VALENCIA ROAD

WADE ROAD TO AJO HIGHWAY

GENERAL DESCRIPTION OF PROJECT

The overall project consists of widening approximately 2.85 miles of the Valencia Roadway from two lanes to four lanes of traffic from the intersection of Ajo Highway (SR 86) and matching into the existing 4-lane divided section west of the Valencia and Wade Road intersection.

PROJECT NUMBER

4RTVWE

PIMA COUNTY

TRANSPORTATION

Pima County Board Of Supervisors

Sharon Bronson, Chair, District 3

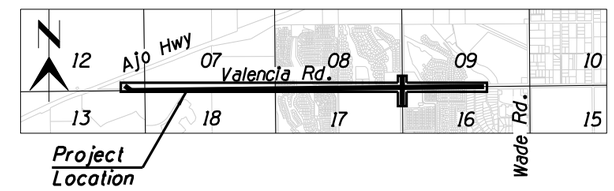
Ally Miller, District 1 Ramón Valadez, District 2

Steve Christy, District 4 Richard Elias, District 5

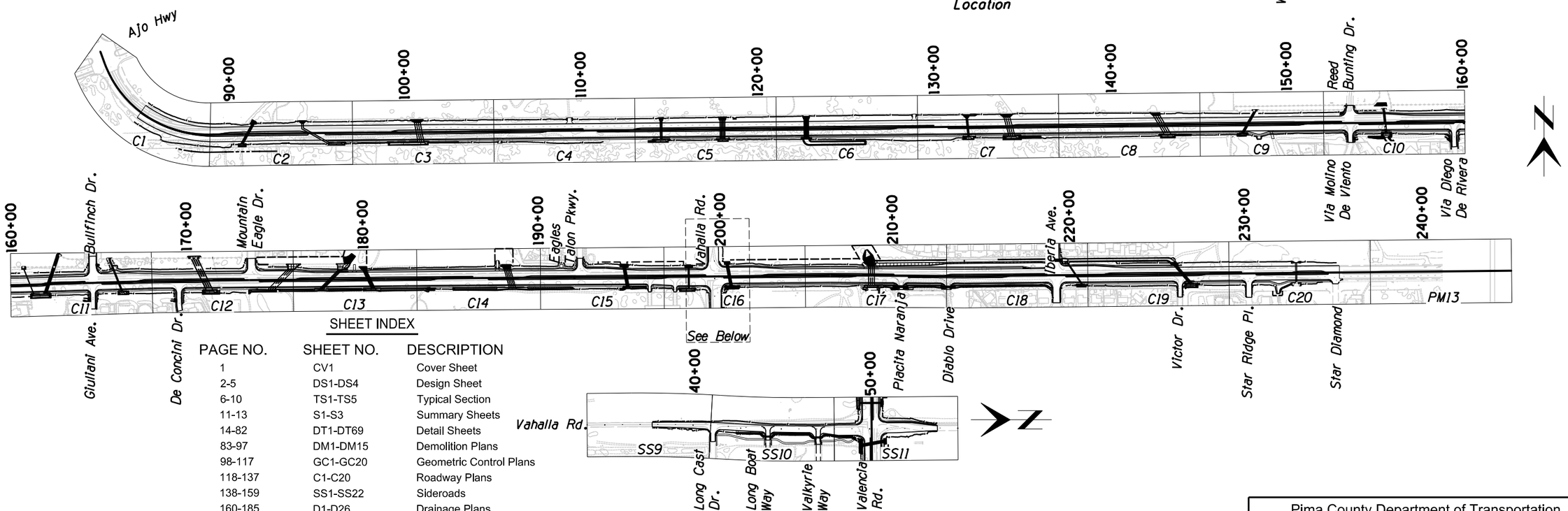
This Project is Located Within Supervisor District 3

Location Map

NOT TO SCALE



Sections 12, 13 of
T-15-S, R-11-E
Sections 7, 8, 9, 16, 17, 18 of
T-15-S, R-12-E
G & S R B & M
Pima County, Arizona



INDEX TO PLAN SHEETS

1" = 300'

SHEET INDEX

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118-137	C1-C20	Roadway Plans
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160-185	D1-D26	Drainage Plans
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212-229	EC1-EC18	Erosion Control
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250-264	PM1-PM15	Pavement Marking Sheets
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303-351	L1-L49	Landscaping Sheets
352-400	IR1-IR49	Irrigation Plan Sheets
401	U1	Metro Water Adjustment
402-414	W1-W13	Water Modification Sheets
415-433	RW1-RW19	Right-of-Way Sheets

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811

Call 811 or click Arizona811.com

File name: 022048cv01.dgn

PCRWRD #UPC-2016-035

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

No.	Revisions	Engineer	Date
No.	As Built	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/24/18 ARIZONA, U.S.A. Expires 09/30/2020

Pima County Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 724-6410
Ana M. Olivares, P.E., Director

Reviewed by	Engineer	Date
Mgr. Trans Engr.		
Mgr. Traffic Engr.		
Mgr. Field Engr.		
Mgr. WWM		
Mgr. Tucson Water		

Approved: _____ 20__

Director

Project No. 4RTVWE

Sheet No. CV1 of CV1

Page No. 1 of 433

Valencia Road - Wade Road to Ajo Highway - Project No. 4RTVWE

GENERAL NOTES

1. Construction shall be in conformance with the specifications and details listed in the special provisions.

2 Utility locations shown on the plans were compiled based on the best information available to the department, utility locations are not intended to be exact or complete. Prior to commencing construction, the contractor shall verify the location of all utilities with the appropriate organizations. Contact "Blue Stake" at 1-800-782-5348 two full working days prior to beginning construction (Saturdays and Sundays are not considered working days).

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

4. Removal of all cacti and native plants shall be in accordance with the provisions of the "Arizona Native Plant Law" A.R.S. Chapter 7.

5. Horizontal Control: The primary control point for this project is Pima County OPUS control point "FYB1", as shared through NGS. The monument is a 3-1/4" aluminum cap with magnetic stem set flush in the top of the concrete embankment lining on the east side of the detention basin +/- 300 feet south of the south edge of pavement of Valencia Road at the intersection of Mountain Eagle Drive and south of the 2" diameter brass cap survey monument stamped "PCHD, 8-17, T15S, R12E", marking the 1/4 corner common to Sections 8 and 17, Township 15 South, Range 12 East, Gila and Salt River Meridian, Pima County, Arizona.

6. Basis of Bearing: The reference meridian for this project is Grid North, Arizona State Plane Coordinate System, Central Zone, NAD1983 (2011). The Basis of Bearings for this project is the grid bearing of North 88°20'58.41" West between Pima County OPUS control point "FYB1" and a found 2" diameter brass cap survey monument set in concrete stamped "T15S, R11-12E, 12, 7, 13, 18, PCHD" marking the section corner common to Sections 12 and 13, Township 15 South, Range 11 East and Sections 7 and 18, Township 15 South, Range 12 East, Gila and salt River Meridian, Pima County, Arizona.

7. Basis of Elevation: The elevation datum for this survey is NAVD88 (Computed by Pima County Department of Transportation Survey Division using GEOID12B). The Benchmark is OPUS control point "FYB1". The orthometric height elevation computed by Pima County Department of Transportation Survey Division for "FYB1" is 2464.85 feet. OPUS control point "FYB1" is a 3-1/4" aluminum cap with magnetic stem set flush in the top of the concrete embankment lining on the east side of the detention basin +/- 300 feet south of the south edge of pavement of Valencia Road at the intersection of Mountain Eagle Drive and south of the 2" diameter brass cap survey monument stamped "PCHD, 8-17, T15S, R12E", marking the 1/4 corner common to Sections 8 and 17, Township 15 South, Range 12 East, Gila and Salt River Meridian, Pima County, Arizona.

8. Basis of coordinates: The published Combined Factor for Pima County OPUS control point "FYB1" is 0.99985285. The Grid Northing is 412777.48 International Feet. The Grid Easting is 940283.23 International Feet. Surface coordinates for this project are as follows:

   GN = Grid Northing, GE = Grid Easting
   SN = Surface Northing, SE = Surface Easting
   SN = (GN/CF) 400,000 CF = Combined Factor
   SE = (GE/CF) 900,000

   Surface coordinates for "FYB1" are:
   (412,777.48/0.99985285) - 400,000 = 12,838.23 International feet
   (940,283.23/0.99985285) - 900,000 = 40,421.61 International feet

9. Basis of stationing: Stations for Valencia Road increase from west to east. Stationing is based on the Section Corner at the intersection of Wade Road equal to Station 298+98.18 as originally established by Project 4RTVMW.

10. Soils information will be made available to prospective bidders in the geotechnical report. Soils information so provided shall be for informational purposes only. This information was developed as accurately as possible by the methods used. Pima County accepts no responsibility for any conditions encountered which vary from the information provided.

11. The contractor shall maintain access to all driveways, alleys, and mailboxes during construction. The contractor will not restrict emergency vehicles, U.S. Postal Delivery, solid waste collections, and/or access to the adjacent properties, except as approved by the engineer.

12. Omissions or conflicts between the various elements of the drawings, notes, or details shall be brought to the attention of the engineer and resolved before proceeding with the work.

13. All stationing shown on the plans is along the construction centerline. Survey ℄ does not entirely match the Construction ℄.

14. Existing utilities include, but may not be limited to, overhead and underground electric, telephone, television, sewer, gas, and water, and shall be moved by others unless otherwise noted and shown in these plans.

15. The contractor's attention is called to the limited area available on the site for excavation, embankment and other construction activities. If the contractor uses excavated material within the roadway righ-of-way for embankment not indicated for cut, it is the contractors responsibility to replace it at no expense to the County to the lines and grades shown on the plans.

16. Existing topographic conditions shown on plan sheets reflect conditions as of March 17, 2016.

17. Special consideration should be given to access roads that do not provide a secondary access detour. These roads include: Vahalla Road south of Valencia, Iberia Avenue north of Valencia, Star Ridge Place, and Star Diamond Place.

18. For all milling or pulverizing activities, the roadway surface shall be kept sufficiently wet so as to prevent the generation of any visible fugitive dust particles but not so wet as to cause excess runoff from the roadway surface onto the roadway shoulder. All existing millings and/or pulverized asphalt shall remain on-site.

LENGTH OF PROJECT

Valencia Road
Sta 84+73.47 to Sta 235+25.00 = 15,051.53'
= 2.85 Miles

Vahalla Road
Sta 37+68.25 to Sta 53+84.26 = 1,616.01'
= 0.31 Mile

DESIGN DATA

Valencia Road
Min Design Speed = 50 MPH
Posted Speed = 45 MPH

Vahalla Road (South of Valencia)
Design Speed = 35 MPH
Posted Speed = 35 MPH

Vahalla Road (North of Valencia)
Min Design Speed = 30 MPH
Posted Speed = 25 MPH

AVERAGE ELEVATION

2456.60 ft.

REFERENCES

4RTVMW
086-A(210)T

MIDPOINT OF PROJECT

Central Zone
State Plane Coordinate System

X = 39093.97
Y = 13134.91

EARTHWORK FACTORS

Station	Shrink	Ground Compaction
Entire Project	20%	0.15'

EARTHWORK QUANTITIES (C.Y.)

Item No.	Item Description	TRMT 1 Geogrid	TRMT 2 Lime	TRMT 3 Select
9999921	**Roadway Excavation	32,752	6,068	32,752
	Shrink/Swell (20%)	-8,188	-1,518	-8,188
9999921	**Roadway Overexcavation and Removal	8,823	8,823	8,823
	Shrink/Swell (20%)	-2,206	-2,206	-2,206
2030401	Drainage Excavation	4,332	4,332	4,332
	Shrink/Swell (20%)	-1,083	-1,083	-1,083
	*Pipe Excavation	6,700	6,700	6,700
	Shrink/Swell (20%)	-1,675	-1,675	-1,675
	*Structural Excavation	12,409	12,409	12,409
	Shrink/Swell (20%)	-3,102	-3,102	-3,102
	*Structural Overexcavation and Removal	5,505	5,505	5,505
	Shrink/Swell (20%)	-1,376	-1,376	-1,376
2030401	Channel Excavation	4,570	4,570	4,570
	Shrink/Swell (20%)	-780	-780	-780
	*RipRap, Gabion, Slope Mattress Excavation	1,646	1,646	1,646
	Shrink/Swell (20%)	-412	-412	-412
	EXCAVATION SUBTOTAL	57,915	37,901	57,915
	*Embankment (Type 1 Material) (Incl. Ground Comp.)	52,159	125,537	52,159
	*Median Need (Type 1 Material)	3,881	0	3,881
	*Trench Backfill (Type 1 Material)	685	685	685
	*Dikes (Type 1 Material)	46	46	46
	*Berms (Type 1 Material)	670	670	670
	*Channel Embankment (Type 1 Material)	473	473	473
9999921	**BORROW (TYPE 1 MATERIAL)	0	89,511	0
	*Embankment (Type 2 Material)	117,818	17,800	17,800
	*Median Need (Type 2 Material)	8,572	12,453	8,572
9999921	**BORROW (TYPE 2 MATERIAL)	126,390	30,253	26,372
9999921	**SELECT SUBBASE	0	0	100,018
	*Structure Backfill (Import) (Paid as Part of Structures)	10,124	10,124	10,124
	*Pipe Backfill (Import) (Paid as Part of Pipes)	2,603	2,603	2,603

* Not a Pay Item - Included in Cost of Respective Items
** Included within the Lump Sum Cost for selected treatment option.

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DESIGN SHEET

Scales	Horiz. NA	Sheet DS1 of DS4	Page 2 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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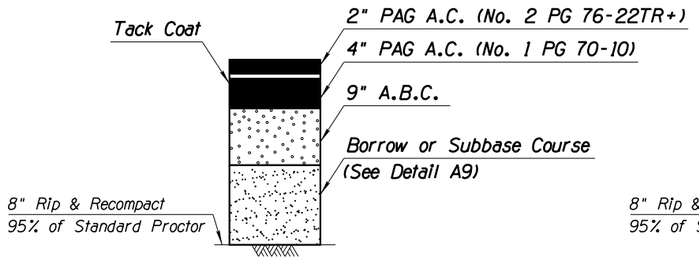
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

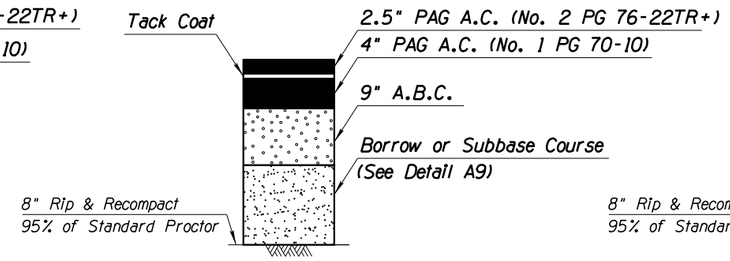


Total Pavement Thickness = 15"

SECTION NO. 1

Valencia Road

SR 86 to Reed Bunting Drive/Via Molino De Viento

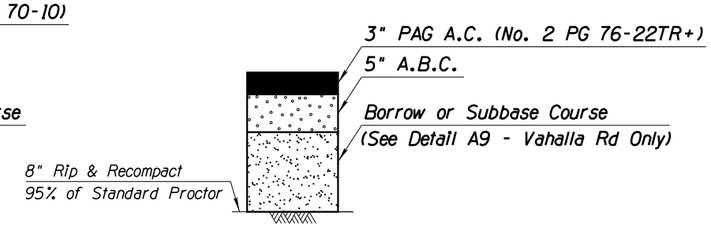


Total Pavement Thickness = 15.5"

SECTION NO. 2

Valencia Road

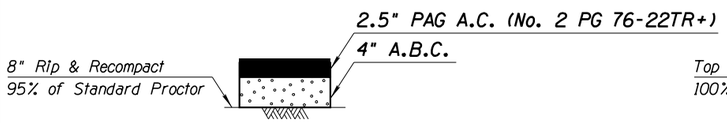
Reed Bunting Drive/Via Molino De Viento to Star Diamond



Total Pavement Thickness = 8"

SECTION NO. 3

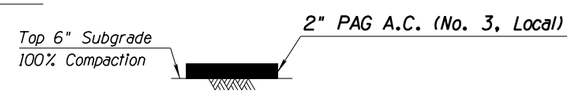
Vahalla Road and Iberia Avenue



Total Pavement Thickness = 6.5"

SECTION NO. 4

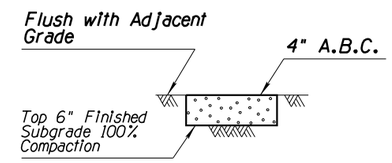
Paved Driveways & Local Roads



Total Pavement Thickness = 2"

SECTION NO. 5

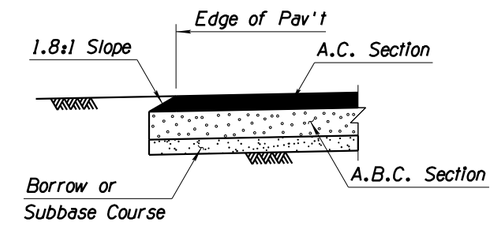
Multi-Use Path



Total Thickness = 4"

SECTION NO. 6

Unpaved Drainage Maintenance Driveways



A.C. Safety Edge Detail

*Safety Edge Not Needed when Rip Rap (Hand Placed) (Grouted) is placed adjacent to roadway near Sta ±179

UTILITY LINE LEGEND:

Existing	New	Utility
IR		Irrigation Utility
		Sanitary Sewer Utility
OHE — TRICO-CST-CL		Trico Overhead Electric (Tenants: Comcast, CenturyLink)
OHE — TRICO-CST		Trico Overhead Electric (Tenant: Comcast)
OHE — TRICO	OHE — TRICO	Trico Overhead Electric
OHE — TEP	OHE — TEP	TEP Overhead Electric
UG COMM — CST	UG COMM — CST	Underground Communications Comcast
UG COMM — CTL	UG COMM — CTL	Underground Communications CenturyLink
4" SWG — 4" SWG	4" SWG — 4" SWG	Southwest Gas
		Metro Water
		Tucson Water
		Guy Wire
		Air Relief Valve
		Corrosion Test Station
		Rectifier
		Drain Valve Assembly

ABBREVIATIONS NOT INCLUDED IN PAG STD. DTL. 101

Aluminum Cap on Pipe	A.C.P.	Intelligent Traffic System	ITS
Abandoned	Aband.	Median	Med.
Asphalt Rubber Asphaltic Concrete	ARAC	Point of Compound Curve	P.C.C.
Back Face	B.F.	Point Of End	P.O.E.
Back Station	Bck	Raised Pavement Marker	R.P.M.
Correction	Corr.	Shoulder	Shld.
Decomposed Granite	D.G.	Spiral Rib Pipe	S.R.P.
Detail	Dtl.	Standard	Std.
Drainage Easement	D.E.	Steel Pipe Arch	S.P.A.
Edge Of Pavement	E.P.	Stopping Sight Distance	SSD
Embankment	Emb.	Temporary Construction Easement	T.C.E.
Excavation	Exc.	Treatment	TRMT
Front Face	F.F.	Vertical Curve	V.C.
General Land Office	G.L.O.		

DESIGN SHEET

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DS2 of DS4	Page 3 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

GENERAL SEWER NOTES FOR UPC-2016-035

1. ALL DESIGN STANDARDS, MATERIALS AND WORKMANSHIP FOR PUBLIC SANITARY SEWERS SHALL BE IN ACCORDANCE WITH THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT (PCRWRD) ENGINEERING DESIGN STANDARDS 2016 (EDS 2016) AND THE STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION 2016 (SSDC 2016). SAID DOCUMENTS ARE AVAILABLE THROUGH THE PCRWRD WEBSITE (www.pima.gov/wastewaterreclamation).

2. THE CONTRACTOR SHALL CONTACT "ARIZONA 811" (DIAL 811 OR 1-800-782-5348) A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL KEEP ALL UNDERGROUND FACILITY LOCATION REQUESTS UP-TO-DATE AND COMPLY WITH ARIZONA REVISED STATUTES (A.R.S.), TITLE 40, CHAPTER 1, ARTICLE 6.3, SECTION 40-360.22. CONCERNS REGARDING THE ACCURACY BETWEEN THE UNDERGROUND FACILITY MARKINGS AND THE PROJECT PLANS SHALL BE IMMEDIATELY REPORTED TO THE DESIGN ENGINEER.

3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SANITARY SEWER MANHOLES AT ALL TIMES.

4. THE CONTRACTOR SHALL FIELD-VERIFY EXISTING SEWER LINE ELEVATIONS AND ALIGNMENTS PRIOR TO CONSTRUCTION. VERIFICATION MAY REQUIRE POT-HOLING.

5. ANY HOUSE CONNECTION SEWER (HCS) OR BUSINESS CONNECTION SEWER (BCS) LINES ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED, REPAIRED, OR REROUTED, AS THE SITUATION DICTATES, PER PCRWRD SSDC 2016 DETAIL NO. RWRD 400 AND AT NO EXPENSE TO THE PROPERTY OWNER OR PCRWRD. HCS AND BCS LINES ARE NOT OWNED OR MAINTAINED BY PCRWRD. PRIVATE CONNECTION SEWERS CONSTRUCTED PRIOR TO JANUARY 2006 ARE NOT REQUIRED TO BE LOCATED AND MARKED.

6. IMMEDIATELY REPORT ANY OF THE FOLLOWING TO THE PCRWRD OPERATIONS CONTROL CENTER (OCC) AT (520) 724-3400: ANY RELEASE OF SEWAGE, ANY DAMAGE TO THE PUBLIC SANITARY SEWER SYSTEM, OR THE DROPPING OF DEBRIS INTO A PUBLIC SANITARY SEWER MANHOLE. A PCRWRD REPRESENTATIVE WILL BE DISPATCHED TO THE SITE. THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CONTAIN A SANITARY SEWAGE OVERFLOW (SSO). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO REPAIR THE SYSTEM, MITIGATE THE RELEASE OF SEWAGE, DISINFECT THE RELEASE AREAS, AND ANY REGULATORY PENALTIES LEVIED ON PCRWRD FOR SEWAGE ENTERING A NATURAL DRAINAGE WAY OR STORM WATER DRAINAGE SYSTEM. THE CONTRACTOR SHALL REPAIR ALL DAMAGE AS DIRECTED AND APPROVED BY THE PCRWRD FIELD REPRESENTATIVE.

7. MODIFICATION TO OR ADJUSTMENT OF EXISTING PIMA COUNTY SEWER FACILITIES SHALL NOT COMMENCE UNTIL: (A) THE CONTRACTOR HAS OBTAINED A PCRWRD PUBLIC SEWER CONSTRUCTION PERMIT (CONTACT THE PCRWRD PERMITS SECTION AT (520) 724-6649 FOR PERMIT APPLICATION REQUIREMENTS); (B) THE CONTRACTOR'S FLOW MANAGEMENT PLAN HAS BEEN SUBMITTED THIRTY (30) CALENDAR DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING AND APPROVED BY PCRWRD FIELD ENGINEERING; AND (C) A PRE-CONSTRUCTION MEETING WITH THE ASSIGNED PIMA COUNTY PROJECT FIELD INSPECTOR IS SCHEDULED AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO COMMENCING WITH SEWER CONSTRUCTION.

8. THE CONTRACTOR SHALL ADJUST OR RECONSTRUCT ALL SANITARY SEWER MANHOLES TO FINISHED GRADE. ALL FRAMES AND COVER ADJUSTMENTS SHALL BE IN ACCORDANCE WITH PCRWRD SSDC 2016, DETAIL NOS. RWRD 211, 212, 304 OR 305 (AS APPLICABLE). THE CONTRACTOR SHALL PROTECT THE BENCH AND FLOW CHANNELS WITH A COVER PER PCRWRD SSDC 2016, DETAIL NO. RWRD 306. PRIOR TO COMMENCING ANY WORK TO THE MANHOLE AND REMOVE THE COVER AFTER ALL WORK IS COMPLETED. THE CONTRACTOR SHALL ENSURE THAT FRAMES AND COVERS ARE CLEAN AND FREE FROM ANY AND ALL ATTACHED MATERIALS (ASPHALT, CONCRETE, ETC.) AND THAT ALL VENT HOLES ARE OPEN AND CLEAR OF OBSTRUCTIONS, AS APPROVED BY THE PCRWRD FIELD ENGINEER. EXISTING FRAMES AND/OR COVERS THAT ARE DAMAGED OR CANNOT BE COMPLETELY CLEANED SHALL BE REPLACED WITH A NEW FRAME AND COVER IN ACCORDANCE WITH PCRWRD SSDC 2016, DETAIL NO. RWRD 213 - 218. COSTS ASSOCIATED WITH EXISTING FRAMES AND COVERS THAT ARE LOST OR DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

9. THE CONTRACTOR SHALL SUBMIT A FLOW MANAGEMENT PLAN (FMP) TO PCRWRD FIELD ENGINEERING FOR APPROVAL BEFORE PROCEEDING WITH ANY WORK THAT MAY AFFECT LIVE SEWERS. THE FMP SHALL IDENTIFY AND INCLUDE ALL FLOW MANAGEMENT COSTS IN THE CONSTRUCTION BID. THE FMP SHALL BE SUBMITTED THIRTY (30) CALENDAR DAYS PRIOR TO THE SEWER PRE-CONSTRUCTION MEETING. FIELD ENGINEERING WILL REVIEW THE FMP WITHIN TEN (10) BUSINESS DAYS TO ACCOMMODATE REVIEW AND REVISION CYCLES. REFER TO PCRWRD SSDC 2016, SECTION 2 FOR FMP REQUIREMENTS. PLEASE CONTACT PCRWRD FIELD ENGINEERING AT (520) 724-2651 FOR ANY QUESTIONS REGARDING FLOW MANAGEMENT.

10. ALL LANDSCAPING LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF THE PUBLIC SANITARY SEWER AND MANHOLES AND/OR WITHIN THE PUBLIC SEWER EASEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE PLANTING GUIDELINES CONTAINED WITHIN PCRWRD ENGINEERING DESIGN STANDARDS 2016, SECTION 7.7.

GENERAL SEWER NOTES - CONT'D

11. ALL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES SHALL BE INSTALLED TO PREVENT ALL STORM WATER, CONSTRUCTION WATER, FUELS, CHEMICALS, LIQUIDS, OR OTHER CONTAMINANTS, FROM BEING DIRECTED INTO OR ONTO ANY SANITARY SEWER FACILITIES. PROTECTION OF SANITARY SEWER FACILITIES SHALL BE A PART OF THE APPROVED CONSTRUCTION SWPPP AND BEST MANAGEMENT PRACTICES. PROTECTION DEVICES SHALL BE INSTALLED AND MAINTAINED AROUND ALL POTENTIALLY AFFECTED SANITARY SEWER FACILITIES WITHIN THE PROJECT LIMITS. ADDITIONAL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE USE OF RAIN STOPPERS AND MANHOLE COVERS AS DEEMED NECESSARY BY PCRWRD.

12. PRIOR TO THE PRECONSTRUCTION MEETING WITH PCRWRD, THE CONTRACTOR SHALL IDENTIFY ALL EXISTING SANITARY SEWER MANHOLE COVERS HAVING FOREIGN MATERIALS ATTACHED. FOREIGN MATERIALS SHALL BE REMOVED FROM THE EXISTING MANHOLE COVERS REGARDLESS OF EXISTING OR NEW CONDITIONS. IF BUILD-UP IS TOO HEAVY TO BE REMOVED, THE CONTRACTOR SHALL REPLACE THE MANHOLE FRAME AND COVER AND SALVAGED ITEMS SHALL BE DELIVERED TO PIMA COUNTY CONVEYANCE AT 3355 N. DODGE BLVD., TUCSON, AZ. THE CONTRACTOR SHALL COORDINATE WITH THE PCRWRD INSPECTOR TO SCHEDULE A TIME TO DELIVER THE SALVAGED FRAMES AND COVERS. AFTER THE COMPLETION OF PAVEMENT WORK, THE CONTRACTOR SHALL VERIFY THAT ALL SANITARY SEWER MANHOLE COVERS AND PICK HOLES ARE CLEAN AND FREE OF ANY CONSTRUCTION MATERIALS, DEBRIS, AND/OR OBSTRUCTIONS.

13. ANY WORK INSIDE OR AROUND AN EXISTING SANITARY SEWER MANHOLE, INCLUDING MANHOLES THAT ARE LOCATED WITHIN THE ROUGH GRADING LIMITS FOR A PROJECT, SHALL BE PROTECTED FROM FALLING DEBRIS BY INSTALLING A TEMPORARY FLOW CHANNEL COVER PER PCRWRD STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, STANDARD DETAIL RWRD-306. THE CONTRACTOR SHALL REMOVE ANY DEBRIS THAT ENTERS A MANHOLE DURING CONSTRUCTION. FAILURE BY THE CONTRACTOR TO PROMPTLY REMOVE DEBRIS FROM A MANHOLE SHALL RESULT IN PCRWRD TAKING CORRECTIVE ACTION THAT WILL THEN BE BILLED TO THE CONTRACTOR.

GENERAL SEWER NOTES

Contact Arizona 811 at least two full working days before you begin excavation
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Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DS3 of DS4	Page 4 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

GENERAL SEWER NOTES - CONT'D

M.H.I.D.	Location	Station / Offset	Existing Rim Elevation	Proposed Rim Elevation	Elevation Difference	Conc Collar - RWRD-211 ITEM #5090020	Conc Collar - RWRD-212 ITEM #5090020	Watertight Frame & Cover RWRD-214 ITEM #5090202	Reconstruct M.H. - ITEM #5090100 (FT)	Adjust M.H. - ITEM #5090110	Diameter	Concrete / Brick	Notes:
2594-10	Valencia Rd. at Reed Bunting Dr.	Sta. 153+57.5, 73.2' Lt	2455.43	2456.93	1.5	1			5.5		4-ft	Concrete	Reconstruct
3862-06	Valencia Rd. at Reed Bunting Dr.	Sta. 153+59.6, 84.5' Rt	2456.84	2456.88	0.04	1		1		1	4-ft	Concrete	Adjust
3862-05	E. of Reed Bunting Dr.	Sta. 154+43.8, 85.6' Rt	2457.72	-	N/A						4-ft	Concrete	Protect-in-place
3862-19	Valencia Rd. at Via Diego De Rivera	Sta. 159+28, 108.6' Rt	2457.13	2457.08	-0.05	1		1		1	4-ft	Concrete	Adjust
3862-04	Valencia Rd. at Via Diego De Rivera	Sta. 159+39.6, 83.7' Rt	2456.93	2457.86	0.93	1			5.5		4-ft	Concrete	Reconstruct
3862-03	E. of Via Diego De Rivera	Sta. 162+46.1, 89.8' Rt	2459.32	-	N/A						4-ft	Concrete	Protect-in-place
3863-01	Valencia Rd. at Giuliani Ave.	Sta. 164+62.1, 92.8' Rt	2458.91	2458.94	0.03	1				1	4-ft	Concrete	Adjust
3862-02	E. of Giuliani Ave.	Sta. 167+35.0, 96.6' Rt	2460.34	-	N/A						4-ft	Concrete	Protect-in-place
3863-17	Valencia Rd. at De Concini Dr.	Sta. 169+60.3, 97.3 Rt	2461.62	2462.21	0.59	1				1	4-ft	Concrete	Adjust
3862-01	E. of De Concini Dr.	Sta. 172+46.08, 97.6' Rt	2463.15	-	N/A						4-ft	Concrete	Protect-in-place
3779-09	Valencia Rd. at Mountain Eagle Dr.	Sta. 173+70.2, 45.5' Lt	2462.16	2466.46	4.3	1			9.5		4-ft	Concrete	Reconstruct
3779-34	Valencia Rd. at Eagles Talon Pw.	Sta. 192+25.0, 49.1' Lt	2466.44	2468.91	2.47	1			7.5		4-ft	Concrete	Reconstruct
3489-03	E. of Vahalla Rd	Sta. 204+44.2, 113.3' Rt	2471.43	-	N/A							Concrete	Outside project limits
3489-02	E. of Vahalla Rd	Sta. 204+53.9, 97.4' Rt	2471.2	-	N/A							Concrete	Outside project limits
3489-01	E. of Vahalla Rd	Sta. 207+41.3, 94.3' Rt	2471.5	-	N/A							Concrete	Outside project limits
7276-05	S. of Valencia R/W, at Placita Naranja	Sta. 210+41.2, 89.0' Rt	2472.54	-	N/A							Brick	Outside project limits
7276-01	S. of Valencia R/W, W. of Diablo Dr.	Sta. 212+60.9, 84.8' Rt	2473.98	-	N/A							Brick	Outside project limits
7276-02	S. of Valencia R/W, at Diablo Dr.	Sta. 213+09.1, 83.4' Rt	2473.95	-	N/A							Brick	Outside project limits
5458-01	Valencia R/W, W. of Diablo Dr.	Sta. 212+57.1, 40.6' Rt	2473.78	2475.17	1.39		1			1	4-ft	Brick	Adjust
5471-01	Valencia R/W, W. of Diablo Dr.	Sta. 212+69.3, 49.98' Rt	2474.31	2475.02	0.71	1			6		4-ft	Concrete	Reconstruct
5458-02	Valencia R/W, E. of Diablo Dr.	Sta. 214+27.9, 40.2' Rt	2475	2475.66	0.66		1			1	4-ft	Concrete	Adjust
5471-02	Valencia R/W, E. of Diablo Dr.	Sta. 214+34.8, 45.1' Rt	2475.22	2475.58	0.36	1			7		4-ft	Concrete	Reconstruct
2902-01	N. Side Valencia, W. of Diablo Dr.	Sta. 212+56.1, 45.2' Lt	2472.79	2474.68	1.89		1		5		4-ft	Concrete	Reconstruct
5471-03	Valencia Rd. at Iberia Ave.	Sta. 218+92.7, 47.8' Rt	2476.17	2477.01	0.84	1		1	6		4-ft	Concrete	Reconstruct
5471-04	Between Iberia Ave. & Victor Dr.	Sta. 222+71.9, 47.2' Rt	2477.19	2478.92	1.73	1			7		4-ft	Concrete	Reconstruct
5471-05	Valencia Rd. at Victor Dr.	Sta. 226+57.5, 45.03' Rt	2478.95	2480.85	1.9	1			7		4-ft	Concrete	Reconstruct
4075-01	Valencia Rd. at Star Ridge Pl.	Sta. 230+07.9, 44.9' Rt	2480	2482.4	2.4	1			7.5		4-ft	Concrete	Reconstruct
5471-06	Valencia Rd. E. of Star Ridge Pl.	Sta. 231+28.6, 46.4' Rt	2481.21	2482.87	1.66	1			5.5		4-ft	Concrete	Reconstruct
4075-14	Valencia Road at Star Diamond	Sta. 235+08.05, 45.15' Rt	2482.57	2482.57	0	1				1	4-ft	Concrete	Adjust
					Total	16	3	3	79	7			

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

GENERAL SEWER NOTES

Contact Arizona 811 at least two full working days before you begin excavation
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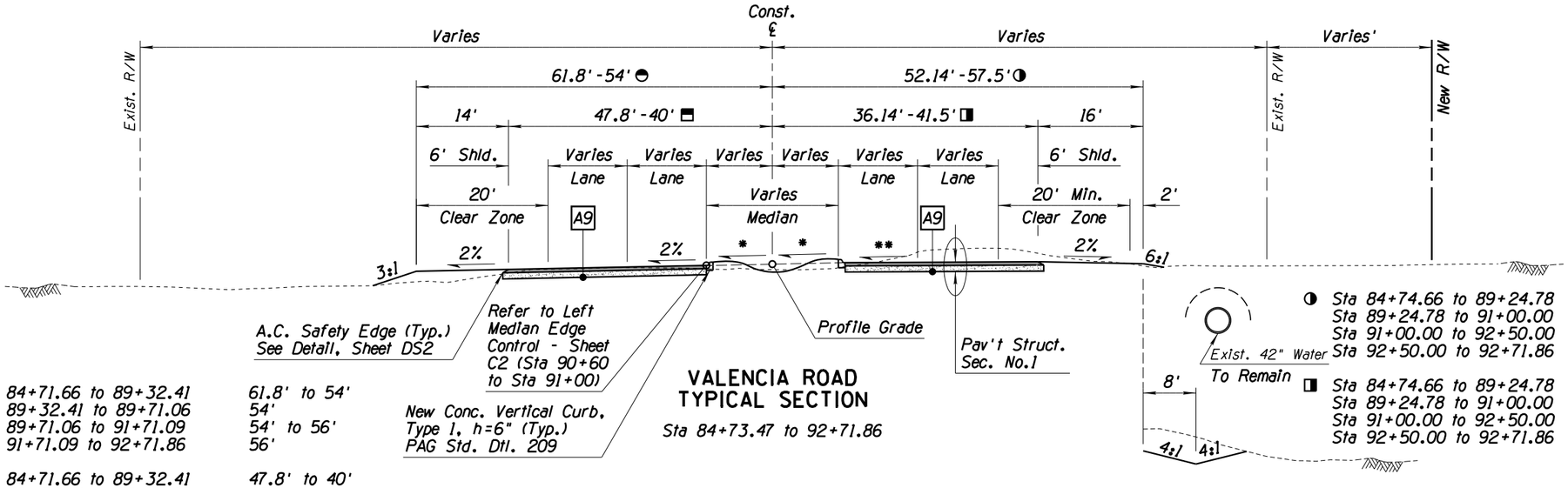
Scales	Horiz. NA	Sheet DS4 of DS4	Page 5 of 433
	Vert. NA		



VALENCIA ROAD TYPICAL SECTION

Sta 84+73.47 to 92+71.86

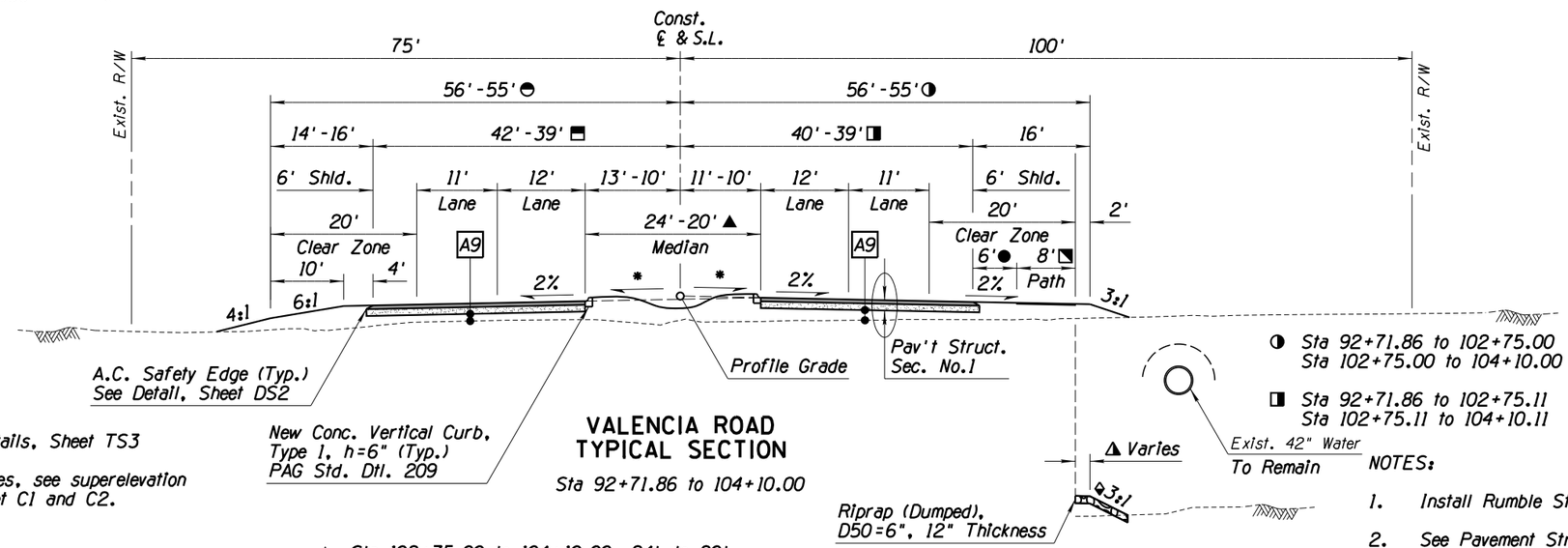
◓ Sta 84+71.66 to 89+32.41 61.8' to 54'
Sta 89+32.41 to 89+71.06 54'
Sta 89+71.06 to 91+71.09 54' to 56'
Sta 91+71.09 to 92+71.86 56'

⬒ Sta 84+71.66 to 89+32.41 47.8' to 40'
Sta 89+32.41 to 89+71.06 40'
Sta 89+71.06 to 91+71.09 40' to 42'
Sta 91+71.09 to 92+71.86 42'

◑ Sta 84+74.66 to 89+24.78 52.14' to 57.5'
Sta 89+24.78 to 91+00.00 57.5'
Sta 91+00.00 to 92+50.00 57.5' to 56'
Sta 92+50.00 to 92+71.86 56'

◨ Sta 84+74.66 to 89+24.78 36.14' to 41.5'
Sta 89+24.78 to 91+00.00 41.5'
Sta 91+00.00 to 92+50.00 41.5' to 40'
Sta 92+50.00 to 92+71.86 40'

Sta 86+28.61 to 90+15.00



VALENCIA ROAD TYPICAL SECTION

Sta 92+71.86 to 104+10.00

◑ Sta 92+71.86 to 102+75.00 56'
Sta 102+75.00 to 104+10.00 56' to 55'

◨ Sta 92+71.86 to 102+75.11 40'
Sta 102+75.11 to 104+10.11 40' to 39'

* See Median Details, Sheet TS3

** For cross slopes, see superelevation diagrams, Sheet C1 and C2.

◓ Sta 92+71.86 to 102+75.00 56'
Sta 102+75.00 to 104+10.00 56' to 55'

⬒ Sta 92+71.86 to 102+75.32 42'
Sta 102+75.32 to 104+10.32 42' to 39'

▲ Sta 102+75.00 to 104+10.00, 24' to 20'
8' Pathway Begins at Sta 95+60.00.
◥ Pathway Pavement widens when drainage crossing is present per Sheets GC1 - GC10

● When Drainage Crossing is present, buffer is 5' to allow for headwall. Buffer is 6' in all other locations, unless otherwise shown.

◆ Sta 92+90.00 to 93+00.00 3:1 to 2:1
Sta 93+00.00 to 93+35.00 2:1
Sta 93+35.00 to 93+45.00 2:1 to 3:1

◭ Sta 92+90.00 to 93+00.00 2' to 0'
Sta 93+00.00 to 93+35.00 0'
Sta 93+35.00 to 93+45.00 0' to 2'

NOTES:

1. Install Rumble Strips per Detail A7.
2. See Pavement Structural Section No. 5 for pathway.

A9 See Detail A9 for Borrow or Subbase Treatment Options

Contact Arizona 811 at least two full working days before you begin excavation
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TYPICAL SECTIONS

Scales	Horiz. NA	Sheet TS1 of TS5	Page 6 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Tapia	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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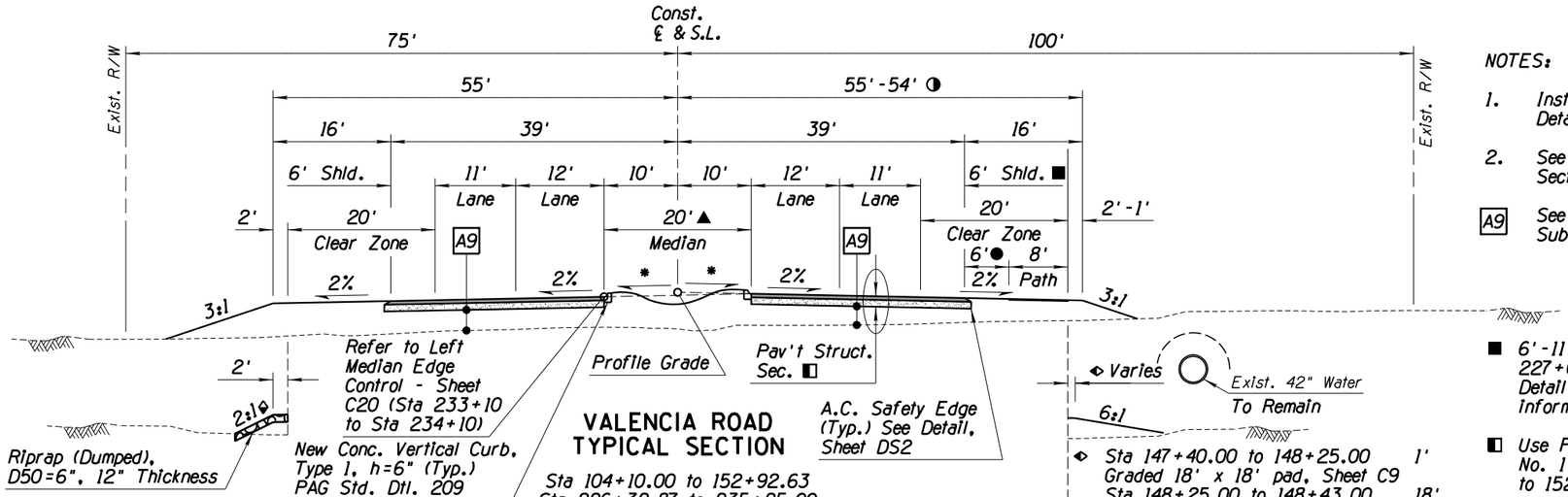


VALENCIA ROAD TYPICAL SECTION

Sta 104+10.00 to 152+92.63
Sta 226+32.87 to 235+25.00

◆ Slope Exception: Do not disturb preservation fencing.
Sta 118+55.00 to 118+60.00 3:1 to 2:1
Sta 118+60.00 to 118+70.00 2:1
Sta 118+70.00 to 118+75.00 2:1 to 3:1

▲ See Sheets GC1 - GC20 for Median openings and turn lanes.

* See Median Details, Sheet TS3

● When Drainage Crossing is present, buffer is 5' to allow for headwall. Buffer is 6' in all other locations, unless otherwise shown. See Sheets GC1-GC20 for Edge Control of Path

◑ Sta 104+10.00 to 147+40.00 55'
Sta 147+40.00 to 152+92.63 54'
Sta 226+32.87 to 235+25.00 54'

◆ Sta 147+40.00 to 148+25.00 1'
Graded 18' x 18' pad, Sheet C9
Sta 148+25.00 to 148+43.00 18'
Sta 148+43.00 to 152+92.63 1'
Sta 226+32.87 to 231+73.33 1'
Graded Dike, Sheet C20
Sta 231+73.33 to 231+83.33 18'
Sta 231+83.33 to 232+60.00 18' to 1'
Sta 232+60.00 to 235+25.00 1'

Δ Right Turn Embankment (No Paving)
Sta 106+73.83 to 108+54.22 2' to 14'
Sta 108+54.22 to 111+00.05 14'
Sta 111+00.05 to 111+36.01 14' to 2'
Sta 126+60.52 to 128+40.52 2' to 14'
Sta 128+40.52 to 130+86.36 14'
Sta 130+86.36 to 131+22.36 14' to 2'

NOTES:

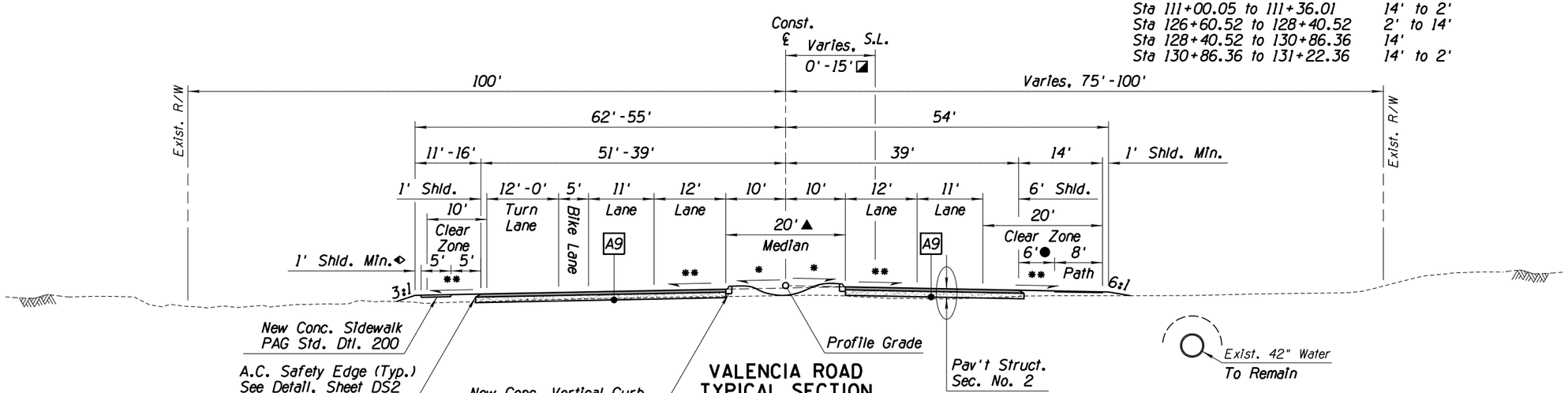
1. Install Rumble Strips per Detail A7.
2. See Pavement Structural Section No. 5 for pathway.

A9 See Detail A9 for Borrow or Subbase Treatment Options

■ 6'-11' Shoulder from Sta 227+00.47 to 227+42.47. See Detail A1 on Sheet DT1 for more information.

◧ Use Pavement Structural Section No. 1 between Sta 104+10.00 to 152+92.63

Use Pavement Structural Section No. 2 between Sta 226+32.87 to 235+25.00



VALENCIA ROAD TYPICAL SECTION

Sta 152+92.63 to 157+14.70
Sta 164+16.81 to 168+57.13
Sta 173+08.15 to 177+28.67
Sta 191+79.73 to 195+48.52
Sta 199+14.89 to 203+82.91
Sta 218+64.72 to 223+19.62

* See Median Details, Sheet TS3

◆ Graded 18' x 18' pad, Sheet C11
Sta 165+82.00 to 166+00.00 18'

** For cross slopes, see superelevation diagrams, Sheet C16.

▲ See Sheets GC1 - GC20 for Median openings and turn lanes.

● When Drainage Crossing is present, buffer is 5' to allow for headwall. Buffer is 6' in all other locations, unless otherwise shown.
Sta 165+52.81 to 165+82.81 5' to 15'
Sta 165+82.81 to 165+99.19 15'
Sta 165+99.19 to 166+29.19 15' to 5'

◪ See GC Sheets for Section Line

TYPICAL SECTIONS

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Scales	Horiz. NA	Sheet TS2 of TS5	Page 7 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Tapia	01/2018
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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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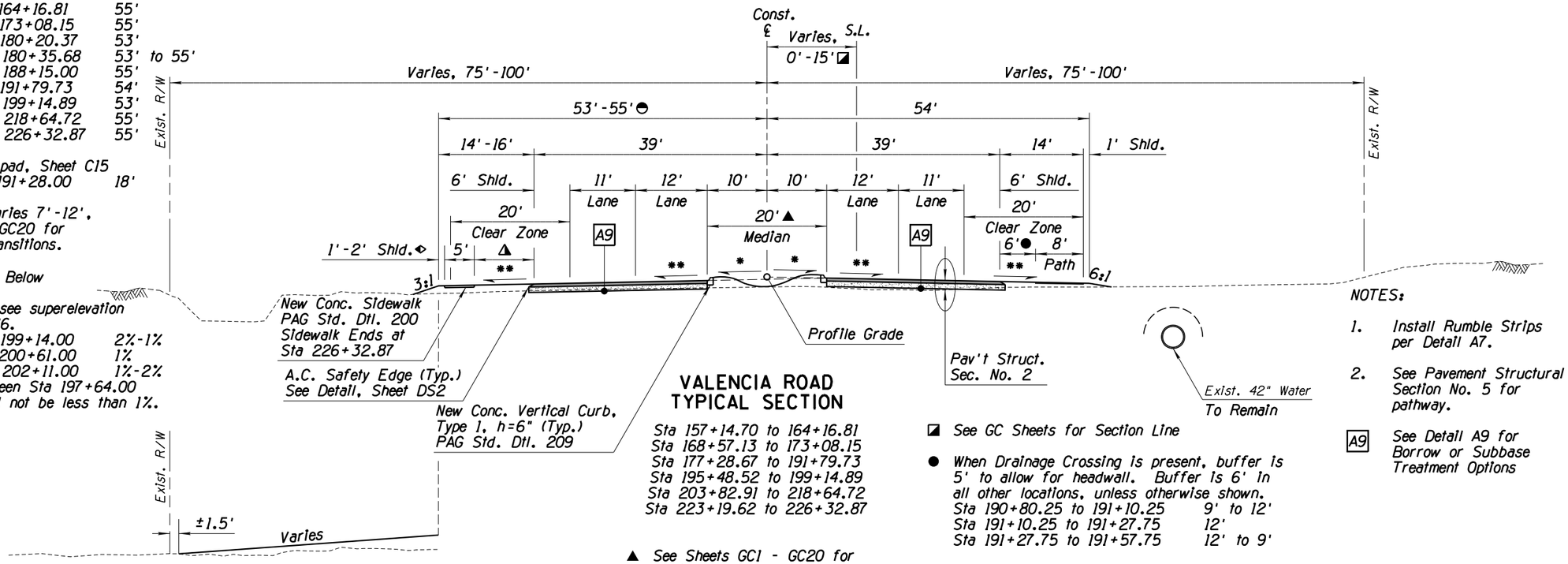
◓ Sta 157+14.70 to 164+16.81 55'
Sta 168+57.13 to 173+08.15 55'
Sta 177+28.67 to 180+20.37 53'
Sta 180+20.37 to 180+35.68 53' to 55'
Sta 180+35.68 to 188+15.00 55'
Sta 188+15.00 to 191+79.73 54'
Sta 195+48.52 to 199+14.89 53'
Sta 203+82.91 to 218+64.72 55'
Sta 223+19.62 to 226+32.87 55'

◇ Graded 18' x 18' pad, Sheet C15
Sta 191+10.00 to 191+28.00 18'

△ Sidewalk Buffer varies 7'-12', See Sheets GC1 - GC20 for sidewalk buffer transitions.

* See Median Details Below

** For cross slopes, see superelevation diagrams, Sheet C16.
Sta 197+64.00 to 199+14.00 2%-1%
Sta 199+14.00 to 200+61.00 1%
Sta 200+61.00 to 202+11.00 1%-2%
The crosslope between Sta 197+64.00 to 202+11.00 shall not be less than 1%.



VALENCIA ROAD TYPICAL SECTION

Sta 157+14.70 to 164+16.81
Sta 168+57.13 to 173+08.15
Sta 177+28.67 to 191+79.73
Sta 195+48.52 to 199+14.89
Sta 203+82.91 to 218+64.72
Sta 223+19.62 to 226+32.87

◪ See GC Sheets for Section Line

● When Drainage Crossing is present, buffer is 5' to allow for headwall. Buffer is 6' in all other locations, unless otherwise shown.
Sta 190+80.25 to 191+10.25 9' to 12'
Sta 191+10.25 to 191+27.75 12'
Sta 191+27.75 to 191+57.75 12' to 9'

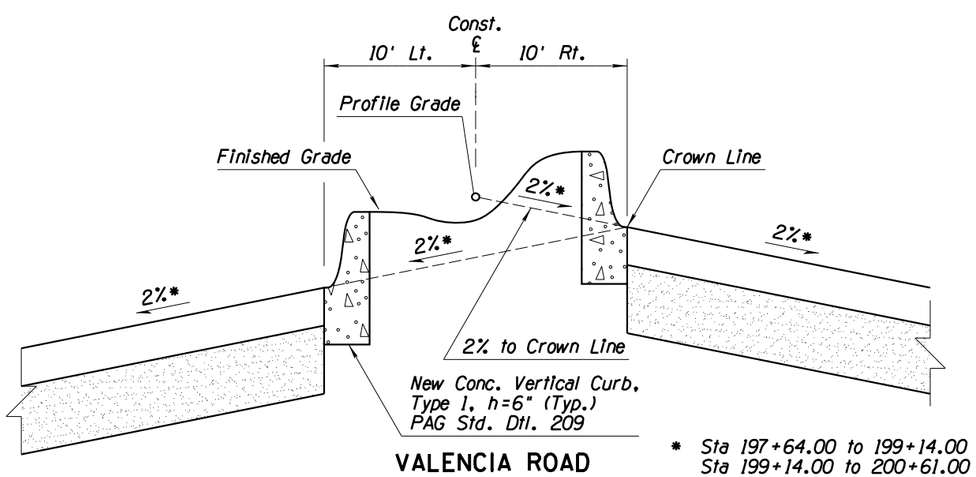
▲ See Sheets GC1 - GC20 for Median openings and turn lanes.

Sta 193+27 to 194+57
Sta 194+89 to 198+12
Re-grade eroded areas to remove rills.
This work is incidental to Item #9999921.
See Sheets C15 & C16.

NOTES:

1. Install Rumble Strips per Detail A7.
2. See Pavement Structural Section No. 5 for pathway.

A9 See Detail A9 for Borrow or Subbase Treatment Options

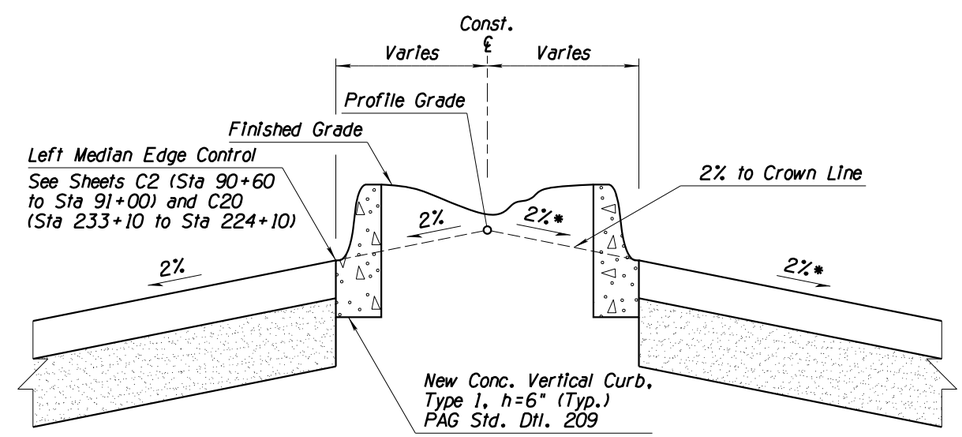


VALENCIA ROAD

Profile Grade Control

Sta 91+00.00 to 233+10.00

* Sta 197+64.00 to 199+14.00 2%-1%
Sta 199+14.00 to 200+61.00 1%
Sta 200+61.00 to 202+11.00 1%-2%
The crosslope between Sta 197+64.00 to 202+11.00 shall not be less than 1%.



VALENCIA ROAD

Profile Grade Control & Left Median Edge Control

Sta 84+73.47 to 90+60.00
Sta 224+10.00 to 235+25.00

* See Super Elevation Diagram on Sheets C1 and C2 for slopes

TYPICAL SECTIONS

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Scales	Horiz. NA / Vert. NA	Sheet TS3 of TS5	Page 8 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
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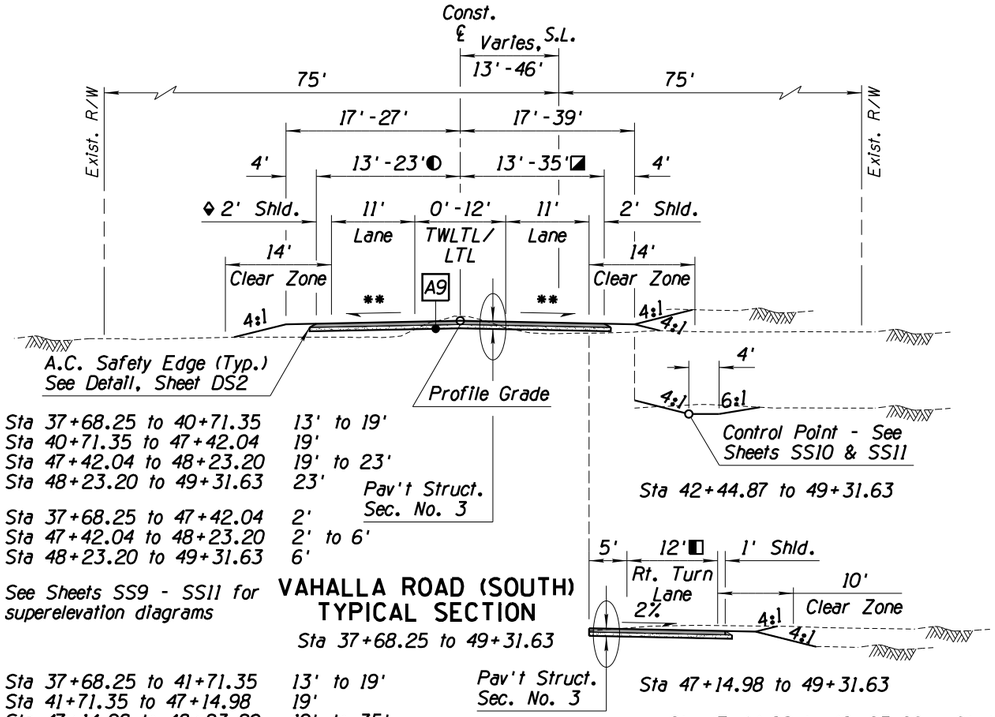


◐ Sta 37+68.25 to 40+71.35 13' to 19'
Sta 40+71.35 to 47+42.04 19'
Sta 47+42.04 to 48+23.20 19' to 23'
Sta 48+23.20 to 49+31.63 23'

◆ Sta 37+68.25 to 47+42.04 2'
Sta 47+42.04 to 48+23.20 2' to 6'
Sta 48+23.20 to 49+31.63 6'

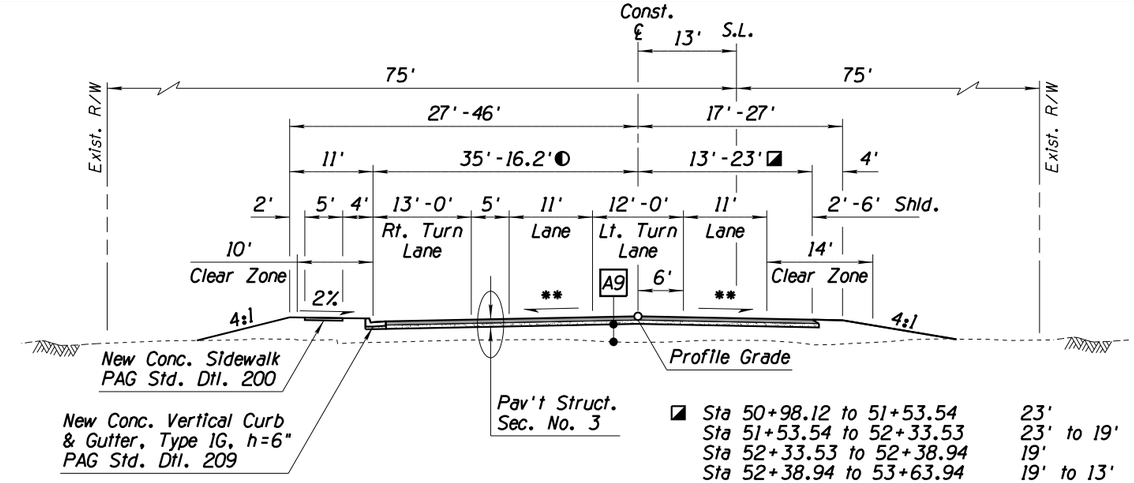
** See Sheets SS9 - SS11 for superelevation diagrams

◪ Sta 37+68.25 to 41+71.35 13' to 19'
Sta 41+71.35 to 47+14.98 19'
Sta 47+14.98 to 48+23.20 19' to 35'
Sta 48+23.20 to 49+31.63 35'

◧ Sta 47+14.98 to 48+23.20 0' to 12'
Sta 48+23.20 to 49+31.63 12'

VAHALLA ROAD (SOUTH) TYPICAL SECTION

Sta 37+68.25 to 49+31.63



◪ Sta 50+98.12 to 51+53.54 23'
Sta 51+53.54 to 52+33.53 23' to 19'
Sta 52+33.53 to 52+38.94 19'
Sta 52+38.94 to 53+63.94 19' to 13'
Sta 53+63.94 to 53+84.26 13'

◐ Sta 50+94.91 to 52+38.63 35'
Sta 52+38.63 to 53+74.20 35' to 17.06'
Sta 53+74.20 to 53+84.25 17.06' to 16.20'

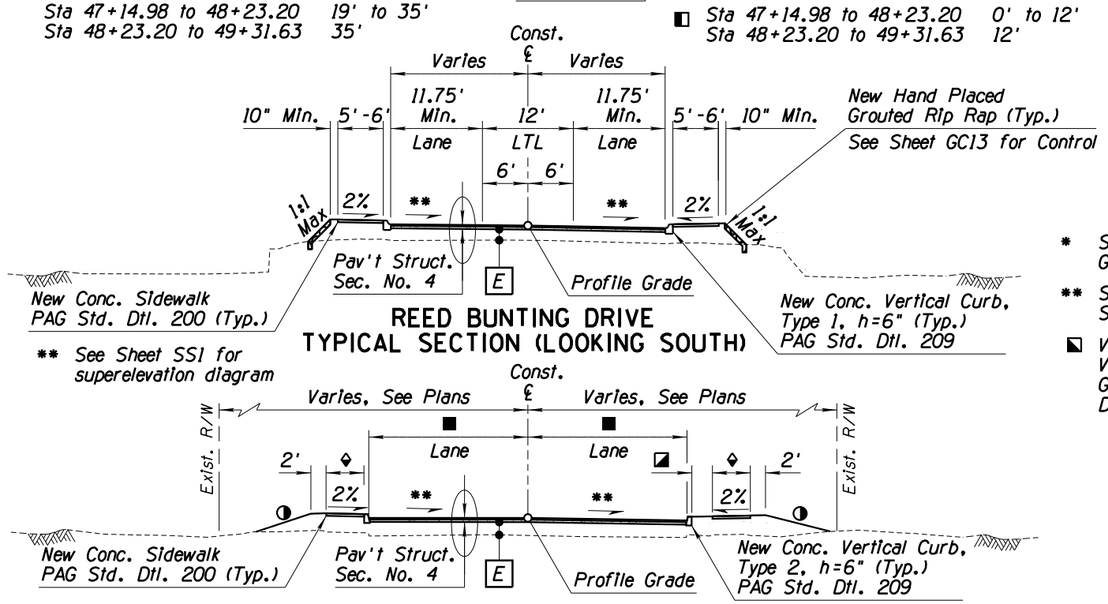
VAHALLA ROAD (NORTH) TYPICAL SECTION

Sta 50+94.91 to 53+84.26

NOTES:

A9 See Detail A9 for Borrow or Subbase Treatment Options

E All earthwork and grading items of work are included in Item #9999921 Lump Sum Earthwork.



REED BUNTING DRIVE TYPICAL SECTION (LOOKING SOUTH)

** See Sheet SS1 for superelevation diagram

BULLFINCH DRIVE, MOUNTAIN EAGLE DRIVE, & EAGLES TALON PARKWAY (LOOKING SOUTH) TYPICAL SECTION

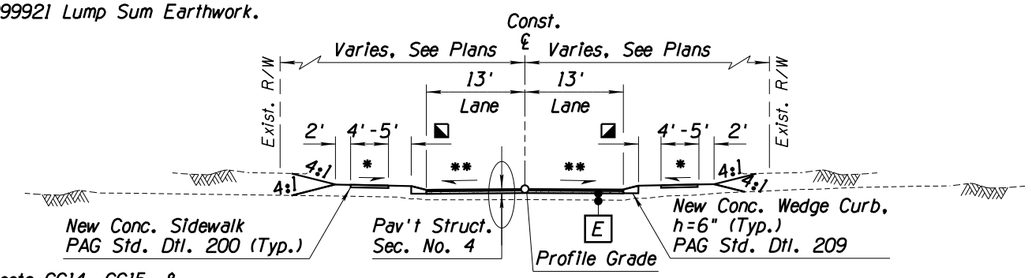
◆ Bullfinch Drive 4'
Mountain Eagle Drive 5'
Eagles Talon Parkway 5'

◐ Bullfinch Drive 4:1
Mountain Eagle Drive 3:1
Eagles Talon Parkway 3:1

** See Sheets SS5, SS7, & SS8 for superelevation diagram

■ Bullfinch Drive 19.5'
Mountain Eagle Drive 21'
Eagles Talon Parkway 15'

◪ Bullfinch Drive 0'
Mountain Eagle Drive 2.75'
Eagles Talon Parkway 0'



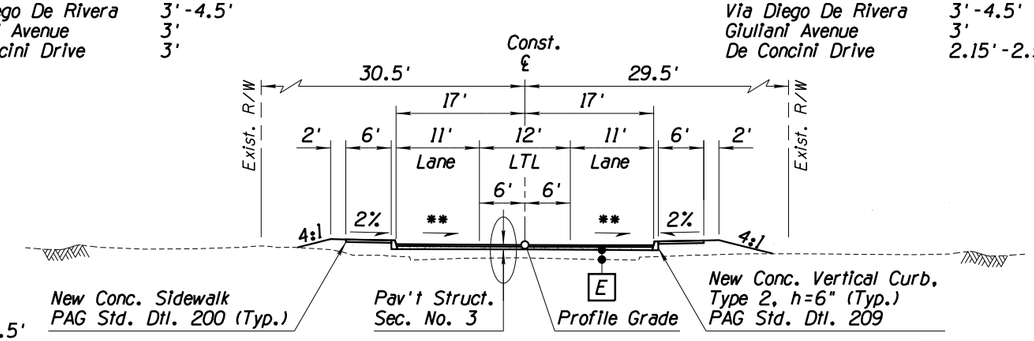
* See Sheets GC14, GC15, & GC16 for sidewalk slope

** See Sheets SS2, SS3, SS4, & SS6 for superelevation diagram

◪ Via Molino De Viento 3.125'
Via Diego De Rivera 3'-4.5'
Giuliani Avenue 3'
De Concini Drive 3'

VIA MOLINO DE VIENTO, VIA DIEGO DE RIVERA GIULIANI AVENUE, & DE CONCINI DRIVE TYPICAL SECTION (LOOKING SOUTH)

◪ Via Molino De Viento 3'
Via Diego De Rivera 3'-4.5'
Giuliani Avenue 3'
De Concini Drive 2.15'-2.5'



IBERIA AVENUE NORTHERN SECTION (LOOKING SOUTH) TYPICAL SECTION

** See Sheet SS12 for superelevation diagram

TYPICAL SECTIONS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet TS4 of TS5	Page 9 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director
Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Tapia	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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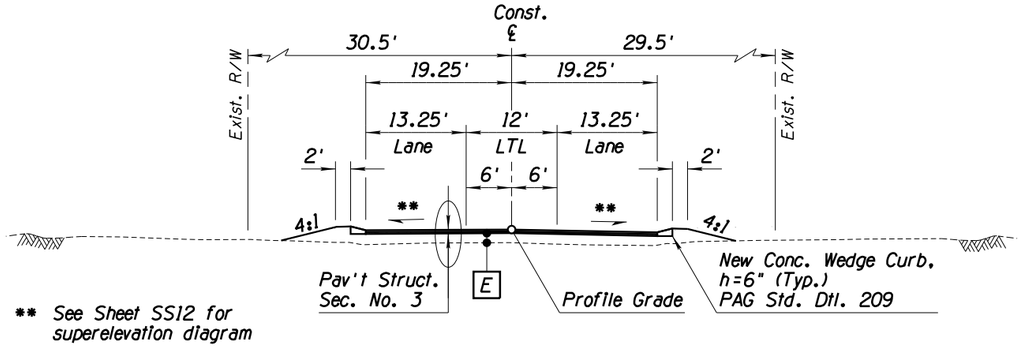
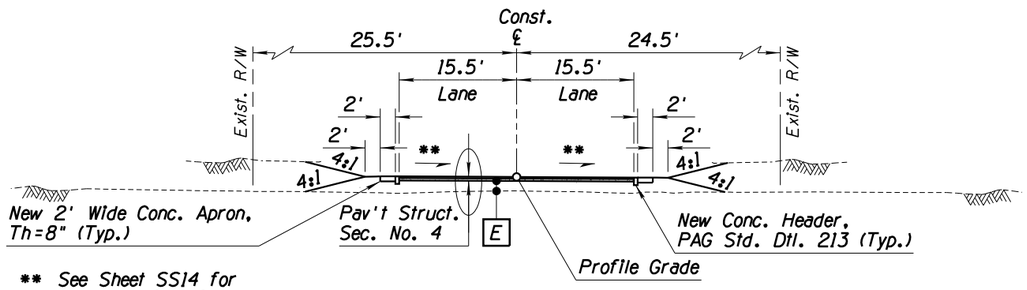
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE



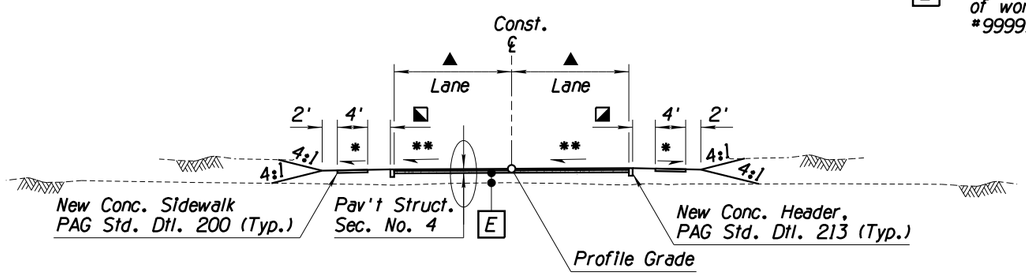
** See Sheet SS12 for superelevation diagram

IBERIA AVENUE SOUTHERN SECTION (LOOKING SOUTH) TYPICAL SECTION



** See Sheet SS14 for superelevation diagram

STAR RIDGE PLACE TYPICAL SECTION (LOOKING SOUTH)



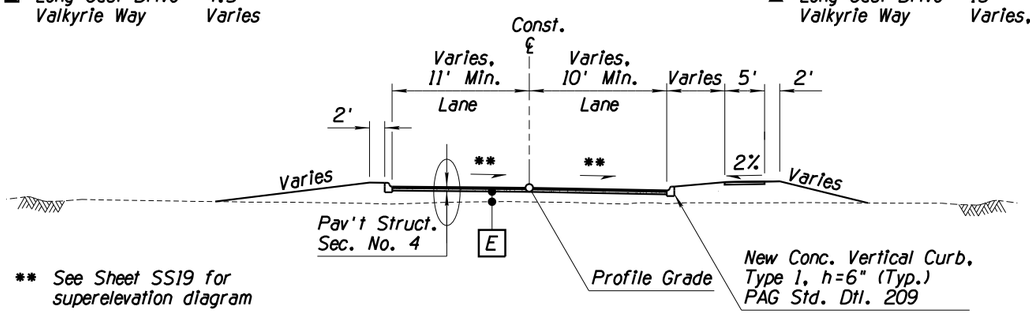
** See Sheets SS16 & SS22 for superelevation diagram

◪ Long Cast Drive 4.5'
Valkyrie Way Varies

◪ Long Cast Drive 4.5'
Valkyrie Way Varies

▲ Long Cast Drive 13'
Valkyrie Way Varies, 12' Min.

LONG CAST DRIVE & VALKYRIE WAY TYPICAL SECTION (LOOKING EAST)

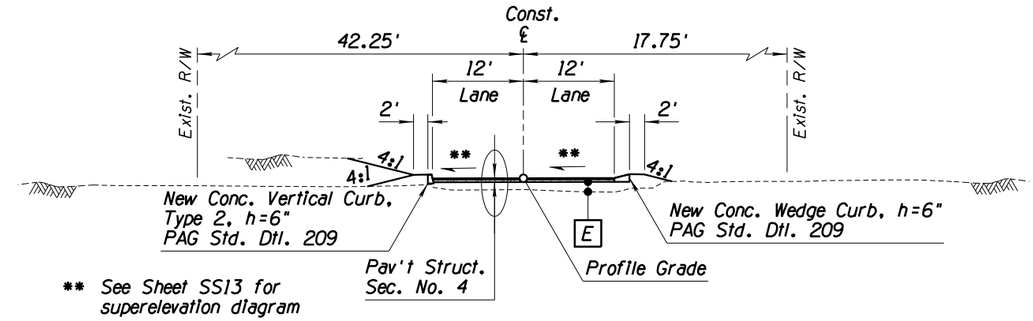


** See Sheet SS19 for superelevation diagram

PLACITA NARANJA TYPICAL SECTION (LOOKING SOUTH)

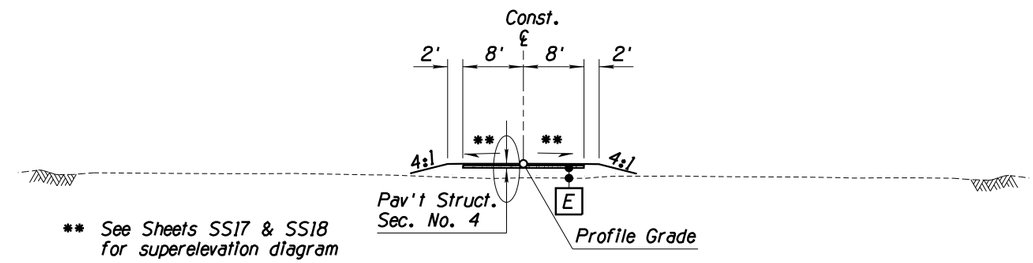
NOTE:

E All earthwork and grading items of work are included in item #9999921 Lump Sum Earthwork.



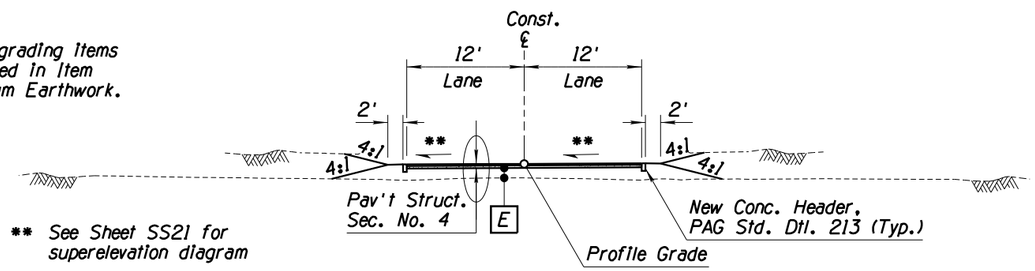
** See Sheet SS13 for superelevation diagram

VICTOR DRIVE (LOOKING SOUTH) TYPICAL SECTION



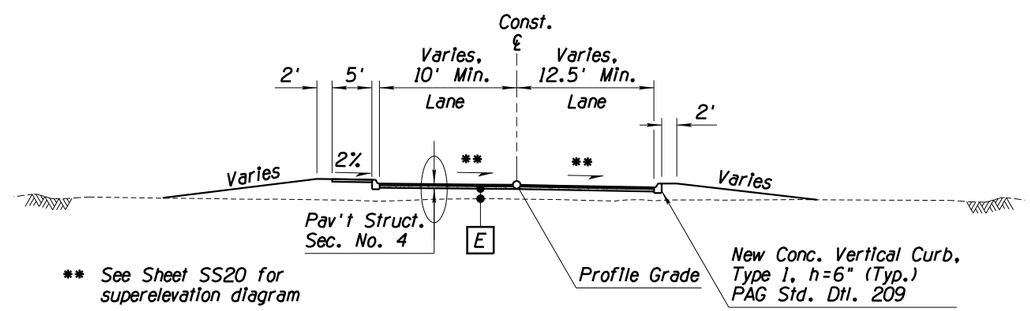
** See Sheets SS17 & SS18 for superelevation diagram

MAINTENANCE DRIVEWAYS NO. 1 & 2 (LOOKING SOUTH) TYPICAL SECTION



** See Sheet SS21 for superelevation diagram

LONG BOAT WAY TYPICAL SECTION (LOOKING EAST)



** See Sheet SS20 for superelevation diagram

DIABLO DRIVE TYPICAL SECTION (LOOKING SOUTH)

TYPICAL SECTIONS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet TS5 of TS5	Page 10 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Tapia	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Plan Reference Number	Structure Number	New	Extend	Number of Barrels	Barrel Span (0.0)	Barrel Height (0.0)	Culvert Length (0.0)	Skew (Degree) (0)	SD 6.01 Miscellaneous Details	SD 6.01 Extension Details	◪ Standard or Detail	▲ Location	Inlet Wings, See Note 5	Outlet Wings	◪ Standard or Detail	Apron	◪ Standard or Detail	Scour/Bank Protection	◪ Standard or Detail	Energy Dissipators	Detail	I	II	III	IV	V	V	IV	III	II	I	◑ Reinforcing Steel (0)	◑ Place Dowels, See Note 2	◑ Class S Concrete f'c=3,000 PSI, See Note 3	◑ Class S Concrete f'c=3,000 PSI	Structural Excavation (0)	Structure Backfill (0)	Berm Embankment (0)	Overexcavation (0)	Drainage Excavation (0)	REMARKS
1B		X	1	8	4.0	202.0	60°	X		SD 6.01		Left		X	DE	X	DD1		DD,DI			85										11,750			102	241	234		121		See Sheet D2
Station:	94+65.00											Right	X		SD 6.10	X	DD19		DI, DL												117	17,593			147	499	426	19	219	160	See Note 1
New:	1 - 8'x4'x202' CBC Sk 60° Lt																														Box Culvert Total	29,345			249	740	660	19	340	160	
2		X	3	10	4.0	114.0	10°	X		SD 6.03		Left		X	DE	X	DD2		DD,DI			58										32,168			195	520	289		208		See Sheet D3
Station:	100+77.00											Right	X		SD 6.10	X	DD20		DI												56	37,110			243	857	530	23	331	520	See Note 1
New:	3 - 10'x4'x114' CBC Sk 10° Lt																														Box Culvert Total	69,280			438	1,377	819	23	539	520	
5		X	3	10	4.0	112.0	15°	X		SD 6.03		Left		X	DE	X	DD7		DD,DI			56										31,595			197	303	280		202		See Sheet D8
Station:	134+20.00											Right	X		SD 6.10	X	DD21		DI												56	32,595			207	695	384		250	178	See Note 1
New:	3 - 10'x4'x112' CBC Sk 15° Lt																														Box Culvert Total	64,190			404	998	664		452	178	
6A		X	3	10	4.0	126.0	30°	X		SD 6.03		Left		X	DE	X	DD8		DD,DI			63										34,125			203	445	310		223		See Sheet D9
Station:	142+85.00											Right	X		SD 6.10	X	DD22		DI												63	35,000			205	675	384		261	145	See Note 1
New:	3 - 10'x4'x126' CBC Sk 30° Lt																														Box Culvert Total	69,125			408	1,120	694		483	145	
10		X	3	10	4.0	201.0	25°	X		SD 6.03		Left		X	SD 6.10	X	DD13					141										72,923	95	87	397	1,387	668		472		See Sheet D15
Station:	171+00.00											Right	X		SD 6.10	X	DD24		DI												60	35,326			224	956	392	278	255	248	See Note 1
New:	3 - 10'x4'x201' CBC Sk 25° Lt																														Box Culvert Total	108,250	95	87	621	2,343	1,060	278	727	248	See Note 4
11A		X	3	8	4.0	163.0	45°	X		SD 6.03		Left		X	DE	X	DD14		DI			86										32,000	75	178	204	366	356		244	192	See Sheet D16
Station:	175+28.00											Right	X		SD 6.10	X	DD25		DI												77	32,040			214	500	468	11	302	112	See Note 1
New:	3 - 8'x4'x163' CBC Sk 45° Rt																														Box Culvert Total	64,040	75	178	418	866	824	11	546	304	See Note 4
13		X	4	8	4.0	113.0	15°	X		SD 6.04		Left		X	SD 6.08	X	DA		DI			56										28,410			199	425	288		213	124	See Sheet D19
Station:	188+26.00											Right	X		SD 6.10	X	DD28		DI												57	31,947			219	687	469		307	369	See Note 1
New:	4 - 8'x4'x113' CBC Sk 15° Lt																														Box Culvert Total	60,360			418	1,112	757		519	493	
16		X	3	10	5.0	110.0	0°54'24"Lt	X		SD 6.03		Left		X	DE	X	DD16		DD,DI			55										31,410			194	410	297		205	389	See Sheet D23
Station:	208+80.22											Right	X		SD 6.10	X	DD30		DI												55	32,480			196	325	399		254	154	See Note 1
New:	3 - 10'x5'x110' CBC Sk 0°54'24"Lt																														Box Culvert Total	63,890			390	735	696		459	543	
												Left																													
Station:												Right																													
Existing:																															Box Culvert Total										
												Left																													
Station:												Right																													
Existing:																															Box Culvert Total										
												Left																													
Station:												Right																													
Existing:																															Box Culvert Total										
																															Sheet Total	528,480	170	265	3,346	9,291	6,174	331	4,064	2,591	

Construction ℄ | Existing & Construction ℄ | Extension Length | Barrel Length | Barrel Length | Linear Feet (0.0) | ▲ Left of ℄ | ▲ Right of ℄

NOTE:
FOR STRUCTURAL EXCAVATION, STRUCTURE BACKFILL PLACEMENT AND MEASUREMENT, SEE DETAIL A8.

PORTLAND CEMENT SHALL BE TYPE II AND CONFORM TO THE REQUIREMENTS OF ASTM C150.

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.00) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

◑ TOTALS SHOWN FOR THE BOX CULVERT INCLUDE THE QUANTITIES FOR HEADWALLS, WINGS, APRONS, CURBS, CUT-OFF WALLS, REINFORCING BEAM PER STANDARD DRAWING SD-6.01, ONE FOOT HOLDBACK, AND LAPS AT CONSTRUCTION JOINTS.

◪ BRIDGE GROUP STRUCTURE DETAIL DRAWINGS SD 6.01 TO SD 6.11

▲ Construction ℄ Looking Ahead
CBC EXTENSION LENGTH INCLUDES PRE-CAST SECTION, CLOSURE POUR AND ONE FOOT HOLDBACK. SEE DRAINAGE DETAILS.

NOTES:

1. OMIT INLET CUT-OFF WALL BELOW BOX CULVERT FLOOR SLAB. SEE DETAIL DH FOR CHANNEL LINING CONNECTION.
2. TIE TO EXISTING CONCRETE CHANNEL
3. PAID AS CHANNEL LINING
4. OMIT OUTLET CUT-OFF WALL BELOW BOX CULVERT FLOOR SLAB. SEE DETAIL DH FOR CHANNEL LINING CONNECTION.
5. OMIT CUT-OFF WALL BELOW INLET WINGWALL FOOTING SLAB AT CONCRETE CHANNEL LINING LOCATIONS.
6. FOR EXTENDED HEADWALL/WINGWALL EARTHWORK QUANTITIES SEE EARTHWORK REPORT.

REINFORCED CONC BOX CULVERT SUMMARY SHEET

Scales	Horiz. NA / Vert. NA	Sheet S1 of S3	Page 11 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	A. Hathcock	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA EXPIRES 3/30/2020

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Tucson, AZ 85705
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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.00) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

NOTE:
FOR PIPE CULVERT PLACEMENT SEE ADOT STANDARD DRAWINGS C-13.10 AND C-13.15

NOTE:
PIPE OPTIONS SELECTED ARE THOSE REQUIRED TO MEET MINIMUM SERVICE LIFE. ALLOWABLE PIPE OPTIONS ARE INDICATED WITH THE LETTER 'X' IN THE SPACE. BLANK SPACES ARE NOT ALLOWABLE ALTERNATES.

CSP - CORRUGATED STEEL PIPE
SPA - STEEL PIPE ARCH
SRP - SPIRAL RIB PIPE
NRCP - NON-REINFORCED CONCRETE PIPE
NRCIPCP - NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP - CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE
HERCP - HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
CAP - Corrugated Aluminum Pipe

DESCRIPTION							CSP SPA/SRP											CAP SPA/SRP			HERCP	NRCP	NRCIPCP	CHDPEPP	END TREATMENT												QUANTITIES							
					In.	In.	Ft.	Degree	In.	Coating								In.						In.	Catch Basin, Manhole, Headwall & Junction Structure												Cubic Yard	lbs	SY	ea	Cubic Yard	
																									Ea	Inlet			Ea	Outlet													
Station	Plan Reference Number	Controlling Fill Height Range	Size, Corrugated	Size, Smooth	Length (0)	Skew (0)	Corrugation	Wall Thickness (0.00)	Zinc	Bituminous Coated	Aluminum	Polymeric Coating (See Note 5)	Corrugation	Wall Thickness (0.00)	Uncoated	Bituminous Coated	Class - Non-Trench	Class - Trench	Class	Minimum Wall Thickness (0)	AASHTO M-294 Type C	AASHTO M-294 Type S	Size, (in) Manhole	Standard or Detail	Apron Connection Detail	Headwall Detail	Size, (in) Manhole	Standard or Detail	Riprap, Cut-off Wall or Gabion Basket Detail	Headwall Detail	Pipe Excavation (0)	Pipe Backfill (0) C-13.15 See Note 1	Headwall Concrete, Class S (0)	Reinforcing Steel (0)	Class S Concrete (0) See Note 2	Place Dowels (0) See Note 3	Drainage Excavation (0)	Berm Embankment (0)	REMARKS
91+05.00	1A	1		3-40x31	396	30° Rt	F	0.064			X												DD18a	DH	DG			DA,DB	DG	300	121	29	2240				41	13	See Sheet D1
114+48.00	3A	1		2-60x46	216	0°	F	0.109			X												DD18a	DH	DG		DD3	DA,DD	DF	303	114	81	6175				133		See Sheet D4
117+95.00	3B	1		4-68x43	432	0°										II	II						DD18b	DH	DG		DD4	DA,DD	DF	602	239	73	5770				68		See Sheet D5
122+70.00	3C	1		4-60x46	432	0°	F	0.109			X													DH	DG		DD5	DA,DD	DF	518	210	65	5310						See Sheet D6
131+84.00	4	2		2-48	216	5° Lt	F	0.064			X												DD21	DH	DG		DD6	DA,DD	DF	285	104	97	6845				96		See Sheet D7
147+70.00	6B	1		3-36	466	30° Rt	F	0.064			X												DD22	DH	DG		DD9		DJ	328	143	29	2555	34	50		40	37	See Sheet D10
155+48.00	7	2		2-48	271	5° Lt	F	0.064			X												DQ	DH	DG		DD10		DJ	409	125	37	3445	36	45		151	13	See Sheet D11
161+09.00	8A	2		24	153	20° Lt	F	0.064			X												DD23	DH	DG			DA,DB	DG	69	37	39	2955				184	100	See Sheet D12
162+13.00	8B	2		4-36	968	20° Rt	F	0.064			X												DD23	DH	DG		DD11		DJ	663	288	30	2885	34	49			156	See Sheet D13
166+10.00	9	2		2-36	408	20° Lt	F	0.064			X												DD23	DH	DG		DD12		DJ	467	126	38	3375	31	46		80	15	See Sheet D14
178+13.00	11B	1		3-53x41	456	45° Rt	F	0.109			X												DD26	DH	DG		DD15	DA,DB	DF	556	199	71	5170	209	83		317		See Sheet D17
180+28.00	12	1		4-46x36	480	25° Lt	F	0.109			X												DD27	DH	DG		DD15	DA,DB	DF	301	168	74	5280				146		See Sheet D18
194+85.00	14A	1		4-36	468	10° Lt	F	0.064			X												DD29	DH	DG			DA,DB	DG	288	143	50	3550				61		See Sheet D20
198+40.00	14B	1		2-36	240	0°	F	0.064			X												DD18b	DH	DG			DA,DB	DG	173	76	81	5940				144		See Sheet D21
200+70.00	15	1		3-40x31	381	10° Lt	F	0.064			X												DD24	DH	DG			DA,DB	DG	253	116	49	3360				105		See Sheet D22
9+15.00, IA	17A	1		3-46x36	195	0°	F	0.109			X												DD32	DH	DG		DD31	DA,DB	DG	258	67	35	2920						See Sheet D24
220+31.95	17B	2		2-24	318	33.5° Lt	F	0.064			X												DD18c	DH	DG		DD32		DJ	291	71	32	2060				56	5	See Sheet D25
226+38.00	18	1		3-46x36	420	40° Lt	F	0.109			X												DD18c	DH	DG			DA,DB	DG	407	152	68	5215				119		See Sheet D26
10+59.61, PN	16E1	1		2-40X31	172	-	F	0.064			X												*CH9				*CH8			116	53	53	53						See Sheets CH8/CH9
10+59.17, DD	16E2	1		2-40X31	166	-	F	0.064			X												*CH11				*CH10			113	51	51	51						See Sheets CH10/CH11
Sheet Total																															6700	2603	1082	75154	344	273		1741	339	

PN - PLACITA NARANJA ℄ DD - DIABLO DRIVE ℄ IA - IBERIA AVENUE ℄

FILL HEIGHT RANGE TABLE (Ft.)

RANGE NO.		1	2	3	4	5	6	7	8	9	10	11	12
FILL	>	1	3	5	8	11	15	20	25	30	40	55	70
HEIGHT (Ft.)	≤	3	5	8	11	15	20	25	30	40	55	70	90

SHOULD FIELD CONDITIONS VARY FROM THE RANGE INDICATED, CONTACT DESIGN FOR RE-EVALUATION OF PIPE DESIGN REQUIREMENTS.

MINIMUM COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT.

PIPE CORRUGATION			
A	2⅔x½	D	6x2
B	3x1	E	3x1 or 9x2½
C	9x2½		
F	¾ x ¾ x7 ½		

NOTE:
FOR PIPE CULVERT PLACEMENT SEE ADOT STANDARD DRAWINGS C-13.10 AND C-13.15
NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.00) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

• MITER PIPE ENDS TO MATCH SLOPE. COST CONSIDERED INCIDENTAL TO PIPE ITEMS.

NOTES:
1. SPA/SRP PIPE SPACING 1.5' (I.D. TO I.D.)
HERCP PIPE SPACING 2.0' (I.D. TO I.D.)
ENCASE PIPES WITH CONCRETE (CLSM) PER MANUFACTURER'S RECOMMENDATIONS AND DETAIL A8 (EXCEPTION CULVERT 8A) COST CONSIDERED INCIDENTAL TO AND INCLUDED TO THE COST OF PIPE ITEMS.
2. PAID AS CHANNEL LINING
3. TIE TO EXISTING CONCRETE CHANNEL
4. DIKE EMBANKMENT SHOWN ON ROADWAY SHEETS AND RESPECTIVE DRAINAGE SHEETS.
5. COAT INSIDE AND OUTSIDE OF PIPE.

NOTES CONTINUED:
6. FOR HEADWALL EARTHWORK QUANTITIES SEE EARTHWORK REPORT.
7. CONCRETE PIPE TO BE TYPE II CEMENT.

NEW PIPE SUMMARY SHEET

Scales: Horiz. NA / Vert. NA

Sheet S2 of S3

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	A. Hathcock	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (520) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

NEW PIPE SLEEVE SUMMARY:

PS x	Station	SIZE (Inches)	LENGTH (Feet)	1" CONDUIT (Feet)
PS1	Valencia Rd. 92+04.5, 45.0' Lt. to 92+04.3, 10.0' Lt.	6	35	35
PS2	92+04.2, 8.0' Rt. to 92+04.0, 43.5' Rt.	6	35.5	35.5
PS3	105+01.4, 42.0' Lt. to 105+01.4, 7.0' Lt.	6	35	35
PS4	105+01.4, 7.0' Rt. to 105+01.4, 56.0' Rt.	4	49	49
PS5	109+14.7, 53.4' Lt. to 109+44.7, 53.3' Lt.	6	30	30
PS6	116+00.0, 42.0' Lt. to 116+00.0, 7.0' Lt.	6	35	35
PS7	116+00.0, 7.0' Rt. to 116+00.0, 56.0' Rt.	4	49	49
PS8	126+10.4, 42.0' Lt. to 126+10.4, 7.0' Lt.	6	35	35
PS9	126+10.4, 7.0' Rt. to 126+10.4, 56.0' Rt.	4	49	49
PS10	129+69.4, 50.4' Lt. to 128+93.4, 50.4' Lt.	6	24	24
PS11	137+18.9, 42.0' Lt. to 137+18.9, 7.0' Lt.	6	35	35
PS12	137+18.9, 7.0' Rt. to 137+18.9, 56.0' Rt.	4	49	49
PS13	146+26.1, 42.0' Lt. to 146+26.1, 7.0' Lt.	6	35	35
PS14	146+26.5, 7.0' Rt. to 146+26.1, 55.0' Rt.	4	48	48
PS15	148+21.2, 71.7' Rt. to 148+48.2, 71.7' Rt.	4	27	
PS16	153+11.0, 67.0' Lt. to 153+96.0, 67.0' Lt.	6	85	85
PS17	154+65.5, 63.5' Rt. to 154+65.5, 89.5' Rt.	4	26	
PS18	155+33.5, 91.6' Rt. to 155+78.0, 91.6' Rt.	4	44.5	
PS19	155+87.4, 63.0' Rt. to 155+87.4, 89.0' Rt.	4	26	
PS20	158+93.2, 56.0' Lt. to 158+93.2, 7.0' Lt.	6	49	49
PS21	158+93.2, 7.0' Rt. to 158+93.2, 56.0' Rt.	4	49	49
PS22	159+02.5, 55.0' Rt. to 159+13.5, 55.0' Rt.	4	11	
PS23	159+22.5, 93.6' Rt. to 159+64.0, 93.6' Rt.	4	41.5	41.5
PS24	164+36.5, 77.3' Lt. to 165+03.5, 76.0' Lt.	6	67	67
PS25	164+38.4, 70.0' Rt. to 164+88.4, 71.0' Rt.	4	50	
PS26	165+76.5, 75.0' Lt. to 166+03.5, 74.5' Lt.	4	27	
PS27	166+94.7, 70.0' Rt. to 166+92.0, 87.8' Rt.	4	18	
PS28	168+76.1, 59.0' Lt. to 168+76.1, 7.0' Lt.	6	52	52
PS29	168+76.1, 7.0' Rt. to 168+76.1, 56.0' Rt.	6	49	49
PS30	169+27.1, 76.4' Rt. to 169+78.6, 76.4' Rt.	4	51.5	51.5

NEW PIPE SLEEVE SUMMARY (CONTINUED):

PS x	Station	SIZE (Inches)	LENGTH (Feet)	1" CONDUIT (Feet)
PS31	173+31.6, 78.3' Lt. to 173+98.1, 78.3' Lt.	6	66.5	66.5
PS32	175+62.6, 61.8' Lt. to 175+62.6, 53.3' Lt.	6	8.5	8.5
PS33	176+12.3, 53.8' Lt. to 176+18.5, 61.1 Lt.	6	9.5	9.5
PS34	179+37.8, 51.5' Lt. to 179+55.8, 51.5' Lt.	6	18	18
PS35	180+68.8, 57.0' Lt. to 180+68.8, 7.0' Lt.	4	50	50
PS36	184+19.6, 57.0' Lt. to 184+19.6, 7.0' Lt.	6	50	50
PS37	184+19.6, 1.0' Lt. to 184+19.6, 55.0' Rt.	6	56	56
PS38	191+96.8, 74.0' Lt. to 192+58.3, 74.0' Lt.	6	61.5	61.5
PS39	194+16.1, 61.0' Lt. to 194+16.1, 7.0' Lt.	6	54	54
PS40	194+16.5, 7.0' Rt. to 194+16.5, 55.0' Rt.	6	48	48
PS41	196+07.3. 69.6' Rt. to 196+29.3, 69.6' Rt.	4	22	
PS42	197+50.9, 70.0' Rt. to 197+72.9, 70.0' Rt.	4	22	
PS43	199+40.5, 80.0' Lt. to 200+20.5, 80.0' Lt.	6	80	80
PS44	203+78.4, 55.5' Lt. to 203+78.4, 7.0' Lt.	6	48.5	48.5
PS45	203+78.5, 7.0' Rt. to 203+78.5, 56.0' Rt.	6	49	49
PS46	210+26.5, 78.0' Rt. to 210+62.0, 78.0' Rt.	4	35.5	
PS47	212+91.8, 71.0' Rt. to 213+31.8, 71.0' Rt.	4	40	
PS48	213+32.3, 54.4' Lt, to 213+33.1, 5.9' Lt.	6	48.5	48.5
PS49	213+33.3, 8.0' Rt. to 213+34.3, 71.0' Rt.	6	63	63
PS50	214+68.2, 56.0' Lt. to 214+68.1, 7.0' Lt.	4	49	
PS51	224+40.8, 42.0' Lt. to 224+40.8, 7.0' Lt.	6	35	35
PS52	224+40.8, 7.0' Rt. to 224+40.8, 55.0' Rt.	6	48	48
PS53	224+50.6, 55.3' Lt. to 224+50.6, 46.8 Lt.	4	8.5	
PS54	229+92.9, 65.7' Rt. to 230+31.4, 65.7' Rt.	4	38.5	
PS55	232+40.2, 42.0' Lt. to 232+40.2, 3.0' Rt.	6	45	45
PS56	232+40.2, 7.0' Rt. to 232+40.2, 56.0' Rt.	6	49	49
PS57	Vahalla Rd.-47+32.0, 75.5' Rt. to 46+86.0, 75.5' Rt.	4	46	
PS58	44+49.6, 69.2' Rt. to 44+04.1, 71.2' Rt.	4	46	
Total			4" = 973 6" = 1439.5	1875.5

NOTES:

1. ALL SLEEVES SHALL BE INSTALLED PER DETAIL 6/IR47 OR 1/IR48, IRRIGATION PLANS
2. ALL SLEEVES AND CONDUIT SHALL BE SCHEDULE 40 PVC.
3. IRRIGATION SLEEVES SHALL BE PAID FOR UNDER ITEM NO. 8080001.
4. INSTALL 1" CONDUIT ADJACENT TO IRRIGATION SLEEVES INDICATED IN THE TABLE ABOVE. THE CONDUIT WILL BE PAID FOR UNDER ITEM NO. 8080001.
5. STATIONING DENOTES LOCATION OF SLEEVE ALONG SAID ROADWAY. WHERE OFFSET IS PROVIDED; STATIONING REPRESENTS BEGIN OF SLEEVE.

NEW PIPE SLEEVE SUMMARY SHEET

Scales	Horiz. NA Vert. NA	Sheet S3 of S3	Page 13 of 433

Ana M. Olivares, P.E., Director

Designed	A. Hathcock	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No.
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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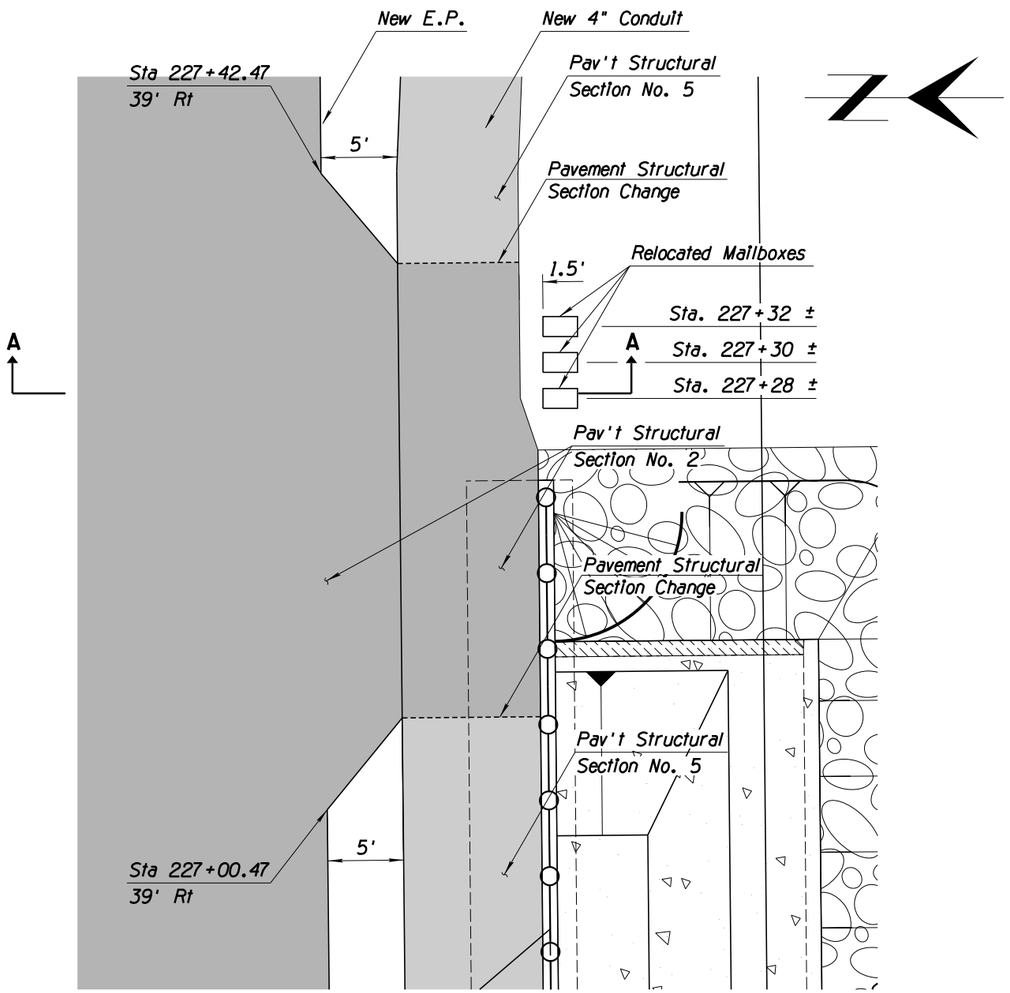
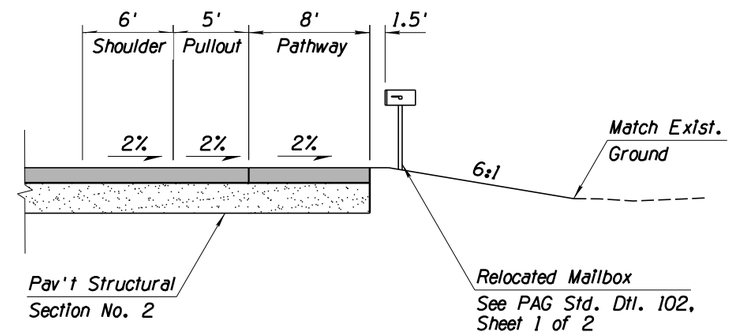
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



PLAN VIEW
VALENCIA CL - STA 227+00.47 TO STA 227+42.47



SECTION A-A

DETAIL A1

MAILBOX PULLOUT
STA 227+00.47 to STA 227+42.47

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT1 of DT69	Page 14 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

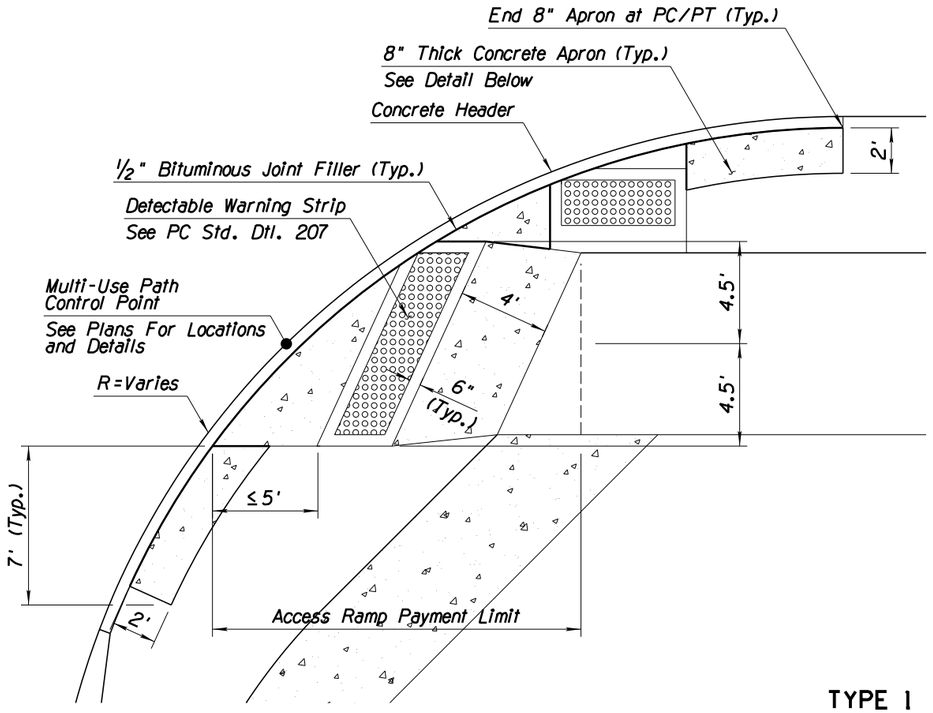
No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



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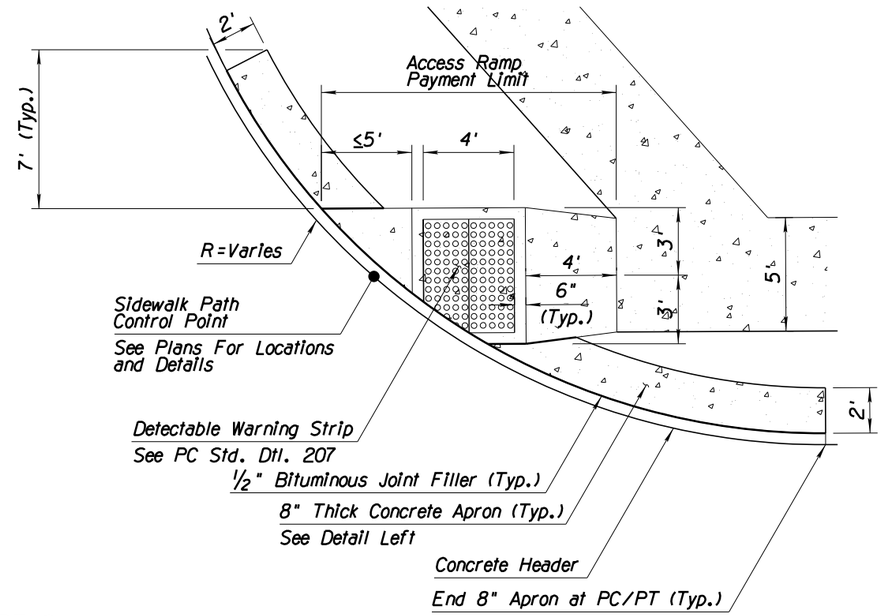

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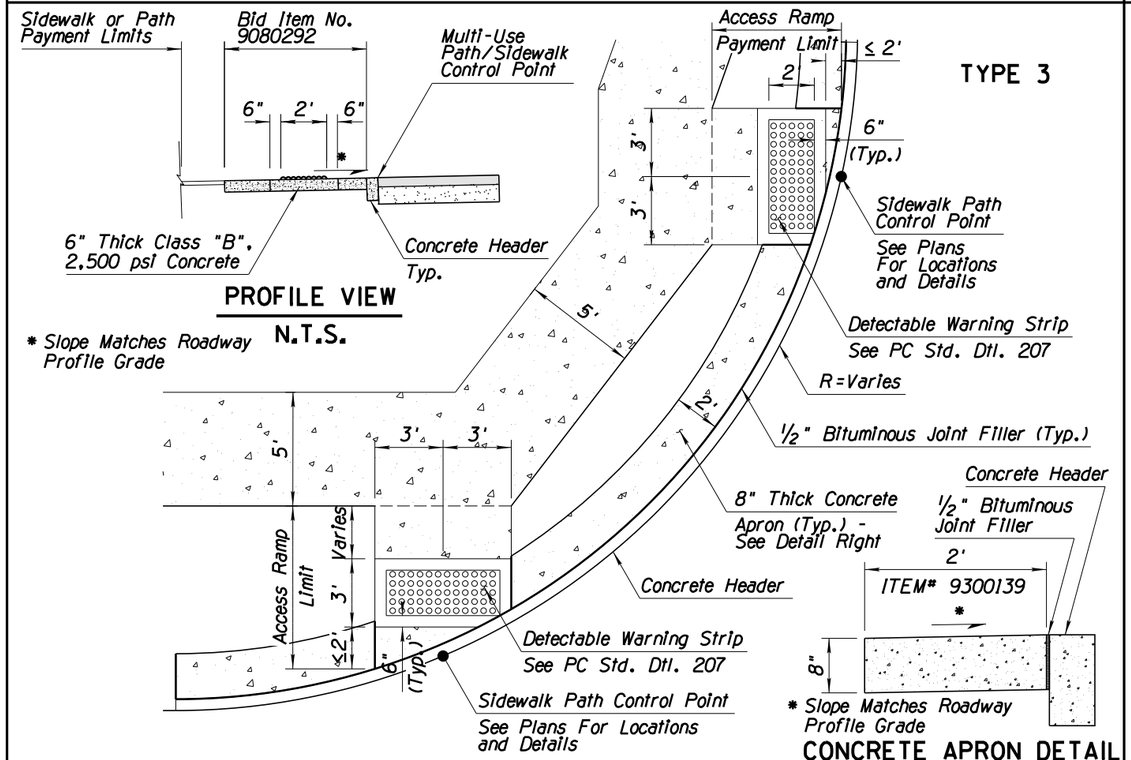
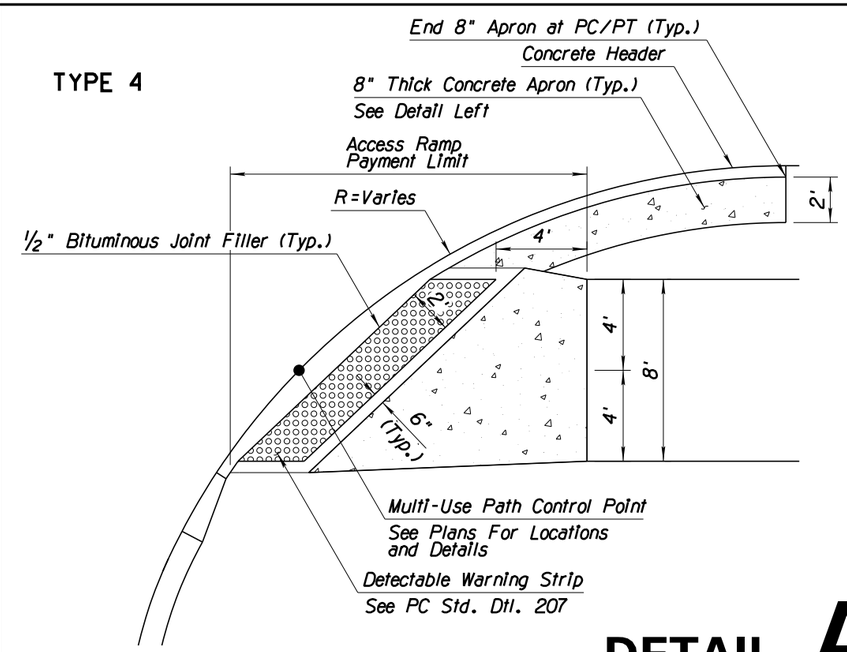


TYPE 3

TYPE 4



DETAIL A2

CONCRETE LANDING WITH DETECTABLE WARNING STRIP

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=2.5'	Sheet DT2 of DT69	Page 15 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

CONCRETE LANDING CONTROL POINT LOCATIONS

LOCATION	STATION & OFFSET (FT)	TYPE	AREA (SF)	LOCATION	STATION & OFFSET (FT)	TYPE	AREA (SF)
Via Molino De Viento	10+39.88, 35.23' Rt	3	27	Maintenance Dwy No. 1*	10+50.13, 9.68' Lt	1	84
Via Molino De Viento	10+48.93, 20.57' Rt	1	86	Maintenance Dwy No. 2*	10+58.47, 8.88' Rt	1	84
Via Molino De Viento	10+40.56, 38.68' Lt	3	24	Maintenance Dwy No. 2*	10+60.00, 9.25' Lt	1	84
Via Molino De Viento	10+49.08, 24.05' Lt	1	89	Victor Drive	10+49.04, 19.68' Rt	1	86
Via Diego De Rivera	10+48.94, 17.95' Rt	1	84	Victor Drive	10+47.96, 20.53' Lt	1	89
Via Diego De Rivera	10+49.06, 18.05' Lt	1	84	Star Ridge Place	10+49.05, 20.54' Rt	1	83
Giuliani Avenue	10+39.89, 35.49' Rt	3	32	Star Ridge Place	10+48.95, 20.46' Lt	1	83
Giuliani Avenue	10+49.37, 18.30' Rt	1	84	Star Diamond Place	10+49.00, 21.43' Rt	1	83
Giuliani Avenue	10+48.66, 17.71' Lt	1	84	Placita Naranja	10+47.62, 24.23' Rt	4	114
Bullfinch Drive	9+37.89, 20.09' Rt	3	31	Placita Naranja	10+48.31, 18.91' Lt	4	101
Bullfinch Drive	9+59.33, 37.19' Rt	3	36	Diablo	10+47.62, 24.23' Rt	4	114
Bullfinch Drive	9+36.92, 28.64' Lt	3	40	Diablo	10+48.31, 18.91' Lt	4	101
Bullfinch Drive	9+46.98, 44.28' Lt	3	20	Valencia Road	165+10.28, 39.00' Rt	3	36
De Concini Drive	10+49.00, 20.64' Rt	1	86	Valencia Road	173+25.97, 39.00' Rt	3	30
De Concini Drive	10+49.00, 20.64' Lt	1	85	Valencia Road	174+04.16, 39.00' Rt	3	30
Mountain Eagle Drive	9+35.02, 22.16' Rt	3	33	Valencia Road	191+91.72, 39.00' Rt	3	39
Mountain Eagle Drive	9+56.17, 38.09' Rt	3	37	Valkyrie Way	10+67.18, 10.90' Lt	1	57
Mountain Eagle Drive	9+34.92, 28.50' Lt	3	38	Valkyrie Way	10+67.18, 13.89' Rt	1	61
Mountain Eagle Drive	9+45.57, 40.10' Lt	3	43	Long Boat Way	10+60.50, 12.00' Lt	1	57
Eagles Talon Parkway	9+41.46, 16.92' Rt	3	52	Long Boat Way	10+60.50, 12.00' Rt	1	57
Eagles Talon Parkway	9+58.42, 33.09' Rt	3	36	Long Cast Drive	10+51.01, 13.00' Lt	1	55
Eagles Talon Parkway	9+41.56, 25.10' Lt	2	57	Long Cast Drive	10+51.01, 13.00' Rt	1	57
Maintenance Dwy No. 1*	10+48.04, 9.23' Rt	1	84	AVERAGE AREA			63

* Construct Pad without Detectable Warning

CURB ACCESS RAMP CONTROL POINT LOCATIONS

LOCATION	STATION & OFFSET (FT)
Reed Bunting Drive	9+45.48, 38.82' Lt
Reed Bunting Drive	9+52.81, 35.10' Rt
Iberia Avenue	9+38.50, 23.72' Rt
Iberia Avenue	9+38.50, 28.66' Lt
Iberia Avenue	10+55.05, 24.89' Rt
Iberia Avenue	10+54.95, 27.13' Lt
Valencia Road	218+63.13, 39.00' Rt
Valencia Road	218+63.13, 39.00' Lt
Valencia Road	219+79.15, 39.00' Rt
Valencia Road	219+79.15, 51.00' Lt

DETAIL A2

CONCRETE LANDING WITH DETECTABLE WARNING STRIP

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	Vi.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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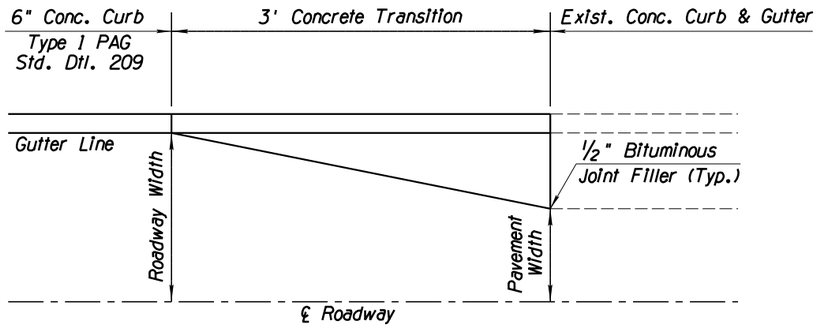
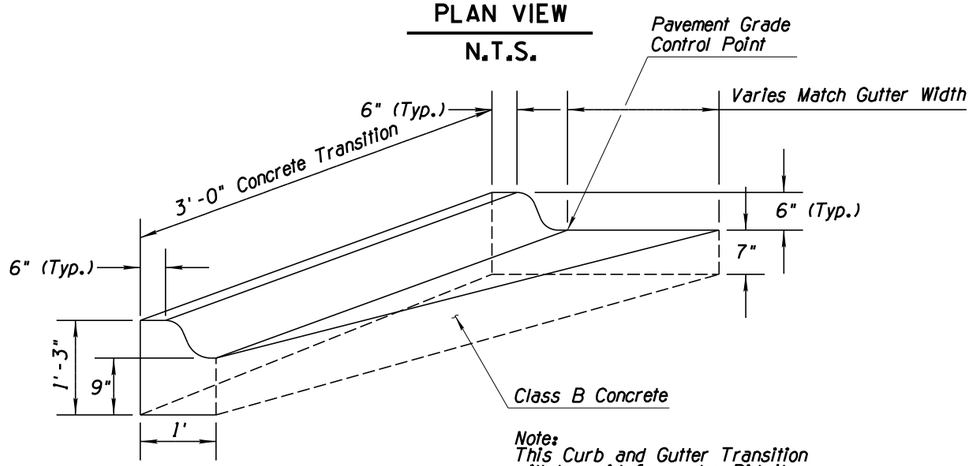
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. NA	Sheet DT3 of DT69	Page 16 of 433
	Vert. NA		



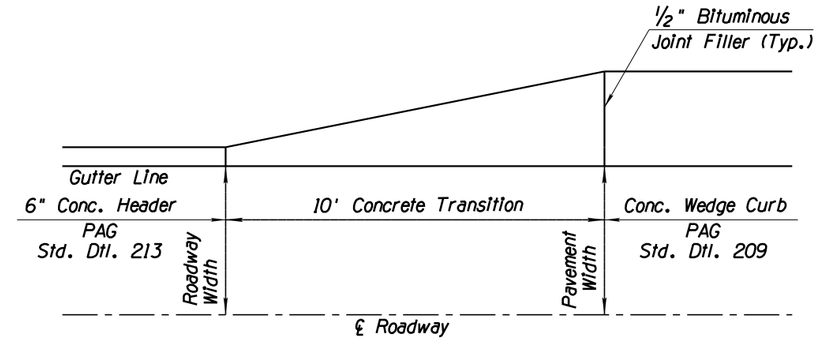
PLAN VIEW
N.T.S.



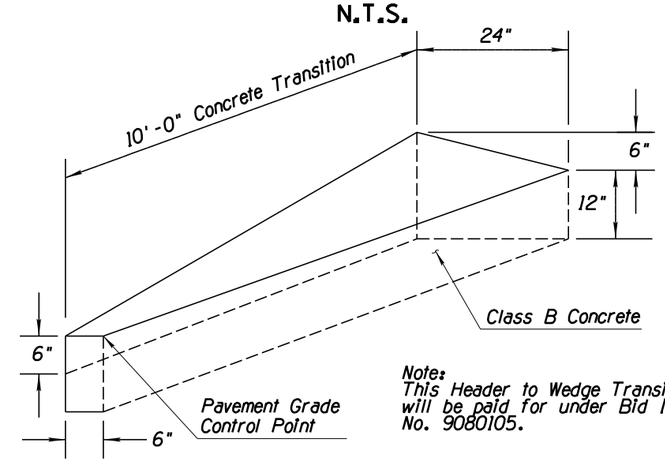
Note:
This Curb and Gutter Transition will be paid for under Bid Item No. 9080105.

ISOMETRIC VIEW
N.T.S.

Type 1 Curb to Curb and Gutter



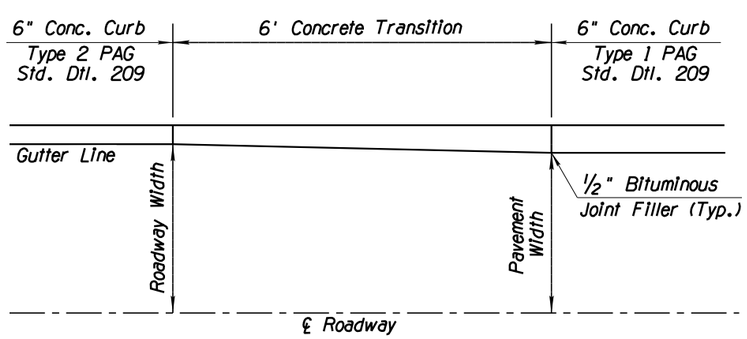
PLAN VIEW
N.T.S.



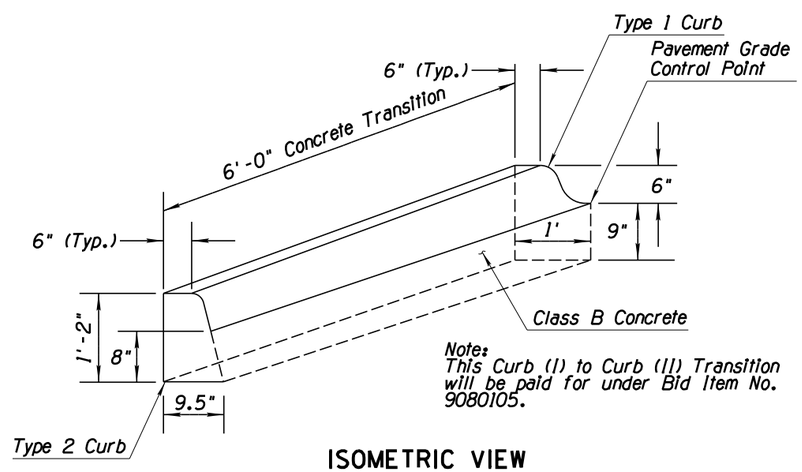
Note:
This Header to Wedge Transition will be paid for under Bid Item No. 9080105.

ISOMETRIC VIEW
N.T.S.

Header to Wedge Curb



PLAN VIEW
N.T.S.



Note:
This Curb (I) to Curb (II) Transition will be paid for under Bid Item No. 9080105.

ISOMETRIC VIEW
N.T.S.

Type 1 Curb to Type 2 Curb

DETAIL A3

CURB TRANSITIONS
ITEM# 9080105

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT4 of DT69	Page 17 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

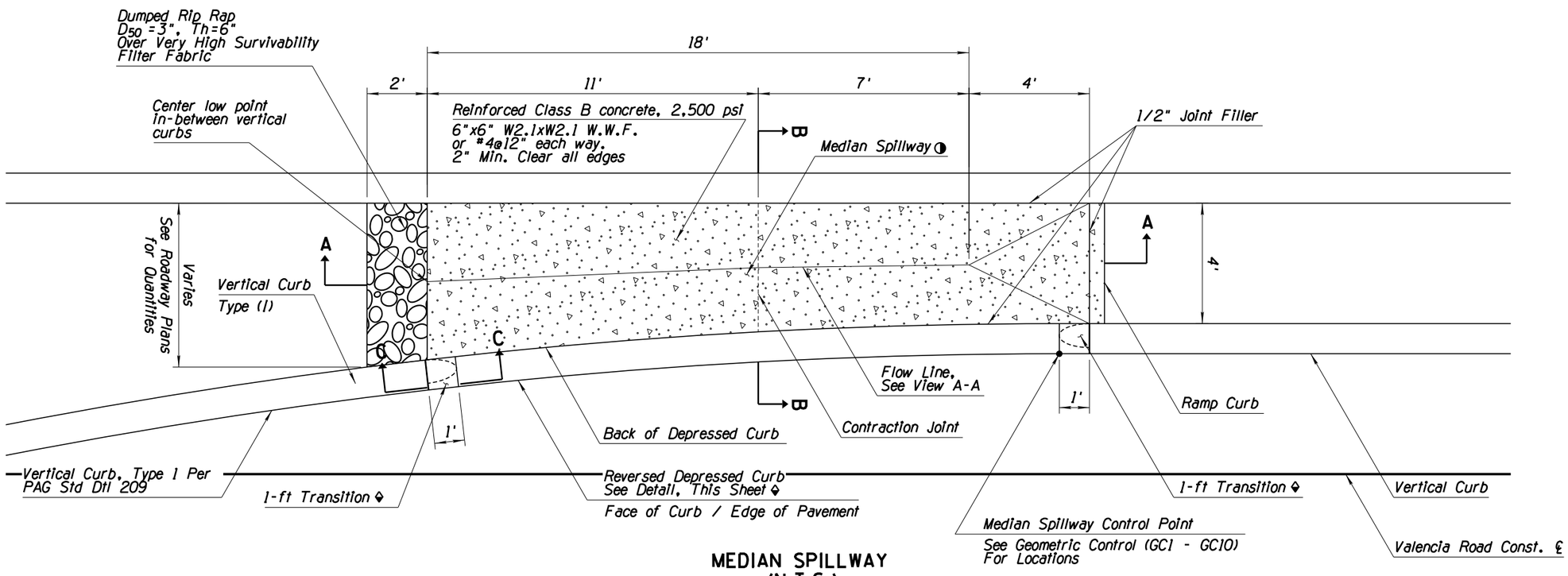
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

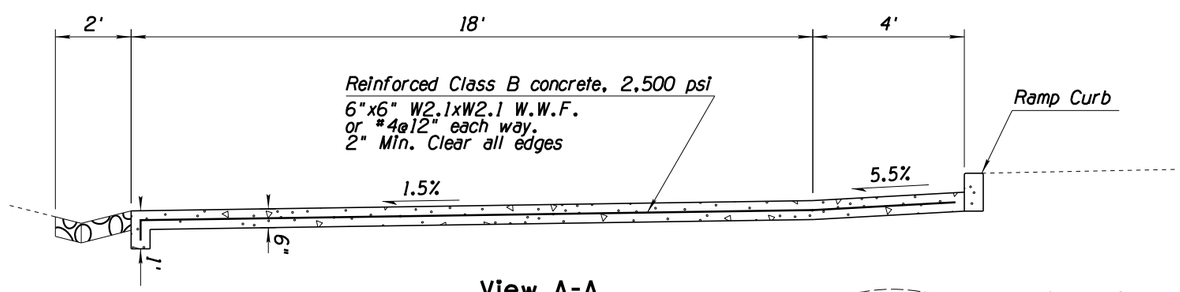
No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V. Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

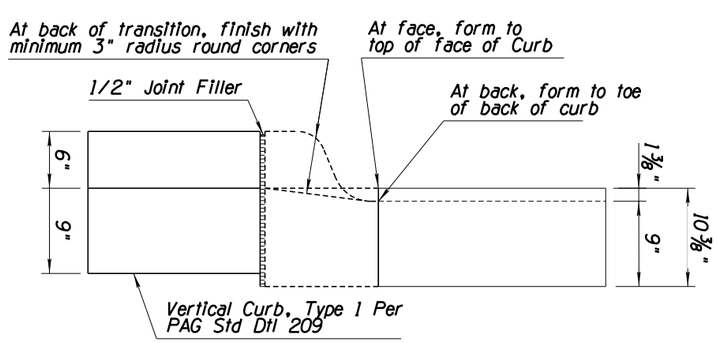
Ana M. Olivares, P.E., Director



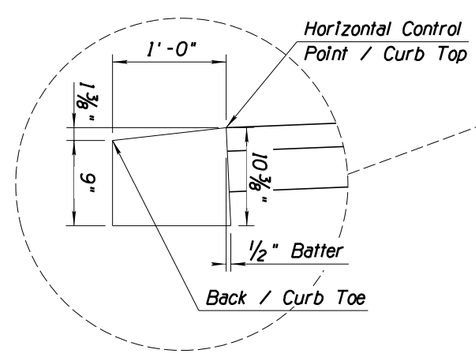
MEDIAN SPILLWAY
(N.T.S.)



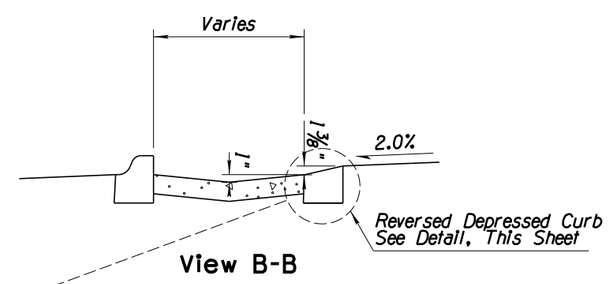
View A-A



View C-C, TYPICAL 1-FT TRANSITION SECTION



◆ REVERSED DEPRESSED CURB DETAIL



View B-B

◑ Payment Limits

◑ Apply Concrete Stain per Special Provisions

◆ Paid under Verical Curb

DETAIL A4

MEDIAN SPILLWAY
ITEM #9300131

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=2' Vert. Varies	Sheet DT5 of DT69	Page 18 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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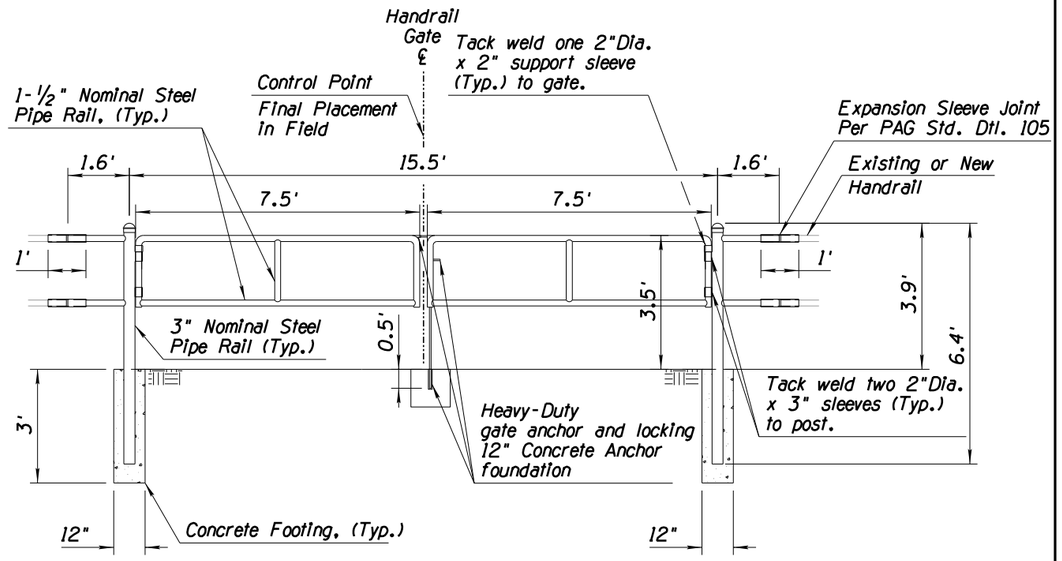
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HANDRAIL GATE

Location 1:
Valencia CL - STA 160+58.23, 94.48' Lt =
Pipe 8A CL - STA 18+93.86, 15.39' Rt

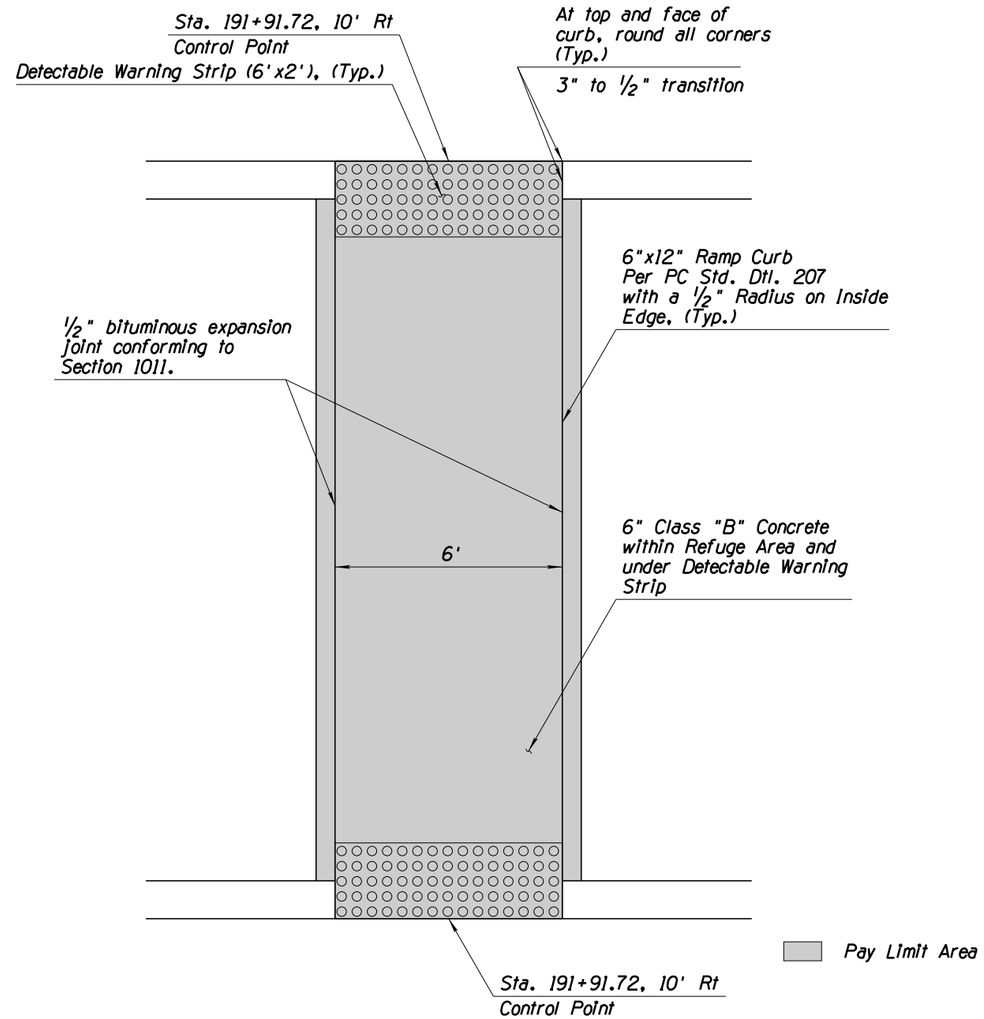
Location 2:
Iberia CL - STA 10+82.83, 26.75' Lt

GENERAL NOTES:

1. Construction of the handrail gate shall include: railing, posts, post foundations, fittings, hinges, sleeves, and anchorages and any other incidentals to construct the double swing gate complete in place.
2. All materials and work shall conform to special provision 9300119.

DETAIL A5

HANDRAIL GATE
ITEM# 9300119



MID BLOCK REFUGE AREA

VALENCIA CL - STA 191+91.72

GENERAL NOTES:

1. The work under this section shall include, furnishing all materials, tools, equipment, and labor necessary to construct the midblock crossing as shown including all grading, sidewalk, 2-ft x 6-ft detectable warning strip, concrete, and ramp curb at the location shown on the project plans. All work shall be in accordance with Section 908 of the Standard Specifications, the general notes, requirements, and finishes of PAG Standard Detail 207, and to the dimensions as shown.
2. All materials and work shall conform to special provision 9300110.
3. Refer to Geometric Control sheet GC8 for ramp and curb control.

DETAIL A6

MID BLOCK REFUGE AREA
ITEM# 9300110

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=2'	Sheet DT6 of DT69	Page 19 of 433
	Vert. 1"=2'		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

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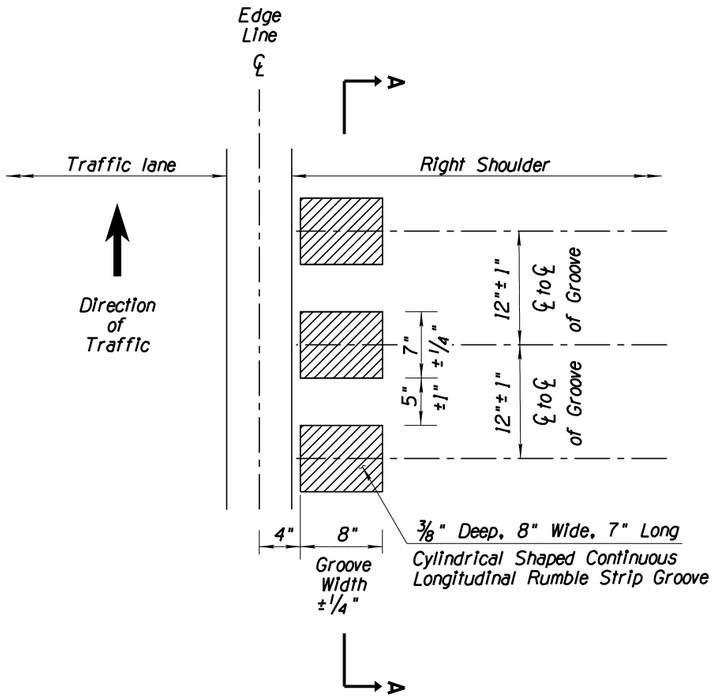
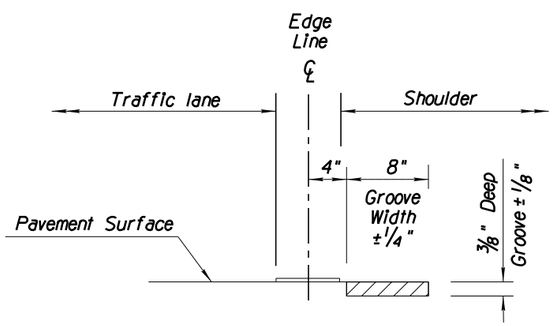
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

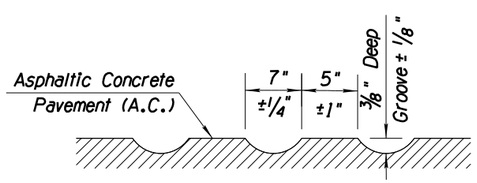


PLAN VIEW

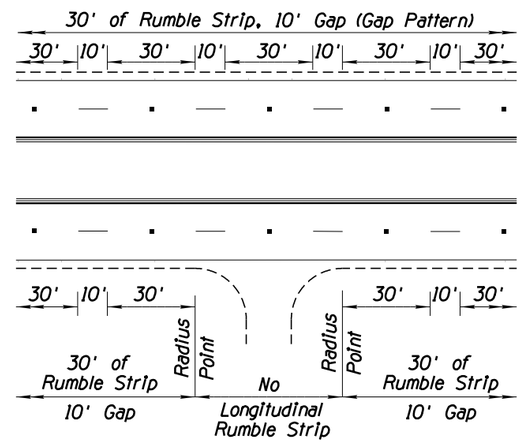


TYPICAL LONGITUDINAL RUMBLE STRIP LOCATION
8" WIDE STRIP WITH OFFSET

PROFILE VIEW



SECTION A-A



TYPICAL INSTALLATION

GENERAL NOTES:

1. The longitudinal rumble strip groove and pattern shall be constructed by milling or grinding the indentations in the asphaltic concrete pavement.
2. The grinding machine shall be equipped with an acceptable guide that allows the strip to be installed to the proper alignment within acceptable tolerances.
3. To ensure proper rumble strip location, a temporary paint edge line shall be installed at the permanent location prior to the installation of the ground-in rumble strip. The rumble strip shall follow the location of the edge line.
4. The radius and configuration of the cutting/milling drum and machine shall be able to produce a smooth and consistent groove to the requirements of these specifications.
5. Longitudinal rumble strips shall not be placed on construction joints.
6. Rumble strips shall be omitted across intersections, driveways and along the right turn lanes.
7. This work will be paid for under Bid Item No. 9280036.
8. Rumble strips shall be omitted from along the south edge line at the following locations:
   - Sta 90+74 to Sta 95+67, Rt
   - Sta 106+74 to Sta 111+16, Rt
   - Sta 126+60 to Sta 131+03, Rt

DETAIL A7

RUMBLE STRIPS
ITEM# 9280036

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT7 of DT69	Page 20 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

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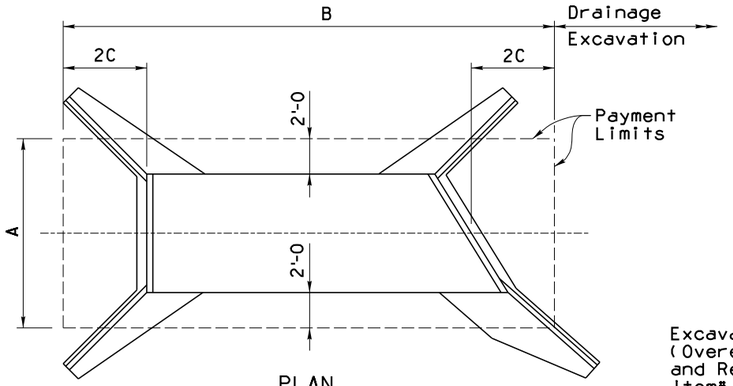
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

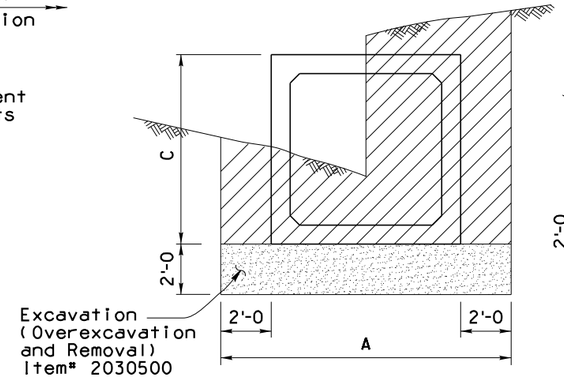


PLAN

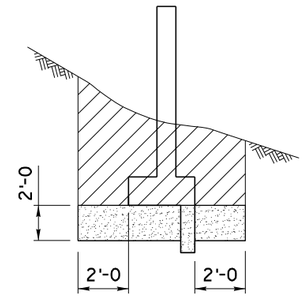
NOTE:

Payment limits shown include structural excavation for headwalls, cutoffwalls, wingwalls, end sections, etc.

At long stretches of wingwalls, structural excavation was calculated seperate from the culvert.

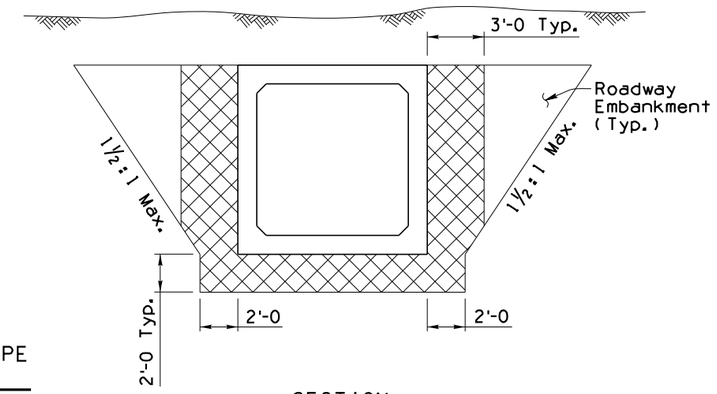


SECTION



SECTION AT WING/PIPE HEADWALL

STRUCTURAL EXCAVATION & OVEREXCAVATION



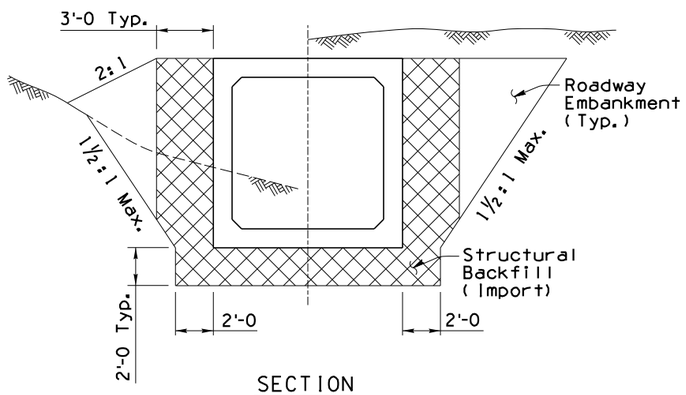
SECTION

STRUCTURE BACKFILL - MEASUREMENT

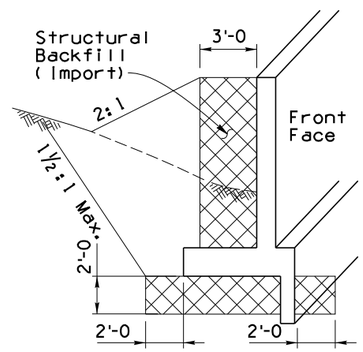
NOTE:

Computation of structure backfill quantities is based on the area of a typical installation times the total length of structure plus twice the height of barrel unless long stretches of wingwall are present. In such case, additional structural excavation was calculated separate from the typical installation.

Placement of structure backfill behind headwalls and wingwalls shall be the same as around structures.



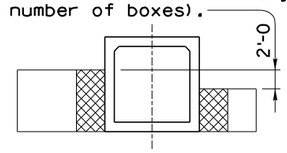
SECTION



VIEW OF WING/PIPE HEADWALL

STRUCTURE BACKFILL - PLACEMENT

Placement and compaction of backfill shall not be more than 2 feet higher than other side (for any number of boxes).



PLACEMENT DETAIL

R.C.B.C. LEGEND

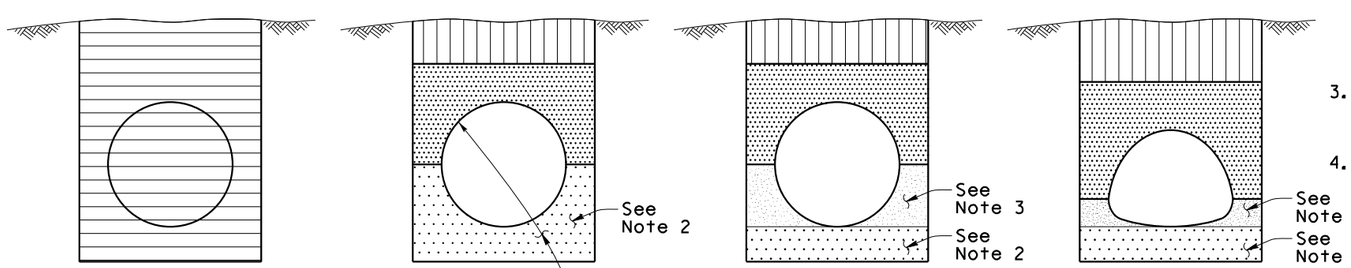
A = Width
B = Length
C = Height of barrel or headwall without cutoff wall.

Indicates Structural Excavation
Indicates Structure Backfill
Indicates Roadway Embankment
Indicates Overexcavation and Removal

PIPE EXCAVATION & BACKFILL LIMITS

PIPE LEGEND

Indicates Pipe Excavation
Indicates Pipe Trench Backfill
Indicates Pipe Shading
Indicates Pipe Bedding
Indicates CLSM Bedding



This configuration applies to only Pipe Culvert No. 8A

Pipe Arch Depiction

NOTES:

1. See PAG Std. Dtl. 108
2. Bedding for Pipe Culverts 36 inches and Larger in Diameter or an elliptical or arch dimension 29 inches or larger shall consist of aggregate material, meeting the requirements of Subsection 501-2.05, placed from the bottom of the trench to the bottom of the pipe. Controlled low strength material (CLSM), conforming to the requirements of Subsection 501-2.04, shall then be placed from the bottom of the pipe to the pipe springline.
3. CLSM bedding, as described above, shall be used on all double and multi-pipe culverts due to the approximate 1-foot wide spacing between pipes.
4. At pipe headwalls and wing walls, excavation, over excavation, and structure backfill shall be consistent with the details shown above.

DETAIL A8

STRUCTURAL EXCAVATION AND STRUCTURE BACKFILL

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT8 of DT69	Page 21 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

State of Arizona Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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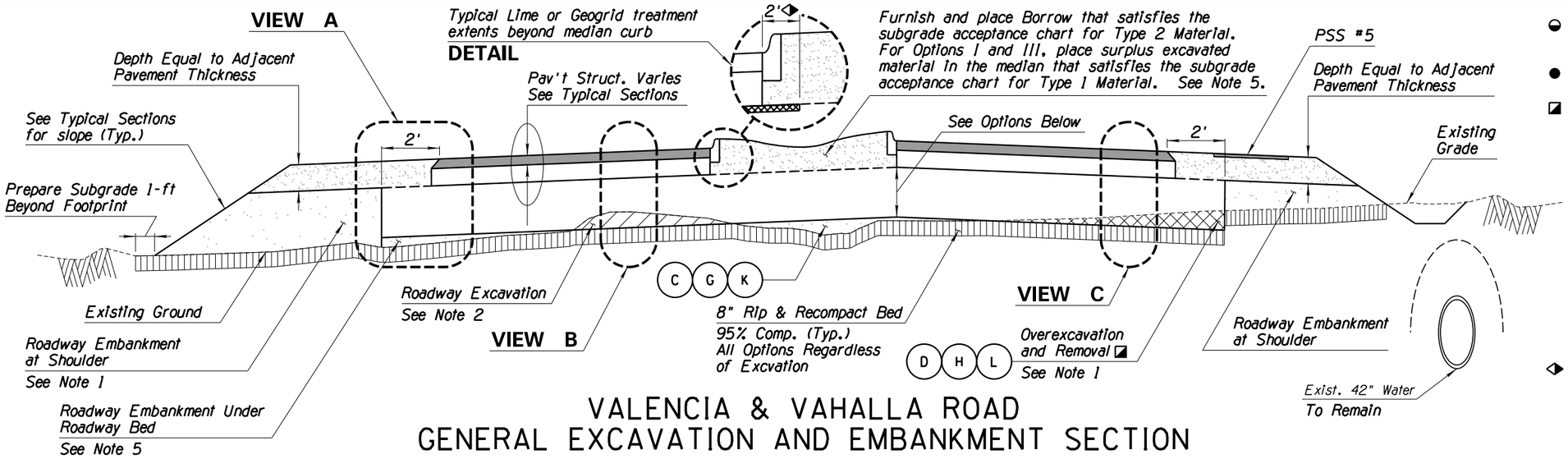
(520) 615-3931 Fax (602) 944-7423

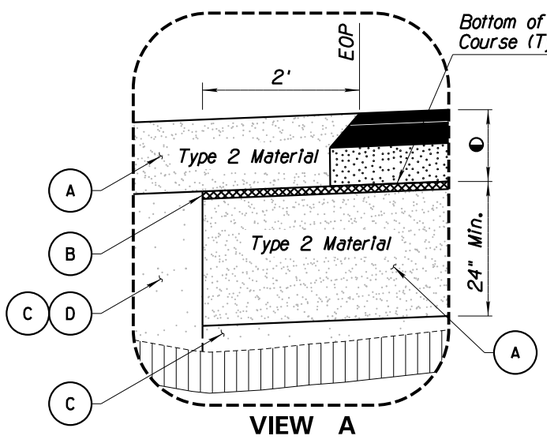
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



VALENCIA & VAHALLA ROAD
GENERAL EXCAVATION AND EMBANKMENT SECTION

- Pav't Struct. Varies See Typical Sections
- Fill to Grade
- Valencia Overexcavation and Removal of Unsuitable Material Limits:
  Sta 96+62.00 to 99+40.00
  Sta 116+15.00 to 120+29.00
  Sta 179+11.00 to 184+34.00
  Sta 191+58.00 to 196+67.00
  Sta 202+80.00 to 206+79.00
  Sta 217+00.00 to 213+19.62
  Sta 228+20.00 to 231+00.00

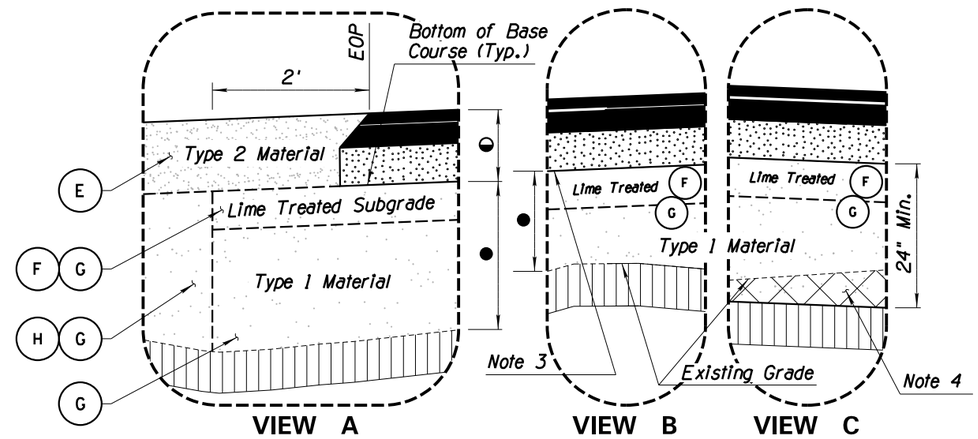
  Vahalla Overexcavation and Removal of Unsuitable Material Limits:
  Sta 41+25.00 to 44+18.00
- Lime and Geogrid treatments shall extend 2-ft from inside edge of pavement. Select Subbase shall extend thru the entire median base.



TREATMENT OPTION I

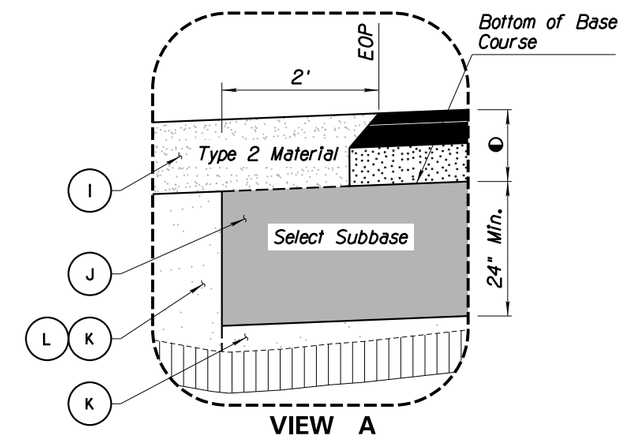
- (A) Furnish and place Borrow that satisfies the subgrade acceptance chart for Type 2 Material.
- (B) Furnish and place biaxial geogrid.
- (C) Place embankment that satisfies the subgrade acceptance chart for Type 1 Material.
- (D) Unsuitable materials encountered during over-excavation and removal are restricted to the shoulder embankment, under the Type 2 Material.

Contractor Quality Control shall be performed on all Lump Sum Earthwork associated materials per Section 106-4 of the Special Provisions.



TREATMENT OPTION II

- (E) Furnish and place Borrow that satisfies the subgrade acceptance chart for Type 2 Material.
- (F) Furnish and place 8 inches of lime treatment to subgrade material that satisfies Type 1 Material (See subgrade acceptance chart). As an alternative and at no additional cost to the Department, 6 inches of plant mixed lime treated subgrade plus 2 inches of Type 1 Material may be used in place of the 8 inch in-place treatment (equating to the same thickness). If Plant mix lime subgrade is used, the contractor shall coordinate with Pima County Survey for the adjusted staking of the subgrade.
- (G) Furnish and place embankment that satisfies the subgrade acceptance chart for Type 1 Material.
- (H) Unsuitable materials encountered during over-excavation and removal are restricted to the shoulder embankment, under the Type 2 Material.



TREATMENT OPTION III

- (I) Furnish and place Borrow that satisfies the subgrade acceptance chart for Type 2 Material.
- (J) Furnish and place Select Subbase in accordance with the Special Provisions.
- (K) Place embankment that satisfies the subgrade acceptance chart for Type 1 Material.
- (L) Unsuitable materials encountered during over-excavation and removal are restricted to the shoulder embankment, under the Type 2 Material.

NOTES:

1. Unsuitable materials encountered during over-excavation and removal are restricted to the shoulder embankment, under the Type 2 Material.
2. Treatment Options I and III require roadway excavation 24 inches below the base course at all locations. Refer to Note 1 for unsuitable materials encountered.
3. Treatment Option II only requires roadway excavation when the base course is below the existing grade.
4. Treatment Option II requires over excavation and removal 24 inches below the base course at locations designated or encountered as unsuitable. Replace with Type 1 Material.
5. Unsuitable materials shall not be placed in the median or under the roadway bed.

DETAIL A9
ITEM #9999921
LUMP SUM EARTHWORK

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT9 of DT69	Page 22 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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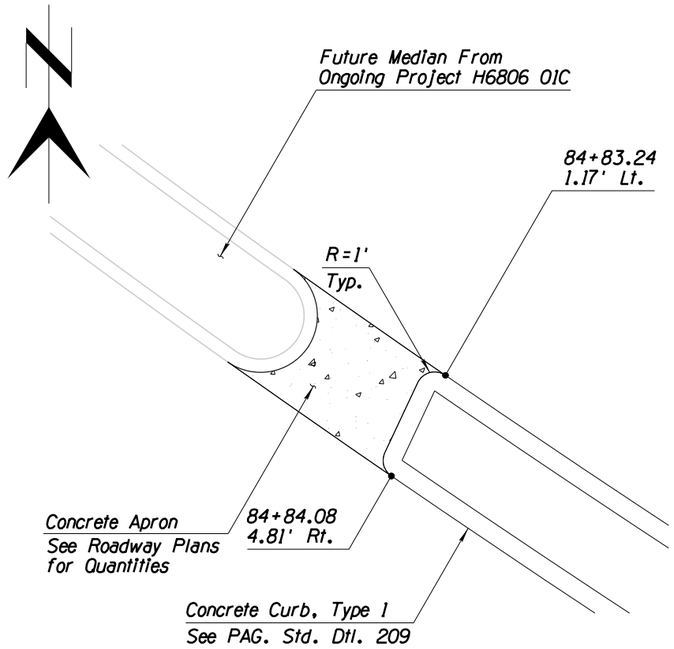

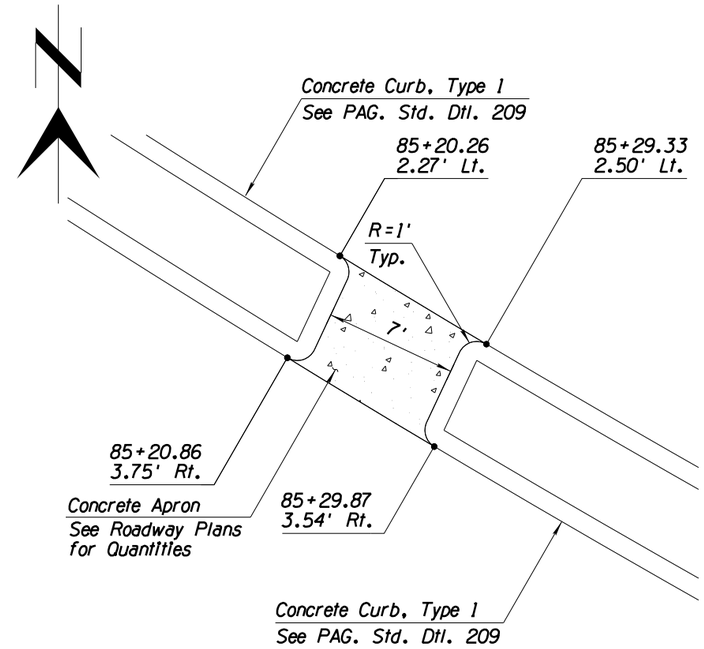

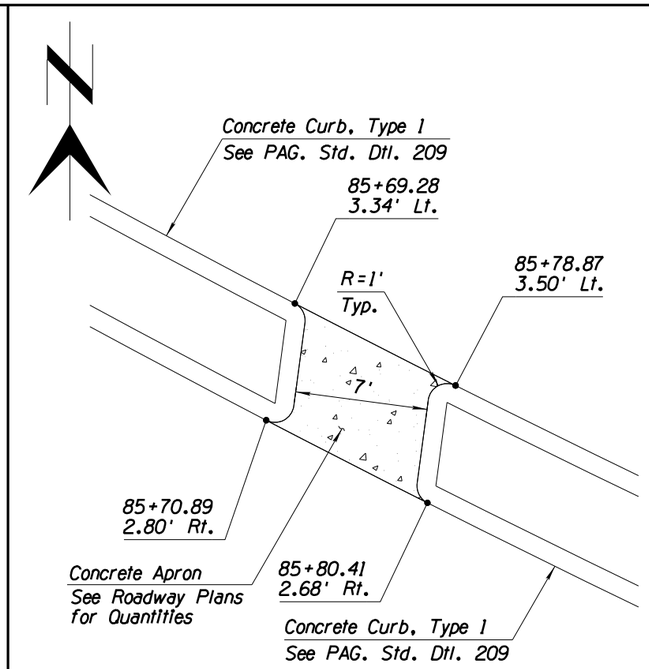

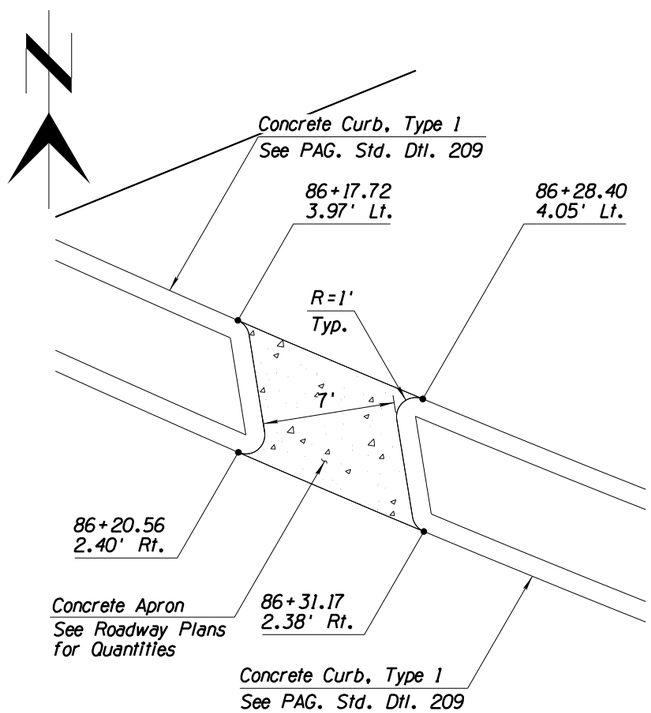

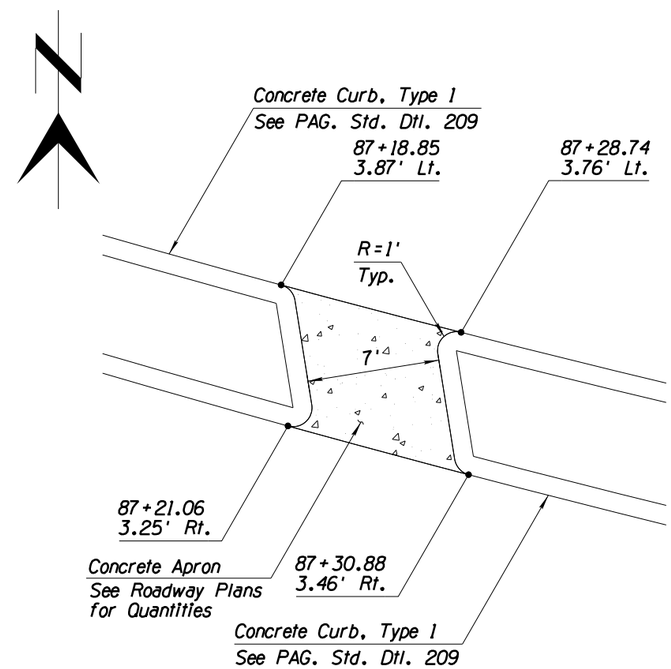

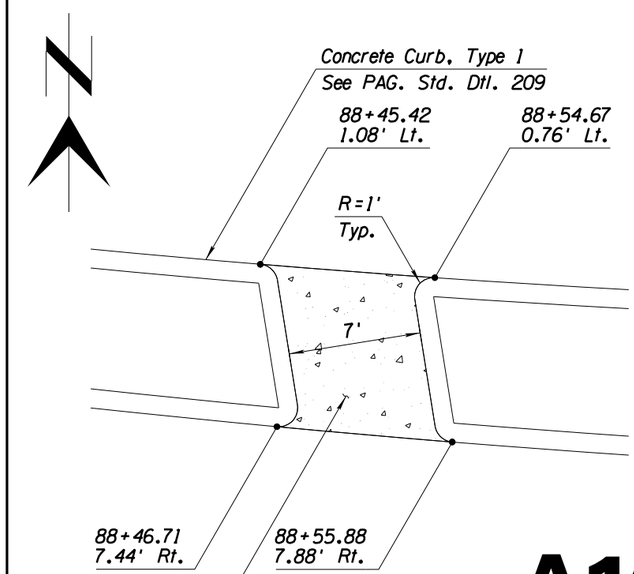

DETAIL A10

MEDIAN OPENING

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=4'	Sheet DT10 of DT69	Page 23 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

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Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

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#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
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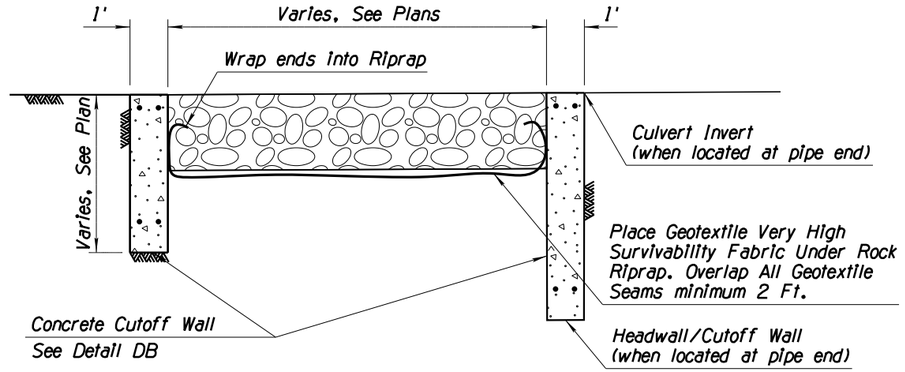


NOTES:

1. For all riprap sizes and gradations, use PAG Section 1014-4.04(A) Non-woven Very High Survivability Fabric beneath all dumped rock riprap. A geotextile with a min. weight of 12 oz/sy is desirable.
2. The color of all riprap shall be Sante Fe Gold.

D_{50} =3" Dumped-Headwall & Wingwall Rip Rap Gradation Chart

ROCK SIZE (in)	PERCENT GRADATION SMALLER THAN (%)
6"	100
3"	50 - 30
1"	5 - 0

D_{50} =6" Dumped Rip Rap Gradation Chart

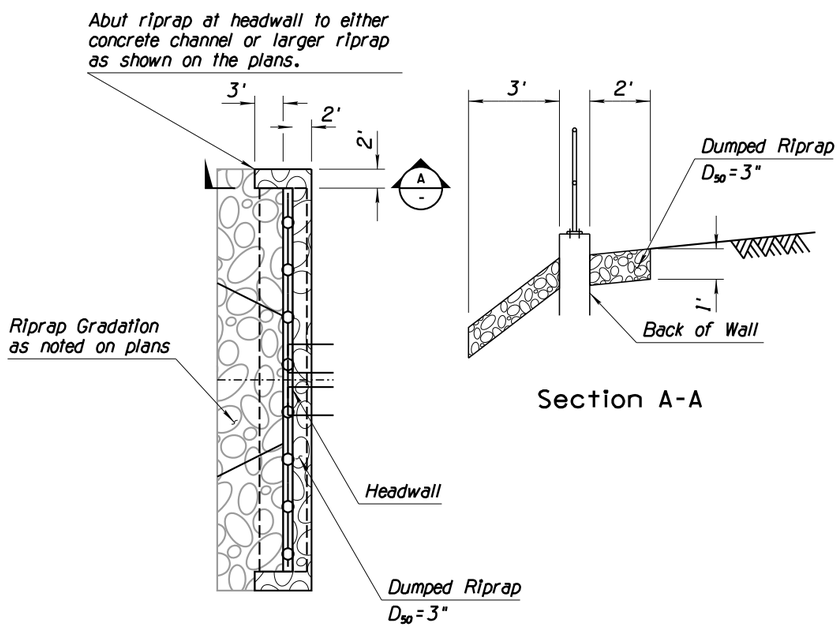
ROCK SIZE (in)	PERCENT GRADATION SMALLER THAN (%)
12"	100 - 90
9"	85 - 70
6"	50 - 30
4"	15 - 5
2"	5 - 0

D_{50} =9" Dumped Rip Rap Gradation Chart

ROCK SIZE (in)	PERCENT GRADATION SMALLER THAN (%)
18"	100 - 90
13.5"	85 - 70
9"	50 - 30
6"	15 - 5
3"	5 - 0

D_{50} =12" Dumped Rip Rap Gradation Chart

ROCK SIZE (in)	PERCENT GRADATION SMALLER THAN (%)
24"	100 - 90
18"	85 - 70
12"	50 - 30
8"	15 - 5
4"	5 - 0

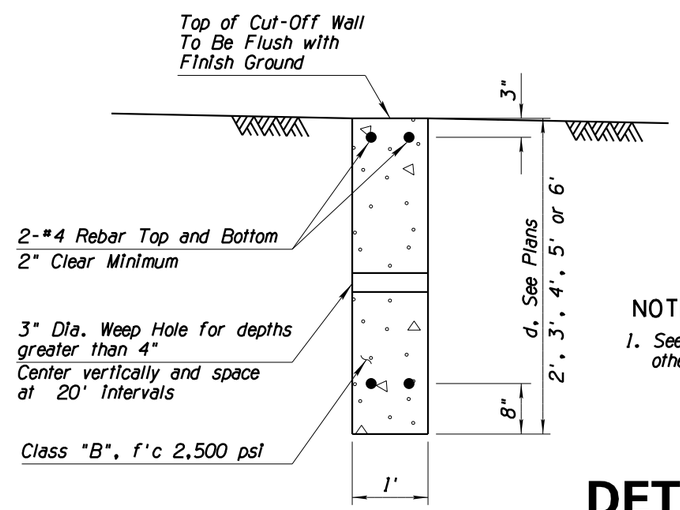


Section A-A

Riprap Headwall Treatment

DETAIL DA

RIPRAP



Concrete Cut-Off Wall

NOTE:

1. See specifications for finish and other requirements.

DETAIL DB

CONCRETE CUT-OFF WALL

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT11 of DT69	Page 24 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

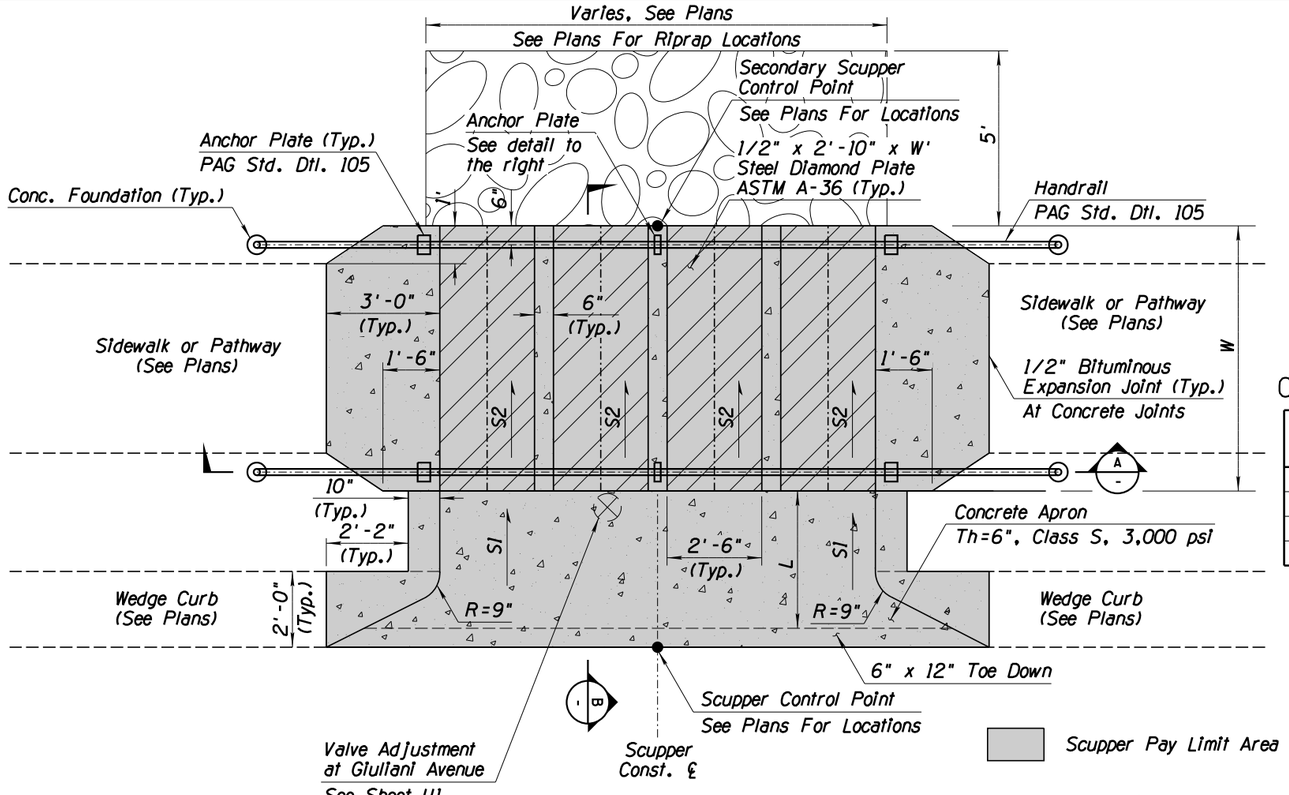
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

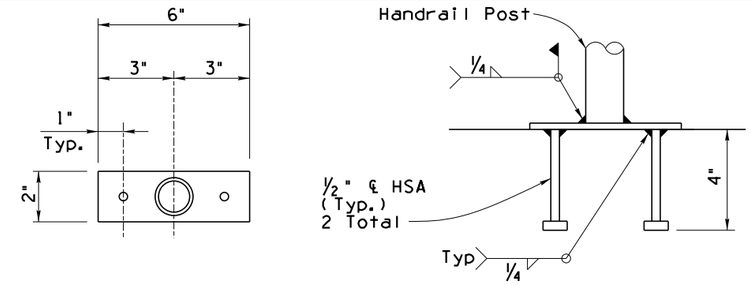
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A. 01/04/18 EXPIRES 9/30/2020

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director





ANCHOR PLATE

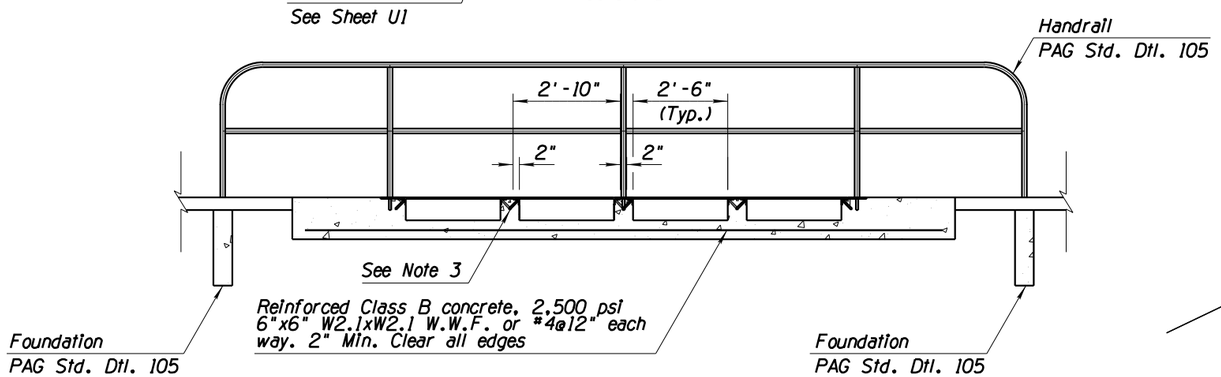
Not to Scale

CONCRETE SIDEWALK SCUPPER (SPECIAL)

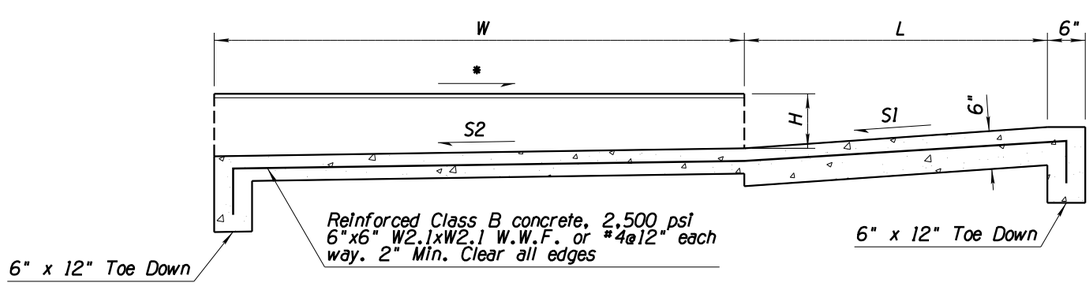
LOCATION	STATION & OFFSET (FT)	SCUPPER CELLS	H	L	W	S1	S2
Via Molino De Viento	10+87.72, 13.00' Lt.	4 Cell	9"	3.63'	7'	6.91%	0.15%
Giuliani Avenue	10+97.91, 13.00' Rt.	5 Cell	9"	4.50'	7'	5.55%	0.15%
De Concini Drive	11+10.67, 13.00' Rt.	4 Cell	9"	3.0'	7'	8.33%	1.80%
Vahalla Road	49+07.95, 50.24' Rt.	2 Cell	12"	0'	10'	N/A	0.76%

NOTES:

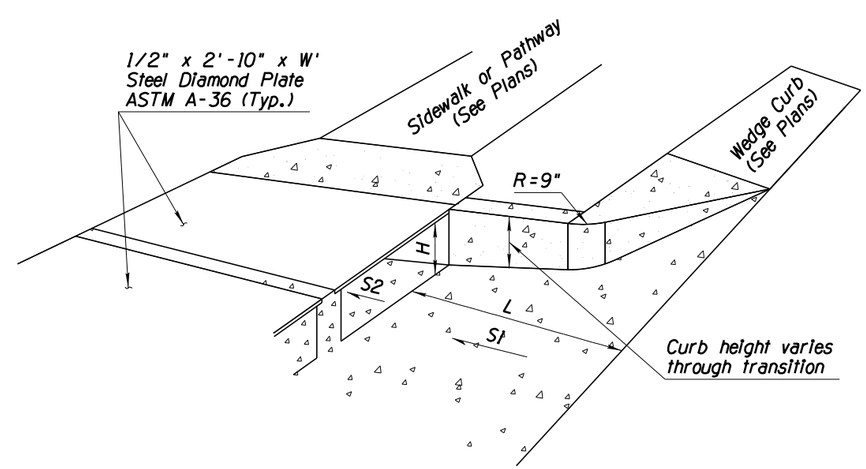
1. Materials and construction requirements for Concrete Sidewalk Scupper (Special) shall comply with PAG Std. Det. 205, Type 2 Scupper while adhering to the dimensions, reinforcing, and grades shown.
2. Steel Diamond Plate shall be givin one shop coat of paint No. 1 per Std. Spec. Section 1002. Exposed metal shall be painted with two coats of SSPC Paint No. 5 per Std. Spec. Section 1002. The color of paint shall be Sherwin-Williams 6164, Svelte Sage or approved equal.
3. The studs along the angle iron saddles shall be offset to avoid conflict.



Section A-A



Section B-B * Slope as Shown on Plans



Isometric View

NTS

DETAIL DC

CONCRETE SIDEWALK SCUPPER (SPECIAL) ITEM #9080227

Contact Arizona 811 at least two full working days before you begin excavation

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Scales	Horiz. NA	Sheet DT12 of DT69	Page 25 of 433
	Vert. NA		

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Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

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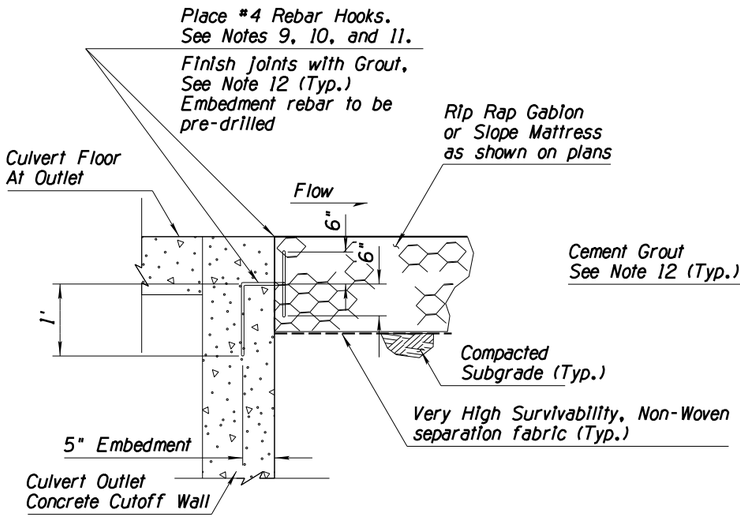
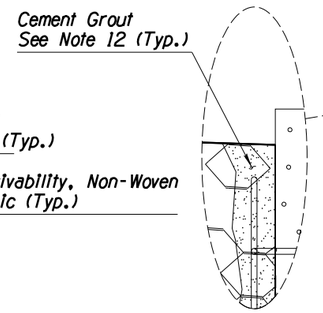
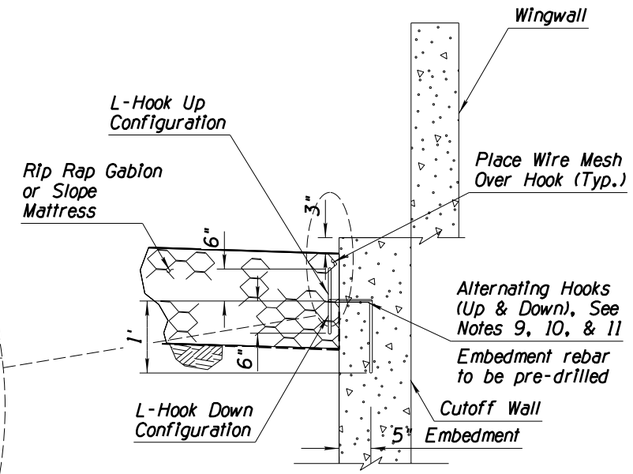


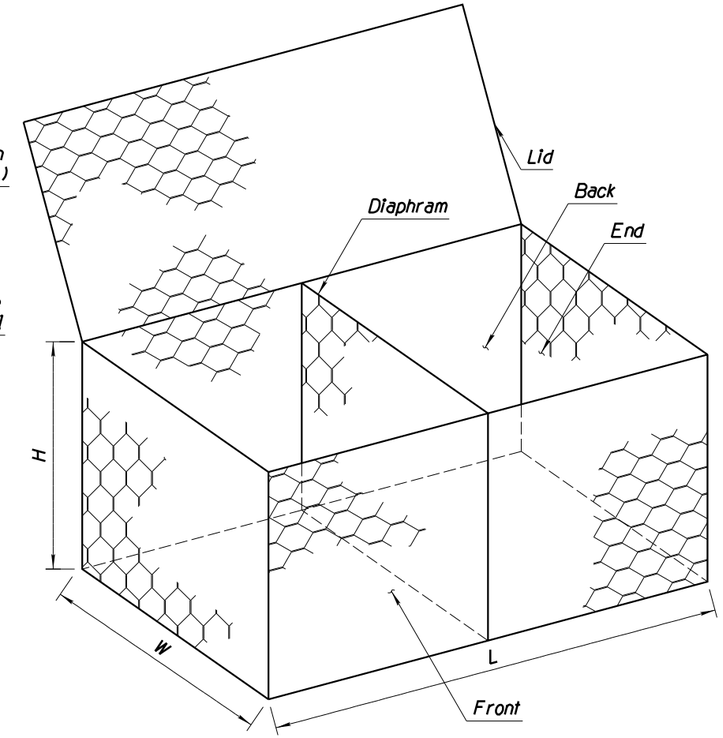
Hook Connection At
Culvert Outlet at Grade
Apron



Typical Finishing
Cement Joint
Application



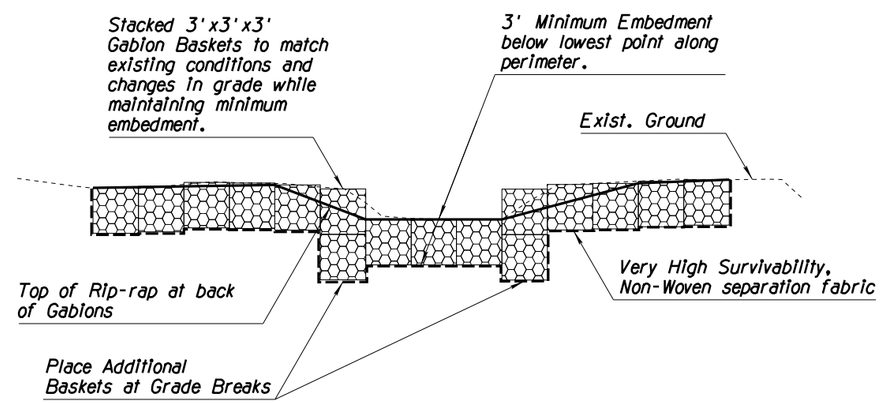
Hook Connection At
Concrete Cutoff Wall or
Wingwall



Gabion Basket Assembly

Riprap (Gabion Basket/Slope Mattress) Notes:

1. Riprap (Slope Mattress & Gabion Basket) Shall Be made of 8x10 Hexagonal Double Twisted Wire Mesh Type In Accordance with ASTM A975-97. Nominal Opening of Mesh Shall not Exceed 3.25 Inches.
2. Riprap (Slope Mattress) Diaphragms Shall match the depth of the Slope Mattress.
3. (Gabion Basket) Diaphragms Shall Be 3'x3'.
4. Wire Shall Be a Minimum of 0.120 Inches in Diameter and Comply with ASTM A975-97, Style 1 Coating, Galvanized Steel Wire. Tie Wire, Rings Shall Comply with ASTM A975-97 and Shall not be placed more than 6 Inches Apart. All Wire Shall Have a Maximum Tensile Strength of 75,000 psi in Accordance with ASTM A641/A641 M-03.
5. Installation and Anchoring Shall be in Accordance with section 913-3.05 of the Standard Specification and/or the Manufacturer's Recommendations.
6. Slope mattress rocks shall range between 3-6 inches with an allowed variation of 5% oversize and/or 5% undersize rock.
7. Size of Rock for The Riprap (Gabion Basket) Shall be Well Graded Varying in Size From 4 to 8 Inches, in Accordance with Section 913 Of The Standard Specification.
8. Very High Survivability Fabric, Non-woven, geotextile fabric of minimum weight of 12 oz. / SY.
9. Place #4 Rebar Hooks with 5" Embedment at 2-ft Intervals with Alternating Hook Directions Up & Down. Place in wall, footings, and cutoff walls adjacent to Wire baskets or mattresses.
10. At wall faces, hook placement shall account for the depth of the gabion or slope mattress so the hook is centered half the depth.
11. At footing faces, the hook placement shall be centered half the depth of the mattress or gabion plus the 3-inches of additional lip indicated on these details.
12. At concrete to wire joints, pour grout full depth of gabion or mattress as determined by the Engineer. Grout width may vary 5 inches to 12 inches. Grout shall be in accordance with Section 914-2.03 of the standard Specifications. The grout shall be considered as incidental to and included in the payment for the contract items for gabion baskets or slope mattresses, complete-in-place.
13. The color of all riprap used for gabions and mattresses shall be Sante Fe Gold.



Typical Section B-B (Looking South)

No Scale

DETAIL DD

RIPRAP GABION BASKET
ITEM #9130005/
SLOPE MATTRESSES
ITEM #9130004

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT13 of DT69	Page 26 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

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WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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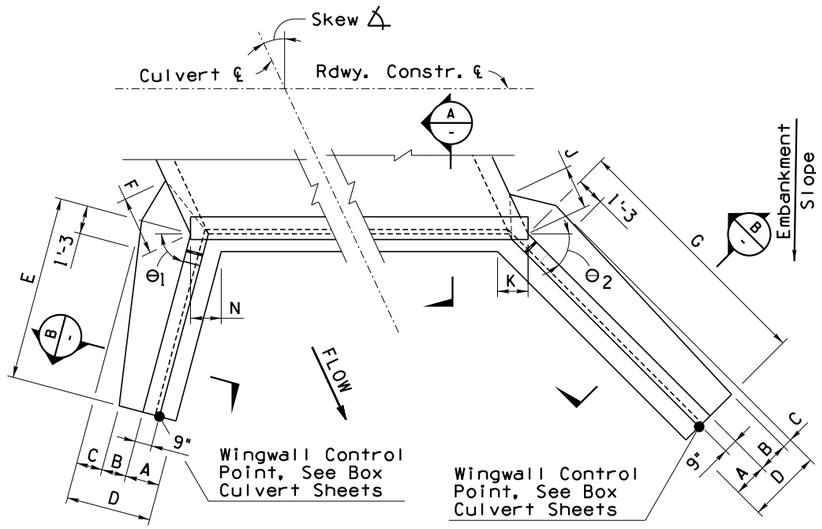
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Date Signed 01/04/18
Not Valid Without Signature
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

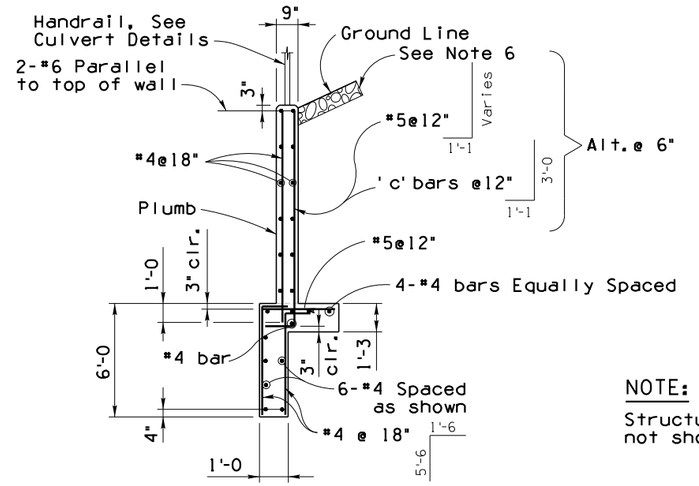
		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director



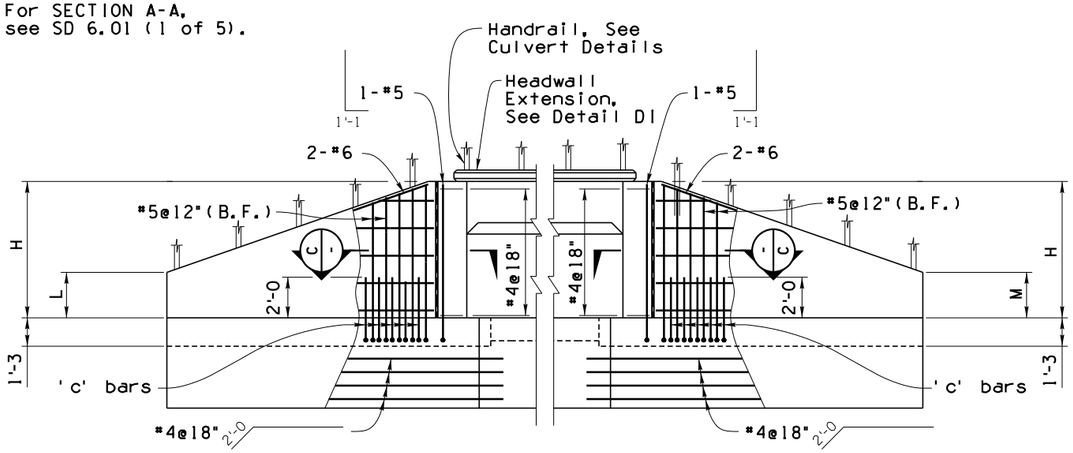
PLAN

NOTE:
For SECTION A-A, see SD 6.01 (1 of 5).

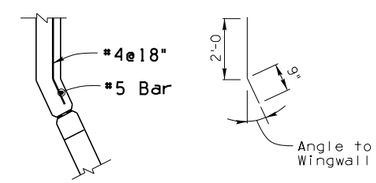


SECTION B-B

NOTE:
Structure Backfill not shown for Clarity.



WINGWALL ELEVATION
(Looking Back at Structure)



SECTION C-C

GENERAL NOTES:

1. Concrete shall be Class S (f'c= 3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM 615, Grade 60.
3. All Reinforcing steel shall have 2" clear cover unless noted otherwise.
4. All work shown in this detail, except for the handrail, will be paid for under the Box Culvert bid items.
5. For additional General Notes and Details, See ADOT SD 6.01 (1 of 5 & 2 of 5).
6. See Box Culvert Detail Sheets for limits and details of Riprap and/or Gabion Baskets. See Detail DA for headwall treatment.
7. Perform excavation, over excavation, and Structure Backfill consistent with Detail A8.

Dimensions																		
Culvert #	Inlet/ Outlet	Skew	θ_1	θ_2	H	A	B	C	D	E	F	G	J	K	L	M	N
1B	Outlet	0°	35°	35°	6'-6	1'-6	1'-3	1'-5	4'-2	20'-0	3'-0	20'-0	3'-0	10⅜"	3'-4	3'-4	10⅜"
2	Outlet	10°	25°	25°	7'-9	1'-6	1'-3	1'-11	4'-8	16'-0	3'-6	23'-6	3'-6	8"	4'-9	4'-0	8"
5	Outlet	15°	40°	35°	8'-9	2'-0	1'-6	1'-9	5'-3	21'-0	3'-8	24'-0	3'-8	2'-8	4'-9	4'-9	2'-4
6A	Outlet	30°	90°	40°	6'-6	1'-6	1'-3	2'-1	4'-10	7'-6	3'-3	20'-6	3'-3	1'-3	4'-6	2'-6	1'-8
*11A	Outlet	45°	45°	90°	6'-3	1'-6	1'-2	1'-7	4'-3	30'-0	3'-3	17'-0	3'-3	1'-6	2'-6	2'-6	1'-4
**16	Outlet	0°	70°	46°	7'-9	1'-6	1'-4	1'-10	4'-8	13'-0	3'-9	30'-0	3'-9	1'-4	5'-7	5'-7	1'-4

* 6'-0 Cut-Off Wall eliminated at Headwall and Wingwalls for specified structures.
** See Detail DD16 for additional concrete haunch details.

Culvert #	Inlet/ Outlet	'c' bars
1B	Outlet	3-#5
2	Outlet	5-#5
5	Outlet	5-#5
6A	Outlet	3-#5
11A	Outlet	3-#5
16	Outlet	5-#5

DETAIL DE

BOX CULVERT OUTLET WINGWALLS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. NA / Vert. NA

Sheet DT14 of DT69 | Page 27 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A.
EXPIRES 3/31/2020

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333 E. Wetmore Road
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Tucson, AZ 85705
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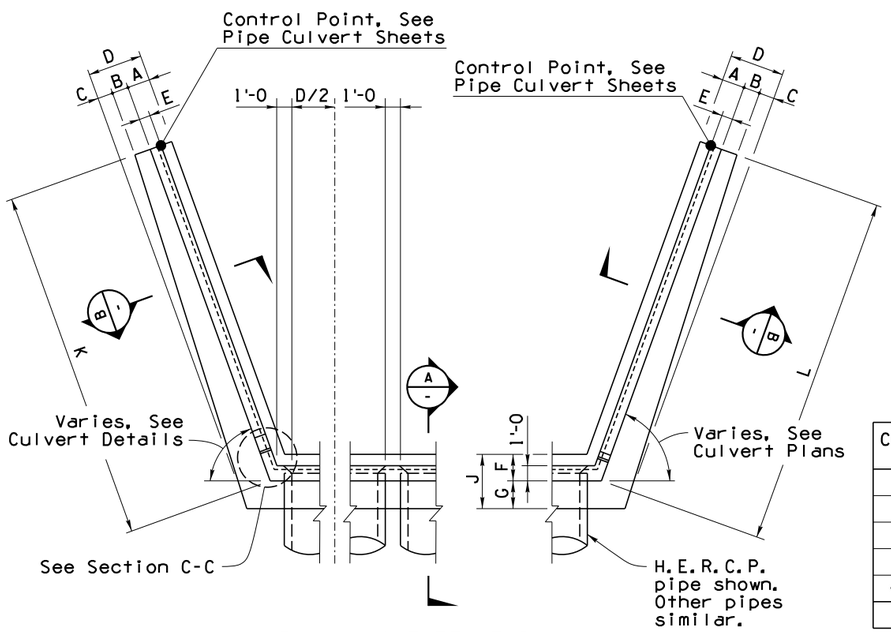
Pima County Department of Transportation

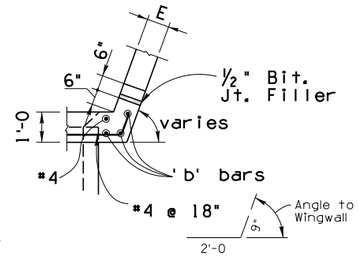
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



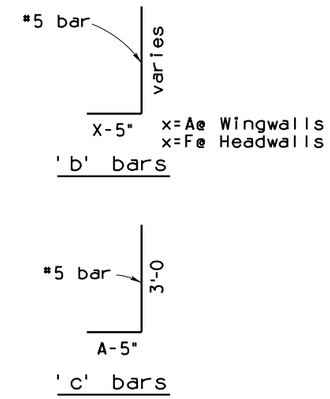
PLAN - OUTLET HEADWALL

Not to Scale



SECTION C-C

Not to Scale



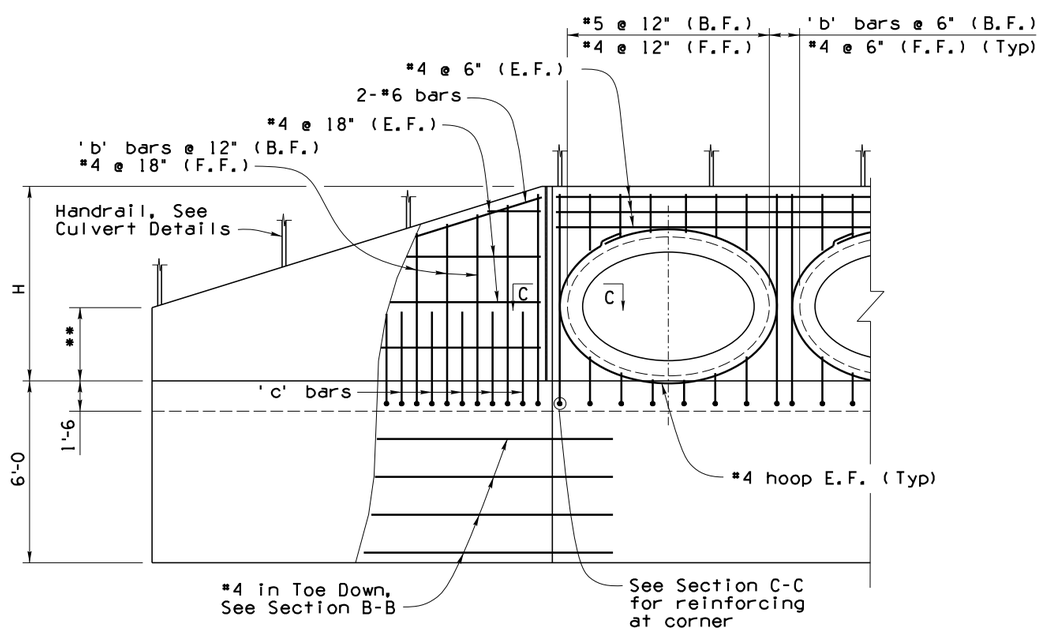
GENERAL NOTES:

1. Concrete shall be Class S (f'c=3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Provide construction joints in headwalls at a maximum spacing of 30 feet. All joints shall be placed perpendicular to headwall.
5. All work shown in this detail, except for the handrail, will be paid for under the pipe culvert bid items.
6. For additional General Notes and Details, See SD 6.30 (1 of 5).
7. See Pipe Culvert Detail Sheets for limits and details of Rip-Rap and/or Gabion Baskets. See Detail DA for headwall treatment.
8. Perform excavation, over excavation, and Structure Backfill consistent with Detail A8.

Culvert #	'a' bars	'b' bars	'c' bars
3A	#5 @ 12"	#5	-
3B	#5 @ 12"	#5	-
3C	#5 @ 12"	#5	-
4	#6 @ 12"	#6	5-#5
*11B	#5 @ 12"	#5	-
12	#5 @ 12"	#5	-

Culvert #	H	A	B	C	D	E	F	G	J	K	L
3A	7'-2	1'-6	1'-9	1'-0	4'-3	9"	1'-9	2'-9	4'-6	13'-6	13'-6
3B	6'-5	1'-6	1'-6	1'-0	4'-0	9"	1'-9	2'-6	4'-3	14'-0	14'-0
3C	6'-8	1'-6	1'-7	1'-0	4'-1	9"	1'-9	2'-7	4'-4	17'-6	17'-6
4	9'-2	2'-0	2'-3	1'-0	5'-3	1'-0	2'-0	3'-3	5'-3	23'-0	22'-0
*11B	6'-2	1'-6	1'-7	1'-0	4'-1	9"	1'-9	2'-7	4'-4	24'-0	30'-6
12	5'-5	1'-6	1'-1	11"	3'-6	9"	1'-9	2'-0	3'-9	17'-6	13'-6

* 6'-0 Cut-Off Wall eliminated at Headwall and Wingwalls for specified structures.

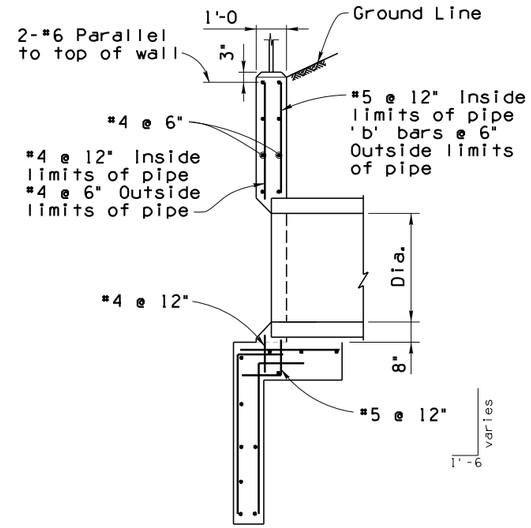


**For Dimensions not shown, see Culvert Details

ELEVATION - OUTLET HEADWALL

Not to Scale

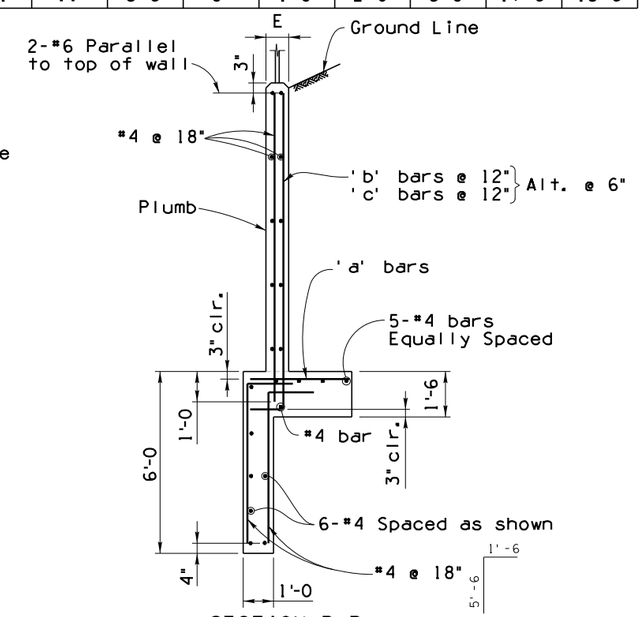
(Left side shown, Right side similar)



SECTION A-A

Not to Scale

(For Footing & Cut-Off Wall Details not shown, see SECTION B-B)



SECTION B-B

Not to Scale

NOTE:

Structure Backfill not shown for Clarity.

DETAIL DF

PIPE CULVERT OUTLET HEADWALLS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT15 of DT69	Page 28 of 433
	Vert. NA		

*4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

		Date
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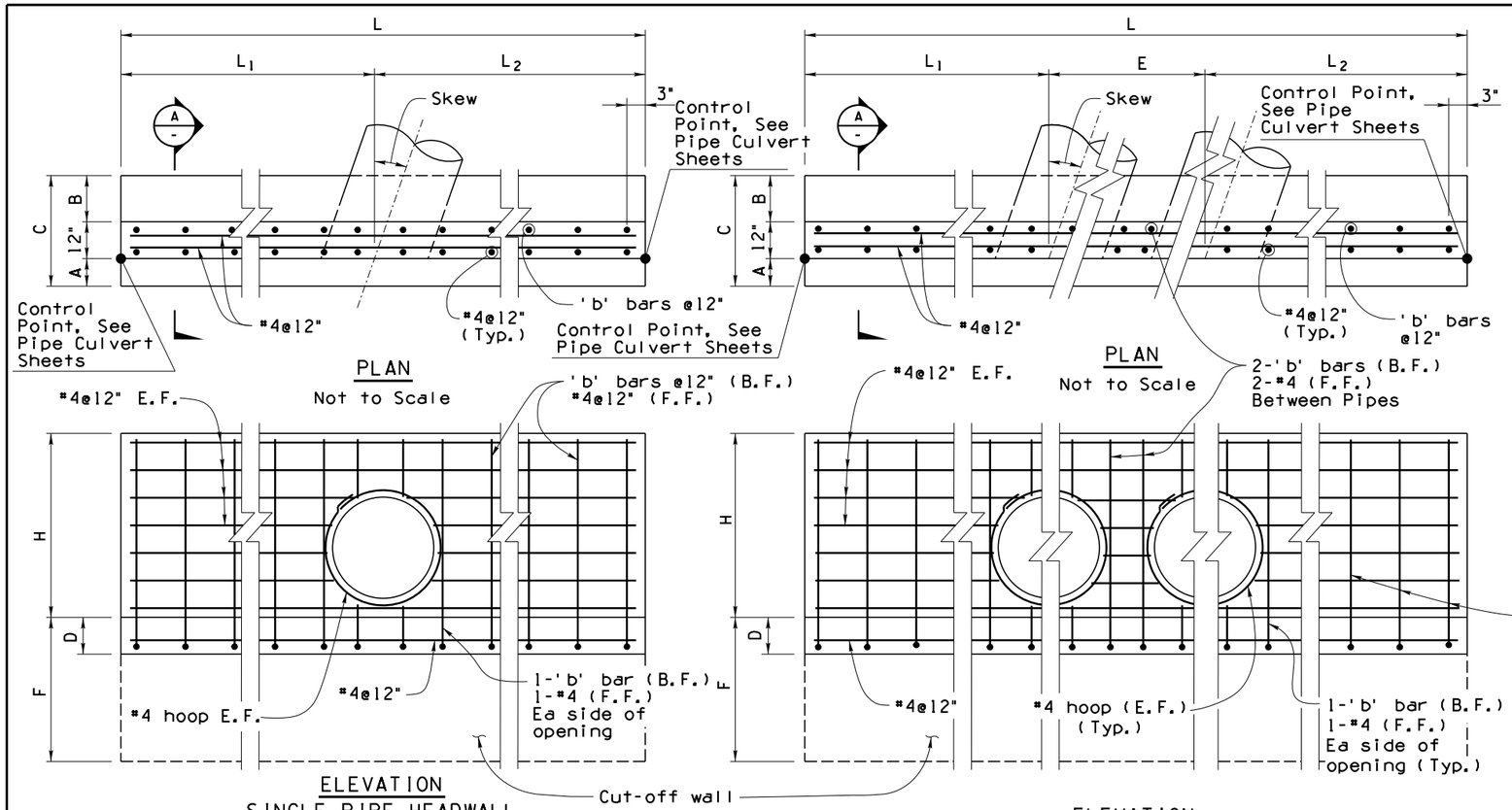
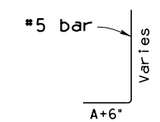


ELEVATION
SINGLE PIPE HEADWALL
Not to Scale

ELEVATION
MULTIPLE PIPE HEADWALL
Not to Scale

GENERAL NOTES:

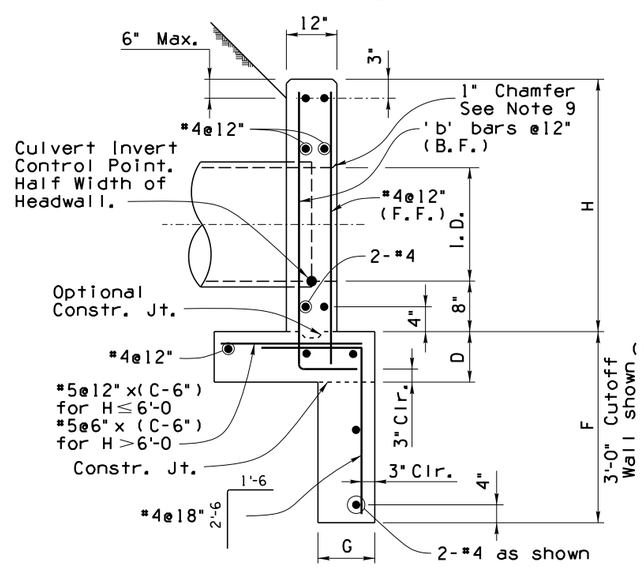
1. Concrete shall be Class S (f'c= 3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Provide construction joints in headwall at a maximum spacing of 15 feet and expansion joints at a maximum spacing of 60 feet. All joints shall be placed perpendicular to headwall.
5. S.R.P. pipe shown. S.P.A. pipe similar.
6. High point of headwall shall not project more than 6" above slope.
7. For additional General Notes and Details, See SD 6.30 (1 of 5).
8. Perform excavation, over excavation, and Structure Backfill consistent with Detail A8.
9. Provide 1" chamfer at 1:1 along top and sides of pipe inlet. Transition to zero chamfer at bottom. Pipe invert to match adjacent concrete inlet elevation.



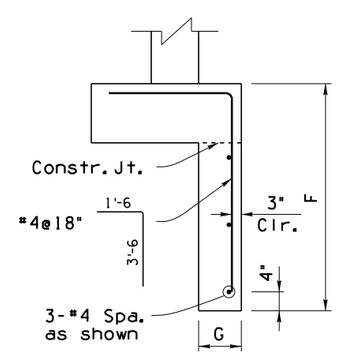
'b' BARS

Dimensions														
Culvert #	Inlet/ Outlet	Skew	H	A	B	C	D	E	F	G	L	*L_1	*L_2
1A	Inlet	30°	4'-1	1'-0	3'-3	5'-3	1'-2	11'-2	0"	0"	43'-0	13'-5	18'-5
1A	Outlet	30°	4'-11	1'-3	1'-9	4'-0	1'-2	11'-2	3'-0	1'-0	33'-0	11'-2	10'-11
3A	Inlet	0°	7'-0	1'-3	4'-9	7'-0	1'-4	6'-6	0"	0"	97'-0	44'-10	45'-8
3B	Inlet	0°	6'-4	1'-3	4'-9	7'-0	1'-4	23'-0	0"	0"	74'-0	22'-11	28'-1
3C	Inlet	0°	6'-8	1'-3	4'-9	7'-0	1'-4	19'-6	0"	0"	59'-0	19'-9	19'-9
4	Inlet	-5°	9'-0	1'-6	6'-6	9'-0	1'-6	5'-6	0"	0"	71'-0	28'-10	36'-8
6B	Inlet	30°	5'-5	1'-0	4'-0	6'-0	1'-4	10'-5	0"	0"	60'-0	23'-2	26'-5
7	Inlet	-5°	7'-8	1'-6	5'-9	8'-3	1'-4	5'-6	0"	0"	55'-0	21'-9	27'-9
8A	Inlet	-20°	6'-4	1'-3	4'-9	7'-0	1'-4	0"	0"	0"	110'-0	15'-6	94'-6
8A	Outlet	-20°	4'-2	1'-0	1'-9	3'-9	1'-2	0"	4'-0	1'-0	21'-6	10'-9	10'-9
**8B	Inlet	20°	6'-4	1'-3	4'-9	7'-0	1'-4	14'-4	0"	0"	110'-0	73'-4	22'-4
9	Inlet	-20°	7'-10	1'-6	5'-9	8'-3	1'-4	4'-9	0"	0"	55'-0	18'-5	31'-10
11B	Inlet	45°	6'-0	1'-0	4'-0	6'-0	1'-4	16'-8	0"	0"	82'-0	32'-8	32'-8
12	Inlet	-25°	5'-3	1'-0	4'-0	6'-0	1'-4	17'-8	0"	0"	99'-0	48'-2	33'-2
14A	Inlet	-10°	6'-0	1'-0	4'-0	6'-0	1'-4	13'-8	0"	0"	55'-0	21'-2	20'-2
14A	Outlet	-10°	4'-8	1'-3	1'-9	4'-0	1'-2	13'-8	6'-0	1'-0	45'-6	15'-11	15'-10
14B	Inlet	0°	6'-3	1'-3	4'-9	7'-0	1'-4	4'-6	0"	0"	92'-0	52'-3	35'-3
14B	Outlet	0°	7'-2	1'-6	3'-0	5'-6	1'-4	4'-6	6'-0	1'-0	40'-6	18'-0	18'-0
15	Inlet	-10°	5'-3	1'-0	4'-0	6'-0	1'-4	9'-10	0"	0"	82'-0	29'-0	43'-2
15	Outlet	-10°	4'-0	1'-0	1'-9	3'-9	1'-2	9'-10	4'-0	1'-0	25'-6	7'-10	7'-10
17A	Inlet	0°	7'-3	1'-6	5'-9	8'-3	1'-4	10'-8	0"	0"	28'-0	7'-11	7'-5
17A	Outlet	0°	7'-10	1'-6	3'-0	5'-6	1'-4	10'-8	4'-0	1'-0	30'-0	9'-8	9'-8
17B	Inlet	-33.5°	5'-10	1'-0	4'-0	6'-0	1'-4	3'-8	0"	0"	62'-0	32'-5	25'-4
18	Inlet	-40°	6'-11	1'-3	4'-9	7'-0	1'-4	13'-11	0"	0"	71'-0	24'-11	32'-2
18	Outlet	-40°	7'-2	1'-6	3'-0	5'-6	1'-4	13'-11	6'-0	1'-0	38'-5	12'-8	11'-10

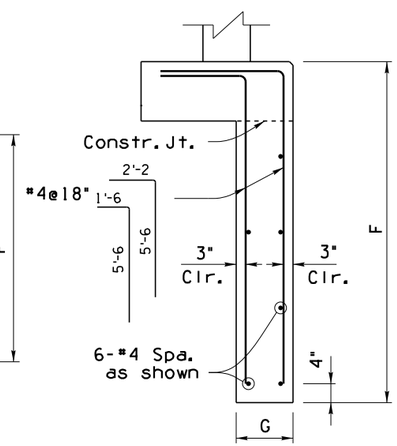
*L_1 is to the left of ℄ of culvert, L_2 is to the right of ℄ of culvert.
** 8B Inlet is within the same headwall as 8A Inlet



SECTION A-A
Not to Scale



4'-0 CUTOFF WALL
Not to Scale
(Footing and Wall Reinforcing not shown for clarity)



6'-0 CUTOFF WALL
Not to Scale
(Footing and Wall Reinforcing not shown for clarity)

NOTE:
Structure Backfill not shown for Clarity.

DETAIL DG

PIPE CULVERT HEADWALLS
ITEM #6016087

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT16 of DT69	Page 29 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

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333 E. Wetmore Road
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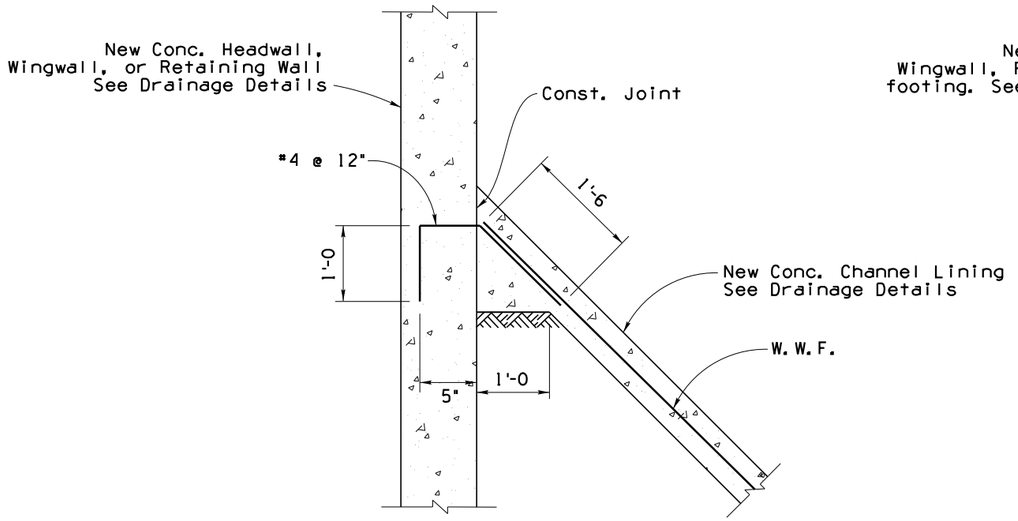
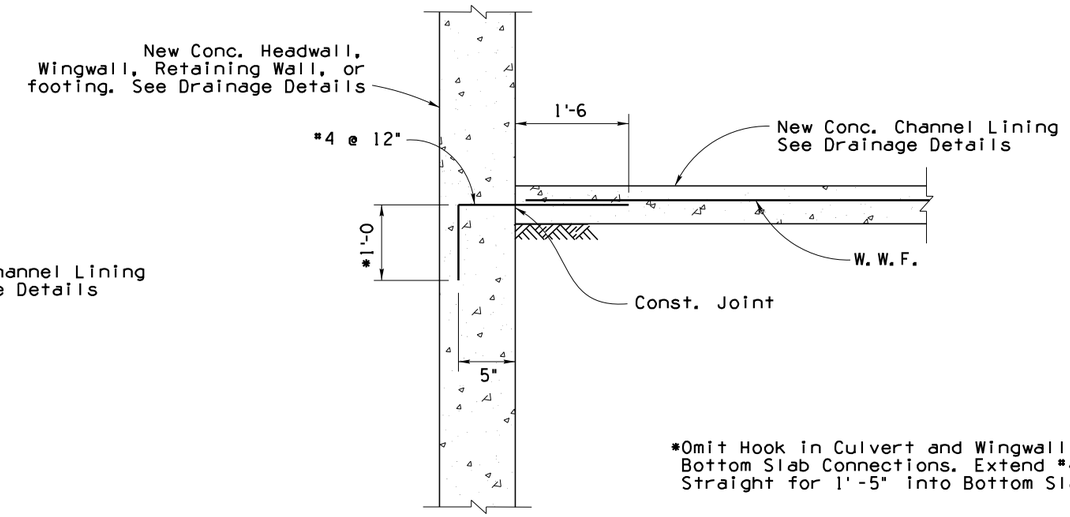
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



SLOPED CHANNEL LINING TIE (1)

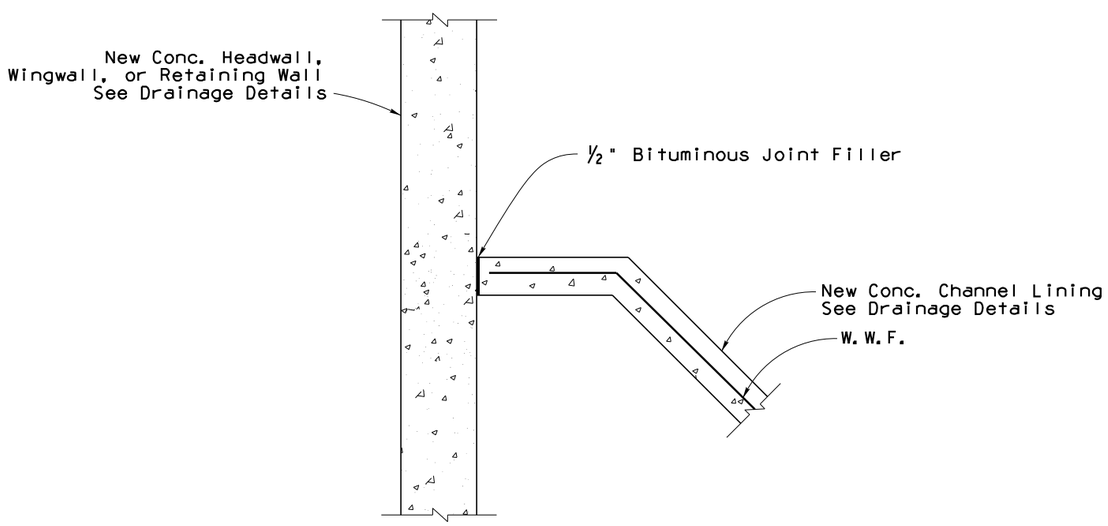
Not to Scale



*Omit Hook in Culvert and Wingwall Bottom Slab Connections. Extend #4 bar Straight for 1'-5" into Bottom Slab.

LEVEL CHANNEL LINING TIE (2)

Not to Scale



CHANNEL LINING TIE (3)

Not to Scale

NOTES:

1. Details 1 and 2 are for Channel Lining Connections from Inlet Drop Structures, Concrete Aprons, and Partially Lined Concrete Channels.
2. Detail 3 is for Channel Lining Connection from fully lined Concrete Channels.
3. All anchors for chanel lining and slope paving connections shall be installed during headwall construction.

DETAIL DH

CONNECTION DETAILS

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Scales	Horiz. NA	Sheet DT17 of DT69	Page 30 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

	Date
Designed D. Tapia	01/2018
Drawn D. Bacon	01/2018
Checked R. Solis	01/2018
Proj. Engr. R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Date Signed 01/04/18
Arizona U.S.A.
EXPIRES 9/30/2020

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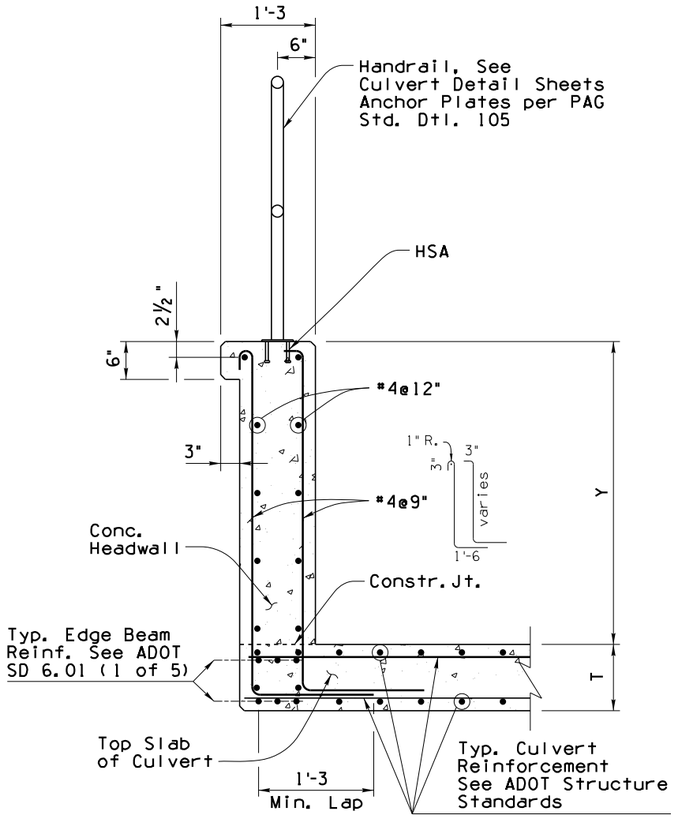
Pima County Department of Transportation

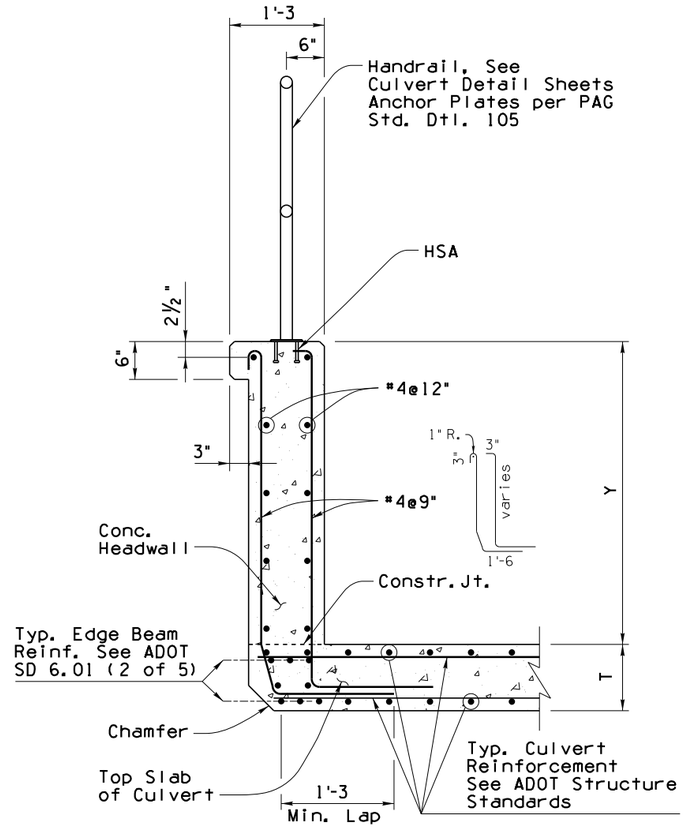
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



OUTLET HEADWALL SECTION

Not to Scale



INLET HEADWALL SECTION

Not to Scale

Culvert #	Headwall Location	T	Y
1B	Outlet	10"	2'-2"
1B	Inlet	10"	2'-2"
2	Outlet	10½"	3'-4½"
2	Inlet	10½"	2'-4½"
5	Outlet	10½"	4'-4½"
5	Inlet	10½"	4'-1½"
6A	Outlet	10½"	2'-1½"
6A	Inlet	10½"	1'-11"
10	Outlet	10½"	0'-6"
10	Inlet	10½"	4'-11"
11A	Outlet	9½"	1'-11½"
11A	Inlet	9½"	1'-5½"
13	Outlet	9½"	3'-2½"
13	Inlet	9½"	2'-2½"
16	Outlet	10½"	2'-4½"
16	Inlet	10½"	2'-1½"

GENERAL NOTES:

1. Concrete shall be Class S (f'c= 3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. All work shown in this detail, except for the handrail, will be paid for under the box culvert bid items.

DETAIL DI

EXTENDED HEADWALL

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT18 of DT69	Page 31 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA State of Arizona
EXPIRES 9/30/2020

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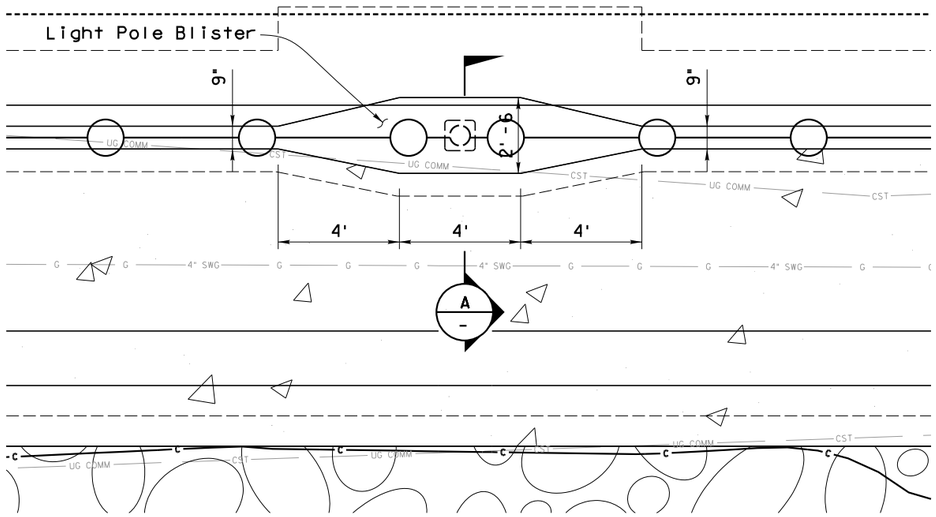
#4RTVWE Pima County Department of Transportation

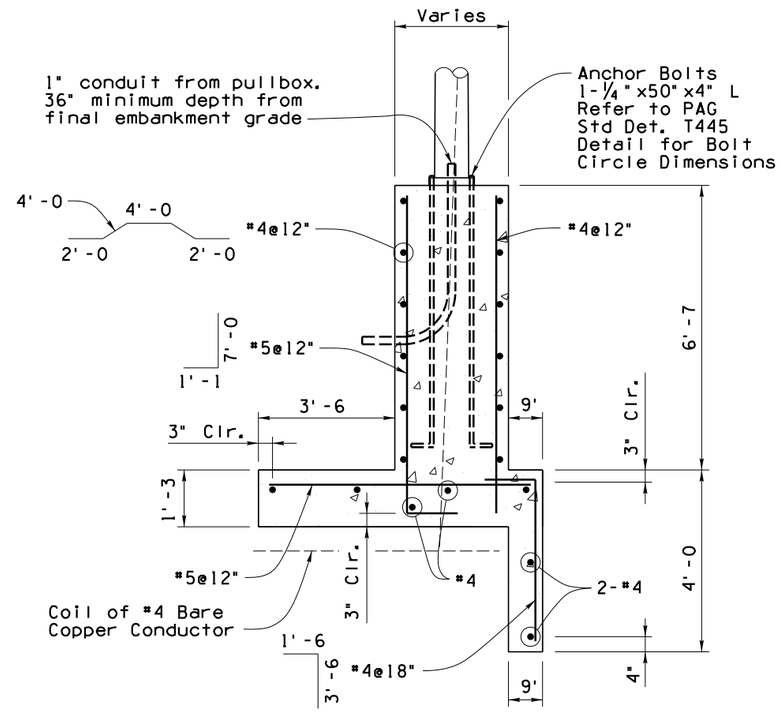
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



STA 173+94.16

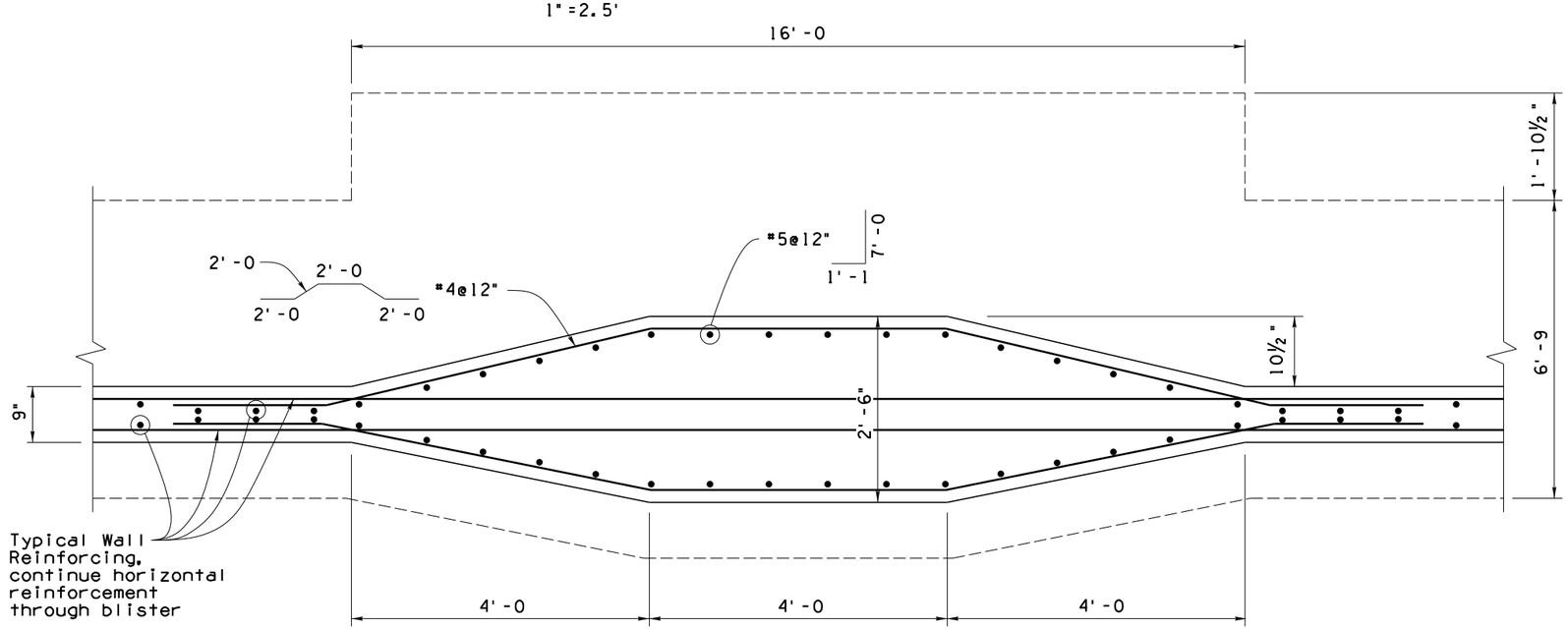
PLAN VIEW

1" = 2.5'



Section A-A

N. T. S.



PLAN

N. T. S.

NOTES:

1. All work and materials associated with the wall blister are included in the associated box culvert item, Lump Sum.
2. The anchor bolts and conduit are incidental to and included in the cost of the associated Type 2B pole to be installed at this location. No measurement for payment will be made for these items and any associated work. Bolt pattern shall match Type 2B pole.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Chamfer all exposed corners 3/4" unless noted otherwise.

DETAIL DI-11A

WALL BLISTER - CULVERT 11A
VALENCIA STA. 173+94.16

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT19 of DT69	Page 32 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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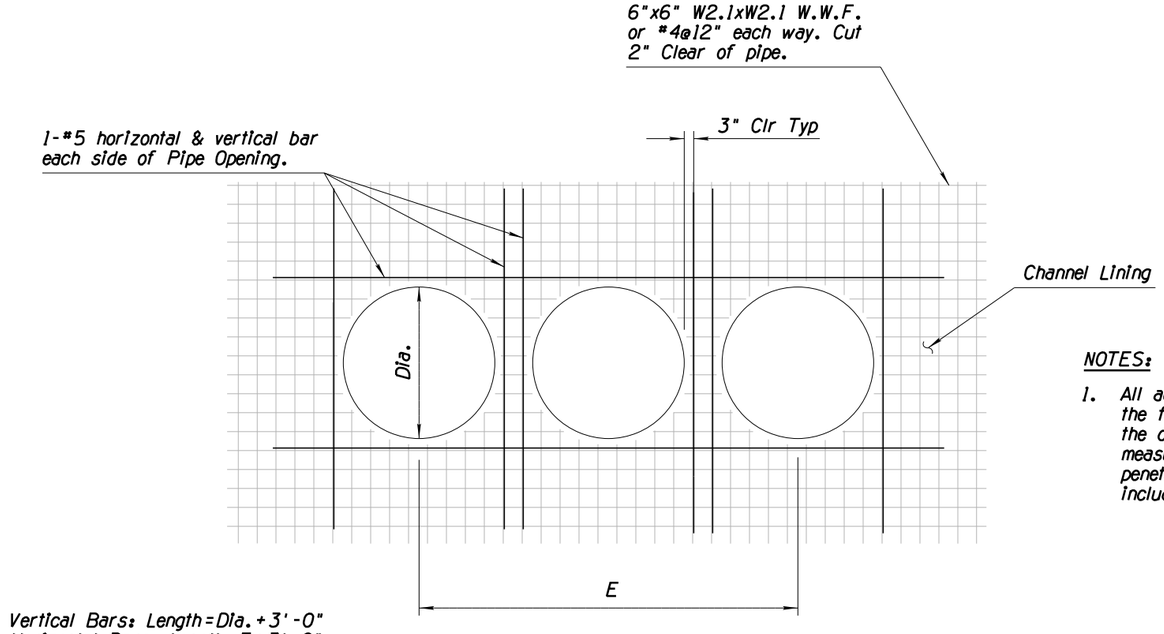
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



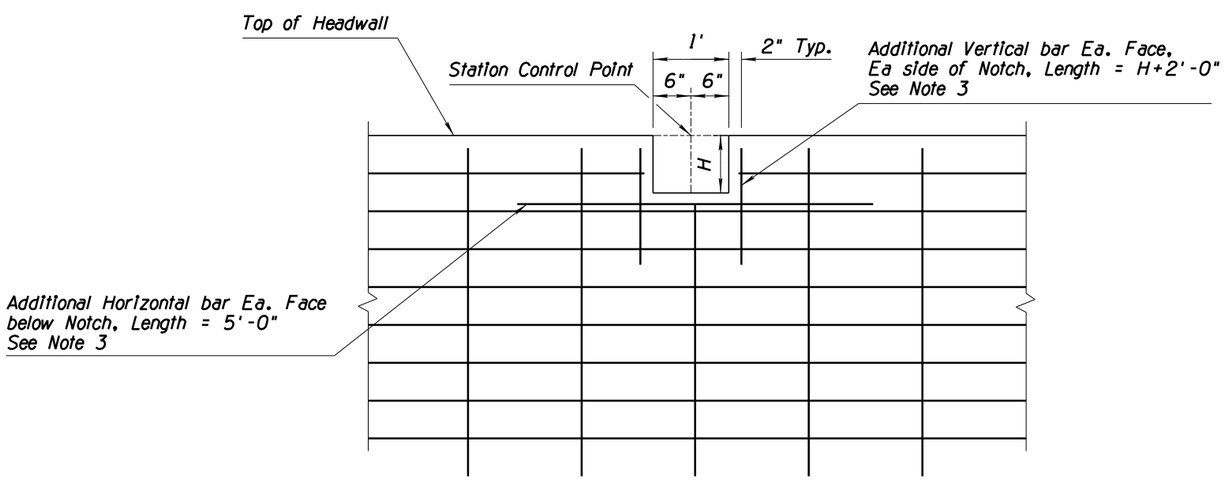
Vertical Bars: Length=Dia.+3'-0"
Horizontal Bars: Length=E+3'-0"

PIPE PENETRATION DETAIL

Not to Scale

NOTES:

1. All additional rebar required at pipe penetrations and the forming of the pipe penetration itself is included in the cost of the channel lining item. No separate measurement for payment will be made for the pipe penetrations, their cost considered incidental to and included in the cost of the channel lining item.



Notch Detail

Not to Scale

NOTES:

1. See Details DD18A-DD30 for approximate Notch locations and height "H"
2. Notch locations shall be adjusted to be at a minimum of 5' outside construction and expansion joints.
3. All additional vertical and horizontal reinforcing sizes shall match the vertical and horizontal reinforcing sizes in the wall.
4. Cut all reinforcing 2" clear of Notch.
5. All work and materials associated with the construction of the Notch is included in the associated box culvert item, Lump Sum. No separate measurement for payment will be made for the Notch.

DETAIL DJ

PENETRATION AT CHANNEL LINING & WINGWALL NOTCH DETAIL

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ARIZONA811
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Scales	Horiz. NA	Sheet DT20 of DT69	Page 33 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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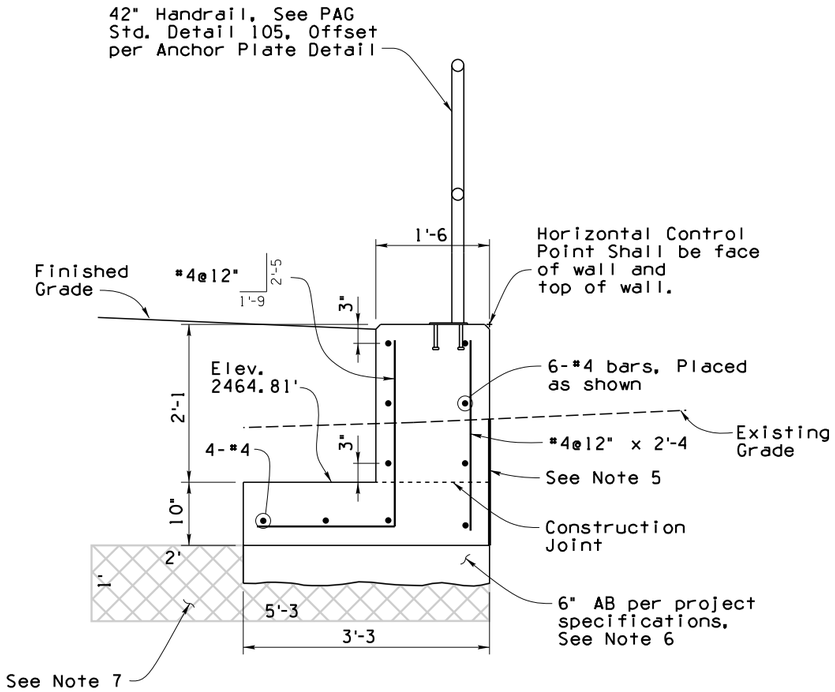
Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
ARIZONA U.S.A.
EXPIRES 9/30/2020

Ana M. Olivares, P.E., Director

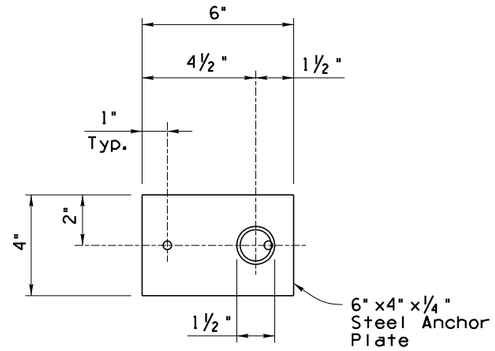
		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

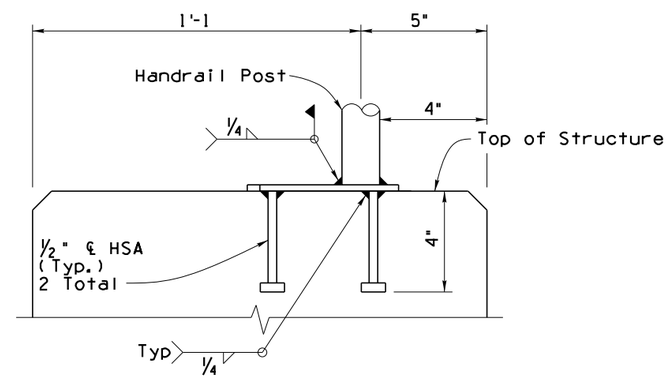
No.	Revision Description	Engineer	Date



WALL SECTION

Not to Scale





ANCHOR PLATE

Not to Scale

GENERAL NOTES:

1. Concrete shall be Class S (f'c= 3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Chamfer all exposed corners 3/4" unless noted otherwise.
5. Excavation for front face of retaining wall shall be neat line excavation. Contractor shall not disturb native soil in front of front face of retaining wall.
6. Aggregate Base (AB) under the retaining will not be measured for payment and shall be considered incidental to and included in the cost of the retaining wall item.
7. Overexcavate, remove, moisture-condition, and backfill to the dimensions shown. At a minimum, place backfill that conforms to the subgrade acceptance chart for Type 1 Material. Place unsuitable materials at locations designated in Detail A9.
8. Overexcavation and replacement with backfill material will not be measured for payment and shall be considered incidental to and included in the cost of retaining wall item.

Approximate Quantities			
Structural Excavation CY	Structure Backfill CY	Class 'S' Concrete f'c = 3000psi CY	Reinforcing Steel LBS
6	5	4	215

DETAIL DK

CONCRETE RETAINING WALL
VALENCIA STA. 183+57.00 to STA. 183+76.50
ITEM# 6010200

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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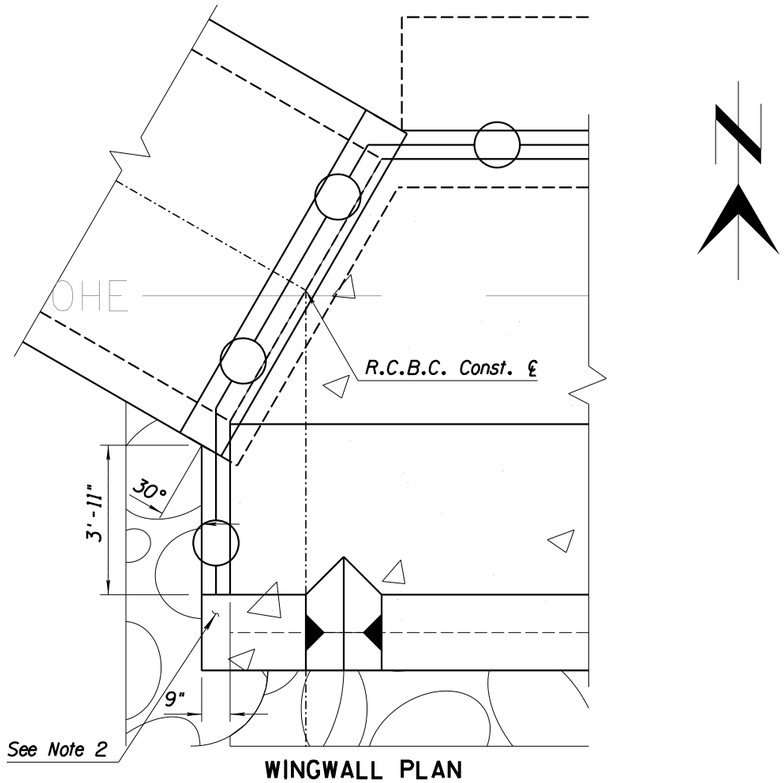
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

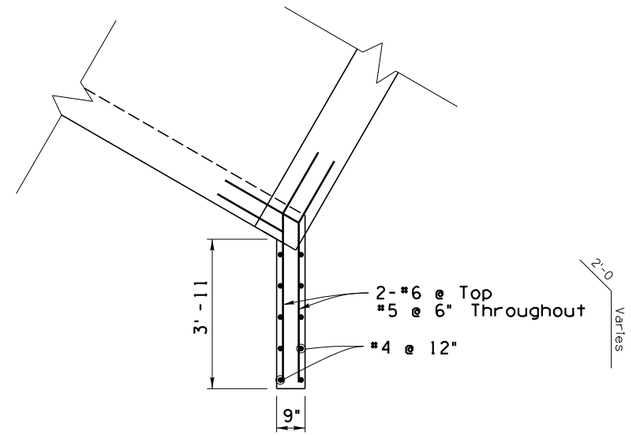
Scales	Horiz. NA	Sheet DT21 of DT69	Page 34 of 433
	Vert. NA		

NOTES:

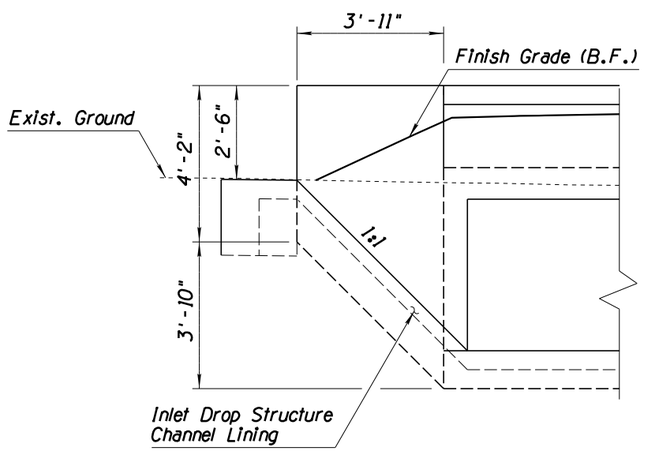
1. Connect Concrete Channel Lining to Wingwall and Box Culvert bottom slab per Detail 2 on Detail DH
2. Turn channel lining cut-off wall into side of wingwall



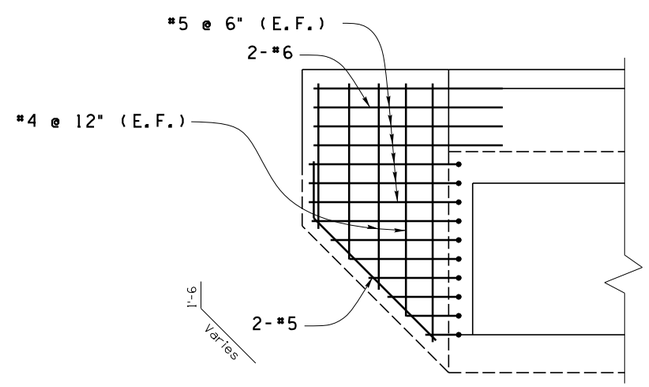
WINGWALL PLAN
1"=2'



WINGWALL DETAILS
1"=2'



WINGWALL ELEVATION
1"=2'



WINGWALL DETAILS
1"=2'

DETAIL DL

INLET IB WINGWALL

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=2'	SheetDT22 of DT69	Page 35 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A.
EXPIRES 9/30/2020

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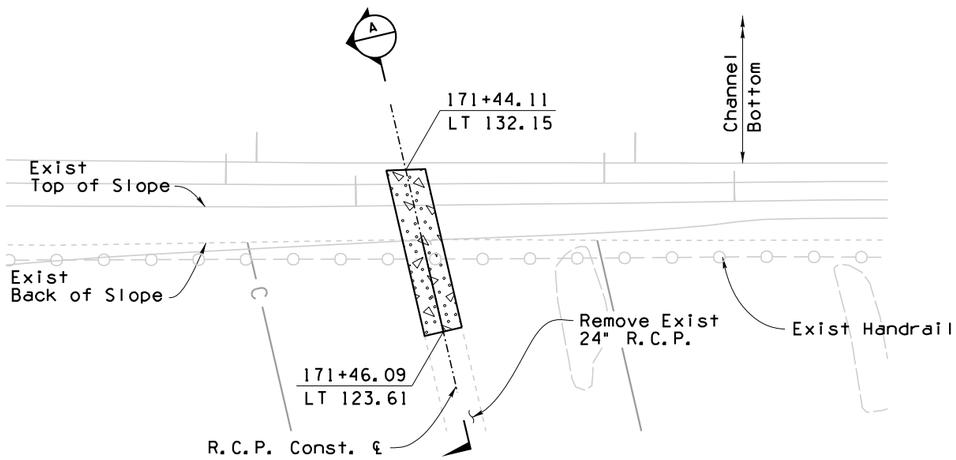
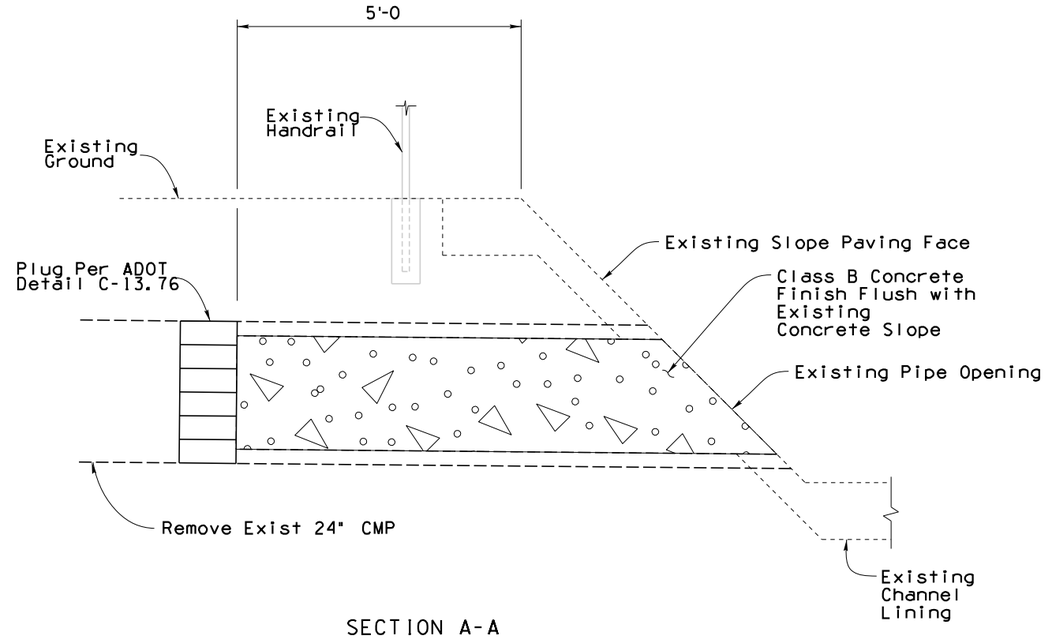
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Existing Pipe Plug
PLAN VIEW
Scale: 1/4" = 1'-0

NOTE:
Valencia Roadway Stationing is referenced on this plan.



SECTION A-A
Scale: 3/4" = 1'-0"

DETAIL DM

CONCRETE PIPE PLUG
ITEM #9300127

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT23 of DT69	Page 36 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A.
EXPIRES 9/30/2020

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VALENCIA ROAD
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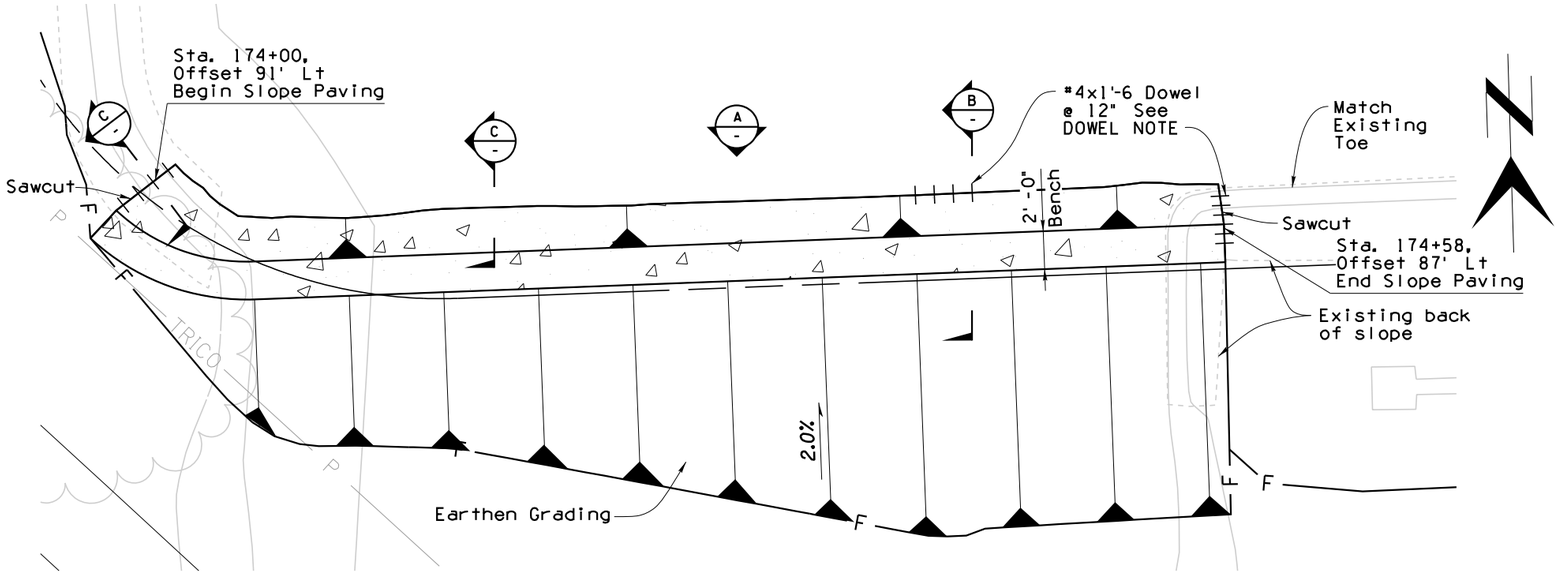


PLAN VIEW

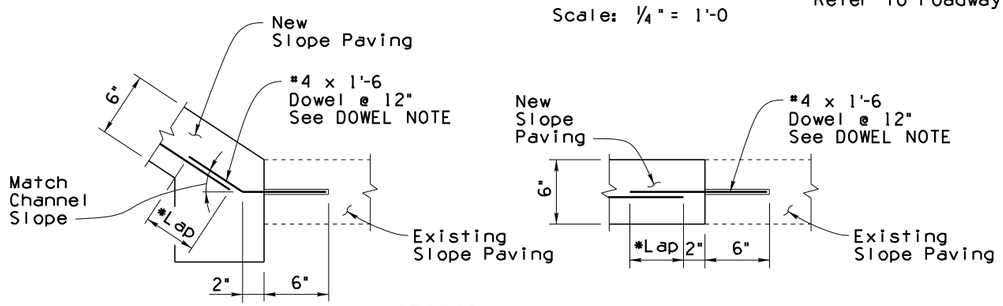
Scale: ¼" = 1'-0

GENERAL NOTES:

1. Concrete Slope Paving shall be Class S (f'c=3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. Contractor shall verify exiting slope and thickness. New Slope Paving shall match existing Slope Paving.
4. If welded wire mesh is used, the minimum lap with dowel shall be 8".

NOTE:

Valencia Roadway Stationing is referenced on this plan. Refer to roadway plans for utility information.

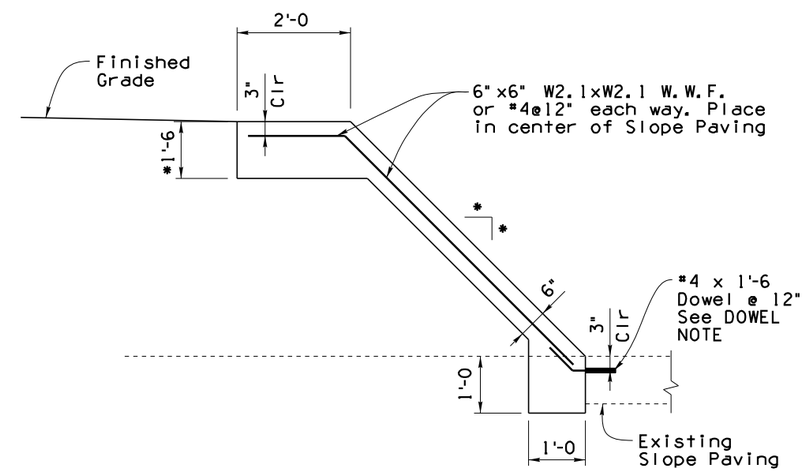


SECTION C
Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar

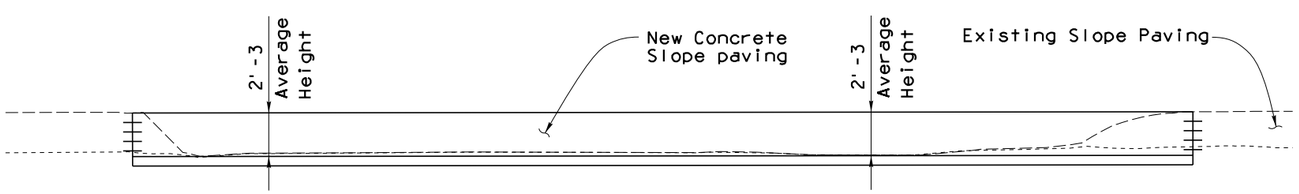
DOWEL NOTE:

Drill ¾" ⌀ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.



SECTION B-B
NTS

*Match Existing Slope Paving



ELEVATION VIEW A (LOOKING SOUTH)

Scale: ¼" = 1'-0

DETAIL DN

Concrete Slope Paving
(West of Outlet 11A)
Item #6017001

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT24 of DT69	Page 37 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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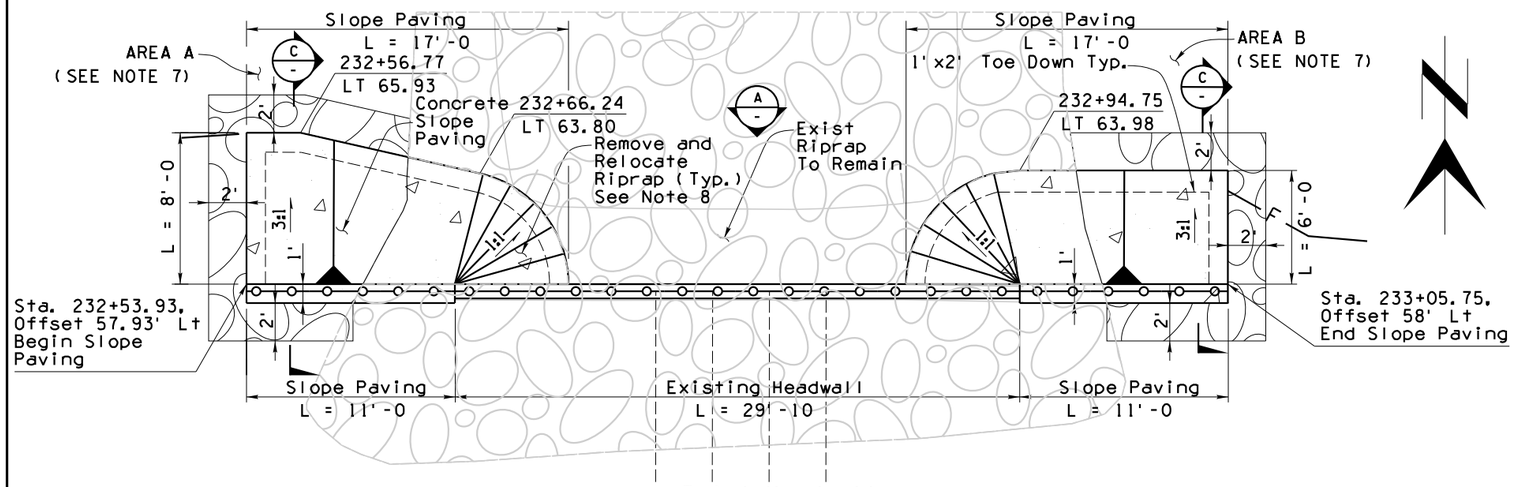
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



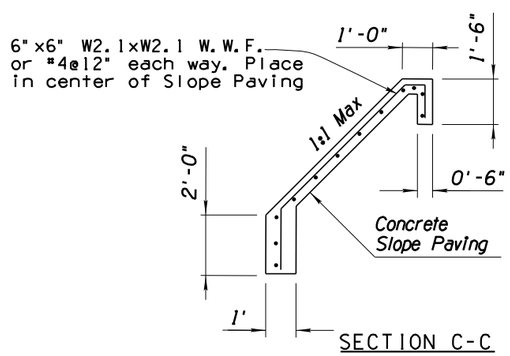
Exist Headwall Outlet
PLAN VIEW
Scale: ¼" = 1'-0

GENERAL NOTES:

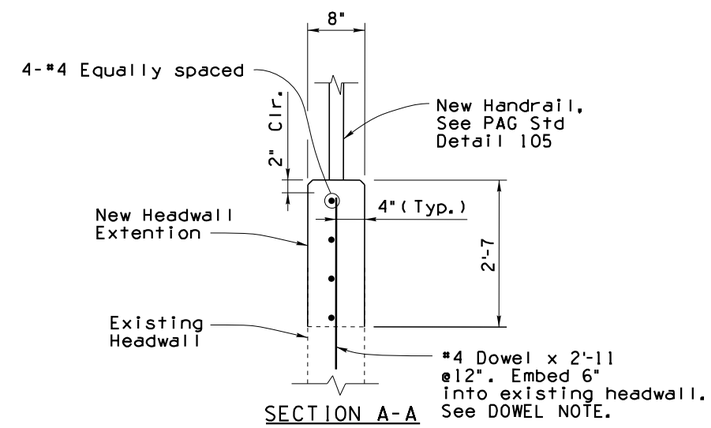
1. Concrete shall be Class S (f'c= 3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Headwall Extension is paid under item #9300121.
5. Slope Paving is paid under item #6017001.
6. Chamfer all exposed corners ¾" unless noted otherwise.
7. Remove, salvage, and reinstall riprap to Area A and Area B. To be paid under item #9300128. Existing riprap under new slope paving not shown for clarity.
8. Connect Concrete Slope Paving to Existing Headwall per Section B-B this Sheet.

NOTE:

Valencia Roadway Stationing is referenced on this plan.



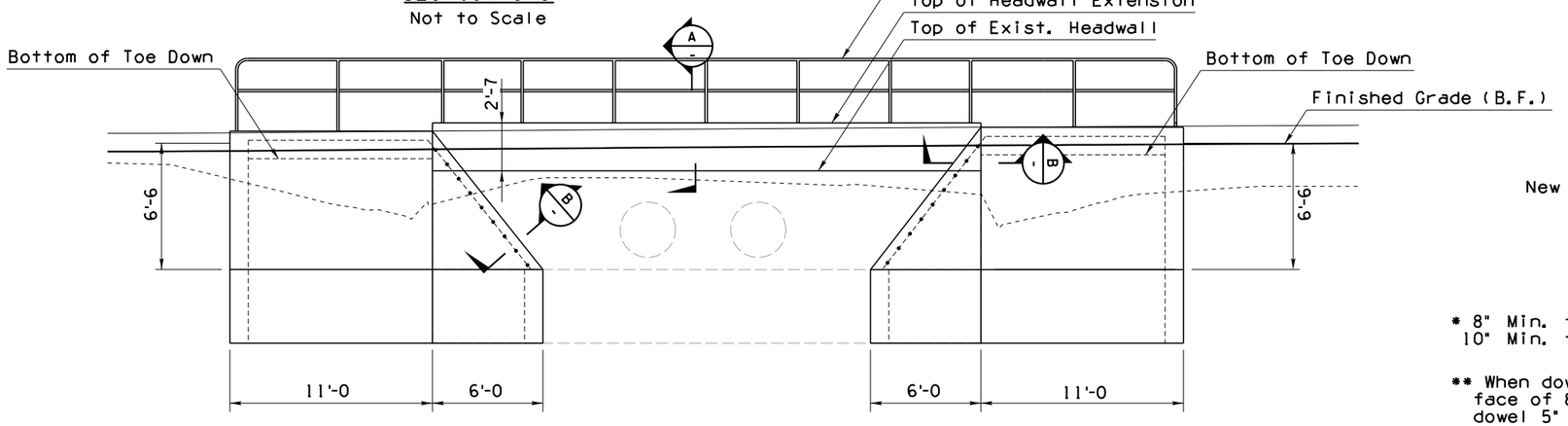
SECTION C-C
Not to Scale



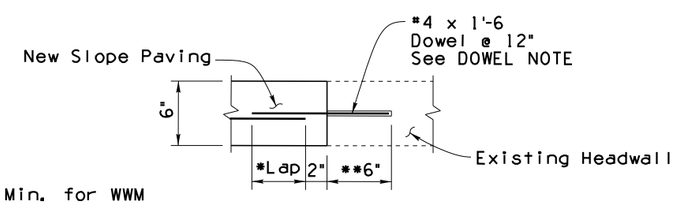
SECTION A-A

DOWEL NOTE:

Drill ¾"Φ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.



Elevation View A (Looking South)
Scale: ¼" = 1'-0



SECTION B-B
Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar

** When doweling into face of 8" wall, embed dowel 5"

DETAIL DO

Headwall Extension, West of Star Diamond

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT25 of DT69	Page 38 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A. EXPIRES 9/30/2020

Kimley»Horn ©2018
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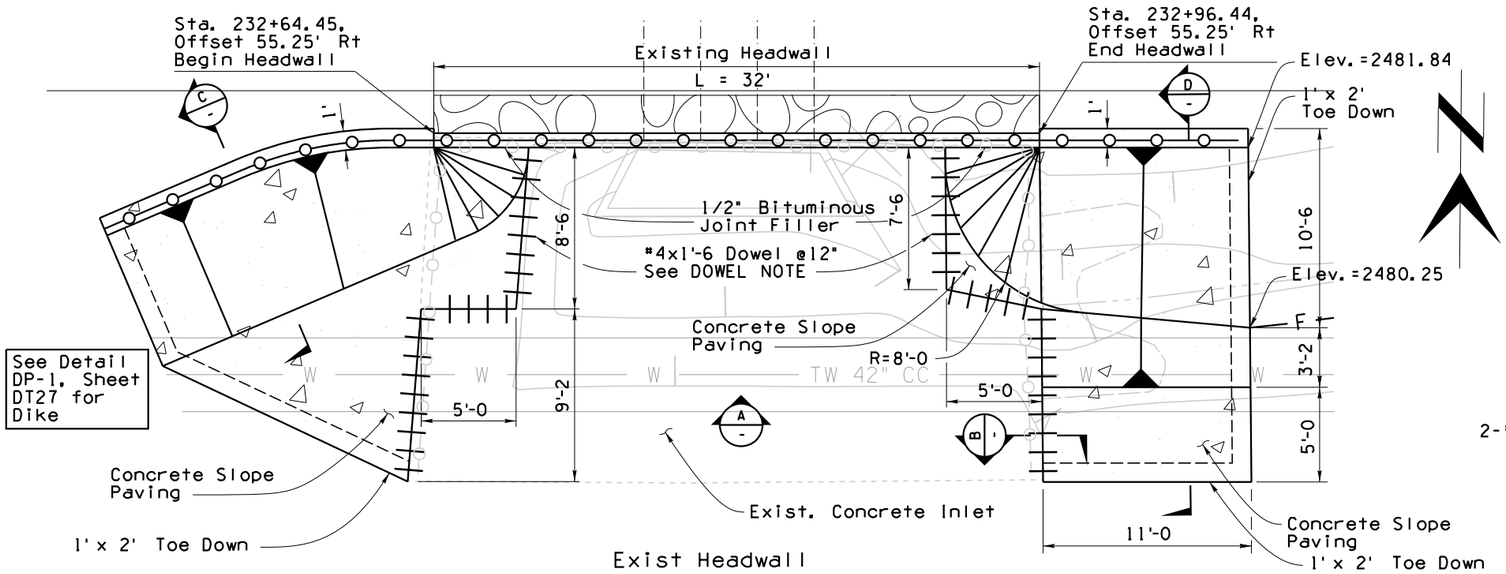
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

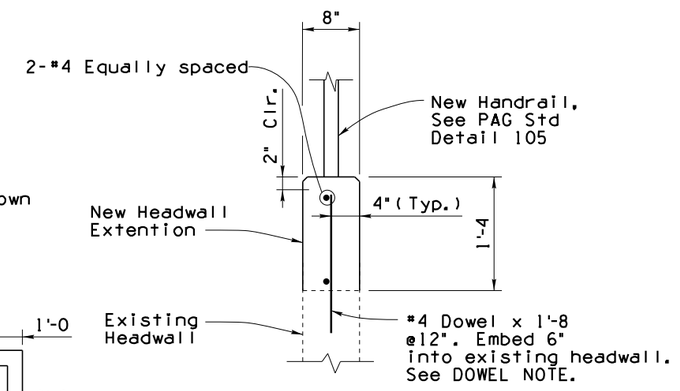
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



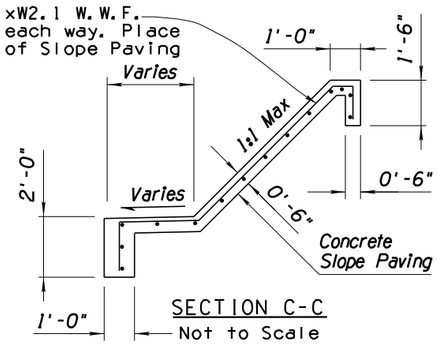
Exist Headwall
Inlet
PLAN VIEW
Scale: 1/4" = 1'-0

GENERAL NOTES:

1. Concrete shall be Class S (f'c= 3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Headwall Extension is paid under item #9300121.
5. Slope Paving is paid under item #6017001.
6. Chamfer all exposed corners 3/4" unless noted otherwise.

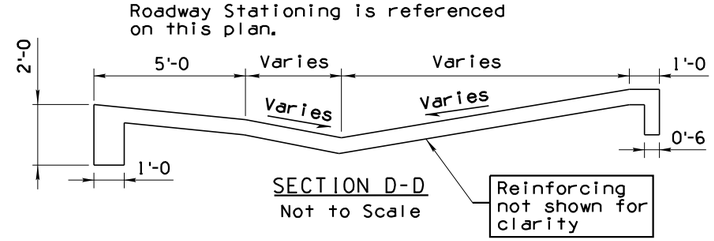


SECTION A-A



SECTION C-C
Not to Scale

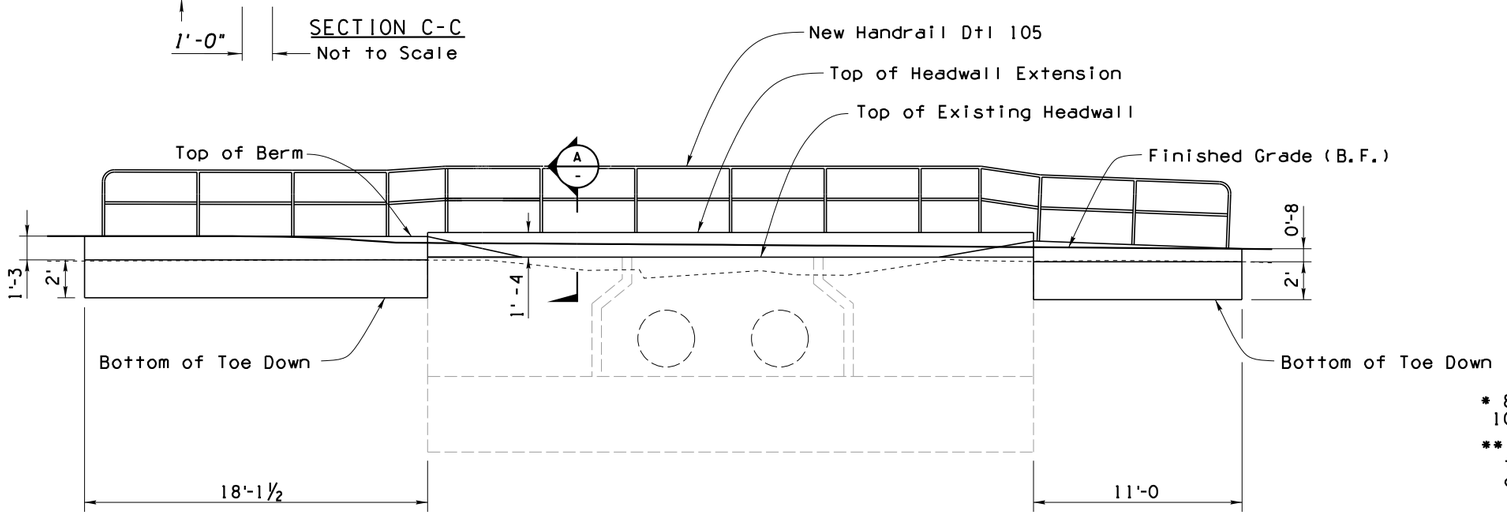
NOTE:
Roadway Stationing is referenced on this plan.



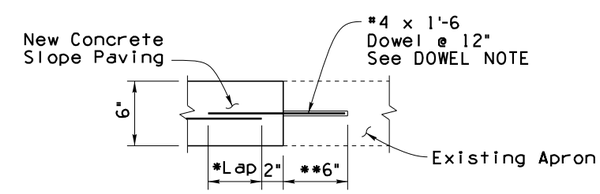
SECTION D-D
Not to Scale

DOWEL NOTE:

Drill 3/4" Φ hole, 6" deep for #4 Dowel. Epoxy Dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.



Elevation View A (Looking North)
Scale: 1/4" = 1'-0



SECTION B-B
Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar

** When doweling into face of 8" wall, embed dowel 5"

DETAIL DP

Existing Wall Extension (West of Star Diamond)

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT26 of DT69	Page 39 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

Kimley»Horn ©2018
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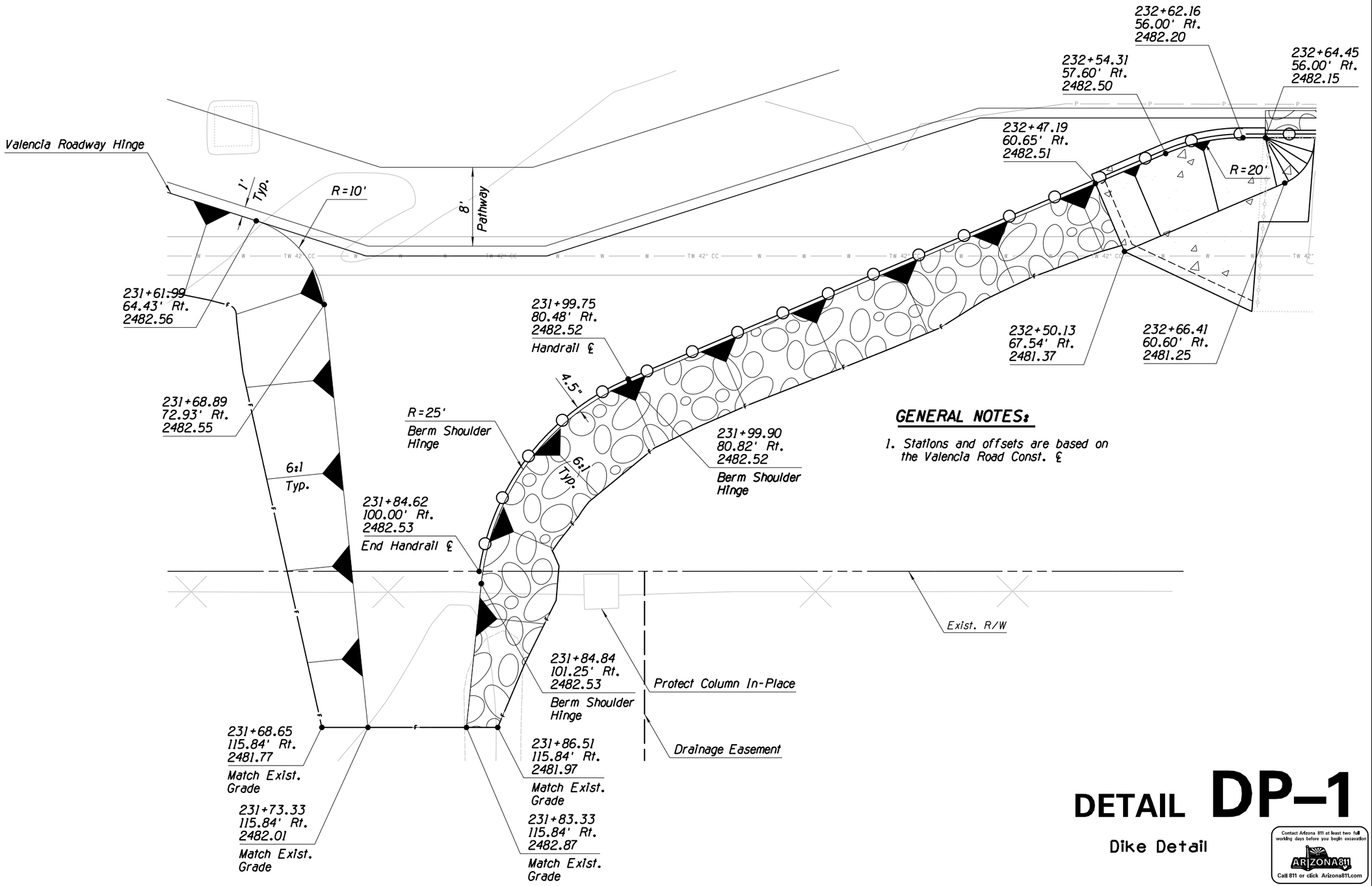
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423



GENERAL NOTES:

1. Stations and offsets are based on the Valencia Road Const. ℄

DETAIL DP-1

Dike Detail

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT27 of DT69	Page 40 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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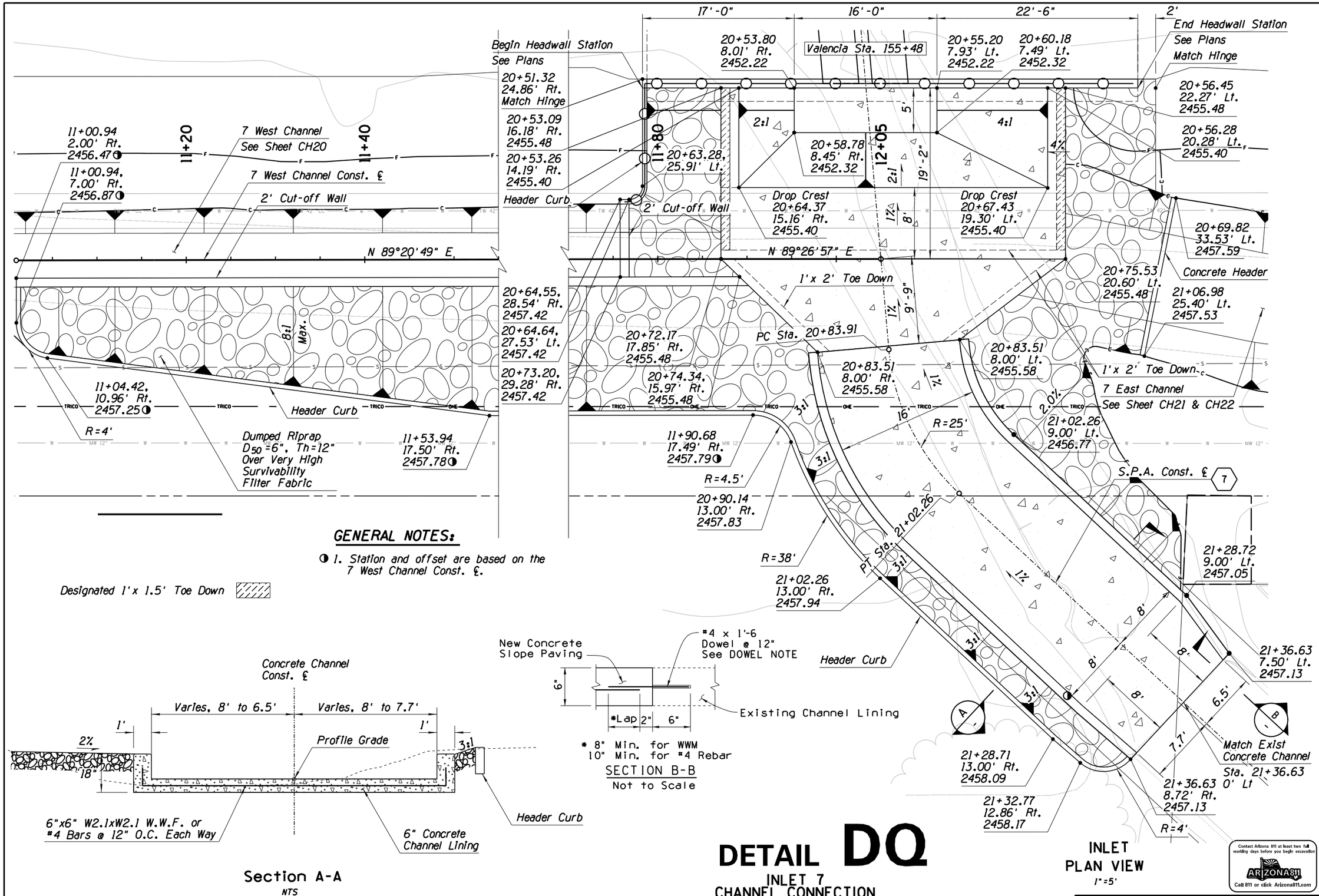
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE



GENERAL NOTES:

◑ 1. Station and offset are based on the 7 West Channel Const. ℄.

DETAIL DQ

INLET 7
CHANNEL CONNECTION

Scales	Horiz. 1"=5'	Sheet DT28 of DT69	Page 41 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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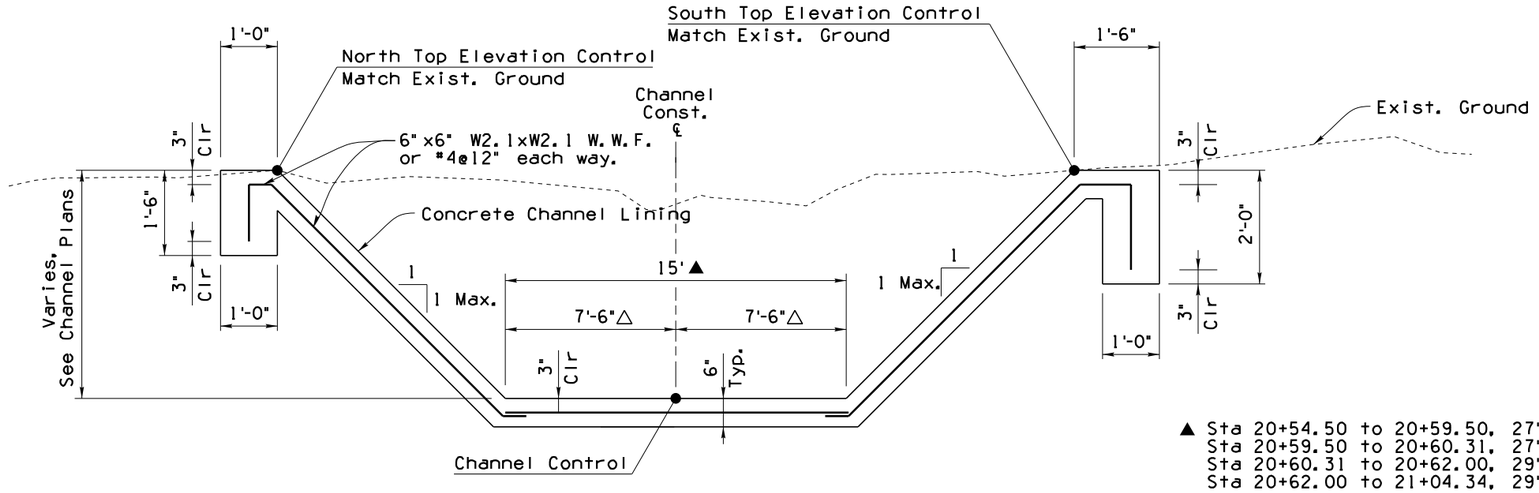
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Arizona U.S.A.
EXPIRES 9/30/2020

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

4:44:52 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DTDTL15.DGN

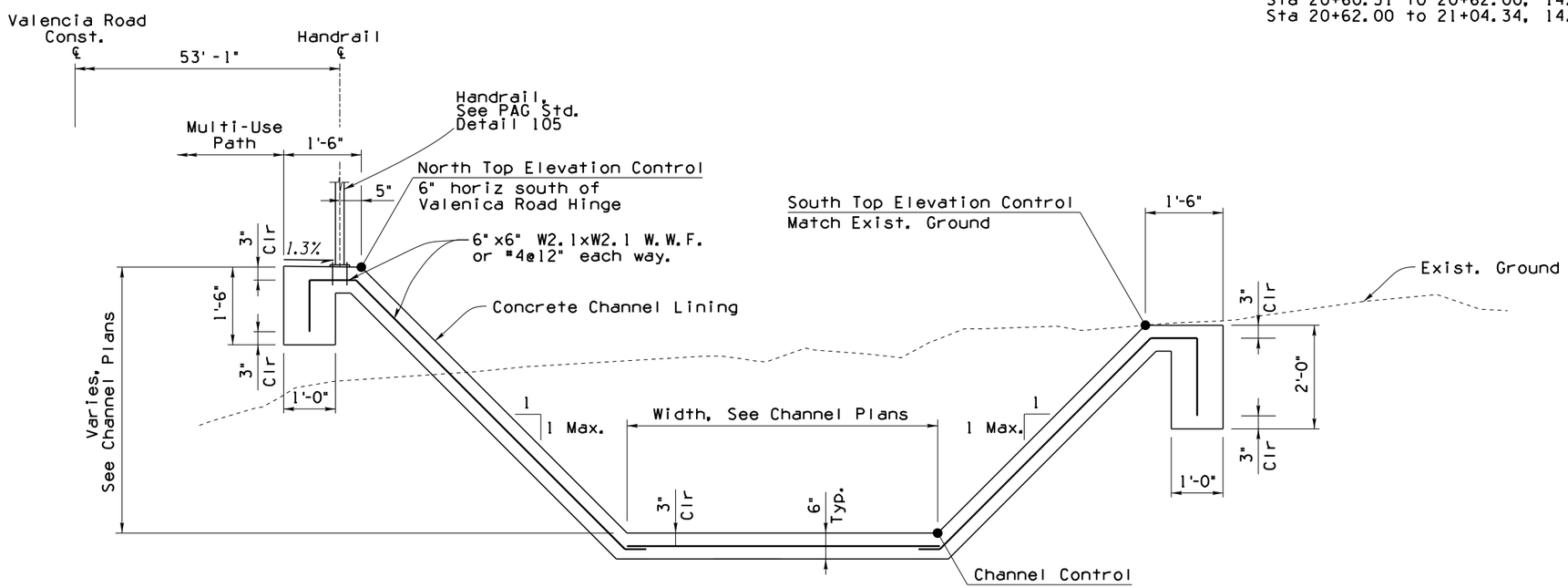


TYPICAL SECTION - CONCRETE CHANNEL 3C

Scale: ¾" = 1'-0"

▲ Sta 20+54.50 to 20+59.50, 27'
Sta 20+59.50 to 20+60.31, 27' - 29'
Sta 20+60.31 to 20+62.00, 29'
Sta 20+62.00 to 21+04.34, 29' - 15'

△ Sta 20+54.50 to 20+59.50, 13.5'
Sta 20+59.50 to 20+60.31, 13.5' - 14.5'
Sta 20+60.31 to 20+62.00, 14.5'
Sta 20+62.00 to 21+04.34, 14.5' - 7.5'



TYPICAL SECTION - CONCRETE CHANNEL (11B, 12, 13 AND 14A)

Scale: ¾" = 1'-0"

DETAIL DR

CHANNEL SECTIONS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. ¾" = 1'-0" Vert. ¾" = 1'-0"	Sheet DT29 of DT69	Page 42 of 433

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA U.S.A. EXPIRES 9/30/2020

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333 E. Wetmore Road
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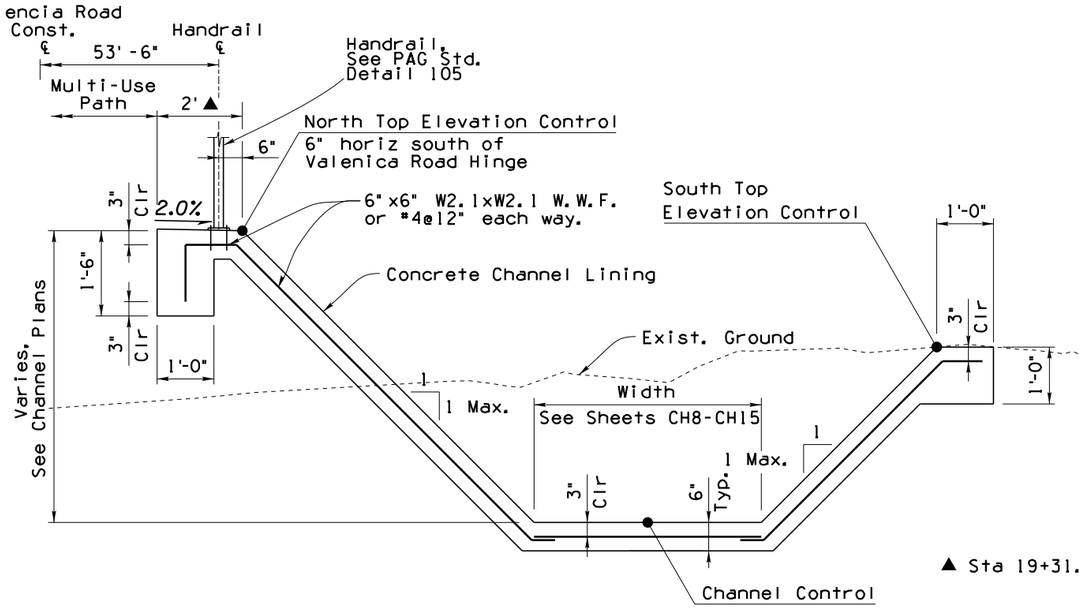
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

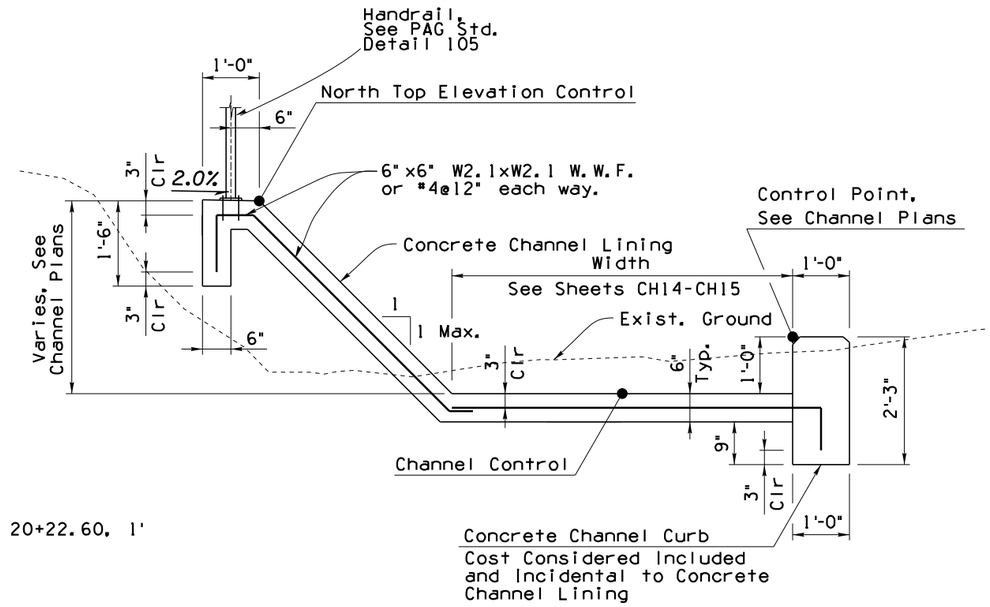
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



▲ Sta 19+31.76 to 20+22.60, 1'

STA 10+63.92 to STA 20+02.23



STA 20+02.23 to STA 20+22.60 (See Note 1)

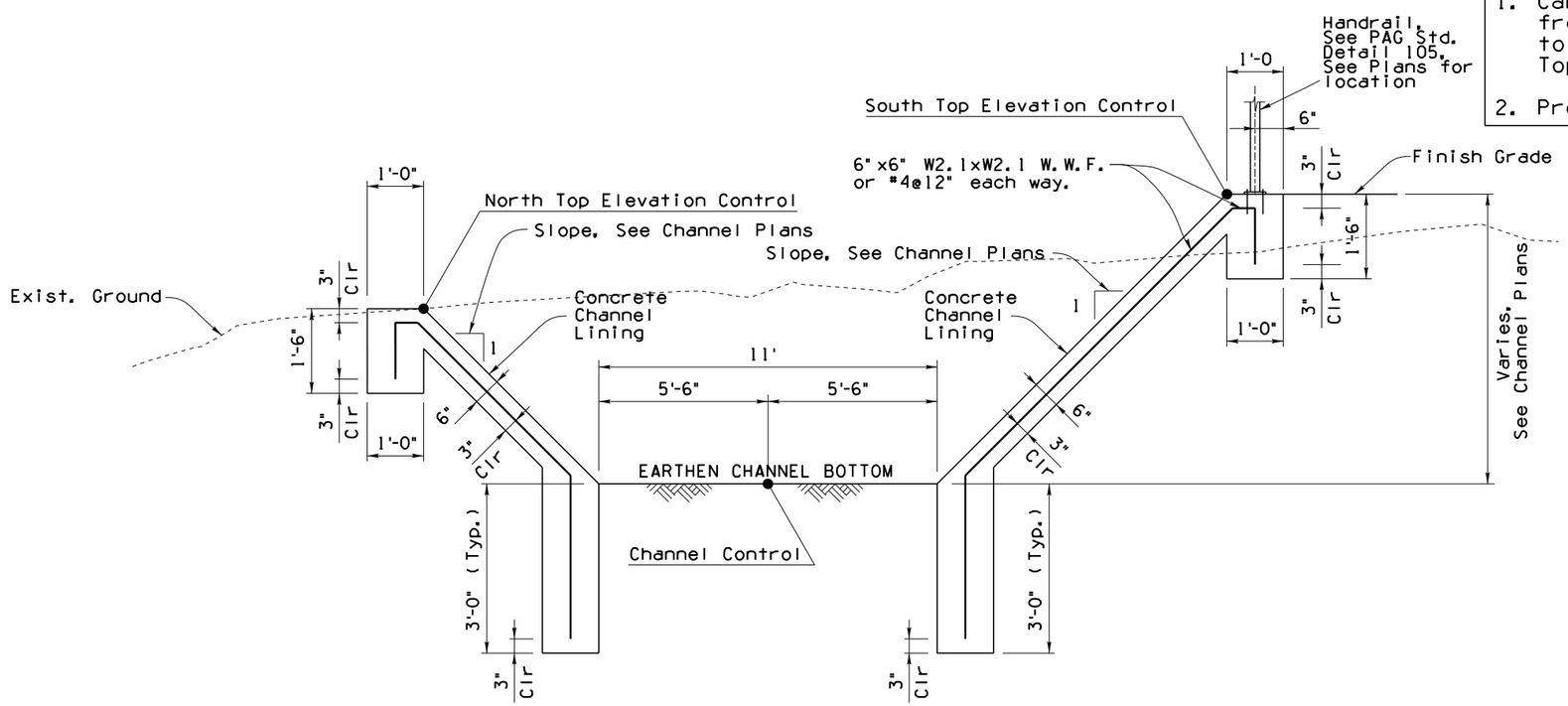
TYPICAL SECTION - CONCRETE SOUTH IBERIA CHANNEL

Scale: ¾" = 1'-0"

Notes:

1. Carry Concrete Channel Curb around return from STA 20+22.60, 5.77-ft Rt, El. 2476.71 to STA 20+22.60, 17.18' Rt, El. 2476.71. Top of Wall Elevation provided.

2. Provide 3/4" Chamfer all exposed corners.



TYPICAL SECTION - CONCRETE NORTH IBERIA CHANNEL

Scale: ¾" = 1'-0"

DETAIL DS

CHANNEL SECTIONS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. ¾" = 1'-0" / Vert. ¾" = 1'-0"	Sheet DT30 of DT69	Page 43 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

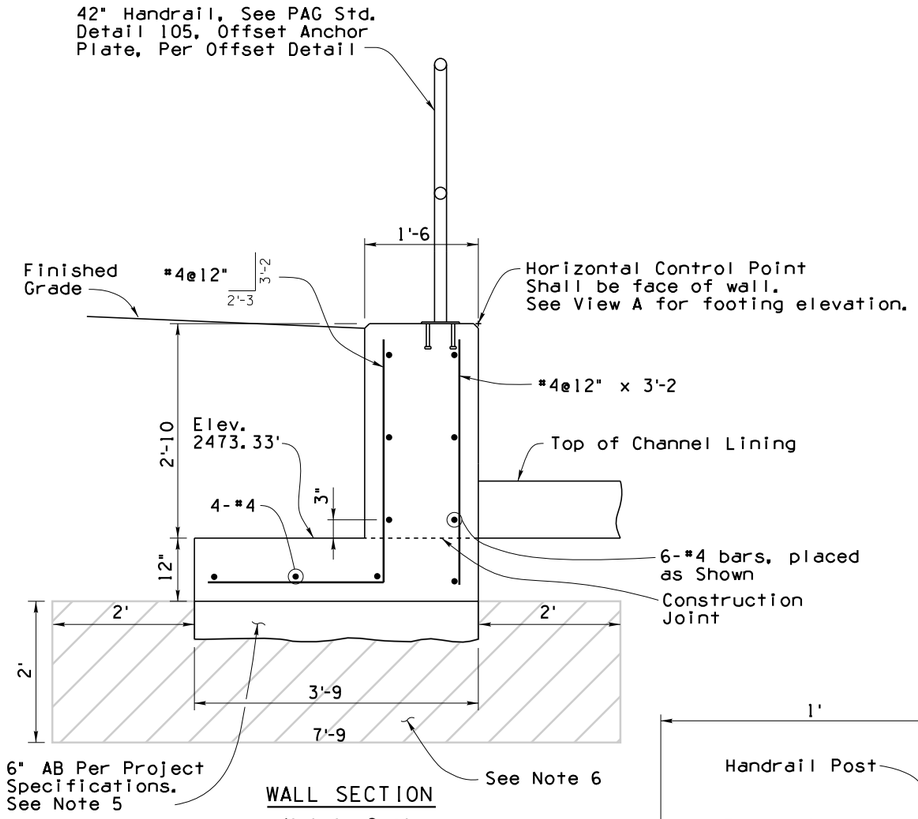
Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Arizona, U.S.A.
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

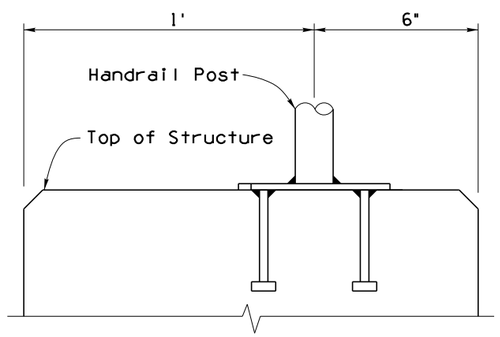
4:44:53 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DTDTL17.DGN



WALL SECTION

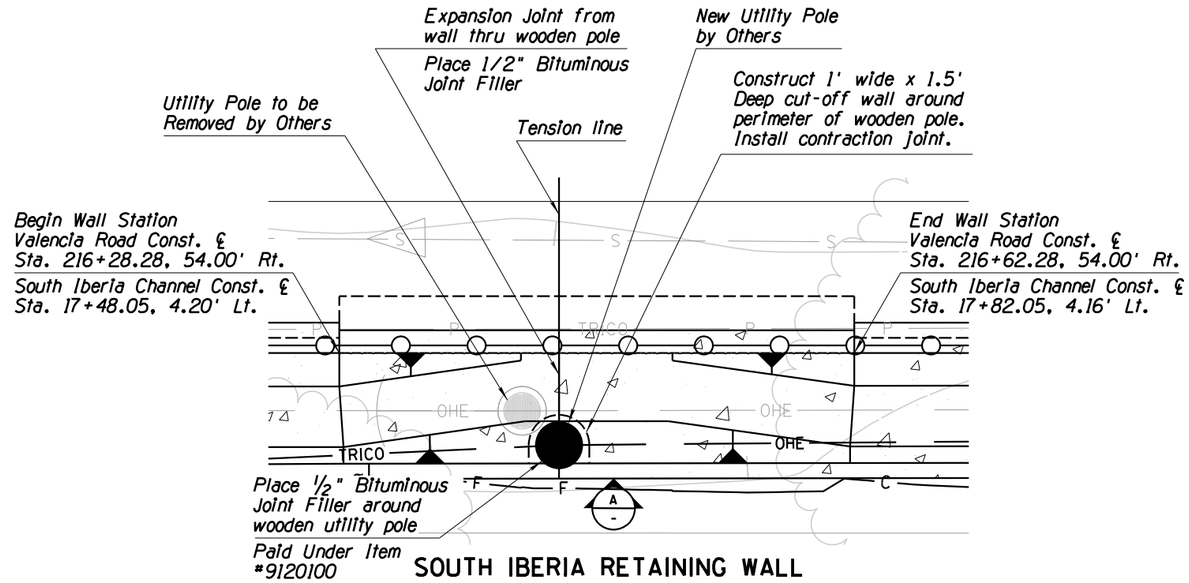
Not to Scale

216+28.28 to 216+62.28



OFFSET DETAIL

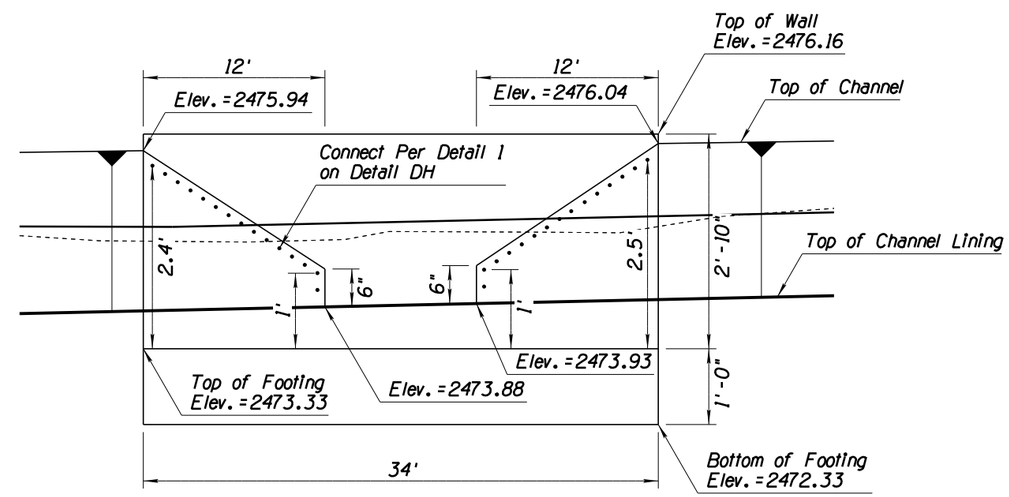
Not to Scale



SOUTH IBERIA RETAINING WALL

PLAN VIEW

1"=5'



ELEVATION VIEW A (LOOKING NORTH)

1"=5'

GENERAL NOTES:

1. Concrete shall be Class S (f'c=3000 psi). Portland cement shall be Type II and conform to the requirements of ASTM C150.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 2" clear cover unless noted otherwise.
4. Chamfer all exposed corners 3/4" unless noted otherwise.
5. Aggregate Base (AB) under the retaining will not be measured for payment and shall be considered incidental to and included in the cost of the retaining wall item.
6. Overexcavate, remove, moisture-condition, and backfill to the dimensions shown. At a mininmum, place backfill that conforms to the subgrade acceptance chart for Type I Material.
7. Overexcavation and replacement with backfill material will not be measured for payment and shall be considered incidental to and included in the cost of retaining wall item.

Approximate Quantities				
Structural Excavation CY	Over-Excavation CY	Structure Backfill CY	Class 'S' Concrete f'c = 3000psi CY	Reinforcing Steel LBS
16	20	30	10	419

DETAIL DT

CONCRETE RETAINING WALL
VALENCIA STA. 216+28.28 to STA. 216+62.28
SOUTH IBERIA CHANNEL
ITEM# 6010200

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT31 of DT69	Page 44 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA U.S.A. EXPIRES 9/30/2020

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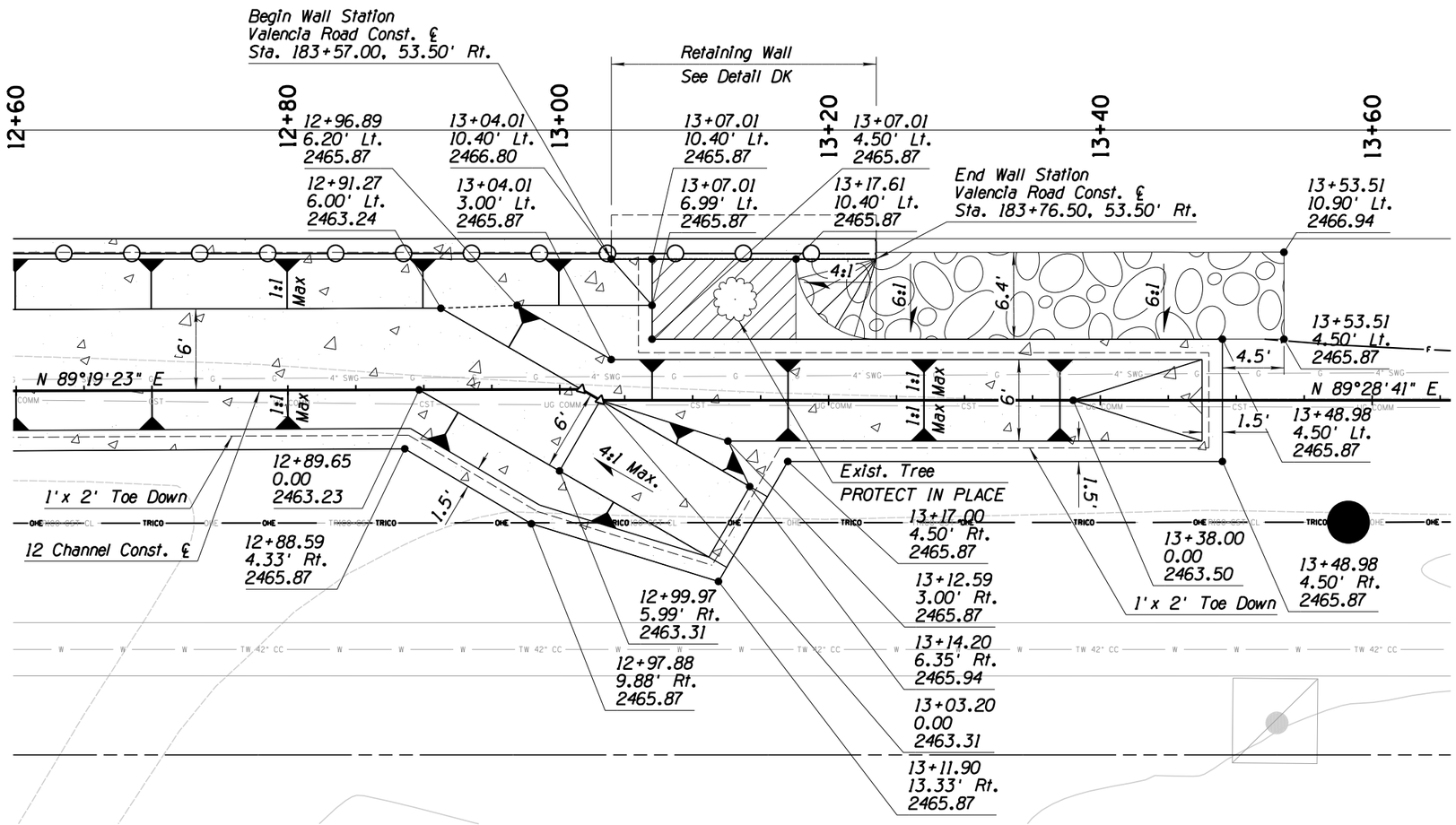
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



PLAN VIEW

1"=5'

Protect Area
From Disturbance

NOTES:

1. Station and offset are based on channel ℄

DETAIL DU

12 CHANNEL RETAINING WALL & STAKING PLAN
VALENCIA STA. 183+57.00 to STA. 184+76.50

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT32 of DT69	Page 45 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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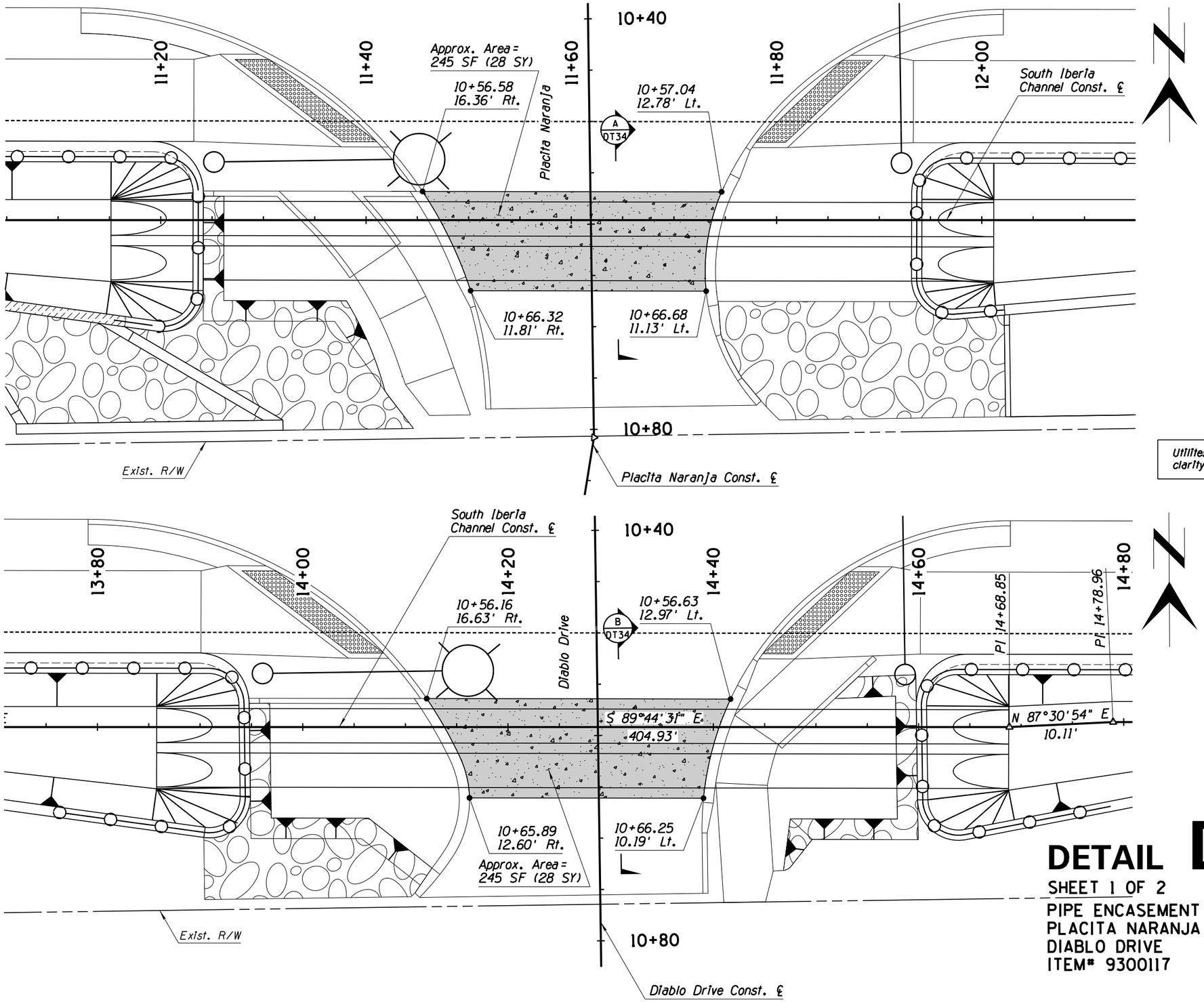
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Utilites not shown for clarity.

DETAIL DV

SHEET 1 OF 2

PIPE ENCASEMENT - PLACITA NARANJA & DIABLO DRIVE

ITEM# 9300117

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811

Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT33 of DT69	Page 46 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

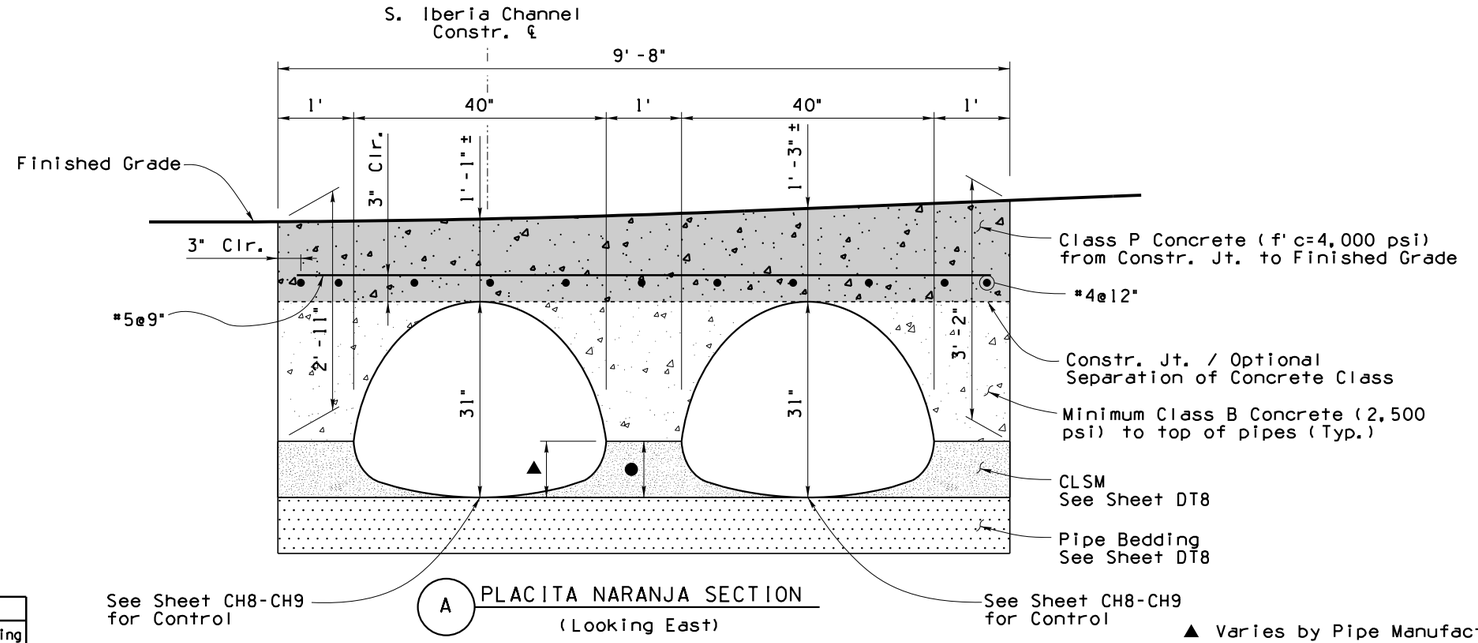
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

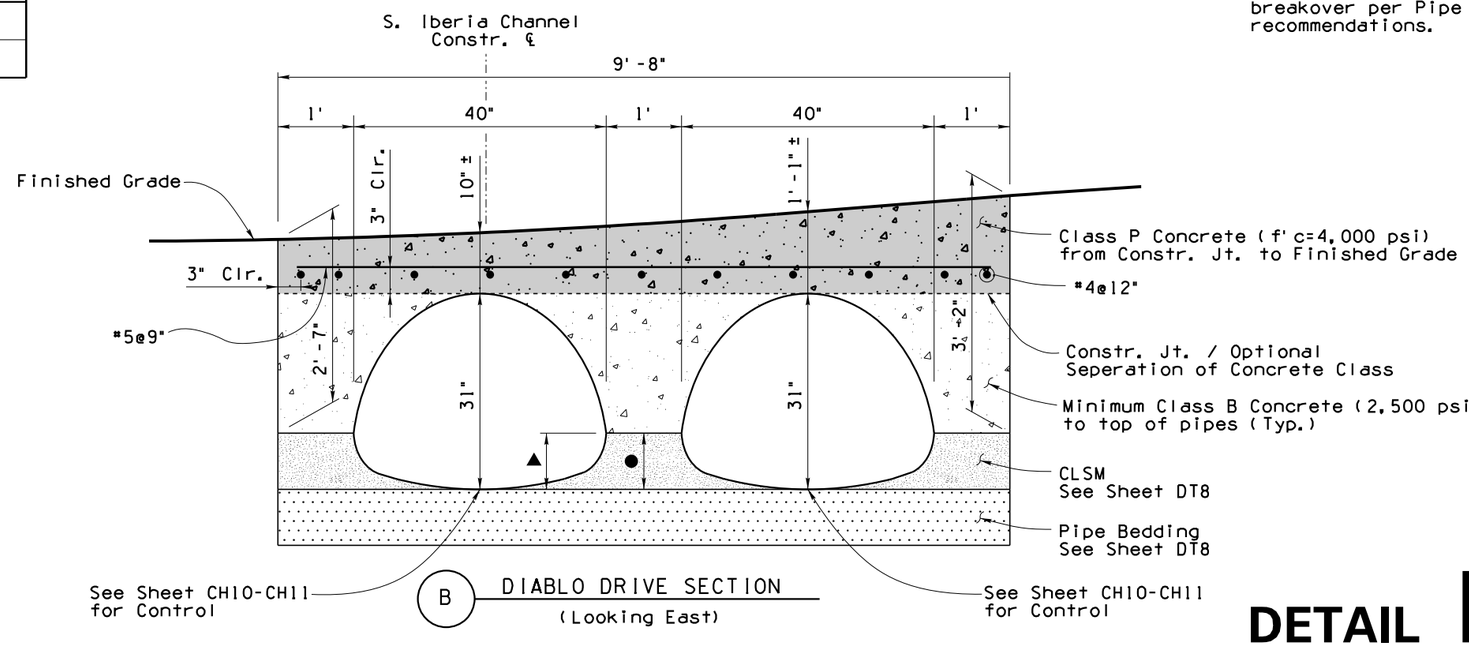


A PLACITA NARANJA SECTION
(Looking East)

▲ Varies by Pipe Manufacturer

● Place CLSM up to haunch or vertical breakover per Pipe Manufacturer recommendations.

Approximate Quantities			
Driveway	Class 'B' Concrete f'c = 2500psi CY	Class 'P' Concrete f'c = 4000psi CY	Reinforcing Steel LBS
Placita Naranja	9	11	494
Diablo Drive	9	9	494



B DIABLO DRIVE SECTION
(Looking East)

GENERAL NOTES:

1. See Specifications for concrete conformance requirements.
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. All reinforcing steel shall have 3" clear cover unless noted otherwise.
4. See Pipe Summary Sheets for pipe excavation and backfill quantities.
5. Steel reinforcing to be continuous in slab. No breaks for construction joints.

DETAIL DV

SHEET 2 OF 2

PIPE ENCASEMENT - PLACITA NARANJA & DIABLO DRIVE

ITEM# 9300117

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Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT34 of DT69	Page 47 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

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WADE ROAD TO AJO HIGHWAY
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No.	Revision Description	Engineer	Date

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		Date
Designed	D. Tapia	01/2018
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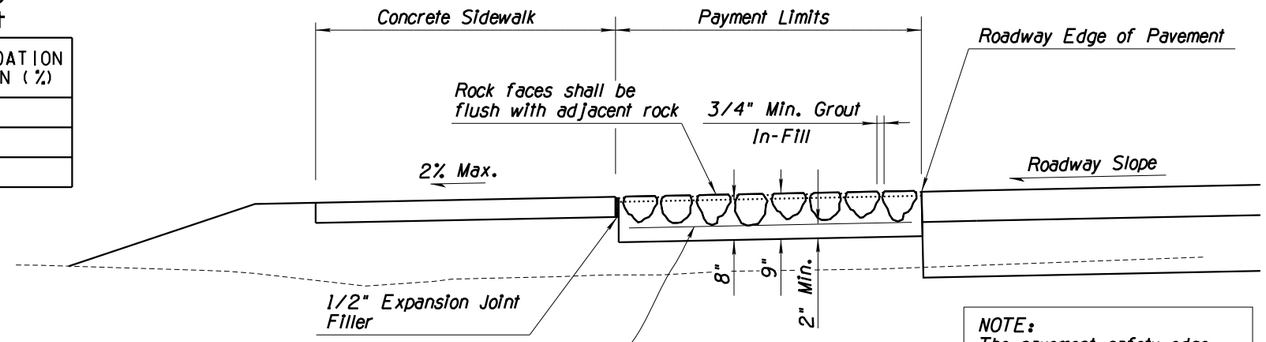
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Grouted Rip Rap Gradation Chart

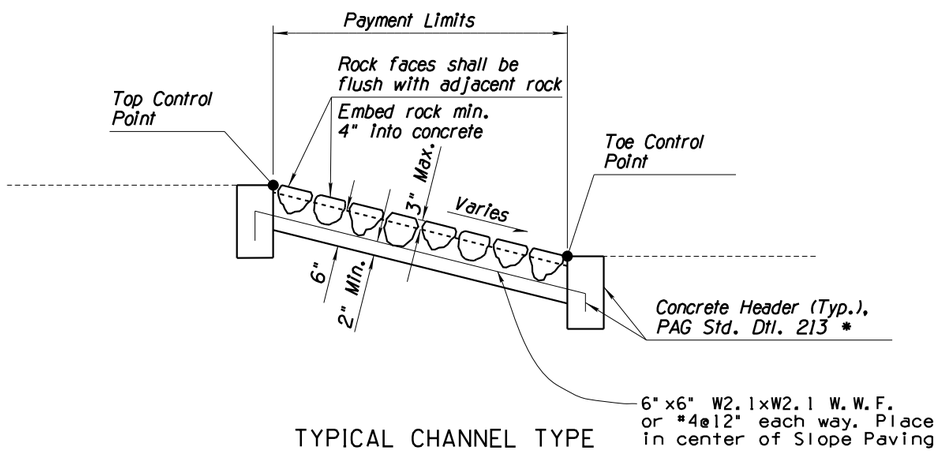
ROCK SIZE (in)	PERCENT GRADATION SMALLER THAN (%)
9"	100
7"	50
5"	0

The color of the riprap shall be Sante Fe Gold.

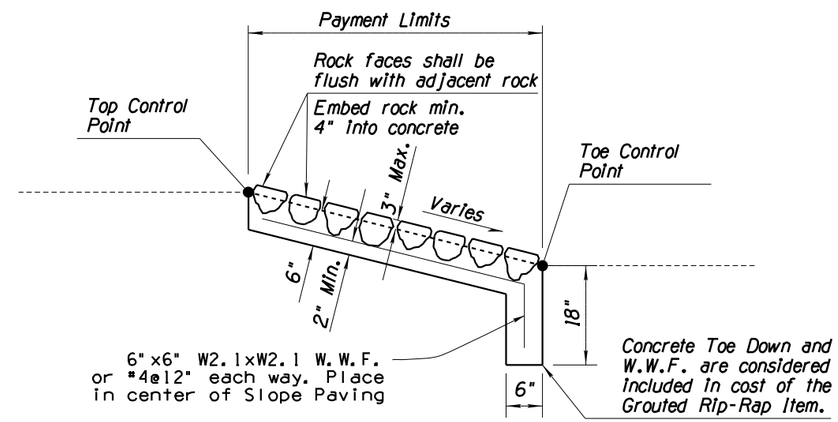


TYPICAL PAD TYPE - HAND PLACED GROUTED

NOTE:
The pavement safety edge shall not be constructed in the areas designated for grouted riprap.



TYPICAL CHANNEL TYPE WITH PERIMETER HEADER CURB



TYPICAL CHANNEL TYPE (UNCONSTRAINED)

* Cost of W.W.F. in concrete header considered included in cost of the Header Item #9080402.

DETAIL DX

HAND PLACED GROUTED RIPRAP
ITEM 9130009

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT35 of DT69	Page 48 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA EXPIRES 3/30/2020

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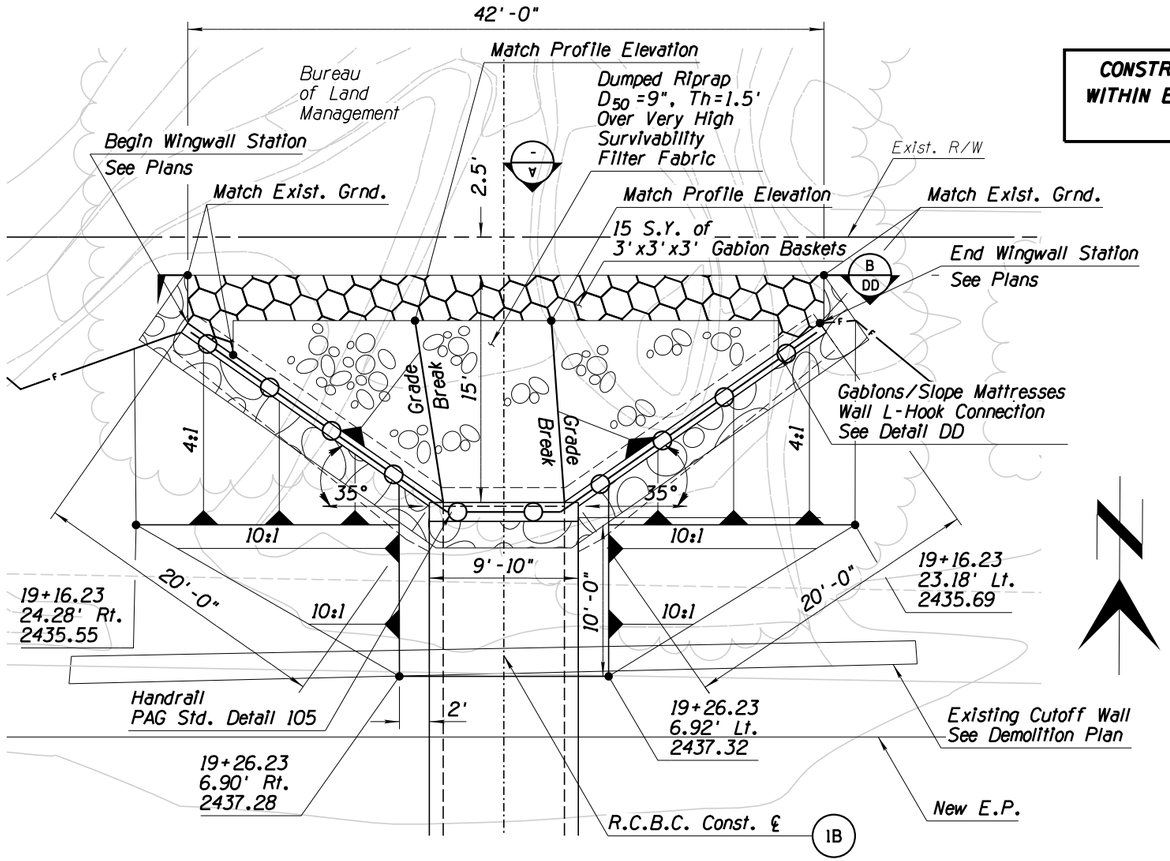
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

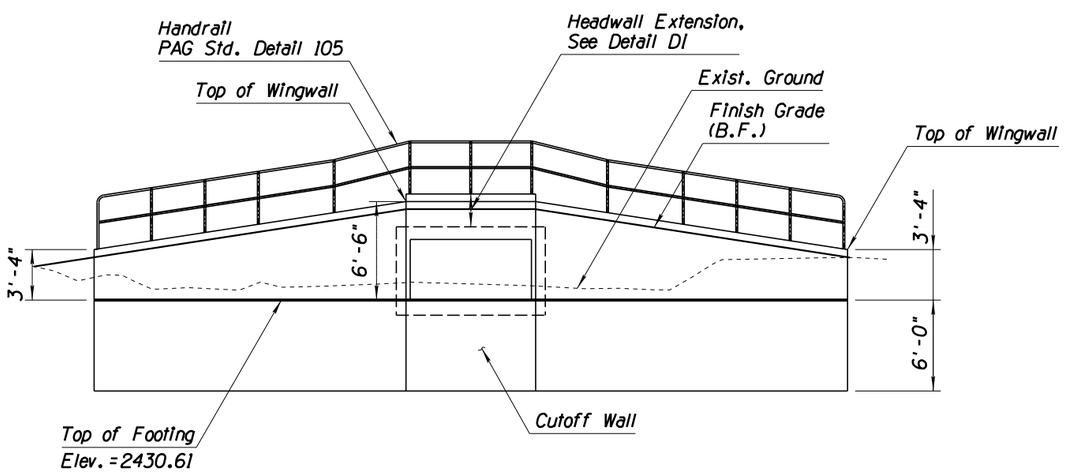


OUTLET 1B
PLAN VIEW
1"=5'

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2

GENERAL NOTES:

1. See Detail DE for R.C.B.C. Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. items.



Elevation View A (Looking South)
1"=5'

DETAIL DD1

BOX CULVERT NO. 1B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT36 of DT69	Page 49 of 433

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/31/18 EXPIRES 9/30/2020

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Tucson, AZ 85705
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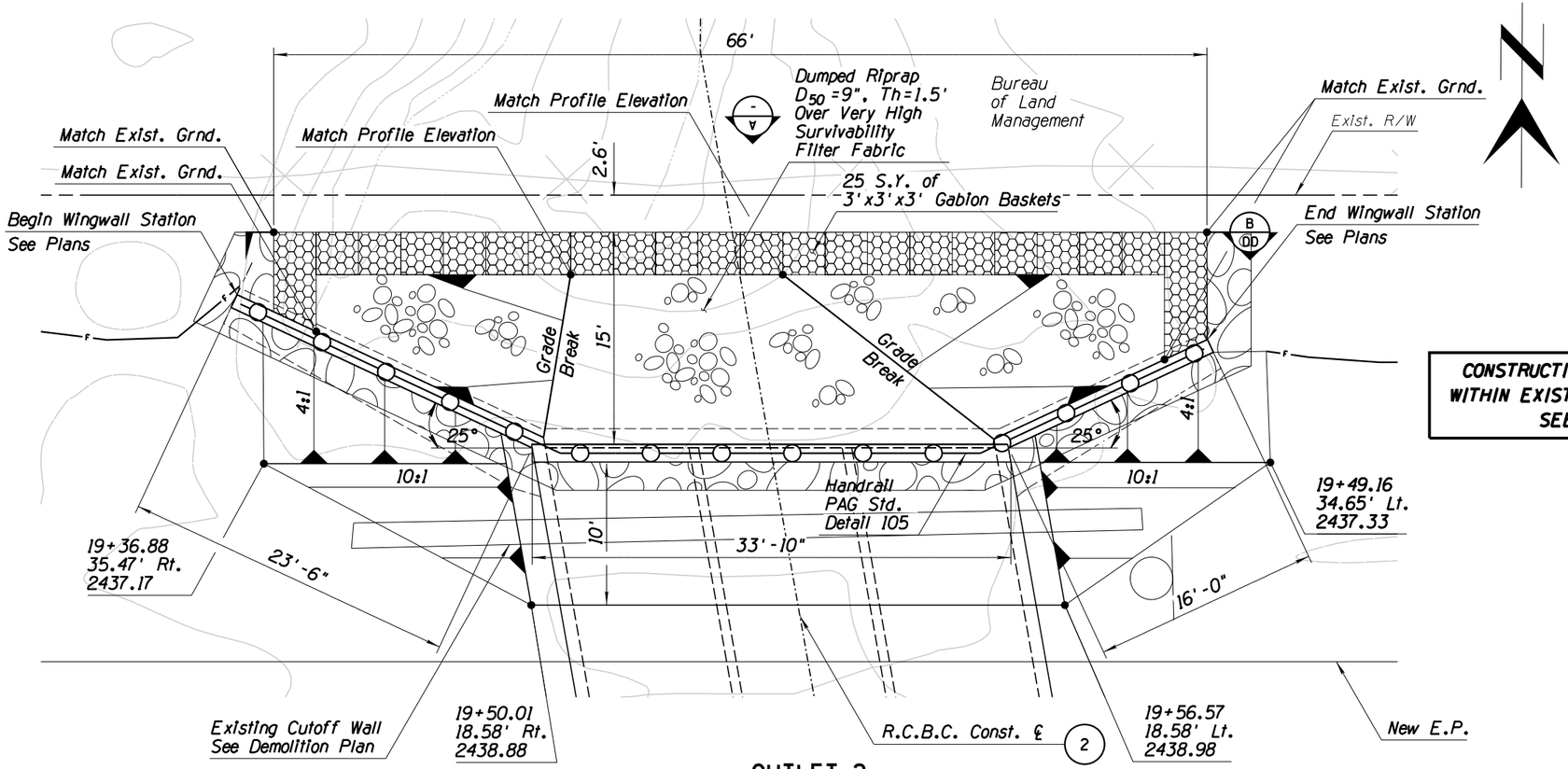
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

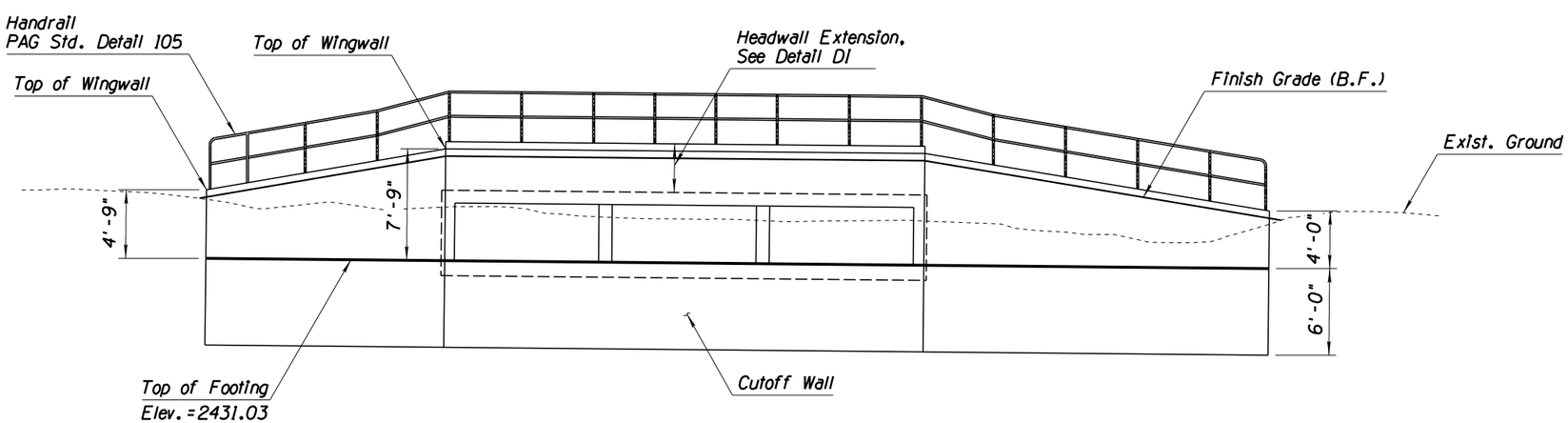


OUTLET 2
PLAN VIEW
1"=5'

GENERAL NOTES:

1. See Detail DE for R.C.B.C. Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. items.

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2



Elevation View A (Looking South)
1"=5'

DETAIL DD2

BOX CULVERT NO. 2

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT37 of DT69	Page 50 of 433

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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Tucson, AZ 85705
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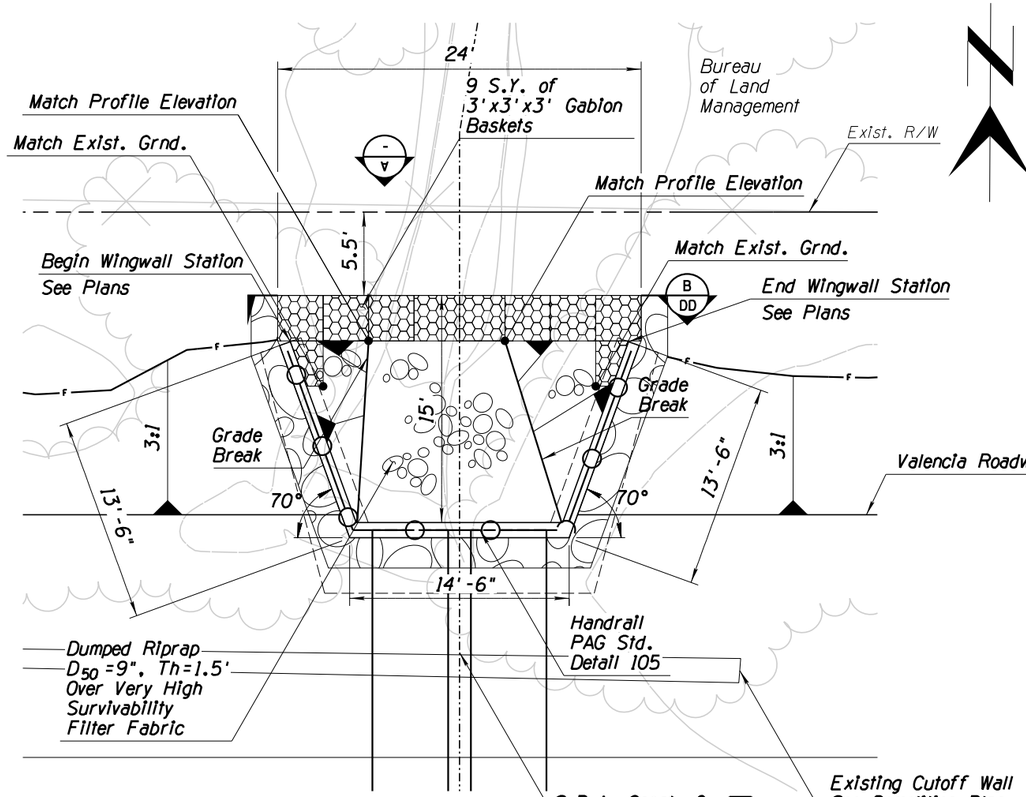
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

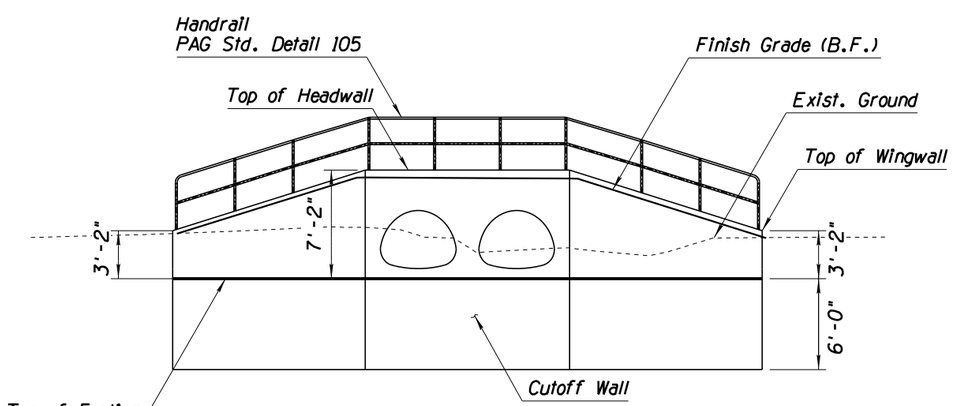


OUTLET 3A
PLAN VIEW
1"=5'

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2

GENERAL NOTES:

1. See Detail DF for Headwall and Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Headwall and Wingwall items.



Elevation View A (Looking South)
1"=5'

DETAIL DD3

PIPE CULVERT NO. 3A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT38 of DT69	Page 51 of 433

Ana M. Olivares, P.E., Director

	Designed	D. Tapia	01/2018
	Drawn	D. Bacon	01/2018
	Checked	R. Solis	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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Tucson, AZ 85705
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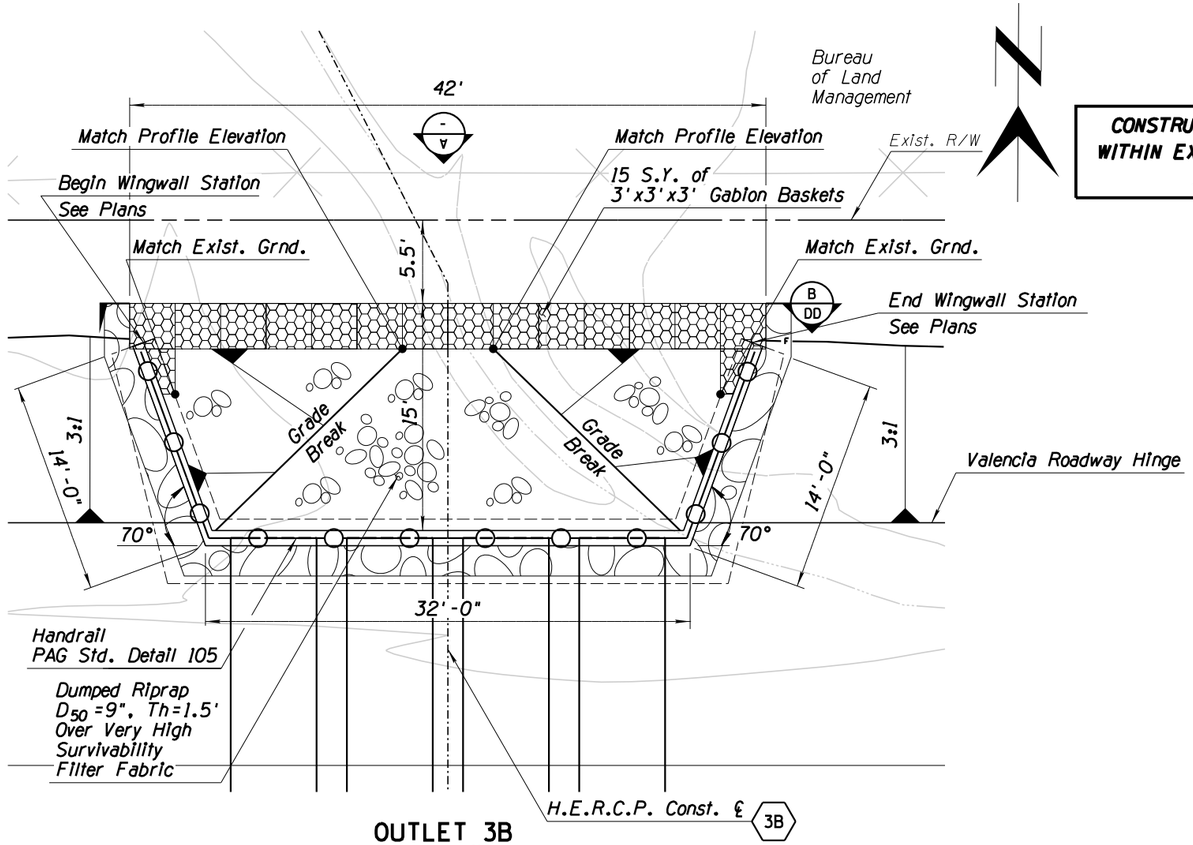
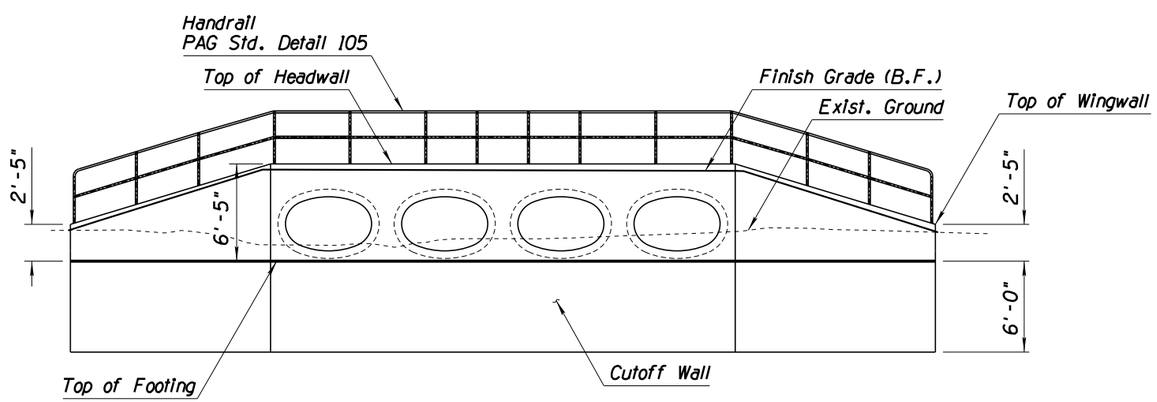
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2

OUTLET 3B
PLAN VIEW
1"=5'



Elevation View A (Looking South)
1"=5'

GENERAL NOTES:

1. See Detail DF for Headwall and Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Headwall and Wingwall items.

DETAIL DD4

PIPE CULVERT NO. 3B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5'	Sheet DT39 of DT69	Page 52 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A.
EXPIRES 9/30/2020

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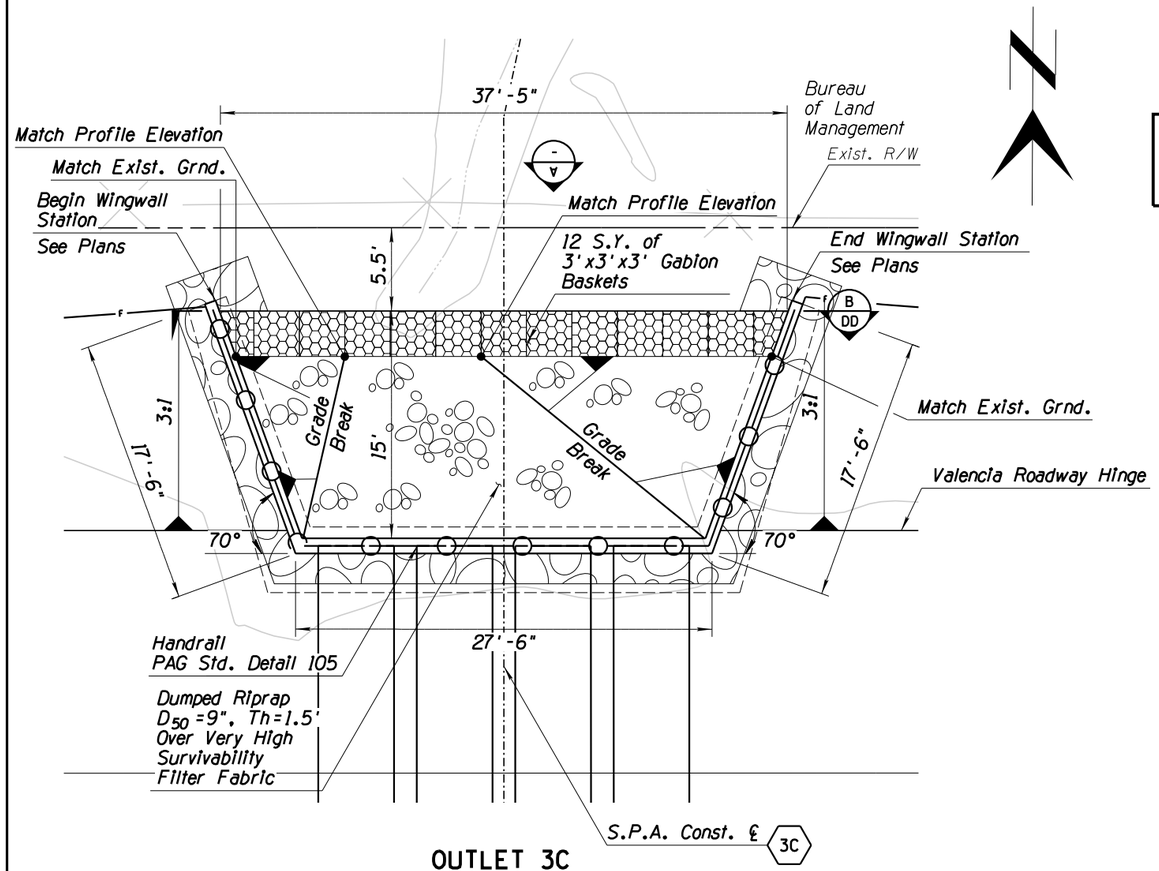
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

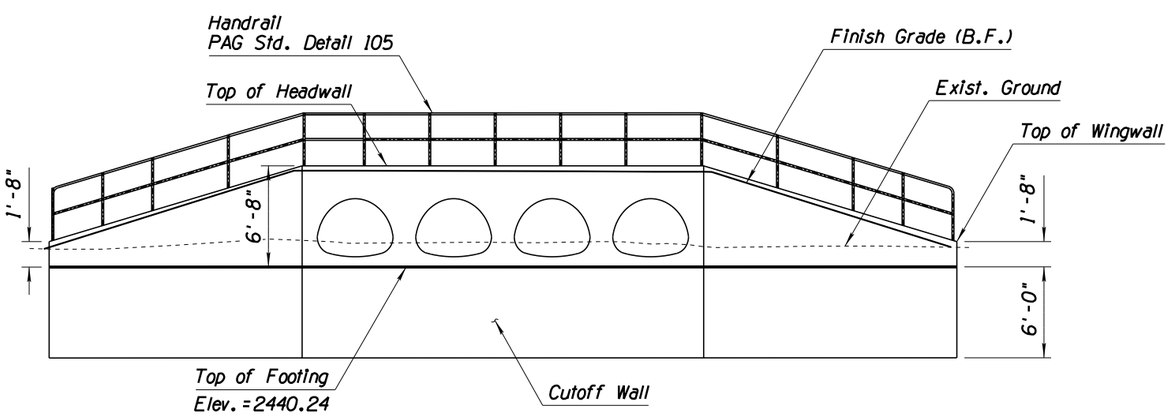


OUTLET 3C
PLAN VIEW
1"=5'

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2

GENERAL NOTES:

1. See Detail DF for Headwall and Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Headwall and Wingwall items.



Elevation View A (Looking South)
1"=5'

DETAIL DD5

PIPE CULVERT NO. 3C

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT40 of DT69	Page 53 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

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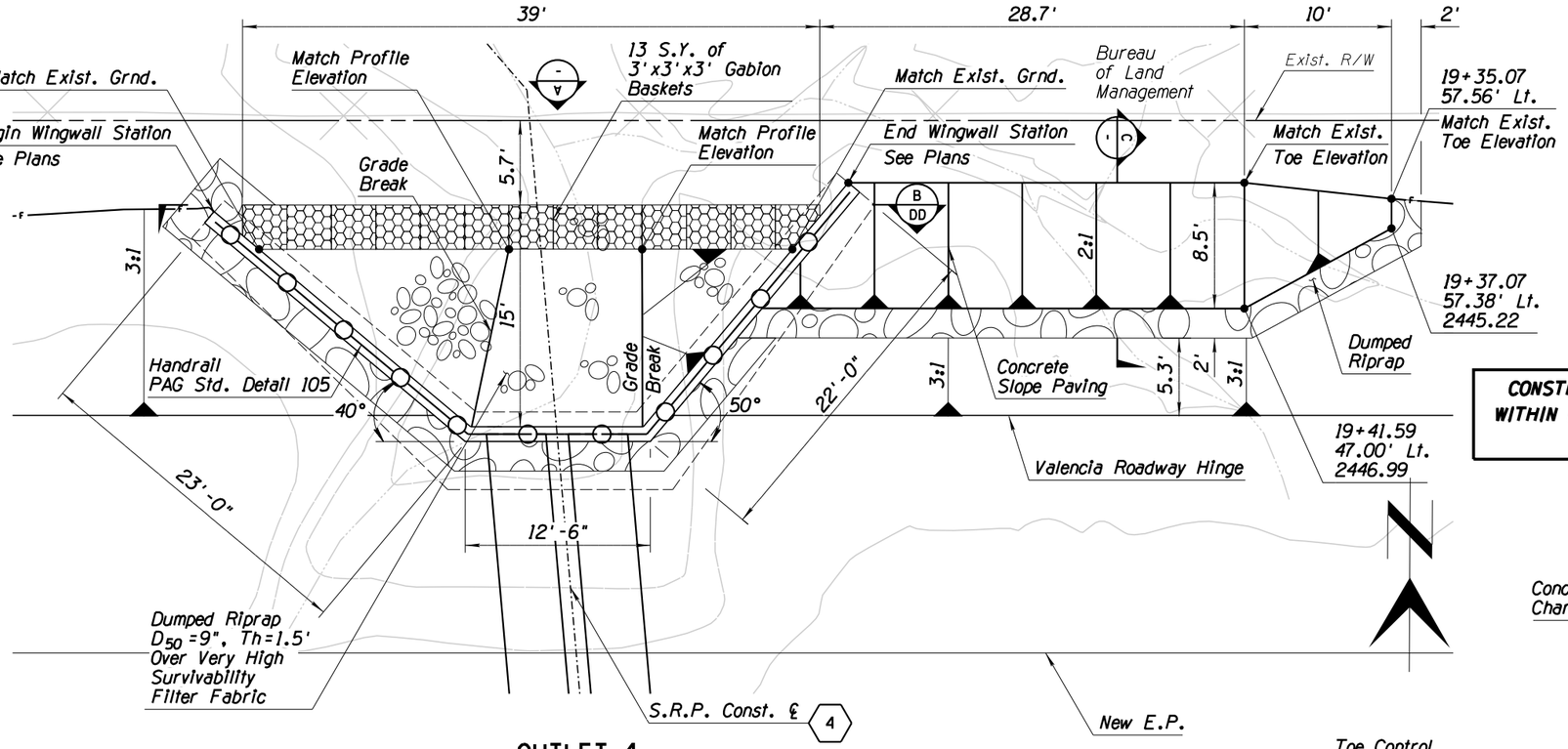
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

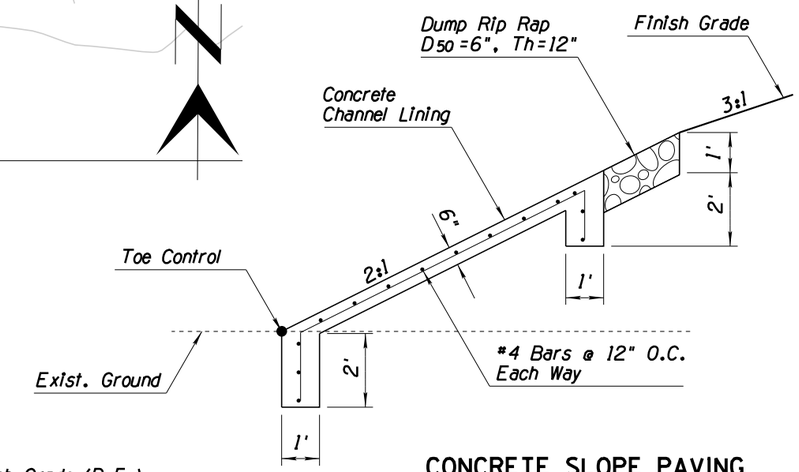


OUTLET 4
PLAN VIEW
1"=5'

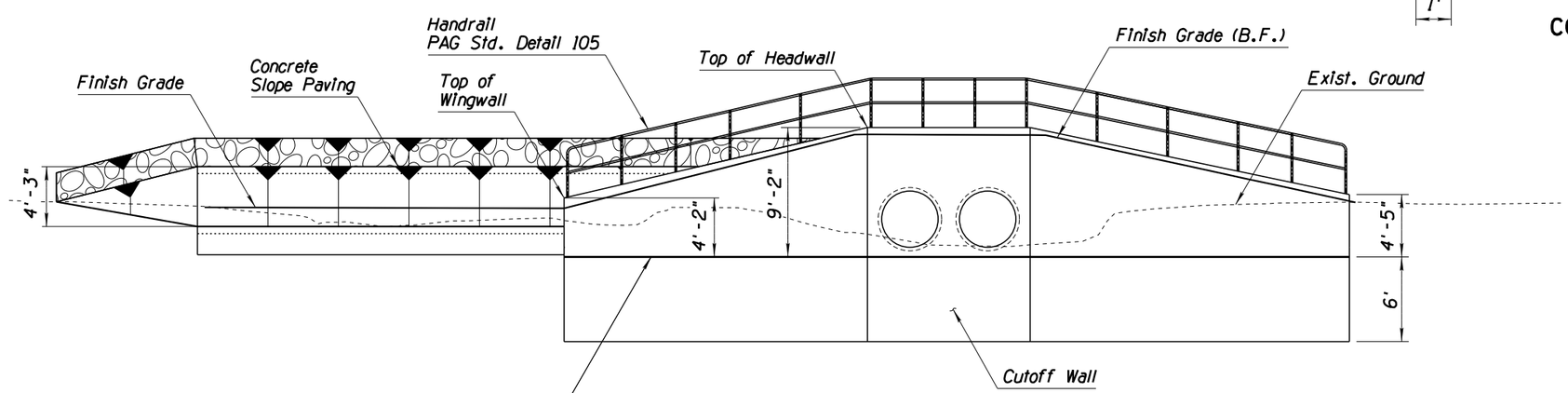
GENERAL NOTES:

1. See Detail DF for Headwall and Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Headwall and Wingwall items.
3. Connect Concrete Channel Lining to Wingwall per Detail 2 on Detail DH

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2



CONCRETE SLOPE PAVING
SECTION C-C
N.T.S.



Elevation View A (Looking South)
1"=5'

DETAIL DD6

PIPE CULVERT NO. 4

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5'	Sheet DT41 of DT69	Page 54 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

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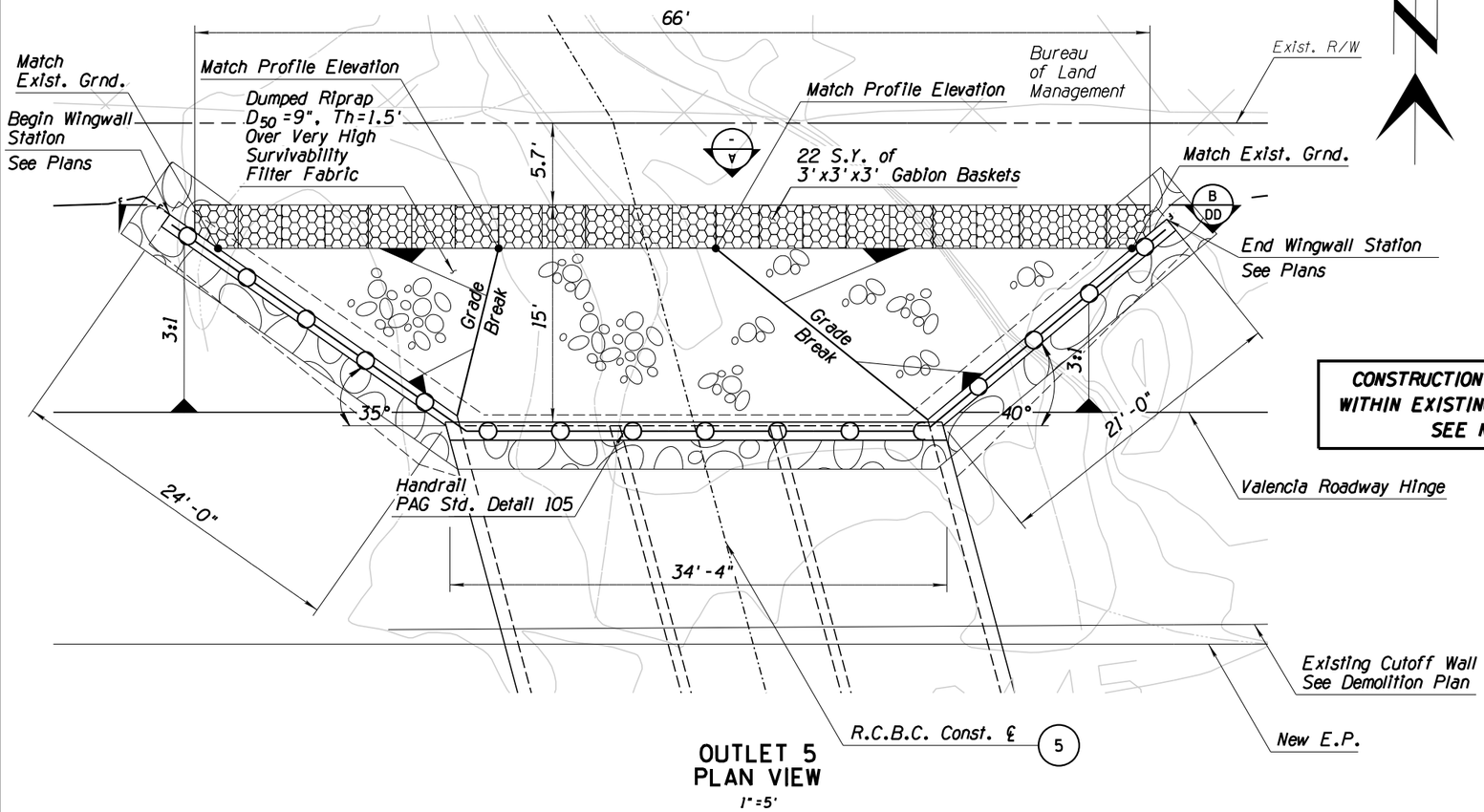
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

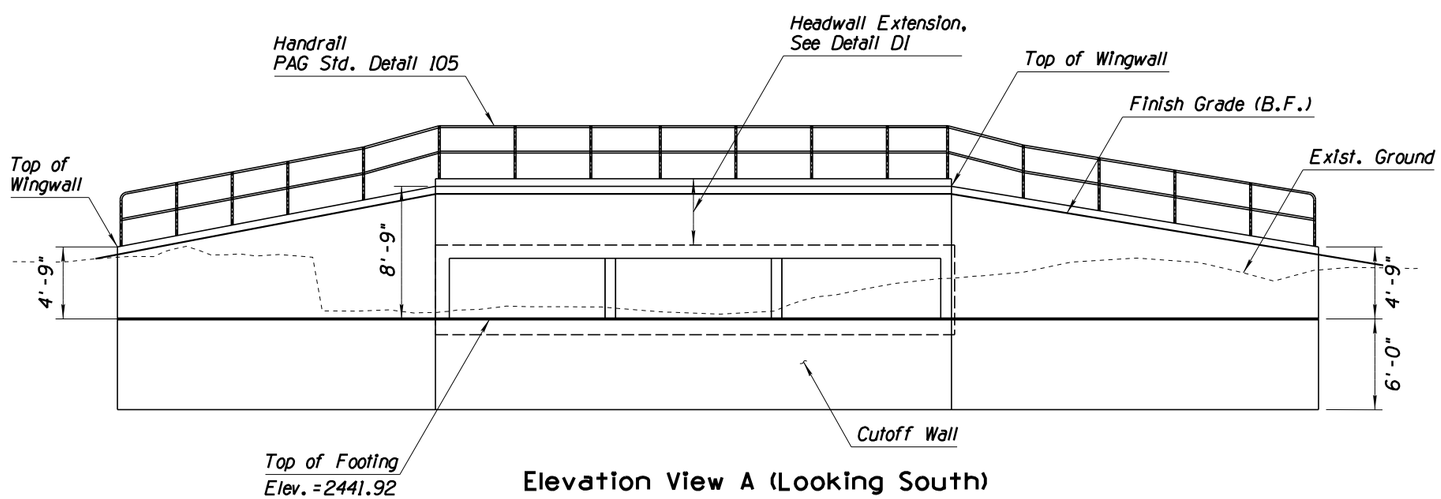


OUTLET 5
PLAN VIEW
1"=5'

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2

GENERAL NOTES:

1. See Detail DE for R.C.B.C. Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. items.



Elevation View A (Looking South)
1"=5'

DETAIL DD7

BOX CULVERT NO. 5

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT42 of DT69	Page 55 of 433

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A. EXPIRES 9/30/2020

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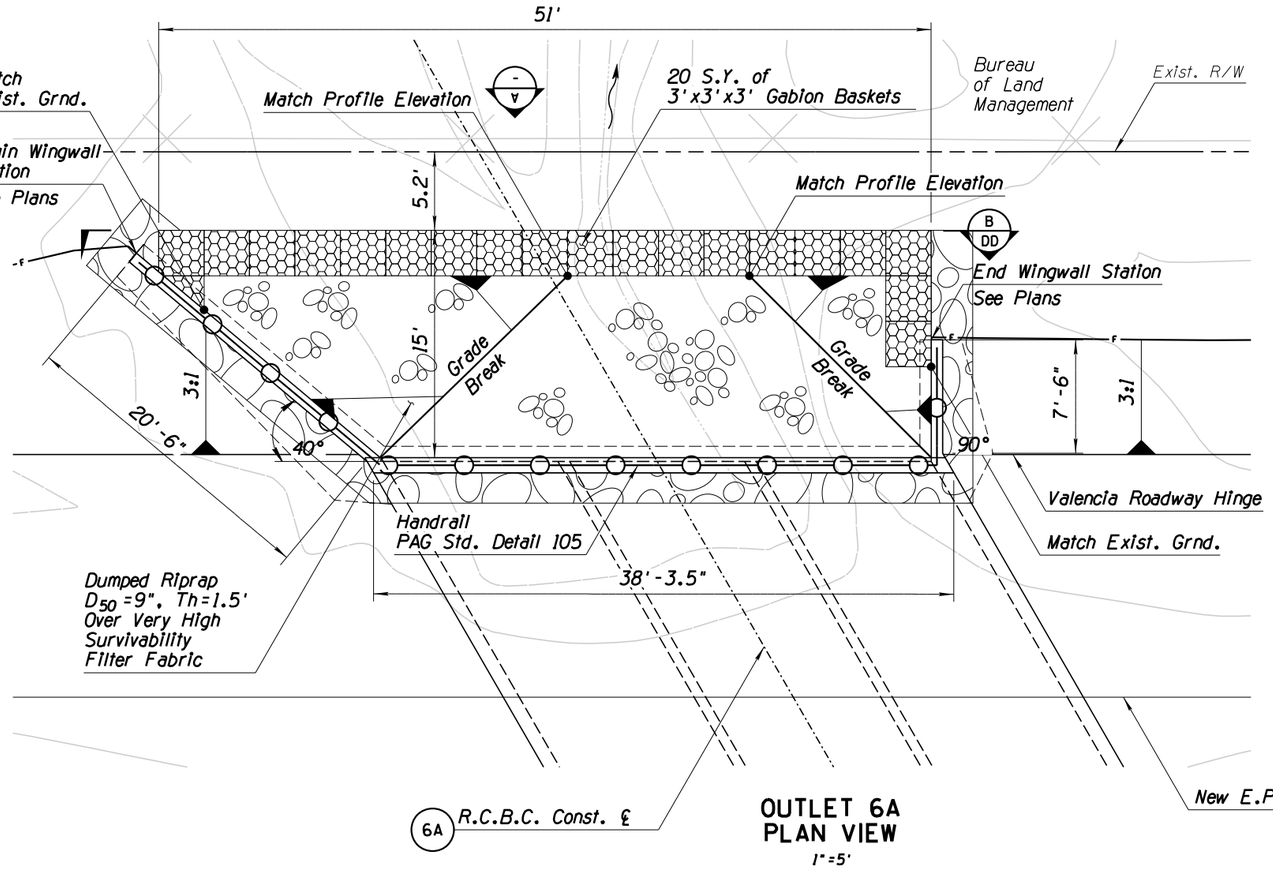
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

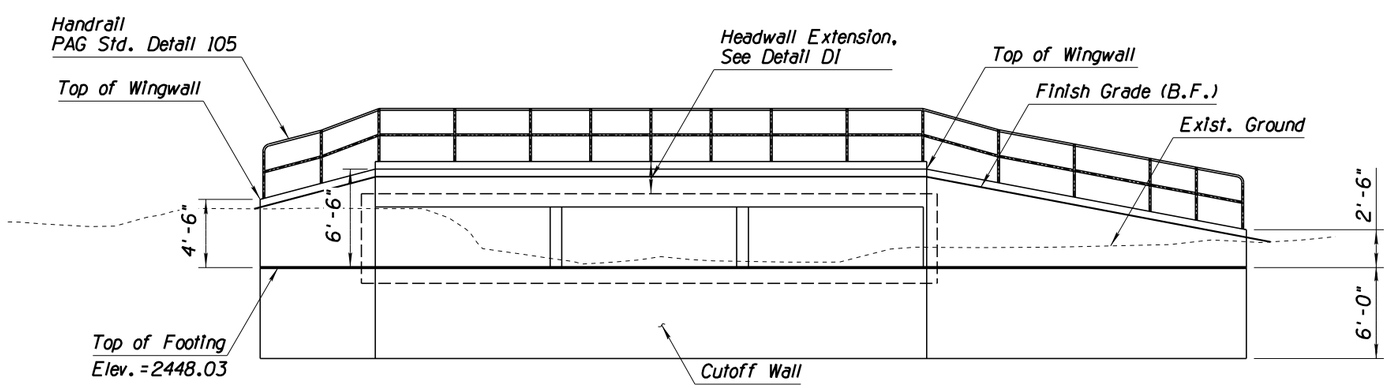


OUTLET 6A
PLAN VIEW
1"=5'

GENERAL NOTES:

1. See Detail DE for R.C.B.C. Wingwall dimensions and reinforcing unless otherwise noted.
2. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. items.

CONSTRUCTION SHALL REMAIN WITHIN EXISTING RIGHT-OF-WAY SEE NOTE 2



Elevation View A (Looking South)
1"=5'

DETAIL DD8

BOX CULVERT NO. 6A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT43 of DT69	Page 56 of 433

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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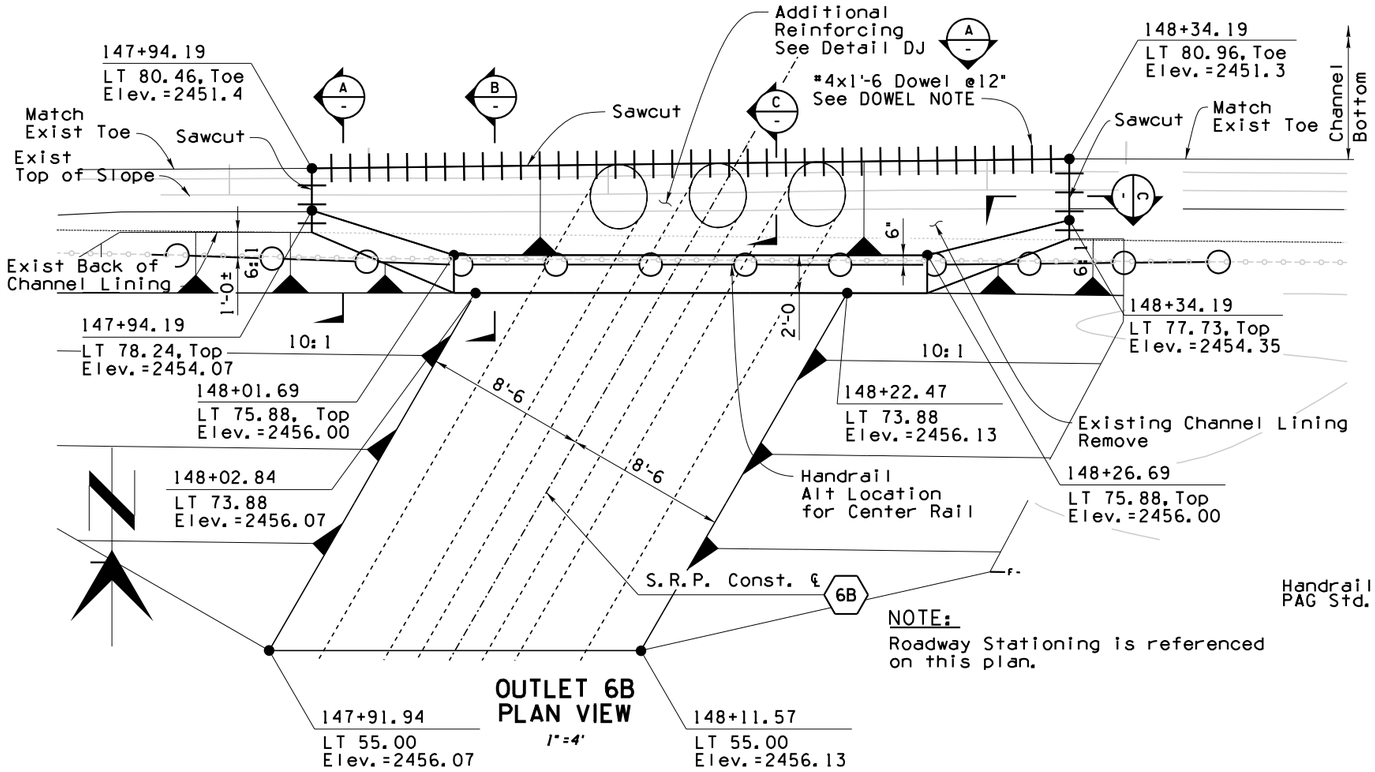
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 All Pages EXPIRES 9/30/2020

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

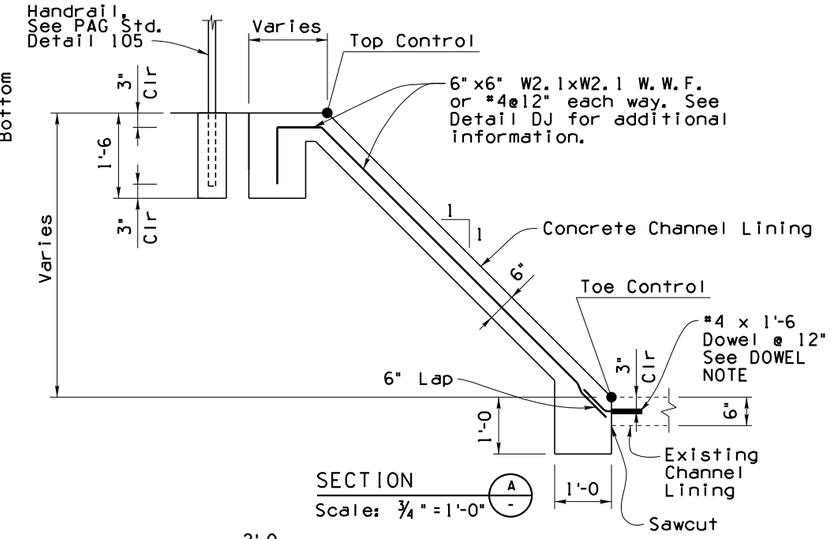


OUTLET 6B PLAN VIEW

1"=4'

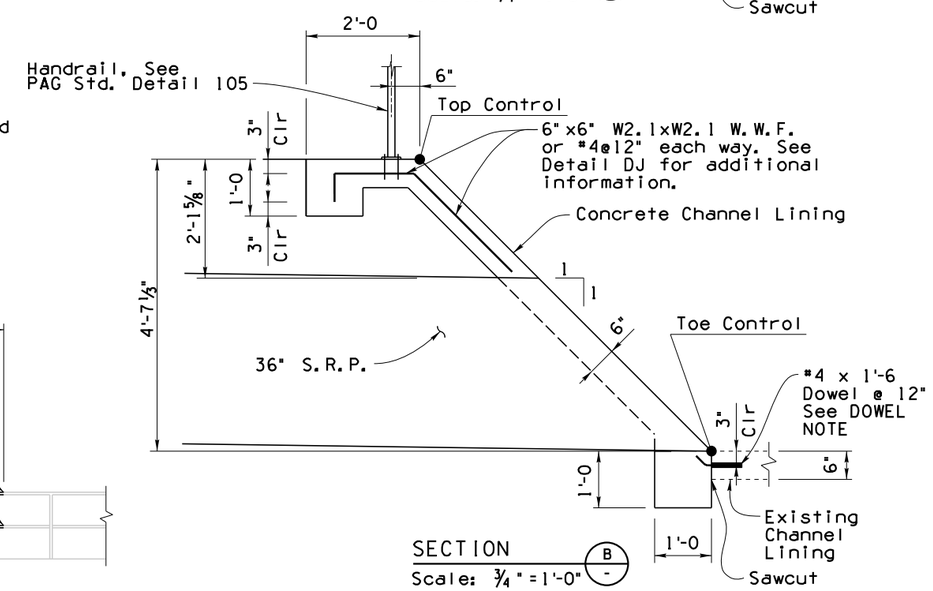
NOTE:

Roadway Stationing is referenced on this plan.



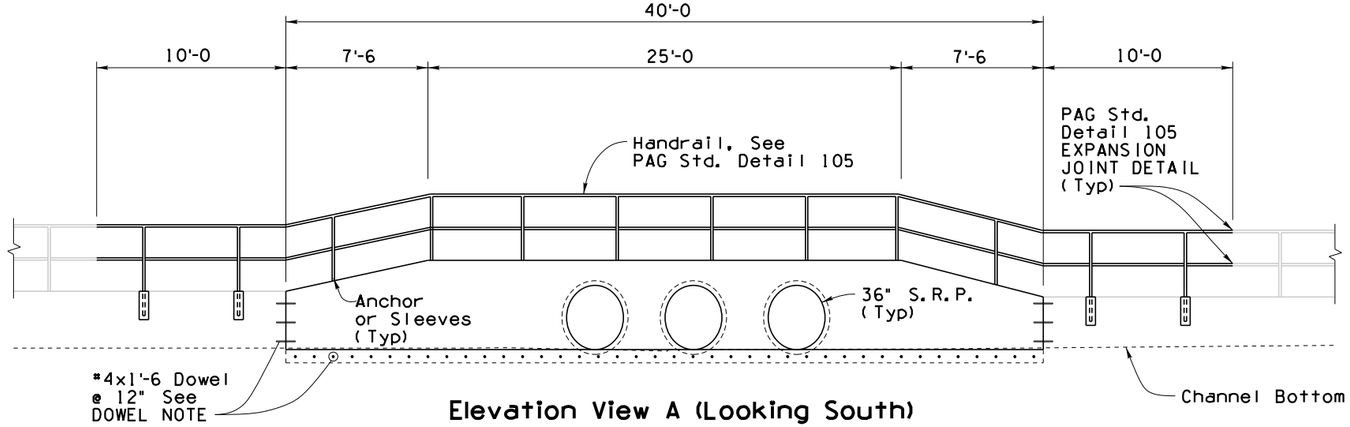
SECTION A

Scale: 3/4" = 1'-0"



SECTION B

Scale: 3/4" = 1'-0"



Elevation View A (Looking South)

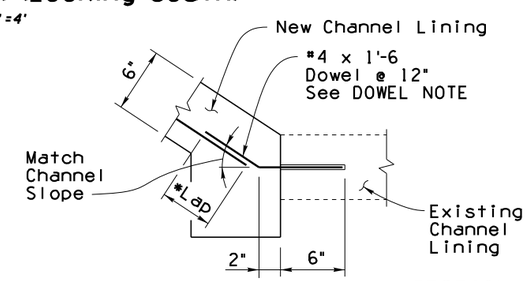
1"=4'

DOWEL NOTE:

Drill 3/4" Φ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.

GENERAL NOTES:

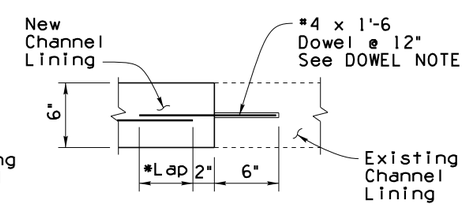
1. Concrete Channel Lining shall be Class S (f'c=3000 psi).
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. Contractor shall verify slopes and dimensions prior to removal of Concrete Channel Lining. Contractor shall notify Engineer of any discrepancies.



* 8" Min. for WWM
10" Min. for #4 Rebar

SECTION C

Not to Scale



DETAIL DD9

PIPE CULVERT NO. 6B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=4'	Sheet DT44 of DT69	Page 57 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

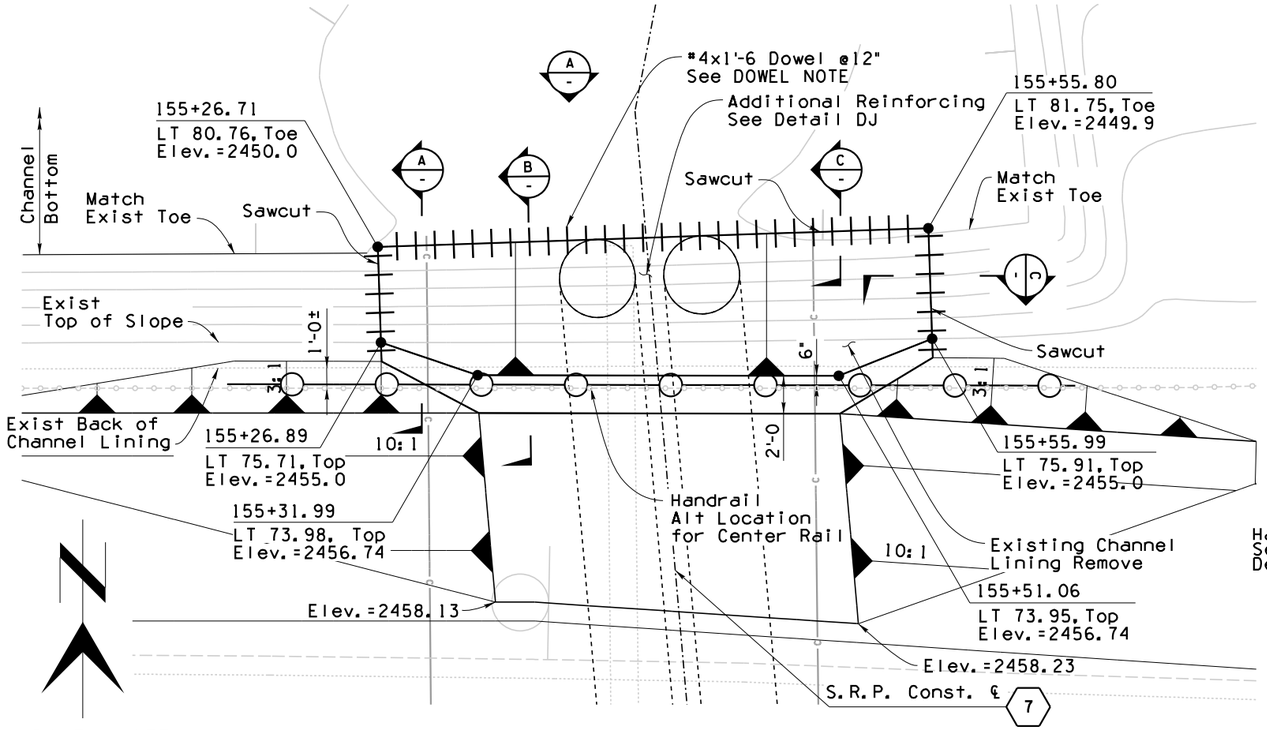
Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
STATE OF ARIZONA
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

4:45:05 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL09.DGN



OUTLET 7 PLAN VIEW

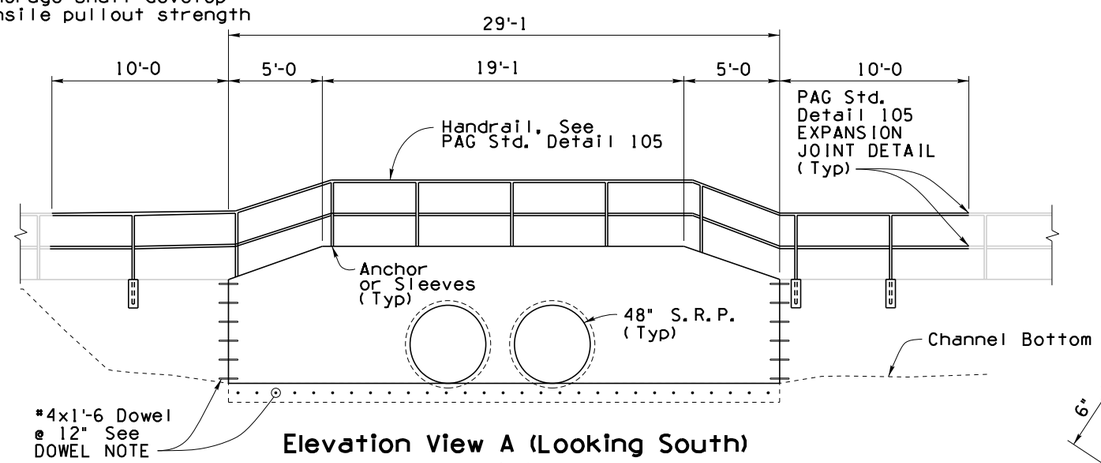
1"=4'

DOWEL NOTE:

Drill ¾"℄ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.

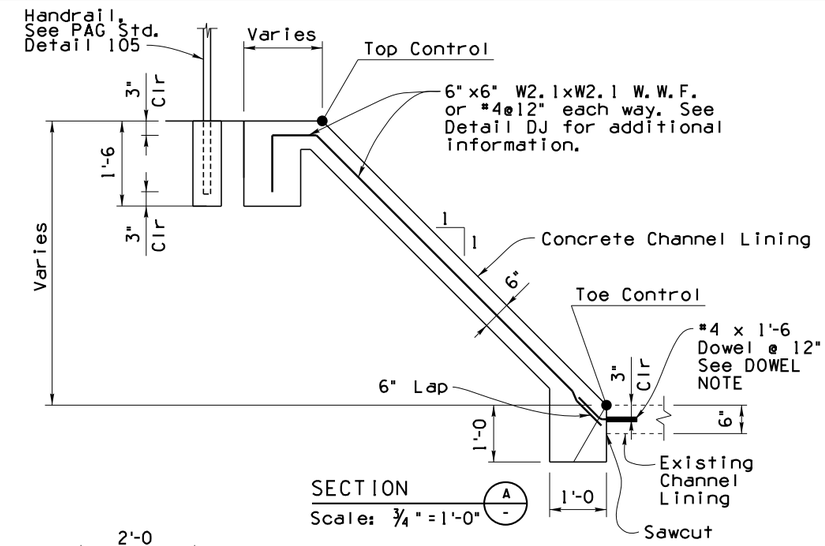
NOTE:

Roadway Stationing is referenced on this plan.

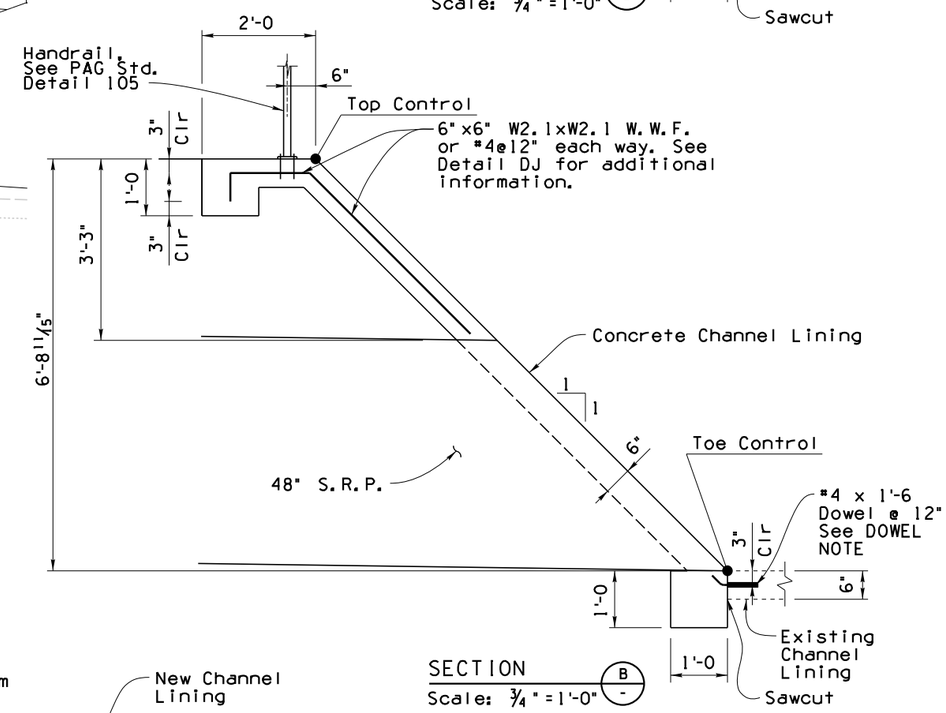


Elevation View A (Looking South)

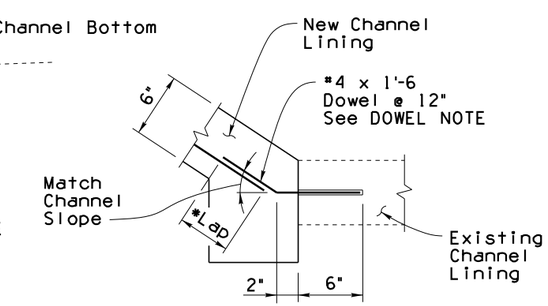
1"=4'



SECTION A
Scale: ¾"=1'-0"

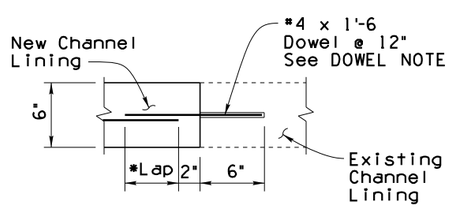


SECTION B
Scale: ¾"=1'-0"



SECTION C
Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar



GENERAL NOTES:

1. Concrete Channel Lining shall be Class S (f'c=3000 psi).
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. Contractor shall verify slopes and dimensions prior to removal of Channel Lining. Contractor shall notify Engineer of any discrepancies.

DETAIL DD10

PIPE CULVERT NO. 7

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=4'	Sheet DT45 of DT69	Page 58 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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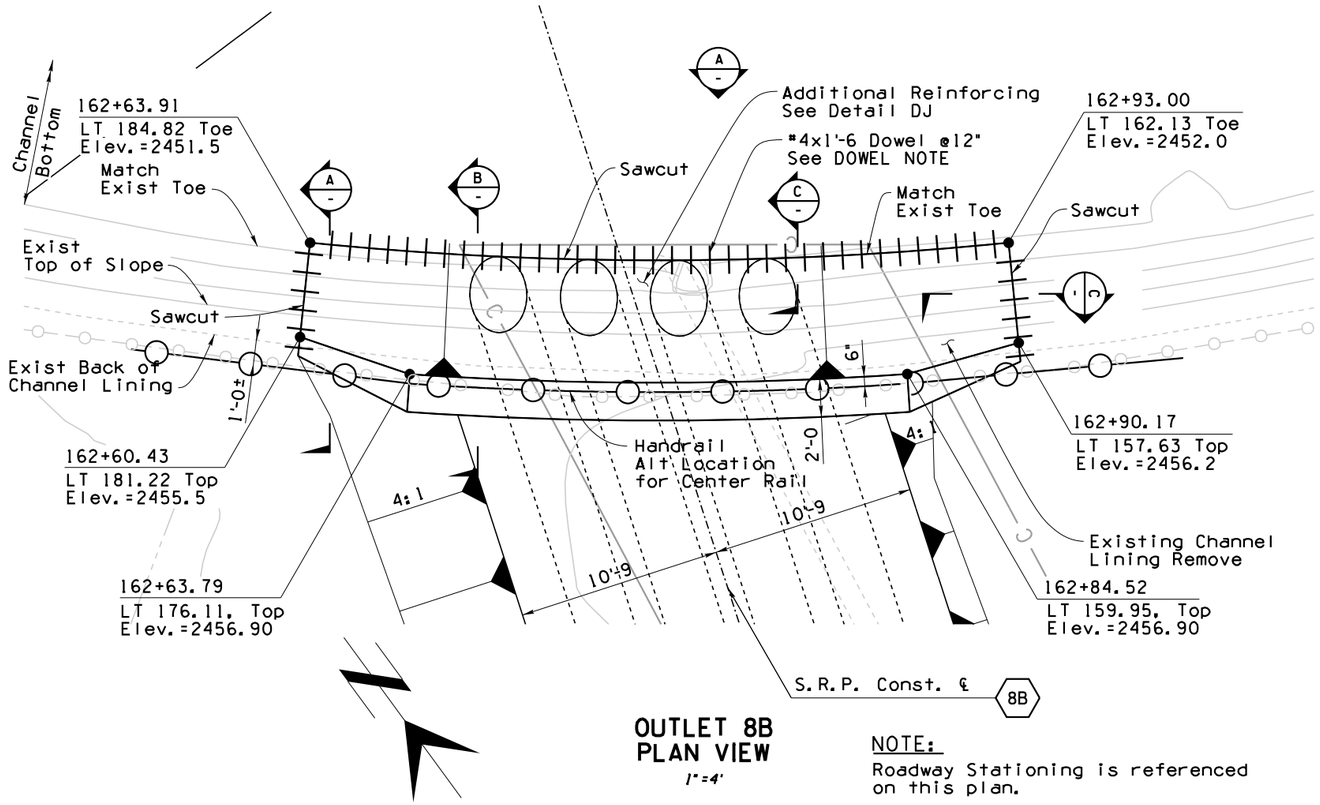
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

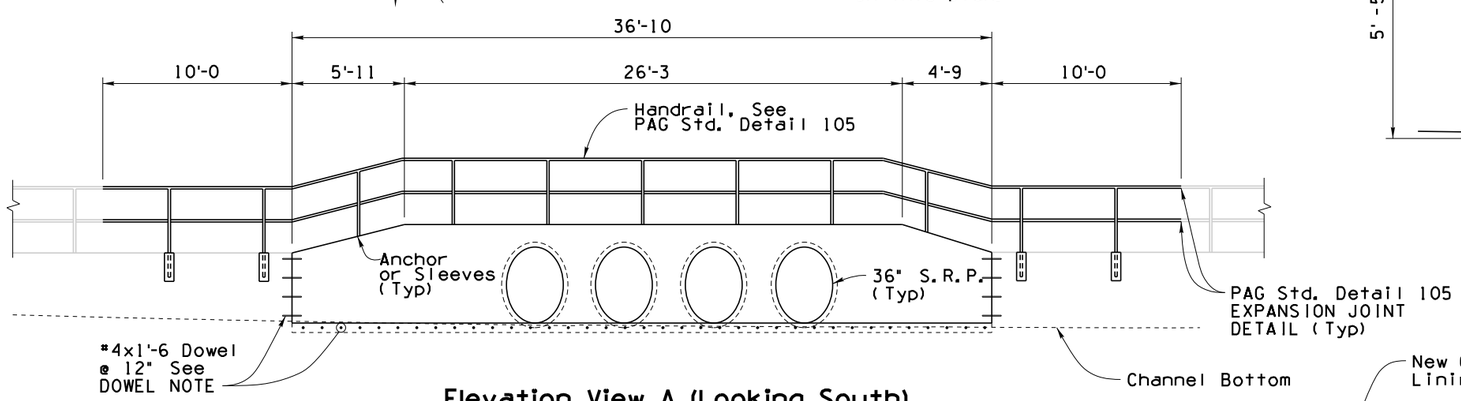


OUTLET 8B PLAN VIEW

1"=4'

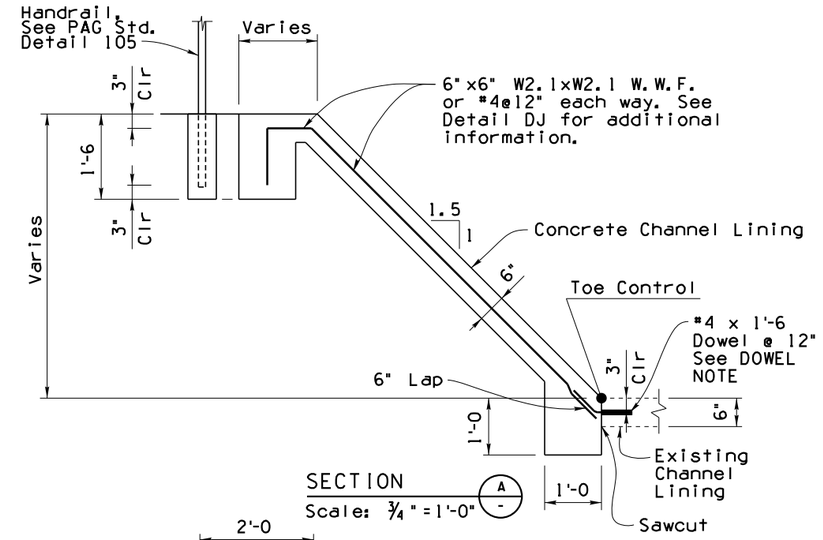
NOTE:

Roadway Stationing is referenced on this plan.



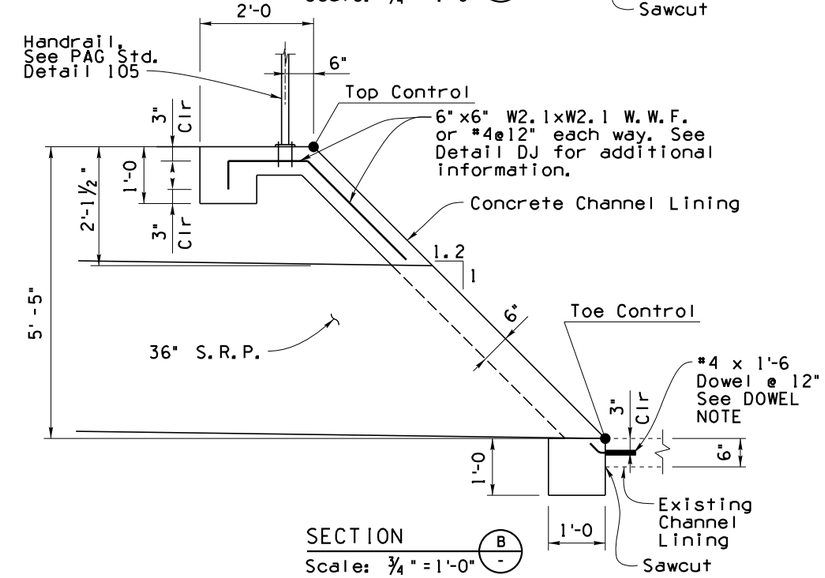
Elevation View A (Looking South)

1"=4'



SECTION A

Scale: 3/4" = 1'-0"



SECTION B

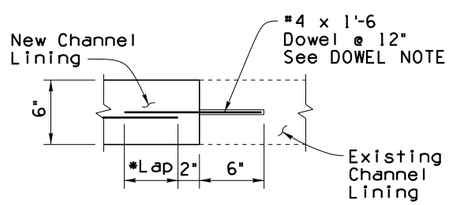
Scale: 3/4" = 1'-0"

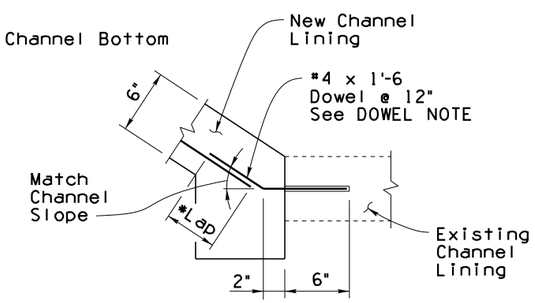
DOWEL NOTE:

Drill 3/4" Φ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.

GENERAL NOTES:

1. Concrete Channel Lining shall be Class S (f'c=3000 psi).
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. Contractor shall verify slopes and dimensions prior to removal of Channel Lining. Contractor shall notify Engineer of any discrepancies.





SECTION C

Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar

DETAIL DD11

PIPE CULVERT NO. 8B

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811

Call 811 or click Arizona811.com

Scales	Horiz. 1"=4'	Sheet DT46 of DT69	Page 59 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA State of Arizona U.S.A.
EXPIRES 9/30/2020

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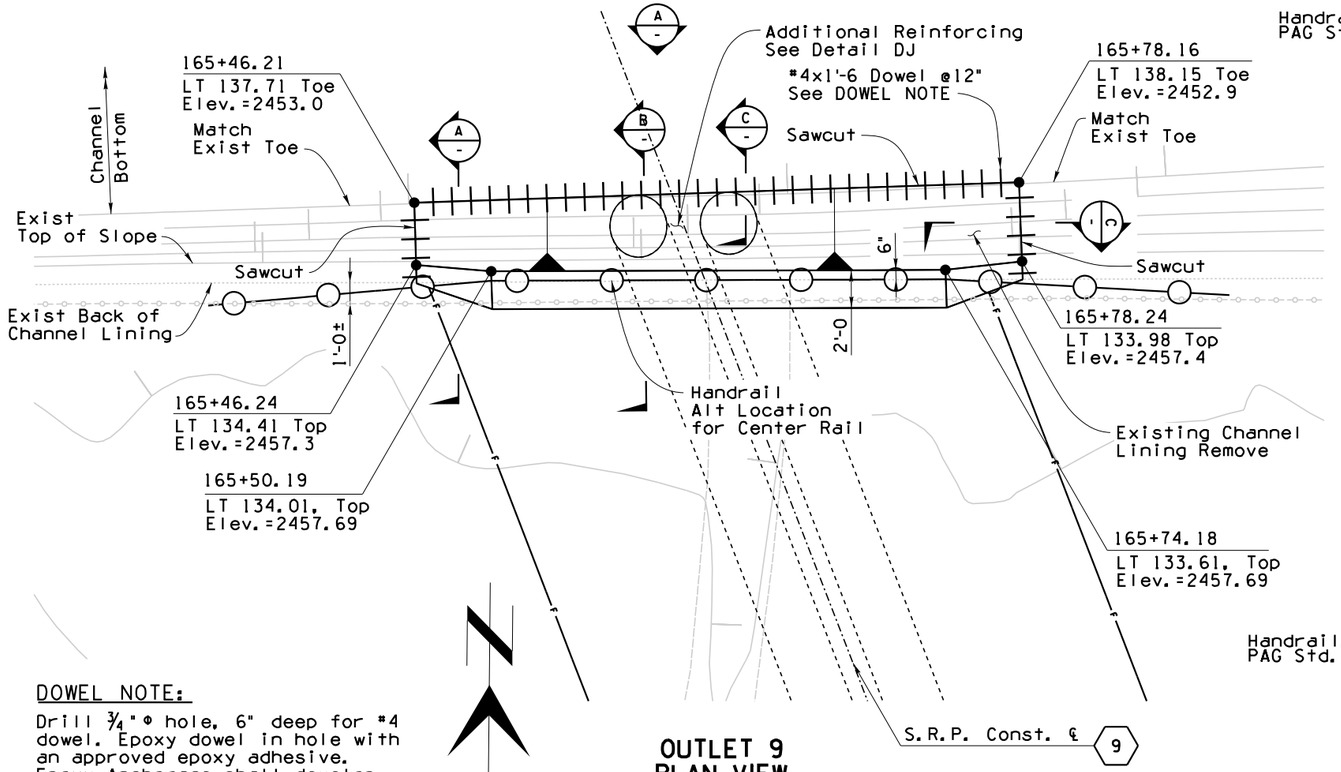
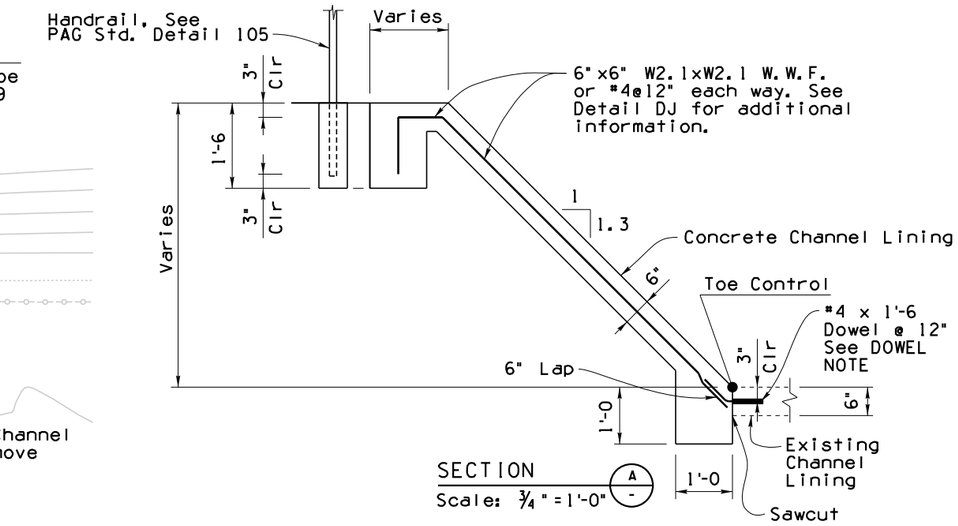
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423



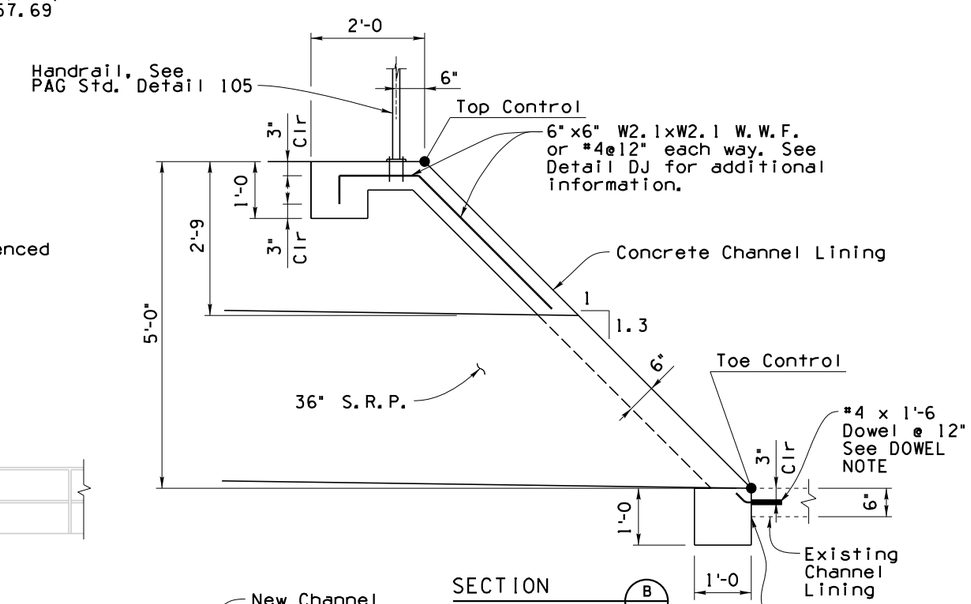
OUTLET 9 PLAN VIEW

1"=4'



SECTION A

Scale: 3/4" = 1'-0"



SECTION B

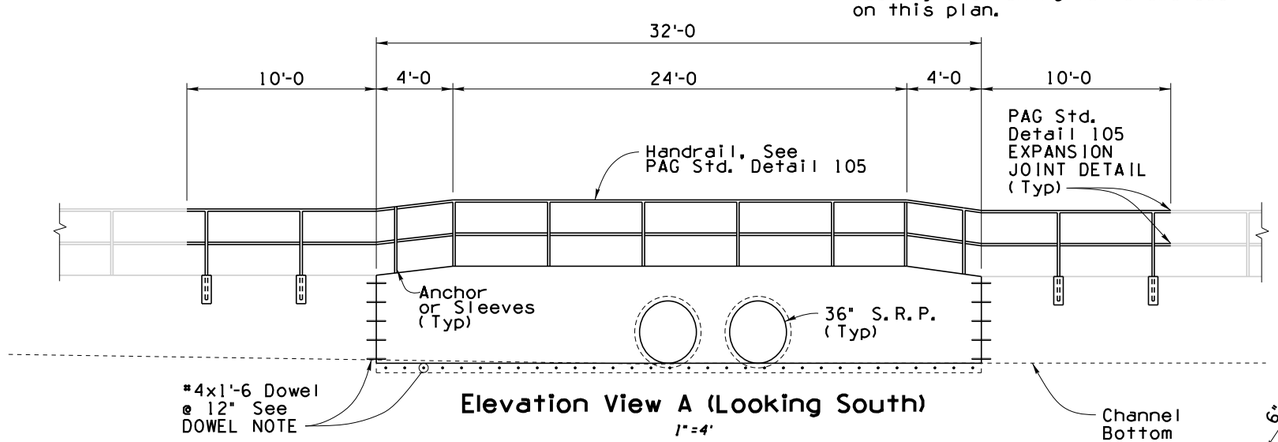
Scale: 3/4" = 1'-0"

DOWEL NOTE:

Drill 3/4"Φ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.

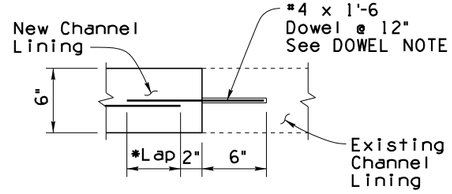
NOTE:

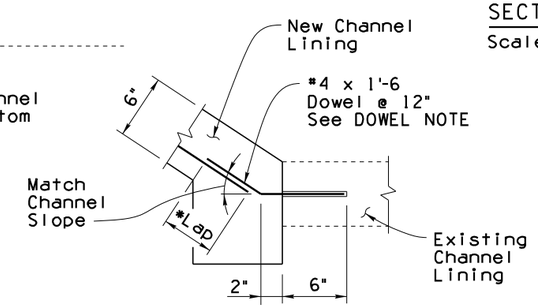
Roadway Stationing is referenced on this plan.



Elevation View A (Looking South)

1"=4'





SECTION C

Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar

GENERAL NOTES:

1. Concrete Channel Lining shall be Class S (f'c=3000 psi).
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. Contractor shall verify slopes and dimensions prior to removal of Channel Lining. Contractor shall notify Engineer of any discrepancies.

DETAIL DD12

PIPE CULVERT NO. 9

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=4'	Sheet DT47 of DT69	Page 60 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

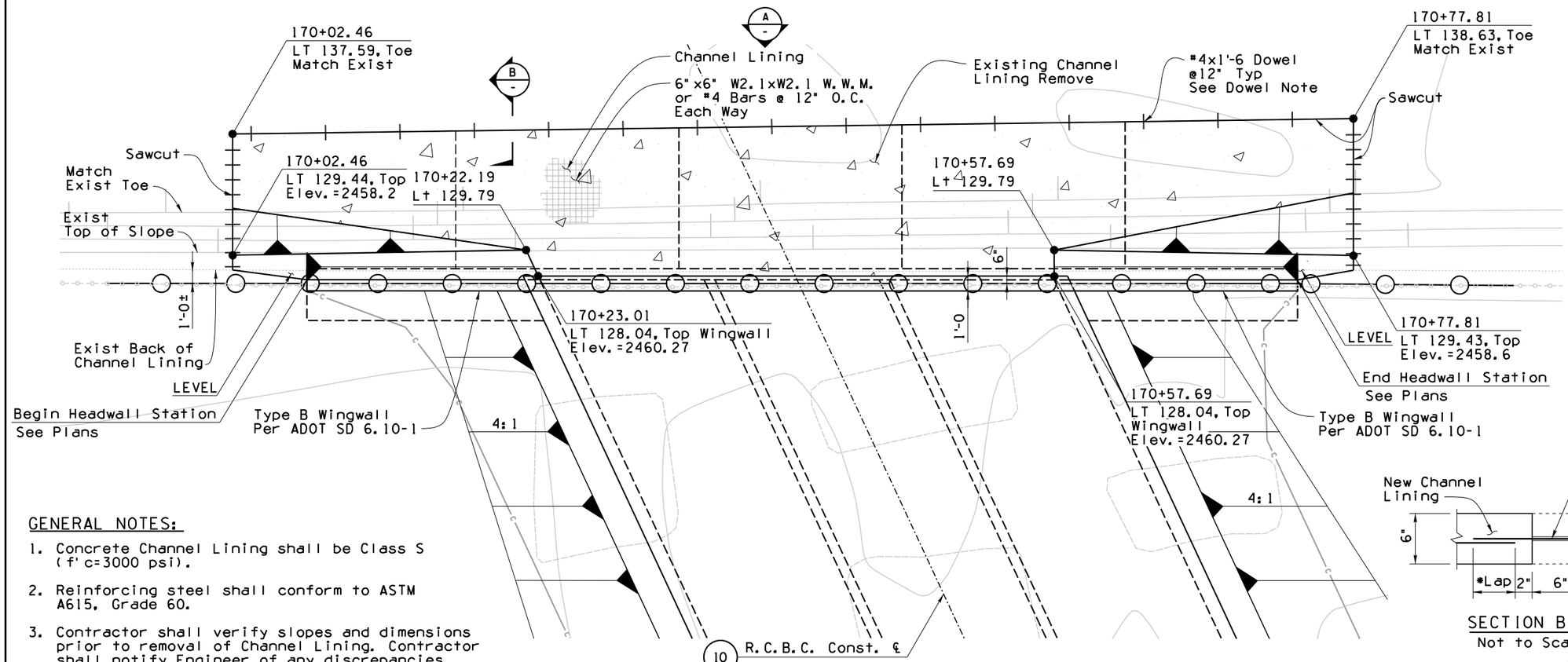
Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA U.S.A.
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director



OUTLET 10 PLAN VIEW

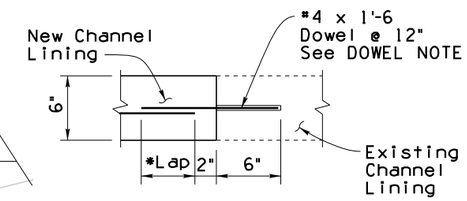
1"=4'

GENERAL NOTES:

1. Concrete Channel Lining shall be Class S (f'c=3000 psi).
2. Reinforcing steel shall conform to ASTM A615, Grade 60.
3. Contractor shall verify slopes and dimensions prior to removal of Channel Lining. Contractor shall notify Engineer of any discrepancies.
4. Connect Concrete Channel Lining to Wingwalls and Box Culvert bottom slab per Detail 3 on Detail DH

NOTE:

Roadway Stationing is referenced on this plan.



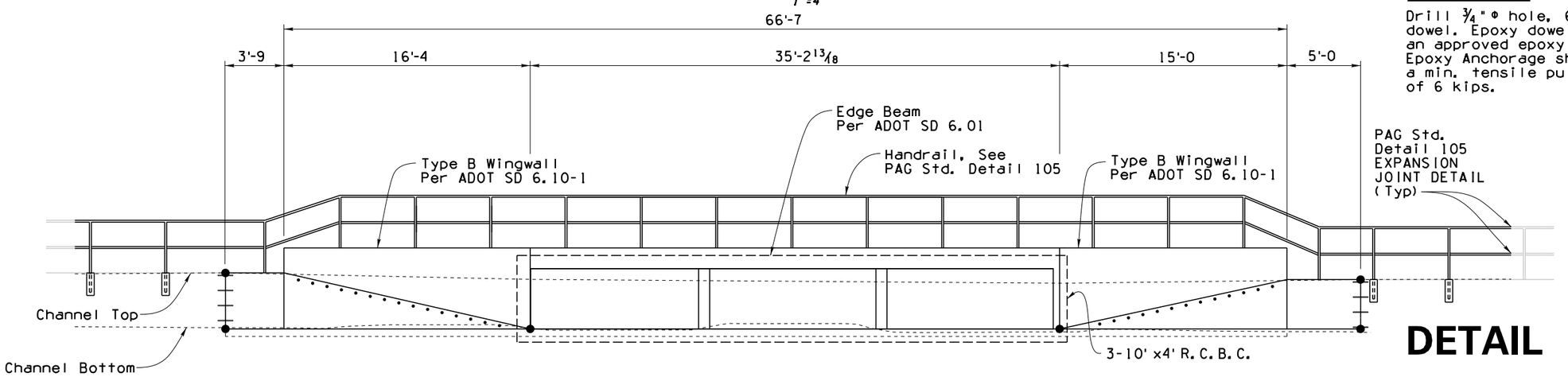
SECTION B-B

Not to Scale

* 8" Min. for WWM
10" Min. for #4 Rebar

DOWEL NOTE:

Drill ¾" Φ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.



Elevation View A (Looking South)

1"=4'

DETAIL DD13

BOX CULVERT NO. 10

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=4' Vert. NA	Sheet DT48 of DT69	Page 61 of 433

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 9/30/18 EXPIRES 9/30/2020

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Ana M. Olivares, P.E., Director

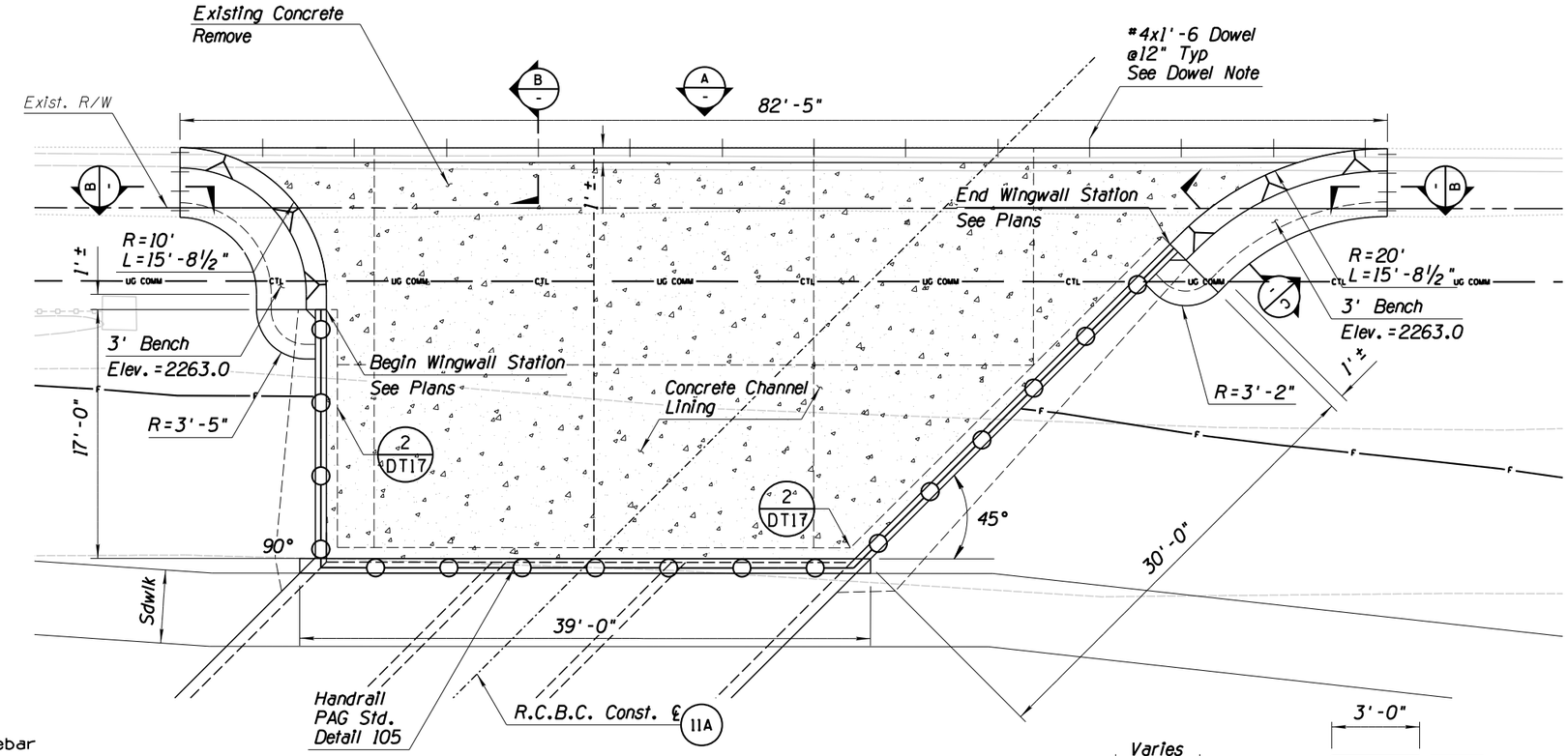
Pima County Department of Transportation

#4RTVWE

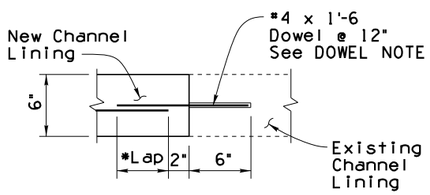
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

GENERAL NOTES:

1. See Detail DE for R.C.B.C. Wingwall dimensions and reinforcing unless otherwise noted.
2. Concrete Channel Lining shall be Class S (f'c=3000 psi).
3. Connect Concrete Channel Lining to Wingwalls and Box Culvert bottom slab per Detail 2 on Detail DH
4. Expansion joints shall be placed at 60 foot intervals and Weakened plane joints, or scoring, shall be at 15 foot intervals between expansion joints.



OUTLET 11A
PLAN VIEW
1"=5'

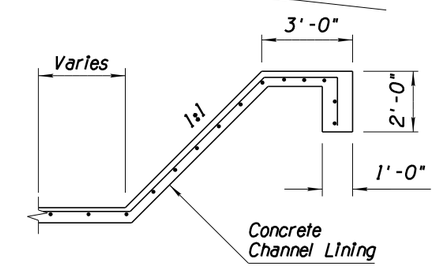


SECTION B-B
Not to Scale

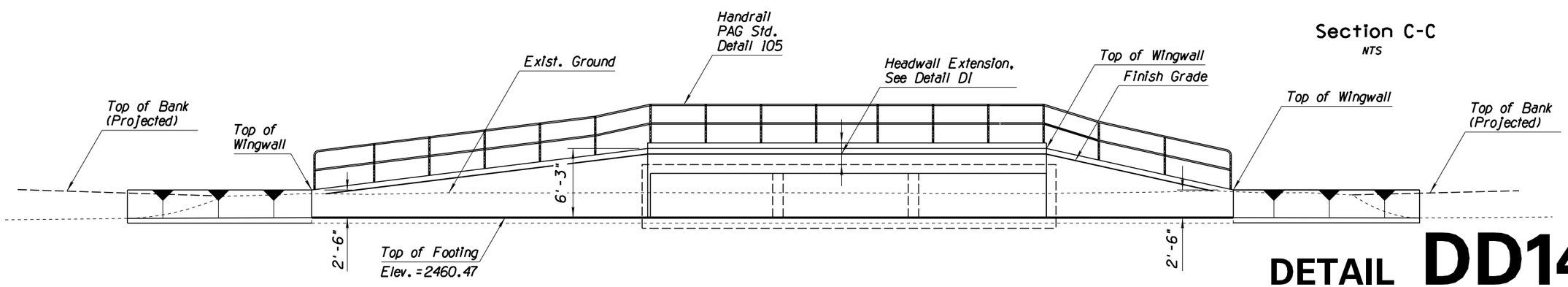
* 8" Min. for WWM
10" Min. for #4 Rebar

DOWEL NOTE:

Drill ¾"Φ hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.



Section C-C
NTS



Elevation View A (Looking South)
1"=5'

DETAIL DD14

BOX CULVERT NO. 11A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=4' Vert. NA	Sheet DT49 of DT69	Page 62 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

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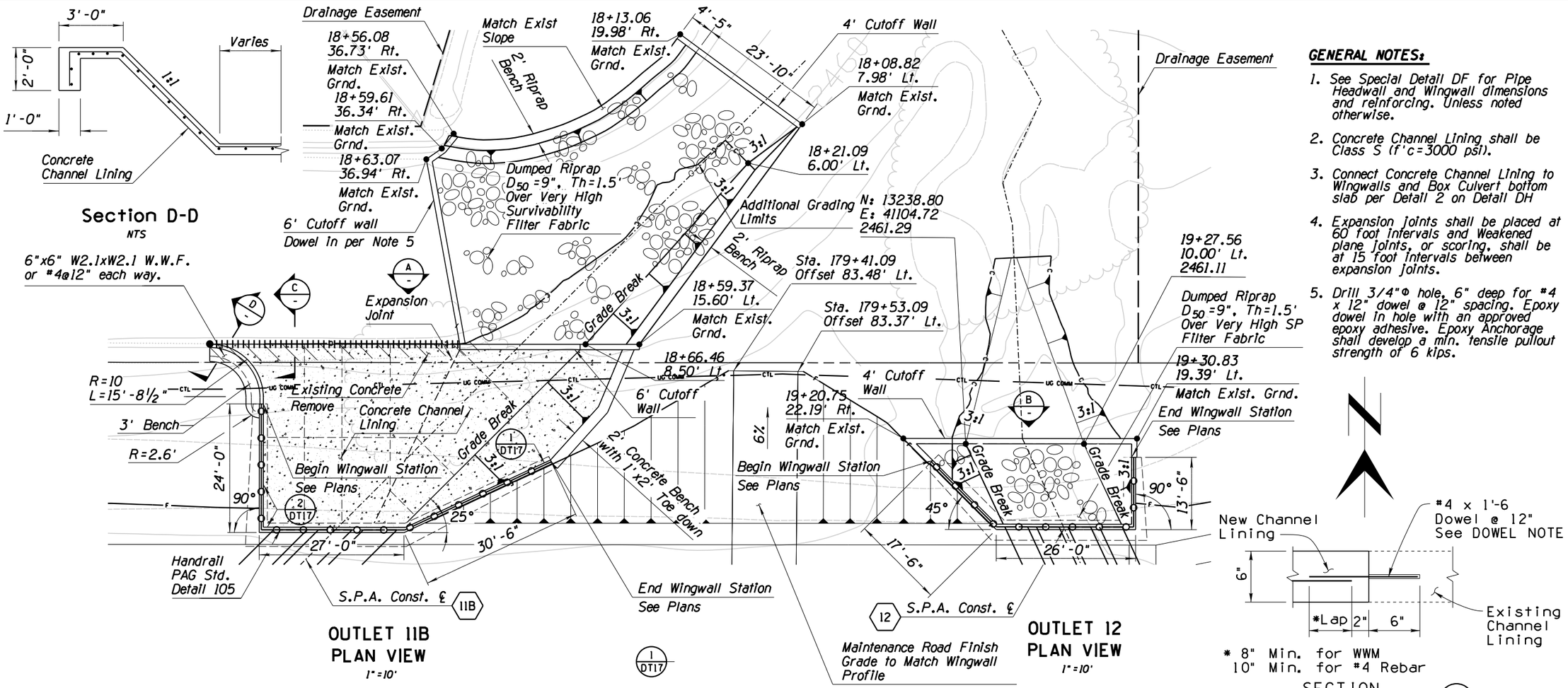
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:45:08 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL14.DGN

Section D-D

NTS

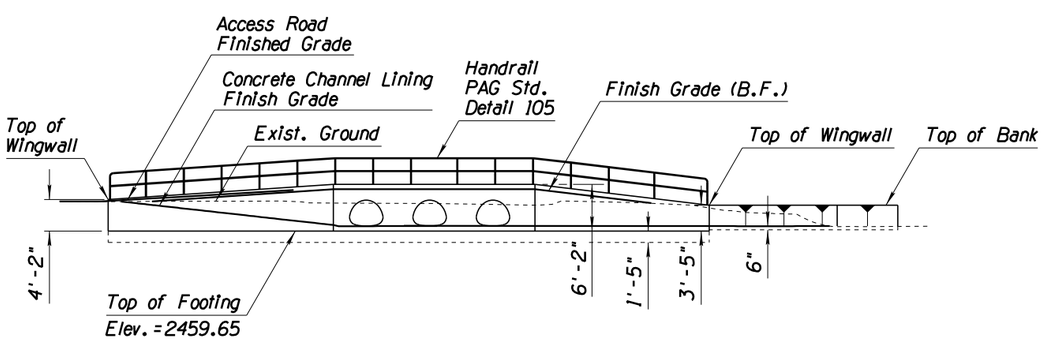


OUTLET 11B PLAN VIEW

1"=10'

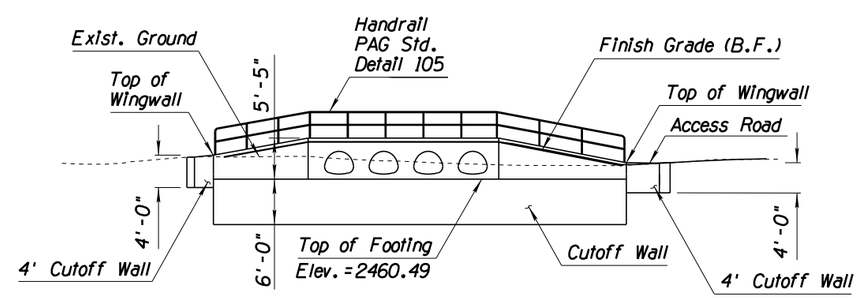
OUTLET 12 PLAN VIEW

1"=10'



Elevation View A (Looking South)

1"=10'



Elevation View B (Looking South)

1"=10'

GENERAL NOTES:

1. See Special Detail DF for Pipe Headwall and Wingwall dimensions and reinforcing. Unless noted otherwise.
2. Concrete Channel Lining shall be Class S (f'c=3000 psi).
3. Connect Concrete Channel Lining to Wingwalls and Box Culvert bottom slab per Detail 2 on Detail DH
4. Expansion joints shall be placed at 60 foot intervals and Weakened plane joints, or scoring, shall be at 15 foot intervals between expansion joints.
5. Drill 3/4"Φ hole, 6" deep for #4 x 12" dowel @ 12" spacing. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.

DETAIL DD15

PIPE CULVERT NO. 11B
PIPE CULVERT NO. 12

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10'	Sheet DT50 of DT69	Page 63 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

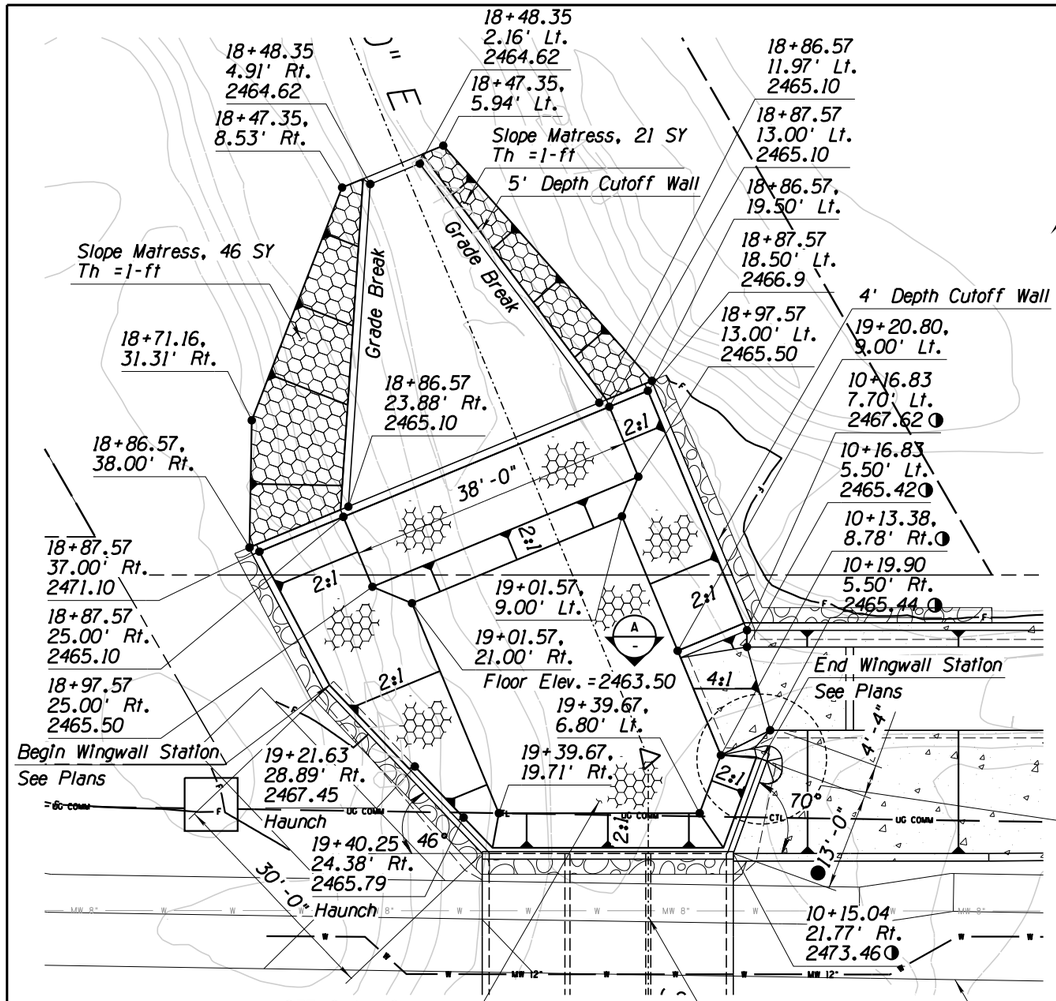
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

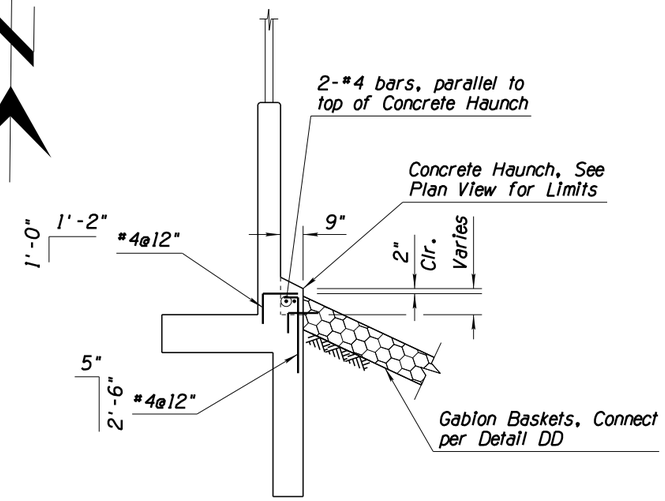
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

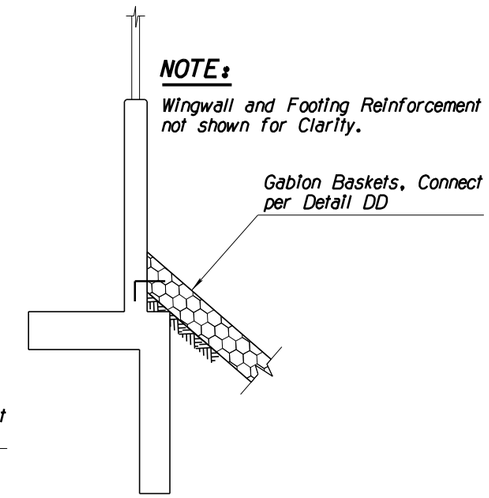


OUTLET 16
PLAN VIEW

1" =10'



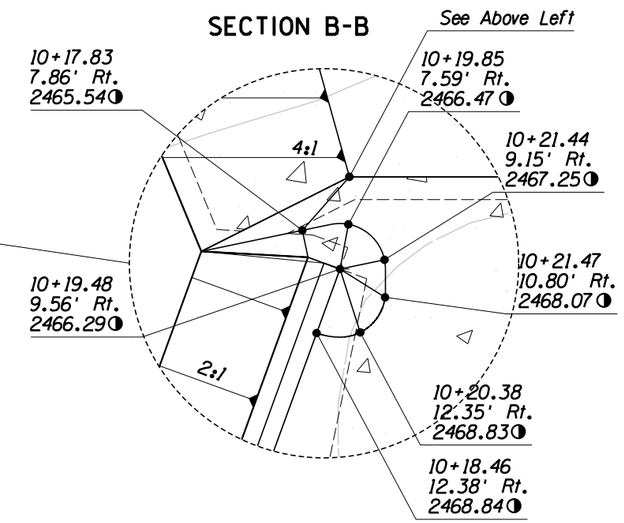
SECTION B-B



SECTION C-C

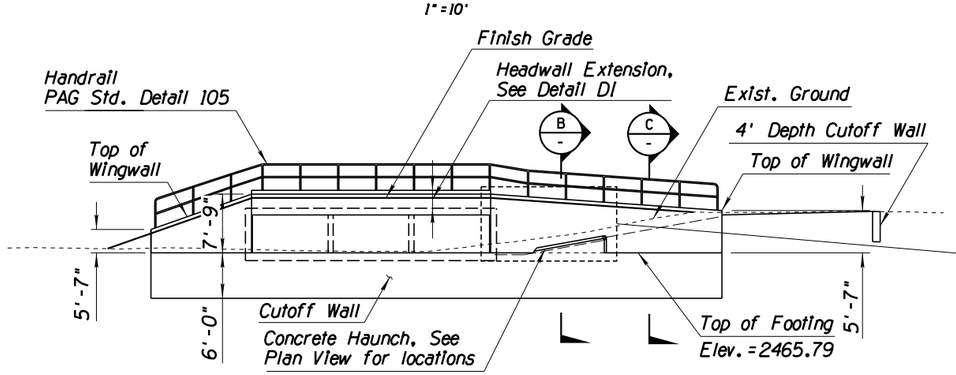
NOTE:

Wingwall and Footing Reinforcement not shown for Clarity.



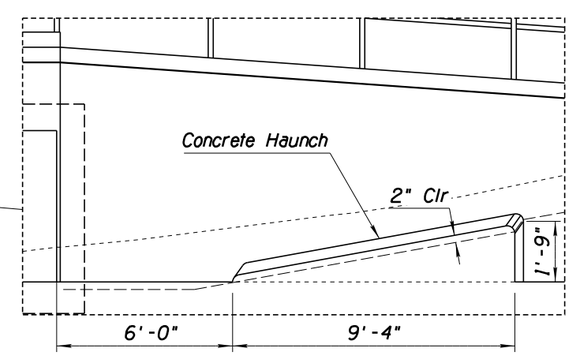
GENERAL NOTES:

1. See Detail DE for R.C.B.C. Wingwall dimensions and reinforcing unless otherwise noted.
2. Elevations are approximates. Match existing site conditions.
3. For connection details see Detail DH
4. Station and offset are based on the North Iberia Channel Const. ℄. Elevation shown is for the channel slope finished grade.



Elevation View A (Looking South)

1" =10'



DETAIL DD16

BOX CULVERT NO. 16

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1=10'	Sheet DT51 of DT69	Page 64 of 433
	Vert. 1=10'		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A. EXPIRES 3/31/2020

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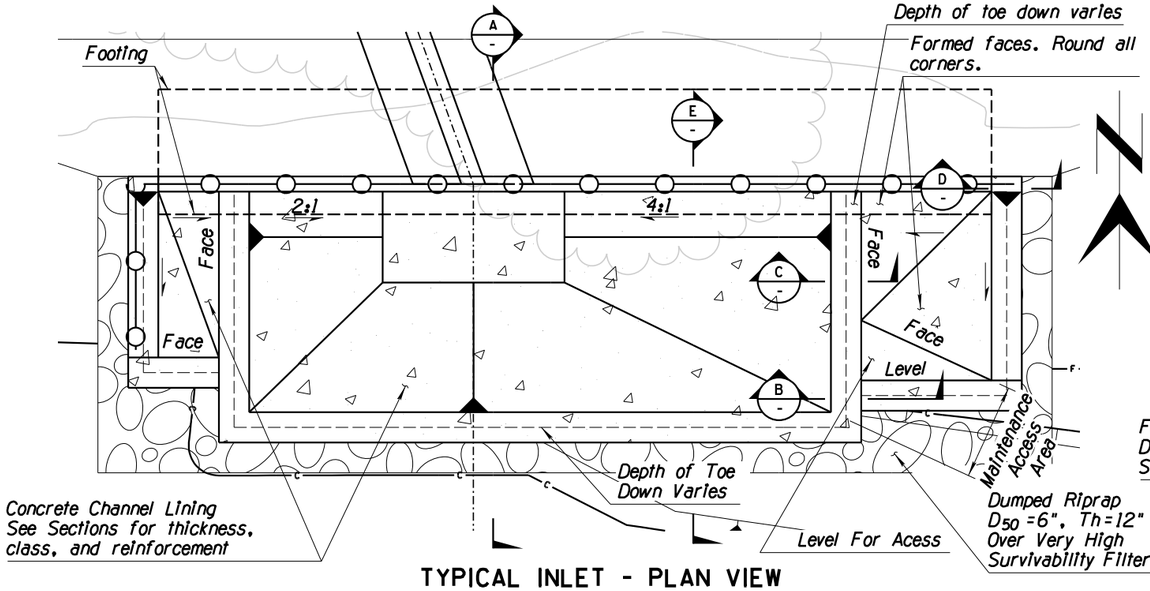
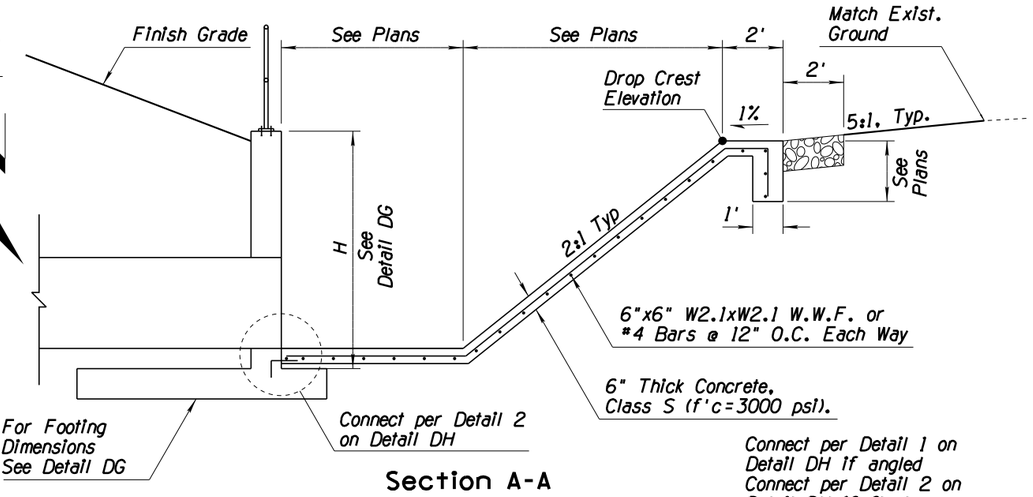
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



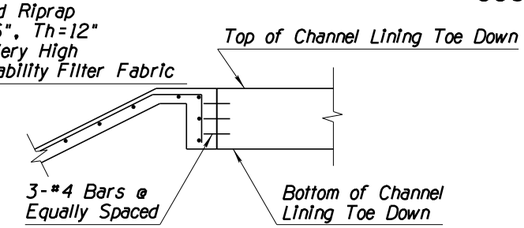
TYPICAL INLET - PLAN VIEW

1"=5'



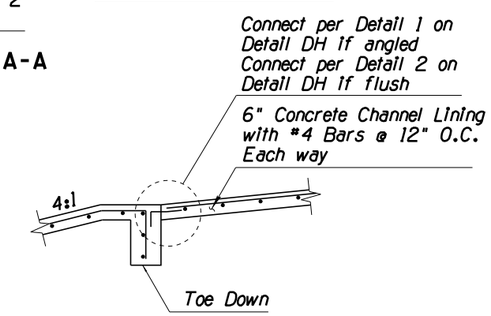
Section A-A

NTS



Section B-B

NTS



Section C-C

NTS

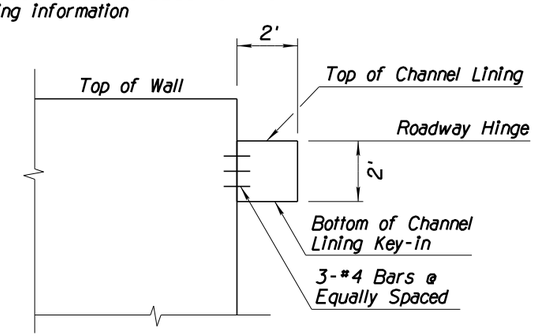
Dowel / Anchor Connection Placement

Inlet ID	A	B	C	D	E	F	G	I	J
1A	0.6	2.5	4	9	2.5	4	14	0.6	2
1B	See Detail DD19 for Dowel Placement Locations								
2	See Detail DD20 for Dowel Placement Locations								
3A	2.3	10.1	11.6	19.2	10.1	11.6	26.8	2.3	2
3B	2.4	9.4	10.9	17.1	9	10.5	22.9	2.4	2
3C	2.9	10.5	11.5	16	11	11.5	16	2.9	2
4	3.0	12.9	14.4	24.6	10.5	12	32.4	3.0	2
5	4.5	12.5	14	22.4	13.6	15.1	31.9	4.5	1.5
6A	2.8	10.3	11.8	19.2	9.8	11.3	26.1	2.8	2
6B	1.8	12.5	14	19.4	10.3	11.8	22.6	1.8	2
7	3.6	8.8	10.3	16.5	8.6	10.1	22.5	3.6	1.5
8A	2.7	5.5	7	12.4	7.5	9	18.6	2.7	2
8B	2.7	5.5	7	12.4	7.5	9	18.6	2.7	2
9	2.5	4.5	6	14.8	9.1	10.6	28.2	2.5	2
10	4.8	5.8	7.3	16.9	13.0	14.5	33.7	4.8	2
11A	See Detail DD25 for Dowel Placement Locations								
11B	0.7	0	0	4.4	0	0	3.8	1.2	-
12	1.8	6.5	7.5	15	0	0	2.9	1.4	-
13	See Detail DD28 for Dowel Placement Locations								
14A	2.1	9	10	17	0	0	3.9	1.2	2
14B	2.1	5.5	7	13.4	8.3	9.8	22.6	2.1	2
15	2.2	5.5	7	11.2	7.9	9.4	17.8	2.2	2
16	See Detail DD30 for Dowel Placement Locations								
17A	See Detail DD32 for Dowel Placement Locations								
17A*	See Detail DD31 for Dowel Placement Locations								
17B	1.7	6.3	7.8	14.2	7.5	9	21.8	1.7	2
18	3.3	4.8	6.3	11.7	11.2	12.7	23.5	3.3	1.5

K Shall Match Field Conditions * 17A Outlet Dowel Connections

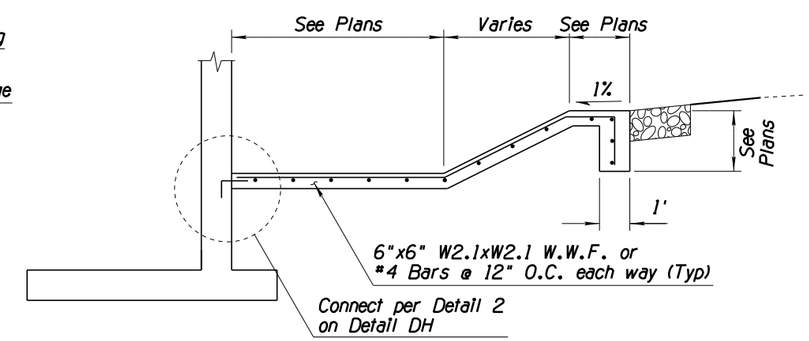
GENERAL NOTES:

1. See Table left for dowel/anchor dimensions
2. See Detail DD18 to DD30 for Inlet staking information



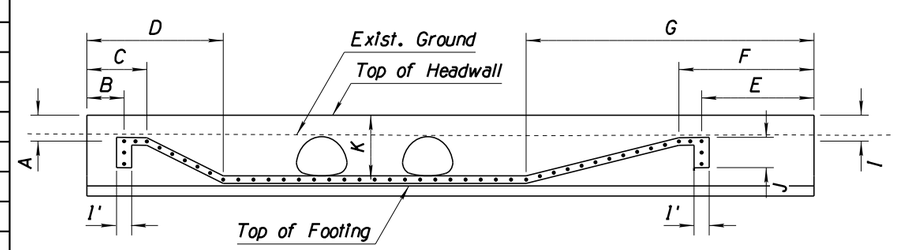
Section D-D

NTS



Section E-E

NTS



ELEVATION VIEW

1"=5'

DETAIL DD17

Typical Inlet Details and Connections

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT52 of DT69	Page 65 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

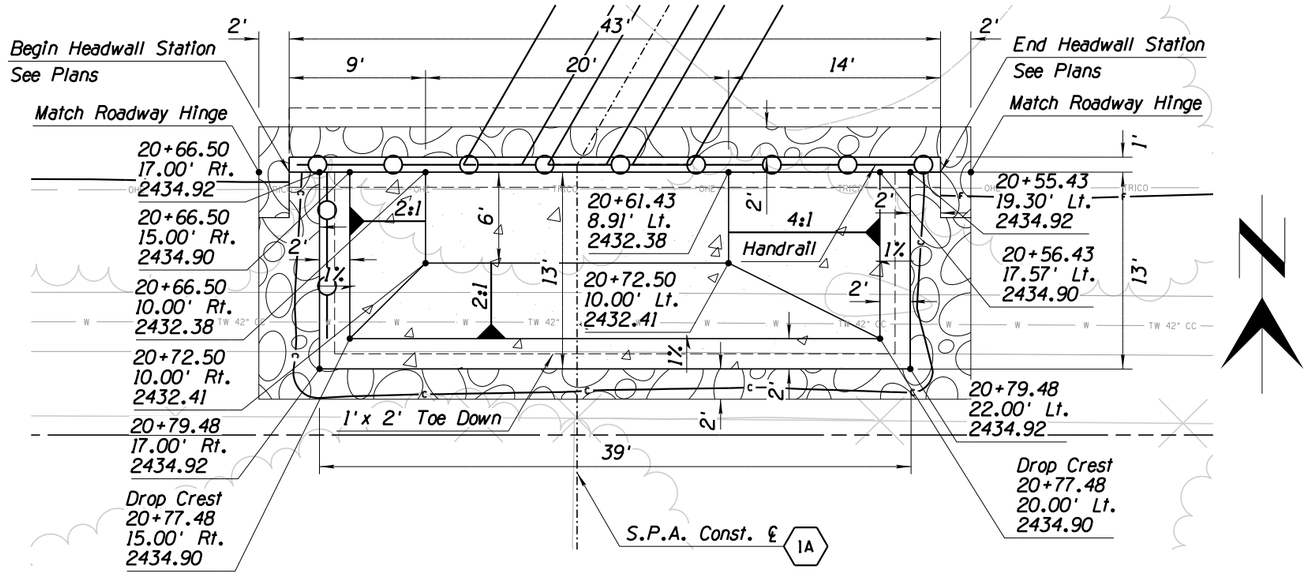
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signature Expires Date
EXPIRES 9/30/2020

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

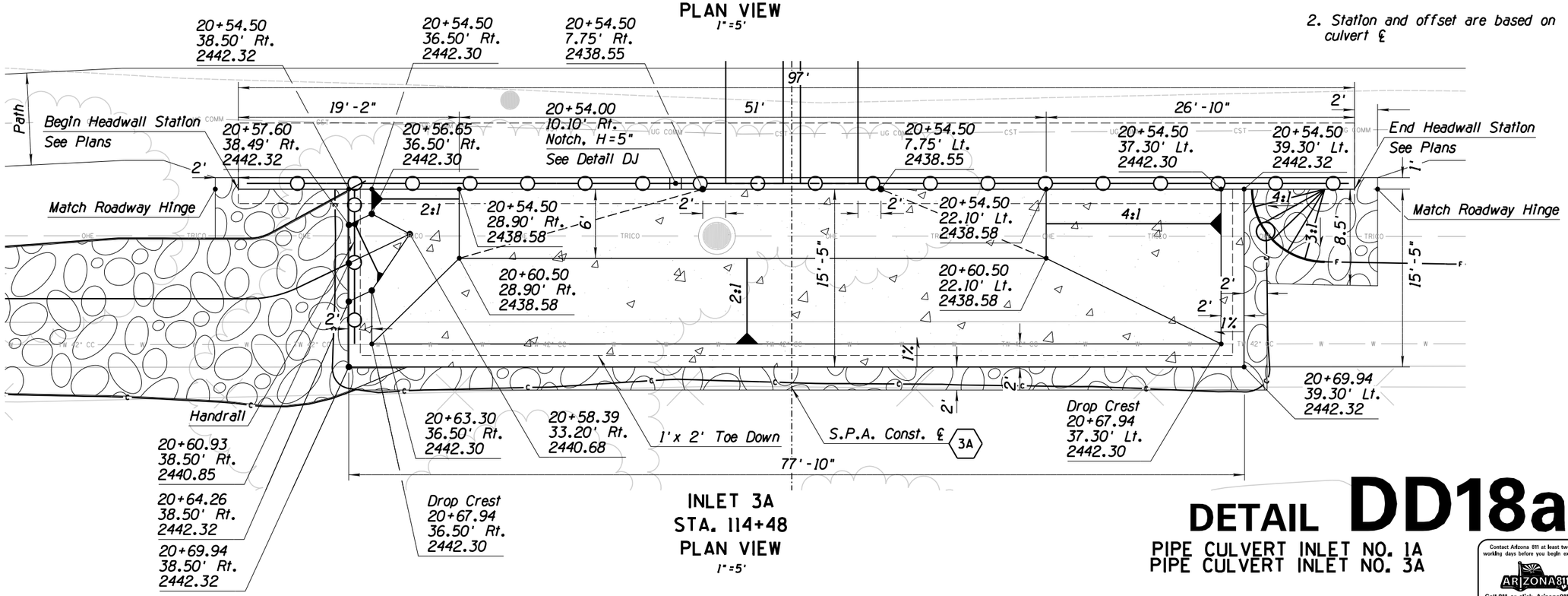
4:45:10 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL17.DGN



INLET 1A
STA. 91+05
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄



INLET 3A
STA. 114+48
PLAN VIEW
1"=5'

DETAIL DD18a

PIPE CULVERT INLET NO. 1A
PIPE CULVERT INLET NO. 3A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

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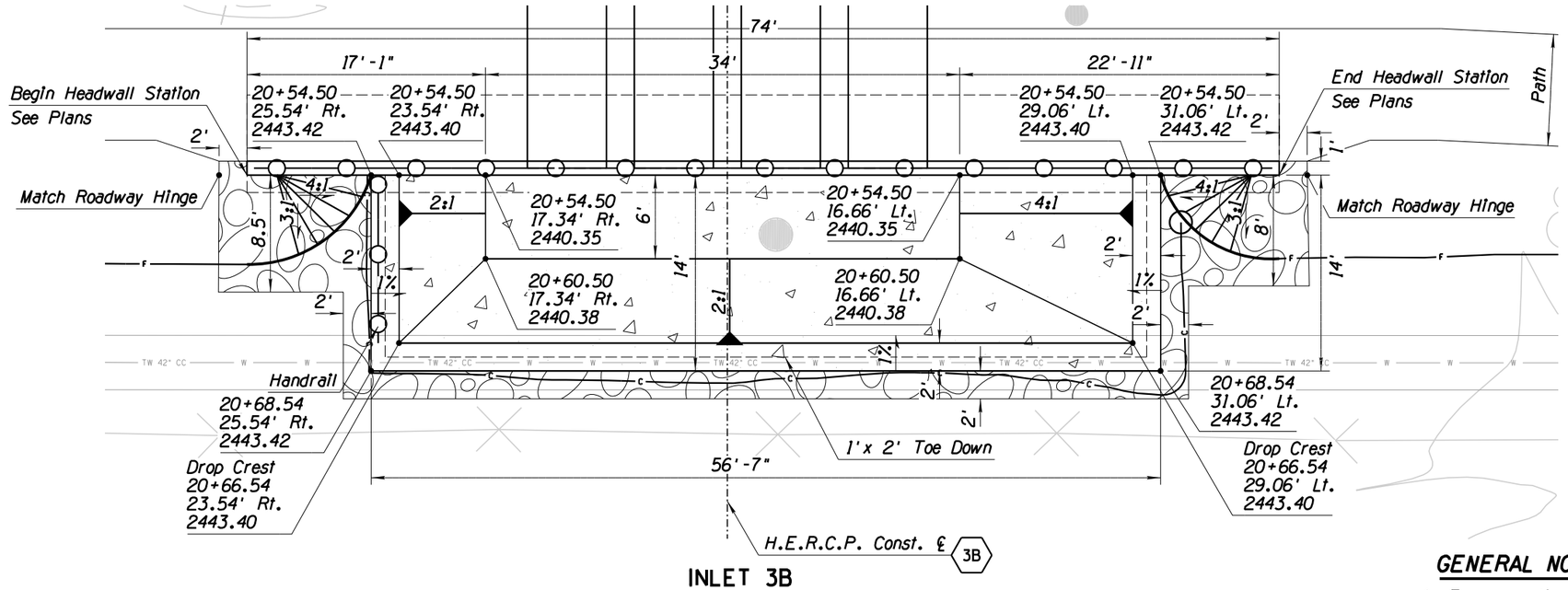
Ana M. Olivares, P.E., Director

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

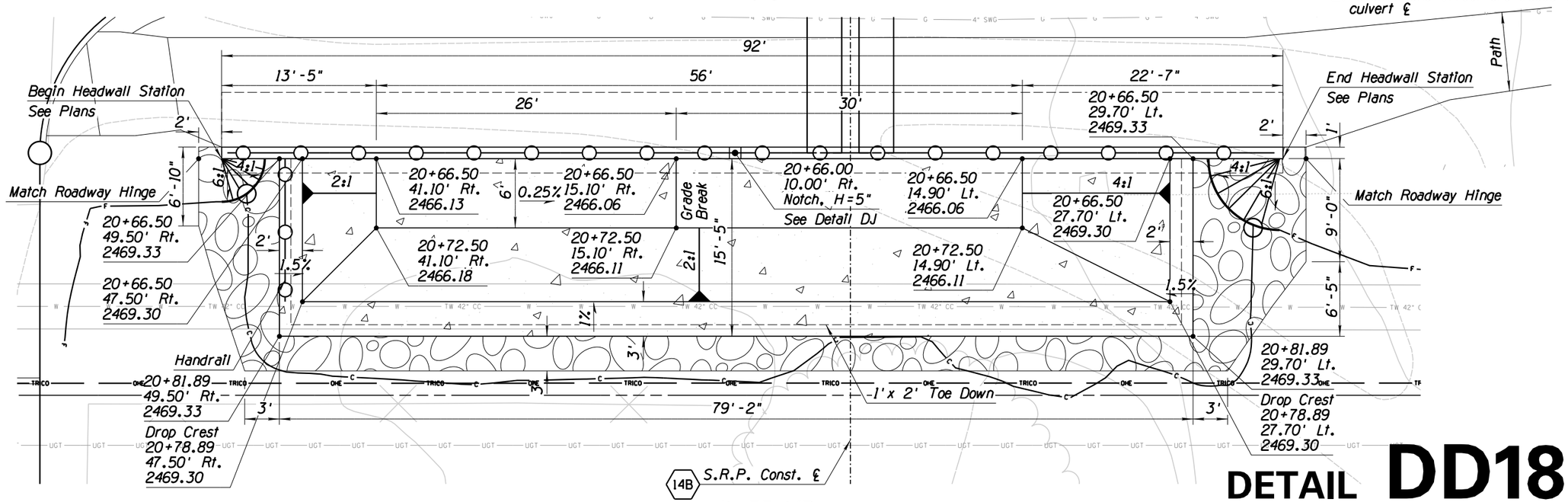
Scales	Horiz. NA	SheetDT53 of DT69	Page 66 of 433
	Vert. NA		



INLET 3B
STA. 117+95
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄



INLET 14B
STA. 198+40
PLAN VIEW
1"=5'

DETAIL DD18b

PIPE CULVERT INLET NO. 3B
PIPE CULVERT INLET NO. 14B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT54 of DT69	Page 67 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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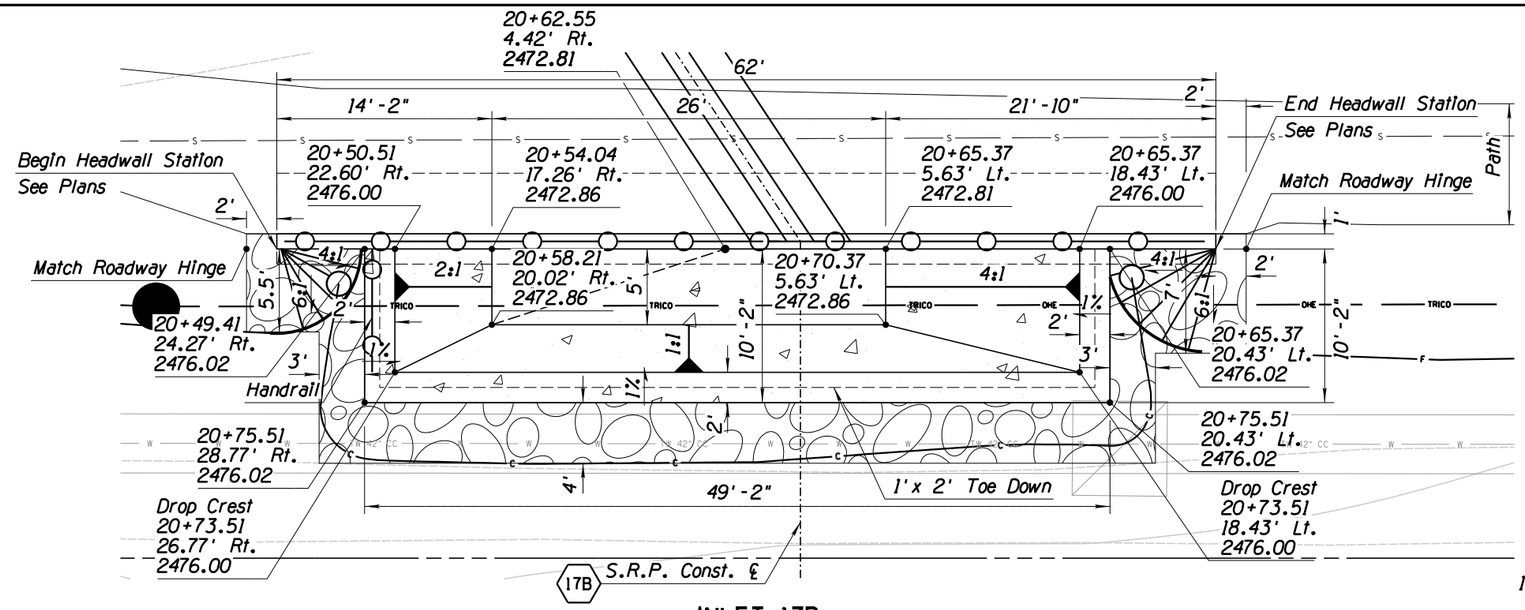
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

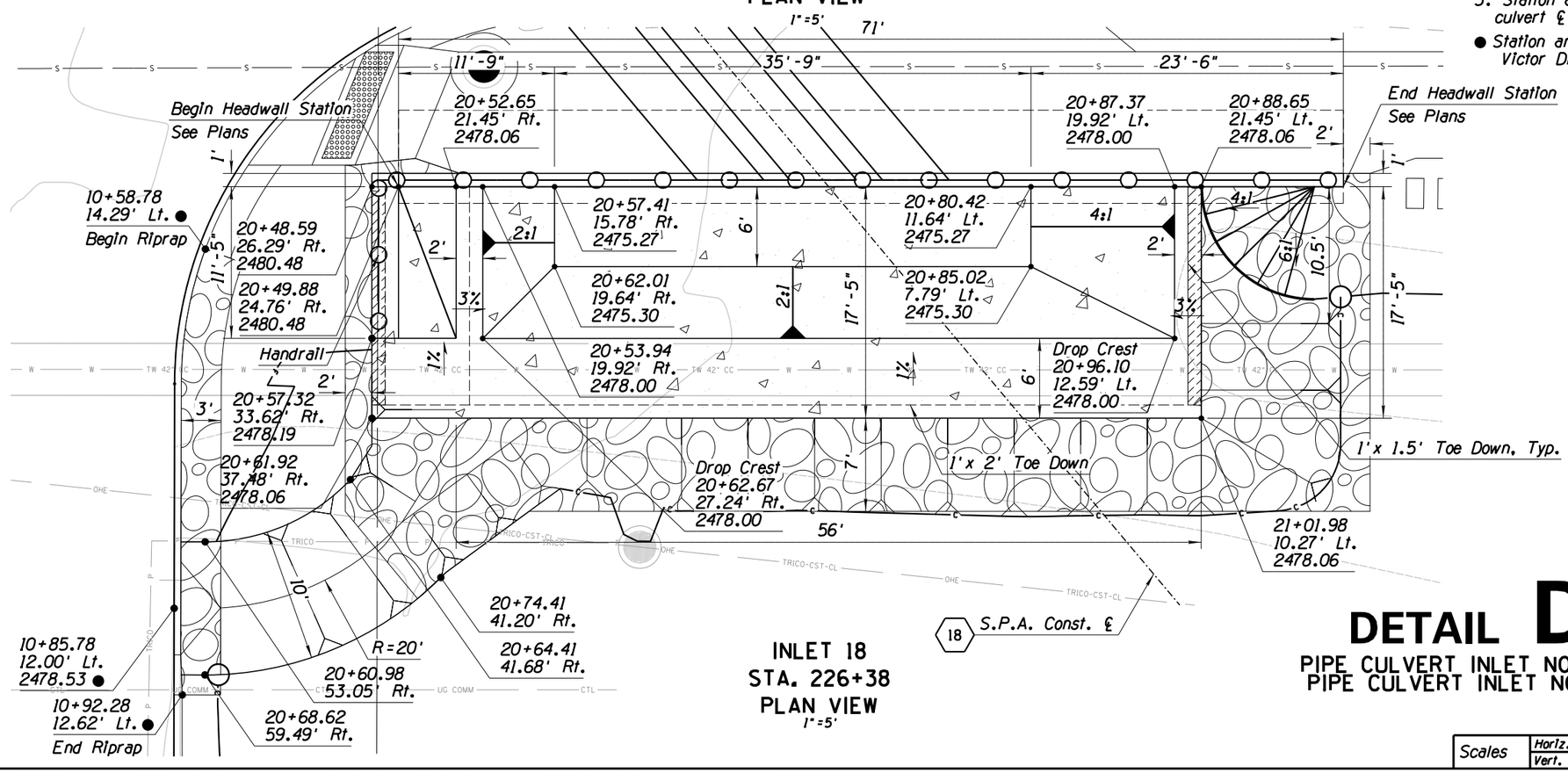
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE



INLET 17B
STA. 220+31.95
PLAN VIEW



INLET 18
STA. 226+38
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Designated 1'x 1.5' Toe Down
3. Station and offset are based on culvert ℄

● Station and offset are based on the Victor Drive ℄

DETAIL DD18c

PIPE CULVERT INLET NO. 17B
PIPE CULVERT INLET NO. 18

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT55 of DT69	Page 68 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA State of Arizona
EXPIRES 9/30/2020

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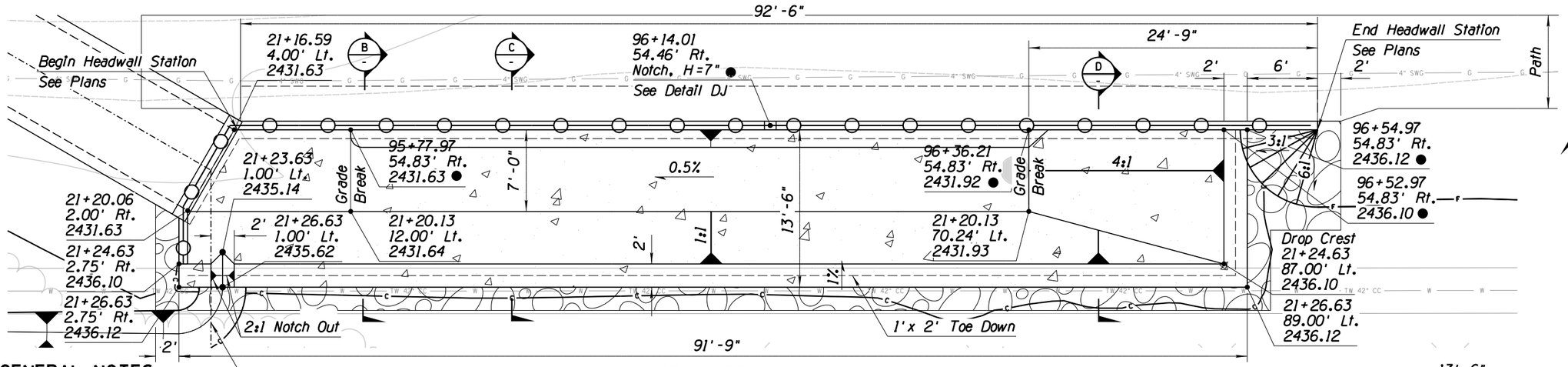
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

4:45:12 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL18C.DGN



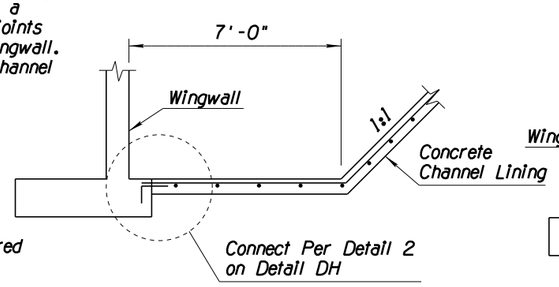
GENERAL NOTES:

1. See ADOT SD 6.10 (Type B,H=6') for R.C.B.C. Level Wingwall dimensions and reinforcing unless otherwise noted. Omit Cut-off wall.
2. Provide construction joints in wingwalls and channel lining at a maximum spacing of 15 feet and expansion joints at a maximum spacing of 60 feet. All joints shall be placed perpendicular to wingwall. All joint lines between walls and channel lining shall be continuous.
3. Concrete Channel Lining shall be Class S (f'c=3000 psi).
4. Reinforcing Steel shall conform to ASTM A615, grade 60.
5. Bottom of key-in shall not be lowered in area of 2:1 notch out.

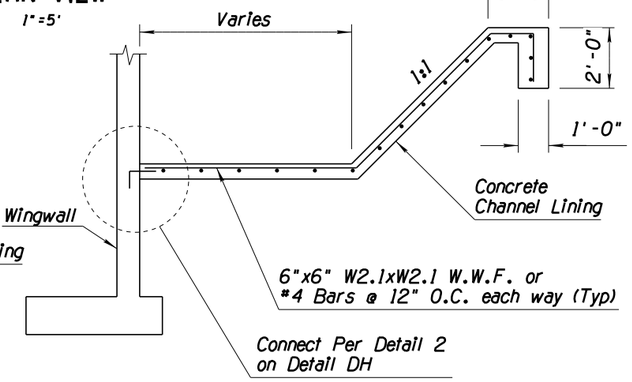
● Station and offset are based on the Valencia Rd Cst ℄

▲ Connection Dowel Control

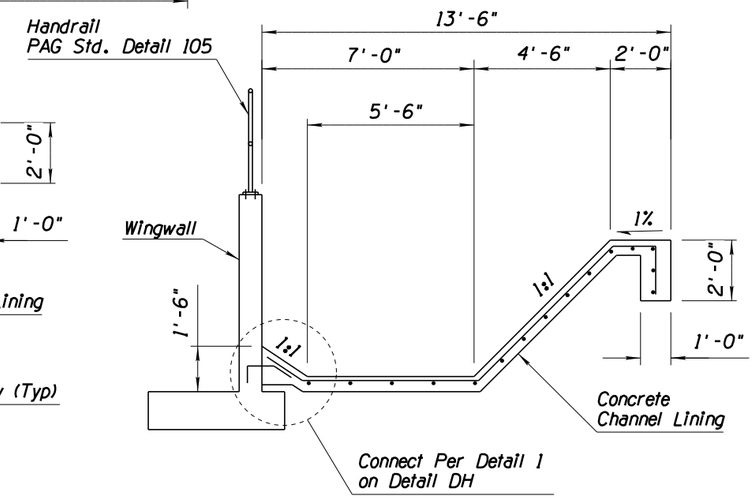
IB INLET
STA. 94+65
PLAN VIEW
1"=5'



Section B-B
NTS



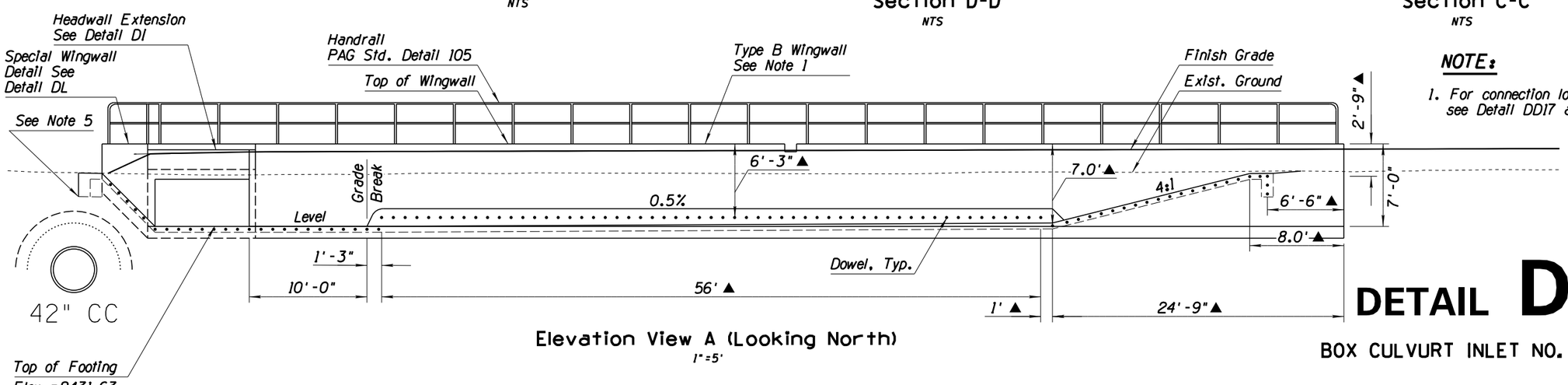
Section D-D
NTS



Section C-C
NTS

NOTE:

1. For connection locations and details see Detail DD17 and DH



Elevation View A (Looking North)
1"=5'

DETAIL DD19

BOX CULVURT INLET NO. IB

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT56 of DT69	Page 69 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 3/30/2020

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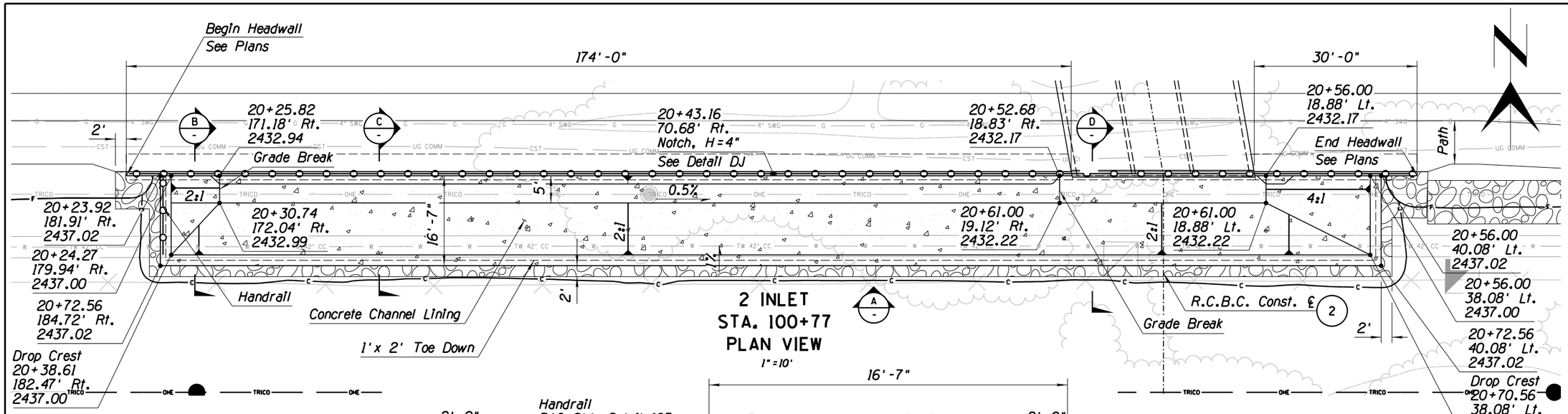
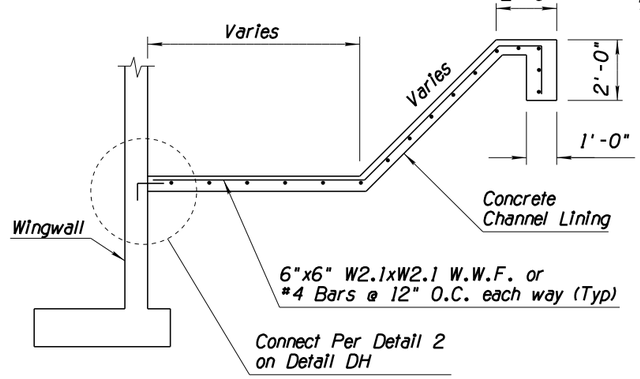
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

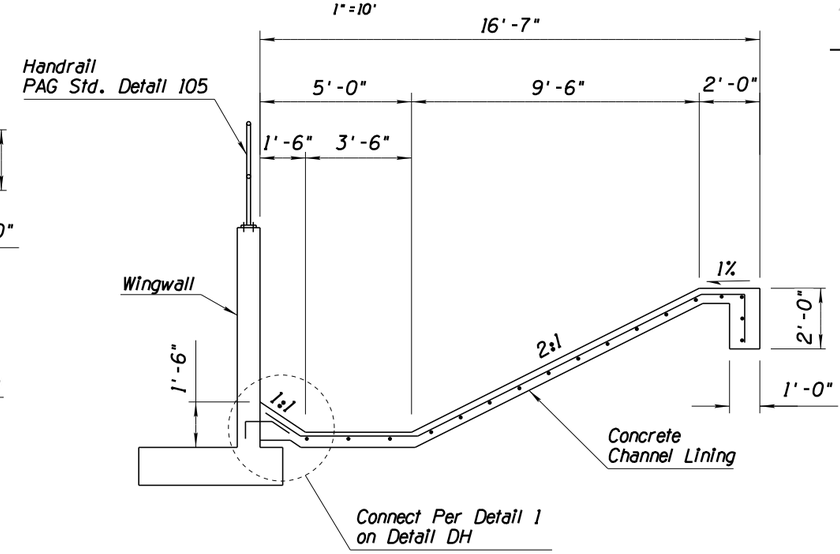




● Connection Dowel Control

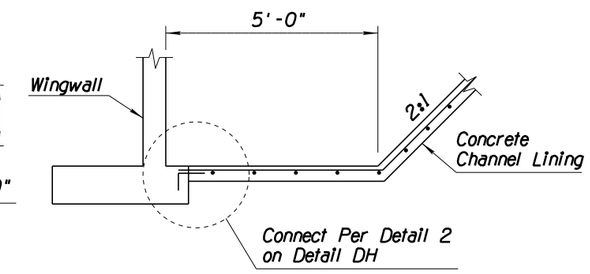
Section B-B

NTS



Section C-C

NTS

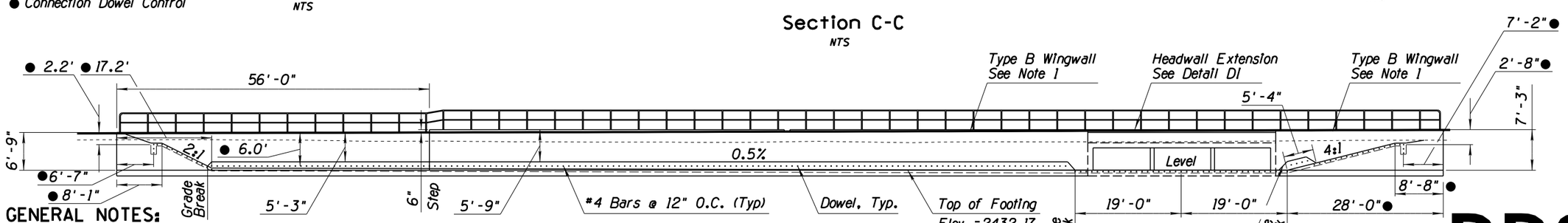


Section D-D

NTS

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄



Elevation View A (Looking North)

1"=10'

GENERAL NOTES:

1. See ADOT SD 6.10 (Type B,H=6') for R.C.B.C. Level Wingwall dimensions and reinforcing unless otherwise noted. Omit Cut-off Wall.
2. Provide construction joints in wingwalls and Channel lining at a maximum spacing of 15 feet and expansion joints at a maximum spacing of 60 feet. All joints shall be placed perpendicular to wingwall. All joint lines between walls and channel lining shall be continuous.
3. Concrete Channel Lining shall be Class S (f'c=3000 psi).
4. Reinforcing Steel shall conform to ASTM A615, grade 60.

DETAIL DD20

BOX CULVERT INLET NO. 2

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10' Vert. NA	SheetDT57 of DT69	Page 70 of 433

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

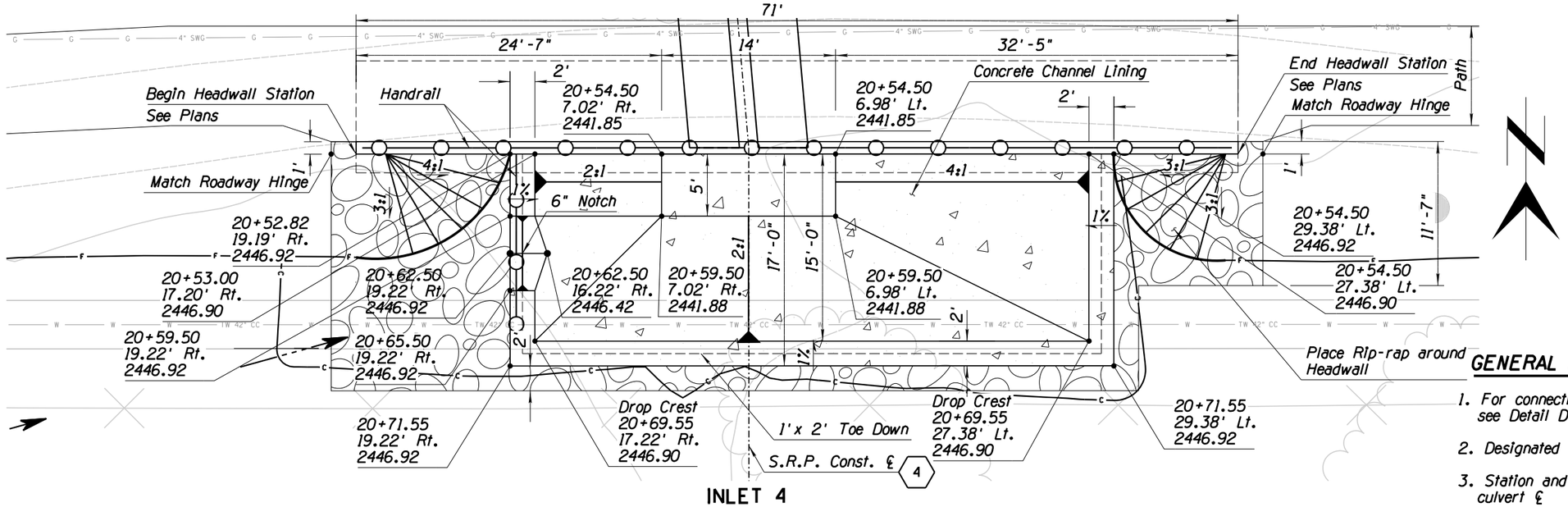
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:45:14 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL20.DGN

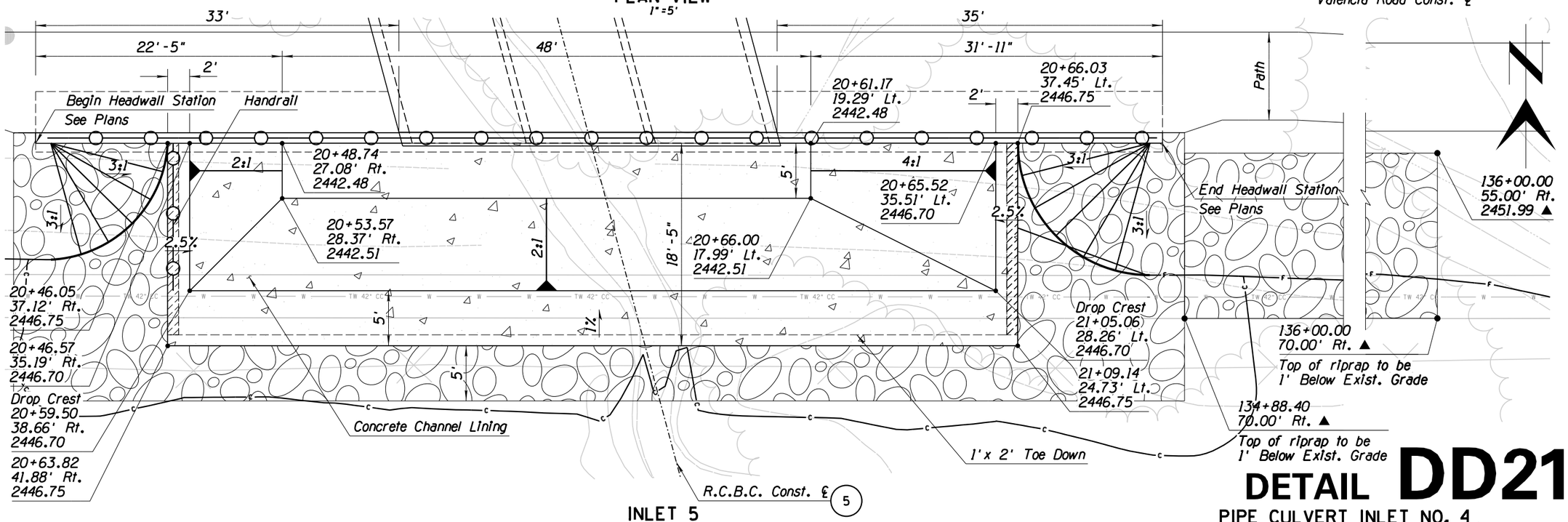


INLET 4
STA. 131+84
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Designated 1'x 1.5' Toe Down
3. Station and offset are based on culvert ℄

▲ Stations and offsets based on the Valencia Road Const. ℄



INLET 5
STA. 134+20
PLAN VIEW
1"=5'

DETAIL DD21

PIPE CULVERT INLET NO. 4
BOX CULVERT INLET NO. 5

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 3/30/2020

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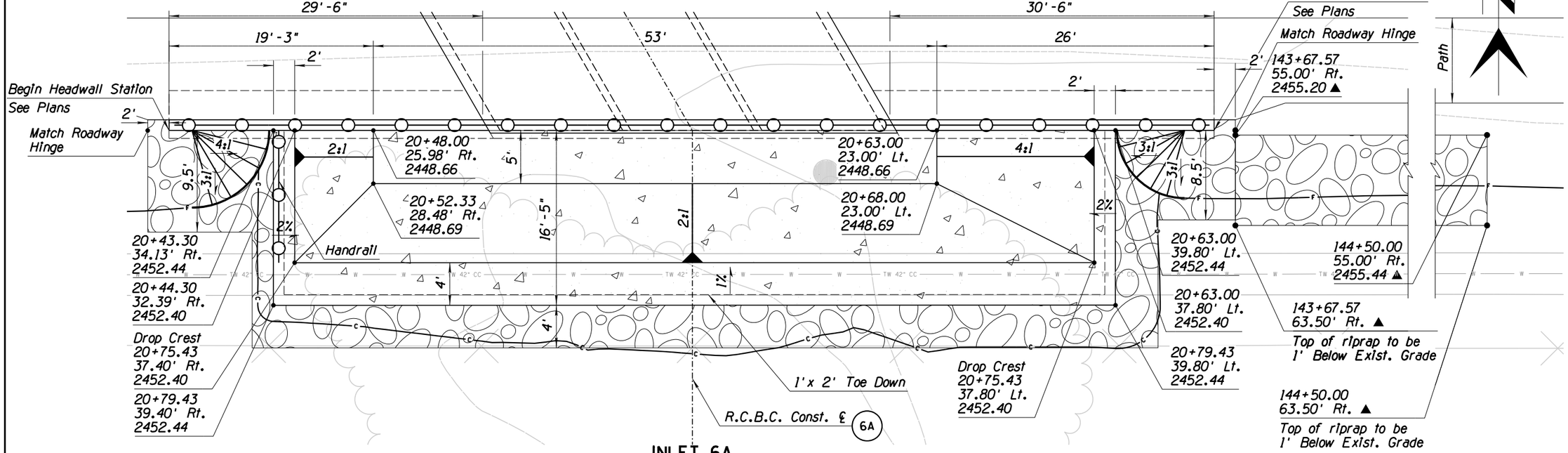
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=5'	Sheet DT58 of DT69	Page 71 of 433
	Vert. NA		

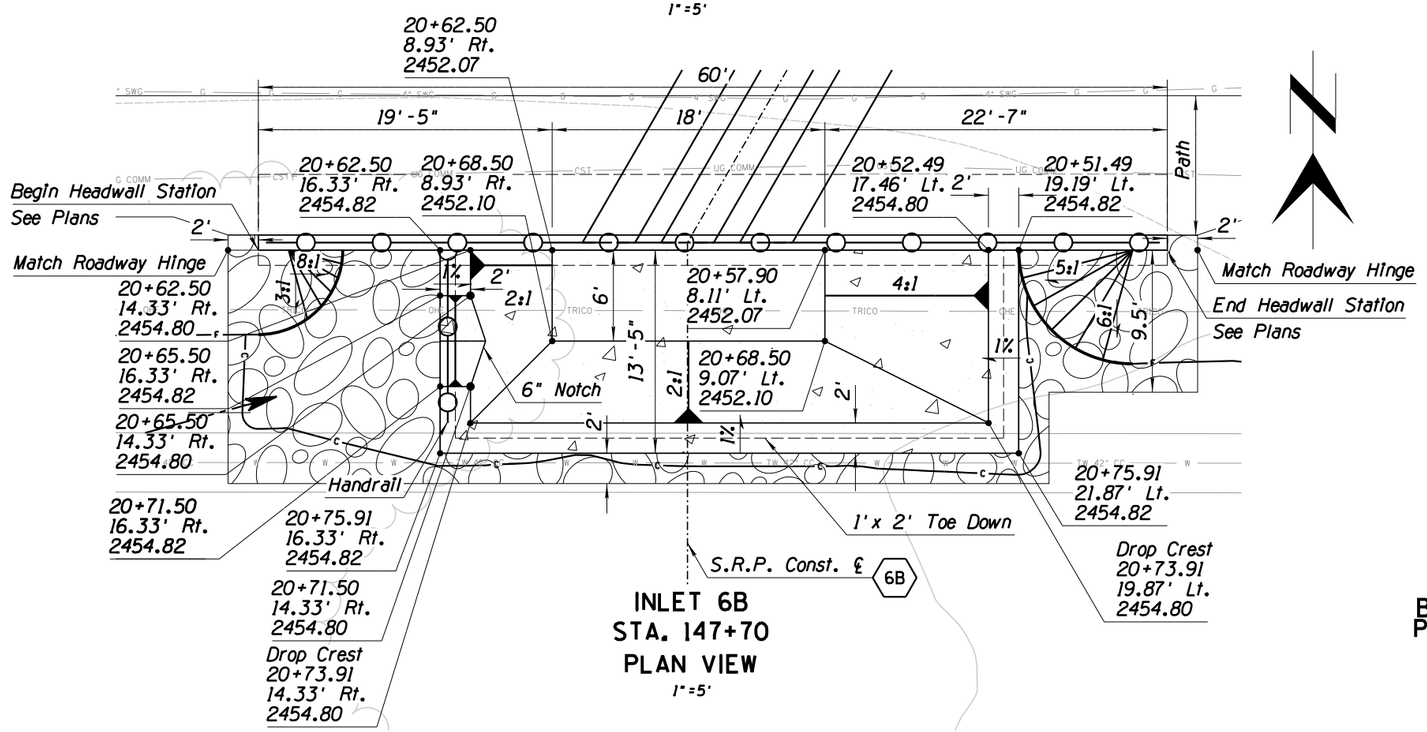


INLET 6A
STA. 142+85
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄

▲ Stations and offsets based on the Valencia Road Const. ℄



INLET 6B
STA. 147+70
PLAN VIEW
1"=5'

DETAIL DD22

BOX CULVERT INLET NO. 6A
PIPE CULVERT INLET NO. 6B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5'	Sheet DT59 of DT69	Page 72 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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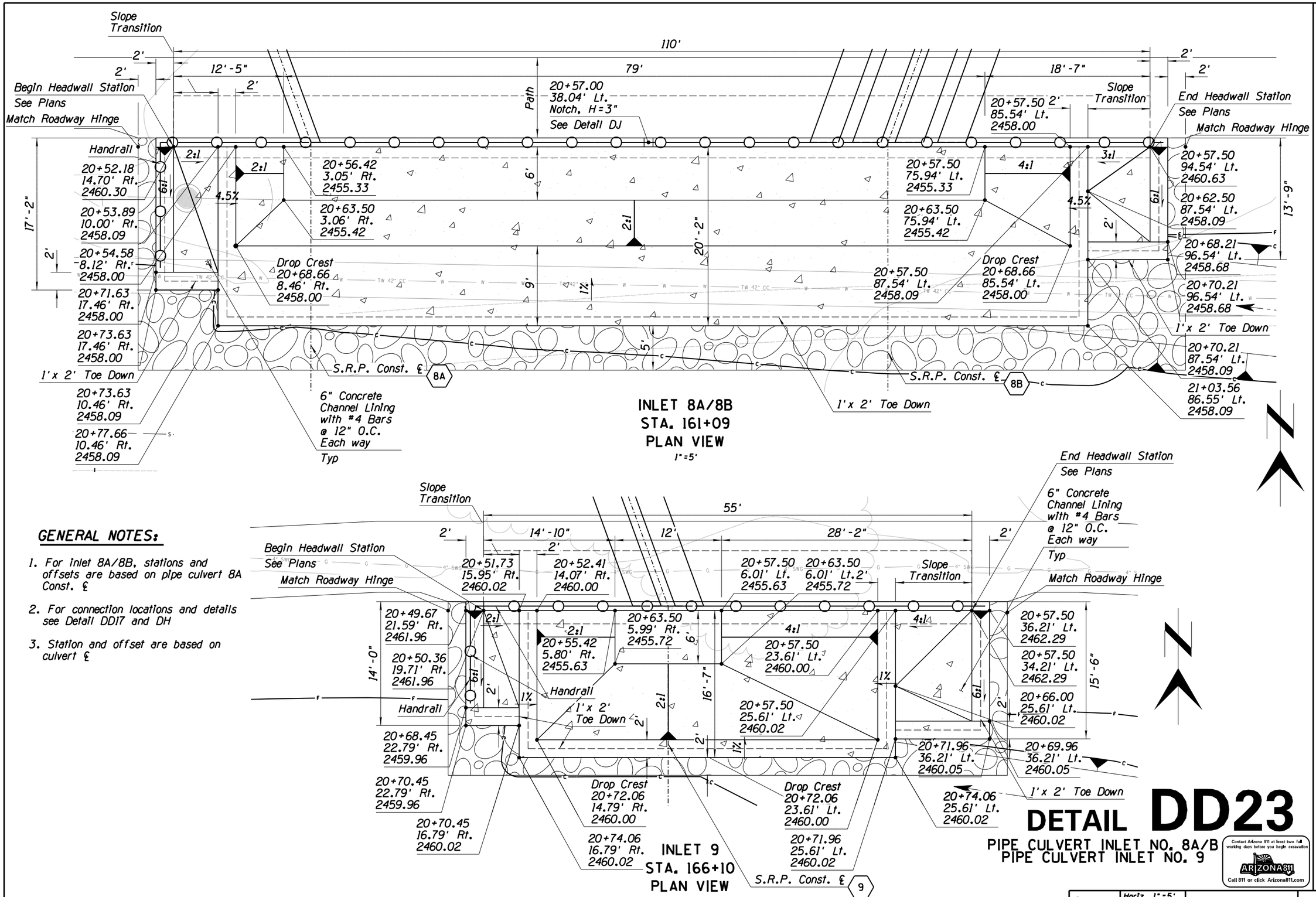
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



INLET 8A/8B
STA. 161+09
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For inlet 8A/8B, stations and offsets are based on pipe culvert 8A Const. ℄
2. For connection locations and details see Detail DD17 and DH
3. Station and offset are based on culvert ℄

INLET 9
STA. 166+10
PLAN VIEW
1"=5'

DETAIL DD23

PIPE CULVERT INLET NO. 8A/B
PIPE CULVERT INLET NO. 9

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet DT60 of DT69	Page 73 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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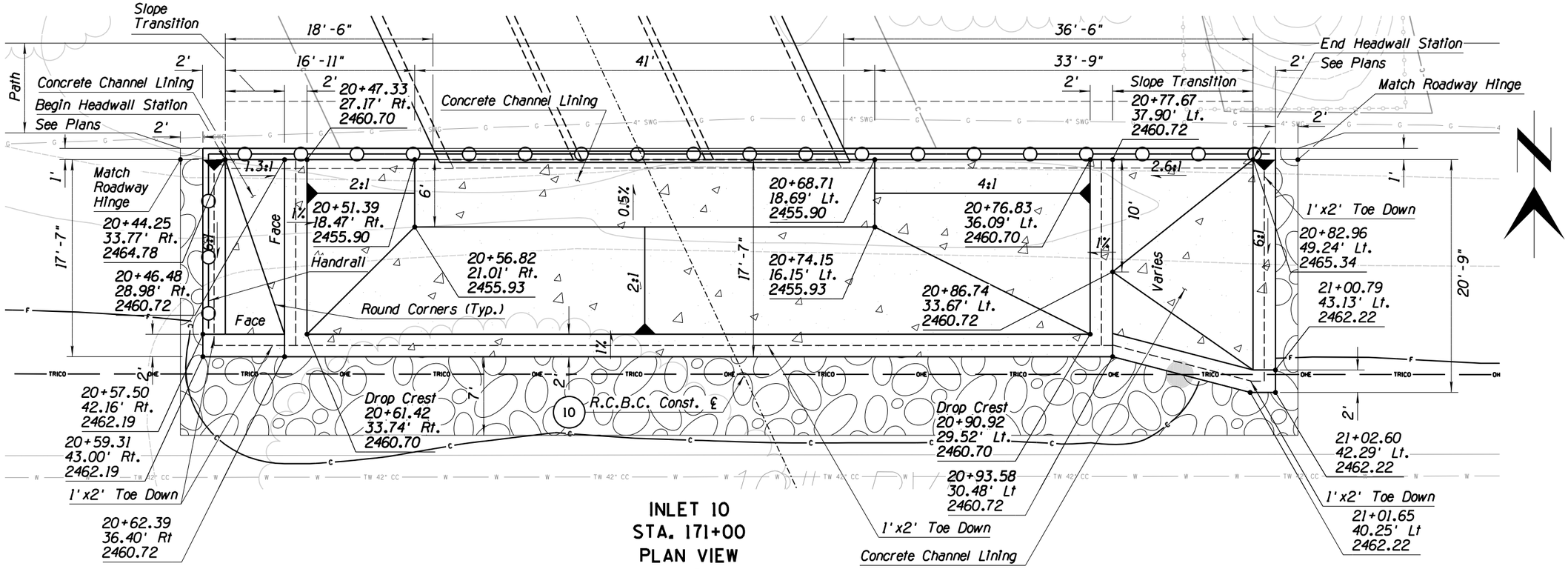
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

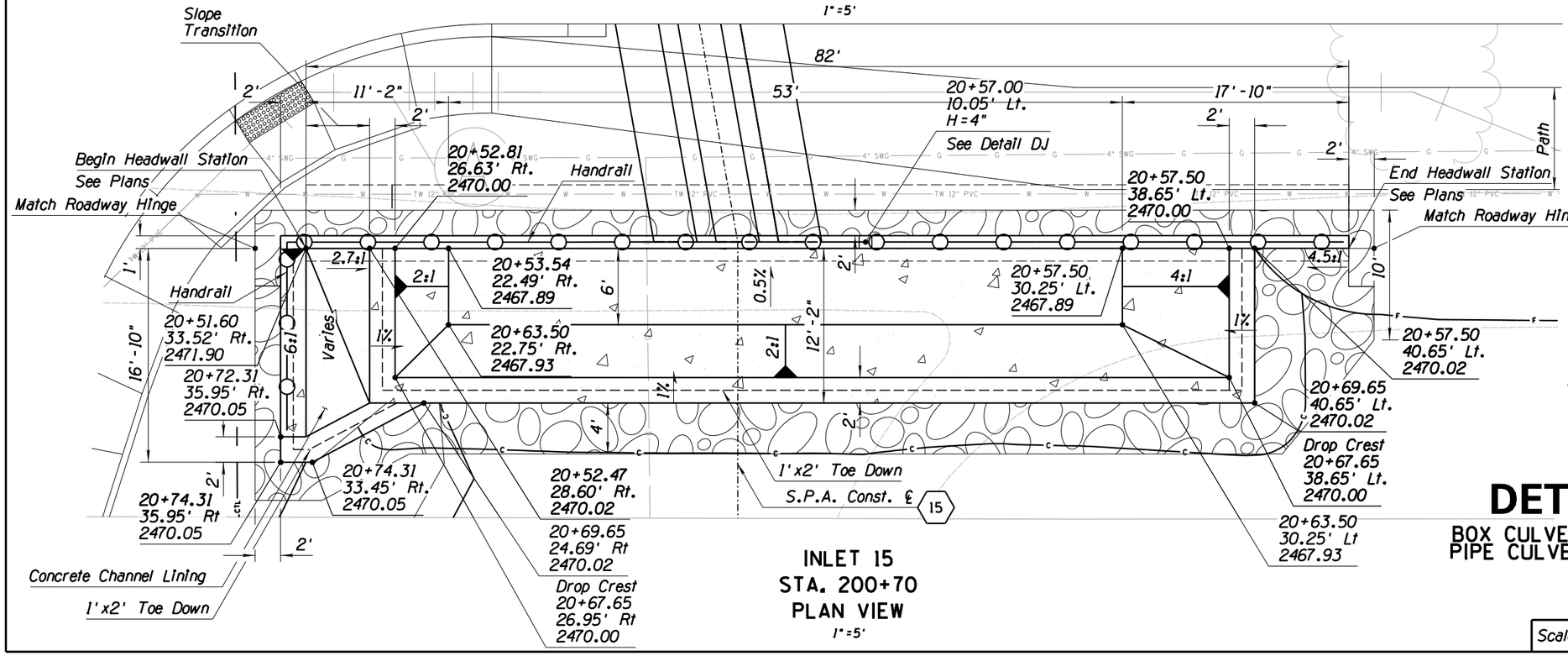
No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

4:45:16 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL23.DGN



INLET 10
STA. 171+00
PLAN VIEW
1"=5'



INLET 15
STA. 200+70
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄

DETAIL DD24

BOX CULVERT INLET NO. 10
PIPE CULVERT INLET NO. 15

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5'	Sheet DT61 of DT69	Page 74 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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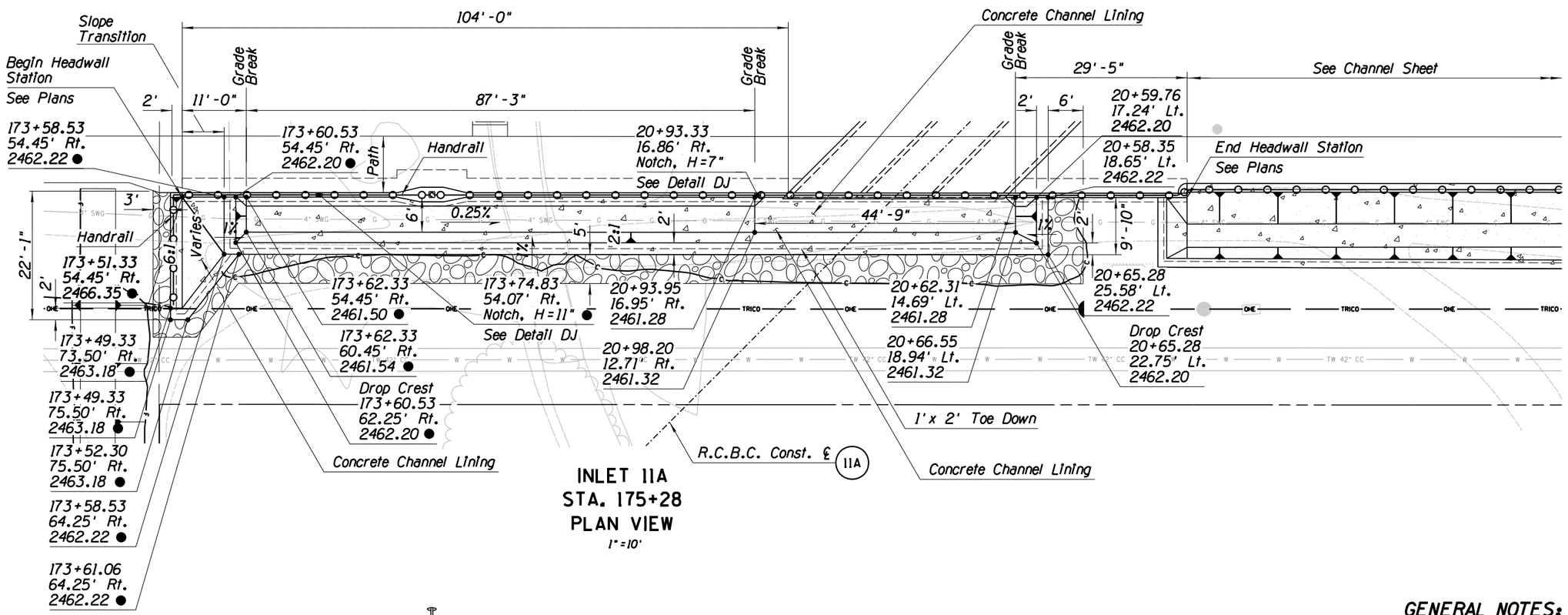
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

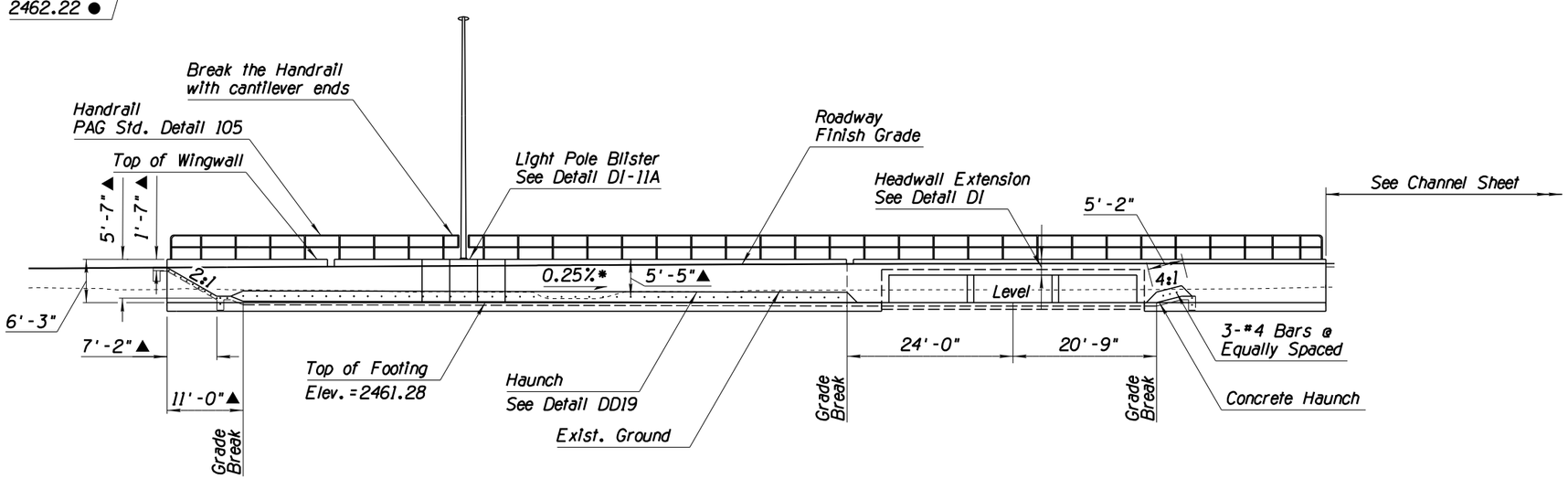
		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

4:45:17 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL24.DGN



INLET 11A
STA. 175+28
PLAN VIEW
1"=10'



Elevation View A (Looking North)
1"=10'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. See General Notes, sheet DD20
3. Station and offset are based on culvert ℄

* Slope of Apron

● Station and offset are based on the Valencia Rd Cst ℄

▲ Connection Dowel Control

DETAIL DD25

BOX CULVERT INLET NO. 11A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10' Vert. NA	Sheet DT62 of DT69	Page 75 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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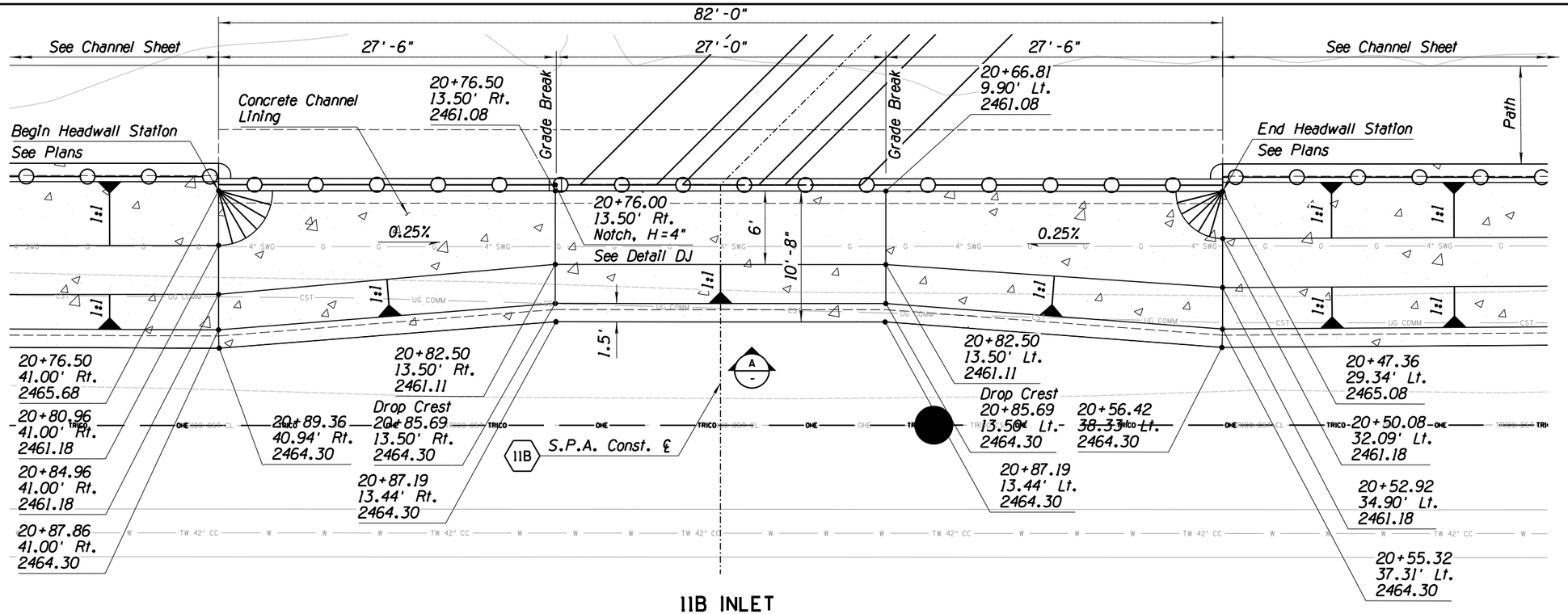
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

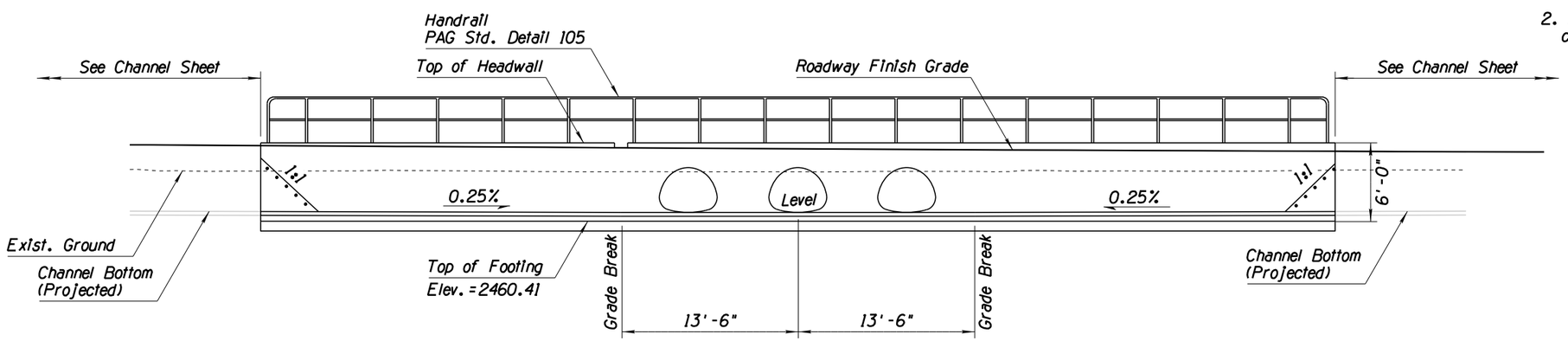
4:45:18 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DETAILS\022048DXDTL25.DGN



11B INLET
STA. 178+13
PLAN VIEW
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄



Elevation View A (Looking North)
1"=5'

DETAIL DD26

PIPE CULVERT INLET NO. 11B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5'	Sheet DT63 of DT69	Page 76 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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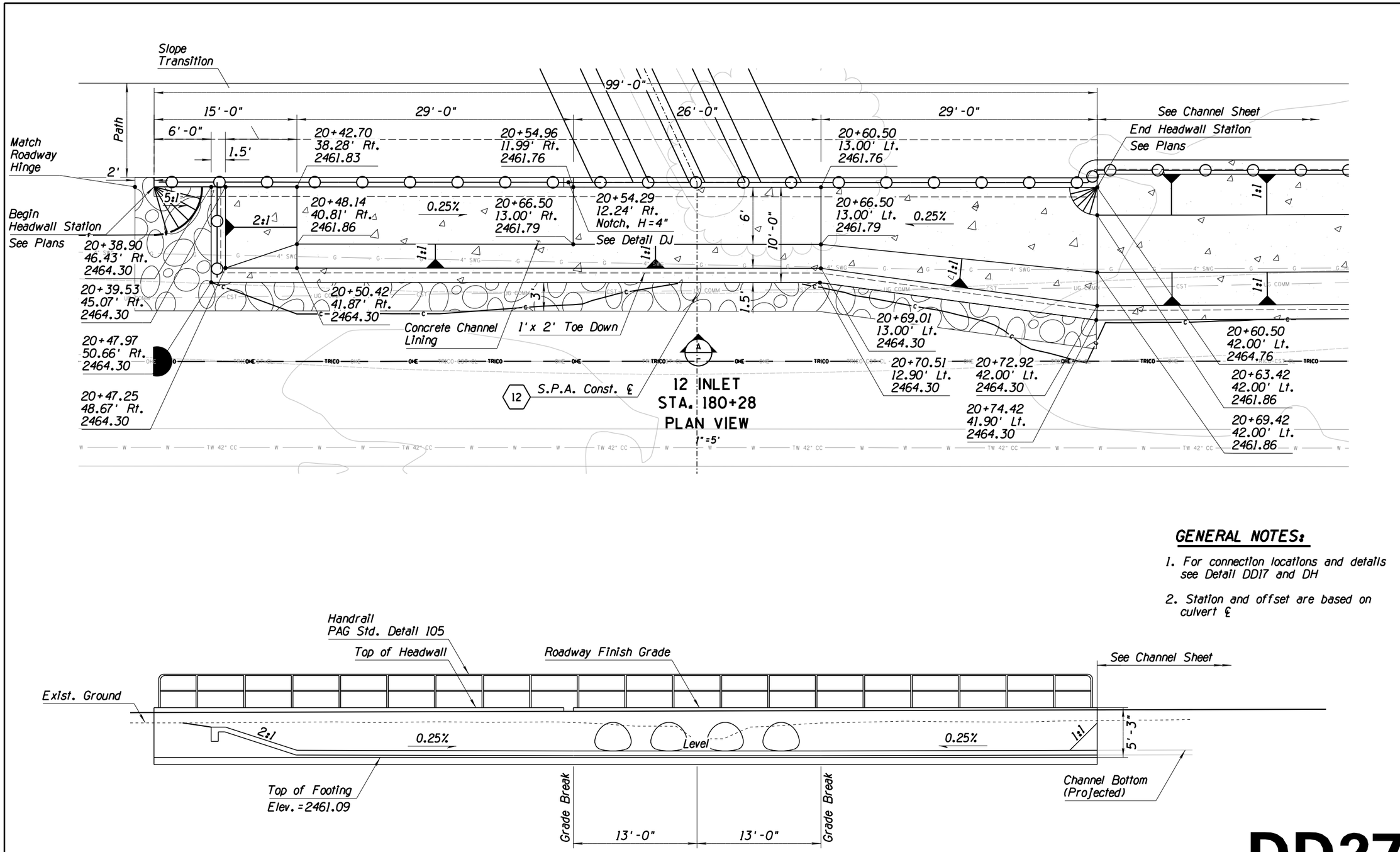
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄

Elevation View A (Looking North)
1"=5'

DETAIL DD27

PIPE CULVERT INLET NO. 12

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5'	Sheet DT64 of DT69	Page 77 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

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333 E. Wetmore Road
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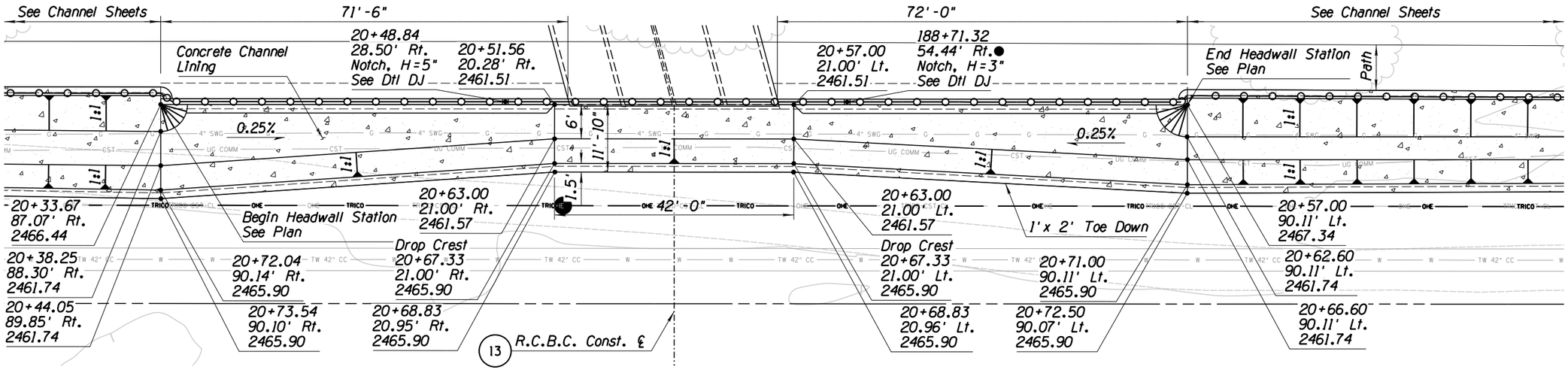
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



A

13 INLET
STA. 188+26
PLAN VIEW

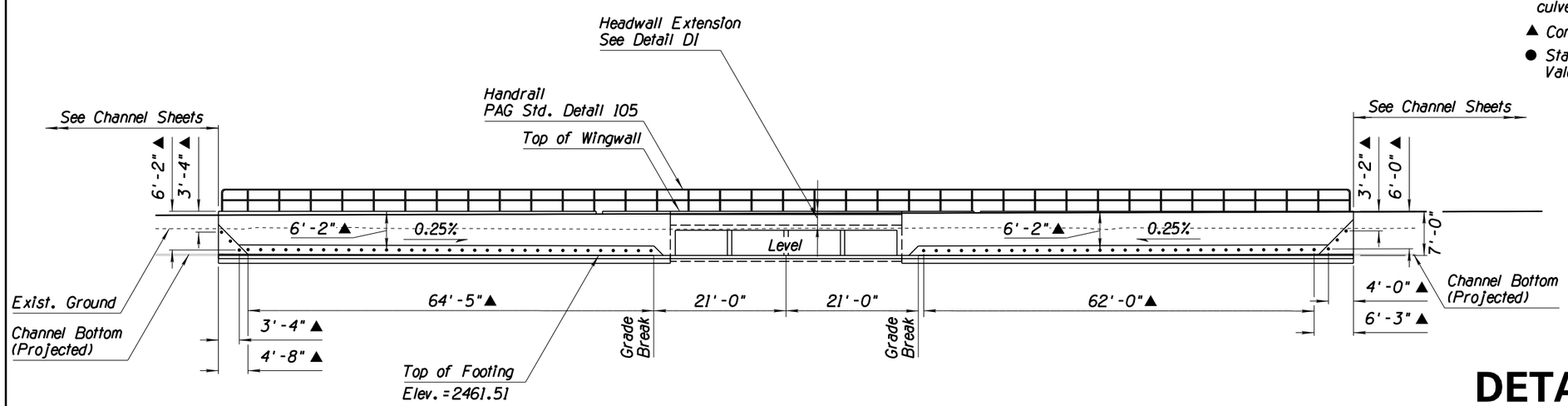
1"=10'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. See General Notes, sheet DD20
3. Station and offset are based on culvert ℄

▲ Connection Dowel Control

● Station and offset are based on the Valencia Rd Cst ℄



Elevation View A (Looking North)

1"=10'

DETAIL DD28

BOX CULVERT INLET NO. 13

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10' Vert. NA	Sheet DT65 of DT69	Page 78 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

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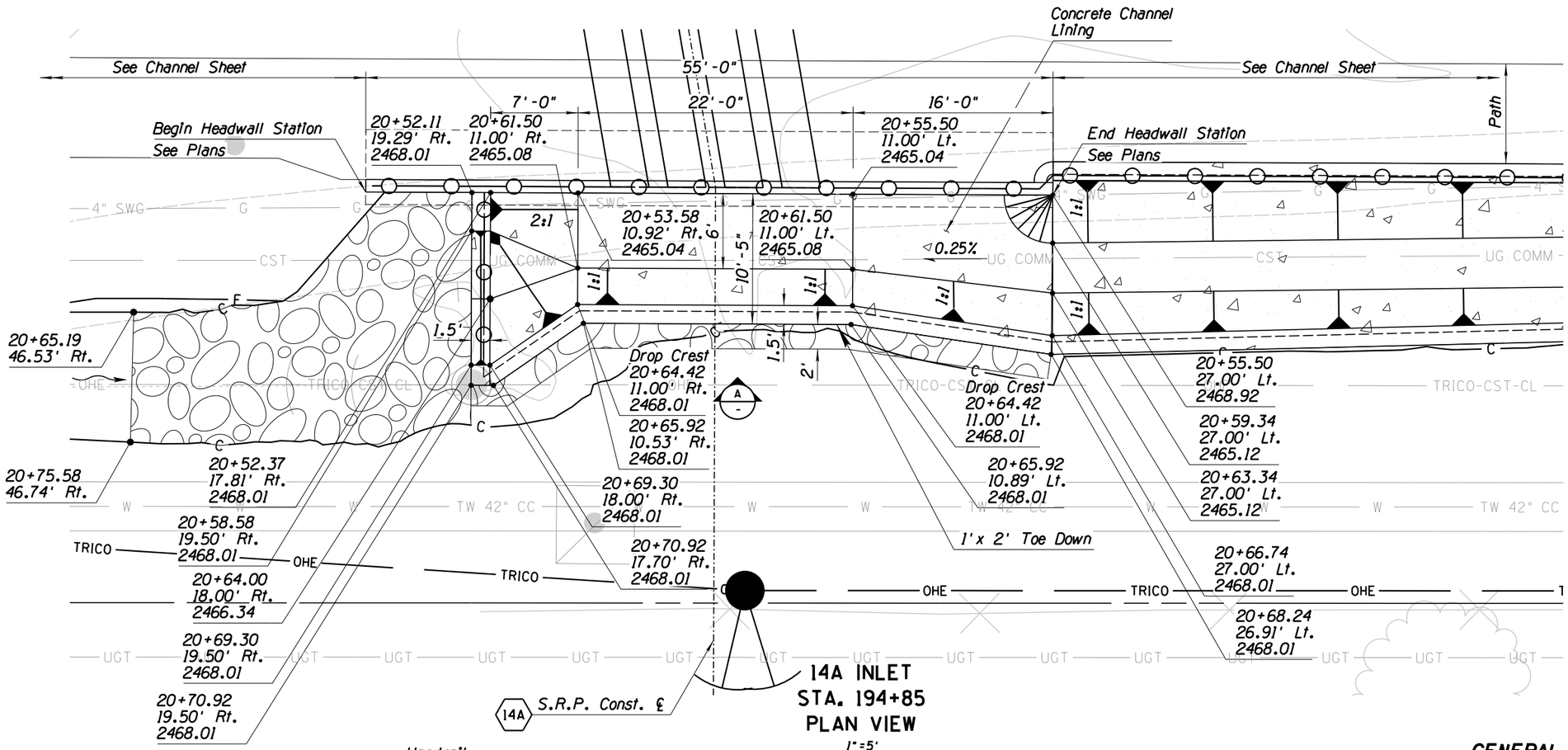
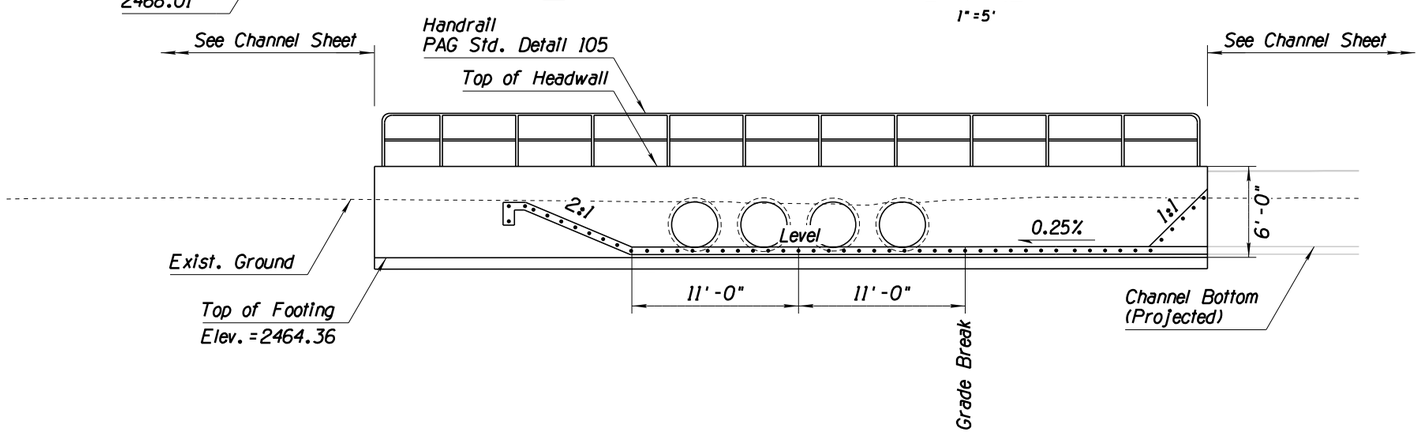
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Elevation View A (Looking North)
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on culvert ℄

DETAIL DD29

PIPE CULVERT INLET NO. 14A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	SheetDT66 of DT69	Page 79 of 433

	Date
Designed D. Tapia	01/2018
Drawn D. Bacon	01/2018
Checked R. Solis	01/2018
Proj. Engr. R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Registered professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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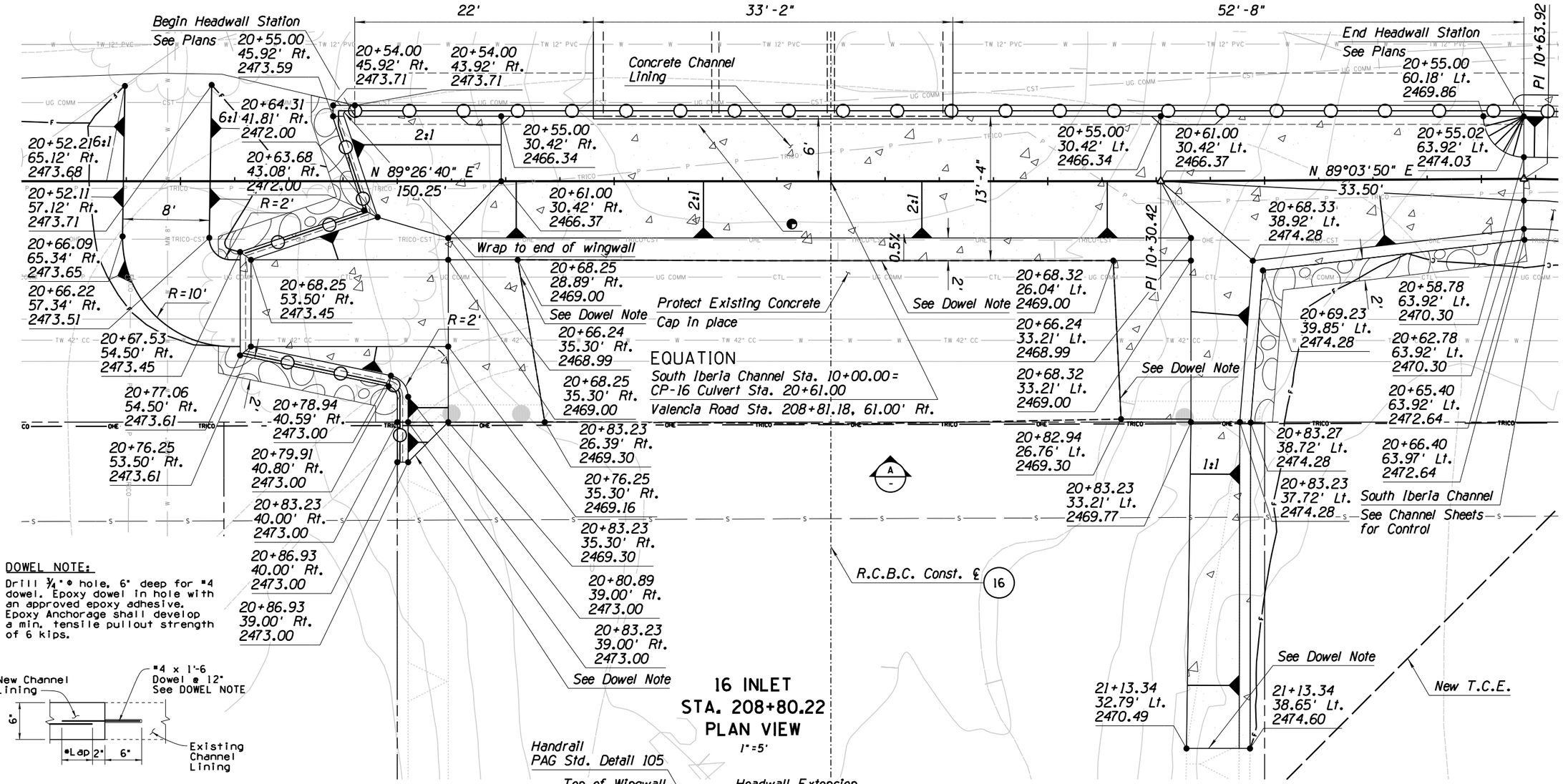
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



DOWEL NOTE:

Drill ¾"ø hole, 6" deep for #4 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy Anchorage shall develop a min. tensile pullout strength of 6 kips.

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH ◐
2. See General Notes, Detail DD20
3. Station and offset are based on culvert ℄

▲ Connection Dowel Control

DETAIL DD30

BOX CULVERT INLET NO. 16

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT67 of DT69	Page 80 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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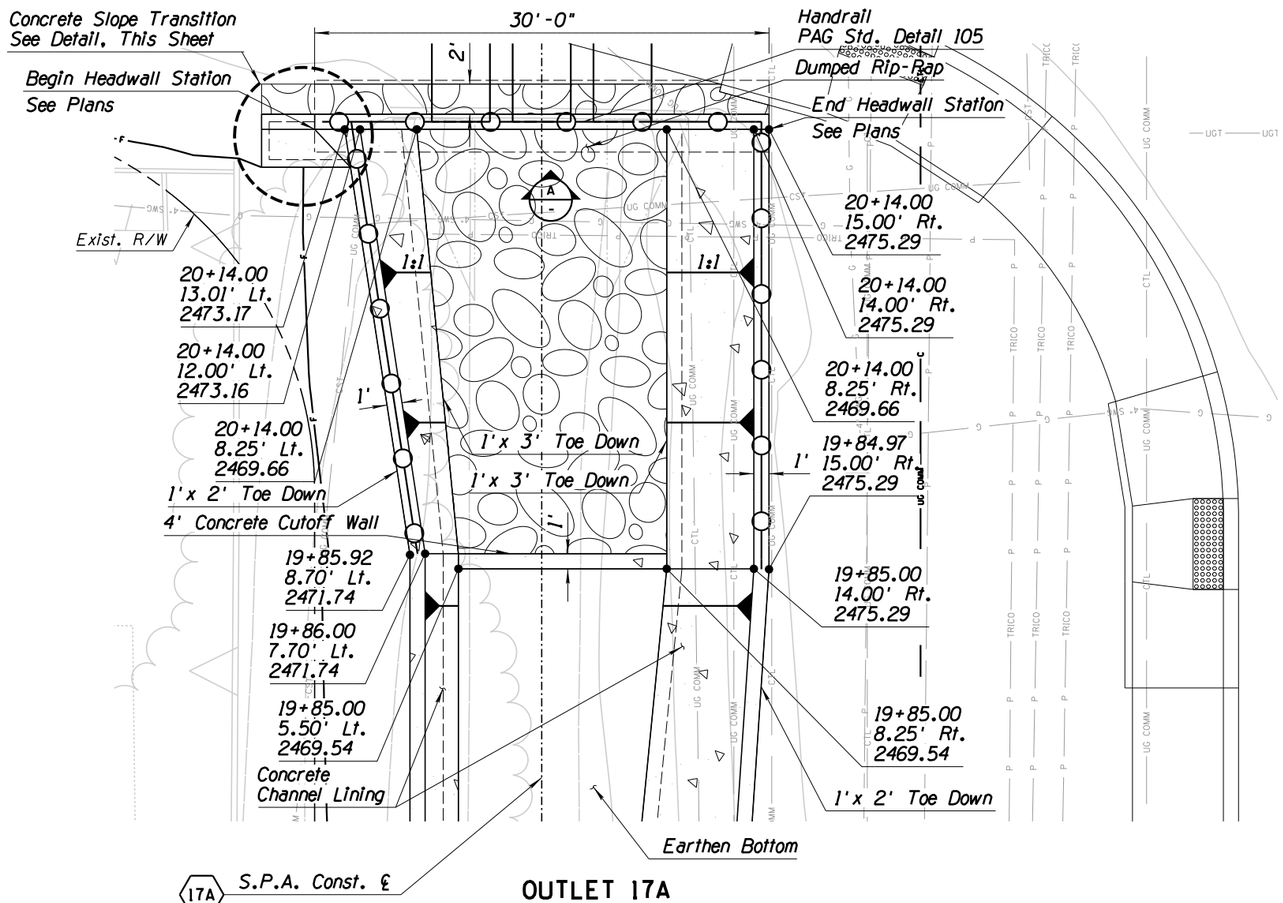
Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Date Signed 01/04/18
EXPIRES 9/30/2020

No.	Revision Description	Engineer	Date

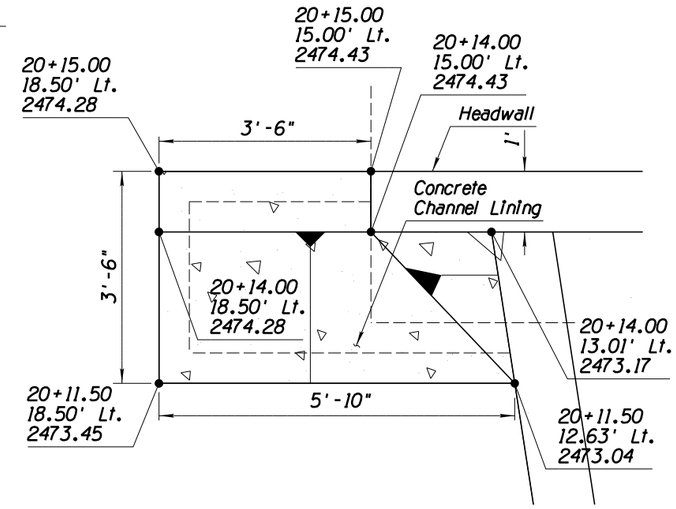
		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director



OUTLET 17A
STA. 219+21, 85' LT. (VALENCIA ROAD CONST. ℄)
PLAN VIEW

1"=5'

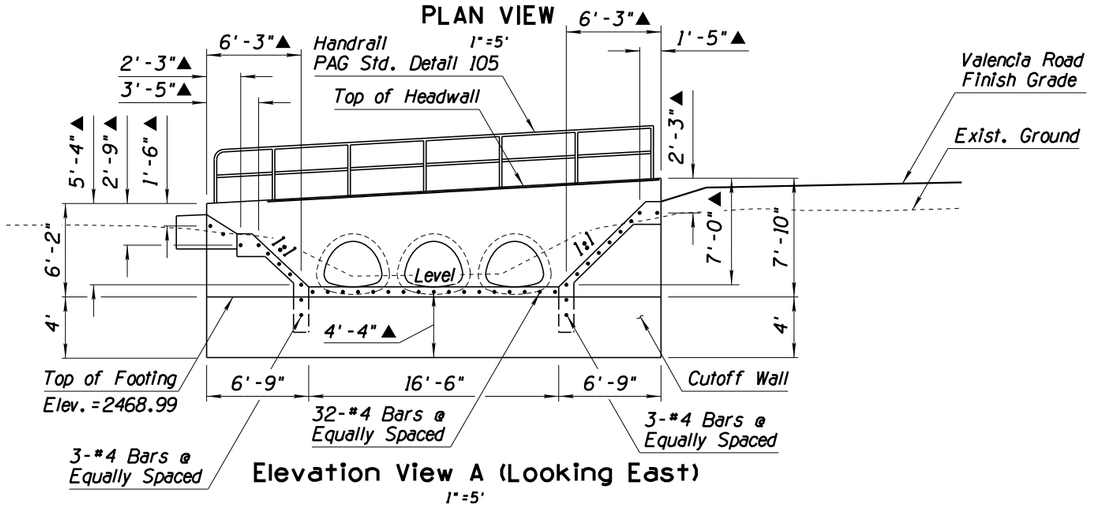


Concrete Slope Transition Detail

GENERAL NOTES:

1. For connection details see Detail DH
2. Station and offset are based on Channel ℄

▲ Connection Dowel Control



Elevation View A (Looking East)

1"=5'

DETAIL DD31

PIPE CULVERT OUTLET NO. 17A

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	SheetDT68 of DT69	Page 81 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 3/30/2020

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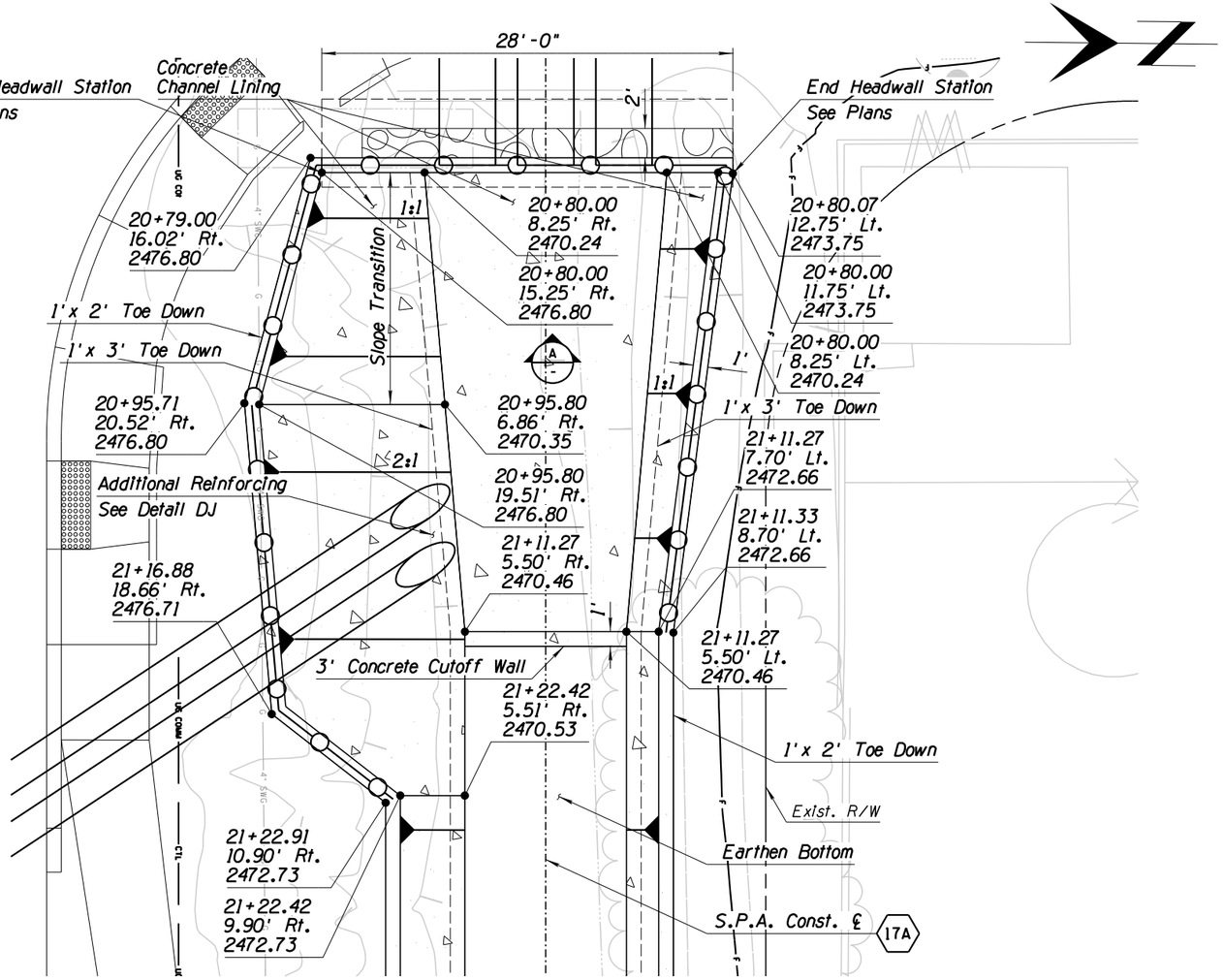
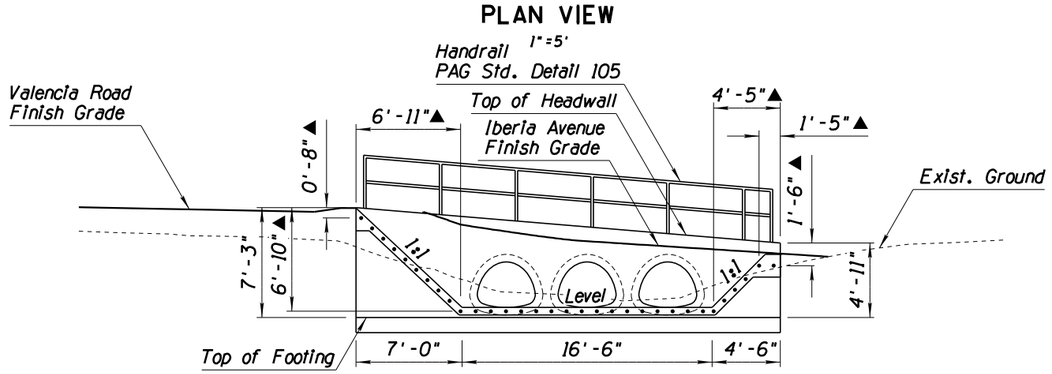
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



INLET 17A / OUTLET 17B
STA. 219+21, 85' LT. (VALENCIA ROAD CONST. ℄)
PLAN VIEW



Elevation View A (Looking West)
1"=5'

GENERAL NOTES:

1. For connection locations and details see Detail DD17 and DH
2. Station and offset are based on North Iberia Channel ℄

▲ Connection Dowel Control

DETAIL DD32

PIPE CULVERT INLET NO. 17A
OUTLET NO. 17B

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet DT69 of DT69	Page 82 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

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WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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Registered Professional Engineer (Civil)
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DAVID L. TAPIA
State of ARIZONA
EXPIRES 9/30/2020

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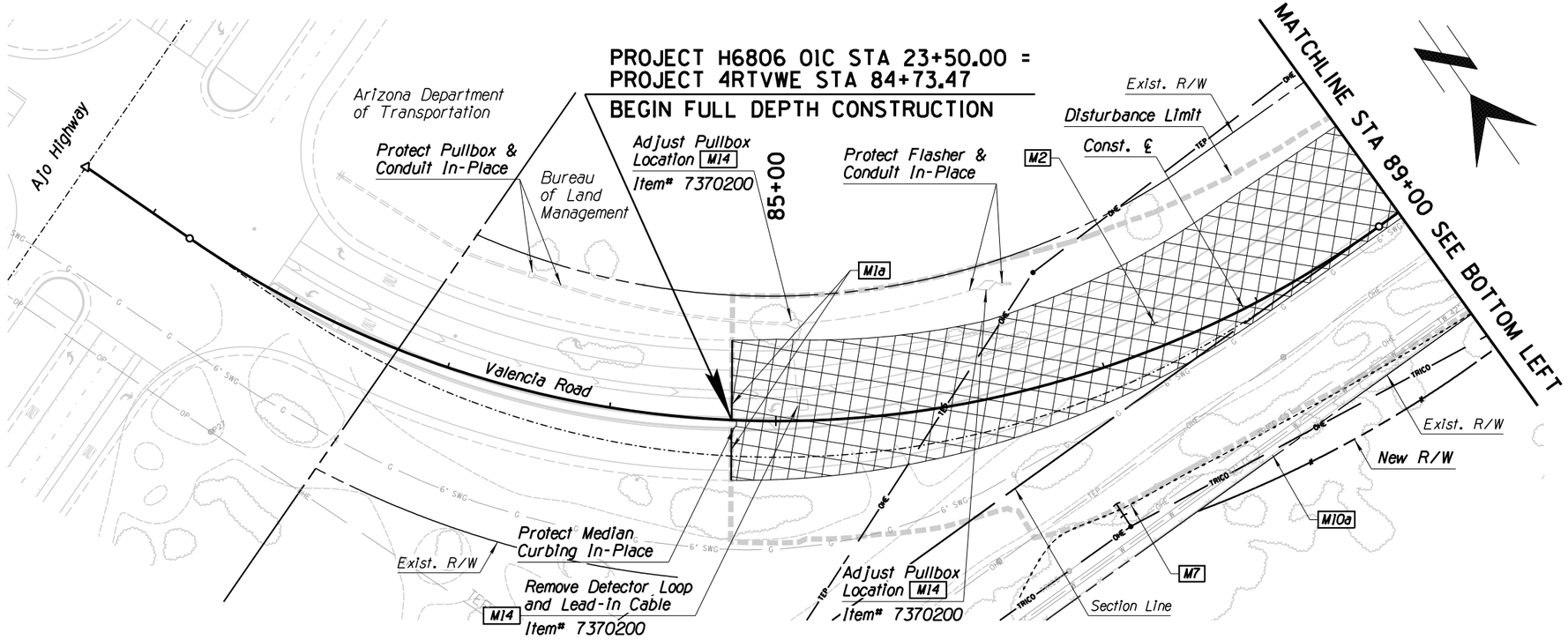
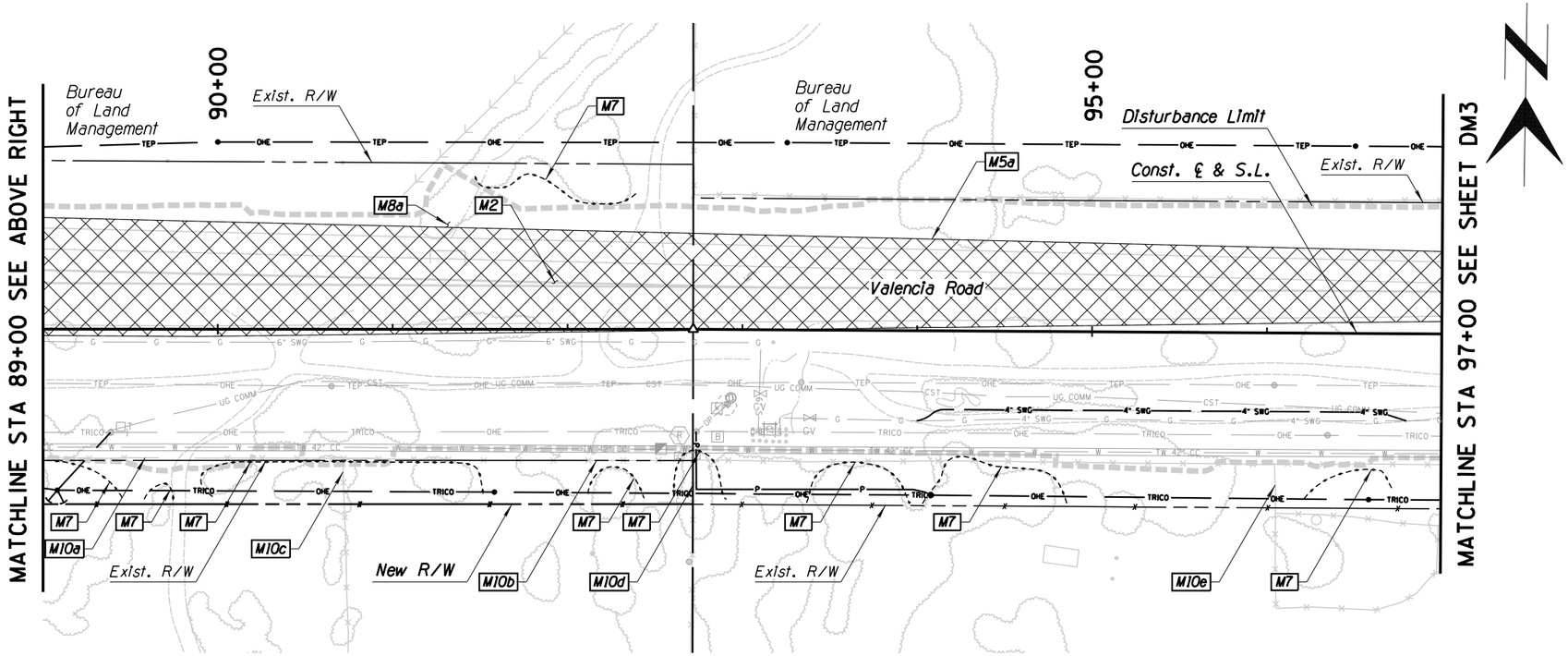
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018





Item No.	Qty.	Unit	Description
M1	84	L.F.	Sawcut Pavement
a	84	L.F.	Sta. 84+74.66, 36.1' Rt. to Sta. 84+71.66, 47.8' Lt.
M2	8238	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M5	56	L.F.	Removal of Cut-off Wall, Item # 2020001
a	56	L.F.	Sta. 93+88.35, 47.3' Lt. to Sta. 94+44.08, 48.4' Lt.
M6	4	AC	Clearing and Grubbing, Item # 2010001
M7	1077	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	140	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	140	S.F.	Debris
M10	1100	L.F.	Removal of Fence / Handrail, Item # 2020001
a	270	L.F.	Sta. 87+20.74, 99.7' Rt. to Sta. 89+66.44, 73.5' Rt.
b	753	L.F.	Sta. 89+86.86, 73.7' Rt. to Sta. 97+00.00, 74.7' Rt.
c	26	L.F.	Sta. 90+71.82, 73.9' Rt. to Sta. 90+72.37, 100.0' Rt.
d	26	L.F.	Sta. 92+72.34, 100.0' Rt. to Sta. 92+72.41, 74.8' Rt.
e	25	L.F.	Sta. 96+04.78, 75.0' Rt. to Sta. 96+05.47, 100.0' Rt.
M14	1	L.S.	Remove or Adjust Electrical Items, Item # 7370200

NOTES:

1. All sign and delineator removals are shown on the signing plans.
2. All water valve and meter adjustments are shown on the water relocation plans.
3. Item #2020001 includes all removals, shown or not shown, unless a separate pay item is indicated.
4. Prior to clearing and grubbing, the site shall be treated for buffelgrass and other invasive species. See Special Provisions 201-2.01, 201-3.01 and 201-3.04. All areas containing invasive species must be treated. Contractor shall avoid use of herbicides within JD Limits. See Landscaping Plans for waters of the U.S. (JD Limits).
5. The location of preservation fencing shown on plans corresponds to conditions at the time of plan preparation. Conditions may have been altered between plan preparation and construction. Fencing may be adjusted in field at the direction of the Engineer based on current field conditions.
6. Existing vegetation outside right-of-way that overhang into construction shall be pruned in accordance with Special Provisions 201-3.05 and Item #8061700.
7. For all milling or pulverizing activities, the roadway surface shall be kept sufficiently wet so as to prevent the generation of any visible fugitive dust particles but not so wet as to cause excess runoff from the roadway surface onto the roadway shoulder. All existing millings and/or pulverized asphalt shall remain on-site.
8. Item #9300128, Remove, Salvage, & Reinstall Riprap to new locations as indicated on plans.
9. All Metro Water valve adjustments, ARV and DVA adjustments, and pipe removals are shown on the Metro Water plan sheet U1.
10. Item #7370200 includes all Removals, Salvaging or Reinstalling Electrical Equipment as indicated on the plans.

DEMOLITION PLAN
VALENCIA ROAD
STA. 81+00 TO 97+00

40 0 40 80

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Scales	Horiz. 1" = 40'	Sheet DM1 of DM15	Page 83 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V. Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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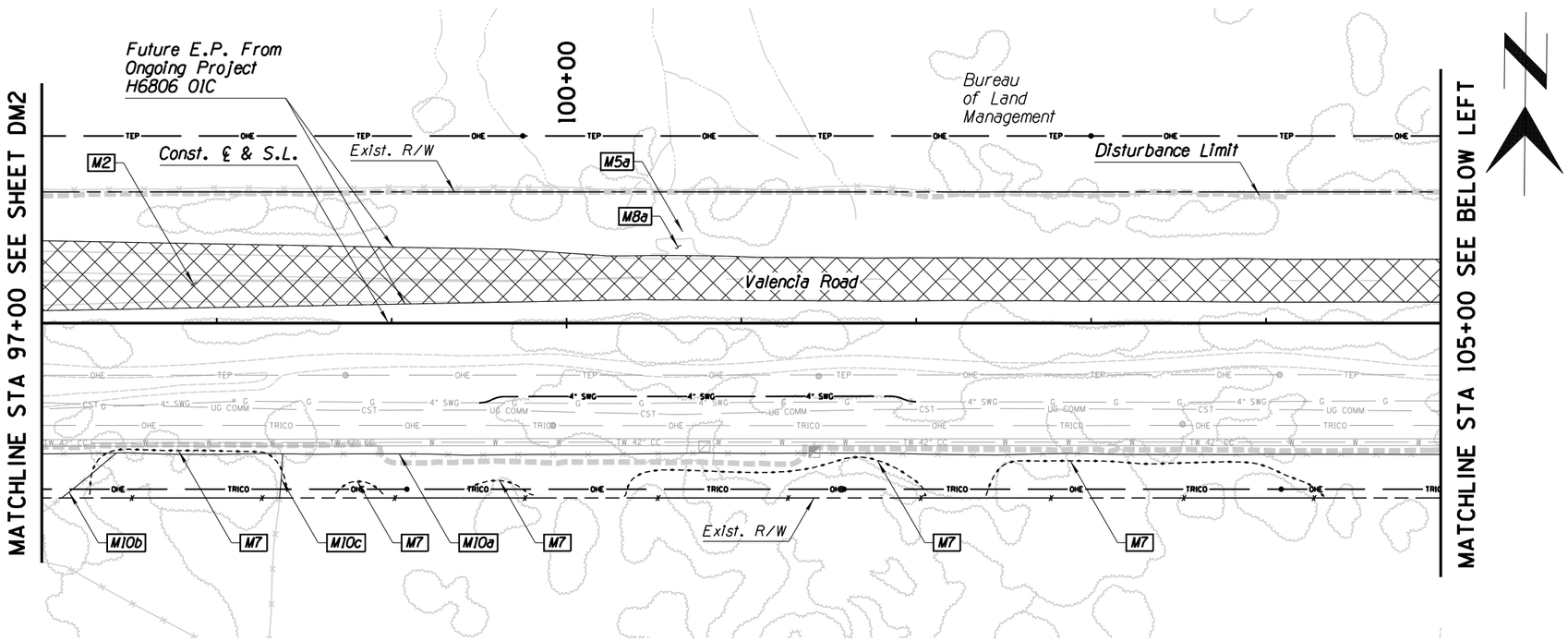

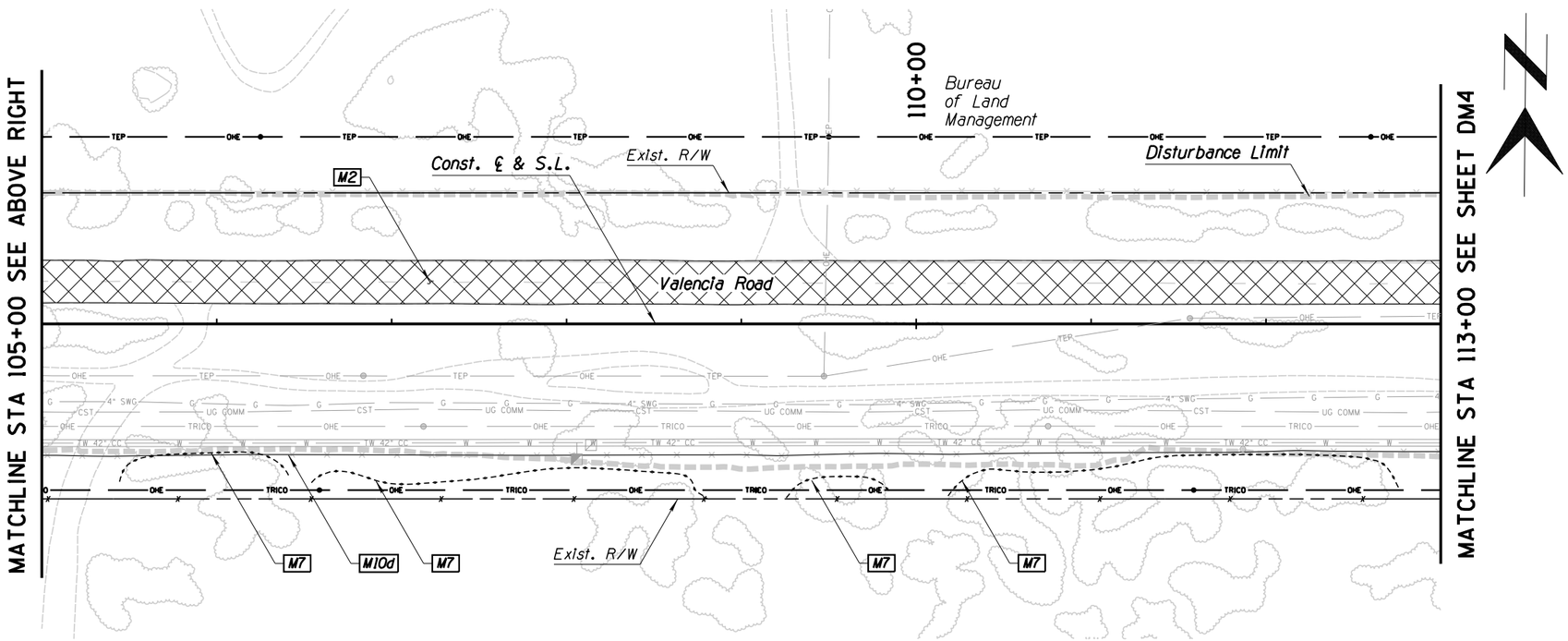

Item No.	Qty.	Unit	Description
M2	4739	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M5	56	L.F.	Removal of Cut-off Wall, Item # 2020001
a	56	L.F.	Sta. 100+37.45, 51.8' Lt. to Sta. 100+93.17, 52.8' Lt.
M6	5	AC	Clearing and Grubbing, Item # 2010001
M7	1305	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	675	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	675	S.F.	Debris
M10	1570	L.F.	Removal of Fence / Handrail, Item # 2020001
a	778	L.F.	Sta. 97+00.00, 74.7' Rt. to Sta. 104+78.17, 75.0' Rt.
b	41	L.F.	Sta. 97+11.23, 100.0' Rt. to Sta. 97+42.60, 74.2' Rt.
c	26	L.F.	Sta. 98+35.92, 100.0' Rt. to Sta. 98+37.66, 74.7' Rt.
d	725	L.F.	Sta. 105+74.97, 75.2' Rt. to Sta. 113+00.00, 72.9' Rt.

NOTES:

See Sheet DM1 for Notes.

DEMOLITION PLAN
VALENCIA ROAD
STA. 97+00 TO 113+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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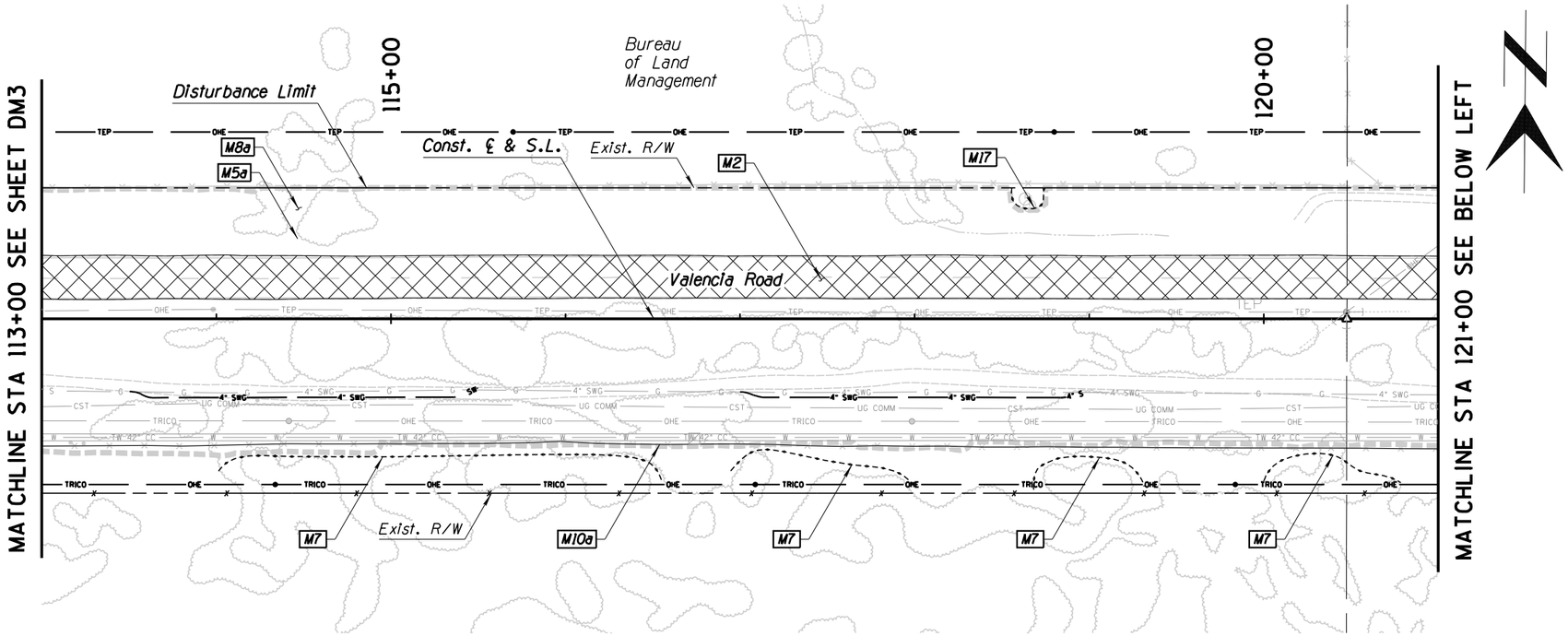
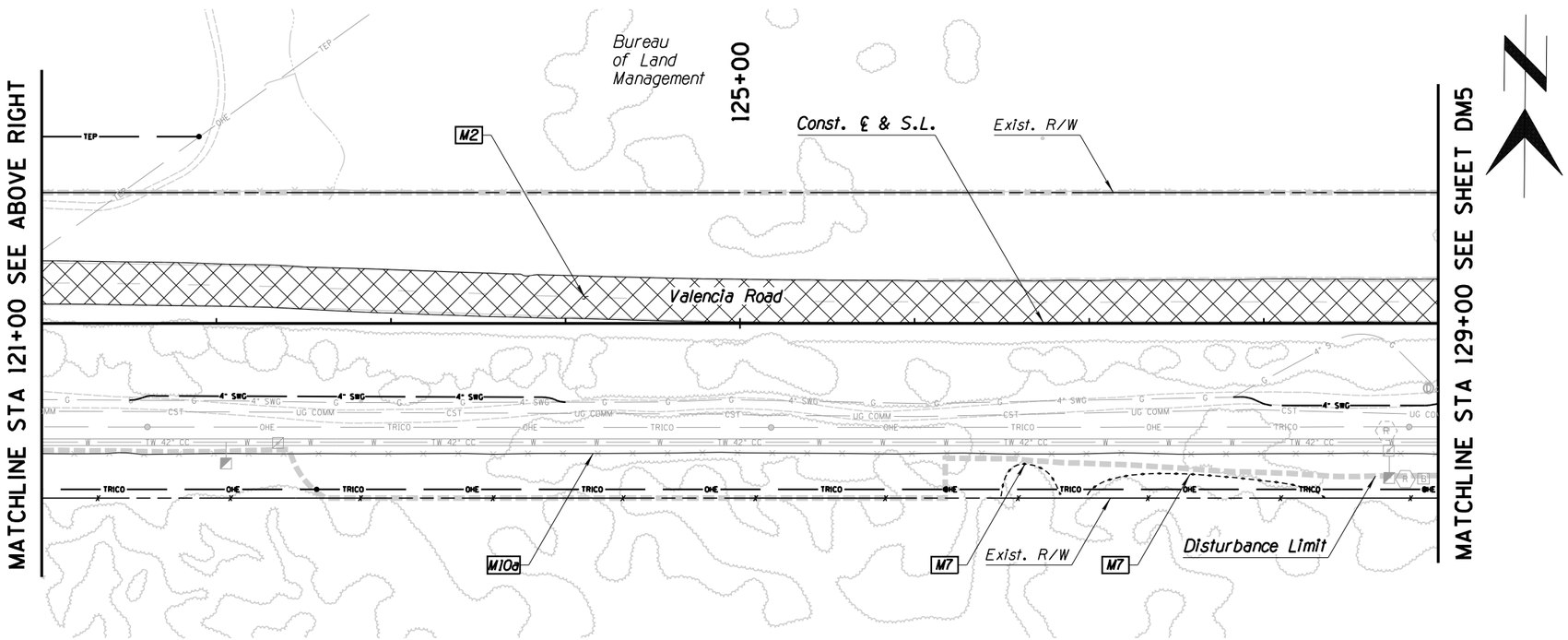
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

Sheet DM2 of DM15





Item No.	Qty.	Unit	Description
M2	4389	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M5	61	L.F.	Removal of Cut-off Wall, Item # 2020001
a	61	L.F.	Sta. 114+05.96, 46.3' Lt. to Sta. 114+66.57, 45.5' Lt.
M6	6	AC	Clearing and Grubbing, Item # 2010001
M7	745	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	845	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	845	S.F.	Debris
M10	1600	L.F.	Removal of Fence / Handrail, Item # 2020001
a	1600	L.F.	Sta. 113+00.00, 72.9' Rt. to Sta. 129+00.00, 74.8' Rt.
M17	36	L.F.	Install Preservation Fence (Type B), Item # 2010005

NOTES:

See Sheet DM1 for Notes.

DEMOLITION PLAN
VALENCIA ROAD
STA. 113+00 TO 129+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

STATE OF ARIZONA
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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Tucson, AZ 85705
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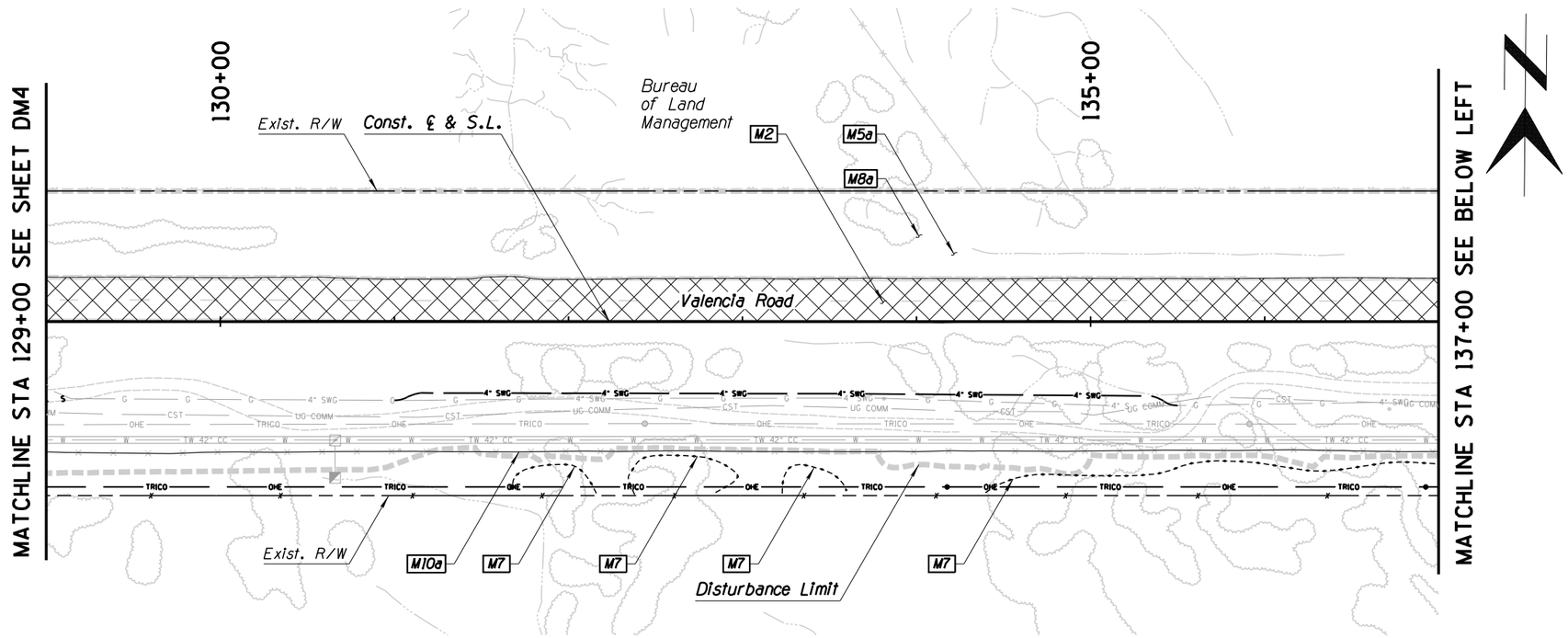
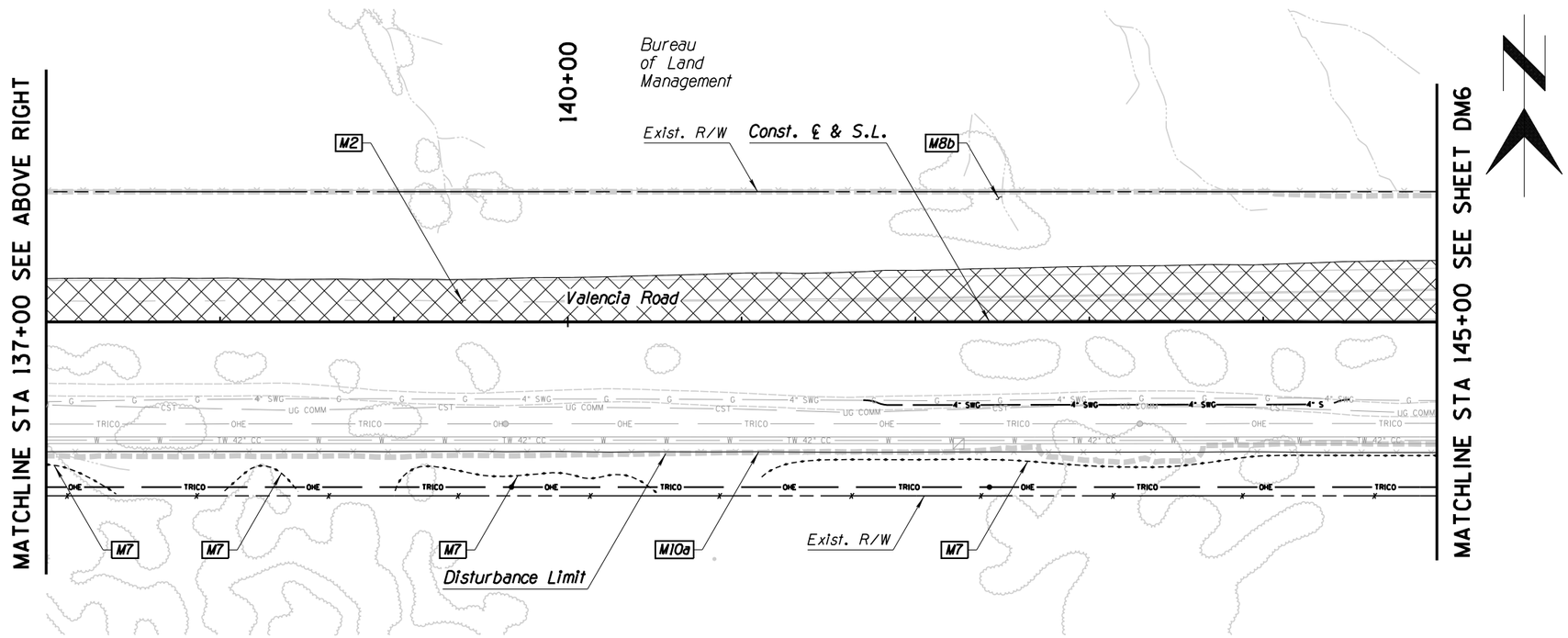
Pima County Department of Transportation
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet DM3 of DM15	Page 85 of 433





Item No.	Qty.	Unit	Description
M2	4719	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M5	135	L.F.	Removal of Cut-off Wall, Item # 2020001
a	135	L.F.	Sta. 133+84.34, 40.0' Lt. to Sta. 135+19.33, 40.8' Lt.
M6	6	AC	Clearing and Grubbing, Item # 2010001
M7	1132	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	1140	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	1000	S.F.	Debris
b	140	S.F.	Debris
M10	1600	L.F.	Removal of Fence / Handrail, Item # 2020001
a	1600	L.F.	Sta. 129+00.00, 74.8' Rt. to Sta. 145+00.00, 75.1' Rt.

NOTES:

See Sheet DM1 for Notes.

DEMOLITION PLAN
VALENCIA ROAD
STA. 129+00 TO 145+00

40 0 40 80

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Ana M. Olivares, P.E., Director

Date	
Designed	T. Rhine 01/2018
Drawn	V.Castaneda 01/2018
Checked	R. Solis 01/2018
Proj. Engr.	R. Solis 01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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333 E. Wetmore Road
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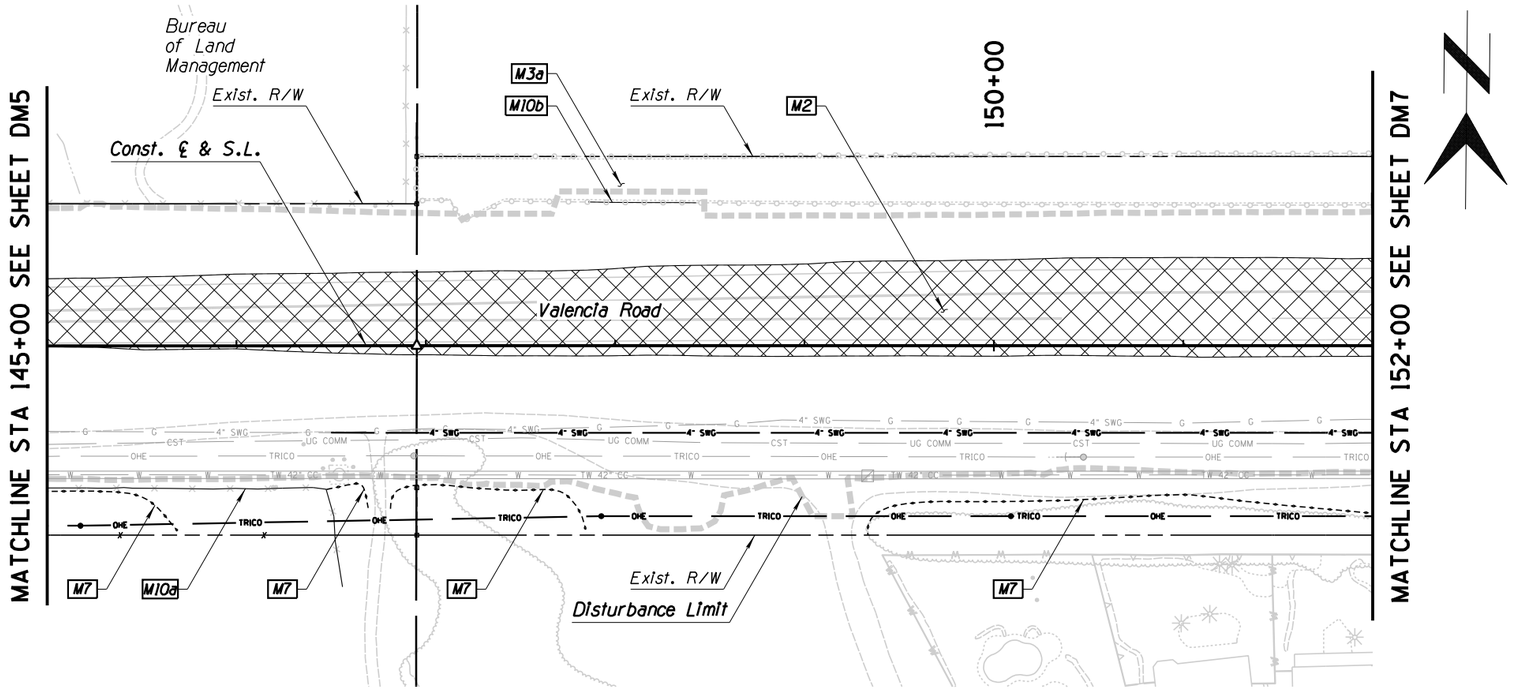
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet DM4 of DM15	Page 86 of 433



Item No.	Qty.	Unit	Description
M2	3624	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	240	S.F.	Removal of Misc. Concrete, Item # 2020001
a	240	S.F.	Slope Paving - Sta. 147+94.19, 77.1' Lt. to Sta. 148+34.19, 76.7' Lt.
M6	2	AC	Clearing and Grubbing, Item # 2010001
M7	508	L.F.	Install Preservation Fence (Type A), Item # 2010004
M10	257	L.F.	Removal of Fence / Handrail, Item # 2020001
a	200	L.F.	Sta. 145+00.00, 75.1' Rt. to Sta. 146+55.92, 127.3' Rt.
b	57	L.F.	Sta. 147+85.73, 75.9' Lt. to Sta. 148+42.69, 75.5' Lt.

NOTES:

See Sheet DM1 for Notes.

DEMOLITION PLAN
VALENCIA ROAD
STA. 145+00 TO 152+00

40 0 40 80

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Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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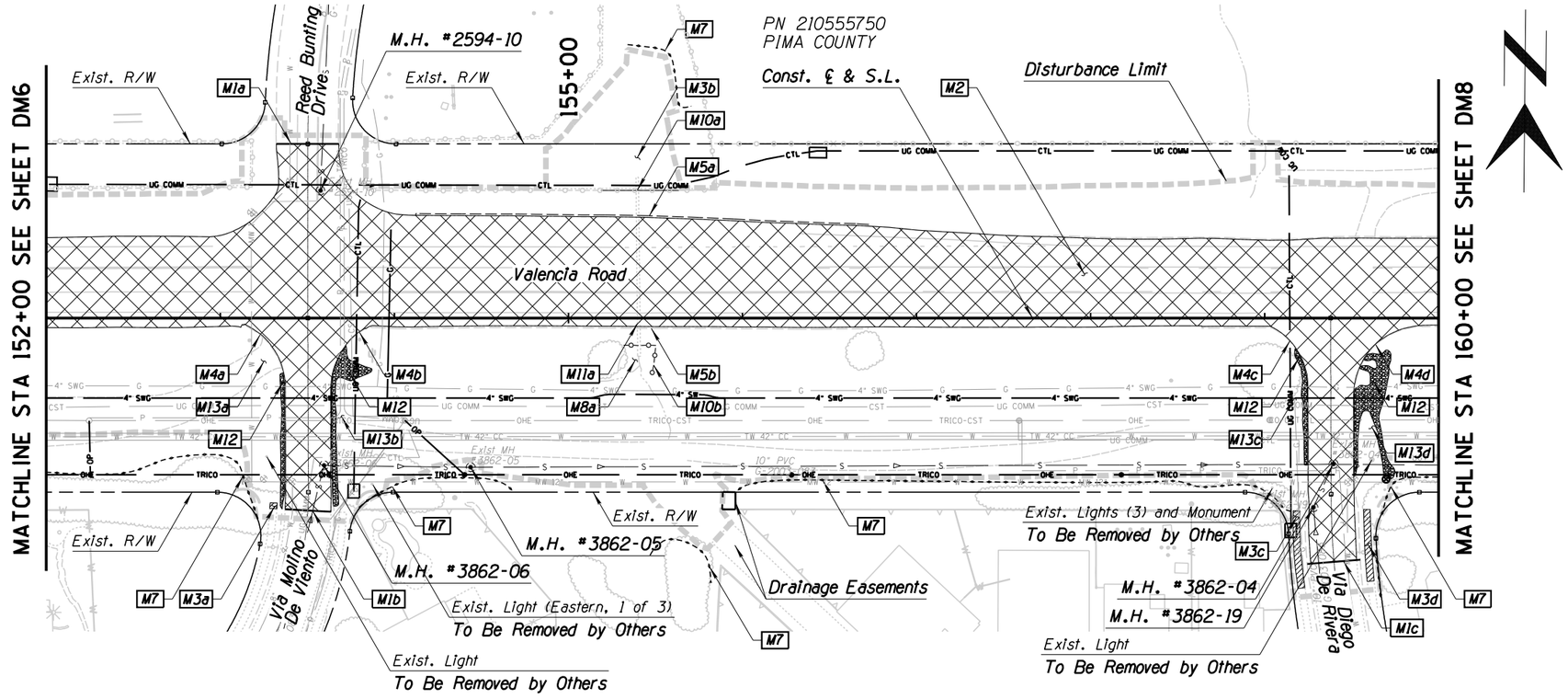
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet DM5 of DM15	Page 87 of 433



Item No.	Qty.	Unit	Description
M1	88	L.F.	Sawcut Pavement
a	36	L.F.	Sta. 153+32.47, 100.0' Lt. to Sta. 153+67.97, 100.0' Lt.
b	26	L.F.	Sta. 153+37.31, 109.8' Rt. to Sta. 153+63.27, 111.2' Rt.
c	26	L.F.	Sta. 159.26.92, 141.0' Rt. to Sta. 159+52.84, 138.9' Rt.
M2	6038	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	534	S.F.	Removal of Misc. Concrete, Item # 2020001
a	14	S.F.	Sidewalk - Sta. 153+28.61, 106.1' Rt. to Sta. 153+32.45, 109.5' Rt.
b	180	S.F.	Slope Paving - Sta. 155+26.93, 74.4' Lt. to Sta. 155+56.04, 74.4' Lt.
c	176	S.F.	Sidewalk - Sta. 159+16.46, 110.6' Rt. to Sta. 159+23.19, 154.8' Rt.
d	164	S.F.	Sidewalk - Sta. 159+56.84, 110.0' Rt. to Sta. 159+62.98, 150.9' Rt.
M4	526	L.F.	Removal of Curb, Item # 2020001
a	115	L.F.	Sta. 153+13.48, 4.1' Rt. to Sta. 153+35.50, 109.7' Rt.
b	112	L.F.	Sta. 153+65.31, 111.3' Rt. to Sta. 153+83.45, 6.1' Rt.
c	143	L.F.	Sta. 159+04.24, 5.7' Rt. to Sta. 159+24.48, 141.2' Rt.
d	156	L.F.	Sta. 159+54.97, 138.7' Rt. to Sta. 159+90.26, 4.5' Rt.
M5	62	L.F.	Removal of Cut-off Wall, Item # 2020001
a	29	L.F.	Sta. 155+28.53, 59.1' Lt. to Sta. 155+57.20, 58.4' Lt.
b	33	L.F.	Sta. 155+30.11, 4.8' Rt. to Sta. 155+62.73, 4.9' Rt.
M6	3	AC	Clearing and Grubbing, Item # 2010001

Item No.	Qty.	Unit	Description
M7	766	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	40	S.F.	Removal of Structures & Obstructions, Item # 2020001
a	40	S.F.	Grouted Riprap
M10	81	L.F.	Removal of Fence / Handrail, Item # 2020001
a	45	L.F.	Sta. 155+18.58, 73.3' Lt. to Sta. 155+63.50, 73.3' Lt.
b	36	L.F.	Sta. 155+31.76, 15.6' Rt. to Sta. 155+47.82, 32.8' Rt.
M11	103	L.F.	Removal of Pipe, Item # 2020001
a	103	L.F.	Sta. 155+40.20, 80.8' Lt. to Sta. 155+41.41, 21.9' Rt.
M12	35	C.Y.	Remove Riprap, Item # 2020001
M13	56	EA	Remove Boulder, Item # 2020001
a	11	EA	Sta. 153+31.00, 90.0' Rt. to Sta. 153+32.00, 33.0' Rt.
b	14	EA	Sta. 153+70.00, 70.0' Rt. to Sta. 153+77.00, 15.0' Rt.
c	14	EA	Sta. 159+07.00, 11.0' Rt. to Sta. 159+18.00, 103.0' Rt
d	17	EA	Sta. 159+60.00, 93.0' Rt. to Sta. 160+00.00, 15.0' Rt.

NOTES:

See Sheet DM1 for Notes.

Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.

DEMOLITION PLAN
VALENCIA ROAD
STA. 152+00 TO 160+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales: Horiz. 1" = 40' Vert. NA

Sheet DM6 of DM15

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castañeda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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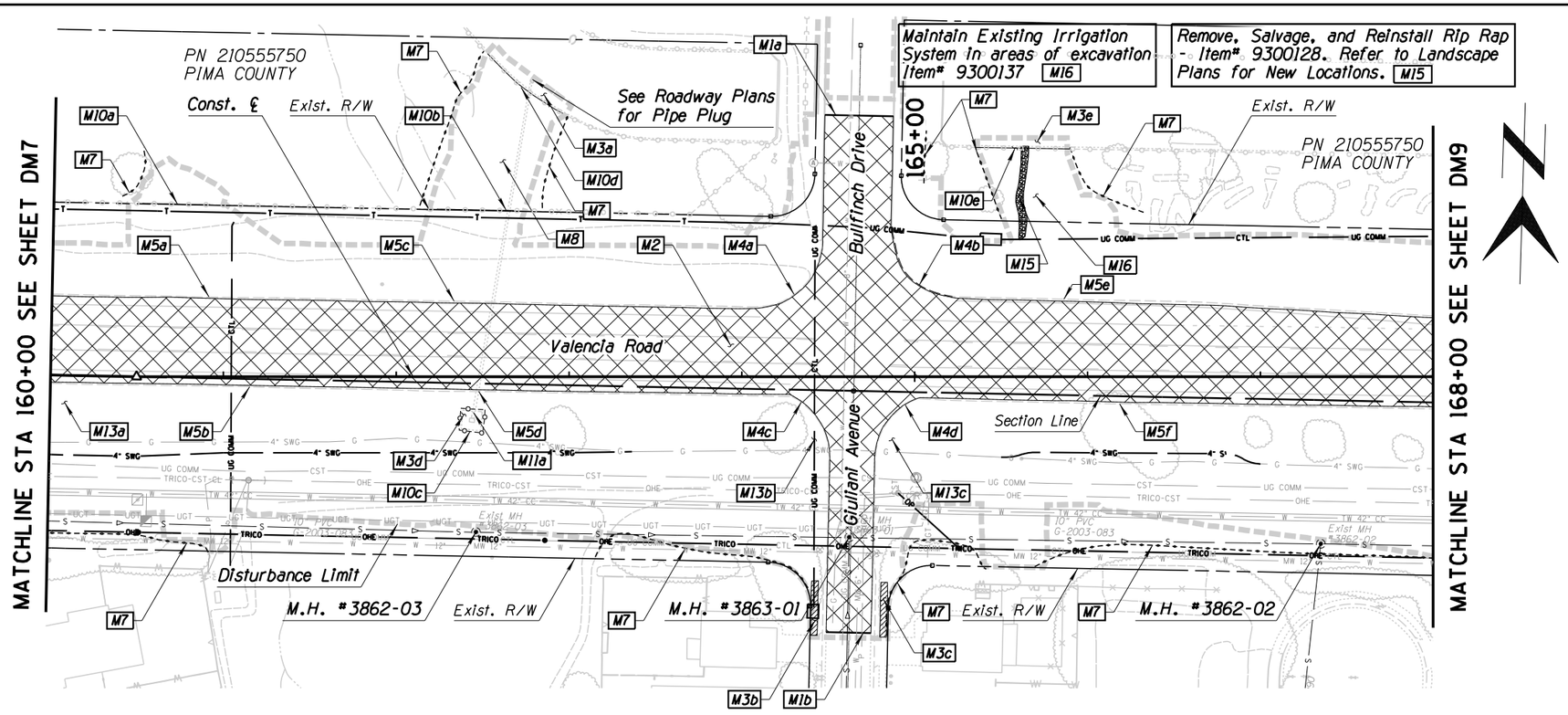
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
M1	65	L.F.	Sawcut Pavement
a	39	L.F.	Sta. 164+48.45, 151.4' Lt. to Sta. 164+87.44, 150.6' Lt.
b	26	L.F.	Sta. 164+48.92, 147.7' Rt. to Sta. 164+74.92, 148.2' Rt.
M2	5659	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	772	S.F.	Removal of Misc. Concrete, Item # 2020001
a	222	S.F.	Slope Paving - Sta. 162+59.35, 180.1' Lt. to Sta. 162+89.34, 156.3' Lt.
b	124	S.F.	Sidewalk - Sta. 164+40.41, 118.2' Rt. to Sta. 164+43.57, 149.5' Rt.
c	126	S.F.	Sidewalk - Sta. 164+80.51, 118.9' Rt. to Sta. 164+83.66, 150.5' Rt.
d	44	S.F.	Drainage Apron - Sta. 162+37.63, 30.0' Rt. to Sta. 162+49.71, 20.2' Rt.
e	256	S.F.	Slope Paving - Sta. 165+46.25, 133.5' Lt. to Sta. 165+78.25, 133.0' Lt.
M4	554	L.F.	Removal of Curb, Item # 2020001
a	135	L.F.	Sta. 164+06.52, 40.3' Lt. to Sta. 164+47.60, 151.4' Lt.
b	126	L.F.	Sta. 164+88.13, 150.6' Lt. to Sta. 165+25.00, 46.1' Lt.
c	146	L.F.	Sta. 164+27.56, 10.8' Rt. to Sta. 164+46.67, 147.7' Rt.
d	147	L.F.	Sta. 164+76.79, 148.5' Rt. to Sta. 165+02.17, 12.7' Rt.

Item No.	Qty.	Unit	Description
M5	230	L.F.	Removal of Cut-off Wall, Item # 2020001
a	24	L.F.	Sta. 160+80.47, 46.2' Lt. to Sta. 161+04.00, 45.9' Lt.
b	24	L.F.	Sta. 160+99.29, 5.5' Rt. to Sta. 161+22.89, 6.0' Rt.
c	56	L.F.	Sta. 162+09.62, 44.1' Lt. to Sta. 162+65.79, 43.1' Lt.
d	66	L.F.	Sta. 161+90.86, 7.5' Rt. to Sta. 162+56.87, 8.6' Rt.
e	30	L.F.	Sta. 165+78.99, 45.0' Lt. to Sta. 166+08.51, 44.3' Lt.
f	30	L.F.	Sta. 166+00.92, 15.3' Rt. to Sta. 166+30.28, 15.8' Rt.
M6	4	AC	Clearing and Grubbing, Item # 2010001
M7	890	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	100	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	100	S.F.	Debris
M10	250	L.F.	Removal of Fence / Handrail, Item # 2020001
a	40	L.F.	Sta. 160+53.24, 100.2' Lt. to Sta. 160+92.47, 99.4' Lt.
b	45	L.F.	Sta. 162+23.54, 96.9' Lt. to Sta. 162+68.18, 96.1' Lt.
c	54	L.F.	Sta. 162+37.37, 18.2' Rt. to Sta. 162+50.06, 32.6' Rt.
d	56	L.F.	Sta. 162+52.87, 186.7' Lt. to Sta. 162+96.94, 152.2' Lt.
e	55	L.F.	Sta. 165+34.85, 132.6' Lt. to Sta. 165+89.85, 131.7' Lt.

Item No.	Qty.	Unit	Description
M11	200	L.F.	Removal of Pipe, Item # 2020001
a	200	L.F.	Sta. 162+45.05, 24.2' Rt. to Sta. 162+78.89, 171.9' Lt.
M13	24	EA	Remove Boulder, Item # 2020001
a	2	EA	Sta. 160+00.00, 15.0' Rt. to Sta. 160+10.00, 15.0' Rt.
b	12	EA	Sta. 164+34.00, 24.0' Rt. to Sta. 164+39.00, 107.0' Rt.
c	10	EA	Sta. 164+90.00, 108.0' Rt. to Sta. 165+02.00, 21.0' Rt.
M15	1	L.S.	Remove, Salvage, & Reinstall Riprap, Item # 9300128
M16	1	U.S.D	Maintain Existing Irrigation System, Item # 9300137

NOTES:

See Sheet DM1 for Notes.

Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.

DEMOLITION PLAN
VALENCIA ROAD
STA. 160+00 TO 168+00

40 0 40 80

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Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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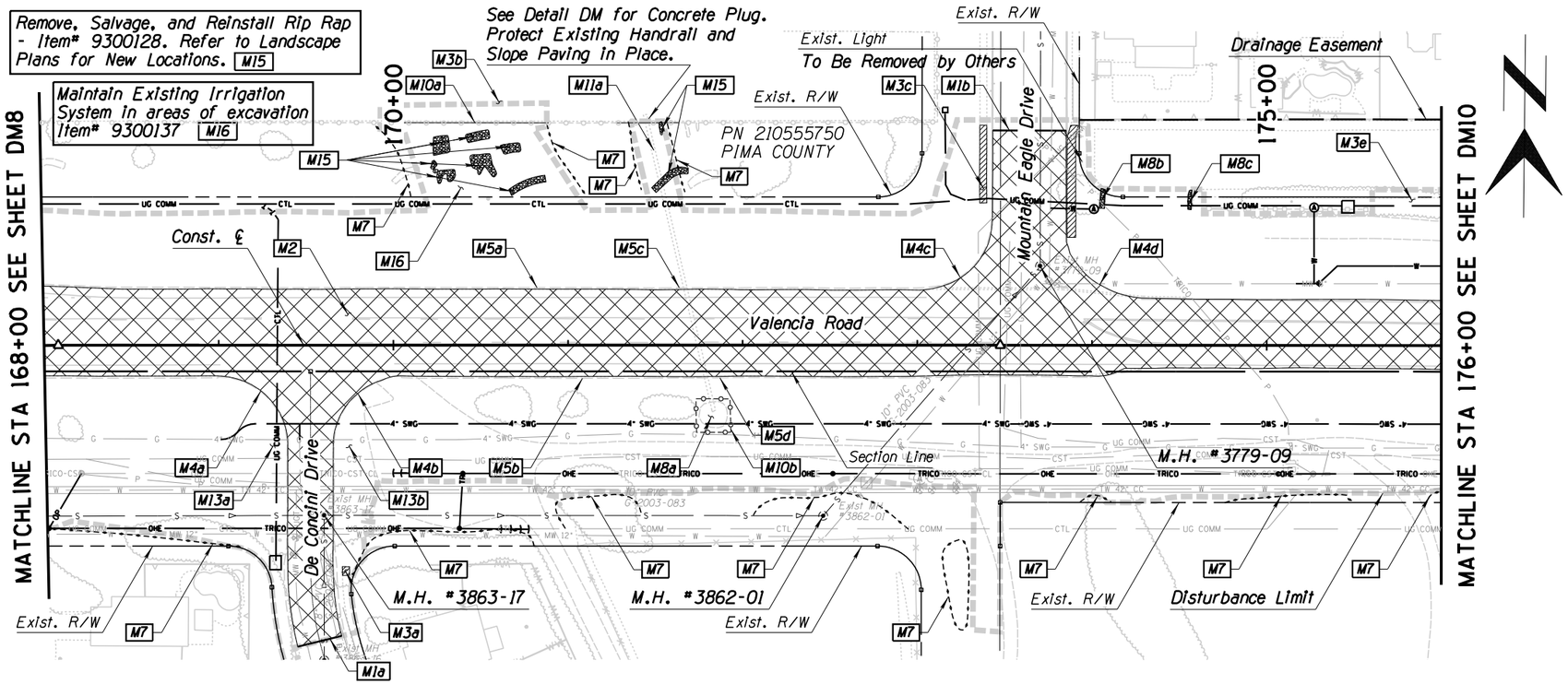
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet DM7 of DM15	Page 89 of 433



Item No.	Qty.	Unit	Description
M1	68	L.F.	Sawcut Pavement
a	26	L.F.	Sta. 169+45.19, 172.7' Rt. To Sta. 169+70.44, 166.5' Rt.
b	42	L.F.	Sta. 173+43.21, 123.0' Lt. to Sta. 173+85.15, 123.0' Lt.
M2	5224	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	1326	S.F.	Removal of Misc. Concrete, Item # 2020001
a	21	S.F.	Sidewalk - Sta. 169+70.76, 126.8' Rt. To Sta. 169+74.95, 131.7' Rt.
b	378	S.F.	Slope Paving - Sta. 170+02.46, 128.4' Lt. to Sta. 170+77.81, 128.4' Rt.
c	180	S.F.	Sidewalk - Sta. 173+35.79, 126.1' Lt. to Sta. 173+39.77, 81.6' Lt.
d	317	S.F.	Sidewalk - Sta. 173+87.76, 126.0' Lt. to Sta. 173+90.68, 61.8' Lt.
e	430	S.F.	Slope Paving - Sta. 175+60.90, 89.11 Lt. to Sta. 176+43.29, 89.10 Lt.
M4	564	L.F.	Removal of Curb, Item # 2020001
a	178	L.F.	Sta. 168+99.61, 18.2' Rt. To Sta. 169+43.25, 173.2' Rt.
b	160	L.F.	Sta. 169+72.33, 166.0' Rt. To Sta. 169+94.67, 20.0' Rt.
c	117	L.F.	Sta. 172+99.34, 32.8' Lt. to Sta. 173+42.76, 123.0' Lt.
d	109	L.F.	Sta. 173+85.69, 123.0' Lt. to Sta. 174+16.42, 29.4' Lt.
M5	146	L.F.	Removal of Cut-off Wall, Item # 2020001
a	54	L.F.	Sta. 170+57.44, 33.1' Lt. to Sta. 171+11.06, 33.1' Lt.
b	54	L.F.	Sta. 170+81.25, 18.0' Rt. To Sta. 171+35.39, 17.8' Rt.
c	19	L.F.	Sta. 171+57.89, 32.9' Lt. to Sta. 171+76.37, 32.9' Lt.
d	19	L.F.	Sta. 171+69.68, 17.9' Rt. To Sta. 171+88.13, 17.8' Rt.

Item No.	Qty.	Unit	Description
M6	3	AC	Clearing and Grubbing, Item # 2010001
M7	809	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	121	S.F.	Removal of Structures & Obstructions, Item # 2020001
a	70	S.F.	Grouted Riprap
b	30	S.F.	Grouted Riprap
c	21	S.F.	Grouted Riprap
M10	173	L.F.	Removal of Fence / Handrail, Item # 2020001
a	95	L.F.	Sta. 169+93.84, 127.5' Lt. to Sta. 170+89.00, 127.4' Lt.
b	78	L.F.	Sta. 171+73.20, 30.6' Rt. To Sta. 171+93.28, 49.8' Rt.
M11	174	L.F.	Removal of Pipe, Item # 2020001
a	174	L.F.	Sta. 171+45.14, 132.2' Lt. To Sta. 171+84.44, 37.2' Rt.
M13	24	EA	Remove Boulder, Item # 2020001
a	12	EA	Sta. 169+28.00, 38.0' Rt. To Sta. 169+31.00, 124.0' Rt.
b	12	EA	Sta. 169+79.00, 118.0' Rt. To Sta. 169+82.00, 41.0' Rt.
M15	1	L.S.	Remove, Salvage, & Reinstall Riprap, Item # 9300128
M16	1	U.S.D	Maintain Existing Irrigation System, Item # 9300137

NOTES:

See Sheet DM1 for Notes.

Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.

DEMOLITION PLAN
VALENCIA ROAD
STA. 168+00 TO 176+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1"=40'	Sheet DM8 of DM15	Page 90 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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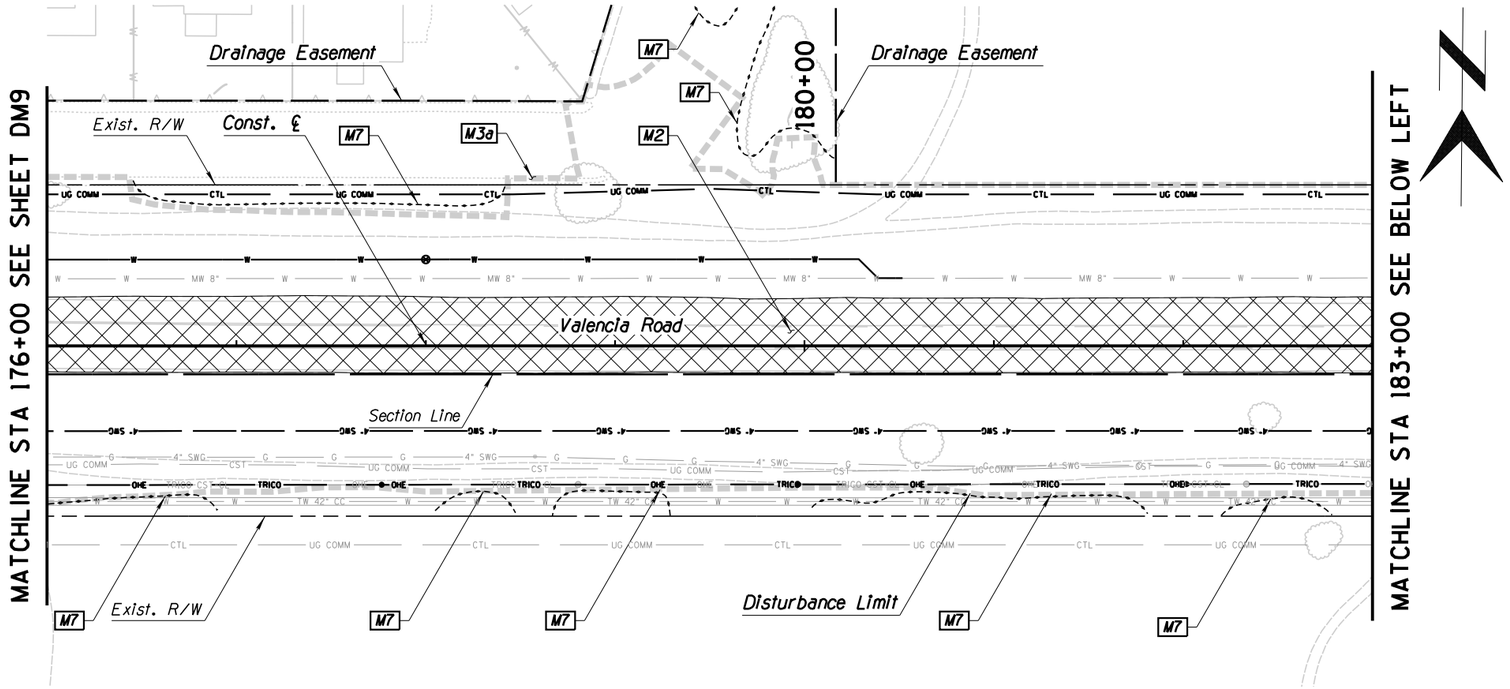
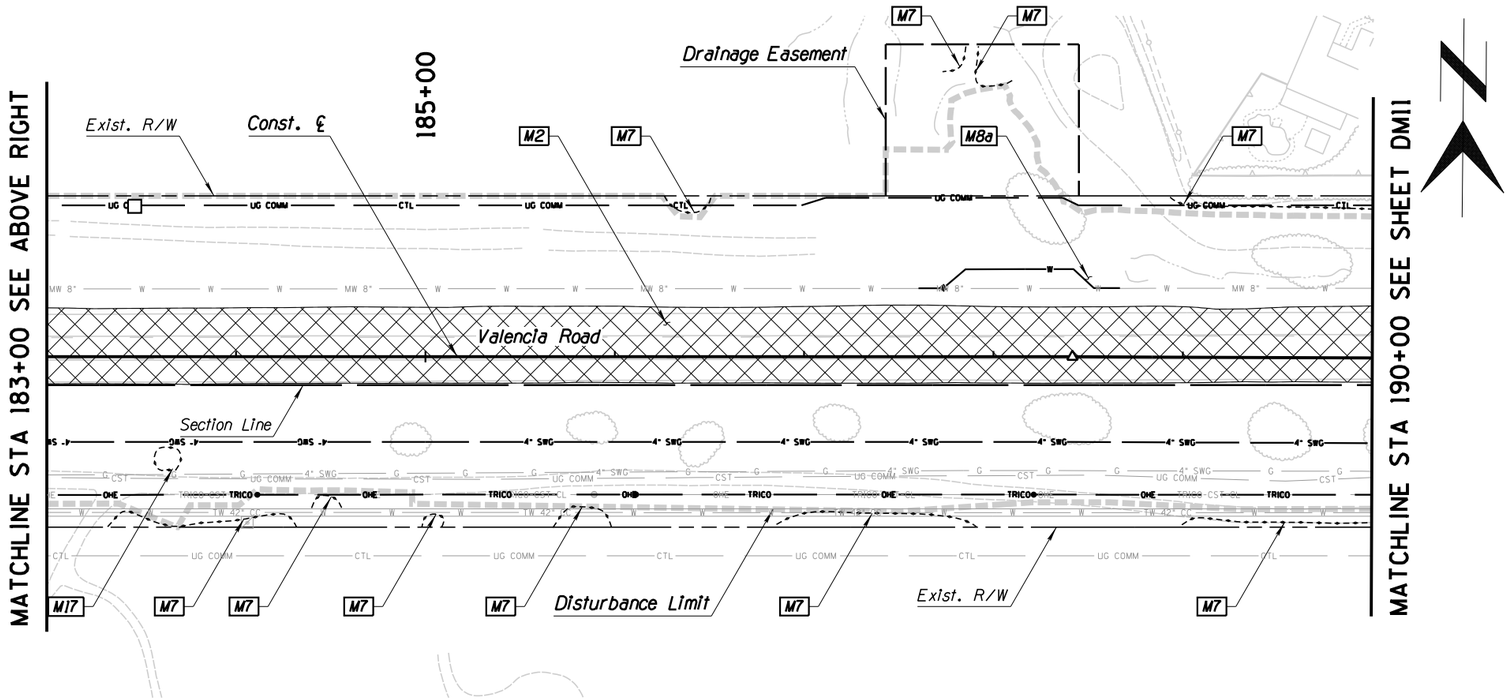
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
M2	6222	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	261	S.F.	Removal of Misc. Concrete, Item # 2020001
a	261	S.F.	Slope Paving - Sta. 178+43.29, 88.43 Lt. to Sta. 179+23.48, 88.97 Lt.
M6	5	AC	Clearing and Grubbing, Item # 2010001
M7	1472	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	525	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	525	S.F.	Debris
M17	44	L.F.	Install Preservation Fence (Type B), Item # 2010005
			Refer to Detail DU for Improvements and Limits of Protection In-Place

Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

DEMOLITION PLAN
VALENCIA ROAD
STA. 176+00 TO 190+00

40 0 40 80

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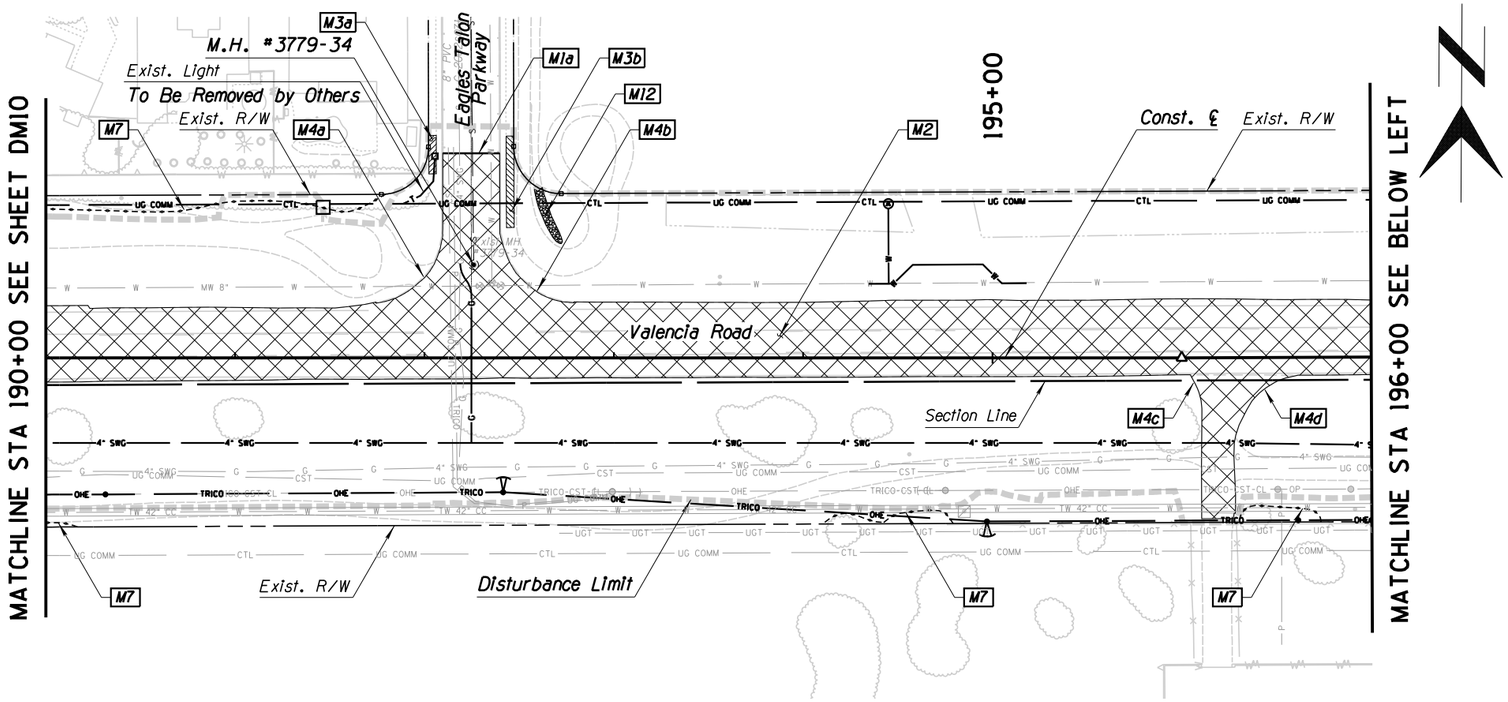
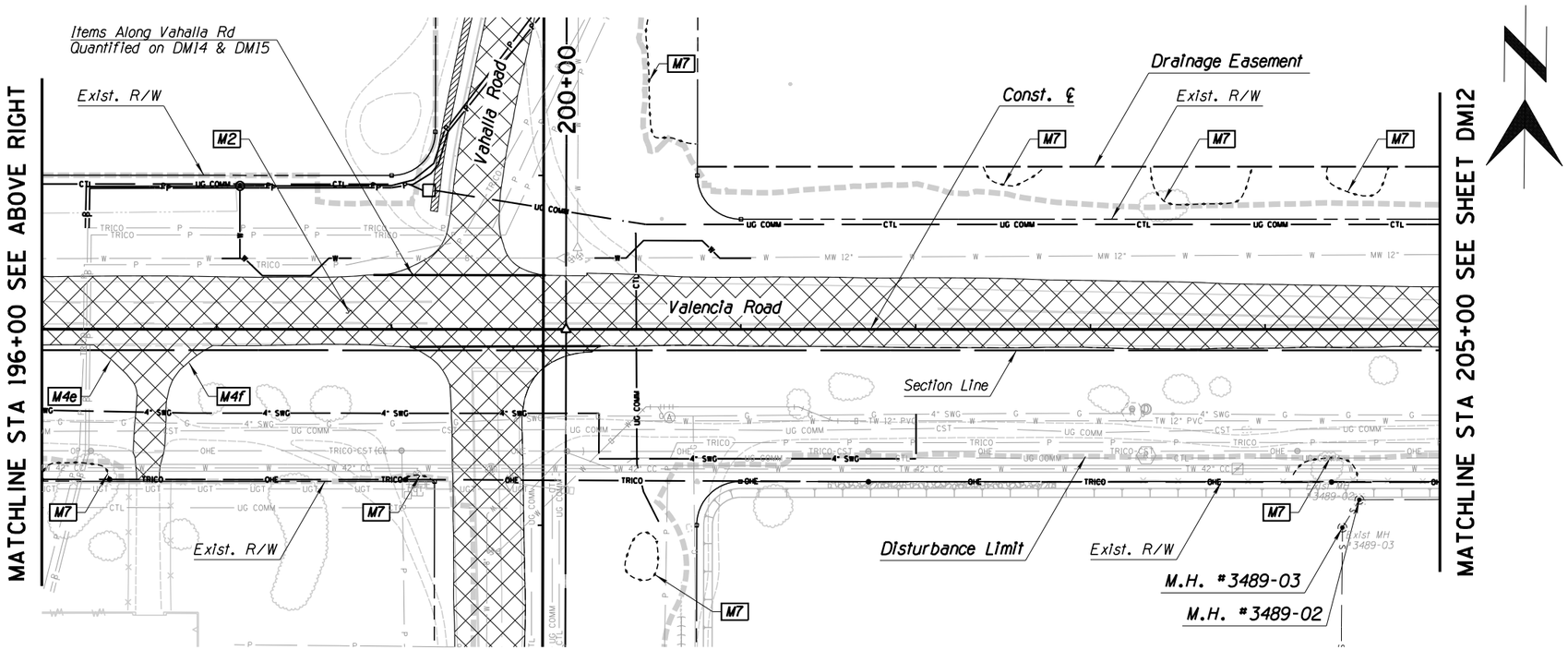
Scales	Horiz. 1"=40'	Sheet DM9 of DM15	Page 91 of 433
	Vert. NA		





Item No.	Qty.	Unit	Description
M1	30	L.F.	Sawcut Pavement
a	30	L.F.	Sta. 192+09.64, 108.0' Lt. to Sta. 192+39.64, 108.0' Lt.
M2	7283	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	276	S.F.	Removal of Misc. Concrete, Item # 2020001
a	79	S.F.	Sidewalk - Sta. 192+02.27, 117.4' Lt. to Sta. 192+06.26, 97.3' Lt.
b	197	S.F.	Sidewalk - Sta. 192+43.09, 117.1' Lt. to Sta. 192+47.40, 68.9' Lt.
M4	334	L.F.	Removal of Curb, Item # 2020001
a	97	L.F.	Sta. 191+74.28, 29.4' Lt. to Sta. 192+09.24, 108.0' Lt.
b	100	L.F.	Sta. 192+40.09, 108.0' Lt. to Sta. 192+78.99, 29.6' Lt.
c	19	L.F.	Sta. 196+04.20, 9.6' Rt. to Sta. 196+09.95, 26.9' Rt.
d	38	L.F.	Sta. 196+32.59, 31.7' Rt. to Sta. 196+61.38, 9.9' Rt.
e	38	L.F.	Sta. 197+29.94, 9.8' Rt. to Sta. 197+54.05, 37.3' Rt.
f	42	L.F.	Sta. 197+71.96, 40.5' Rt. to Sta. 197+98.12, 9.8' Rt.
M6	4	AC	Clearing and Grubbing, Item # 2010001
M7	800	L.F.	Install Preservation Fence (Type A), Item # 2010004
M12	3	C.Y.	Remove Riprap, Item # 2020001

NOTES:

See Sheet DM1 for Notes.

Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.

DEMOLITION PLAN
VALENCIA ROAD
STA. 190+00 TO 205+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

State of Arizona, Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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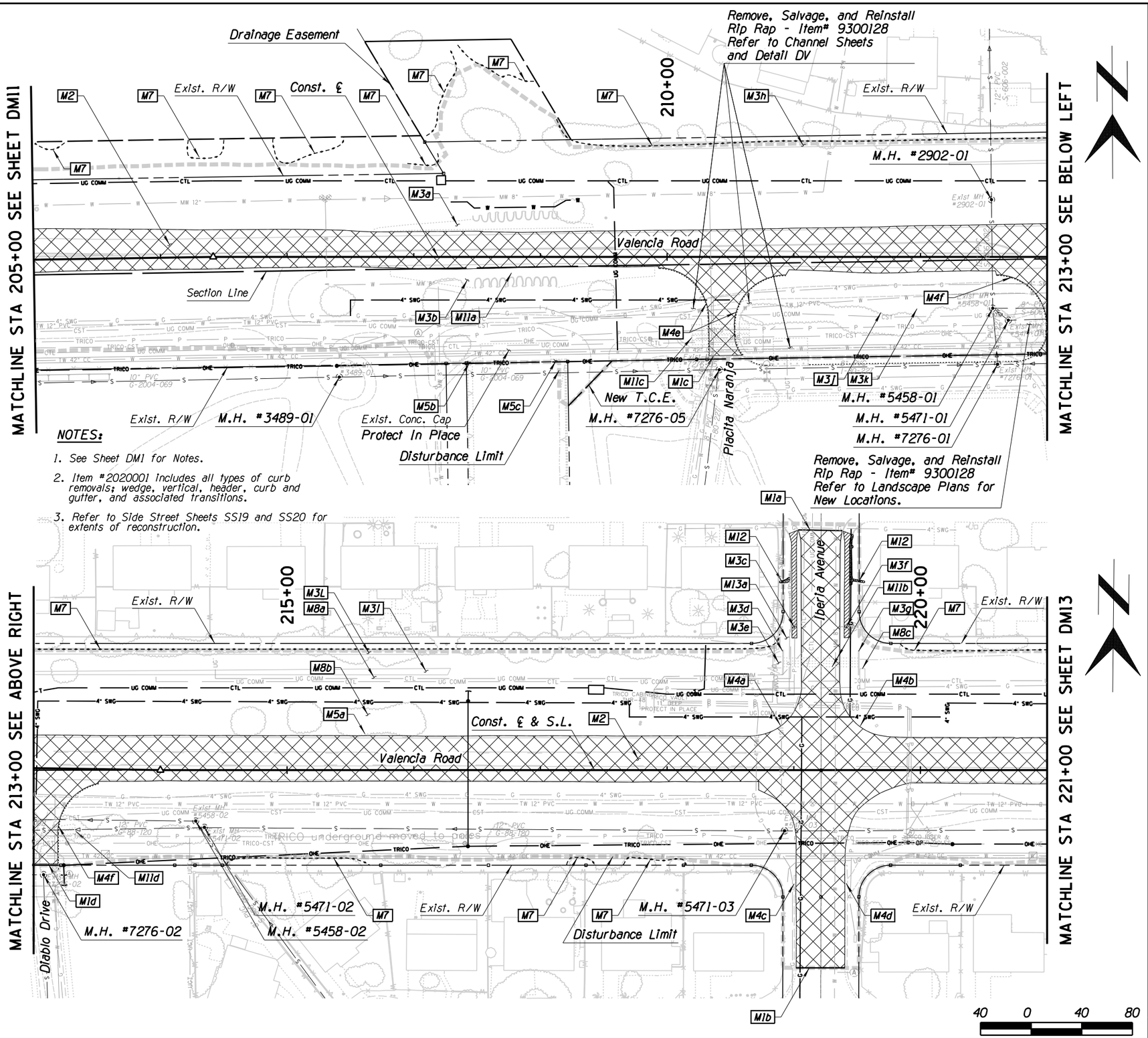
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet DM10 of DM15	Page 92 of 433



NOTES:

1. See Sheet DM1 for Notes.
2. Item #2020001 Includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.
3. Refer to Side Street Sheets SS19 and SS20 for extents of reconstruction.

Item No.	Qty.	Unit	Description
M1	128	L.F.	Sawcut Pavement
a	35	L.F.	Sta. 219+03.55, 189.5' Lt. to Sta. 219+38.13, 189.0' Lt.
b	39	L.F.	Sta. 219+01.58, 156.0' Rt. to Sta. 219+40.08, 156.0' Rt.
c	26	L.F.	Sta. 210+33.37, 78.0' Rt. to Sta. 210+59.23, 77.6' Rt.
d	28	L.F.	Sta. 212+92.57, 75.8' Rt. to Sta. 213+20.18, 75.4' Rt.
M2	7897	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	7360	S.F.	Removal of Misc. Concrete, Item # 2020001
a	1116	S.F.	Slope Paving - Sta. 207+68.26, 19.9' Lt. to Sta. 209+41.50, 23.2' Lt.
b	2050	S.F.	Slope Paving - Sta. 207+81.50, 6.9' Rt. To Sta. 209+90.15, 8.0' Rt.
c	337	S.F.	Sidewalk - Sta. 218+98.60, 104.3' Lt. To Sta. 219+02.92, 189.2' Lt.
d	180	S.F.	Headwall - Sta. 218+91.06, 75.4' Lt. to Sta. 218+91.29, 95.0' Lt.
e	66	S.F.	Slope Paving - Sta. 218+79.18, 80.7' Lt. to Sta. 218+91.19, 95.0' Lt.
f	329	S.F.	Sidewalk - Sta. 219+39.21, 188.5' Lt. to Sta. 219+43.68, 104.6' Lt.
g	180	S.F.	Headwall - Sta. 219+51.65, 74.9' Lt. to Sta. 219+51.62, 94.6' Lt.
h	1577	S.F.	Slope Paving - Sta. 209+65.81, 84.5' Lt. to Sta. 212+99.83, 90.0' Lt.
i	1380	S.F.	Slope Paving - Sta. 212+22.71, 74.4' Lt. to Sta. 216+29.21, 80.3' Lt.
j	7	S.F.	Concrete Debris - Sta. 211+69.00, 43.5' Rt.
k	4	S.F.	Concrete Debris - Sta. 211+97.00, 41.00' Rt.
l	134	S.F.	Slope Paving - Sta. 215+91.27, 91.4' Lt. to Sta. 216+27.43, 91.3' Lt.
M4	883	L.F.	Removal of Curb, Item # 2020001
a	189	L.F.	Sta. 218+62.81, 26.8' Lt. to Sta. 219+03.32, 189.6' Rt.
b	193	L.F.	Sta. 219+38.79, 188.6' Lt. to Sta. 219+83.16, 25.5' Lt.
c	73	L.F.	Sta. 219+00.23, 156.0' Rt. to Sta. 219+00.31, 83.0' Rt.
d	81	L.F.	Sta. 219+42.04, 156.0' Rt. to Sta. 219+42.15, 75.2' Rt.
e	181	L.F.	See Note 3
f	166	L.F.	See Note 3
M5	105	L.F.	Removal of Cut-off Wall, Item # 2020001
a	78	L.F.	Sta. 215+30.80, 28.9' Lt. to Sta. 216+08.79, 28.1' Lt.
b	14	L.F.	Sta. 208+41.04, 82.3' Rt. to Sta. 208+54.85, 82.0' Rt.
c	13	L.F.	Sta. 209+08.19, 80.9' Rt. to Sta. 209+21.06, 80.7' Rt.
M6	6	AC	Clearing and Grubbing, Item # 2010001
M7	1649	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	505	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	220	S.F.	Debris
b	220	S.F.	Debris
c	65	S.F.	Debris
M11	948	L.F.	Removal of Pipe, Item # 2020001
a	500	L.F.	Pipe Cluster - 10 x 50 L.F. Sta. 208+85.00
b	120	L.F.	Pipe Cluster - 2 x 60 L.F. Sta. 219+20.00, 85.0' Lt.
c	184	L.F.	Pipe Cluster - 4 x 46 L.F. Sta. 210+42.00, 61.0' Rt.
d	144	L.F.	Pipe Cluster - 3 x 48 L.F. Sta. 213+10.00, 53.0' Rt.
M12	3	C.Y.	Remove Riprap, Item # 2020001
M13	12	EA	Remove Boulder, Item # 2020001
a	12	EA	Sta. 218+93.00, 102.0' Lt. To Sta. 218+93.00, 163.0' Rt.

DEMOLITION PLAN
VALENCIA ROAD
STA. 205+00 TO 221+00

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1"=40'
	Vert. NA

Sheet DM11 of DM15

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castameda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/09/18 ARIZONA, U.S.A. Expires 09/30/2019

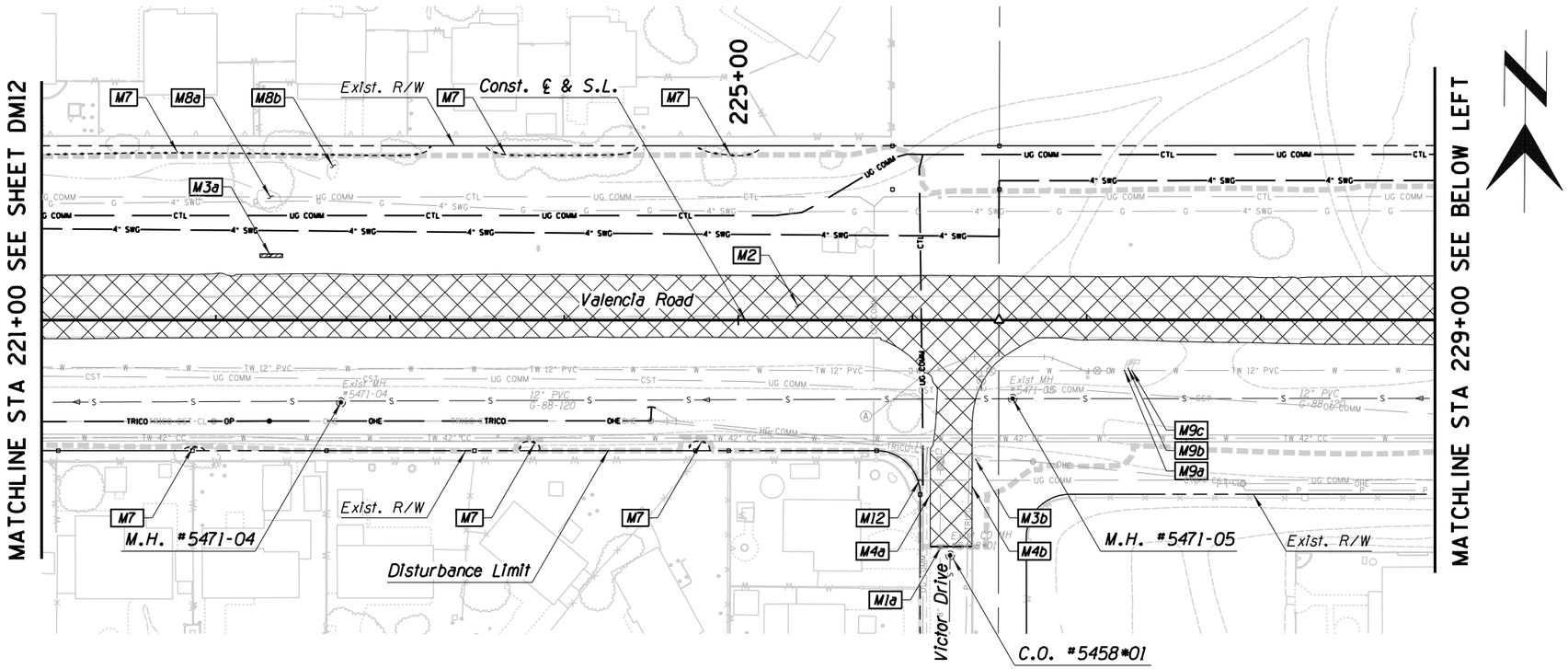
Ana M. Olivares, P.E., Director

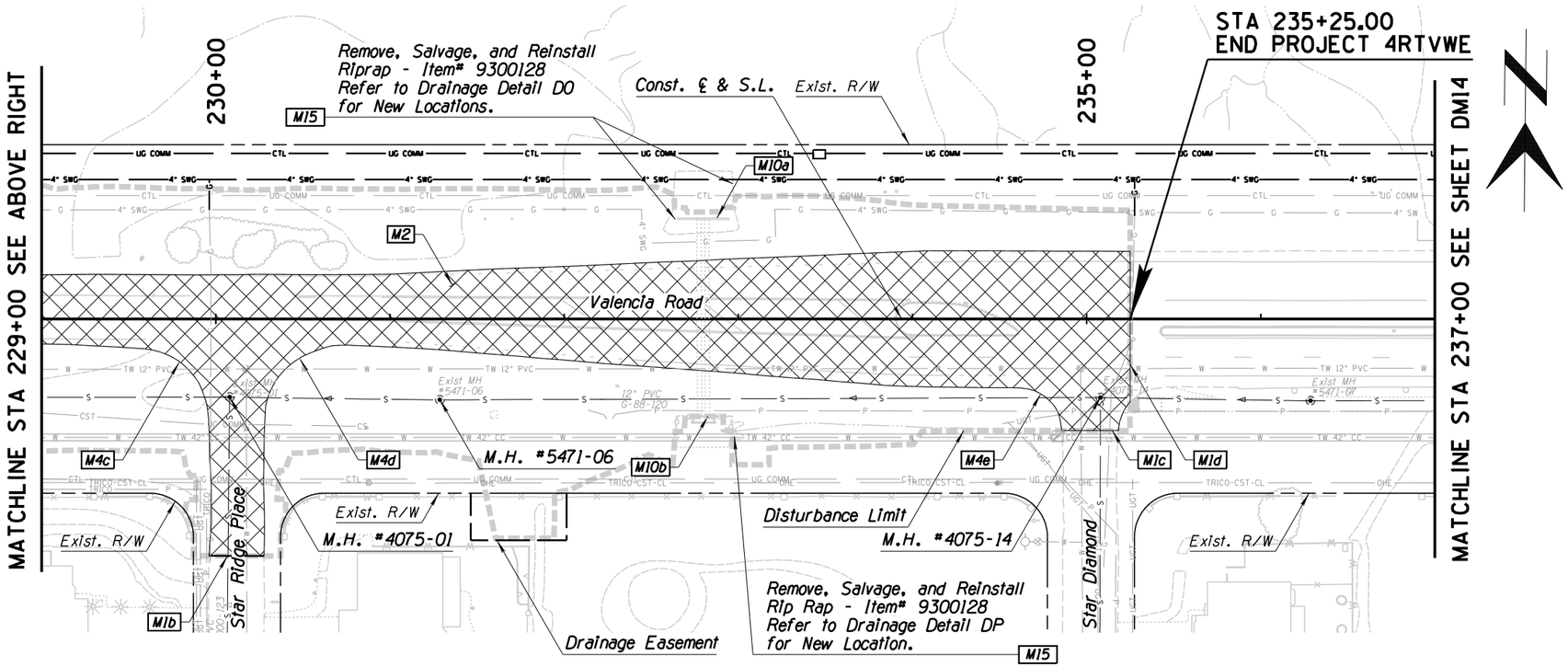
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423





Item No.	Qty.	Unit	Description
M1	175	L.F.	Sawcut Pavement
a	24	L.F.	Sta. 226+10.13, 130.0' Rt. to Sta. 226+34.13, 130.0' Rt.
b	31	L.F.	Sta. 229+96.33, 136.0' Rt. to Sta. 230+27.33, 136.0' Rt.
c	33	L.F.	Sta. 234+85.71, 64.0' Rt. to Sta. 235+18.37, 64.0' Rt.
d	87	L.F.	Sta. 235+25.00, 39.0' Lt. to Sta. 235+25.00, 47.6' Rt.
M2	8254	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	29	S.F.	Removal of Misc. Concrete, Item # 2020001
a	26	S.F.	Concrete Slab - Approx. 222+30.00, 37.00' Lt.
b	3	S.F.	Foundation - Approx. 226+36.00, 79.0' Lt.
M4	287	L.F.	Removal of Curb, Item # 2020001
a	56	L.F.	Sta. 226+10.21, 130.0' Rt. to Sta. 226+10.38, 73.9' Rt.
b	55	L.F.	Sta. 226+34.17, 130.0' Rt. to Sta. 226+34.28, 74.9' Rt.
c	63	L.F.	Sta. 229+56.41, 17.5' Rt. to Sta. 229+95.35, 58.6' Rt.
d	75	L.F.	Sta. 230+28.73, 56.9' Rt. to Sta. 230+80.39, 15.7' Rt.
e	38	L.F.	Sta. 234+61.41, 40.0' Rt. to Sta. 234+85.18, 63.9' Rt.
M6	5	AC	Clearing and Grubbing, Item # 2010001
M7	406	L.F.	Install Preservation Fence (Type A), Item # 2010004
M8	191	S.F.	Removal of Structures & Obstructions, Item# 2020001
a	144	S.F.	Riprap
b	36	S.F.	Riprap
M9	3	EA	Relocate Mailbox, Item # 2020061
a	1	EA	Sta. 227+21.41, 29.1' Rt.
b	1	EA	Sta. 227+23.30, 28.3' Rt.
c	1	EA	Sta. 227+25.75, 28.6' Rt.
M10	97	L.F.	Removal of Fence / Handrail, Item # 2020001
a	31	L.F.	Sta. 232+65.14, 57.7' Lt. to Sta. 232+95.58, 57.9' Lt.
b	66	L.F.	Sta. 232+63.61, 73.2' Rt. to Sta. 232+95.99, 73.0' Rt.
M12	2	C.Y.	Remove Riprap, Item # 2020001
M15	1	L.S.	Remove, Salvage, & Reinstall Riprap, Item # 9300128

NOTES:

1. See Sheet DM1 for Notes.
2. See Sheet DT1 for Mailbox Relocation Station.
3. Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.

DEMOLITION PLAN
VALENCIA ROAD
STA. 221+00 TO 237+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

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

Sheet DM12 of DM15

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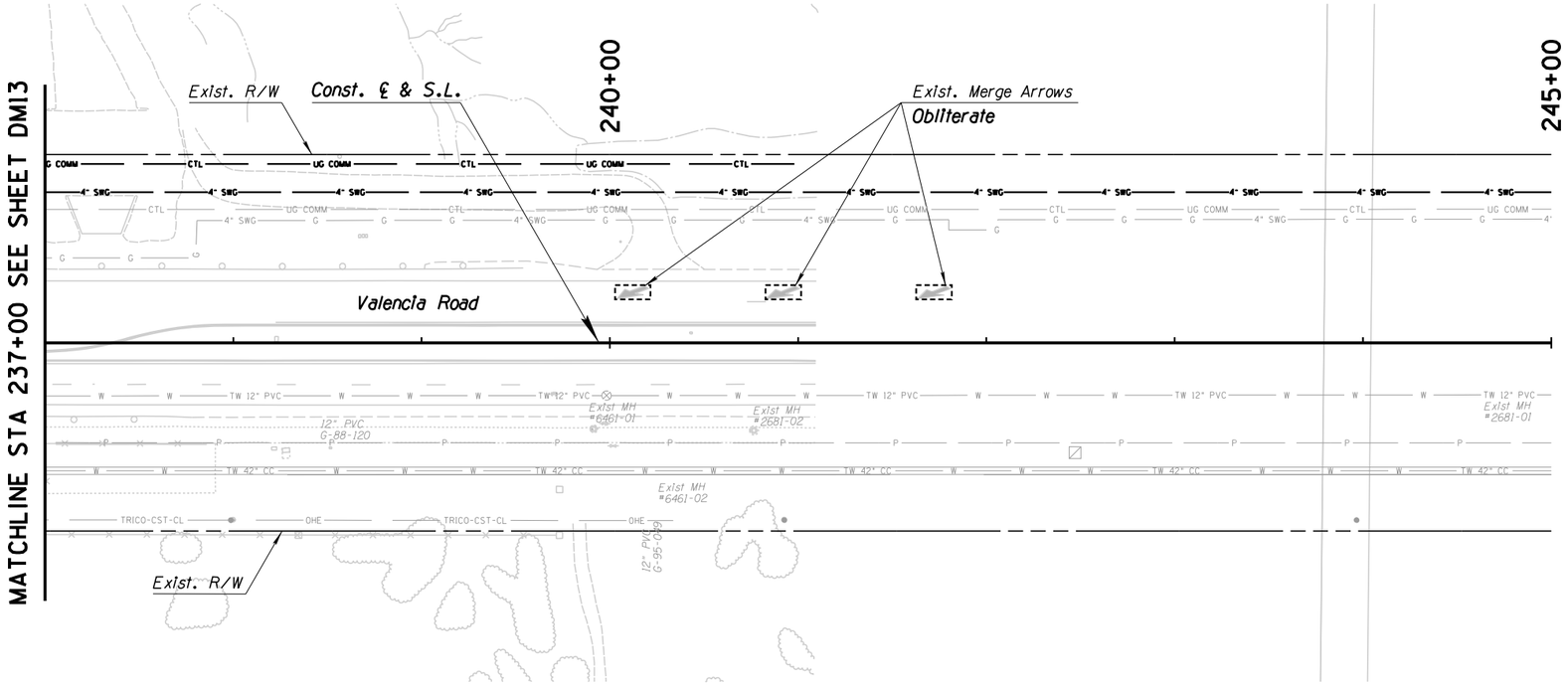

0.016 Tons Fog*
0.048 Tons Blotter*

*Items not measured for payment. These items are incidental to and included in the cost of Item 7010261 - Obliterate Pavement Marking

NOTES:

See Sheet DM1 for Notes.

DEMOLITION PLAN
VALENCIA ROAD
STA. 237+00 TO 245+00

40 0 40 80

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Scales	Horiz. 1"=40'	Sheet DM13 of DM15	Page 95 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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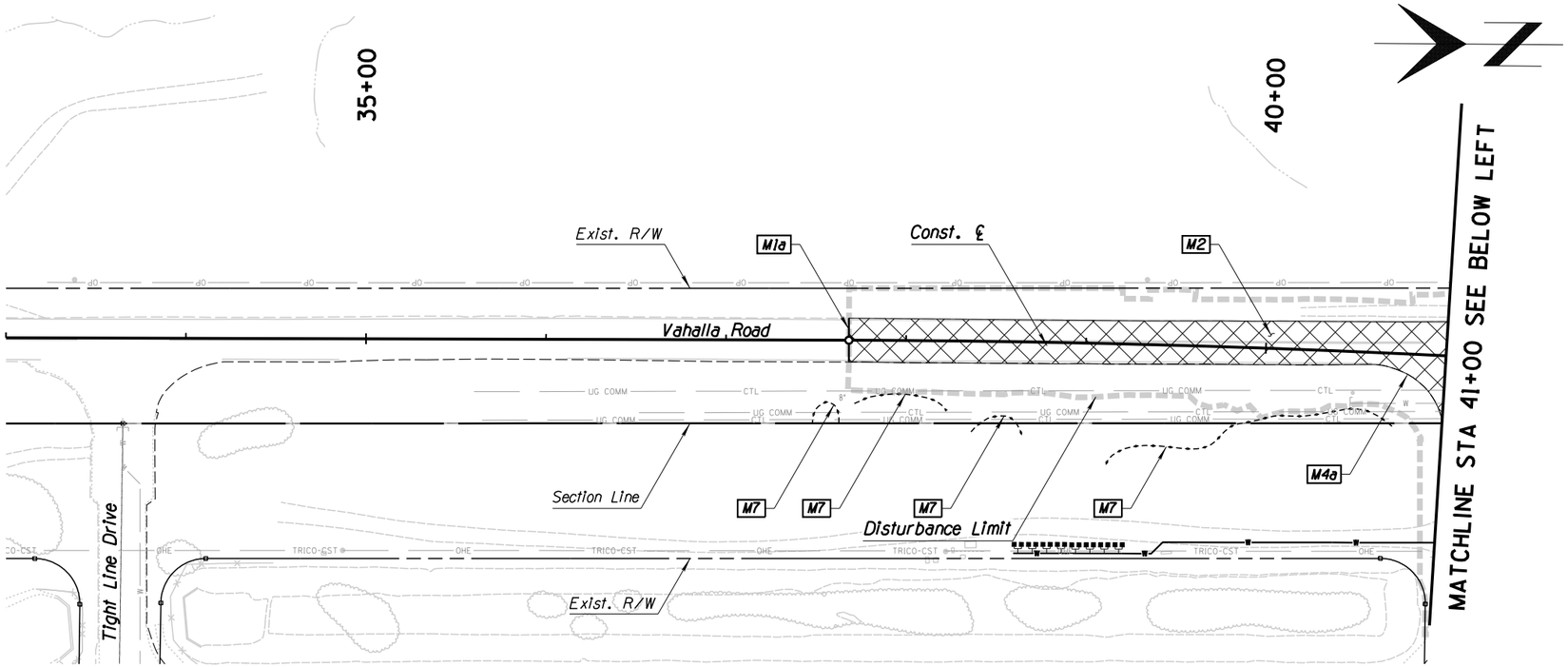
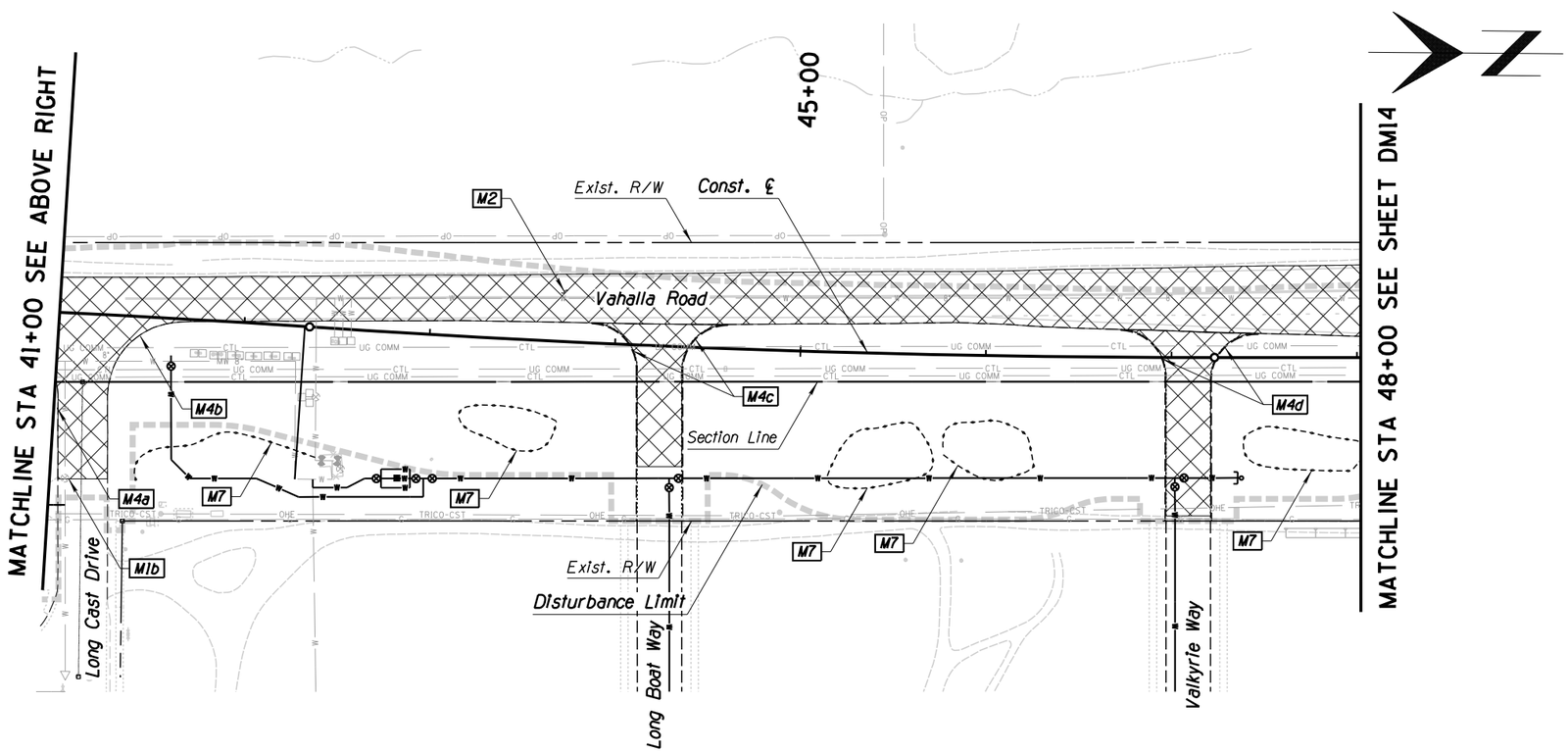
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
M1	52	L.F.	Sawcut Pavement
a	26	L.F.	Sta. 37+68.25, 13.0' Lt. to Sta. 37+68.25, 13.0' Rt.
b	26	L.F.	Sta. 41+03.95, 89.7' Rt. to Sta. 41+30.24, 88.4' Rt.
M2	3938	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M4	628	L.F.	Removal of Curb, Item # 2020001
a	107	L.F.	Sta. 40+59.07, 7.2' Rt. to Sta. 41+03.12, 89.7' Rt.
b	111	L.F.	Sta. 41+31.18, 88.4' Rt. to Sta. 41+70.71, 1.7' Rt.
c	182	L.F.	See Note 3
d	228	L.F.	See Note 3
M6	2	AC	Clearing and Grubbing, Item # 2010001
M7	964	L.F.	Install Preservation Fence (Type A), Item # 2010004

NOTES:

1. See Sheet DM1 for Notes.
2. Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.
3. Refer to Side Street Sheets SS21 and SS22 for extents of reconstruction.

DEMOLITION PLAN
VAHALLA ROAD
STA. 33+00 TO 48+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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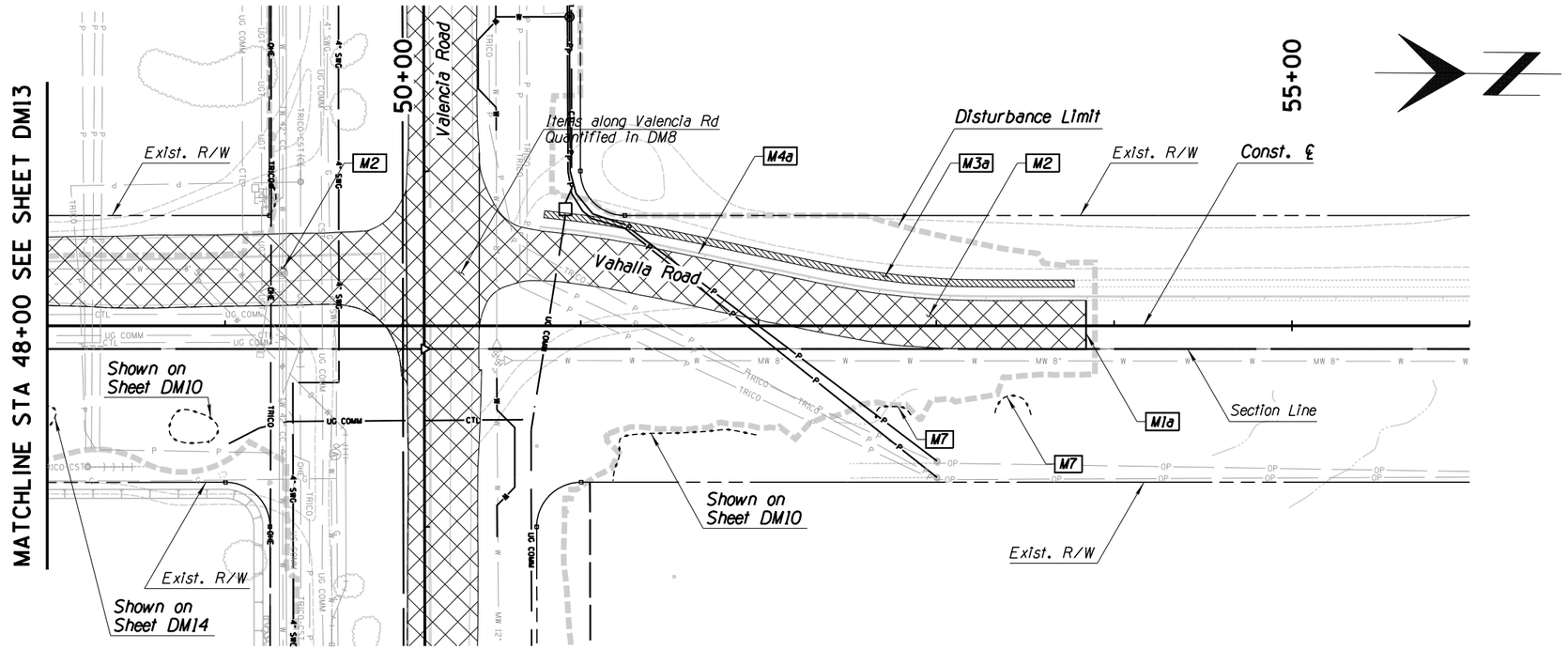
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=40' Vert. NA | Sheet DM14 of DM15 | Page 96 of 433

3:44:47 PM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DEMO\H022048DMS14.DGN



Item No.	Qty.	Unit	Description
M1	28	L.F.	Sawcut Pavement
a	28	L.F.	Sta. 53+84.26, 14.3' Lt. to Sta. 53+84.26, 13.0' Rt.
M2	2079	S.Y.	Removal of Bituminous Pavement, Item # 2020001
M3	1202	S.F.	Removal of Misc. Concrete, Item # 2020001
a	1202	S.F.	Sidewalk - Sta. 50+79.29, 60.7' Lt. to Sta. 53+77.62, 21.8' Lt.
M4	311	L.F.	Removal of Curb, Item # 2020001
a	311	L.F.	Sta. 50+77.17, 55.4' Lt. to Sta. 53+84.25, 16.2' Lt.
M6	2	AC	Clearing and Grubbing, Item # 2010001
M7	60	L.F.	Install Preservation Fence (Type A), Item # 2010004

NOTES:

See Sheet DM1 for Notes.

Item #2020001 includes all types of curb removals; wedge, vertical, header, curb and gutter, and associated transitions.

DEMOLITION PLAN
VAHALLA ROAD
STA. 48+00 TO 56+00

40 0 40 80

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Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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333 E. Wetmore Road
Suite 280
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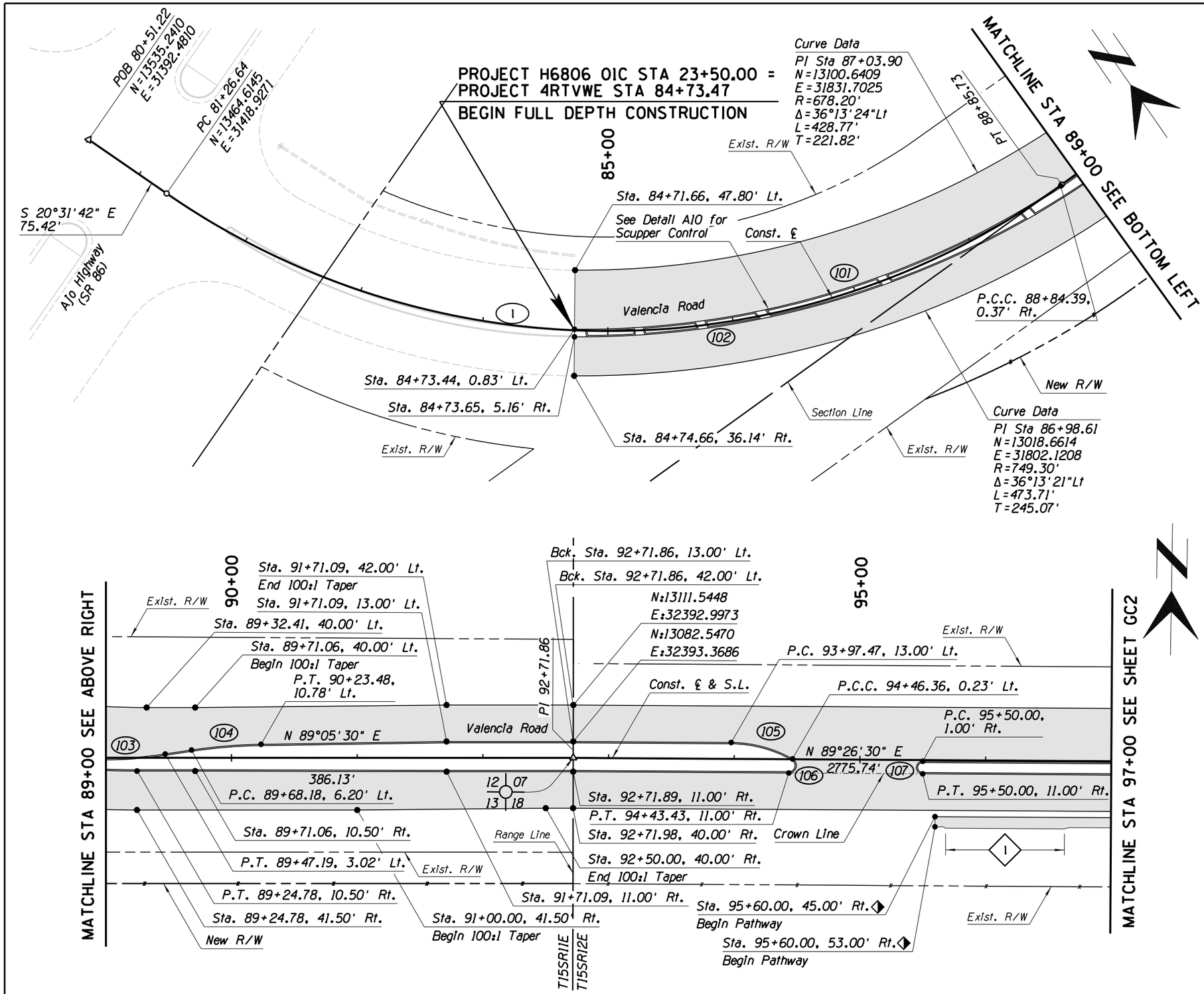
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet DM15 of DM15	Page 97 of 433



1 CURVE DATA

PI Sta 85+62.40
N: 13056.5183
E: 31571.7385
Main Curve
Δ=70°22'48"Lt
D=9°16'18"
R=617.97'
L=759.09'
T=435.77'
Ext=138.19'

CURVE DATA

NO.	R	Δ	L	T
101	694.16'	33°46'21"	409.17'	210.72'
102	718.30'	36°13'21"	454.11'	234.93'
103	326.00'	11°04'13"	62.99'	31.59'
104	410.00'	7°45'38"	55.53'	27.81'
105	100.00'	29°16'06"	51.08'	26.11'
106	6.00'	150°43'54"	15.78'	22.98'
107	5.00'	180°00'00"	15.71'	1.00'

Note: Curves 101 and 102 are not broken for scupper openings which are shown on Detail A10

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
1	95+68.51	96+63.01

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◆ Pathway Control

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 84+73.47 TO 97+00

40 0 40 80

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ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

State of Arizona Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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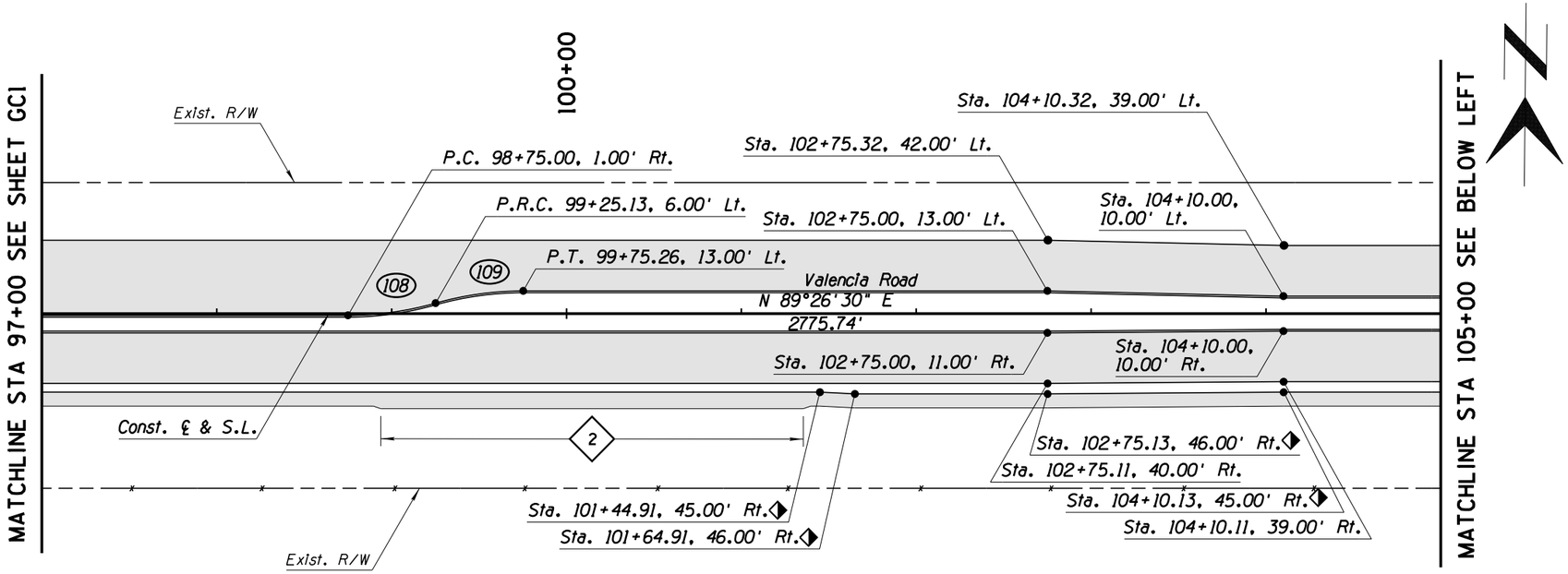
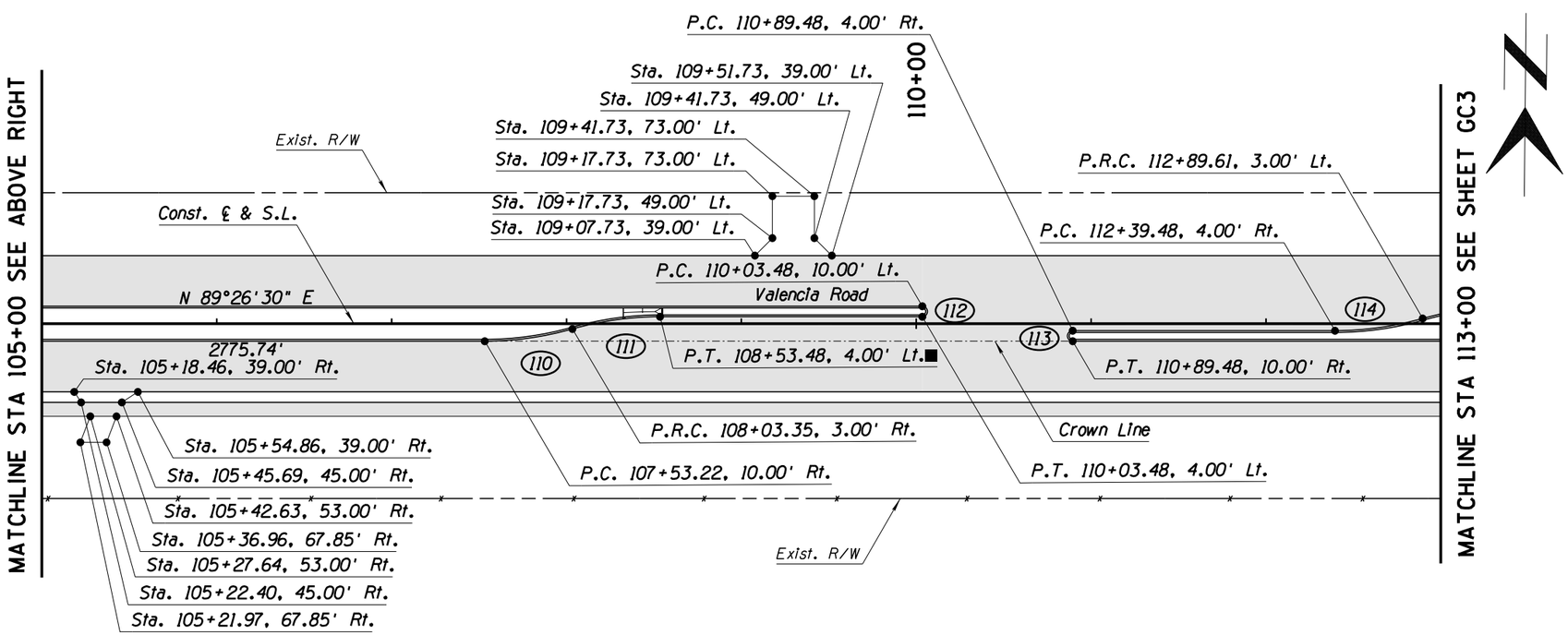
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet GC1 of GC20	Page 98 of 433





CURVE DATA

NO.	R	Δ	L	T
108	183.00'	15°53'54"	50.78'	25.55'
109	183.00'	15°53'54"	50.78'	25.55'
110	183.00'	15°53'54"	50.78'	25.55'
111	183.00'	15°53'54"	50.78'	25.55'
112	3.00'	180°00'00"	9.42'	1.00'
113	3.00'	180°00'00"	9.42'	1.00'
114	183.00'	15°53'54"	50.78'	25.55'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
2	98+93.75	101+35.43

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◆ Pathway Control

■ Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 97+00 TO 113+00

40 0 40 80

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Scales	Horiz. 1" = 40'	Sheet GC2 of GC20	Page 99 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Dehaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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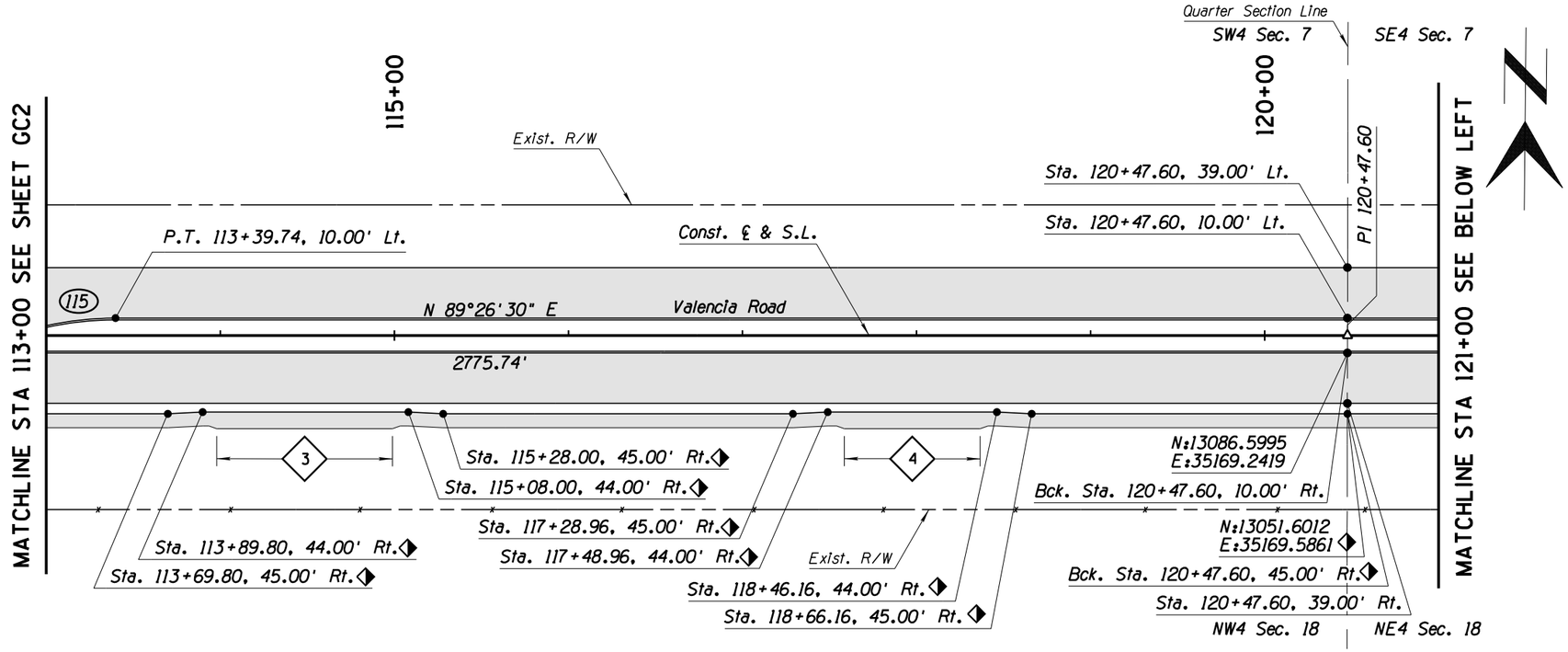
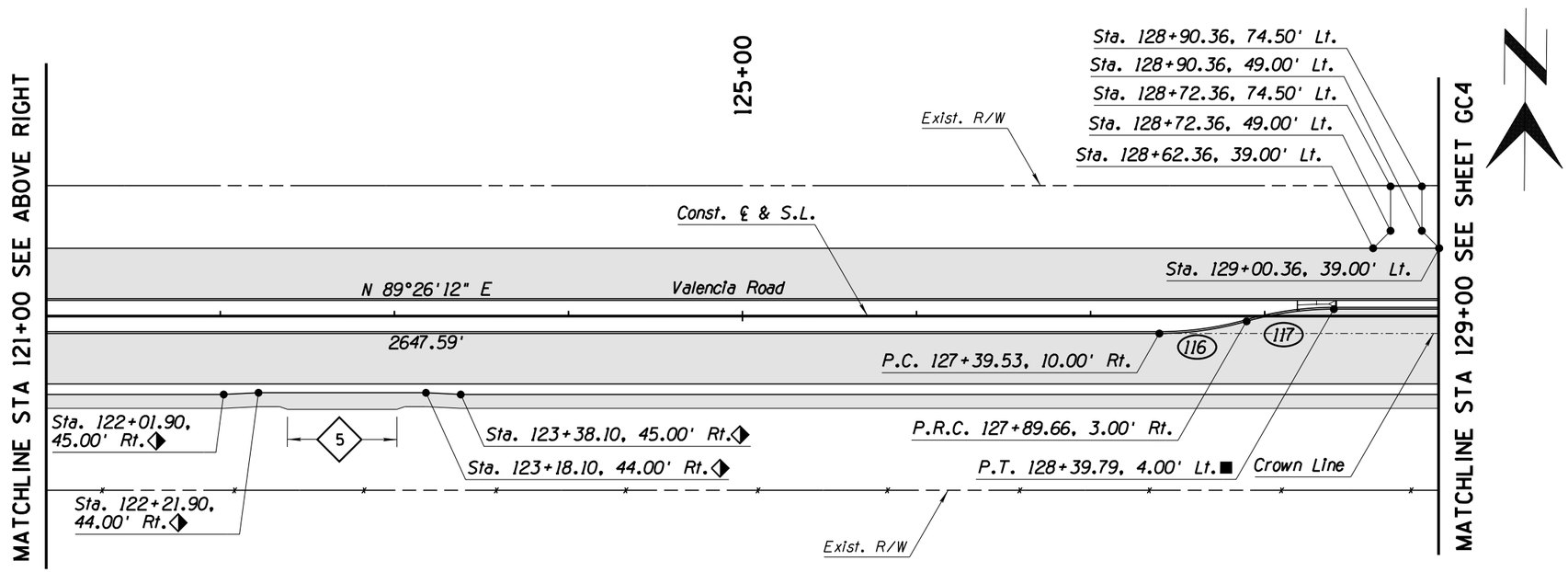
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





CURVE DATA

NO.	R	Δ	L	T
115	183.00'	15°53'54"	50.78'	25.55'
116	183.00'	15°53'54"	50.78'	25.55'
117	183.00'	15°53'54"	50.78'	25.55'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
3	113+97.90	114+98.90
4	117+58.56	188+36.56
5	122+38.50	123+01.50

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◆ Pathway Control

■ Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 113+00 TO 129+00

40 0 40 80

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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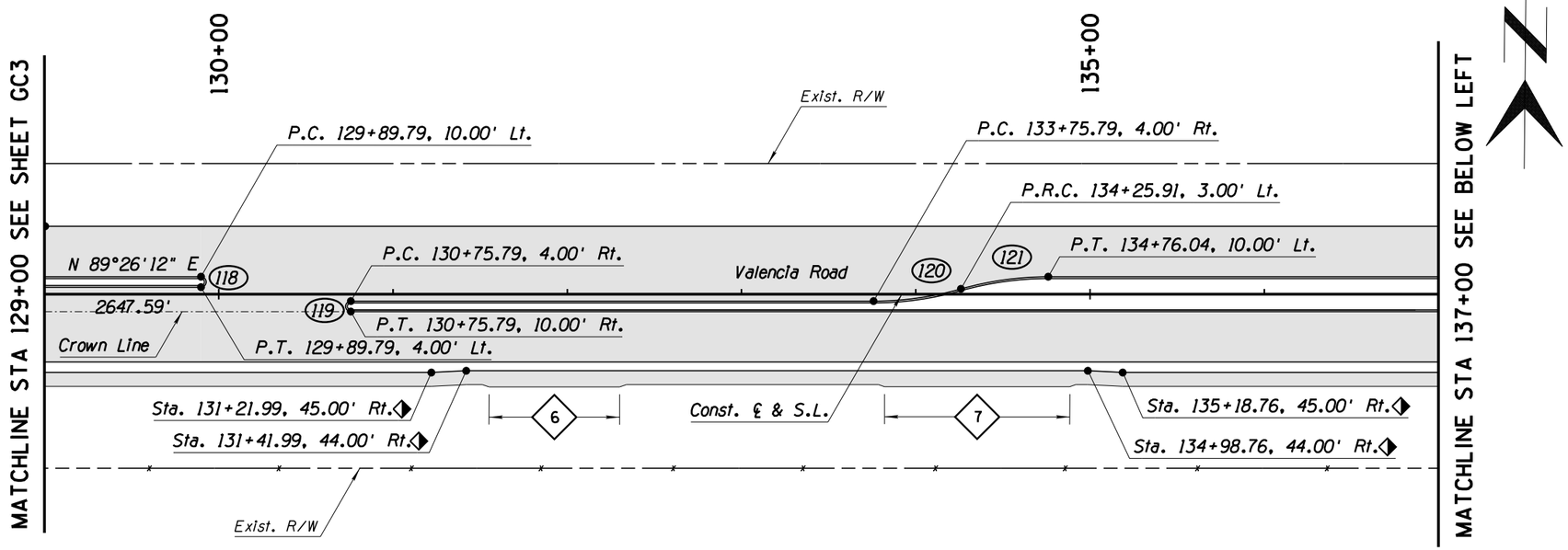
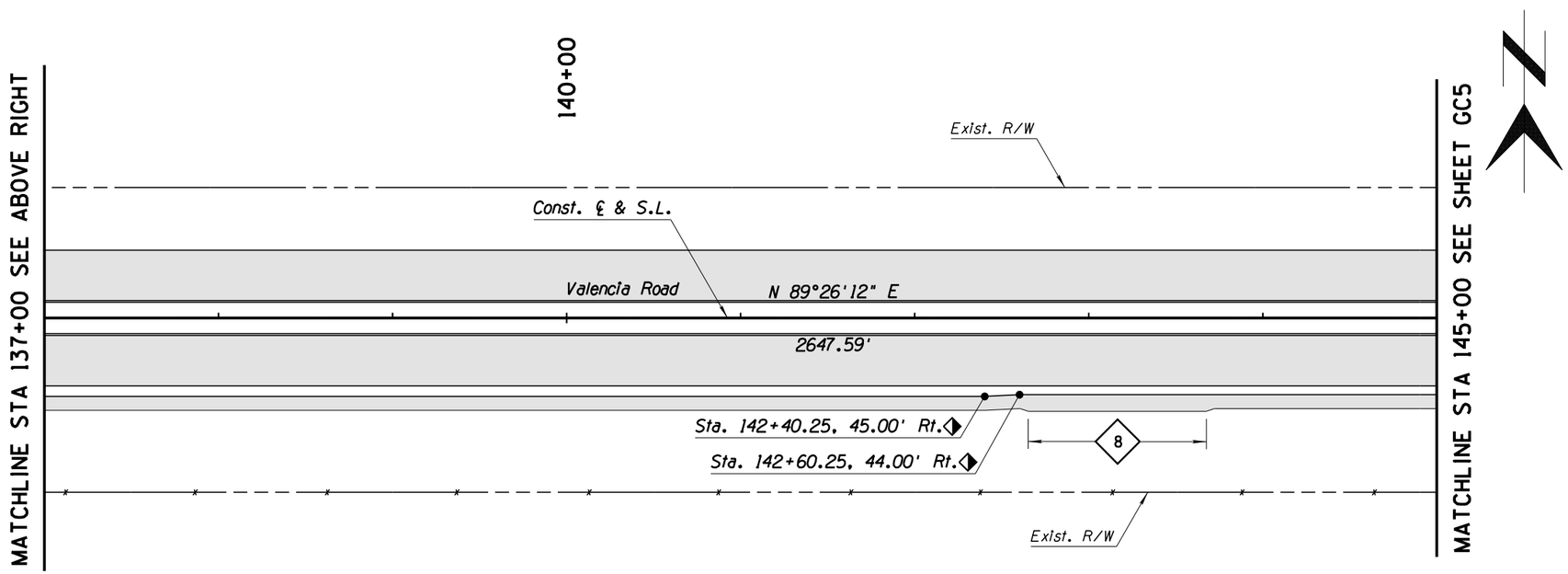
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

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





CURVE DATA

NO.	R	Δ	L	T
118	3.00'	180°00'00"	9.42'	1.00'
119	3.00'	180°00'00"	9.42'	1.00'
120	183.00'	15°53'54"	50.78'	25.55'
121	183.00'	15°53'54"	50.78'	25.55'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
6	131+55.09	132+30.09
7	133+82.07	134+88.40
8	142+65.27	143+67.57

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◆ Pathway Control

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 129+00 TO 145+00

40 0 40 80

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ARIZONA811
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Scales	Horiz. 1" = 40'	Sheet GC4 of GC20	Page 101 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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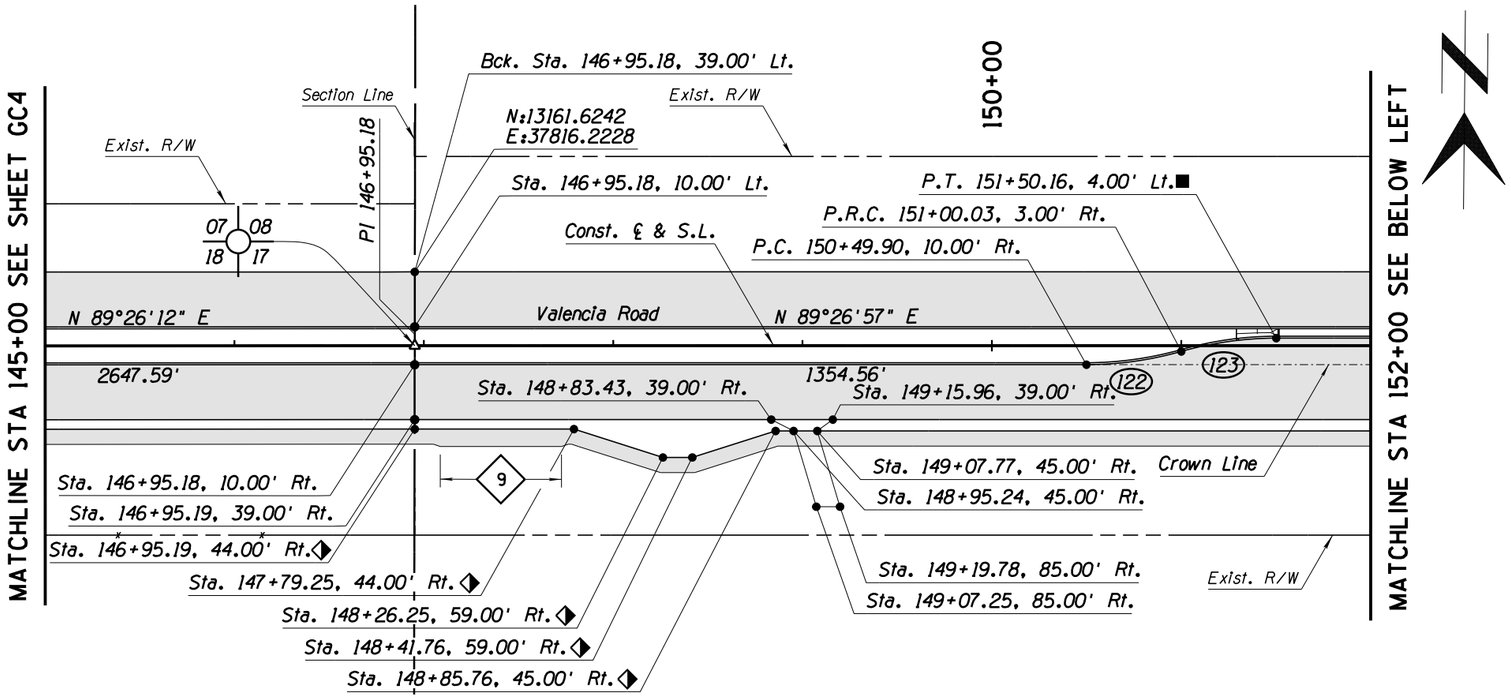
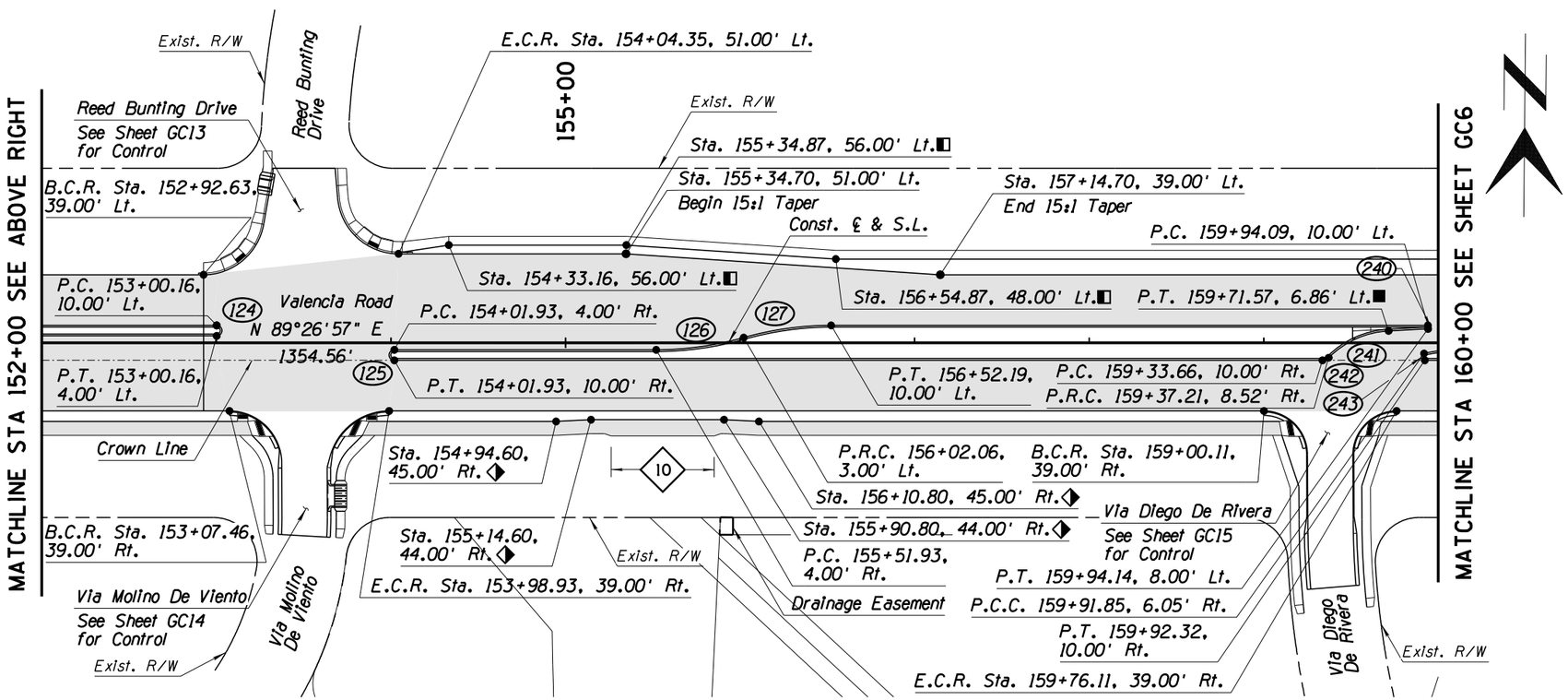
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





CURVE DATA

NO.	R	Δ	L	T
122	183.00'	15°53'54"	50.78'	25.55'
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124	3.00'	180°00'00"	9.42'	1.00'
125	3.00'	180°00'00"	9.42'	1.00'
126	183.00'	15°53'54"	50.78'	25.55'
127	183.00'	15°53'54"	50.78'	25.55'
240	1.00'	177°06'25"	3.09'	39.60'
241	52.00'	42°26'09"	38.51'	20.19'
242	5.00'	45°19'44"	3.96'	2.09'
243	2.00'	166°33'26"	5.81'	16.97'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
9	147+08.67	147+72.67
10	155+26.20	155+85.20

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◧ Sidewalk Control

◆ Pathway Control

■ Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 145+00 TO 160+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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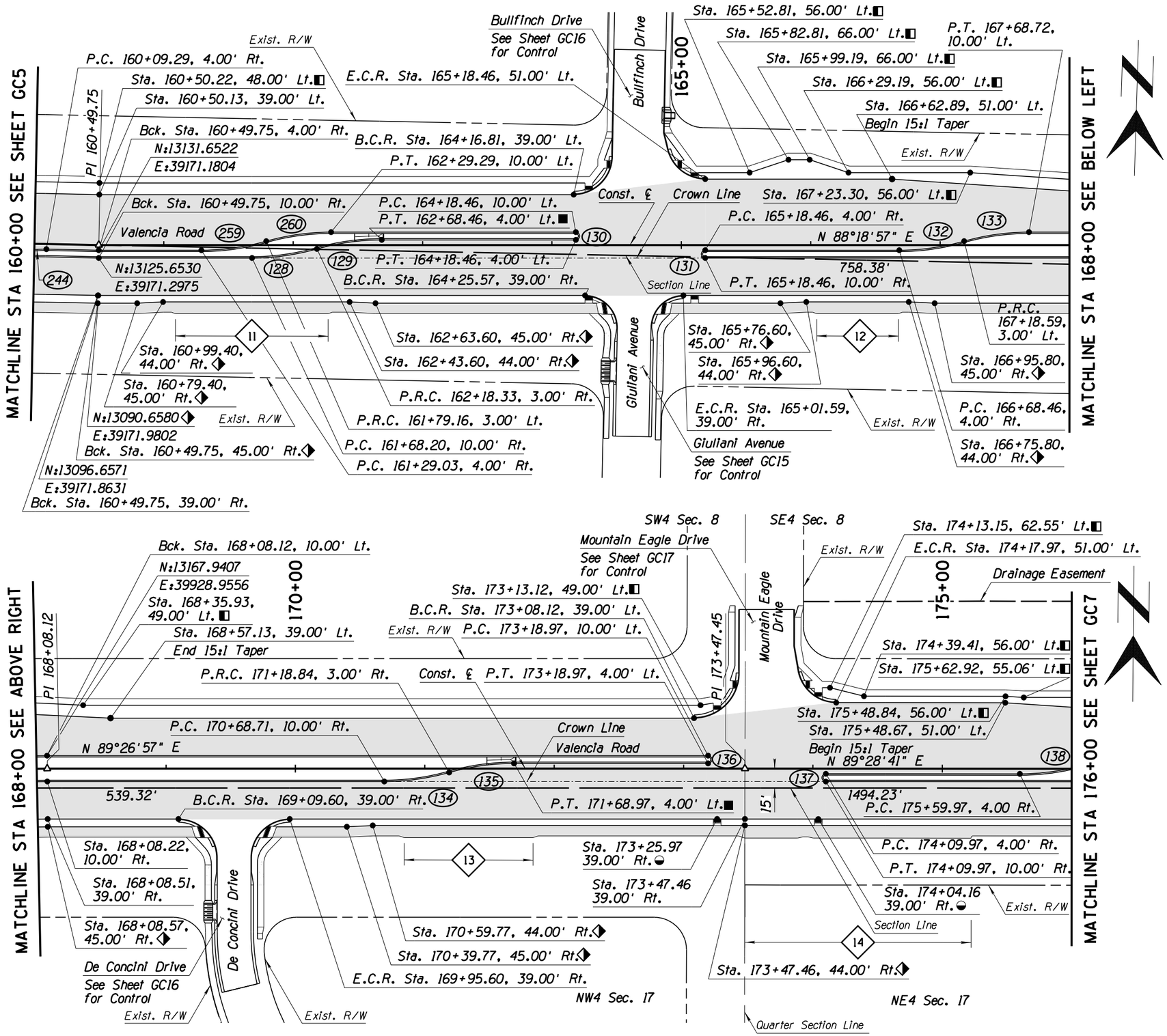
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet GC5 of GC20	Page 102 of 433



CURVE DATA

NO.	R	Δ	L	T
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130	3.00'	180°00'00"	9.42'	1.00'
131	3.00'	180°00'00"	9.42'	1.00'
132	183.00'	15°53'54"	50.78'	25.55'
133	183.00'	15°53'54"	50.78'	25.55'
134	183.00'	15°53'54"	50.78'	25.55'
135	183.00'	15°53'54"	50.78'	25.55'
136	3.00'	180°00'00"	9.42'	1.00'
137	3.00'	180°00'00"	9.42'	1.00'
138	183.00'	15°53'54"	50.78'	25.55'
244	75.00'	13°26'34"	17.60'	8.84'
259	183.00'	15°53'54"	50.78'	25.55'
260	183.00'	15°53'54"	50.78'	25.55'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
11	161+09.03	162+27.03
12	166+04.70	166+67.70
13	170+84.09	171+83.69
14	173+47.30	175+22.27 *

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

- Sidewalk Control
- Pathway Control
- Ramp Control
- Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 160+00 TO 176+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Date	
Designed	T. Rhine 01/2018
Drawn	S. Denaybi 01/2018
Checked	R. Solis 01/2018
Proj. Engr.	R. Solis 01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

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

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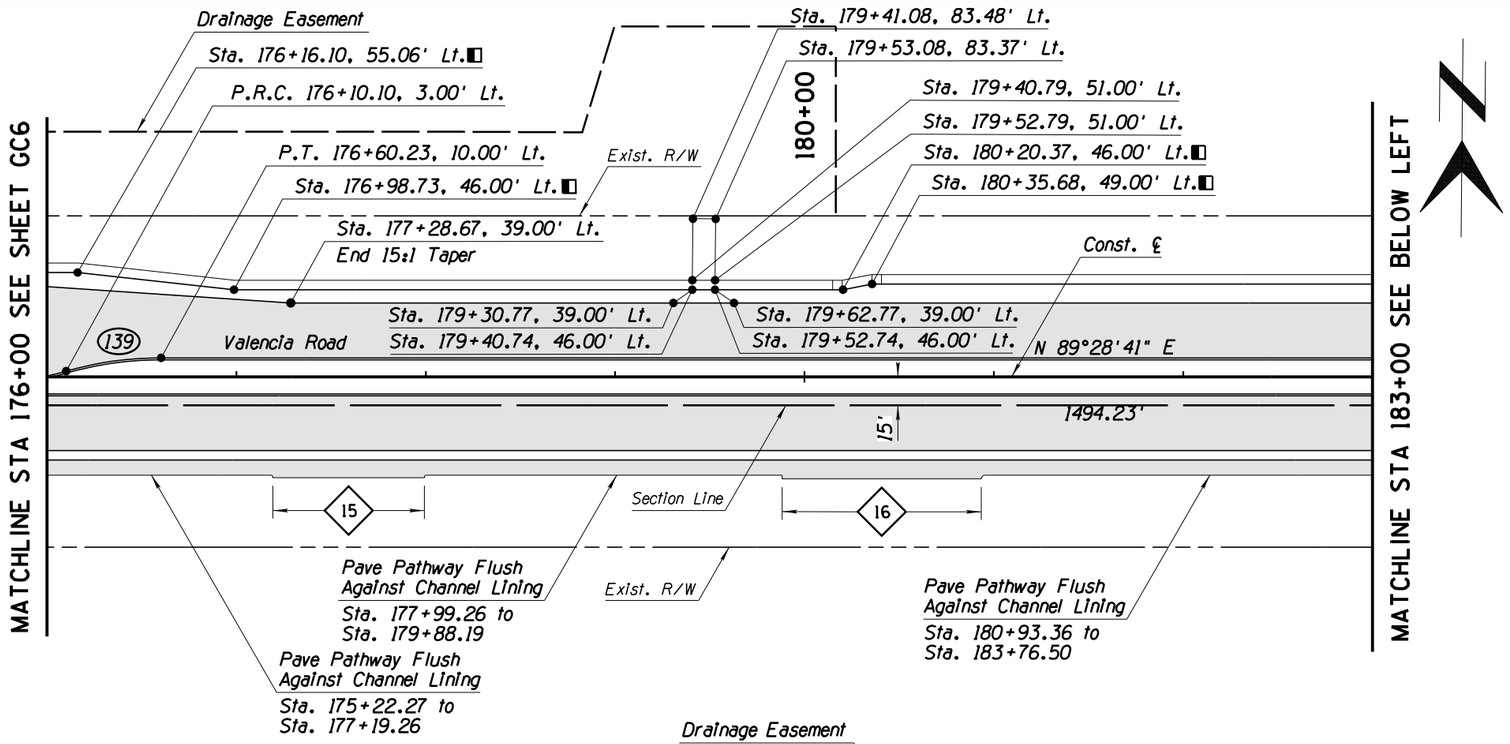

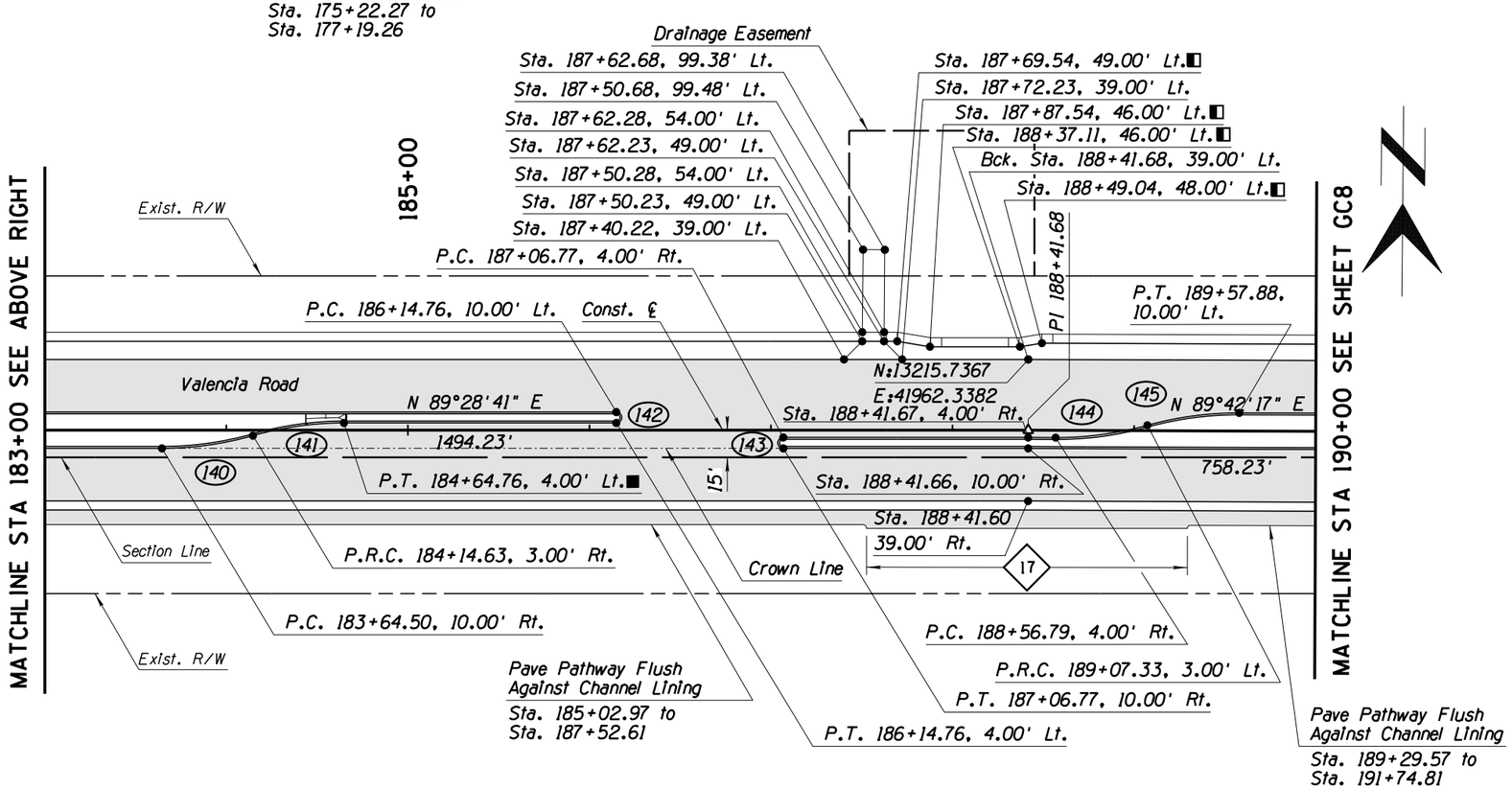

CURVE DATA

NO.	R	Δ	L	T
139	183.00'	15°53'54"	50.78'	25.55'
140	183.00'	15°53'54"	50.78'	25.55'
141	183.00'	15°53'54"	50.78'	25.55'
142	3.00'	180°00'00"	9.42'	1.00'
143	3.00'	180°00'00"	9.42'	1.00'
144	186.00'	15°46'08"	51.19'	25.76'
145	186.00'	15°46'08"	51.19'	25.76'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
15	177+19.26 *	177+99.26 *
16	179+88.19 *	180+93.36 *
17	187+52.61 *	189+29.57 *

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◧ Sidewalk Control

◆ Pathway Control

■ Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 176+00 TO 190+00

40 0 40 80

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Scales	Horiz. 1" = 40'	Sheet GC7 of GC20	Page 104 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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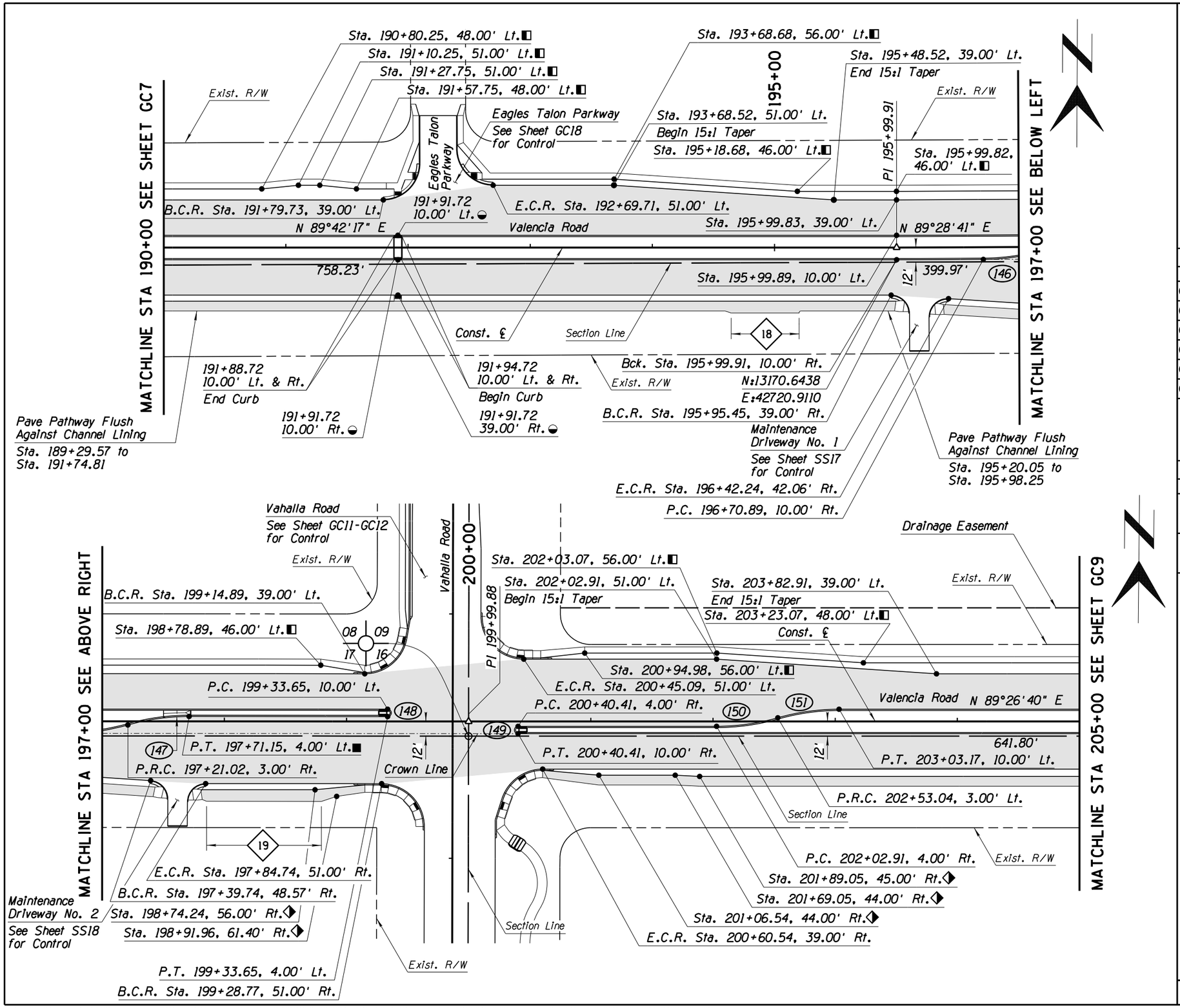
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



CURVE DATA

NO.	R	Δ	L	T
146	183.00'	15°53'54"	50.78'	25.55'
147	183.00'	15°53'54"	50.78'	25.55'
148	3.00'	180°00'00"	9.42'	1.00'
149	3.00'	180°00'00"	9.42'	1.00'
150	183.00'	15°53'54"	50.78'	25.55'
151	183.00'	15°53'54"	50.78'	25.55'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
18	194+64.55	195+20.05*
19	197+85.50	198+79.50

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

- Sidewalk Control
- Pathway Control
- Ramp Control
- Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 190+00 TO 205+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Date	Designed	T. Rhine	01/2018
	Drawn	S. Denaybi	01/2018
	Checked	R. Solis	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

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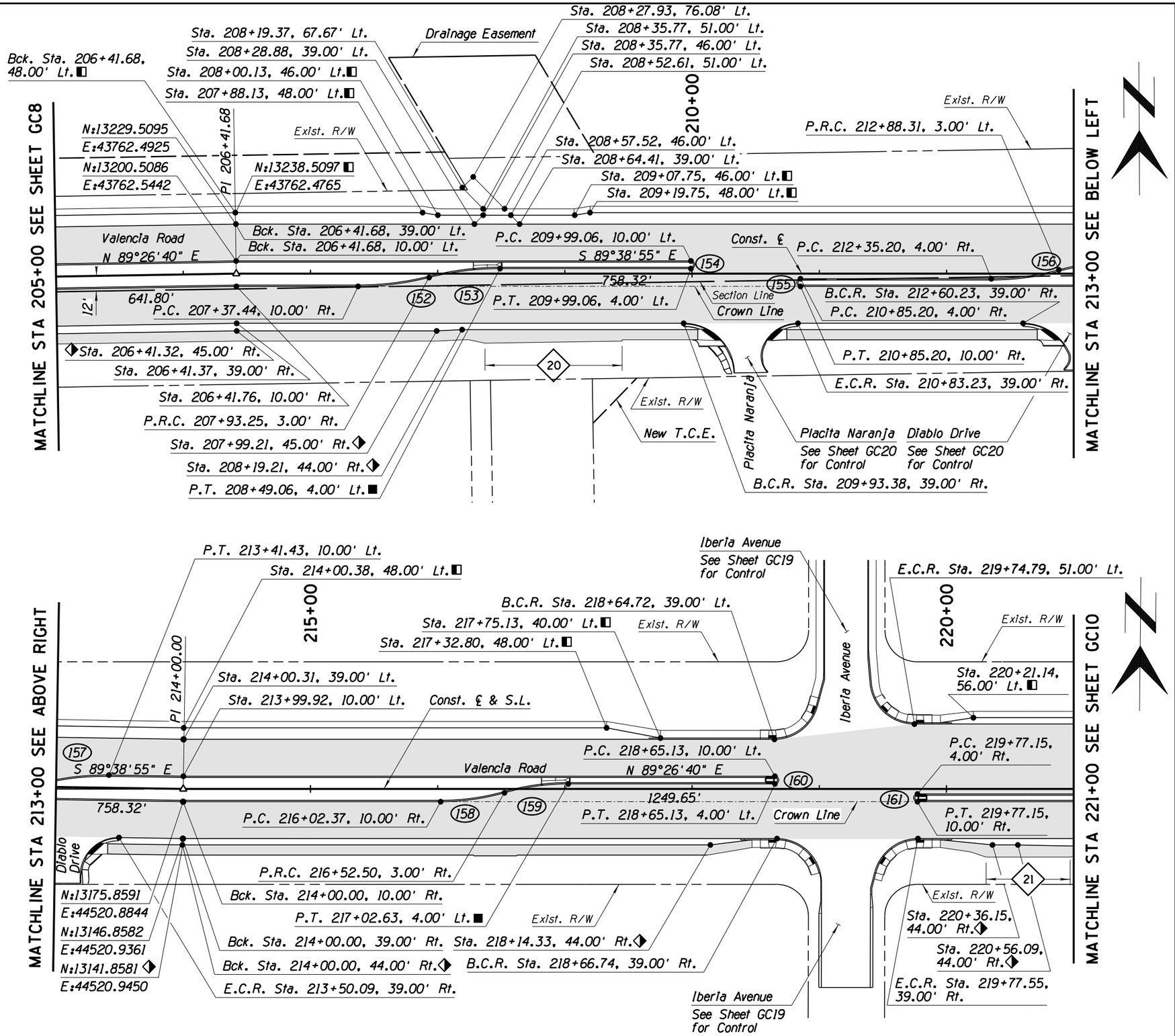
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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



CURVE DATA

NO.	R	Δ	L	T
152	226.00'	14°17'51"	56.40'	28.35'
153	226.00'	14°17'51"	56.40'	28.35'
154	3.00'	180°00'00"	9.42'	1.00'
155	3.00'	180°00'00"	9.42'	1.00'
156	205.00'	15°00'57"	53.73'	27.02'
157	205.00'	15°00'57"	53.73'	27.02'
158	183.00'	15°53'54"	50.78'	25.55'
159	183.00'	15°53'54"	50.78'	25.55'
160	3.00'	180°00'00"	9.42'	1.00'
161	3.00'	180°00'00"	9.42'	1.00'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
20	208+37.16	209+43.98 *
21	220+31.20	220+97.20

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◧ Sidewalk Control

◆ Pathway Control

■ Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 205+00 TO 221+00

40 0 40 80

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Scales	Horiz. 1" = 40'	Sheet GC9 of GC20	Page 106 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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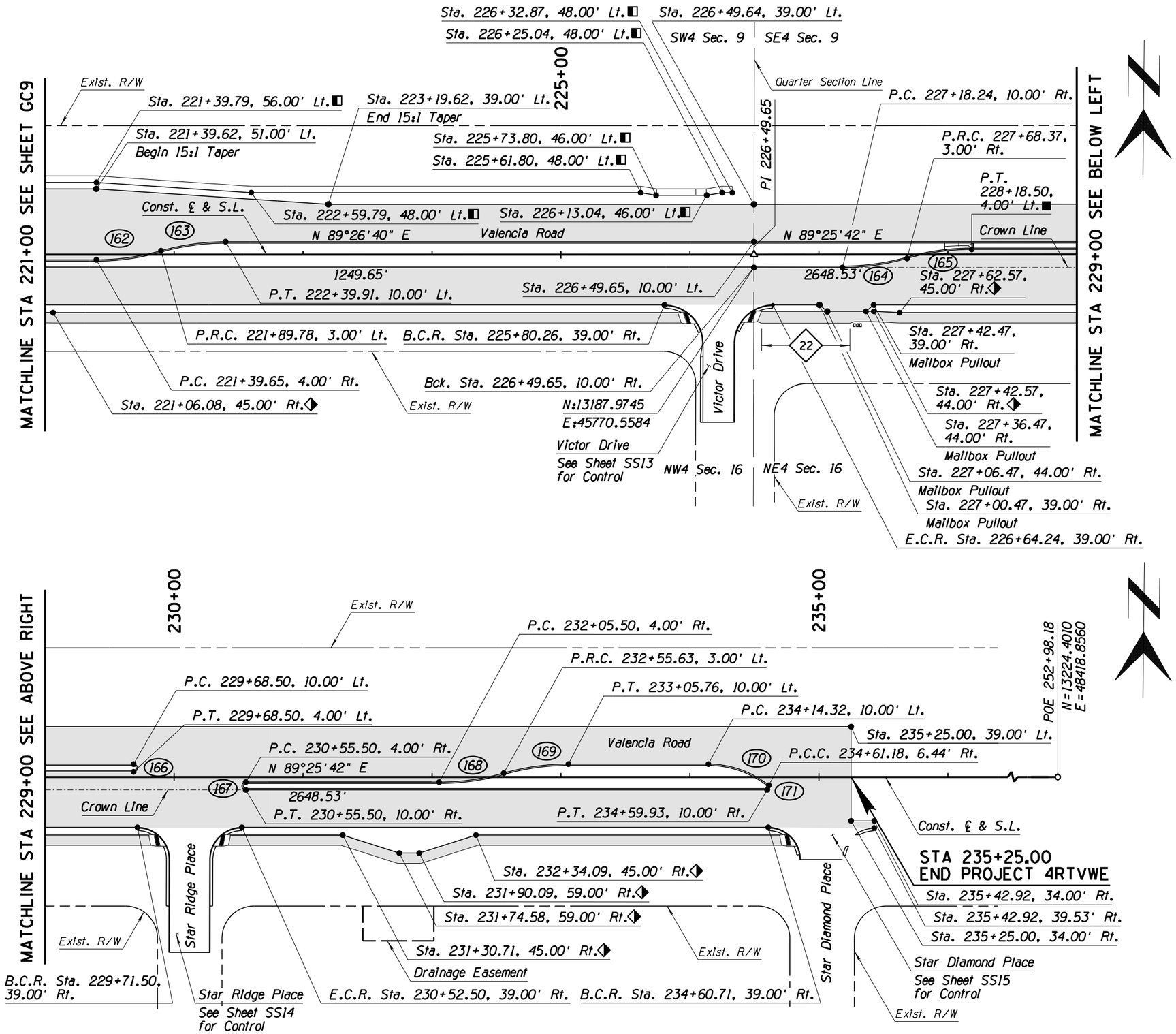
		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

Ana M. Olivares, P.E., Director



CURVE DATA

NO.	R	Δ	L	T
162	183.00'	15°53'54"	50.78'	25.55'
163	183.00'	15°53'54"	50.78'	25.55'
164	183.00'	15°53'54"	50.78'	25.55'
165	183.00'	15°53'54"	50.78'	25.55'
166	3.00'	180°00'00"	9.42'	1.00'
167	3.00'	180°00'00"	9.42'	1.00'
168	183.00'	15°53'54"	50.78'	25.55'
169	183.00'	15°53'54"	50.78'	25.55'
170	75.00'	38°39'51"	50.61'	26.31'
171	2.00'	141°20'09"	4.93'	5.70'

PATHWAY AT HEADWALLS

NO.	Start Station	End Station
22	226+55.70	227+24.07

Note: The pathway width shall be widened and paved to the back of headwall through the extents shown. Unless noted otherwise, entering and exiting pavement tapers shall be 3:1 (Length: Width).

* The pathway shall be paved flush with the channel lining, including square and radial ends, leaving no vertical differential lip.

◧ Sidewalk Control

◆ Pathway Control

■ Median Spillway Control Point, See Detail A4

GEOMETRIC CONTROL
VALENCIA ROAD
STA. 221+00 TO 235+25.00

40 0 40 80

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ARIZONA811
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Scales	Horiz. 1"=40'	Sheet GC10 of GC20	Page 107 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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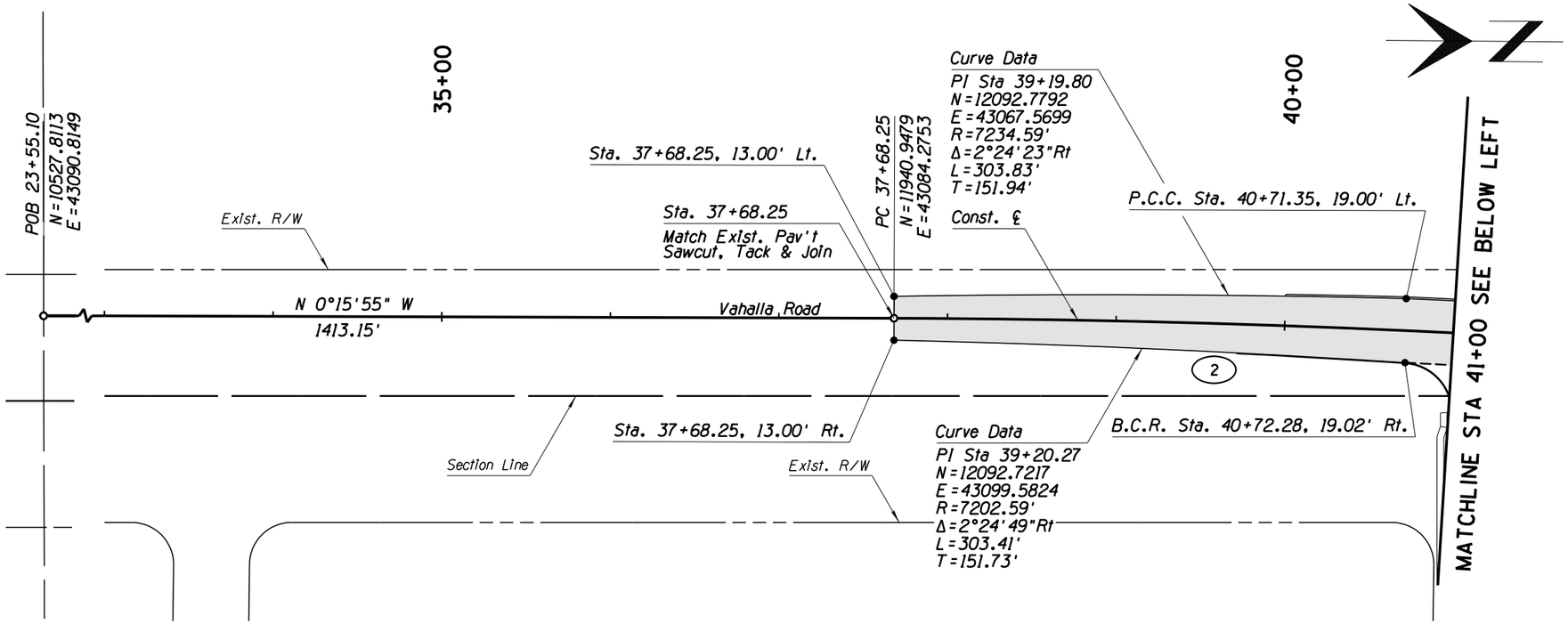
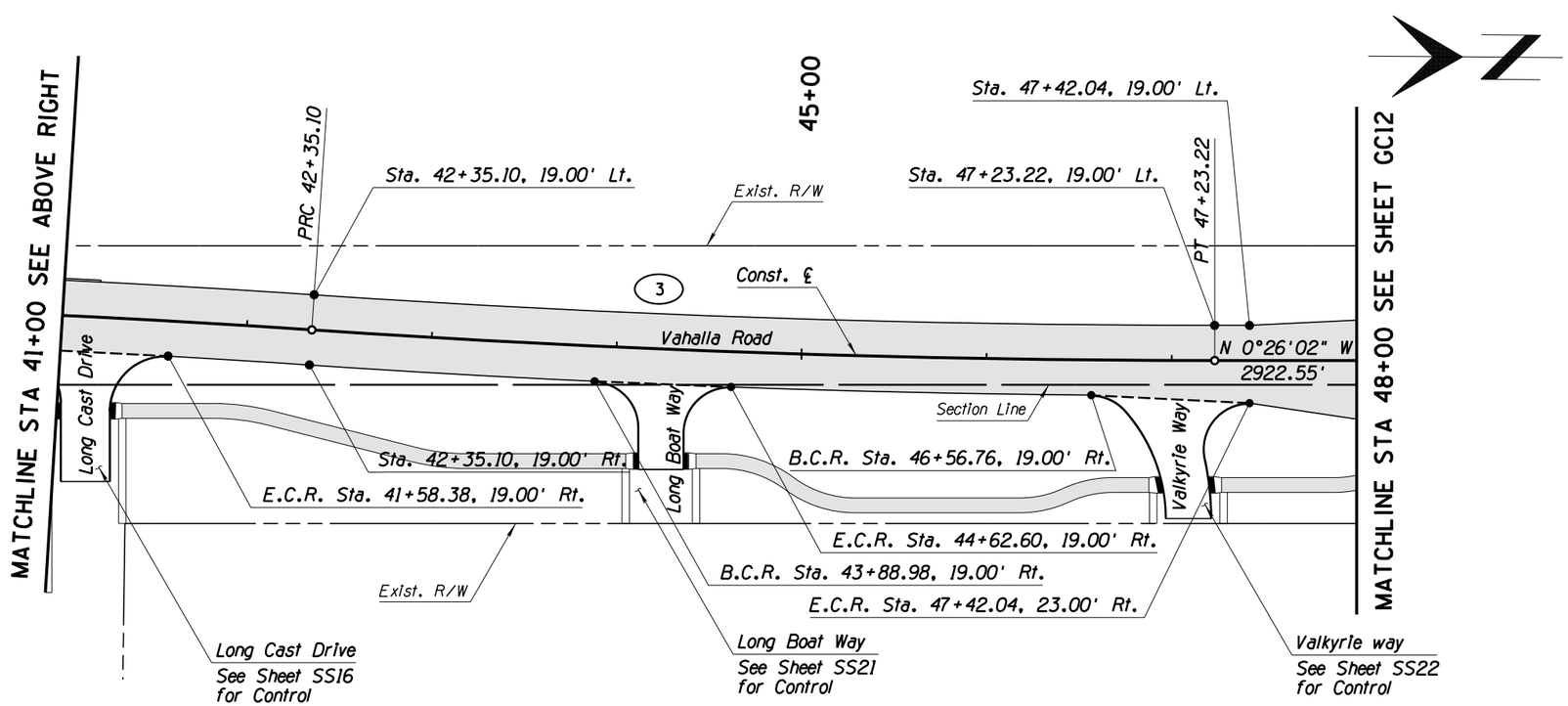
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





2 CURVE DATA

PI Sta 40+01.76
N: 12174.4522
E: 43083.1947
Main Curve
Δ=3°42'17"Rt
D=0°47'37"
R=7220.00'
L=466.85'
T=233.51'
Ext=3.78'

3 CURVE DATA

PI Sta 44+79.26
N: 12651.2518
E: 43111.8529
Main Curve
Δ=3°52'25"Lt
D=0°47'37"
R=7220.00'
L=488.12'
T=244.15'
Ext=4.13'

GEOMETRIC CONTROL
VAHALLA ROAD
STA. 37+68.25 TO 48+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'
	Vert. NA

Sheet GC11 of GC20

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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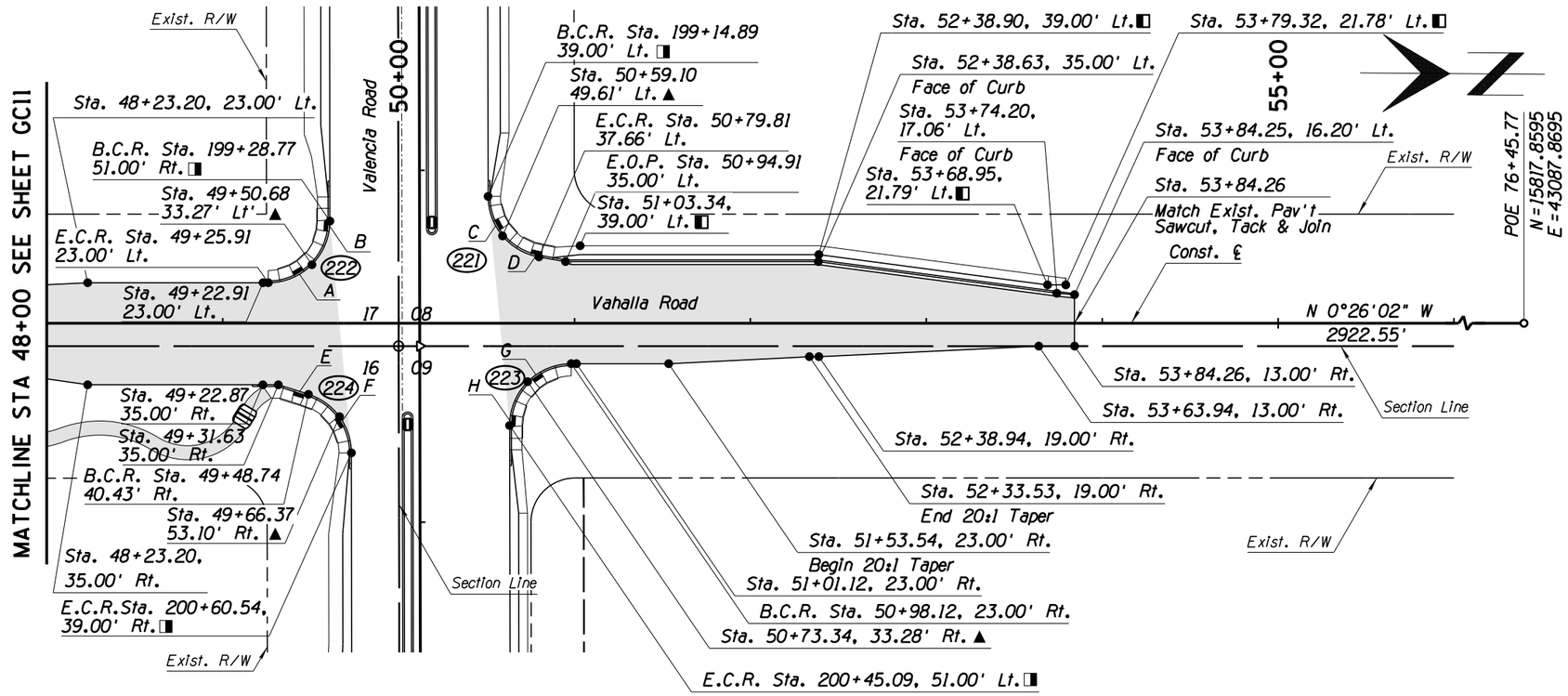
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



CURVE DATA

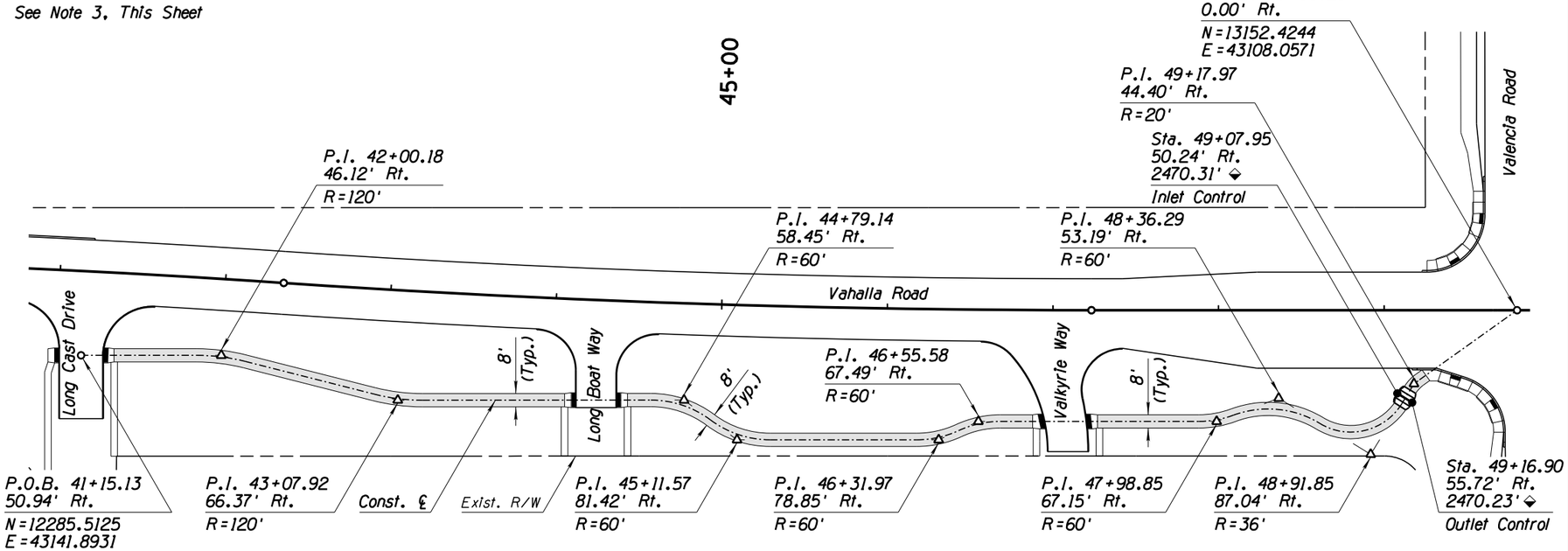
NO.	R	Δ	L	T
221	35.00'	79°54'44"	48.82'	29.32'
222	35.00'	90°05'16"	55.03'	35.05'
223	35.00'	90°07'17"	55.05'	35.07'
224	35.00'	72°15'46"	44.14'	25.55'

Ramp Control

A Sta. 49+43.68, 27.85' Lt.
B Sta. 49+60.80, 55.18' Lt.
C Sta. 50+55.19, 55.32' Lt.
D Sta. 50+77.91, 38.05' Lt.
E Sta. 49+43.78, 38.86' Rt.
F Sta. 49+68.05, 55.60' Rt.
G Sta. 50+78.06, 29.32' Rt.
H Sta. 50+63.21, 55.40' Rt.

VAHALLA ROAD PATHWAY CENTERLINE

See Note 3, This Sheet



NOTES:

1. Contractor shall field adjust the pathway as needed based on existing site conditions.
2. The pathway shall have a 2% max cross slope.
3. The PI callouts at the Pathway ℄ reference the Vahalla Road Const. ℄. Radii are measured at the Pathway ℄.

▲ Midpoint
◒ Ramp Control
◆ Scupper Control
◨ Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
VAHALLA ROAD
STA. 48+00 TO 53+84.26
&
VAHALLA ROAD PATHWAY

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet GC12 of GC20	Page 109 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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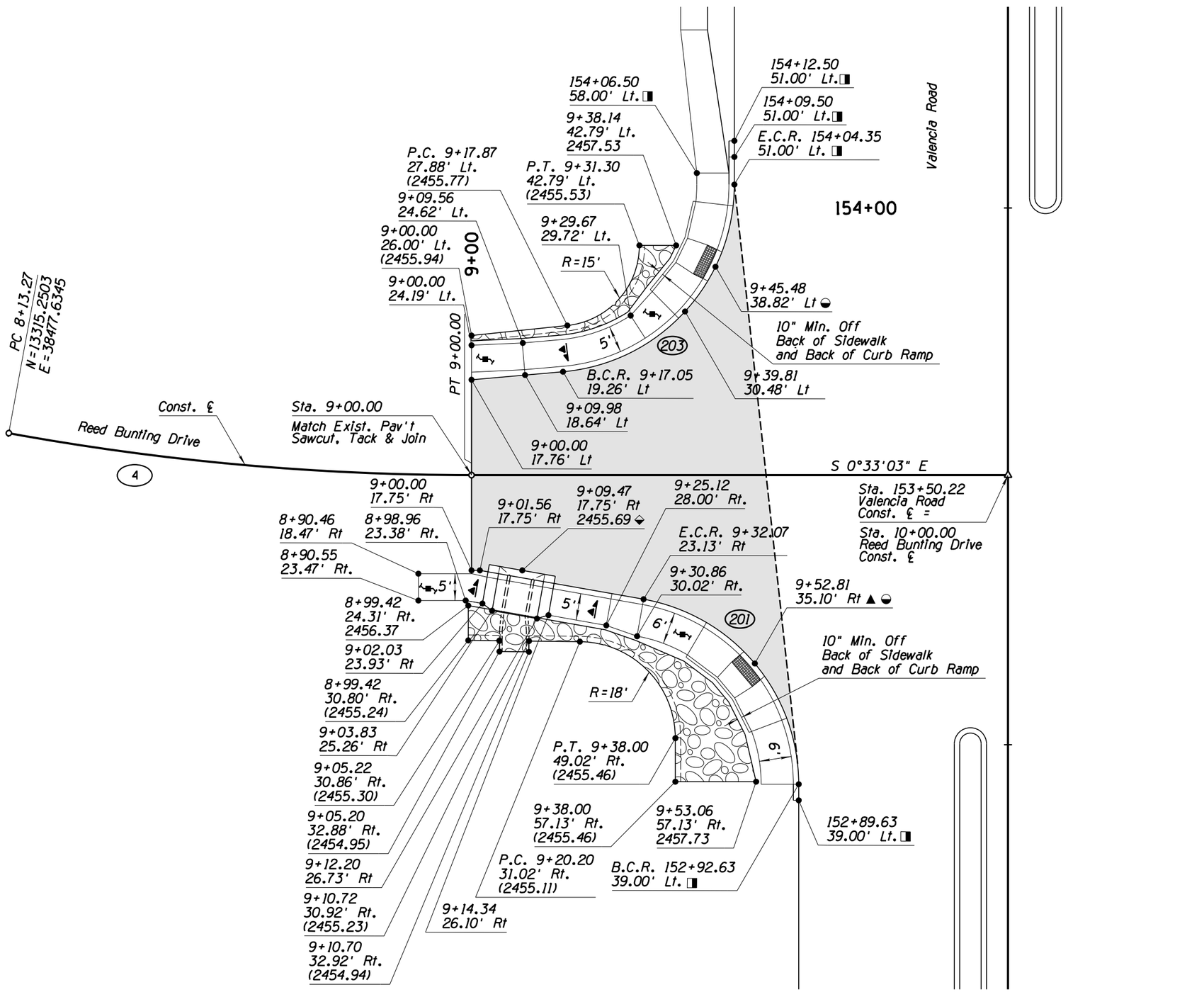
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



4 CURVE DATA

PI Sta 8+56.75
N=13272.4017
E=38470.2320
Main Curve
Δ= 10°21'09"Lt
D= 11°56'12"
R=480.00'
L= 86.73'
T=43.48'
Ext=1.97'

CURVE DATA

NO.	R	Δ	L	T
201	35.00'	80°00'16"	48.87'	29.37'
203	35.00'	84°59'44"	51.92'	32.07'

SLOPE DESIGN KEY

2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

◒ Ramp Control

◆ Scupper Control

◨ Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
REED BUNTING DRIVE

10 0 10 20

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10'	Sheet GC13 of GC20	Page 110 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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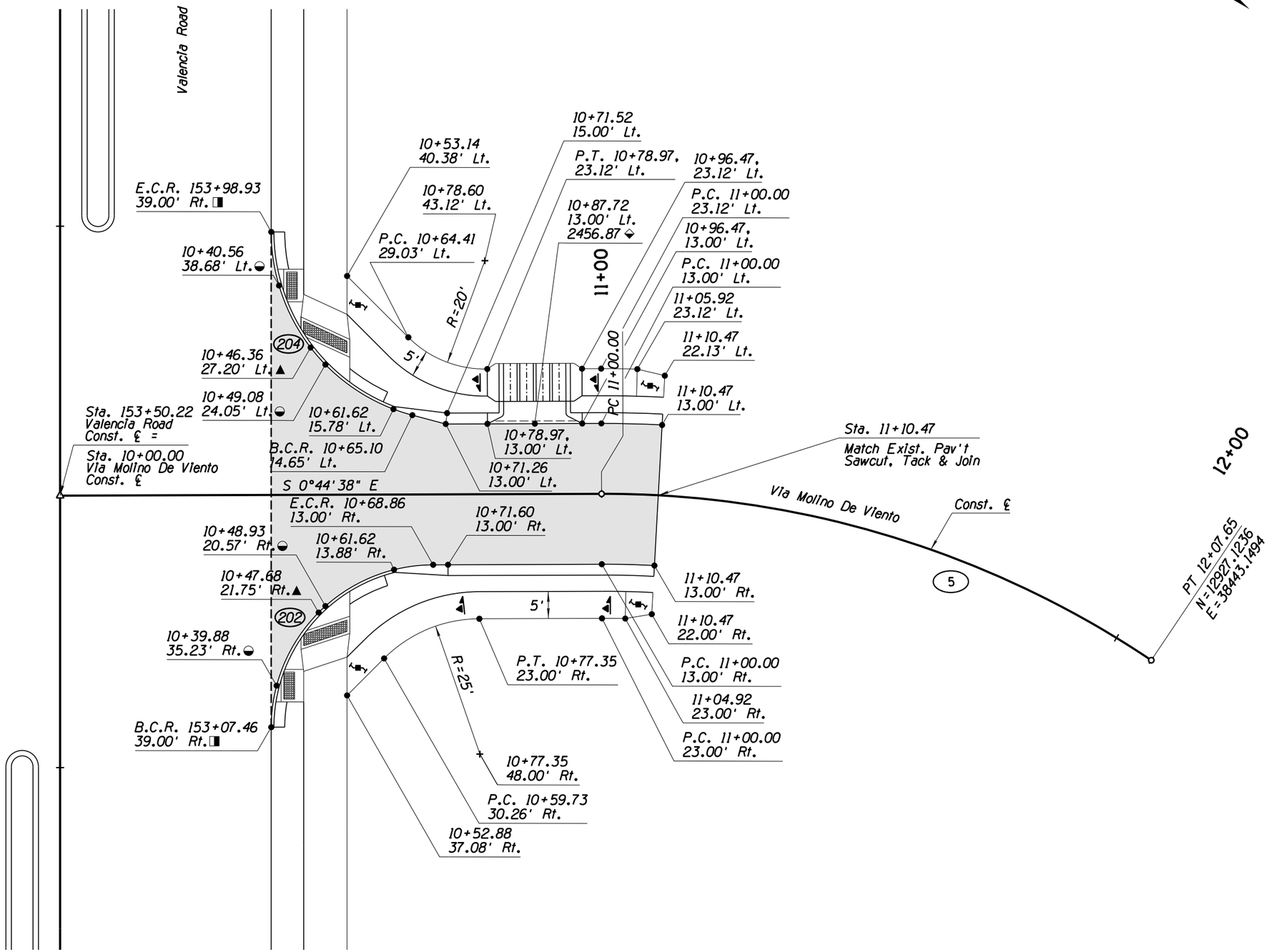
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



5 CURVE DATA

PI Sta 11+55.47
N=12973.4682
E=38473.6302
Main Curve
Δ= 34°04'36"Rt
D= 31°39'18"
R=181.00'
L= 107.65'
T=55.47'
Ext=8.31'

CURVE DATA

NO.	R	Δ	L	T
202	30.00'	89°48'25"	47.02'	29.90'
204	35.00'	75°11'35"	45.93'	26.95'

SLOPE DESIGN KEY

2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

Ramp Control

Scupper Control

Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
VIA MOLINO DE VIENTO

10 0 10 20

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ARIZONA811
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Scales	Horiz. 1"=10'	Sheet GC14 of GC20	Page 111 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS ARIZONA, U.S.A. Date Signed 01/04/18 Expires 09/30/2020

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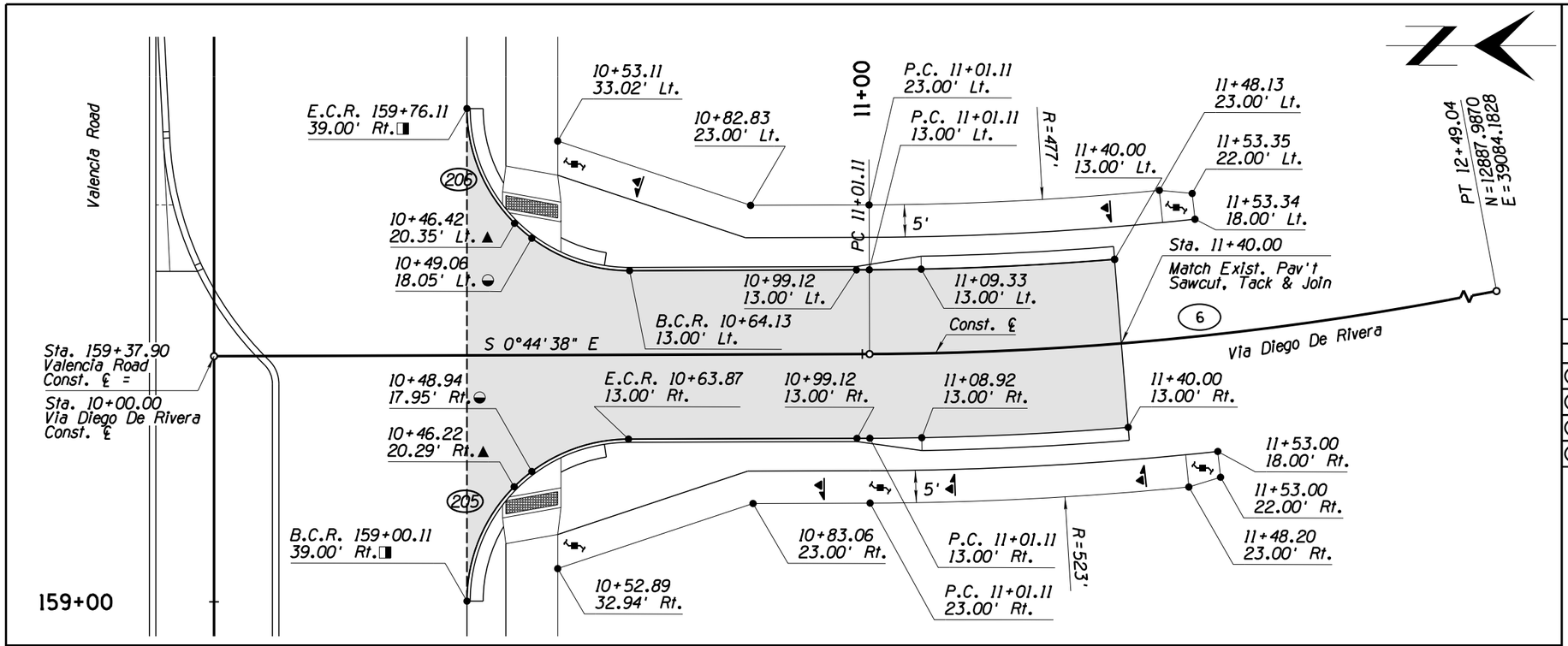
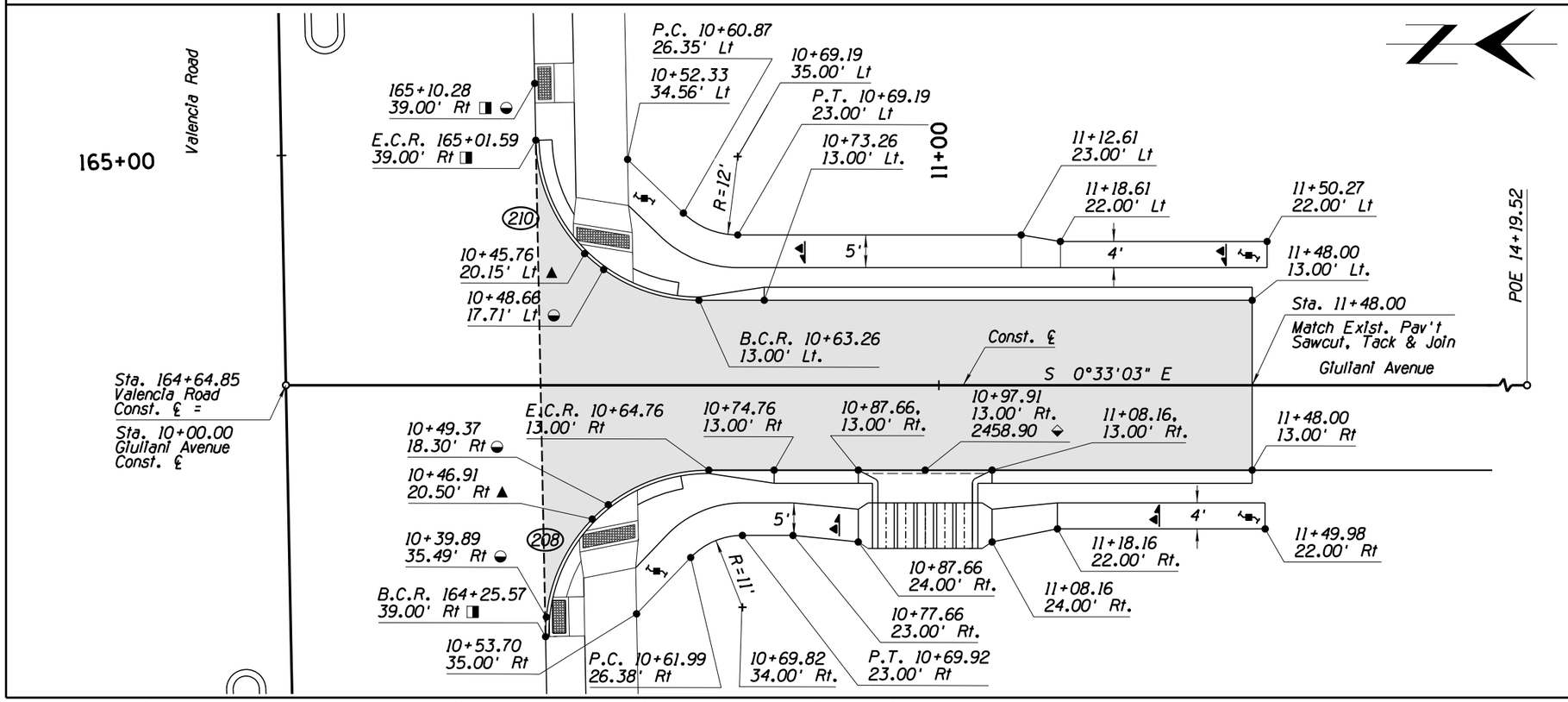
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





6 CURVE DATA

PI Sta 11+75.62
N=12958.9710
E=39061.5352
Main Curve
Δ= 16°57'06"Lt
D= 11°27'33"
R=500.00'
L= 147.93'
T=74.51'
Ext=5.52'

CURVE DATA

NO.	R	Δ	L	T
205	25.00'	89°48'25"	39.19'	24.92'
206	25.00'	90°11'35"	39.35'	25.08'
208	25.00'	91°08'00"	39.76'	25.50'
210	25.00'	88°52'00"	38.78'	24.51'

SLOPE DESIGN KEY

2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

Ramp Control

Scupper Control

Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
VIA DIEGO DE RIVERA
& GIULIANI AVENUE

10 0 10 20

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Scales	Horiz. 1"=10'	Sheet GC15 of GC20	Page 112 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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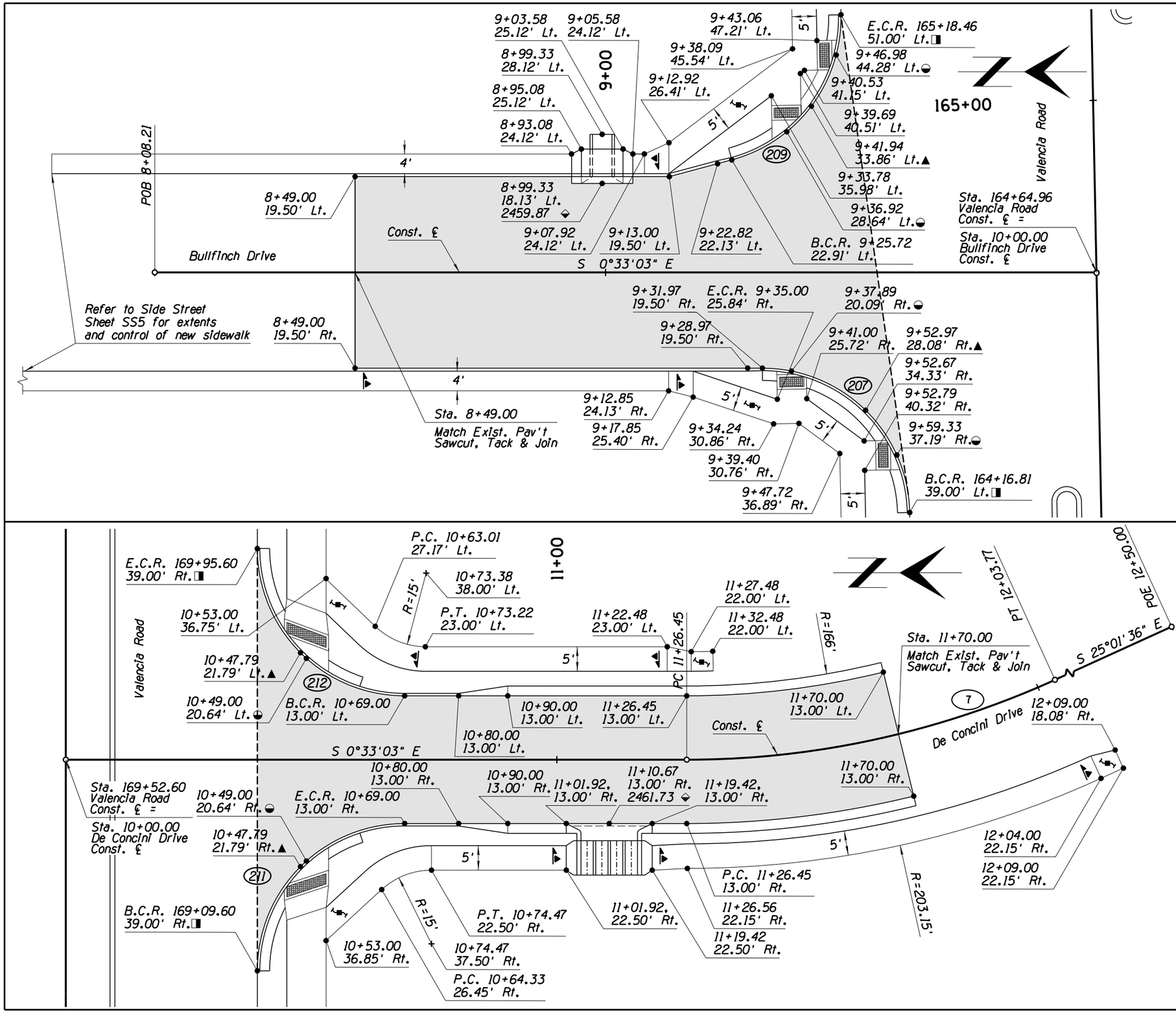
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



7 CURVE DATA

PI Sta 11+65.71
N=12993.6303
E=40075.2175
Main Curve
Δ= 24°28'33"Lt
D= 31°39'18"
R=181.00'
L= 77.32'
T=39.26'
Ext=4.21'

CURVE DATA

NO.	R	Δ	L	T
207	30.00'	88°52'00"	46.53'	29.41'
209	30.00'	76°08'00"	39.86'	23.49'
211	30.00'	90°00'00"	47.12'	30.00'
212	30.00'	90°00'00"	47.12'	30.00'

SLOPE DESIGN KEY

▲ 2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

Ramp Control

Scupper Control

Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
BULLFINCH DRIVE &
DE CONCINI DRIVE

10 0 10 20

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No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
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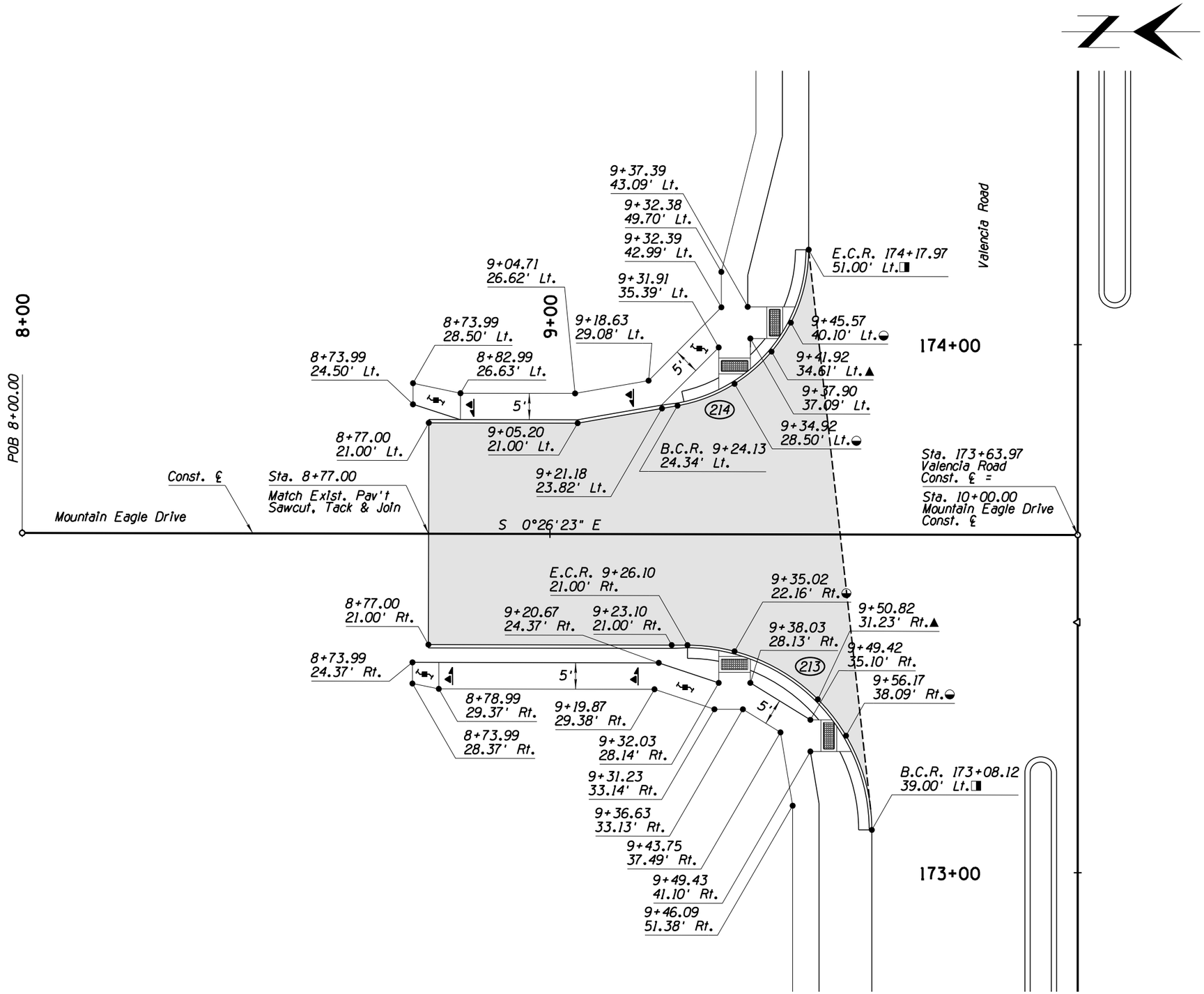
Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=10' Vert. NA | Sheet GC16 of GC20 | Page 113 of 433



CURVE DATA

NO.	R	△	L	T
213	35.00'	89°53'19"	54.91'	34.93'
214	30.00'	80°04'56"	41.93'	25.21'

SLOPE DESIGN KEY

2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
MOUNTAIN EAGLE DRIVE

10 0 10 20

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Scales	Horiz. 1" = 10'	Sheet GC17 of GC20	Page 114 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2019

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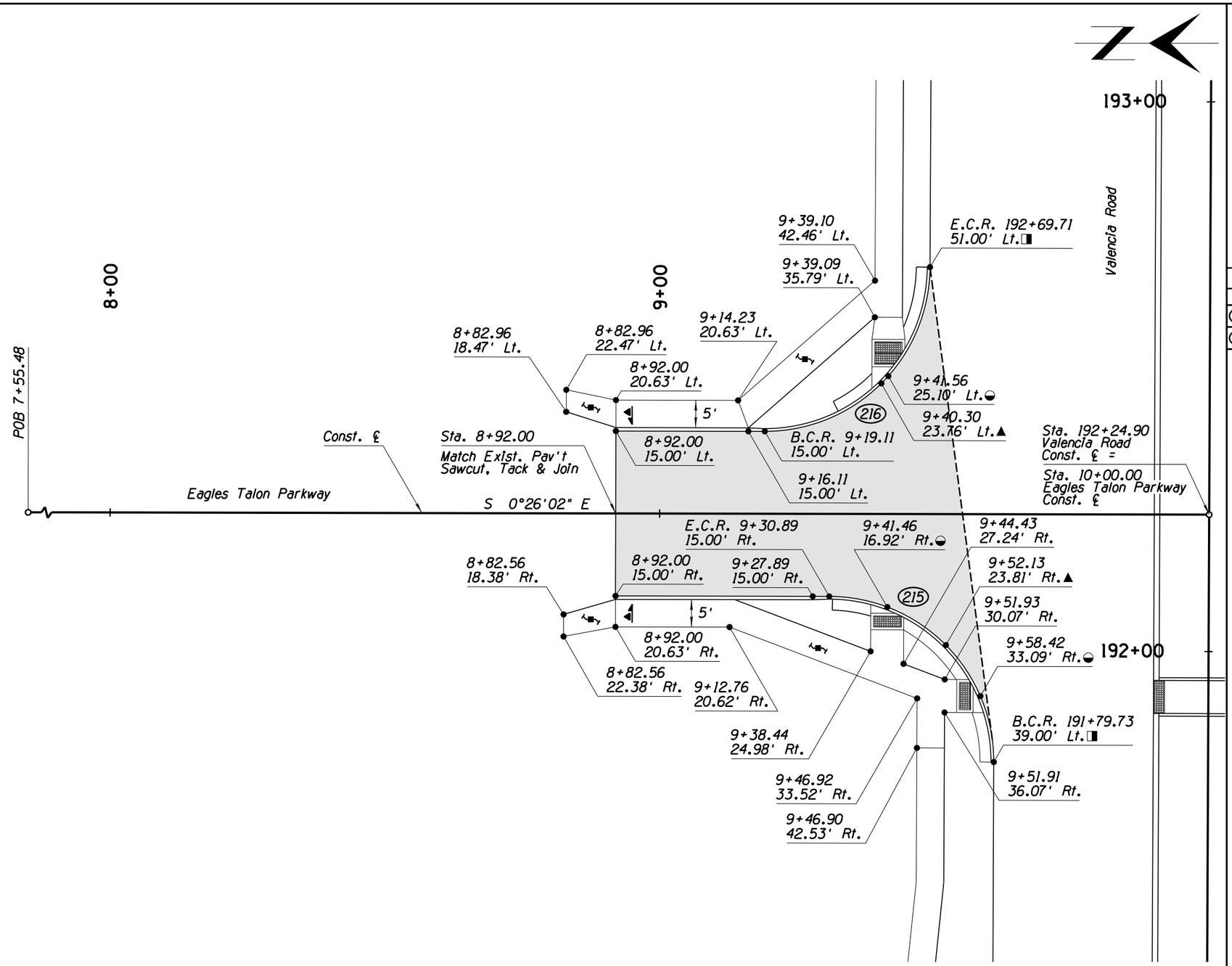
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



CURVE DATA

NO.	R	△	L	T
215	30.00'	90°08'20"	47.20'	30.07'
216	30.00'	89°51'40"	47.05'	29.93'

SLOPE DESIGN KEY

▲ 2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
EAGLES TALON PARKWAY

10 0 10 20

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10'	Sheet GC18 of GC20	Page 115 of 433
	Vert. NA		

	Designed	T. Rhine	01/2018
	Drawn	S. Denaybi	01/2018
	Checked	R. Solis	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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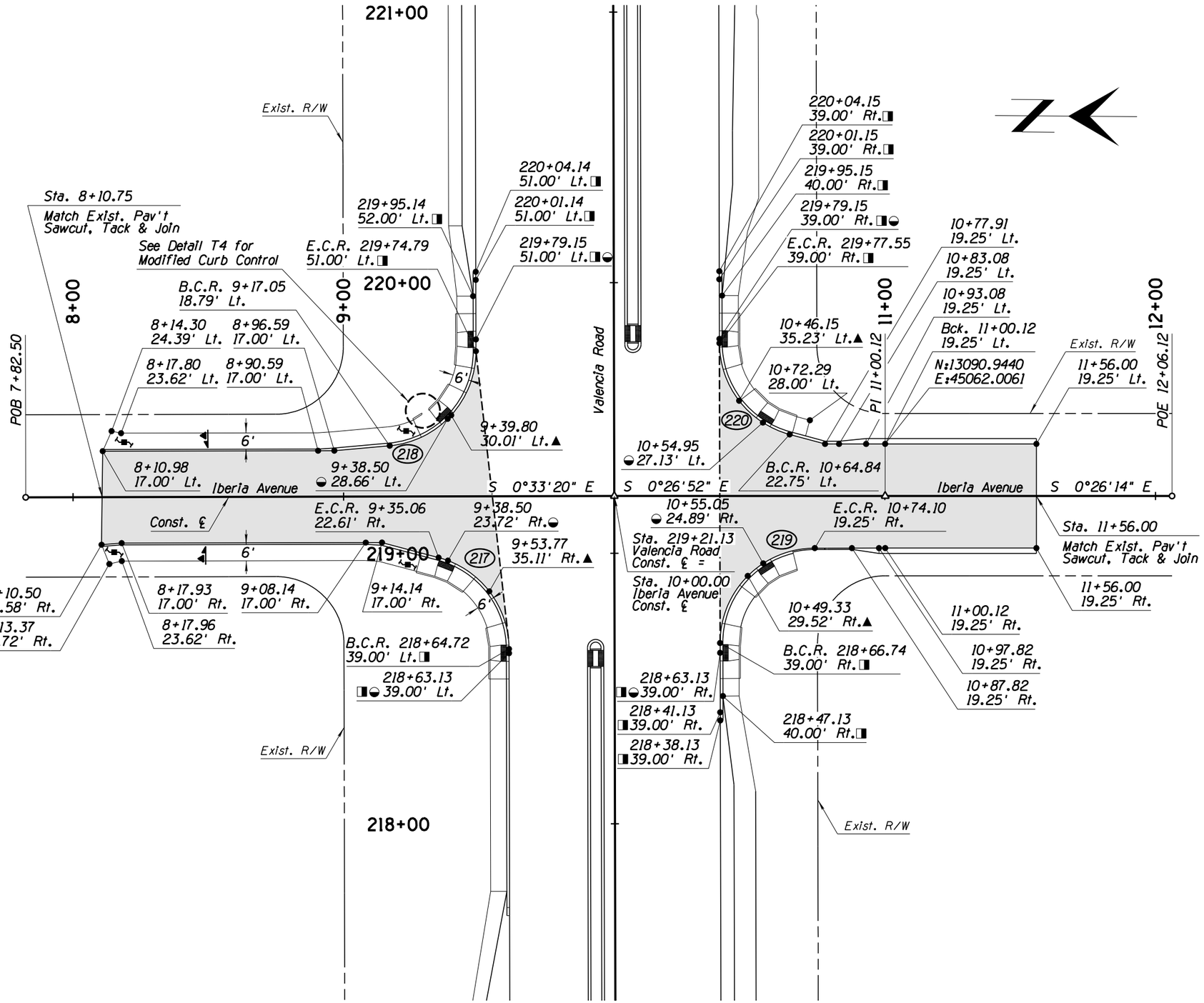
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:45:44 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\GEOMETRIC CONTROL\H022048GC_SIDEROADS_06.DGN



CURVE DATA

NO.	R	Δ	L	T
217	35.00'	75°00'00"	45.81'	26.86'
218	35.00'	85°00'00"	51.92'	32.07'
219	35.00'	90°06'28"	55.04'	35.07'
220	35.00'	74°53'32"	45.75'	26.80'

SLOPE DESIGN KEY

▲▶ 2%

Warp Sidewalk (2% Max Cross Slope)

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

Ramp Control

Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
IBERIA AVENUE

20 0 20 40

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ARIZONA811
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Scales	Horiz. 1"=20'	Sheet GC19 of GC20	Page 116 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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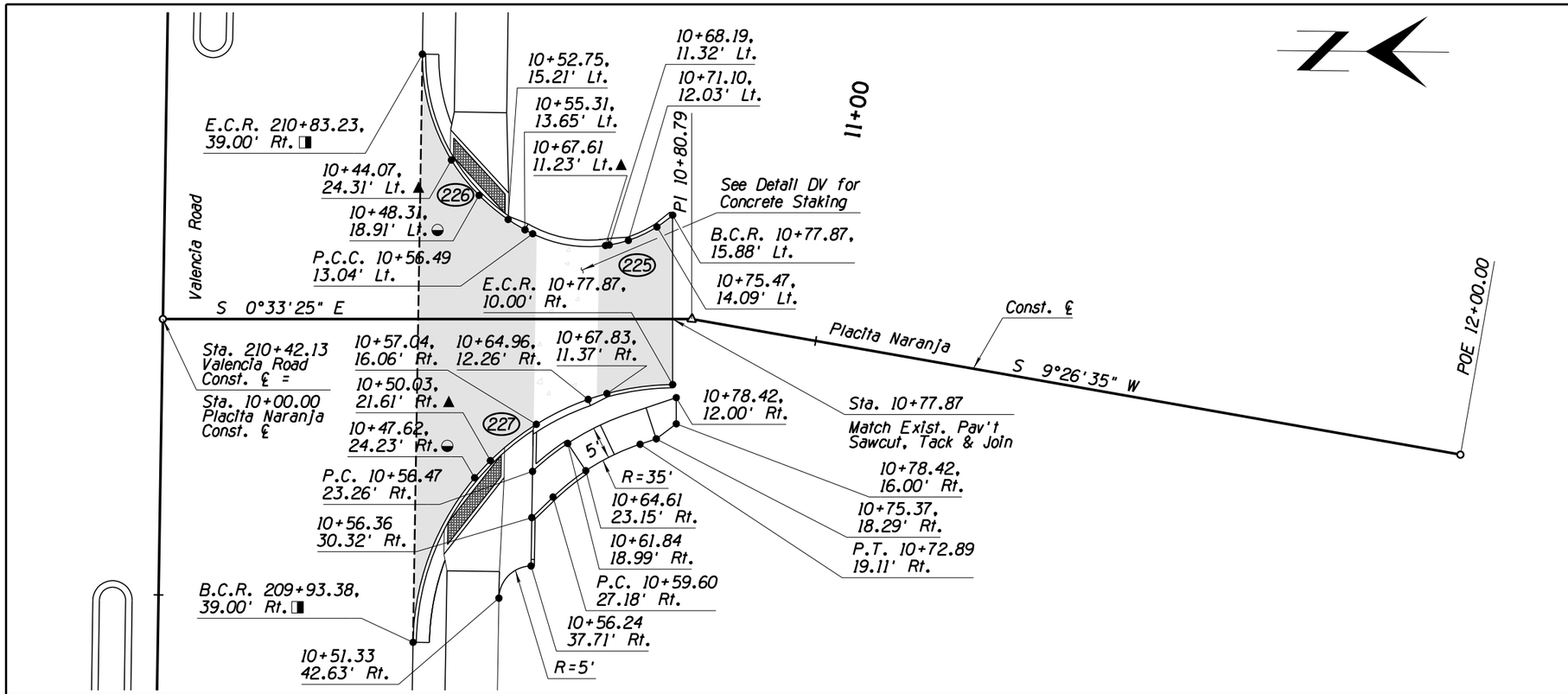
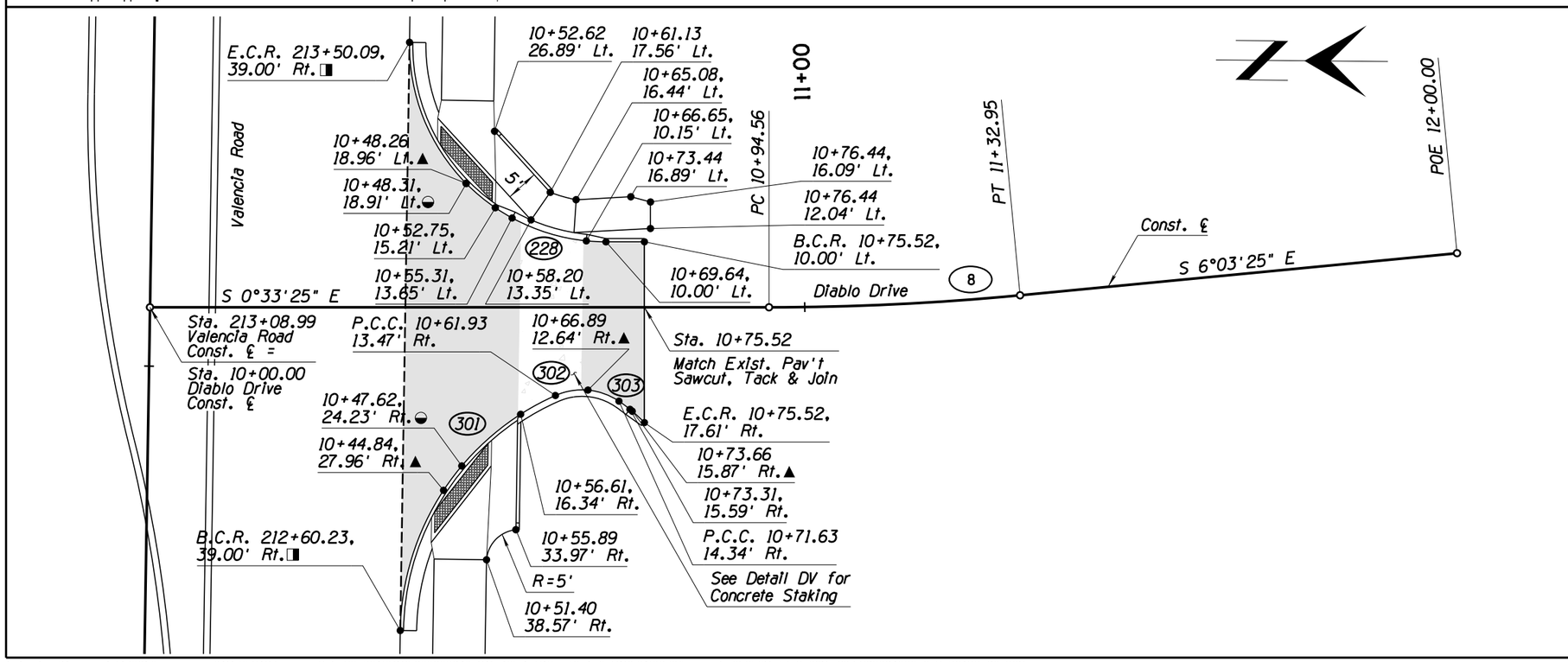
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





8 CURVE DATA

PI Sta 11+13.77
N=13072.6525
E=44430.9631
Main Curve
Δ= 5°30'00"Lt
D= 14°19'26"
R=400.00'
L= 38.40'
T=19.21'
Ext=0.46'

CURVE DATA

NO.	R	Δ	L	T
225	19.50'	67°09'58"	22.86'	12.95'
226	30.00'	64°53'41"	33.98'	19.07'
227	40.00'	88°35'40"	61.85'	39.03'
228	30.00'	90°54'30"	47.60'	30.48'
301	40.00'	65°03'26"	45.42'	25.51'
302	10.00'	58°17'01"	10.17'	5.58'
303	25.00'	11°41'03"	5.10'	2.56'

NOTE:

1. Refer to plan and profile for centerline control.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Road Cst ℄

GEOMETRIC CONTROL
PLACITA NARANJA &
DIABLO DRIVE

10 0 10 20

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10'	SheetGC20 of GC20	Page 117 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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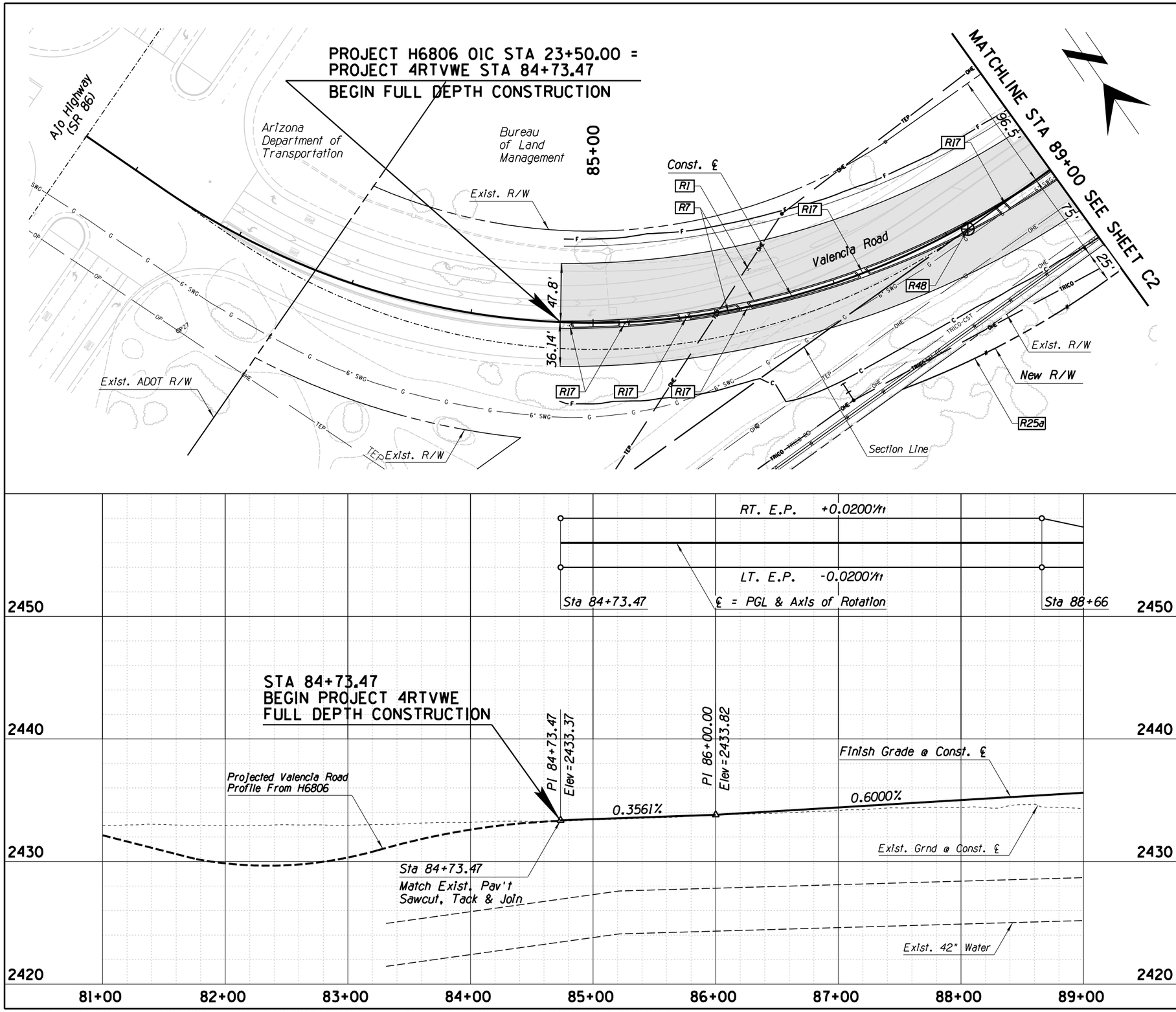
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R1	3574	S.Y.	Pav't Struct. Sec. No. 1
R7	828	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R17	320	S.F.	Concrete Apron (Th=6"), Item # 9300138
R25	205	L.F.	Barbed Wire Fence, Type 1, ADOT C-12.10, Item # 9020301
a	205	L.F.	Sta. 87+22.16 to Sta. 89+00.00
R48	1	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 81+00 TO 89+00

40 0 40 80

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ARIZONA811
Call 811 or click Arizona811.com

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

Sheet C1 of C20

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Dehaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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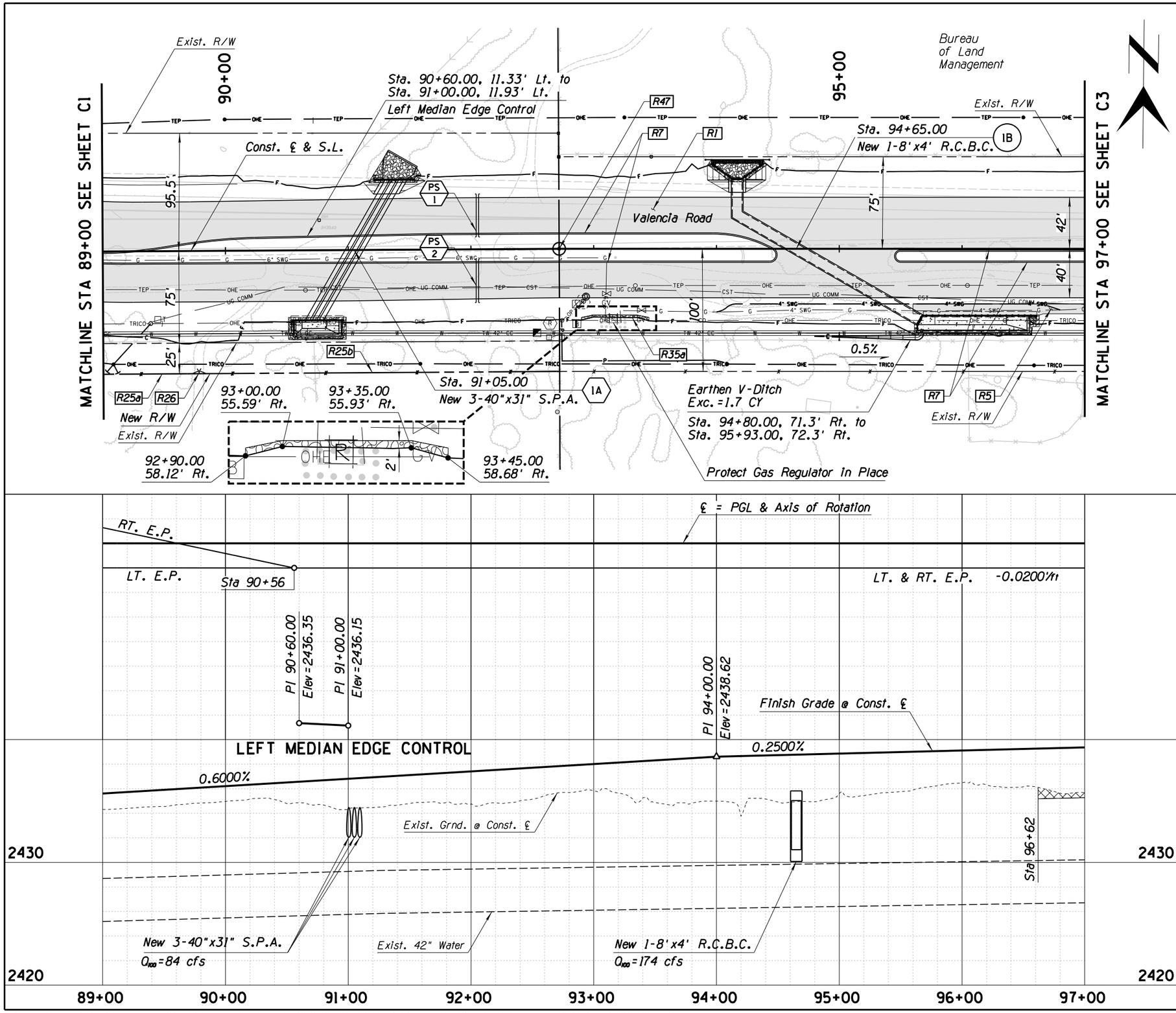

Item No.	Qty.	Unit	Description
R1	5826	S.Y.	Pav't Struct. Sec. No. 1
R5	137	S.Y.	Pav't Struct. Sec. No. 5
R7	1425	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R25	360	L.F.	Barbed Wire Fence, Type 1, ADOT C-12.10, Item # 9020301
a	72	L.F.	Sta. 89+00.00 to Sta. 89+71.92
b	288	L.F.	Sta. 89+83.92 to Sta. 92+72.16
R26	1	EA	Fence Gate (Barbed) 14', Type 2, ADOT C-12.10, Item # 9030103
R35	4	C.Y.	Riprap (Dumped), Item # 9130001
a	4	C.Y.	D50=6", See Note 3
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.
3. Place 2' riprap strip along embankment foreslope.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 89+00 TO 97+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Date	
Designed	T. Rhine 01/2018
Drawn	S. Denaybi 01/2018
Checked	R. Solis 01/2018
Proj. Engr.	R. Solis 01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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Tucson, AZ 85705
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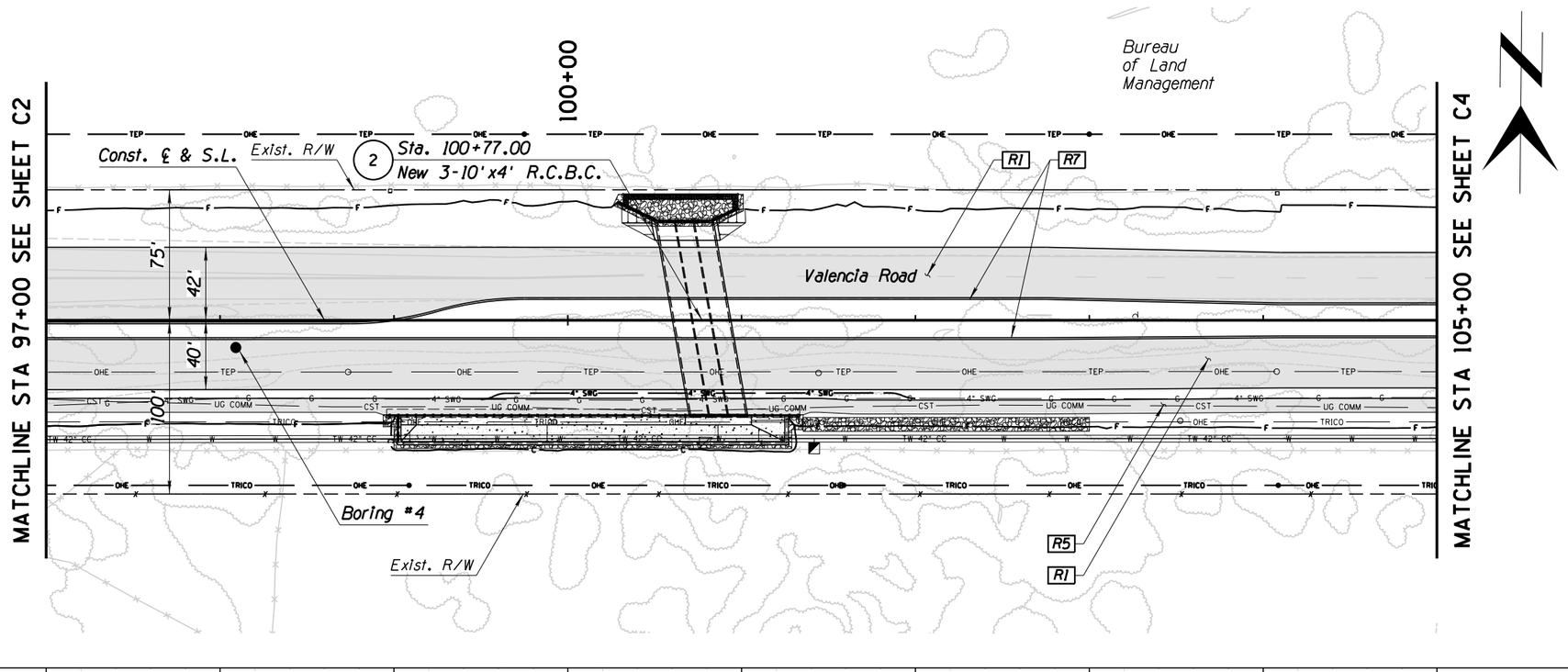
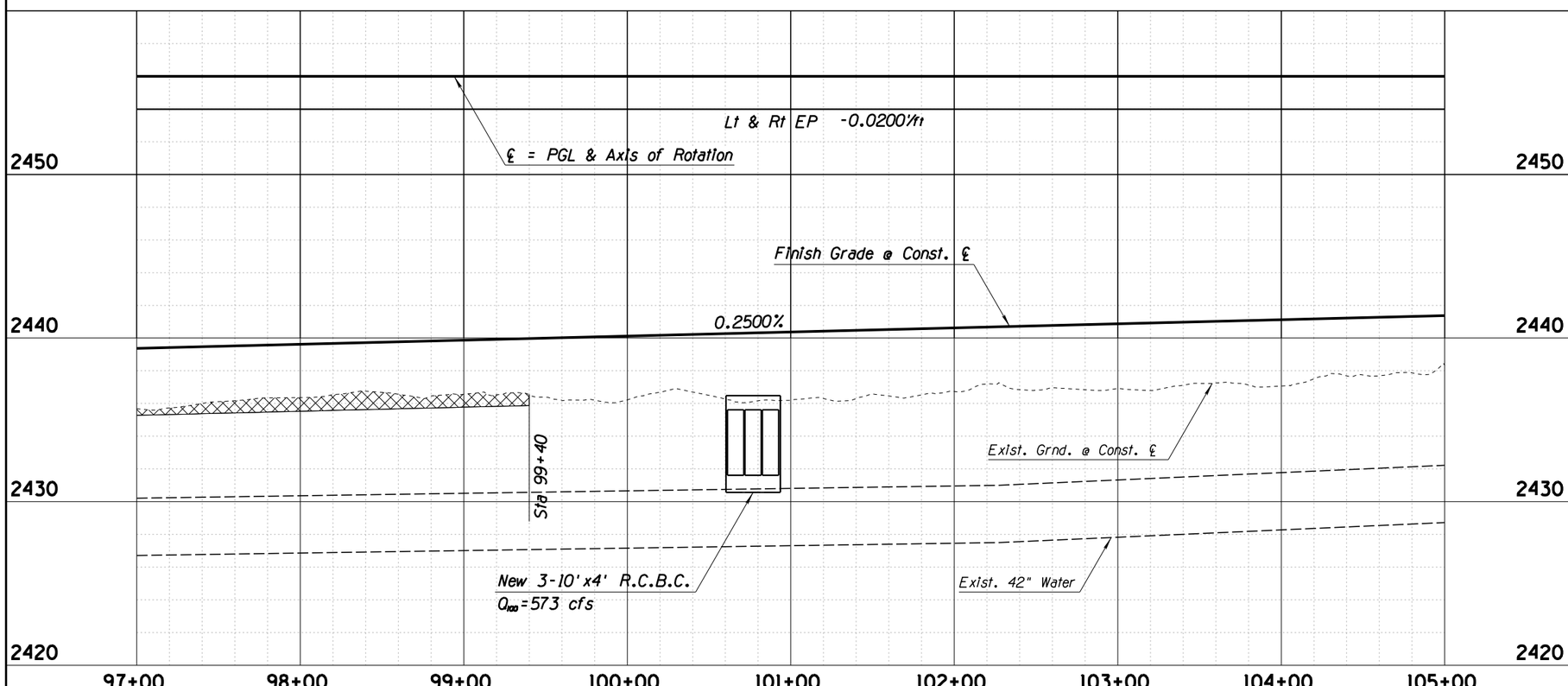
Scales Horiz. 1"=40' Vert. 1"=4'

Sheet C2 of C20

4:45:47 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP02.DGN





Item No.	Qty.	Unit	Description
R1	5506	S.Y.	Pav't Struct. Sec. No. 1
R5	750	S.Y.	Pav't Struct. Sec. No. 5
R7	1602	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 97+00 TO 105+00

40 0 40 80

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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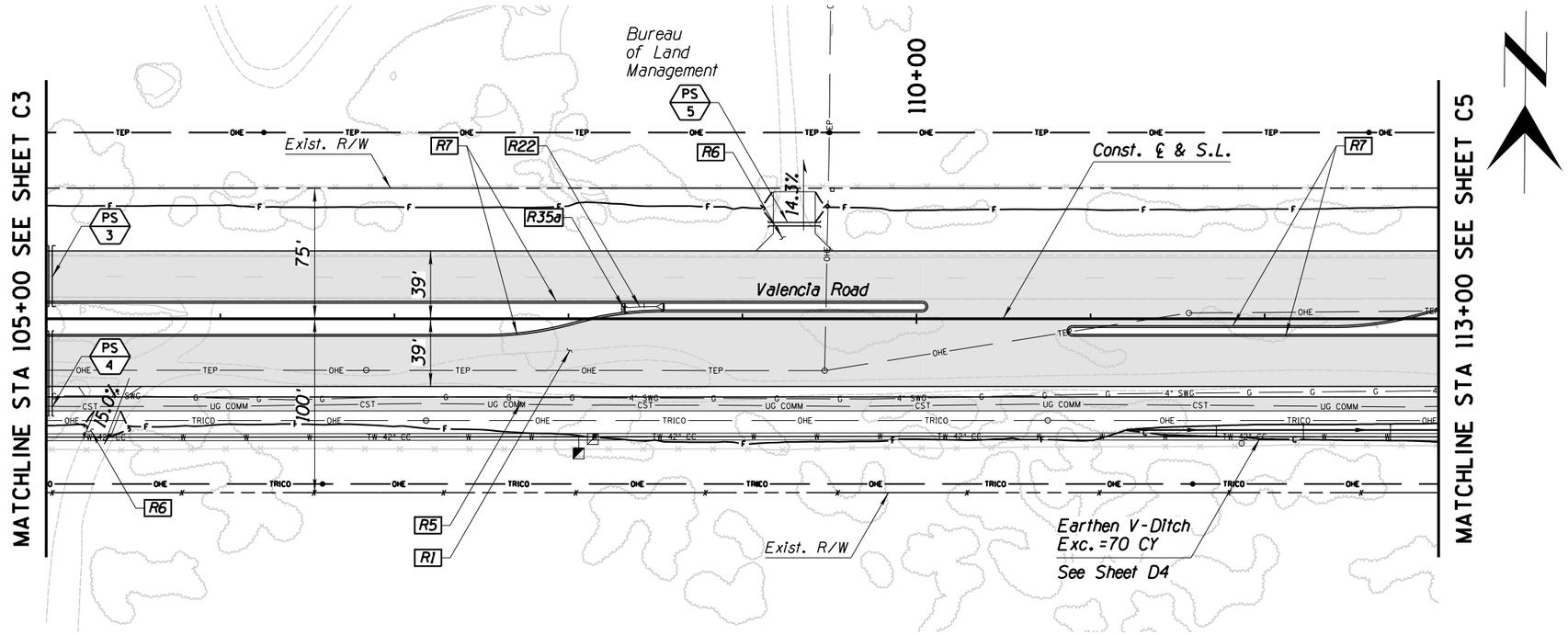
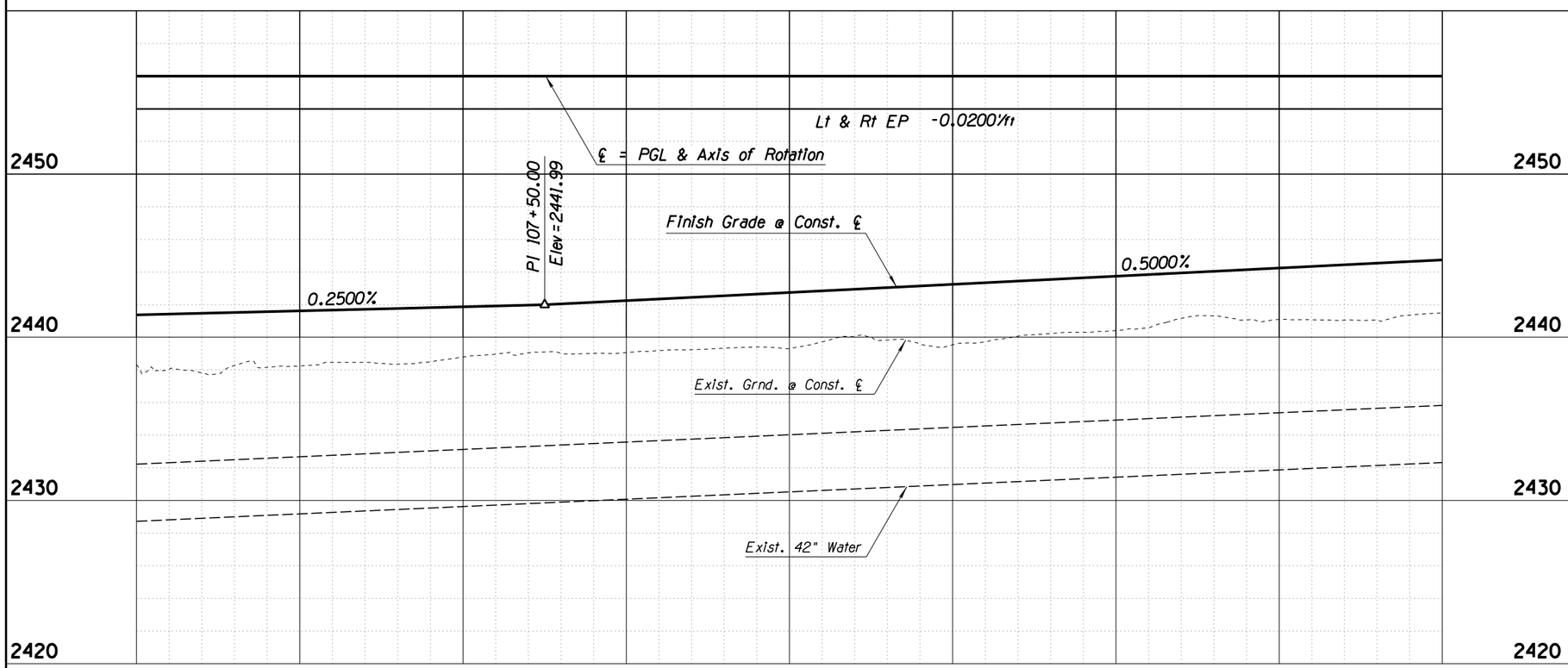
(520) 615-9191 Fax (602) 944-7423

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

4:45:48 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP03.DGN





Item No.	Qty.	Unit	Description
R1	5960	S.Y.	Pav't Struct. Sec. No. 1
R5	711	S.Y.	Pav't Struct. Sec. No. 5
R6	147	S.Y.	Section No. 6
R7	1450	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 105+00 TO 113+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet C4 of C20	Page 121 of 433

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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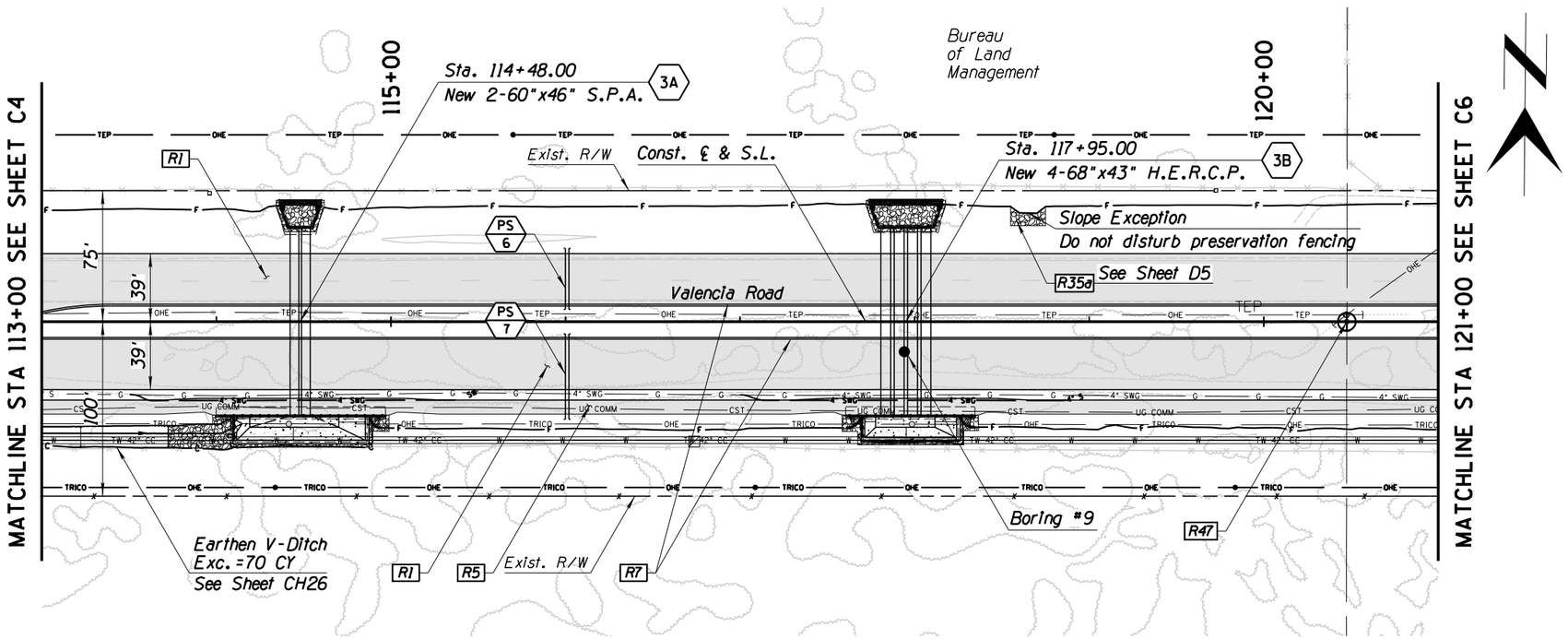
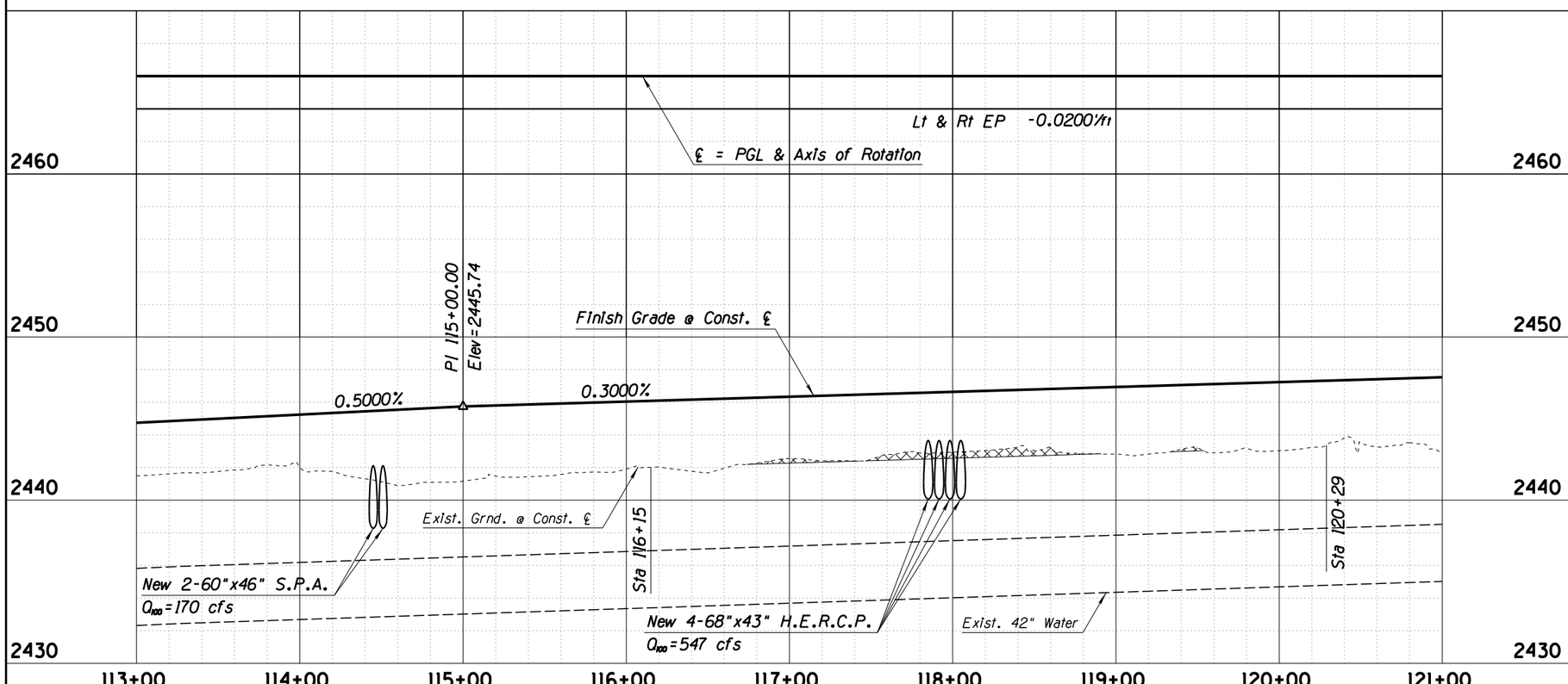
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R1	5162	S.Y.	Pav't Struct. Sec. No. 1
R5	743	S.Y.	Pav't Struct. Sec. No. 5
R7	1600	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R35	6	C.Y.	Riprap (Dumped), Item # 9130001
a	6	C.Y.	D50=6"
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 113+00 TO 121+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet C5 of C20	Page 122 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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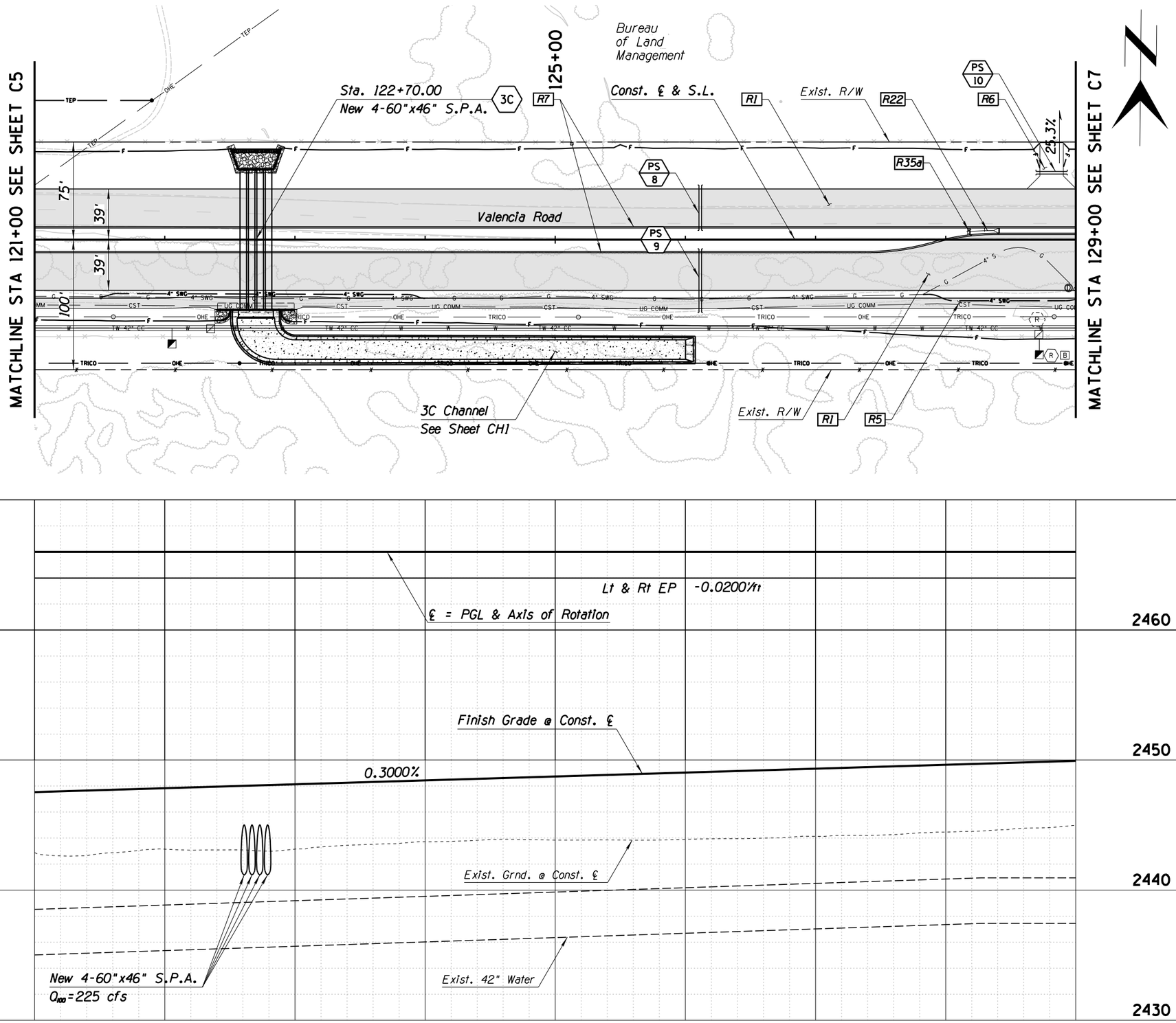

Item No.	Qty.	Unit	Description
R1	5327	S.Y.	Pav't Struct. Sec. No. 1
R5	723	S.Y.	Pav't Struct. Sec. No. 5
R6	82	S.Y.	Section No. 6
R7	1602	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 121+00 TO 129+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet C6 of C20	Page 123 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

RICARDO P. SOLIS 43315 ARIZONA, U.S.A. Date Signed 01/04/18 Expires 09/30/2020

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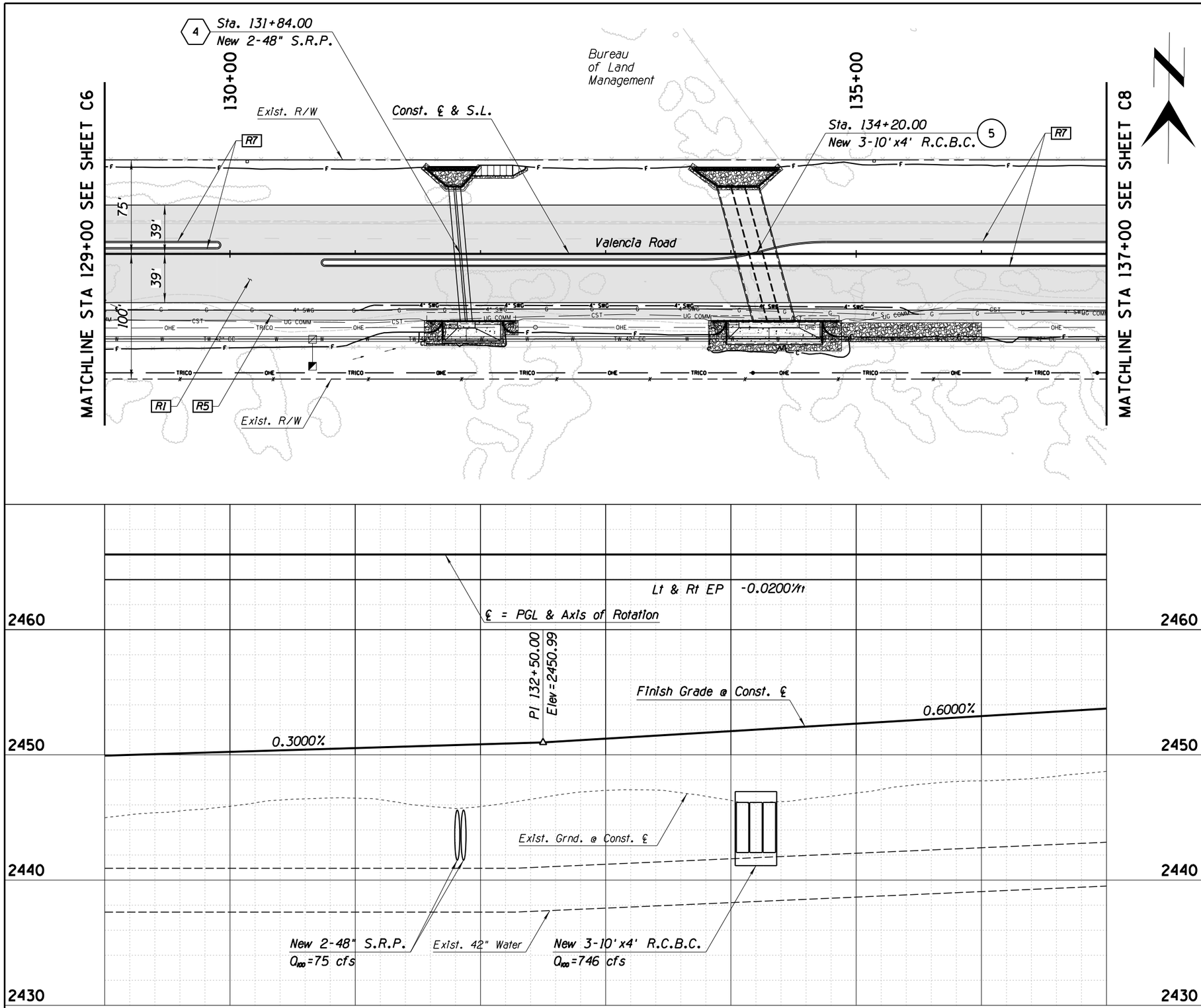

Item No.	Qty.	Unit	Description
R1	6028	S.Y.	Pav't Struct. Sec. No. 1
R5	737	S.Y.	Pav't Struct. Sec. No. 5
R7	1449	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 129+00 TO 137+00

40 0 40 80

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

Designed	T. Rhine	01/2018
Drawn	S. Dehaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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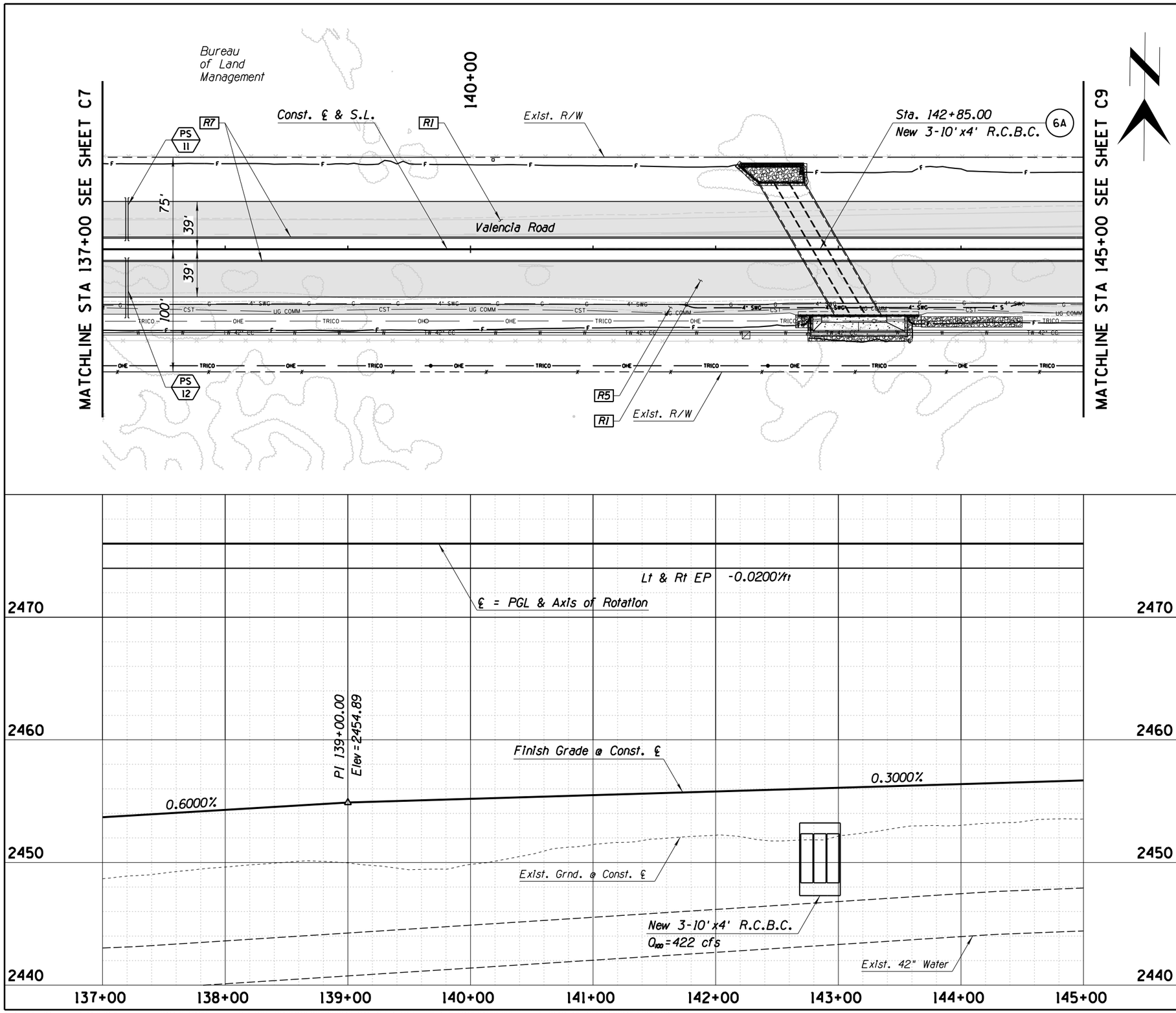
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

4:45:51 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP07.DGN



Item No.	Qty.	Unit	Description
R1	5156	S.Y.	Pav't Struct. Sec. No. 1
R5	730	S.Y.	Pav't Struct. Sec. No. 5
R7	1600	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 137+00 TO 145+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Dehaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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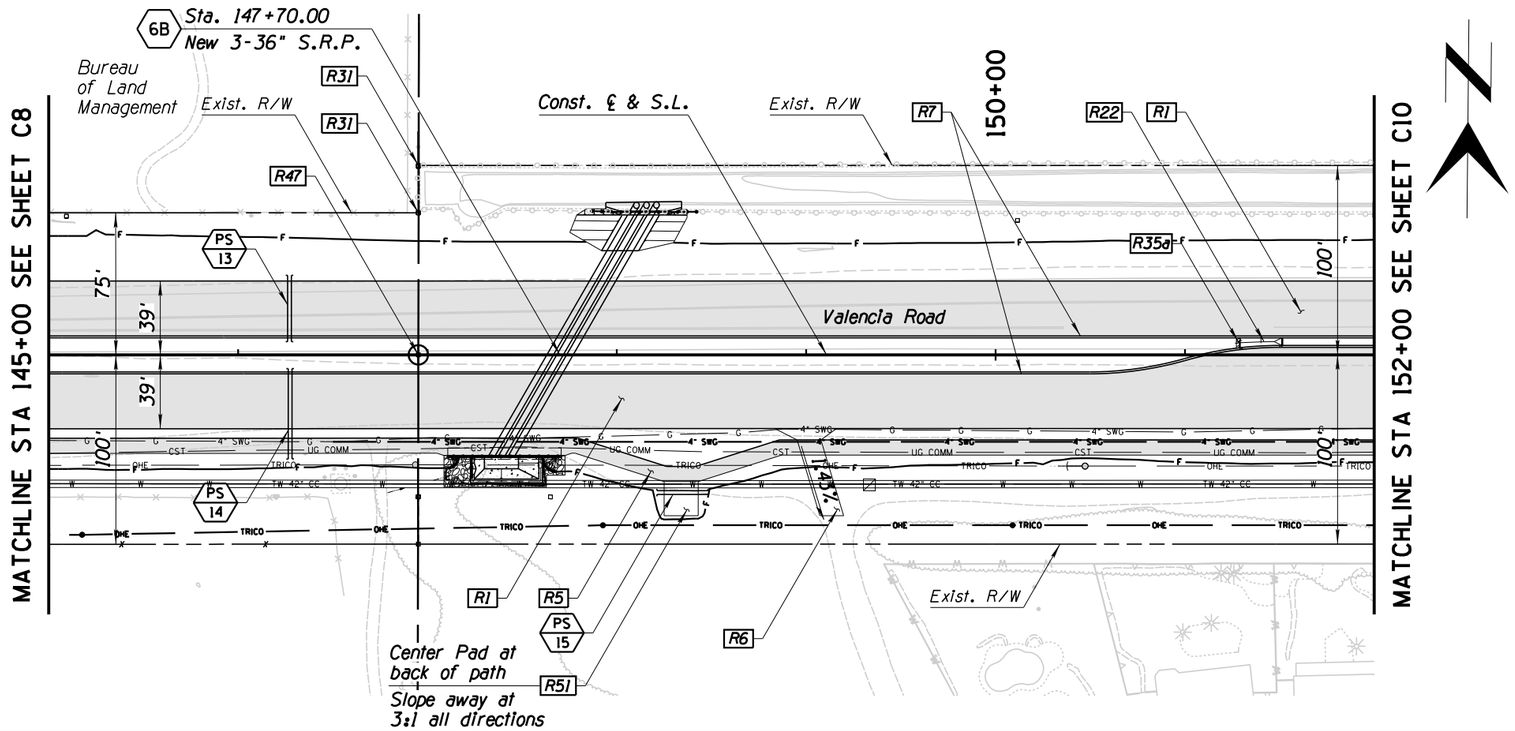
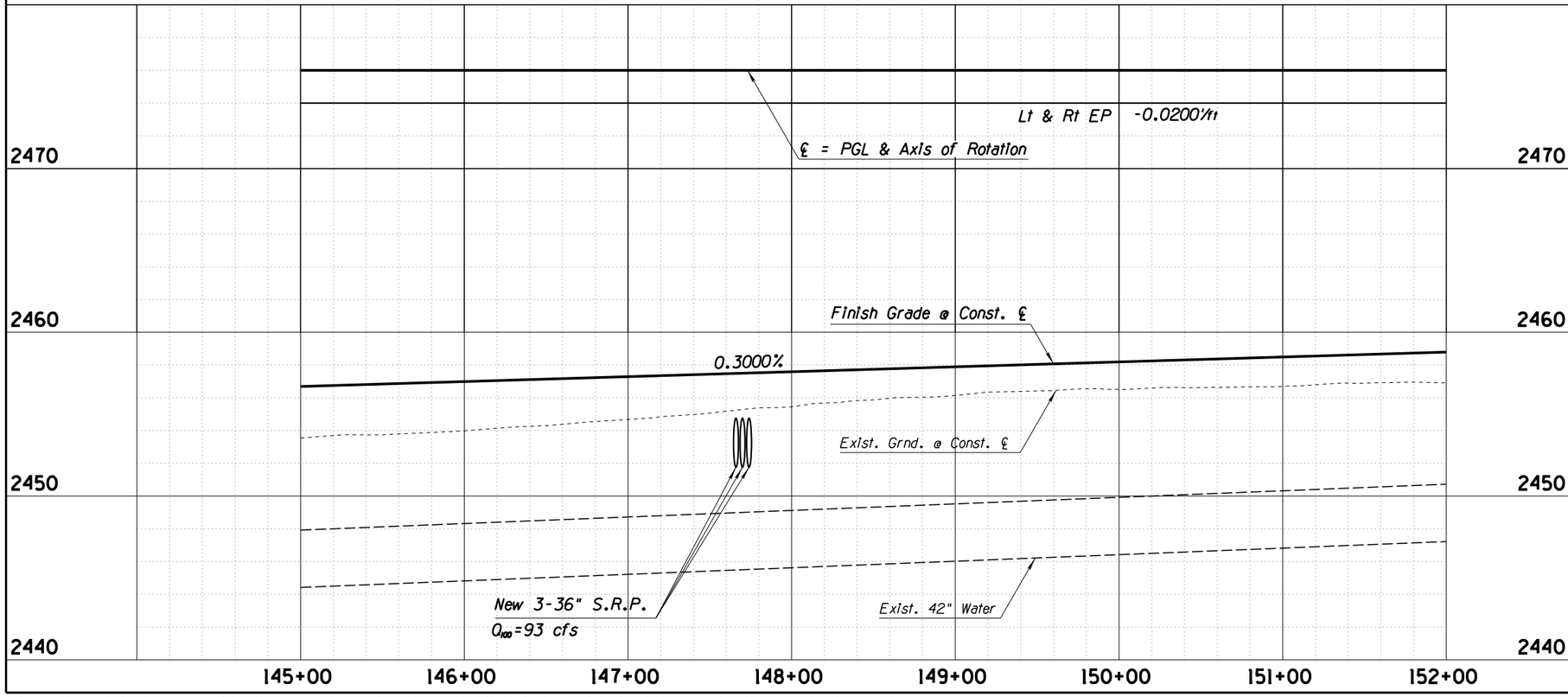
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

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





Item No.	Qty.	Unit	Description
R1	4667	S.Y.	Pav't Struct. Sec. No. 1
R5	636	S.Y.	Pav't Struct. Sec. No. 5
R6	60	S.Y.	Section No. 6
R7	1402	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R31	2	EA	Property Corner - Protect-In-Place
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002
R51	1	L.S.	Graded 18-ft x 18-ft pad, Item # 9999921

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 145+00 TO 152+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

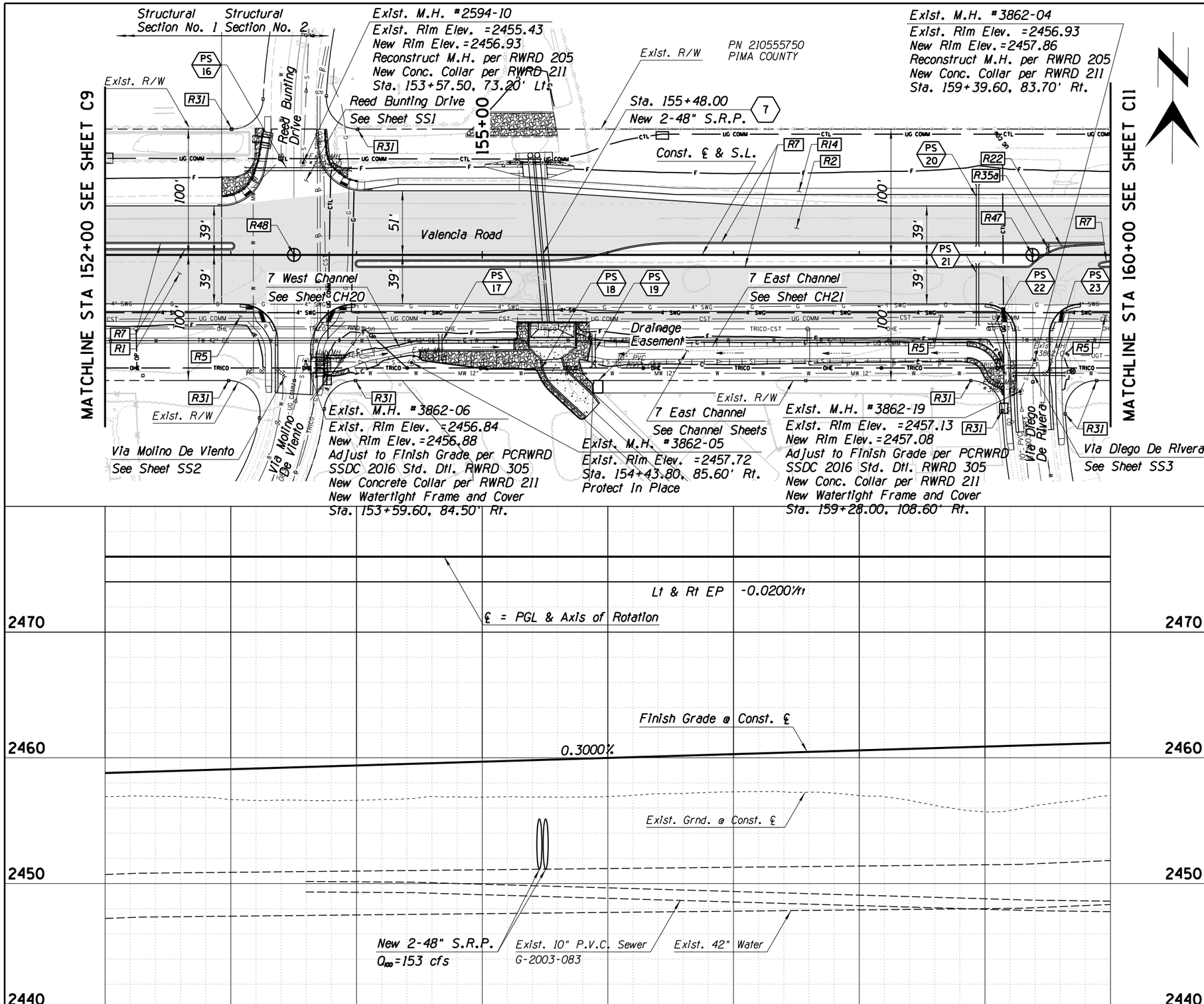
STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

4:45:52 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP09.DGN



Item No.	Qty.	Unit	Description
R1	741	S.Y.	Pav't Struct. Sec. No. 1
R2	5569	S.Y.	Pav't Struct. Sec. No. 2
R5	611	S.Y.	Pav't Struct. Sec. No. 5
R7	1435	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	2983	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R31	8	EA	Property Corner - Protect-In-Place
R35	0.3	C.Y.	Riprap (Dumped), Item # 9130001
a	0.3	C.Y.	D50=3"
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002
R48	1	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 152+00 TO 160+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
333 E. Wetmore Road
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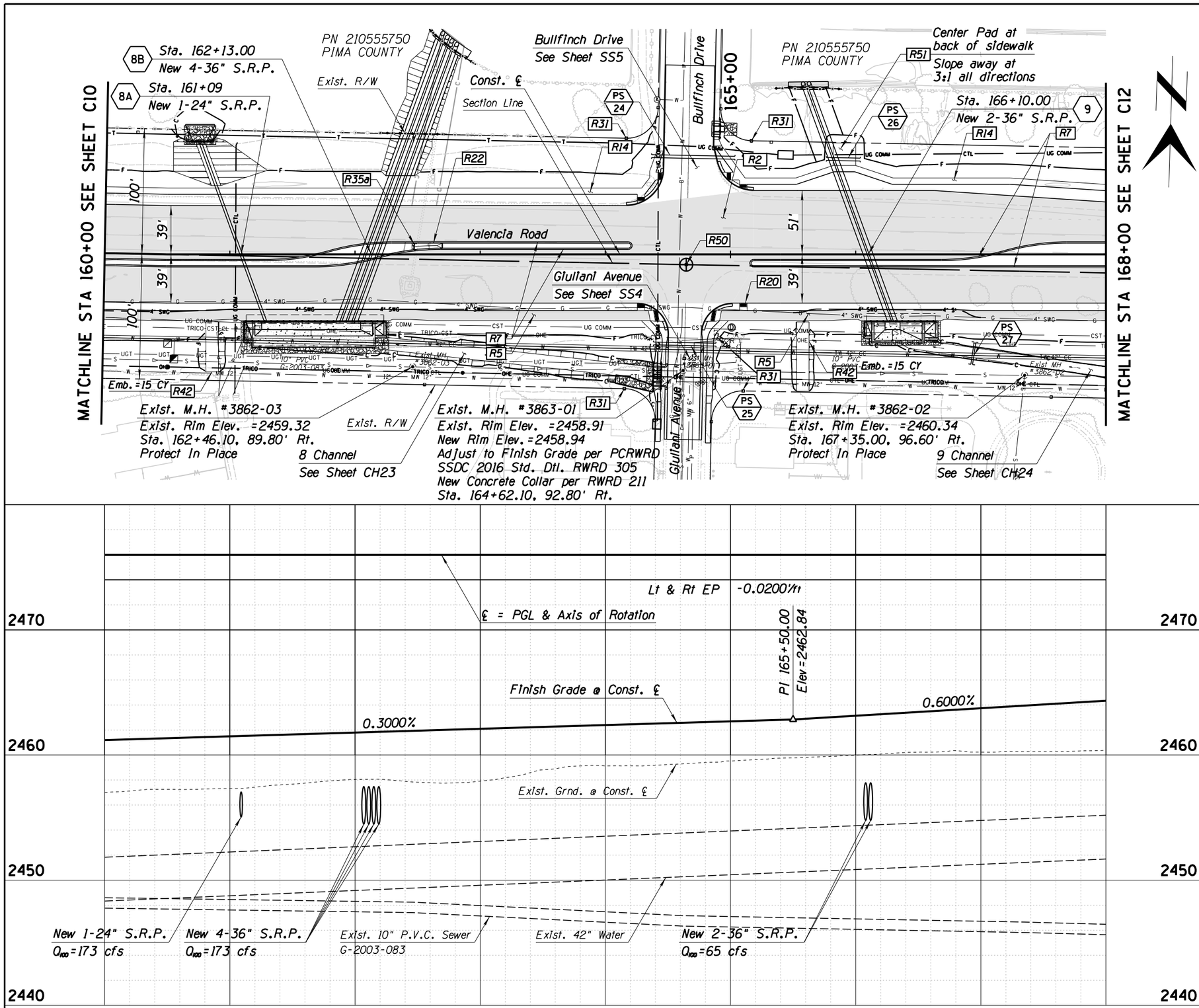
(520) 615-3931 Fax (602) 944-7423

43315 RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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

Sheet C10 of C20

4:45:52 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP10.DGN



Item No.	Qty.	Unit	Description
R2	6649	S.Y.	Pav't Struct. Sec. No. 2
R5	684	S.Y.	Pav't Struct. Sec. No. 5
R7	1423	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	3574	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	1	EA	Concrete Landing, Detail A2, Item # 9080292
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R31	4	EA	Property Corner - Protect-In-Place
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"
R42	30	C.Y.	Dike, Item # 9999921
R50	1	EA	Survey Monument, Frame and Cover, 3-1/2" BC, Item # 9300133
R51	1	L.S.	Graded 18-ft x 18-ft pad, Item # 9999921

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 160+00 TO 168+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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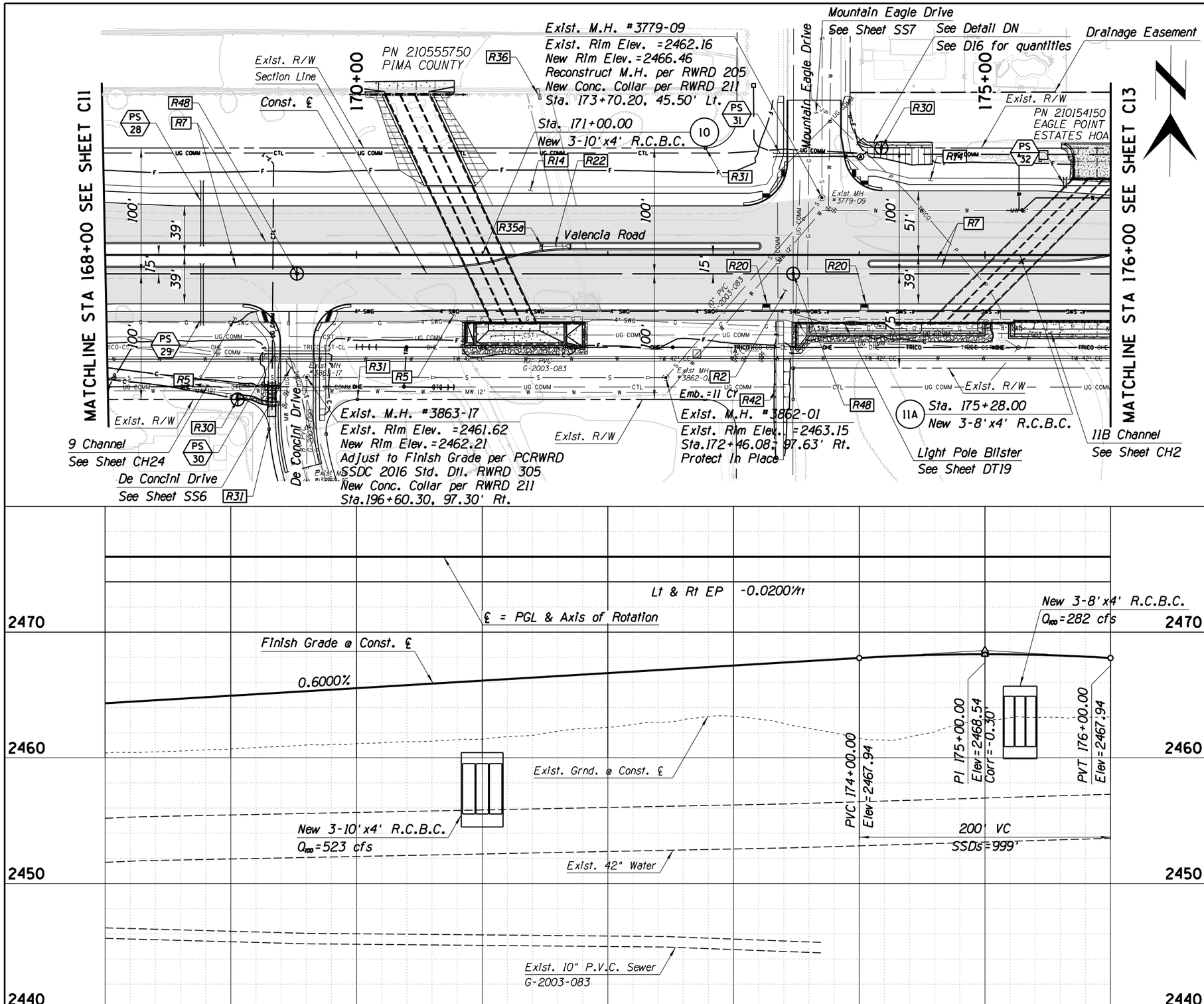
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet C11 of C20	Page 128 of 433



Item No.	Qty.	Unit	Description
R2	6269	S.Y.	Pav't Struct. Sec. No. 2
R5	702	S.Y.	Pav't Struct. Sec. No. 5
R7	1439	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	3508	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R30	2	EA	Reset Property Corner Monument, Item # 9250100
R31	3	EA	Property Corner - Protect-In-Place
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"
R36	1	EA	Concrete Pipe Plug, Item # 9300127
R42	11	C.Y.	Dike, Item # 9999921
R48	2	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 168+00 TO 176+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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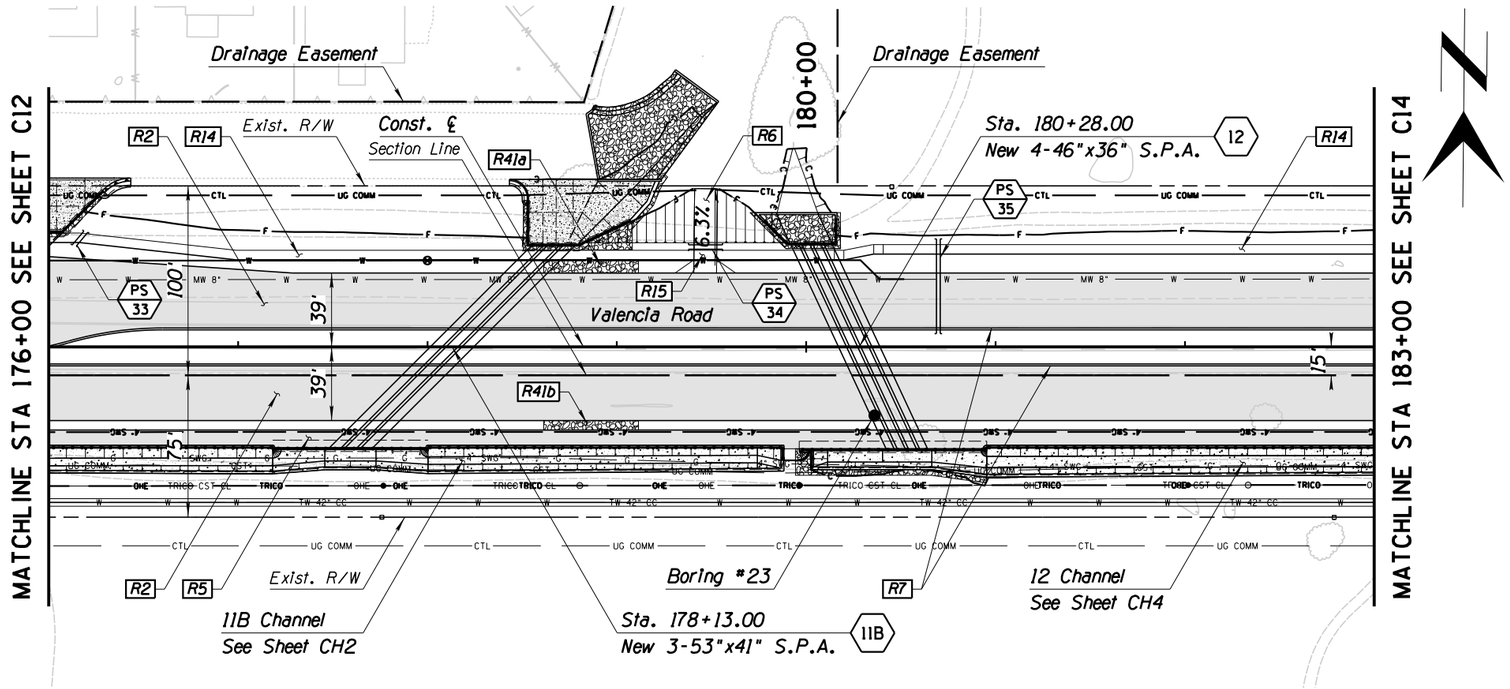
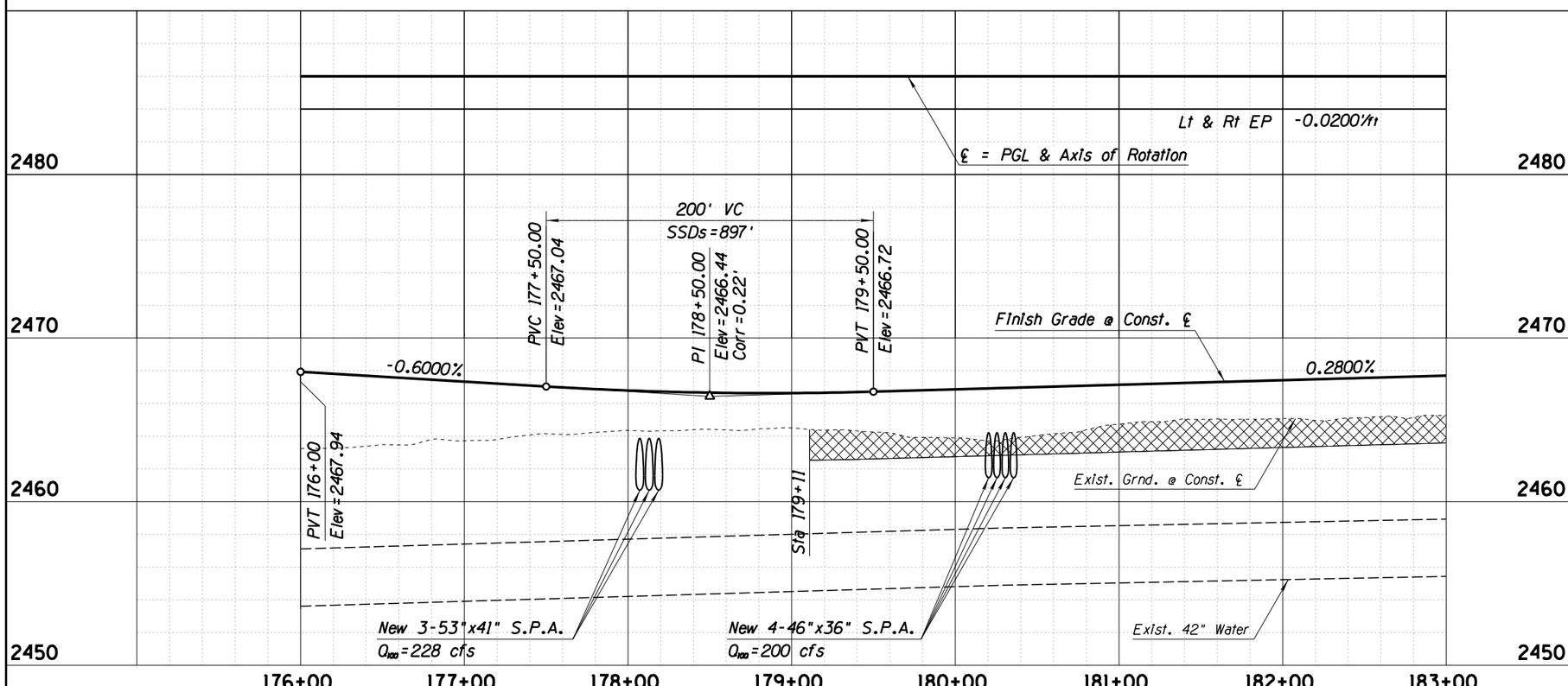
Scales Horiz. 1"=40' Vert. 1"=4'

Sheet C12 of C20

4:45:54 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP12.DGN



Item No.	Qty.	Unit	Description
R2	4595	S.Y.	Pav't Struct. Sec. No. 2
R5	656	S.Y.	Pav't Struct. Sec. No. 5
R6	61	S.Y.	Section No. 6
R7	1401	L.F.	Concrete Curb, Type I, PAG Std. Dtl. 209, Item # 9080001
R14	3444	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R15	60	S.F.	Concrete Sidewalk (Th = 6"), PAG Std. Dtl. 200, Item # 9080203
R41	67	S.Y.	Rip Rap (Hand Placed) (Grouted), Detail DX, Item # 9130009
a	39	S.Y.	Sta. 178+61.36 to Sta. 179+11.36
b	28	S.Y.	Sta. 178+61.36 to Sta. 179+11.36



NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 176+00 TO 183+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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

Pima County Department of Transportation

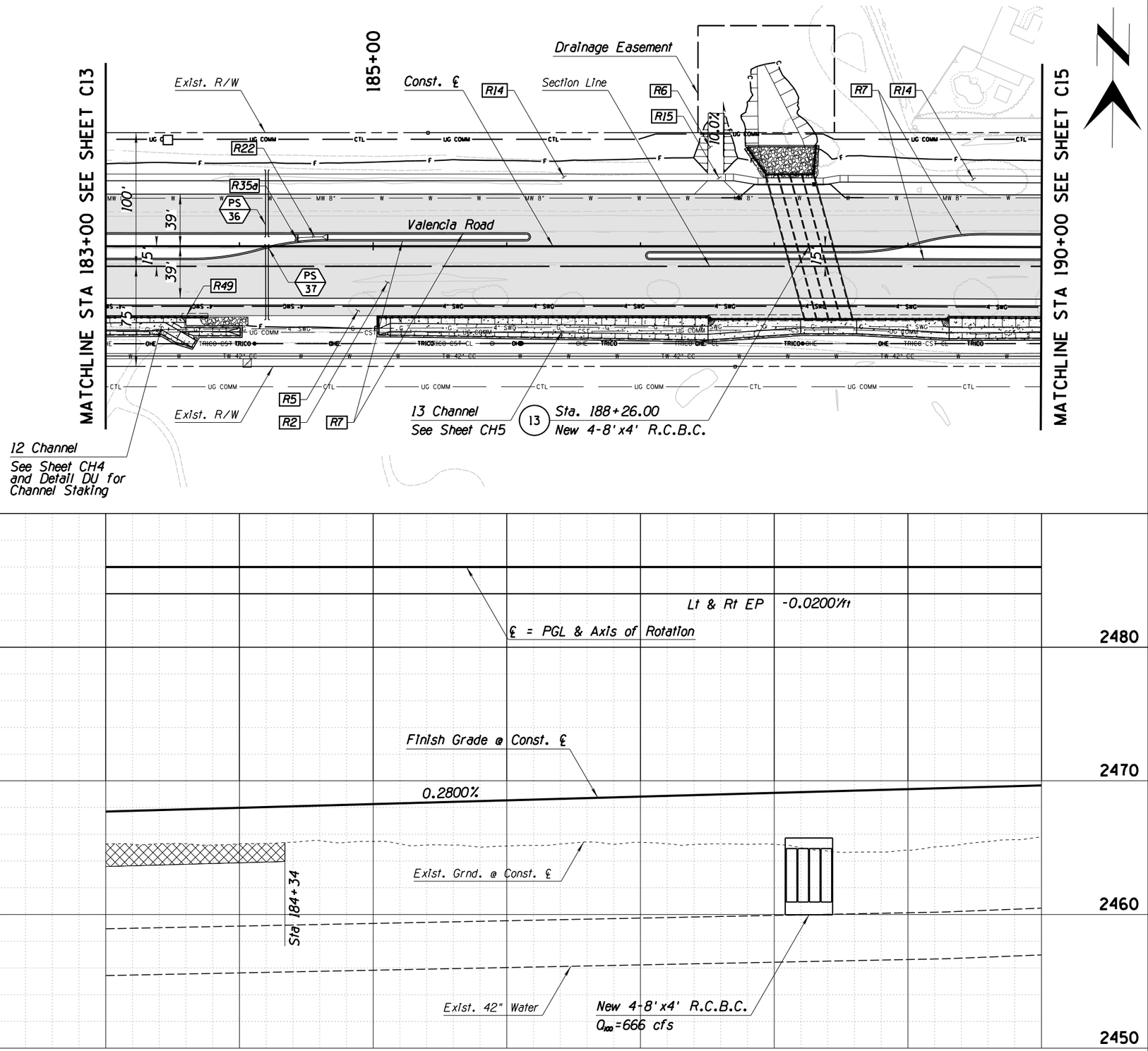
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

Sheet C13 of C20

4:45:55 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP13.DGN



Item No.	Qty.	Unit	Description
R2	5334	S.Y.	Pav't Struct. Sec. No. 2
R5	661	S.Y.	Pav't Struct. Sec. No. 5
R6	85	S.Y.	Section No. 6
R7	1238	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	3443	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R15	60	S.F.	Concrete Sidewalk (Th = 6"), PAG Std. Dtl. 200, Item # 9080203
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"
R49	41	S.F.	Retaining Wall, Detail DK, Item # 6010200

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 183+00 TO 190+00

40 0 40 80

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ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

RICARDO P. SOLIS 43315 ARIZONA, U.S.A. Date Signed 01/04/18 Expires 09/30/2020

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

Pima County Department of Transportation

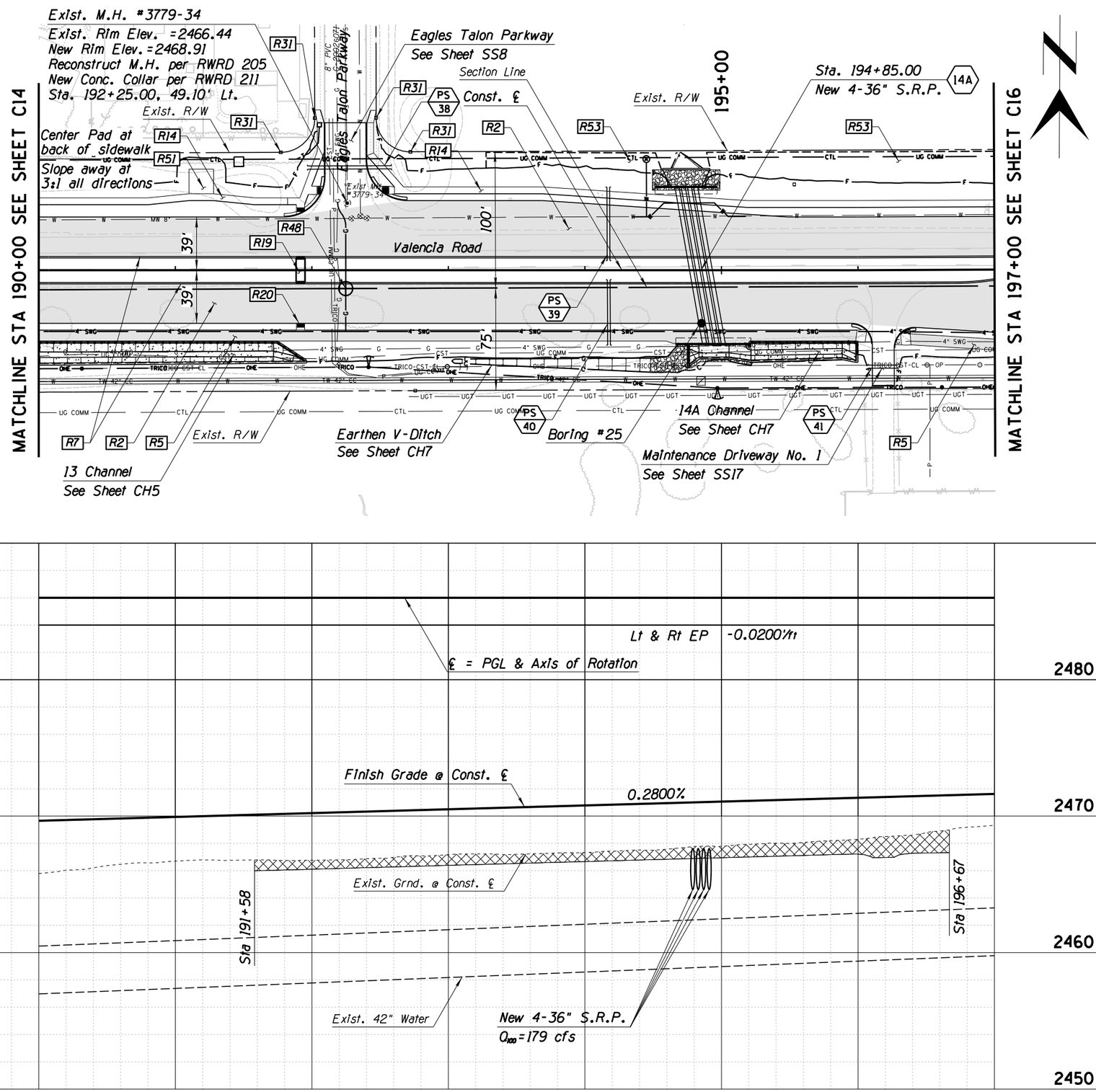
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

Sheet C14 of C20

4:45:55 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP14.DGN



Item No.	Qty.	Unit	Description
R2	4864	S.Y.	Pav't Struct. Sec. No. 2
R5	598	S.Y.	Pav't Struct. Sec. No. 5
R7	1400	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	3078	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R19	1	EA	Mid Block Refuge Area, Detail A6, Item # 9300110
R20	1	EA	Concrete Landing, Detail A2, Item # 9080292
R31	4	EA	Property Corner - Protect-In-Place
R48	1	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021
R51	1	L.S.	Graded 18-ft x 18-ft pad, Item # 9999921
R53	6165	S.F.	Re-grade Eroded Areas, Item # 9999921, See Note 3 Sta. 193+27.00 to Sta. 197+00.00

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.
3. Re-grade eroded areas to remove rills. This work is incidental to item #9999921.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 190+00 TO 197+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

RICARDO P. SOLIS 43315 ARIZONA, U.S.A. Date Signed 01/04/18 Expires 09/30/2020

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333 E. Wetmore Road
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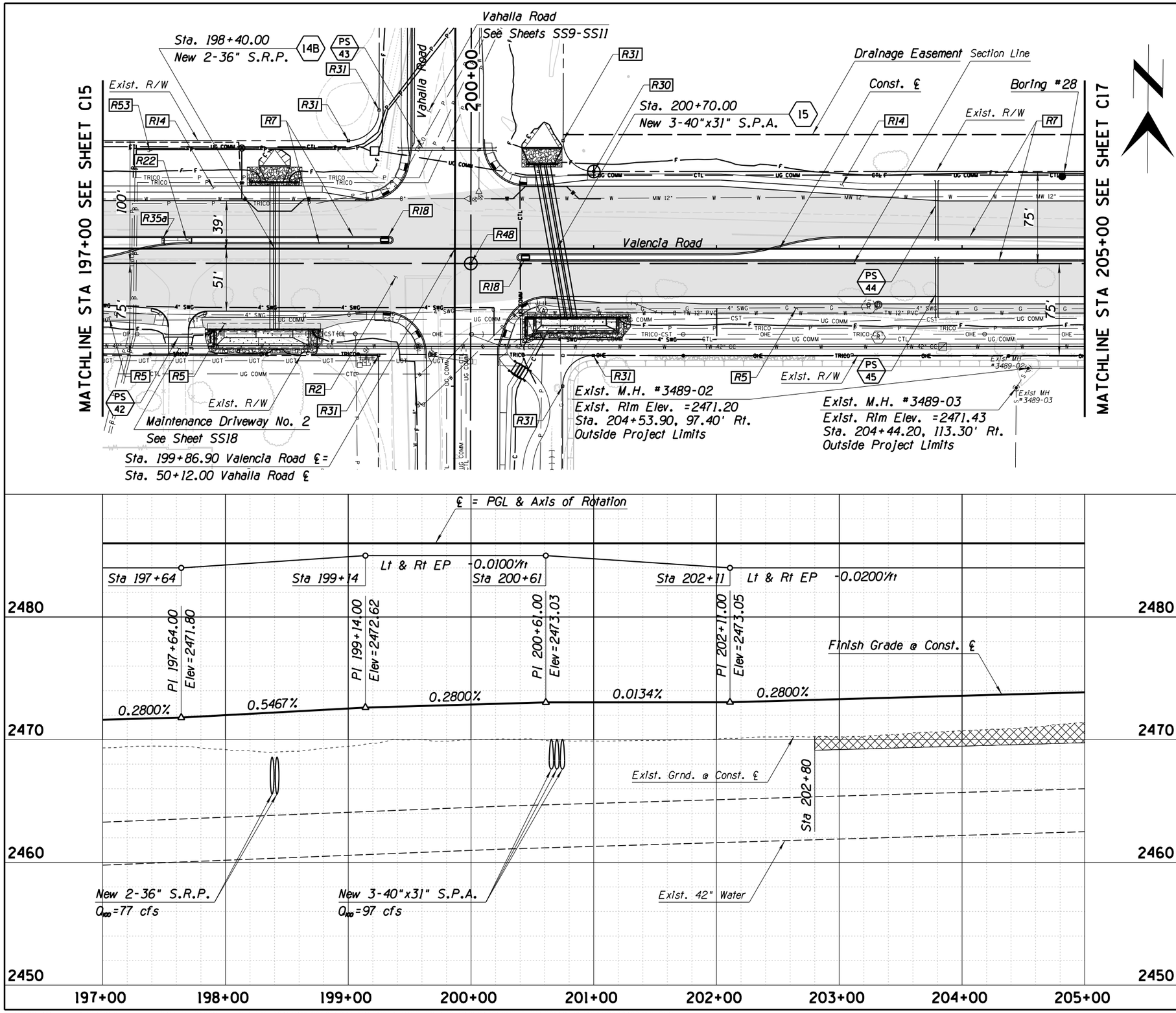
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales Horiz. 1"=40' Vert. 1"=4' | Sheet C15 of C20 | Page 132 of 433

4:45:56 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP15.DGN



Item No.	Qty.	Unit	Description
R2	6834	S.Y.	Pav't Struct. Sec. No. 2
R5	556	S.Y.	Pav't Struct. Sec. No. 5
R7	1408	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	3317	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R18	2	EA	Median Refuge Area, Type 1, PC Std. Dtl. 207, Item # 9080285, See Note 4
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R30	1	EA	Reset Property Corner Monument, Item # 9250100
R31	6	EA	Property Corner - Protect-In-Place
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"
R48	1	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021
R53	2680	S.F.	Re-grade Eroded Areas, Item # 9999921, See Note 3 Sta. 197+00.00 to Sta. 198+12.00

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.
3. Re-grade eroded areas to remove rills. This work is incidental to item #9999921.
4. Maintain 2% maximum cross slope across the entire 6' wide refuge area, including any blended transition areas.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 197+00 TO 205+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Call 811 or click Arizona811.com

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

Sheet C16 of C20

Page 133 of 433

Ana M. Olivares, P.E., Director

	Date
Designed T. Rhine	01/2018
Drawn S. Denaybi	01/2018
Checked R. Solis	01/2018
Proj. Engr. R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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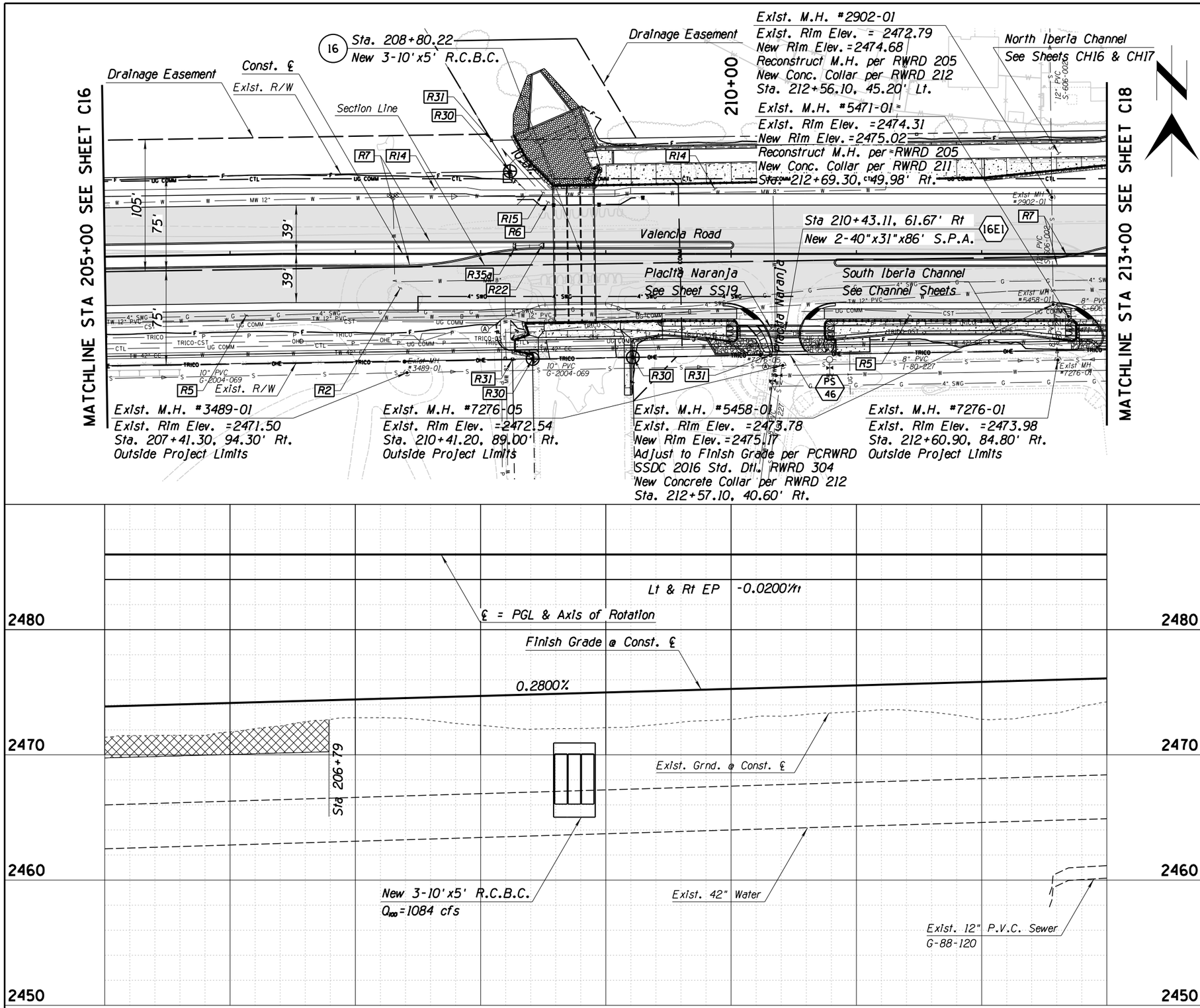
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

3:49:00 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP16.DGN



Item No.	Qty.	Unit	Description
R2	5974	S.Y.	Pav't Struct. Sec. No. 2
R5	647	S.Y.	Pav't Struct. Sec. No. 5
R6	62	S.Y.	Section No. 6, See Note 1
R7	1449	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	3910	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R15	97	S.F.	Concrete Sidewalk (Th = 6"), PAG Std. Dtl. 200, Item # 9080203 Sta. 208+35.77 to Sta. 208+57.52
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R30	3	EA	Reset Property Corner Monument, Item # 9250100
R31	3	EA	Property Corner - Protect-In-Place
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 205+00 TO 213+00

40 0 40 80

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Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet C17 of C20	Page 134 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

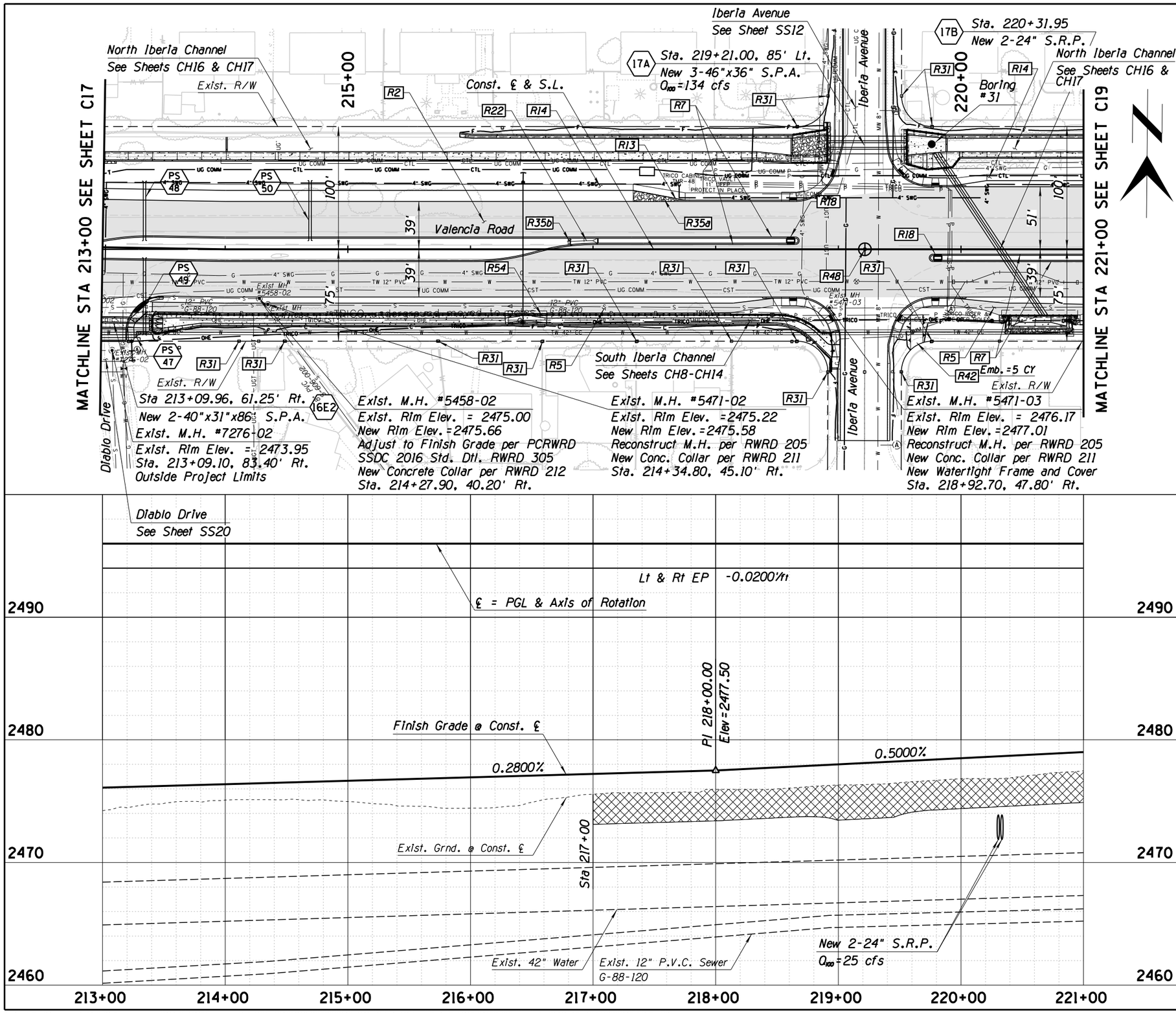
Registered Professional Engineer (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

4:45:57 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP17.DGN



Item No.	Qty.	Unit	Description
R2	6175	S.Y.	Pav't Struct. Sec. No. 2
R5	548	S.Y.	Pav't Struct. Sec. No. 5
R7	1397	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R13	1	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	3402	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R18	2	EA	Median Refuge Area, Type 1, PC Std. Dtl. 207, Item # 9080285, See Note 3
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R31	14	EA	Property Corner - Protect-In-Place
R35	3.8	C.Y.	Riprap (Dumped), Item # 9130001
a	3.6	C.Y.	D50=3"
b	0.2	C.Y.	D50=3"
R42	5	C.Y.	Dike, Item # 9999921
R48	1	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021
R54	97	S.F.	Retaining Wall, Detail DT, Item # 6010200

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.
3. Maintain 2% maximum cross slope across the entire 6' wide refuge area, including any blended transition areas.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 213+00 TO 221+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Date	Designed	T. Rhine	01/2018
	Drawn	S. Denaybi	01/2018
	Checked	R. Solis	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

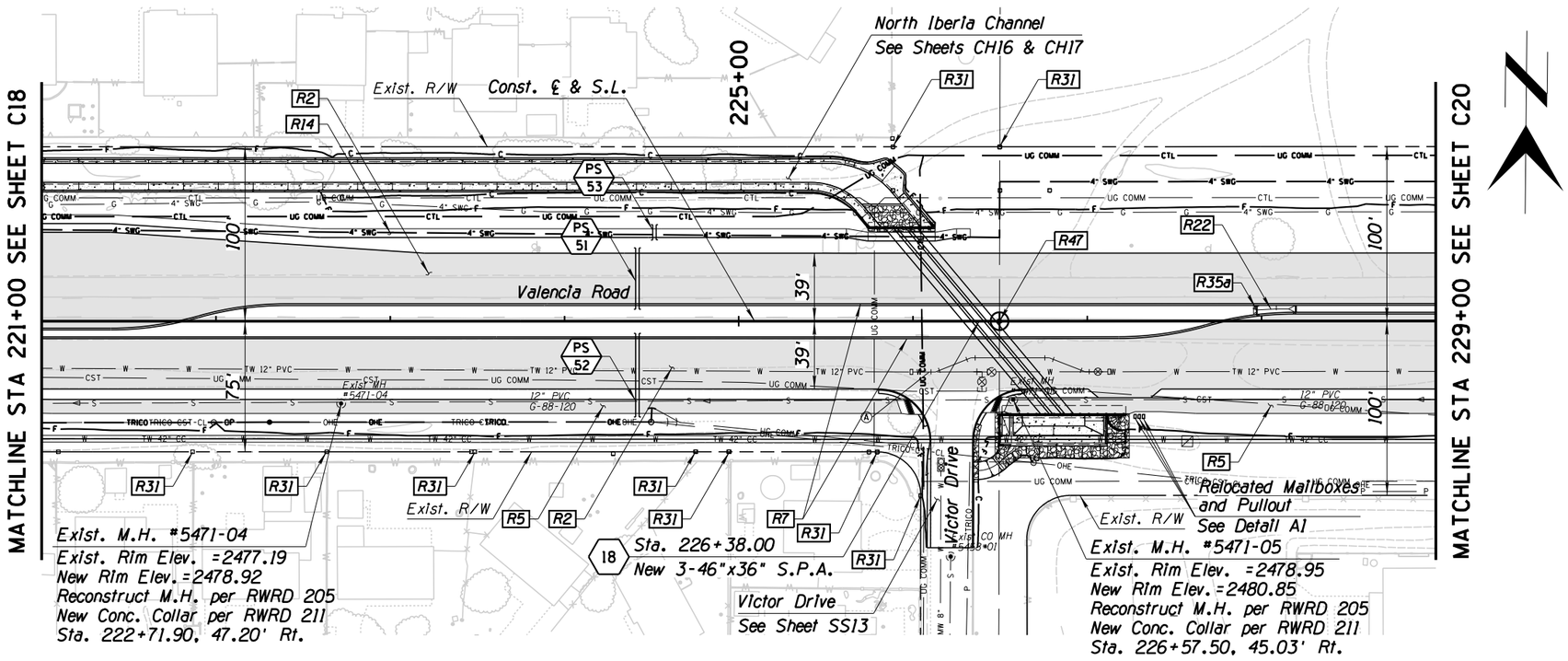
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

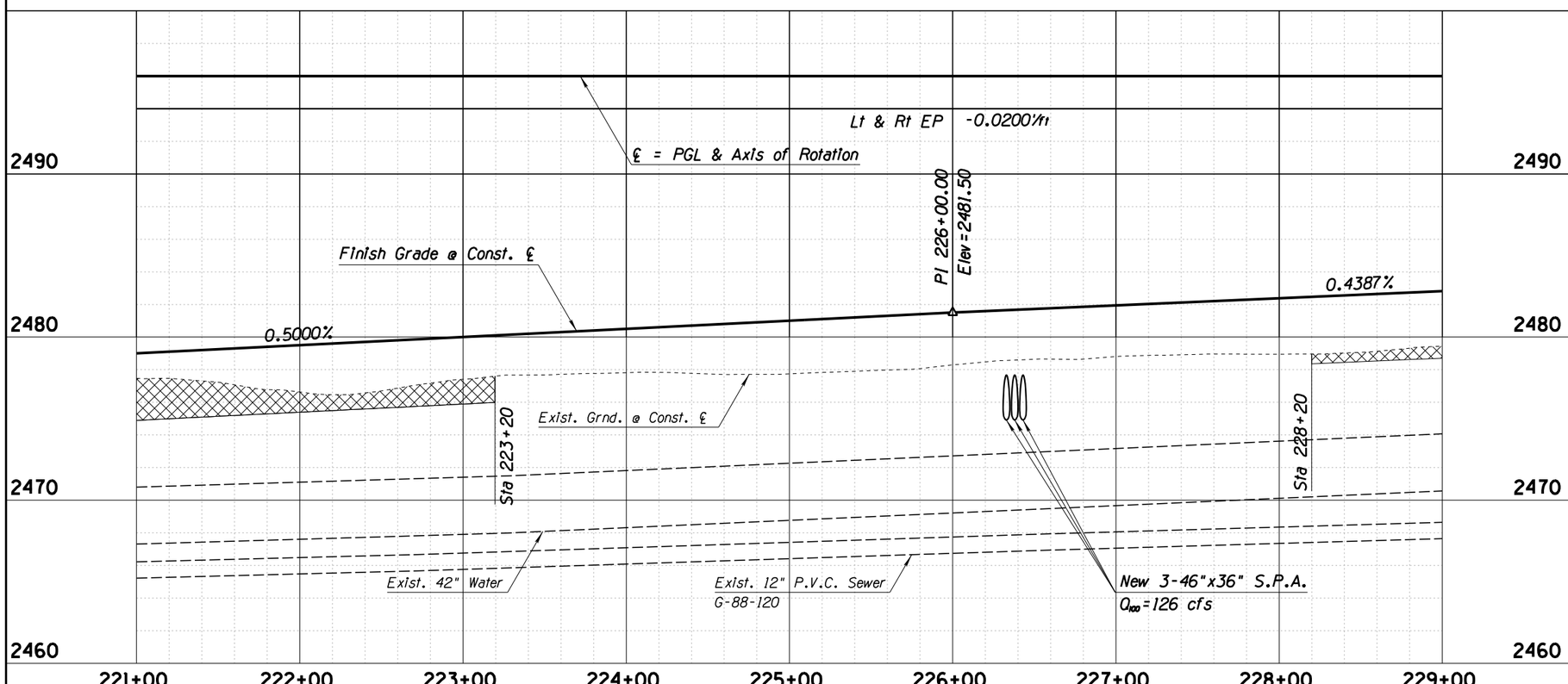
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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

4:45:58 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP18.DGN





Item No.	Qty.	Unit	Description
R2	5722	S.Y.	Pav't Struct. Sec. No. 2
R5	636	S.Y.	Pav't Struct. Sec. No. 5
R7	1603	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R14	2668	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R22	1	EA	Median Spillway, Detail A4, Item # 9300131
R31	9	EA	Property Corner - Protect-In-Place
R35	0.2	C.Y.	Riprap (Dumped), Item # 9130001
a	0.2	C.Y.	D50=3"
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 221+00 TO 229+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales: Horiz. 1"=40' Vert. 1"=4'

Sheet C19 of C20

Page 136 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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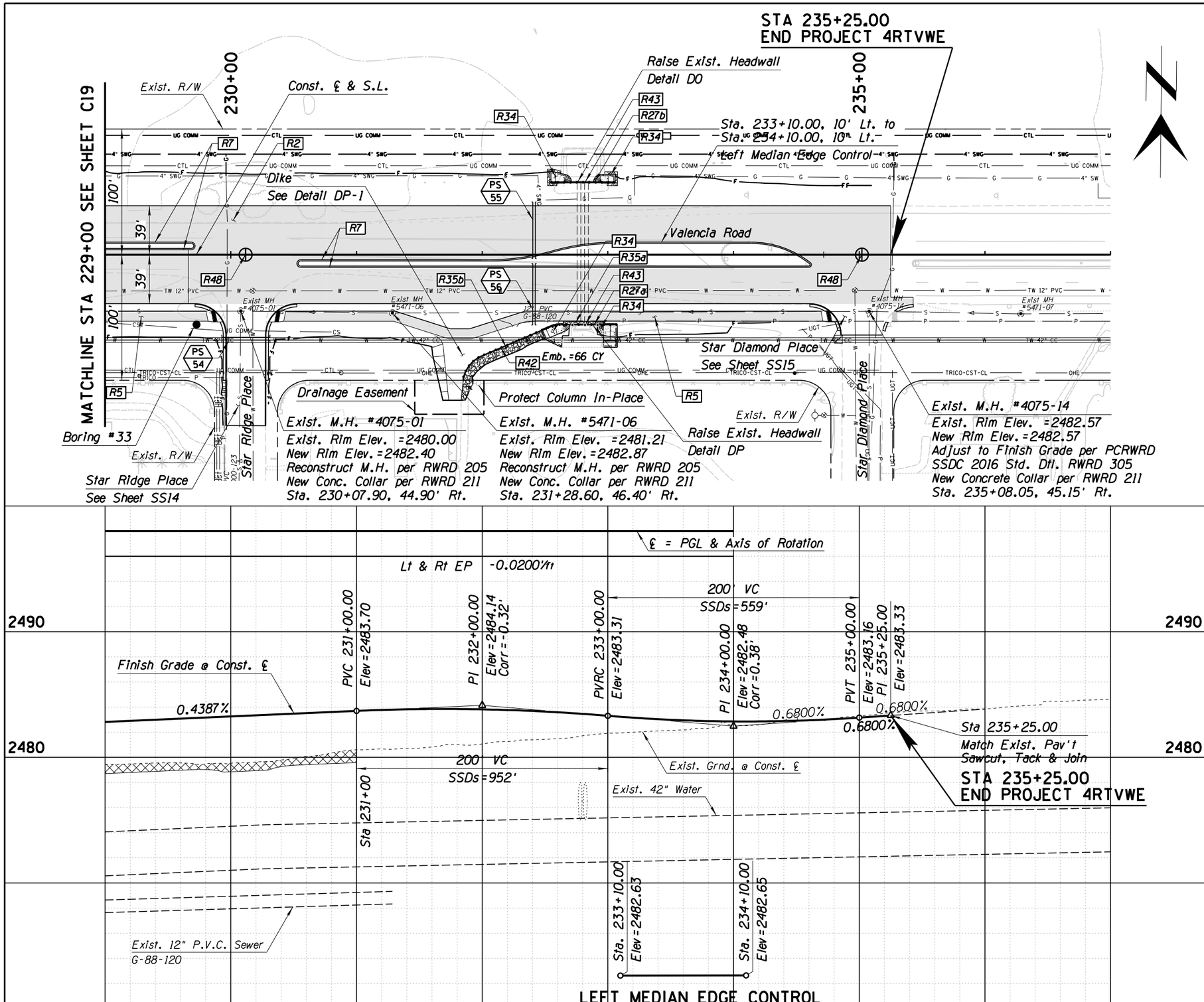
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

4:45:59 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MAINLINE\H022048PP19.DGN



Item No.	Qty.	Unit	Description
R2	4817	S.Y.	Pav't Struct. Sec. No. 2
R5	456	S.Y.	Pav't Struct. Sec. No. 5
R7	976	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
R27	190	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	138	L.F.	Top of Headwall Slope Paving and Dike
b	52	L.F.	Top of Headwall and Slope Paving
R34	115	S.Y.	Concrete Slope Paving, Item # 6017001
R35	23	C.Y.	Riprap (Dumped), Item # 9130001
a	1	C.Y.	D50=3"
b	22	C.Y.	D50=6"
R42	66	C.Y.	Dike, Item # 9999921
R43	62	L.F.	Extend Headwall, Details DO & DP, Item # 9300121
R48	2	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103, Item # 9090021

NOTES:

1. See Geometric Control sheets for control.
2. Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

PAVING PLAN/PROFILE
VALENCIA ROAD
STA. 229+00 TO 237+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

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

Sheet C20 of C20

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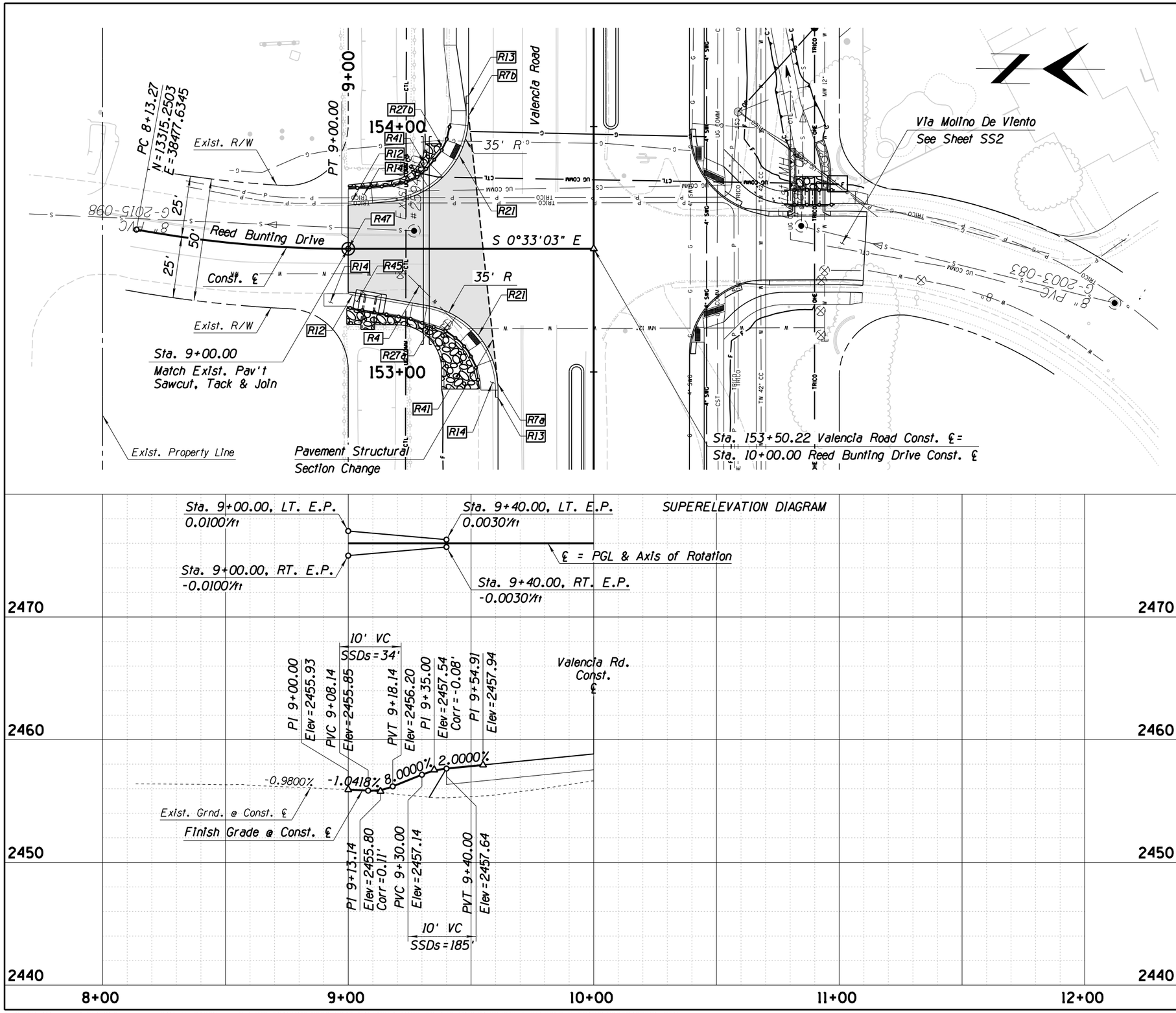

Item No.	Qty.	Unit	Description
R4	303	S.Y.	Pav't Struct. Sec. No. 4
R7	130	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
a	66	L.F.	Sta. 152+92.63, 39.0' Lt. to Sta. 9+15.39, 20.2' Rt.
b	64	L.F.	Sta. 9+09.98, 18.6' Lt. to Sta. 154+09.50, 51.0' Lt.
R12	14	L.F.	Concrete Transition, Detail A3, Item # 9080105
R13	2	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	515	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R21	2	EA	Curb Access Ramp, Type 1, PC Std. Dtl. 207, Item # 9080280
R27	127	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	71	L.F.	Sta. 8+99.49, 23.9' Rt. to Sta. 9+53.46, 57.0' Rt.
b	56	L.F.	Sta. 8+99.98, 24.6' Lt. to Sta. 9+41.56, 51.0' Lt.
R41	59	S.Y.	Rip Rap (Hand Placed) (Grouted), Detail DX, Item # 9130009
R45	1	EA	Sidewalk Scupper (Type 3), PAG Std. Dtl. 205, Item # 5030093
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control, including grouted riprap.

REED BUNTING DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

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ARIZONA811
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Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet SS1 of SS22	Page 138 of 433

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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333 E. Wetmore Road
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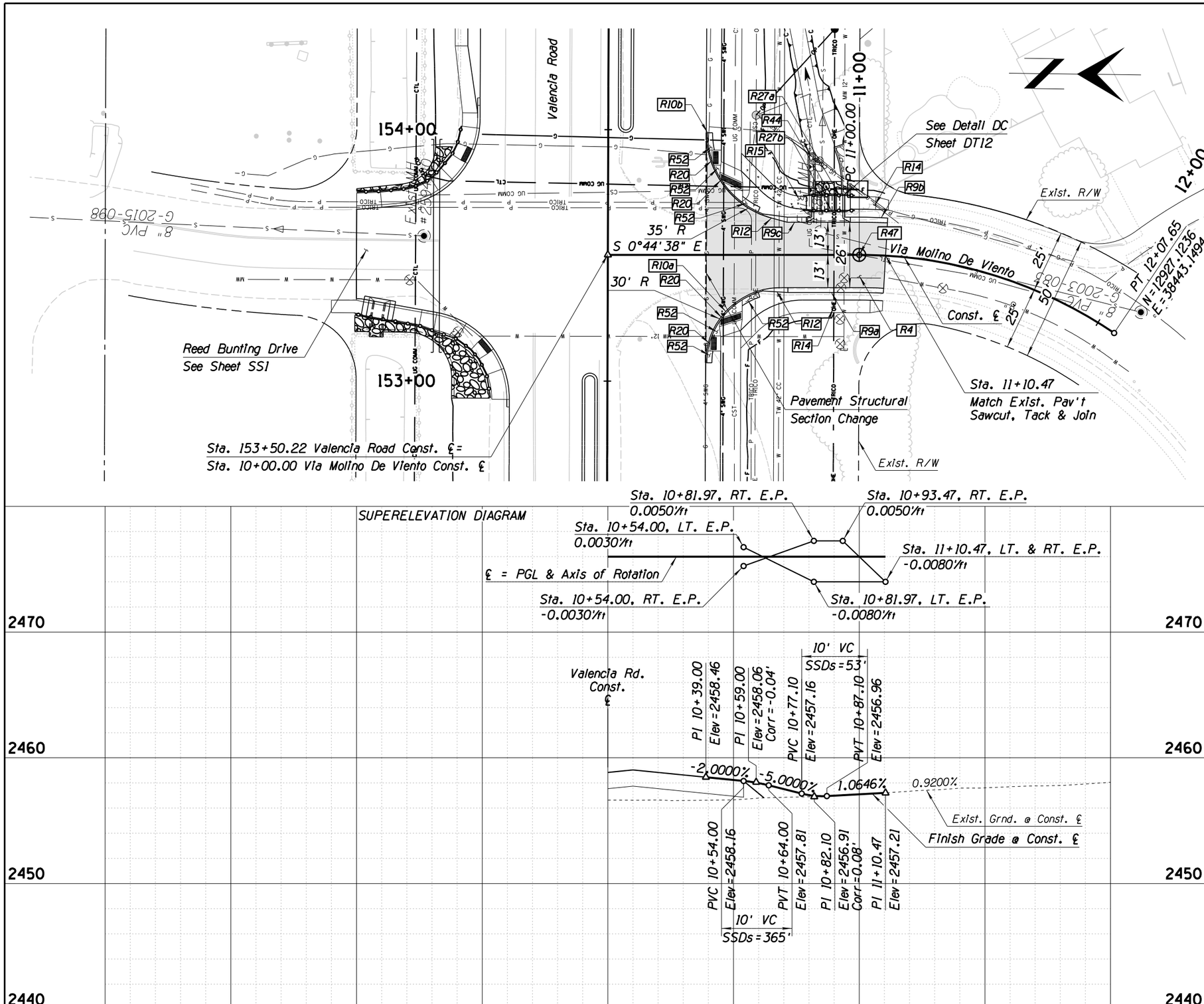
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:01:32 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR01.DGN



Item No.	Qty.	Unit	Description
R4	259	S.Y.	Pav't Struct. Sec. No. 4
R9	61	L.F.	Concrete Wedge Curb (H=6"), PAG Std. Dtl. 209, Item # 9080006
a	38	L.F.	Sta. 10+71.60, 13.0' Rt. to Sta. 11+10.47, 13.0' Rt.
b	15	L.F.	Sta. 10+96.47, 13.0' Lt. to Sta. 11+10.47, 13.0' Lt.
c	8	L.F.	Sta. 10+71.26, 13.0' Lt. to Sta. 10+78.97, 13.0' Lt.
R10	82	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	40	L.F.	Sta. 153+07.46, 39.0' Rt. to Sta. 10+61.62, 13.9' Rt.
b	42	L.F.	Sta. 10+61.62, 15.8' Lt. to Sta. 153+98.93, 39.0' Rt.
R12	20	L.F.	Concrete Transition, Detail A3, Item # 9080105
R14	374	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R15	158	S.F.	Concrete Sidewalk (Th = 6"), PAG Std. Dtl. 200, Item # 9080203
R20	4	EA	Concrete Landing, Detail A2, Item # 9080292
R27	42	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	21	L.F.	Sta. 10+77.13, 23.6' Lt. to Sta. 10+98.30, 23.6' Lt.
b	21	L.F.	Sta. 10+77.13, 17.6' Lt. to Sta. 10+98.30, 17.6' Lt.
R44	1	EA	Concrete Scupper (Type 2), Detail DC, Item # 9080227
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002
R52	71	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

VIA MOLINO DE VIENTO
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet SS2 of SS22	Page 139 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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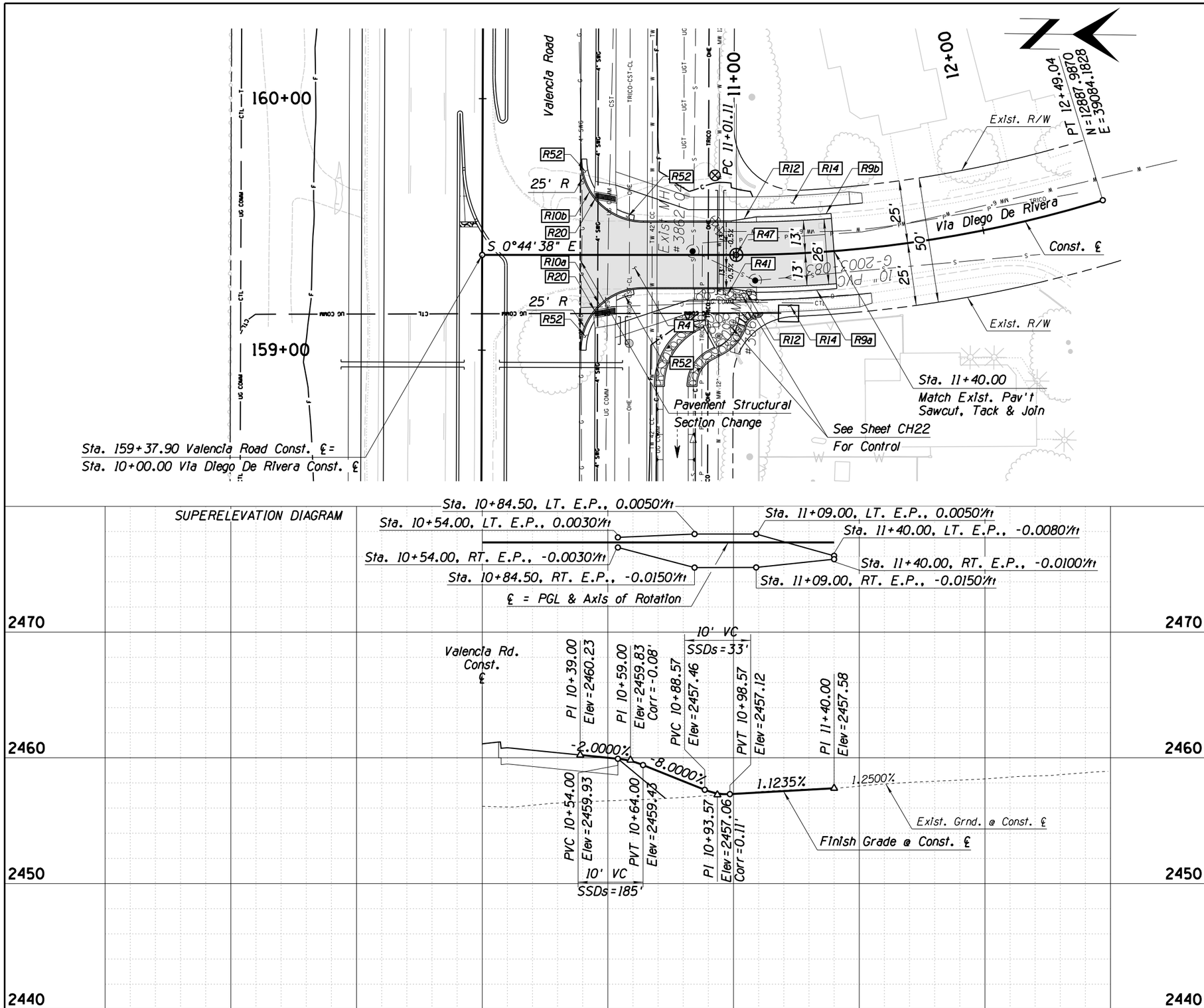
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R4	322	S.Y.	Pav't Struct. Sec. No. 4
R9	62	L.F.	Concrete Wedge Curb (H=6"), PAG Std. Dtl. 209, Item # 9080006
a	32	L.F.	Sta. 11+08.92, 13.0' Rt. to Sta. 11+40.00, 13.0' Rt.
b	30	L.F.	Sta. 11+09.33, 13.0' Lt. to Sta. 11+40.00, 13.0' Lt.
R10	150	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	75	L.F.	Sta. 159+00.11, 39.0' Rt. to Sta. 10+99.12, 13.0' Rt.
b	75	L.F.	Sta. 10+99.12, 13.0' Lt. to Sta. 159+76.11, 39.0' Rt.
R12	20	L.F.	Concrete Transition, Detail A3, Item # 9080105
R14	1013	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R41	12	S.Y.	Rip Rap (Hand Placed) (Grouted), Item # 9130009
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002
R52	85	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

VIA DIEGO DE RIVERA
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet SS3 of SS22

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

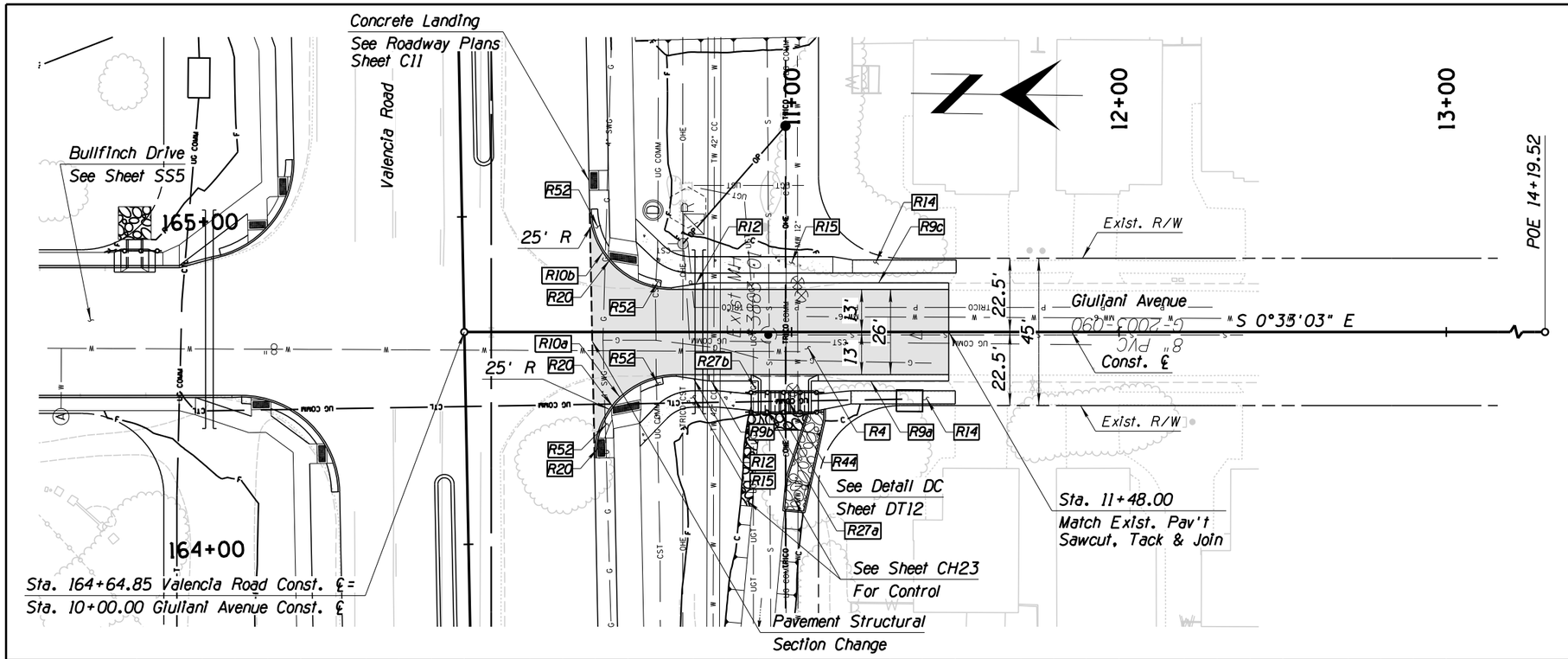
Pima County Department of Transportation

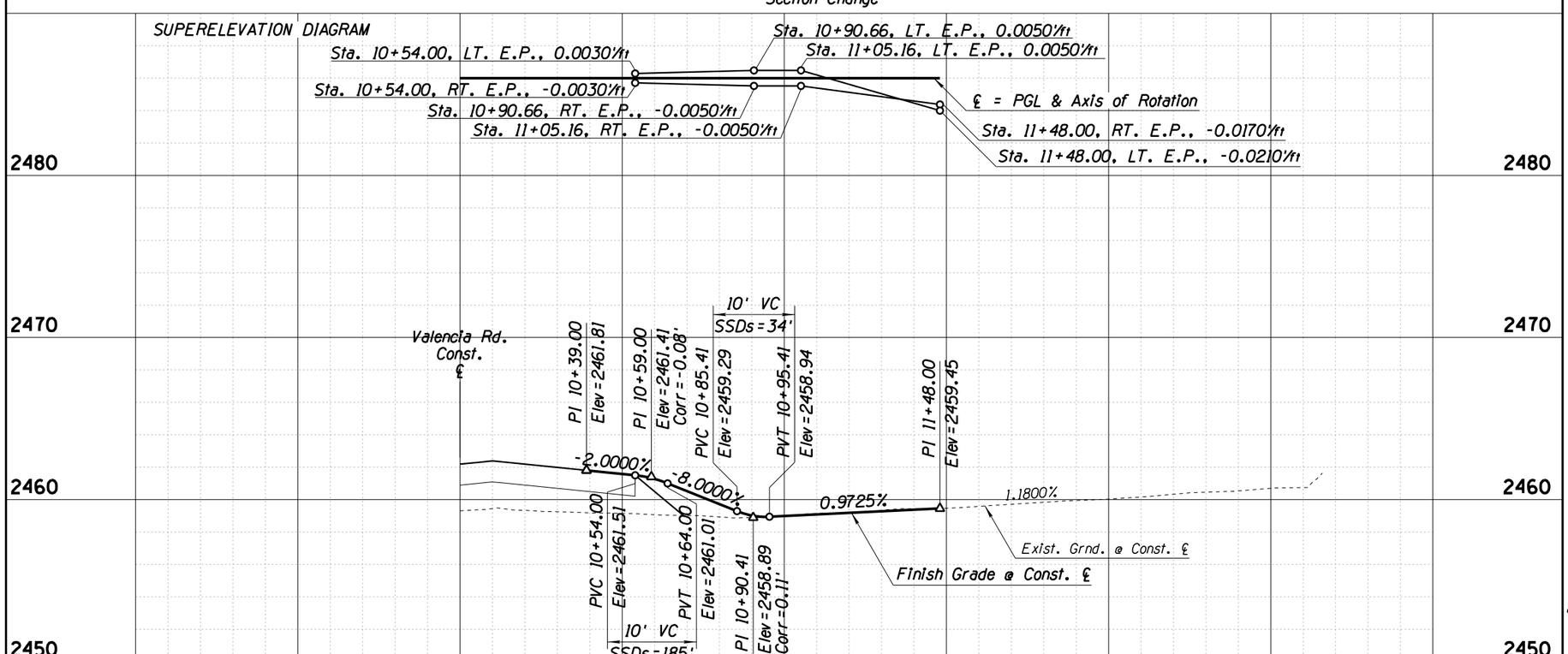
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020





Item No.	Qty.	Unit	Description
R4	345	S.Y.	Pav't Struct. Sec. No. 4
R9	128	L.F.	Concrete Wedge Curb (H=6"), PAG Std. Dtl. 209, Item # 9080006
a	40	L.F.	Sta. 11+08.16, 13.0' Rt. to Sta. 11+48.00, 13.0' Rt.
b	13	L.F.	Sta. 10+74.76, 13.0' Rt. to Sta. 10+87.66, 13.0' Rt.
c	75	L.F.	Sta. 10+73.26, 13.0 Lt. to Sta. 11+48.00, 13.0' Lt.
R10	79	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	40	L.F.	Sta. 164+25.57, 39.0' Rt. to Sta. 10+64.76, 13.0' Rt.
b	39	L.F.	Sta. 10+63.26, 13.0' Lt. to Sta. 165+01.59, 39.0' Rt.
R12	20	L.F.	Concrete Transition, Detail A3, Item # 9080105
R14	326	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R15	510	S.F.	Concrete Sidewalk (Th = 6"), PAG Std. Dtl. 200, Item # 9080203
R20	3	EA	Concrete Landing, Detail A2, Item # 9080292
R27	48	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	24	L.F.	Sta. 10+85.83, 24.5' Rt. to Sta. 11+09.99, 24.5' Rt.
b	24	L.F.	Sta. 10+85.83, 18.5' Rt. to Sta. 11+09.99, 18.5' Rt.
R44	1	EA	Concrete Scupper (Type 2), Detail DC, Item # 9080227
R52	73	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

GIULIANI AVENUE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Date	
Designed	T. Rhine
Drawn	S. Denaybi
Checked	R. Solis
Proj. Engr.	R. Solis

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
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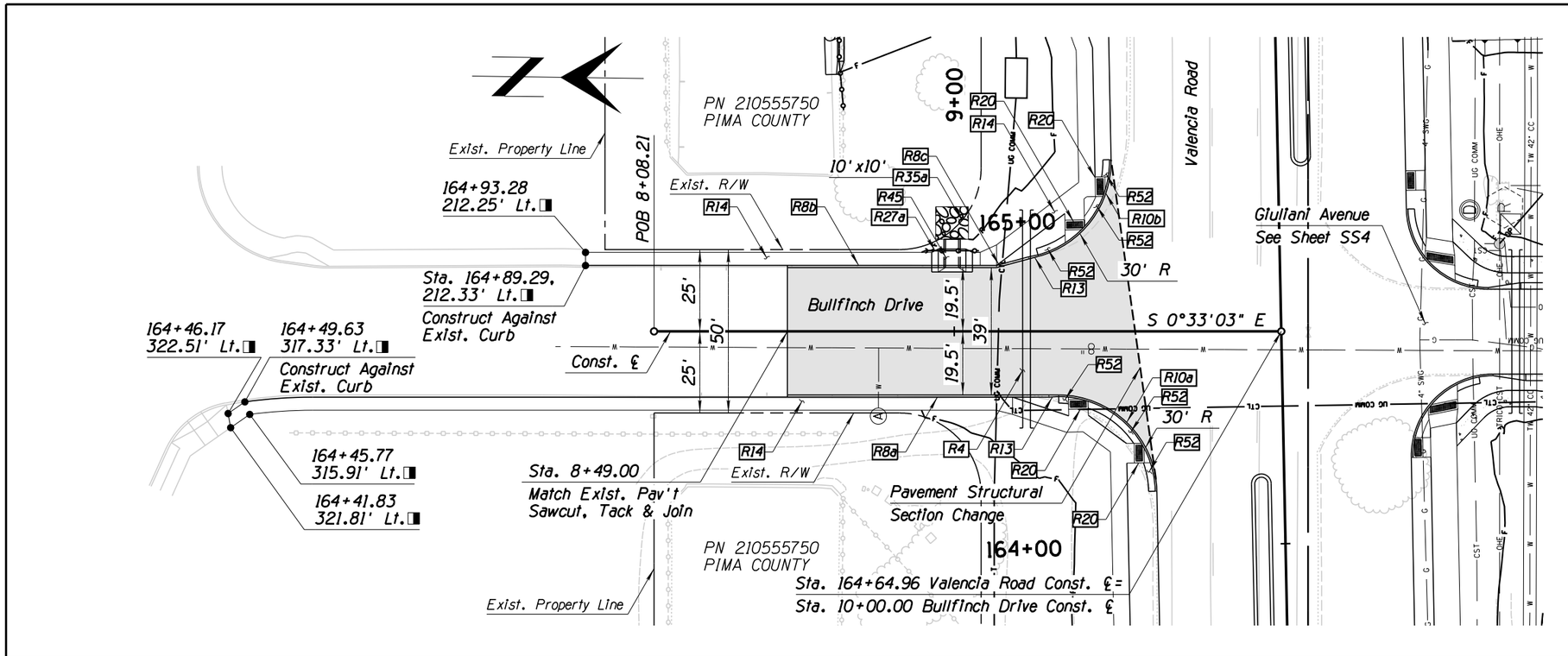
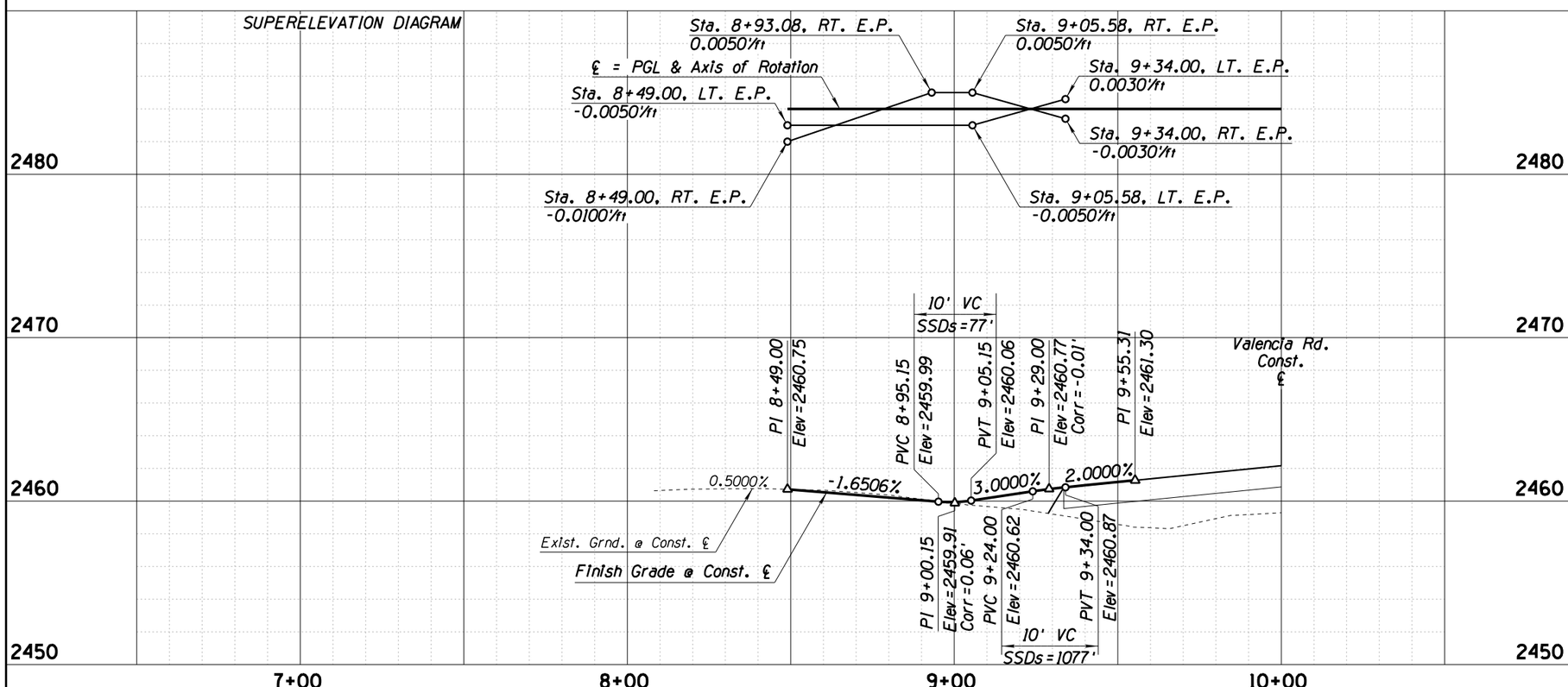
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Scales Horiz. 1"=20' Vert. 1"=4'

Sheet SS4 of SS22

4:01:34 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR04.DGN





Item No.	Qty.	Unit	Description
R4	512	S.Y.	Pav't Struct. Sec. No. 4
R8	142	L.F.	Concrete Curb, Type 2 (H=6"), PAG Std. Dtl. 209, Item # 9080005
a	80	L.F.	Sta. 8+49.00, 19.5' Rt. to Sta. 9+28.97, 19.5' Rt.
b	44	L.F.	Sta. 8+49.00, 19.5' Lt. to Sta. 8+93.08, 19.5' Lt.
c	18	L.F.	Sta. 9+05.58, 19.5' Lt. to Sta. 9+22.82, 22.1' Lt.
R10	87	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	47	L.F.	Sta. 164+16.81, 39.0' Lt. to Sta. 9+31.97, 19.5' Rt.
b	40	L.F.	Sta. 9+25.72, 22.9' Lt. to Sta. 165+18.46, 51.0' Lt.
R13	2	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	1795	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	4	EA	Concrete Landing, Detail A2, Item # 9080292
R27	17	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	17	L.F.	Sta. 8+91.08, 24.6' Lt. to Sta. 9+07.58, 24.6' Lt.
R35	4	C.Y.	Riprap (Dumped), Item # 9130001
a	4	C.Y.	D50=6"
R45	1	EA	Sidewalk Scupper (Type 3), PAG Std. Dtl. 205, Item # 5030093
R52	110	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

◨ Station and offset are based on the Valencia Rd. Const. ℄

BULLFINCH DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet SS5 of SS22	Page 142 of 433
	Vert. 1"=4'		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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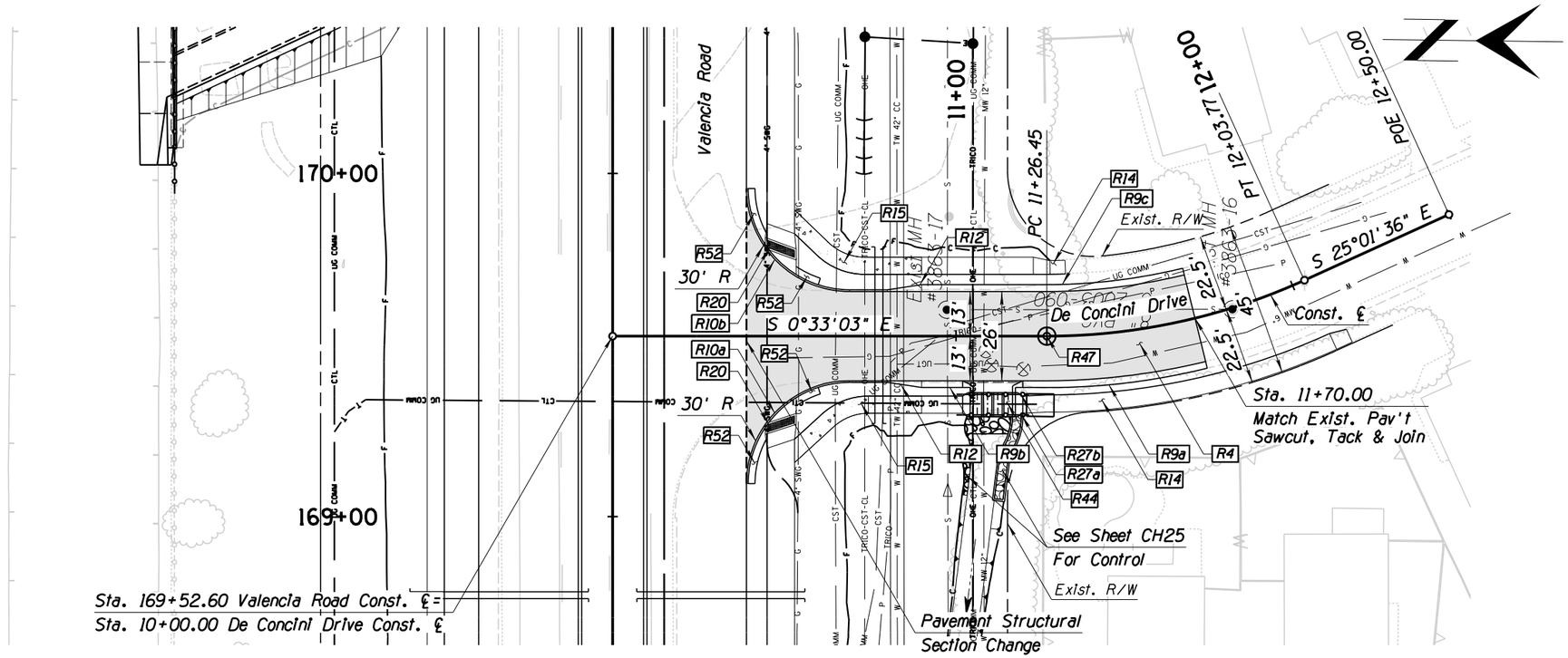
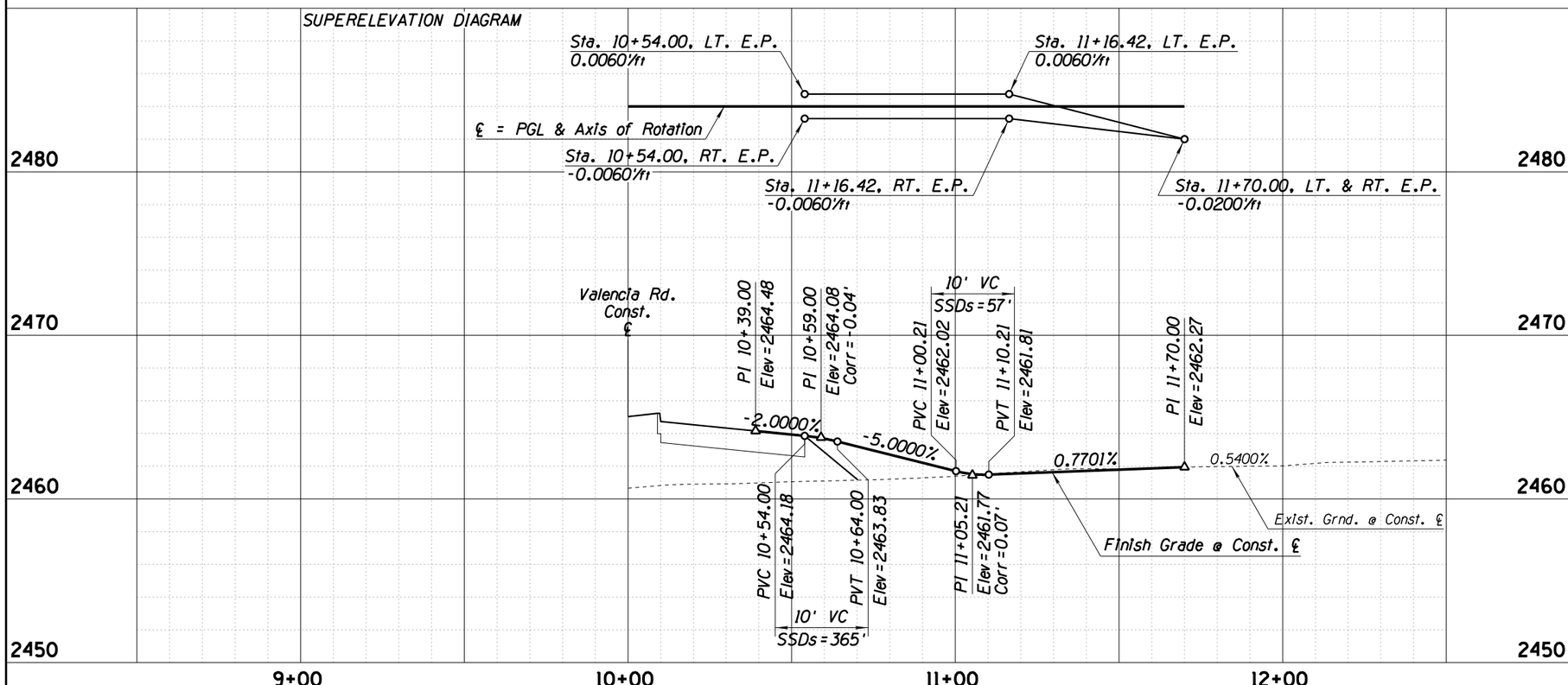
333 E. Rethmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R4	422	S.Y.	Pav't Struct. Sec. No. 4
R9	143	L.F.	Concrete Wedge Curb (H=6"), PAG Std. Dtl. 209, Item # 9080006
a	54	L.F.	Sta. 11+19.42, 13.0' Rt. to Sta. 11+70.00, 13.0' Rt.
b	12	L.F.	Sta. 10+90.00, 13.0 Rt. to Sta. 11+01.92, 13.0' Rt.
c	77	L.F.	Sta. 10+90.00, 13.0' Lt. to Sta. 11+70.00, 13.0' Lt.
R10	118	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	59	L.F.	Sta. 169+09.60, 39.0' Rt. to Sta.10+80.00, 13.0' Rt.
b	59	L.F.	Sta. 169+95.60, 39.0' Rt. to Sta. 10+80.00, 13.0' Lt.
R12	20	L.F.	Concrete Transition, Detail A3, Item # 9080105
R14	750	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R15	416	S.F.	Concrete Sidewalk (Th = 6"), PAG Std. Dtl. 200, Item # 9080203
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R27	42	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	21	L.F.	Sta. 11+00.09, 23.0' Rt. to Sta. 11+21.25, 23.0' Rt.
b	21	L.F.	Sta. 11+00.09, 17.0' Rt. to Sta. 11+21.25, 17.0' Rt.
R44	1	EA	Concrete Scupper (Type 2), Detail DC, Item # 9080227
R47	1	EA	Survey Monument, PC Std. Dtl. 103, Item # 9090002
R52	91	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

DE CONCINI DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

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ARIZONA811
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Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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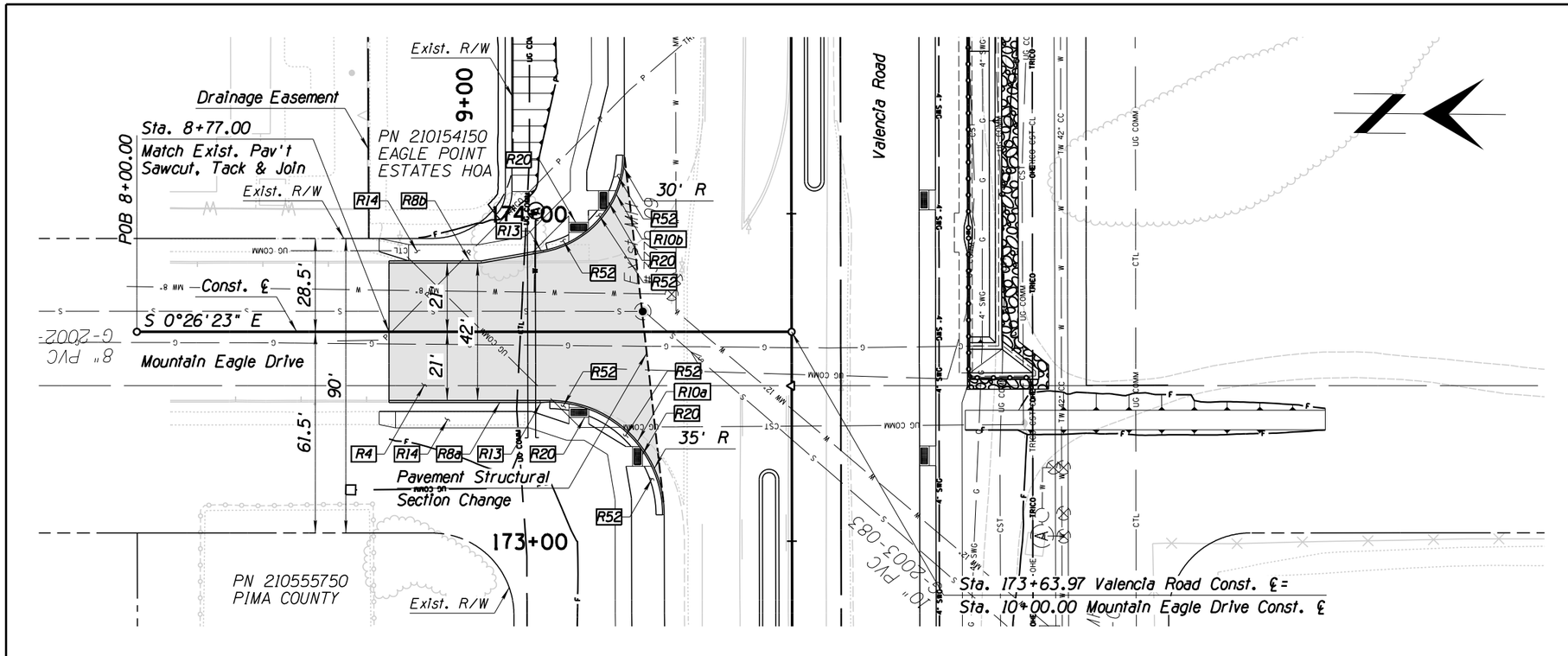
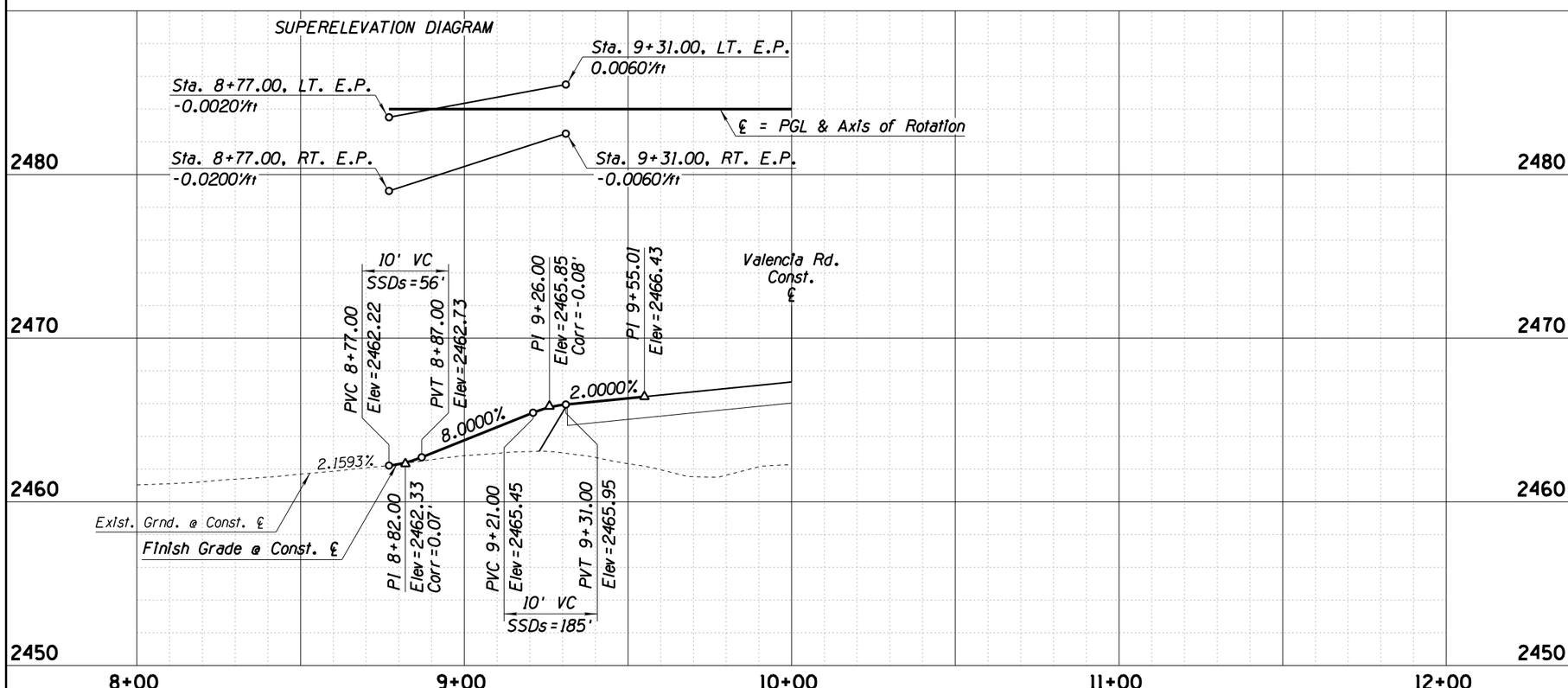
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'

4:01:35 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR06.DGN





Item No.	Qty.	Unit	Description
R4	426	S.Y.	Pav't Struct. Sec. No. 4
R8	91	L.F.	Concrete Curb, Type 2 (H=6"), PAG Std. Dtl. 209, Item # 9080005
a	46	L.F.	Sta. 8+77.00, 21.0' Rt. to Sta. 9+23.10, 21.0' Rt.
b	45	L.F.	Sta. 8+77.00, 21.0' Lt. to Sta. 9+21.18, 23.8' Lt.
R10	97	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	55	L.F.	Sta. 9+26.10, 21.0' Rt. to Sta. 173+08.12, 39.0' Lt.
b	42	L.F.	Sta. 9+24.13, 24.3' Lt. to Sta. 174+17.97, 51.0' Lt.
R13	2	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	838	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	4	EA	Concrete Landing, Detail A2, Item # 9080292
R52	127	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

MOUNTAIN EAGLE DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

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Ana M. Olivares, P.E., Director
Pima County Department of Transportation

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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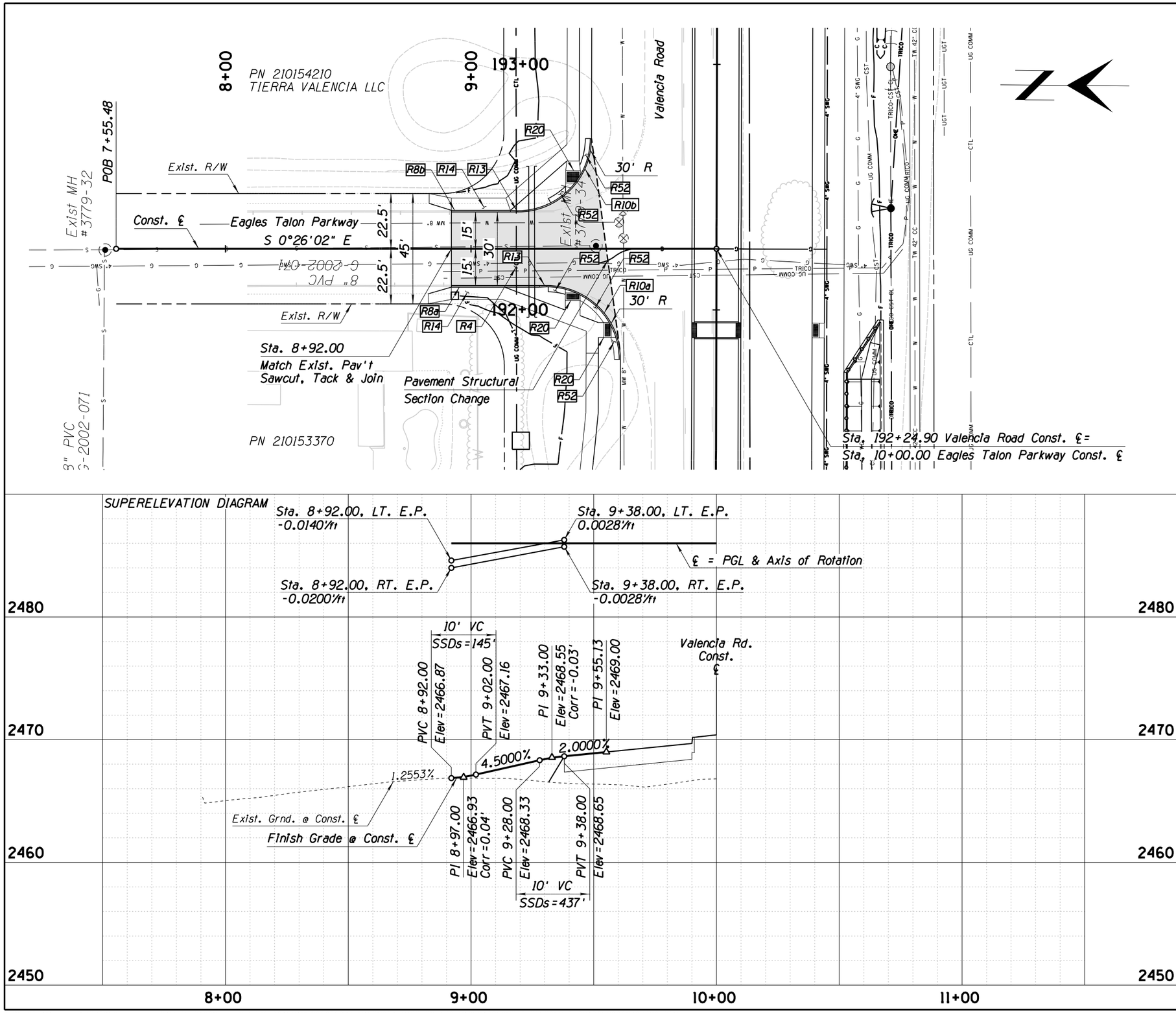
(520) 615-9191 Fax (602) 944-7423

#4RTVWE
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'



Item No.	Qty.	Unit	Description
R4	254	S.Y.	Pav't Struct. Sec. No. 4
R8	60	L.F.	Concrete Curb, Type 2 (H=6"), PAG Std. Dtl. 209, Item # 9080005
a	36	L.F.	Sta. 8+92.00, 15.0' Rt. to Sta. 9+27.89, 15.0' Rt.
b	24	L.F.	Sta. 8+92.00, 15.0' Lt. to Sta. 9+19.11, 15.0' Lt.
R10	95	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	48	L.F.	Sta. 9+30.89, 15.0' Rt. to Sta. 191+79.73, 39.0' Lt.
b	47	L.F.	Sta. 9+19.11, 15.0' Lt. to Sta. 192+69.71, 51.0' Lt.
R13	2	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	752	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	3	EA	Concrete Landing, Detail A2, Item # 9080292
R52	105	S.F.	Concrete Apron (Th = 8"), Item # 9300139

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

EAGLES TALON PARKWAY
SIDE STREET PLAN/PROFILE

20 0 20 40

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No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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Ana M. Olivares, P.E., Director

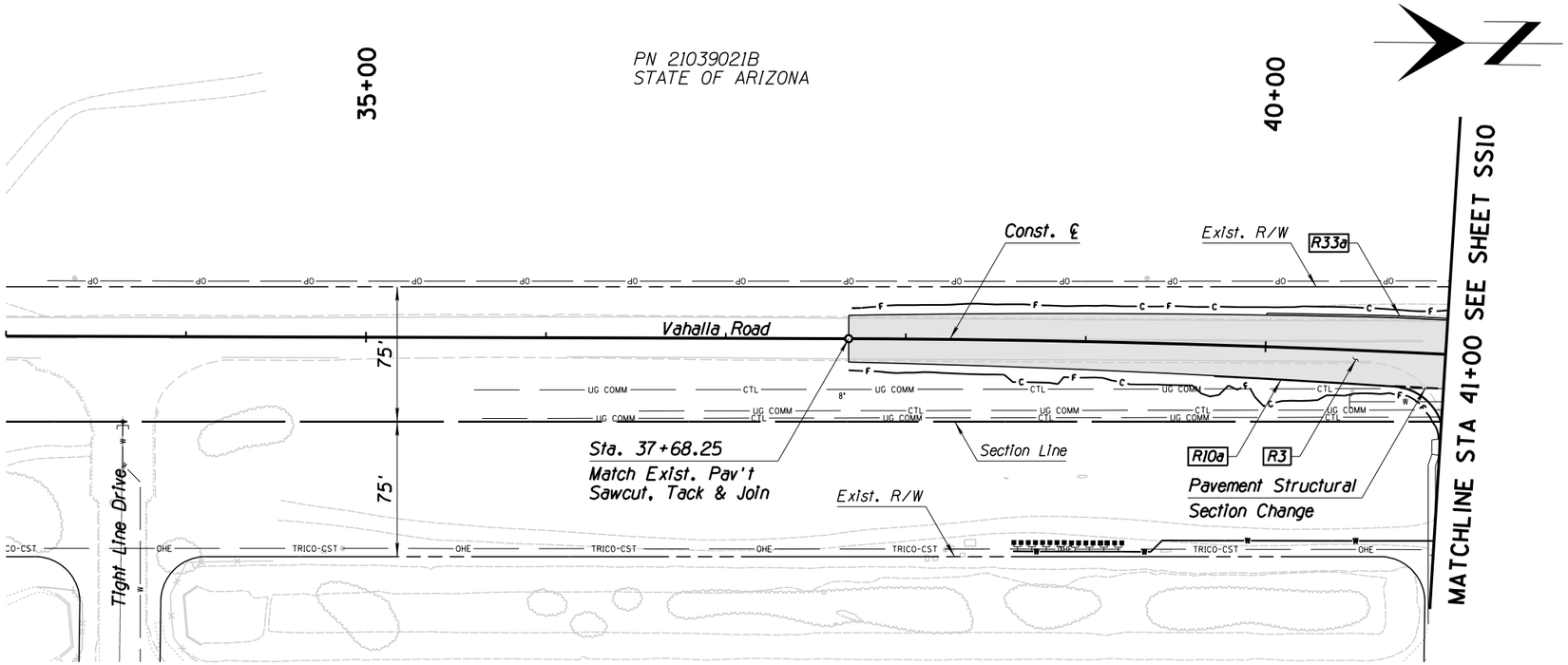
Pima County Department of Transportation

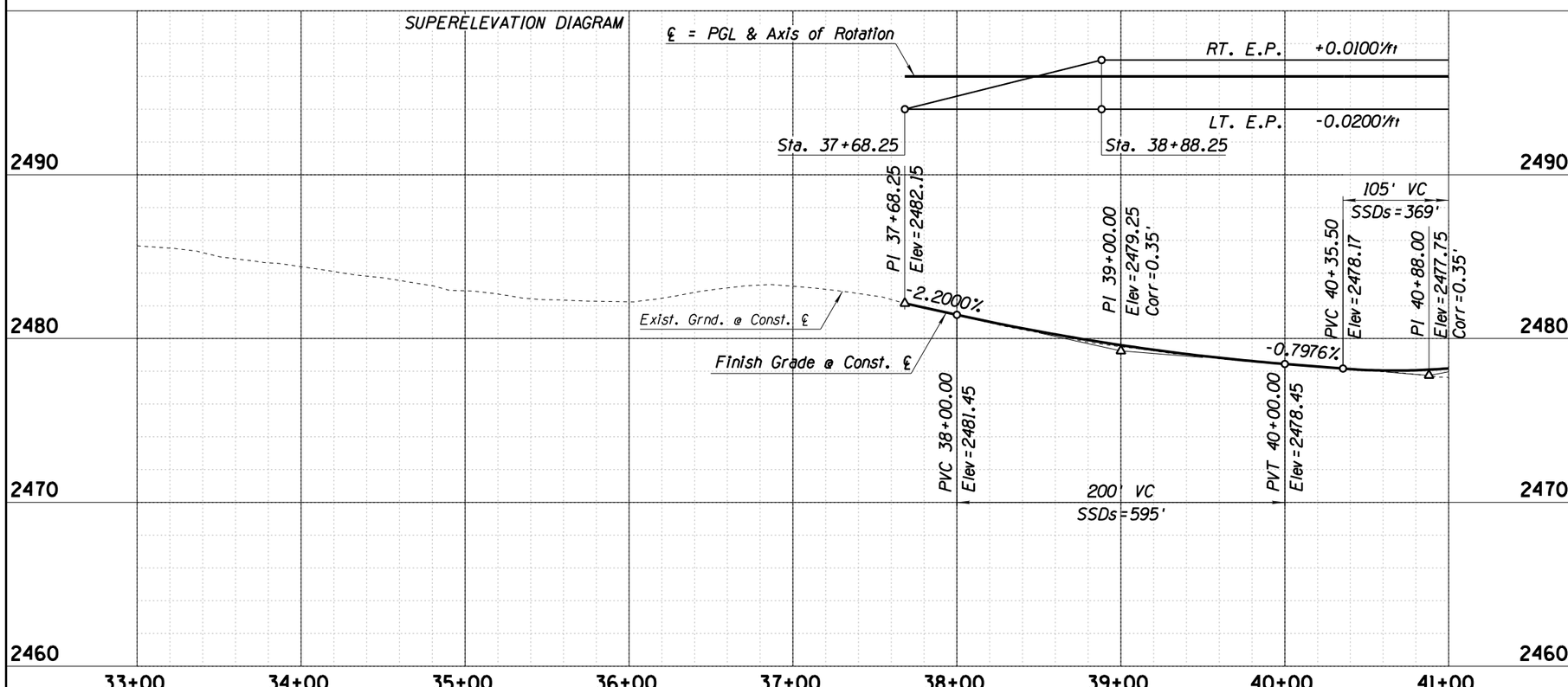
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'

4:01:37 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR08.DGN





Item No.	Qty.	Unit	Description
R3	1200	S.Y.	Pav't Struct. Sec. No. 3
R10	100	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	100	L.F.	Sta. 39+72.00, 17.0' Rt. to Sta. 40+72.28, 19.0' Rt.
R33	121	L.F.	Concrete Cut-off Wall - 3-ft, Item # 6010713
a	121	L.F.	Sta. 40+00.00, 18.6' Lt. to Sta. 41+20.00, 20.0' Lt.

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

VAHALLA ROAD
SHEET 1 OF 3
SIDE STREET PLAN/PROFILE

40 0 40 80

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Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

STATE OF ARIZONA REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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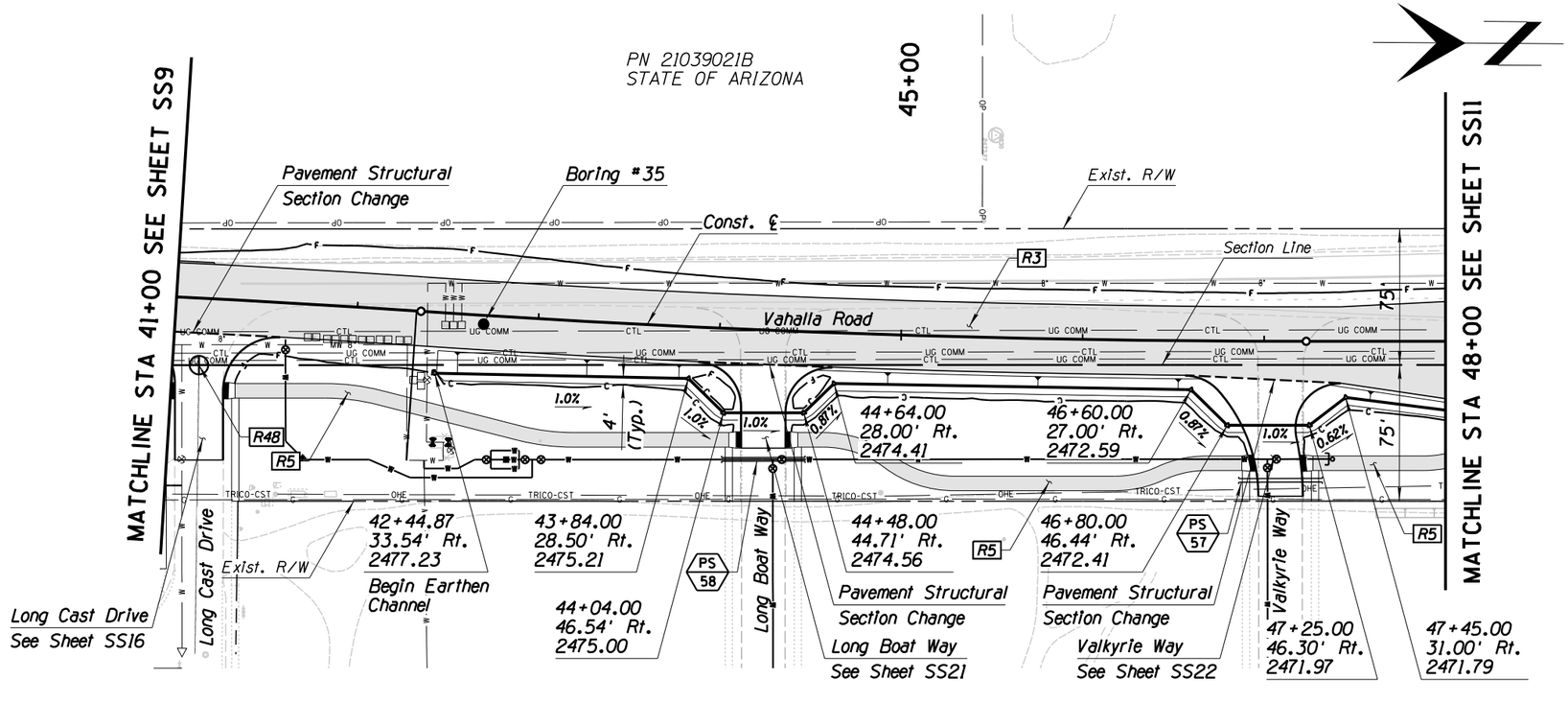
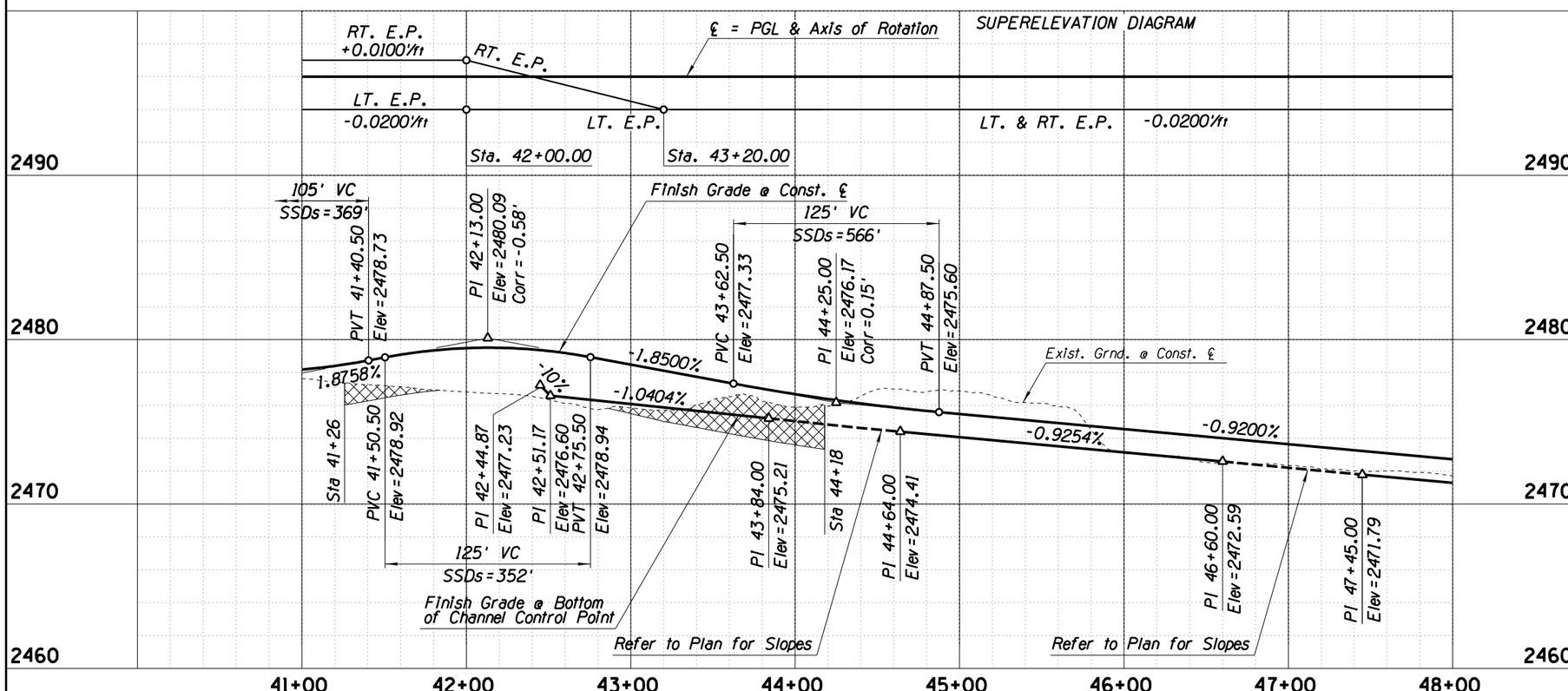
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales Horiz. 1"=40' Vert. 1"=4' | Sheet SS9 of SS22 | Page 146 of 433





Item No.	Qty.	Unit	Description
R3	3024	S.Y.	Pav't Struct. Sec. No. 3
R5	533	S.Y.	Pav't Struct. Sec. No. 5
R48	1	EA	Survey Monument (Frame & Cover), PC Std. Dtl. 103. Item # 9090021

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for survey and path alignment.
3. ▨ Overexcavate and remove unsuitable materials to the designated treatment base. Limit the placement of unsuitable materials to the locations designated in Detail A9.

VAHALLA ROAD
SHEET 2 OF 3
SIDE STREET PLAN/PROFILE

40 0 40 80

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Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet SS10 of SS22	Page 147 of 433

#4RTVWE Pima County Department of Transportation
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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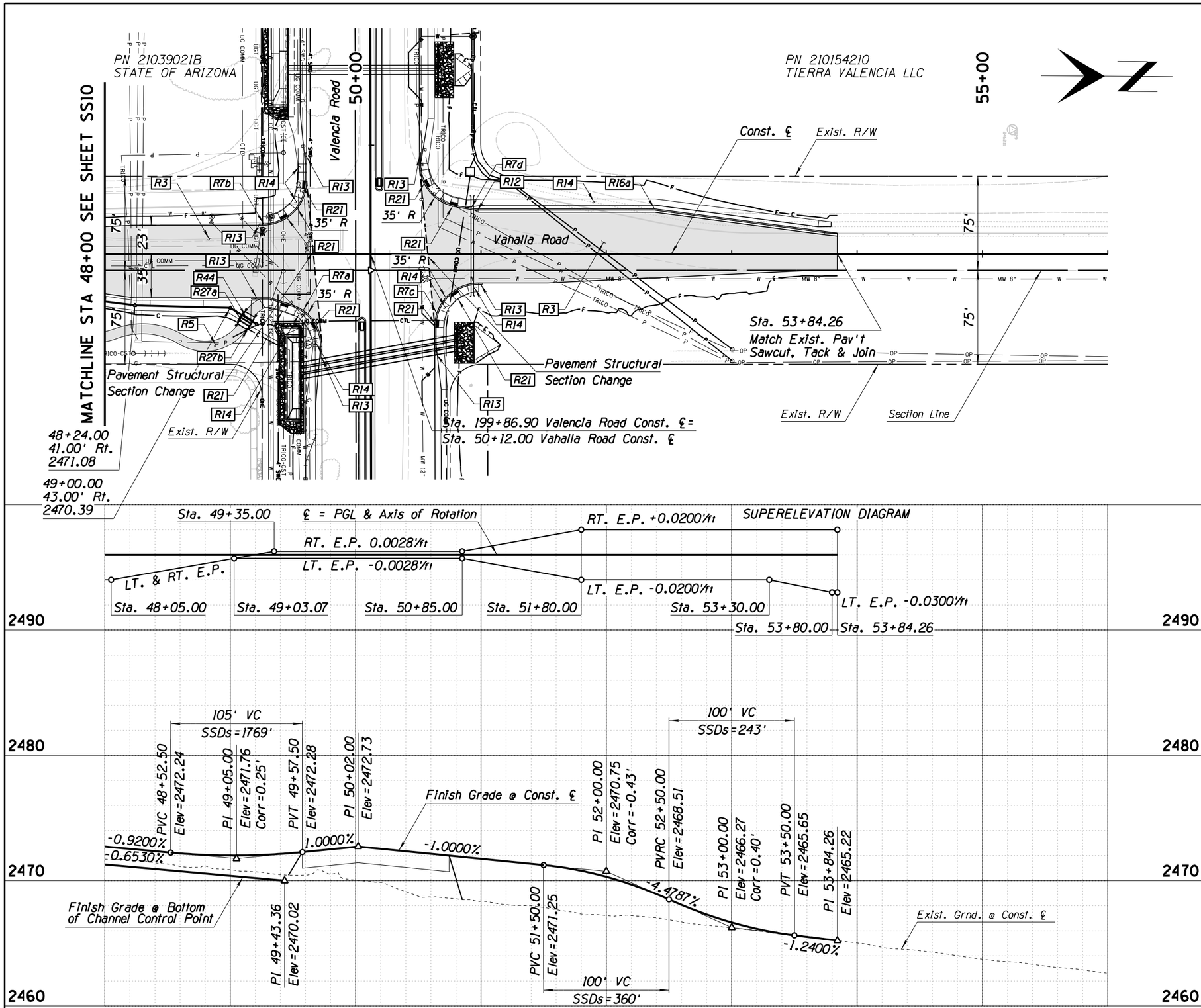

Item No.	Qty.	Unit	Description
R3	2968	S.Y.	Pav't Struct. Sec. No. 3
R5	126	S.Y.	Pav't Struct. Sec. No. 5
R7	300	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
a	80	L.F.	Sta. 49+19.87, 35.0' Rt. to Sta. 200+60.54, 39.0' Rt.
b	75	L.F.	Sta. 49+25.91, 23.0' Lt. to Sta. 199+09.06, 51.0' Rt.
c	75	L.F.	Sta. 200+64.98, 51.0' Lt. to Sta. 50+98.12, 23.0' Rt.
d	70	L.F.	Sta. 199+08.89, 39.0' Lt. to Sta. 50+94.91, 35.0' Lt.
R12	3	L.F.	Concrete Transition, Detail A3, Item # 9080105
R13	7	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	1908	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R16	288	L.F.	Concrete Curb and Gutter, Type 1G, PAG Std. Dtl. 209, Item # 9080051
a	288	L.F.	Sta. 50+97.91, 35.0' Lt. to Sta. 53+84.26, 14.3' Lt.
R21	8	EA	Curb Access Ramp, Type 1, PC Std. Dtl. 207, Item # 9080280
R27	34	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	17	L.F.	Sta. 49+04.23, 57.6' Rt. to Sta. 49+13.19, 43.8' Rt.
b	17	L.F.	Sta. 49+11.96, 62.4' Rt. to Sta. 49+20.90, 48.5' Rt.
R44	1	EA	Concrete Scupper (Type 2), Detail DC, Item # 9080227

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for survey and path alignment.

VAHALLA ROAD
SHEET 3 OF 3
SIDE STREET PLAN/PROFILE

40 0 40 80

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Scales	Horiz. 1"=40' Vert. 1"=4'	Sheet SS11 of SS22	Page 148 of 433

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Registered Professional Engineer (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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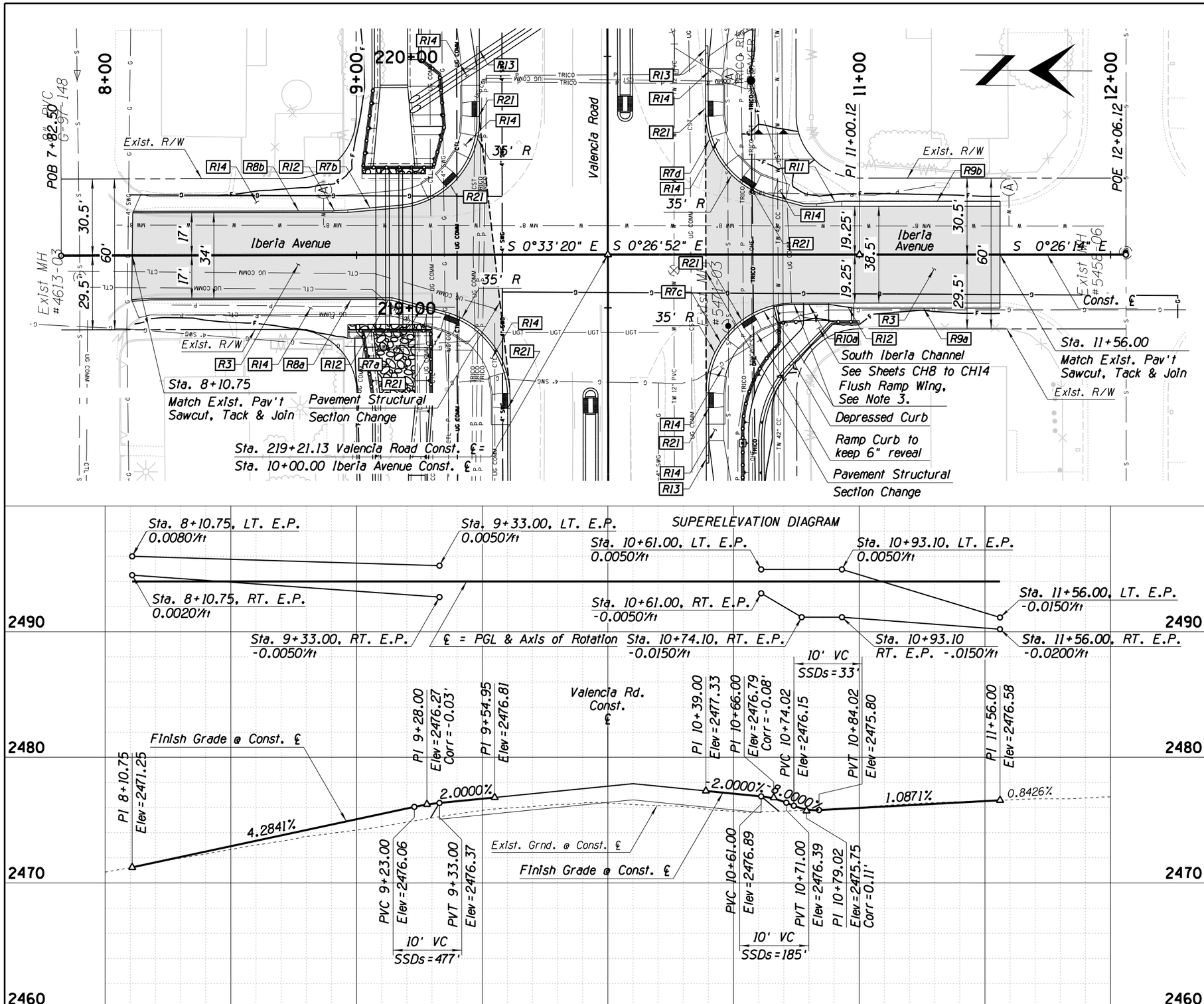
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:01:39 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR11.DGN



Item No.	Qty.	Unit	Description
R3	1198	S.Y.	Pav't Struct. Sec. No. 3
R7	351	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
a	91	L.F.	Sta. 9+14.14, 17.0' Rt. to Sta. 217+69.13, 39.0' Lt.
b	99	L.F.	Sta. 8+96.59, 17.0' Lt. to Sta. 220+01.14, 51.0' Lt.
c	73	L.F.	Sta. 218+41.13, 39.0' Rt. to Sta. 10+65.94, 20.2' Rt.
d	88	L.F.	Sta. 220+01.15, 39.0' Rt. to Sta. 10+83.08, 19.3' Lt.
R8	178	L.F.	Concrete Curb, Type 2 (H=6"), PAG Std. Dtl. 209, Item # 9080005
a	98	L.F.	Sta. 8+10.50, 17.6' Rt. to Sta. 9+08.14, 17.0' Rt.
b	80	L.F.	Sta. 8+10.98, 17.0' Lt. to Sta. 8+90.59, 17.0' Lt.
R9	122	L.F.	Concrete Wedge Curb (H=6"), PAG Std. Dtl. 209, Item # 9080006
a	59	L.F.	Sta. 10+97.82, 19.3' Rt. to Sta. 11+56.00, 19.3' Rt.
b	63	L.F.	Sta. 10+93.08, 19.3' Lt. to Sta. 11+56.00, 19.3' Lt.
R10	22	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	22	L.F.	Sta. 10+65.94, 20.2' Rt. to Sta. 10+87.82, 19.3' Rt.
R11	10	L.F.	Concrete Transition, PAG Std. Dtl. 210, Item # 9080112
R12	22	L.F.	Concrete Transition, Detail A3, Item # 9080105
R13	3	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	1894	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R21	8	EA	Curb Access Ramp, Type 1, PC Std. Dtl. 207, Item # 9080280

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.
3. Contractor shall install the ramp wing to remain at a 2% Cross slope and flush with the depressed curb. The depressed curb will match into the adjacent header curb.

IBERIA AVENUE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet SS12 of SS22	Page 149 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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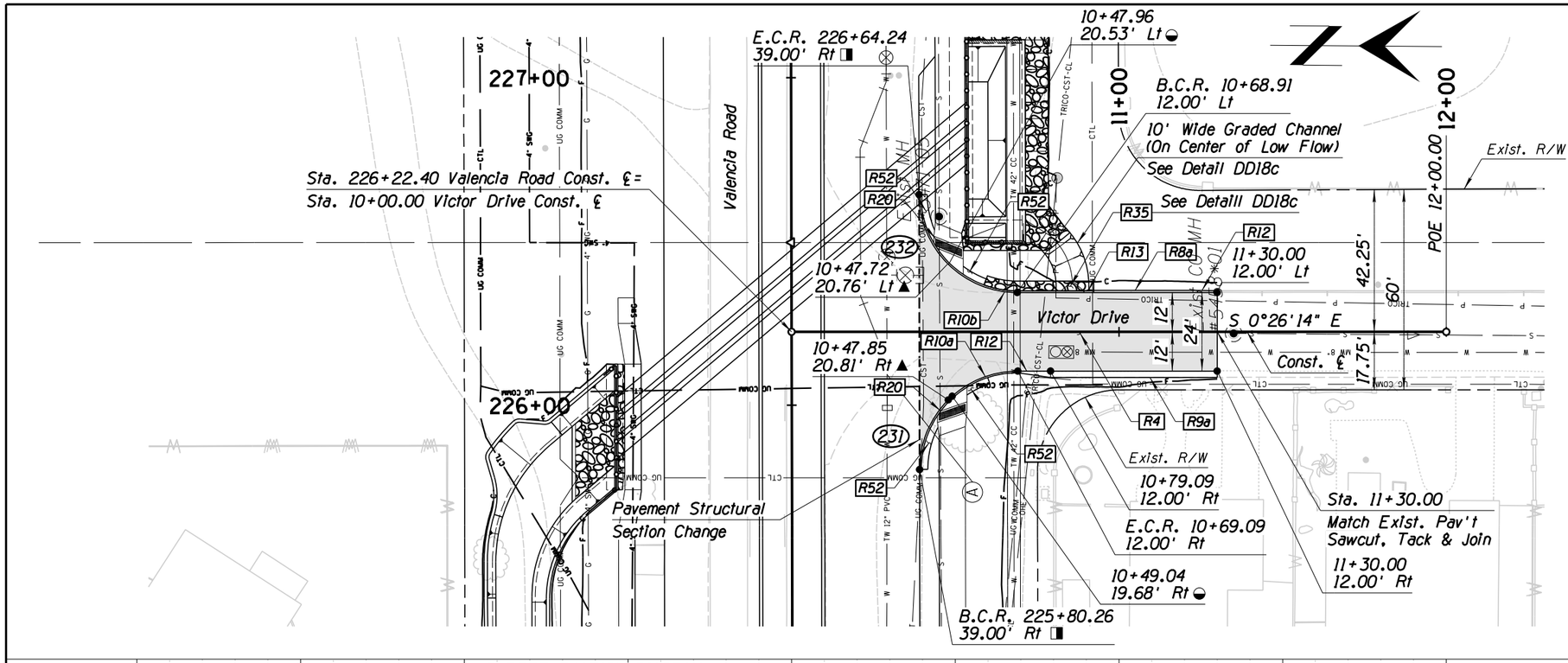
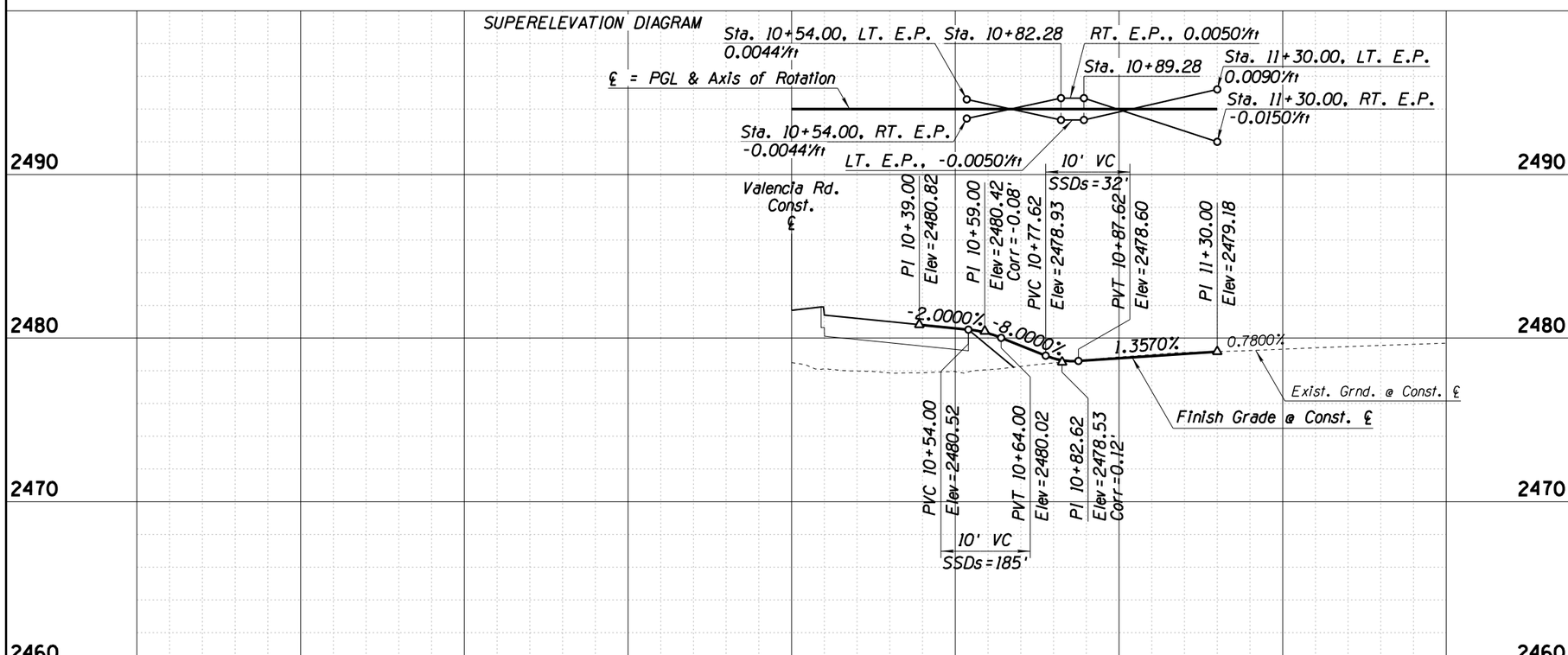
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R4	286	S.Y.	Pav't Struct. Sec. No. 4
R8	32	L.F.	Concrete Curb, Type 2 (H=6"), PAG Std. Dtl. 209, Item # 9080005
a	32	L.F.	Sta. 10+92.28, 12.0' Lt. to Sta. 11+24.00, 12.0' Lt.
R9	51	L.F.	Concrete Wedge Curb (H=6"), PAG Std. Dtl. 209, Item # 9080006
a	51	L.F.	Sta. 10+79.09, 12.0' Rt. to Sta. 11+30.00, 12.0' Rt.
R10	116	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	48	L.F.	Sta. 225+80.26, 39.0' Rt. to Sta. 10+69.09, 12.0' Rt.
b	68	L.F.	Sta. 226+64.24, 39.0' Rt. to Sta. 10+89.28, 12.0' Lt.
R12	16	L.F.	Concrete Transition, Detail A3, Item # 9080105
R13	1	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R35	4	C.Y.	Riprap (Dumped), Item # 9130001
R52	88	S.F.	Concrete Apron (Th = 8"), Item # 9300139

CURVE DATA

NO.	R	Δ	L	T
231	30.00'	90°07'06"	47.19'	30.06'
232	30.00'	89°51'56"	47.05'	29.93'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Rd. Construct. ℄

VICTOR DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
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Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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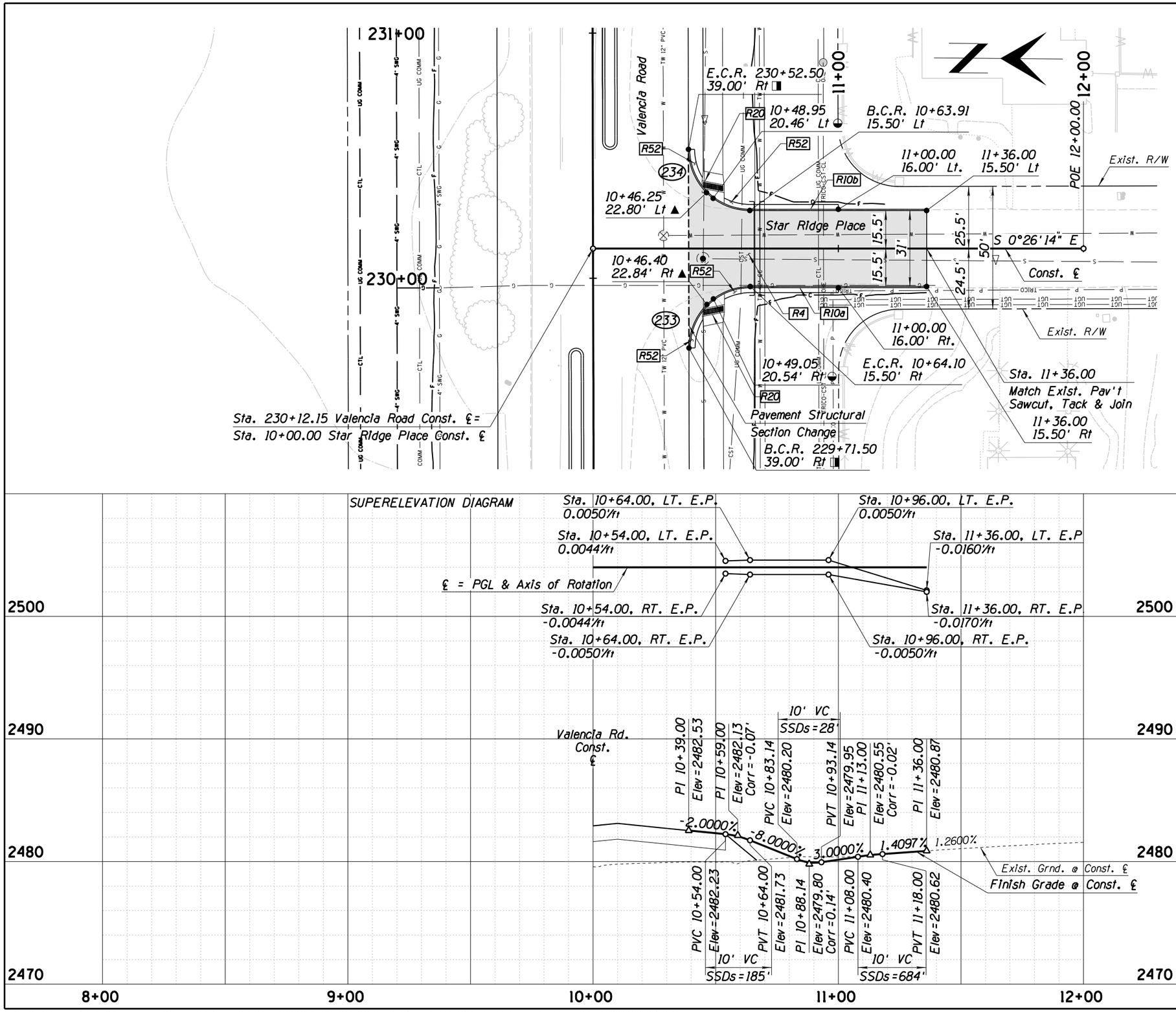
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

Scales: Horiz. 1"=20' Vert. 1"=4'

4:01:41 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR13.DGN



Item No.	Qty.	Unit	Description
R4	364	S.Y.	Pav't Struct. Sec. No. 4
R10	224	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	112	L.F.	Sta. 229+71.50, 39.0' Rt. to Sta. 11+36.00, 15.5' Rt.
b	112	L.F.	Sta. 230+52.50, 39.0' Rt. to Sta. 11+36.00, 15.5' Lt.
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R52	244	S.F.	Concrete Apron (Th = 8"), Item # 9300139

CURVE DATA

NO.	R	Δ	L	T
233	25.00'	90°08'04"	39.33'	25.06'
234	25.00'	89°51'56"	39.21'	24.94'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Rd. Const. ℄

STAR RIDGE PLACE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet SS14 of SS22	Page 151 of 433
	Vert. 1"=4'		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2019

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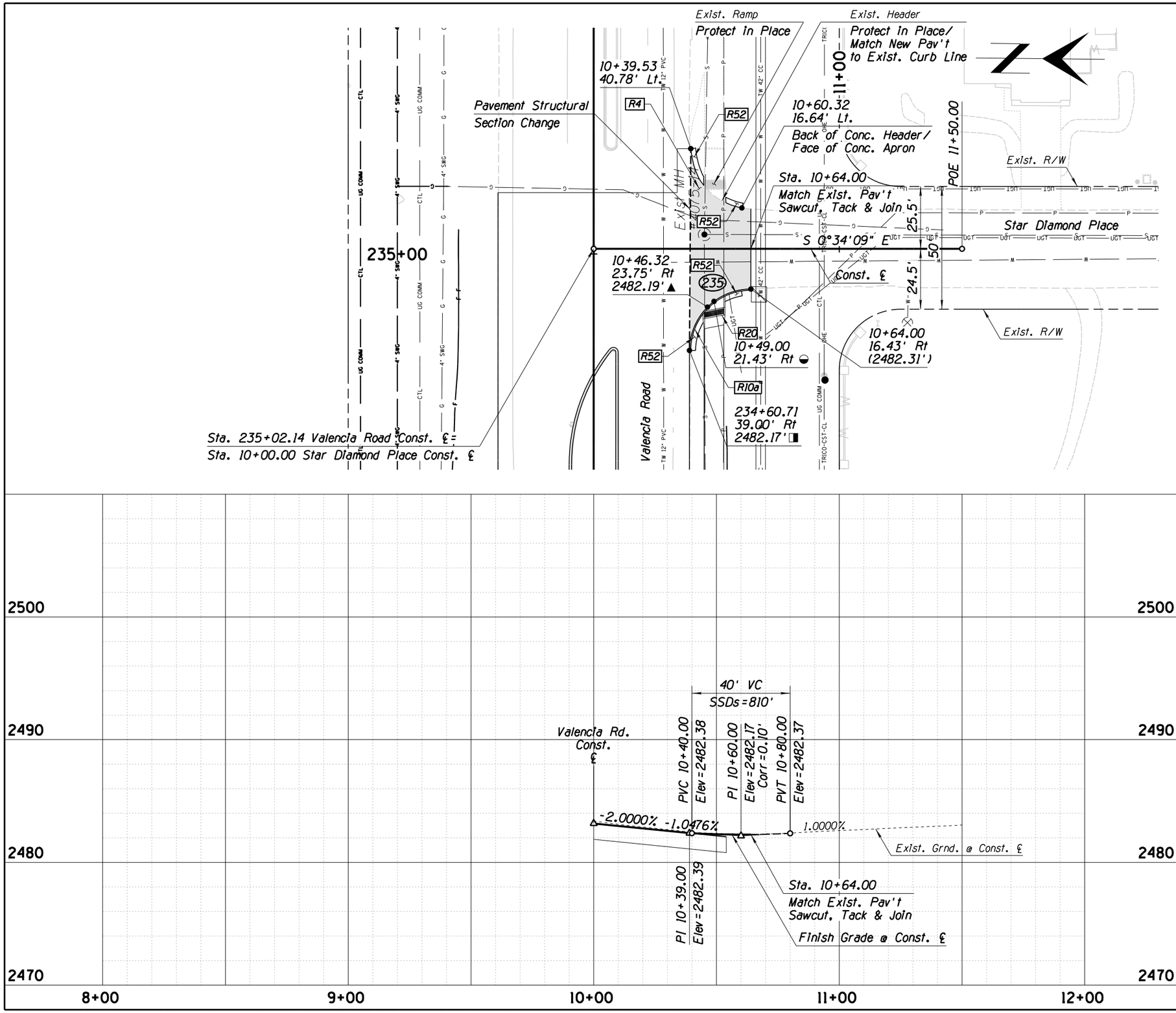
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE Pima County Department of Transportation

4:01:41 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR14.DGN



Item No.	Qty.	Unit	Description
R4	120	S.Y.	Pav't Struct. Sec. No. 4
R10	40	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	40	L.F.	Sta. 234+60.71, 39.0' Rt. to Sta. 10+64.00, 16.4' Rt.
R20	1	EA	Concrete Landing, Detail A2, Item # 9080292
R52	85	S.F.	Concrete Apron (Th = 8"), Item # 9300139

CURVE DATA

NO.	R	Δ	L	T
235	25.00'	89°59'45"	39.27'	25.00'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Rd. Const. ℄

STAR DIAMOND PLACE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet SS15 of SS22

Page 152 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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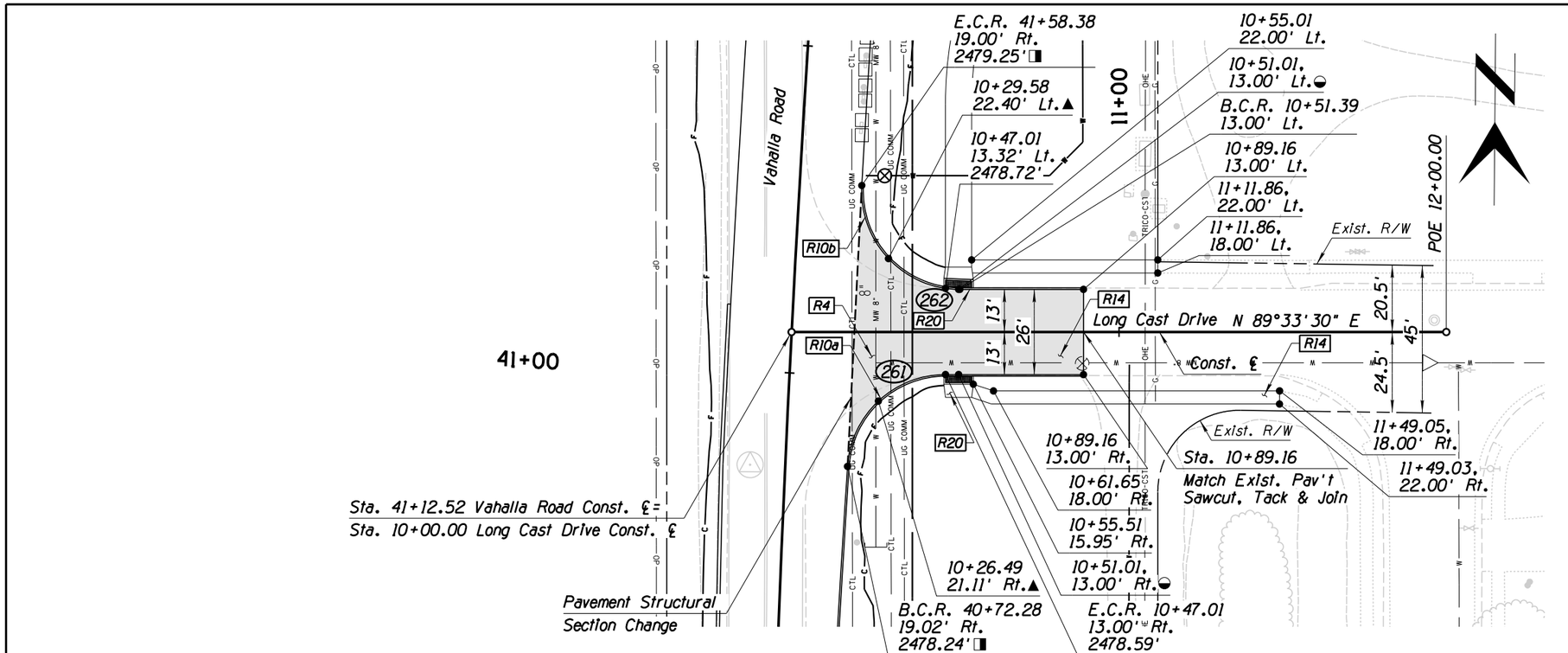
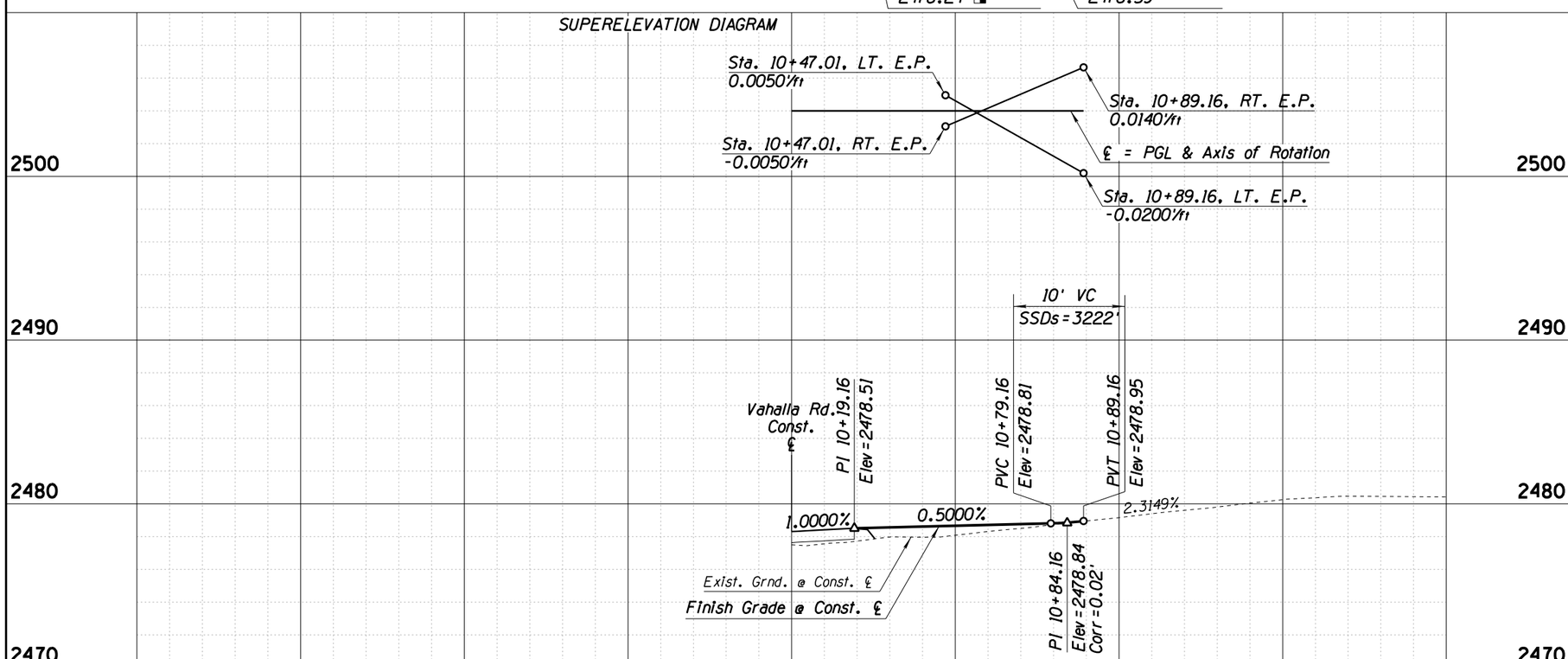
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R4	246	S.Y.	Pav't Struct. Sec. No. 4
R10	175	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	88	L.F.	Sta. 40+72.28, 19.0' Rt. to Sta. 10+89.16, 13.0' Rt.
b	87	L.F.	Sta. 41+58.38, 19.0' Rt. to Sta. 10+89.16, 13.0' Lt.
R14	604	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292

CURVE DATA

NO.	R	Δ	L	T
261	30.00'	86°16'27"	45.17'	28.11'
262	30.00'	93°16'21"	48.84'	31.76'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Vahalla Rd. Const. ℄

LONG CAST DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' Vert. 1" = 4'

Sheet SS16 of SS22

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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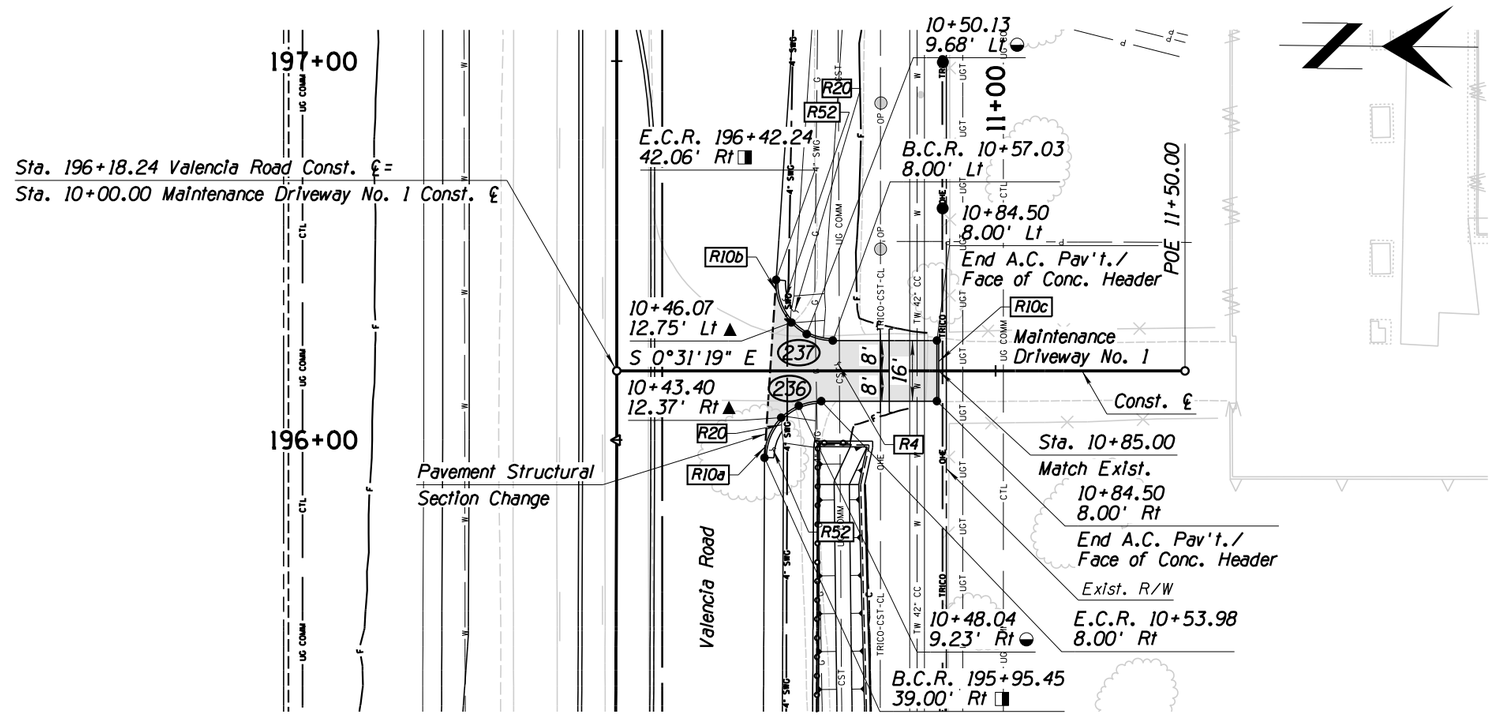
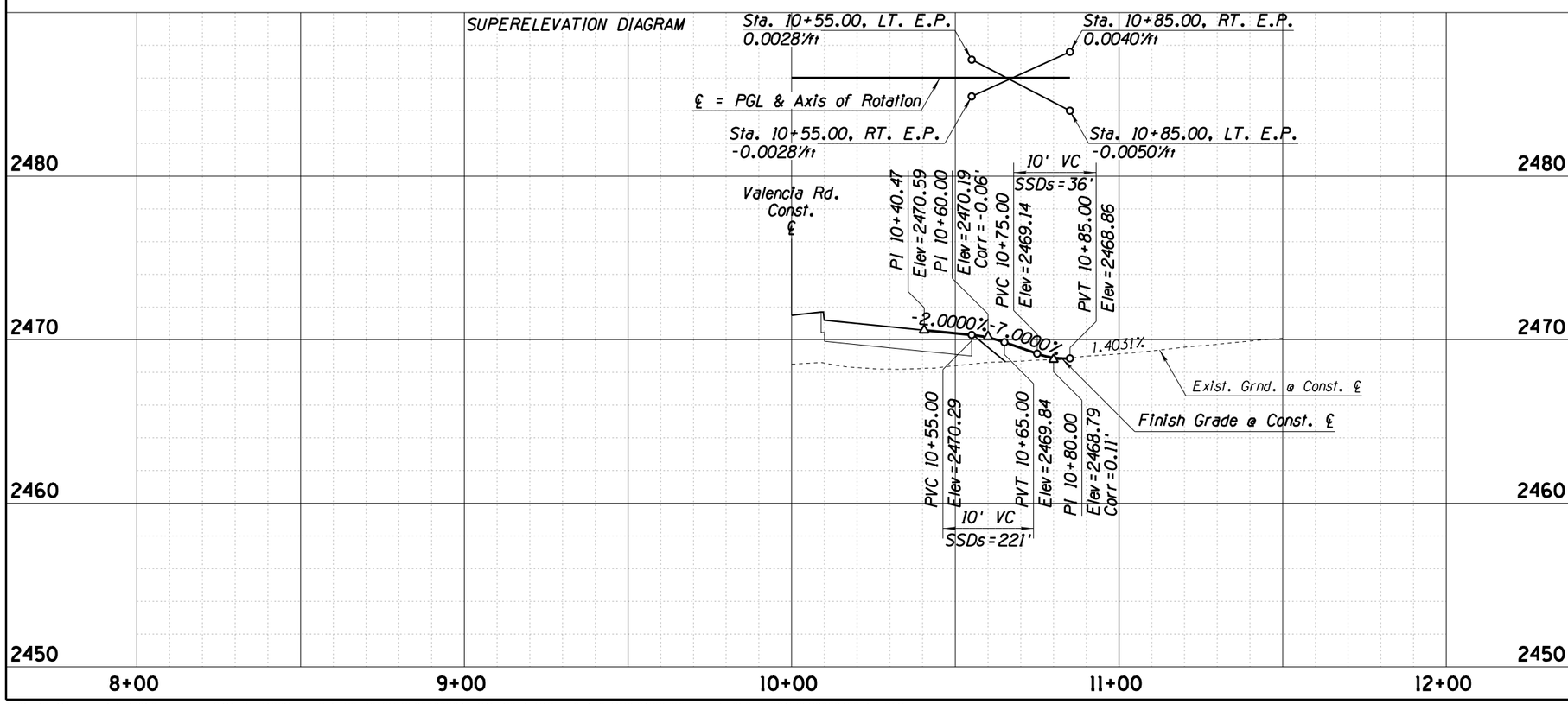
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R4	90	S.Y.	Pav't Struct. Sec. No. 4
R10	65	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	24	L.F.	Sta. 195+95.45, 39.0' Rt. to Sta. 10+53.98, 8.0' Rt.
b	25	L.F.	Sta. 196+42.24, 42.1' Rt. to Sta. 10+57.03, 8.0' Lt.
c	16	L.F.	Sta. 10+84.50, 8.0' Rt. to Sta. 10+84.50, 8.0' Lt.
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R52	37	S.F.	Concrete Apron (Th = 8"), Item # 9300139



CURVE DATA

NO.	R	Δ	L	T
236	15.00'	89°46'24"	23.50'	14.94'
237	15.00'	93°49'07"	24.56'	16.03'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Rd. Const. ℄

MAINTENANCE DRIVEWAY NO. 1
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet SS17 of SS22	Page 154 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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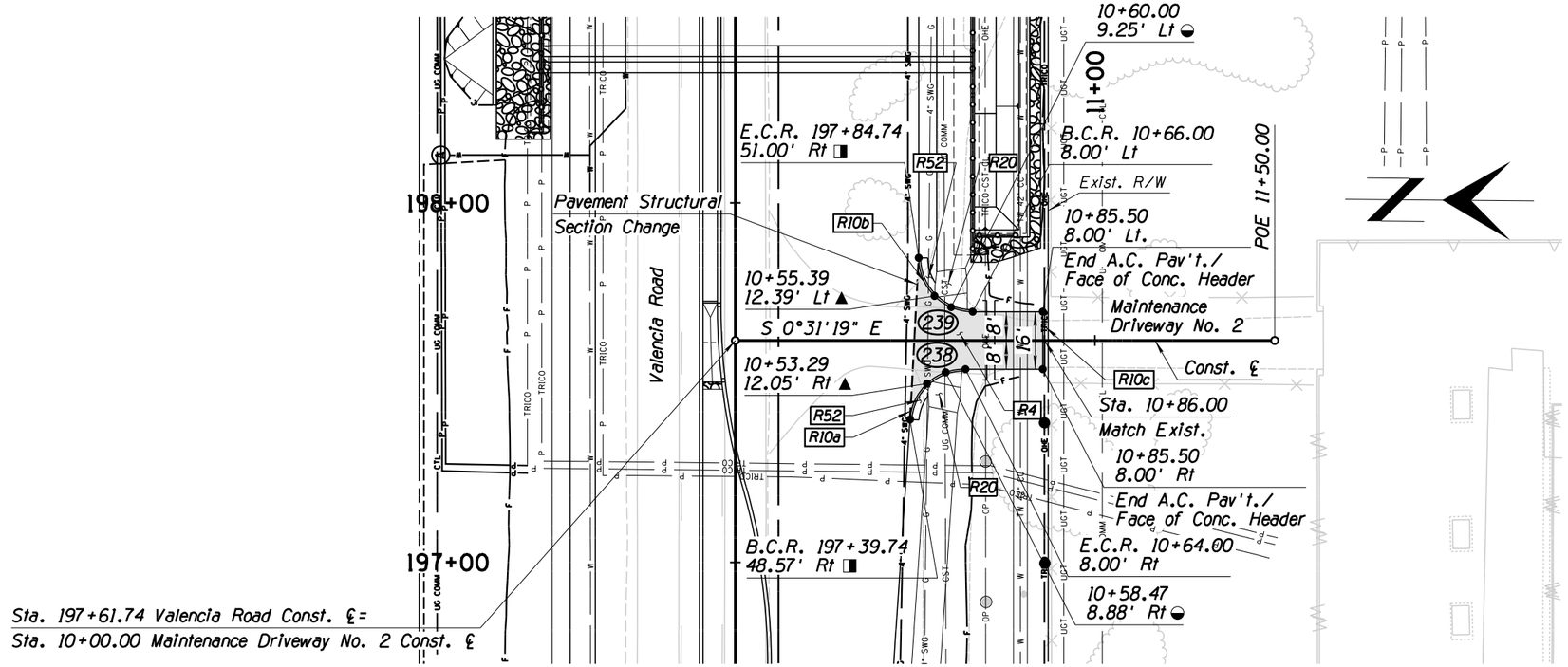
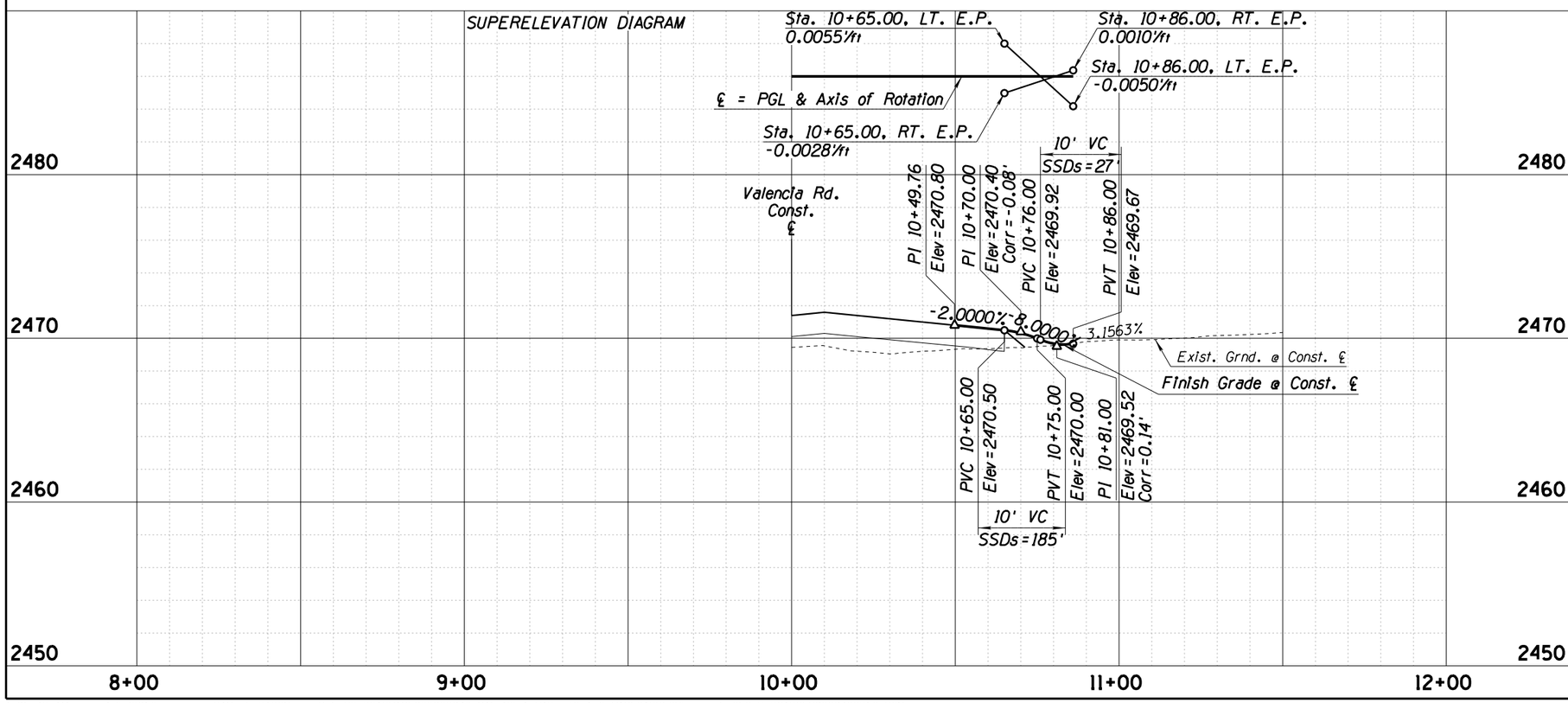
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R4	75	S.Y.	Pav't Struct. Sec. No. 4
R10	63	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	23	L.F.	Sta. 197+39.74, 48.6' Rt. to Sta. 10+64.00, 8.0' Rt.
b	24	L.F.	Sta. 197+84.74, 51.0' Rt. to Sta. 10+66.00, 8.0' Lt.
c	16	L.F.	Sta. 10+85.50, 8.0' Rt. to Sta. 10+85.50, 8.0' Lt.
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R52	37	S.F.	Concrete Apron (Th = 8"), Item # 9300139

CURVE DATA

NO.	R	Δ	L	T
238	15.00'	86°10'53"	22.56'	14.03'
239	15.00'	90°00'00"	23.56'	15.00'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Valencia Rd. Const. ℄

MAINTENANCE DRIVEWAY NO. 2
SIDE STREET PLAN/PROFILE

20 0 20 40

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ARIZONA811
Call 811 or click Arizona811.com

	Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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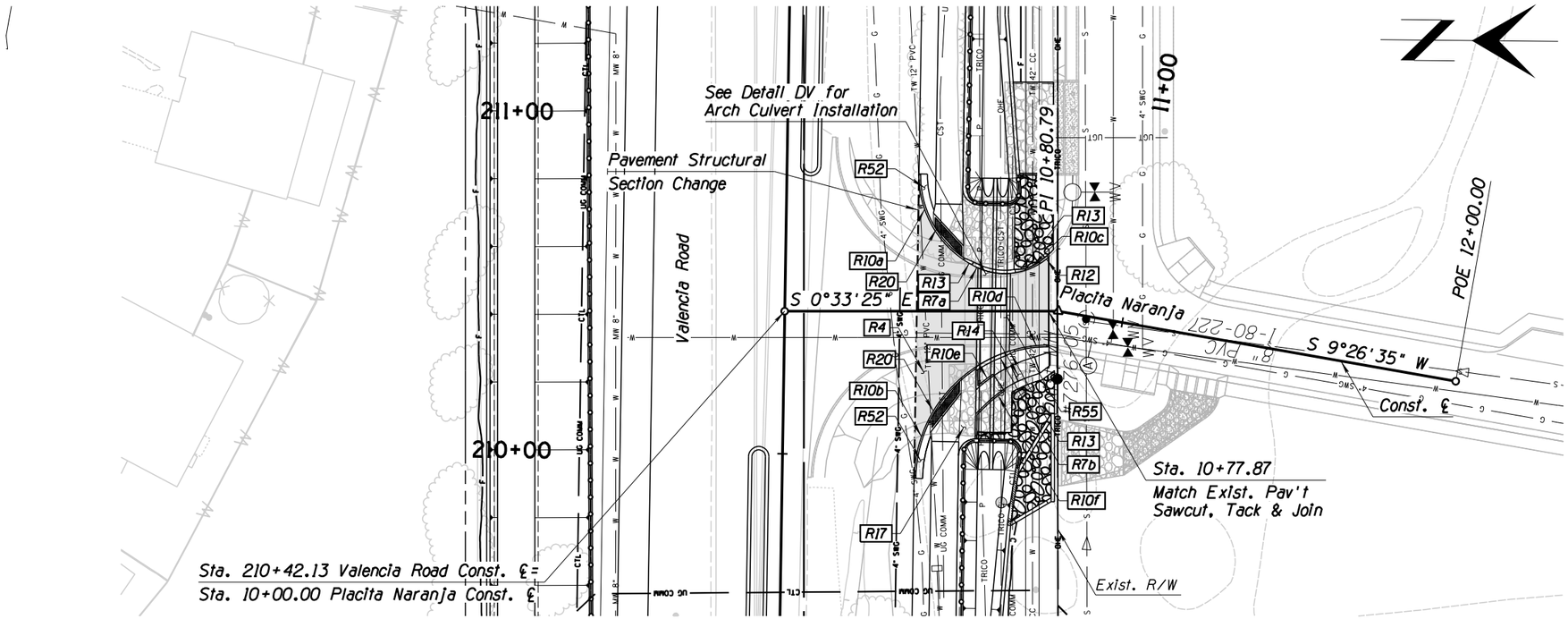
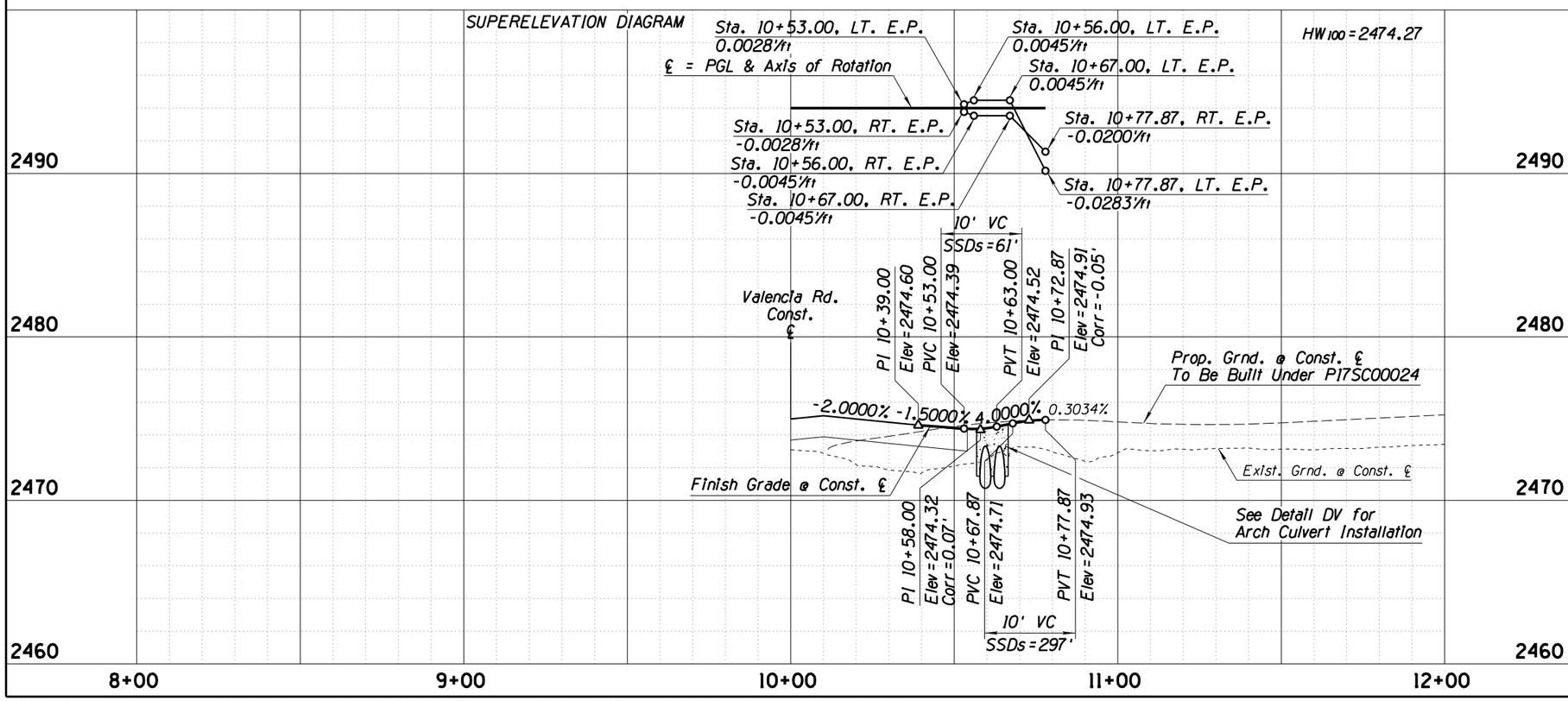
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Scales Horiz. 1"=20' Vert. 1"=4'

4:01:43 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR18.DGN





Item No.	Qty.	Unit	Description
R4	122	S.Y.	Pav't Struct. Sec. No. 4
R7	23	L.F.	Concrete Curb, Type 1, PAG Std. Dtl. 209, Item # 9080001
a	14	L.F.	Sta. 10+55.31, 13.7' Lt. to Sta. 10+68.19, 11.3' Lt.
b	9	L.F.	Sta. 10+57.04, 16.1' Rt. to Sta. 10+64.96, 12.3' Rt.
R10	114	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	30	L.F.	Sta. 210+83.23, 39.0' Rt. to Sta. 10+52.75, 15.2' Lt.
b	40	L.F.	Sta. 209+93.38, 39.0' Rt. to Sta. 10+57.04, 16.1' Rt.
c	5	L.F.	Sta. 10+71.10, 12.0' Lt. to Sta. 10+75.47, 14.1' Lt.
d	10	L.F.	Sta. 10+67.83, 11.4' Rt. to Sta. 10+77.87, 10.0' Rt.
e	11	L.F.	Sta. 10+57.07, 17.2' Rt. to Sta. 10+61.57, 18.6' Rt.
f	18	L.F.	Sta. 10+56.74, 37.7' Rt. to Sta. 10+64.88, 23.6' Rt.
R12	3	L.F.	Concrete Transition, Detail A3, Item # 9080105
R13	3	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	126	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R17	92	S.F.	Concrete Apron (Th = 6"), Item # 9300138
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R52	57	S.F.	Concrete Apron (Th = 8"), Item # 9300139
R55	27	S.Y.	Reinforced Portland Cement Concrete Pavement, Detail DV, Item # 9300117

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

PLACITA NARANJA
SIDE STREET PLAN/PROFILE

20 0 20 40

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 20'	Sheet SS19 of SS22	Page 156 of 433
	Vert. 1" = 4'		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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Tucson, AZ 85705
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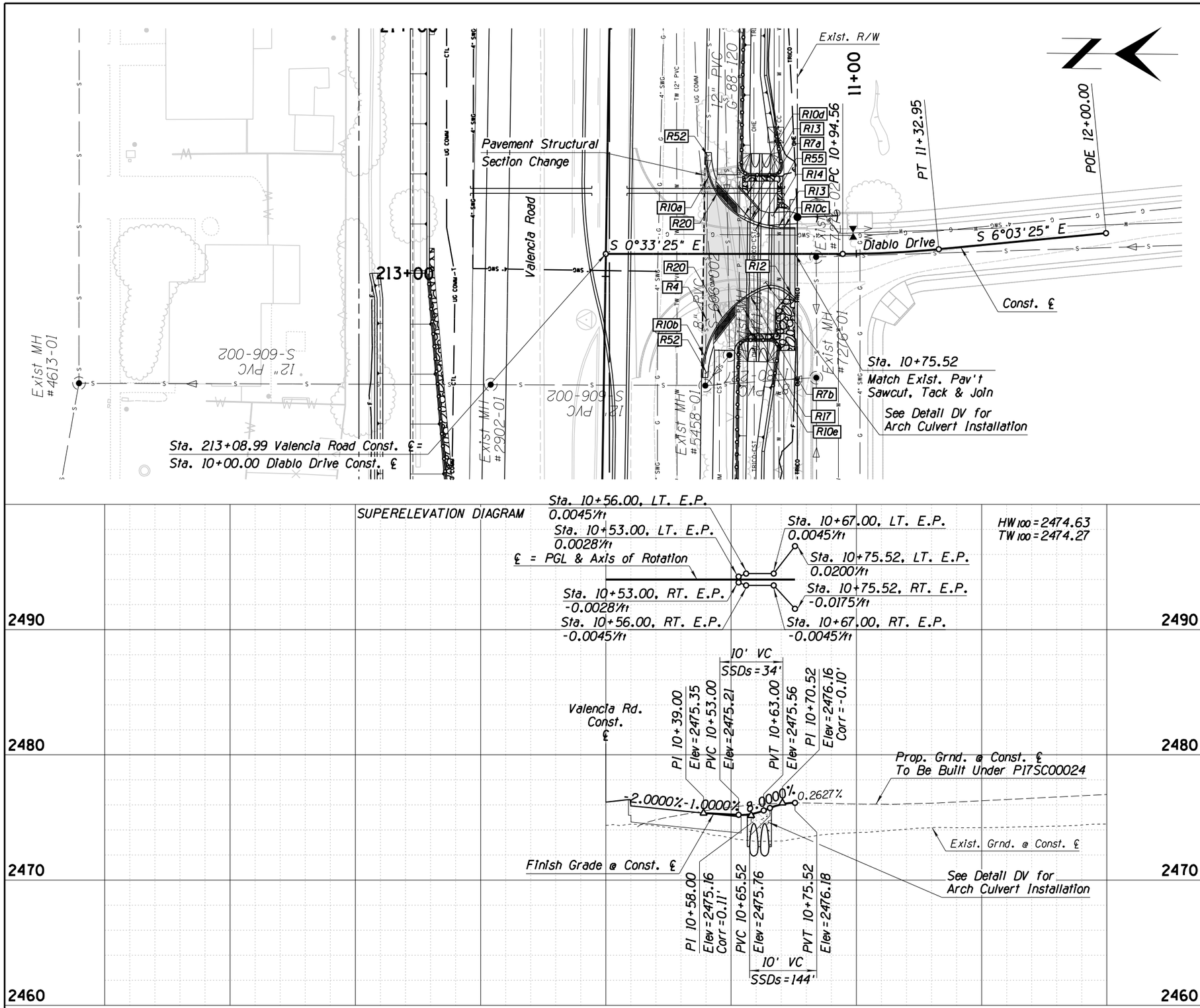
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:01:44 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR19.DGN



Item No.	Qty.	Unit	Description
R4	117	S.Y.	Pav't Struct. Sec. No. 4
R7	31	L.F.	Concrete Curb, Type I, PAG Std. Dtl. 209, Item # 9080001
a	12	L.F.	Sta. 10+55.31, 13.7' Lt. to Sta. 10+66.65, 10.2' Lt.
b	19	L.F.	Sta. 10+56.61, 16.3' Rt. to Sta. 10+73.31, 15.6' Rt.
R10	106	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	30	L.F.	Sta. 213+50.09, 39.0' Rt. to Sta. 10+52.75, 15.2' Lt.
b	40	L.F.	Sta. 212+60.23, 39.0' Rt. to Sta. 10+56.61, 16.3' Rt.
c	6	L.F.	Sta. 10+69.64, 10.0' Lt. to Sta. 10+75.52, 10.0' Lt
d	13	L.F.	Sta. 10+52.99, 27.2' Lt. to Sta. 10+61.50, 17.9' Lt.
e	17	L.F.	Sta. 10+56.39, 33.9' Rt. to Sta. 10+56.65, 17.5' Rt.
R12	3	L.F.	Concrete Transition, Detail A3, Item # 9080105
R13	2	EA	Curb Terminal Section, PAG Std. Dtl. 212, Item # 9080090
R14	136	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R17	66	S.F.	Concrete Apron (Th = 6"), Item # 9300138
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292
R52	57	S.F.	Concrete Apron (Th = 8"), Item # 9300139
R55	28	S.Y.	Reinforced Portland Cement Concrete Pavement, Detail DV, Item # 9300117

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for control.

DIABLO DRIVE
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 20' Vert. 1" = 4'	Sheet SS20 of SS22	Page 157 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

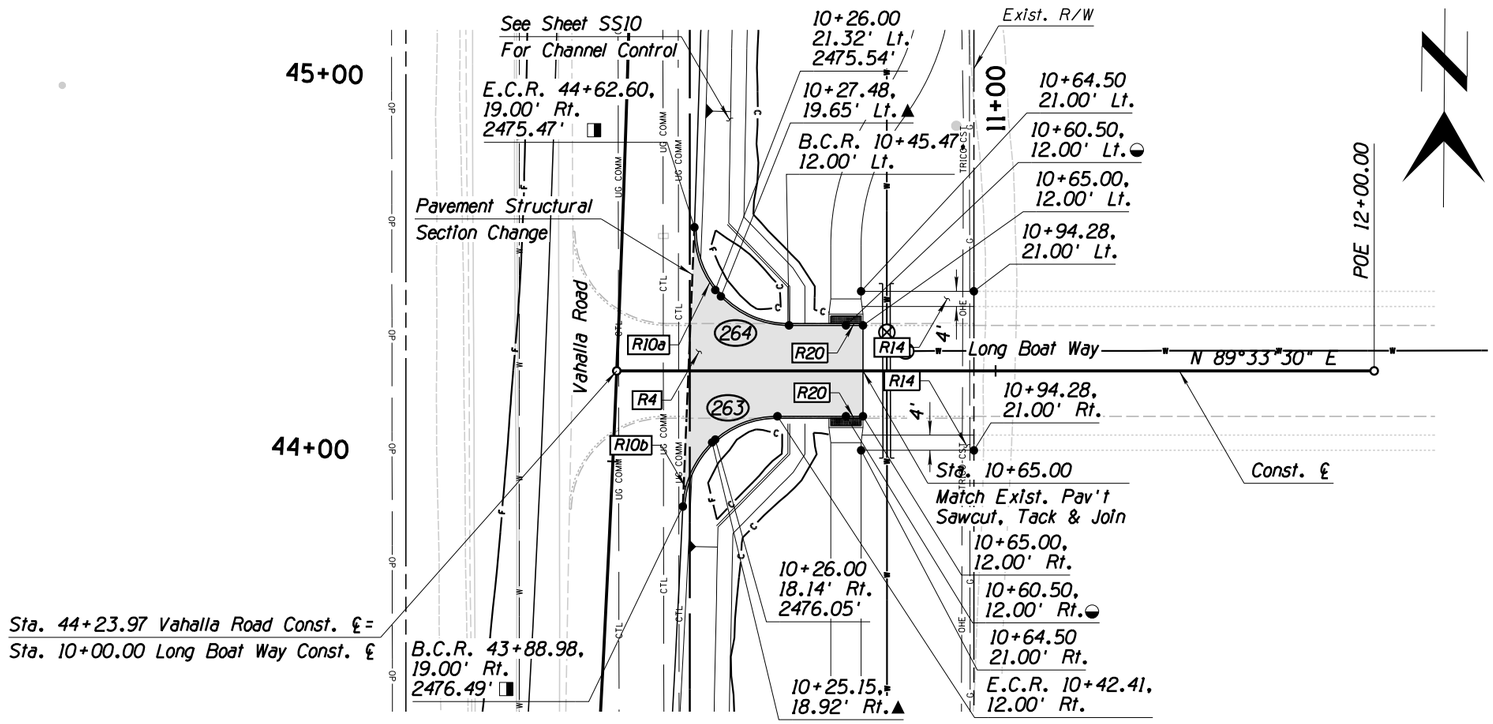
Registered Professional Engineer (CE)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

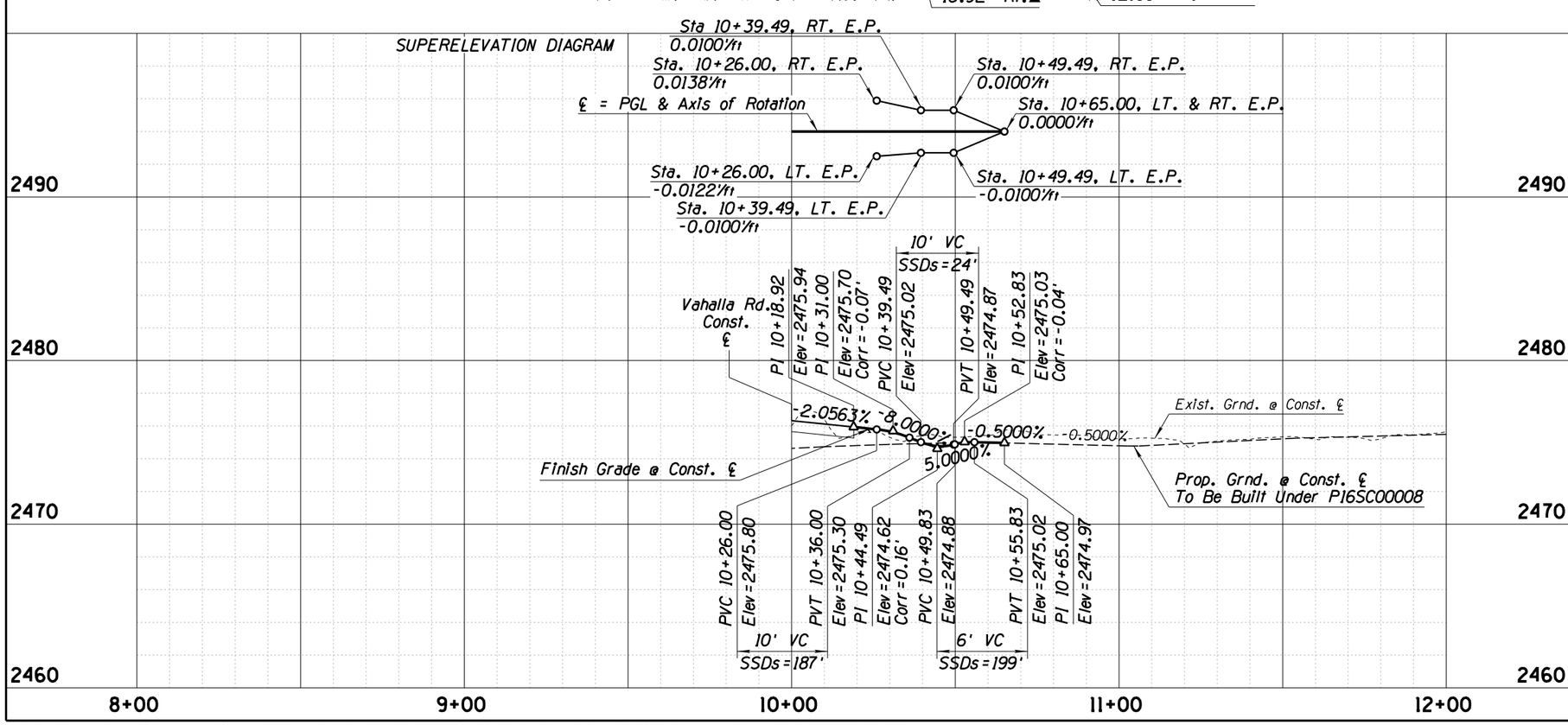
Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

4:01:44 AM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIDEROADS\H022048SR20.DGN





Item No.	Qty.	Unit	Description
R4	153	S.Y.	Pav't Struct. Sec. No. 4
R10	121	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	60	L.F.	Sta. 44+62.60, 19.0' Rt. to Sta. 10+65.00, 12.0' Lt.
b	61	L.F.	Sta. 43+88.98, 19.0' Rt. to Sta. 10+65.00, 12.0' Rt.
R14	238	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292

CURVE DATA

NO.	R	Δ	L	T
263	25.00'	87°20'23"	38.11'	23.87'
264	25.00'	92°04'34"	40.18'	25.92'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for survey and path alignment.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Vahalla Rd. Const. ℄

LONG BOAT WAY
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet SS21 of SS22	Page 158 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
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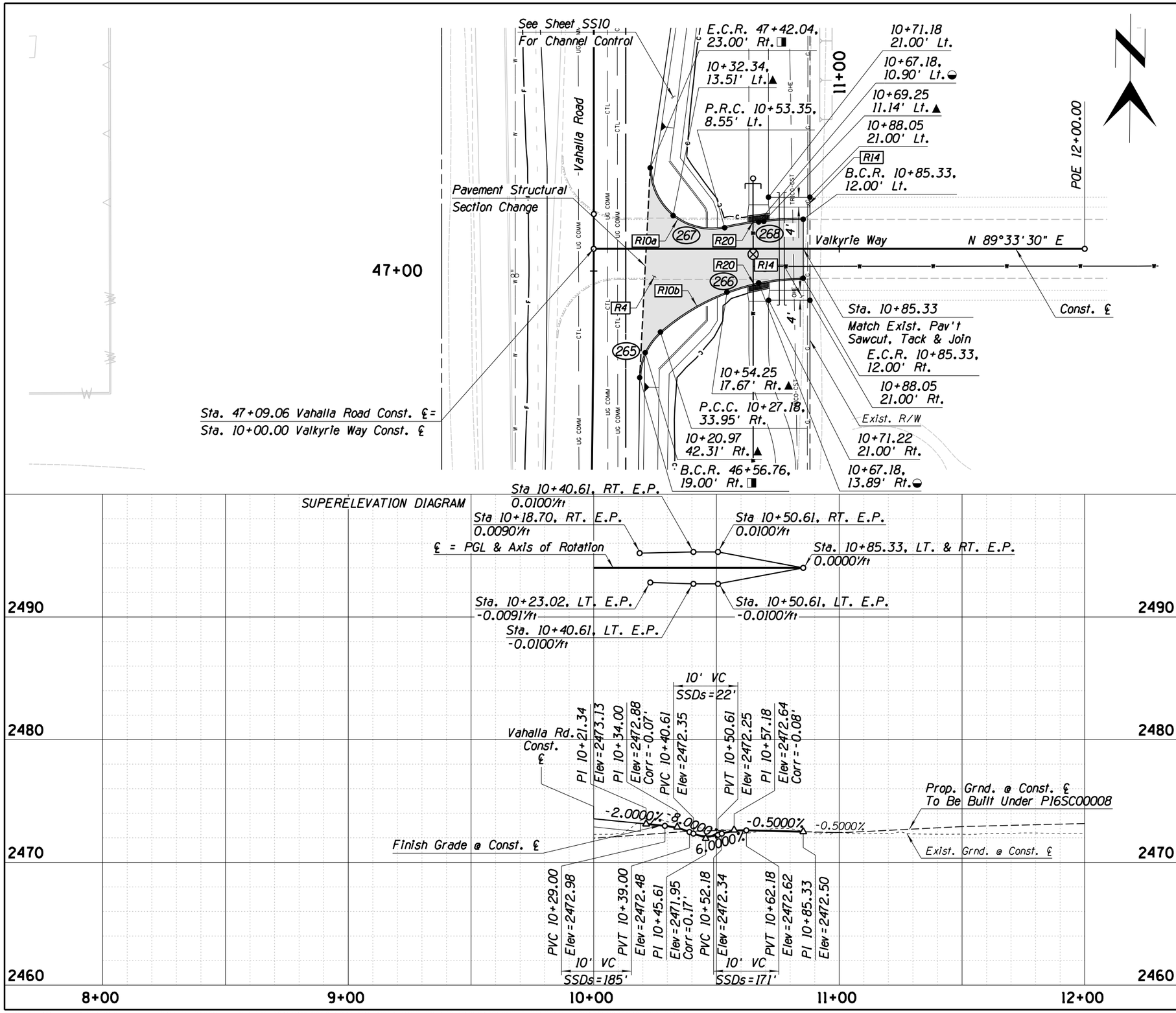
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R4	236	S.Y.	Pav't Struct. Sec. No. 4
R10	162	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	77	L.F.	Sta. 47+42.04, 23.0' Rt. to Sta. 10+85.33, 12.0' Lt.
b	85	L.F.	Sta. 46+56.76, 19.0' Rt. to Sta. 10+85.33, 12.0' Rt.
R14	134	S.F.	Concrete Sidewalk, PAG Std. Dtl. 200, Item # 9080201
R20	2	EA	Concrete Landing, Detail A2, Item # 9080292

CURVE DATA

NO.	R	Δ	L	T
265	25.00'	48°06'18"	20.99'	11.16'
266	88.00'	41°21'34"	63.52'	33.22'
267	25.00'	102°19'04"	44.64'	31.05'
268	50.00'	12°18'35"	32.23'	16.18'

NOTES:

1. See Valencia Road mainline plan and profile sheets for pipe sleeve information.
2. See Geometric Control sheets for survey and path alignment.

▲ Midpoint

◒ Ramp Control

◨ Station and offset are based on the Vahalla Rd. Const. ℄

VALKYRIE WAY
SIDE STREET PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet SS22 of SS22	Page 159 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2020

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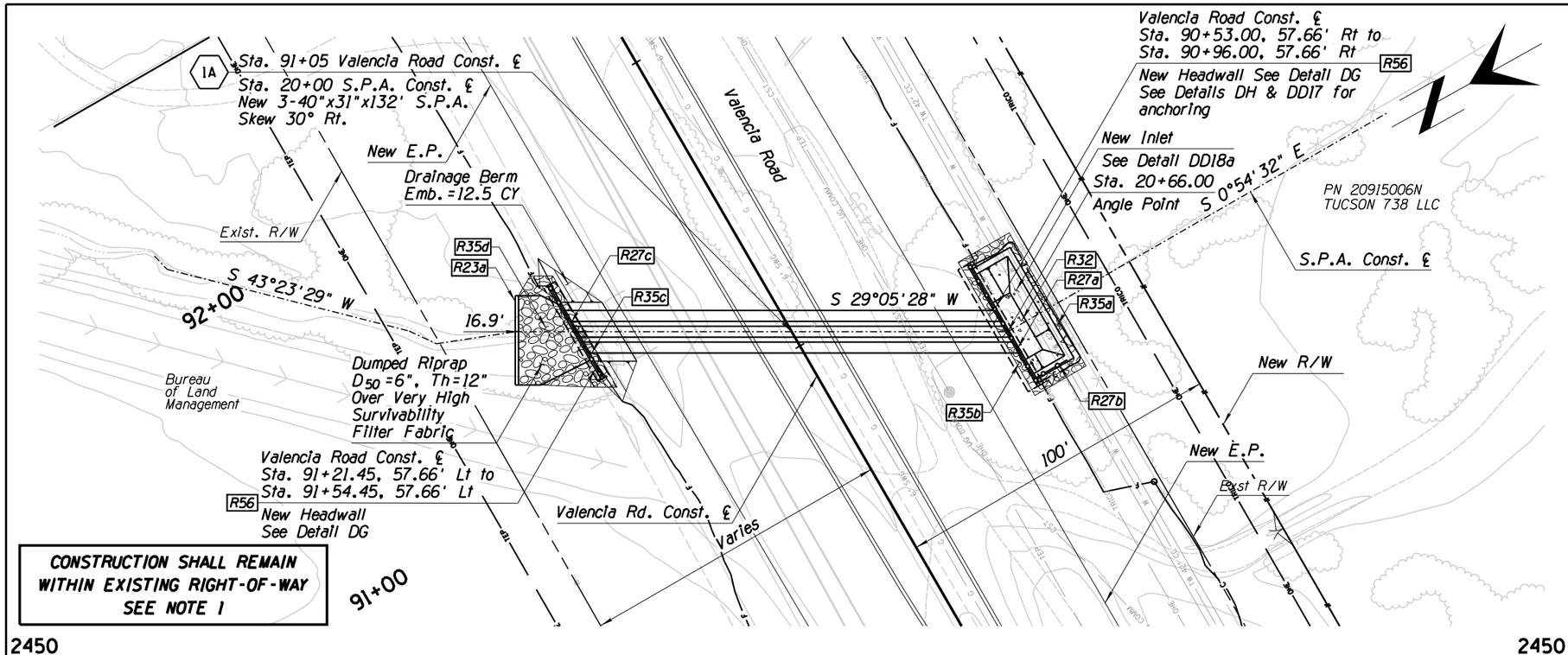
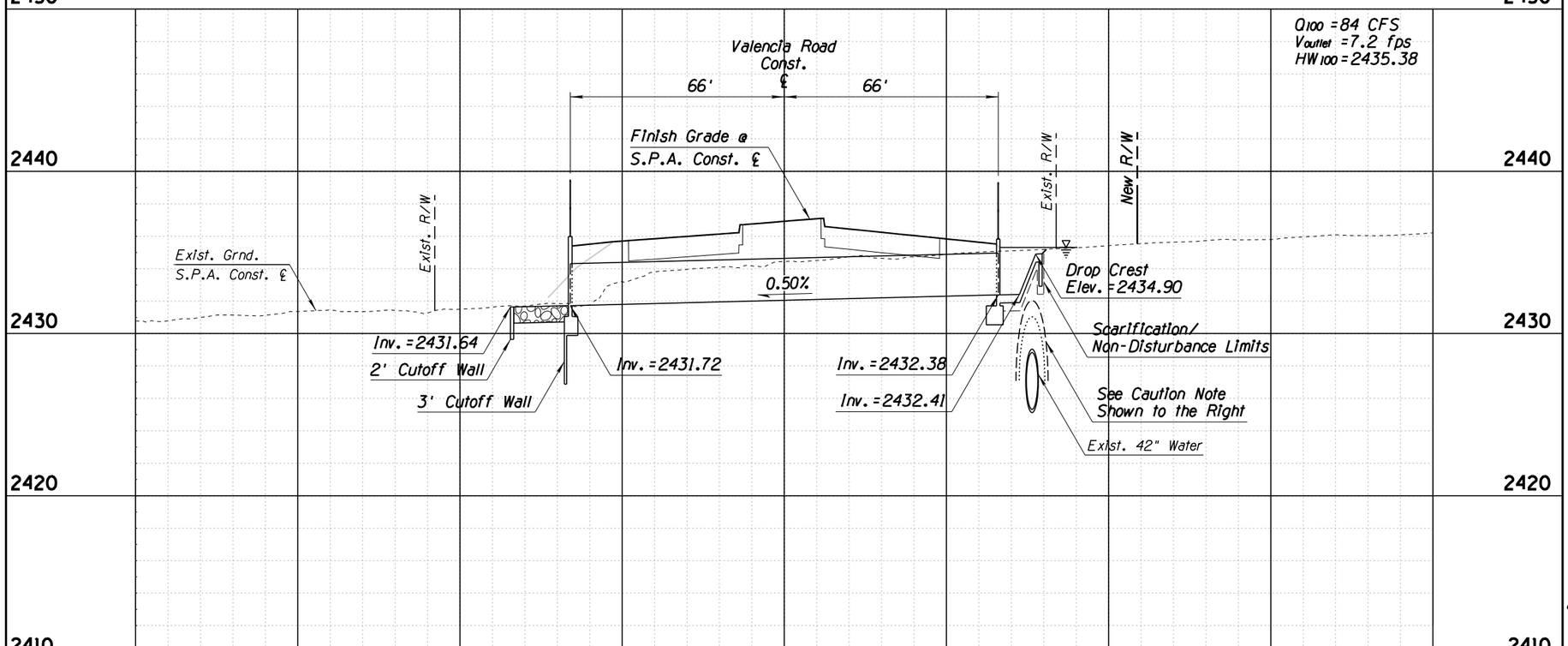
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R23	28	L.F.	Concrete Cut-off Wall - 2-ft, Item # 6010712
a	28	L.F.	Sta. 19+13.10, 16.1' Rt. to Sta. 19+15.54, 11.0' Lt.
R27	85	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	42	L.F.	Top of Headwall
b	11	L.F.	Top of West Toe Down
c	32	L.F.	Top of Headwall
R32	61	S.Y.	Concrete Channel Lining, Item # 9120100
R35	31	C.Y.	Riprap (Dumped), Item # 9130001
a	7	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	2	C.Y.	D50=3"
d	20	C.Y.	D50=6"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective pipe items.

2. The Contractor shall account for the manufacturer's fill requirements for construction loading atop culverts. Any damaged pipe will be replaced by the Contractor at no cost to the Agency.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 1A
STA. 91+05
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
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Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

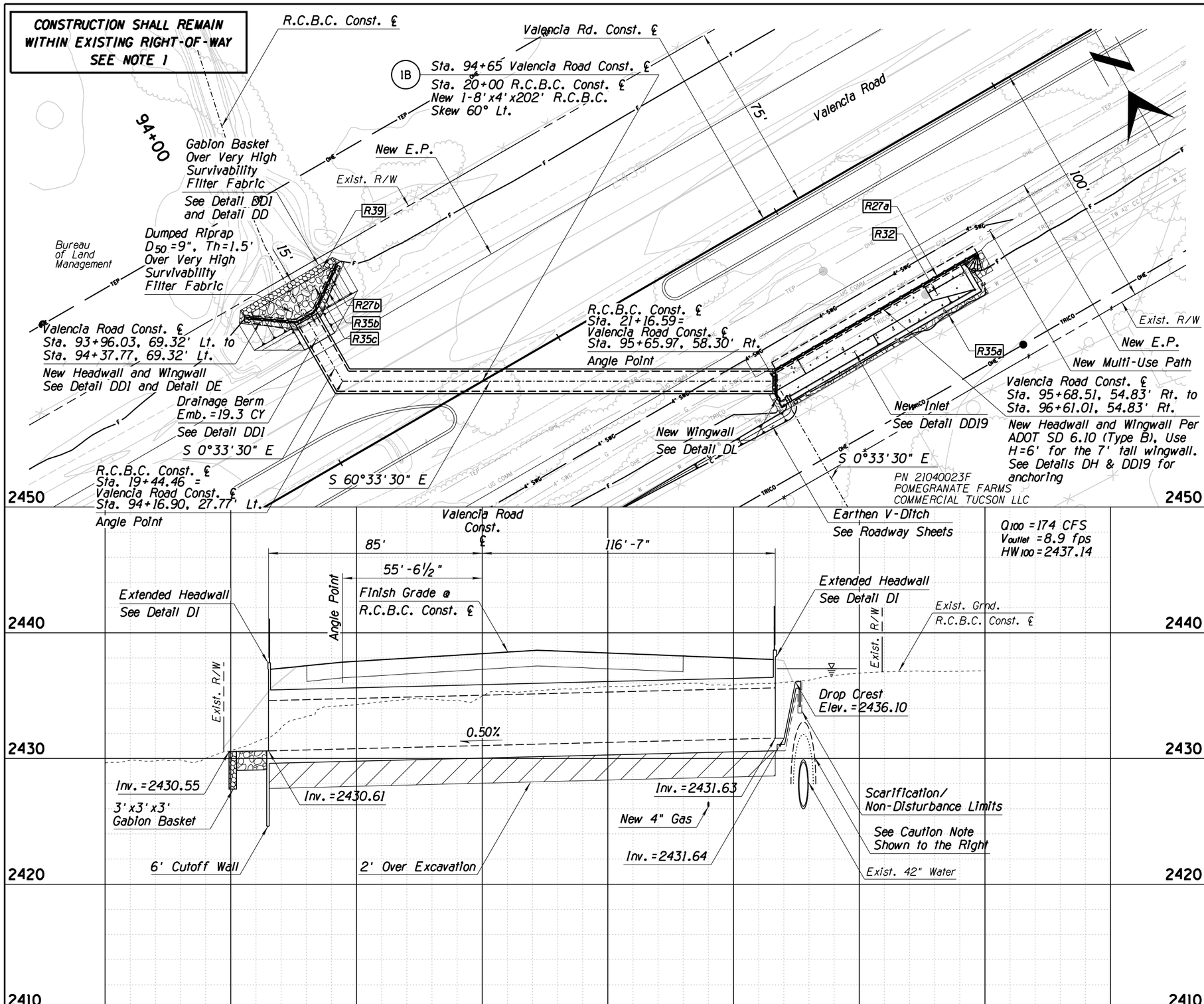
#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D1 of D26

4:46:13 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR01.DGN



Item No.	Qty.	Unit	Description
R27	156	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	107	L.F.	Top of Headwall & Wingwall
b	49	L.F.	Top of Headwall & Wingwall
R32	145	S.Y.	Concrete Channel Lining, Item # 9120100
R35	28	C.Y.	Riprap (Dumped), Item # 9130001
a	10	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	16	C.Y.	D50=9"
R39	17	C.Y.	Riprap (Gabions), Item # 9130005

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. Items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit
– – – – – 3-Foot Disturbance Limit

BOX CULVERT NO. 1B
STA. 94+65
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
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Scales Horiz. 1"=20' Vert. 1"=4'

Sheet D2 of D26

Page 161 of 433

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/05/18 Arizona U.S.A. EXPIRES 9/30/2020

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Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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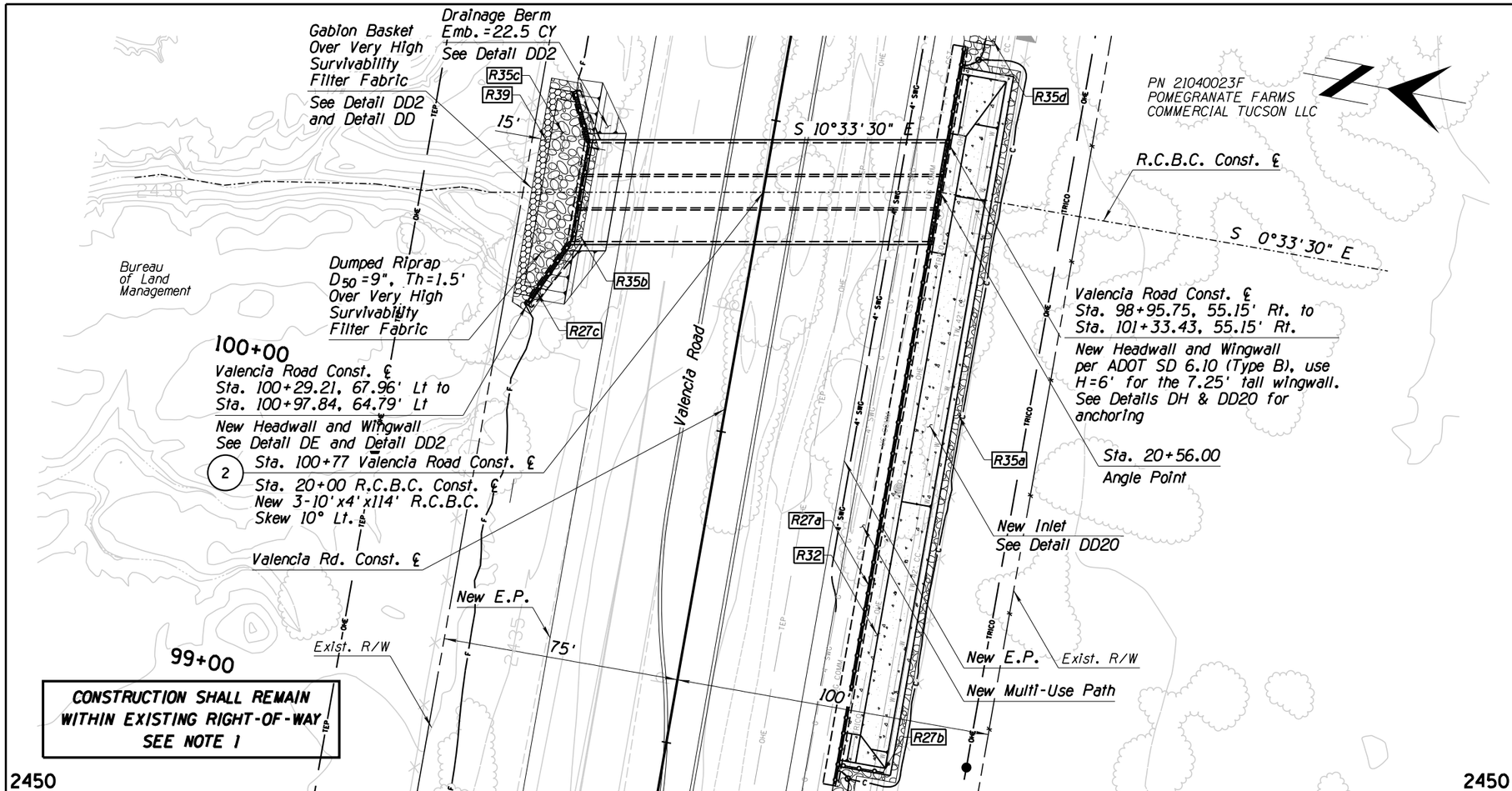

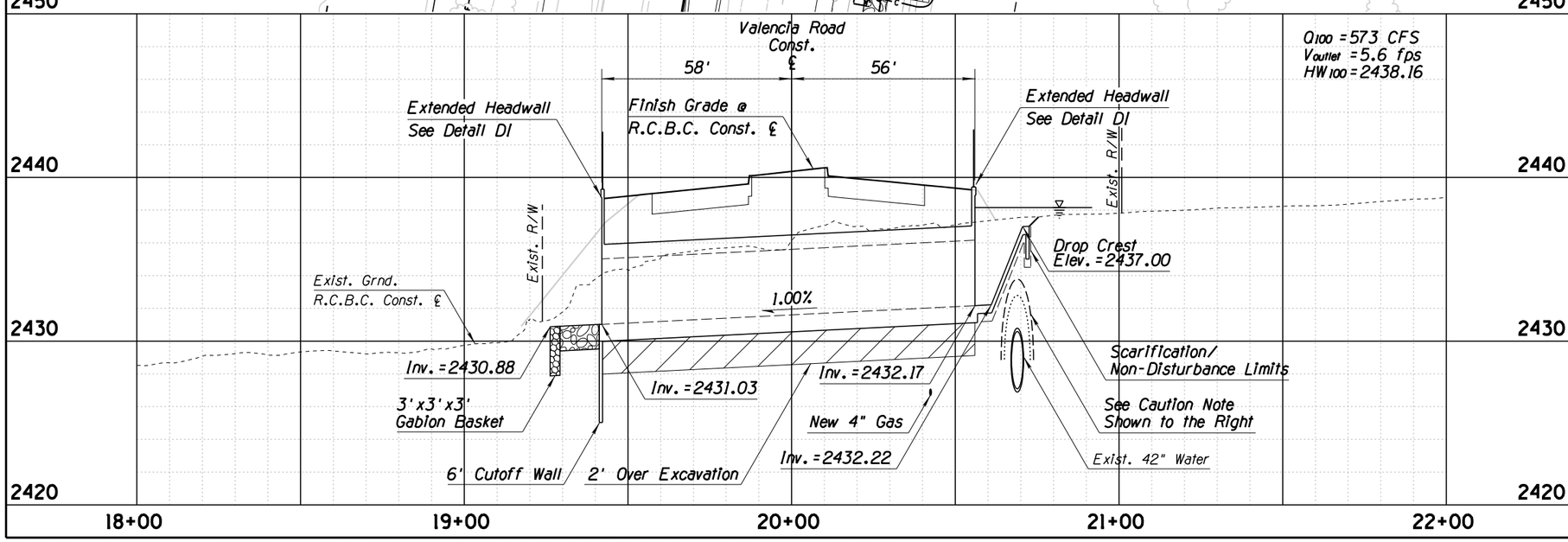

Item No.	Qty.	Unit	Description
R27	325	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	237	L.F.	Top of Headwall & Wingwall
b	15	L.F.	Top of West Toe Down
c	73	L.F.	Top of Headwall & Wingwall
R32	443	S.Y.	Concrete Channel Lining, Item # 9120100
R35	109	C.Y.	Riprap (Dumped), Item # 9130001
a	23	C.Y.	D50=6"
b	3	C.Y.	D50=3"
c	34	C.Y.	D50=9"
d	49	C.Y.	D50=6"
R39	27	C.Y.	Riprap (Gabions), Item # 9130005

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

-·-·-·- 3-Foot Disturbance Limit

BOX CULVERT NO. 2
STA. 100+77
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet	D3 of D26	Page 162 of 433
	Vert. 1"=4'			

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A. EXPIRES 3/31/2020

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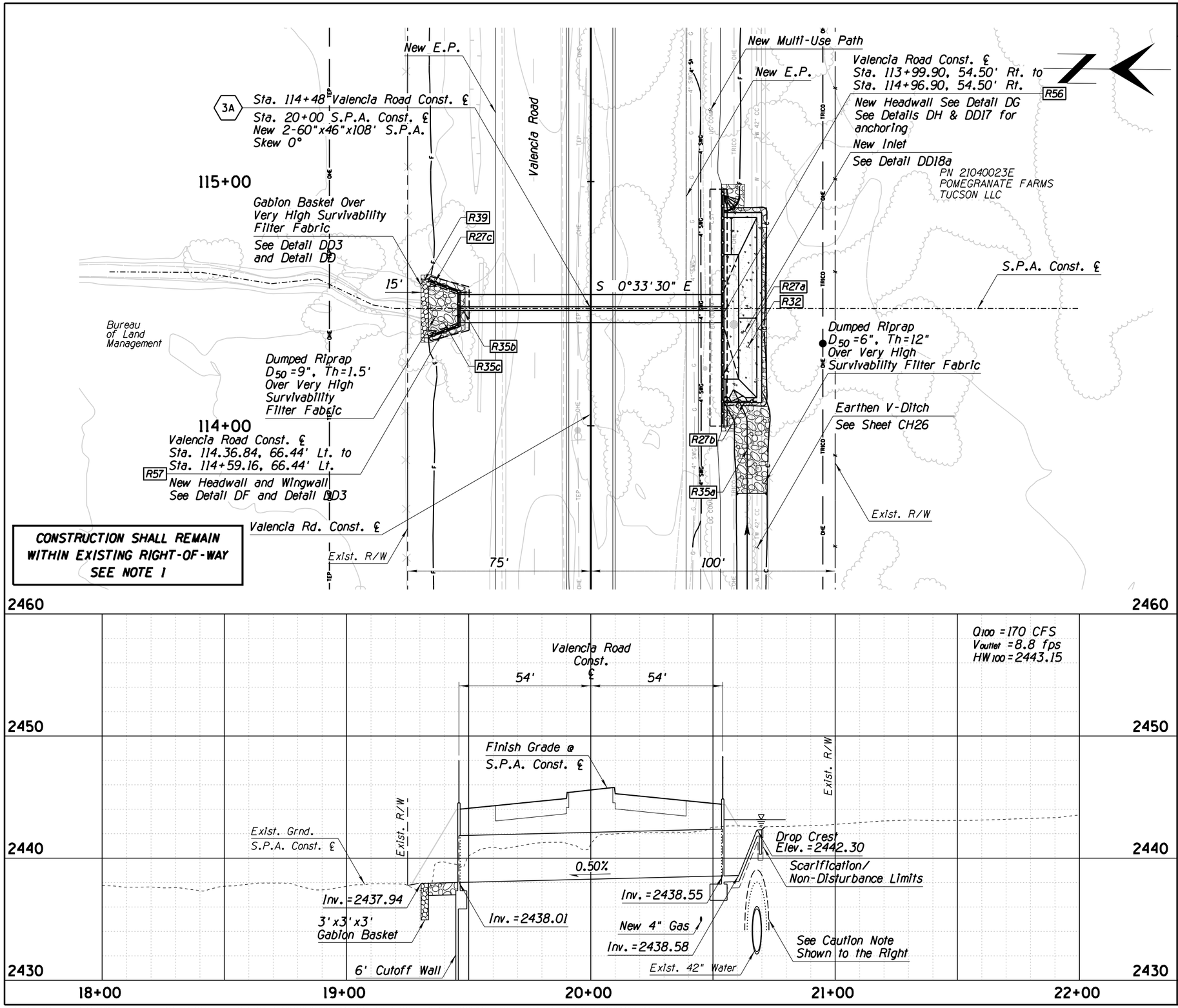
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE Pima County Department of Transportation



Item No.	Qty.	Unit	Description
R27	150	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	96	L.F.	Top of Headwall
b	14	L.F.	Top of West Toe Down
c	40	L.F.	Top of Headwall & Wingwall
R32	143	S.Y.	Concrete Channel Lining, Item # 9120100
R35	43	C.Y.	Riprap (Dumped), Item # 9130001
a	30	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	11	C.Y.	D50=9"
R39	11	C.Y.	Riprap (Gabions), Item # 9130005
R56	1	Each	Pipe Culvert Headwall, Item # 6016087
R57	1	Each	Pipe Culvert Headwall with Wingwalls, Item # 6016088

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Pipe Items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 3A
STA. 114+48
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D4 of D26

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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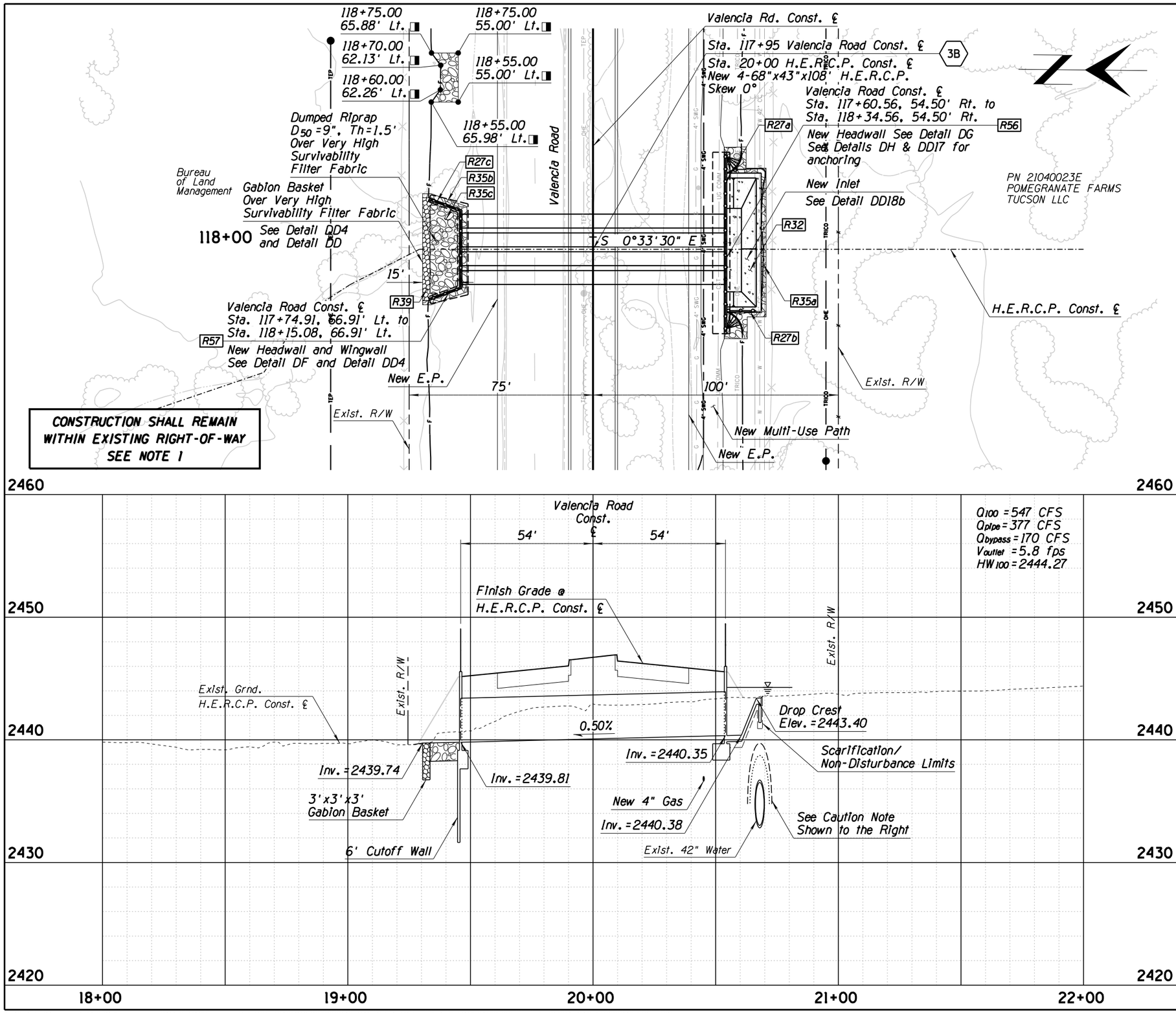
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423



Item No.	Qty.	Unit	Description
R27	143	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	73	L.F.	Top of Headwall
b	12	L.F.	Top of West Toe Down
c	58	L.F.	Top of Headwall & Wingwall
R32	95	S.Y.	Concrete Channel Lining, Item # 9120100
R35	37	C.Y.	Riprap (Dumped), Item # 9130001
a	12	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	23	C.Y.	D50=9"
R39	17	C.Y.	Riprap (Gabions), Item # 9130005
R56	1	Each	Pipe Culvert Headwall, Item # 6016087
R57	1	Each	Pipe Culvert Headwall with Wingwalls, Item # 6016088

R56 R57

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Pipe items.

◨ Station and offset are based on the Valencia Road Cst ℄

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 3B
STA. 117+95
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales Horiz. 1"=20' Vert. 1"=4'

Sheet D5 of D26

Page 164 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A. EXPIRES 9/30/2020

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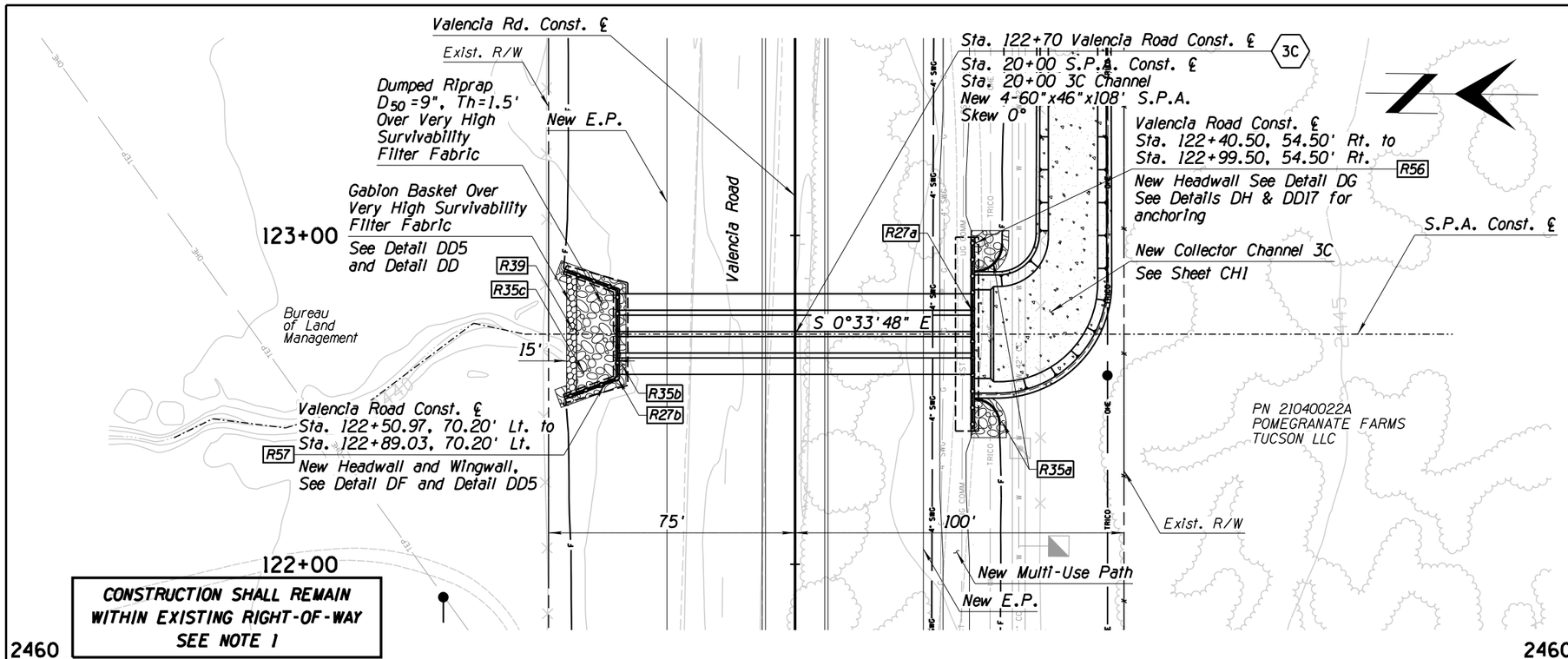
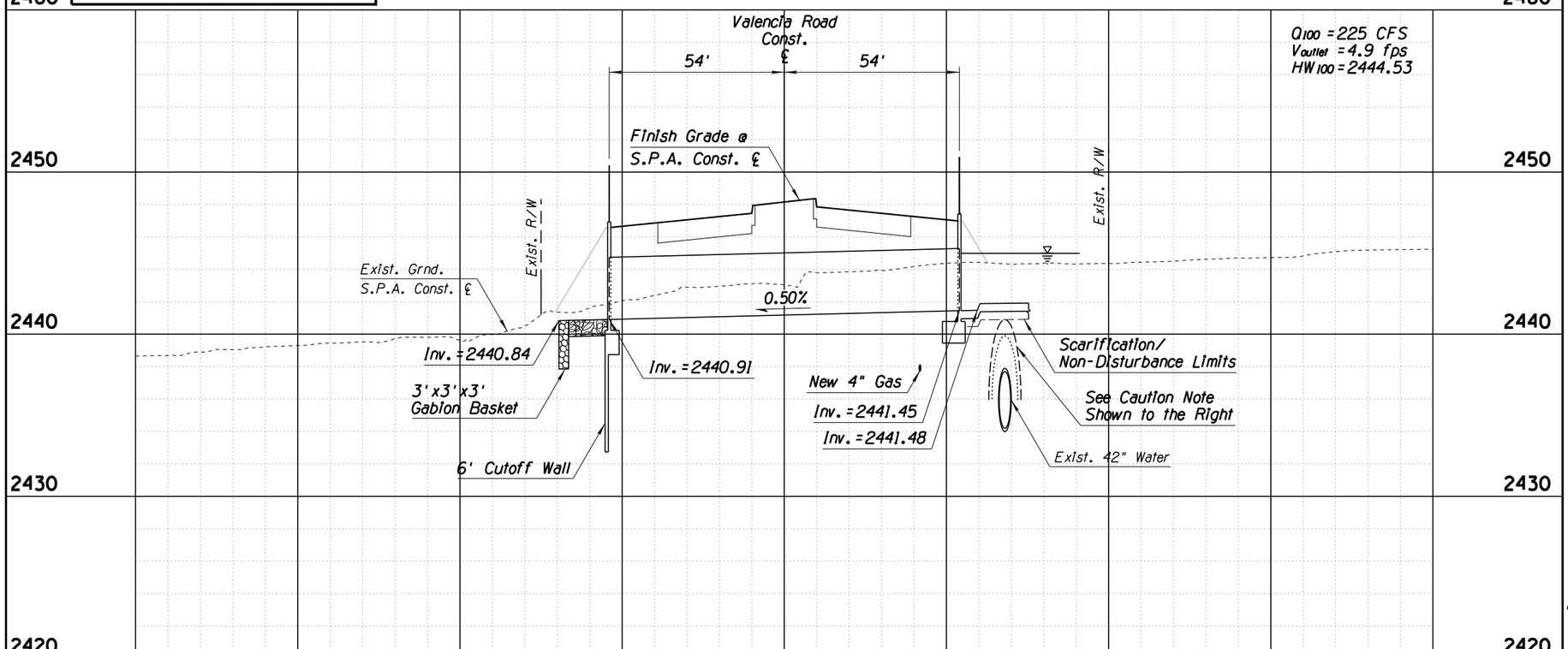
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R27	119	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	58	L.F.	Top of Headwall
b	61	L.F.	Top of Headwall & Wingwall
R35	32	C.Y.	Riprap (Dumped), Item # 9130001
a	9	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	21	C.Y.	D50=9"
R39	14	C.Y.	Riprap (Gabions), Item # 9130005
R56	1	Each	Pipe Culvert Headwall, Item # 6016087
R57	1	Each	Pipe Culvert Headwall with Wingwalls, Item # 6016088

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Pipe items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 3C
STA. 122+70
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D6 of D26

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA ARIZONA U.S.A. EXPIRES 9/30/2020

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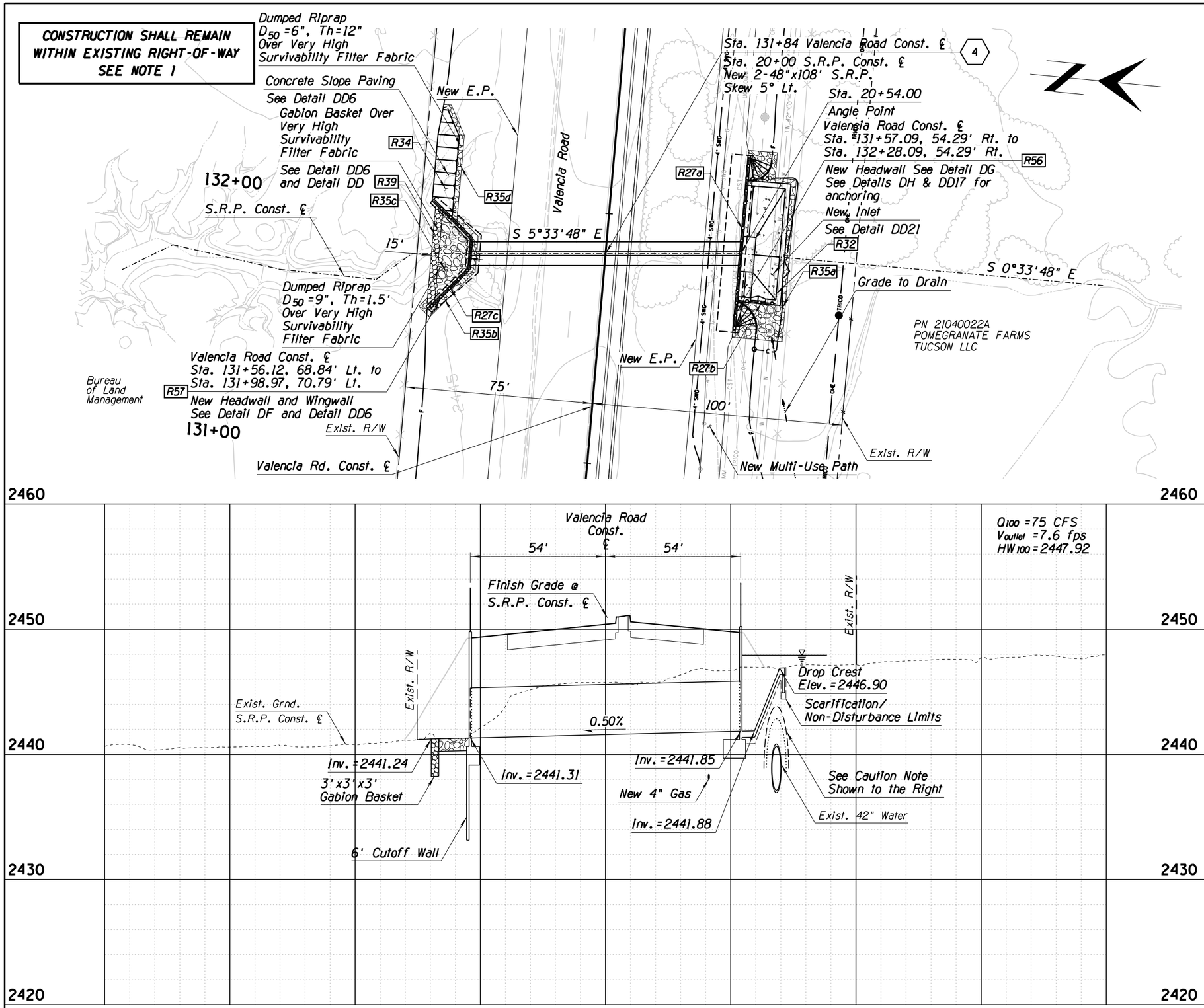
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director



Item No.	Qty.	Unit	Description
R27	141	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	70	L.F.	Top of Headwall
b	15	L.F.	Top of West Toe Down
c	56	L.F.	Top of Headwall & Wingwall
R32	99	S.Y.	Concrete Channel Lining, Item # 9120100
R34	37	S.Y.	Concrete Slope Paving, Item # 6017001
R35	41	C.Y.	Riprap (Dumped), Item # 9130001
a	19	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	16	C.Y.	D50=9"
d	4	C.Y.	D50=6"
R39	15	C.Y.	Riprap (Gabions), Item # 9130005
R56	1	Each	Pipe Culvert Headwall, Item # 6016087
R57	1	Each	Pipe Culvert Headwall with Wingwalls, Item # 6016088

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective Pipe items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

----- 3-Foot Disturbance Limit

PIPE CULVERT NO. 4
STA. 131+84
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Date	
Designed	D. Tapia 01/2018
Drawn	D. Bacon 01/2018
Checked	R. Solis 01/2018
Proj. Engr.	R. Solis 01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 6/30/2020

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

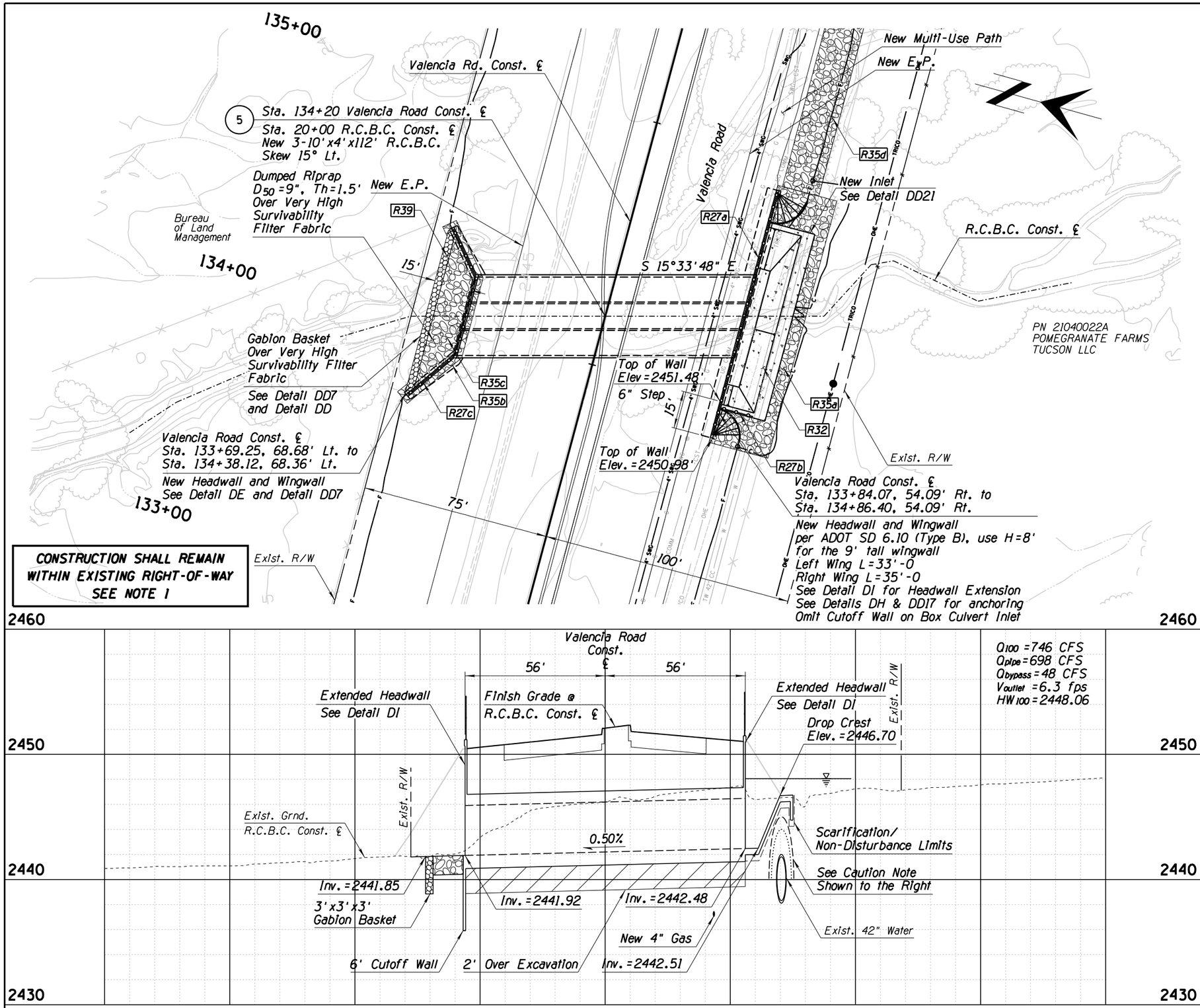
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D7 of D26

4:46:18 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR07.DGN



Item No.	Qty.	Unit	Description
R27	195	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	102	L.F.	Top of Headwall
b	14	L.F.	Top of West Toe Down
c	79	L.F.	Top of Headwall & Wingwall
R32	169	S.Y.	Concrete Channel Lining, Item # 9120100
R35	137	C.Y.	Riprap (Dumped), Item # 9130001
a	40	C.Y.	D50=6"
b	3	C.Y.	D50=3"
c	32	C.Y.	D50=9"
d	62	C.Y.	D50=6"
R39	24	C.Y.	Riprap (Gabions), Item # 9130005

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

-·-·-·- 3-Foot Disturbance Limit

BOX CULVERT NO. 5
STA. 134+20
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D8 of D26

Page 167 of 433

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

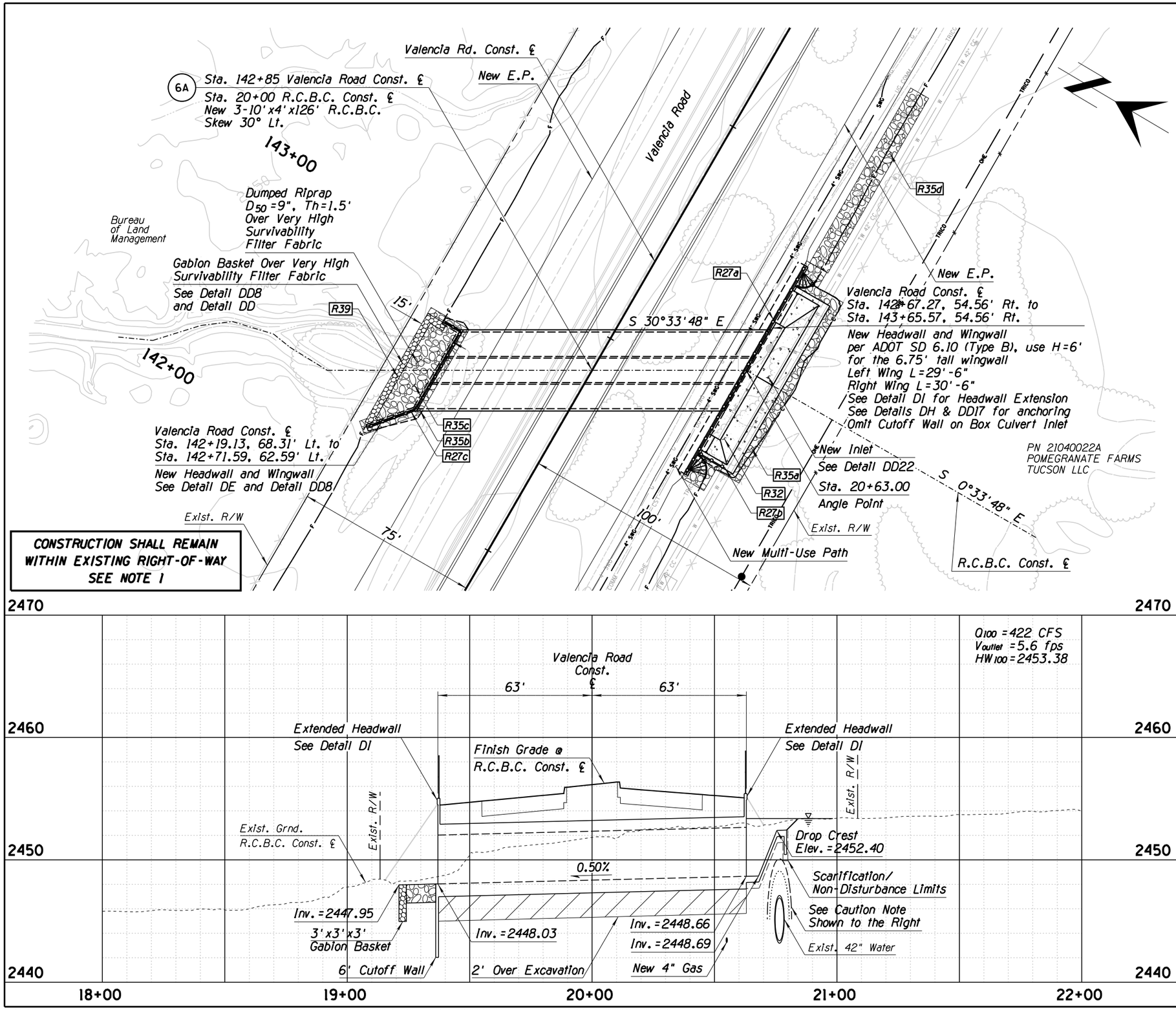
Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

4:46:19 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR08.DGN



Item No.	Qty.	Unit	Description
R27	177	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	98	L.F.	Top of Headwall
b	13	L.F.	Top of West Toe Down
c	66	L.F.	Top of Headwall & Wingwall
R32	155	S.Y.	Concrete Channel Lining, Item # 9120100
R35	79	C.Y.	Riprap (Dumped), Item # 9130001
a	22	C.Y.	D50=6"
b	3	C.Y.	D50=3"
c	28	C.Y.	D50=9"
d	26	C.Y.	D50=6"
R39	21	C.Y.	Riprap (Gabions), Item # 9130005

NOTES:

1. All construction shall remain within the existing right-of-way. Benching and/or shoring may be required and will not be measured for payment, their cost considered incidental to and included in the cost of respective R.C.B.C. Items.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

BOX CULVERT NO. 6A
STA. 142+85
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 1/4/18 EXPIRES 9/30/2020

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

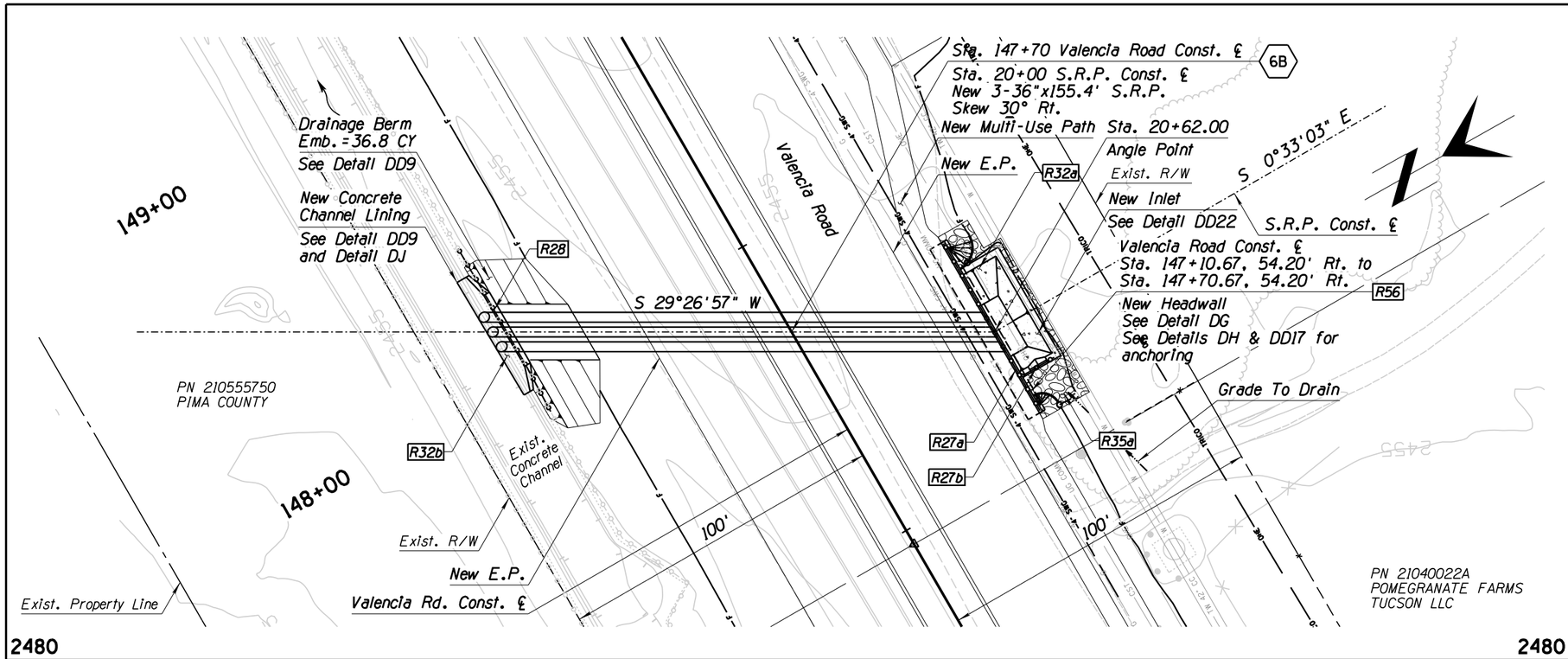
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

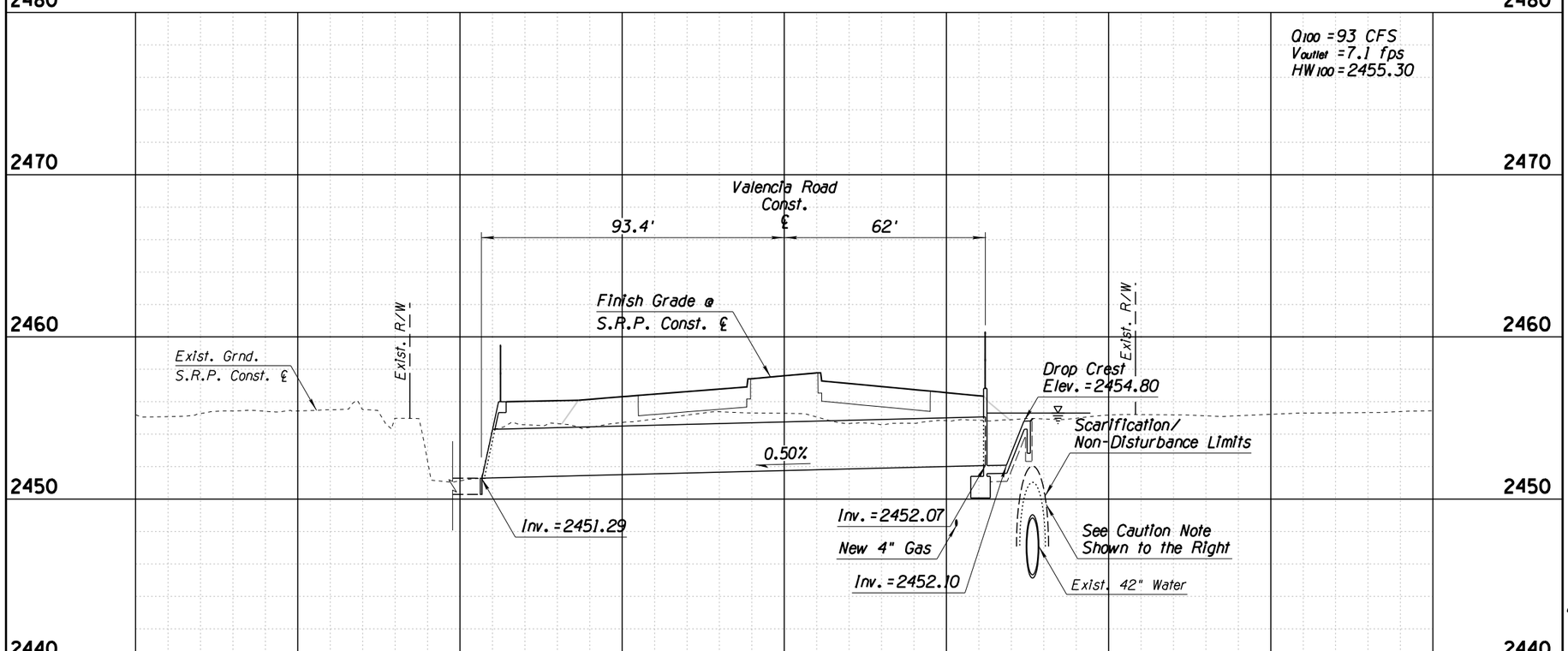
Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D9 of D26

4:46:19 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR09.DGN



Item No.	Qty.	Unit	Description
R27	71	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	59	L.F.	Top of Headwall
b	12	L.F.	Top of West Toe Down
R28	57	L.F.	Handrail - Alt. Location, PAG Std. Dtl. 105, Item # 9330003
R32	95	S.Y.	Concrete Channel Lining, Item # 9120100
a	61	S.Y.	Inlet
b	34	S.Y.	Outlet
R35	16	C.Y.	Riprap (Dumped), Item # 9130001
a	16	C.Y.	D50=6"
R56	1	Each	Pipe Culvert Headwall, Item # 6016087



NOTES:

1. The Contractor shall account for the manufacturer's fill requirements for construction loading atop culverts. Any damaged pipe will be replaced by the Contractor at no cost to the Agency.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit
– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 6B
STA. 147+70
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D10 of D26	Page 169 of 433

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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333 E. Wetmore Road
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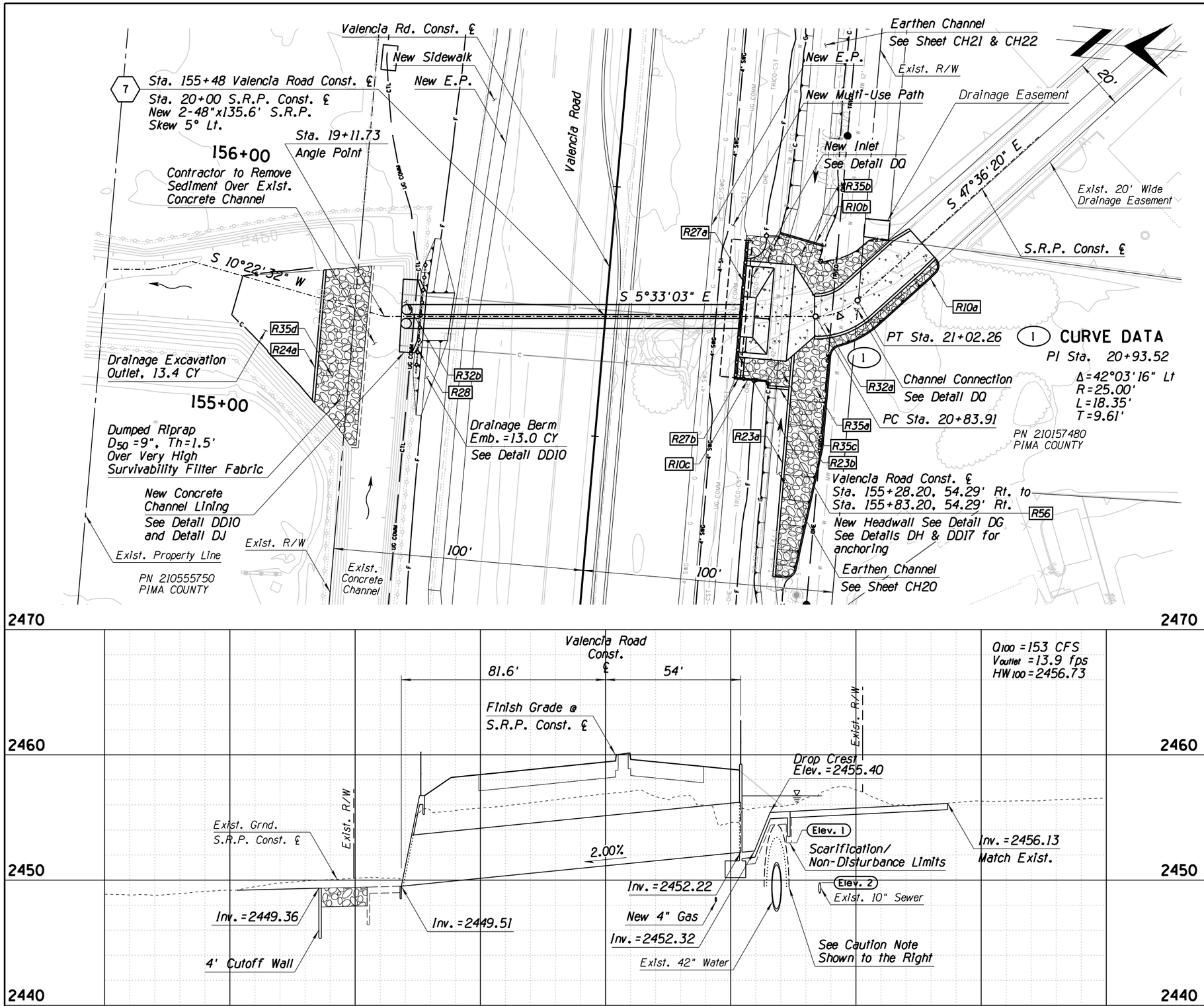
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R10	191	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	157	L.F.	Sta.11+00.94, 3.0' Rt. to Sta. 21+36.63, 8.7' Rt.
b	18	L.F.	Sta. 10+31.48, 8.9' Rt. to Sta. 10+31.48, 9.1' Lt.
c	16	L.F.	Sta. 11+75.79, 6.2' Lt. to Sta. 11+78.33, 20.2' Lt.
R23	98	L.F.	Concrete Cut-off Wall - 2-ft, Item # 6010712
a	90	L.F.	Sta. 11+00.94, 2.0' Rt. to Sta. 11+89.16, 2.0' Rt.
b	8	L.F.	Sta. 11+75.79, 2.0' Rt. to Sta. 11+75.79, 6.2' Lt.
R24	54	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	54	L.F.	Sta. 18+93.19, 40.1' Rt. to Sta. 18+83.29, 11.2' Lt.
R27	70	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	55	L.F.	Top of Headwall
b	15	L.F.	Top of West Toe Down
R28	45	L.F.	Handrail - Alt. Location, PAG Std. Dtl. 105, Item # 9330003
R32	256	S.Y.	Concrete Channel Lining, Item # 9120100
a	220	S.Y.	Inlet
b	36	S.Y.	Outlet
R35	141	C.Y.	Riprap (Dumped), Item # 9130001
a	49	C.Y.	D50=6"
b	22	C.Y.	D50=6"
c	7	C.Y.	D50=6"
d	63	C.Y.	D50=9"
R56	1	Each	Pipe Culvert Headwall, Item # 6016087

SEWER VERTICAL CLEARANCE

Elev. 1	2,452.98
Elev. 2	2,449.79
Differential	3.19'±

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 7
STA. 155+48
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

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

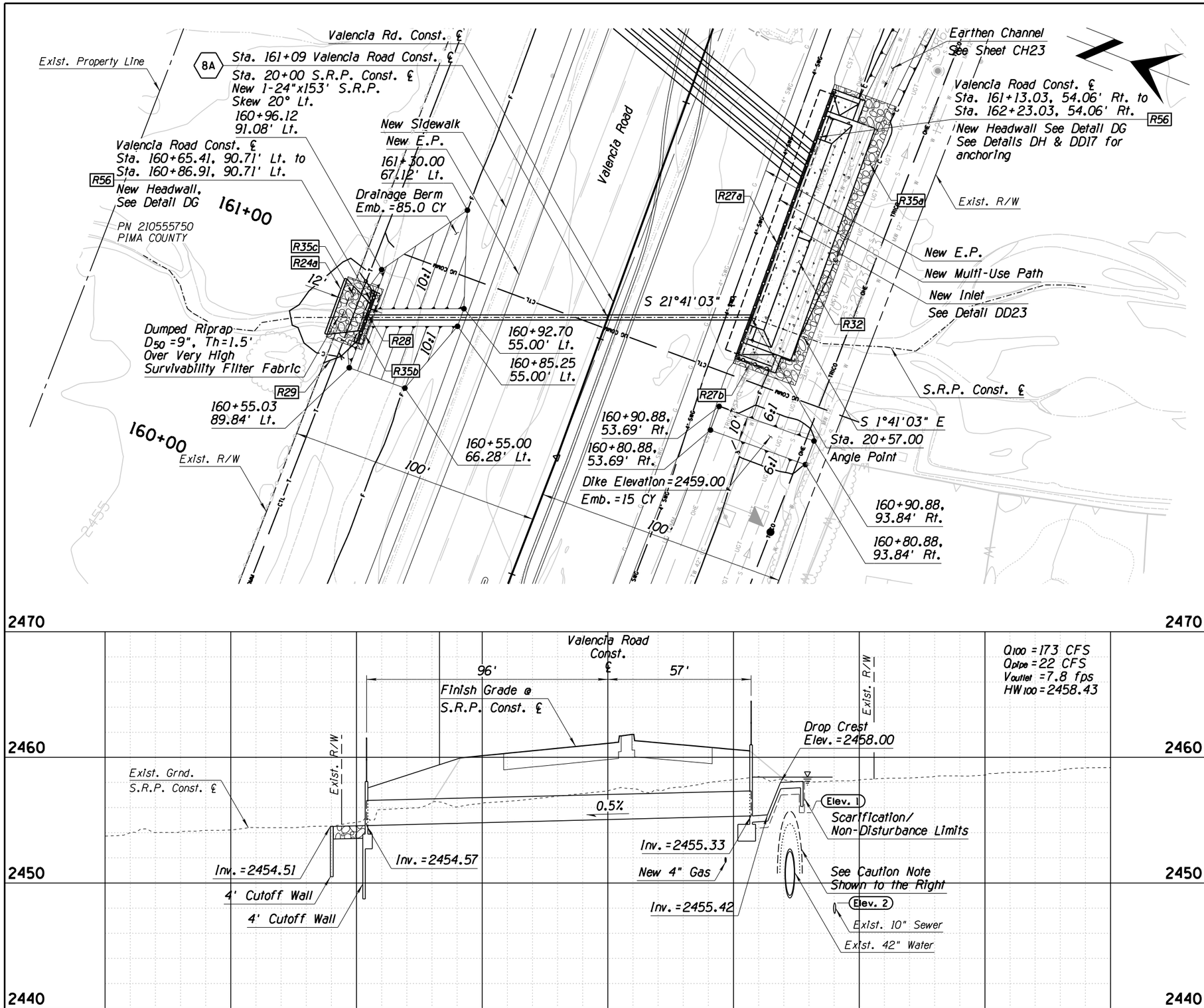
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales Horiz. 1"=20' Vert. 1"=4'

Sheet D11 of D26

4:46:20 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR11.DGN



Item No.	Qty.	Unit	Description
R24	24	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	24	L.F.	Sta. 18+87.33, 6.4' Rt. to Sta. 18+95.31, 15.6' Lt.
R27	127	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	113	L.F.	Top of Headwall
b	14	L.F.	Top of West Toe Down
R28	31	L.F.	Handrail - Alt. Location, PAG Std. Dtl. 105, Item # 9330003
R29	1	EA	Handrail Gate, Detail A5, Item # 9300119
R32	263	S.Y.	Concrete Channel Lining, Item # 9120100
R35	46	C.Y.	Riprap (Dumped), Item # 9130001
a	29	C.Y.	D50=6"
b	1	C.Y.	D50=3"
c	16	C.Y.	D50=9"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087

SEWER VERTICAL CLEARANCE

Elev. 1	2,455.59
Elev. 2	2,448.41
Differential	7.18'±

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 8A
STA. 161+09
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D12 of D26	Page 171 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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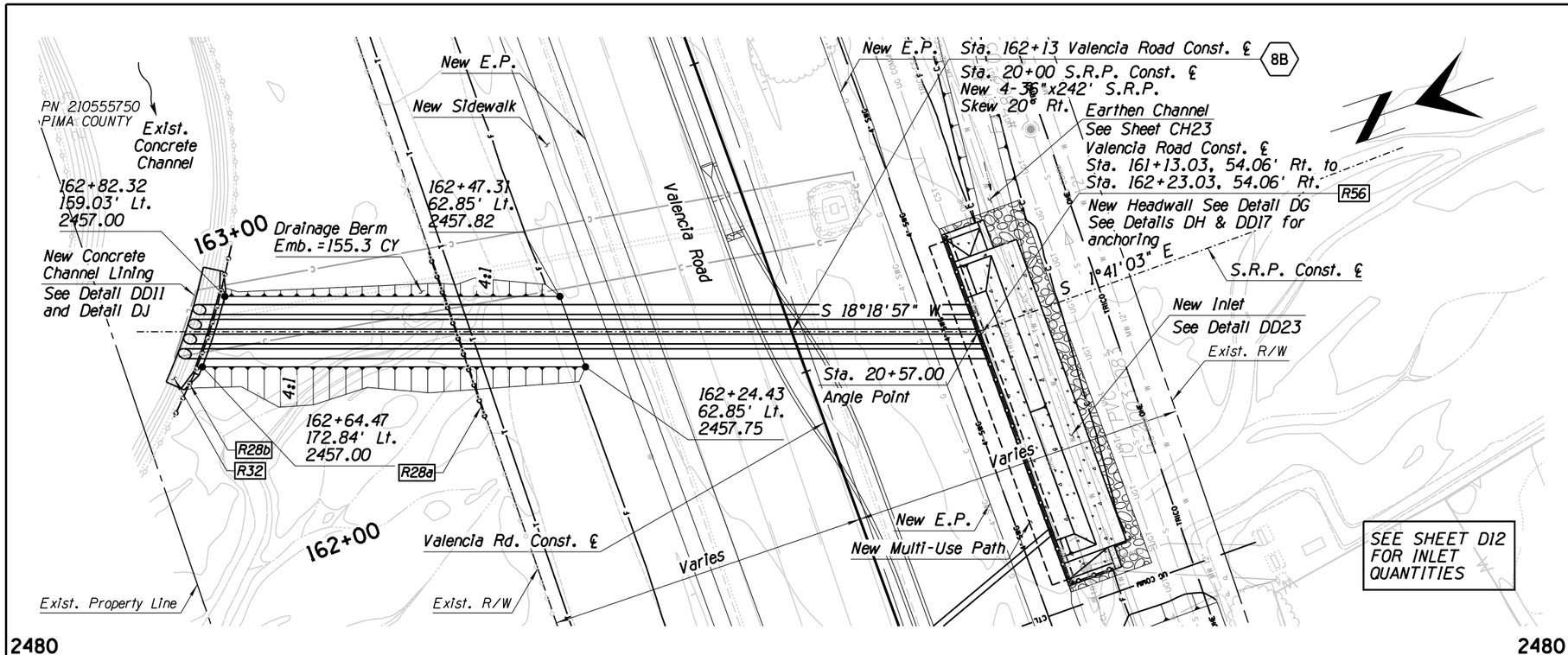
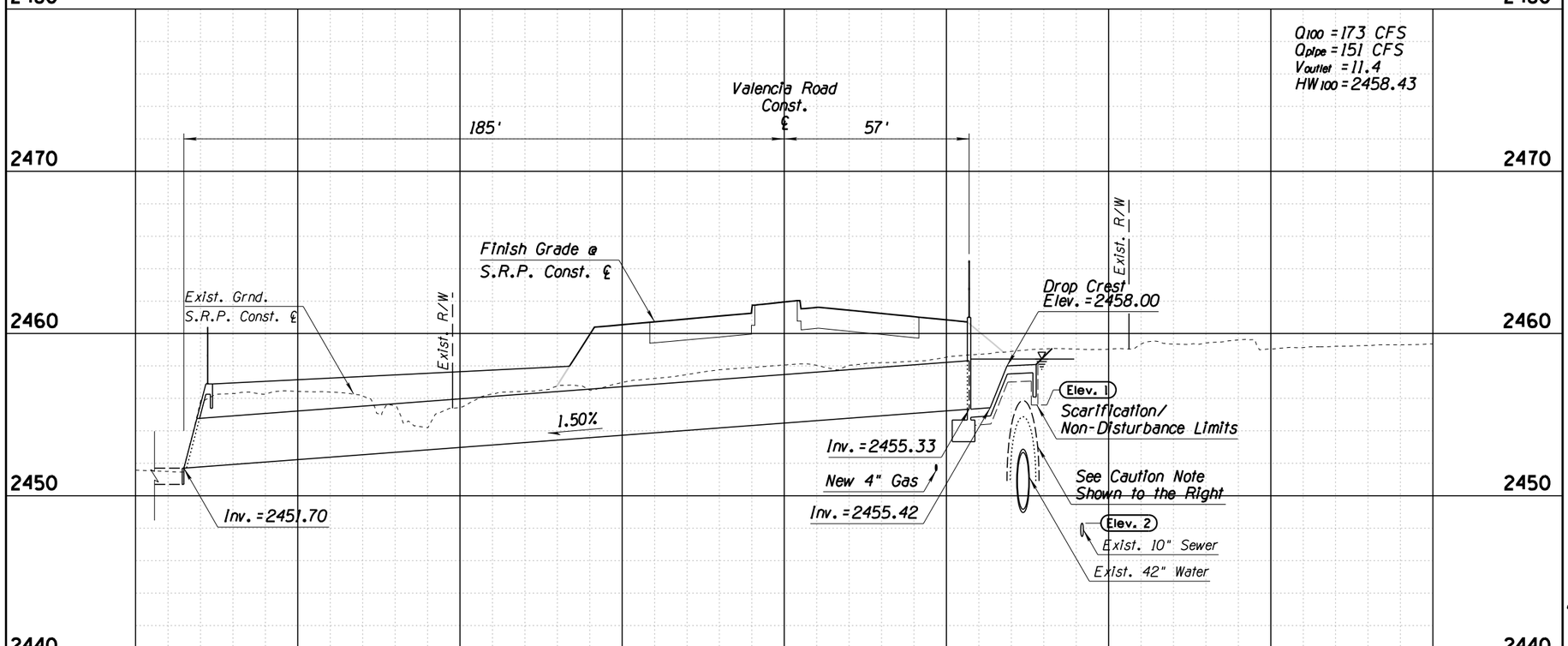
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R28	112	L.F.	Handrail - Alt. Location, PAG Std. Dtl. 105, Item # 9330003
a	54	L.F.	Top of Berm
b	56	L.F.	Top of Channel
R32	34	S.Y.	Concrete Channel Lining, Item # 9120100
R56	1	Each	Pipe Culvert Headwall, Item # 6016087



SEWER VERTICAL CLEARANCE

Elev. 1	2,455.59
Elev. 2	2,448.32
Differential	7.27'±

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 8B
STA. 162+13
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D13 of D26	Page 172 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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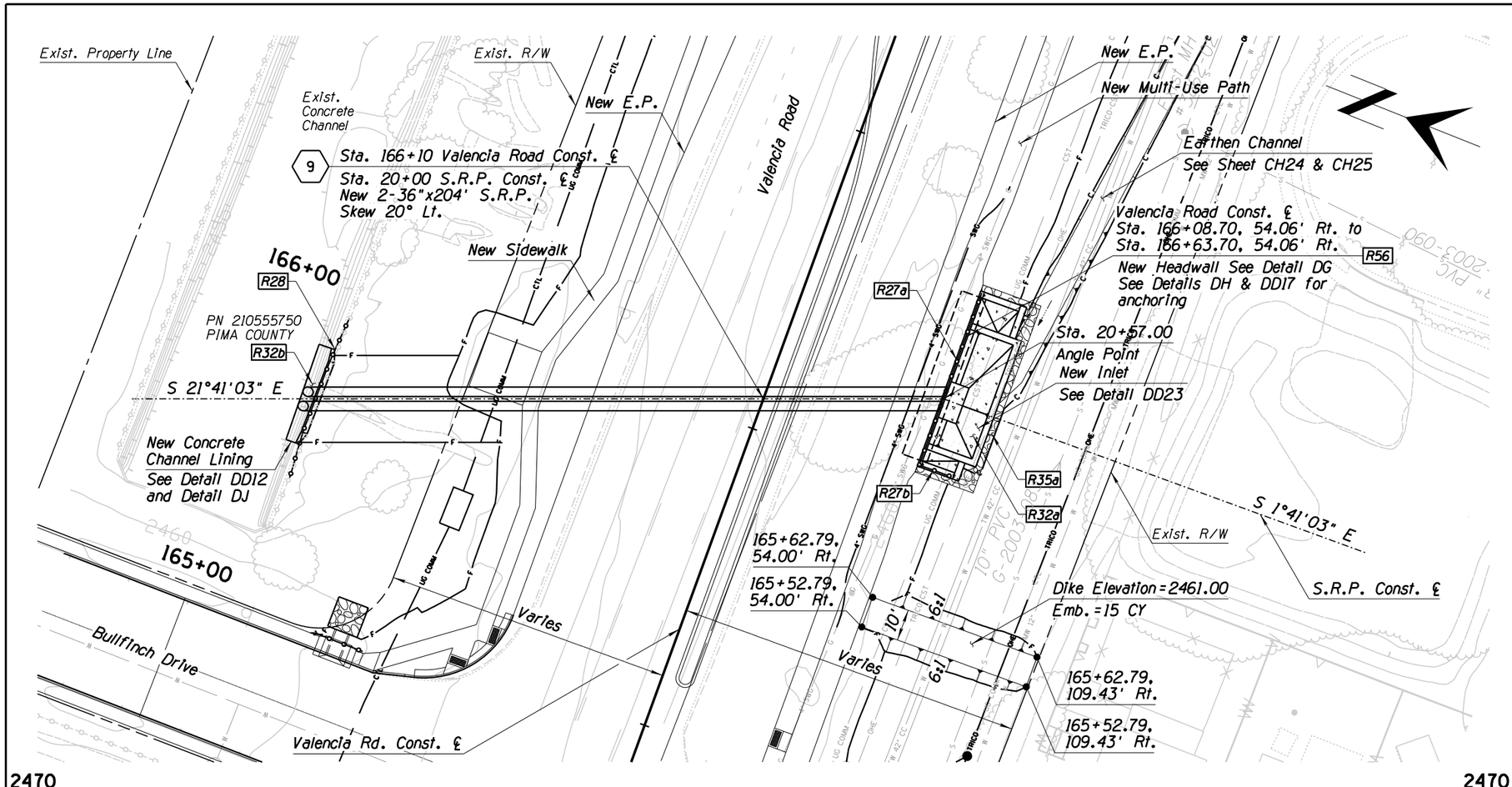
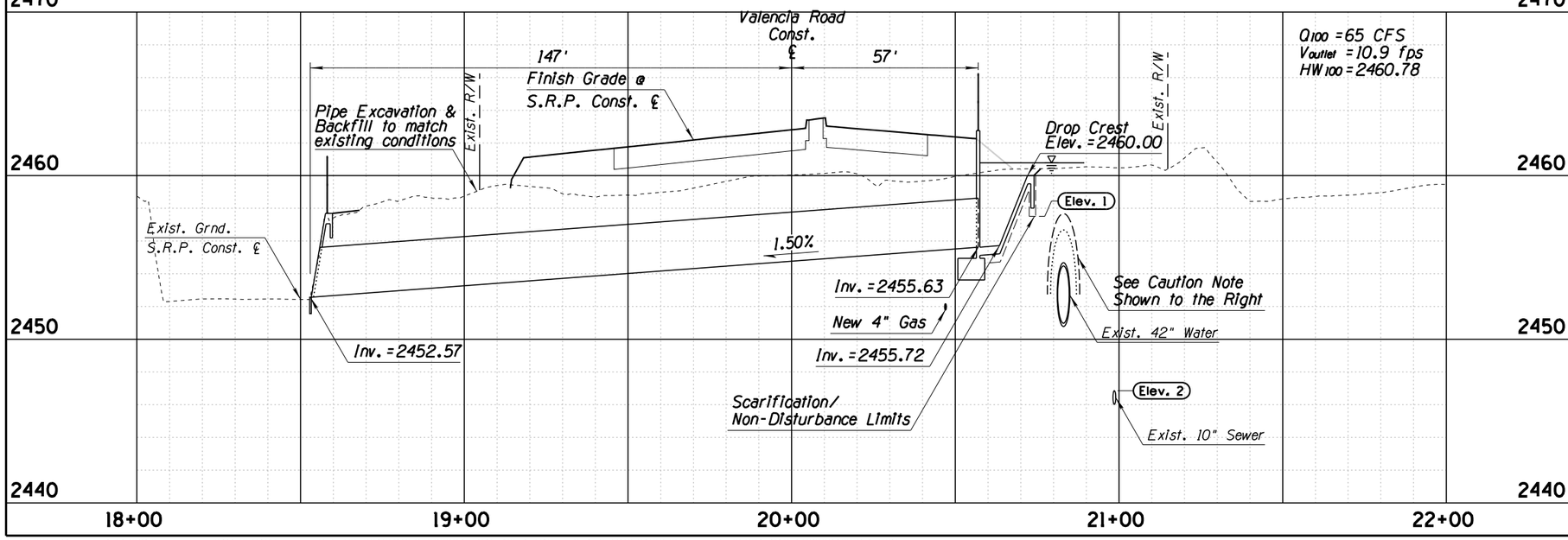
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R27	69	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	58	L.F.	Top of Headwall
b	11	L.F.	Top of West Toe Down
R28	54	L.F.	Handrail - Alt. Location, PAG Std. Dtl. 105, Item # 9330003
R32	143	S.Y.	Concrete Channel Lining, Item # 9120100
a	112	S.Y.	Inlet
b	31	S.Y.	Outlet
R35	9	C.Y.	Riprap (Dumped), Item # 9130001
a	9	C.Y.	D50=6"
R56	1	Each	Pipe Culvert Headwall, Item # 6016087

Inlet

Outlet

SEWER VERTICAL CLEARANCE

Elev. 1	2,457.52
Elev. 2	2,446.85
Differential	10.67'±

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

----- 3-Foot Disturbance Limit

PIPE CULVERT NO. 9
STA. 166+10
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D14 of D26

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Arizona U.S.A.
EXPIRES 9/30/2020

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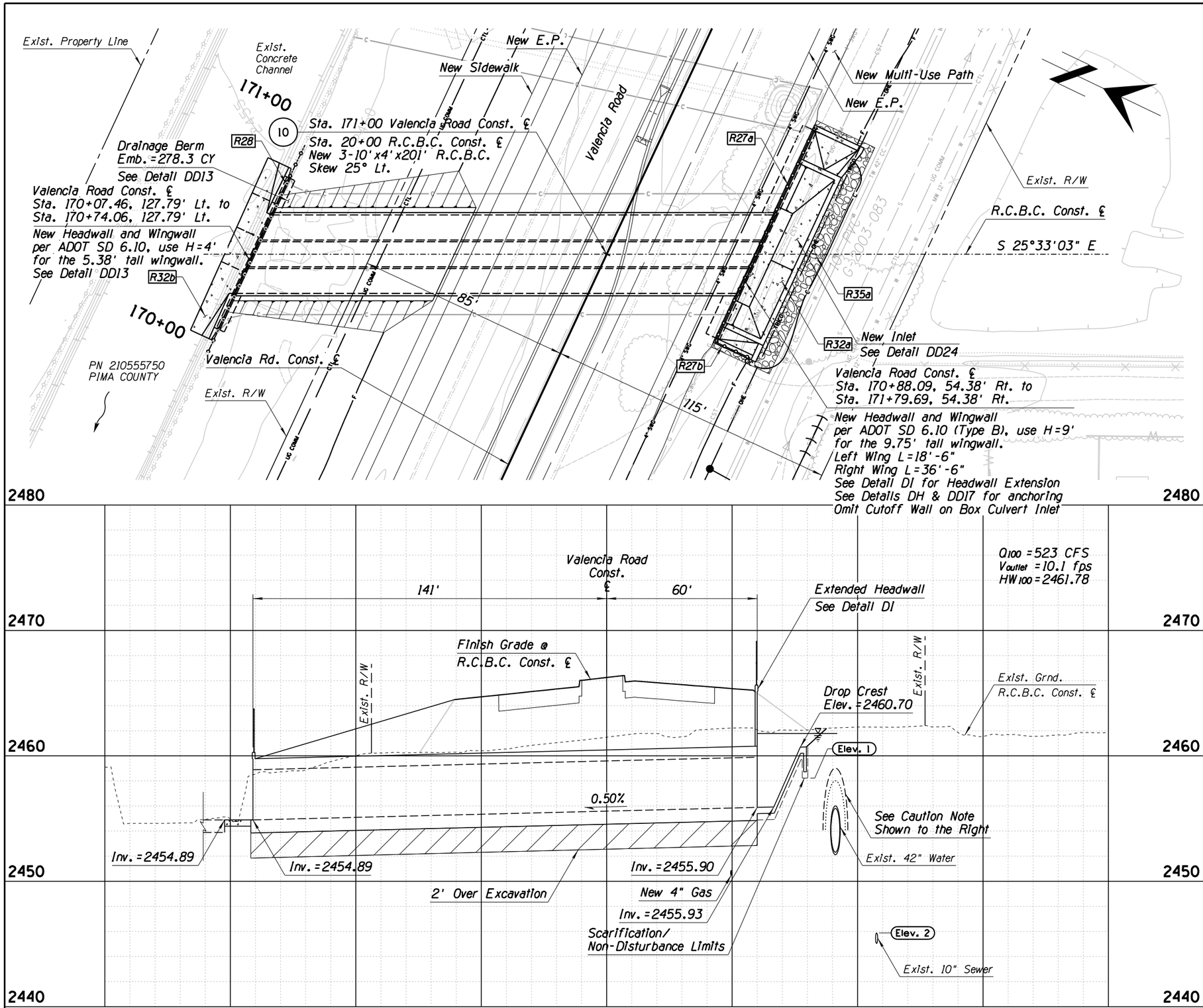
(520) 615-9191 Fax (602) 944-7423

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R27	111	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	95	L.F.	Top of Headwall
b	16	L.F.	Top of West Toe Down
R28	95	L.F.	Handrail - Alt. Location, PAG Std. Dtl. 105, Item # 9330003
R32	291	S.Y.	Concrete Channel Lining, Item # 9120100
a	204	S.Y.	Inlet
b	87	S.Y.	Outlet
R35	28	C.Y.	Riprap (Dumped), Item # 9130001
a	28	C.Y.	D50=6"

SEWER VERTICAL CLEARANCE

Elev. 1	2,458.22
Elev. 2	2,445.88
Differential	12.34'±

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

BOX CULVERT NO. 10
STA. 171+00
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D15 of D26	Page 174 of 433

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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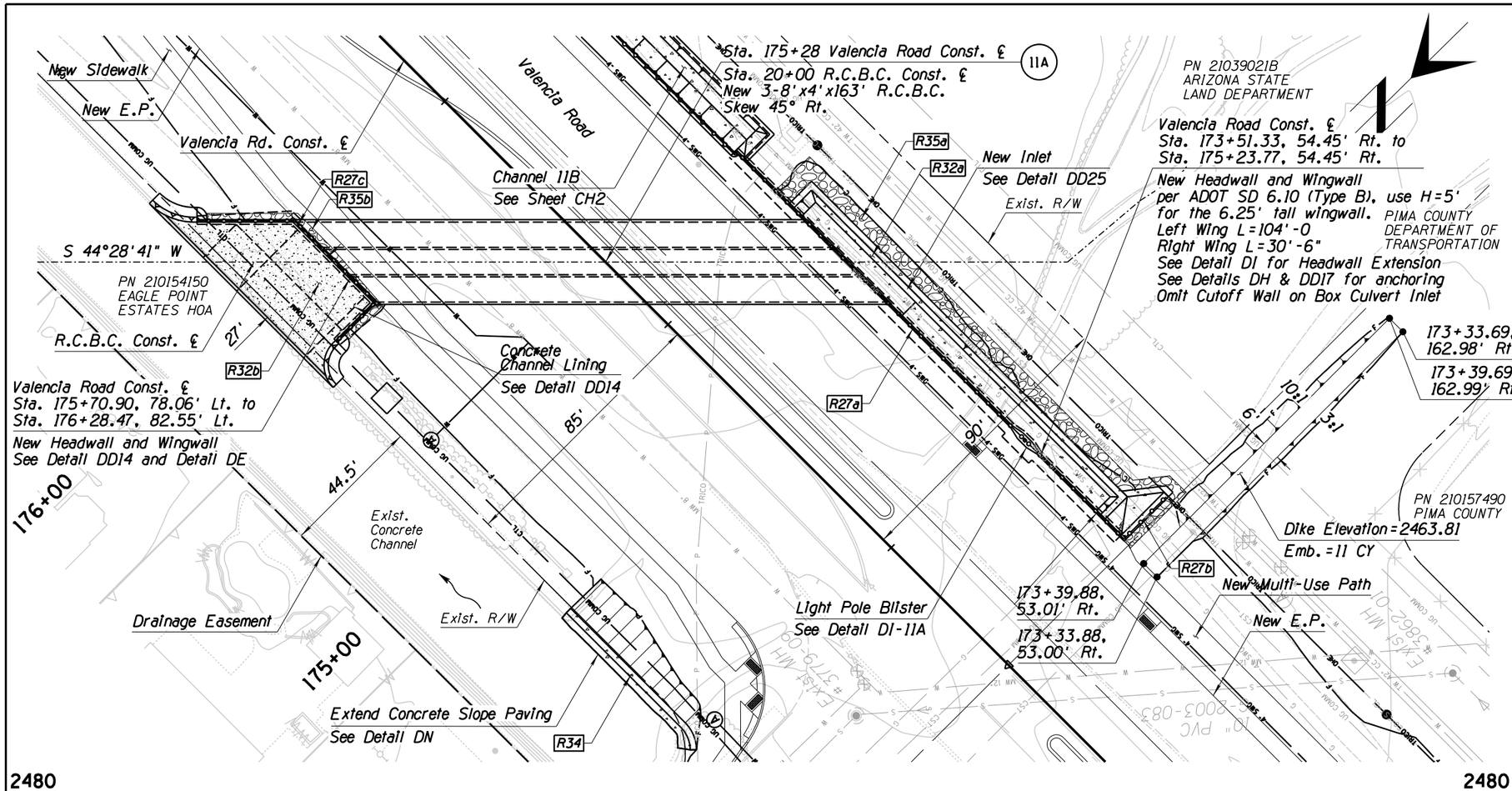
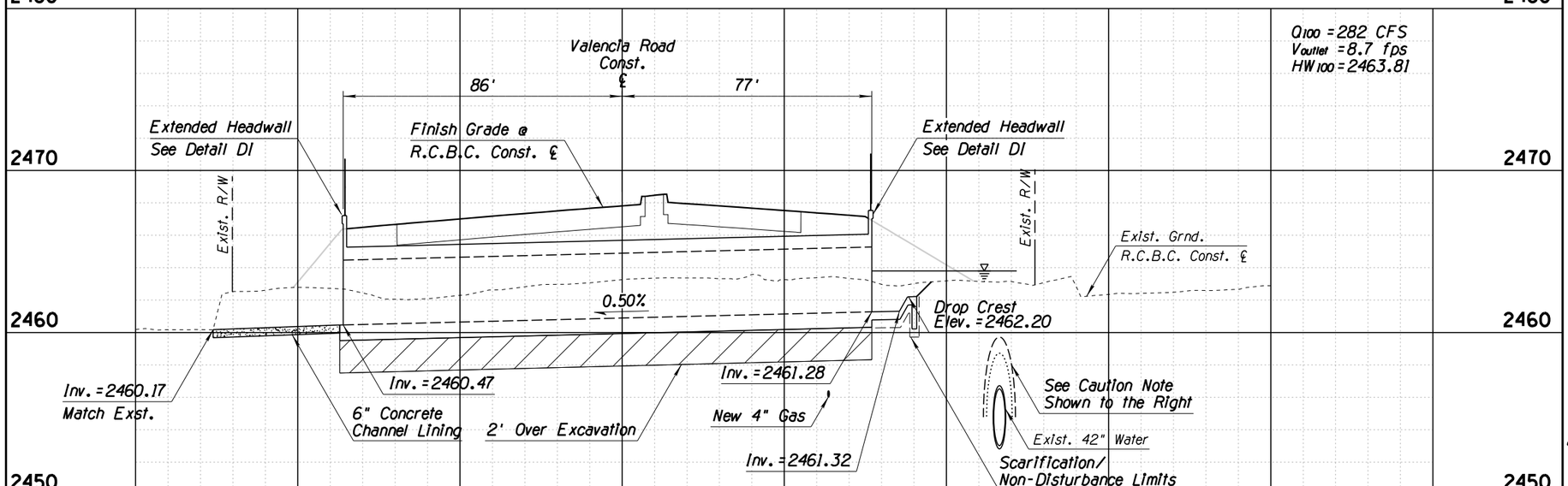
Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R27	276	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	172	L.F.	Top of Headwall
b	19	L.F.	Top of West Toe Down
c	85	L.F.	Top of Headwall & Wingwall
R32	363	S.Y.	Concrete Channel Lining, Item # 9120100
a	185	S.Y.	Inlet
b	178	S.Y.	Outlet
R34	40	S.Y.	Concrete Slope Paving, Item # 6017001
R35	37	C.Y.	Riprap (Dumped), Item # 9130001
a	34	C.Y.	D50=6"
b	3	C.Y.	D50=3"

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

BOX CULVERT NO. 11A
STA. 175+28
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet D16 of D26	Page 175 of 433
	Vert. 1"=4'		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

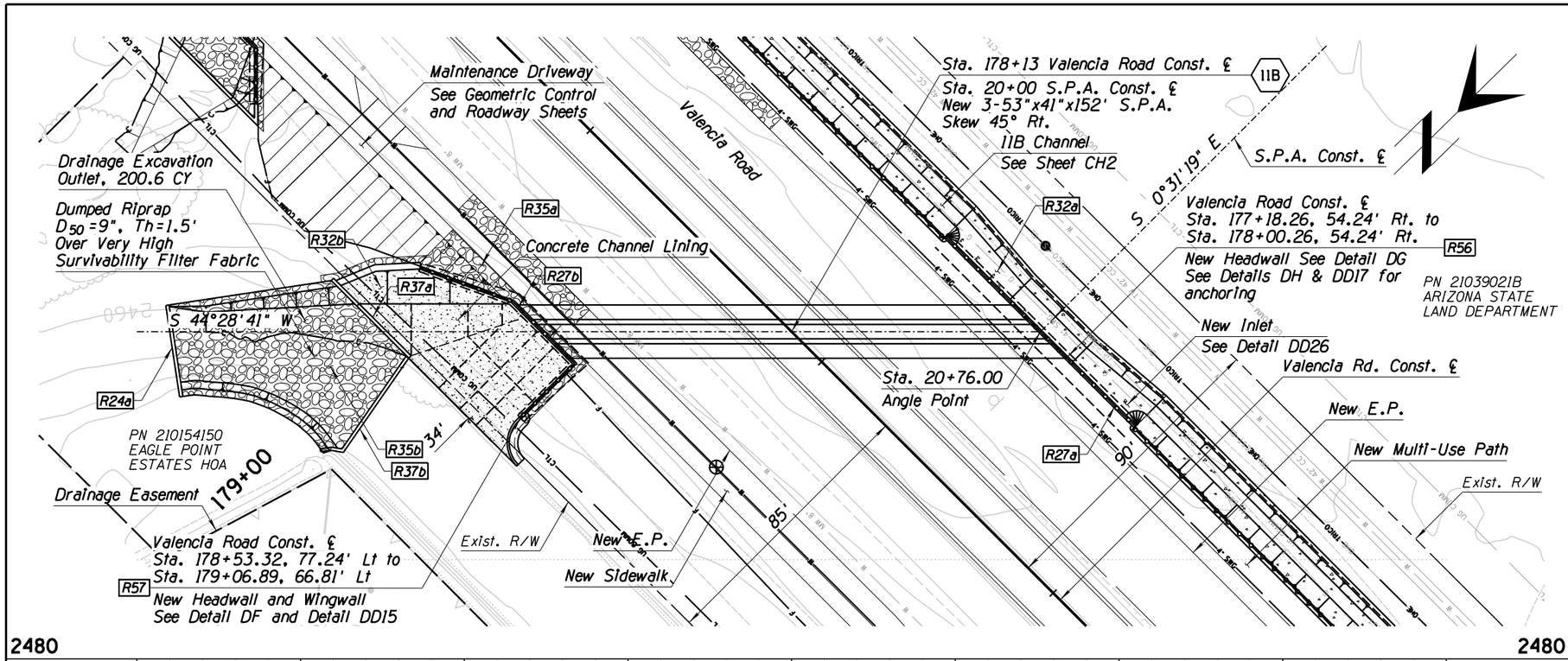
No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

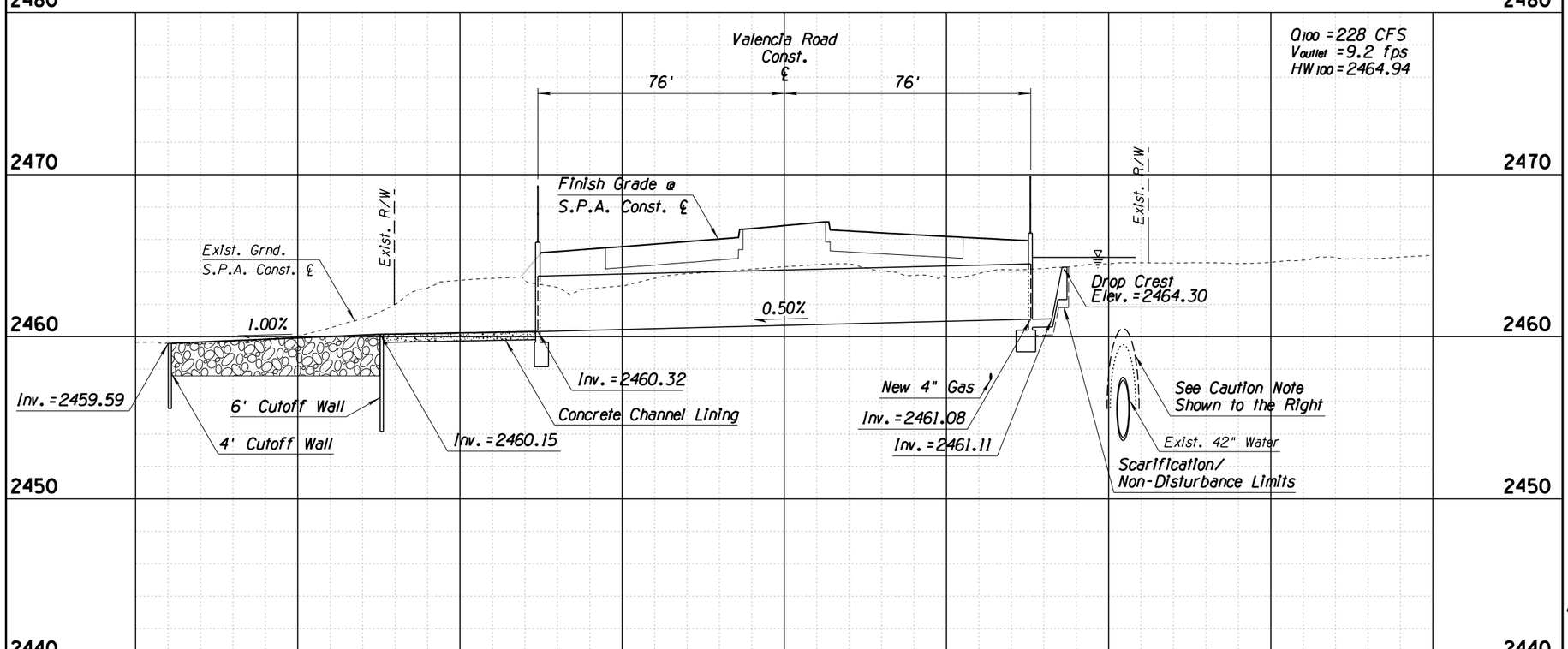
Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Date Signed 01/04/18
Arizona U.S.A.
EXPIRES 9/30/2020

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

4:46:23 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR16.DGN



Item No.	Qty.	Unit	Description
R24	29	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	29	L.F.	Sta. 18+08.82, 8.0' Lt. to Sta. 18+13.06, 20.0' Rt.
R27	163	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	82	L.F.	Top of Headwall
b	81	L.F.	Top of Headwall & Wingwall
R32	321	S.Y.	Concrete Channel Lining, Item # 9120100
a	112	S.Y.	Inlet
b	209	S.Y.	Outlet
R35	139	C.Y.	Riprap (Dumped), Item # 9130001
a	8	C.Y.	D50=3"
b	131	C.Y.	D50=9"
R37	76	L.F.	Concrete Cut-off Wall - 6-ft, Item # 6010716
a	34	L.F.	Sta. 18+59.37, 15.6' Lt. to Sta. 18+83.05, 8.1' Rt.
b	42	L.F.	Sta. 18+55.97, 35.7' Rt. to Sta. 18+82.33, 7.4' Rt.
R56	1	Each	Pipe Culvert Headwall, Item # 6016087
R57	1	Each	Pipe Culvert Headwall with Wingwalls, Item # 6016088



NOTE: Concrete Apron to be paid under concrete channel lining

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 11B
STA. 178+13
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D17 of D26	Page 176 of 433

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

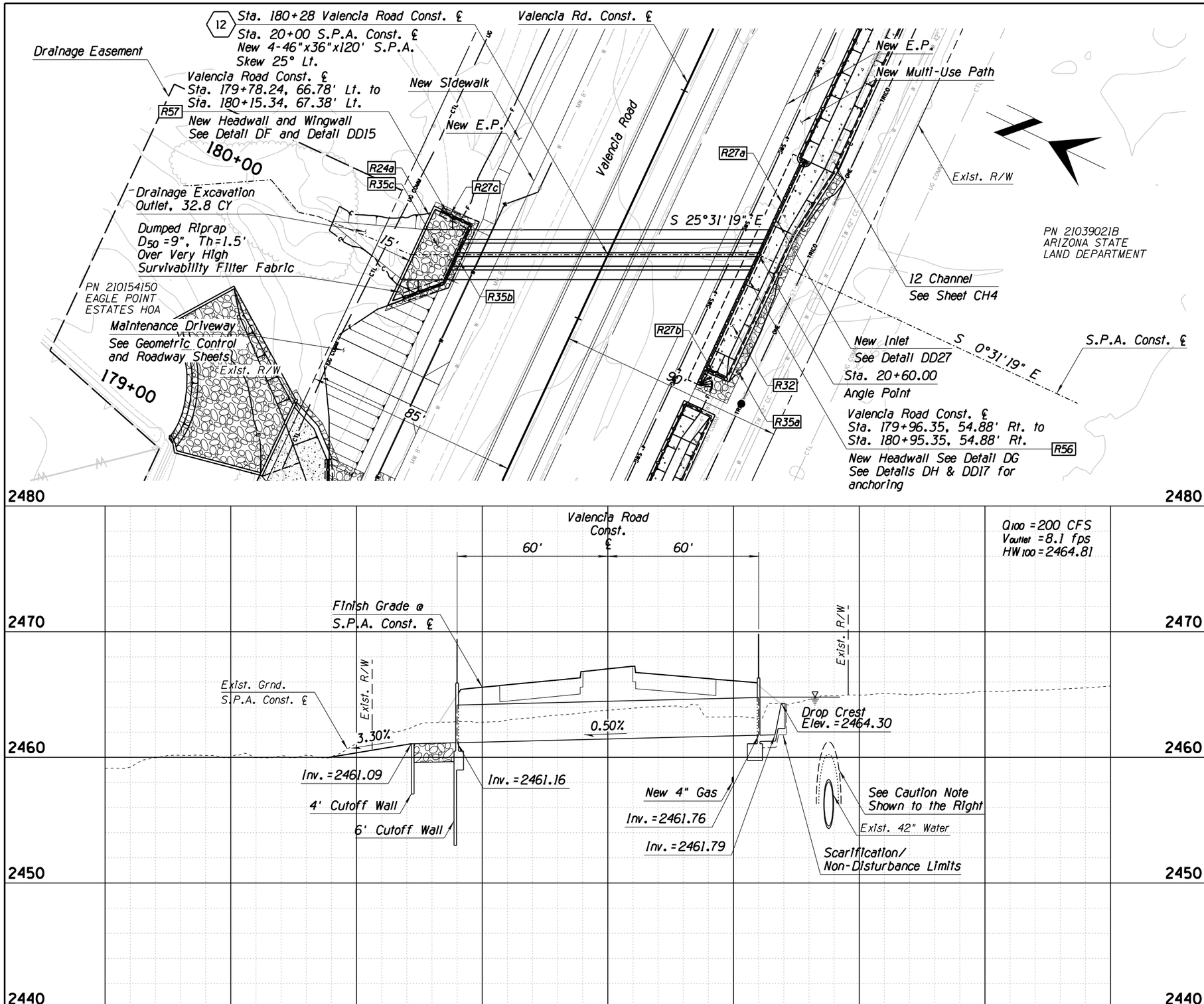
Pima County Department of Transportation

#4RTVWE

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R24	54	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	54	L.F.	Sta. 19+20.75, 22.2' Rt. to Sta. 19+30.83, 19.4' Lt.
R27	164	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	98	L.F.	Top of Headwall
b	10	L.F.	Top of West Toe Down
c	56	L.F.	Top of Headwall & Wingwall
R32	118	S.Y.	Concrete Channel Lining, Item # 9120100
R35	43	C.Y.	Riprap (Dumped), Item # 9130001
a	14	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	27	C.Y.	D50=9"
R56	1	Each	Pipe Culvert Headwall, Item # 6016087
R57	1	Each	Pipe Culvert Headwall with Wingwalls, Item # 6016088

NOTES:

1. The Contractor shall account for the manufacturers fill requirements for construction loading atop culverts. Any damaged pipe will be replaced by the Contractor at no cost to the Agency.

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 12
STA. 180+28
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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333 E. Rethmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D18 of D26

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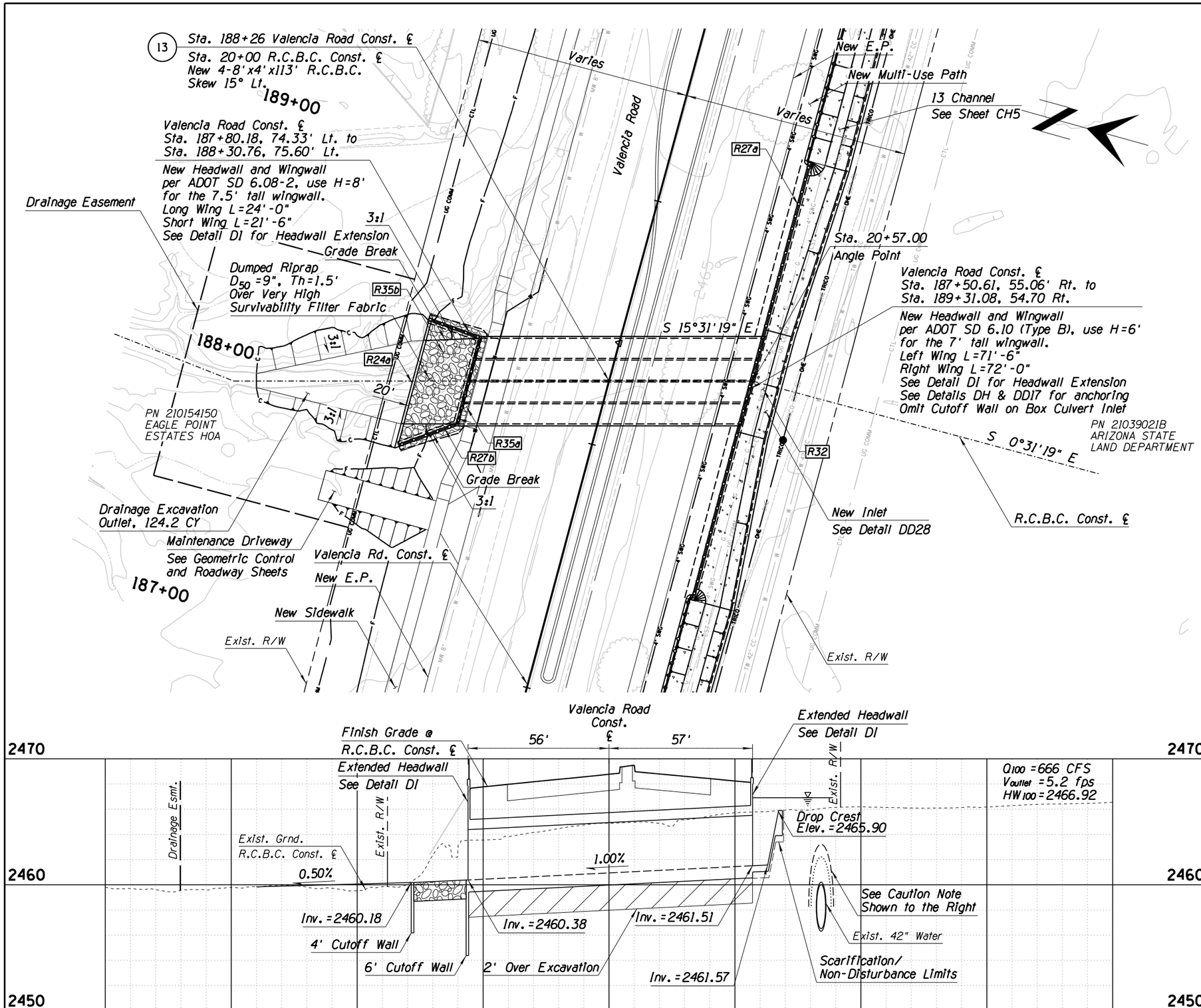

Item No.	Qty.	Unit	Description
R24	53	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	53	L.F.	Sta. 19+14.87, 26.6' Rt. to Sta. 19+28.45, 24.1' Lt.
R27	259	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	177	L.F.	Top of Headwall
b	82	L.F.	Top of Headwall & Wingwall
R32	288	S.Y.	Concrete Channel Lining, Item # 9120100
R35	50	C.Y.	Riprap (Dumped), Item # 9130001
a	3	C.Y.	D50=3"
b	47	C.Y.	D50=9"

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

BOX CULVERT NO. 13
STA. 188+26
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
CERTIFICATE NO. 48213
DAVID L. TAPIA
Date Signed 01/04/18
Arizona U.S.A.
EXPIRES 9/30/2020

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

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D19 of D26

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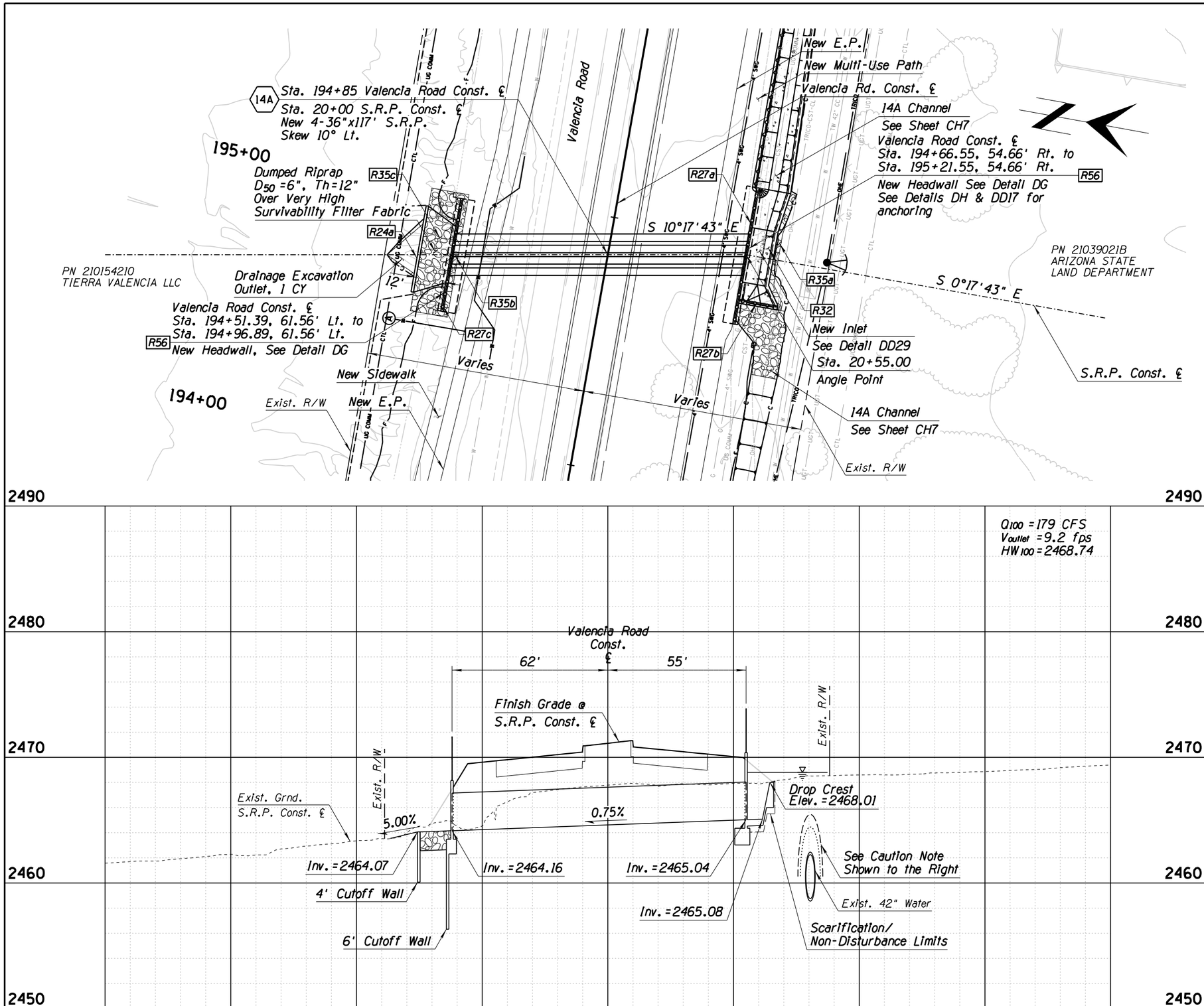

Item No.	Qty.	Unit	Description
R24	35	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	35	L.F.	Sta. 19+21.69, 14.8' Rt. to Sta. 19+27.72, 19.5' Lt.
R27	113	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	54	L.F.	Top of Headwall
b	14	L.F.	Top of West Toe Down
c	45	L.F.	Top of Headwall
R32	64	S.Y.	Concrete Channel Lining, Item # 9120100
R35	42	C.Y.	Riprap (Dumped), Item # 9130001
a	18	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	22	C.Y.	D50=6"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 14A
STA. 194+85
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D20 of D26	Page 179 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A. EXPIRES 9/30/2020

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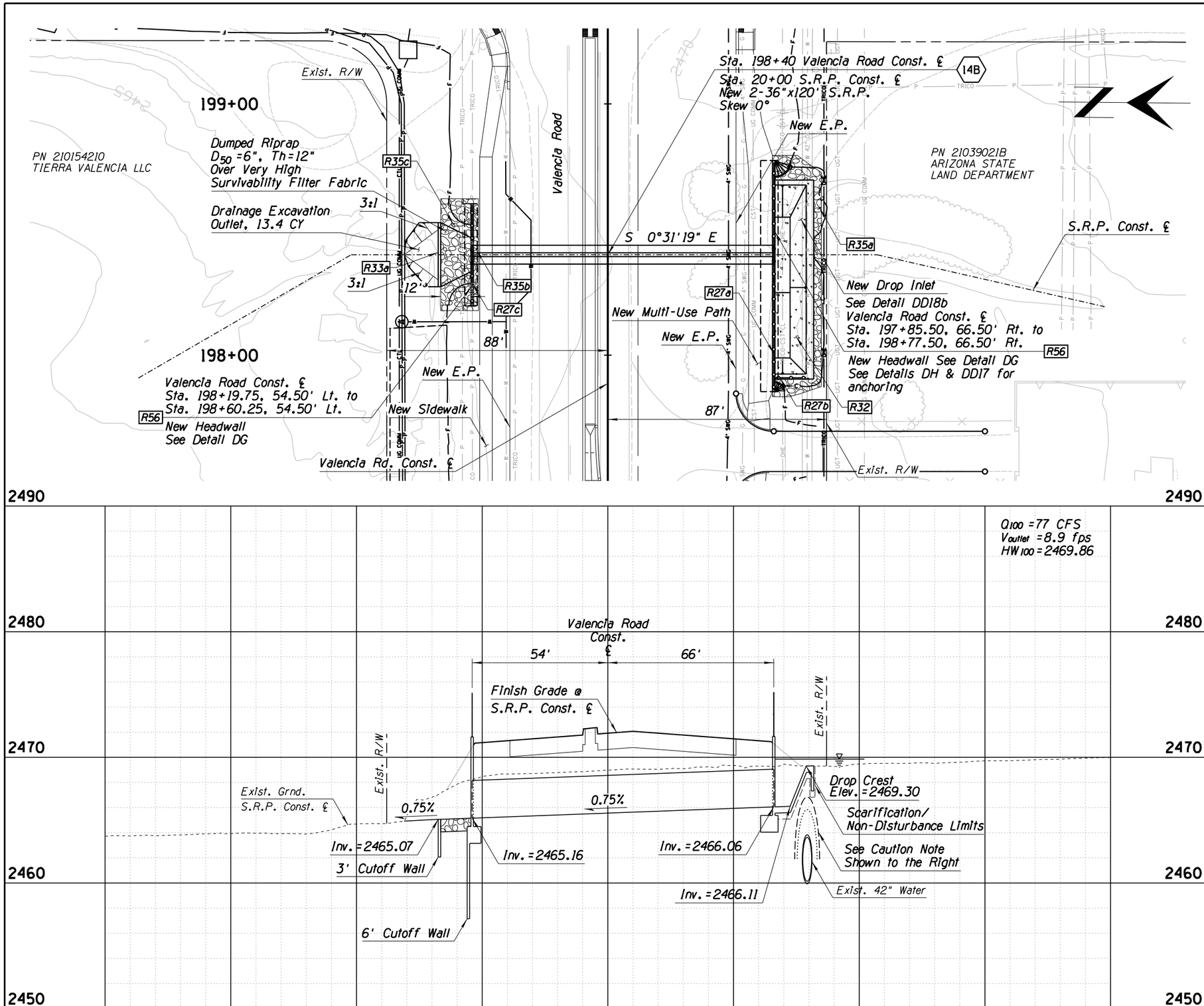
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R27	144	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	91	L.F.	Top of Headwall
b	13	L.F.	Top of West Toe Down
c	40	L.F.	Top of Headwall
R32	145	S.Y.	Concrete Channel Lining, Item # 9120100
R33	26	L.F.	Concrete Cut-off Wall - 3-ft, Item # 6010713
a	26	L.F.	Sta. 19+32.50,12.8' Rt. to Sta. 19+32.50, 12.8' Lt.
R35	39	C.Y.	Riprap (Dumped), Item # 9130001
a	18	C.Y.	D50=6"
b	2	C.Y.	D50=3"
c	19	C.Y.	D50=6"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 14B
STA. 198+40
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet D21 of D26	Page 180 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

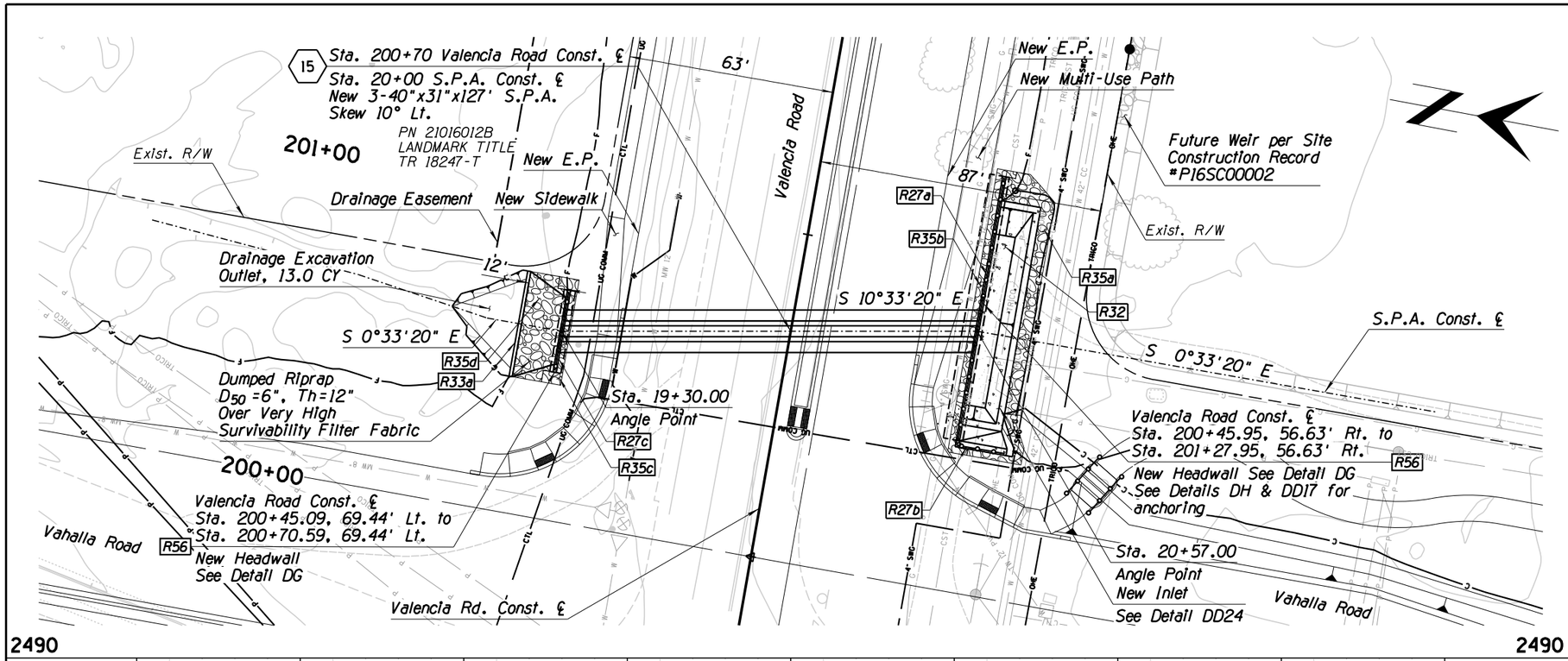
No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

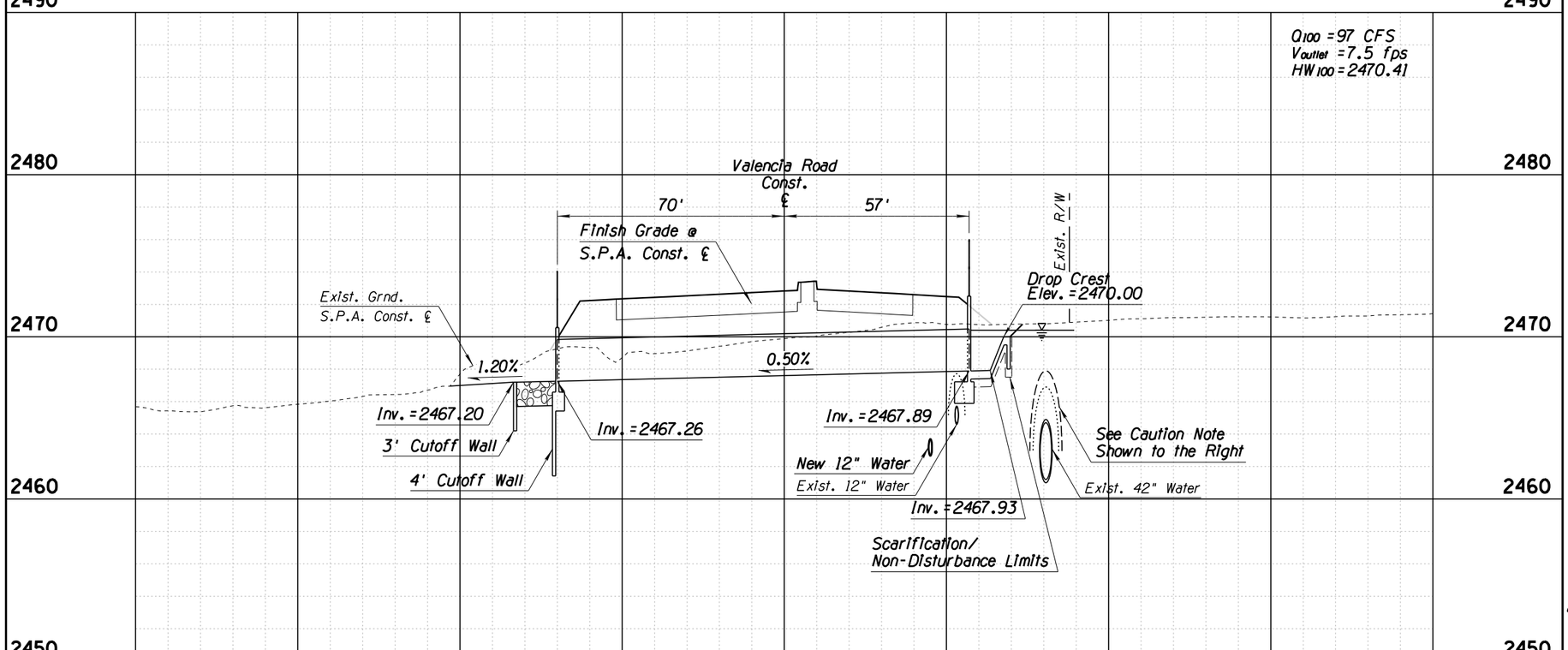
Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA State of Arizona
EXPIRES 9/30/2020

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R27	123	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	83	L.F.	Top of Headwall
b	15	L.F.	Top of West Toe Down
c	25	L.F.	Top of Headwall
R32	114	S.Y.	Concrete Channel Lining, Item # 9120100
R33	33	L.F.	Concrete Cut-off Wall - 3-ft, Item # 6010713
a	33	L.F.	Sta. 19+16.50,16.4' Rt. to Sta. 19+16.50, 16.4' Lt.
R35	37	C.Y.	Riprap (Dumped), Item # 9130001
a	17	C.Y.	D50=6"
b	4	C.Y.	D50=3"
c	2	C.Y.	D50=3"
d	14	C.Y.	D50=6"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087



CAUTION

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LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 15
STA. 200+70
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D22 of D26

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 ARIZONA U.S.A. EXPIRES 9/30/2020

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333 E. Wetmore Road
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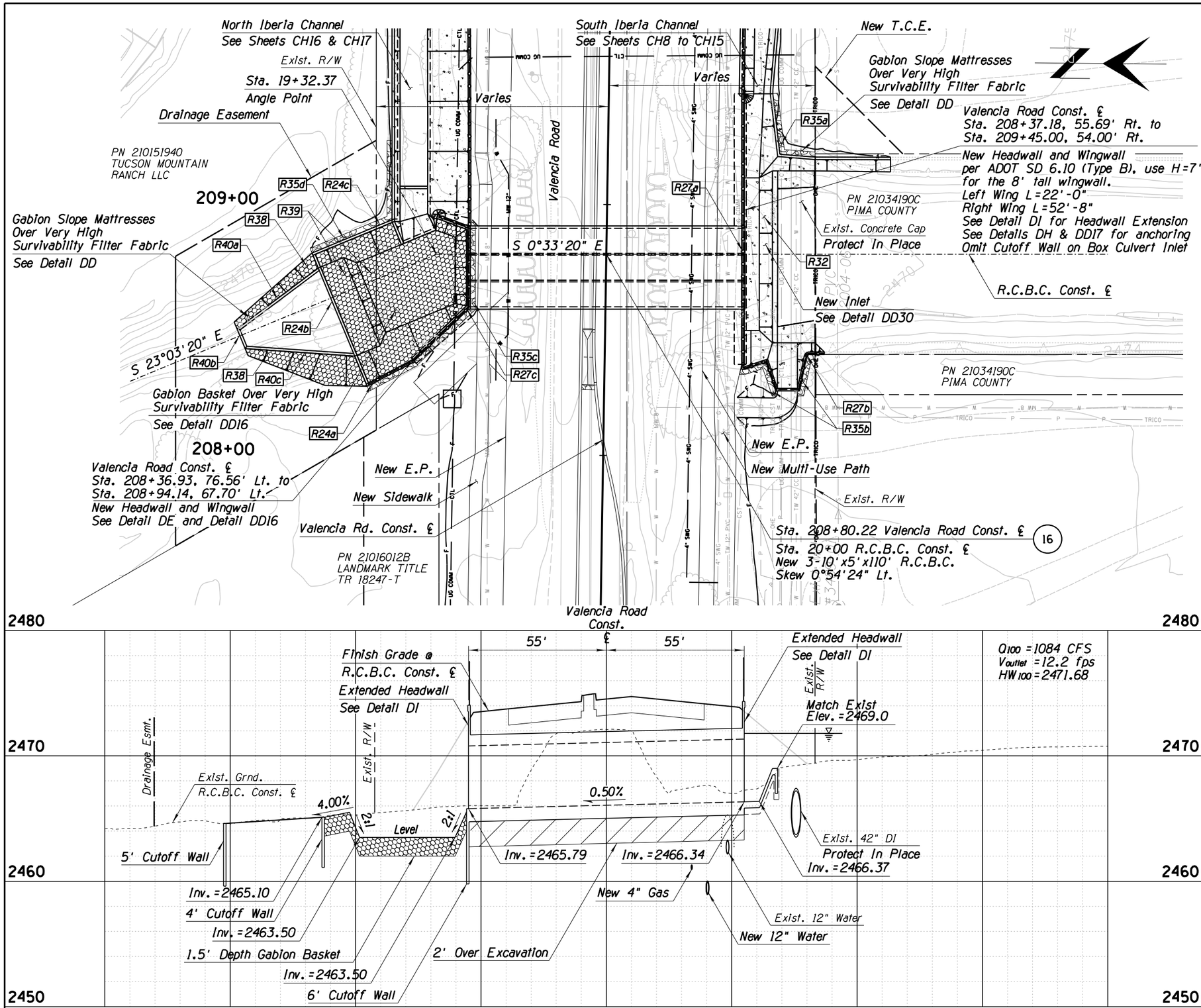
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director



Item No.	Qty.	Unit	Description
R24	114	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	21	L.F.	Sta. 19+07.77, 36.2' Rt. to Sta. 18+87.62, 38.0' Rt.
b	58	L.F.	Sta. 18+86.57, 38.0' Rt. to Sta. 18+86.57, 18.5' Lt.
c	35	L.F.	Sta. 18+86.57, 19.5' Lt. to Sta. 19+21.13, 19.5' Lt.
R27	249	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	131	L.F.	Top of Headwall
b	22	L.F.	Top of West Toe Down
c	96	L.F.	Top of Headwall & Wingwall
R32	257	S.Y.	Concrete Channel Lining, Item # 9120100
R35	10	C.Y.	Riprap (Dumped), Item # 9130001
a	3	C.Y.	D50=6"
b	3	C.Y.	D50=6"
c	2	C.Y.	D50=3"
d	2	C.Y.	D50=3"
R38	24	C.Y.	Riprap (Slope Mattress), Item # 9130004
R39	141	C.Y.	Riprap (Gabions), Item # 9130005
R40	94	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	41	L.F.	Sta. 18+47.35, 2.9' Lt. to Sta. 18+86.57, 13.0' Lt.
b	9	L.F.	Sta. 18+47.35, 5.5' Rt. to Sta. 18+47.35, 2.9' Lt.
c	44	L.F.	Sta. 18+47.35, 5.5' Rt. to Sta. 18+86.57, 25.0' Rt.

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA EXPIRES 9/30/2020

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

BOX CULVERT NO. 16
STA. 208+80.22
CULVERT PLAN/PROFILE

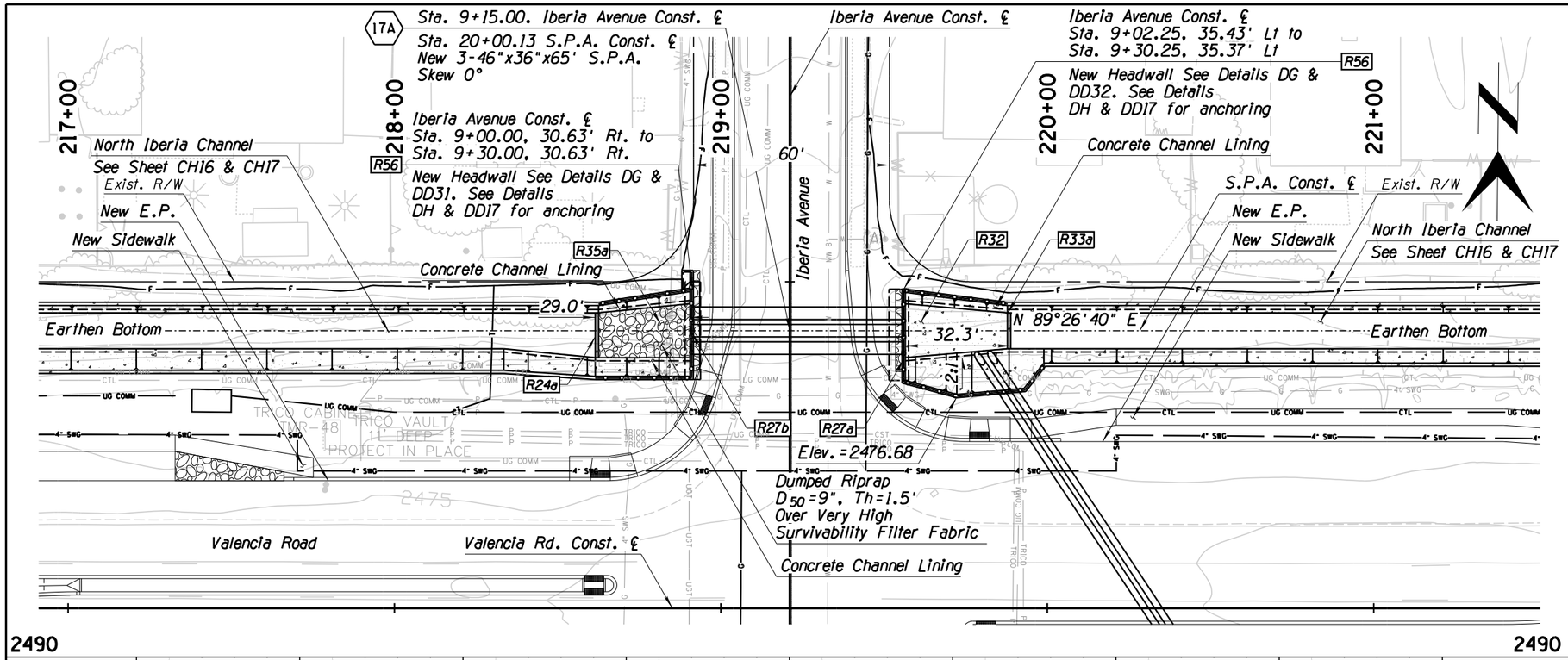
20 0 20 40

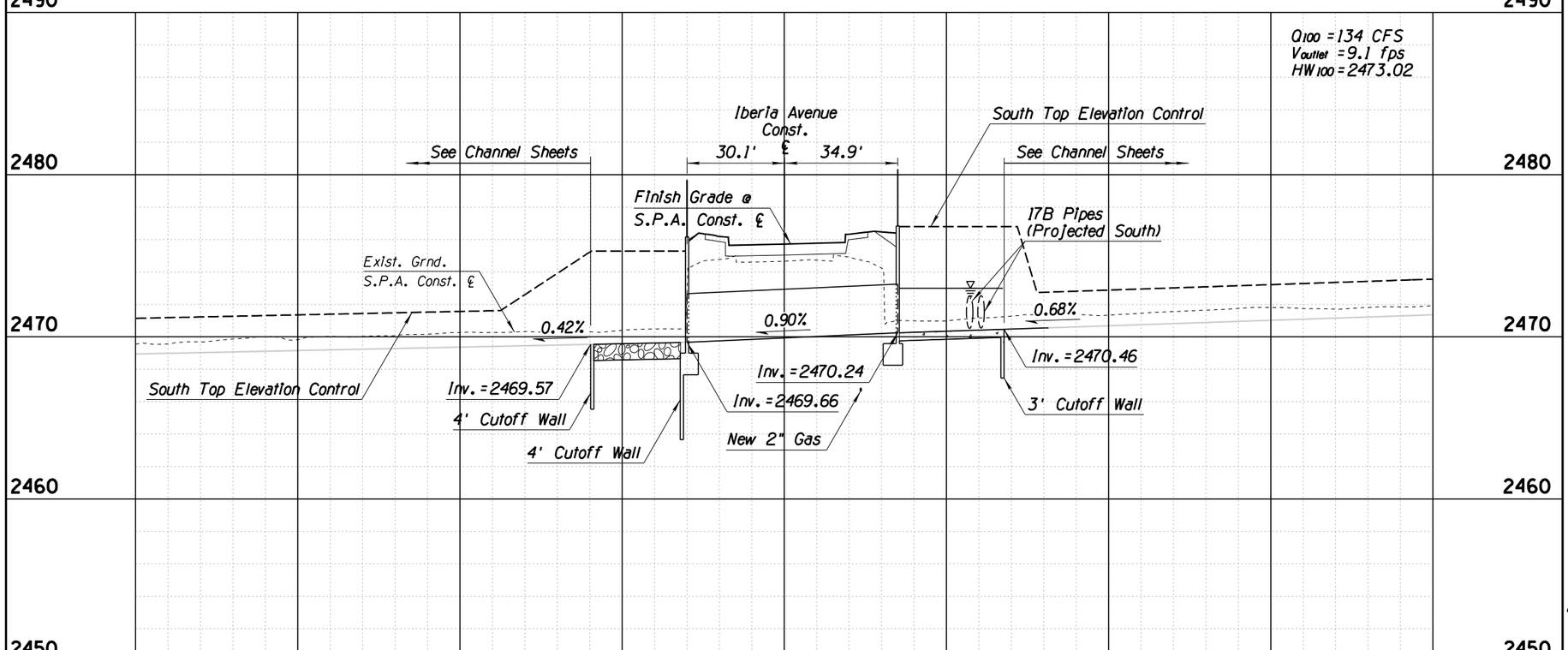
Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D23 of D26

4:46:27 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\DRAINAGE\H022048DR23.DGN





Item No.	Qty.	Unit	Description
R24	14	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	14	L.F.	Sta. 218+60.23, 8.3' Rt. to Sta. 218+60.23, 5.5' Lt.
R27	196	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	108	L.F.	Top of Headwall & Wingwall
b	88	L.F.	Top of Headwall & Wingwall
R32	53	S.Y.	Concrete Channel Lining, Item # 9120100
R33	11	L.F.	Concrete Cut-off Wall - 3-ft, Item # 6010713
a	11	L.F.	Sta. 219+87.50, 5.5' Rt. To Sta. 219+87.50, 5.5' Lt.
R35	24	C.Y.	Riprap (Dumped), Item # 9130001
a	24	C.Y.	D50=9"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 17A
STA. 9+15
CULVERT PLAN/PROFILE

20 0 20 40

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Scales	Horiz. 1" = 20'	Sheet D24 of D26	Page 183 of 433
	Vert. 1" = 4'		

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 Arizona U.S.A.
EXPIRES 9/30/2020

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333 E. Wetmore Road
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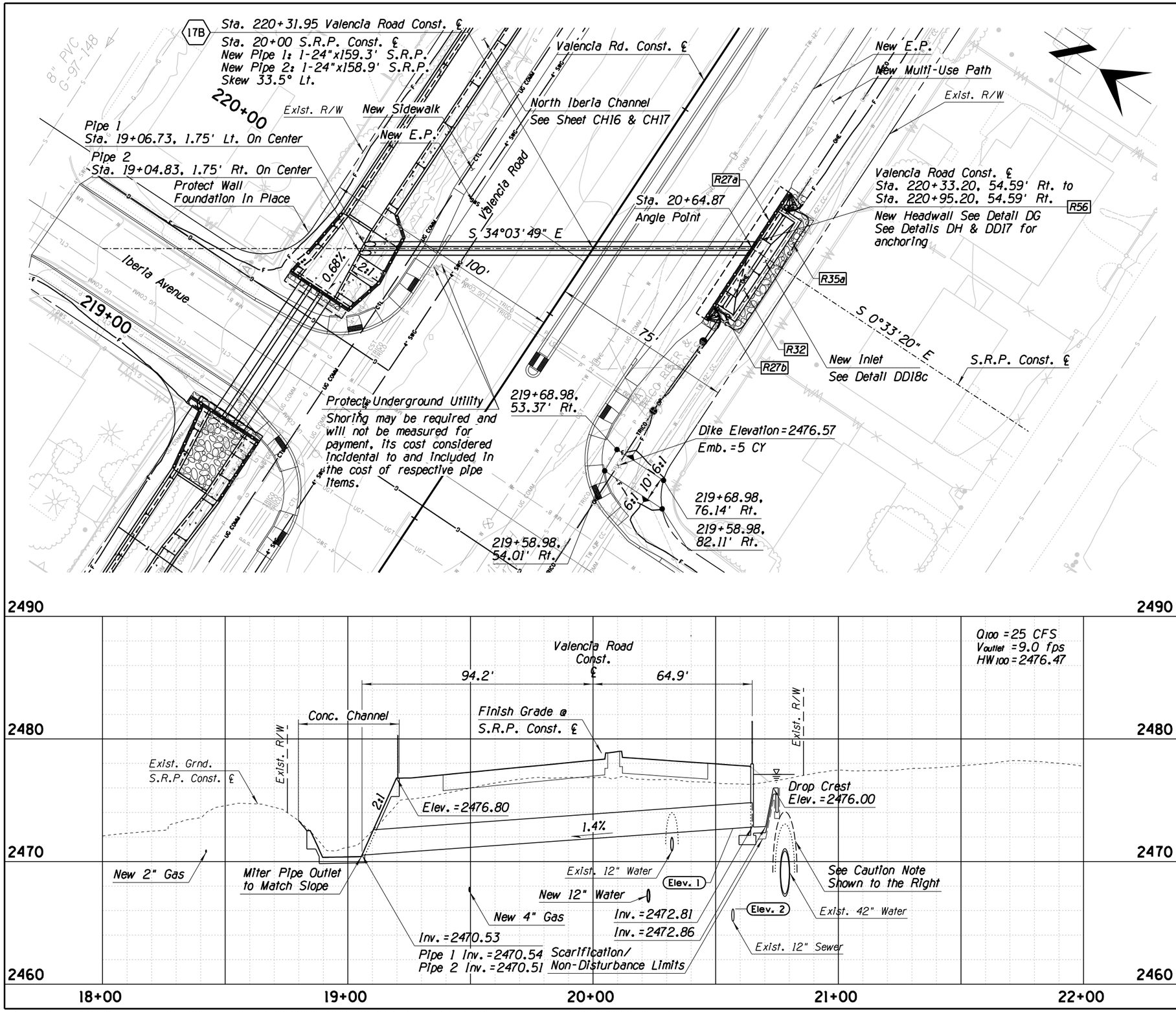
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R27	70	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	61	L.F.	Top of Headwall
b	9	L.F.	Top of West Toe Down
R32	60	S.Y.	Concrete Channel Lining, Item # 9120100
R35	13	C.Y.	Riprap (Dumped), Item # 9130001
a	13	C.Y.	D50=6"
R56	1	Each	Pipe Culvert Headwall, Item # 6016087

SEWER VERTICAL CLEARANCE

Elev. 1	2,472.70
Elev. 2	2,466.13
Differential	6.57'±

CAUTION

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LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

PIPE CULVERT NO. 17B
STA. 220+31.95
CULVERT PLAN/PROFILE

20 0 20 40

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Scales	Horiz. 1"=20'	Vert. 1"=4'	Sheet D25 of D26	Page 184 of 433

#4RTVWE Pina County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA Date Signed 01/04/18 EXPIRES 9/30/2020

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Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

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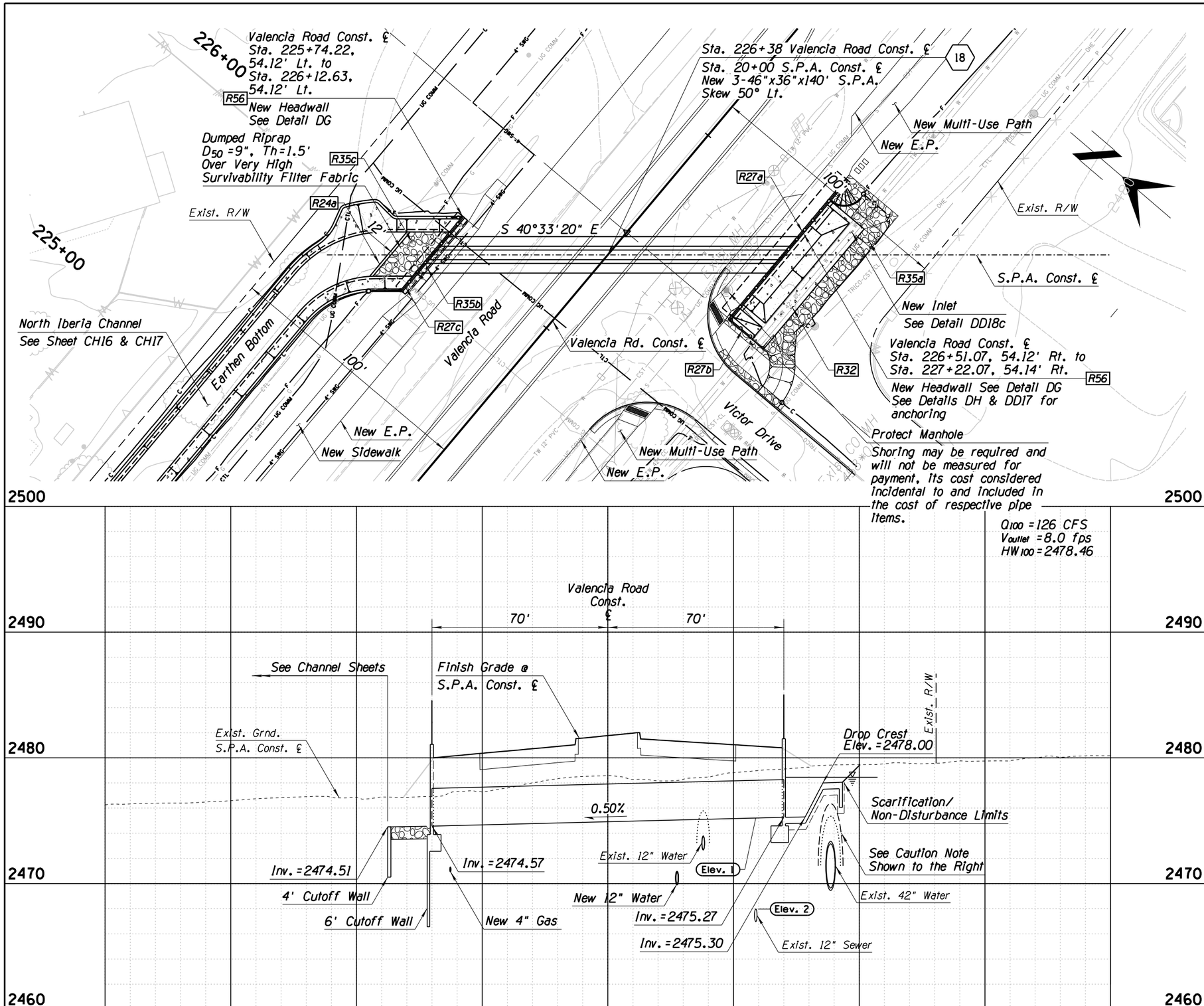

Item No.	Qty.	Unit	Description
R24	23	L.F.	Concrete Cut-off Wall - 4-ft, Item # 6010714
a	23	L.F.	Sta. 19+05.21, 8.5' Rt. to Sta. 19+50.02, 9.1' Lt.
R27	131	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
a	72	L.F.	Top of Headwall
b	12	L.F.	Top of West Toe Down
c	47	L.F.	Top of Headwall & Wingwall
R32	130	S.Y.	Concrete Channel Lining, Item # 9120100
R35	46	C.Y.	Riprap (Dumped), Item # 9130001
a	30	C.Y.	D50=6"
b	1	C.Y.	D50=3"
c	15	C.Y.	D50=9"
R56	2	Each	Pipe Culvert Headwall, Item # 6016087

SEWER VERTICAL CLEARANCE

Elev. 1	2,475.21
Elev. 2	2,467.98
Differential	7.23'±

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

-·-·-·- 3-Foot Disturbance Limit

PIPE CULVERT NO. 18
STA. 226+38
CULVERT PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet D26 of D26

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 48213 DAVID L. TAPIA STATE OF ARIZONA
EXPIRES 9/30/2020

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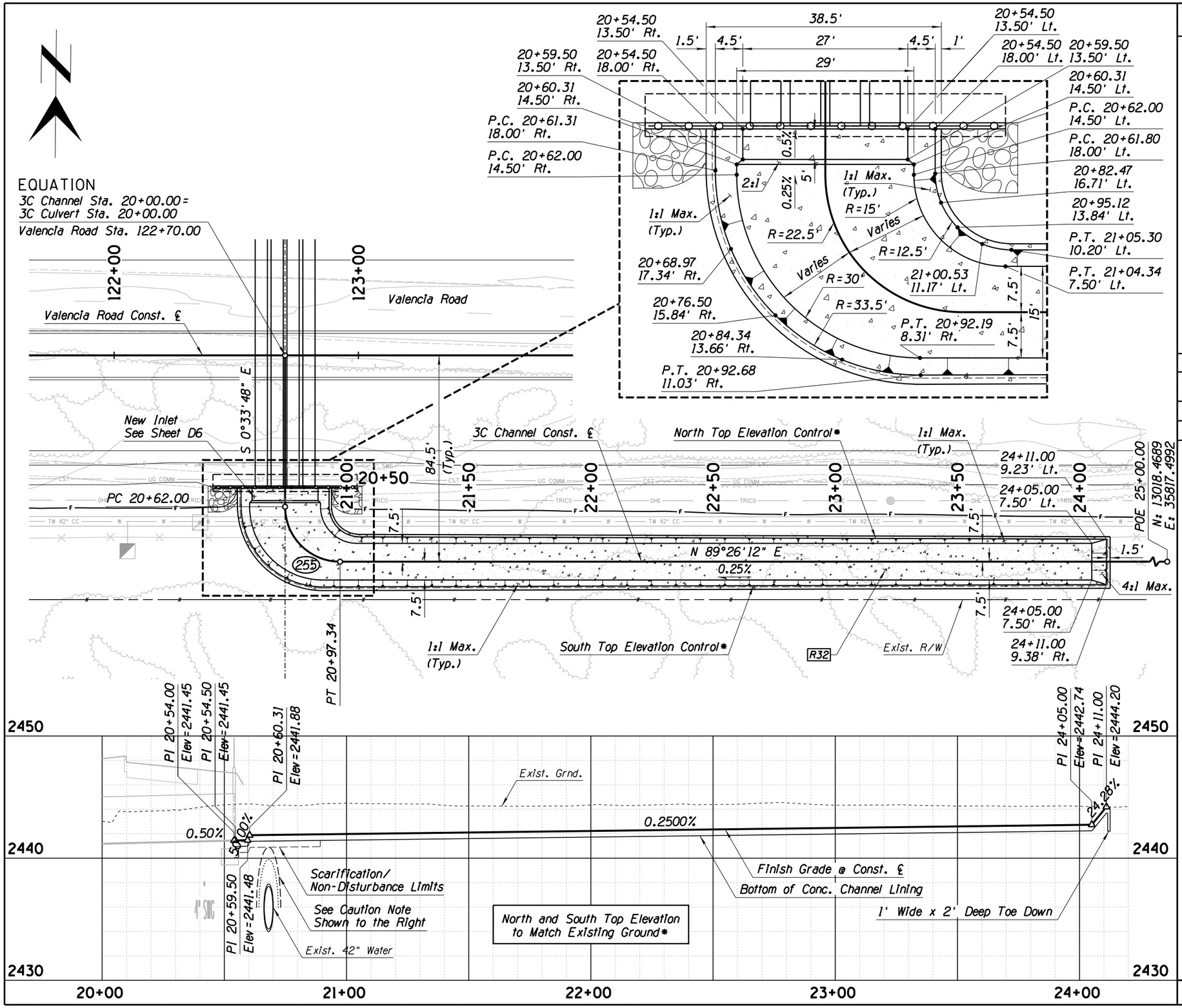
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director



Item No.	Qty.	Unit	Description
R32	992	S.Y.	Concrete Channel Lining, Item # 9120100
	675	C.Y.	Drainage Excavation

(255) CURVE DATA

PI Sta 20+84.50
N=13014.2894
E=35392.3627
Main Curve
Δ=90°00'00"Lt
D=254°38'52"
R=22.50'
L=35.34'
T=22.50'
Ext=9.32'

CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	D_{flow} (ft)	V_{100} (fps)
20+60 to 23+20	225	2.0	6.8
23+20 to 24+05	153	1.6	6.0

NOTES:

*1. See Detail DR for Channel Section

2. For connection locations and details see Detail DD17 and DH

CAUTION

Contractor shall be aware that the 42" CCP is live and pressurized. Contractor shall maintain a minimum of 2' vertical non-disturbance clearance above the top of pipe AND a minimum of 3' horizontal non-disturbance adjacent to the pipe. Contractor shall take extra care and minimize the time associated with excavating immediately adjacent to these non-disturbance limits to assure no degradation in the limits of the non-disturbance area. Contractor shall also minimize additional loadings that could be created by equipment working adjacent to or above the non-disturbance limits. This same care shall be taken when scarifying and re-compacting soils immediately adjacent to these non-disturbance limits.

LEGEND

..... 2-Foot Disturbance Limit

– – – – – 3-Foot Disturbance Limit

3C CHANNEL
STA. 20+54.50 TO 24+12.50
PLAN/PROFILE

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No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

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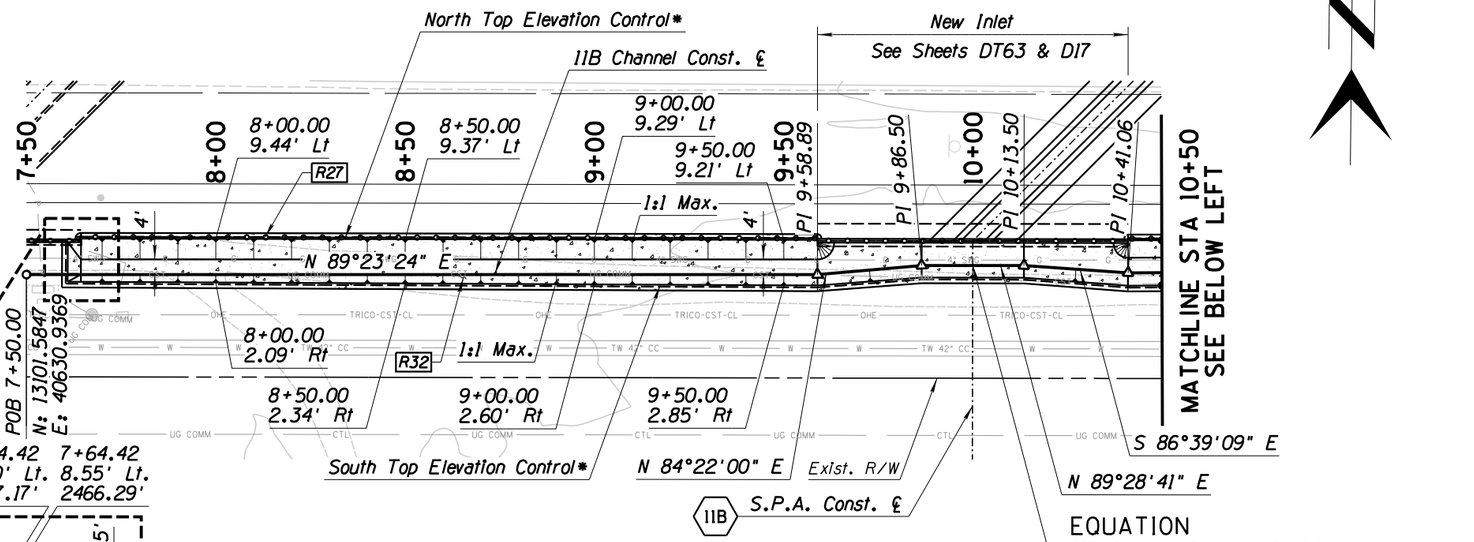
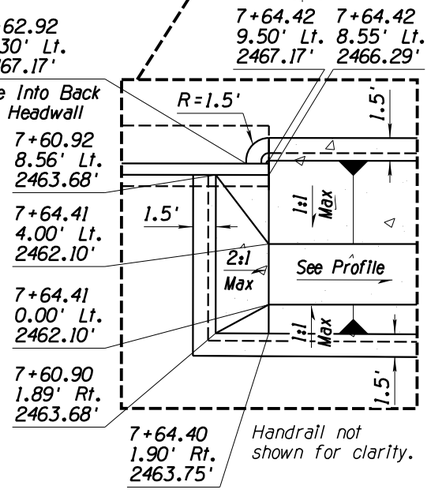
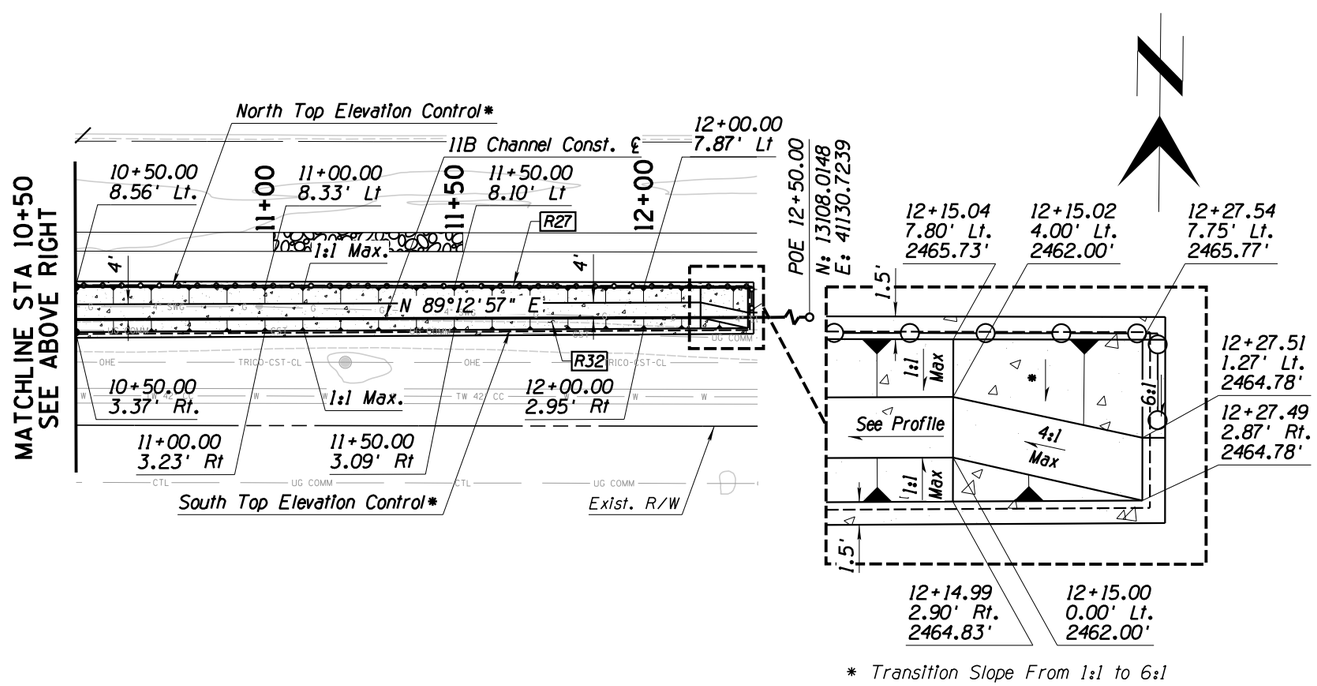
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. 1"=4'	Sheet CH1 of CH26	Page 186 of 433







* Transition Slope From 1:1 to 6:1

Item No.	Qty.	Unit	Description
R27	392	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
R32	750	S.Y.	Concrete Channel Lining, Item # 9120100
	354	C.Y.	Drainage Excavation

NOTE:

*1. See Detail DR for Channel Section

11B CHANNEL
STA. 7+59.41 TO 12+29.00
PLAN

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ARIZONA811
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Scales	Horiz. 1"=20'	Sheet CH2 of CH26	Page 187 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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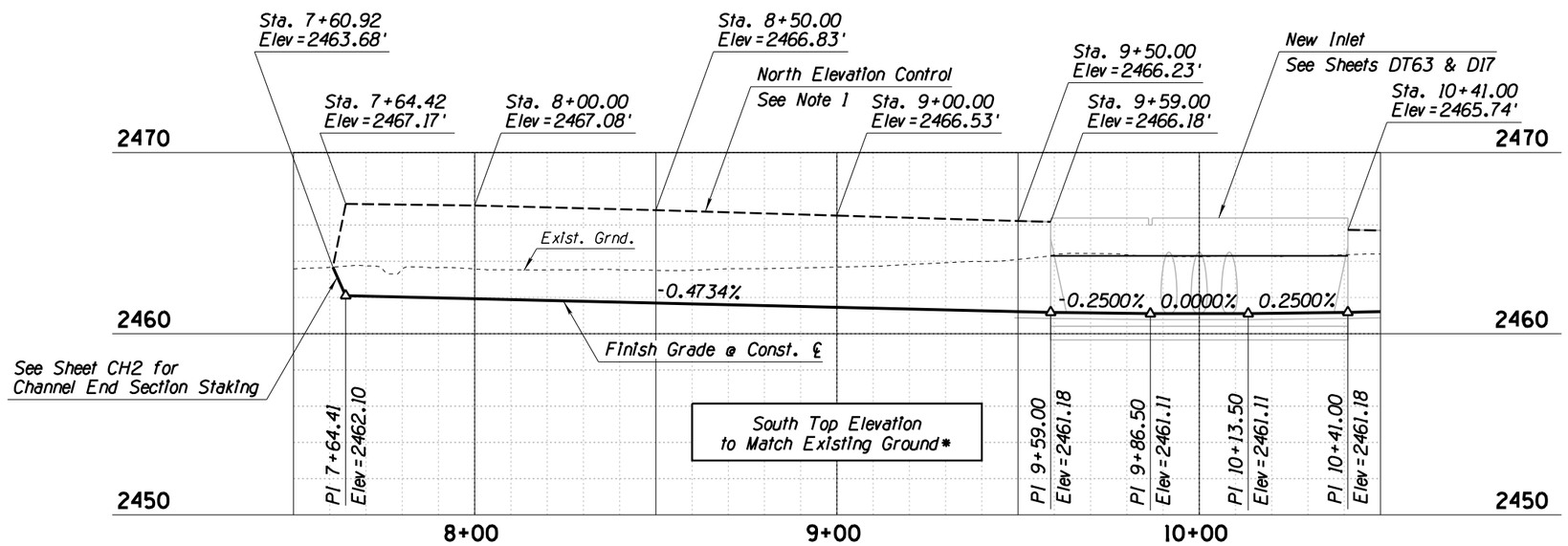
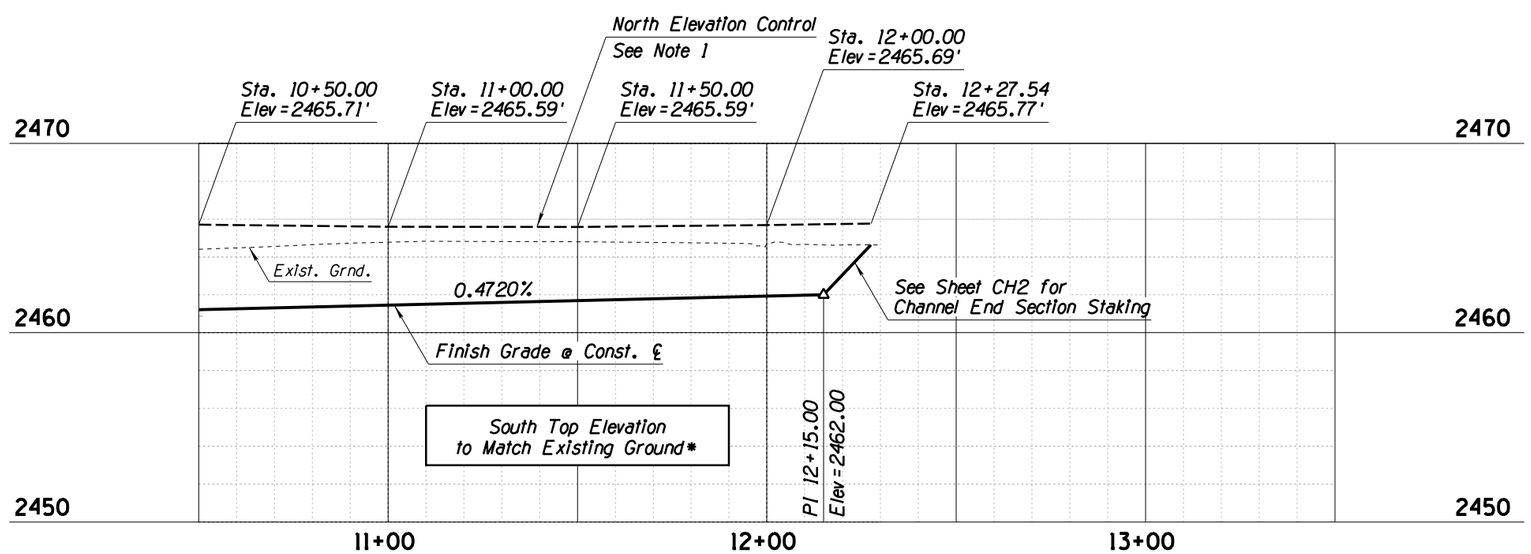
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
CERTIFICATE NO. 43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2019





CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	D_{flow} (ft)	V_{100} (fps)
7+67 to 9+59	79	1.8	7.5
10+41 to 12+15	56	1.5	6.8

NOTE:

*1. See Detail DR for Channel Section

11B CHANNEL
STA. 7+59.41 TO 12+29.00
PROFILE

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet CH3 of CH26	Page 188 of 433
	Vert. 1"=4'		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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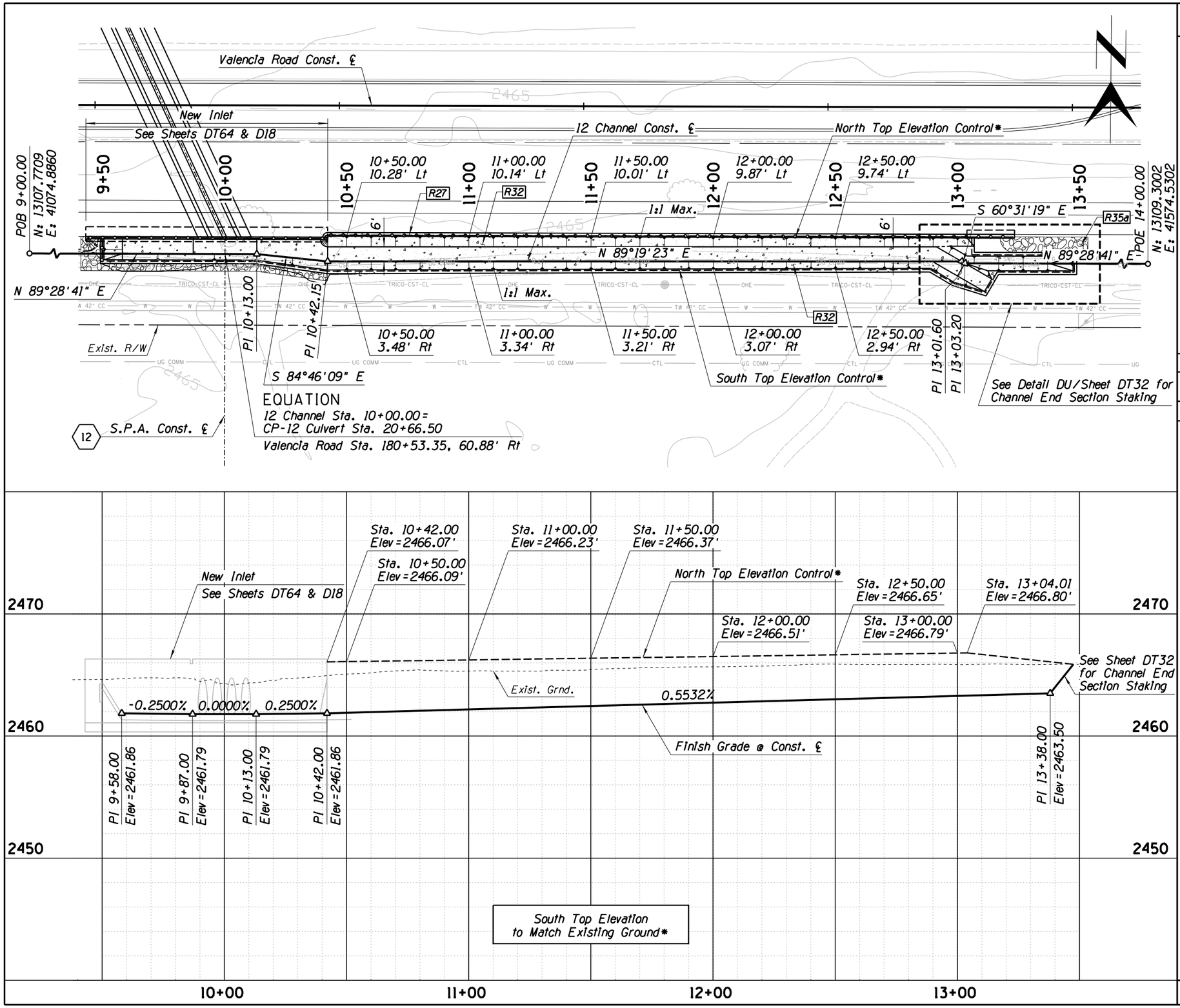
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R27	283	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
R32	578	S.Y.	Concrete Channel Lining, Item # 9120100
R35	8	C.Y.	Riprap (Dumped), Item # 9130001
a	8	C.Y.	D50=6"
	379	C.Y.	Drainage Excavation

CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	D_{flow} (ft)	V_{100} (fps)
10+42 to 13+38	100	1.6	8.1

NOTE:

*1. See Detail DR for Channel Section

12 CHANNEL
STA. 9+49.00 TO 13+48.98
PLAN/PROFILE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

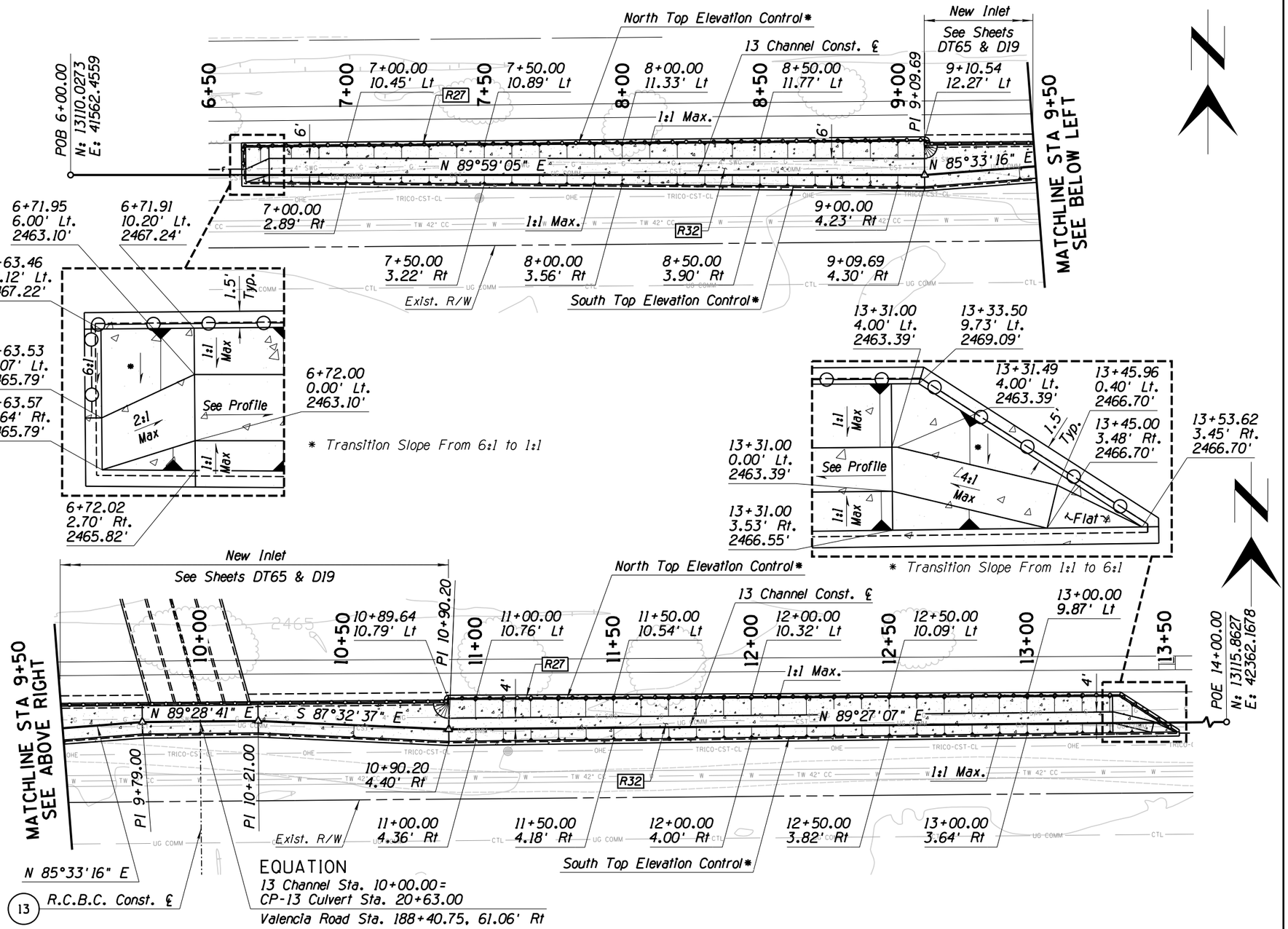
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. 1"=4'

Sheet CH4 of CH26

4:46:33 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\CHANNEL\H022048CH04.DGN



Item No.	Qty.	Unit	Description
R27	528	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
R32	1213	S.Y.	Concrete Channel Lining, Item # 9120100
	746	C.Y.	Drainage Excavation

NOTE:

*1. See Detail DR for Channel Section

13 CHANNEL
STA. 6+62.05 TO 13+55.12
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
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No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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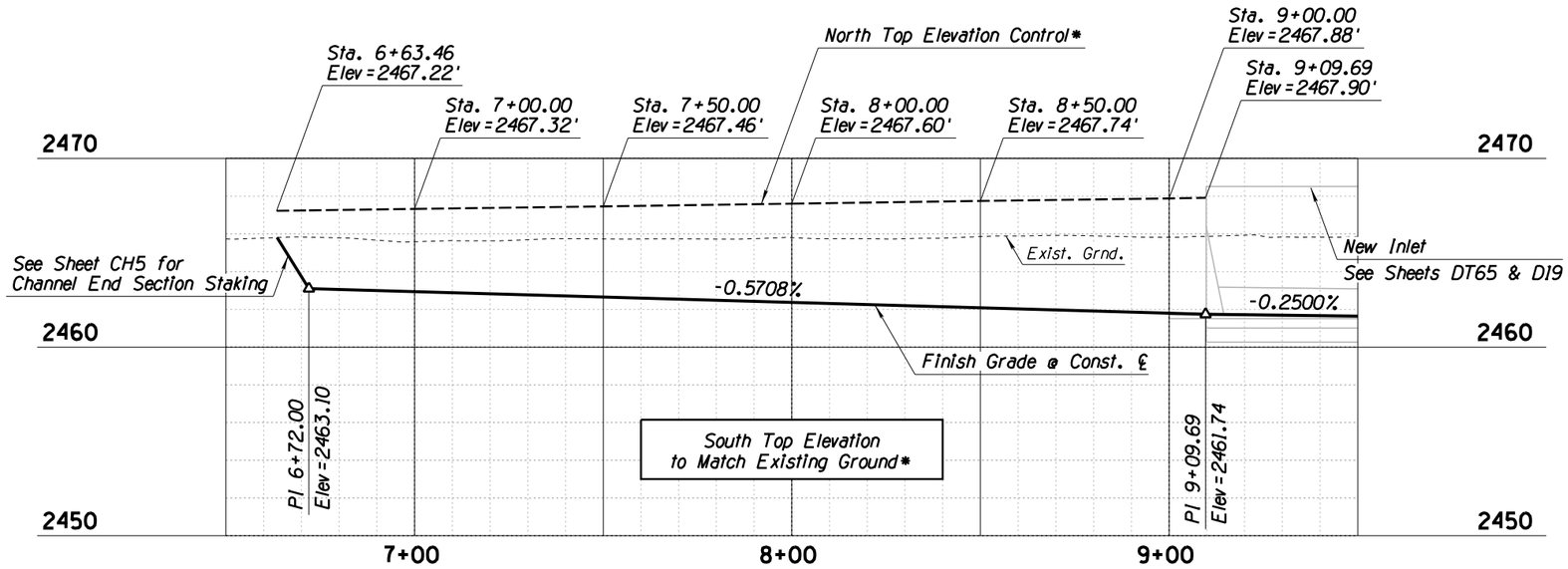
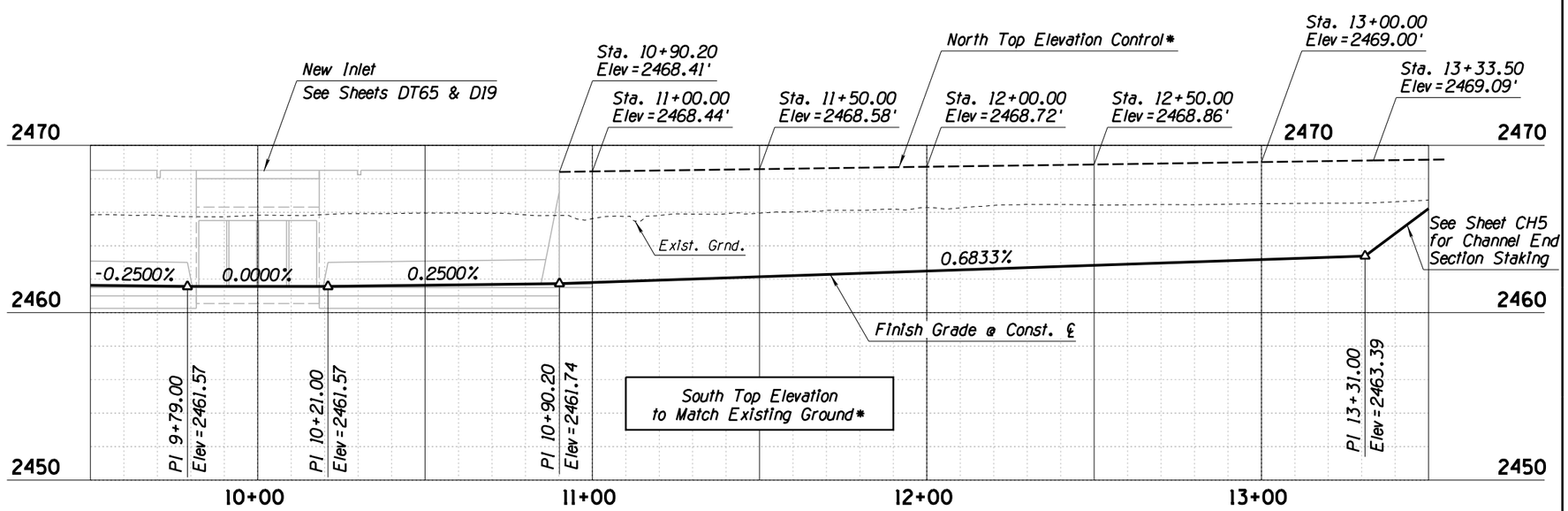
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet CH5 of CH26	Page 190 of 433





CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	D_{flow} (ft)	V_{100} (fps)
6+72 to 9+10	154	2.0	9.4
10+90 to 13+40	95	1.8	9.0

NOTE:

*1. See Detail DR for Channel Section

13 CHANNEL
STA. 6+62.05 TO 13+55.12
PROFILE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet CH6 of CH26	Page 191 of 433
	Vert. 1"=4'		

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/05/18 ARIZONA, U.S.A. Expires 09/30/2019

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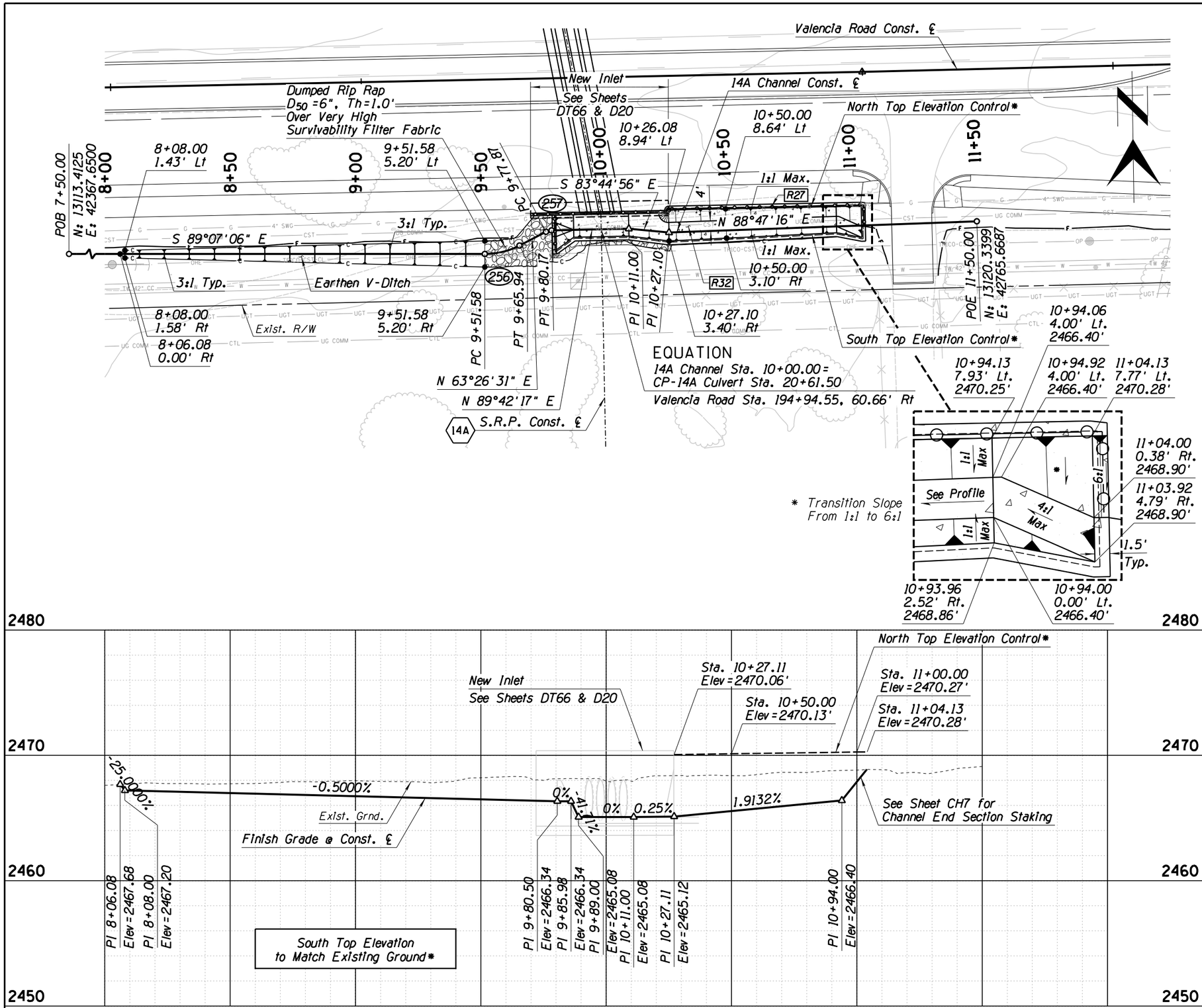
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE



Item No.	Qty.	Unit	Description
R27	88	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
R32	151	S.Y.	Concrete Channel Lining, Item # 9120100
	92	C.Y.	Drainage Excavation

CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	D_{flow} (ft)	V_{100} (fps)
8+08 to 9+81	10	1.3	2.1
10+27 to 10+94	40	0.8	10.0

NOTE:

*1. See Detail DR for Channel Section

(256) CURVE DATA

PI Sta 9+58.90
N=13110.1985
E=42576.5259
Main Curve
Δ=27°26'23"Lt
D=190°59'09"
R=30.00'
L=14.37'
T=7.32'
Ext=0.88'

(257) CURVE DATA

PI Sta 9+79.04
N=13119.3290
E=42594.7924
Main Curve
Δ=26°15'47"Rt
D=1145°54'56"
R=5.00'
L=2.29'
T=1.17'
Ext=0.13'

14A CHANNEL
STA. 8+06.08 TO 11+04.00
PLAN/PROFILE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

	Date
Designed D. Tapia	01/2018
Drawn D. Bacon	01/2018
Checked R. Solis	01/2018
Proj. Engr. R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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Tucson, AZ 85705
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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales Horiz. 1"=20' Vert. 1"=4'

Sheet CH7 of CH26

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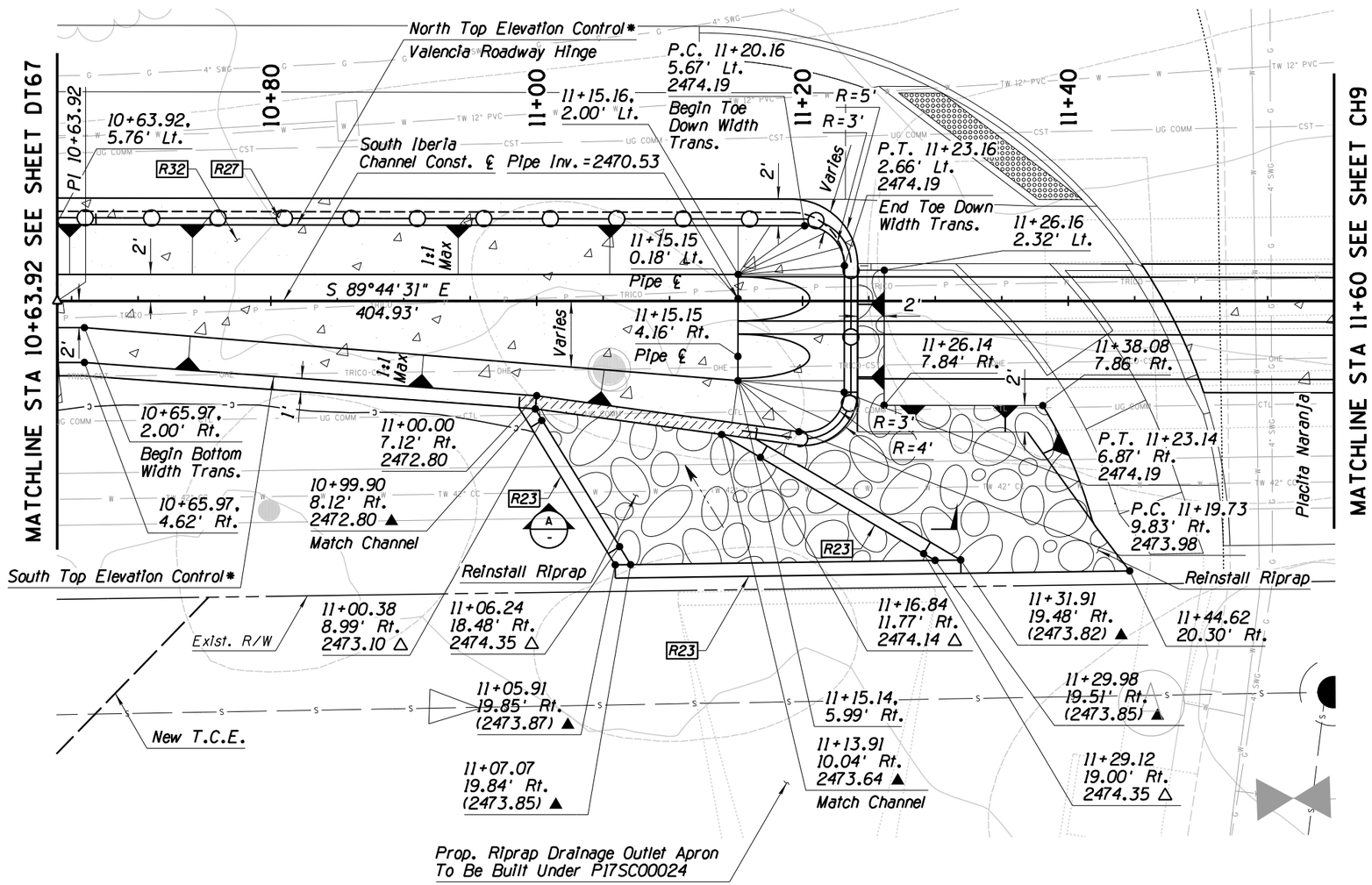

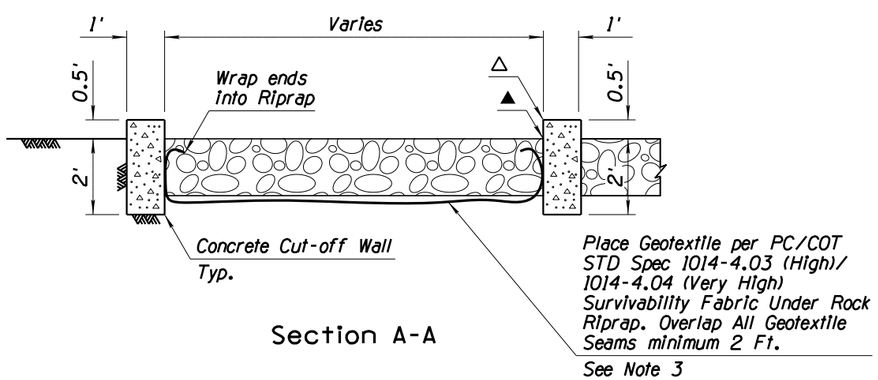

Section A-A

Item No.	Qty.	Unit	Description
R23	69	L.F.	Concrete Cut-off Wall - 2-ft, Item # 6010712
R27	939	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
R29	1	EA	Handrail Gate, Detail A5, Item # 9300119
R32	1333	S.Y.	Concrete Channel Lining, Item # 9120100
	509	C.Y.	Drainage Excavation

NOTE:

*1. See Detail DS for Channel Section

2. All elevations shown within parenthesis are approximate. Match existing site conditions.

3. PAG Section 1014-4.04(A) Non-woven Very High Survivability Fabric shall be placed beneath all dumped rock riprap. A geotextile with a min. weight of 12 oz/sy is desirable.

△ Top of Curb Elevation

▲ Curb Elevation at Riprap

SOUTH IBERIA CHANNEL
STA. 10+63.92 TO 11+60
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=5' Vert. NA

Sheet CH8 of CH26

Page 193 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

State of Arizona Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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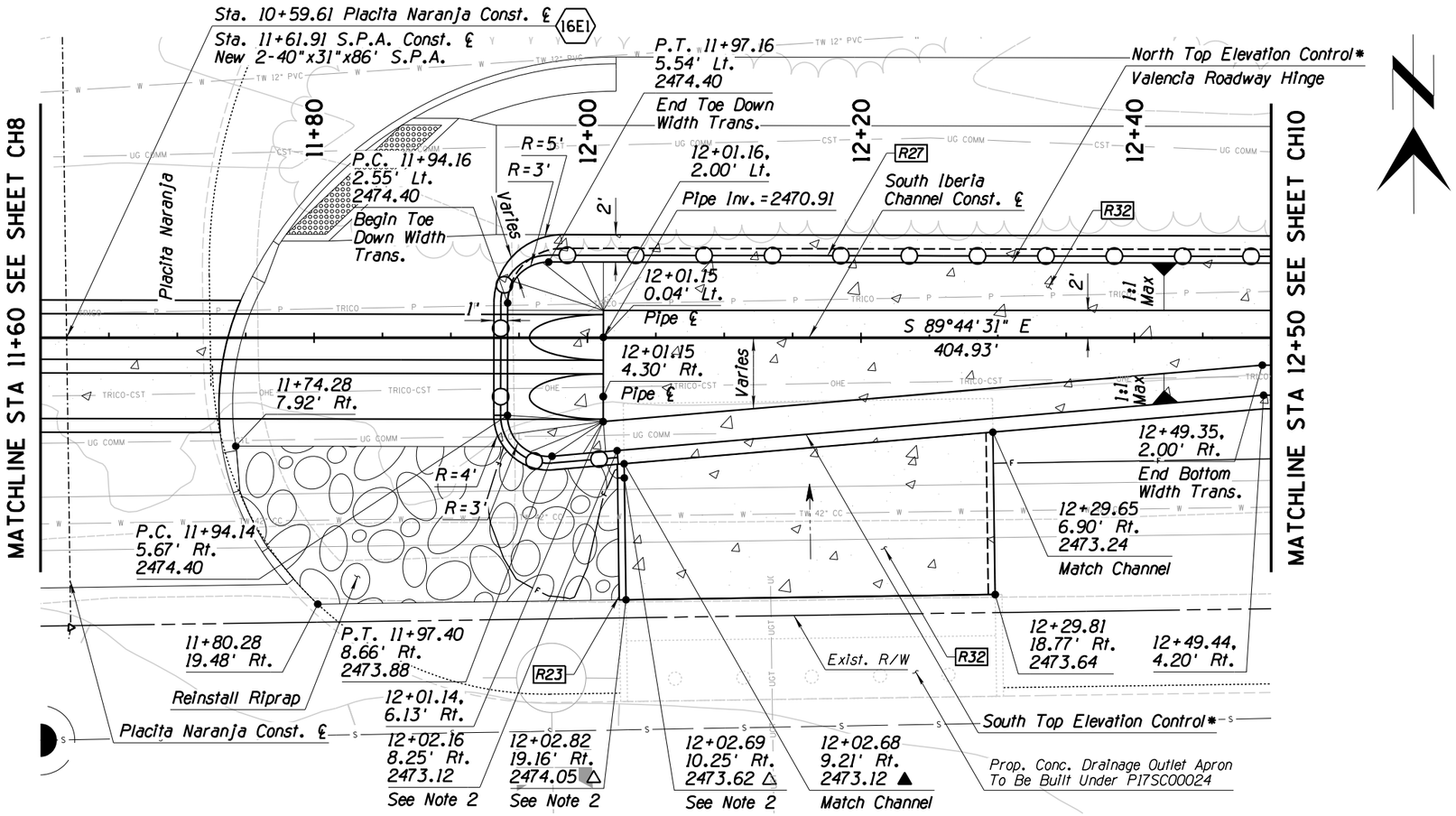
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

5:17:01 PM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\CHANNEL\H022048CH08A.DGN



Item No.	Qty.	Unit	Description
R23			See Sheet CH8 for Quantities
R27			See Sheet CH8 for Quantities
R32			See Sheet CH8 for Quantities

NOTES:

*1. See Detail DS for Channel Section

2. See Sheet CH8 section A-A

△ Top of Curb Elevation

▲ Curb Elevation at Riprap

SOUTH IBERIA CHANNEL
STA. 11+60 TO 12+50
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=5' Vert. NA

Sheet CH9 of CH26

Page 194 of 433

*4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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Registered Professional Engineer (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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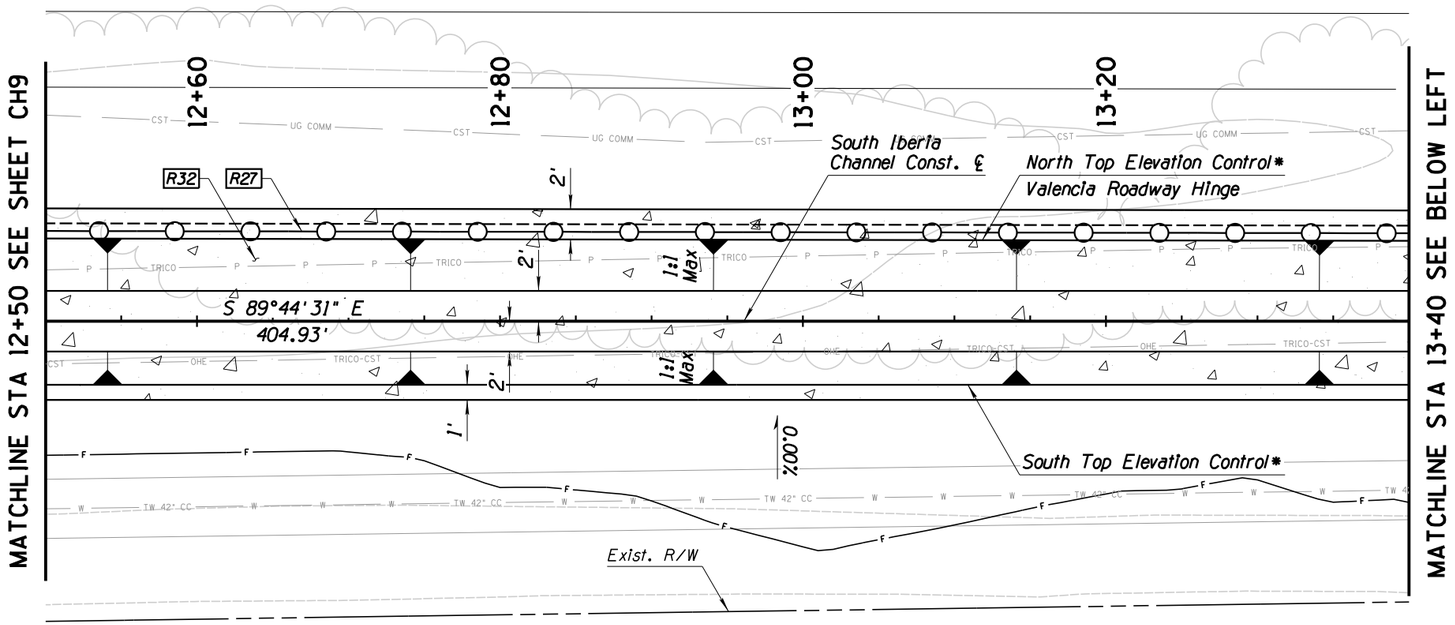

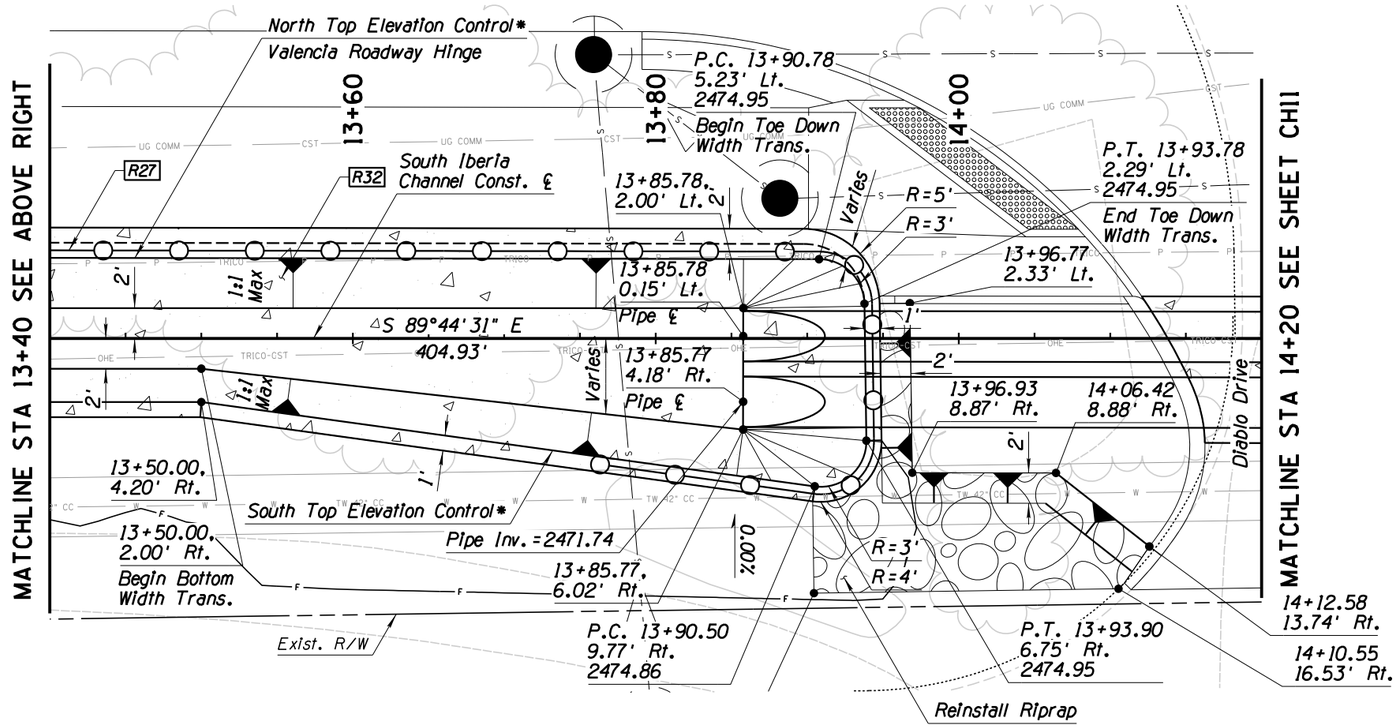

Item No.	Qty.	Unit	Description
R27			See Sheet CH8 for Quantities
R32			See Sheet CH8 for Quantities

NOTE:

*1. See Detail DS for Channel Section

SOUTH IBERIA CHANNEL
STA. 12+50 TO 14+20
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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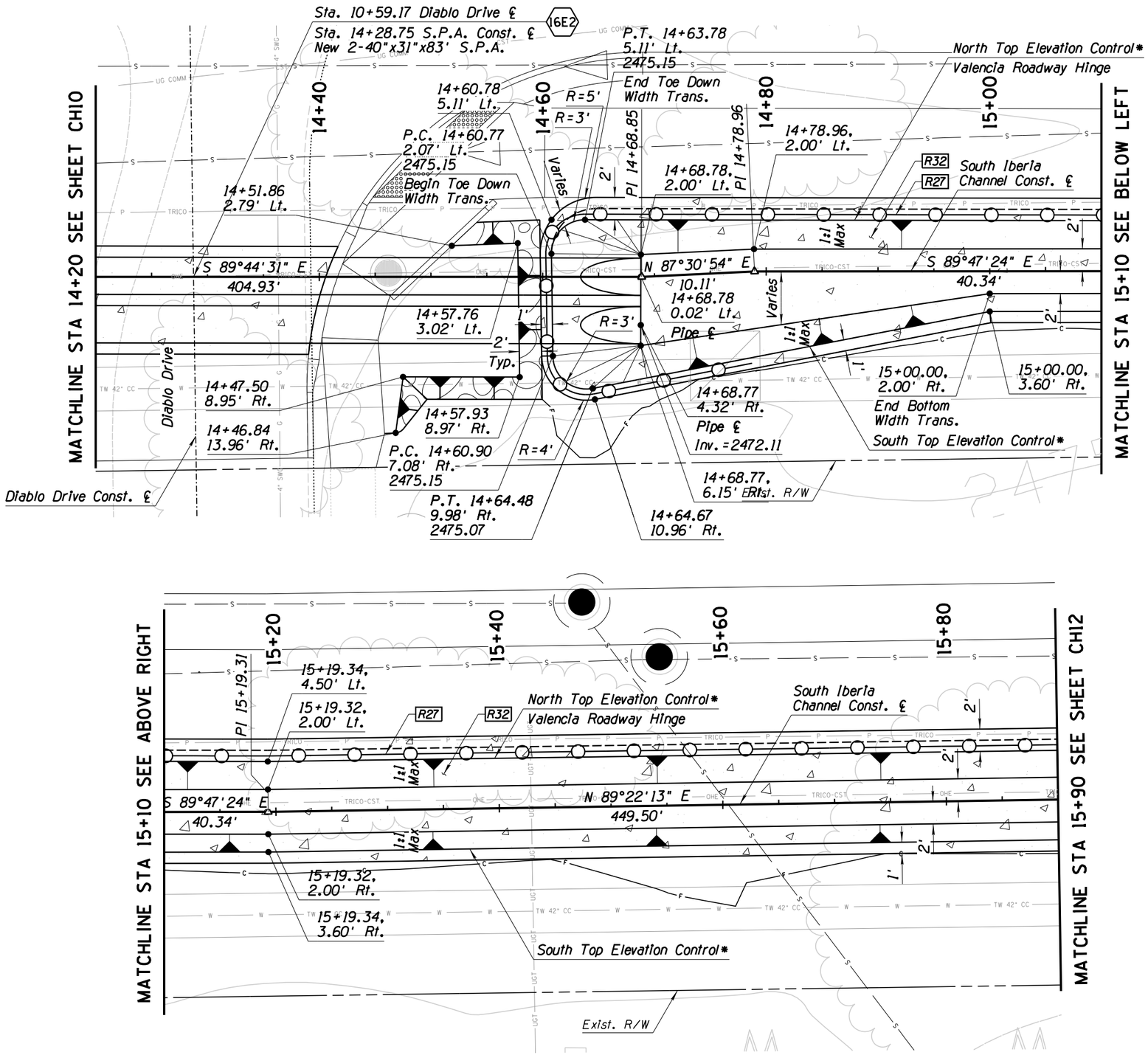
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=5'	Sheet CH10 of CH26	Page 195 of 433
	Vert. NA		



Item No.	Qty.	Unit	Description
R27			See Sheet CH8 for Quantities
R32			See Sheet CH8 for Quantities

NOTE:

*1. See Detail DS for Channel Section

SOUTH IBERIA CHANNEL
STA. 14+20 TO 15+90
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=5' Vert. NA	Sheet CH11 of CH26	Page 196 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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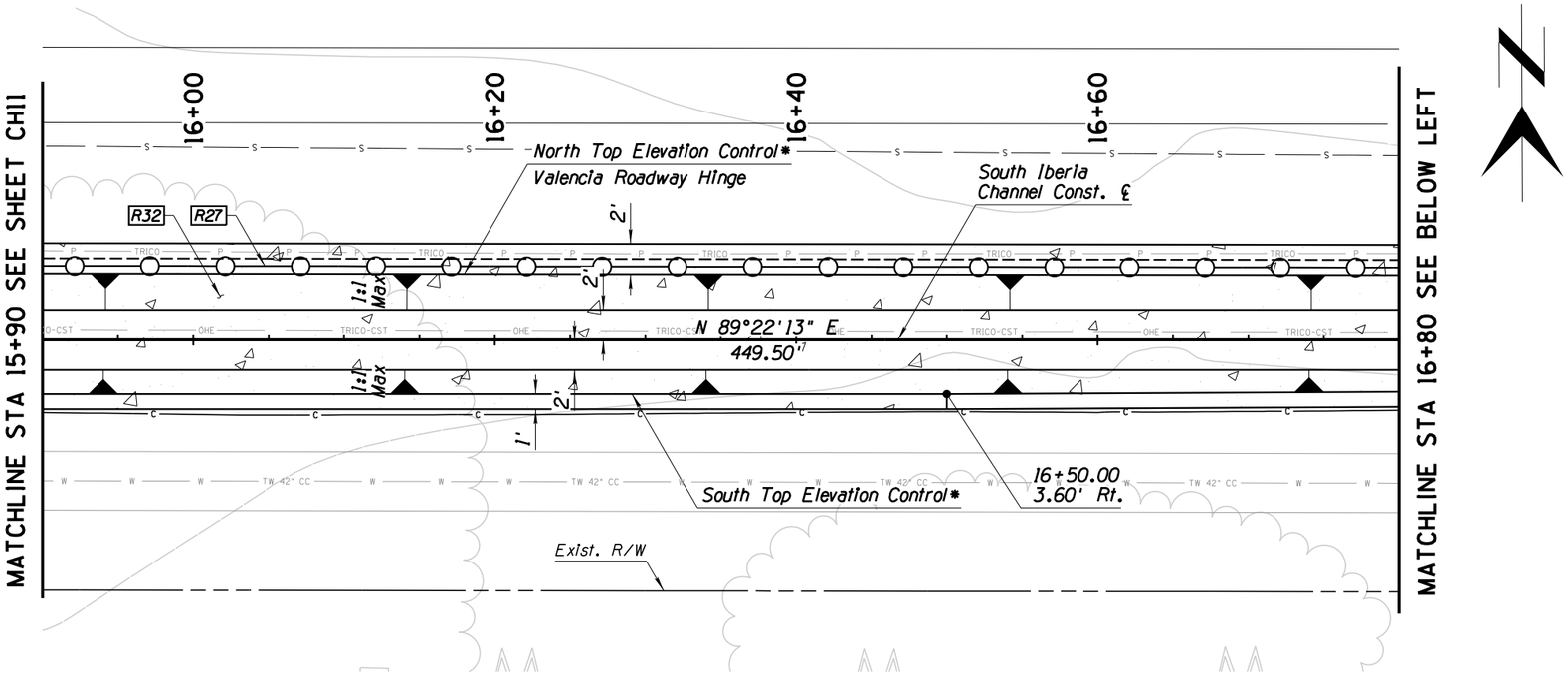
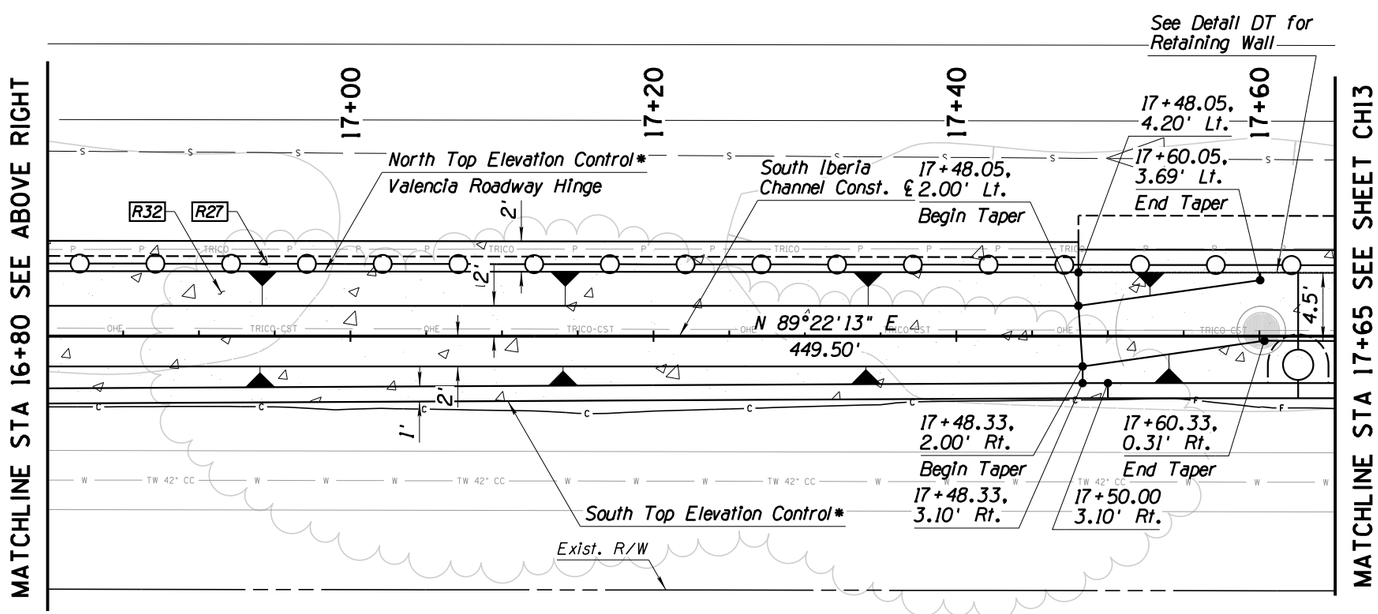
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Item No.	Qty.	Unit	Description
R27			See Sheet CH8 for Quantities
R32			See Sheet CH8 for Quantities

NOTE:

*1. See Detail DS for Channel Section

SOUTH IBERIA CHANNEL
STA. 15+90 TO 17+65
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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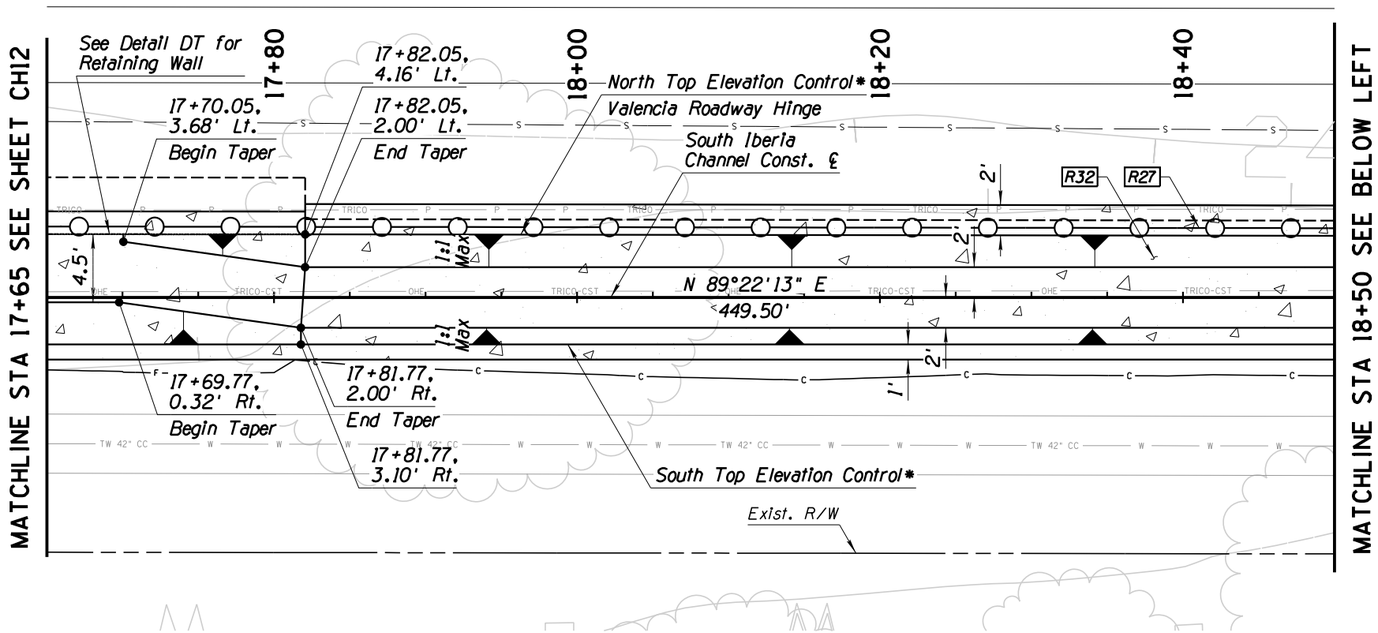
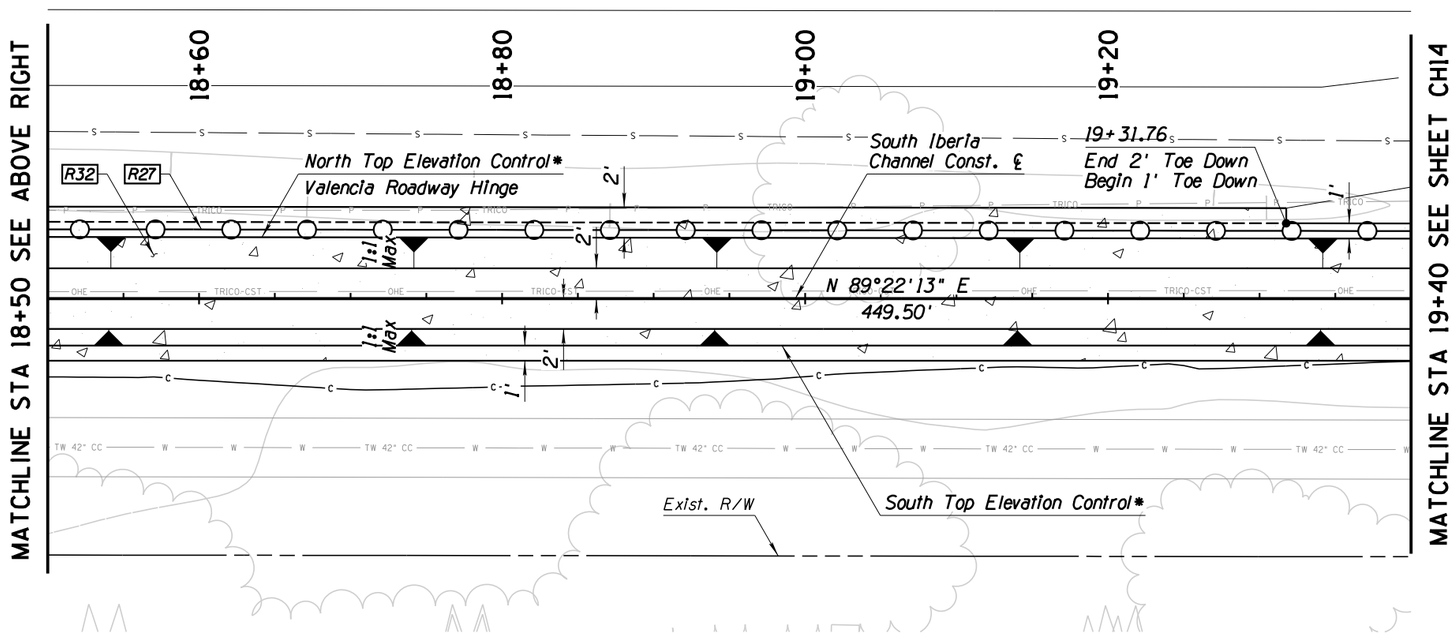
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=5'	Sheet CH12 of CH26	Page 197 of 433
	Vert. NA		





Item No.	Qty.	Unit	Description
R27			See Sheet CH8 for Quantities
R32			See Sheet CH8 for Quantities

NOTE:

*1. See Detail DS for Channel Section

SOUTH IBERIA CHANNEL
STA. 17+65 TO 19+40
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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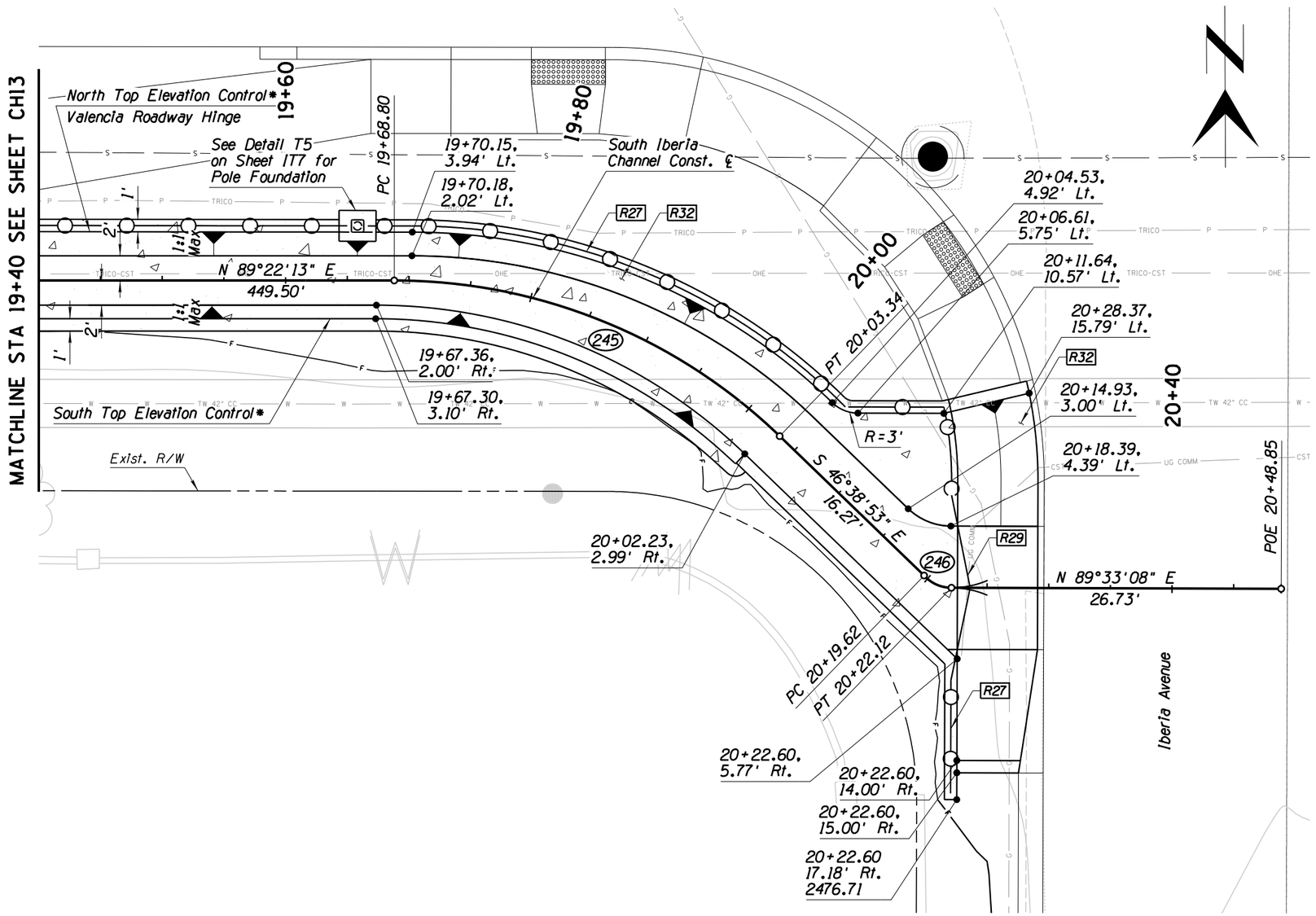
Scales	Horiz. 1"=5'	Sheet CH13 of CH26	Page 198 of 433
	Vert. NA		



Item No.	Qty.	Unit	Description
R27			See Sheet CH8 for Quantities
R29			See Sheet CH8 for Quantities
R32			See Sheet CH8 for Quantities

245 CURVE DATA

PI Sta 19+86.97
N=13132.4968
E=44988.6150
Main Curve
Δ=43°58'54"Rt
D=127°19'26"
R=45.00'
L=34.54'
T=18.17'
Ext=3.53'

246 CURVE DATA

PI Sta 20+20.94
N=13107.8747
E=45014.5620
Main Curve
Δ=47°46'02"Lt
D=1909°51'34"
R=3.00'
L=2.50'
T=1.33'
Ext=0.28'

NOTE:

*1. See Detail DS for Channel Section

SOUTH IBERIA CHANNEL
STA. 19+40 TO 20+29.60
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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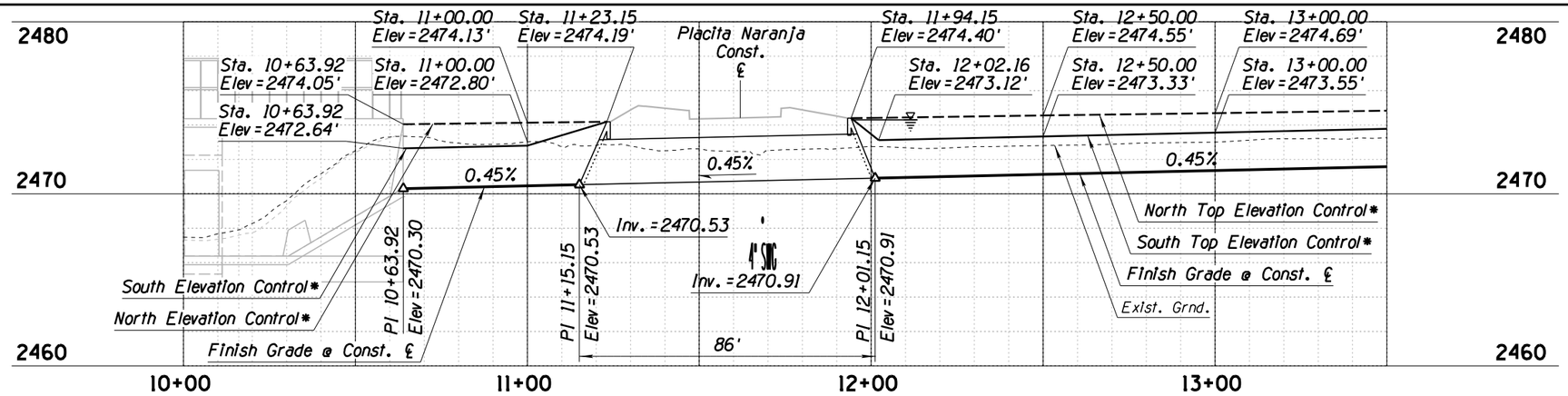
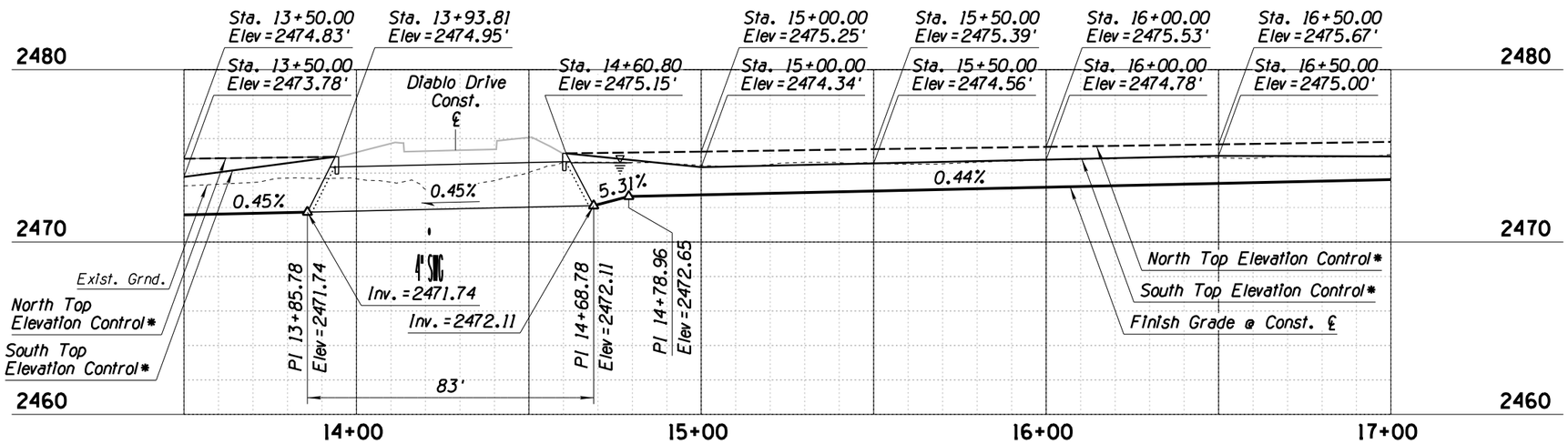
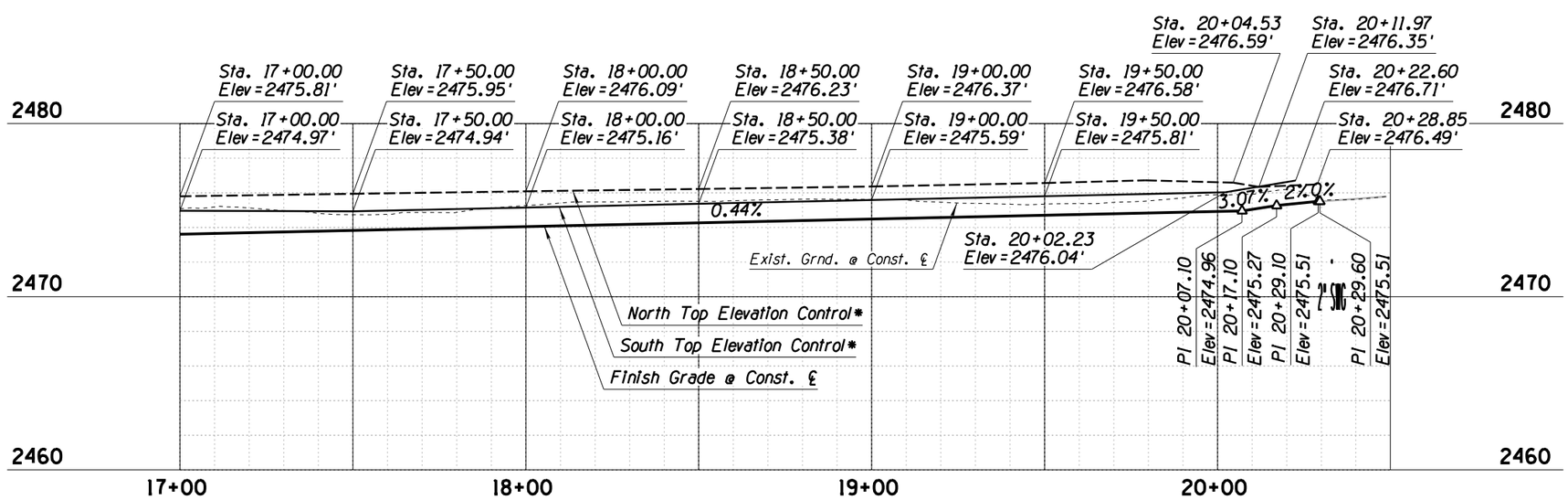
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=5'	Sheet CH14 of CH26	Page 199 of 433
	Vert. NA		







CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	Dr_{low} (ft)	V_{100} (fps)
10+30 to 10+64	83	0.7	23.5
10+64 to 13+19	83	1.9	7.4
13+19 to 14+69	63	1.6	6.9
14+79 to 15+69	63	1.6	6.8
15+69 to 20+07	22	0.9	5.0
17+64 Trico Pole	22	0.9	4.9

NOTE:

*1. See Detail DS for Channel Section

SOUTH IBERIA CHANNEL
STA. 10+63.92 TO 20+29.60
PROFILE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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333 E. Wetmore Road
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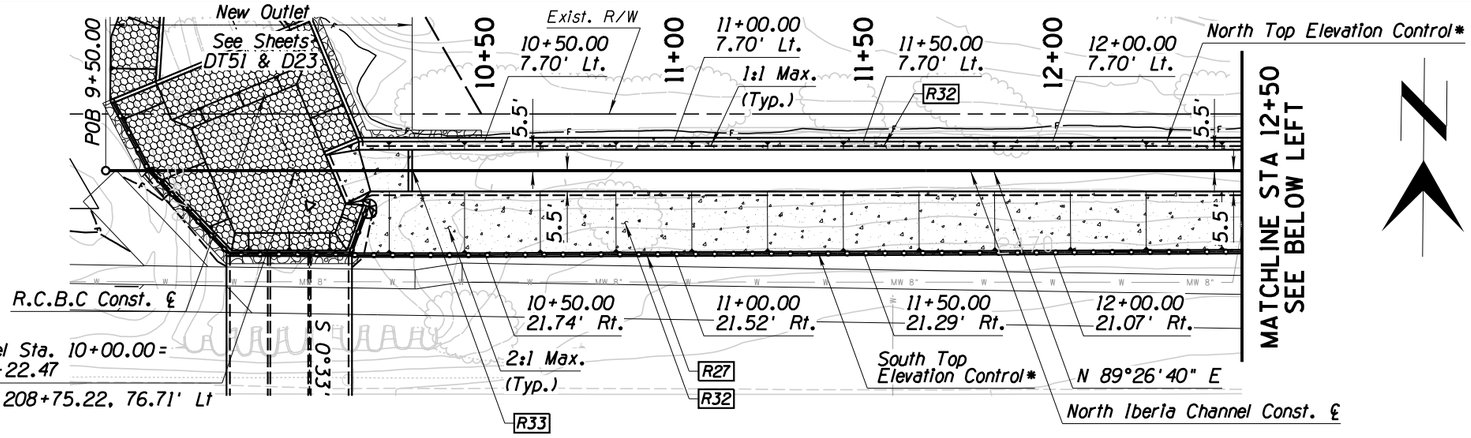
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

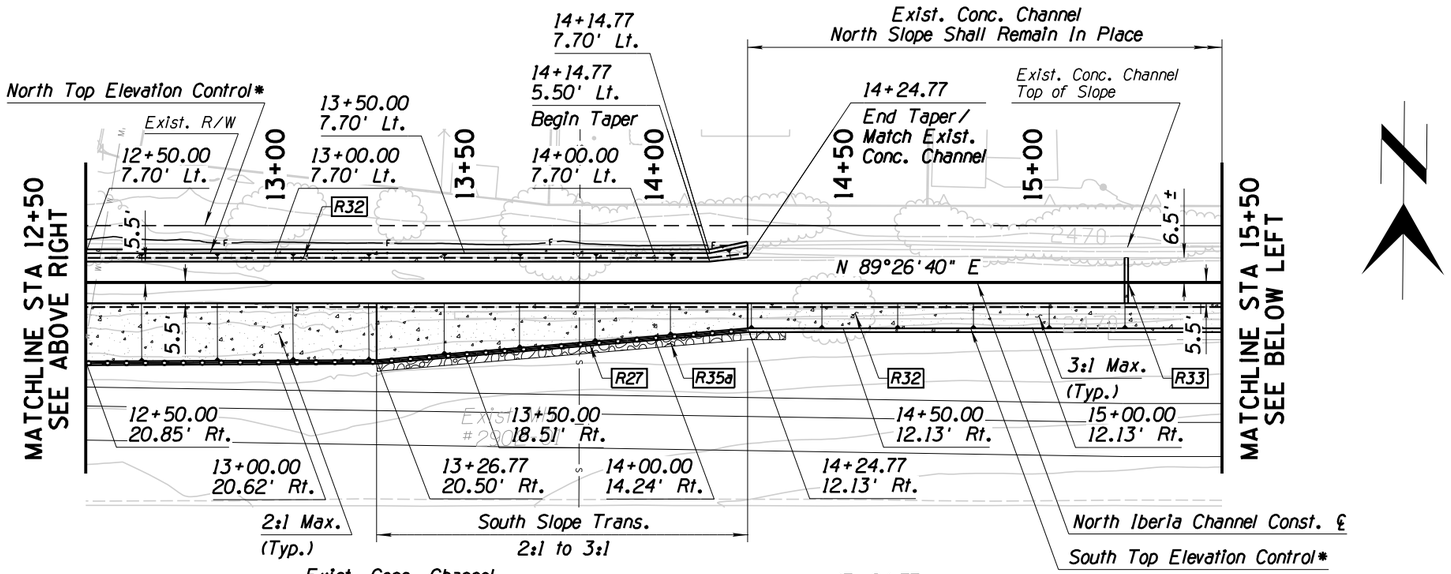
Scales	Horiz. NA Vert. 1" = 4'	Sheet CH15ofCH26	Page 200 of 433

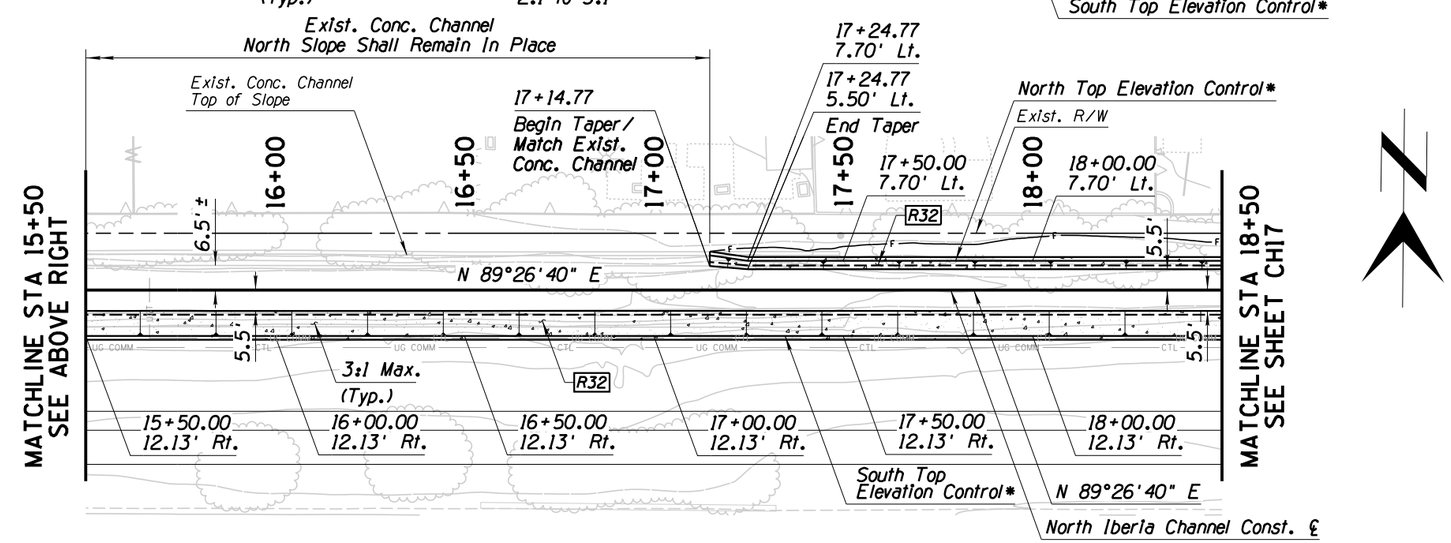


EQUATION

North Iberia Channel Sta. 10+00.00 =
16 Culvert Sta. 19+22.47

Valencia Road Sta. 208+75.22, 76.71' Lt





Item No.	Qty.	Unit	Description
R27	410	L.F.	Handrail, PAG Std. Dtl. 105, Item # 9330002
R32	2475	S.Y.	Concrete Channel Lining, Item # 9120100
R33	23	L.F.	Concrete Cut-off Wall - 3-ft, Item # 6010713
R35	8	C.Y.	Riprap (Dumped), Item # 9130001
a	8	C.Y.	D50=6"
	1299	C.Y.	Drainage Excavation

NOTE:

*1. See Detail DS for Channel Section

NORTH IBERIA CHANNEL
STA. 10+09.74 TO 18+50.00
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2019

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

#4RTVWE Pima County Department of Transportation

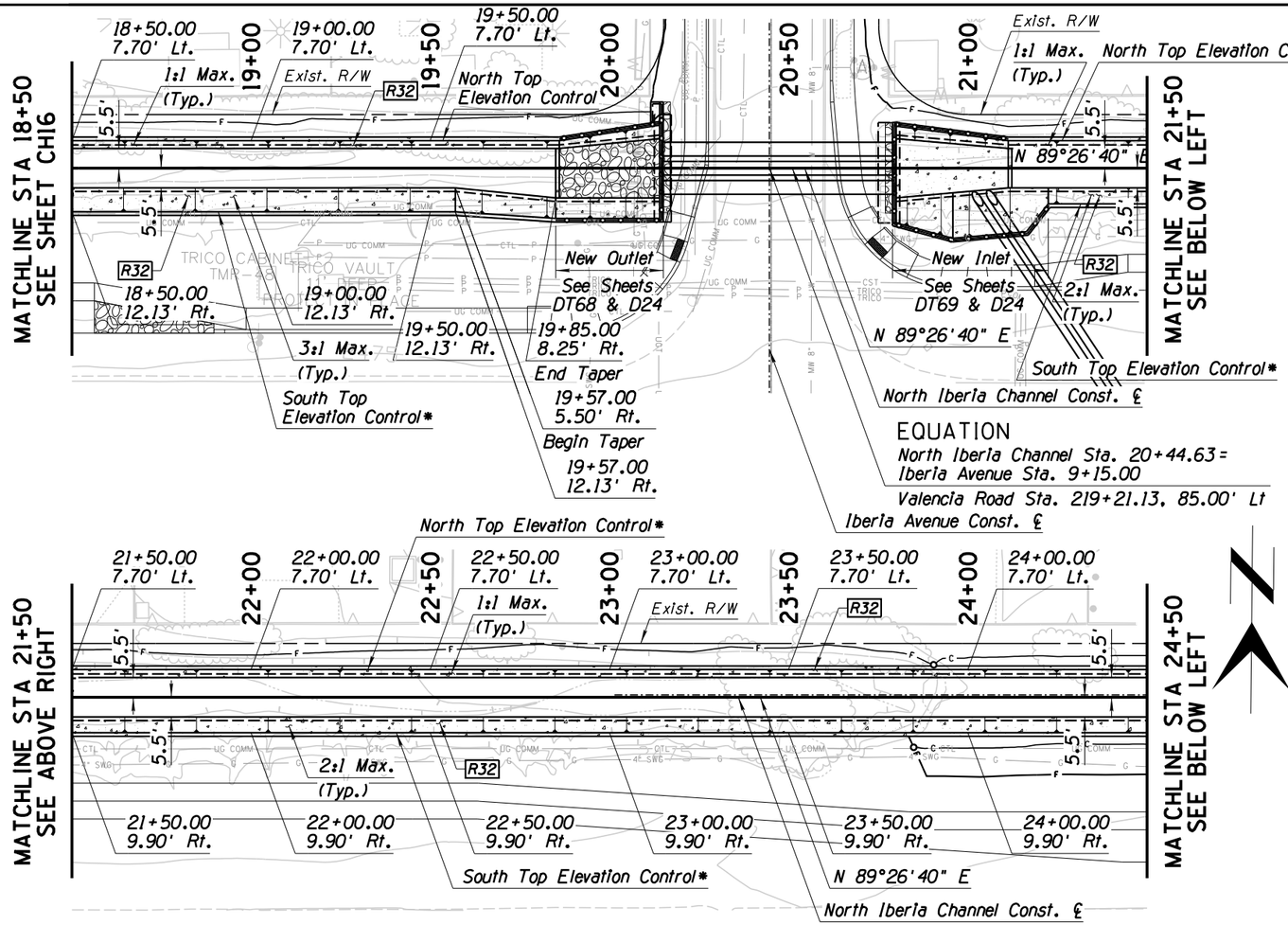
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

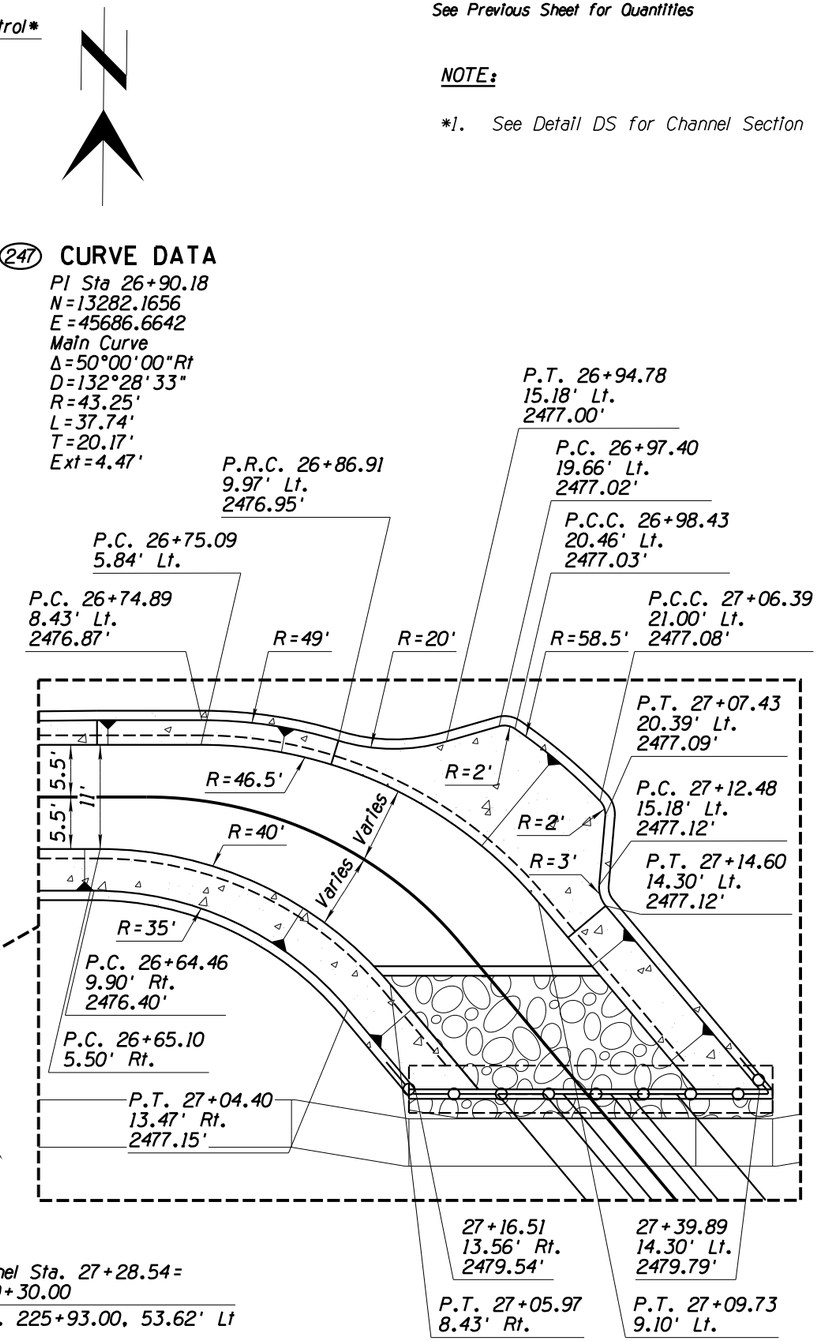
Scales	Horiz. 1"=20'	Sheet CH16 of CH26	Page 201 of 433
	Vert. NA		

See Previous Sheet for Quantities

NOTE:

*1. See Detail DS for Channel Section





NORTH IBERIA CHANNEL
STA. 18+50.00 TO 27+29.89
PLAN

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet CH17 of CH26	Page 202 of 433
	Vert. NA		

*4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2019

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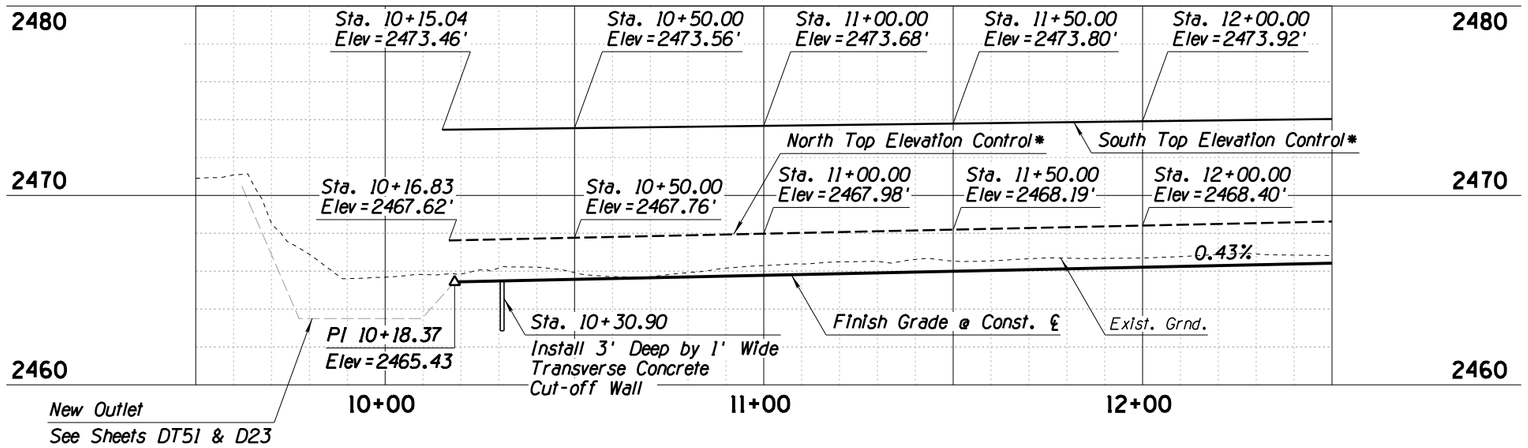
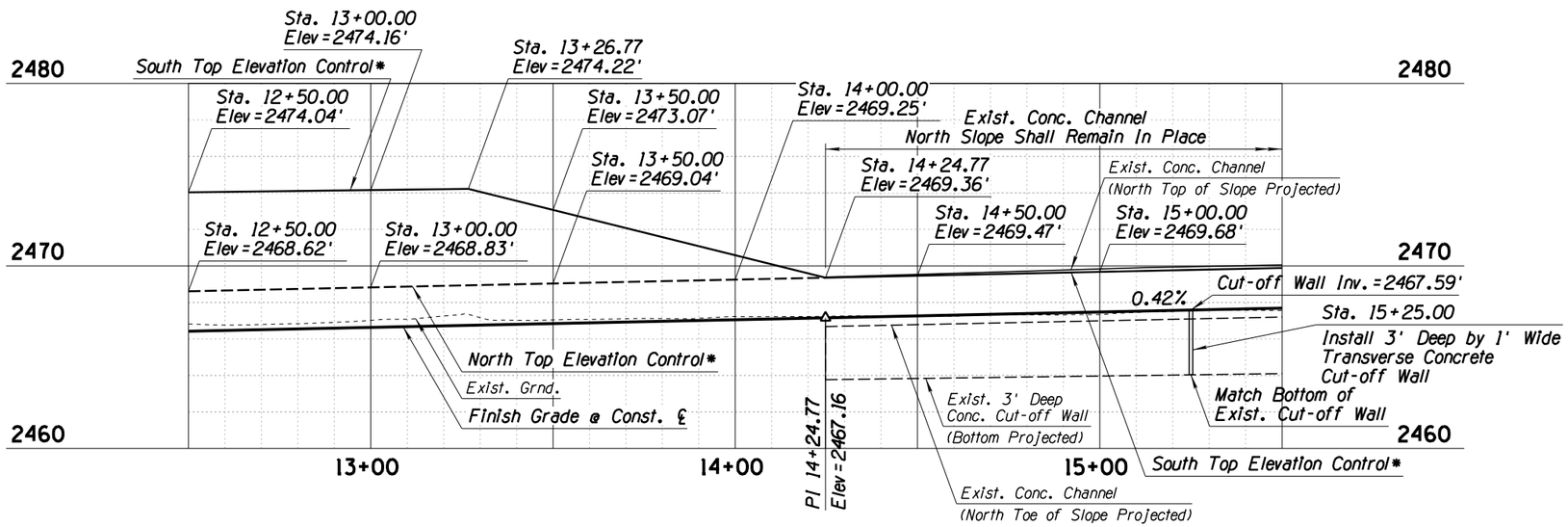
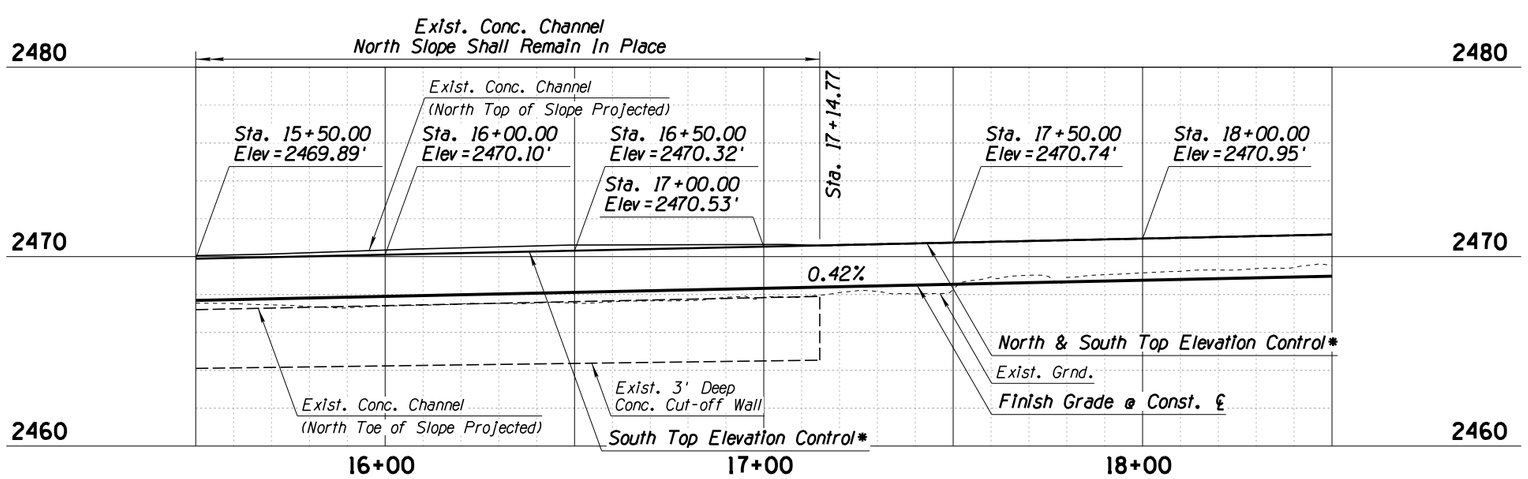
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:46:45 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\CHANNEL\H022048CH11.DGN







CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	Dr_{low} (ft)	V_{100} (fps)
10+18 to 14+25	141	1.8	5.6
14+25 to 20+14	141	1.8	5.4
20+80 to 26+70	131	1.5	6.4
26+70 to 27+29	126	1.2	5.8

NOTE:

*1. See Detail DS for Channel Section

NORTH IBERIA CHANNEL
STA. 10+09.74 TO 18+50.00
PROFILE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
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RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2019

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Tucson, AZ 85705
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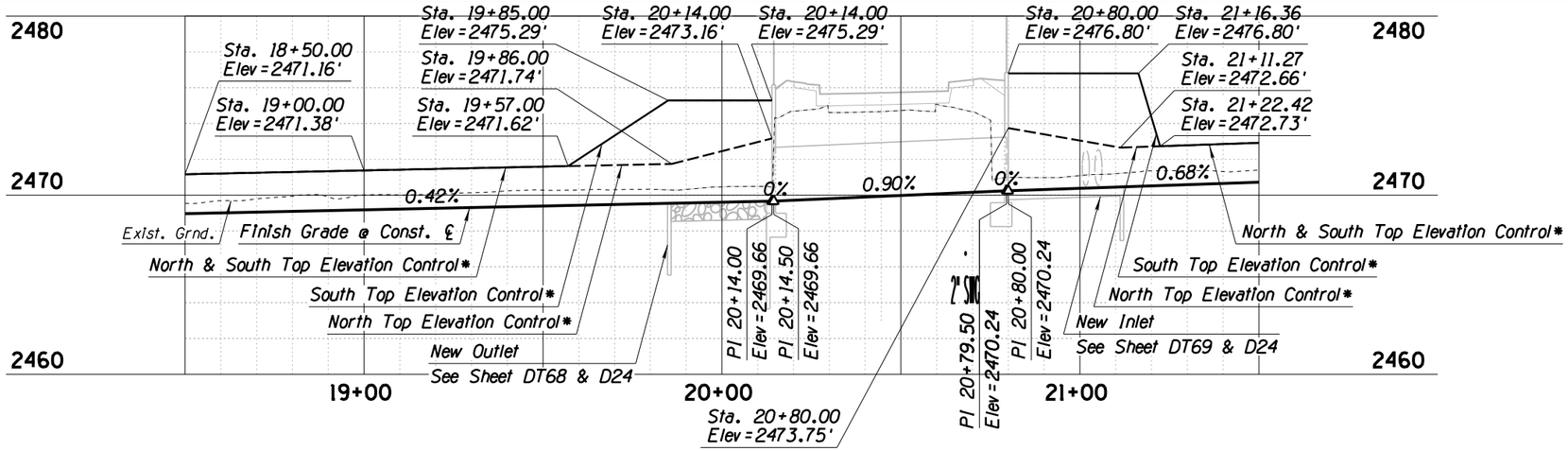
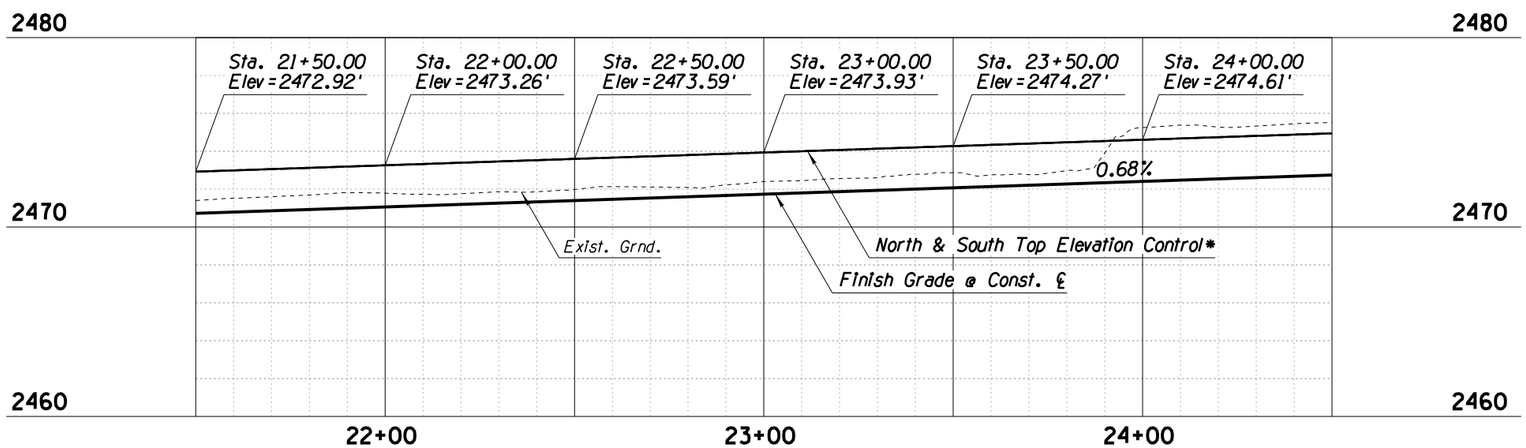
Pima County Department of Transportation

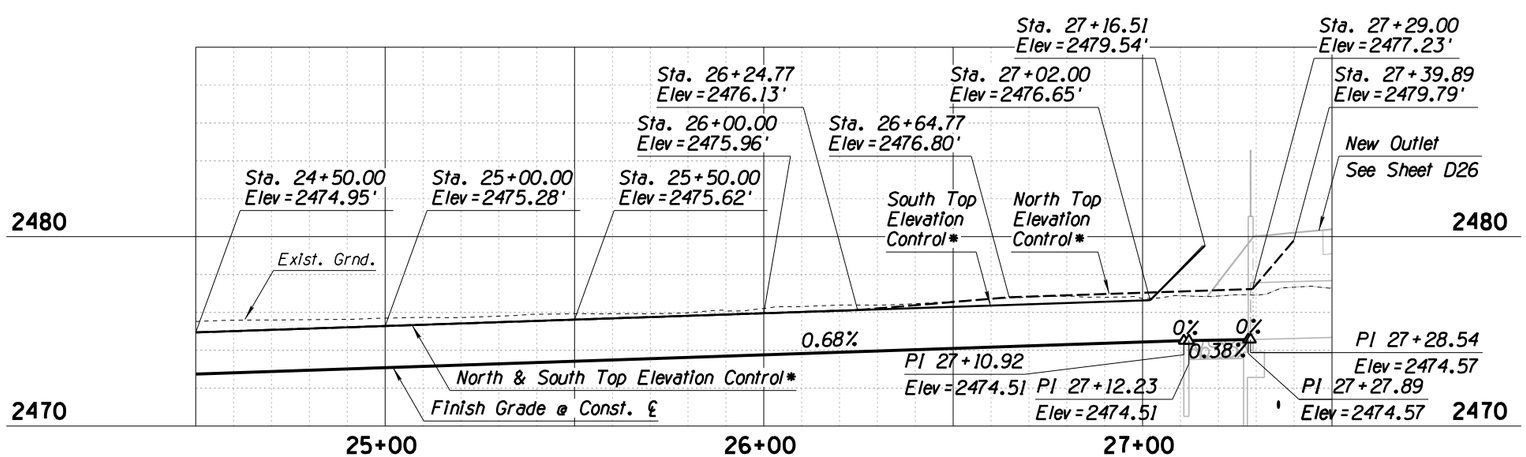
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. NA	Sheet CH18 of CH26	Page 203 of 433
	Vert. 1" = 4'		







CHANNEL SUMMARY TABLE

Channel Stationing	Q_{100} (CFS)	D_{flow} (ft)	V_{100} (fps)
10+18 to 14+25	141	1.8	5.6
14+25 to 20+14	141	1.8	5.4
20+80 to 26+70	131	1.5	6.4
26+70 to 27+29	126	1.2	5.8

NOTE:

*1. See Detail DS for Channel Section

NORTH IBERIA CHANNEL
STA. 18+50.00 TO 27+39.89
PROFILE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

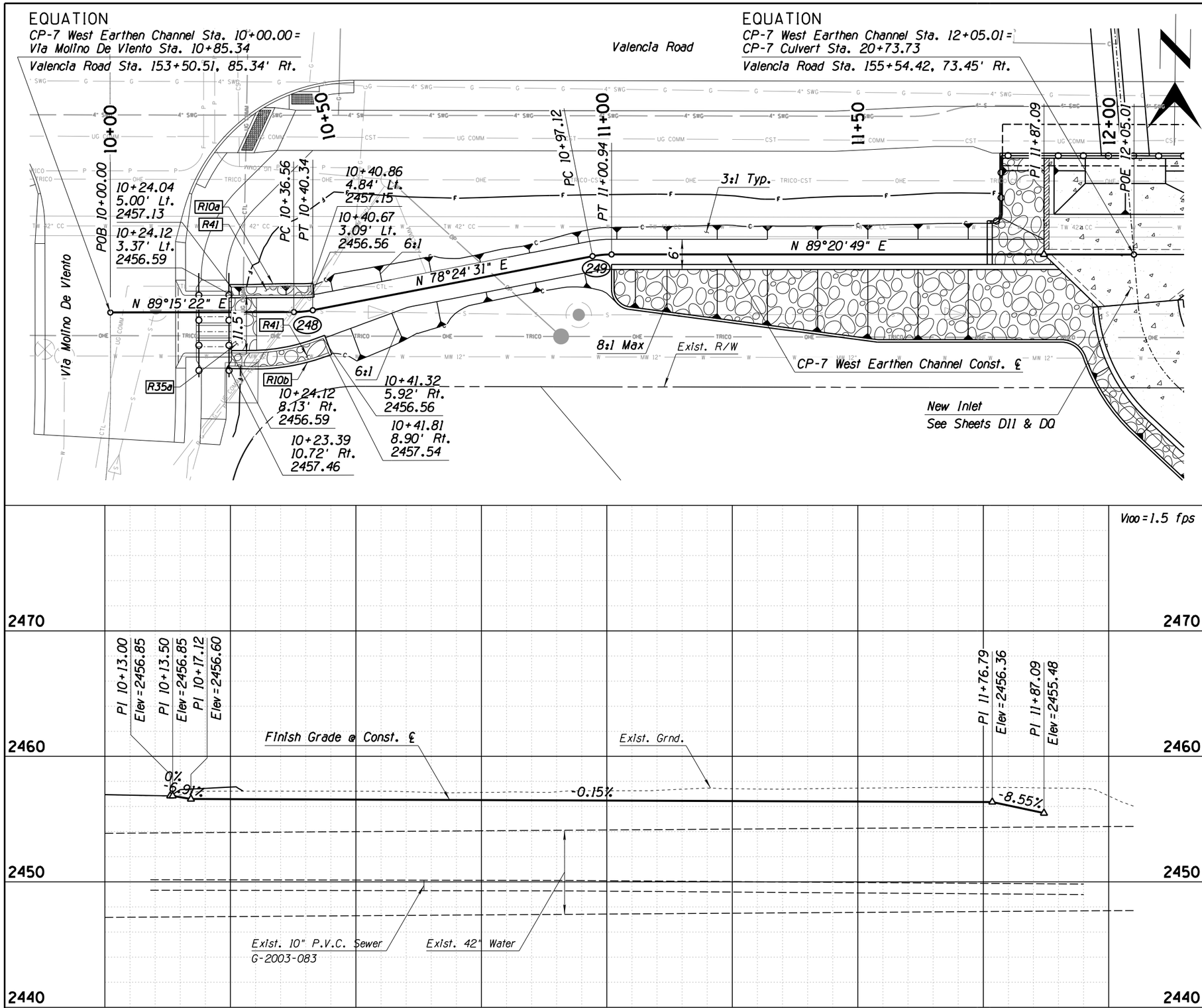
Pima County Department of Transportation
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

Sheet CH19 of CH26

4:46:47 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\CHANNEL\H022048CH13.DGN



Item No.	Qty.	Unit	Description
R10	81	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	36	L.F.	Sta. 10+24.04, 5.0' Lt. to Sta. 10+24.12, 3.4' Lt.
b	45	L.F.	Sta. 10+23.39, 10.7' Rt. to Sta. 10+24.12, 8.1' Rt.
R41	9	S.Y.	Rip Rap (Hand Placed) (Grouted), Item # 9130009
	65	C.Y.	Drainage Excavation
R35	1	C.Y.	Riprap (Dumped), Item # 9130001
a	1	C.Y.	D50=6"

(248) CURVE DATA

PI Sta 10+38.46
N=13044.0914
E=38511.1732
Main Curve
Δ=10°50'51"Lt
D=286°28'44"
R=20.00'
L=3.79'
T=1.90'
Ext=0.09'

(249) CURVE DATA

PI Sta 10+99.04
N=13056.2666
E=38570.5315
Main Curve
Δ=10°56'19"Rt
D=286°28'44"
R=20.00'
L=3.82'
T=1.91'
Ext=0.09'

7 WEST CHANNEL
STA. 10+00.00 TO 12+05.01
PLAN/PROFILE

10 0 10 20

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ARIZONA811
Call 811 or click Arizona811.com

Date	
Designed	D. Tapia 01/2018
Drawn	D. Bacon 01/2018
Checked	R. Solis 01/2018
Proj. Engr.	R. Solis 01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

Ana M. Olivares, P.E., Director

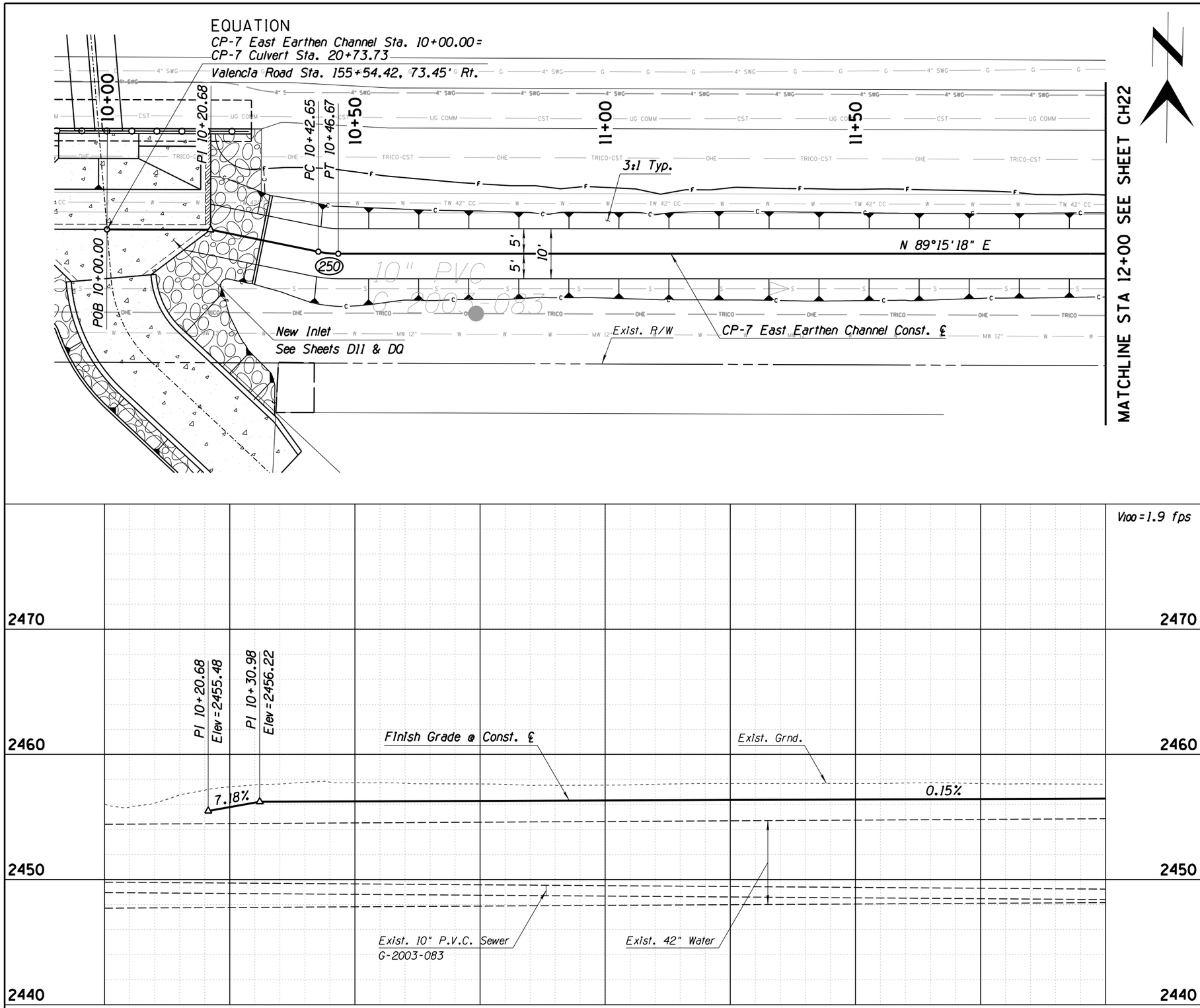
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Scales Horiz. 1"=10' Vert. 1"=4'



Item No.	Qty.	Unit	Description
	207	C.Y.	Drainage Excavation

(250) CURVE DATA

PI Sta 10+44.67
N = 13053.1615
E = 38720.7538
Main Curve
Δ = 11°30'29" Lt
D = 286°28'44"
R = 20.00'
L = 4.02'
T = 2.02'
Ext = 0.10'

7 EAST CHANNEL
STA. 10+00.00 TO 12+00.00
PLAN/PROFILE

10 0 10 20

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 10' Vert. 1" = 4'

Sheet CH21 of CH26

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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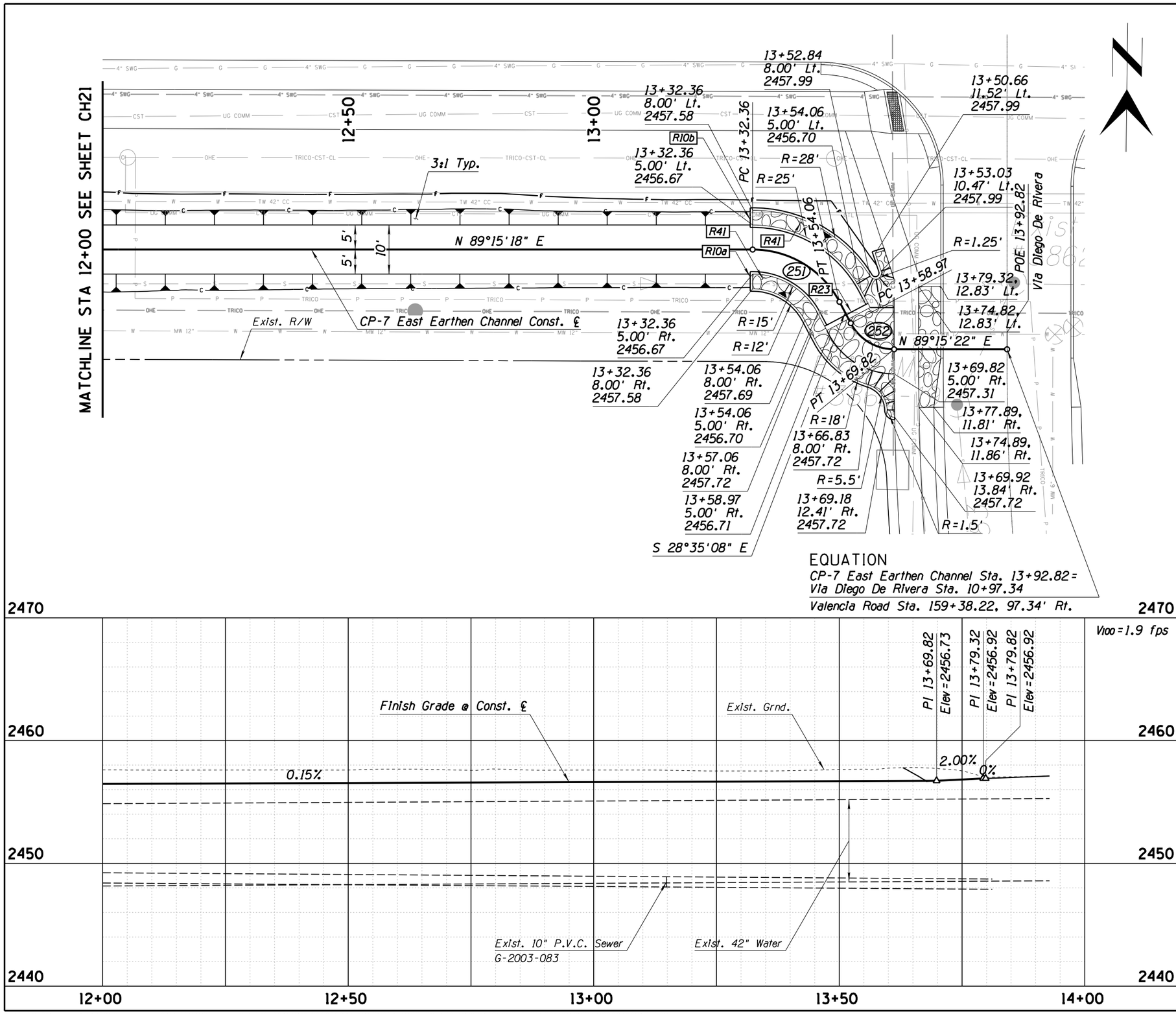
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



Item No.	Qty.	Unit	Description
R10	139	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	66	L.F.	Sta. 13+57.03, 4.5' Rt. to Sta. 13+69.93, 14.34' Rt.
b	73	L.F.	Sta. 13+50.77, 13.6' Lt. to Sta. 13+57.03, 4.5' Lt.
R23	10	L.F.	Concrete Cut-off Wall - 2-ft, Item # 6010712
R41	43	S.Y.	Rip Rap (Hand Placed) (Grouted), Item # 9130009

(251) CURVE DATA

PI Sta 13+44.42
N=13057.0589
E=39020.4918
Main Curve
Δ=62°09'34"Rt
D=286°28'44"
R=20.00'
L=21.70'
T=12.06'
Ext=3.35'

(252) CURVE DATA

PI Sta 13+65.00
N=13036.8674
E=39031.4939
Main Curve
Δ=62°09'30"Lt
D=572°57'28"
R=10.00'
L=10.85'
T=6.03'
Ext=1.68'

7 EAST CHANNEL
STA. 12+00.00 TO 13+92.82
PLAN/PROFILE

10 0 10 20

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No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Registered Professional Engineer (Civil) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

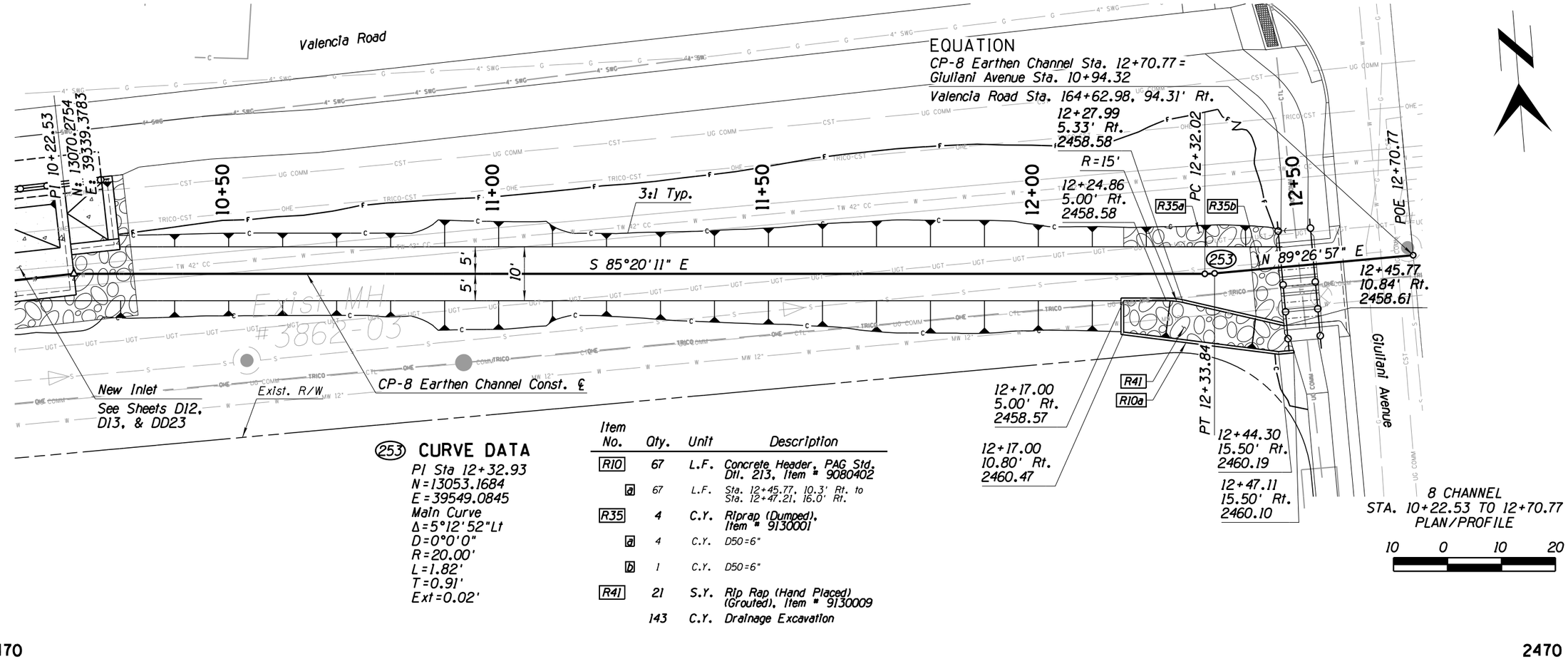
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales: Horiz. 1"=10' Vert. 1"=4'

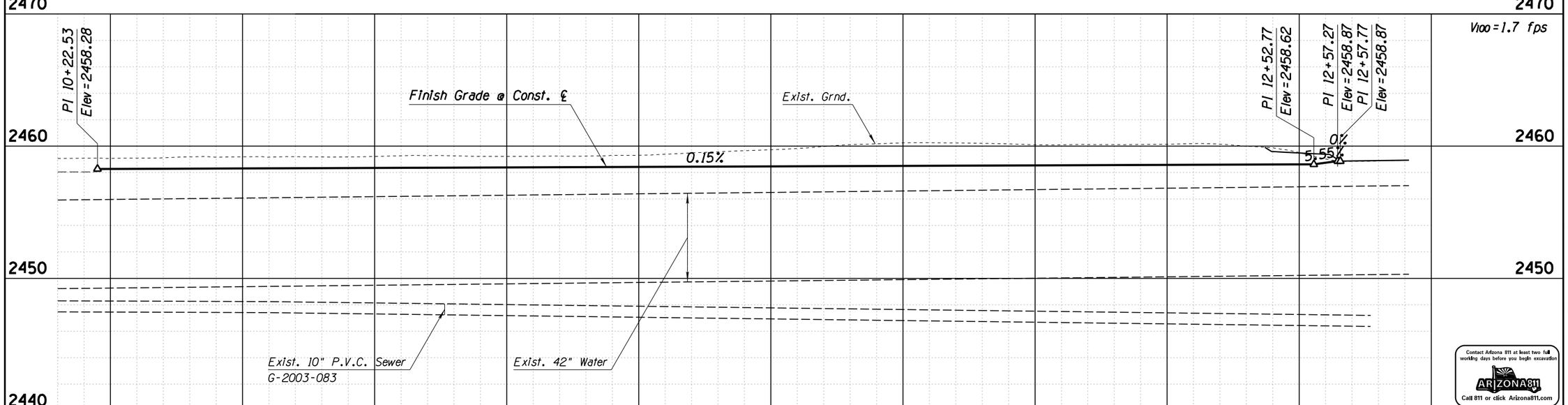
4:46:50 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\CHANNEL\H022048CH16.DGN



253 CURVE DATA

PI Sta 12+32.93
N=13053.1684
E=39549.0845
Main Curve
Δ=5°12'52"Lt
D=0°0'0"
R=20.00'
L=1.82'
T=0.91'
Ext=0.02'

Item No.	Qty.	Unit	Description
R10	67	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	67	L.F.	Sta. 12+45.77, 10.3' Rt. to Sta. 12+47.21, 16.0' Rt.
R35	4	C.Y.	Riprap (Dumped), Item # 9130001
a	4	C.Y.	D50=6"
b	1	C.Y.	D50=6"
R41	21	S.Y.	Rip Rap (Hand Placed) (Grouted), Item # 9130009
	143	C.Y.	Drainage Excavation



Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10'	SheetCH23 of CH26	Page 208 of 433
	Vert. 1"=4'		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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333 E. Wetmore Road
Suite 280
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(520) 615-9191 Fax: (602) 944-7423

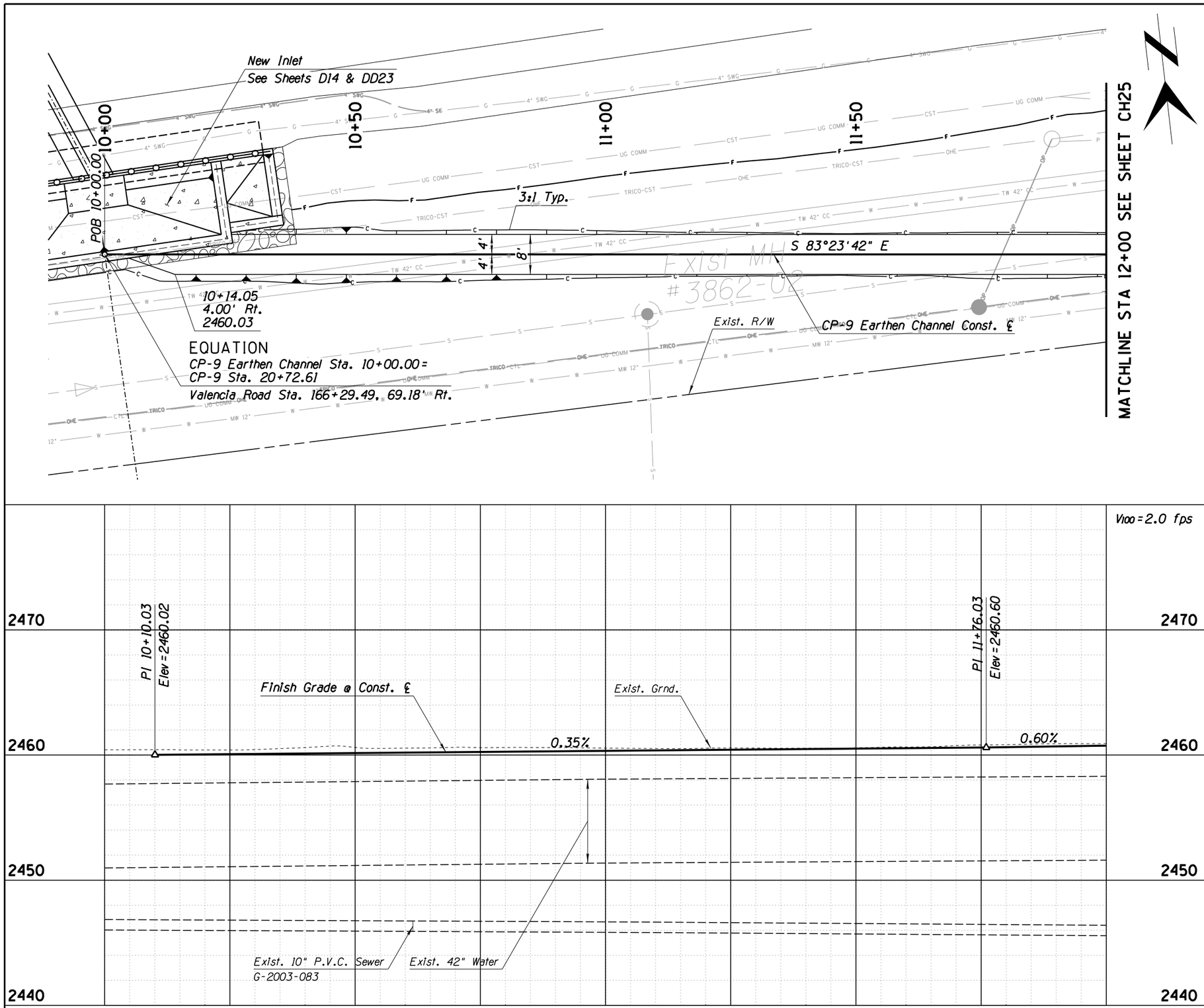
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2019

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

4:46:50 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\CHANNEL\H022048CH17.DGN



Item No.	Qty.	Unit	Description
	31	C.Y.	Drainage Excavation

9 CHANNEL
STA. 10+00.00 TO 12+00.00
PLAN/PROFILE

10 0 10 20

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=10' Vert. 1"=4'	SheetCH24 of CH26	Page 209 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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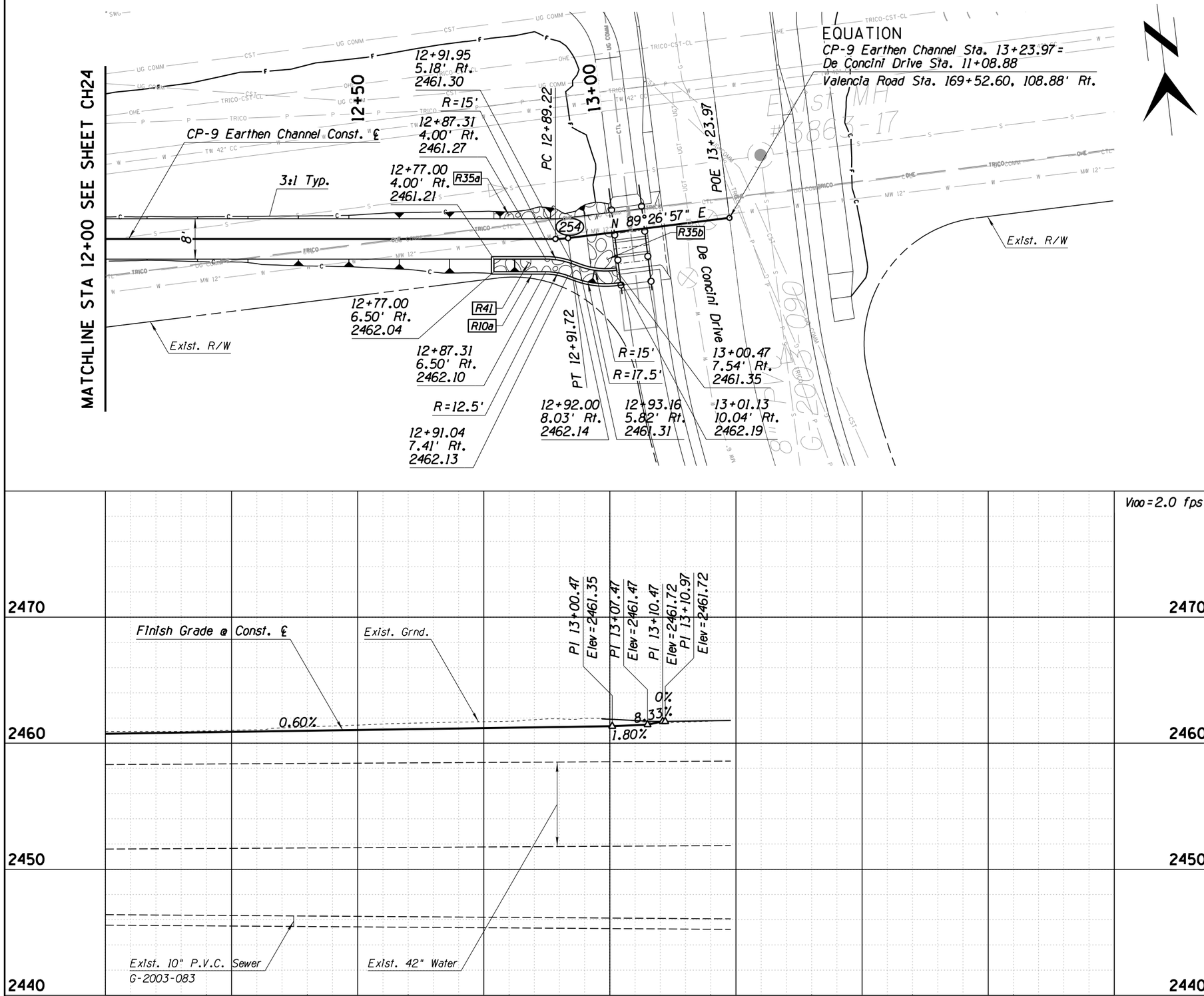

Item No.	Qty.	Unit	Description
R10	55	L.F.	Concrete Header, PAG Std. Dtl. 213, Item # 9080402
a	55	L.F.	Sta. 13+00.47, 7.0' Rt. to Sta. 13+01.47, 10.5' Rt.
R35	1	C.Y.	Riprap (Dumped), Item # 9130001
a	1	C.Y.	D50=6"
b	1	C.Y.	D50=6"
R41	7	S.Y.	Rip Rap (Hand Placed) (Grouted), Item # 9130009

254 CURVE DATA

PI Sta 12+90.47
N=13050.1344
E=40041.1726
Main Curve
Δ=7°09'21"Lt
D=286°28'44"
R=20.00'
L=2.50'
T=1.25'
Ext=0.04'

9 CHANNEL
STA. 12+00.00 TO 13+23.97
PLAN/PROFILE

10 0 10 20

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales Horiz. 1"=10' Vert. 1"=4'

Sheet CH25 of CH26

Page 210 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL) 43315 RICARDO P. SOLIS Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2020

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333 E. Wetmore Road
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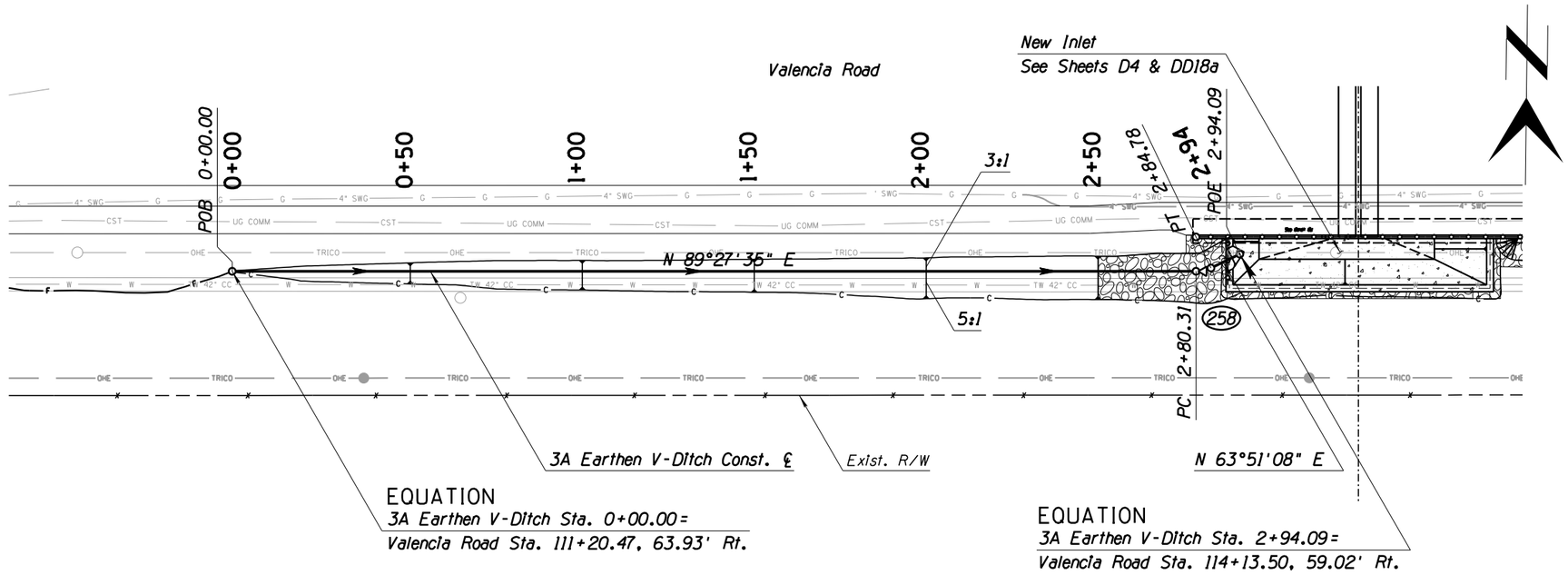
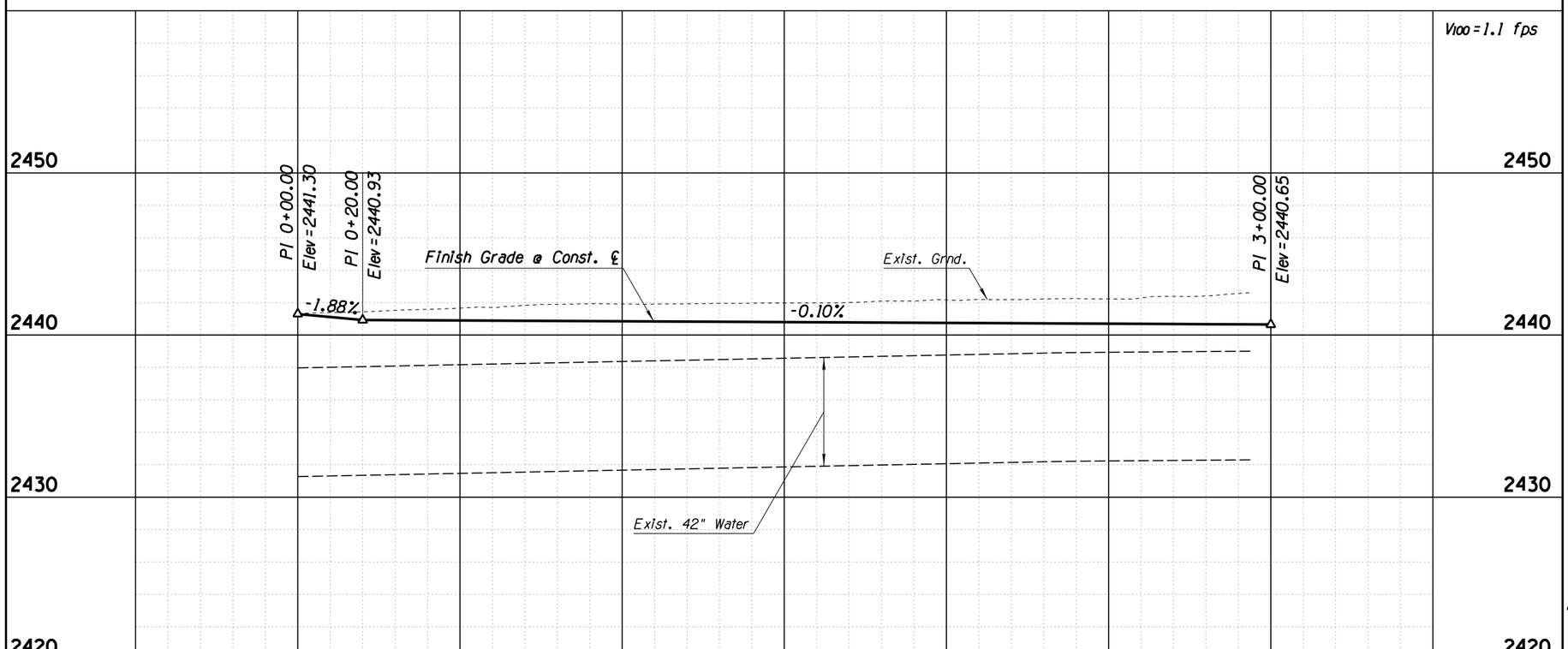


Item No.	Qty.	Unit	Description
	70	C.Y.	Drainage Excavation

258 CURVE DATA

PI Sta 2+82.59
N=13026.3043
E=34525.2563
Main Curve
Δ=25°36'27"Lt
D=572°57'28"
R=10.00'
L=4.47'
T=2.27'
Ext=0.25'



3A EARTHEN V-DITCH
STA. 0+00.00 TO 2+94.09
PLAN/PROFILE

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet CH26 of CH26	Page 211 of 433
	Vert. 1"=4'		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	D. Tapia	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (CIVIL)
43315
RICARDO P. SOLIS
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2020

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EROSION CONTROL TYPE INSTALLATION & QUANTITY

LOCATION	(EC1) Sediment Wattle Slope Protection (LF) 9" Left	Right	(EC2) Sediment Log (LF) Left	Right	(EC3) Rock Protection (CY) Left	Right	(EC5) Construction Entrance (SY) Left	Right	(EC6) Sediment Control Berm (LF) Left	Right	EROSION CONTROL TOTALS: 9" Sediment Wattle Slope Protection (LF) (EC1)	Sediment Log (LF) (EC2)	Rock Protection Ditch/Channel Cut/Fill Transition(CY) (EC3)	Construction Entrance (SY) (EC5)	Sediment Control Berm (LF) (EC6)	REMARKS
VALENCIA ROAD EROSION CONTROL PLAN STA 84+73.47 TO STA 235+25.00																
STA 84+73.47 TO STA 89+00	376	487					196	196			863			392		
STA 89+00 TO STA 97+00	739	653	71	147							1392	218				
STA 97+00 TO STA 105+00	736	807	65								1543	65				
STA 105+00 TO STA 113+00	800	801		30							1601	30				
STA 113+00 TO STA 121+00	720	113	78	163					0	540	833	241			540	
STA 121+00 TO STA 129+00	758	996	42						0	138	1754	42			138	
STA 129+00 TO STA 137+00	680	612	121	191							1292	312				
STA 137+00 TO STA 145+00	744	712	57	88							1456	145				
STA 145+00 TO STA 152+00	285	188		62				196	427	435	473	62		196	862	
STA 152+00 TO STA 160+00	68	493	36	108					718	798	561	144			1516	
STA 160+00 TO STA 168+00		352	32	187					1088	723	352	219			1811	
STA 168+00 TO STA 176+00		142	119	274					727	711	142	393			1438	
STA 176+00 TO STA 183+00			45						618	703		45			1321	
STA 183+00 TO STA 190+00			41						652	703		41			1355	
STA 190+00 TO STA 197+00			50	24					665	689		74			1354	
STA 197+00 TO STA 205+00		160	78	90					831	610	160	168			1441	
STA 205+00 TO STA 213+00	333		112	88					392	636	333	200			1028	
STA 213+00 TO STA 221+00	905	80							0	767	985				767	
STA 221+00 TO STA 229+00	475						196		299	829	475			196	1128	
STA 229+00 TO STA 235+25.00			42			0.7		196	361	533		42	0.7	196	894	
TOTALS	7619	6596	989	1452		0.7	392	588	6778	8815	14215	2441	0.7	980	15593	
VAHALLA ROAD EROSION CONTROL PLAN STA 37+68.25 TO STA 53+84.26																
STA 37+68.25 TO STA 41+00	330									373	330				373	
STA 41+00 TO STA 48+00	732									657	732				657	
STA 48+00 TO STA 53+84.26									199	197					396	
TOTALS	1062								199	1227	1062				1426	

NOTES:

1. The placement of all Erosion Control Devices listed above will be subject to change and may be adjusted by the Resident Engineer.

2. All disturbed areas not receiving Granite Mulch or Granite Mulch shall be seeded. Refer to Sheet L2.

3. Based on a search of the ADEQ Drywell Registry, no drywells are within 1/4 mile of the project.

4. The Contractor, in conjunction with Pima County, shall determine the location of the Construction Entrances/Exits. Approximate quantity shown based on 5 estimated Construction Entrances/Exits. Refer to Section 810 in the Special Provisions.

HYDROSEED & INERT GROUNDCOVER

SYMBOL	NAME	BID #
	Seed Mix 1 Rock Mulch Special	8050003 (1st App.), 8050010 (2nd App.) 8030029
	Seed Mix 2 Rock Mulch Special	8050003 (1st App.), 8050010 (2nd App.) 8030029
	Seed Mix 3 Rock Mulch Special	8050003 (1st App.), 8050010 (2nd App.) 8030029
	Granite Mulch	8030040
	Rock Mulch (Type I)	8030030
	Rock Mulch (Type II)	8030032

NOTES:

1. For seed mixes and quantities, refer to Sheet L2.

2. For granite and rock mulch color, size and gradation, see Detail 1, Sheet L49.

EROSION CONTROL SUMMARY SHEET

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet EC1 of EC18	Page 212 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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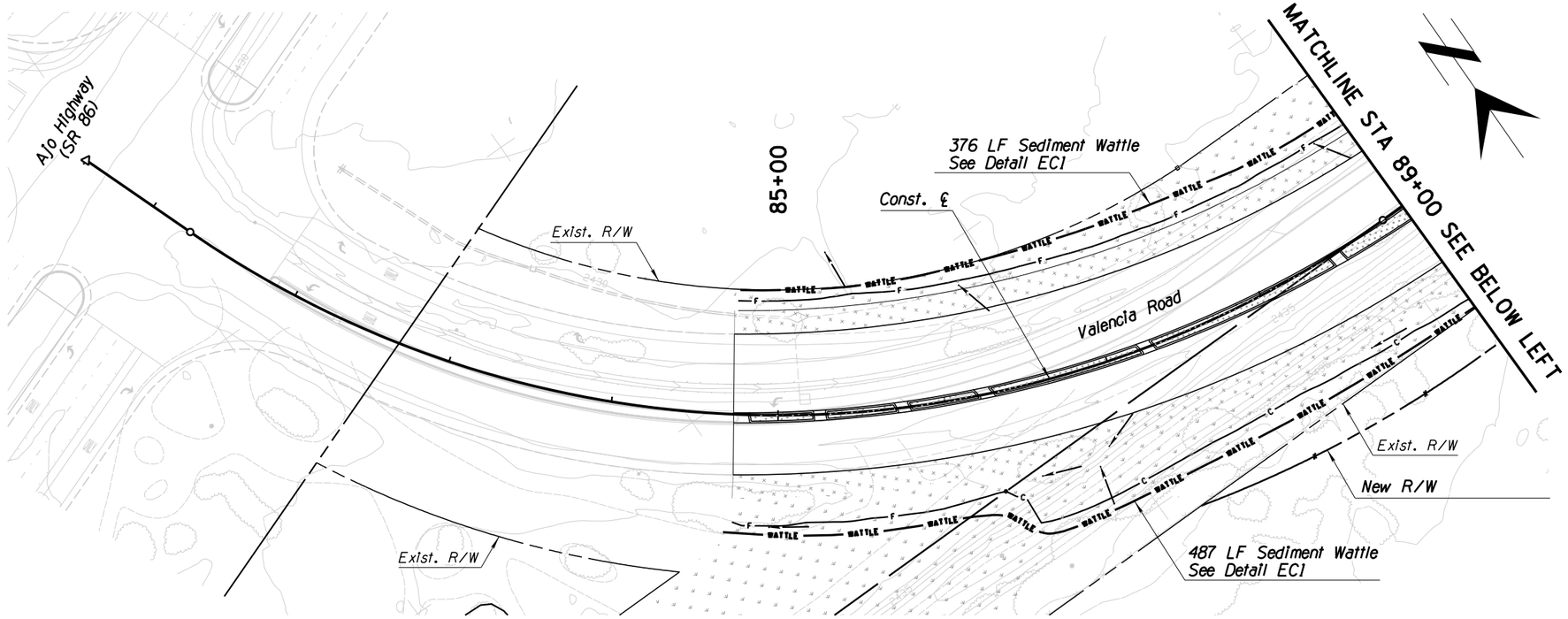
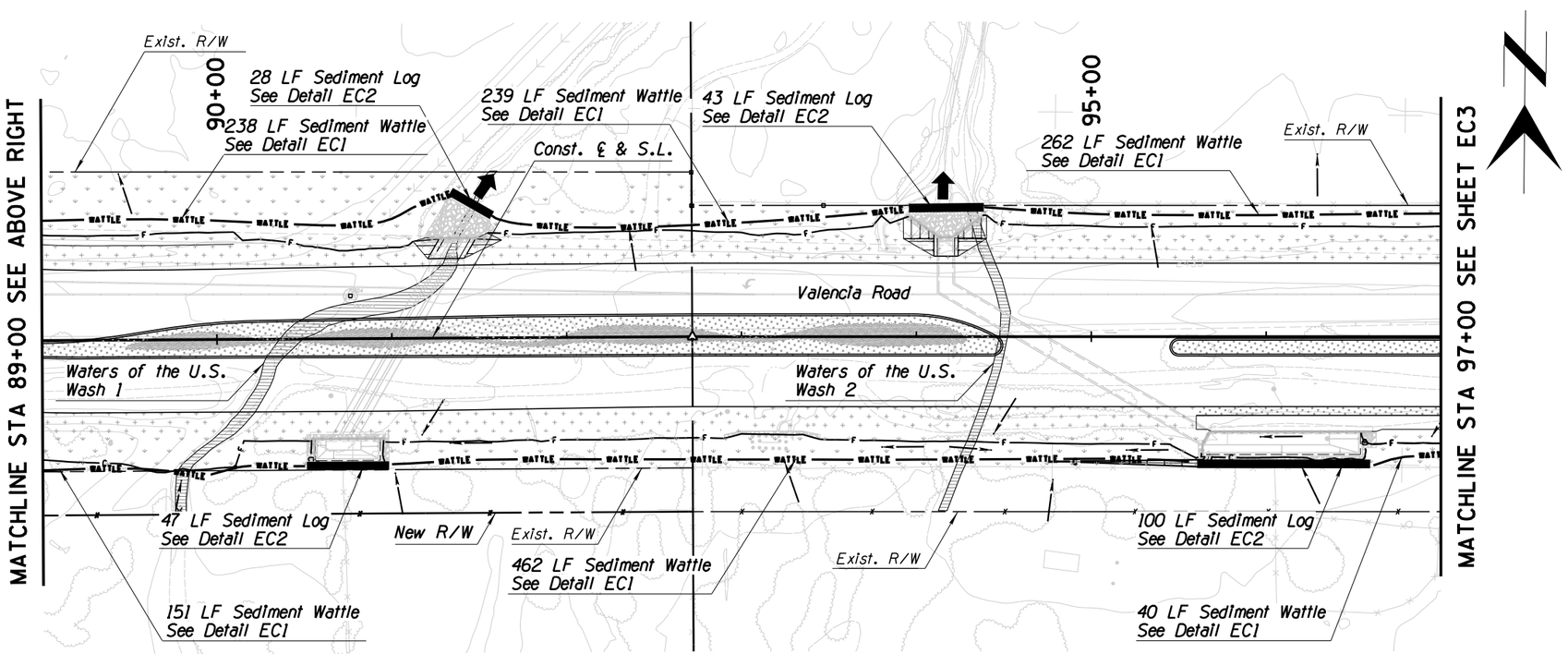
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

5:04:45 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\EROSION CONTROL\R022048EC_SUM.DGN





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
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Suite 280
Tucson, AZ 85705
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Pima County Department of Transportation

#4RTVWE

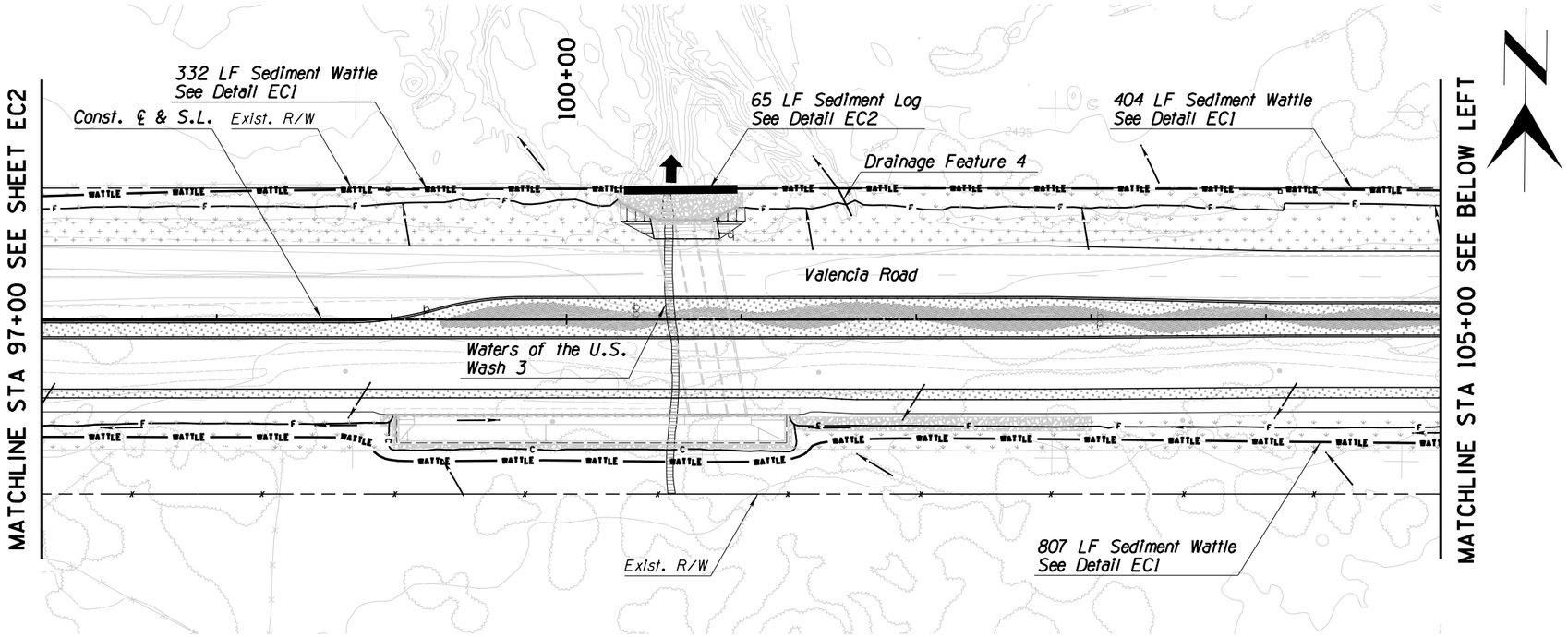
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

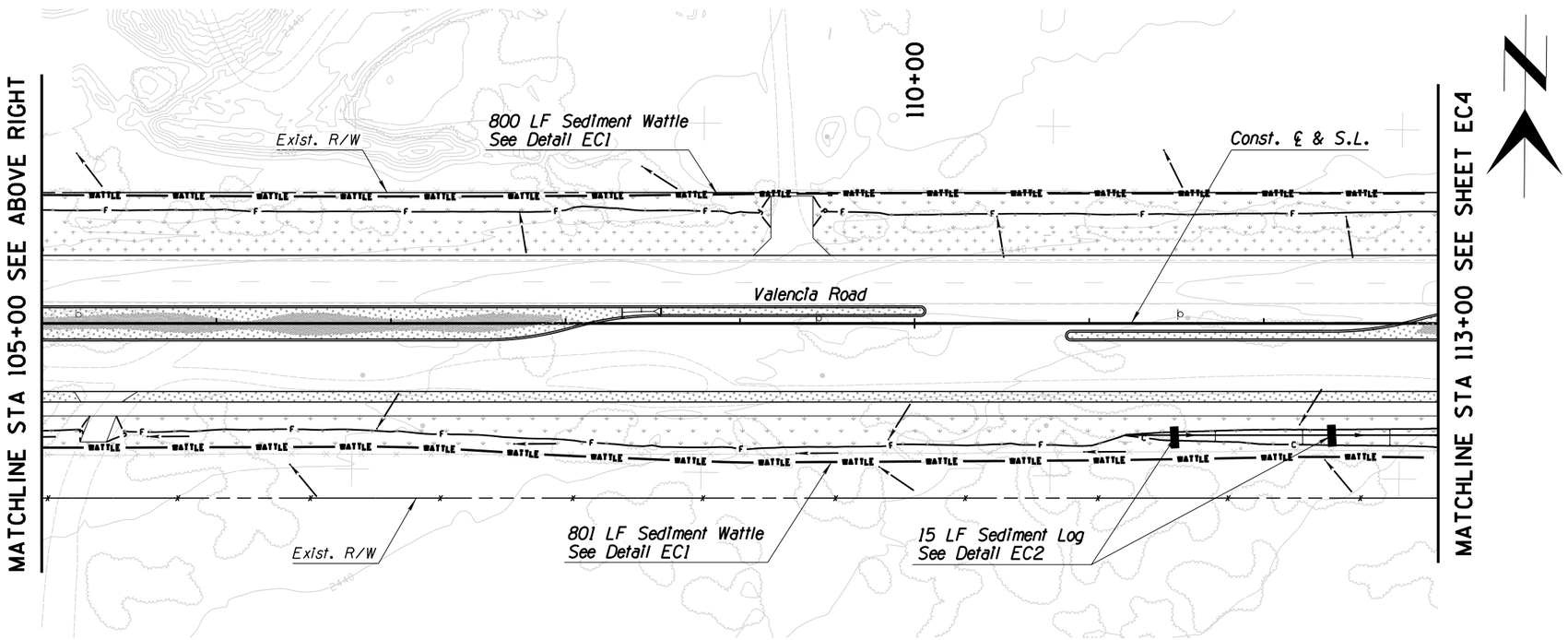
EROSION CONTROL PLAN
VALENCIA ROAD
STA. 81+00 TO 97+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC2 of EC18	Page 213 of 433
	Vert. NA		





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

EROSION CONTROL PLAN
VALENCIA ROAD
STA. 97+00 TO 113+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC3 of EC18	Page 214 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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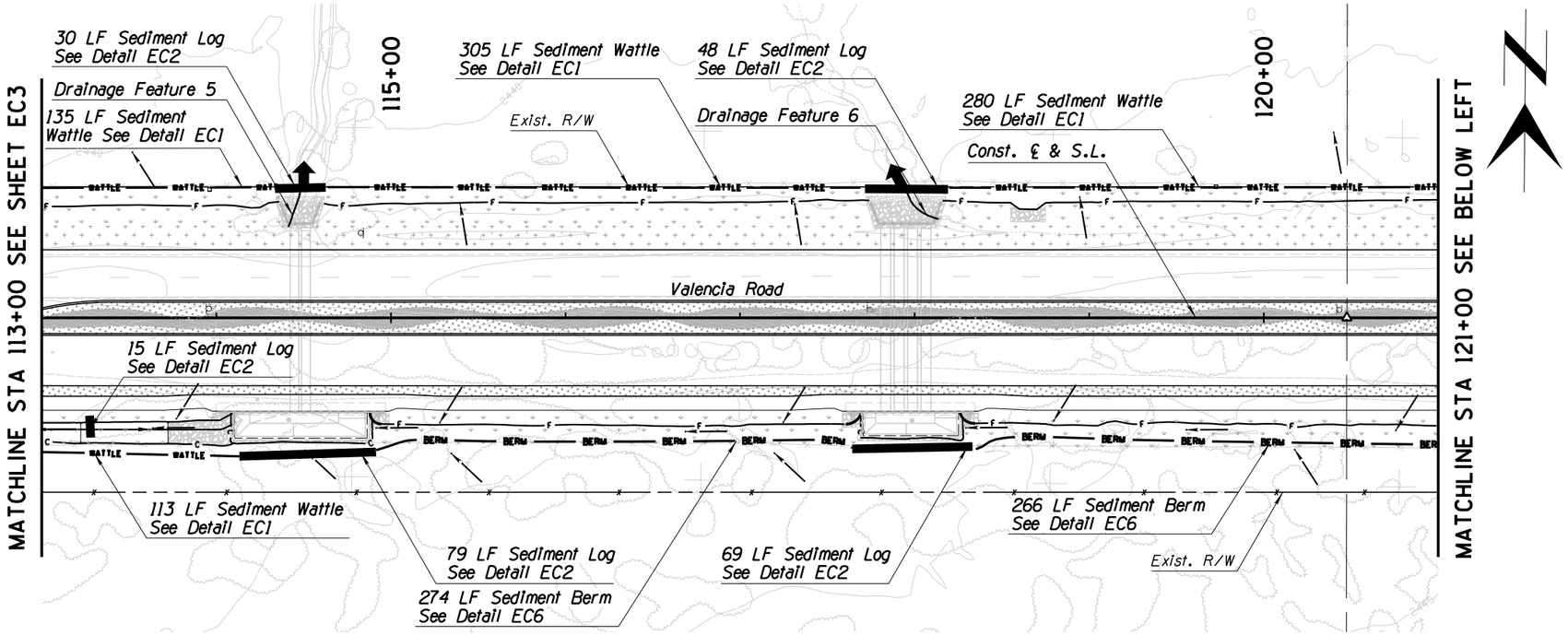
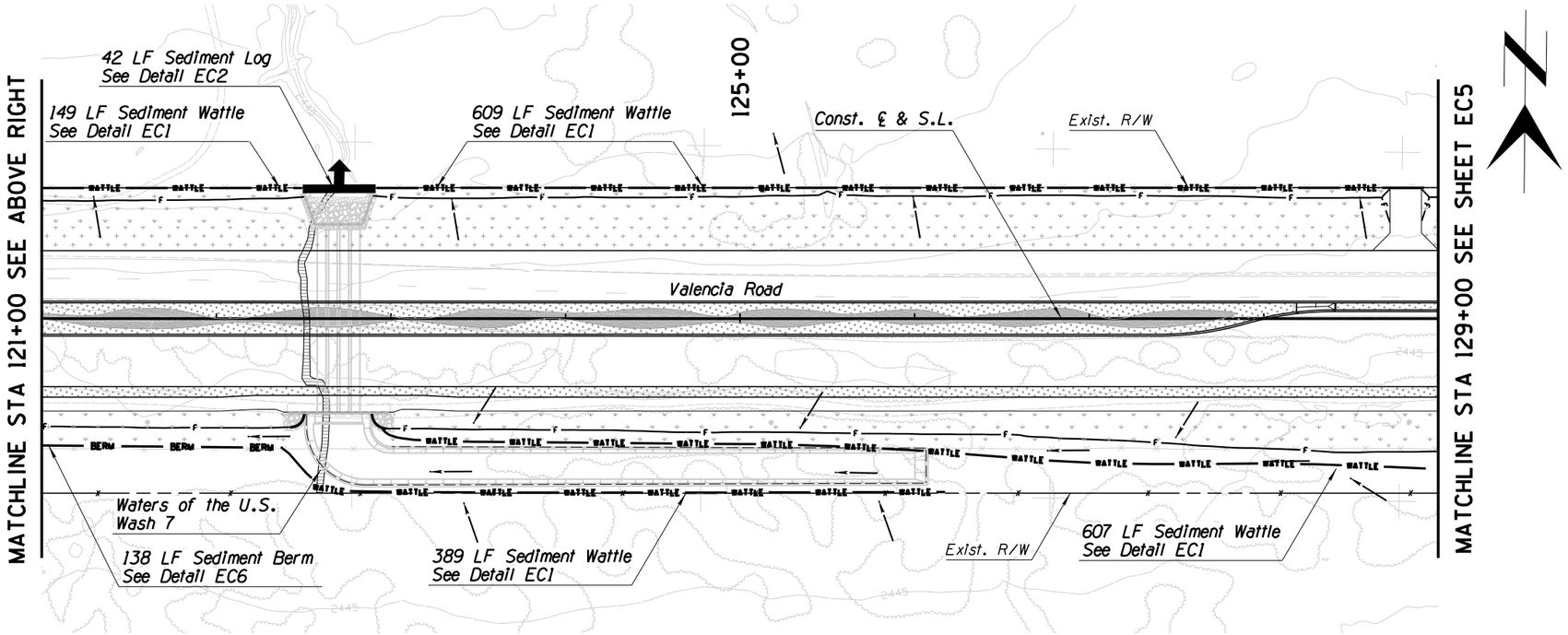
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

EROSION CONTROL PLAN
VALENCIA ROAD
STA. 113+00 TO 129+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC4 of EC18	Page 215 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

No.	Revision Description	Engineer	Date

		Date
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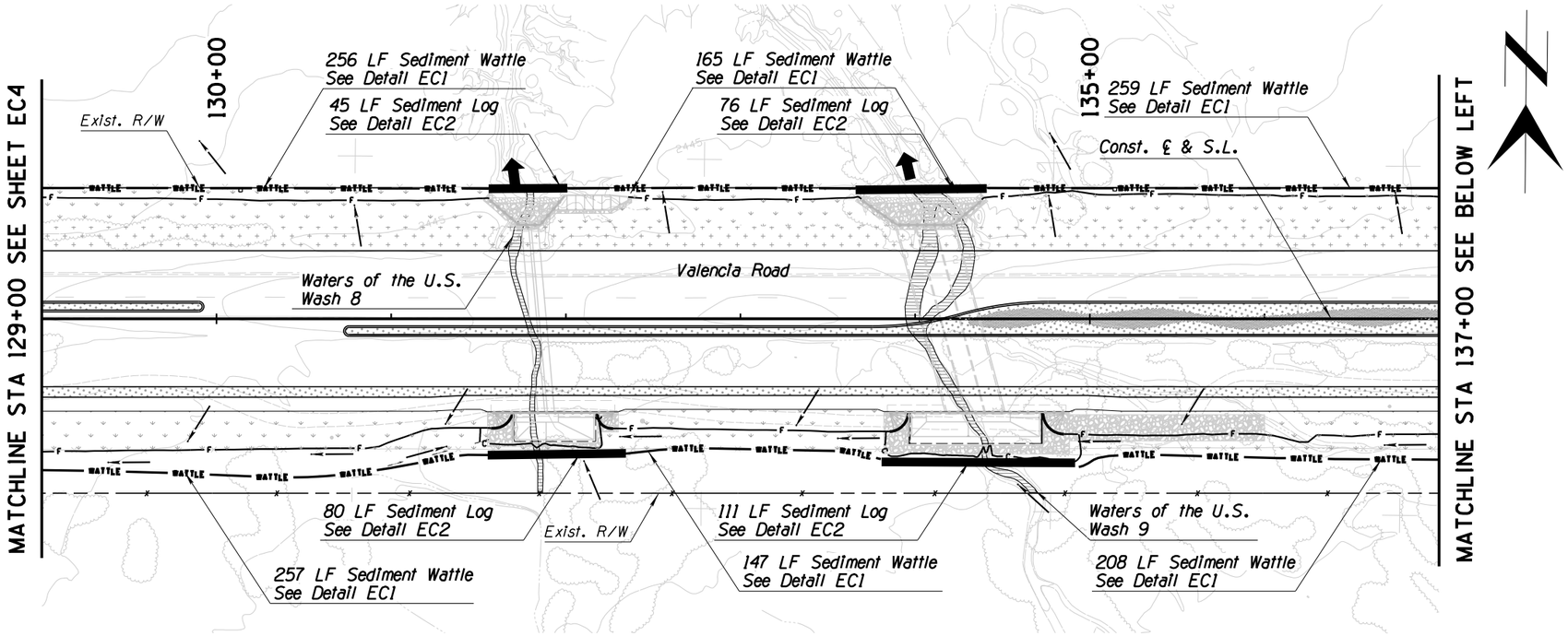
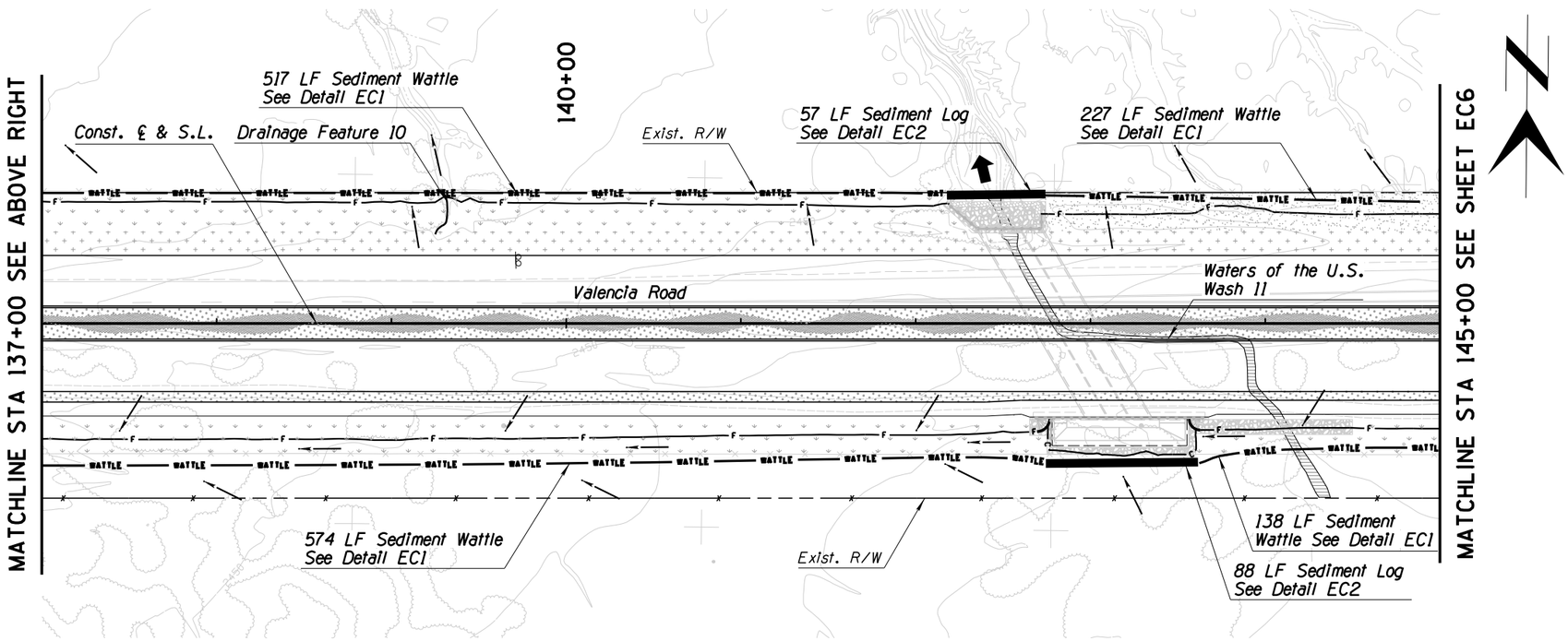
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

EROSION CONTROL PLAN
VALENCIA ROAD
STA. 129+00 TO 145+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet EC5 of EC18	Page 216 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
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ARIZONA, U.S.A.
Expires 03/31/2019

No.	Revision Description	Engineer	Date

		Date
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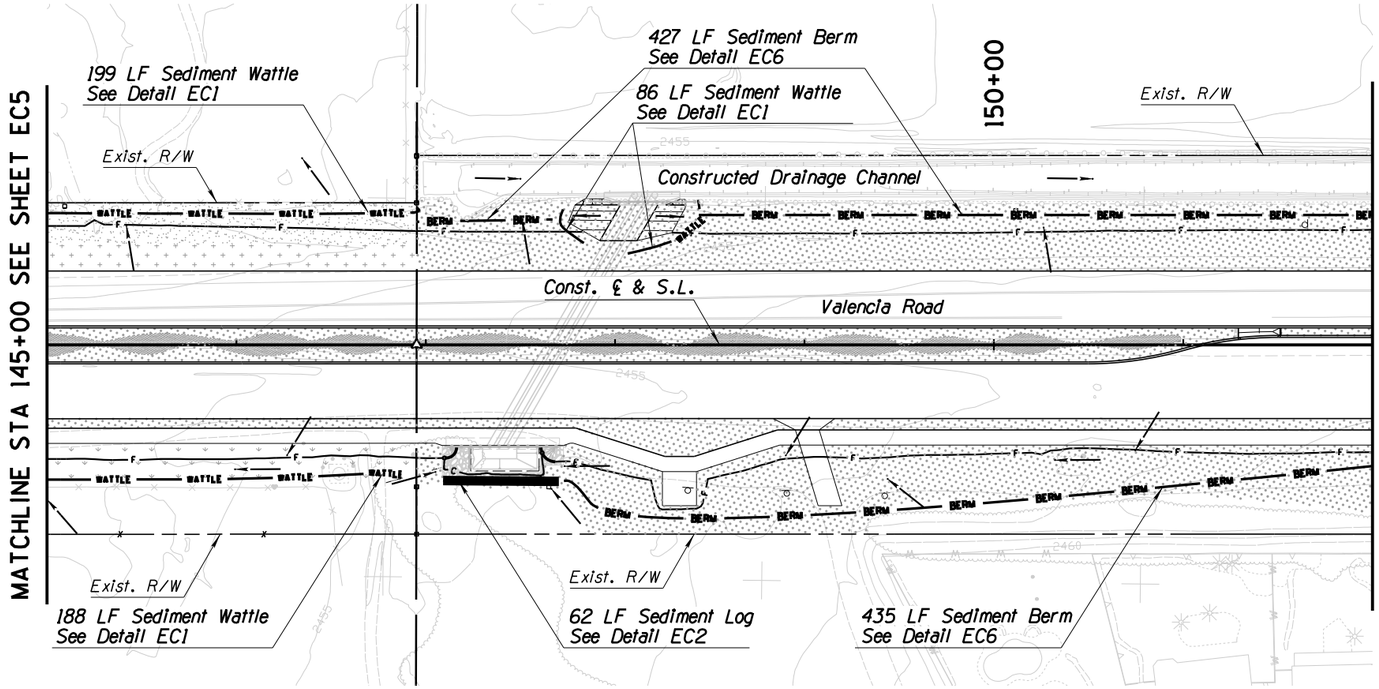
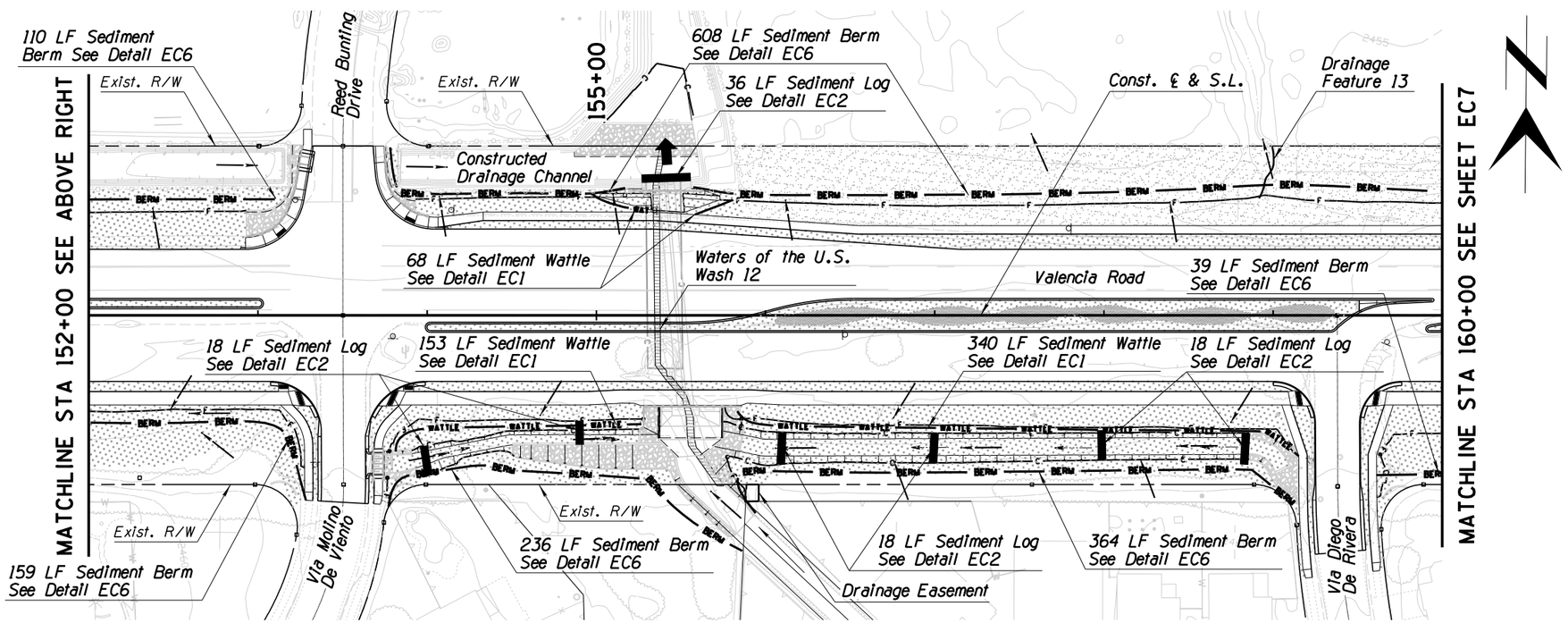
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Ana M. Olivares, P.E., Director

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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Pima County Department of Transportation

#4RTVWE

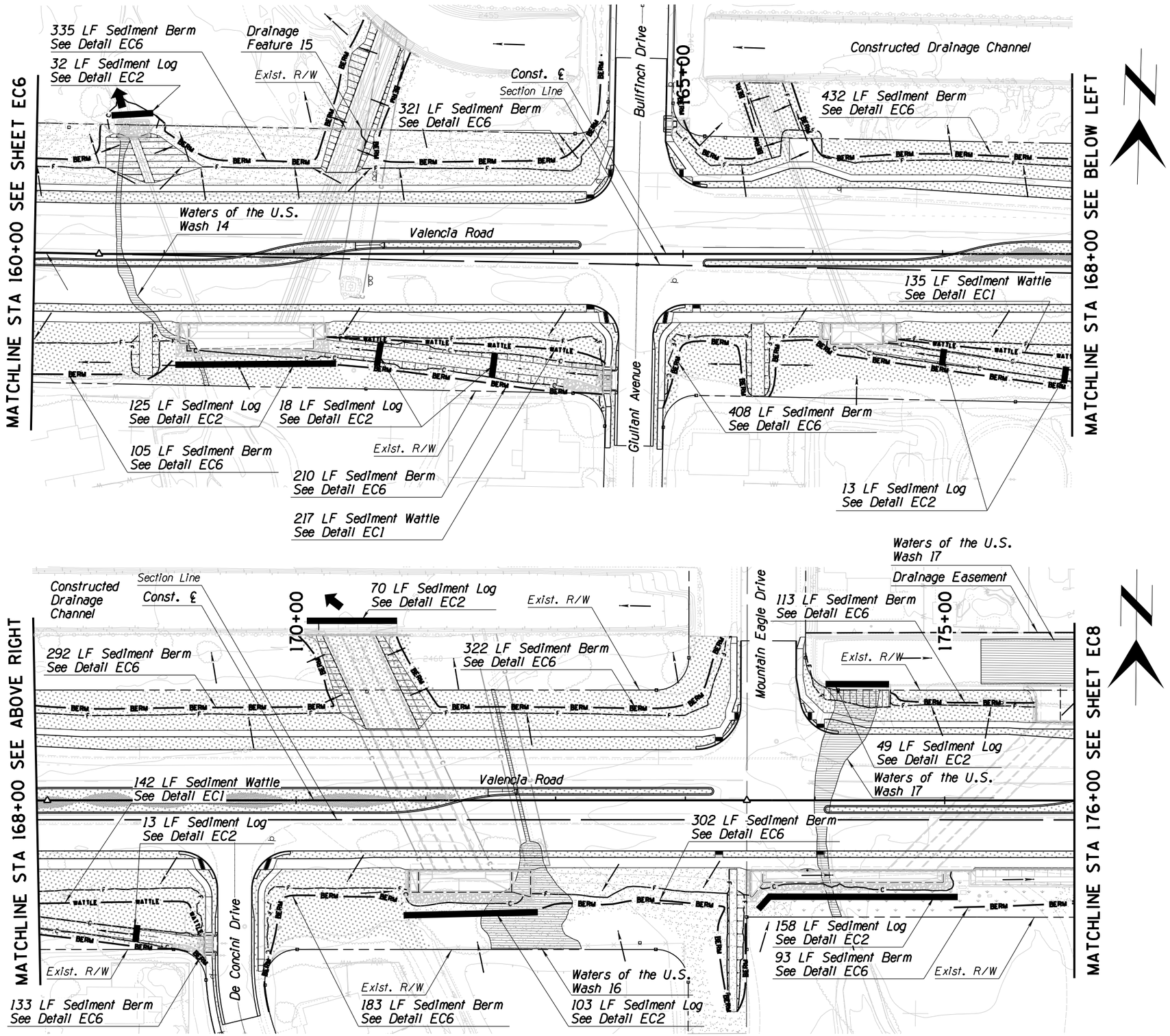
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

EROSION CONTROL PLAN
VALENCIA ROAD
STA. 145+00 TO 160+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC6 of EC18	Page 217 of 433
	Vert. NA		



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
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Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

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

Pima County Department of Transportation

#4RTVWE

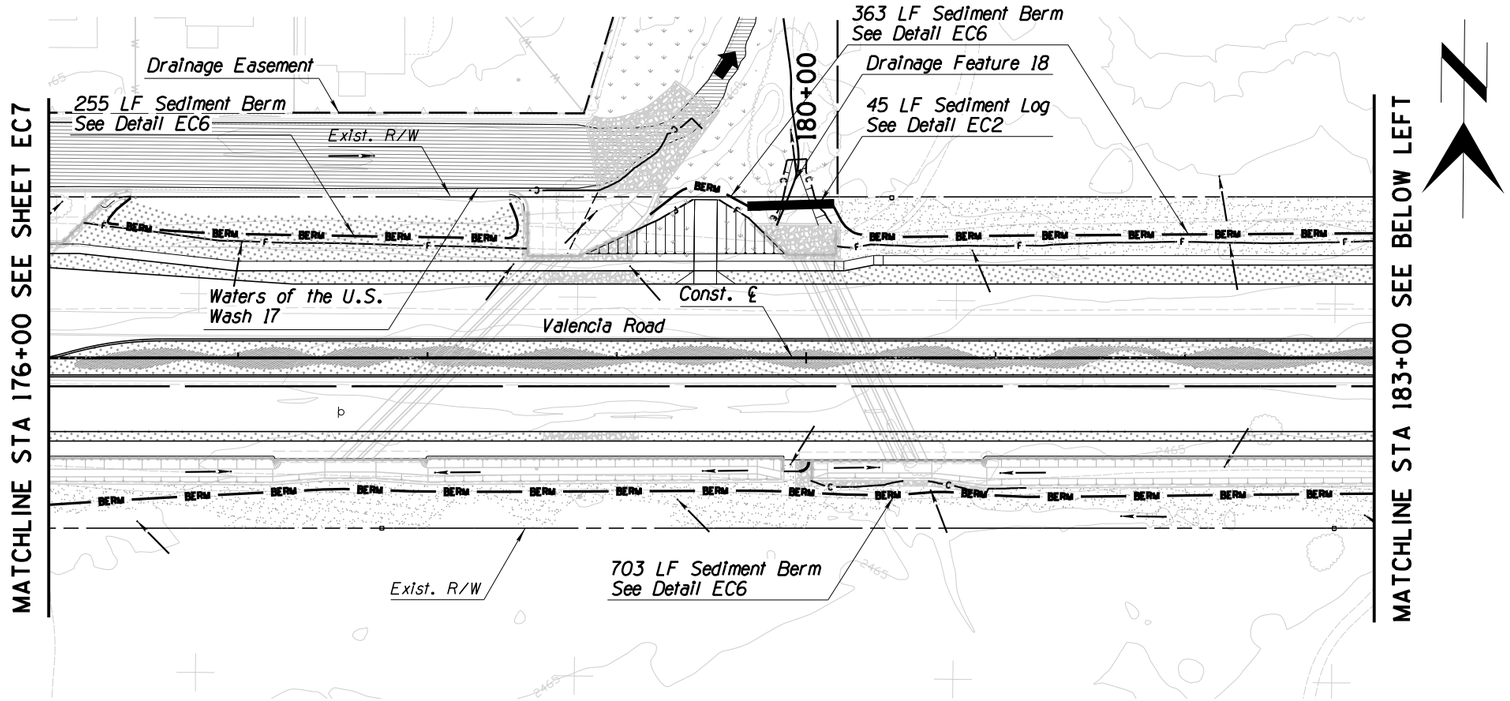
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

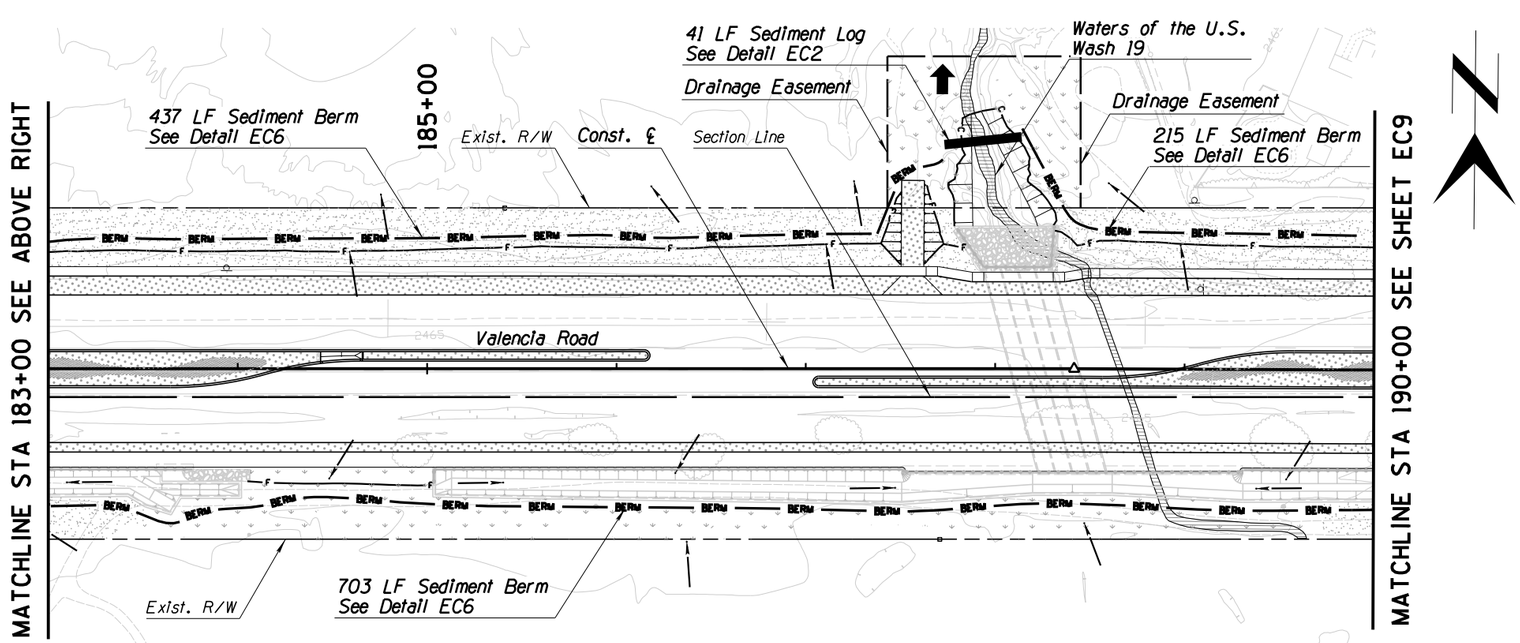
EROSION CONTROL PLAN
VALENCIA ROAD
STA. 160+00 TO 176+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet EC7 of EC18	Page 218 of 433
	Vert. NA		





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 50732 REBECA V. FIELD Date Signed 01/04/18 ARIZONA, U.S.A. Expires 03/31/2019

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Pima County Department of Transportation

#4RTVWE

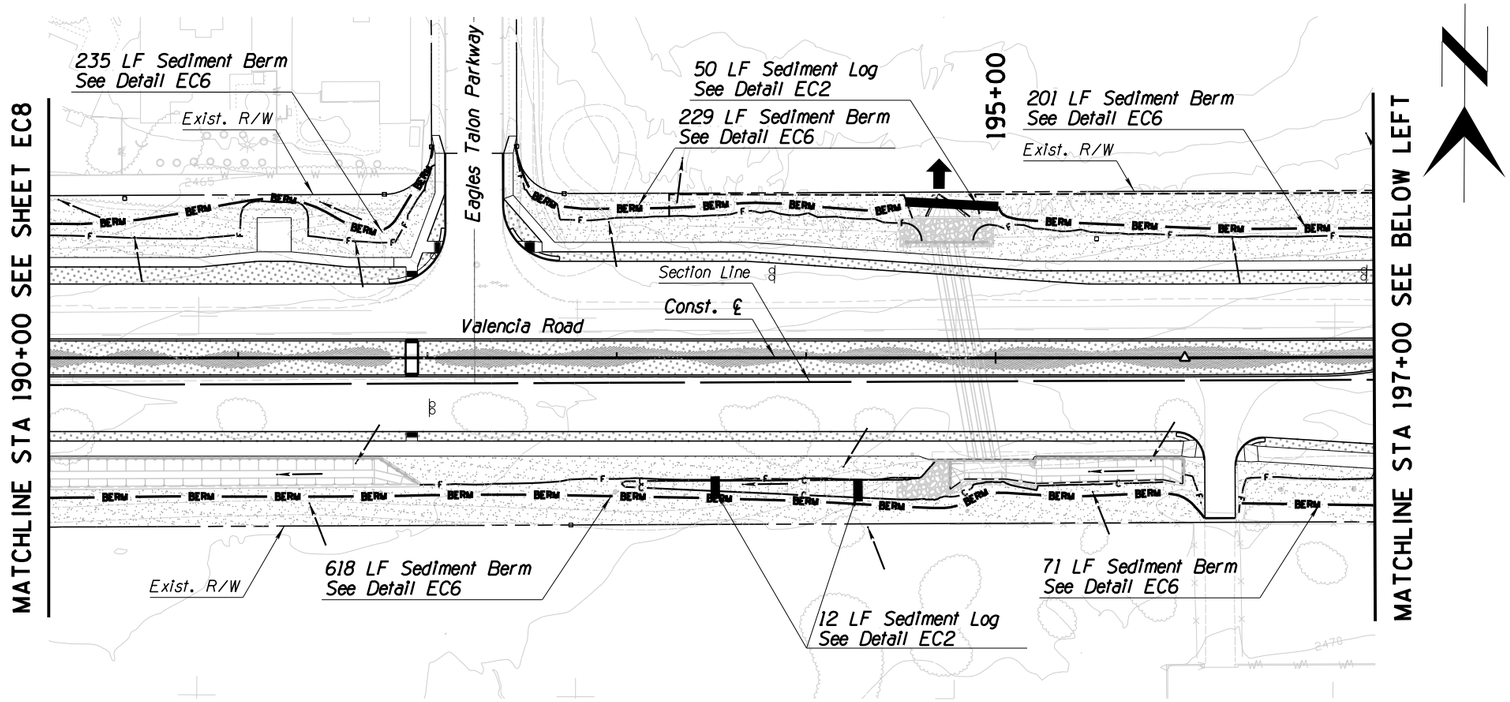
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

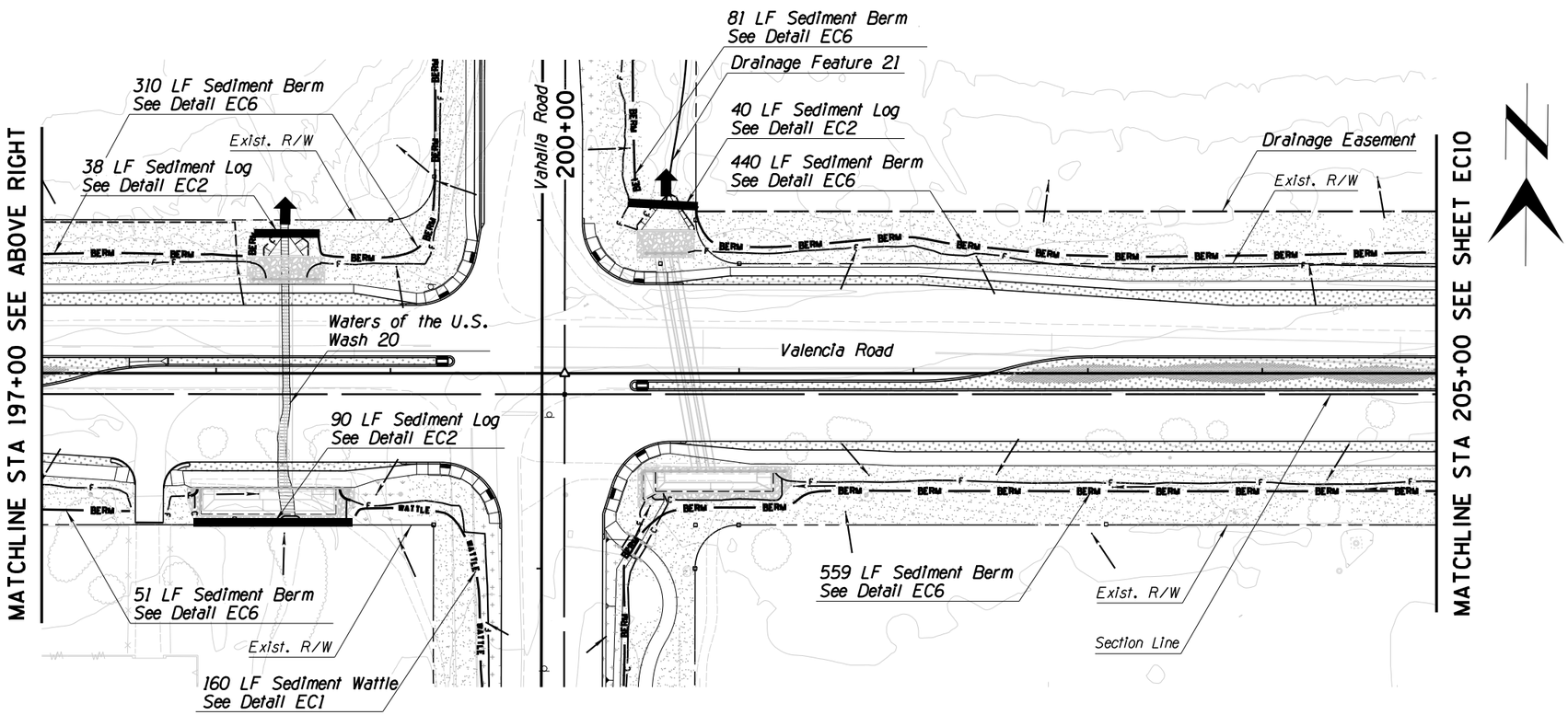
EROSION CONTROL PLAN
VALENCIA ROAD
STA. 176+00 TO 190+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40' Vert. NA	Sheet EC8 of EC18	Page 219 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 20732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

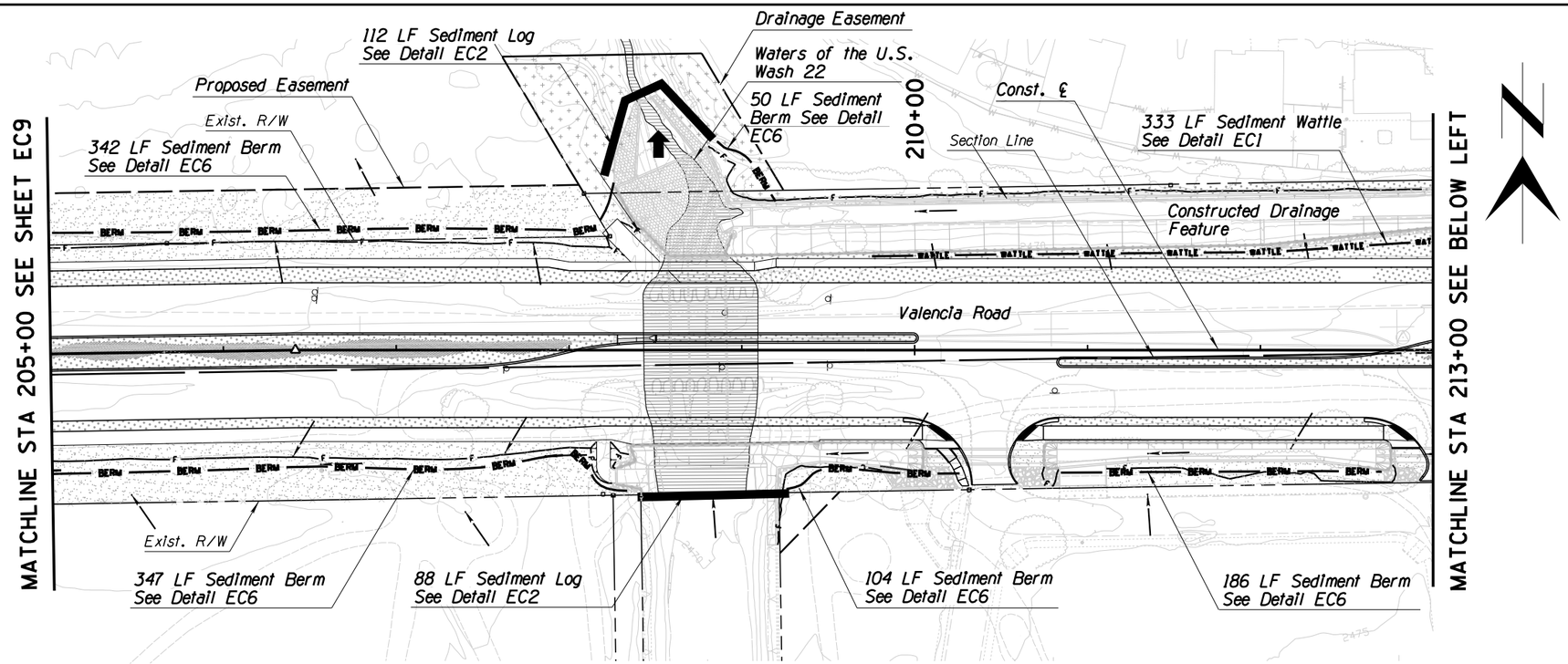
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

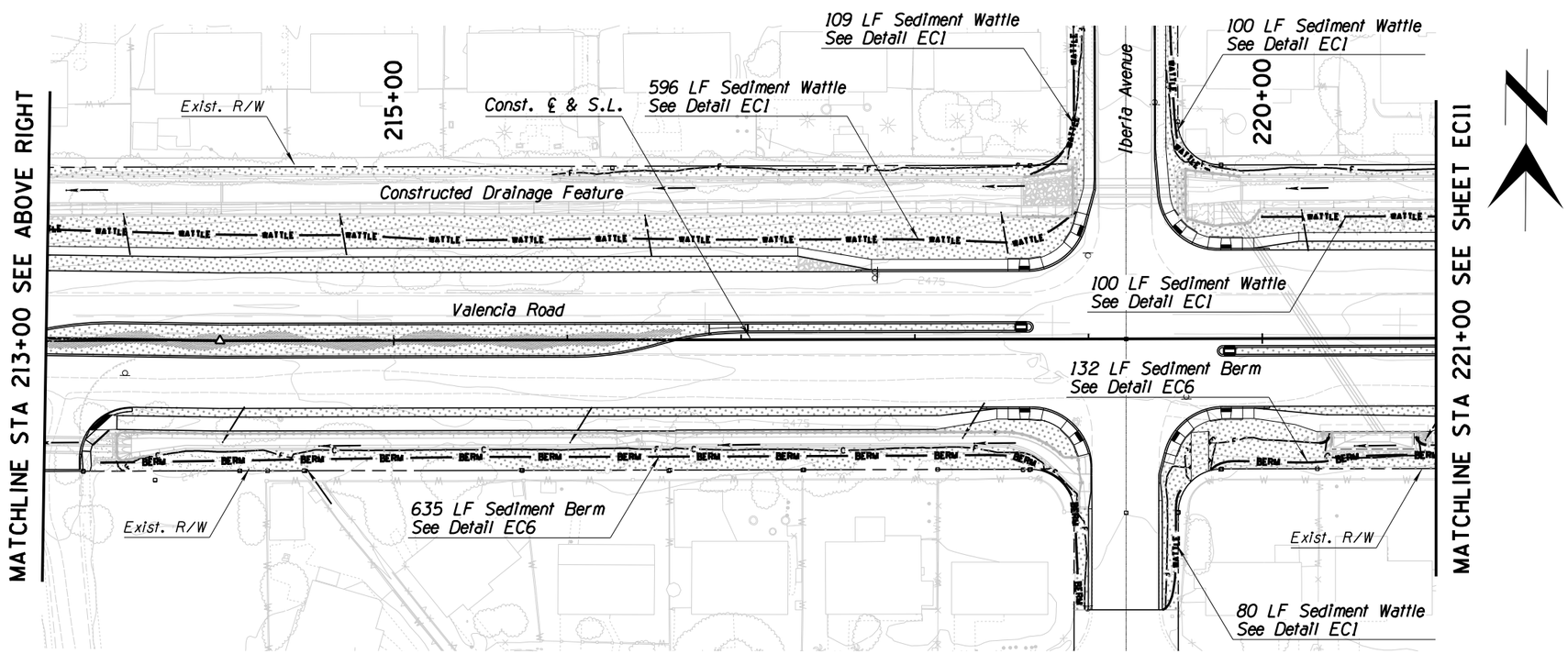
EROSION CONTROL PLAN
VALENCIA ROAD
STA. 190+00 TO 205+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40' Vert. NA	Sheet EC9 of EC18	Page 220 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

EROSION CONTROL PLAN
VALENCIA ROAD
STA. 205+00 TO 221+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC10 of EC18	Page 221 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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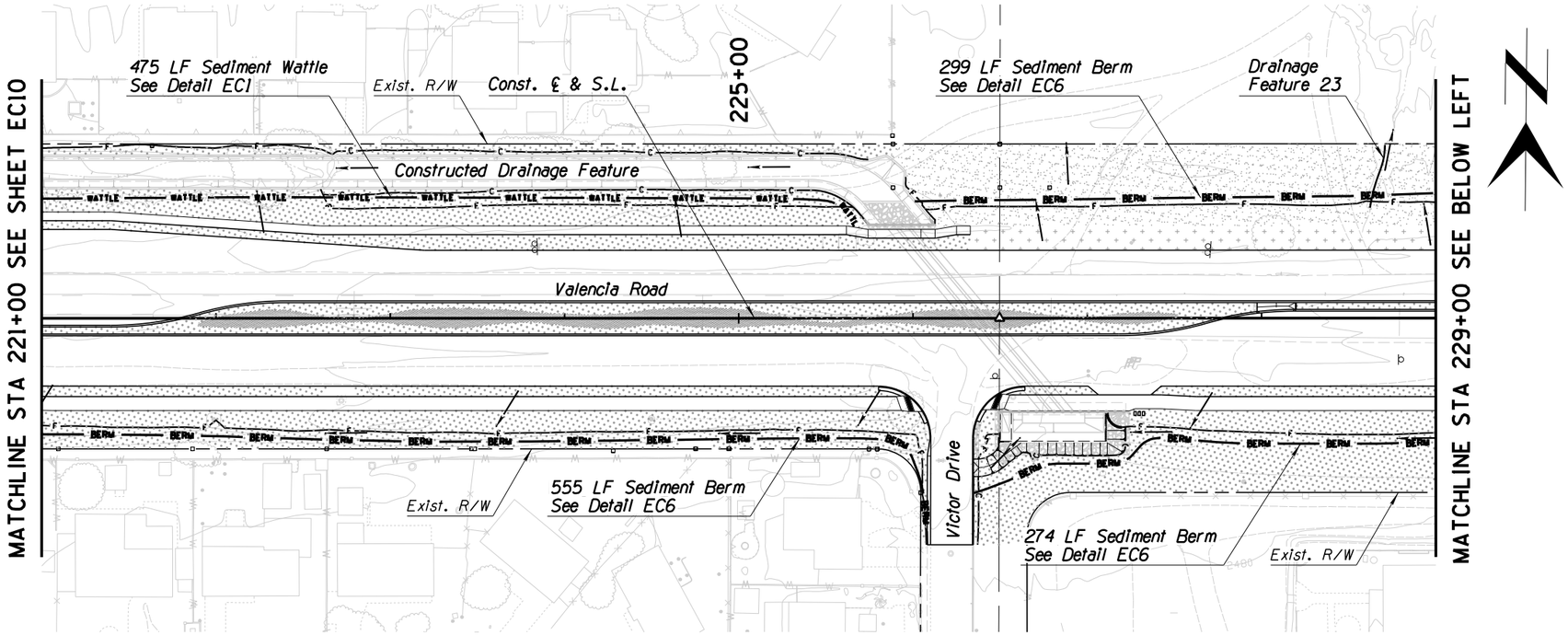
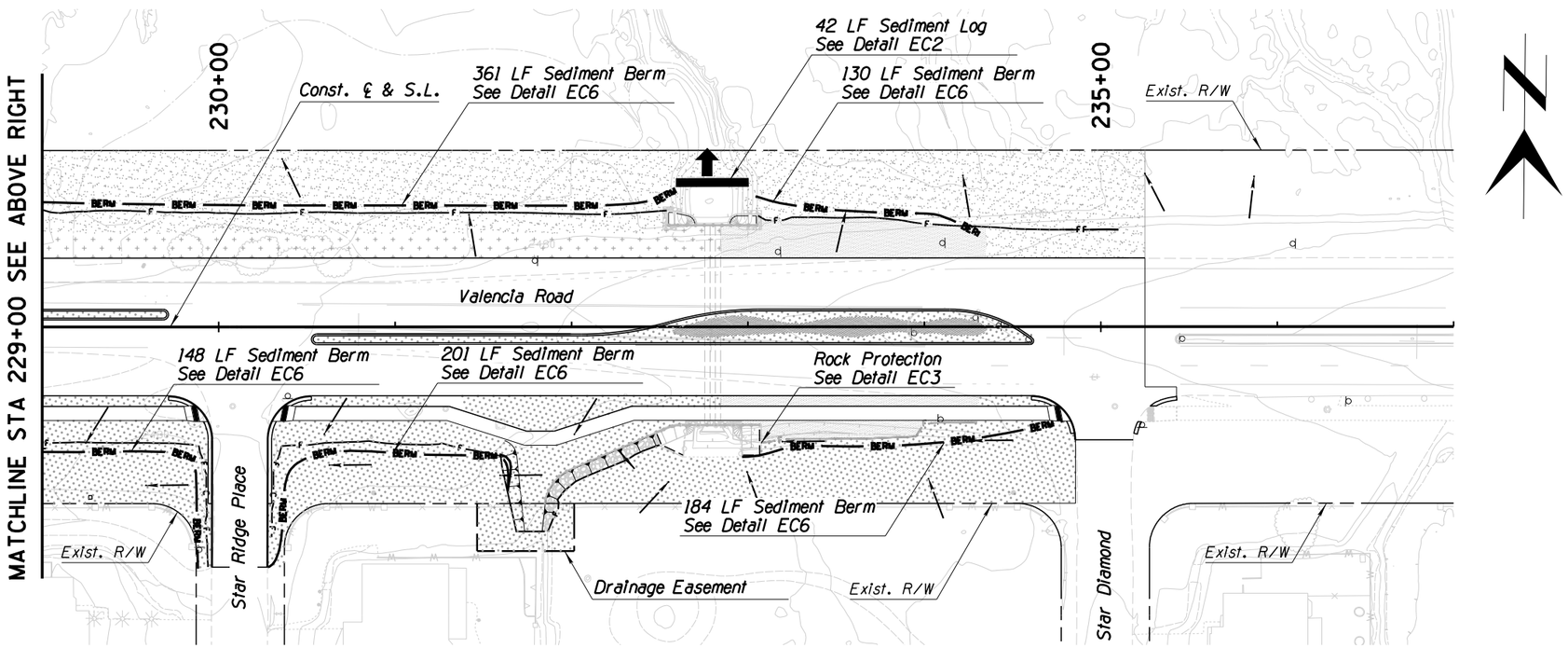
(520) 615-3931 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

EROSION CONTROL PLAN
VALENCIA ROAD
STA. 221+00 TO 237+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC11 of EC18	Page 222 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
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Drawn	K. Furenlid	01/2018
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ARIZONA, U.S.A.
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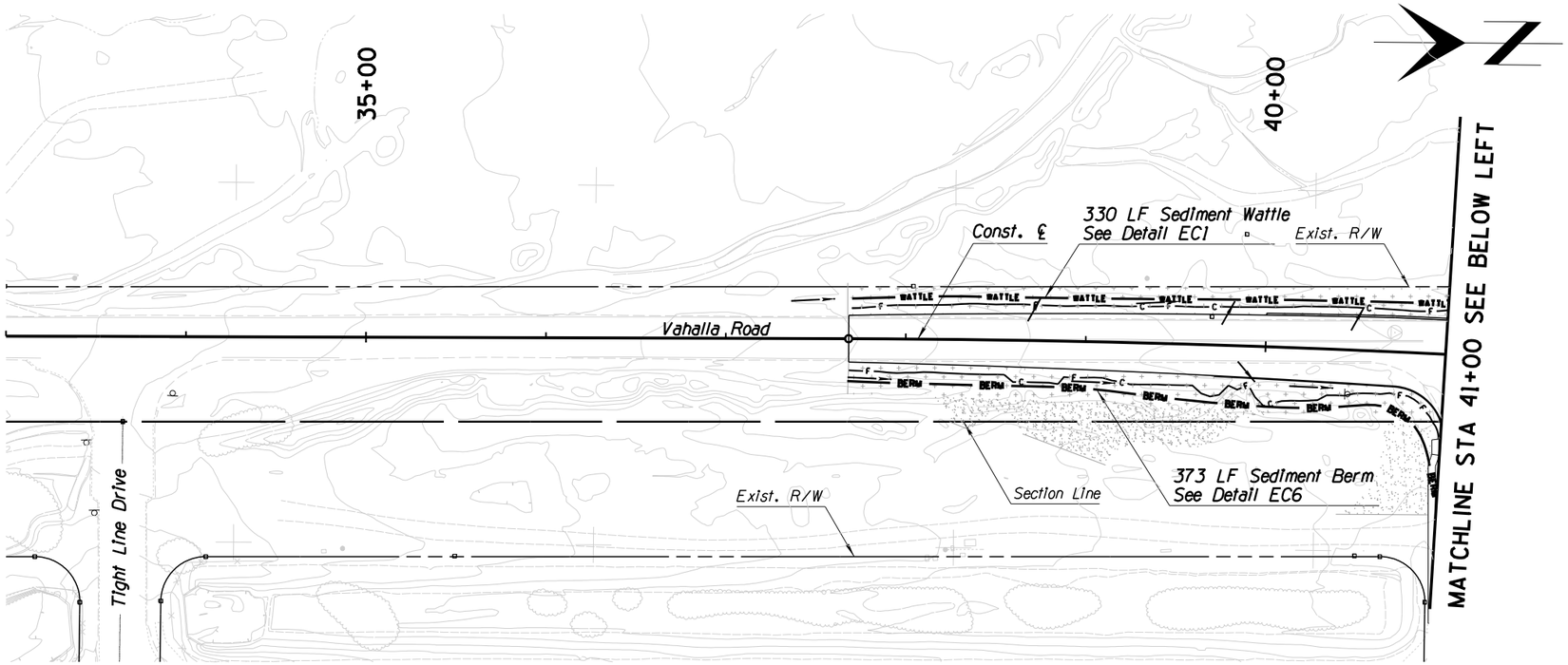
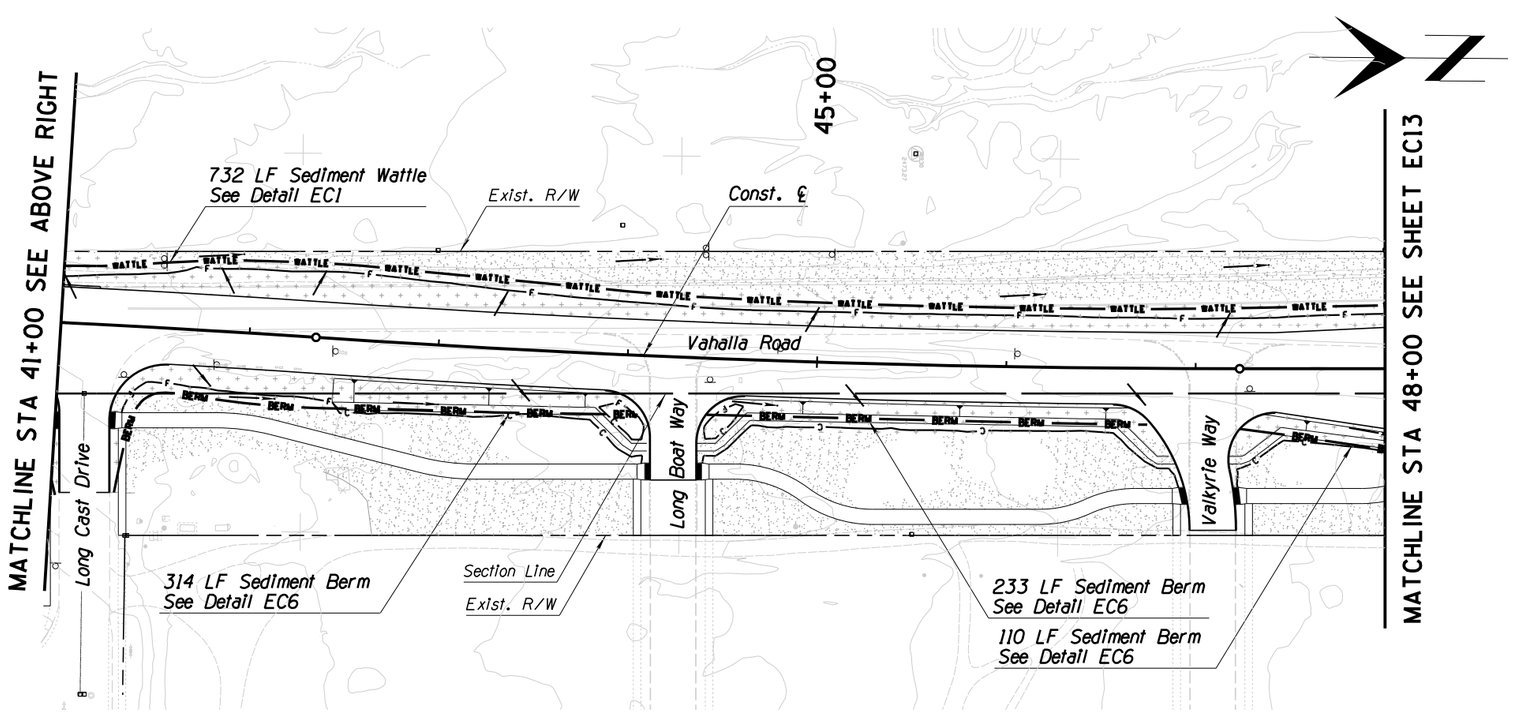
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Ana M. Olivares, P.E., Director

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#4RTVWE Pima County Department of Transportation

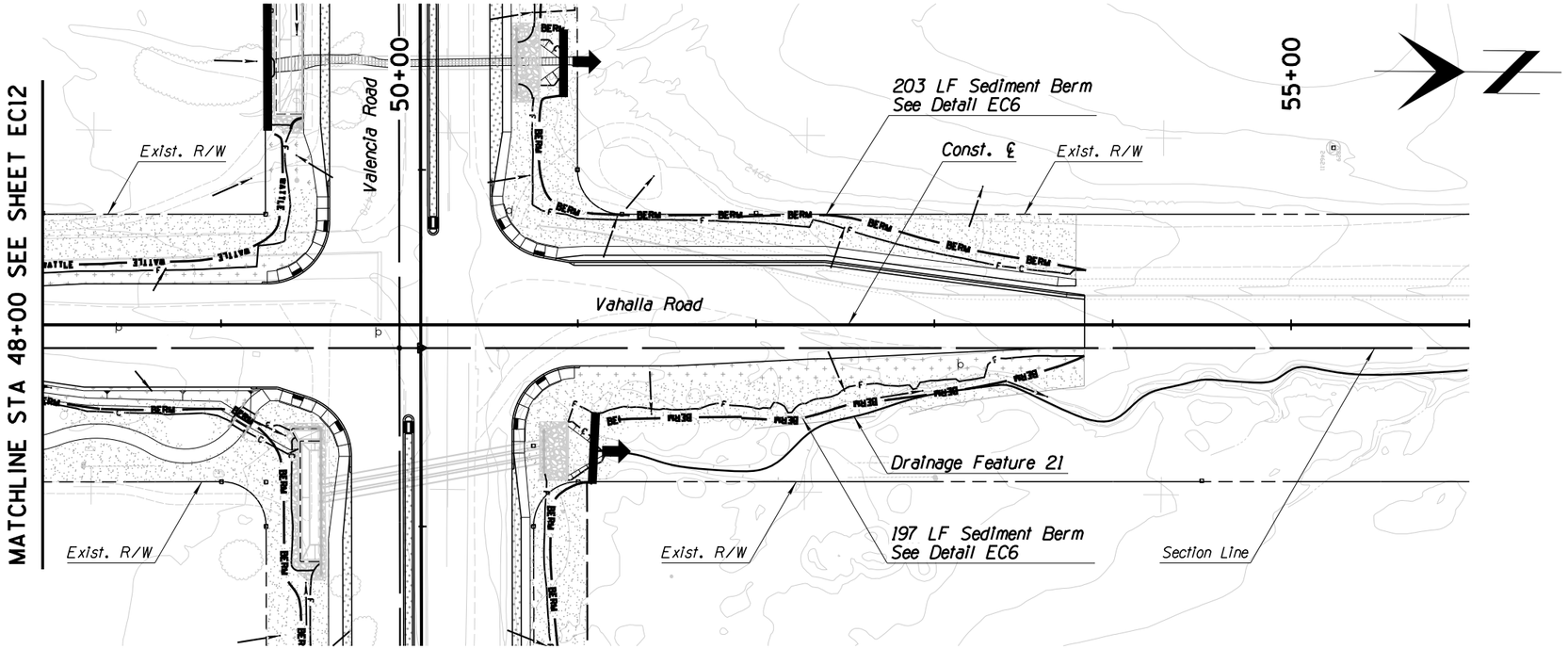
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

EROSION CONTROL PLAN
VAHALLA ROAD
STA. 33+00 TO 48+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet EC12 of EC18	Page 223 of 433
	Vert. NA		



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

EROSION CONTROL PLAN
VAHALLA ROAD
STA. 48+00 TO 53+84.26

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales | Horiz. 1"=40' | Vert. NA | Sheet EC13 of EC18

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

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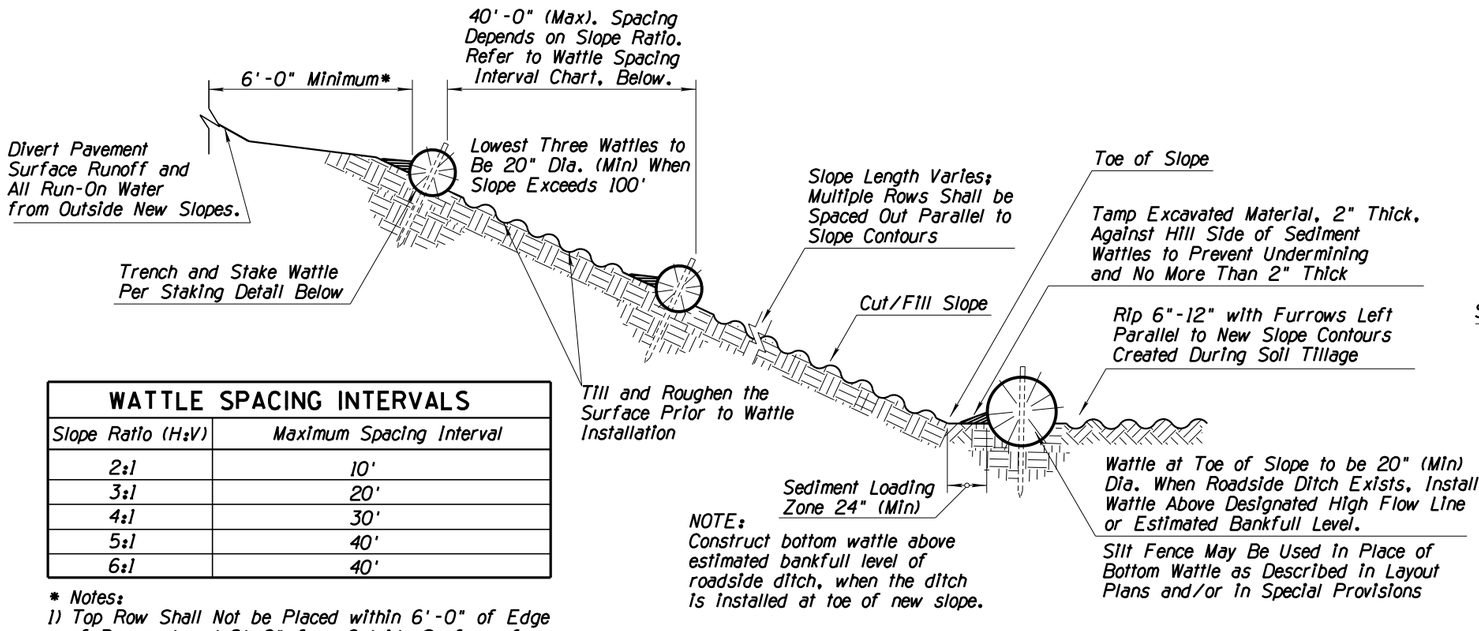
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:58:25 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\EROSION CONTROL\R022048EC12.DGN

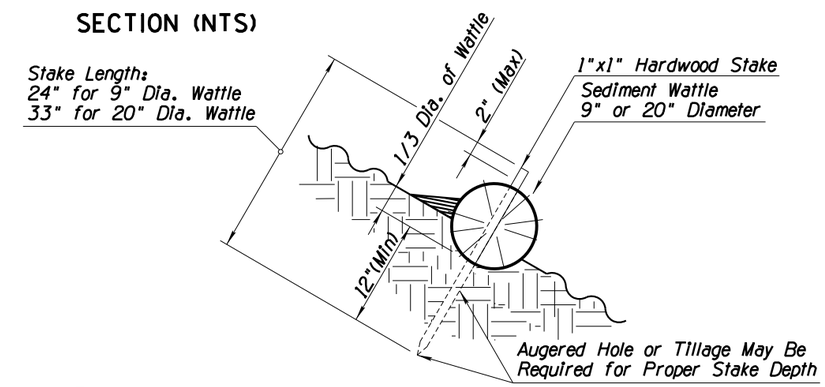


NOTE:
Construct bottom wattle above estimated bankfull level of roadside ditch, when the ditch is installed at toe of new slope.

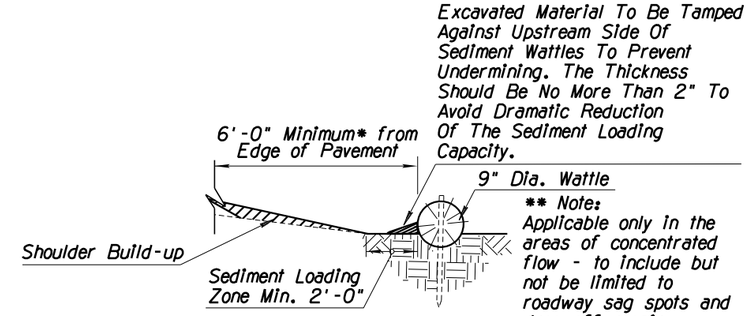
SECTION (NTS)

WATTLE SPACING INTERVALS	
Slope Ratio (H:V)	Maximum Spacing Interval
2:1	10'
3:1	20'
4:1	30'
5:1	40'
6:1	40'

* Notes:
1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Barrier.
2) For erosive soils, place rows of wattles closer together.
3) For soils with low erosive potential, place rows of wattles further apart.

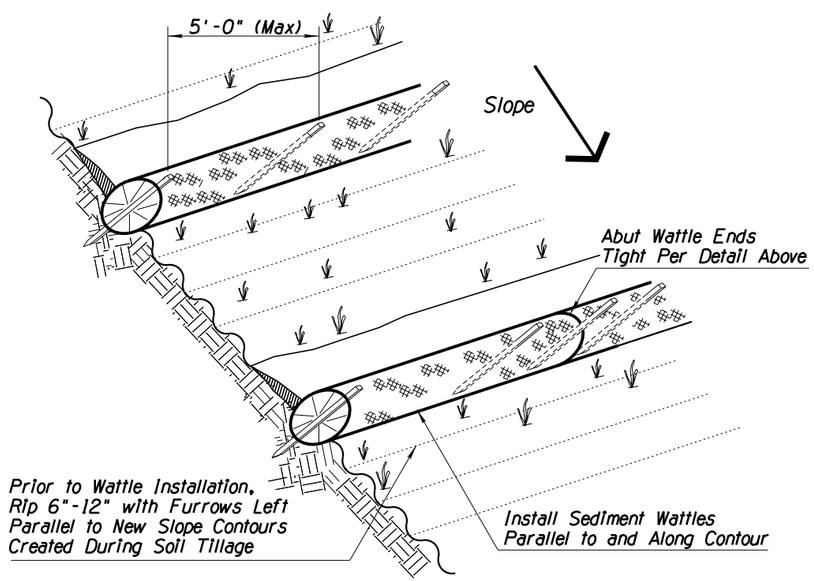


SEDIMENT WATTLE STAKING DETAIL (NTS)

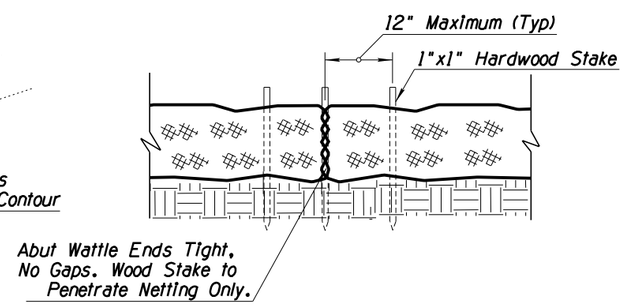


** Note:
Applicable only in the areas of concentrated flow - to include but not be limited to roadway sag spots and drop-off repair locations as per the direction of the Engineer.

NEW SHOULDER BUILDUP ** PROTECTION SECTION (NTS)



SEDIMENT WATTLE LAYOUT (NTS)



SEDIMENT WATTLE OVERLAP (NTS)

NOTES:

1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers' specifications to meet site conditions for slope protection and in accordance with good engineering practices. No Sediment Wattles shall be installed in urban freeway medians, nor where cable barrier systems are employed.
2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattle ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled excelsior or straw blankets.
3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help abut them tightly.
4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
5. Construction of cut slopes 2:1 and steeper in soil and rock materials that can be ripped shall be constructed, whenever possible, by Minibenching. Refer to Slope Minibenching BMP Detail.
6. Loosening surface soil is not required where Minibenches are used. For seeded areas, tillage shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Standard Specifications and these special provisions.
7. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
8. Installation and maintenance of Sediment Wattle BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
9. Install and maintain Sediment Wattle BMPs to carry the stormwater of at least 2-year, 24-hour events.
10. The Sediment Wattle BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
11. Refer to Standard Specification Section 810-2.06(C) for Sediment Wattle material specifications.
12. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL EC1
SEDIMENT WATTLE

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Scales	Horiz. NA	Sheet EC14 of EC18	Page 225 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
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Date Signed 01/04/18
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Expires 03/31/2019

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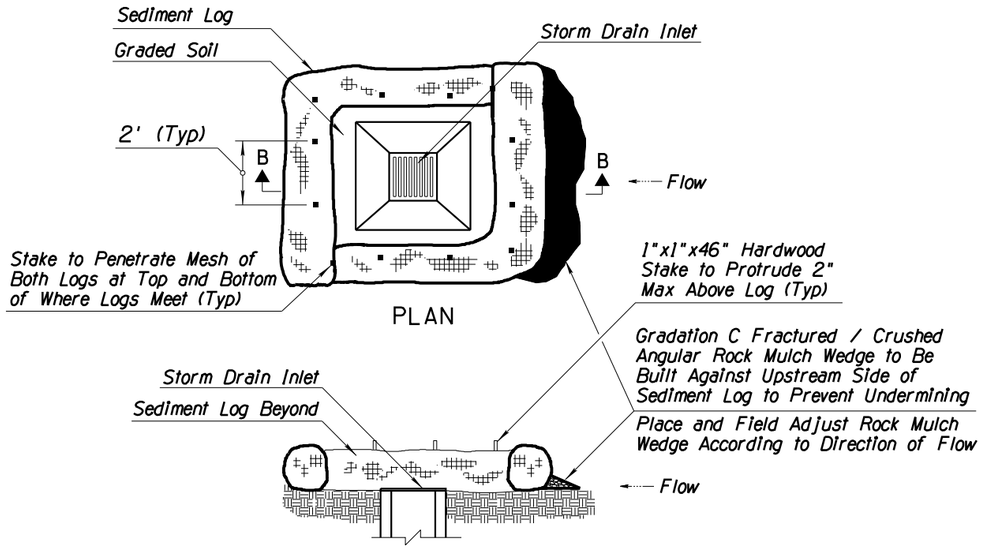
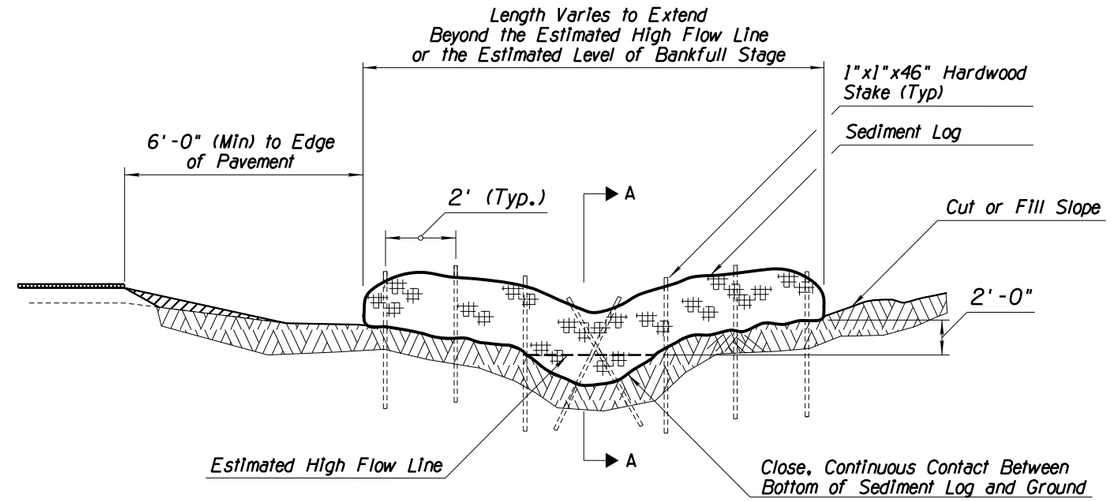
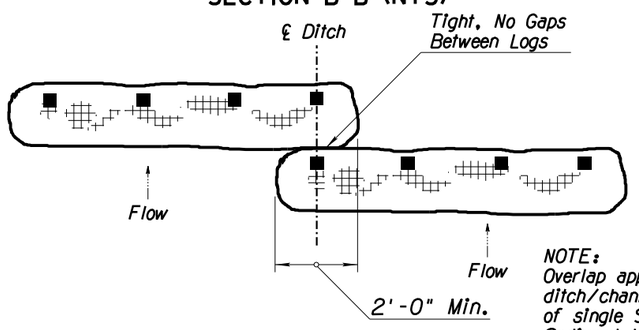
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



SEDIMENT LOG AT STORM DRAIN SECTION B-B (NTS)

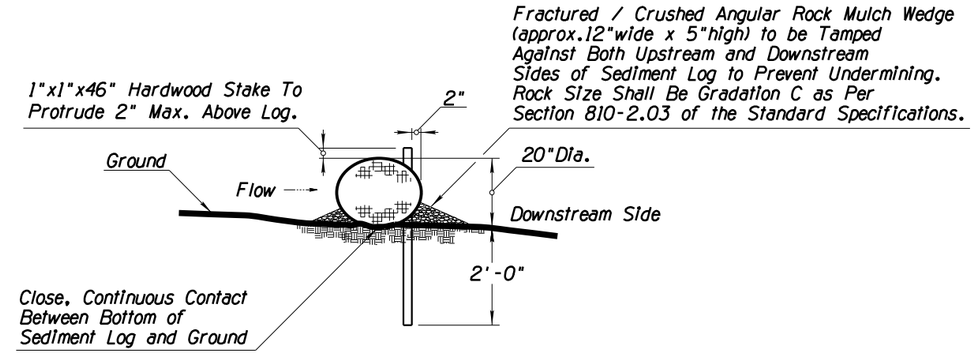


SEDIMENT LOG IN DITCH/CHANNEL SECTIONAL ELEVATION (NTS)



NOTE:
Overlap applies to situations where ditch/channel is wider than length of single Sediment Log. Two or multiple Sediment Logs may be necessary.

TYPICAL OVERLAP PLAN (NTS)



SECTION A-A (NTS)

NOTES:

1. Sediment Logs shall not be installed in the urban freeway medians, nor where cable barrier systems are employed.
2. Locate Sediment Logs as indicated in plans, SWPPP or as directed by the Engineer.
3. Select, install and maintain Logs per manufacturers' specifications and good engineering practices.
4. Lay Sediment Log across prepared roadside ditch or channel. Trenching or burial of Sediment Logs is not required. The close, continuous contact between the bottom of the Log and the ground is mandatory. The Logs shall be installed in the roadside ditch, swale or channel bottom perpendicular to the flow of water as shown on detail this sheet.
5. Stake Log as shown. Stakes shall be placed through downstream side only as shown.
6. DO NOT drive stakes through center of the Log. Stakes must be driven into the ground as shown.
7. Ensure that no gaps exist between soil and bottom of Sediment Log. Repair any rills or undercuts promptly.
8. Placement of Sediment Logs shall be evaluated by the Engineer in rocky soil conditions.
9. Remove Sediment Log BMPs within the ditches/channels and around the storm drain inlets as per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
10. Dispose of Sediment Logs and trapped sediment material and fill trench created by Sediment Log.
11. The installation and maintenance of Sediment Log BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Sediment Logs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
12. Make field adjustments and corrections of Sediment Log BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
13. Rock mulch/riprap may be required for channel/ditch lining or rock check dams for longitudinal ditch slopes that exceed 5% and/or for soil conditions not suitable for Log installation.
14. The Sediment Log BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal, as well as returning the area to an acceptable condition as approved by the Engineer.
15. Refer to Standard Specification Section 810-2.06(B) for Sediment Log material specifications.
16. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
17. Construct Rock Wedge with angular-shaped Gradation C Rock Mulch as defined in Section 810-2.03 of the Standard Specifications and these special provisions. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.

DETAIL EC2

SEDIMENT LOG

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Scales	Horiz. NA	Sheet EC15 of EC18	Page 226 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
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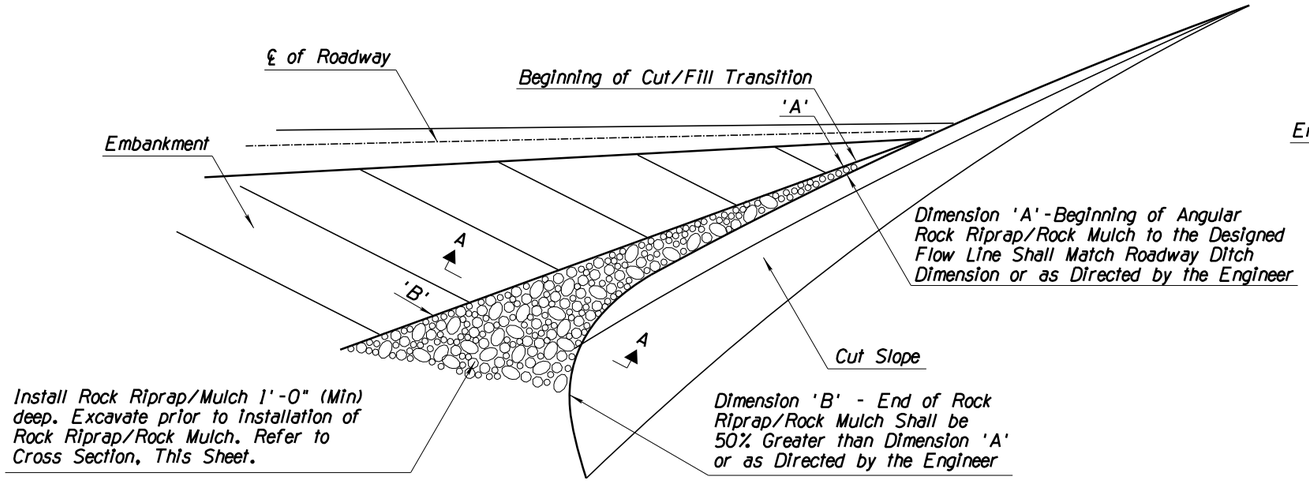
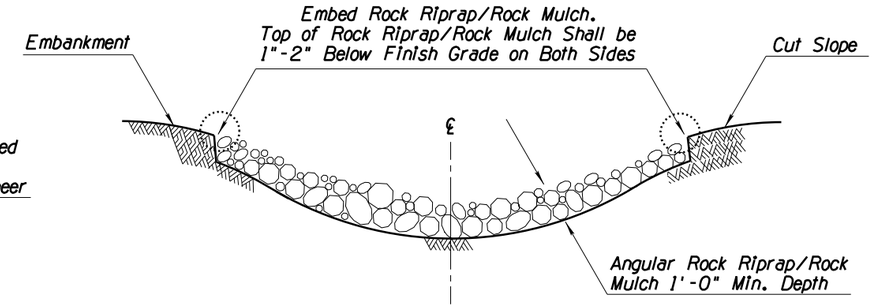
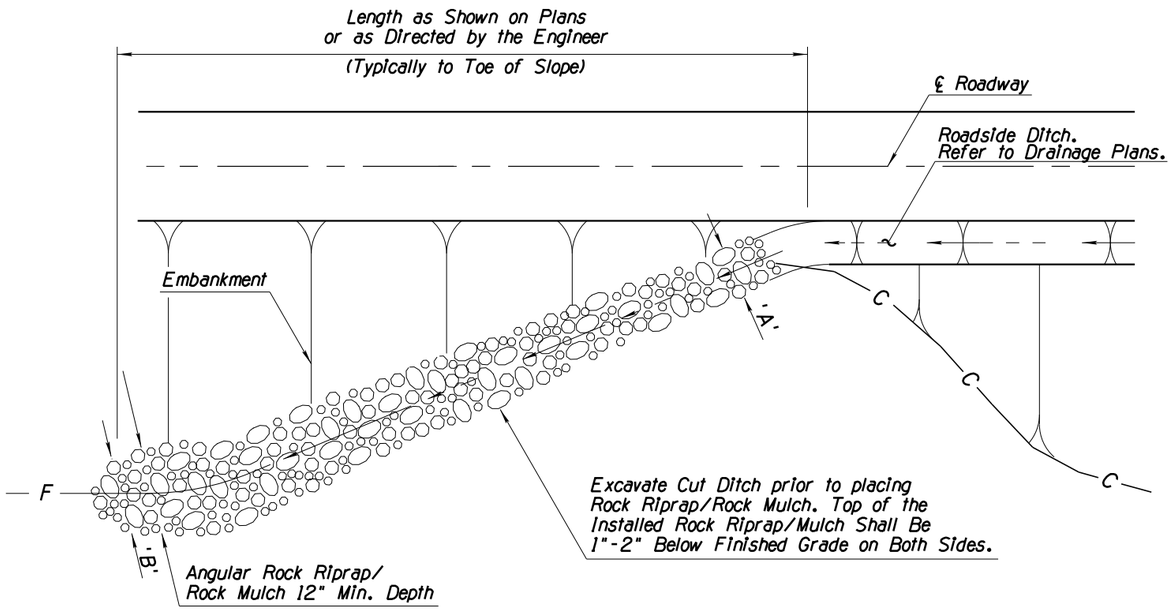
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



PERSPECTIVE (NTS)



ROCK RIPRAP/ROCK MULCH EMBEDMENT
SECTION A-A (NTS)



PLAN VIEW (NTS)

NOTE:
Cut and fill transition shall be placed as shown on plans or where the length of the roadside ditch is 50 feet or greater.
Field adjust per direction of Engineer.

NOTES:

1. Rock Riprap/Rock Mulch shall be angular shaped, crushed rock materials. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.
2. Rock Riprap/Rock Mulch within the traffic Clear Zone/Recovery Area shall conform to the requirements of Section 810-2.03 Sieve Size Gradation A and/or Gradation C, and Section 913 of the Standard Specifications and these special provisions.
3. Install Rock Riprap/Rock Mulch to a minimum depth of 12" for Channel Lining and Cut/Fill Transition. Excavate ground surface to a depth that the top of Rock is 1"-2" below the grade of the ditch.
4. Embed any rock into the finished grade so that any portion of the Rock is less than 4" above grade, within traffic recovery area/clear zone.
5. The Installation and maintenance of Rock Protection BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Rock Protection BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
6. Make field adjustments and corrections of Rock Protection BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
7. Make field adjustments to ensure the top surface of Rock Riprap/Rock Mulch is graded lower than the surrounding finished grade to collect surface stormwater runoff and concentrated flow.
8. The Rock Protection BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintaining, as well as returning the area to an acceptable condition as approved by the Engineer.
9. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL EC3

ROCK PROTECTION FOR CUT & FILL
TRANSITION AND CHANNEL LINING

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Scales	Horiz. NA	Sheet EC16 of EC18	Page 227 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

	Designed	K. Furenlid	01/2018
	Drawn	K. Furenlid	01/2018
	Checked	R. Field	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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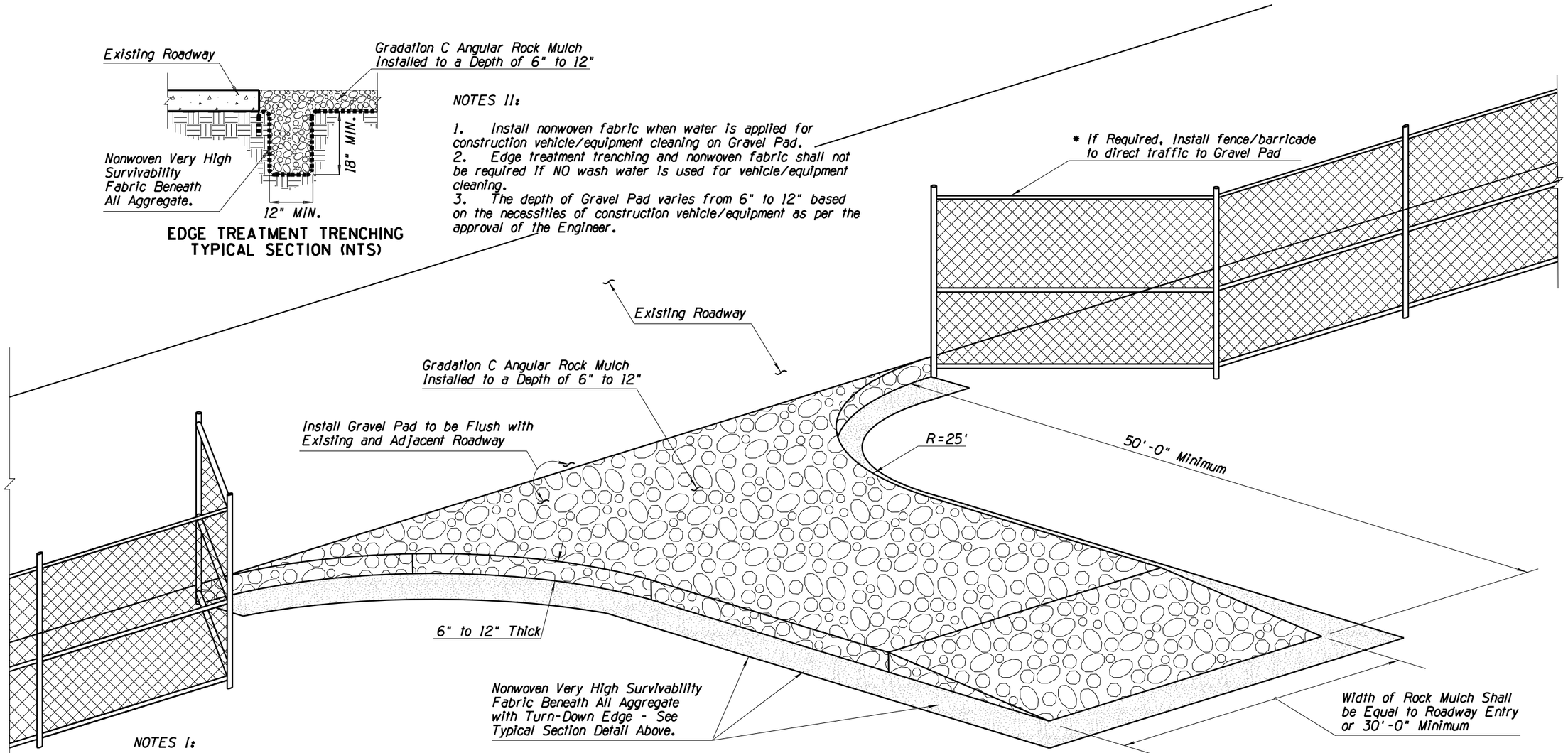
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

EDGE TREATMENT TRENCHING TYPICAL SECTION (NTS)

NOTES II:

1. Install nonwoven fabric when water is applied for construction vehicle/equipment cleaning on Gravel Pad.
2. Edge treatment trenching and nonwoven fabric shall not be required if NO wash water is used for vehicle/equipment cleaning.
3. The depth of Gravel Pad varies from 6" to 12" based on the necessities of construction vehicle/equipment as per the approval of the Engineer.



BIRD'S EYE VIEW (NTS)

NOTES I:

1. Install Stabilized Construction Entrance/Exit Gravel Pad BMP for traffic entering or exiting a construction site where sedimentation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad BMP as needed as project progresses. Replace Rock Mulch materials in drive paths when dirt or mud accumulates.
3. Nonwoven Very High Survivability Fabric shall conform to the standards of Sub-section 1014-4.04 of the Standard Specifications.
4. Rock Mulch materials shall be fractured/crushed rocks in angular shape and as defined in the Sub-section 810-2.03 of the Standard Specifications. Natural river-run materials, especially rounded natural river rocks are not acceptable.
5. Make field adjustments and corrections of Construction Entrance/Exit Gravel Pad BMP immediately if it is causing flooding and/or affecting roadway safety.
6. When paid separately, the Stabilized Construction Entrance/Exit Gravel Pad BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
7. * Fence/barricade pay/bid item shall not be included as a component of the Stabilized Construction Entrance/Exit Gravel Pad BMP pay/bid item.
8. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL EC5

STABILIZED CONSTRUCTION ENTRANCE/EXIT GRAVEL PAD

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Scales	Horiz. NA	Sheet EC17 of EC18	Page 228 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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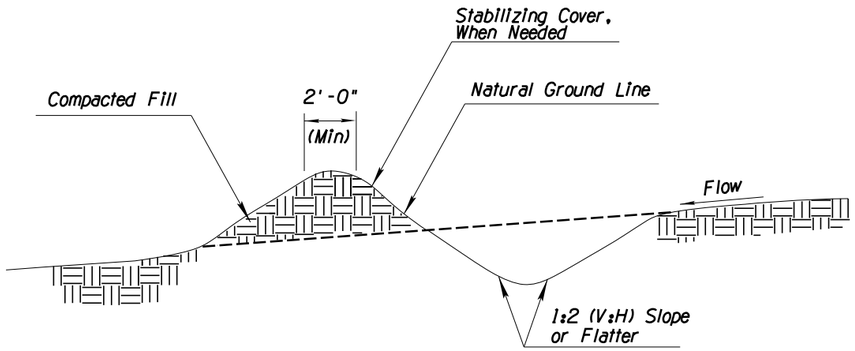
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



SEDIMENT CONTROL BERM
SECTION (NTS)

NOTES:

1. Locate Sediment Control Berms as indicated on plans or as directed by the Engineer.
2. Surface materials i.e. soil, rock, branches, leaves, slash and chips shall be scraped from the existing grade as needed to construct the berm prior to placement of roadway embankment. After scraping material into berm, compact berm as shown. Rock and slash shall extend no more than 4" above the surface.
3. Construct Sediment Control Berm on the same contour as the toe of new slope and a miniumum of 2'-0" beyond the toe of new slope. For the seeded areas, till to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Standard Specifications.
4. The installation and maintenance of Sediment Control Berm BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. For erosion/sediment control purposes, Sediment Control Berm BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
5. Remove Sediment Control Berms per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
6. Field adjust and correct Sediment Control Berm BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
7. Sediment Control Berms may be paid as a part of slope construction/ roadway excavation. When paid separately, the Sediment Control Berm BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
8. OPTION TO SEDIMENT CONTROL BERM: When shown on layout plans and/or called for in Special Provisions, for urban situations, or where surface materials are not available, use wattles. Wattles shall be selected, installed, and maintained in accordance with manufacturers' specifications and good engineering practices. Refer to Sediment Wattle BMP.

DETAIL EC6
SEDIMENT CONTROL BERM

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	Vert. NA		

Ana M. Olivares, P.E., Director

	Designed	K. Furenlid	01/2018
	Drawn	K. Furenlid	01/2018
	Checked	R. Field	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
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Pima County Department of Transportation
#4RTVWE
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

ITS/STREET LIGHTING GENERAL NOTES:

1. All equipment/materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) Standard Specifications and the Standard Details for Public Improvements, the Special Provisions and the approved plans.

2. The exact location of each new pole foundation, pull box, or electric service pedestal foundation shall be approved by the Traffic Engineer prior to installation.

3. The top of the pole foundations, vaults, and pull boxes shall be level with the surrounding finished grade. If the slope or shoulder drops off from finished grade, the Contractor shall grade around pole foundation. The top of the foundation shall extend no more than four (4) inches above the surrounding finished grade.

4. Spread foundations, if required by field inspection or as identified on the approved plans, shall be constructed in accordance with PAG Std. Dtl. T-433. The Contractor shall verify pole bolt pattern and dimensions required for the project. Pole locations of such foundations shall be field identified by the inspector.

5. Pole foundations shall maintain a minimum of six (6) feet horizontal distance from existing water mains, measured from outside of the foundation wall to the outside of pipe wall.

6. Pull boxes and vaults shown on the plans are diagrammatic representations. The exact location of each vault or pull box shall be approved by the Traffic Engineer prior to installation.

7. Pull boxes shall not be installed within concrete curb access ramps or landings. In addition, any pull boxes installed behind curbs shall be installed between the curb and the proposed/future sidewalk or beyond the proposed/future sidewalk. An exception to this note would be boxes installed in a median. Any pull boxes installed along an uncurbed roadway shall be installed ten (10) feet from edge of pavement to edge of pull box where right-of-way permits or as far from pavement as practical when there is insufficient right-of-way to provide the ten (10) foot offset.

8. A three quarter (3/4) inch by ten (10) foot ground rod shall be installed in every ITS vault and ITS pull box. A three quarter (3/4) inch by ten (10) foot ground rod shall be installed in the No. 7 pull box (with the extension) adjacent to the controller cabinet. A three quarter (3/4) inch by ten (10) foot ground rod shall be installed in the No. 3 1/2 pull box at the end of each street light circuit. Two (2) ground rod clamps shall be furnished and installed for each ground rod for clamping the ground wire.

9. Only new conduit, conductors, and cable shall be installed. All ITS interconnect conduit shall be four (4) inch PVC schedule 40 unless noted otherwise. Conduit adjacent to curb shall be installed six (6) inches behind the back of curb and 36 inches below the top of curb.

10. The conduit locations shown on the approved plans are diagrammatic representations only. The location of the conduit may be adjusted in the field to avoid any conflicts. The Contractor shall obtain approval prior to installation. All conduits shall be installed within existing right-of-way unless otherwise approved.

11. All conduit shall be installed a minimum of 36 inches, to top of conduit, below finished grade, except when conduits cross culverts or are routed along bridge and wing walls. Any conduit installed less than 36 inches deep shall be encased in concrete per PAG Standard Specifications 732-3.01.

12. All conduits shall be cleaned by compressed air. A properly sized conduit piston or mandrel shall be pulled through the conduit prior to conductor and cable installation.

13. Conduits for future use shall be sealed with a properly sized tapered polyethylene duct plug at each termination point. The #8 bare bond wire shall be looped through the plug pull tab and two (2) feet of slack doubled back into the conduit.

14. Vaults shall maintain a minumum of six (6) feet horizontal distance from existing water mains, measured from outside of the wall of the vault to the outside of pipe wall. Avoid placing underground conduit over existing water mains and maintain a six (6) foot minimum horizontal separation, typical for all conduit installations throughout the project.

ITS/STREET LIGHTING GENERAL NOTES CONTINUED:

15. All vehicle roadway detection loop cables shall be #14 AWG-IMSA 51-5-1985 cable. Lead-in cables shall be #16 AWG-IMSA 50-2-1984 cable. No splices shall be allowed in the roadway detection loop cable except at the pull box adjacent to the loop.

16. The detector lead-in cable shall not be spliced.

17. Detection loop saw cuts shall be flushed with water under pressure & then dried with air under pressure.

18. All poles shall be wired and grounded per PAG Std. Dtl. T-107, with the exception of the wire type. Refer to note 19 below for wire size and type unless otherwise noted on the plans.

19. Two #10 AWG-XHHW conductors and one #10 AWG-XHHW ground shall be installed from each luminaire to the concrete pull box adjacent to the pole foundation, leaving three (3) feet of slack for each conductor (measured from the top of the pullbox) in the pull box. Route four #10 AWG-XHHW conductors and one #10 AWG-XHHW ground to the luminaire with the photoelectric cell. An in-line fuse shall be installed for each luminaire in the associated pull box.

20. The street lighting photoelectric cell shall be mounted on the luminaire pole closest to the street lighting controller or, if a controller is not required, the luminaire pole closest to the meter pedestal.

21. The Trico Electric Cooperative Construction Department (520) 744-2944 shall be contacted by the Contractor to verify location of the electric service connection at the intersection. The Contractor shall be responsible for excavating and backfilling the trench and installing any necessary sleeves under sidewalks or driveways in which the electric service cable in conduit (CIC) is to be installed by Trico Electric Cooperative.

22. A minimum of ten foot radial clearance shall be maintained between all metallic parts and overhead electric conductors while installing poles and luminaires. Blue Stake shall be contacted if the Contractor requires overhead protection.

23. A minimum horizontal separation of 24 inches shall be maintained from all gas lines.

24. The traffic signal operation at existing signalized intersections shall be maintained throughout the duration of the project.

25. Vaults shall be used for long runs of conduit. The maximum spacing between vaults is 1,500 feet. A vault shall be installed on one corner of every signalized or future signalized intersection as shown on the approved plans.

26. Every signalized intersection or future signalized intersection shall be ringed with interconnect conduit. On the three corners of the intersection not containing the vault, ITS pull boxes shall be utilized. The maximum spacing between an ITS pull box and a vault shall be 600 feet.

27. At all signalized intersections, a 1.5 inch PVC conduit shall be installed from the traffic signal controller to the adjacent ITS pull box or vault.

28. ITS pull boxes shall be a 30 inch x 48 inch Pencell box or approved equal.

29. Vaults shall be precast concrete with a minimum outside dimension of 48 inches long by 48 inches wide by 50 inches high.

30. Four (4) each - one (1) inch innerducts shall be installed within interconnect conduit.

31. Innerducts shall be pre-lubricated with smooth exterior walls and longitudinally ribbed interior walls. Internal spacers which expand and contract at the same rate as the interconnect conduit shall be installed. Anti-reversing gaskets and an o-ring gasket at the bell base are required. Innerducts shall be Claron Telecom Systems Multi-Gard brand or equivalent. Each innerduct within a single conduit shall be of a different color (orange, brown, blue, and black).

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Scales	Horiz. NA	Sheet ITI of IT20	Page 230 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 50368 MICHAEL A. COLOMBO Date Signed 01/04/18 ARIZONA, U.S.A. Expires 12/31/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

ITS/STREET LIGHTING GENERAL NOTES CONTINUED:

32. If innerducts are installed, all integral innerducts shall have a continuous non-spliced, unknotted detectable 1,250 pound test mule tape installed.

33. When the conduit is installed by open trenching, an electronically detectable six (6) inch fiber warning shall be installed 18 inches above the interconnect conduit. The tape shall be orange and have the inscription "Caution- fiber optic cable buried below".

34. Green tracer conductor shall be installed within each interconnect conduit. The conductor shall be a continuous unspliced stranded CU 6 AWG, rated for 600 volts, and shall have THW or XHHW insulation. The tracer conductor shall be installed on the outside of the innerducts if innerducts are installed.

35. For all conduit installed, a minimum horizontal separation of 6 feet shall be maintained from landscape irrigation mainlines or water lines.

36. Upon commencement of work, traffic control devices shall be posted and maintained by the Contractor until such a time as the work is complete. All traffic control devices shall be in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as adopted by Pima County and approved by the Engineer. All traffic control devices on federally funded projects shall be in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as adopted by PAG and approved by the Engineer.

RESPONSIBILITIES:

1. The contractor shall obtain all permits required by all governmental agencies.

2. The contractor shall contact the blue stake at 1-800-782-5348, a minimum of 2 working days prior to any Excavation.

3. The contractor shall maintain and allow access to all Pima County Waste Water manholes located within the ROW. Access must be maintained 24 hours per day, 7 days a week. No electrical utilities may be placed within 6 feet of a force main.

4. The location of the utilities shown on the plans is approximate. The Contractor is responsible for verifying/potholing underground utilities in the vicinity of the proposed pole foundations. The contractor is also responsible for verifying the overhead clearance to all above ground utilities and ensuring they have all necessary certifications to work around overhead power lines to complete the pole installations.

5. Any equipment and/or utilities within the project limits that are damaged or destroyed by the Contractor shall be repaired or replaced at the sole expense of the Contractor.

6. The Contractor shall supply and install all equipment and materials specified on the approved plans and in the project specifications.

7. Unless specifically identified for removal as part of this project, it is the Contractor's responsibility to repair/restore any landscaping, irrigation, or hardscape that may have been damaged or disturbed by the construction activities. The Contractor shall obtain prior approval from the Operations Division Public Works Supervisor (724-5969) before any plants are removed.

CONDUIT/CONDUCTOR SCHEDULE

	CONDUIT RUN	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	CONDUIT SIZE (INCHES)	2	4	2	2	2	2	2	2	2 1/2	2	4	4	2	2 1/2	3	3	3	3
CONDUCTORS	NO. 10 AWG			2							4								
	NO. 8 AWG				2	4	6	8	6			4	2	10		2	4	6	
	NO. 10 AWG INSULATED GREEN BOND			1							1								
	NO. 8 AWG INSULATED GREEN BOND				1	1	1	1	1			1	1	1		1	1	1	
	NO. 6 AWG INSULATED GREEN BOND	1	1												1				1
	PER TRICO REQUIREMENTS*									X									

* CONTRACTOR TO FURNISH AND INSTALL TRENCH, CONDUIT, AND TEN (10) FOOT UTILITY POLE RISER PER TRICO SPECIFICATIONS AND DETAILS.

LIGHTING SYMBOLS LEGEND:

EXISTING	PROPOSED	
		Conduit Run
		Detector Loop
		Horizontal Mount Led Luminaire On Mast Arm
		ITS Pull Box
		ITS Vault
		Luminare w/ Photocell
		PAG Pull Box No. 3 1/2
		PAG Pull Box No. 7
		PAG Pull Box No. 7 W/ Extension
		PAG Meter Pedestal W/ Foundation
		PAG Traffic Control Cabinet W/ Foundation
	A / B-C	A = Pole / Luminaire Number B = Meter Pedestal Cabinet C = Circuit Number
	X	X = Conduit And Conductor Indentification

STREET LIGHTING ABBREVIATIONS:

CONST	Construction
DWG	Drawing
J-BOX	Junction Box
LED	Light Emitting Diode
NEC	National Electrical Code
NO.	Number
PCDOT	Pima County Department of Transportation
VO	Vertical Offset

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ARIZONA811
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Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
CERTIFICATE NO. 50368
MICHAEL A. COLOMBO
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 12/31/2018

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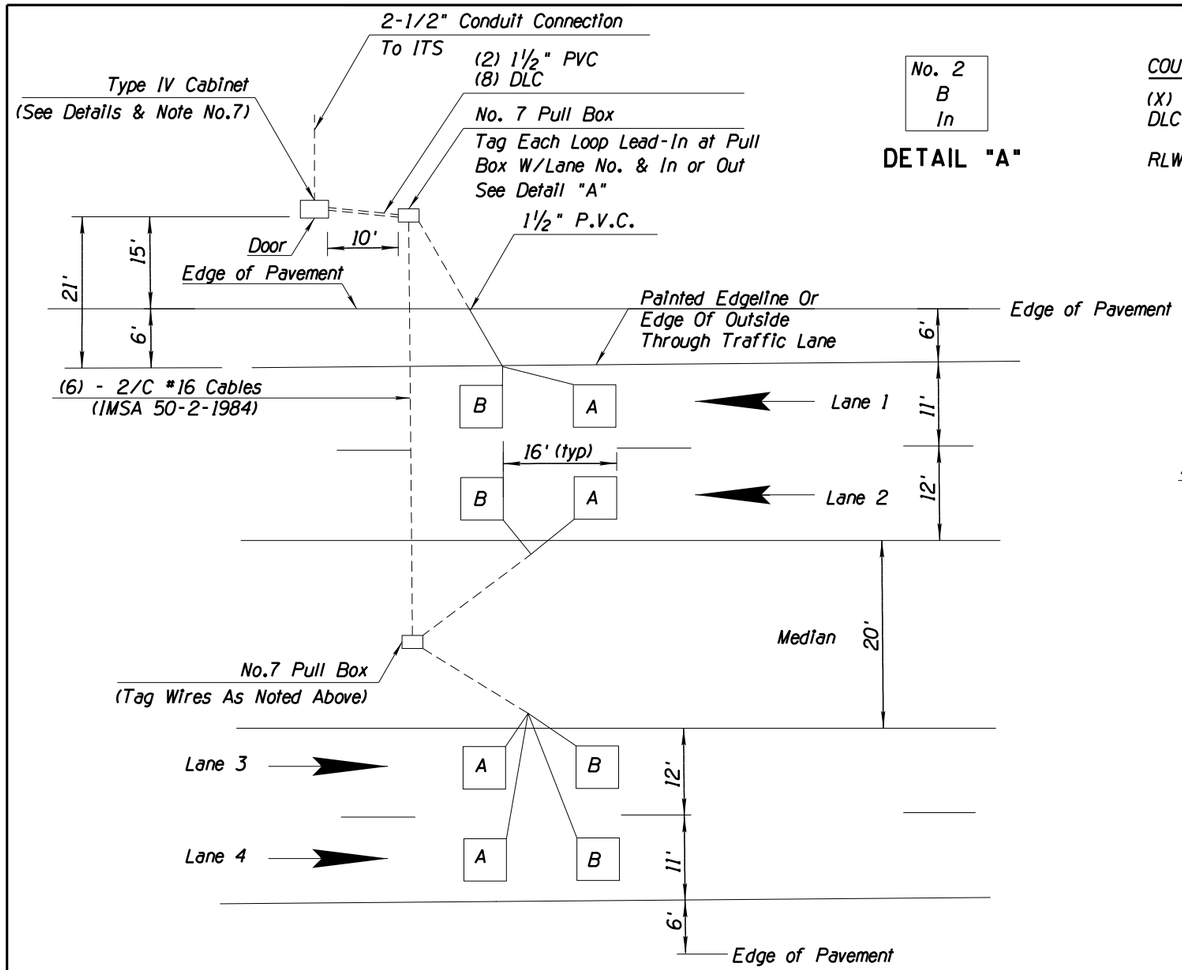
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

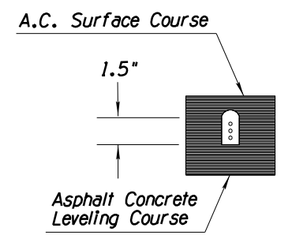
Scales	Horiz. NA Vert. NA	Sheet IT2 of IT20	Page 231 of 433



DETAIL "A"

COUNTING STATION LEGEND

(X) = Number of Cables
DLC = Detector Lead-In Cable, 16 AWG IMSA 50-2-1984
RLW = Roadway Loop Wire, 14 AWG IMSA 51-5-1984



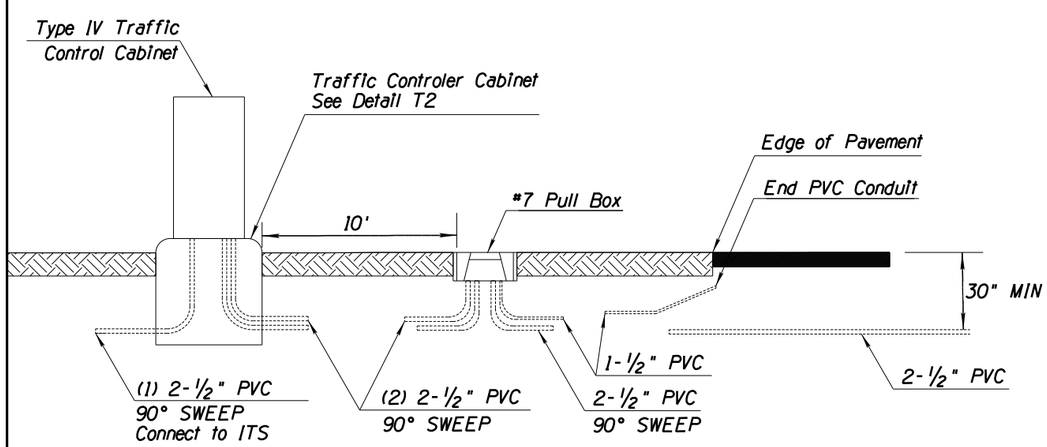
DETAIL NO. 1

GENERAL NOTES:

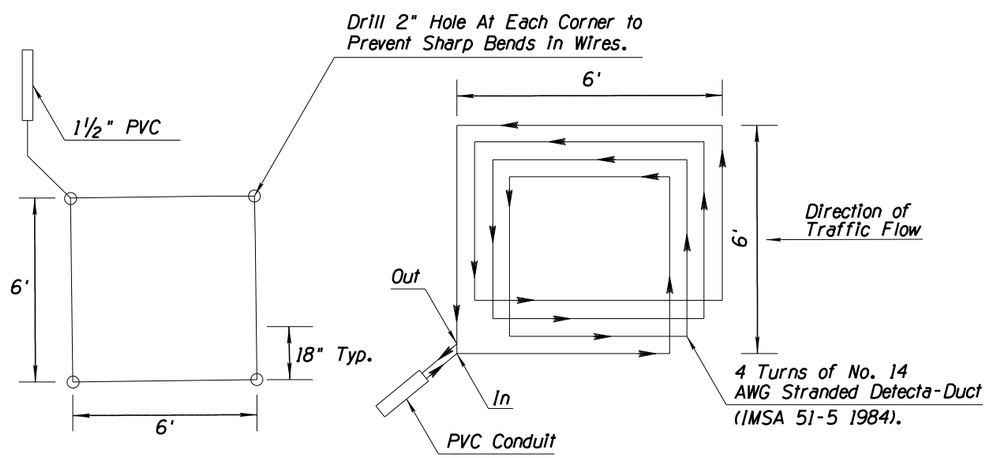
1. Each loop shall be centered in the travel lane.
2. There shall be exactly 16 feet separating leading edge from leading edge of each loop in each lane.
3. Where loops are to be installed in asphaltic concrete, the loops shall be installed by sawcutting the leveling course (See Detail No. 1) The installation shall be identical to traffic signal loops.
4. All loop leads shall terminate in the pull box. No splices will be allowed in the loops or leads.
5. A Type IV cabinet shall be supplied with two adjustable shelves and a nonelectric ventilating system.
6. The traffic counting equipment shall be furnished and installed by the Pima County Department of Transportation.
7. The exact location of the Type IV cabinet shall be as shown on this detail and approved by the engineer. The entire cabine foundation shall be installed beyond the roadway clear zone.
8. See Pima County/City of Tucson Standard Details for Public Improvements current edition, Standard Detail No.'s T.S. 1-4, T.S. 1-5, T.S. 1-6, T.S. 2-3, T.S. 3-12, and T.S. 3-13 for additional details.
9. Locate pull boxes a minimum of 10 feet from the edge of pavement on graded shoulders or two feet behind face of curb on curbed roadways.
10. Saw cuts shall be cleaned with pressurized water and dried with compreese air. Backer rod shall not be used.

LOCATION		COUNTER UNITS
Station	No. Traffic Lanes	Cabinet Will Be Located On Valencia Road
104+38	4	1 - See Sheet IT9

VEHICLE DETECTION LOOP LAYOUT



TRAFFIC COUNTER CONTROL CABINET



SAWCUT PATTERN

WIRING DIAGRAM

VEHICLE DETECTION LOOPS

DETAIL T1

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet IT3 of IT20	Page 232 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 50368 MICHAEL A. COLOMBO Date Signed 01/04/18 ARIZONA, U.S.A. Expires 12/31/2018

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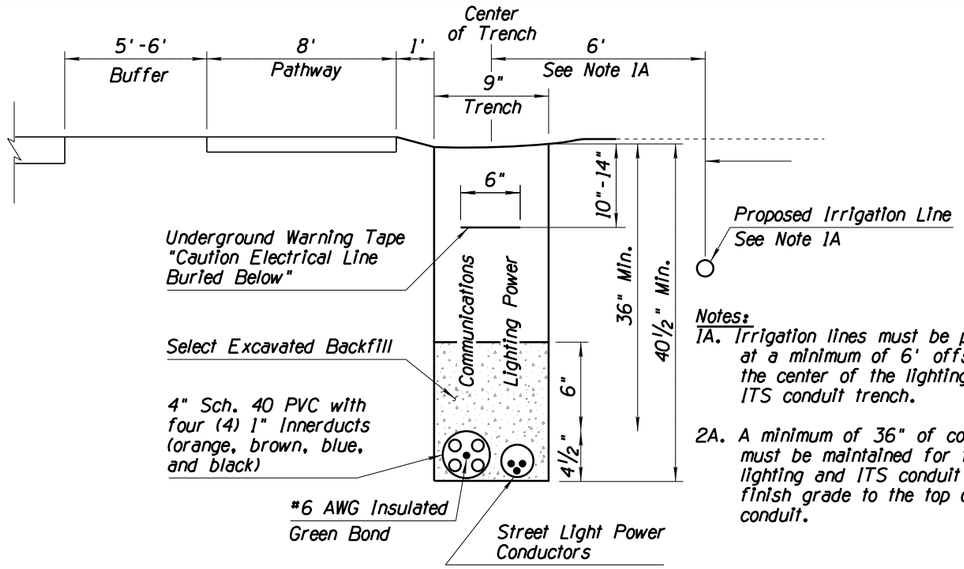
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

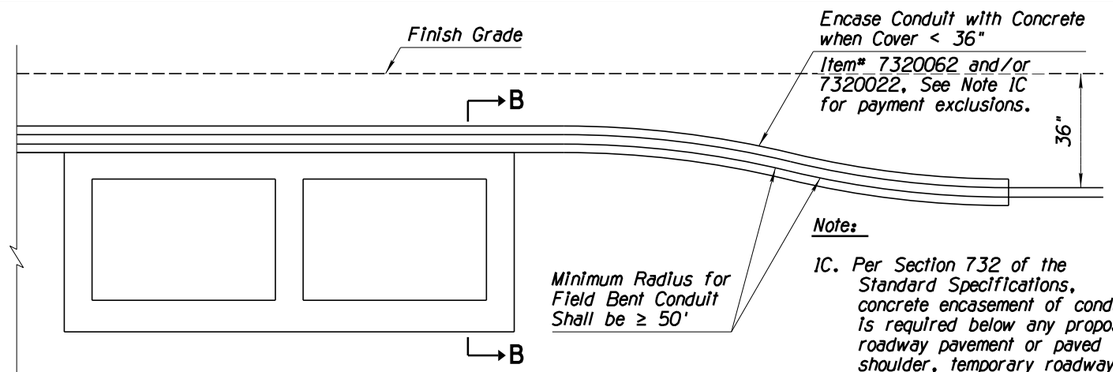


Notes:
1A. Irrigation lines must be placed at a minimum of 6' offset from the center of the lighting and ITS conduit trench.

2A. A minimum of 36" of cover must be maintained for the lighting and ITS conduit from finish grade to the top of conduit.

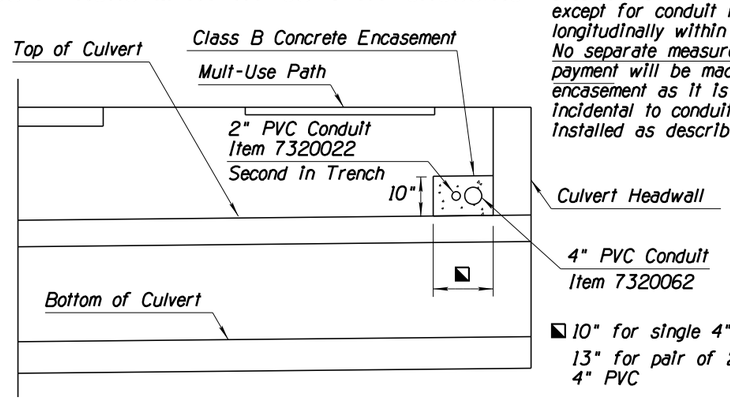
DETAIL T2A - LIGHTING AND ITS TRENCH

N.T.S.

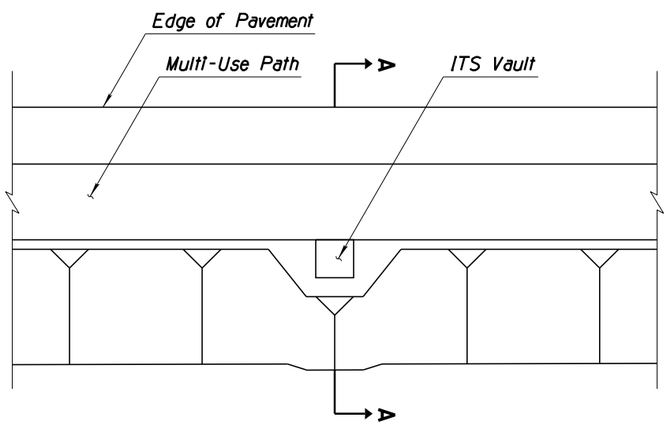


Note:
1C. Per Section 732 of the Standard Specifications, concrete encasement of conduit is required below any proposed roadway pavement or paved shoulder, temporary roadway pavement or temporary paved shoulder, or within a median, except for conduit running longitudinally within the median. No separate measurement or payment will be made for encasement as it is considered incidental to conduit items installed as described above.

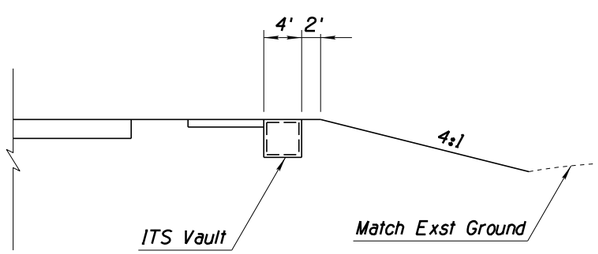
DETAIL T2C - CONDUIT ENCASEMENT AT CULVERT CROSSING



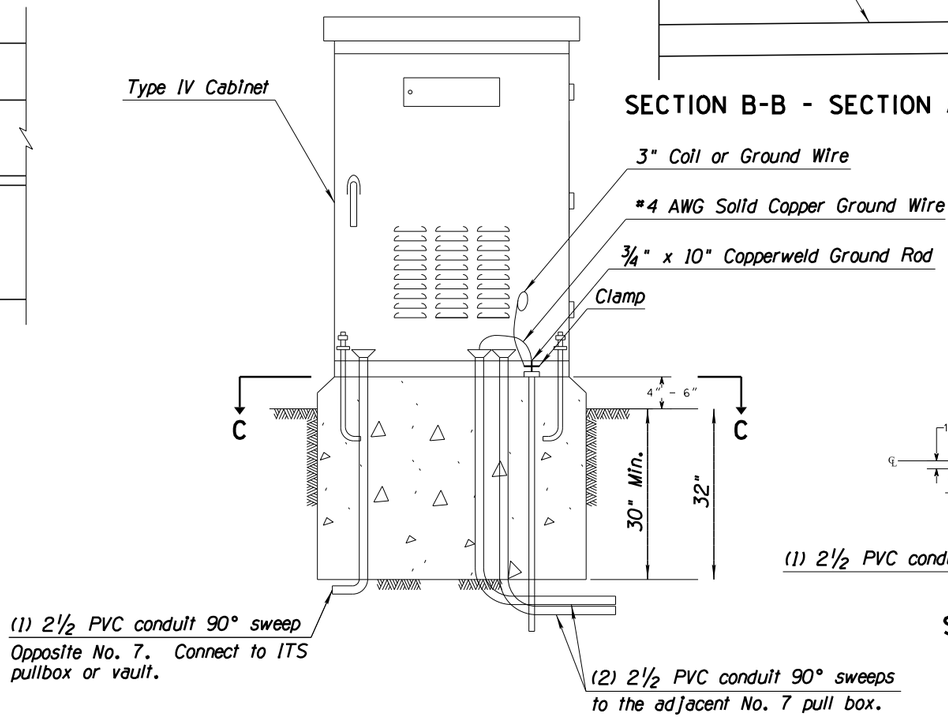
SECTION B-B - SECTION AT CULVERT CROSSING



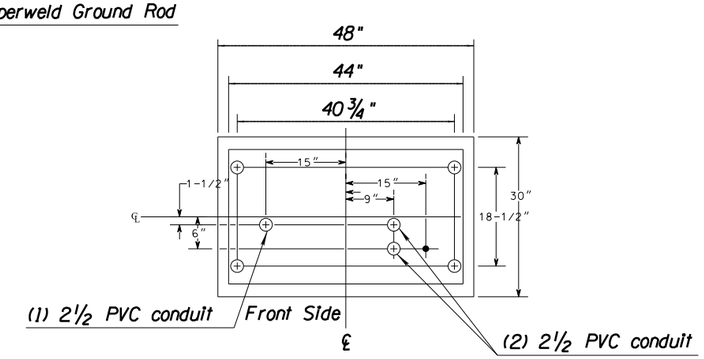
DETAIL T2B - GRADING AT ITS VAULTS



SECTION A-A



DETAIL T2D - TRAFFIC COUNTER CABINET



SECTION C-C - TOP VIEW

DETAIL T2

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet 1T4 of 1T20	Page 233 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
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Tucson, AZ 85705
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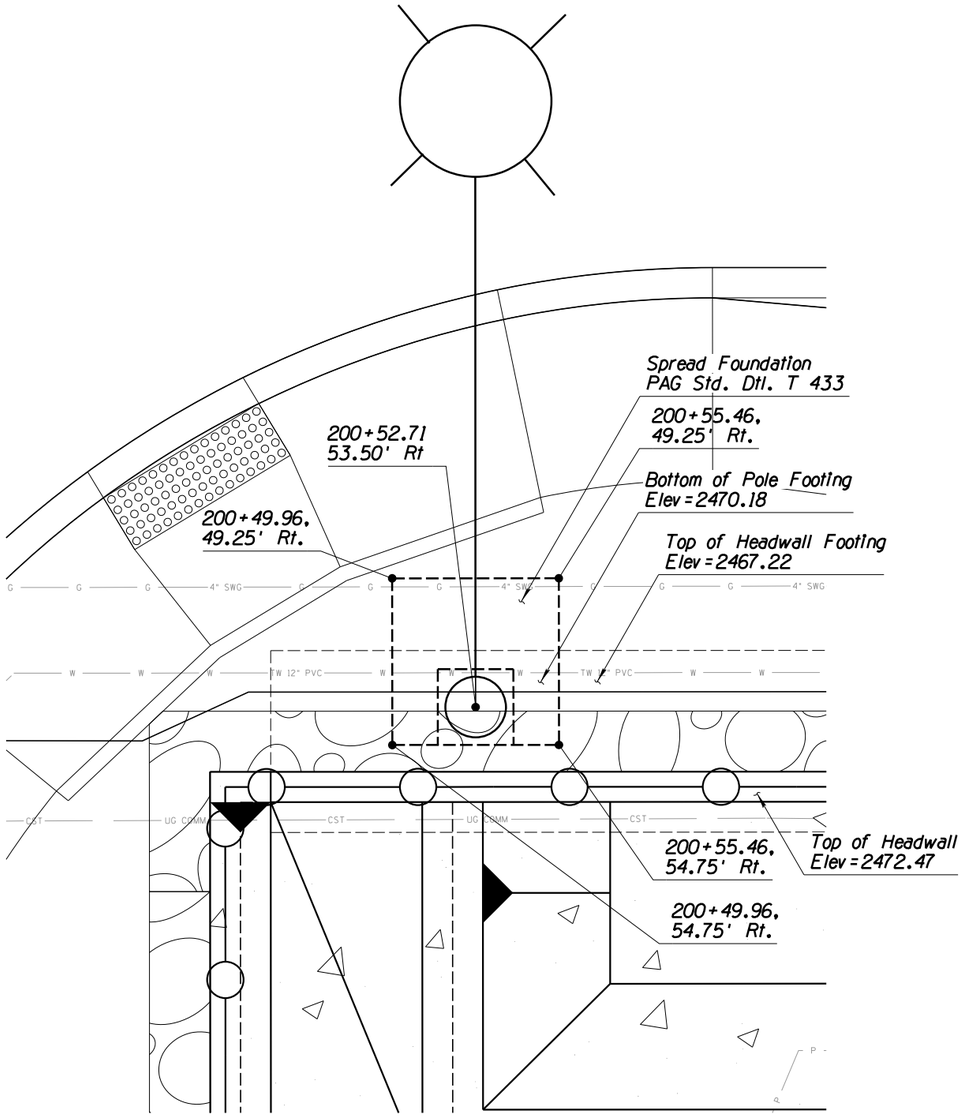
Registered Professional Engineer (Civil) CERTIFICATE NO. 50368 MICHAEL A. COLOMBO Date Signed 01/04/18 ARIZONA, U.S.A. Expires 12/31/2018

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director



STA 200+52.71
PLAN VIEW
1"=2.5'

DETAIL T3

SPREAD FOOTING CONTROL
VALENCIA STA. 200+52.71
ITEM 7310241

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ARIZONA811
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Ana M. Olivares, P.E., Director

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CERTIFICATE NO.
50368
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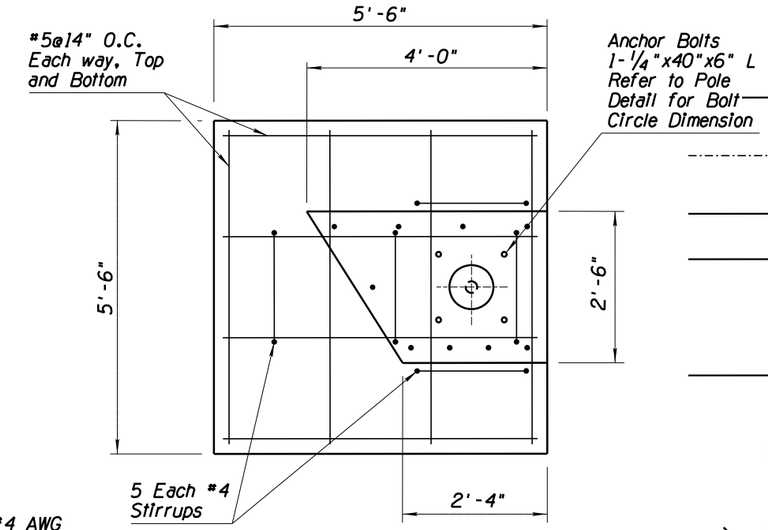
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=2.5' Vert. NA	Sheet 1T5 of 1T20	Page 234 of 433

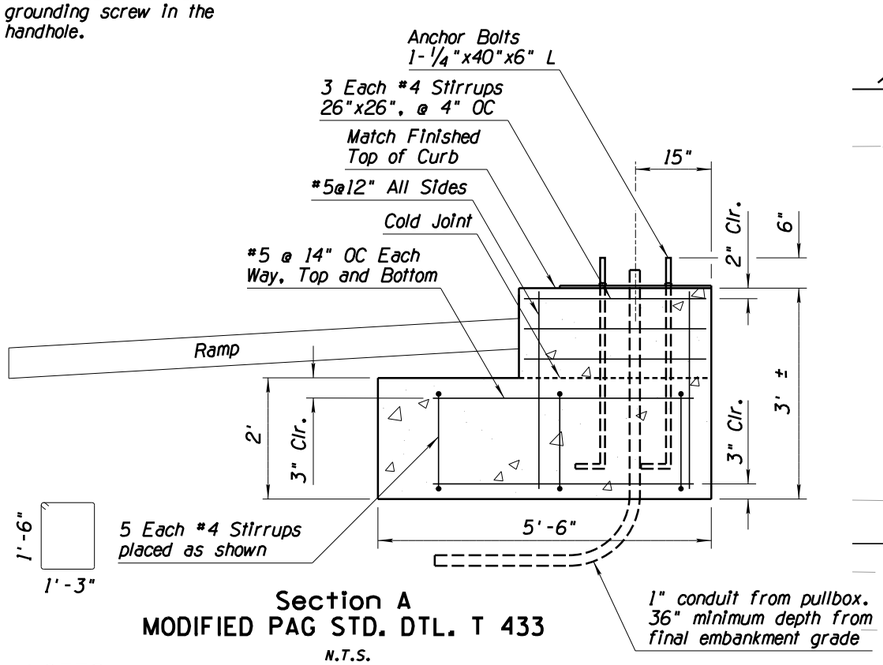


PLAN

N.T.S.

NOTES:

1. A 20' coil of #4 AWG bare Copper Ground Wire shall be installed before the concrete is poured and connected to the grounding screw in the handhole.

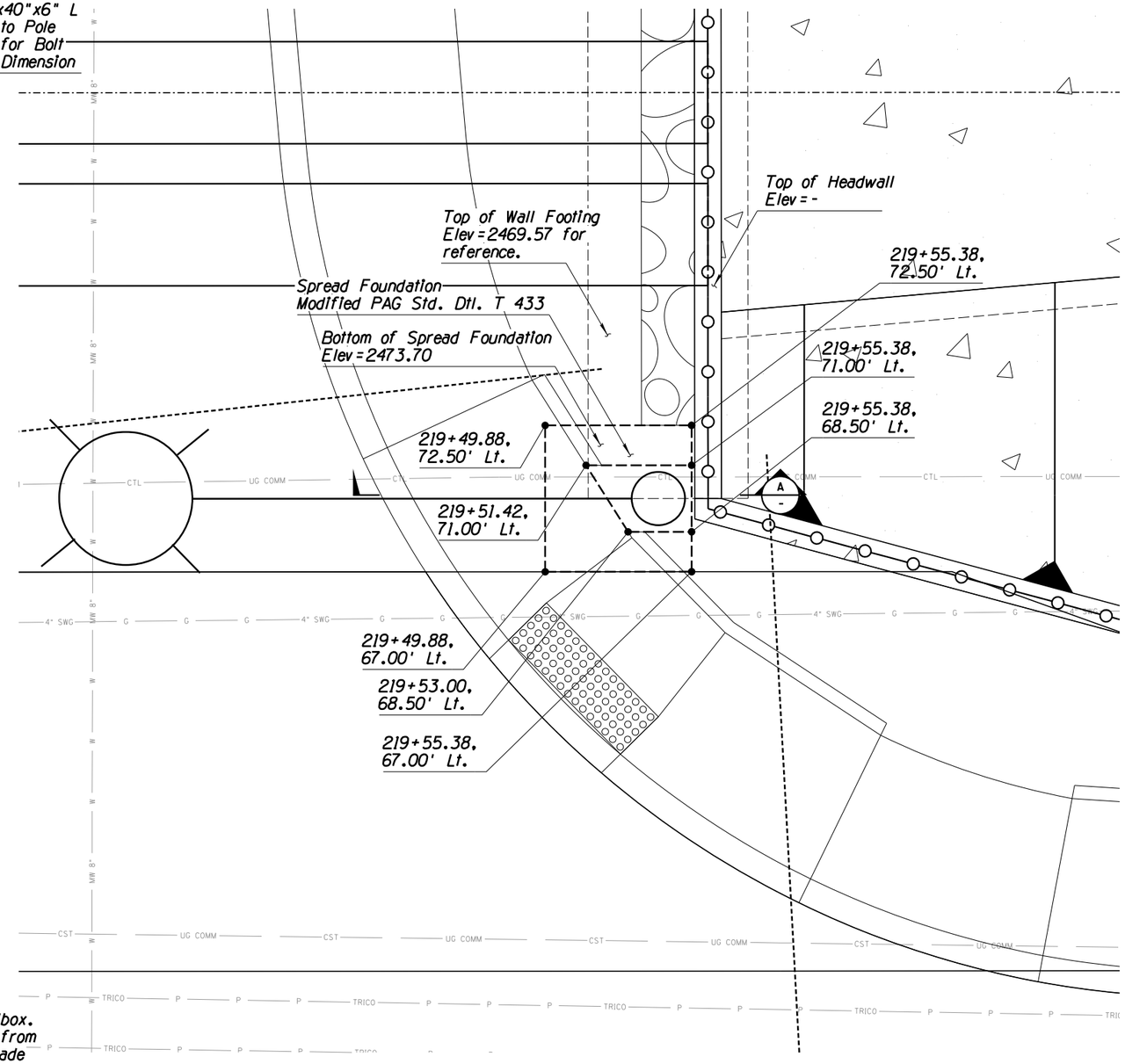


Section A
MODIFIED PAG STD. DTL. T 433

N.T.S.

NOTES:

1. See from PAG Std. Det T433 for bolt pattern and finish.
2. Concrete shall be Class S (f'c=3000 psi).
3. Reinforcing steel shall conform to ASTM A615, Grade 60.
4. Chamfer all exposed corners 3/4" unless noted otherwise.
4. This modified spread footing shall be paid under Item# 7310241.



STA 219+54.13
PLAN VIEW
1"=2.5'

DETAIL T4

MODIFIED PAG STD. DTL. T 433
VALENCIA STA. 219+54.13
ITEM# 7310241

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Scales	Horiz. NA	Sheet 1T6 of 1T20	Page 235 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 50368 MICHAEL A. COLOMBO Date Signed 01/04/18 ARIZONA, U.S.A. Expires 12/31/2019

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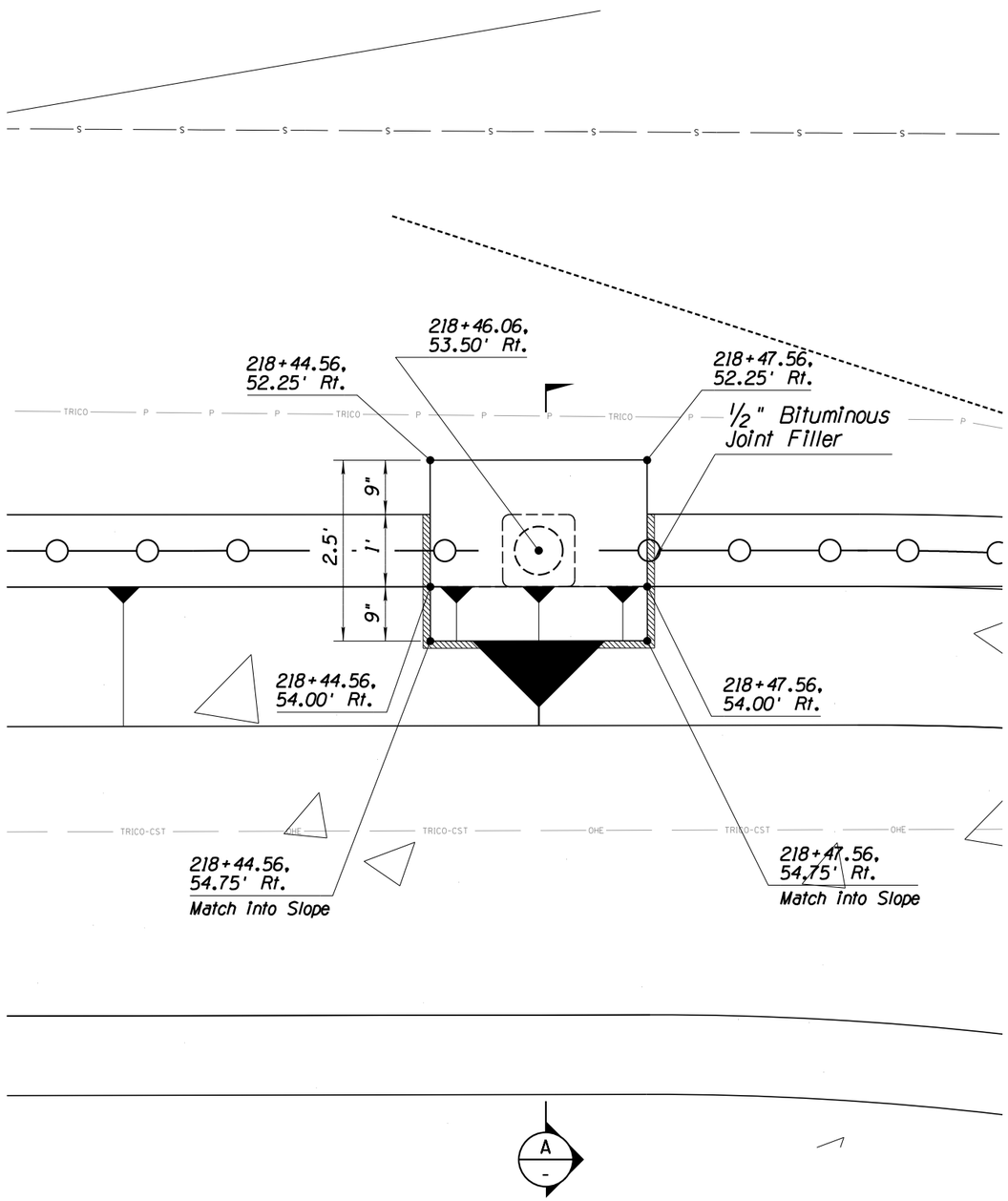
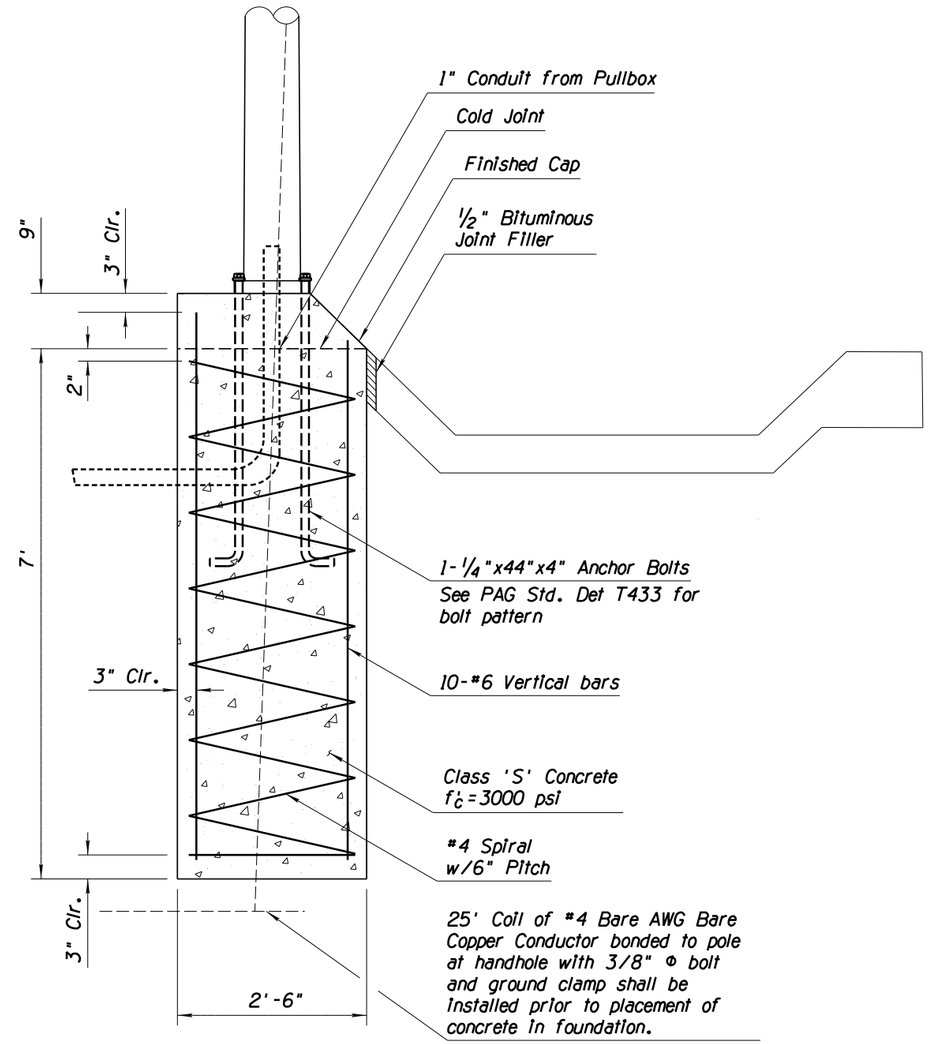
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



STA 218+46.06
PLAN VIEW
1"=1'



LIGHT POLE FOUNDATION
SECTION A-A
N.T.S

DETAIL T5

POLE FOUNDATION
VALENCIA STA. 218+46.06
ITEM# 9300130

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ARIZONA811
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Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
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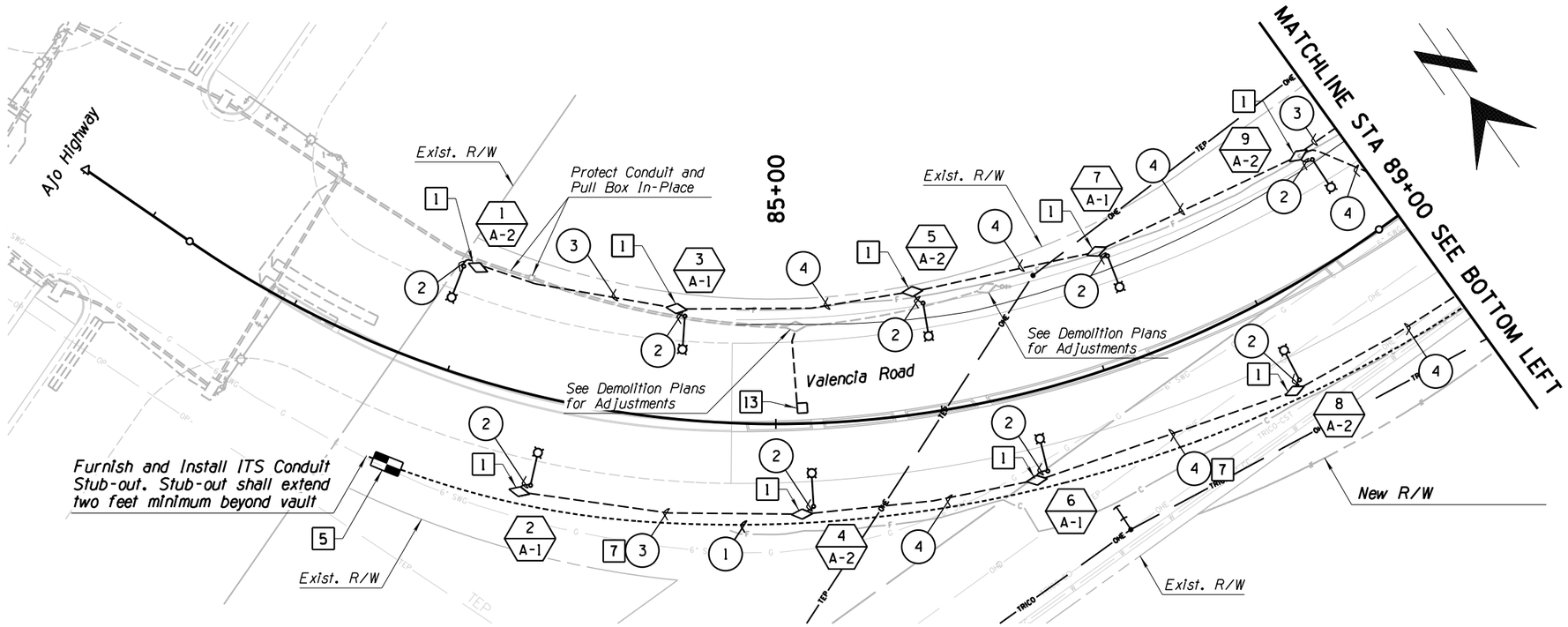
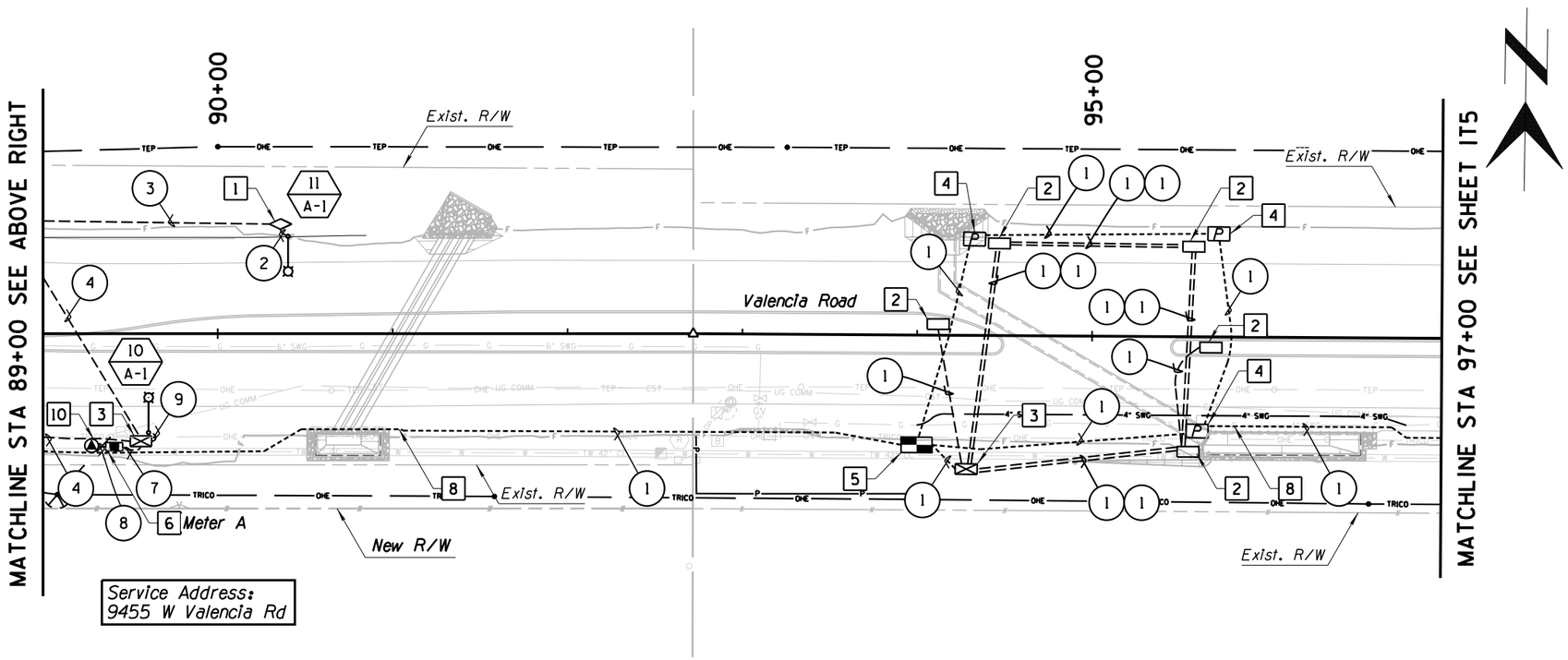
Scales	Horiz. 1"=2.5'	Sheet 1T7 of 1T20	Page 236 of 433
	Vert. NA		





ELECTRICAL NOTES

1. Furnish And Install No. 3-1/2 Pull Box, PAG Std. Dtl. T 101
2. Furnish And Install No. 7 Pull Box, PAG Std. Dtl. T 104
3. Furnish And Install No. 7 Pull Box With Extension, PAG Std. Dtl. T 105
4. Furnish And Install ITS Pull Box Per PC Std. Dtl. F0-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. F0-301
6. Furnish and Install 120/240V, 1Φ, Meter Pedestal Cabinet With Hand-Off-Auto Switch Per PAG Std. Dtl. T 1801
7. Joint Trench Proposed Conduit Per Detail T2 on Sheet IT4
8. Concrete Encasement Per Detail T2 on Sheet IT4
10. TRICO Point of Service
13. New 6'x6' Detectable Loop and Roadway Loop Wire. Station 85+16 Offset 9' Lt. to Center of Loop.

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 81+00 TO 97+00

40 0 40 80

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Scales	Horiz. 1"=40' Vert. NA	Sheet IT8 of IT20	Page 237 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Electrical)
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Date Signed 01/04/18
ARIZONA, U.S.A.
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VALENCIA ROAD
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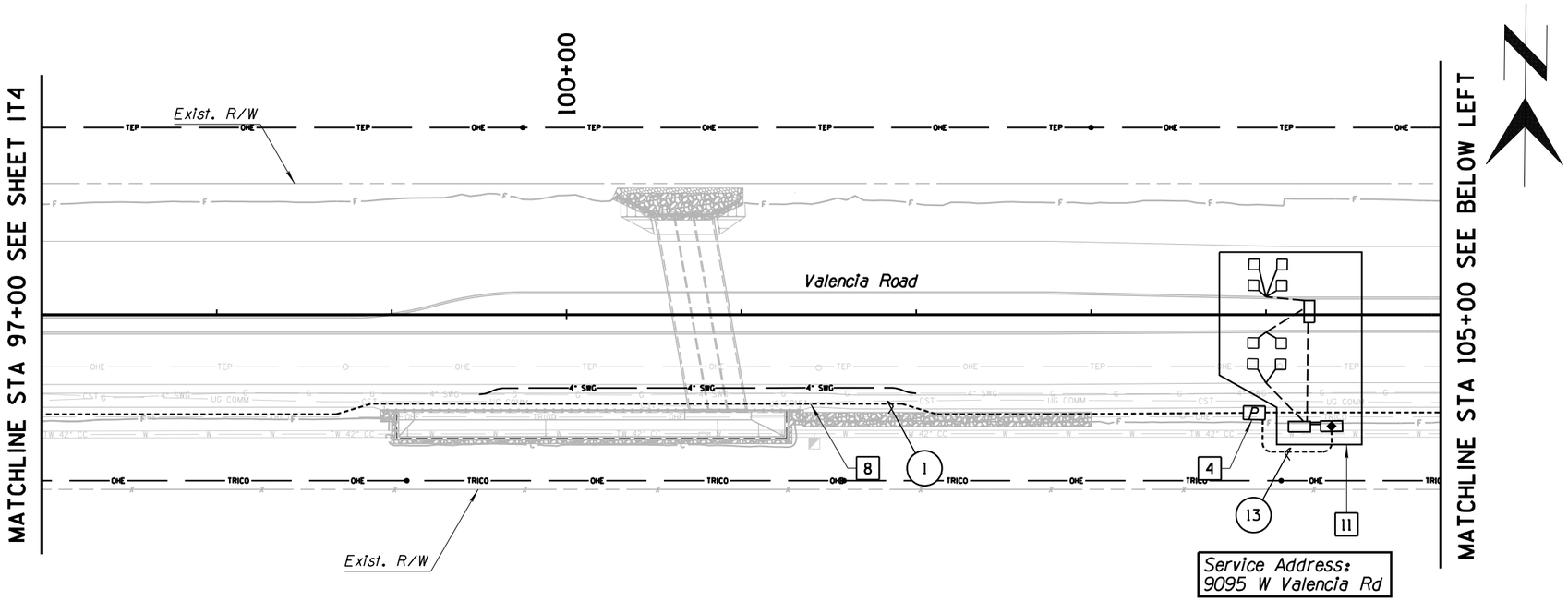
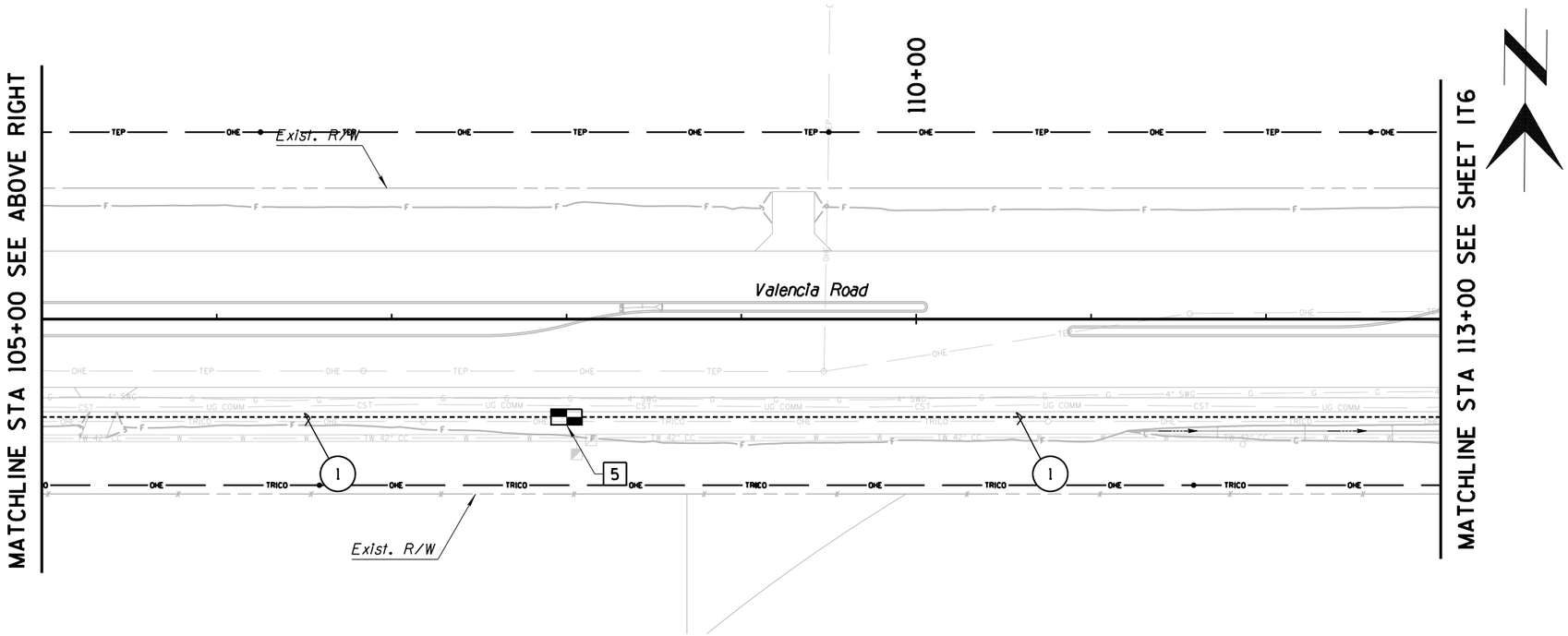
PROJECT NO. 4RTVWE





ELECTRICAL NOTES

4. Furnish And Install ITS Pull Box Per PC Std. Dtl. F0-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. F0-301
8. Concrete Encasement per Detail T2 on Sheet IT4
11. Traffic Counter Per Detail T1 on Sheet IT3. Station 104+38 Offset 64' Rt.

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 97+00 TO 113+00

40 0 40 80

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Scales	Horiz. 1"=40'	Sheet IT9 of IT20	Page 238 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

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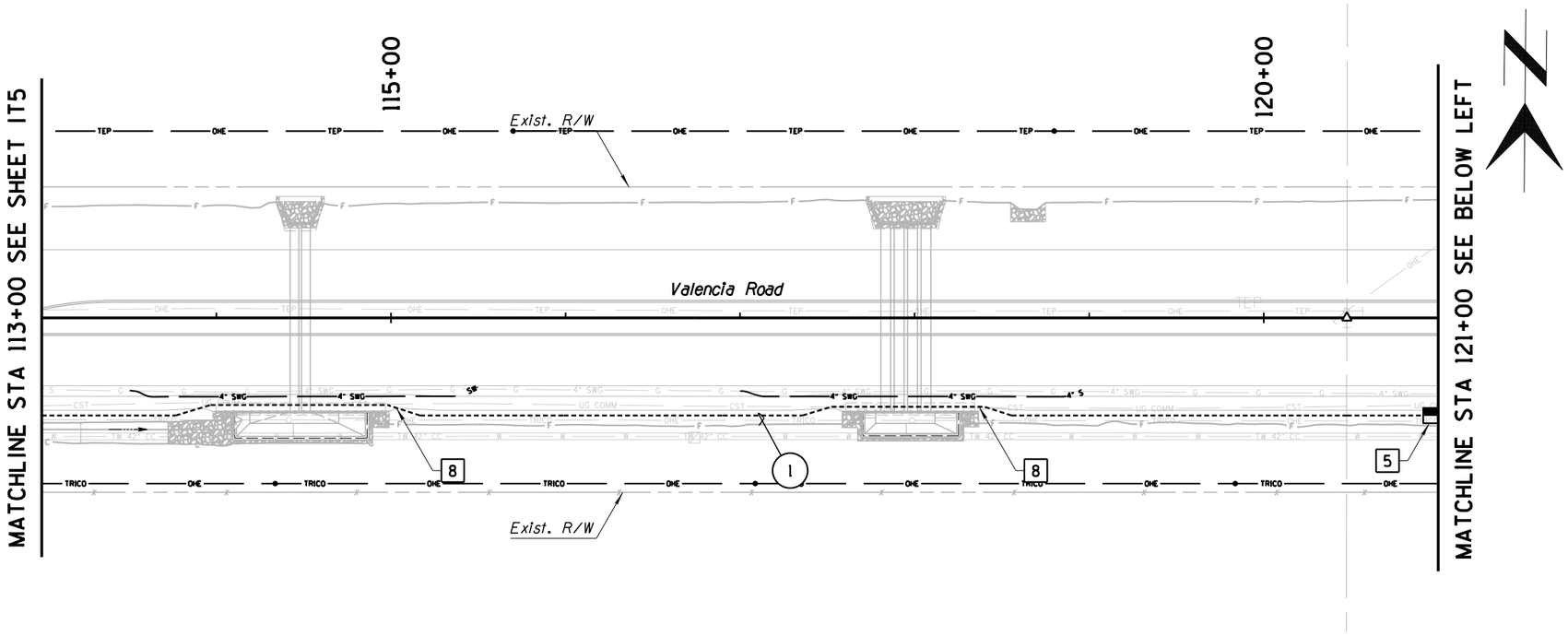

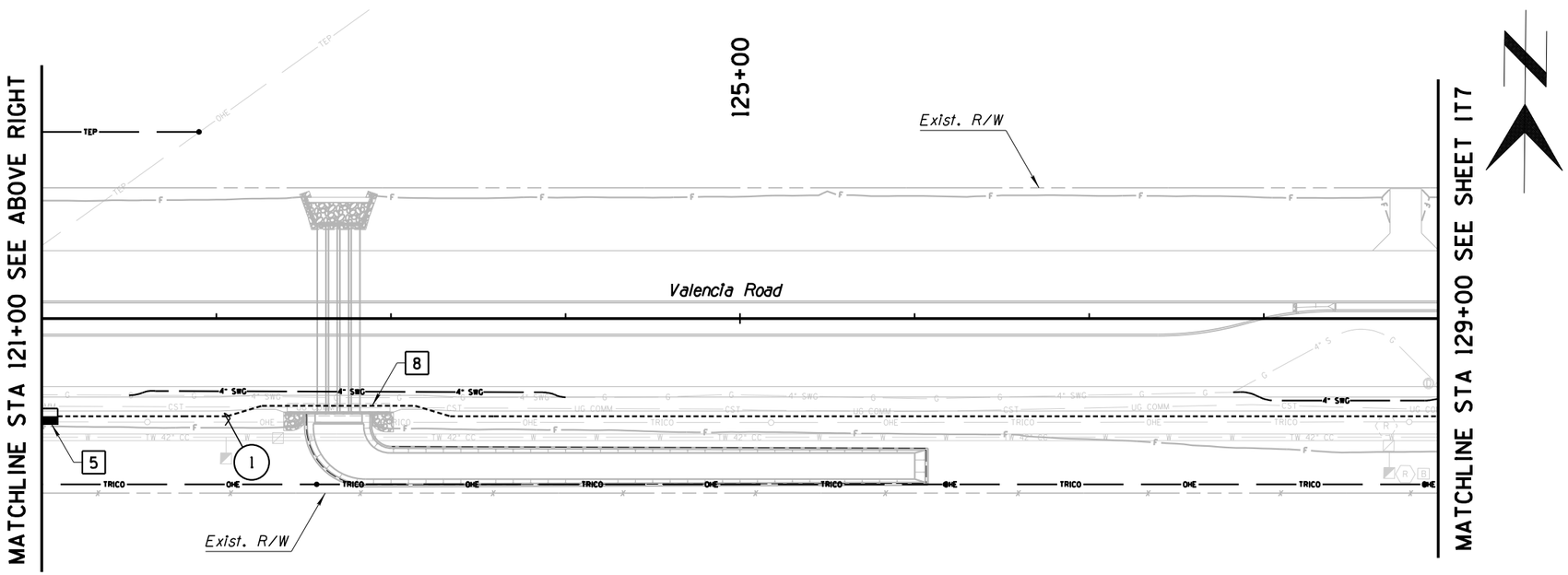

ELECTRICAL NOTES

5 Furnish And Install ITS Vault Per PC Std. Dtl. F0-301

8 Concrete Encasement per Detail T2 on Sheet IT4

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 113+00 TO 129+00

40 0 40 80

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Scales	Horiz. 1"=40'	Sheet IT10 of IT20	Page 239 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

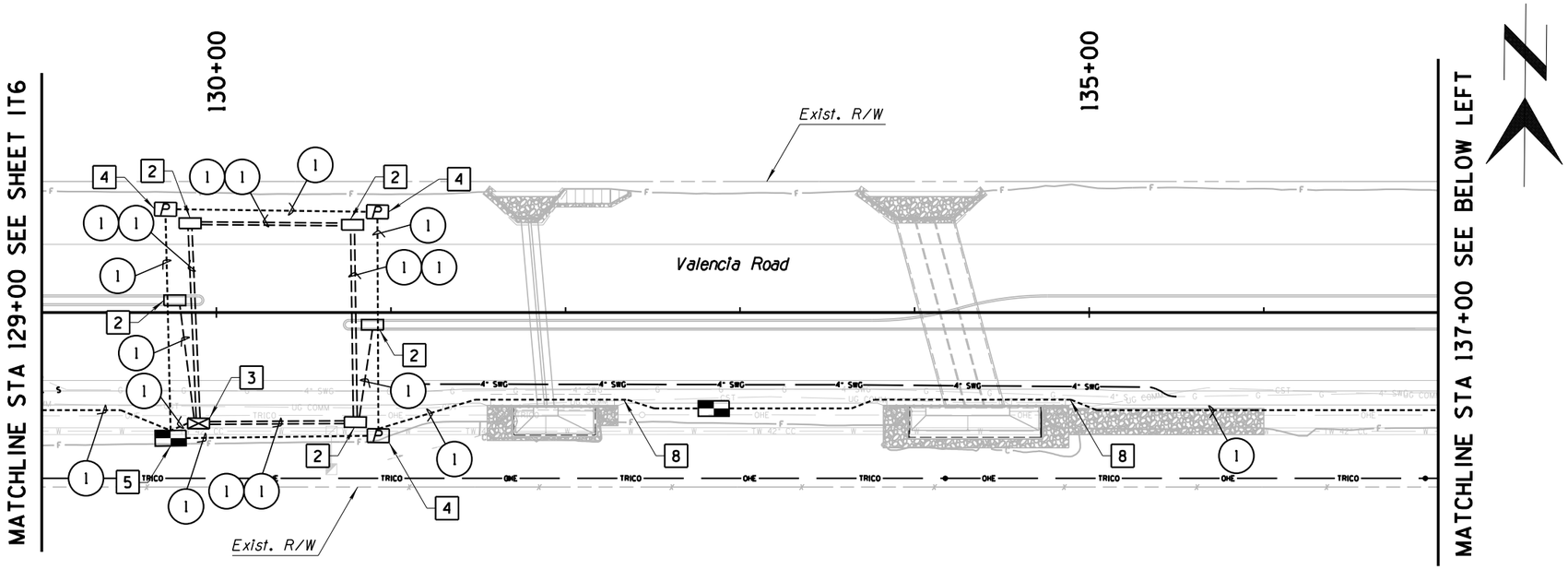
No.	Revision Description	Engineer	Date

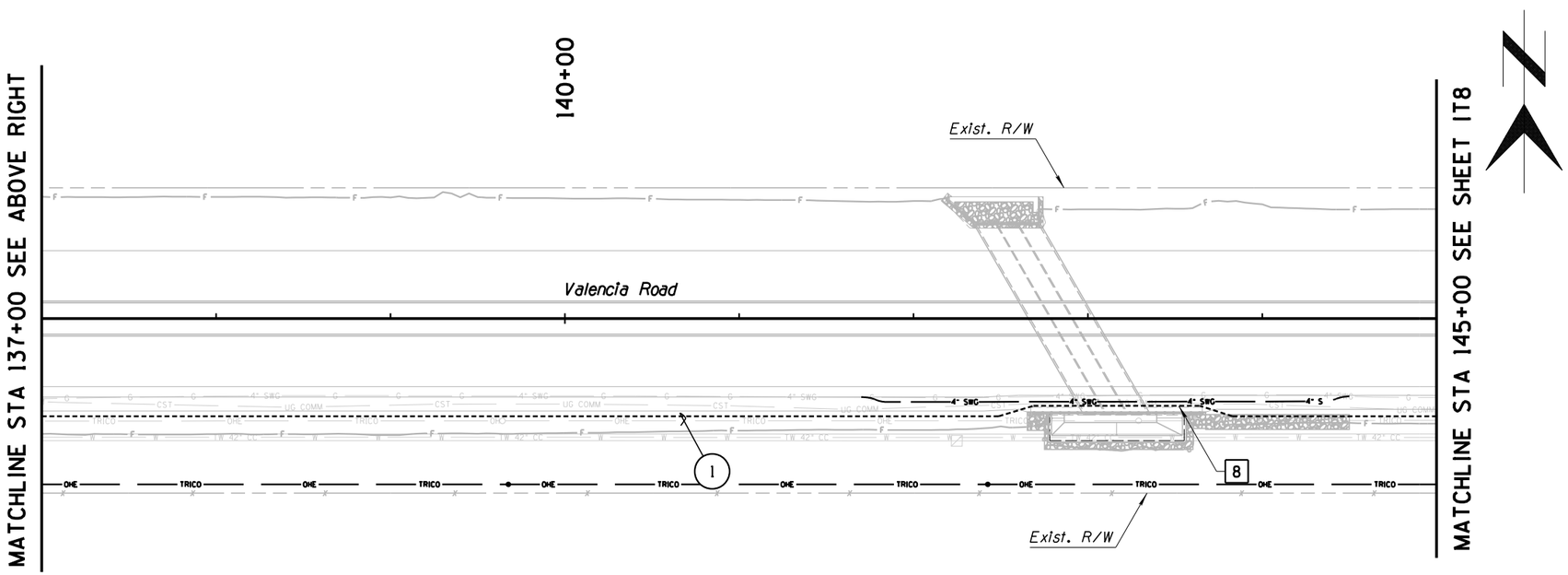
		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
CERTIFICATE NO. 50368
MICHAEL A. COLOMBO
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 12/31/2018

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





ELECTRICAL NOTES

2. Furnish And Install No. 7 Pull Box, PAG Std. Dtl. T 104
3. Furnish And Install No. 7 Pull Box With Extension, PAG Std. Dtl. T 105
4. Furnish And Install ITS Pull Box Per PC Std. Dtl. FO-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. FO-301
8. Concrete Encasement per Detail T2 on Sheet IT4

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 129+00 TO 145+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 50368 MICHAEL A. COLOMBO Date Signed 01/04/18 ARIZONA, U.S.A. Expires 12/31/2018

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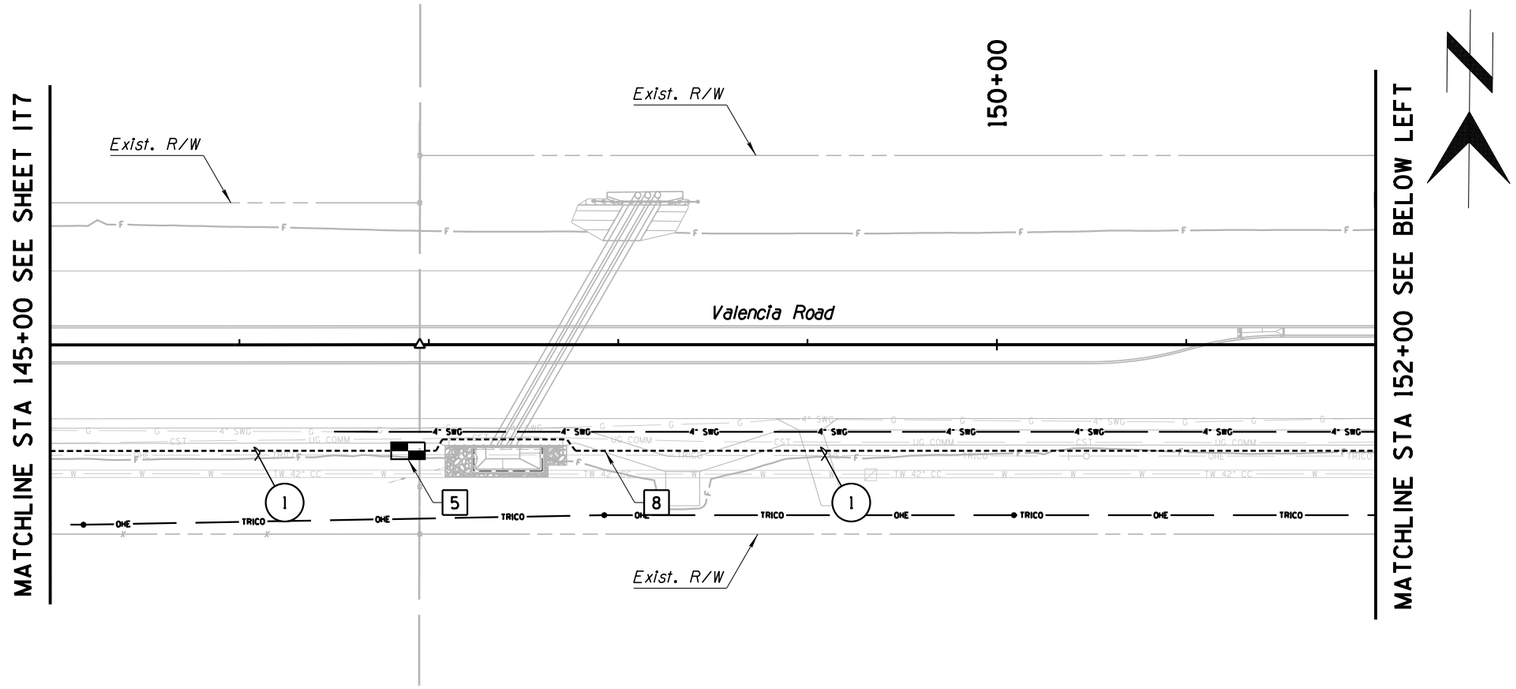
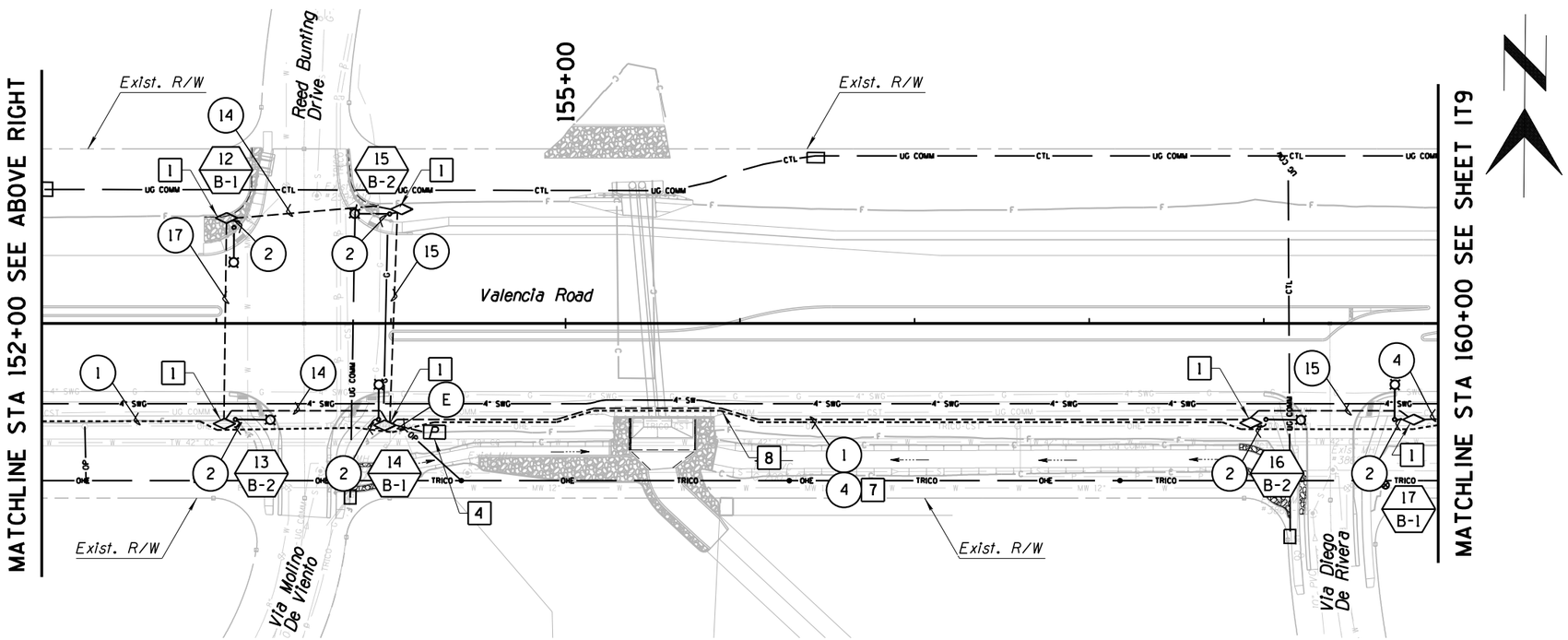
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet IT11 of IT20	Page 240 of 433





ELECTRICAL NOTES

1. Furnish And Install No. 3-1/2 Pull Box, PAG Std. Dtl. T 101
2. Furnish And Install No. 7 Pull Box, PAG Std. Dtl. T 104
3. Furnish And Install No. 7 Pull Box With Extension, PAG Std. Dtl. T 105
4. Furnish And Install ITS Pull Box Per PC Std. Dtl. F0-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. F0-301
7. Joint Trench Proposed Conduit Per Detail T2 on Sheet IT4
8. Concrete Encasement per Detail T2 on Sheet IT4

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 145+00 TO 160+00

40 0 40 80

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet IT12 of IT20	Page 241 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

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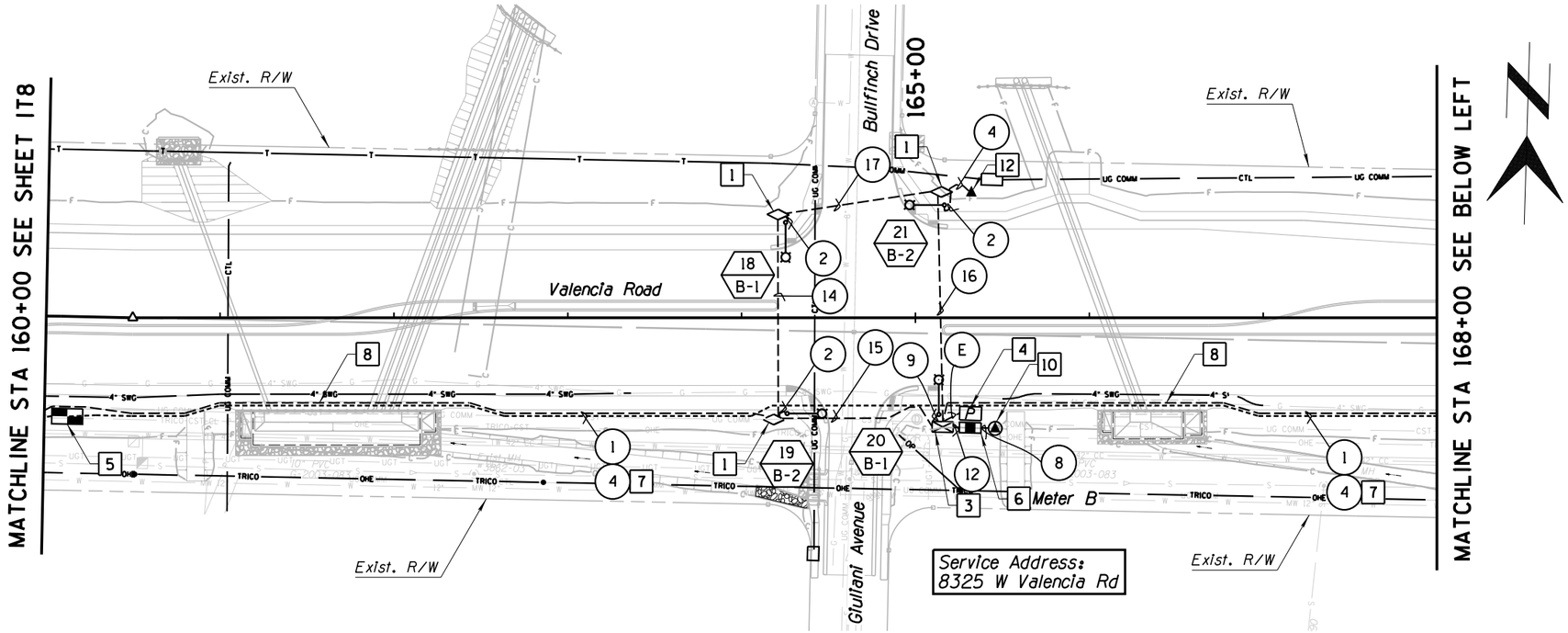
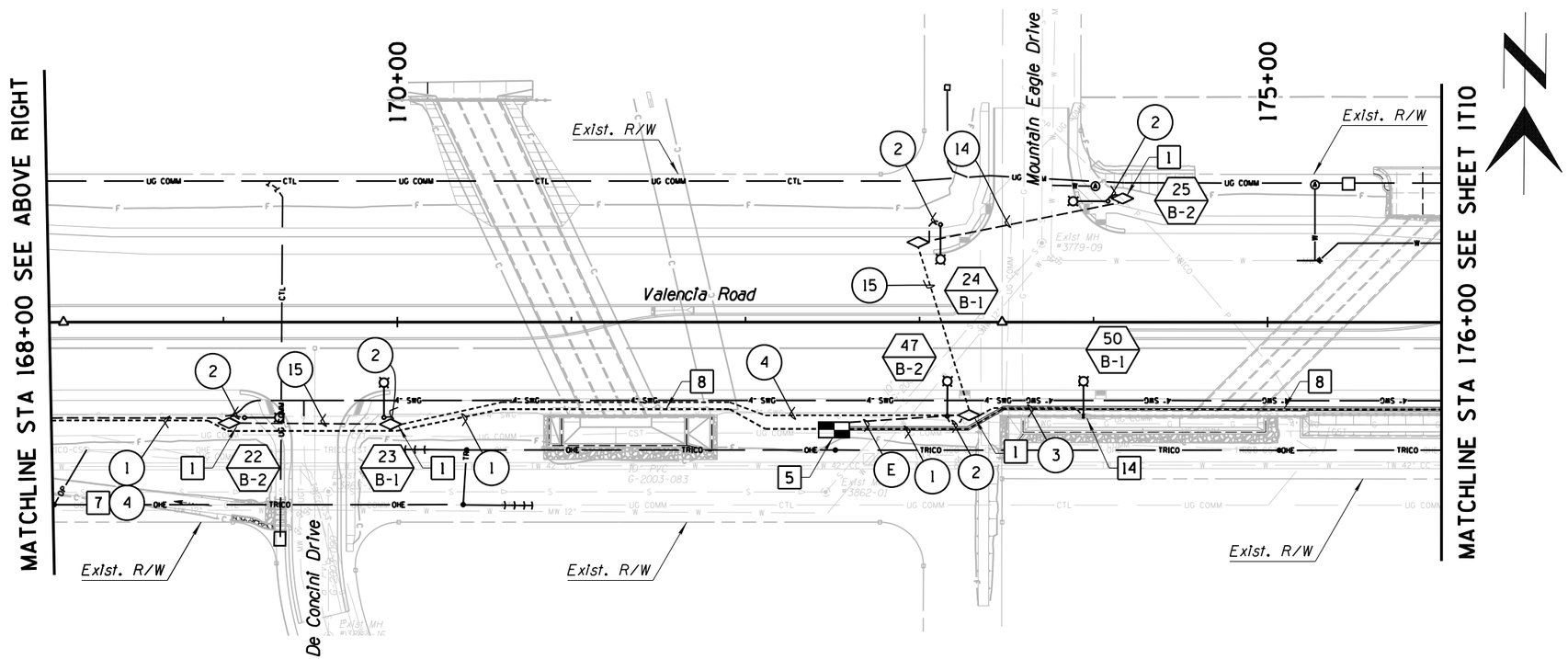
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





ELECTRICAL NOTES

1. Furnish And Install No. 3-1/2 Pull Box, PAG Std. Dtl. T 101
3. Furnish And Install No. 7 Pull Box With Extension, PAG Std. Dtl. T 105
4. Furnish And Install ITS Pull Box Per PC Std. Dtl. FO-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. FO-301
6. Furnish and Install 120/240V, 1Φ, Meter Pedestal Cabinet with Hand-Off-Auto Switch Per PAG Std. Dtl. T 1801
7. Joint Trench Proposed Conduit Per Detail T2 on Sheet IT4
8. Concrete Encasement Per Detail T2 on Sheet IT4
10. TRICO Point of Service
12. Irrigation Controller and Booster Pump. Connect to Circuits 5 and 6 on Meter Pedestal B. Refer to Irrigation Plan Sheets
14. See Detail DI-11A on Sheet DT19 for Installation Notes and Guidelines

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 160+00 TO 176+00

40 0 40 80

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Scales	Horiz. 1"=40' Vert. NA	Sheet IT13 of IT20	Page 242 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 50368 MICHAEL A. COLOMBO Date Signed 01/04/18 ARIZONA, U.S.A. Expires 12/31/2018

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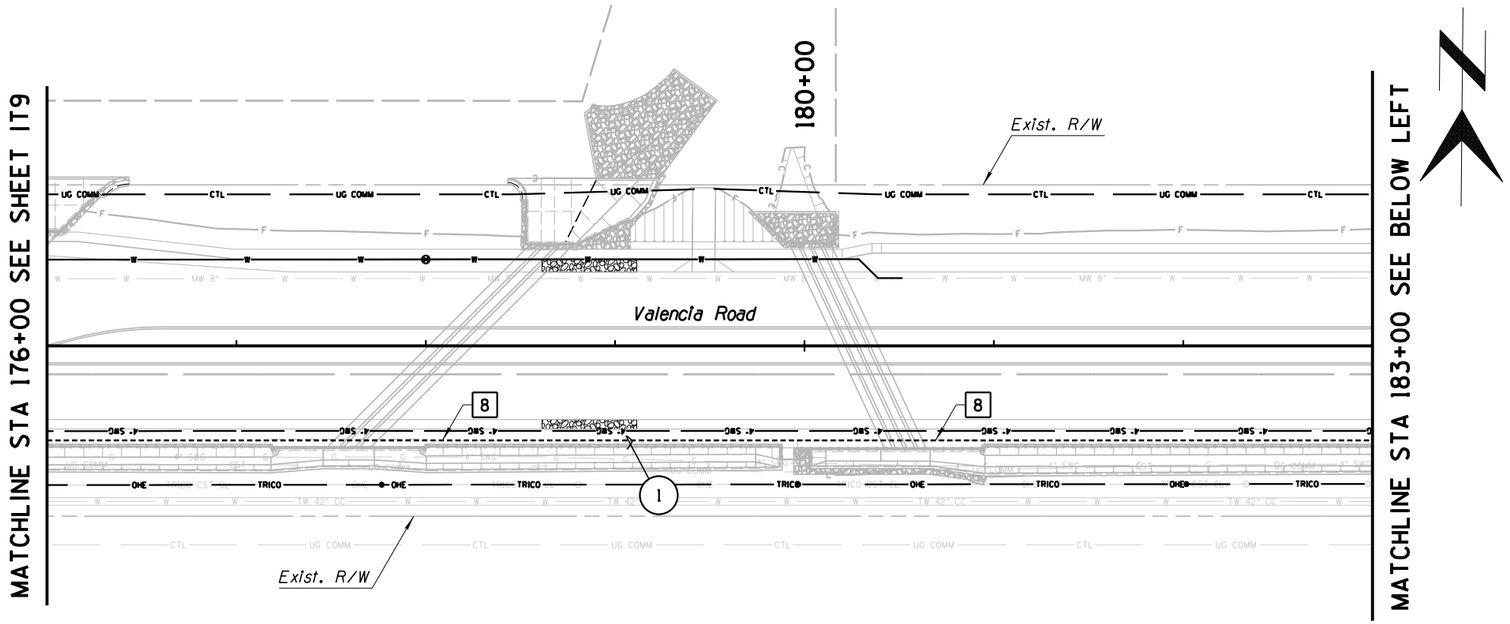
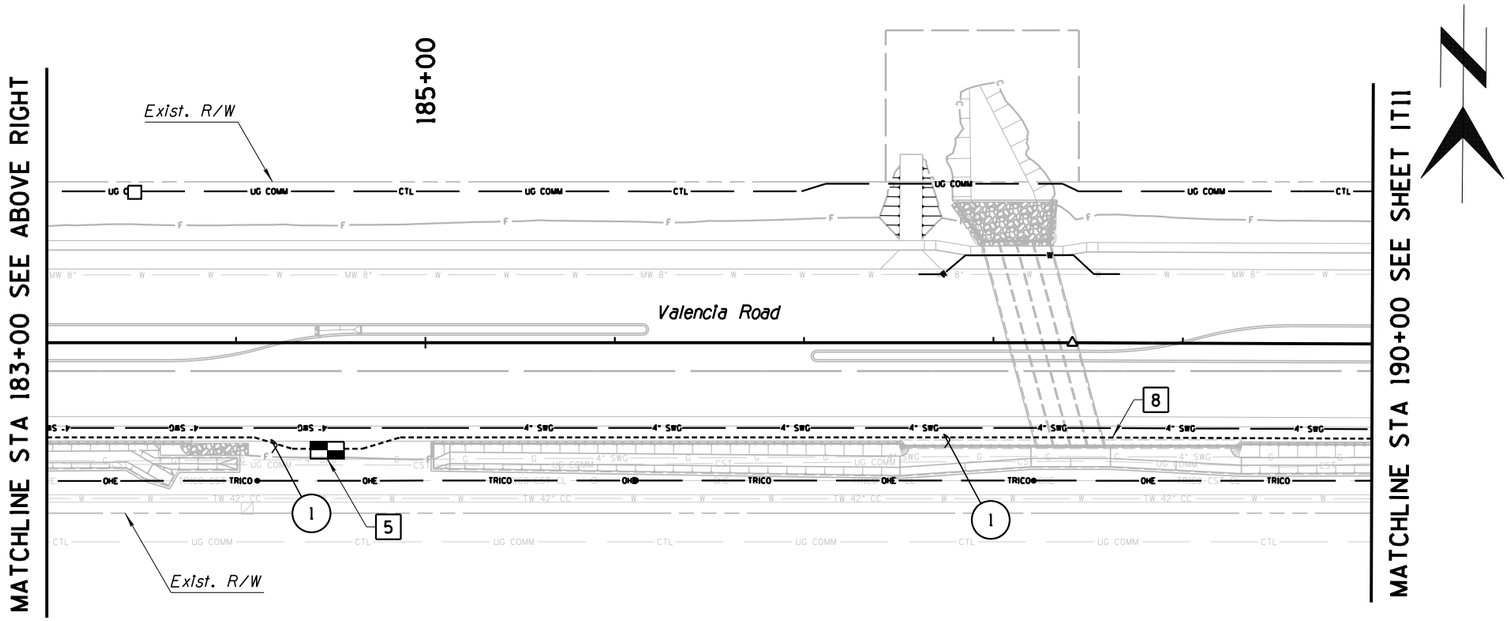
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





ELECTRICAL NOTES

5 Furnish And Install ITS Vault Per PC Std. Dtl. F0-301

8 Concrete Encasement per Detail T2 on Sheet IT4

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 176+00 TO 190+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1"=40'
	Vert. NA

Sheet IT14 of IT20

Page 243 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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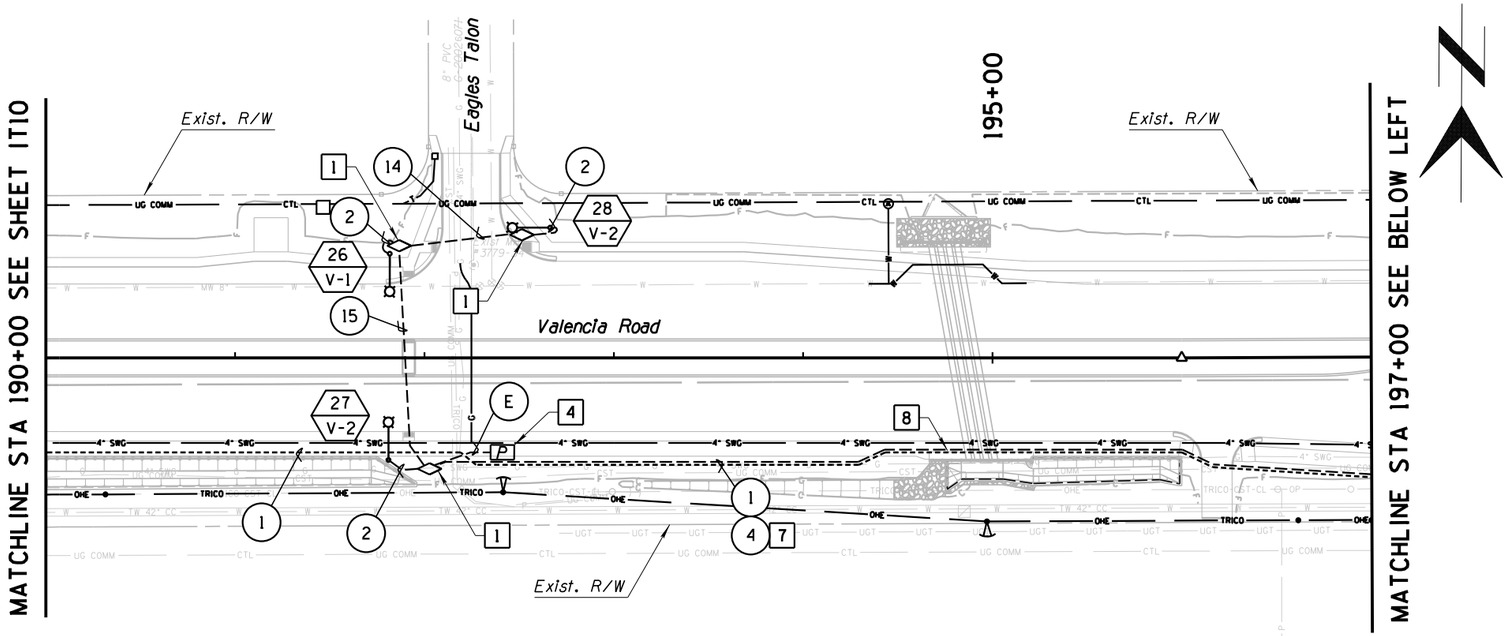
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

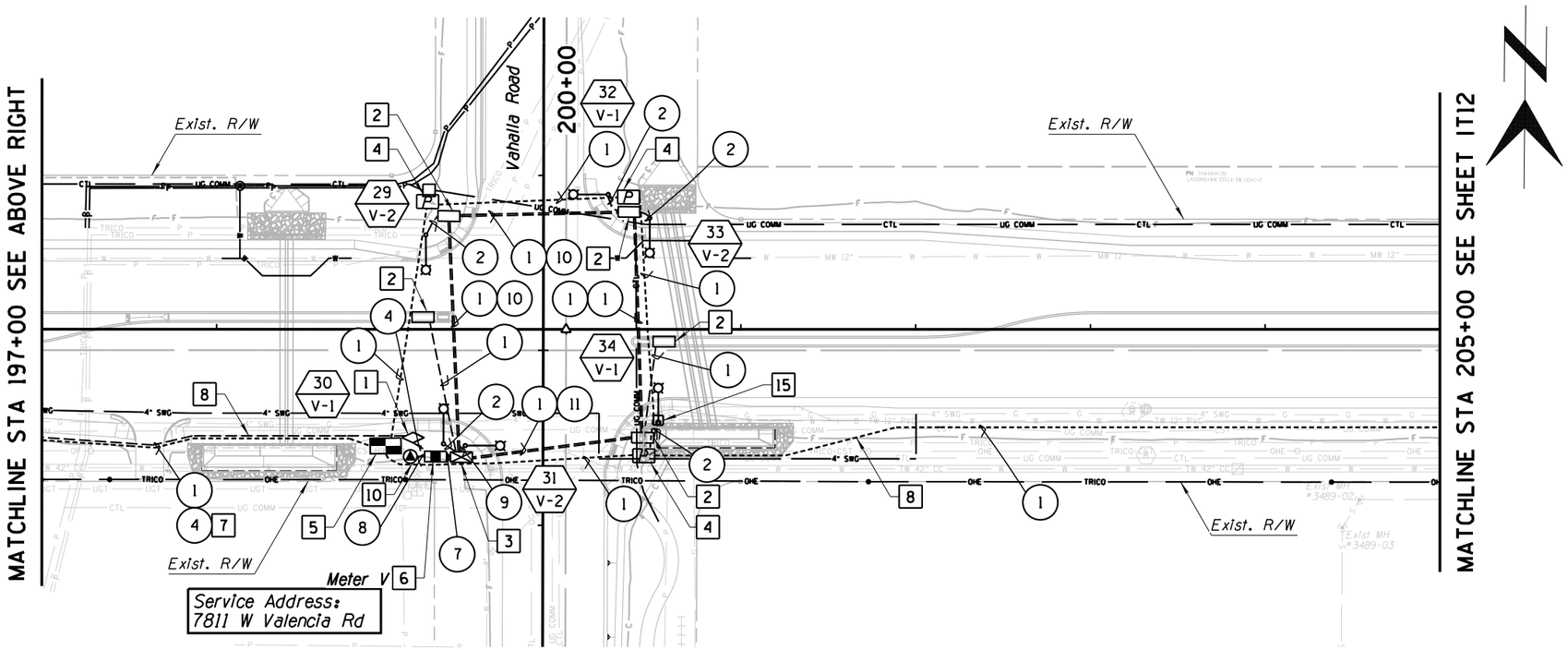
Registered Professional Engineer (Civil)
CERTIFICATE NO. 50368
MICHAEL A. COLOMBO
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 12/31/2018

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date





ELECTRICAL NOTES

1. Furnish And Install No. 3-1/2 Pull Box, PAG Std. Dtl. T 101
2. Furnish And Install No. 7 Pull Box, PAG Std. Dtl. T 104
3. Furnish And Install No. 7 Pull Box With Extension, PAG Std. Dtl. T 105
4. Furnish And Install ITS Pull Box Per PC Std. Dtl. F0-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. F0-301
6. Furnish and Install 120/240V, 1Φ, Meter Pedestal Cabinet with Hand-Off-Auto Switch Per PAG Std. Dtl. T 1801
7. Joint Trench Proposed Conduit Per Detail T2 on Sheet IT4
8. Concrete Encasement per Detail T2 on Sheet IT4
10. TRICO Point of Service
15. See Detail T3 on Sheet IT5 for Installation Notes and Guidelines

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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(520) 615-3191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 190+00 TO 205+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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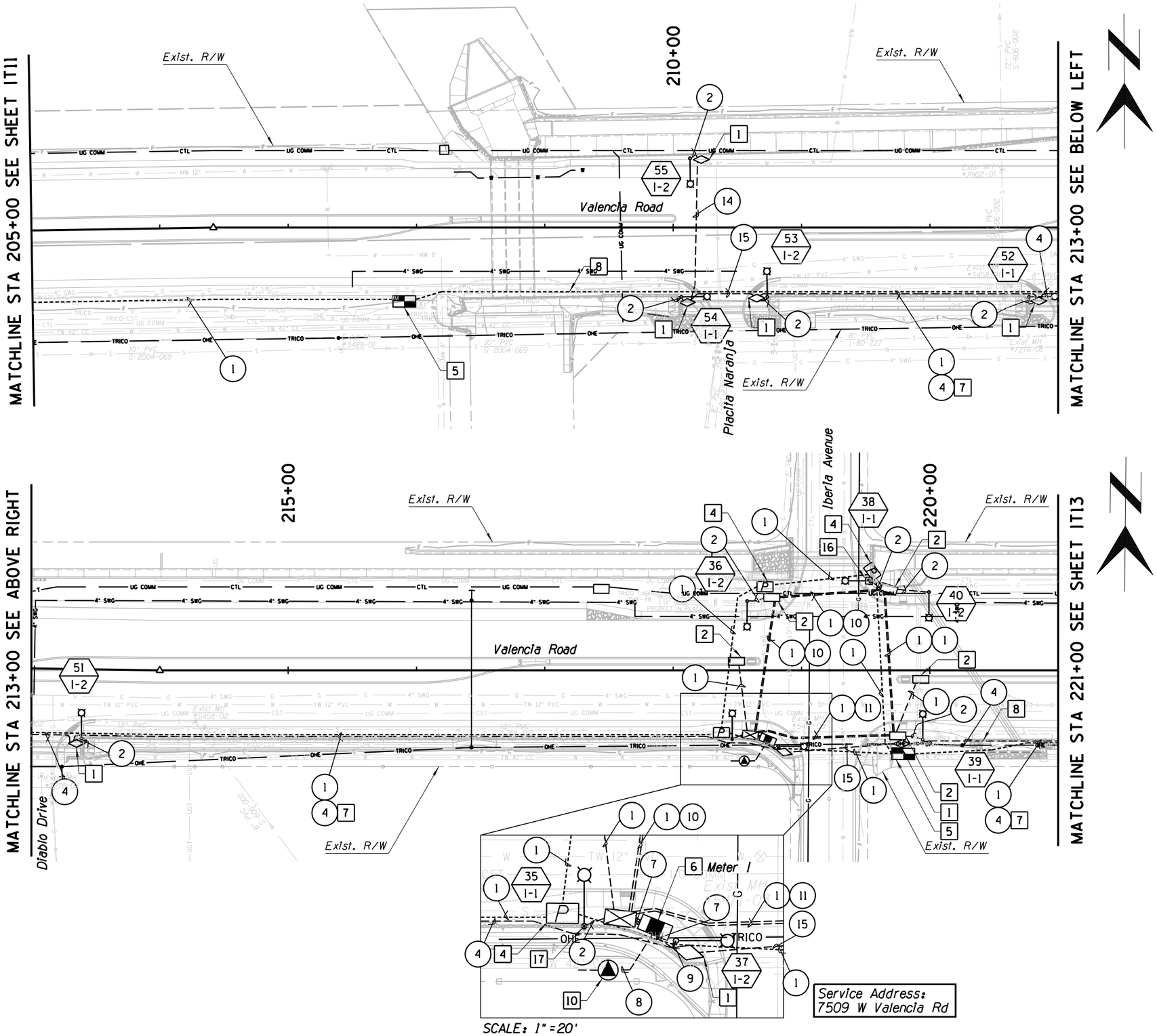
Scales	Horiz. 1"=40'	Sheet IT15 of IT20	Page 244 of 433
	Vert. NA		



ELECTRICAL NOTES

1. Furnish And Install No. 3-1/2 Pull Box, PAG Std. Dtl. T 101
2. Furnish And Install No. 7 Pull Box, PAG Std. Dtl. T 104
3. Furnish And Install No. 7 Pull Box With Extension, PAG Std. Dtl. T 105
4. Furnish And Install ITS Pull Box Per PC Std. Dtl. FO-300
5. Furnish And Install ITS Vault Per PC Std. Dtl. FO-301
6. Furnish and Install 120/240V, 1Φ, Meter Pedestal Cabinet with Hand-Off-Auto Switch Per PAG Std. Dtl. T 1801
7. Joint Trench Proposed Conduit Per Detail T2 on Sheet IT4
8. Concrete Encasement per Detail T2 on Sheet IT4
10. TRICO Point of Service
16. See Detail T4 on Sheet IT6 for Installation Notes and Guidelines
17. See Detail T5 on Sheet IT7 for Installation Notes and Guidelines

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 205+00 TO 221+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

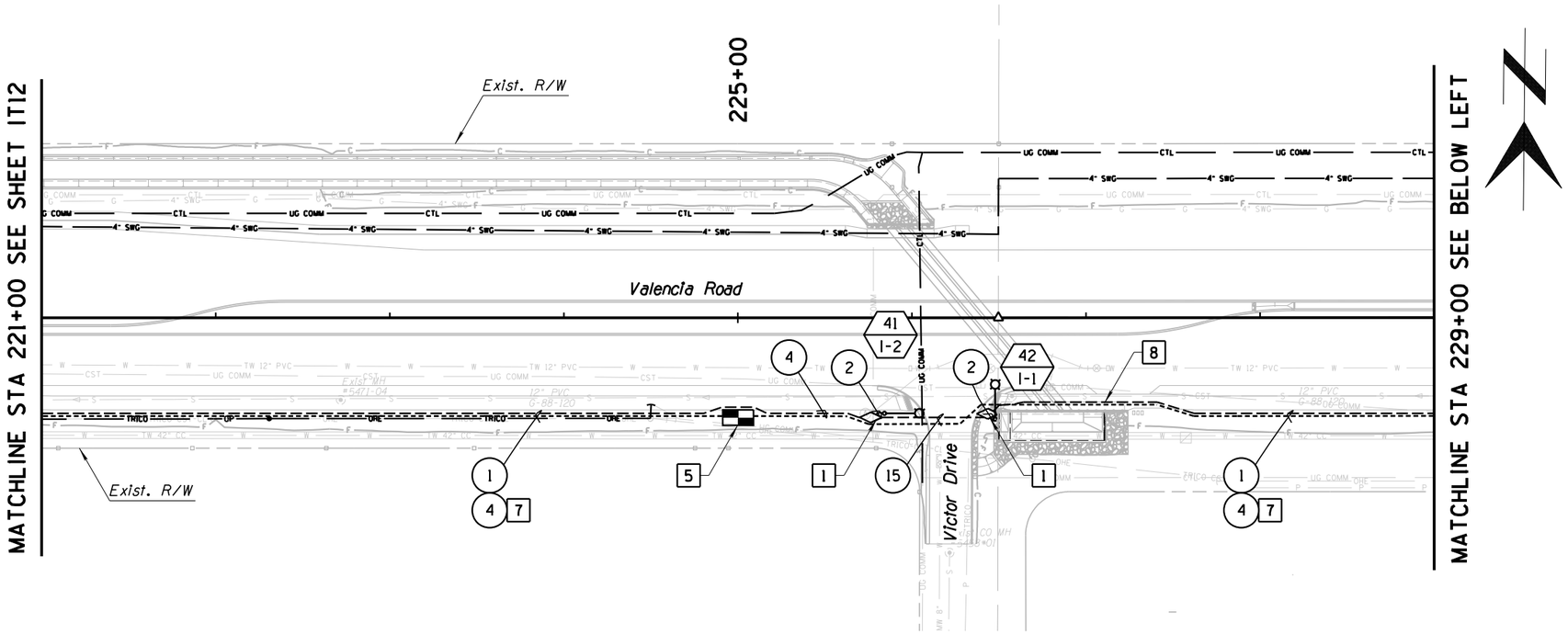
Ana M. Olivares, P.E., Director

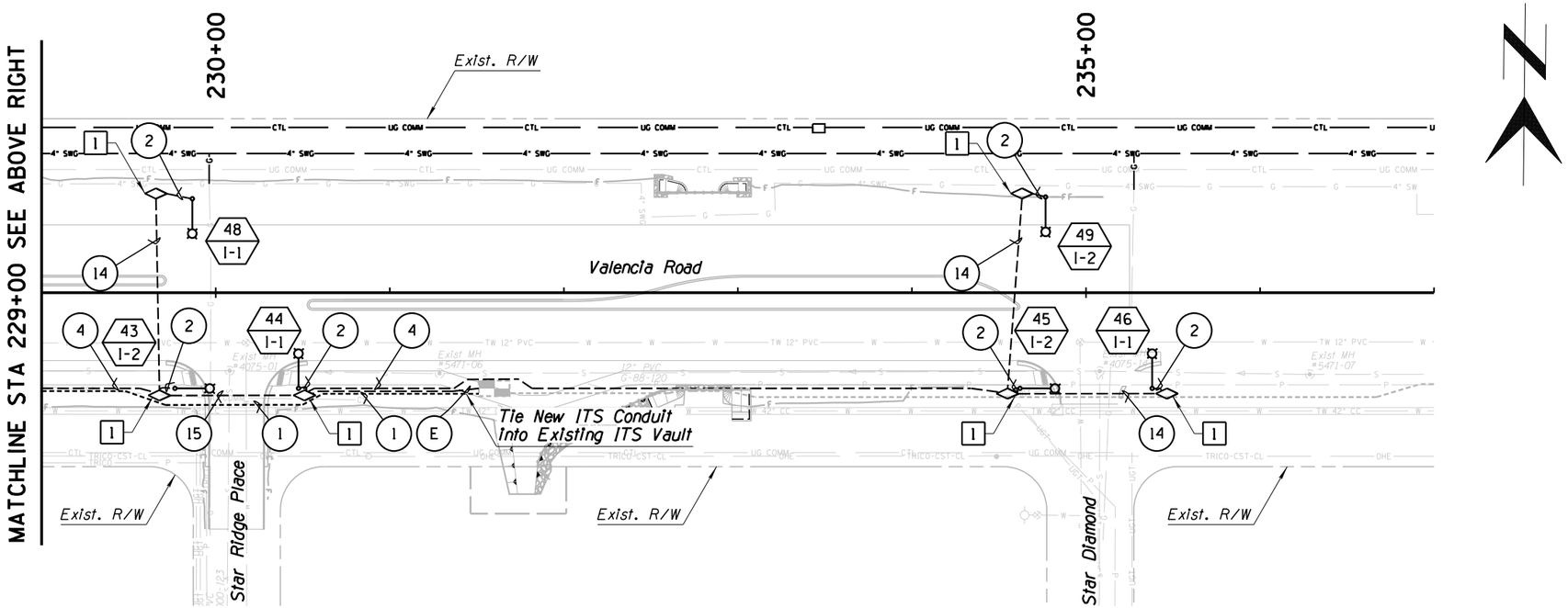
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1" =40' Vert. NA	Sheet IT16 of IT20	Page 245 of 433





ELECTRICAL NOTES

1. Furnish And Install No. 3-1/2 Pull Box, PAG Std. Dtl. T 101
5. Furnish And Install ITS Vault Per PC Std. Dtl. FO-301
7. Joint Trench Proposed Conduit Per Detail T2 on Sheet IT4
8. Concrete Encasement per Detail T2 on Sheet IT4

ITS / LIGHTING PLAN
VALENCIA ROAD
STA. 221+00 TO 237+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1"=40'	Sheet IT17 of IT20	Page 246 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

STREET LIGHTING POLE AND LUMINAIRE SCHEDULE

POLE NO.	STATION	CENTER LINE REFERENCED	OFFSET (FT)	FOUNDATION TYPE	BASE TYPE	POLE TYPE	LUMINAIRE TYPE	LUMINAIRE WATTAGE	CIRCUIT VOLTAGE	CIRCUIT NO.	METER PEDESTAL CABINET	NOTES
1	82+88	Valencia Road	62' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	A	
2	83+64	Valencia Road	53' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	A	
3	84+39	Valencia Road	62' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	A	
4	85+21	Valencia Road	50' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	A	
5	85+99	Valencia Road	65' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	A	
6	86+53	Valencia Road	48' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	A	
7	87+26	Valencia Road	64' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	A	
8	88+01	Valencia Road	52' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	A	
9	88+77	Valencia Road	57' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	A	
10	89+60	Valencia Road	57' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	A	Install photocell on luminaire.
11	90+40	Valencia Road	56' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	A	
12	153+10	Valencia Road	55' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	B	
13	153+11	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	B	
14	153+93	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	B	
15	153+99	Valencia Road	63' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	B	
16	159+01	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	B	
17	159+75	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	B	
18	164+25	Valencia Road	55' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	B	
19	164+26	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	B	
20	165+13	Valencia Road	56' Rt	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	B	Install photocell on luminaire.
21	165+17	Valencia Road	65' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	B	
22	169+12	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	B	
23	169+92	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	B	
24	173+12	Valencia Road	56' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	B	
25	174+08	Valencia Road	70' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	B	
26	191+82	Valencia Road	55' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	V	
27	191+81	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	V	
28	192+66	Valencia Road	69' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	V	
29	199+20	Valencia Road	54' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	V	
30	199+30	Valencia Road	65' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	V	
31	199+42	Valencia Road	66' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	V	Install photocell on luminaire.
32	200+24	Valencia Road	77' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	V	
33	200+48	Valencia Road	64' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	V	
34	200+53	Valencia Road	54' Rt.	Detail T3	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	V	See Detail T3 on sheet IT5 for foundation information.
35	218+46	Valencia Road	54' Rt.	Detail T5	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	See Detail T5 on sheet IT7 for foundation information.
36	218+58	Valencia Road	54' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	I	
37	218+82	Valencia Road	59' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	Install photocell on luminaire.
38	219+54	Valencia Road	70' Lt.	Detail T4	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	4	I	See Detail T4 on sheet IT6 for foundation information.
39	219+95	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	
40	219+99	Valencia Road	61' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	3	I	
41	225+84	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
42	226+48	Valencia Road	58' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	
43	229+77	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
44	230+48	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	
45	234+62	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
46	235+38	Valencia Road	55' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	
47	173+16	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	B	
48	229+87	Valencia Road	54' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
49	234+77	Valencia Road	55' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
50	173+94	Valencia Road	54' Rt.	Detail DI-11A	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	B	See Detail DI-11A on sheet DT19 for foundation information.
51	213+40	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
52	212+77	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	
53	210+73	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	
54	210+06	Valencia Road	54' Rt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	1	I	
55	210+13	Valencia Road	54' Lt.	Type 2B (T-445)	Standard	Type 2B (T-445)	LED	250W HPS Eqv.	240 VAC	2	I	

LIGHTING POLE SCHEDULE
VALENCIA ROAD

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. NA / Vert. NA	Sheet IT18 of IT20	Page 247 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 50368
MICHAEL A. COLOMBO
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 12/31/2019

Kimley»Horn ©2018
333 E. Wetmore Road
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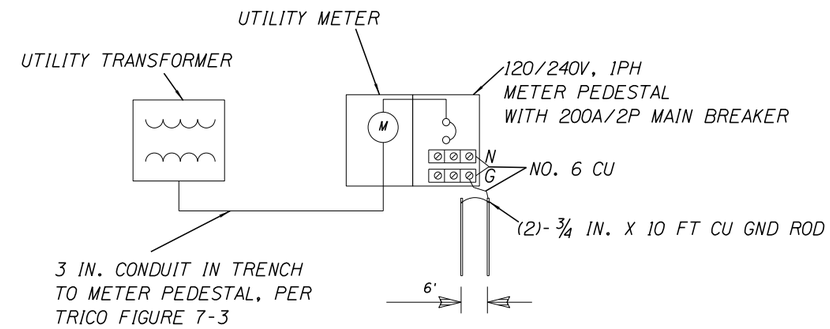
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

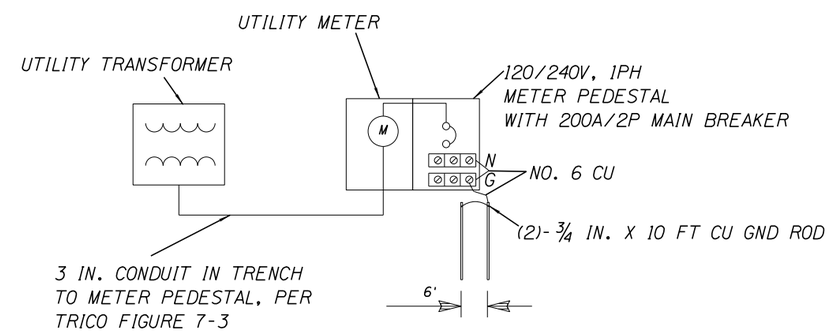
TRICO - METER PEDESTAL TABLE - VALENCIA ROAD						
LOAD CENTER No:	"A"					
LOAD CENTER LOCATION:	VALENCIA ROAD STA: 89+41 (9455 W VALENCIA RD)					
LOAD CENTER MAINTENANCE No:						
LOAD CENTER TYPE:	240-120V, 1Φ, 200A (METERED)					
LOAD CENTER XFMR SIZE:						
MAIN CIRCUIT BKR:	200A, 2-POLE					
CKT NO.	CKT BKR	STATUS	BKR AMPS	CONDUCTOR SIZE	OUTPUT VOLTS	LOAD AMPS
1	2-POLE	S. LIGHTING	20A	#8 AWG	240V	3.93A
2	2-POLE	S. LIGHTING	20A	#8 AWG	240V	3.27A
					SERVICE AMPS	7.20A
					DEMAND (125%)	1.80A
					POWER (VA)	2160
					TOTAL AMPS	9.00A



SINGLE LINE DIAGRAM

N.T.S.

TRICO - METER PEDESTAL TABLE - VALENCIA ROAD						
LOAD CENTER No:	"B"					
LOAD CENTER LOCATION:	VALENCIA ROAD STA: 165+32 (8325 W VALENCIA RD)					
LOAD CENTER MAINTENANCE No:						
LOAD CENTER TYPE:	240-120V, 1Φ, 200A (METERED)					
LOAD CENTER XFMR SIZE:						
MAIN CIRCUIT BKR:	200A, 2-POLE					
CKT NO.	CKT BKR	STATUS	BKR AMPS	CONDUCTOR SIZE	OUTPUT VOLTS	LOAD AMPS
1	2-POLE	S. LIGHTING	20A	#8 AWG	240V	5.23A
2	2-POLE	S. LIGHTING	20A	#8 AWG	240V	5.23A
3	Spare		20A			
4	Spare		20A			
5	1-POLE	IRR. CNTRL	20A	#8 AWG	120V	5.00A
6	2-POLE	BOOSTER PUMP	20A	#8 AWG	240V	9.00A
					SERVICE AMPS	24.46A
					DEMAND (125%)	6.12A
					POWER (VA)	7340
					TOTAL AMPS	30.58A



SINGLE LINE DIAGRAM

N.T.S.

METER PEDESTALS/
SINGLE LINE DIAGRAMS
VALENCIA ROAD

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. NA	Sheet IT19 of IT20	Page 248 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	V.Castaneda	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
CERTIFICATE NO. 50368
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Date Signed 01/04/18
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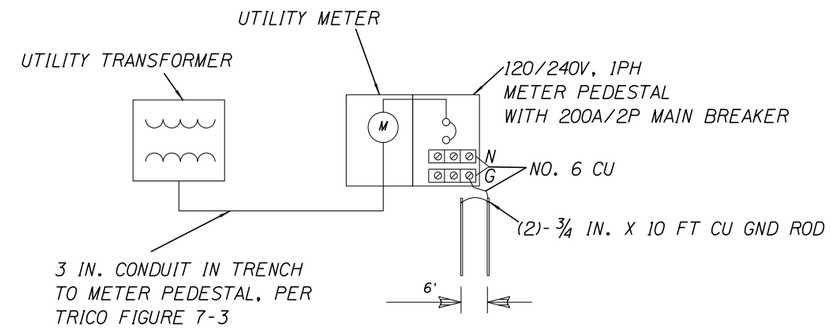
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

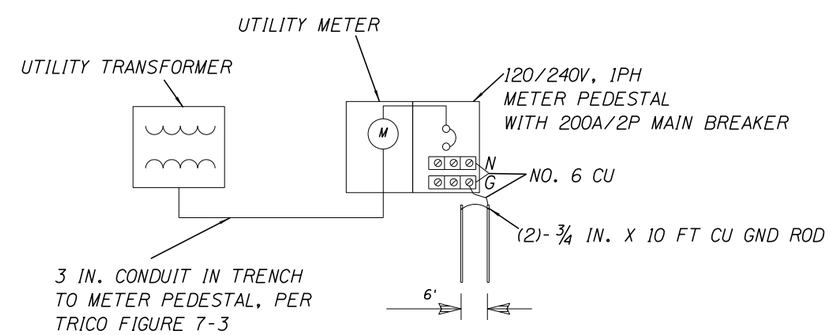
TRICO - METER PEDESTAL TABLE - VALENCIA ROAD						
LOAD CENTER No:	"V"					
LOAD CENTER LOCATION:	VALENCIA ROAD STA: 199+25 (7811 W VALENCIA RD)					
LOAD CENTER MAINTENANCE No:						
LOAD CENTER TYPE:	240-120V, 1Φ, 200A (METERED)					
LOAD CENTER XFMR SIZE:						
MAIN CIRCUIT BKR:	200A, 2-POLE					
CKT NO.	CKT BKR	STATUS	BKR AMPS	CONDUCTOR SIZE	OUTPUT VOLTS	LOAD AMPS
1	2-POLE	S. LIGHTING	20A	#8 AWG	240V	2.62A
2	2-POLE	S. LIGHTING	20A	#8 AWG	240V	3.27A
					SERVICE AMPS	5.89A
					DEMAND (125%)	1.47A
					POWER (VA)	1767
					TOTAL AMPS	7.36A



SINGLE LINE DIAGRAM

N.T.S.

TRICO - METER PEDESTAL TABLE - VALENCIA ROAD						
LOAD CENTER No:	"I"					
LOAD CENTER LOCATION:	VALENCIA ROAD STA: 218+58 (7509 W VALENCIA RD)					
LOAD CENTER MAINTENANCE No:						
LOAD CENTER TYPE:	240-120V, 1Φ, 200A (METERED)					
LOAD CENTER XFMR SIZE:						
MAIN CIRCUIT BKR:	200A, 2-POLE					
CKT NO.	CKT BKR	STATUS	BKR AMPS	CONDUCTOR SIZE	OUTPUT VOLTS	LOAD AMPS
1	2-POLE	S. LIGHTING	20A	#8 AWG	240V	5.89A
2	2-POLE	S. LIGHTING	20A	#8 AWG	240V	6.54A
					SERVICE AMPS	12.43A
					DEMAND (125%)	3.11A
					POWER (VA)	3730
					TOTAL AMPS	15.54A



SINGLE LINE DIAGRAM

N.T.S.

METER PEDESTALS/
SINGLE LINE DIAGRAMS
VALENCIA ROAD

Contact Arizona 811 at least two full working days before you begin excavation
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Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet IT20 of IT20	Page 249 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

PAVEMENT MARKING GENERAL NOTES

1. All equipment/materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) standard specifications and the standard details for public improvements, the special provisions and the approved plans. All pavement marking shall be installed in accordance with the PC/COT Pavement Marking Design Manual.
2. The Striping Contractor shall contact the Pima County Pavement Marking Supervisor (520-724-2624) at least 3 working days in advance of any pavement marking layout being installed to schedule inspection and approval of pavement marking.
3. Upon approval of the pavement marking layout, the Pima County Pavement Marking Supervisor will issue written authorization to the Contractor to proceed with installing all pavement markings and associated reflective raised pavement markings.
4. The permanent pavement markings may be modified as directed and approved by the Traffic Engineer or by his designee.
5. The design speed for Valencia Road is 50 mph. the design vehicle is WB-62. the posted speed limit is 45 mph.
6. All lane dimensions are measured from the center of lane line, center of double lane line, or edge of pavement unless otherwise noted.
7. The pavement marking drawings are schematic only. The Contractor shall follow all dimensions, applicable marking details, and specified Pima County standards when installing pavement striping, symbols, legends, and markers.
8. Painted layout striping shall be 15 mils (0.015") thick, water based paint placed on the final pavement surface. Painted layout striping shall be installed within five (5) working days of the final pavement surface being completed.
9. Painted symbols and legends shall be applied at the same time as the painted striping, with the exception of bike lane symbols and words (such as stop, ahead, only, etc.).
10. The final longitudinal striping shall be 90 mils (0.090") thick hot-sprayed thermoplastic reflectorized striping placed over the painted layout striping within 21 to 30 calendar days of the final pavement surface being completed. All previously exempted longline markings shall be applied during the final longitudinal striping.
11. All final transverse striping shall be hot-sprayed thermoplastic 90 mils (0.090") thick including symbols and legends with the exception of bike lane symbols which may be extruded thermoplastic or cold preformed thermoplastic.
12. The Contractor shall be responsible for the layout and installation of pavement markings on the final surface course following one control line per direction of travel consisting of control points that have been set to no more than 50 feet apart on curve sections and 200 feet in tangent sections where the pavement marking pattern does not change.
13. It is the Contractor's responsibility to ensure that the final surface course is placed so that the construction joint is no more than one foot offset from the final striping.
14. All raised pavement markers (RPMs) shall be installed so that the reflective face of each marker is facing the direction of traffic and is perpendicular to the direction of traffic flow. Type C pavement markers shall be installed so that the clear reflective face of each marker is facing approaching traffic and perpendicular to the direction of traffic flow.
15. All raised pavement markers (RPMs) shall be installed per the current edition of the PC/COT Pavement Marking Manual.
16. Blue raised pavement markers shall be placed adjacent to fire hydrants as shown on sheet 7-1 of the PC/COT Pavement Marking Manual.
17. All removal of existing pavement markings shall be accomplished in accordance with Section 701 of the PAG Standard Specifications. Painting over existing striping does not constitute approved striping obliteration.
18. Unless otherwise noted, all pavement markings shall be installed by the Contractor.
19. Upon final inspection, a written acceptance or itemized punchlist of missing or unacceptable pavement markings shall be submitted to the Contractor and Pima County by the Traffic Engineer or designated representative.
20. The Contractor shall be responsible for maintaining all striping until project is approved for "construction acceptance" by Pima County (fully open to traffic, all punchlist items are completed, and one year warranties begin).
21. The PC/COT Pavement Marking Manual is available online at: http://webcms.pma.gov/UserFiles/Servers/Server_6/File/Government/Transportation/Roadway Design/Pavement Marking Design Manual 2008.pdf

LINE STYLE DESIGNATION: YSB4-D40/D40

- Color
- Pattern
- Width of Stripe
- RPM Spacing
- RPM Type
- RPM Spacing
- RPM Type

WG12(2x6)

- Color
- Pattern
- Width of Stripe
- Gap Length
- Stripe Length

See 2008 PC/COT Pavement Marking Design Manual for Further Descriptions

PAVEMENT MARKING NOTES

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. NA	Sheet PMI of PMI5	Page 250 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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Registered Professional Engineer
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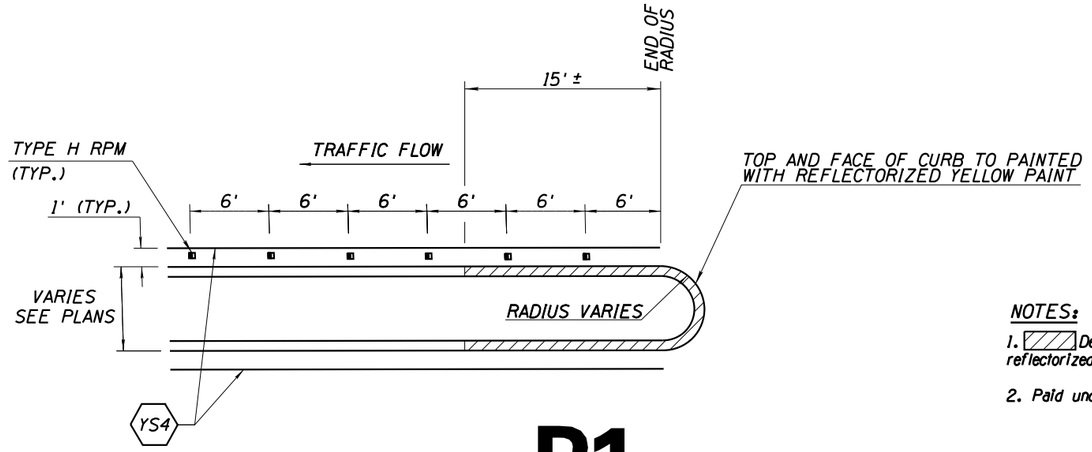
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

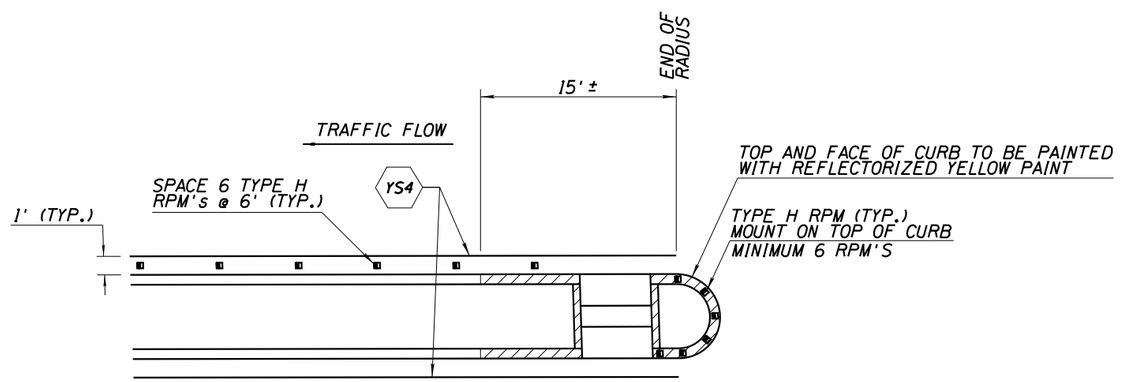


DETAIL P1

TYPICAL MEDIAN END TREATMENT
NTS

NOTES:

1. Depicts limits of reflectorized yellow paint
2. Paid under Item #9300132



DETAIL P2

DEPRESSED MEDIAN END TREATMENT
WITH CROSSWALK
NTS

PAVEMENT MARKING DETAILS

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. NA	Sheet PM2 of PM15	Page 251 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	S. Dehaybi	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date signed 01/04/18
ARIZONA, U.S.A.
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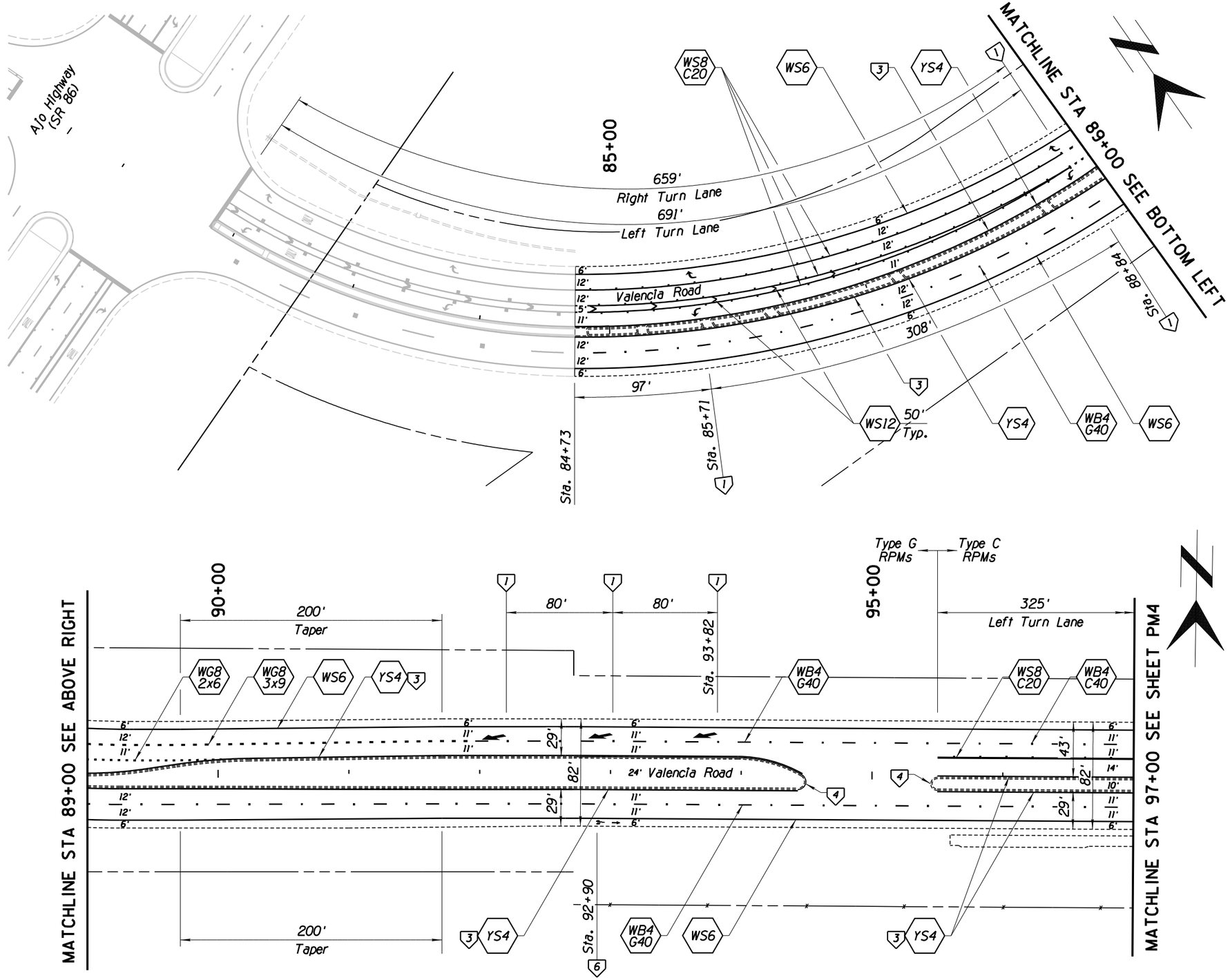
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, 4-12, and 4-13 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.
4. Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.
6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 81+00 TO 97+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1" = 40'	Sheet PM3 of PM15	Page 252 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
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Registered Professional Engineer (Civil)
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TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
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No.	Revision Description	Engineer	Date

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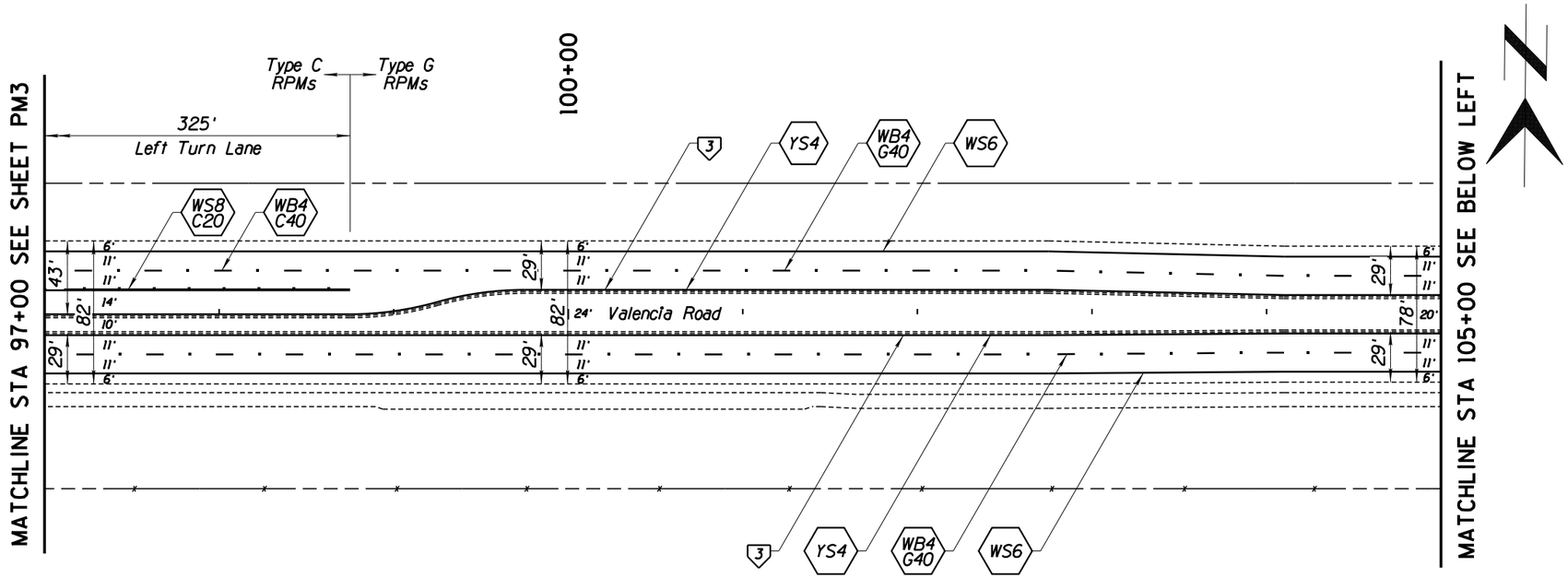

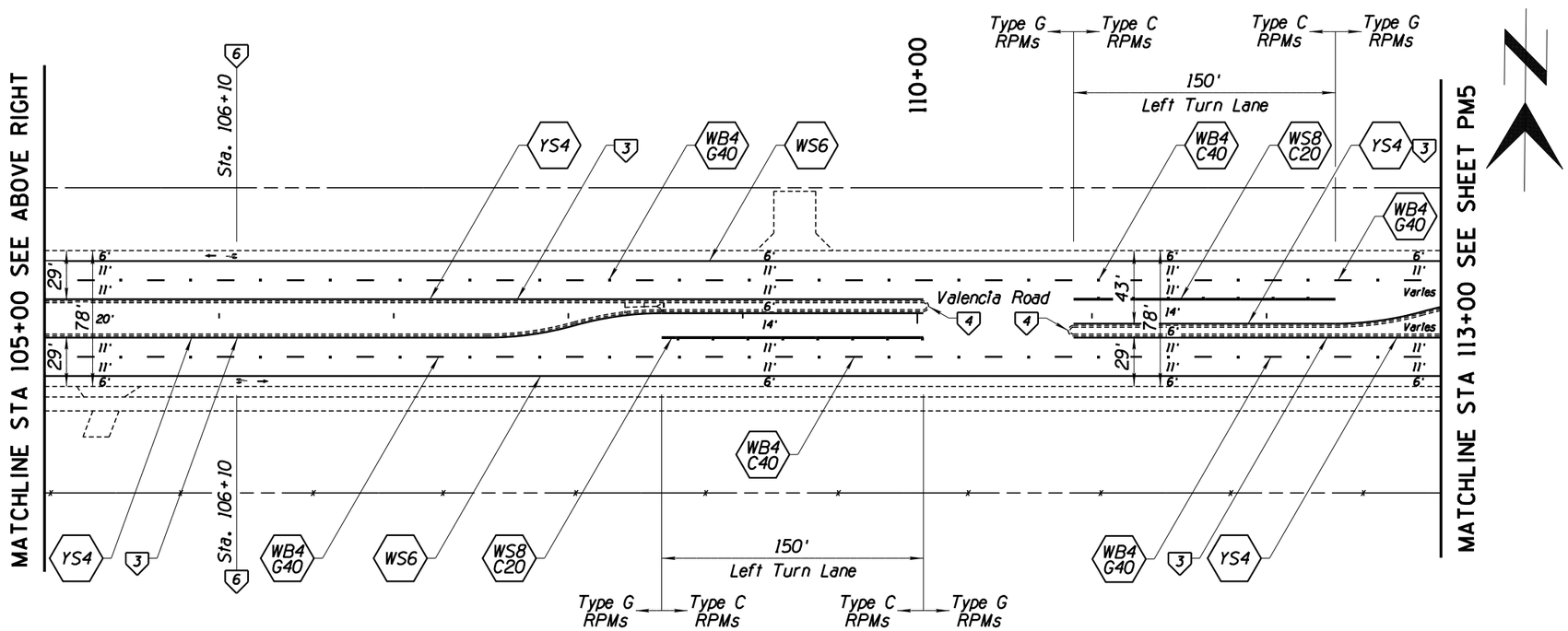

NOTES:

3. Install marking at 1-ft from face of median curb or edge line.

4. Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.

6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 97+00 TO 113+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1" = 40'	Sheet PM4 of PM15	Page 253 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

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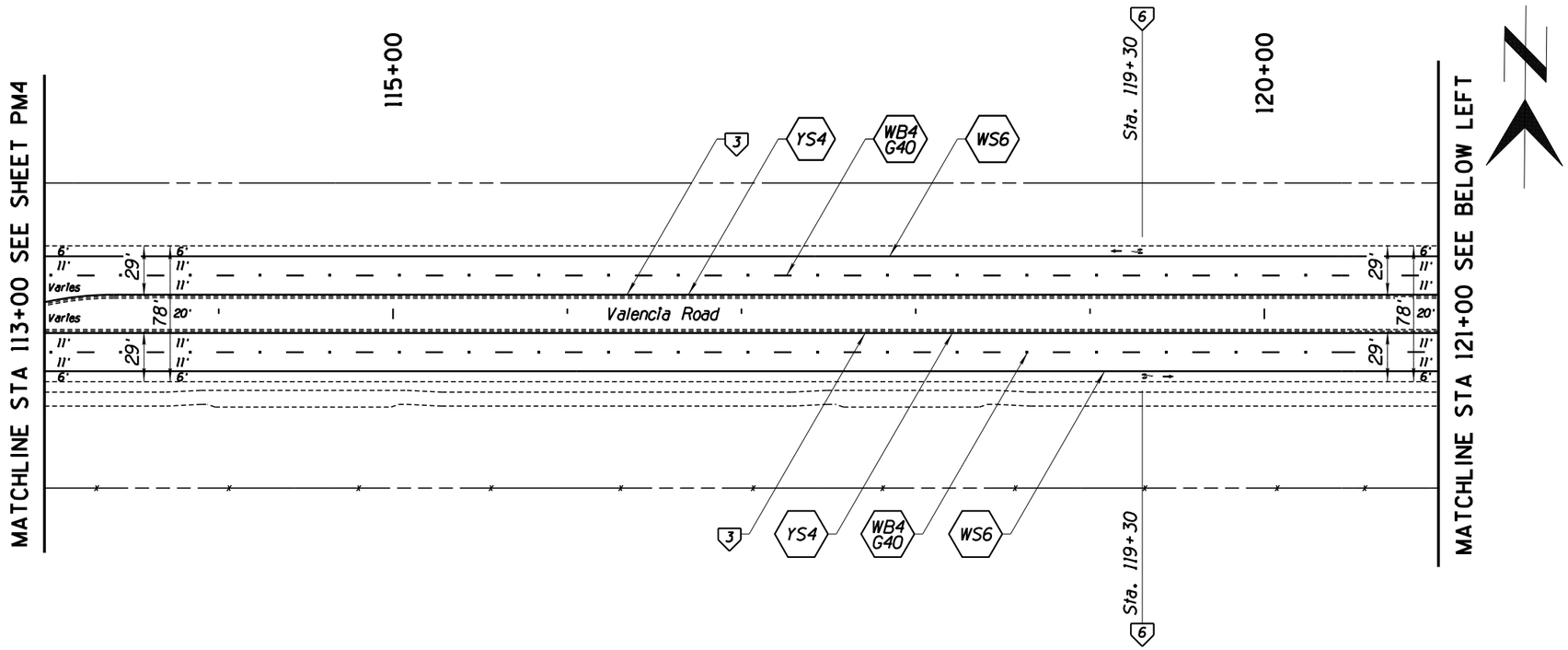
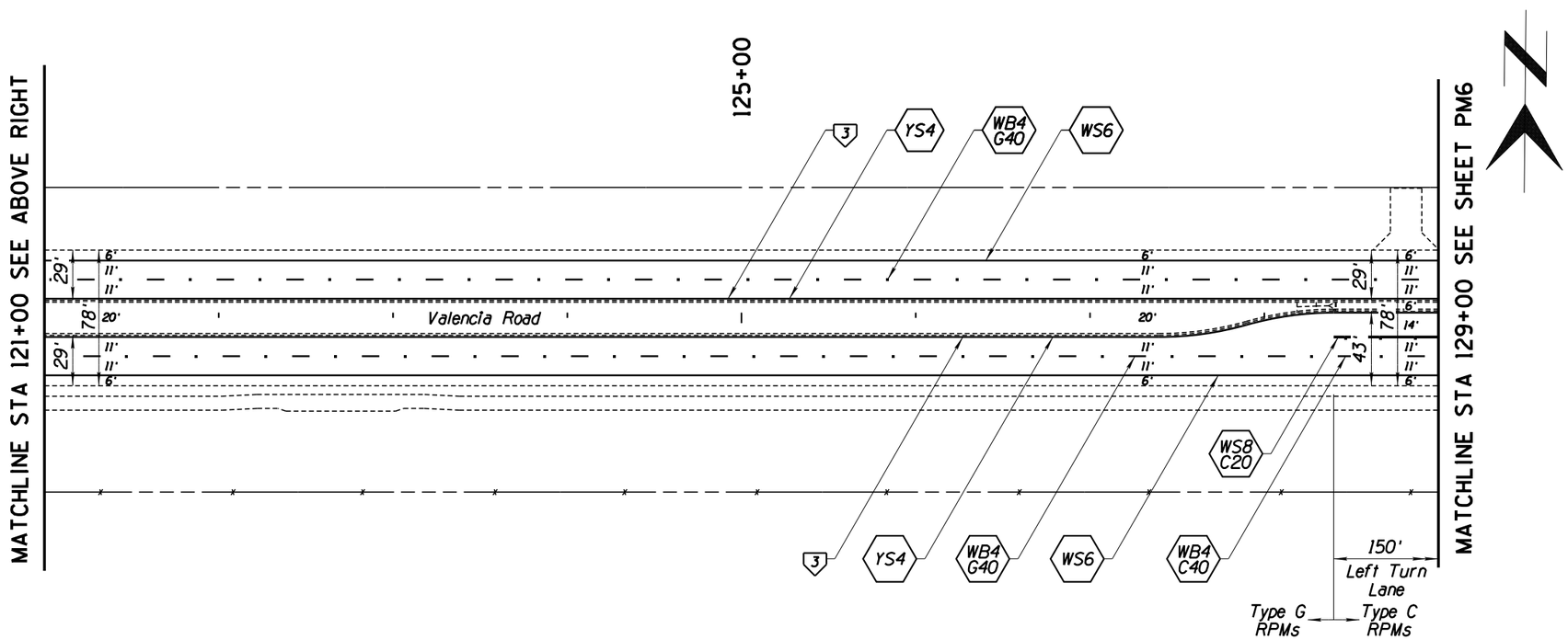
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





NOTES:

3 Install marking at 1-ft from face of median curb or edge line.

6 Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 113+00 TO 129+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet PM5 of PM15	Page 254 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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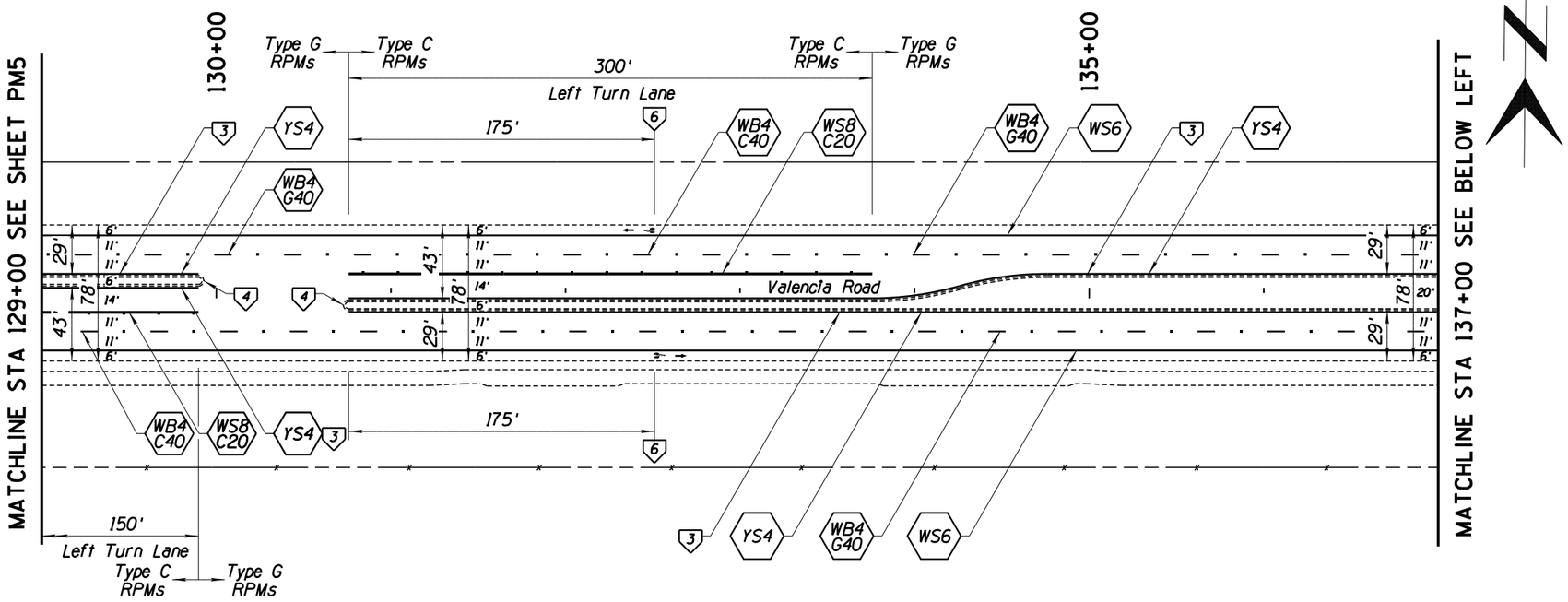

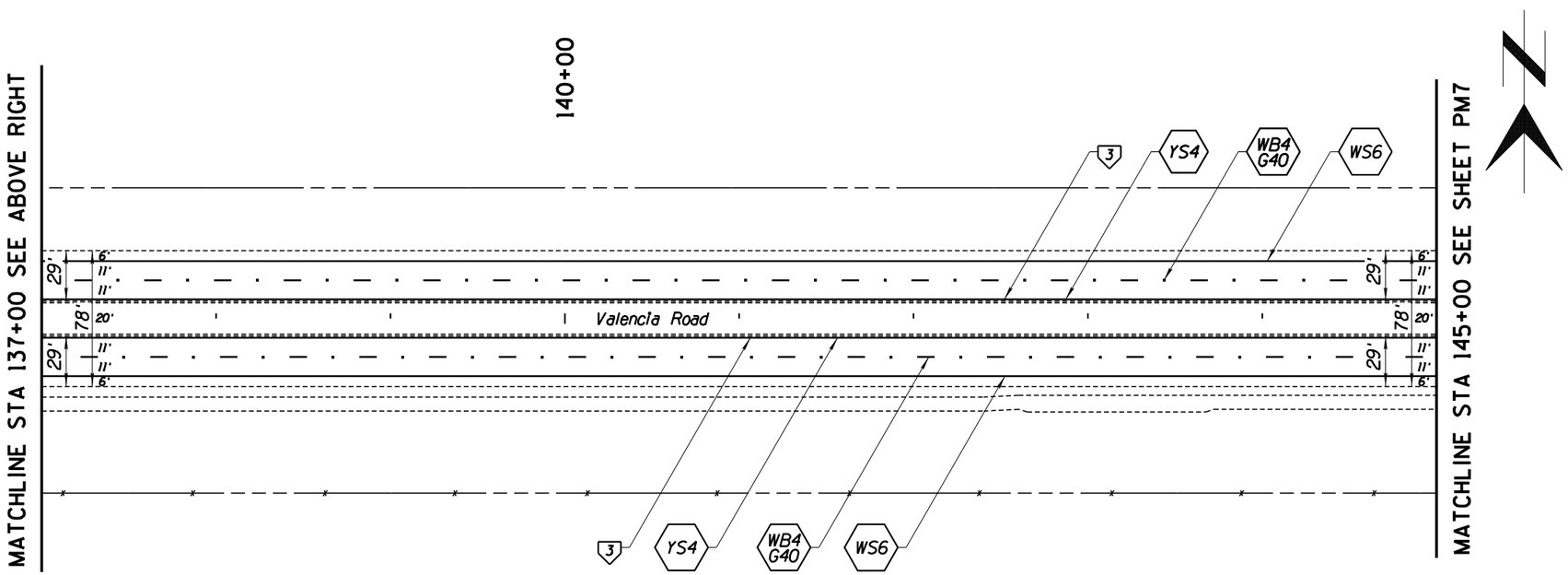

NOTES:

3. Install marking at 1-ft from face of median curb or edge line.
4. Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.
6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 129+00 TO 145+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1" = 40'	Sheet PM6 of PM15	Page 255 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

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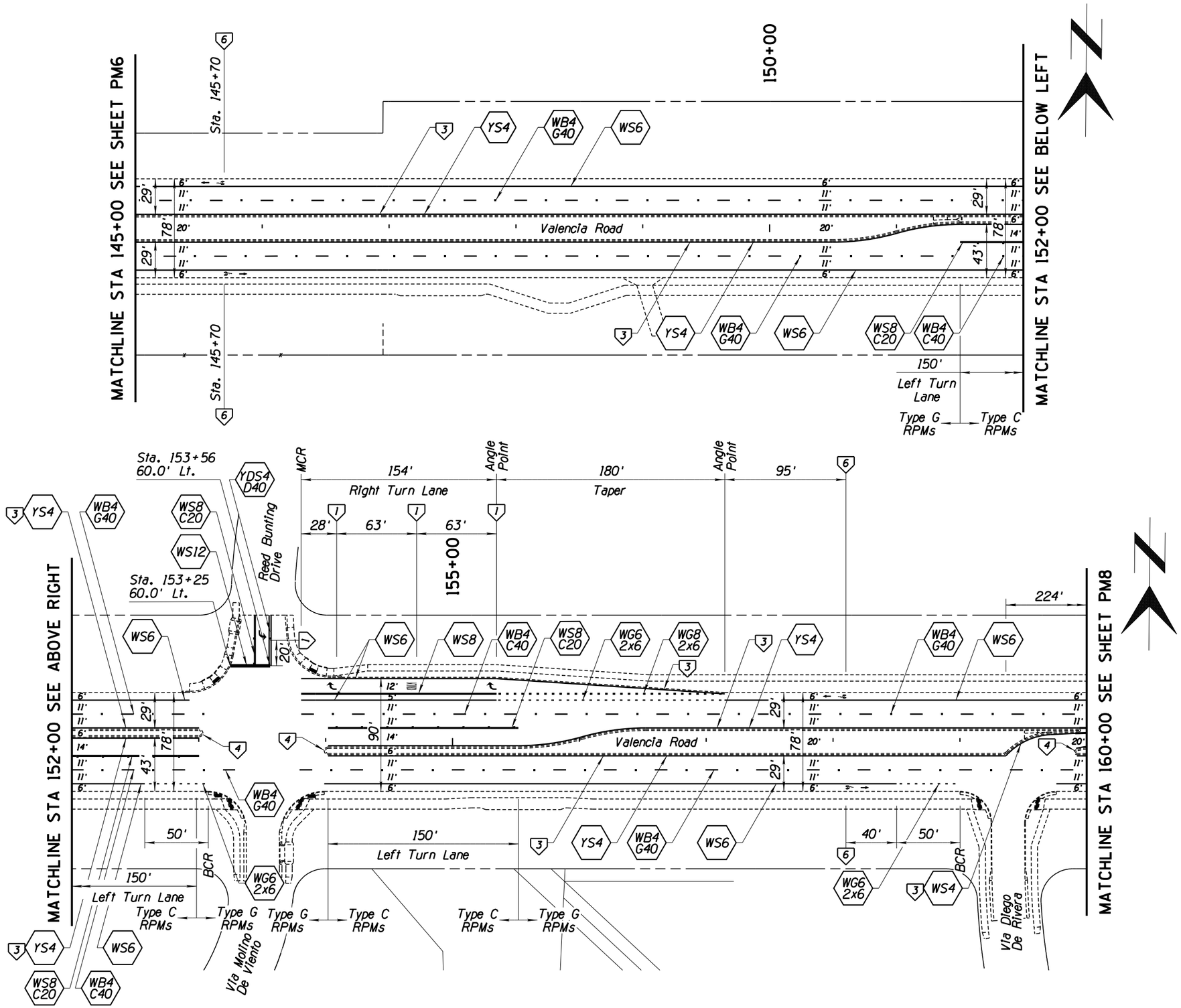
PROJECT NO. 4RTVWE



NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, and 4-12 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.
4. Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.
6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

60430
TIMOTHY J.
RHINE
Date signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

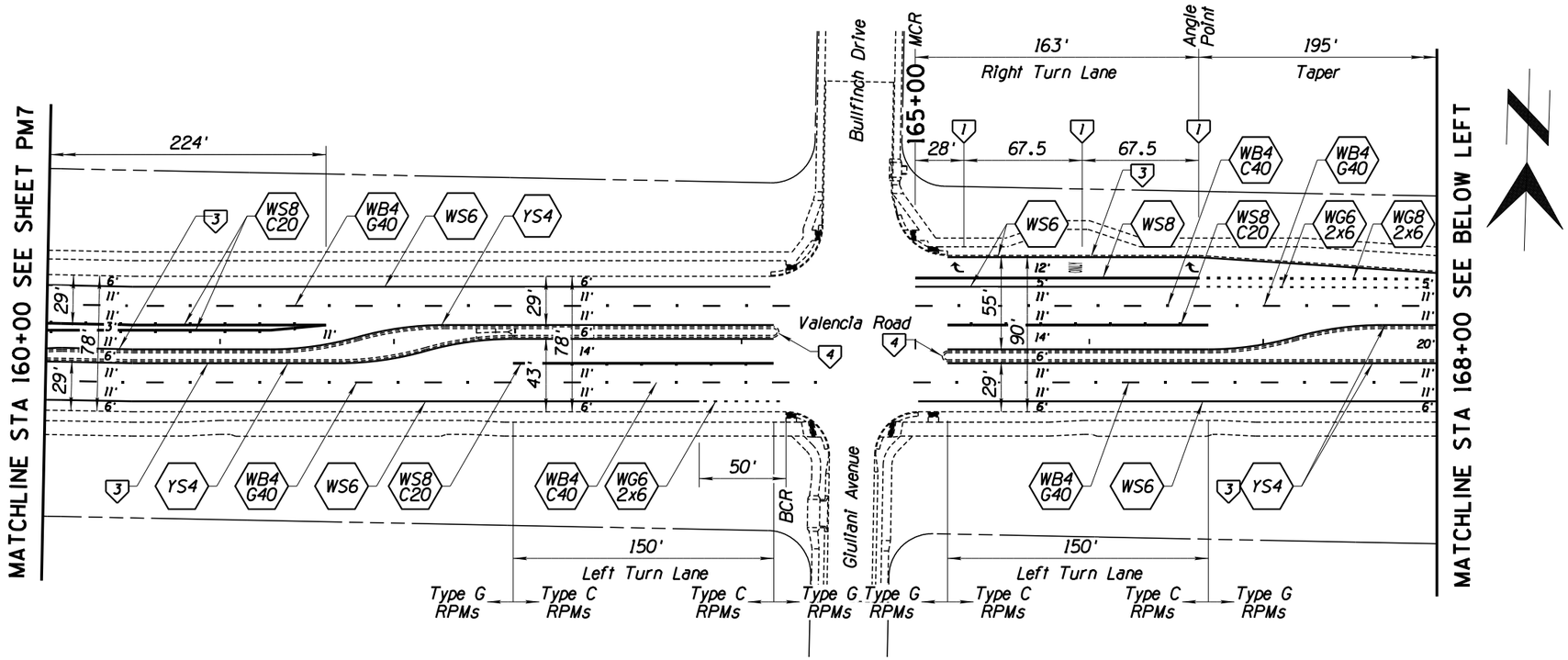
PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 145+00 TO 160+00

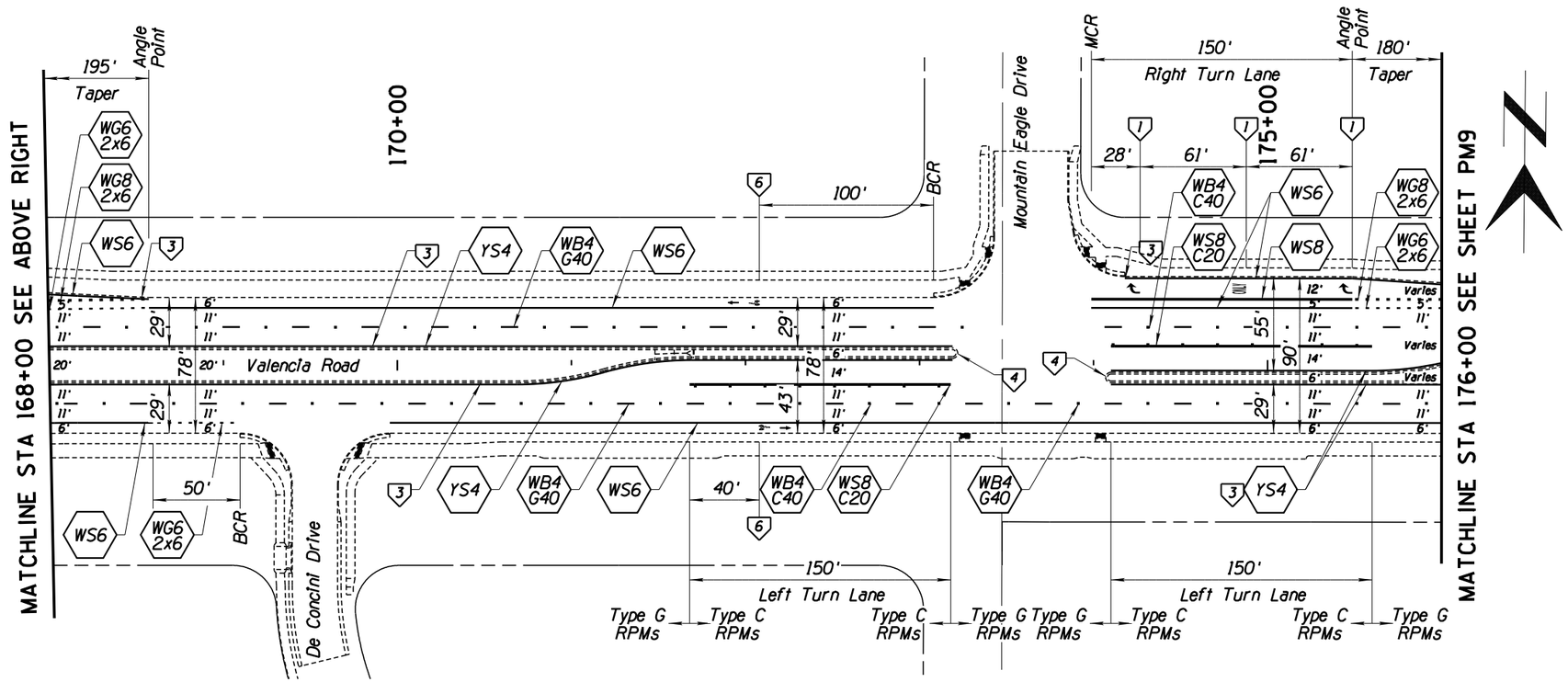
40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet PM7 of PM15	Page 256 of 433
	Vert. NA		

4:47:21 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MARKING\T022048PMS05.DGN





NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, and 4-12 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.
4. Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.
6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 160+00 TO 176+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40' Vert. NA	Sheet PM8 of PM15	Page 257 of 433

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

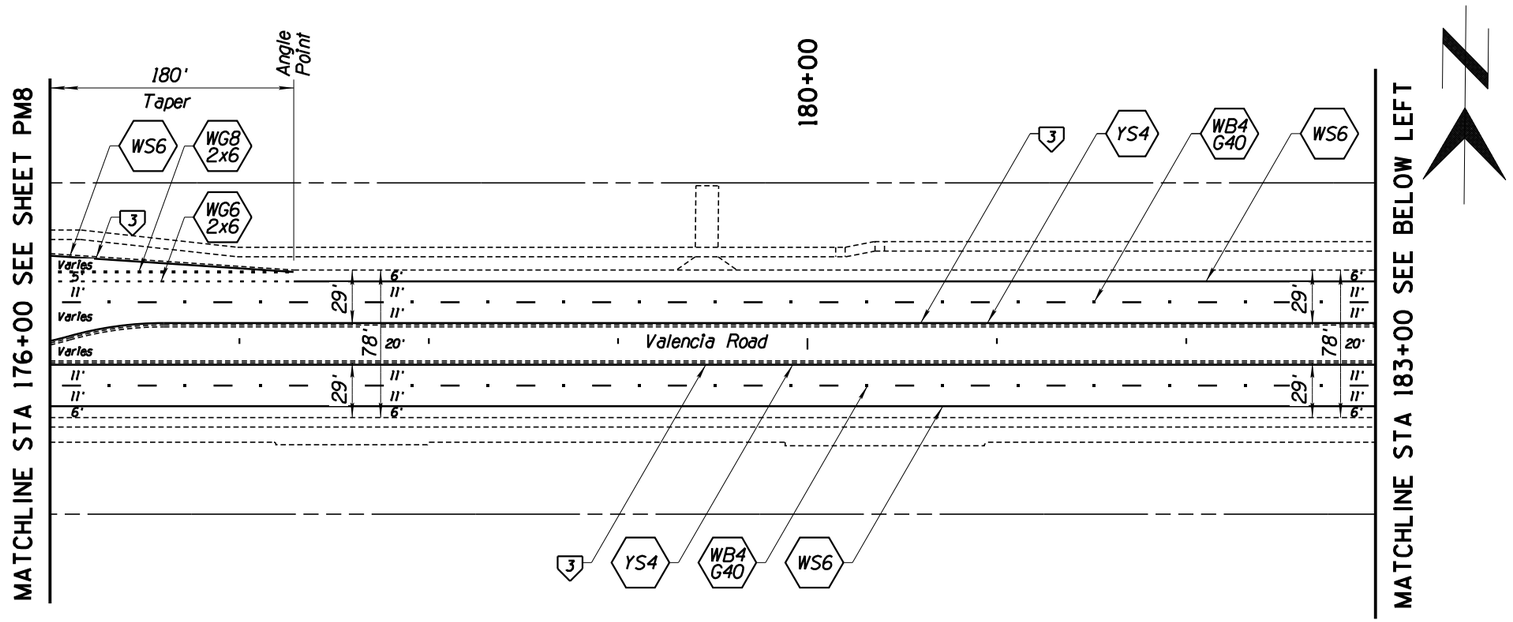
Ana M. Olivares, P.E., Director

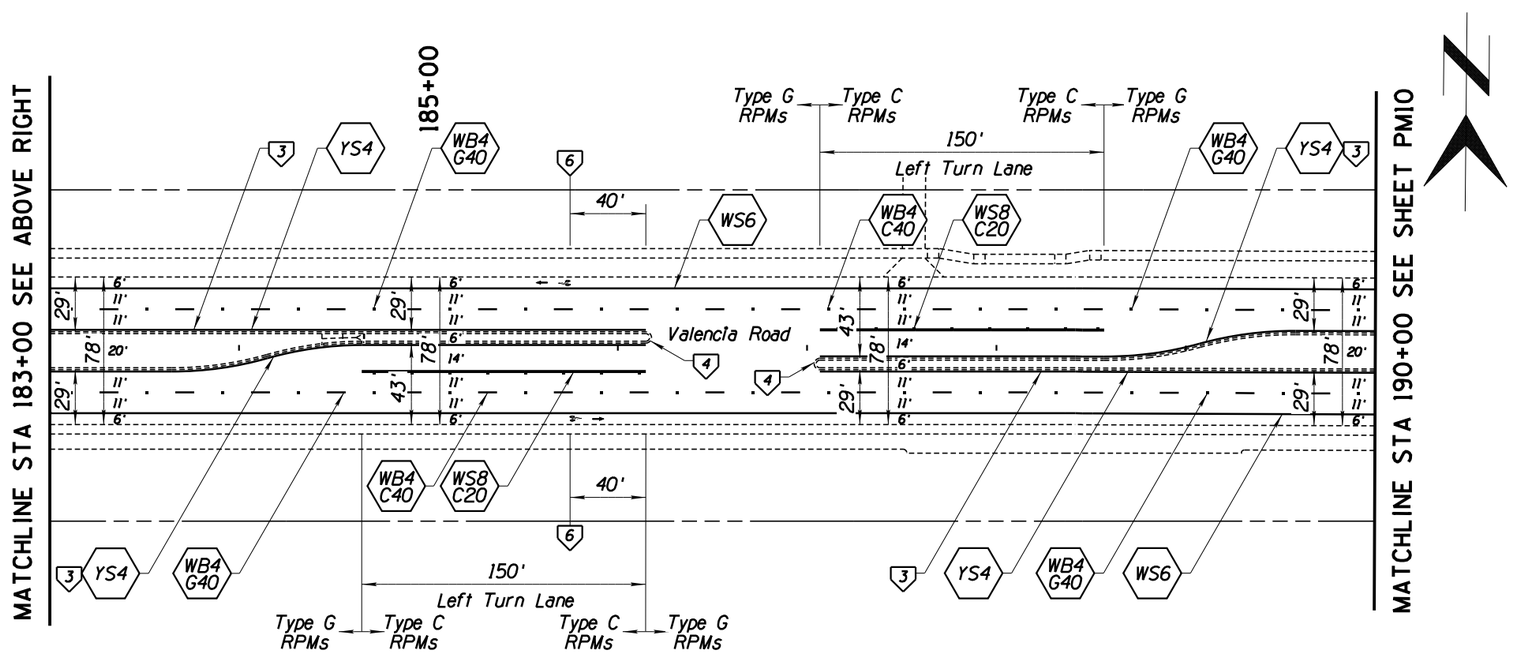
No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423





NOTES:

3 Install marking at 1-ft from face of median curb or edge line.

4 Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.

6 Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 176+00 TO 190+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet PM9 of PM15	Page 258 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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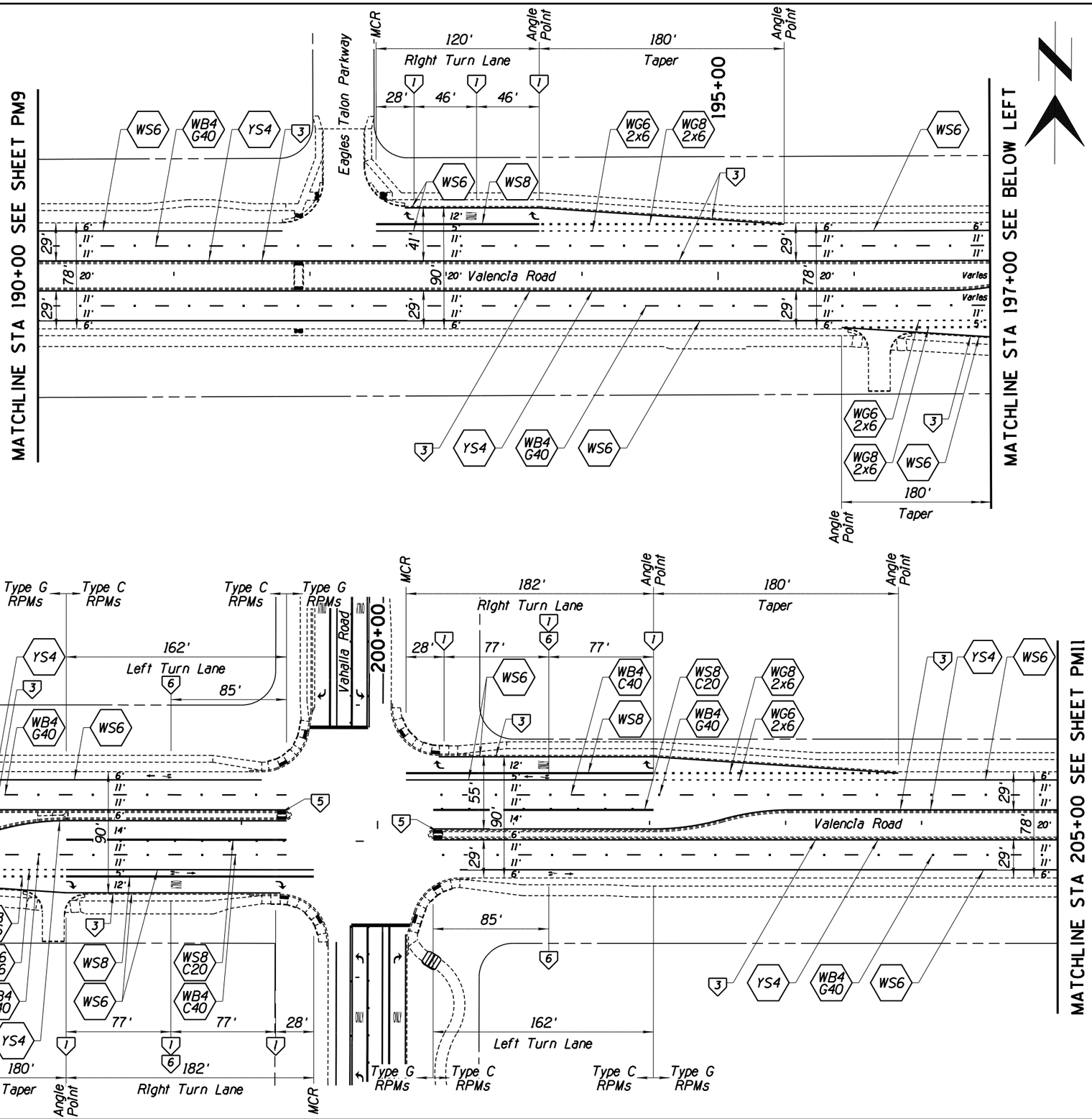
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, and 4-12 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.
5. Install RPMs per Median End Treatment Detail P2 on sheet PM2.
6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 190+00 TO 205+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	SheetPM10 of PM15	Page 259 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

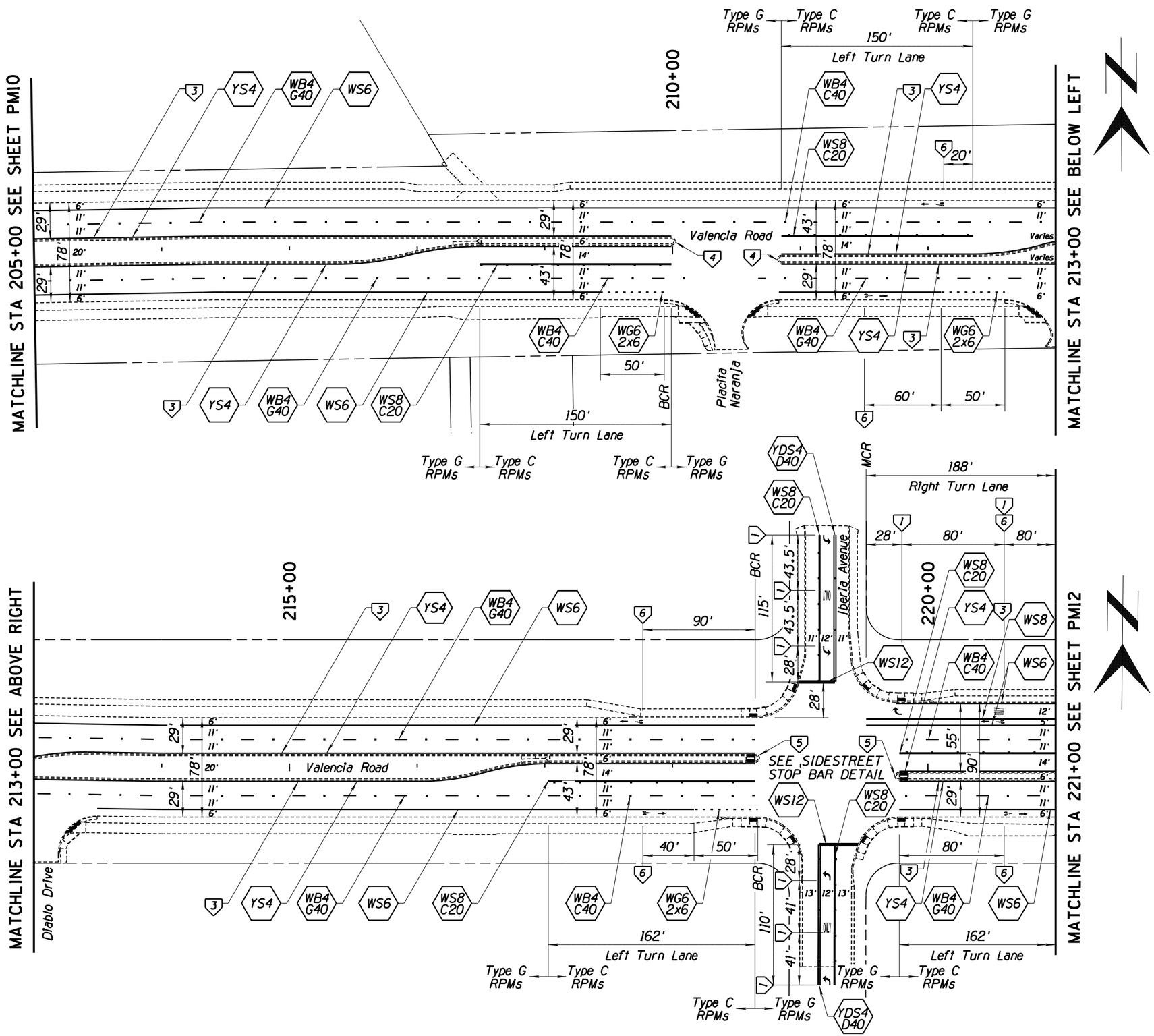
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018



NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, and 4-12 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.
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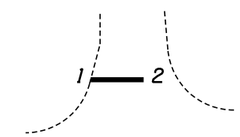

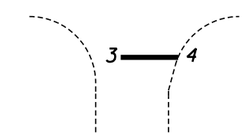

CONTROL POINT	STATION	OFFSET
1	218+99	67.0' Lt.
2	219+27	67.0' Lt.
3	219+15	60.5' Rt.
4	219+45	60.5' Rt.

SIDESTREET STOP BAR DETAIL
Stations and offsets are based on the Valencia Road Const. ℄

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 205+00 TO 221+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

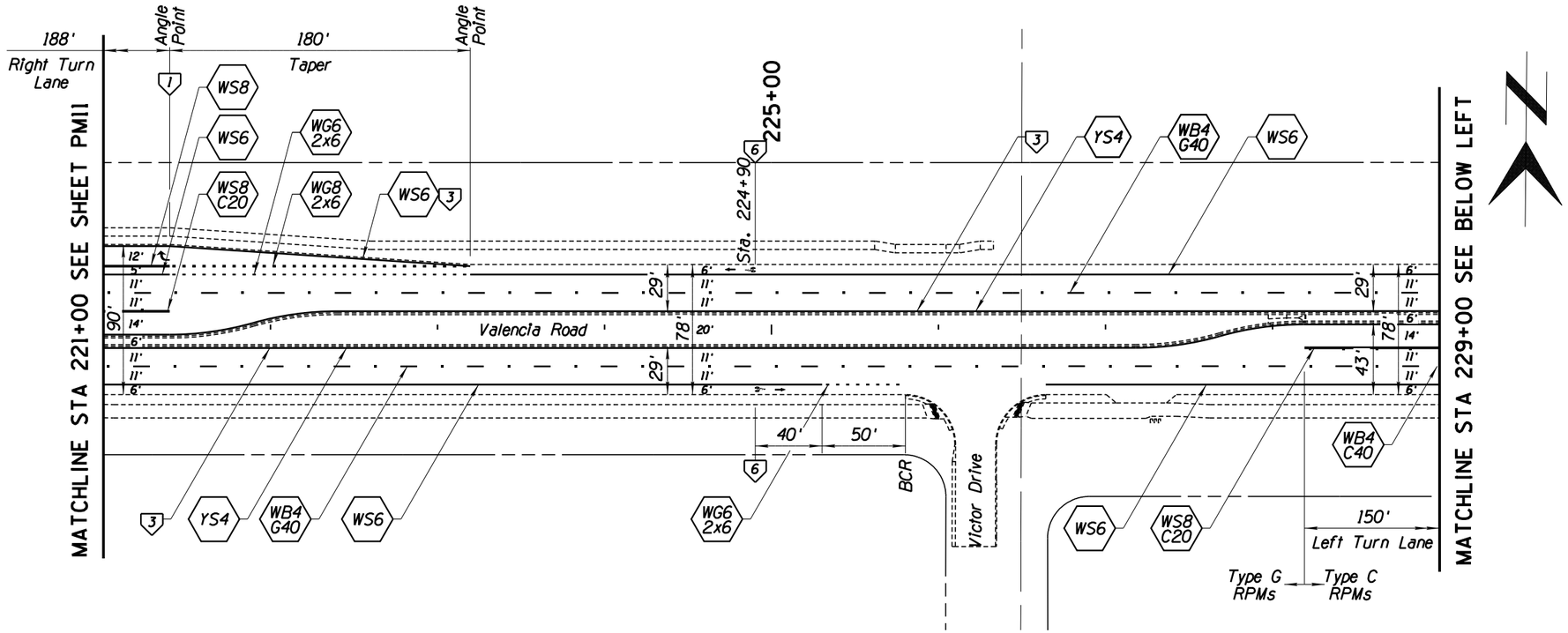
#4RTVWE

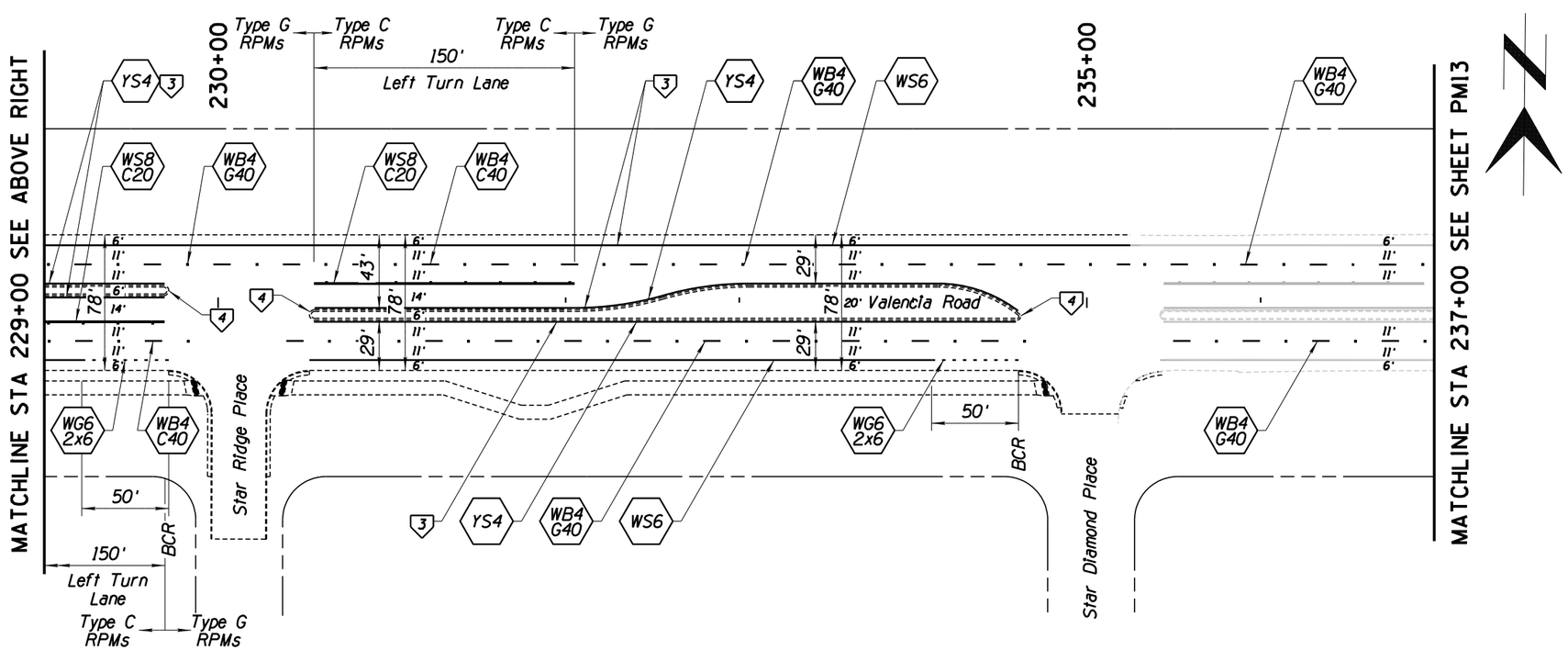
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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

Sheet PM11 of PM15

4:58:45 PM 1/5/2018 DANIEL.BACON K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\MARKING\T022048PMS09.DGN





NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, and 4-12 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.
4. Install RPMs and paint bull nose per Median End Treatment Detail P1 on page PM2.
6. Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 221+00 TO 237+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	SheetPM12 of PM15	Page 261 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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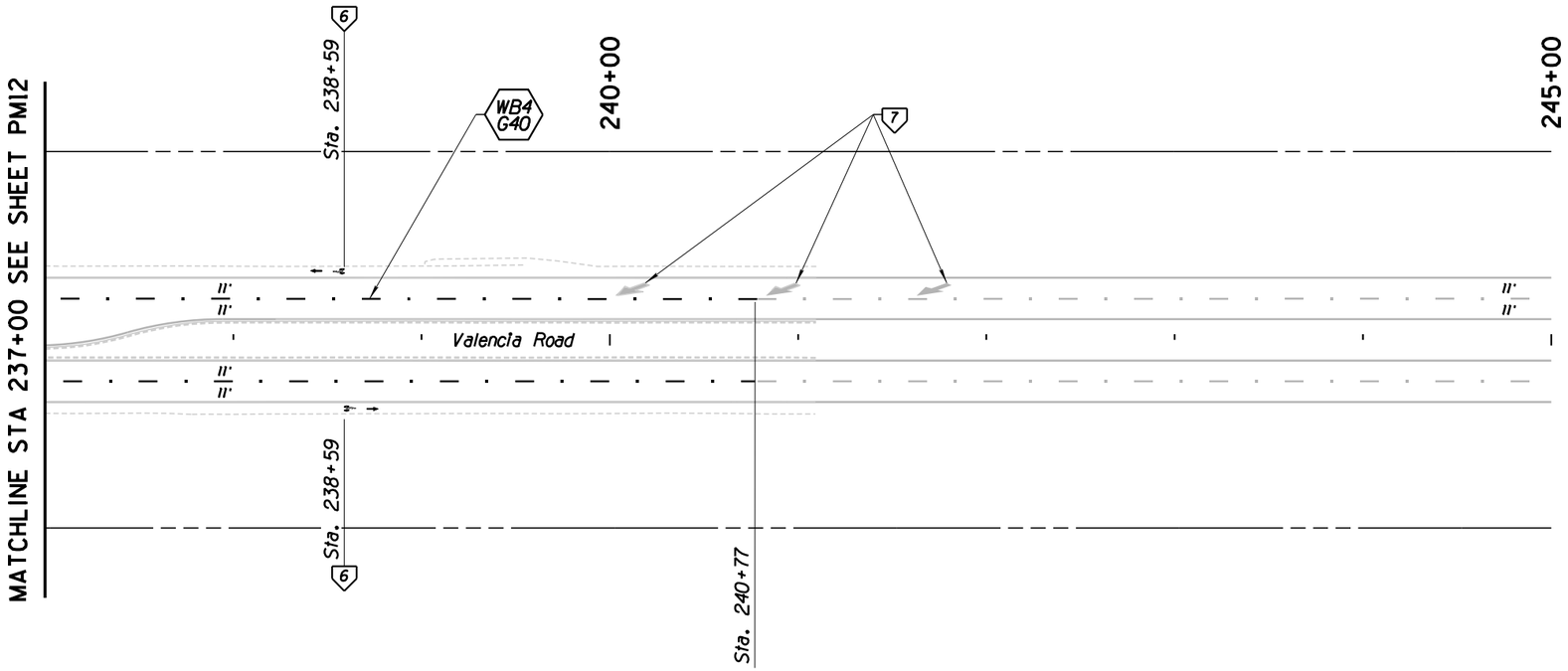
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



NOTES:

6 Install new bike lane pavement legends per Sheet Nos. 2-9.1 and 6-1.1 of the PC/COT Pavement Marking Design Manual.

7 Obliterate, Fog, and Blotter. Refer to Demolition Plans

PAVEMENT MARKING PLAN
VALENCIA ROAD
STA. 237+00 TO 245+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet PM13 of PM15	Page 262 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Dehaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
60430
TIMOTHY J.
RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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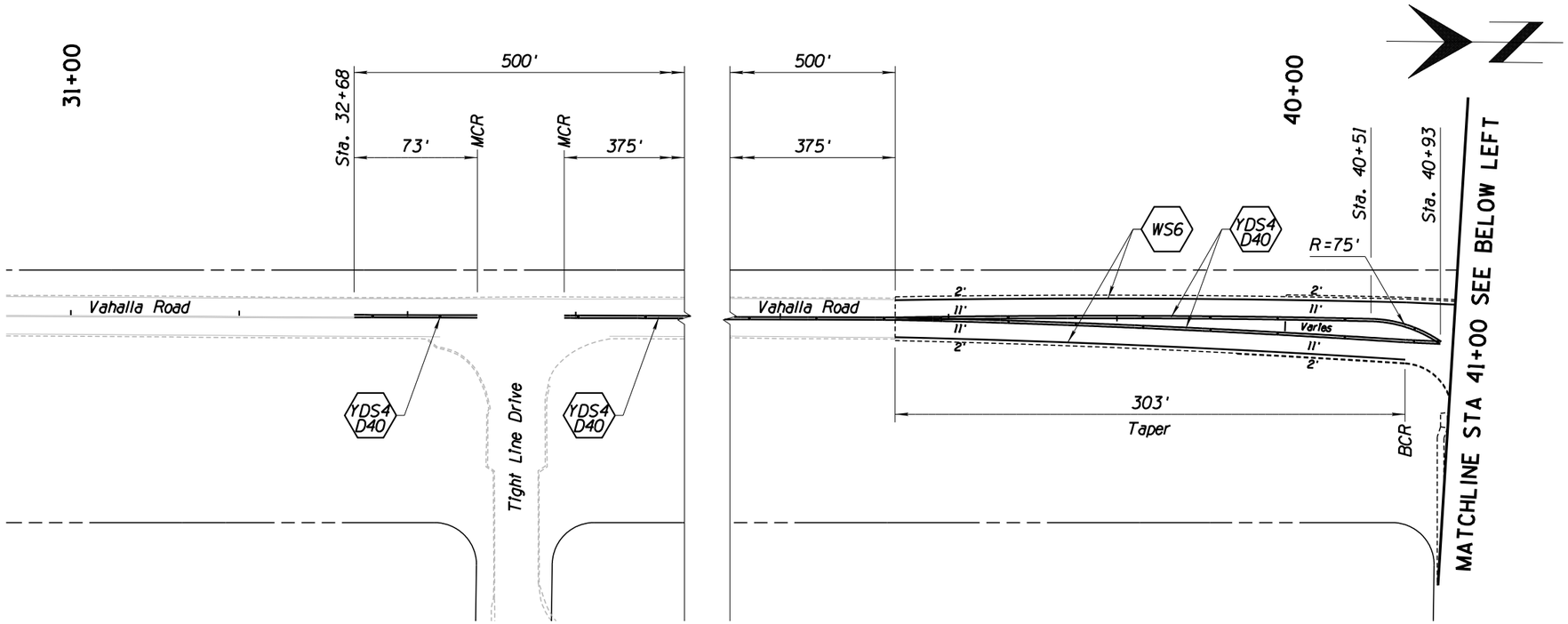
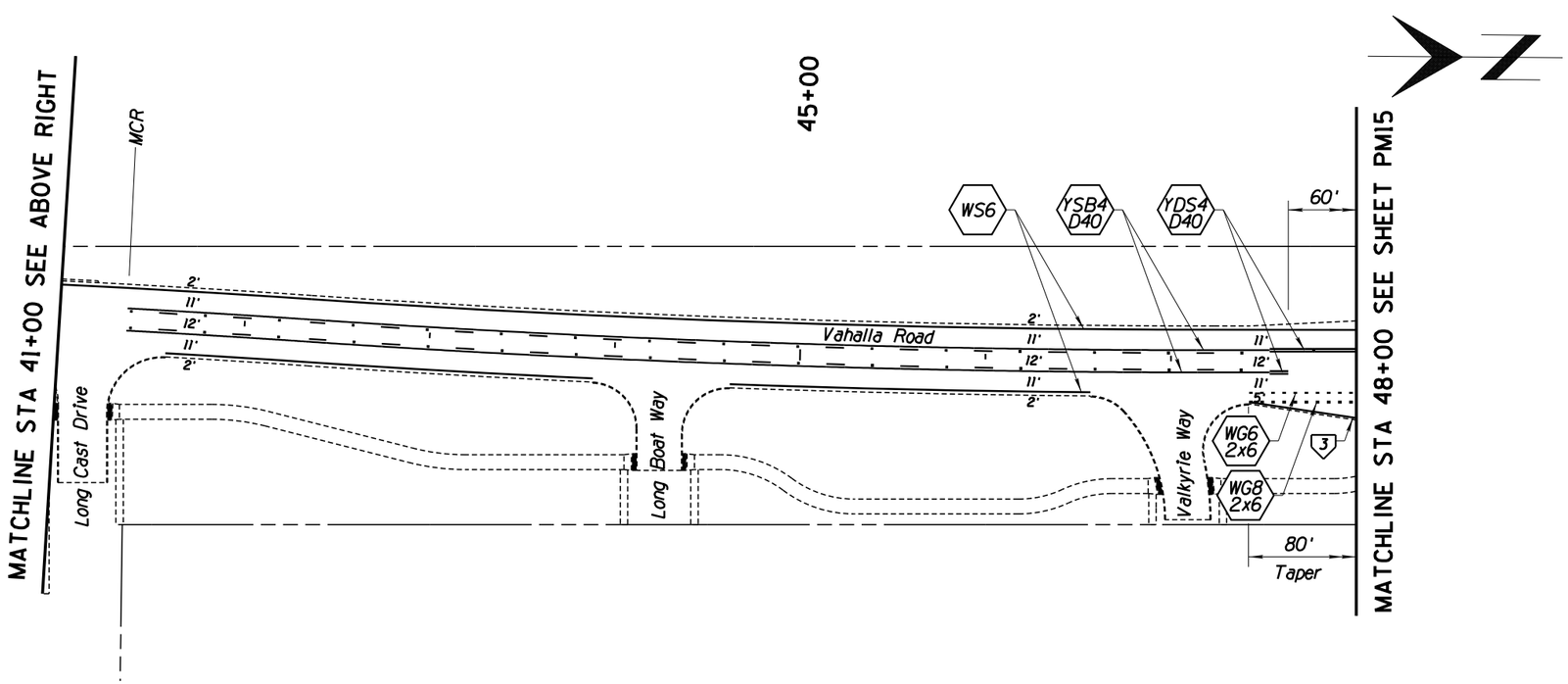
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





NOTES:

3 Install marking at 1-ft from face of median curb or edge line.

PAVEMENT MARKING PLAN
VAHALLA ROAD
STA. 31+00 TO 48+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet PM14 of PM15	Page 263 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
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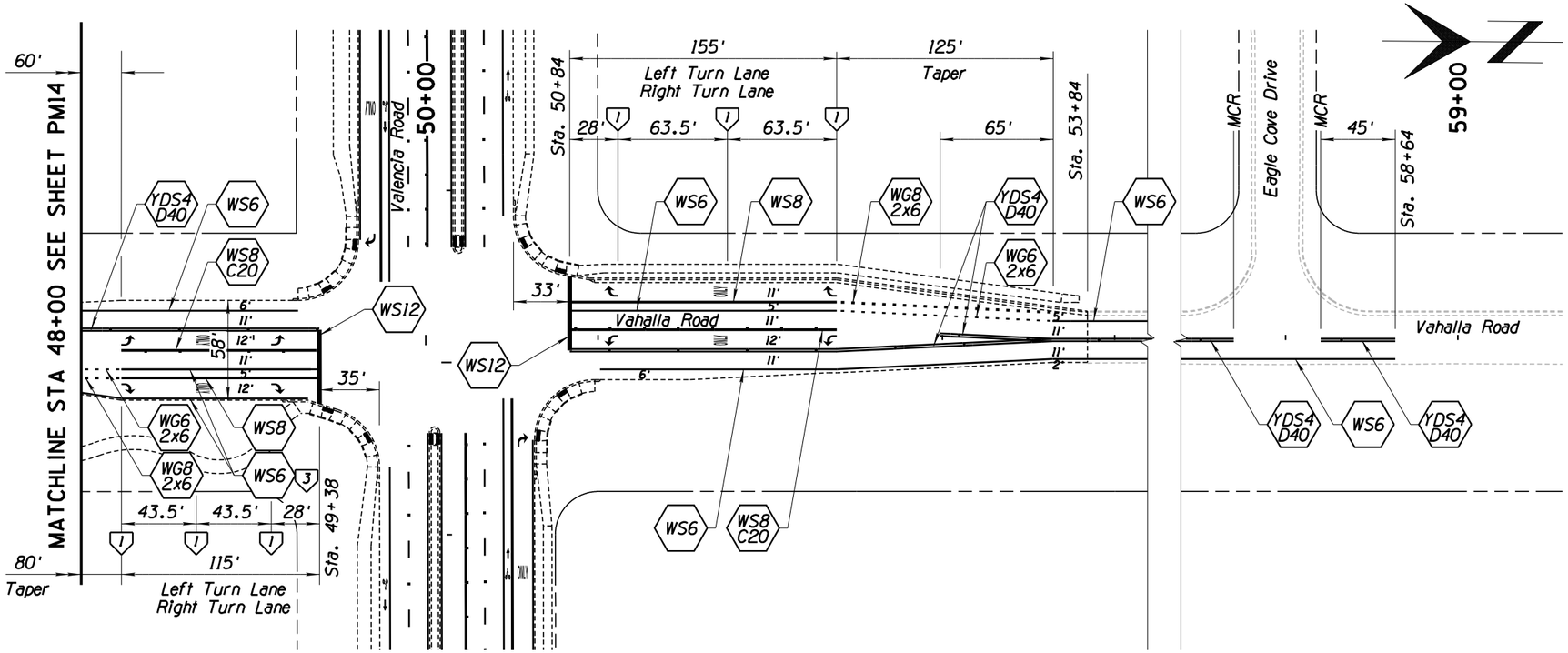
Proj. Engr.	R. Solis	01/2018



NOTES:

1. Install new pavement arrows and legends per Sheet Nos. 2-9, 2-10, and 4-12 of the PC/COT Pavement Marking Design Manual.
3. Install marking at 1-ft from face of median curb or edge line.

PAVEMENT MARKING PLAN
VAHALLA ROAD
STA. 48+00 TO 59+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet PM15 of PM15	Page 264 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	S. Denaybi	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGNING GENERAL NOTES

1. All equipment, materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) standard specifications and the standard details for public improvements, the special provisions and the approved plans.

2. All signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest edition of the Pima County/City of Tucson Traffic Signing Design Manual, the PAG standard specifications, the Pima County supplemental specifications, any required special provisions, and these plans.

3. Signs may be modified and locations adjusted to fit conditions in the field at the discretion of the Traffic Engineer.

4. The design speed for Valencia Road is 50 mph. The posted speed limit is 45 mph. Sign placement shall be based on the posted speed limit.

5. Post lengths indicated on sign summary sheets are approximate. The Contractor shall verify actual post lengths.

6. All perforated posts shall be installed in a concrete foundation, unless otherwise directed by the Traffic Engineer.

7. All sign station locations are approximate, the Contractor shall verify actual sign locations with the Traffic Engineer prior to the installation of any signs.

8. The Contractor shall be responsible for coordinating all work with Arizona 811 for installing all traffic signs in the field and for maintaining all signing until project is approved for "construction acceptance" by Pima County (fully open to traffic, all punch list items are completed, and one year warrantees begin).

9. All signs shall have Type XI sheeting, or an equivalent. All warning signs having yellow backgrounds shall use fluorescent yellow sheeting. All school signs shall use florescent yellow/green sheeting, Type XI. All ground mounted signs shall have an anti graffiti coating applied to sign face, 3M #1160 film or equivalent.

10. A 3" x 2" pressure sensitive, UV resistant label indicating the sign manufacturers name and date of manufacture shall be placed in the upper right corner of the back of all signs except street name signs at the time of installation. Street name signs shall include a sign identification decal as shown on Pima County Signing Detail 9-22A.

11. All new signs shall have 0.080 gauge, radius corner, aluminum backing unless otherwise noted.

12. Prior to disturbing any traffic signs, a sign condition inventory of all existing signing shall be conducted by the Contractor and provided to the Pima County Sign Shop Supervisor (520-724-2630). Inventory shall indicate current sign location and condition, including any existing damage or deficiencies.

13. Any signs and posts being re-used on this project shall be stockpiled in a manner to avoid damage and maintain the integrity of the signs. Safe storage of stockpile and payment for damage to the stockpile shall be the responsibility of the Contractor.

14. All signs and posts not being re-used on this project shall be dismantled, stacked and delivered to the owner (City or County) by the Contractor. The Contractor is responsible for the safe storage at the construction site until delivery, and the safe unloading of the salvaged material. Notification of delivery shall be made at least 2 working days prior to delivery. Pima County Sign Shop 1313 S. Mission Road (520-724-2630). No Friday deliveries.

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

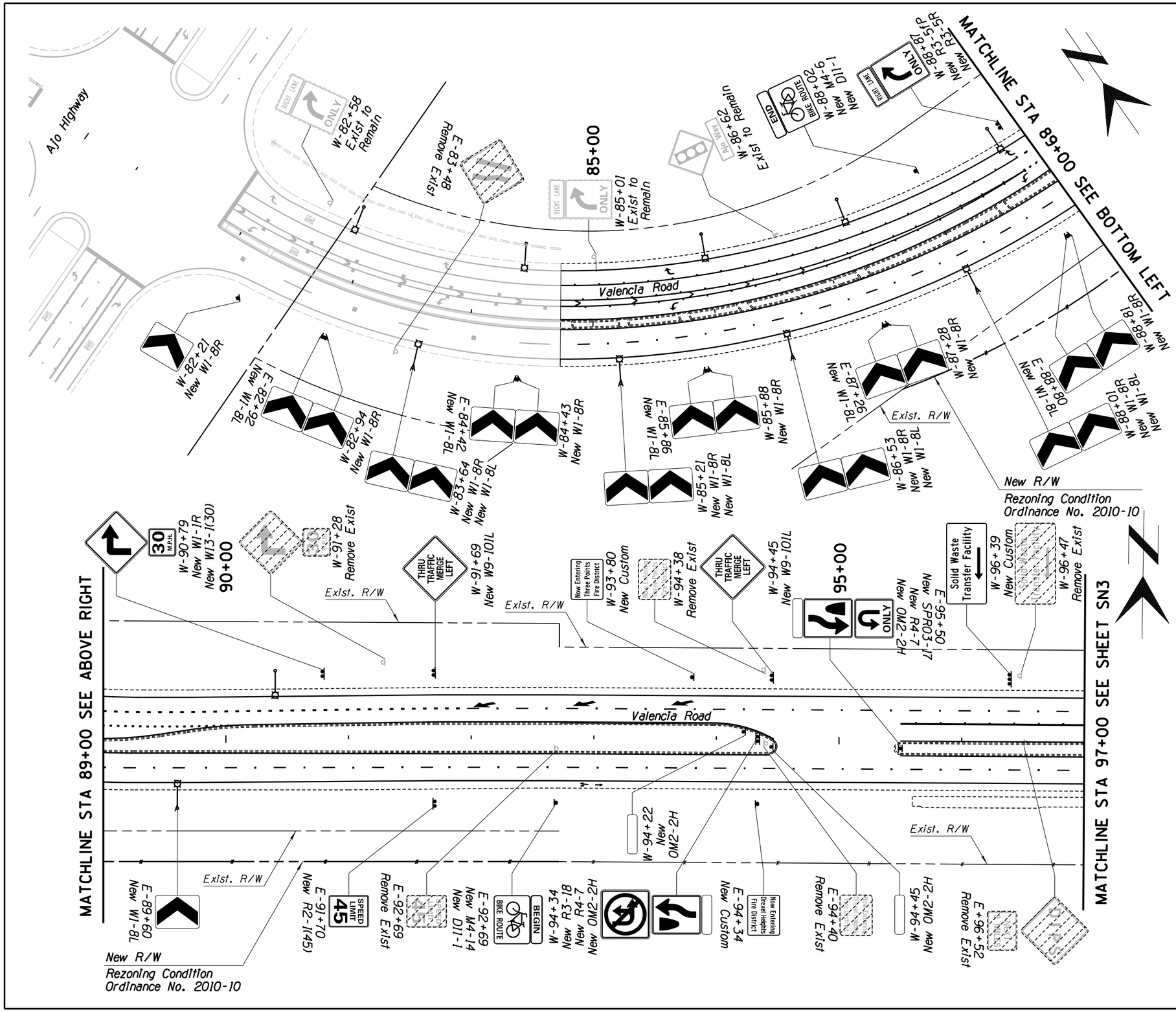
Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

#4RTVWE Pima County Department of Transportation

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. NA	Sheet SN1 of SN38	Page 265 of 433
	Vert. NA		



Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

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Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

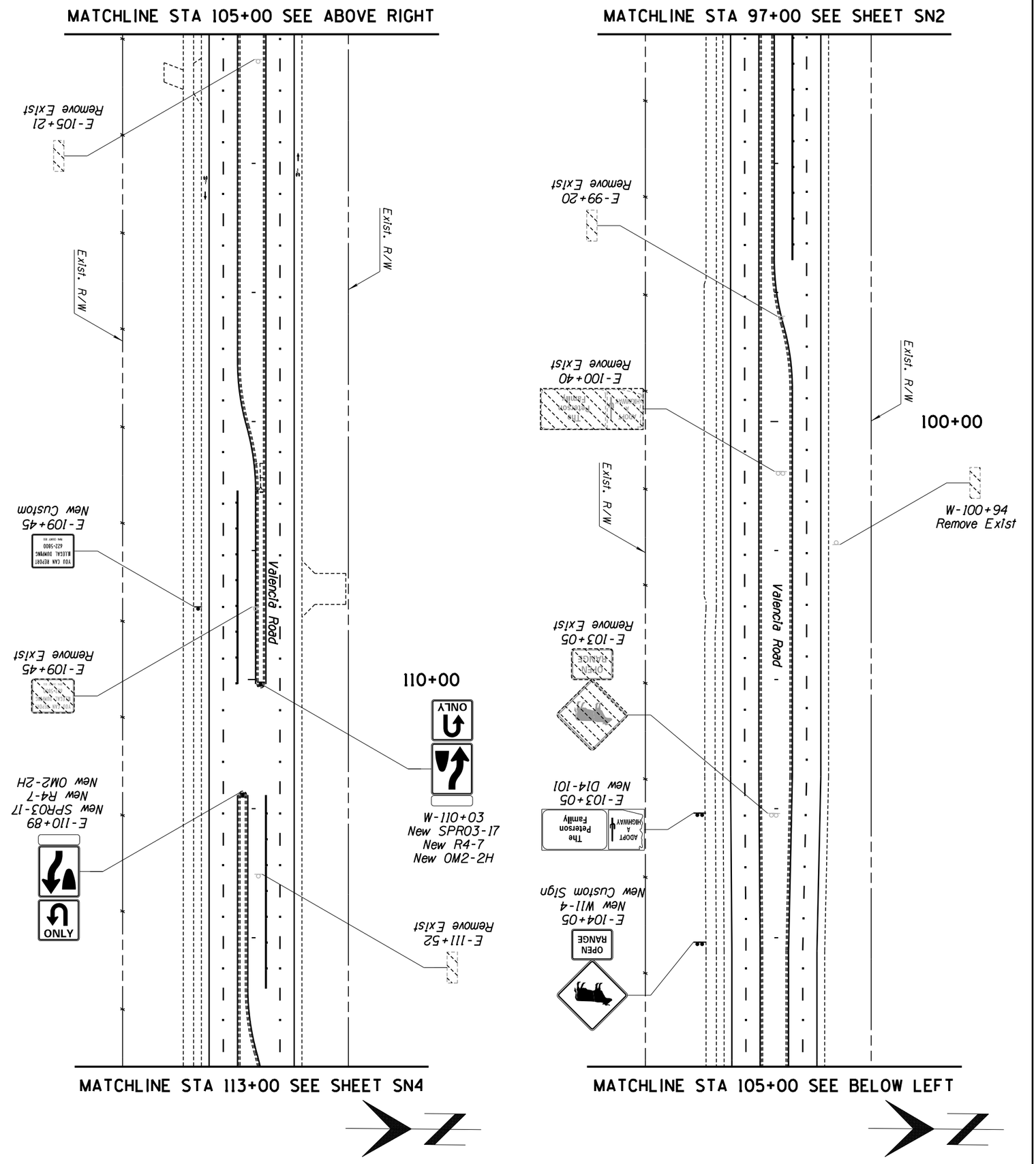
SIGNING PLAN
VALENCIA ROAD
STA. 81+00 TO 97+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet SN2 of SN38	Page 266 of 433
	Vert. NA		

4:47:27 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGNING\T022048SLS01.DGN



SIGNING PLAN
VALENCIA ROAD
STA. 97+00 TO 113+00

40 0 40 80

Call 811 or click. ArizonaBlue Stakes.com

Contact Arizona 811 at least two full working days before you begin excavation

Scales
Horiz. 1"=40'
Vert. NA

Sheet SN3 of SN38

Page 267 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

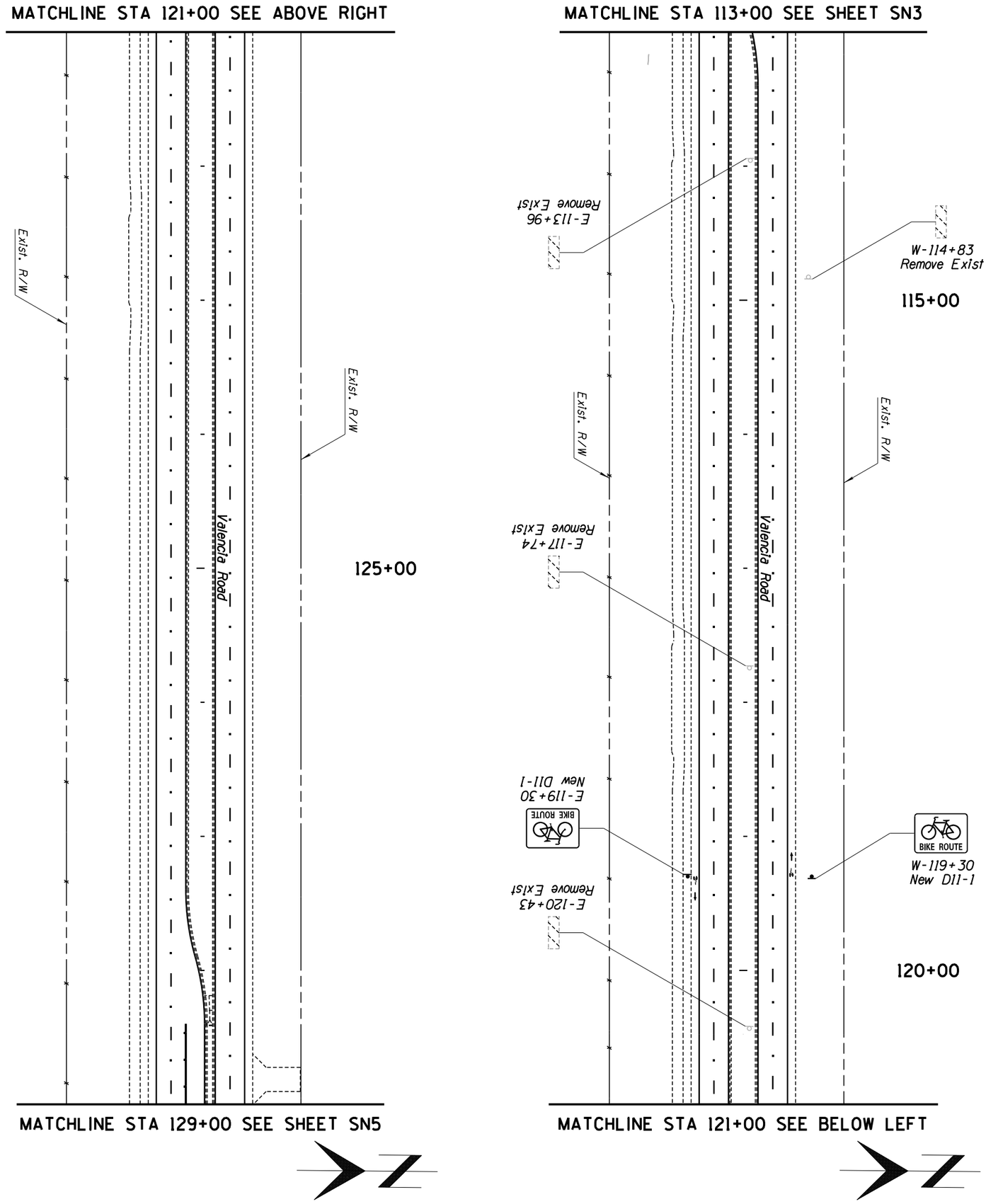
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil)
CERTIFICATE NO. 36604
TIMOTHY J. RHINE
Date Signed 01/17/18
ARIZONA, U.S.A.
Expires 09/30/19

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

4:47:27 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGN\NG\102204SLS02.DGN



SIGNING PLAN
VALENCIA ROAD
STA. 113+00 TO 129+00

40 0 40 80

Call 811 or click. ArizonaBlue Stakes, Inc. Contact Arizona 811 at least two full working days before you begin excavation

Scales
Horiz. 1"=40'
Vert. NA

Sheet SN4 of SN38

Page 268 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

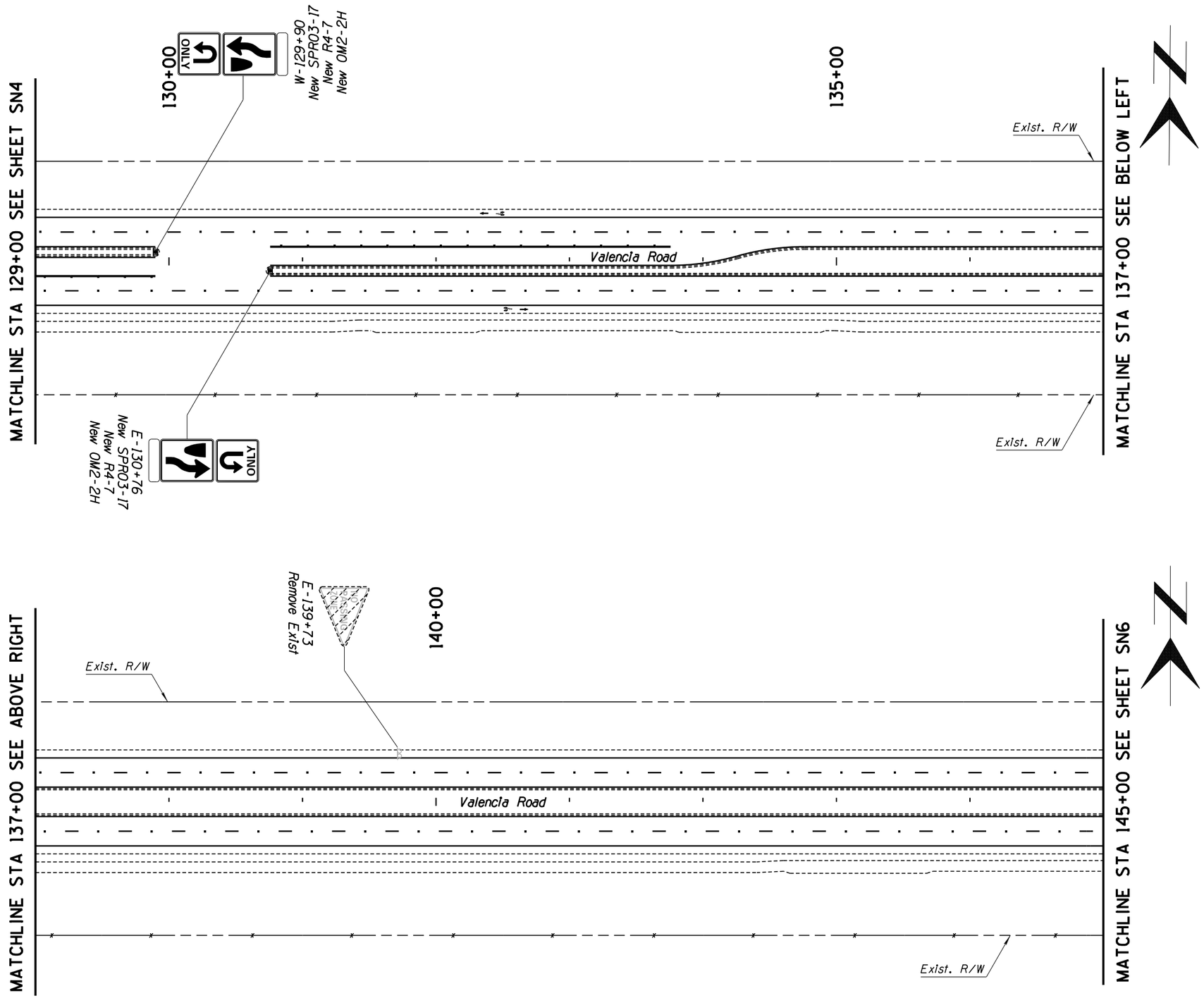
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 36 TIMOTHY J. RHINE ARIZONA, U.S.A. Expires 06/30/18

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018



SIGNING PLAN
VALENCIA ROAD
STA. 129+00 TO 145+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet SN5 of SN38	Page 269 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

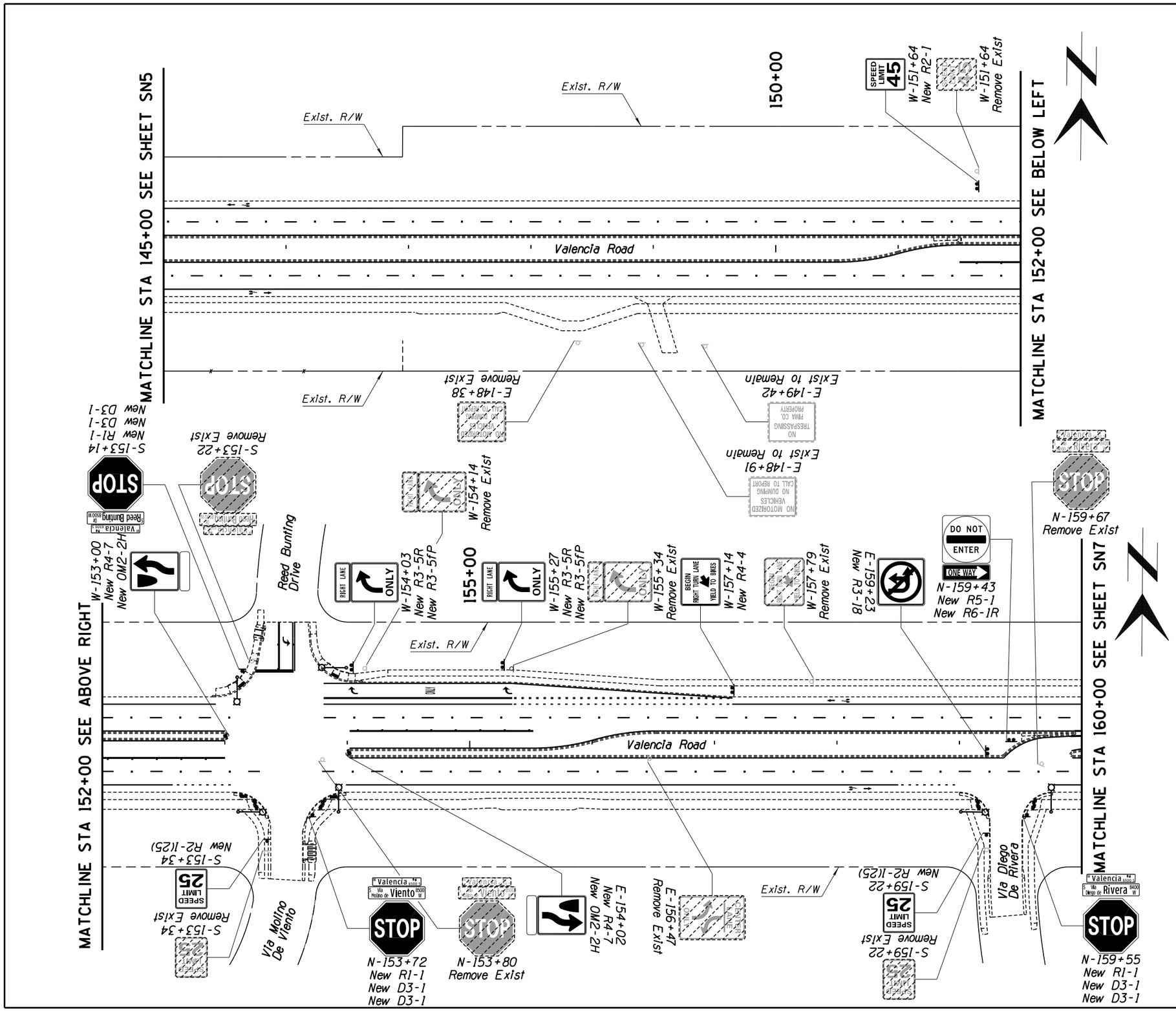
Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

4:47:28 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGNING\T022048SLS04.DGN



SIGNING PLAN
VALENCIA ROAD
STA. 145+00 TO 160+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

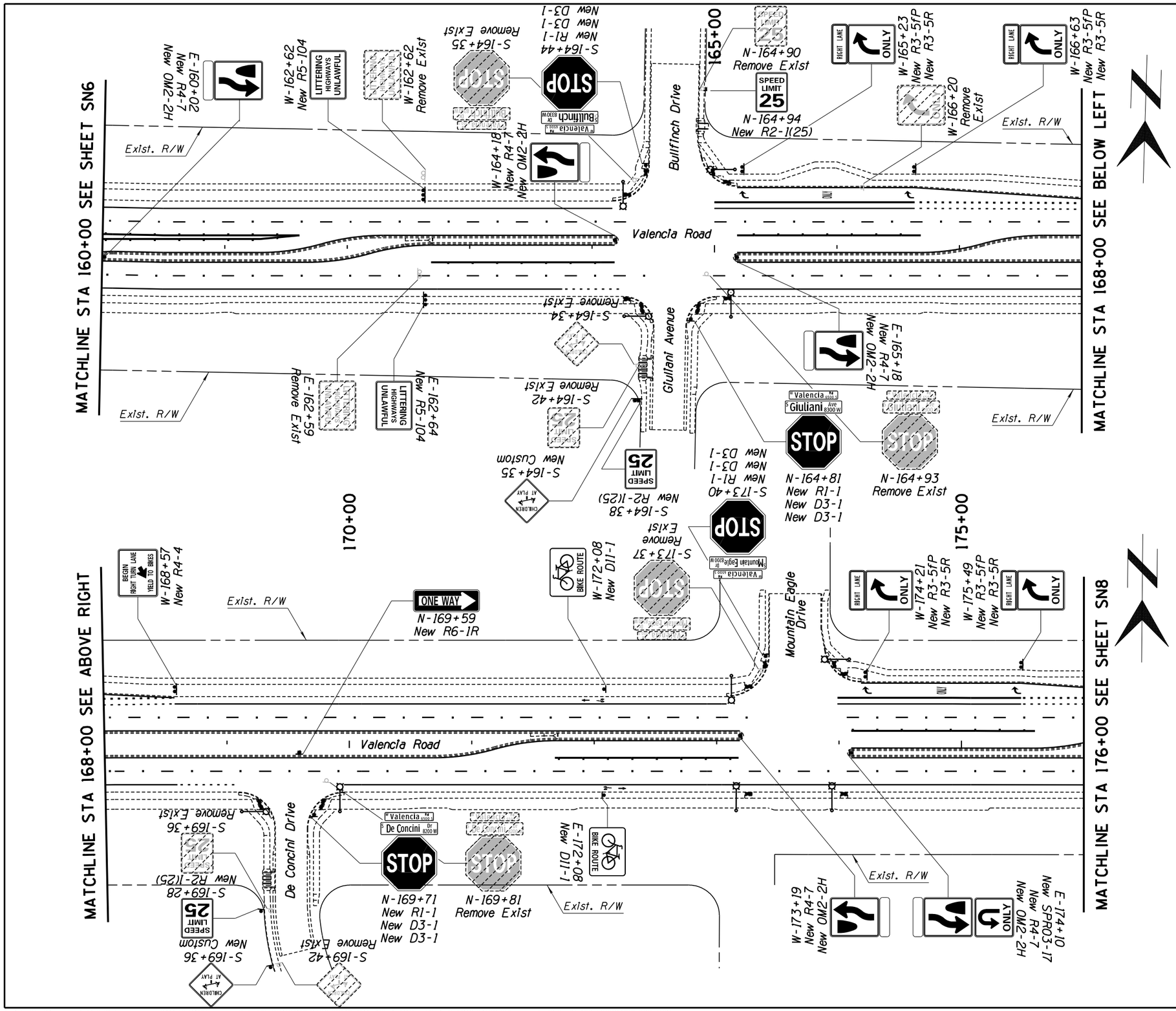
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=40' Vert. NA	Sheet SN6 of SN38	Page 270 of 433



SIGNING PLAN
VALENCIA ROAD
STA. 160+00 TO 176+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
CERTIFICATE NO. 60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40'	Sheet SN7 of SN38	Page 271 of 433
	Vert. NA		

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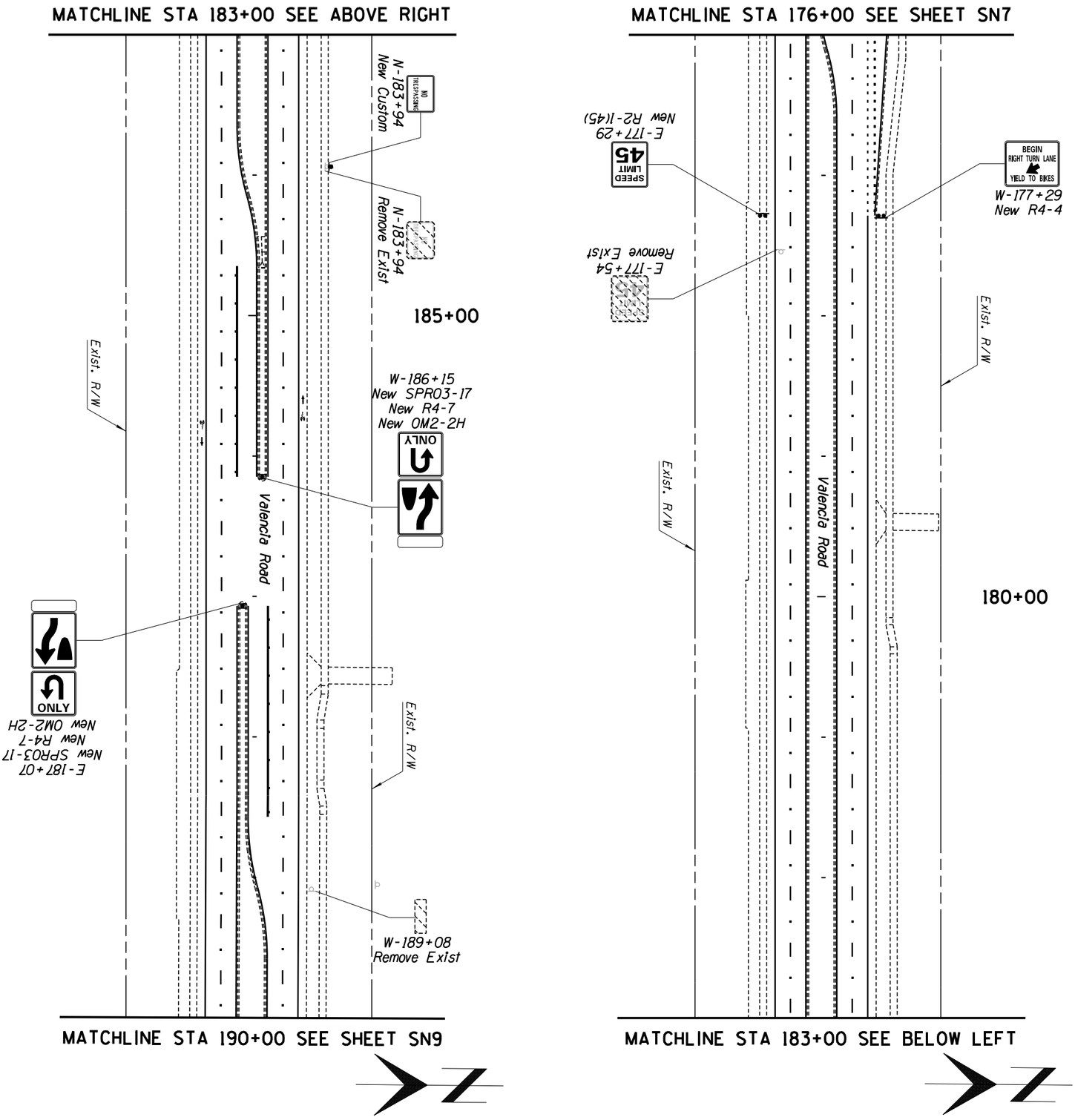


SIGNING PLAN
VALENCIA ROAD
STA. 176+00 TO 190+00

40 0 40 80

Call 811 or click. ArizonaBlue Stakes.com

Contractor shall call 811 at least two full working days before any excavation begins.

Scales
Horiz. 1"=40'
Vert. NA

Sheet SN8 of SN38

Page 272 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

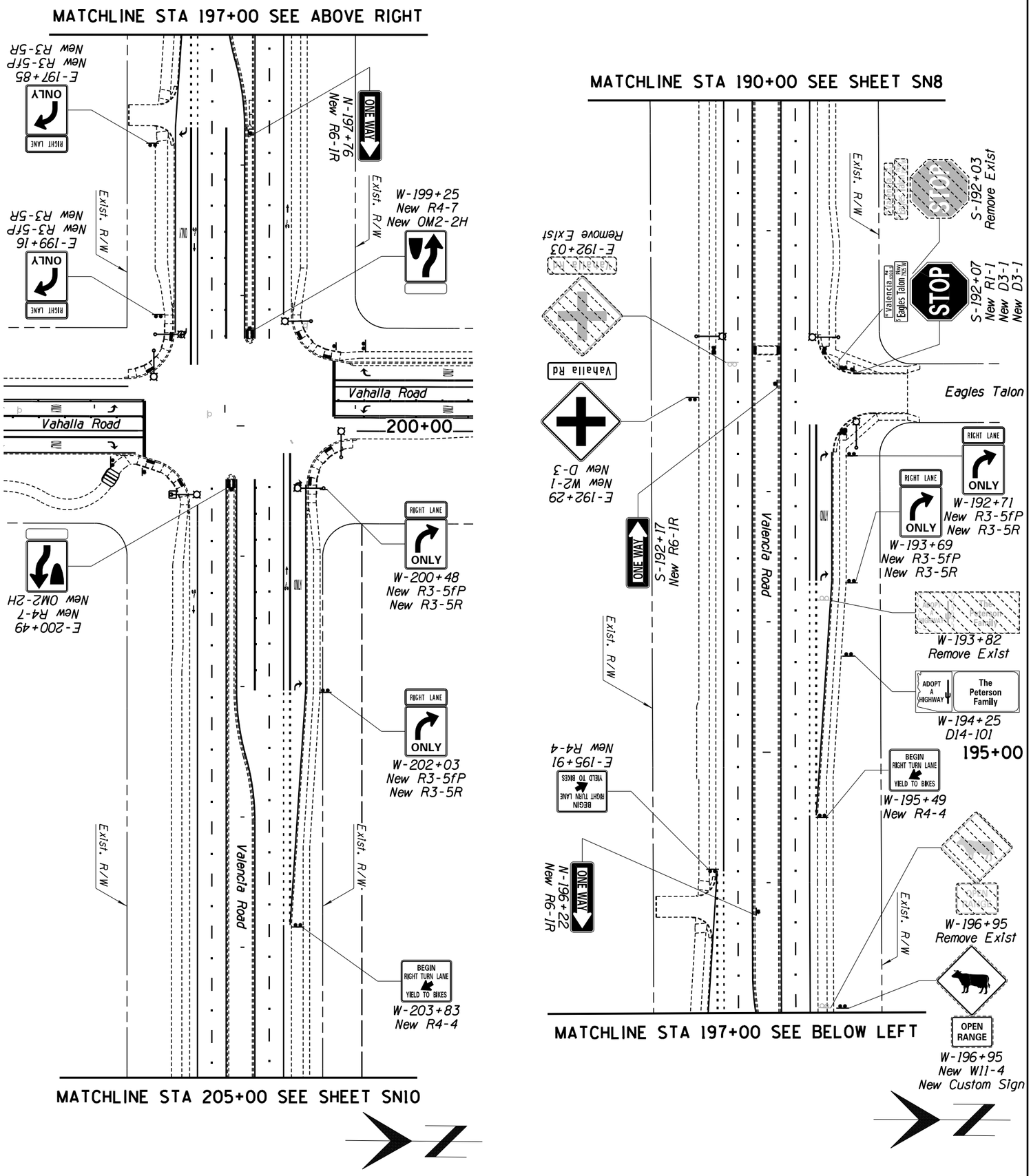
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

4:47:30 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGNING\022048SLS07.DGN



SIGNING PLAN
VALENCIA ROAD
STA. 190+00 TO 205+00

40 0 40 80

Call 811 or click. ArizonaBlue Stakes.com

Scales
Horiz. 1"=40'
Vert. NA

Sheet SN9 of SN38

Page 273 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

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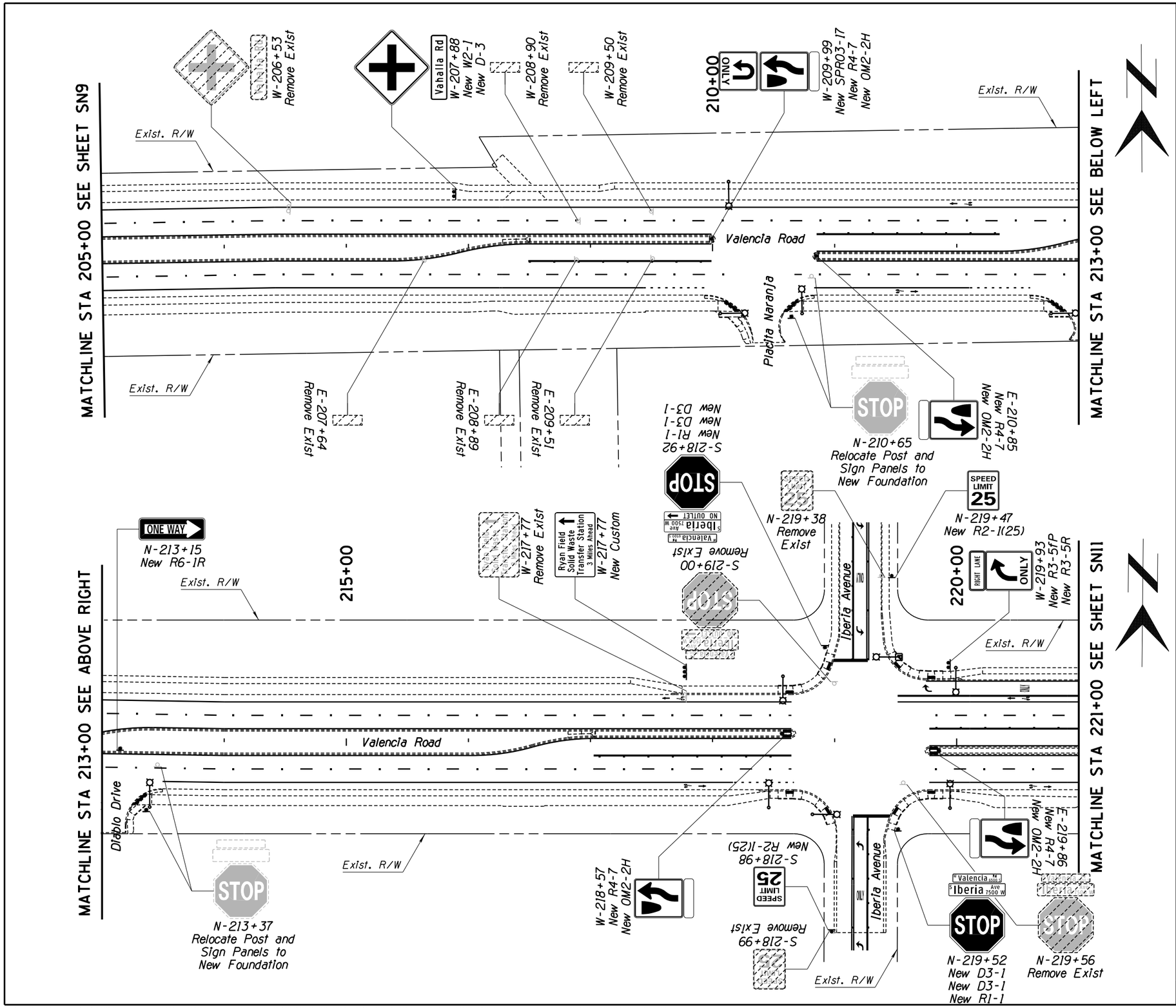


Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGNING PLAN
VALENCIA ROAD
STA. 205+00 TO 221+00

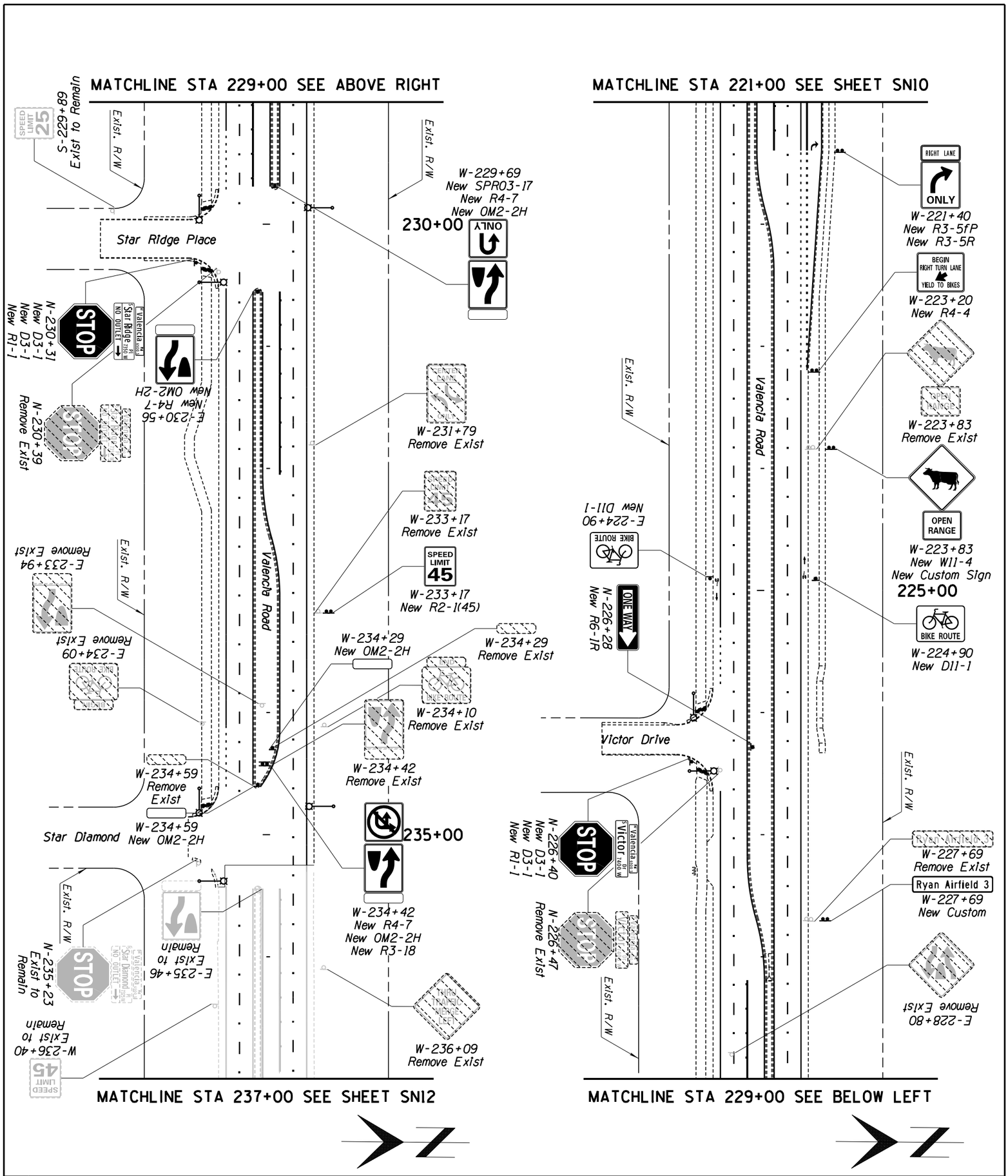
40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

#4RTVWE

Scales	Horiz. 1"=40'	Sheet SN10 of SN38	Page 274 of 433
	Vert. NA		

4:47:31 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGNING\T022048SLS09.DGN



SIGNING PLAN
VALENCIA ROAD
STA. 221+00 TO 237+00

Scales
Horiz. 1"=40'
Vert. NA

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
Call 811 or click. ArizonaBlue Stakes.com

Sheet SN11 of SN38

Page 275 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Registered Professional Engineer (Civil) CERTIFICATE NO. 16-00 TIMOTHY J. RHINE Expires 12/31/18 ARIZONA U.S.A.

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

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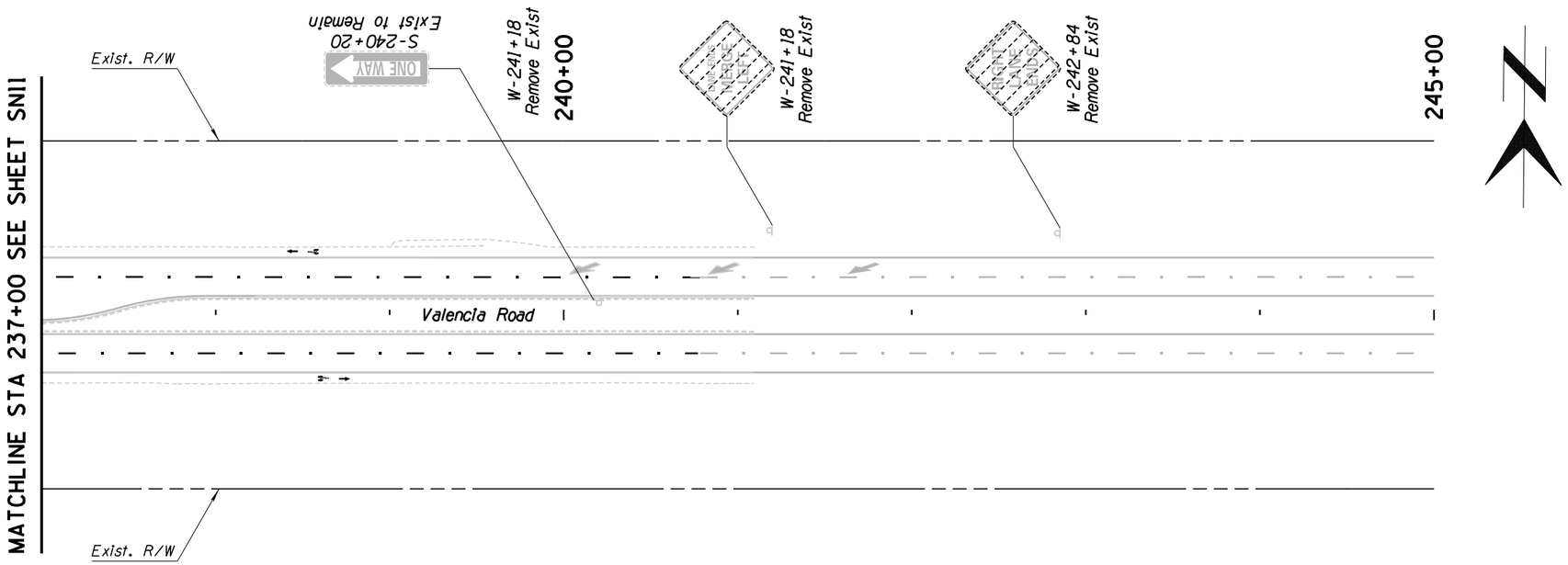


SIGNING PLAN
VALENCIA ROAD
STA. 237+00 TO 245+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=40'	Sheet SN12 of SN38	Page 276 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

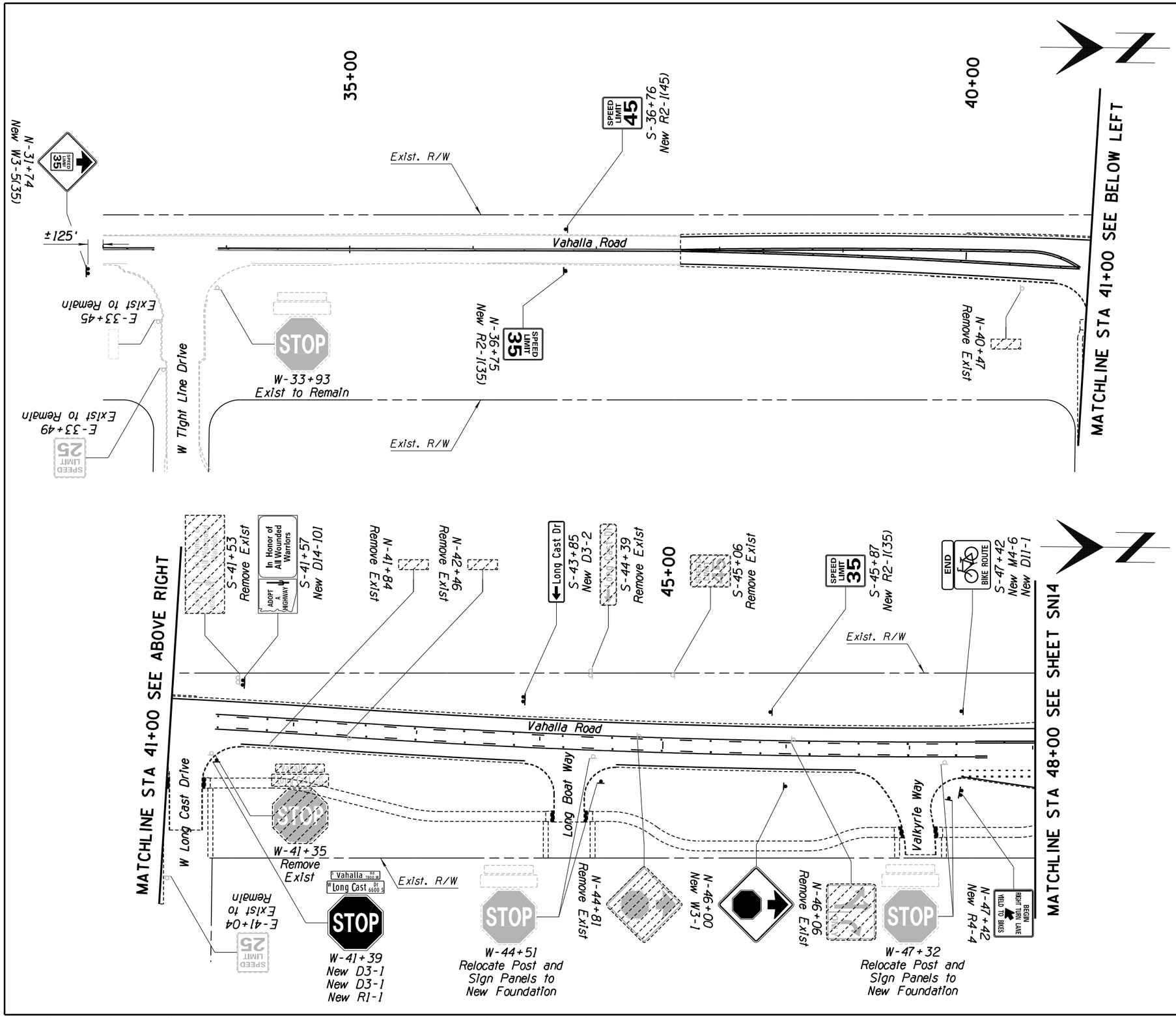
No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
60430
TIMOTHY J.
RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



SIGNING PLAN
VAHALLA ROAD
STA. 33+00 TO 48+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1" = 40'	Sheet SN13 of SN38	Page 277 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

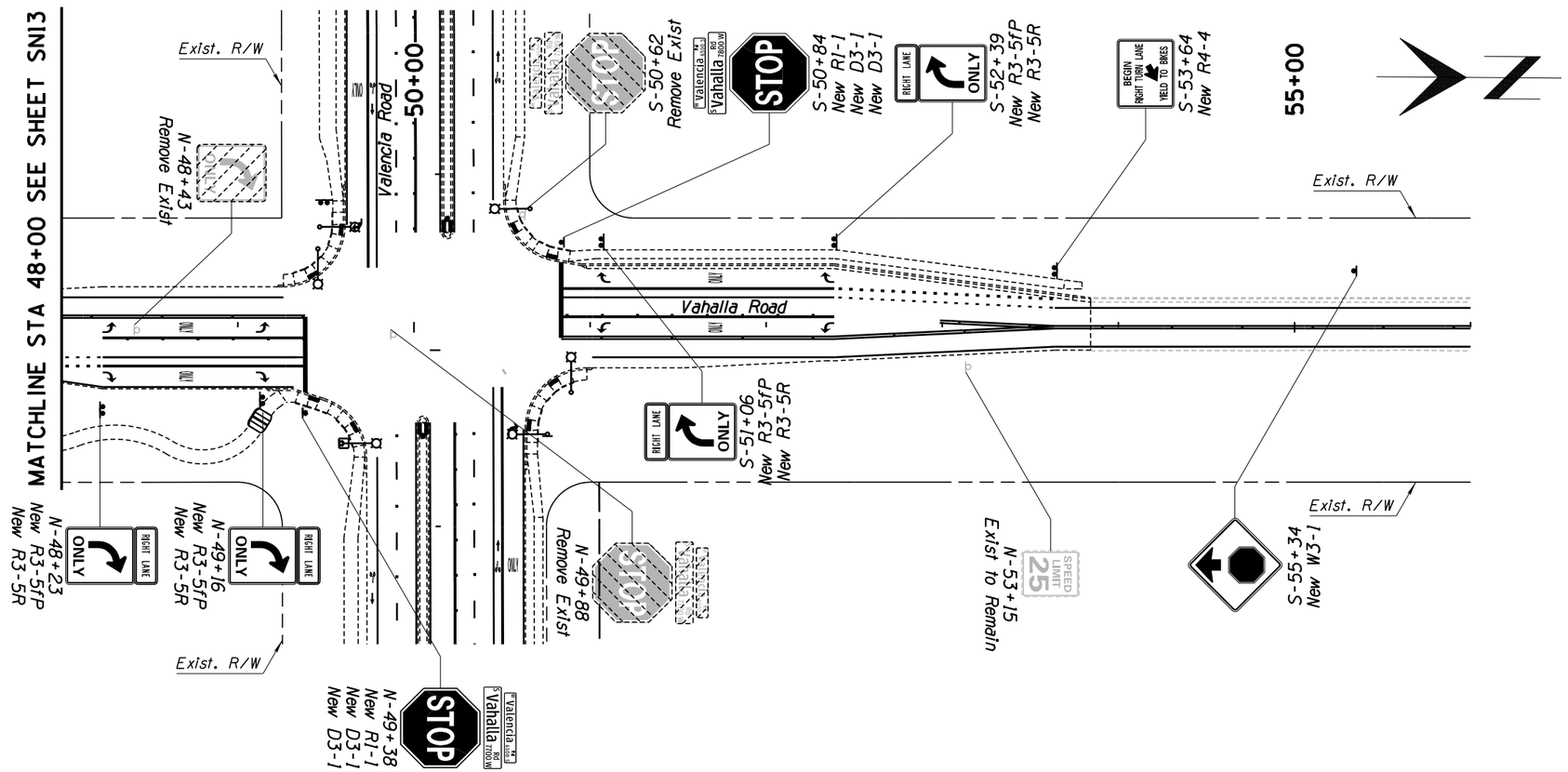
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018



SIGNING PLAN
VAHALLA ROAD
STA. 48+00 TO 56+00

40 0 40 80

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=40'	Sheet SN14 of SN38	Page 278 of 433
	Vert. NA		

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN2	W-82+21	W1-8R	X						12	5	YL	Right Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-82+58	R3-5R						X				Right Turn Arrow ONLY															
	+	R3-5fP						X				RIGHT LANE															
SN2	E-82+92	W1-8L	X						12	5	YL	Left Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-82+94	W1-8R	X						12	5	YL	Right Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	E-83+48	W4-2R					X					Right Lane Transition Symbol						2020001									
SN2	W-83+64	W1-8R	X								YL	Right Chevron	18	24	3.0	RWM	XI	6080014									MOUNT ON STRUCTURE
	-	W1-8L	X								YL	Left Chevron	18	24	3.0	RWM	XI	6080014									BACK TO BACK
SN2	E-84+42	W1-8L	X						12	5	YL	Left Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-84+43	W1-8R	X						12	5	YL	Right Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-85+01	R3-5R						X				Right Turn Arrow ONLY															
	+	R3-5fP						X				RIGHT LANE															
SN2	W-85+21	W1-8R	X								YL	Right Chevron	18	24	3.0	RWM	XI	6080014									MOUNT ON STRUCTURE
	-	W1-8L	X								YL	Left Chevron	18	24	3.0	RWM	XI	6080014									BACK TO BACK
SN2	E-85+86	W1-8L	X						12	5	YL	Left Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-85+88	W1-8R	X						12	5	YL	Right Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-86+53	W1-8R	X								YL	Right Chevron	18	24	3.0	RWM	XI	6080014									MOUNT ON STRUCTURE
	-	W1-8L	X								YL	Left Chevron	18	24	3.0	RWM	XI	6080014									BACK TO BACK
SN2	W-86+62	W3-3						X				Signal Ahead Symbol															
	+	D3-1						X				Ajo Way															
SN2	E-87+26	W1-8L	X						12	5	YL	Left Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

PANEL TYPES:

RWM: Regulatory, Warning or Marker
F-DA: Flat-sheet aluminum with direct-applied or silk-screened characters
Ext: Aluminum extrusions

* Offset is measured from traveled way edgeline stripe to nearest edge of panel.
** Stringer materials and labor are considered incidental to the sign panel.
*** Payment for the relocation of panel, post, and necessary attachments are considered included in Bid Item No. 2020001.

BACKGROUND COLOR:

WH: White
BK: Black
GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN15 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN2	W-87+28	W1-8R	X								YL	Right Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-88+01	W1-8R	X								YL	Right Chevron	18	24	3.0	RWM	XI	6080014									MOUNT ON STRUCTURE
	-	W1-8L	X								YL	Left Chevron	18	24	3.0	RWM	XI	6080014									BACK TO BACK
SN2	W-88+02	D11-1	X						12	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	11						
	+	M4-6	X								GR	END	24	6	1.0	F-DA	XI	6080014									
SN2	E-88+80	W1-8L	X						12	5	YL	Left Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-88+81	W1-8R	X						12	5	YL	Right Chevron	18	24	3.0	RWM	XI	6080014	1	2S	9						
SN2	W-88+87	R3-5R	X						12	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN2	E-89+60	W1-8L	X								YL	Left Chevron	18	24	3.0	RWM	XI	6080014									MOUNT ON STRUCTURE
SN2	W-90+79	W1-1R	X						12	7	YL	Right Turn Symbol	36	36	9.0	RWM	XI	6080014	2	2S	22						
	+	W13-1(30)	X								YL	30 M.P.H.	24	24	4.0	RWM	XI	6080014									
SN2	W-91+28	W1-1R					X					Right Turn Symbol						2020001									
	+	W13-1(30)					X					30 M.P.H.						2020001									
SN2	W-91+69	W9-101L	X						12	7	YL	THRU TRAFFIC MERGE LEFT	36	36	9.0	RWM	XI	6080014	2	2S	22						
SN2	E-91+70	R2-1(45)	X						12	7	WH	SPEED LIMIT 45	30	36	7.5	RWM	XI	6080014	2	2S	24						
SN2	E-92+69	R2-1(45)					X					SPEED LIMIT 45						2020001									
SN2	E-92+69	D11-1	X								GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	11						
	+	M4-14	X								GR	BEGIN	24	6	1.0	RWM	XI	6080014									
SN2	W-93+80	CUSTOM	X						12	7	GR	Three Points Fire Dist	30	24	5.0	F-DA	XI	6080014	1	2S	11						
SN2	W-94+22	OM2-2H	X							4	YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014	1	2S	6						

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

PANEL TYPES:

RWM: Regulatory, Warning or Marker
F-DA: Flat-sheet aluminum with direct-applied or silk-screened characters
Ext: Aluminum extrusions

* Offset is measured from traveled way edgeline stripe to nearest edge of panel.
** Stringer materials and labor are considered incidental to the sign panel.
*** Payment for the relocation of panel, post, and necessary attachments are considered included in Bid Item No. 2020001.

BACKGROUND COLOR:

WH: White
BK: Black
GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN16 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN2	W-94+34	R4-7	X								WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	2	2S	25						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	R3-18	X								WH	No U-Turn & Left Turn	36	36	9.0	RWM	XI	6080014									BACK TO BACK
SN2	W-94+34	CUSTOM	X						12	7	WH	Drexel Heights Fire Dist	30	24	5.0	F-DA	XI	6080014	1	2S	11						
SN2	W-94+38	CUSTOM					X					Three Points Fire Dist						2020001									
SN2	E-94+40	CUSTOM					X					Drexel Heights Fire Dist						2020001									
SN2	W-94+45	W9-101L	X						12	7	YL	THRU TRAFFIC MERGE LEFT	36	36	9.0	RWM	XI	6080014	2	2S	22						
SN2	W-94+45	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014	1	2S	6						
SN2	E-95+50	R4-7	X						12	7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN2	W-96+39	CUSTOM	X						12	7	GR	(Arrow Left) Refuse Xfer Station	60	30	12.5	F-DA	XI	6080014	3	2S	36	3	P	9			
SN2	W-96+47	CUSTOM					X					(Arrow Left) Refuse Xfer Station						2020001									
SN2	E-96+52	W8-2					X					DIPS						2020001									
		W16-104aP					X					NEXT 3 MILES						2020001									
SN3	E-99+20	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN3	E-100+40	D14-101					X					ADOPT A HWY SPONSORED BY						2020001									
SN3	W-100+94	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN3	E-103+05	W11-4					X					Cattle Crossing Symbol						2020001									
	+	CUSTOM					X					OPEN RANGE						2020001									
SN3	E+103+05	D14-101	X						24	7	WH	ADOPT A HWY SPONSORED BY	48	24	8.0	RWM	XI	6080014	2	2S	24						

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

PANEL TYPES:

RWM: Regulatory, Warning or Marker
F-DA: Flat-sheet aluminum with direct-applied or silk-screened characters
Ext: Aluminum extrusions

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WH: White
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BL: Blue
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POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN17 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sells	01/2018
Proj. Engr.	R. Sells	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN3	E+104+05	W11-4	X						24		YL	Cattle Crossing Symbol	36	36	9.0	RWM	XI	6080014	2	2S	25						
	+	CUSTOM	X								YL	OPEN RANGE	30	24	5.0	RWM	XI	6080014									
SN3	E-105+21	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN3	E-109+45	CUSTOM	X						2.5	7	WH	REPORT ILLEGAL DUMPING	30	24	5.0	RWM	XI	6080014	1	2S	10						
SN3	E-109+45	CUSTOM					X					REPORT ILLEGAL DUMPING						2020001									
SN3	W-110+03	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN3	E-110+89	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN3	E-111+52	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN4	E-113+96	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN4	W-114+83	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN4	E-117+74	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN4	W-119+30	D11-1	X						12	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	10						
SN4	E-119+30	D11-1	X						3	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	9						
SN4	E-120+43	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN5	W-129+90	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
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YL: Fluorescent Yellow
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S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN18 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN5	E-130+76	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN5	E-139+73	W14-3					X					NO PASSING ZONE						2020001									
SN6	E-148+38	CUSTOM					X					NO TRESPASSING PIMA CO.						2020001									
SN6	E-148+91	CUSTOM						X				NO TRESPASSING PIMA CO.															
SN6	E-149+42	CUSTOM						X				NO TRESPASSING PIMA CO.															
SN6	W-151+64	R2-1(45)	X						12	7	WH	SPEED LIMIT 45	30	36	7.5	RWM	XI	6080014	2	2S	24						
SN6	W-151+64	R2-1(45)					X					SPEED LIMIT 45						2020001									
SN6	W-153+00	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN6	S-153+14	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Reed Bunting Dr	42	9	2.6	F-DA	XI	6080014									
SN6	S-153+22	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Reed Bunting Dr						2020001									
SN6	S-153+34	R2-1(25)	X						3	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN6	S-153+34	R2-1(25)					X					SPEED LIMIT 25						2020001									
SN6	N-153+72	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Via Molino De Viento	42	9	2.6	F-DA	XI	6080014									

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

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* Offset is measured from traveled way edgeline stripe to nearest edge of panel.
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GR: Green
RD: Red
YL: Fluorescent Yellow
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FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN19 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN6	N-153+80	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Via Molino De Viento						2020001									
SN6	E-154+02	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN6	W-154+03	R3-5R	X						12	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN6	W-154+14	R3-5R					X					Right Turn Arrow ONLY						2020001									
	+	R3-5fP					X					RIGHT LANE						2020001									
SN6	W-155+27	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN6	W-155+34	R3-5R					X					Right Turn Arrow ONLY						2020001									
	+	R3-5fP					X					RIGHT LANE						2020001									
SN6	E-156+47	R3-9b					X					Center Lane 2-Way Turn ONLY						2020001									
SN6	W-157+14	R4-4	X						6	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	22						
SN6	W-157+79	R4-4					X					RIGHT TURN/YIELD TO BIKES						2020001									
SN6	S-159+22	R2-1(25)	X						3	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN6	S-159+22	R2-1(25)					X					SPEED LIMIT 25						2020001									
SN6	E-159+23	R3-18	X						12	7	WH	No U-Turn & Left Turn	36	36	9.0	RWM	XI	6080014	2	2S	24						
SN6	N-159+43	R5-1	X						12	7	WH	DO NOT ENTER	36	36	9.0	RWM	XI	6080014	2	2S	24						
		R6-1R	X								BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014									

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RD: Red
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BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. NA, Vert. NA

4:47:35 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGNING\T022048SSS06.DGN

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN6	N-159+55	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Via Diego De Rivera	42	9	2.6	F-DA	XI	6080014									
SN6	N-159+67	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Via Diego De Rivera						2020001									
SN7	E-162+02	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN7	E-162+59	R5-104					X					LITTERING HIGHWAYS UNLAWFUL						2020001									
SN7	W-162+62	R5-104	X						11	7	WH	LITTERING HIGHWAYS UNLAWFUL	48	36	12.0	RWM	XI	6080014	3	2S	35	3	P	8			
SN7	W-162+62	R5-104					X					LITTERING HIGHWAYS UNLAWFUL						2020001									
SN7	E-162+64	R5-104	X						9	7	WH	LITTERING HIGHWAYS UNLAWFUL	48	36	12.0	RWM	XI	6080014	3	2S	35	3	P	8			
SN7	W-164+18	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN7	S-164+34	CUSTOM					X					CHILDREN AT PLAY						2020001									
SN7	S-164+35	CUSTOM	X						14.5	7	YL	CHILDREN AT PLAY	24	24	4.0	RWM	XI	6080014	1	2S	11						
SN7	S-164+35	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Bullfinch Dr						2020001									
SN7	S-164+38	R2-1(25)	X						12	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN7	S-164+42	R2-1(25)					X					SPEED LIMIT 25						2020001									

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

PANEL TYPES:

RWM: Regulatory, Warning or Marker
F-DA: Flat-sheet aluminum with direct-applied or silk-screened characters
Ext: Aluminum extrusions

* Offset is measured from traveled way edgeline stripe to nearest edge of panel.
** Stringer materials and labor are considered incidental to the sign panel.
*** Payment for the relocation of panel, post, and necessary attachments are considered included in Bid Item No. 2020001.

BACKGROUND COLOR:

WH: White
GR: Green
YL: Fluorescent Yellow
FL-YG: Fluorescent Yellow-Green
BK: Black
RD: Red
BL: Blue

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN21 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN7	S-164+44	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Bullfinch Dr	42	9	2.6	F-DA	XI	6080014									
SN7	N-164+81	R1-1	X						2.5	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Giuliani Ave	42	9	2.6	F-DA	XI	6080014									
SN7	N-164+90	R2-1(25)					X					SPEED LIMIT 25						2020001									
SN7	N-164+93	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Giuliani Ave						2020001									
SN7	N-164+94	R2-1(25)	X						7	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN7	E-165+18	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN7	W-165+23	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN7	W-166+20	R3-5R					X					Right Turn Arrow ONLY						2020001									
SN7	W-166+63	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN7	W-168+57	R4-4	X						6	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	22						
SN7	S-169+28	R2-1(25)	X						12	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN7	S-169+36	R2-1(25)					X					SPEED LIMIT 25						2020001									
SN7	S-169+36	CUSTOM	X						12	7	YL	CHILDREN AT PLAY	24	24	4.0	RWM	XI	6080014	1	2S	11						

NOTES:

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RD: Red
YL: Fluorescent Yellow
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POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN22 of SN38

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
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(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN7	S-169+42	CUSTOM					X					CHILDREN AT PLAY						2020001									
SN7	N-169+59	R6-1R	X						3	4	BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014	1	2S	7						
SN7	N-169+71	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	De Concini Dr	42	9	2.6	F-DA	XI	6080014									
SN7	N-169+81	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					De Concini Dr						2020001									
SN7	W-172+08	D11-1	X						6	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	10						
SN7	E-172+08	D11-1	X						3	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	10						
SN7	W-173+19	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN7	S-173+37	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Mountain Eagle Dr						2020001									
SN7	S-173+40	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Mountain Eagle Dr	42	9	2.6	F-DA	XI	6080014									
SN7	E-174+10	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN7	W-174+21	R3-5R	X						6	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									

NOTES:

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BK: Black
GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA; Vert. NA

Sheet SN23 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	Date 01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN7	W-175+49	R3-5R	X						14	7	WH	RIght Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN8	W-177+29	R4-4	X						3.5	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	21						
SN8	E-177+29	R2-1(45)	X						3	7	WH	SPEED LIMIT 45	30	36	7.5	RWM	XI	6080014	2	2S	24						
SN8	E-177+54	R2-1(45)					X					SPEED LIMIT 45						2020001									
SN8	N-183+94	CUSTOM					X					NO TRESPASSING						2020001									
SN8	N-183+94	CUSTOM	X						17	7	WH	NO TRESPASSING	24	18	1.5	RWM	XI	6080014	1	2S	12						
SN8	W-186+15	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN8	E-187+07	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN8	W-189+08	OM2-2a					X					Object Marker						2020001									
SN9	E-192+03	W2-1					X					Cross Road Symbol						2020001									
	+	D3-1					X					Vahalla Rd						2020001									
SN9	S-192+03	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Eagles Talon						2020001									
SN9	S-192+07	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Eagles Talon	42	9	2.6	F-DA	XI	6080014									
SN9	S-192+17	R6-1R	X						3	4	BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014	2	2S	7						

NOTES:

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GR: Green
RD: Red
YL: Fluorescent Yellow
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FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN24 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN9	S-192+29	W2-1	X						16		YL	Cross Road Symbol	30	30	6.3	RWM	XI	6080014	2	2S	27						
	+	D3-1	X								YL	Vahalla Rd	48	12	4.0	RWM	XI	6080014									
SN9	W-192+71	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN9	W-193+69	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
		R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN9	W-193+82	D14-101					X					ADOPT A HWY SPONSORED BY						2020001									
SN9	W-194+25	D14-101	X						16	7	WH	ADOPT A HWY SPONSORED BY	48	24	8.0	RWM	XI	6080014	2	2S	24						
SN9	W-195+49	R4-4	X						4	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	21						
SN9	E-195+91	R4-4	X						3	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	21						
SN9	N-196+22	R6-1R	X						3	4	BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014	1	2S	7						
SN9	W-196+95	W11-4					X					Cattle Crossing Symbol						2020001									
		CUSTOM					X					OPEN RANGE						2020001									
SN9	W-196+95	W11-4	X						24	7	YL	Cattle Crossing Symbol	36	36	9.0	RWM	XI	6080014	2	2S	25						
		CUSTOM	X								YL	OPEN RANGE	30	24	5.0	RWM	XI	6080014									
SN9	N-197+76	R6-1R	X						3	4	BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014	1	2S	7						
SN9	E-197+85	R3-5R	X						16.5	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN9	E-199+16	R3-5R	X						12	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN9	W-199+25	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN

NOTES:

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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VALENCIA ROAD
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PROJECT NO. 4RTVWE

Scales: Horiz. NA / Vert. NA

SIGN SUMMARY

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SN9	W-200+48	R3-5R	X								WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014									MOUNT ON STRUCTURE
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									MOUNT ON STRUCTURE
SN9	E-200+49	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN9	W-202+03	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN9	W-203+83	R4-4	X						5	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	21						
SN10	W-206+53	W2-1					X					Cross Road Symbol						2020001									
	+	D3-1					X					Vahalla Rd						2020001									
SN10	E-207+64	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN10	W-207+88	W2-1	X						3	7	YL	Cross Road Symbol	30	30	6.3	RWM	XI	6080014	2	2S	23						
	+	D3-1	X								YL	Vahalla Rd	48	12	4.0	RWM	XI	6080014									
SN10	E-208+89	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN10	W-208+90	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN10	W-209+50	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN10	E-209+51	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN10	W-209+99	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN10	N-210+65	R1-1			X				12	7	RD	STOP						2020001	1								RELOCATE PANEL AND POSTS
	+	D3-1			X						GR	Valencia Rd						2020001									
	+	D3-1			X						GR	Placita Naranja						2020001									

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

PANEL TYPES:

RWM: Regulatory, Warning or Marker
F-DA: Flat-sheet aluminum with direct-applied or silk-screened characters
Ext: Aluminum extrusions

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*** Payment for the relocation of panel, post, and necessary attachments are considered included in Bid Item No. 2020001.

BACKGROUND COLOR:

WH: White
BK: Black
GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN26 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN10	E-210+85	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN9	N-213+15	R6-1R	X						3	4	BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014	1	2S	6						
SN10	N-213+37	R1-1			X				12	7	RD	STOP						2020001	1								RELOCATE PANEL AND POSTS
	+	D3-1			X						GR	Valencia Rd						2020001									
	+	D3-1			X						GR	Diablo Dr						2020001									
SN10	W-217+77	CUSTOM	X						23	7	GR	Solid Waste Transfer Station	48	30	10.0	F-DA	XI	6080014	3	2S	33	3	P	8			
SN10	W-217+77	CUSTOM					X					Solid Waste Transfer Station						2020001									
SN10	W-218+57	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN10	S-218+92	R1-1	X						9.5	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	14						REVERSE NO OUTLET
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									DIRECTION ON BACK
	+	D3-1	X								GR	Iberia Ave NO OUTLET	42	15	4.4	F-DA	XI	6080014									OF SIGN
SN10	S-218+98	R2-1(25)	X						4	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN10	S-218+99	R2-1(25)					X					SPEED LIMIT 25						2020001									
SN10	S-219+00	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Iberia Ave NO OUTLET						2020001									
SN10	N-219+38	R2-1(25)					X					SPEED LIMIT 25						2020001									
SN10	N-219+47	R2-1(25)	X						9	7	WH	SPEED LIMIT 25	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN10	N-219+52	R1-1	X						9.5	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	13						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Iberia Ave	42	9	2.6	F-DA	XI	6080014									

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GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN27 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN10	N-219+56	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Iberia Ave						2020001									
SN10	E-219+86	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN10	W-219+93	R3-5R	X						12	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN11	W-221+40	R3-5R	X						14	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
		R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN11	W-223+20	R4-4	X						5	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	21						
SN11	W-223+83	W11-4					X					Cattle Crossing Symbol						2020001									
	+	CUSTOM					X					OPEN RANGE						2020001									
SN11	W-223+83	W11-4	X						24	7	YL	Cattle Crossing Symbol	36	36	9.0	RWM	XI	6080014	2	2S	25						
	+	CUSTOM	X								YL	OPEN RANGE	30	24	5.0	RWM	XI	6080014									
SN11	W-224+90	D11-1	X						6	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	10						
SN11	E-224+90	D11-1	X						2.5	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	10						
SN11	N-226+28	R6-1R	X						3	4	BK	ONE WAY (Right)	36	12	3.0	RWM	XI	6080014	1	2S	7						
SN11	N-226+40	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Victor Dr	42	9	2.6	F-DA	XI	6080014									
SN11	N-226+47	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Victor Dr						2020001									

NOTES:

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BK: Black
GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN28 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN11	W-227+69	CUSTOM					X					Ryan Airfield 3						2020001									
SN11	W-227+69	CUSTOM	X						12	7	GR	Ryan Airfield 3	42	9	2.6	F-DA	XI	6080014	2	2S	20						
SN11	E-228+80	W6-1					X					Divided Highway Symbol						2020001									
SN11	W-229+69	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	SPR03-17	X								WH	U-Turn Symbol ONLY	24	24	4.0	RWM	XI	6080014									BACK TO BACK
SN11	S-229+89	R2-1(25)						X				SPEED LIMIT 25															
SN11	N-230+31	R1-1	X						3	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	13						REVERSE NO OUTLET
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									DIRECTION ON BACK
	+	D3-1	X								GR	Star Ridge Place NO OUTLET	42	15	4.4	F-DA	XI	6080014									OF SIGN
SN11	N-230+39	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Star Ridge Place NO OUTLET						2020001									
SN11	E-230+56	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	1	2S	12						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
SN11	W-231+79	R3-9b					X					Center Lane 2-Way Turn ONLY						2020001									
SN11	W-233+17	R2-1(45)	X						12	7	WH	SPEED LIMIT 45	30	36	7.5	RWM	XI	6080014	2	2S	24						
SN11	W-233+17	R2-1(45)					X					SPEED LIMIT 45						2020001									
SN11	E-233+94	R4-7					X					Keep Right Symbol						2020001									
	+	OM2-2H					X					Type 2 Object Marker (Horizontal)						2020001									
SN11	E-234+09	D11-1					X					(Bike Symbol) BIKE ROUTE						2020001									
	+	M4-14					X					BEGIN						2020001									

NOTES:

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POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN29 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN11	W-234+10	D11-1					X					(Bike Symbol) BIKE ROUTE						2020001									
	+	M4-6					X					END						2020001									
SN11	W-234+29	OM2-2H					X					Type 2 Object Marker (Horizontal)						2020001									
SN11	W-234+29	OM2-2H	X							4	YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014	1	2S	6						
SN11	W-234+42	R4-7					X					Keep Right Symbol						2020001									
	+	OM2-2H					X					Type 2 Object Marker (Horizontal)						2020001									
SN11	W-234+42	R4-7	X							7	WH	Keep Right Symbol	24	30	5.0	RWM	XI	6080014	2	2S	24						CENTER IN MEDIAN
	+	OM2-2H	X								YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014									CENTER IN MEDIAN
	-	R3-18	X								WH	No U-Turn & Left Turn	36	36	9.0	RWM	XI	6080014									BACK TO BACK
SN11	W-234+59	OM2-2H					X					Type 2 Object Marker (Horizontal)						2020001									
SN11	W-234+59	OM2-2H	X							4	YL	Type 2 Object Marker (Horizontal)	24	6	1.0	RWM	XI	6080014	1	2S	6						
SN11	N-235+23	R1-1						X				STOP															
	+	D3-1						X				Valencia Rd															
	+	D3-1						X				Star Diamond															
SN11	E-235+46	R4-7						X				Keep Right Symbol															
	+	OM2-2H						X				Type 2 Object Marker (Horizontal)															
SN11	W-236+09	W9-2aLAZ					X					THRU TRAFFIC MERGE LEFT						2020001									
SN11	W-236+40	R2-1(45)						X				SPEED LIMIT 45															
SN12	S-240+20	R6-1R						X				ONE WAY (Right)															
SN12	W-241+18	W9-2L					X					LANE ENDS MERGE LEFT						2020001									
SN12	W-242+84	W9-1R					X					RIGHT LANE ENDS						2020001									

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Scales: Horiz. NA / Vert. NA

Sheet SN30 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sells	01/2018
Proj. Engr.	R. Sells	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN13	N-31+74	W3-5(35)	X						12	7	YL	REDUCED SPEED LIMIT (35)	36	36	9.0	RWM	XI	6080014	2	2S	25						
SN13	E-33+45	OM2-2a						X				Type 2 Object Marker (Vertical)															
SN13	E-33+49	R2-1(25)						X				SPEED LIMIT 25															
SN13	W-33+93	R1-1						X				STOP															
	+	D3-1						X				Vahalla Rd															
	+	D3-1						X				Tight Line Dr															
SN13	N-36+75	R2-1(35)	X						12	7	WH	SPEED LIMIT 35	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN13	S-36+76	R2-1(45)	X						12	7	WH	SPEED LIMIT 45	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN13	N-40+47	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN13	E-41+04	R2-1(25)						X				SPEED LIMIT 25															
SN13	W-41+35	R1-1					X					STOP						2020001									
	+	D3-1					X					Vahalla Rd						2020001									
	+	D3-1					X					Long Cast Dr						2020001									
SN13	W-41+39	R1-1	X						4	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	12						
	+	D3-1	X								GR	Vahalla Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Long Cast Dr	42	9	2.6	F-DA	XI	6080014									
SN13	S-41+53	D14-101					X					ADOPT A HWY SPONSORED BY						2020001									
SN13	S-41+57	D14-101	X						12	7	WH	ADOPT A HWY SPONSORED BY	48	24	8.0	RWM	XI	6080014	2	2S	24						
SN13	N-41+84	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN13	N-42+46	OM2-2a					X					Type 2 Object Marker (Vertical)						2020001									
SN13	S-43+85	D3-2	X						12	5	GR	(Left Arrow) Long Cast Dr	60	12	5.0	F-DA	XI	6080014	2	2S	15		P	5			

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

PANEL TYPES:

RWM: Regulatory, Warning or Marker
F-DA: Flat-sheet aluminum with direct-applied or silk-screened characters
Ext: Aluminum extrusions

* Offset is measured from traveled way edgeline stripe to nearest edge of panel.
** Stringer materials and labor are considered incidental to the sign panel.
*** Payment for the relocation of panel, post, and necessary attachments are considered included in Bid Item No. 2020001.

BACKGROUND COLOR:

WH: White
BK: Black
GR: Green
RD: Red
YL: Fluorescent Yellow
BL: Blue
FL-YG: Fluorescent Yellow-Green

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN31 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	WORK: NEW	WORK: REPLACE PANEL	WORK: RELOCATE PANEL***	WORK: EXISTING: MODIFY LEGEND	WORK: EXISTING: REMOVE EXISTING	WORK: EXISTING: EXST TO REMAIN	OFFSET (FT)*	MOUNTING HEIGHT	PANEL: BACKGROUND COLOR	PANEL: LEGEND	PANEL: WIDTH (IN)	PANEL: HEIGHT (IN)	PANEL: AREA (SQ FT)	PANEL: TYPE	PANEL: SHEETING TYPE	PANEL: BID ITEM NUMBER	GROUND MOUNTED: FOUNDATIONS	GROUND MOUNTED: POSTS: TYPE	GROUND MOUNTED: POSTS: TOTAL LENGTH (FT)	GROUND MOUNTED: NEW SLIPBASES	GROUND MOUNTED: STRINGER**: TYPE	GROUND MOUNTED: STRINGER**: TOTAL LENGTH (FT)	OVERHEAD: STRUCTURE TYPE	OVERHEAD: NUMBER OF LIGHTS	REMARKS
SN13	S-44+39	D3-2					X					(Left Arrow) Long Cast Dr						2020001									
SN13	W-44+51	R1-1			X				12	7	RD	STOP						2020001	1								RELOCATE PANEL AND POSTS
	+	D3-1			X						GR	Vahalla Rd						2020001									
	+	D3-1			X						GR	Long Boat Way						2020001									
SN13	N-44+81	W3-1					X					Stop Ahead Symbol						2020001									
SN13	S-45+06	R2-1(45)					X					SPEED LIMIT 45						2020001									
SN13	S-45+87	R2-1(35)	X						12	7	WH	SPEED LIMIT 35	24	30	5.0	RWM	XI	6080014	1	2S	12						
SN13	N-46+00	W3-1	X						12	7	YL	Stop Ahead Symbol	30	30	6.3	RWM	XI	6080014	1	2S	12						
SN13	N-46+06	SPR03-09					X					Thru and Left Turn Arrow						2020001									
							X					Right Turn Arrow ONLY						2020001									
SN13	W-47+32	R1-1			X				12	7	RD	STOP						2020001	1								RELOCATE PANEL AND POSTS
	+	D3-1			X						GR	Vahalla Rd						2020001									
	+	D3-1			X						GR	Valkyrie Way						2020001									
SN13	S-47+42	D11-1	X						12	7	GR	(Bike Symbol) BIKE ROUTE	24	18	3.0	F-DA	XI	6080014	1	2S	11						
	+	M4-6	X								GR	END	24	6	1.0	F-DA	XI	6080014									
SN13	N-47+42	R4-4	X						12	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	24						
SN14	N-48+23	R3-5R	X						12	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN14	N-48+43	R3-5R					X					Right Turn Arrow ONLY						2020001									
SN14	N-49+16	R3-5R	X						12	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									

NOTES:

1. The Contractor shall verify post lengths and elevations for the Engineer's approval.
2. The Engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the Contractor's information only.

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BACKGROUND COLOR:

WH: White
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YL: Fluorescent Yellow
FL-YG: Fluorescent Yellow-Green
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RD: Red
BL: Blue

POST TYPES:

S: Non-telescoping perforated post
U: Perforated U-channel post

Scales: Horiz. NA / Vert. NA

Sheet SN32 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

SIGN SUMMARY

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SN14	N-49+38	R1-1	X						11	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	13						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Vahalla Rd	42	9	2.6	F-DA	XI	6080014									
SN14	N-49+88	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Vahalla Rd						2020001									
SN14	S-50+62	R1-1					X					STOP						2020001									
	+	D3-1					X					Valencia Rd						2020001									
	+	D3-1					X					Vahalla Rd						2020001									
SN14	S-50+84	R1-1	X						11	7	RD	STOP	36	36	9.0	RWM	XI	6080014	1	2S	13						
	+	D3-1	X								GR	Valencia Rd	36	6	1.5	F-DA	XI	6080014									
	+	D3-1	X								GR	Vahalla Rd	42	9	2.6	F-DA	XI	6080014									
SN14	S-51+06	R3-5R	X						15	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN14	S-52+39	R3-5R	X						15	7	WH	Right Turn Arrow ONLY	30	36	7.5	RWM	XI	6080014	2	2S	25						
	+	R3-5fP	X								WH	RIGHT LANE	30	12	2.5	RWM	XI	6080014									
SN14	N-53+15	R2-1(25)						X				SPEED LIMIT 25															
SN14	S-53+64	R4-4	X						12	7	WH	RIGHT TURN/YIELD TO BIKES	36	30	7.5	RWM	XI	6080014	2	2S	24						
SN14	S-55+34	W3-1	X						12	7	YL	Stop Ahead Symbol	30	30	6.3	RWM	XI	6080014	1	2S	12						

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Scales: Horiz. NA / Vert. NA

Sheet SN33 of SN38

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sells	01/2018
Proj. Engr.	R. Sells	01/2018

No.	Revision Description	Engineer	Date

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VALENCIA ROAD
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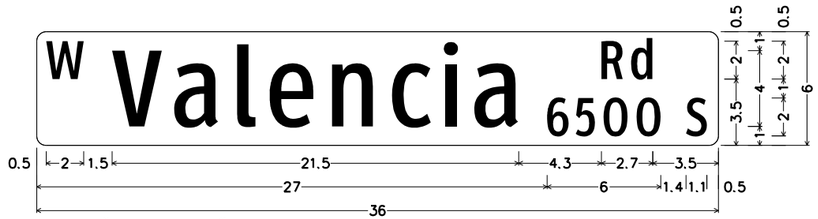
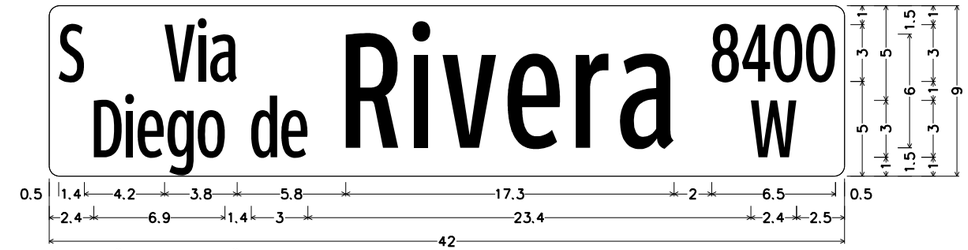


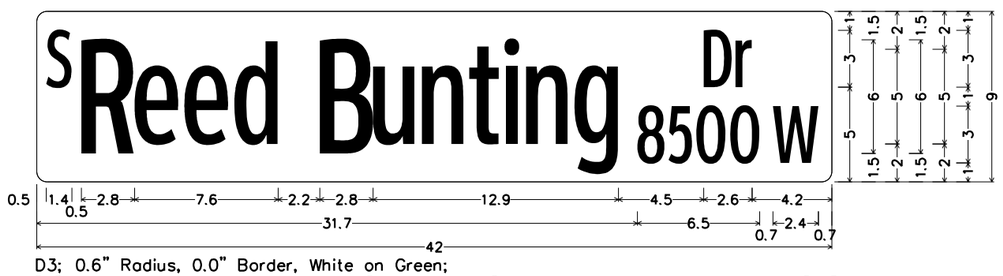
D3; 0.5" Radius, 0.0" Border, White on Green;
[W] ClearviewHwy-2-W; [Valencia] ClearviewHwy-2-W; [Rd] ClearviewHwy-2-W;
[6500 S] ClearviewHwy-2-W;

S-153+14
N-153+72
N-159+55
S-164+44
N-164+81
N-169+71
S-173+40
S-192+07
S-218+92
N-219+52
N-226+40
N-230+31
N-49+38
S-50+84



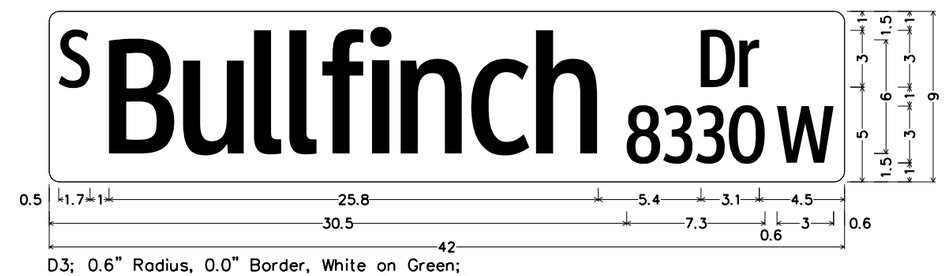
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-1-W 30% spacing; [Via] ClearviewHwy-1-W 30% spacing;
[Diego de] ClearviewHwy-1-W 30% spacing; [Rivera] ClearviewHwy-1-W 60% spacing;
[8400] ClearviewHwy-1-W 30% spacing; [W] ClearviewHwy-1-W 30% spacing;

N-159+55



D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-1-W 30% spacing; [Reed Bunting] ClearviewHwy-1-W 30% spacing; [Dr] ClearviewHwy-1-W 30% spacing;
[8500 W] ClearviewHwy-1-W 40% spacing;

S-153+14



D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W 30% spacing; [Bullfinch] ClearviewHwy-2-W 30% spacing;
[Dr] ClearviewHwy-2-W 30% spacing; [8330 W] ClearviewHwy-2-W 30% spacing;

S-164+44

D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-1-W 30% spacing; [Via] ClearviewHwy-1-W 30% spacing; [Molino de] ClearviewHwy-1-W 30% spacing;
[Viento] ClearviewHwy-1-W 60% spacing; [8500] ClearviewHwy-1-W 30% spacing; [W] ClearviewHwy-1-W 30% spacing;

N-153+72

D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W 50% spacing; [Giuliani] ClearviewHwy-2-W 50% spacing;
[Ave] ClearviewHwy-2-W 50% spacing;
[8300 W] ClearviewHwy-2-W 50% spacing;

N-164+81

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet SN34 of SN38	Page 298 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

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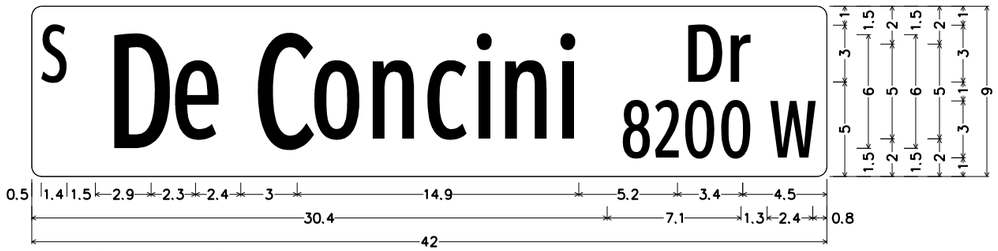
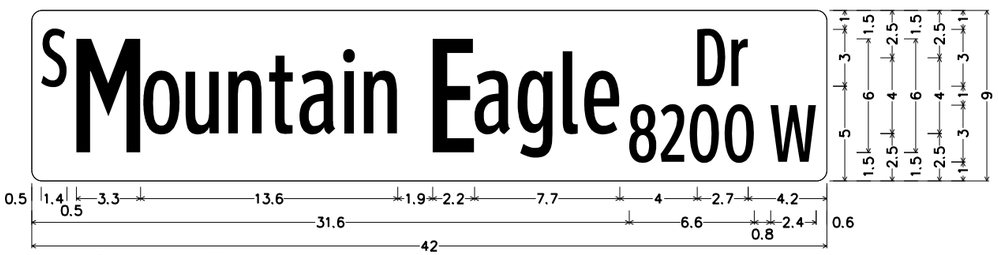
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



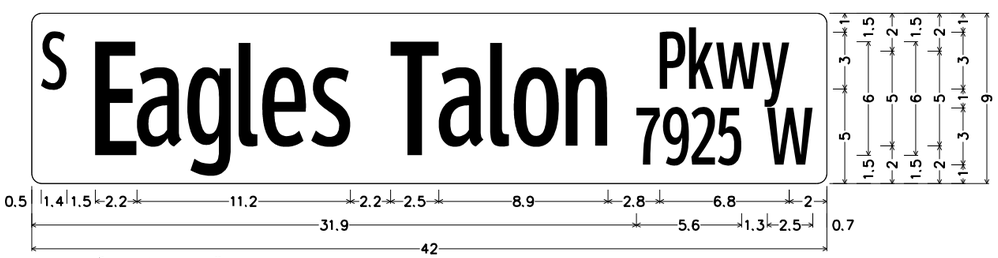
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-1-W 80% spacing; [De Concini] ClearviewHwy-1-W 80% spacing; [Dr] ClearviewHwy-2-W 80% spacing;
[8200 W] ClearviewHwy-1-W 80% spacing;

N-169+71



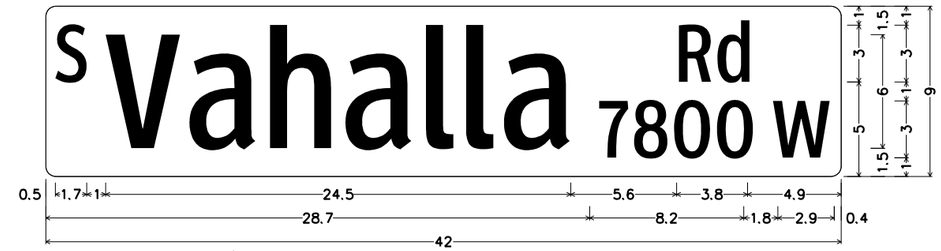
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-1-W 50% spacing; [Mountain Eagle] ClearviewHwy-1-W 50% spacing;
[Dr] ClearviewHwy-1-W 50% spacing; [8200 W] ClearviewHwy-1-W 50% spacing;

S-173+40



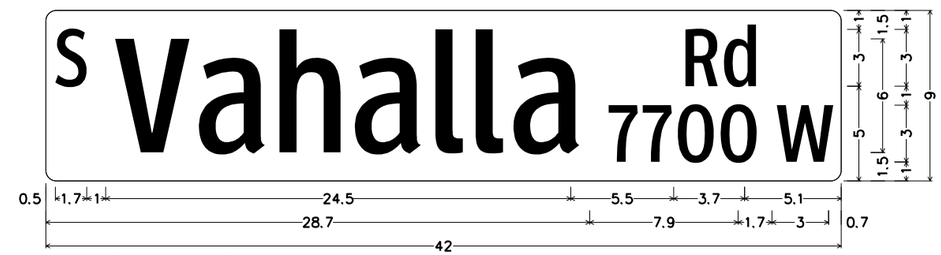
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-1-W 30% spacing; [Eagles Talon] ClearviewHwy-1-W 30% spacing;
[Pkwy] ClearviewHwy-1-W 30% spacing; [7925 W] ClearviewHwy-1-W 30% spacing;

S-192+07



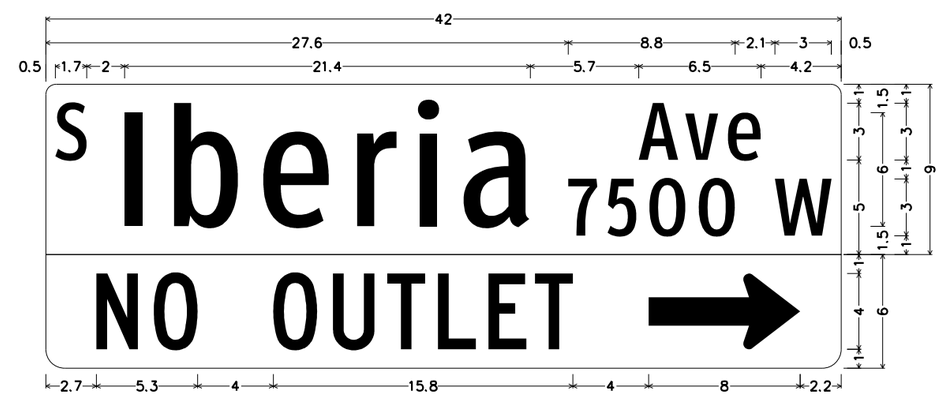
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W 50% spacing; [Vahalla] ClearviewHwy-2-W 50% spacing; [Rd] ClearviewHwy-2-W 50% spacing;
[7800 W] ClearviewHwy-2-W 50% spacing;

S-50+84



D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W 50% spacing; [Vahalla] ClearviewHwy-2-W 50% spacing; [Rd] ClearviewHwy-2-W 50% spacing;
[7700 W] ClearviewHwy-2-W 50% spacing;

N-49+38



D3; 0.6" Radius, No border, White on Green;
[S] ClearviewHwy-2-W; [Iberia] ClearviewHwy-2-W;
[Ave] ClearviewHwy-2-W; [7500 W] ClearviewHwy-2-W;
1.0" Radius, No border, Black on Yellow;
[NO OUTLET] C; Standard Arrow Custom 8.0" X 4.0" 0";

S-218+92

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet SN35 of SN38	Page 299 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
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Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
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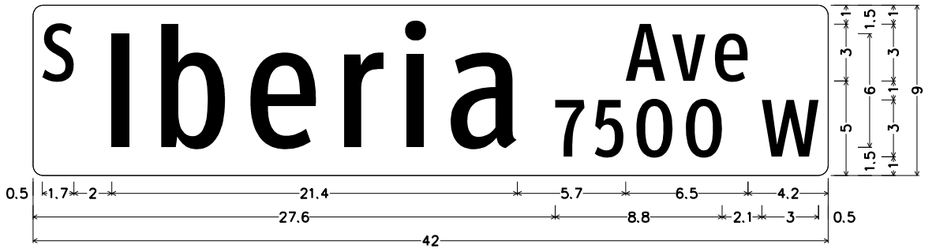
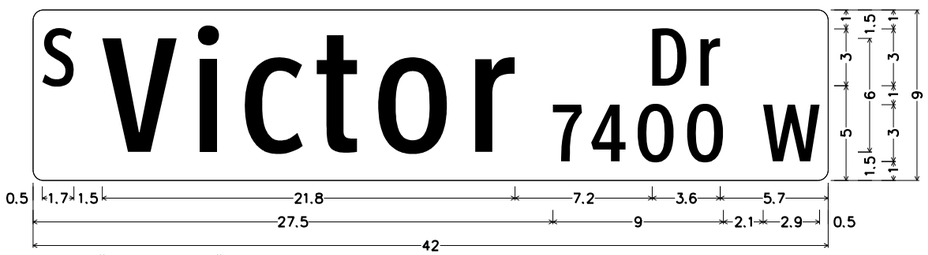
PROJECT NO. 4RTVWE



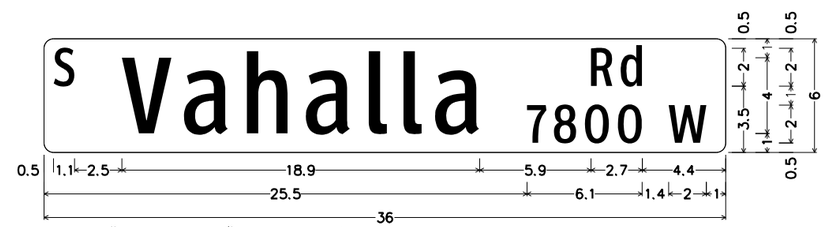
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W; [Iberia] ClearviewHwy-2-W; [Ave] ClearviewHwy-2-W; [7500 W] ClearviewHwy-2-W;

N-219+52



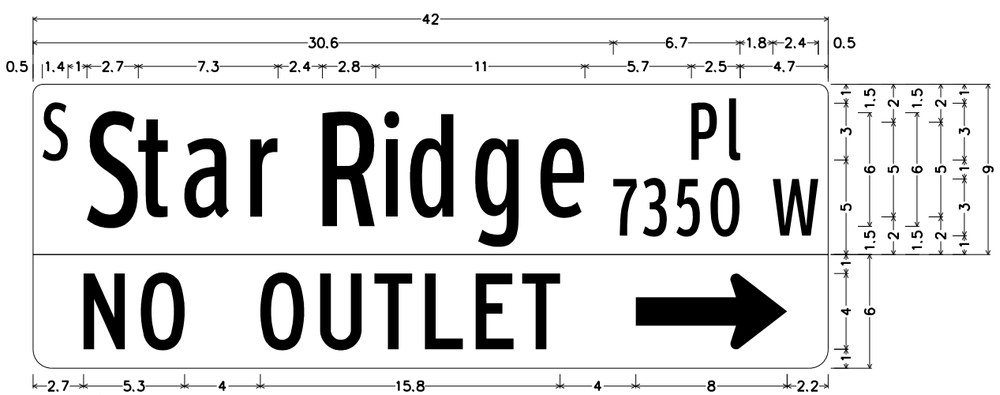
D3; 0.6" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W; [Victor] ClearviewHwy-2-W; [Dr] ClearviewHwy-2-W; [7400 W] ClearviewHwy-2-W;

N-226+40



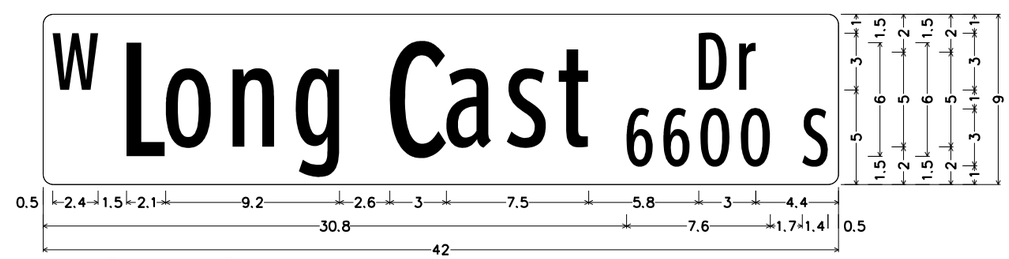
D3; 0.5" Radius, 0.0" Border, White on Green;
[S] ClearviewHwy-2-W; [Vahalla] ClearviewHwy-2-W; [Rd] ClearviewHwy-2-W;
[7800 W] ClearviewHwy-2-W;

W-41+39



D3; 0.6" Radius, No border, White on Green;
[S] ClearviewHwy-1-W; [Star Ridge] ClearviewHwy-1-W; [Pl] ClearviewHwy-1-W; [7350 W] ClearviewHwy-1-W;
1.0" Radius, No border, Black on Yellow;
[NO OUTLET] C; Standard Arrow Custom 8.0" X 4.0";

N-230+31



D3; 0.6" Radius, 0.0" Border, White on Green;
[W] ClearviewHwy-2-W; [Long Cast] ClearviewHwy-2-W; [Dr] ClearviewHwy-2-W; [6600 S] ClearviewHwy-2-W;

W-41+39

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

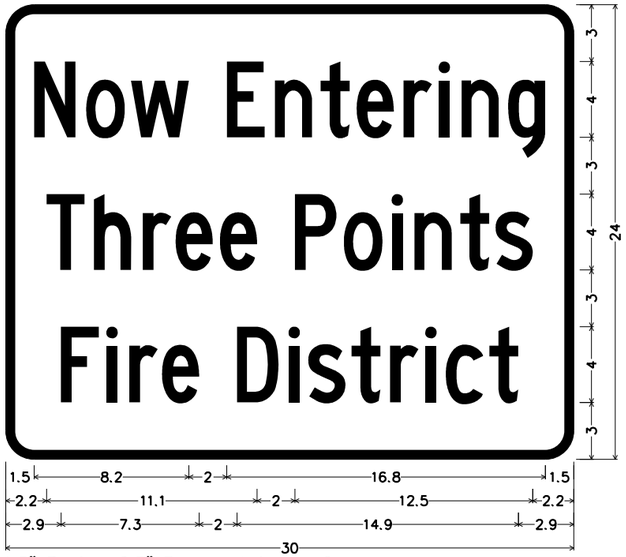
Kimley»Horn ©2018
333 E. Rethmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. NA	Sheet SN36 of SN38	Page 300 of 433
	Vert. NA		



1.5" Radius, 0.5" Border, White on Green;
[Now Entering] C 50% spacing; [Three Points] C 50% spacing;
[Fire District] C 50% spacing;

W-93+80

1.5" Radius, 0.5" Border, White on Green;
[Now Entering] C 50% spacing; [Drexel Heights] C 25% spacing;
[Fire District] C 50% spacing;

E-94+34

1.5" Radius, 0.8" Border, 0.3" Indent, Black on White;
[YOU CAN REPORT] B 90% spacing; [ILLEGAL DUMPING] B 90% spacing;
[622-5800] B 90% spacing; [PIMA COUNTY DEQ] B 90% spacing;

E-109+45

1.5" Radius, 0.5" Border, White on Green;
[Solid Waste] C 65% spacing; [Transfer Facility] C 65% spacing; Standard Arrow Custom 24.0" X 6.0";

W-96+39

1.5" Radius, 0.6" Border, 0.4" Indent, Red on White;
[NO] B 80% spacing; [TRESPASSING] C 80% spacing;

N-183+94

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet SN37 of SN38	Page 301 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Solis	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil)
60430
TIMOTHY J. RHINE
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/30/2018

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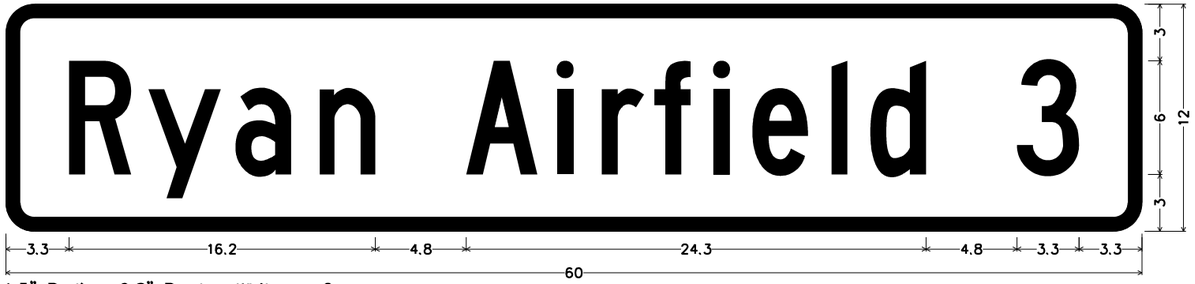
Pima County Department of Transportation

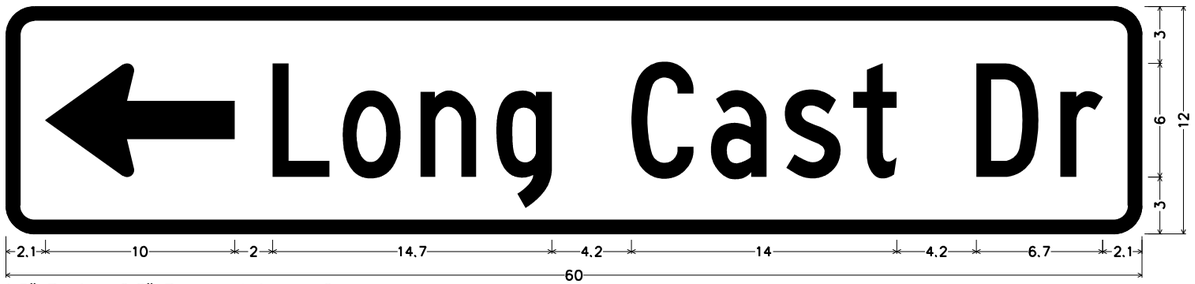
#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



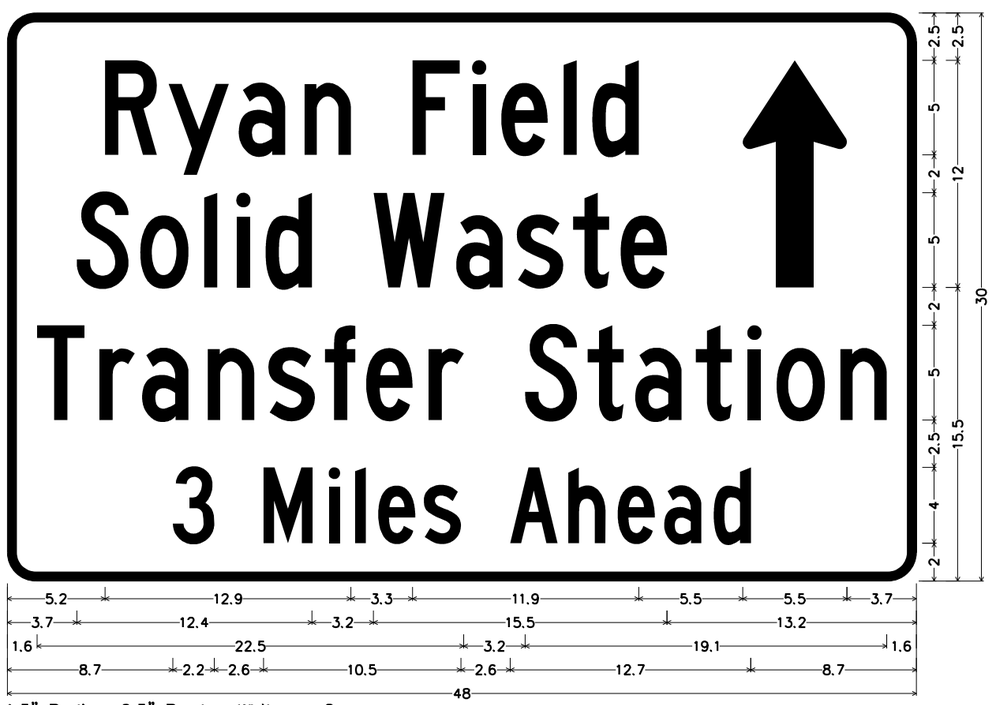
1.5" Radius, 0.8" Border, White on Green;
[Ryan Airfield 3] C 80% spacing;

W-227+69



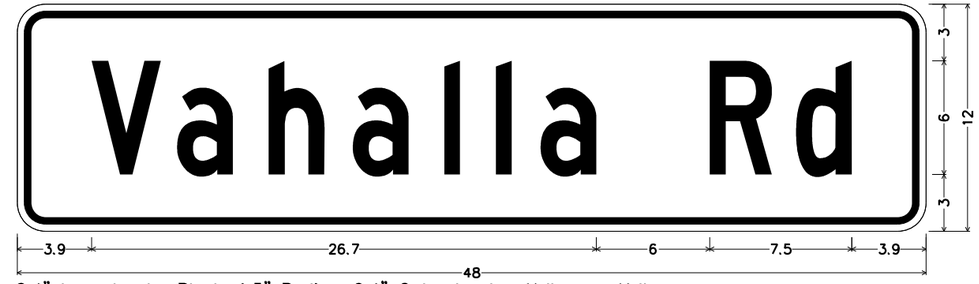
1.5" Radius, 0.8" Border, White on Green;
Standard Arrow Custom 10.0" X 6.0"; [Long Cast Dr] C 70% spacing;

S-44+39



1.5" Radius, 0.5" Border, White on Green;
[Ryan Field] C 65% spacing; [Solid Waste] C 65% spacing; Standard Arrow Custom 12.0" X 5.5" 90%; [Transfer Station] C 65% spacing;
[3 Miles Ahead] C 65% spacing;

W-217+77



0.4" Inner border Black, 1.5" Radius, 0.4" Outer border, Yellow on Yellow;
[Vahalla Rd] Black C;

E-192+29
W-207+88

24.0" across sides 1.5" Radius, 0.6" Border, 0.4" Indent, Black on Yellow;
[CHILDREN] C; Symbol RL050; [AT PLAY] C;

S-164+35
S-169+36

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Designed	T. Rhine	01/2018
Drawn	D. Bacon	01/2018
Checked	R. Sollis	01/2018
Proj. Engr.	R. Sollis	01/2018

No.	Revision Description	Engineer	Date

Professional Engineer (Civil) 60430 TIMOTHY J. RHINE Date Signed 01/04/18 ARIZONA, U.S.A. Expires 09/30/2018

Kimley»Horn ©2008
333 E. Rethmore Road
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#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. NA	Sheet SN38 of SN38	Page 302 of 433
	Vert. NA		

4:47:47 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\SIGNING\T022048SFS05.DGN

ENVIRONMENTALLY SENSITIVE ROADWAY (ESR) MITIGATION CALCULATIONS

TREES	TOTAL NUMBER OF PLANTS INVENTORIED	TOTAL CALIPER INCHES INVENTORIED	TOTAL REPLACEMENT CALIPER INCHES REQUIRED	NURSERY BOX SIZE	AVERAGE CALIPER INCH PER BOX SIZE	TOTAL NURSERY PLANTS PURCHASED PER BOX SIZE	TOTAL CALIPER INCHES PROVIDED	CALIPER STATUS
Acacia Constricta Whitethorn Acacia	50	360"	40.5"	48" Box 36" Box 24" Box 15Gal/24"Treepot	6" 4" 2.5" 1"	1 1 5 142	6.0 4.0 12.5 142.0 TOTAL 164.5	Fulfilled
Parkinsonia florida* Blue Palo Verde	18	233"	26.21"	48" Box 36" Box 24" Box 15Gal/24"Treepot	6" 4" 2.5" 1"	2 1 2 71	12.0 4.0 5.0 71.0 TOTAL 92.0	Fulfilled
Prosopis velutina** Velvet Mesquite	849	7602"	855.23"	48" Box 36" Box 24" Box 15Gal/24"Treepot	6" 4" 2.5" 1"	36 30 100 271	216.0 120.0 250.0 271.0 TOTAL 857.0	Fulfilled

Total Project Area = 72.06 Acres
Disturbed Project Area = 59.38 Acres

Area within the disturbed limit that is unplantable includes:
- Roadway
- Clear zone
- Sidewalk, multi-use path
- Unpaved area between curb and sidewalk medians
- 10' offset from water and sewer lines and manholes
- 10' offset from pavement edge in areas with no curb
- Sight visibility triangles
- Drainage structures and associated riprap
- Railroad easement

Total Plantable Area within the Disturbed Project Limits = 5.35 acres
ESR Multiplier = Plantable Area/Disturbed Project Area = 0.09 or 9%
Total Replacement Caliper Inches Required =
Total Caliper Inches Inventoried x 125% x ESR Multiplier

These plans have been developed under Pima County's Environmentally Sensitive Roadway (ESR) guidelines. (RDM, Ch. 4). Releve surveys were conducted by Kimley-Horn Staff in Fall of 2016 and Spring 2017. The seed mixture listed on the plans has resulted from the releve surveys.

* Required Blue Palo Verde caliper fulfilled with Chilopsis linearis and Acacia greggii per PCDOT.

** Required Mesquite caliper fulfilled with Prosopis velutina and Prosopis pubescens per PCDOT.

SAGUARO MITIGATION CALCULATIONS

The removing, transporting and planting of the 12' saguaro cacti located within Sonoran Ranch Estates I property shall be paid under Item 8090047 Transplant Saguaros. Refer to Special Provisions. Contractor shall contact Home Owners Association: Sonoran Ranch Estates I prior to transplant (Contact Kim Schone - Phone: 520-200-6014).

Inventoried Saguaros (HT)	
0' - 2'	0
2+' - 4'	0
4+' - 6'	0
6+'- 8'	0
over 8'	1

Transplant Saguaros (HT)	
0' - 2'	0
2+' - 4'	0
4+' - 6'	0
6+'- 8'	0
over 8'	1

RIPARIAN HABITAT MITIGATION CACLULATIONS

XERORIPARIAN HABITAT 'C' MITIGATION CALCULATIONS

Total Area of Regulated Habitat Present On-site:	9.6 Acres
Area of Disturbed Regulated Habitat:	2.6 Acres
Area of Required Mitigation:	2.6 Acres
Area of Proposed Mitigation:	2.7 Acres
Vegetation Mitigation Ratio:	1:1
Tree Requirement:	45/AC of Disturbance
Trees Provided:	153
Shrub Requirement:	70/AC of Disturbance
Shrubs Provided:	582

XERORIPARIAN HABITAT 'B' MITIGATION CALCULATIONS

Total Area of Regulated Habitat Present On-site:	1.7 Acres
Area of Disturbed Regulated Habitat:	0.5 Acres
Area of Required Mitigation:	0.6 Acres
Area of Proposed Mitigation:	0.4 Acres
Vegetation Mitigation Ratio:	1:1
Tree Requirement:	60/AC of Disturbance
Trees Provided:	41
Shrub Requirement:	80/AC of Disturbance
Shrubs Provided:	113

MESORIPARIAN HABITAT 'H' MITIGATION CALCULATIONS

Total Area of Regulated Habitat Present On-site:	2.8 Acres
Area of Disturbed Regulated Habitat:	1.8 Acres
Area of Required Mitigation:	2.7 Acres
Area of Proposed Mitigation:	0.8 Acres
Vegetation Mitigation Ratio:	1.5:1
Tree Requirement:	90/AC of Disturbance
Trees Provided:	108
Shrub Requirement:	100/AC of Disturbance
Shrubs Provided:	188

GENERAL NOTES

1. ⬚ Indicates Riparian Mitigation Area. Plants in this area are mitigated per requirements set forth in Pima County Flood Control District "Regulated Riparian Habitat Mitigation Standards and Guidelines".
2. Medians shall be graded to create a swale. Refer to Landscape Details and plans for swale locations.
3. Seeding: Seed mix shall be applied over rock mulch base. Also see Special Provisions Section 803-3.03(a) and 805-3.02(B).
4. Plants installed within Sight Visibility Triangles (SVT's) shall have a mature height of less then 30".
5. Trees to be planted a minimum of eight feet (8') from sidewalks and six feet (6') from face of curb. Small/upright trees may be planted a minimum of 4'-6" from the edge of sidewalk. Shrubs and accents to be planted a minimum of four feet (4') from sidewalks and face of curb.
6. No trees shall be planted in the clear zone.
7. Refer to Demolition Plans for removal and preservation of existing plants.

MITIGATION CALCULATIONS & GENERAL NOTES

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. NA Vert. NA	Sheet L1 of L49	Page 303 of 433

PLANT LEGEND:

TREES

SYMBOL	BOTANICAL NAME / COMMON NAME	QUANTITY ENTIRE PROJECT	SIZE	BID #
	Acacia constricta / Whitethorn Acacia	1 1 5 71 71	48" Box 36" Box 24" Box 15 Gal 24"Treepot	8061019 8061013 8061009 8061005 8062024
	Acacia greggii / Catclaw Acacia	31 31	15 Gal 24"Treepot	8061005 8062024
	Chilopsis linearis / Desert Willow	2 1 2 4 5	48" Box 36" Box 24" Box 15 Gal 24"Treepot	8061019 8061013 8061009 8061005 8062024
	Prosopis pubescens / Screwbean Mesquite	10 10 30 43 136	48" Box 36" Box 24" Box 15 Gal 24"Treepot	8061019 8061013 8061009 8061005 8062024
	Prosopis velutina / Velvet Mesquite	26 20 70 92	48" Box 36" Box 24" Box 15 Gal	8061019 8061013 8061009 8061005

SHRUBS/ACCENTS

SYMBOL	BOTANICAL NAME / COMMON NAME	QUANTITY ENTIRE PROJECT	SIZE	BID #
	Ambrosia deltoidea / Triangle-Leaf Bursage	315 200	15"Treepot 1 Gal	8062015 8061296
	Atriplex canescens / Fourwing Saltbush	420 200	15"Treepot 1 Gal	8062015 8061296
	Carnegiea gigantea / Saguaro	11 11	1'-3' 4'-7'	8061602 8061603
	Celtis pallida / Desert Hackberry	75	1 Gal	8061296
	Cylindropuntia acanthocarpa / Buckhorn Cholla	183	3 Gal (AP)	8061294
	Cylindropuntia arbuscula / Pencil Cholla	125	3 Gal (AP)	8061294
	Cylindropuntia versicolor / Staghorn Cholla	186	3 Gal (AP)	8061294
	Dasylirion wheeleri / Desert Spoon	200 31	3 Gal (AP) 5 Gal	8061294 8061305
	Encelia farinosa / Brittlebush	100 73	1 Gal (AP) 1 Gal	8061295 8061296
	Ferocactus sp. / Barrel Cactus	100 85	AP 3 Gal	8061614 8061612
	Fouquieria splendens / Ocotillo	100 28	AP 5 Gal	8061654 8061652

SHRUBS/ACCENTS

SYMBOL	BOTANICAL NAME / COMMON NAME	QUANTITY ENTIRE PROJECT	SIZE	BID #
	Hesperaloe funifera / Giant Hesperaloe	93	5 Gal	8061305
	Hesperaloe parviflora / Red Yucca	100 149	3 Gal (AP) 5 Gal	8061294 8061305
	Larrea tridentata / Creosote	650 103	15"Treepot 5 Gal	8062015 8061298
	Lycium species / Wolfberry	76	5 Gal (AP)	8061297
	Melampodium leucanthum / Black Foot Daisy	200 252	1 Gal (AP) 1 Gal	8061295 8061296
	Opuntia basilaris / Beavertail Prickly Pear	200 53	5 Gal (AP) 3 Gal	8061297 8061613
	Opuntia santa-rita / Purple Prickly Pear	130 64	5 Gal (AP) 3 Gal	8061297 8061613
	Sphaeralcea ambigua / Globemallow	225 224	1 Gal (AP) 1 Gal	8061295 8061296
	Thymophylla pentachaeta / Golden Dogbane	340 178	1 Gal (AP) 1 Gal	8061295 8061296
	Ziziphus obtusifolia / Graythorn	39	15"Treepot	8062015

HYDROSEED & INERT GROUNDCOVER

SYMBOL	NAME	BID #
	Seed Mix 1 Rock Mulch (Special)	8050003 (1st App.), 8050010 (2nd App.) 8030029 18,000 SY
	Seed Mix 2 Rock Mulch (Special)	8050003 (1st App.), 8050010 (2nd App.) 8030029 34,000 SY
	Seed Mix 3 Rock Mulch (Special)	8050003 (1st App.), 8050010 (2nd App.) 8030029 32,000 SY
	Granite Mulch	8030040 54,000 SY
	Rock Mulch (Type I) Rock Mulch (Type II)	8030030 1,500 CY 8030032 122 CY
	Preservation Fence Refer to Demolition Plans	

NOTE:
For granite and rock mulch color, size and gradation, see Detail 1, Sheet L-49.

1. Number within tree symbol indicates box size in inches. Tree symbols with no number indicates 15gal or 24" treepot.
2. Landscape contractor shall install plant material in a mixed and random pattern, as availability and scheduling allow. Agency Provided (AP) plant materials are not delineated on plans.

SEED MIX 1 - (CLASS II) (TYPE A): LOW GROW SEED-MIX SCHEDULE FOR ROADSIDE AREAS - CLEAR ZONE

BOTANICAL NAME	COMMON NAME	PLS LBS./AC
Ambrosia deltoidea	Triangle-Leaf Bursage	3.0
Aristida purpurea	Purple Three-awn	0.5
Baileya multiradiata	Desert Marigold	2.0
Bouteloua aristidoides	Needle Grama	0.5
Bouteloua barbata var. barbata	Sixweeks Grama	0.5
Bouteloua rothrockii	Rothrock Grama	0.5
Dyssodia acerosa	Prickleleaf Dogbane	0.5
Encelia farinosa	Brittlebush	1.0
Eschscholtzia mexicana	Mexican Poppy	3.0
Gutierrezia sarothrae	Snakeweed	0.5
Isocoma tenuisecta	Burroweed	1.0
Kalstroemia grandiflora	Arizona Poppy	1.5
Lesquerella gordoni	Bladderpod	1.0
Penstemon parryi	Parry's Penstemon	1.0
Plantago insularis	Indian Wheat	3.75
Psilostrophe cooperii	Paperflower	0.5
Salvia columbiarae	Desert Chia	1.0
Senna covesii	Desert Senna	1.0
Sphaeralcea ambigua	Desert Globemallow	1.5
Sporobolus cryptandrus	Sand Dropseed	0.25
Zinnia acerosa	Desert Zinnia	0.5
	TOTAL	25.0

SEED MIX 2 - (CLASS II) (TYPE A): SEED-MIX SCHEDULE FOR ROADSIDE AREAS-OUTSIDE CLEAR ZONE

BOTANICAL NAME	COMMON NAME	PLS LBS./AC
Ambrosia deltoidea	Triangle-Leaf Bursage	1.0
Aristida purpurea	Purple Three-awn	1.0
Atriplex canescens	Fourwing Saltbush	0.5
Atriplex polycarpa	Desert Saltbush	0.5
Baileya multiradiata	Desert Marigold	1.0
Bouteloua aristidoides	Needle Grama	1.0
Bouteloua barbata var. barbata	Sixweeks Grama	1.0
Eschscholtzia mexicana	Mexican Poppy	3.0
Gutierrezia sarothrae	Snakeweed	0.5
Isocoma tenuisecta	Burroweed	0.5
Kalstroemia grandiflora	Arizona Poppy	1.0
Larrea tridentata	Creosote Bush	4.0
Lesquerella gordoni	Bladderpod	1.0
Lycium andersonnii	Wolfberry	0.5
Phacelia crenulata	Desert Bluebells	1.0
Prosopis velutina*	Velvet Mesquite*	0.5
Psilostrophe cooperii	Paperflower	1.0
Salvia columbiarae	Desert Chia	1.0
Senna covesii	Desert Senna	2.5
Sphaeralcea ambigua	Desert Globemallow	1.5
Sporobolus cryptandrus	Sand Dropseed	0.5
Zinnia acerosa	Desert Zinnia	0.5
	TOTAL	25.0

* NOTE: Seed used in seed mix for Prosopis velutina (Velvet Mesquite) shall be required to be hulled, clean seed.

SEED MIX 3 - (CLASS II) (TYPE B): HIGH GROW SEED-MIX SCHEDULE FOR RIPARIAN AREAS

BOTANICAL NAME	COMMON NAME	PLS LBS./AC
Acacia constricta	Whitethorn Acacia	1.0
Acacia greggii	Catclaw Acacia	2.0
Aristida purpurea	Purple Three-awn	1.0
Atriplex canescens	Fourwing Saltbush	1.0
Bouteloua aristidoides	Needle Grama	1.0
Bouteloua rothrockii	Rothrock Grama	0.5
Celtis pallida	Desert Hackberry	1.0
Digitaria californica	Arizona Cottontop	1.0
Eschscholtzia mexicana	Mexican Poppy	3.0
Gutierrezia sarothrae	Snakeweed	0.5
Isocoma tenuisecta	Burroweed	1.0
Kalstroemia grandiflora	Arizona Poppy	1.0
Lesquerella gordoni	Bladderpod	1.0
Lupinus sparsiflorus	Coulter's Lupine	0.5
Lycium andersonnii	Wolfberry	0.5
Olneya tesota	Ironwood	1.0
Parkinsonia florida	Blue Palo Verde	3.0
Penstemon parryi	Parry's Penstemon	1.0
Phacelia crenulata	Desert Bluebells	1.0
Prosopis velutina*	Velvet Mesquite*	0.5
Senna covesii	Desert Senna	1.0
Sphaeralcea ambigua	Desert Globemallow	1.0
Sporobolus cryptandrus	Sand Dropseed	0.5
	TOTAL	25.0

PLANTING CRITERIA ADJACENT TO UTILITIES:

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT:
1. No vegetation within 3'-0" radius of manholes.
2. Maintain 16' clear width from manhole to street, no vegetation.
3. No trees within 10'-0" of sewer line if sewer is less than 8' deep.
4. No rock mulch within 10'-0" radius of manholes.

SOUTHWEST GAS & EL PASO NATURAL GAS
1. No trees within 8'-0" of gas line.

TRICO ELECTRIC COOP
1. Maintain 24'-0" each side of poles free of trees and shrubs.
2. No tress that grow taller that 15'-0" shall be within 15'-0" of power lines.

PIMA COUNTY FLOOD CONTROL
1. No planting within maintenance access roads.
2. No planting on rip rap slopes.
3. No planting on channel bottoms.
4. Maintain 20'-0" clear upstream of drop inlets at box culverts.

TUCSON WATER
1. 15 gallon trees: Provide a horizontal distance of 10'-0" from outside of root ball to outside of water line.
2. Trees smaller than 15 gallon: Provide a horizontal distance of 5'-0" from outside of the root ball to outside of water line.

CENTURY LINK, COMCAST
1. Tree trunks to be located minimum of 4'-0" from either side of line.

This project has been designed in accordance with the landscaping and planting guideline for Public sewer per Engineering Design Standards subsection 7.7.

Rebeca Field, PLA

LANDSCAPE LEGENDS
& PLANTING NOTES

Ana M. Olivares, P.E., Director

	Date
Designed K. Furenlid	01/2018
Drawn K. Furenlid	01/2018
Checked R. Field	01/2018
Proj. Engr. R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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333 E. Wetmore Road
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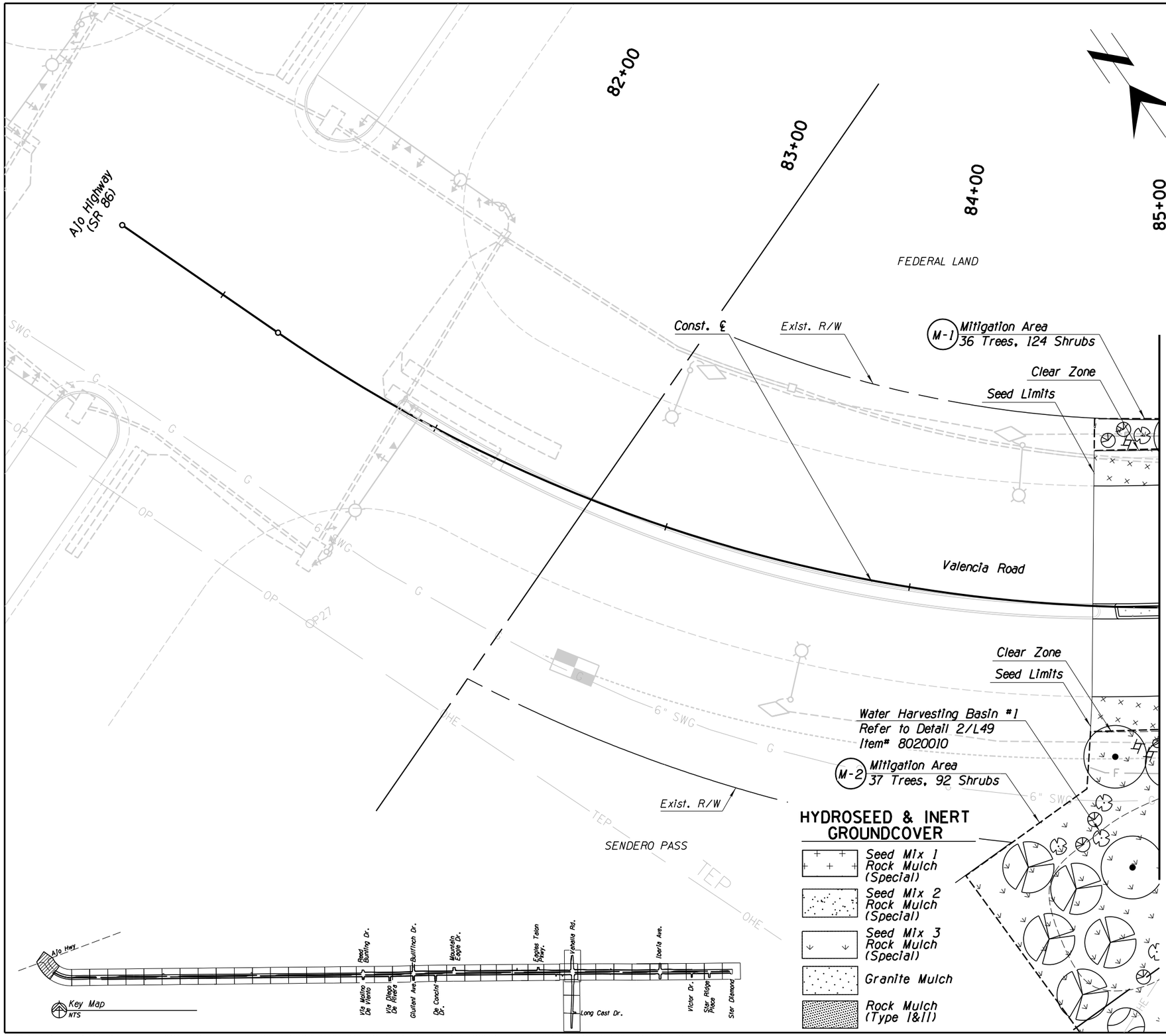
(520) 615-9191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales Horiz. NA Vert. NA | Sheet L2 of L49

5:00:10 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\PLANTING\R022048SUM2.DGN



PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 81+00 TO 85+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=20'	Sheet L3 of L49	Page 305 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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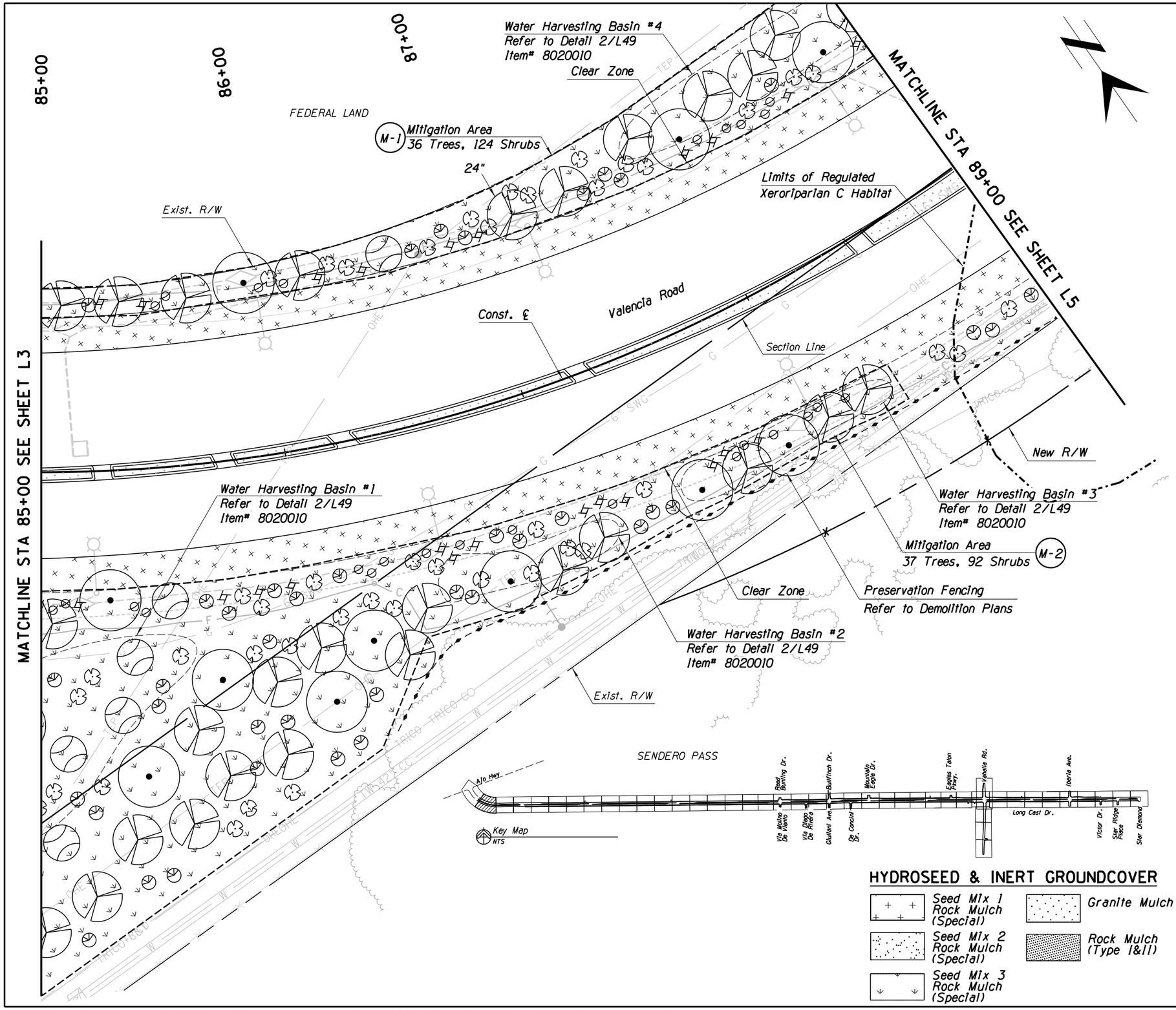
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

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	Melampodium leucanthum Black Foot Daisy
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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 85+00 TO 89+00

20 0 20 40

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

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Proj. Engr.	R. Solis	01/2018

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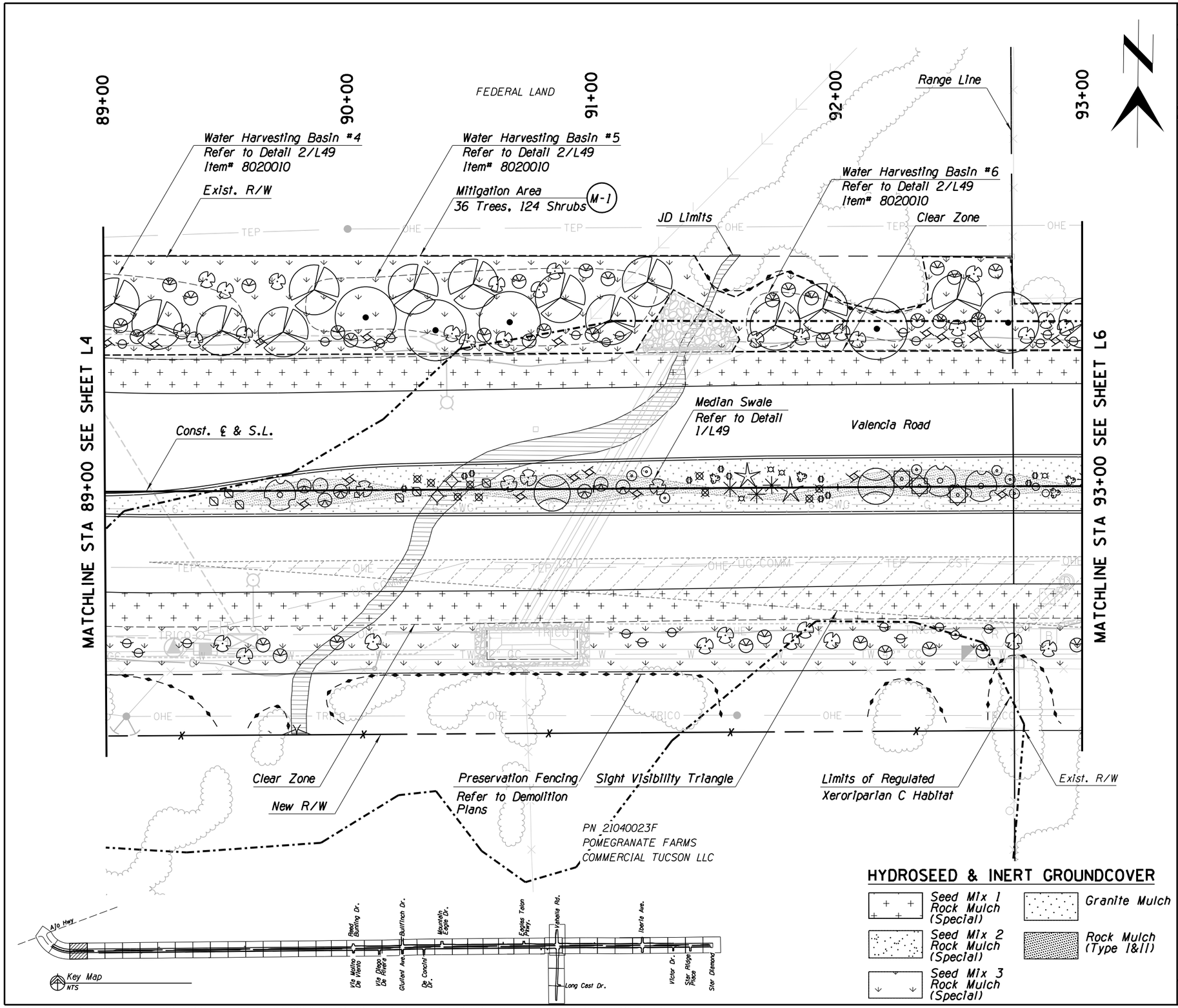
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L4 of L49	Page 306 of 433



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 89+00 TO 93+00

20 0 20 40

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ARIZONA811
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Scales	Horiz. 1"=20' Vert. NA	Sheet L5 of L49	Page 307 of 433

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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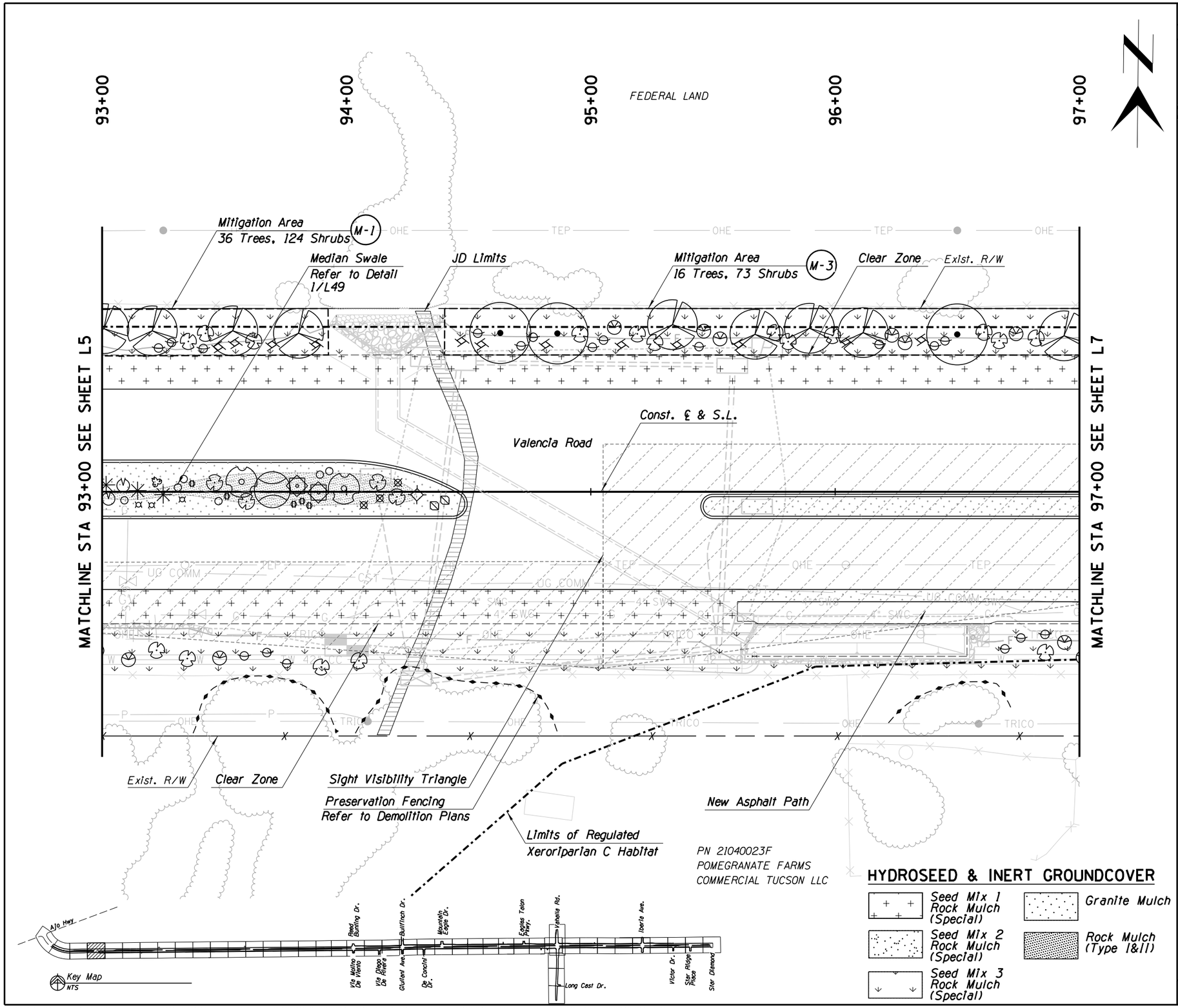
Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

5:00:13 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\PLANTING\R022048P03.DGN



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

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	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 93+00 TO 97+00

20 0 20 40

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ARIZONA811
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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

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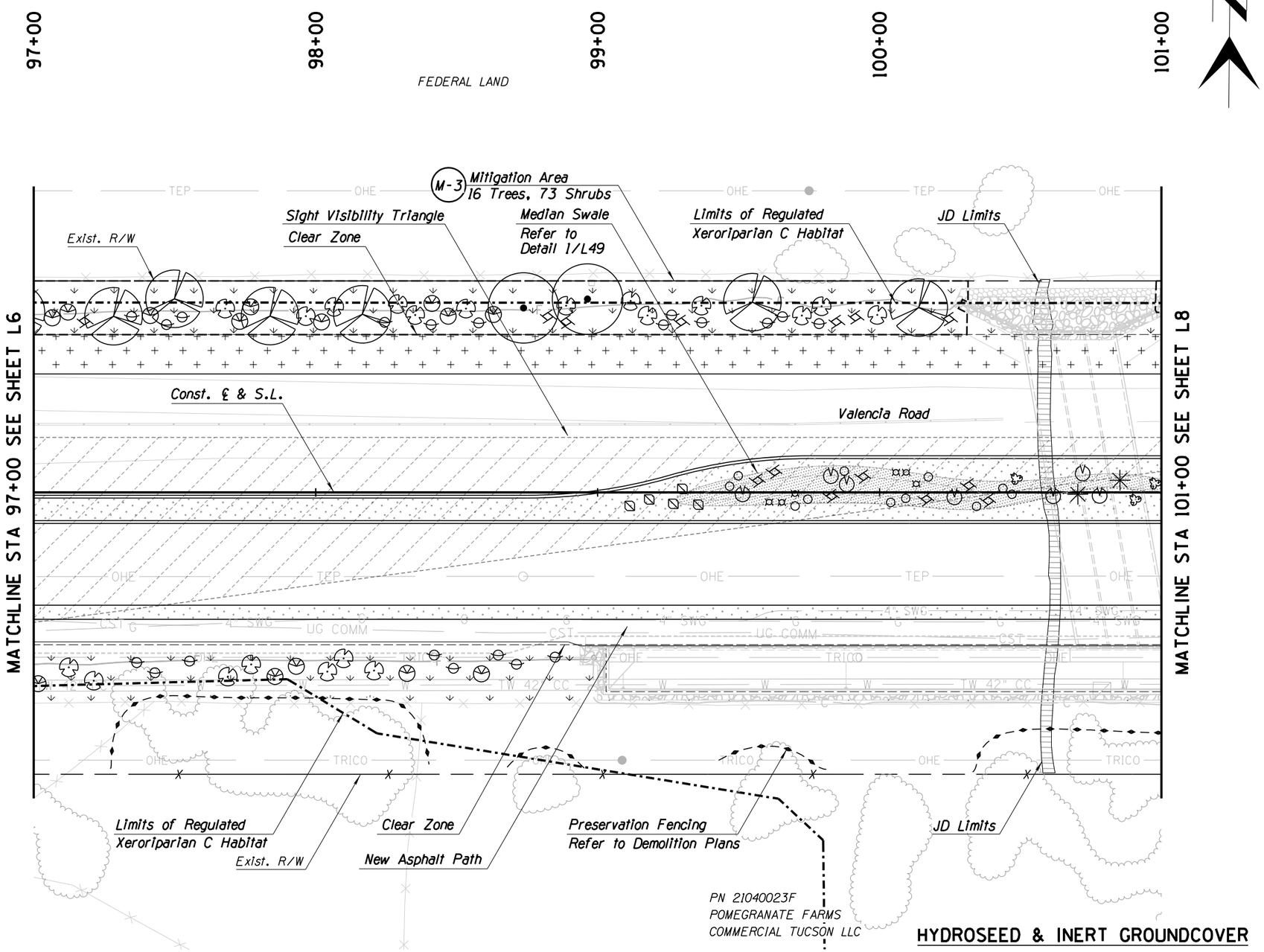
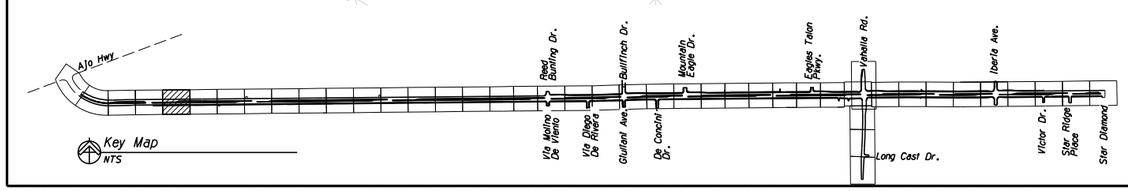
#4RTVWE
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L6 of L49	Page 308 of 433





Key Map
NTS

HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
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	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 97+00 TO 101+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=20' Vert. NA	Sheet L7 of L49	Page 309 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
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REBECA V. FIELD
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Expires 03/31/2019

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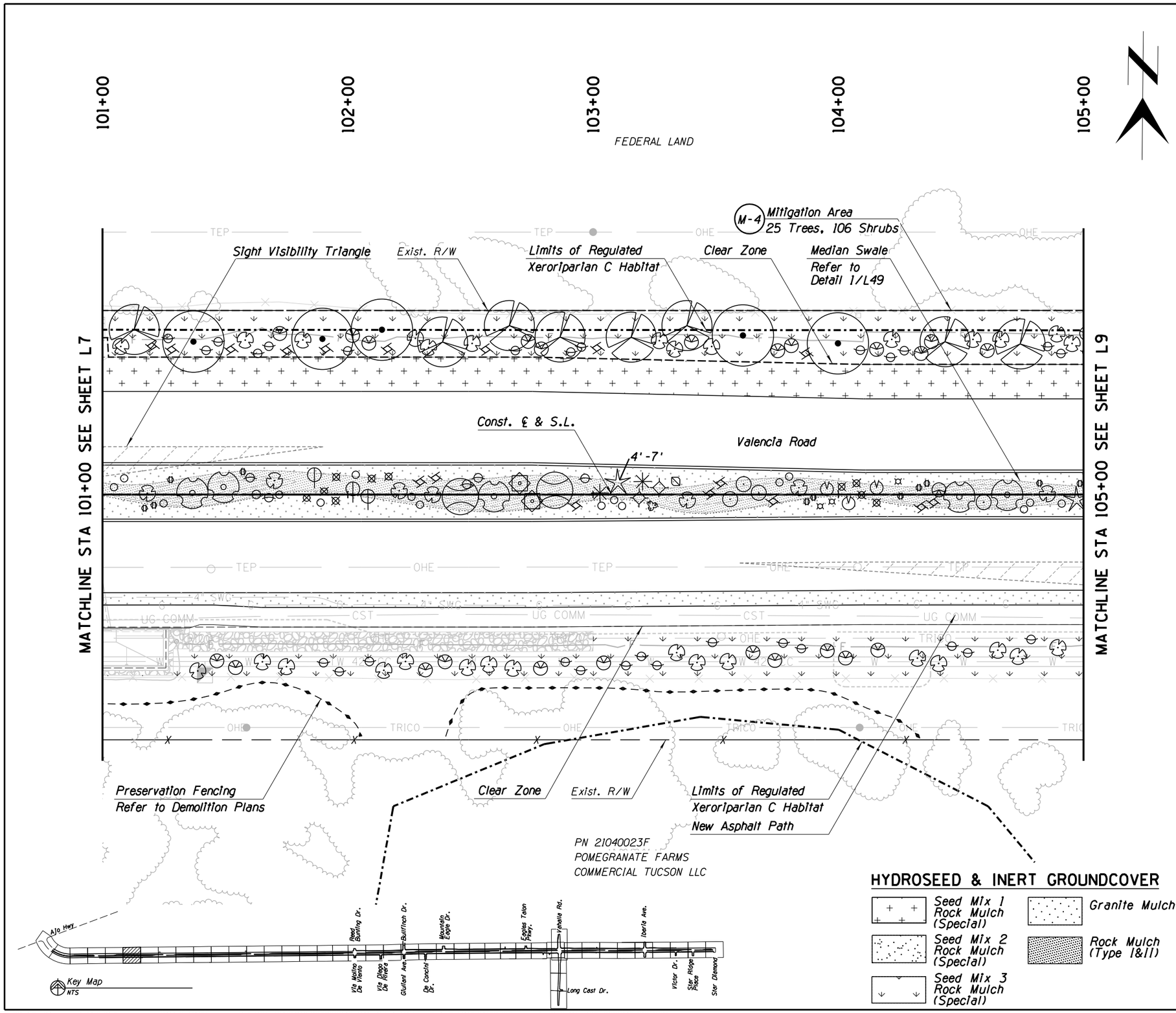
Pima County Department of Transportation

#4RTVWE
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
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- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 101+00 TO 105+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. 1"=20' Vert. NA	Sheet L8 of L49	Page 310 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
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REBECA V. FIELD
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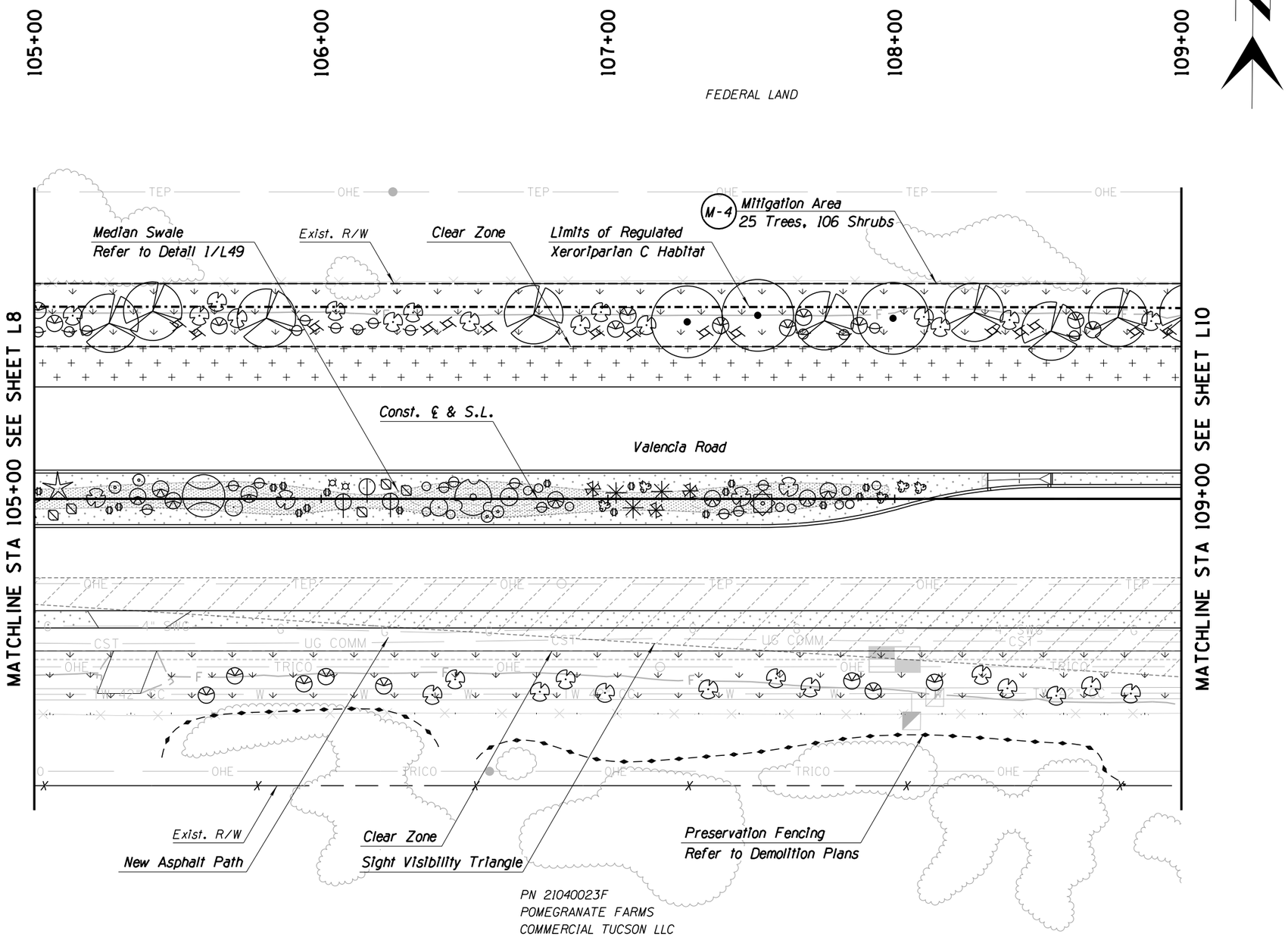
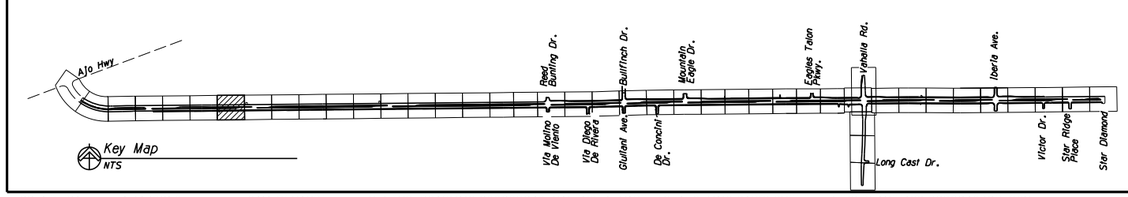
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
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- Granite Mulch
- Rock Mulch (Type 1&II)

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PLANTING PLAN
VALENCIA ROAD
STA. 105+00 TO 109+00

20 0 20 40

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ARIZONA811
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Scales	Horiz. 1"=20' Vert. NA	Sheet L9 of L49	Page 311 of 433

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

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Registered Landscape Architect
C.T. Hayes
50732
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VALENCIA ROAD
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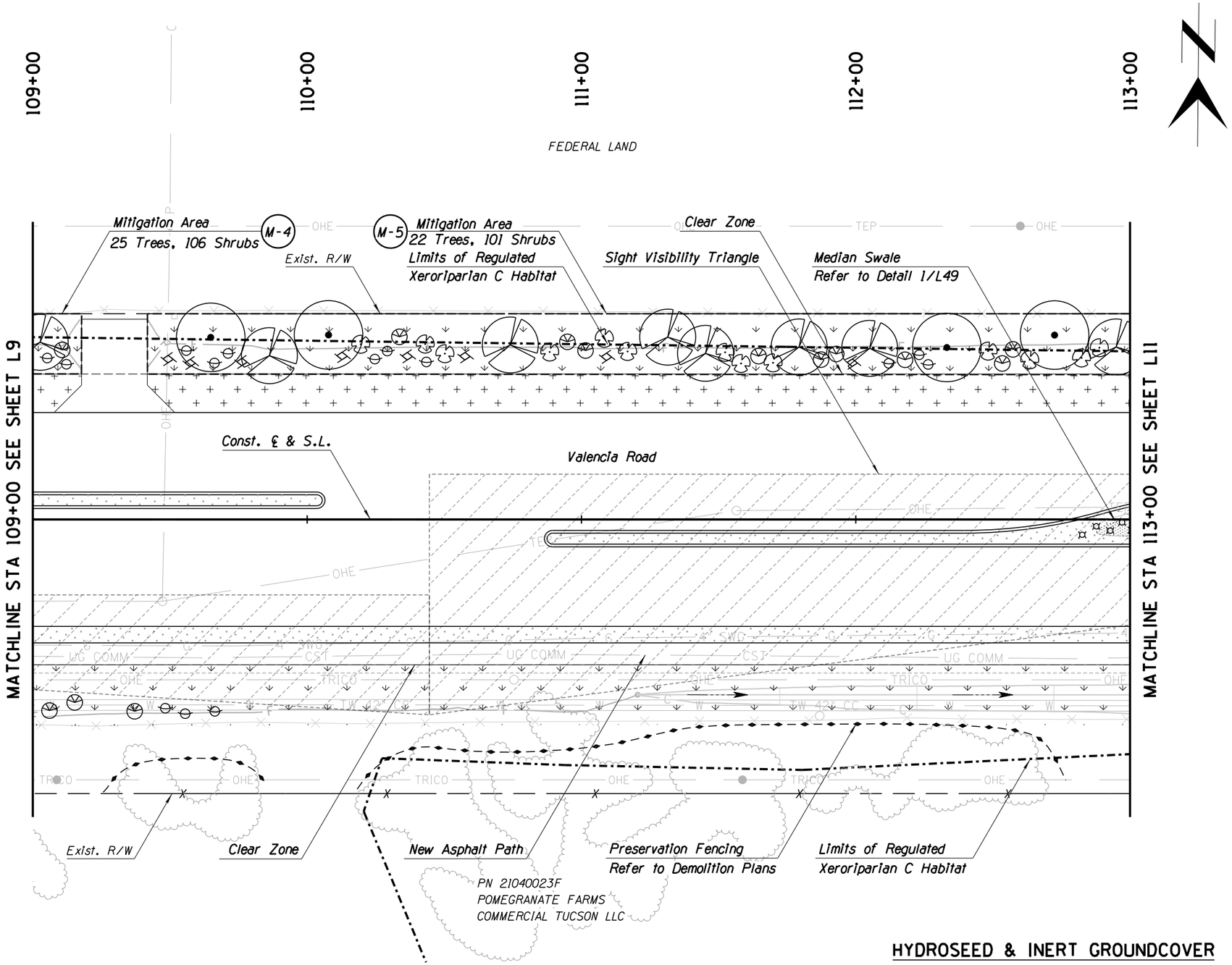

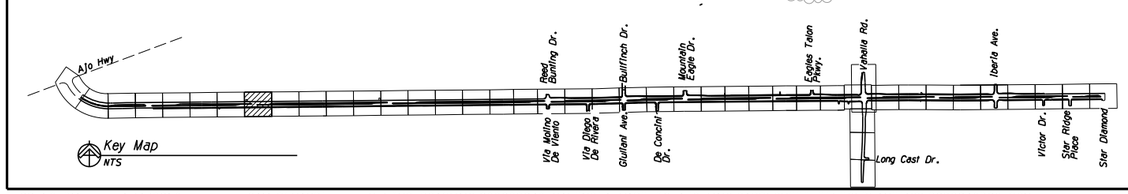

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- Seed Mix 1 Rock Mulch (Special)
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PLANTING PLAN
VALENCIA ROAD
STA. 109+00 TO 113+00

20 0 20 40

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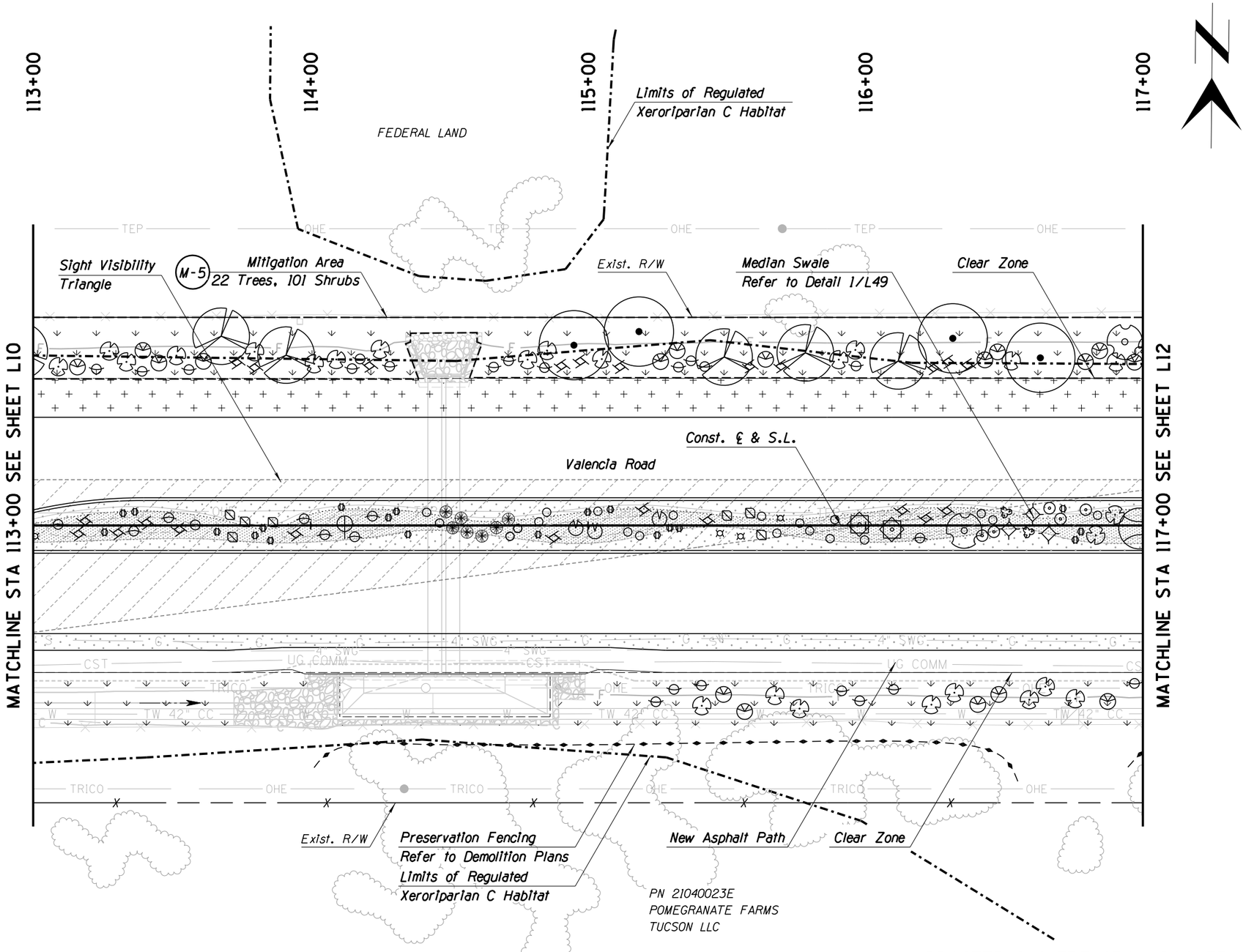
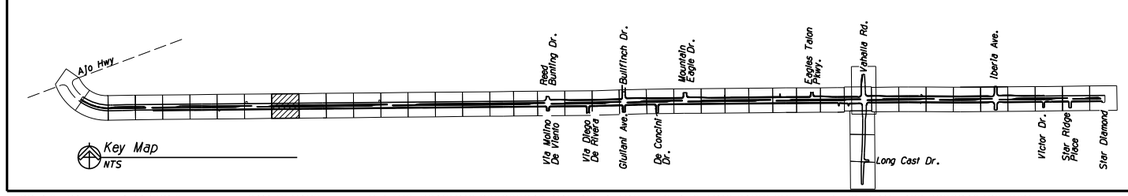
Scales	Horiz. 1"=20' Vert. NA	Sheet L10 of L49	Page 312 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 113+00 TO 117+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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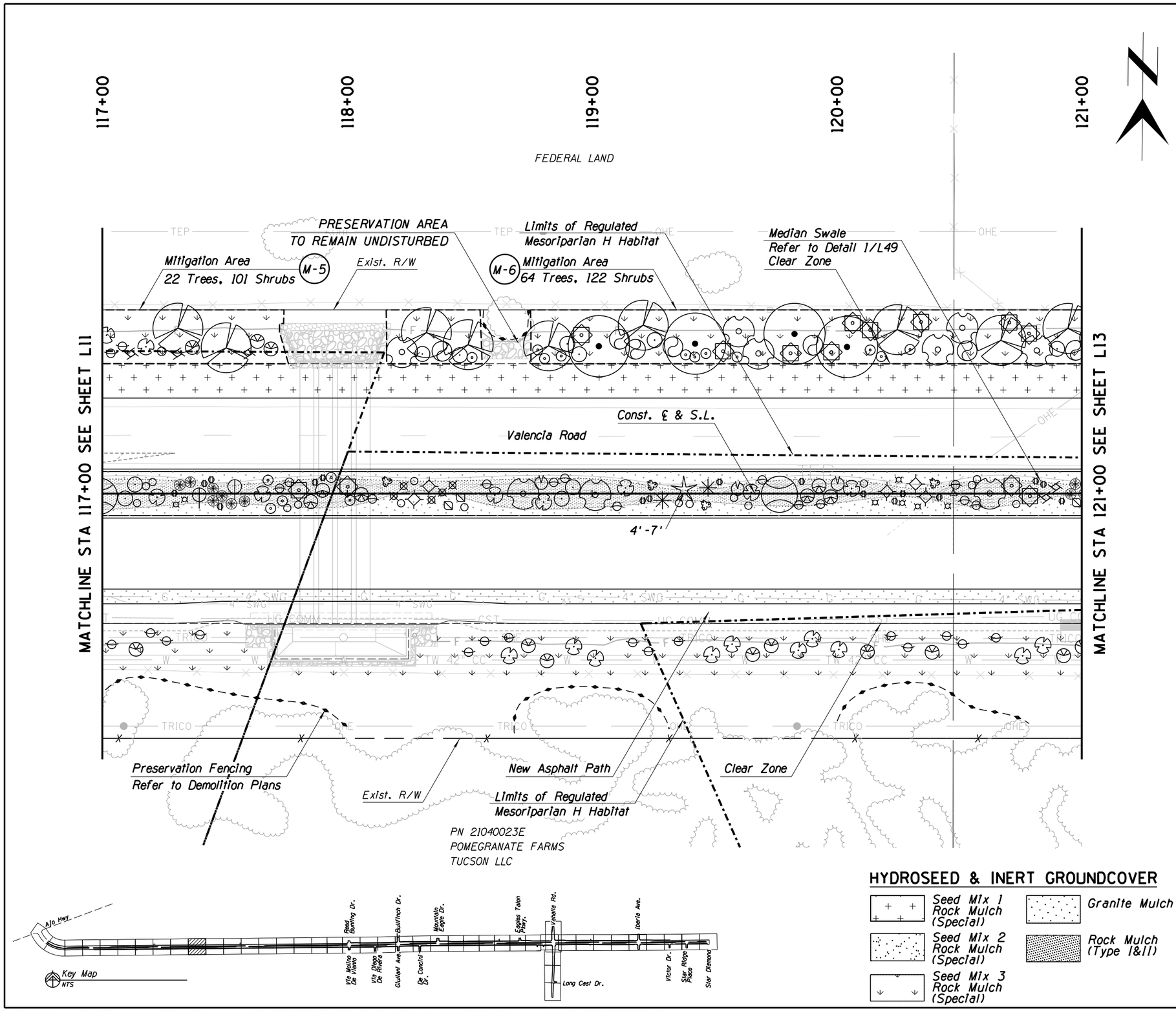
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L11 of L49	Page 313 of 433



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&11)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 117+00 TO 121+00

20 0 20 40

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ARIZONA811
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Scales	Horiz. 1"=20'	Sheet L12 of L49	Page 314 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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Expires 03/31/2019

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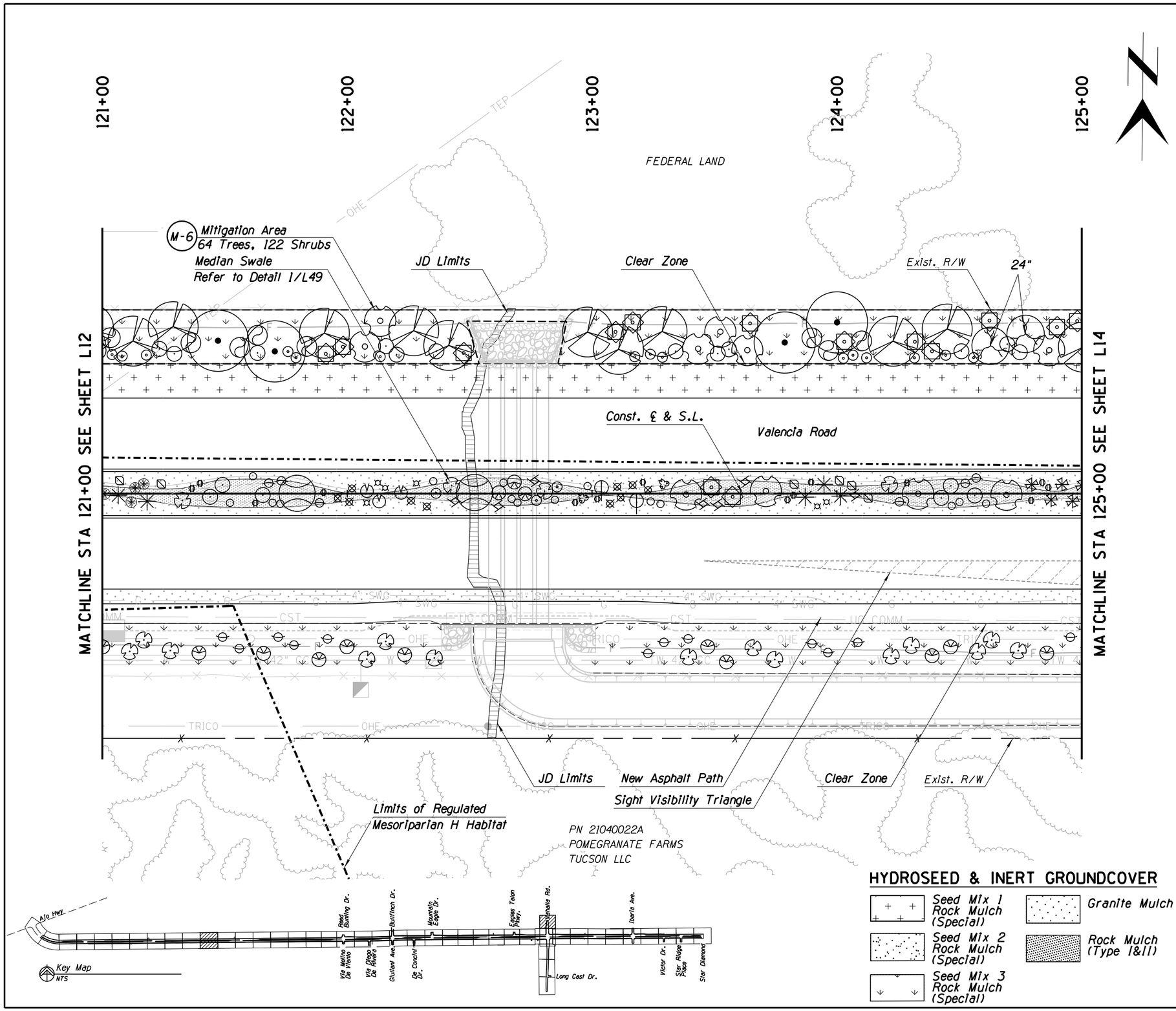
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
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	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 121+00 TO 125+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L13 of L49	Page 315 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
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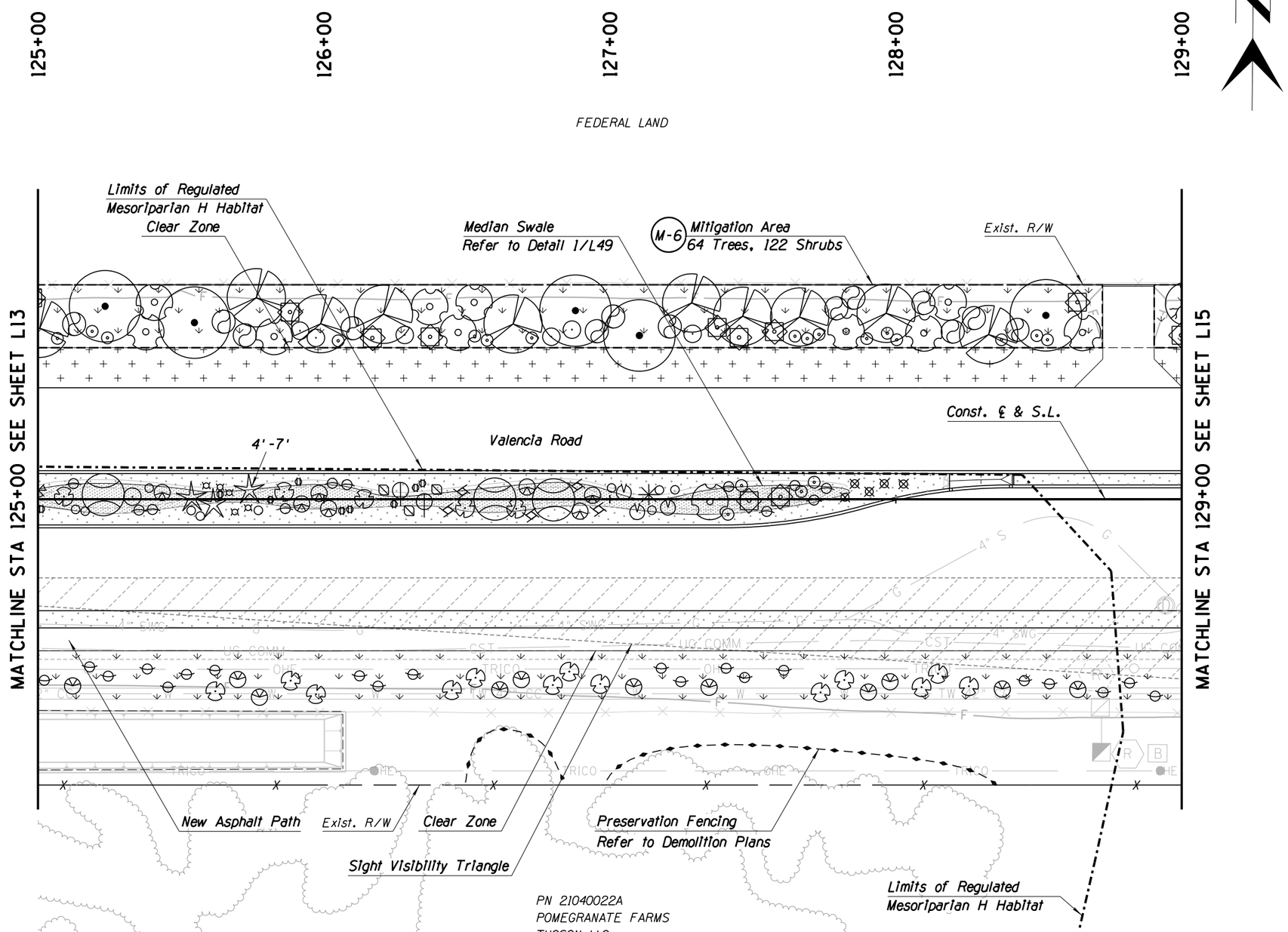
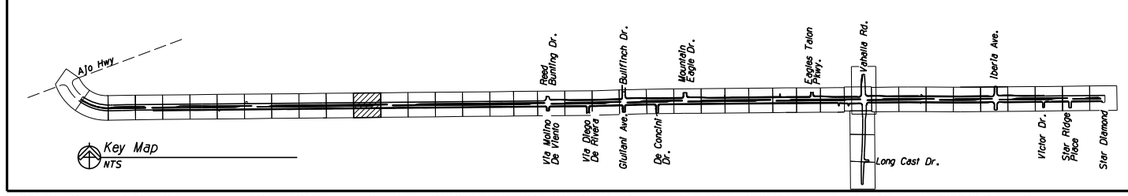
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 125+00 TO 129+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L14 of L49	Page 316 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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Expires 03/31/2019

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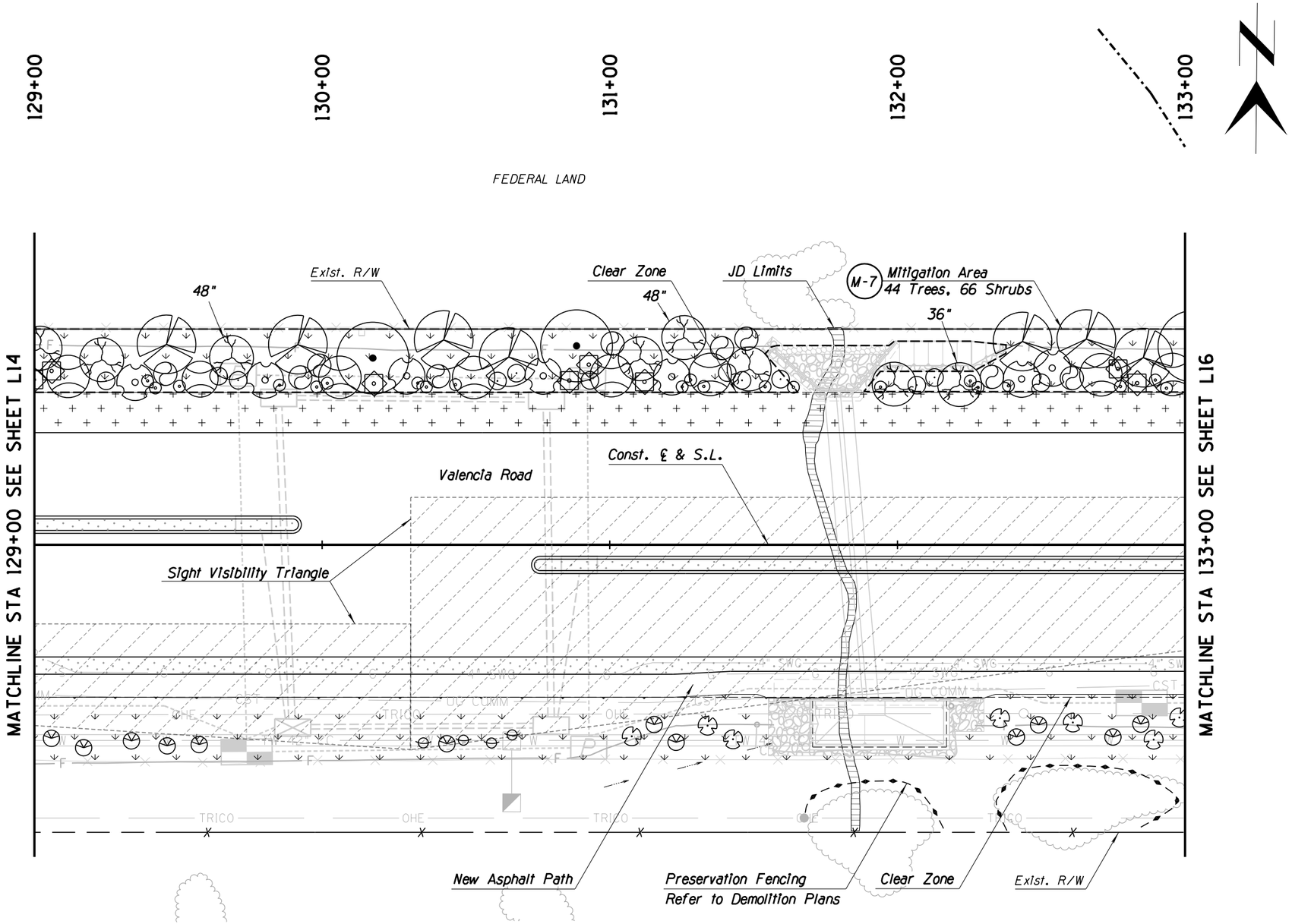
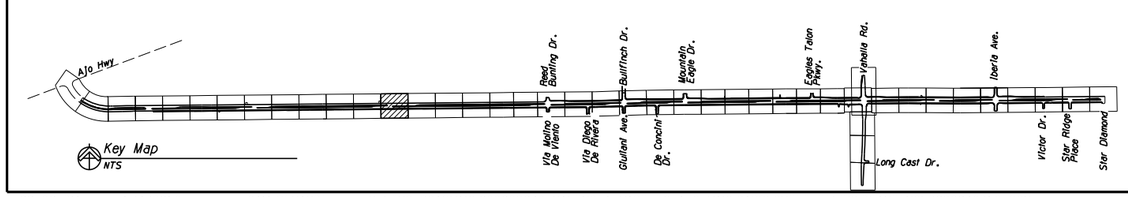
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



PN 21040022A
POMEGRANATE FARMS
TUCSON LLC



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 129+00 TO 133+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
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REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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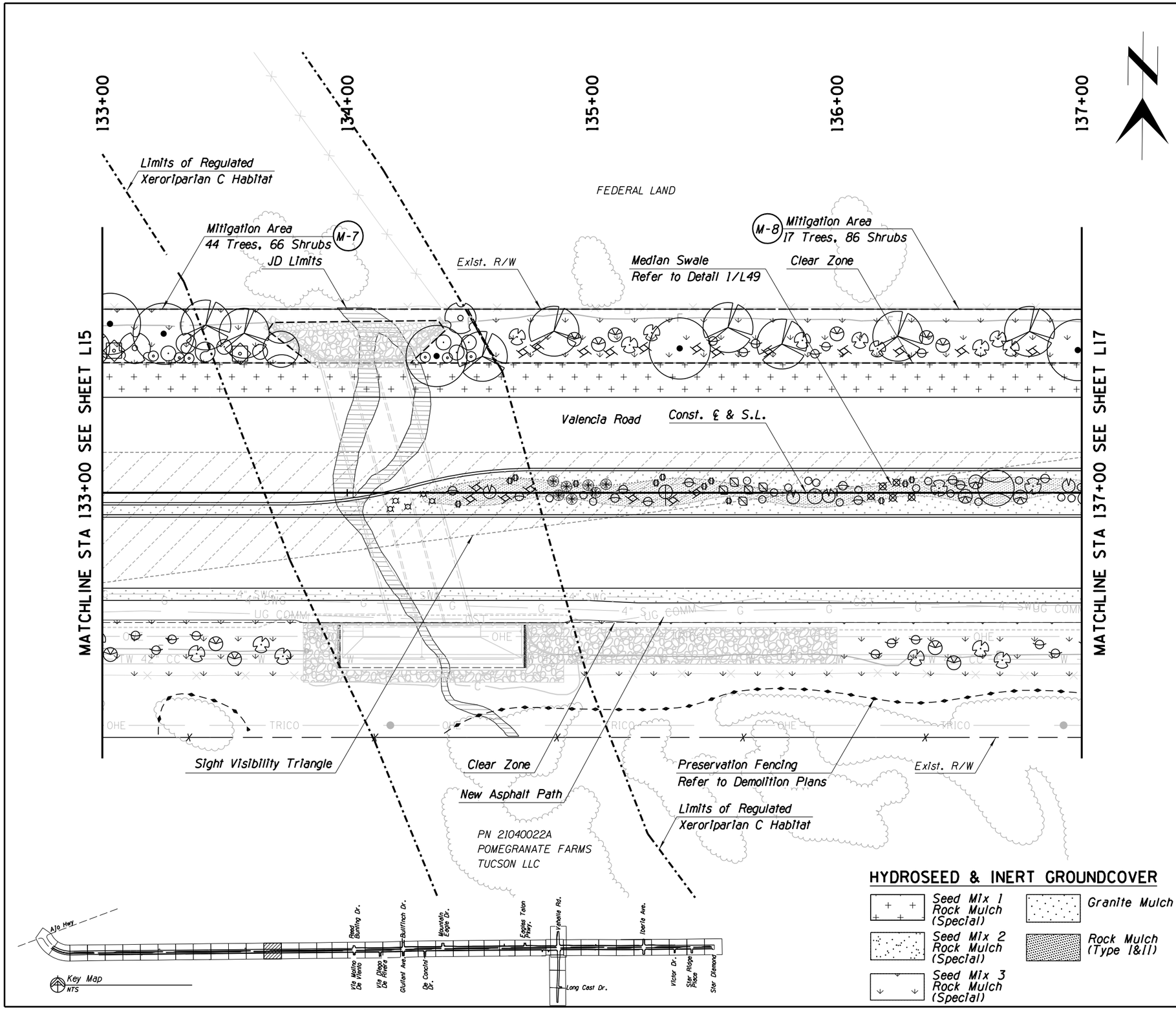
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L15 of L49	Page 317 of 433



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
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	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
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	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 133+00 TO 137+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L16 of L49	Page 318 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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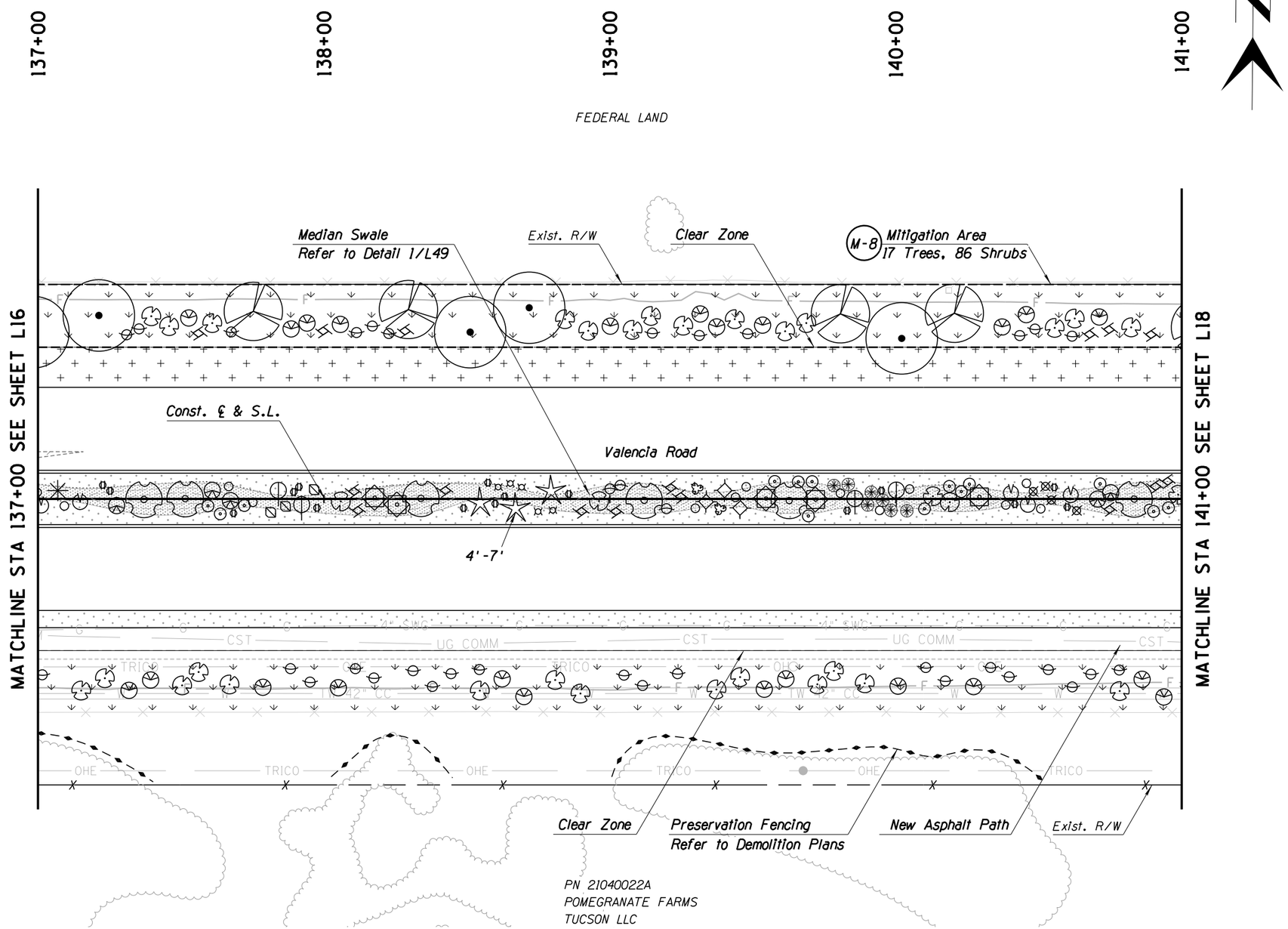
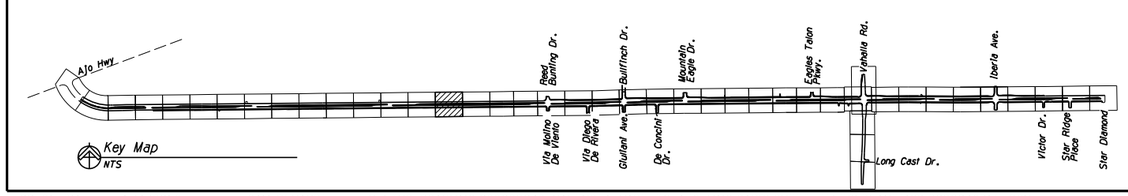
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
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	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 137+00 TO 141+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L17 of L49	Page 319 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
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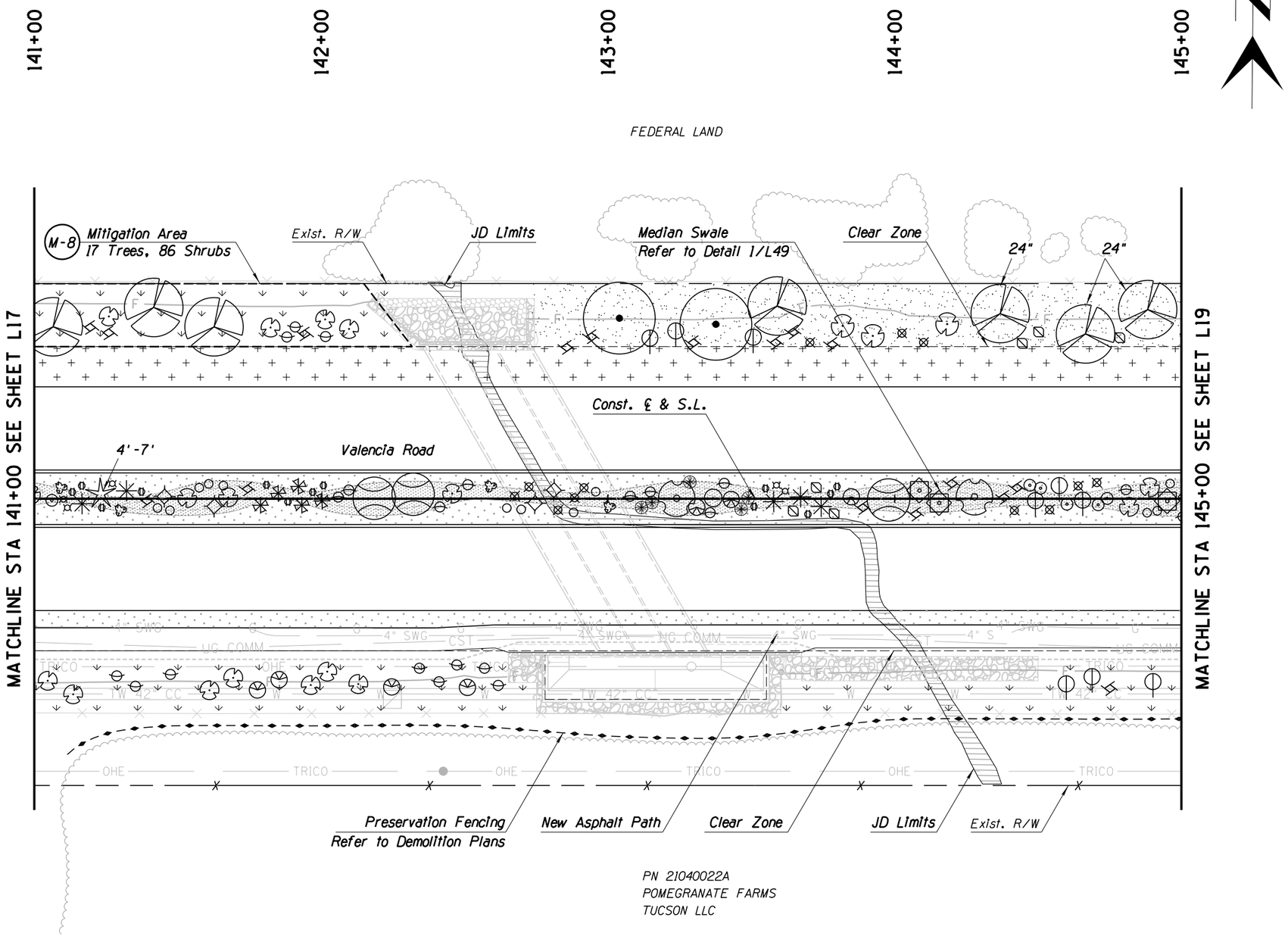
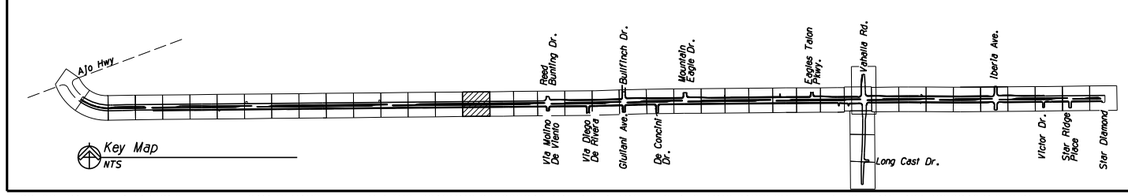
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
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	Encelia farinosa Brittlebush
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	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 141+00 TO 145+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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ARIZONA, U.S.A.
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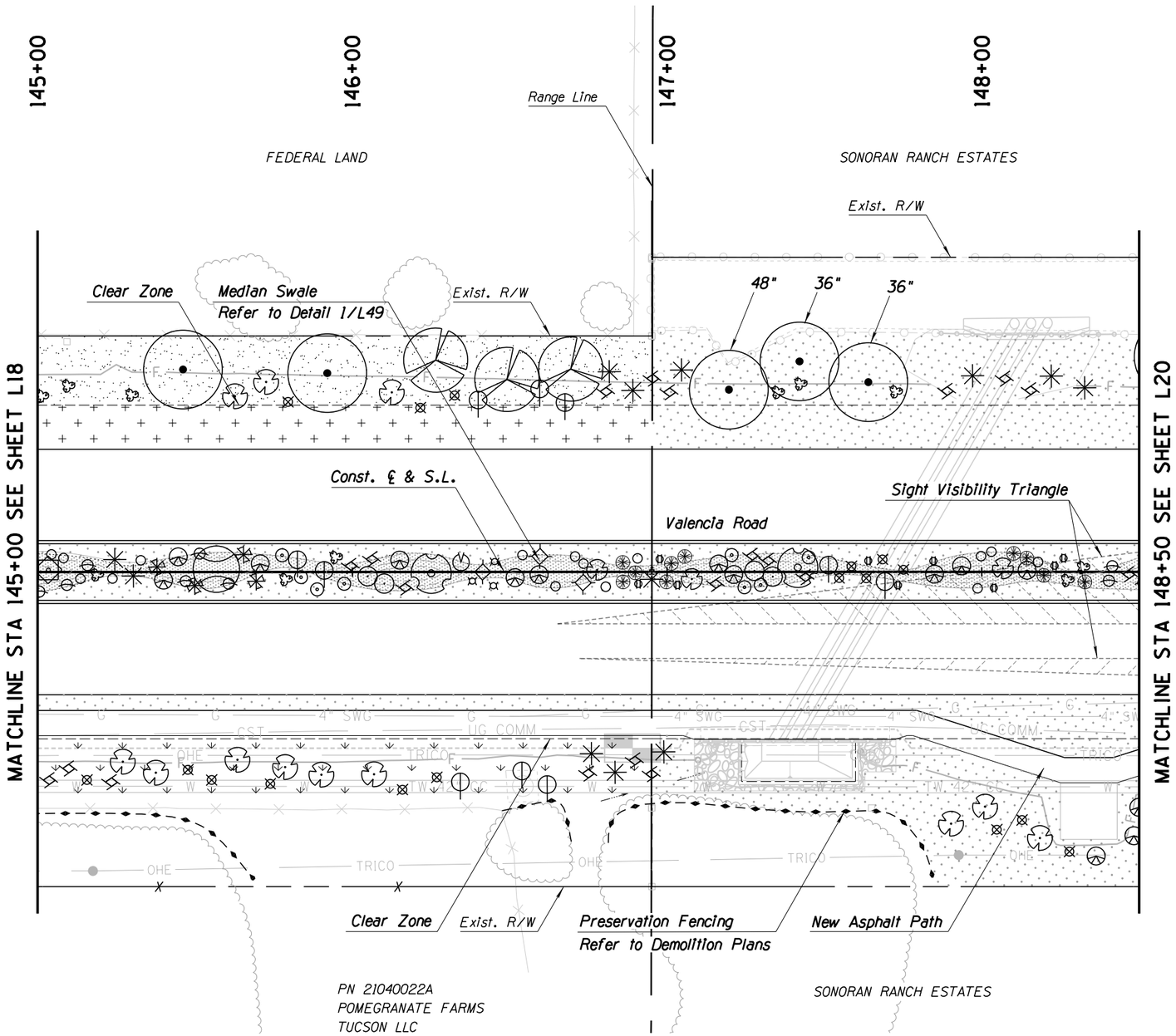
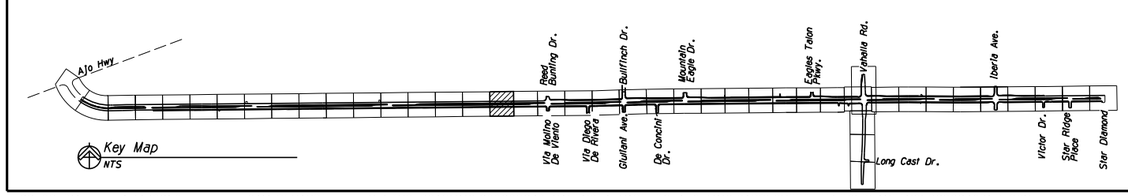
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L18 of L49	Page 320 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 145+00 TO 148+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L19 of L49	Page 321 of 433

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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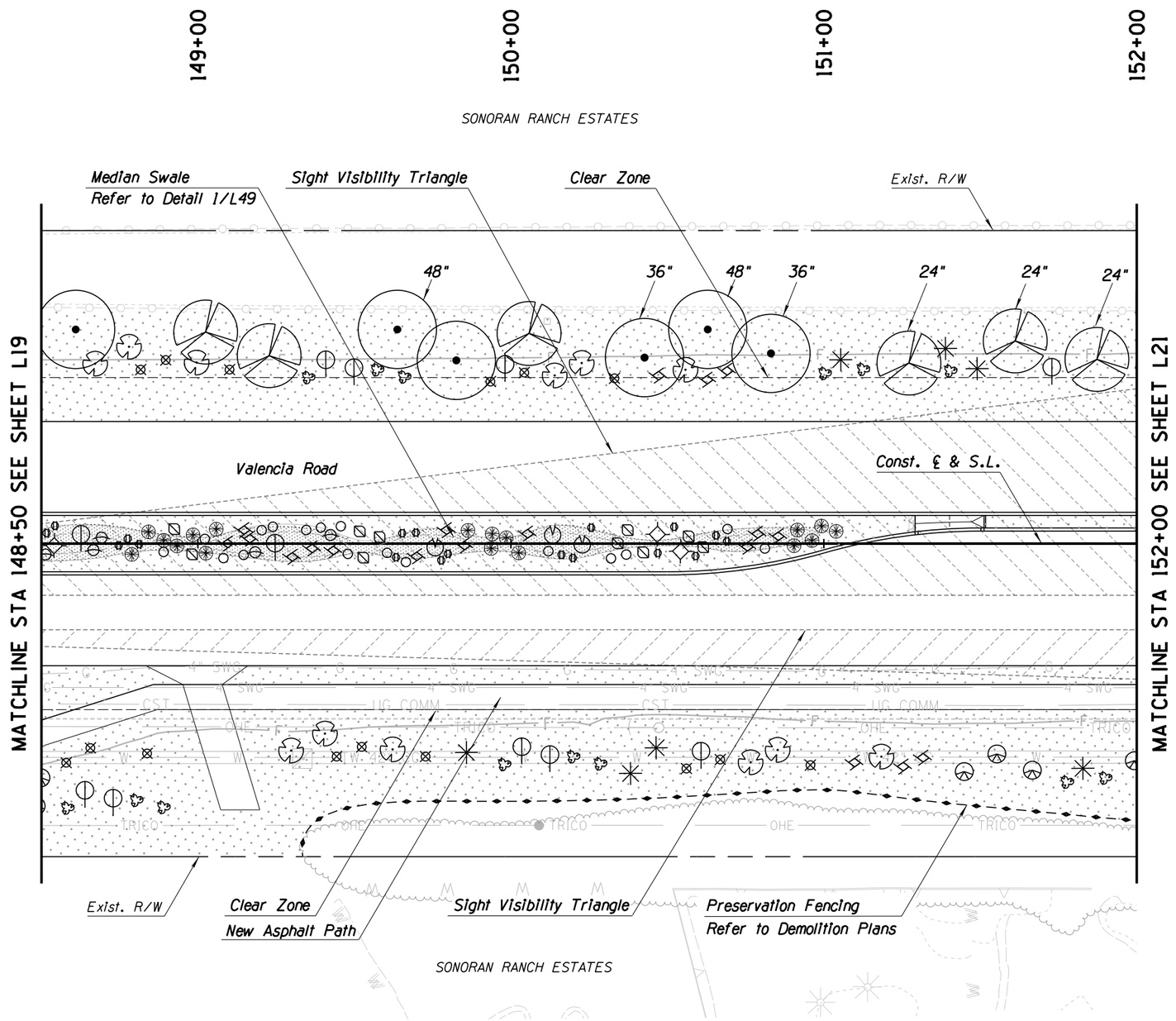
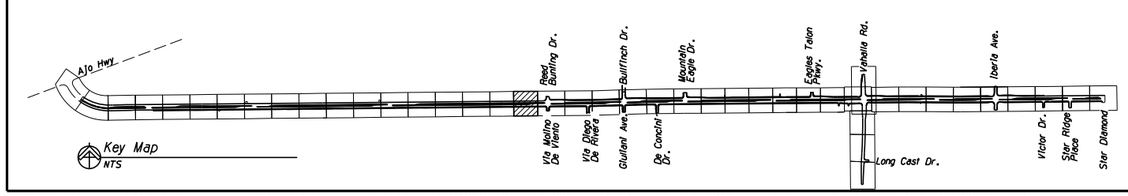
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 148+50 TO 152+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L20 of L49	Page 322 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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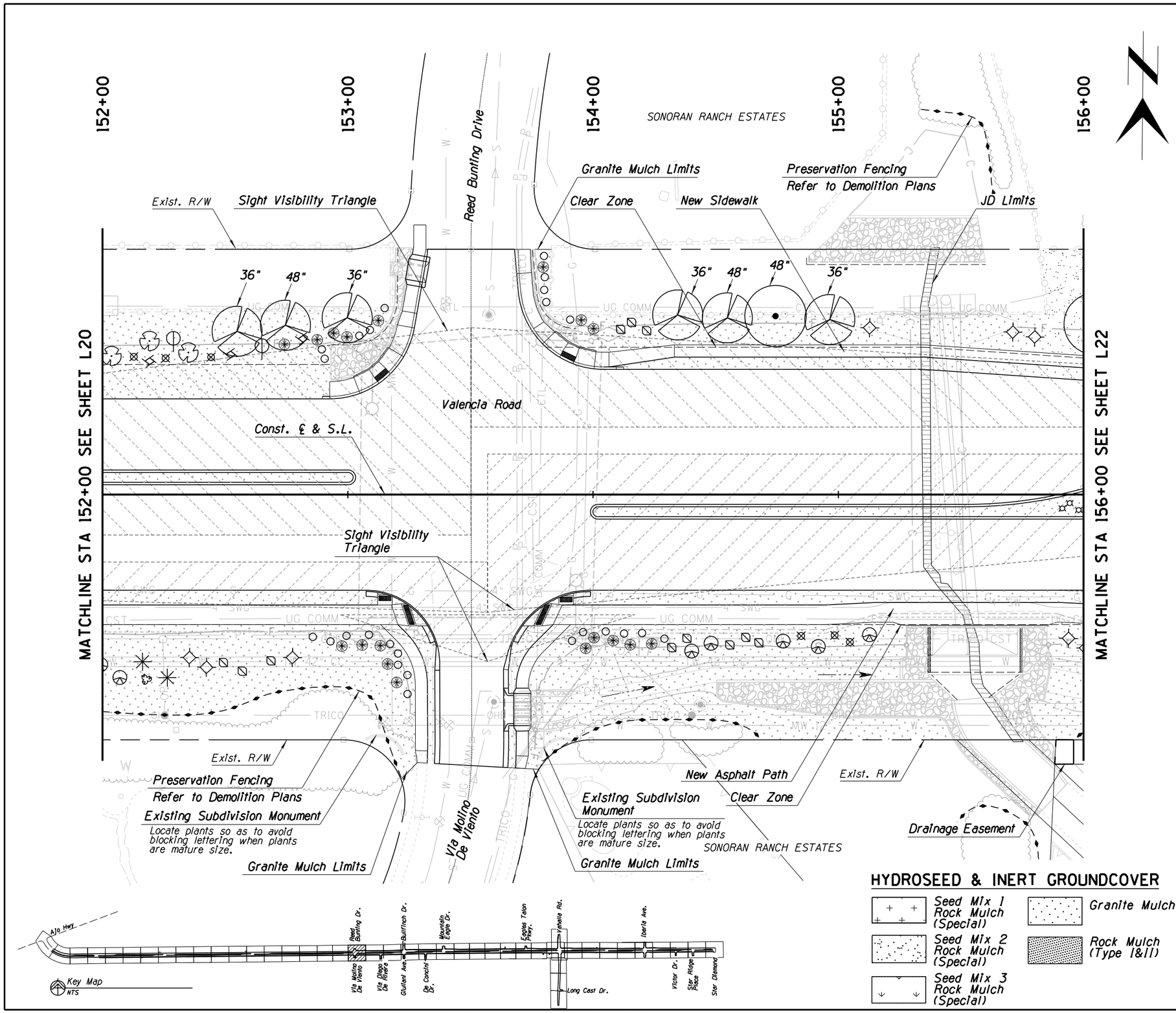
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 152+00 TO 156+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L21 of L49	Page 323 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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333 E. Wetmore Road
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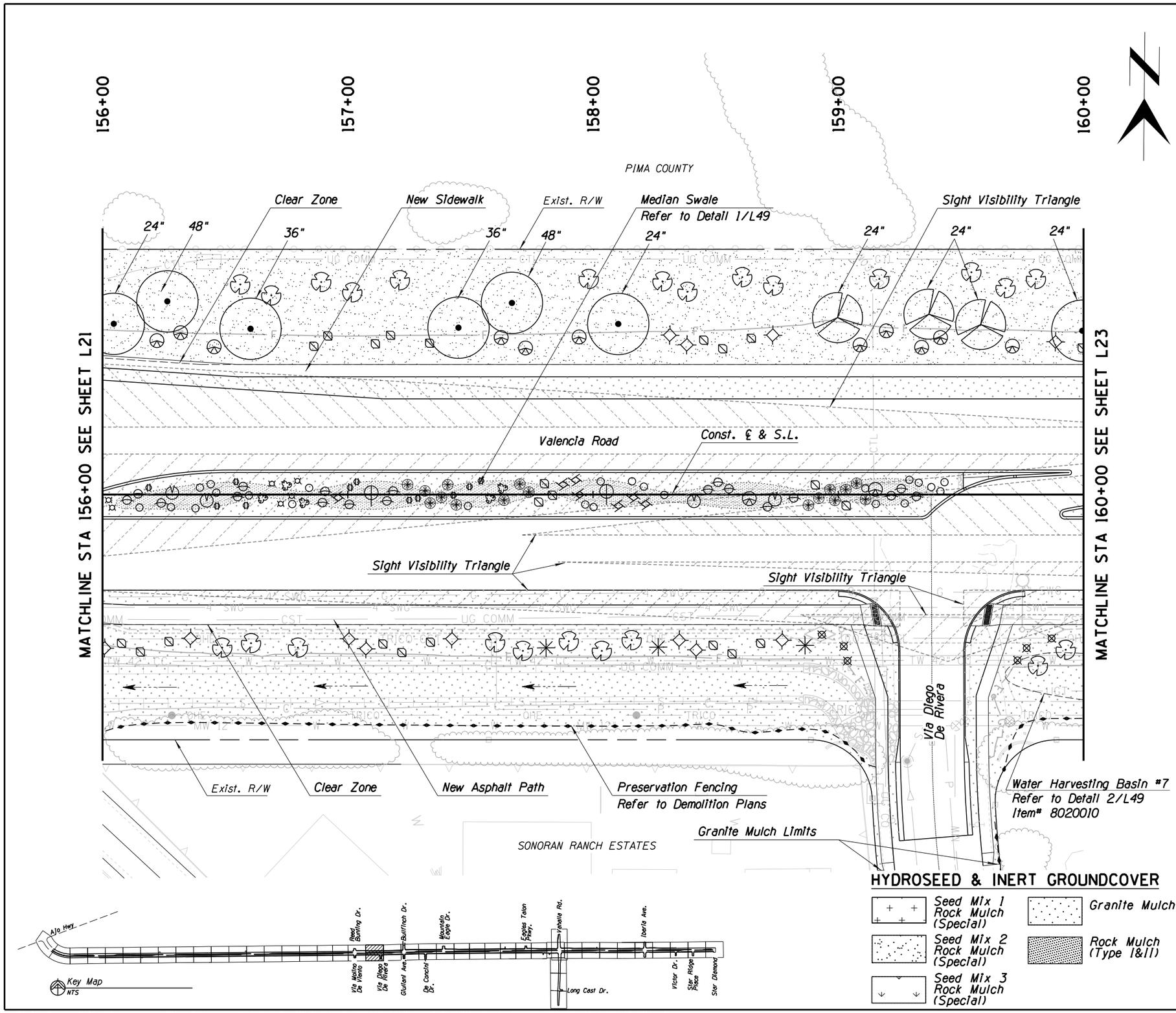

HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 156+00 TO 160+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L22 of L49	Page 324 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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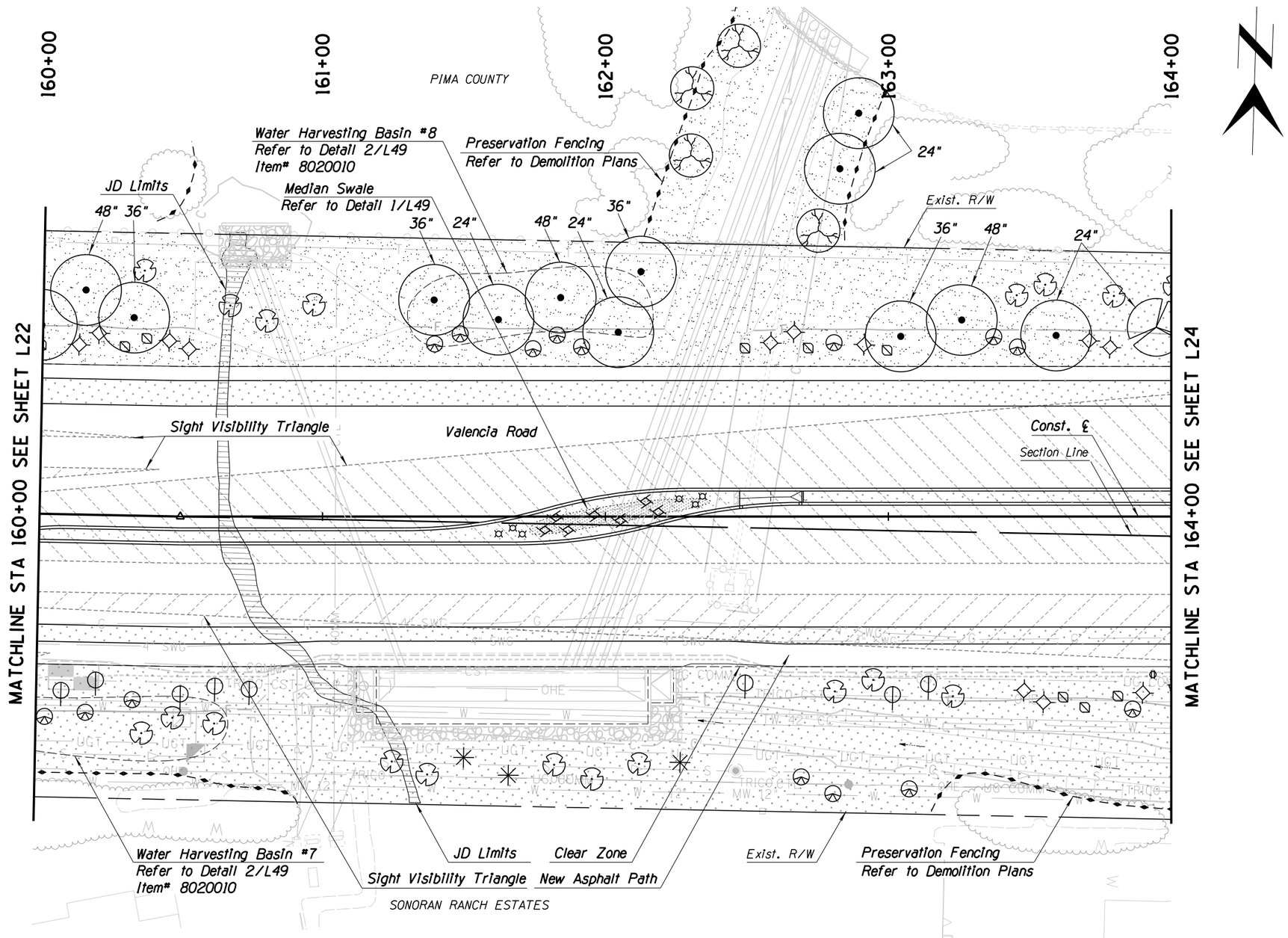
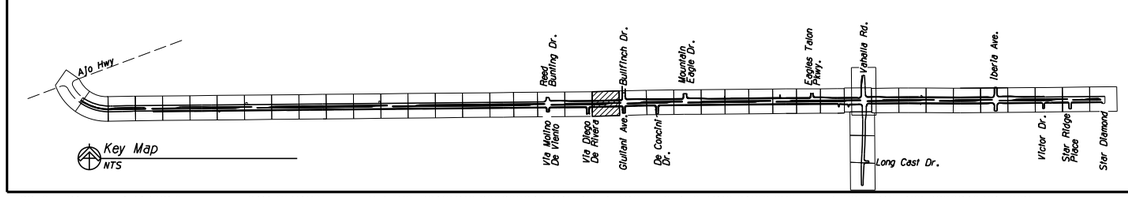
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 160+00 TO 164+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L23 of L49	Page 325 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

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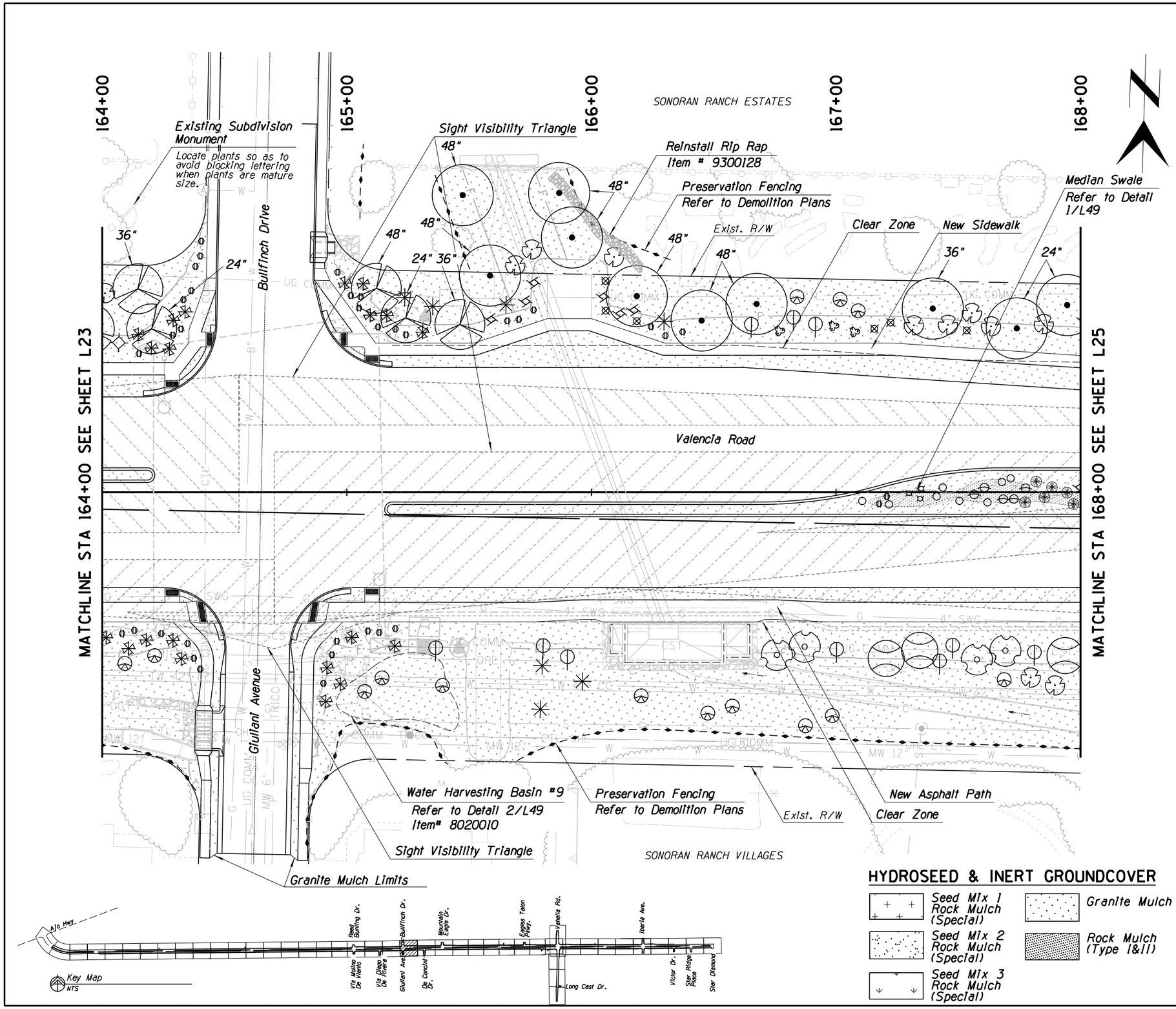


HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 164+00 TO 168+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L24 of L49	Page 326 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Ana M. Olivares, P.E., Director

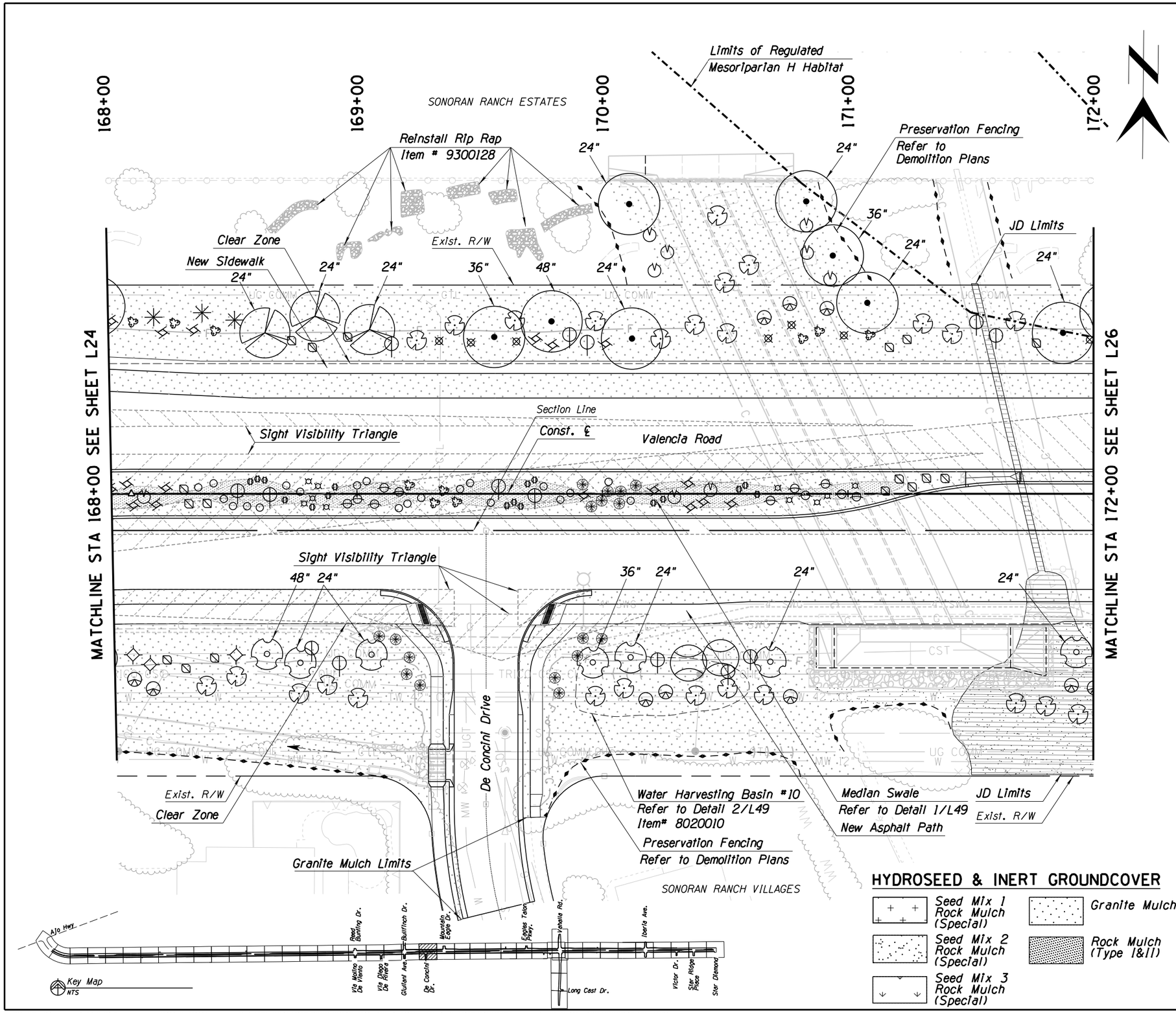
		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

5:00:26 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\PLANTING\R022048P22.DGN



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carneglea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
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	Fouquieria splendens Ocotillo
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	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 168+00 TO 172+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L25 of L49	Page 327 of 433

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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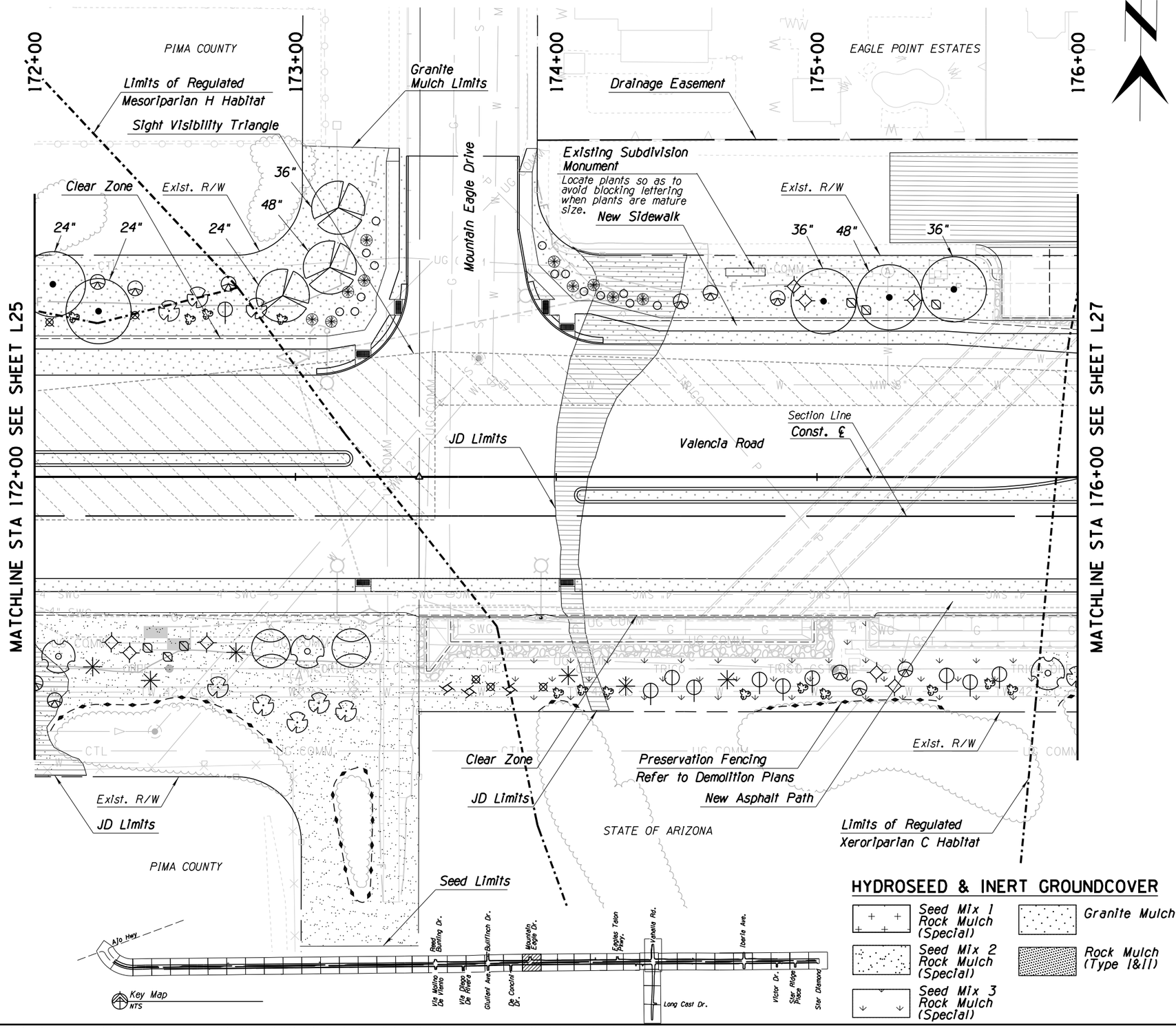
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
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	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
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	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
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	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 172+00 TO 176+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L26 of L49	Page 328 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

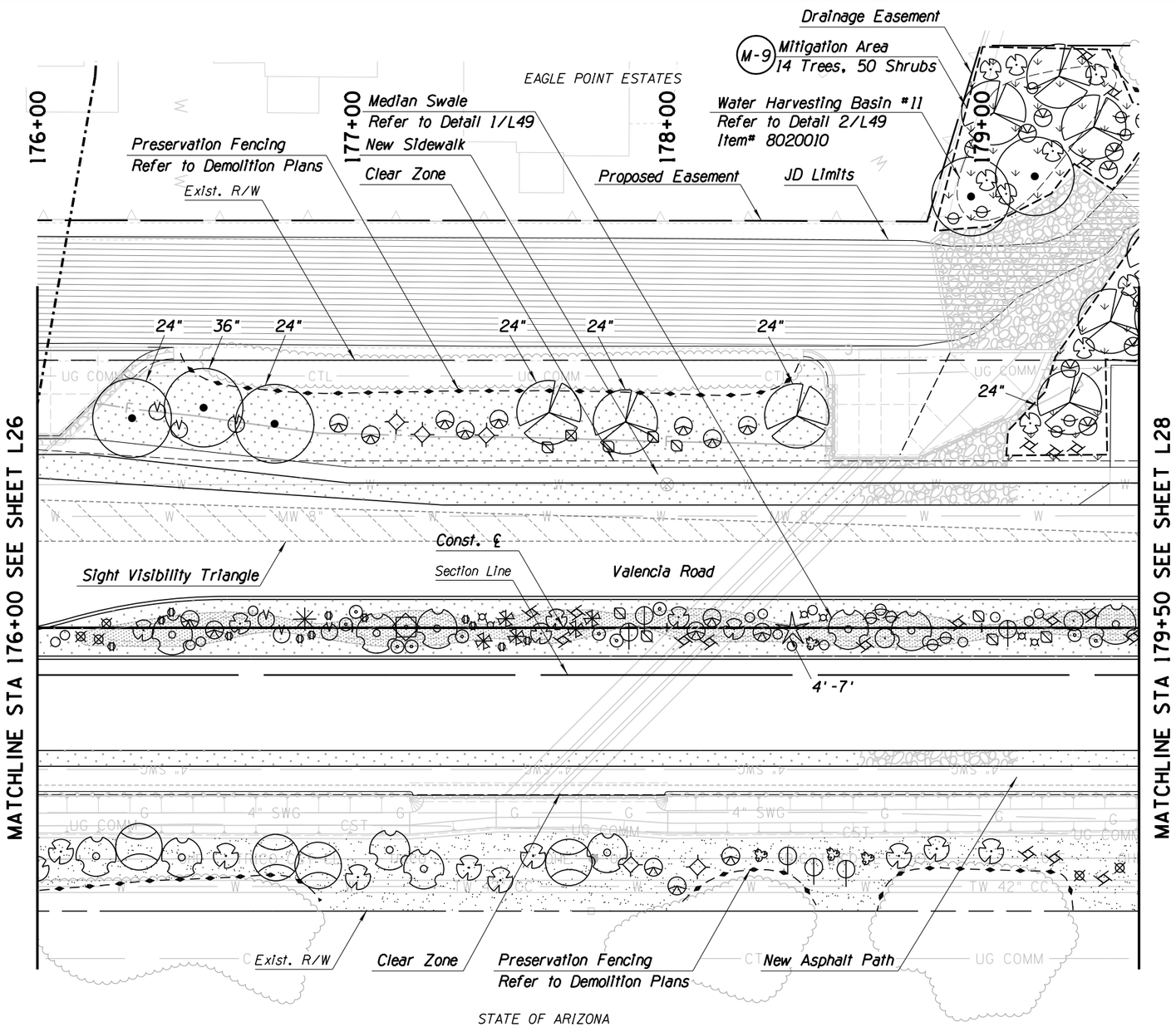
		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

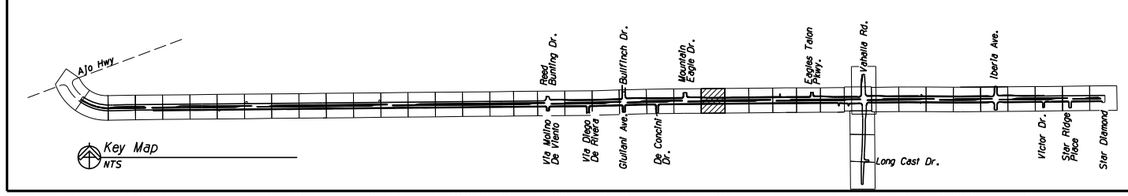
Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 176+00 TO 179+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L27 of L49	Page 329 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

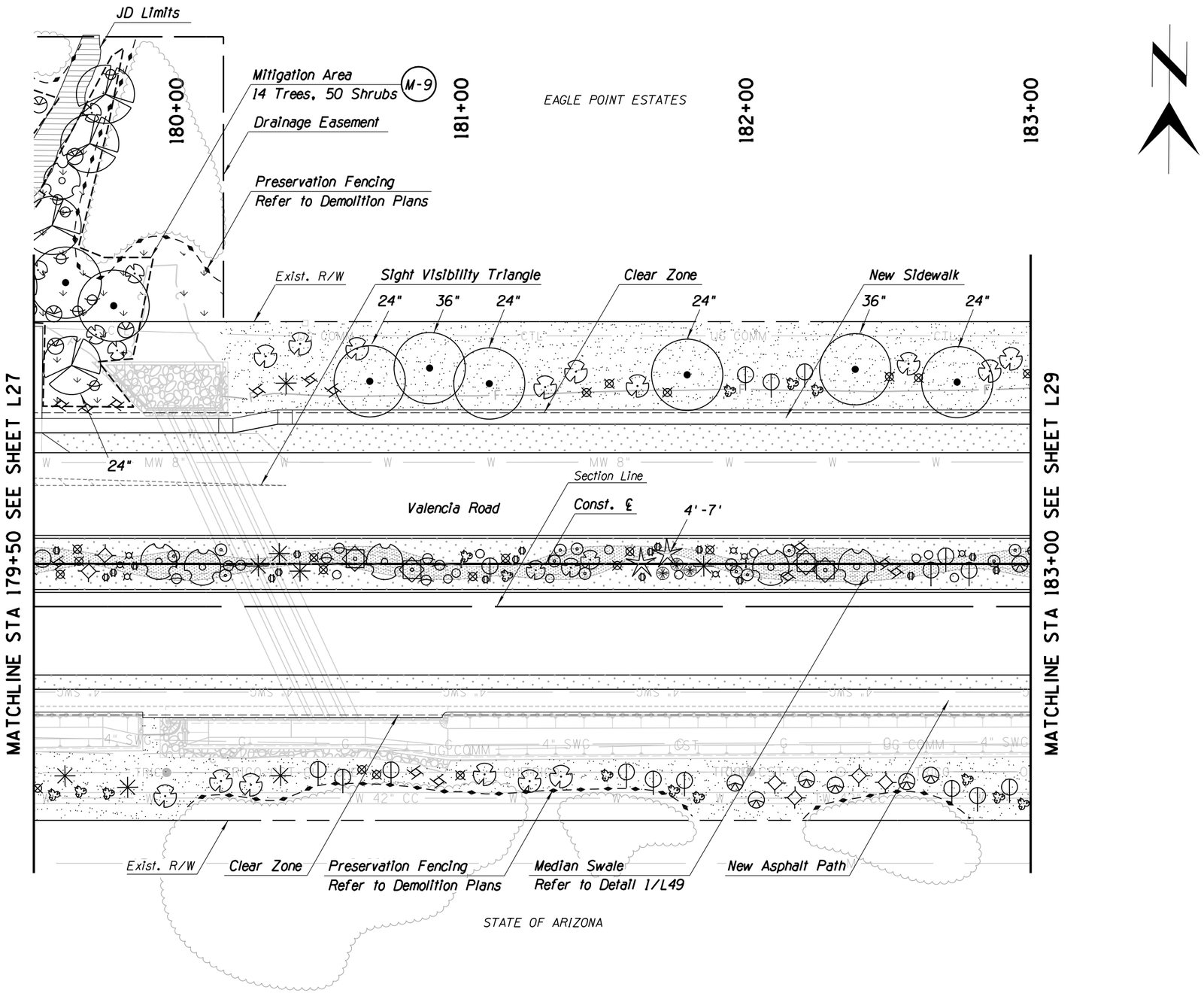
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

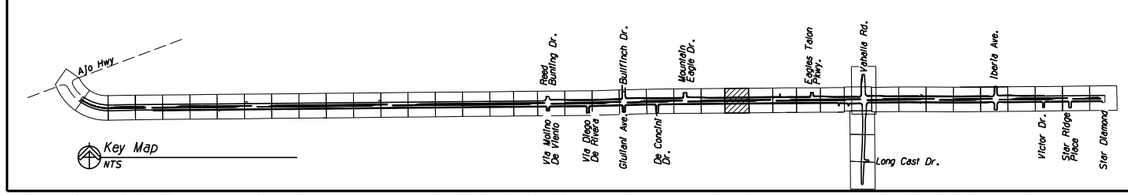
No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
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	Carnegiea gigantea Saguaro
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	Cylindropuntia acanthocarpa Buckhorn Cholla
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	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
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	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 179+50 TO 183+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
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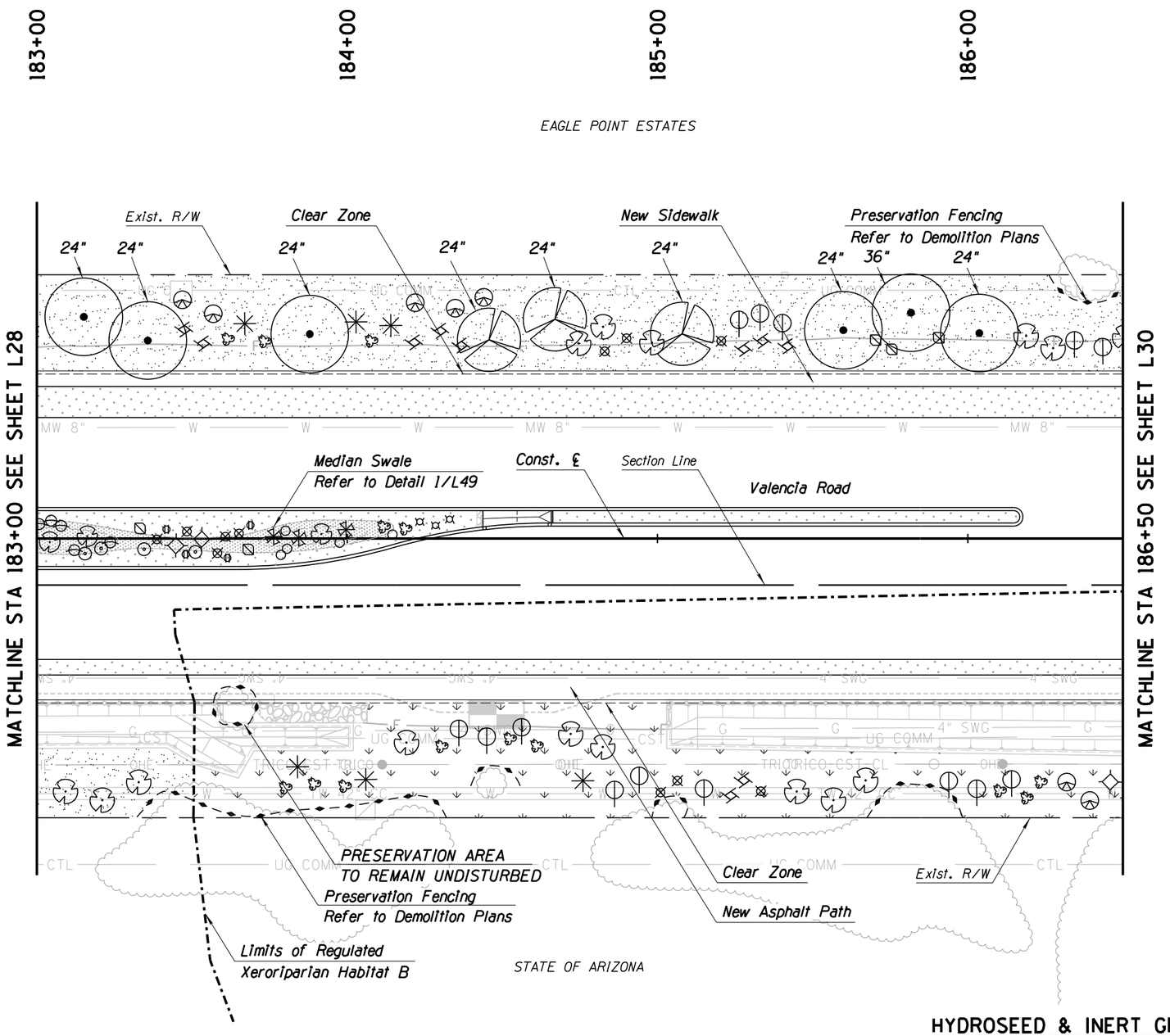
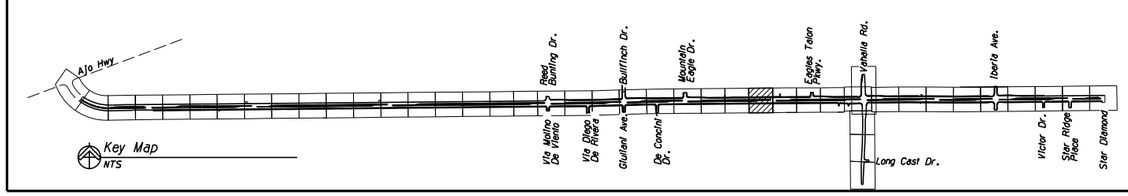
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20'	Sheet L28 of L49	Page 330 of 433
	Vert. NA		





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
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	Atriplex canescens Fourwing Saltbush
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	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 183+00 TO 186+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L29 of L49	Page 331 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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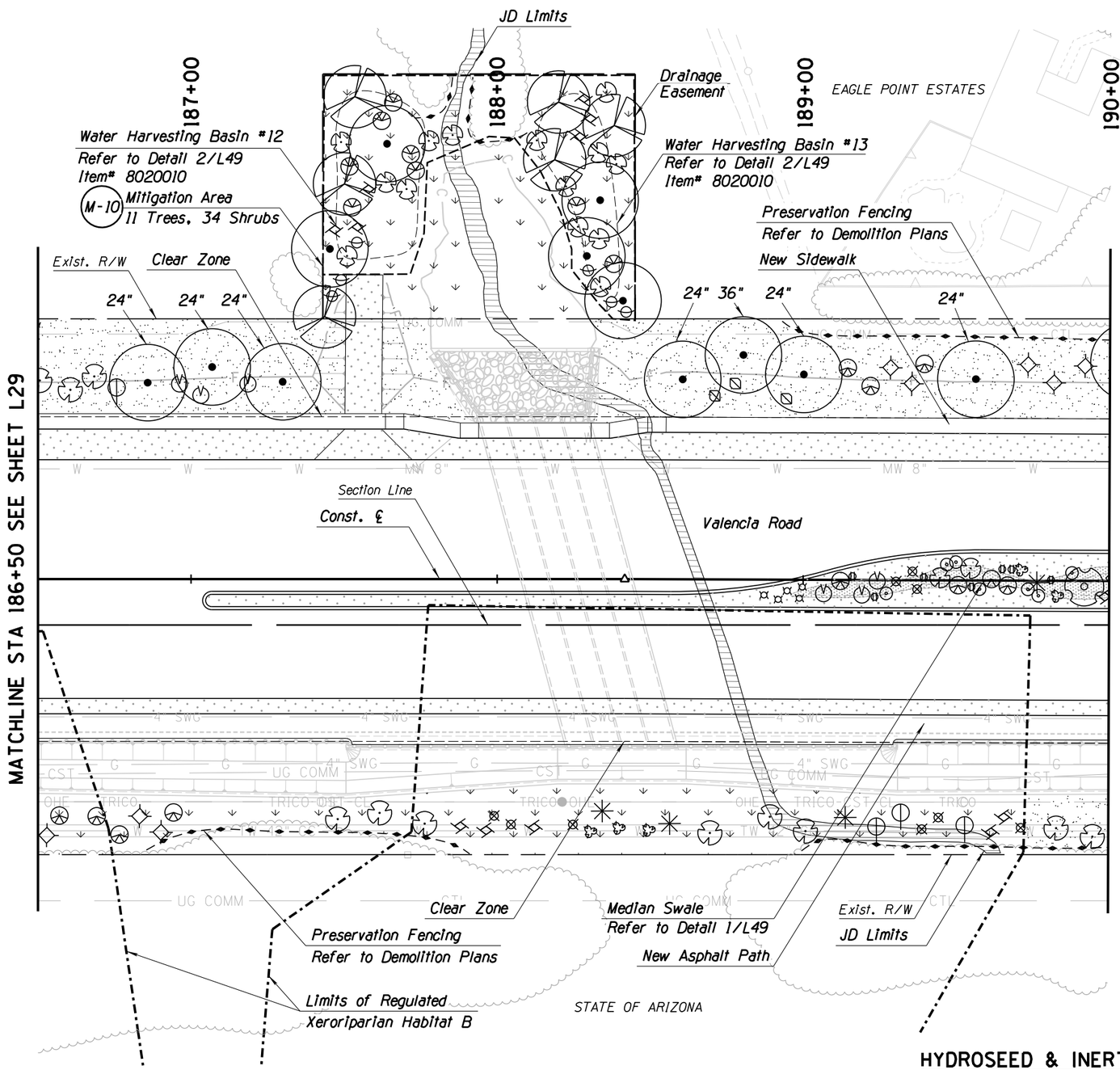
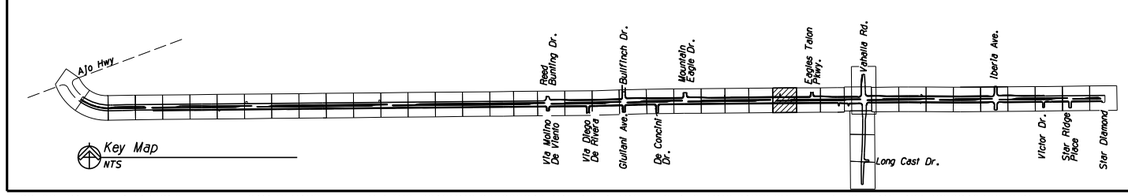
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&11)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
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	Atriplex canescens Fourwing Saltbush
	Carneglea gigantea Saguaro
	Celtis pallida Desert Hackberry
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	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 186+50 TO 190+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L30 of L49	Page 332 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
C.A. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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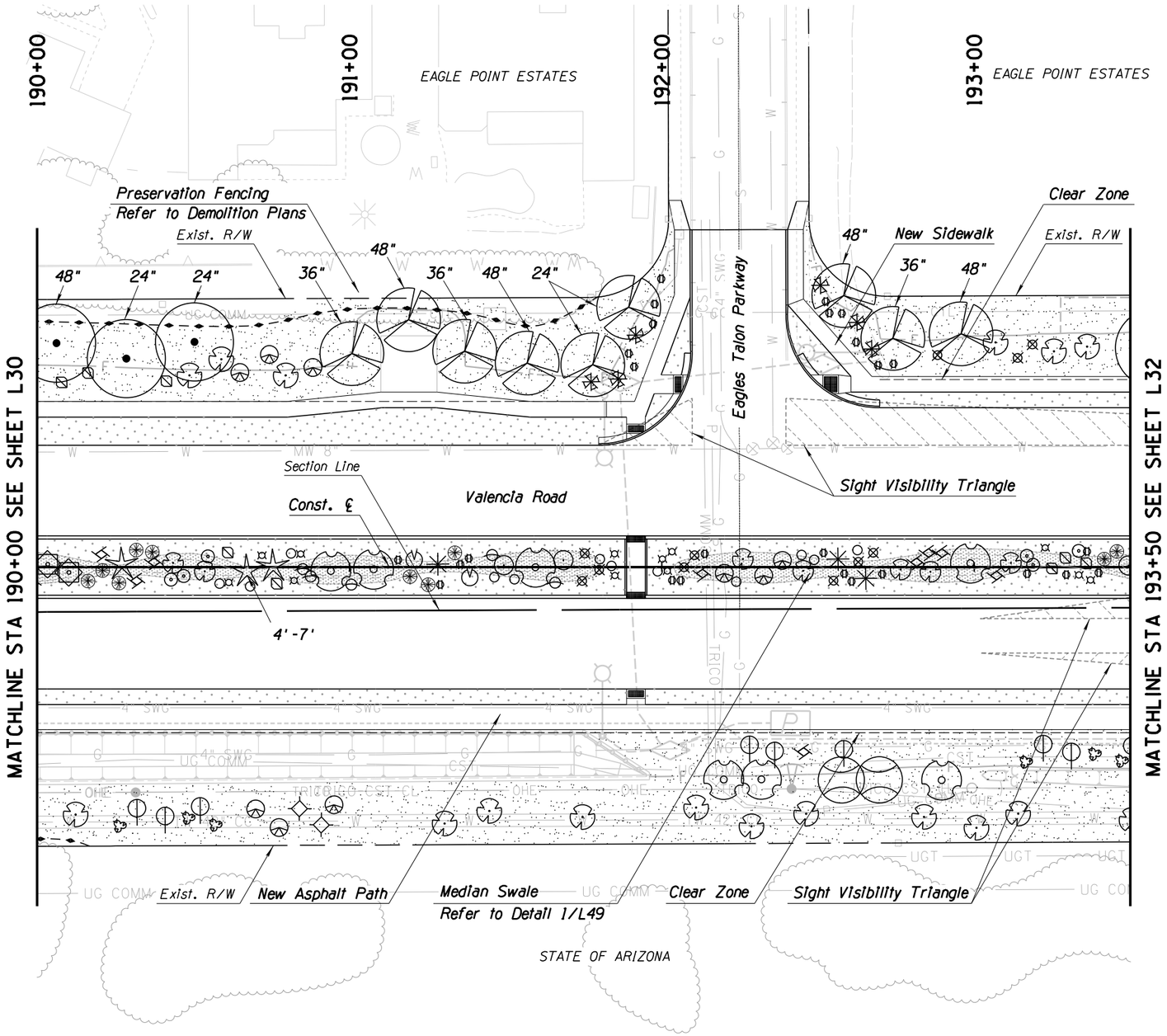
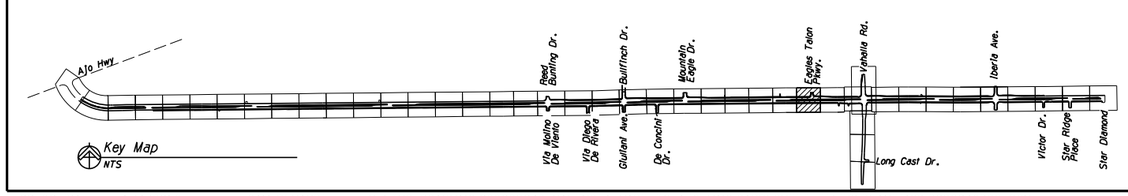
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
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	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 190+00 TO 193+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

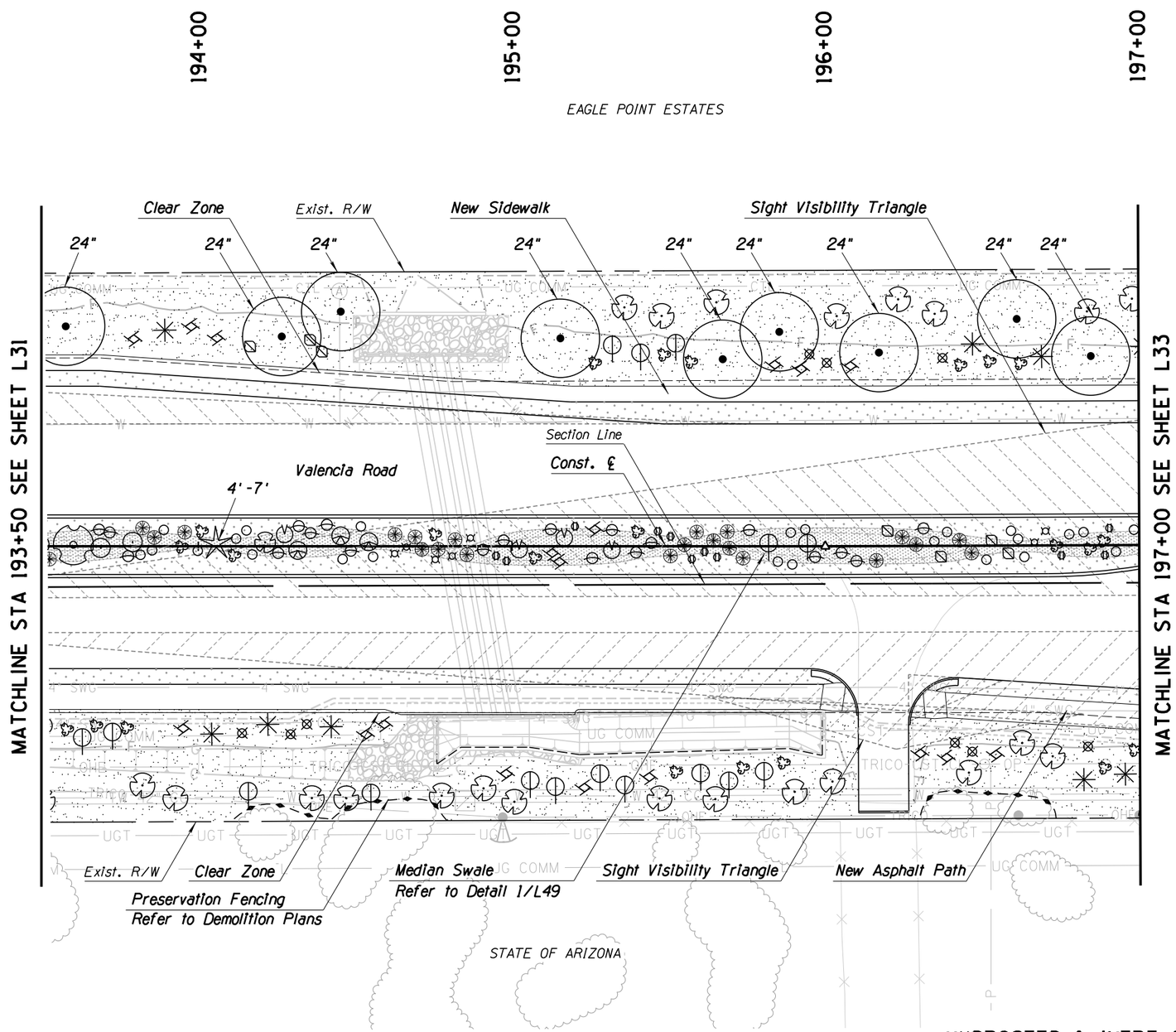
Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

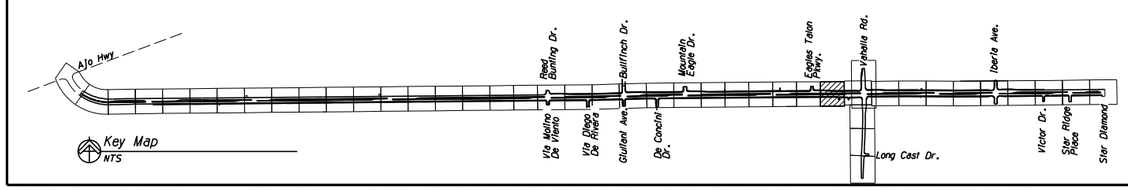
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L31 of L49	Page 333 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
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	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
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	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 193+50 TO 197+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L32 of L49	Page 334 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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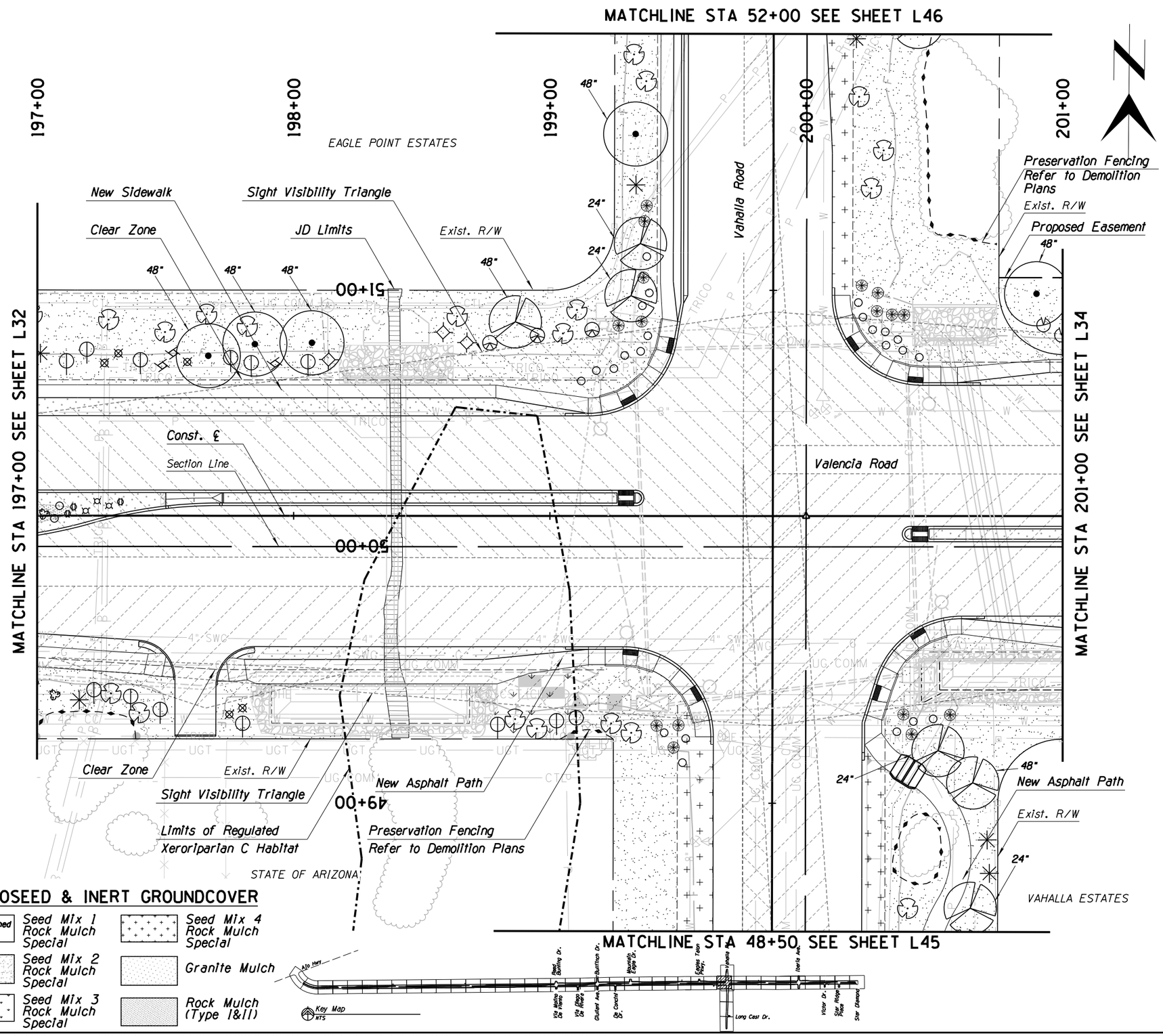
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Not Hatched on Plans — Seed Mix 1 Rock Mulch Special
- Seed Mix 2 Rock Mulch Special
- Seed Mix 3 Rock Mulch Special
- Seed Mix 4 Rock Mulch Special
- Granite Mulch
- Rock Mulch (Type I&II)

Key Map NTS

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 197+00 TO 201+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet L33 of L49

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
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Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
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ARIZONA, U.S.A.
Expires 03/31/2019

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VALENCIA ROAD
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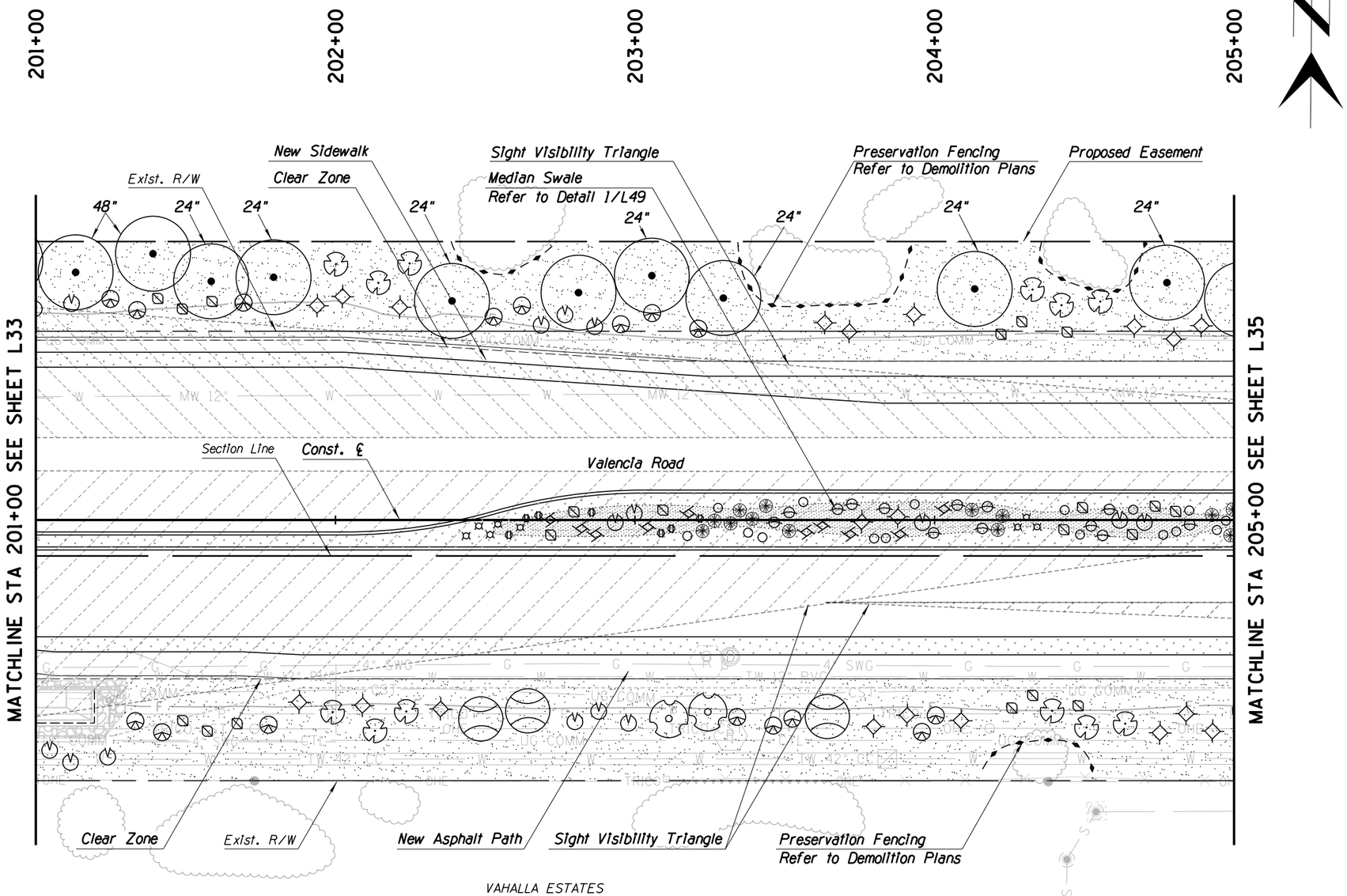
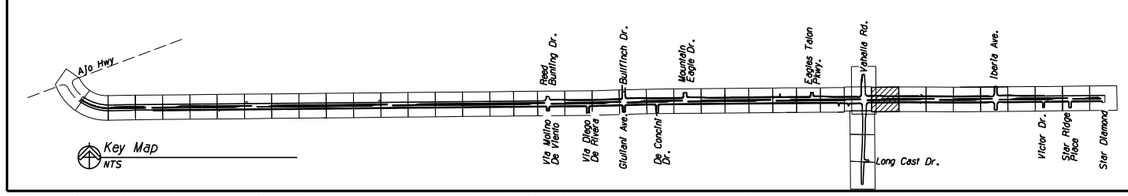
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

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	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 201+00 TO 205+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=20'	Sheet L34 of L49	Page 336 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

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		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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ARIZONA, U.S.A.
Expires 03/31/2019

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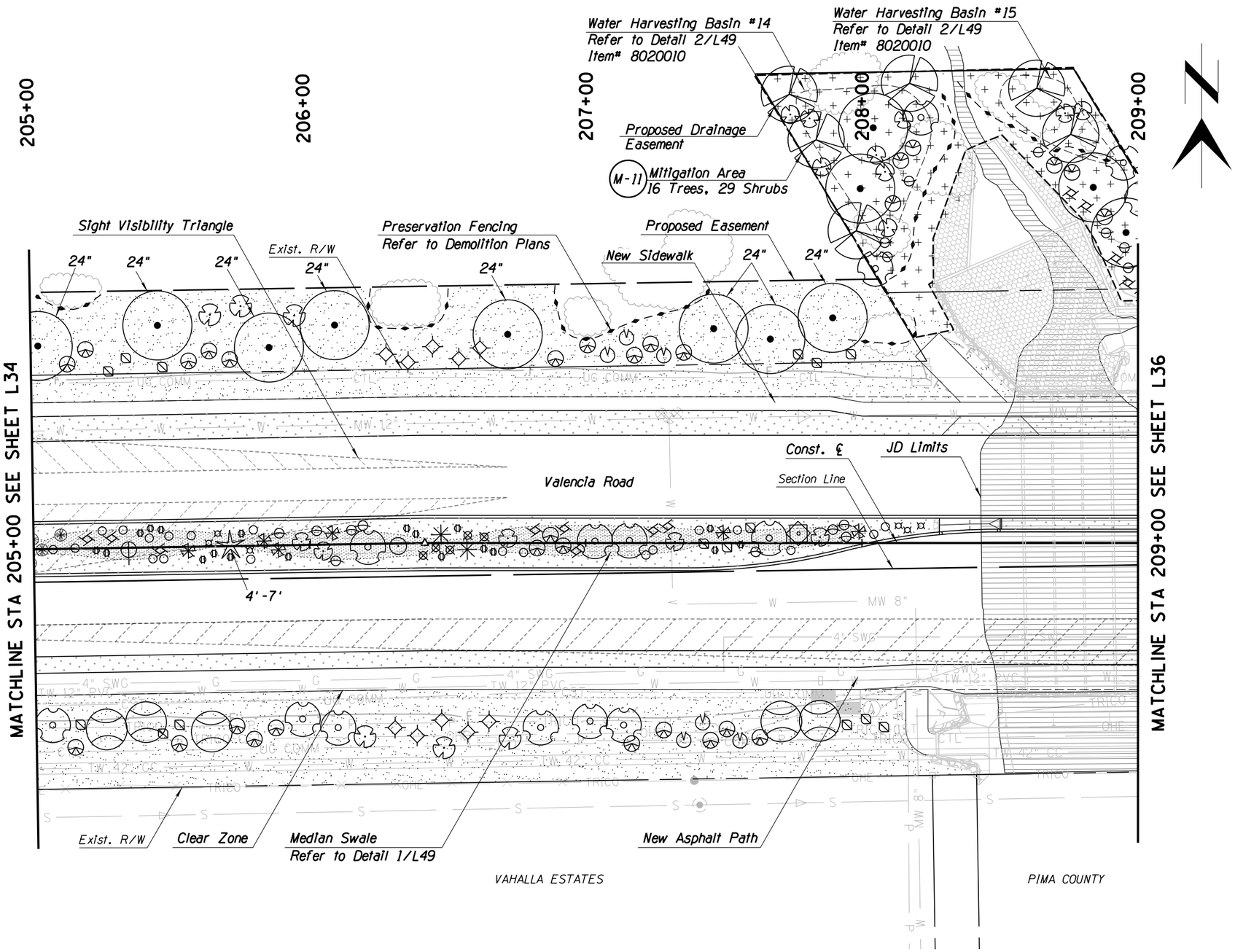
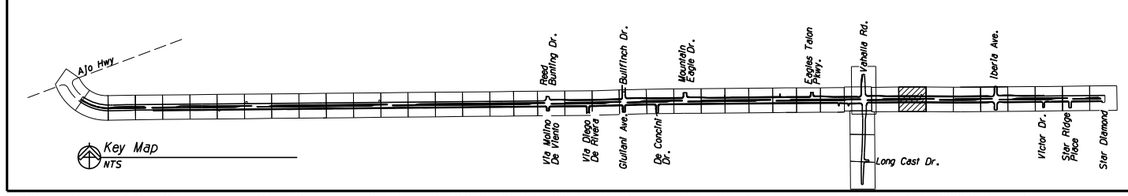
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 205+00 TO 209+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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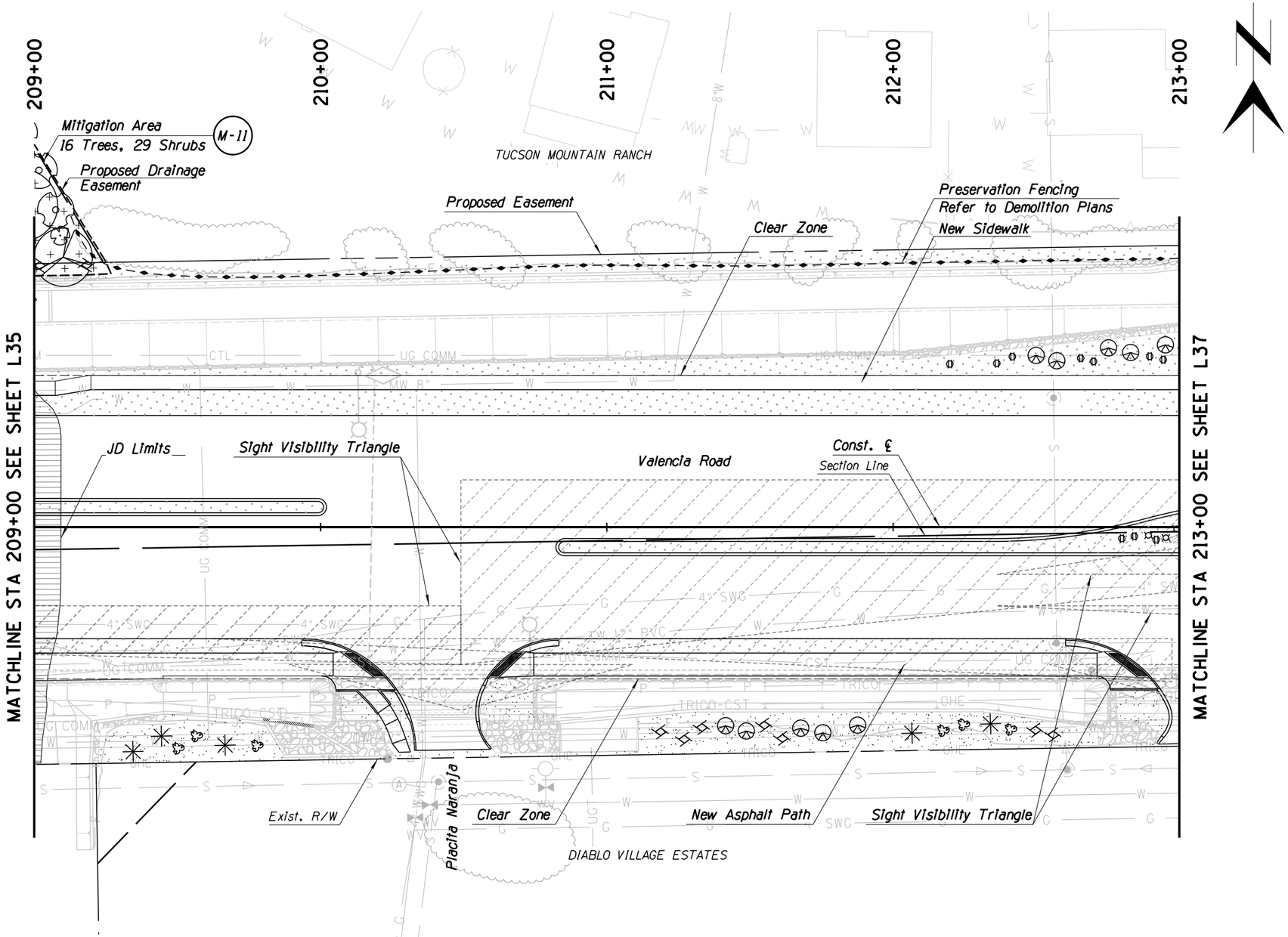
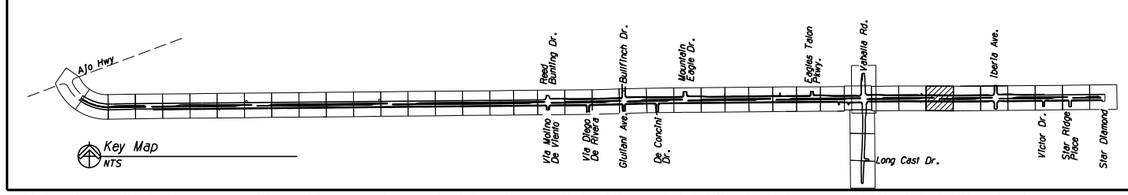
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20'	Sheet L35 of L49	Page 337 of 433
	Vert. NA		





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 209+00 TO 213+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
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Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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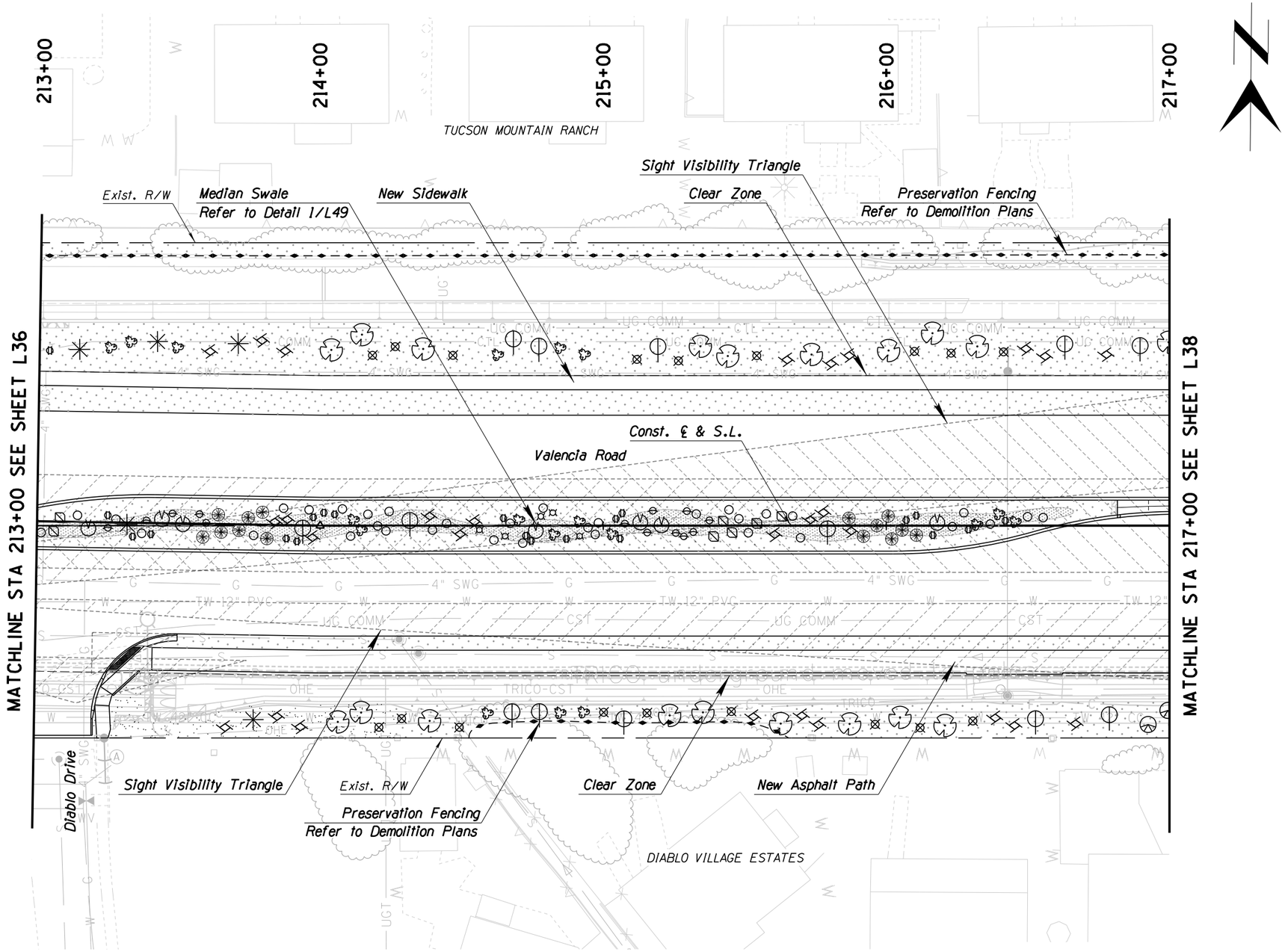
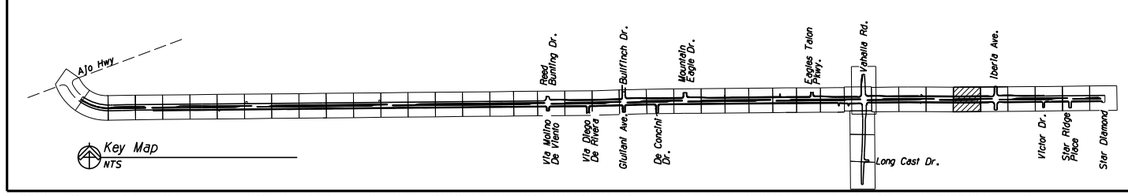
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L36 of L49	Page 338 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 213+00 TO 217+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L37 of L49	Page 339 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Tucson, AZ 85705
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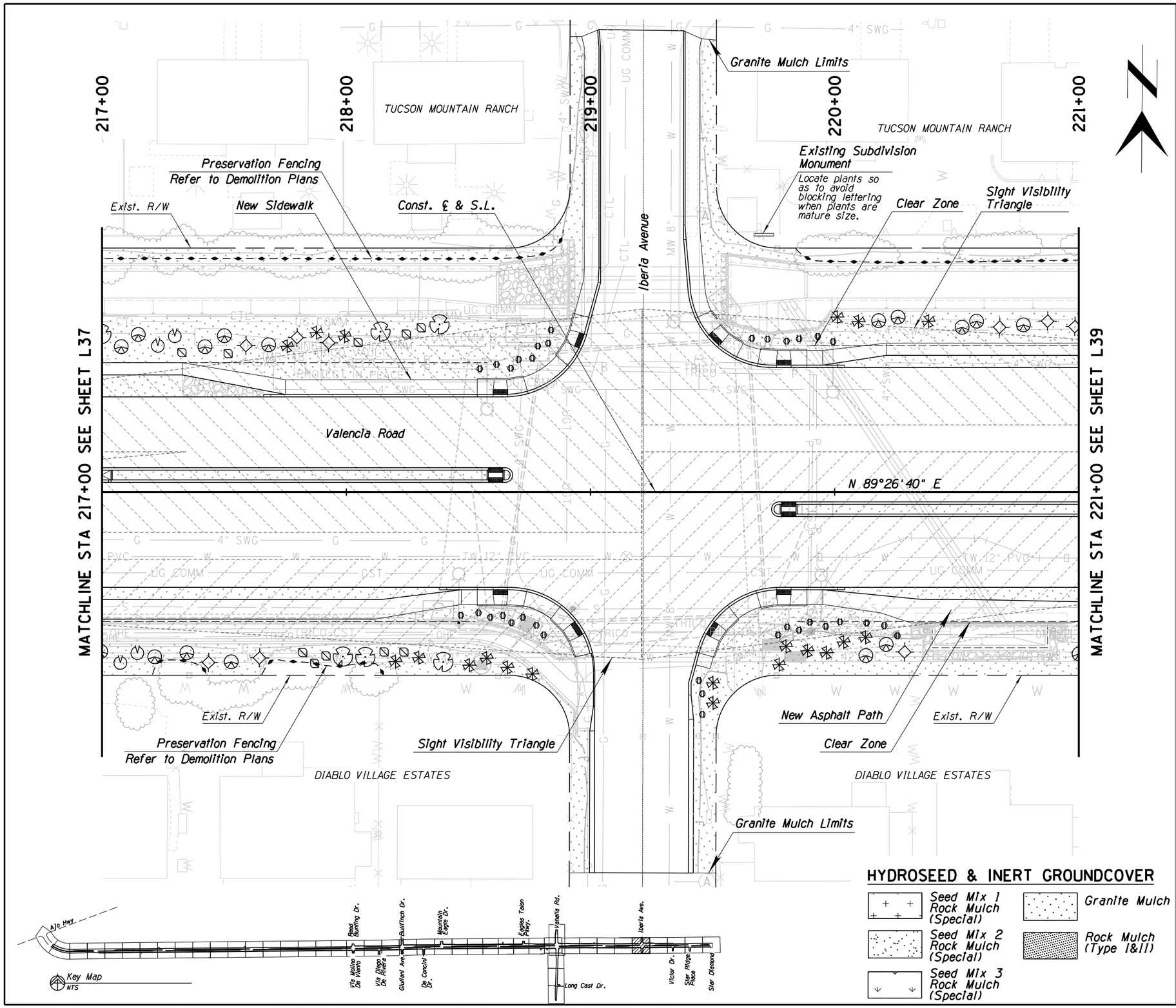
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
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	Melampodium leucanthum Black Foot Daisy
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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 217+00 TO 221+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L38 of L49	Page 340 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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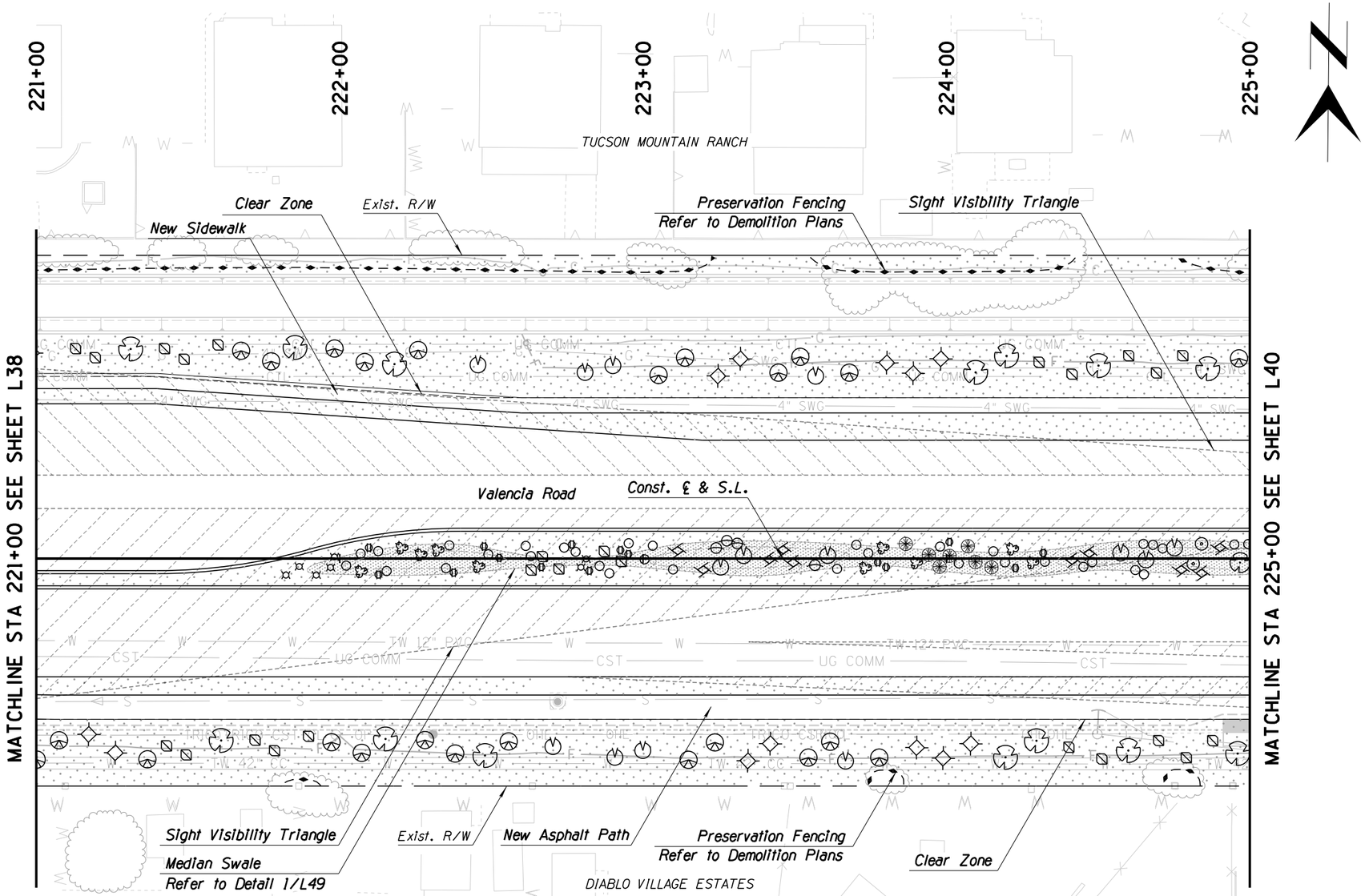
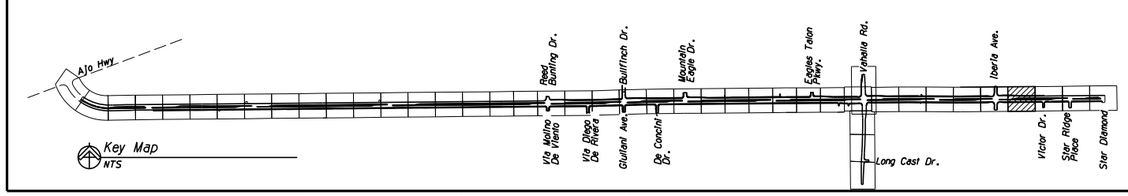
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 221+00 TO 225+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
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Tucson, AZ 85705
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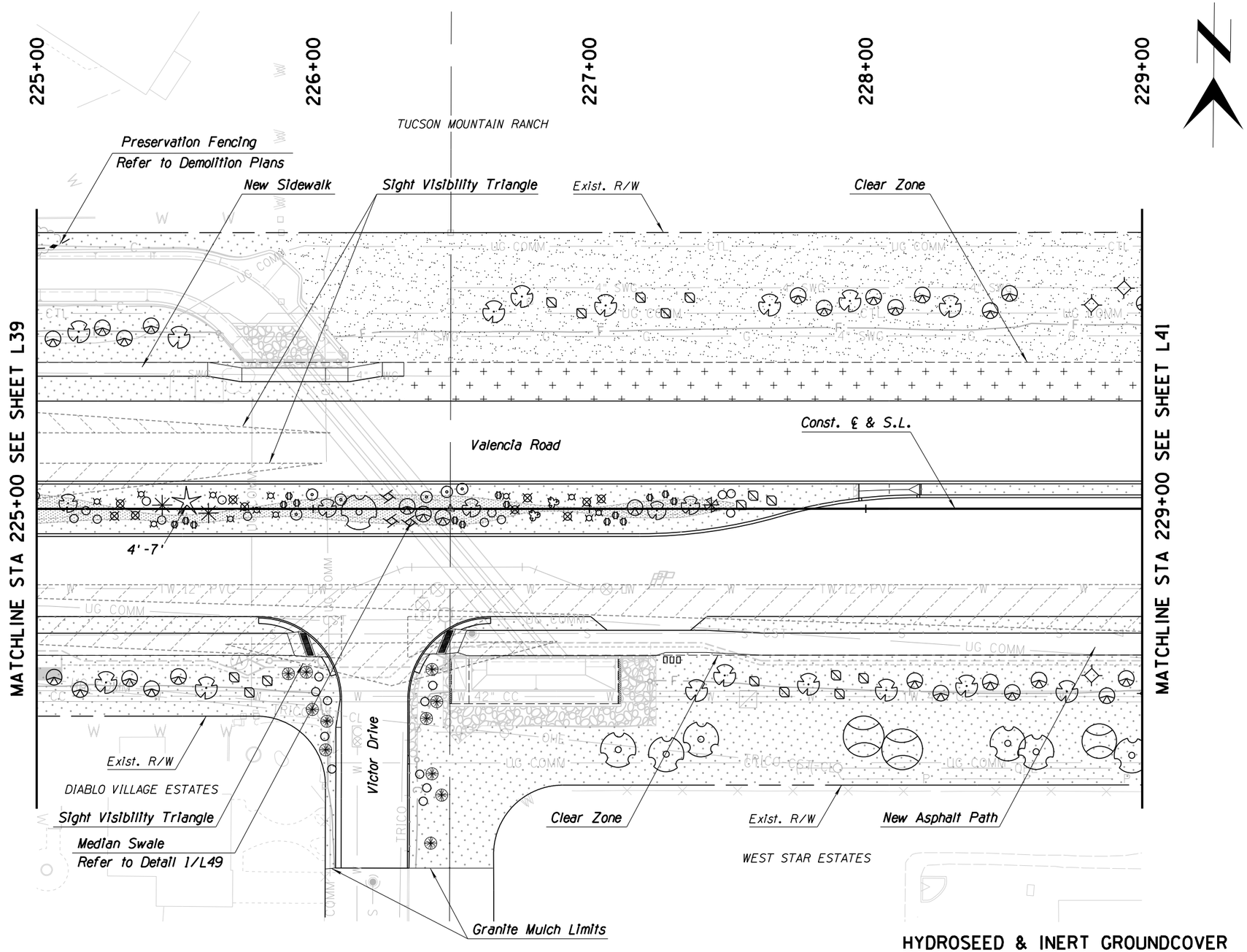
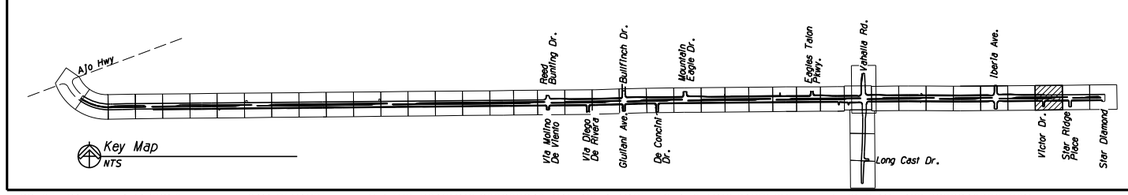
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet L39 of L49	Page 341 of 433





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
	Cylindropuntia acanthocarpa Buckhorn Cholla
	Cylindropuntia arbuscula Pencil Cholla
	Cylindropuntia versicolor Staghorn Cholla
	Dasylirion wheeleri Desert Spoon
	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 225+00 TO 229+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet L40 of L49	Page 342 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

No.	Revision Description	Engineer	Date

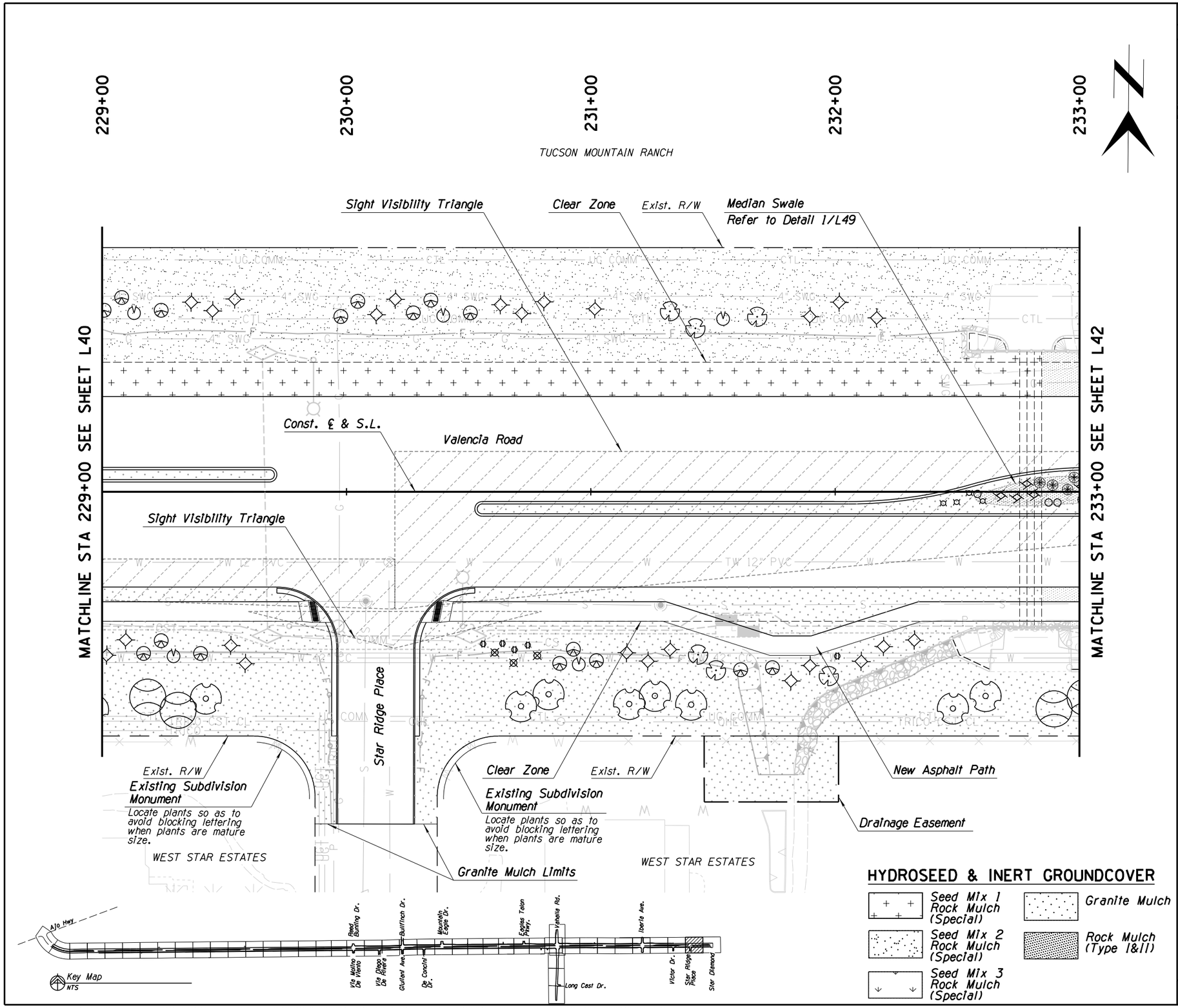
		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&11)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 229+00 TO 233+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L41 of L49	Page 343 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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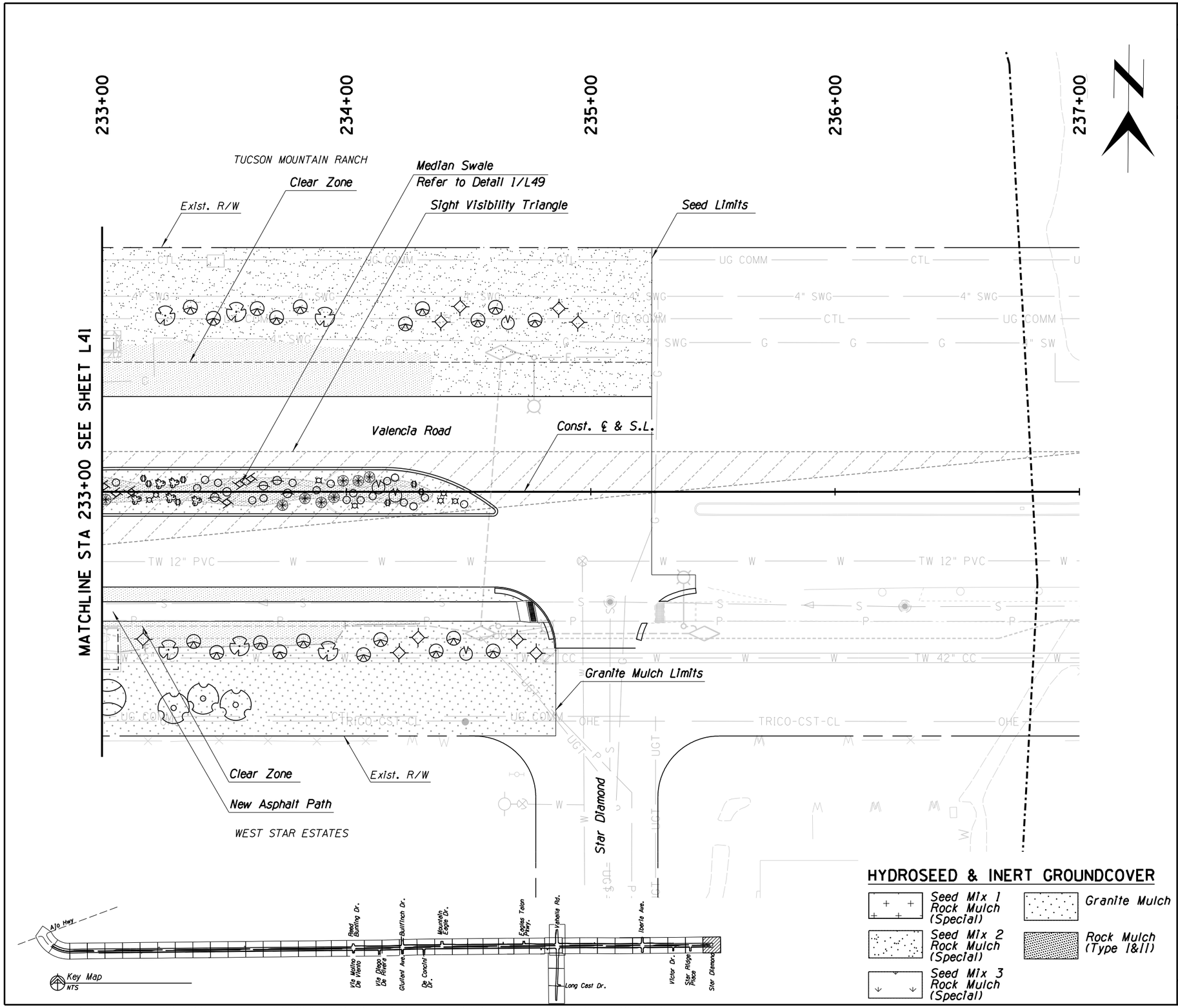
(520) 615-9191 Fax: (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
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	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VALENCIA ROAD
STA. 233+00 TO 237+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L42 of L49	Page 344 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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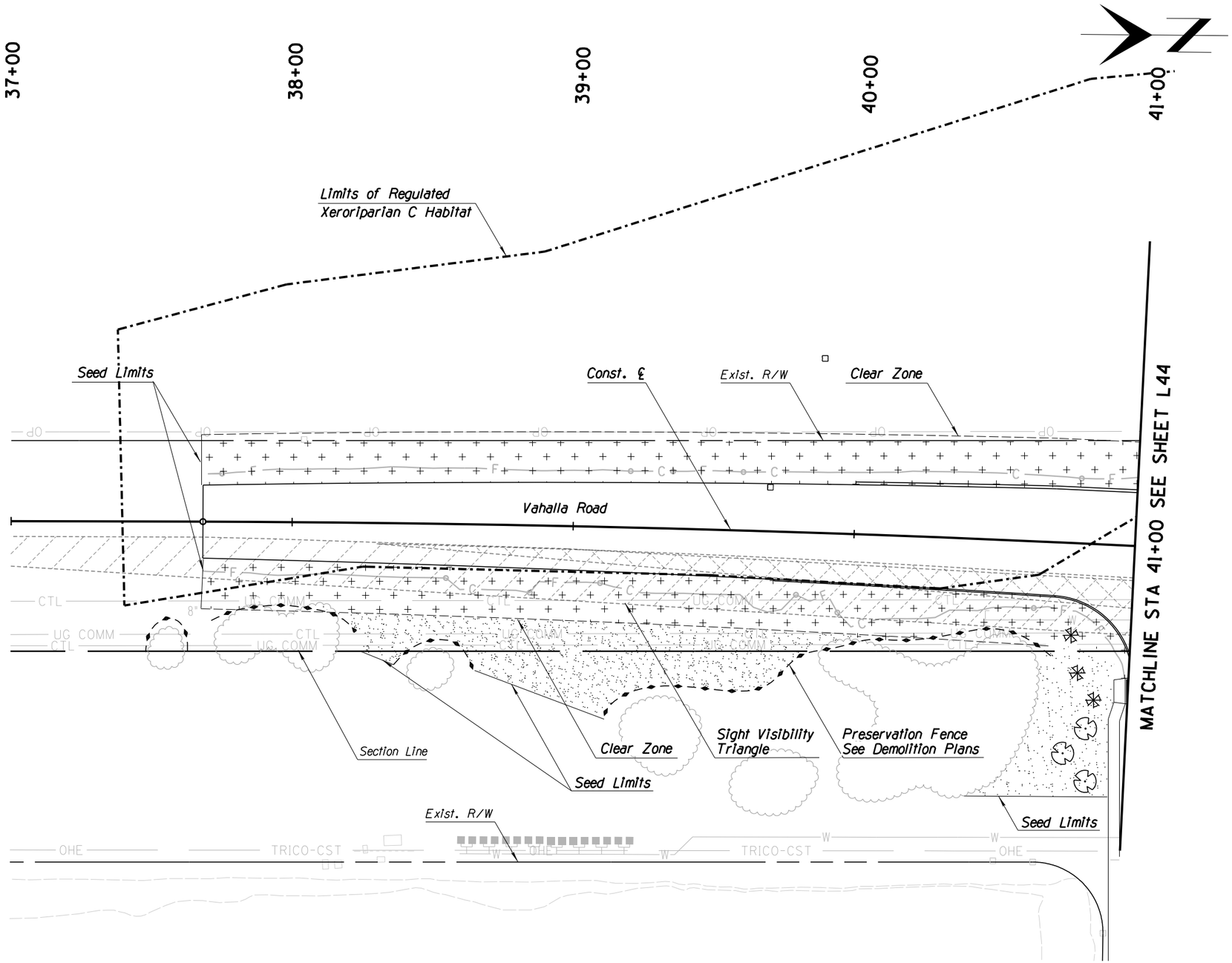
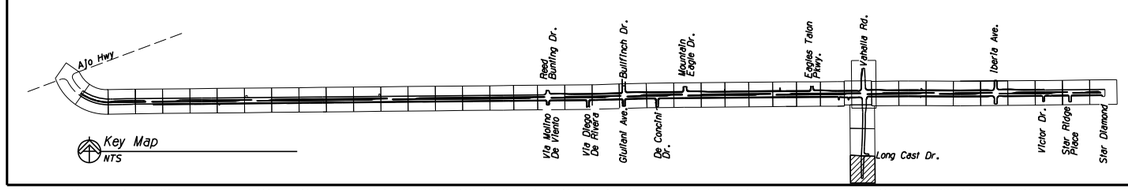
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&11)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
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	Encelia farinosa Brittlebush
	Ferocactus wislizenii Fishhook Barrel Cactus
	Fouquieria splendens Ocotillo
	Hesperaloe funifera Giant Hesperaloe
	Hesperaloe parviflora Red Yucca
	Larrea tridentata Creosote
	Lycium species Wolfberry
	Melampodium leucanthum Black Foot Daisy
	Opuntia basilaris Beavertail Prickly Pear
	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VAHALLA ROAD
STA. 37+00 TO 41+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet L43 of L49

Page 345 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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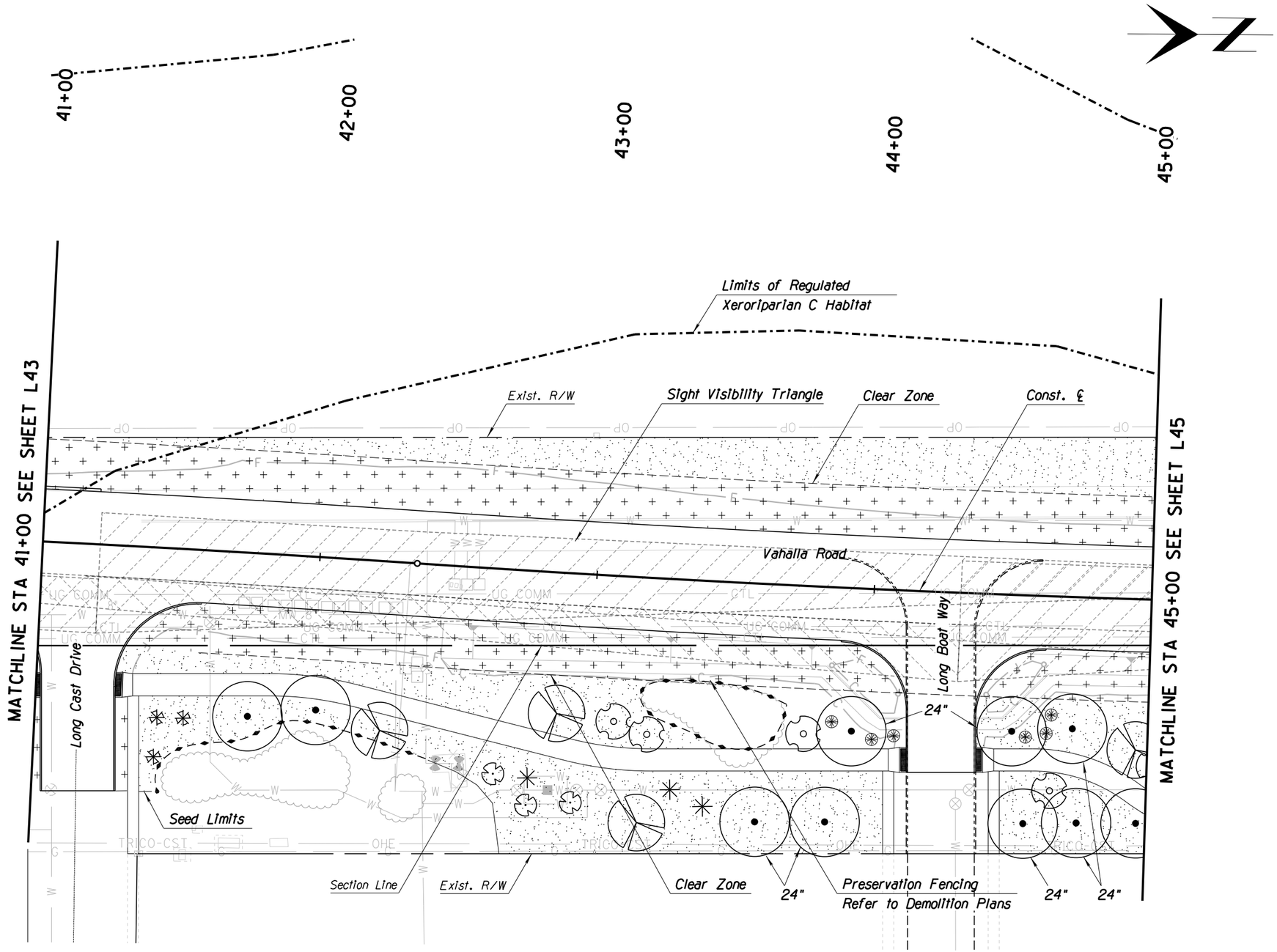
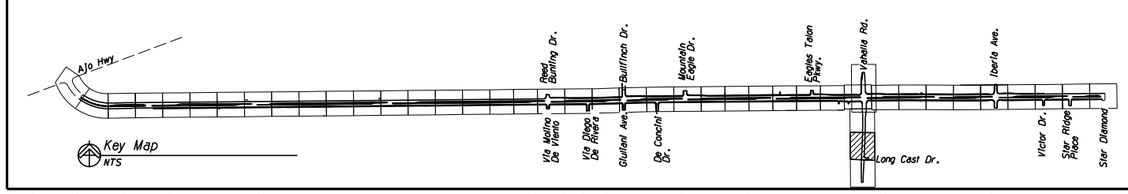
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type 1&II)

PLANT MATERAL SCHEDULE

SYM	NAME
	Acacia constricta Whitethorn Acacia
	Acacia greggii Catclaw Acacia
	Chilopsis linearis Desert Willow
	Prosopis pubescens Screwbean Mesquite
	Prosopis velutina Velvet Mesquite
	Ambrosia deltoidea Triangle-Leaf Bursage
	Atriplex canescens Fourwing Saltbush
	Carnegiea gigantea Saguaro
	Celtis pallida Desert Hackberry
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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VAHALLA ROAD
STA. 41+00 TO 45+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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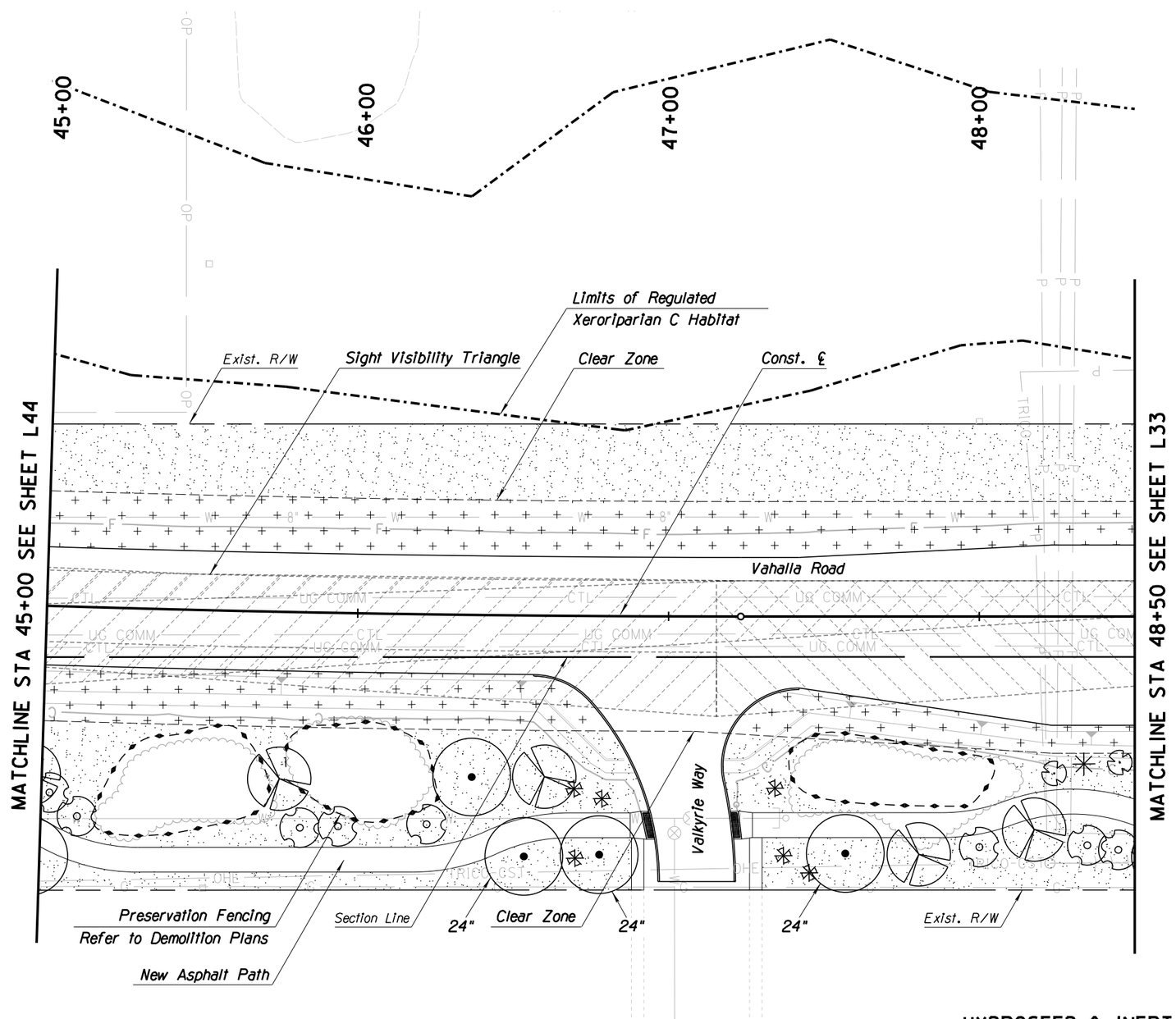
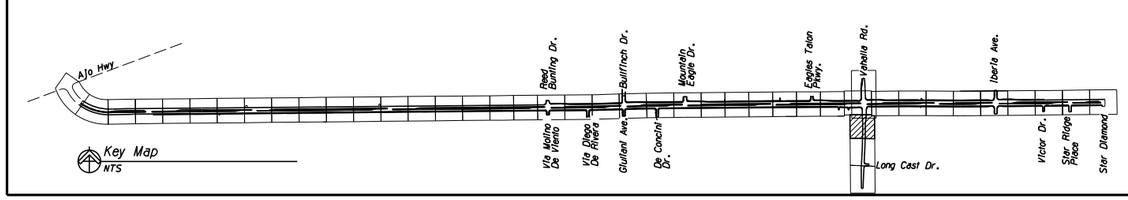
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. NA





HYDROSEED & INERT GROUNDCOVER

- Seed Mix 1 Rock Mulch (Special)
- Seed Mix 2 Rock Mulch (Special)
- Seed Mix 3 Rock Mulch (Special)
- Granite Mulch
- Rock Mulch (Type I&II)

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PLANTING PLAN
VAHALLA ROAD
STA. 45+00 TO 48+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales | Horiz. 1"=20' | Vert. NA | Sheet L45 of L49 | Page 347 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

	Date
Designed	K. Furenlid
Drawn	K. Furenlid
Checked	R. Field
Proj. Engr.	R. Solis

Date 01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Tucson, AZ 85705
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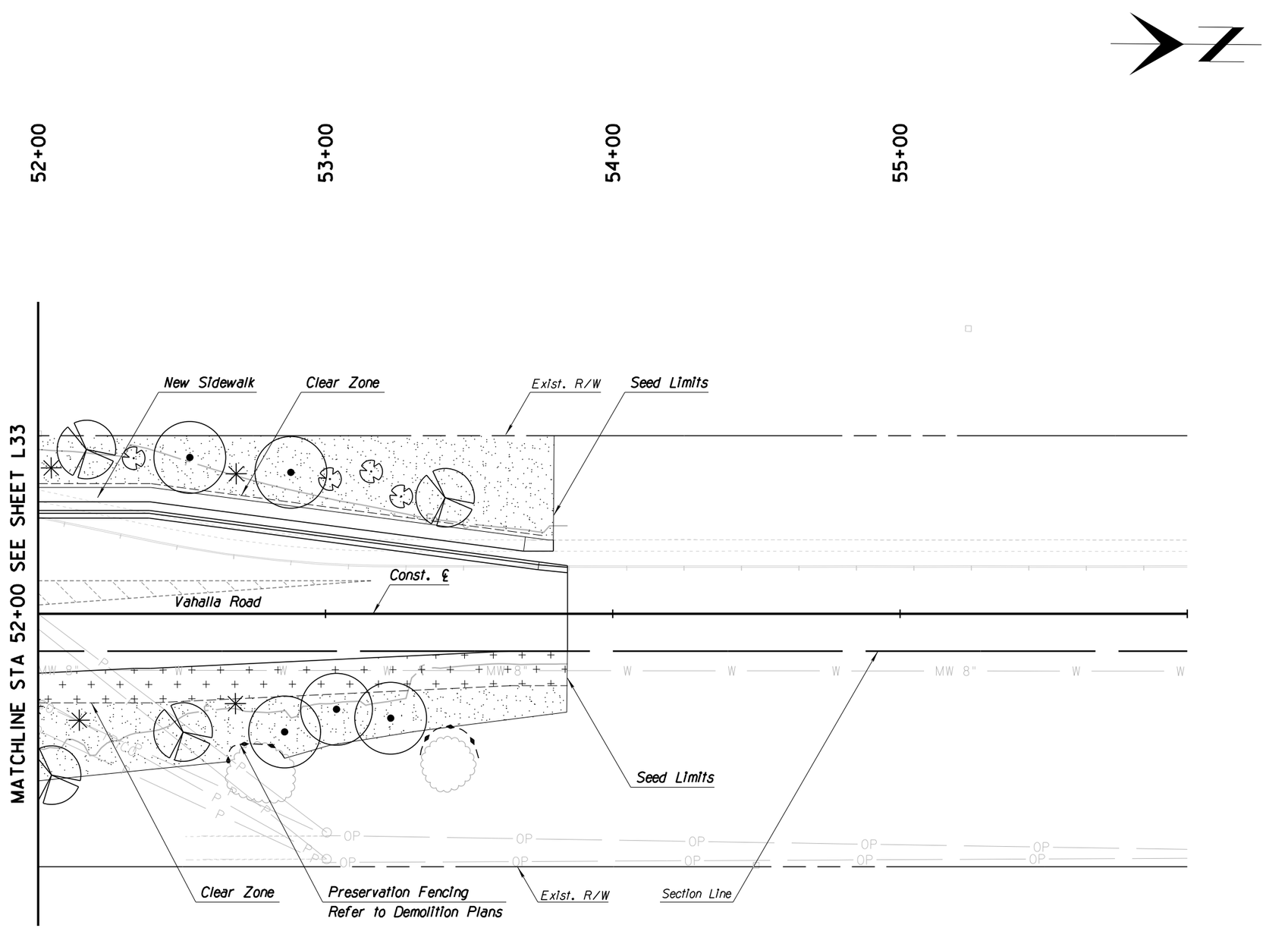
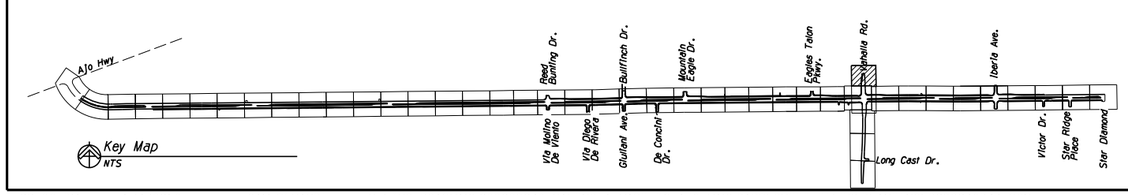
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





HYDROSEED & INERT GROUNDCOVER

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- Seed Mix 3 Rock Mulch (Special)
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- Rock Mulch (Type I&II)

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	Melampodium leucanthum Black Foot Daisy
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	Opuntia santa-rita Purple Prickly Pear
	Sphaeralcea ambigua Globemallow
	Thymophylla pentachaeta Golden Dogbane
	Ziziphus obtusifolia Graythorn

PLANTING PLAN
VAHALLA ROAD
STA. 52+00 TO 56+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet L46 of L49	Page 348 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Professional Engineer (Civil)
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 06/31/2019

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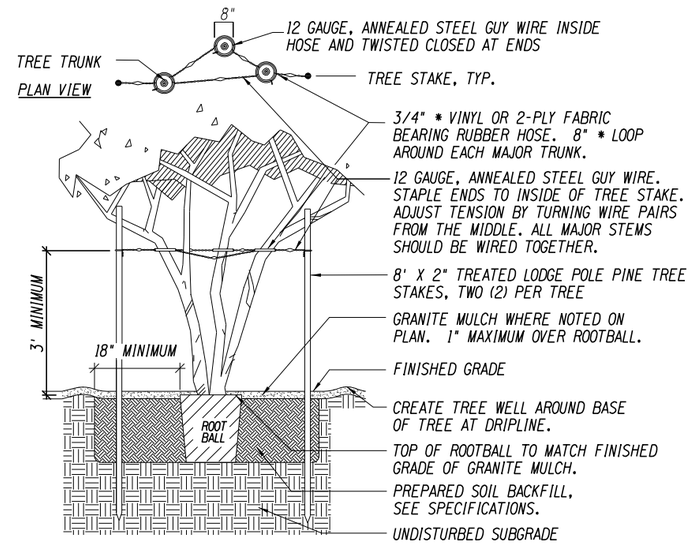
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

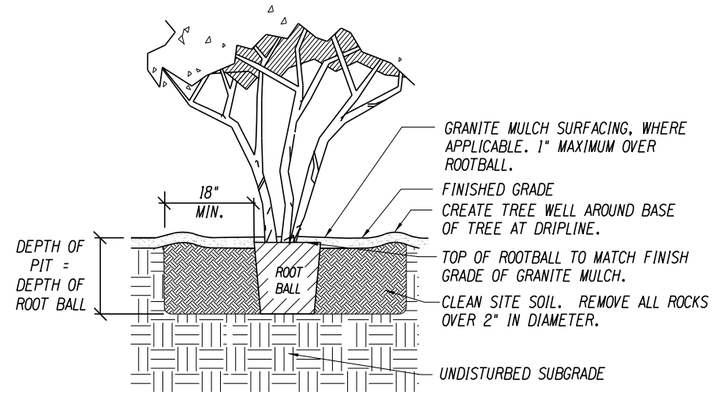
NOTE: TREES TO BE STAKED WILL BE MARKED BY ENGINEER.



1 TREE PLANTING - STAKING

NTS

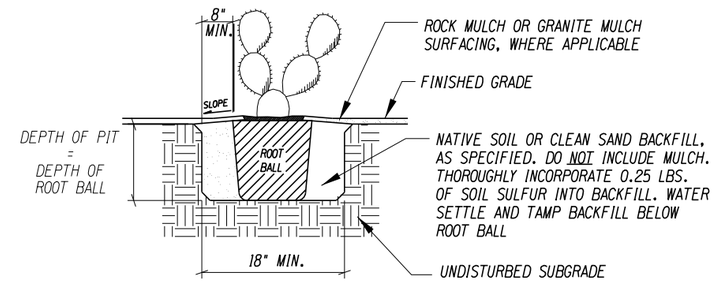
NOTES:
1. ALL TREES TO BE LOW BRANCHING OR MULTI-TRUNK. NO STANDARD TREES TO BE USED.
2. NO TREES TO BE STAKED EXCEPT AT THE DIRECTION OF THE ENGINEER.
3. DEPTH OF PLANT PIT = DEPTH OF ROOT BALL



2 TREE PLANTING

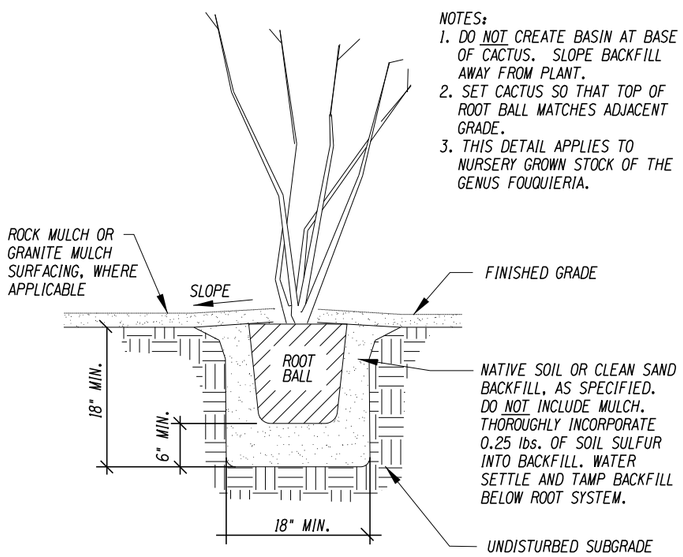
NTS

NOTES:
1. DO NOT CREATE A BASIN AT BASE OF PLANT. SLOPE BACKFILL AWAY FROM STEM.
2. SET STEM SUCCULENT SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
3. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF THE GENUS OPUNTIA.



3 PLANTING - NURSERY STOCK: PRICKLY PEAR AND CHOLLA (CONTAINER GROWN)

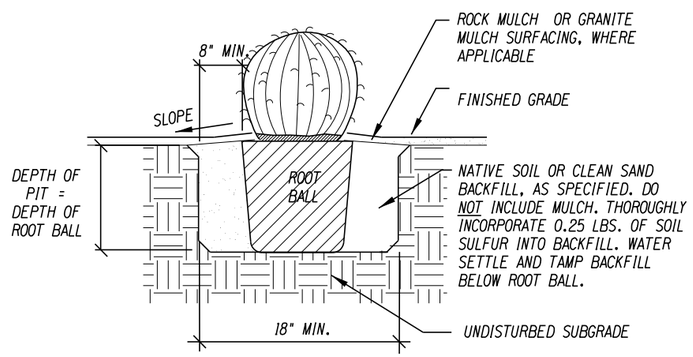
NTS



4 OCOTILLO PLANTING (CONTAINER GROWN)

NTS

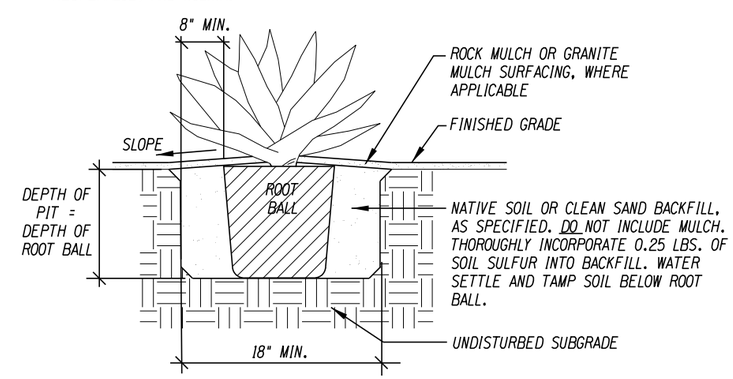
NOTES:
1. DO NOT CREATE A BASIN AT BASE OF CACTUS. SLOPE BACKFILL AWAY FROM STEM.
2. SET CACTUS SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
3. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF THE GENERA FERROCACTUS AND CARNEGIEA.



5 PLANTING - NURSERY STOCK: BARREL, COLUMNAR CACTUS (CONTAINER GROWN)

NTS

NOTES:
1. DO NOT CREATE A BASIN AT BASE OF PLANT. SLOPE BACKFILL AWAY FROM STEM.
2. SET STEM SUCCULENT SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
3. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF THE GENERA AGAVE, HESPERALOE, AND NOLINA.



6 PLANTING - NURSERY STOCK: STEM SUCCULENT (CONTAINER GROWN)

NTS

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet L47 of L49	Page 349 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 50732 REBECA V. FIELD Date Signed 01/04/18 ARIZONA, U.S.A. Expires 03/31/2019

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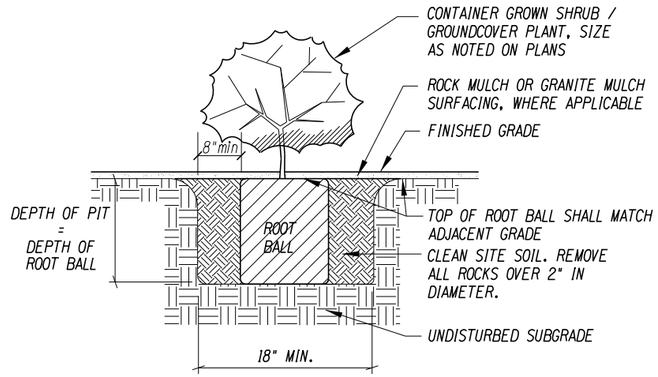
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3193 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



1 PLANTING - NURSERY STOCK: SHRUB/ GROUNDCOVER 1, 5, & 15 GAL. SIZE

NTS

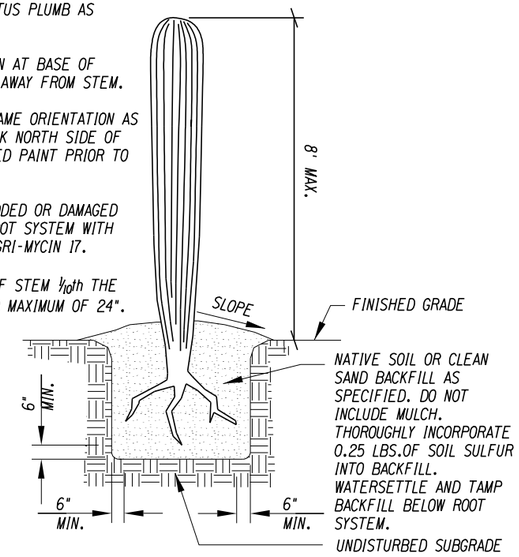
NOTES:
1. SET MAIN STEM OF CACTUS PLUMB AS VIEWED FROM ALL SIDES.

2. DO NOT CREATE A BASIN AT BASE OF CACTUS. SLOPE BACKFILL AWAY FROM STEM.

3. PLANT SAGUARO WITH SAME ORIENTATION AS IN ORIGINAL LOCATION. MARK NORTH SIDE OF SAGUARO WITH WATER BASED PAINT PRIOR TO START OF SALVAGE WORK.

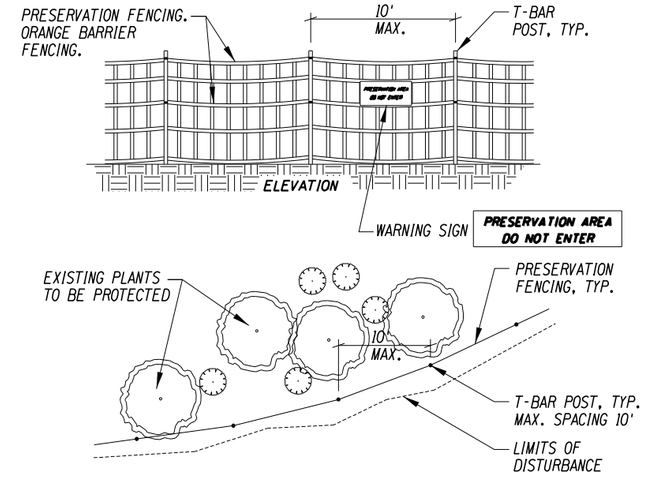
4. ROOT PRUNE ALL SHREDDED OR DAMAGED ROOTS. TREAT ENTIRE ROOT SYSTEM WITH WETTABLE SULPHUR AND AGRI-MYCIN 17.

5. BURY GREEN PORTION OF STEM 1/10th THE HEIGHT OF SAGUARO UP TO MAXIMUM OF 24".



2 SAGUARO PLANTING - SALVAGED SPECIMEN

NTS

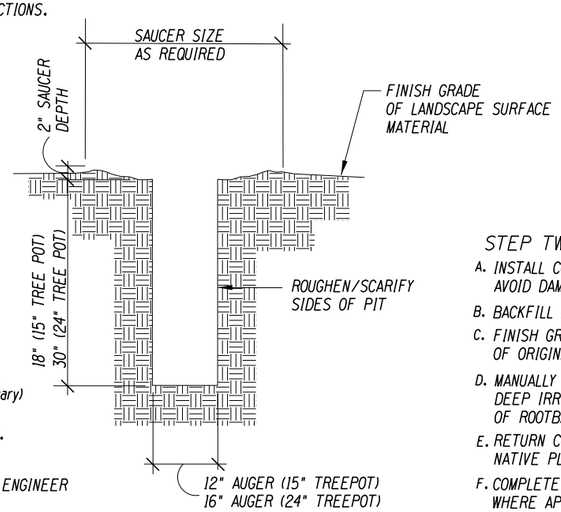


NOTES:
1. MATERIALS FOR FENCING AND WARNING SIGNS SHALL BE PER BID ITEM 2010004.
2. PLACE WARNING SIGNS ON PRESERVATION FENCING, PER BID ITEM 2010004.
3. PAYMENT PROVIDED UNDER BID ITEM 2010004.
4. WARNING SIGNS TO BE ATTACHED SECURELY TO THE FENCE FABRIC AND AT 50 FOOT MAXIMUM INTERVALS.

3 PRESERVATION FENCING DETAIL

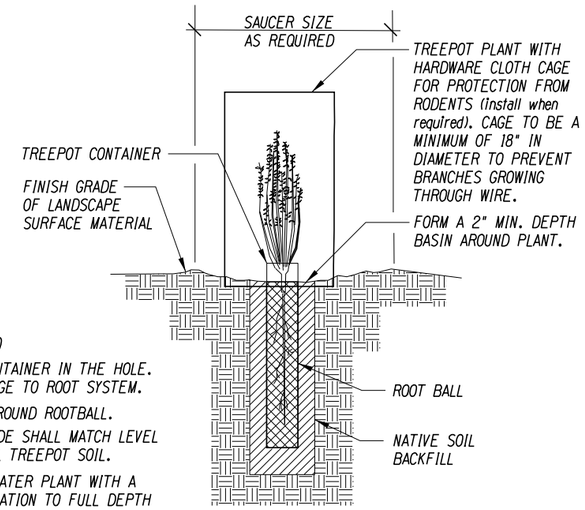
NTS

NOTE:
REFER TO SPECIAL PROVISIONS 806-3.02 FOR SPECIAL PROCEDURE IN AREAS OF CALICHE. LARGER PLANTING PITS REQUIRED IN AREAS OF CALICHE OR HARD DIGGING CONDITIONS. SEE SECTION 806 FOR COMPLETE INSTRUCTIONS.



STEP ONE

A. AUGER PLANTING HOLE TO FIT CONTAINER (dependent on soil type)
B. FILL COMPLETELY WITH WATER. (In areas of soft sandy or cobble soils, filling the hole with water is not necessary)
C. ALLOW TO DRAIN (notify Engineer if water does not drain within 48 hours).
D. REPEAT B & C
E. COMPLETE INSPECTION OF PITS BY ENGINEER PRIOR TO PROCEEDING TO STEP 2.

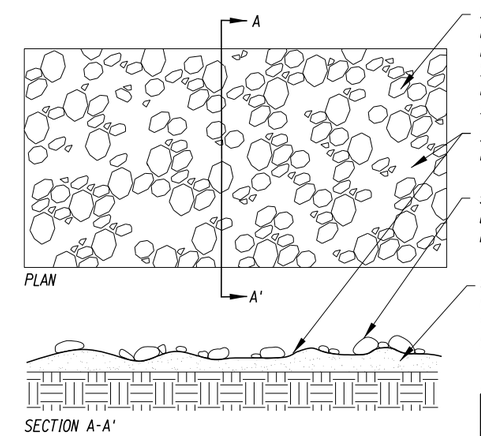


STEP TWO

A. INSTALL CONTAINER IN THE HOLE. AVOID DAMAGE TO ROOT SYSTEM.
B. BACKFILL AROUND ROOTBALL.
C. FINISH GRADE SHALL MATCH LEVEL OF ORIGINAL TREEPOT SOIL.
D. MANUALLY WATER PLANT WITH A DEEP IRRIGATION TO FULL DEPTH OF ROOTBALL.
E. RETURN CONTAINER TO PIMA COUNTY NATIVE PLANT NURSERY.
F. COMPLETE IRRIGATION INSTALLATION WHERE APPLICABLE.

4 TREEPOT PLANTING

NTS



1-3" ROCK

SIEVE SIZE	PERCENT PASSING
4"	100
3/4"	0-10

ROCK MULCH (SPECIAL) - (BID ITEM #8030029)

ROCK MULCH SPECIAL SHALL BE USED WITH SEED MIXES 1, 2 & 3. 50% OF GROUND SURFACE TO BE COVERED WITH 1"-3" ROCK MULCH IN A RANDOM PATTERN. 50% OF GROUND SURFACE TO BE LEFT BARE. GROUND SURFACE TO BE PREPARED FOR CLASS II SEEDING. SEE SPECIAL PROVISION SECTION 805. NO PRE-EMERGENT HERBICIDES TO BE USED IN SEEDED AREAS. THE ROCK MATERIAL SHALL BE SCREENED TO REMOVE ROCK IN ACCORDANCE WITH THE ADJACENT TABLE. ROCK COLOR SHALL BE SANTA FE GOLD OR APPROVED EQUAL. SEEDING TO BE APPLIED AFTER APPLICATION OF ROCK MULCH.

5 ROCK MULCH (SPECIAL) (USE WITH SEED MIXES 1, 2 & 3)

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ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

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Registered Landscape Architect
REBECA V. FIELD
50732
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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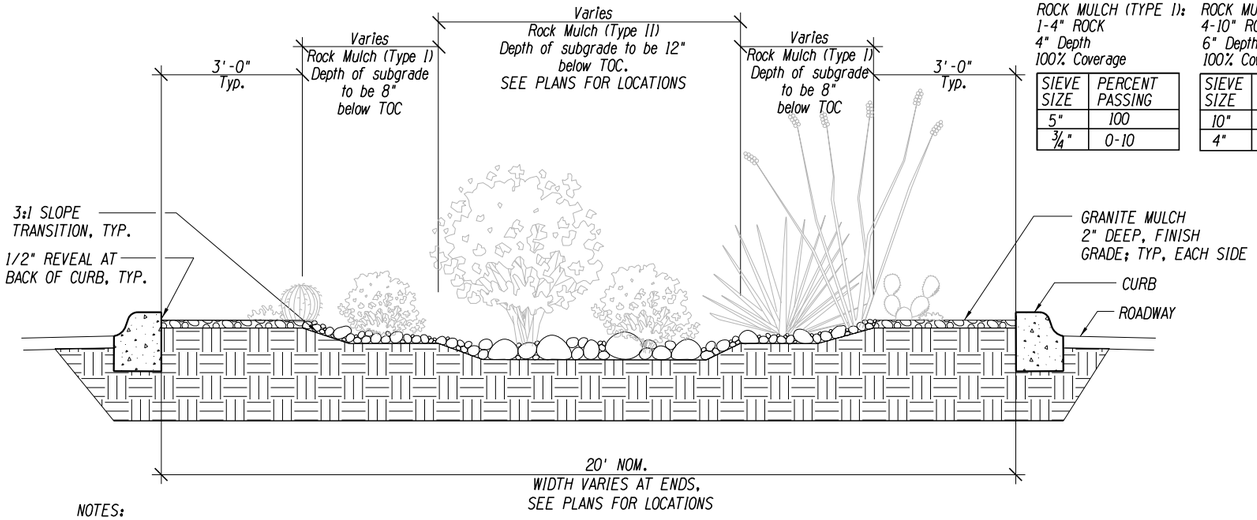
#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. NA	Sheet L48 of L49	Page 350 of 433
	Vert. NA		



ROCK MULCH (TYPE I):
1-4" ROCK
4" Depth
100% Coverage

SIEVE SIZE	PERCENT PASSING
5"	100
3/4"	0-10

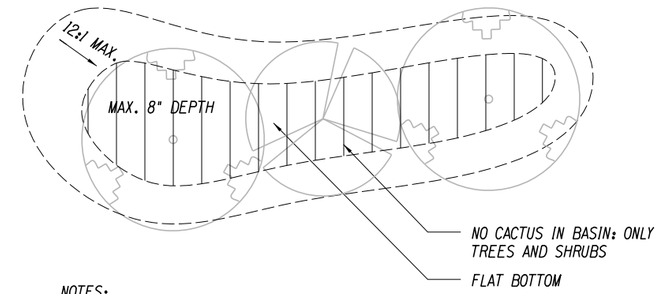
ROCK MULCH (TYPE II):
4-10" ROCK
6" Depth
100% Coverage

SIEVE SIZE	PERCENT PASSING
10"	95
4"	0-10

NOTES:
1. DEPTH OF MEDIAN BASINS ARE TYPICALY 8" BELOW TOP OF CURB. SEE PLANS FOR LOCATIONS OF 12" DEPTH BASINS (ROCK MULCH (TYPE II)).
2. MAINTAIN FLOW-LINE FOR UPPER BASINS, NO CONTROL PROVIDED; FIELD ADJUSTMENTS MAY BE REQUIRED. CONTRACTOR TO SPRAY PAINT LAYOUT OF MEDIAN BASINS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. ROCK MULCH & GRANITE MULCH COLOR - SANTA FE GOLD. GRANITE MULCH SHALL BE 3/4" SCREENED.
4. DEPTH MEASURED FROM TOP OF CURB TO BASIN SUBGRADE.

1 MEDIAN BASIN TYPICAL CROSS SECTION

NTS



NOTES:
1. SIZE OF BASINS VARY. REFER TO PLANS.
2. ALL BASINS SHALL BE FIELD MARKED AND VERIFIED BY PIMA COUNTY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
3. PAYMENT PROVIDED BY ITEM 8020010.

2 WATER HARVESTING BASIN

NTS

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet L49 of L49	Page 351 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

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333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

EMITTER SCHEDULE

TREES					
SYMBOL	BOTANICAL NAME COMMON NAME	CONTAINER SIZE	# OF OUTLETS	GPH/ OUTLET	TOTAL GPH
	Acacia constricta Whitethorn Acacia	48" Box 36" Box 24" Box 15 Gallon 24" Treepot	5 4 4 2 2	2 2 2 2 2	10 8 8 4 4
	Acacia greggii Catclaw Acacia	15 Gallon 24" Treepot	2 2	2 2	4 4
	Chilopsis linearis Desert Willow	48" Box 36" Box 24" Box 15 Gallon 24" Treepot	6 5 4 3 3	2 2 2 2 2	12 10 8 6 6
	Prosopis pubescens Screwbean Mesquite	48" Box 36" Box 24" Box 15 Gal 24" Treepot	6 5 4 3 3	2 2 2 2 2	12 10 8 6 6
	Prosopis velutina Velvet Mesquite	48" Box 36" Box 24" Box 15 Gallon	6 5 4 3	2 2 2 2	12 10 8 6

SHRUBS/ACCENTS					
SYMBOL	BOTANICAL NAME COMMON NAME	CONTAINER SIZE	# OF OUTLETS	GPH/ OUTLET	TOTAL GPH
	Ambrosia deltoidea Triangle-Leaf Bursage	15" Treepot	1	0.5	0.5
	Atriplex canescens Fourwing Saltbush	15" Treepot	1	0.5	0.5
	Carnegiea gigantea Saguaro	1'-3' 4'-7'	NO IRRIGATION		
	Celtis pallida Desert Hackberry	15" Treepot	1	1	1
	Cylindropuntia acanthocarpa Buckhorn Cholla	5 Gal	NO IRRIGATION		
	Cylindropuntia arbuscula Pencil Cholla	5 Gal	NO IRRIGATION		
	Cylindropuntia versicolor Staghorn Cholla	5 Gal	NO IRRIGATION		
	Dasylirion wheeleri Desert Spoon	5 Gal	1	0.5	0.5
	Encelia farinosa Brittlebush	1 Gal	1	1	1
	Ferocactus sp. Barrel Cactus	3 Gal	NO IRRIGATION		
	Fouquieria splendens Ocotillo	5 Gal	1	0.5	0.5
	Hesperaloe funifera Giant Hesperaloe	5 Gal	1	0.5	0.5
	Hesperaloe parviflora Red Yucca	5 Gal	1	0.5	0.5
	Larrea tridentata Creosote	15" Treepot 5 Gal	1	1	1
	Lycium species Wolfberry	5 Gal	1	1	1
	Melampodium leucanthum Black Foot Daisy	1 Gal	1	0.5	0.5
	Opuntia basilaris Beavertail Prickly Pear	5 Gal 3 Gal	NO IRRIGATION		
	Opuntia santa-rita Purple Prickly Pear	5 Gal 3 Gal	NO IRRIGATION		
	Sphaeralcea ambigua Globemallow	1 Gal	1	0.5	0.5
	Thymophylla pentachaeta Golden Dogbane	1 Gal	1	0.5	0.5
	Ziziphus obtusifolia Graythorn	15" Treepot 5 Gal	1	1	1

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE	QUANTITY
	Controller - LEIT XRC Solar	XRC8	8
M	New water Meter	2"	1
	Pressure Reducing Backflow Preventer	2"	1
BP	Prefabricated Booster Pump Station	1 HP	1
	Remote Control Valve (Electric) PESB	1"	63
	Pressure Regulator Riser	3/4"	110
	Isolation Valve (Mainline)	2"	3
	Isolation Valve (Mitigation Area)	3/4"	10
	Mainline - Sch40 PVC	2"	14,170
	Mainline - HDPE	2"	95
	Submain - Sch 40 PVC	1"	22,055
	Lateral Line - Sch 40 PVC	3/4"	52,245
	Lateral End Cap Assembly	N/A	234
	Sleeve - Sch 40 PVC Installed by Roadway Contractor (See Details 6/IR47 & 1/IR48)	N/A	2,412.5
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	N/A	1,425
Not Shown	Irrigation Wire Conduit (Installed by Roadway Contractor, next to Irrigation sleeve were indicated in Detail 6/IR47 & 1/IR48)	N/A	1875.5

NOTES:

1. Refer to Special Provisions for Additional Requirements.
2. Irrigation sleeves shown on Irrigation Plans for reference only; all irrigation sleeves are installed by Roadway Contractor.
3. Irrigation System is designed for a maximum of 6 GPM per valve.

IRRIGATION SUMMARY SHEET

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA Vert. NA	Sheet IR1 of IR49	Page 352 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

	Date
Designed K. Furenlid	01/2018
Drawn K. Furenlid	01/2018
Checked R. Field	01/2018
Proj. Engr. R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 20732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Suite 280
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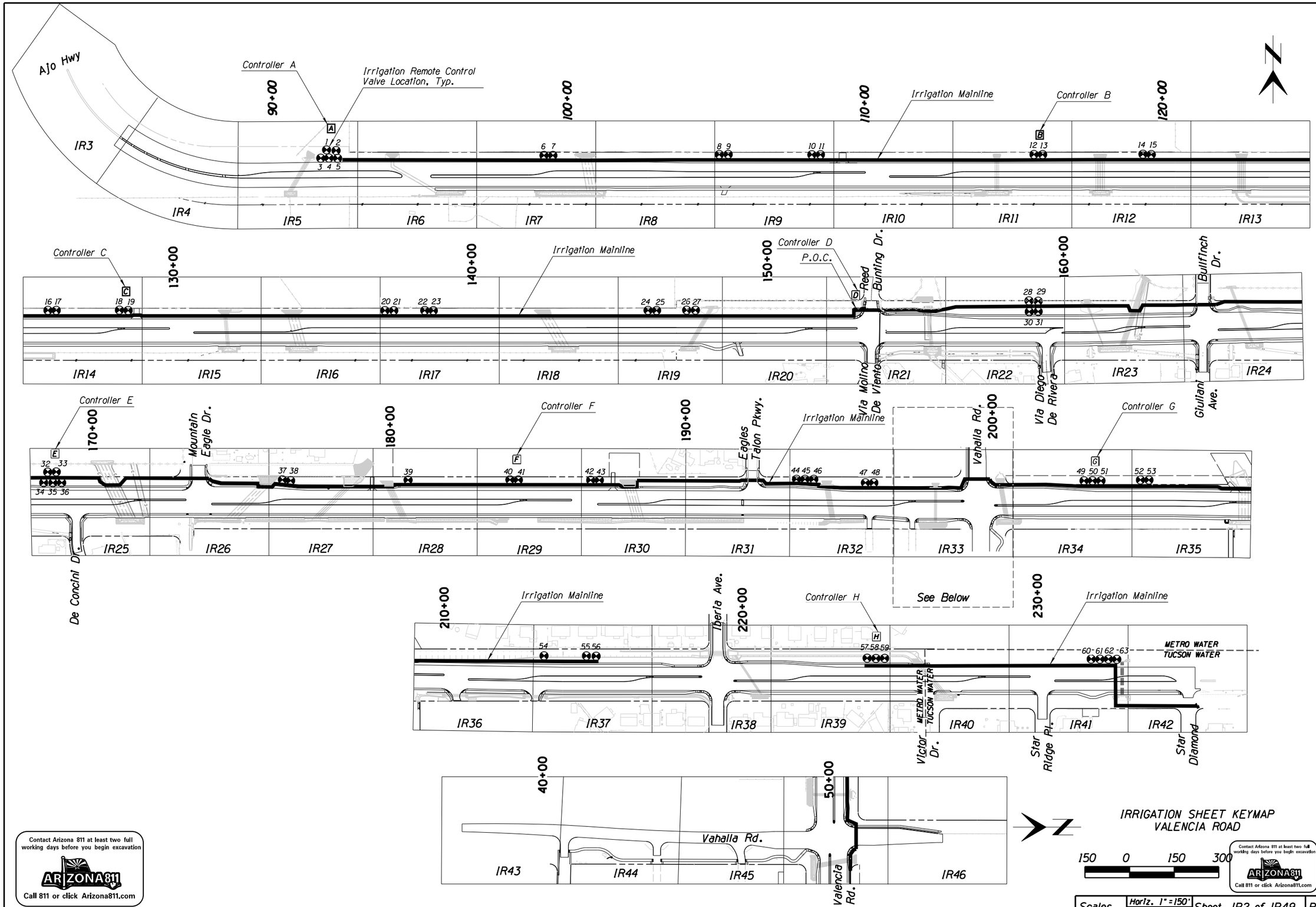
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION SHEET KEYMAP
VALENCIA ROAD

150 0 150 300

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1" = 150' Vert. NA	Sheet IR2 of IR49	Page 353 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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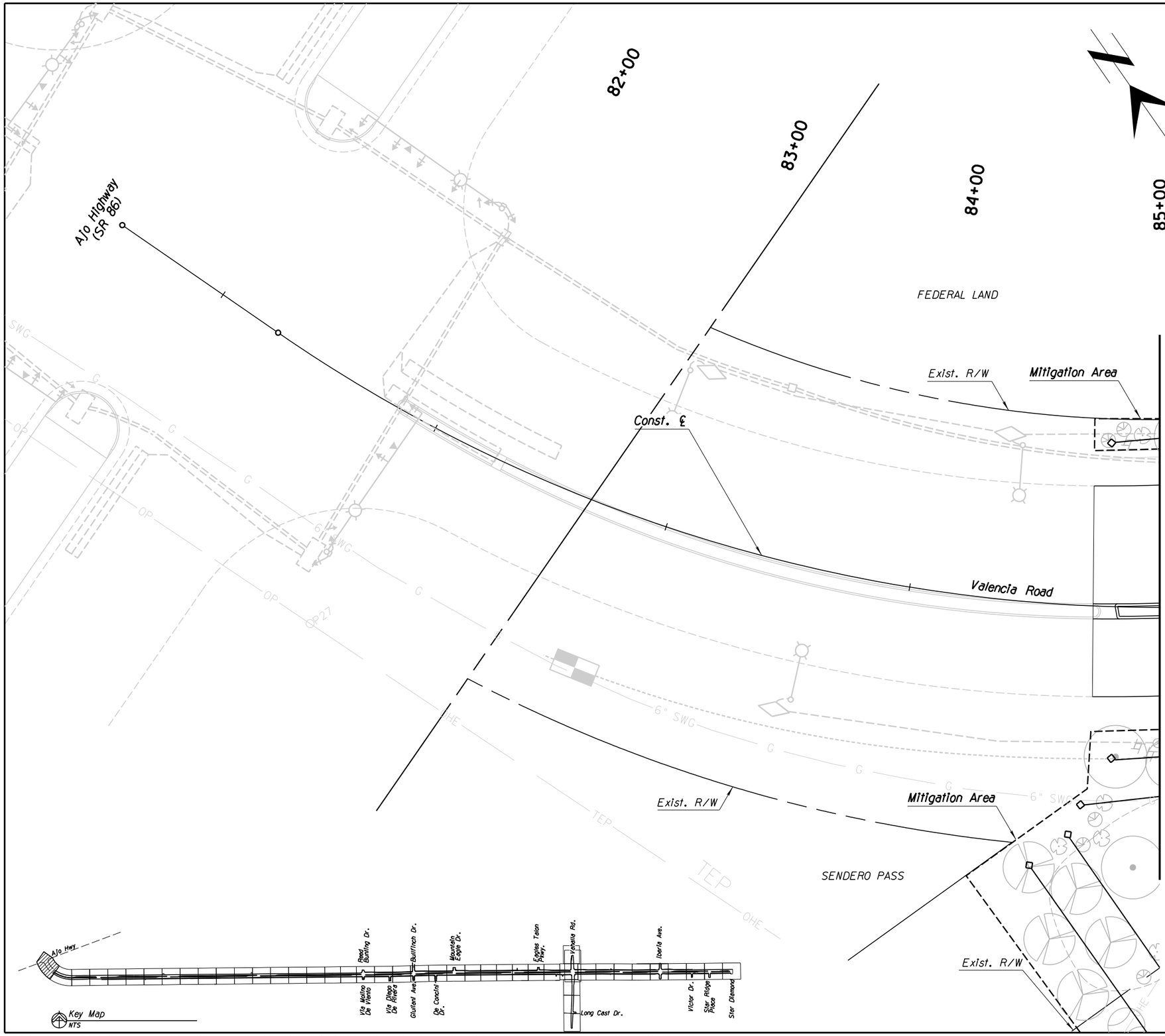

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

1. Irrigation Plans are schematic. Placement of all irrigation components, including location of pipe, points of connection, valves, controllers and meters shall be field staked and approved by the Engineer prior to installation.
2. Irrigation mainline, water meter, valves, controllers and backflow preventer shall be placed outside of Utility Easements and within Pima County R/W. Wherever possible, submains and laterals shall be located outside of Utility Easements.
3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 81+00 TO 85+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR3 of IR49

#4RTVWE Pima County Department of Transportation
Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
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Date Signed 01/04/18
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Expires 03/31/2019

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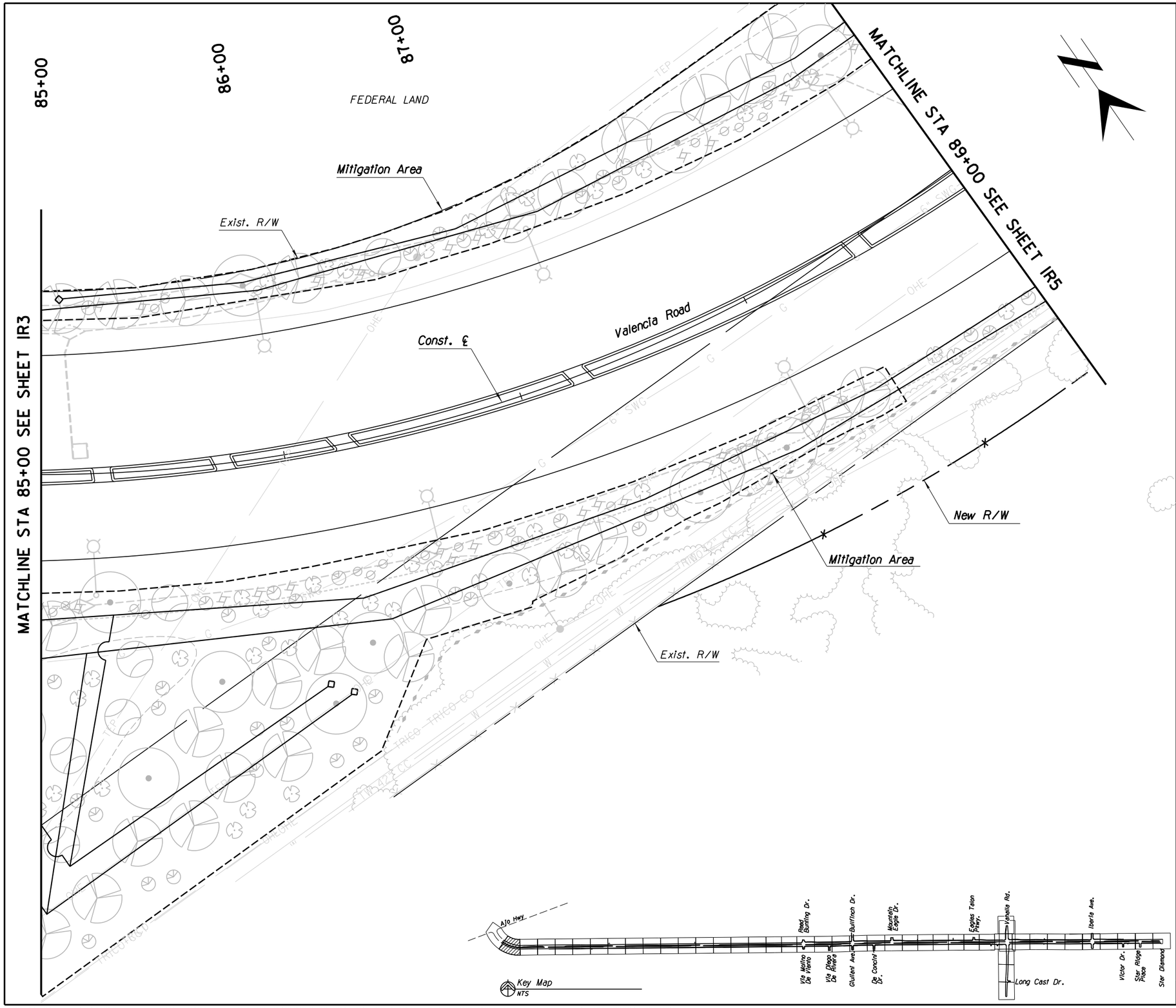
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

1. Irrigation Plans are schematic. Placement of all irrigation components, including location of pipe, points of connection, valves, controllers and meters shall be field staked and approved by the Engineer prior to installation.
2. Irrigation mainline, water meter, valves, controllers and backflow preventer shall be placed outside of Utility Easements and within Pima County R/W. Wherever possible, submains and laterals shall be located outside of Utility Easements.
3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 85+00 TO 89+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' | Vert. NA

Sheet IR4 of IR49

Page 355 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
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Date Signed 01/04/18
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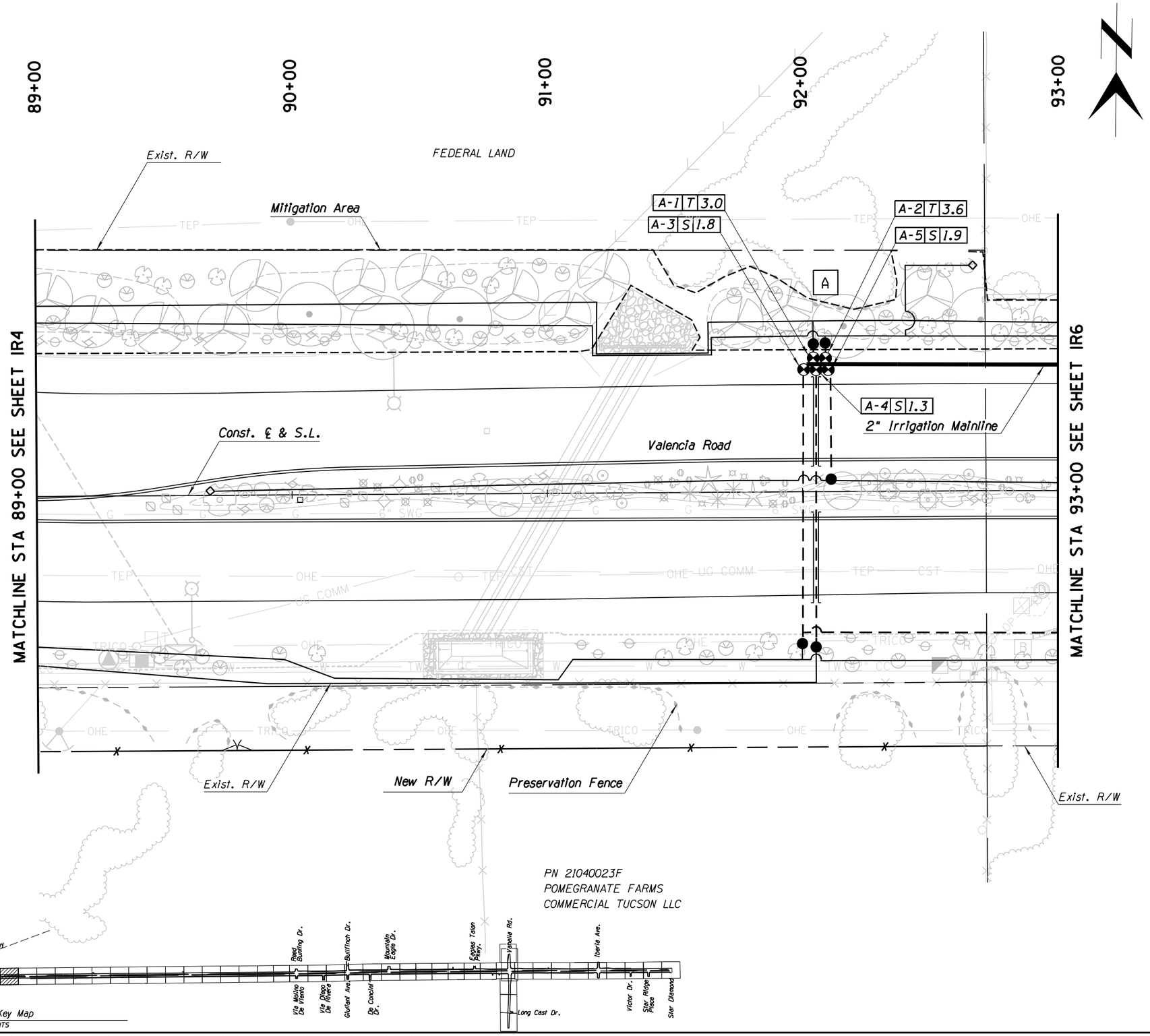
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 S 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 89+00 TO 93+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet IR5 of IR49

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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Expires 03/31/2019

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Tucson, AZ 85705
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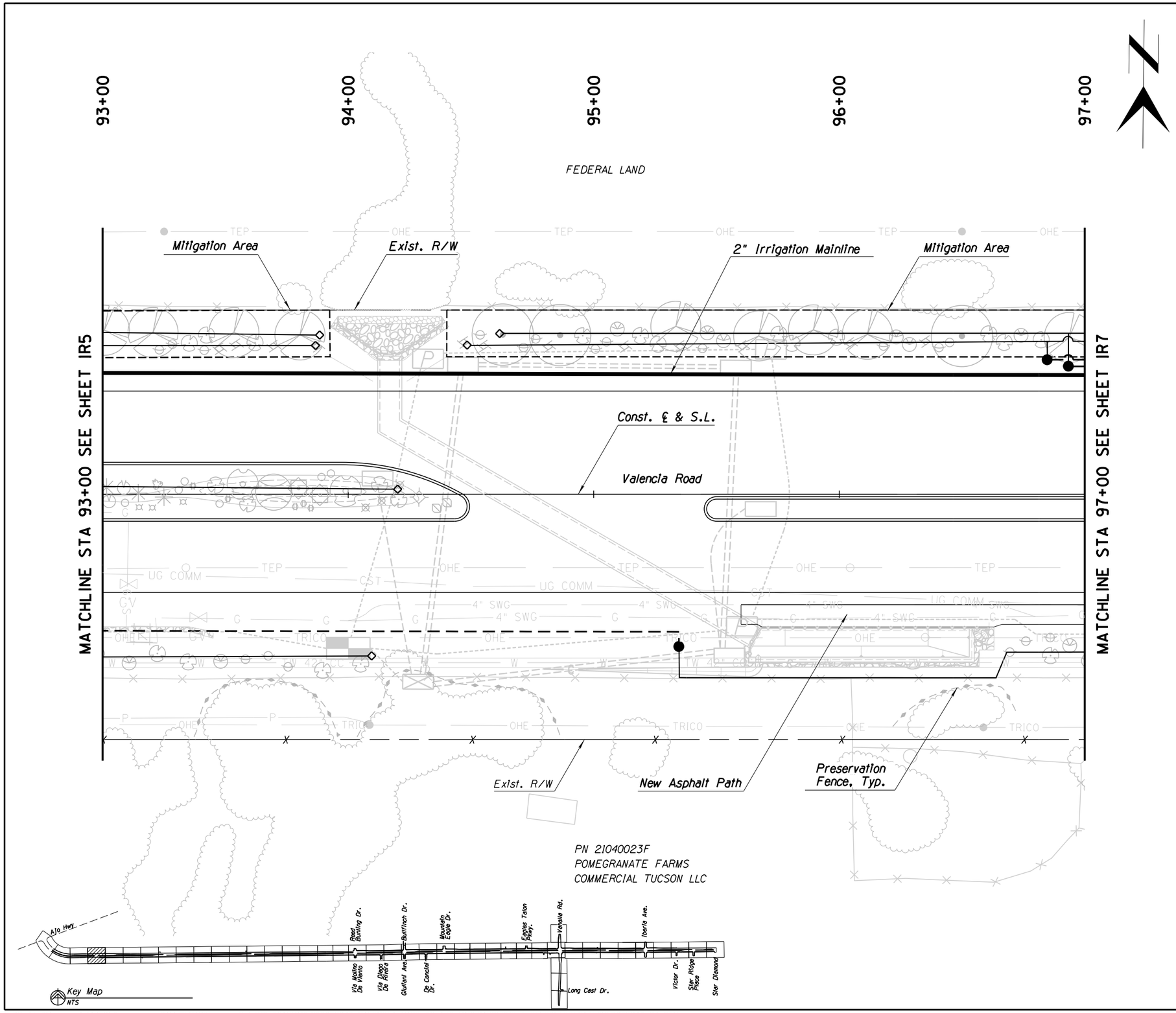
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Approx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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IRRIGATION PLAN
VALENCIA ROAD
STA. 93+00 TO 97+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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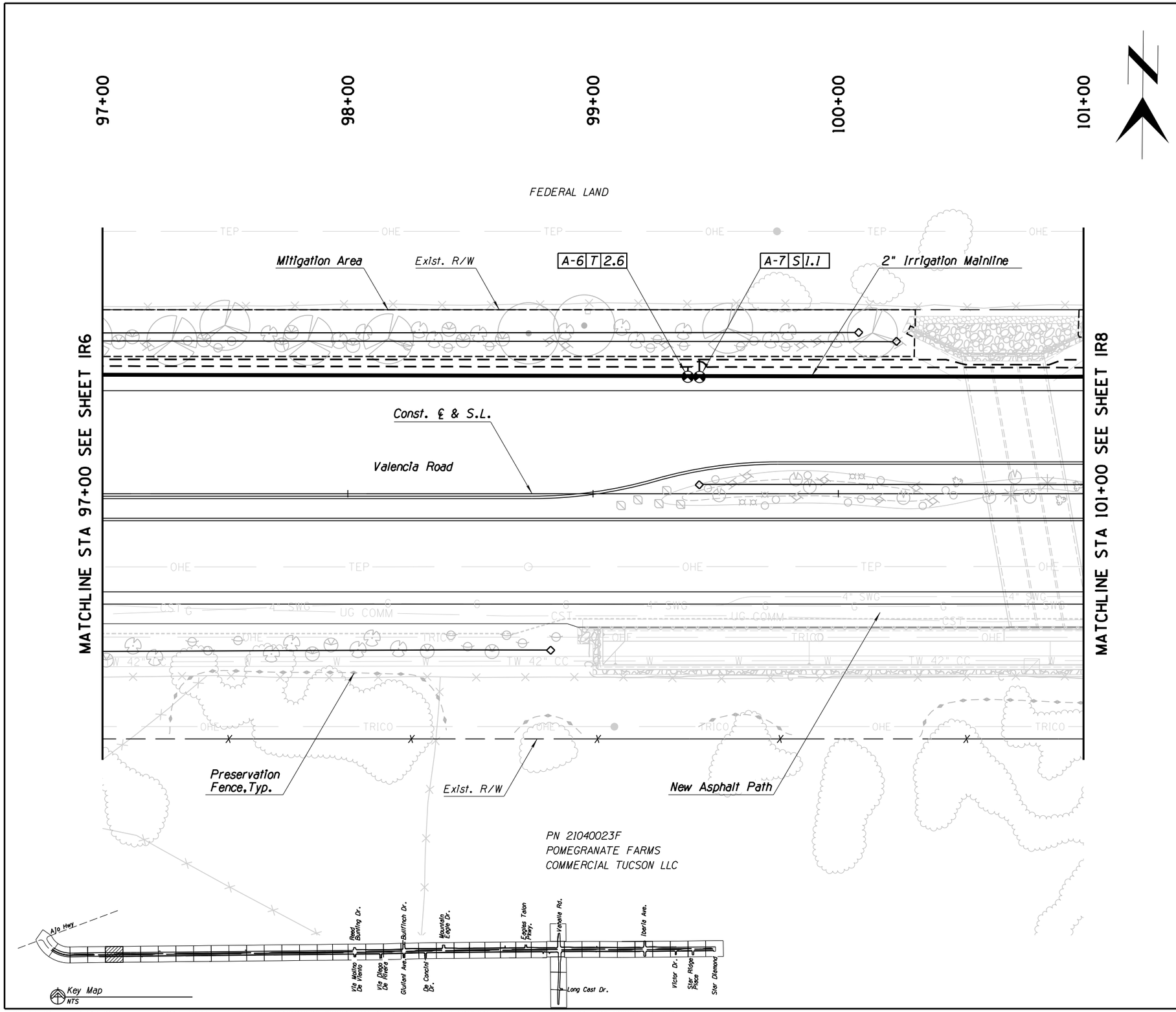
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet IR6 of IR49	Page 357 of 433



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
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◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 S 1.5 — Apprx. Flow (GPM); Shrub or Tree; Controller & Valve ID

NOTES:

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IRRIGATION PLAN
VALENCIA ROAD
STA. 97+00 TO 101+00

20 0 20 40

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ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
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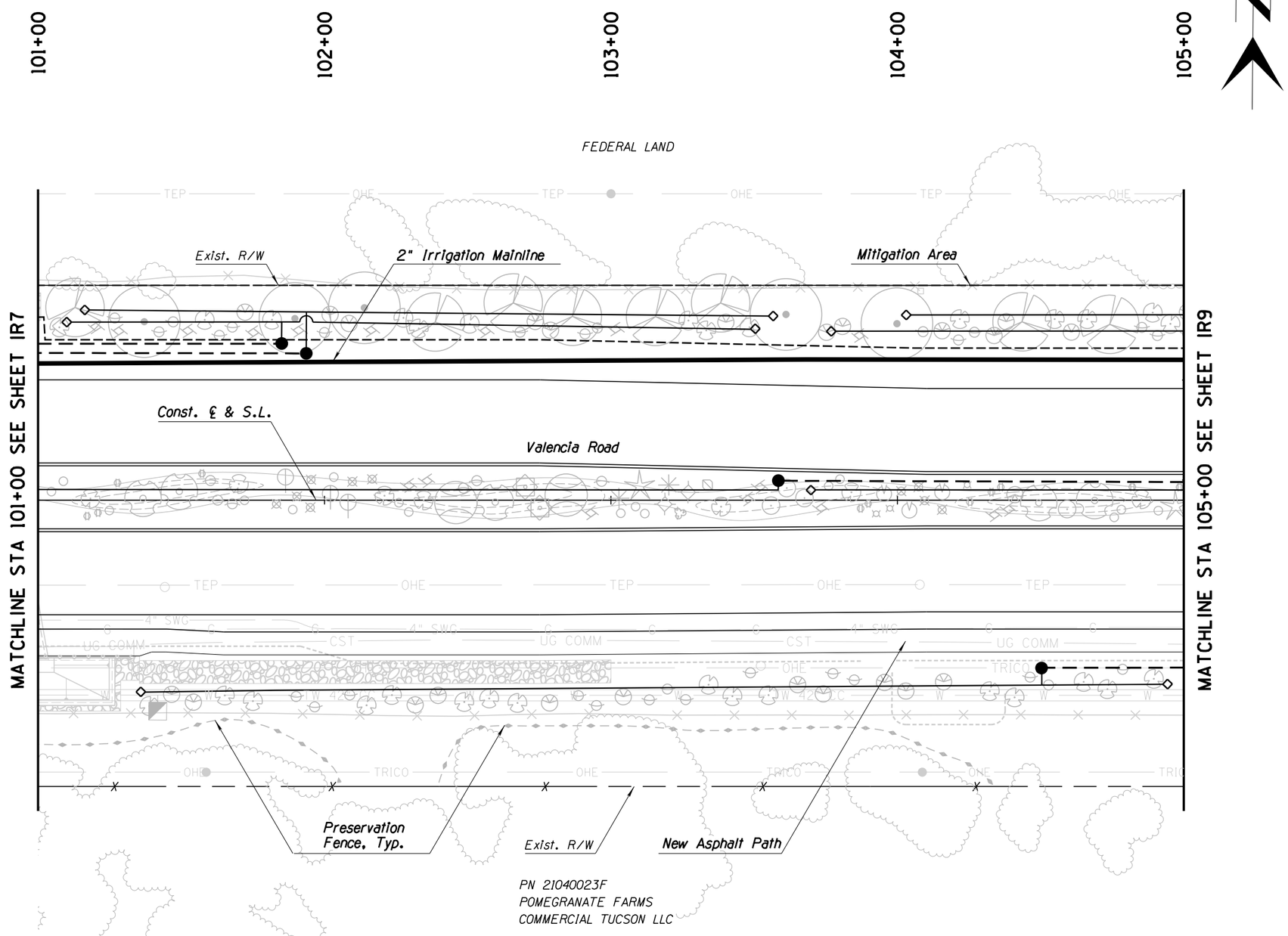
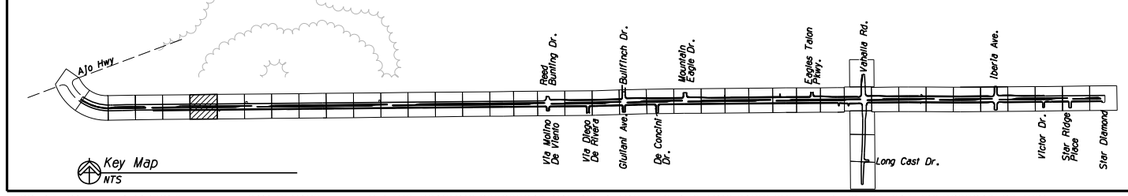
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20'	Sheet IR7 of IR49	Page 358 of 433
	Vert. NA		





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Approx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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IRRIGATION PLAN
VALENCIA ROAD
STA. 101+00 TO 105+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet IR8 of IR49

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

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VALENCIA ROAD
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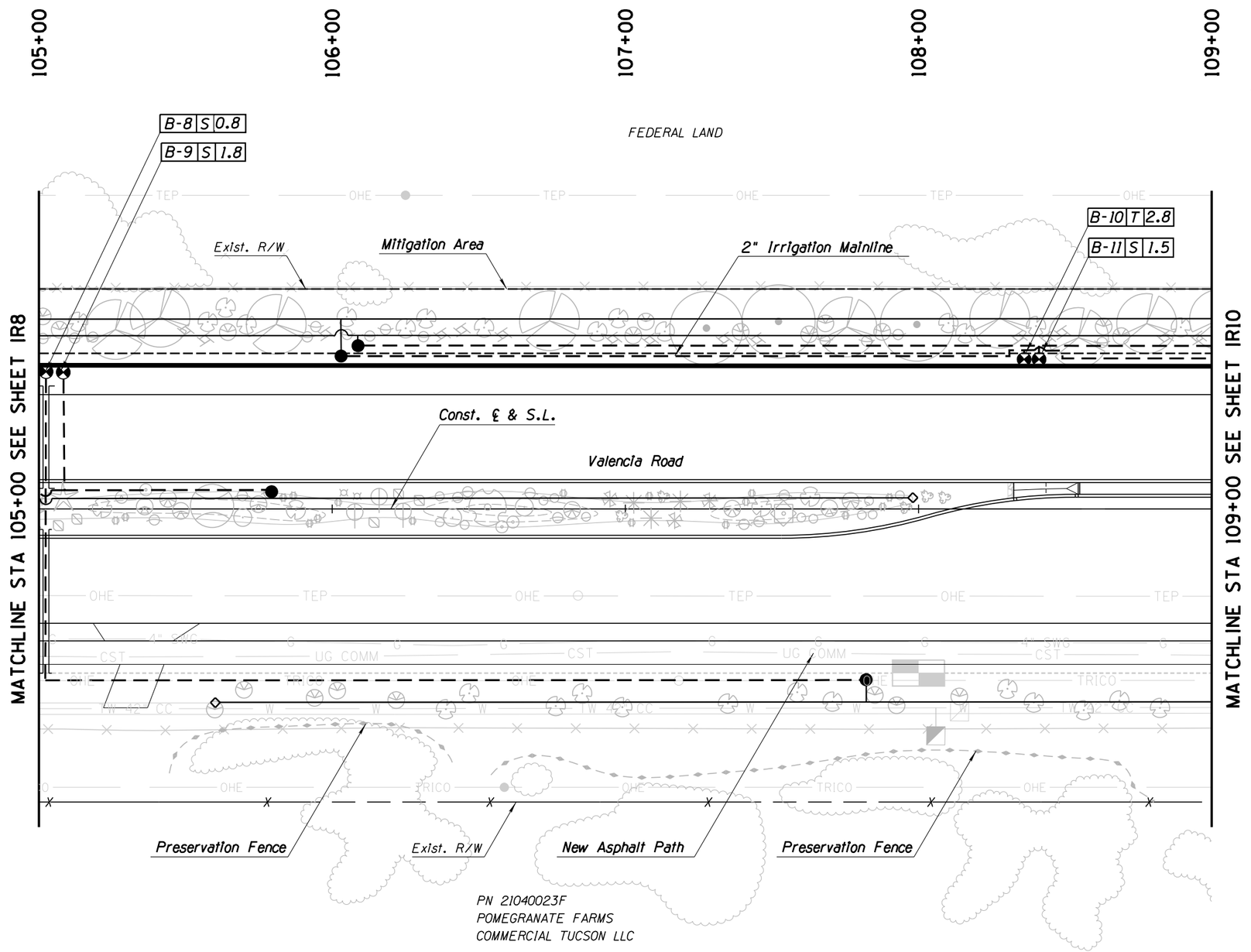
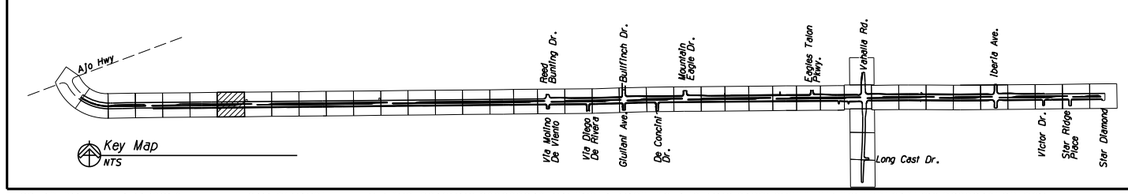
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 S 1.5 — Approx. Flow (GPM); Shrub or Tree; Controller & Valve ID

NOTES:

1. Irrigation Plans are schematic. Placement of all irrigation components, including location of pipe, points of connection, valves, controllers and meters shall be field staked and approved by the Engineer prior to installation.
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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 105+00 TO 109+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA | Sheet IR9 of IR49 | Page 360 of 433

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

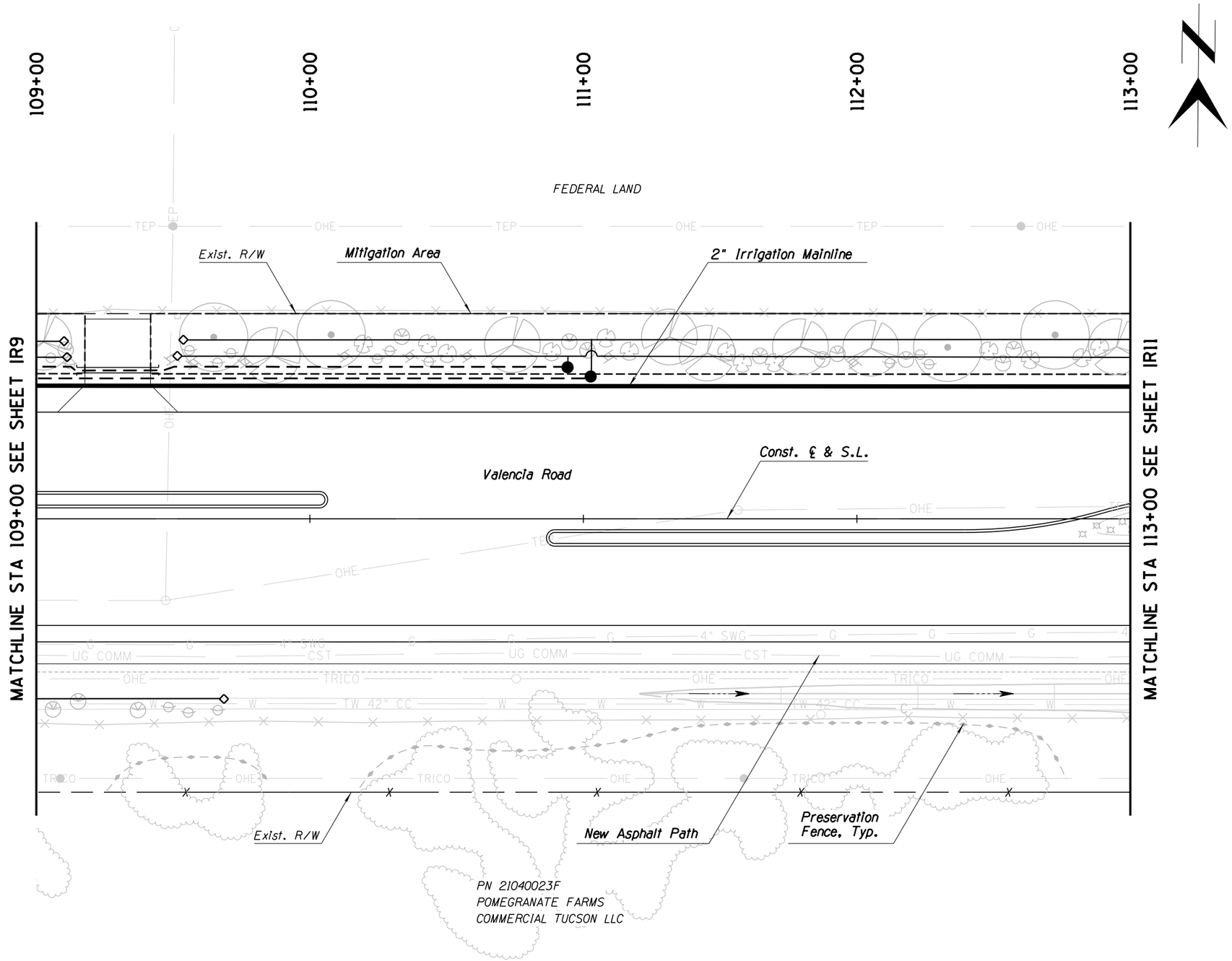
No.	Revision Description	Engineer	Date

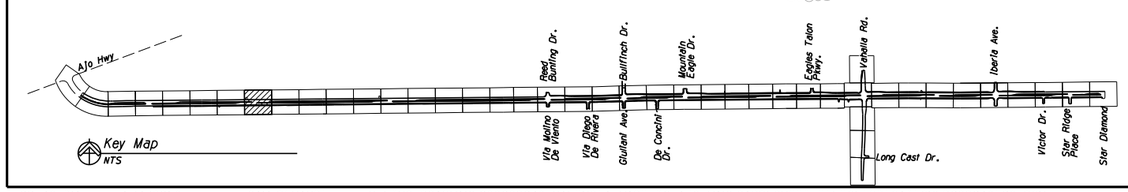
		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

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×	Controller - LEIT Solar XRC	8 St.
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	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
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4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 109+00 TO 113+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 50732
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Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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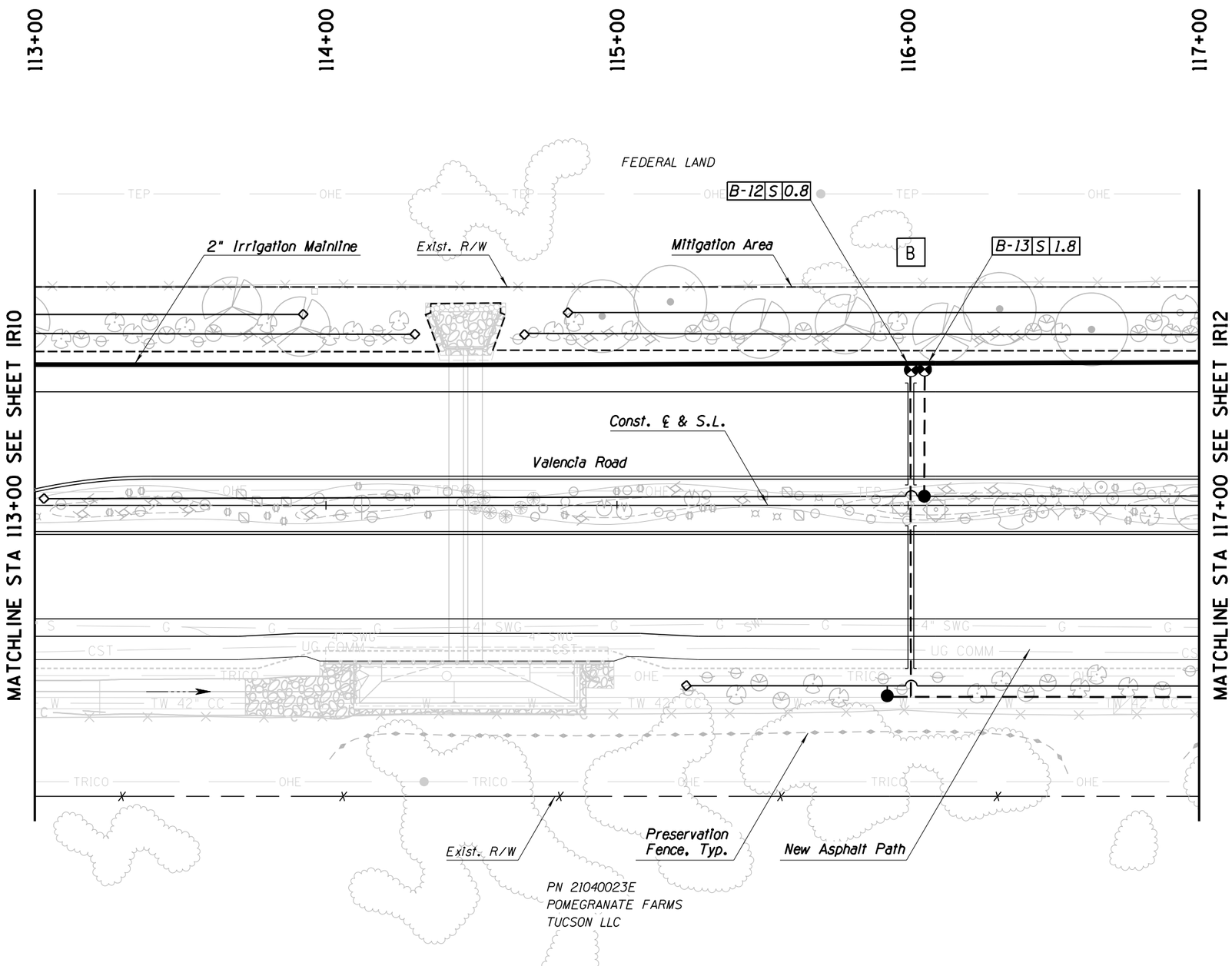
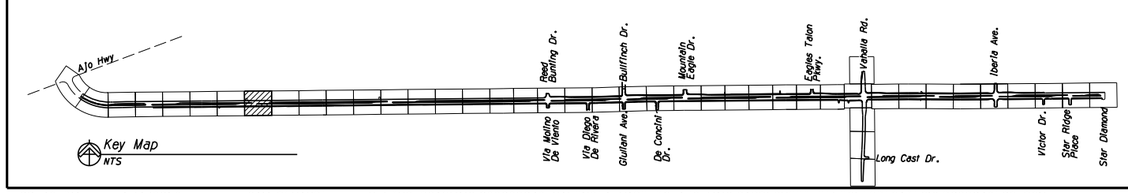
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' | Vert. NA





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
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	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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4. ▭ indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 113+00 TO 117+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet IR11 of IR49	Page 362 of 433

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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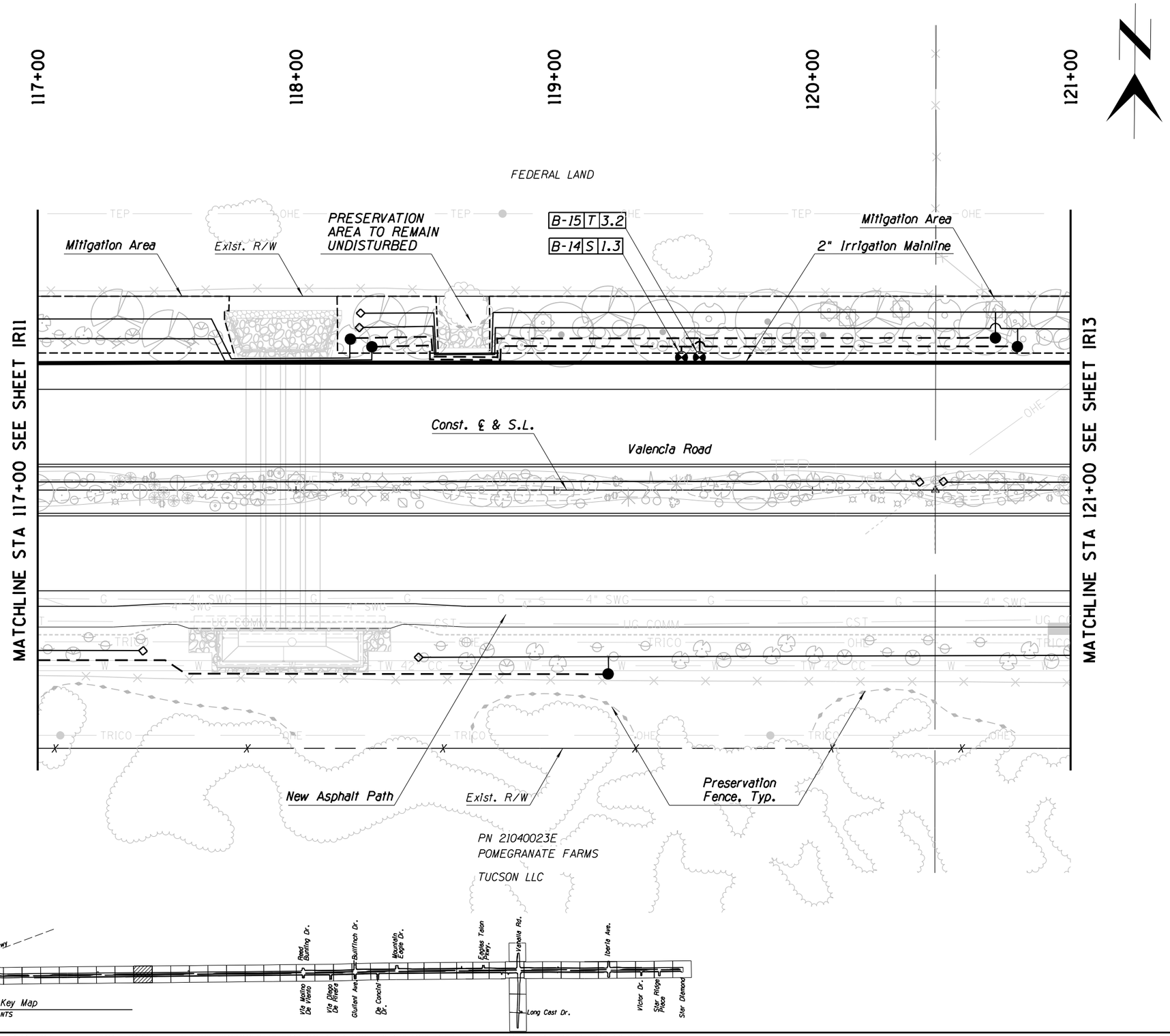
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
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——	Mainline - Sch40 PVC	2"
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- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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IRRIGATION PLAN
VALENCIA ROAD
STA. 117+00 TO 121+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' | Vert. NA

Sheet IR12 of IR49

Page 363 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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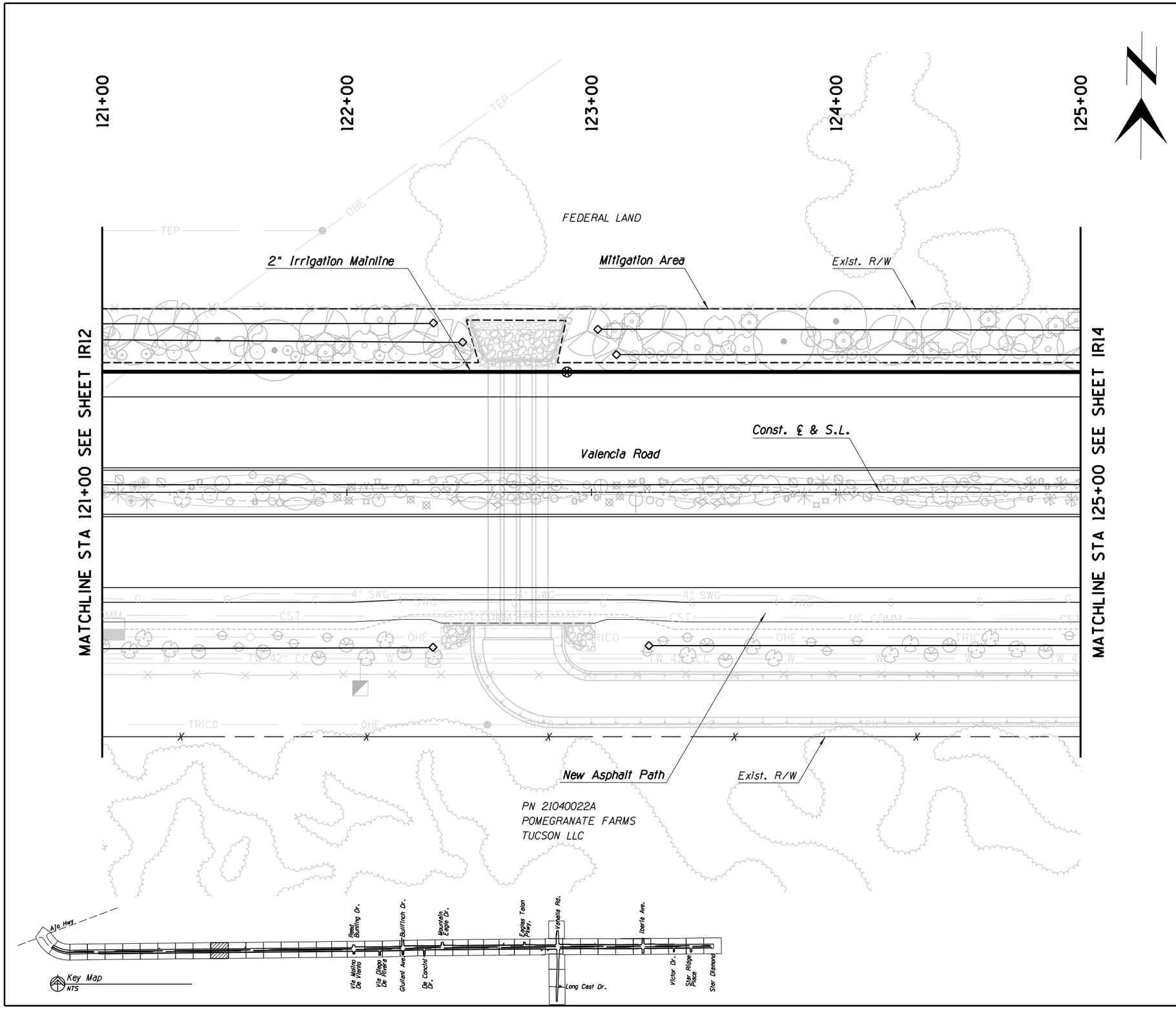
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
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◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Approx. Flow (GPM)
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IRRIGATION PLAN
VALENCIA ROAD
STA. 121+00 TO 125+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet IR13 of IR49

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

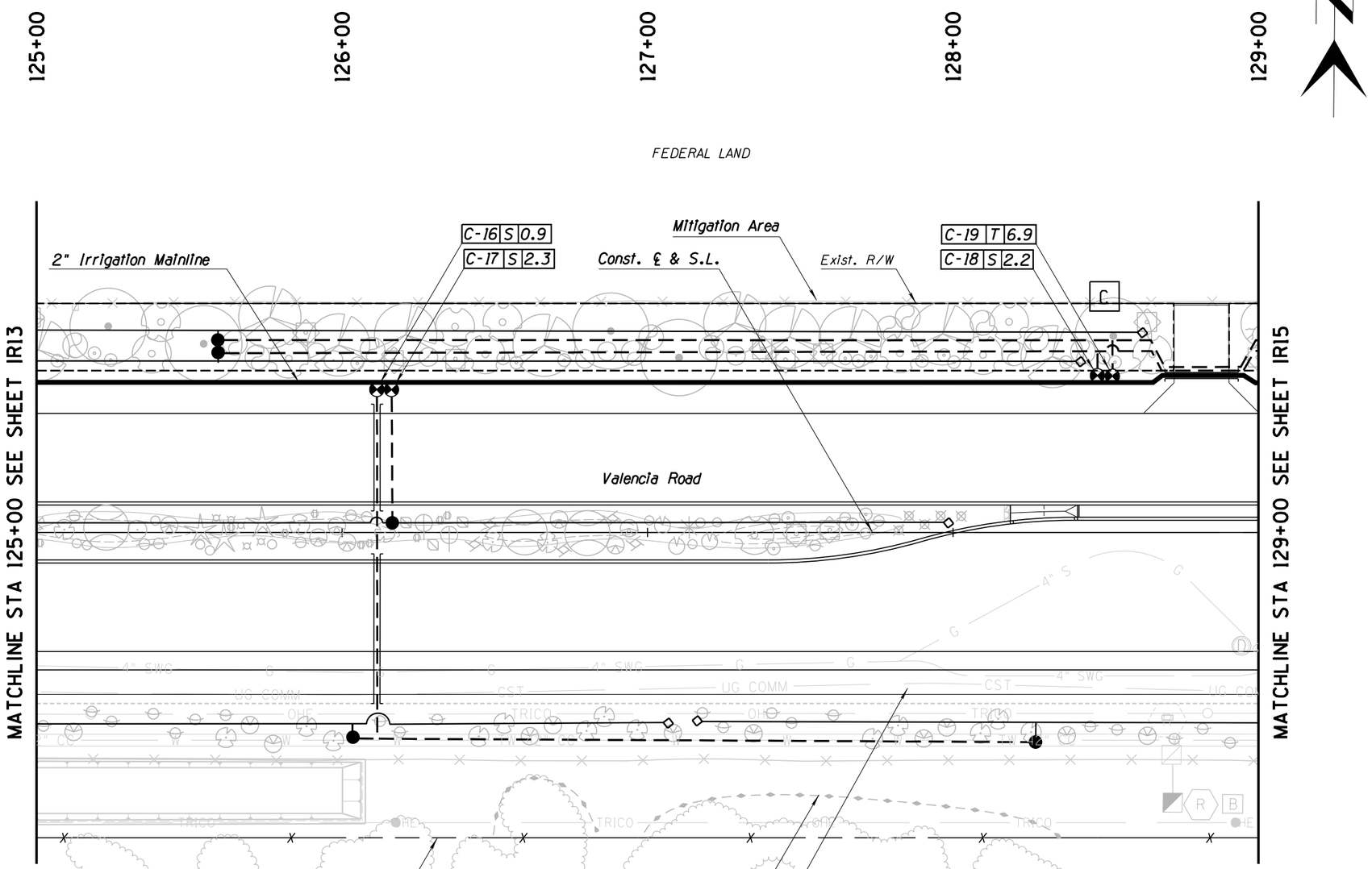
No.	Revision Description	Engineer	Date

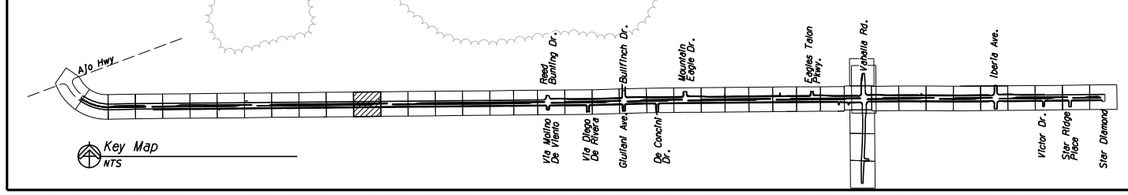
		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
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	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
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IRRIGATION PLAN
VALENCIA ROAD
STA. 125+00 TO 129+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR14 of IR49

Page 365 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Rebecca V. Field
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 06/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
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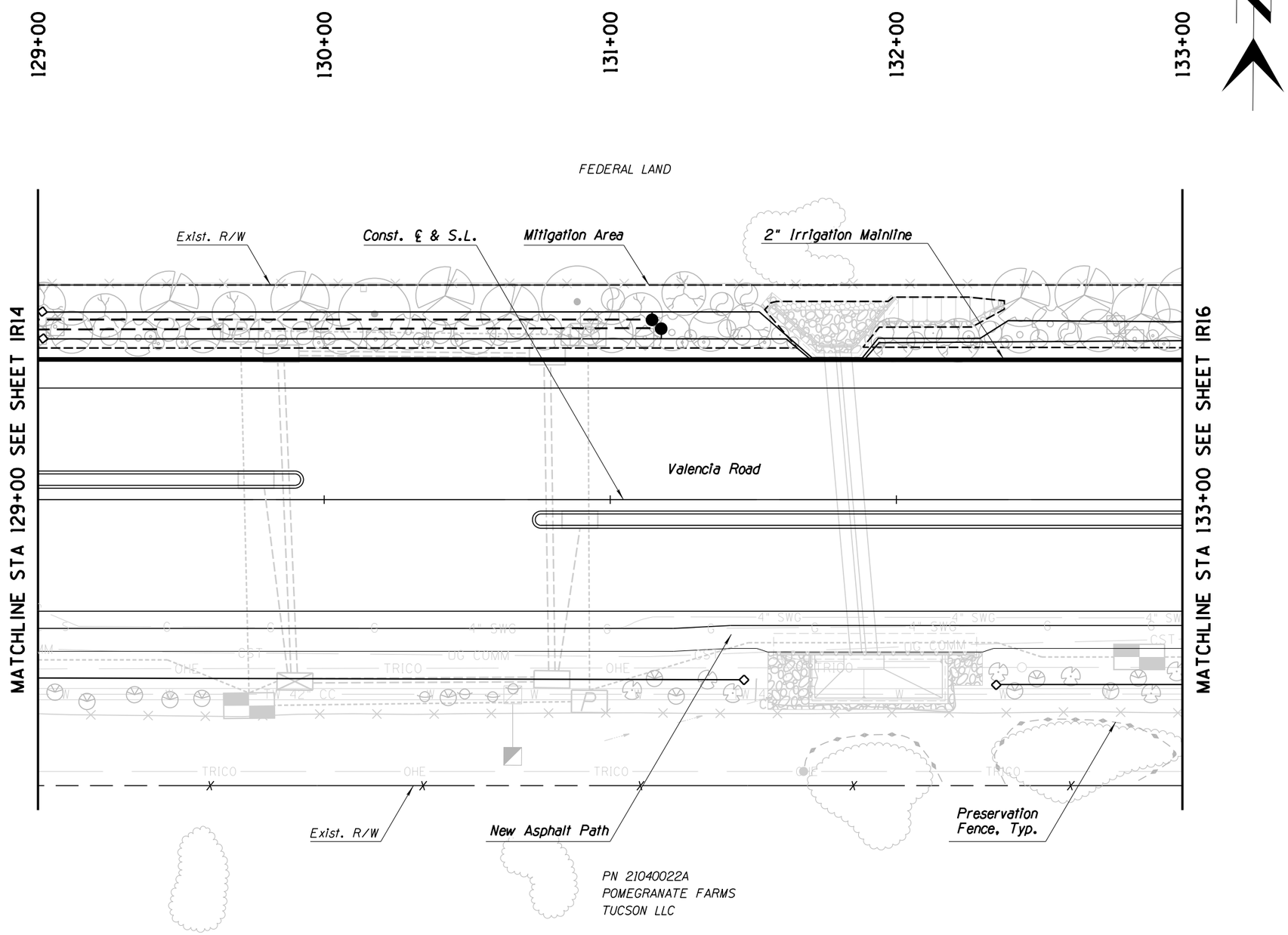
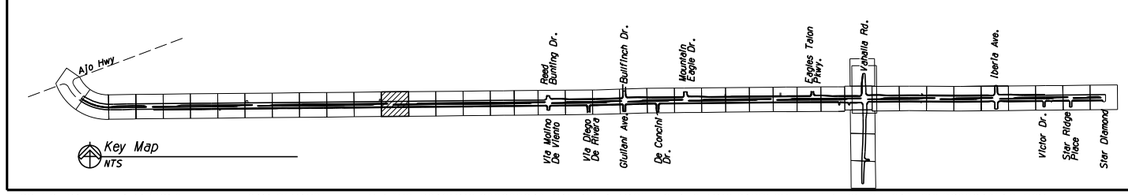
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





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IRRIGATION PLAN
VALENCIA ROAD
STA. 129+00 TO 133+00

20 0 20 40

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Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

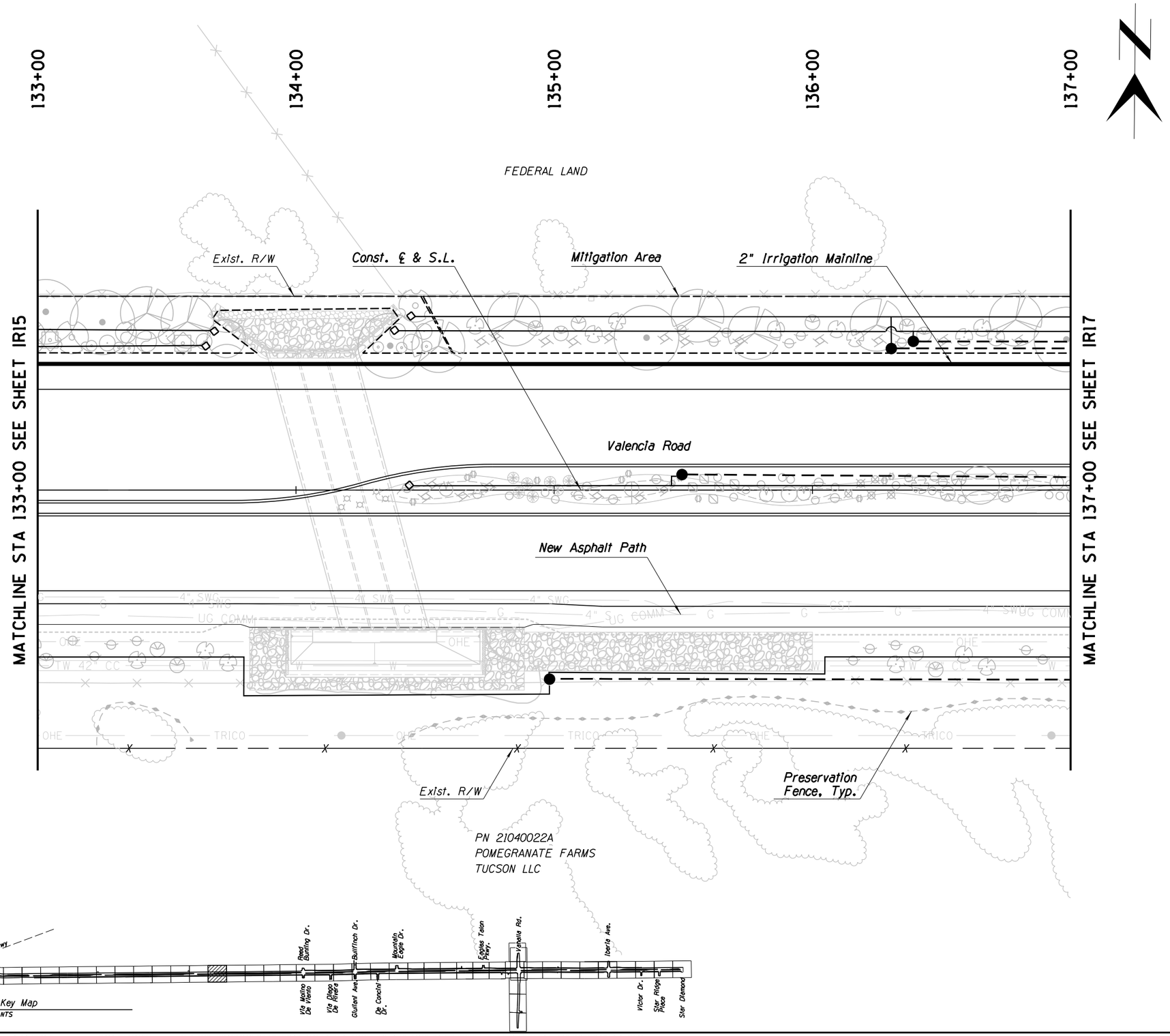
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales: Horiz. 1"=20' Vert. NA

Sheet IR15 of IR49

5:00:50 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\IRRIGATION\R022048I13.DGN



IRRIGATION EQUIPMENT SCHEDULE

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IRRIGATION PLAN
VALENCIA ROAD
STA. 133+00 TO 137+00

20 0 20 40

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Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Professional Engineer (Civil)
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 06/31/2019

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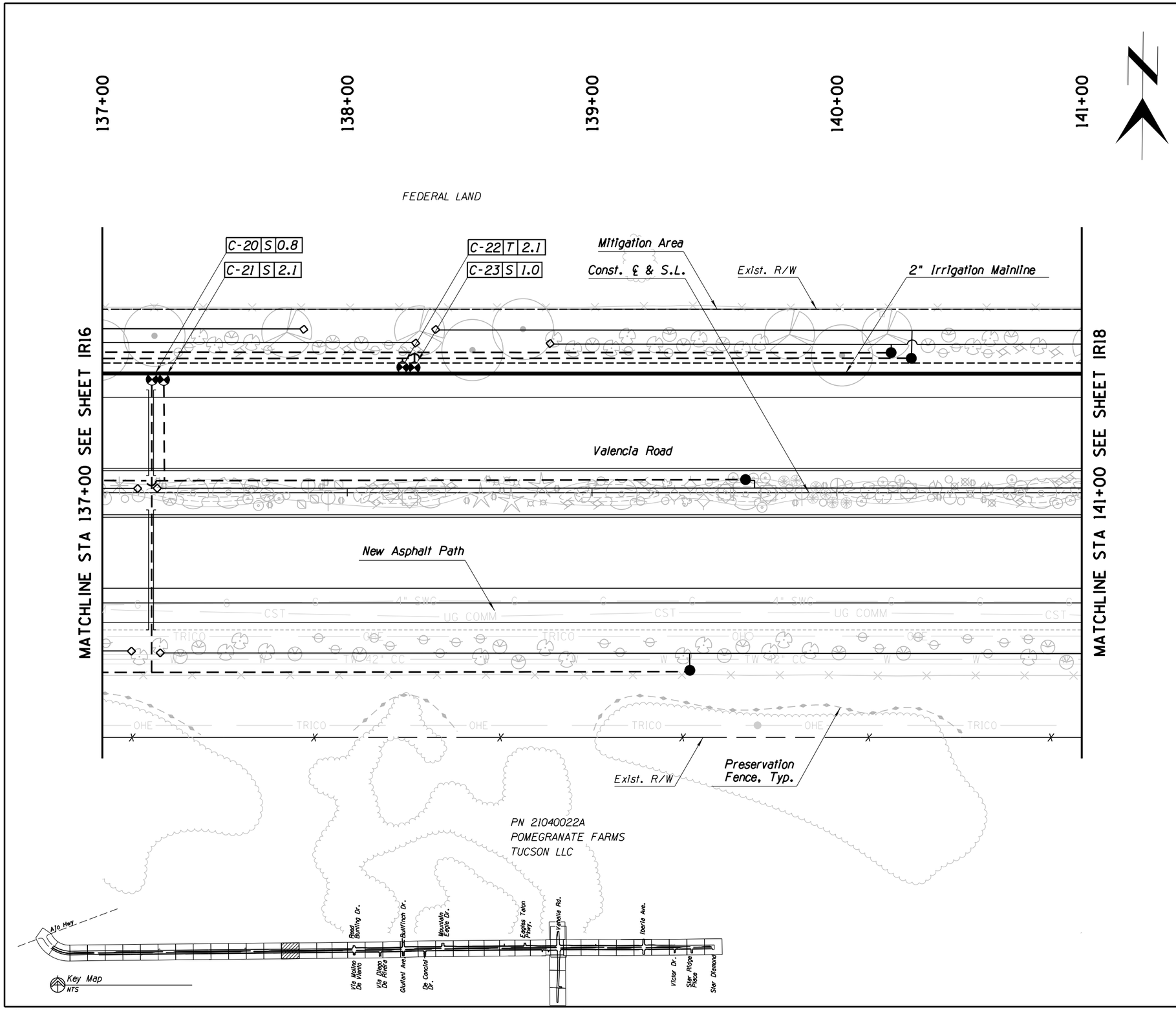
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. NA



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

1. Irrigation Plans are schematic. Placement of all irrigation components, including location of pipe, points of connection, valves, controllers and meters shall be field staked and approved by the Engineer prior to installation.
2. Irrigation mainline, water meter, valves, controllers and backflow preventer shall be placed outside of Utility Easements and within Pima County R/W. Wherever possible, submains and laterals shall be located outside of Utility Easements.
3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 137+00 TO 141+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' | Vert. NA

Sheet IR17 of IR49

Page 368 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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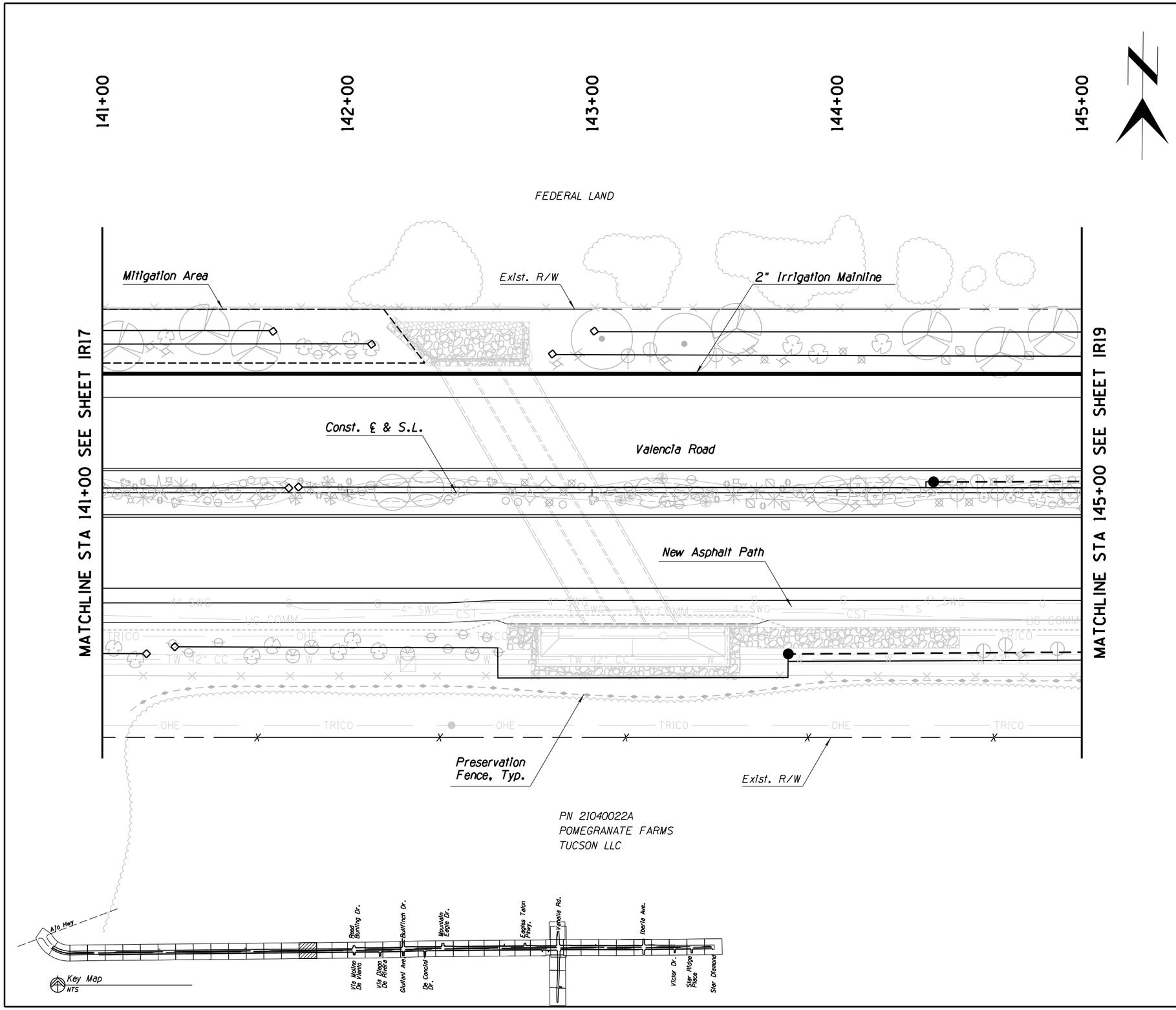
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
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	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Approx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 141+00 TO 145+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

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Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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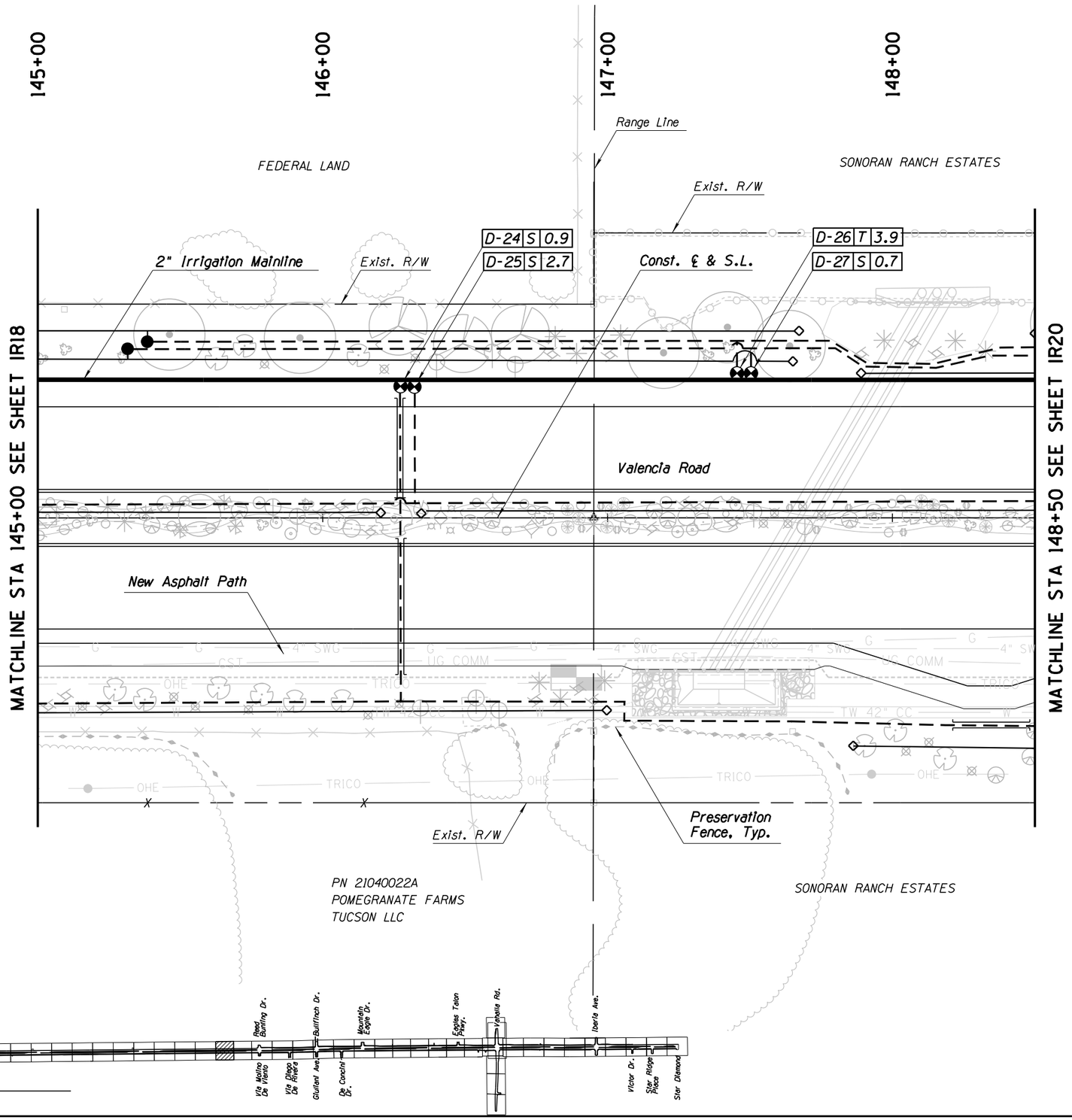
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet IR18 of IR49	Page 369 of 433



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
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	Mainline - Sch40 PVC	2"
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	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- A-1: Controller & Valve ID
- S: Shrub or Tree
- 1.5: Apprx. Flow (GPM)

NOTES:

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4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 145+00 TO 148+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 50732
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Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR19 of IR49

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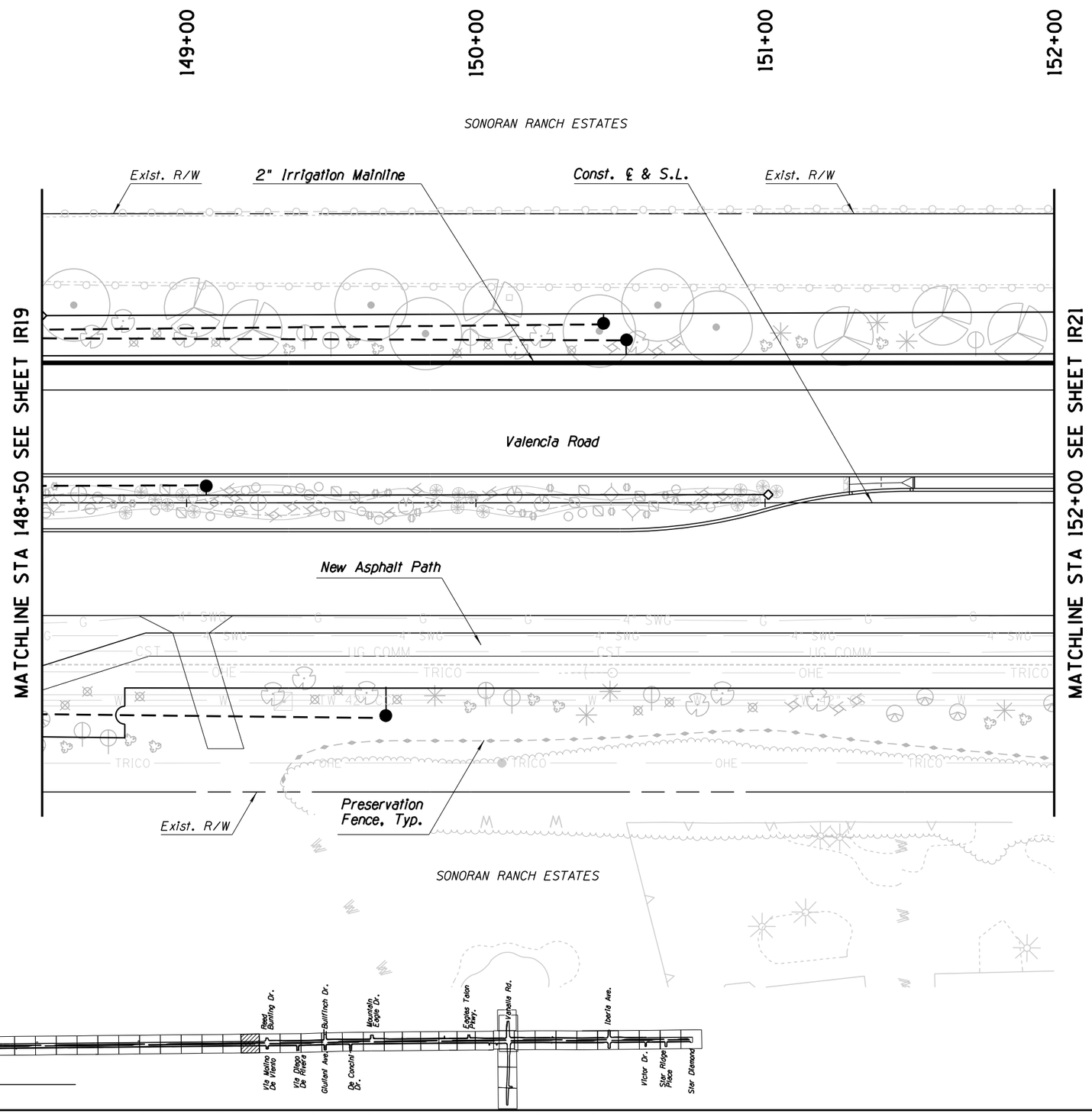

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 148+50 TO 152+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet IR20 of IR49

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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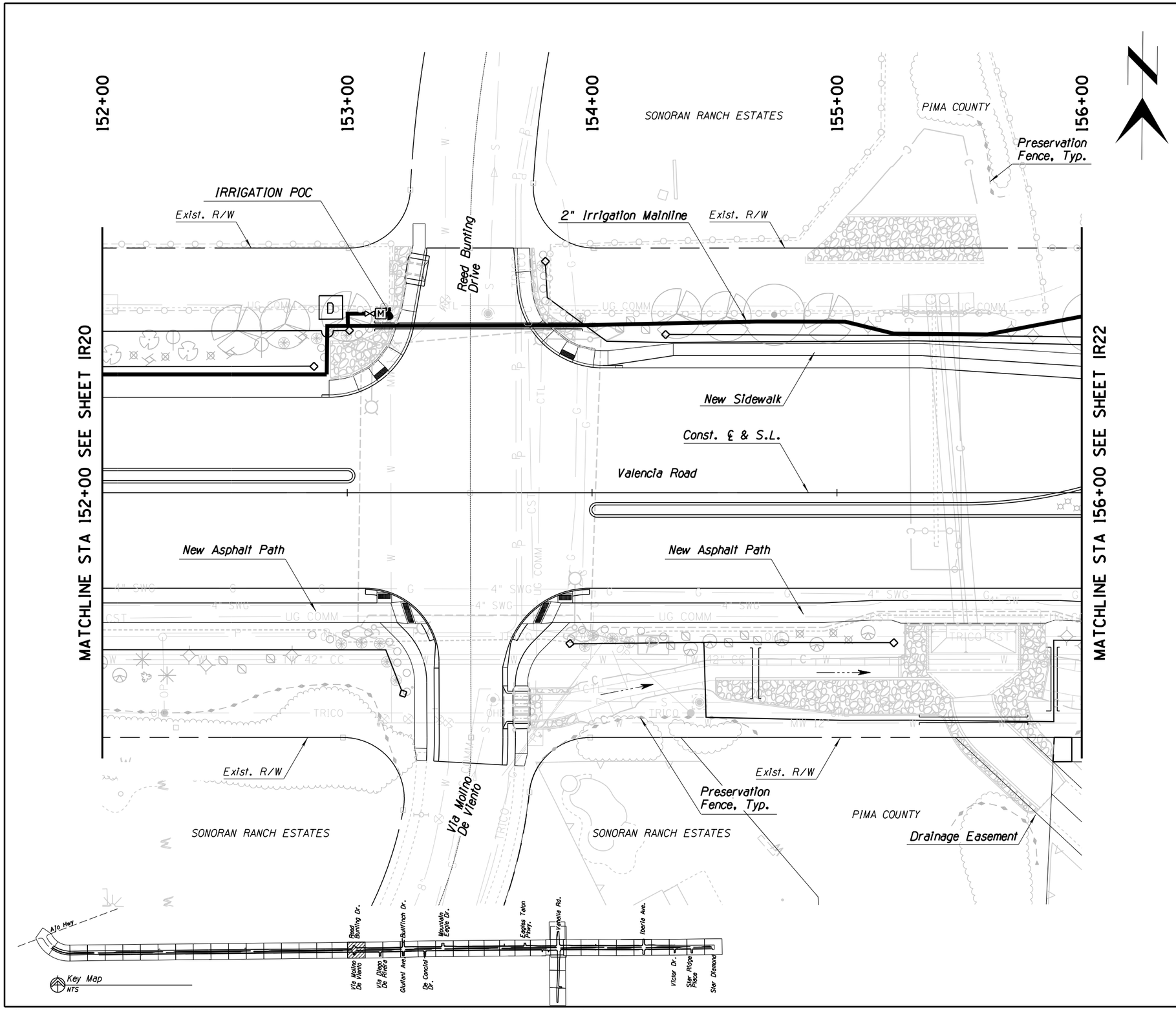
Tucson, AZ 85705
(520) 615-3191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
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——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
——	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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IRRIGATION PLAN
VALENCIA ROAD
STA. 152+00 TO 156+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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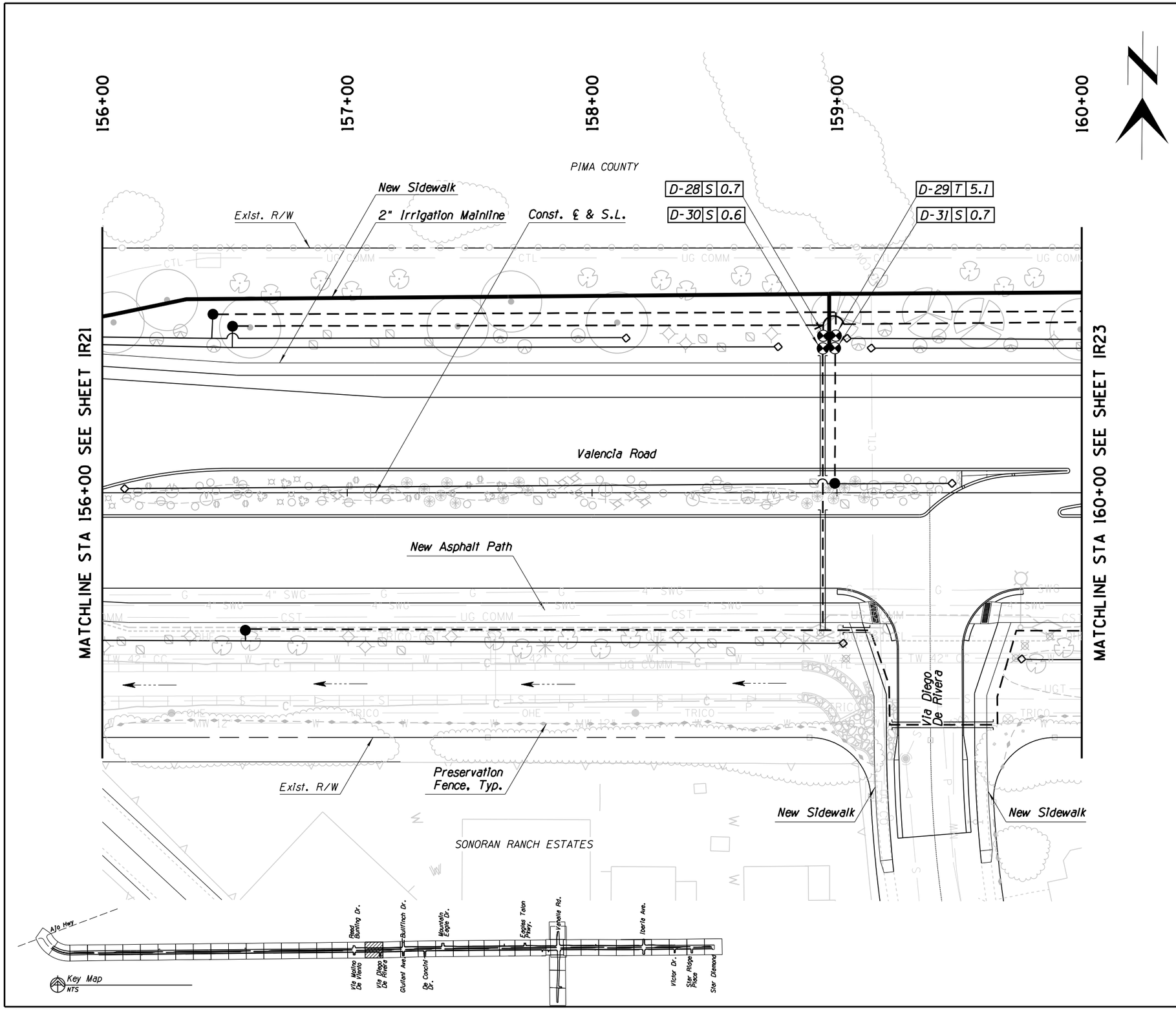
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. NA

5:00:53 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\IRRIGATION\R022048I19.DGN



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
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	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
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- S — Shrub or Tree
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IRRIGATION PLAN
VALENCIA ROAD
STA. 156+00 TO 160+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

	Date
Designed	K. Furenlid 01/2018
Drawn	K. Furenlid 01/2018
Checked	R. Field 01/2018
Proj. Engr.	R. Solis 01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No.
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REBECA V. FIELD
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ARIZONA, U.S.A.
Expires 03/31/2019

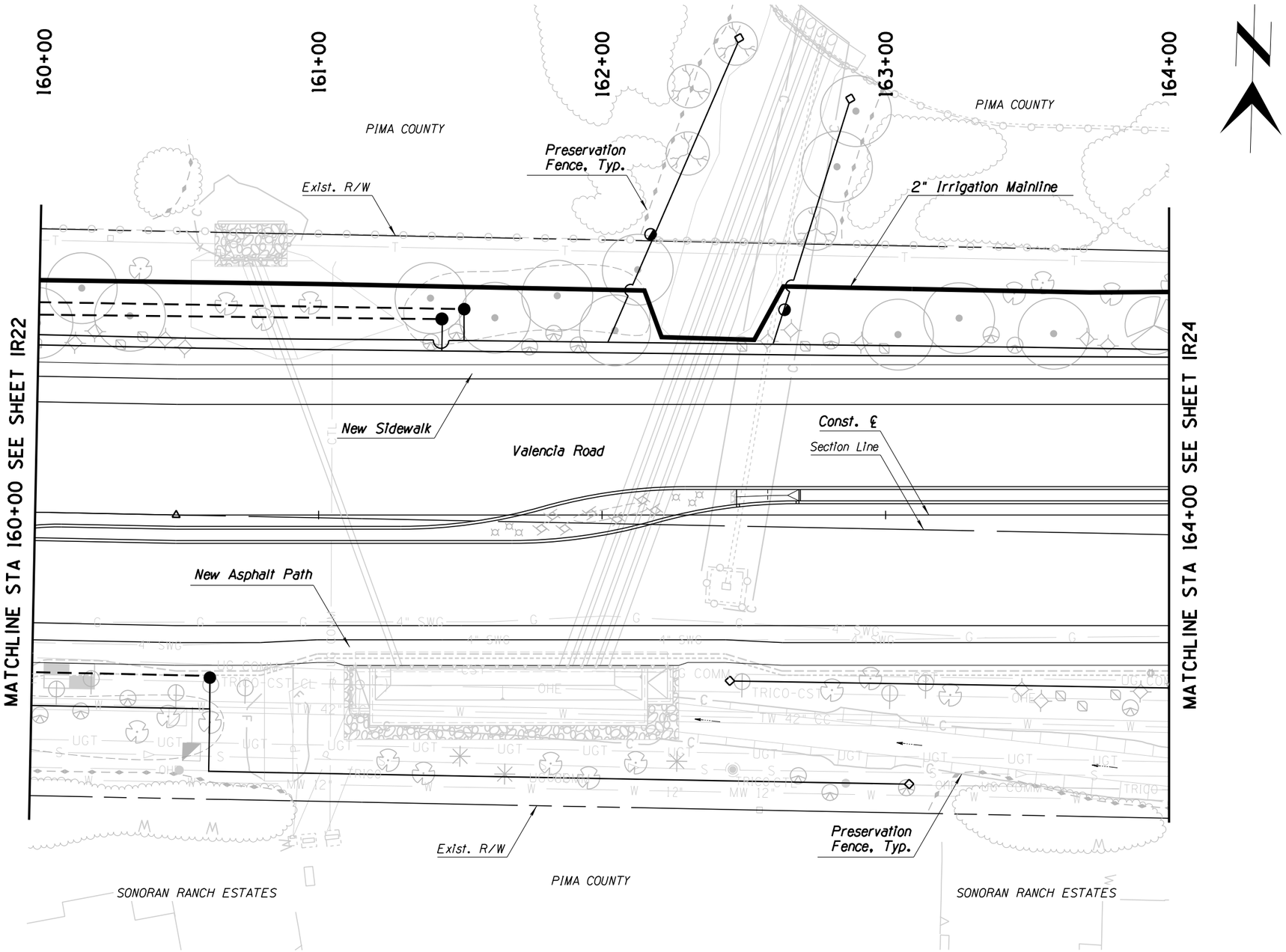
Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

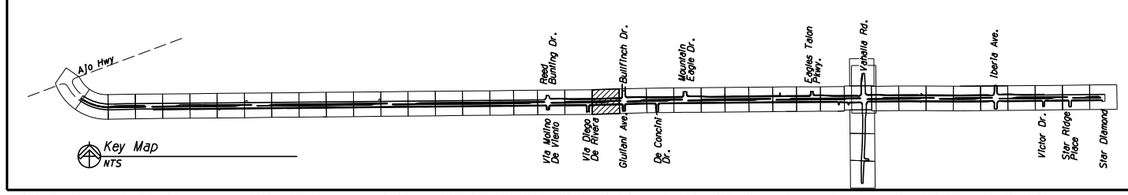
Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' | Vert. NA





Key Map
NTS

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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IRRIGATION PLAN
VALENCIA ROAD
STA. 160+00 TO 164+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR23 of IR49

Page 374 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 50732
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Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

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Tucson, AZ 85705
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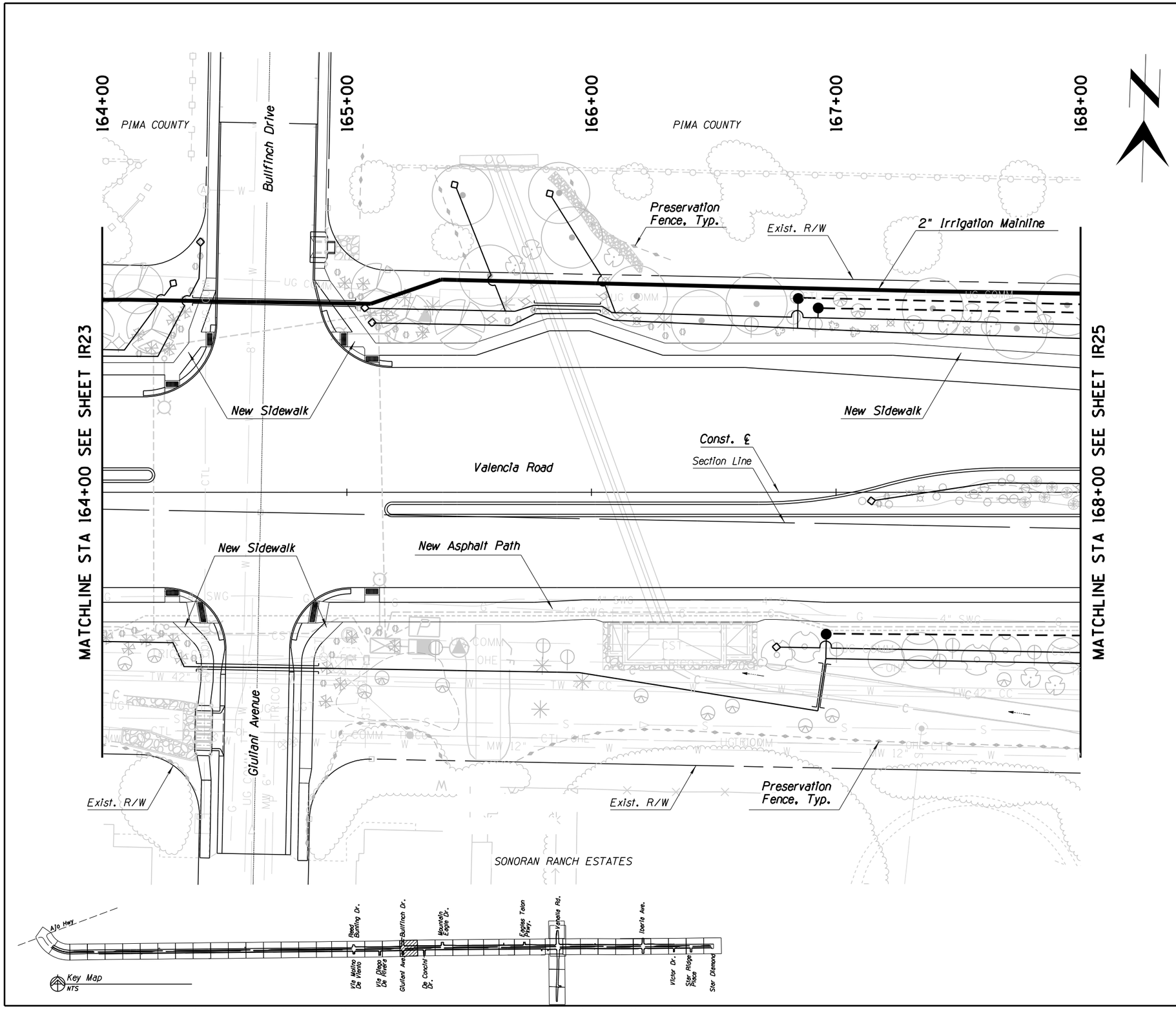
PROJECT NO. 4RTVWE



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SYM	ITEM	SIZE
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IRRIGATION PLAN
VALENCIA ROAD
STA. 164+00 TO 168+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR24 of IR49

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

Designed	K. Furenlid
Drawn	K. Furenlid
Checked	R. Field
Proj. Engr.	R. Solis
Date	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No.
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REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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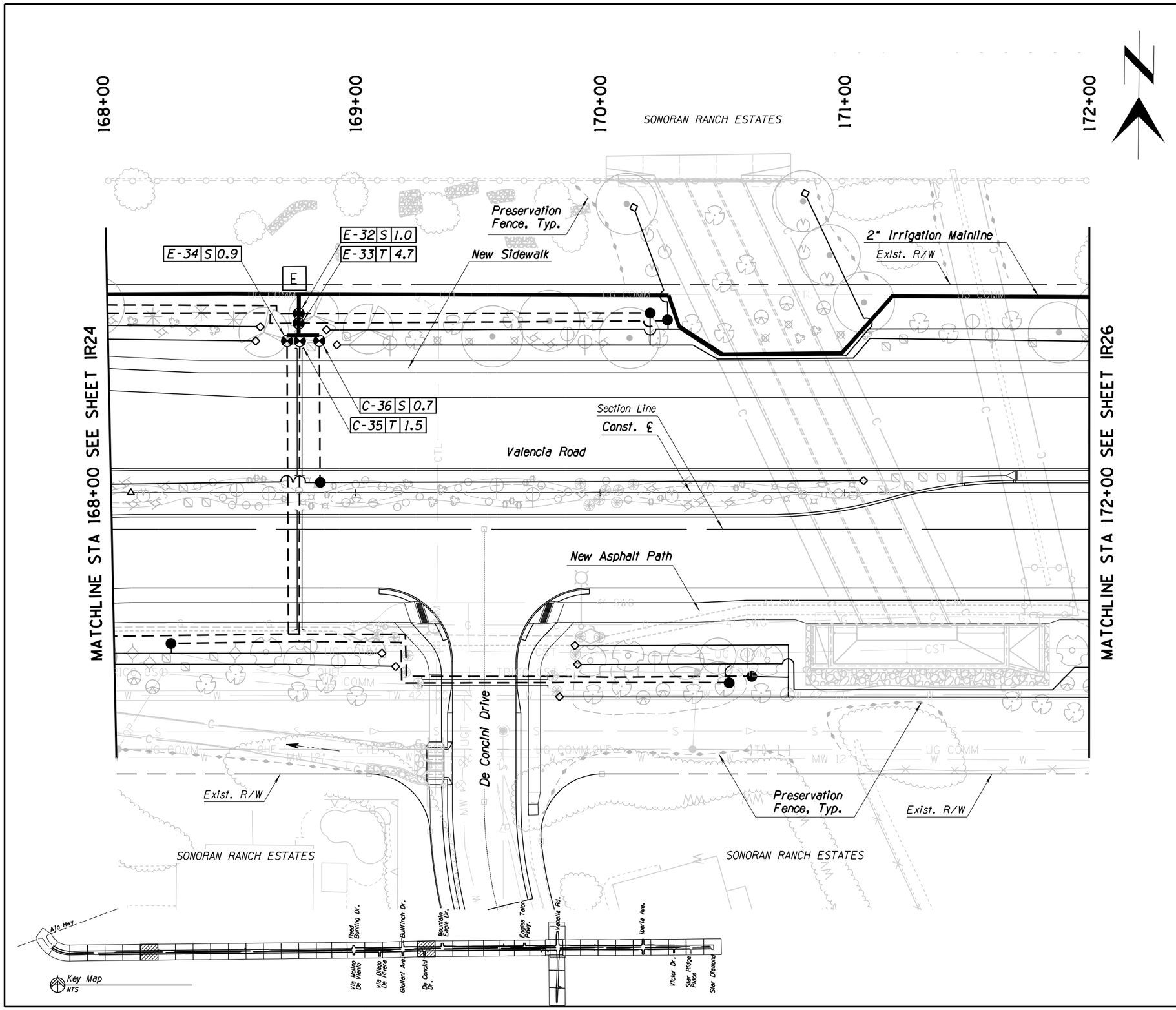
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
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	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 S 1.5 — Apprx. Flow (GPM); Shrub or Tree; Controller & Valve ID

NOTES:

1. Irrigation Plans are schematic. Placement of all irrigation components, including location of pipe, points of connection, valves, controllers and meters shall be field staked and approved by the Engineer prior to installation.
2. Irrigation mainline, water meter, valves, controllers and backflow preventer shall be placed outside of Utility Easements and within Pima County R/W. Wherever possible, submains and laterals shall be located outside of Utility Easements.
3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 168+00 TO 172+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet IR25 of IR49	Page 376 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

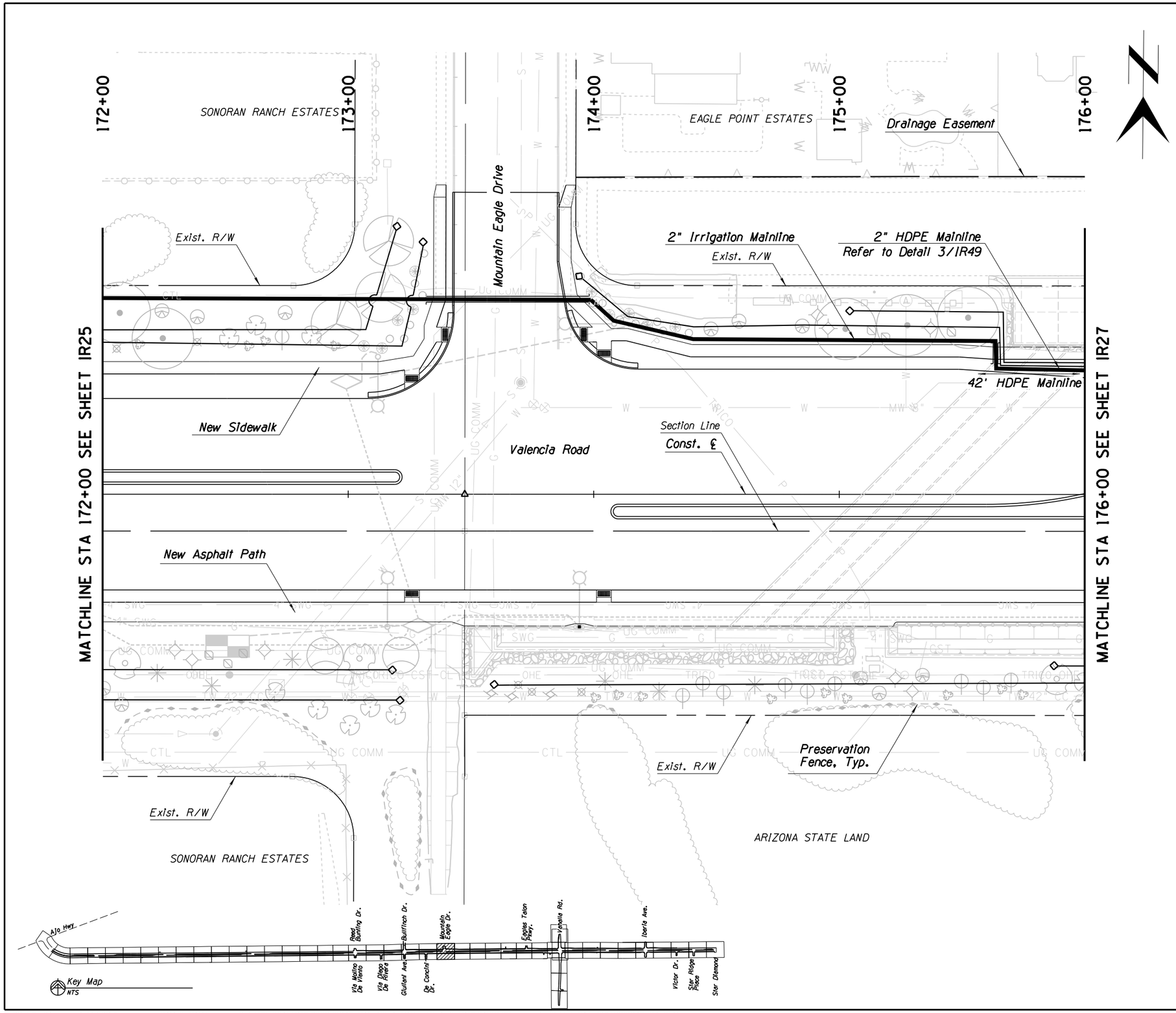
No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/05/18
ARIZONA, U.S.A.
Expires 06/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 172+00 TO 176+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR26 of IR49

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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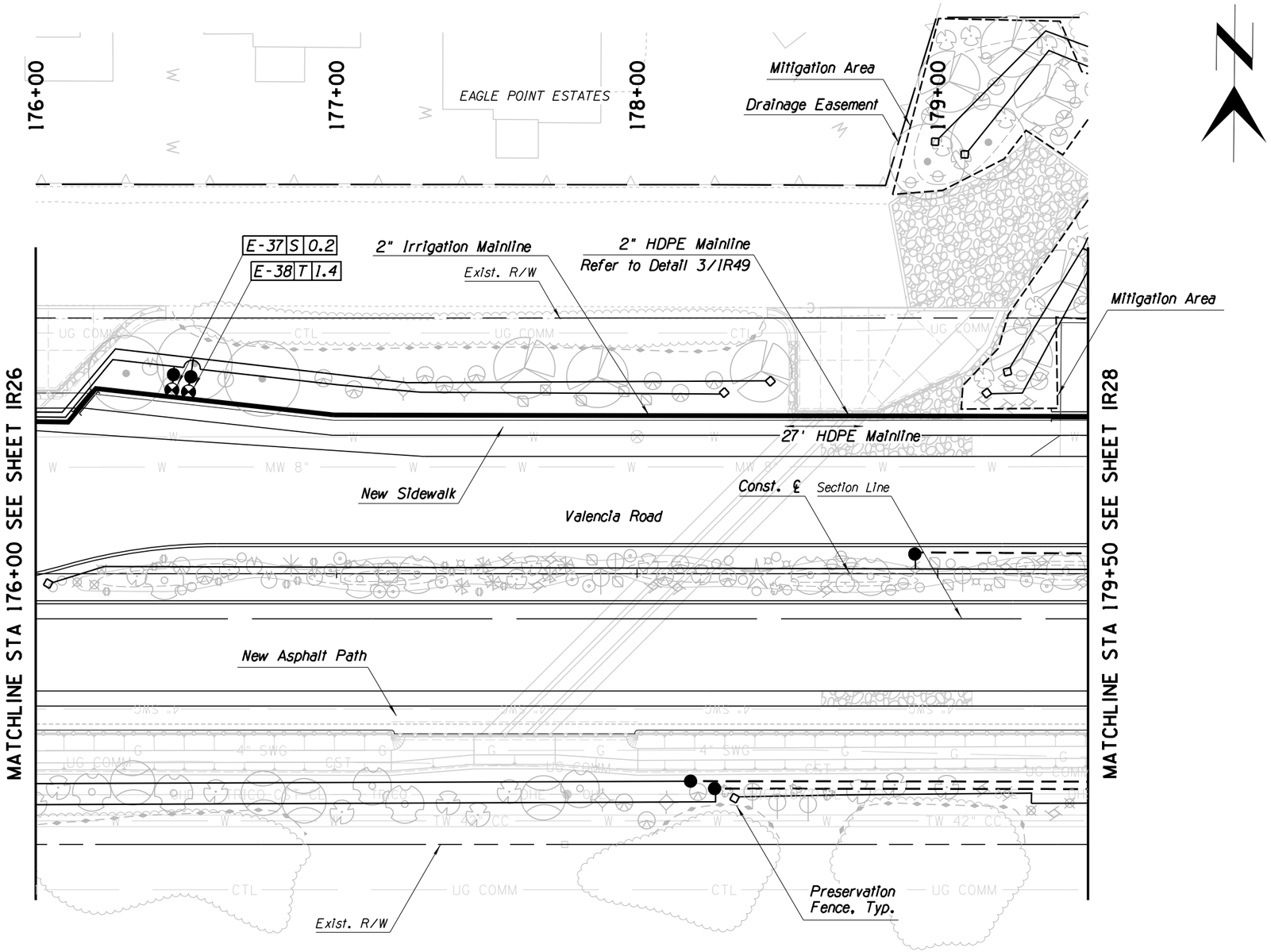
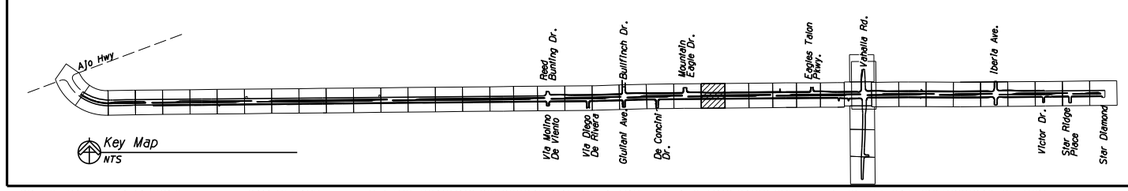
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 S 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 176+00 TO 179+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet IR27 of IR49

Page 378 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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Tucson, AZ 85705
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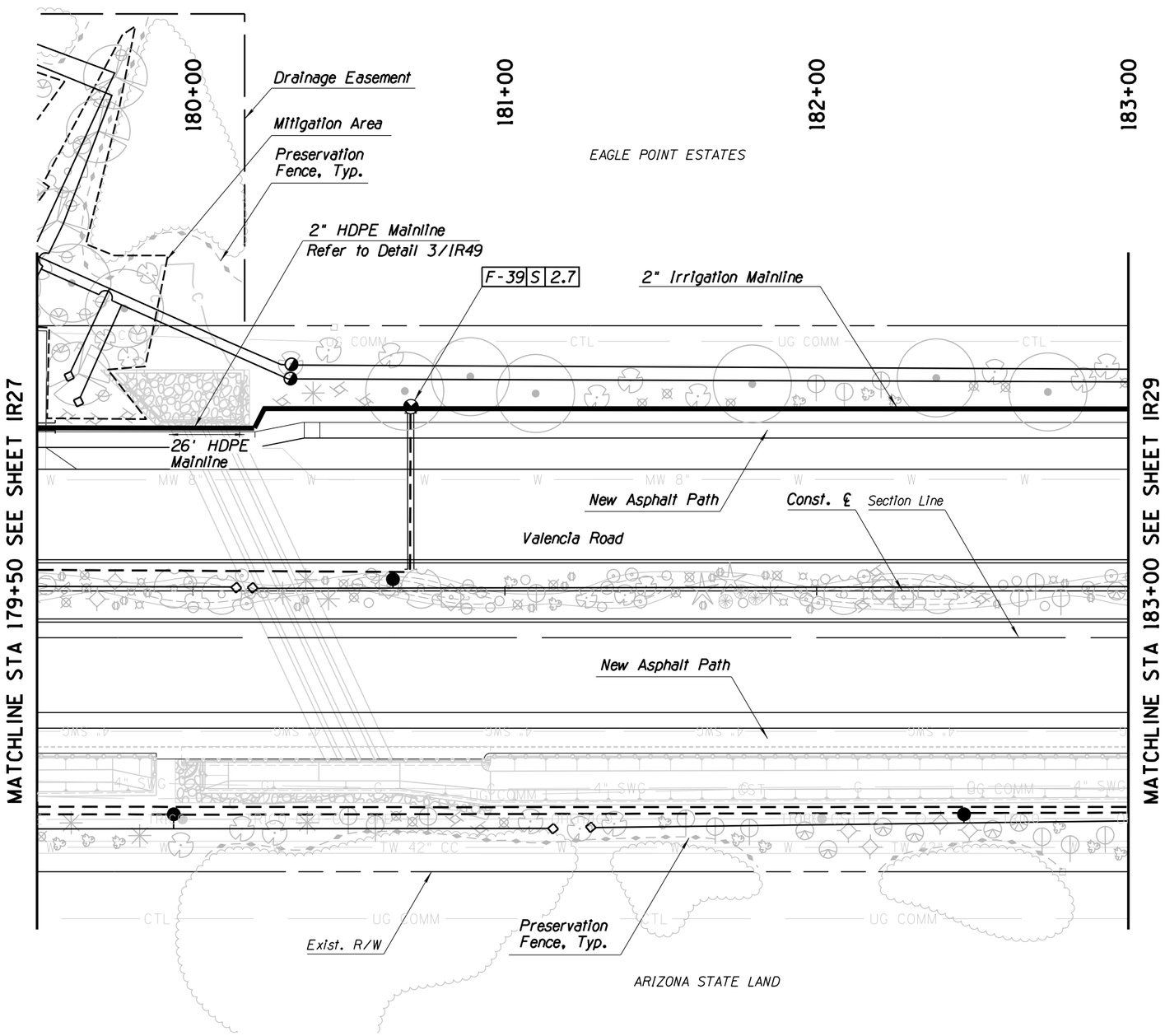
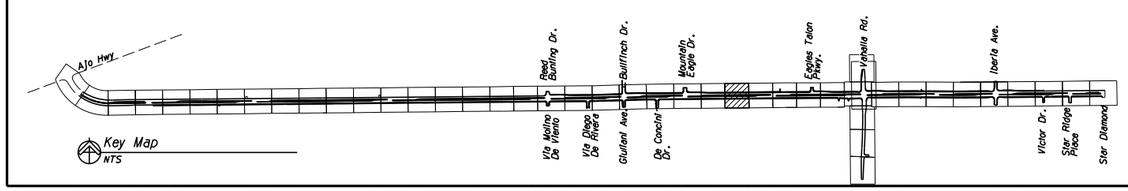
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 179+50 TO 183+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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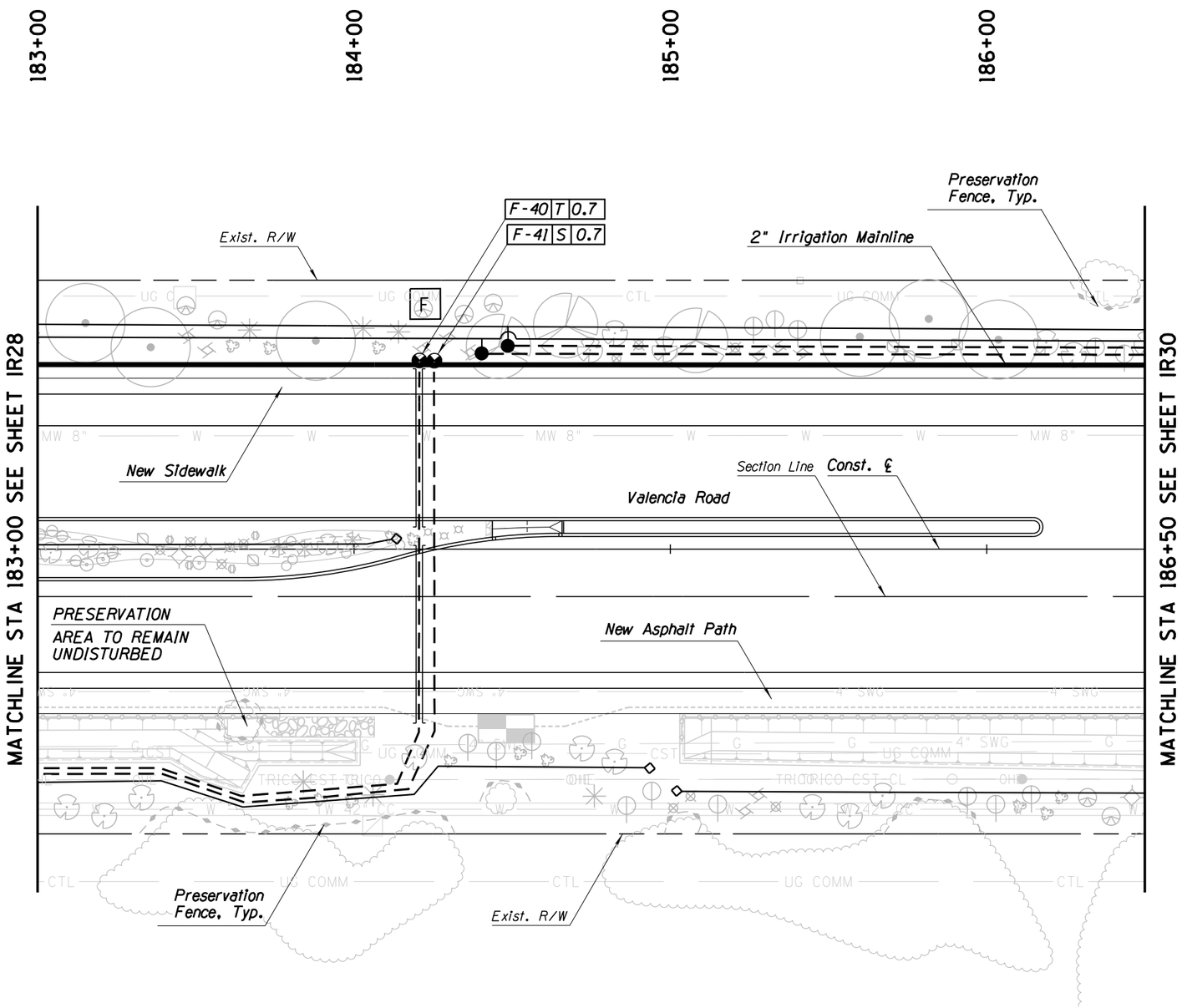
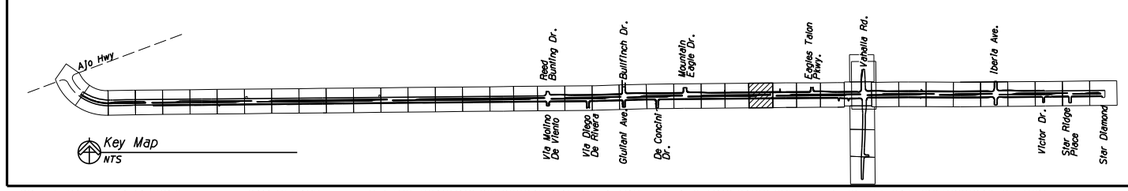
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' | Vert. NA





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
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	Mainline - Sch40 PVC	2"
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	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 183+00 TO 186+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
50732
REBECCA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

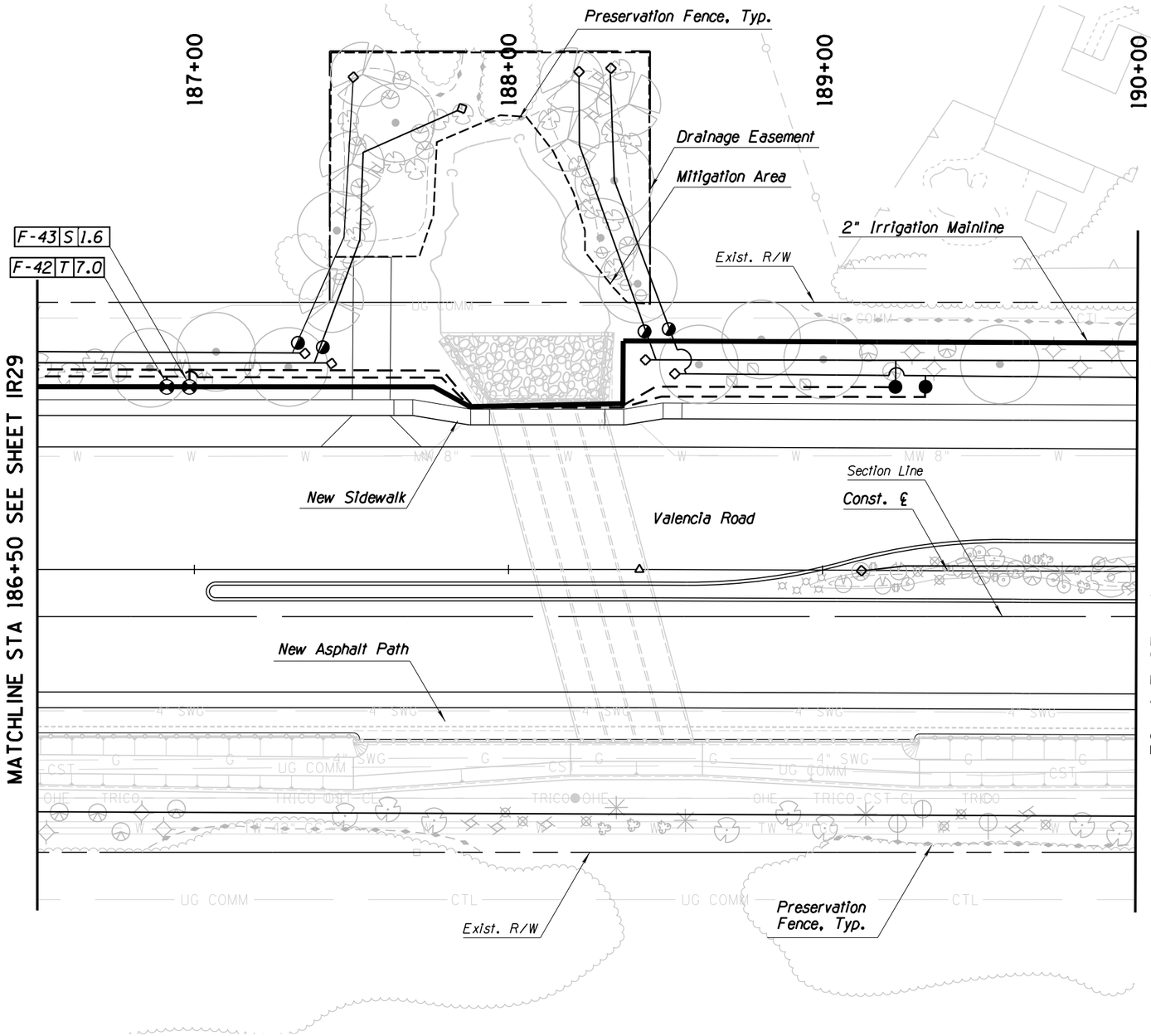
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

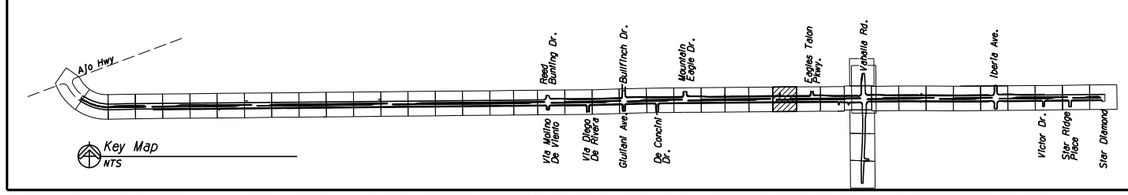
#4RTVWE

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR29 of IR49

5:00:57 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\IRRIGATION\R022048I27.DGN





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

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IRRIGATION PLAN
VALENCIA ROAD
STA. 186+50 TO 190+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' | Vert. NA

Sheet IR30 of IR49

Page 381 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
50732
REBECA V. FIELD
Date signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
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(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
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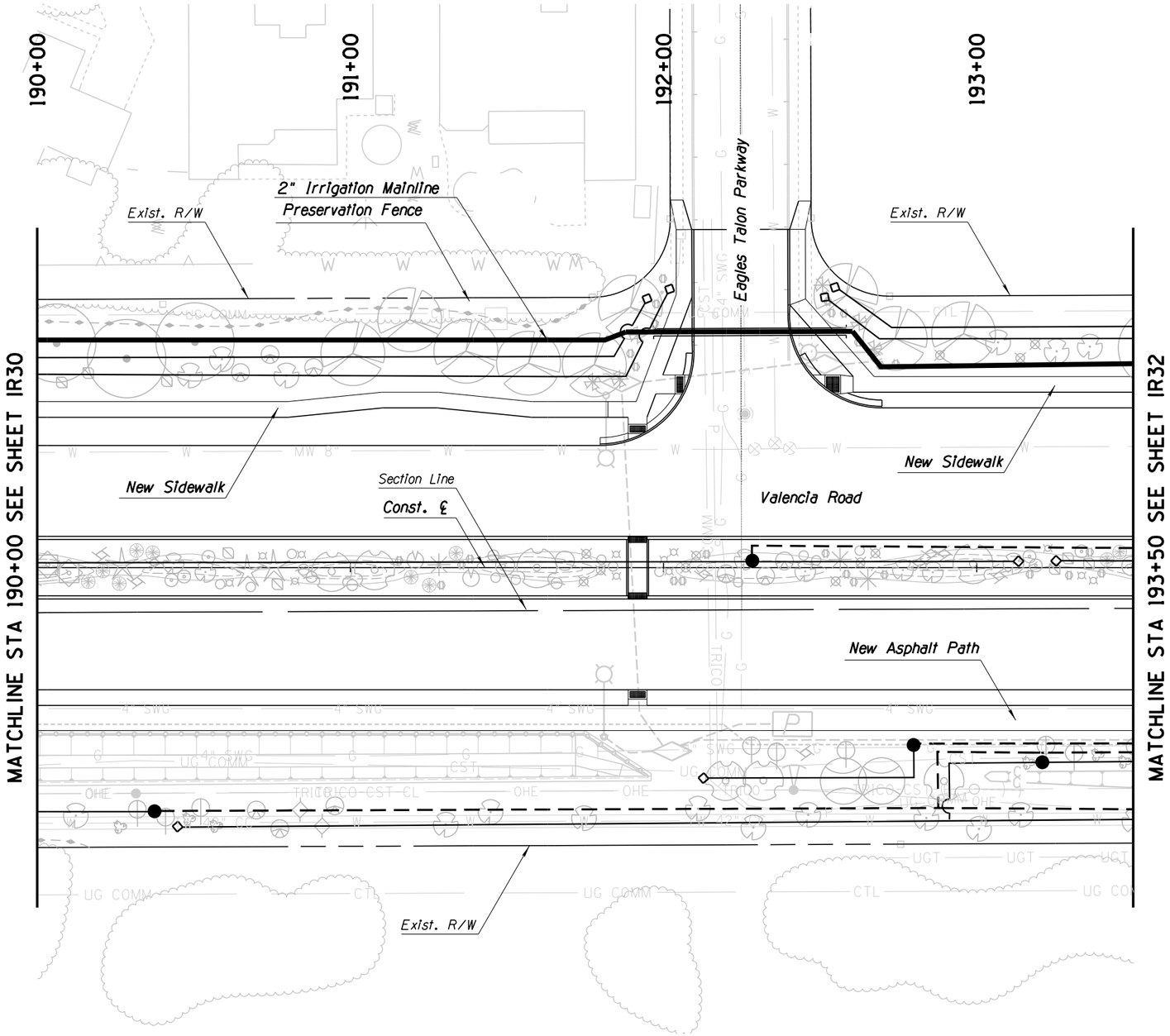
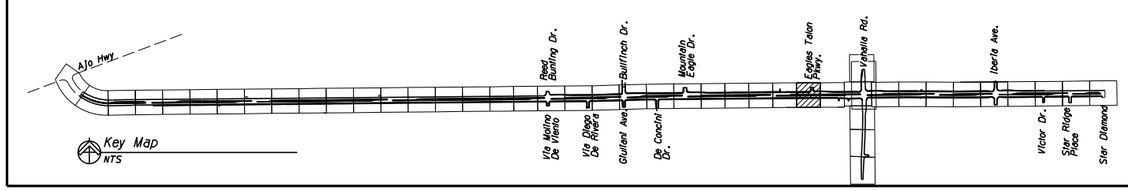
PROJECT NO. 4RTVWE





Key Map
NTS

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
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	Isolation Valve (Mainline)	2"
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	Mainline - HDPE	2"
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	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
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IRRIGATION PLAN
VALENCIA ROAD
STA. 190+00 TO 193+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR31 of IR49

Page 382 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No.
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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333 E. Wetmore Road
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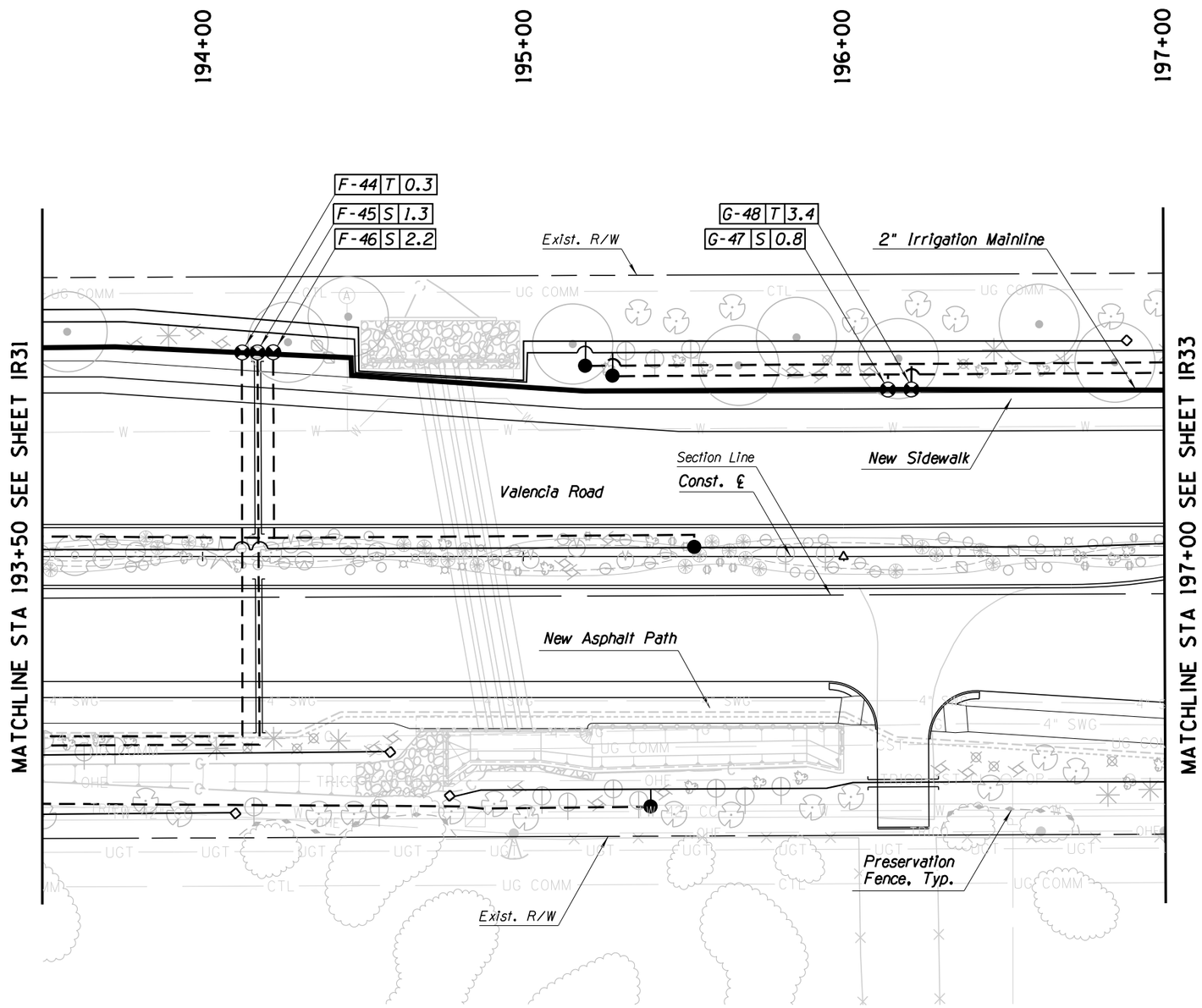
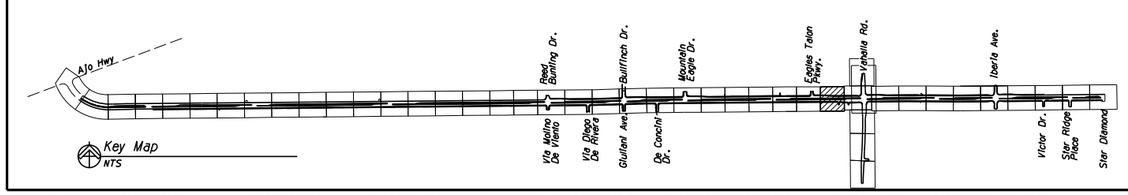
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
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Valve Callouts: A-1 | S | 1.5
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IRRIGATION PLAN
VALENCIA ROAD
STA. 193+50 TO 197+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' | Vert. NA

Sheet IR32 of IR49

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

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

VALENCIA ROAD
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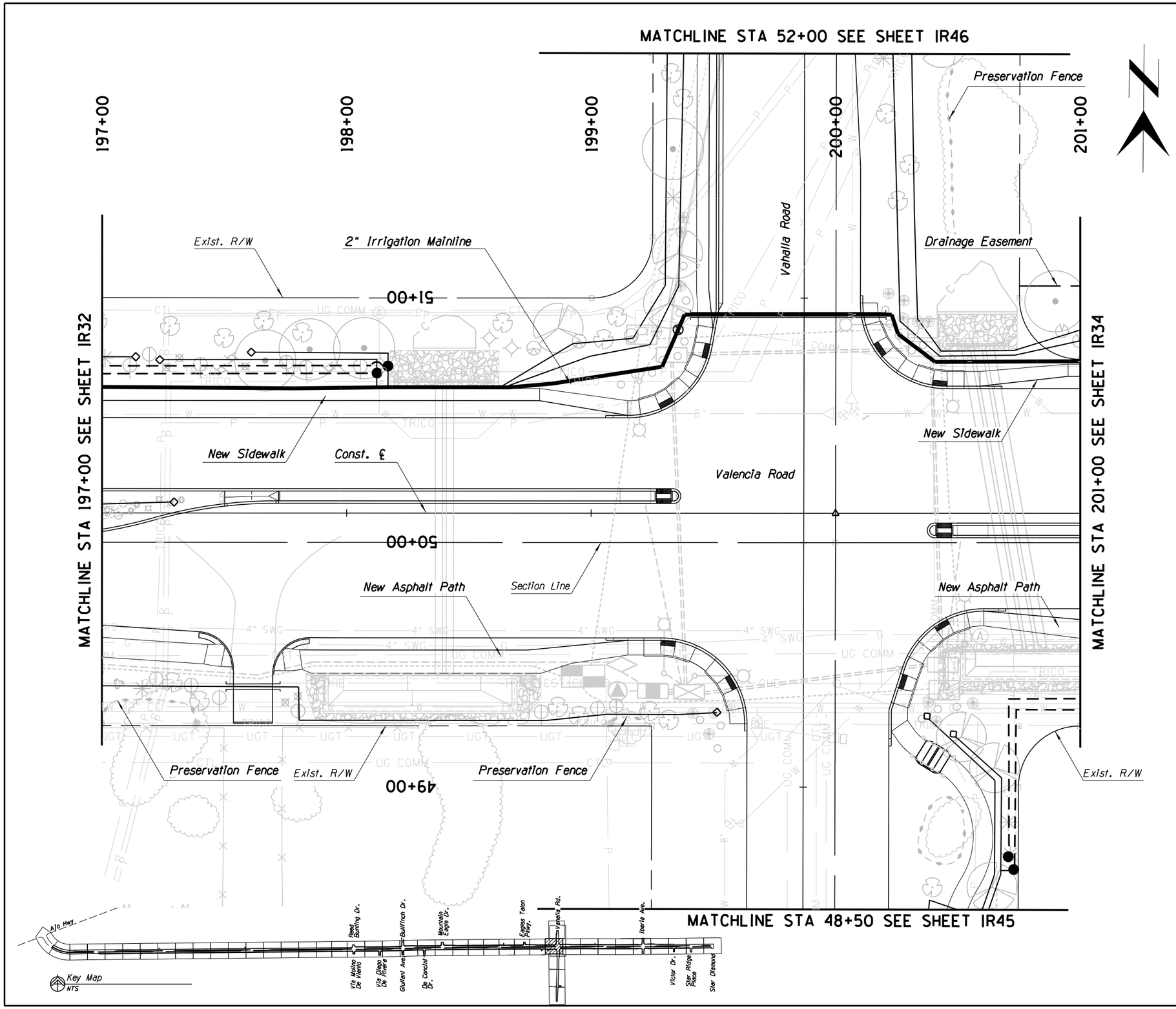
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Approx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

1. Irrigation Plans are schematic. Placement of all irrigation components, including location of pipe, points of connection, valves, controllers and meters shall be field staked and approved by the Engineer prior to installation.
2. Irrigation mainline, water meter, valves, controllers and backflow preventer shall be placed outside of Utility Easements and within Pima County R/W. Wherever possible, submains and laterals shall be located outside of Utility Easements.
3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 197+00 TO 201+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet IR33 of IR49	Page 384 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

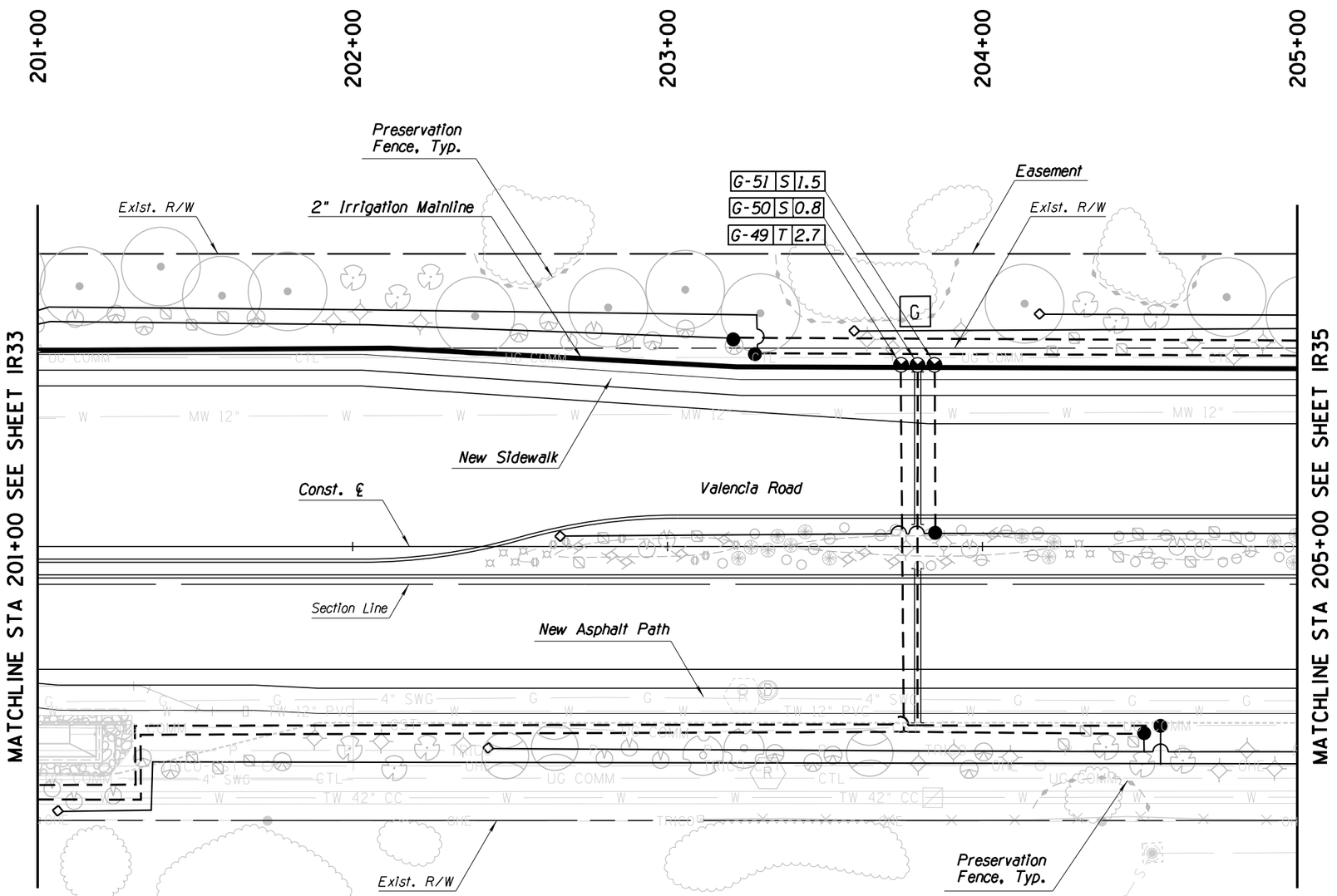
No.	Revision Description	Engineer	Date

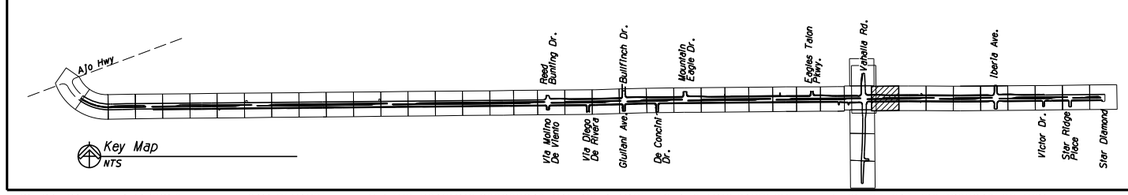
		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
●	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
——	Mainline - Sch40 PVC	2"
——	Mainline - HDPE	2"
- - -	Submain - Sch 40 PVC	1"
——	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 201+00 TO 205+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR34 of IR49

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

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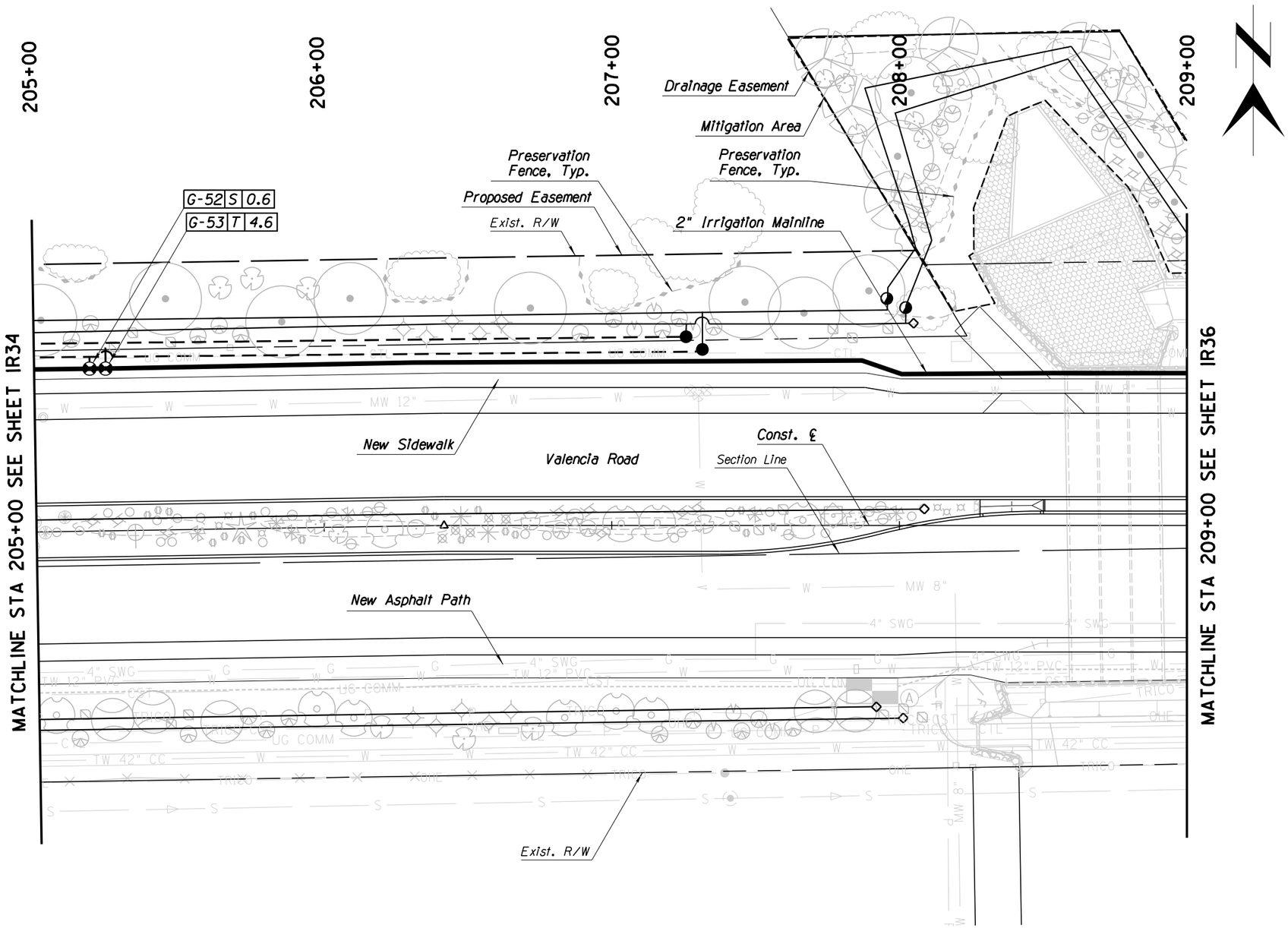
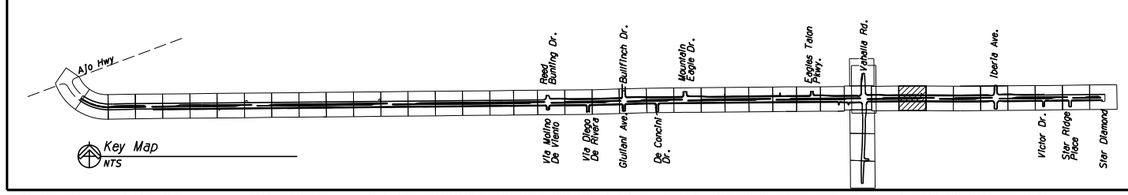
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Key Map
NTS

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

NOTES:

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3. Mainline and submains shall run parallel to Valencia Road where possible.
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IRRIGATION PLAN
VALENCIA ROAD
STA. 205+00 TO 209+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR35 of IR49

Page 386 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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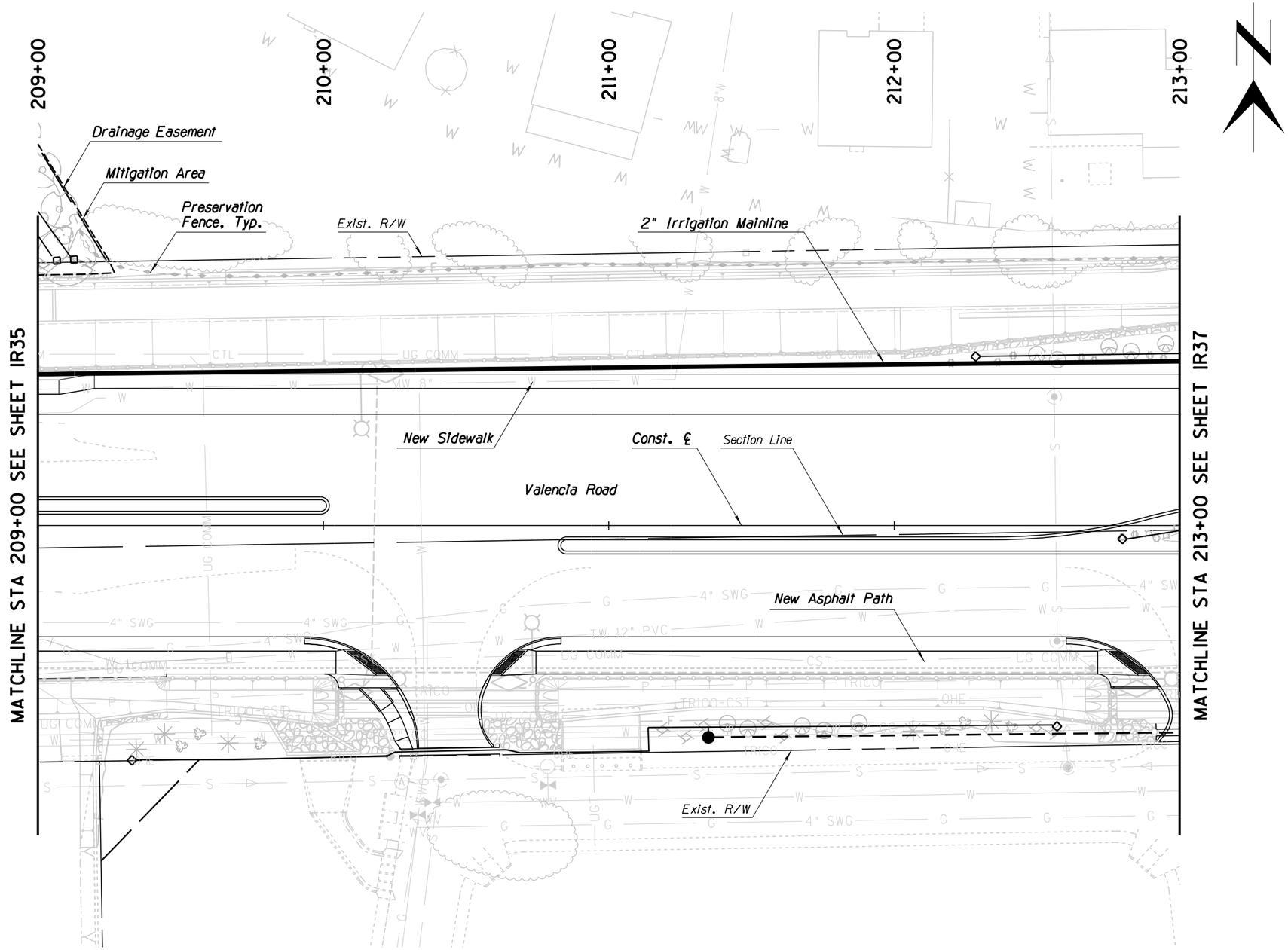

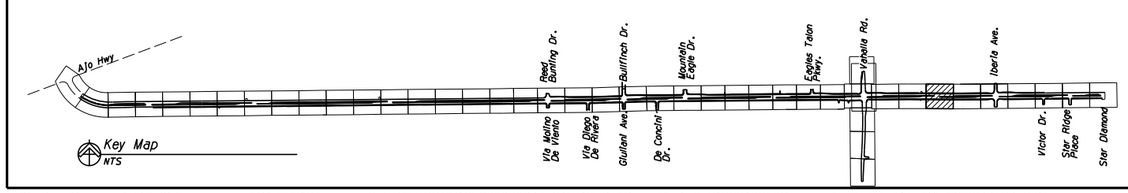

Key Map
NTS

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
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BP	Prefabricated Booster Pump Station	1 HP
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◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
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IRRIGATION PLAN
VALENCIA ROAD
STA. 209+00 TO 213+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' | Vert. NA

Sheet IR36 of IR49

Page 387 of 433

Ana M. Olivares, P.E., Director

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
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Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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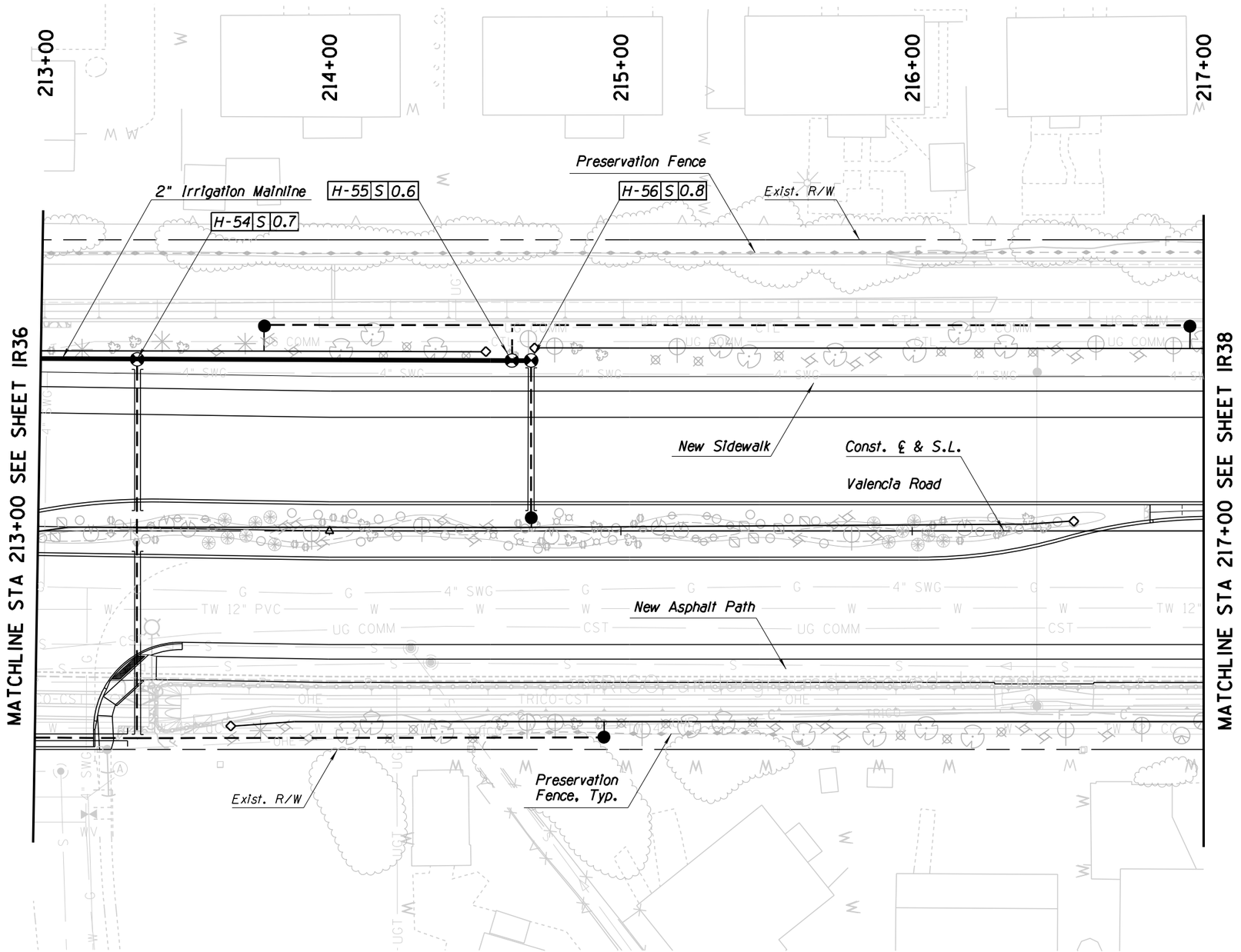

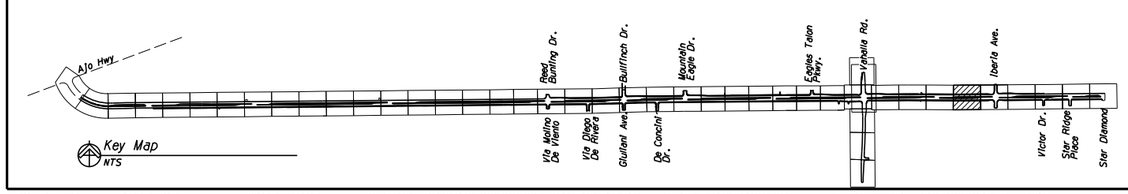

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
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	Lateral Line - Sch 40 PVC	¾"
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	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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IRRIGATION PLAN
VALENCIA ROAD
STA. 213+00 TO 217+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20'	Sheet IR37 of IR49	Page 388 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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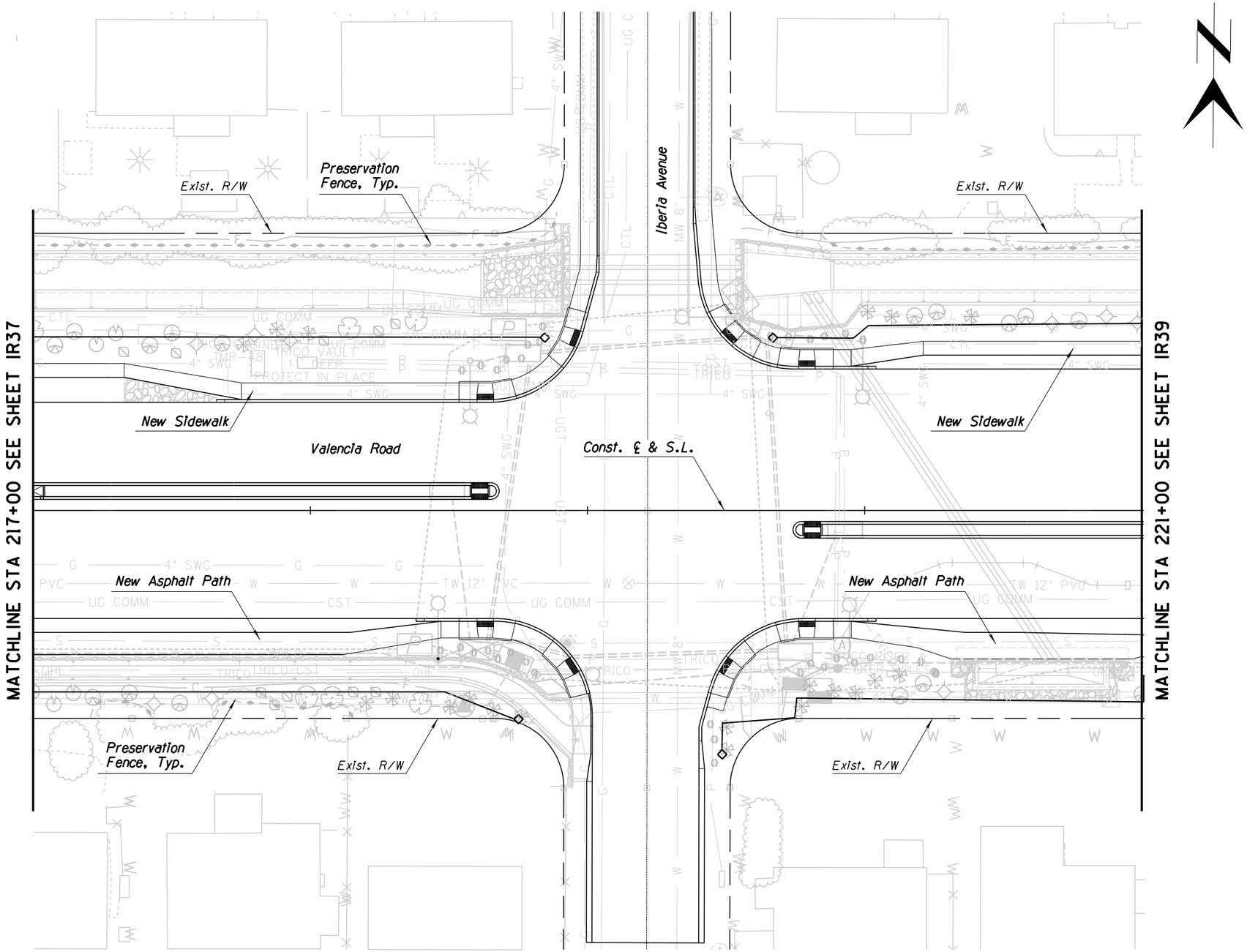
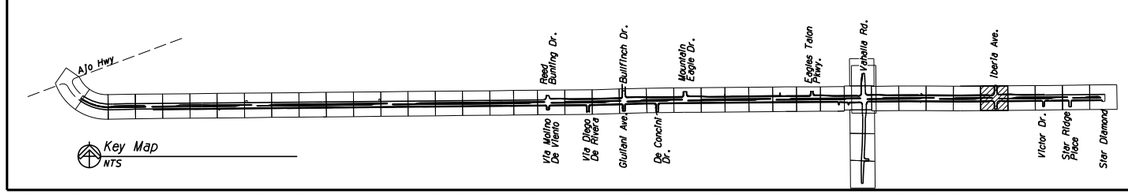
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax: (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
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4. ⊓ indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 217+00 TO 221+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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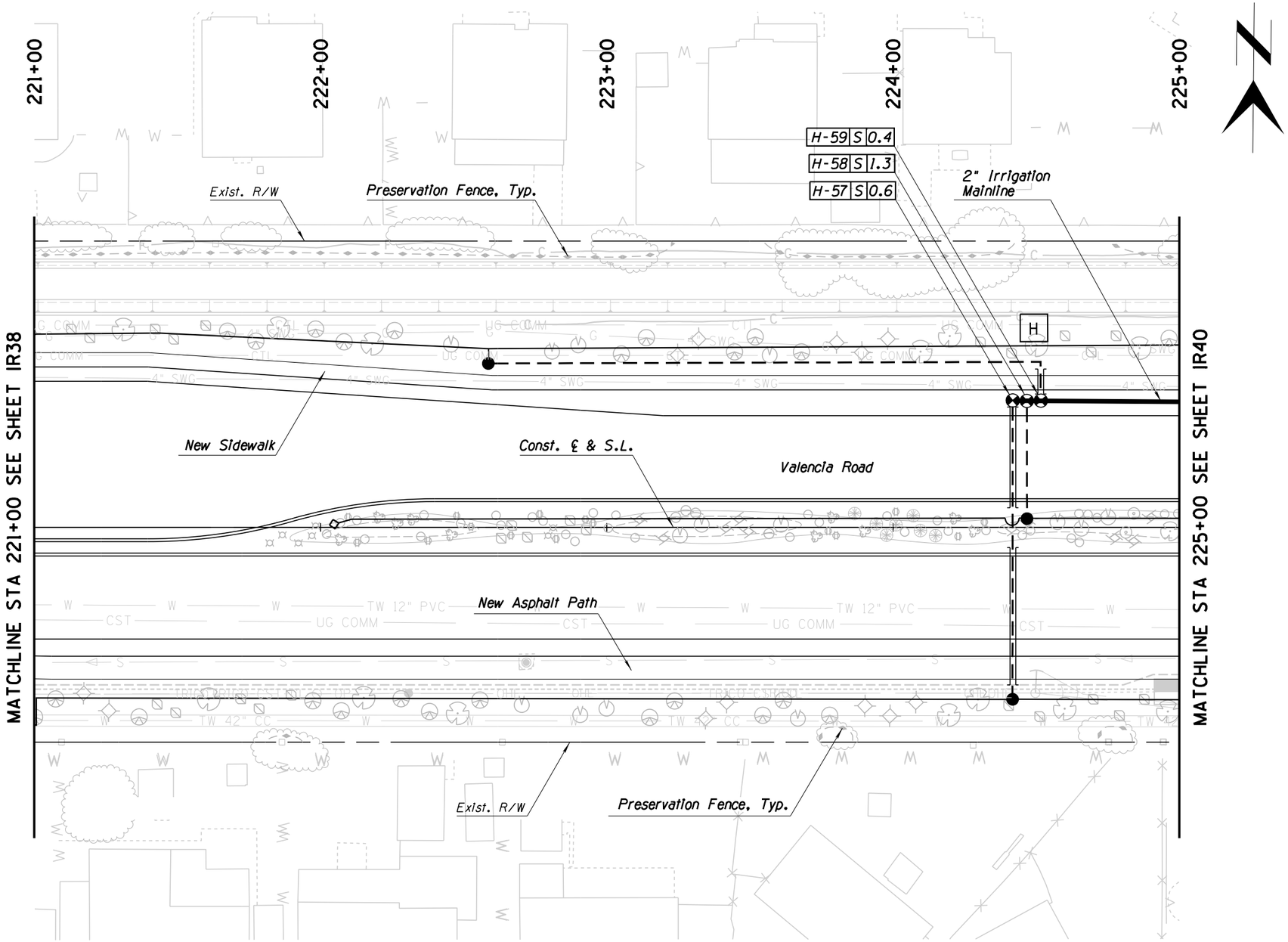
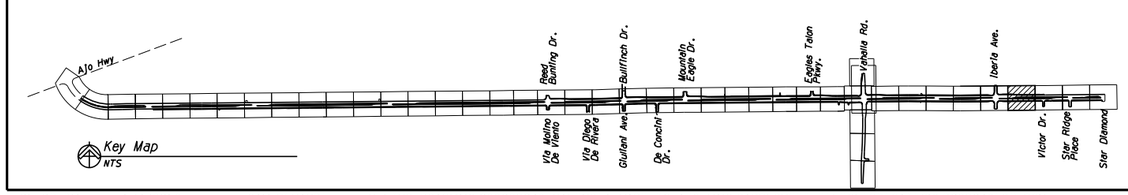
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' | Vert. NA





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
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◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Approx. Flow (GPM)
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IRRIGATION PLAN
VALENCIA ROAD
STA. 221+00 TO 225+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1" = 20' | Vert. NA

Sheet IR39 of IR49

Page 390 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 09/31/2019

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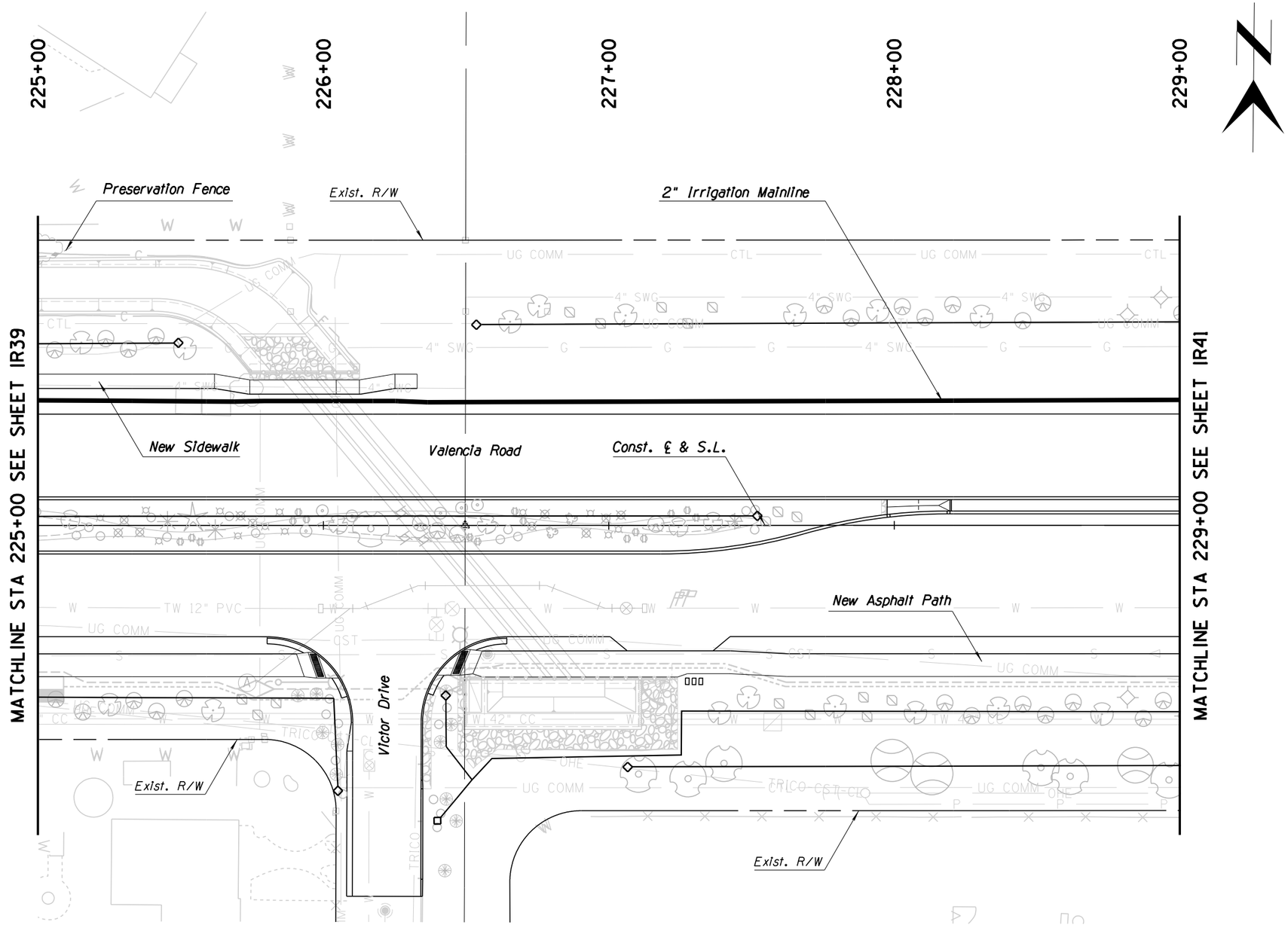
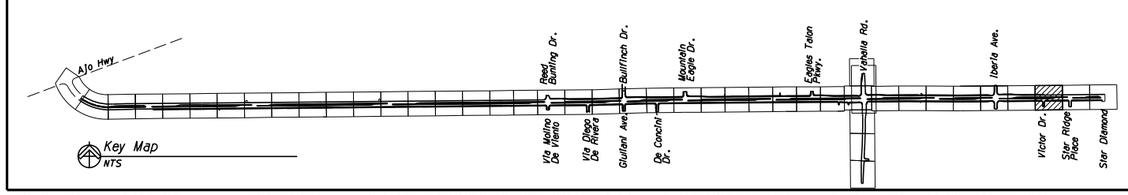
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
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IRRIGATION PLAN
VALENCIA ROAD
STA. 225+00 TO 229+00

20 0 20 40

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ARIZONA811
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Scales	Horiz. 1"=20'	Sheet IR40 of IR49	Page 391 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 06/31/2019

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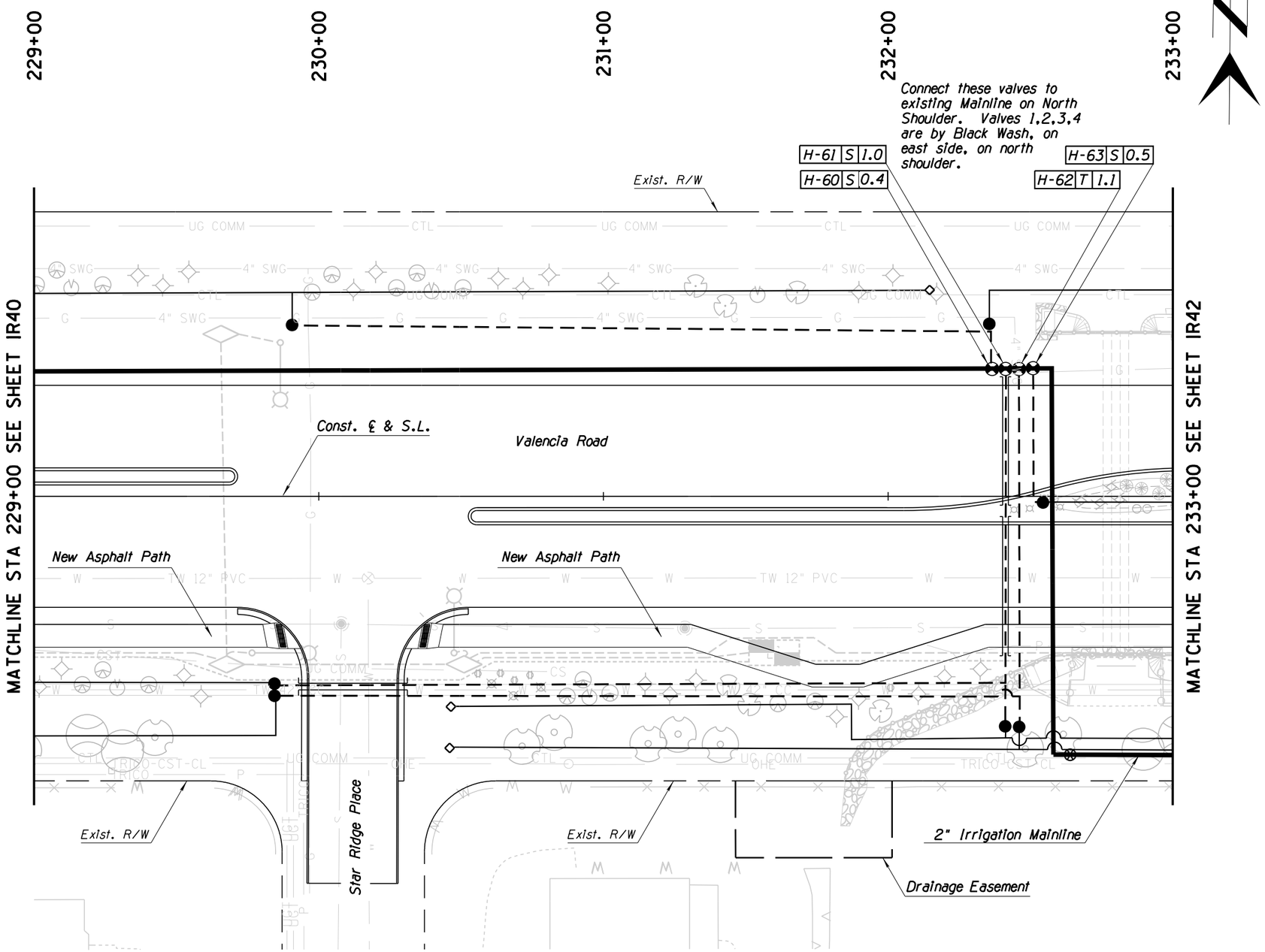
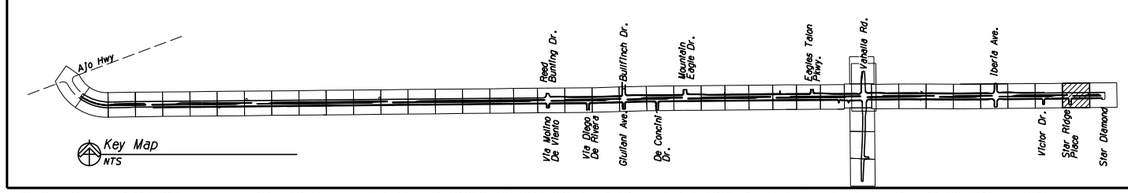
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





Key Map
NTS

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
×	Controller - LEIT Solar XRC	8 St.
M	New water Meter	1½"
	Pressure Reducing Backflow Preventer	2"
BP	Prefabricated Booster Pump Station	1 HP
	Remote Control Valve (Electric) PESB	1"
	Pressure Regulator Riser	¾"
	Isolation Valve (Mainline)	2"
	Isolation Valve (Mitigation Area)	¾"
	Mainline - Sch40 PVC	2"
	Mainline - HDPE	2"
	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
◇	Lateral End Cap Assembly	N/A
	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 S 1.5 — Apprx. Flow (GPM); Shrub or Tree; Controller & Valve ID

NOTES:

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3. Mainline and submains shall run parallel to Valencia Road where possible.
4. [ ] Indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 229+00 TO 233+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ana M. Olivares, P.E., Director
Pima County Department of Transportation
#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

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REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 06/31/2019

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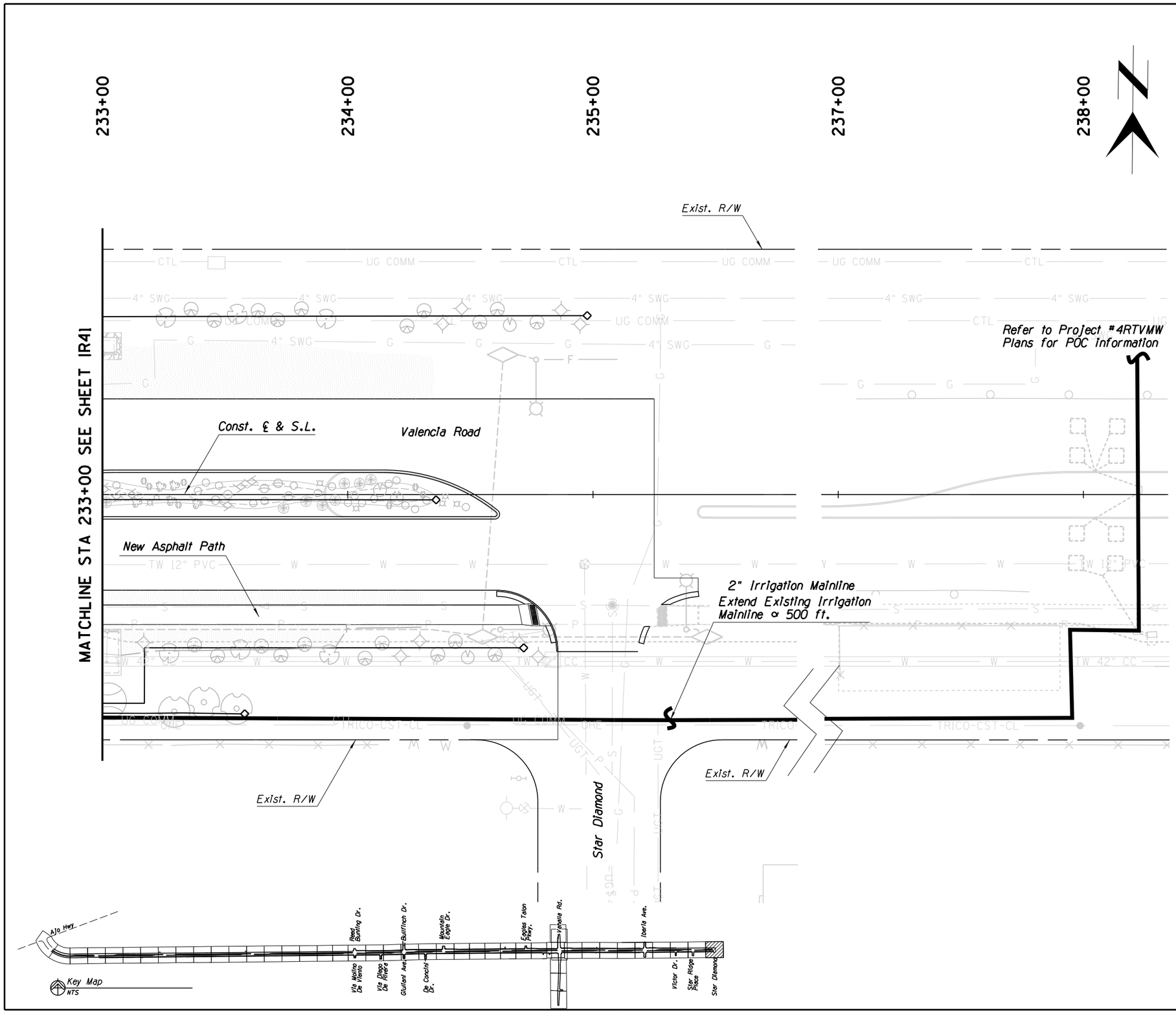
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

Scales: Horiz. 1"=20' Vert. NA

5:01:08 PM 1/4/2018 SAM.DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\IRRIGATION\R022048I39.DGN



IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
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	Mainline - Sch40 PVC	2"
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	Submain - Sch 40 PVC	1"
	Lateral Line - Sch 40 PVC	¾"
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	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

Valve Callouts: A-1 | S | 1.5
- 1.5 — Apprx. Flow (GPM)
- S — Shrub or Tree
- A-1 — Controller & Valve ID

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4. ▭ indicates Riparian Mitigation Area. Manual shutoff valve to be provided at Riparian Mitigation Areas to allow irrigation to be turned off after establishment period.

IRRIGATION PLAN
VALENCIA ROAD
STA. 233+00 TO 237+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. 1"=20' Vert. NA	Sheet IR42 of IR49	Page 393 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

	Designed	K. Furenlid	01/2018
	Drawn	K. Furenlid	01/2018
	Checked	R. Field	01/2018
	Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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#4RTVWE
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

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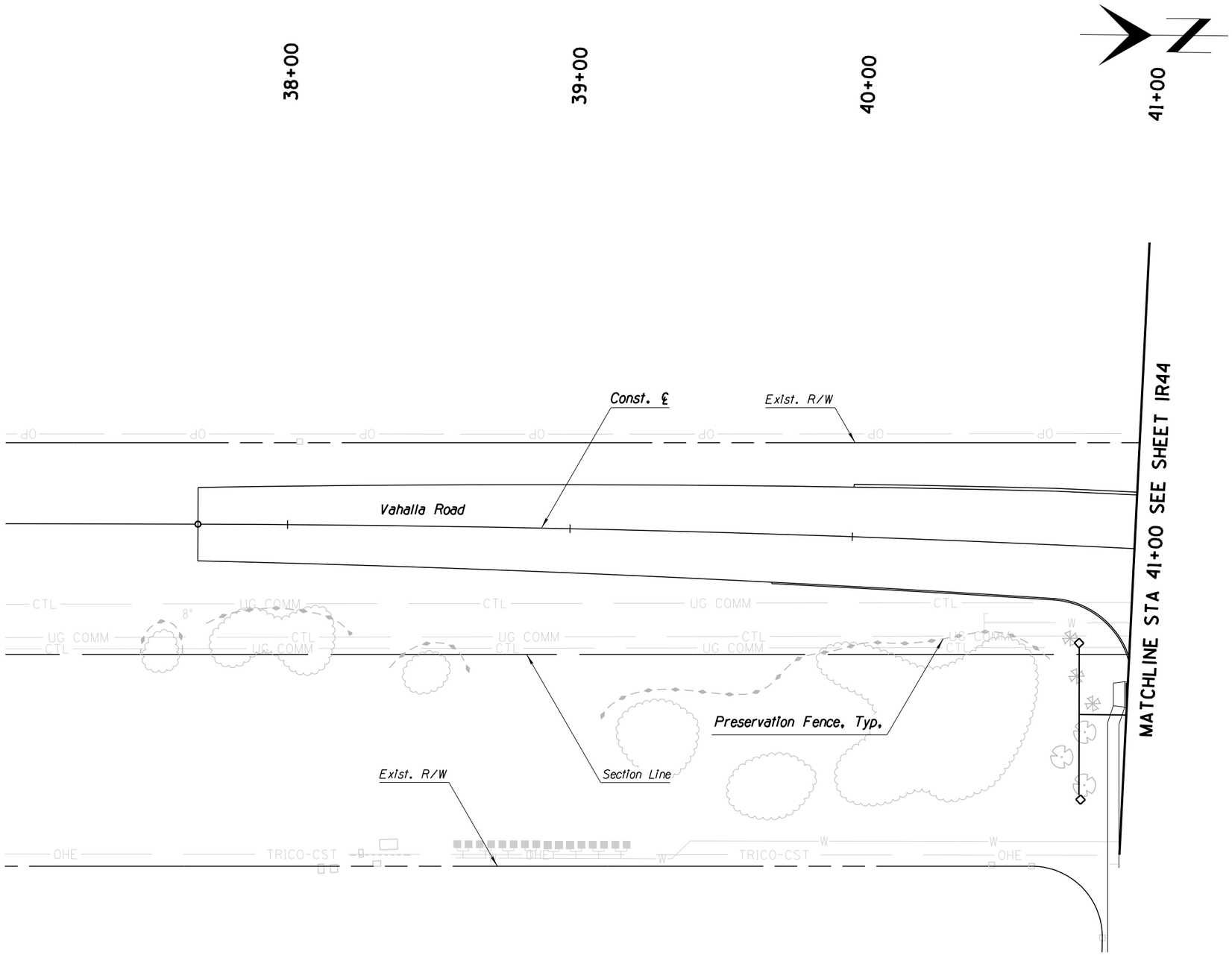

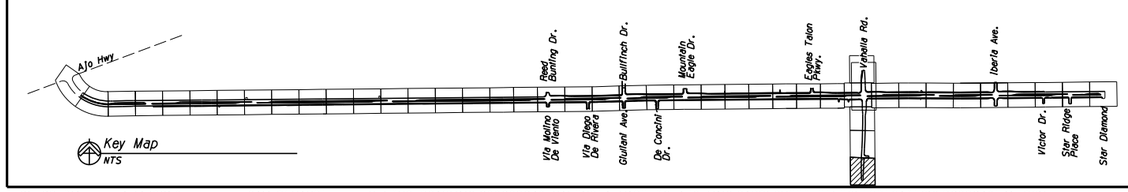

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	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
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- 1.5 — Apprx. Flow (GPM)
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IRRIGATION PLAN
VAHALLA ROAD
STA. 37+00 TO 41+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Scales: Horiz. 1"=20' Vert. NA

Sheet IR43 of IR49

Page 394 of 433

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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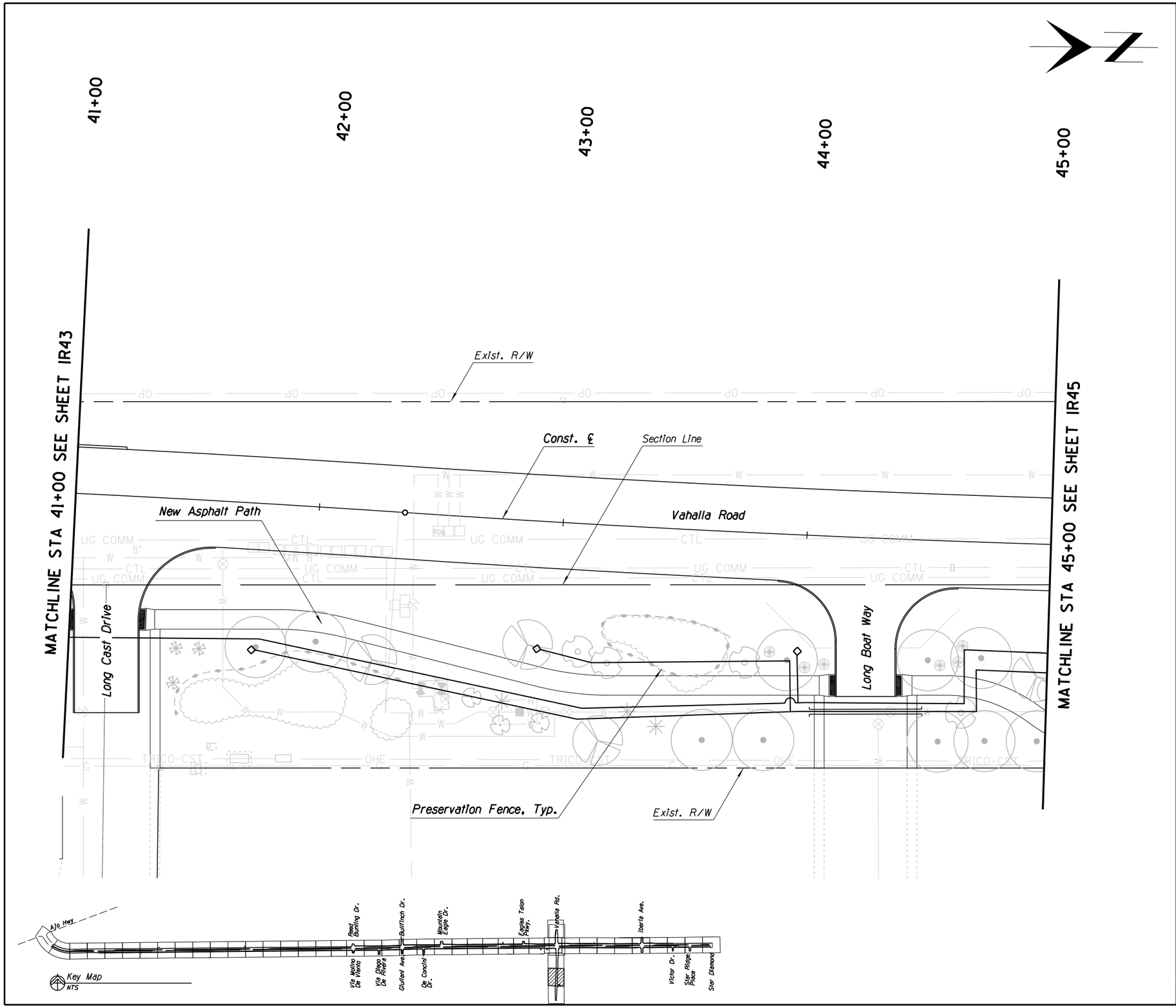
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE



IRRIGATION EQUIPMENT SCHEDULE

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	Sleeve - Sch 40 PVC (Refer to Detail 6, IR46)	N/A
Not Shown	Emitter Assembly (6-outlet) Multi-port 0.5 gph, 2 gph ea.	

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IRRIGATION PLAN
VAHALLA ROAD
STA. 41+00 TO 45+00

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Scales	Horiz. 1"=20'	Sheet IR44 of IR49	Page 395 of 433
	Vert. NA		

Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
Certificate No. 30732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

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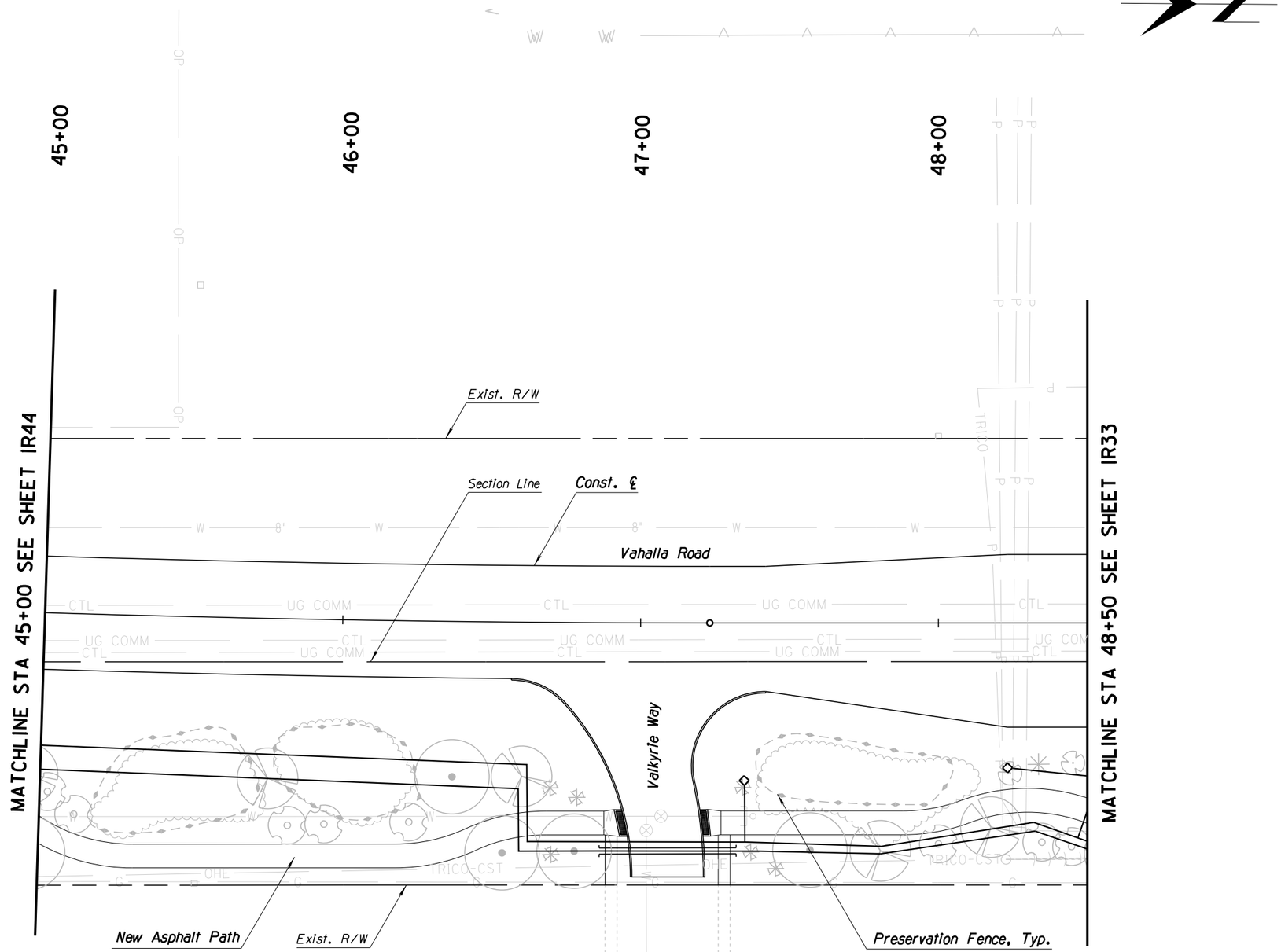
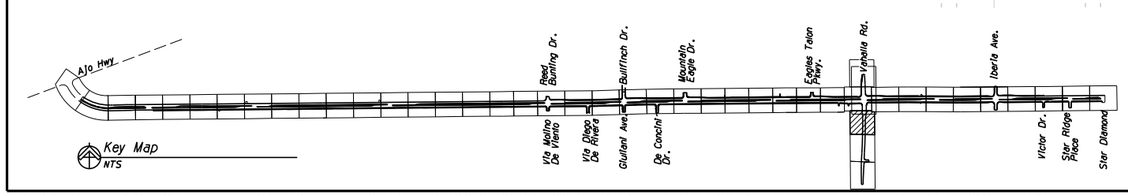
Suite 280
Tucson, AZ 85705
(520) 615-9191 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE





IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
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IRRIGATION PLAN
VAHALLA ROAD
STA. 45+00 TO 48+50

20 0 20 40

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales	Horiz. 1"=20' Vert. NA	Sheet IR45 of IR49	Page 396 of 433

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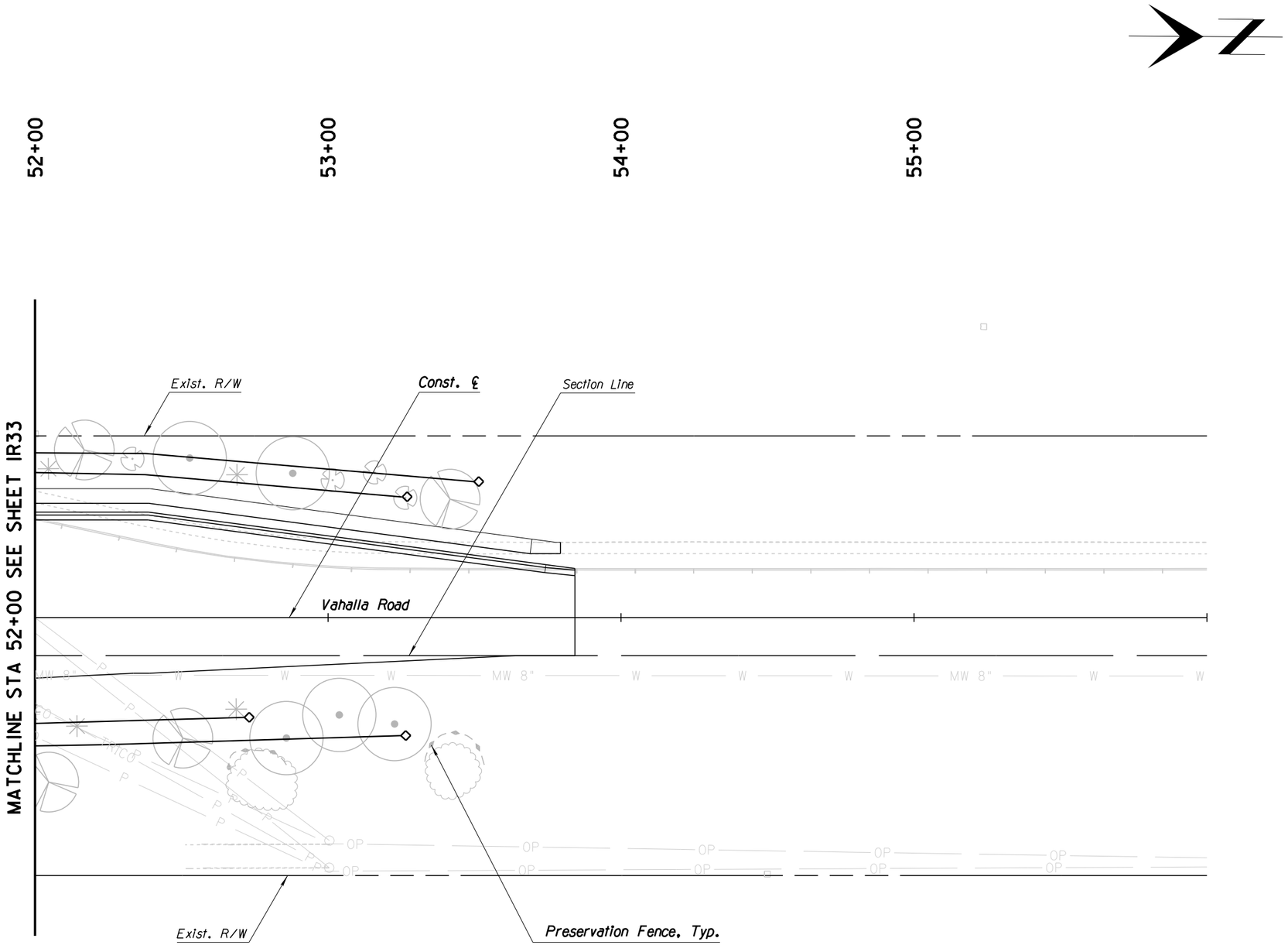

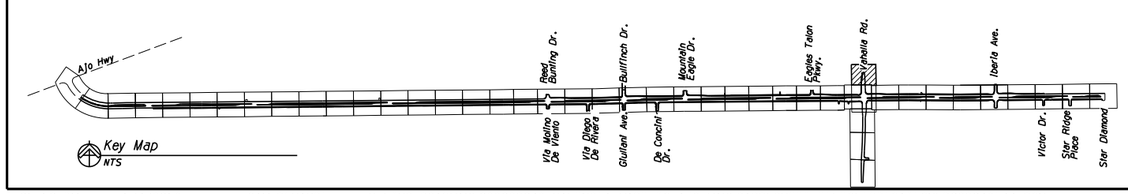

Key Map
NTS

IRRIGATION EQUIPMENT SCHEDULE

SYM	ITEM	SIZE
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IRRIGATION PLAN
VAHALLA ROAD
STA. 52+00 TO 56+00

20 0 20 40

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Ana M. Olivares, P.E., Director

Pima County Department of Transportation

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

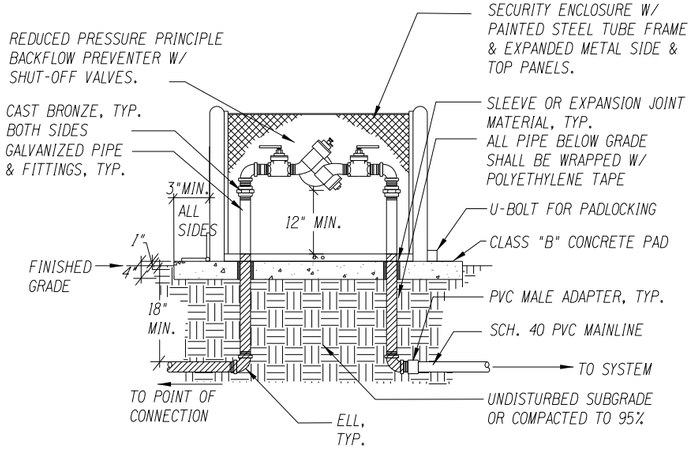
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

#4RTVWE

Scales: Horiz. 1"=20' | Vert. NA

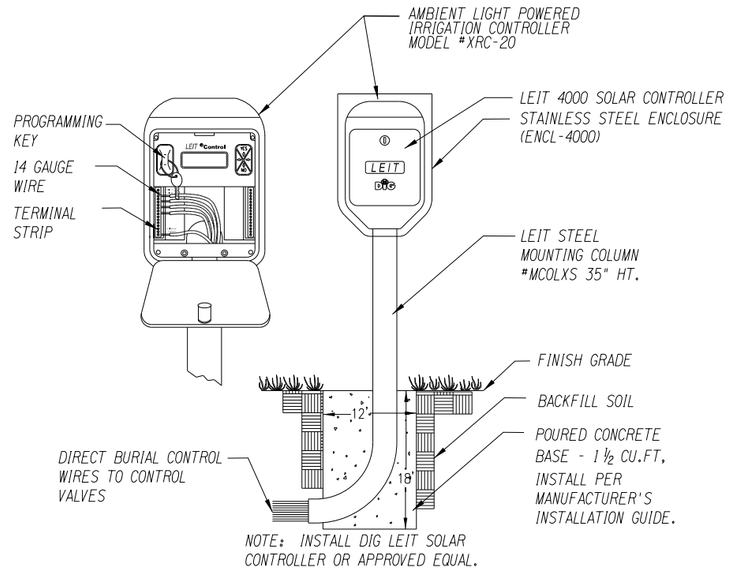
Sheet IR46 of IR49

5:01:10 PM 1/4/2018 SAM DEHAYBI K:\TUC_ROADWAY\098022048_VALENCIA-WADE TO AJO WAY\CADD\SHEET FILES\IRRIGATION\R022048I44.DGN



1 REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR IN SECURITY ENCLOSURE

NTS

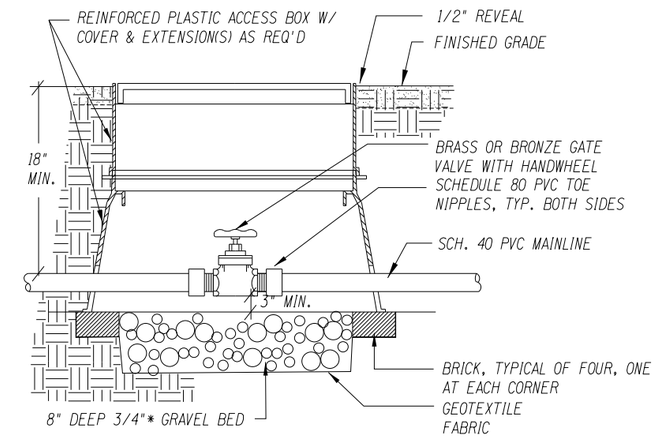


2 SOLAR CONTROLLER

NTS

NTS

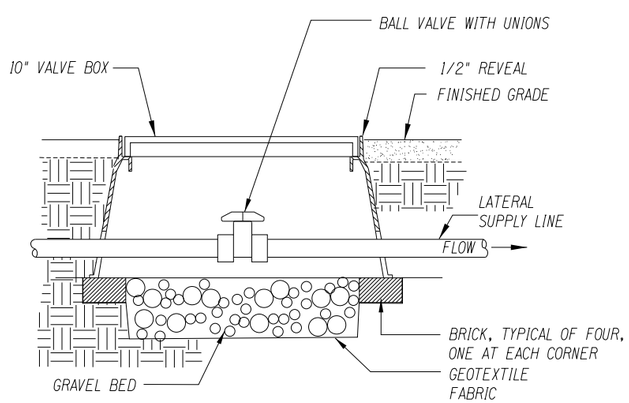
NOTE: USE TEFLON TAPE ON ALL THREADED CONNECTIONS.



3 MAINLINE ISOLATION (GATE) VALVE (2" TO 4" SIZE)

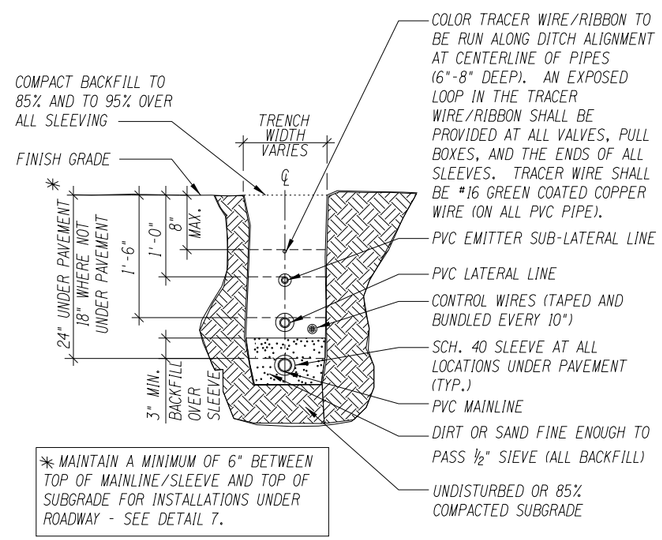
NTS

NOTES:
1. BALL VALVE SHALL BE SCH. 80 WITH UNIONS.
2. SEAL BOX WITH GEOTEXTILE FABRIC.



4 LATERAL ISOLATION VALVE

NTS

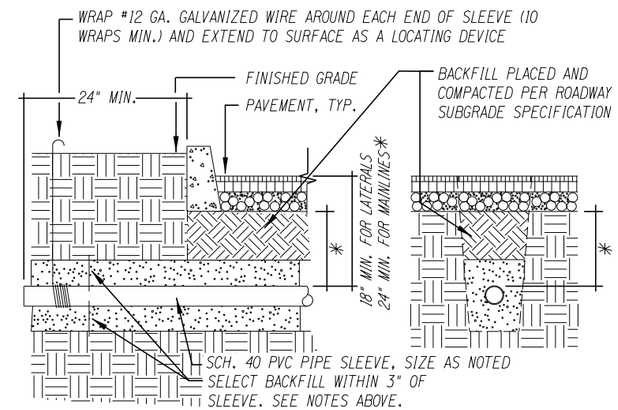


NOTES:
1. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. NO PIPE OR WIRE SHALL BE LOCATED UNDER PAVING UNLESS IT IS SLEEVED.

5 IRRIGATION SYSTEM TRENCHING (PAG DETAIL NO. 400)

NTS

NOTE: BACKFILL WITHIN 3" OF SLEEVE SHALL BE FREE OF ROCKS AND STONES LARGER THAN 1/4" *. IF ROCK CANNOT BE REMOVED FROM EXCAVATED SOIL, PROVIDE CLEAN SAND BEDDING.



6 SLEEVE UNDER ROADWAY OR DRIVEWAY

NTS

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ARIZONA811
Call 811 or click Arizona811.com

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		Date
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Registered Professional Engineer (Civil) REBECA V. FIELD 30732 Date Signed 01/04/18 ARIZONA, U.S.A. Expires 03/31/2019

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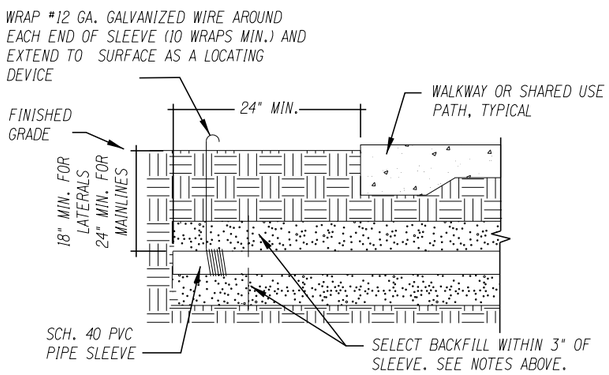
(520) 615-3191 Fax (602) 944-7423

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

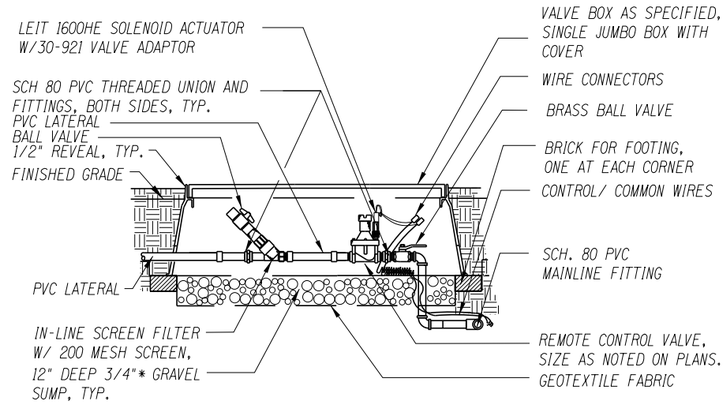
Scales	Horiz. NA	Sheet IR47 of IR49	Page 398 of 433
	Vert. NA		

NOTES:
1. SLEEVES UNDER WALKWAYS SHALL BE SCHEDULE 40 PVC PIPE. SIZE SHALL BE AS NOTED ON PLANS.
2. BACKFILL WITHIN 3" OF SLEEVE SHALL BE FREE OF ROCKS AND STONES LARGER THAN 1/4" DIA. IF ROCK CANNOT BE REMOVED FROM EXCAVATED SOIL, PROVIDE CLEAN SAND BEDDING.



1 SLEEVE UNDER WALKWAY OR SHARED USE PATH

NTS

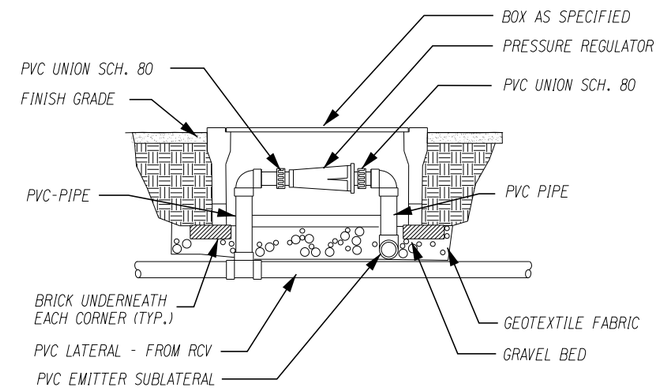


NOTES:
1. ALL WIRES TO BE INSTALLED PER LOCAL CODE. TAPE AND BUNDLE WIRES EVERY 7'. PROVIDE EXPANSION COIL AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 1/2" DIA. PIPE 15 TIMES).
2. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS ADJACENT UNDISTURBED SOIL.
3. ALL THREADED PVC JOINTS SHALL BE WRAPPED WITH TEFLON TAPE.

2 REMOTE CONTROL VALVE ASSEMBLY

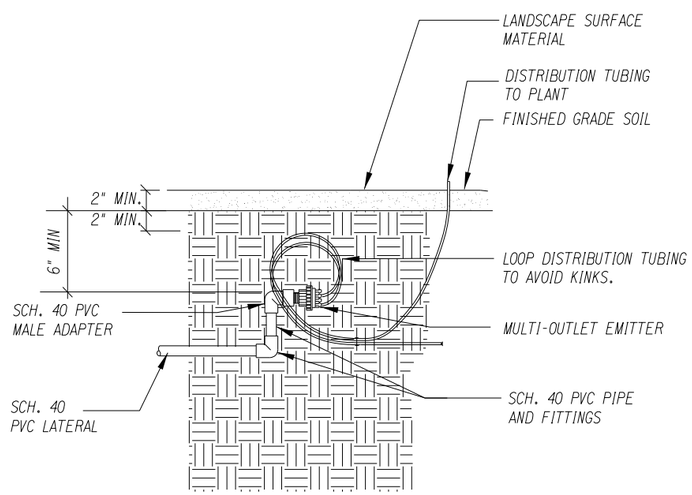
NTS

NOTES:
1. ALL PIPE SCH. 40 EXCEPT SCH. 80 UNIONS



3 PRESSURE REGULATOR ASSEMBLY

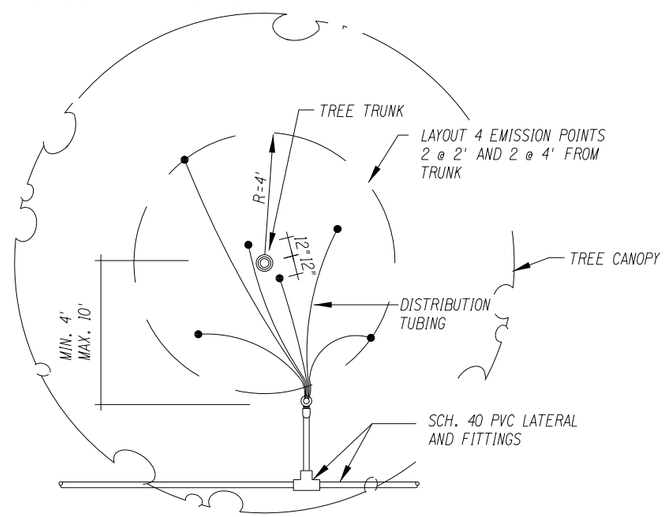
NTS



4 MULTI-OUTLET EMITTER - SIX OUTLET

NTS

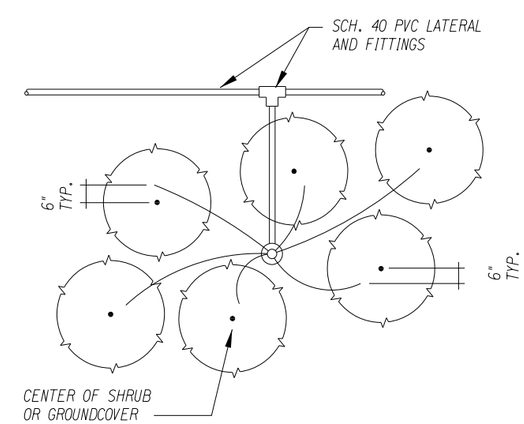
NOTE:
1. LAYOUT DISTRIBUTION TUBING AS SHOWN AND LOCATE DISCHARGE POINT 2" ABOVE FINISHED GRADE.
2. MAXIMUM LENGTH OF DISTRIBUTION TUBING TO BE 15'.



5 EMITTER DISTRIBUTION TUBING LAYOUT AT TREE - SIX OUTLET

NTS

NOTES:
1. LENGTH OF DISTRIBUTION TUBING SHALL NOT EXCEED 12'-0".
2. LAYOUT DISTRIBUTION TUBING AS SHOWN AND LOCATE DISCHARGE POINT 2" ABOVE FINISHED GRADE.



6 EMITTER DISTRIBUTION TUBING LAYOUT AT SHRUBS

NTS

Contact Arizona 811 at least two full working days before you begin excavation
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Scales	Horiz. NA	Sheet IR48 of IR49	Page 399 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

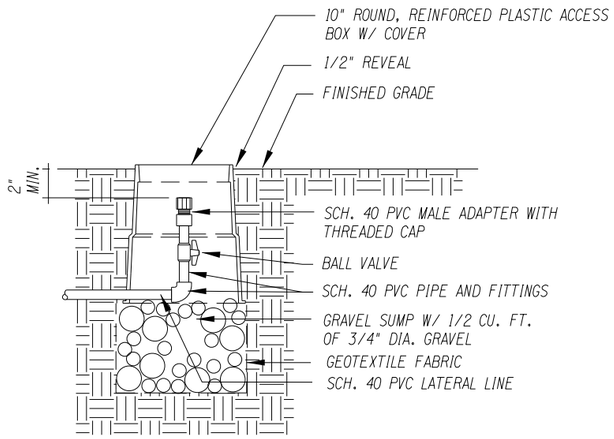
No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

Registered Landscape Architect
CERTIFICATE NO. 50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2018
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

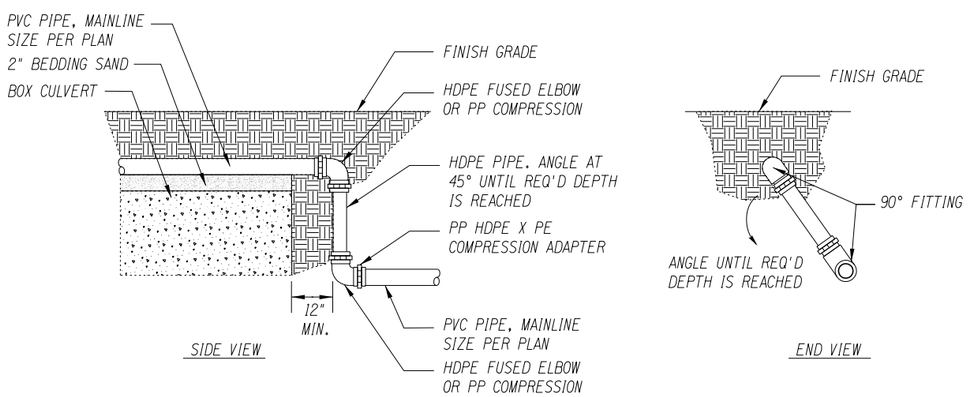


1 EMITTER LINE FLUSH CAP IN ACCESS BOX

NTS

NOTES:

1. PROVIDE CONTINUOUS HDPE PIPE ACROSS CULVERT. NO COMPRESSION FITTING WILL BE PERMITTED EXCEPT AT ENDS. FUSED JOINTS WILL BE ALLOWED IF APPROVED BY THE ENGINEER AND PERFORMED BY A CERTIFIED TECHNICIAN.



2 HDPE TO PVC TRANSITION

NTS

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ARIZONA811
Call 811 or click Arizona811.com

Scales	Horiz. NA	Sheet IR49 of IR49	Page 400 of 433
	Vert. NA		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	K. Furenlid	01/2018
Drawn	K. Furenlid	01/2018
Checked	R. Field	01/2018
Proj. Engr.	R. Solis	01/2018

REGISTERED LANDSCAPE ARCHITECT
50732
REBECA V. FIELD
Date Signed 01/04/18
ARIZONA, U.S.A.
Expires 03/31/2019

Kimley»Horn ©2016
333 E. Wetmore Road
Suite 280
Tucson, AZ 85705
(520) 615-3931 Fax (602) 944-7423

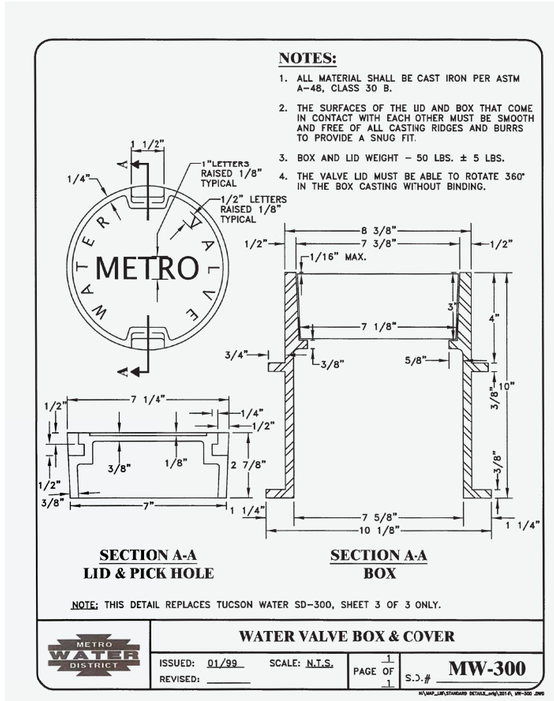
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
PROJECT NO. 4RTVWE

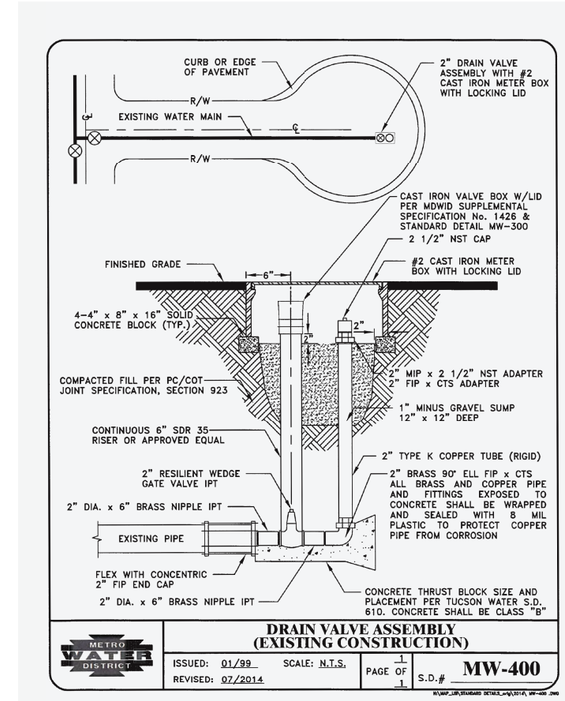
METRO WATER VALVE ADJUSTMENT SCHEDULE

STATION/OFFSET		EXISTING VALVE BOX GRADE	NEW VALVE BOX GRADE	COMMENTS
153+37.42	92.73' RT	2456.92	2457.33	SEE NOTE 6
153+40.01	78.82' LT	2455.28	2456.49	SEE NOTE 1
153+41.39	94.09' RT	2456.98	2457.08	SEE NOTE 1
159+47.94	94.28' RT	2457.03	2457.20	SEE NOTE 1
164+41.46	123.69' LT	2460.43	2460.90	EXISTING BELOW GRADE ARV, SEE NOTE 2
164+45.20	100.01' RT	2459.24	2458.62	SEE NOTE 1, 5 & 6
164+73.91	103.22' RT	2458.97	2459.07	SEE NOTE 1
164+77.87	102.06' RT	2459.09	2459.44	SEE NOTE 6
169+43.05	119.58' RT	2461.82	2461.81	SEE NOTE 1
169+44.22	110.36' RT	2461.69	2461.76	SEE NOTE 1
169+48.27	108.69' RT	2461.72	2461.77	SEE NOTE 1
173+75.60	36.68' LT	2461.53	2466.66	SEE NOTE 1
173+80.07	35.25' LT	2461.36	2466.72	SEE NOTE 1
178+00.00	45.60' LT	2462.65	2465.49	SEE NOTE 1
192+29.13	37.93' LT	2466.32	2469.15	SEE NOTE 1
192+35.68	39.80' LT	2466.36	2469.13	SEE NOTE 1
192+40.28	38.13' LT	2466.36	2469.17	SEE NOTE 1
200+03.13	40.15' LT	2468.91	2472.27	SEE NOTE 1
200+07.78	41.72' LT	2468.95	2472.27	SEE NOTE 1
200+49.98	908.61' RT	2479.12	2479.08	SEE NOTE 1
207+30.38	44.52' LT	2470.85	2473.22	SEE NOTE 1
207+27.35	46.85' LT	2470.73	2473.17	SEE NOTE 1
207+33.05	47.03' LT	2470.98	2473.18	SEE NOTE 1
226+16.03	81.28' RT	2478.35	2478.73	EXISTING DVA, SEE NOTE 3

Valve Adjustment Notes:

1. *Adjust existing water valve box to grade per Tucson Water SD 300 (Sheet 1 of 3). All valve box covers shall be installed in accordance with Metro Water MW-300. See detail right. The cost of adjusting existing Metro Water valves shall be completed per Bid Item 5103102.*
2. *Adjust existing air relief valve (ARV) meter box to new finished grade per Tucson Water SD-330. The cost of adjusting existing Metro Water ARV shall be completed per Bid Item 5105523.*
3. *Adjust existing drain valve assembly (DVA) meter box to new finished grade per MW-400. See detail right. The cost of adjusting existing Metro Water DVA meter box shall be completed per Bid Item 5105331.*
4. *All stationing is based off the Valencia Road construction centerline unless otherwise noted.*
5. *Metro Water to provide watertight valve cover assembly.*
6. *Adjustment of valve box and cover may fall within proposed wedge curb or scupper apron. Contractor shall cast wedge curb or scupper apron around adjusted valve box. Cost of this work to be considered incidental to the adjustment of the valve box.*





METRO WATER CONSTRUCTION NOTES

1. *All construction shall conform to Tucson Water Standard Specifications and Details and Pima County/City of Tucson Joint Standard Specifications and Details, or as amended by the Metropolitan Domestic Improvement District (MDWID), along with Arizona Department of Environmental Quality Bulletin 10. All work shall be performed by a contractor licensed by the State of Arizona, as determined by the Arizona Registrar of Contractors (A, A-12, A-16, K-80, and KA). A copy of the latest edition of said specifications and details shall be on the project site at all times.*
2. *Contractor shall comply with all applicable Occupational Safety and Health Administration (OSHA) guidelines.*

METRO WATER PIPE REMOVAL SCHEDULE

METRO WATER PIPE REMOVAL, 10" AND SMALLER BID ITEM 5105011			
BEGIN WATER MAIN REMOVAL STATION/OFFSET	END WATER MAIN REMOVAL STATION/OFFSET	PIPE SIZE & MATERIAL	LENGTH
175+29.7 35.4' LT	180+38.8 35.7' LT	8" PVC	510'
187+73.4 36.1' LT	188+53.7 38.2' LT	8" PVC	81'
194+47.7 39.1' LT	195+04.9 39.3' LT	8" PVC	53'
198+15.8 40.5' LT	198+64.2 40.6' LT	8" PVC	49'
208+41.9 43.3' LT	209+20.5 44.6' LT	8" PVC	79'
* 41+04.5 26.0' RT	* 41+07.0 86.0' RT	6" PVC	55'
* 40+48.0 28.7' RT	* 42+32.6 82.5' RT	8" PVC	243'
		TOTAL	1070'

* Monumentation based off Vahalla Rd.

METRO WATER PIPE REMOVAL, 12" AND LARGER BID ITEM 5105013			
BEGIN WATER MAIN REMOVAL STATION/OFFSET	END WATER MAIN REMOVAL STATION/OFFSET	PIPE SIZE & MATERIAL	LENGTH
200+34.3 40.8' LT	200+87.9 40.8' LT	12" PVC	54'
		TOTAL	54'

Metro Water Main Removal Notes:

1. *Contractor shall contact Metro Water and obtain a copy of the approved Valencia Road Waterline Relocations, Reed Bunting Drive to Iberia Avenue, M-17-005 plans to assist with coordinating removal limits.*

SCHEDULE FOR ITEMS RELOCATED BY METRO WATER

STATION/OFFSET		APPURTENANCES
153+26.26	97' RT	METER AND BACKFLOW PREVENTOR
169+27.93	120' RT	METER AND BACKFLOW PREVENTOR

Notes:

1. *All items in the table above shall have been relocated to the listed locations by Metro Water. The new locations should not be in conflict with the new roadway improvements. All items listed shall be protected in place.*

Contact Arizona 811 at least two full working days before you begin excavation
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METRO WATER VALVE ADJUSTMENTS AND MAIN REMOVAL

Scales	Horiz. N/A	Sheet U1 of U1	Page 401 of 433
	Vert. N/A		

#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION

Stantec
5151 East Broadway Blvd. Suite 400
TUCSON, AZ 85711
PH: [520] 750-7474
FAX: [520] 750-7470
www.stantec.com

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
34006
DOUGLAS MICHAEL MOSEKE
Date Signed 01-04-18
ARIZONA, U.S.A.
Expires 09/30/2020

Ana M. Olivares, P.E. Director

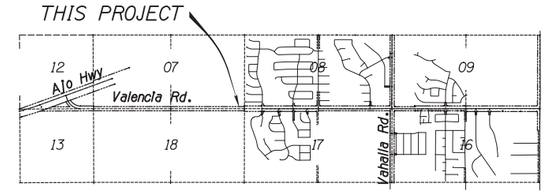
No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

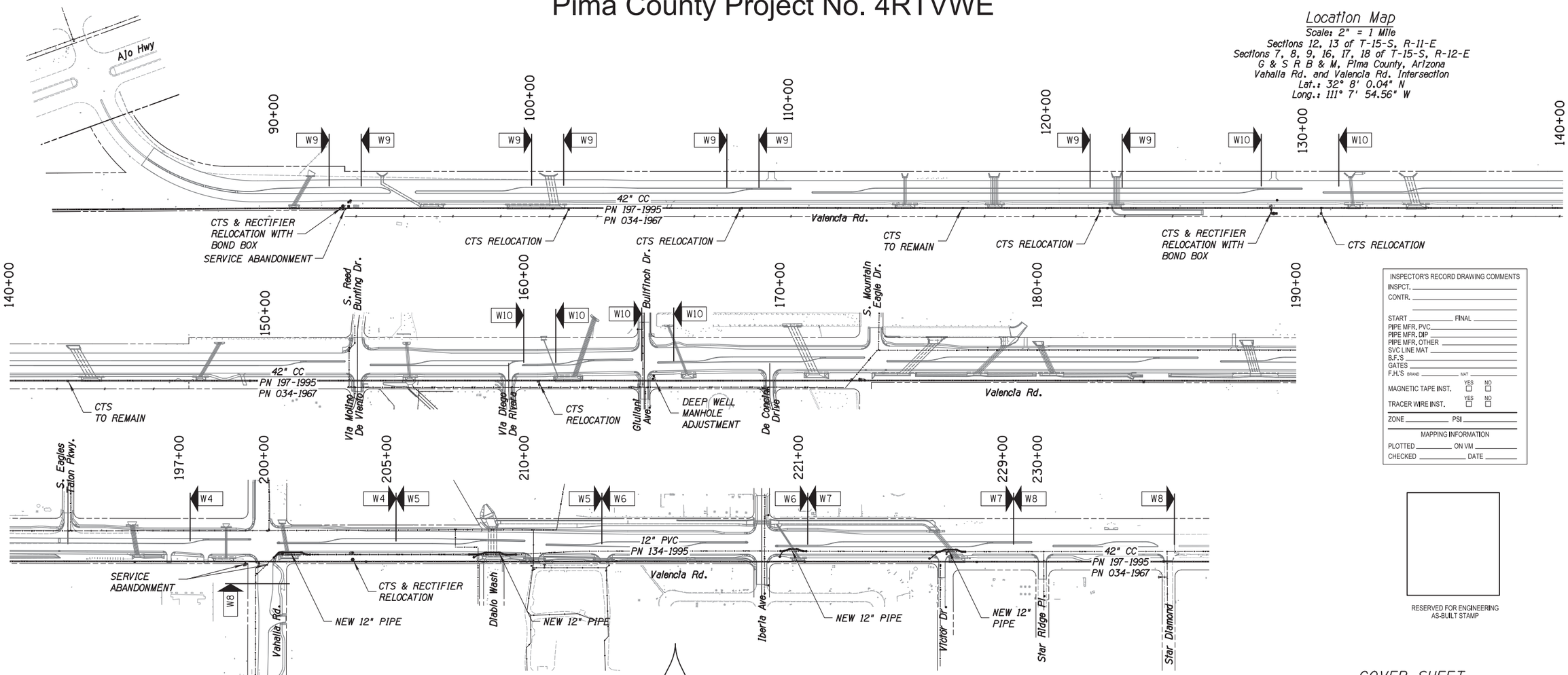
VALENCIA ROAD

WADE ROAD TO AJO HIGHWAY
WATER SYSTEM MODIFICATIONS

Pima County Project No. 4RTVWE



Location Map
Scale: 2" = 1 Mile
Sections 12, 13 of T-15-S, R-11-E
Sections 7, 8, 9, 16, 17, 18 of T-15-S, R-12-E
G & S R B & M, Pima County, Arizona
Vahalla Rd. and Valencia Rd. Intersection
Lat.: 32° 8' 0.04" N
Long.: 111° 7' 54.56" W



SHEET INDEX

PAGE NO.	SHEET NO.	DESCRIPTION
402	W1	Cover Sheet
403	W2	Notes and Legend Sheet
404	W3	Material Quantity Summary Sheet
405-408	W4-W7	Plan and Profile Sheets
409	W8	Plan Sheet
410-411	W9-W10	Appurtenance Modification Sheets
412-413	W11-W12	Detail Sheets
414	W13	Modified SD-711 Cabinet Mounted Rectifier Detail

SHEET INDEX
1"=200'

FOR ACCEPTANCE CONDITIONS SEE THE WATER SYSTEM MODIFICATIONS NOTES, NOTE 1 SHEET W2 OF W13.

CITY OF TUCSON, WATER DEPARTMENT DATE

INSPECTOR'S RECORD DRAWING COMMENTS
INSPCT. ____
CONTR. ____
START ____ FINAL ____
PIPE MFR. PVC ____
PIPE MFR. DIP ____
PIPE MFR. OTHER ____
SVC LINE MAT ____
B.F.'S ____
GATES ____
F.H.'S BRAND ____ MAT ____
MAGNETIC TAPE INST. YES ☐ NO ☐
TRACER WIRE INST. YES ☐ NO ☐
ZONE ____ PSI ____
MAPPING INFORMATION
PLOTTED ____ ON VM ____
CHECKED ____ DATE ____

RESERVED FOR ENGINEERING AS-BUILT STAMP

COVER SHEET

Stantec
5151 East Broadway Blvd. Suite 400
TUCSON, AZ 85711
PH: [520] 750-7474
FAX: [520] 750-7470
www.stantec.com

No.	Revisions	Engineer	Date
No.	As Built	Engineer	Date

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01-04-18 ARIZONA, U.S.A. Expires 09/30/2020

Pima County Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 724-6410
Ana M. Olivares, P.E. Director

Reviewed by	Engineer	Date
Mgr. Trans Engr.		
Mgr. Traffic Engr.		
Mgr. Field Engr.		
Mgr. WWM		
Mgr. Tucson Water		

Approved: ____ 20__
Director

Project No. 4RTVWE
Sheet No. W1 of W13
Page No. 402 of 433

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12:46:29 PM 1/4/2018 JDANA V:\1817\ACTIVE\181710160\DRAWING\SHEET\10160-WTR-CV.DGN

WATER SYSTEM MODIFICATION NOTES

1. ACCEPTANCE CONDITIONS:
A. THIS PROJECT IS ACCEPTED BY THE CITY OF TUCSON WATER DEPARTMENT FOR SUBSTANTIAL CONCURRENCE WITH STANDARD SPECIFICATIONS AND DETAILS.
B. ACCEPTANCE OF THESE PLANS IS VALID FOR 3 YEARS AFTER THE DATE OF THE SIGNATURE.
C. THE WARRANTEE AND GUARANTEE DURATION FOR ALL WATER WORK ON THIS PROJECT SHALL BE TWO (2) YEARS COMMENCING ON THE DATE OF FINAL ACCEPTANCE OF THE PIMA COUNTY IMPROVEMENT PROJECT.

2. CURRENT STANDARDS:
ALL WATER SYSTEM MODIFICATION CONSTRUCTION WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND SPECIAL PROVISIONS:
A. THE PAG STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2015 EDITION.
B. THE TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS, 2017 EDITION.
C. THE WATER SYSTEM MODIFICATIONS SPECIAL PROVISIONS FOR THIS PROJECT.

3. WATER SYSTEM MODIFICATION PRE CONSTRUCTION PROCEDURE:
A. THE CONTRACTOR SHALL CONTACT THE CITY OF TUCSON WATER DEPARTMENT, CONSTRUCTION SECTION (791-2665), A MINIMUM OF THREE (3) CALENDAR DAYS PRIOR TO ANY WATER WORK. THE CONTRACTOR SHALL REFER TO THE CITY OF TUCSON WATER DEPARTMENT PLAN NO. 5-081-2017.
B. THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION SECTION WILL SCHEDULE THE TIME AND PLACE FOR THE MEETING.
C. NO WATER SYSTEM CONSTRUCTION SHALL BEGIN UNTIL A "NOTICE TO PROCEED" HAS BEEN ISSUED BY THE CITY OF TUCSON WATER DEPARTMENT.
D. ANY WATER WORK INSTALLED PRIOR TO THE NOTICE TO PROCEED DATE SHALL BE REMOVED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

4. DIMENSIONS, SLOPES AND GRADES:
ALL DIMENSIONS, SLOPES, AND GRADES OF EXISTING WATER LINES ARE TAKEN FROM "AS BUILT" DRAWINGS AND/OR POTHOLE INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT INFORMATION BEFORE ORDERING ANY SPECIAL FITTINGS OR EQUIPMENT.

5. SHUT-DOWN OF DISTRIBUTION MAINS:
SHUT-DOWN OF THE EXISTING WATER SYSTEM REQUIRING THE OPERATION OF TUCSON WATER VALVES SHALL BE COORDINATED THROUGH A CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR A MINIMUM OF FIVE (5) CALENDAR DAYS IN ADVANCE.

6. DEPTH OF NEW WATER MAINS:
A. NEW WATER MAINS SHALL BE INSTALLED AT A MINIMUM DEPTH OF THREE FEET (3.0') FROM THE BOTTOM OF ANY EXCAVATION OR SCARIFICATION TO THE TOP OF THE NEW PIPE. THIS DEPTH SHALL BE MAINTAINED FOR FIVE FEET (5.0') BEYOND ANY EXCAVATION, MEASURED PERPENDICULAR TO THE PROPOSED STRUCTURE OR EDGE OF THE PROPOSED ROADWAY.
B. IN NO CASE SHALL NEW WATER MAINS BE INSTALLED LESS THAN THREE AND SIXTY SEVEN HUNDREDTHS FEET (3.67') DEEP FROM THE FINISHED GRADE TO THE TOP OF THE NEW PIPE.
C. THESE MINIMUMS SHALL APPLY TO ALL WATER MAINS UNLESS OTHERWISE NOTED ON THE PLANS.

7. DEPTH OF NEW SERVICE LINES:
A. NEW SERVICE LINES, TWO INCH (2") AND SMALLER, SHALL BE INSTALLED AT A MINIMUM DEPTH OF TWO FEET (2.0') FROM THE BOTTOM OF ANY EXCAVATION OR SCARIFICATION TO THE TOP OF NEW SERVICE LINE. THIS DEPTH SHALL BE MAINTAINED FOR FIVE FEET (5.0') BEYOND ANY EXCAVATION, MEASURED PERPENDICULAR TO THE PROPOSED STRUCTURE OR EDGE OF THE PROPOSED ROADWAY.
B. IN NO CASE SHALL NEW SERVICE LINES BE INSTALLED LESS THAN THREE FEET (3.0') DEEP FROM THE FINISHED GRADE TO THE TOP OF THE NEW SERVICE LINE.
C. THESE MINIMUMS SHALL APPLY TO ALL SERVICE LINES UNLESS OTHERWISE NOTED ON THE PLANS.

8. WATER METERS AND METER BOXES:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METERS AND METER BOXES IN THE CONSTRUCTION AREA. THIS WILL INCLUDE BUT NOT BE LIMITED TO:
A. PROTECTION OF METERS:
AT ALL TIMES THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID ANY DAMAGE TO THE METERS. THE CONTRACTOR SHALL PROVIDE FOR THEIR SAFE STORAGE AND THE PROPER EQUIPMENT FOR THEIR HANDLING.
B. ACCESS TO METERS:
THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL IN-SERVICE METERS DURING CONSTRUCTION. AT THE CLOSE OF THE PROJECT THE CONTRACTOR SHALL ENSURE THAT ALL METERS ARE LEFT ACCESSIBLE AND THAT ALL METER BOXES ARE ADJUSTED TO FINAL GRADE.

9. FIRE PROTECTION SHUT DOWN:
FORTY-EIGHT (48) HOURS PRIOR TO SHUT-DOWN OF ANY FIRE HYDRANTS OR FIRE PROTECTION SERVICE LINES THE CONTRACTOR SHALL PROVIDE THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR WITH A WRITTEN REPORT INDICATING THE LOCATION AND DURATION OF ANY FIRE HYDRANT OR FIRE PROTECTION SERVICE SHUT-DOWNS. THE CONTRACTOR SHALL NOTIFY THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR WHEN FIRE HYDRANTS OR FIRE PROTECTION SERVICES ARE BACK IN SERVICE.

10. MAINTAIN SERVICE TO CUSTOMERS:
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICE TO ALL WATER CUSTOMERS DURING CONSTRUCTION.
B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SERVICES WILL BE AFFECTED BY THIS PROJECT.
C. IT MAY BE NECESSARY TO ACCOMPLISH TIE-OVERS, RE-CONNECTIONS, ETC. WHILE BUSINESS CUSTOMERS ARE CLOSED.
D. IF INTERRUPTION OF SERVICE IS UNAVOIDABLE THE CONTRACTOR SHALL NOTIFY THE WATER INSPECTOR A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE TO COORDINATE SHUT-DOWNS. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION TO THE CUSTOMER.
E. IF THE CONTRACTOR CHOOSES TO ABANDON ANY PORTION OF THE EXISTING WATER SUPPLY SYSTEM WITHOUT CONCURRENT NEW CONSTRUCTION AS CALLED FOR ON THE PLANS, THE CONTRACTOR SHALL PROVIDE ANY AND ALL MATERIALS AND CONSTRUCTION OF A TEMPORARY OR PERMANENT WATER SYSTEM TO MAINTAIN CONTINUED WATER SERVICE CUSTOMERS AT NO ADDITIONAL COST.

11. SPECIAL USE WATER PERMITS:
PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL APPLY FOR TWO (2) SPECIAL WATER USE PERMITS FROM THE CITY OF TUCSON WATER DEPARTMENT COMMERCIAL SECTION.
A. CONSTRUCTION WATER SPECIAL PERMIT:
THERE WILL BE NO CHARGE FOR THIS PERMIT, BUT THE CONTRACTOR MUST PAY THE SUM OF $ 36.20 DOLLARS PLUS TAX AS THE ESTIMATED COST OF THE WATER TO BE USED. THIS WATER MAY ONLY BE USED FOR TRENCH SETTLING, DISINFECTION AND TESTING.

B. METERED FIRE HYDRANT ONLY PERMIT:
THIS NON-TRANSFERABLE PERMIT WILL ENTITLE THE CONTRACTOR TO USE WATER THROUGH A METER FROM EXISTING FIRE HYDRANTS AT APPROVED LOCATIONS. WATER USED UNDER THIS PERMIT IS FOR GENERAL CONSTRUCTION PURPOSES SUCH AS DUST CONTROL, SITE PREPARATION, ETC.

12. NEW MATERIAL:
ALL MATERIALS, FITTINGS, AND APPURTENANCES CALLED FOR ON THE PLANS, OR REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE NEW. NO REFURBISHED ITEMS OR MATERIALS WILL BE ALLOWED.

13. VALVE BOXES:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL NEW AND EXISTING WATER VALVE BOXES TO THE FINISHED GRADE PER SD-300.

14. JOINT RESTRAINT:
THE CONTRACTOR SHALL USE MECHANICALLY RESTRAINED JOINTS AT ALL CHANGES OF DIRECTION IN THE WATER MAINS. THE LENGTHS OF RESTRAINED PIPE ON BOTH SIDES OF THE RESTRAINED JOINT SHALL BE AS CALLED FOR ON THE PLANS OR AS PER STANDARD DETAIL SD-600. WITH THE APPROVAL OF THE ENGINER AND THE CITY OF TUCSON WATER DEPARTMENT, THE CONTRACTOR MAY USE CONCRETE THRUST BLOCKING IN LIEU OF MECHANICALLY RESTRAINED JOINTS. CONCRETE THRUST BLOCKING SHALL COMPLY WITH STANDARD DETAIL SD-610.

15. MARKING TAPE:
IF ANY EXISTING DETECTABLE MARKING TAPE IS DISTURBED OR DESTROYED DURING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND INSTALL APPROPRIATE NEW TAPE. THERE SHALL BE NO ADDITIONAL CHARGE FOR THIS REINSTALLATION.

16. CORROSION CONTROL
THIS PROJECT HAS CORROSION CONTROL/MONITORING WORK INCLUDED AS PART OF THE CONTRACT. THE CONTRACTOR SHALL PROVIDE ALL SUBMITTALS, COMPONENTS, AND REPORTS OF THE CORROSION WORK AS CALLED FOR ON THESE PLANS AND IN THE TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS.

17. TRACER WIRE:
THIS PROJECT WILL HAVE TRACER WIRE INSTALLED. IF ANY EXISTING TRACER WIRE IS DISTURBED OR DESTROYED DURING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND INSTALL NEW TRACER WIRE TO REPLACE THE EXISTING. THERE SHALL BE NO ADDITIONAL CHARGE FOR THIS REINSTALLATION. THE TRACER WIRE SHALL BE CERTIFIED BY A LICENSED ELECTRICAL CONTRACTOR FOR CONTINUITY PRIOR TO FINAL ROADWAY PAVEMENT. FINAL ACCEPTANCE WILL NOT BE GRANTED UNTIL CERTIFICATION IS RECEIVED BY TUCSON WATER.

18. PVC PIPE DEFLECTION:
A. THE CONTRACTOR MAY NOT DEFLECT PVC PIPE AT GASKETED BELL AND SPIGOT JOINTS OR AS LONGITUDINAL BENDING IN THE PIPE SEGMENT.
B. THE CONTRACTOR SHALL ONLY DEFLECT PVC PIPE AT DUCTILE IRON BENDS/FITTINGS PROVIDED THE DEFLECTION DOES NOT EXCEED MANUFACTURER'S ALLOWABLE DEFLECTION.

19. LEAD FREE
THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE FITTINGS, APPERTENANCES OR ANY OTHER MATERIALS TO BE IN CONTACT WITH THE LEAD-FREE REQUIREMENTS DEFINED BY THE "REDUCTION OF LEAD IN DRINKING WATER ACT OF 2011" AMENDING SECTION 1417 OF THE SAFE WATER DRINKING ACT.

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WATER SYSTEM MODIFICATION LEGEND

WATER SYMBOLS

EXISTING	FEATURES	NEW
12" PVC, PN 197-1995 — W — TW 12" PVC	WATER MAIN AND GATE VALVE	12" DI (CL 350) ②
12" PVC, PN 197-1995 — W — TW 12" PVC	REDUCER	
— W —	TUCSON WATER SERVICE AND METER	
12" PVC, PN 197-1995 W — TW 12" PVC	TUCSON WATER MAIN BENDS, (VT.), (RO) AND (HZ.)	
	AIR RELEASE VALVE	¾"
	FIRE HYDRANT	
	RECTIFIER	R
	BOND BOX (SD-709 MOD)	B
— D — 8" W —	MAIN MATERIAL CHANGE	
	WATER MAIN REMOVAL	
	CORROSION TEST STATION	
	SERVICE LINE ABANDONMENT	A
	PROFILE WATER MAIN W/ VALVE	

UTILITY SYMBOLS

EXISTING	FEATURES	NEW
S — 8" PVC G-2003-090 — S	SANITARY SEWER UTILITY	
OHE — TRICO-CST-CL	TRICO OVERHEAD ELECTRIC (COMCAST, CENTURYLINK)	
OHE — TRICO-CST	TRICO OVERHEAD ELECTRIC (TENANT: COMCAST)	
P — P — TRICO	TRICO UNDERGROUND POWER	
OHE — TRICO	TRICO OVERHEAD ELECTRIC	
OHE — TEP	TEP OVERHEAD ELECTRIC	
UG COMM — CST	UNDERGROUND COMMUNICATIONS COMCAST	
UG COMM — CTL	UNDERGROUND COMMUNICATIONS CENTURYLINK	
4" SWG — 4" SWG	SOUTHWEST GAS	
W — W — MW 12"	METRO WATER	

MARKER SYMBOLS

FEATURES	SYMBOL
CUT/FILL SLOPES	C — C — F — F
SURVEY MONUMENT	△
SHEET NUMBER	▭
SURVEY CONTROL POINT	###
POTHOLE LOCATION	PH #

ABBREVIATIONS

ARV	AIR RELEASE VALVE	DIA.	DIAMETER	LF	LINER FOOT	RT.	RIGHT
AVE.	AVENUE	DI	DUCTILE IRON PIPE	LT.	LEFT	R/W	RIGHT-OF-WAY
B & C	BOX & COVER	EA	EACH	MIN.	MINIMUM	ST.	STREET
CC	CONCRETE CYLINDRICAL	EXIST.	EXISTING	NPI	NON PAY ITEM	STA	STATION
℄	CENTERLINE	ELEV.	ELEVATION	PH	POTHOLE	VT	VERTICAL
CU	COPPER	INV.	INVERT	PVC	POLYVINYL CHLORIDE		

BASIS OF BEARING
THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 16, T-15-S, R-12-E, G & S.R.M, PIMA COUNTY, ARIZONA. SAID BEARING IS N 89° 26' 40" E , 2649.68 FEET MEASURED BETWEEN THE NORTHWEST CORNER OF SAID SECTION 16, BEING FOUND A 2" BRASS CAP STAMPED "T15S, R12E, 8, 9, 17, 16, 2008, RLS 29881" (POINT #306) AND THE NORTH QUARTER CORNER OF SAID SECTION 16, BEING FOUND A 5/8" REBAR (POINT #300).

BASIS OF ELEVATION
THE BASIS OF ELEVATION FOR THIS PROJECT IS BASED OFF PIMA COUNTY OPUS CONTROL POINT "FYB1", AS SHARED THROUGH NGS. THE MONUMENT IS A 3-1/4" ALUMINUM CAP WITH MAGNETIC STEM SET FLUSH IN TOP OF CONCRETE EMBANKMENT LINING 300' +/- THE SOUTH OF THE EDGE OF PAVEMENT OF VALENCIA RD AT THE INTERSECTION WITH MOUNTAIN EAGLE DRIVE.

BASED ON NAVD 88 DATUM HAVING AN ELEVATION OF 2464.85 FEET.

SURVEY CONTROL TABLE

No.	Sta/Off	Northing	Easting	Description
300	Sta 226+49.65, 0.00'	13197.97	45770.46	5/8" Rebar
306	Sta 199+99.88, 12.00'	13172.29	43120.91	Fnd 2" Brass Cap,"T15s R12e 8 9 17 16, 2008, RLS 29881"
307	Sta 173+47.45, 15.00'	13148.13	40468.59	Fnd 2" Brass Cap,"T15s R12e 8 17, PCHD"
308	Sta 146+95.19, 0.00'	13122.63	37816.60	Fnd 2" Brass Cap,"T15s R12e 7 8 18 17, 2008, RLS 29881"
309	Sta 120+47.60, 0.00'	13096.60	35169.14	Fnd 2" Brass Cap,"T15s R12e 7 18, PCHD"
310	Sta 92+71.86, 0.00'	13069.55	32393.54	Fnd 2" Brass Cap,"T15s R12e 12 7 13 18, PCHD"
321	Sta 252+98.18, 0.00' Rt	13224.40	48418.86	Fnd 2" Brass Cap, In Casting,"T15S R12E 9 10 16 15, PCDOT"
340	Sta 199+96.23, 2656.05' Rt	10528.31	43141.33	Fnd 2-1/2" Glo Brass Cap, 1915, East Quarter S-17

FOR BASIS OF STATIONING SEE GEOMETRIC CONTROL SHEETS (PAGE 98 THROUGH 117)

NOTES AND LEGEND

Scales	Horiz. N/A	Vert. N/A	Sheet W2 of W13	Page 403 of 433

Ana M. Olivares, P.E. Director

No.	Revision Description	Engineer	Date

Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01.04.18 ARIZONA, U.S.A. Expires 09/30/2020

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#4RTVWE Pima County Department of Transportation

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION

MATERIAL QUANTITIES SUMMARY

ITEM NUMBER	ITEM DESCRIPTION	UNITS	SHEET W4		SHEET W5		SHEET W6		SHEET W7		SHEET W8		SHEET W9		SHEET W10		TOTAL	
			EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT
5101412	PIPE, POLYVINYL CHLORIDE (PVC), 12" (CLASS 305)	L.F.	150		187		105		115								557	
5102212	GATE VALVE, 12", BOX AND COVER	EA.							1								1	
5102604	AIR RELEASE VALVE, 1" (ARV)	EA.	1		1		1		1								4	
5103101	ADJUST EXISTING VALVE BOX AND COVER	EA.	2				1				2						5	
5103111	MANHOLE FOR DEEP WELL, (PAG STD 302 MODIFIED)	EA.													1		1	
5105010	WATER PIPE REMOVAL AND DISPOSE NON ASBESTOS (CA) WATER PIPE 10" AND SMALLER	L.F.							11								11	
5105012	WATER PIPE REMOVAL AND DISPOSE NON ASBESTOS (CA) WATER PIPE 12" AND LARGER	L.F.	149		182		101		112								544	
5107110	CORROSION TEST STATION (CTS)	EA.											4		3		7	
5107305	RECTIFIER, RELOCATE	EA.	1										1		1		3	
5108160	SERVICE ABANDONMENT (A)	EA.	4								5		2				11	
5109709	BOND BOX (SD-709 MOD)	EA.									1		1				2	

NOTE:

TUCSON WATER AND METRO WATER BOTH HAVE FACILITIES WITHIN THE CONSTRUCTION LIMITS OF THE VALENCIA ROAD - AJO HIGHWAY TO WADE ROAD PROJECT. THE MATERIAL QUANTITY SUMMARY TABLE FOUND ON THIS SHEET CONTAINS INFORMATION SPECIFIC ONLY TO TUCSON WATER RELATED WORK. A MATERIAL QUANTITY SUMMARY FOR METRO WATER IS FOUND ON PAGE 401.

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MATERIAL QUANTITIES SUMMARY

Scales | Horiz. N/A | Vert. N/A | Sheet W3 of W13 | Page 404 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E. Director

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

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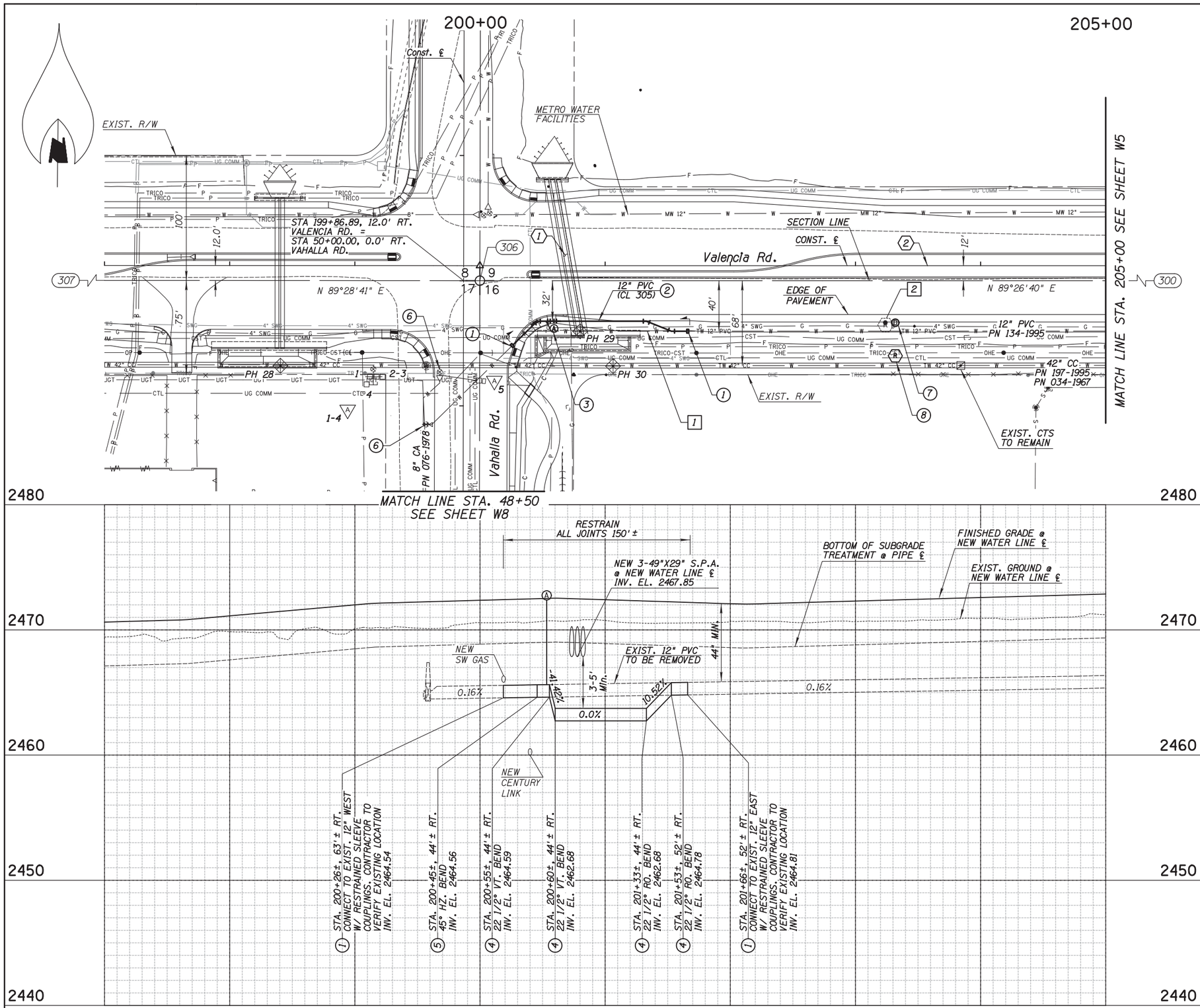
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION



REMOVE/ABANDON NOTES

1. STA. 200+26±, 63'± RT. TO STA. 201+66±, 52'± RT. REMOVE AND DISPOSE 12" AND LARGER PIPE TO NEAREST JOINT PER SD-350 — 149 LF
2. STA 203+24, 47'± RT. REMOVE EXIST. POLE MOUNTED RECTIFIER AND SALVAGE PER NOTE 2. INSTALL NEW VENT PIPE, FILL PIPE AND ANODE CONDUIT PER DETAIL K (SEE SHEET W13) — SEE NOTE 3

CONSTRUCTION NOTES

1. STA. 200+26±, 63'± RT. STA. 201+66±, 52'± RT. CONNECT TO EXIST. 12" PVC PIPE WITH RESTRAINED SLEEVE COUPLINGS — 2 EA (NPI)
2. STA. 200+26±, 63'± RT. TO STA. 201+66±, 52'± RT. 12" PVC (CL 305) — 150 LF
3. STA 200+58.5, 50' RT. (LOCATION OF ARV) 1" ARV PER SD-330 (ABOVE GROUND) — 1 EA; 1" CU PIPE — 10 LF
4. STA 200+55, 44' RT. STA 200+60, 44' RT. STA 201+33, 44' RT. STA 201+53, 52' RT. 12" 22 1/2° BEND — 4 EA (NPI)
5. STA 200+45, 44' RT. 12" 45° BEND — 1 EA (NPI)
6. STA. 199+68±, 85'± RT. (PROPOSED ELEV. 2471.70) STA. 199+56±, 127'± RT. (PROPOSED ELEV. 2470.82) EXIST. VALVE B.&C. ADJUST TO FINISHED GRADE DETAIL G, SEE SHEET W12 — 2 EA
7. STA 203+31.84, 45.5' RT. INSTALL NEW ACCESS MANHOLE OVER EXIST. DEEP WELL PER DETAIL H SEE SHEET W12 RIM ELEV.= 2472.48 — SEE NOTE 3
8. STA 203+32.1±, 70.5'± RT. NEW CABINET MOUNTED RECTIFIER FOR EXIST. 42" WATER MAIN IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM PER DETAIL K SEE SHEET W13 CONCRETE PAD ELEV= 2471.34 — 1 EA

REFERENCE NOTES

1. NEW STORM DRAIN, SEE PAGES 160-185
2. GEOMETRIC CONTROL, SEE PAGES 98-117
3. WATER METER SERVICE BEING TRANSFERRED TO METRO WATER.

SERVICE WORK

#	ADDRESS/STA	EXIST SERVICE	SERVICE WORK
1	7701 W VALENCIA RD. #B 14259287	M (5/8")	A
2	7701 W VAHALLA RD. 14259281	M (5/8")	A
3	7855 W VALENCIA RD. 14047036	M (1")	A
4	6711 S VAHALLA RD. #E 14267973	M (1")	A

POTHOLE TABLE

POTHOLE NO.	STA/OFF	TOP OF PIPE ELEV.
28	198+40.60, 80.04' Rt.	2463.84
29	200+80.03, 52.45' Rt.	2465.67
30	201+06.16, 80.00' Rt.	2465.02

NOTES:
1. SLOPE OF ROTATED BENDS/OFFSETS FOR LOWERED WATER LINES ARE CALCULATED AS TRUE SLOPES FROM HORIZONTAL.
2. EXISTING RECTIFIER SHALL BE SALVAGED AND DELIVERED TO PLANT 1 (510 W 18TH STREET).
3. INSTALLATION OF THE ACCESS MANHOLE, VENT PIPE, FILL PIPE, AND ANODE CONDUIT SHALL BE INCLUDED IN THE COST OF THE RECTIFIER RELOCATION AS DESCRIBED IN DETAIL K.

PLAN AND PROFILE

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

Ana M. Olivares, P.E. Director

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01/04/18 ARIZONA, U.S.A.
Expires 09/30/2020

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Pima County Department of Transportation

#4RTVWE

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION

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

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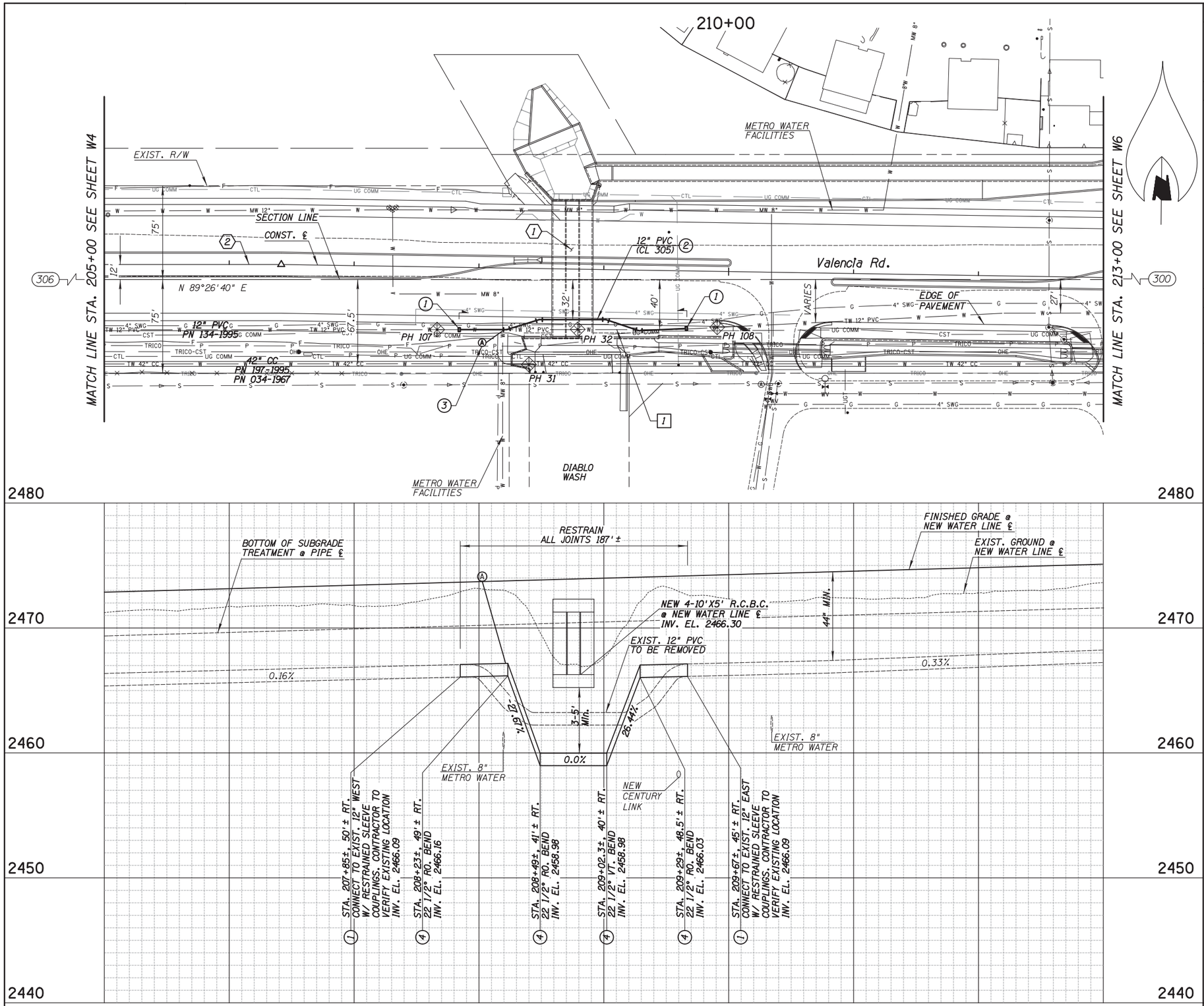

REMOVE/ABANDON NOTES

1. STA. 207+85±, 50'± RT.
   STA. 209+67±, 45'± RT.
   REMOVE AND DISPOSE 12" AND LARGER PIPE TO NEAREST JOINT PER SD-350 — 182 LF

CONSTRUCTION NOTES

1. STA. 207+85±, 50'± RT.
   STA. 209+67±, 45'± RT.
   CONNECT TO EXIST. 12" PVC PIPE WITH RESTRAINED SLEEVE COUPLINGS — 2 EA (NPI)
2. STA. 207+85±, 50'± RT. TO
   STA. 209+67±, 45'± RT.
   12" PVC (CL 305) — 187 LF
3. STA. 208+04±, 60'± RT.
   (LOCATION OF ARV)
   1" ARV PER SD-330 (ABOVE GROUND) — 1 EA
   1" CU PIPE — 16 LF
4. STA 208+23, 49' RT.
   STA 208+49, 41' RT.
   STA 209+02.3, 40' RT.
   STA 209+29, 48.5' RT.
   12" 22 1/2° BEND — 4 EA (NPI)

REFERENCE NOTES

1. NEW STORM DRAIN, SEE PAGES 160-185
2. GEOMETRIC CONTROL, SEE PAGES 98-117

POTHOLE TABLE

POTHOLE NO.	STA/OFF	TOP OF PIPE ELEV.
31	208+41.24, 76.90' Rt.	2467.30
32	208+79.88, 54.21' Rt.	2463.23
107	207+67.25, 50.15' Rt.	2467.11
108	209+91.54, 44.70' Rt.	2467.27

NOTES:
1. SLOPE OF ROTATED BENDS/OFFSETS FOR LOWERED WATER LINES ARE CALCULATED AS TRUE SLOPES FROM HORIZONTAL.

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PLAN AND PROFILE

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

Sheet W5 of W13

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E. Director

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

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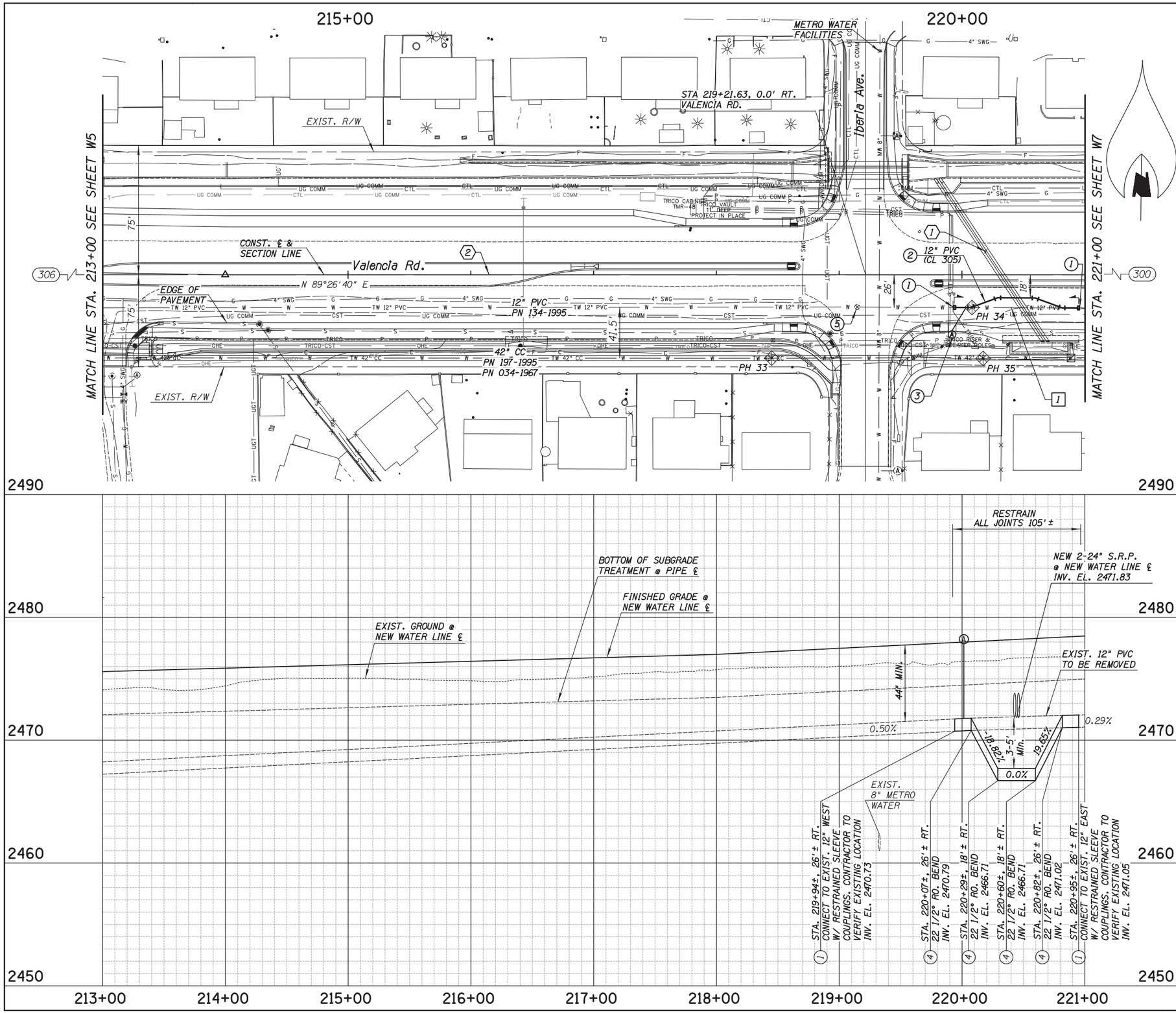
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION



REMOVE/ABANDON NOTES

1. STA. 219+94±, 26'± RT. TO STA. 220+95±, 26'± RT. REMOVE AND DISPOSE 12" AND LARGER PIPE TO NEAREST JOINT PER SD-350 — 101 LF

CONSTRUCTION NOTES

1. STA. 219+94±, 26'± RT. STA. 220+95±, 26'± RT. CONNECT TO EXIST. 12" PVC PIPE WITH RESTRAINED SLEEVE COUPLINGS — 2 EA (NPI)
2. STA. 219+94±, 26'± RT. TO STA. 220+95±, 26'± RT. 12" PVC (CL 305) — 105 LF
3. STA 219+92, 48.5' RT. (LOCATION OF ARV) 1" ARV PER SD-330 (ABOVE GROUND) — 1 EA; 1" CU PIPE — 27 LF
4. STA 220+07, 26' RT. STA 220+29, 18' RT. STA 220+60, 18' RT. STA 220+82, 26' RT. 12" 22 1/2° BEND — 4 EA (NPI)
5. STA. 219+14±, 26'± RT. EXIST. 12" VALVE B.&C. ADJUST TO FINISHED GRADE (PROPOSED ELEV. 2477.56) DETAIL G, SEE SHEET W12 — 1 EA

REFERENCE NOTES

1. NEW STORM DRAIN, SEE PAGES 160-185
2. GEOMETRIC CONTROL, SEE PAGES 98-117

POTHOLE TABLE

POTHOLE NO.	STA/OFF	TOP OF PIPE ELEV.
33	218+45.05, 67.86' Rt.	2470.07
34	220+08.17, 26.56' Rt.	2471.80
35	220+17.24, 68.04' Rt.	2470.87

NOTES:

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PLAN AND PROFILE

Ana M. Olivares, P.E. Director

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VALENCIA ROAD
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WATER SYSTEMS MODIFICATION

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

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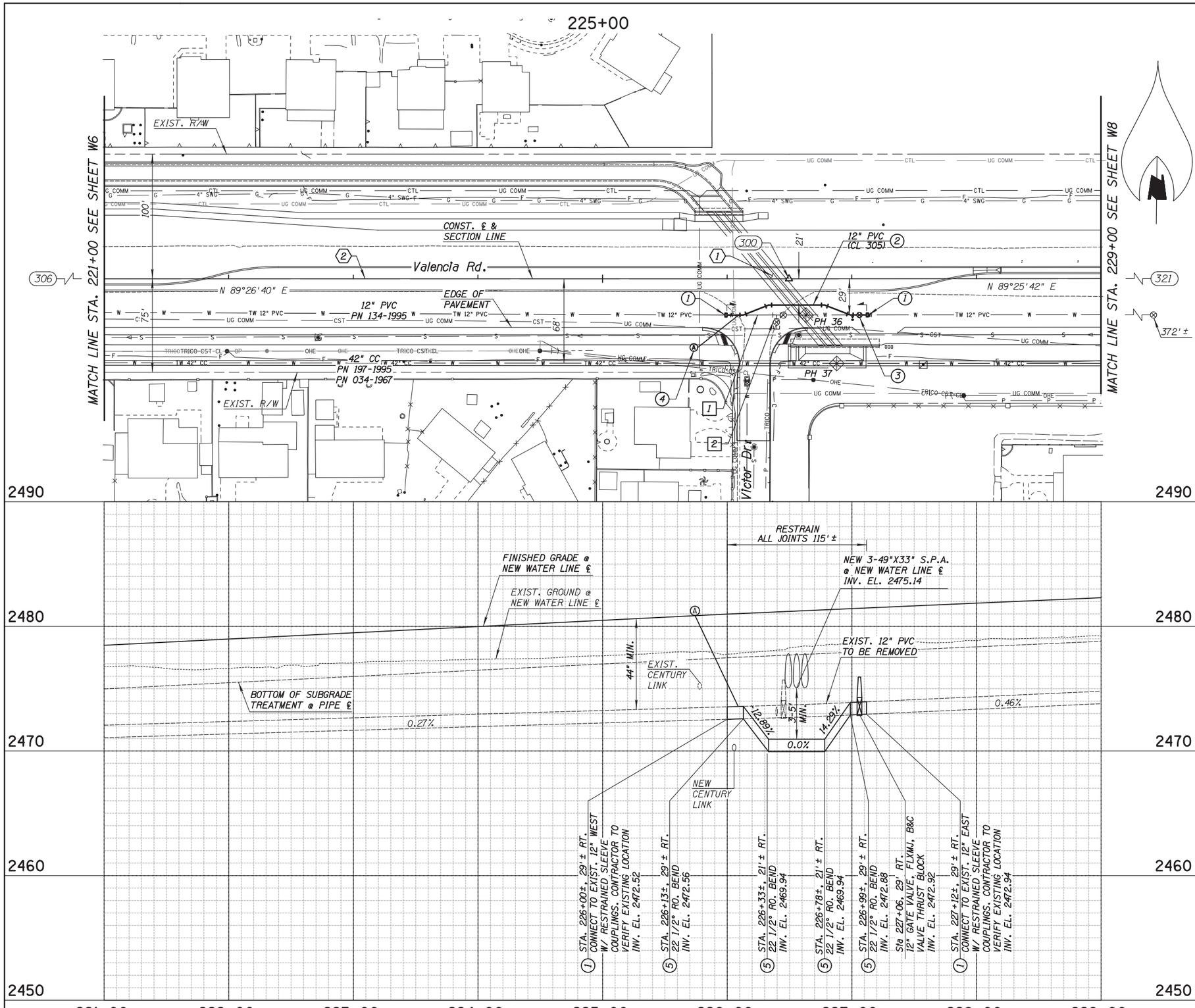

REMOVE/ABANDON NOTES

1. STA. 226+00±, 29'± RT. TO STA. 227+12±, 29'± RT. REMOVE AND DISPOSE 12" AND LARGER PIPE TO NEAREST JOINT PER SD-350 — 112 LF
2. STA. 226+39±, 29'± RT. TO STA. 226+39±, 40'± RT. REMOVE AND DISPOSE 10" AND SMALLER PIPE TO NEAREST JOINT PER SD-350 — 11 LF

CONSTRUCTION NOTES

1. STA. 226+00±, 29'± RT. STA. 227+12±, 29'± RT. CONNECT TO EXIST. 12" PVC PIPE WITH RESTRAINED SLEEVE COUPLINGS — 2 EA (NPI)
2. STA. 226+00±, 29'± RT. TO STA. 227+12±, 29'± RT. 12" PVC (CL 305) — 115 LF
3. Sta 227+06, 29' RT. 12" GATE VALVE, FLXMJ, B&C — 1 EA; VALVE THRUST BLOCK (SEE SHEET W12) — (NPI)
4. STA 225+73, 54.5' RT. (LOCATION OF ARV) 1" ARV PER SD-330 (ABOVE GROUND) — 1 EA; 1" CU PIPE — 47 LF
5. STA 226+13, 29' RT. STA 226+33, 21' RT. STA 226+78, 21' RT. STA 226+99, 29' RT. 12" 22 1/2° BEND — 4 EA (NPI)

REFERENCE NOTES

1. NEW STORM DRAIN, SEE PAGES 160-185
2. GEOMETRIC CONTROL, SEE PAGES 98-117

POTHOLE TABLE

POTHOLE NO.	STA/OFF	TOP OF PIPE ELEV.
36	226+63.27, 29.22' Rt.	2470.07
37	226+87.91, 67.97' Rt.	2471.80

NOTES:

1. SLOPE OF ROTATED BENDS/OFFSETS FOR LOWERED WATER LINES ARE CALCULATED AS TRUE SLOPES FROM HORIZONTAL.

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PLAN AND PROFILE

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION

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

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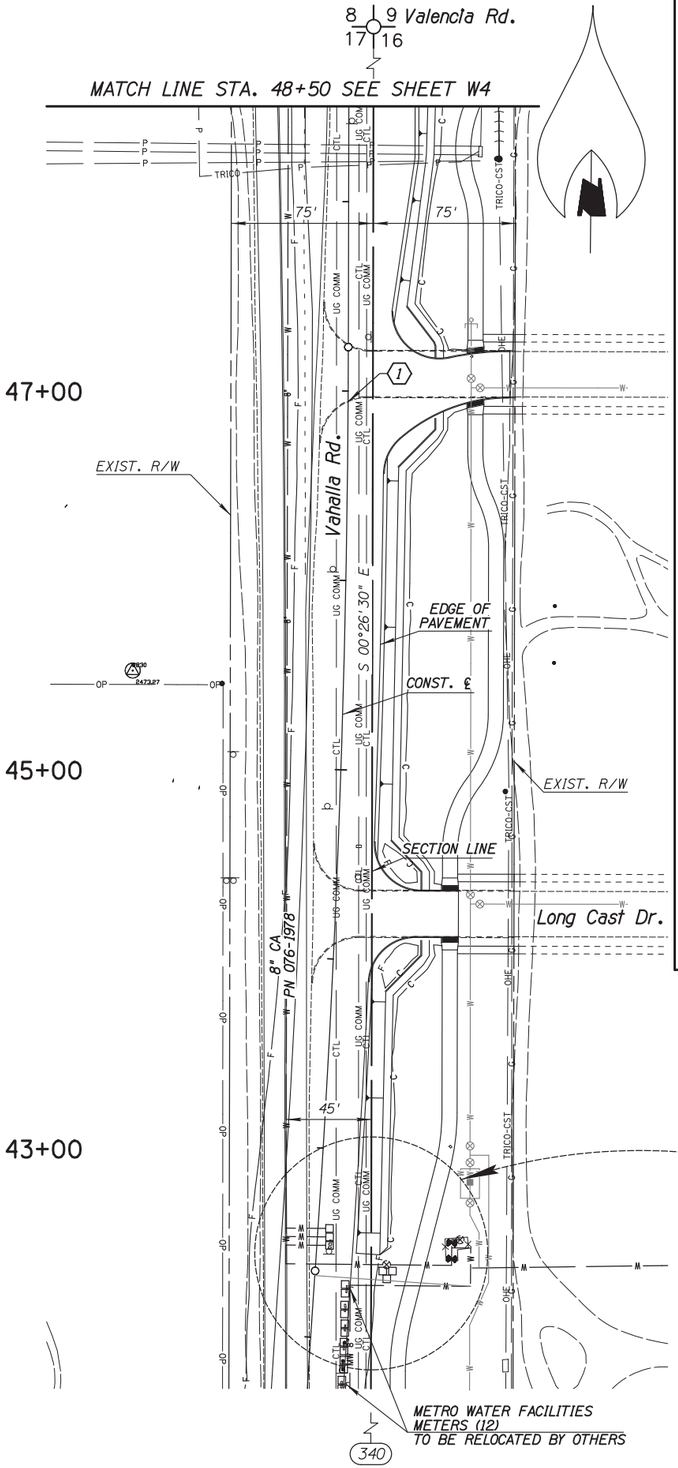
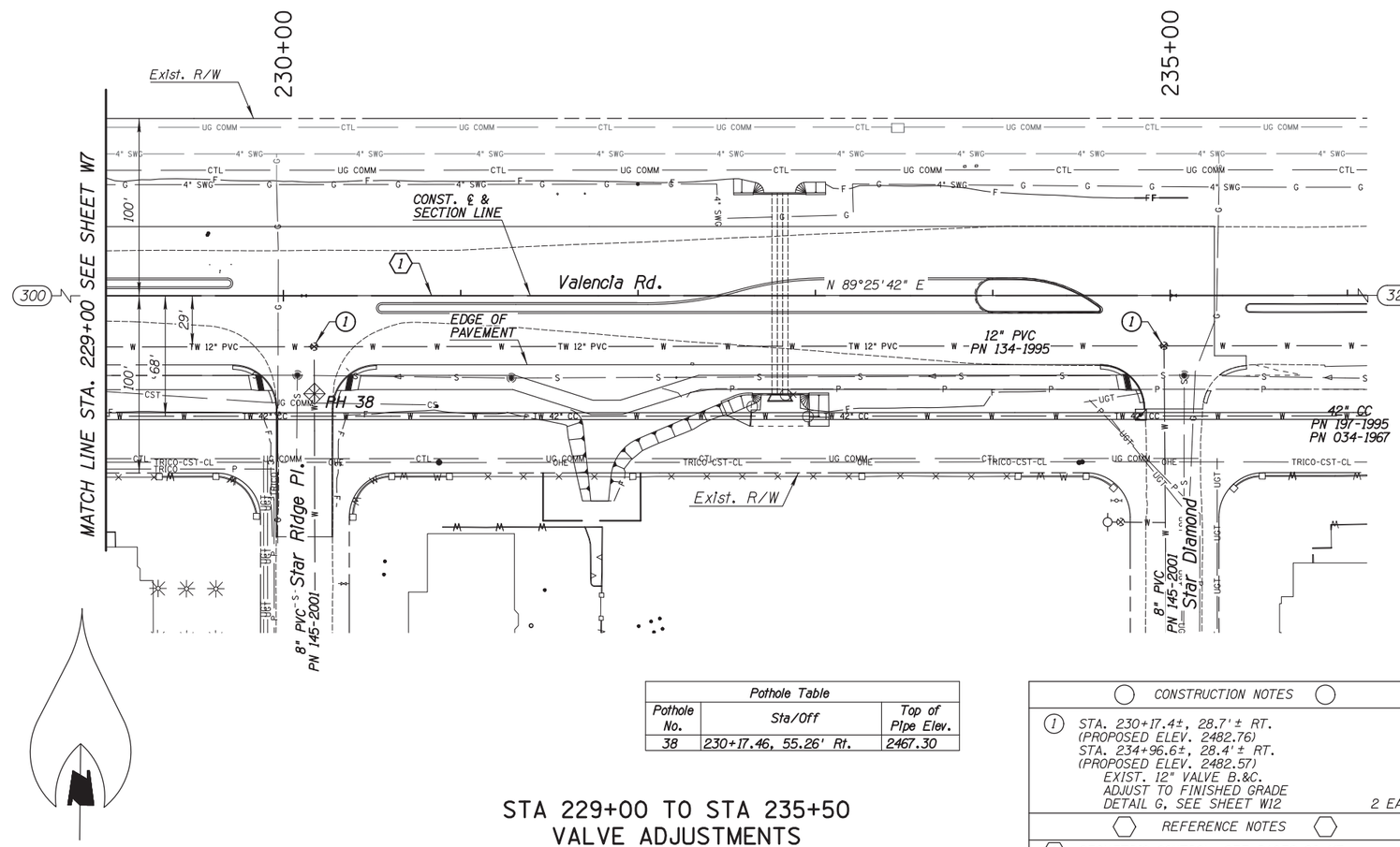




Pothole Table		
Pothole No.	Sta/Off	Top of Pipe Elev.
38	230+17.46, 55.26' Rt.	2467.30

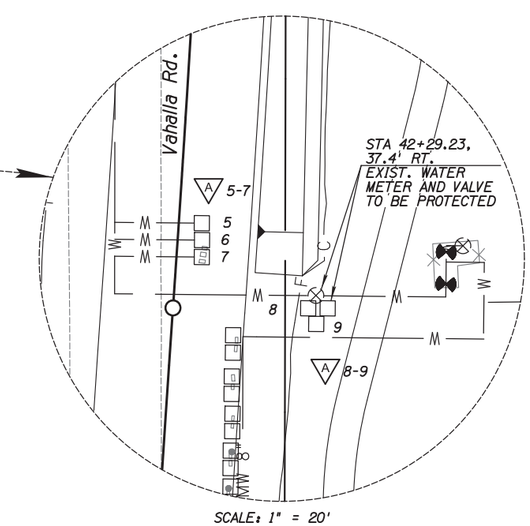
STA 229+00 TO STA 235+50
VALVE ADJUSTMENTS

CONSTRUCTION NOTES

1. STA. 230+17.4±, 28.7'± RT. (PROPOSED ELEV. 2482.76) STA. 234+96.6±, 28.4'± RT. (PROPOSED ELEV. 2482.57) EXIST. 12" VALVE B.&C. ADJUST TO FINISHED GRADE DETAIL G, SEE SHEET W12 — 2 EA

REFERENCE NOTES

1. GEOMETRIC CONTROL, SEE PAGES 98-117



SERVICE WORK				
	#	ADDRESS/STA	EXIST SERVICE	SERVICE WORK
3	5	6713 S VAHALLA RD. 14258898	M (1")	A
	6	6711 S VAHALLA RD. 14258903	M (1")	A
	7	6711 S VAHALLA RD. 14258899	M (1")	A
3	8	6713 S VAHALLA RD. 14259280	M (1")	A
3	9	6711 S VAHALLA RD. 11231195	M (1")	A

STA 42+00 TO STA 48+50
(VAHALLA RD)
SERVICE ABANDONMENT

REFERENCE NOTES

3. WATER METER SERVICE BEING TRANSFERRED TO METRO WATER.

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PLAN SHEET

Scales	Horiz. 1" = 40' Vert. N/A	Sheet W8 of W13	Page 409 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E. Director

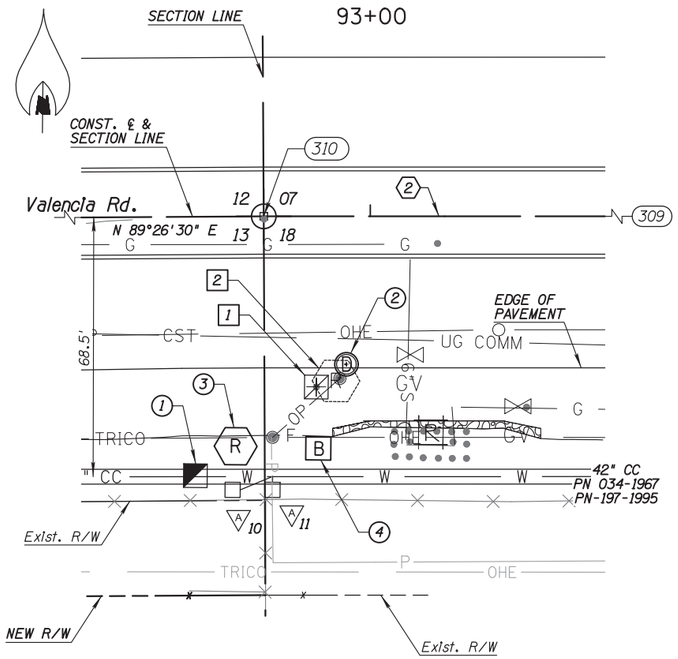
No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

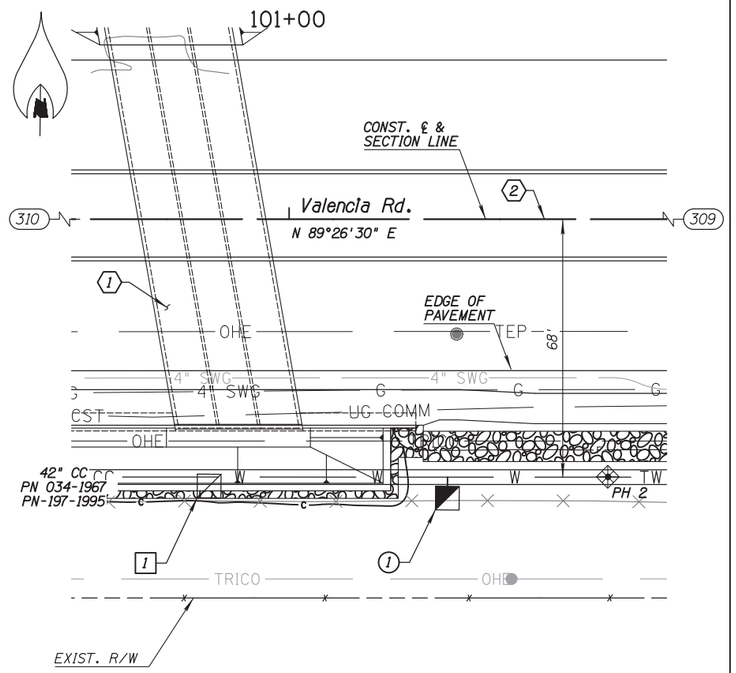
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01.04.18 ARIZONA, U.S.A.
Expires 09/30/2020

Stantec
5151 East Broadway Blvd. Suite 400
TUCSON, AZ 85711
PH: (520) 750-7474
FAX: (520) 750-7470
www.stantec.com

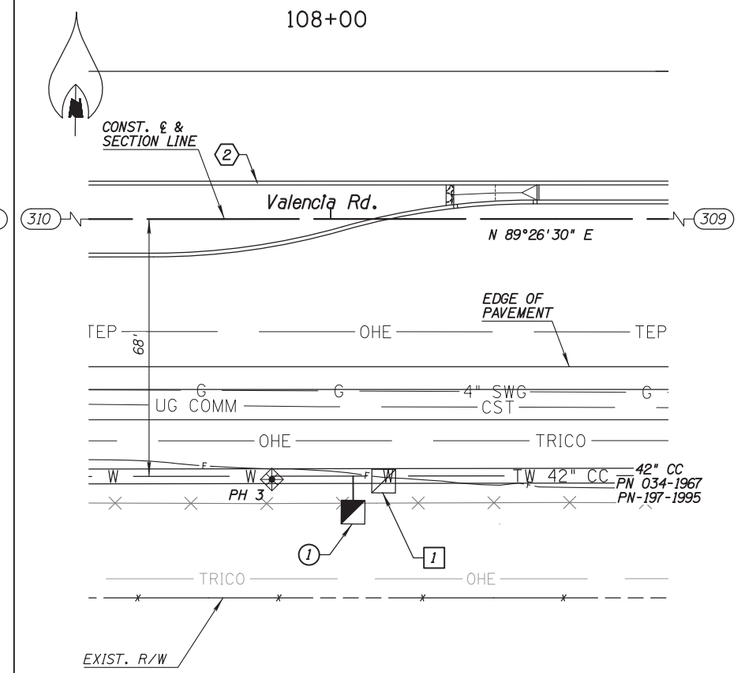
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION



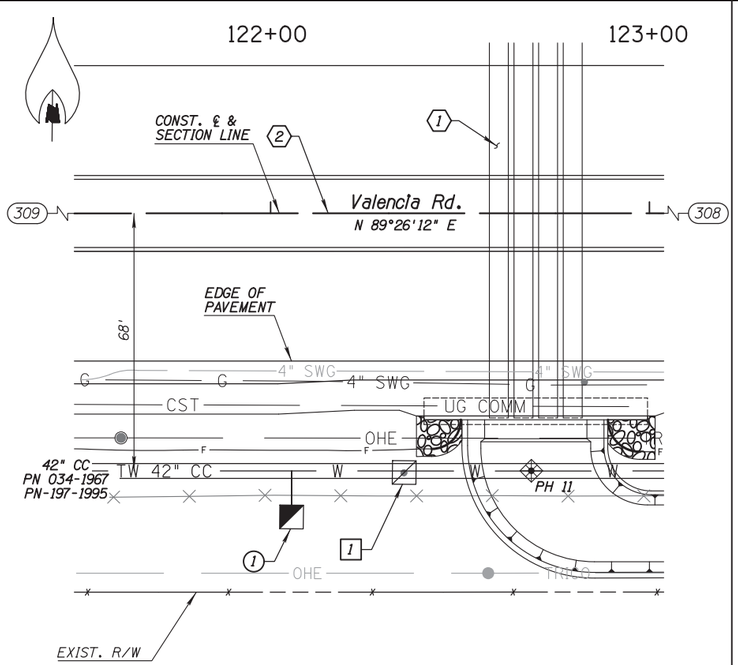
APPURTENANCE
Sta 92+64



APPURTENANCE
Sta 101+41



APPURTENANCE
Sta 108+06



APPURTENANCE
Sta 122+05

REMOVE/ABANDON NOTES

1. STA. 92+85±, 45'± RT.
   STA 100+79±, 70'± RT.
   STA 108+14±, 69'± RT.
   STA 122+35±, 69'± RT.
   REMOVE EXIST. CTS AND SALVAGE PER NOTE 1 — 4 EA (NPI)
2. STA 92+92, 43'± RT.
   REMOVE EXIST. POLE MOUNTED RECTIFIER AND SALVAGE — SEE NOTE 2

CONSTRUCTION NOTES

1. STA. 92+54±, 68.5'± RT.
   STA 101+41, 74' RT.
   STA 108+06±, 69'± RT.
   STA 122+05, 69' RT.
   INSTALL NEW CTS ON EXIST. 42" MAIN PER SD 706 — 4 EA
2. STA 92+93.70, 39.1' RT.
   INSTALL NEW ACCESS MANHOLE, VENT PIPE, FILL PIPE AND ANODE CONDUIT OVER EXIST. DEEP WELL PER DETAIL H SEE SHEET W12
   RIM ELEV.= 2437.20 — SEE NOTE 3
3. STA 92+64±, 60.5'± RT.
   NEW CABINET MOUNTED RECTIFIER FOR EXIST. 42" WATER MAIN IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM.
   DETAIL K SEE SHEET W13
   CONCRETE PAD ELEV = 2436.70 — 1 EA
4. STA 92+86, 61' RT.
   TUCSON WATER SD-709 MOD, CATHODIC PROTECTION BOND BOX BETWEEN TUCSON WATER AND SOUTHWEST GAS
   DETAIL L SEE SHEET W13 — 1 EA

REFERENCE NOTES

1. NEW DRAINAGE IMPROVEMENTS, SEE PAGES 160-185
2. GEOMETRIC CONTROL, SEE PAGES 98-117

SERVICE WORK

#	ADDRESS/STA	EXIST SERVICE	SERVICE WORK
10	9441 W VALENCIA RD. 22127981	M (5/8")	A
11	9425 W VALENCIA RD. 22127980	M (5/8")	A

POTHOLE TABLE

POTHOLE NO.	STA/OFF	TOP OF PIPE ELEV.
2	95+64.18, 68.69' RT.	2429.90
3	96+59.47, 68.68' RT.	2429.97
11	122+68.84, 68.01' RT.	2437.89

NOTES:

1. EXISTING CTS SHALL BE SALVAGED AND DELIVERED TO PLANT 1 (510 W 18TH STREET).
2. EXISTING RECTIFIER SHALL BE SALVAGED AND DELIVERED TO PLANT 1 (510 W 18TH STREET). REMOVAL OF EXISTING RECTIFIER SHALL BE INCLUDED IN THE COST OF RECTIFIER RELOCATION.
3. INSTALLATION OF THE ACCESS MANHOLE, VENT PIPE, FILL PIPE, AND ANODE CONDUIT SHALL BE INCLUDED IN THE COST OF THE RECTIFIER RELOCATION AS DESCRIBED IN DETAIL K.
4. REMOVAL OF EXISTING CTS'S SHALL BE INCLUDED WITH THE COST OF THE NEW CTS INSTALLATION.

Contact Arizona 811 at least two full working days before you begin excavation
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APPURTENANCE DETAILS

Scales	Horiz. 1"=20'	Sheet W9 of W13	Page 410 of 433
	Vert. N/A		

Ana M. Olivares, P.E. Director

#4RTVWE Pima County Department of Transportation

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01/04/18 ARIZONA, U.S.A.
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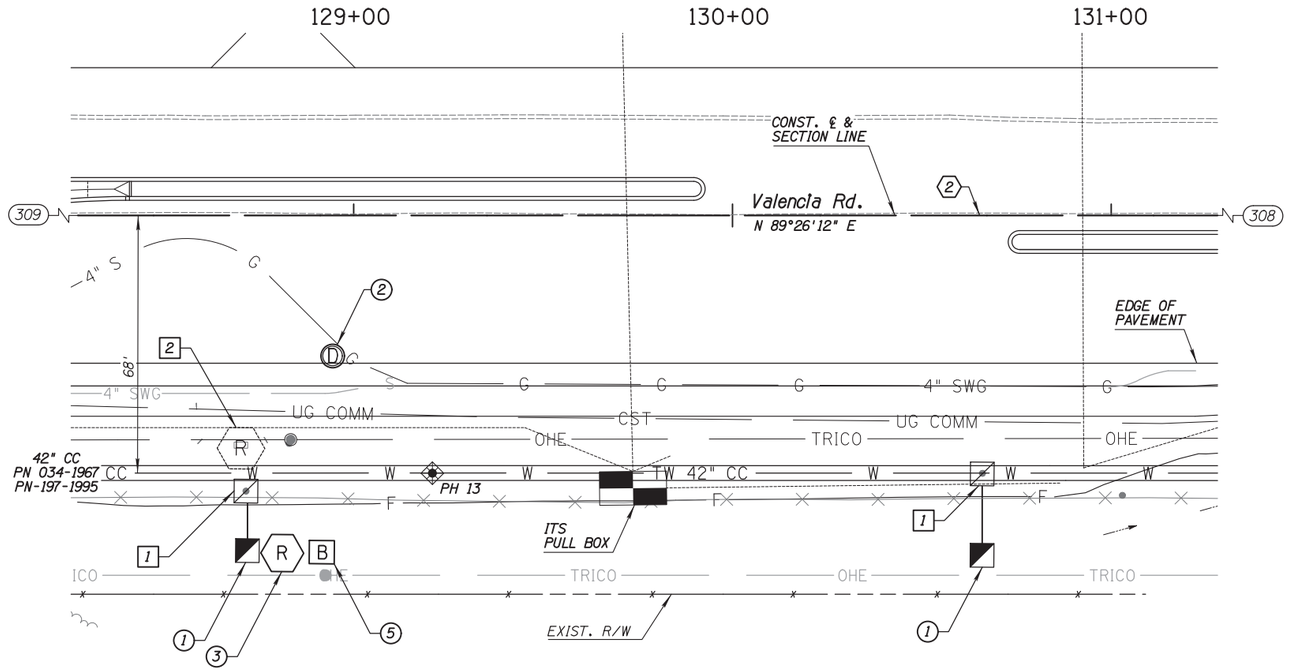
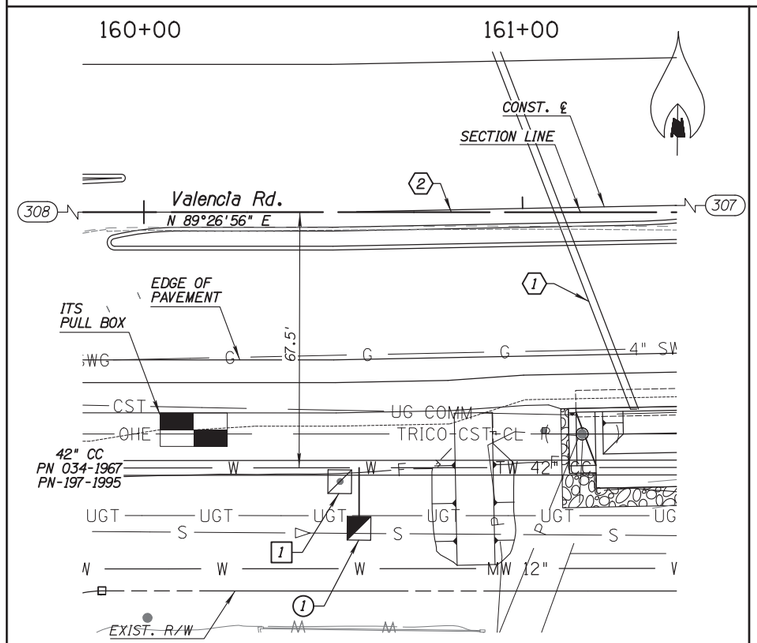
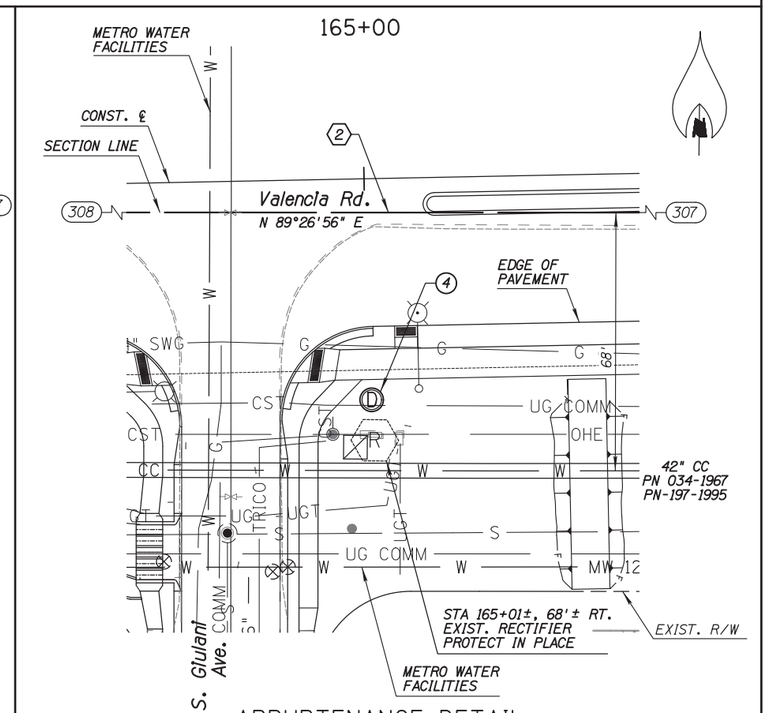
VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION



APPURTENANCE DETAIL
Sta 128+80



APPURTENANCE DETAIL
Sta 160+57



APPURTENANCE DETAIL
Sta 165+00

REMOVE/ABANDON NOTES

1	STA 128+72±, 88'± RT. STA 130+66±, 68'± RT. STA 160+50±, 71'± RT. REMOVE EXIST. CTS AND SALVAGE PER NOTE 1	3 EA (NPI)
2	STA 128+70, 60'± RT. REMOVE EXIST. POLE MOUNTED RECTIFIER AND SALVAGE	SEE NOTE 2

CONSTRUCTION NOTES

1	STA 128+71, 90' RT. STA 130+65, 90' RT. STA 160+54, 83' RT. INSTALL NEW CTS ON EXIST. 42" MAIN PER SD 706	3 EA
2	STA 128+94±, 37'± RT. INSTALL NEW ACCESS MANHOLE, VENT PIPE, FILL PIPE AND ANODE CONDUIT OVER EXIST. DEEP WELL PER DETAIL H SEE SHEET W12 RIM ELEV.= 2449.18	SEE NOTE 3
3	STA 128+81, 89' RT. NEW CABINET MOUNTED RECTIFIER FOR EXIST. 42" WATER MAIN IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM. DETAIL K SEE SHEET W13 CONCRETE PAD ELEV = 2446.02	1 EA
4	STA 165+01, 58.5'± RT. INSTALL NEW ACCESS MANHOLE, VENT PIPE, FILL PIPE AND ANODE CONDUIT OVER EXIST. DEEP WELL PER DETAIL H SEE SHEET W12 RIM ELEV.= 2461.40	1 EA
5	STA 128+91, 88.5' RT. TUCSON WATER SD-709, CATHODIC PROTECTION BOND BOX BETWEEN TUCSON WATER AND SOUTHWEST GAS DETAIL L SEE SHEET W13	1 EA

REFERENCE NOTES

1. NEW DRAINAGE IMPROVEMENTS, SEE PAGES 160-185
2. GEOMETRIC CONTROL, SEE PAGES 98-117

POTHOLE TABLE		
POTHOLE NO.	STA/OFF	TOP OF PIPE ELEV.
13	129+20.77, 68.04' RT	2439.32

NOTES:

1. EXISTING CTS SHALL BE SALVAGED AND DELIVERED TO PLANT 1 (510 W 18TH STREET).
2. EXISTING RECTIFIER SHALL BE SALVAGED AND DELIVERED TO PLANT 1 (510 W 18TH STREET). REMOVAL OF EXISTING RECTIFIER SHALL BE INCLUDED IN THE COST OF RECTIFIER RELOCATION.
3. INSTALLATION OF THE ACCESS MANHOLE, VENT PIPE, FILL PIPE, AND ANODE CONDUIT SHALL BE INCLUDED IN THE COST OF THE RECTIFIER RELOCATION AS DESCRIBED IN DETAIL K.
4. REMOVAL OF EXISTING CTS'S SHALL BE INCLUDED WITH THE COST OF THE NEW CTS INSTALLATION.

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ARIZONA811
Call 811 or click Arizona811.com

APPURTENANCE DETAILS

Scales	Horiz. 1"=20'	Sheet W10 of W13	Page 411 of 433
	Vert. N/A		

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E. Director

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01/04/18 ARIZONA, U.S.A.
Expires 09/30/2020

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VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION

NOTES

1. ALL NEW WATER MAINS REQUIRE DETECTABLE LOCATOR TAPE PER SD-115. IN ADDITION, A TRACER WIRE SHALL ALSO BE INSTALLED. THE TRACER WIRE SHALL BE UF, THWN, THW, OR RHW/RHH SOLID 12 GAUGE WIRE. THE TRACER WIRE SHALL BE LAID DIRECTLY ON TOP OF THE PIPE IN CONTINUOUS LENGTHS BETWEEN VALVES, AIR RELEASE VALVES (ARV), DRAIN VALVE ASSEMBLIES (D.V.A.) AND LATERAL CONNECTIONS TO EXISTING WATER MAINS.

2. THE TRACER WIRE SHALL BE SECURED TO THE PIPE WITH ADHESIVE TAPE AT INTERVALS NOT GREATER THAN 10'. THE INTENT IS TO KEEP THE TRACER WIRE IN PLACE DURING BACK FILL, NOT TO PERMANENTLY FIX THE TAPE TO THE PIPE.

3. THE TRACER WIRE SHALL BE SECURED TO VERTICAL COMPONENTS, I.E. VALVE RISERS, AIR RELEASE VALVE (ARV) LINES ETC., BY WRAPPING THE PIPE CIRCUMFERENCE WITH 10 MIL P.V.C. PIPE TAPE OR ZIP TIES WITH A TENSILE STRENGTH OF NOT LESS THAN 50 LBS. AT INTERVALS NOT GREATER THAN ONE FOOT (1').

4. FOR D.I.P. WATER MAINS, TRACER WIRE SHALL BE ATTACHED TO THE PIPE OUTSIDE OF THE POLYETHYLENE ENCASEMENT.

5. THE CONTINUITY OF EACH SEGMENT OF TRACER WIRE INSTALLED SHALL BE VERIFIED BY THE CONTRACTOR. FINAL ACCEPTANCE OF THE PROJECT WILL NOT BE GRANTED UNTIL WRITTEN CERTIFICATION, SIGNED BY THE CONTRACTOR, IS RECEIVED BY THE CONSTRUCTION SECTION OF THE CITY OF TUCSON WATER DEPARTMENT.

6. THE INSULATION ON TRACER WIRE INSTALLED ON POTABLE WATER MAINS SHALL BE COLORED BLUE. THE INSULATION ON TRACER WIRE INSTALLED ON RECLAIMED WATER LINES SHALL BE COLORED PURPLE.

7. WHERE THE ENDS OF NEW TRACER WIRE TERMINATE BELOW GROUND, THE END OF THE NEW TRACER WIRE SHALL BE TAPED WITH TWO HALF LAPPED LAYERS OF POLYETHYLENE OR POLYVINYL CHLORIDE TAPE (ELECTRICIANS TAPE).

8. METALLIC TAGS SHALL BE ONE INCH (1") WIDE BY A MINIMUM OF ONE AND ONE HALF INCHES LONG (1 ½") AND A MINIMUM OF ONE SIXTEENTH INCH (1/16") THICK WITH A ONE EIGHTH INCH (1/8") HOLE AT ONE CORNER OF THE TAG. IT SHALL BE ATTACHED TO THE TRACER WIRE WITH TWELVE GAUGE (12 GA.) WIRE. THE DIRECTION SHALL BE STAMPED WITH A HALF INCH (1/2") LETTER MARKING PUNCH.

TRACER WIRE - NOTES

N.T.S

DETAIL A

SPLICES IN THE TRACER WIRE SHALL BE PERFORMED AS FOLLOWS:

1. THE INSULATION SHALL BE STRIPPED FROM THE WIRE EXPOSING ENOUGH BARE WIRE TO EXTEND APPROXIMATELY ½" BEYOND THE END OF THE COPPER SLEEVE.

2. THE COPPER SLEEVE SHALL BE OF THE APPROPRIATE SIZE FOR 12 GAUGE WIRE AND INTENDED FOR THIS PURPOSE.

3. CRIMP THE SLEEVE ON THE WIRE WITH A CRIMPING TOOL A MINIMUM OF 4 TIMES.

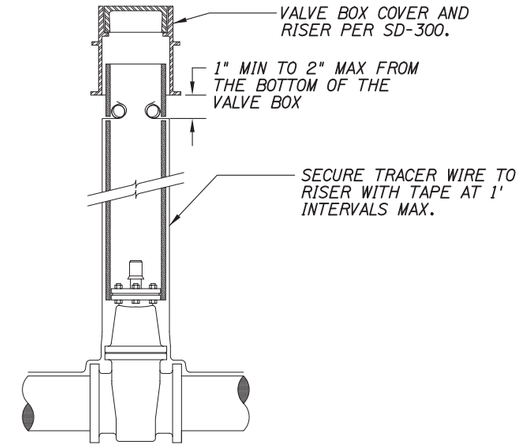
4. AFTER CRIMPING THE COPPER SLEEVE, BEND THE WIRE BACK OVER THE SLEEVE.

5. CLEAN AND DRY THE EXPOSED SECTION OF THE WIRE. WRAP THE CONNECTION WITH TWO HALF-LAPPED LAYERS OF POLYETHYLENE OR POLYVINYL CHLORIDE TAPE (ELECTRICIANS TAPE).

TRACER WIRE - SPLICE DETAIL

N.T.S

DETAIL B



NOTES:

1. THREAD TRACER WIRES THROUGH 1/4" HOLES DRILLED IN THE RISER PIPE 2" TO 4" BELOW THE VALVE BOX.

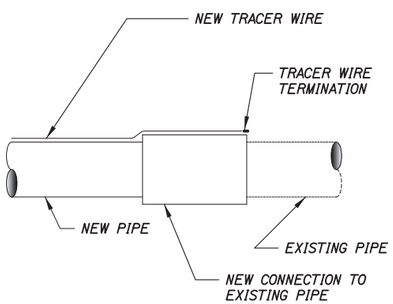
2. A KNOT SHALL BE TIED IN THE TRACER WIRE INSIDE THE RISER PIPE AND A 3' COIL OF WIRE LEFT NEATLY INSIDE THE RISER.

3. THE TRACER WIRE SHALL ENTER THE RISER PIPE ON THE SAME SIDE AS THE WATER PIPE TO BE TRACED.

TRACER WIRE - IN LINE VALVES

N.T.S

DETAIL C



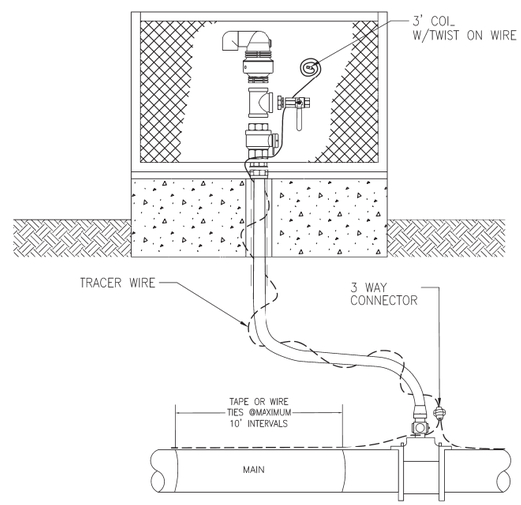
NOTES:

1. AT CONNECTIONS TO EXISTING PIPE WITH NO TRACER WIRE, THE NEW TRACER WIRE SHALL BE TERMINATED AT THE END OF THE CONNECTION DEVICE.

TRACER WIRE - EXIST WATER MAIN

N.T.S

DETAIL D



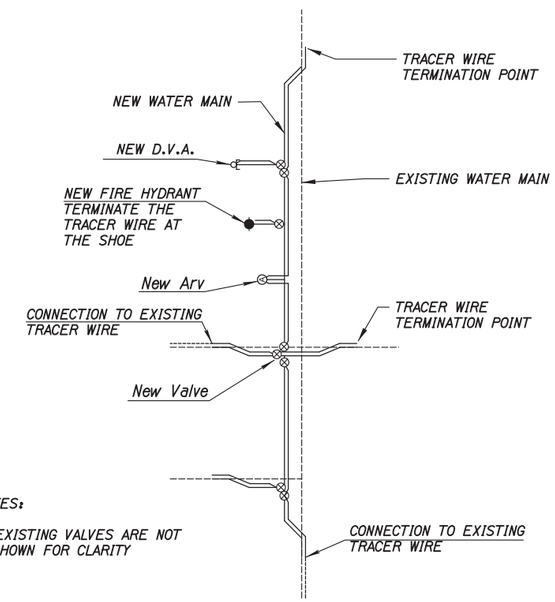
NOTES:
1. THE TRACER WIRE SHALL BE ATTACHED TO THE AIR RELEASE LINE WITH TAPE OR WIRE TIES AT A MAXIMUM OF 1' INTERVALS. A 3' COIL OF WIRE SHALL BE LEFT IN THE METER BOX.

2. THIS DETAIL APPLIES TO AIR RELEASE VALVES IN SD-330 AND SD-331.

TRACER WIRE - AIR RELEASE VALVES

N.T.S

DETAIL E



NOTES:

1. EXISTING VALVES ARE NOT SHOWN FOR CLARITY

TRACER WIRE - SCENARIOS

N.T.S

DETAIL F

DETAIL SHEET

Scales	Horiz. N/A Vert. N/A	Sheet W11 of W13	Page 412 of 433

#4RTVWE Pima County Department of Transportation

Ana M. Olivares, P.E. Director

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO.
34006
DOUGLAS MICHAEL MOSEKE
Date Signed 01.04.18
ARIZONA, U.S.A.
Expires 09/30/2020

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VALENCIA ROAD
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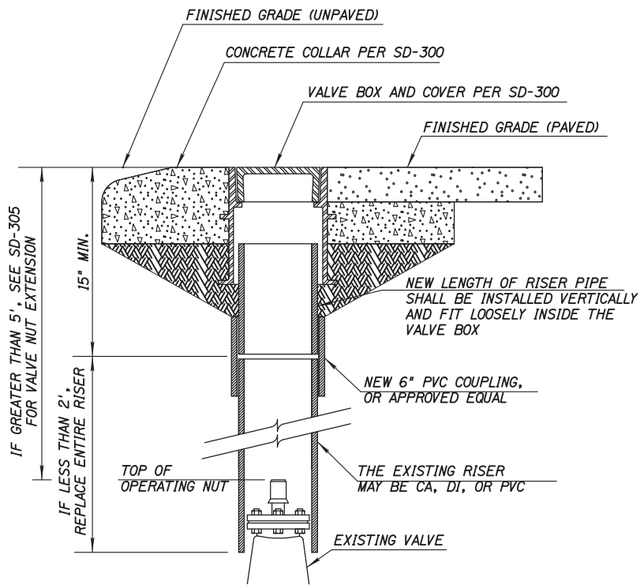
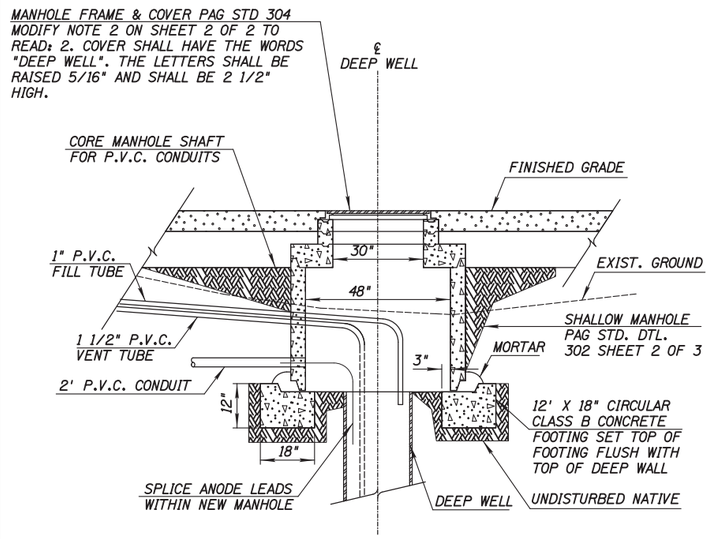
WATER SYSTEMS MODIFICATION



VALVE BOX ADJUSTMENT

N.T.S

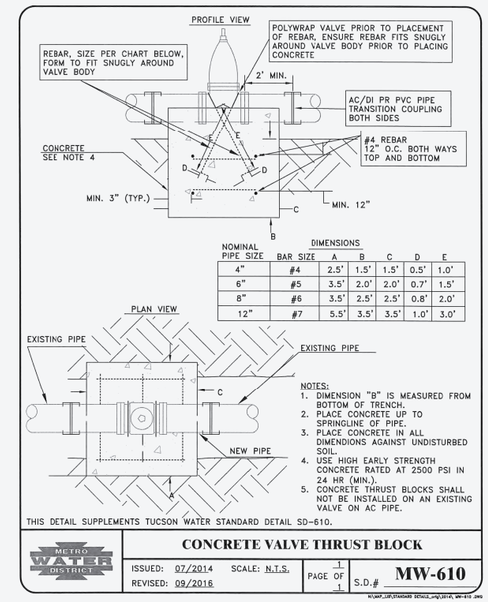
DETAIL G



DEEP WELL

N.T.S

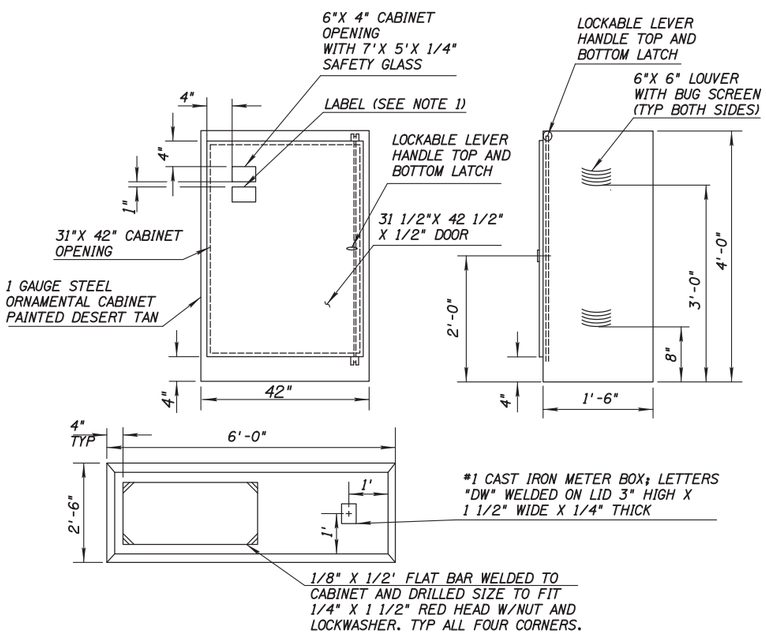
DETAIL H



NOMINAL PIPE SIZE	BAR SIZE	A	B	C	D	E
4"	#4	2.5'	1.5'	1.5'	0.5'	1.0'
6"	#5	3.5'	2.0'	2.0'	0.7'	1.5'
8"	#6	3.5'	2.5'	2.5'	0.8'	2.0'
12"	#7	5.5'	3.5'	3.5'	1.0'	3.0'

NOTES:
1. DIMENSION "B" IS MEASURED FROM BOTTOM OF TRENCH.
2. PLACE CONCRETE UP TO SPRINGLINE OF PIPE.
3. PLACE CONCRETE IN ALL DIMENSIONS AGAINST UNDISTURBED SOIL.
4. USE HIGH EARLY STRENGTH CONCRETE RATED AT 2500 PSI IN 24 HR (MIN.).
5. CONCRETE THRUST BLOCKS SHALL NOT BE INSTALLED ON AN EXISTING VALVE ON AC PIPE.

DETAIL I



ORNAMENTAL RECTIFIER CABINET

N.T.S

NOTE:
1. 6"X 3"X 1/8" THICK, BLACK ON WHITE PLASTIC, WITH RECTIFER ADDRESS, "TUCSON WATER" AND "791-2648" ENGRAVED (WHITE) 1/2" HIGH BLOCK STYLE LETTERING.

DETAIL J

DETAIL SHEET

Scales	Horiz. N/A	Sheet W12 of W13	Page 413 of 433
	Vert. N/A		

Ana M. Olivares, P.E. Director

#4RTVWE Pima County Department of Transportation

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Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

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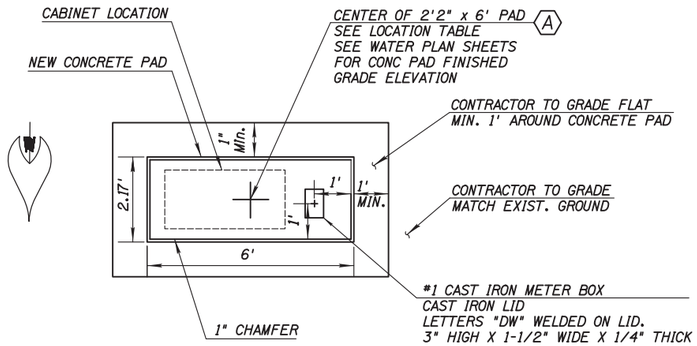


DETAIL 1 - CONCRETE PAD PLAN VIEW

N.T.S

NOTE:

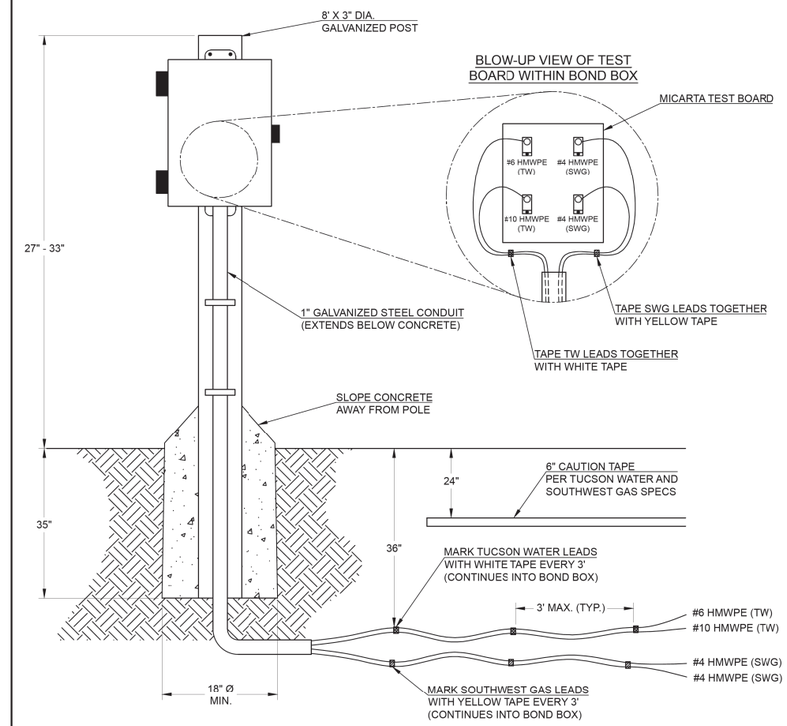
1. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND AVOIDING EXISTING UTILITIES ALONG THE INSTALLATION OF THE NEW EXTENDED FILL PIPE, VENT PIPE, AND ANODE CONDUIT PIPING AND BOX.

2. REWIRING AND RECALIBRATION OF THE RECTIFIER SHALL BE PERFORMED BY A CERTIFIED PROTECTION SPECIALIST AND IN COMPLIANCE WITH TUCSON WATER CORROSION CONTROL DESIGN STANDARDS AND CORROSION MONITORING SYSTEM NOTES, SD-700.

3. CONTINUITY OF CATHODIC PROTECTION MUST BE MAINTAINED. THE EXISTING RECTIFIER SHALL NOT BE REMOVED FROM SERVICE UNTIL THE NEW RECTIFIER IS READY FOR SERVICE.

RECTIFIER COMPONENT LOCATION TABLE

PLAN SHEET	(A)	(B)	(C)
W4	STA. 203+32.1, 70.5' RT.	204+38.0, 87' RT.	STA. 203+31.84, 45.5' RT.
W9	STA. 92+64.0, 60.5'RT.	94+08.5, 94.0' RT.	STA. 92+64.0, 60.5' RT.
W10	STA. 128+81.0, 88.0'RT.	128+92.5, 95.0' RT.	STA. 128+94.0, 37.0' RT.

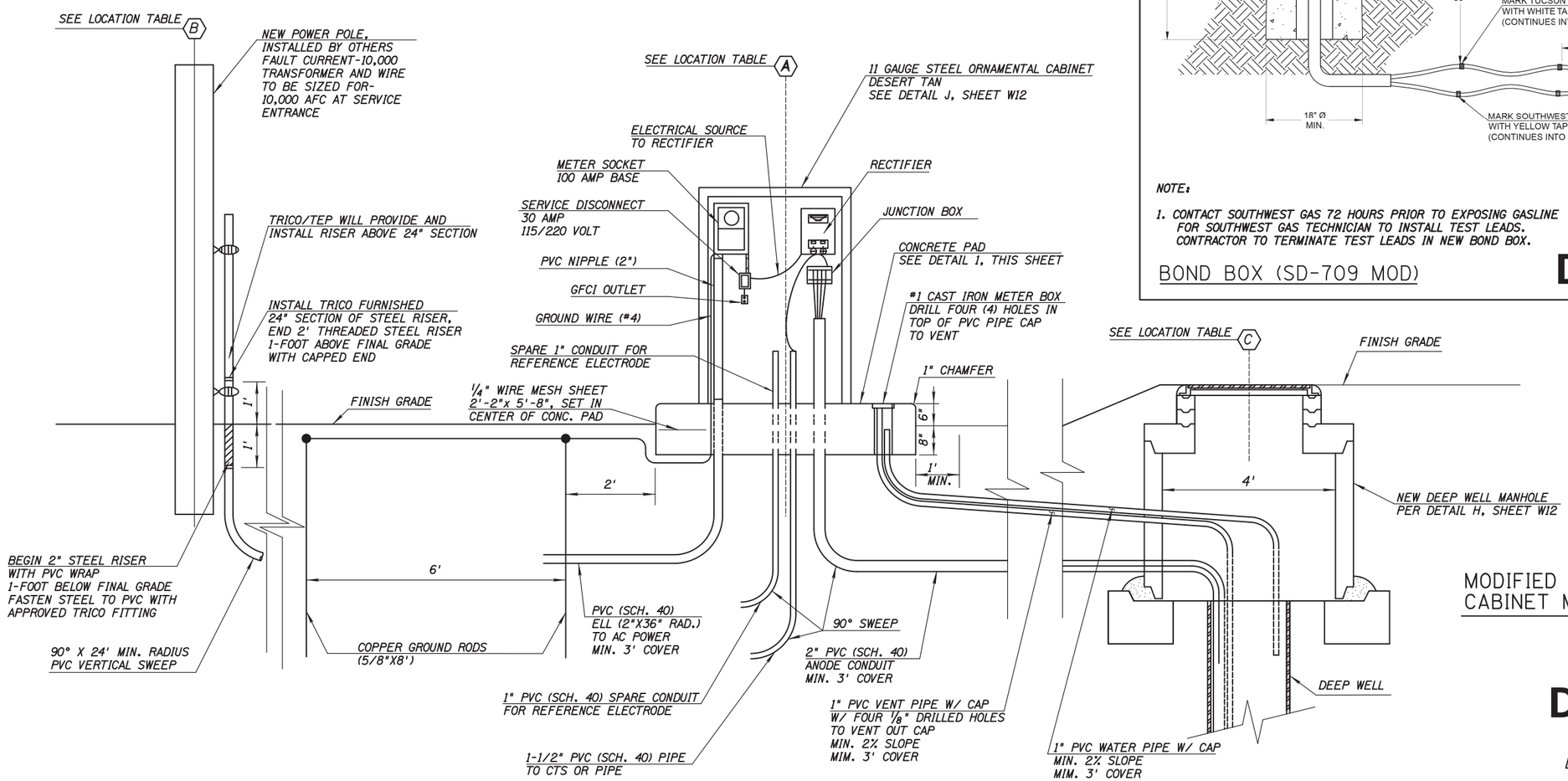


NOTE:

1. CONTACT SOUTHWEST GAS 72 HOURS PRIOR TO EXPOSING GASLINE FOR SOUTHWEST GAS TECHNICIAN TO INSTALL TEST LEADS. CONTRACTOR TO TERMINATE TEST LEADS IN NEW BOND BOX.

BOND BOX (SD-709 MOD)

DETAIL L



MODIFIED SD-711
CABINET MOUNTED RECTIFIER

N.T.S.

DETAIL K

DETAIL SHEET

Ana M. Olivares, P.E. Director

Pima County Department of Transportation

#4RTVWE

No.	Revision Description	Engineer	Date

		Date
Designed	J DANA	01/2018
Drawn	J DANA	01/2018
Checked	D MOSEKE	01/2018
Proj. Engr.		

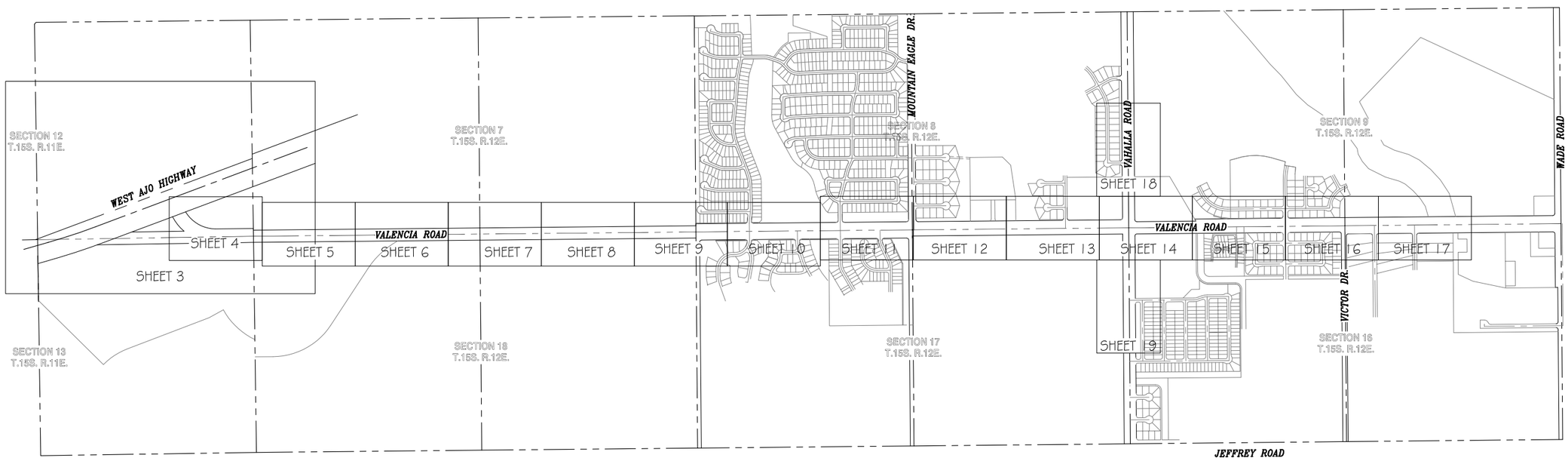
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 34006 DOUGLAS MICHAEL MOSEKE Date Signed 01/04/18 ARIZONA, U.S.A.

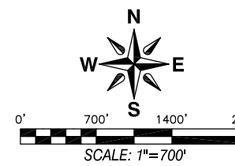
Expires 09/30/2020

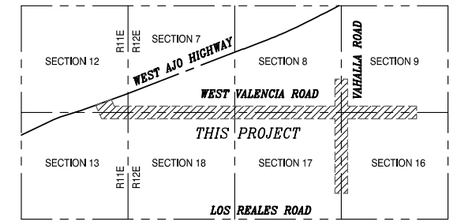
Stantec
5151 East Broadway Blvd. Suite 400
TUCSON, AZ 85711
PH: [520] 750-7474
FAX: [520] 750-7470
www.stantec.com

VALENCIA ROAD
WADE ROAD TO AJO HIGHWAY
WATER SYSTEMS MODIFICATION

Scales	Horiz. N/A	Sheet W13 of W13	Page 414 of 433
	Vert. N/A		







LOCATION MAP (NOT TO SCALE)
PORTIONS OF SECTIONS 12 & 13, T.15S., R.11E. & SECTIONS 7, 8, 9,16, 17 &18, T.15S., R.12E. G.&S.R.M., PIMA COUNTY, ARIZONA

Maps not picked up in 45 days will be recycled. _____

Sequence _____
Fee _____
State of Arizona
County of Pima SS
I hereby certify that the instrument was filed for record at the request
Of _____
Date _____
Time _____
Witness my hand and Official Seal
day and year above written
F. ANN RODRIGUEZ, County Recorder
By _____
Deputy

COUNTY RECORDER PIMA COUNTY ARIZONA

CERTIFICATION OF SURVEY

I HEREBY CERTIFY THAT THIS SURVEY WAS PERFORMED BY ME OR UNDER MY DIRECTION AND THAT ALL MONUMENTS EXIST AS SHOWN ON THIS SURVEY PLAT.

Richard B. Howell Jr.

RICHARD B. HOWELL JR. ARIZONA R.L.S. 21774

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ashby
SURVEYING & DRAFTING, INC.
717 N. SWAN ROAD
TUCSON, ARIZONA 85711
TEL: (520) 325-1991 FAX: (520) 325-2074

Scale: 1" = 700' | Sheet RW1 of RW19 | Page 415 of 433

Ana M. Olivares, P.E., Director

		Date
Designed	RBH	01/2018
Drawn	WLD	01/2018
Checked		
Proj. Engr.	R. Solis	01/2018

No.	Revision Description	Engineer	Date

REGISTERED LAND SURVEYOR
21774
RICHARD B. HOWELL JR.
ARIZONA U.S.A.
01-04-2018
Richard B. Howell Jr.
EXPIRES 3/31/2018

Pima County Department of Transportation

4RTVWE

RIGHT OF WAY PLANS FOR VALENCIA ROAD WITHIN
PORTIONS OF SECTIONS 12 & 13, TOWNSHIP 15 SOUTH, RANGE 11 EAST & SECTIONS 7, 8, 9, 16, 17 & 18, TOWNSHIP 15 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA

BASIS OF ELEVATIONS

THE ELEVATION DATUM FOR THIS SURVEY IS NAVD88 (COMPUTED BY PIMA COUNTY DEPARTMENT OF TRANSPORTATION SURVEY DIVISION USING GEOID12B). THE BENCHMARK IS OPUS CONTROL POINT "FYB1". THE ORTHOMETRIC HEIGHT ELEVATION COMPUTED BY PIMA COUNTY DEPARTMENT OF TRANSPORTATION SURVEY DIVISION FOR "FYB1" IS 2464.85 FEET. OPUS CONTROL POINT "FYB1" IS A 3-1/4" ALUMINUM CAP WITH MAGNETIC STEM SET FLUSH IN THE TOP OF THE CONCRETE EMBANKMENT LINING ON THE EAST SIDE OF THE DETENTION BASIN +/- 300 FEET SOUTH OF THE SOUTH EDGE OF PAVEMENT OF VALENCIA ROAD AT THE INTERSECTION OF MOUNTAIN EAGLE DRIVE AND SOUTH OF THE 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "PCHD, 8-17, T15S, R12E", MARKING THE 1/4 CORNER COMMON TO SECTIONS 8 AND 17, TOWNSHIP 15 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA.

REFERENCE MATERIALS

1.) PIMA COUNTY, ARIZONA ASSESSOR'S RECORD MAP.

2.) RECORD DEEDS OF PIMA COUNTY, ARIZONA AS INDICATED BY THE DOCKET AND PAGE OR SEQUENCE NUMBERS SHOWN ON THIS SURVEY PLAT.

3.) THE FOLLOWING SUBDIVISION PLATS, RECORDS OF PIMA COUNTY, ARIZONA:
- A.) DIABLO VILLAGE ESTATES – BOOK 28 MAPS AND PLATS PAGE 33
- B.) DIABLO VILLAGE ESTATES – BOOK 29 MAPS AND PLATS PAGE 74
- C.) DIABLO VILLAGE ESTATES – BOOK 29 MAPS AND PLATS PAGE 75
- D.) DIABLO VILLAGE ESTATES TOWNHOUSES – BOOK 32 MAPS AND PLATS PAGE 96
- E.) DIABLO VILLAGE ESTATES – BOOK 34 MAPS AND PLATS PAGE 39
- F.) STAR VALLEY VILLAGE – BOOK 51 MAPS AND PLATS PAGE 88
- G.) TUCSON MOUNTAIN RANCH – BOOK 53 MAPS AND PLATS PAGE 97
- H.) WEST STAR ESTATES – BOOK 55 MAPS AND PLATS PAGE 14
- I.) TUCSON MOUNTAIN RANCH – BOOK 56 MAPS AND PLATS PAGE 6
- J.) EAGLE POINT ESTATES – BOOK 57 MAPS AND PLATS PAGE 30
- K.) SONORAN RANCH VILLAGES – BOOK 57 MAPS AND PLATS PAGE 90
- L.) SONORAN RANCH ESTATES – BOOK 57 MAPS AND PLATS PAGE 91
- M.) SONORAN RANCH ESTATES II – BOOK 60 MAPS AND PLATS PAGE 47
- N.) VAHALLA ESTATES – SEQUENCE NO. 2016040089

4.) ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE GILA BEND-AJO- TUCSON HWY. AVRA VALLEY RD.-RYAN FIELD SR 86, PROJECT NO. F-056-1-703 (ADOT1)

5.) ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE WHY-TUCSON HIGHWAY, ROBLES JUNCTION-BILBRAY ROAD, PROJECT NO. 086 PM 151 H6806 01R, FEDERAL AID NO. 086-A(210)T (ADOT2)

REFERENCE MATERIALS (CONTINUED)

6.) ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT PLANS OF THE WHY-TUCSON HIGHWAY STATE ROUTE 86 VALENCIA ROAD-KINNEY ROAD, PROJECT NO. 086 PM 159 H6806 01C, FEDERAL AID NO. STP-086-A(210)T (ADOT2)

7.) RECORDS OF SURVEY RECORDED IN THE NOTED BOOK AND PAGE OR SEQUENCE NUMBER OF RECORDS OF SURVEY, RECORDS OF PIMA COUNTY, ARIZONA:
- A.) SEQUENCE NO. 20111030063
- B.) SEQUENCE NO. 20111080358
- C.) SEQUENCE NO. 20113460047
- D.) SEQUENCE NO. 20140840044

8.) UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT PLAT FOR THE DEPENDENT RESURVEY AND SUBDIVISION OF SECTIONS 7 AND 8, T.15S., R.12E., OFFICIALLY FILED 11-10-1955. (BLM)

9.) WEST VALENCIA ROAD – ESTABLISHMENT PROCEEDINGS NO. 997; BOOK 8 OF ROAD MAPS PAGE 88, RECORDS OF PIMA COUNTY, ARIZONA.

10.) PIMA COUNTY DEPARTMENT OF TRANSPORTATION (PCDOT) ARIZONA LAND SURVEY MONUMENT REFERENCE RECORDS.

SURVEYOR'S NOTES (CONTINUED ON SHEET 2)

1.) A CURRENT TITLE REPORT WAS NOT PROVIDED TO THE SURVEYOR FOR THIS PROJECT. THE SURVEY RELIES SOLELY ON THE RECORD DEEDS AND MAPS FROM THE PIMA COUNTY, ARIZONA RECORDER'S AND ASSESSOR'S OFFICES. THE SURVEYOR HAS MADE NO SEARCH FOR EASEMENTS OTHER THAN THOSE THAT MAY BE SHOWN AND DESCRIBED ON THIS SURVEY PLAT.

2.) THIS IS A RIGHT-OF-WAY SURVEY ONLY AND NO ABOVE GROUND OR UNDERGROUND UTILITIES WERE LOCATED. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, ARIZONA BLUESTAKE SHOULD BE CONTACTED TO MARK UTILITY LOCATIONS.

3.) ALL FIELD SURVEYING FOR THIS PROJECT WAS PERFORMED BY PERSONNEL FROM THE PIMA COUNTY DEPARTMENT OF TRANSPORTATION, SURVEY SECTION, UNDER THE SUPERVISION OF THE SAME DEPARTMENT. THE RESULTS OF THE SURVEY WERE RECORDED IN A RECORD OF SURVEY IN SEQUENCE NO. 20163120278, RECORDS OF PIMA COUNTY, ARIZONA. ELECTRONIC FILES CONTAINING THE FOUND SURVEY MONUMENTS LOCATED BY THE FIELD SURVEY AND THE RESULTANT SECTION AND RIGHT-OF-WAY LINES WERE PROVIDED TO ASHBY SURVEYING AND DRAFTING, INC. BY THE PIMA COUNTY SURVEY SECTION. THE SURVEY MONUMENTS WERE THEN FIELD CHECKED BY ASHBY SURVEYING AND DRAFTING, INC. AND ALL WERE FOUND TO BE WITHIN ACCEPTABLE TOLERANCES. THE SECTION LINES AND RIGHT-OF-WAY LINES SHOWN ON THIS SURVEY ARE THOSE PROVIDED TO ASHBY SURVEYING AND DRAFTING, INC. BY THE PIMA COUNTY SURVEY SECTION.

LEGEND

- FOUND BRASS CAP SURVEY MONUMENT AS NOTED
- GLO FOUND GENERAL LAND OFFICE (GLO) BRASS CAP AS NOTED
- BLM FOUND BUREAU OF LAND MANAGEMENT (BLM) BRASS CAP AS NOTED
- FOUND LEAD CAPPED PIPE (LCP) AS NOTED
- HW FOUND SURVEY MONUMENT IN HANDWELL AS NOTED
- AC FOUND 3" DIAMETER ALUMINUM CAP RIGHT-OF-WAY MONUMENT
- FOUND SURVEY MONUMENT AS NOTED
- FOUND ALUMINUM CAPPED PIN (ACP) AS NOTED
- FOUND NAIL AS NOTED
- PK FOUND PK NAIL WITH ALUMINUM DISK STAMPED "PIMA COUNTY SURVEY"
- FOUND MARKED STONE AS NOTED
- (M) MEASURED BEARING AND/OR DISTANCE
- (C) CALCULATED BEARING AND/OR DISTANCE
- (R) RECORD BEARING AND/OR DISTANCE
- (MP-XX/XX) RECORD BEARING AND/OR DISTANCE PER THE SUBDIVISION PLAT RECORDED IN THE NOTED BOOK AND PAGE OF MAPS AND PLATS, RECORDS OF PIMA COUNTY, ARIZONA (SEE REFERENCE MATERIALS).
- (BLM) RECORD BEARING AND/OR DISTANCE PER THE UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT PLAT FOR THE DEPENDENT RESURVEY AND SUBDIVISION OF SECTIONS 7 AND 8, T.15S., R.12E., OFFICIALLY FILED 11-10-1955.
- (RS-XX/XX) (RS-#XXXX) RECORD BEARING AND/OR DISTANCE PER THE RECORD OF SURVEY RECORDED IN THE NOTED BOOK AND PAGE OR SEQUENCE NUMBER OF RECORDS OF SURVEY, RECORDS OF PIMA COUNTY, ARIZONA (SEE REFERENCE MATERIALS)
- (ADOT1) RECORD BEARING AND/OR DISTANCE PER ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE GILA BEND-AJO-TUCSON HWY. AVRA VALLEY RD.-RYAN FIELD SR 86, PROJECT NO. F-056-1-703
- (###) FOUND MONUMENT POINT NUMBER

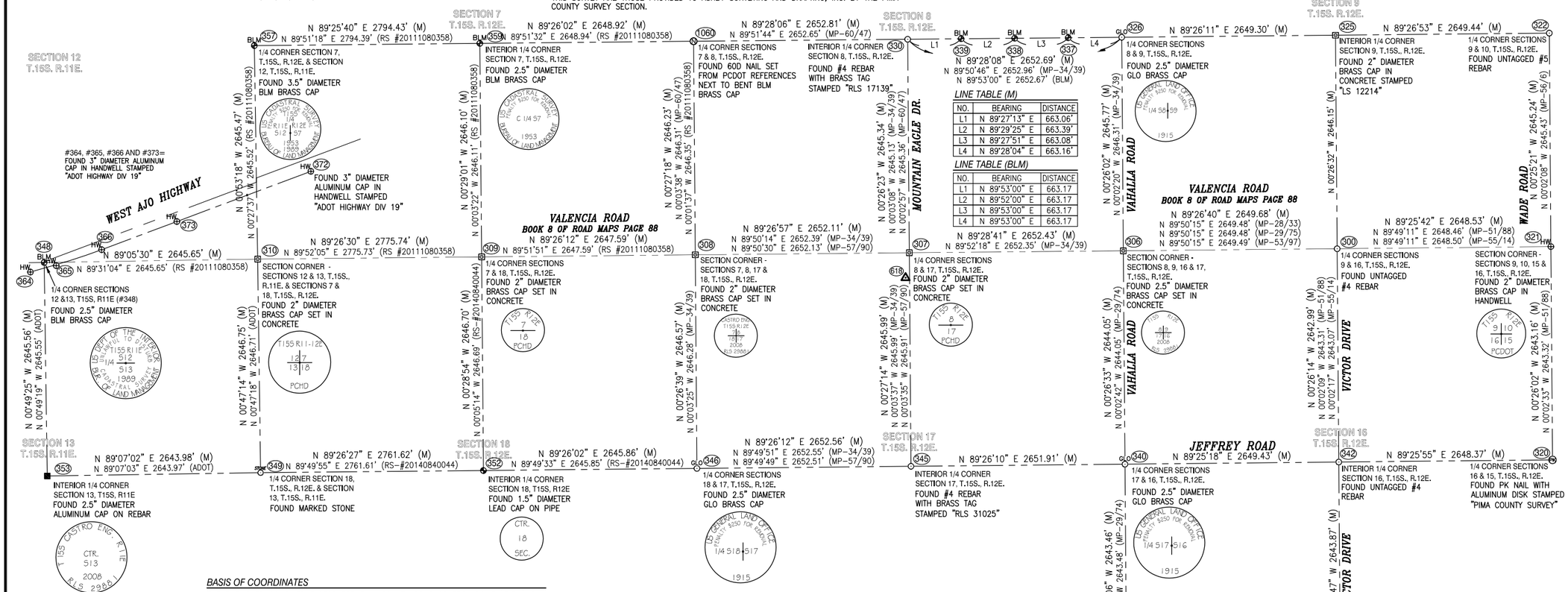
N
W E
S
0' 700' 1400' 2100'
SCALE: 1"=700'

LEGEND (CONTINUED)

(ADOT2) RECORD BEARING AND/OR DISTANCE PER THE ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE WHY-TUCSON HIGHWAY, ROBLES JUNCTION-BILBRAY ROAD, PROJECT NO. 086 PM 151 H6806 01R, FEDERAL AID NO. 086-A(210)T OR THE ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT PLANS OF THE WHY-TUCSON HIGHWAY STATE ROUTE 86 VALENCIA ROAD-KINNEY ROAD, PROJECT NO. 086 PM 159 H6806 01C, FEDERAL AID NO. STP- 086-A(210)T

BASIS OF BEARINGS

THE REFERENCE MERIDIAN FOR THIS PROJECT IS GRID NORTH, ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD1983 (2011). THE BASIS OF BEARINGS FOR THIS PROJECT IS THE GRID BEARING OF N 88°20'58.41" W BETWEEN PIMA COUNTY OPUS CONTROL POINT FYB1' AND A FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT SET IN CONCRETE STAMPED "T15S, R11-12E, 12, 7, 13, 18, PCHD" MARKING THE SECTION CORNER COMMON TO SECTIONS 12 AND 13, TOWNSHIP 15 SOUTH, RANGE 11 EAST AND SECTIONS 7 AND 18, TOWNSHIP 15 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA.



LINE TABLE (M)

NO.	BEARING	DISTANCE
L1	N 89°27'13" E	663.06'
L2	N 89°29'25" E	663.39'
L3	N 89°27'51" E	663.08'
L4	N 89°28'04" E	663.16'

LINE TABLE (BLM)

NO.	BEARING	DISTANCE
L1	N 89°53'00" E	663.17
L2	N 89°52'00" E	663.17
L3	N 89°53'00" E	663.17
L4	N 89°53'00" E	663.17

BASIS OF COORDINATES

THE PUBLISHED COMBINED FACTOR FOR PIMA COUNTY OPUS CONTROL POINT "FYB1" IS 0.99985285. THE GRID NORTHING IS 412777.48 INTERNATIONAL FEET. THE GRID EASTING IS 940283.23 INTERNATIONAL FEET.

SURFACE COORDINATES FOR THIS PROJECT WERE DERIVED AS FOLLOWS:
GN = GRID NORTHING, GE = GRID EASTING
SN = SURFACE NORTHING, SE = SURFACE EASTING
CF = COMBINED FACTOR
SN = (GN/CF) – 400,000
SE = (GE/CF) – 900,000

SURFACE COORDINATES FOR "FYB1" ARE:
(412,777.48/0.99985285) – 400,000 = 12,838.23 INTERNATIONAL FEET.
(940,283.23/0.99985285) – 900,000 = 40,421.61 INTERNATIONAL FEET

HORIZONTAL CONTROL

THE PRIMARY CONTROL POINT FOR THIS PROJECT IS PIMA COUNTY OPUS CONTROL POINT "FYB1", AS SHARED THROUGH NGS. THE MONUMENT IS A 3-1/4" ALUMINUM CAP WITH MAGNETIC STEM SET FLUSH IN THE TOP OF THE CONCRETE EMBANKMENT LINING ON THE EAST SIDE OF THE DETENTION BASIN +/- 300 FEET SOUTH OF THE SOUTH EDGE OF PAVEMENT OF VALENCIA ROAD AT THE INTERSECTION OF MOUNTAIN EAGLE DRIVE AND SOUTH OF THE 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "PCHD, 8-17, T15S, R12E", MARKING THE 1/4 CORNER COMMON TO SECTIONS 8 AND 17, TOWNSHIP 15 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA.

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

Ashby
SURVEYING & DRAFTING, INC.
717 N. SWAN ROAD
TUCSON, ARIZONA 85711
TEL: (520) 325-1991 FAX: (520) 325-2074

No.	Revision Description	Engineer	Date

Ana M. Olivares, P.E., Director

		Date
Designed	RBH	01/2018
Drawn	WLD	01/2018
Checked		
Proj. Engr.	R. Solis	01/2018

REGISTERED LAND SURVEYOR
CERTIFICATE NO. 21774
RICHARD B. HOWELL JR.
ARIZONA U.S.A.
EXPIRES 3/31/2018

Pima County Department of Transportation

RIGHT OF WAY PLANS FOR VALENCIA ROAD WITHIN PORTIONS OF SECTIONS 12 & 13, TOWNSHIP 15 SOUTH, RANCE 11 EAST & SECTIONS 7, 8, 9, 16, 17 & 18, TOWNSHIP 15 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA

4RTVWE

Scale: 1" = 700' | Sheet RW2 of RW19 | Page 416 of 433

N
W E
S

0' 150' 300' 450'

SCALE: 1"=150'

LEGEND

- FOUND BRASS CAP SURVEY MONUMENT AS NOTED
- FOUND GENERAL LAND OFFICE (GLO) BRASS CAP AS NOTED
- BLM FOUND BUREAU OF LAND MANAGEMENT (BLM) BRASS CAP AS NOTED
- FOUND LEAD CAPPED PIPE (LCP) AS NOTED
- HW FOUND SURVEY MONUMENT IN HANDWELL AS NOTED
- FOUND 3" DIAMETER ALUMINUM CAP RIGHT-OF-WAY MONUMENT
- FOUND SURVEY MONUMENT AS NOTED
- FOUND ALUMINUM CAPPED PIN (ACP) AS NOTED
- FOUND NAIL AS NOTED
- FOUND PK NAIL WITH ALUMINUM DISK STAMPED "PIMA COUNTY SURVEY"
- FOUND MARKED STONE AS NOTED
- (M) MEASURED BEARING AND/OR DISTANCE
- (C) CALCULATED BEARING AND/OR DISTANCE
- (R) RECORD BEARING AND/OR DISTANCE
- ℄ SURVEY LINE
- ℄ CONSTRUCTION CENTER LINE
- (MP-XX/XX) RECORD BEARING AND/OR DISTANCE PER THE SUBDIVISION PLAT RECORDED IN THE NOTED BOOK AND PAGE OF MAPS AND PLATS, RECORDS OF PIMA COUNTY, ARIZONA (SEE REFERENCE MATERIALS).
- (BLM) RECORD BEARING AND/OR DISTANCE PER THE UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT PLAT FOR THE DEPENDENT RESURVEY AND SUBDIVISION OF SECTIONS 7 AND 8, T.15S., R.12E., OFFICIALLY FILED 11-10-1955.
- (RS-XX/XX) (RS-#XXXX) RECORD BEARING AND/OR DISTANCE PER THE RECORD OF SURVEY RECORDED IN THE NOTED BOOK AND PAGE OR SEQUENCE NUMBER OF RECORDS OF SURVEY, RECORDS OF PIMA COUNTY, ARIZONA (SEE REFERENCE MATERIALS)
- (ADOT1) RECORD BEARING AND/OR DISTANCE PER ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE GILA BEND-AJO-TUCSON HWY. AVRA VALLEY RD.-RYAN FIELD SR 86, PROJECT NO. F-056-1-703
- (ADOT2) RECORD BEARING AND/OR DISTANCE PER THE ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE WHY-TUCSON HIGHWAY, ROBLES JUNCTION-BILBRAY ROAD, PROJECT NO. 086 PM 151 H6806 01R, FEDERAL AID NO. 086-A(210)T OR THE ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT PLANS OF THE WHY-TUCSON HIGHWAY STATE ROUTE 86 VALENCIA ROAD-KINNEY ROAD, PROJECT NO. 086 PM 159 H6806 01C, FEDERAL AID NO. STP-086-A(210)T
- (###) FOUND MONUMENT POINT NUMBER

MONUMENT TABLE

201	CALCULATED POINT – NOTHING FOUND OR SET
309	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
310	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
348	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
357	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
359	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
364	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
365	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
366	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
367	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
372	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
373	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
376	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
377	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
378	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
379	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
380	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
381	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
382	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
383	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
477	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
478	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
479	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
483	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
995	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 1990" 0.15' SOUTH OF LINE BETWEEN #348 AND #483
997	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED 0.07' SOUTH OF LINE BETWEEN #348 AND #483
2105	FOUND 3.25" DIAMETER ALUMINUM CAP SURVEY MONUMENT STAMPED "WP S7\S12"
2106	FOUND BENT 3.25" DIAMETER BLM ALUMINUM CAP SURVEY MONUMENT STAMPED "WP S7\S12"
2482	FOUND #4 REBAR WITH BRASS TAG STAMPED "REC LS 17479"

LINE TABLE (M)

NO.	BEARING	DISTANCE
L1	N 01°06'52" W	52.85'
L2	N 74°04'16" E	310.07'
L3	N 69°31'02" E	116.34'
L4	S 88°56'10" W	27.25'
L5	N 89°03'46" E	161.93'

LINE TABLE (R)

NO.	BEARING	DISTANCE	
L1	N 00°53'02" W	53.09'	(ADOT2)
L2	N 74°05'29" E	307.18'	(ADOT2)
L3	N 69°30'13" E	116.27'	(ADOT2)
L4	N 89°05'19" E	27.32'	(ADOT2)
L5	N 89°05'19" E	161.64'	(ADOT2)

CURVE TABLE (M)

NO.	DELTA	RADIUS	LENGTH
C1	04°36'44"	7639.44'	614.97'
C2	05°00'58"	9186.71'	804.28'
C3	10°03'11"	8906.71'	1562.78'

CURVE TABLE (R)

NO.	DELTA	RADIUS	LENGTH	
C1	04°36'45"	7639.44'	615.00'	(ADOT1 & ADOT2))
C2	05°00'59"	9186.71'	804.33'	(ADOT2)
C3	10°03'11"	8906.71'	1562.78'	(ADOT2)

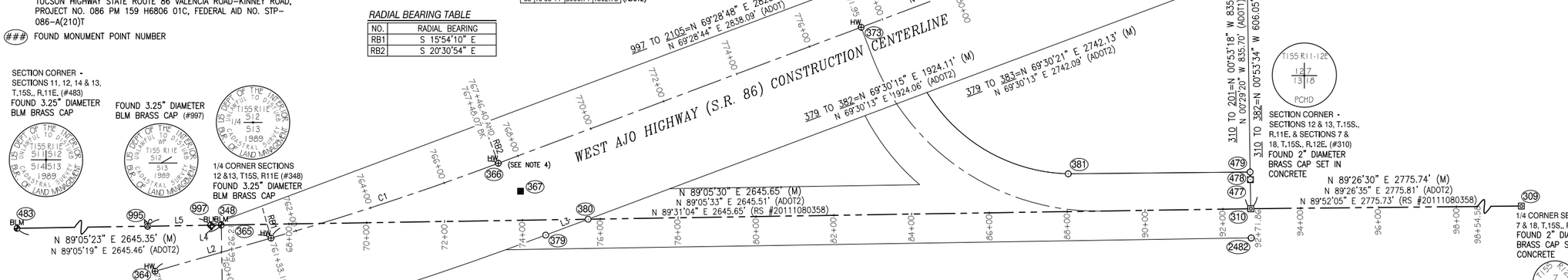
RADIAL BEARING TABLE

NO.	RADIAL BEARING
RB1	S 15°54'10" E
RB2	S 20°30'54" E

SURVEYOR'S NOTES (CONTINUED FROM SHEET 1)

4.) THE ARIZONA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY PLANS OF THE WHY-TUCSON HIGHWAY, ROBLES JUNCTION-BILBRAY ROAD, PROJECT NO. 086 PM 151 H6806 01R, FEDERAL AID NO. 086-A(210)T DID NOT ACCEPT THE EXISTING 3" DIAMETER ADOT ALUMINUM CAP IN HANDWELL STAMPED "ADOT HIGHWAY DIV. 19" AT POINT #366 BUT INSTEAD CALCULATED A POINT AT S 75°07'15" W, 2.62' AWAY. ALTHOUGH THE AFOREMENTIONED RIGHT-OF-WAY PLAN DOES NOT SHOW IT, BUT APPARENTLY THE ADOT ALUMINUM CAPS IN HANDWELLS STAMPED "ADOT HIGHWAY DIV. 19" AT POINT #364, POINT #365 AND POINT #372 WERE ALSO NOT ACCEPTED AS EVIDENCED BY THE DIFFERENCE IN MEASURED VERSUS RECORD DIMENSIONS.

5.) BASIS OF STATIONING: STATIONS FOR VALENCIA ROAD INCREASE FROM WEST TO EAST. STATIONING IS BASED ON THE SECTION CORNER AT THE INTERSECTION OF WADE ROAD EQUAL TO STATION 258+98.18 AS ORIGINALLY ESTABLISHED BY PROJECT 4RTVMW.



COORDINATE TABLE

PT#	NORTHING	EASTING
348	13027.61	29748.22
365	12994.09	29876.11
366	13186.20	30460.13
377	12735.37	29752.44
378	12753.56	29817.05
995	13024.45	29559.06
997	13027.10	29720.97

AJO WAY CONSTRUCTION CENTER LINE STA. 758+23.03 TO STA. 767+48.07 BK

PT#	STATION	OFFSET	DESCRIPTION
348	760+19.32	L67.33	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
365	761+33.10	L0.00	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
366	767+48.07	L0.00	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
377	759+43.17	R214.85	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
378	760+10.30	R215.09	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
995	758+36.56	L116.21	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 1990"
997	759+92.98	L74.32	FOUND 3.25" DIAMETER BLM BRASS CAP SURVEY MONUMENT STAMPED AS NOTED

COORDINATE TABLE

PT#	NORTHING	EASTING
201	13905.19	32380.58
366	13186.20	30460.13
367	13114.74	30517.05
372	14156.91	33052.88
373	13535.24	31392.48
379	13001.82	30581.78
380	13042.53	30690.77
382	13675.53	32384.09
2105	14021.97	32379.03
2106	14074.81	32378.00

AJO WAY CONSTRUCTION CENTER LINE STA. 767+46.40 AHD TO STA. 795+14.91

PT#	STATION	OFFSET	DESCRIPTION
201	787+97.03	R0.00	CALC
366	767+46.40	L0.00	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
367	767+74.66	R86.88	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
372	795+14.91	L0.00	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
373	777+41.95	L0.00	FOUND 3" DIAMETER ADOT ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19"
379	767+95.69	R215.33	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
380	769+12.03	R215.41	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
382	787+19.79	R216.32	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
2105	788+36.52	L109.90	FOUND 3.25" DIAMETER ALUMINUM CAP SURVEY MONUMENT STAMPED "WP S7\S12"
2106	788+54.09	L159.75	FOUND BENT 3.25" DIAMETER BLM ALUMINUM CAP SURVEY MONUMENT STAMPED "WP S7\S12"

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ARIZONA811
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Ashby SURVEYING & DRAFTING, INC.
717 N. SWAN ROAD
TUCSON, ARIZONA 85711
TEL: (520) 325-1991 FAX: (520) 325-2074

	Date
Designed	01/2018
Drawn	01/2018
Checked	
Proj. Engr.	01/2018

No.	Revision Description	Engineer	Date

REGISTERED LAND SURVEYOR CERTIFICATE 21774 RICHARD B. HOWELL JR. ARIZONA U.S.A. 01-04-2018
EXPIRES 3/31/2019

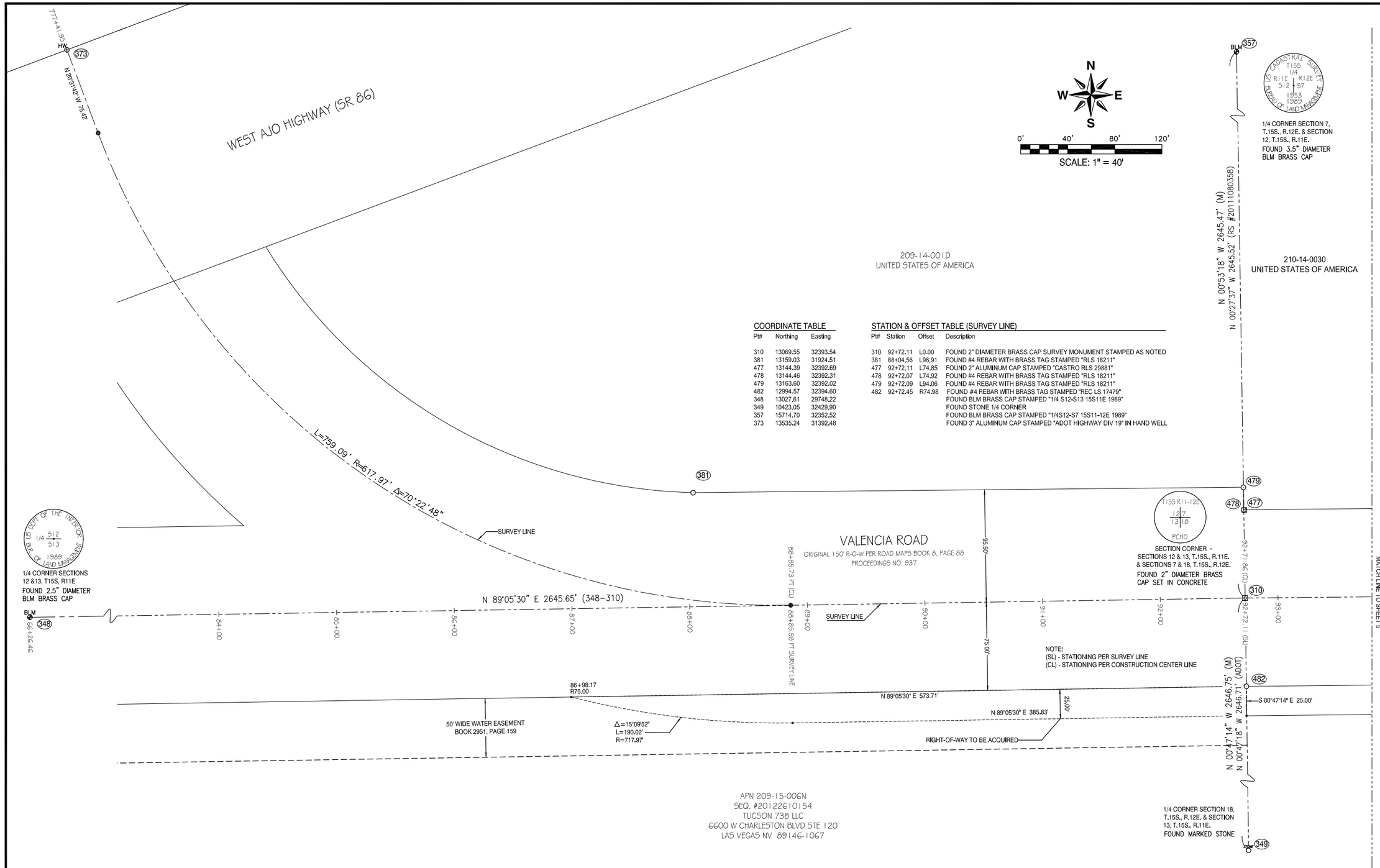
Ana M. Olivares, P.E., Director

Pima County Department of Transportation

#4RTVWE

RIGHT OF WAY PLANS FOR VALENCIA ROAD WITHIN PORTIONS OF SECTIONS 12 & 13, TOWNSHIP 15 SOUTH, RANGE 11 EAST & SECTIONS 7, 8, 9, 16, 17 & 18, TOWNSHIP 15 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA

Scale: 1" = 150' | Sheet RW3 of RW19 | Page 417 of 433



Pt#	Northing	Easting
310	13069.55	32393.54
381	13159.03	31924.51
477	13144.39	32392.69
478	13144.46	32392.31
479	13163.60	32392.02
482	12994.57	32394.60
348	13027.61	29748.22
349	10423.05	32429.90
357	15714.70	32352.52
373	13535.24	31392.48

COORDINATE TABLE

Pt#	Station	Offset	Description
310	92+72.11	L0.00	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
381	88+04.56	L96.91	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
477	92+72.11	L74.85	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
478	92+72.07	L74.92	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
479	92+72.09	L94.06	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18211"
482	92+72.45	R74.98	FOUND #4 REBAR WITH BRASS TAG STAMPED "REC LS 17479"
			FOUND BLM BRASS CAP STAMPED "1/4 S12-S13 15S11E 1989"
			FOUND STONE 1/4 CORNER
			FOUND BLM BRASS CAP STAMPED "1/4S12-S7 15S11-12E 1989"
			FOUND 3" ALUMINUM CAP STAMPED "ADOT HIGHWAY DIV 19" IN HAND WELL

STATION & OFFSET TABLE (SURVEY LINE)

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
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Ashby
SURVEYING & DRAFTING, INC.
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TUCSON, ARIZONA 85711
TEL: (520) 325-1991 FAX: (520) 325-2074

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	RBH	01/2018
Drawn	WLD	01/2018
Checked		
Proj. Engr.	R. Solis	01/2018

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21774
RICHARD B. HOWELL JR.
ARIZONA U.S.A.
Expires 01-04-2018
EXPIRES 3/31/2018

Pima County Department of Transportation

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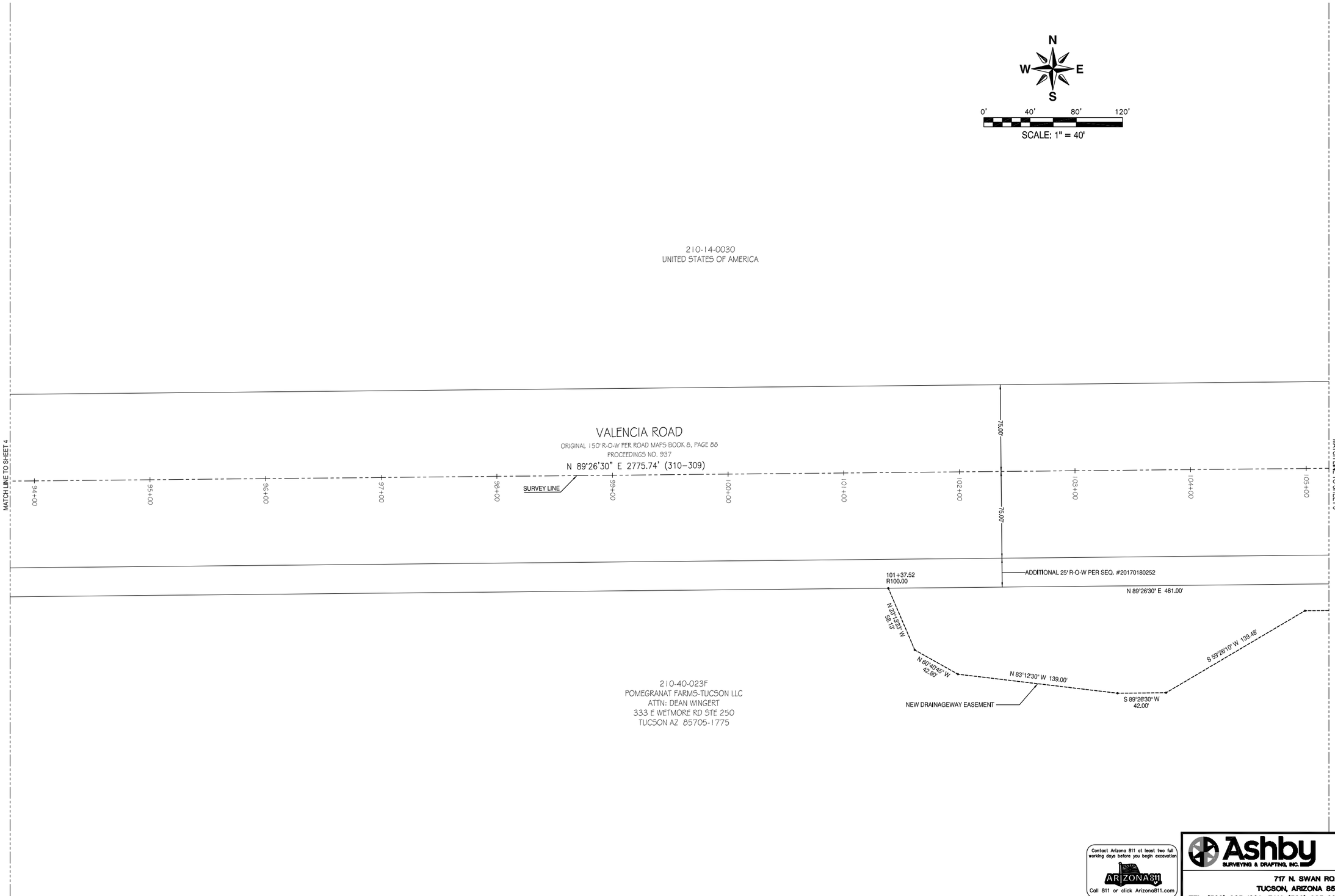
Scale: 1" = 40' | Sheet RW4 of RW19 | Page 418 of 433



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Ana M. Olivares, P.E., Director

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Checked		
Proj. Engr.	R. Solis	01/2018

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ARIZONA U.S.A.
01-04-2018
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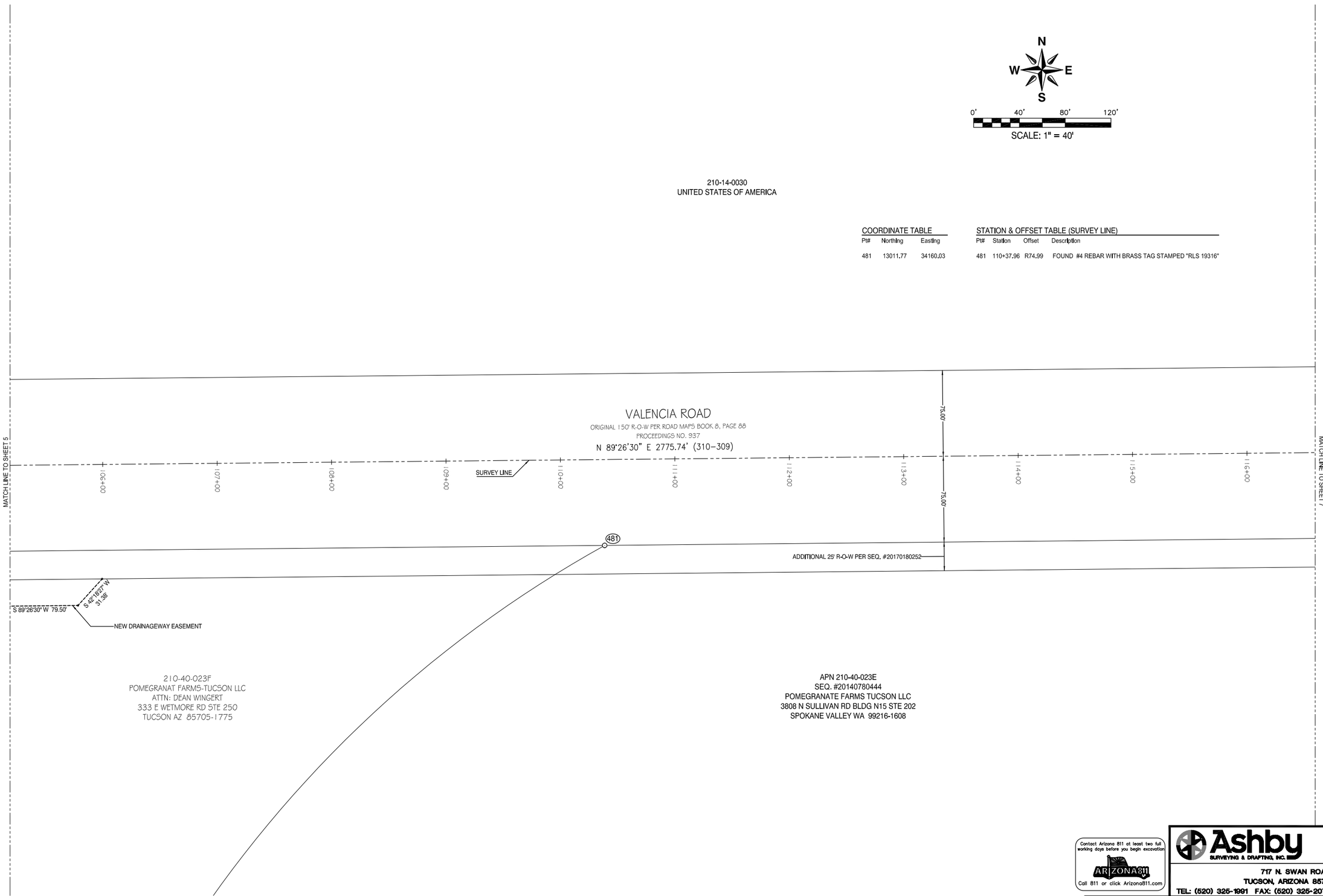
SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN,
PIMA COUNTY, ARIZONA

Scale: 1" = 40' | Sheet RW5 of RW19 | Page 419 of 433



COORDINATE TABLE

Pt#	Northing	Easting
481	13011.77	34160.03

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
481	110+37.96	R74.99	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 19316"

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Drawn	WLD	01/2018
Checked		
Proj. Engr.	R. Solis	01/2018

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ARIZONA U.S.A.
EXPIRES 3/31/2018

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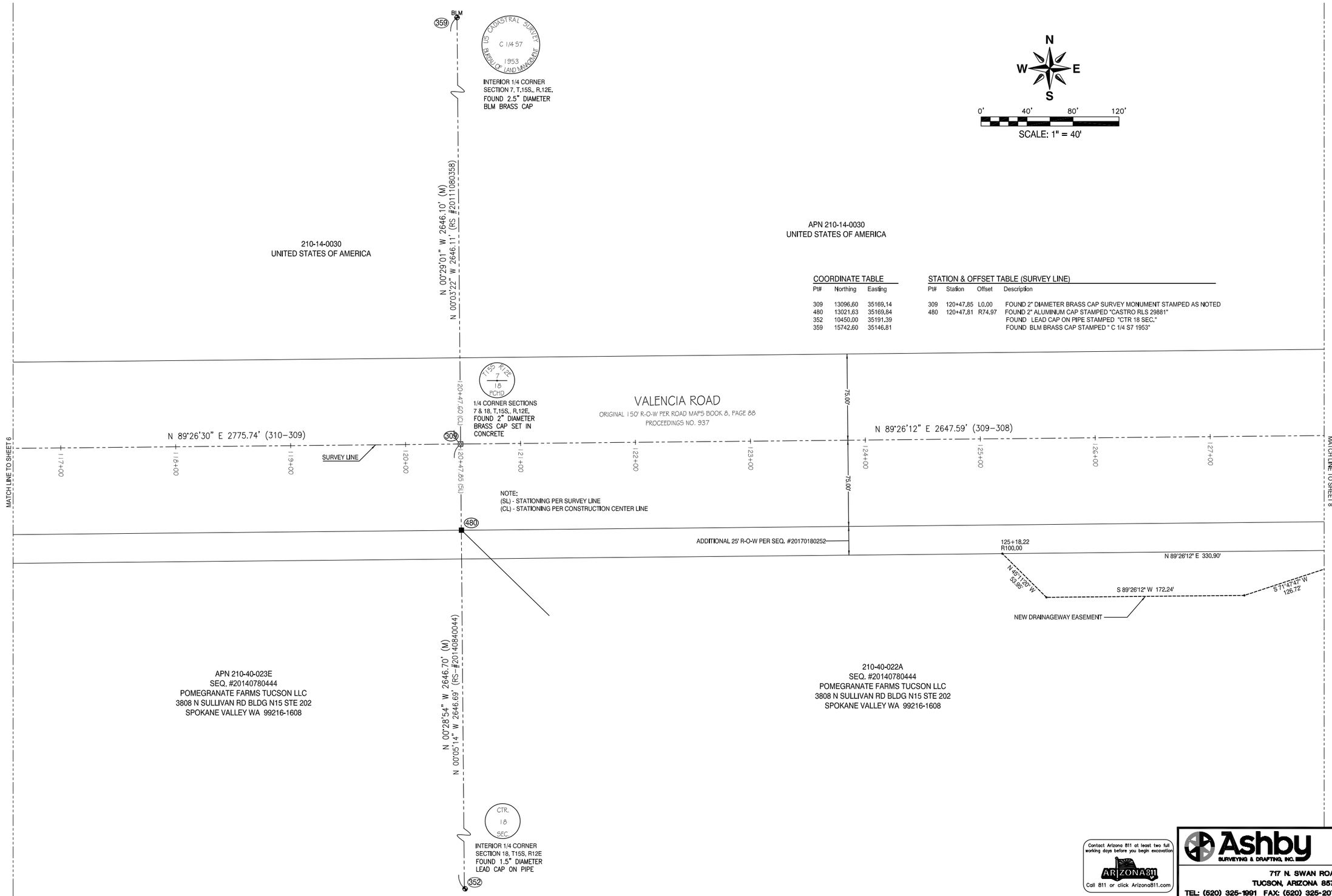
SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN,
PIMA COUNTY, ARIZONA

Scale: 1" = 40' | Sheet RW6 of RW19 | Page 420 of 433



COORDINATE TABLE

Pt#	Northing	Easting
309	13096.60	35169.14
480	13021.63	35169.84
352	10450.00	35191.39
359	15742.60	35146.81

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
309	120+47.85	L0.00	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
480	120+47.81	R74.97	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
			FOUND LEAD CAP ON PIPE STAMPED "CTR 18 SEC."
			FOUND BLM BRASS CAP STAMPED " C 1/4 S7 1953"

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Scale: 1" = 40' | Sheet RW7 of RW19 | Page 421 of 433

Ana M. Olivares, P.E., Director

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Checked		
Proj. Engr.	R. Solis	01/2018

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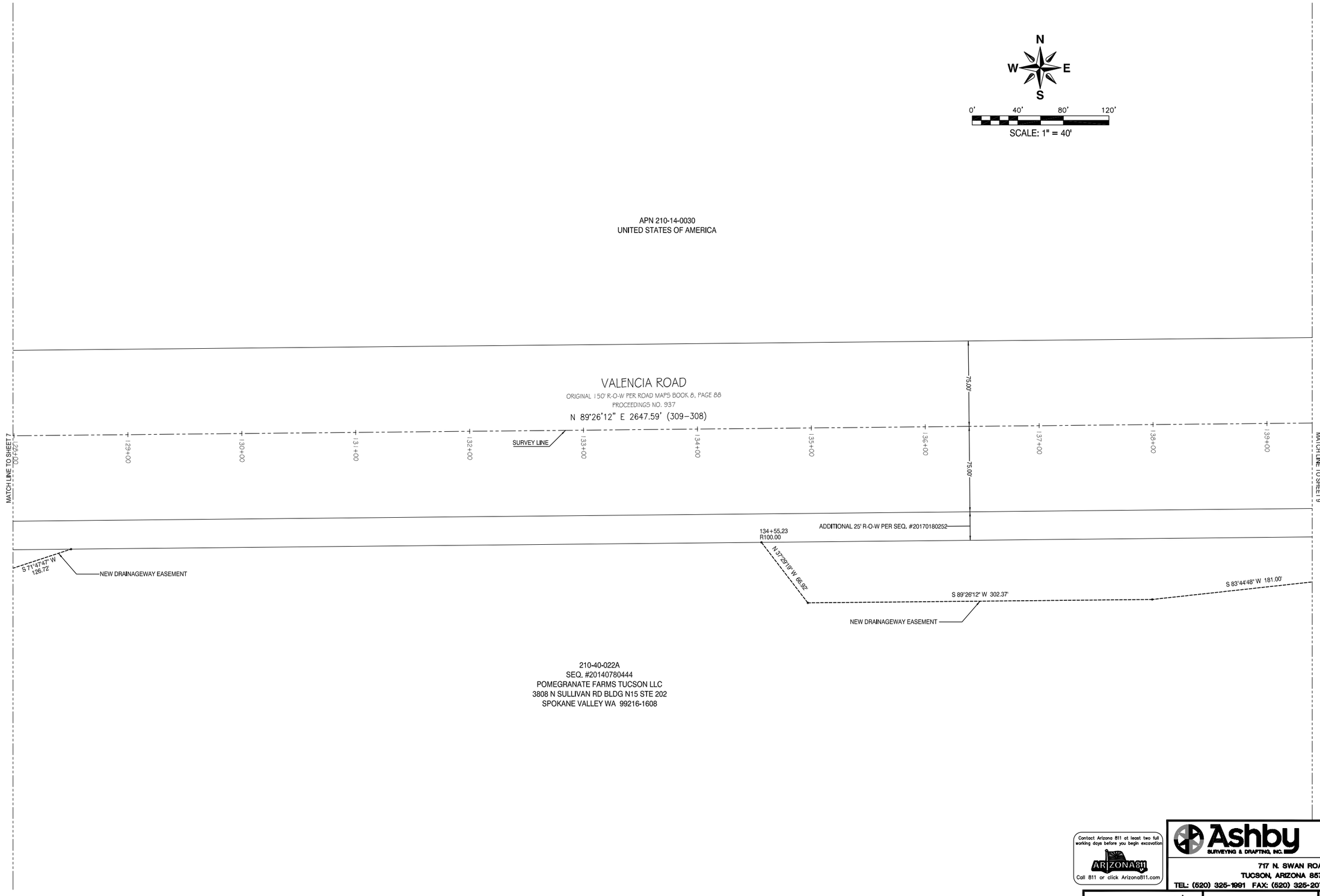

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21774
RICHARD B. HOWELL JR.
Date Signed 01-04-2018
ARIZONA U.S.A.
EXPIRES 3/31/2018

#4RTVWE Pima County Department of Transportation

RIGHT OF WAY PLANS FOR VALENCIA ROAD WITHIN
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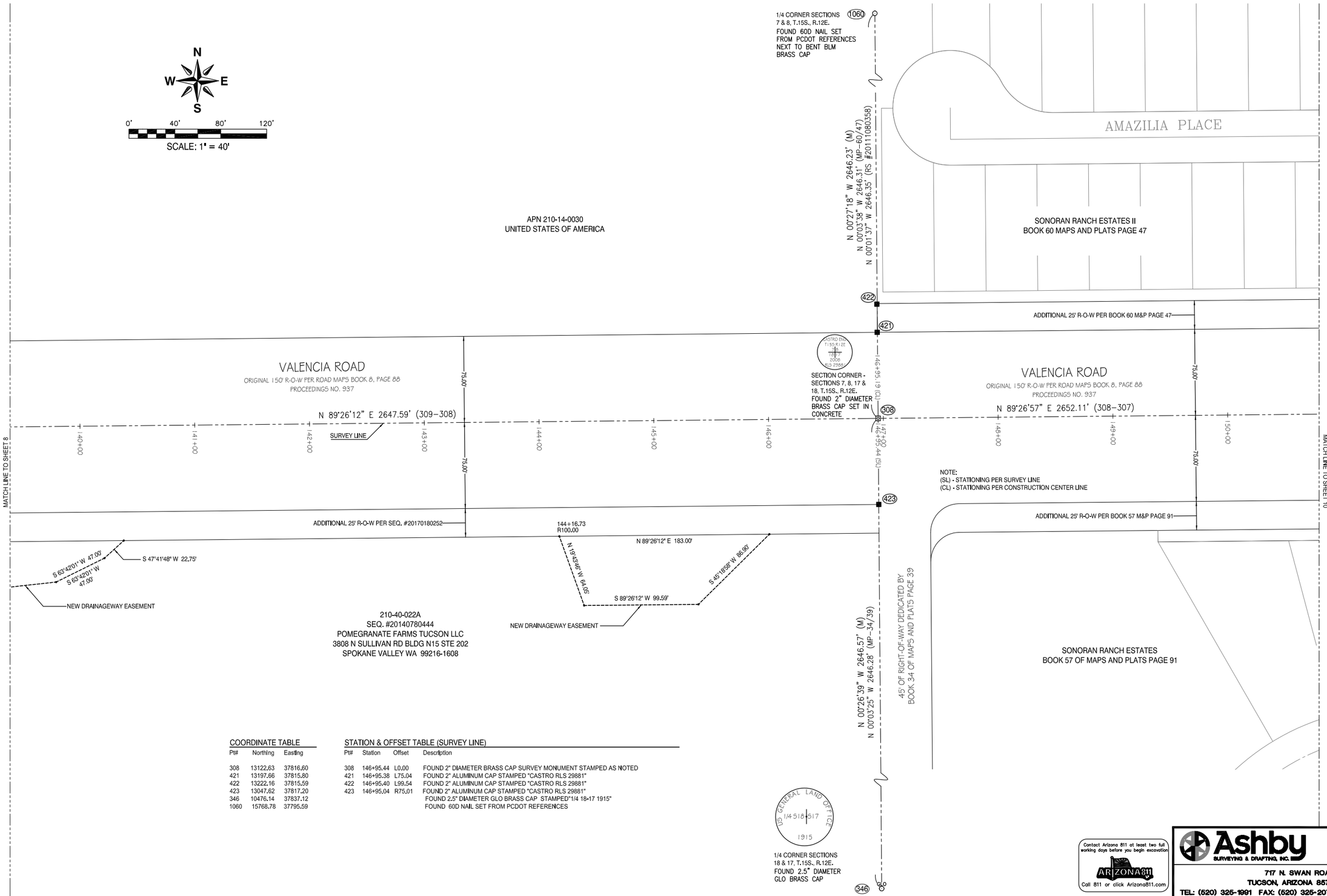
Scale: 1" = 40' | Sheet RW8 of RW19 |



COORDINATE TABLE

Pt#	Northing	Easting
308	13122.63	37816.60
421	13197.66	37815.80
422	13222.16	37815.59
423	13047.62	37817.20
346	10476.14	37837.12
1060	15768.78	37795.59

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
308	146+95.44	L0.00	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
421	146+95.38	L75.04	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
422	146+95.40	L99.54	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
423	146+95.04	R75.01	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
			FOUND 2.5" DIAMETER GLO BRASS CAP STAMPED"1/4 18-17 1915"
			FOUND 60D NAIL SET FROM PCDOT REFERENCES

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ARIZONA U.S.A.
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Scale: 1" = 40' | Sheet RW9 of RW19 | Page 423 of 433

SONORAN RANCH ESTATES II
BOOK 60 MAPS AND PLATS PAGE 47

N
W E
S

0' 40' 80' 120'
SCALE: 1" = 40'

COORDINATE TABLE

Pt#.	Northing	Easting
419	13229.45	38520.95
420	13228.46	38420.87
449	13028.45	38420.55
450	12927.08	38443.11
451	13029.00	38472.97
452	13029.41	38521.62
453	13034.11	39011.12
454	13010.55	39036.68
455	12887.94	39084.18
456	13033.48	39060.50
457	13035.16	39111.25
476	13134.55	39059.21

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
419	154+00.78	L100.04	FOUND PHILLIPS HEAD SCREW WITH BRASS TAG STAMPED "CASTRO LS 29881"
420	153+00.70	L100.02	FOUND PHILLIPS HEAD SCREW WITH BRASS TAG STAMPED "CASTRO LS 29881"
449	152+98.45	R99.98	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
450	153+20.03	R201.56	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 17139" WITH PUNCH
451	153+50.88	R99.94	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 17139" WITH PUNCH
452	153+99.53	R99.99	FOUND 1" DIAMETER PLASTIC CAP STAMPED "CASTILLO RLS 35282"
453	158+89.05	R100.00	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
454	159+14.38	R123.81	FOUND #4 REBAR NO TAG
455	159+60.70	R246.86	FOUND MAG NAIL
456	159+38.42	R101.10	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 17139" WITH PUNCH
457	159+89.19	R99.91	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
476	159+38.10	R0.02	FOUND MAG NAIL

REED BUNTING DRIVE

VALENCIA ROAD
ORIGINAL 150' R-O-W PER ROAD MAPS BOOK 8, PAGE 88
PROCEEDINGS NO. 937
N 89°26'57" E 2652.11' (308-307)

ADDITIONAL 25' R-O-W PER BOOK 60 M&P PAGE 47

151+00 152+00 153+00 154+00 155+00 SURVEY LINE 156+00 157+00 158+00 159+00 476 160+00 75.00' 160+49.75 (CL) 160+50 (SL) 161+00 161+00 CONSTRUCTION CENTER LINE SURVEY LINE 162+00

MATCH LINE TO SHEET 9

MATCH LINE TO SHEET 11

NOTE:
(SL) - STATIONING PER SURVEY LINE
(CL) - STATIONING PER CONSTRUCTION CENTER LINE

ADDITIONAL 25' R-O-W PER BOOK 57 M&P PAGE 91

30' WIDE M.S.R. SETBACK
BOOK 57 M&P PAGE 91

1' WIDE ACCESS CONTROL ESMT.
BOOK 57 M&P PAGE 91

155+89.08
R100.00

NEW DRAINAGEWAY EASEMENT
SEE DETAIL "A" BELOW

449 451 452 453 454 456 457 450 455

VIA MOLINO DE VIENTO

VIA DIEGO DE RIVERA

210-15-6850
DEUTSCHE BANK TR CO FBO
HARORVIEW MRTG CERT SERIES 2007-2
ATTN: AMERICAN HOME MRTG
SERVICING INC
6501 IRVINE CENTER DR
IRVINE CA 92618-2133
LOT 148

210-15-7470
SONORAN RANCH ESTATES HOA
ATTN: PLATINUM MANAGEMENT INC
PO BOX 14198
TUCSON AZ 85732-4198
(COMMON AREA "A"
LANDSCAPE)

210-15-7480
PIMA COUNTY
(DRAINAGEWAY)

20' WIDE DRAINAGE EASEMENT
BOOK 57 M&P PAGE 91

SONORAN RANCH ESTATES
BOOK 57 OF MAPS AND PLATS PAGE 91

DETAIL "A"

N 89°26'57" E
7.10'

N 00°10'23" E
10.01'

.00'10.
S 00°33'03" E

S 89°26'57" W
7.57'

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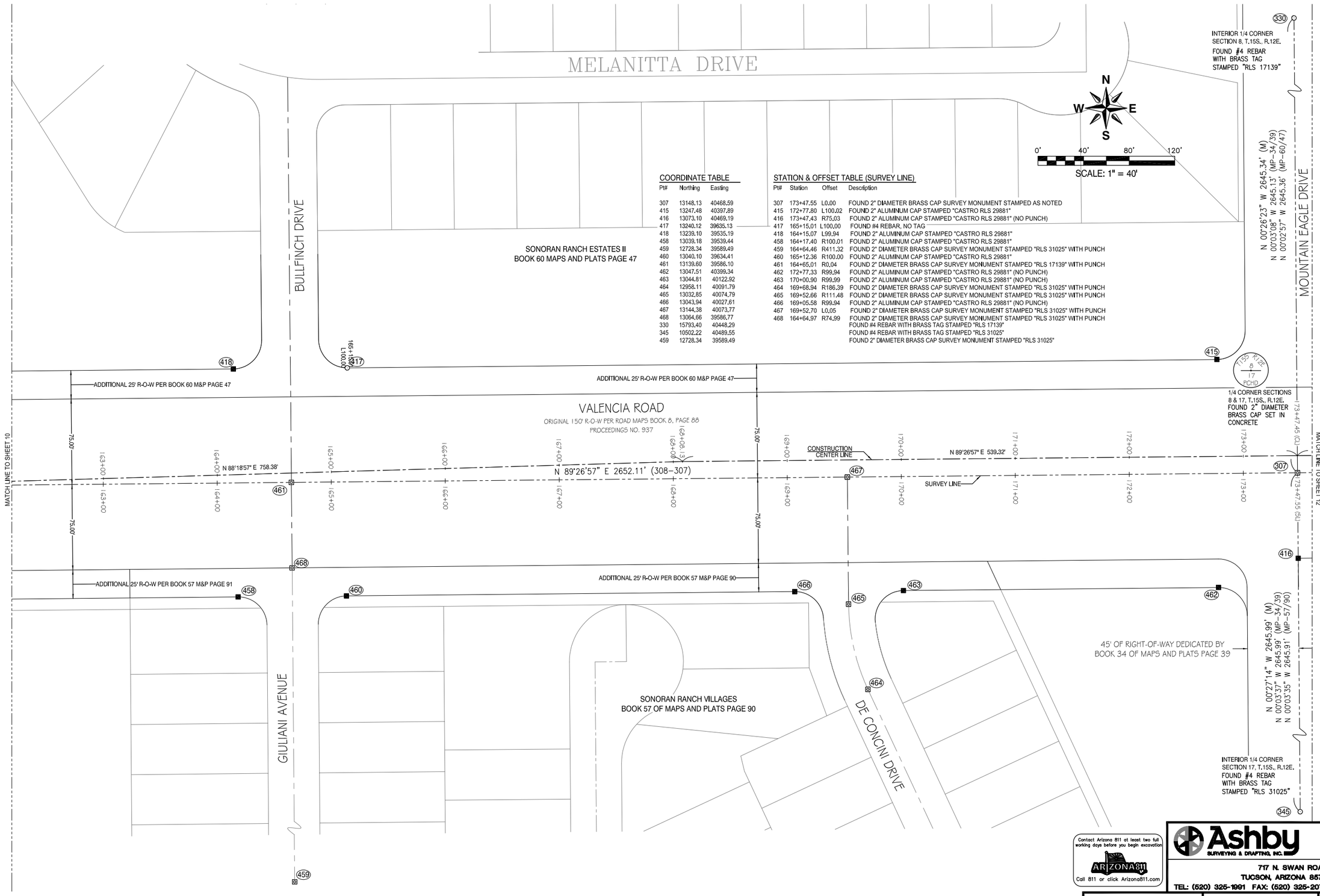
11 EAST & SECTIONS 7, 8, 9, 16, 17 & 18, TOWNSHIP 15
SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN,
PIMA COUNTY, ARIZONA

Scale: 1" = 40' | Sheet RW10 of RW19 | Page 424 of 433



COORDINATE TABLE

Pt#	Northing	Easting
307	13148.13	40468.59
415	13247.48	40397.89
416	13073.10	40469.19
417	13240.12	39635.13
418	13239.10	39535.19
458	13039.18	39539.44
459	12728.34	39589.49
460	13040.10	39634.41
461	13139.60	39586.10
462	13047.51	40399.34
463	13044.81	40122.92
464	12958.11	40091.79
465	13032.85	40074.79
466	13043.94	40027.61
467	13144.38	40073.77
468	13064.66	39586.77
330	15793.40	40448.29
345	10502.22	40489.55
459	12728.34	39589.49

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
307	173+47.55	L0.00	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED AS NOTED
415	172+77.80	L100.02	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
416	173+47.43	R75.03	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
417	165+15.01	L100.00	FOUND #4 REBAR, NO TAG
418	164+15.07	L99.94	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
458	164+17.40	R100.01	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
459	164+64.46	R411.32	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 31025" WITH PUNCH
460	165+12.36	R100.00	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
461	164+65.01	R0.04	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 17139" WITH PUNCH
462	172+77.33	R99.94	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
463	170+00.90	R99.99	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
464	169+68.94	R186.39	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 31025" WITH PUNCH
465	169+52.66	R111.48	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 31025" WITH PUNCH
466	169+05.58	R99.94	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
467	169+52.70	L0.05	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 31025" WITH PUNCH
468	164+64.97	R74.99	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 31025" WITH PUNCH
			FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 17139"
			FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 31025"
			FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 31025"

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717 N. SWAN ROAD
TUCSON, ARIZONA 85711
TEL: (520) 325-1991 FAX: (520) 325-2074

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	RBH	01/2018
Drawn	WLD	01/2018
Checked		
Proj. Engr.	R. Solis	01/2018

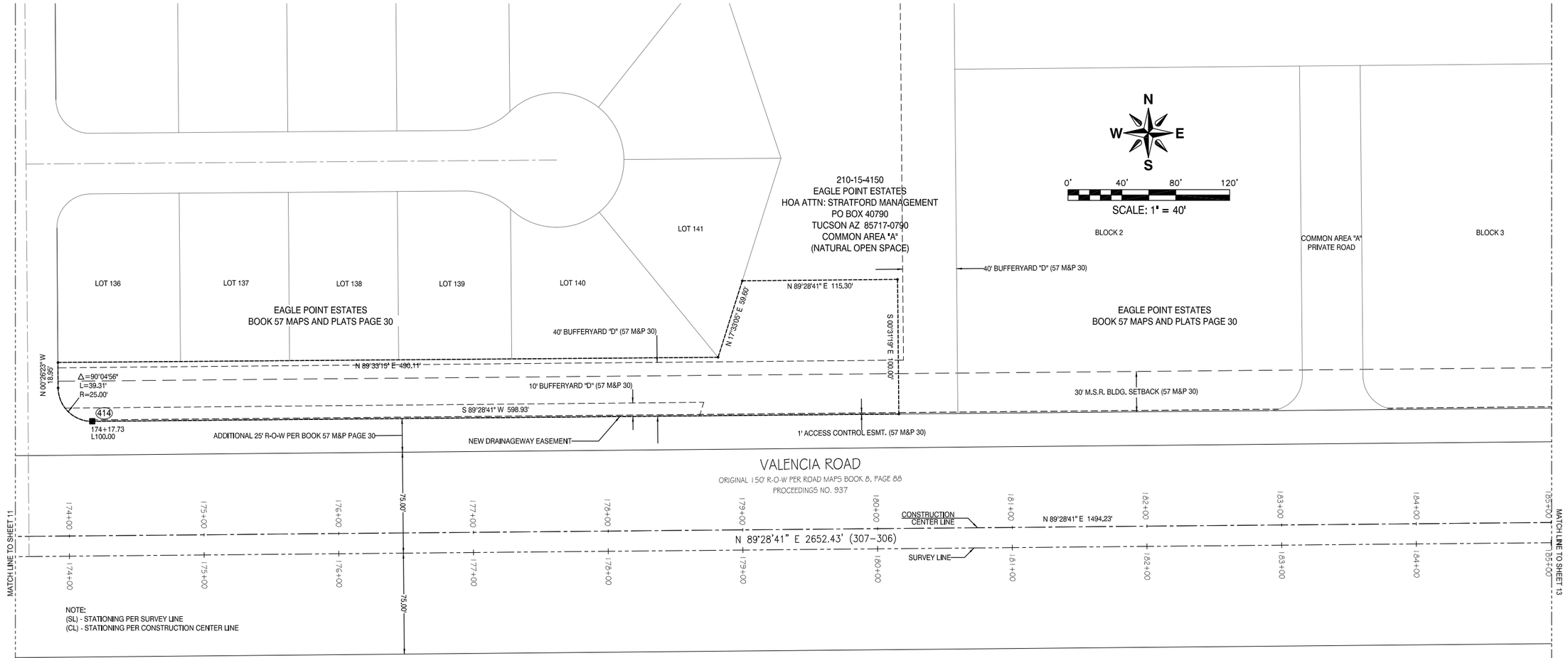
REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21774
RICHARD B.
HOWELL JR.
01-04-2018
ARIZONA U.S.A.
EXPIRES 3/31/2018

Pima County Department of Transportation

#4RTVWE

RIGHT OF WAY PLANS FOR VALENCIA ROAD WITHIN
PORTIONS OF SECTIONS 12 & 13, TOWNSHIP 15 SOUTH, RANGE
11 EAST & SECTIONS 7, 8, 9, 16, 17 & 18, TOWNSHIP 15
SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN,
PIMA COUNTY, ARIZONA

Scale: 1" = 40' | Sheet RW11 of RW19 | Page 425 of 433



NOTE:
(SL) - STATIONING PER SURVEY LINE
(CL) - STATIONING PER CONSTRUCTION CENTER LINE

COORDINATE TABLE

PT#	Northing	Easting
414	13248.88	40537.90

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
414	174+17.78	L100.11	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (BENT NORTH, NO PUNCH)

APN 210-39-021B
STATE OF ARIZONA

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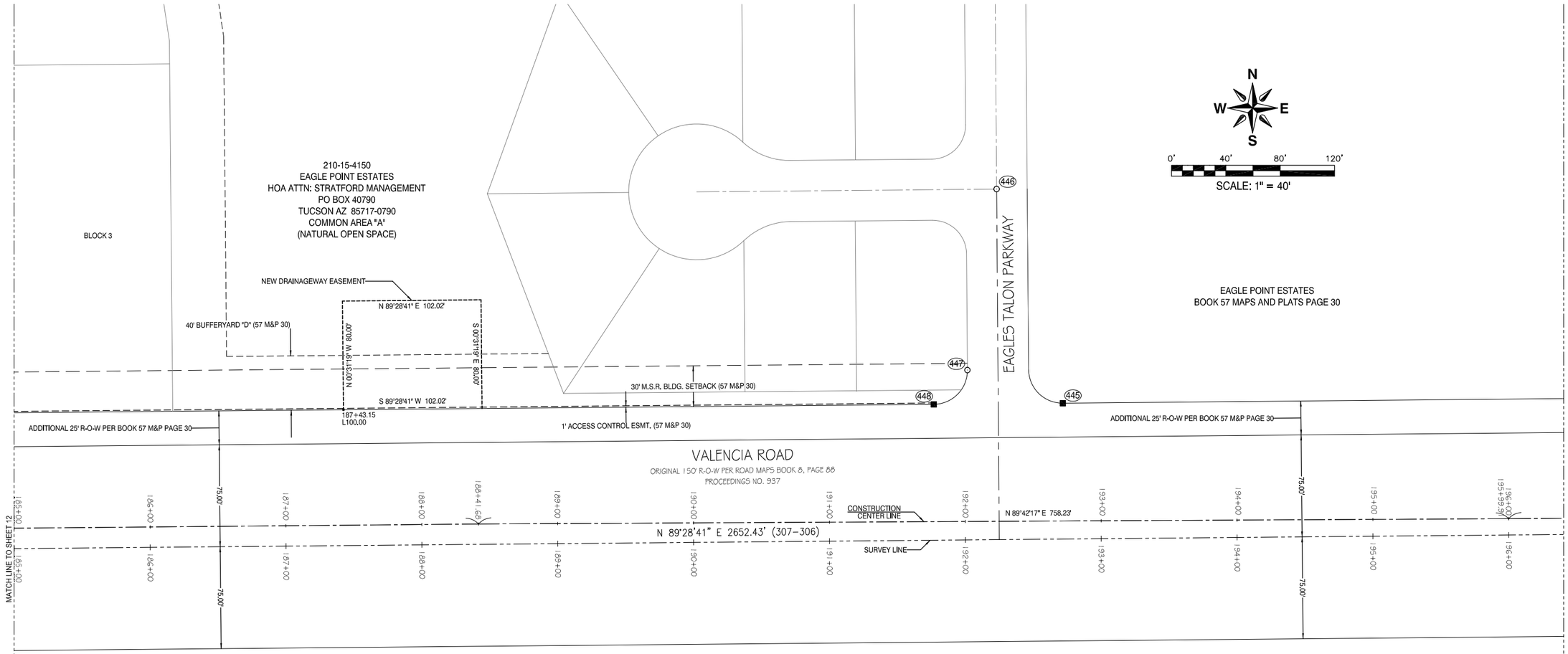
Scale: 1" = 40' | Sheet RW12 of RW19 | Page 426 of 433



APN 210-39-021B
STATE OF ARIZONA

COORDINATE TABLE

Pt#	Northing	Easting
445	13265.65	42392.68
446	13423.30	42343.98
447	13290.02	42322.48
448	13264.78	42297.70

STATION & OFFSET TABLE

Pt#	Station	Offset	Description
445	192+72.62	L99.99	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
446	192+25.36	L258.08	FOUND BRASS CAP SURVEY MONUMENT STEM IN CONCRETE
447	192+02.65	L125.00	FOUND #4 REBAR NO TAG
448	191+77.64	L99.99	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"

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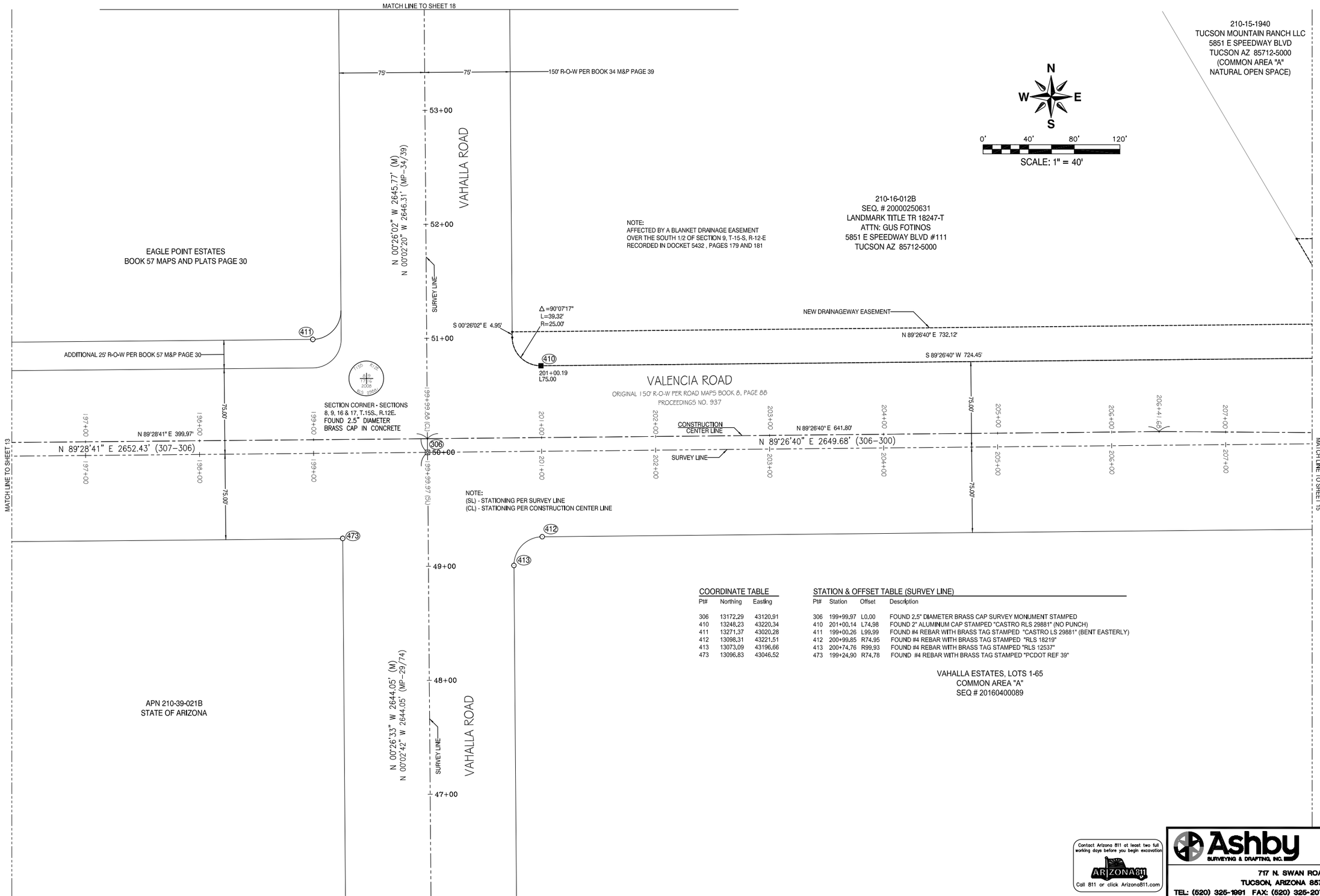
Scale: 1" = 40' | Sheet RW13 of RW19 | Page 427 of 433



COORDINATE TABLE

Pt#	Northing	Easting
306	13172.29	43120.91
410	13248.23	43220.34
411	13271.37	43020.28
412	13098.31	43221.51
413	13073.09	43196.66
473	13096.83	43046.52

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
306	199+99.97	L0.00	FOUND 2.5" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED
410	201+00.14	L74.98	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
411	199+00.26	L99.99	FOUND #4 REBAR WITH BRASS TAG STAMPED "CASTRO LS 29881" (BENT EASTERLY)
412	200+99.85	R74.95	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18219"
413	200+74.76	R99.93	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 12537"
473	199+24.90	R74.78	FOUND #4 REBAR WITH BRASS TAG STAMPED "PCDOT REF 39"

VAHALLA ESTATES, LOTS 1-65
COMMON AREA "A"
SEQ # 20160400089

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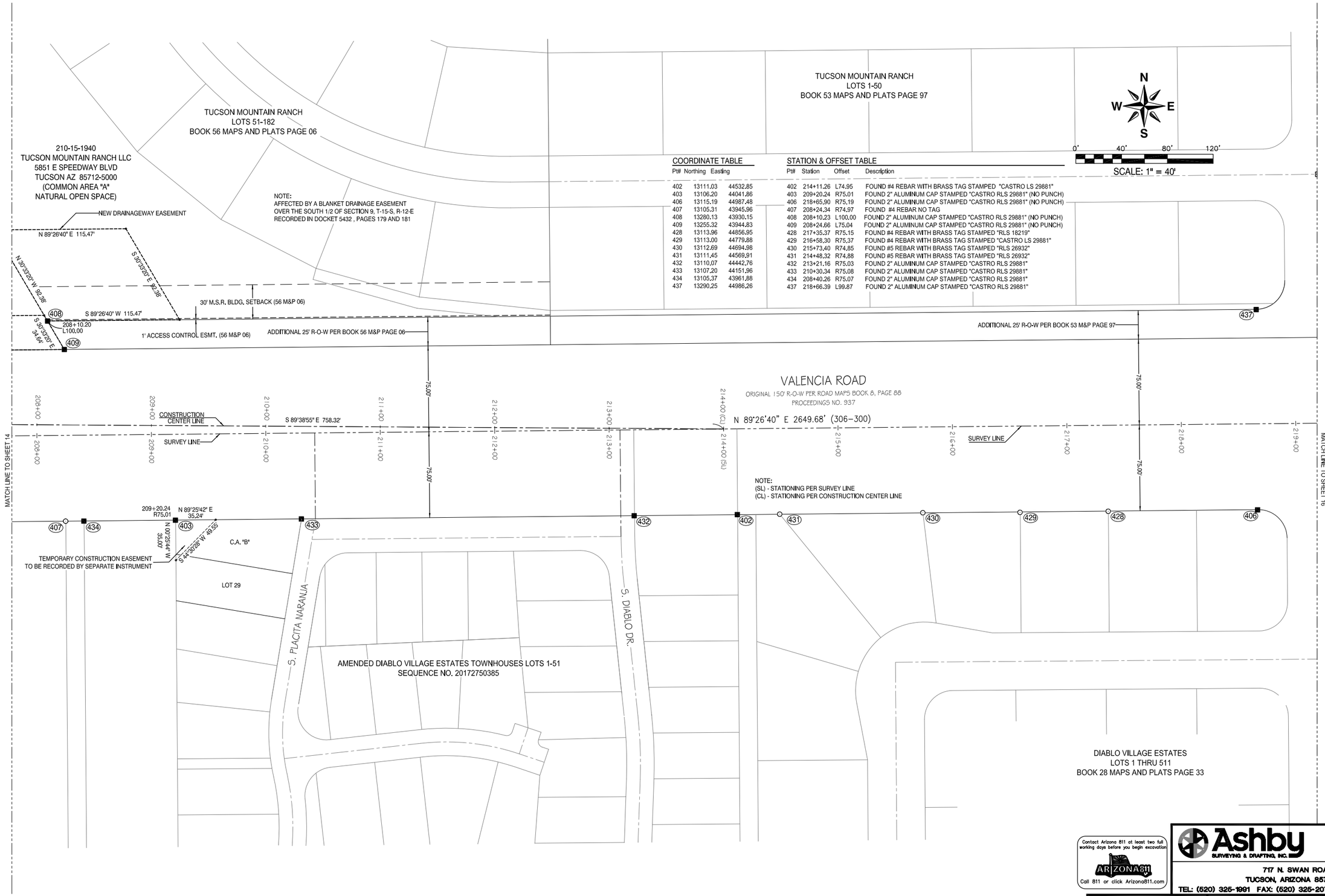
Scale: 1" = 40' | Sheet RW14 of RW19 | Page 428 of 433



COORDINATE TABLE

Pt#	Northing	Easting
402	13111.03	44532.85
403	13106.20	44041.86
406	13115.19	44987.48
407	13105.31	43945.96
408	13280.13	43930.15
409	13255.32	43944.83
428	13113.96	44856.95
429	13113.00	44779.88
430	13112.69	44694.98
431	13111.45	44569.91
432	13110.07	44442.76
433	13107.20	44151.96
434	13105.37	43961.88
437	13290.25	44986.26

STATION & OFFSET TABLE

Pt#	Station	Offset	Description
402	214+11.26	L74.95	FOUND #4 REBAR WITH BRASS TAG STAMPED "CASTRO LS 29881"
403	209+20.24	R75.01	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
406	218+65.90	R75.19	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
407	208+24.34	R74.97	FOUND #4 REBAR NO TAG
408	208+10.23	L100.00	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
409	208+24.66	L75.04	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
428	217+35.37	R75.15	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 18219"
429	216+58.30	R75.37	FOUND #4 REBAR WITH BRASS TAG STAMPED "CASTRO LS 29881"
430	215+73.40	R74.85	FOUND #5 REBAR WITH BRASS TAG STAMPED "RLS 26932"
431	214+48.32	R74.88	FOUND #5 REBAR WITH BRASS TAG STAMPED "RLS 26932"
432	213+21.16	R75.03	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
433	210+30.34	R75.08	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
434	208+40.26	R75.07	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
437	218+66.39	L99.87	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"

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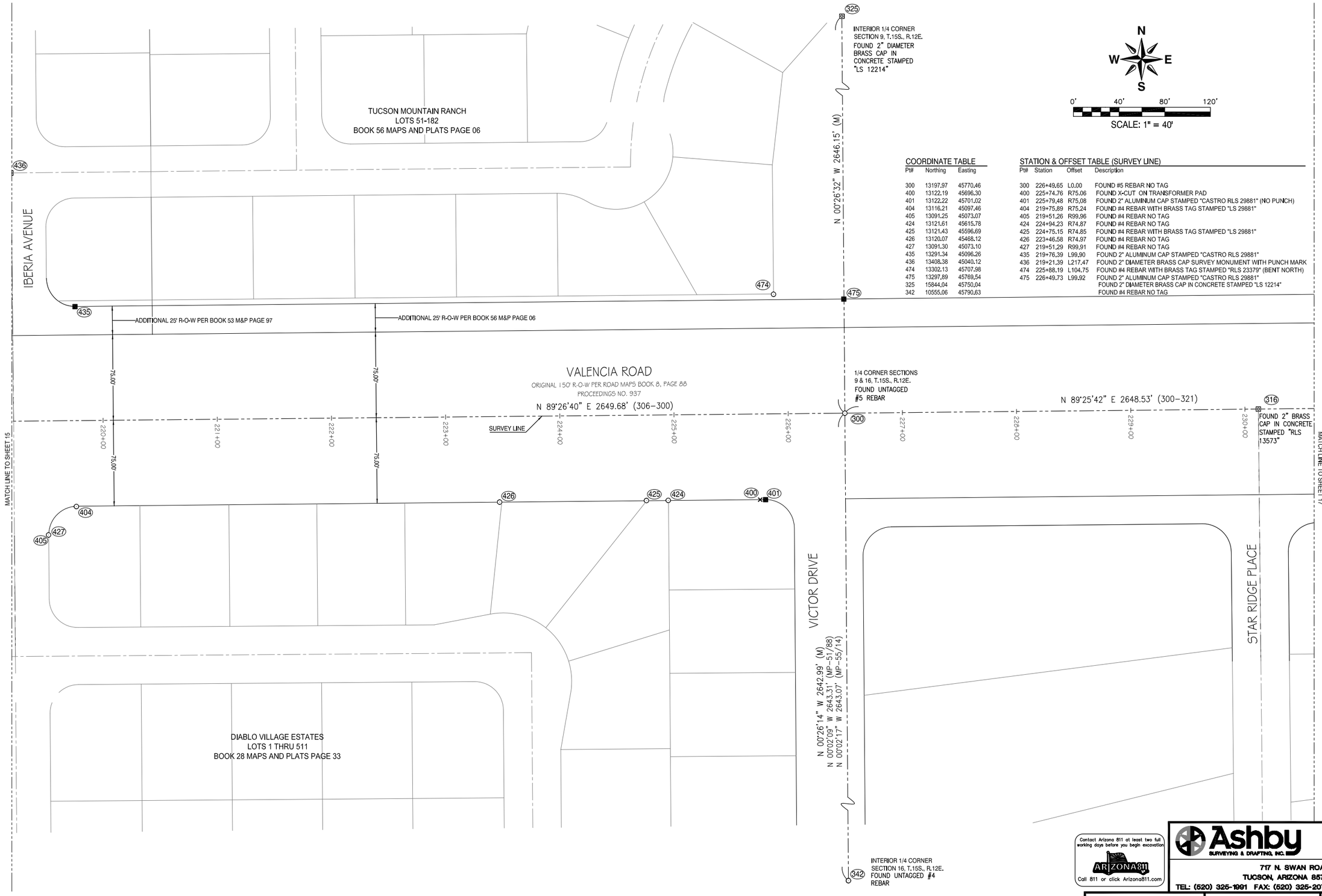
Scale: 1" = 40' | Sheet RW15 of RW19 | Page 429 of 433



COORDINATE TABLE

Pt#	Northing	Easting
300	13197.97	45770.46
400	13122.19	45696.30
401	13122.22	45701.02
404	13116.21	45097.46
405	13091.25	45073.07
424	13121.61	45615.78
425	13121.43	45596.69
426	13120.07	45468.12
427	13091.30	45073.10
435	13291.34	45096.26
436	13408.38	45040.12
474	13302.13	45707.98
475	13297.89	45769.54
325	15844.04	45750.04
342	10555.06	45790.63

STATION & OFFSET TABLE (SURVEY LINE)

Pt#	Station	Offset	Description
300	226+49.65	L0.00	FOUND #5 REBAR NO TAG
400	225+74.76	R75.06	FOUND X-CUT ON TRANSFORMER PAD
401	225+79.48	R75.08	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881" (NO PUNCH)
404	219+75.89	R75.24	FOUND #4 REBAR WITH BRASS TAG STAMPED "LS 29881"
405	219+51.26	R99.96	FOUND #4 REBAR NO TAG
424	224+94.23	R74.87	FOUND #4 REBAR NO TAG
425	224+75.15	R74.85	FOUND #4 REBAR WITH BRASS TAG STAMPED "LS 29881"
426	223+46.58	R74.97	FOUND #4 REBAR NO TAG
427	219+51.29	R99.91	FOUND #4 REBAR NO TAG
435	219+76.39	L99.90	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
436	219+21.39	L217.47	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT WITH PUNCH MARK
474	225+88.19	L104.75	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 23379" (BENT NORTH)
475	226+49.73	L99.92	FOUND 2" ALUMINUM CAP STAMPED "CASTRO RLS 29881"
			FOUND 2" DIAMETER BRASS CAP IN CONCRETE STAMPED "LS 12214"
			FOUND #4 REBAR NO TAG

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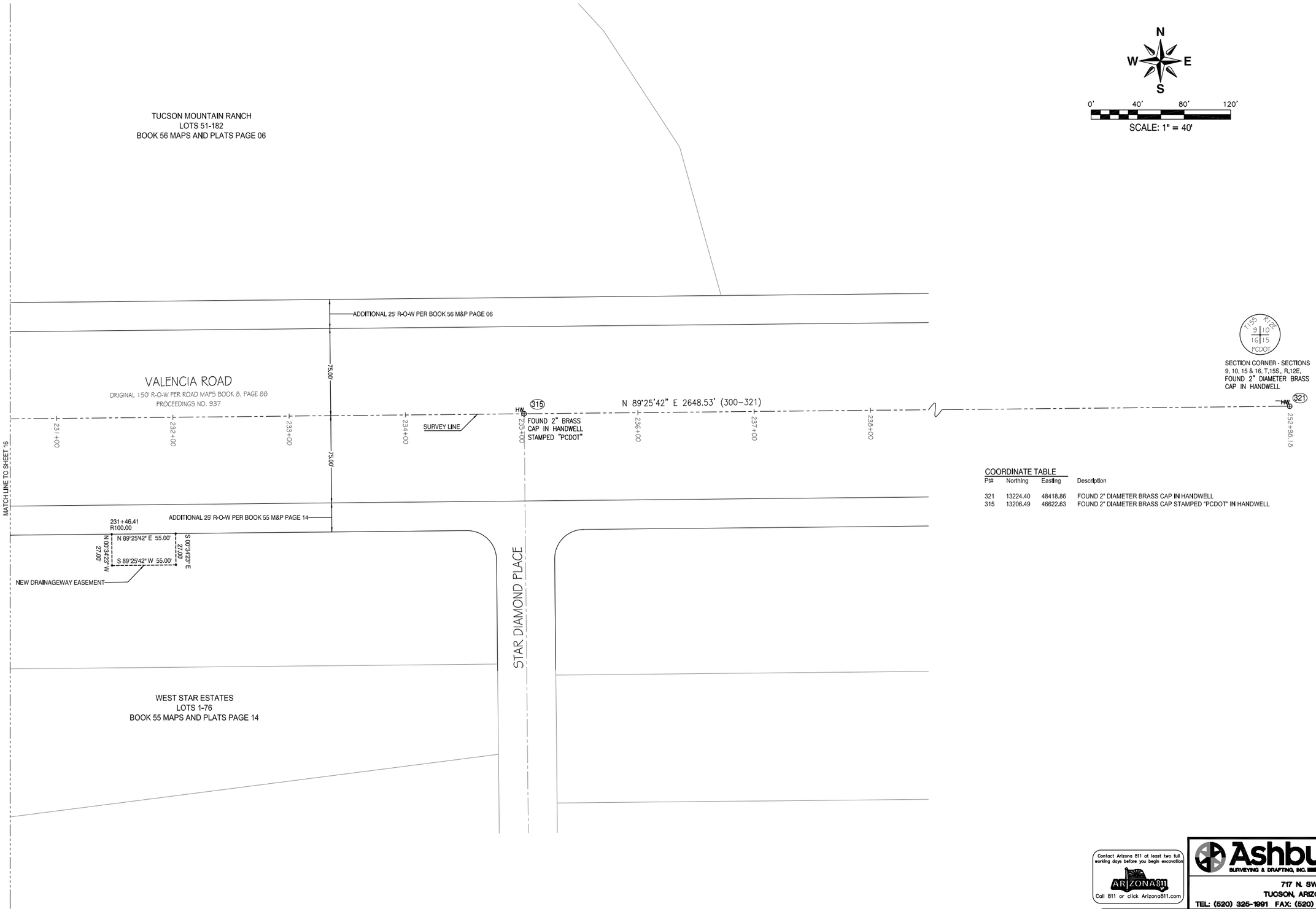
Scale: 1" = 40' | Sheet RW16 of RW19 | Page 430 of 433



COORDINATE TABLE

Pt#	Northing	Easting	Description
321	13224.40	48418.86	FOUND 2" DIAMETER BRASS CAP IN HANDWELL
315	13206.49	46622.63	FOUND 2" DIAMETER BRASS CAP STAMPED "PCDOT" IN HANDWELL

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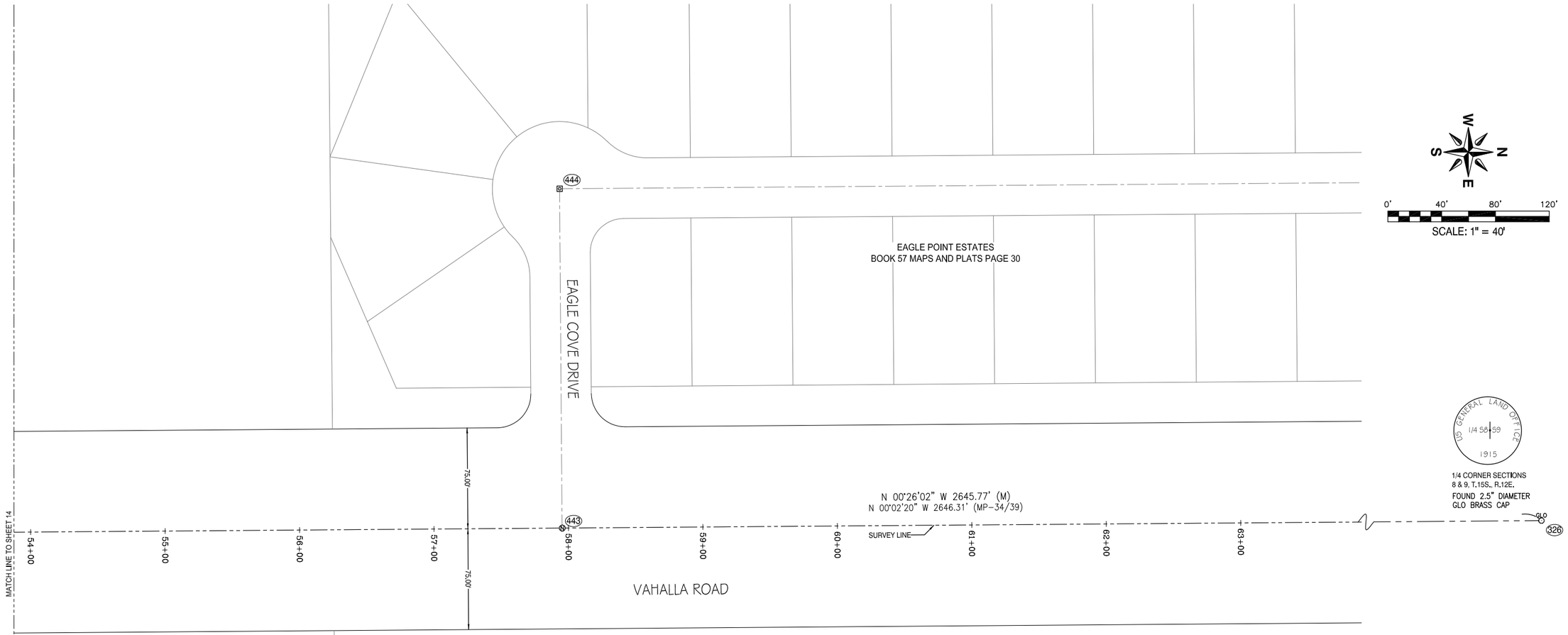
Scale: 1" = 40' | Sheet RW17 of RW19 | Page 431 of 433



TUCSON MOUNTAIN RANCH
LOTS 51-182
BOOK 56 MAPS AND PLATS PAGE 06

210-16-012B
SEQ. # 20000250631

COORDINATE TABLE

Pt#	Northing	Easting
443	13967.70	43114.89
444	13965.71	42862.40
326	15817.98	43100.87

STATION & OFFSET TABLE (SURVEY LINE)

PT#	Station	Offset	Description
443	57+95.44	R0.00	FOUND PK NAIL
444	57+95.36	L252.49	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 35111"
			FOUND 2.5" DIAMETER GLO BRASS CAP

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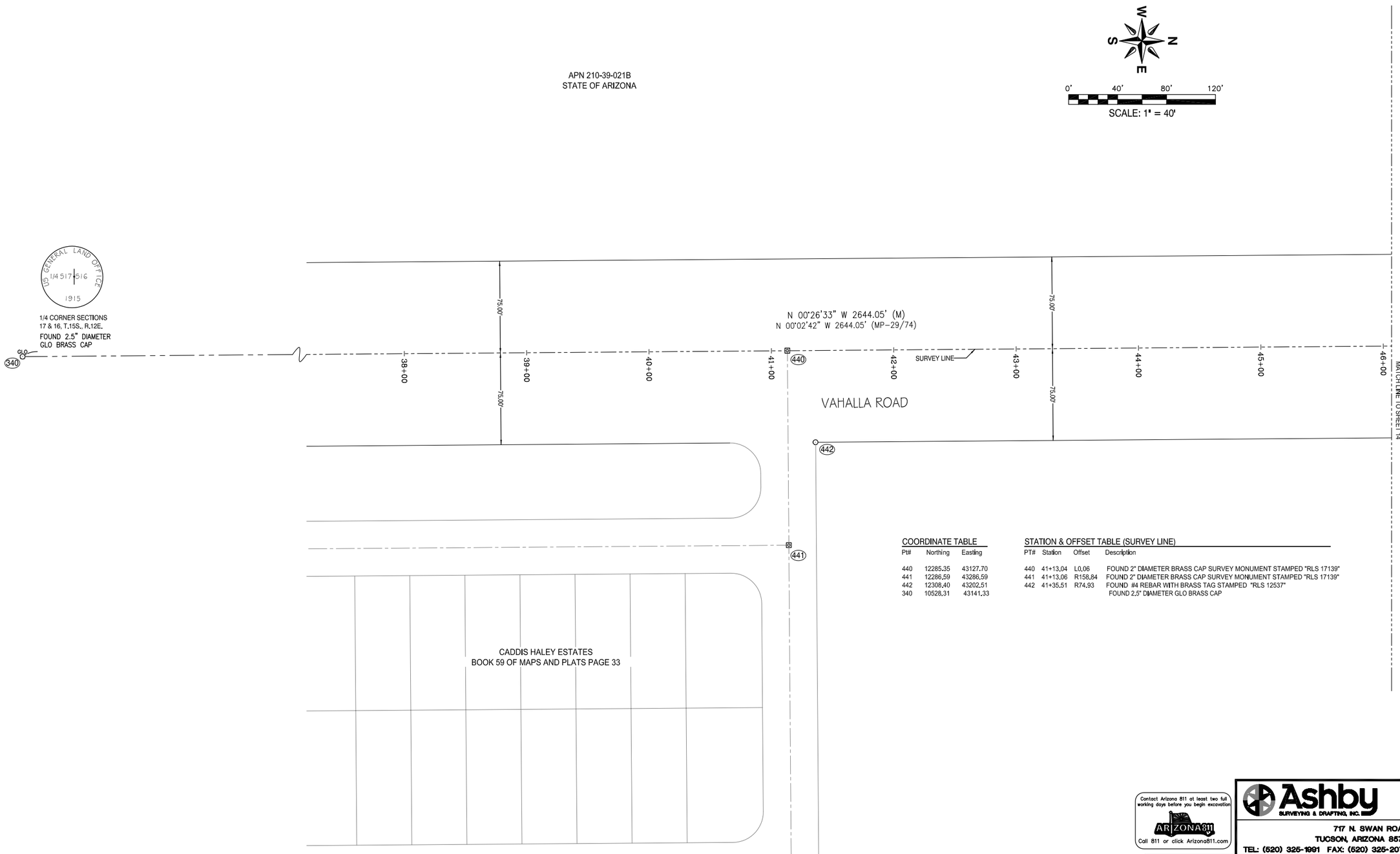

COORDINATE TABLE

Pt#	Northing	Easting
440	12285.35	43127.70
441	12286.59	43286.59
442	12308.40	43202.51
340	10528.31	43141.33

STATION & OFFSET TABLE (SURVEY LINE)

PT#	Station	Offset	Description
440	41+13.04	L0.06	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 17139"
441	41+13.06	R158.84	FOUND 2" DIAMETER BRASS CAP SURVEY MONUMENT STAMPED "RLS 17139"
442	41+35.51	R74.93	FOUND #4 REBAR WITH BRASS TAG STAMPED "RLS 12537"
			FOUND 2.5" DIAMETER GLO BRASS CAP

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Scale: 1" = 40' | Sheet RW19 of RW19 | Page 433 of 433