INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY ASSESSMENT REPORT

ARIZONA SPS-2
LTPP ID 040200
JULY 12, 2006
CLIN 2001 TASK ORDER 16

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM Pavement PERFORMANCE

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1.0 EXECUTIVE SUMMARY

On July 10th, 11th and 12th, 2006, a Weigh-in-Motion (WIM) site acceptability assessment was performed for the Arizona SPS-2 site. This assessment was the second assessment performed at this site. The first assessment was performed on July 21st, 2005 by the CLIN 1 team. This first assessment entailed a search for a suitable Weigh-in-Motion (WIM) site, and, upon locating a suitable site, the CLIN 1 Team recommended that 400 feet of the existing PCC pavement be blanket ground to meet smoothness requirements for an SPS "WIM Pavement". It was also a recommendation of the CLIN 1 report (June 28, 2005) that another pavement evaluation be performed following pavement corrective action. On July 10th, 2006, a re-check of the general pavement condition was made by a CLIN 1 Team member and on July 11th the State performed a blanket grind of the designated 400 foot "WIM Pavement". The CLIN 1 team member observed the grinding operation and the straightedge checks of the pavement's smoothness. Upon completion of the grinding operation and straightedge check, a pavement assessment was performed.

This WIM site is located in the Eastbound outside lane of I-10 approximately 38 miles West of Phoenix at Mile Post 108.6 between the I-10/SR-85 intersection and Tonopah in Maricopa County. As previously noted, this site was selected during the first site assessment. Based upon our site evaluation, discussions with the State, and prior discussions with LTPP's Regional Support Contractor, it is recommended that a new WIM system utilizing Bending Plate technology be installed in SPS-2 pavement test section 040267 approximately 200 feet downstream of the start of the section.

The selected WIM site is located within a tangent section of roadway with a relatively flat grade approximately 350 feet downstream of the State's existing WIM system. Vehicles track smoothly through this section at a relatively high rate of speed. Although traffic flow is moderate on this four lane Interstate, the observed percentage of heavy truck traffic is quite high.

The existing roadway pavement at this location consists of structurally sound 11 inch thick Portland Cement Concrete (PCC). As such, it not necessary that the State replace the existing pavement with a 400 foot PCC slab to accommodate the WIM system's in-pavement sensors. Additionally, the 400 foot section of pavement 325 feet in advance of to 75 feet following the planned WIM scale location has been blanket ground to conform to smoothness requirements for SPS WIM sites.

Power should be available from existing overhead lines crossing the highway 100 feet East of the proposed WIM cabinet location. The nearest available telephone service point that could be located is 3000 feet South of the cabinet location. However, It would appear feasible to utilize the existing power poles in extending a phone service point to the WIM site. It is recommended that the State access

these or other available sources to provide power and phone service points within 25 feet of the proposed new WIM cabinet location. However, as of the time of the preparation of this report it is the desire of the State to provide solar power and wireless telephone services instead of AC power and wired telephone services.

This site meets all selection criteria and can be instrumented with a bending plate WIM system.

2.0 EXISTING ROADWAY

2.1 PAVEMENT AND GEOMETRICS

The SPS-2 is a rigid pavement study. A 2.8 mile length of PCC pavement was constructed (1993) in the Eastbound lanes for the study. Otherwise, both Eastbound and Westbound pavements of I-10 in the general vicinity are asphalt concrete (AC). The existing roadway pavement as well as the outside and inside (median) shoulders approaching, through, and departing the proposed WIM site are PCC. The Eastbound roadway is striped for two 12 foot wide lanes with a 10 foot wide outside shoulder and a 4 foot wide inside (median) shoulder. The roadway's PCC pavement thickness at the selected WIM site is 11 inches, however the SPS test section pavement thicknesses vary from 8 to 12 inches. The grade is relatively flat (< 0.5%). Existing IRD bending plates (out of service) are currently located between the end of the 040266 test section and the start of the 040267 section. These plates were one of several considerations in determining the location of the proposed 400 foot "WIM Pavement" section in that proper blanket pavement grinding could not be performed across these plates. In regard to cross slope, the two adjacent lanes slope +/- 1.5% toward the outside shoulder.

2.2 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

The moderate traffic flow exhibited good lane discipline, staying within the lane and shoulder line markings. A number of the heavy vehicles were observed "hugging" the inside of the shoulder stripe. Traffic is free flowing at all times at speeds between 70 and 80 MPH (posted speed limit is a maximum 75 MPH for all traffic). There are no signals or merging in the WIM site vicinity. Trucks are "cruising" through the site at constant speeds. In that there are no on/off locations between the WIM site and SPS site, the truck traffic composition at the WIM site is the same as that at the SPS site.

3.0 SITE CONFORMANCE TO EVALUATION CRITERIA

3.1 PAVEMENT TYPE AND CONDITION- PASS

The PCC approach, WIM, and departure pavements are in very good condition.

3.2 OBSERVED PAVEMENT SMOOTHNESS- PASS

The existing pavement, 325 feet in advance of and 75 feet following the proposed WIM scale location ("WIM Pavement"), was blanket ground and checked with a straightedge immediately prior to the pavement assessment.

3.3 ANALYSIS OF PAVEMENT PROFILE DATA

Based upon a straightedge check of the blanket ground "WIM Pavement" section, extremely smooth drive-through checks, and the observing of trucks and other vehicles approaching and passing over the WIM scale location, an analysis of pavement profile data prior to WIM system installation is not deemed necessary.

3.4 ROADWAY GEOMETRICS- PASS

The selected WIM site is located within a long tangent section of the roadway, grade is minimal, and the lane in which the sensors are to be installed is 12 feet wide. The pavement cross slope is adequate for proper roadway drainage.

3.5 TRAFFIC OPERATING CHARACTERISTICS- PASS

The general traffic pattern is free flowing with good lane discipline. There are no interchanges or signals affecting traffic flow. The truck traffic is cruising through the site and, except for an occasional truck's right wheels hugging the shoulder stripe, staying within the lane lines.

3.6 TRUCK TRAFFIC COMPARISON BETWEEN WIM AND TEST SITE- PASS

There are no exit/entrance locations between the WIM site and the SPS-2 pavement test sections.

3.7 POTENTIAL WIM INTERFERENCE SOURCES- PASS

Overhead power lines cross the roadway 100 feet downstream from the proposed WIM system location. These are the standard "service" lines and will not interfere with system performance.

3.8 ACCESS TO POWER AND PHONE SERVICES- PASS

Power lines cross the roadway 100 feet downstream of the cabinet location and appear to be readily accessible for a service drop. The nearest potentially accessible phone service that could be found is located 3000 feet South of the WIM site on Yuma Road. It would appear that it may be feasible to utilize existing power poles to extend wired phone service to the WIM site. The State has previously been requested to explore available options for extending existing power and phone services, however it appears that the State prefers to use solar power and wireless phone facilities. It will be necessary that the State provide both power and phone services within 25 feet of the proposed WIM cabinet location.

3.9 EQUIPMENT INSTALLATION CAPABILITY- PASS

There is an adequate location for the WIM controller cabinet opposite the scale location adjacent to the right-of-way fence. Although it was initially proposed that the cabinet be installed on the roadway embankment at 30 foot from the edge of traveled way to utilize the higher ground, the State has since expressed its desire that the cabinet and any associated equipment be installed as far from the traveled way as possible. By installing the cabinet near the right-of-way fence, the cabinet will be +/- 75 feet from the edge of traveled way. Visibility from the cabinet location of the sensors and approaching vehicles is adequate, although somewhat obscured by brush. There is adequate room adjacent to the cabinet location for service facilities. Roadway and overall site drainage is very good. Although it appears that there is only minimal potential for flash flooding at the recommended cabinet and pullbox locations (as per the State's Highway Maintenance Supervisor), it is recommended that the PCC pad for the cabinet be raised 6 or more inches above the surrounding natural ground. There is adequate topography for scale pit drainage. The width and structural stability of the adjacent lane and median shoulder allow a lane closure and traffic shift which will provide safe clearance in the work zone from live traffic during installation of the WIM system.

3.10 POTENTIAL TRAFFIC CONTROL / WORK ZONE SAFETY ISSUES- PASS

The traffic control should go smoothly, given the good approach sight distance, the lack of nearby intersections or interchanges, and the ability to move traffic's left wheels onto the adjacent lane's median shoulder. No other work zone safety issues are foreseen at this rural site.

3.11 TRUCK CIRCUIT- PASS

The nearest usable EB truck turnaround is I-10 Exit 109 (Sun Valley Parkway and S. Palo Verde Rd.), which is located 0.8 miles downstream of the WIM site.

The nearest useable WB truck turnaround is I-10 Exit 103 (339th Ave.), which is located 4.8 miles upstream of the WIM site.

The test truck round trip circuit route is approximately 11.5 miles. There are no foreseen potential restrictions and the turnaround locations are easily accessed and maneuvered. The estimated lap time is 15 minutes or less.

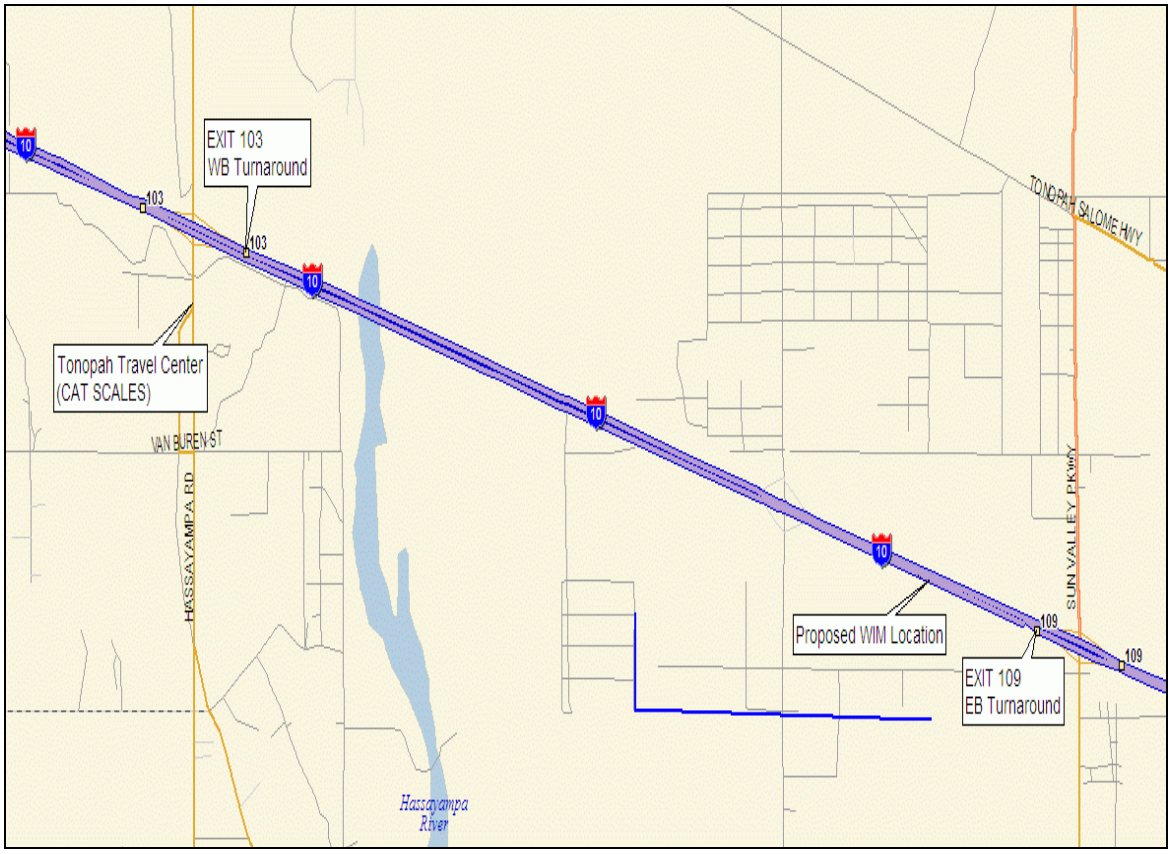


Figure 1: I-10 SPS-2 WIM Site Truck Circuit Map

3.12 RECOMMENDATIONS ON SITE ACCEPTANCE / CORRECTIVE ACTIONS

The State will need to extend existing power and phone services to service points within 25 feet of the proposed WIM cabinet location or provide solar power and/or wireless phone facilities at the cabinet.

The recommended WIM site location conforms to FHWA's recommendation and preference that the WIM system's scales be installed in PCC pavement with such pavement being structurally sound and smooth 325 ft. prior to and 75 ft. following the scales.

It is recommended that a bending plate WIM system be installed at the selected WIM site location.

4.0 TRAFFIC DATA REVIEW

Vehicle distributions of all trucks (FHWA Class 4 and higher)
(Not Available)

Vehicle distributions for heavy trucks (FHWA Class 6 and higher)
(Not Available)

Volume of trucks comprising of 10 % or more of truck population
(Not Available)

Volume of trucks comprising 10 % or more of heavy truck population
(Not Available)

After discussions with the State, it has been determined that current traffic data containing the above mentioned information is not available.

4.1 TYPICAL TRUCK CONFIGURATIONS OBSERVED PASSING THROUGH SITE

5.0 PAVEMENT EVALUATION

In determining WIM site acceptability, visual on-site observation of the existing PCC pavement was made by a member of the CLIN 1 Team. Certain information was also obtained from the May 1994 SPS-2 Construction Report.

5.1 SURFACE CONDITION

The site evaluation concentrated efforts on the range of pavement from 900 feet prior to and 100 feet following the proposed WIM scale location. Pictures were taken to document the surface condition, several of which are presented in Appendix E.

5.1.1 PCC PAVEMENT 325 FEET IN ADVANCE OF AND 75 FEET FOLLOWING PROPOSED WIM SCALE LOCATION ("WIM PAVEMENT")

The PCC pavement was constructed in 1993. The structural condition of the PCC pavement and shoulder throughout the 400 foot section appear to be excellent. This existing pavement has dowelled perpendicular transverse weakened plane joints with a spacing pattern of 15–13–15-17 feet. These joints are sealed and in excellent condition. The pavement at the selected scale location is over 11 inches thick.

5.1.2 PCC PAVEMENT UPSTREAM AND DOWNSTREAM OF WIM PAVEMENT

There are no discernable differences between the 400 foot "WIM Pavement" section and the "WIM Pavement" approach and departure pavements included in the 1000 foot evaluation section except that the first 500 feet of pavement (test section 040266) is 12.5 inches thick. The entire 1000 foot section was constructed in 1993. No distress conditions of any consequence could be observed. These pavements are in excellent condition and the joints are well maintained.

5.1.3 SHOULDER CONDITION

The roadway shoulders are PCC throughout the study area and were constructed in 1993 in conjunction with the traveled way pavement. No distress conditions of any consequence could be observed in the shoulder pavement. This pavement is in excellent condition and the joints are well maintained.

5.2 SURFACE PROFILE

The "WIM Pavement" section, 325 feet in advance of and 75 feet following the planned scale location, was blanket ground on July 11th, 2006, immediately preceding the pavement evaluation. Straightedge checks of the "WIM Pavement" section during the grinding operation, observed by the CLIN 1 Team member,

indicated that the pavement smoothness conforms to the criteria for an SPS WIM site.

Almost no observable body motion or suspension “chatter” could be detected in watching trucks and other vehicle types approaching and passing through the selected scale location area. Several automobile “drive throughs” by the CLIN 1 team member appeared to confirm the above noted observations. Little to no vehicle body motion or suspension “chatter” could be felt.

5.3 PAVEMENT EVALUATION SUMMARY

Based upon on-site observations by our Team member, the structure and the smoothness of the existing PCC pavement are both deemed adequate for the installation of a bending plate WIM system.

6.0 PROPOSED WIM SITE- INFORMATION

6.1 LOCATION – I-10 MP 108.6

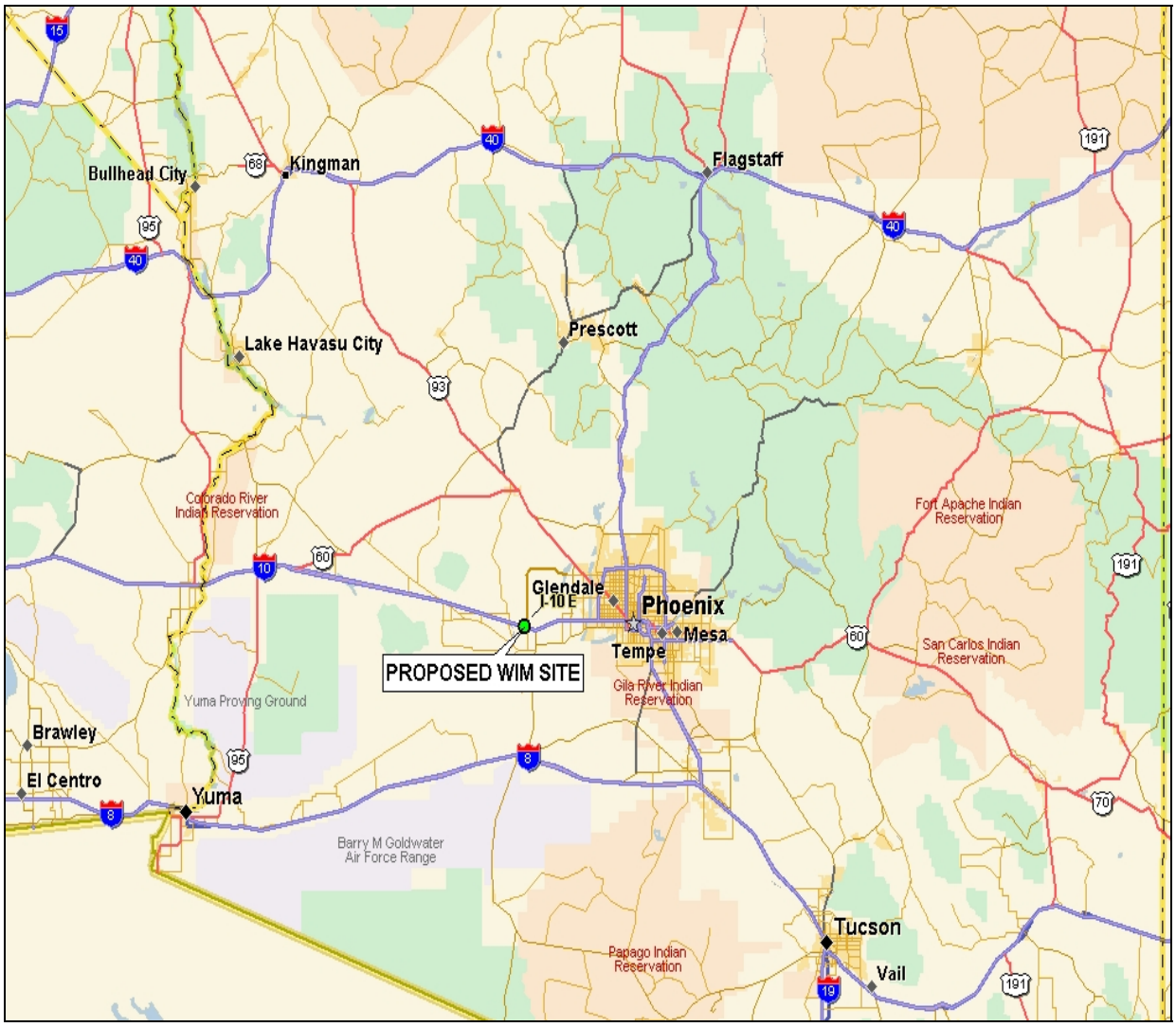


Figure 2: Map of the I-10 WIM Site

Figure 3: Map of the I-10 WIM Site at Milepost 108.6

The LTPP SPS-2 test sections are located approximately 38 miles West of central Phoenix in the Eastbound outside lane of Interstate 10 between exits 103 and 109, just East of Tonopah.

The location for the proposed WIM site is the Eastbound outside lane at milepost 108.6 which is approximately 350 feet East of the existing WIM scales. The proposed WIM controller cabinet will be located opposite the scales at 75 feet from the edge of traveled way near the right-of-way fence.

7.0 RECOMMENDED WIM TECHNOLOGY

Based upon the site conditions and discussions with the State, the bending plate technology is recommended for use at this site. It will meet the accuracy expectations of the State and provide the best value in terms of performance with minimal down time.

The centerline of the Bending Plate weigh pads should be installed approximately 350 feet downstream of the existing WIM scales. The locations of both the leading and trailing have been marked with a “BP CL” in orange paint on the outside shoulder. During the installation, the layout of the existing transverse weakened plane joints will be analyzed to best fit the in-road sensors among the joints to optimize constructability and structural stability.

7.1 RECOMMENDED LOCATION AND LAYOUT FOR THE WIM SYSTEM

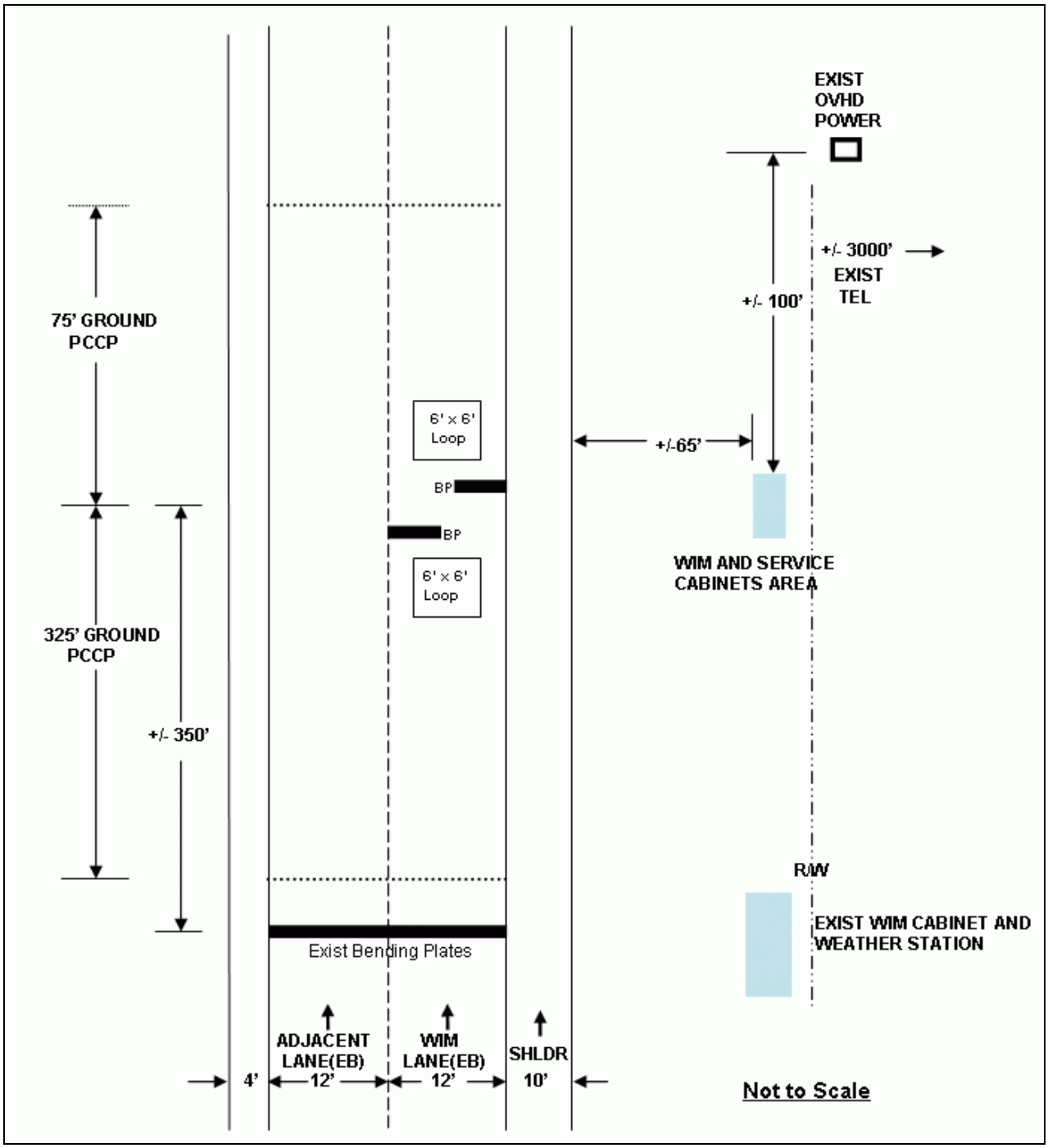


Figure 4: Proposed Arizona I-10 SPS-2 WIM System Layout

GPS Coordinates for System: N33° 26.58', W112° 41.71
Engineer's Station 5729+00'

A.0 COORDINATION DETAILS

Task Order 16, which authorized the CLIN 2001 "Determine Acceptability of Proposed Site" for the Arizona SPS-2 Site (LTPP ID 040200), was issued on November 13, 2006. This Site Acceptability Assessment was a follow up to the original CLIN 1001 assessment performed on July 21st , 2005, at which time it was determined that corrective action to the smoothness of the existing PCC pavement would be necessary.

For the original assessment, contacts were made with the following interested parties:

- Contracting Officer's Technical Representative (COTR)
  - Debbie Walker – FHWA-LTPP ph: 202-493-3068
- State Highway Agency (SHA)
  - Estomih (Tom) Kombe – ADOT ph: 602-712-3135
- LTPP Regional Support Contractor (RSC)
  - Jason Puccinelli – RSC/Nichols ph: 775-329-4955
- FHWA Division Office
  - Alan Hansen – FHWA Div Rep ph: 602-379-3645 x108

Additionally, for the initial assessment, a briefing session was held and a "Pre-Visit Handout Guide" (included in Section B following) was distributed. The site was visited on July 21st, 2005, by Roy Czinku (IRD) and Rich Quinley (WIMTECH).

On June 28th, 2006 a pre-construction telephone conference held among various parties established coordination aspects of the PCC pavement grinding operations. Following the establishment of the grinding scheduling, various other telephone contacts were made to coordinate the date of the assessment in conjunction with the State's blanket grinding of the existing PCC pavement.

CLIN 1 Team member Rich Quinley (WIMTECH) met with the SHA engineer's representative Keith White on-site on July 10th, 2006 to lay out and go over the grinding operation. Following the grinding operation on the morning of July 11th, Mr. Quinley advised Mr. White that the ground pavement surface conformed to SPS WIM pavement smoothness criteria and started the off-road site assessments. Mr. Quinley finished up the pavement evaluation aspects of the assessment on July 12th.

INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY PRE-VISIT HANDOUT GUIDE

ARIZONA SPS-2
LTPP ID 040200

Date: July 19, 2005

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM PAVEMENT PERFORMANCE

B.0 PRE-VISIT HANDOUT GUIDE

B.1 SCHEDULE

a. Briefing session
   i. Meeting is scheduled for 1:30 p.m. July 19, 2005 at the Arizona Transportation Research Center, 2739 East Washington Street, Phoenix, Arizona
b. Site visit
   i. July 21, 2005

B.2 BRIEFING SESSION JULY 19, 2005, POINTS OF CONTACT, PHONE NO

a. Contracting Officer's Technical Representative (COTR)
   i. Debbie Walker – FHWA-LTPP ph: 202-493-3068
b. State Highway Agency (SHA)
   i. Estomih (Tom) Kombe – SHA/ADOT ph: 602-712-3135
c. LTPP Regional Support Contractor (RSC)
   i. Jason Puccinelli – RSC/Nichols ph: 775-329-4955
d. FHWA Division Office
   i. Alan Hansen – FHWA Div Rep ph: 602-379-3645 x108

B.3 INFORMATION REQUESTS

a. From COTR
   i. FHWA Division contact person
   ii. New pavement profile from RSC if recent profile data unavailable
b. From RSC
   i. SHA contact person
   ii. SPS roadway section layouts (plan view and/or stationing or mileposts)
   iii. Recent pavement profile data (within the past year)
c. From SHA
   i. As-built info on roadway at proposed site
      1. Pavement cross section and structural section
      2. Alignment and grade
      3. Any utilities located in WIM install work area
   ii. Location and general availability of power and phone services, service providers, service provider contacts and phone numbers (may be beneficial if power and phone utility reps be requested to participate in briefing session and/or site visit)
   iii. Will SHA agree to extend power and phone services from existing available access points to demarcation points near planned controller cabinet location?
   iv. If existing roadway pavement is AC or inadequate PCC will SHA consider replacement with 400' PCC slab if recommended per site assessment?

v. What permits will be needed to install equipment and what are procedures and time frames for obtainment?
vi. Required cabinet clear zone from edge of traveled way?
vii. If no detour routing available at proposed site (or three or more adjacent lanes), will SHA permit shifting inside lane traffic partially onto inside shoulder to provide safe clearance during installation in outside lane?
viii. Historic truck traffic data?

B.4 SITE LOCATION INFORMATION

a. Existing WIM site
   i. I-10 Mile Post 108.55 EB Outside Lane
b. Briefing session location
   i. Arizona Transportation Research Center, 2739 East Washington Street, Phoenix, Arizona 1:30 p.m. July 19, 2005
c. Nearest major airport
   i. Phoenix Sky Harbor International Airport, Phoenix, AZ

Distribution --- COTR, RSC, SHA, FHWA Division, Site Assessment Team

INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY

SITE VISIT EVALUATION FORM

ARIZONA SPS-2
LTPP ID 040200

Dates of Site Visit: July 10-12, 2006

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM Pavement PERFORMANCE

C.0 SITE EVALUATION FORM

C.1 PROPOSED WIM LOCATION

Proposed WIM Site Location – 4 Lane Roadway (2 Lanes each Direction)

Cnty Maricopa Rte I-10 Direction: EB MP: 108.6 Ln: Outside

Proposed WIM Scales are located within the SPS Test Section 040267 approximately 200 feet downstream from the start of the Section.

C.1.1 EXISTING ROADWAY SURROUNDING THE PROPOSED WIM SITE

Type Pvmnt PCC Yr Const. 1993 Lane Width: Striped for 12' Thick 11"-12.5"

Observed Structural Soundness Excellent

Observed Smoothness Fair

Outside Shldr Type PCC Width Striped for 10' Condition Excellent

Inside Shldr Type PCC Width Striped for 4' Condition: Excellent

C.1.2 PAVEMENT 325' PRIOR AND 75' FOLLOWING WIM SCALE LOCATION

Type: PCC Yr Const. 1993 Lane Width Striped for 12' Thick 11"

Observed Structural Soundness Excellent

Observed Smoothness Excellent; blanket ground 07/11/2006

Jointed or Continuous Jointed, dowelled; sealed and in excellent condition

Outside Shldr Type PCC Width Striped for 10' Condition Excellent

Inside Shldr Type PCC Width Striped for 4' Condition Excellent

Notes/Comments on Pavement:
The outside lane was poured 14' wide and the outside shoulder poured at 8' wide, however the shoulder striping delineates the lane as 12' wide and the shoulder as 10' wide. The inside lane was poured 16' wide and delineated by the shoulder striping into a 12' wide lane and a 4' wide shoulder. Transverse joints are perpendicular to the roadway and vary between 13 thru 17 feet (17-15-13-15-17-15-13 etc.). The SPS-2 PCC Test Section is located within an AC roadway on I-10 Eastbound. The entire length of this PCCP is 2.8 miles and other than thickness there are no discernable differences between the 400' "WIM Pavement" section and the approach and departure sections.

C.1.3 ROADWAY GEOMETRICS

Horizontal Alignment: Tangent Grade Minimal (Less than 0.5 %)

Cross-slope Both lanes slope to outside shoulder +/- 1.5%

C.1.4 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

Passing, merging, not following lane lines? Good lane discipline; minimal passing

Stop and go traffic, congestion periods? Free flowing at all times

Traffic signals/interchanges affecting traffic? No signals or merging

Other adverse traffic flow conditions? Traffic flow is moderate; high % trucks

Truck traffic at "cruising" speed (no lugging)? No lugging; smooth flow

Truck traffic staying within lane lines? Yes, but occasional truck traveling with right wheels immediately adjacent to or on shoulder stripe

Observed truck suspension or body motion dynamics? No suspension chatter; little if any body motion thru scale area (confirmed by several auto drive throughs)

Truck traffic composition same at WIM site and SPS site? Yes

Truck traffic on/off locations between WIM site and SPS site? None

Posted speed limit: 75 MPH

Observed truck speeds: 70 – 80 MPH

Notes/Comments on Geometrics and/or Traffic Operating Characteristics:
Vehicles track smoothly through this area at speeds between 70 and 80 MPH (posted speed is 75 MPH for all traffic). There is very good lane discipline at this site. Traffic flow is moderate but with a high percentage of trucks on this four lane, two direction Interstate.

C.1.5 ACCESS TO UTILITY SERVICES

Potential source(s) for power: Overhead power lines cross the roadway 100 feet from the proposed WIM site location.

Potential source(s) for telephone: Closest observed telephone service is located on Yuma Road approximately 3000 feet South of the proposed WIM location. It may be possible to share the poles used for the existing overhead power lines that run from the vicinity of this telephone service to within 100' of the proposed WIM cabinet location.

C.1.6 EQUIPMENT INSTALLATION CAPABILITY

Adequate location for controller cabinet? Yes, large area adjacent right of way fence

Distance from edge of traveled way to cabinet? 75'

Visibility from cabinet of sensors and approaching vehicles? Fair, somewhat obscured by shrubs

Adequate location for service facilities? Yes, adjacent WIM cabinet near right-of-way fence

Adequate drainage for scale pits? Yes

Adequate roadway and overall site drainage? Yes

Potential for ponding or flooding at cabinet or pullboxes? Minimal

Potential for traffic control problems during installation? Minimal, but traffic is high speed

Ability to provide safe clearance in work zone from live traffic via:

- ☑ OK from State Agency to use opposite shoulder for traffic shift
- ☐ Multiple Adjacent Lanes

Notes/Comments on Equipment Installation Capability:
The roadway traffic flow is moderate but high speed . Lane closures will have to be well coordinated with the State. The 4' wide inside lane shoulder can be used to accommodate a traffic shift to provide adequate clearance in the work area.

C.1.7 POTENTIAL WIM SENSOR/EQUIPMENT INTERFERENCE SOURCES

Overhead power lines? The service type lines100 feet east of proposed WIM cabinet location pose no interference problem

Adjacent railroad? No railroad tracks near the proposed WIM location

C.1.8 CONDITIONS FOR USE OF TEST TRUCKS FOR CALIBRATION AND EVALUATIONS

Direction EB - Nearest usable truck turnaround location:

I-10 Exit 103, Sun Valley Pkwy Distance from WIM: 0.8 Miles

Direction WB - Nearest usable truck turnaround location:

I-10 Exit 109, 339th Ave. Distance from WIM: 4.8 Miles

Circuit travel distance: 11.5 Miles Estimated lap time: 15 Minutes

Potential circuit route restrictions? None

Identification and location of trucking firm and certified static scales:

Name Lowe's Country Store Contact Kevin Kobel

Address I-10 Exit 114, Buckeye, Arizona 85326

Phone 623-386-6926 Hours 24 hour

Notes/Comments on Test Truck Circuit and Static Weighing Facility

Lowe's County Store is located approximately 6 miles from the Proposed WIM Site. They can recommend hauling companies that have 3S2 Tractor Trailer Air Ride vehicles and drivers available given 2-3 weeks notice. They have a certified static scale located at their facility.

It is also noted that a large TravelCenters of America truck stop is located on 339th Avenue at I-10 Exit, 4.8 miles West of the proposed WIM system (the recommended WB test truck turnaround). This facility also has certified scales.

Address 1010 North 339th Ave., Tonopah, AZ, 85354

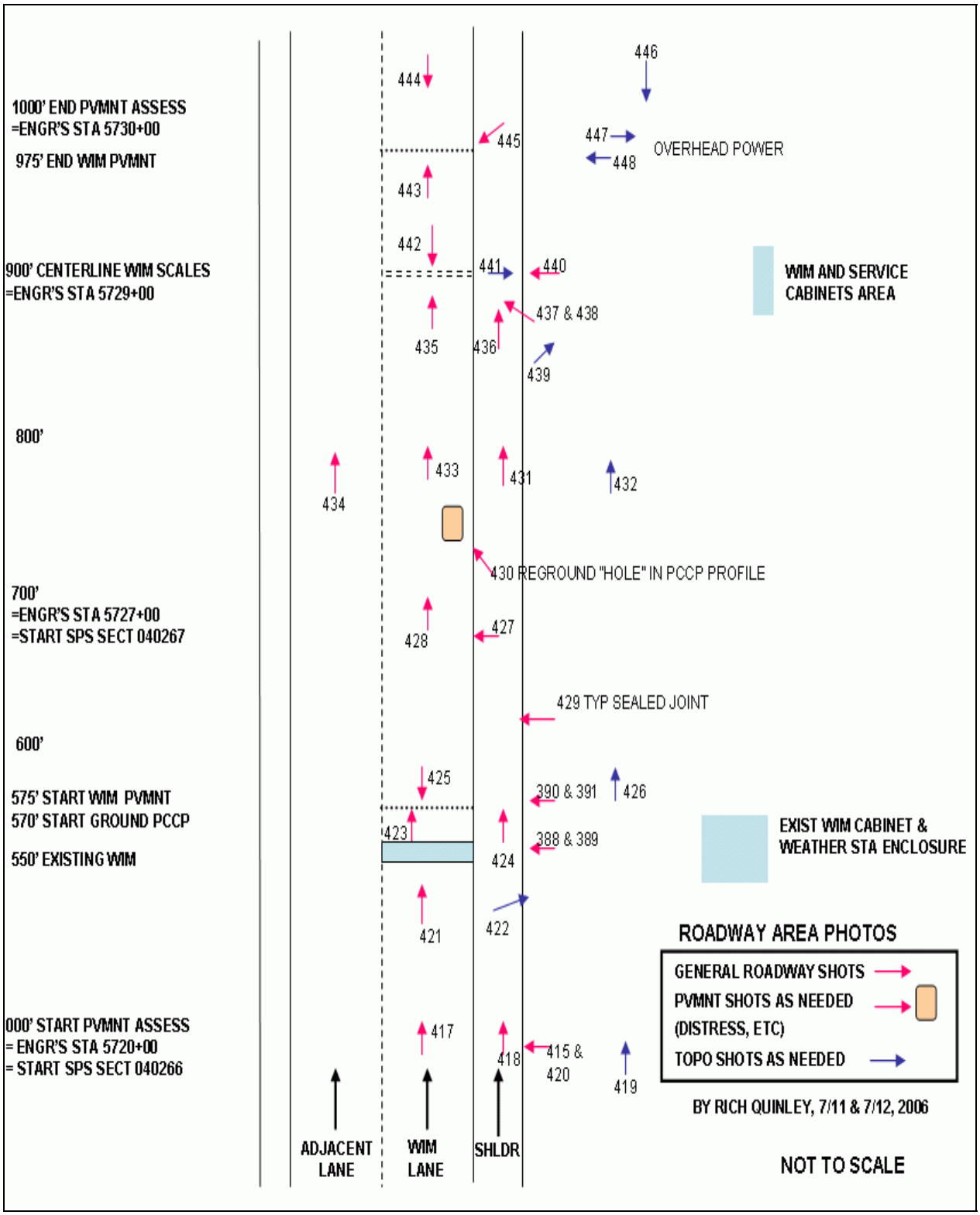
Phone 623-386-6443 Hours 24 hour

C.1.9 GPS RECORDINGS

ROADWAY LOCATION		GPS RECORDINGS	
WIM Scales			
New scale location		N33° 26.58’	W112° 41.71’
Exist scale location		N33° 26.59’	W112° 41.77’
Roadway Mile Posts			
MP 106		N33° 27.18’	W112° 44.37’
MP 107		N33° 26.94’	W112° 43.33’
MP 108		N33° 26.72’	W112° 42.33’
MP 109		N33° 26.49’	W112° 41.33’
SPS Pavement Test Sections			
Test Section 040261	Start	N33° 27.18’	W112° 44.38’
Test Section 040267	Start	N33° 26.59’	W112° 41.74’
Test Section 040267	End	N33° 26.57’	W112° 41.65’
Test Section 040219	End	N33° 26.51’	W112° 41.38’
Other Locations			
Tel Service Riser, W. Yuma Rd.		N33° 26.10’	W112° 41.74’
Pwr Pole “corner”, W. Yuma Rd.		N33° 26.11’	W112° 41.69’
EB PCCP start		N33° 27.15’	W112° 44.26’
EB PCCP end		N33° 26.53’	W112° 41.48’
Ovhd Pwr cross roadway		N33° 26.58’	W112° 41.70’

DATE 07/12/2006 BY Rich Quinley

C.1.10 PAVEMENT PHOTO LOG



C.2 EQUIPMENT AND MATERIALS

☑ Site Evaluation Forms
☑ Graph paper and note paper
☑ Clipboard
☑ Pens & pencils
☐ Small stapler
☑ Digital camera, with PC cable
☑ GPS receiver
☑ Notebook PC
☑ Calculator
☑ Cell phone
☑ Site Pre-visit Handout Guide
☑ Metal tape measure (25 ft.)
☑ Measuring wheel (ft.) and/or 100 ft. rag tape
☑ Folding rule (6 foot)
☑ Hand level
☑ Small torpedo level
☑ Keel markers
☐ Spray can white paint
☑ String Line
☑ Line Level
☐ Hammer and Concrete Nails
☐ _____

Request furnish on-site by Highway Agency:
☑ Spray can white paint
☐ Lath, 4 ft.
☐ Hammer
☐ Misc. small tools
☑ Keys for known Agency service cabinets
Note: Key for existing cabinet is a standard Type II

Proper attire for field work and expected weather:
☑ Durable shoes
☐ Cold weather layering
☑ Rain gear
☐ _____

Safety equipment per State Highway Agency requirements:
☑ Hard hat
☑ Safety vest – type Hi-Vis Safety Yellow
☑ Steel toe shoes
☐ Other required equipment _____

D.0 SHEET 17

Sheet 17	*STATE_CODE	LTPP
LTPP Traffic Data	*SPS PROJECT ID	040200
WIM SITE INVENTORY	*SPS WIM ID	SPS-2

1.* ROUTE I-10 MILEPOST 108.6 LTPP DIRECTION - N S E W

2.* WIM SITE DESCRIPTION - Grade < 0.5 % Sag vertical Y / N

Nearest SPS section upstream of the site 040267

Distance from sensor to nearest upstream SPS Section Within Test Section

3.* LANE CONFIGURATION

Lanes in LTPP direction 2 Lanes EB Lane width 12 ft

Median -
1 – painted
2 – physical barrier
→ 3 – grass
4 – none

Shoulder -
1 – curb and gutter
→ 2 – paved AC
3 – paved PCC
4 – unpaved
5 – none

Shoulder width 10 ft

4.* PAVEMENT TYPE PCC Pavement

8. RAMPS OR INTERSECTIONS

Intersection/driveway within 300 m upstream of sensor location Y / N - distance No

Intersection/driveway within 300 m downstream of sensor location Y / N- distance No

Is shoulder routinely used for turns or passing? Y / N No

Form completed by: Roy Czinku - IRD Date: June 21, 2005

E.0 PHOTOGRAPHS

E.1.1 GENERAL SITE VIEW OF THE ROADWAY APPROACHING WIM SITE

E.1.2 EXISTING BENDING PLATES IIN ADVANCE OF WIM PAVEMENT SECTION

E.1.3 DOWNSTREAM VIEW OF ROADWAY AT START OF WIM PAVEMENT SECTION

E.1.4 UPSTREAM VIEW OF ROADWAY APPROACHING WIM PAVEMENT SECTION

E.1.5 PAVEMENT JOINT DETAIL

E.1.6 START OF 040267 TEST SECTION

E.1.7 RECOMMENDED LEAD AND TRAIL STAGGERED SCALE LOCATIONS

E.1.8 PREVIOUS "HOLE" IN PCCP PROFILE ELIMINATED BY BLANKET GRINDING

E.1.9 END OF WIM PAVEMENT SECTION, FACING UPSTREAM

E.1.10 SHOULDER STRIPING DETAILS

E.1.11 RECOMMENDED CABINET LOCATION OPPOSITE SCALES

E.1.12 EXISTING OVERHEAD POWER LINES AT WIM SITE (FACING TEL SERVICE POINT)

E.1.13 EXISTING TELEPHONE SERVICE ON YUMA ROAD

E.1.14 EXISTING WIM CABINET AND WEATHER STATION