M	PENA BLANCA/RUBY RD
1043.1	742024M	SOUTH RIVER ROAD

Data for each crossing is shown in the matrix in the Appendix including location, roadway authority's jurisdiction, public / private status, posted speed limit, number of lanes, type of roadway

surface, warning devices, number of trains, vehicular traffic volume, and crossing surface type. The last two columns show our recommendation of closures with remarks explaining the reason.

The UPRR's straight-line diagrams for the Nogales Subdivision are included in **Appendix B**. A photo log is included in the **Appendix C** for information. The FRA's Crossing Data and accident reports were reviewed and found to have minor incidents in the area. All of this collective data was evaluated, clarifications requested and then recommendations made with the best available information as of 7/17/08.

## Recommendations

The recommendations shown below are for UPRR's use in determining crossing closure potential. The initial review of the existing agreement files provided by UPRR on 7/15/08, the 7/10/08 HDR field visits, and the information provided in past correspondence between UPRR and Santa Cruz County contributed to the information shown in the **Appendix A** matrix and our recommendations.

Each of the public crossings evaluated serve a unique purpose to the area east of the tracks and nearly all have a direct connection to ADOT's Interstate -19 to the west of the Santa Cruz River. Four of the public crossings (River Ave E, Rio Rico Drive, Ruby Road, and S River Road) have bridges over the Santa Cruz River, two others (Amado Montosa and Chavez Siding) have low-water crossings at the Santa Cruz River. The low-water crossings were flowing fast and full during a portion of our site visits and hindered full access to all crossings.

### **MP 1034.4 (Palo Parado)**

Santa Cruz County initiated a Design Concept Report (DCR) dated 5/29/08 and provided this to the UPRR for consideration of the County's desire to make Palo Parado into a public crossing. The DCR included three alternative alignments for the Palo Parado roadway traversing the Santa Cruz River and the UPRR at three different locations. The County wishes to utilize this information and continue working with the UPRR and others in an effort to make a public crossing.

UPRR research has determined that this crossing has had the following history:

"The NO TRESPASSING signage has been in place since 1997 and possibly earlier than this.

The STOP signs were put in place in May of 2005 due to the increase of auto traffic.

The right of way 'NO TRESPASSING' signs have been put up on several occasions since 1998 and the most recent were put up in February 2008.

Gates were installed in 1986 and lasted approximately 8 months before individuals destroyed them. Several attempts have been made to repair and maintain the gates with the last attempt being in January 2003.

The reason to my understanding for the road was a ranch owner in 1910 requested and was issued a right of entry permit for private use only to gain access to his ranch land from his dwelling on the east side of our tracks. No dwelling exists at this time." (Per Larry Collins, UPRR)

The field visit revealed that the existing cattle guards, located at the UPRR right of way fence line, are filled in with soil and cattle are freely traversing into the UPRR right of way and crossing the track at the Palo Parado crossing location. This poses a threat to both vehicular and train traffic

safety. *HDR recommends that Santa Cruz County be asked to replace these cattle guards immediately.*

An Alternative Route for public traffic between River Ave E and Palo Parado crossing area is shown as a heavy dashed line. **(See Sheet 5 of 11)** The County did not consider, but could provide new roadway pavement extending north from the north end of the existing Pendelton Drive for a distance of 2.65 miles to enable access across an existing bridge over the Santa Cruz River at MP 1027.95 (River Ave E) in lieu of a new crossing at Palo Parado.

Currently, UPRR is scheduled to negotiate with Santa Cruz County on a Memorandum of Understanding towards the conversion of this crossing into a public crossing. In the interim, UPRR to provide a short term crossing agreement to the county that will allow the crossing to remain open. After the short term crossing agreement is signed and executed the *UPRR will need to place R15-1 (crossbucks) and W10-1 advance signs to meet the MUTCD requirements for an unpaved rural public crossing and the ACC's recommendations.* The County will need to install additional traffic signage to inform the general public of the unpaved condition of the road. This will suffice until the County reaches a final executed agreement with the UPRR for the proposed crossing and installs the necessary improvements for a fully paved roadway approach.

The following private crossings are recommended for closure:

**MP 1025.30 (Unnamed Private Crossing)-CLOSURE**

Crossing is located in the Amado area, approximately, 1800 ft north from the public crossing named Chavez Siding Road. Although access was blocked due to Flooding (7/10/08 thru 7/16/08), the aerial shows properties on either side of the track having redundant access to and from Chavez Siding Road (see dashed route).

**MP 1029.05 (Unnamed Private Crossing)-CLOSURE**

Crossing is located in the Tubac area, approximately, 633 ft north from another private crossing named Clark Crossing Road. Although access was blocked due to Flooding (7/10/08 thru 7/16/08), the aerial shows properties on either side of the track having redundant access to and from Clark Crossing Road (see dashed route). Audit #222644 shows this crossing in existence when parallel access was granted to Morning Star Ranch in 2001.

**MP 1031.75 (Unnamed Private Crossing)-CLOSURE**

Crossing is located in the Amado area, approximately, ¼ mile south from another private crossing named Santa Gurtrudis Lane. The aerial shows properties on either side of the track having redundant access to and from Santa Gurtrudis Lane (see dashed route).

**MP 1040.05 (Unnamed Private Crossing)-CLOSURE**

Crossing is located in the Rio Rico area, approximately, 2.3 miles south from the public crossing named Rio Rico Drive. The aerial shows properties on either side of the track having redundant access to and from Rio Rico Drive. The right of way at this crossing is not protected from cattle entering. The fencing of the property parallel to the UPRR ROW is recommended.

**MP 1045.40 (Unnamed Private Crossing)-CLOSURE**

Crossing is located in the Rio Rico area, approximately, 528 ft north from a public crossing named Gold Hill Road. The aerial shows properties on either side of the track having redundant access to and from Rio Rico Drive. It was difficult to locate in the field.

NORTH

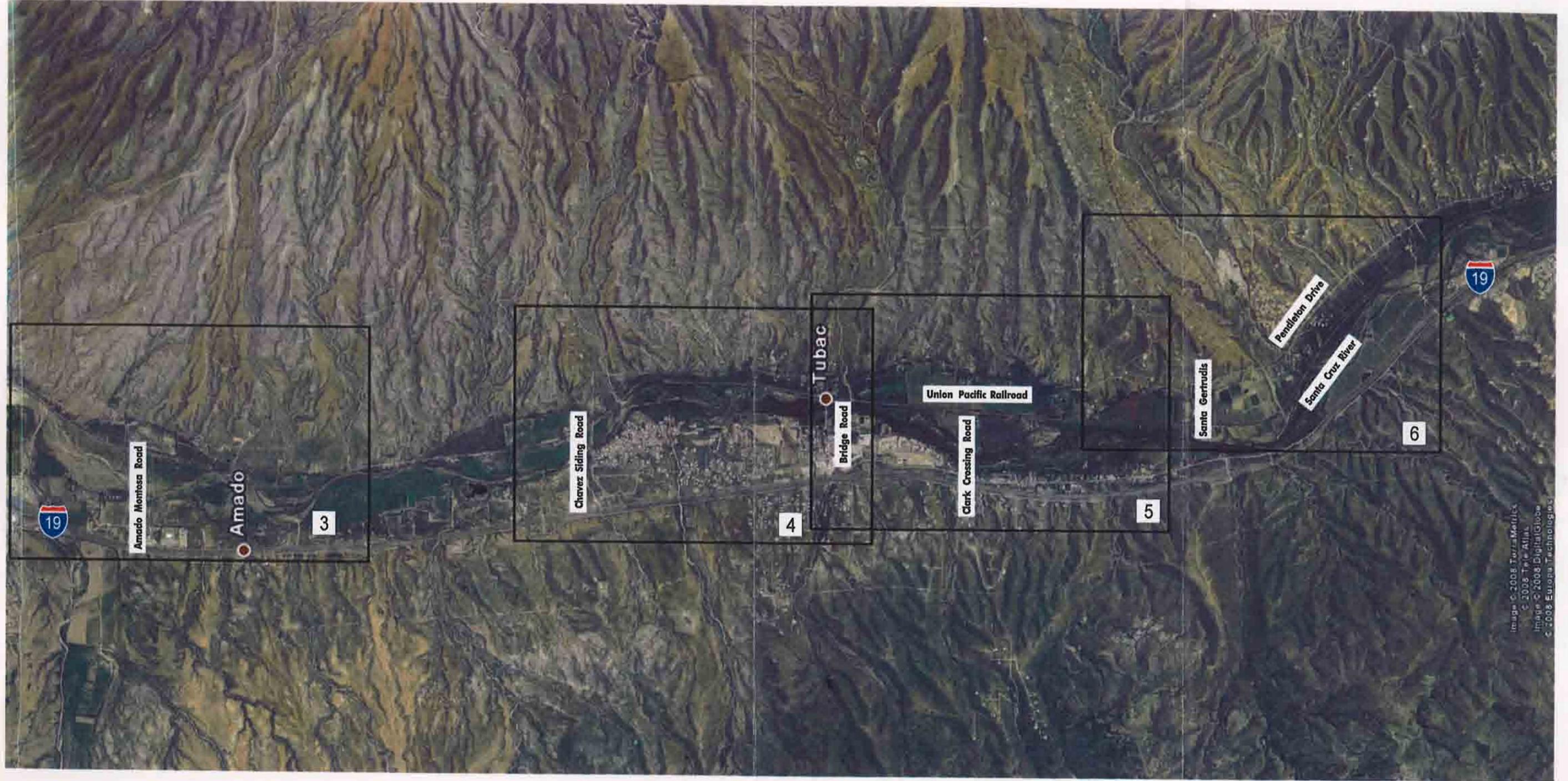


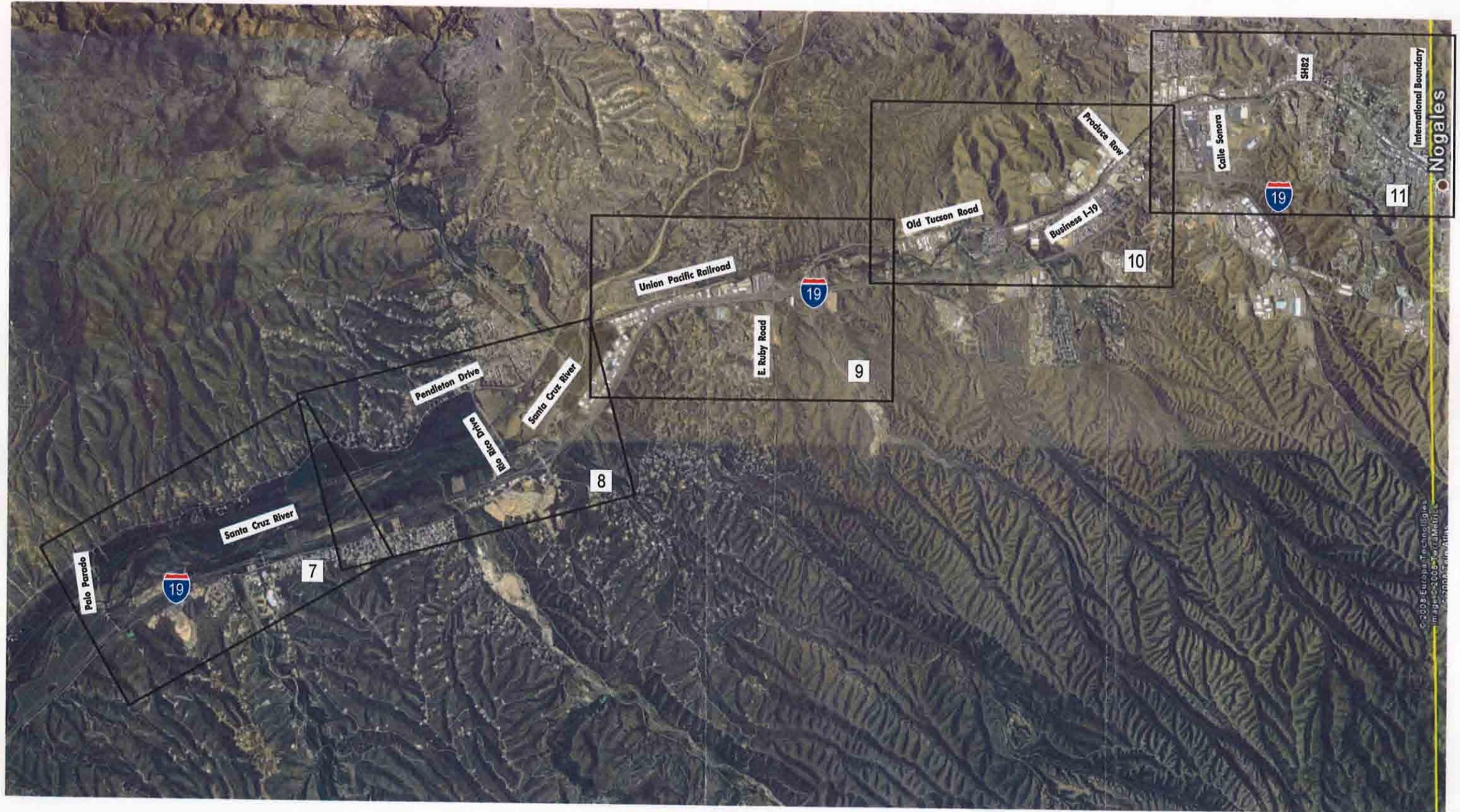
Image © 2008 TerraMetrics  
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 Image © 2008 DigitalGlobe  
 © 2008 Europa Technologies



**NOGALES SUB  
 OVERVIEW SHEET**

DATE:  
 JULY 2008  
 SHEET:  
 1 OF 11

NORTH



© 2008 Europa Technologies  
Imagery © 2008 TerraMetrics  
S-50021-1-01-Atlas



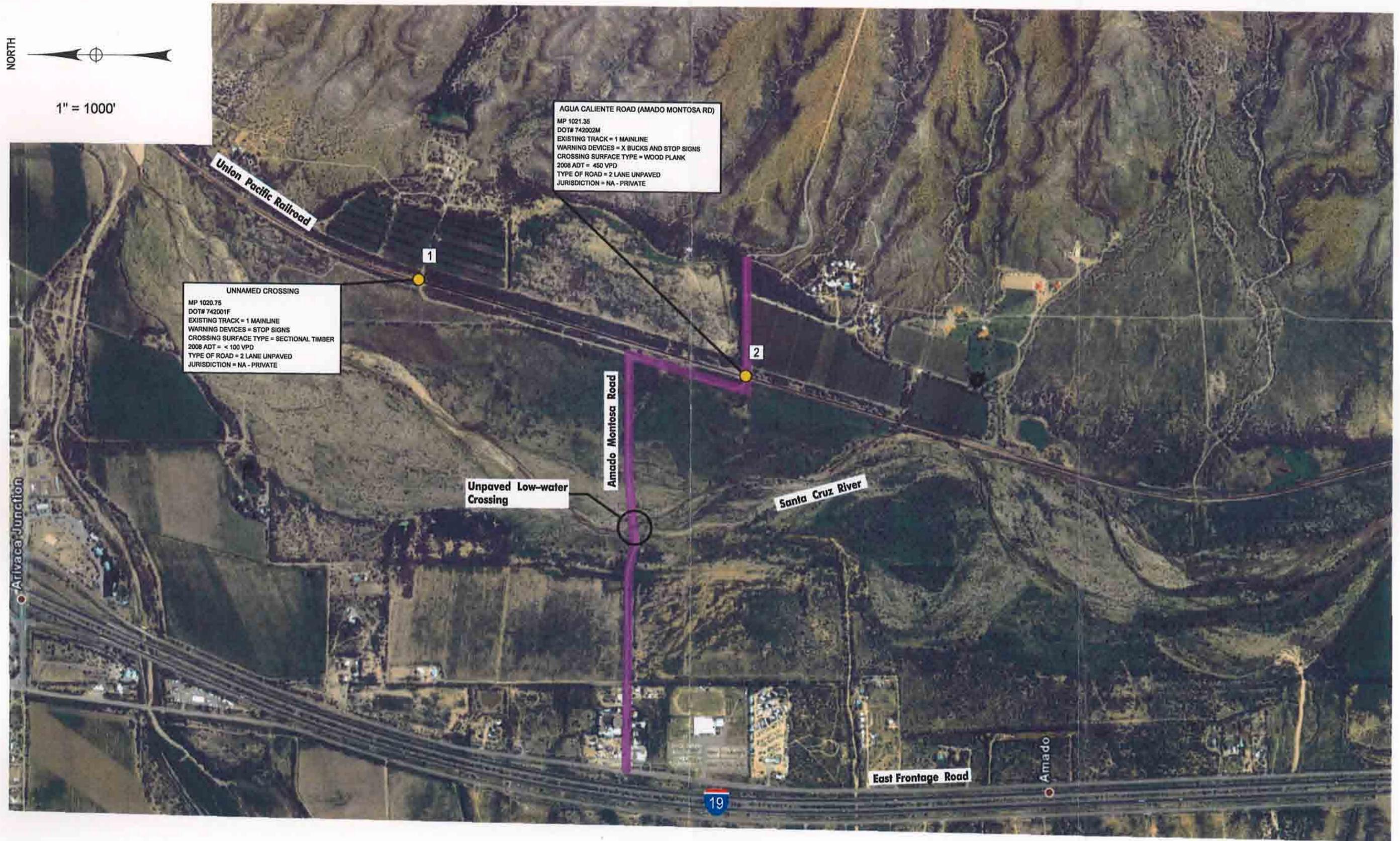
### NOGALES SUB OVERVIEW SHEET

DATE:  
JULY 2008

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1" = 1000'



AGUA CALIENTE ROAD (AMADO MONTOSA RD)  
MP 1021.35  
DOT# 742002M  
EXISTING TRACK = 1 MAINLINE  
WARNING DEVICES = X BUCKS AND STOP SIGNS  
CROSSING SURFACE TYPE = WOOD PLANK  
2008 ADT = 450 VPD  
TYPE OF ROAD = 2 LANE UNPAVED  
JURISDICTION = NA - PRIVATE

UNNAMED CROSSING  
MP 1020.75  
DOT# 742001F  
EXISTING TRACK = 1 MAINLINE  
WARNING DEVICES = STOP SIGNS  
CROSSING SURFACE TYPE = SECTIONAL TIMBER  
2008 ADT = < 100 VPD  
TYPE OF ROAD = 2 LANE UNPAVED  
JURISDICTION = NA - PRIVATE

Arivaca Junction

Unpaved Low-water Crossing

Amado Montosa Road

Santa Cruz River

East Frontage Road

Amado



LEGEND	
	EXISTING TRACK
	EXISTING AT-GRADE CROSSING
	SCHOOL
	HOSPITAL
	FIRE STATION

CROSSING LOCATIONS	
1	MP. 1020.75 - UNNAMED CROSSING
2	MP. 1021.35 - AGUA CALIENTE ROAD (AMADO MONTOSA CROSSING)



### NOGALES SUB CROSSING REVIEW

DATE:	JULY 2008
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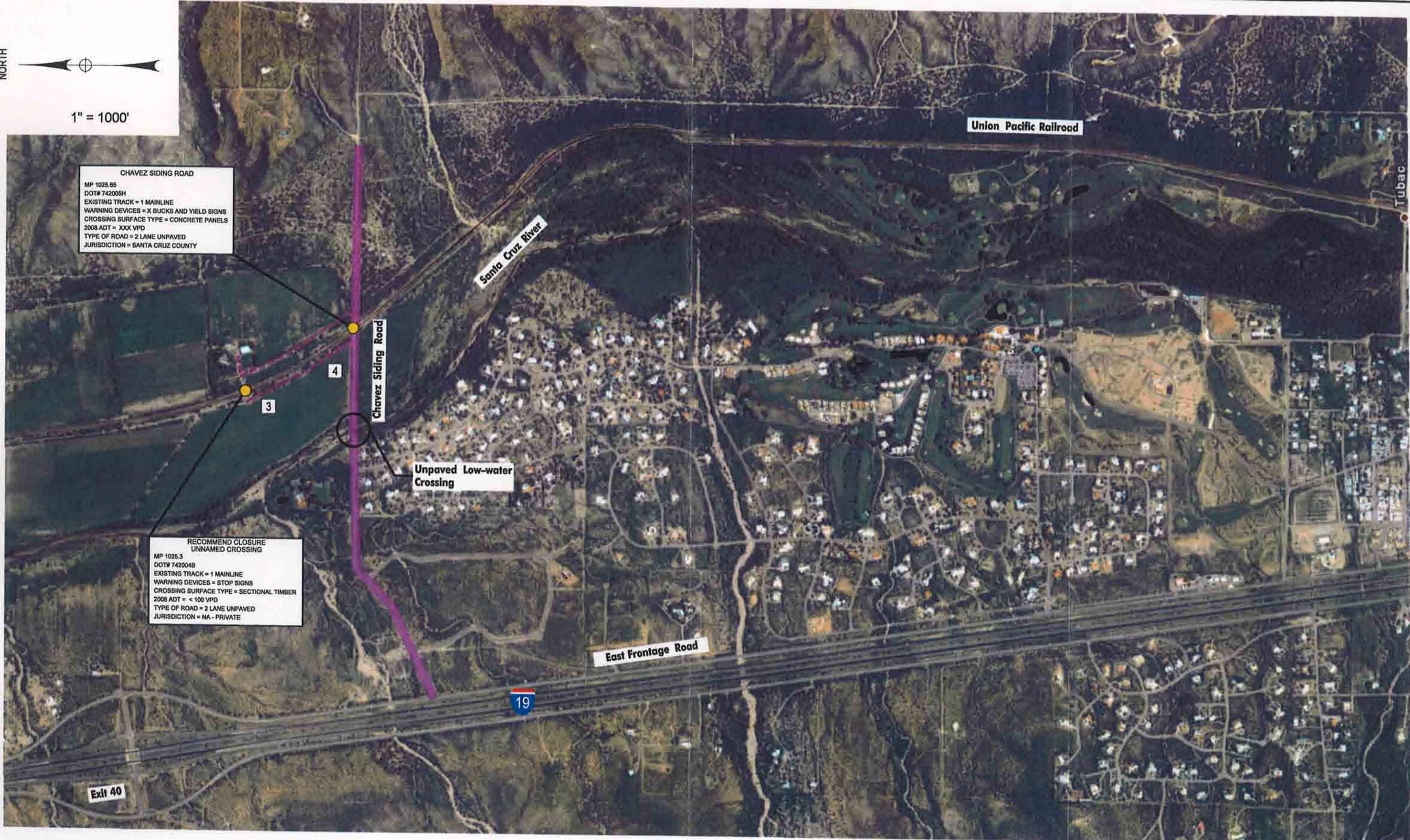
NORTH



1" = 1000'

**CHAVEZ SIDING ROAD**  
 MP 1025.65  
 DOT# 742005H  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = X BUCKS AND YIELD SIGNS  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = SANTA CRUZ COUNTY

**RECOMMEND CLOSURE  
 UNNAMED CROSSING**  
 MP 1025.3  
 DOT# 742004B  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = SECTIONAL TIMBER  
 2008 ADT = < 100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE



**LEGEND**

	EXISTING TRACK
	EXISTING AT-GRADE CROSSING
	SCHOOL
	HOSPITAL
	FIRE STATION

**CROSSING LOCATIONS**

3	MP. 1025.3 - UNNAMED CROSSING
4	MP. 1025.65 - CHAVEZ SIDING ROAD



**NOGALES SUB  
 CROSSING REVIEW**

DATE:  
 JULY 2008

SHEET:  
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1" = 1000'



**RIVER AVENUE EAST**  
 MP 1027.05  
 DOT# 742007W  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = WOOD PLANK  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = SANTA CRUZ COUNTY

**RECOMMEND CLOSURE UNNAMED ROAD**  
 MP 1029.05  
 DOT# 742008D  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = X BUCKS AND YIELD SIGNS  
 CROSSING SURFACE TYPE = CONCRETE SLAB  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

**CLARK CROSSING ROAD**  
 MP 1029.27  
 DOT# 742009K  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = SECTIONAL TIMBER  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

**UNNAMED CROSSING**  
 MP 1030.62  
 DOT# 742013A  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = ASPHALT  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

**LEGEND**

- EXISTING TRACK
- EXISTING AT-GRADE CROSSING
- SCHOOL
- HOSPITAL
- FIRE STATION

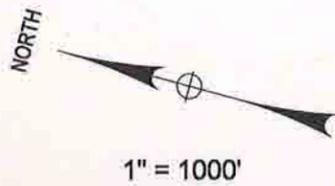
**CROSSING LOCATIONS**

5	MP 1029.05 - RIVER AVENUE EAST
6	MP 1029.05 - UNNAMED CROSSING
7	MP 1031.75 - UNNAMED CROSSING
8	MP 1030.62 - UNNAMED CROSSING



**NOGALES SUB CROSSING REVIEW**

DATE: JULY 2008  
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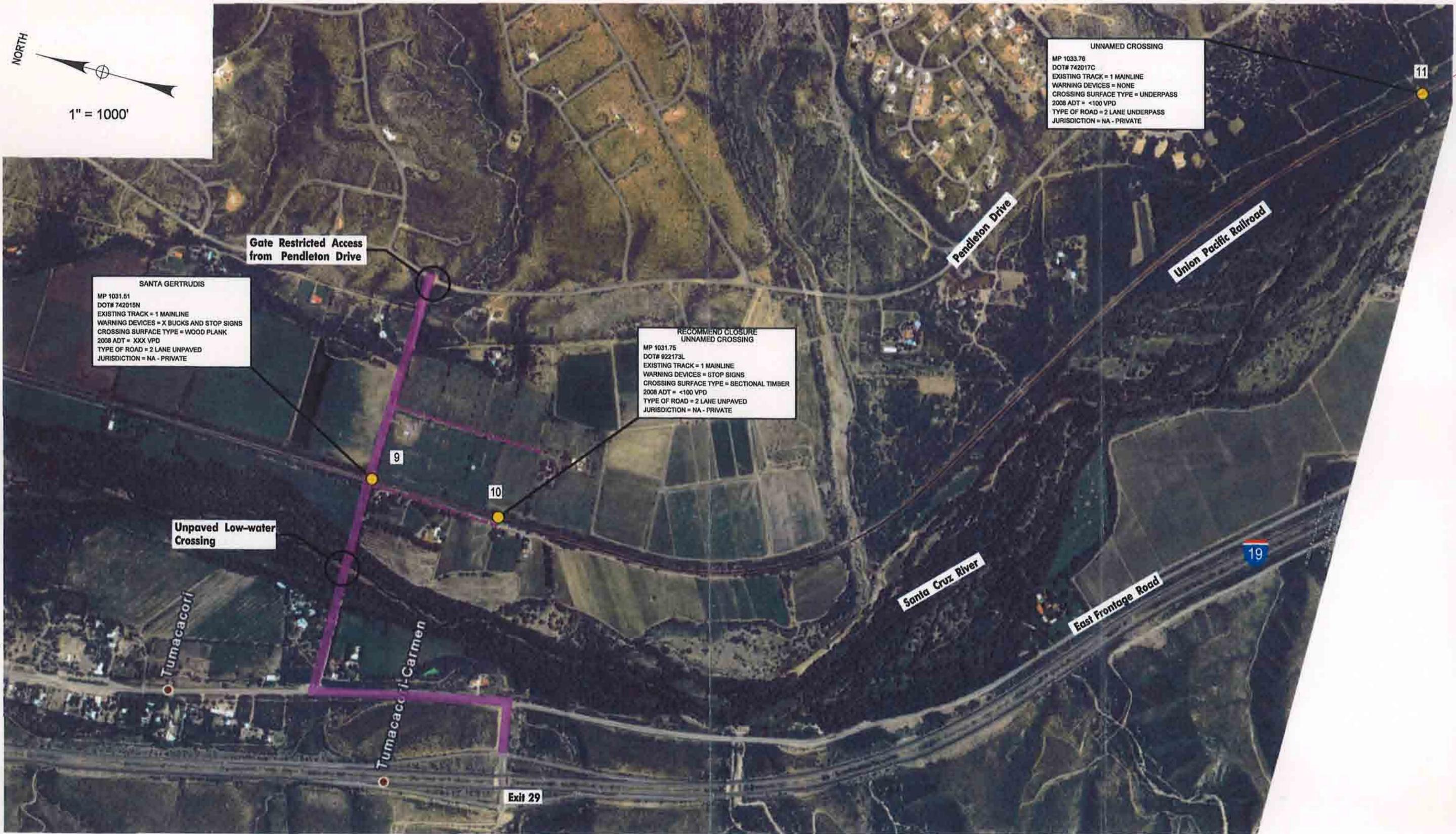
UNNAMED CROSSING  
 MP 1033.76  
 DOT# 742017C  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = NONE  
 CROSSING SURFACE TYPE = UNDERPASS  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNDERPASS  
 JURISDICTION = NA - PRIVATE

SANTA GERTRUDIS  
 MP 1031.61  
 DOT# 742015N  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = X BUCKS AND STOP SIGNS  
 CROSSING SURFACE TYPE = WOOD PLANK  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

RECOMMEND CLOSURE  
 UNNAMED CROSSING  
 MP 1031.75  
 DOT# 922173L  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = SECTIONAL TIMBER  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

Gate Restricted Access  
 from Pendleton Drive

Unpaved Low-water  
 Crossing



LEGEND

- EXISTING TRACK
- EXISTING AT-GRADE CROSSING
- SCHOOL
- HOSPITAL
- FIRE STATION

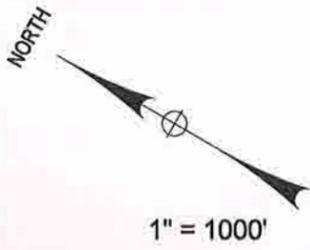
CROSSING LOCATIONS

9	MP 1031.61 - SANTA GERTRUDIS
10	MP 1031.75 - UNNAMED CROSSING
11	MP 1033.76 - UNNAMED CROSSING



**NOGALES SUB  
 CROSSING REVIEW**

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RANCHO DEL RIO  
SUBDIVISION

Pendleton Drive

Union Pacific Railroad

PALO PARADO  
MP 1034.4  
DOT# 742018J  
EXISTING TRACK = 1 MAINLINE  
WARNING DEVICES = STOP SIGNS  
CROSSING SURFACE TYPE = SECTIONAL TIMBER  
2008 ADT = 1,376 VPD  
TYPE OF ROAD = 2 LANE UNPAVED  
JURISDICTION = NA - PRIVATE

Unpaved Low-water  
Crossing

East Frontage Road

19

Exit 25

Exit 22

LEGEND

- EXISTING TRACK
- EXISTING AT-GRADE CROSSING
- SCHOOL
- HOSPITAL
- FIRE STATION

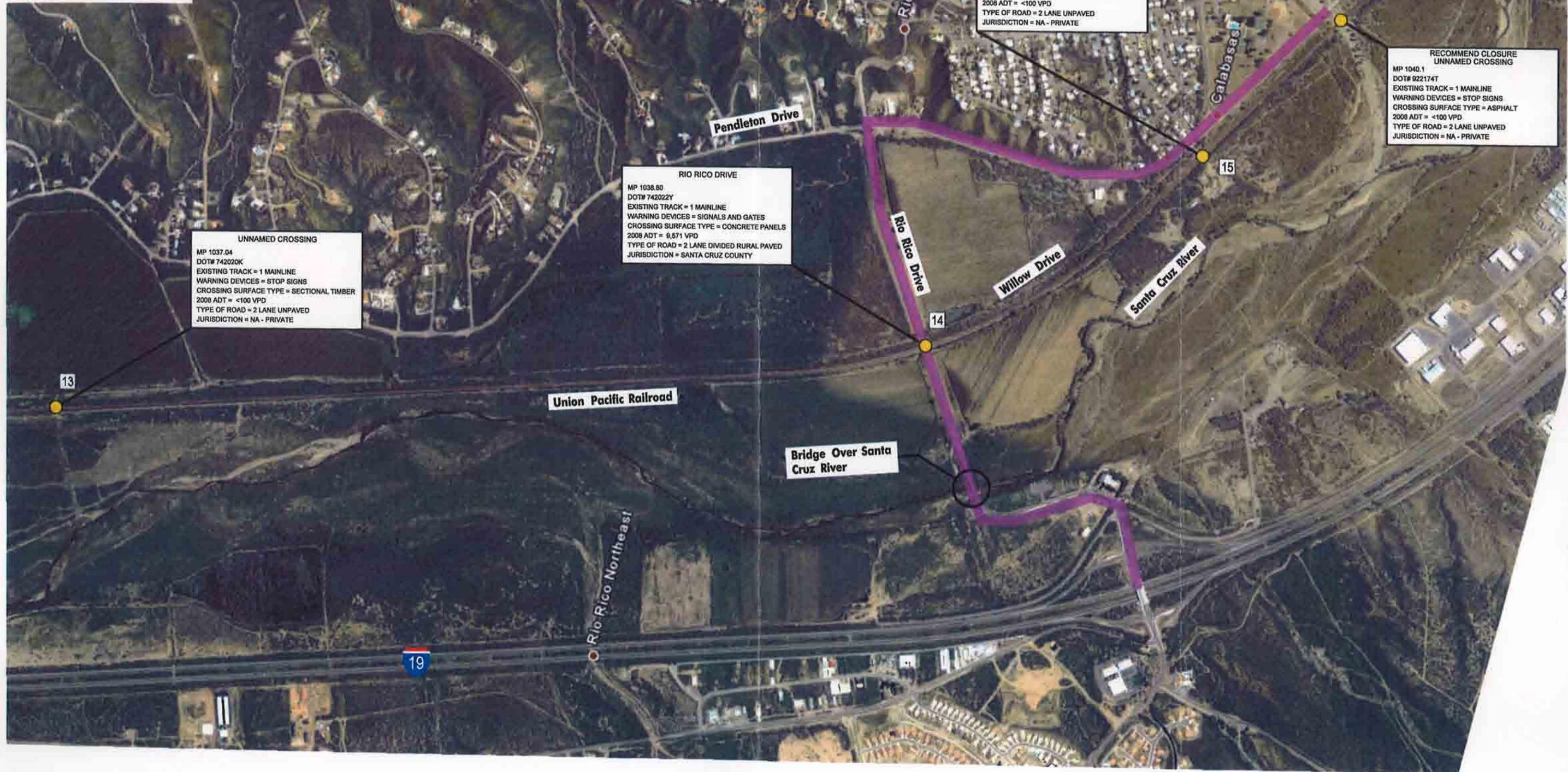
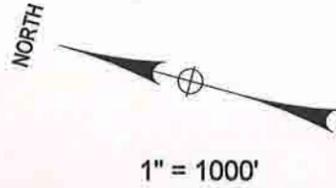
CROSSING LOCATIONS

12	MP. 1034.4 - PALO PARADO
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NOGALES SUB  
CROSSING REVIEW

DATE:  
JULY 2008  
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**UNNAMED CROSSING**  
 MP 1037.04  
 DOT# 742020K  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = SECTIONAL TIMBER  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

**RIO RICO DRIVE**  
 MP 1038.80  
 DOT# 742022Y  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = 8,571 VPD  
 TYPE OF ROAD = 2 LANE DIVIDED RURAL PAVED  
 JURISDICTION = SANTA CRUZ COUNTY

**UNNAMED CROSSING**  
 MP 1039.3  
 DOT# 742050E  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = SECTIONAL TIMBER  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

**RECOMMEND CLOSURE UNNAMED CROSSING**  
 MP 1040.1  
 DOT# 922174T  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = ASPHALT  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = NA - PRIVATE

**LEGEND**

- EXISTING TRACK
- EXISTING AT-GRADE CROSSING
- SCHOOL
- HOSPITAL
- FIRE STATION

**CROSSING LOCATIONS**

13	MP 1037.04 - UNNAMED CROSSING
14	MP 1038.80 - RIO RICO DRIVE
15	MP 1039.3 - UNNAMED CROSSING
16	MP 1040.1 - UNNAMED CROSSING



**NOGLAES SUB  
 CROSSING REVIEW**

DATE:  
 JULY 2008

SHEET:  
 8 OF 11

NORTH



1" = 1000'

Pendleton Drive

**UNNAMED CROSSING**  
 MP 1041.29  
 DOT# 742023F  
 EXISTING TRACK = 1 MAINLINE 1 SIDING & 1 ABANDONED  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = NA - PRIVATE

**PENA BLANCA/RUBY ROAD**  
 MP 1042.23  
 DOT# 742073M  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = 7,798 VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = SANTA CRUZ COUNTY

**SOUTH RIVER ROAD**  
 MP 1043.1  
 DOT# 742024M  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = 660 VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = SANTA CRUZ COUNTY

Bridge Over Santa Cruz River

Union Pacific Railroad

E. Ruby Road

Old Tucson Road  
Santa Cruz River

S. River Road

17

18

19

19

Exit 12

289

**LEGEND**

- EXISTING TRACK
- EXISTING AT-GRADE CROSSING
- SCHOOL
- HOSPITAL
- FIRE STATION

**CROSSING LOCATIONS**

- 17 MP. 1041.29 - UNNAMED CROSSING
- 18 MP. 1042.23 - PENA BLANCA/RUBY ROAD
- 19 MP. 1043.1 - SOUTH RIVER ROAD



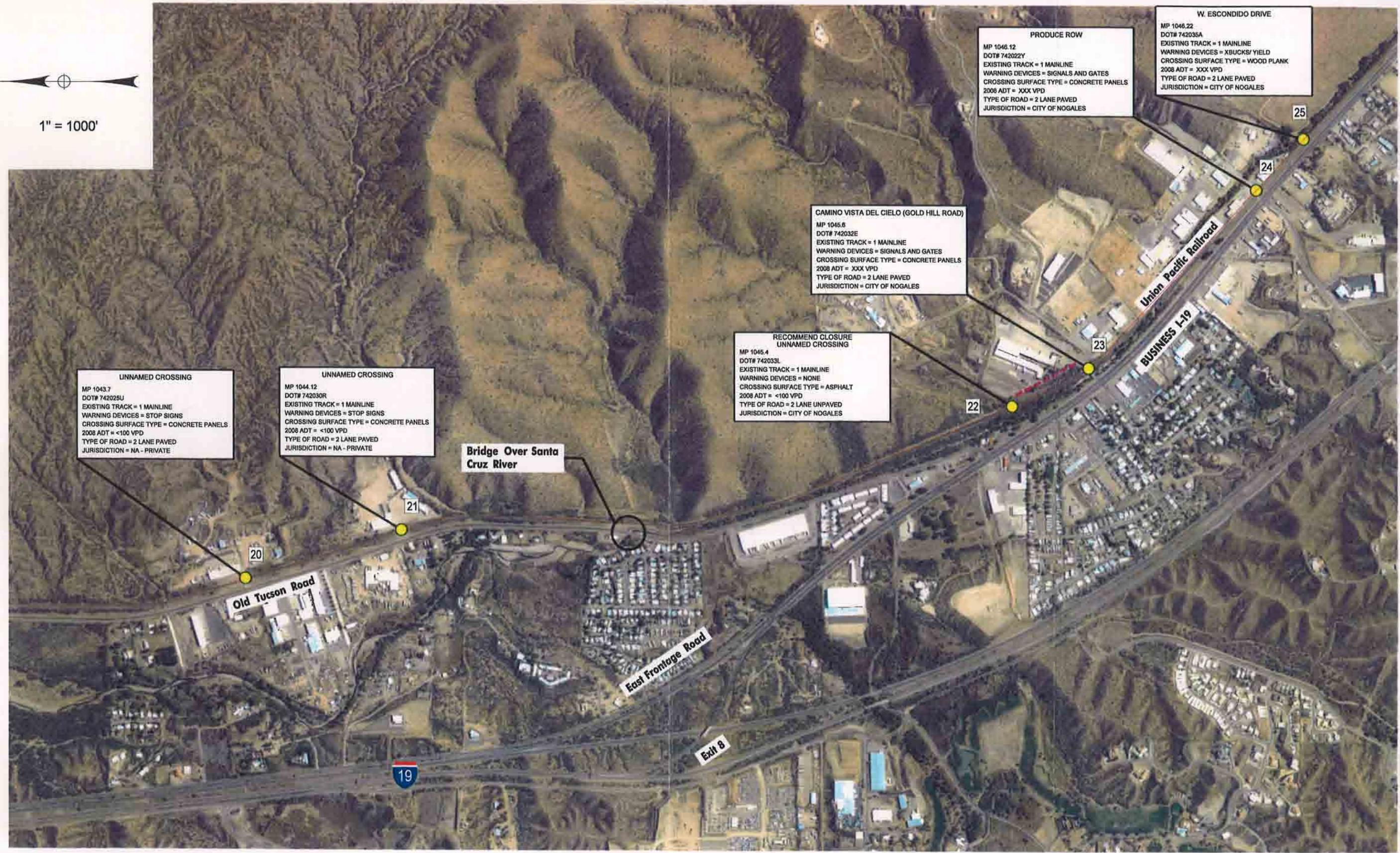
**NOGALES SUB  
CROSSING REVIEW**

DATE:  
JULY 2008

SHEET:  
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1" = 1000'



**UNNAMED CROSSING**  
 MP 1043.7  
 DOT# 742025U  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = NA - PRIVATE

**UNNAMED CROSSING**  
 MP 1044.12  
 DOT# 742030R  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = STOP SIGNS  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = NA - PRIVATE

**Bridge Over Santa Cruz River**

**RECOMMEND CLOSURE UNNAMED CROSSING**  
 MP 1045.4  
 DOT# 742033L  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = NONE  
 CROSSING SURFACE TYPE = ASPHALT  
 2008 ADT = <100 VPD  
 TYPE OF ROAD = 2 LANE UNPAVED  
 JURISDICTION = CITY OF NOGALES

**CAMINO VISTA DEL CIELO (GOLD HILL ROAD)**  
 MP 1045.6  
 DOT# 742032E  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**PRODUCE ROW**  
 MP 1046.12  
 DOT# 742022Y  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = SIGNALS AND GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**W. ESCONDIDO DRIVE**  
 MP 1046.22  
 DOT# 742035A  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = XBUCKS/ YIELD  
 CROSSING SURFACE TYPE = WOOD PLANK  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**LEGEND**

- EXISTING TRACK
- EXISTING AT-GRADE CROSSING
- SCHOOL
- HOSPITAL
- FIRE STATION

**CROSSING LOCATIONS**

20	MP. 1043.7 - UNNAMED CROSSING	25	MP. 1046.22 - ESCONDIDO DRIVE
21	MP. 1044.12 - UNNAMED CROSSING		
23	MP. 1045.6 - CAMINO VISTA DEL CIELO (GOLD HILL ROAD)		
24	MP. 1046.12 - PRODUCE ROW		



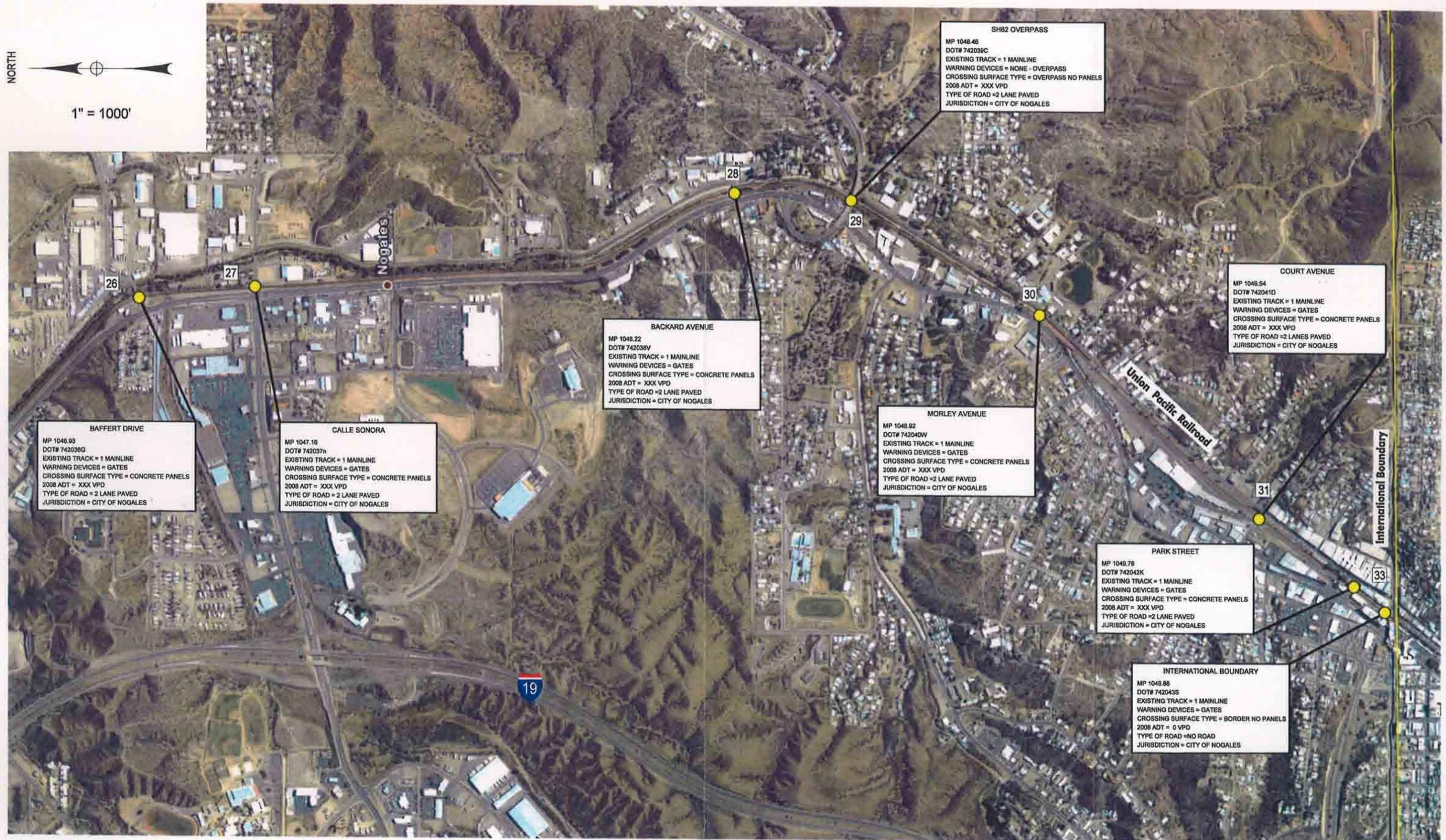
**NOGALES SUB CROSSING REVIEW**

DATE: JULY 2008  
 SHEET: 10 OF 11

NORTH



1" = 1000'



**SH82 OVERPASS**  
 MP 1048.46  
 DOT# 742039C  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = NONE - OVERPASS  
 CROSSING SURFACE TYPE = OVERPASS NO PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**COURT AVENUE**  
 MP 1049.54  
 DOT# 742041D  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANES PAVED  
 JURISDICTION = CITY OF NOGALES

**BACKARD AVENUE**  
 MP 1048.22  
 DOT# 742038V  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**MORLEY AVENUE**  
 MP 1048.92  
 DOT# 742040W  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**BAFFERT DRIVE**  
 MP 1046.93  
 DOT# 742038G  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**CALLE SONORA**  
 MP 1047.16  
 DOT# 742037N  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**PARK STREET**  
 MP 1049.78  
 DOT# 742042K  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = CONCRETE PANELS  
 2008 ADT = XXX VPD  
 TYPE OF ROAD = 2 LANE PAVED  
 JURISDICTION = CITY OF NOGALES

**INTERNATIONAL BOUNDARY**  
 MP 1049.88  
 DOT# 742043S  
 EXISTING TRACK = 1 MAINLINE  
 WARNING DEVICES = GATES  
 CROSSING SURFACE TYPE = BORDER NO PANELS  
 2008 ADT = 0 VPD  
 TYPE OF ROAD = NO ROAD  
 JURISDICTION = CITY OF NOGALES

**LEGEND**

	EXISTING TRACK
	EXISTING AT-GRADE CROSSING
	SCHOOL
	HOSPITAL
	FIRE STATION

**CROSSING LOCATIONS**

26	MP. 1046.93 - BAFFERT DRIVE	30	MP. 1048.92 - MORLEY AVENUE
27	MP. 1047.16 - CALLE SONORA	31	MP. 1049.54 - COURT AVENUE
28	MP. 1048.22 - BACKARD AVENUE	32	MP. 1049.78 - PARK STREET
29	MP. 1048.46 - SH82 OVERPASS	33	MP. 1049.88 - INTERNATIONAL BOUNDARY



### NOGALES SUB CROSSING REVIEW

DATE: JULY 2008

SHEET: 11 OF 11

## APPENDIX A : Crossing Data Matrix

Crossing #	Mile Post	DOT #:	Street	Public or Private Crossing	Crossing Location	Roadway Authority	Posted Speed Limit (MPH)	Type of Roadway (# of lanes)	Warning Devices	Train Operations (Trains per day)	Mainline or Siding? (Siding vendor)	Traffic Volume (VPD)	Crossing Surface Type	CLOSURE CANDIDATE	REMARKS
1	1020.75	742001F	Unnamed Crossing	Private	AMADO	NA			Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	NO	Access blocked due to Flooding (7/10/08)
2	1021.35	742002M	AGUA CALIENTE RD (Amado Monlosa Rd)	Public	AMADO	SANTA CRUZ COUNTY			XBucks/Stop Signs	7 @ 40 MPH	ML	450	Wood Plank	NO	Access blocked due to Flooding (7/10/08)
3	1025.3	742004B	Unnamed Crossing	Private	AMADO	NA			Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	YES	Access blocked due to Flooding (7/10/08) Crossing located 1800 ft from Chavez Siding Road, properties appear to have redundant access
4	1025.65	742005H	CHAVEZ SIDING ROAD	Public	AMADO	SANTA CRUZ COUNTY	Not posted	2 lane unpaved	XBucks/Yield Signs	7 @ 40 MPH	ML	Not Available	NEW Concrete panels	NO	Crossing has proper advance warning devices.
5	1027.95	742007W	RIVER AVE EAST (Bridge Road)	Public	TUBAC	SANTA CRUZ COUNTY	25	2 lane unpaved	XBucks/Yield Signs	7 @ 40 MPH	ML	Not Available	Wood Plank w/Asph	NO	Signs east of crossing say Bridge Rd is Private.(Need to verify if Public)
6	1029.05	742008D	Unnamed Crossing	Private	TUBAC	NA			Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	YES	Access blocked due to Flooding (7/10/08). Crossing located 633 ft from Clark Crossing Road, properties appear to have redundant access.
7	1029.27	742009K	CLARK CROSSING ROAD	Private	TUBAC	SANTA CRUZ COUNTY			Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	NO	Access blocked due to Flooding (7/10/08)
8	1030.62	742013A	Unnamed Crossing	Private	TUBAC	SANTA CRUZ COUNTY			Stop Signs	7 @ 40 MPH	ML	< 100	Asphalt	NO	Gated access blocked from Pendelton Drive, by appointment only (7/10/08)
9	1031.51	742015N	SANTA GERTRUDIS	Private	TUBAC	NA	Not posted	2 lane unpaved	X bucks and stop signs	7 @ 40 MPH	ML	< 100	Wood Plank	NO	Gates and signs say access to Pendelton Drive blocked due to private road.
10	1031.75	922173L	Unnamed Crossing	Private	AMADO	NA	Not posted	2 lane unpaved	Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	YES	1/4 mile from other private crossing at Santa Gertrudis Lane, properties appear to have redundant access.
11	1033.76	742017C	NOT A STREET - BRIDGE	Private	AMADO	NA			None	7 @ 40 MPH	ML	< 100	RR Over Wash	NO	Access blocked due to Flooding (7/10/08)
12	1034.4	742018J	PALO PARADO	EXPIRED	RIO RICO	NA	Not posted	2 lane unpaved	Stop Signs	7 @ 40 MPH	ML	1378	Sectional Timber	NO	SANTA CRUZ COUNTY REQUESTING CHANGE TO PUBLIC CROSSING. Cattle guards need replacing. Would need minimum of Crossbucks and W10-1 warning
13	1037.04	742020K	Unnamed Crossing	Private	RIO RICO	NA			Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	NO	Access blocked due to Flooding (7/10/08)
14	1038.8	742022Y	RIO RICO DR	Public	RIO RICO	SANTA CRUZ COUNTY	25	paved 2 lane w/ unpaved median	Gates	7 @ 40 MPH	ML	9571	NEW Concrete panels	NO	Gates do not extend into median to prevent run around movements.
15	1039.3	748750E	Unnamed Crossing	Private	RIO RICO	NA	Not posted	2 lanes	Stop Signs	7 @ 40 MPH	ML	< 100	Sectional Timber	NO	
16	1040.1	927174T	Unnamed Crossing	Private	RIO RICO	NA	Not posted		Stop Signs	7 @ 40 MPH	ML	< 100	Asphalt	YES	Properties appear to have redundant access from Rio Rico Drive to the north.
17	1041.29	742023F	Treatment Plant Crossing	Private	NOGALES	CITY OF NOGALES	Not posted	2 lanes	Stop Signs	7 @ 40 MPH	1 ML 1 siding and 1 partial buried	< 100	Concrete	NO	Single City Access
18	1042.23	753573M	PENA BLANCA/RUBY RD	Public	NOGALES	SANTA CRUZ COUNTY	35	2 lanes	Gates	7 @ 40 MPH	ML	7798	NEW Concrete panels	NO	Has cattle guards in good shape. Approach striping needs repainting. Missing W10-advance signs.
19	1043.1	742024M	SOUTH RIVER ROAD	Public	NOGALES	SANTA CRUZ COUNTY	35 (15 MPH advisory at RR)	2 lanes	Gates	7 @ 40 MPH	ML	660	NEW Concrete panels	NO	Approach striping needs repainting.
20	1043.7	742025U	Unnamed Crossing	Private	NOGALES	NA	Not posted	2 lanes paved	Stop Signs	7 @ 40 MPH	ML	< 100	NEW Concrete panels	NO	Single business Access.
21	1044.12	742030R	Unnamed Crossing	Private	NOGALES	NA	Not posted	2 lanes paved	Stop Signs	7 @ 40 MPH	ML	< 100	NEW Concrete panels	NO	Single business Access
22	1045.4	742033L	Unnamed Crossing	Private	NOGALES	NA	Unposted		None	7 @ 40 MPH	Couldn't Find in Field	< 100	Asphalt	YES	528 ft from public crossing at Gold Hill Road, properties appear to have redundant access.
23	1045.6	742032E	CAMINO VISTA DEL CIELO (Gold Hill Road)	Public	NOGALES	CITY OF NOGALES	Not posted	2 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
24	1046.12	742034T	PRODUCE ROW	Public	NOGALES	CITY OF NOGALES	Not posted	2 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
25	1046.22	742035A	W.ESCONDIDO DRIVE	Public	NOGALES	CITY OF NOGALES	Not posted	2 lanes	XBucks/Yield Signs	7 @ 40 MPH	ML		Wood Plank	Wood Plank	
26	1046.93	742036G	BAFFERT DRIVE	Public	NOGALES	CITY OF NOGALES	Not posted	3 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
27	1047.16	742037N	CALLE SONORA	Public	NOGALES	CITY OF NOGALES	40 MPH	2 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
28	1048.22	742038V	BANKARD AVE.	Public	NOGALES	CITY OF NOGALES	Not posted	2 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
29	1048.46	742039C	SH 82 OVERPASS	Public	NOGALES	ADOT		4 lane overpass and 2 lanes underneath	None	7 @ 40 MPH	ML		RR Under	RR Under	
30	1048.92	742040W	MORLEY AVE	Public	NOGALES	CITY OF NOGALES	Not posted	2 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
31	1049.54	742041D	COURT	Public	NOGALES	CITY OF NOGALES	Not posted	3 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
32	1049.78	742042K	PARK STREET	Public	NOGALES	CITY OF NOGALES	Not posted	2 lanes	Gates	7 @ 40 MPH	ML		Concrete	Concrete	
33	1049.88	742043S	INTERNATL BOUNDARY	not a crossing	NOGALES				None	7 @ 40 MPH	ML		Asphalt	Asphalt	

SITE VISIT PERFORMED, BUT NOT EVALUATED FOR CLOSURE - IN CITY OF NOGALES, ARIZONA



# APPENDIX A CROSSING DATA MATRIX



# APPENDIX B

## NOGALES SUB STRAIGHT LINES



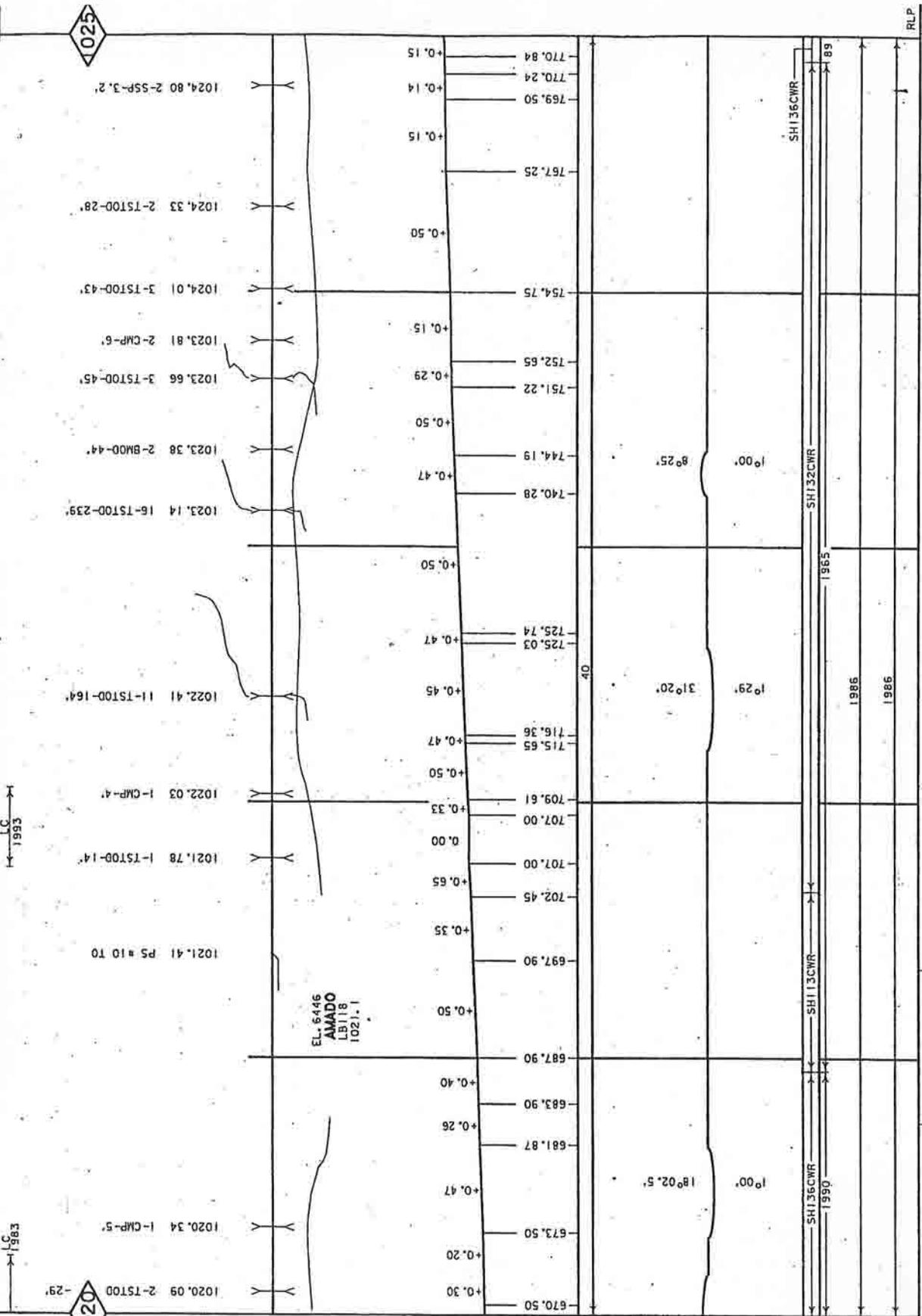
TUCSON DIVISION  
NOGALES SUBDIVISION

288

SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC - 5TB FINANCE DOC #32760 EFFECTIVE SEPTEMBER 11, 1996

1993

FILE PAGE  
LAST REVISED  
NOVEMBER 6, 2002  
BRIDGES UPDATED  
FEBRUARY 21, 2001  
ROAD KING UPDATED  
SEPTEMBER 18, 2000



YARD LIMIT	1020.09 -2- TST00	1020.34 1-CMP-5'	1021.78 1-TST00-14'	1022.03 1-CMP-4'	1022.41 11-TST00-164'	1023.14 16-TST00-239'	1023.38 2-BMOD-44'	1023.66 3-TST00-45'	1023.81 2-CMP-6'	1024.01 3-TST00-43'	1024.33 2-TST00-28'	1024.80 2-SSP-3.2'
ABSOLUTE SIG.												
AET DETECTOR												
CRACKED WHEEL INDICATOR												
DRAG. EOPT. DET.												
HOT BOX DET.												
HIGH WIDE SHIFTED LOAD DET.												
HIGH WATER DET.												
IMPACT DETECTOR												
INT. SIG. B NO.												
TEMP-WIND GAGE												
POWER SW. SPRING SW.												
DEPOT SYMBOL												
HISTORICAL MARKER												
TOPOGRAPHY												
ELEV. TOP OF RAIL AT STATION M.P.												
CONTROL POINTS & STATION NAMES												
CIRCULAR T. NUMBER												
MILE POST LOCATION												
LOTH (CLEAR) OF SIDING												
MAX. GRADE PERCENT (SUB GRADE)												
SLIDE WARNING												
EL. ABOVE SEA LEVEL												
FIBER OPTICS												
C.T.C.												
A.B.S.												
SPEED ALLOWANCE												
AUTH. SUPER ELEV.												
TOTAL ANGLE												
ALIGNMENT B FLANGE LUBRICATORS												
DEGREE OF CURVE												
RAIL SIDING												
RAIL MAIN												
SURFACING & LINING SIDING												
MAIN SIDING												
TIE GANG SIDING												
MAIN												
GRADE KING DATA												
X = BUCK												
X = BELL												
X = CARRI												
X = WIC WAG												
X = TRAFFIC												
X = STOP SIGN												

PRIVATE-5  
AQUA CALIENTE RD-X  
PRIVATE-5  
RLP

TUCSON DIVISION  
NOGALES SUBDIVISION

SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC - STB FINANCE DOC # 32760 EFFECTIVE SEPTEMBER 11, 1996

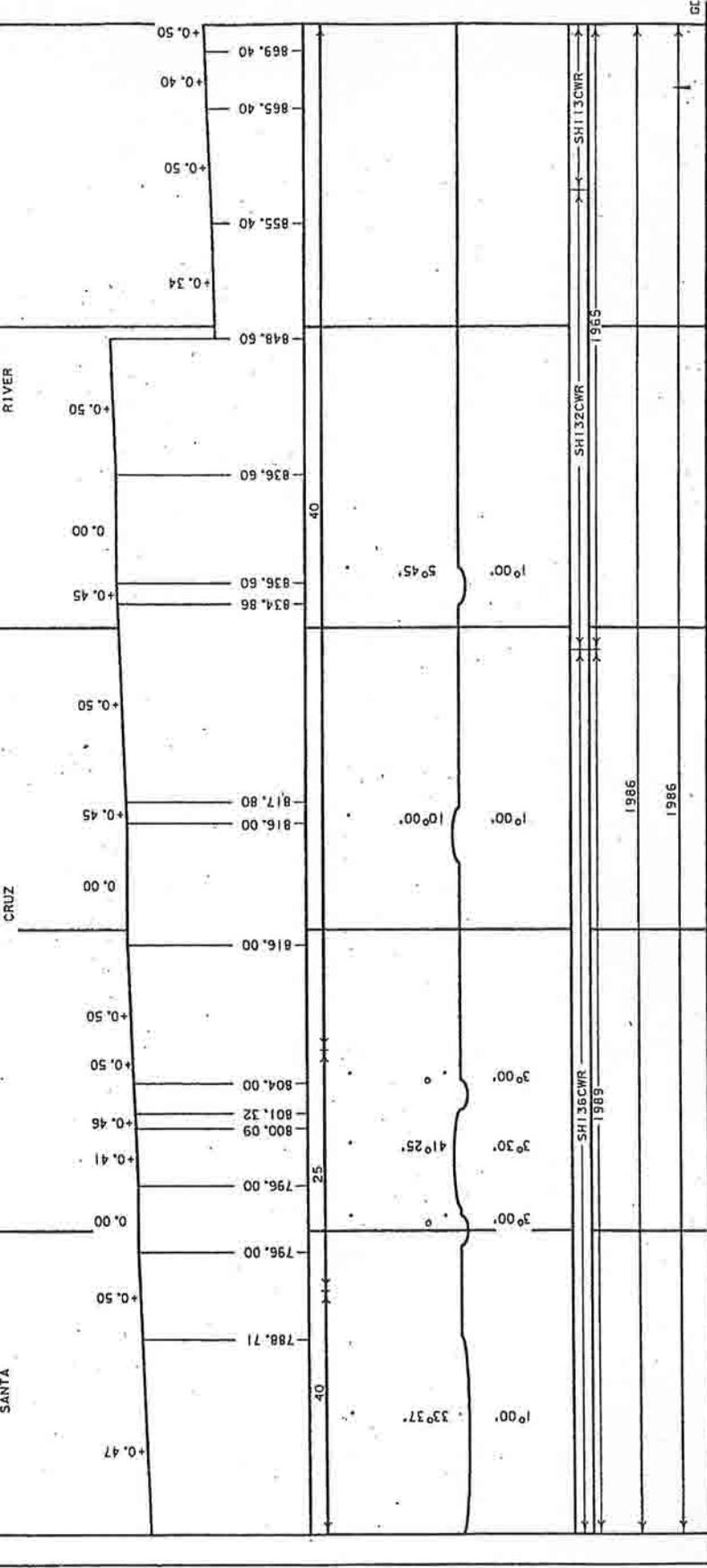
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FILE PAGE  
LAST REVISED  
SEPTEMBER 11, 2002  
BRIDGES UPDATED  
FEBRUARY 21, 2001  
ROAD XING UPDATED  
SEPTEMBER 18, 2000

1025

1030

- YARD LIMIT
- ABSOLUTE SIG.
- AET DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG. EOPT. DET.
- HOT BOX DET.
- HIGH WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. & NO.
- TEMP-WIND GAGE
- POWER-SW. SPRING-SW.
- DEPOT SYMBOL
- HISTORICAL MARKER
- TOPOGRAPHY
- ELEV. TOP OF RAIL
- STATION M.P.
- CONTROL POINTS & STATION NAMES
- CIRCULAR T. NUMBER
- MILE POST LOCATION
- LGTH (CLEAR) OF SIDING



- MAX. GRADE PERCENT  
1 (SUB GRADE)
- SLIDE WARNING  
FL. ABOVE SEA LEVEL
- FIBER OPTICS
- C. T. C. ---
- A. B. S. ---
- SPEED ALLOWANCE
- AUTH. SUPER ELEV.
- TOTAL ANGLE
- ALIGNMENT & FLANGE LUBRICATORS
- DEGREE OF CURVE
- RAIL SIDING
- RAIL MAIN
- SURFACING & LINING SIDING
- MAIN TIE GANG SIDING
- MAIN
- GRADE XING DATA
- X = X-BUCK
- B = BUSH
- P = PILES
- G = GATES
- W = WAD
- S = STOP SIGN

PRIVATE-5  
PRIVATE-5  
RIVER AVE EAST-X  
CHAVEZ SIDING-X  
PRIVATE-5

TUCSON DIVISIO  
NOGALES SUBDIVISIO

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SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC - 57B FINANCE DOC #32760 EFFECTIVE SEPTEMBER 11, 1996

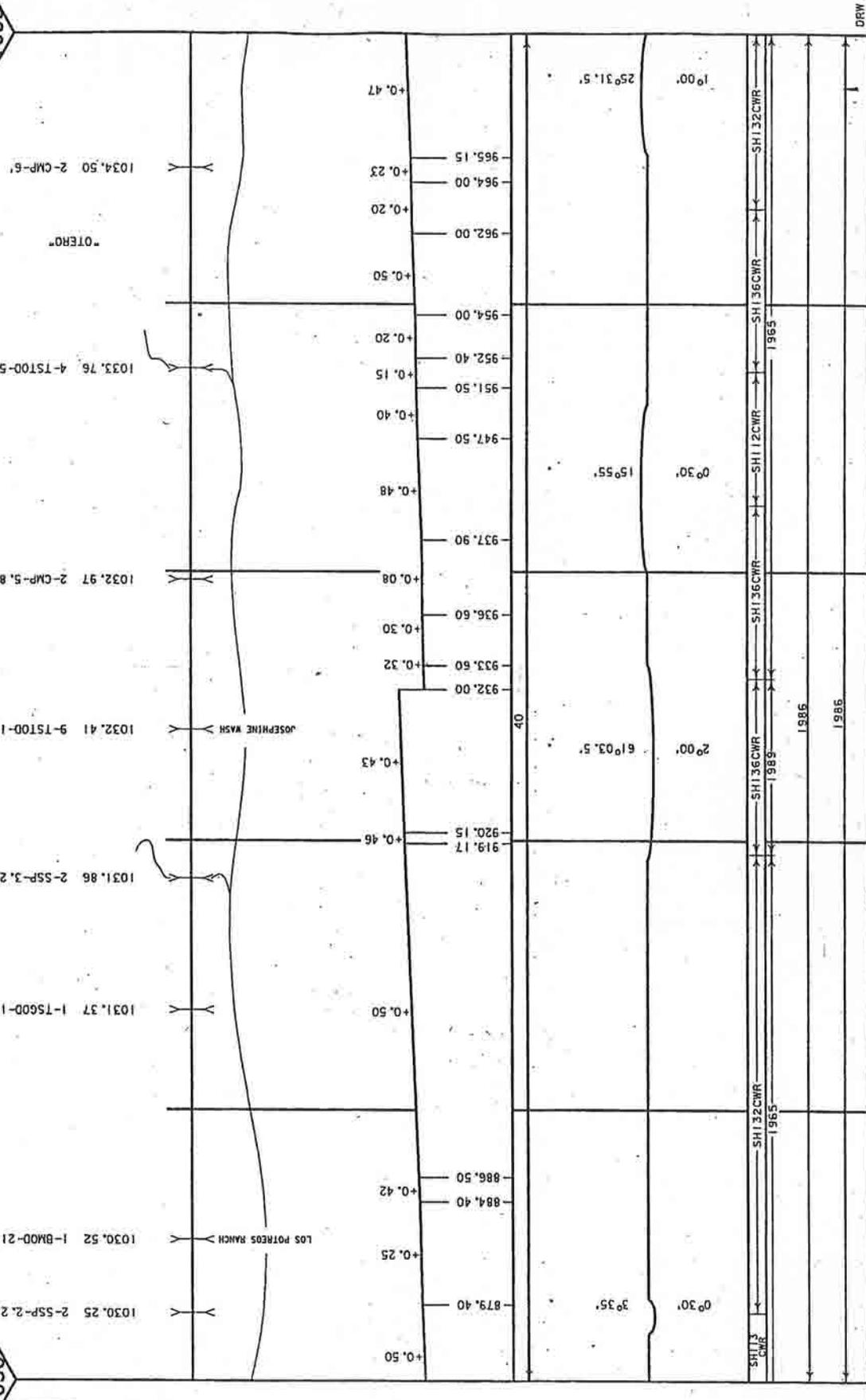
LC 1983

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BRIDGES UPDATED  
FEBRUARY 21, 2001  
RD XING UPDATED  
FEBRUARY 21, 2001

YARD LIMIT  
ABSOLUTE SIG.  
A-E1 DETECTOR  
CRACKED WHEEL  
INDICATOR  
DRAG. EOPT. DET.  
HOT BOX DET.  
HIGH, WIDE  
SHIFTED LOAD DET.  
HIGH WATER DET.  
IMPACT DETECTOR  
INT. SIG. NO.  
TEMP-WIND GAGE  
POWER SW.  
SPRING SW.  
DEPOT SYMBOL  
HISTORICAL MARKER

1035

1030



MAX. GRADE PERCENT  
(SUB GRADE)

SLIDE WARNING  
EL. ABOVE SEA LEVEL  
FIBER OPTICS  
A. B. S. - - -  
C. T. C. - - -  
SPEED ALLOWANCE  
AUTH. SUPER ELEV.

TOTAL ANGLE  
ALIGNMENT &  
FLANGE LUBRICATORS

DEGREE OF CURVE  
RAIL SIDING  
RAIL MAIN  
SURFACING & LINING  
SIDING  
MAIN  
TIE GANG  
STING  
MAIN

GRADE XING DATA  
X-BUCK  
PELLENER  
GATES  
WING  
WING  
STOP SIG

DRW

TUCSON DIVISION  
NOGALES SUBDIVISION

SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC - STB FINANCE DOC #32760 EFFECTIVE SEPTEMBER 11, 1986

29

FILE PAGE
LAST REVISED
MAY 8, 2002
BRIDGES UPDATED
FEBRUARY 21, 2001
RD XING UPDATED
FEBRUARY 21, 2001

- YARD LIMIT
- ABSOLUTE SIG.
- AEI DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG. EOPT. DET.
- HOT BOX DET.
- HIGH, WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. NO.
- TEMP-WIND GAGE
- POWER SW.
- SPRING SW.
- DEPOT SYMBOL
- HISTORICAL MARKER

- TOPOGRAPHY
- ELEV. TOP OF RAIL
- AT STATION W.P.
- CONTROL POINTS & STATION NAMES
- CIRCULAR T NUMBER
- MILE POST LOCATION
- LOTH (CLEAR) OF SIDING

MAX. GRADE PERCENT (SUB GRADE)

- SLIDE WARNING
- ELEV. ABOVE SEA LEVEL
- FIBER OPTICS
- C. T. C.
- A. B. S.
- SPEED ALLOWANCE
- AUTH. SUPER ELEV.

TOTAL ANGLE

ALIGNMENT & FLANGE LUBRICATORS

DEGREE OF CURVE

RAIL SIDING

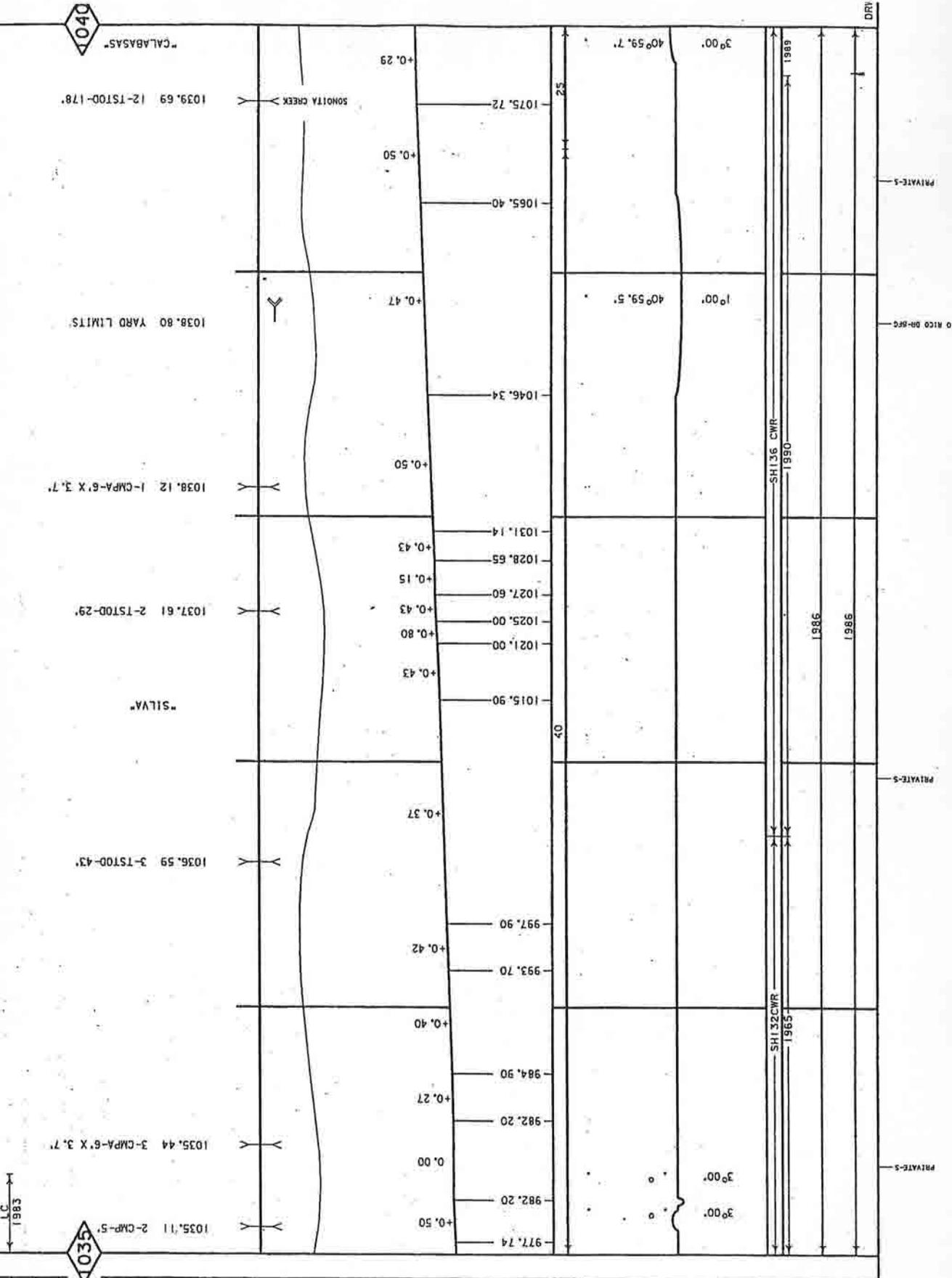
RAIL MAIN

SURFACING & LINING STONING

MAIN TIE GANG STONING

MAIN

- GRADE XING DATA
- X = BUCK
- X = FICKSHER
- G = GATES
- W = WIPAC
- 5 = STOP SIGN



TUCSON - DIVISION  
NOGALES SUBDIVISION

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CONSTRUCTED BY NEW MEXICO AND ARIZONA RAILROAD - 1882  
SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC  
-5TB FINANCE DOC #32760 EFFECTIVE SEPTEMBER 11, 1986

\*\* CONSTRUCTED BY TUCSON AND NOGALES RAILROAD - 1910

FILE PAGE  
LAST REVISED  
MAY 8, 2002  
BRIDGES UPDATED  
FEBRUARY 21, 2001  
ROAD XING UPDATED  
SEPTEMBER 18, 2000

- YARD LIMIT
- ABSOLUTE SIG.
- AET DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG. EOPT. DET.
- HOT BOX DET.
- HIGH WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. NO.
- TEMP-WIND GAGE
- POWER SW. SPRING SW.
- DEPOT SYMBOL
- HISTORICAL MARKER
- TOPOGRAPHY
- ELEV. TOP OF RAIL AT STATION M.P.
- CONTROL POINTS B
- STATION NAMES
- CIRCULAR T NUMBER
- MILE POST LOCATION
- LOTH (CLEAR) OF SIDING

MAX. GRADE PERCENT (SUB GRADE)

SLIDE WARNING

EL. ABOVE SEA LEVEL

FIBER OPTICS

A. B. S.

SPEED ALLOWANCE

AUTH. SUPER ELEV.

TOTAL ANGLE

ALIGNMENT & FLANGE LUBRICATORS

DEGREE OF CURVE

RAIL SIDING

RAIL MAIN

SURFACING B LINING SIDING

MAIN TIE GANG SIDING MAIN

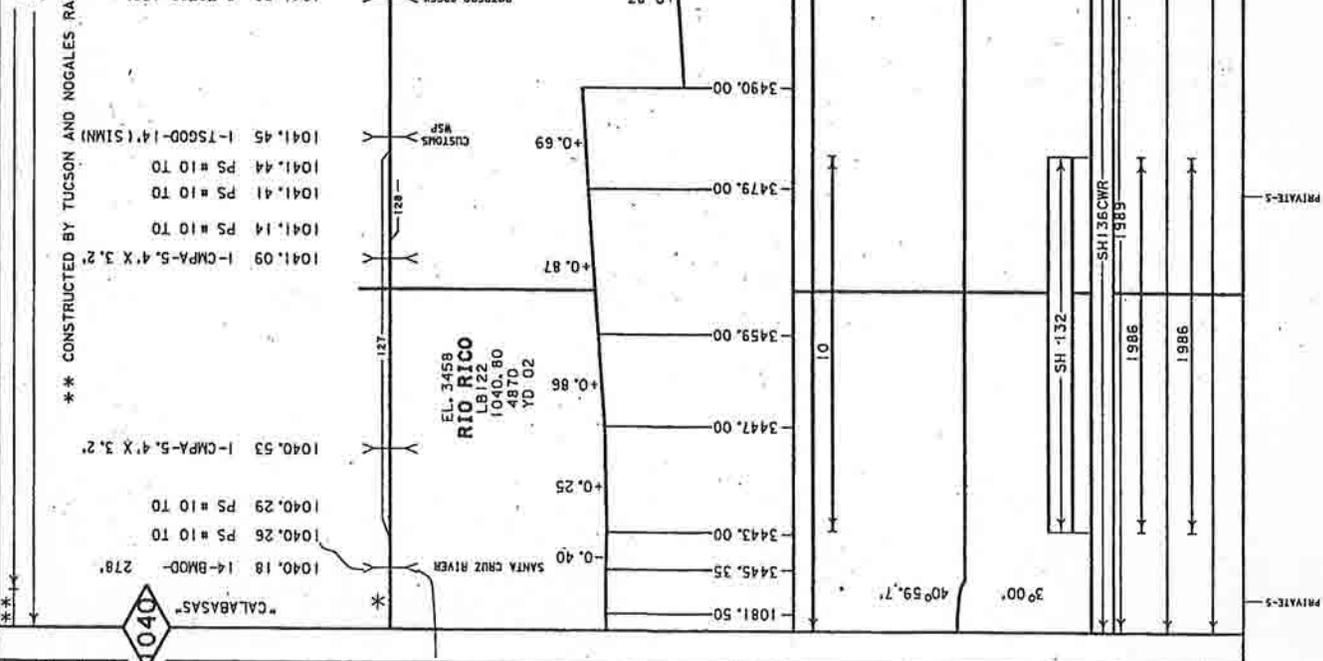
GRADE XING DATA

BEHUCK

FLASHER

GATE

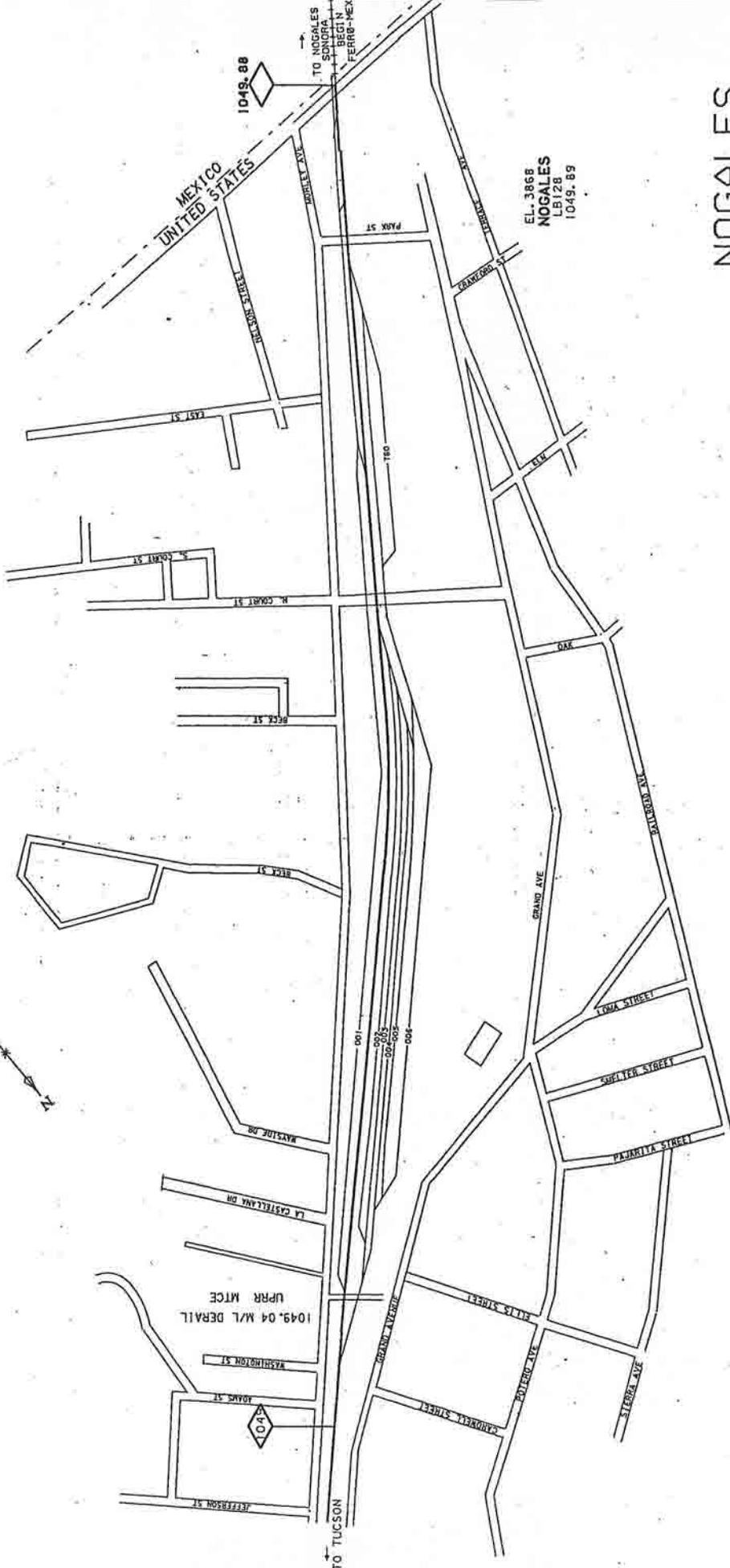
STOP SIGN



045

040





# NOGALES

LAST REVISED: NOVEMBER 13, 2001

DRW



# APPENDIX C PHOTO LOG





HDR Field Visit – Amado Montosa Rd MP1021.35 (DOT #742004B)  
Looking east along Agua Caliente Road at Santa Cruz River





HDR Field Visit – Chavez Siding Road MP1025.65 (DOT #742005H)  
Looking east along Chavez Siding Road at Santa Cruz River



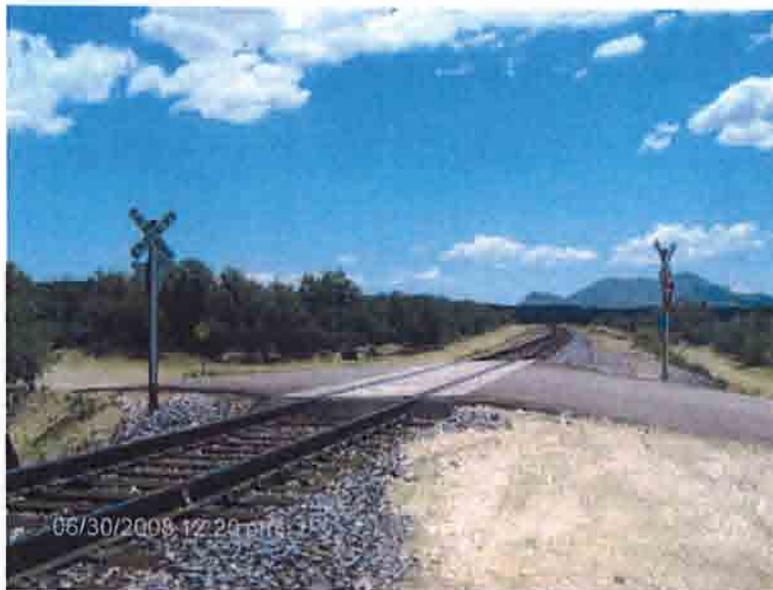
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Looking east along Chavez Siding



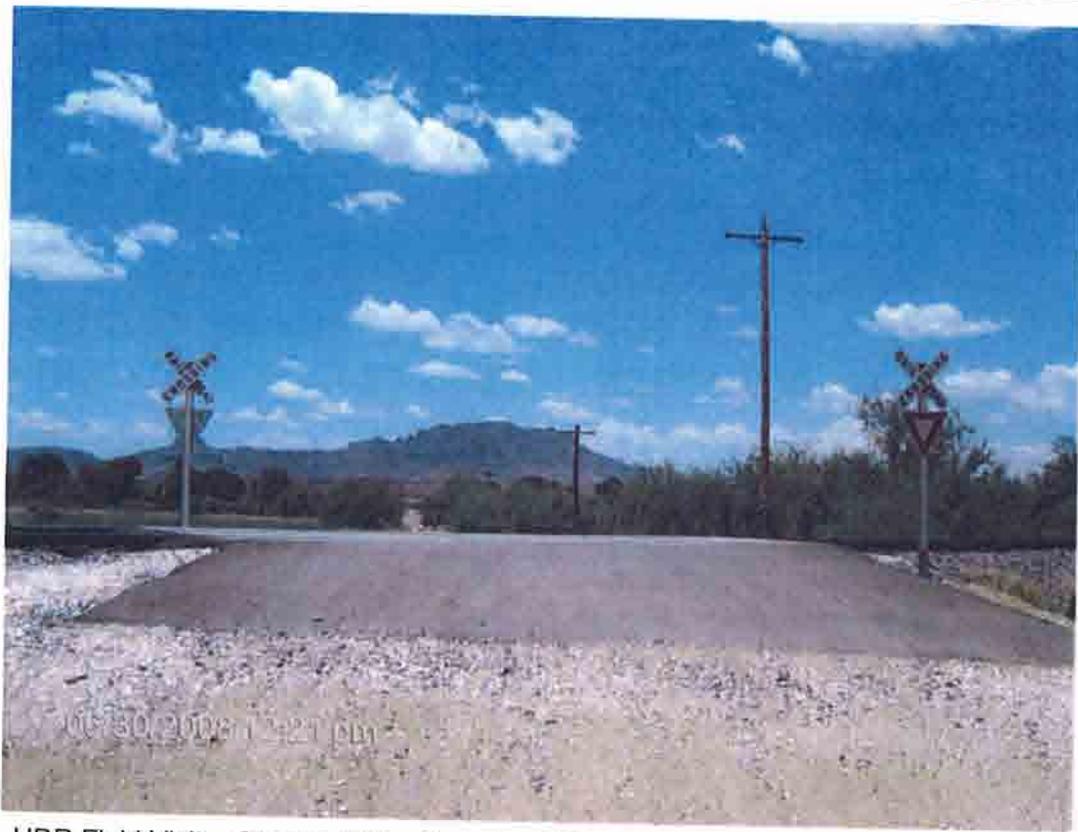
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Looking east along Chavez Siding



HDR Field Visit – Chavez Siding Crossing MP 1025.65  
Looking north along the tracks

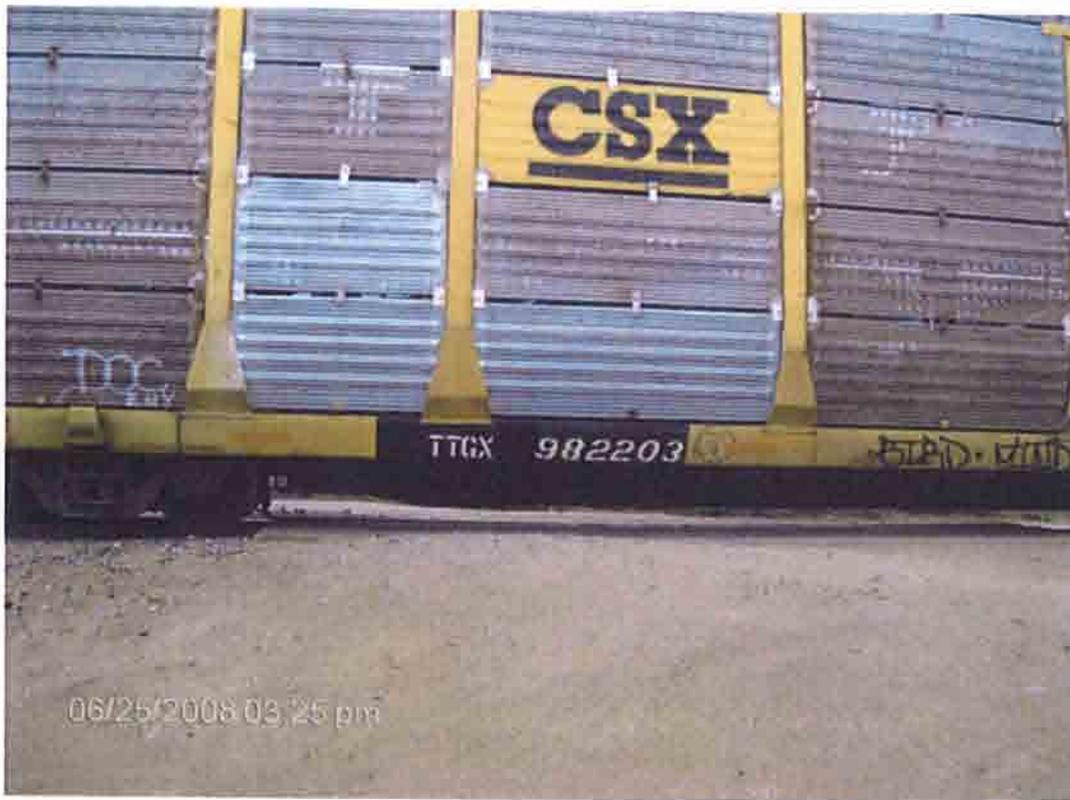


HDR Field Visit – Chavez Siding Crossing MP 1025.65  
Looking south along the tracks



HDR Field Visit – Chavez Siding Crossing MP 1025.65  
Looking west along Chavez Siding





HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking east along Bridge Rd.



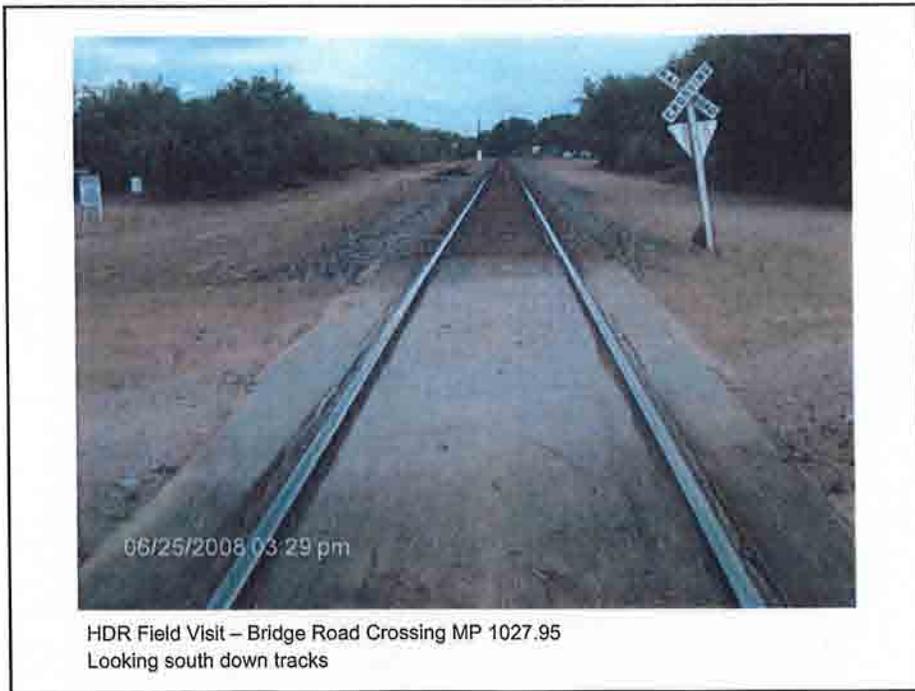
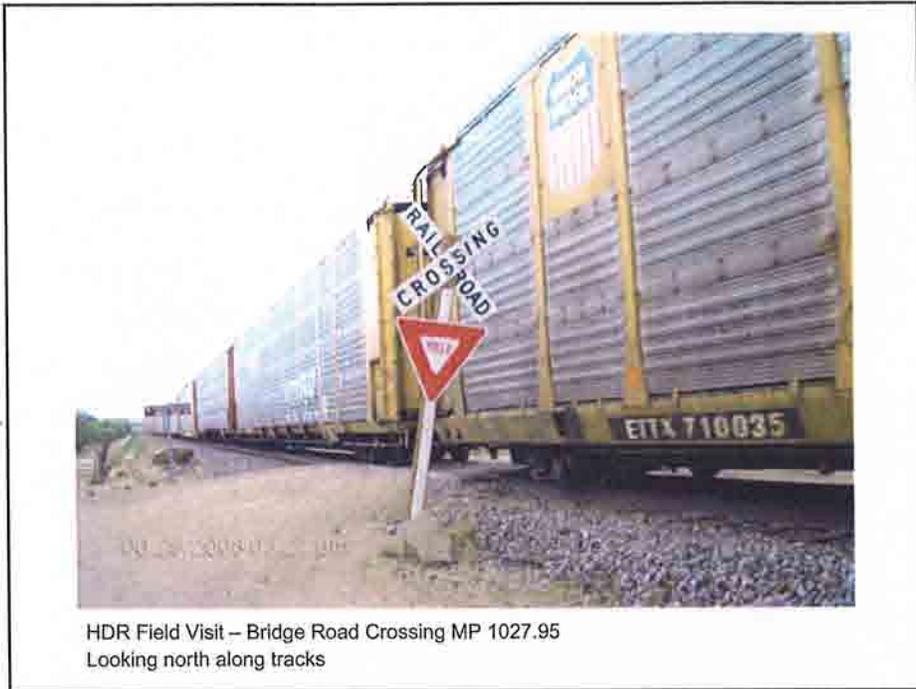
06/25/2008 03:26 pm

HDR Field Visit -- Bridge Road Crossing MP 1027.95  
Looking north along tracks



06/25/2008 03:26 pm

HDR Field Visit -- Bridge Road Crossing MP 1027.95  
Looking south along tracks

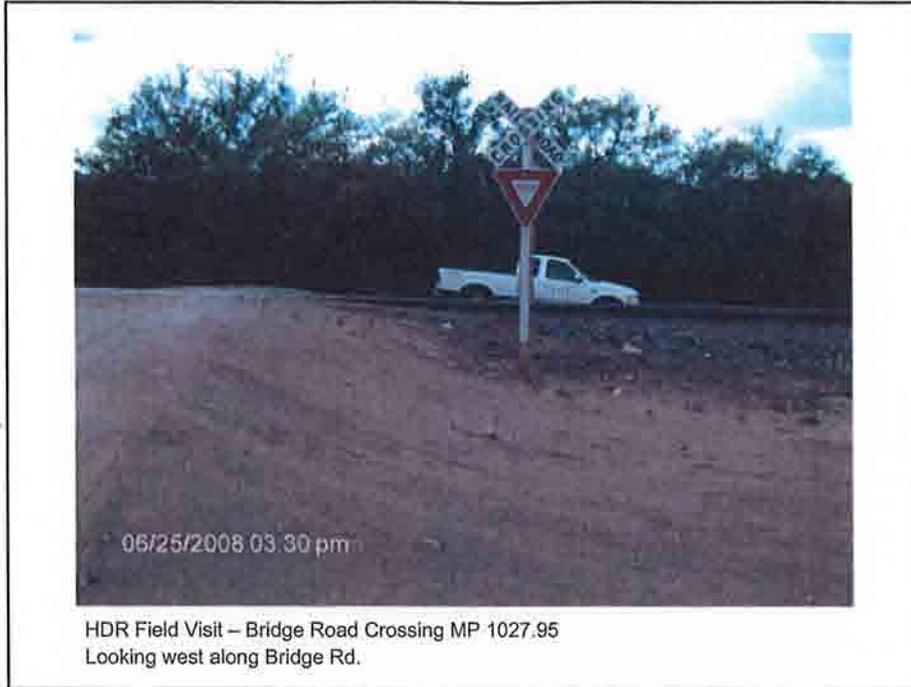




HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking north down tracks



HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking west along Bridge Rd.



HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking west along Bridge Rd.



HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking south from southern edge of Bridge Rd. and just east of tracks



HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking west along Bridge Rd.



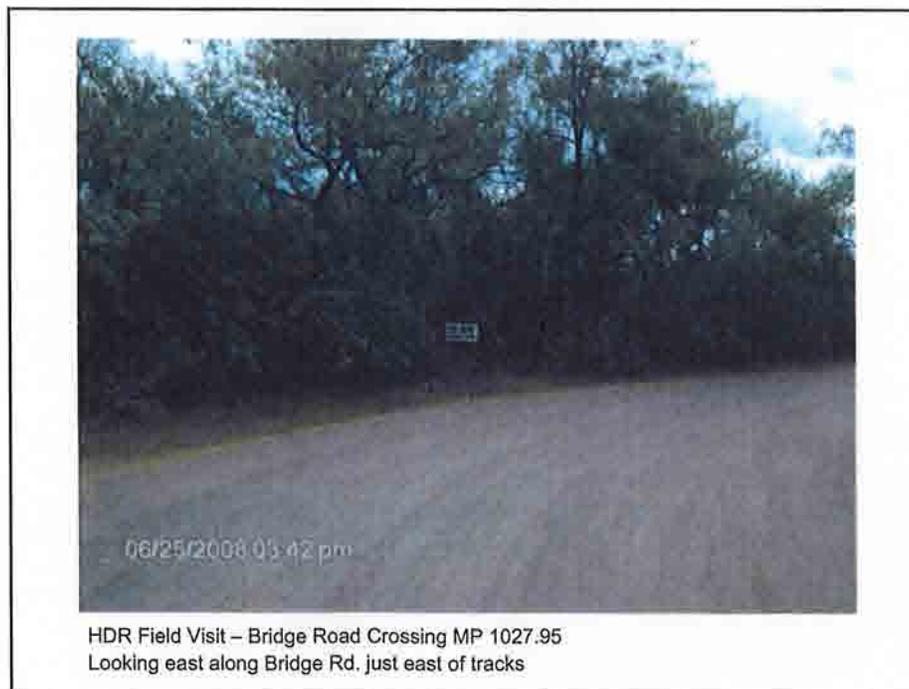
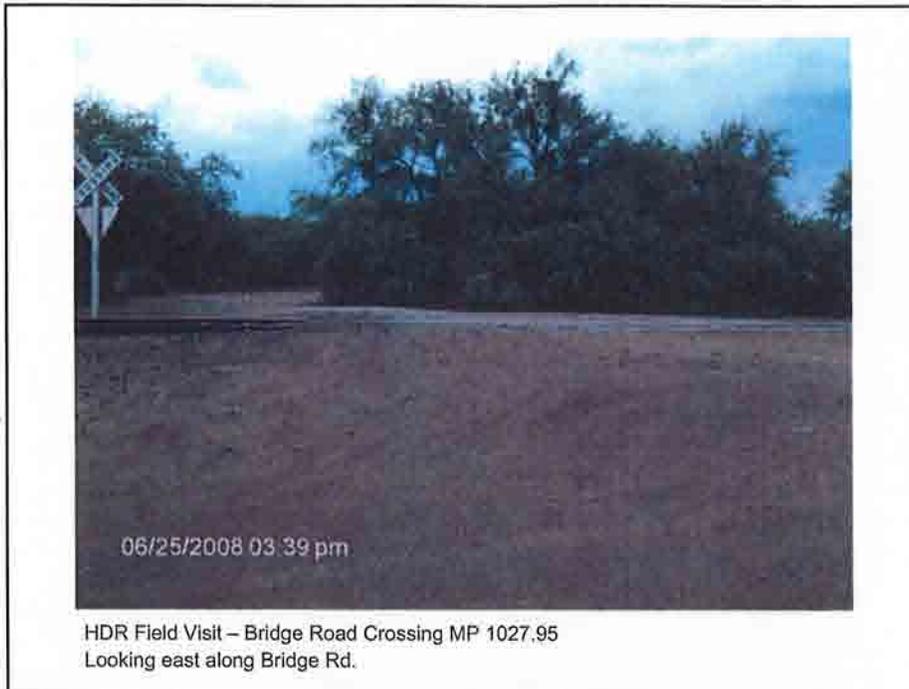
HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking north along tracks



HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking north from northern edge of Bridge Rd. and just west of tracks



HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking south along tracks





HDR Field Visit – Bridge Road Crossing MP 1027.95  
Looking west along Bridge Rd. just west of tracks





HDR Field Visit – Clark Crossing Rd MP1029.27 (DOT #742009K)  
Looking east along Clark Crossing Road at Santa Cruz River



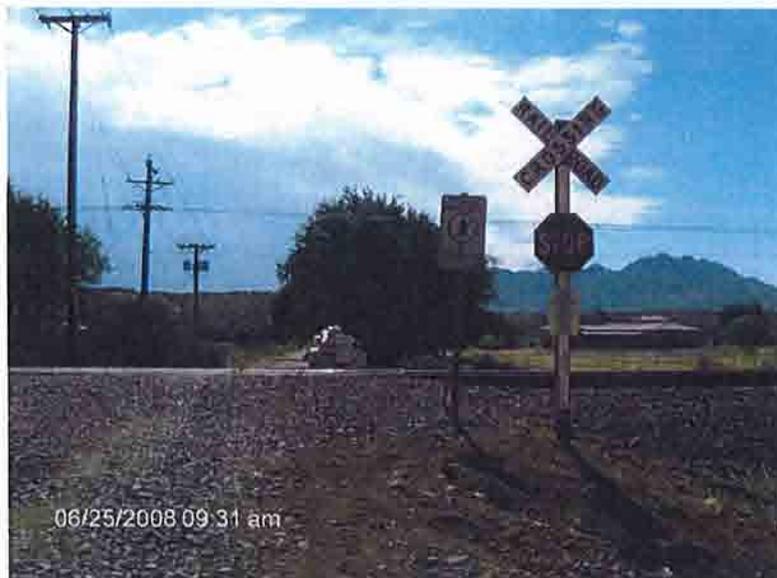






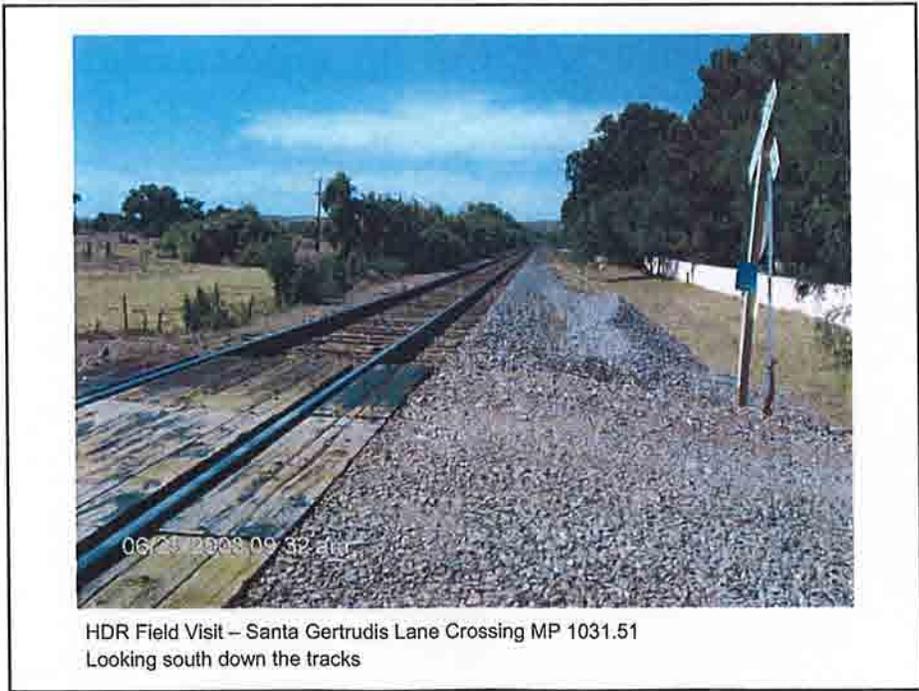
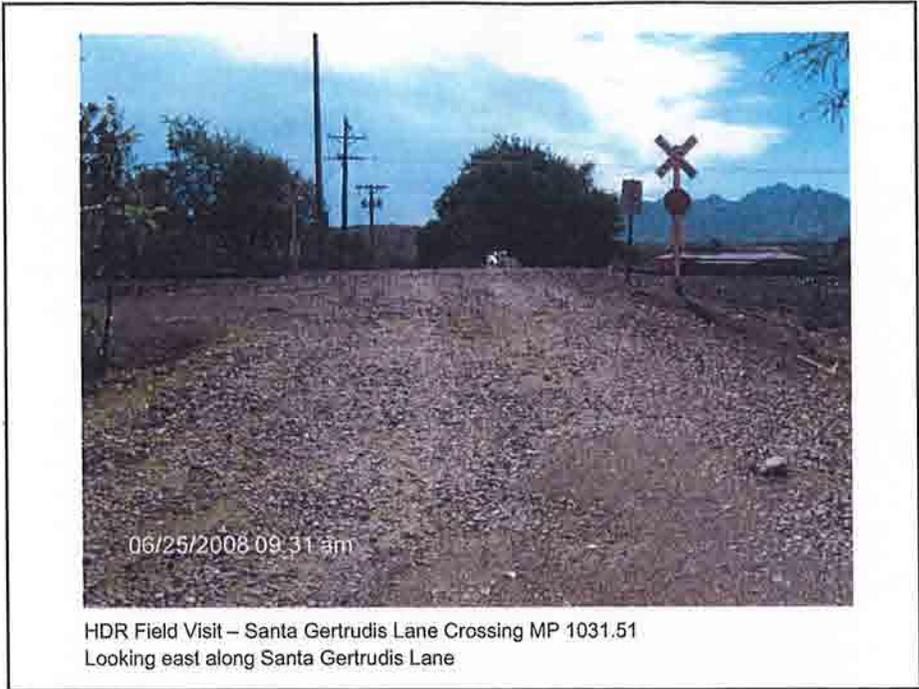
06/25/2008 09:31 am

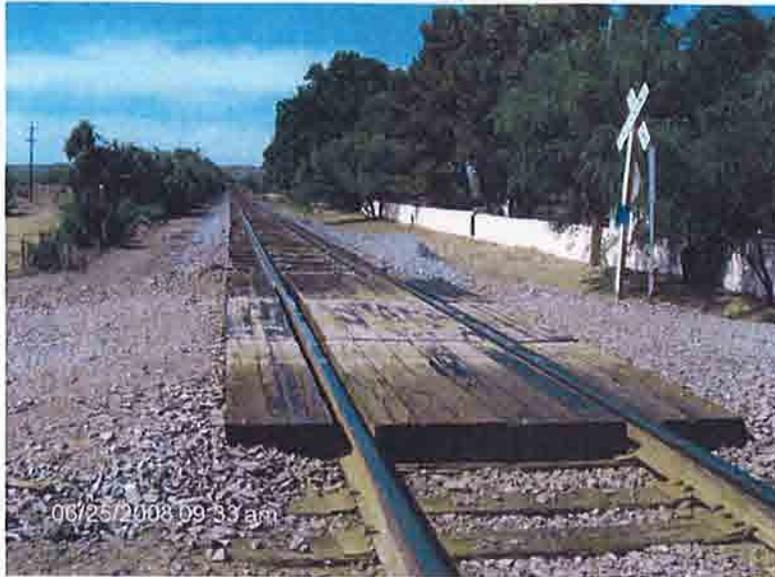
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking east along Santa Gertrudis Lane



06/25/2008 09:31 am

HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking east along Santa Gertrudis Lane

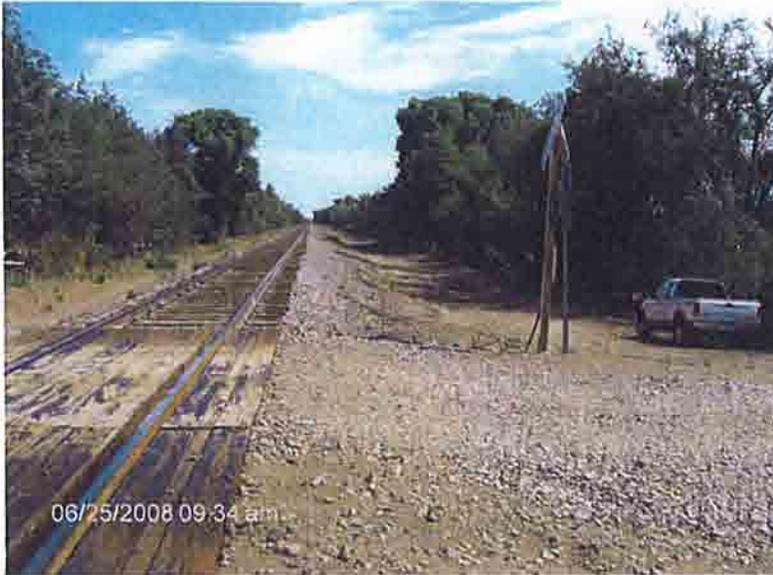




HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking south down the tracks



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking north down the tracks



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking north down the tracks



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west along Santa Gertrudis Lane



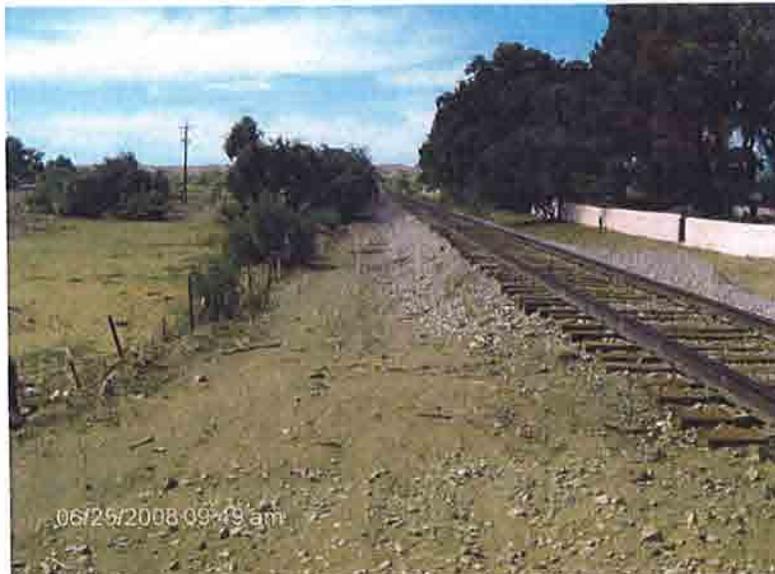
HDR Field Visit – Santa Gertrudis Lane Crossing MP1031.51  
Looking west along Santa Gertrudis Lane



08/25/2008 09:36 am  
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west on Santa Gertrudis Lane



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west at road surface on Santa Gertrudis Lane



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking south along tracks



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking north along tracks



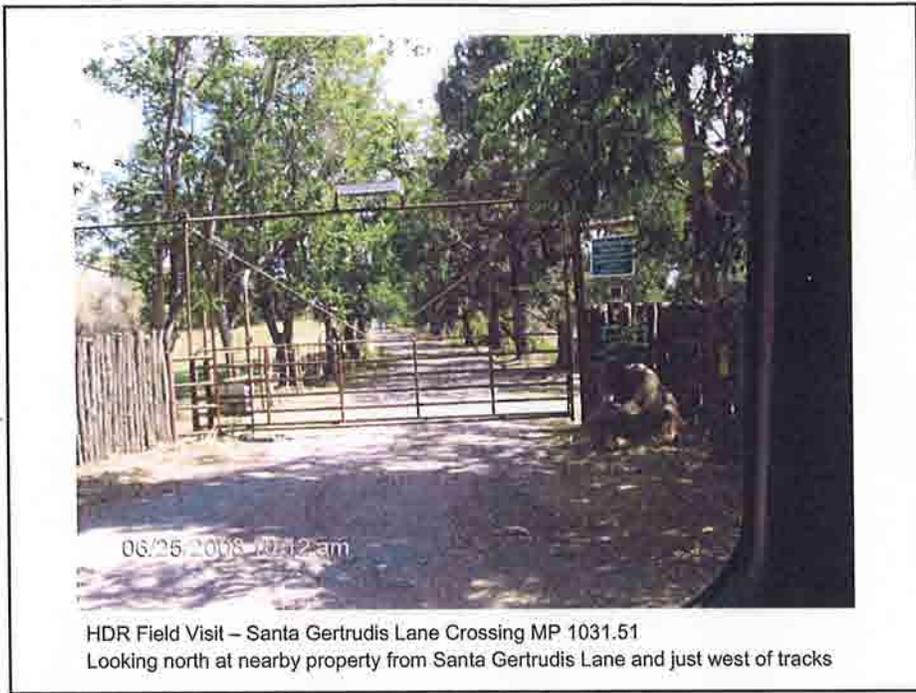
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking east along Santa Gertrudis Lane



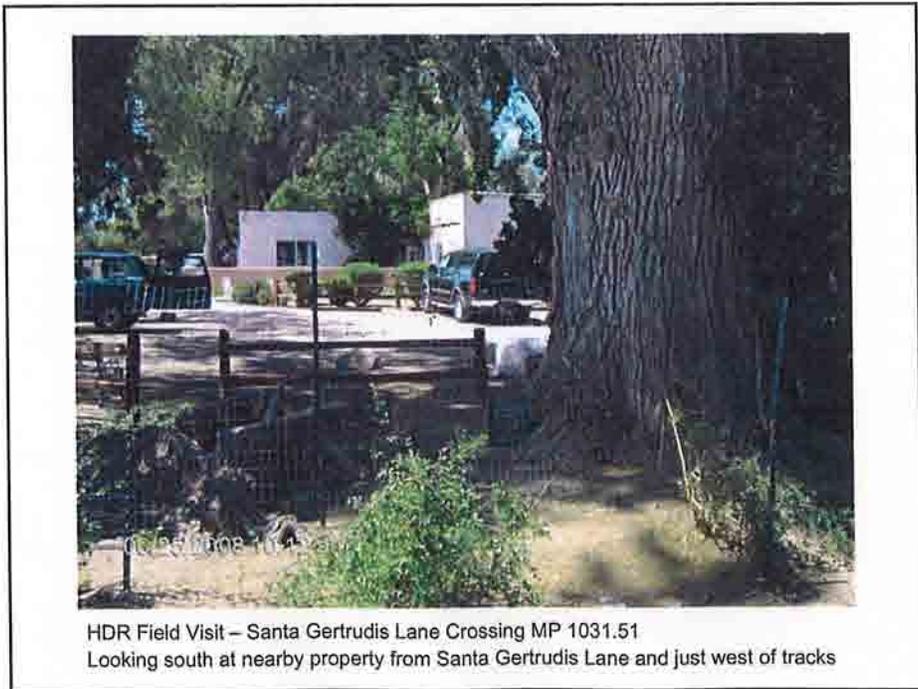
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west along Santa Gertrudis Lane



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west at tracks from just north of Santa Gertrudis Lane



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking north at nearby property from Santa Gertrudis Lane and just west of tracks



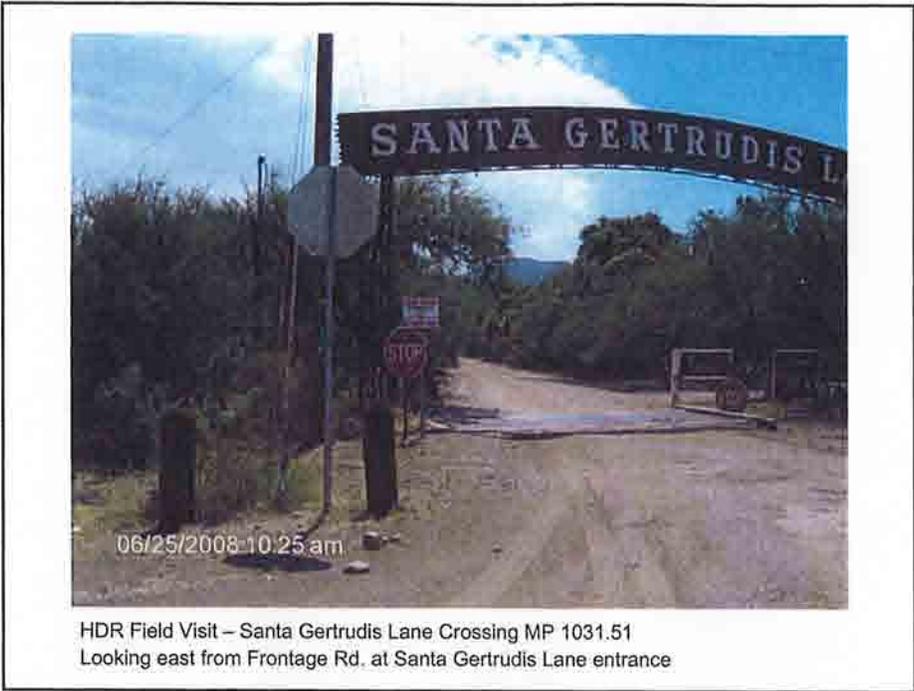
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking south at nearby property from Santa Gertrudis Lane and just west of tracks



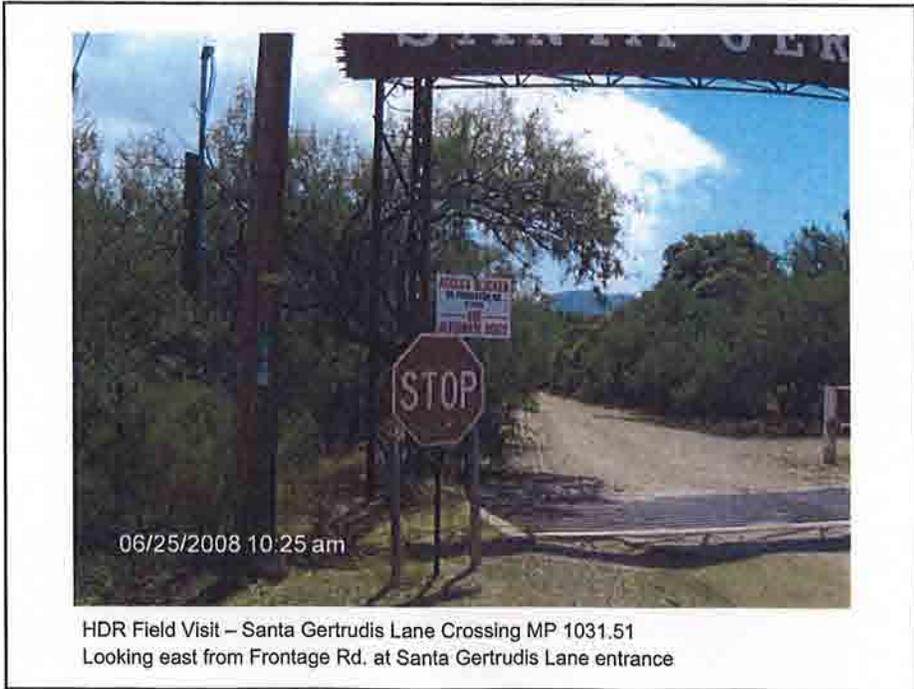
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west down Santa Gertrudis Lane and west of tracks



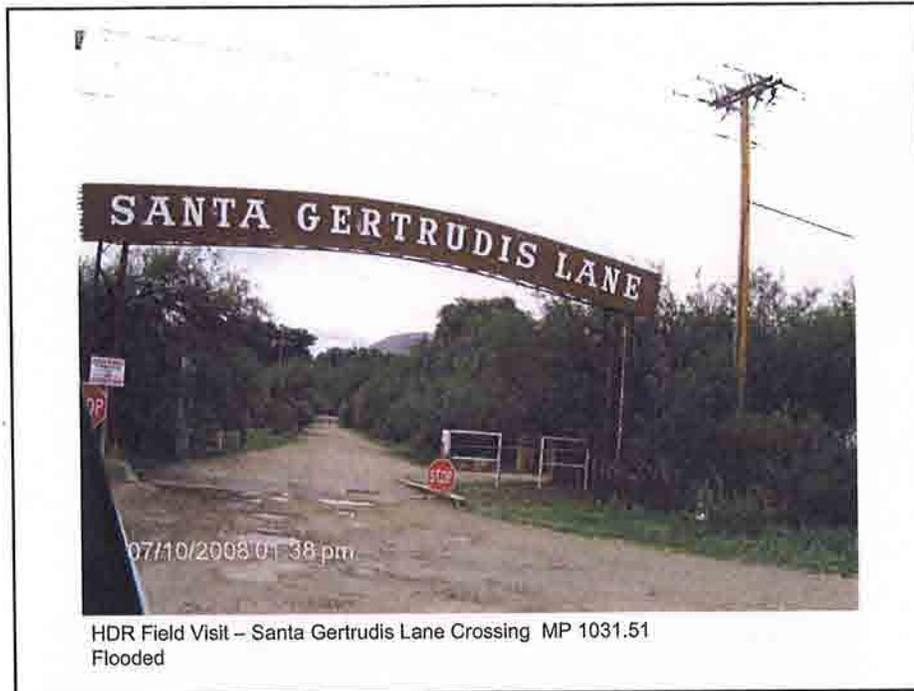
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking west along Santa Gertrudis Lane at Santa Cruz River crossing located west of tracks



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking east from Frontage Rd. at Santa Gertrudis Lane entrance



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Looking east from Frontage Rd. at Santa Gertrudis Lane entrance



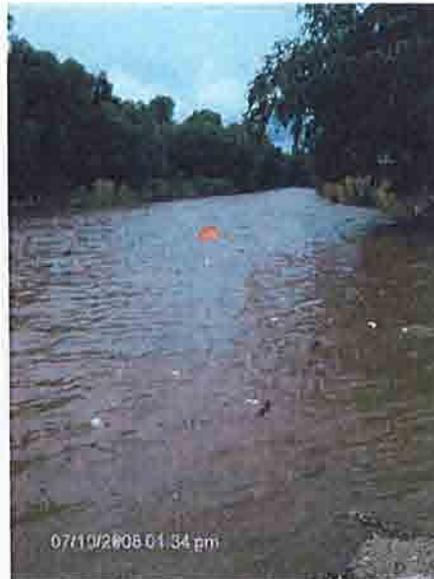
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Flooded



HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Flooded

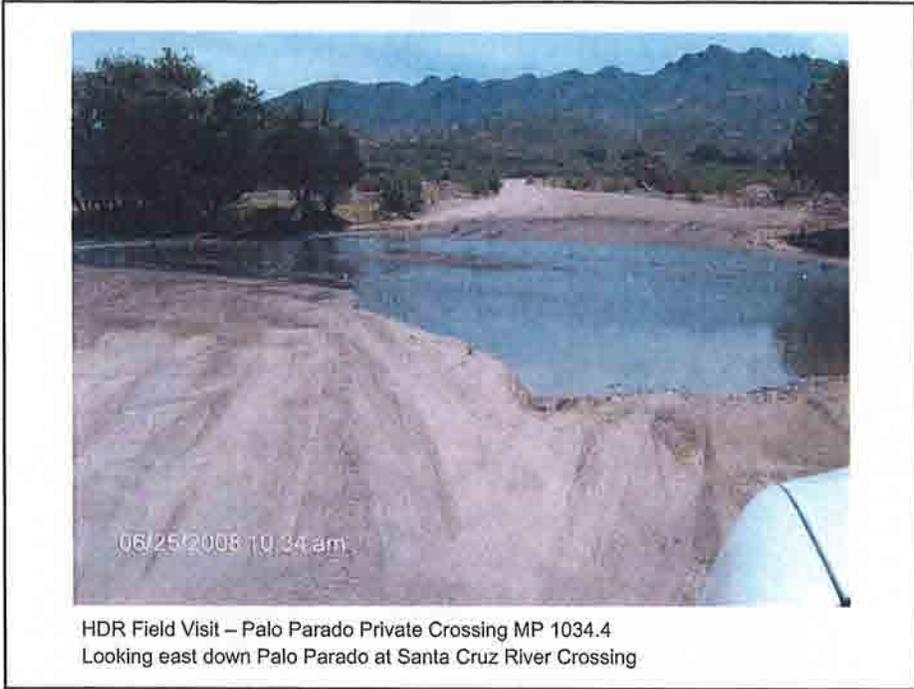


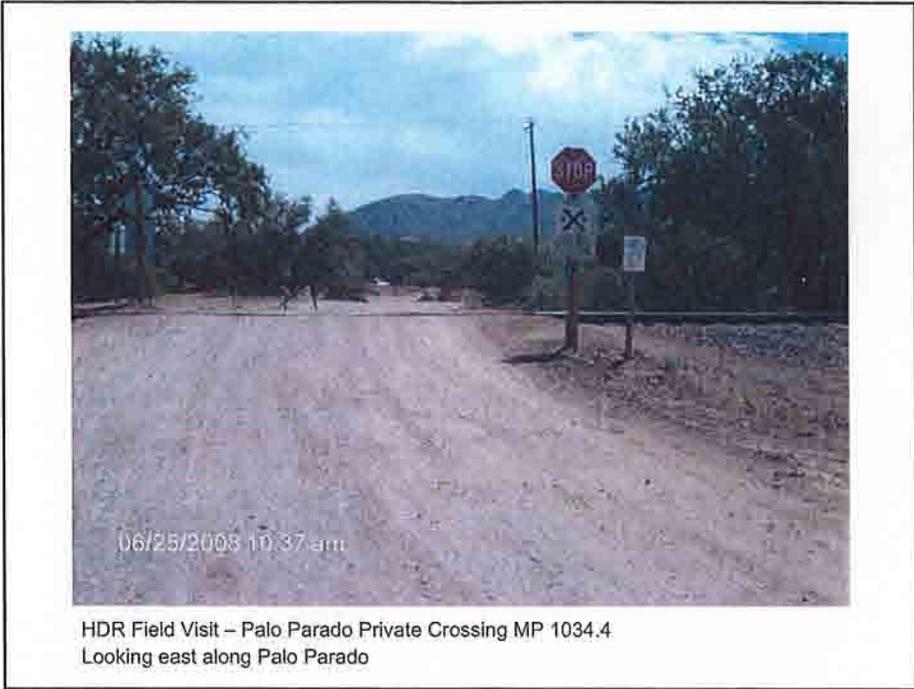
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Flooded



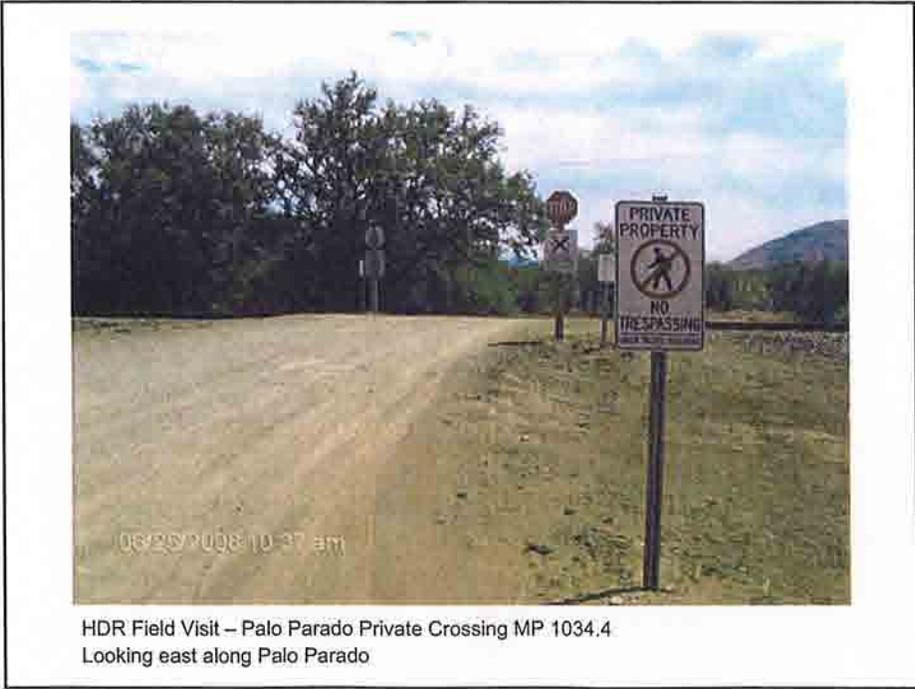
HDR Field Visit – Santa Gertrudis Lane Crossing MP 1031.51  
Flooded







HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking south along tracks



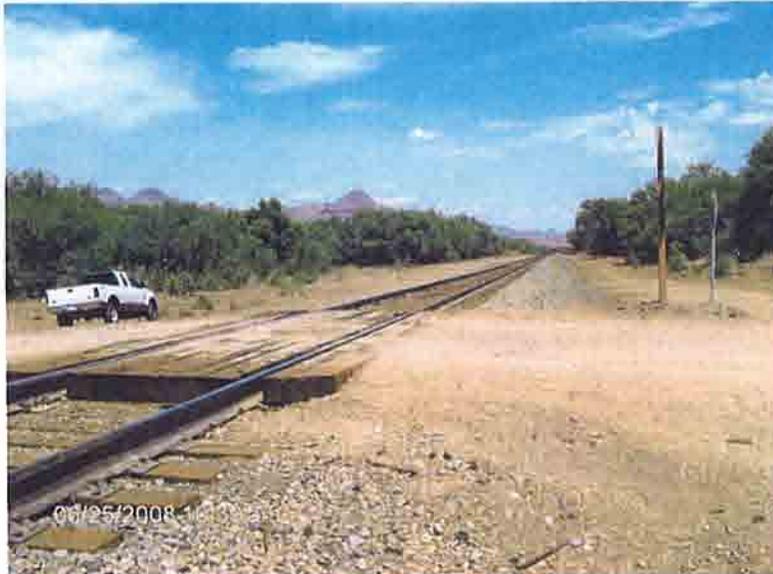
HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking south along tracks



HDR Field Visit – Palo Parado Private Crossing MP1034.4  
Looking west along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking west along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking north along tracks



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east along Palo Parado just east of tracks



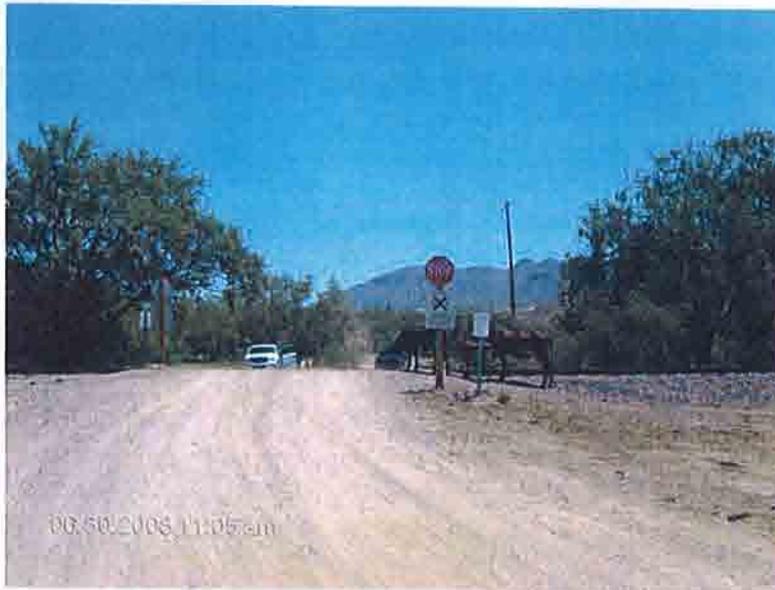
HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east at the cattle guard



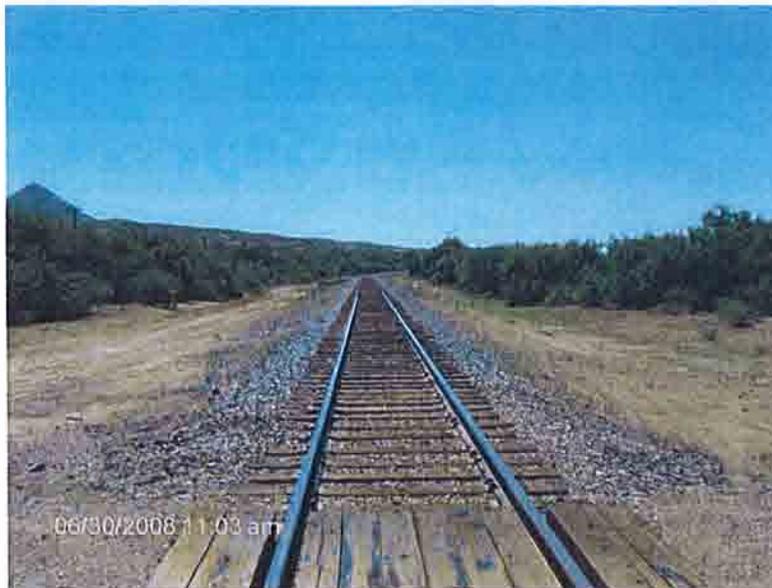
HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking east along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking north along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking south along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking west along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking west along Palo Parado



HDR Field Visit – Palo Parado Private Crossing MP1034.4  
Looking west along Palo Parado

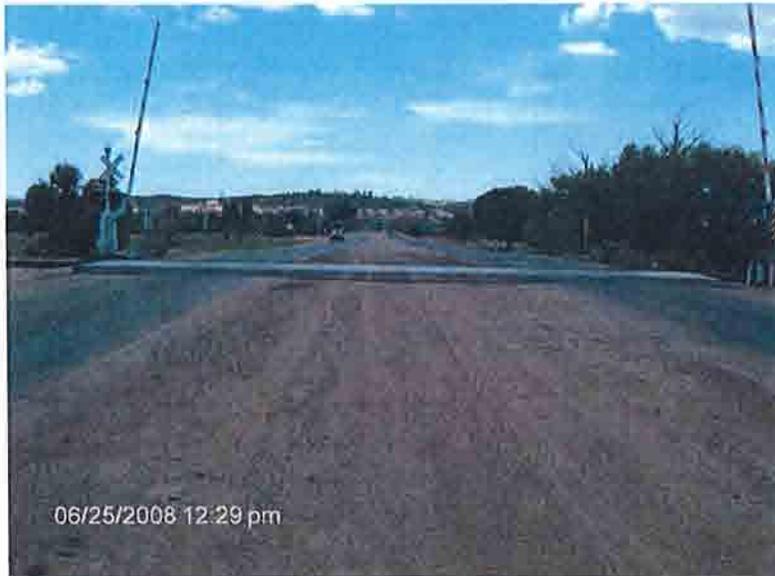


HDR Field Visit – Palo Parado Private Crossing MP 1034.4  
Looking south along Palo Parado





HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking west along Rio Rico Drive



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking west along Rio Rico Drive



06/25/2008 12:29 pm

HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking west along Rio Rico Drive



06/25/2008 12:29 pm

HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking south along tracks





HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking east along Rio Rico Drive



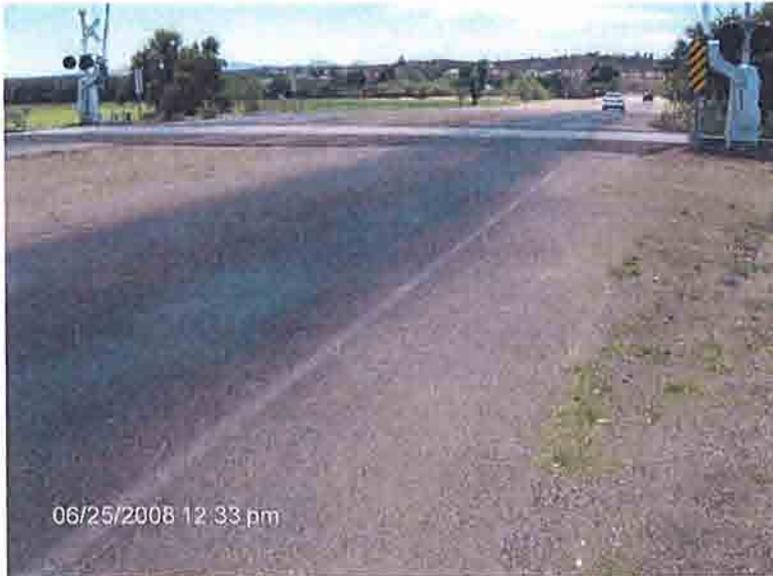
HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking south at CMP just west of tracks and along northern edge of Rio Rico Drive



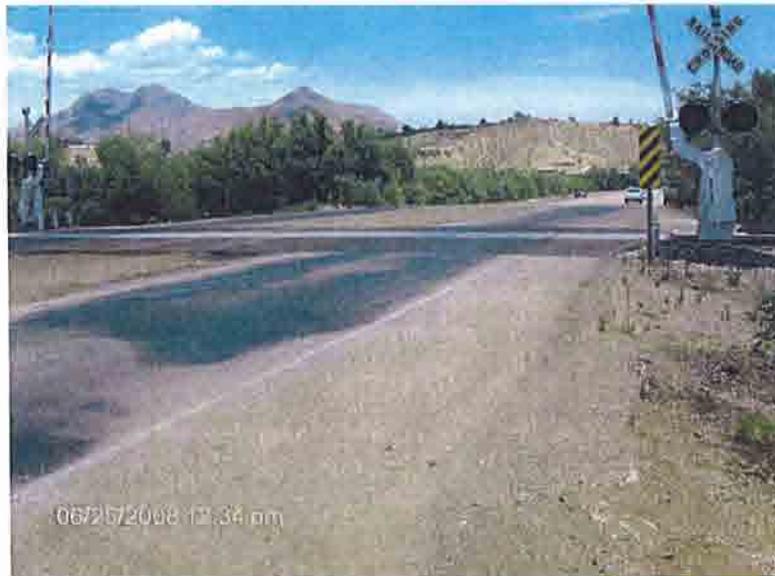
HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking at tracks from just north of Rio Rico Drive and western side of tracks



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking at CMP from just east of tracks and north of Rio Rico Drive



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking west along Rio Rico Drive



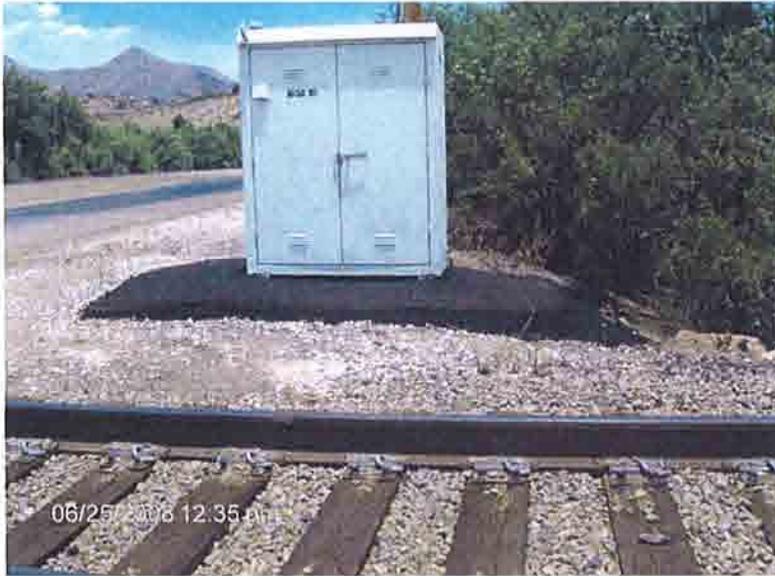
HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking east along Rio Rico Drive



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking at CMP just west of tracks and along southern edge of Rio Rico Drive



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking east at tracks from just south of Rio Rico Drive



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking at signal house located east of tracks and on southern side of Rio Rico Drive



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking north along tracks



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking east along tracks



HDR Field Visit – Rio Rico Drive Crossing MP 1038.8  
Looking at CMP just east of tracks and along southern edge of Rio Rico Drive





HDR Field Visit – Private Crossing MP 1039.3  
Looking west at the tracks



HDR Field Visit – Private Crossing MP 1039.3  
Looking northwest along the tracks



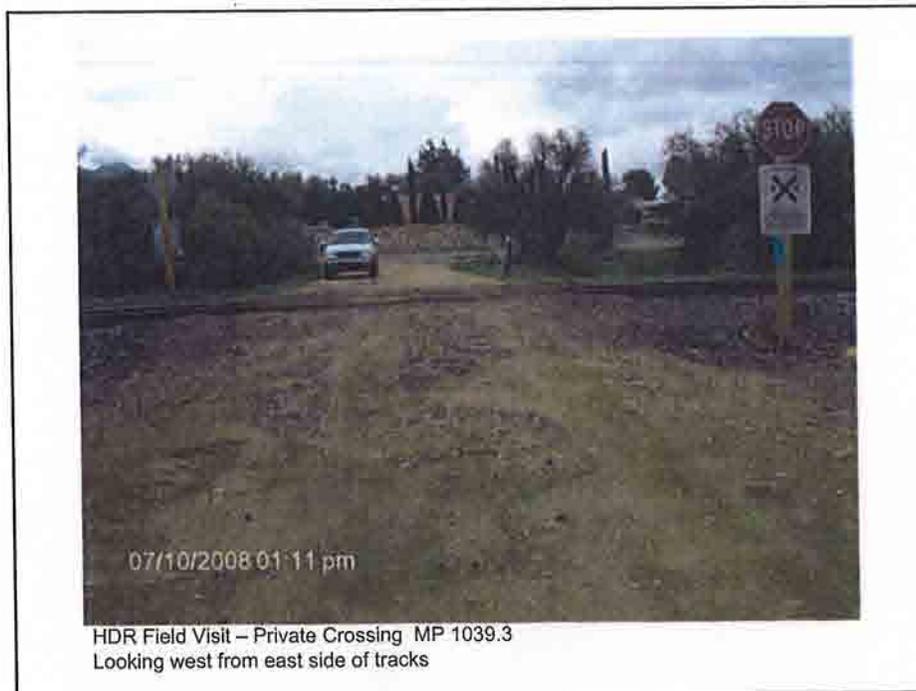
HDR Field Visit – Private Crossing MP 1039.3  
Looking east from the tracks



HDR Field Visit – Private Crossing MP 1039.3  
Stop sign at crossing



HDR Field Visit – Private Crossing MP 1039.3  
Looking west at the wood panels



07/10/2008 01:11 pm  
HDR Field Visit – Private Crossing MP 1039.3  
Looking west from east side of tracks



HDR Field Visit – Private Crossing MP 1039.3  
Looking southwest at the tracks



HDR Field Visit – Private Crossing MP 1039.3  
Looking northwest at the tracks





HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking south along private roadway



HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking west at crossing



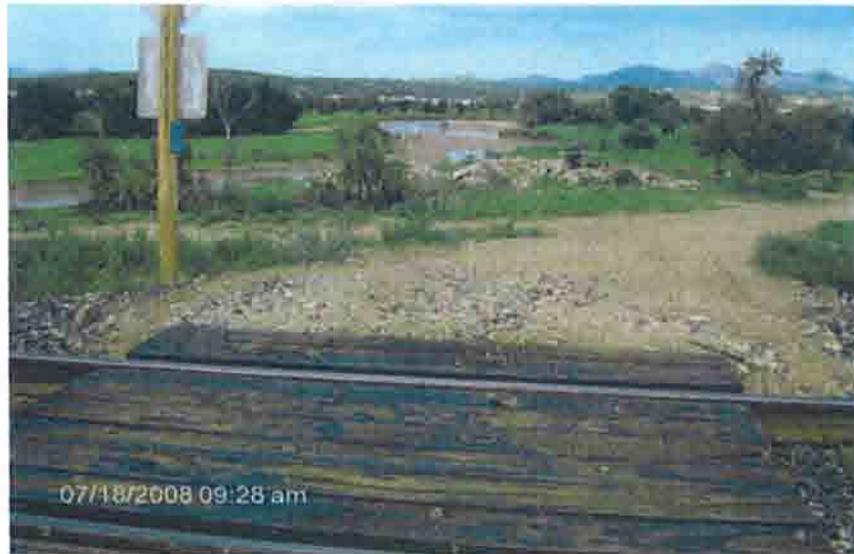
HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking west at crossing



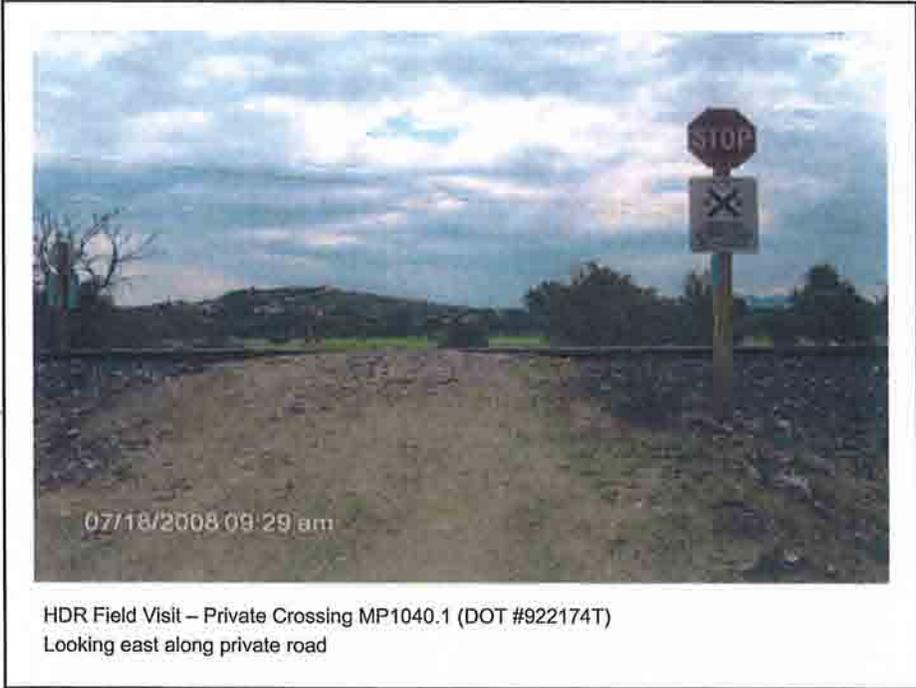
HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking south along tracks



HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking south along tracks

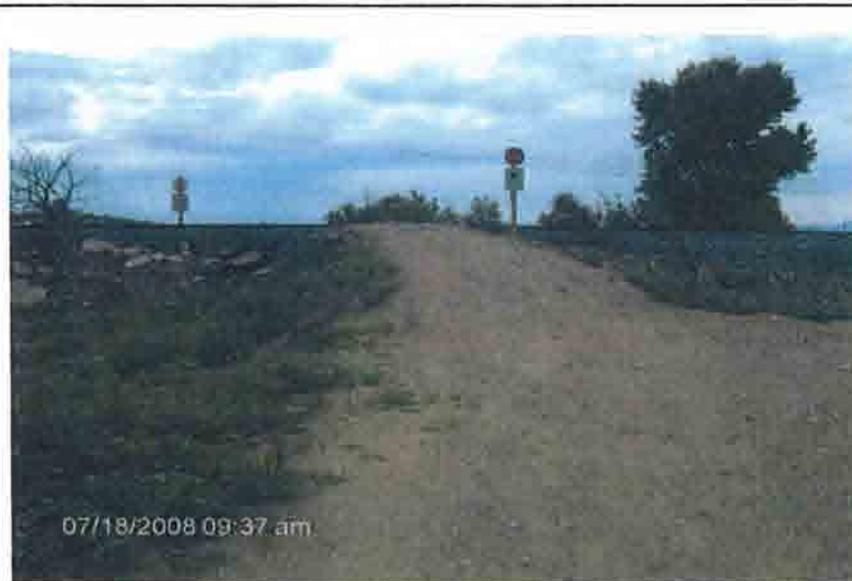


HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking at timber panels

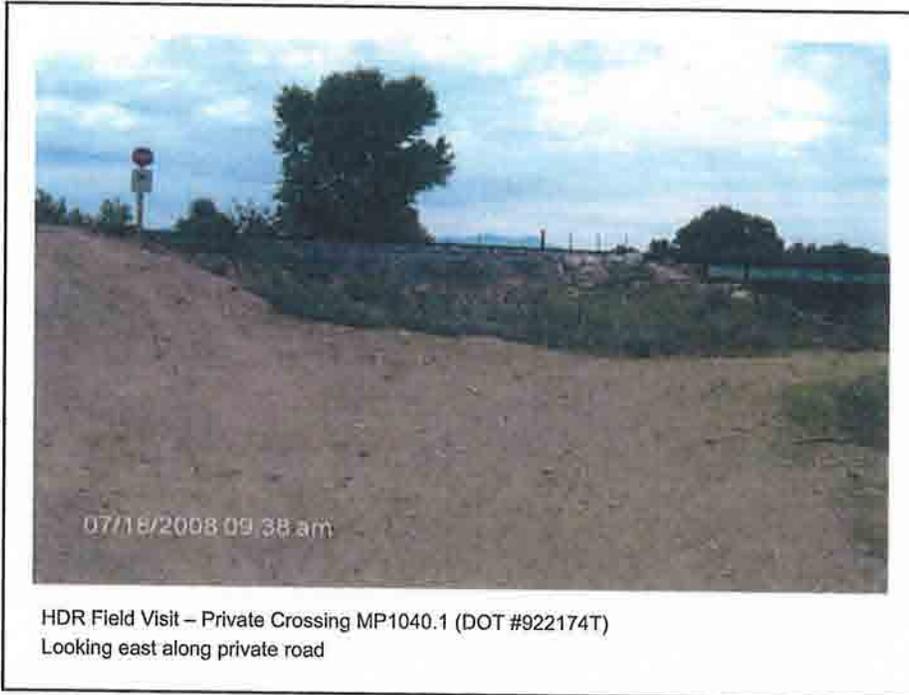




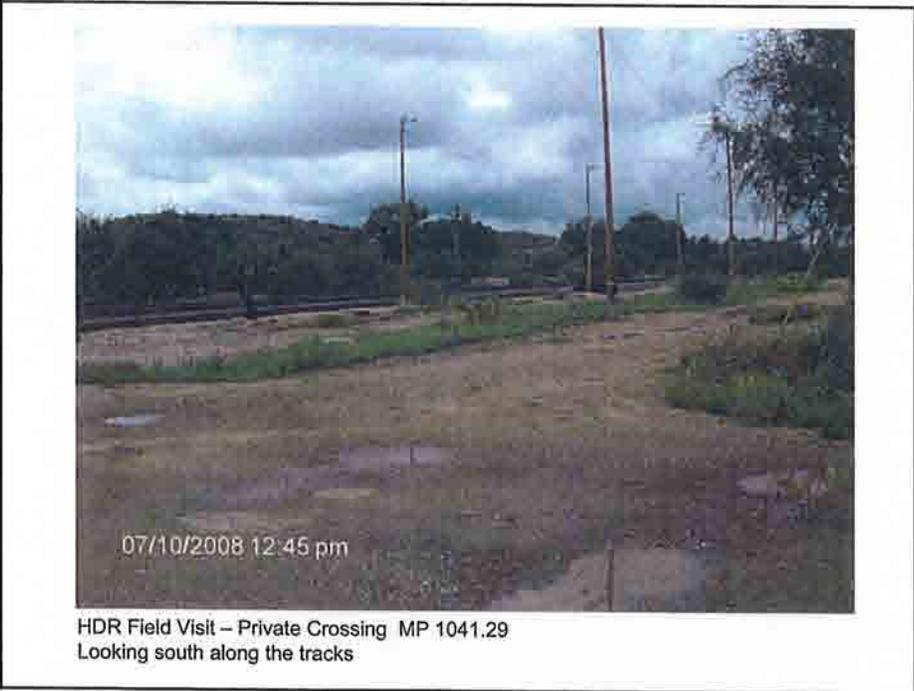
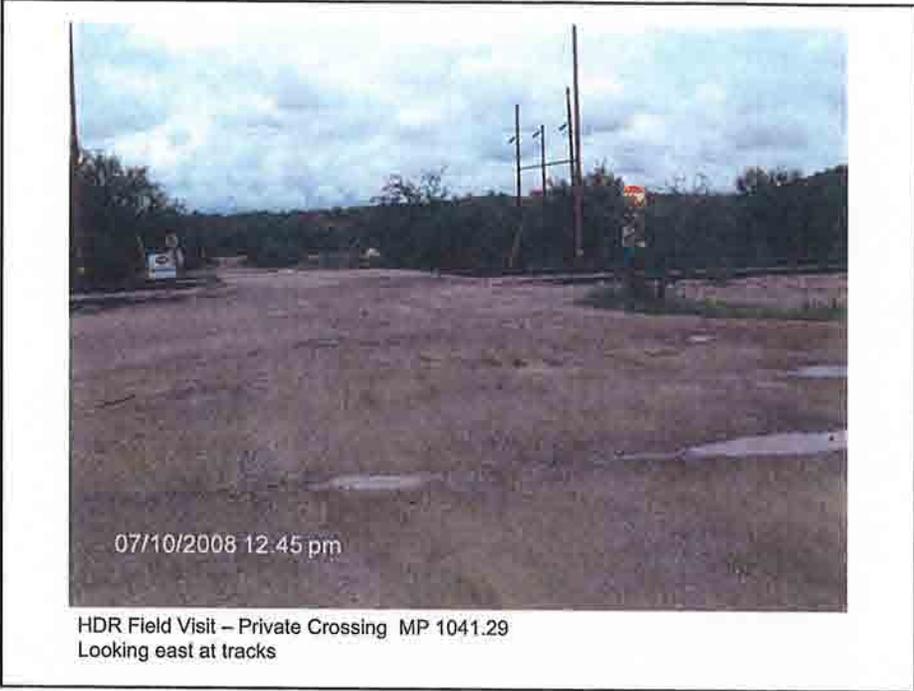
HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking north along tracks

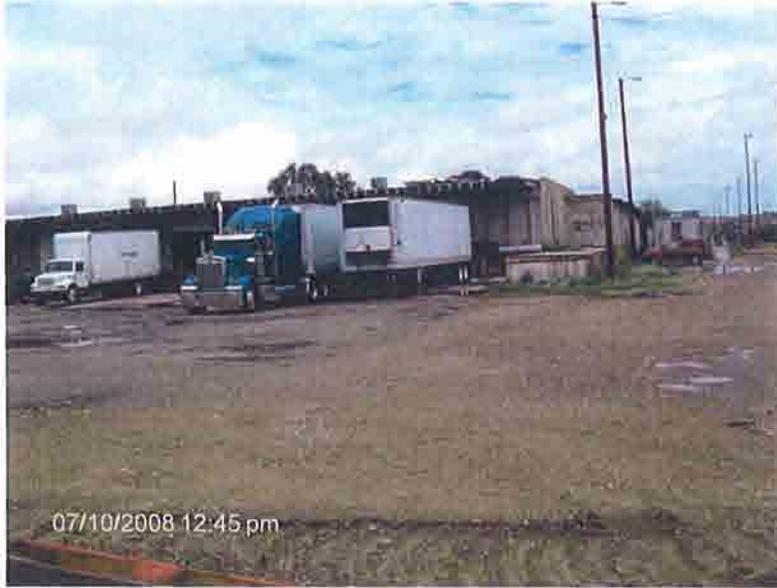


HDR Field Visit – Private Crossing MP1040.1 (DOT #922174T)  
Looking east along private road









HDR Field Visit – Private Crossing MP 1041.29  
Looking north at truck dock



HDR Field Visit – Private Crossing MP 1041.29  
Looking southeast at tracks



HDR Field Visit – Private Crossing MP 1041.29  
Looking north and west of tracks



HDR Field Visit – Private Crossing MP 1041.29  
Looking south along the tracks



HDR Field Visit – Private Crossing MP 1041.29  
Looking east at tracks



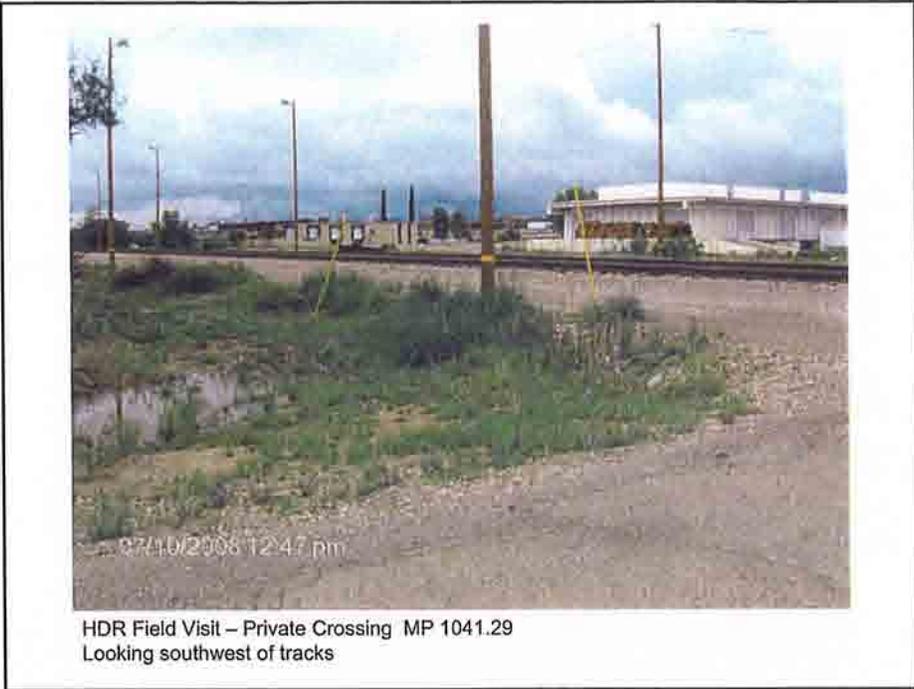
HDR Field Visit – Private Crossing MP 1041.29  
Looking west from tracks



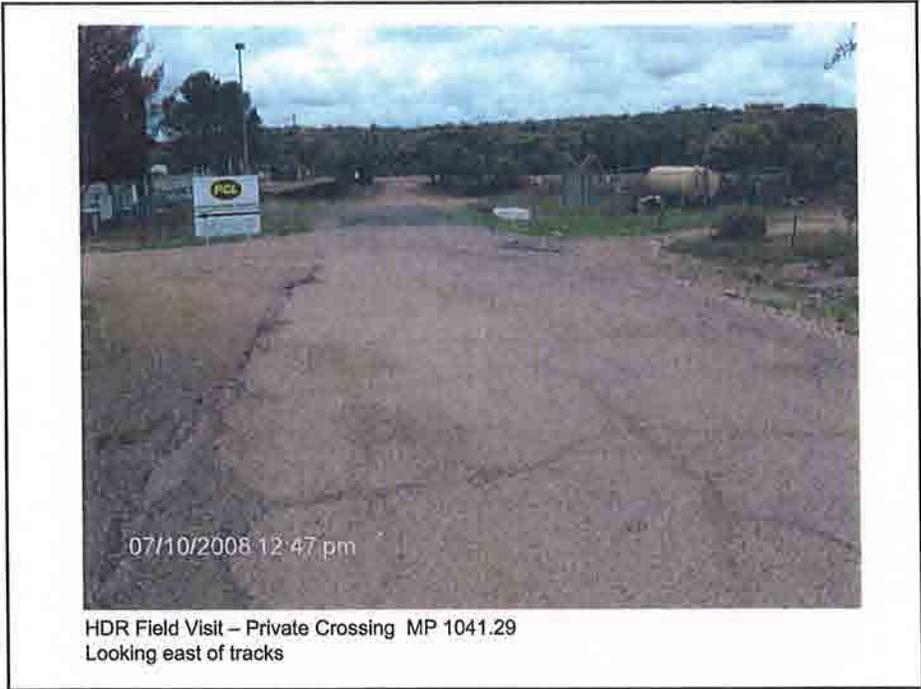
HDR Field Visit – Private Crossing MP 1041.29  
Looking southwest side of tracks



HDR Field Visit – Private Crossing MP 1041.29  
Looking northwest side of tracks



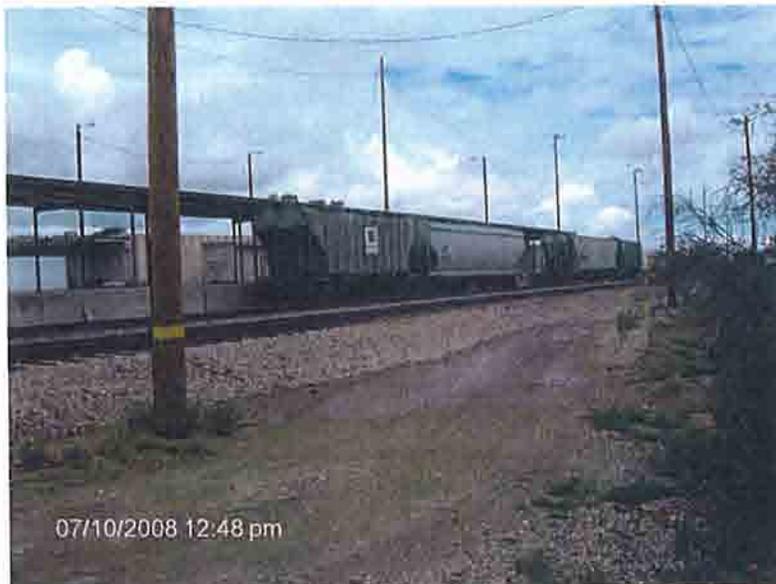
HDR Field Visit – Private Crossing MP 1041.29  
Looking southwest of tracks



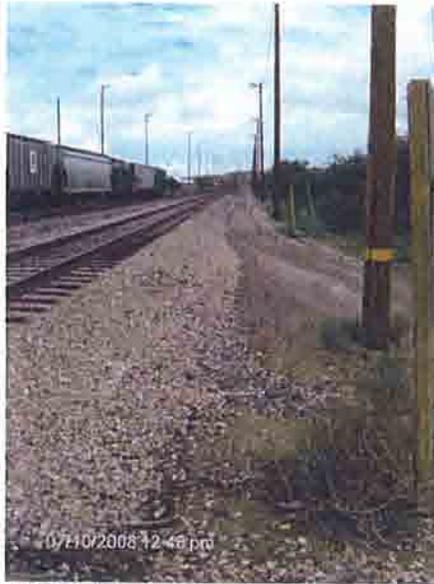
HDR Field Visit – Private Crossing MP 1041.29  
Looking east of tracks



HDR Field Visit – Private Crossing MP 1041.29  
Looking west of tracks



HDR Field Visit – Private Crossing MP 1041.29  
Looking northwest at tracks

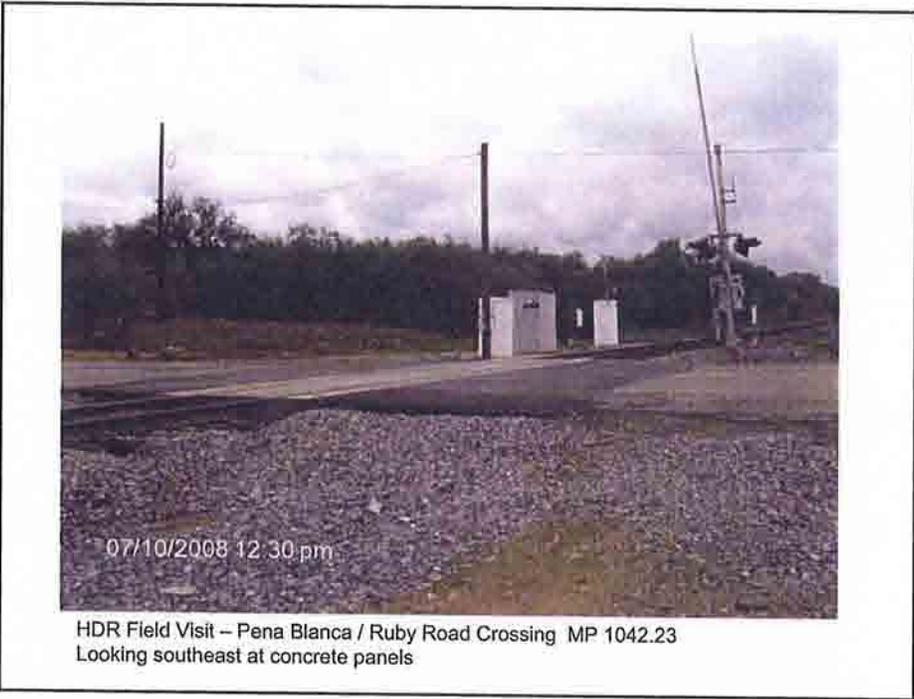


HDR Field Visit – Private Crossing MP 1041.29  
Looking north along tracks

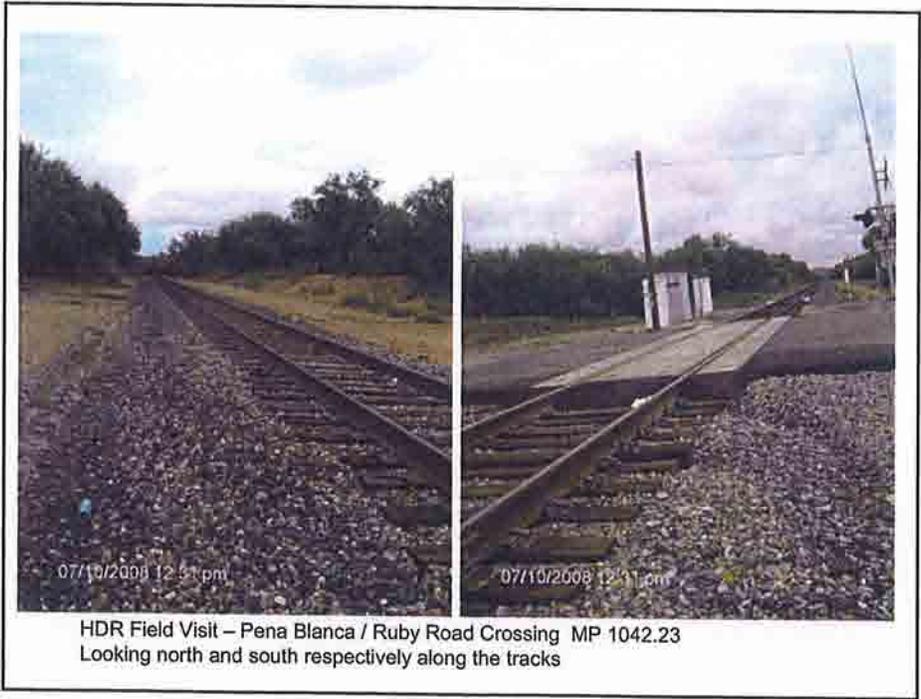


HDR Field Visit – Private Crossing MP 1041.29  
Looking west at concrete panels





HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking southeast at concrete panels



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking north and south respectively along the tracks



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking west from tracks



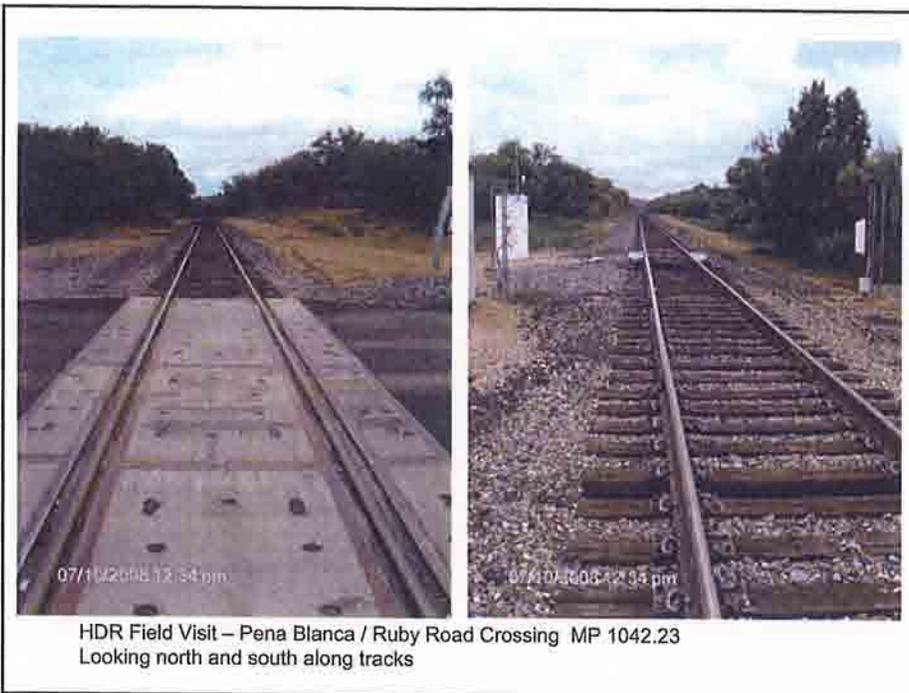
HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking west from tracks



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking east at crossing



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking east at crossing



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
 Looking north and south along tracks



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
 Looking at cattle guard east of tracks



07/10/2008 12:35 pm

HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking east of tracks



07/10/2008 12:35 pm

HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking west at concrete panels



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking at fence east of tracks at cattle guard on north side of street



HDR Field Visit – Pena Blanca / Ruby Road Crossing MP 1042.23  
Looking south at tracks and west at drainage area

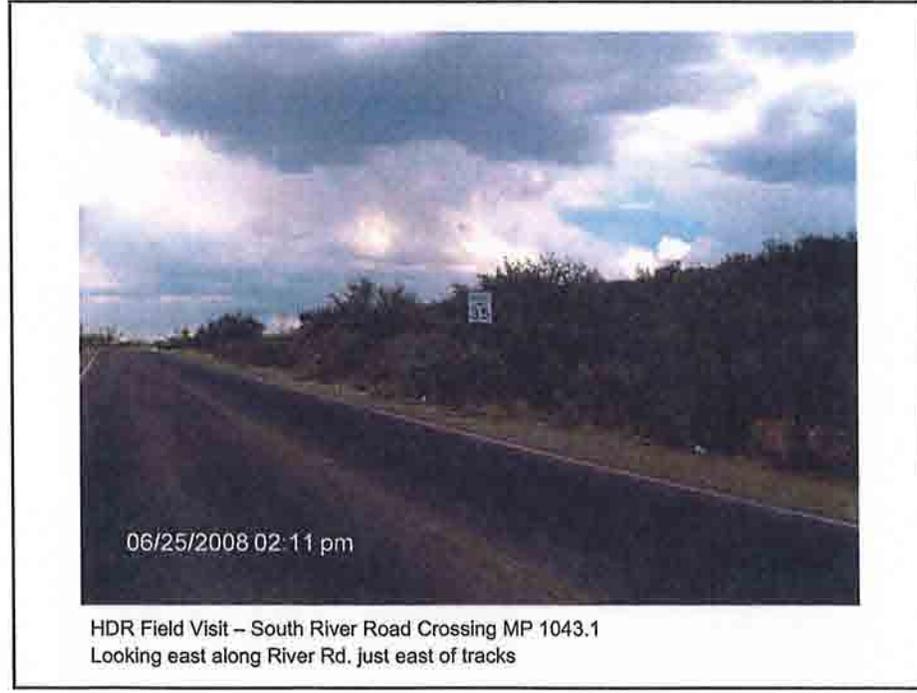
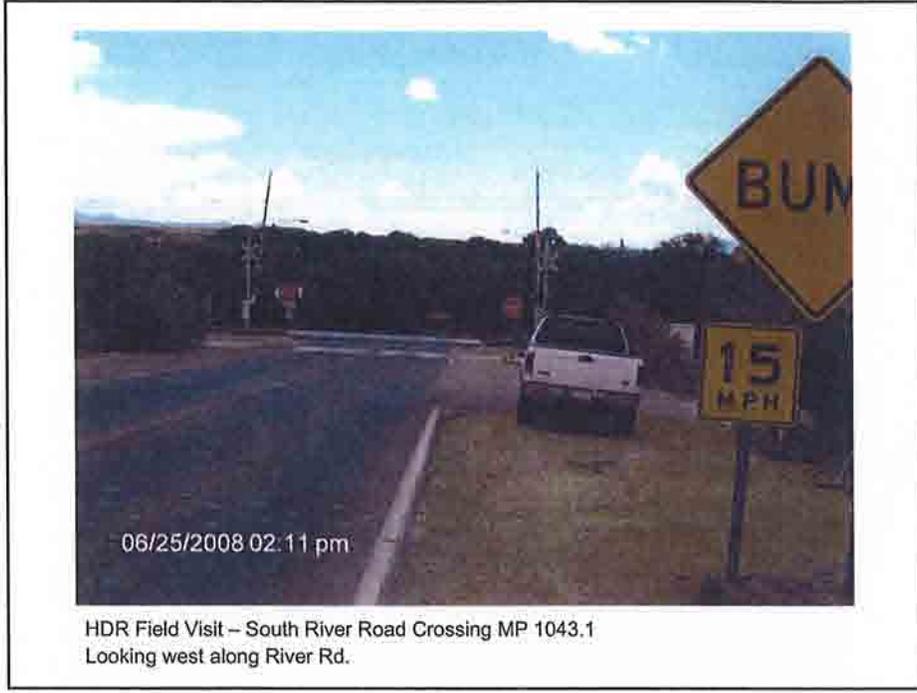


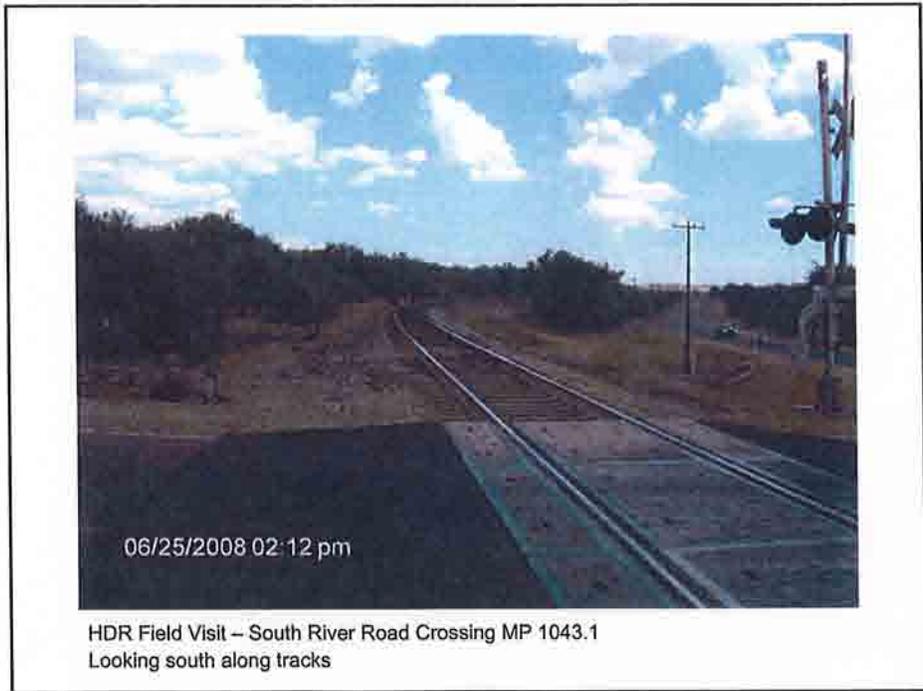


HDR Field Visit – South River Road Crossing MP 1043.1  
Looking west along River Rd.



HDR Field Visit – South River Road Crossing MP 1043.1  
Looking west along River Rd.







HDR Field Visit – South River Road Crossing MP 1043.1  
Looking north along tracks



HDR Field Visit – South River Road Crossing MP 1043.1  
Looking at cattle guard, just east of tracks from southern side of River Rd.



HDR Field Visit – South River Road Crossing 1043.1  
Looking east along River Rd.



HDR Field Visit – South River Road Crossing MP 1043.1  
Looking at signal house located just east of tracks and north of River Rd.



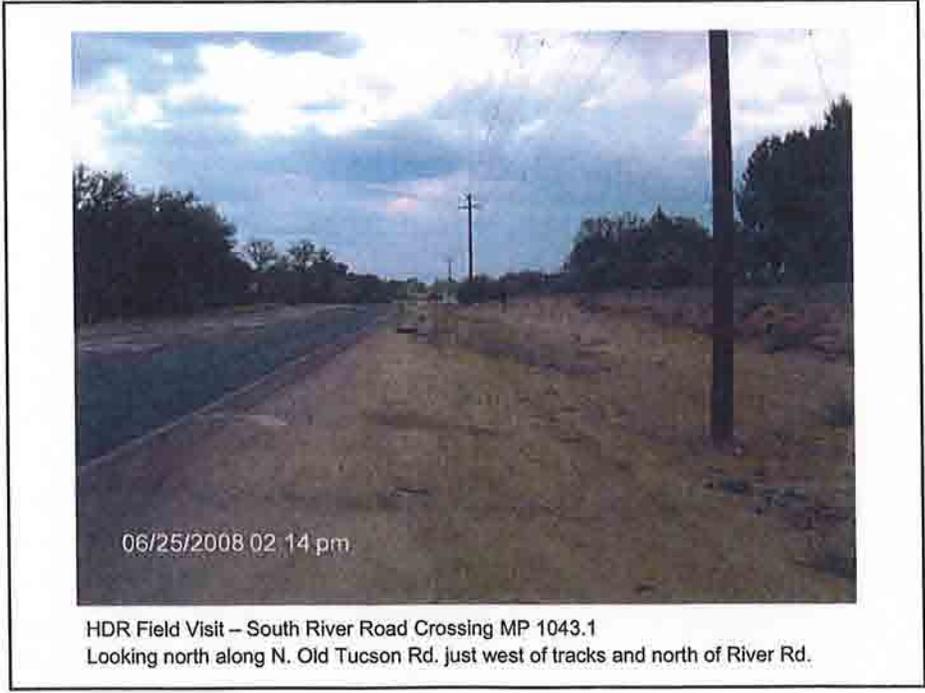
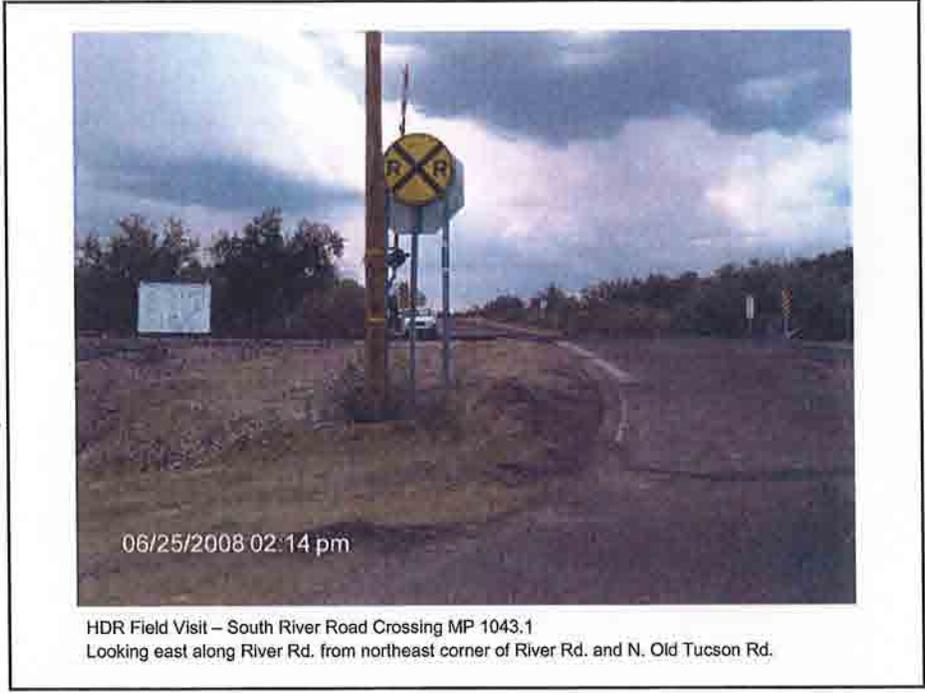
06/25/2008 02:13 pm

HDR Field Visit – South River Road Crossing MP 1043.1  
Looking east along River Rd.



06/25/2008 02:14 pm

HDR Field Visit – South River Road Crossing MP 1043.1  
Looking northeast at southeast corner of River Rd. and N. Old Tucson Rd.





06/25/2008 02:15 pm

HDR Field Visit – South River Road Crossing MP 1043.1  
Looking east at tracks from northern side of River Rd.



06/25/2008 02:34 pm

HDR Field Visit – South River Road Crossing MP 1043.1  
Looking west along River Rd.



HDR Field Visit – South River Road Crossing MP 1043.1  
Looking west along River Rd.



HDR Field Visit – South River Road Crossing MP 1043.1  
Looking north along N. Old Tucson Rd. just west of tracks and north of River Rd.

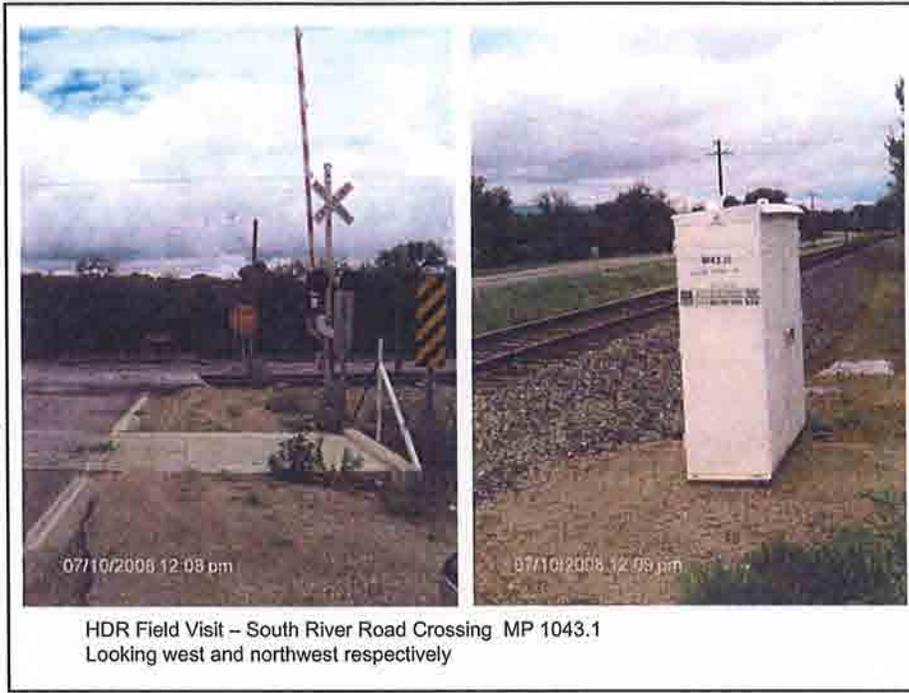




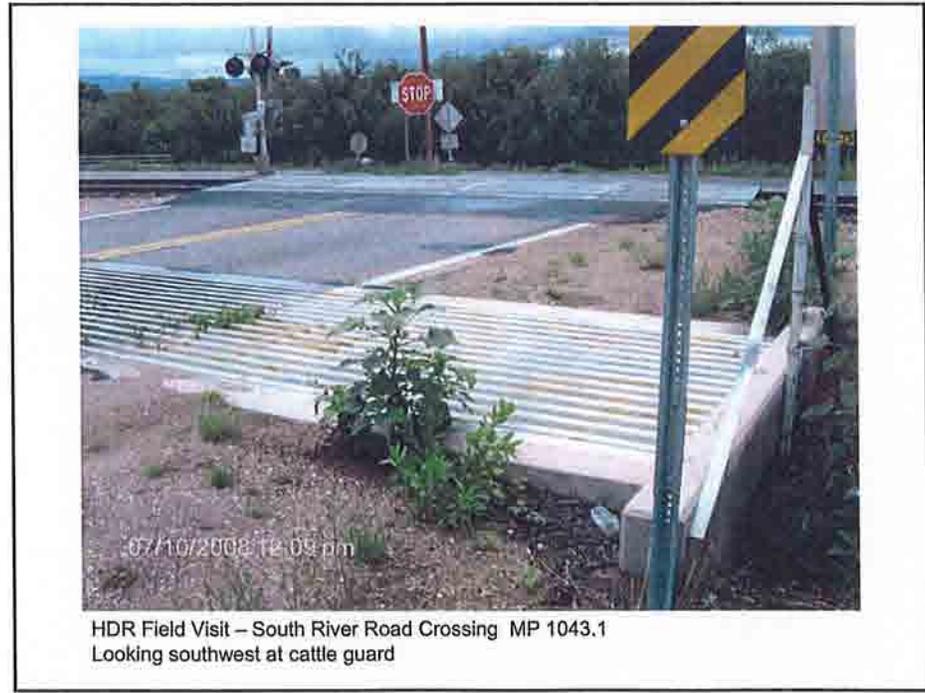
HDR Field Visit – South River Road Crossing MP 1043.1  
Looking northeast at southeast corner of River Rd. and N. Old Tucson Rd.



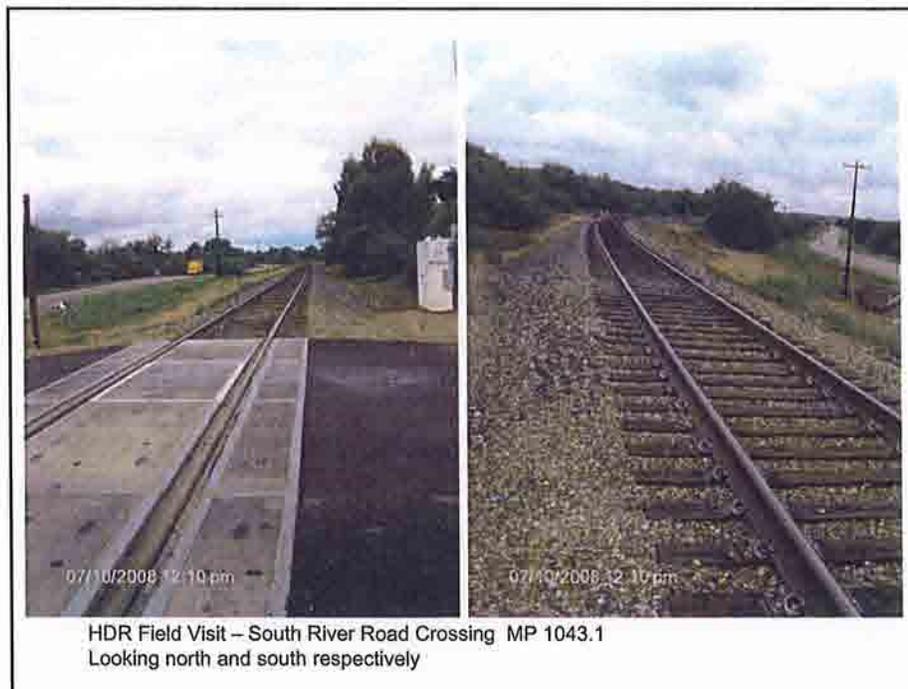
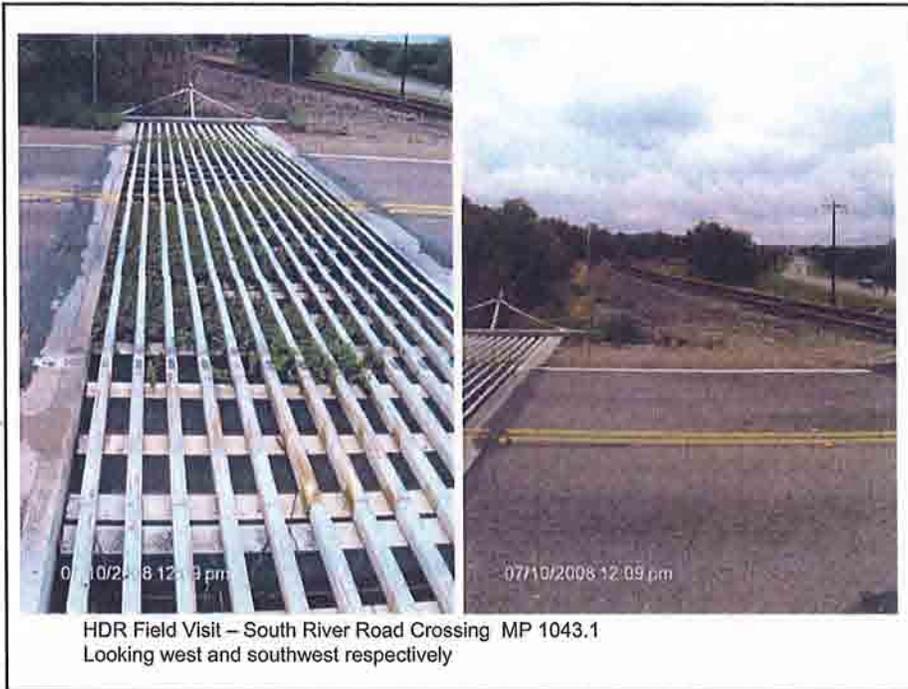
HDR Field Visit – South River Road Crossing MP 1043.1  
Looking west

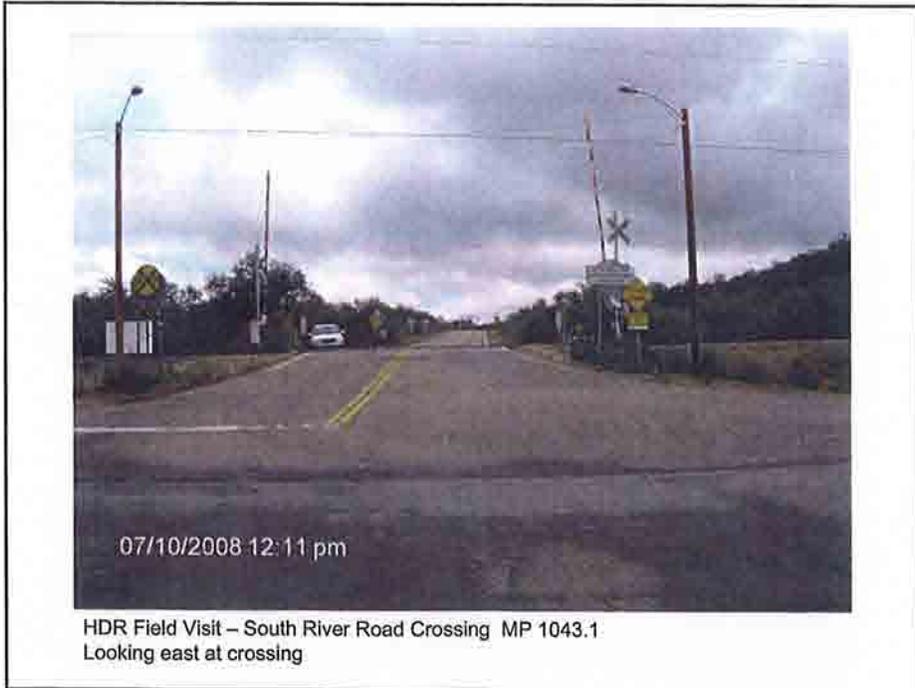
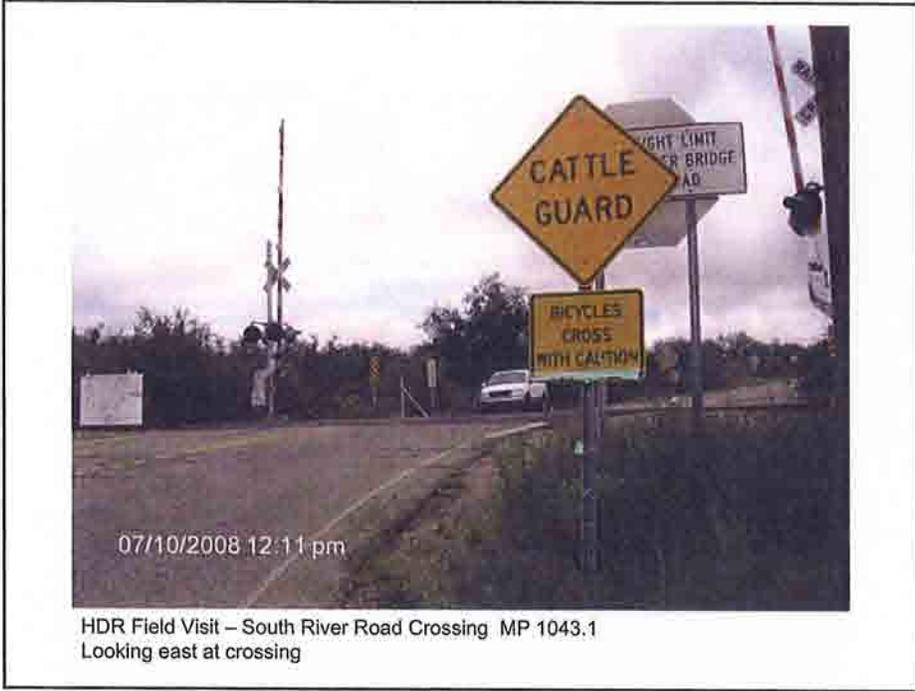


HDR Field Visit – South River Road Crossing MP 1043.1  
 Looking west and northwest respectively

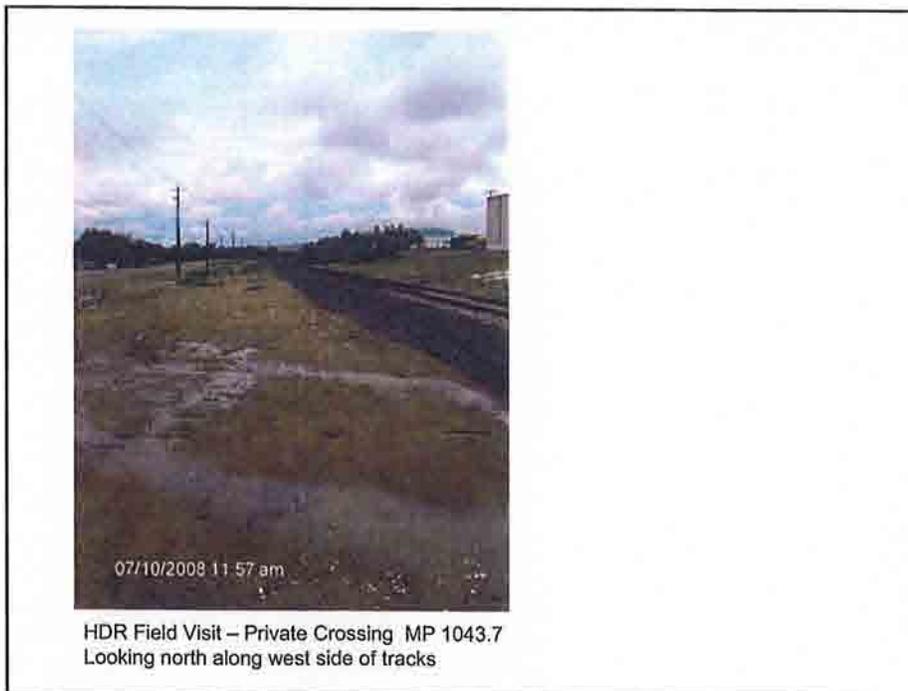
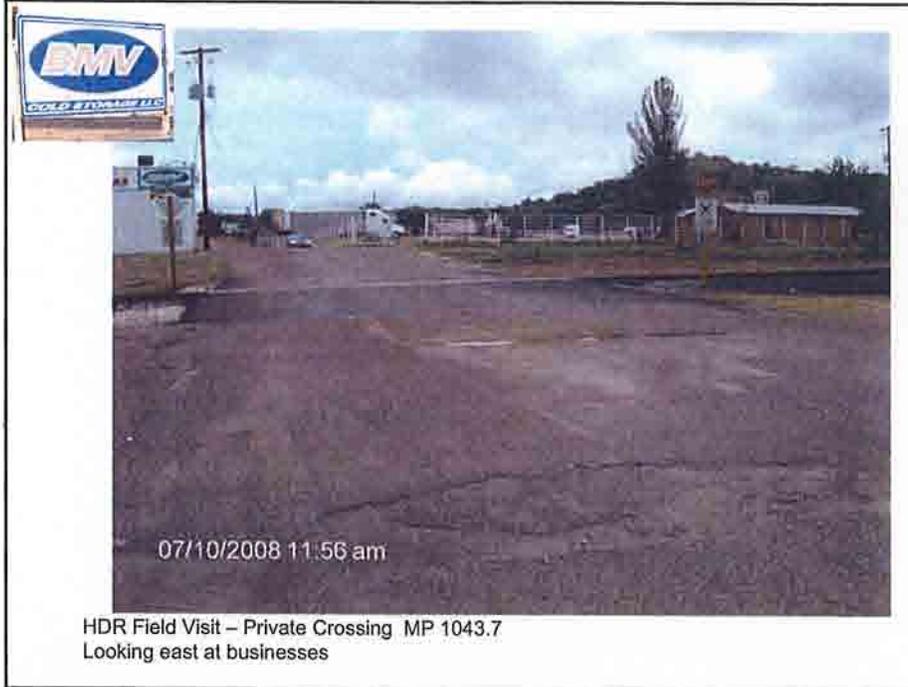


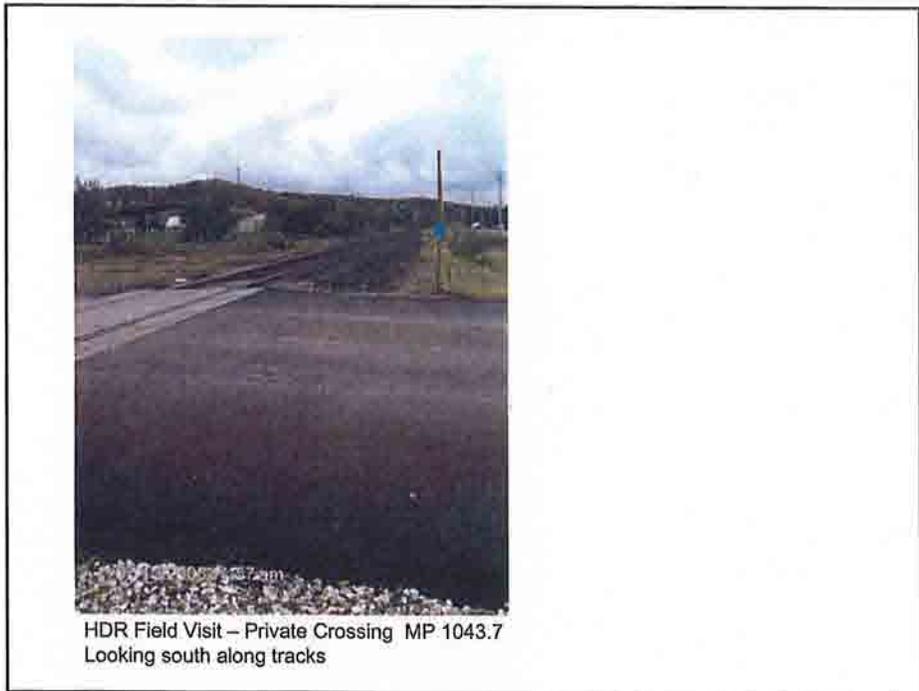
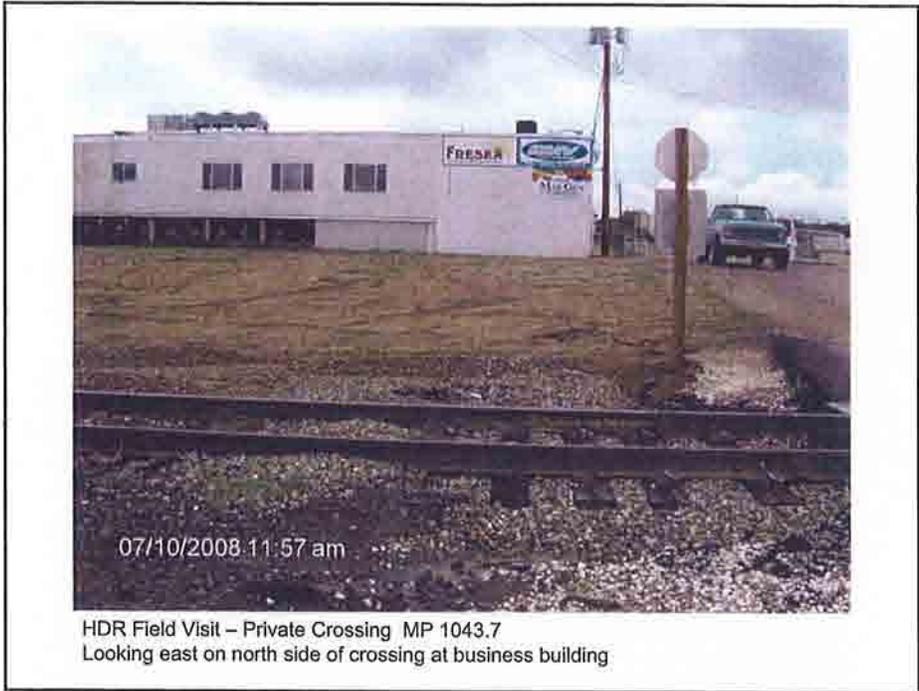
HDR Field Visit – South River Road Crossing MP 1043.1  
 Looking southwest at cattle guard













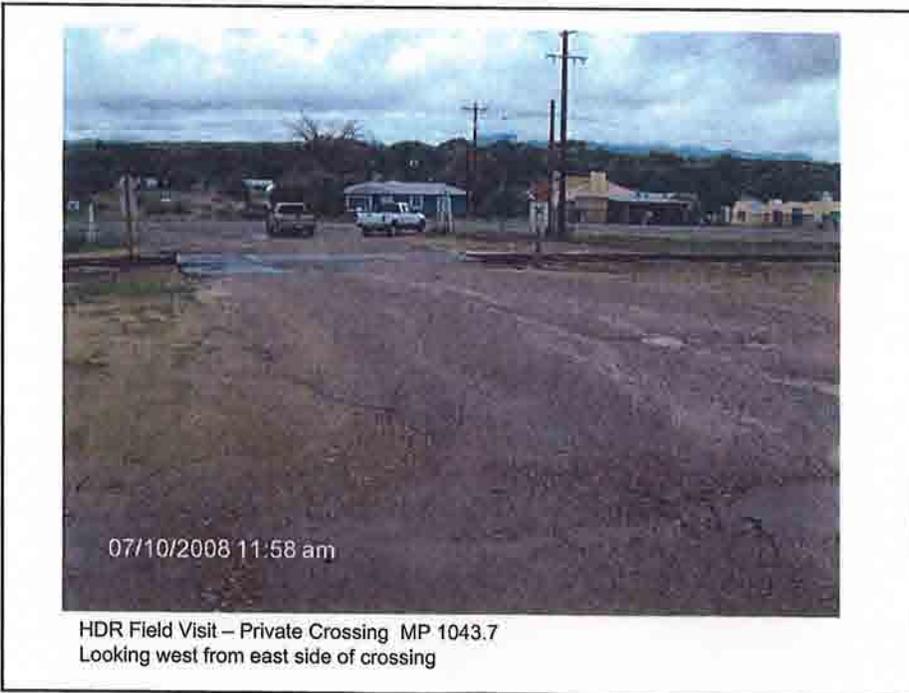
07/10/2008 11:57 am

HDR Field Visit – Private Crossing MP 1043.7  
Looking southwest from tracks



07/10/2008 11:57 am

HDR Field Visit – Private Crossing MP 1043.7  
Looking east at concrete panels

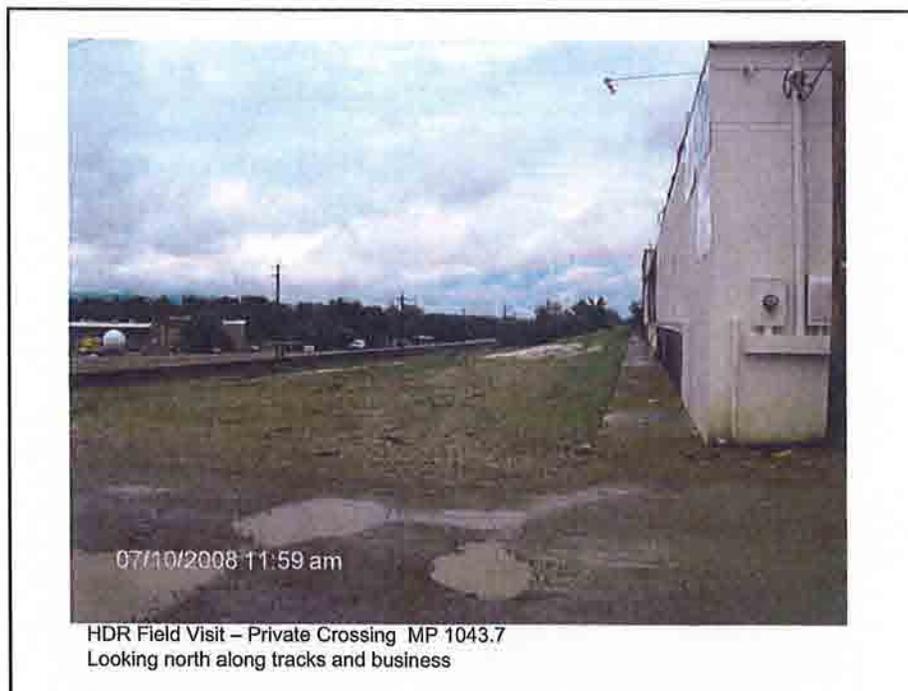




HDR Field Visit – Private Crossing MP 1043.7  
Looking northwest along tracks



HDR Field Visit – Private Crossing MP 1043.7  
Looking southwest from east side of crossing

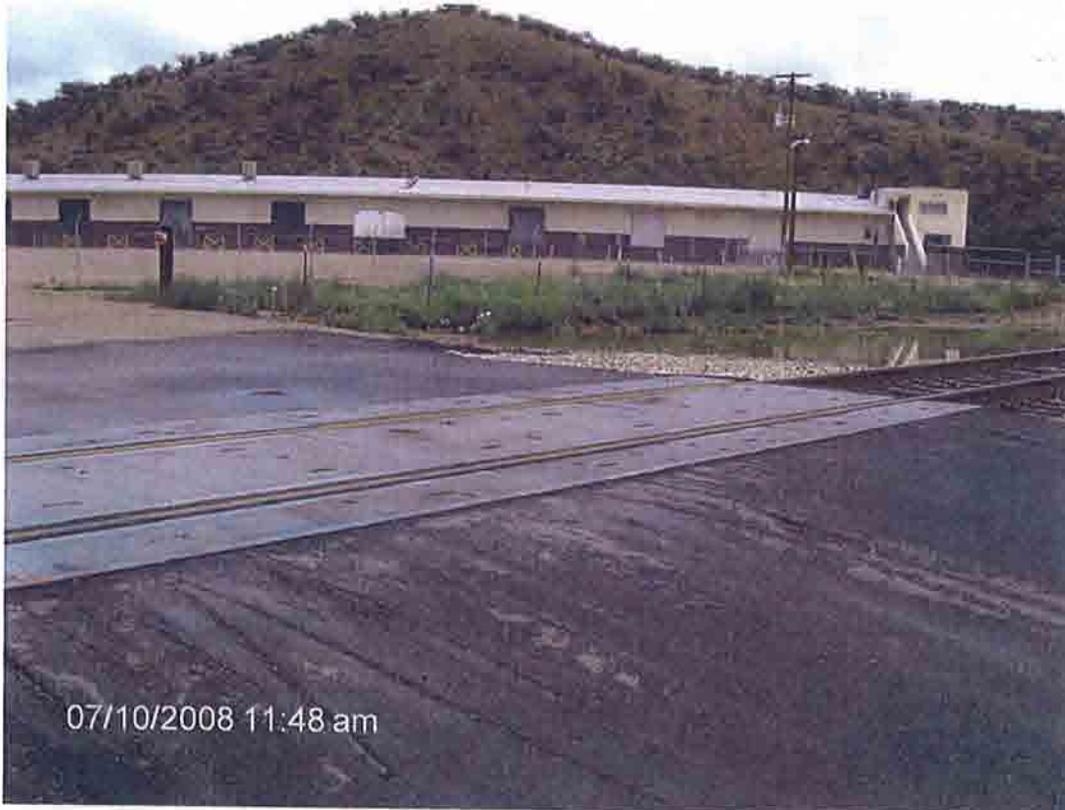




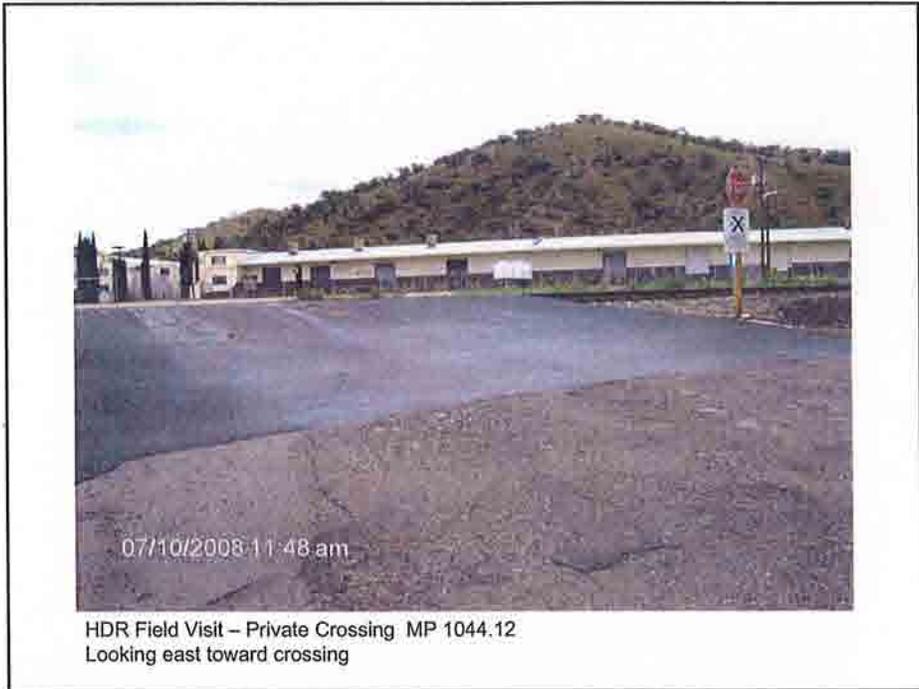
07/10/2008 11:59 am

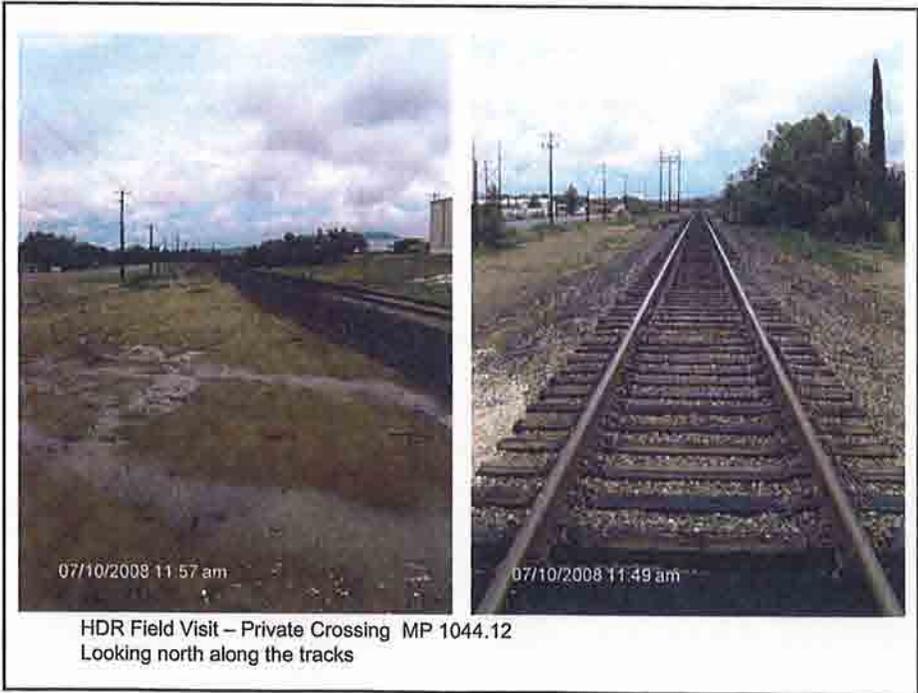
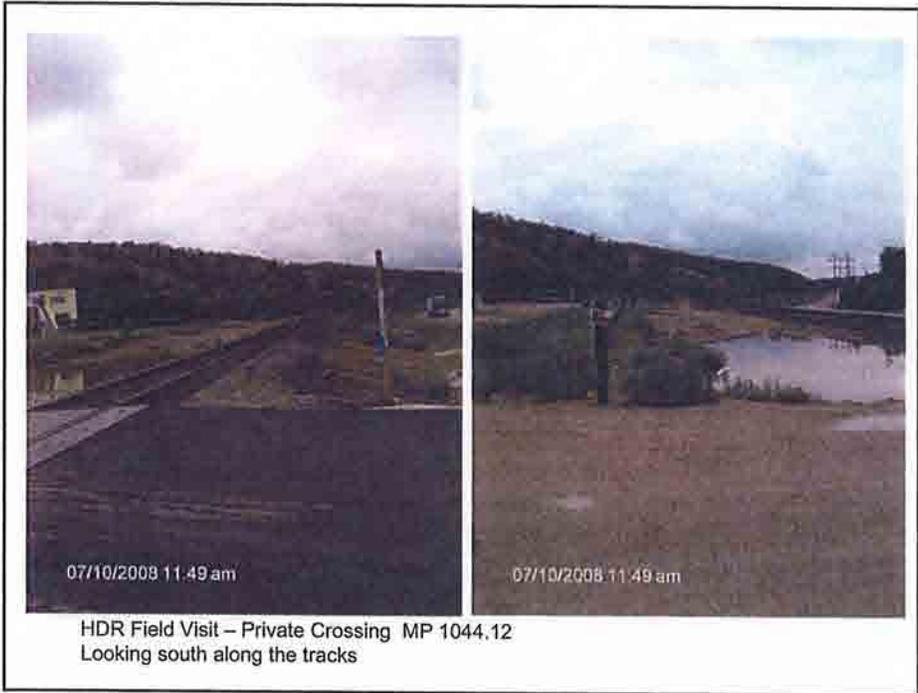
HDR Field Visit – Private Crossing MP 1043.7  
Looking east toward businesses

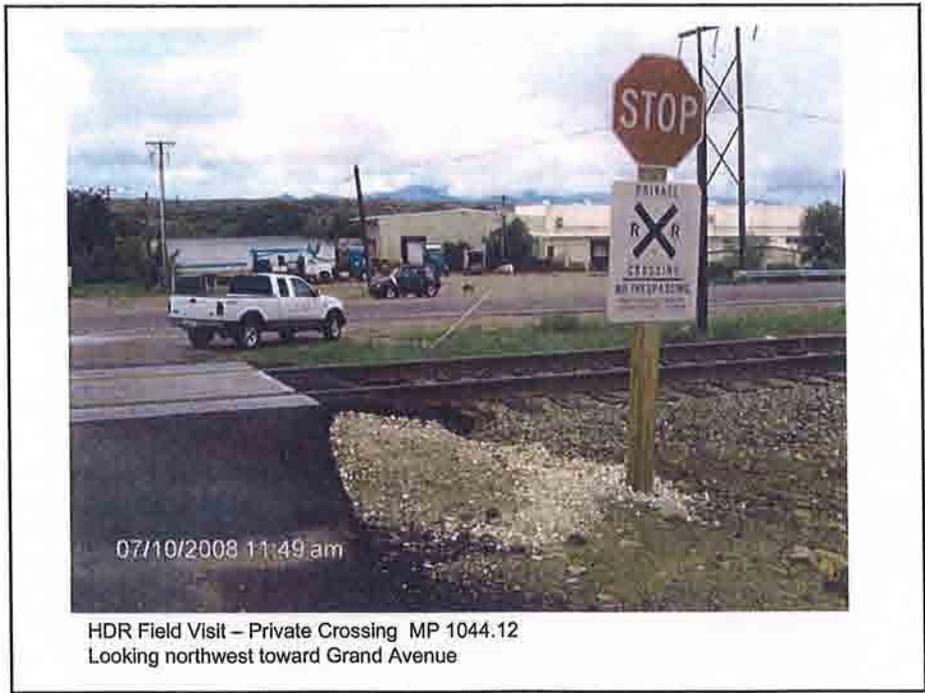
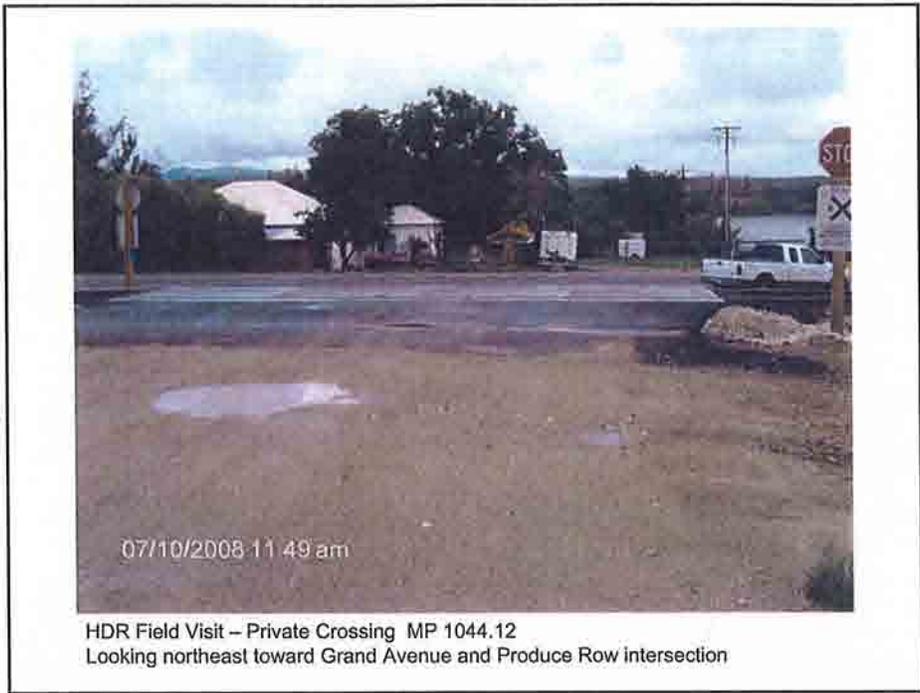




HDR Field Visit – Private Crossing MP 1044.12  
Looking east at crossing approaches









HDR Field Visit – Private Crossing MP 1044.12  
Looking north along the tracks



HDR Field Visit – Private Crossing MP 1044.12  
Looking south along Grand Avenue



HDR Field Visit – Private Crossing MP 1044.12  
Looking northeast toward Grand Avenue and Produce Row intersection

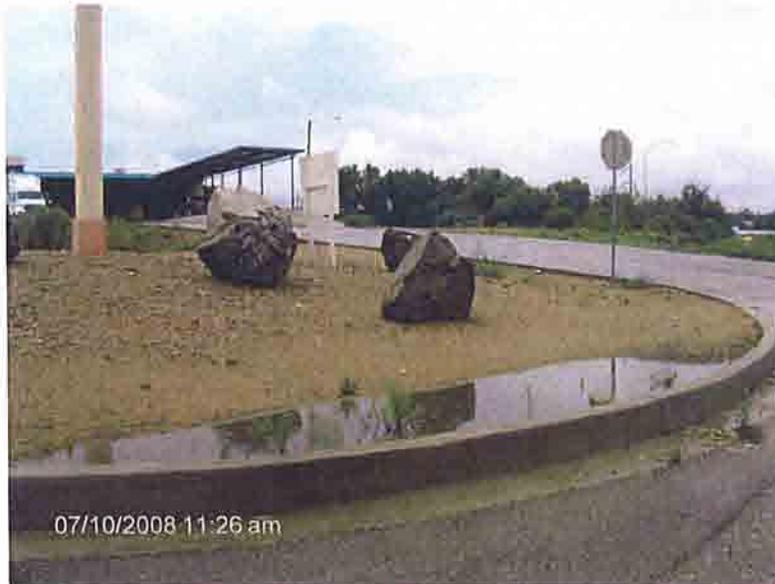




HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking west toward Grand Avenue (west approach)



HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking northwest toward tracks



HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking south just east of tracks

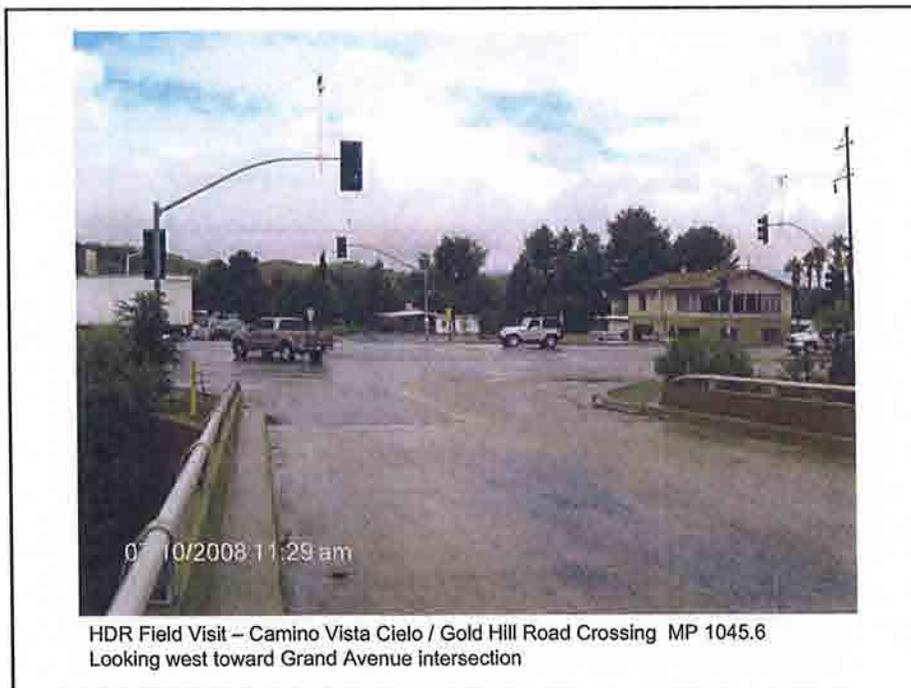
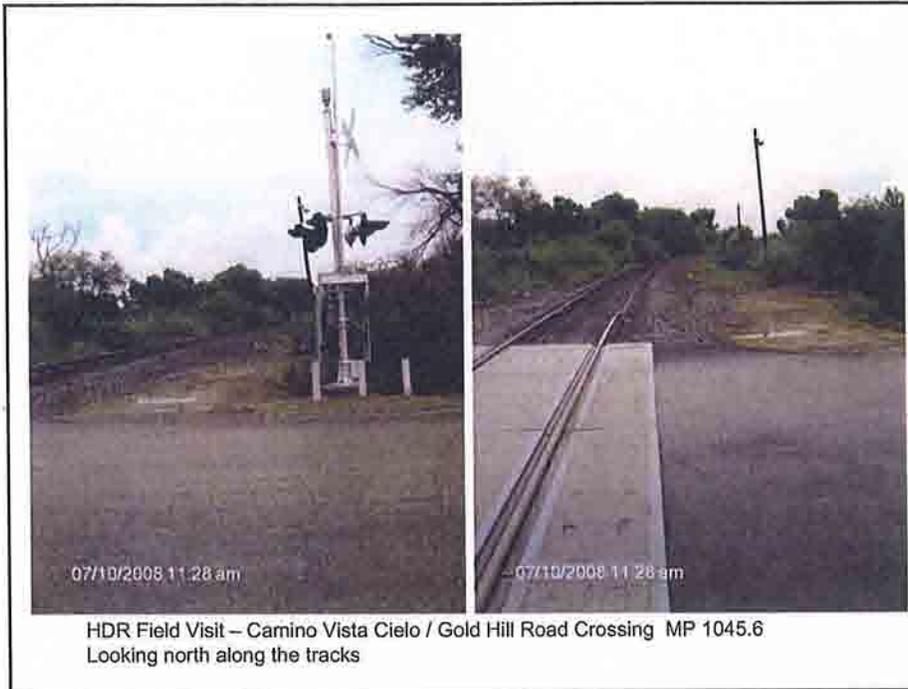




HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking at drainage near tracks



HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking at signal house...just south and east of tracks





HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking west at drainage

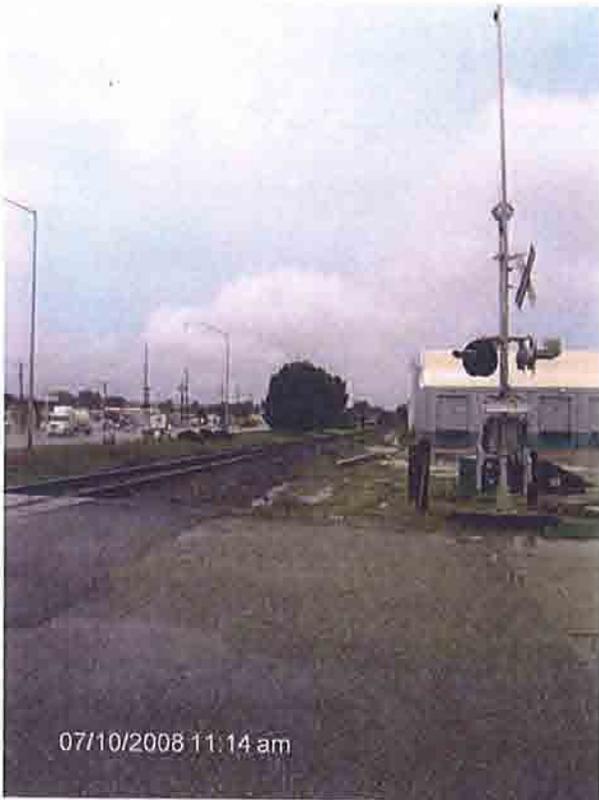


HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking southwest along the tracks



HDR Field Visit – Camino Vista Cielo / Gold Hill Road Crossing MP 1045.6  
Looking east from tracks





07/10/2008 11:14 am

HDR Field Visit – Produce Row Crossing MP 1046.12  
Looking north from east side of tracks



HDR Field Visit – Produce Row Crossing MP 1046.12  
Looking southwest from the east side of the tracks



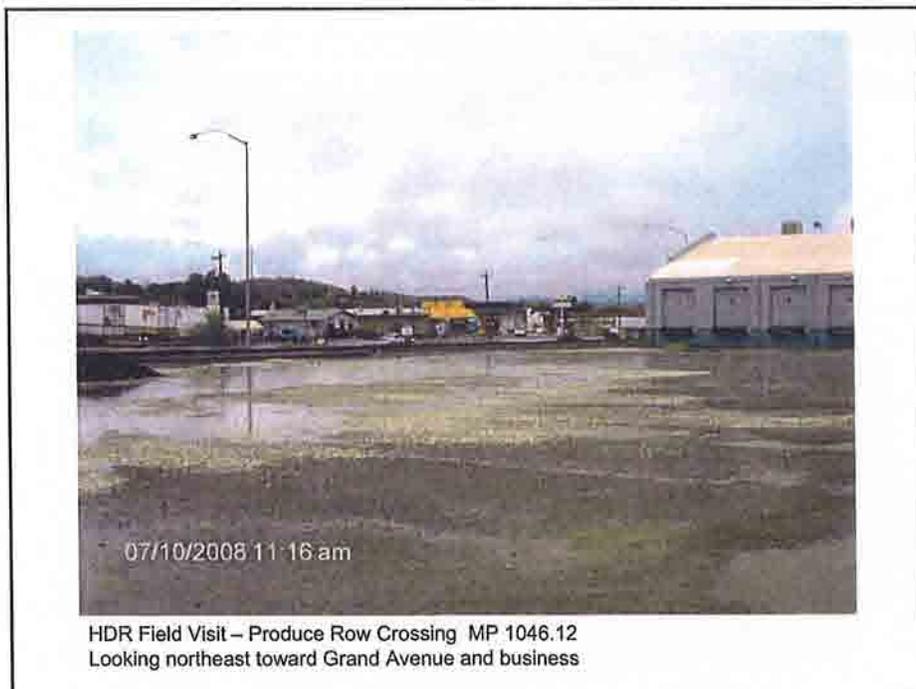
HDR Field Visit – Produce Row Crossing MP 1046.12  
Looking east toward Grand Avenue



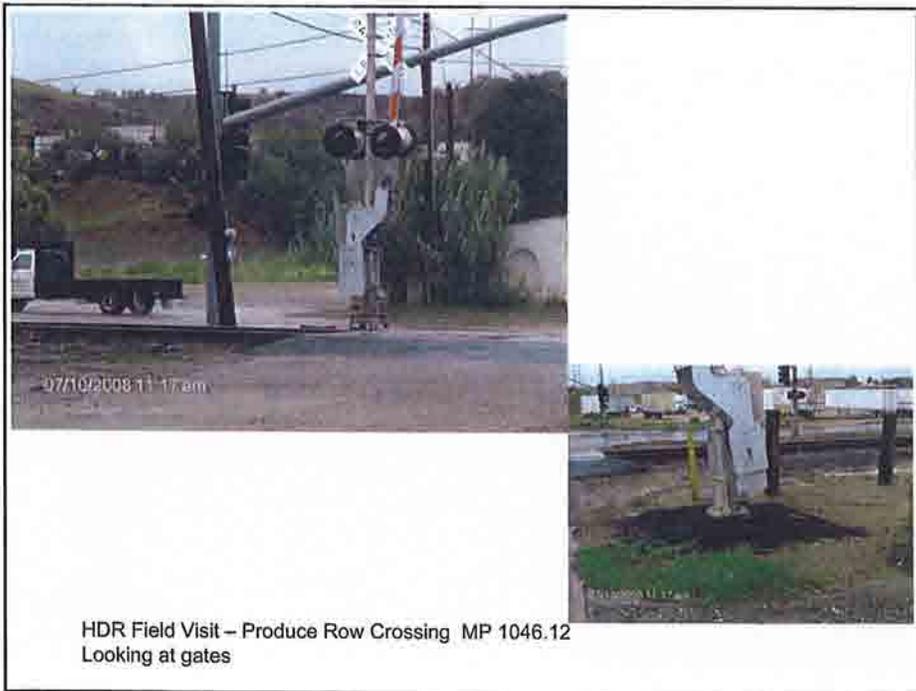
HDR Field Visit – Produce Row Crossing MP 1046.12  
Looking northeast toward Grand Avenue and Produce Row intersection



HDR Field Visit – Produce Row Crossing MP 1046.12  
Looking east toward Grand Avenue











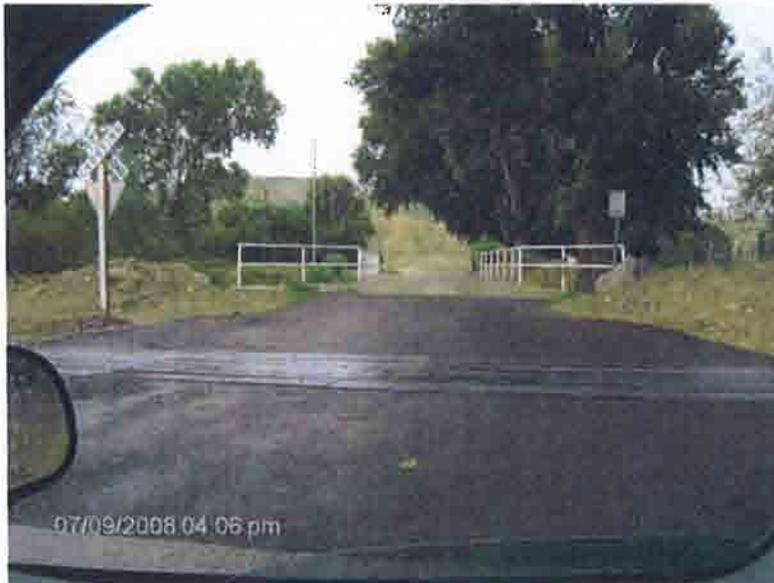
HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking southeast from Grand Avenue



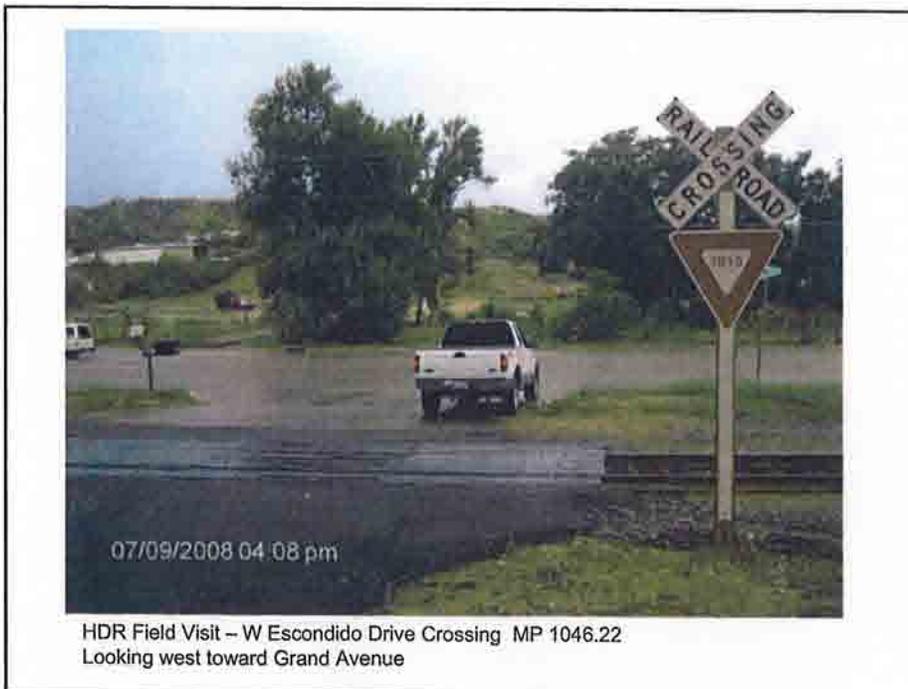
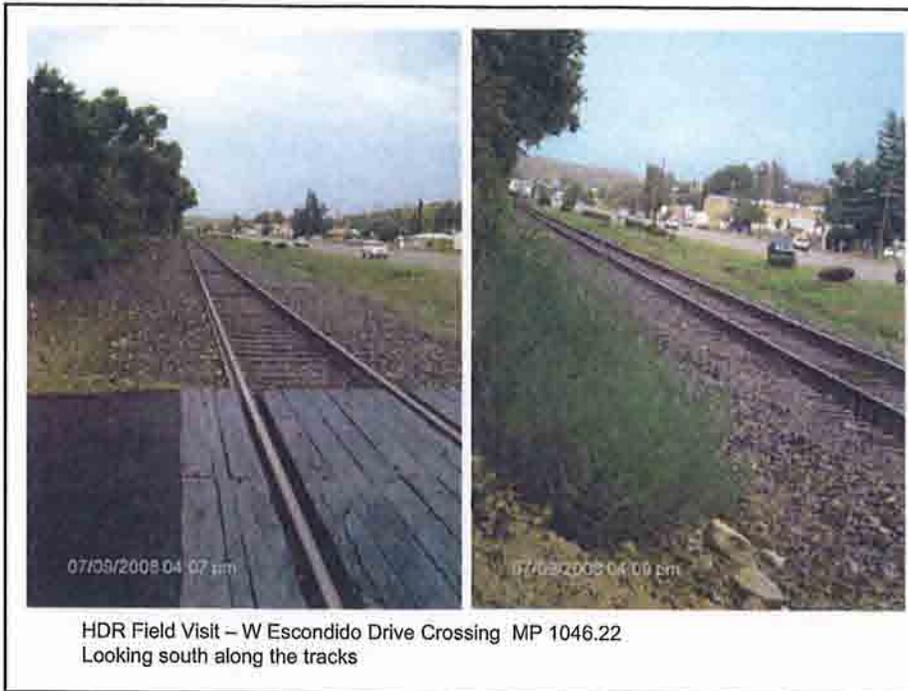
HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking southeast from Grand Avenue

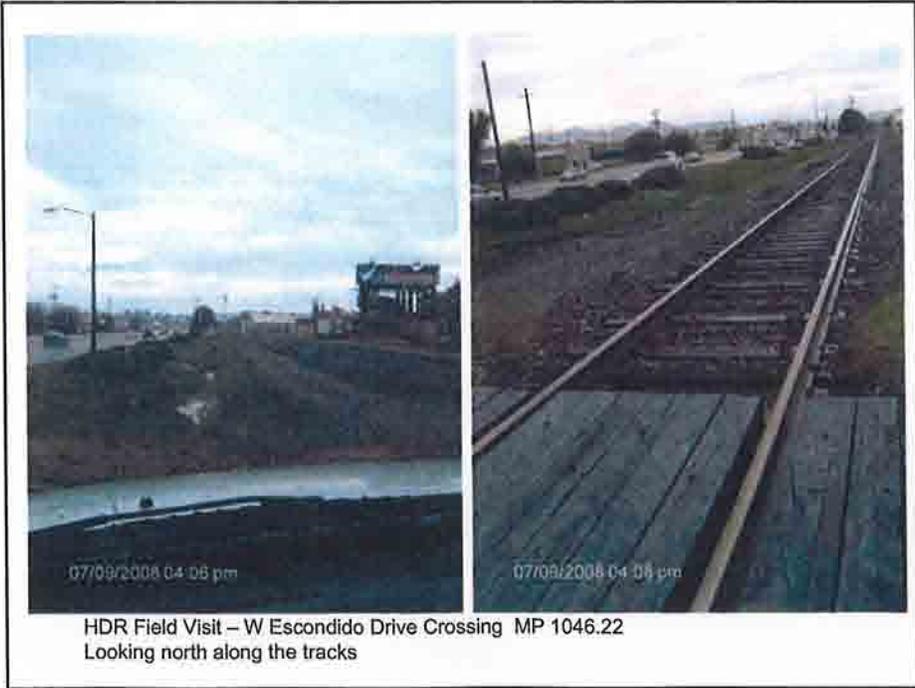


HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking east from Grand Avenue



HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking east from Grand Avenue



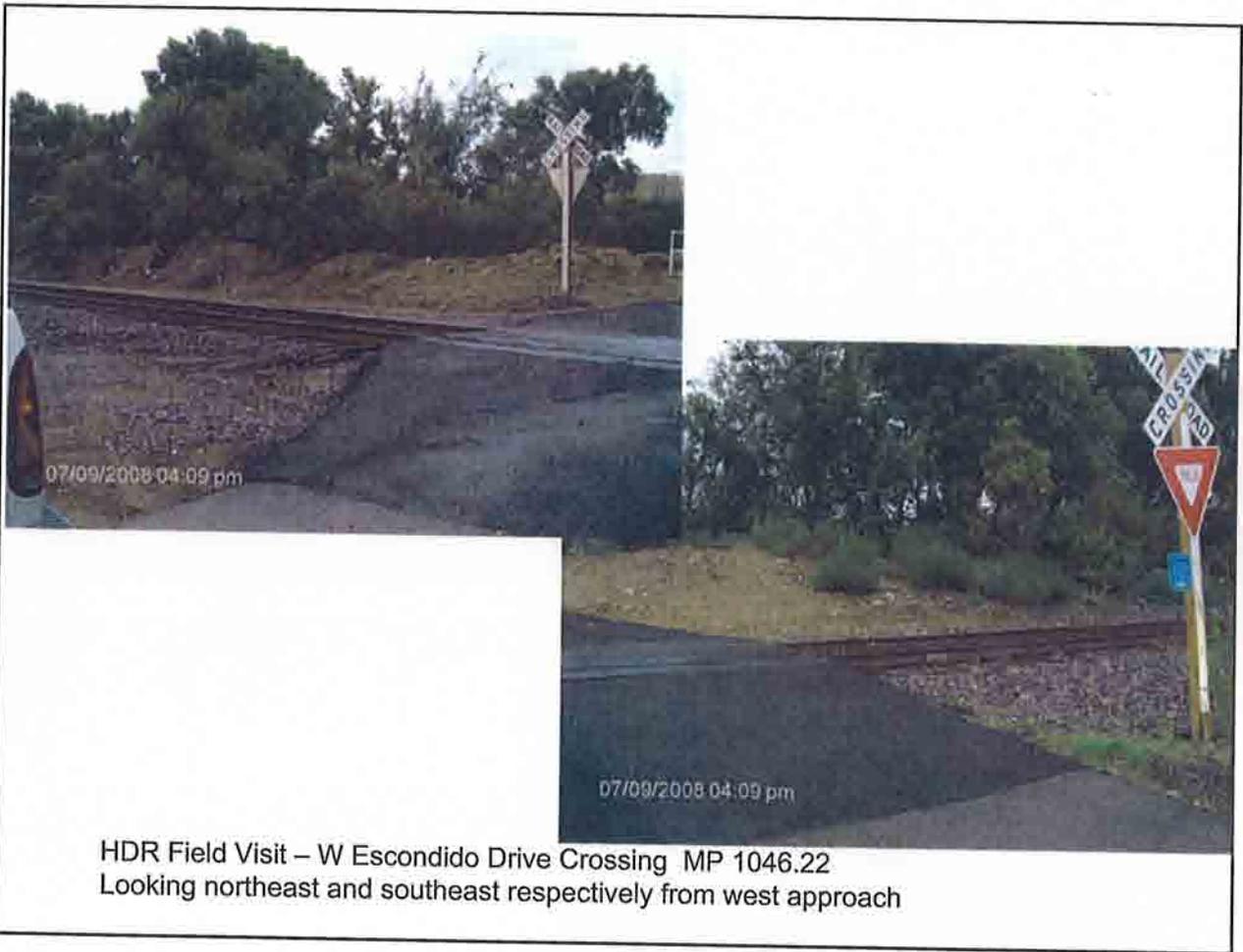




HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking south along the tracks



HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking east from Grand Avenue



HDR Field Visit – W Escondido Drive Crossing MP 1046.22  
Looking northeast and southeast respectively from west approach





HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking east from Grand Avenue



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking west at Grand Avenue



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking north along Grand Avenue at Chevron Gas Station



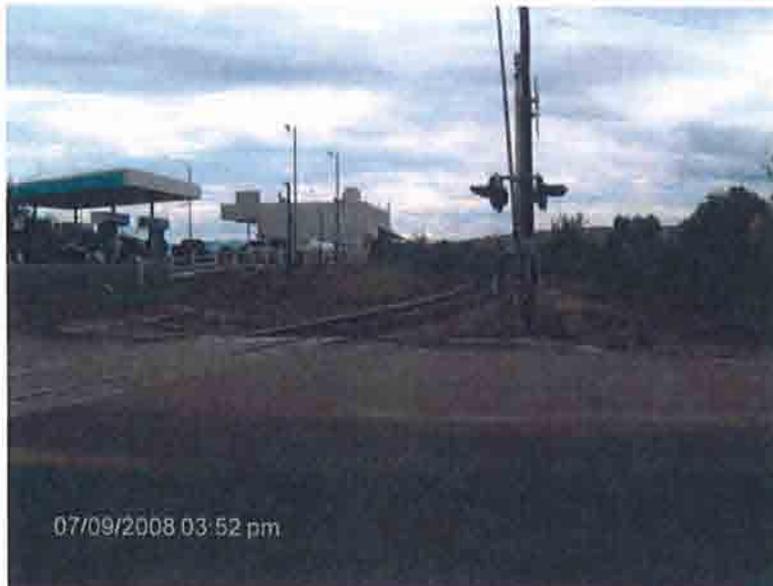
HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking east at concrete panels



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking south along the tracks



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking south along tracks



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking northwest toward Gas Station



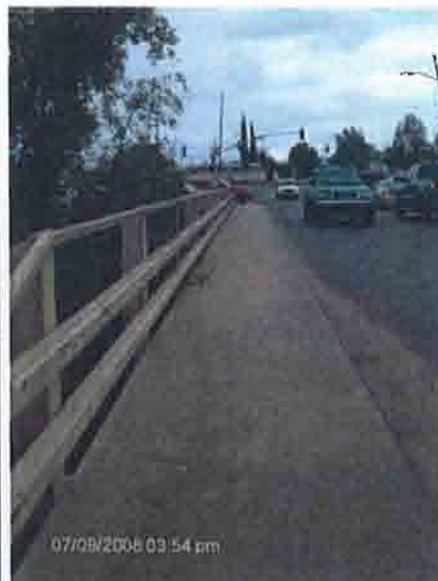
HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking west toward Grand Avenue



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking east toward canal bridge



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking east toward side street



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking west toward Grand Avenue



HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking toward the canal



07/09/2008 03:54 pm

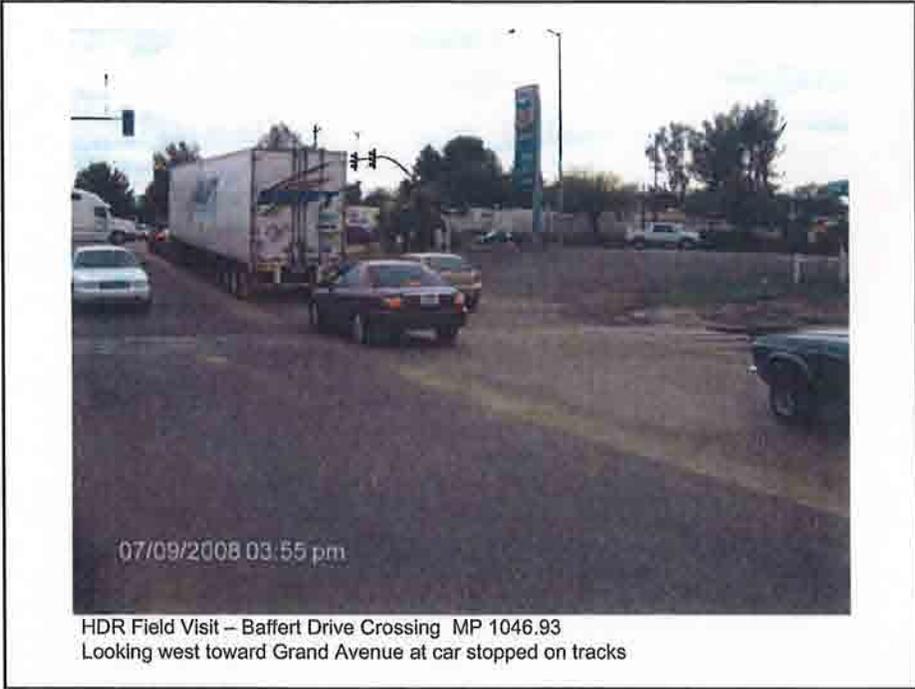
HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking northwest toward Grand Avenue

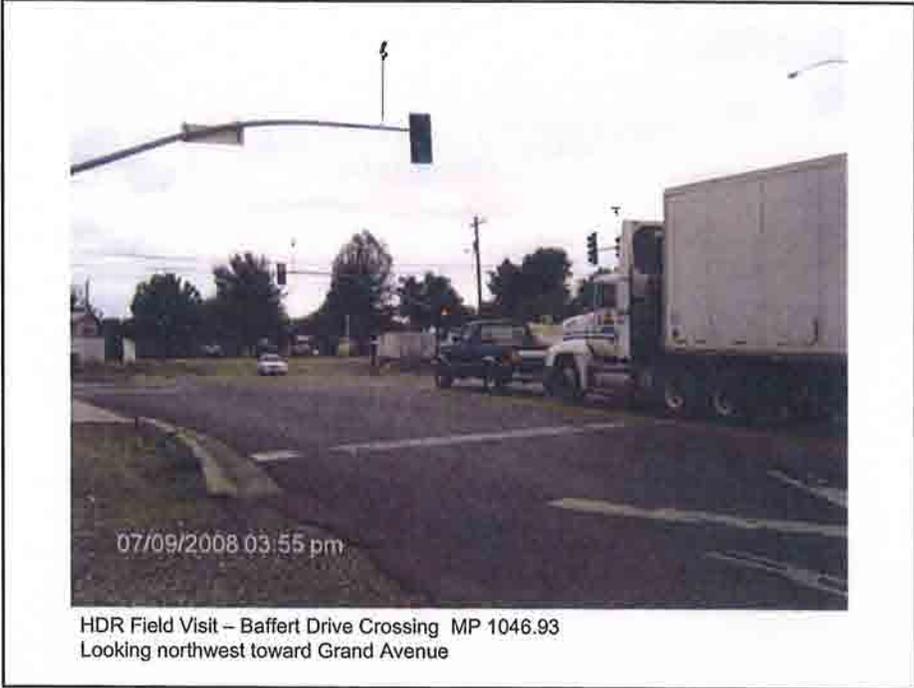


HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking south along the tracks

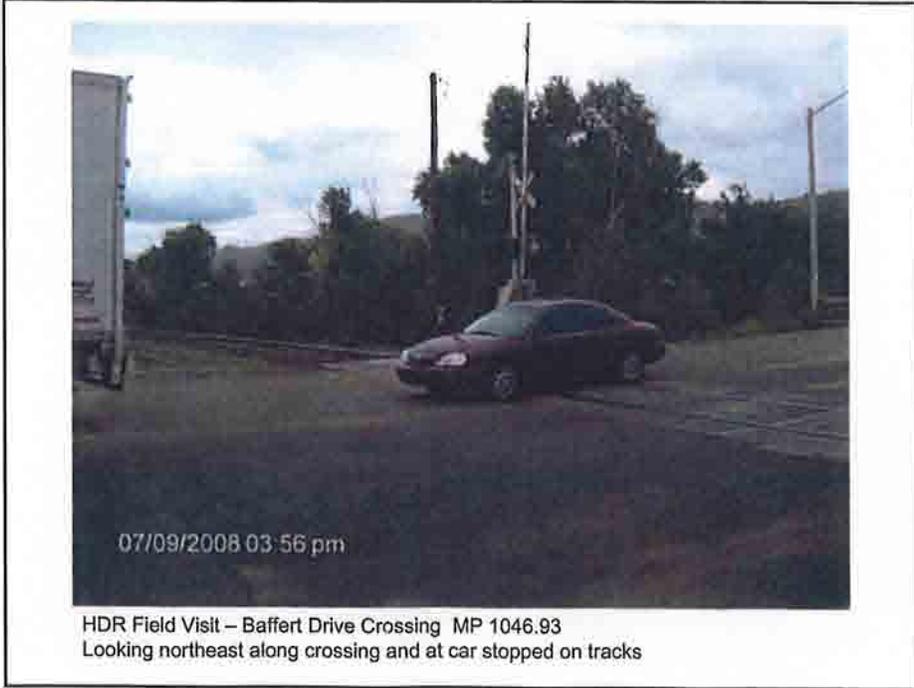


HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking west toward Grand Avenue



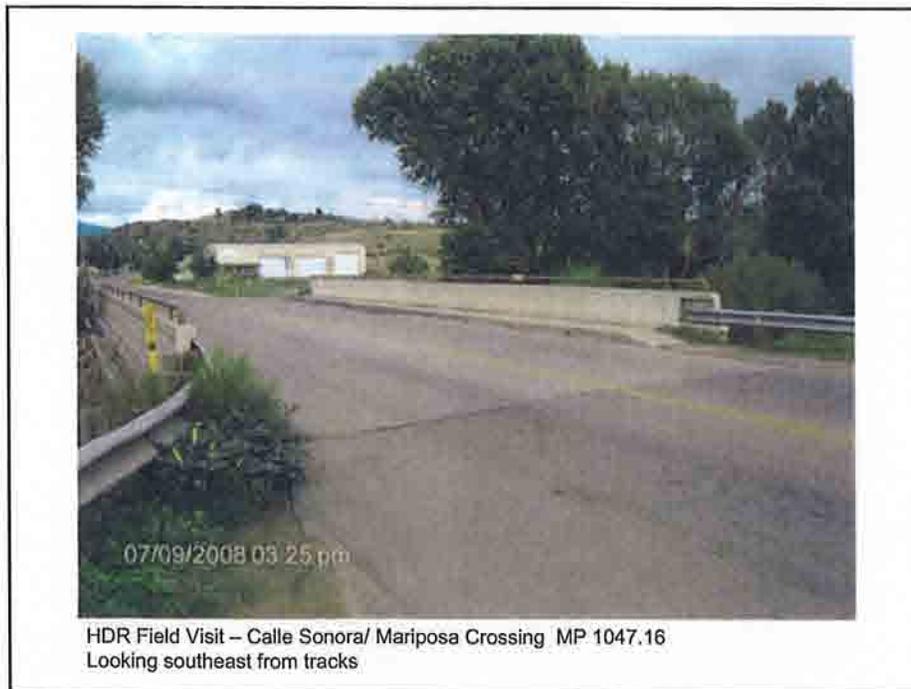
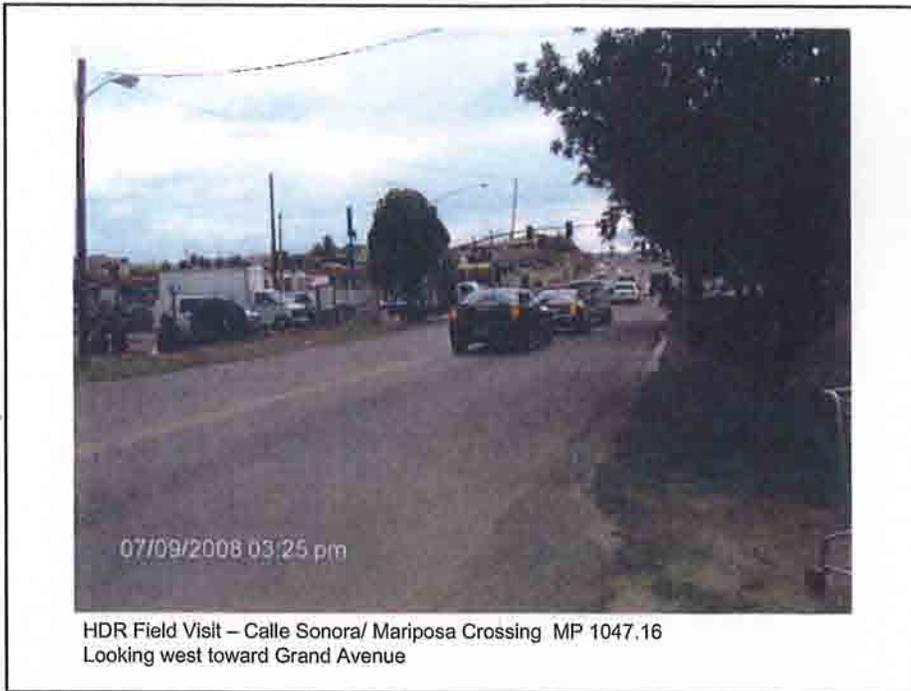


HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking northwest toward Grand Avenue



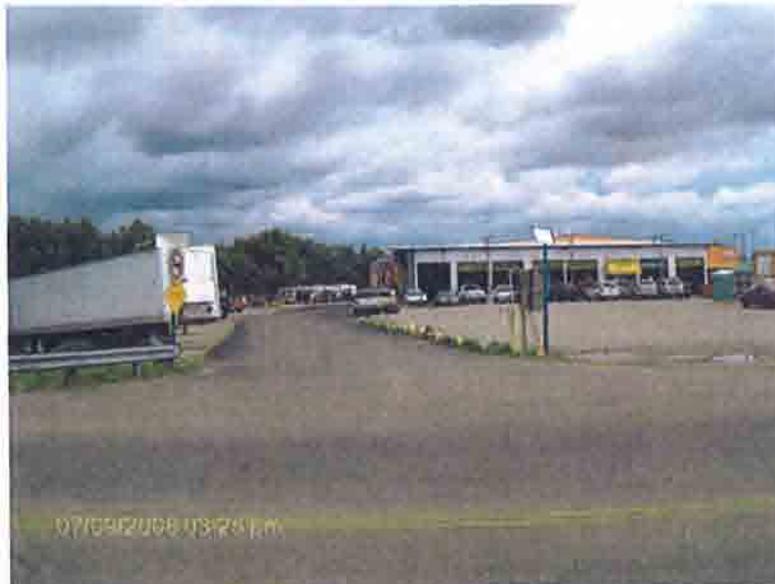
HDR Field Visit – Baffert Drive Crossing MP 1046.93  
Looking northeast along crossing and at car stopped on tracks



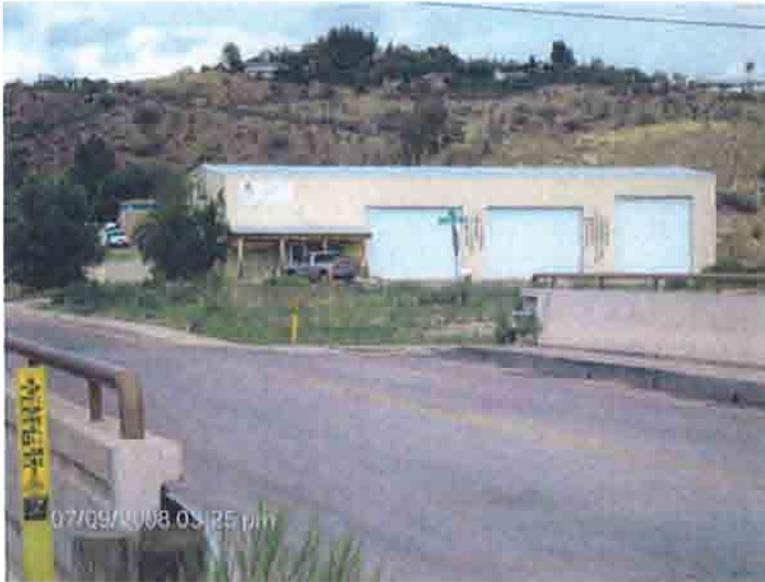




HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking southeast from tracks



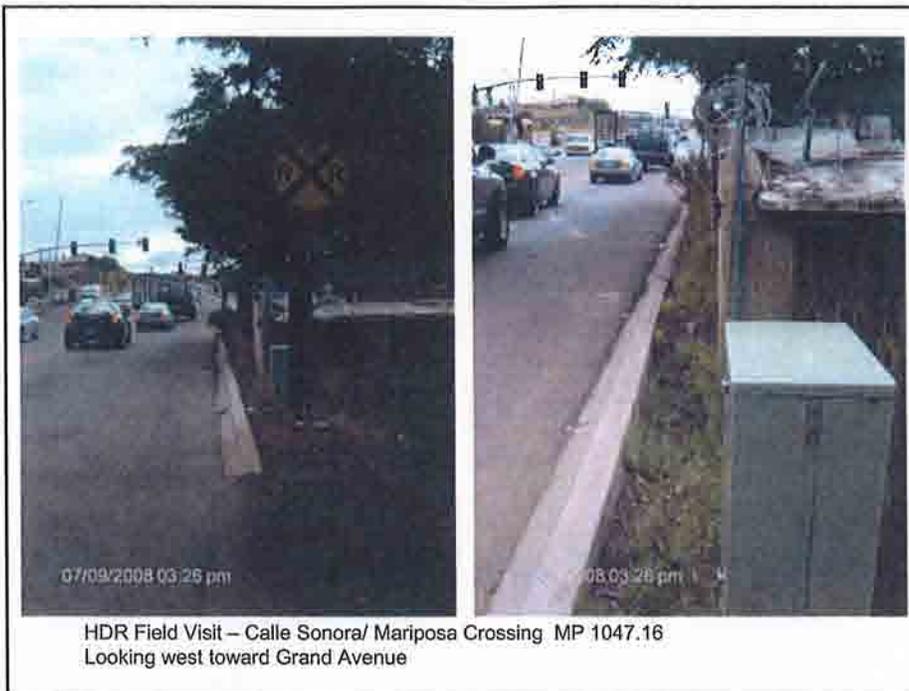
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking north



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking southeast from canal bridge



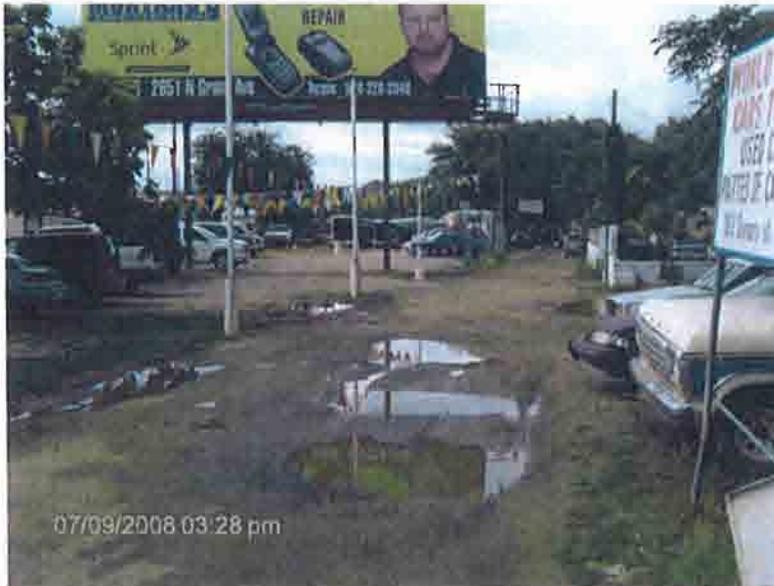
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking southwest toward Grand Avenue



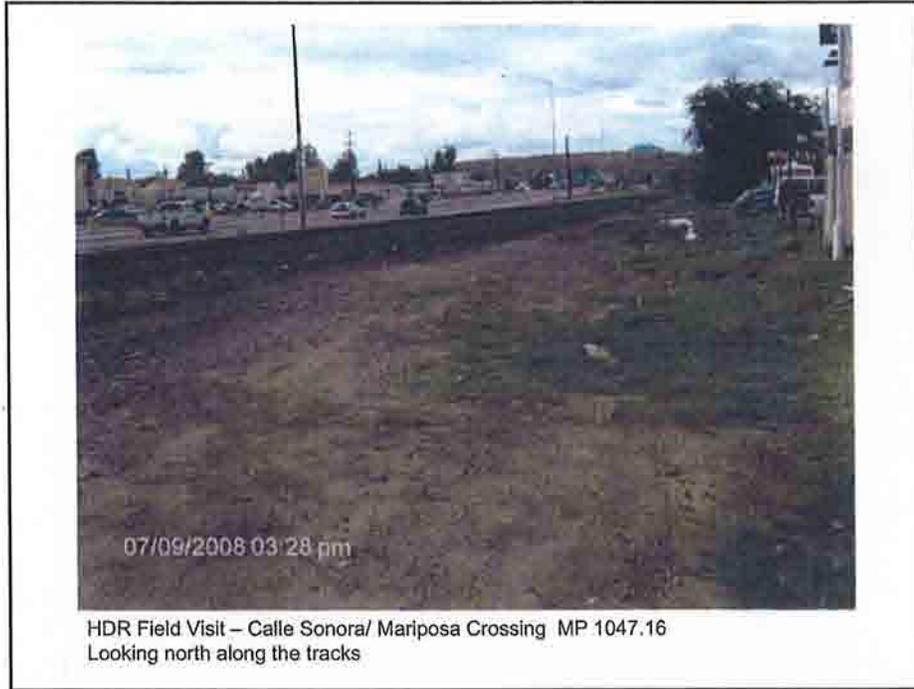




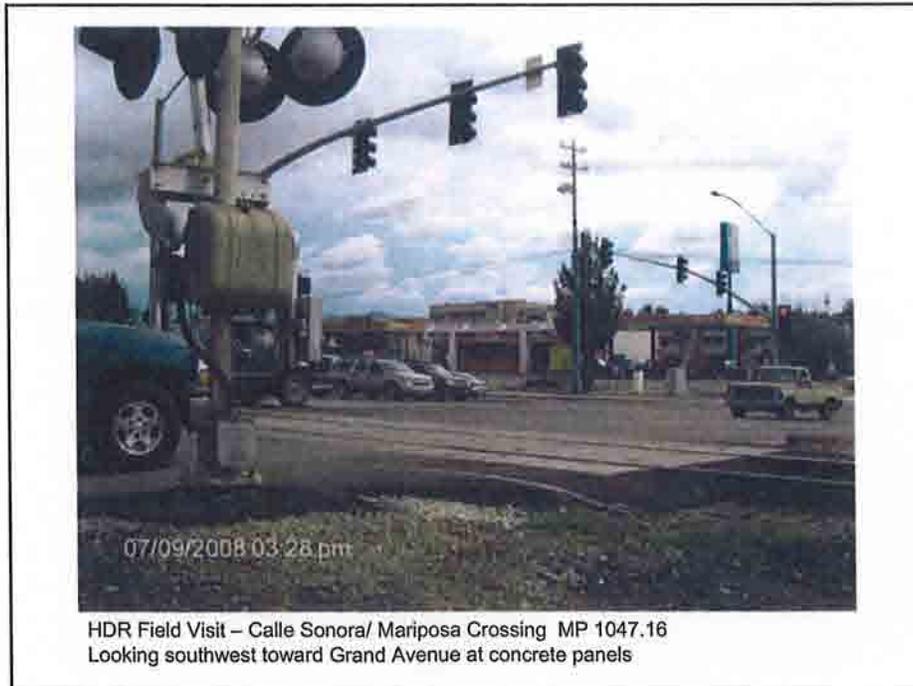
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking west toward Grand Avenue



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Northeast corner business



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking north along the tracks



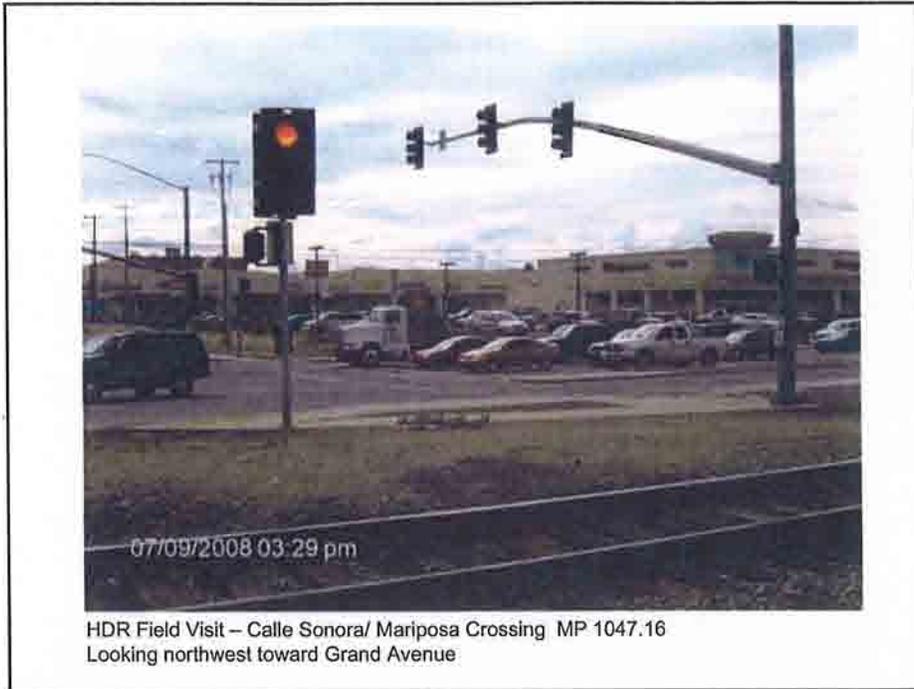
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking southwest toward Grand Avenue at concrete panels



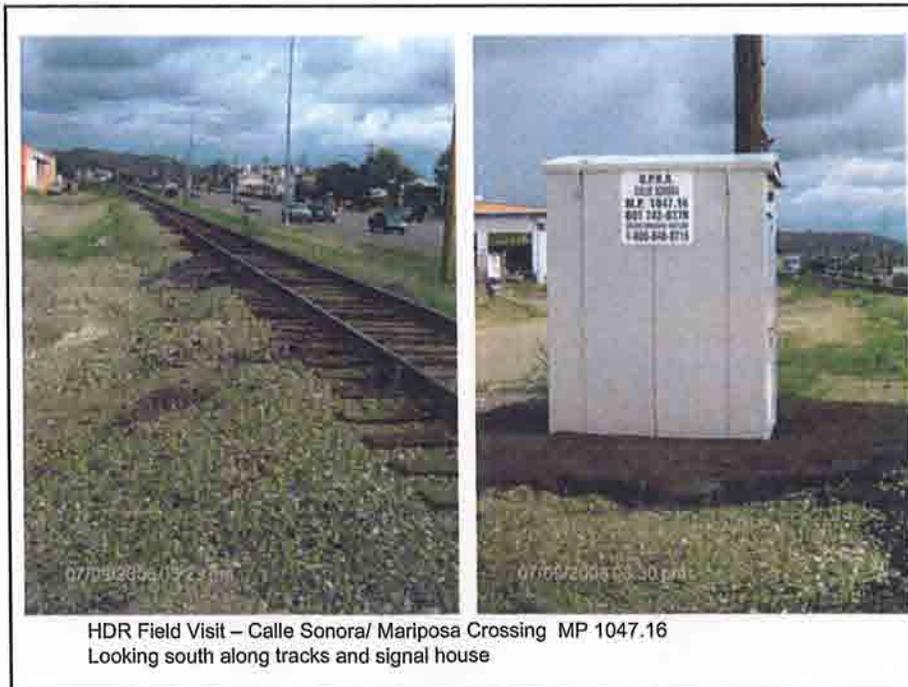
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking north toward Grand Avenue



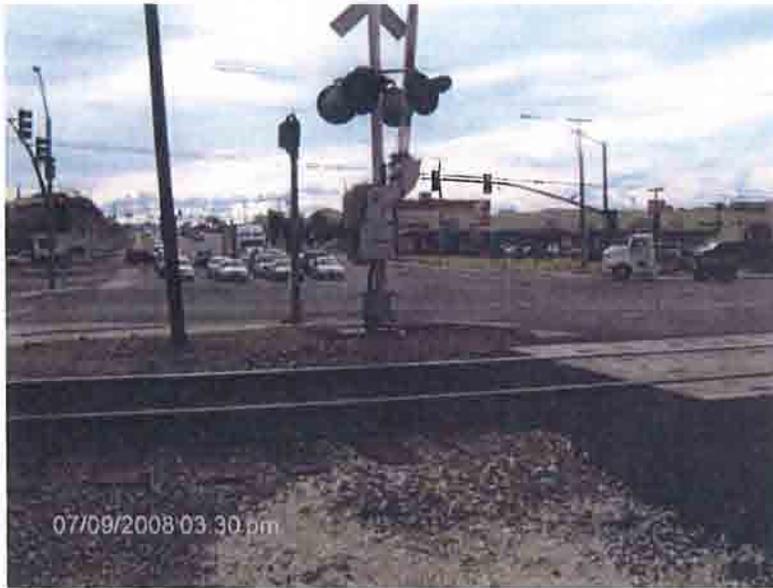
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking west at Grand Avenue



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking northwest toward Grand Avenue



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking south along tracks and signal house



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking west toward Grand Avenue intersection



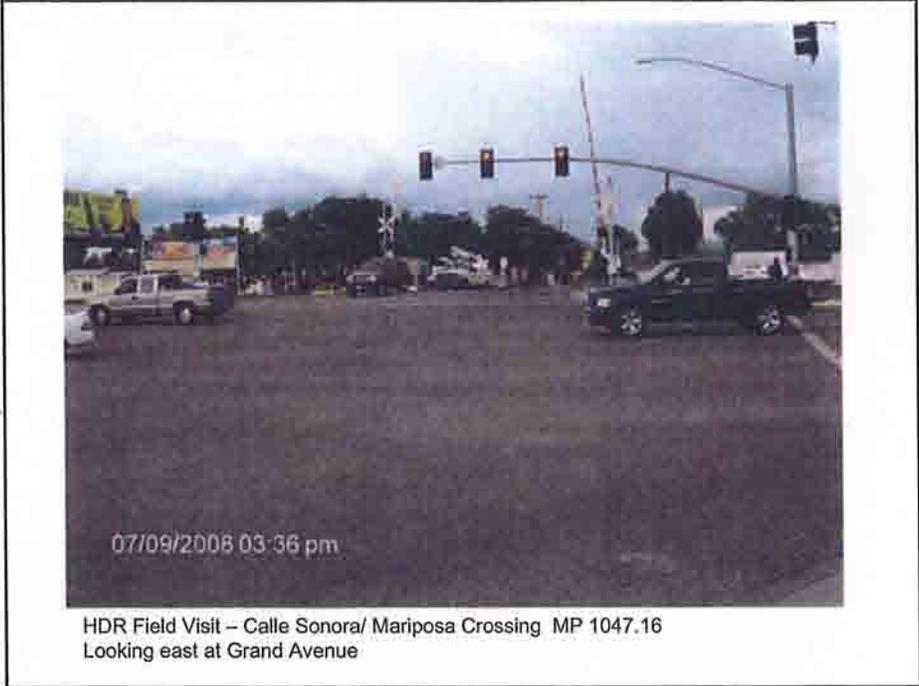
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking east toward crossing



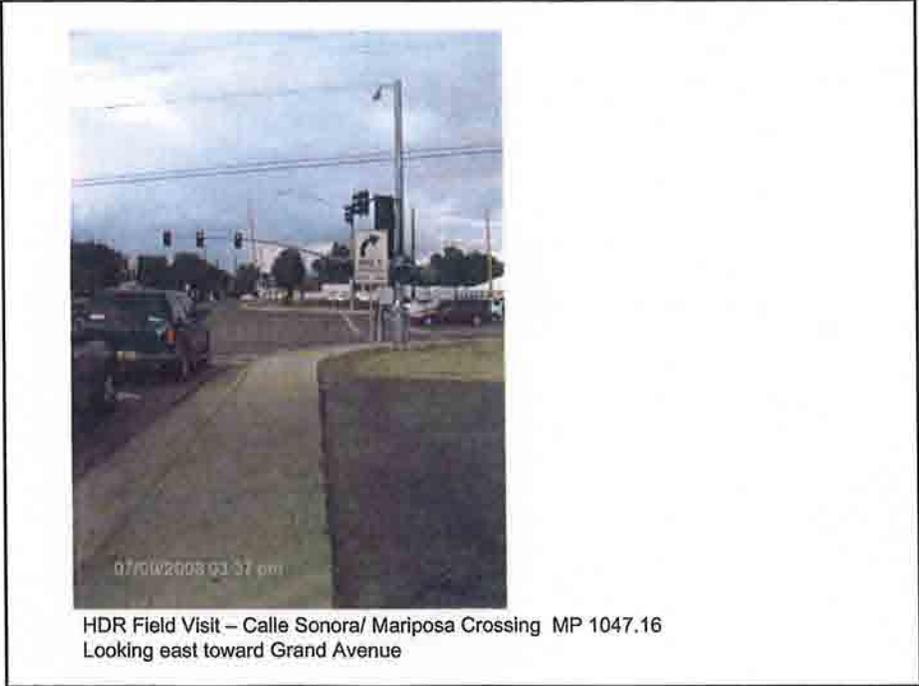
HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking northeast toward Grand Avenue



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking east toward south side of Calle Sonora



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking east at Grand Avenue



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking east toward Grand Avenue



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking west past Grand Avenue intersection



HDR Field Visit – Calle Sonora/ Mariposa Crossing MP 1047.16  
Looking south along tracks

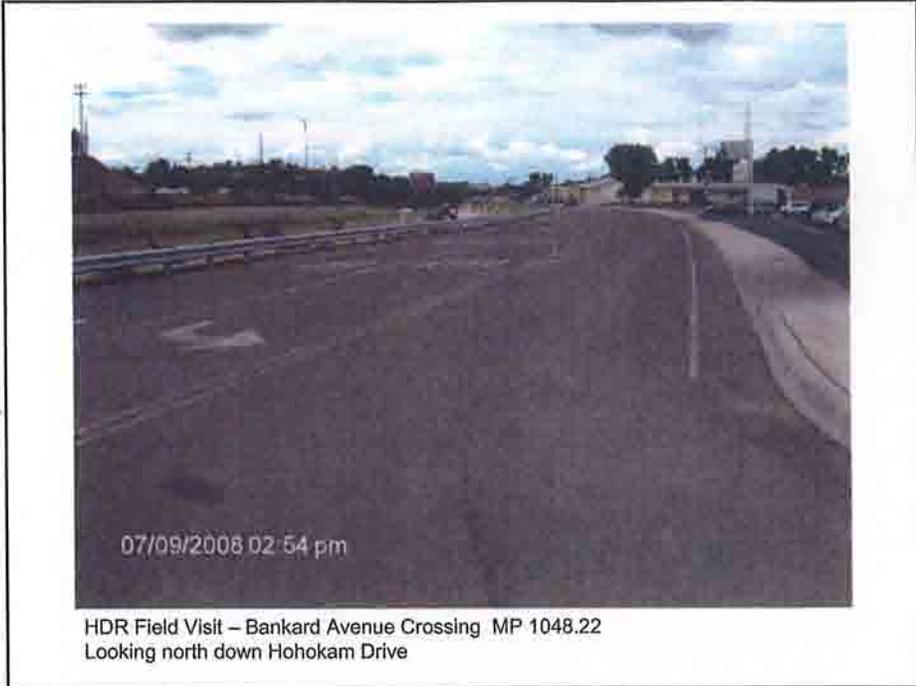




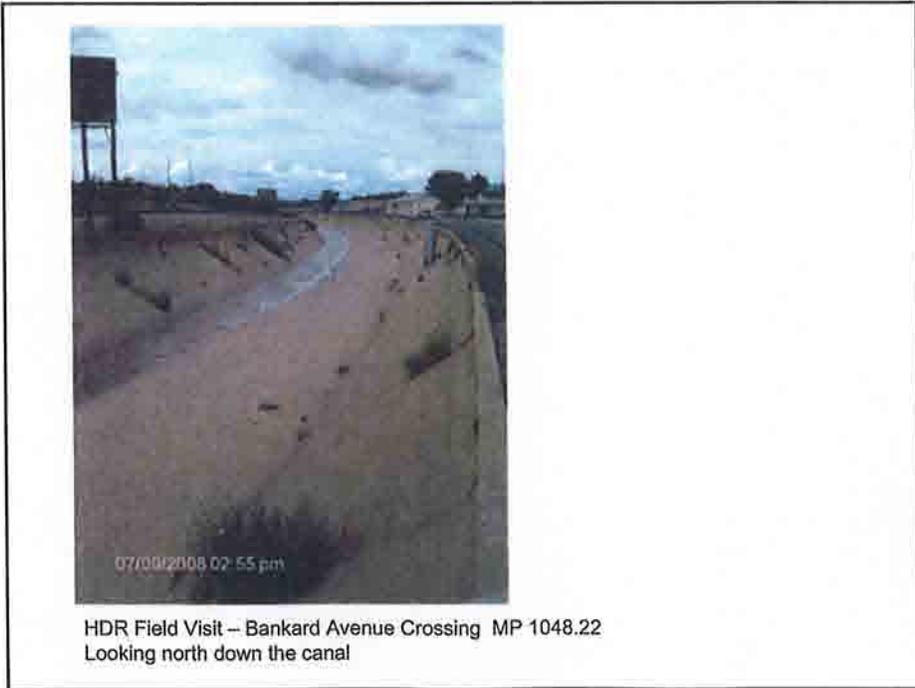
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking west toward Grand Avenue from Hohokam Drive



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking northwest toward Grand Avenue from Hohokam Drive



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking north down Hohokam Drive



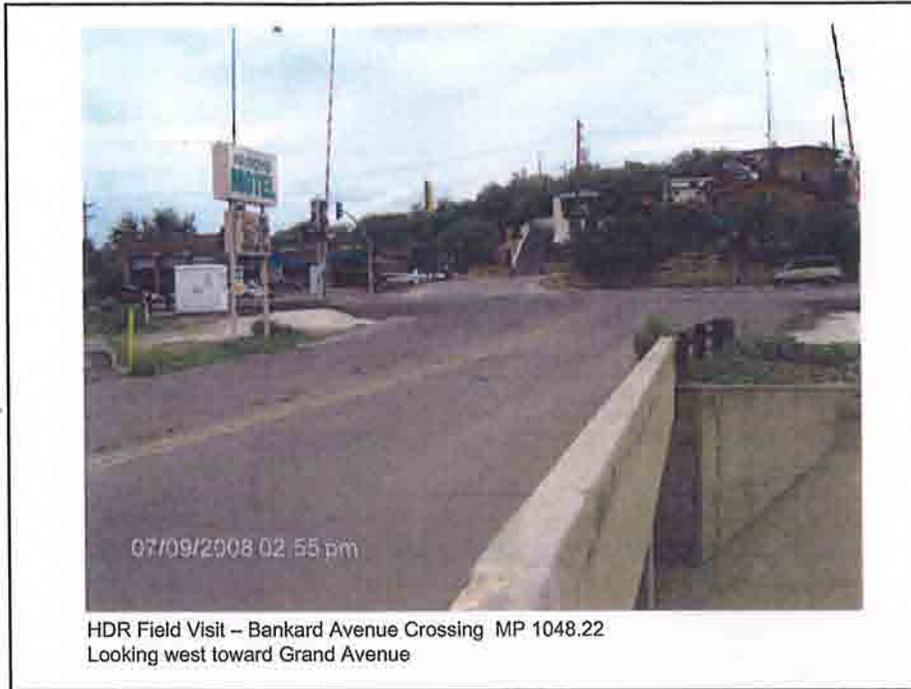
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking north down the canal



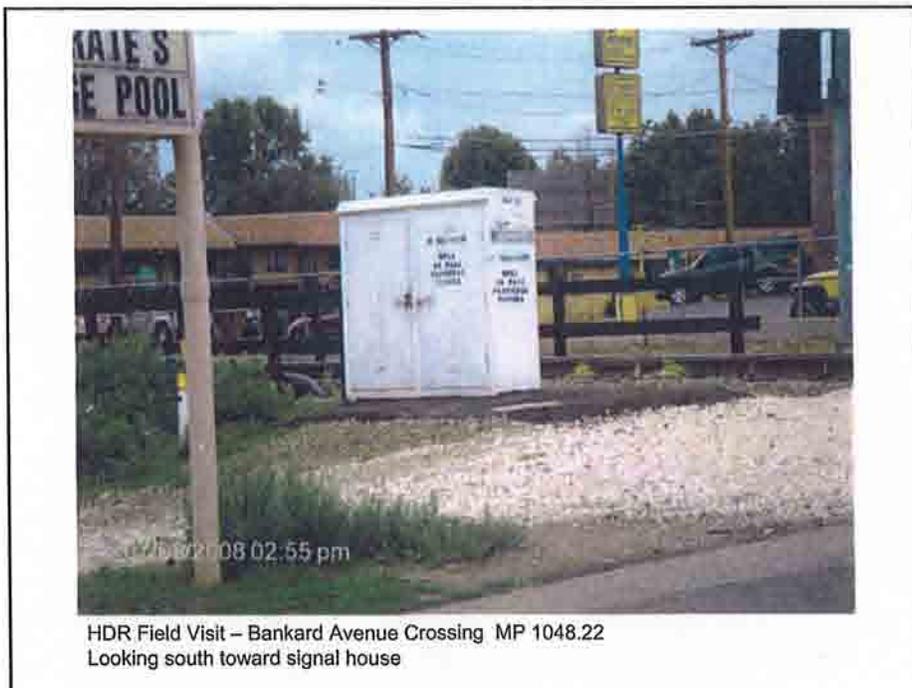
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking northwest toward Grand Avenue



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking south toward the canal



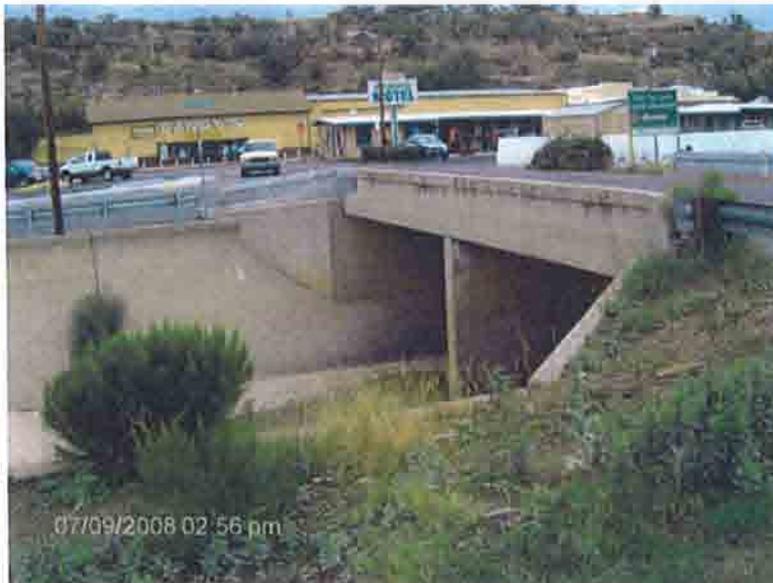
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking west toward Grand Avenue



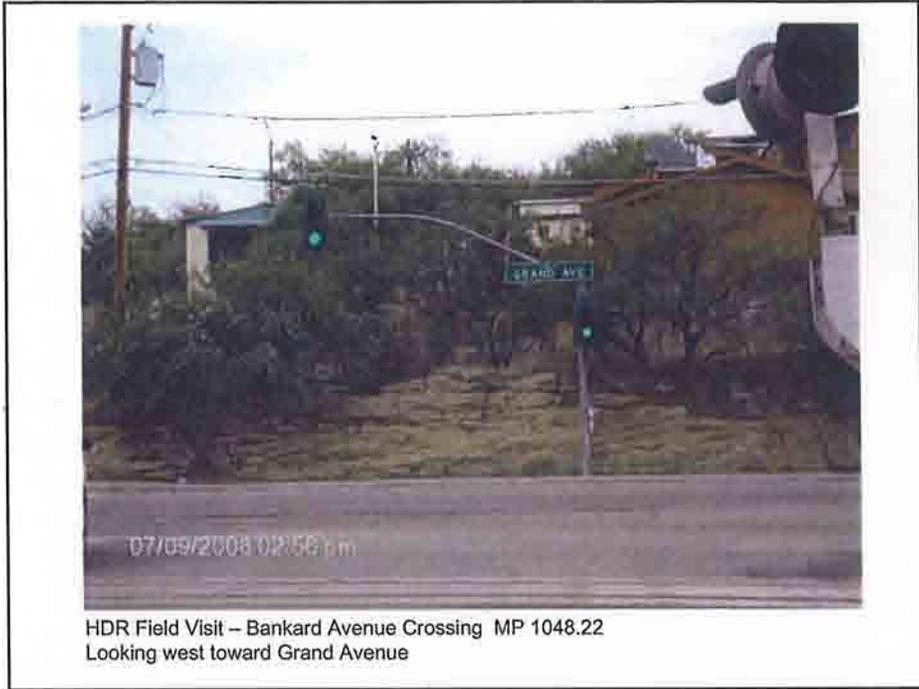
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking south toward signal house



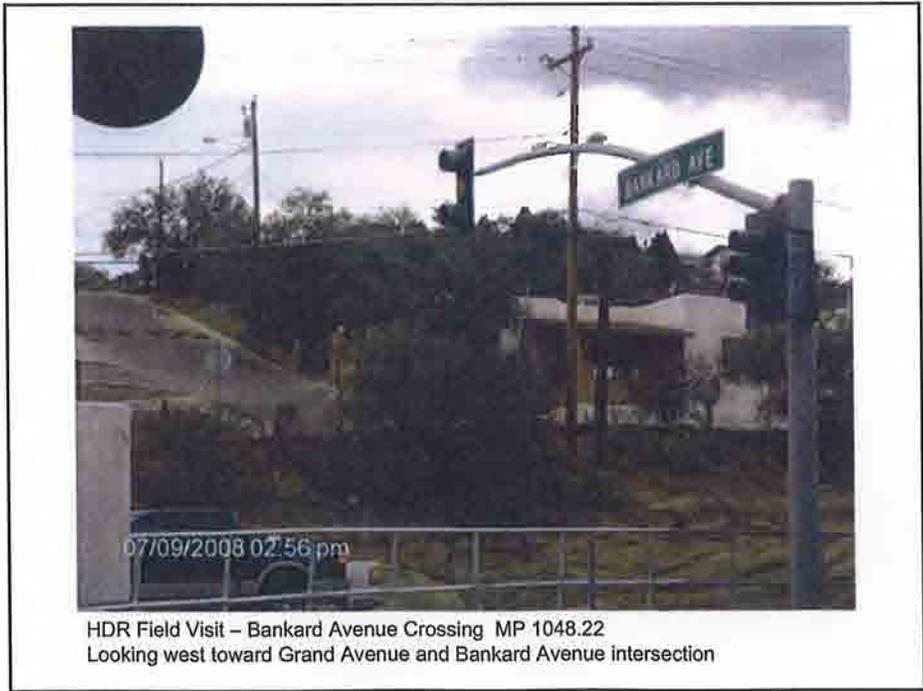
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking north along tracks



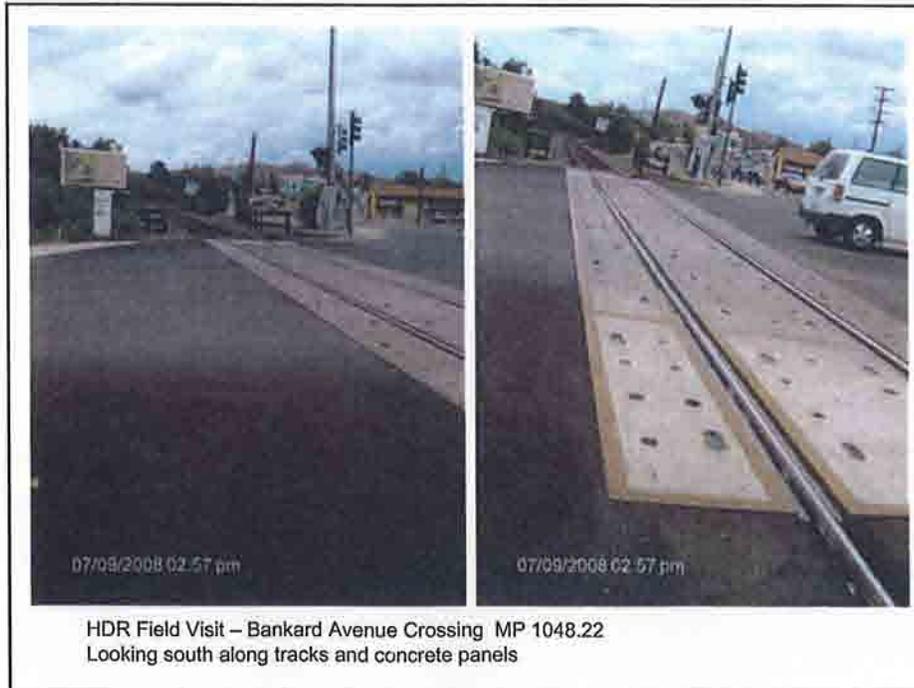
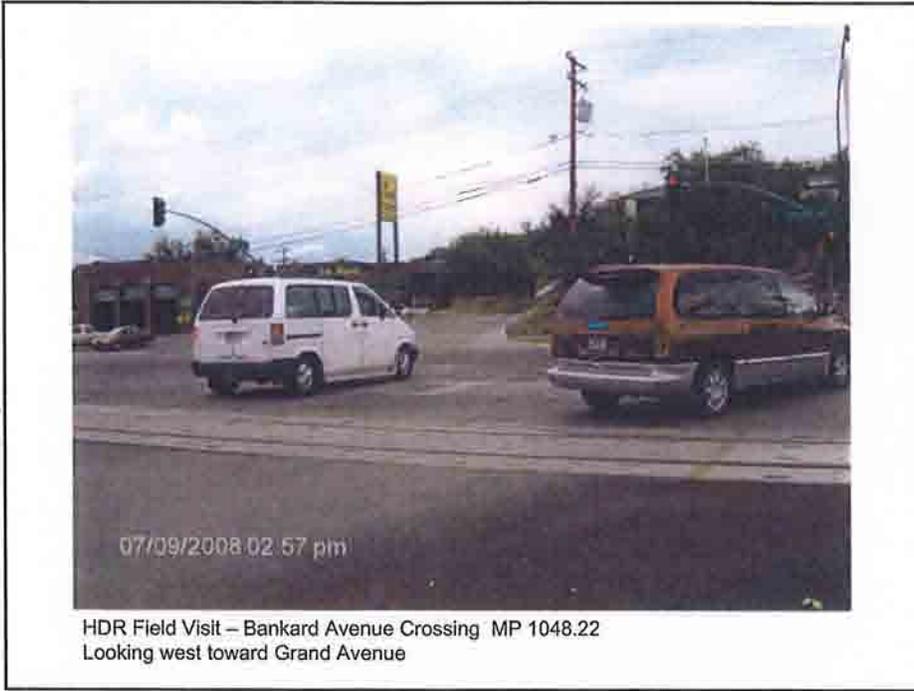
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking east toward Hohokam Drive



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking west toward Grand Avenue



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking west toward Grand Avenue and Bankard Avenue intersection





HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking north along tracks



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Signal House



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking southwest toward Grand Avenue



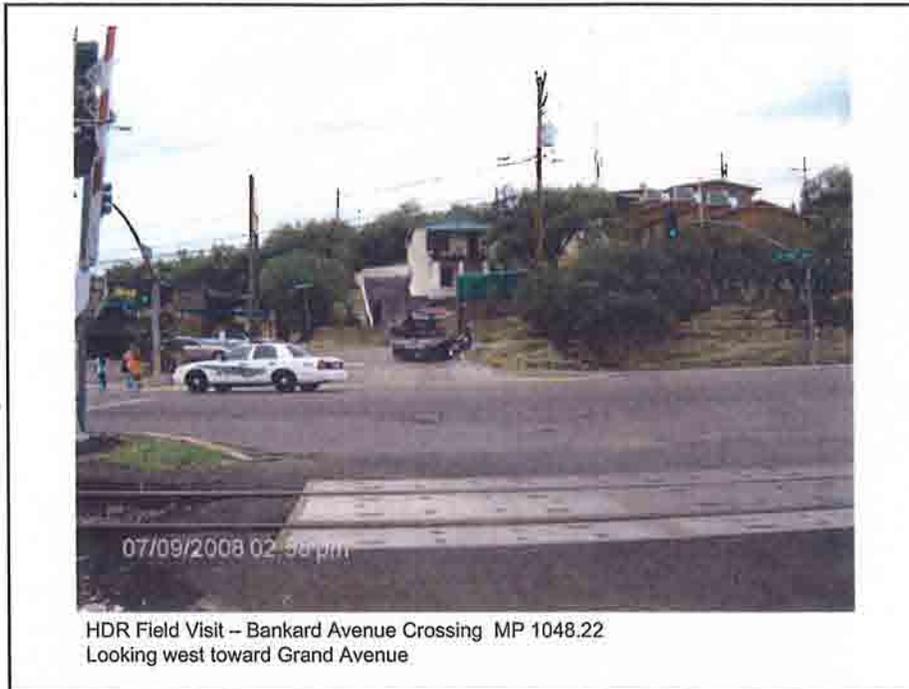
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking southwest toward Grand Avenue



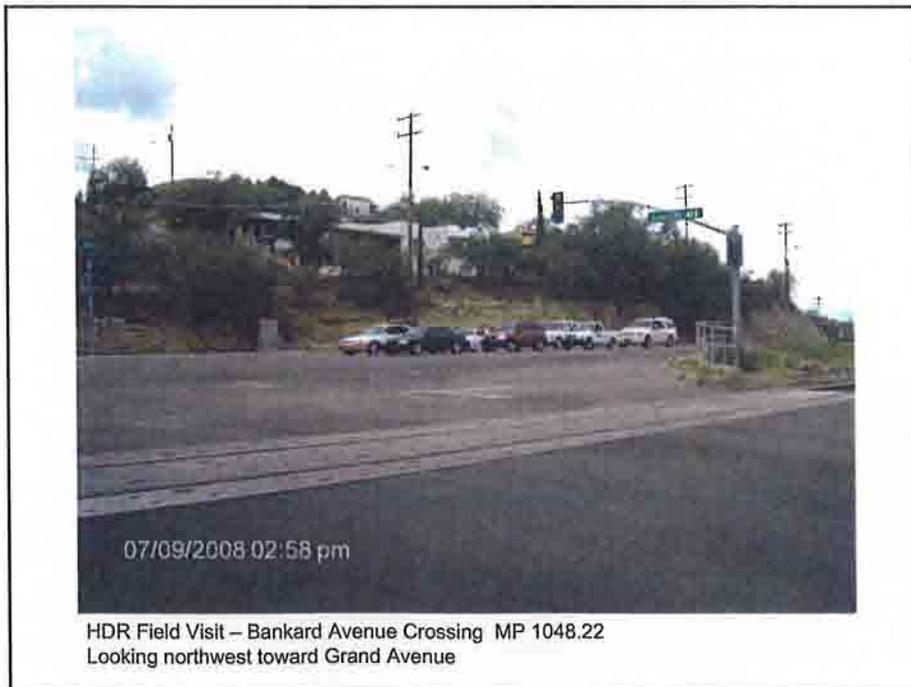
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking southwest corner of Grand Avenue and Bankard Avenue



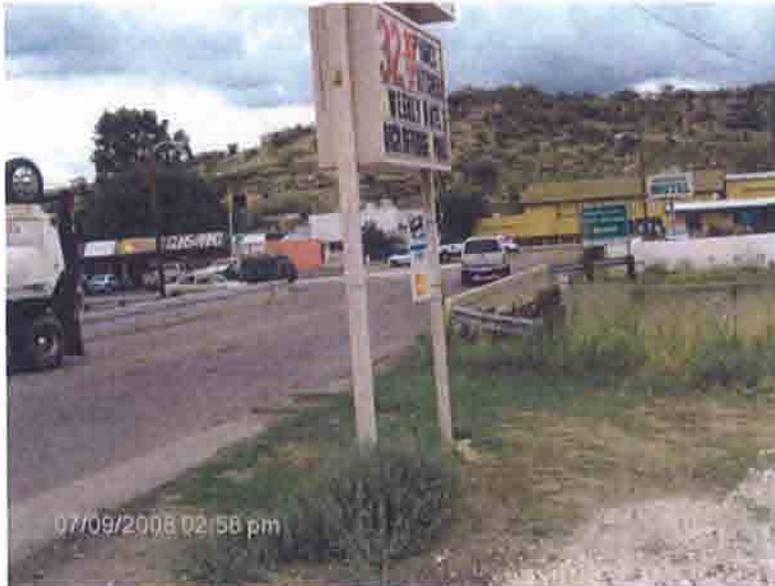
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking northwest toward Grand Avenue



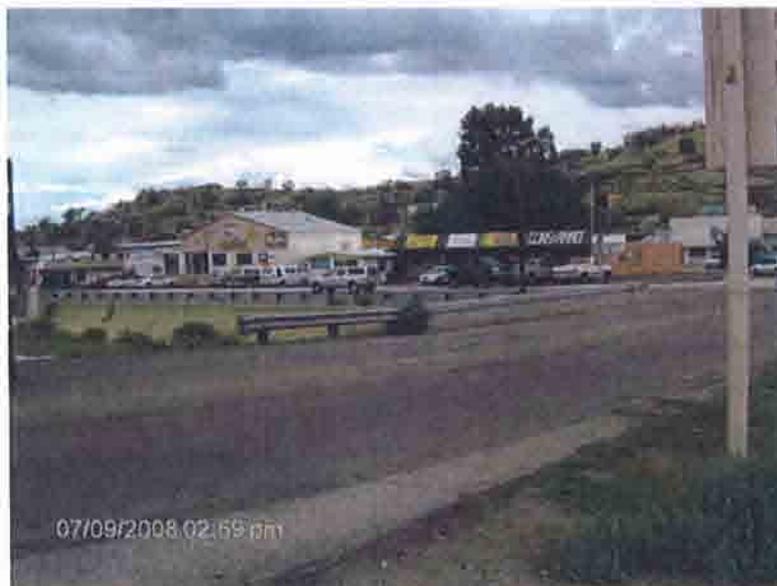
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking west toward Grand Avenue



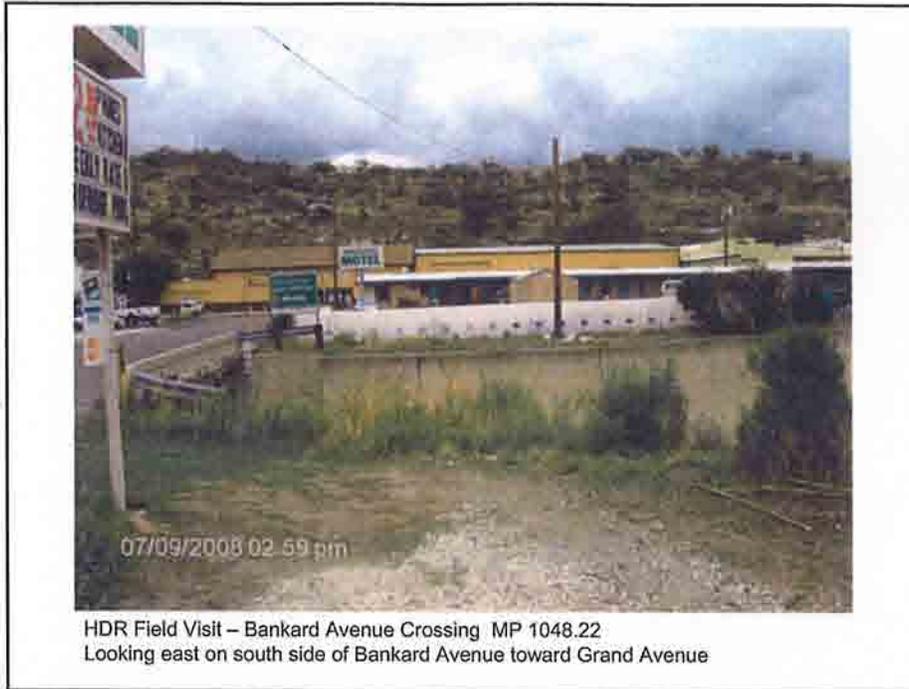
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking northwest toward Grand Avenue



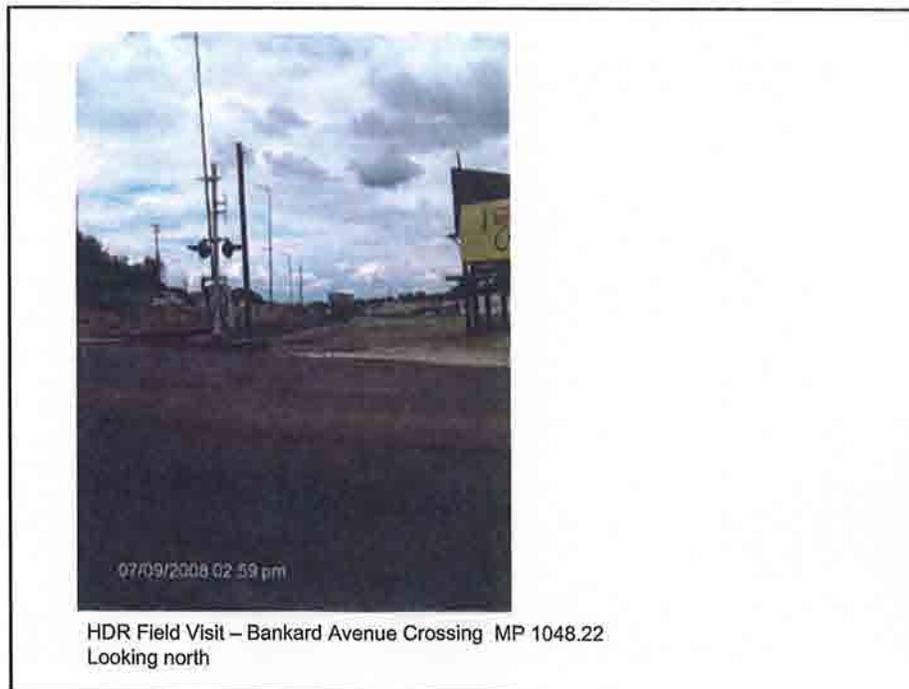
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking east from tracks



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking east toward Hohokam Drive

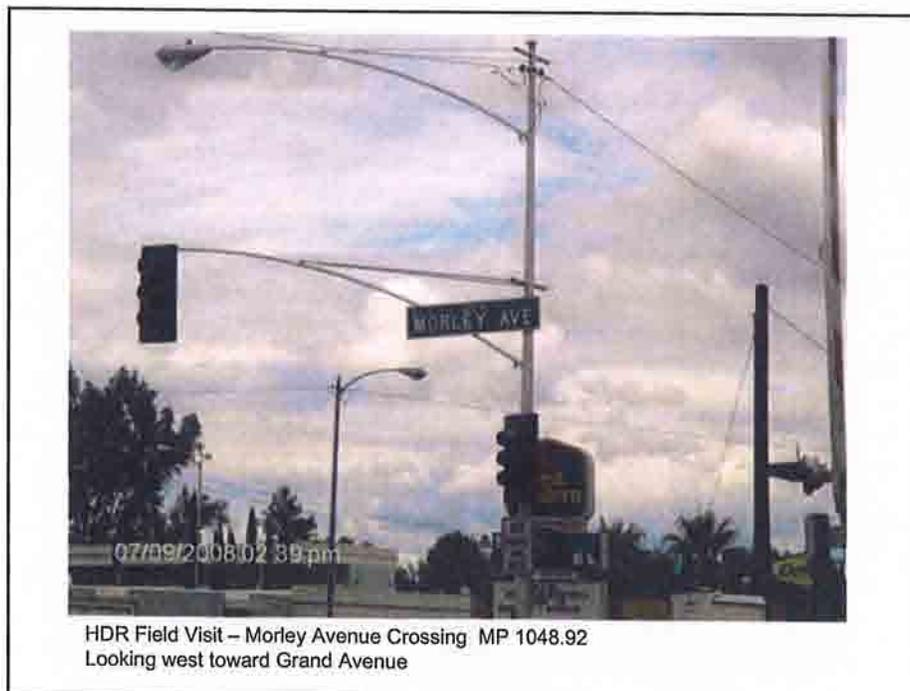
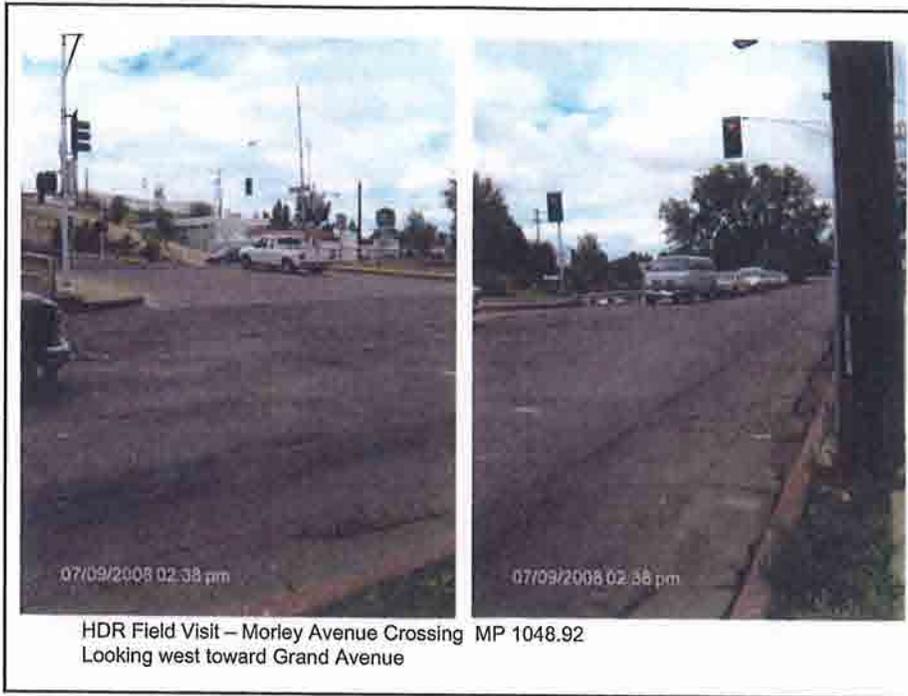


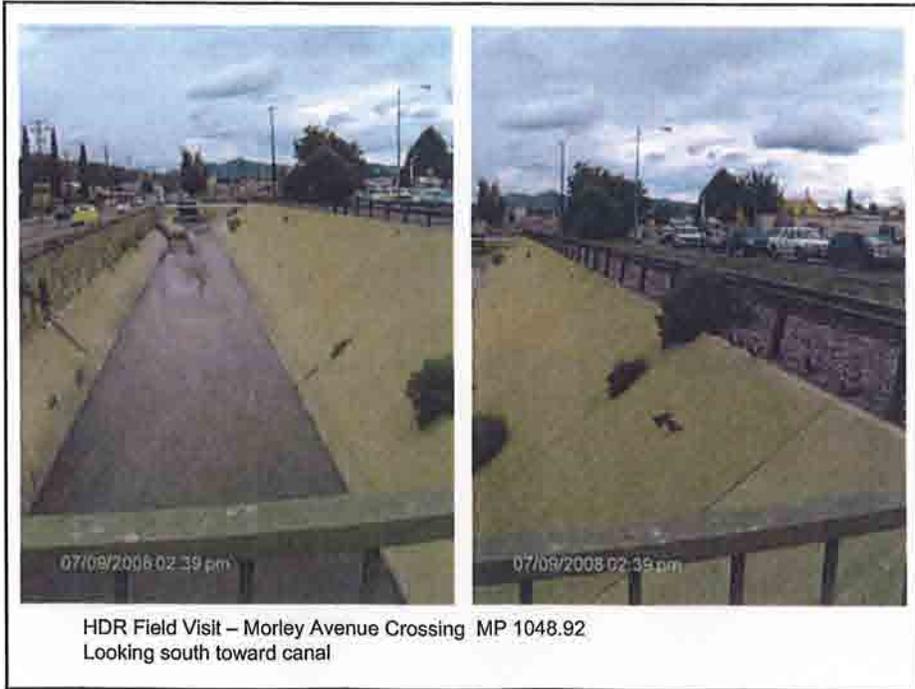
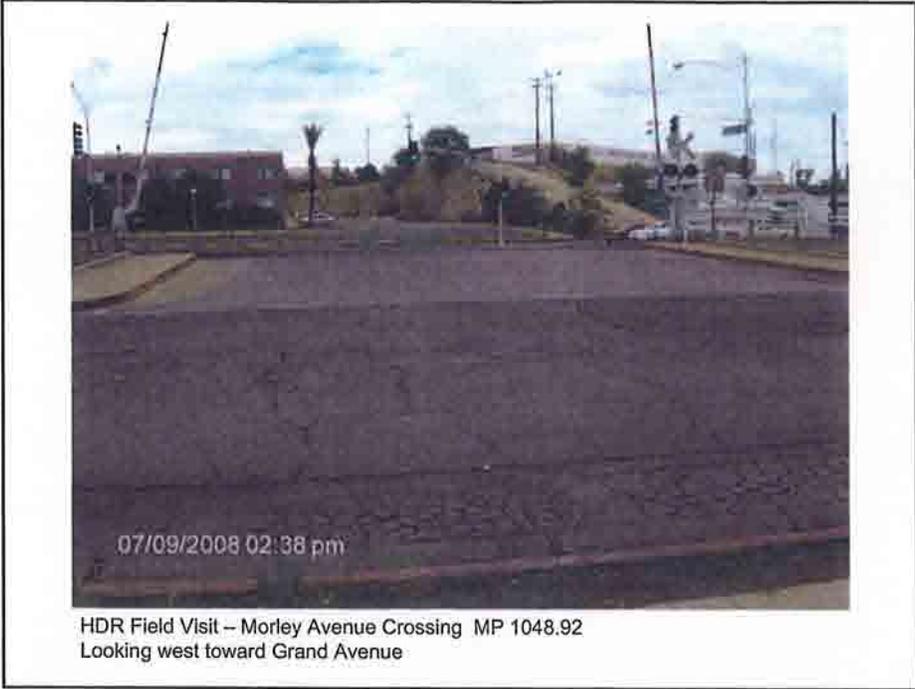
HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking east on south side of Bankard Avenue toward Grand Avenue



HDR Field Visit – Bankard Avenue Crossing MP 1048.22  
Looking north









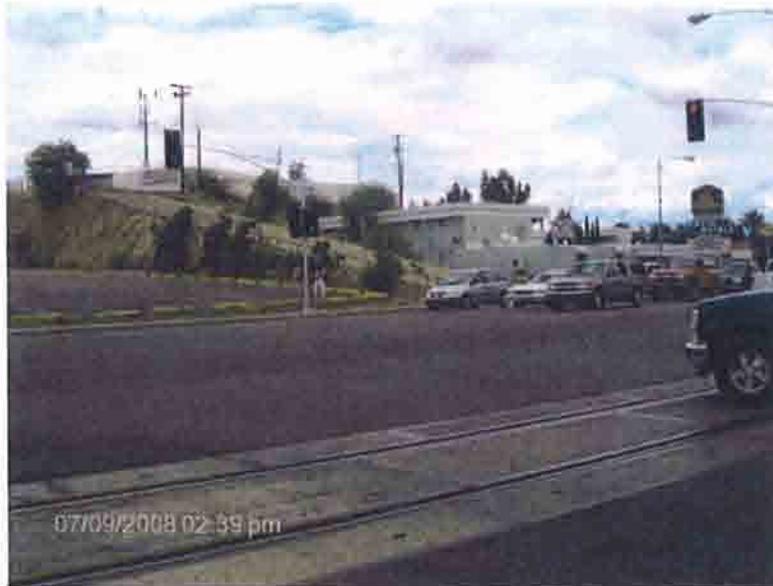
HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking north toward canal



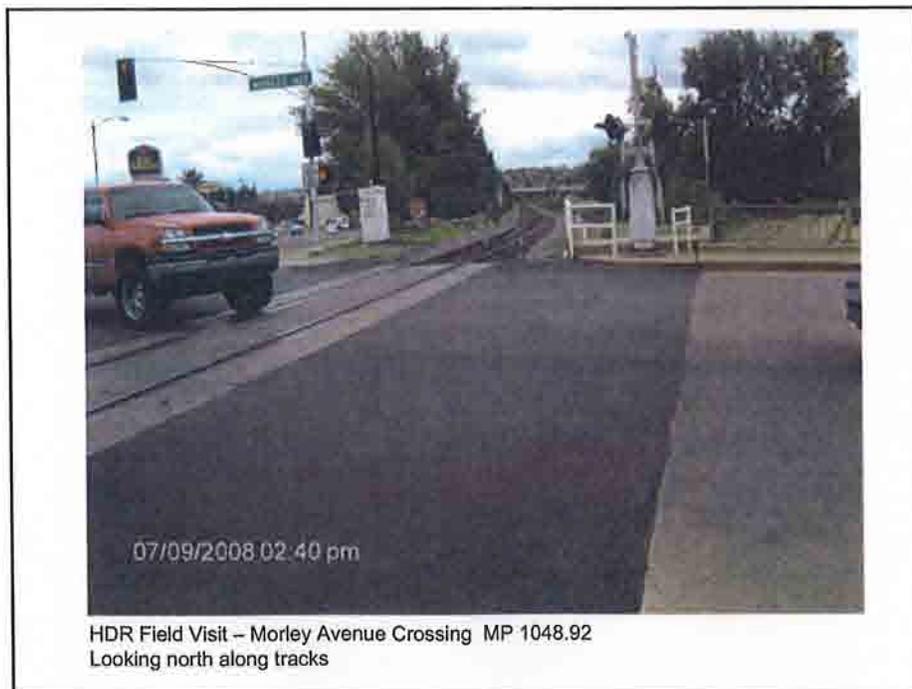
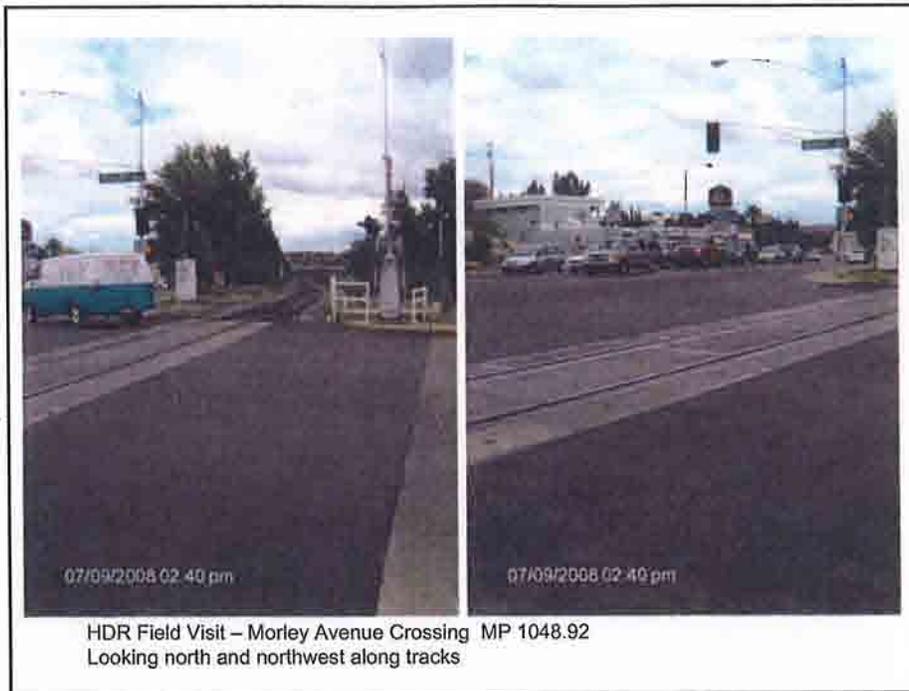
HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking west toward Grand Avenue on the south side of Morley Avenue

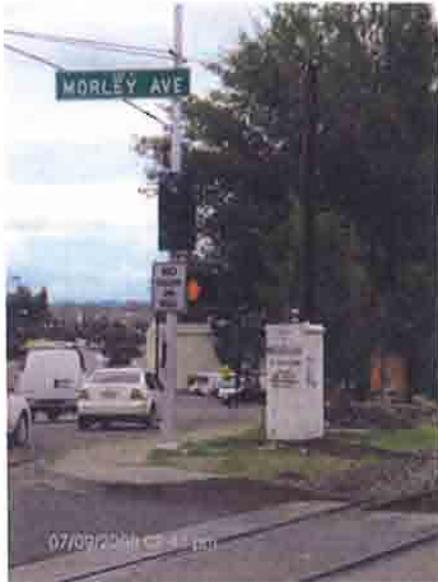


HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking southwest toward Grand Avenue

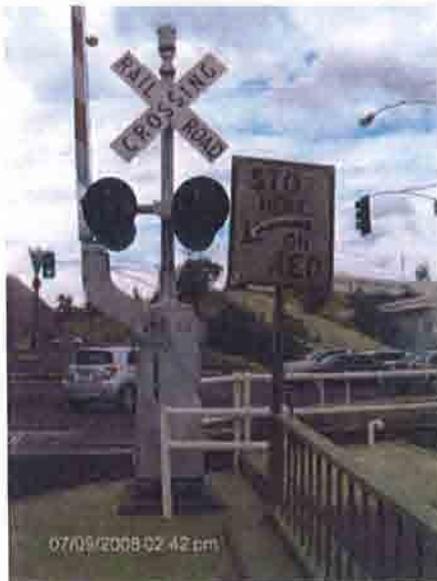


HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking west toward Grand Avenue at concrete panels

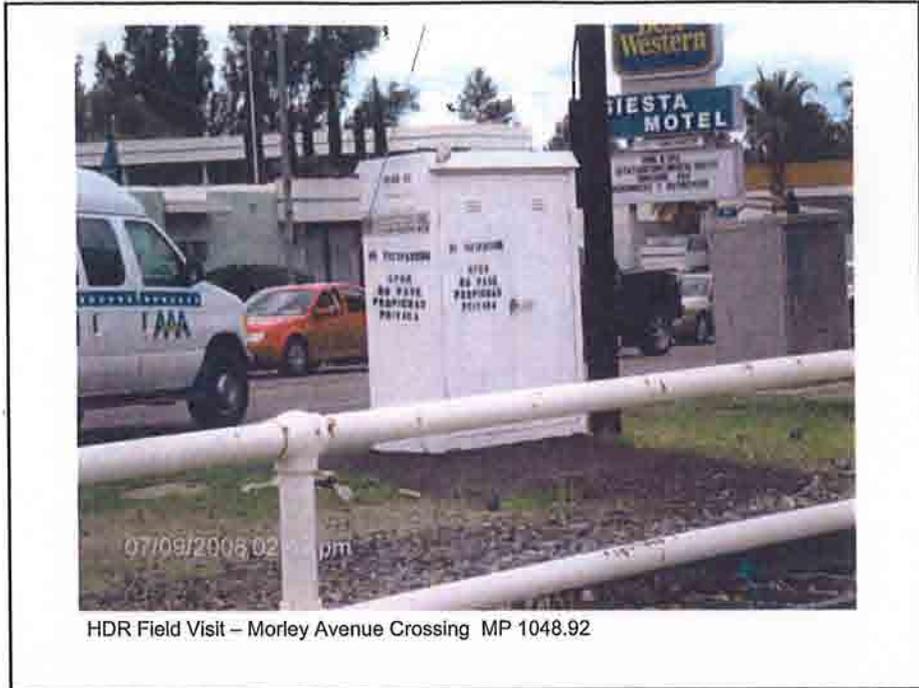




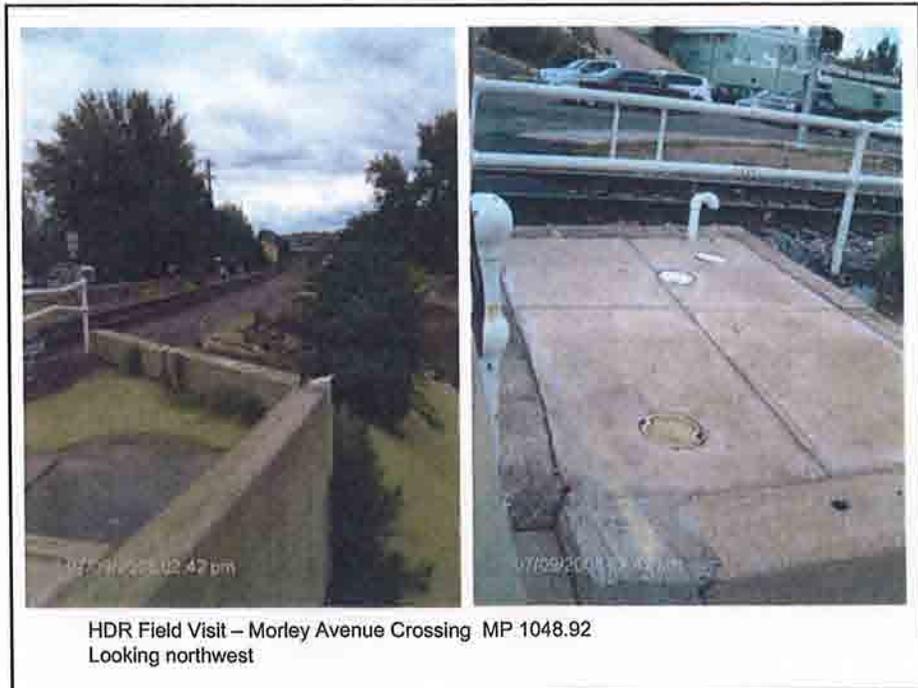
HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking west toward Grand Avenue



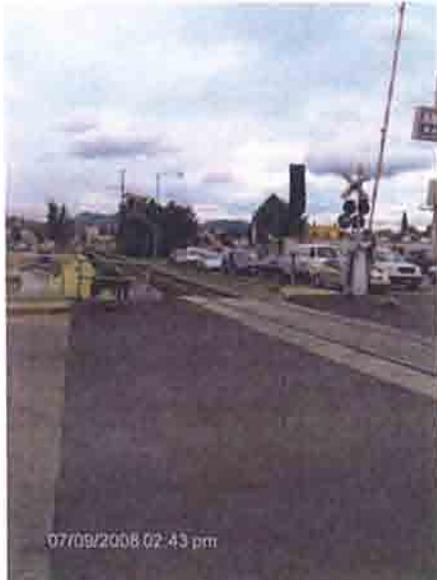
HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking west toward Grand Avenue



HDR Field Visit – Morley Avenue Crossing MP 1048.92



HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking northwest



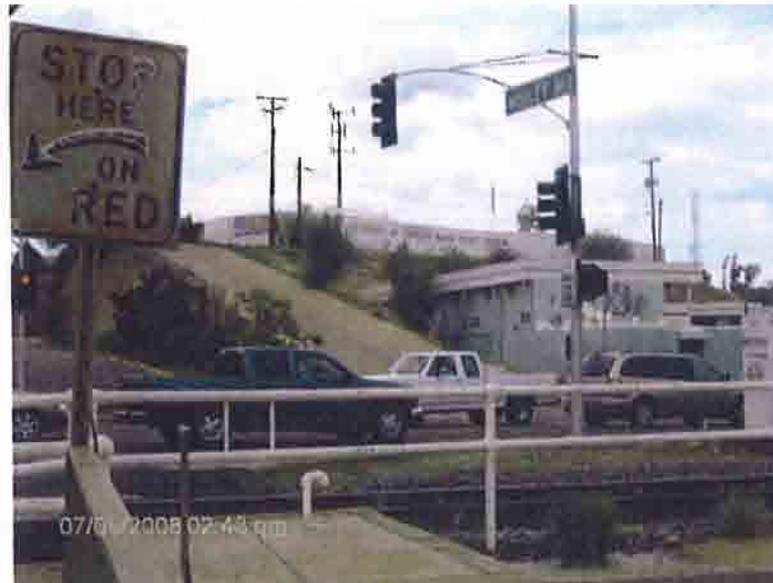
HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking south toward Grand Avenue



HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking southeast toward Morley Avenue



HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking south toward the canal

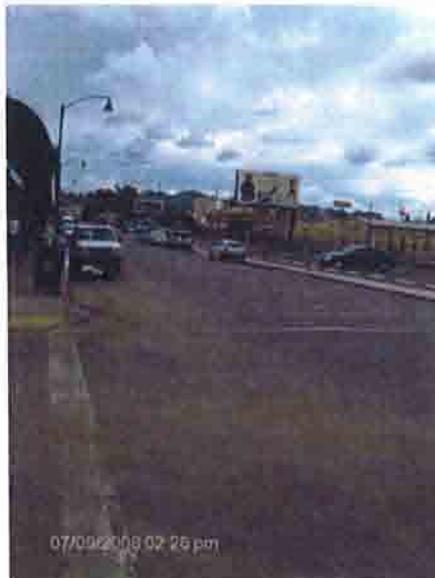


HDR Field Visit – Morley Avenue Crossing MP 1048.92  
Looking west toward Grand Avenue





HDR Field Visit – Court Crossing MP 1049.54  
Looking south at Morley Avenue and Court Street



HDR Field Visit – Court Crossing MP 1049.54  
Looking south at Morley Avenue and Court Street



HDR Field Visit – Court Crossing MP 1049.54  
Looking southwest from Morley Avenue and Court Street



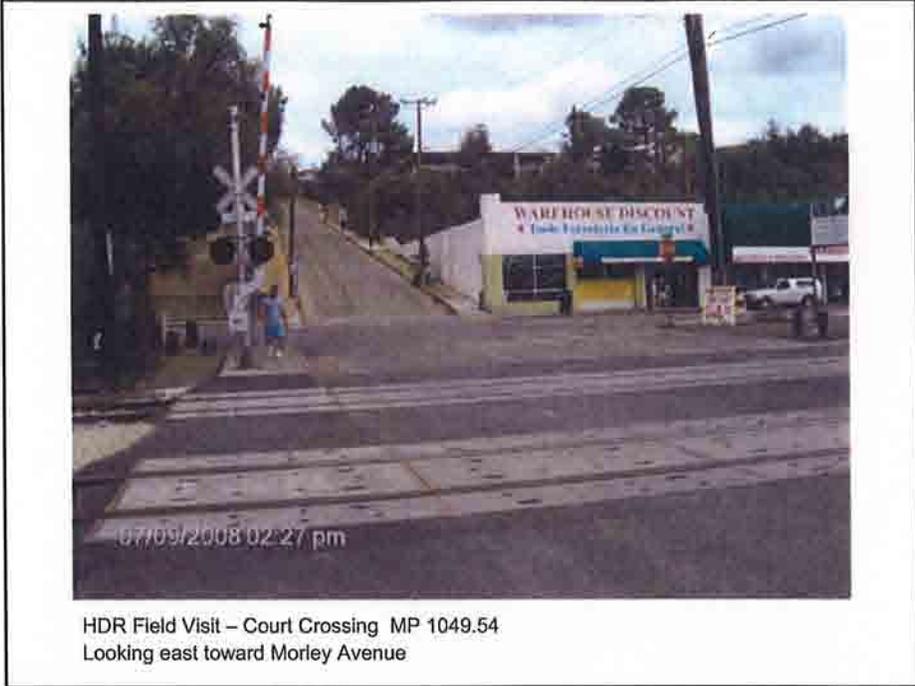
HDR Field Visit – Court Crossing MP 1049.54  
Looking southwest – concrete panels



HDR Field Visit – Court Crossing MP 1049.54  
Looking north along tracks



HDR Field Visit – Court Crossing MP 1049.54  
Looking south



HDR Field Visit – Court Crossing MP 1049.54  
Looking east toward Morley Avenue



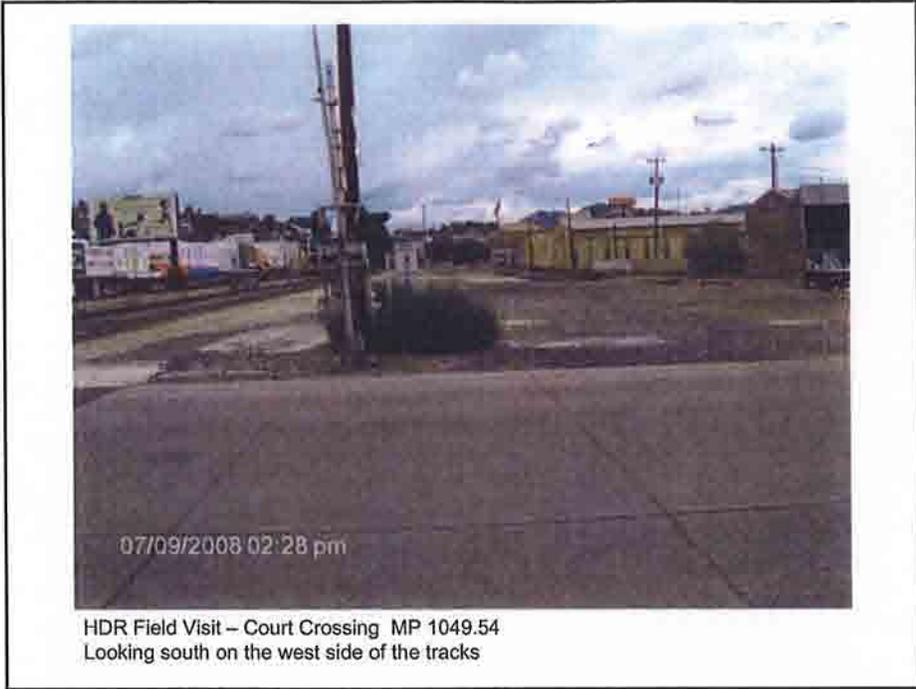
HDR Field Visit – Court Crossing MP 1049.54  
Looking west toward Grand Avenue



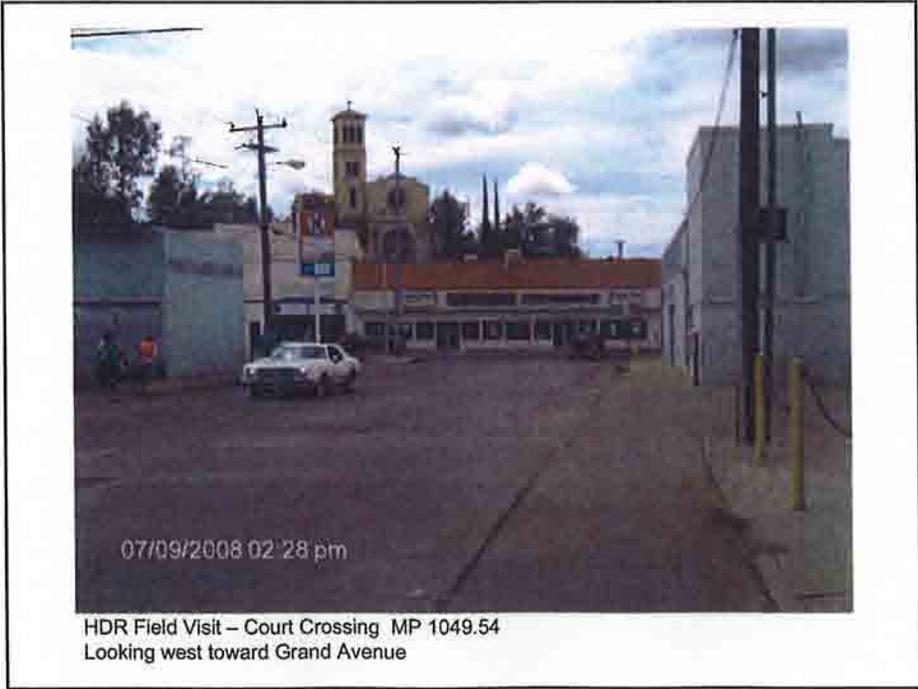
HDR Field Visit – Court Crossing MP 1049.54  
Looking north from west side of tracks



HDR Field Visit – Court Crossing MP 1049.54  
Looking east toward Morley Avenue



HDR Field Visit – Court Crossing MP 1049.54  
Looking south on the west side of the tracks



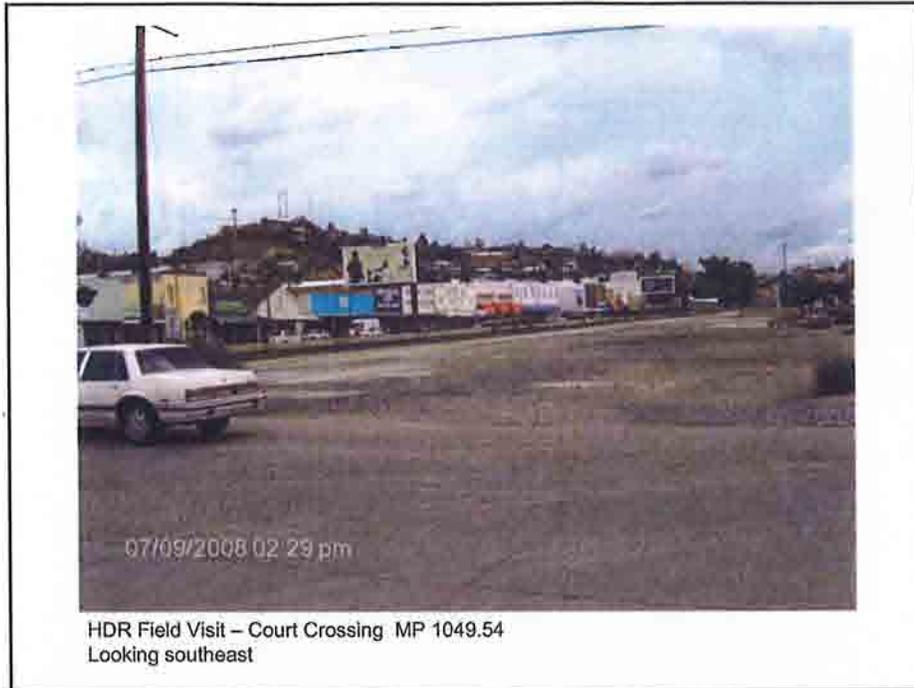
HDR Field Visit – Court Crossing MP 1049.54  
Looking west toward Grand Avenue



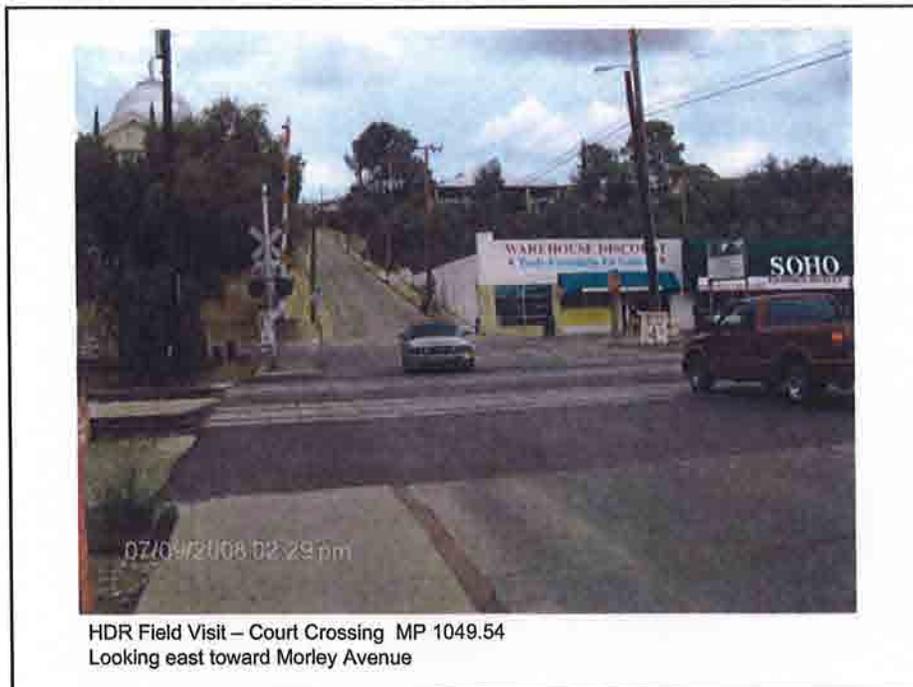
HDR Field Visit – Court Crossing MP 1049.54  
Looking east toward Morley Avenue



HDR Field Visit – Court Crossing MP 1049.54  
Looking east toward Morley Avenue



HDR Field Visit – Court Crossing MP 1049.54  
Looking southeast



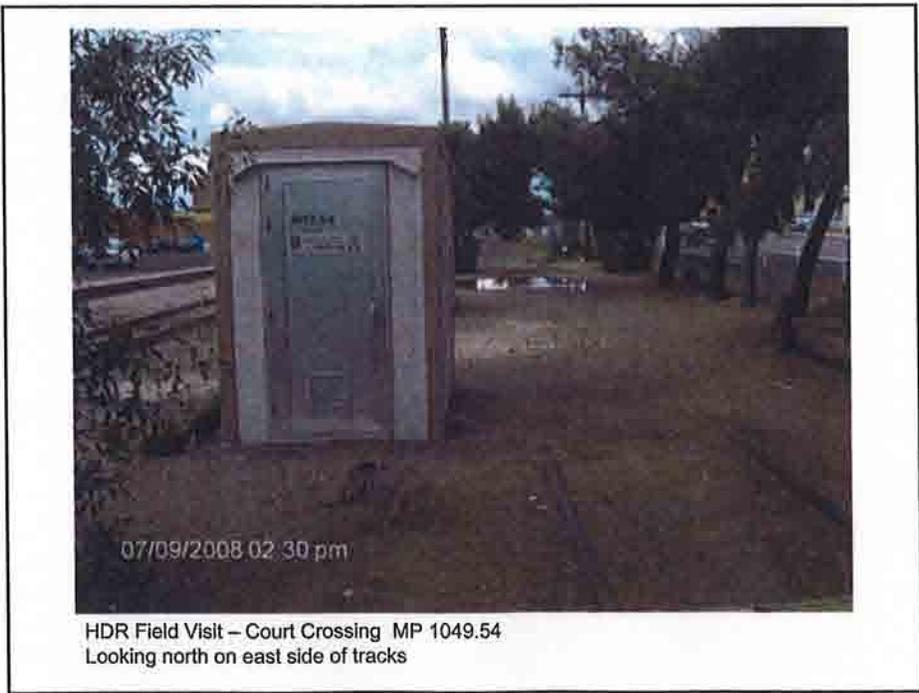
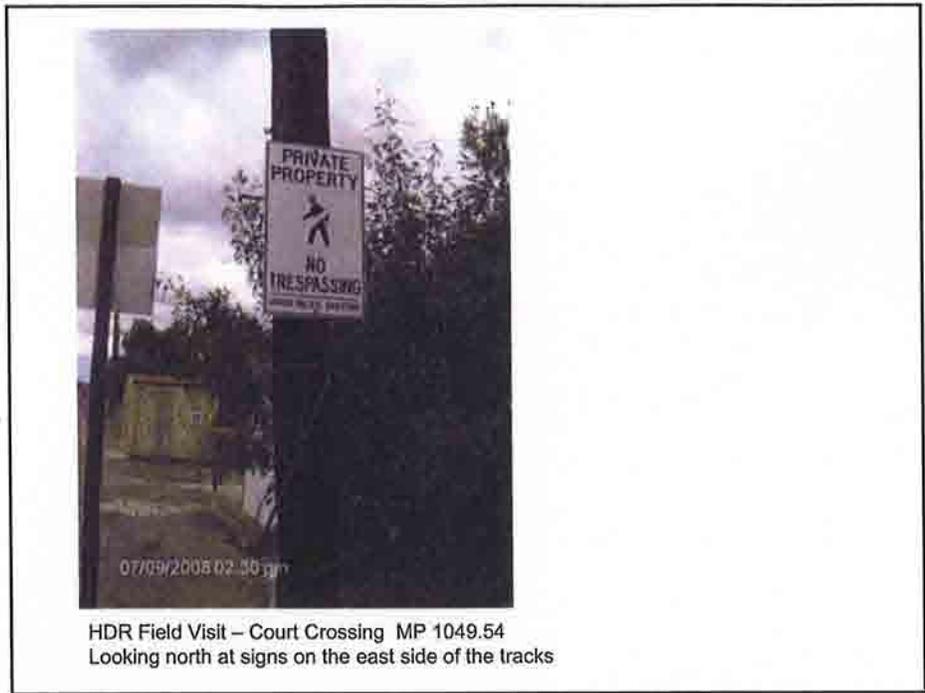
HDR Field Visit – Court Crossing MP 1049.54  
Looking east toward Morley Avenue



HDR Field Visit – Court Crossing MP 1049.54  
Entrance to shopping plaza west of tracks

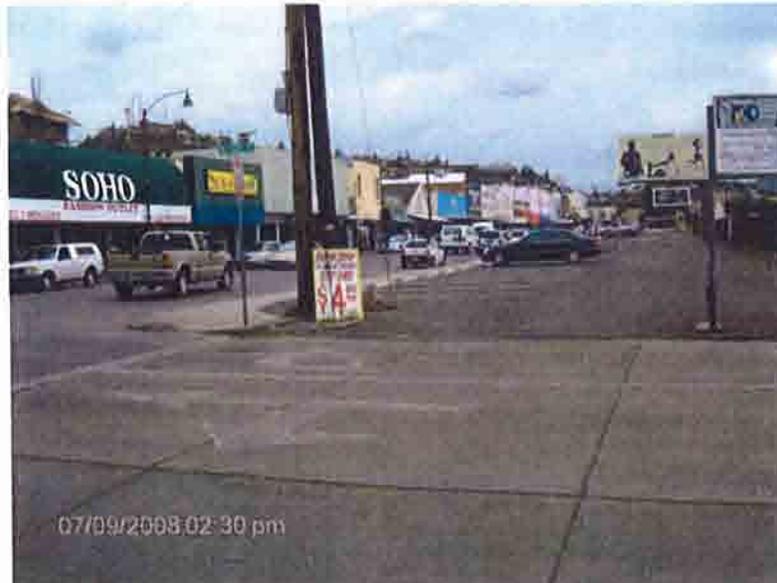


HDR Field Visit – Court Crossing MP 1049.54  
Looking north

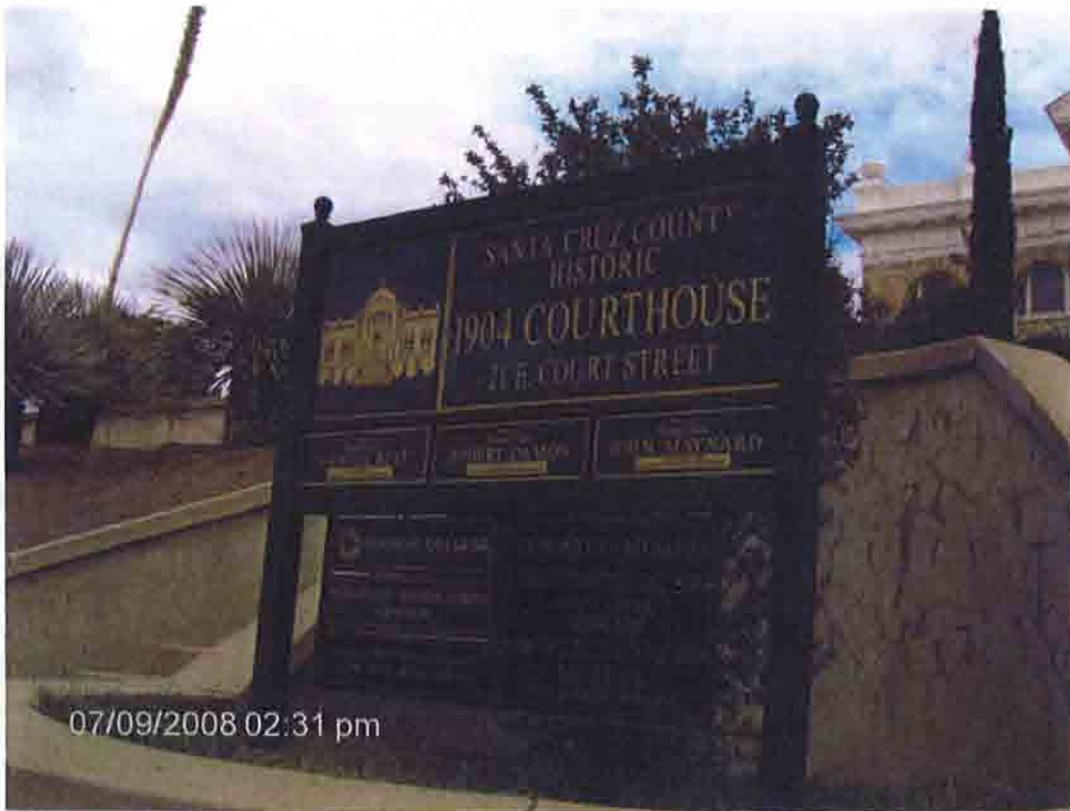




HDR Field Visit – Court Crossing MP 1049.54  
Looking south along east side of tracks



HDR Field Visit – Court Crossing MP 1049.54  
Looking southeast toward Morley Avenue

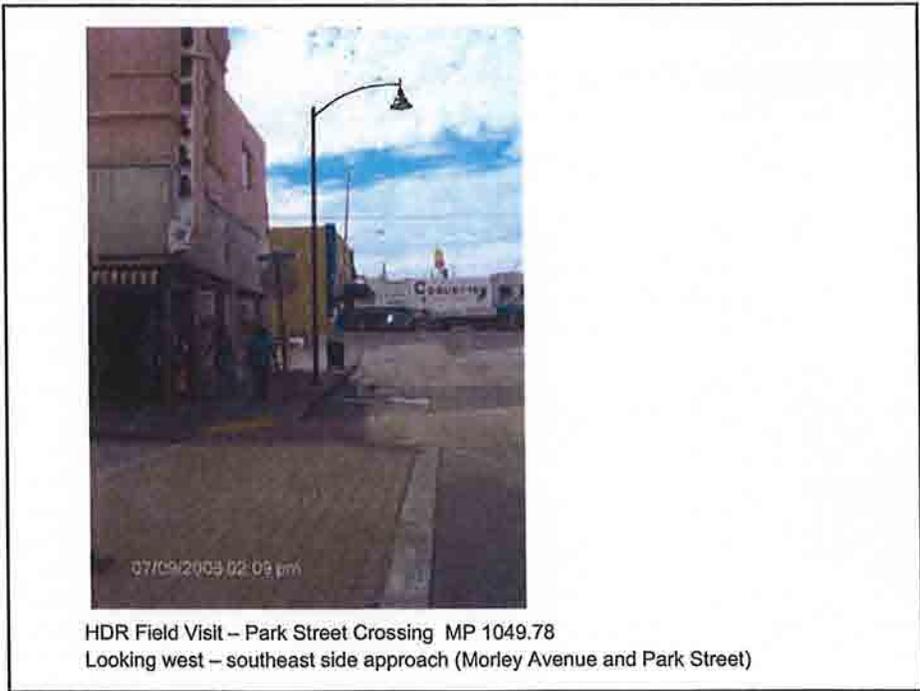


HDR Field Visit – Court Crossing MP 1049.54  
Courthouse at Court and Morley intersection (northeast corner)





HDR Field Visit – Park Street Crossing MP 1049.78  
Looking west at the Park Street and Grand Avenue intersection





HDR Field Visit – Park Street Crossing MP 1049.78  
Looking west – northeast side approach (Morley Avenue and Park Street)



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking southwest at concrete panels



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking south along concrete panels



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking north along tracks



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking north on west side of tracks



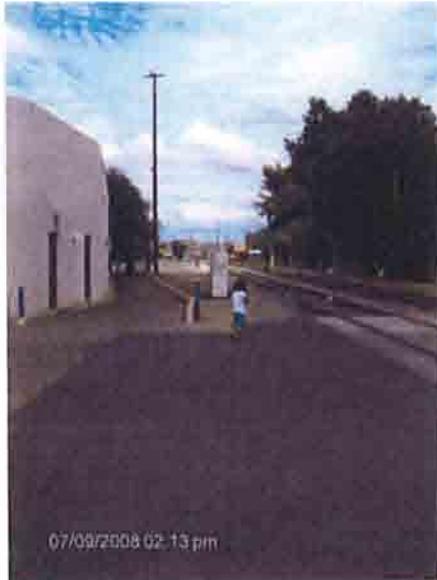
HDR Field Visit – Park Street Crossing MP 1049.78  
Looking southwest at the Park Street and Grand Avenue intersection



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking southeast from Park Street and Grand Avenue intersection



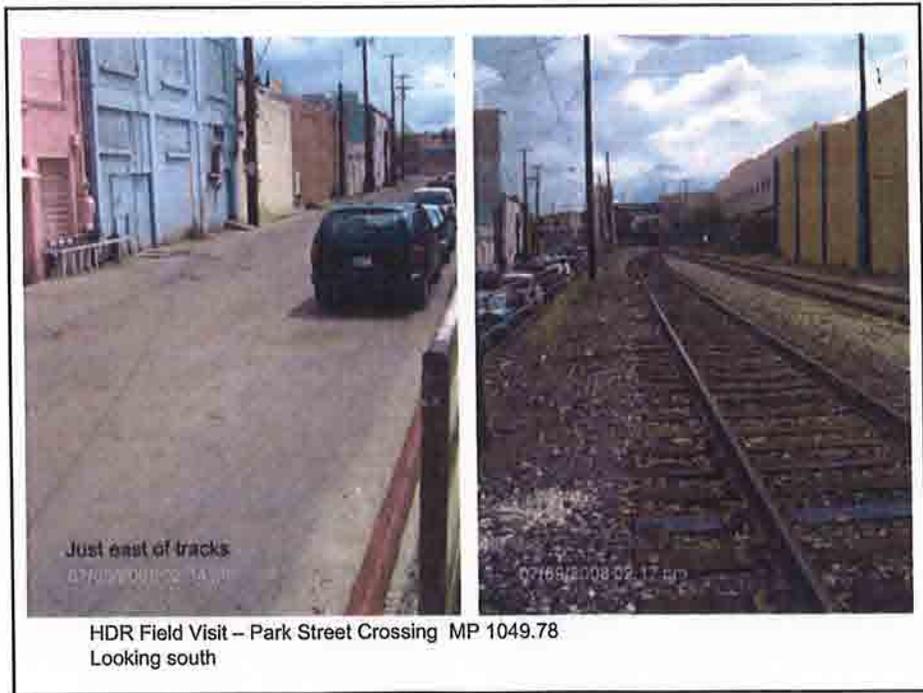
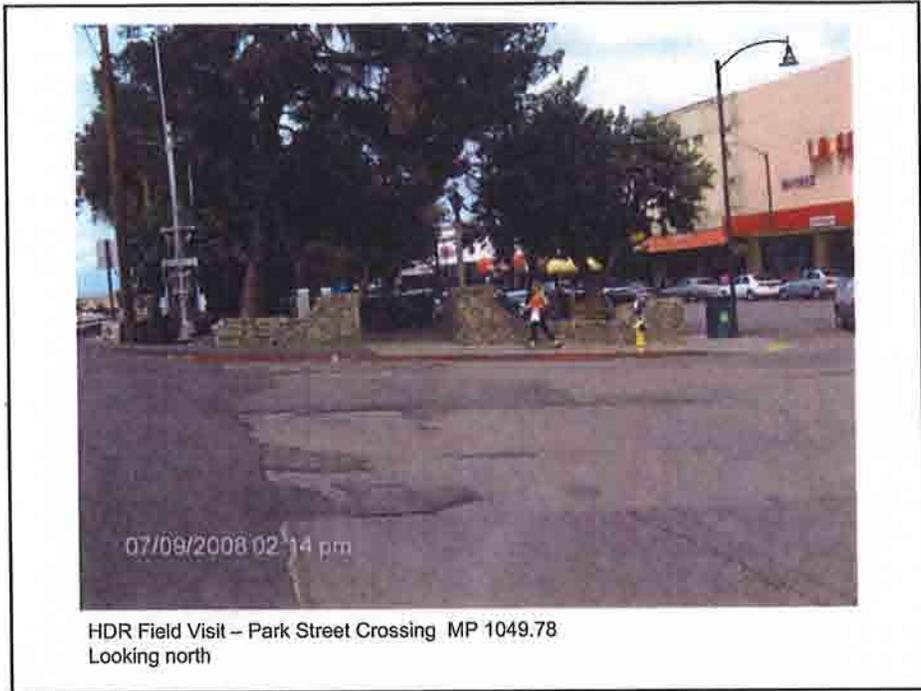
HDR Field Visit – Park Street Crossing MP 1049.78  
Looking east from northeast corner of Park Street and Grand Avenue



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking north



HDR Field Visit – Park Street Crossing MP 1049.78  
Looking northwest





HDR Field Visit – Park Street Crossing MP 1049.78  
Looking northwest at the Park Street and Grand Avenue intersection





HDR Field Visit – International Boundary Crossing MP 1049.88  
Looking south along International Border



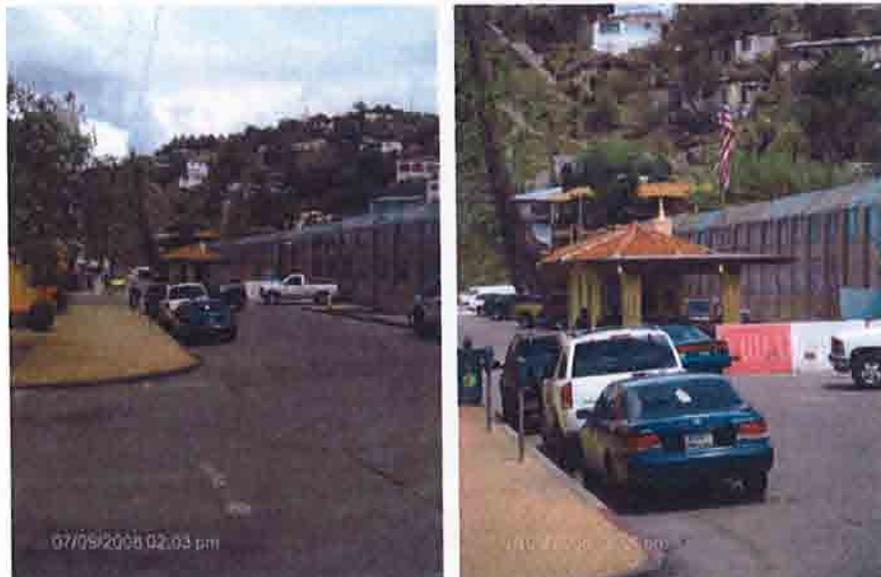
HDR Field Visit – International Boundary Crossing MP 1049.88  
Looking south along International Border



HDR Field Visit – International Boundary Crossing MP 1049.88  
Looking south along International Border



HDR Field Visit – International Boundary Crossing MP 1049.88  
Looking south along International Border



HDR Field Visit – International Boundary Crossing MP 1049.88  
Looking east along International Border