STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION

ROADWAY ENGINEERING

2018
DRAFTING GUIDES

FOR USE IN

OFFICE AND FIELD

General

File Structure
Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

Rdwy_modelseed.dgn has 3 Models
Design, Drawing and Sheet

Design is used for 1:1 line graphics
Drawing is used for Annotation
Sheet is used for Printing

Levels
Use the Levels provided
When you need a level:
Use Draft_Plan_Labels for Text and Cells
Use Draft_Sheet for Line work
otherwise use the level designation shown

Cell Libraries
roadway.cel, sheets.cel and summary.cel
We are only creating the cells we need

LineStyles
We are only creating the linestyles we need

Text
There is no weight with True Type Fonts

Below are all 1:1 values
Title Text
ft=Arial, Bold, tx=0.020, Line Spacing 0.50

New Text
ft= Arial, ~~Bold,~~ Italic, tx=0.015, Line Spacing 0.50

Existing Text
ft=Arial, tx=0.012, Line Spacing 0.50

Printing
Turn Off Data Fields and Save Settings so they do not print
If the file has color print to Monochrome

Sheets
If the sheet is not applicable - disregard
ex. Survey Control Sheet, but the Project was not Surveyed

Primary Tools
Turn Off Properties and Explorer
unless these tools are necessary for Plans Production
These tools are used with OpenRoads Designer

Quick Access Toolbar
Restore the Ribbon

fs - Face Sheet

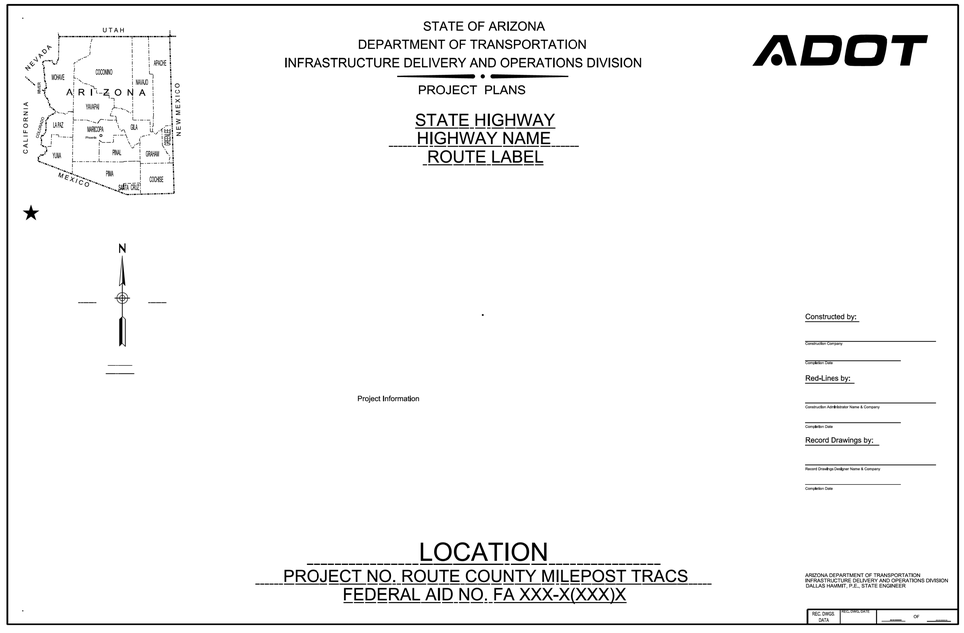
Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

Set Active>Sheet Model Drawing Scale 1:1

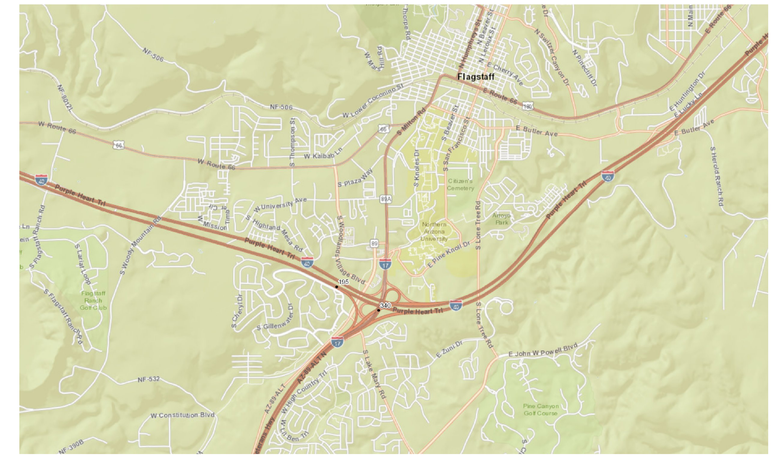
Place Active Cell
Attach File: Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\sheets.cel
Highlight RDWYFS
right-click Place Cell
X Scale: 1.0
Y Scale: 1.0
place at coordinate 0,0

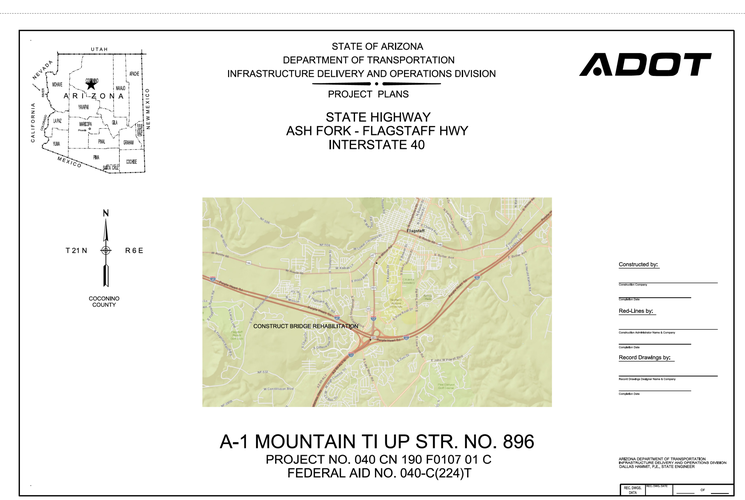
Drop Element>Complex
We must more the star

Fill in single Data Field
Fill out Project Information
include township and range on the north arrow
Fill in County data at the bottom of the north arrow
move the star to State Map Project Location



see Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\Plan Sheet Documentation\ProjectCoversheetBuilder.docx
Import Raster Image
Interactive>Yes
Level: Draft_Plan_Labels

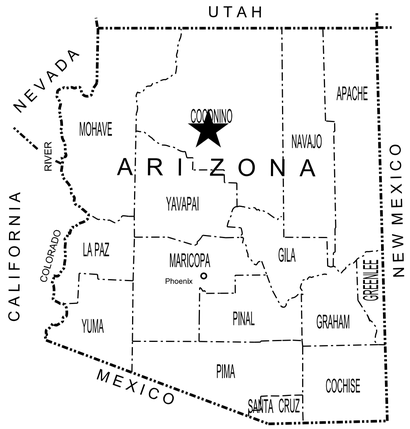




P-STD 01

STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION

PROJECT PLANS

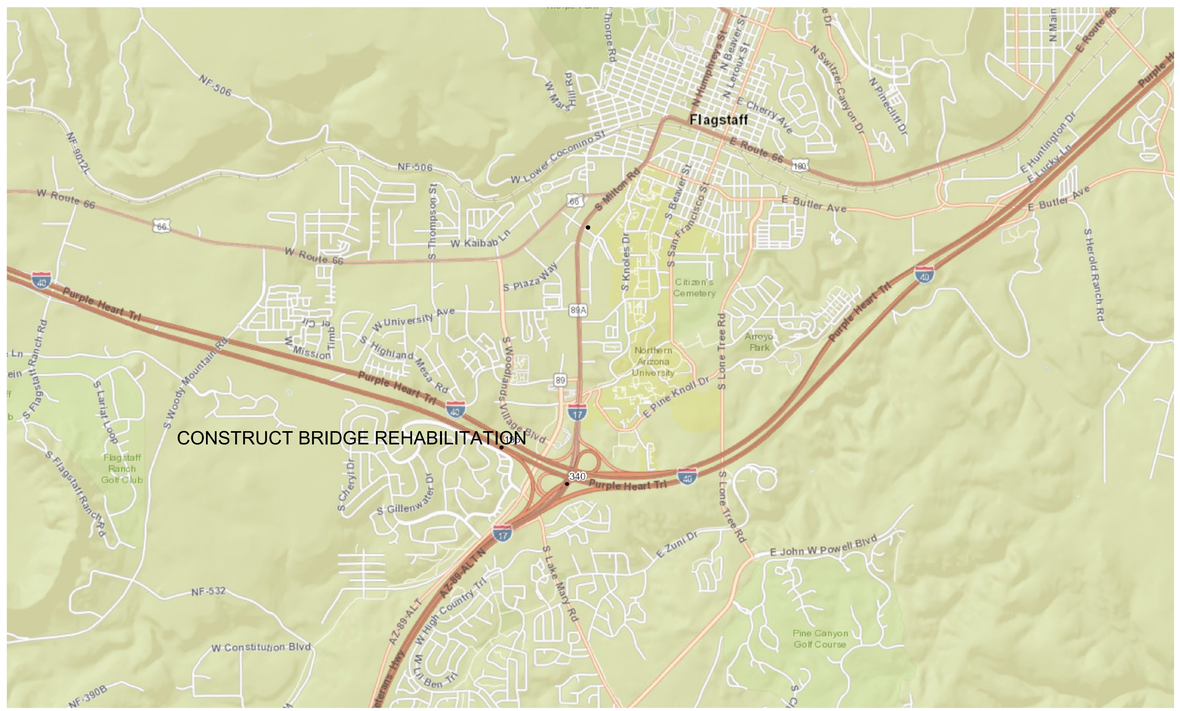


STATE HIGHWAY
ASH FORK - FLAGSTAFF HWY
INTERSTATE 40

N

T 21 N R 6 E

COCONINO COUNTY



Constructed by:

Construction Company

Completion Date

Red-Lines by:

Construction Administrator Name & Company

Completion Date

Record Drawings by:

Record Drawings Designer Name & Company

Completion Date

A-1 MOUNTAIN TI UP STR. NO. 896

PROJECT NO. 040 CN 190 F0107 01 C
FEDERAL AID NO. 040-C(224)T

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

REC. DWGS. DATA	REC. DWG. DATE	_____ OF _____

1A - Construction Standards Index Sheet

Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

Set Active>Sheet Model Drawing Scale 1:1

Place Active Cell
Attach File: Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\sheets.cel
Highlight 1A
right-click Place Cell
X Scale: 1.0
Y Scale: 1.0
place at coordinate 0,0

ADOT STANDARD DRAWINGS

CONSTRUCTION STANDARDS
EFFECTIVE DECEMBER 2017

DATE	STANDARD	SUBJECT TITLE
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
12/17	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
12/17	C-04.10 SH 1	SPILLWAY, EMBANKMENT SINGLE INLET
12/17	C-04.10 SH 2	SPILLWAY, EMBANKMENT DOUBLE INLET
12/17	C-04.20 SH 1	DOWNDRAIN, EMBANKMENT SINGLE INLET
12/17	C-04.20 SH 2	DOWNDRAIN, EMBANKMENT DOUBLE INLET
12/17	C-04.30	SPILLWAY LENGTH TABLE
12/17	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 SORE AREA
12/17	C-10.00	GUARDRAIL MEASUREMENT LIMITS
12/17	C-10.01	GUARDRAIL INSTALLATION
12/17	C-10.03	W-BEAM GUARDRAIL, MGS BLOCKED-OUT TIMBER POST
12/17	C-10.04	W-BEAM GUARDRAIL, MGS BLOCKED-OUT STEEL POST
12/17	C-10.05 SH 1	W-BEAM GUARDRAIL (MODIFIED) WITH FREEWAY CURB AND GUTTER
12/17	C-10.05 SH 2	W-BEAM GUARDRAIL (MODIFIED) WITH FREEWAY CURB AND GUTTER
12/17	C-10.06	W-BEAM GUARDRAIL LONG-SPAN
12/17	C-10.07 SH 1	W-BEAM GUARDRAIL, BOX CULVERT GUARDRAIL POST
12/17	C-10.07 SH 2	W-BEAM GUARDRAIL, BOX CULVERT GUARDRAIL POST
12/17	C-10.08 SH 1	W-BEAM GUARDRAIL, END ANCHOR
12/17	C-10.08 SH 2	W-BEAM GUARDRAIL, END ANCHOR
12/17	C-10.09	GUARDRAIL POST ROCK INSTALLATION
12/17	C-10.20 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
12/17	C-10.20 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
12/17	C-10.21 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
12/17	C-10.21 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
2/18	C-10.22 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
2/18	C-10.22 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
12/17	C-10.30 SH 1	GUARDRAIL TRANSITION TO CONCRETE BARRIER, TIMBER POST
12/17	C-10.30 SH 2	GUARDRAIL TRANSITION TO CONCRETE BARRIER, TIMBER POST
12/17	C-10.31 SH 1	GUARDRAIL TRANSITION TO CONCRETE BARRIER, STEEL POST
12/17	C-10.31 SH 2	GUARDRAIL TRANSITION TO CONCRETE BARRIER, STEEL POST
12/17	C-10.38 SH 1	GUARDRAIL TAPER G4 TO MGS W-BEAM WITH STAGGERED POST
12/17	C-10.38 SH 2	GUARDRAIL TAPER G4 TO MGS W-BEAM WITH OFFSET RAIL
12/17	C-10.40	CONCRETE MEDIAN BARRIER, 32" TYPE 'F', CAST-IN-PLACE
12/17	C-10.41	CONCRETE MEDIAN BARRIER, 42" TYPE 'F', CAST-IN-PLACE
12/17	C-10.44 SH 1	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=0"TO 26"
12/17	C-10.44 SH 2	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=0"TO 26"
12/17	C-10.45 SH 1	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=26"TO 60"
12/17	C-10.45 SH 2	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=26"TO 60"
12/17	C-10.50 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F', CAST-IN-PLACE
12/17	C-10.50 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F', PRECAST
12/17	C-10.51	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH SIDEWALK
12/17	C-10.52	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH GUTTER
12/17	C-10.53	CONCRETE HALF BARRIER, 42" TYPE 'F' WITH GUTTER
12/17	C-10.54 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, CAST-IN-PLACE
12/17	C-10.54 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, PRECAST
12/17	C-10.54 SH 3	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, LAYOUT
12/17	C-10.55 SH 1	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, CAST-IN-PLACE
12/17	C-10.55 SH 2	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, PRECAST
12/17	C-10.55 SH 3	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, LAYOUT
12/17	C-10.70 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.70 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.70 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.71 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
12/17	C-10.71 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
12/17	C-10.72 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.72 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.72 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.73 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
12/17	C-10.73 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
12/17	C-10.74	CONCRETE HALF-BARRIER TRANSITION, 42" TO 32" TYPE 'F'
12/17	C-10.75 SH 1	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' TANGENT DEPARTURE TYPE 1
12/17	C-10.75 SH 2	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' TANGENT DEPARTURE TYPE 2
12/17	C-10.76	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' AT RADIUS, 32" TO 0"
12/17	C-10.77	CONCRETE BARRIER TRANSITION TO GUARDRAIL END TERMINAL LAYOUT WITH CURB
12/17	C-10.78	CONCRETE HALF-BARRIER TRANSITION, 32" TYPE 'F' LOW SPEED APPROACH
12/17	C-10.79	CONCRETE HALF-BARRIER TRANSITION, 42" TYPE 'F' TANGENT DEPARTURE
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, TYPE 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	RAIL 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

ADOT STANDARD DRAWINGS
REVISION DATES and STANDARD NO.'s REVIEW

	NAME	DATE
CONSTRUCTION STANDARDS	JOHN DOE	05/18

PROJECT NO.			
040 CN 190 F0107 01C		1A	OF
RECORD DRAWING DATA	FEDERAL ID NO. 040-C(224)T	REC. DWG. DATE	OF

P-STD 02

ADOT STANDARD DRAWINGS

CONSTRUCTION STANDARDS
EFFECTIVE DECEMBER 2017

DATE	STANDARD	SUBJECT TITLE
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5/12	C-01.10 SH 2	SYMBOL LEGEND
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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
12/17	C-04.10 SH 1	SPILLWAY, EMBANKMENT SINGLE INLET
12/17	C-04.10 SH 2	SPILLWAY, EMBANKMENT DOUBLE INLET
12/17	C-04.20 SH 1	DOWNDRAIN, EMBANKMENT SINGLE INLET
12/17	C-04.20 SH 2	DOWNDRAIN, EMBANKMENT DOUBLE INLET
12/17	C-04.30	SPILLWAY LENGTH TABLE
12/17	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
12/17	C-10.00	GUARDRAIL MEASUREMENT LIMITS
12/17	C-10.01	GUARDRAIL INSTALLATION
12/17	C-10.03	W-BEAM GUARDRAIL, MGS BLOCKED-OUT TIMBER POST
12/17	C-10.04	W-BEAM GUARDRAIL, MGS BLOCKED-OUT STEEL POST
12/17	C-10.05 SH 1	W-BEAM GUARDRAIL (MODIFIED) WITH FREEWAY CURB AND GUTTER
12/17	C-10.05 SH 2	W-BEAM GUARDRAIL (MODIFIED) WITH FREEWAY CURB AND GUTTER
12/17	C-10.06	W-BEAM GUARDRAIL LONG-SPAN
12/17	C-10.07 SH 1	W-BEAM GUARDRAIL, BOX CULVERT GUARDRAIL POST
12/17	C-10.07 SH 2	W-BEAM GUARDRAIL, BOX CULVERT GUARDRAIL POST
12/17	C-10.08 SH 1	W-BEAM GUARDRAIL, END ANCHOR
12/17	C-10.08 SH 2	W-BEAM GUARDRAIL, END ANCHOR
12/17	C-10.09	GUARDRAIL POST ROCK INSTALLATION
12/17	C-10.20 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
12/17	C-10.20 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
12/17	C-10.21 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
12/17	C-10.21 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
2/18	C-10.22 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
2/18	C-10.22 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
12/17	C-10.30 SH 1	GUARDRAIL TRANSITION TO CONCRETE BARRIER, TIMBER POST
12/17	C-10.30 SH 2	GUARDRAIL TRANSITION TO CONCRETE BARRIER, TIMBER POST
12/17	C-10.31 SH 1	GUARDRAIL TRANSITION TO CONCRETE BARRIER, STEEL POST
12/17	C-10.31 SH 2	GUARDRAIL TRANSITION TO CONCRETE BARRIER, STEEL POST
12/17	C-10.38 SH 1	GUARDRAIL TAPER G4 TO MGS W-BEAM WITH STAGGERED POST
12/17	C-10.38 SH 2	GUARDRAIL TAPER G4 TO MGS W-BEAM WITH OFFSET RAIL
12/17	C-10.40	CONCRETE MEDIAN BARRIER, 32" TYPE 'F', CAST-IN-PLACE
12/17	C-10.41	CONCRETE MEDIAN BARRIER, 42" TYPE 'F', CAST-IN-PLACE
12/17	C-10.44 SH 1	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=0"TO 26"
12/17	C-10.44 SH 2	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=0"TO 26"
12/17	C-10.45 SH 1	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=26"TO 60"
12/17	C-10.45 SH 2	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=26"TO 60"
12/17	C-10.50 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F', CAST-IN-PLACE
12/17	C-10.50 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F', PRECAST
12/17	C-10.51	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH SIDEWALK
12/17	C-10.52	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH GUTTER
12/17	C-10.53	CONCRETE HALF BARRIER, 42" TYPE 'F' WITH GUTTER
12/17	C-10.54 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, CAST-IN-PLACE
12/17	C-10.54 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, PRECAST
12/17	C-10.54 SH 3	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, LAYOUT
12/17	C-10.55 SH 1	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, CAST-IN-PLACE
12/17	C-10.55 SH 2	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, PRECAST
12/17	C-10.55 SH 3	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, LAYOUT
12/17	C-10.70 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.70 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.70 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.71 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
12/17	C-10.71 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
12/17	C-10.72 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.72 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.72 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.73 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
12/17	C-10.73 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
12/17	C-10.74	CONCRETE HALF-BARRIER TRANSITION, 42" TO 32" TYPE 'F'
12/17	C-10.75 SH 1	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' TANGENT DEPARTURE TYPE 1
12/17	C-10.75 SH 2	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' TANGENT DEPARTURE TYPE 2
12/17	C-10.76	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' AT RADIUS, 32" TO 0"
12/17	C-10.77	CONCRETE BARRIER TRANSITION TO GUARDRAIL END TERMINAL LAYOUT WITH CURB
12/17	C-10.78	CONCRETE HALF-BARRIER TRANSITION, 32" TYPE 'F' LOW SPEED APPROACH
12/17	C-10.79	CONCRETE HALF-BARRIER TRANSITION, 42" TYPE 'F' TANGENT DEPARTURE
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, TYPE 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	RAIL 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

`

ADOT STANDARD DRAWINGS
REVISION DATES and STANDARD NO.'s REVIEW

	NAME	DATE
CONSTRUCTION STANDARDS	JOHN DOE	05/18

PROJECT NO. 040 CN 190 F0107 01C — 1A OF _____

RECORD DRAWING DATA	FEDERAL ID NO. 040-C(224)T	REC. DWG. DATE	_____ OF _____

bdr - Border File

Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

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Place Active Cell
Attach File: Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\sheets.cel
Highlight RDWYPL
right-click Place Cell
X Scale: 1.0
Y Scale: 1.0
place at coordinate 0,0

Fill in single Data Field
Fill out Project Information

SHEET OF

NAME	DATE
DESIGN	
DRAWN	
CHECKED	
TEAM LEADER	

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

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	ARIZ.	040 CN 190	040-C(224)T			

ROUTE I-40 LOCATION A-1 MOUNTAIN TI UP STR. NO. 896

TRACS NO. F0107 01C

ADOT Infrastructure Delivery and Operations

___ OF___

P-STD 03

SHEET OF

NAME	DATE
DESIGN	
DRAWN	
CHECKED	
TEAM LEADER	

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

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	ARIZ.	040 CN 190	040-C(224)T			

ROUTE I-40 | LOCATION A-1 MOUNTAIN TI UP STR. NO. 896

TRACS NO. F0107 01C

ADOT Infrastructure Delivery and Operations

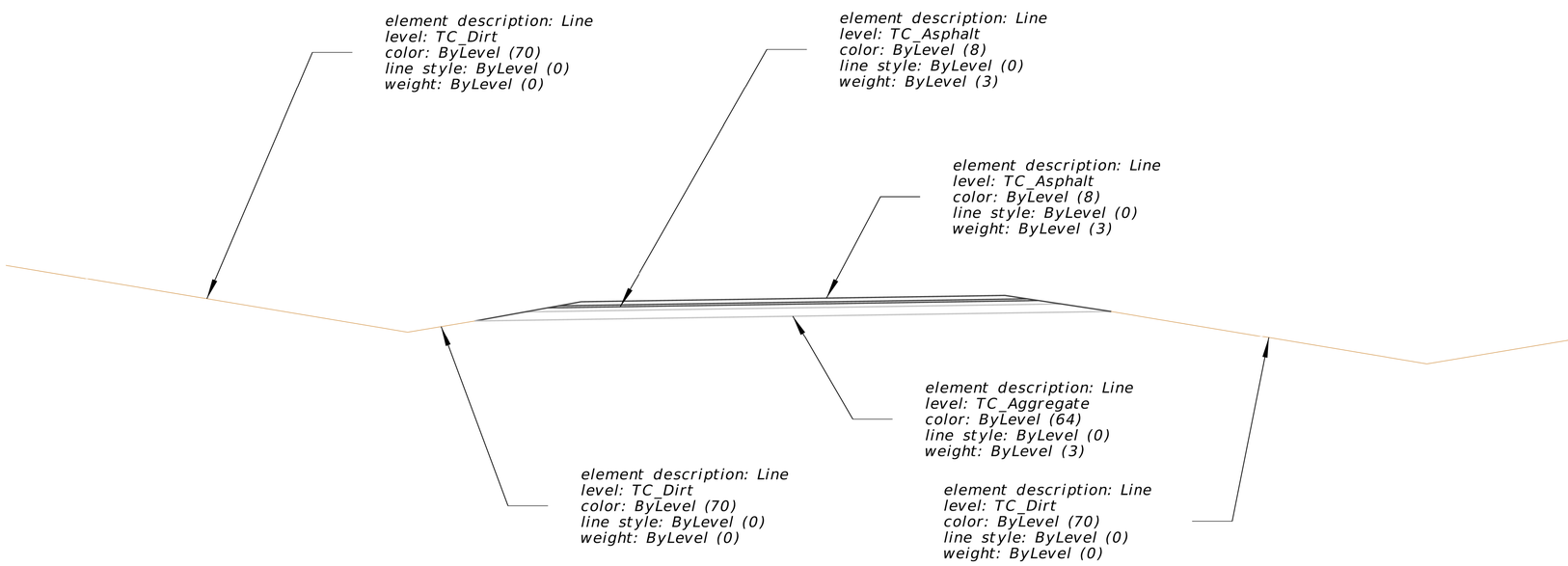
____ OF____

ds1 - Design Sheet #1

Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

Drawing Model	*Drawing Scale*	*1":10'*
Sheet Model	*Drawing Scale*	*1":10'*

Draw the Typical Section in the Design Model 1:1
View>Create Saved View>Name: 1 Description: TYP>Select the View



Attach Reference file: Border (Sheet) into the Sheet Model 1":10'>Drawing Boundary - none
Attach Reference file: f0107ds1.dgn Design Model by Saved View (TYP) for the Typical Section LineWork>Drawing Boundary - none
Dimension Style and Text Style for Typical Section Annotation
see Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\Text\DimensionStyles.docx

Title Text	*Font: Arial Bold*	*tx=0.020*	*Line Spacing=0.50*
New Text	*Font: Arial Italic*	*tx=0.015*	*Line Spacing=0.50*
Existing Text	*Font: Arial*	*tx=0.012*	*Line Spacing=0.50*

Seperate Dimension Text first by a value of 6 (from the element) and every 4 after

Place Cells from Attach File: Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\roadway.cel

Earthwork Table Formatting, see P-STD 08>scale 100.00

REFERENCES

I 40-3(22)
I 40-3(29)

MIDPOINT OF PROJECT

Central Zone
State Plane Coordinates
X=752,400
Y=1,527,900

DESIGN DATA

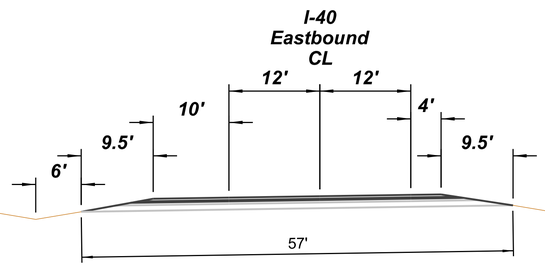
20 AADT = 23,105
20 AADT = 25,609
Design Speed = 40 MPH

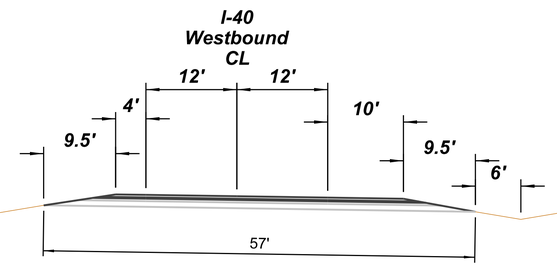
LENGTH OF PROJECT

Sta 6+59.00 to 9+88.00 = 329.00'
Gross and Net Length = 329.00' - 0.1 Miles

INDEX OF SHEETS

Sheet No.	Sheet Type
1	*Face Sheet*
1A-1D	*ADOT Standard Drawings*
2	*Design Sheet*
3	*Summary Sheet*
4	*Detail Sheet*
5	*Survey Control Sheet*
6	*Geometric Sheet*
7	*Plan Sheet*
8-13	*Plan and Profile 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.
R/W markers will be furnished and placed by ADOT R/W Plans Section forces.

EARTHWORK CALCULATION				
FINAL CALCULATIONS				
	Exc(+)		*Emb(-)*	
Roadway Excavation (thru 10% Shrnk)	*590*	*CY*		
Shrink			*59*	*CY*
Roadway Excavation (thru 25% Swell)	*2473*			
Swell	*302*	*CY*		
** Railbank Excavation*	*152*	*CY*		
Shrink			*15*	*CY*
** Gabion Basket Excavation*	*602*	*CY*		
Shrink			*60*	*CY*
** Spillway*	*10*	*CY*		
Shrink			*1*	*CY*
Structure Excavation	*190*	*CY*		*CY*
Shrink			*19*	*CY*
** Railbank Backfill*			*364*	*CY*
** Gabion Basket Backfill*			*371*	*CY*
Structure Backfill			*0*	*CY*
Embankment (Inc GC)			*2062*	*CY*
Waste			*1368*	*CY*
	4319	*CY*	*4319*	*CY*

SHEET OF

NAME	DATE
DESIGN	
DRAWN	
CHECKED	
TEAM LEADER	

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

F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	040 CN 190	040-C(224)T			

ROUTE I-40 LOCATION A-1 MOUNTAIN TI UP STR. NO. 896

TRACS NO. F0107 01C

ADOT Infrastructure Delivery and Operations

____ OF____

sb1 - Summary Sheet

Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

Set Active>Sheet Model Drawing Scale 1:1

Attach Reference file: Border into the Sheet Model 1:1

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Highlight BSUMRURALF
right-click Place Cell
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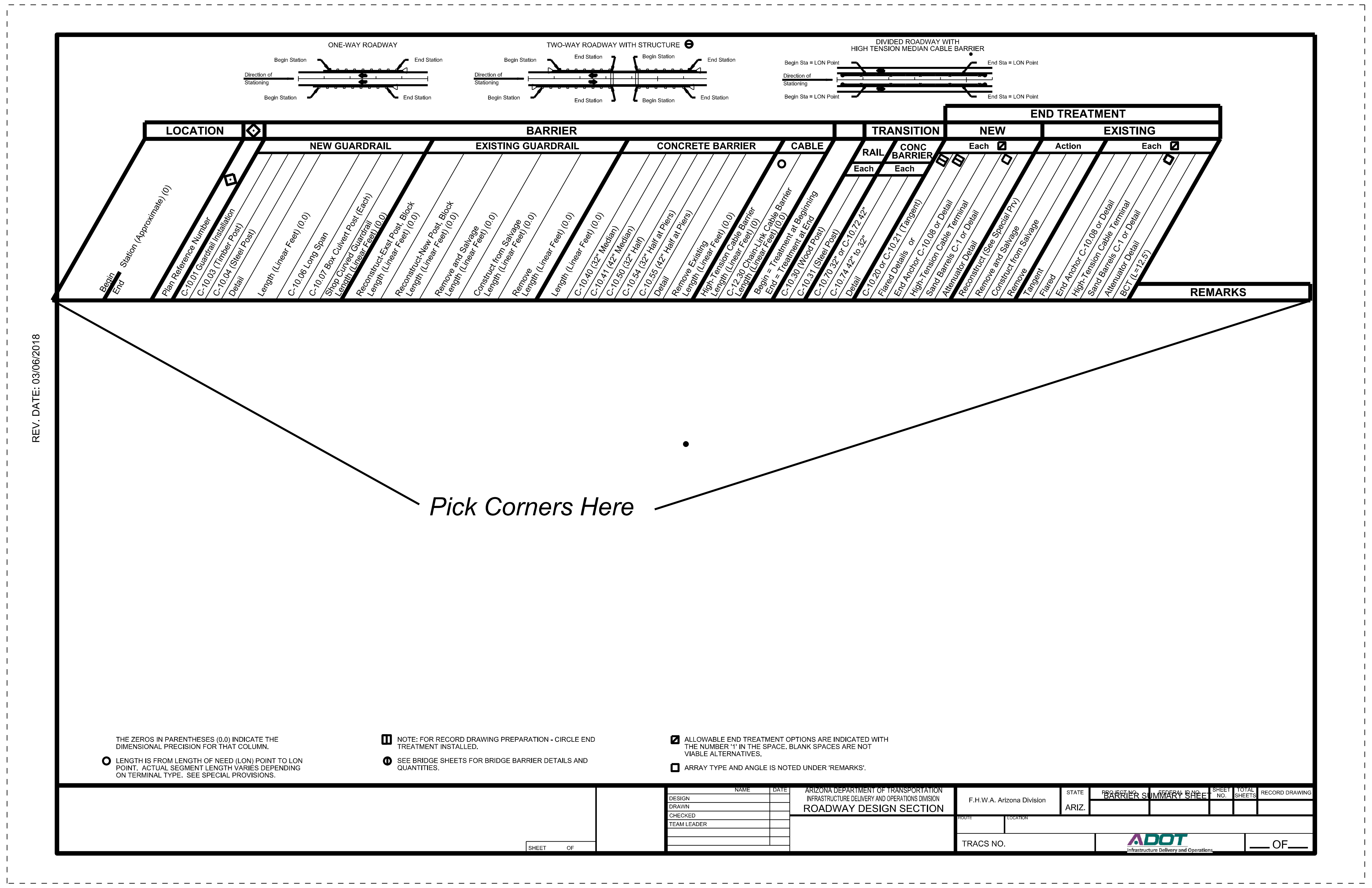
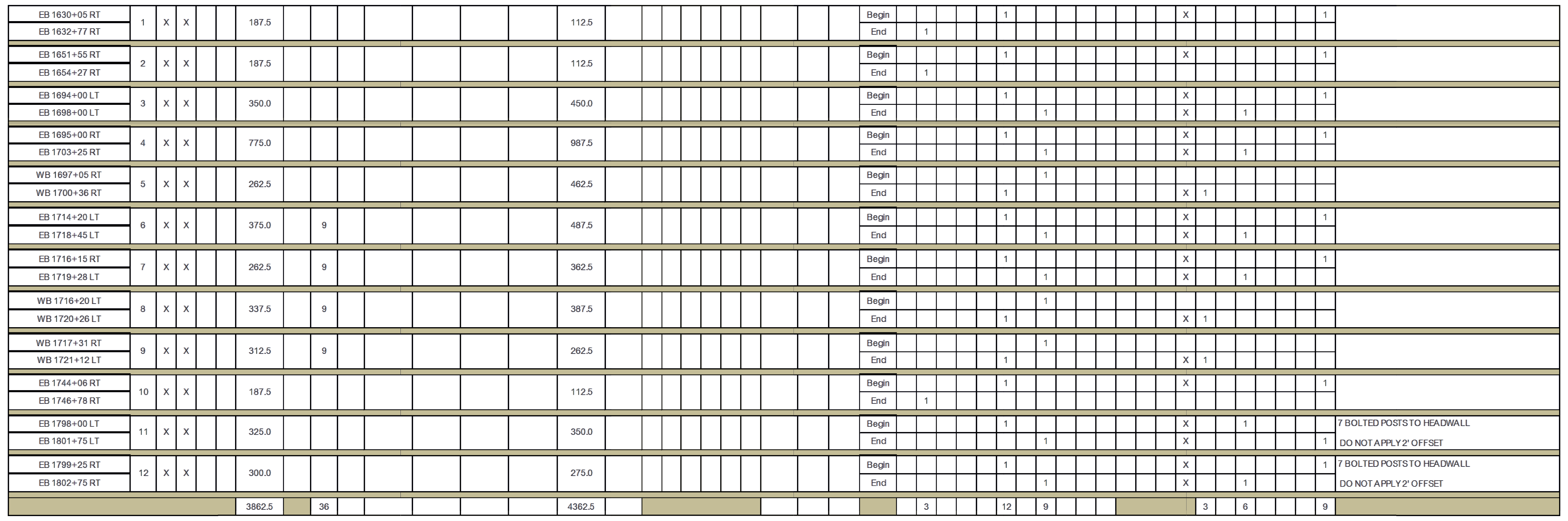
Y Scale: 1.0
place at coordinate 0,0



Pick Corners Here

Open the excel file: f0107BSumRuralF.xlsx
1. Select the Area in the Excel file to be placed in MicroStation
2. Copy
3. In MicroStation, Right click in the View for the pop-up menu
4. Select>Paste from Clipboard
5. Select>Paste as: Embedded
Select>Method: By Corner
Extended Setting>Select>Transparent Background and Rotate With View
6. Pick the two corners for the Paste
7. Move as necessary

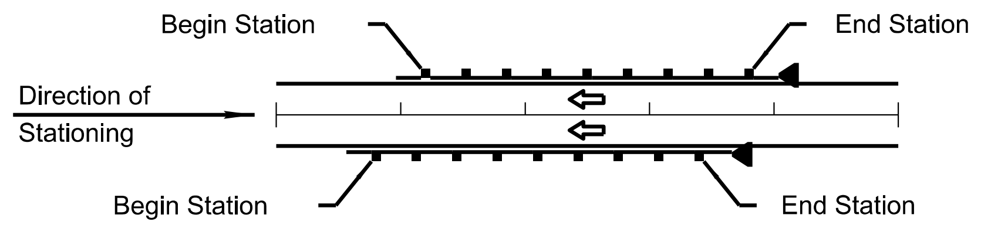


EB 1630+05 RT	1	X	X			187.5								112.5											Begin						1									X							1	
EB 1632+77 RT																									End		1																					
EB 1651+55 RT	2	X	X			187.5								112.5											Begin						1									X							1	
EB 1654+27 RT																									End		1																					
EB 1694+00 LT	3	X	X			350.0								450.0											Begin						1									X							1	
EB 1698+00 LT																									End								1							X			1					
EB 1695+00 RT	4	X	X			775.0								987.5											Begin						1									X							1	
EB 1703+25 RT																									End								1							X			1					
WB 1697+05 RT	5	X	X			262.5								462.5											Begin								1															
WB 1700+36 RT																									End						1									X	1							
EB 1714+20 LT	6	X	X			375.0		9						487.5											Begin						1									X							1	
EB 1718+45 LT																									End								1							X			1					
EB 1716+15 RT	7	X	X			262.5		9						362.5											Begin						1									X							1	
EB 1719+28 LT																									End								1							X			1					
WB 1716+20 LT	8	X	X			337.5		9						387.5											Begin								1															
WB 1720+26 LT																									End						1									X	1							
WB 1717+31 RT	9	X	X			312.5		9						262.5											Begin								1															
WB 1721+12 LT																									End						1									X	1							
EB 1744+06 RT	10	X	X			187.5								112.5											Begin						1									X							1	
EB 1746+78 RT																									End		1																					
EB 1798+00 LT	11	X	X			325.0								350.0											Begin						1									X			1					7 BOLTED POSTS TO HEADWALL
EB 1801+75 LT																									End								1							X							1	DO NOT APPLY 2' OFFSET
EB 1799+25 RT	12	X	X			300.0								275.0											Begin						1									X							1	7 BOLTED POSTS TO HEADWALL
EB 1802+75 RT																									End								1							X			1					DO NOT APPLY 2' OFFSET
						3862.5		36						4362.5													3				12		9								3		6				9	

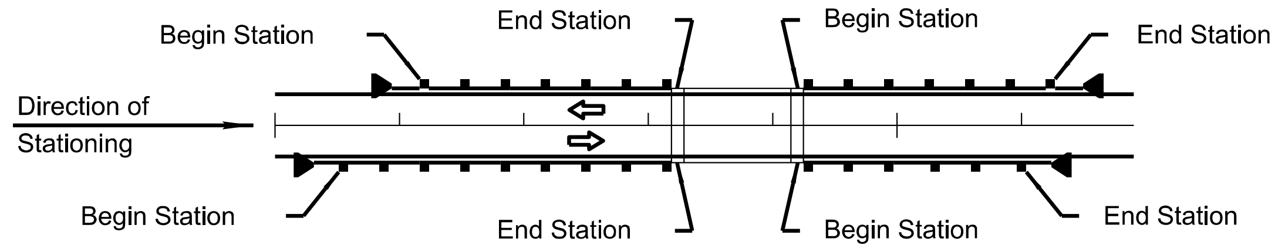
Print Monochrome

REV. DATE: 03/06/2018

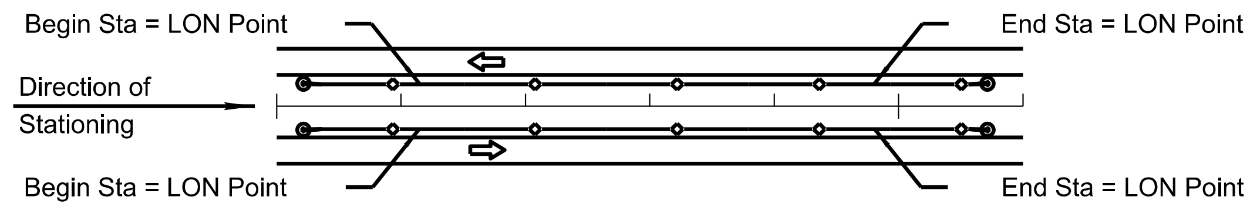
ONE-WAY ROADWAY



TWO-WAY ROADWAY WITH STRUCTURE ◒



DIVIDED ROADWAY WITH
HIGH TENSION MEDIAN CABLE BARRIER



LOCATION		◇	BARRIER																							TRANSITION					END TREATMENT																	
			NEW GUARDRAIL							EXISTING GUARDRAIL					CONCRETE BARRIER								CABLE			RAIL		CONC BARRIER			NEW						EXISTING											
																							●			Each		Each			Each ◪						Action				Each ◪							
Begin / End Station (Approximate) (0)	Plan Reference Number	◇ C-10.01 Guardrail Installation	C-10.03 (Timber Post)	C-10.04 (Steel Post)	Detail	Length (Linear Feet) (0.0)	C-10.06 Long Span	C-10.07 Box Culvert Post (Each)	Shop Curved Guardrail Length (Linear Feet) (0.0)	Reconstruct-Exst Post, Block Length (Linear Feet) (0.0)	Reconstruct-New Post, Block Length (Linear Feet) (0.0)	Remove and Salvage Length (Linear Feet) (0.0)	Construct from Salvage Length (Linear Feet) (0.0)	Remove Length (Linear Feet) (0.0)	Length (Linear Feet) (0.0)	C-10.40 (32" Median)	C-10.41 (42" Median)	C-10.50 (32" Half)	C-10.54 (32" Half at Piers)	C-10.55 (42" Half at Piers)	Detail	Remove Existing Length (Linear Feet) (0.0)	High-Tension Cable Barrier Length (Linear Feet) (0)	C-12.30 Chain-Link Cable Barrier Length (Linear Feet) (0.0)	Begin = Treatment at Beginning End = Treatment at End	C-10.30 (Wood Post)	C-10.31 (Steel Post)	C-10.70 32" or C-10.72 42"	C-10.74 42" to 32"	Detail	◧ C-10.20 or C-10.21 (Tangent)	◧ Flared Details or	End Anchor C-10.08 or Detail	High-Tension Cable Terminal	■ Sand Barrels C-1 or Detail	Attenuator Detail	Reconstruct (See Special Prv)	Remove and Salvage	Construct from Salvage	Remove	Tangent	Flared	End Anchor C-10.08 or Detail	High-Tension Cable Terminal	■ Sand Barrels C-1 or Detail	Attenuator Detail	BCT (L=12.5')	REMARKS
EB 1630+05 RT	1	X	X			187.5								112.5											Begin						1									X							1	
EB 1632+77 RT																									End		1																					
EB 1651+55 RT	2	X	X			187.5								112.5											Begin						1									X							1	
EB 1654+27 RT																									End		1																					
EB 1694+00 LT	3	X	X			350.0								450.0											Begin						1									X							1	
EB 1698+00 LT																									End								1							X			1					
EB 1695+00 RT	4	X	X			775.0								987.5											Begin						1									X							1	
EB 1703+25 RT																									End								1							X			1					
WB 1697+05 RT	5	X	X			262.5								462.5											Begin								1															
WB 1700+36 RT																									End						1									X	1							
EB 1714+20 LT	6	X	X			375.0		9						487.5											Begin						1									X							1	
EB 1718+45 LT																									End								1							X			1					
EB 1716+15 RT	7	X	X			262.5		9						362.5											Begin						1									X							1	
EB 1719+28 LT																									End								1							X			1					
WB 1716+20 LT	8	X	X			337.5		9						387.5											Begin								1															
WB 1720+26 LT																									End						1									X	1							
WB 1717+31 RT	9	X	X			312.5		9						262.5											Begin								1															
WB 1721+12 LT																									End						1									X	1							
EB 1744+06 RT	10	X	X			187.5								112.5											Begin						1									X							1	
EB 1746+78 RT																									End		1																					
EB 1798+00 LT	11	X	X			325.0								350.0											Begin						1									X			1					7 BOLTED POSTS TO HEADWALL
EB 1801+75 LT																									End								1							X							1	DO NOT APPLY 2' OFFSET
EB 1799+25 RT	12	X	X			300.0								275.0											Begin						1									X							1	7 BOLTED POSTS TO HEADWALL
EB 1802+75 RT																									End								1							X			1					DO NOT APPLY 2' OFFSET
						3862.5		36						4362.5													3				12		9								3		6				9	

THE ZEROS IN PARENTHESES (0.0) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN.

● LENGTH IS FROM LENGTH OF NEED (LON) POINT TO LON POINT. ACTUAL SEGMENT LENGTH VARIES DEPENDING ON TERMINAL TYPE. SEE SPECIAL PROVISIONS.

◧ NOTE: FOR RECORD DRAWING PREPARATION - CIRCLE END TREATMENT INSTALLED.

◑ SEE BRIDGE SHEETS FOR BRIDGE BARRIER DETAILS AND QUANTITIES.

◪ ALLOWABLE END TREATMENT OPTIONS ARE INDICATED WITH THE NUMBER '1' IN THE SPACE. BLANK SPACES ARE NOT VIABLE ALTERNATIVES.

■ ARRAY TYPE AND ANGLE IS NOTED UNDER 'REMARKS'.

SHEET OF

	NAME	DATE
DESIGN		
DRAWN		
CHECKED		
TEAM LEADER		

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

F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL AID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	040 CN 190	040-C(224)T			

BARRIER SUMMARY SHEET

ROUTE
I-40

LOCATION
A-1 MOUNTAIN TI UP STR. NO. 896

TRACS NO. F0107 01C

ADOT
Infrastructure Delivery and Operations

____ OF ____

dta - Detail Sheet A

Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

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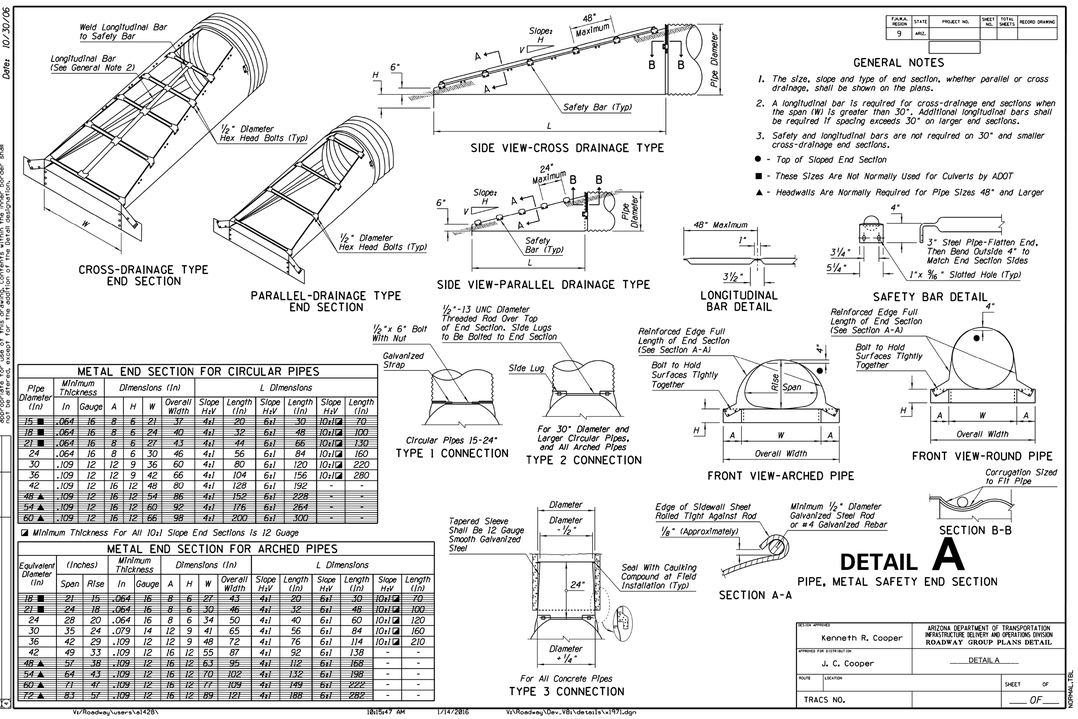
Interactive>Yes
Level: Draft Plan Label
pick the two corners of the Sheet Model



F.A.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.				

GENERAL NOTES

1. The size, slope and type of end section, whether parallel or cross drainage, shall be shown on the plans.
2. A longitudinal bar is required for cross-drainage end sections when the span (W) is greater than 30". Additional longitudinal bars shall be required if spacing exceeds 30" on larger end sections.
3. Safety end longitudinal bars are not required on 30" and smaller cross-drainage end sections.

● - Top of Sloped End Section
■ - These Sizes Are Not Normally Used for Culverts by ADOT
▲ - Headwalls Are Normally Required for Pipe Sizes 48" and Larger

METAL END SECTION FOR CIRCULAR PIPES

Pipe Diameter (In)	Minimum Thickness		Dimensions (In)			L Dimensions					
	In	Gauge	A	H	W	Overall Width	Slope H:V	Length (In)	Slope H:V	Length (In)	Slope H:V	Length (In)
15 ■	.064	16	8	6	21	37	4:1	20	6:1	30	10:1◪	70
18 ■	.064	16	8	6	24	40	4:1	32	6:1	48	10:1◪	100
21 ■	.064	16	8	6	27	43	4:1	44	6:1	66	10:1◪	130
24	.064	16	8	6	30	46	4:1	56	6:1	84	10:1◪	160
30	.109	12	12	9	36	60	4:1	80	6:1	120	10:1◪	220
36	.109	12	12	9	42	66	4:1	104	6:1	156	10:1◪	280
42	.109	12	16	12	48	80	4:1	128	6:1	192	-	-
48 ▲	.109	12	16	12	54	86	4:1	152	6:1	228	-	-
54 ▲	.109	12	16	12	60	92	4:1	176	6:1	264	-	-
60 ▲	.109	12	16	12	66	98	4:1	200	6:1	300	-	-

◪ Minimum Thickness For All 10:1 Slope End Sections Is 12 Guage

METAL END SECTION FOR ARCHED PIPES

Equivalent Diameter (In)	(Inches)		Minimum Thickness		Dimensions (In)			L Dimensions					
	Span	Rise	In	Gauge	A	H	W	Overall Width	Slope H:V	Length (In)	Slope H:V	Length (In)	Slope H:V	Length (In)
18 ■	21	15	.064	16	8	6	27	43	4:1	20	6:1	30	10:1◪	70
21 ■	24	18	.064	16	8	6	30	46	4:1	32	6:1	48	10:1◪	100
24	28	20	.064	16	8	6	34	50	4:1	40	6:1	60	10:1◪	120
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84	10:1◪	160
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114	10:1◪	210
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138	-	-
48 ▲	57	38	.109	12	16	12	63	95	4:1	112	6:1	168	-	-
54 ▲	64	43	.109	12	16	12	70	102	4:1	132	6:1	198	-	-
60 ▲	71	47	.109	12	16	12	77	109	4:1	149	6:1	222	-	-
72 ▲	83	57	.109	12	16	12	89	121	4:1	188	6:1	282	-	-

DETAIL A

PIPE, METAL SAFETY END SECTION

SECTION APPROVED: Kenneth R. Cooper	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY GROUP PLANS DETAIL
APPROVED FOR DISTRIBUTION: J. C. Cooper	DETAIL A
ROUTE / LOCATION	SHEET ___ OF ___
TRACS NO.	

NORMAL TBL

	DESCRIPTION OF REVISIONS	INIT.	DATE
3			
2	MINOR GRAPHICAL REVISIONS	RLF	7/05
1	REVISED NOTE TO DESIGNER	RLF	10/06
0			

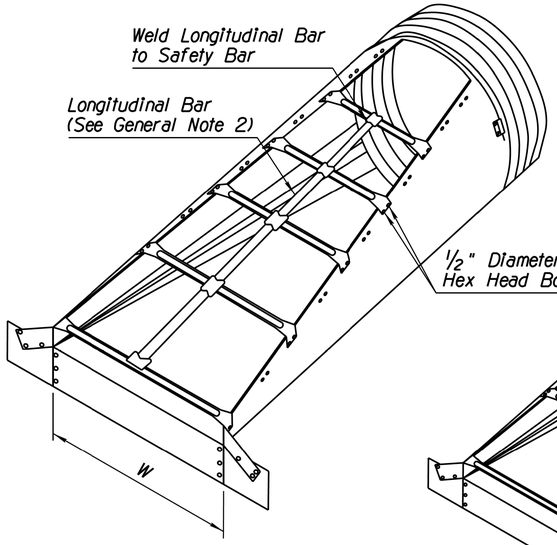
DATE: 10/30/06

For use of this Detail X1971.dgn, see Design Memo at http://www.azdot.gov/highways/Roadway/Eng/Roadway/Design/design_memos/index.asp

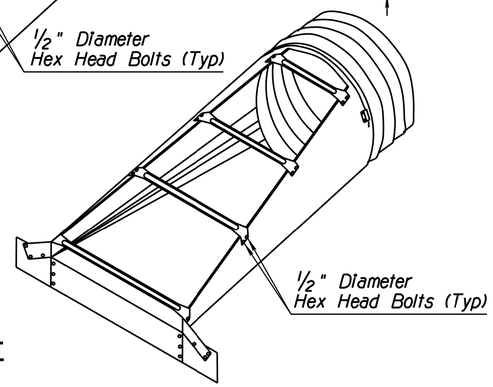
V:\Roadway\users\a1428\ 18:15:47 AM 1/14/2016 V:\Roadway\Dev_V8i\details\x1971.dgn

P-STD 06

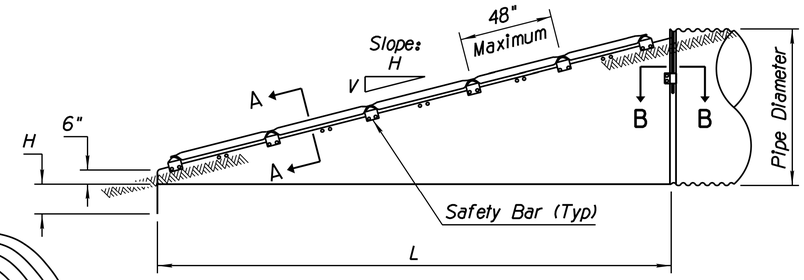
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.				



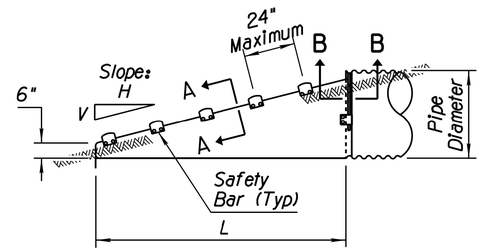
CROSS-DRAINAGE TYPE END SECTION



PARALLEL-DRAINAGE TYPE END SECTION



SIDE VIEW-CROSS DRAINAGE TYPE



SIDE VIEW-PARALLEL DRAINAGE TYPE

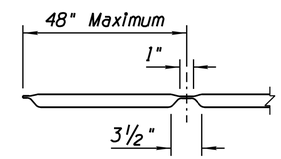
GENERAL NOTES

1. The size, slope and type of end section, whether parallel or cross drainage, shall be shown on the plans.
2. A longitudinal bar is required for cross-drainage end sections when the span (W) is greater than 30". Additional longitudinal bars shall be required if spacing exceeds 30" on larger end sections.
3. Safety and longitudinal bars are not required on 30" and smaller cross-drainage end sections.

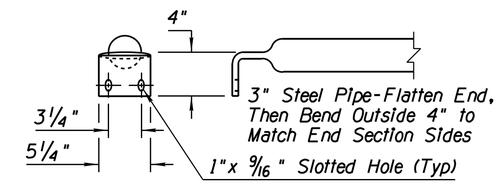
● - Top of Sloped End Section

■ - These Sizes Are Not Normally Used for Culverts by ADOT

▲ - Headwalls Are Normally Required for Pipe Sizes 48" and Larger



LONGITUDINAL BAR DETAIL



SAFETY BAR DETAIL

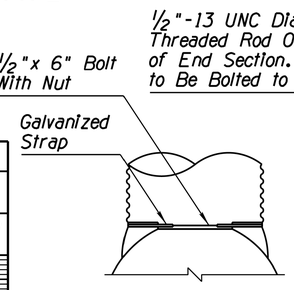
METAL END SECTION FOR CIRCULAR PIPES

Pipe Diameter (In)	Minimum Thickness		Dimensions (In)				L Dimensions					
	In	Gauge	A	H	W	Overall Width	Slope H:V	Length (In)	Slope H:V	Length (In)	Slope H:V	Length (In)
~~15 ■~~	~~.064~~	~~16~~	~~8~~	~~6~~	~~21~~	~~37~~	~~4:1~~	~~20~~	~~6:1~~	~~30~~	~~10:1◪~~	~~70~~
~~18 ■~~	~~.064~~	~~16~~	~~8~~	~~6~~	~~24~~	~~40~~	~~4:1~~	~~32~~	~~6:1~~	~~48~~	~~10:1◪~~	~~100~~
~~21 ■~~	~~.064~~	~~16~~	~~8~~	~~6~~	~~27~~	~~43~~	~~4:1~~	~~44~~	~~6:1~~	~~66~~	~~10:1◪~~	~~130~~
24	.064	16	8	6	30	46	4:1	56	6:1	84	10:1◪	160
30	.109	12	12	9	36	60	4:1	80	6:1	120	10:1◪	220
36	.109	12	12	9	42	66	4:1	104	6:1	156	10:1◪	280
42	.109	12	16	12	48	80	4:1	128	6:1	192	-	-
~~48 ▲~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~54~~	~~86~~	~~4:1~~	~~152~~	~~6:1~~	~~228~~	-	-
~~54 ▲~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~60~~	~~92~~	~~4:1~~	~~176~~	~~6:1~~	~~264~~	-	-
~~60 ▲~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~66~~	~~98~~	~~4:1~~	~~200~~	~~6:1~~	~~300~~	-	-

◪ Minimum Thickness For All 10:1 Slope End Sections Is 12 Guage

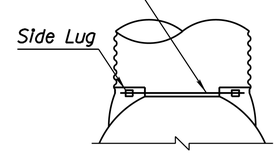
METAL END SECTION FOR ARCHED PIPES

Equivalent Diameter (In)	(Inches)		Minimum Thickness		Dimensions (In)				L Dimensions					
	Span	Rise	In	Gauge	A	H	W	Overall Width	Slope H:V	Length (In)	Slope H:V	Length (In)	Slope H:V	Length (In)
~~18 ■~~	~~21~~	~~15~~	~~.064~~	~~16~~	~~8~~	~~6~~	~~27~~	~~43~~	~~4:1~~	~~20~~	~~6:1~~	~~30~~	~~10:1◪~~	~~70~~
~~21 ■~~	~~24~~	~~18~~	~~.064~~	~~16~~	~~8~~	~~6~~	~~30~~	~~46~~	~~4:1~~	~~32~~	~~6:1~~	~~48~~	~~10:1◪~~	~~100~~
24	28	20	.064	16	8	6	34	50	4:1	40	6:1	60	10:1◪	120
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84	10:1◪	160
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114	10:1◪	210
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138	-	-
~~48 ▲~~	~~57~~	~~38~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~63~~	~~95~~	~~4:1~~	~~112~~	~~6:1~~	~~168~~	-	-
~~54 ▲~~	~~64~~	~~43~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~70~~	~~102~~	~~4:1~~	~~132~~	~~6:1~~	~~198~~	-	-
~~60 ▲~~	~~71~~	~~47~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~77~~	~~109~~	~~4:1~~	~~149~~	~~6:1~~	~~222~~	-	-
~~72 ▲~~	~~83~~	~~57~~	~~.109~~	~~12~~	~~16~~	~~12~~	~~89~~	~~121~~	~~4:1~~	~~188~~	~~6:1~~	~~282~~	-	-



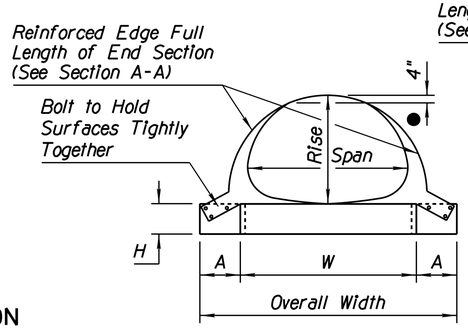
Circular Pipes 15-24"

TYPE 1 CONNECTION

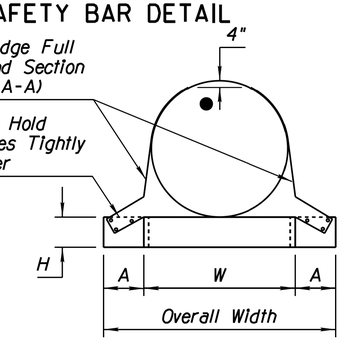


For 30" Diameter and Larger Circular Pipes, and All Arched Pipes

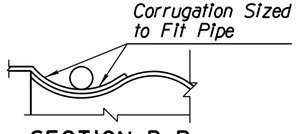
TYPE 2 CONNECTION



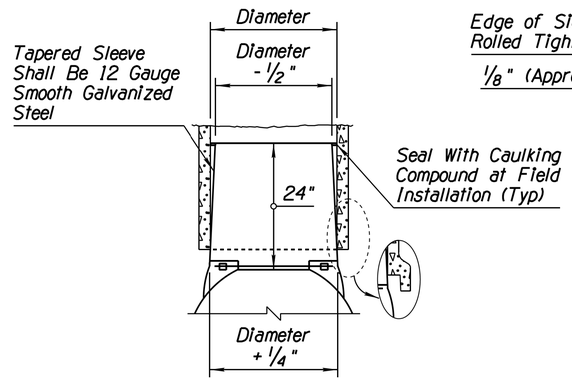
FRONT VIEW-ARCHED PIPE



FRONT VIEW-ROUND PIPE

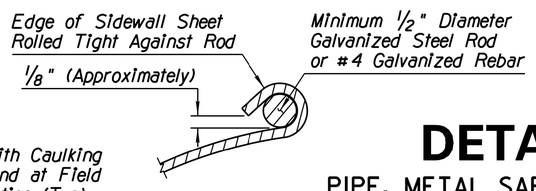


SECTION B-B



For All Concrete Pipes

TYPE 3 CONNECTION



SECTION A-A

DETAIL A

PIPE, METAL SAFETY END SECTION

DESIGN APPROVED	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY GROUP PLANS DETAIL
Kenneth R. Cooper	
APPROVED FOR DISTRIBUTION: J. C. Cooper	DETAIL A
ROUTE / LOCATION	SHEET ___ OF ___
TRACS NO.	

NO.	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	MINOR GRAPHICAL REVISONS	RLF	7/05
2	REVISED 'NOTE TO DESIGNER'	RLF	10/06
3			
4			

Date: 10/30/06

For use of this Detail X1971.dgn, see Design Memo at http://www.azdot.gov/highways/RdwyEng/RoadwayDesign/design_memos/Index.asp

Note to Designer:
The information presented in this Roadway Plans Detail is for general use. Designers should satisfy themselves that their project site conditions are appropriate for use of this drawing. Contents within the inner border shall not be altered, except for the addition of the Detail designation. (2)

NORMAL.TBL

cs1 - Survey Control Sheet

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Attach Reference file: Border into the Sheet Model 1:1
Place Active Cell
Attach File: Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT\WorkSets\dev\dgn\Plans\sheets.cel
Highlight GN01
right-click Place Cell
X Scale: 1.0
Y Scale: 1.0
Drop Element>Complex
delete all but GENERAL NOTES

Open LS1283 I-40 Report.txt

Copy

Project Name: LS1283
Description: I-40 A1 MTN TI

BASIS OF BEARINGS:
ADOT Engineering Survey Crew surveyed and provided the Coordinates for the project. Coordinates were based on NAD83\92 Horizontal and NAVD88 Vertical Datum with a GAF of 1.00045. NGS Control Points used for this project include: FLAGSTAFF NCMN RM 3, C504, PORTAL AZ MK, L490, and DOT.

BASIS OF ALIGNMENT AND STATIONS:
Best Fit Alignments were based on split of existing edge of pavement survey points and R\W Markers located in the field. The alignments were tied to Station: POB 2136+51.81 (POT 3802A I-40EB), POB 2136+87.27(POT 3802A I-40WB), POB 7280+00.0 (POT 3787 I-17NB), and POB 7285+00.0 (POT 3787 I-17SB). 3802A were tied to Station: POT 1579+41 I-40EB and POT 1567+33.01 I-40WB.

Record Drawings 40-3(22), ACNH-40-3(71), ACNH-40-3(87)A, and IM-40-3(78), were used to construct the alignment file.

BASIS OF ELEVATIONS:
NGS Monument Stamped PORTAL AZ MK with elevation 7000.968, was held as basis of elevation for the project.

Place Text>Paste

Open LS1283 CONTROL ADJUSTED GROUND.xls

1. Select the Area in the Excel file to be placed in MicroStation
2. Copy
3. In MicroStation, Right click in the View for the pop-up menu
4. Select>Paste from Clipboard
5. Select>Paste as: Embedded
Select>Method: By Size
Extended Setting>Select>Transparent Background and Rotate With View
6. Pick where to Paste
scale:1.00
Table Formatting, see P-STD 08

Print Monochrome

GENERAL NOTES

Project Name: LS1283
Description: I-40 A1 MTN TI

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ADOT Engineering Survey Crew surveyed and provided the Coordinates for the project. Coordinates were based on NAD83\92 Horizontal and NAVD88 Vertical Datum with a GAF of 1.00045. NGS Control Points used for this project include: FLAGSTAFF NCMN RM 3, C504, PORTAL AZ MK, L490, and DOT.

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BASIS OF ELEVATIONS:
NGS Monument Stamped PORTAL AZ MK with elevation 7000.968, was held as basis of elevation for the project.

FINAL GRID COORDINATES CENTRAL ZONE
I-40 A-1 MOUNTAIN
LS1283 F0107O1D
CONTROL FROM P&M3894
VALUES OBTAINED BY ESS
DATA COLLECTED BY ESS
INTERNATIONAL FEET
NAD83/92 HORIZONTAL & NAVD88 VERTICAL
GRID ADJUSTMENT FACTOR = 1.00045

Legend:
NGS Control in the Area
ESS SET CONTROL

NAME	GRID (N)	GRID (E)	ELEVATION	DESCRIPTION	
PRIMARY					
FLAGSTAFF NCMN RM 3	*1534319.838*	*784485.845*	*7111.312*	*NGS CONTROL*	
C 504	*1532066.498*	*819840.961*	*6668.258*	*NGS CONTROL*	
PORTAL AZ MK	*1510192.752*	*770235.174*	*7000.968*	*NGS CONTROL*	*BASIS OF ELEVATION*
L 490	*1539606.737*	*731255.403*	*7128.524*	*NGS CONTROL*	
DOT	*1538275.476*	*733559.799*	*7131.923*	*NGS CONTROL*	
SECONDARY					
PORTAL CHK	*1510153.336*	*770242.957*	*7000.826*	*ESS SET*	
TRAV1	*1521504.649*	*777158.748*	*6873.854*	*ESS SET*	
TRAV2	*1521549.267*	*777130.791*	*6876.553*	*ESS SET*	
TRAV3	*1521235.738*	*776758.434*	*6883.274*	*ESS SET*	

FINAL GRID COORDINATES CENTRAL ZONE
I-40 A-1 MOUNTAIN
LS1283 F0107O1D
CONTROL FROM P&M3894
VALUES OBTAINED BY ESS
DATA COLLECTED BY ESS
INTERNATIONAL FEET
NAD83/92 HORIZONTAL & NAVD88 VERTICAL
GRID ADJUSTMENT FACTOR = 1.00045

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NGS Control in the Area
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SECONDARY					
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TRAV2	*1521549.267*	*777130.791*	*6876.553*	*ESS SET*	
TRAV3	*1521235.738*	*776758.434*	*6883.274*	*ESS SET*	

GENERAL NOTES

Project Name: LS1283
Description: I-40 A1 MTN TI

BASIS OF BEARINGS:
ADOT Engineering Survey Crew surveyed and provided the Coordinates for the project. Coordinates were based on NAD83\92 Horizontal and NAVD88 Vertical Datum with a GAF of 1.00045. NGS Control Points used for this project include: FLAGSTAFF NCMN RM 3, C504, PORTAL AZ MK, L490, and DOT.

BASIS OF ALIGNMENT AND STATIONS:
Best Fit Alignments were based on split of existing edge of pavement survey points and R\W Markers located in the field. The alignments were tied to Station: POB 2136+51.81 (POT 3802A I-40EB), POB 2136+87.27(POT 3802A I-40WB), POB 7280+00.0 (POT 3787 I-17NB), and POB 7285+00.0 (POT 3787 I-17SB). 3802A were tied to Station: POT 1579+41 I-40EB and POT 1567+33.01 I-40WB.

Record Drawings 40-3(22), ACNH-40-3(71), ACNH-40-3(87)A, and IM-40-3(78), were used to construct the alignment file.

BASIS OF ELEVATIONS:
NGS Monument Stamped PORTAL AZ MK with elevation 7000.968, was held as basis of elevation for the project.

g01 - Geometry Sheet

Seed File=Z:\Root Workspace Location\Configuration\Organization-Civil\ADOT Corporate Standards\Seed\Rdwy_modelseed.dgn

Set Active>Sheet Model Drawing Scale 1:1

Level=Draft_Plan_Labels

BEFORE FORMATTING

Horizontal Elements Table Report

Report Created: Tuesday, April 17, 2018
Time: 5:57:03 AM

Project: Default
Description:
Z:\Root Workspace
File Name: Location\Configuration\WorkSpaces\ADOT\WorkSets
\dev\dgn\3D\Mainline_Corridor.dgn
Last Revised: 4/17/2018 5:56
Note: All units in this report are in feet unless specified otherwise.

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	K	P
Aligment Name:											100
Description:											
Style:		Alignment\Geom_Baseline									
Tangent	POB		1892+00.00	1528296.31	750653.68						
Tangent	PC		1895+02.19	1528261.98	750953.92						

AFTER FORMATTING

Horizontal Elements Table Report

Report Created: Tuesday, April 17, 2018
Time: 5:57:03 AM

Project: Default
Description:

File Name: Z:\Root Workspace Location\Configuration\WorkSpaces\A
Last Revised: 4/17/2018 5:56
Note: All units in this report are in feet unless specified otherwise.

Element	*Point Type*	*Point Number*	*Station*	*Northing*	*Easting*	*Radius*	*Length*	*Delta / Theta*	*Rotation Direction*	*K*	*P*
Aligment Name:											*100*
Description:											
Style:		*Alignment\Geom_Baseline*									
Tangent	*POB*		*1892+00.00*	*1528296.31*	*750653.68*						
Tangent	*PC*		*1895+02.19*	*1528261.98*	*750953.92*						

EXCEL IMPORTS
GENERAL NOTES

1. Select the Area in the Excel file to be placed in MicroStation
2. Copy
3. In MicroStation, Right click in the View for the pop-up menu
4. Select>Paste from Clipboard
5. Select>Paste as: Embedded
Select>Method: By Size
Extended Settings Select>Transparent Background and Rotate With View
6. Pick where to Paste

General Formatting for the Excel file
All Text should be Arial
Title Text should be 24 Bold
New Text should be 18 Italic
Existing Text should be 14

Existing Text *New Text* **Title Text**

.012 *.015* .020 MicroStation Text

8 9 10 11 12 14 16 18 20 22 24 Excel Text

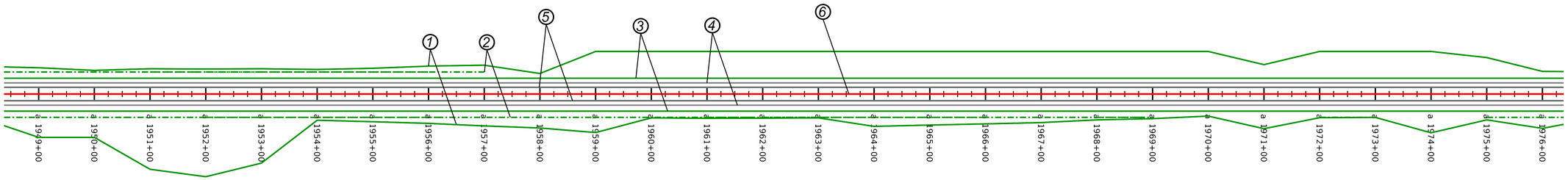
P-STD 08

Horizontal Elements Table Report

Report Created: Tuesday, April 17, 2018
Time: 5:57:03 AM

Project: Default
Description:
File Name: Z:\Root Workspace
Last Revised: 4/17/2018 5:56
Note: All units in this report are in feet unless specified

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	K	P
Aligment Name:											100
Description:											
Style:		Alignment\Geom_Baseline									
Tangent	POB		1892+00.00	1528296.31	750653.68						
Tangent	PC		1895+02.19	1528261.98	750953.92						
Arc	PC		1895+02.19	1528261.98	750953.92						
Arc	PI		1908+86.28	1528104.76	752329.05	4583.66	2688.37	33.605°	Right		
Arc	CC			1523707.99	750433.25						
Arc	PT		1921+90.56	1527212.73	753387.35						
Tangent	PT		1921+90.56	1527212.73	753387.35						
Tangent	TS		1926+17.43	1526937.62	753713.74						
Clothoid	TS		1926+17.43	1526937.62	753713.74						
Clothoid	SPI		1928+17.46	1526808.71	753866.69		300	3°	Left	149.99	1.31
Clothoid	SC		1929+17.43	1526748.33	753946.44						
Arc	SC		1929+17.43	1526748.33	753946.44						
Arc	PI		1932+54.84	1526544.68	754215.46	2864.79	671.72	13.434°	Left		
Arc	CC			1529032.42	755675.58						
Arc	CS		1935+89.16	1526409.1	754524.43						
Clothoid	CS		1935+89.16	1526409.1	754524.43						
Clothoid	SPI		1936+89.18	1526368.9	754616.02		300	3°	Left	149.99	1.31
Clothoid	ST		1938+89.16	1526298.22	754803.15						
Tangent	ST		1938+89.16	1526298.22	754803.15						
Back Station			1938+89.16	1526298.22	754803.15						
Ahead Station			a 1939+27.16								
Tangent	POE		a 2034+00.00	1522950.95	763664.89						



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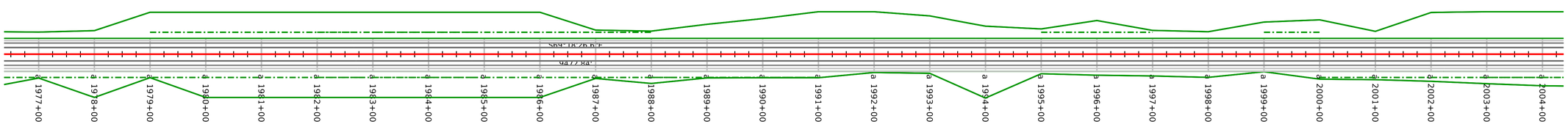
2	TL_End Condition Ditch Out		End Condition Ditch Outside Edge	114	0	2	NULL	114	4	3	NULL
3	TL_End Condition Hinge		End Condition Hinge	114	0	2	NULL	114	0	3	NULL
4	TL_Shoulder Edge		Edge of Shld Top	128	0	2	NULL	128	0	3	NULL
5	TL_Pavement Edge		Edge of Pavt Top	9	0	2	NULL	168	0	3	NULL
6	Geom_Baseline		Prop Centerline	3	0	3	NULL	3	0	3	NULL



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

F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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ROUTE I-40 LOCATION A-1 MOUNTAIN TI UP STR. NO. 896

TRACS NO. F0107 01C

ADOT Infrastructure Delivery and Operations

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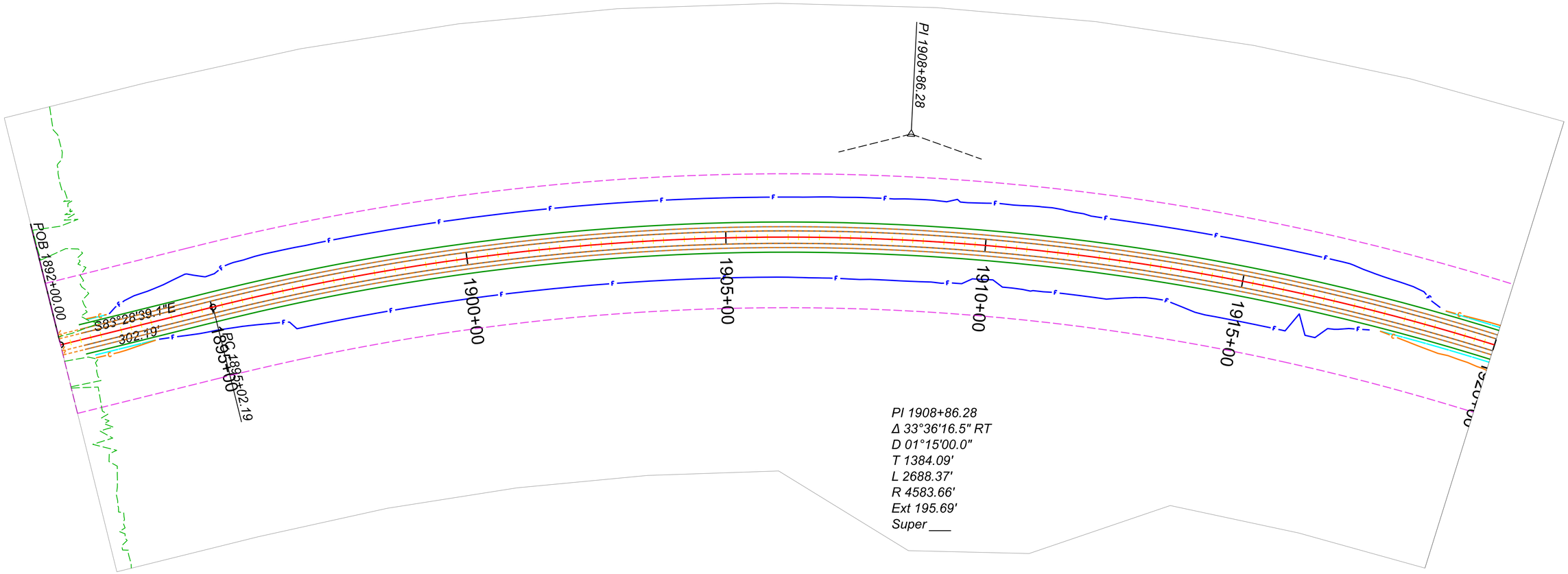

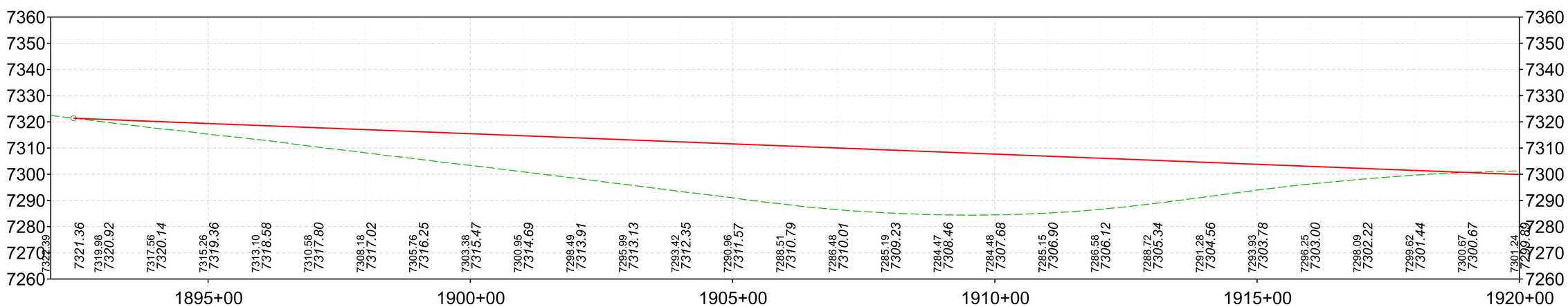

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

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F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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ADOT Infrastructure Delivery and Operations

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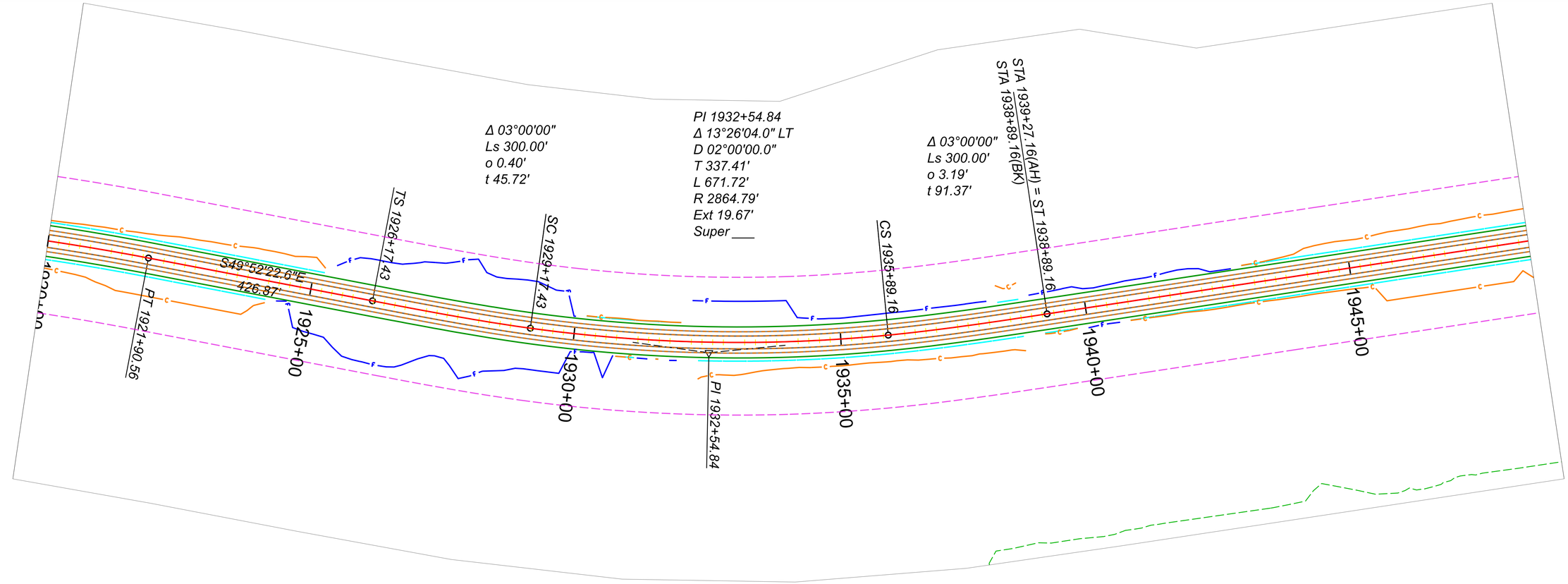

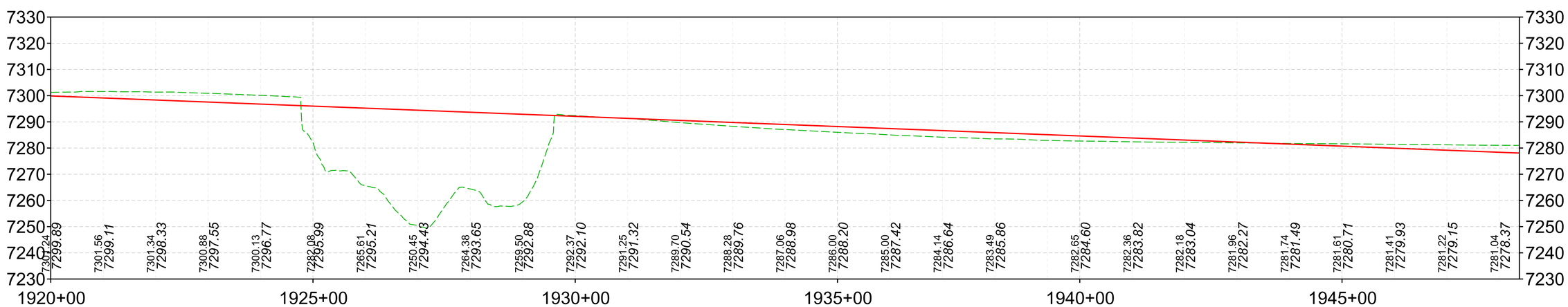

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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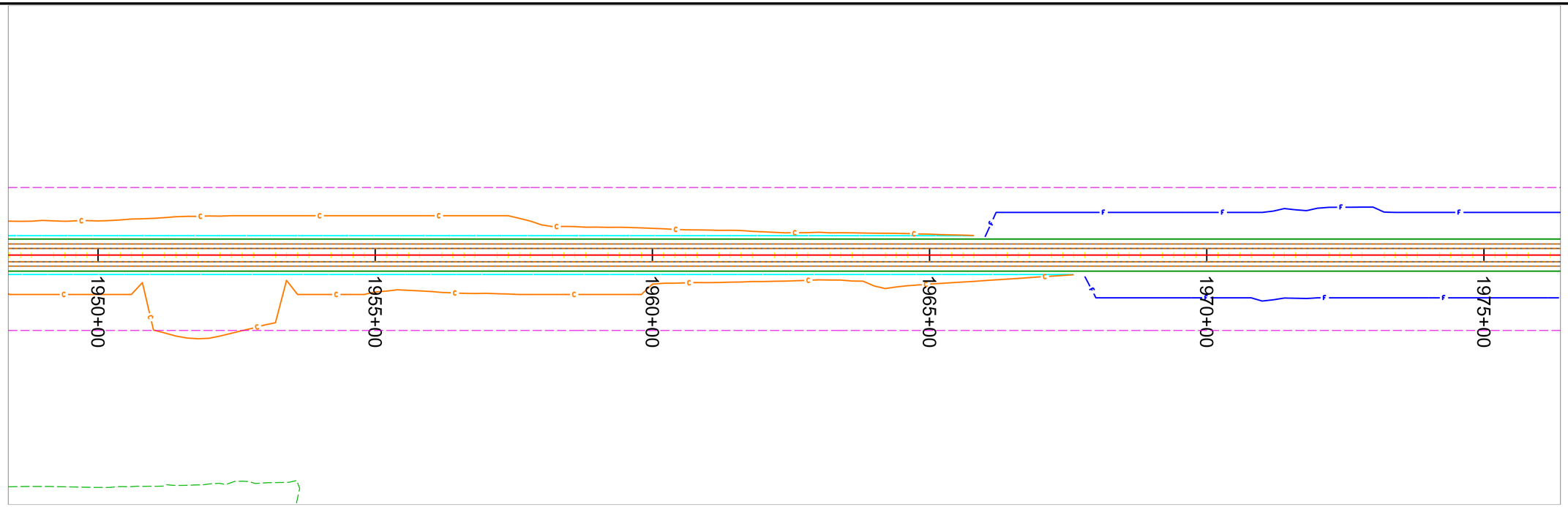

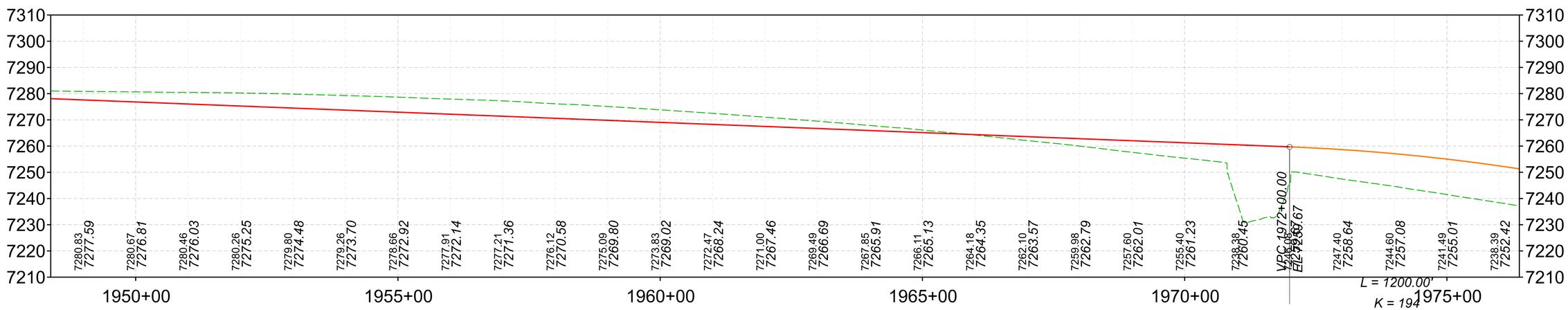

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

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F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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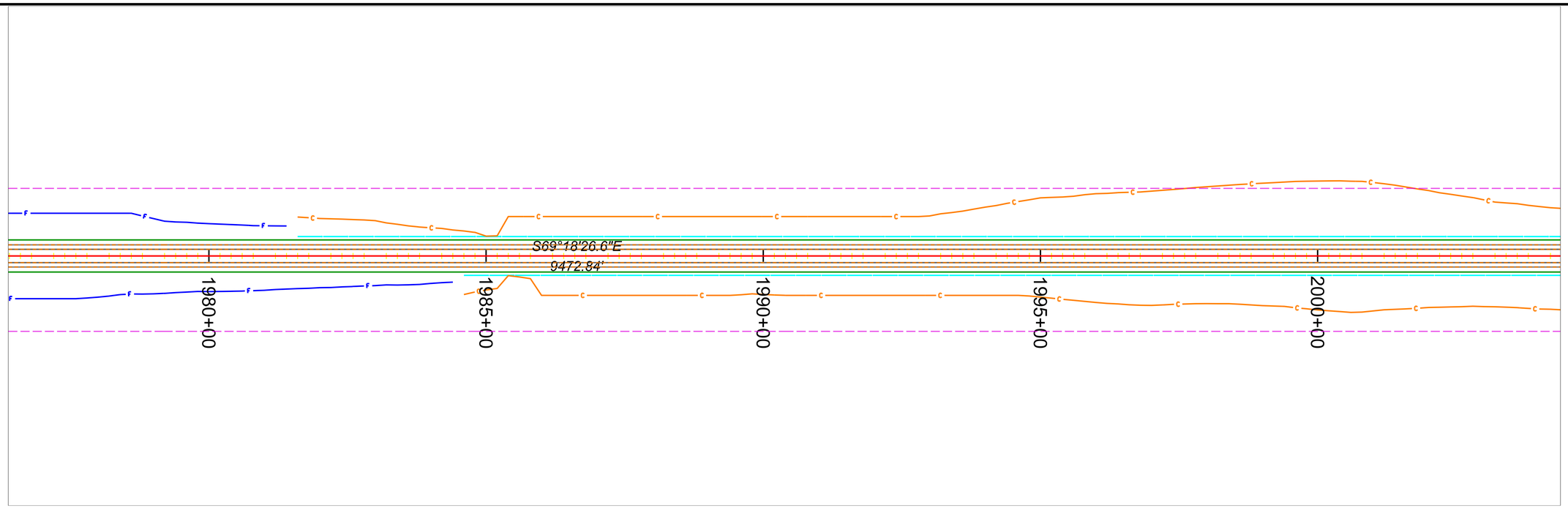

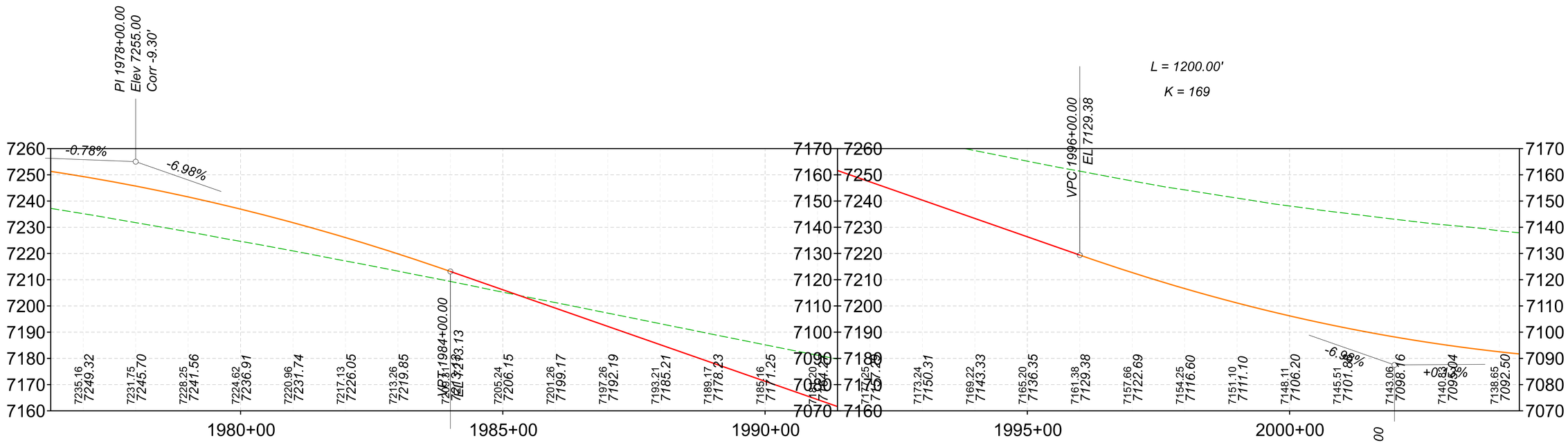

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INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

F.H.W.A. Arizona Division

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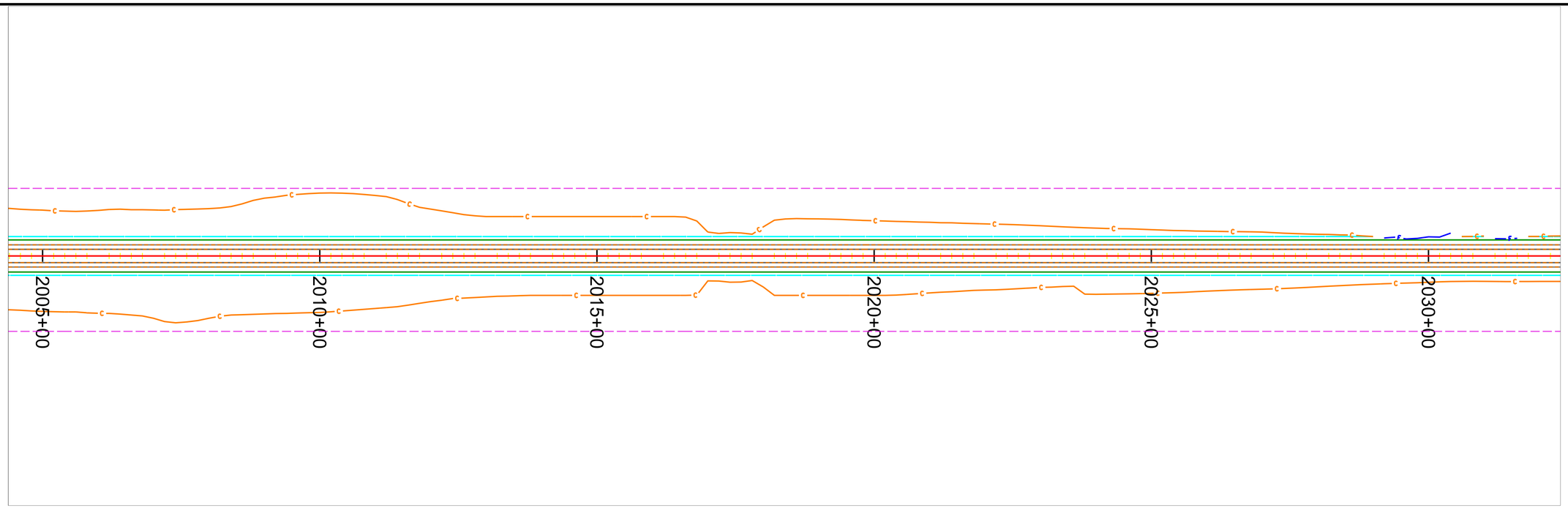

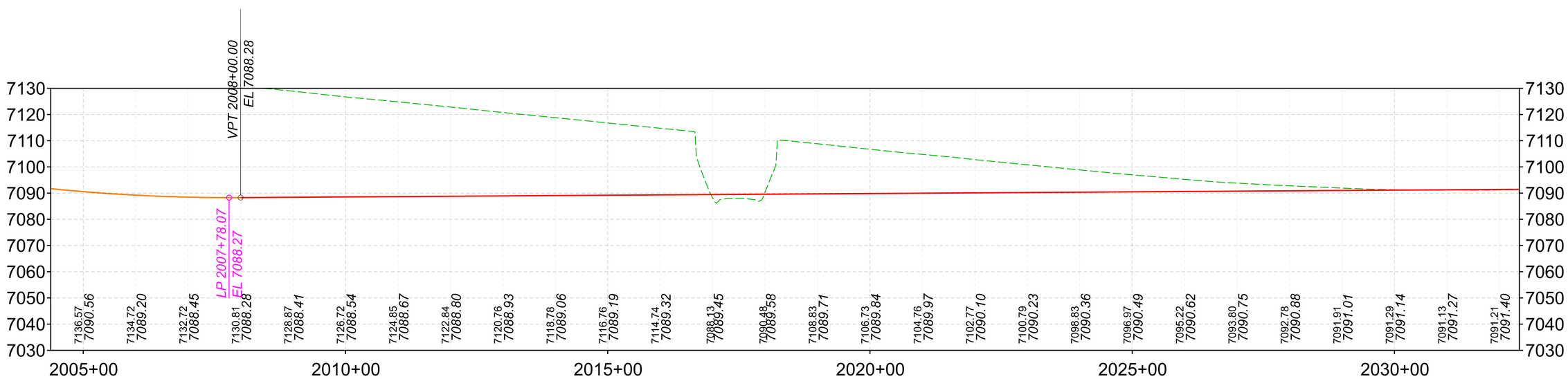

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

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F.H.W.A. Arizona Division

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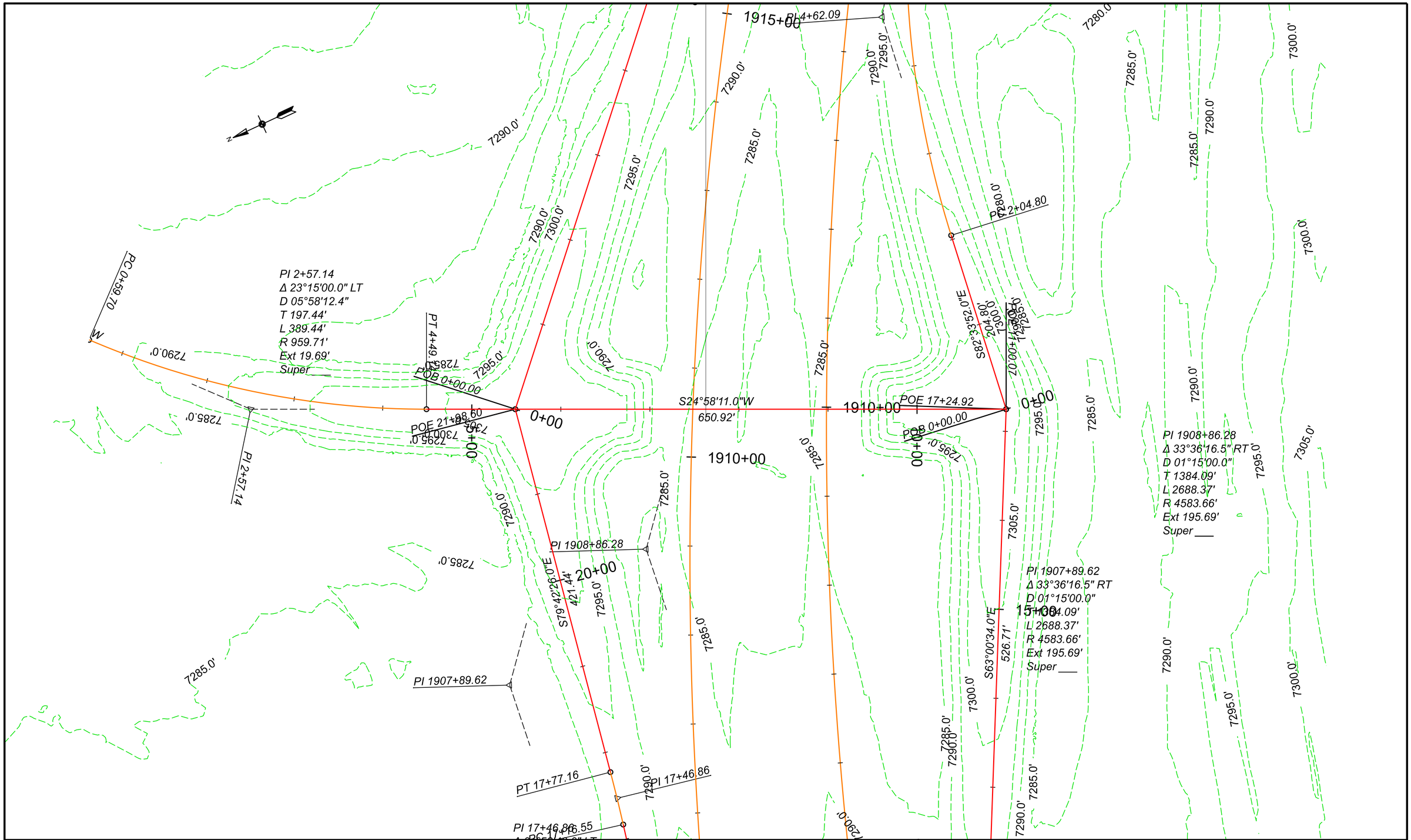

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INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

F.H.W.A. Arizona Division

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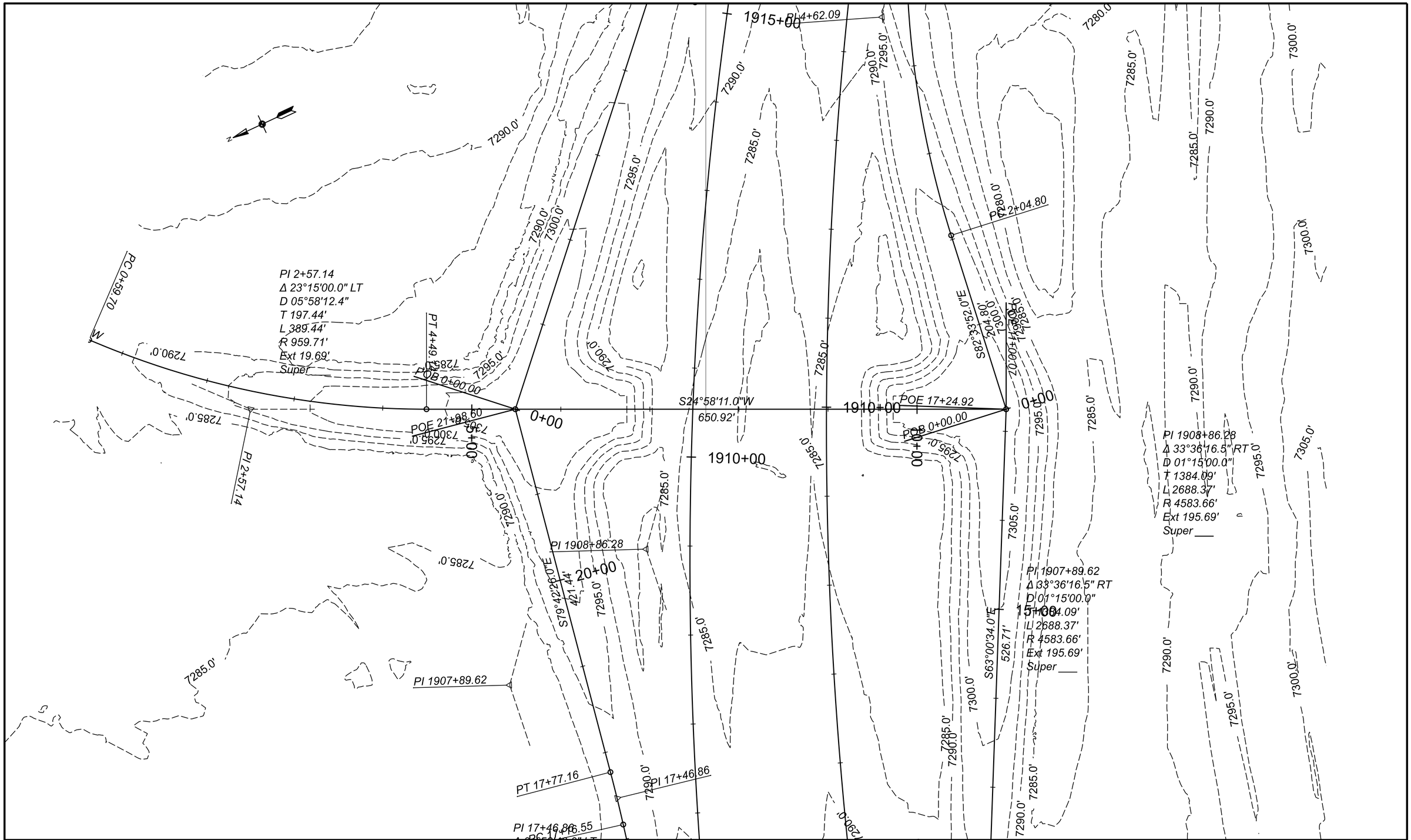

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

F.H.W.A. Arizona Division

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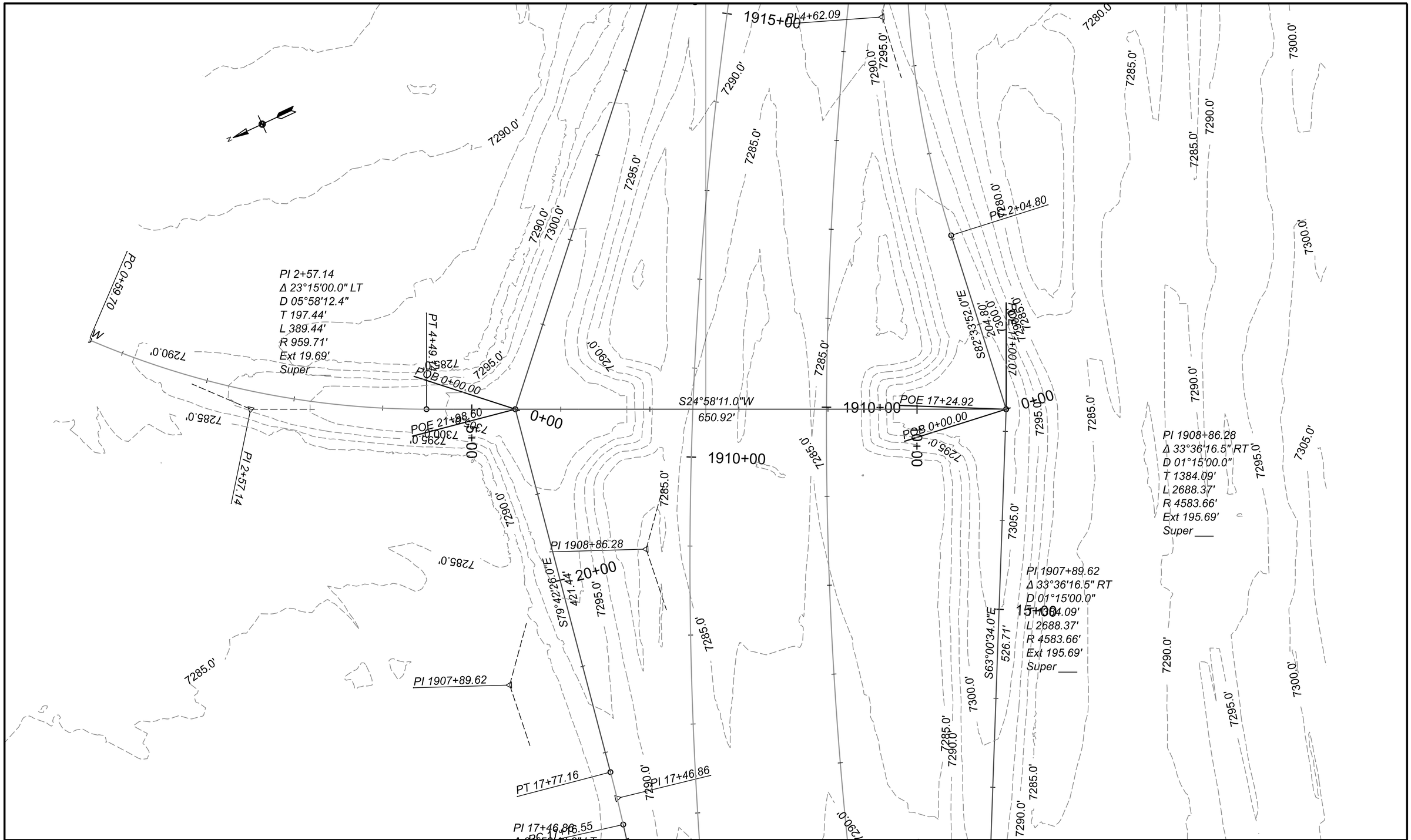

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INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

F.H.W.A. Arizona Division

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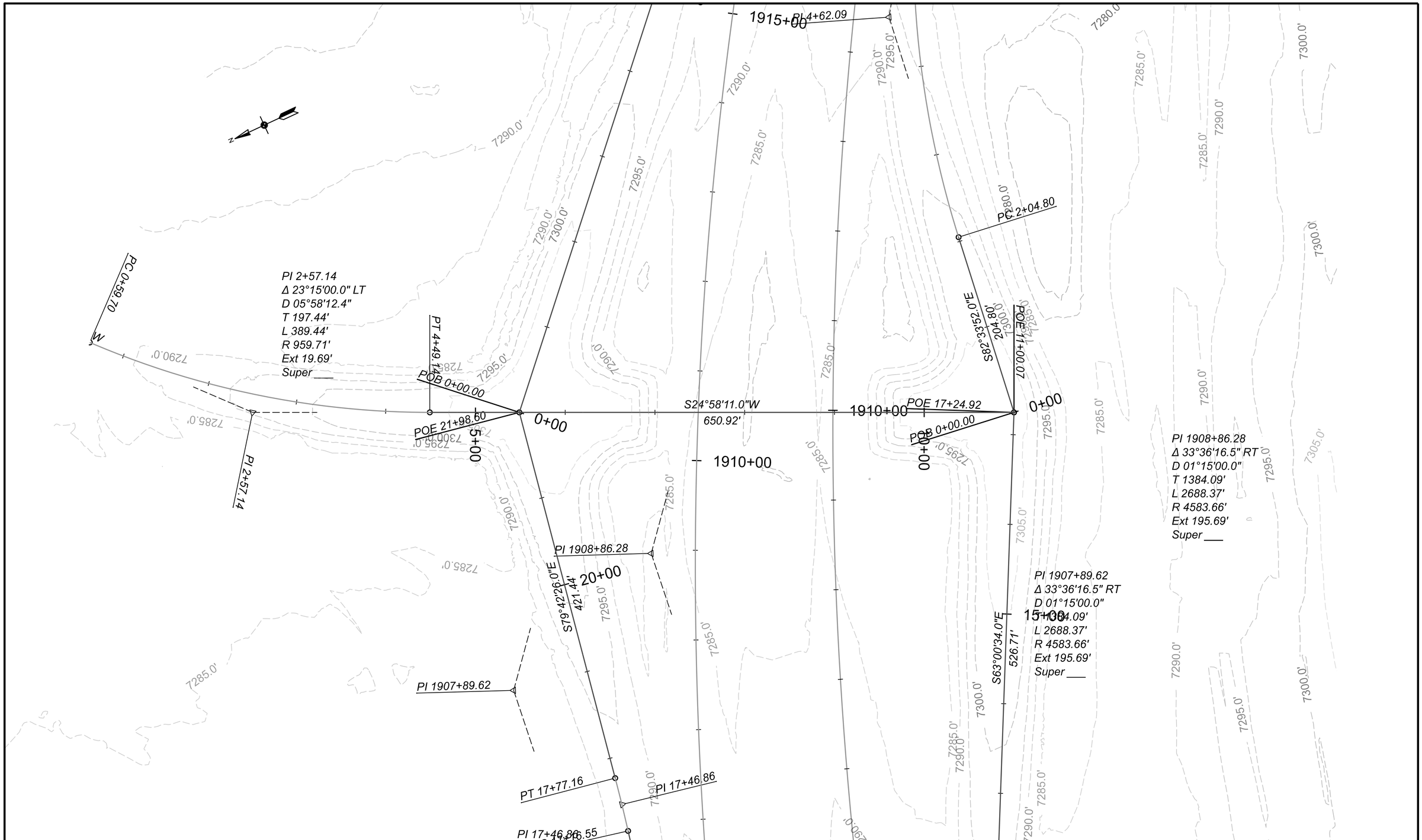

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

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F.H.W.A. Arizona Division

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ADOT Infrastructure Delivery and Operations

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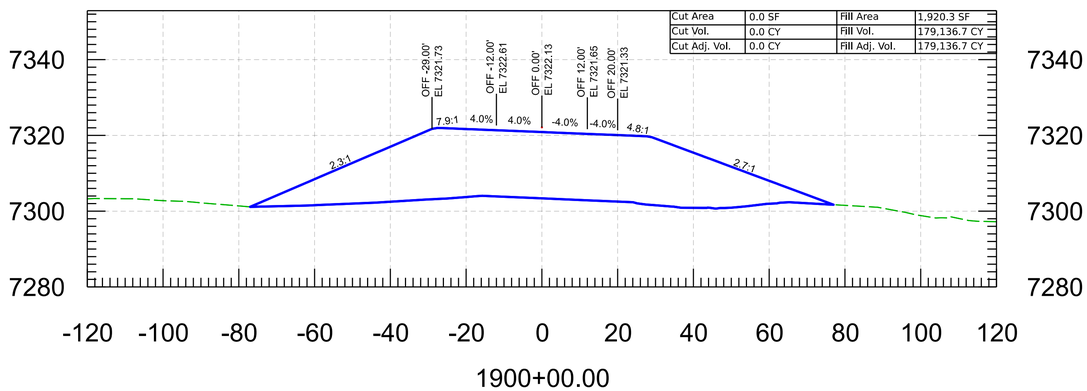

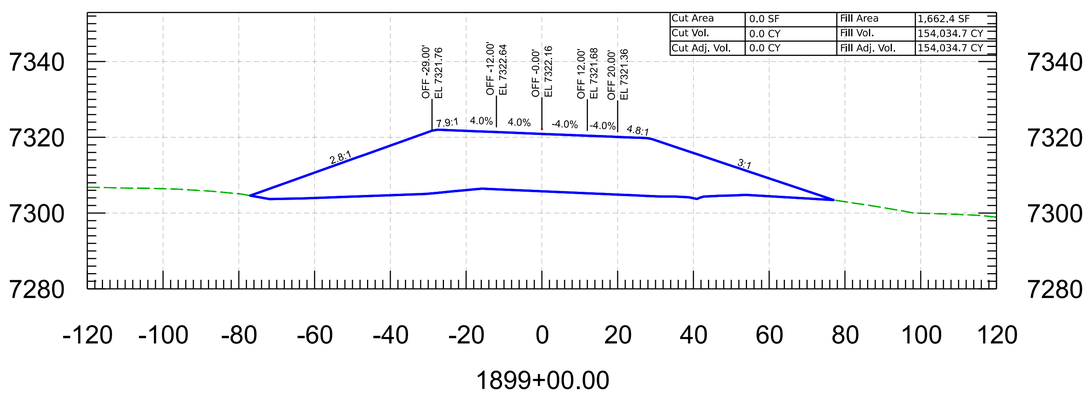

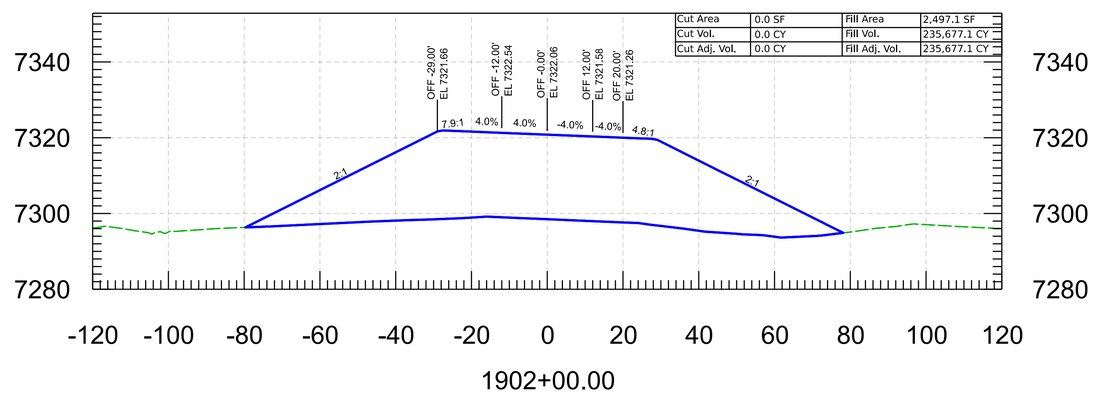

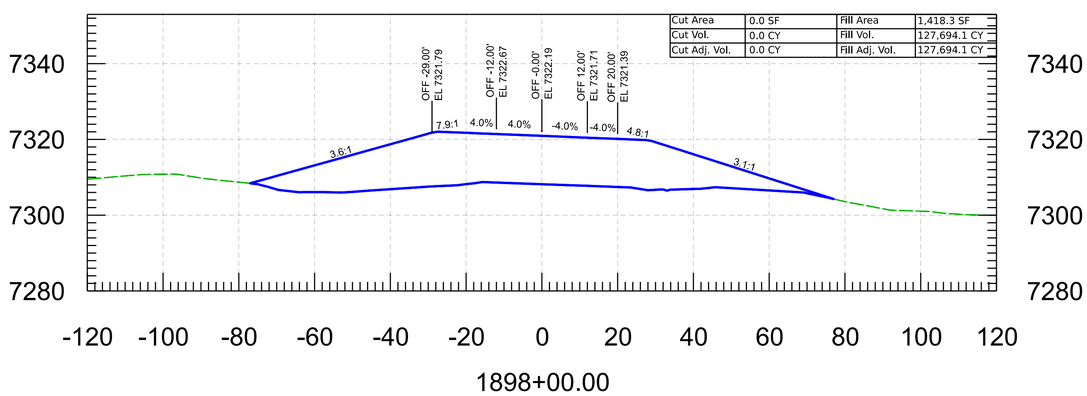

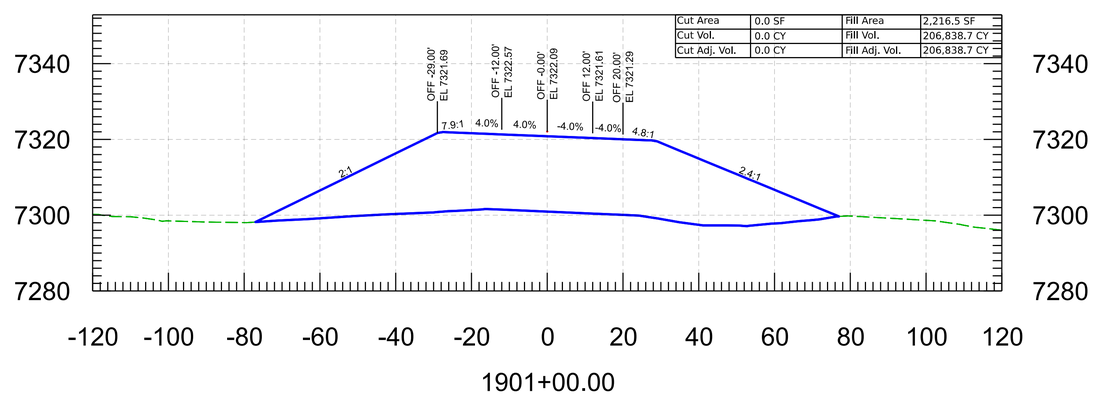

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ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

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F.H.W.A. Arizona Division

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	_____	_____	0		_____

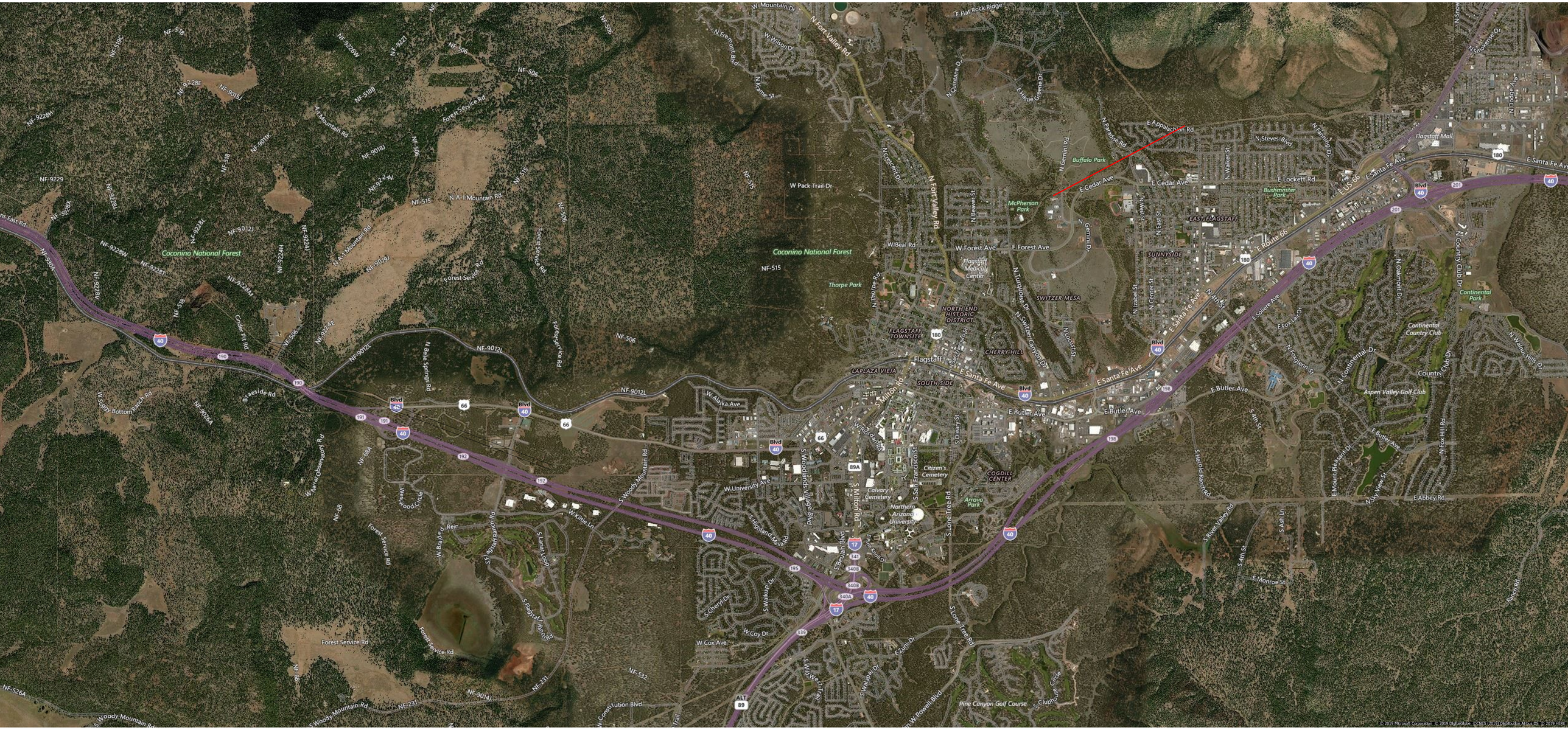
ROUTE _____ LOCATION _____

TRACS NO. _____

ADOT Infrastructure Delivery and Operations

____ OF____

A1428 4/25/2019 12:02:05 PM Z:\Root Workspace Location\Configuration\WorkSpaces\ADOT Roadway Projects\WorkSets\f0107\dgn\Earthwork XS_20_2Column Landscape.dgn


Coconino National Forest
Coconino National Forest
Flagstaff
Flagstaff Mall
Buffalo Park
McPherson Park
Thorpe Park
Bushmaster Park
Continental Park
Continental Country Club
Aspen Valley Golf Club
Pine Canyon Golf Course
Flagstaff Medical Center
Northern Arizona University
Citizen's Cemetery
Calvary Cemetery
Arrova Park
NORTH END HISTORIC DISTRICT
FLAGSTAFF TOWNSITE
CHERRY HILL
SWITZER MESA
EAST FLAGSTAFF
SUNNYSIDE
LAPLAZA VIEJA
SOUTH SIDE
COGDILL CENTER
E Appalachian Rd
N Steves Blvd
E Cedar Ave
E Lockett Rd
E Santa Fe Ave
E Route 66
E Butler Ave
E Abbey Rd
E Monroe St
W Forest Ave
E Forest Ave
W Beal Rd
N Fort Valley Rd
W Pack Trail Dr
W University Ave
W Alaska Ave
S Milton Rd
S Woody Mountain Rd
S Lone Tree Rd
W Cox Ave
Forest Service Rd
NF-515
NF-506
NF-9012L
NF-231
NF-532
NF-526A
S Woody Mountain Rd
Constitution Blvd
40
17
180
66
89A
ALT 89
Blvd