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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Arizona Corporation Commission

DOCKETED

MAY 21 2009

- KRISTIN K. MAYES, Chairman
- GARY PIERCE
- PAUL NEWMAN
- SANDRA D. KENNEDY
- BOB STUMP

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IN THE MATTER OF THE APPLICATION OF THE UNION PACIFIC RAILROAD COMPANY TO ALTER FOUR CROSSINGS OF THE UNION PACIFIC RAILROAD IN THE CITY OF MARICOPA, PINAL COUNTY, ARIZONA, AT MARICOPA ROAD/STATE ROUTE 347, PORTER, WHITE & PARKER, AND HARTMAN ROADS.

DOCKET NO. RR-03639A-07-0517

DECISION NO. 71065

OPINION AND ORDER

DATE OF HEARING: December 11, 2008

PLACE OF HEARING: Phoenix, Arizona

ADMINISTRATIVE LAW JUDGE: Marc E. Stern¹

APPEARANCES:

Mssrs. Anthony J. Hancock and Terrance L. Sims, Beaugureau, Zukowski, Hancock, Stoll & Schwartz, P.C., on behalf of the Union Pacific Railroad Company;

Mr. Robert F. Palmquist, Strickland & Strickland, P.C., on behalf of the Ak-Chin Indian Community; and

Mr. Charles Hains and Ms. Nancy Scott, Staff Attorneys, Legal Division, on behalf of the Safety Division of the Arizona Corporation Commission.

BY THE COMMISSION:

This case involves an application by the Union Pacific Railroad Company ("Railroad") to alter four crossings in the City of Maricopa, Pinal County, Arizona, at Maricopa Road/State Route 347 ("SR 347"), Porter Road, White & Parker Road, and Hartman Road, by adding a second mainline track 20 feet from the center of the existing mainline track. This application is part of the Railroad's double-track project for its "Sunset Route" across Arizona.

¹ Administrative Law Judge Marc E. Stern presided over all of the proceedings in this matter. The Recommended Opinion and Order was drafted by Administrative Law Judge Sarah N. Harpring.

* * * * *

1
2 Having considered the entire record herein and being fully advised in the premises, the
3 Commission finds, concludes, and orders that:

4 **FINDINGS OF FACT**

5 1. On September 7, 2007, the Railroad filed with the Arizona Corporation Commission
6 ("Commission") an application for approval to alter four public at-grade crossings of the Railroad in
7 the City of Maricopa ("City") in Pinal County ("County") by adding a second mainline track, 20 feet
8 from the center of the existing mainline track. This application is part of the Railroad's double-track
9 project for its "Sunset Route" across Arizona.

10 2. The four crossings are located within the City, along approximately six miles of the
11 Railroad's track, which runs from southeast to northwest. From east to west, the four crossings are as
12 follows: Hartman Road, AAR/DOT No. 741-347-E; White & Parker Road, AAR/DOT No. 741-346-
13 X; Porter Road, AAR/DOT No. 741-345-R; and SR 347, AAR/DOT No. 741-343-C. Each of these
14 roads runs north to south across the Railroad's tracks. All of the crossings are located in the City,
15 which is approximately 35 miles south of downtown Phoenix. The City is split by SR 347, which is
16 the main street running through the City from north to south. The Railroad's Sunset Route enters the
17 City from Casa Grande to the southeast and runs northwest through the City. The Maricopa-Casa
18 Grande Highway ("SR 238") runs parallel to and just to the north of the railroad tracks, within a few
19 hundred feet from the SR 347 crossing and within approximately 100 feet of the Hartman Road,
20 White & Parker Road, and Porter Road crossings.

21 3. The City is the road authority for the crossings at Hartman Road, White & Parker
22 Road, and Porter Road. The Arizona Department of Transportation ("ADOT") is the road authority
23 for the crossing at SR 347.

24 4. On November 8, 2007, a Procedural Order was issued scheduling a hearing in this
25 matter for January 25, 2008, and establishing other procedural requirements and deadlines.

26 5. On November 21, 2007, ADOT filed a letter in the docket stating that ADOT had not
27 been invited to attend the diagnostic meeting for the SR 347 crossing, although it is the road
28 authority; expressing concern related to the cost estimate provided in the docket; stating that the

1 Railroad is required to obtain an ADOT permit for the work, which will include an approved traffic
2 control plan and roadway construction specifications; and stating that a representative of ADOT
3 would attend the hearing on January 25, 2008.

4 6. On December 13, 2007, the Railroad Safety Section of the Commission's Safety
5 Division ("Staff") filed a motion to extend indefinitely the deadline for the Staff Report in this matter
6 because Staff had chosen to hire outside consultants to assist in preparing Staff's case and the Staff
7 Report and needed additional time to finalize the arrangement with the consultant.

8 7. On December 17, 2007, the Railroad filed certification of notice showing that, as
9 required by the Procedural Order issued on November 8, 2007, copies of the application and
10 Procedural Order had been sent by certified mail to ADOT, the City, and the County within five
11 business days of receipt of the Procedural Order, and notice of the application and hearing had been
12 published in the *Casa Grande Dispatch*, a daily newspaper of general circulation in the City and
13 County, on November 20, 2007, and in the *Florence Reminder and Blade-Tribune*, a weekly
14 publication of general circulation in the City and County, on November 22 and 29 and December 6,
15 2007.

16 8. On December 19, 2007, the Railroad filed a response to Staff's motion, objecting to
17 the requested delay and stating that any extension granted should be for no longer than 30 days.

18 9. On December 21, 2007, a Procedural Order was issued requiring Staff to file the
19 proposed date for filing its Staff Report by January 4, 2008, and declaring that the hearing on January
20 25, 2008, would proceed only for the taking of public comment.

21 10. On January 4, 2008, Staff filed a response to the Procedural Order, indicating that
22 Staff believed it would be able to file a Staff Report no earlier than February 15, 2008, as it was in
23 continuing discussions with the outside consultant, which were expected to be resolved by January
24 15, 2008, and then would need another 30 days for the Staff Report to be produced.

25 11. On January 15, 2008, the County's Board of Supervisors filed a letter supporting the
26 Railroad's double-track project as to the at-grade crossings located in the County.²

27 _____
28 ² The letter stated that the County supported the double-track project as to the crossings listed on an included exhibit, but did not include an exhibit as docketed. Staff filed the exhibit on May 8, 2008, and the letter, including the exhibit, was

1 12. On January 25, 2008, the hearing proceeded for the taking of public comment, with
2 Commissioner Kristin K. Mayes in attendance and the Railroad and Staff both appearing through
3 counsel. Public comment was received from a realtor with business interests in Maricopa, who
4 indicated that there is significant delay at the SR 347 crossing; that the double-track project should
5 include adding spur lines in industrial parks to allow for economic development;³ and that the
6 Railroad should partner and share costs with the County, municipalities, and the State to build grade-
7 separated crossings along the rail line, one in Eloy, one in Toltec, one in Casa Grande, one in
8 Maricopa, and one halfway between Casa Grande and Maricopa. The City's Transportation Director
9 commented that the City, the City of Casa Grande, the City of Eloy, and the County had been
10 negotiating with the Railroad for months regarding an agreement on the double-track project. The
11 Transportation Director further commented that the City was very interested in having a grade-
12 separated crossing at SR 347 and had spent considerable funds, in partnership with ADOT, to
13 complete a grade-separation study for SR 347, which indicated that the costs for a grade-separated
14 crossing at SR 347 would be between \$40 and \$80 million. The Transportation Director further
15 stated that the City had identified four other locations in the City that need to be grade-separated in
16 the future and was negotiating regarding cost-sharing. The Transportation Director also indicated
17 that it would be beneficial to have hearings in Pinal County. ADOT's Railroad Liaison also provided
18 comment, stating that ADOT had been inadvertently excluded from the initial diagnostic for the SR
19 347 crossing, but had been included in all subsequent diagnostics.

20 13. On February 14, 2008, Staff filed a motion for extension and request for procedural
21 conference, stating that the agreement with the outside consultant had been executed on February 1,
22 2008; requesting an extension of the Staff Report filing deadline until March 15, 2008; and
23 requesting a procedural conference to discuss scheduling issues.

24 14. On March 4, 2008, a Procedural Order was issued scheduling a procedural conference
25 for March 12, 2008, and holding all filing deadlines in abeyance pending a determination of the filing
26 deadline for the Staff Report.

27 provided at hearing as Staff Exhibit 2. The list includes the crossings at Hartman Road, White & Parker Road, and Porter
28 Road, but does not include the crossing at SR 347.

³ The speaker indicated that the Railroad had removed a number of spur lines from the area several years before.

1 15. On March 12, 2008, a procedural conference was held at the Commission's offices in
2 Phoenix, Arizona. The Railroad and Staff appeared through counsel. During the procedural
3 conference, it was determined that Staff would file the Staff Report by April 11, 2008, and that a
4 hearing would be scheduled accordingly.

5 16. On March 19, 2008, a Procedural Order was issued scheduling a teleconference for
6 March 24, 2008, to discuss the location of the hearing in this matter.

7 17. On March 24, 2008, the Railroad and Staff appeared through counsel in a
8 teleconference, during which the location of the hearing in this matter was discussed. The discussion
9 continued in a procedural conference held on March 26, 2008, in which it was determined that the
10 Railroad would make a filing in approximately 10 days regarding the availability of locations in the
11 City for public comment and/or a hearing.

12 18. On April 11, 2008, Staff filed its Staff Report, recommending approval of the
13 Railroad's application.

14 19. On June 2, 2008, the Railroad filed a notice stating that the Railroad, the City, the City
15 of Casa Grande, the City of Eloy, and the County had entered into an Agreement for Construction
16 and Funding of Grade Separations ("Grade Separations Agreement"), along with a copy of the Grade
17 Separations Agreement. Under the Grade Separations Agreement, the Railroad will contribute \$35
18 million toward construction of four separate grade separations. (Decision No. 70618 at 11.) The
19 proposed locations for the four grade separations are to be selected by the County and Cities from a
20 list of crossings. (Tr. at 54-55.) The crossings at Hartman Road, White & Parker Road, and Porter
21 Road are included on that list as candidates for grade separation, but the crossing at SR 347 is not
22 because it is a state highway. (Tr. at 39, 50-51, 53.) Following the selection of the proposed
23 locations for the grade separations, applications for approval will be submitted to the Commission.
24 (Tr. at 100.)

25 20. On June 12, 2008, a Procedural Order was issued scheduling a public comment
26 hearing on the evening of July 31, 2008, at the Pima Butte Elementary School in the City, and
27 scheduling an evidentiary hearing on August 19, 2008, at the Commission's offices in Phoenix. The
28 Railroad was ordered to provide additional public notice by certified mail and through publication.

1 21. On June 23, 2008, a letter from the County Board of Supervisors was filed. The letter
2 explained that the Grade Separations Agreement had been executed; that the County is satisfied that
3 the Grade Separations Agreement serves the best interests of its citizens regarding the selection and
4 funding of grade-separated crossings; that the County appreciates the Commission's role in bringing
5 about the Grade Separations Agreement; and that the County supports the Railroad's double-track
6 project and requests approval for the applications involving all of the crossings in the County for
7 which either the County, the City, the City of Casa Grande, or the City of Eloy is the road authority.
8 Substantially similar letters from the City, the City of Eloy, and the City of Casa Grande were filed
9 on July 22 and September 3, 2008.

10 22. On July 15, 2008, the Railroad filed certification of notice showing that, as required by
11 the Procedural Order issued on June 12, 2008, copies of the application and Procedural Order had
12 been sent by certified mail to ADOT, the City, and the County within five business days of receipt of
13 the Procedural Order, and notice of the application and hearing had been published in the *Casa*
14 *Grande Dispatch* on June 19, 2008, and in the *Florence Reminder and Blade-Tribune* on June 19 and
15 26 and July 3, 2008.

16 23. On July 31, 2008, a public comment proceeding was held in the City. Commissioner
17 Mayes and Commissioner Gary Pierce presided. During the public comment proceeding, the Public
18 Relations Director for the Maricopa Unified School District ("School District") expressed concern
19 regarding the safety of students, mostly high school students, walking across the SR 347 intersection
20 and the delays that could be caused if train traffic increases. The City explained that it has teamed
21 with ADOT on a study regarding the SR 347 crossing. The ADOT Railroad Liaison stated that an
22 environmental assessment and project assessment have been completed for a grade-separated
23 crossing at SR 347 and that grade separation there will be very complex and expensive because SR
24 347 traffic must be maintained. The Chairman of the Ak-Chin Indian Community ("Community")
25 expressed concern because the Community had not been contacted regarding the double-track
26 project, even though the rail goes through two portions of the Community's land, and two main tribal
27 roads (Peters and Nall Road and Farrell Road) would be used as alternate routes during construction
28 on the crossings. The Community's Chairman expressed concerns about tribal police's ability to

1 monitor the increased traffic and the Community's being involved in retrieving any artifacts or
2 human remains that may be unearthed and stated that the Community desired more discussion
3 regarding the impacts of the project. The ADOT Railroad Liaison stated that ADOT had already
4 informed the Railroad that the plan to reroute traffic onto the Community's roads was unacceptable
5 and that another meeting was to be held to discuss the issue on August 8, 2008. The Railroad agreed
6 to keep the Chairman apprised of all activity occurring on the Community's land. A lifelong City
7 resident also provided comment, strongly encouraging close communication and teamwork to come
8 up with a solution that will satisfy everyone involved, including the Community.

9 24. On August 18, 2008, an e-mail from the School District's Public Relations Director
10 was docketed, in which the Public Relations Director expressed thanks to the Commission for
11 holding the public comment proceeding in the City and provided information related to schools
12 affected by the crossings and the approximate volume of school buses crossing SR 347 each day.

13 25. On August 19, 2008, an evidentiary hearing convened at the Commission's offices in
14 Phoenix, Arizona. Commissioner Mayes attended, and the Railroad and Staff appeared through
15 counsel. The Chairman of the Community provided public comment, expressing the same concerns
16 raised during the July 31, 2008, public comment proceeding; stating that a good dialogue had been
17 occurring between the Community and the Railroad; expressing support for an alternate plan to run a
18 detour road parallel to SR 347 that would run through the Community's land but avoid routing traffic
19 over existing Community roads ("the shoo-fly alternative"); and stating that the Community desired
20 to intervene. The Railroad and Staff expressed no objections to the Community's intervention. The
21 City's Mayor stated that the City had been involved in the discussions regarding the shoo-fly
22 alternative and that additional discussions were to be held. The proceeding was recessed and
23 continued to allow the Community to file its request for intervention.

24 26. On August 25, 2008, the Community filed a letter including a copy of the Chairman's
25 comments from the August 19, 2008, hearing and stating that a request for intervention would be
26 forthcoming.

27 27. On September 4, 2008, the Community filed an Application for Leave to Intervene,
28 which was granted by a Procedural Order issued on September 8, 2008. The Procedural Order also

1 directed the Railroad to file a request to reschedule the evidentiary hearing after discussions between
2 the parties were completed.

3 28. On October 17, 2008, the parties jointly filed a request to reschedule the evidentiary
4 hearing on any of several listed dates.

5 29. On October 20, 2008, a Procedural Order was issued scheduling an evidentiary
6 hearing on December 11, 2008, at the Commission's offices in Phoenix, Arizona.

7 30. On December 11, 2008, a full evidentiary hearing was held before a duly authorized
8 Administrative Law Judge of the Commission at the Commission's offices in Phoenix, Arizona. The
9 Railroad, the Community, and Staff appeared through counsel and presented testimony. The
10 Railroad presented the testimony of E. Dean Carlson, who has been recognized as an expert witness
11 in other dockets involving the Railroad's double-track project;⁴ Aziz Aman, the Railroad's Manager
12 for Industry and Public Projects; and Luis Heredia, the Railroad's Director of Public Affairs for
13 Arizona and New Mexico. The Community presented the testimony of Manuel Garcia, Chief of the
14 Community's Police Department; Roman Orona, the Community's Environmental Programs
15 Manager; and Gary Gilbert, Community Cultural Resources Technician II. Staff presented the
16 testimony of Brian Lehman, Supervisor of Rail Safety for the Commission's Safety Division, and
17 David Elack, Traffic Engineer for the Commission's Safety Division, and also presented
18 documentary evidence in the form of the Staff Report and the January 15, 2008, letter of support from
19 the County Board of Supervisors.

20 31. At the hearing, public comment was again provided by the City, ADOT, and the
21 Community. The City's Mayor expressed the City's support for the shoo-fly alternative that will
22 provide two bypass shoo-flies and allow SR 347 traffic to flow at all times during construction. The
23 City's Development Services Director expressed gratitude to the Commission, the Railroad, and the
24 Community. The ADOT Railroad Liaison expressed support for the shoo-fly alternative and
25 gratitude to the Railroad and the Community and stated that an initial assessment for grade-separating

26 _____
27 ⁴ Mr. Carlson retired from the Federal Highway Administration ("FHWA"), after 36 years of service, as its Executive
28 Director. (Decision No. 70618 (November 19, 2008) at 10.) During his tenure at the FHWA, Mr. Carlson also served as
the Director of Engineering and the Director of the Office of Highway Safety. (*Id.*) Mr. Carlson also served as the
Secretary of Transportation for the State of Kansas for eight years. (*Id.*)

1 the SR 347 crossing has been completed, that a final plan has not been selected because of the
 2 alternates available and the complexity of the crossing, and that funding may not be forthcoming for
 3 5 to 10 years. Finally, the Vice-Chairman of the Community expressed the Community's continued
 4 support for the shoo-fly alternative that includes use of two shoo-fly lanes, one for emergency
 5 vehicles and one for other traffic.

6 **Hartman Road**

7 32. The application proposes adding a second mainline track at the Hartman Road
 8 crossing, to the north of the existing mainline track. The Railroad plans to re-profile a portion of the
 9 two-lane asphalt road to meet the new track and to upgrade the existing flashing lights, bells, and
 10 automatic gates with the latest industry standard equipment, including 12-inch LED flashing lights,
 11 gates, bells, and constant warning time circuitry.⁵ The Railroad also will add a new concrete crossing
 12 surface.

13 33. The existing automatic gates, bells, and flashing lights at Hartman Road were installed
 14 pursuant to Decision No. 48250 (September 13, 1977).

15 34. The City is the road authority for the Hartman Road crossing.

16 35. Based on traffic data provided to the Railroad by Jennifer Crumbliss of HDR
 17 Engineering, a Railroad contractor, the average daily traffic ("ADT") for Hartman Road in 2007 was
 18 366 vehicles per day ("VPD"). The projected ADT for the year 2030 is 8,446 VPD.⁶ The current
 19 Level of Service ("LOS") for Hartman Road, based on the standards of the American Association of
 20 State Highway and Transportation Officials ("AASHTO"), is LOS A, or least congested, for both
 21 northbound and southbound traffic.⁷ The posted speed limit on Hartman Road is 45 MPH.

22

23

24 ⁵ Constant warning time circuitry sends a signal to the at-grade crossing to activate its functioning at the instant it detects
 25 a train's distance and measures the speed of the train to adjust the length of time that the crossing gates have to be closed,
 so that the crossing gates are closed only for the amount of time necessary for the train to move through safely, thereby
 avoiding motorist frustration and possible noncompliance caused by unnecessarily lengthy crossing gate closure.

26 ⁶ The projected ADT for 2030 provided by the Railroad was 72,428. Based on data from the City, Staff determined that
 this number was inaccurate.

27 ⁷ According to the Staff Report, the AASHTO Geometric Design of Highways and Streets, 2004, uses LOS to
 28 characterize the operating conditions on a roadway in terms of traffic performance measures related to speed and travel
 time, freedom to maneuver, traffic interruptions, and comfort and convenience. LOS ranges from LOS A, least
 congested, to LOS F, most congested.

1 36. Staff and Federal Railroad Administration ("FRA") records indicate that two accidents
2 have occurred at the Hartman Road crossing, resulting in one injury and no fatalities. The injury
3 accident occurred in June 1989, and the other accident, from which there were no injuries, occurred
4 in March 1973, before the current warning equipment was installed.

5 37. The estimated costs of the proposed crossing improvements for Hartman Road total
6 \$266,320 and break down to \$220,000 for signal work and \$46,320 for the crossing surface. The
7 Railroad will pay the entire cost of these crossing improvements.

8 38. According to the Staff Report, the Hartman Road crossing presents some challenges
9 because the existing grade of the road approaching the tracks is rather steep, and adding a second
10 track even closer to SR 238 could make the situation worse. Staff believes that some trucks or motor
11 homes could get hung up on the tracks while trying to cross them and that the steep grade and short
12 area of approach could make it difficult for vehicles to negotiate the crossing or to wait at the
13 crossing for trains to pass. However, Staff also indicated that Hartman Road is not heavily traveled
14 by trucks. In response to this concern, the Railroad testified that it believes that the improvements
15 made to the profile at that crossing might alleviate some of the problems with the steep approach and
16 that it is working with the City to bring the grade into compliance with the City's specifications. (Tr.
17 at 49-50.)

18 **White & Parker Road**

19 39. The application proposes adding a second mainline track at the White & Parker Road
20 crossing to the north of the existing mainline track. The Railroad plans to re-profile a portion of the
21 two-lane asphalt road to meet the new track and to replace the existing flashing lights, bells, and
22 automatic gates with the latest industry standard equipment, including 12-inch LED flashing lights,
23 gates, bells, and constant warning time circuitry. The Railroad also will add a new concrete crossing
24 surface.

25 40. The existing automatic gates, bells, and flashing lights at White & Parker Road were
26 installed in 1974.

27 41. The City is the road authority for the White & Parker Road crossing.
28

1 42. Based on traffic data provided by the City, the current ADT for White & Parker Road
2 is approximately 919 VPD, with 40 percent of those vehicles being trucks. The projected ADT for
3 2025 is 34,074 VPD.⁸ The current LOS for White & Parker Road, based on AASHTO standards, is
4 LOS A, or least congested, for both northbound and southbound traffic. The posted speed limit on
5 White & Parker Road is 40 MPH.

6 43. Staff and FRA records indicate that no accidents have occurred at the White & Parker
7 Road crossing.

8 44. The estimated costs of the proposed crossing improvements for White & Parker Road
9 total \$257,125 and break down to \$226,245 for signal work and \$30,880 for the crossing surface.
10 The Railroad will pay the entire cost of these crossing improvements.

11 Porter Road

12 45. The application proposes adding a second mainline track at the Porter Road crossing
13 to the north of the existing mainline track. The Railroad plans to re-profile a portion of the four-lane
14 rural asphalt road to meet the new track and to replace the existing flashing lights, bells, and
15 automatic gates with the latest industry standard equipment, including 12-inch LED flashing lights,
16 gates, bells, and constant warning time circuitry. The Railroad also will add a new concrete crossing
17 surface and will replace any impacted pavement markings.

18 46. The existing automatic gates, bells, and flashing lights at Porter Road were installed in
19 1974.

20 47. The City is the road authority for the Porter Road crossing.

21 48. Based on traffic data provided by the City, the ADT for Porter Road in 2006 was
22 3,000 VPD. The most recent estimates from the City, which have been verified by Staff, indicate that
23 the projected ADT in 2030 will be 27,771 VPD.⁹ The current LOS for Porter Road, based on
24 AASHTO standards, is LOS A, or least congested, for both northbound and southbound traffic. The
25 posted speed limit on Porter Road is 25 MPH.

27 ⁸ The Railroad projected the ADT for 2025 to be 38,288, but Staff found this projection to be slightly inflated, based on
updated data from the City.

28 ⁹ In 2007, ADOT estimated that the ADT in 2025 would be 51,405 VPD.

1 49. Staff and FRA records indicate that one accident occurred at the Porter Road crossing
2 in September 1976, resulting in no injuries and no fatalities.

3 50. The estimated costs of the proposed crossing improvements for Porter Road total
4 \$395,517 and break down to \$333,757 for signal work and \$61,760 for the crossing surface. The
5 Railroad will pay the entire cost of these crossing improvements.

6 **SR 347**

7 51. The application proposes adding a second mainline track at the SR 347 crossing to the
8 south of the existing mainline track. The Railroad plans to re-profile a portion of the four-lane
9 asphalt road to meet the new track and to replace the existing flashing lights, bells, and automatic
10 gates with the latest industry standard equipment, including 12-inch LED flashing lights, gates, bells,
11 and constant warning time circuitry. The Railroad also will add a new concrete crossing surface.
12 The existing raised median at the crossing will be retained and used to accommodate the new
13 warning devices.

14 52. The existing automatic gates, bells, and flashing lights at SR 347 were installed in
15 1974.

16 53. ADOT is the road authority for the SR 347 crossing.

17 54. Based on traffic data provided by the City, the current ADT for the SR 347 crossing is
18 38,575 VPD. The projected ADT for 2030 is 64,263 VPD.¹⁰ According to HDR Engineering, the
19 current LOS for SR 347, based on AASHTO standards, is LOS A, or least congested, for both
20 northbound and southbound traffic. Staff testified, however, that SR 347 probably is not at LOS A at
21 certain times of the day, such as during rush hour. (See Tr. at 88.) The posted speed limit on SR 347
22 is 35 MPH.

23 55. Staff and FRA records indicate that five accidents have occurred at the SR 347
24 crossing, with five fatalities. Four fatalities resulted from an accident in October 1988, and one
25 fatality resulted from an accident in June 2000. The remaining accidents, in May 1975, September
26 1993, and April 2003, resulted in no fatalities or injuries.

27 _____
28 ¹⁰ This is the projection provided most recently by the City, which Staff found to be reasonable. The Railroad had projected the ADT for 2020 to be 65,922 VPD.

1 56. The estimated costs of the proposed crossing improvements for SR 347 total \$359,795
2 and break down to \$290,315 for signal work and \$69,480 for the crossing surface. The Railroad will
3 pay the entire cost of these crossing improvements.

4 57. Currently, there is an end-of-siding control point located approximately 50 feet west of
5 the SR 347 crossing, along with a switch where trains can enter and leave that siding. (Tr. at 89.)
6 Because trains have to slow down when either entering or leaving from that siding, this control point
7 results in motorist delay and congestion on SR 347. (*Id.*) The proposed addition of the second
8 mainline track will eliminate the control point and result in two mainline tracks on which trains can
9 operate at the maximum authorized speed, thereby decreasing the delay to motorists and congestion
10 on SR 347. (*Id.*)

11 **Train Volume and Crossing Usage**

12 58. According to the Staff Report, data from the Railroad establish that an average of 48
13 trains per day (46 freight trains and 2 passenger trains) travel through the crossings presently, at a
14 speed of 70 MPH for the freight trains and 79 MPH for the passenger trains. The number of freight
15 trains is projected to increase to an average of 84 trains per day by the year 2016. The crossings are
16 all used by Amtrak twice per day, three times per week.

17 59. There are six schools in the area of the four crossings, including one high school, one
18 middle school, and four elementary schools. The School District's Transportation Division indicates
19 that school buses cross at the SR 347 crossing a total of 116 times per day during the week and cross
20 at the Porter Road crossing twice per day during the week, while the crossings at Hartman Road and
21 White and Parker Road are not used by school buses.

22 60. The nearest hospitals to the crossings are Chandler Regional Hospital, approximately
23 30 minutes to the north, and Casa Grande Hospital, approximately 45 minutes to the east. The
24 nearest crossing for Chandler Regional Hospital is the SR 347 crossing, and the nearest crossing for
25 Casa Grande Hospital is Hartman Road. According to the Railroad, none of the crossings are used
26 regularly by emergency services personnel. However, according to the Staff Report, Staff has
27 observed emergency medical services vehicles using the SR 347 crossing.
28

1 61. Staff testified that pedestrians, including school children, cross at SR 347 on a daily
 2 basis and that there is likely some delay for pedestrians due to train volume, although Staff is not
 3 aware of any excessive delay. (Tr. at 92.) Staff discussed with the City whether it would be
 4 appropriate to construct a pedestrian grade separation at SR 347 and does not recommend a
 5 pedestrian grade separation at this time. (Tr. at 92-94.) Staff opined that a pedestrian grade
 6 separation may be excessively expensive in the absence of a pedestrian delay factor, which Staff did
 7 not have data to establish. (See Tr. at 93.) Staff expects the pedestrian issue to be addressed when
 8 SR 347 is grade separated. (*Id.*)

9 Grade Separation/Crossing Elimination

10 62. Staff analyzed whether grade separation is currently warranted at any of the four
 11 crossings using the FHWA *Railroad-Highway Grade Crossing Handbook* ("FHWA Handbook").¹¹
 12 The FHWA Handbook indicates that grade separation or crossing elimination should be considered
 13 when one or more of nine criteria are met. Staff created a chart, attached hereto and incorporated
 14 herein as Exhibit A, showing the results of Staff's analysis of the criteria for each of the four
 15 crossings.

16 63. Exhibit A shows that only the SR 347 crossing currently meets any of the nine criteria
 17 in the FHWA Handbook, the criterion for crossing exposure, with a crossing exposure of 1.9
 18 million.¹² Staff has determined that the Hartman Road, White & Parker Road, and Porter Road
 19 crossings will also meet the crossing exposure criterion by 2030, with projected crossing exposures of
 20 709,000, 2.8 million, and 2.3 million, respectively. Staff has also determined that all four crossings
 21 will meet the criterion for average annual gross tonnage of 300 million or more by the year 2016.
 22 This determination is based on the current annual gross tonnage in excess of 217 million with volume
 23 of 46 freight trains per day and the projected volume of 84 freight trains per day by 2016, with the
 24 trains also expected to be longer (8,000 feet long instead of the current length of 6,000 feet). Staff
 25 has also determined that the SR 347 crossing will meet the criterion for ADT by 2030, due to its

26 _____
 27 ¹¹ Staff used the revised 2nd edition from August 2007.

28 ¹² According to the Staff Report, crossing exposure is determined by multiplying the number of trains per day times the number of vehicles crossing per day. The crossing exposure standard for a rural area is 250,000 and for an urban area is 1 million.

1 projected ADT of 64,263 VPD,¹³ and that the SR 347, White & Parker Road, and Porter Road
2 crossings will all meet the vehicle delay per day criterion by 2030, with daily delays of 113.5 hours,
3 69.7 hours, and 48.4 hours, respectively, all exceeding the standard of 40 hours per day.

4 64. Staff testified that meeting one or more of the criteria does not automatically mean
5 that grade separation is required because the criteria in the FHWA Handbook are only a screening
6 tool and guideline and not necessarily determinative of whether a grade separation is necessary. (Tr.
7 at 97-98.) Staff does not recommend grade separation at any of the four crossings at this time,
8 although Staff testified that grade separation at SR 347 will definitely be necessary in the future. (Tr.
9 at 99-100.)

10 65. In early 2006, the City and ADOT commenced a study to determine a solution for the
11 SR 347 crossing, with the following goals: (1) grade separation of the SR 347 crossing, (2)
12 maintenance and upgrading of the SR 347 connections with other key roadways in the area, (3)
13 consideration of other road network needs, (4) consideration of other planned improvements, and (5)
14 consideration of likely environmental impacts. (Ex. S-1 at 5.) A Final Feasibility
15 Report/Environmental Overview ("Final Report"), issued in August 2007, describes five options for
16 grade separating the SR 347 crossing, with costs ranging from \$61.6 million to \$113.6 million. (*Id.*)
17 The next step in the study process, which is not expected to begin for another two years, is to develop
18 a *Design Concept Report*, which will determine the optimal option. (*Id.*) Funding for the grade-
19 separated crossing has not yet been identified. (*Id.*)

20 66. Staff testified that the Railroad is in a position to construct the second mainline track
21 in the near future if its application is approved, whereas the planning and funding necessary to build
22 the grade separation at SR 347 are not available at this time. (Tr. at 100.) Staff also testified that it
23 would not make sense to try to implement a grade separation at SR 347 at this time when the final
24 study of the options has not yet been completed. (Tr. at 97.) Staff further testified that there are no
25 reasonable considerations of safety or cost that would justify a grade separation now or in the
26 immediate future for any of the four crossings. (Tr. at 109.)

27
28 ¹³ The standard for ADT in a rural area is 50,000 VPD.

1 67. The Railroad's expert witness, Mr. Carlson, testified that he would use the same
2 FHWA Handbook criteria used by Staff to determine what type of protection needs to be provided at
3 each crossing, including whether grade separation is necessary, (Tr. at 18), and that the criteria are
4 merely guidelines that indicate whether more study needs to be done to determine whether grade
5 separation should be constructed, (Tr. at 20). Mr. Carlson testified that he believes Staff properly
6 applied the FHWA guidelines to the four crossings, (Tr. at 27), and that there are no reasonable
7 considerations of safety or cost that would justify a grade separation now for any of the four
8 crossings, (Tr. at 29). Mr. Carlson further testified that grade separation does not necessarily
9 guarantee increased safety for the traveling public, but instead provides convenience and time savings
10 for the traveling public. (Tr. at 20.) Mr. Carlson also testified that the decision to spend substantial
11 funds to construct a grade separation should be based on development that is committed or financed
12 rather than on land use projections for the next 20-30 years, as the projections may not come to
13 fruition. (Tr. at 22.) Mr. Carlson pointed out that the traffic projections for three of the crossings
14 were actually reduced during the pendency of this matter, which reinforces his position. (See Tr. at
15 22-23.) Mr. Carlson further testified that the proximity of SR 238 to the SR 347 crossing makes it
16 impossible to construct a grade-separated crossing only as to the SR 347 crossing and necessitates
17 that any grade-separated crossing there will need to be an interchange that will also bridge SR 238,
18 greatly increasing the cost of the project. (Tr. at 23.) Mr. Carlson testified that the five options
19 identified thus far for grade-separating the SR 347 crossing have costs ranging from \$61 to \$113
20 million and that he does not know whether ADOT is considering a bypass instead, as sometimes it is
21 easier to go around than to cross. (Tr. at 26.)

22 68. According to the Staff Report, the proximity of SR 238 to the crossings results in
23 limited room for vehicles lining up on the approach to the crossings to wait for passing trains. Staff
24 stated that this is not a significant problem currently, with traffic at its current levels, but that it will
25 be necessary in the future, as traffic volume grows, to provide traffic signals, coordinated with
26 crossing devices, and right and left turn lanes at each intersection along the highway for turning
27 vehicles. Staff stated that the Hartman Road, White & Parker Road, and Porter Road crossings could
28 all be candidates for grade separation in the future if projected traffic volumes are accurate. Staff,

1 like Mr. Carlson, believes that any grade separation involving these crossings would need to
2 encompass both SR 238 and the tracks, which would entail building partial interchanges and greatly
3 increase costs.

4 69. Staff confirmed that grade separation at any of the crossings cannot be completed
5 without first obtaining Commission approval. (Tr. at 100.)

6 70. Staff testified that the traffic control devices proposed for each of the crossings are
7 state of the art and consistent with the devices installed at similar at-grade crossings throughout
8 Arizona and that the improvements will render the crossings safer and are in the public interest. (Tr.
9 at 100-02.) The Railroad's expert witness, Mr. Carlson, also testified that there will be improved
10 safety at all four crossings if the application is approved because of the safety devices to be installed
11 along with the double-tracking. (Tr. at 28-29.)

12 Spur Lines

13 71. The Railroad identified six spur lines that have been removed within a 10-mile radius
14 of the crossings at issue, all because they were no longer needed to serve industry. The Commission
15 granted approval to close two of these spur lines, which were at-grade crossings, in Decision No.
16 68111 (September 9, 2005). The removal of the other spur lines did not involve crossing closures.

17 Community Concerns

18 72. The four crossings at issue in this matter, while not located on Community land, are in
19 close enough proximity that some of the potential alternate routes that could be taken to avoid the
20 crossings would cross over Community land. Also, the proximity is such that Community cultural
21 artifacts or human remains could be unearthed during construction related to the crossing alterations.

22 73. As of the hearing, the Railroad and the Community were in the process of preparing a
23 consultation agreement to ensure communication, discussion, and consultation between them
24 regarding any activity other than routine maintenance within the Railroad's right-of-way that may
25 pass within Community land or that may reasonably be expected to affect highway traffic or
26 development on the Community. (Tr. at 57-58.) The draft consultation agreement would require the
27 Railroad to provide the Community with 30 days' notice of any Railroad activity that might
28 reasonably be expected to affect the Community and would also address the process for the Railroad

1 to follow upon finding a significant cultural artifact or human remains. (Tr. at 58-59.) The
2 consultation agreement would require the Railroad to follow the process even if the finding is
3 actually made in the Railroad's right-of-way outside of Community land. (Tr. at 60.) The Railroad
4 agreed to file a copy of the consultation agreement in this docket after it is finalized.¹⁴ (Tr. at 61.)

5 74. The Community's Police Chief testified that the Community's fire department
6 responds to emergency medical situations and frequently transports emergency medical patients on
7 SR 347 to Casa Grande, Sacaton, Chandler, or Phoenix for medical care, as the Community does not
8 have its own hospital. (Tr. at 64-65.) The Police Chief estimated that four medical transports are
9 made daily from the Community into the valley, mostly from the Community's casino. (Tr. at 65.)
10 The Police Chief strongly supported the shoo-fly alternative that would allow emergency vehicles to
11 continue to transport patients from the Community and would allow emergency vehicles providing
12 back-up services¹⁵ to access the Community. (Tr. at 66.) The Police Chief stated that a detour
13 diversion like the shoo-fly alternative would be essential to the Community's emergency services.
14 (Tr. at 66.)

15 75. The Community's Environmental Programs Manager testified to concerns regarding
16 the dust that would be stirred by vehicles crossing over unpaved Community roads and the
17 disturbance of species, such as the burrowing owl, that live on Community land and whose habitats
18 could be damaged by vehicles crossing Community land. (Tr. at 70.) The Environmental Programs
19 Manager testified that the shoo-fly alternative would lessen those concerns because vehicle traffic
20 would not be traveling the Community's unpaved roads. (Tr. at 71.)

21 76. The Community's Cultural Resources Technician II testified that under the
22 consultation agreement, the Community, along with the Arizona State Museum, would receive notice
23 from the Railroad when an artifact or human remains are uncovered, would go onsite to view the
24 artifact or remains, and would seek to have the artifact or remains returned to the Community to be
25 placed into the Community's museum or reentered into the ground. (Tr. at 75-76.)

26
27 ¹⁴ There has been no such filing to date.

28 ¹⁵ The Community receives back-up services from the City's police department, Gila River, and Phoenix Fire. (Tr. at 64-66.)

1 **Staff's Recommendations**

2 77. Staff recommends approval of the Railroad's application. Staff believes that the
3 upgrades proposed by the Railroad are reasonable and in the public interest. Staff also strongly
4 encourages the City, ADOT, and the Railroad to make grade-separation of the SR 347 crossing a
5 priority and to initiate such a project within the next 5 to 10 years. Staff believes that the measures
6 proposed by the Railroad are consistent with other similar at-grade crossings in the state, have
7 reasonable estimated costs, and will provide for the public's safety in the interim period until a grade-
8 separated crossing can be constructed at SR 347.

9 78. Staff also testified that the Decision in this matter should order the Railroad to file a
10 copy of the consultation agreement entered into with the Community. (Tr. at 104-05.)

11 **Conclusion**

12 79. The Commission believes that the Railroad committed a serious oversight when it
13 failed to notify the Ak-Chin Indian Community of the Railroad's Application in this case. The
14 Community became aware of the Railroad's proposal not from the Railroad, but rather through word
15 of mouth, according to public comment offered by the Community's President, while Cities and
16 Counties affected by the double-track project have been notified by the Railroad directly. We also
17 take note that the Community's ultimate intervention in this case resulted in valuable testimony being
18 offered regarding cultural, environmental, and emergency response issues affecting the Community.
19 The Community's persistence in providing public comment and intervening allowed the Community
20 to present evidence regarding its preference for the "Shoo-fly" alternative, which it believed would
21 impose the least disturbance to its land and people. And the Community's intervention in the case
22 also likely led to its ability to negotiate the Agreement for the proper notice and consultation by the
23 Railroad with the Community regarding the disposition of human remains and artifacts found during
24 construction activities related to the double-track project. We will take this opportunity to express
25 our disapproval of the Railroad's treatment of the Community, and admonish the Railroad that in the
26 future it should notify in writing the governments of Native American Nations in Arizona of all
27 Applications before this Commission that could impact their Communities.

28 80. While Staff and the Railroad testified in this case that a grade-separated crossing at SR

1 347 is not necessary at this time, Staff also stated definitively that one will be needed in the future.
2 Testimony in this case indicated a significant number of school bus crossings at SR 347, that it is
3 used by school children crossing on foot, that emergency vehicles use the crossing, that the crossing
4 will experience increasingly high traffic counts, that the number and length of the trains passing
5 through the SR 347 crossing will grow, and that trains travel through the SR 347 crossing at high
6 rates of speed, all of which give us ample reason to be concerned about any future failure to
7 implement the grade-separated crossing at the time it is required to maintain public safety. The
8 testimony also seems to suggest that planning for the grade-separated crossing has been slow to
9 progress, and that grade separation planning is being hampered by uncertainties surrounding who will
10 fund the crossing alteration and when the funding will be available. The Commission wishes to be
11 clear that we will not tolerate dangerous delays in the construction of a grade-separated crossing at
12 SR 347. We believe the question of implementing a grade-separated crossing should be returned
13 before this Commission as soon as the need arises. Therefore, we will require that the Railroad file a
14 report in Docket Control annually, beginning January 1, 2010, regarding progress on the ADOT
15 Design Concept Report, yearly vehicular traffic counts and traffic count projections at the crossing,
16 and any available information regarding negotiations between the Parties over funding of the grade-
17 separated crossing. This report should include the Railroad's opinion regarding the necessity of a
18 grade-separated crossing at SR 347 for the prospective year, and should be reviewed by Staff, which
19 should inform the Commission independently when it believes a grade-separated crossing is in the
20 public interest.

21 81. Staff's recommendations are reasonable and appropriate and should be followed. We
22 believe that the Railroad's entering into the consultation agreement with the Community is
23 appropriate and should adequately address the Community's concerns related to ensuring proper
24 treatment of any unearthed cultural artifacts and/or human remains. We also believe that the
25 Railroad's adjusting its original plan for rerouting traffic during construction, by adopting the shoo-
26 fly alternative supported by ADOT, the City, and the Community, is appropriate to prevent the
27 problems that the Railroad's original plan could have created due to traffic that would have used
28 existing Community roads.

CONCLUSIONS OF LAW

1
2 1. The Commission has jurisdiction over the Railroad and over the subject matter of the
3 application pursuant to Article XV of the Arizona Constitution and A.R.S. §§ 40-336, 40-337, and
4 40-337.01.

5 2. Notices of the application and proceedings were provided in accordance with the law.

6 3. Alteration of the crossings as proposed in the application is necessary for the public's
7 convenience and safety.

8 4. Pursuant to A.R.S. §§ 40-336 and 40-337, the application should be approved as
9 recommended by Staff.

10 5. After alteration of the crossings, the Railroad should maintain the crossings in
11 accordance with A.A.C. R14-5-104.

ORDER

12
13 IT IS THEREFORE ORDERED that the Union Pacific Railroad Company's application is
14 hereby approved.

15 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall notify the
16 Commission, in writing, within 10 days of both the commencement and the completion of the
17 crossing alterations, pursuant to A.A.C. R14-5-104.

18 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall maintain the
19 crossings at Hartman Road, White & Parker Road, Porter Road, and SR 347, in the City of Maricopa,
20 Pinal County, Arizona in compliance with A.A.C. R14-5-104.

21 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall file with the
22 Commission's Docket Control, as a compliance item in this docket, within 30 days after it is executed
23 or within 30 days after the effective date of this Decision, whichever comes later, a copy of the
24 consultation agreement entered into with the Ak-Chin Indian Community.

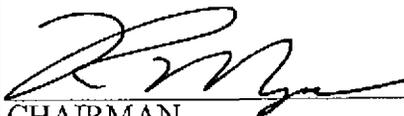
25 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall file with the
26 Commission's Docket Control, as a compliance item in this docket, annually beginning January 1,
27 2010, a report detailing progress on the ADOT Design Concept Report for SR 347, yearly vehicular
28 traffic counts and traffic count projections at the crossing, and any available information regarding

1 negotiations between the Parties over funding of the grade-separated crossing. This report should
2 include the Railroad's opinion regarding the necessity of a grade-separated crossing at SR 347 for the
3 prospective year, and should be reviewed by Staff, which should inform the Commission independently
4 when it believes a grade-separated crossing is in the public interest.

5 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall file with the
6 Commission's Docket Control, as a compliance item in this docket, every five years from the
7 effective date of this Decision, an update on the average daily traffic count at each of the four
8 crossings described in the application. The updated average daily traffic count shall be obtained from
9 the road authority or a contractor hired by the Railroad.

10 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

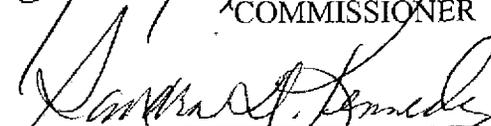
11 BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

12
13 
14 CHAIRMAN


COMMISSIONER

15
16 COMMISSIONER


COMMISSIONER


COMMISSIONER

17
18 IN WITNESS WHEREOF, I, MICHAEL P. KEARNS, Interim
19 Executive Director of the Arizona Corporation Commission,
20 have hereunto set my hand and caused the official seal of the
21 Commission to be affixed at the Capitol, in the City of Phoenix,
22 this 21st day of MAY, 2009.


23 MICHAEL P. KEARNS
24 INTERIM EXECUTIVE DIRECTOR

25 DISSENT _____

26 DISSENT _____

27 MES:db

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Exhibit "A"

FHWA - GRADE SEPARATION GUIDELINES					
Highway-rail grade crossings should be considered for grade separation or otherwise eliminated across the railroad right of way whenever one or more of the following conditions exist:					
		Hartman	White & Parker	Porter	Maricopa/347
The highway is a part of the designated Interstate Highway System	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030	No	No	No	No
The highway is otherwise designed to have full controlled access	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030	No	No	No	No
The posted highway speed equals or exceeds 70 mph	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030	No	No	No	No
AADT exceeds 100,000 in urban areas or 50,000 in rural areas	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030 ¹	No	No	No	Yes
Maximum authorized train speed exceeds 110 mph	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030	No	No	No	No
An average of 150 or more trains per day or 300 million gross tons/year	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030 ²	Yes	Yes	Yes	Yes
Crossing exposure (trains/day x AADT) exceeds 1M in urban or 250k in rural; or passenger train crossing exposure exceeds 800k in urban or 200k in rural ³	Crossing Currently meets the criteria ³	No	No	No	Yes
	Crossing meets the criteria by 2030 ⁴	Yes	Yes	Yes	Yes
Expected accident frequency for active devices with gates, as calculated by the US DOT Accident Prediction Formula including five-year accident history, exceeds 0.5	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030	Unknown	Unknown	Unknown	Unknown
Vehicle delay exceeds 40 vehicle hours per day	Crossing Currently meets the criteria	No	No	No	No
	Crossing meets the criteria by 2030 ⁵	No	Yes	Yes	Yes

¹ This table utilizes the most recent projected ADT provided by the City as follows: Hartman - 8,446 (2030), White & Parker - 34,074 (2030), Porter - 27,771 (2030) and Maricopa/347 - 64,263 (2030). These ADTs are lower than those provided by the Railroad: Hartman - 72,428 (2030), White & Parker - 38,288 (2025), Porter - 51,405 (2020) and Maricopa/347 - 65,922 (2020).

² The Railroad is projected to exceed 300 million gross tons as of 2016. This projection is based on the fact that the Railroad is currently exceeding 217 million gross tons with 46 trains per day and is projected to run twice the number of trains (at lengths of up to 8,000 feet instead of the current length of 6,000 feet) by 2016.

³ The crossing exposure index for Maricopa/347 is currently 1.9 Million.

⁴ The projected crossing exposure utilizing the most recent projected VPD data are as follows: Hartman - 709,000, White & Parker - 2.8 Million, Porter - 2.3 Million and Maricopa/347 - 5.4 Million.

⁵ Projected vehicle delay per day utilizing the most recent projected VPD data are as follows: Hartman - 9.7 hours, White & Parker - 69.7 hours, Porter - 48.4 hours, Maricopa/347 - 113.5 hours.