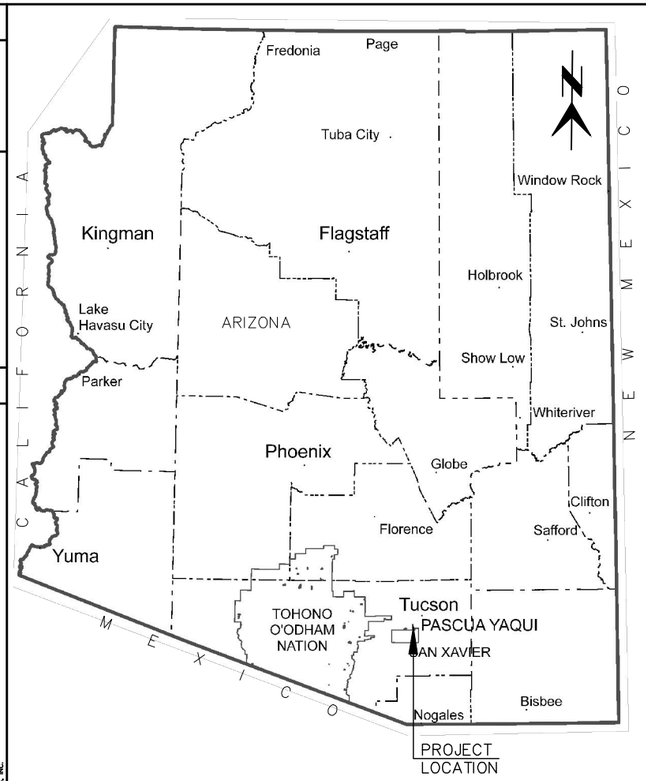
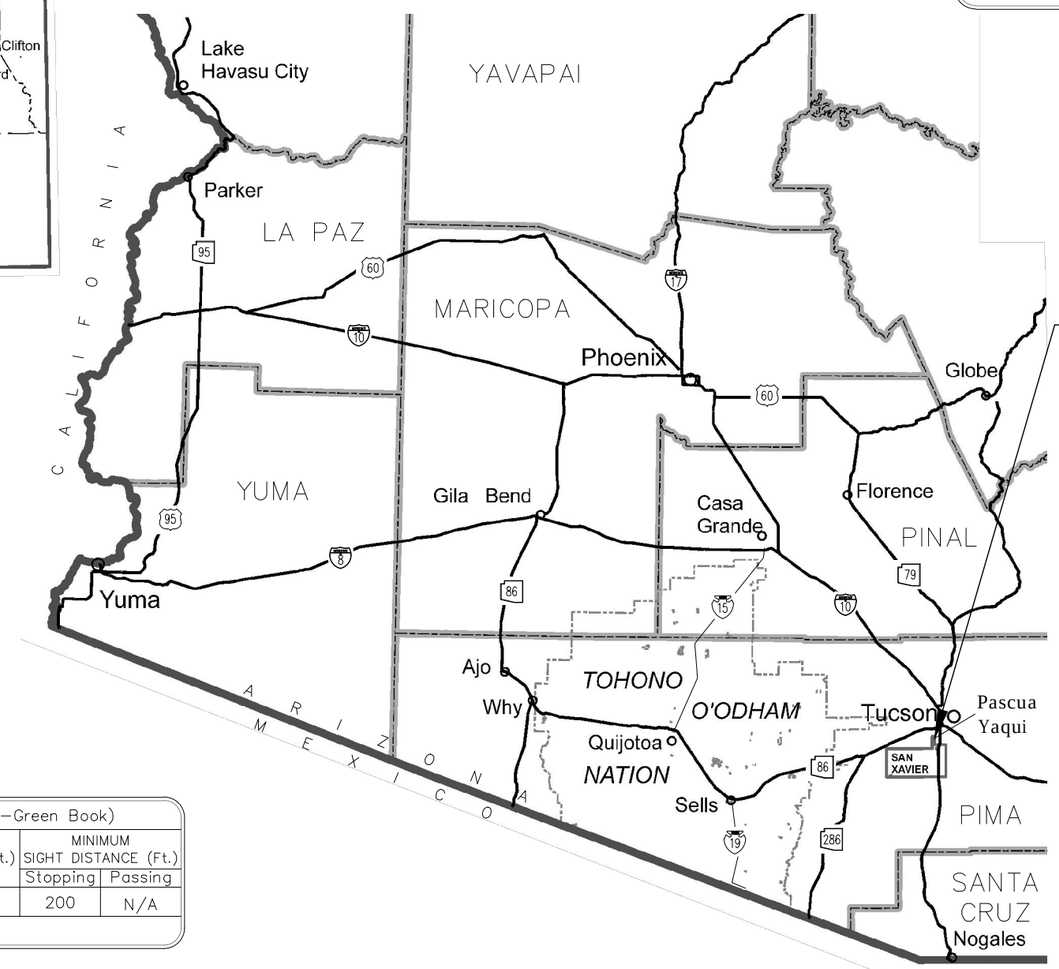
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
PASCUA YAQUI INDIAN RESERVATION
PLANS FOR IRR PROJECT
PROJECT I.D.# H55396
PROJECT NAME: PYIR 101(7)
PIMA COUNTY, ARIZONA



PROJECT INDEX TO SHEETS

SHEET	SHEET DESCRIPTION
1	PROJECT COVER SHEET
2	TYPICAL SECTION SHEET
3	GENERAL NOTES AND QUANTITIES
4	PROJECT PLAN MAP
5	SPEED HUMP AND STRIPING DETAILS
6	STRIPING DETAILS
7–9	ROADWAY DETAILS
10–12	WARNING AND REGULATORY SIGN DETAILS
13	STANDARD CONSTRUCTION SIGNS



PYIR 101(7)
Pulverize Existing Pavement, Linear Grading, Construct Concrete Valley Gutter, Place Minor Hot Asphalt Concrete Pavement, and Pavement Markings.

PROJECT LENGTH = 0.22 mi

ROADWAY LEGEND

- 10 INTERSTATE ROUTE MARKER
- 60 U.S. ROUTE MARKER
- 85 STATE ROUTE MARKER
- 15 INDIAN ROUTE MARKER
- 60 COUNTY ROUTE MARKER

DESIGN CRITERIA (Collector Roads and Streets 2004–Green Book)

ROUTE Number	STREET Name	DESIGN SPEED (MPH)	MINIMUM WIDTH (Ft)	MAX. GRADE	MINIMUM CURVE RADIUS (Ft.) Max e= 0.4	MINIMUM SIGHT DISTANCE (Ft.) Stopping	MINIMUM SIGHT DISTANCE (Ft.) Passing
101	Osay Bo Oh	30	24	9.0%	250	200	N/A

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ARIZONA 811
ARIZONA BLUE STAKE, INC.
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In Maricopa County: (602) 263-1100

SCALE: N/A

1 OF 13

PASCUA YAQUI TRIBE

APPROVALS
FOR THE CONSULTANT

		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED	----
PROJ. ENGR.	----
DIRECTOR	----

PYIR 101(7)
PROJECT COVER SHEET
IMPROVEMENT PLANS

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Engineering, Planning, and Environmental Consultants
333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
Phone: (520) 615-9191
Fax: (602) 944-7423

Registered Professional Engineer (Civil)
CERTIFICATE NO. 43315
RICARDO P. SOLIS
Date Signed 2/17/2014
ARIZONA, U.S.A.
EXP. 9/30/2014

COV

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

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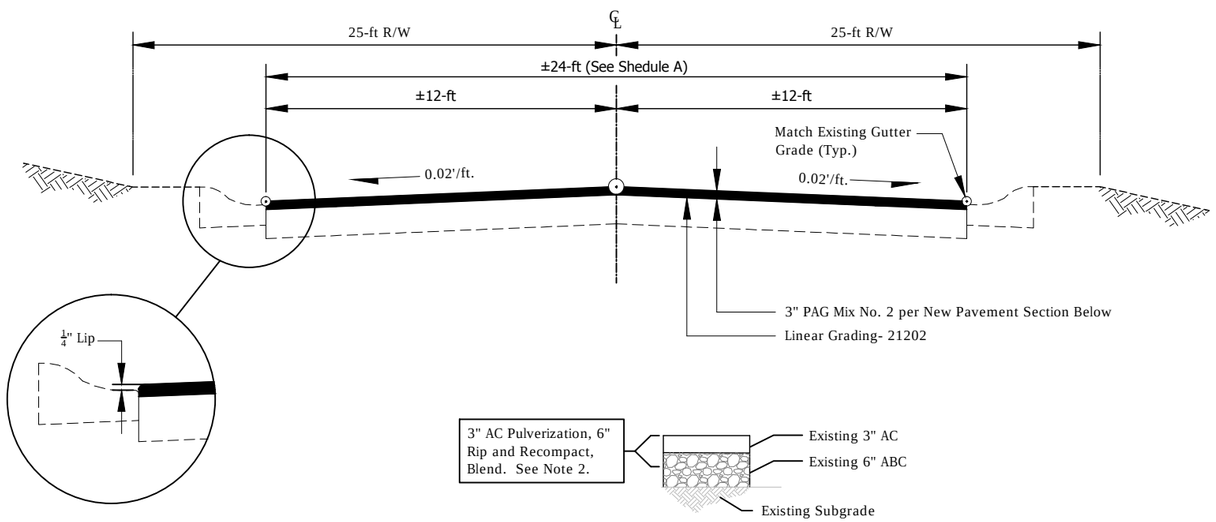
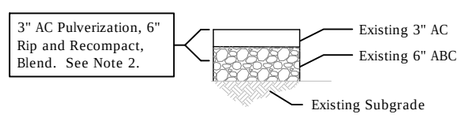
TYPICAL SECTON

KEY NOTES

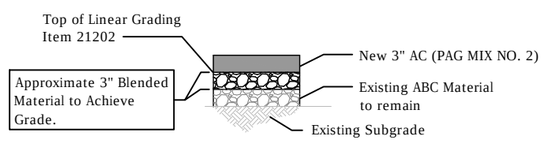
1. The Contractor shall be responsible for removing all vegetation, dirt and all other foreign material from the roadway surface.
2. Pulverize existing pavement full depth (approximately 3"). Reshape, compact, remove excess. (See Linear Grading Notes on Sheet No. 3.)
3. This project does not include the surfacing of driveways.
4. See project plan map for sign placement and speed hump locations.

PROJECT LENGTH		
Osay Bo Oh	11+49.71 To 23+28.71	= 1,179.00
TOTAL LENGTH IN FEET		= 1,179.00
TOTAL LENGTH IN MILES		= 0.22





EXISTING PAVEMENT SECTION



NEW PAVEMENT SECTION

ADJUST FRAME AND COVERS		
STREET	WATER VALVES (each)	MANHOLES (each)
Osay Bo Oh	12	8
TOTALS:	12	8

SCHEDULE A				
STREET	R/W(ft.)	Width(ft.)	Length (ft.)	Area (S.Y.)
Osay Bo Oh	50	±24	1,179	3,246*
				TOTAL = 3,246 S.Y.

* Area measurement was derived from field measurements.

APPROVALS

FOR THE CONSULTANT

		DATE
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DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

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PROJ. ENGR.	----	----
DIRECTOR	----	----

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TYPICAL SECTON

IMPROVEMENT PLANS

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PASCUA YAQUI TRIBE

TYP

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SCALE: N/A

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GENERAL NOTES

Standard Specification for Construction of Roads and Bridge on Federal Highway Projects (FP-03 U.S. Costomary Units) shall prevail with modification in the Special Contract Requirements.

The Contractor shall be responsible for verifying the locations of all utilities. This work will not be measured or paid for directly but will be considered a subsidiary obligation of the contract. Utilities such as telephone and power lines shall be worked around. Any damage to these existing utilities shall be the responsibility of the Contractor.

The Contractor shall be responsible for the signing and maintenance of traffic detours during construction in accordance with FP-03, Section 156 and 635, and the Special Contract Requirements.

The Contractor shall be responsible for all quality control work in accordance with FP-03 and with detailed requirements in the Special Contract Requirements.

The Contractor shall be responsible for locating materials sources for this Project as well as meeting all requirements of Sections 105 and 107 of the FP-03 and the Special Contract Requirements. The Contractor shall also be responsible for securing all permits for the use of the source and providing copies of the documents to the Project C.O.R.

The Contractor shall be responsible for obtaining permits from the appropriate utilities prior to performing work.

Manhole covers and water valves/meter covers adjustments shall be performed per utility requirements. The Contractor is responsible for obtaining all requirements and any updated details for construction. The Contractor shall conform to the requirements specified in the City Of Tucson And Pima County Standard Specifications For Public Improvements, 2003 Edition .

When a street sign assembly is measured by the each, measure each installation as one sign regardless of the number of street signs in the installation. Each street sign includes two street signs, u-channel base, cross-piece and other minor appurtenances required for the installation .

The furnishing of all water required for the work shall be considered as included in the prices paid for the various contract items of work requiring the use of water.

THE USE OF RECYCLED ASPHALT PAVEMENT (RAP) SHALL NOT BE USED ON THIS PROJECT.

LINEAR GRADING

This work consists of breaking up and pulverizing the full width and depth (approximately 3") of the existing bituminous surface of the roadway such that 100 percent passes a 1 inch sieve. The pulverized bituminous material shall be spread evenly over the roadbed. The roadbed shall be scarified to a depth of 6 inches and the pulverized bituminous material shall be blended with the existing aggregate base until a uniformly graded mixture is obtained. Reshape and compact to a normal crown as shown on the typical section. Excess material shall be hauled to a site within the reservation per the C.O.R.

The compaction of the uniformly graded mixture shall conform to the requirements of Subsection 301.05 of the FP-03 and these Special Contract Requirements. In-Place density test shall be performed at 500 foot intervals on the roadway.

After compaction and density has been achieved on the uniformly graded mixture, blue top hubs, 2" x 2" x 6", shall be set at 100 foot increments on the roadway centerline for the finished aggregate base grades. Vertical tolerance for these hubs will be ±0.03 feet.

Prior to beginning linear grading work, the Contractor shall verify the horizontal location by electrical magnetic means and vertical location by vacuum method of all utilities within the project area. If any utilities are damaged, the Contractor is responsible for all repairs to damaged utility lines at no cost to the Owner. The Contractor will not be reimbursed for repairs to damaged utilities. The locating of utilities by the Contractor will not be measured for payment and shall be considered incidental to the Linear Grading item.

This work shall measured and paid for under Item 21202 Linear Grading by the linear foot (L.F.) Refer to the Project Plan map for Roadway length and width.

QUANTITY LIST

ITEM NUMBER	ITEM DESCRIPTION	TOTAL	UNIT
15101	Mobilization	1	LS
15201	Construction survey and staking	1	LS
15301	Quality control	1	LS
15714	Soil Erosion Control	1	LS
15901	TERO fee and tribal tax	1	LS
20305	Removal of structures and obstructions	1	LS
21202	Linear grading	1,179	LF
40401	Minor hot asphalt concrete	3,246	SY
60401	Manhole, adjust frame and cover	8	Each
60911	Portland cement concrete gutter, valley	970	SF
61107	Water valve, adjust frame and cover	12	Each
61108*	Repair, adjust and/or relocate existing water system	100	LF
63309	Sign installation, warning and regulatory with new steel post(s), and foundation(s)	2	Each
63310	Sign installation, street sign assembly	6	Each
63401d	Pavement markings, type H, 18 inch solid white lines, 0.090 inch thick	13	LF
63401g	Pavement markings, type H, crosswalk, 12 inch solid yellow lines, 0.090 inch thick	1	Each
63401h	Pavement markings, type H, 12 inch solid white lines, 0.090 inch thick	84	LF
63501	Temporary traffic control	1	LS

* The quantity shown on the Quantity List, Unit Price Schedule and Engineer's Estimate for Item 61108 is for obtaining a unit price only and does not reflect an estimated quantity for the project. It is not anticipated at this time that any work will need to be done on the existing waterlines.

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Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
in Maricopa County: (602) 263-1100

PASCUA YAQUI TRIBE

APPROVALS FOR THE CONSULTANT

		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED	----	----
PROJ. ENGR.	----	----
DIRECTOR	----	----

PYIR 101(7)

GENERAL NOTES AND QUANTITIES

IMPROVEMENT PLANS

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Tucson, Arizona 85705
Phone: (520) 615-9191
Fax: (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 2/07/2014 ARIZONA, U.S.A.
EXP. 9/30/2014

GNOTES

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

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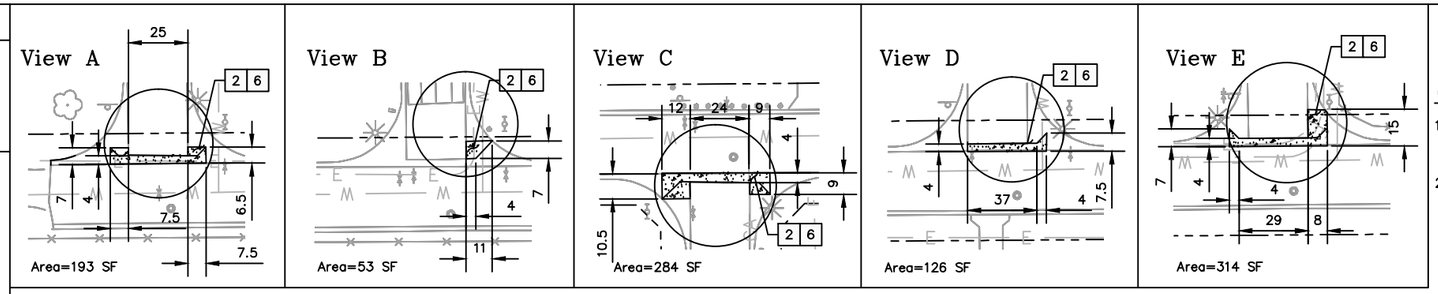
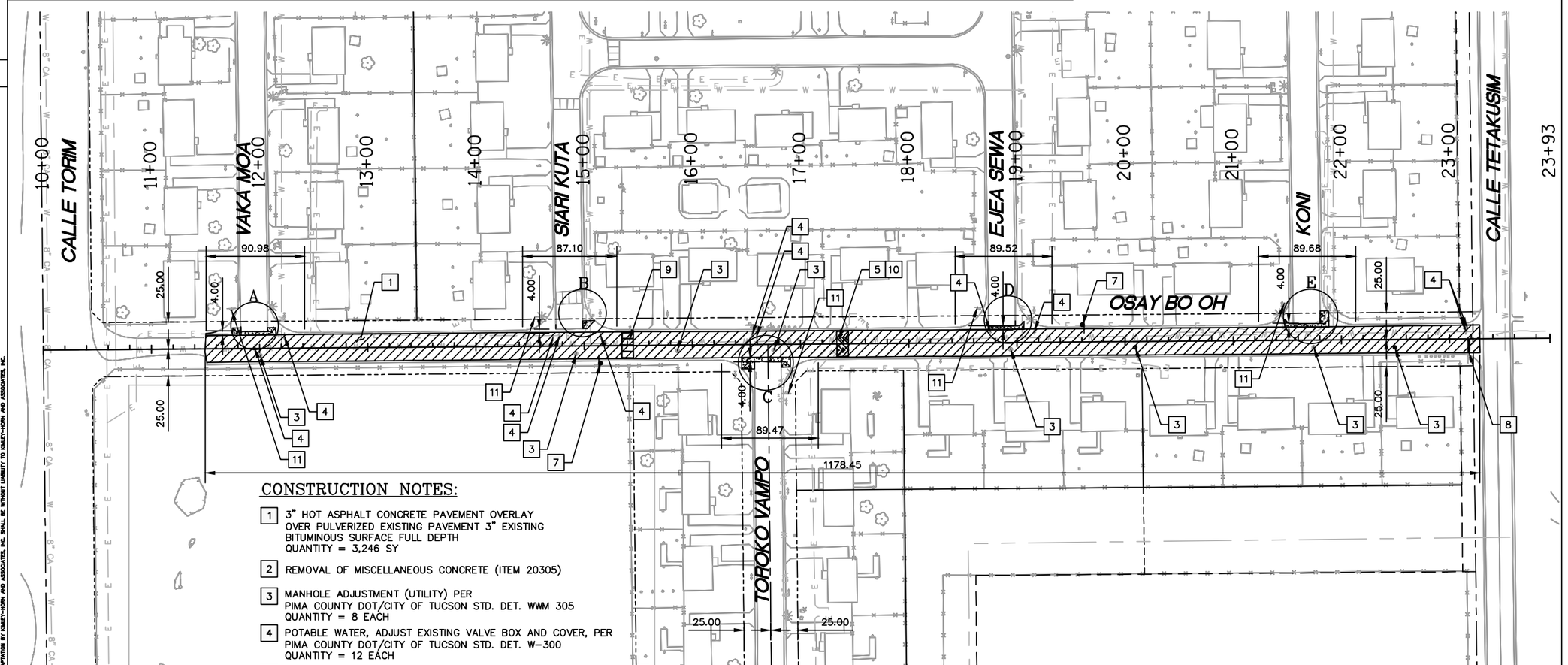
PROJECT PLAN MAP



CONSTRUCTION NOTES:

1. Dimensions are approximate, field verify limits of concrete removal and replacement.
2. Match existing construction joints.



CONSTRUCTION NOTES:

1. 3" HOT ASPHALT CONCRETE PAVEMENT OVERLAY OVER PULVERIZED EXISTING PAVEMENT 3" EXISTING BITUMINOUS SURFACE FULL DEPTH
   QUANTITY = 3,246 SY
2. REMOVAL OF MISCELLANEOUS CONCRETE (ITEM 20305)
3. MANHOLE ADJUSTMENT (UTILITY) PER PIMA COUNTY DOT/CITY OF TUCSON STD. DET. WWM 305
   QUANTITY = 8 EACH
4. POTABLE WATER, ADJUST EXISTING VALVE BOX AND COVER, PER PIMA COUNTY DOT/CITY OF TUCSON STD. DET. W-300
   QUANTITY = 12 EACH
5. NEW SPEED HUMP PER DETAIL SHOWN IN SHEET 5 THIS PLAN SET
   QUANTITY = INCIDENTAL TO ITEM 40401
6. CONCRETE VALLEY GUTTER WITH APRON PER PIMA COUNTY DOT/CITY OF TUCSON STD. DET. 208
   QUANTITY = 970 SF
7. NEW SIGN POST AND SIGN PANEL (ITEM 63309) (W17-1, W13-1 [15 MPH])
8. NEW STOP BAR STRIPING (18" SOLID WHITE, HOT SPRAYED THERMOPLASTIC)
   QUANTITY = 13 LF
9. NEW CROSSWALK STRIPING (12" SOLID YELLOW INCREMENTS) PER DETAIL SHOWN IN SHEET 6 THIS PLAN SET
10. NEW SPEED HUMP STRIPING (12" SOLID WHITE, HOT SPRAYED THERMOPLASTIC)
    QUANTITY = 84 LF
11. NEW STREET SIGN ASSEMBLY (ITEM 63310)

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In Maricopa County: (602) 263-1100

SCALE: 1" = 150'

4 OF 13

PASCUA YAQUI TRIBE

APPROVALS

FOR THE CONSULTANT		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED ___ ___
PROJ. ENGR. ___ ___
DIRECTOR ___ ___

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PROJECT PLAN MAP
IMPROVEMENT PLANS

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333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
Phone: (520) 615-9191
Fax: (602) 944-7423

43315
RICARDO P. SOLIS
Date Signed 2/07/14
ARIZONA, U.S.A.
EXP. 9/30/2014

PPMAP1

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

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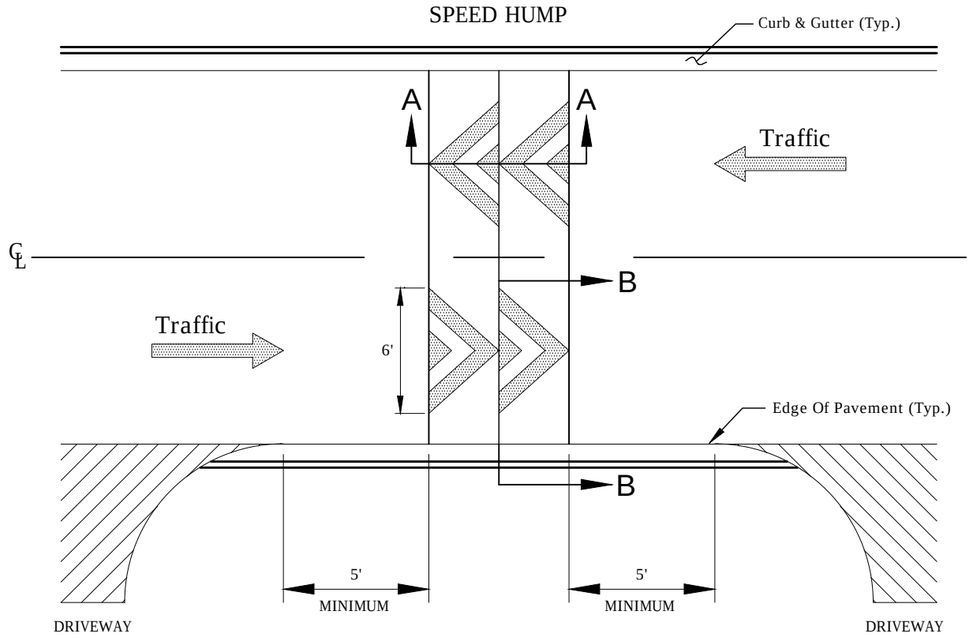
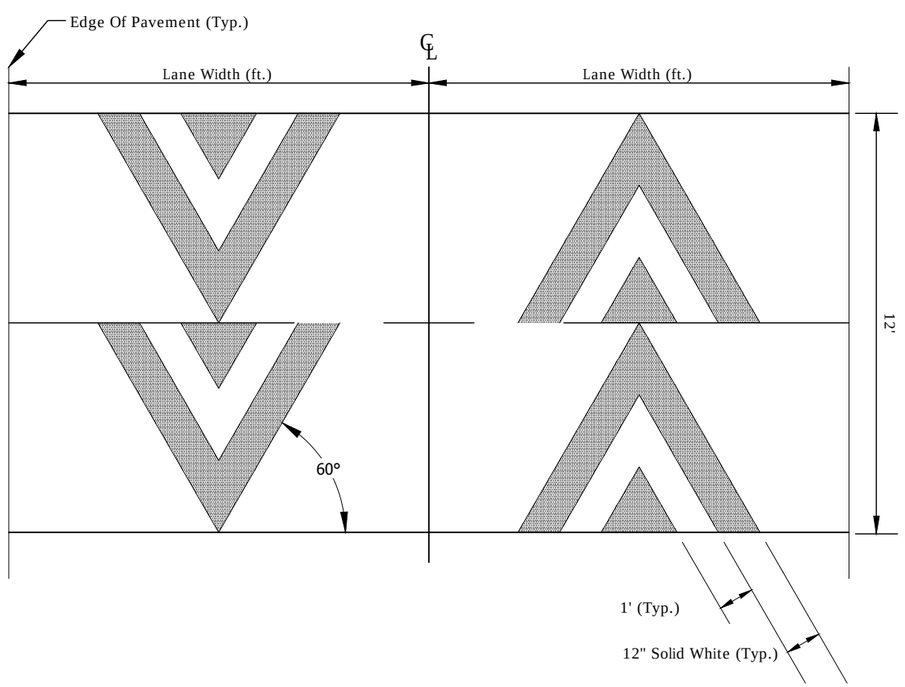
SPEED HUMP AND STRIPING DETAILS

SPEED HUMP

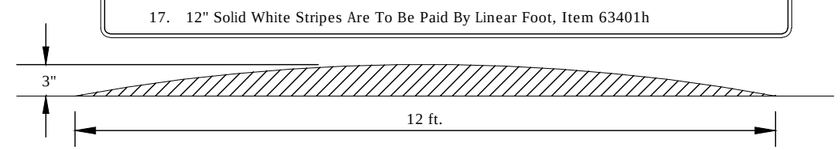




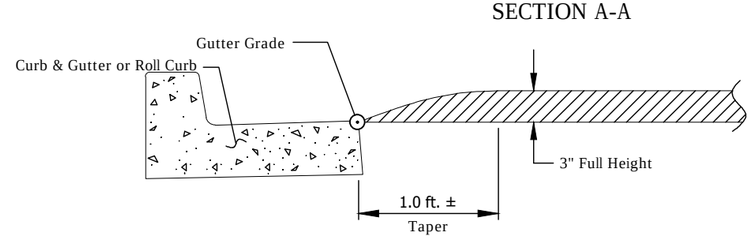
KEY NOTES

Speed Hump Locations Shown On The Plans Are Approximate And May Need To Be Adjusted By The Project AOR Based On The Following Location Guidelines:

1. The Minimum Distance From An Intersection To A Speed Hump Is 150 Feet.
2. Spacing Between Humps Will Be Approximately 400 Feet.
3. Speed Humps Will Not Be Installed Within A Horizontal Curve Or Within 250 Feet Of The Beginining Or End Of A Horizontal Curve.
4. A Speed Hump Will Not Be Placed Over Manholes, Catch Basins Or Their Utility Access Points.
5. The First Speed Hump Will Be Placed Such That A Warning Sign Can Be Installed Before The Hump At A Distance Of 175 Feet. If There Is More Than One Speed Hump In Series, An Additional Sign Will Indicate The Distance From The First Speed Hump To The Last.
6. A Speed Hump Will Only Be Located Where It Does Not Cause Substantial Adverse Impact On Established Street Drainage Patterns.
7. Speed Humps Should Not Be Located Adjacent To Driveways. A Minimum Of 5' From The Driveway Will Be Required (See Detail).
8. Speed Humps Should Be Located Immediately Downhill Of Drainage Inlets.
9. Speed Limit At Speed Hump(s) Will Be Signed For 15 M.P.H. In School Zones and 20 M.P.H. On Residential Streets.
10. Streets Receiving Speed Humps Must Be Minor Collectors Or Local Residential Streets.
11. Streets Must Not Be On A Snow Removal/Plow Route.
12. At Least ⅔ Of The Street Frontage Must Be Residential, Park And/Or School.
13. The Streets Posted Speed Limit Must Be Less Than 25 MPH.
14. The Street Is Not A Truck Route, Or Primary/Routine Access For Emergency Vehicles.
15. The Longitudinal Grade Of The Street Does Not Exceed 5 Percent.
16. Speed Hump Is Considered Incidental And Included In The Cost Of Item 40401.
17. 12" Solid White Stripes Are To Be Paid By Linear Foot, Item 63401h



SECTION A-A



SECTION B-B

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CHECKED	R. SOLIS	2/2014
FOR THE PASCUA YAQUI TRIBE		
CHECKED	___	___
PROJ. ENGR.	___	___
DIRECTOR	___	___

PYIR 101(7)

SPEED HUMP AND STRIPING DETAILS

IMPROVEMENT PLANS

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EXP. 9/30/2014

PASCUA YAQUI TRIBE

SPDHMP

SCALE: N/A

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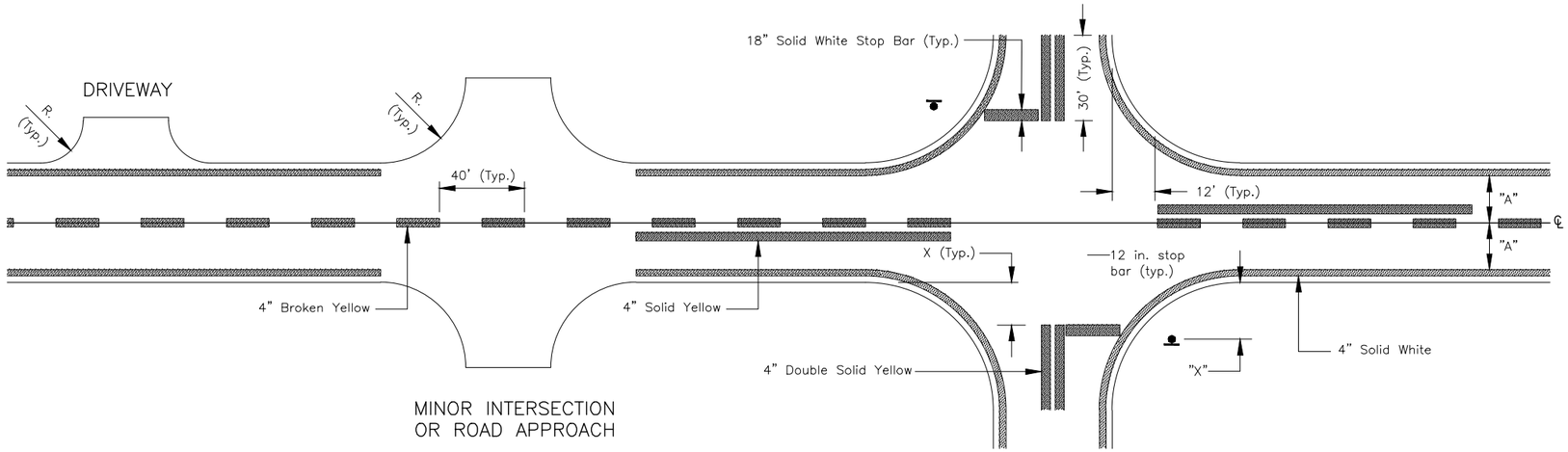
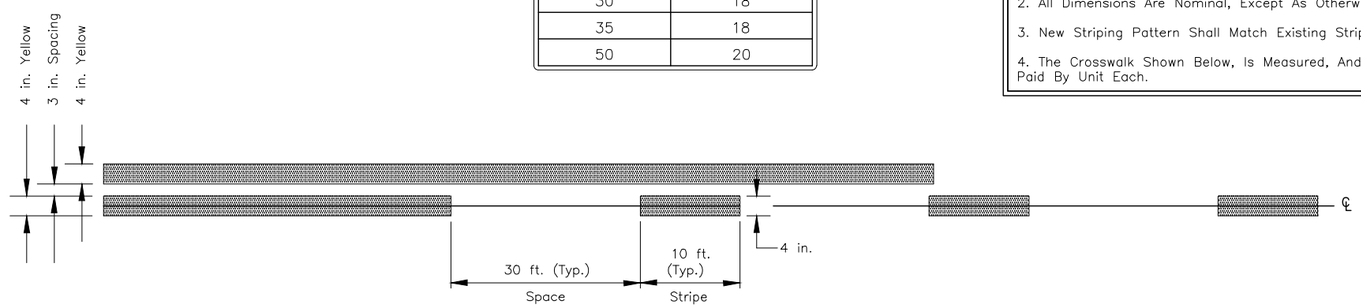
STRIPING DETAILS



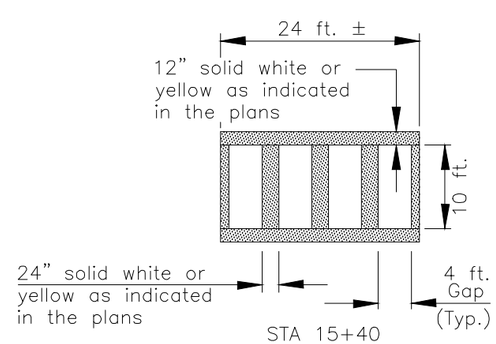
TYPICAL STOP SIGN LOCATION	
RADIUS (ft.)	"X" (ft.)
20	11
30	18
35	18
50	20

GENERAL NOTES

1. Striping Quantities Are Approximate.
2. All Dimensions Are Nominal, Except As Otherwise Noted.
3. New Striping Pattern Shall Match Existing Striping Pattern.
4. The Crosswalk Shown Below, Is Measured, And Will Be Paid By Unit Each.



SPACING DETAIL FOR CENTER LINE STRIPING



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DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

APPROVALS FOR THE PASCUA YAQUI TRIBE

CHECKED	___	___
PROJ. ENGR.	___	___
DIRECTOR	___	___

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STRIPING DETAILS
IMPROVEMENT PLANS

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Registered Professional Engineer (Civil)
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RICARDO P. SOLIS
Date Signed 2/07/2014
ARIZONA, U.S.A.
EXP. 9/30/2014

STRIPE

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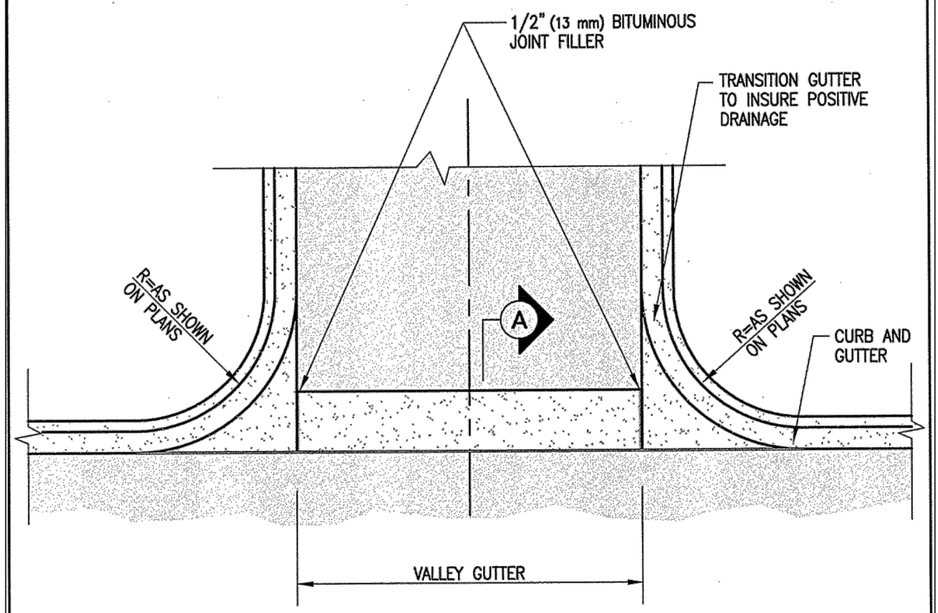
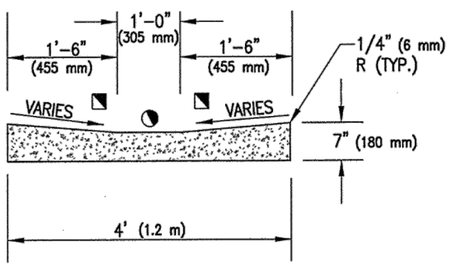


PLAN

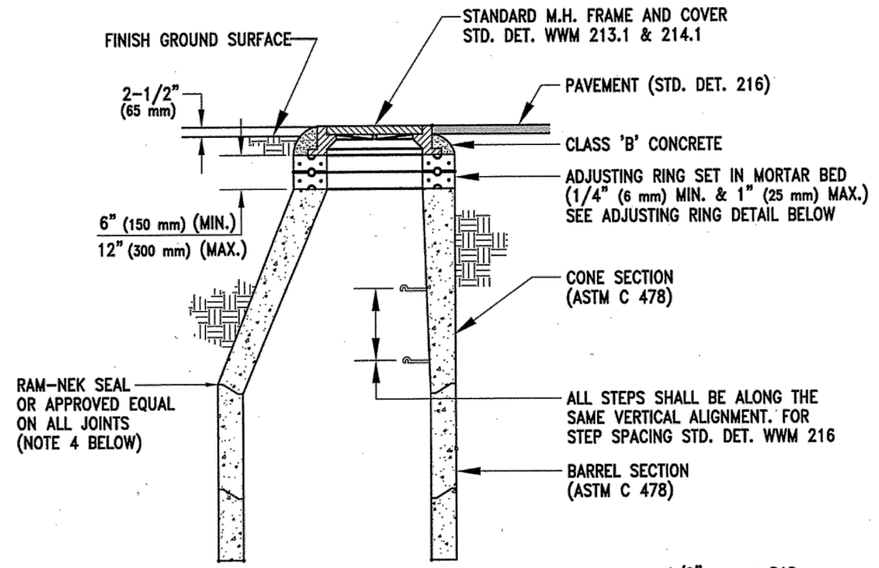


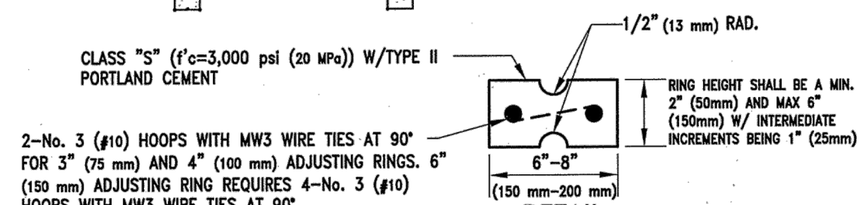
TROWEL FINISH

MAX. SLOPE= 8%
CONCRETE SHALL BE CLASS "B", F'c = 2,500 PSI (17.2 MPa)

A SECTION

ISSUED:	STANDARD DETAIL	DETAIL NO.
10/88	CONCRETE VALLEY GUTTER	208
REVISED: 7/02		SHEET 1 OF 1





DETAIL
ADJUSTING RING

NOTES:

1. RECONSTRUCTION OF THE BARREL/CONE IN ACCORDANCE WITH THIS DETAIL WILL BE REQUIRED IF THE AMOUNT OF ADJUSTMENT CAUSES A VIOLATION OF THE DIMENSIONAL RANGE NOTED ABOVE.
2. ADDITIONAL OR REPLACEMENT MANHOLE SECTIONS SHALL BE NEW MATERIAL.
3. JOINTS OF THE NEW MANHOLE SECTIONS MUST PROVIDE A SUITABLE MATCH (IN CONFIGURATION AND PERFORMANCE) WITH THE EXISTING MANHOLE SECTIONS.

ISSUED:	STANDARD DETAIL	DETAIL NO.
8/92	PRECAST CONCRETE MANHOLE GRADE ADJUSTMENT	WWM 305
REVISED: 7/02		SHEET 1 OF 1

Call at least two full working days before you begin excavation.
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Dial 8-1-1 or 1-800-STAKE-IT (1-800-5348)
In Maricopa County: (602) 263-1100

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

APPROVALS FOR THE CONSULTANT

		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED ___
PROJ. ENGR. ___
DIRECTOR ___

PYIR 101(7)
DETAIL SHEETS
IMPROVEMENT PLANS

PASCUA YAQUI TRIBE

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Engineering, Planning, and Environmental Consultants
7333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
Phone: (520) 615-9191
Fax: (602) 944-7423

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 2/17/2014 ARIZONA, U.S.A.
EXP. 9/30/2014

K:\TUC_Roadway\096012015_Calle Torim Design\CADD\PYIR 101(7)\Sheet 7 - Details.dwg Feb 17, 2014 seanhays
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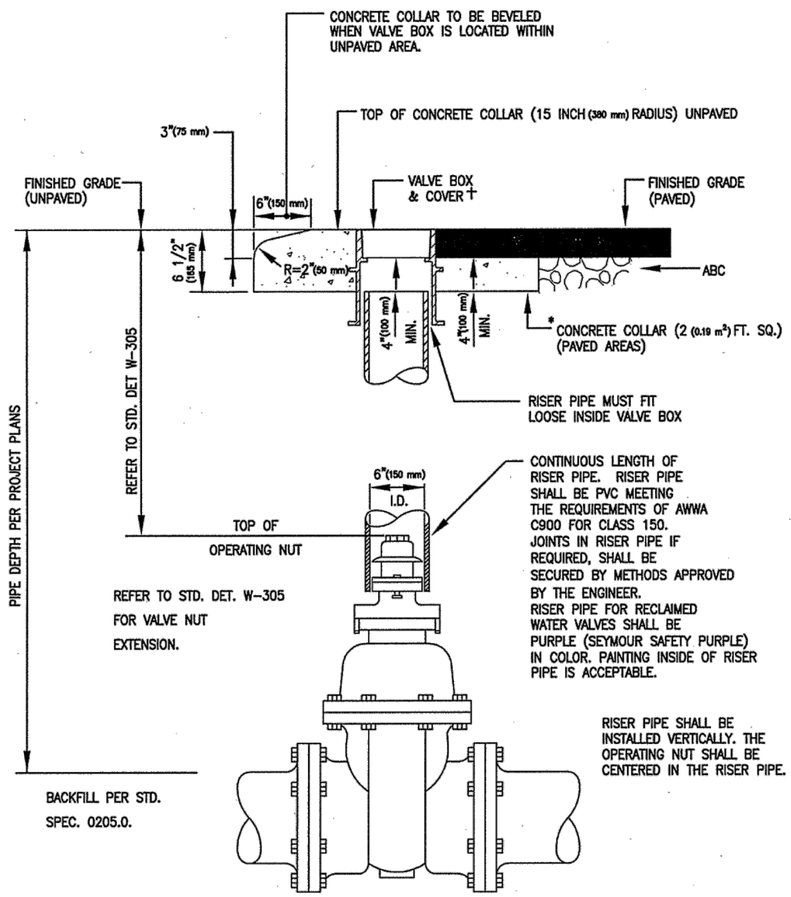
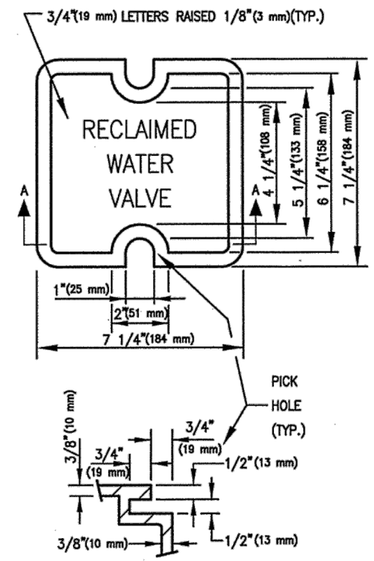


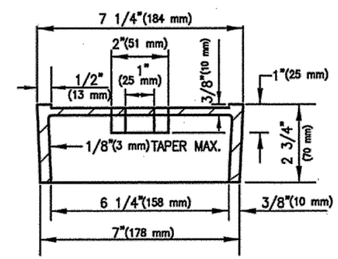
* CONCRETE COLLAR TO EXTEND TO FINISHED GRADE WHEN INSTALLED IN CONCRETE PAVEMENT.
1/2" (13 mm) BITUMINOUS JOINT MATERIAL SHALL BE INSTALLED BETWEEN CONCRETE COLLAR AND CONCRETE PAVEMENT.

† USE VALVE BOX AND COVER APPROPRIATE TO THE MAIN TYPE (I.E. POTABLE OR RECLAIMED).

ISSUED:		STANDARD DETAIL		DETAIL NO.
6/97	TUCSON WATER	WSM VALVE BOX INSTALLATION	THE SEAL OF PIMA COUNTY ARIZONA	W-300
REVISED: 10/02				SHEET 1 OF 4



SECTION



SECTION A–A
COVER

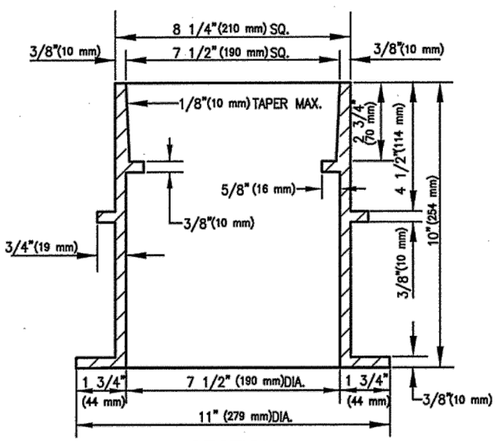
ALL MATERIAL SHALL BE CAST IRON PER ASTM. A–48, CLASS 30 B.

THE SURFACES OF THE COVER AND BOX WHICH COME IN CONTACT WITH EACH OTHER MUST BE SMOOTH AND FREE OF ALL CASTING RIDGES AND BURRS TO PROVIDE A SNUG FIT.

THE VALVE BOX SHALL HAVE A ROUND BOTTOM TO ACCOMMODATE RISER PIPE. THE TOP OF THE VALVE BOX SHALL BE SQUARE.

THE LID AND INSIDE AND OUTSIDE OF THE RISER PIPE SHALL BE COLORED PURPLE. COLOR MAY BY INCORPORATED INTO PIPE DURING MANUFACTURE OR PAINTED ONTO PIPE SURFACE. WHEN PAINTED THE PAINT SHALL BE SEYMOUR SAFETY PURPLE.

LETTERING SHALL BE RESTRICTED TO THAT SHOWN ON THE VALVE BOX COVER.



SECTION
VALVE BOX

RECLAIMED WATER
VALVE BOX AND COVER

ISSUED:		STANDARD DETAIL		DETAIL NO.
6/97	TUCSON WATER	WSM VALVE BOX INSTALLATION	THE SEAL OF PIMA COUNTY ARIZONA	W-300
REVISED: 10/02				SHEET 2 OF 4

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In Maricopa County: (602) 263-1100

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DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED	___
PROJ. ENGR.	___
DIRECTOR	___

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DETAIL SHEETS
IMPROVEMENT PLANS

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Tucson, Arizona 85705
Phone: (520) 615-9191
Fax: (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 2/17/2014 ARIZONA, U.S.A.
EXP. 9/30/2014

PASCUA YAQUI TRIBE

DETAIL2

SCALE: N/A

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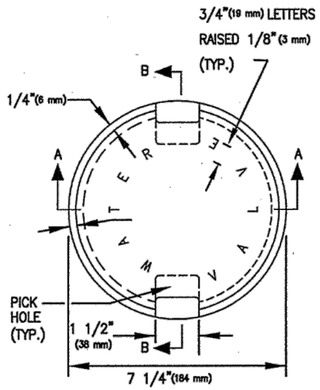


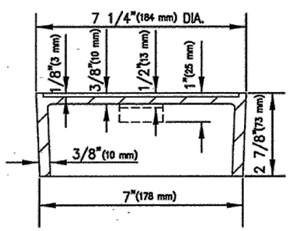
ALL MATERIAL SHALL BE CAST IRON PER ASTM. A–48, CLASS 30 B.

THE SURFACES OF THE COVER AND BOX WHICH COME IN CONTACT WITH EACH OTHER SHALL BE SMOOTH AND FREE OF ALL CASTING RIDGES AND BURRS TO PROVIDE A SNUG FIT.

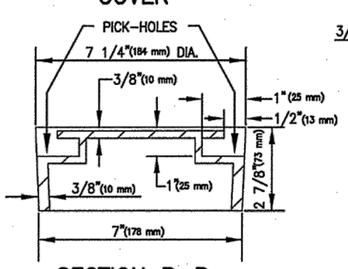
THE COVER AND BOX SHALL WEIGH 50 POUNDS (22 kg) ± 5 POUNDS (2.3 kg).

THE VALVE BOX COVER SHALL ROTATE 360° IN THE BOX CASTING WITHOUT BINDING.

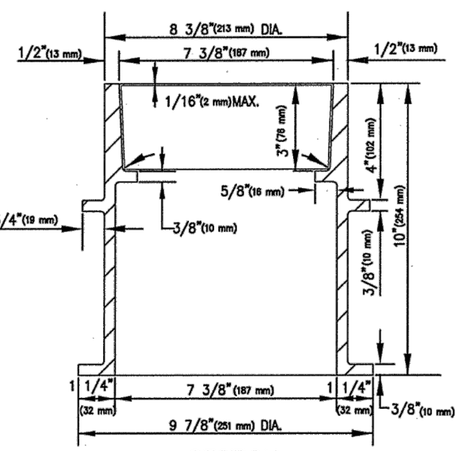
LETTERING SHALL BE RESTRICTED TO THAT SHOWN ON THE VALVE BOX COVER.



SECTION A–A
COVER



SECTION B–B
COVER



SECTION
VALVE BOX

POTABLE
WATER VALVE
BOX AND COVER

ISSUED:		STANDARD DETAIL		DETAIL NO.
6/97	TUCSON WATER	WSM VALVE BOX INSTALLATION	THE SEAL of PIMA COUNTY ARIZONA	W-300
REVISED: 10/02				SHEET 3 OF 4

ADJUSTING EXISTING VALVE BOX AND COVER

1. The contractor shall protect all existing water valve boxes and covers during the course of the work.
2. The contractor shall adjust existing water main valve boxes and covers to the level of the finished surface of the new pavement.
3. Unless otherwise specified on the project plans or in the Special Provisions, the contractor shall supply new water valve boxes and covers for all work under this contract.

ISSUED:		STANDARD DETAIL		DETAIL NO.
6/97	TUCSON WATER	WSM VALVE BOX INSTALLATION	THE SEAL of PIMA COUNTY ARIZONA	W-300
REVISED: 10/02				SHEET 4 OF 4

Call at least two full working days before you begin excavation.
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in Maricopa County (602) 263-1000

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

APPROVALS
FOR THE CONSULTANT

		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014
FOR THE PASCUA YAQUI TRIBE		
CHECKED	___	___
PROJ. ENGR.	___	___
DIRECTOR	___	___

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DETAIL SHEETS
IMPROVEMENT PLANS

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Phone: (520) 615-9191
Fax: (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 2/17/2014 ARIZONA, U.S.A.
EXP. 9/30/2014

PASCUA YAQUI TRIBE

DETAIL3

SCALE: N/A

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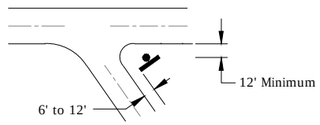
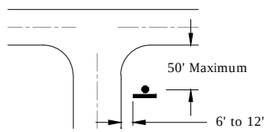
WARNING AND REGULATORY SIGN DETAILS

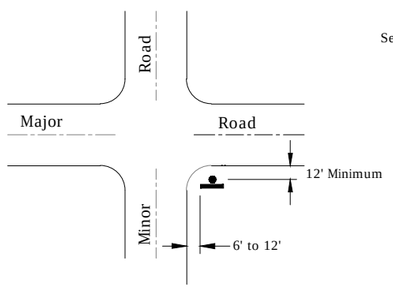
TYPICAL SIGN PLACEMENT DETAILS



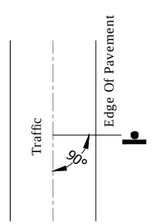
ACUTE ANGLE INTERSECTION



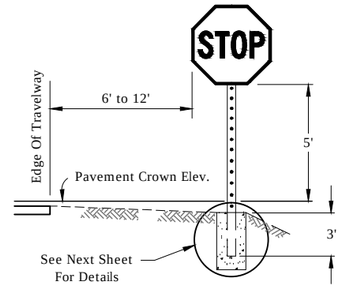
WIDE THROAT INTERSECTION



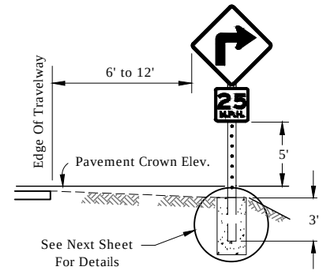
MINOR CROSSROAD



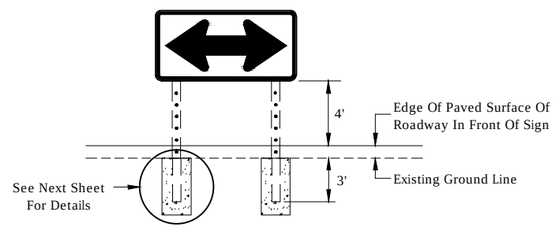
FULL SURFACE REFLECTORIZED SIGNS

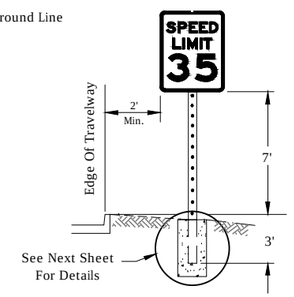


RURAL AREA

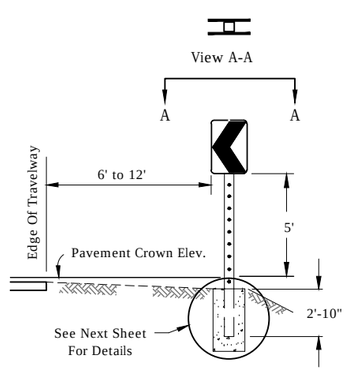


RURAL AREA





URBAN AREA



GENERAL NOTES

ALL TEMPORARY CONSTRUCTION SIGNS SHALL REMAIN IN PLACE UNTIL ALL PERMANENT SIGNS ARE INSTALLED.
ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

SIGN MATERIALS

1. Signs Shall Be Made Of Aluminum. All Signs Shall Conform To The FP-03 Standard Specifications Unless Stated Otherwise In The Special Contract Requirements.
2. Applicable Standards For Sign Materials Include: All Signs: FP-03 Section 718
3. All Signs Shall Have Rounded Corners.

REFLECTORIZATION

1. Retroreflective Sheeting Material Shall Conform To ASTM D 4956 Type III.
2. Graffiti Resistant Overlay Film Shall Be Applied To Retroreflective Sheeting Material.

MOUNTING

1. Steel Anti-Theft Hardware Shall Conform To ASTM A 307 And Shall Be Galvanized According To ASTM A 153.
2. All Signs Shall Be Mounted On The Right Hand Side Of And At Approximate Print Angles To The Road, Facing The Traffic That They Are Interned To Serve. See Sign Placement Details.
3. All Signs Shall Have A Minimum Of Two $\frac{3}{8}$" Size Anti-Theft Bolts.
4. Sign Holes Shall Be Punched To Allow Adequate Edge Metal For Strength And Adaptability To Placement On Metal Posts Which Are Drilled 1" Centers.
5. Groups Of Two Or More Signs On The Same Post Shall Have A Vertical Placement Of 5' From The Pavement Crown Elevation To The Bottom Of The Lowest Sign. Signs Are To Be Placed As Close Together On Metal Post As Hole Spacing Will Allow.

POSTS

1. Posts Shall Be Made Of Steel And Conform To FP-03, SEC. 718.08.
2. Steel Posts Shall Not Extend Above The Top Of Sign.
3. All Posts Shall Be Of Sufficient Length To Meet Height Requirements When Rigidly In Place.
4. Steel Posts Shall Be Installed To A Minimum Depth Of 3'. See Sign Placement Details This Sheet.
5. If Any Post Section Is Shorter Than The Panel Height, The Field Splice Shall Be Behind The Panel.
6. Field Splices Are Not Permitted On Telescoping Posts.

WRN-1.dwg REVISED: October 2004

Call at least two full working days before you begin excavation.
ARIZONA 811
ARIZONA BLUE STAKE, INC.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

APPROVALS FOR THE CONSULTANT		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014
FOR THE PASCUA YAQUI TRIBE		
CHECKED	___	___
PROJ. ENGR.	___	___
DIRECTOR	___	___

PYIR 101(7)
WARNING AND REGULATORY SIGN DETAILS
IMPROVEMENT PLANS

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Phone: (520) 615-9191
Fax: (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 2/17/2014 ARIZONA, U.S.A.
EXP. 9/30/2014

PASCUA YAQUI TRIBE

WARN1

SCALE: N/A

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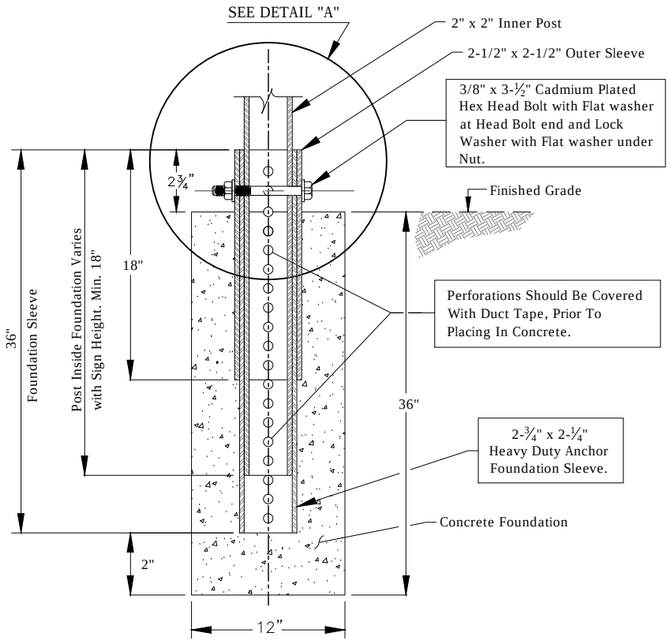
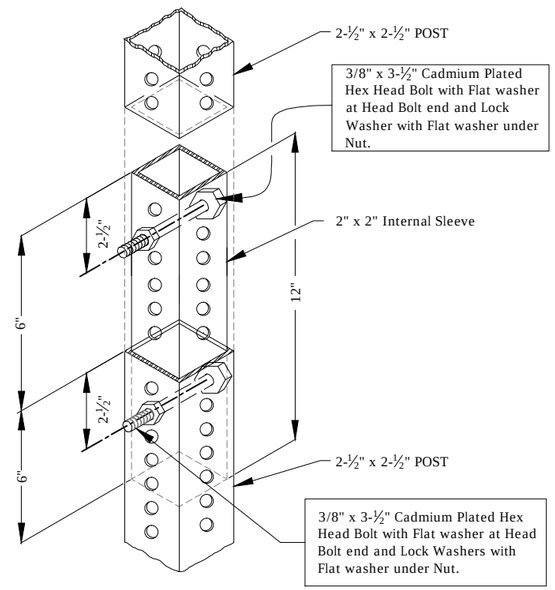
WARNING AND REGULATORY SIGN DETAILS



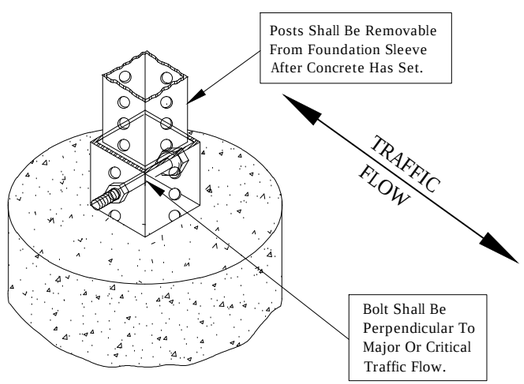
FOUNDATION DETAIL FOR SINGLE POST

GENERAL NOTES

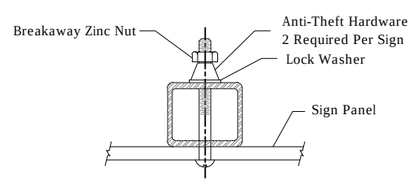
1. If any Post section Is shorter than the Panel Height, the Field Splice Shall be behind the Panel.
2. Field Splices are Not Permitted on Telescoping Posts.



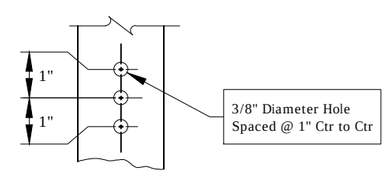
PERMISSABLE FIELD SPLICE PERFORATED POST DETAIL



DETAIL "A"



TYPICAL MOUNTING DETAILS



TYPICAL POST DETAIL

WRN-2.dwg Revised: October 2004

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DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED	___
PROJ. ENGR.	___
DIRECTOR	___

PASCUA YAQUI TRIBE

PYIR 101(7)

WARNING AND REGULATORY SIGN DETAILS

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SCALE: N/A

WARN2

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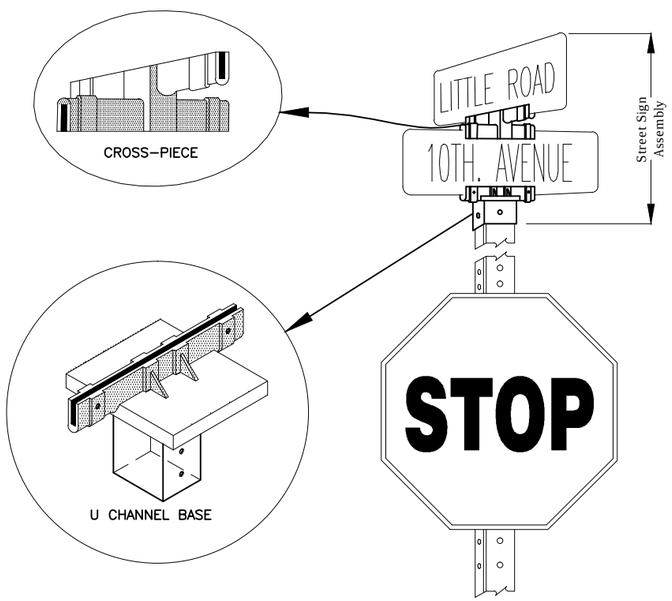
GENERAL NOTES

ALL DIMENSIONS IN INCHES (in.) UNLESS OTHERWISE SPECIFIED

1. Shape, Color And Lettering Of Signs Will Conform To The Specifications In Federal Highway Administration Manual On Uniform Traffic Control Devices And Standard Highway Signs, Unless Otherwise Noted. Dimensions Of Signs Will Be As Given In Standard Highway Signs For Standard Size Signs.
2. Standard Manufactured Signs That Have Widths Of Margins And Borders That Vary From These Suggested Dimensions Will Be Accepted If They Meet The Minimum Width Requirements For Margins And Borders As Specified In The MUTCD.
3. The Erection And Fabrication Of All Signs Assemblies Shall Follow The Details And Design Specifications Outlined In The Plans. Any Field Conditions Which Require Adjustments In Sign Erection Are Subject To Direction By And Approval Of The Contracting Officer.



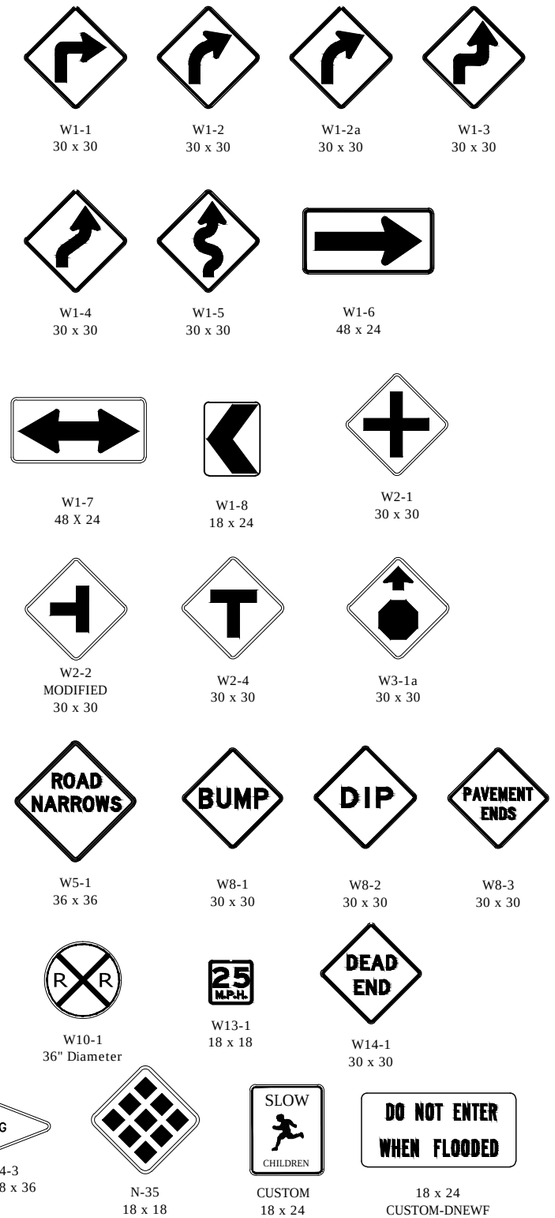
STREET SIGN MOUNTING DETAILS

SIGN ASSEMBLY NOTE

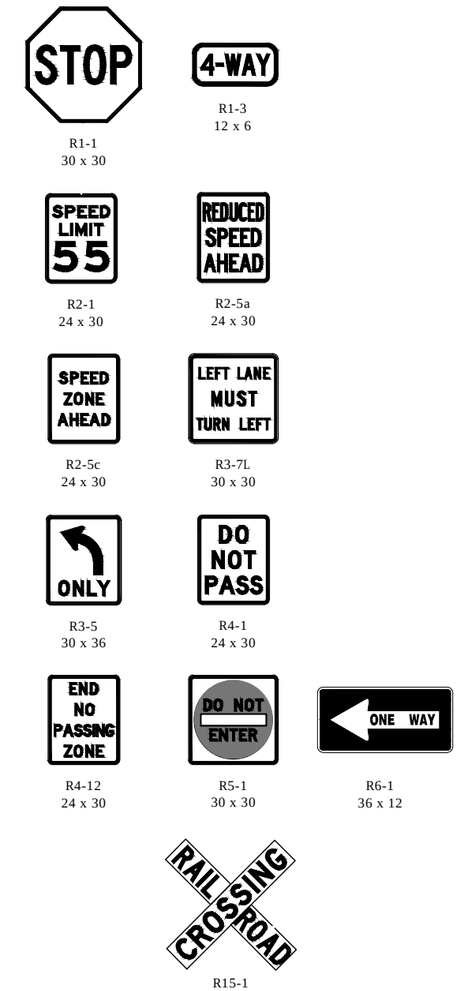
Street sign assembly includes Street Signs, Cross-piece, U-channel base/Square base and other minor appurtenances required to install the assembly.

Contractor shall field verify the mounting type of each existing stop sign post.

WARNING SIGNS



REGULATORY SIGNS



SIGN NOTE

Sign W1-6 & W1-7 shall be installed in line with, and at right angles to, approaching traffic.

WRN-3.dwg Revised: June 2005

Call at least two full working days before you begin excavation
ARIZONA 811
ARIZONA BLUE STAKE, INC.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

APPROVALS FOR THE CONSULTANT

		DATE
DESIGNED	R. SOLIS	2/2014
DRAWN	S. HAYS	2/2014
CHECKED	R. SOLIS	2/2014

FOR THE PASCUA YAQUI TRIBE

CHECKED	___	___
PROJ. ENGR.	___	___
DIRECTOR	___	___

PYIR 101(7)

WARNING AND REGULATORY SIGN DETAILS

IMPROVEMENT PLANS

Kimley-Horn and Associates, Inc.
© 2014
Engineering, Planning, and Environmental Consultants
333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
Phone: (520) 615-9191
Fax: (602) 944-7423

CERTIFICATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER
43315
RICARDO P. SOLIS
Date Signed 2/17/2014
ARIZONA, U.S.A.
EXP. 9/30/2014

PASCUA YAQUI TRIBE

WARN3

SCALE: N/A

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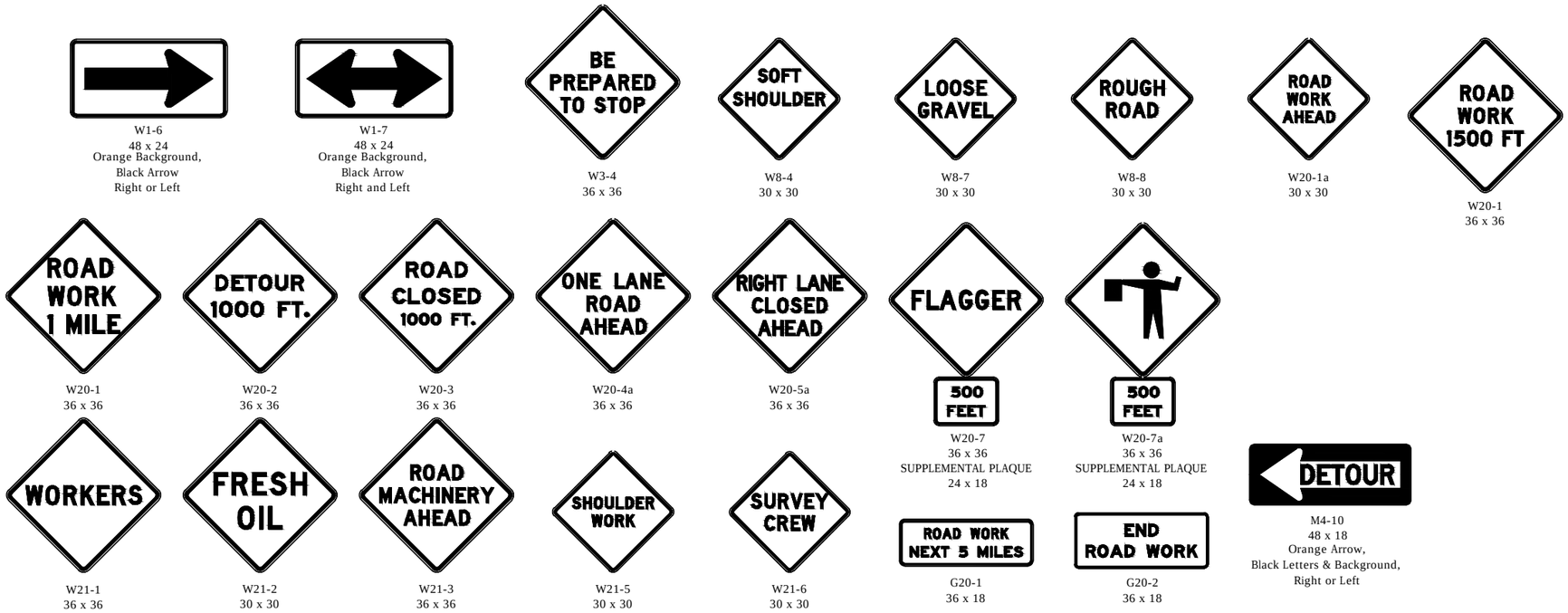
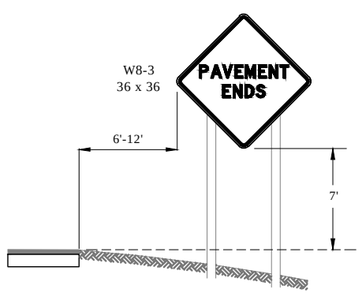
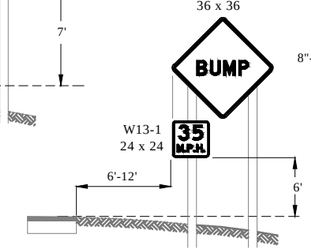
STANDARD CONSTRUCTION SIGNS





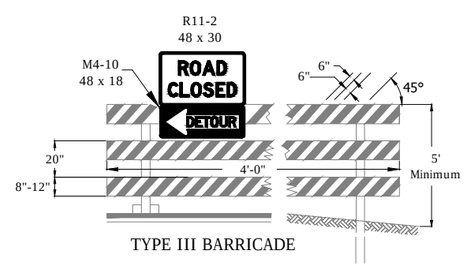


SIGN PLACEMENT

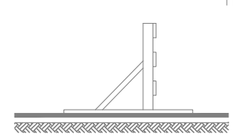
As shown or with approval of the engineer, may be placed to accomodate construction conditions

All signs shall be mounted on two posts.

NOTE: All Dimensions In INCHES Unless Otherwise Specified.



TYPE III BARRICADE



SIDE DETAIL

GENERAL NOTES

Designs for signs shown above are in accordance with minimum standards in the "Manual on Uniform Traffic Control Devices for Streets and Highways" 2003 Ed.

Signs shall be made from suitable materials which are in accordance with all State and Federal Specifications. Other signs not shown above shall conform in design to the MUTCD.

The temporary traffic control zone includes the entire section of roadway between the first advance warning sign through the last traffic control device, where traffic returns to its normal path and conditions.

The dimensions of signs shown are for standard sizes, which may be increased wherever necessary for greater legibility or emphasis. All signs intended to be used during the hours of darkness shall be either reflectorized or illuminated to show the same shape and color day and night. The use of standard orange flags or yellow flashing lights in conjunction with the signs is permitted, so as long as they do not interfere with a clear view of the sign face.

Signs shall be placed in positions where they will convey their messages most effectively day and night on the right-hand side of the roadway facing traffic at all times.

Signs on fixed supports shall be mounted on two posts with $^{5}/_{32}$" to $^{11}/_{32}$" carriage bolts. Signs mounted on barricades or portable supports are permissible, however, the bottom of the sign shall be not less than one foot above the pavement elevation.

Regulatory signs shall be rectangular with the longer dimension vertical, and carry a black legend and border on a white background. The STOP sign is octagonal, and has a white legend and border on a red background.

Warning signs for construction and maintenance shall be diamond shaped (square with one diagonal vertical), having a black symbol or message on an orange background.

Detour Arrow signs (M4-10) shall be erected at the beginning of detours that have been established due to road closures for construction or major maintenance operation. The sign should normally be mounted just below the ROAD CLOSED sign (R11-2) on Type III Barricades (See Detail to Left). Barricades used at night shall be reflectorized.

Lighting devices such as Flood Lights, Hazard Becons, Steady-Burning and Flashing Lights shall be used where a hazardous site condition exists in the temporary traffic control zone.

Steady-Burn Lights are intended to delineate the edge of the traveled way through and around obstructions in a construction area. Flashing Lights shall not be used for delineation. Lighting devices shall be maintained from sunset to sunrise.

All distances shown on this sheet are Examples. Applicable distances shall be used by the Contractor for each specific project.

Const-06.dwg REVISED: March 2006

Call at least two full working days before you begin excavation.
ARIZONA 811
ARIZONA BLUE STAKE, INC.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
in Maricopa County: (602) 263-1100

SCALE: N/A

PASCUA YAQUI TRIBE

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

APPROVALS

FOR THE CONSULTANT		DATE
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PROJ. ENGR.	----	
DIRECTOR	----	

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STANDARD CONSTRUCTION SIGNS

IMPROVEMENT PLANS

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Date Signed 2/17/2014
ARIZONA, U.S.A.
EXP. 9/30/2014

CONST

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