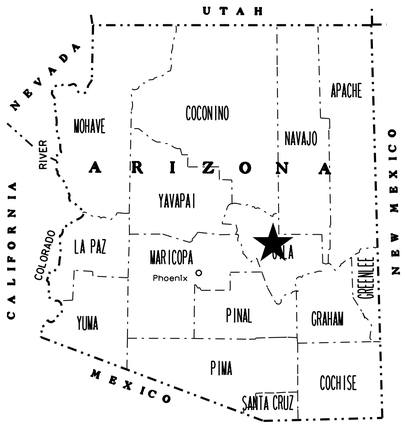
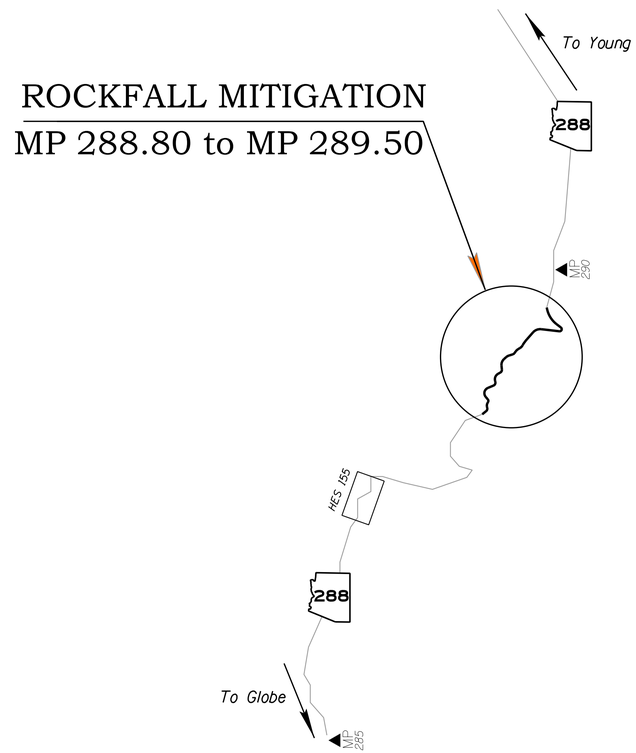
STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION

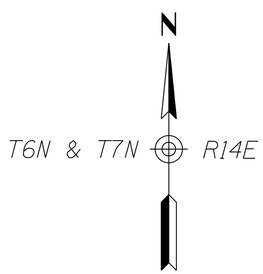
ADOT

PROJECT PLANS

STATE HIGHWAY
GLOBE-YOUNG-JCT SR 260 HWY
SR 288







Constructed by:

Construction Company

Completion Date

Red-Lines by:

Construction Administrator Name & Company

Completion Date

Record Drawing by:

Record Drawing Designer Name & Company

Completion Date

SOUTH OF YOUNG

PROJECT NO. 288 GI 288 H8617 01C
FEDERAL AID NO. STP-288-A(201)T

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
DALLAS HAMMIT, P.E., STATE ENGINEER

Record DWG DATA	REC DWG DATE	_____ OF _____

ADOT-ROADWAY_V81_W_DRAINAGE.TBL

3:49:30 PM

ADOT STANDARD DRAWINGS
C STANDARDS

ISSUE OR REVISION DATE	STANDARD NO.	SUBJECT
		CONSTRUCTION
5/12	C-01.10 SH 1	SYMBOL LEGEND
5/12	C-01.10 SH 2	SYMBOL LEGEND
5/12	C-01.10 SH 3	SYMBOL LEGEND
5/12	C-01.10 SH 4	SYMBOL LEGEND
5/12	C-01.30 SH 1	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 2	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 3	GENERAL ABBREVIATIONS
5/12	C-02.10	SLOPES, RURAL DIVIDED HIGHWAYS
5/12	C-02.20	SLOPES, RURAL UNDIVIDED AND FRINGE-URBAN HIGHWAYS
5/12	C-02.30	SLOPES, MISCELLANEOUS ROADWAYS
5/12	C-03.10 SH 1	DITCHES, CHANNELS, DIKES AND BERMS, DITCHES AND CHANNELS
5/12	C-03.10 SH 2	DITCHES, CHANNELS, DIKES AND BERMS, DIKES
5/12	C-03.10 SH 3	DITCHES, CHANNELS, DIKES AND BERMS, DITCH DIKE
5/12	C-03.10 SH 4	DITCHES, CHANNELS, DIKES AND BERMS, PIPE BERMS
5/12	C-03.10 SH 5	DITCHES, CHANNELS, DIKES AND BERMS, HEADWALL BERMS
5/12	C-04.10 SH 1	SPILLWAY, EMBANKMENT SINGLE INLET
5/12	C-04.10 SH 2	SPILLWAY, EMBANKMENT DOUBLE INLET
5/12	C-04.20 SH 1	DOWNDRAIN, EMBANKMENT SINGLE INLET
5/12	C-04.20 SH 2	DOWNDRAIN, EMBANKMENT DOUBLE INLET
5/12	C-04.30	SPILLWAY LENGTH TABLE
5/12	C-04.40	DOWNDRAIN LENGTH TABLE
5/12	C-04.50	DOWNDRAIN ENERGY DISSIPATOR
5/12	C-05.10	CURB & GUTTER, CURB, GUTTER
5/12	C-05.12 SH 1	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 2	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 3	CURB AND GUTTER TRANSITIONS
5/12	C-05.20 SH 1	CONCRETE DRIVEWAYS & SIDEWALKS, DRIVEWAYS
5/12	C-05.20 SH 2	CONCRETE DRIVEWAYS & SIDEWALKS, SIDEWALKS
5/12	C-05.30 SH 1	SIDEWALK RAMP, TYPE A
5/12	C-05.30 SH 2	SIDEWALK RAMP, TYPE B
5/12	C-05.30 SH 3	SIDEWALK RAMP, TYPE C
5/12	C-05.30 SH 4	SIDEWALK RAMP, TYPE D
5/12	C-05.30 SH 5	SIDEWALK RAMP, TYPE E
5/12	C-05.30 SH 6	SIDEWALK RAMP, TYPE F
5/12	C-05.30 SH 7	SIDEWALK RAMP, DETECTABLE WARNING STRIP
5/12	C-05.40	MEDIAN PAVING AND NOSE TAPER
5/12	C-05.50	CONCRETE BUS BAY
5/12	C-06.10 SH 1	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-06.10 SH 2	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-07.01 SH 1	PCCP JOINTS
5/12	C-07.01 SH 2	PCCP JOINTS
5/12	C-07.02	LOAD TRANSFER DOWEL ASSEMBLY
5/12	C-07.03 SH 1	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 2	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 3	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 4	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 5	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 6	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 7	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 8	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.04 SH 1	PCCP JOINT LOCATIONS, PARALLEL TYPE ENTRANCE RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 2	PCCP JOINT LOCATIONS, PARALLEL TYPE EXIT RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 3	PCCP JOINT LOCATIONS, TAPER TYPE ENTRANCE RAMP
5/12	C-07.04 SH 4	PCCP JOINT LOCATIONS, TAPER TYPE EXIT RAMP
5/12	C-07.04 SH 5	PCCP JOINT LOCATIONS, CROSSROAD AND RAMP TERMINI
5/12	C-07.06	TRENCH BACKFILL AND PAVEMENT REPLACEMENT
5/12	C-08.20	PAVED GORE AREA
5/12	C-10.00	GUARDRAIL MEASUREMENT LIMITS
5/12	C-10.01	GUARDRAIL INSTALLATION, TYPE A AND REFLECTOR TAB
5/12	C-10.02	GUARDRAIL INSTALLATION, TYPE B AND REFLECTOR TAB
5/12	C-10.03	W-BEAM GUARDRAIL, G4(1W) AND G4(2W), BLOCKED-OUT TIMBER POST
5/12	C-10.04	W-BEAM GUARDRAIL, G4(1S), BLOCKED-OUT STEEL POST
5/12	C-10.05 SH 1	W-BEAM GUARDRAIL, G4(MODIFIED) WITH FREEWAY CURB AND GUTTER
5/12	C-10.05 SH 2	W-BEAM GUARDRAIL, G4(MODIFIED) WITH FREEWAY CURB AND GUTTER
5/12	C-10.06 SH 1	W-BEAM GUARDRAIL, NESTED, TYPES 1 AND 2
5/12	C-10.06 SH 2	W-BEAM GUARDRAIL, NESTED, TYPE 3
5/12	C-10.07 SH 1	W-BEAM GUARDRAIL, BOLTED ANCHOR
5/12	C-10.07 SH 2	W-BEAM GUARDRAIL, BOLTED ANCHOR
5/12	C-10.08	W-BEAM GUARDRAIL, END ANCHOR
5/12	C-10.20	THRIE-BEAM GUARDRAIL, G9, BLOCKED-OUT STEEL POST
5/12	C-10.30 SH 1	GUARDRAIL TRANSITION, THRIE BEAM TO CONCRETE HALF BARRIER, 32" TYPE 'F'
5/12	C-10.30 SH 2	GUARDRAIL TRANSITION, THRIE BEAM TO CONCRETE HALF BARRIER, 32" TYPE 'F'
5/12	C-10.40	CONCRETE MEDIAN BARRIER, 32" TYPE 'F', CAST-IN-PLACE
5/12	C-10.41	CONCRETE MEDIAN BARRIER, 42" TYPE 'F', CAST-IN-PLACE
5/12	C-10.42 SH 1	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.42 SH 2	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.42 SH 3	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.50 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F', CAST-IN-PLACE
5/12	C-10.50 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F', PRECAST
5/12	C-10.51	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH SIDEWALK
5/12	C-10.52	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH GUTTER
5/12	C-10.53	CONCRETE HALF BARRIER, 42" TYPE 'F' WITH GUTTER
5/12	C-10.54 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, CAST-IN-PLACE
5/12	C-10.54 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, PRECAST
5/12	C-10.54 SH 3	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, LAYOUT
5/12	C-10.55 SH 1	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, CAST-IN-PLACE
5/12	C-10.55 SH 2	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, PRECAST
5/12	C-10.55 SH 3	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, LAYOUT
5/12	C-10.70 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.70 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.70 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.71 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
5/12	C-10.71 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
5/12	C-10.72 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.72 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.72 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.73 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
5/12	C-10.73 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
5/12	C-10.74	CONCRETE HALF-BARRIER TRANSITION, 42" TO 32" TYPE 'F'
5/12	C-10.75 SH 1	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F', TANGENT DEPARTURE TYPE 1
5/12	C-10.75 SH 2	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F', TANGENT DEPARTURE TYPE 2
5/12	C-10.76	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' AT RADIUS, 32" TO 0"
5/12	C-10.77	CONCRETE HALF-BARRIER TRANSITION, END TERMINAL CURB AND GUTTER
5/12	C-11.10 SH 1	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 2	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 3	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 4	ROADWAY CATTLE GUARD
5/12	C-11.20	CATTLE GUARD, DRAINAGE
5/12	C-12.10 SH 1	FENCE, WOVEN WIRE
5/12	C-12.10 SH 2	FENCE, BARBED WIRE
5/12	C-12.10 SH 3	FENCE, TYPES 1 AND 2 GATES, FLOOD GATE
5/12	C-12.10 SH 4	FENCE, FLOOD GATE INSTALLATION
5/12	C-12.10 SH 5	FENCE, MISCELLANEOUS DETAILS
5/12	C-12.20 SH 1	FENCE, CHAIN LINK, TYPE 1
5/12	C-12.20 SH 2	FENCE, CHAIN LINK, TYPE 2
5/12	C-12.20 SH 3	FENCE, CHAIN LINK, GATES
5/12	C-12.30 SH 1	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 2	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 3	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-13.10 SH 1	PIPE CULVERT INSTALLATION
5/12	C-13.10 SH 2	PIPE CULVERT INSTALLATION
5/12	C-13.15	TYPICAL PIPE INSTALLATION
5/12	C-13.20	PIPE, REINFORCED CONCRETE END SECTION
5/12	C-13.25	PIPE, CORRUGATED METAL END SECTION
5/12	C-13.30	PIPE AND PIPE ARCH, CORRUGATED METAL, CONCRETE INVERT PAVING
5/12	C-13.55	PIPE, CATTLE-VEHICLE PASS, MITERED END TREATMENT
5/12	C-13.60	SLOTTED DRAIN DETAILS
5/12	C-13.65	SLOTTED DRAIN INSTALLATION DETAILS
5/12	C-13.70	STORM DRAIN CONNECTION DETAILS
5/12	C-13.75	STORM DRAIN OUTLET BARRIER GATE
5/12	C-13.76	STORM DRAIN OUTLET AND STORM DRAIN PLUG
5/12	C-13.80	PIPE COLLAR DETAILS
5/12	C-15.10	CATCH BASIN, TYPE 1
5/12	C-15.20 SH 1	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 2	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 3	CATCH BASIN, ACCESS FRAME AND COVER DETAILS
5/12	C-15.30	CATCH BASIN, TYPE 4
5/12	C-15.40 SH 1	CATCH BASIN, TYPE 5
5/12	C-15.40 SH 2	CATCH BASIN, TYPE 5
5/12	C-15.50	CATCH BASIN, FRAME AND GRATE
5/12	C-15.70 SH 1	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.70 SH 2	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.75	CATCH BASIN, DROP INLET
5/12	C-15.80	CATCH BASIN, FLUSH
5/12	C-15.81	CATCH BASIN, SIDE SLOPE
5/12	C-15.90	CATCH BASIN, MEDIAN DIKE, PRECAST
5/12	C-15.91 SH 1	FREEWAY CATCH BASIN DETAILS
5/12	C-15.91 SH 2	FREEWAY CATCH BASIN DETAILS
5/12	C-15.92 SH 1	CATCH BASIN WITH TYPE 'F' CONCRETE HALF BARRIER
5/12	C-15.92 SH 2	CATCH BASIN WITH TYPE 'F' CONCRETE HALF BARRIER
5/12	C-16.40	IRRIGATION SLEEVES
5/12	C-17.10	RAIL BANK PROTECTION FOR DRAINAGEWAYS, TYPES 1, 2 & 3
5/12	C-17.15	RAIL BANK PROTECTION AT ABUTMENTS, TYPES 4, 5 & 6
5/12	C-17.20	BANK PROTECTION FOR DRAINAGEWAYS, TYPES 7, 8 & 9
5/12	C-18.10 SH 1	MANHOLE, RISER DETAILS
5/12	C-18.10 SH 2	MANHOLE, BASE DETAILS, NORMAL INSTALLATION
5/12	C-18.10 SH 3	MANHOLE, FRAME AND COVER DETAILS
5/12	C-19.10 SH 1	FORD, CONCRETE WALLS
5/12	C-19.10 SH 2	FORD, TYPES 1 AND 2
5/12	C-21.10	SURVEY MONUMENT FRAME AND COVER
5/12	C-21.20	SURVEY MARKER

REV.: 05/12

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW		
	NAME	DATE
CONSTRUCTION Standards	Richard Martinez	06/23/2016
PROJECT NO. 288 GI 288 H8617 01C	1A OF 19	
RECORD DRAWING DATA / FEDERAL AID NO. 288-A(201)T / REC DWG DATE	OF	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	2	19	

288 GI 288

MIDPOINT OF PROJECT

Central Zone
State Plane Coordinates

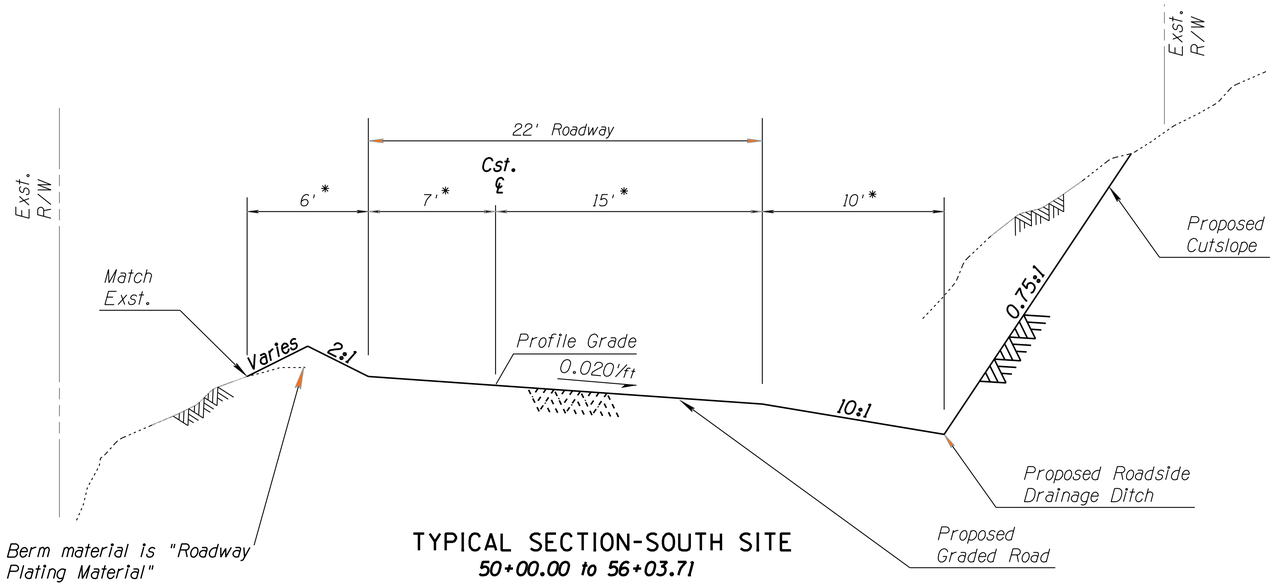
X=991,000
Y=1,056,000

DESIGN DATA

2010 AADT = 100
2030 AADT = 250

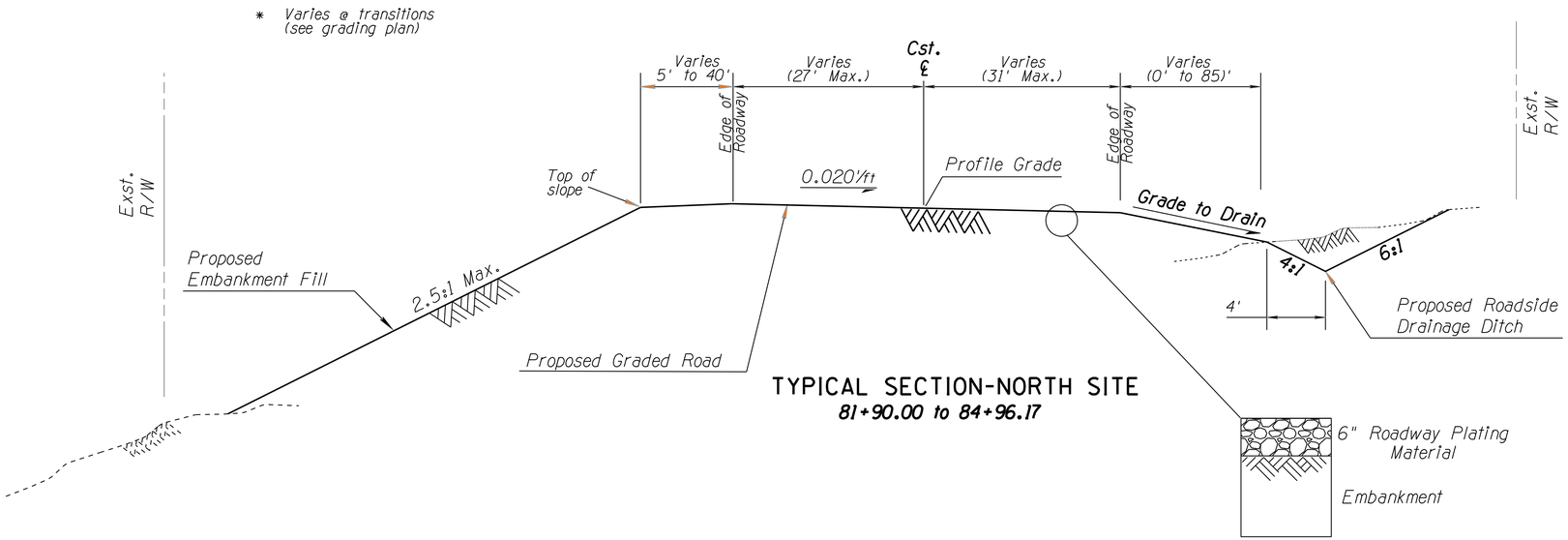
LENGTH OF PROJECT

Sta 50+00.00 to 56+03.71 (South Site) = 603.71'
Sta 56+03.71 to 81+90.00 (Exception)
Sta 81+90.00 to 84+96.17 (North Site) = 306.00'
MP 288.80 to MP 289.50 = 0.70 MI



TYPICAL SECTION-SOUTH SITE
50+00.00 to 56+03.71

* Varies @ transitions (see grading plan)



TYPICAL SECTION-NORTH SITE
81+90.00 to 84+96.17

INDEX OF SHEETS

Sheet No.	Sheet Type
1	Face Sheet
1A	ADOT Standard Drawing
2	Design Sheets
3	New Pipe Extension Summary Sheet
4	Control Point Plan
5	South Site Grading Plan Sheet
6	South Site Grading Profile Sheet
7	North Site Grading Plan Sheet
8	North Site Grading Profile Sheet
9	Storm Drain Plan & Profile
10-14	Traffic Control Sheets
15-19	Erosion Control Sheets

GENERAL NOTES

The roadway plans have been designed utilizing the 2012 Construction Standard Drawings(C-Series) and current revisions. Refer to the 1A sheet for a listing of current revision dates

For R/W information not shown see Right-of-Way project No. S-266-70C TRACS No. H2188 01R

Where only the horizontal location of an existing utility is shown, the location is approximate. Where both the horizontal and the vertical location of an existing utility is shown the location has been verified by field survey methods. The contractor shall comply with all current Blue Stake Laws and Section 107.15 of the Specifications.

The average project elevation is 6150'.

EARTHWORK QUANTITIES

Roadway Excavation (South Site)	17,900 CY
Swell	3,580 CY
Pipe Backfill(Information Purposes Only)	107 CY
Embankment (Exc Ground Comp.XNorth Site)	20,406 CY
Waste	1,074 CY

EARTHWORK FACTORS

Shrink/Swell	Ground Compaction
20% Swell	n/a

	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

PREMIER

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET

ROUTE SR 288 | LOCATION SOUTH OF YOUNG

TRACS NO. H8617 01C | 288-A(201)T

Registered Professional Engineer (Civil) CERTIFICATE NO. 23245 RICHARD S. MACKEY Date Signed 6/24/16 ARIZONA U.S.A.

EXPIRES: 9-30-16

DWG NO. TS-1.01

___ OF ___

6/20/2016 P:\2011021-01\CADD\Prod\Sheets\02-h8617_notes-typ-section1.dgn

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	3	19	

288 GI 288

CSP - CORRUGATED STEEL PIPE

DESCRIPTION												CSP										END TREATMENT													QUANTITIES					
				In.	Ft.	Degree	Each	Ft.				Ft.					In.					Each													Cubic Yard					
								Remove Existing Pipe				Extend										End Section																		
																						C-13.25																		
																												Catch Basin, Manhole, Headwall & Junction Structure												
																												Ft.				Grate								
																																Ft.								
Station	Plan Reference Number	Controlling Fill Height Range	Size	Length In Place (0.0)	Skew (0)	Remove & Salvage End Section	Remove Headwall	Left (0.0)	Right (0.0)	Left (0)	Right (0)	Corrugation	Wall Thickness (0.000)	Zinc	Aluminum	Bituminous	Reset Salvaged End Section	New	Detail	Size, (In.) Manhole	Standard or Detail	S-Single / D-Double	Location	H (0.0)	L Wing (0.0)	L 18" Slotted Drain (0)	L 24" Slotted Drain (0)	Type	Elevation (0.00)	Depth	L (0.0)	Inlet Depression C-15.70	Pipe Excavation (0)	Pipe Back-fill (0) C-13.15	Drainage Excavation (0)	Berm Embankment (0)	Dike Embankment (0)	REMARKS
																																In.	Ft.							
83+58.55	1	6	36"	98						144		A	.064			X		1														0	107	0	0	0				
Sheet Total																		1															107							

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.

◪ PIPE CORRUGATION			
A	2⅔x½	D	6x2
B	3x1	E	3x1 or 9x2½
C	9x2½		

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

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.000) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

PREMIER

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

NEW CORRUGATED STEEL PIPE EXTENSIONS SUMMARY SHEET

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

Registered Professional Engineer (Civil) 23245 RICHARD S. MACKEY Date Signed 6/20/16 ARIZONA U.S.A.
EXPIRES: 9-30-16

DWG NO. PS-1.01

TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

REV. DATE: 07/27/2012

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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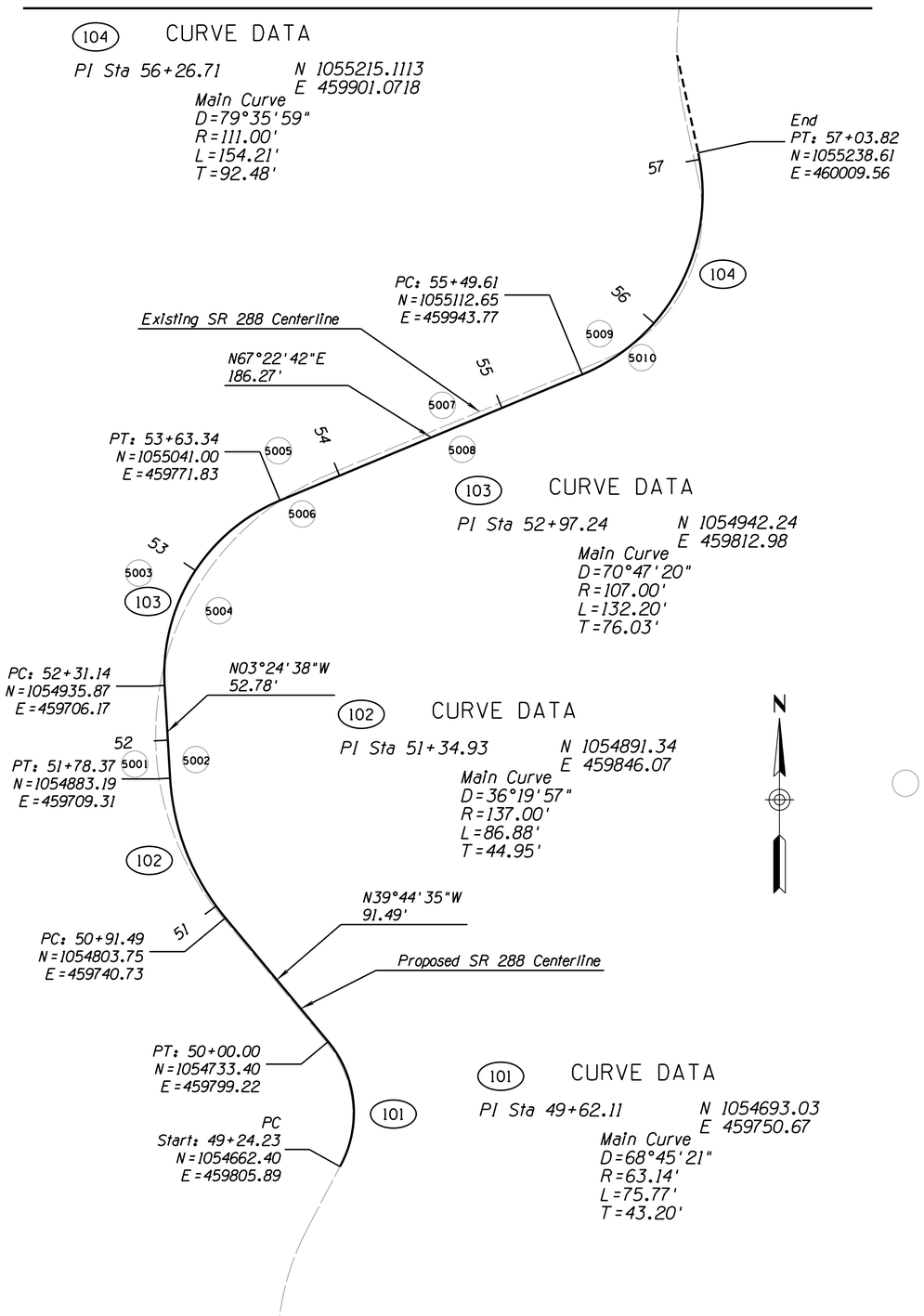
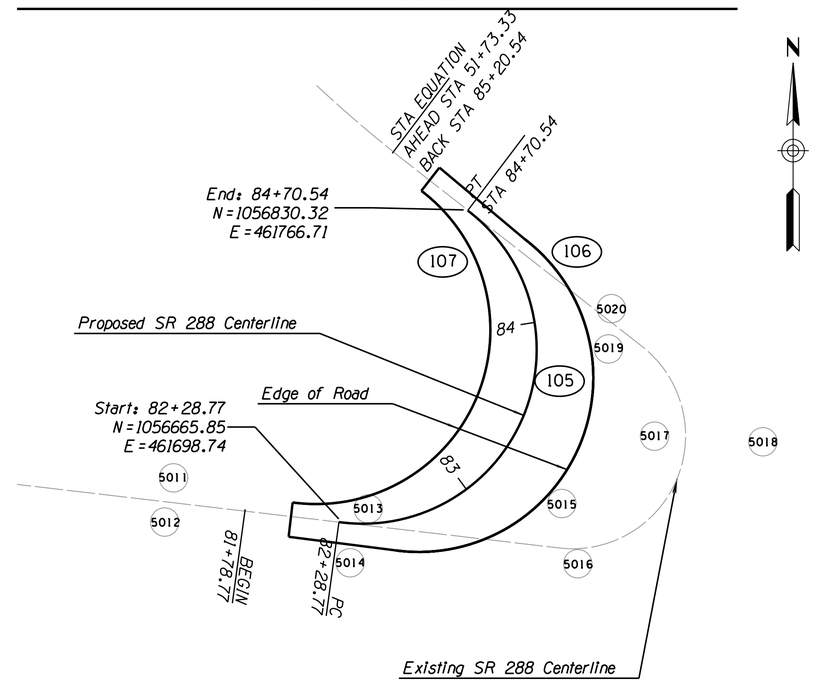
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	4	19	

288 GI 288

SOUTH SITE



NORTH SITE



LOCAL CONTROL POINTS

PT.#	GROUND (N)	GROUND (E)	ELEV.	DESC.
5001	1054891.219	459689.340	5998.07	Iron Pin
5002	1054893.530	459715.740	5996.51	Rail Road spike
5003	1054994.953	459698.028	6005.92	Iron Pin
5004	1054981.605	459730.210	6003.07	Rail Road spike
5005	1055061.492	459771.816	6013.54	Iron Pin
5006	1055040.094	459780.096	6011.79	Rail Road spike
5007	1055095.104	459864.007	6023.53	Iron Pin
5008	1055076.788	459870.717	6022.59	Rail Road spike
5009	1055135.711	459953.217	6029.71	Iron Pin
5010	1055121.918	459977.613	6031.05	Rail Road spike
5011	1056688.276	461609.386	6203.94	Iron Pin
5012	1056667.153	461606.687	6203.42	Rail Road spike
5013	1056672.377	461712.528	6211.27	Iron Pin
5014	1056652.822	461700.029	6210.61	Rail Road spike
5015	1056675.475	461815.287	6217.00	Iron Pin
5016	1056644.007	461825.264	6216.73	Rail Road spike
5017	1056712.163	461864.602	6218.85	Iron Pin
5018	1056715.120	461920.462	6220.47	Rail Road spike
5019	1056758.444	461831.063	6222.20	Iron Pin
5020	1056779.330	461841.996	6222.22	Iron Pin

105 CURVE DATA

PI Sta 85+79.06 — N 1056618.69, E 462045.85

Main Curve
D=150°34'07"
R=92.00'
L=241.77'
T=350.29'

106 CURVE DATA RIGHT

PI — N 1056603.76, E 462075.74

Main Curve
D=150°34'07"
R=92.00'
L=241.77'
T=350.29'

PC — N 1056650.91, E 461728.64

PT — N 1056815.39, E 461796.60

107 CURVE DATA LEFT

PI — N 1056629.06, E 462021.40

Main Curve
D=150°34'07"
R=92.00'
L=241.77'
T=350.29'

PC — N 1056676.21, E 461674.30

PT — N 1056840.68, E 461742.26

NOTE:

Map Coordinates are NAD (North American Datum) '83/92 Modified Eastern Zone State Plane Coordinates using G.A.F. (Grid Adjustment Factor) = 1.00033
These Coordinates can be Utilized as a Ground Datum.

LEVEL DATUM:

Based on NAVD (North American Vertical Datum) '88 Elevations.

	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

PREMIER

CONTROL POINT PLAN

ROUTE: SR 288 — LOCATION: SOUTH OF YOUNG

Registered Professional Engineer (Civil) — Richard S. Mackey — 23245 — Date Signed 6-17-16 — Arizona U.S.A.
EXPIRES: 9-30-16

DWG NO. CP-1.01

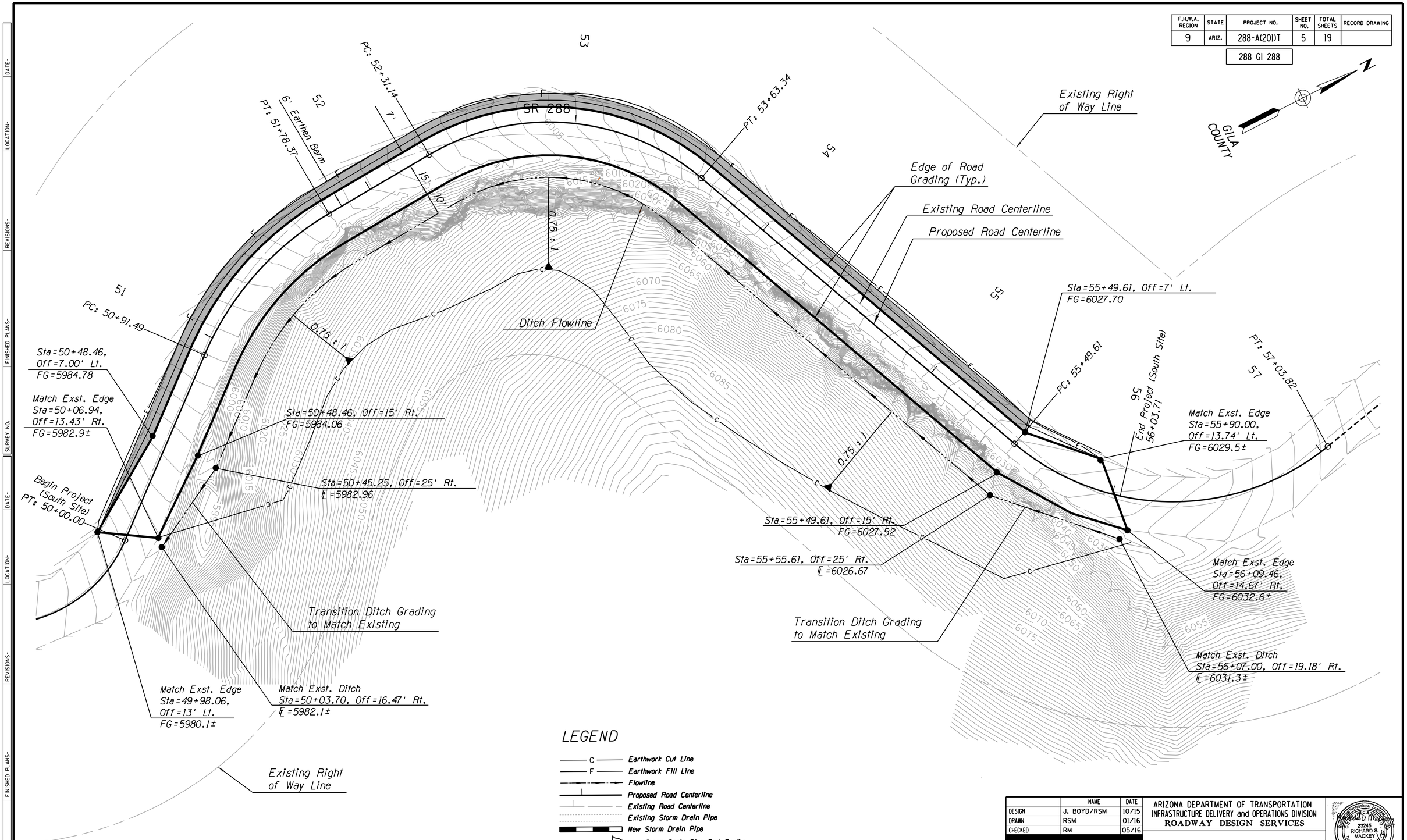
TRACS NO. H8617 01C — 288-A(201)T — ___ OF ___

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

6/20/2016 P:\2011021-01\CADD\Prod\Sheets\05-H8617_control.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	5	19	

288 GI 288



	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

PREMIER

SOUTH SITE GRADING PLAN

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

Registered Professional Engineer (Civil) CERTIFICATE NO. 22345 RICHARD S. MACKEY Date Signed 6/20/16 ARIZONA, U.S.A.

EXPIRES: 9-30-16

DWG NO. C-1.01

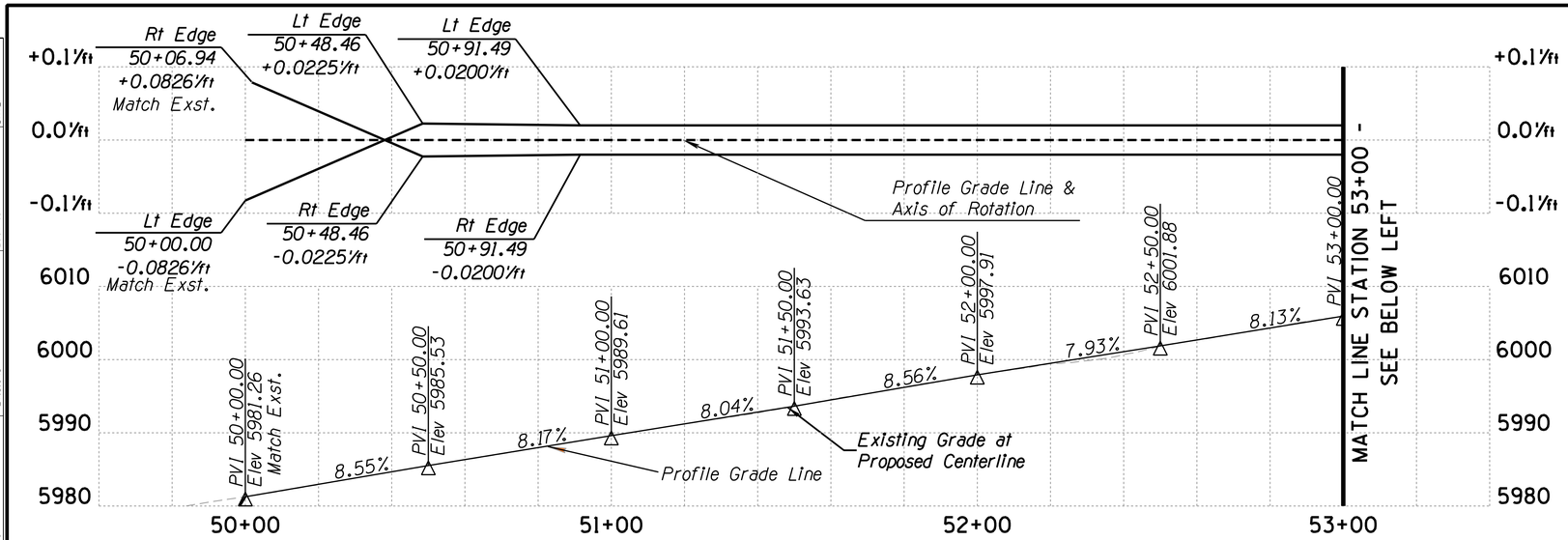
TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

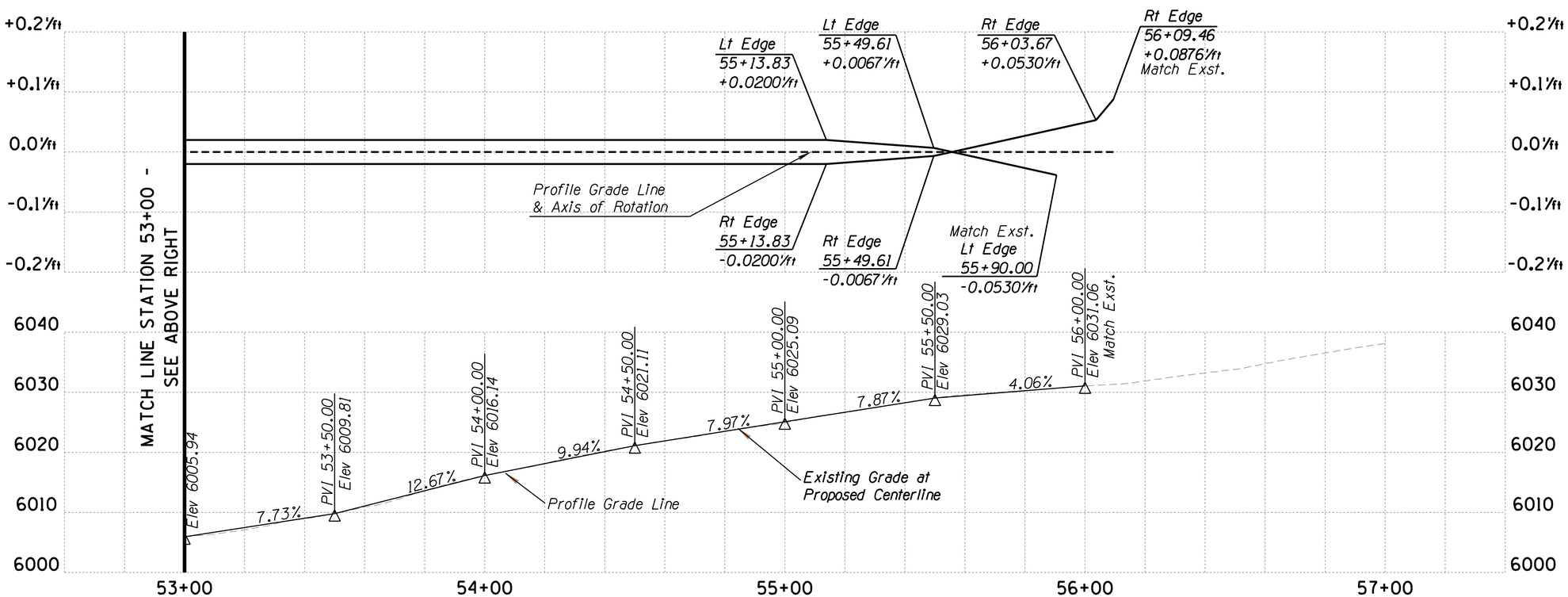
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

6/20/2016 P:\2011021-01\CADD\Prod\Sheets\08-h8617_plan1.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	6	19	

288 GI 288





	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

PREMIER

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

SOUTH SITE GRADING PROFILE

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

TRACS NO. H8617 01C
288-A(201)T

Registered Professional Engineer (Civil)
23245
RICHARD S. MACKEY
Date Signed 6/20/16
ARIZONA, U.S.A.
EXPIRES: 9-30-16

DWG NO. C-1.02

____ OF ____

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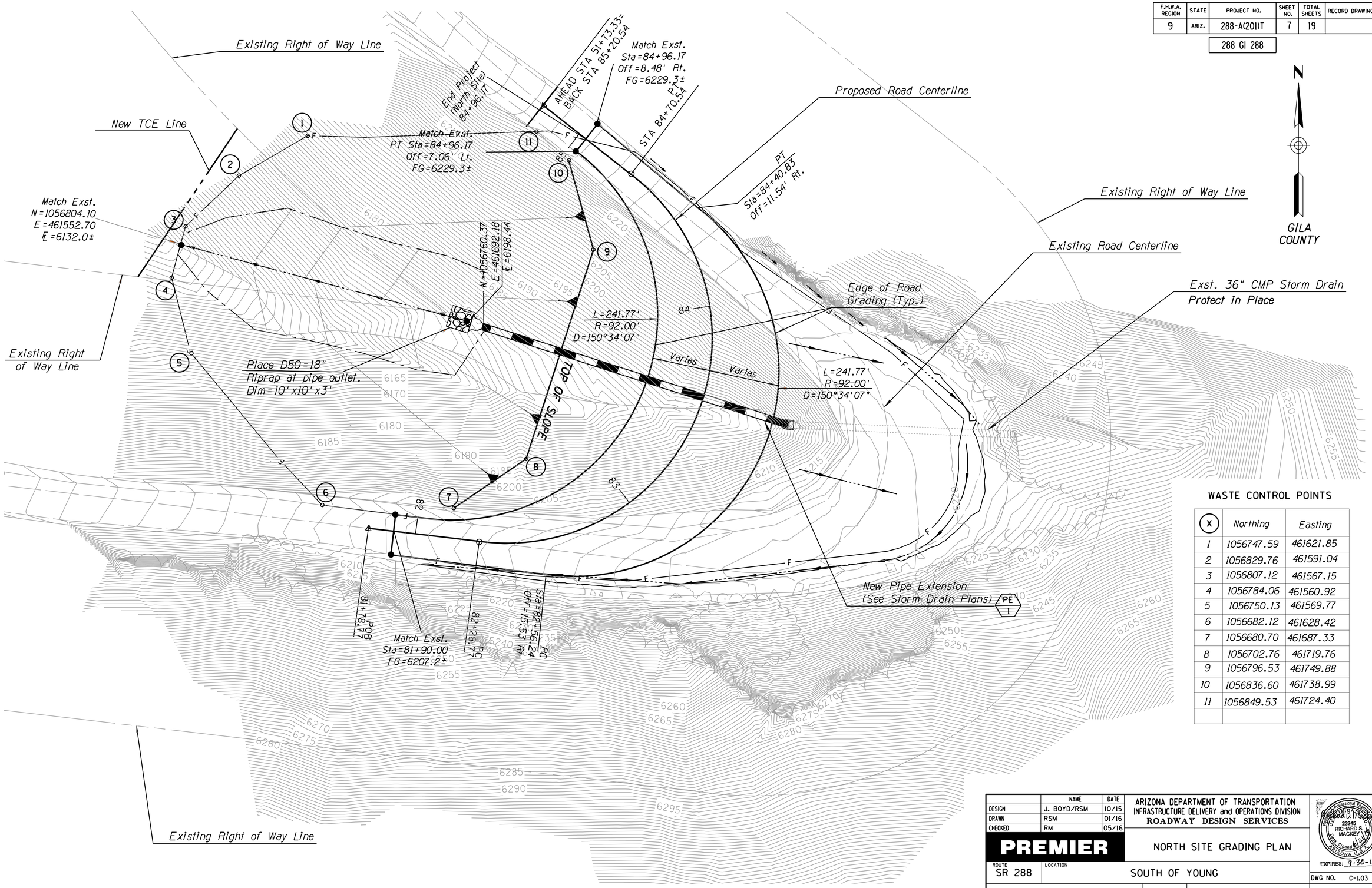
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	7	19	

288 GI 288



WASTE CONTROL POINTS

X	Northing	Easting
1	1056747.59	461621.85
2	1056829.76	461591.04
3	1056807.12	461567.15
4	1056784.06	461560.92
5	1056750.13	461569.77
6	1056682.12	461628.42
7	1056680.70	461687.33
8	1056702.76	461719.76
9	1056796.53	461749.88
10	1056836.60	461738.99
11	1056849.53	461724.40

	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

PREMIER

NORTH SITE GRADING PLAN

ROUTE SR 288 | LOCATION SOUTH OF YOUNG

TRACS NO. H8617 01C | 288-A(201)T

Registered Professional Engineer (Civil) CERTIFICATE NO. 23245 RICHARD S. MACKEY Date Signed 9-30-16 ARIZONA U.S.A.

EXPIRES: 9-30-16

DWG NO. C-1.03

___ OF ___

6/20/2016 P:\2011021-01\CADD\Prod\Sheets\10-h8617_plan2.dgn

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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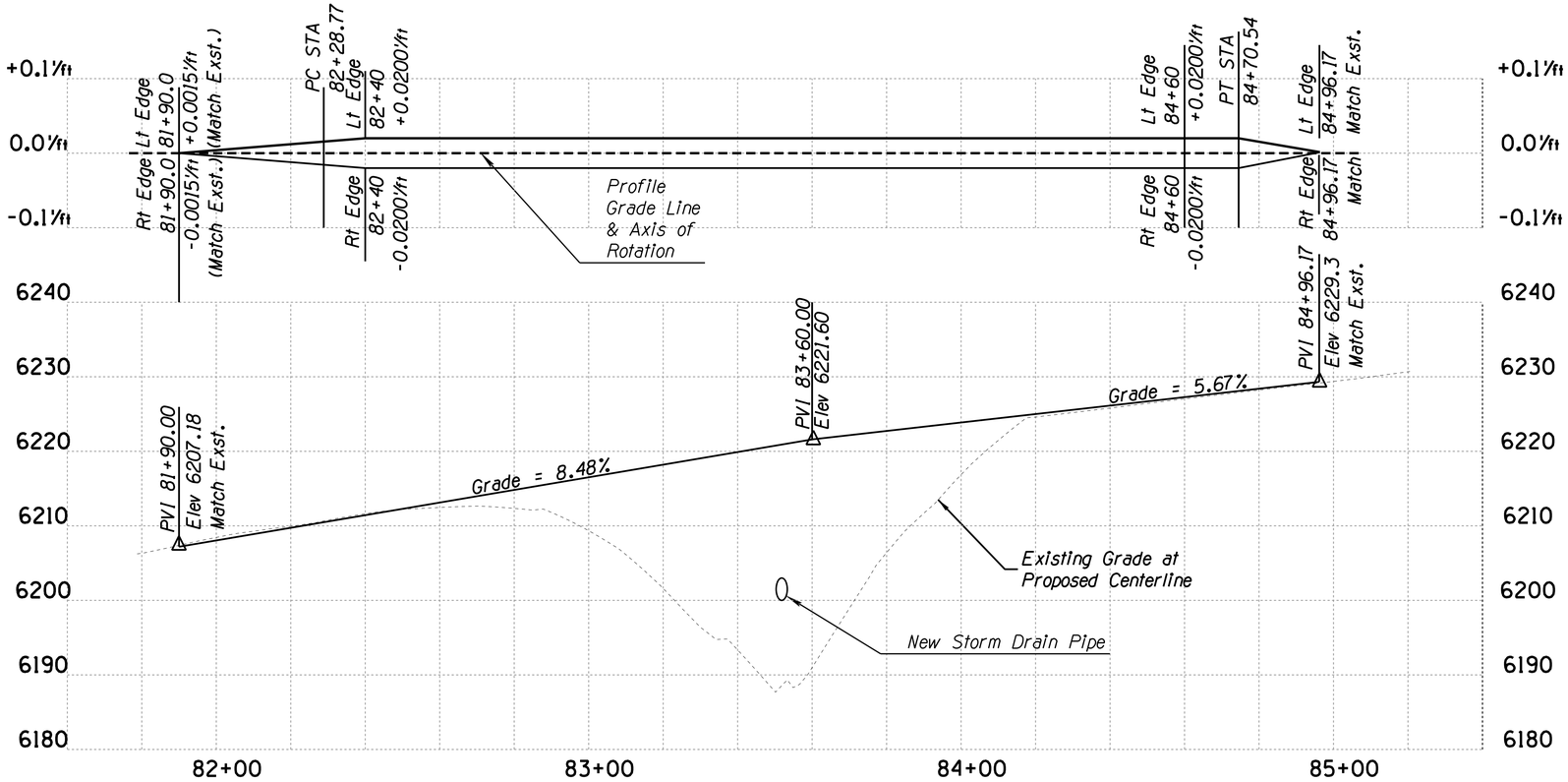
		288 GI 288			



	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

PREMIER

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

NORTH SITE GRADING PROFILE

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

Registered Professional Engineer (Civil) CERTIFICATE NO. 23245 RICHARD S. MACKEY Date Signed 6/17/16 ARIZONA, U.S.A.

EXPIRES: 9-30-16

DWG NO. C-1.04

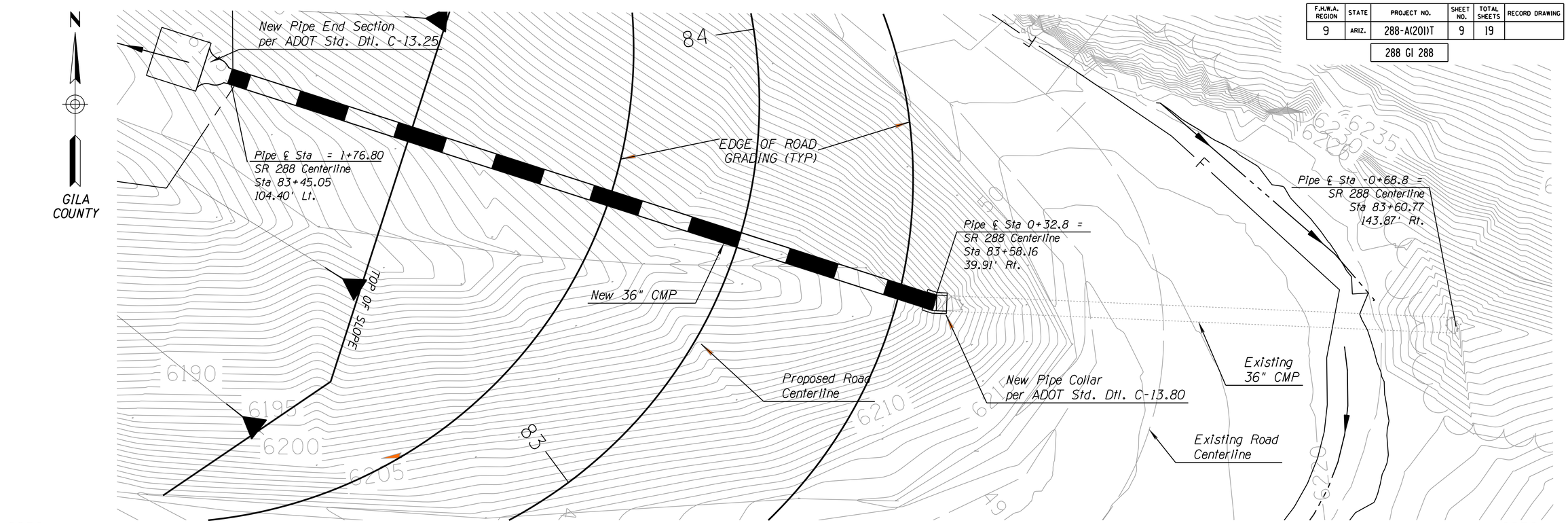
TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

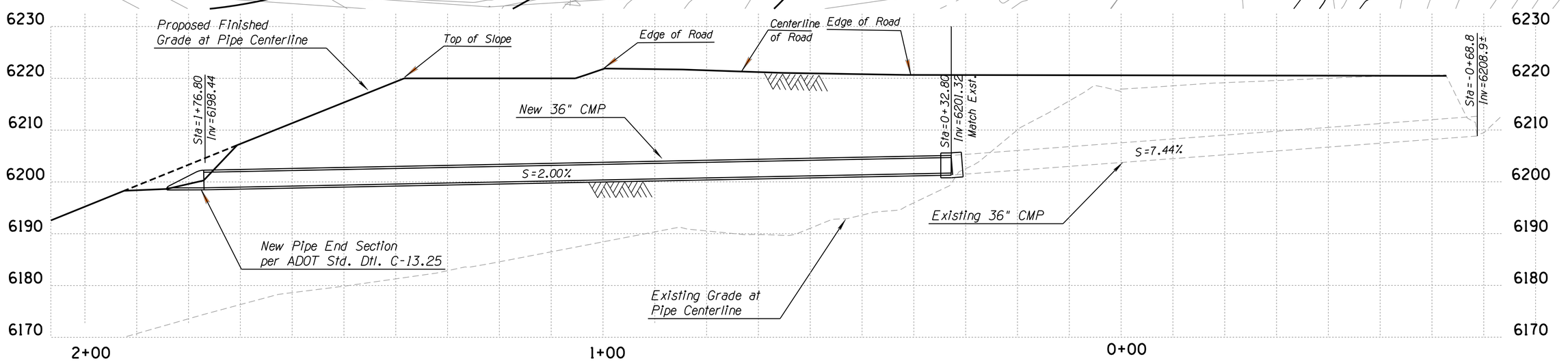
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

6/20/2016 P:\2011021-01\CADD\Prod\Sheets\11-H8617_prof2.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	9	19	

288 GI 288





1 Sta 83+58.55
144 LF - 36" Storm Drain Pipe

Note:
1. Stations and offsets shown are to the center line of the pipe, unless noted otherwise.

	NAME	DATE
DESIGN	J. BOYD/RSM	10/15
DRAWN	RSM	01/16
CHECKED	RM	05/16

PREMIER

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY and OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

STORM DRAIN
PLAN & PROFILE

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

TRACS NO. H8617 01C | 288-A(201)T

Registered Professional Engineer (Civil) 23245 RICHARD S. MACKEY Date Signed 6/24/16 ARIZONA U.S.A.
EXPIRES: 9-30-16

DWG NO. SD-1.01

____ OF ____

6/20/2016 P:\2011021-01\CADD\Prod\Sheets\12-H8617_storm1.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	10	19	
		288 GI 288			

TRAFFIC CONTROL GENERAL NOTES

1. The traffic control plans represent a suggested method for traffic control during construction. The contractor may prepare another traffic control plan at no additonal cost to the Department in accordance with Section 701 of the Specifications. All Traffic Control plans must be approved by the Engineer before construction begins.

2. Adjustments to the details of these traffic control plans and requirements may be necessary due to construction activities, as directed by the Engineer.

3. All signs in conflict withthe construction signs shall be removed, relocated or covered in place, as directed by the Engineer. The contractor shall store and reinstall items which have been removed or relocated in a manner approved by the Engineer, at the contractor's expense. Any signs damaged during the course of construction will be replaced at the contractor's expense.

4. All construction signs shall have black letters on a fluorescent retroreflective orange background, except as otherwise noted.

5. The retroreflective sheeting on all construction signs and delineation for impact attenuators shall meet the criteria established in Sections 608 and 1007 of the Specifications.

6. Sign mounting height for embedded posts is a minimum of seven feet as measured from the bottom of the sign to the near edge of the pavement. Sign mounting height for spring stands shall be per manufacturer's specifications.

7. The nearest edge or corner of a sign shall be approximately 12 feet from the nearest edge of pavement for all signs mounted on embedded posts.

8. Flags shall be mounted on top of all construction signs except the "End Road Work Thank You" sign. Type A flashing warning lights shall be required on all nighttime construction signs except "End Road Work Thank You" sign, as noted on the plans.

9. During nighttime activities the contractor shall utilize only Type I or Type II barricades or vertical panels for channelizing devices. The Engineer may allow the contractor to substitute vertical panels on tangents. The contractor may utilize cones for channelizing devices during daytime activities, except as otherwise directed by the Engineer.

10. Type I or Type II barricades or vertical panels shall be placed 40 feet o.c. in tapers and 80 feet o.c. on tangents, except otherwise indicated.

11. A Type C steady-burning yellow light shall be mounted on every Type II barricade, drum, and vertical panel used for channelization during night time activities.

12. An adequate number of Type III Barricades shall be placed in order to close a roadway. A Type A warning light shall be mounted on both ends of each barricade during night time activities.

13. Speed limit signing is preliminary and is subject to review and change by the Engineer, as dictated by field conditions.

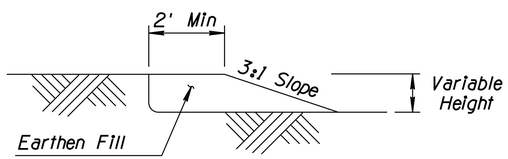
14. Construction signs shall not be displayed to traffic more than 24 hours prior to actual start of construction. These signs may be installed sooner but they must be covered or turned away from traffic. The cost for covering or turning them shall be considered a part of the sign installation cost, no further compensation will be made. These signs shall be removed within 24 hours after completion of the construction activities.

15. When traffic control devices are not in use, they shall be moved at least 30 feet from the roadway.

16. The contractor shall maintain all existing lanes on all roadways during daytime, at night, on weekends, on holidays, during special events, unless otherwise noted in the traffic control plans or as approved by the Engineer.

17. All drawings are schematic only and not to scale.

18. All references to "MUTCD" are to Part 6, Manual on Uniform Traffic Control Devices, 2009 Edition. All references to "TCDG" are to the ADOT Traffic Control Design Guidelines with the 10/14/2011 revisions.



VARIABLE DEPTH FILLET DETAIL

Note:
Use when the height of the drop-off alongside the pavement is greater than 2 inches and the condition is left overnight. No measurement or direct payment will be provided for constructing and removing the earthen fill. The cost being considered as included in the price of contract items.

	NAME	DATE
DESIGN	SMR	06/16
DRAWN	SMR	06/16
CHECKED	SMO	06/16

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
Tel (602) 454-0402
Fax (602) 454-0403
www.aztec.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
TRAFFIC DESIGN SERVICES

TRAFFIC CONTROL
GENERAL NOTES

Registered Professional Engineer (Civil)
CERTIFICATE NO. 42880
STEVEN M. OGBURN
Date Signed 06/21/16
ARIZONA, U.S.A.
EXPIRES 6/30/2017

ROUTE SR 288 | LOCATION SOUTH OF YOUNG

SHEET: 1 OF 5

H8617 01C | 288-A(201)T | ___ OF ___

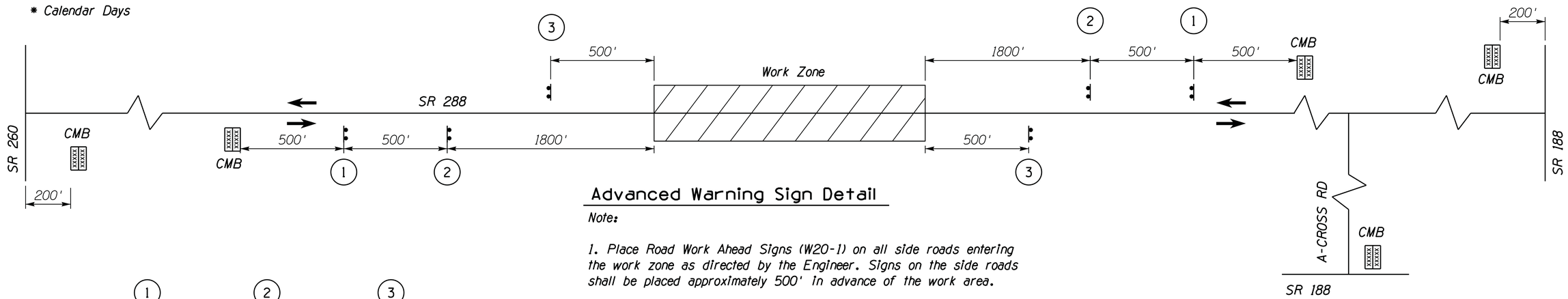
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	11	19	
		288 GI 288			

APPROXIMATE TRAFFIC CONTROL QUANTITIES

ITEM NO	ELEMENT OF WORK	UNIT	ACT NO 1	ACT NO 2	ACT NO 3	ACT NO 4	TOTAL
	ESTIMATED DURATION	DAYS	180 *	15	60	120	
7015091	SPECIALTY SIGNS	SQ.FT.			144		144
7016030	BARRICADE (TYPE II, VERT. PANEL, TUBULAR MARKER)	EA-DAY		300		6000	6300
7016031	BARRICADE (TYPE III, HIGH LEVEL FLAG TREES)	EA-DAY			480		480
7016032	PORTABLE SIGN STAND (RIGID)	EA-DAY	4	120	480	480	1084
7016033	PORTABLE SIGN STAND (SPRING TYPE)	EA-DAY	4	210	1520	480	2214
7016035	WARNING LIGHTS (TYPE A)	EA-DAY	720	90	800	960	2570
7016036	WARNING LIGHTS (TYPE B)	EA-DAY			960		960
7016037	WARNING LIGHTS (TYPE C)	EA-DAY		300		6000	6300
7016038	TRAFFIC CONE (28 INCHES)	EA-DAY		450	9800		10250
7016039	EMBEDDED SIGN POST	EA-DAY	2160		480		2640
7016050	TRUCK MOUNTED ATTENUATOR	EA-DAY	2	15			17
7016051	TEMPORARY SIGN (LESS THAN 10 S.F.)	EA-DAY	4	120	480	480	1084
7016052	TEMPORARY SIGN (10 S.F. OR MORE)	EA-DAY	1084	210	1640	480	3414
7016067	CHANGEABLE MESSAGE BOARD (CONTRACTOR FURNISHED)	EA-DAY	750		200		950
7016075	FLAGGING SERVICES (CIVILIAN)	HOUR		240	800	80	1120
7016078	FLAGGING SERVICES (LOCAL ENFORCEMENT OFFICER)	HOUR			240		240
7016080	FLAGGING SERVICES (DPS)	HOUR			240		240

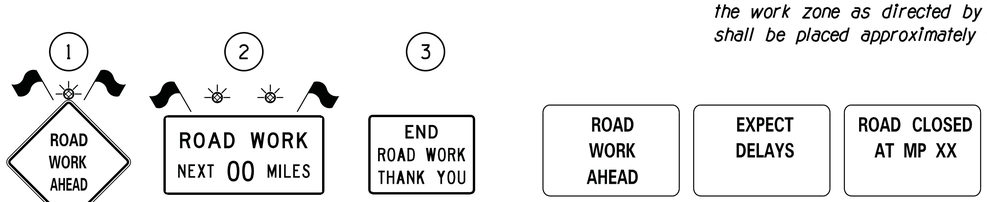
* Calendar Days



Advanced Warning Sign Detail

Note:

1. Place Road Work Ahead Signs (W20-1) on all side roads entering the work zone as directed by the Engineer. Signs on the side roads shall be placed approximately 500' in advance of the work area.



W20-1 48"x 48"

G20-1 72"x 36"

G20-2AZ 48"x 36"

CMB

Suggested Messages

Symbol Legend

- Work Zone
- CMB (Changeable Message Board)
- Sign with Embedded Posts

	NAME	DATE
DESIGN	SMR	06/16
DRAWN	SMR	06/16
CHECKED	SMO	06/16

AZTEC 4561 E. McDowell Road Phoenix, AZ 85008-4505 Tel (602) 454-0402 Fax (602) 454-0403 www.aztec.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
TRAFFIC DESIGN SERVICES

TRAFFIC CONTROL QUANTITIES AND ADVANCE SIGNING DETAIL

Registered Professional Engineer (Civil) CERTIFICATE NO. 42880 STEVEN M. OGBURN Date Signed 06/21/16 ARIZONA, U.S.A. EXPIRES 6/30/2017

ROUTE SR 288 | LOCATION SOUTH OF YOUNG

SHEET: 2 OF 5

H8617 01C | 288-A(201)T | ____ OF ____

SURVEY NO. | FINISHED PLANS | REVISIONS | LOCATION | DATE

PLOTTED BY: SRAISOR AT 10:22:56 AM 6/21/2016 R:\Phoenix\Projects\AZGI311_SR288_Rockfall\CADD\Sheets\Traffic\t8617_tc02.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	12	19	
		288 GI 288			

MAINTENANCE OF TRAFFIC

NO	CONSTRUCTION ACTIVITY	TRAFFIC CONTROL	COMMENTS
1.	Place advance warning signs per Advanced Warning Sign Detail	Install standard long-term advance warning signs and changeable message boards (CMB) as shown on the Advance Warning Sign Detail on sheet 2 of 5 in the Traffic Control Plans. Provide traffic control as shown on Figure 6H-4 of the MUTCD for placement of advance warning signs. The contractor shall provide Type II barricades w/ 10-foot spacing around CMB as directed by the Engineer.	Signs shall be mounted on embedded posts with Type "A" warning lights and flags except on the "END ROAD WORK THANK YOU" sign.
2.	North Site Excavation 36" CMP Excavation	The contractor shall provide a daytime or nighttime lane closure on a two-lane roadway using flaggers on SR 288 per Figure SA-3 in the ADOT TCDG as directed by the Engineer. At night, on weekends, and during non-working hours the contractor shall provide shoulder closures per Figure 6H-6 in the MUTCD as directed by the Engineer. Quantities for non-work hour shoulder closures are included in Activity 4.	The sign size for all "W" series signs shall be a minimum of 36"x 36" and for all "R" series signs a minimum of 24"x 30". The contractor shall ensure that flagger stations are placed at locations that would provide optimum visibility and stopping sight distance for vehicles approaching the work zone. Lane restrictions and road closures shall be limited to the time listed in the Special Provisions or as approved by the Engineer. The contractor shall coordinate lane restrictions and road closures with the Engineer and the Forest Service 14 days in advance of restrictions and closures. Use DPS or Local Enforcement Officers and changeable message boards (CMB) in advance of lane closures and road closures. The contractor shall maintain local access, as directed by the Engineer.
3.	South Site Blasting Rock Excavation	The contactor shall provide short term (4-hour daytime or 6-hour nighttime) Full Road Closure on SR 288 from MP 288.8 to MP 289.5 per Figure 6H-8 in the MUTCD for rock excavation as directed by the Engineer. The contractor shall provide traffic control as shown on Detail TC2 sheet 5 of 5 in the traffic control plans for blasting work as directed by the Engineer. The contactor shall provide a daytime or nighttime lane closure on a two-lane roadway using flaggers on SR 288 as shown on Detail TC1 on sheet 4 of 5 in the traffic control plans as directed by the Engineer for removal of material. At night, on weekends, and during non-working hours the contractor shall provide shoulder closures per Figure 6H-6 in the MUTCD adjacent to concrete fords as directed by the Engineer. Quantities for non-work hour shoulder closures are included in Activity 4.	
4.	Final Roadway grading Seed & Clean-up Non-Work Hour Shoulder Closures	The contactor shall provide a daytime or nighttime lane closure on a two-lane roadway using flaggers on SR 288 as shown on Detail TC1 on sheet 4 of 5 in the traffic control plans as directed by the Engineer for removal of material. Work activities outside the roadway the contractor shall provide shoulder closures per Figure 6H-6 in the MUTCD.	The contractor shall provide shadow vehicle with truck mounted attenuator during mobile operations. Install double fines signing per Figure SA-12 in the ADOT TCDG as directed by the Engineer.

Note:

1. The order of construction activities does not constitute a sequence of construction. The contractor shall perform the work in the most expeditious manner consistent with the Plans and Special Provisions with approval of the Engineer.

	NAME	DATE
DESIGN	SMR	06/16
DRAWN	SMR	06/16
CHECKED	SMO	06/16

AZTEC
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www.aztec.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
TRAFFIC DESIGN SERVICES

TRAFFIC CONTROL
MAINTENANCE OF TRAFFIC

Registered Professional Engineer (Civil) CERTIFICATE NO. 42880 STEVEN M. OGBURN 06/21/16 Date Signed ARIZONA, U.S.A. EXPIRES 6/30/2017

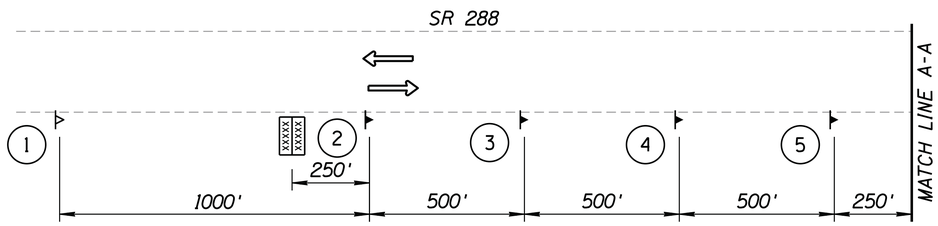
ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

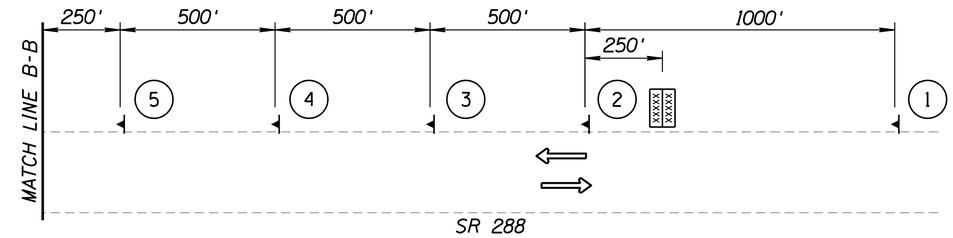
SHEET: 3 OF 5

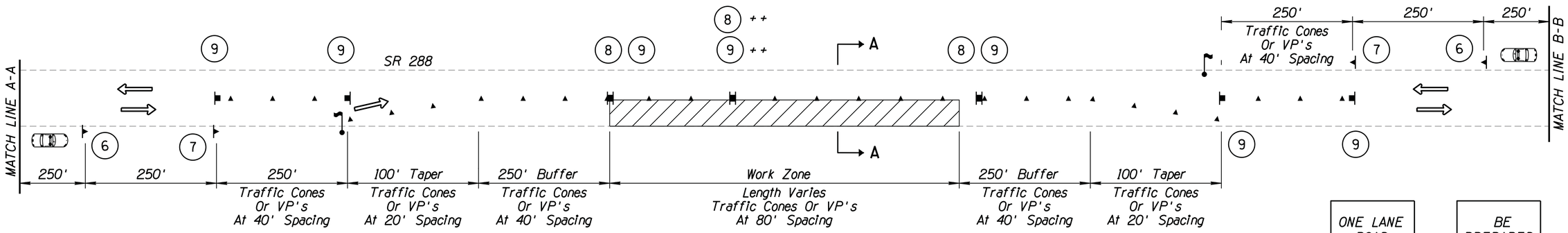
H8617 01C | 288-A(201)T | ___ OF ___

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	13	19	
		288 GI 288			







ONE LANE ROAD AHEAD

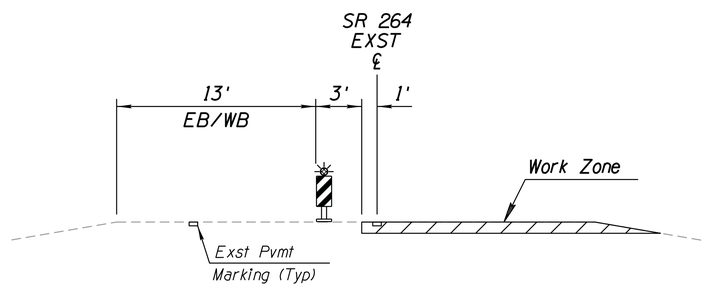
BE PREPARED TO STOP

CMB

Suggested Messages

NOTES:

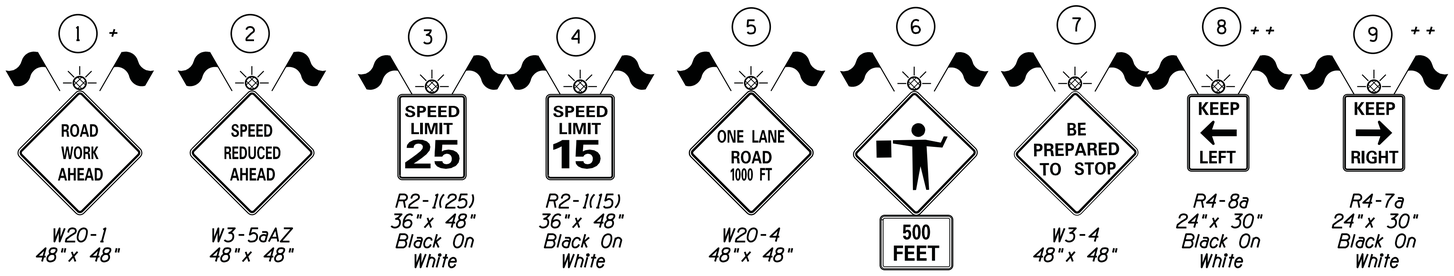
1. *Flaggers shall be equipped with radio communication during flagging operation.*
2. *Use flagging operations for rock excavation, blasting or other extended work zones, if flaggers at either end can not see each other clearly, or as directed by the Engineer.*
3. *Additional flaggers and off duty uniformed officers shall be placed at all sideroads entering the work zone as directed by the Engineer.*
4. *For moving operations, provide an additional flagger with the moving machinery at all times.*
5. *Channelizing devices shall be vertical panels (VP's) or traffic cones during rock excavation, blasting, removal of materials as directed by the Engineer.*



SECTION A-A

SYMBOL LEGEND

- *Vertical Panel/Traffic Cone*
- *Sign On Spring Stand*
- *Sign w/ Rigid Stand*
- *Direction Of Travel*
- *Work Zone*
- *Flagger*
- *Changeable Message Board (CMB)*
- *DPS Vehicle*



+ This sign may be omitted if immediately preceded by advance signing series.

++ These signs to be placed back to back every 1,000 ft as applicable.

DETAIL TC1

Lane Closure with Flagging

	NAME	DATE
DESIGN	SMR	06/16
DRAWN	SMR	06/16
CHECKED	SMO	06/16

AZTEC
4561 E. McDowell Road
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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
TRAFFIC DESIGN SERVICES

TRAFFIC CONTROL PLAN
FLAGGING/PILOT CAR
DETAIL TC1

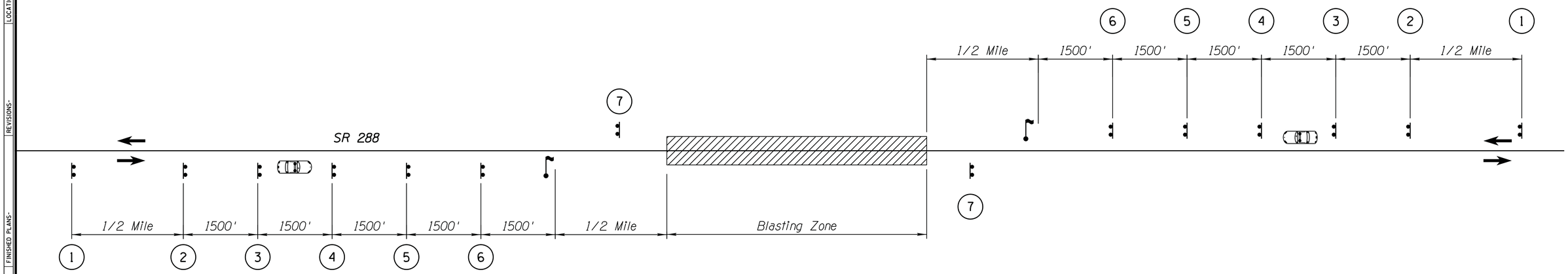
Registered Professional Engineer (Civil) CERTIFICATE NO. 42880 STEVEN M. OGBURN Date Signed 06/21/16 ARIZONA, U.S.A.
EXPIRES 6/30/2017

ROUTE	LOCATION
SR 288	SOUTH OF YOUNG

SHEET: 4 OF 5

H8617 01C | 288-A(201)T | ___ OF ___

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	14	19	
		288 GI 288			

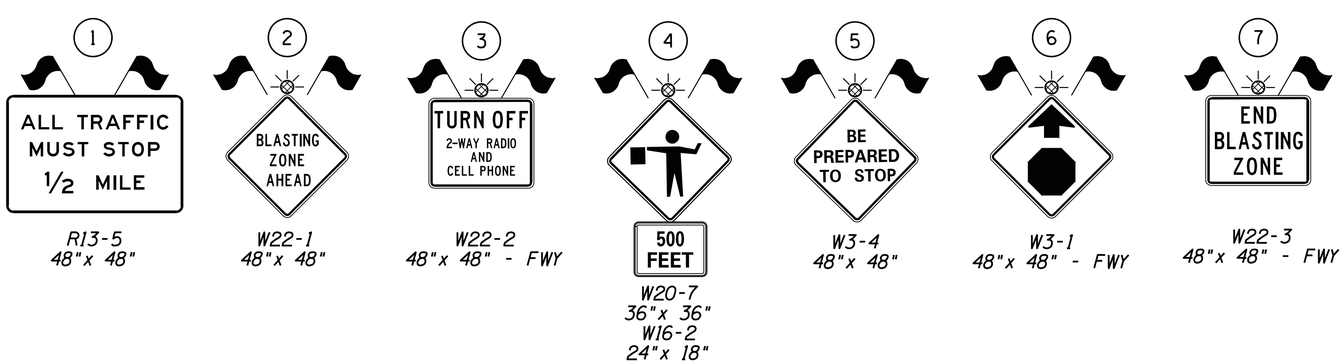


NOTES:

1. Traffic control for the blasting activities shall conform to Figure SA-1 of the ADOT TCDG and these plans.

SYMBOL LEGEND

- Vertical Panel/Traffic Cone
- Sign On Spring Stand
- Sign w/ Rigid Stand
- Direction Of Travel
- Work Zone
- Flagger
- Changeable Message Board (CMB)
- DPS Vehicle



DETAIL TC2

Blasting Zone

	NAME	DATE
DESIGN	SMR	06/16
DRAWN	SMR	06/16
CHECKED	SMO	06/16

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
TRAFFIC DESIGN SERVICES

TRAFFIC CONTROL PLAN
BLASTING ZONE
DETAIL TC2

Registered Professional Engineer (Civil) CERTIFICATE NO. 42880 STEVEN M. OGBURN Date Signed 06/21/16 ARIZONA, U.S.A.
EXPIRES 6/30/2017

ROUTE SR 288 | LOCATION SOUTH OF YOUNG

SHEET: 5 OF 5

H8617 01C | 288-A(201)T | ___ OF ___

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	15	19	
		288 GI 288			

PART 1 - To be completed by the Landscape Architect or Design Engineer

I. PROJECT DESCRIPTION

A. Owner Name and Address:

Arizona Department of Transportation
205 South 17th Avenue
Phoenix, Arizona 85007-3213

B. Project TRACS Number: H8617 01C

C. Project Location: SOUTH OF YOUNG

City: N/A County: GILA

Beginning Latitude (NAD 83): 33° 53' 24.85" N
Beginning Longitude (NAD 83): 110° 57' 38.24" W

Ending Latitude (NAD 83): 33° 53' 48.91" N
Ending Longitude (NAD 83): 110° 57' 29.49" W

To obtain the project latitude/longitude data, refer to the Flash Earth web link below (Bing Maps with labels): http://www.flashearth.com/

D. Project Description:
New gravel roadway, pipe culvert

II. HYDROLOGIC INFORMATION

A. Project Size:
Length (Mi.) 0.9
Area (Ac.) 5.7

B. Area to be Graded (Ac.) *: 3.2
* Blading of the shoulder build-up area is considered as grading and ground disturbance and should be covered by stormwater and/or other environmental regulations.

C. Percentage of the site that is impervious before and after construction:
Percentage before Construction: 0%
Percentage after Construction: 0%

D. Receiving Water(s), refer to the Arizona Department of Water Resources Web Link below (USGS Topo) :
https://gisweb.azwater.gov/WellRegistry/Default.aspx

Unnamed Water, McFadden Creek

III. PRESERVATION OF EXISTING VEGETATION

A. In accordance with the specifications, existing vegetation will be preserved. Clearing limits shall be confined to areas that require grading. Existing vegetation outside the boundaries of the cleared area shall be protected from damage by construction activities. Existing trees within the area to be cleared shall be preserved and protected, wherever possible.

IV. SOIL STABILIZATION MEASURES

A. All disturbed soil, which will not be paved, riprapped or otherwise covered to prevent erosion, will be revegetated and/or landscaped in accordance with the project plans and specifications.

B. Scheduling of the revegetation effort can be found on PART 2 of this sheet under SCHEDULE OF MAJOR ACTIVITIES.

V. MEASURES TO CONTROL EROSION AND SEDIMENT

A. Temporary Erosion and Sediment Controls: (Refer to the Following SWPPP Site Plan and Specifications)

- ___ Erosion Control Mattings
- ___ Temporary Diversion Dikes
- ___ Check Dams
- ___ Rock Inlet/Outlet Protection
- ___ Sediment Control Berms
- ___ Silt Fences
- X Wattles (Excelsior/Straw)
- ___ Excelsior Logs / Sediment Logs
- ___ Seeding (Class II with mulch)
- ___ Others Describe:

B. Permanent Erosion and Sediment Controls and Post-construction Storm Water Management Measures: (Refer to SWPPP Site Plan and Specifications)

- ___ Crown Ditch/Dike
- X Rock Protection
- ___ Rock Riprap Channel Lining
- ___ Sediment Basin
- ___ Embankment Curb
- ___ Spillways and Downdrains
- ___ Minibenching
- X Seeding established as a perennial vegetative cover with a density of 70% of the native background vegetative cover.
- ___ Others Describe:

VI. MAINTENANCE AND INSPECTIONS

A. Frequency of Inspections:

- ___ At least once every 7 calendar days, OR
- X Every 14 calendar days and within 24 hours after a rainfall of 0.5 inches (12.7 mm) or more.

NOTE: RAINFALL GAUGE TO BE KEPT ON-SITE TO DETERMINE DEPTH OF RAINFALL

B. Inspection Procedure:

ADOT's Contractor's Inspection Log and Compliance Evaluation Report (CER) will be completed by the contractor or his representative and will be kept on file for 3 years. A signed copy of the CER will be sent to the ADOT resident engineer. If repairs are necessary, they shall be initiated within 24 hours of the inspection report.

PART 2 - To be completed by ADOT & CONTRACTOR

http://www.azdot.gov/inside_adot/OES/Water_Quality/Stormwater/Docs/swppp_construction_template.dot

I. SCHEDULE OF MAJOR ACTIVITIES

A. Project Schedule:

Start Date:

End Date:

B. Construction Sequencing Schedule: (Attach Additional Sheets)
Construction Activities

II. INVENTORY OF POLLUTANTS

A. The materials or substances checked below are expected to be onsite during construction:

- ___ Concrete
- ___ Paints
- ___ Herbicides
- ___ Fuel
- ___ Asphalt
- ___ Fertilizer
- ___ Wood
- ___ Oil
- ___ Others, List:

III. POLLUTION CONTROL MEASURES

A. Other Best Management Practices:

- ___ Wind Erosion and Dust Control
- ___ Solid Waste Management
- ___ Equipment Maintenance Procedures
- ___ Designated Washout Areas
- ___ Stabilized Construction Entrance
- ___ Protected Chemical and Material Storage Area
- ___ Other, Describe:

IV. SPILL PREVENTION AND RESPONSE

A. Spill Prevention:
The procedures outlined in the Best Management Practices listed under Pollution Control Measures will be followed to prevent and contain spills of hazardous material. These preventative action include BMP's on equipment maintenance and proper handling, storage and disposal of chemicals and materials. All manufacturer's recommendations for usage, clean-up and disposal shall be followed.

B. Spill Response:
In the event of any accidental spill of chemicals or hazardous materials, contact the ADOT Traffic Operations Center at 800-379-3701. If a reportable quantity is discharged into the storm water, ADOT shall contact the National Response Center and document the spill to the EPA. ADOT's Hazardous Materials Specialist shall provide instructions.

V. CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

A. This Storm Water Pollution Prevention Plan (SWPPP) has been prepared in accordance with the latest updated version of ADOT's EROSION AND POLLUTION CONTROL MANUAL FOR HIGHWAY DESIGN AND CONSTRUCTION, published by ADOT Intermodal Transportation Division.

___ SWPPP is in compliance with other Federal, State Laws, or Local Regulations.

VI. POLLUTION PREVENTION PLAN CERTIFICATION

A. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Applies to VI. B., C., and D)

B. The operator/contractor as defined in AZPDES should sign the SWPPP in accordance with CGP Part VIII. J, and retain the SWPPP on-site at the construction site or other location easily accessible during normal business hours.

Signature: (operator/contractor)
Date:
Name:
Title:
Company:

C. ADOT Resident Engineer

Signature: (owner)
Date:
Name:
Title:
ADOT District:

D. MUNICIPALITY for Municipal Separate Storm Sewer System (MS4)

Signature:
Date:
Name:
Title:
MS4 Name:

VII. OTHER REQUIREMENTS

A. A copy of the General Permit and NOI are attached in accordance to AZPDES General Permit for Storm Water Discharges From Construction Activities To The Water Of The United States.

B. Projects that are within ¼ mile of impaired or unique waters require the SWPPP to be sent to ADEQ in combination with the NOI. Refer to the Arizona Outstanding, Impaired and Not-Attaining Waters *.PDF Maps by County web link:
http://www.azdot.gov/inside_adot/OES/Water_Quality/Stormwater/outstanding_unique_waters_maps_by_county.asp

C. For further requirements, check the ADEQ's Smart NOI Web Page: https://az.gov/app/smartnoi/

	NAME	DATE
DESIGN	CDW	06/16
DRAWN	CDW	06/16
CHECKED	SEL	06/16

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

AZPDES SWPPP INDEX SHEET

REGISTERED LANDSCAPE ARCHITECT
27437
STEVEN E. LOMIDE
DATE SIGNED 06-14-16
ARIZONA, U.S.A.
EXPIRES 09/30/2017

ROUTE	LOCATION
SR 288	SOUTH OF YOUNG

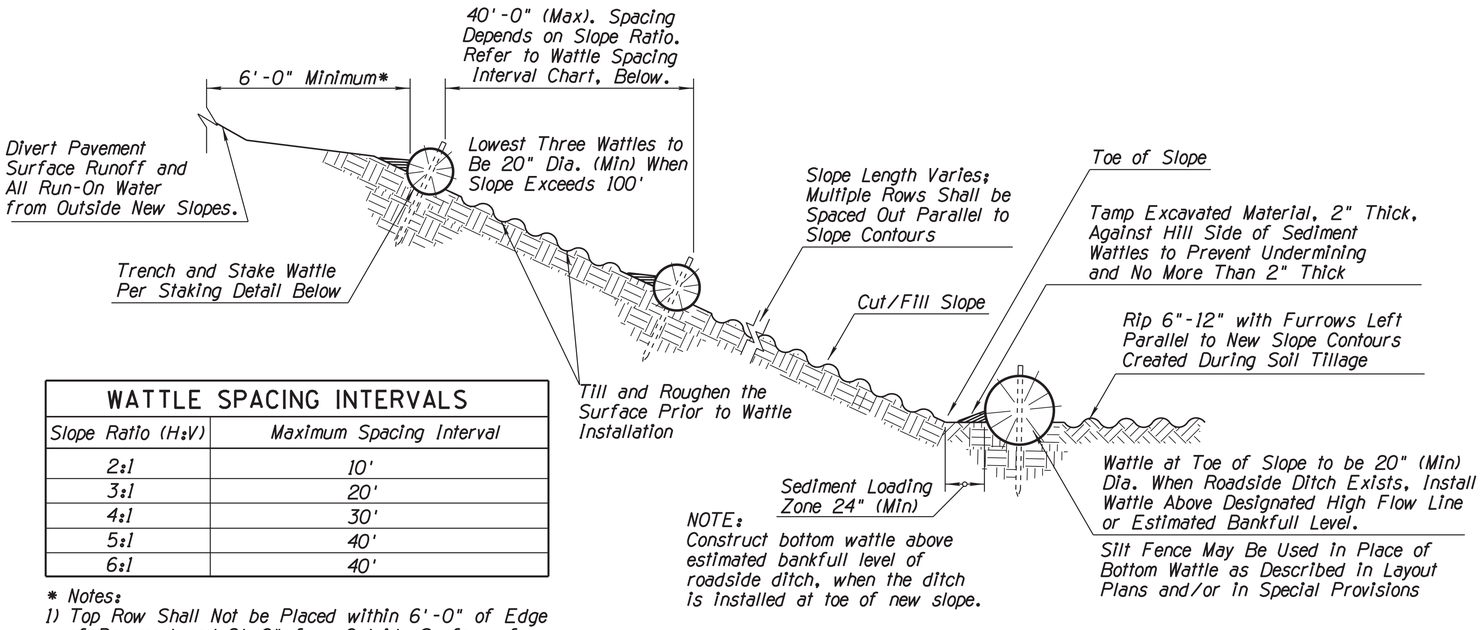
DWG NO. E-1.01

TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	16	19	

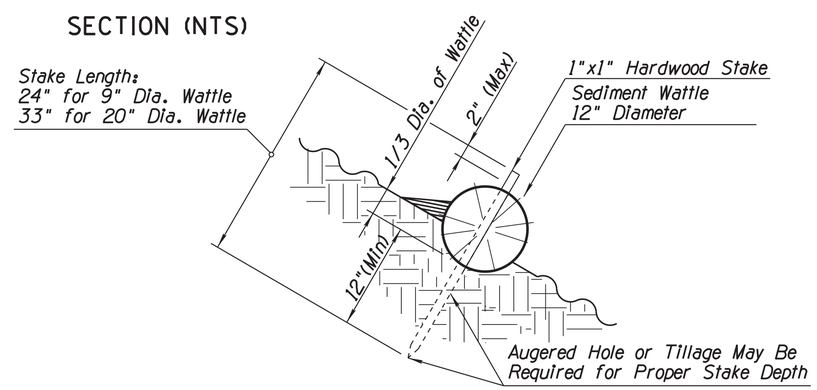
288 GI 288



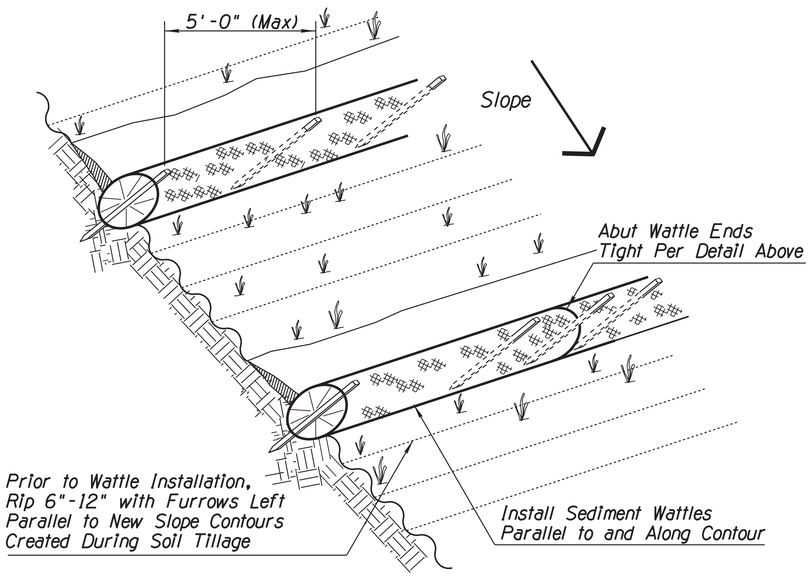
SECTION (NTS)

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'

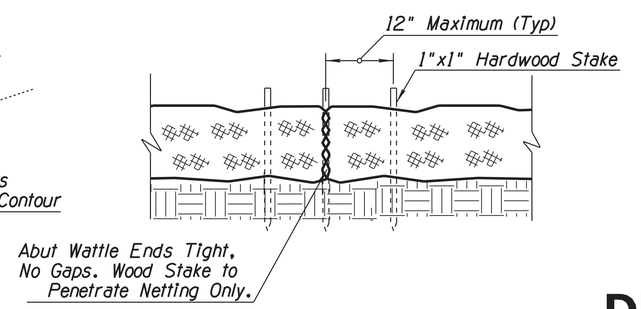
* Notes:
1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Barrier.
2) For erosive soils, place rows of wattles closer together.
3) For soils with low erosive potential, place rows of wattles further apart.



SEDIMENT WATTLE STAKING DETAIL (NTS)



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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. Installation and maintenance of Sediment Wattle BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
8. Install and maintain Sediment Wattle BMPs to carry the stormwater of at least 2-year, 24-hour events.
9. 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.
10. Refer to Standard Specification Section 810-2.06(C) for Sediment Wattle material specifications.
11. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES1
SEDIMENT WATTLE

	NAME	DATE
DESIGN	CDW	06/16
DRAWN	CDW	06/16
CHECKED	SEL	06/16

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4561 E. McDowell Road
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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

EROSION AND SEDIMENT CONTROL DETAILS

REGISTERED LANDSCAPE ARCHITECT
27457
STEVEN E. LOHIDE
DATE SIGNED 06/16/16
ARIZONA, U.S.A.
EXPIRES 09/30/2017

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

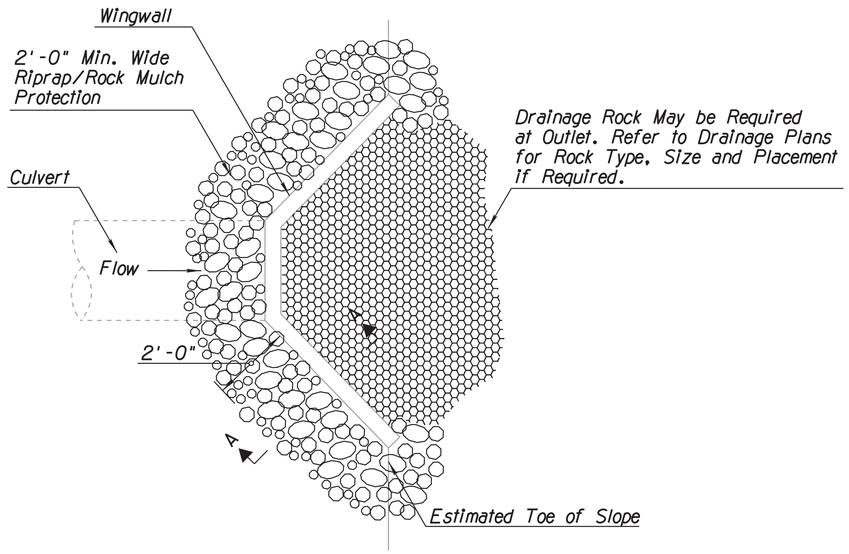
DWG NO. E-1.02

TRACS NO. H8617 01C | 288-A(201)T | ____ OF ____

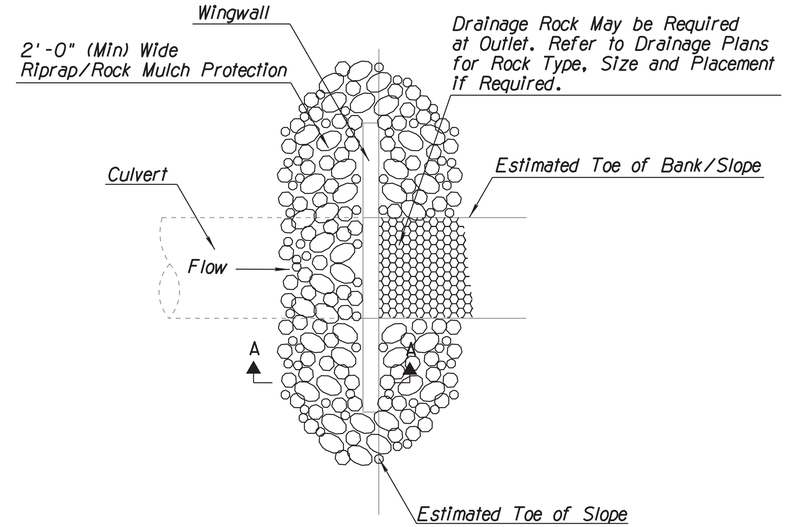
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

6/14/2016 R:\Phoenix\Projects\AZGI311_SR288_Rockfall\CADD\Sheets\Environmental\r8617ec102.dgn

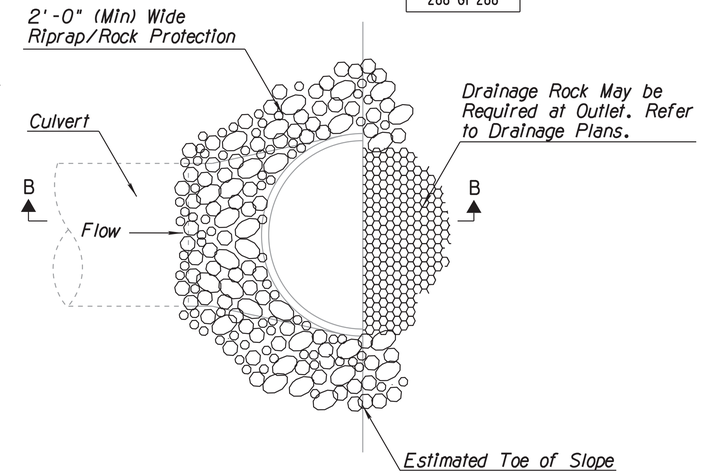
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	17	19	
		288 GI 288			



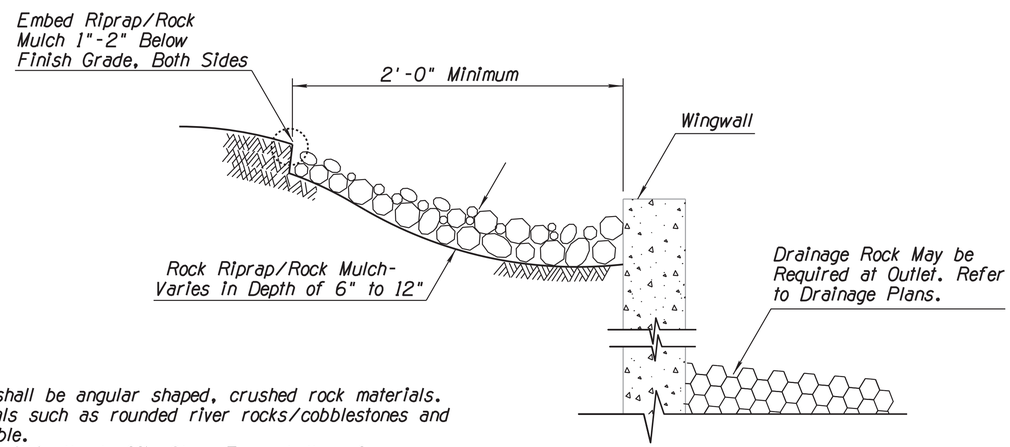
ANGLED HEADWALL
PLAN VIEW (NTS)



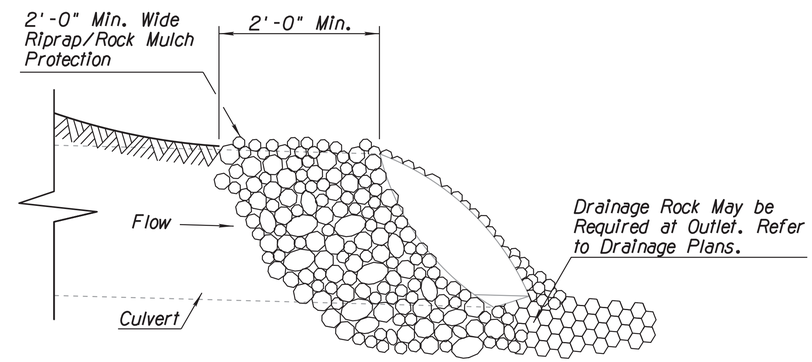
FLUSH HEADWALL
PLAN VIEW (NTS)



FLARED END
PLAN VIEW (NTS)



WINGWALL
SECTION A-A (NTS)



FLARED END
SECTION B-B (NTS)

NOTES:

1. Rock Riprap/Rock Much 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 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.
3. Embed rock within traffic recovery area/clear zone into the finished grade so that any portion of the rock above the grade will be less than 4" in height.
4. 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.
5. Make field adjustments and corrections of Rock Protection BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
6. 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.
7. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES2

ROCK PROTECTION FOR INLETS, OUTLETS AND HEADWALL TRANSITION

	NAME	DATE
DESIGN	CDW	06/16
DRAWN	CDW	06/16
CHECKED	SEL	06/16

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

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www.aztecus

EROSION AND SEDIMENT CONTROL DETAILS

REGISTERED LANDSCAPE ARCHITECT
27437
STEVEN E. LOHIDE
DATE SIGNED 09/14/16
ARIZONA, U.S.A.
EXPIRES 09/30/2017

ROUTE: SR 288
LOCATION: SOUTH OF YOUNG

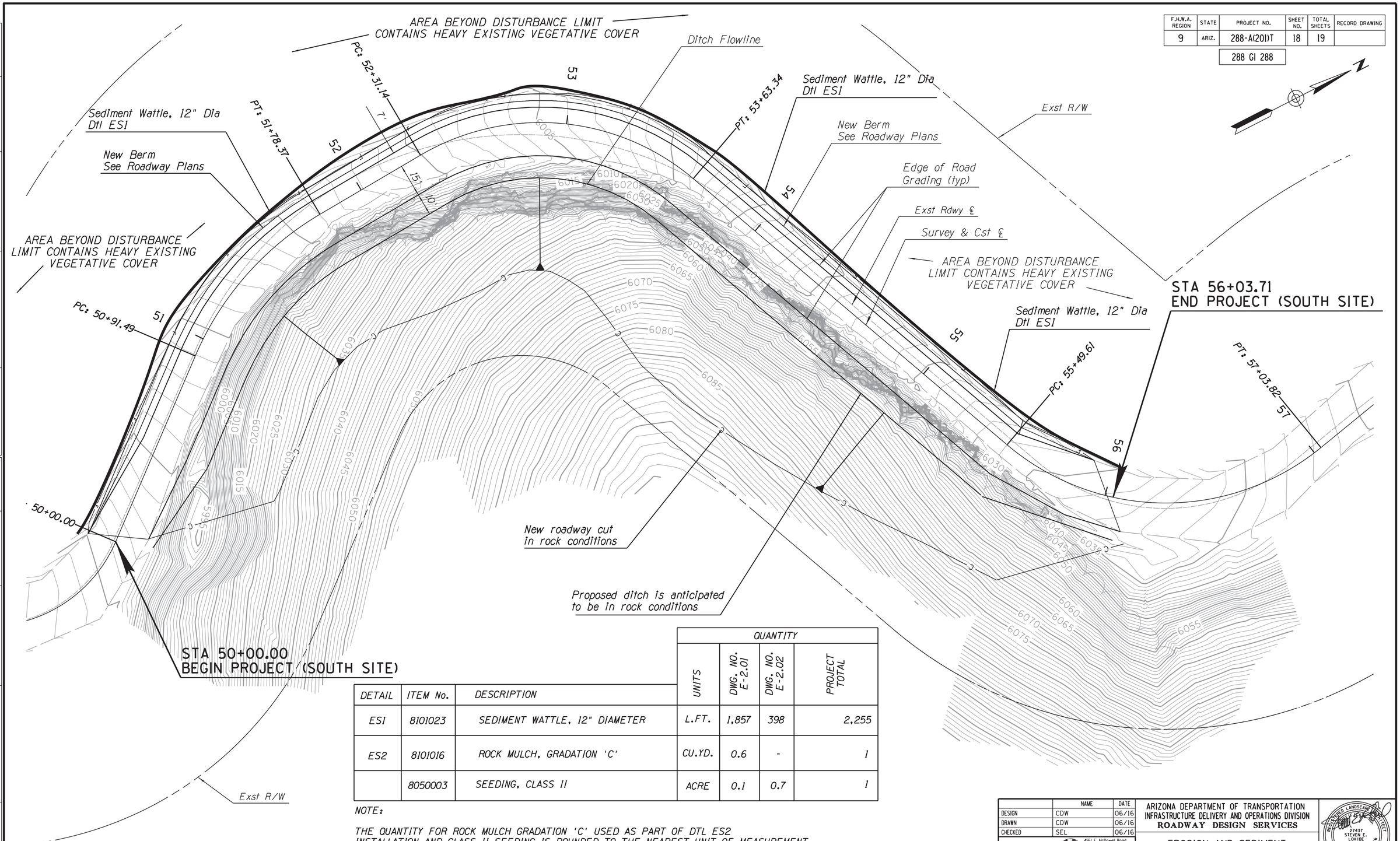
DWG NO. E-1.03

TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	18	19	

288 GI 288



DETAIL	ITEM No.	DESCRIPTION	UNITS	QUANTITY DWG. NO. E-2.01	QUANTITY DWG. NO. E-2.02	QUANTITY PROJECT TOTAL
ES1	8101023	SEDIMENT WATTLE, 12" DIAMETER	L.FT.	1,857	398	2,255
ES2	8101016	ROCK MULCH, GRADATION 'C'	CU.YD.	0.6	-	1
	8050003	SEEDING, CLASS II	ACRE	0.1	0.7	1

NOTE:

THE QUANTITY FOR ROCK MULCH GRADATION 'C' USED AS PART OF DTL ES2 INSTALLATION AND CLASS II SEEDING IS ROUNDED TO THE NEAREST UNIT OF MEASUREMENT FOR THE ITEM.

ALL DISTURBED AREAS ON THIS PROJECT EXCEPT FOR THE ROADWAY DRIVING SURFACE SHALL RECEIVE CLASS II SEEDING. NEW ROCK CUTS AND ROCK LINED DITCHES ARE NOT INCLUDED IN THIS QUANTITY.

	NAME	DATE
DESIGN	CDW	06/16
DRAWN	CDW	06/16
CHECKED	SEL	06/16

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

EROSION AND SEDIMENT CONTROL PLAN

REGISTERED LANDSCAPE ARCHITECT 27437 STEVEN E. LOMIDE DATE SIGNED 06-14-16 ARIZONA, U.S.A. EXPIRES 09/30/2017

ROUTE SR 288 | LOCATION SOUTH OF YOUNG

DWG NO. E-2.01

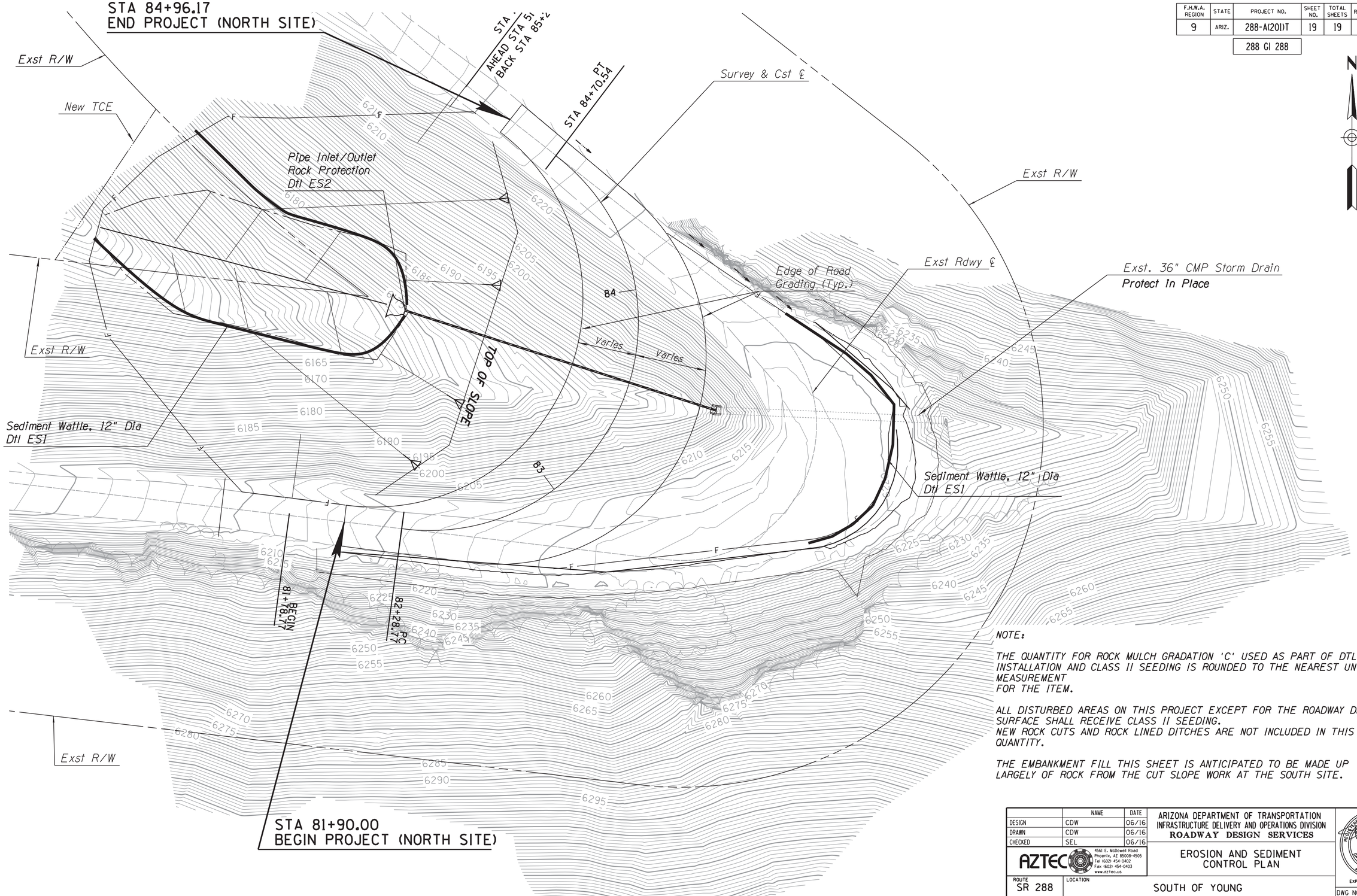
TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

6/14/2016 R:\Phoenix\Projects\AZG1311_SR288_Rockfall\CADD\Sheets\Environmental\r8617ec201.dgn

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	288-A(201)T	19	19	

288 GI 288



NOTE:

THE QUANTITY FOR ROCK MULCH GRADATION 'C' USED AS PART OF DTL ES2 INSTALLATION AND CLASS II SEEDING IS ROUNDED TO THE NEAREST UNIT OF MEASUREMENT
FOR THE ITEM.

ALL DISTURBED AREAS ON THIS PROJECT EXCEPT FOR THE ROADWAY DRIVING SURFACE SHALL RECEIVE CLASS II SEEDING.
NEW ROCK CUTS AND ROCK LINED DITCHES ARE NOT INCLUDED IN THIS QUANTITY.

THE EMBANKMENT FILL THIS SHEET IS ANTICIPATED TO BE MADE UP LARGELY OF ROCK FROM THE CUT SLOPE WORK AT THE SOUTH SITE.

	NAME	DATE
DESIGN	CDW	06/16
DRAWN	CDW	06/16
CHECKED	SEL	06/16

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

EROSION AND SEDIMENT CONTROL PLAN

REGISTERED LANDSCAPE ARCHITECT
27437
STEVEN E. LOHIDE
DATE SIGNED 06/14/16
ARIZONA, U.S.A.
EXPIRES 09/30/2017

ROUTE	LOCATION
SR 288	SOUTH OF YOUNG

DWG NO. E-2.02

TRACS NO. H8617 01C | 288-A(201)T | ___ OF ___

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

6/14/2016 R:\Phoenix\Projects\AZGI311_SR288_Rockfall\CADD\Sheets\Environmental\r8617ec202.dgn