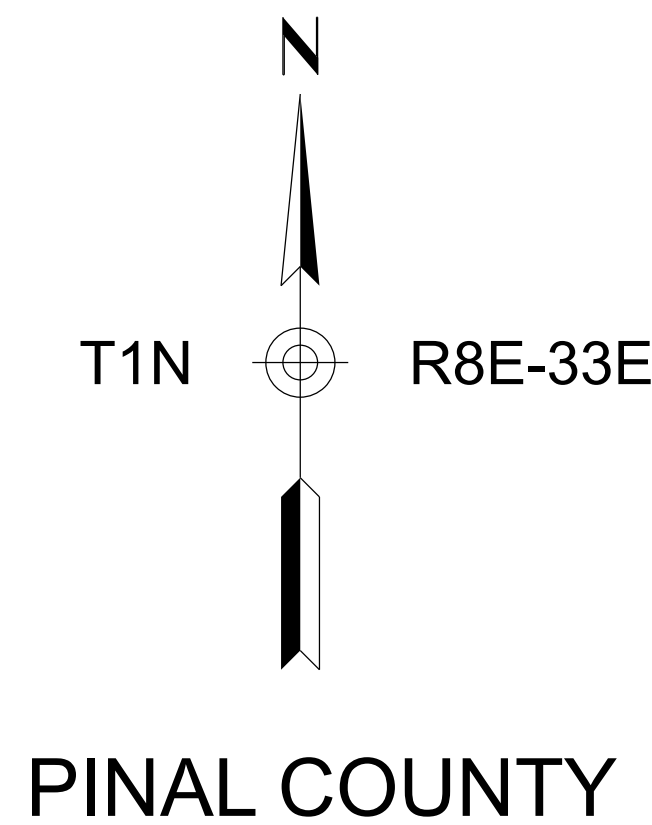
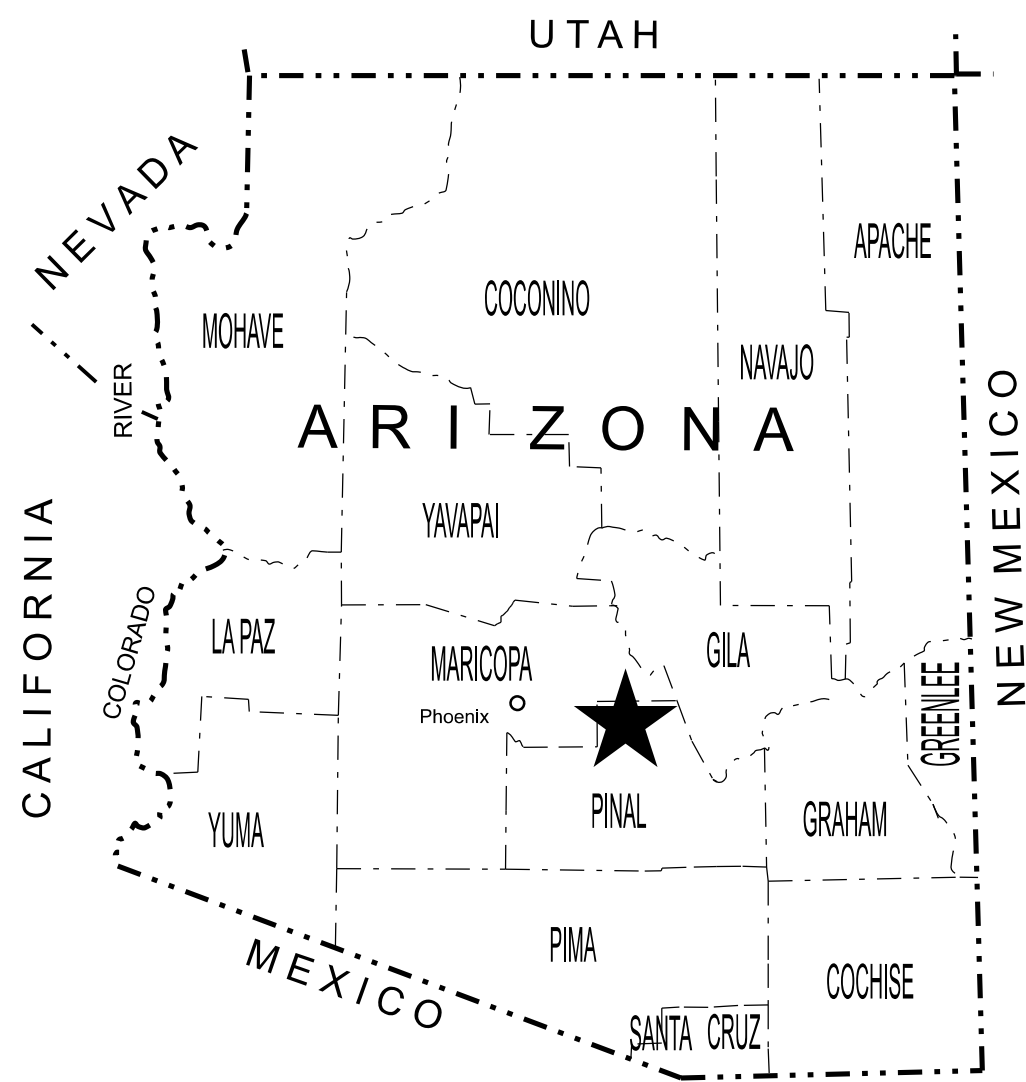
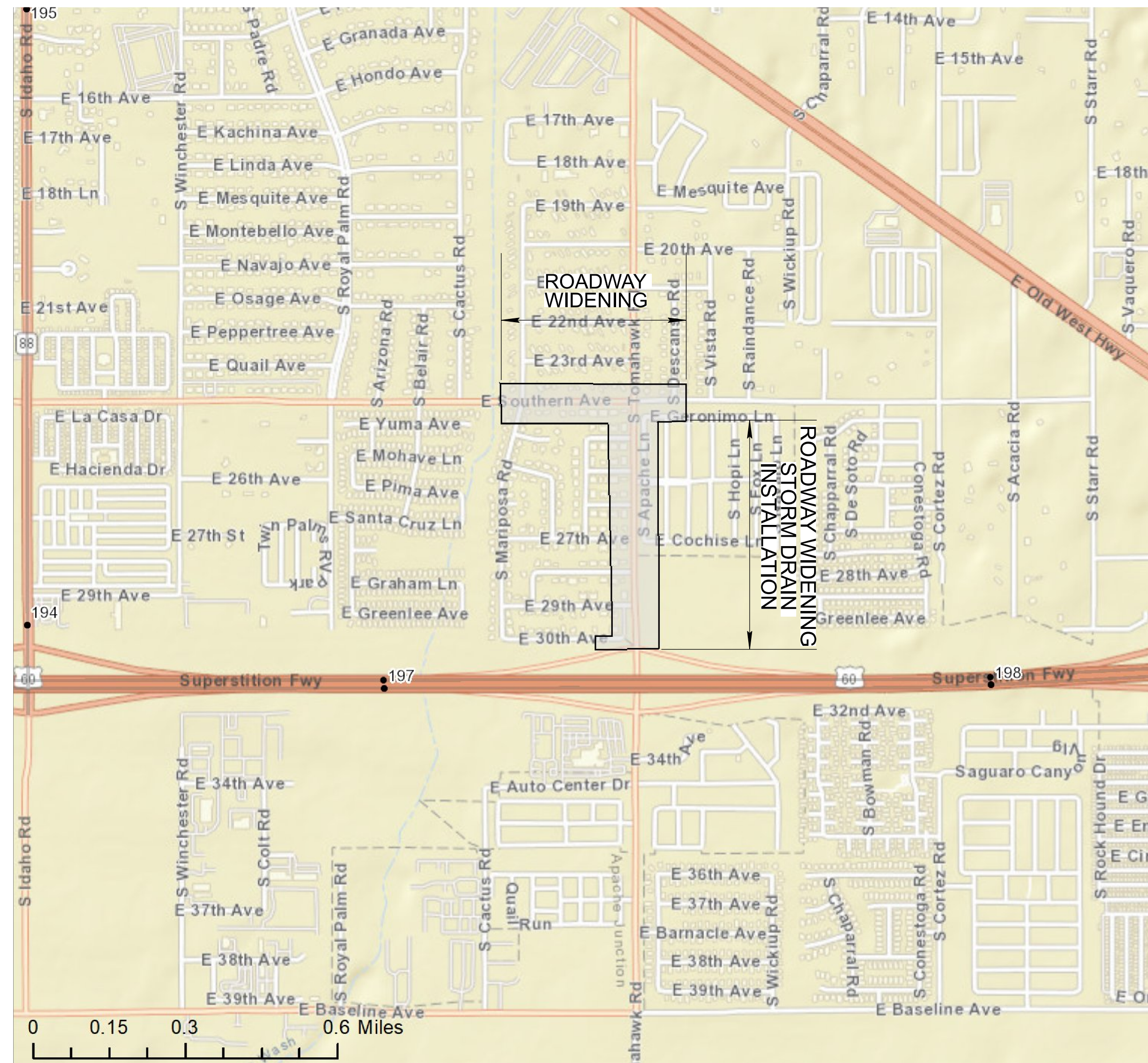




STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION



PROJECT PLANS
URBANIZED AREA
CITY OF APACHE JUNCTION



MARIPOSA ROAD TO TOMAHAWK ROAD
AND SOUTHERN AVENUE TO US 60

0000 PN APJ T0411 01C
APJ-0(222)T

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

ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
AUDRA MERRICK, P.E., STATE ENGINEER

REC. DWGS.	REC. DWG. DATE	OF
DATA		

ADOT STANDARD DRAWINGS

CONSTRUCTION STANDARDS
EFFECTIVE MARCH 2025

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
8/21	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
4/19	C-10.20 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
4/19	C-10.20 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
4/19	C-10.21 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
4/19	C-10.21 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
4/19	C-10.22 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
4/19	C-10.22 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
4/21	C-10.23 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR SGET
4/21	C-10.23 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR SGET
3/25	C-10.24 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR NGT
3/25	C-10.24 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR NGT
11/19	C-10.26 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MFLEAT
11/19	C-10.26 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MFLEAT
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

DATE	STANDARD	SUBJECT TITLE
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"
4/19	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
8/23	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			
CONSTRUCTION STANDARDS		NAME	DATE
PROJECT NO.		JESSICA FLY	06/26
T0411 01C		1A	OF 99
RECORD DRAWING DATA	FEDERAL ID NO. APJ-0(222)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS

TRAFFIC SIGNING & MARKING STANDARDS

(SHEET 1 OF 2)

EFFECTIVE MAY 2025

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
6/14	M-1	CURB MARKINGS FOR RAISED MEDIAN AND ISLANDS
1/20	M-2 SHT 1	INTERSECTION STRIPING
5/15	M-2 SHT 2	INTERSECTION STRIPING (TWO-LANE RURAL)
6/14	M-2 SHT 3	CENTERLINE AND REVERSE CURVE DETAILS
6/14	M-3	STRIPING AND DELINEATION FOR FREEWAY TERMINALS
6/14	M-4	PASSING LANE STRIPING DETAILS
6/14	M-5	RAILROAD PAVEMENT MARKINGS
6/14	M-6	WORD MARKINGS
6/14	M-7	PAVEMENT LETTERS
6/14	M-8	PAVEMENT LETTERS
6/14	M-9	PAVEMENT NUMBERS
6/14	M-10 SHT 1	PAVEMENT MARKING SYMBOLS
6/14	M-10 SHT 2	PAVEMENT MARKING SYMBOLS
5/25	M-10 SHT 3	PAVEMENT MARKING SYMBOLS
6/14	M-11	TURN LANE PAVEMENT MARKINGS
6/14	M-12	WRONG-WAY ARROWS
1/19	M-13	PREFERENTIAL LANE PAVEMENT MARKINGS
6/14	M-14	STRIPING AND DELINEATION FOR TRUCK ESCAPE RAMPS
8/20	M-15 SHT 1	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - TAPERED ACCELERATION LANE
8/20	M-15 SHT 2	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE
8/20	M-15 SHT 3	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE WITH HOV BYPASS
6/14	M-15 SHT 4	PAVEMENT MARKING FOR FREEWAY PARALLEL - ACCELERATION LANE
8/20	M-16 SHT 1	PAVEMENT MARKING FOR FREEWAY EXIT RAMPS - TAPERED DECELERATION LANE
8/20	M-16 SHT 2	PAVEMENT MARKING FOR FREEWAY EXIT RAMP - PARALLEL DECELERATION LANE
8/20	M-17	FREEWAY LANE DROP PAVEMENT MARKINGS
11/24	M-19 SHT 1	RAISED PAVEMENT MARKER PLAN LEGEND
6/14	M-19 SHT 2	NON-REFLECTIVE RAISED PAVEMENT MARKER DETAILS
11/24	M-19 SHT 3	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
11/24	M-19 SHT 4	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
5/15	M-19 SHT 5	PAVEMENT MARKING DETAILS FOR UNDIVIDED HIGHWAYS
6/14	M-19 SHT 6	RETROREFLECTIVE RAISED PAVEMENT MARKERS (RPM) FOR UNDIVIDED HIGHWAYS
8/20	M-19 SHT 7	FREEWAY AND DIVIDED HIGHWAY EDGE LINE AND LANE STRIPING
5/15	M-19 SHT 8	LANE DROP MARKING AND RAMP OR INTERSECTION GUIDE STRIPING
8/20	M-19 SHT 9	PAVEMENT MARKING CROSS-SECTION DETAILS FOR HIGHWAYS AND FREEWAYS
6/24	M-19 SHT 10	CONTRAST LANE LINE FOR FREEWAY AND DIVIDED HIGHWAY
10/23	M-19 SHT 11	LEAD-LAG CONTRAST PAVEMENT MARKINGS FOR CONCRETE PAVEMENT

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
6/14	M-20 SHT 1	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-20 SHT 2	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-21	TRANSVERSE RUMBLE STRIP DETAILS
9/21	M-22 SHT 1	LONGITUDINAL RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
9/21	M-22 SHT 2	LONGITUDINAL RUMBLE STRIP EXCEPTION DETAILS
9/21	M-22 SHT 3	ENTRANCE AND EXIT RAMPS RUMBLE STRIP INSTALLATION DETAILS
3/22	M-22 SHT 4	CENTERLINE RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
6/14	M-23	OBJECT MARKER DETAILS
6/14	M-24	OBJECT MARKER PLACEMENT DETAILS
2/21	M-26 SHT 1	DELINEATOR PLACEMENT AND SPACING
2/21	M-26 SHT 2	DELINEATOR PLACEMENT AND SPACING
2/21	M-26 SHT 3	FLEXIBLE DELINEATOR ASSEMBLIES
2/21	M-26 SHT 4	SQUARE STEEL POST DELINEATOR
2/21	M-26 SHT 5	DELINEATOR FOUNDATION DETAILS
2/21	M-27 SHT 1	DELINEATION DETAILS FOR MEDIAN CROSSEOVERS
2/21	M-27 SHT 2	DELINEATION DETAILS FOR MEDIAN CROSSEOVERS
6/14	M-29	OFF- MAINLINE REFERENCE MARKER LOCATION DETAIL
6/14	M-30	OFF- MAINLINE REFERENCE MARKER DETAILS
6/14	M-32	BRIDGE AND BARRIER MARKER DETAILS
6/14	M-33	BRIDGE AND BARRIER MARKER PLACEMENT AND INSTALLATION DETAILS
6/14	M-34	GUARDRAIL END TERMINAL DELINEATION DETAILS
6/14	M-35	OBJECT MARKER FOR SAND BARREL CRASH CUSHION

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
SIGNING & MARKING STANDARDS		NAME JESSICA FLY	DATE 06/26
PROJECT NO. T0411 01C		1B-1	OF 99
RECORD DRAWING DATA	FEDERAL ID NO. APJ-0(222)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS

TRAFFIC SIGNING & MARKING STANDARDS

(SHEET 2 OF 2)

EFFECTIVE MAY 2025

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
4/19	S-1 SHT 1	GENERAL SIGNING NOTES
6/14	S-2 SHT 1	S & W BREAKAWAY POST SELECTION CHART
6/14	S-2 SHT 2	S & W BREAKAWAY POST INSTALLATION DETAILS
6/14	S-3 SHT 1	FLAT SHEET SIGNS SQUARE TUBE POST GENERAL NOTES
6/14	S-3 SHT 2	SINGLE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 12, 18 AND 24 INCH WIDTHS
6/14	S-3 SHT 3	SINGLE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 30, 36, 42 AND 54 INCH WIDTHS
6/14	S-3 SHT 4	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 36, 42 AND 48 INCH WIDTHS
6/14	S-3 SHT 5	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 54, 60 AND 72 INCH WIDTHS
6/14	S-3 SHT 6	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 84 - 144 INCH WIDTHS
6/14	S-3 SHT 7	THREE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 48, 60 AND 72 INCH WIDTHS
6/14	S-3 SHT 8	THREE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 84 - 144 INCH WIDTHS
6/14	S-3 SHT 9	WARNING SIGN ASSEMBLY - SINGLE POST
6/14	S-3 SHT 10	WARNING SIGN ASSEMBLY - TWO POST
6/14	S-3 SHT 11	WARNING SIGN ASSEMBLY - THREE POST
6/14	S-3 SHT 12	MULTIPLE ROUTE MARKER ASSEMBLIES
6/14	S-3 SHT 13	SPECIAL SIGN ASSEMBLIES
6/14	S-3 SHT 14	STRINGER DETAILS FOR SQUARE TUBE POSTS
6/14	S-3 SHT 15	SQUARE TUBE SIGN POST FOUNDATION
6/14	S-3 SHT 16	SQUARE TUBE POST SLIP BASE DETAILS
6/14	S-4	W SHAPE BREAKAWAY POST FUSE PLATE AND HINGE DETAILS
6/22	S-5	W SHAPE BREAKAWAY POST DETAILS
6/22	S-6	S4x7.7 BREAKAWAY POST DETAILS
6/14	S-7 SHT 1	ALUMINUM EXTRUSION SIGN PANEL DETAILS
6/14	S-7 SHT 2	ALUMINUM EXTRUSION AUXILIARY SIGN INSTALLATION DETAILS
5/15	S-7 SHT 3	ALUMINUM EXTRUSION EXIT PANEL INSTALLATION DETAIL
6/14	S-8 SHT 1	FLAT SHEET ALUMINUM PANEL ON BREAKAWAY POSTS INSTALLATION DETAIL
6/14	S-8 SHT 2	ALUMINUM EXTRUSION SIGN TO PERFORATED POSTS INSTALLATION DETAIL
8/22	S-9 SHT 1	SIGN INSTALLATION ON POLE
8/22	S-9 SHT 2	SIGNS (BACK TO BACK) INSTALLATION ON POLE
8/22	S-9 SHT 3	SIGN INSTALLATION ON SIGNAL POLE
8/22	S-9 SHT 4	SIGN INSTALLATION ON POLE BAND-TYPE CLAMP
6/14	S-10	MILEPOST AND REFERENCE LOCATION SIGNS
11/22	S-11 SHT 1	TAPERED TUBE SIGN STRUCTURE SINGLE BEAM
4/19	S-11 SHT 2	TAPERED TUBE SIGN STRUCTURE SINGLE BEAM POST AND BEAM DETAILS

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
6/14	S-12 SHT 1	TYPE A, B, AND DOWN ARROWS
6/14	S-12 SHT 2	TYPE C AND D ARROWS
6/14	S-12 SHT 3	C2 ARROW DETAIL
6/14	S-13	SIGN IDENTIFICATION DETAILS
6/14	S-14 SHT 1	ROTATING OPEN/CLOSED SIGN
6/14	S-14 SHT 2	ROTATING OPEN/CLOSED SIGN DETAILS
6/14	S-14 SHT 3	ROTATING OPEN/CLOSED SIGN MOUNTING DETAILS
6/14	S-15 SHT 1	FOLDING RECTANGULAR SIGN ASSEMBLY
6/14	S-15 SHT 2	FOLDING RECTANGULAR SIGN OPERATION
6/14	S-15 SHT 3	FOLDING DIAMOND SIGN ASSEMBLY
4/19	S-16 SHT 1	TEMPORARY WOOD POSTS
4/19	S-16 SHT 2	TEMPORARY WOOD POSTS SELECTION CHART
6/14	S-17	END OF ROAD BARRICADE
7/19	S-18 SHT 1	ALUMINUM GRAFFITI SHIELD EXIT AND GUIDE SIGN ASSEMBLY
7/19	S-18 SHT 2	ALUMINUM GRAFFITI SHIELD RIGHT RIDER SIDE PANEL
7/19	S-18 SHT 3	ALUMINUM GRAFFITI SHIELD LEFT RIDER SIDE PANEL
7/19	S-18 SHT 4	ALUMINUM GRAFFITI SHIELD CORNER
7/19	S-18 SHT 5	ALUMINUM GRAFFITI SHIELD SPLICE PLATE
7/19	S-18 SHT 6	ALUMINUM GRAFFITI SHIELD FIN
7/19	S-18 SHT 7	ALUMINUM GRAFFITI SHIELD TOP PANEL
7/19	S-18 SHT 8	ALUMINUM GRAFFITI SHIELD SIDE PANEL
7/19	S-18 SHT 9	ALUMINUM GRAFFITI SHIELD RIGHT TRANSITION FROM RIDER
7/19	S-18 SHT 10	ALUMINUM GRAFFITI SHIELD LEFT TRANSITION FROM RIDER
7/19	S-18 SHT 11	ALUMINUM GRAFFITI SHIELD SPLICE PLATE FOR FIN
12/18	C-1	SAND BARREL CRASH CUSHION
12/18	C-2	SAND BARREL CRASH CUSHION TYPICAL INSTALLATION
6/14	C-3 SHT 1	PRECAST CONCRETE BARRIER STRUCTURAL DETAILS
6/14	C-3 SHT 2	PRECAST CONCRETE BARRIER PIN AND LOOP ASSEMBLY
6/14	C-4 SHT 1	MEDIAN CROSSOVER
6/14	C-4 SHT 2	TYPICAL END TREATMENTS FOR DETOURS USING TEMPORARY CONCRETE BARRIER (TCB)
6/14	C-5 SHT 1	APPROACH PLATE AND TRANSITION SECTION FOR TEMPORARY CONCRETE BARRIER
6/14	C-5 SHT 2	APPROACH PLATE AND TRANSITION SECTION FOR TEMPORARY CONCRETE BARRIER

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
SIGNING & MARKING STANDARDS		NAME JESSICA FLY	DATE 06/26
PROJECT NO. T0411 01C		1B-2	OF 99
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ADOT STANDARD DRAWINGS

TRAFFIC SIGNAL AND LIGHTING STANDARDS
(SHEET 1 OF 2)
EFFECTIVE NOVEMBER 2024

REVISION
DATE

STANDARD
NUMBER

SUBJECT :
TRAFFIC SIGNALS AND LIGHTING DETAILS

T.S. 0			ABBREVIATIONS, SYMBOLS AND DEFINITIONS		
05/15	0-1		STANDARD ABBREVIATIONS		
01/12	0-2	SHT 1	PLAN SYMBOLS		
01/12	0-2	SHT 2	PLAN SYMBOLS		
01/12	0-2	SHT 3	PLAN SYMBOLS		
03/10	0-3	SHT 1	STANDARD DEFINITIONS		
03/10	0-3	SHT 2	STANDARD DEFINITIONS		
11/22	0-4		REFERENCE DOCUMENTS AND GENERAL REQUIREMENTS		
T.S. 1			PULL BOXES		
09/11	1-1	SHT 1	LIGHT DUTY - LIGHT WEIGHT NO. 5 AND NO. 7 PULL BOX		
09/11	1-1	SHT 2	LIGHT DUTY - LIGHT WEIGHT NO. 5 AND NO. 7 SLOPE WALL BODY PULL BOX DETAILS		
03/15	1-2		HEAVY DUTY NO. 5 AND NO. 7 STRAIGHT BODY WALL PULL BOX DETAILS		
09/11	1-3		REPLACEMENT LID SIZING FOR EXISTING NO. 5 AND NO. 7 PULL BOXES		
09/11	1-4	SHT 1	TYPICAL PULL BOX INSTALLATION AND WIRING DETAILS		
09/11	1-4	SHT 2	TYPICAL PULL BOX INSTALLATION AND WIRING DETAILS		
09/11	1-4	SHT 3	TYPICAL PULL BOX INSTALLATION DETAILS		
09/11	1-5	SHT 1	ELECTRICAL CONDUIT COVER AND TRENCH REQUIREMENTS		
09/11	1-5	SHT 2	CONDUIT EXPANSION COUPLINGS		
09/11	1-6		CONDUCTOR REQUIREMENTS		
03/10	1-7		TRAFFIC SIGNAL IMSA CABLE COLOR CODES		
09/11	1-8	SHT 1	FRONT OF BARRIER JUNCTION BOX		
09/11	1-8	SHT 2	BACK OF BARRIER JUNCTION BOX		
09/11	1-9		TOP OF BARRIER JUNCTION BOX DETAILS		
09/11	1-10		TOP OF BARRIER JUNCTION BOX DETAILS		
10/13	1-11	SHT 1	HEAVY DUTY LIGHTING NO. 4 AND NO. 6 PULL BOX		
10/13	1-11	SHT 2	HEAVY DUTY LIGHTING NO. 4 AND NO. 6 PULL BOX		
03/15	1-11	SHT 3	HEAVY DUTY LIGHTING NO. 4 AND NO. 6 PULL BOX LID		
03/15	1-12	SHT 1	PRECAST HEAVY DUTY LIGHTING NO. 4B AND NO. 6B PULL BOX		
03/15	1-12	SHT 2	PRECAST HEAVY DUTY LIGHTING NO. 4B AND NO. 6B PULL BOX		
T.S. 2			FOUNDATIONS		
03/10	2-1		FOUNDATION FOR TYPE II LOAD CENTER CABINET		
03/10	2-2		FOUNDATION FOR TYPE IV LOAD CENTER CABINET		
03/10	2-3		FOUNDATION FOR TYPE III CONTROL CABINET		
03/10	2-4		FOUNDATION FOR TYPE IV AND V CONTROL CABINETS		
03/10	2-5		FOUNDATION FOR TYPE 340 CONTROL CABINET		
03/10	2-6		METER PEDESTAL CABINET FOUNDATION AND BASE		
03/15	2-7		TRAFFIC SIGNAL UPS CABINET FOUNDATION DETAIL		
T.S. 3			CABINETS		
12/12	3-0		NOTES FOR TYPE II AND IV LOAD CENTER CABINETS		
03/10	3-1		TYPE II LOAD CENTER CABINET		
03/10	3-2		TYPE IV LOAD CENTER CABINET		
03/10	3-3		TYPE II OR IV LOAD CENTER CABINET WIRING DETAILS 240/480 3W W/DISCONNECT		
03/10	3-4	SHT 1	PHOTO ELECTRIC CELL MOUNTING DETAILS		
03/10	3-4	SHT 2	PHOTO ELECTRIC CELL MOUNTING DETAILS		
03/10	3-5	SHT 1	TYPE I AND II METER PEDESTAL CABINET		
12/12	3-5	SHT 2	METER PEDESTAL CABINET		
03/10	3-6		TYPE III CONTROL CABINET		
03/10	3-7		POLE MOUNTED TYPE III CONTROL CABINET		
03/10	3-8	SHT 1	POLE MOUNT DETAILS FOR TYPE III CONTROL CABINET		
03/10	3-8	SHT 2	POLE MOUNT DETAILS FOR TYPE III CONTROL CABINET		
03/10	3-9	SHT 1	TYPE IV AND V CONTROL CABINET NOTES		
03/10	3-9	SHT 2	TYPE IV CONTROL CABINET		
03/10	3-9	SHT 3	TYPE V CONTROL CABINET		
03/10	3-10		CABINET EXTENSION OR ELEVATOR BASE		
03/10	3-11		CONTROL CABINET MOUNTED SERVICE ENCLOSURE		
03/10	3-12	SHT 1	120/240 OR 240/480 VOLT, SINGLE PHASE UTILITY PULL SECTION AND SERVICE DISCONNECT DETAILS		
03/10	3-12	SHT 2	120/240 OR 240/480 VOLT, SINGLE PHASE UTILITY PULL SECTION AND SERVICE DISCONNECT DETAILS		
03/10	3-13	SHT 1	TRAFFIC SIGNALS AND LIGHTING MODEL 345 CABINET DETAILS		
03/10	3-13	SHT 2	TRAFFIC SIGNALS AND LIGHTING MODEL 345 CABINET DETAILS		
03/10	3-13	SHT 3	TRAFFIC SIGNALS AND LIGHTING MODEL 345 CABINET CAGE DETAILS		

REVISION
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SUBJECT :
TRAFFIC SIGNALS AND LIGHTING DETAILS

T-SL. 4			POLES AND POSTS		
11/22	4.01		TYPE A POLE		
11/22	4.02		TYPE S POLE		
11/22	4.03		TYPE T POLE		
11/22	4.04		TYPE S AND TYPE T STEEL TWIN LUMINAIRE MOUNTING BRACKET AND EXTENSIONS		
11/22	4.05		ALUMINUM TYPE S POLE		
11/22	4.06		ALUMINUM TYPE T POLE		
11/22	4.07		TYPE G POLE		
11/22	4.08		ALUMINUM TYPE G POLE		
11/22	4.09		ALUMINUM TYPE H POLE		
11/22	4.10		ALUMINUM TYPE I POLE		
11/22	4.11		GENERAL NOTES FOR TRAFFIC SIGNALS AND LIGHTING POLES WITH MAXIMUM LOADING CASE		
04/19	4.12		TYPE J POLES (25-J, 30-J, 35-J, AND 40-J) WITH 25 FT TO 40 FT MAST ARM SPAN LENGTH		
04/19	4.13		TYPE Q POLES (25-QL, 30-QL, 35-QL, AND 40-QL) WITH 25 FT TO 40 FT MAST ARM SPAN LENGTH WITH LUMINAIRES		
04/19	4.14		TYPE K POLES (45-K, 50-K, AND 55-K) WITH 45 FT TO 55 FT MAST ARM SPAN LENGTH		
			TYPE R POLES (45-RL, 50-RL, AND 55-RL) WITH 45 FT TO 55 FT MAST ARM SPAN LENGTH WITH LUMINAIRES		
11/22	4.16		TYPE V POLES (60-V AND 65-V) WITH 60 FT TO 65 FT MAST ARM SPAN LENGTH		
			TYPE W POLES (60-WL AND 65-WL) WITH 60 FT TO 65 FT MAST ARM SPAN LENGTH WITH LUMINAIRES		
11/22	4.18		POLE HAND HOLE DETAILS		
11/22	4.19		TYPE U POLE (ELLIPTICAL BASE) DETAILS		
11/22	4.20		TYPE U POLE (ROUND POLE WITH SQUARE BASE) NOTES		
04/19	4.21		TYPE U POLE (ROUND POLE WITH SQUARE BASE) FOUNDATION DETAILS		
04/19	4.22		TYPE U POLE (ROUND POLE WITH SQUARE BASE) DEATILS 1		
04/19	4.23		TYPE U POLE (ROUND POLE WITH SQUARE BASE) DEATILS 2		
04/19	4.24		TYPE U POLE (ROUND POLE WITH SQUARE BASE) PIPE TENON DETAILS		
04/19	4.25		TYPE U POLE (ROUND POLE WITH SQUARE BASE) TWIN LUMINAIRE BRACKET DETAILS		
04/19	4.26		EQUIPMENT MOUNTING HEIGHT DETAILS		
04/19	4.27		PEDESTRIAN PUSH BUTTON POST "TYPE PB POLE"		
11/22	4.28		POLE FOUNDATION ANCHOR BOLTS		
04/19	4.29		STEEL MAST ARM DETAILS LUMINAIRE AND SIGNAL ARMS TO 20'		
04/19	4.30		ALUMINUM TRUSS MAST ARM DETAILS FOR TYPE G, H, AND I POLES		
04/19	4.31		SIGNAL MAST ARM TENON DETAIL		
04/19	4.32		TYPICAL HIGHWAY LIGHTING OFFSETS IN CUT AND FILL SECTIONS		
11/22	4.33		STEEL ADAPTER PLATE FOR 30 FT ALUMINUM TYPE "G" OR TYPE "S" LIGHT POLES		
T.S. 5			POLE BASES - SPECIAL		
11/24	5-0		TYPE 2 AND 3 CAST ALUMINUM BREAK-AWAY BASES		
04/19	5-1		TYPE 2 CAST ALUMINUM BREAK-AWAY BASE		
04/19	5-2		TYPE 3 CAST ALUMINUM BREAK-AWAY BASE		
05/21	5-3		INSTALLATION DETAILS FOR POLE FOUNDATIONS WITH TYPE 2 AND 3 BREAK-AWAY BASES		
T.S. 6			HIGHWAY TRAFFIC DATA DETECTORS		
03/10	6-1		TYPE C VEHICLE DETECTOR LOOPS FOR TRAFFIC COUNTERS		
			TYPE SA AND SB SPEED/VEHICLE CLASSIFICATION SYSTEMS		
03/10	6-2	SHT 1	TYPE SA SPEED/VEHICLE CLASSIFICATION SYSTEMS		
03/10	6-2	SHT 2	TYPE SA SPEED/VEHICLE CLASSIFICATION SYSTEMS		
03/10	6-2	SHT 3	TYPE SB SPEED/VEHICLE CLASSIFICATION SYSTEMS		
12/12	6-3		PIEZOELECTRIC WEIGHT SENSOR AND LOOP LANE LAYOUT		
12/12	6-4	SHT 1	DETECTOR LOOPS AND PIEZOELECTRIC SENSOR DETAILS		
12/12	6-4	SHT 2	DETECTOR LOOPS AND PIEZOELECTRIC SENSOR DETAILS		
03/15	6-4	SHT 3	DETAIL A PIEZOELECTRIC SENSOR DETAILS		
12/12	6-4	SHT 4	DETAIL B DETECTOR LOOP DETAILS		
12/12	6-4	SHT 5	DETECTOR LOOPS AND PIEZOELECTRIC SENSOR DETAILS		
03/10	6-5		MICROLOOPS FOR SPEED/VEHICLE CLASSIFICATION		
03/10	6-6		QUARTZ PIEZOELECTRIC WEIGHT SENSOR AND LOOP LANE LAYOUT		
03/10	6-7		TRAFFIC DATA COLLECTION CABINET INSTALLATION DETAILS		
03/10	6-8		TYPE MPD CABINET POLE, BASE AND FOUNDATION INSTALLATION DETAILS		

ADOT STANDARD DRAWINGS			
REVISION DATES and STANDARD NO.'s REVIEW			
TRAFFIC SIGNAL & LIGHTING STANDARDS		NAME	DATE
PROJECT NO.		JESSICA FLY	06/26
T0411 01C		1C-1	OF 99
RECORD DRAWING DATA	FEDERAL ID NO. APJ-0(222)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS
TRAFFIC SIGNAL AND LIGHTING STANDARDS
(SHEET 2 OF 2)
EFFECTIVE NOVEMBER 2024

REVISION DATE	STANDARD NUMBER	SUBJECT : TRAFFIC SIGNALS AND LIGHTING DETAILS
	T.S. 7	TRAFFIC SIGNAL DETECTORS
03/10	7-1 SHT 1	LOOP DETECTOR LOCATION SAWCUT PATTERNS AND INSTALLATION DETAILS
03/10	7-1 SHT 2	SAW CUT AND CORING DETAILS
03/15	7-1 SHT 3	SAW CUT AND CORING DETAILS
03/10	7-1 SHT 4	TYPICAL DETECTOR LOOP LEAD-IN ROAD TO PULL BOX DETAIL
03/10	7-1 SHT 5	LOOP DETECTOR LOCATION AND INSTALLATION DETAILS
03/10	7-2	PRE-FORMED LOOP DETECTORS FOR RAMP METERING AND COUNTING
03/10	7-3	PRE-FORMED LOOP DETECTORS IN BRIDGE DECK
03/10	7-4	PRE-FORMED LOOP DETECTORS IN PCCP
03/10	7-5	TYPICAL PRE-FORMED LOOP DETECTOR STUB-OUT DETAIL
	T.S. 8	SIGNAL ASSEMBLIES
12/23	8-0	TRAFFIC SIGNAL VEHICLE FACE ASSEMBLY REQUIREMENTS AND DETAILS
12/23	8-1	VEHICLE TRAFFIC SIGNAL FACE ASSEMBLY
12/23	8-2	VEHICLE TRAFFIC SIGNAL FACE ASSEMBLY
10/13	8-4 SHT 1	12-INCH VEHICLE TRAFFIC SIGNAL HOUSING/SECTION
01/12	8-4 SHT 2	12-INCH VEHICLE TRAFFIC SIGNAL HOUSING/SECTION NOTES
01/12	8-4 SHT 3	VEHICLE TRAFFIC SIGNAL HOUSING/SECTION DETAILS
03/10	8-4 SHT 4	VISORS FOR 8-INCH AND 12-INCH VEHICLE TRAFFIC SIGNAL FACE ASSEMBLIES
01/12	8-5	FLASHING BEACON SIGNAL FACE ASSEMBLY
01/12	8-6	LED LAMP FOR PROGRAMMED VISIBILITY SIGNAL
01/12	8-7 SHT 1	PEDESTRIAN SIGNAL ASSEMBLY REQUIREMENTS AND DETAILS
01/12	8-7 SHT 2	PEDESTRIAN SIGNAL ASSEMBLY HOUSING
01/12	8-7 SHT 3	PEDESTRIAN SIGNAL ASSEMBLY VISOR
	T.S. 9	MOUNTING ASSEMBLIES - SIGNAL
03/10	9-0 SHT 1	MOUNTING ASSEMBLY GENERAL REQUIREMENTS
03/10	9-0 SHT 2	MOUNTING ASSEMBLY GENERAL REQUIREMENTS
03/10	9-1	TYPE I AND II MOUNTING ASSEMBLIES
03/10	9-2	TYPE III AND IV MOUNTING ASSEMBLIES
10/13	9-3	TYPE V MOUNTING ASSEMBLY
03/10	9-4	TYPE VI MOUNTING ASSEMBLY
03/10	9-5	TYPE VII MOUNTING ASSEMBLY
03/10	9-6	TYPE VIII MOUNTING ASSEMBLY
03/10	9-7	TYPE IX MOUNTING ASSEMBLY
03/10	9-8	TYPE X MOUNTING ASSEMBLY
03/10	9-9	TYPE XI MOUNTING ASSEMBLY
	T.S. 10	MOUNTING CASTINGS - SIGNAL
03/10	10-1	MISCELLANEOUS SIGNAL MOUNTING PARTS
03/10	10-2	MAST ARM SIGNAL MOUNTING PLUMBIZER
03/10	10-3	SIGNAL MOUNTING POLE PLATE DETAILS
03/10	10-4	TERMINAL COMPARTMENT, SIDE MOUNTED AND POLE TOP MOUNTED
	T.S. 11	PEDESTRIAN DETAILS
03/15	11-1	TYPE I PEDESTRIAN PUSH BUTTON HOUSING ASSEMBLY
03/15	11-2	CAN STYLE PEDESTRIAN PUSH BUTTON
	T.S. 12	FLASHERS
03/10	12-1 SHT 1	ADVANCE WARNING FLASHER POLE DETAIL
03/10	12-1 SHT 2	ADVANCE WARNING FLASHER POLE SIGN MOUNTING DETAILS
03/10	12-1 SHT 3	ADVANCE WARNING FLASHER POLE DETAIL
	T.S. 13	ILLUMINATION - SIGNS
03/10	13-1	SIGN LIGHTING DETAIL FOR TUBULAR SIGN STRUCTURES
03/10	13-2	FUSE PANEL DETAILS FOR SIGN LIGHTING
03/15	13-3	PLACEMENT OF LIGHTING FIXTURES FOR OVERHEAD SIGNS
	T.S. 14	ILLUMINATION - SPECIAL
03/10	14-1 SHT 1	HIGH PRESSURE SODIUM (HPS) LAMPS
03/10	14-1 SHT 2	HIGH PRESSURE SODIUM (HPS) LAMPS
03/10	14-1 SHT 3	HIGH PRESSURE SODIUM (HPS) LAMPS
03/10	14-2	PEDESTRIAN BRIDGE LIGHTING DETAILS

REVISION DATE	STANDARD NUMBER	SUBJECT : TRAFFIC SIGNALS AND LIGHTING DETAILS
	T.S 15	SPAN WIRE SIGNALS AND LIGHTING
		GENERAL NOTES
04/19	15-0 SHT 1	GENERAL NOTES
04/19	15-0 SHT 2	GENERAL NOTES
04/19	15-0 SHT 3	GENERAL NOTES
04/19	15-1 SHT 1	STEEL POLE TYPICAL DETAILS
04/19	15-1 SHT 2	STEEL POLE FOUNDATION DETAILS
04/19	15-1 SHT 3	STEEL POLE ATTACHMENT DETAILS
04/19	15-1 SHT 4	WOOD POLE TYPICAL DETAILS
04/19	15-1 SHT 5	WOOD POLE TYPICAL DETAILS
04/19	15-1 SHT 6	TYPICAL DETAILS
01/12	15-2	HANGER AND BALANCE ADJUSTER TYPICAL DETAILS
01/12	15-3 SHT 1	SIGNAL ASSEMBLY DETAILS
01/12	15-3 SHT 2	CONDUCTOR ENTRANCE HEADS TYPE A, B AND C
01/12	15-3 SHT 3	ALUMINUM PIPE EXTENSION AND TYPICAL DETAILS
01/12	15-4 SHT 1	ADJUSTABLE SIGN HANGER TYPICAL DETAILS
01/12	15-4 SHT 2	ADJUSTABLE SIGN HANGER TYPICAL DETAILS
01/12	15-4 SHT 3	ADJUSTABLE SIGN HANGER TYPICAL DETAILS
01/12	15-5	ADJUSTABLE HANGER TOP AND EXTENSION DETAILS
01/12	15-6	SIGNAL TETHER CLAMP TYPICAL DETAILS
01/12	15-7	POLE BAND TYPICAL DETAILS
01/12	15-8	WEATHERHEAD TYPICAL DETAILS

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
TRAFFIC SIGNAL AND LIGHTING STANDARDS		NAME JESSICA FLY	DATE 06/26
PROJECT NO. T0411 01C		1C-2	OF 99
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ADOT STANDARD DRAWINGS

STRUCTURE DETAIL DRAWINGS
EFFECTIVE NOVEMBER 2024

DATE	STANDARD	SUBJECT TITLE
RAILINGS		
09/24	SD 1.10 (1 OF 2)	38" SINGLE SLOPE BRIDGE BARRIER AND TRANSITION
09/24	SD 1.10 (2 OF 2)	38" SINGLE SLOPE BRIDGE BARRIER AND TRANSITION
10/24	SD 1.11 (1 OF 1)	42" SINGLE SLOPE BRIDGE BARRIER AND TRANSITION
10/24	SD 1.11 (2 OF 2)	42" SINGLE SLOPE BRIDGE BARRIER AND TRANSITION
06/23	SD 1.12	COMBINATION PEDESTIAN-TRAFFIC BRIDGE RAILING
01/20	SD 1.13	PEDESTRIAN FENCE FOR BRIDGE RAILING SD1.12
01/20	SD 1.20	32' TYPE F ROADWAY BARRIER TRANSITION TO 38' SINGLE SLOPE BARRIER
01/20	SD 1.21	32' TYPE F ROADWAY BARRIER TRANSITION TO 42' SINGLE SLOPE BARRIER
01/20	SD 1.22	42' TYPE F ROADWAY BARRIER TRANSITION TO 42' SINGLE SLOPE BARRIER
01/20	SD 1.30	BARRIER JUNCTION BOX
APPROACHES		
08/23	SD 2.01	APPROACH SLAB DETAILS
08/23	SD 2.02	TYPE 1 ANCHOR SLAB DETAILS
08/23	SD 2.03	TYPE 2 ANCHOR SLAB DETAILS
08/23	SD 2.04	SLOPE PAVING DETAILS
DECK JOINTS		
02/20	SD 3.01	DECK JOINT ASSEMBLY - COMPRESSION SEAL
02/20	SD 3.02	DECK JOINT ASSEMBLY - STRIP SEAL
02/20	SD 3.03 (1 OF 2)	DECK JOINT ASSEMBLY - FLANGELESS STRIP SEAL
02/20	SD 3.03 (2 OF 2)	DECK JOINT ASSEMBLY - FLANGELESS STRIP SEAL
SUBSTRUCTURE		
11/12	SD 5.01	STRUCTURAL EXCAVATION - PAYMENT LIMITS
11/12	SD 5.02	STRUCTURE BACKFILL - PAYMENT LIMITS
DRAINAGE STRUCTURES		
05/15	SD 6.01 (1 OF 5)	REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS
02/12	SD 6.01 (2 OF 5)	REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS
02/12	SD 6.01 (3 OF 5)	REINFORCED CONCRETE BOX CULVERTS - EXTENSION DETAILS
02/12	SD 6.01 (4 OF 5)	REINFORCED CONCRETE BOX CULVERTS - STRUCTURAL EXCAVATION & STRUCTURE BACKFILL
05/15	SD 6.01 (5 OF 5)	REINFORCED CONCRETE BOX CULVERTS - SINGLE BARREL (0'-30' FILLS)
05/15	SD 6.02 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - DOUBLE BARREL (0'-15' FILLS)
05/15	SD 6.02 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - DOUBLE BARREL (15'-30' FILLS)
05/15	SD 6.03 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - TRIPLE BARREL (0'-15' FILLS)
05/15	SD 6.03 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - TRIPLE BARREL (15'-30' FILLS)
05/15	SD 6.04 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FOUR BARREL (0'-15' FILLS)
05/15	SD 6.04 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FOUR BARREL (15'-30' FILLS)
05/15	SD 6.05 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FIVE BARREL (0'-15' FILLS)
05/15	SD 6.05 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FIVE BARREL (15'-30' FILLS)
05/15	SD 6.06 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - SIX BARREL (0'-15' FILLS)
05/15	SD 6.06 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - SIX BARREL (15'-30' FILLS)
02/12	SD 6.07	REINFORCED CONCRETE BOX CULVERTS - 16'x 14' EQUIPMENT PASS (0'-20' FILLS)
05/15	SD 6.08 (1 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 0°to 20° - CULVERT HEIGHT 3'to 7'
02/12	SD 6.08 (2 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 0°to 20° - CULVERT HEIGHT 8'to 12'
05/15	SD 6.08 (3 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 0°to 20° - CULVERT HEIGHT 3'to 7'
02/12	SD 6.08 (4 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 0°to 20° - CULVERT HEIGHT 8'to 12'
05/15	SD 6.08 (5 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 25°to 45° - CULVERT HEIGHT 3'to 7'
02/12	SD 6.08 (6 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 25°to 45° - CULVERT HEIGHT 8'to 12'
05/15	SD 6.08 (7 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 25°to 45° - CULVERT HEIGHT 3'to 7'
02/12	SD 6.08 (8 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 25°to 45° - CULVERT HEIGHT 8'to 12'
05/15	SD 6.09 (1 OF 3)	REINFORCED CONCRETE BOX CULVERTS - HEADWALL QUANTITIES - 2 :1 SLOPE
05/15	SD 6.09 (2 OF 3)	REINFORCED CONCRETE BOX CULVERTS - HEADWALL QUANTITIES - 4 :1 SLOPE
05/15	SD 6.09 (3 OF 3)	REINFORCED CONCRETE BOX CULVERTS - HEADWALL QUANTITIES - 6 :1 SLOPE
05/15	SD 6.10 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - INLET OR OUTLET - LEVEL WINGS - CULVERT HEIGHT 3'to 7'
02/12	SD 6.10 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - INLET OR OUTLET - LEVEL WINGS - CULVERT HEIGHT 8'to 12'
02/12	SD 6.11 (1 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON DETAILS
05/15	SD 6.11 (2 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON - DIMENSIONS & QUANTITIES (2 :1 SLOPE)
05/15	SD 6.11 (3 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON - DIMENSIONS & QUANTITIES (4 :1 SLOPE)
05/15	SD 6.11 (4 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON - DIMENSIONS & QUANTITIES (6 :1 SLOPE)
10/24	SD 6.20 (1 OF 5)	PRECAST REINFORCED CONCRETE BOX CULVERTS - SINGLE BARREL NOTES & DIMENSIONS
10/24	SD 6.20 (2 OF 5)	PRECAST REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS 1
10/24	SD 6.20 (3 OF 5)	PRECAST REINFORCED CONCRETE BOX CULVERTS - END SECTION & CONNECTION DETAILS
10/24	SD 6.20 (4 OF 5)	PRECAST REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS 2
10/24	SD 6.20 (5 OF 5)	PRECAST REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS 3
07/12	SD 6.30 (1 OF 5)	PIPE CULVERT HEADWALLS - MISCELLANEOUS DETAILS
07/12	SD 6.30 (2 OF 5)	PIPE CULVERT HEADWALLS - INLET AND OUTLET - 18" to 42" PIPES
07/12	SD 6.30 (3 OF 5)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET AND OUTLET - 48" to 84" PIPES
07/12	SD 6.30 (4 OF 5)	PIPE CULVERT HEADWALLS - SKEWED INLET AND OUTLET - 48" to 84" PIPES
07/12	SD 6.30 (5 OF 5)	PIPE CULVERT HEADWALLS - MULTI-PIPE - 48" to 84" PIPES
07/12	SD 6.31 (1 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET
07/12	SD 6.31 (2 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET - 2 :1 SLOPE
07/12	SD 6.31 (3 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET - 4 :1 SLOPE
07/12	SD 6.31 (4 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET - 6 :1 SLOPE
07/12	SD 6.31 (5 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET
07/12	SD 6.31 (6 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET - 2 :1 SLOPE
07/12	SD 6.31 (7 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET - 4 :1 SLOPE
07/12	SD 6.31 (8 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET - 6 :1 SLOPE
07/12	SD 6.32 (1 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET
07/12	SD 6.32 (2 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET - 2 :1 SLOPE
07/12	SD 6.32 (3 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET - 4 :1 SLOPE
07/12	SD 6.32 (4 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET - 6 :1 SLOPE
07/12	SD 6.32 (5 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET
07/12	SD 6.32 (6 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET - 2 :1 SLOPE
07/12	SD 6.32 (7 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET - 4 :1 SLOPE
07/12	SD 6.32 (8 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET - 6 :1 SLOPE

DATE	STANDARD	SUBJECT TITLE
DRAINAGE STRUCTURES (Continued)		
07/12	SD 6.33 (1 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET
07/12	SD 6.33 (2 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET - 2 :1 SLOPE
07/12	SD 6.33 (3 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET - 4 :1 SLOPE
07/12	SD 6.33 (4 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET - 6 :1 SLOPE
07/12	SD 6.33 (5 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET
07/12	SD 6.33 (6 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET - 2 :1 SLOPE
07/12	SD 6.33 (7 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET - 4 :1 SLOPE
07/12	SD 6.33 (8 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET - 6 :1 SLOPE
07/12	SD 6.34 (1 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET
07/12	SD 6.34 (2 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET - 2 :1 SLOPE
07/12	SD 6.34 (3 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET - 4 :1 SLOPE
07/12	SD 6.34 (4 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET - 6 :1 SLOPE
07/12	SD 6.34 (5 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET
07/12	SD 6.34 (6 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET - 2 :1 SLOPE
07/12	SD 6.34 (7 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET - 4 :1 SLOPE
07/12	SD 6.34 (8 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET - 6 :1 SLOPE
07/12	SD 6.35 (1 OF 2)	PIPE CULVERT HEADWALLS - MULTI-PIPE WITHOUT APRON
07/12	SD 6.35 (2 OF 2)	PIPE CULVERT HEADWALLS - MULTI-PIPE WITH OUTLET APRON
07/12	SD 6.36 (1 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRONS
07/12	SD 6.36 (2 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRON STEEL LIST - 2 :1 SLOPE
07/12	SD 6.36 (3 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRON STEEL LIST - 4 :1 SLOPE
07/12	SD 6.36 (4 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRON STEEL LIST - 6 :1 SLOPE
RETAINING WALLS		
10/24	SD 7.01 (1 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
12/21	SD 7.01 (2 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
12/21	SD 7.01 (3 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
12/21	SD 7.01 (4 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
12/21	SD 7.01 (5 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
12/21	SD 7.02 (1 OF 2)	RETAINING WALL (MASONRY CANTILEVER)
12/21	SD 7.02 (2 OF 2)	RETAINING WALL (MASONRY CANTILEVER)
SOUND BARRIER WALLS		
06/22	SD 8.01	SOUND BARRIER WALL (CONCRETE)
06/22	SD 8.02 (1 OF 2)	SOUND BARRIER WALL (MASONRY)
06/22	SD 8.02 (2 OF 2)	SOUND BARRIER WALL (MASONRY)
TRAFFIC STRUCTURES		
04/19	SD 9.01 (1 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - ELEVATION & NOTES
03/22	SD 9.01 (2 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - FOUNDATION DETAILS
04/19	SD 9.01 (3 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - TYPE A SIGN MOUNT ASSEMBLY
04/19	SD 9.01 (4 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - TYPE B SIGN MOUNT ASSEMBLY
04/19	SD 9.01 (5 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - LIGHT SUPPORT AND MISC. DETAILS
04/19	SD 9.02 (1 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - ELEVATION & NOTES
03/22	SD 9.02 (2 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - FOUNDATION DETAILS
04/19	SD 9.02 (3 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - TYPE A SIGN MOUNT ASSEMBLY
04/19	SD 9.02 (4 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - TYPE B SIGN MOUNT ASSEMBLY
04/19	SD 9.02 (5 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - LIGHT SUPPORT AND MISC. DETAILS
04/19	SD 9.10 (1 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - GENERAL PLAN
09/23	SD 9.10 (2 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - FOUNDATION DETAILS
04/19	SD 9.10 (3 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - POST AND MAST ARM DETAILS
04/19	SD 9.10 (4 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - SIGN SUPPORT DETAILS
09/23	SD 9.10 (5 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - LIGHT SUPPORT DETAILS
04/19	SD 9.20 (1 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - GENERAL PLAN
09/23	SD 9.20 (2 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - FOUNDATION DETAILS
04/19	SD 9.20 (3 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - POST AND MAST ARM DETAILS
04/19	SD 9.20 (4 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - SIGN SUPPORT DETAILS
09/23	SD 9.20 (5 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - LIGHT SUPPORT AND MISC. DETAILS
04/19	SD 9.50 (1 OF 5)	VARIABLE MESSAGE SIGN - TUBULAR FRAME - PLAN & ELEVATION
04/19	SD 9.50 (2 OF 5)	VARIABLE MESSAGE SIGN - TUBULAR FRAME - MOUNTING DETAILS
04/19	SD 9.50 (3 OF 5)	VARIABLE MESSAGE SIGN - TUBULAR FRAME - MOUNTING & SIGN BRACKET DETAILS
04/19	SD 9.50 (4 OF 5)	VARIABLE MESSAGE SIGN - CATWALK - HANDRAIL DETAILS
04/19	SD 9.50 (5 OF 5)	VARIABLE MESSAGE SIGN - CATWALK - MISCELLANEOUS DETAILS
04/19	SD 9.51	DUAL VARIABLE MESSAGE SIGN - TUBULAR FRAME
04/19	SD 9.52 (1 OF 5)	DYNAMIC MESSAGE SIGN - TUBULAR FRAME - PLAN & ELEVATION
04/19	SD 9.52 (2 OF 5)	DYNAMIC MESSAGE SIGN - TUBULAR FRAME - MOUNTING DETAILS
04/19	SD 9.52 (3 OF 5)	DYNAMIC MESSAGE SIGN - TUBULAR FRAME - MOUNTING DETAILS
04/19	SD 9.52 (4 OF 5)	DYNAMIC MESSAGE SIGN - CATWALK - HANDRAIL DETAILS
04/19	SD 9.52 (5 OF 5)	DYNAMIC MESSAGE SIGN - CATWALK - MISCELLANEOUS DETAILS
04/19	SD 9.53 (1 OF 5)	DMS (VARIABLE TILT CABINET) - TUBULAR FRAME - PLAN & ELEVATION
04/19	SD 9.53 (2 OF 5)	DMS (VARIABLE TILT CABINET) - TUBULAR FRAME - MOUNTING DETAILS
04/19	SD 9.53 (3 OF 5)	DMS (VARIABLE TILT CABINET) - TUBULAR FRAME - MOUNTING DETAILS
04/19	SD 9.53 (4 OF 5)	DMS (VARIABLE TILT CABINET) - CATWALK - HANDRAIL DETAILS
04/19	SD 9.53 (5 OF 5)	DMS (VARIABLE TILT CABINET) - CATWALK - MISCELLANEOUS DETAILS
05/22	SD 9.60 (1 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - GENERAL PLAN AND ELEVATION
05/22	SD 9.60 (2 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - FOUNDATION DETAILS
05/22	SD 9.60 (3 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - DMS MONOTUBE ASSEMBLY
05/22	SD 9.60 (4 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - DMS MAST ARM DETAILS
05/22	SD 9.60 (5 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - MISCELLANEOUS DETAIL
05/22	SD 9.60 (6 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - CATWALK ASSEMBLY AND HANDRAIL
05/22	SD 9.60 (7 OF 7)	DYNAMIC MESSAGE SIGN (BUTTERFLY) - CATWALK DETAILS

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW				
		NAME	DATE	
STRUCTURES STANDARDS		JESSICA FLY	06/26	
PROJECT NO.			1D	OF 99
T0411 01C				
RECORD DRAWING DATA	FEDERAL ID NO. APJ-Q(222)T	REC. DWG. DATE	OF	

ADOT STANDARD DRAWINGS

ITS STANDARDS
EFFECTIVE OCTOBER 2021

REVISION DATE	STANDARD NUMBER	SUBJECT : ITS STANDARDS
July-14	FM-0.01	SYMBOLS AND ABBREVIATIONS
July-20	FM-1.01	TRENCH DETAILS, FMS TRUNKLINE
July-20	FM-1.02	TRENCH UNDER PAVEMENT, FMS TRUNKLINE
Aug-13	FM-1.03	BURIED CONDUIT AROUND OBSTRUCTION, DIRECTIONAL DRILLING
Aug-13	FM-1.04	CONDUIT REQUIREMENTS FOR DMS, RMC TO PVC CONDUIT CONNECTION, THROUGH WALL CONDUIT
Aug-13	FM-1.05	CONDUIT MOUNTING DETAILS
Aug-13	FM-1.06	CONDUIT EXPANSION, COUPLING AND JUNCTION BOX, INSTALLATION PLAN
Aug-13	FM-1.07	FMS TRUNK LINE IN BOX GIRDER BRIDGE
Aug-13	FM-1.08	FMS TRUNKLINE IN I-BEAM OR I-GIRDER BRIDGE
Aug-13	FM-2.01	PULL BOX ADJACENT TO FMS PULL BOX
Aug-13	FM-2.02	PULL BOX NO. 9 CABINET CONDUIT INTERFACE PLANS
Oct-21	FM-2.03	PULL BOX NO. 9 DETAILS
Aug-13	FM-2.04	NO. 9 PULL BOX CONDUIT ROUTING AND CABLE RACKING DETAILS
Aug-13	FM-2.05	No. 9 PULL BOX TORSION ASSIST COVER
Aug-13	FM-2.06	PULL BOX NO. 7 TYPICAL INSTALLATION
Aug-13	FM-2.07	BURIED PULL BOX NO. 7 TYPICAL INSTALLATION
Oct-21	FM-2.08	SPLIT NO. 9 PULL BOX
Aug-13	FM-3.01	RAMP METER CABINET DETAILS (SHEET 1 of 2)
Aug-13	FM-3.02	RAMP METER CABINET DETAILS (SHEET 2 of 2)
Aug-13	FM-3.03	RAMP METER CABINET SPECIAL DETAILS
Aug-13	FM-3.04	RAMP METER CABINET ACCESSORIES
Aug-13	FM-3.05	RAMP METER FIELD PANEL DETAILS
Aug-13	FM-3.06	RAMP METER FIELD PANEL CONNECTIONS
Aug-13	FM-3.07	RAMP METER SIGNAL POWER INTERRUPT RELAY AND PIN ASSIGNMENTS
Aug-13	FM-3.08	POWER DISTRIBUTION ASSEMBLY CONNECTOR AND INSTALLATION DETAILS
Aug-13	FM-3.09	POWER DISTRIBUTION ASSEMBLY #4 (PDA4) SCHEMATIC DIAGRAM
Aug-13	FM-3.10	RAMP METER CI HARNESS CONNECTIONS
Aug-13	FM-3.11	CCTV CABINET DETAILS (SHEET 1 of 2)
Aug-13	FM-3.12	CCTV CABINET DETAILS (SHEET 2 of 2)
Aug-13	FM-3.13	CABINET NUMBER DECAL DETAIL
Aug-13	FM-3.14	TRANSFORMER CABINET, EXTERNAL POWER DISCONNECT
Aug-13	FM-3.15	TRANSFORMER, 3kVA & 7.5kVA, DRY TYPE DETAILS AND WIRING DIAGRAMS
Aug-13	FM-3.16	TRANSFORMER, 10kVA & 25kVA, DRY TYPE DETAILS AND WIRING DIAGRAMS
Aug-13	FM-3.17	CLEAR ZONES, UNPROTECTED EQUIPMENT
Aug-13	FM-3.18	TYPE II LOAD CENTER
Aug-13	FM-3.19	TYPE IV LOAD CENTER FOUNDATION AND CABINET DETAIL
Aug-13	FM-3.20	TYPE IV MODIFIED LOAD CENTER
July-14	FM-3.21	RAMP METER CABINET FOUNDATION W/O TRANSFORMER
July-14	FM-3.22	RAMP METER CABINET WITH TRANSFORMER, FOUNDATION
July-14	FM-3.23	SKYLINE 336S DMS CABINET FOUNDATION DETAILS
July-14	FM-3.23A	SKYLINE 332 DMS CABINET FOUNDATION DETAILS
July-14	FM-3.24	SKYLINE 336S DMS & TRANSFORMER CABINET FOUNDATION DETAILS
July-14	FM-3.24A	SKYLINE 332 DMS & TRANSFORMER CABINET FOUNDATION DETAILS
July-14	FM-3.25	NOT USED
Aug-13	FM-3.26	TRANSFORMER CABINET FOUNDATION
Oct-17	FM-3.27	DAKTRONICS DMS CABINET FOUNDATION DETAILS
Oct-17	FM-3.28	DAKTRONICS DMS & TRANSFORMER CABINET FOUNDATION DETAILS
Aug-13	FM-3.29	DMS CABINET ADAPTER AND ELEVATOR BASE DETAILS
Aug-13	FM-4.01	CCTV CABINET BLOCK DIAGRAM
Aug-13	FM-4.02	FREEWAY MANAGEMENT SYSTEM CABINET BLOCK ETHERNET DIAGRAM
Aug-13	FM-4.03	DMS CABINET ETHERNET BLOCK DIAGRAM
Aug-13	FM-5.01	DETECTION DEFINITION
Jun-16	FM-5.02	TYPICAL DETECTOR LOOP INSTALLATION DETAILS
Aug-13	FM-5.03	TYPICAL PREFORMED DETECTOR LOOP INSTALLATION DETAILS
Aug-13	FM-5.04	DETECTOR LOOP IN AC PAVEMENT INSTALLATION LAYOUT
Aug-13	FM-5.05	DETECTOR LOOP IN PCCP PAVEMENT INSTALLATION LAYOUT
Aug-13	FM-5.06	DETECTOR LOOP TEST FORM 1
Aug-13	FM-5.07	DETECTOR LOOP TEST FORM 2 PART A
Aug-13	FM-5.08	DETECTOR LOOP TEST FORM 2 PART B
Apr-19	FM-6.01	RAMP METER DETAILS
Apr-19	FM-6.02	SINGLE-LANE RAMP METER
Apr-19	FM-6.03	SINGLE-LANE RAMP METER WITH FRONTAGE ROAD
Apr-19	FM-6.04	TWO-LANE RAMP METER
Apr-19	FM-6.05	TWO-LANE RAMP METER WITH FRONTAGE ROAD
Apr-19	FM-6.06	RAMP METER WITH OBSTRUCTION INSTALLATION DETAILS
Apr-19	FM-7.01	CCTV POLE CCTV CABINET MOUNTING DETAILS AND FIELD ORIENTATION
Apr-19	FM-7.02	CCTV POLE AND MOUNTING DETAILS
Apr-19	FM-7.03	CCTV POLE MOUNTING PLATE DETAILS

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
ITS STANDARD DRAWINGS		NAME JESSICA FLY	DATE 06/26
PROJECT NO. T0411 01C		1E	OF 99
RECORD DRAWING DATA	FEDERAL ID NO. APJ-0(222)T	REC. DWG. DATE	OF

1. SPILL PREVENTION, CONTROL, AND COUNTERMEASURES – CWA SECTION 311

If total above-ground storage capacity, including mobile re-fuelers stationed on-site, is greater than 1,320 gallons of oil (oils, greases, fuel, asphalt, and asphalt derivatives), where a spill has the potential to reach Waters of the US, the Contractor shall prepare a SPCC plan per contract specifications in Section 104.16 (C) of the Standard Specifications.

2. SURFACE WATER POLLUTION PREVENTION – CWA SECTION 402

☒ Arizona Pollutant Discharge Elimination System (AZPDES) CGP coverage applies (104SWDEQ needed)

3. WORK IN WATERS OF THE UNITED STATES – CWA SECTION 404/401

☒ No Permit Required; Refer to Section 104.16 (D) of the Standard Specifications for General Requirements

4. BIOLOGY PROGRAM – ESA SECTION 7; MBTA, ARIZONA REVISED STATUTES TITLE 17

BIO-1: Environmental Awareness, Monitoring and Avoidance ☒ N/A

BIO-2: Migratory Bird Treaty Act (MBTA) ☐ N/A

BIO-2A: General Seasonal Restrictions for MBTA, refer to seasonal dates in EPIC and general requirements in 104.16(E) of the Standard Specifications.

If construction occurs during the migratory bird breeding season: March 1 to August 31 refer to Section 104.16 BIO-2A of the Std. Spec and/or 104.16 BIO-2 of the Special Provisions for direction.

BIO-2D: MBTA – Active Cliff Swallow Nests ☒ N/A

BIO-3: Burrowing Owls ☒ N/A

BIO-4: Bats ☒ N/A

BIO-5: Sonoran Desert Tortoise ☒ No ☐ Yes

5. VEGETATION PROTECTION PROGRAM – CWA SECTION 402, EO 13122

General (applies to all projects); The contractor shall comply with the requirements specified in Section 104.16 (F) of the Special Provisions and/or Section 104.16 (B) of the Standard Specifications.

6. CULTURAL RESOURCES PROGRAM

☒ No Cultural Resources Program Action Required; See Std. Spec. 107.05 and 107.06 for General Requirements

7. HAZARDOUS MATERIALS PROGRAM

General (applies to all projects); See Std. Spec. 107.07 for General Requirements.

☐ No Hazardous Materials Program Action Required

Is Asbestos present? ☒ No ☐ Yes

Is an Asbestos Removal and Containment Plan Needed? ☒ No ☐ Yes

Refer to Section 10 of the EPIC Sheet for Asbestos Containing Material information and contact ADOT Hazardous Materials Specialist.

Is a NESHAP notice required? ☒ No ☐ Yes

If yes, coordination with the ADOT Hazardous Materials Specialist is required and the NESHAP notification shall be submitted at least ten (10) business days prior to initiation of construction activities to: Choose an item.

Is Lead-based paint present? ☐ No ☒ Yes

Is a Lead Based Paint Abatement Plan needed? ☒ No ☐ Yes

Refer to Section 10 of the EPIC Sheet for Lead Based Paint information and contact ADOT Hazardous Materials Specialist.

8. NOISE PROGRAM

☒ No Noise Program Specific Project Action Required; See Std. Spec. 104.08 for General Requirements

9. AIR QUALITY PROGRAM

☒ No Air Quality Program Action Required; See Std. Spec. 104.08 for General Requirements

10. OTHER ENVIRONMENTAL ISSUES

Project Specific Environmental Commitments: ☐ N/A

- The contractor shall not utilize any abrasive tools or methods for the removal of the fire hydrants that would disturb the lead-based paint. This includes, but is not limited to sawing, grinding, sanding, or heating. Woven straps (not linked chains) may be used for the removal of the fire hydrants.

Arizona Department of Transportation Environmental Planning Standard Template			
Environmental, Permits, Issues, And Commitments (EPIC) Sheet			
Environmental Planner Name	Morgan Ghods	R.E. Name	
Environmental Planning Date of Completion	11/8/2024	R.E. Signature With the above signature, the R.E. attests that all EPIC work for this project has been satisfactorily completed.	
FEDERAL ID NO.	APJ-0(222)T		
PROJECT NO.	0000 MA APJ T0411 01C		
REC DWG DATE:	_____ OF _____	1F OF 99	Sheet 1F of 99

INDEX OF SHEETS

Sheet No.	Drawing No.	Sheet Type
1	G-00.01	Face Sheet
1A-1B-1C-1D-1E	1A-1B-1C-1D-1E	ADOT Standard Drawings
1F	1F	Epic Sheet
2	G-01.01	Design Data Sheet
3-5	G-02.01 to G-02.03	Typical Section Sheet
6-7	G-03.01 to G-03.02	Curb and Gutter Summary Sheet
8-9	G-04.01 to G-04.02	Pipe Summary Sheet
10-16	G-05.01 to G-05.06	Detail Other Agency Standards
17-23	G-06.01 to G-06.06	Detail A to H
23	C-01.01	Survey Control Sheet
25-32	C-01.02 to C-01.09	Plan Sheet
33-40	C-02.01 to C-02.08	Profile Sheet
41-46	C-03.01 to C-03.07	Staking Sheet
47-52	D-01.01 to D-01.05	Drainage Plan
53	D-02.01 to D-02.02	Drainage Profile
54-56	D-03.01 to D-03.03	Drainage Detail
57	T-01.01	Signing Notes & Quantities
58-59	T-02.01 to T-02.02	Sign Summary
60-63	T-03.01 to T-03.04	SPM Sheet
64	T-04.01	Lighting Notes
65	T-04.02	Lighting Pole, Conduits & Conductor Schedules
66-68	T-04.03 to T-04.05	Lighting Plan Sheet
69-70	T-05.01 to T-05.02	Traffic Control Sheet
71	EC-01.01	SWPPP Index
72-74	EC-01.02 to EC-01.04	SWPPP Detail
75-85	EC-02.01 to EC-02.09	SWPPP Plan Sheet
86-96	W1-W11	Apache Junction Water District Plan Sheets
97-99	1-3	SRP Plan Sheets

GENERAL NOTES

The roadway plans have been designed utilizing the Construction Standard Drawings (C-Series), Maricopa Association of Governments Standard Details (MAG), MESA Engineering & Design Standards, and current revisions. Refer to the 1A sheet for a listing of current revision dates.

Construction will be administered by ADOT Central District.

The project roadway shall be striped by the contractor in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) and the pavement marking plans.

Pavement lift thickness is nominal.

The average project elevation is 1677 ft.

New Right of Way and easements are not required.

Where only the horizontal location of an existing utility is shown, the location is approximate. Where both the horizontal and vertical location of an existing utility is shown, the location has been verified by field survey methods, unless otherwise noted. The contractor shall comply with all current AZ811 laws and Subsection 107.15 of the Specifications.

LENGTH OF PROJECT

Tomahawk Rd Sta 86+36.02 to 105+14.50 = 1878.48
Southern Ave Sta 24+10.68 to 41+64.03 = 1753.35

Gross and Net Length = 3631.83' - 0.69 Miles

MIDPOINT OF PROJECT

East Zone
State Plane Coordinates
X=818523.339
Y=871008.989

EARTHWORK QUANTITIES

Roadway Excavation *	2,199 CY
Drainage Excavation *	609 CY
Pipe Excavation	4,149 CY
Shrink	1,044 CY
Embankment (Incl Gnd Comp)	115 CY
Trench Backfill	1,881 CY
Pipe Backfill **	724 CY
Pipe Bedding **	502 CY
Waste	3,917 CY

* Pay Item
** Not included in Earthwork Calculation

EARTHWORK FACTORS

Station	Shrink/Swell	Ground Compaction
Project Wide	15% Shrink	0.10'

Earthwork Notes:

- Existing AC pavement removal is not included in the Roadway Excavation quantity and is assumed to be disposed of off site. Existing AC pavement thickness is assumed to be 3" for this volume calculation.
- Grading for Type C driveways (Detail A) is considered included in the Roadway Excavation quantity.
- Pipe Excavation quantity in the table above does not include the thickness of the existing AC pavement section.

DESIGN DATA

Tomahawk Rd Design Speed = 45 MPH
Tomahawk Rd Posted Speed = 45 MPH

Southern Ave Design Speed = 40 MPH
Southern Ave Posted Speed = 35 MPH

REFERENCES

N/A

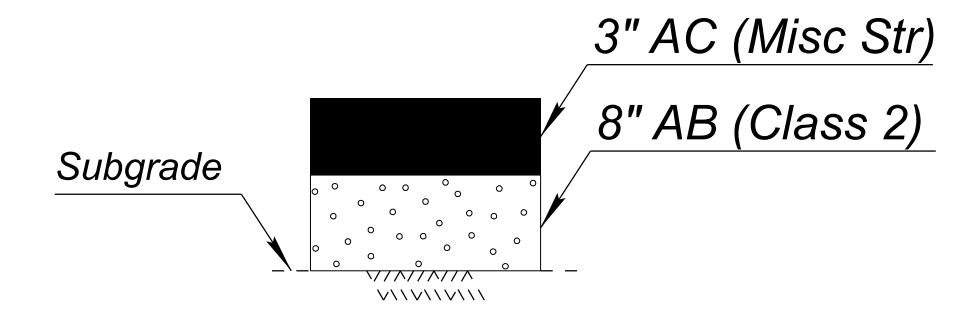
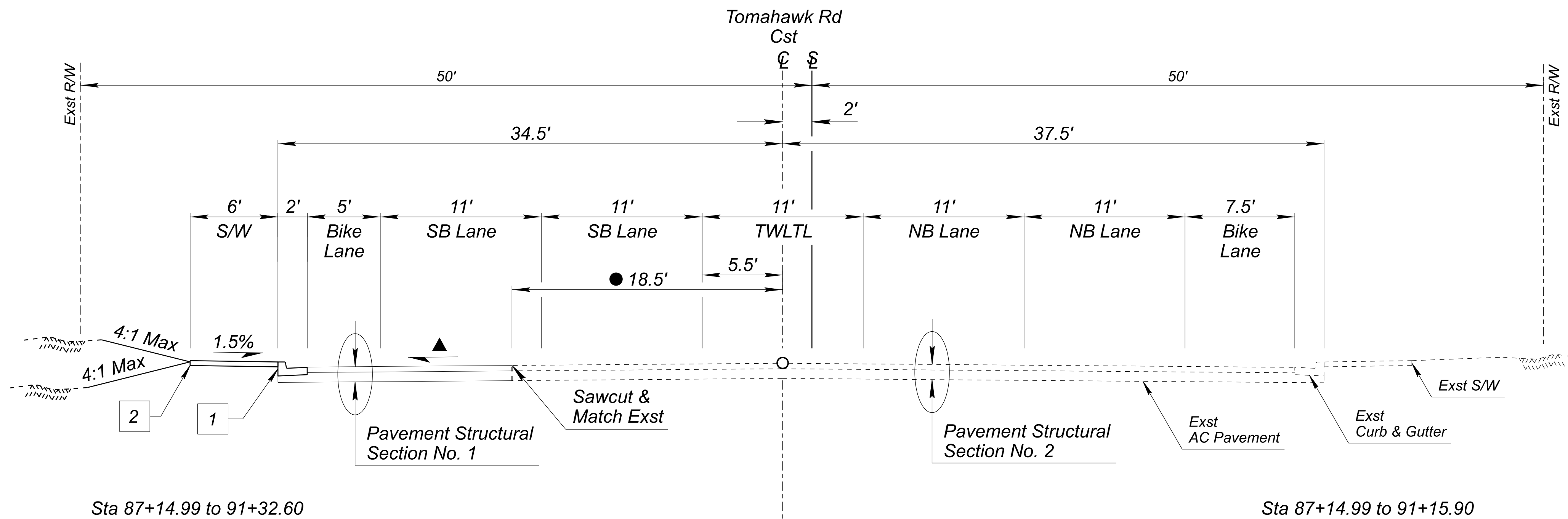


	NAME	DATE
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

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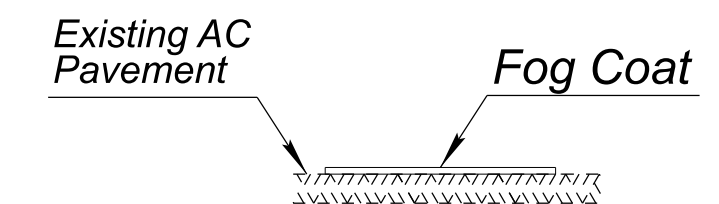
ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE
DESIGN SHEET	MILEPOST
	STRUCTURE NO.

ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
MILEPOST		ARIZ.	T0411-01C	APJ-0(222)T	2	99	
		LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. G-01.01
STRUCTURE NO.	TRACS NO. T0411-01C						____ OF ____



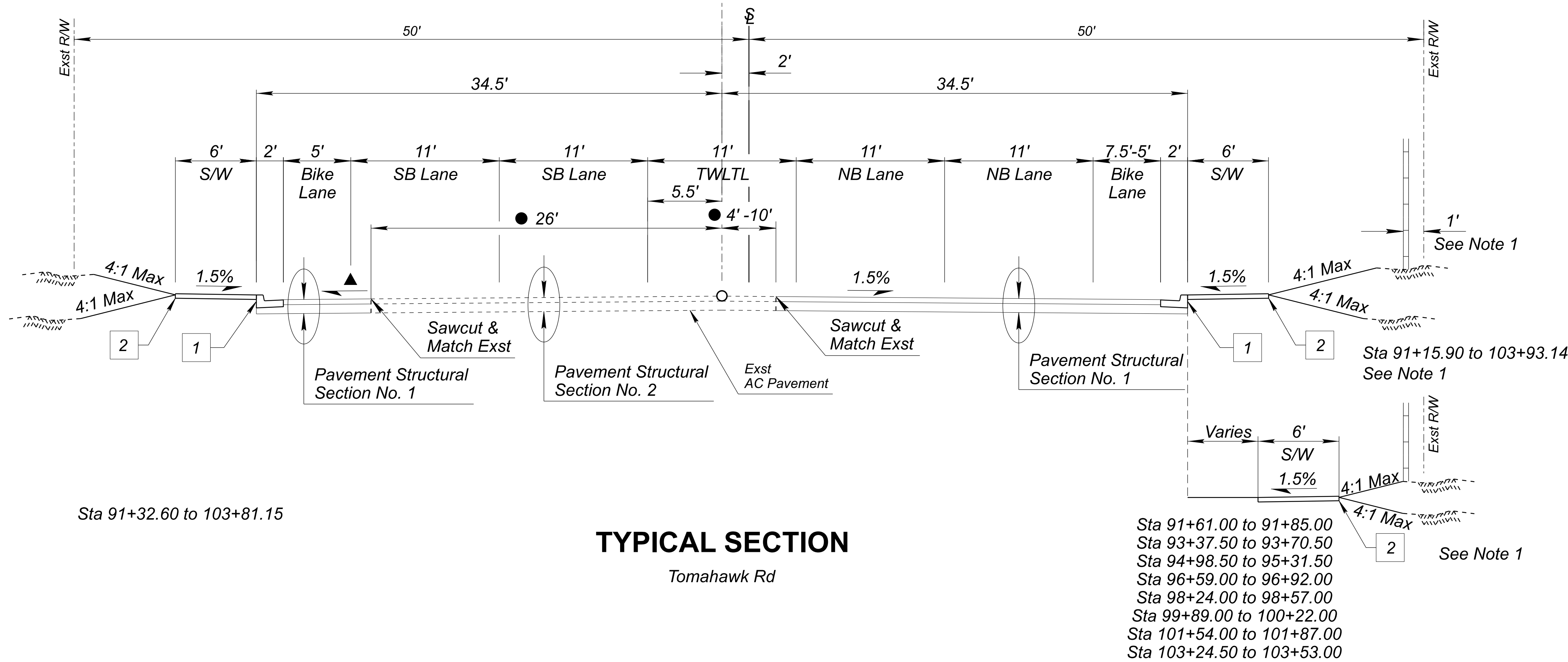
Total Thickness = 11"

SECTION NO. 1



Total Thickness = 0"

SECTION NO. 2

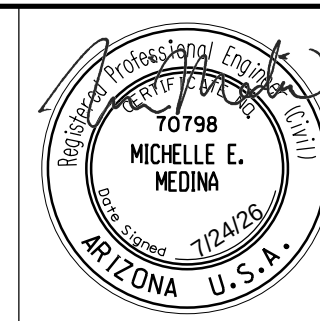


NOTES:

1. See Roadway Plan Sheets for detached sidewalk locations and meandering wall locations.
2. See Roadway Plans and Summary Sheets for removals.

- 1 Conc Curb & Gutter
See Curb & Gutter Summary for Location & Type
- 2 Conc Sidewalk
See Curb & Gutter Summary for Location & Type

- ▲ Match Exst Cross Slope
- Sawcut Varies, See Plan Sheets for Dimensions



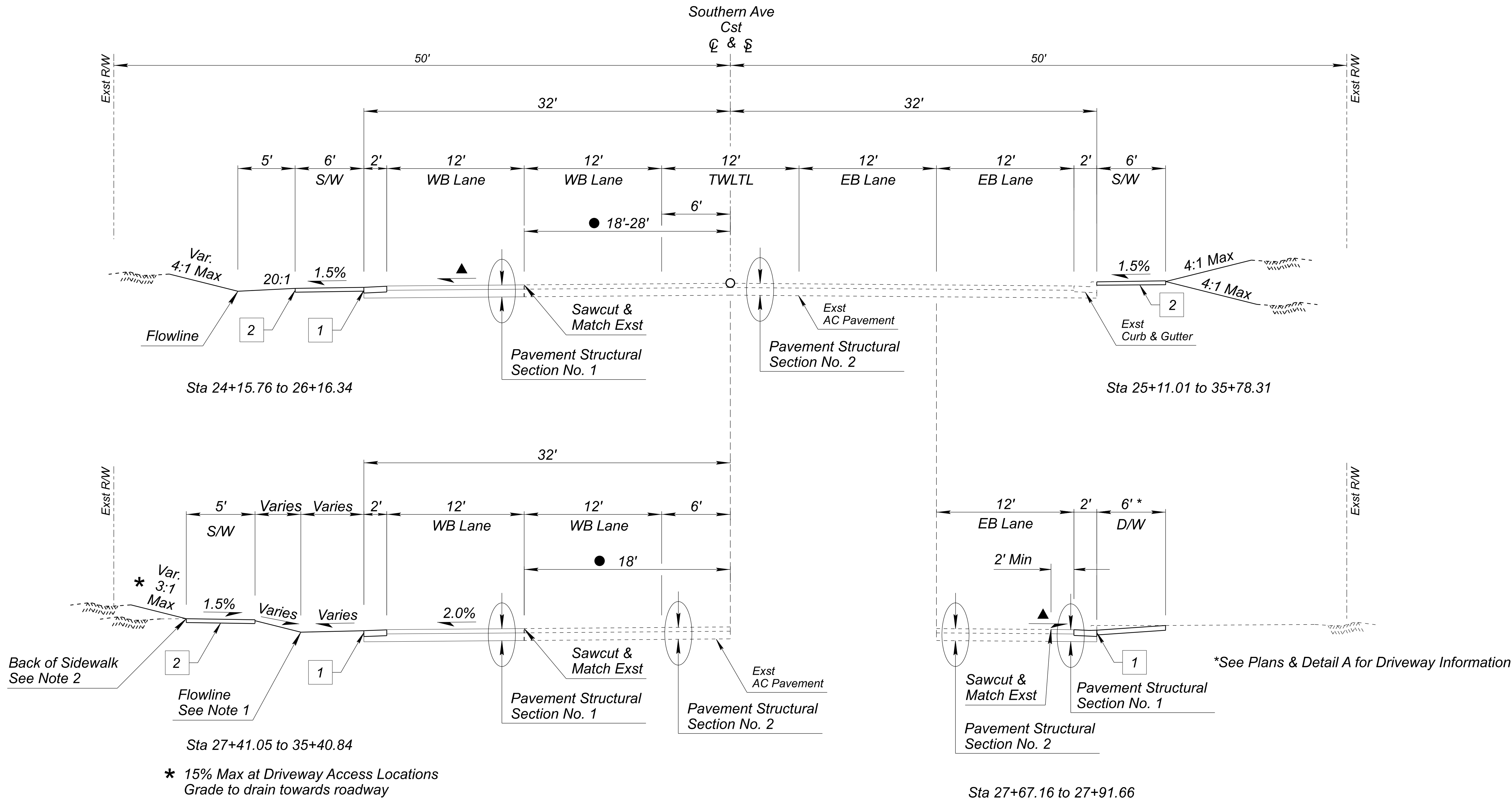
DESIGN	N. EKI BWANGOY	07/26
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ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

TYPICAL SECTIONS
TOMAHAWK RD

ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	3	TOTAL SHEETS	99	RECORD DRAWING
LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening										DWG NO. G-02.01	
TRACS NO.	T0411-01C										OF	



wsp

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DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

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

TYPICAL SECTIONS
SOUTHERN AVE

ROUTE

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE

PROJECT NO.

FEDERAL ID NO.

SHEET NO.

TOTAL SHEETS

RECORD DRAWING

ARIZ.

T0411-01C

APJ-0(222)T

4

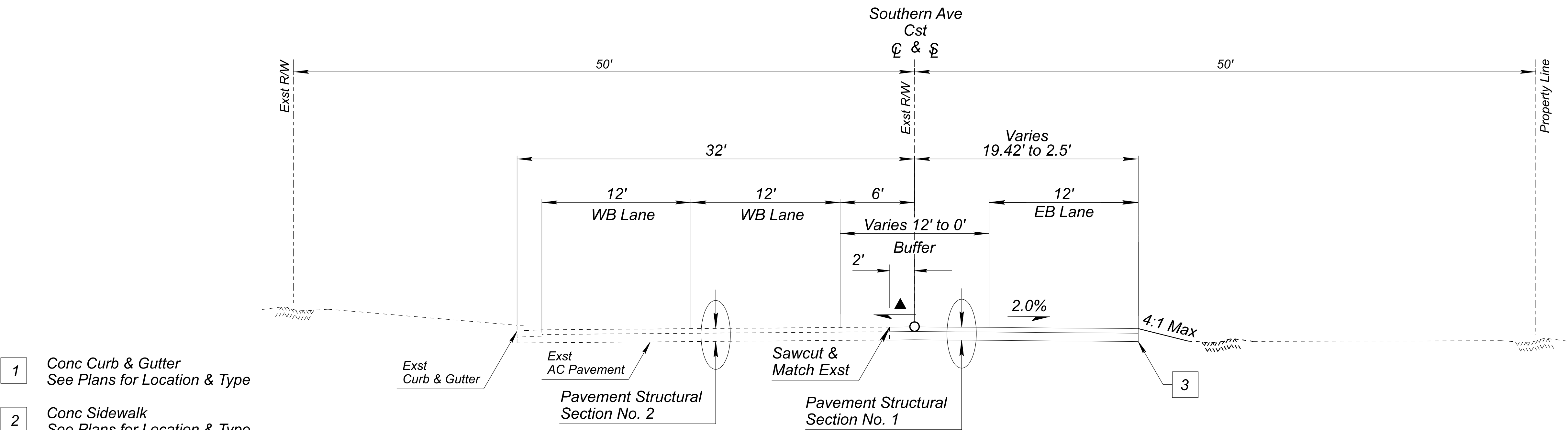
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LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening

TRACS NO. T0411-01C

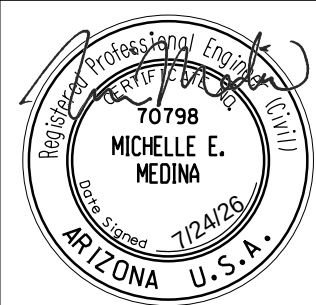
DWG NO. G-02.02

OF



TYPICAL SECTION

▲ Match Exst Cross Slope Sta 37+12.57 to 40+67.19 Southern Ave Sta 37+07.19 to 41+64.03



	NAME	DATE
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ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE
TYPICAL SECTIONS SOUTHERN AVE	MILEPOST
	STRUCTURE NO.

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	T0411-01C	APJ-0(222)T	5	99		
LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. G-02.03
TRACS NO.	T0411-01C					____ OF ____

XX

Reference numbers correspond to numbers on Roadway Plans.

Transition Lengths are included in Curb & Gutter or Sidewalk Quantity.

NOTE:

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

Professional Engineer
 License No. 70798
 MICHELLE E. MEDINA
 State of Arizona
 Expires 7/24/26

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

CSP	- CORRUGATED STEEL PIPE
CAP	- CORRUGATED ALUMINUM PIPE
RCP	- REINFORCED CONCRETE PIPE
NRCPP	- NON-REINFORCED CONCRETE PIPE
NRCPCP	- NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP	- CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

[illegible]

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	2 $\frac{2}{3}$ x1 $\frac{1}{2}$	D	6x2
B	3x1	E	3x1 or 9x2 $\frac{1}{2}$
C	9x2 $\frac{1}{2}$		

NOTES:

1. CB Station/Offset Is Based on Gutter Lip at Center of Maintenance Basin.
2. CB Heights Based on Pipe Invert to Top of Curb at Center of Maintenance Basin.
3. Pipe Excavation Qtys Based on Top of Exst Grade to Bot of Bedding w/out adjustment for Exst Pvmt.



	NAME	DATE
DESIGN	Y. CHENG	07/26
DRAWN	Y. CHENG	07/26
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ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

NEW PIPE SUMMARY SHEET

ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 8	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST	LOCATION US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. G-04.01
STRUCTURE NO.	TRACS NO. T0411-01C		____ OF ____				

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

CSP	- CORRUGATED STEEL PIPE
CAP	- CORRUGATED ALUMINUM PIPE
RCP	- REINFORCED CONCRETE PIPE
NRCPP	- NON-REINFORCED CONCRETE PIPE
NRCPCP	- NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP	- CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

[illegible]

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	2 $\frac{2}{3}$ x1 $\frac{1}{2}$	D	6x2
B	3x1	E	3x1 or 9x2 $\frac{1}{2}$
C	9x2 $\frac{1}{2}$		

1. CB Station/Offset Is Based on Gutter Lip at Center of Maintenance Basin.
2. CB Heights Based on Pipe Invert to Top of Curb at Center of Maintenance Basin.
3. Pipe Excavation Qtys Based on Top of Exst Grade to Bot of Bedding w/out adjustment for Exst Pvmnt.



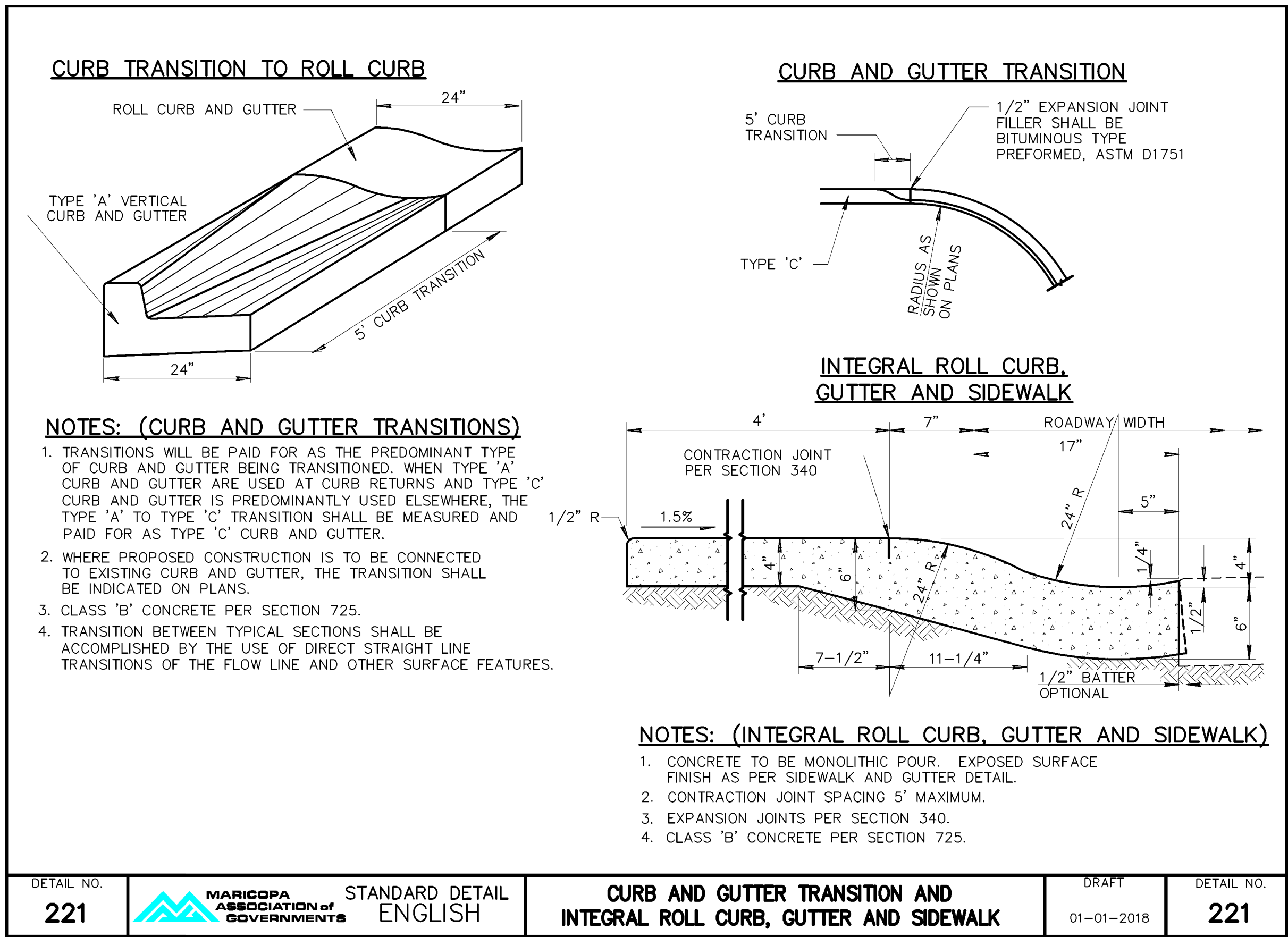
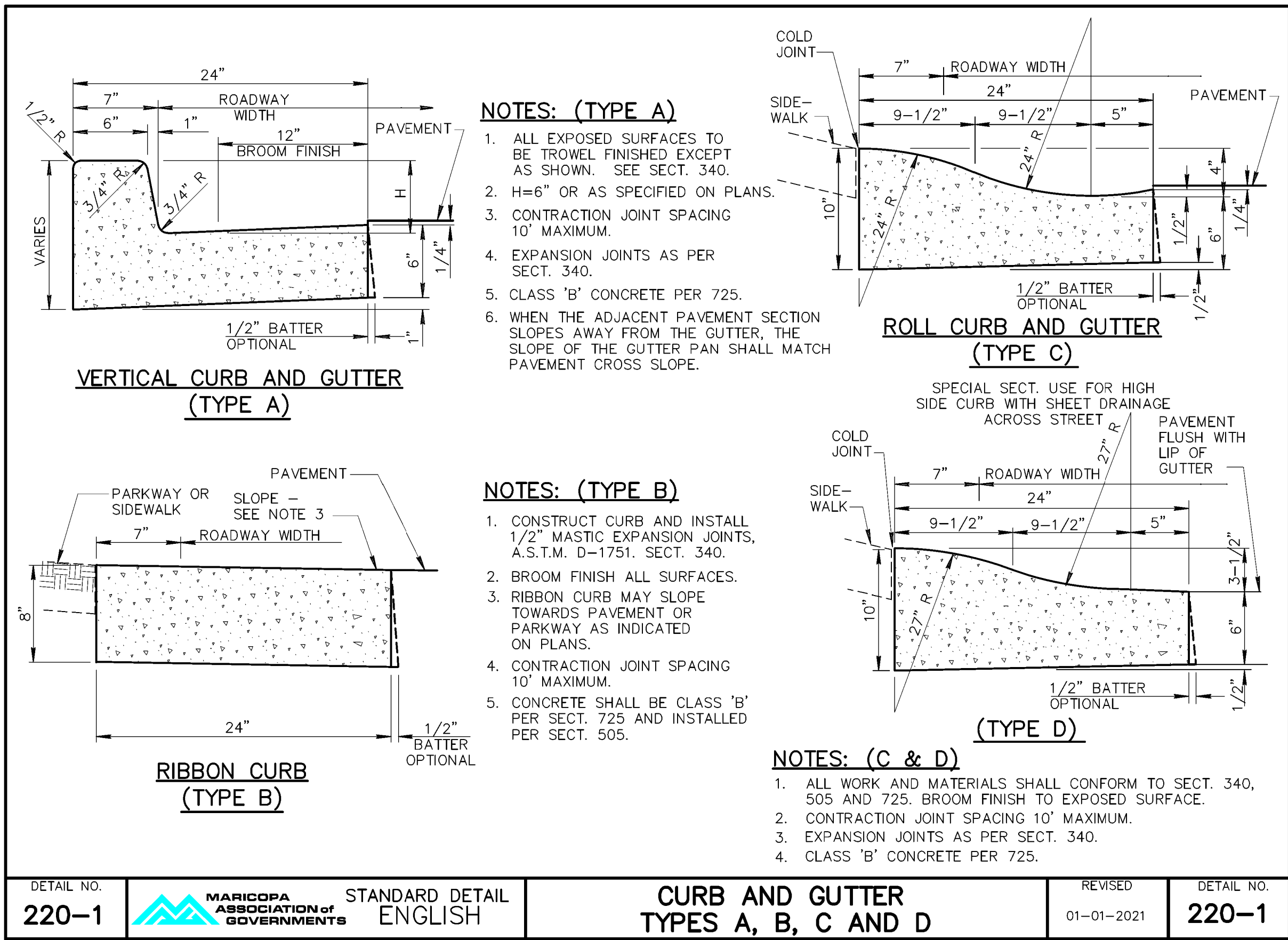
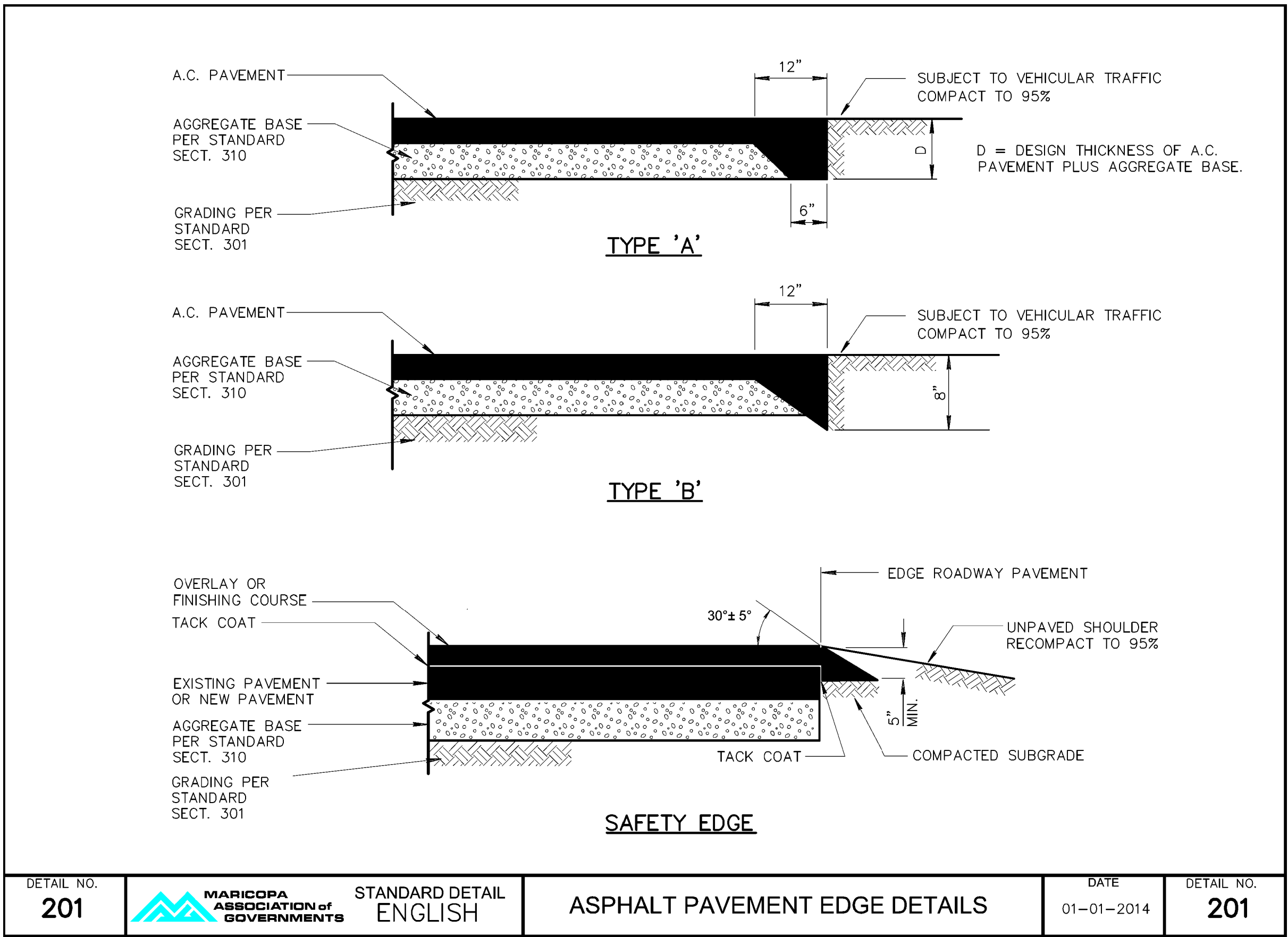
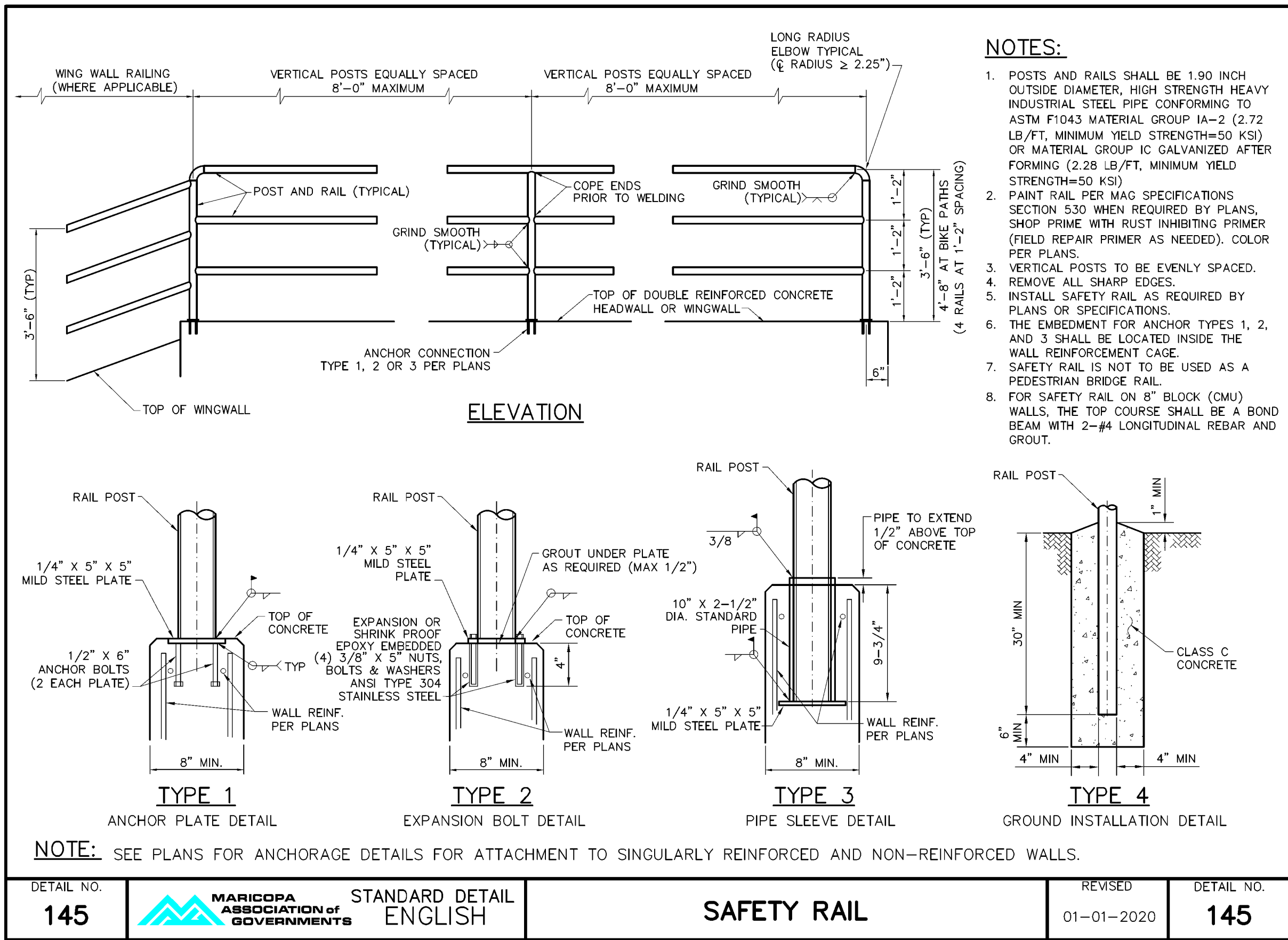
	NAME	DATE
DESIGN	Y. CHENG	07/26
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CHECKED	G. BAMBAUER	07/26

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ROADWAY DESIGN SERVICES

NEW PIPE SUMMARY SHEET

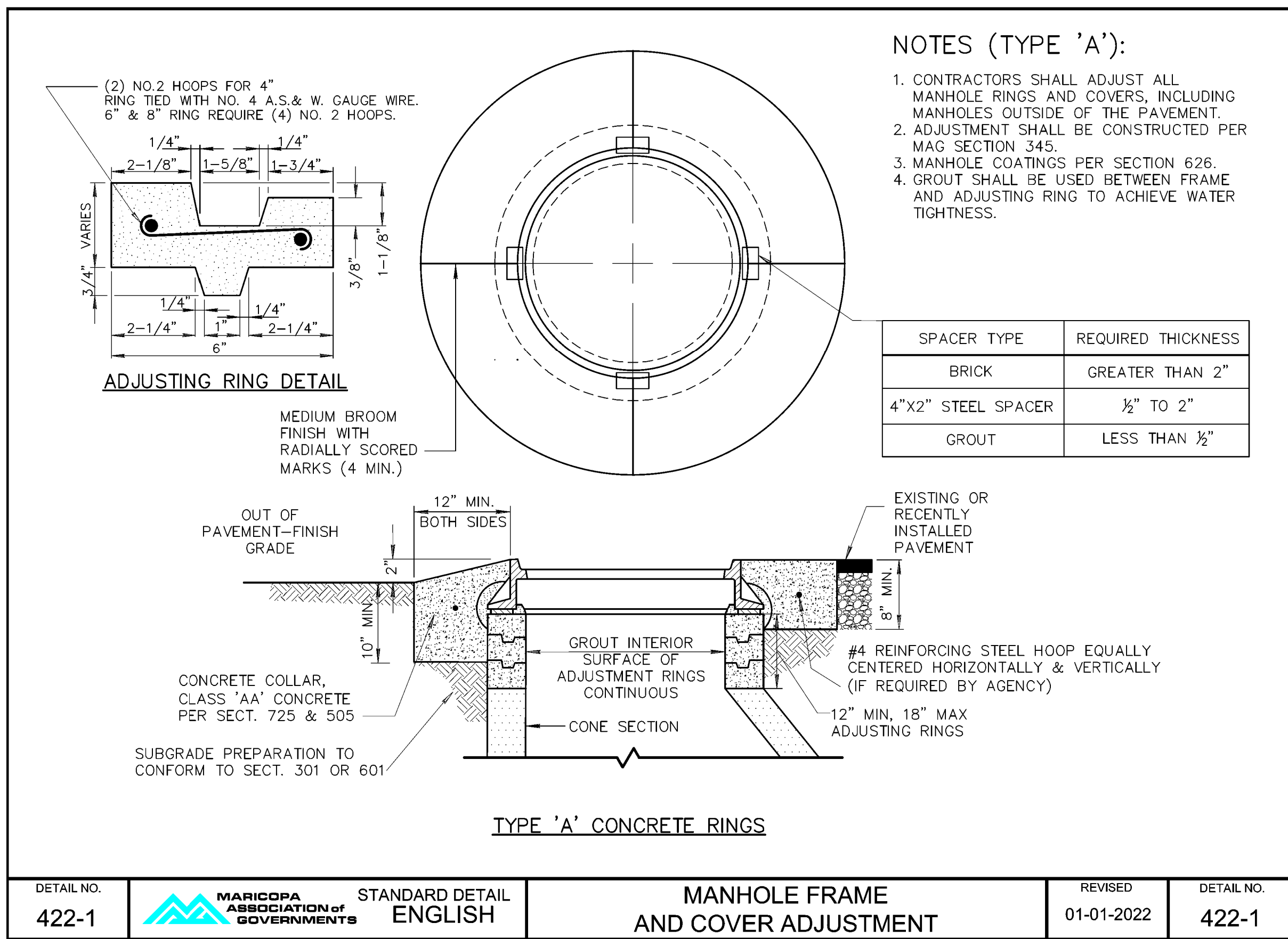
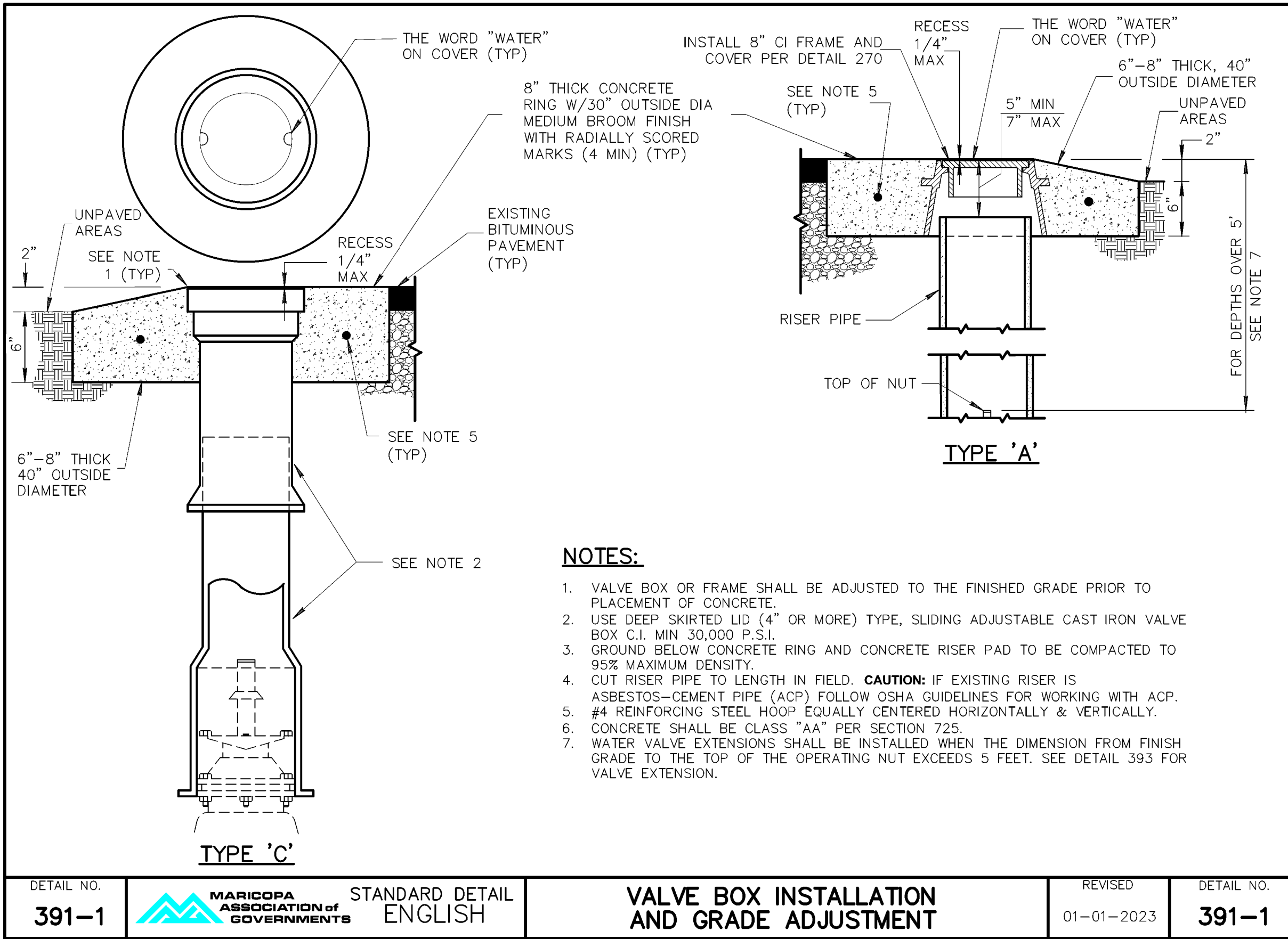
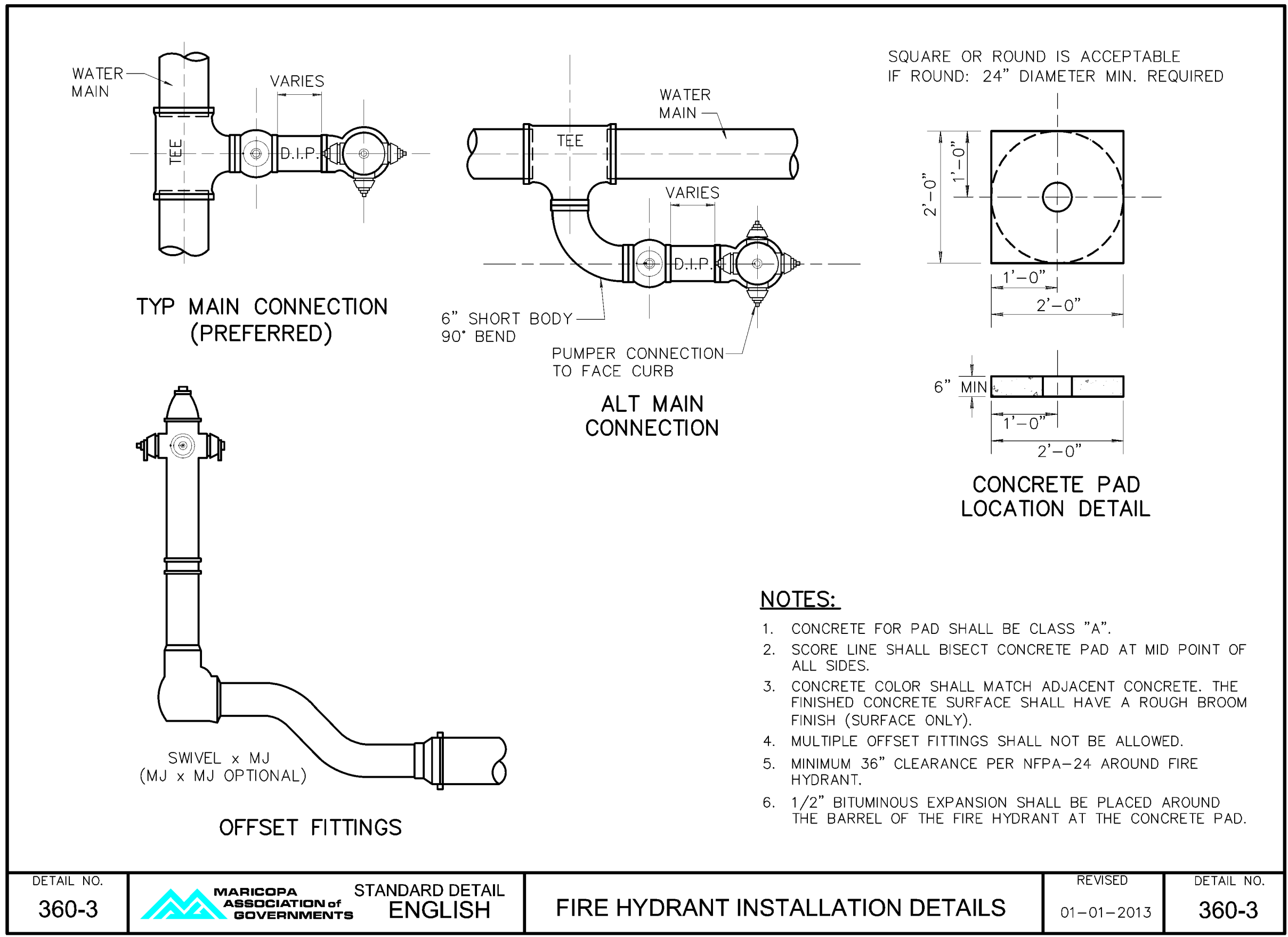
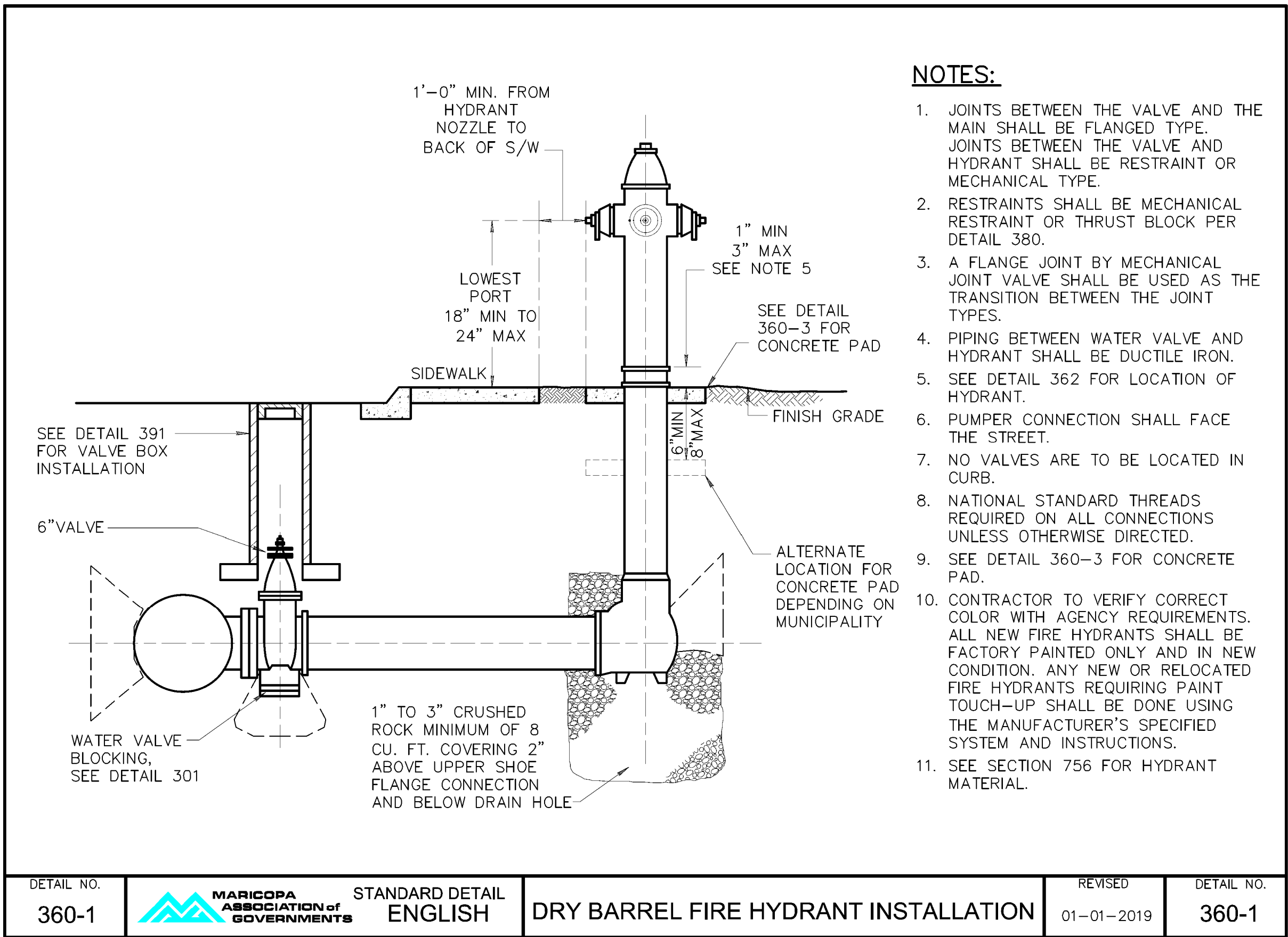
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		LOCATION US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. G-04.02
STRUCTURE NO.	TRACS NO. T0411-01C							___ OF ___



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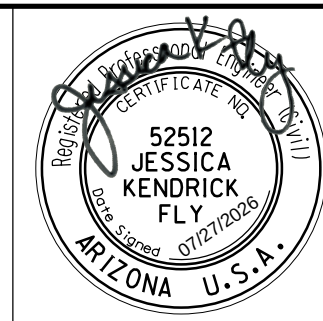
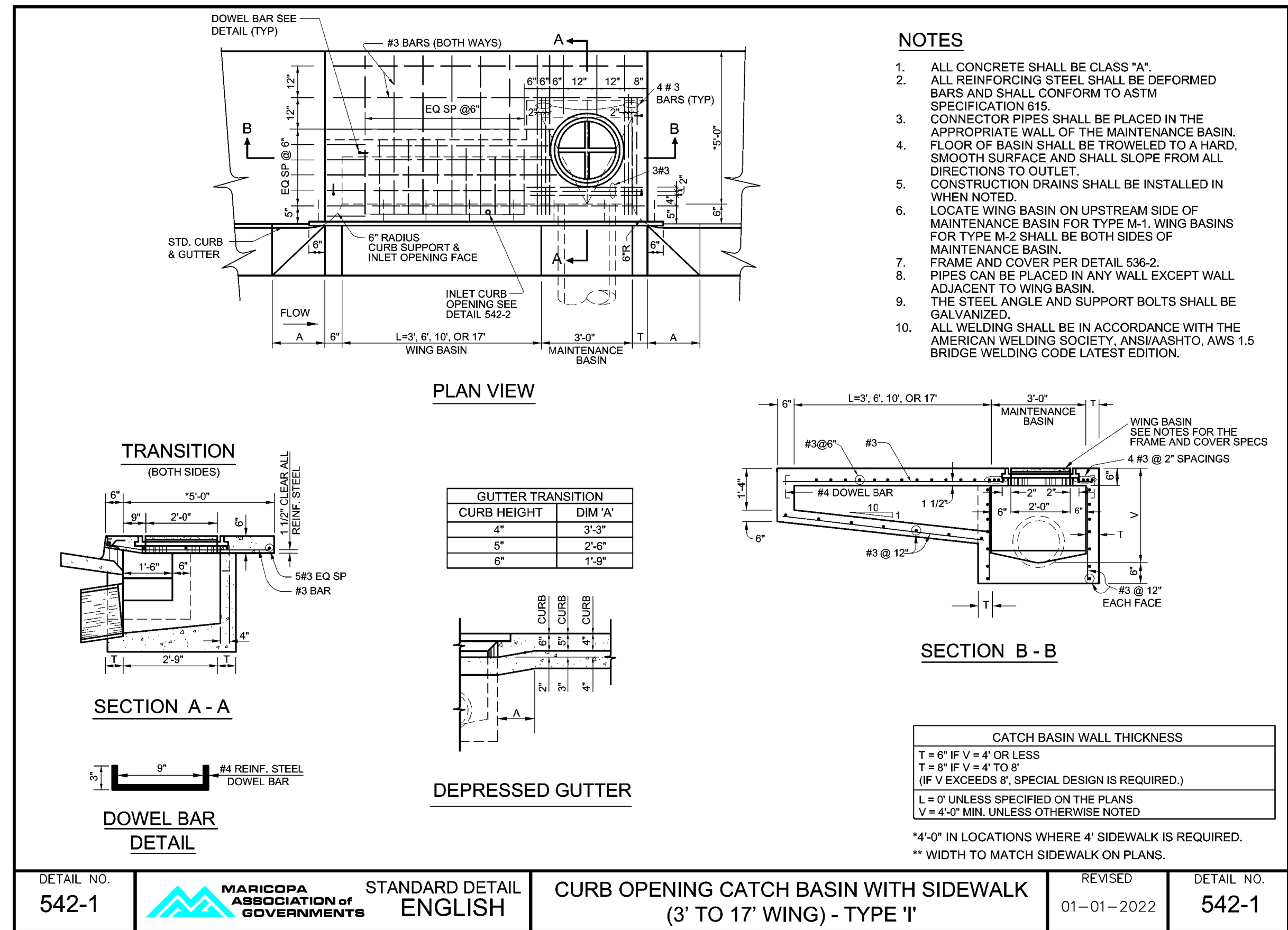
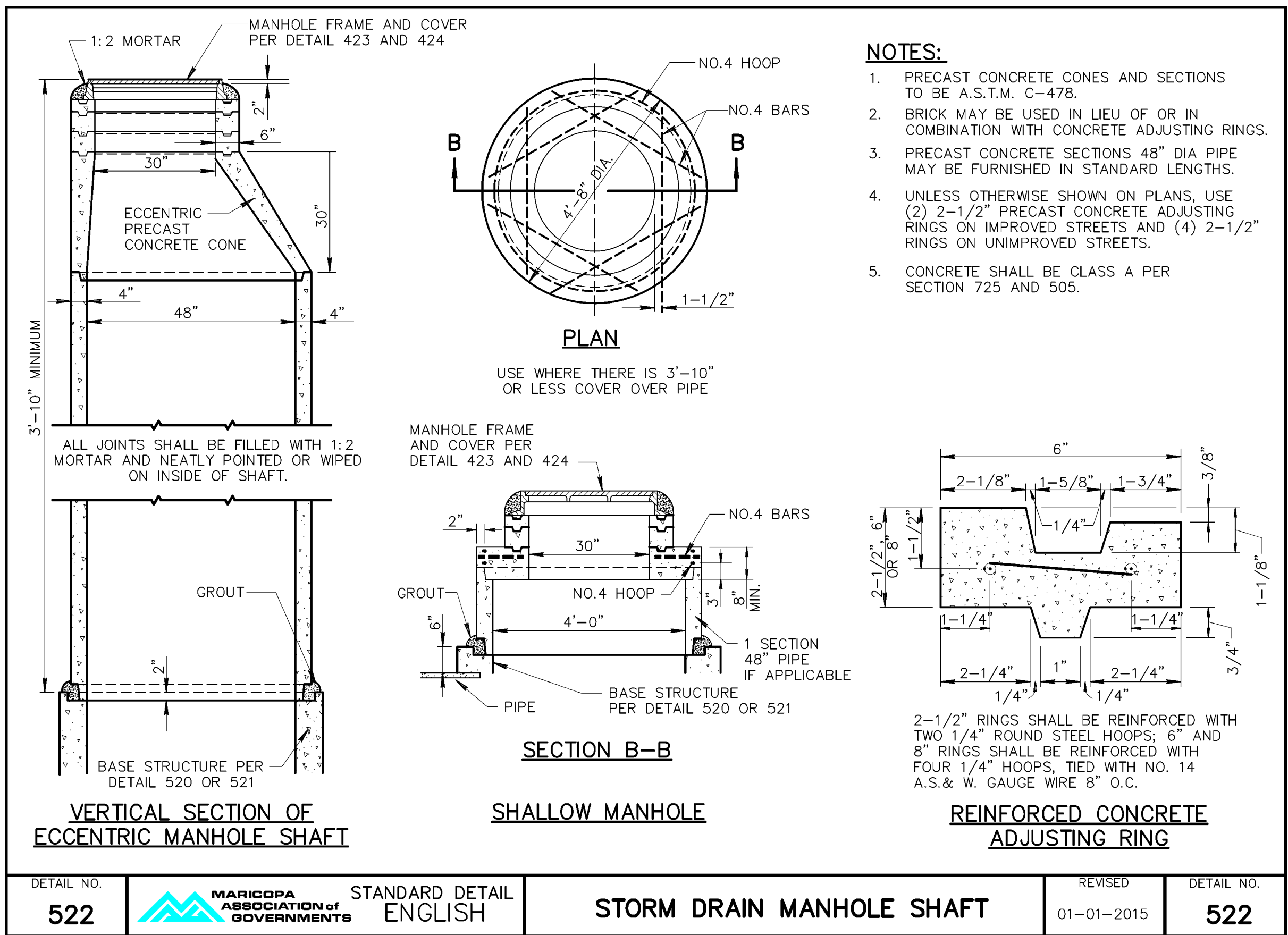
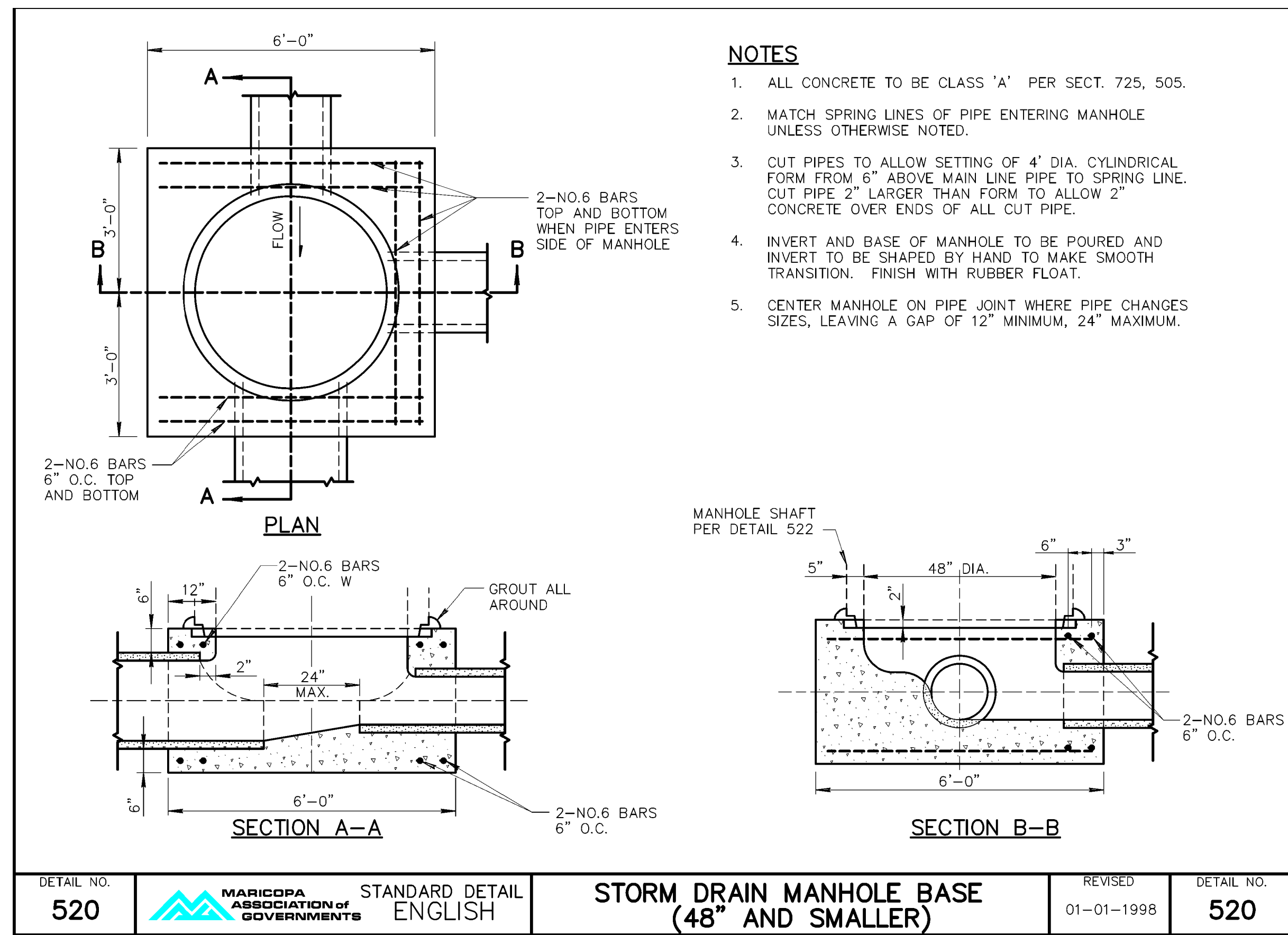
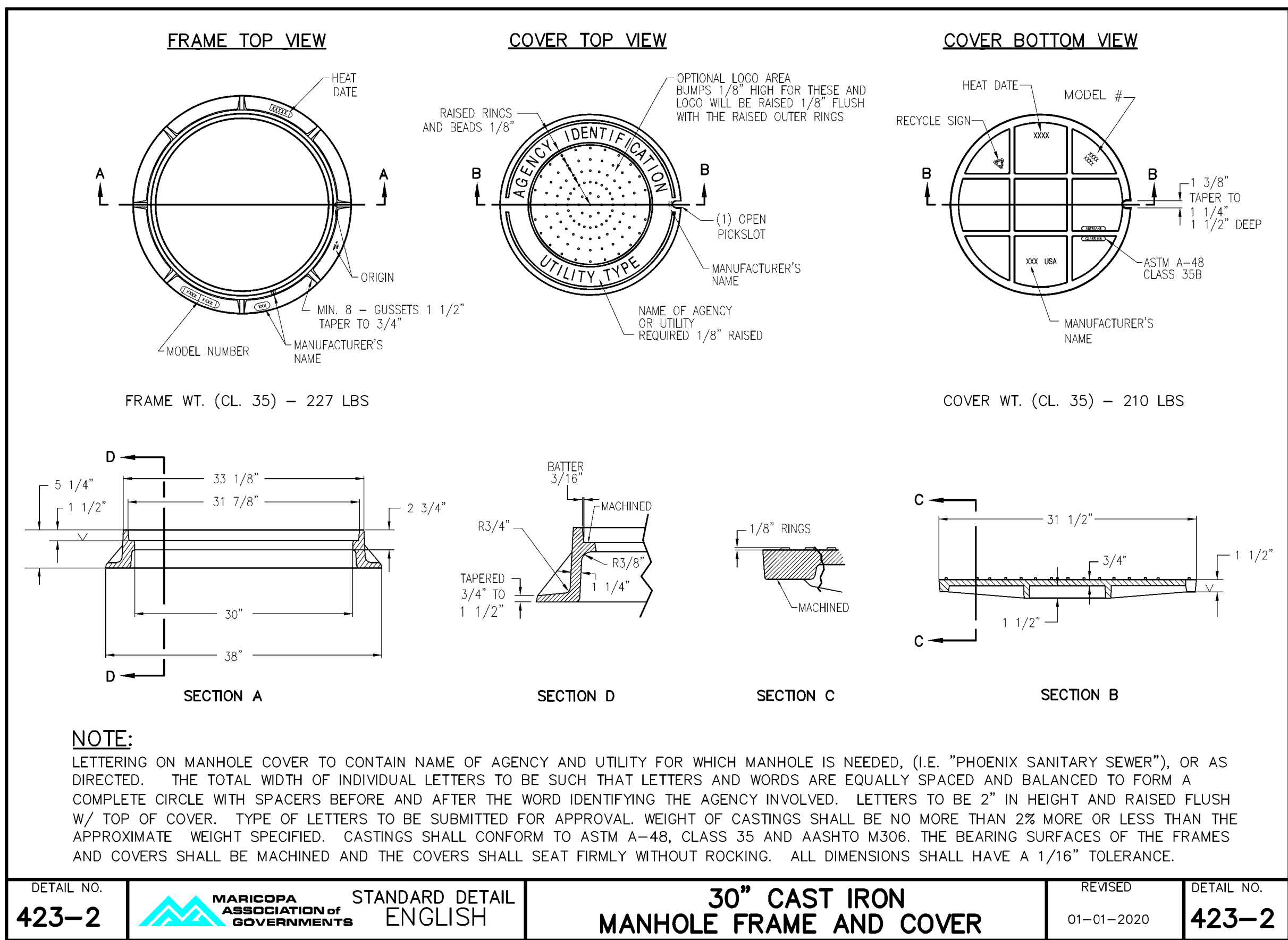
ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
DETAIL OTHER AGENCY STANDARDS	MILEPOST	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening	ARIZ.	T0411-01C	APJ-0(222)T	10	99	
	STRUCTURE NO.	TRACS NO. T0411-01C						DWG NO. G-05.01 OF



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ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	13	TOTAL SHEETS	99	RECORD DRAWING
DETAIL OTHER AGENCY STANDARDS	MILEPOST	LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening										DWG NO. G-05.03
	STRUCTURE NO.	TRACS NO.	T0411-01C										OF

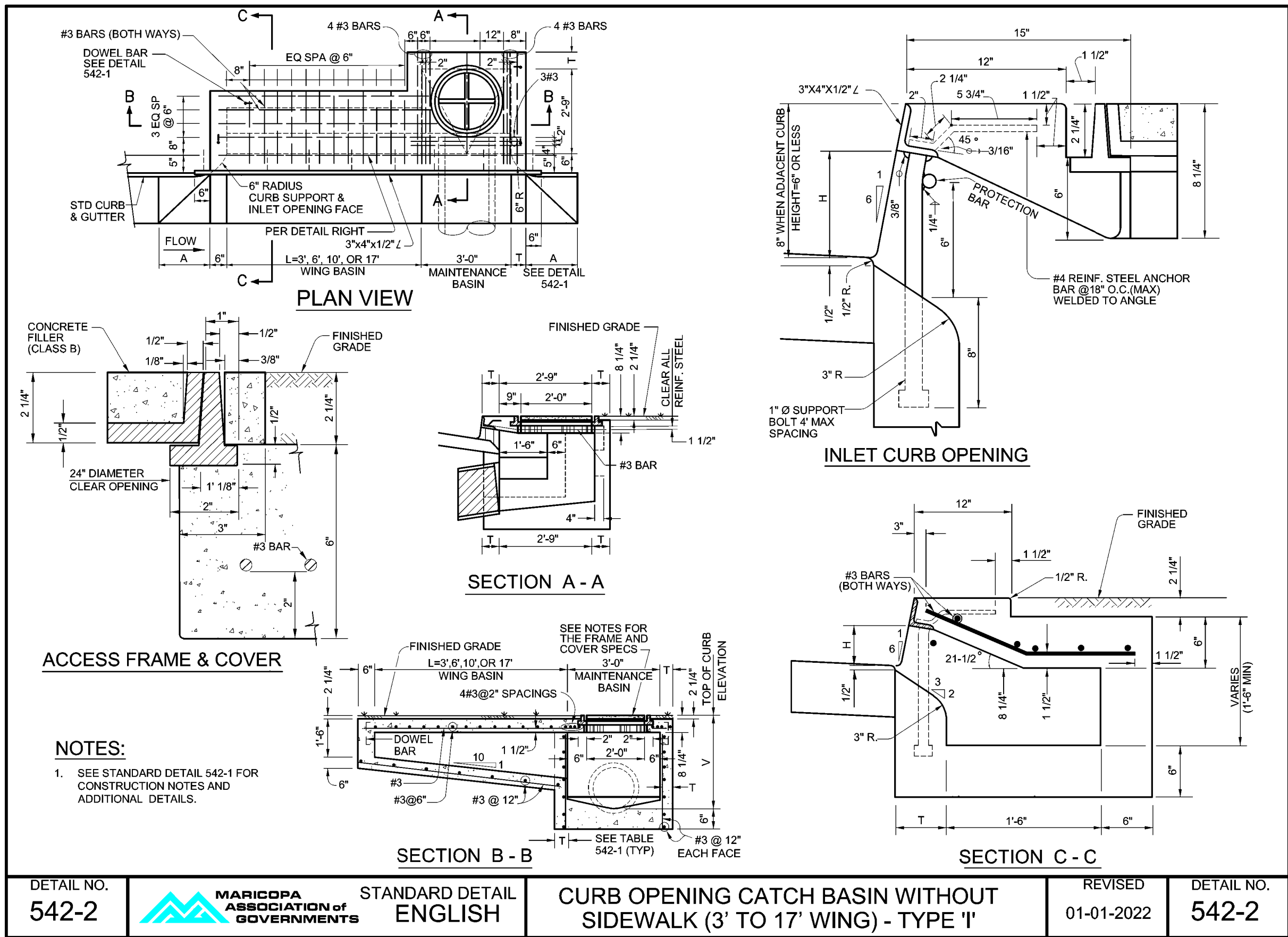


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DETAIL OTHER AGENCY STANDARDS	MILEPOST	LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening	TRACS NO.	T0411-01C	DWG NO.	G-05.04	OF					



NOTES

- THE POLE DESIGN, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, BASED ON A WIND SPEED OF 80 MILES PER HOUR.
- THE POLE AND ALL PARTS SHALL BE STEEL.
- THE POLE AND ALL POLE PARTS SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771.
- UNSTABLE SOIL MAY REQUIRE DEEPER FOUNDATION, AS DETERMINED BY THE ENGINEER.
- THE 1" ANCHOR BOLT SHALL HAVE A LENGTH DETERMINED BY THE DEPTH OF THE FOUNDATION, AND SHALL EXTEND TO 6" OR 1" ABOVE THE BOTTOM OF THE FOUNDATION SL-74.01.
- ANCHOR BOLTS WITH (4) HEX NUTS, (2) FLAT WASHERS, AND (1) ANCHOR PLATE PER BOLT SHALL BE HOT DIPPED GALVANIZED PER SL-74.01.
- ANCHOR BOLTS SHALL HAVE 1/4" TO 3/4" FULL THREAD ABOVE NUT SL-74.01.
- CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE THE FOUNDATION. MAXIMUM PROJECTION SHALL BE 4".
- 2"-0" SQUARE, 4" THICK TROWELED FINISH SMOOTH CONCRETE CAP WITH 1/2" ROUND EDGE POURED SEPARATELY FROM FOUNDATION.
- FOUNDATION SHALL BE CLASS A CONCRETE PER M.A.G. STANDARD 725.
- FOUNDATION GROUND SHALL BE #6 XHHW GREEN INSULATED COPPER STRANDED GROUNDING WIRE.
- FOUNDATION SHALL HAVE 1/4" COPPER GROUND PLATE PER COM DETAIL SL-74.02.
- A STAINLESS STEEL TAG SHALL BE PERMANENTLY ATTACHED TO THE POLE ABOVE THE HAND HOLE STATING THE MANUFACTURER'S NAME, C.O.M. POLE #, AND DATE MANUFACTURED.

DATA TABLE

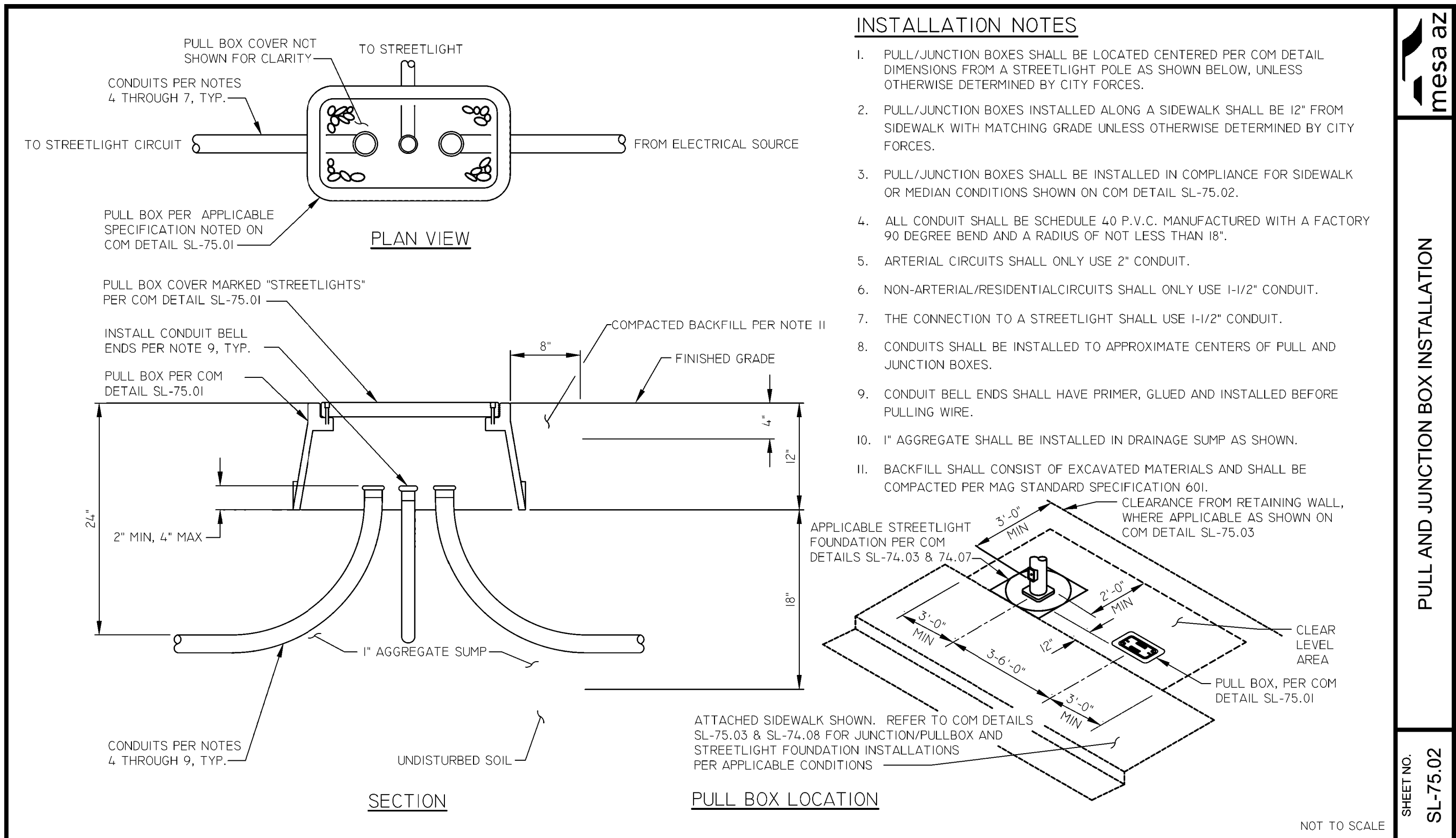
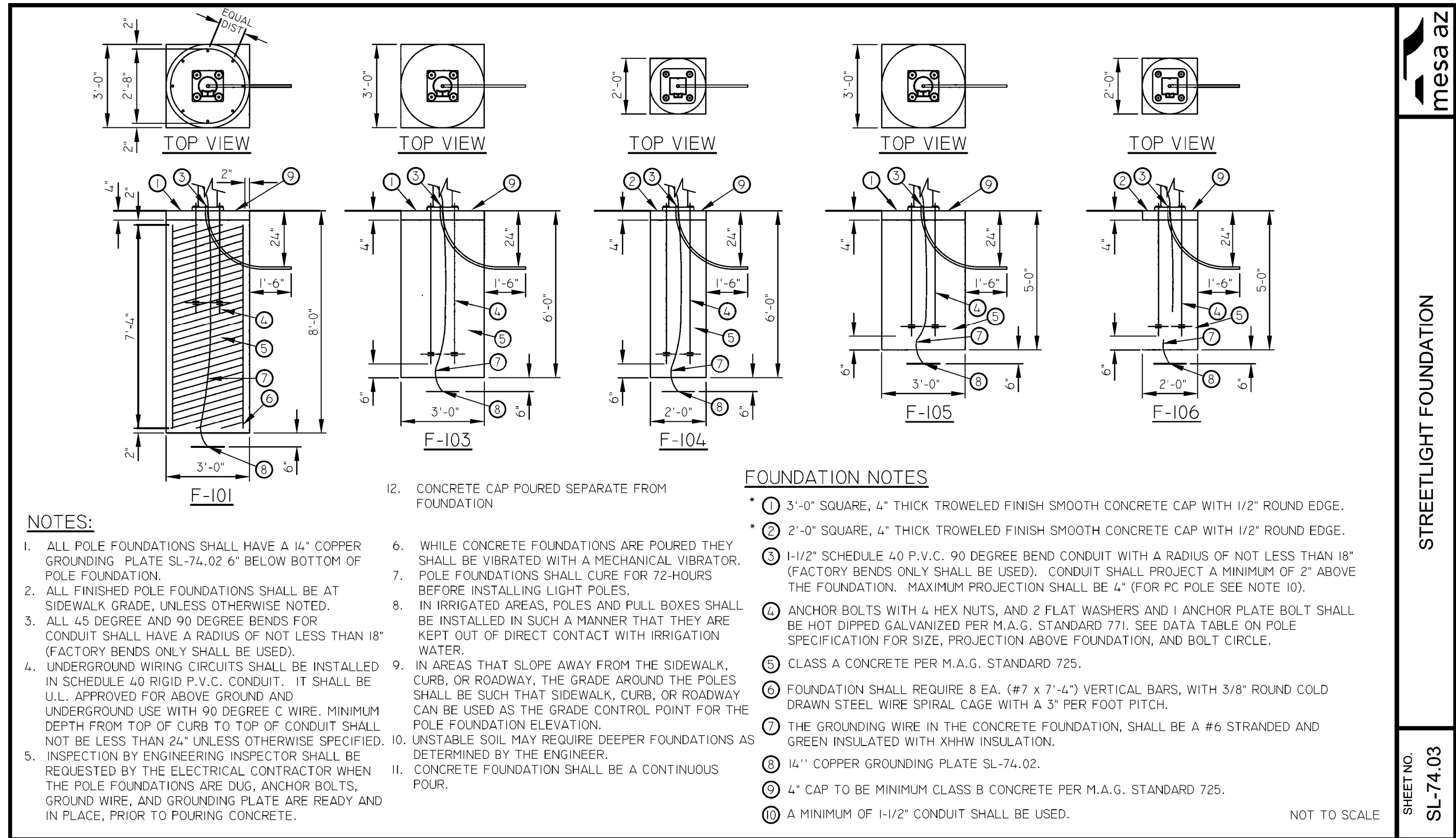
POLE #	LUMINAIRE MTG. HGT.	POLE HGT.	5 9/16" O.D. PIPE	4 1/2" O.D. PIPE	3 1/2" O.D. PIPE	ARM TYPE	ARM LENGTH	ARM RISE
-	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
P-101	33'-0"	25'-6"	10'-0"	7'-9"	7'-9"	A	8'-0"	8'-0"
P-102	35'-0"	27'-6"	10'-0"	8'-9"	8'-9"	A	8'-0"	8'-0"
P-103*	30'-0"	28'-6"	DBL. ARMS	10'-0"	9'-3"	B	6'-0"	2'-0"
P-104*	30'-0"	28'-6"	DBL. ARMS	10'-0"	9'-3"	B	6'-0"	2'-0"
P-105*	35'-0"	32'-6"	DBL. ARMS	13'-4"	9'-7"	B	8'-0"	3'-0"
P-106*	35'-0"	32'-6"	DBL. ARMS	13'-4"	9'-7"	B	8'-0"	3'-0"
P-110	40'-0"	32'-6"	DBL. ARMS	13'-4"	9'-7"	A	8'-0"	8'-0"
POLE #	LUMINAIRE MTG. HGT.	POLE HGT.	5 9/16" O.D. PIPE	4 1/2" O.D. PIPE	3 1/2" O.D. PIPE	TENON		
-	"A"	"B"	"C"	"D"	"E"	-		
P-110*	35'-0"	35'-0"	13'-4"	12'-8"	9'-0"	2 3/8" x 4 1/2"		

*NOTE: P-110 IS A TENON POLE WHICH USES A POLE TOP LUMINAIRE; P-103 THRU P-106 SHALL BE USED FOR NEW DEVELOPMENT REQUIRING STEPPED POLES. FOUNDATION SL-74.03, F-104.



100 SERIES STEPPED STREETLIGHT POLE

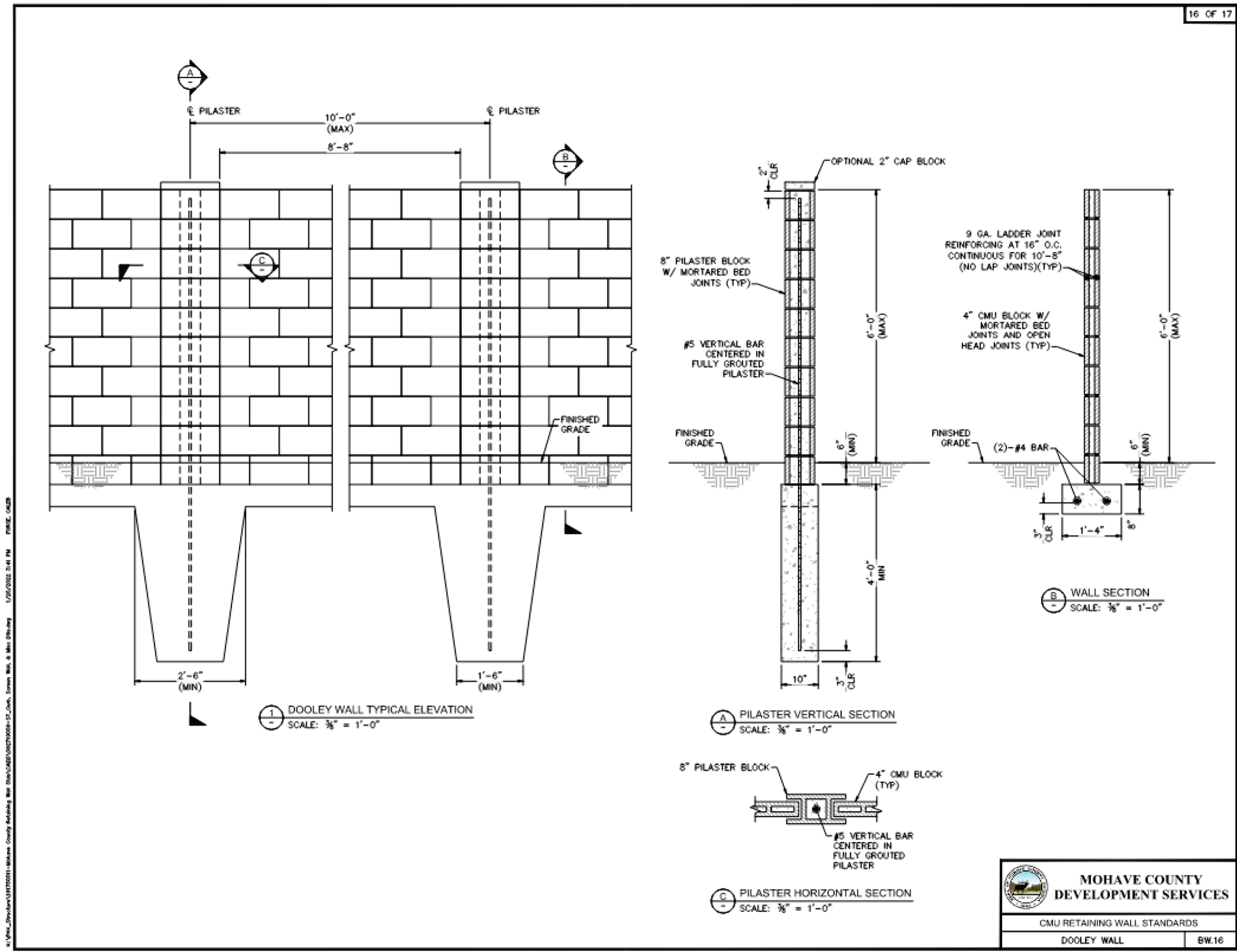
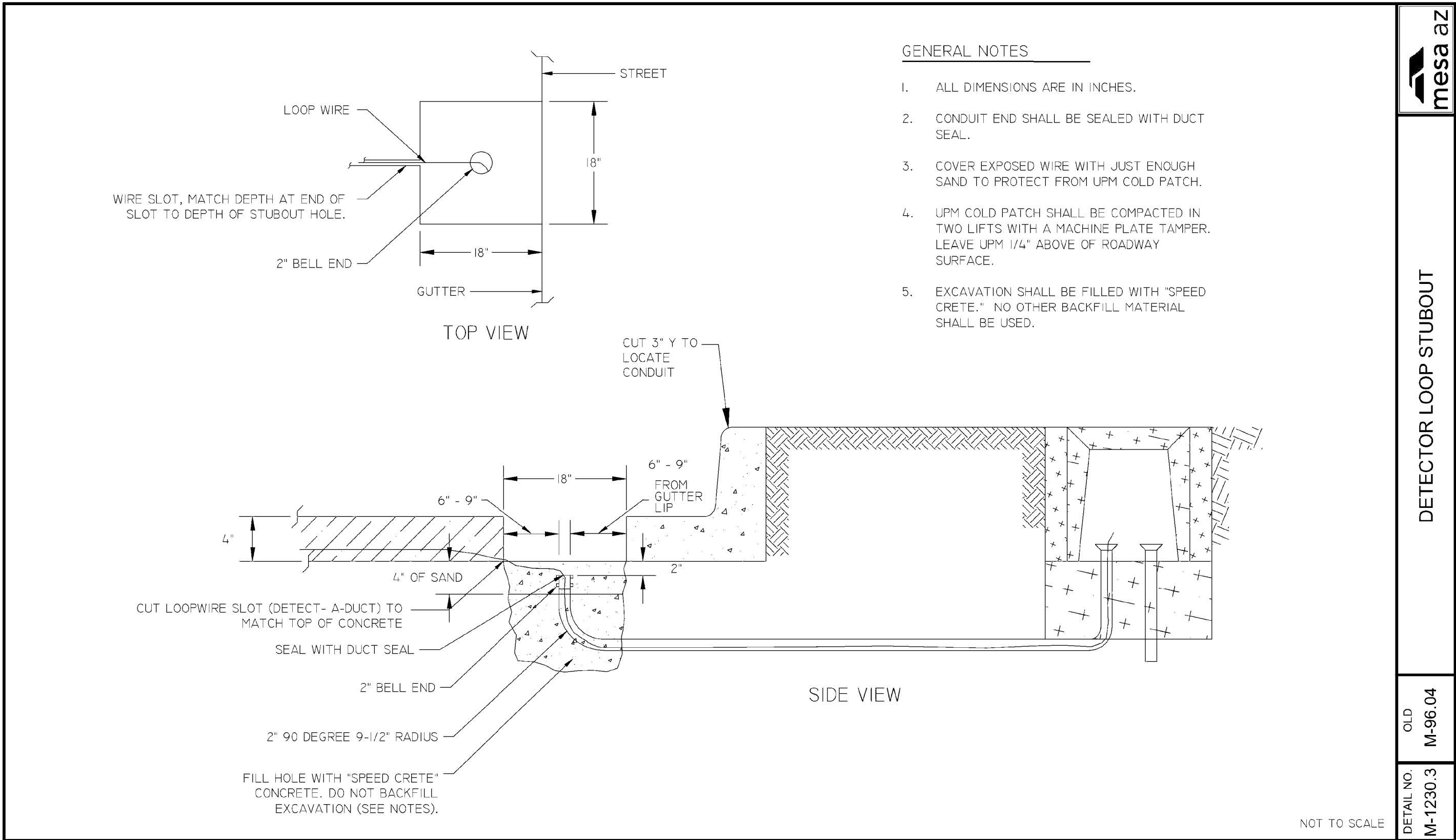
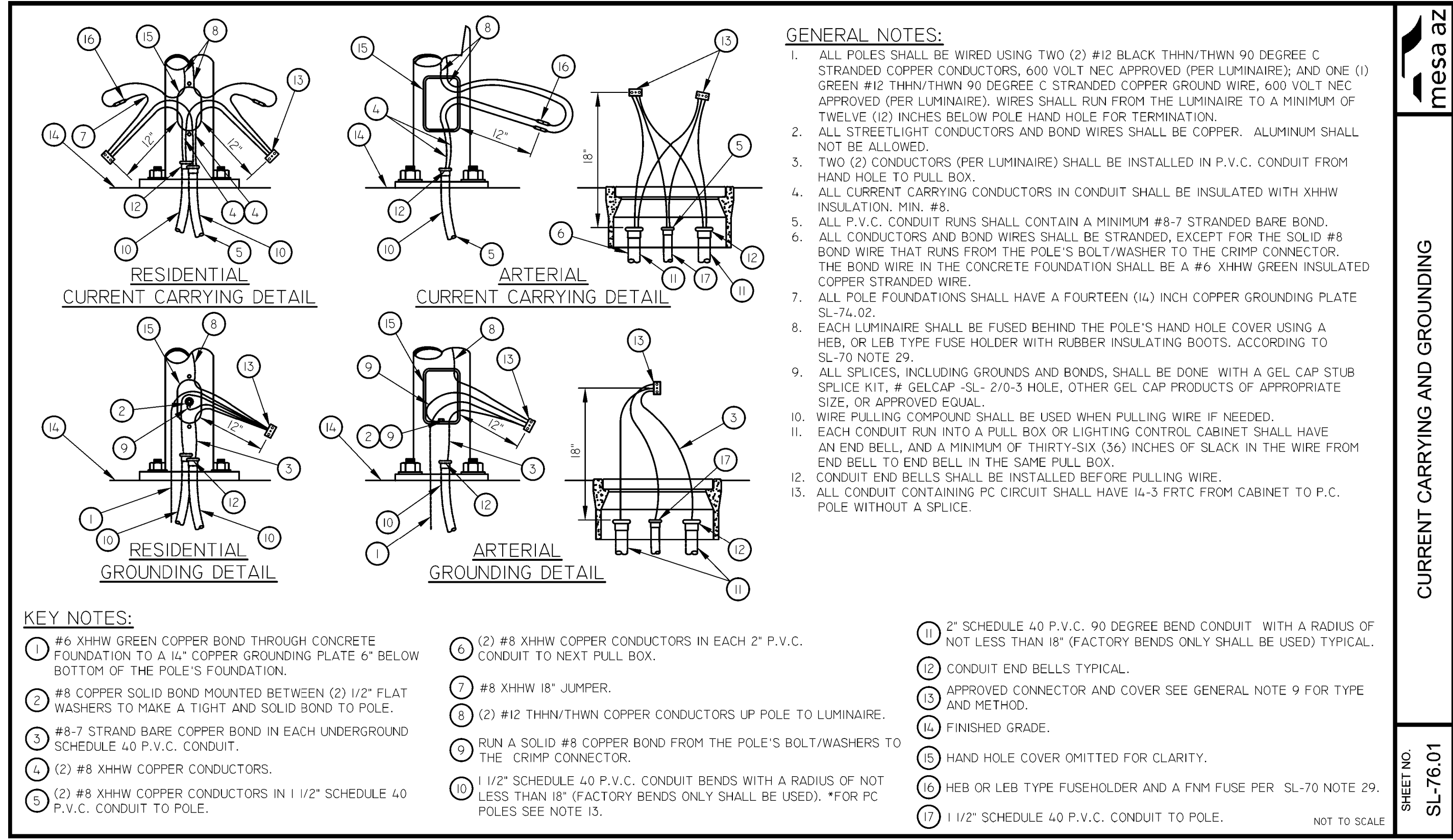
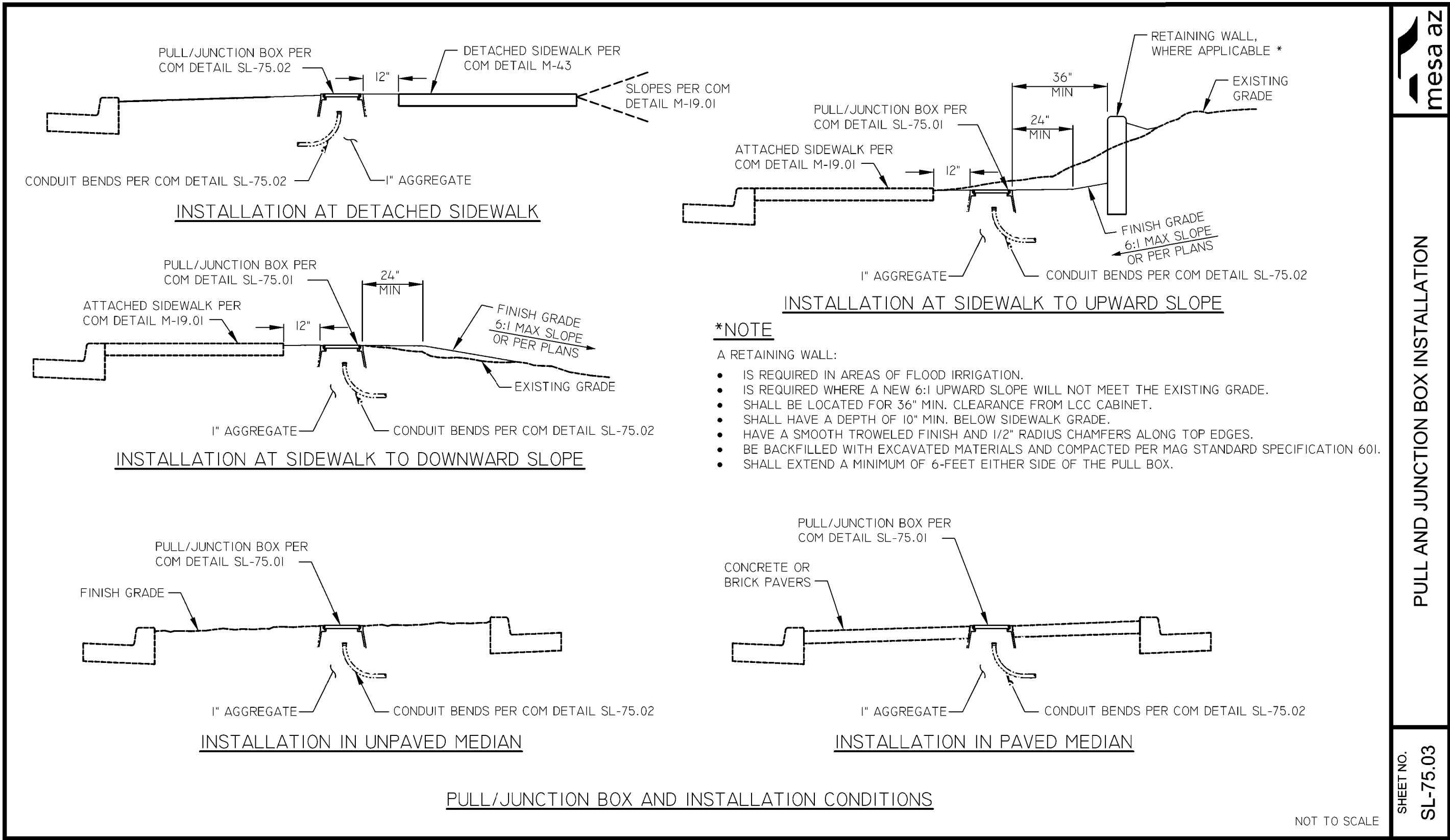
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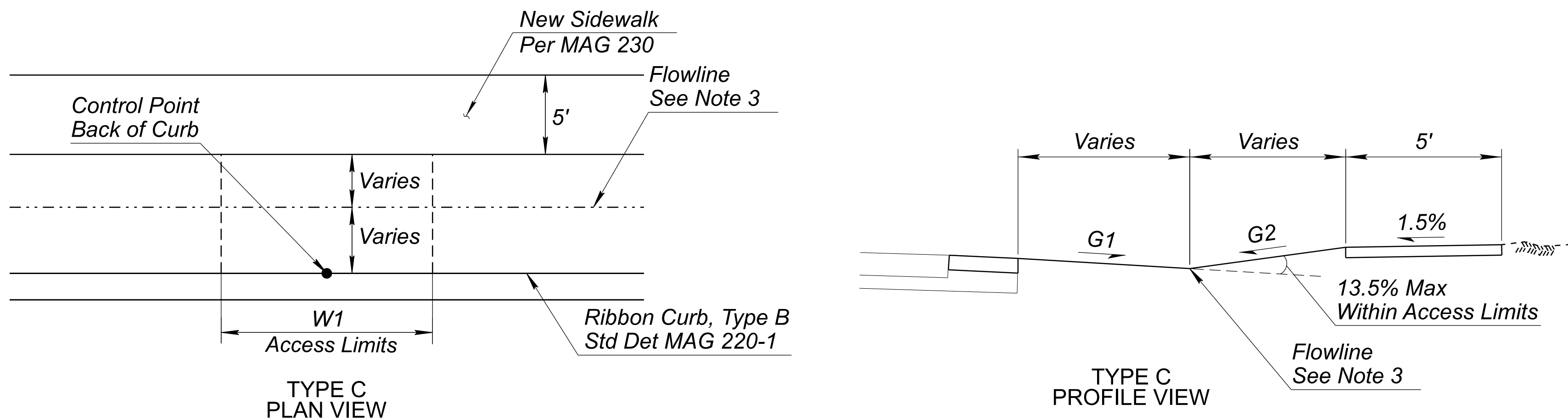
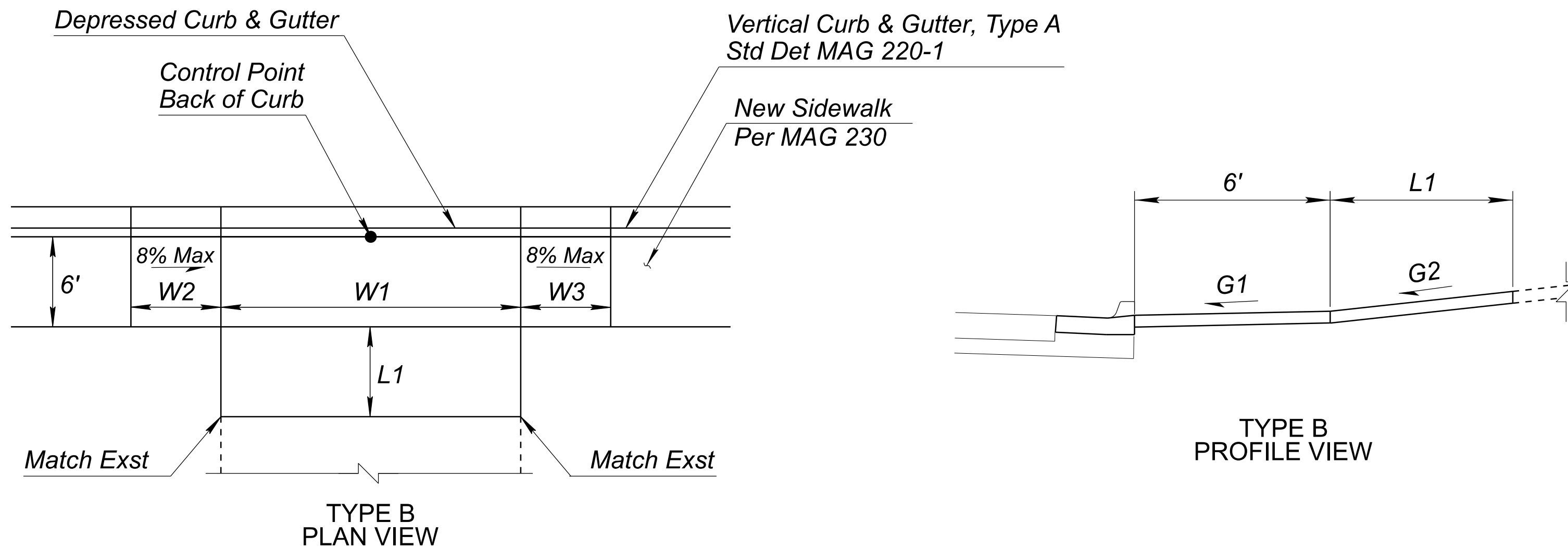
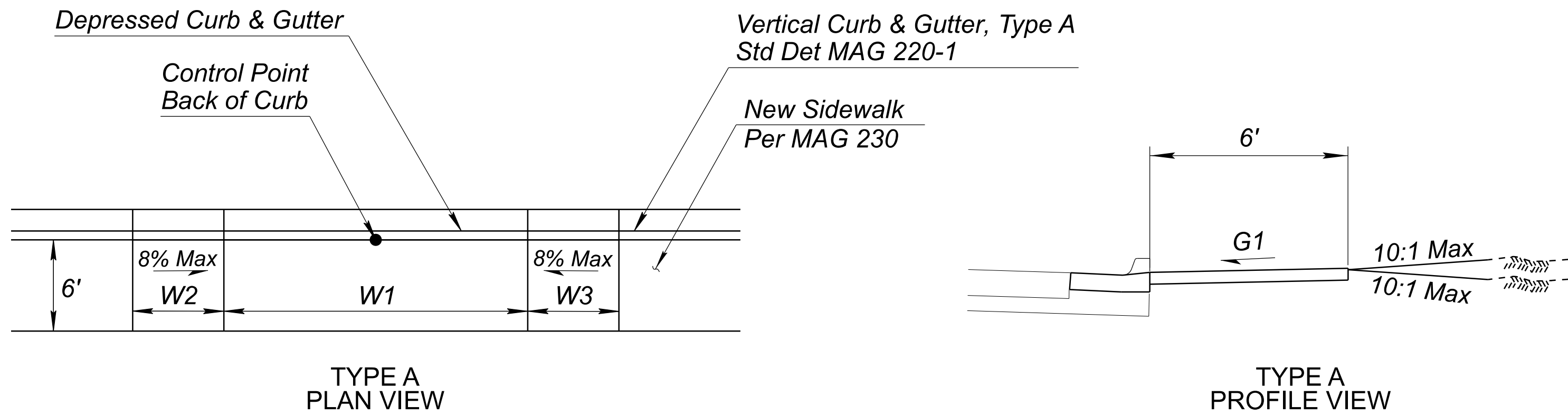
DESIGN	N. EKI BWANGYOY	07/26
DRAWN	N. EKI BWANGYOY	07/26
CHECKED	M. MEDINA	07/26

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
DETAIL OTHER AGENCY STANDARDS	MILEPOST	LOCATION	ARIZ.	T0411-01C	APJ-0(222)T	15	99	
	STRUCTURE NO.	TRACS NO.	T0411-01C					DWG NO. G-05.05 OF



52512 JESSICA KENDRICK FLY 07/27/2026 ARIZONA U.S.A. WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288 DESIGN DRAWN CHECKED N. EKI BWANGOY N. EKI BWANGOY M. MEDINA 07/26 07/26 07/26	DESIGN DRAWN CHECKED N. EKI BWANGOY N. EKI BWANGOY M. MEDINA 07/26 07/26 07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE MILEPOST STRUCTURE NO.	F.H.W.A. Arizona Division ARIZ. STATE PROJECT NO. FEDERAL ID NO. SHEET NO. TOTAL SHEETS RECORD DRAWING LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening DWG NO. G-05.06 TRACS NO. T0411-01C OF	



NOTES

- See Roadway Plan Sheets for driveway numbers, new curb and gutter and sidewalk locations, sawcut control, driveway spacing and grading limits.
- See MAG Std Detail 250 for information not shown.
- See Roadway Plan Sheets for Flowline control points.
- Driveway Type C to be paid per item 2030301.

SOUTHERN AVENUE										
XX		CONTROL POINT								
NO	TYPE	STA	OFF	ELEV	W1	W2	W3	L1	G1	G2
10	B	27+79.41	32' RT	1681.84	12'	6.25'	6.25'	5'	1.90%	5.60%
11	B	28+34.85	32' RT	1682.03	12'	6.25'	4'	5'	1.90%	4.00%
12	B	28+59.69	32' RT	1682.14	10'	4'	6.25'	5'	1.90%	4.80%
13	A	29+48.69	32' RT	1682.40	12'	6.25'	6.25'	-	1.50%	-
14	A	29+84.05	32' RT	1682.51	24'	6.25'	6.25'	-	1.50%	-
15	A	30+38.70	32' RT	1682.69	12	6.25'	6.25'	-	1.50%	-
16	A	30+68.00	32' RT	1682.79	12'	6.25'	6.25'	-	1.50%	-
17	A	31+26.53	32' RT	1683.01	12'	6.25'	4'	-	1.50%	-
18	A	31+51.63	32' RT	1683.10	12'	4'	6.25'	-	1.50%	-
19	A	32+22.91	32' RT	1683.37	12'	6.25'	4'	-	1.50%	-
20	B	32+46.47	32' RT	1683.47	10'	4'	6.25'	5'	1.50%	-1.80%
21	B	33+12.66	32' RT	1683.69	10'	6.25'	4'	5'	1.50%	-4.40%
22	B	33+36.37	32' RT	1683.74	10'	4'	6.25'	5'	1.50%	-2.00%
23	B	34+02.47	32' RT	1684.05	10'	6.25'	6.25'	5'	0.30%	-6.40%
50	C	28+76.84	32' LT	1682.20	14'	-	-	-	Varies	Varies
51	C	29+03.52	32' LT	1682.20	10'	-	-	-	Varies	Varies
52	C	29+52.03	32' LT	1682.40	10'	-	-	-	Varies	Varies
53	C	29+87.90	32' LT	1682.40	20'	-	-	-	Varies	Varies
54	C	30+73.74	32' LT	1682.70	16'	-	-	-	Varies	Varies
55	C	31+10.58	32' LT	1682.90	20'	-	-	-	Varies	Varies
56	C	31+83.60	32' LT	1683.60	20'	-	-	-	Varies	Varies
57	C	32+49.82	32' LT	1683.60	20'	-	-	-	Varies	Varies
58	C	32+93.42	32' LT	1683.70	10'	-	-	-	Varies	Varies
59	C	33+28.12	32' LT	1683.90	10'	-	-	-	Varies	Varies
60	C	33+58.68	32' LT	1684.00	16'	-	-	-	Varies	Varies
61	C	34+38.26	32' LT	1684.30	16'	-	-	-	Varies	Varies
62	C	35+04.53	32' LT	1684.60	16'	-	-	-	Varies	Varies

XX Reference numbers corresponds to numbers on Roadway Plans.

DETAIL A

DRIVEWAYS

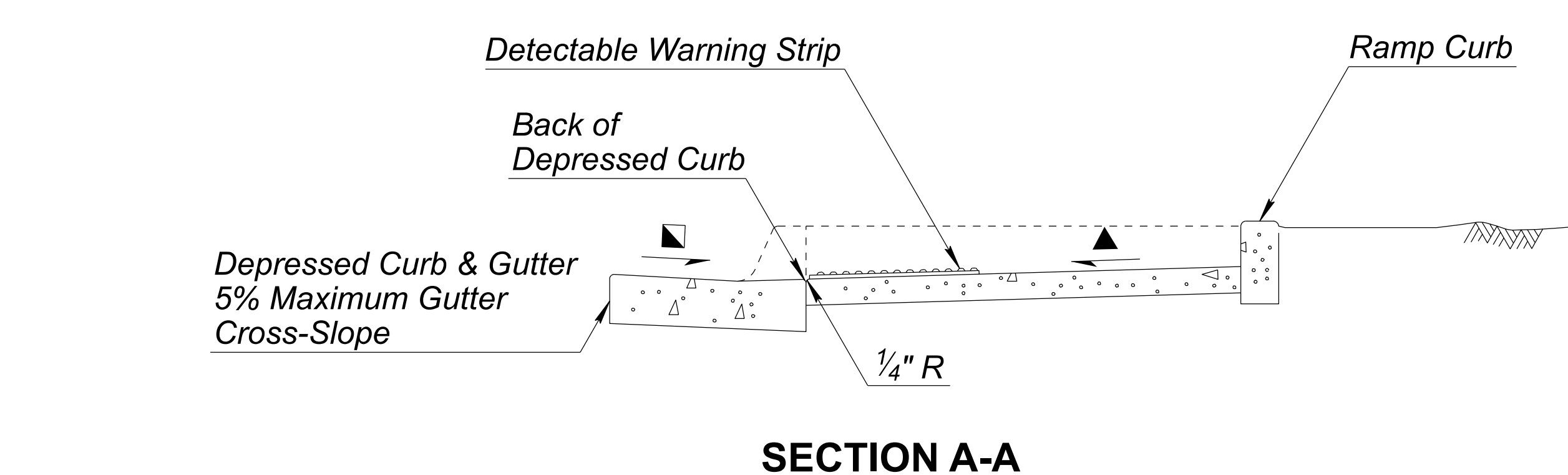
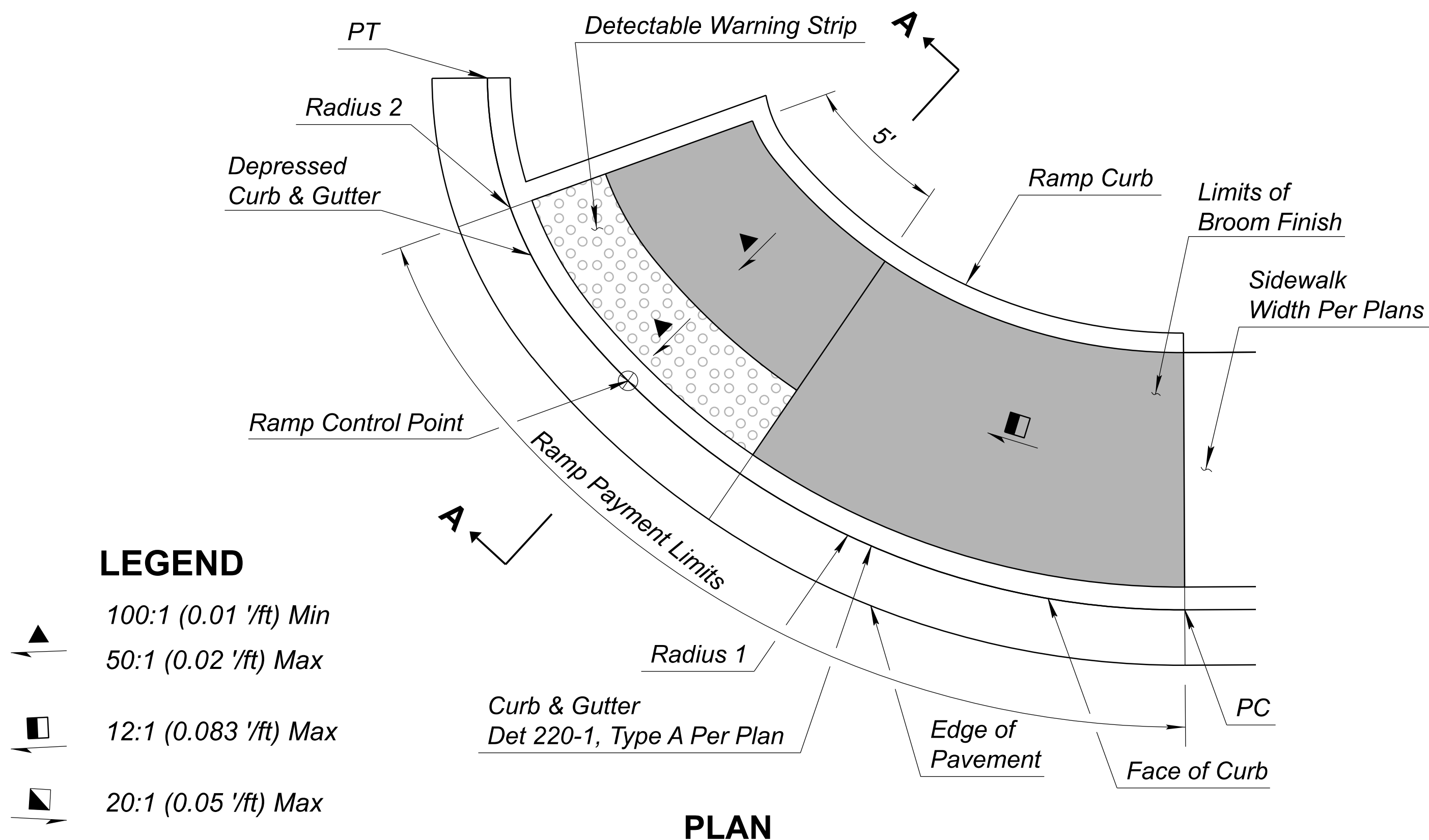


DESIGN	NAME	DATE
N. EKI BWANGOY	07/26	
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE
DETAIL A DRIVEWAYS	MILEPOST
	STRUCTURE NO.

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	T0411-01C	APJ-0(222)T	17	99		
LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. G-06.01
TRACS NO.	T0411-01C					OF



- NOTES**
- Ramp centerline shall be radial from the face of the curb at the sidewalk ramp control point.
 - Concrete shall receive a rough broom finish as shown.

DETAIL B

COMPOUND RADIAL CURB RAMP

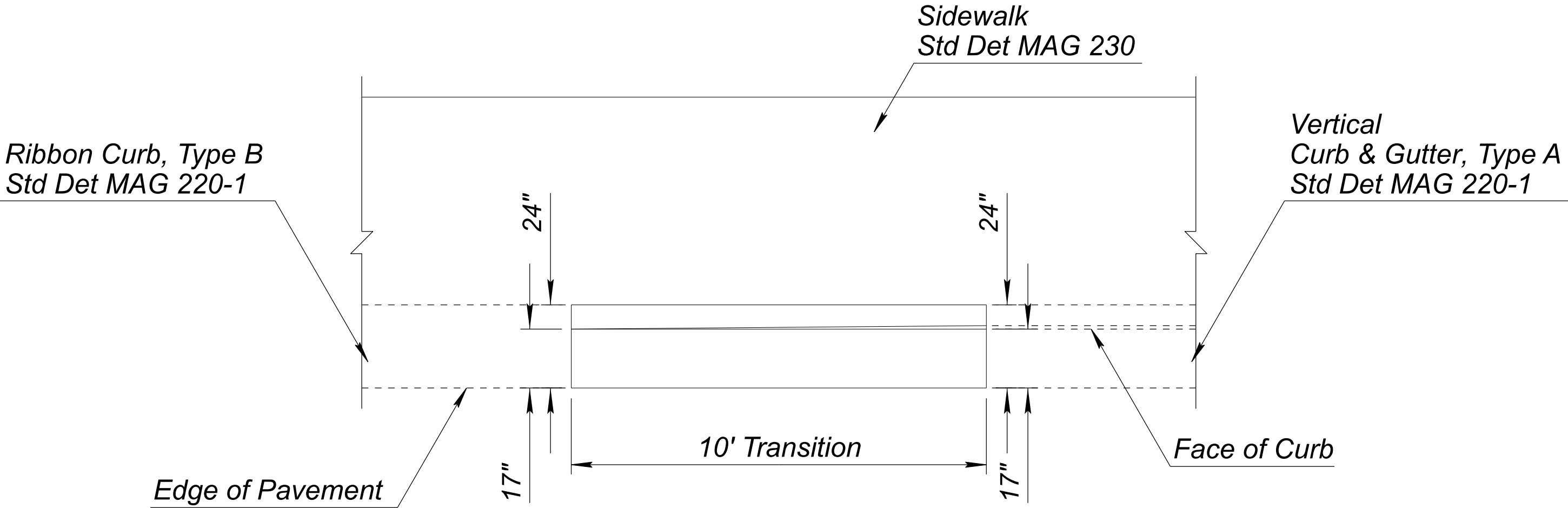


	NAME	DATE
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

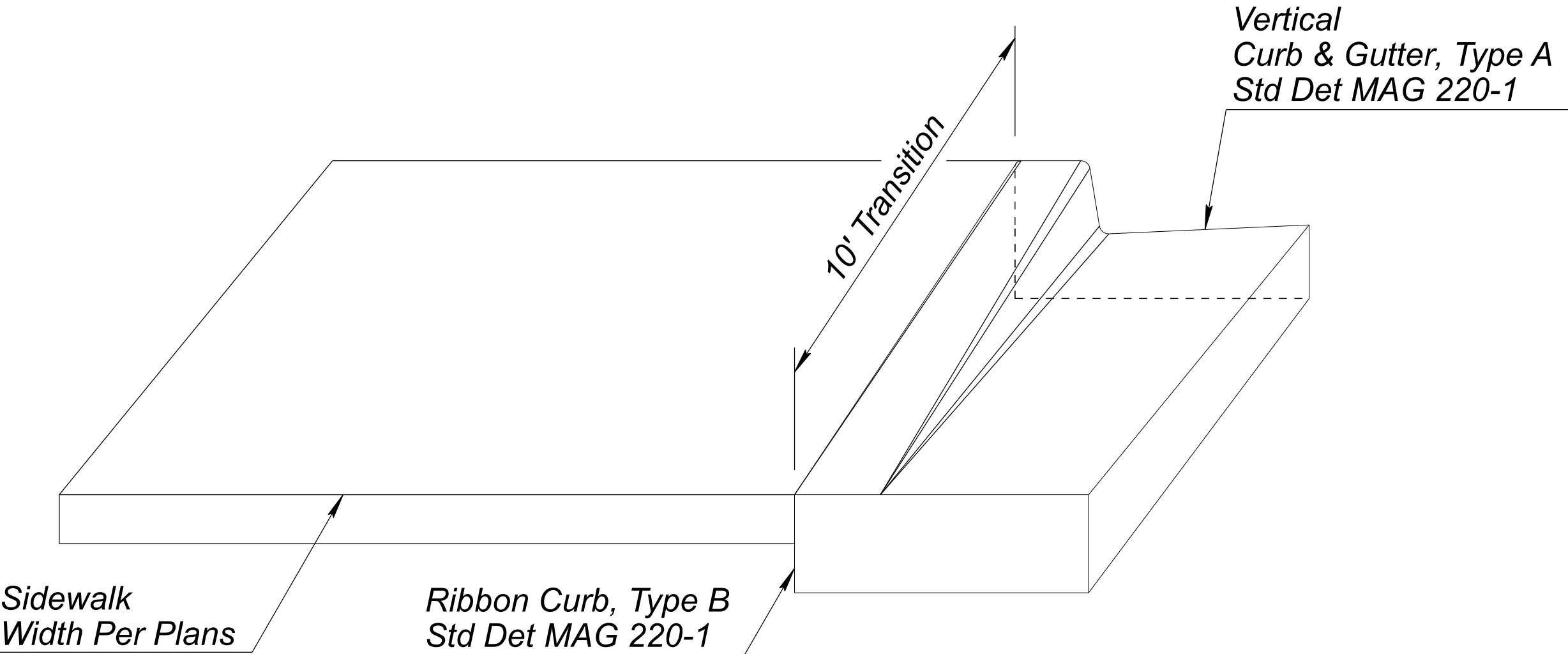
wsp | WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES
DETAIL B COMPOUND RADIAL CURB RAMP

ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	18	TOTAL SHEETS	99	RECORD DRAWING
MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening											DWG NO. G-06.02
STRUCTURE NO.	TRACS NO. T0411-01C											OF



PLAN



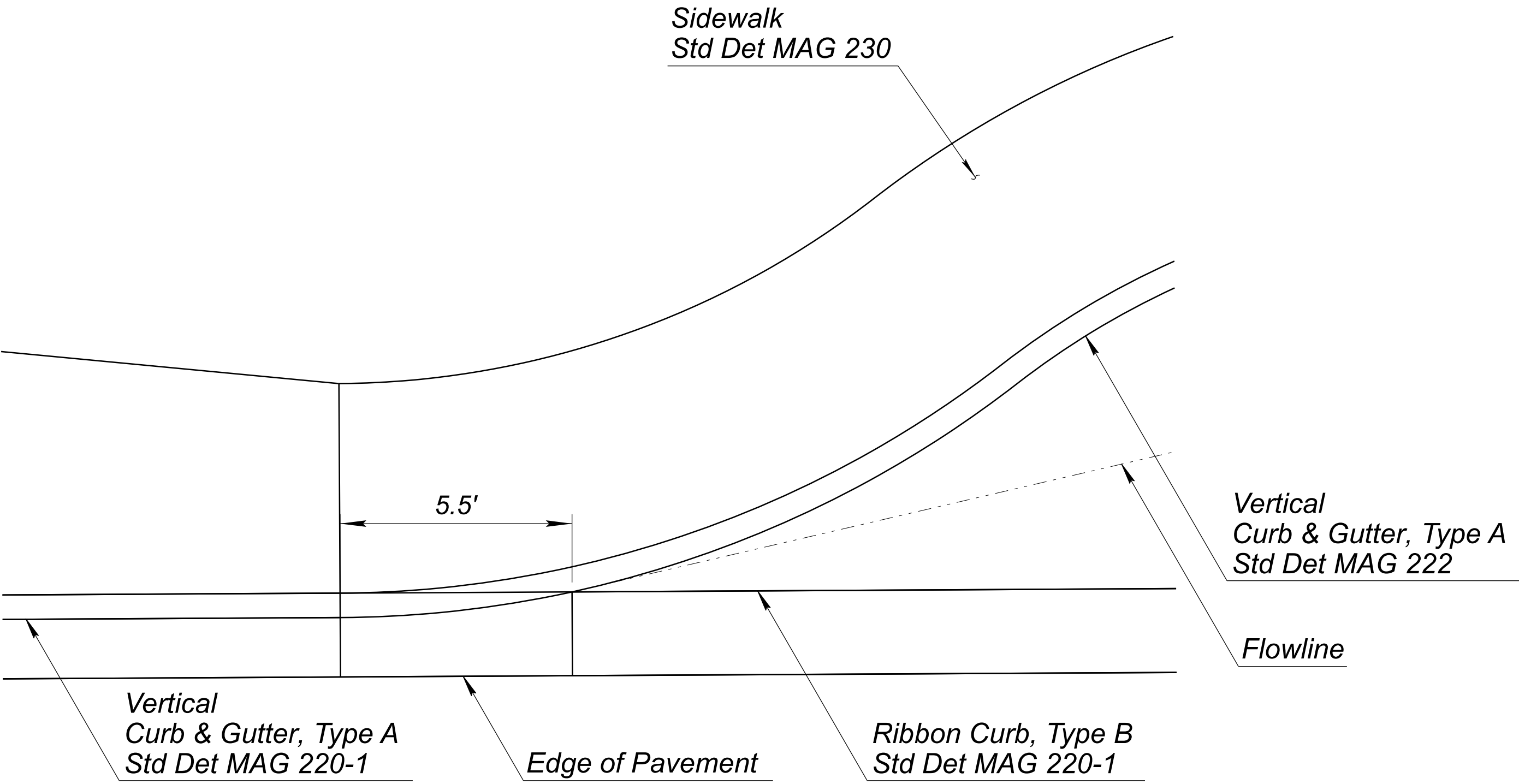
PERSPECTIVE

NOTES

1. See Std Detail MAG 220-1 for curb information not shown.

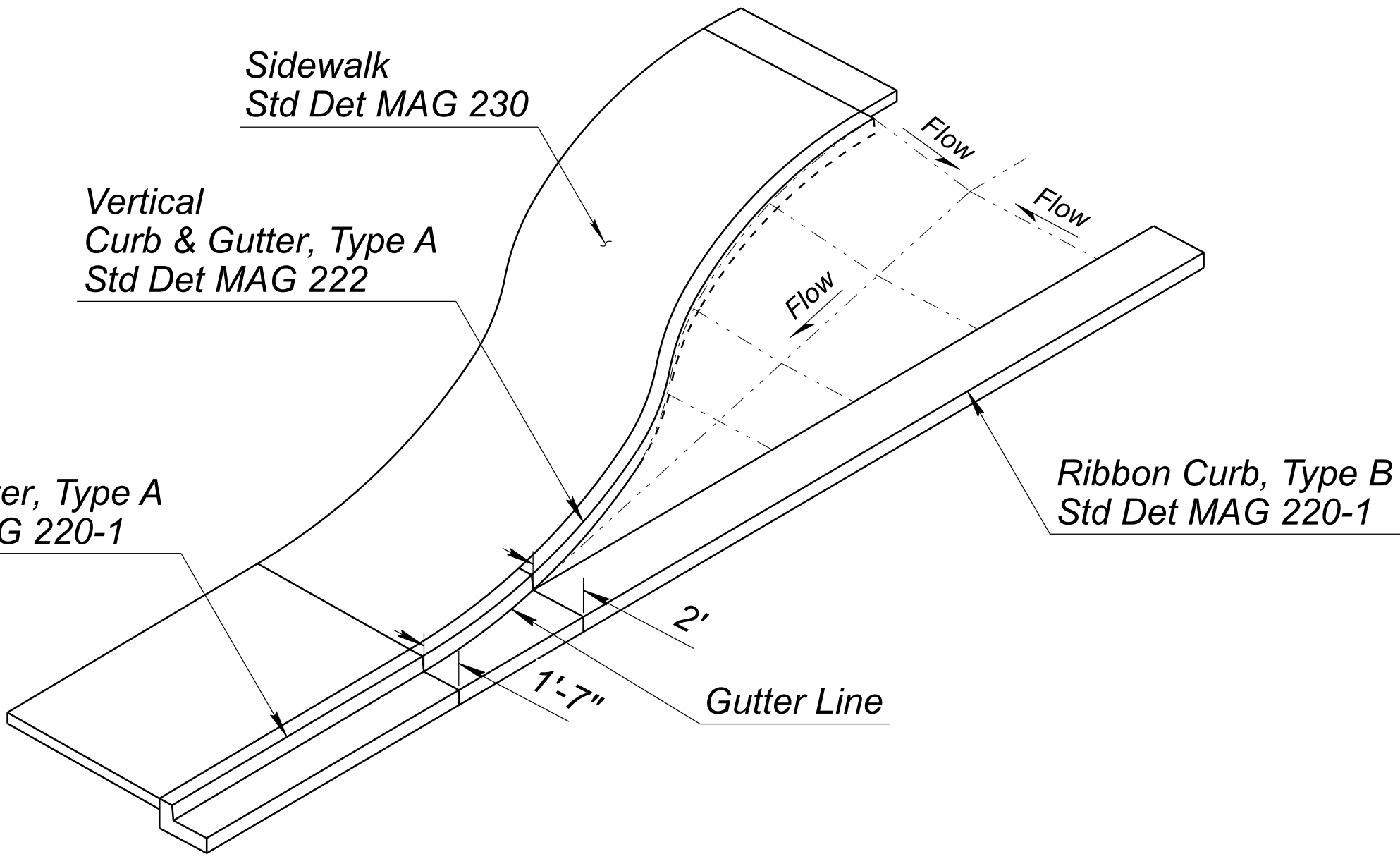
DETAIL C

RIBBON CURB TO VERTICAL CURB
& GUTTER TRANSITION



DETAIL D

CURB TRANSITION AT
DETACHED SIDEWALK



	NAME	DATE
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	MILEPOST			T0411-01C	APJ-0(222)T	19	99	
DETAIL C & D CURB TRANSITIONS		LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. G-06.03
	STRUCTURE NO.	TRACS NO. T0411-01C						____ OF ____

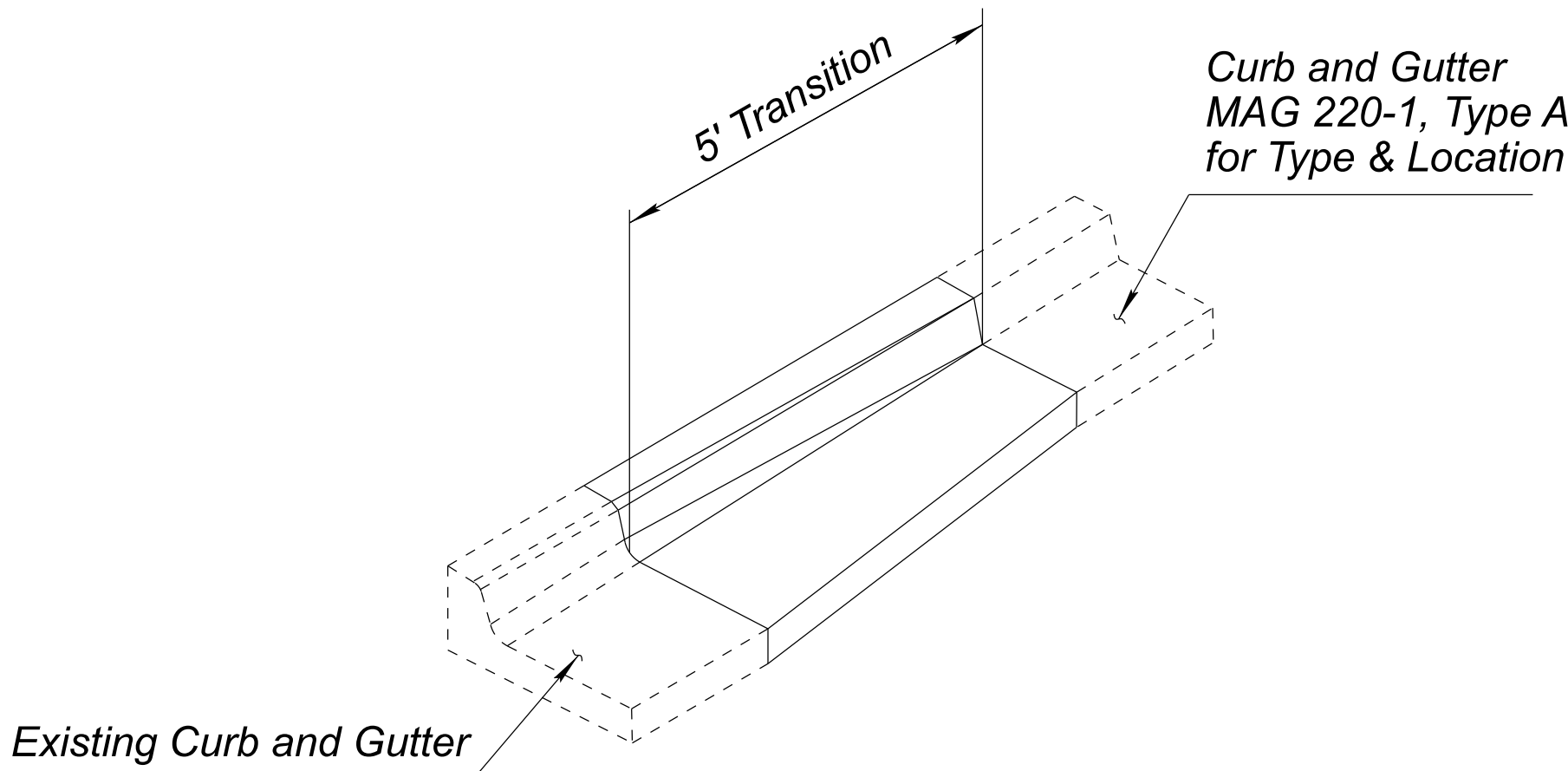
Pothole No.	Location	Utility Owner	Utility Type	Utility Material	Utility Direction	Utility Width	Pothole Coordinates				Existing Ground Elevation	Top of Utility Elevation	Existing Ground to Top of Utility Elevation	Surface Type	Comments
							Northing	Easting	Station	Offset					
PH-01	TOMAHAWK RD	LUMEN	FOT	PLASTIC	NORTHWEST-SOUTHWEST	2.50"	869212.35	818474.2	86+46.34	58 LT	1667.64'	1663.78'	3.86'	Natural Ground	
PH-02	TOMAHAWK RD	AJWD	16" DIP WATER	METALLIC	NORTHEAST-SOUTHWEST	16.00"	869238.37	818485.73	86+72.28	47 LT	1667.34'	1660.88'	6.46'	Natural Ground	
PH-03	TOMAHAWK RD	SOUTHWEST GAS	4" GAS	PLASTIC	NORTH - SOUTH	4.50"	869869.98	818561.69	93+03.48	32 LT	1672.61'	1668.30'	4.31'	Natural Ground	
PH-04	TOMAHAWK RD	LUMEN	FIBER	PLASTIC	NORTH - SOUTH	2.50"	870445.94	818494.75	98+78.11	32 LT	1677.28'	1673.77'	3.51'	Natural Ground	FOUND (3) 2" CONDUITS WITH A TOTAL WIDTH OF 8"
PH-05	TOMAHAWK RD	AJWD	16" DIP WATER	CONCRETE	EAST - WEST	8.00"	870372.12	818546.92	98+05.40	20 LT	1676.53'	1673.36'	3.17'	Natural Ground	
PH-06	TOMAHAWK RD	SRP	POWER	UNKNOWN	EAST - WEST	-	870542.65	818546.03	99+78.89	20 LT	1678.08'	1665.98'	12.10'	Natural Ground	DRY HOLE. DUG ON BLUE STAKE. WENT DOWN 12.1 FEET. AND 3 FEET WIDE COULD NOT FIND SRP ELECTRIC.
PH-07	TOMAHAWK RD	SRP	ELEC	PLASTIC	EAST - WEST	2.50"	869096.81	818453.98	85+31.29	79 LT	1667.99'	1659.42'	8.57'	Natural Ground	LOCATED (1) 2.5" PLASTIC CONDUIT AT A DEPTH OF 8.57'.
PH-08	TOMAHAWK RD	LUMEN	FIBER	PLASTIC	NORTH - SOUTH	2.50"	870425.09	818498.69	98+59.33	28 LT	1676.88'	1675.19'	1.69'	Asphalt	LOCATED (3) 2.5" PLASTIC CONDUITS AT A TOP DEPTH OF 1.69' AND A BOTTOM DEPTH OF 2.06'.
PH-09	TOMAHAWK RD	SRP	ELECTRIC	PLASTIC	NORTH - SOUTH	2.50"	870445.23	818552.24	98+79.19	26 RT	1677.44'	1673.26'	4.18'	Natural Ground	LOCATED (1) 2.5" PLASTIC CONDUIT AT A DEPTH OF 4.18'.
PH-09A	TOMAHAWK RD	AJWD	16" DIP WATER	CONCRETE	NORTH - SOUTH	16.50"	870445.04	818550.8	98+79.01	26 RT	1677.31'	1672.89'	4.42'	Natural Ground	LOCATED (1) 16.5" CONCRETE PIPE AT A DEPTH OF 4.42'.
PH-10	TOMAHAWK RD	LUMEN	TELECOMMUNICATION	PLASTIC	NORTH - SOUTH	4.50"	870870.72	818554.01	103+04.06	30 RT	1682.23'	1679.73'	2.50'	Natural Ground	LOCATED (1) 4.5" PLASTIC CONDUIT AT A DEPTH OF 2.5'. EXCAVATED 4' DEEP AND 1.5' EAST AND WEST OF THE LOCATED CONDUIT. CREW WAS UNABLE TO FIND THE REQUESTED SRP ELECTRIC UTILITY. THERE WAS NO SRP BLUESTAKE AT THIS LOCATION.

Pothole information shown was obtained from T2 Utility Engineers, prepared by James Mueller, Arizona Registered Engineer No. 64432, results dated December 2024 and July 2025. This information is reproduced herein for reference and design coordination purposes only. The undersigned Engineer neither performed nor sealed the referenced pothole data reports and makes no representation regarding the accuracy, completeness, or current suitability of the pothole data beyond its use as furnished for this design.

DETAIL E

POTHOLES

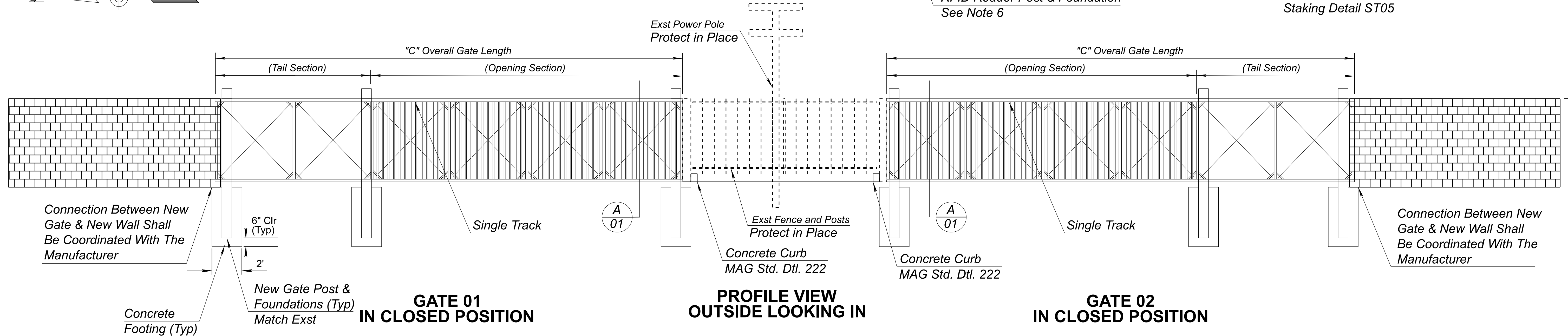
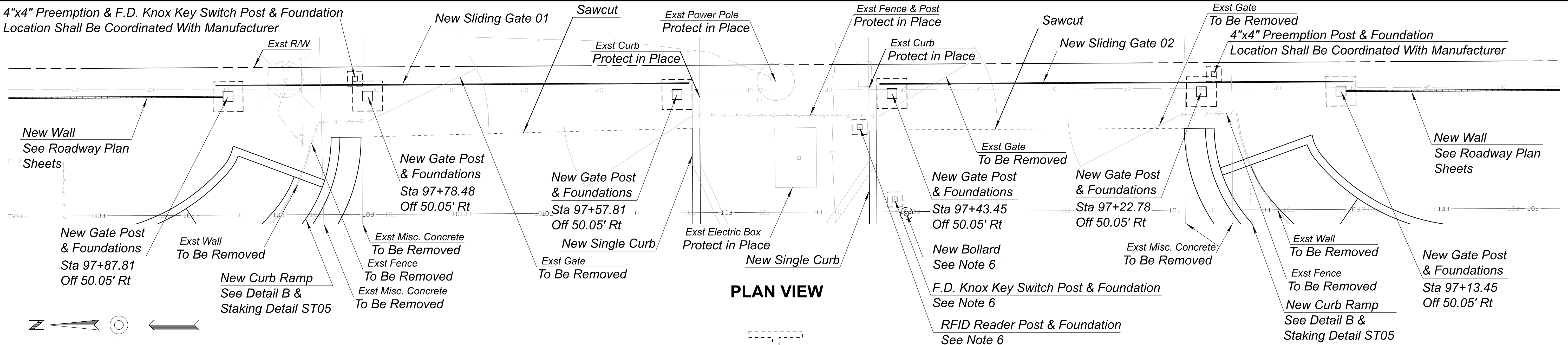
	DESIGN	N. EKI BWANGOY	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 20	TOTAL SHEETS 99	RECORD DRAWING
	DRAWN	N. EKI BWANGOY	07/26									
	CHECKED	M. MEDINA	07/26									
	 WSP USA, Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288			DETAIL E POTHOLES	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening	DWG NO. G-06.04						
					STRUCTURE NO.	TRACS NO. T0411-01C			____ OF ____			



DETAIL F

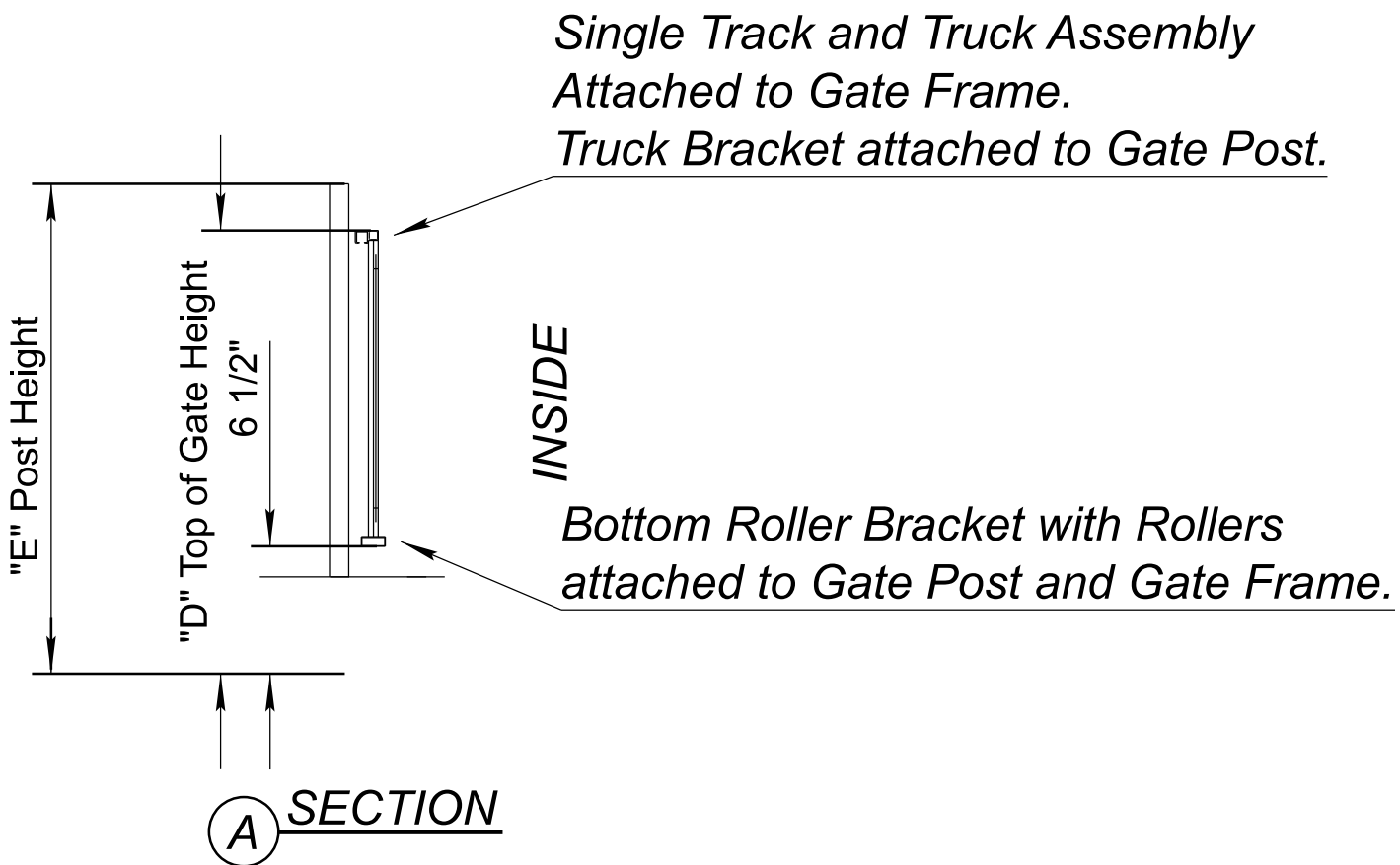
CURB AND GUTTER TRANSITION

	<table><tr><td></td><td>NAME</td><td>DATE</td></tr><tr><td>DESIGN</td><td>N. EKI BWANGOY</td><td>07/26</td></tr><tr><td>DRAWN</td><td>N. EKI BWANGOY</td><td>07/26</td></tr><tr><td>CHECKED</td><td>M. MEDINA</td><td>07/26</td></tr></table>		NAME	DATE	DESIGN	N. EKI BWANGOY	07/26	DRAWN	N. EKI BWANGOY	07/26	CHECKED	M. MEDINA	07/26	<table><tr><td colspan="2">ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES</td></tr><tr><td colspan="2">DETAIL F CURB AND GUTTER TRANSITION</td></tr></table>	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES		DETAIL F CURB AND GUTTER TRANSITION		ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 21	TOTAL SHEETS 99	RECORD DRAWING
			NAME	DATE																						
		DESIGN	N. EKI BWANGOY	07/26																						
		DRAWN	N. EKI BWANGOY	07/26																						
CHECKED	M. MEDINA	07/26																								
ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES																										
DETAIL F CURB AND GUTTER TRANSITION																										
MILEPOST																										
STRUCTURE NO.	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. G-06.05 ____ OF ____																				
TRACS NO. T0411-01C																										



- NOTES**
- All concrete shall be Class B per Section 1006 of the Specifications.
 - Construction and materials shall conform to Section 1006 of the Specifications.
 - Gate 1 and Gate 2 and all associated foundations, gate operators, and gate control devices for the Raindance Mobile Home Park access, shall be paid for under Item 9240119.
 - Steel fence panels shall be designed by the manufacturer. Manufacturer-sealed shop drawings shall be provided for Engineer review and approval.
 - New gate panels shall be designed to comply with all applicable requirements of the 2018 International Building Code (IBC).
 - Posts and foundation locations shall be coordinated with the manufacturer.

CRITICAL DIMENSIONS			
	DESCRIPTION	FORMULA	DIMENSION
A	CLEAR OPENING	A	20'
B	COUNTERBALANCE	A/2	20'
C	OVERALL GATE LENGTH	A+B+6"+8"	31'8"
D	TOP OF GATE HEIGHT	D	6'
E	POST HEIGHT	E	6.5"
ADJOINING FENCE HEIGHT		6'	
GATE STORAGE IN OPEN POSITION (G01) (OUTSIDE LOOKING IN)		LEFT	
GATE STORAGE IN OPEN POSITION (G02) (OUTSIDE LOOKING IN)		RIGHT	



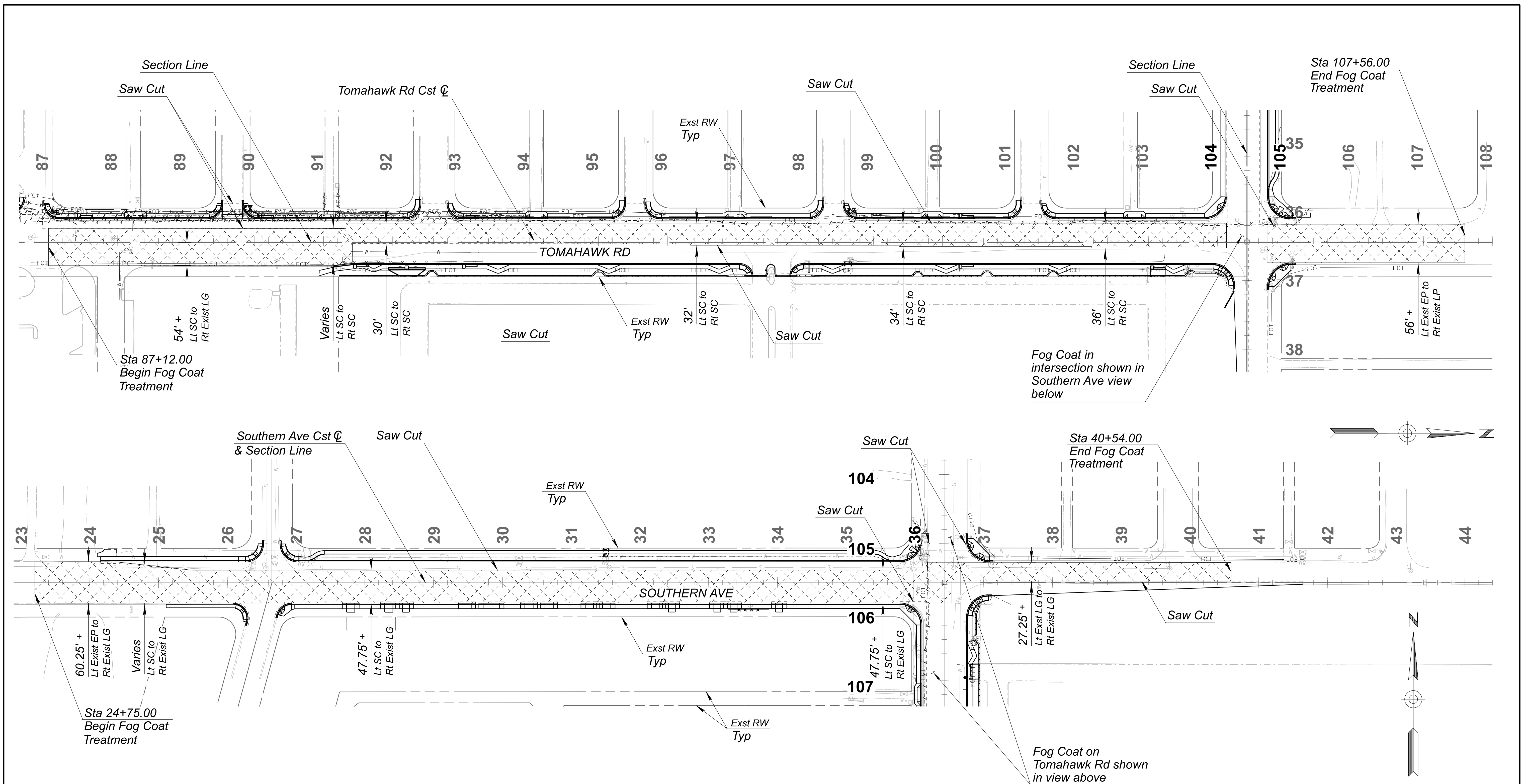
	NAME	DATE
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

wsp

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	
DETAIL G SINGLE TRACK CANTILEVER GATE	

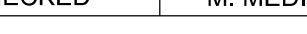
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MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening											DWG NO. G-06.06
STRUCTURE NO.	TRACS NO. T0411-01C											OF



- LEGEND**
- PSS 2
 - SC Sawcut
 - LG Lip of Gutter
 - EP Edge of Pavement

DETAIL H

FOG COAT LIMITS

	NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES		ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	N. EKI BWANGOY	07/26										
	DRAWN	N. EKI BWANGOY	07/26										
	CHECKED	M. MEDINA	07/26										
		WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288		DETAIL H FOG COAT LIMITS		MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening DWG NO. G-06.07						
						STRUCTURE NO.							TRACS NO. T0411-01C

SURVEY REPORT	
H DATUM:	NAD83(2011)(EPOCH 2010.00)
V DATUM:	NAV88 (DETERMINED WITH GEOID18)
PROJECTION:	AZ STATE PLANE CENTRAL (GROUND)
UNIT:	INTERNATIONAL FEET
GRID TO GROUND SCALE FACTOR	ADOT GAF=1.00016
BASE POINT FOR SCALE	0,0,0
FIELD WORK DATE	FEB 2024, AEROTECH MAPPING

BENCHMARK (ATM PT#20)	
NGS POINT G474 (PID DU1317) AS DESCRIBED IN ITS NGS DATA SHEET	
ELEVATION (FT):	1748.03
ELEVATION (M):	532.801
THE ELEVATIONS LISTED ABOVE ARE NAV88 ORTHOMETRIC HEIGHTS DETERMINED WITH GEOID18	

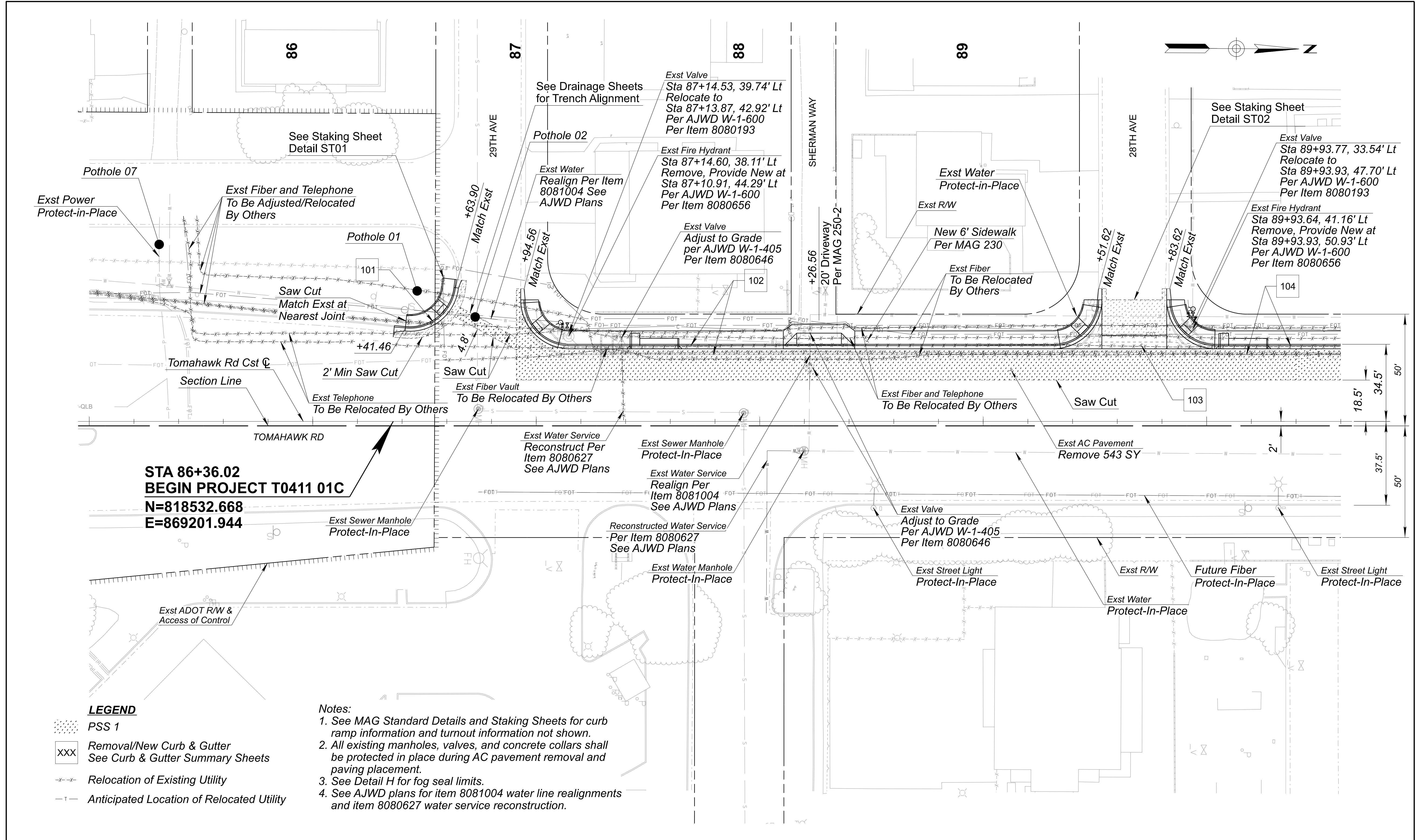
BASIS OF BEARINGS	
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF ARIZONA STATE PLANE CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83)(2011)(EPOCH: 2010.00)	

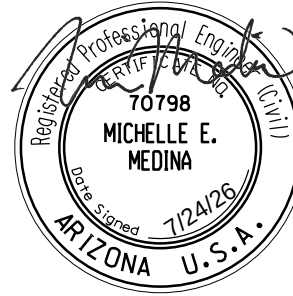
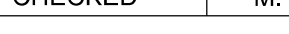
HORIZONTAL CONTROL				
NGS SURVEY CONTROL				
DESIGNATION:	G474	N:	876748.31	(GRID)
PID:	DU1317	E:	816963.94	(GRID)
STATE/COUNTY:	AZ/PINAL	EPOCH:	2010.00	
DESCRIPTION:	NGS VERTICAL CONTROL DISK SET IN ROCK OUTCROP STAMPED "G474 1981"			
NGS SURVEY CONTROL (CORS)				
CORS ID:	AZUP	N:	902637.65	(GRID)
PID:	DN4496	E:	790454.34	(GRID)
STATE/COUNTY:	AZ/MARICOPA	EPOCH:	2010.00	
DESCRIPTION:	THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA FOR NGS GPS CONTINUOUSLY OPERATING REFERENCE STATION AZUP			
NGS SURVEY CONTROL				
DESIGNATION:	1001	N:	897277.92	(GRID)
PID:	AJ3678	E:	802395.27	(GRID)
STATE/COUNTY:	AZ/MARICOPA	EPOCH:	2010.00	
DESCRIPTION:	NGS STAINLESS STEEL ROD IN SLEEVE, FLUSH WITH GROUND, STAMPED "100N1 1999"			

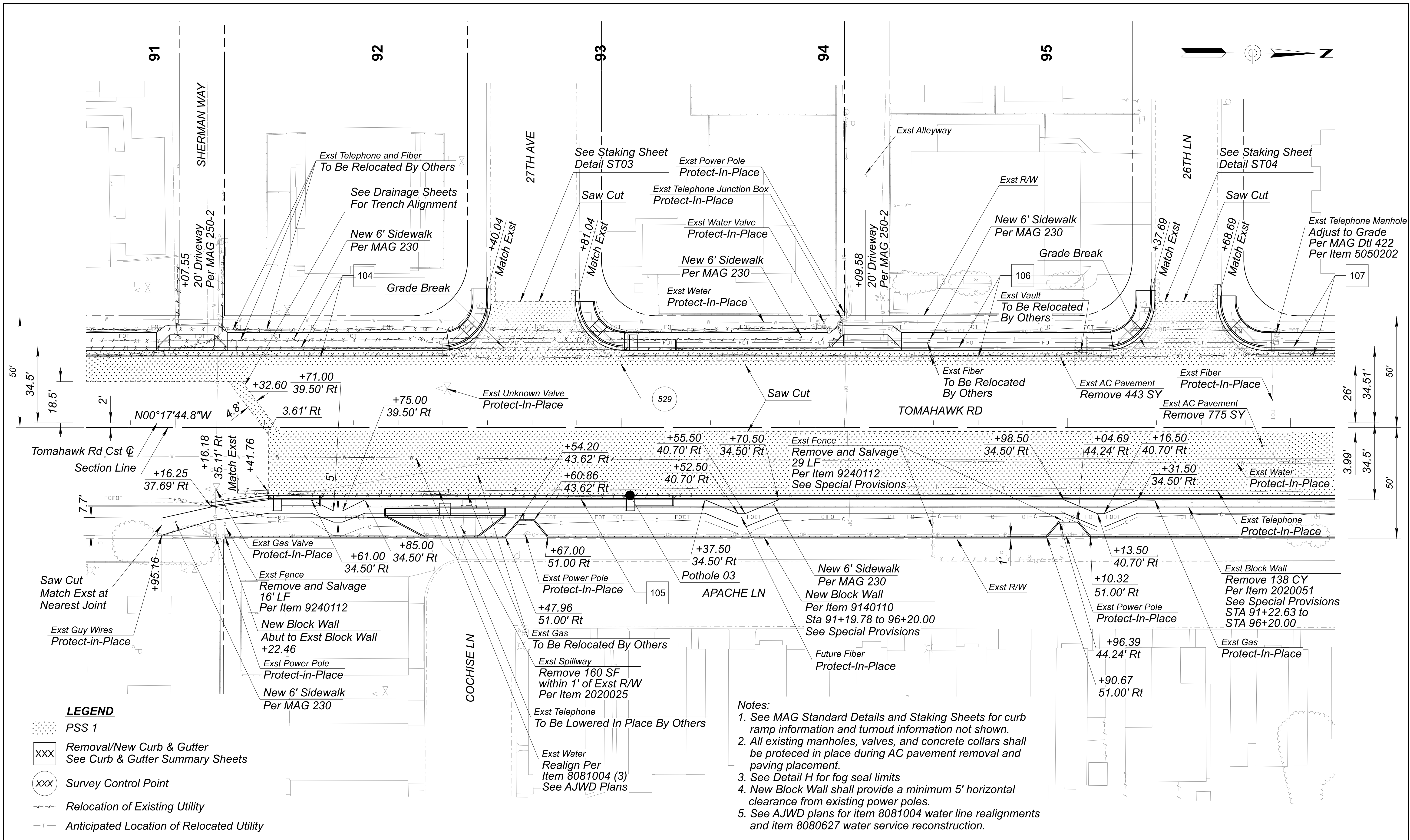
PT#	GROUND (N)	GROUND (E)	ELEV	DESC
1	868669.985	815892.881	1651.483	3ACAP ADOT TW
2	868912.334	813023.690	1646.862	3ACAP ADOT TW
3	873148.841	820250.285	1711.378	3BCAP AHP 933+40 IN HW
4	871244.825	822983.707	1712.284	3BCAP AHP 966+71 IN HW
5	868353.548	815894.889	1637.607	3ACAP ADOT RS19847
6	869677.082	821181.223	1681.693	3BCAP QTY OF AJ
7	871021.227	821169.356	1698.018	3BCAP (ILL)
8	873662.407	821157.004	1721.951	1/2IN REBAR IN HOLE-0.18
9	873650.416	818511.160	1715.134	2.5BCAP GLO IN HOLE-0.45
10	871009.030	818525.277	1684.942	5/8IN REBAR IN HOLE-0.15
11	871015.067	819847.012	1689.481	3BCAP QTY OF AJ
12	872335.316	819840.326	1699.566	1PCAP 31020 IN HOLE-0.47
13	870994.551	815880.567	1678.472	3BCAP QTY OF MESA IN WELL-0.4
14	868366.029	818538.910	1663.834	3ACAP ADOT IN WELL-0.84
15	868376.931	821181.535	1673.632	5/8IN REBAR
16	870982.548	813237.161	1666.297	FND 3ACAP ADOT IN WELL-0.48
17	870988.713	814557.398	1674.614	2.5BCAP QTY OF AJ IN CONC
18	868341.456	813251.294	1641.875	3ACAP ADOT IN WELL-0.54
19	868347.953	814573.044	1649.028	5/8IN REBAR
20	876888.586	817094.656	1748.038	FND NGS POINT G474
21	868733.735	819600.938	1672.742	3ACAP IN HW (ILL)
22	897421.489	802523.684	1923.865	FND NGS POINT 1001
23	868689.963	820143.686	1673.715	3ACAP ADOT IN HW
499	868896.071	818036.547	1663.754	SET MAG WITH ORANGE FLAGGING
501	868984.244	815933.560	1656.270	M-HMP1
502	868711.410	815871.116	1637.861	M-HMP2
503	868716.418	815958.497	1639.620	M-HMP3
504	868354.990	815878.917	1637.604	M-HMP4
505	868355.211	815908.498	1637.620	M-HMP5
506	868465.870	815880.894	1654.303	M-PID6 CONC COR
507	868458.870	815913.341	1654.184	M-PID7 CONC EDGE X
508	868670.270	815879.173	1651.440	M-PID8 CONC COR
509	868675.317	815910.111	1650.059	M-PID9 CONC EDGE X
510	868901.274	812993.781	1638.946	M-HMP10
511	868914.381	813014.005	1646.849	M-PID11 INSIDE CONC COR
512	868904.317	813015.720	1646.866	M-PID12 INSIDE CONC COR
513	868878.697	812994.868	1646.541	M-HMP13
514	868918.541	812976.991	1646.709	M-HMP14
515	868765.702	813204.725	1646.003	M-HMP15
516	868921.952	814540.938	1640.523	M-HMP16
517	868689.575	815886.094	1637.847	M-HMP17
518	868399.511	815891.974	1637.600	M-HMP18
519	868434.893	815936.661	1654.295	M-PID19 CONC COR
520	868434.625	815851.212	1654.235	M-PID20 CONC COR
521	868743.974	818500.654	1665.345	M-HMP21
522	868752.724	818573.402	1665.385	M-HMP22
523	870970.782	816819.214	1680.077	M-HMP23
524	871029.121	816812.555	1680.143	M-HMP24
525	871001.239	818491.056	1684.940	M-HMP25
526	871053.591	818555.668	1685.531	M-HMP26
527	871011.589	819626.716	1690.217	M-HMP27
528	872169.967	818523.179	1694.093	M-HMP28
529	869865.528	818502.673	1671.268	M-HMP29
530	868636.819	819874.869	1682.681	M-HMP30
1001	871708.711	817546.523	1689.046	A-HMP1 SET MAG
1002	871466.035	819181.528	1693.127	A-HMP2 SET MAG
1003	870347.967	817803.246	1675.934	A-HMP3 FND 3BCAP AHD19
1004	870346.492	819193.751	1681.291	A-PID4 STOP LINE SEC
1005	869456.285	813245.036	1653.789	A-HMP5 SET MAG
1006	869338.335	815881.899	1661.481	A-HMP6 SET MAG
1007	869109.693	819541.888	1674.132	A-PID7 SSMH
1008	868780.339	817968.501	1672.721	A-HMP8 SET 60D
1009	868052.680	813250.948	1640.204	A-HMP9 SET HUB
1010	867977.893	815903.859	1634.663	A-HMP10
1011	868419.506	819511.449	1678.064	A-HMP11 SET HUB
1012	869111.188	819502.806	1674.326	A-PID12 SSMH
1013	870315.751	819185.716	1680.757	A-PID13 STOP LINE SVC

Survey information shown was obtained from Aerotech Mapping Inc, prepared by Eric Phan, Arizona Registered Land Surveyor No. 60371, report dated April 2024. This information is reproduced herein for reference and design coordination purposes only. The undersigned Engineer neither performed nor sealed the referenced survey report and makes no representation regarding the accuracy, completeness, or current suitability of the survey data beyond its use as furnished for this design.

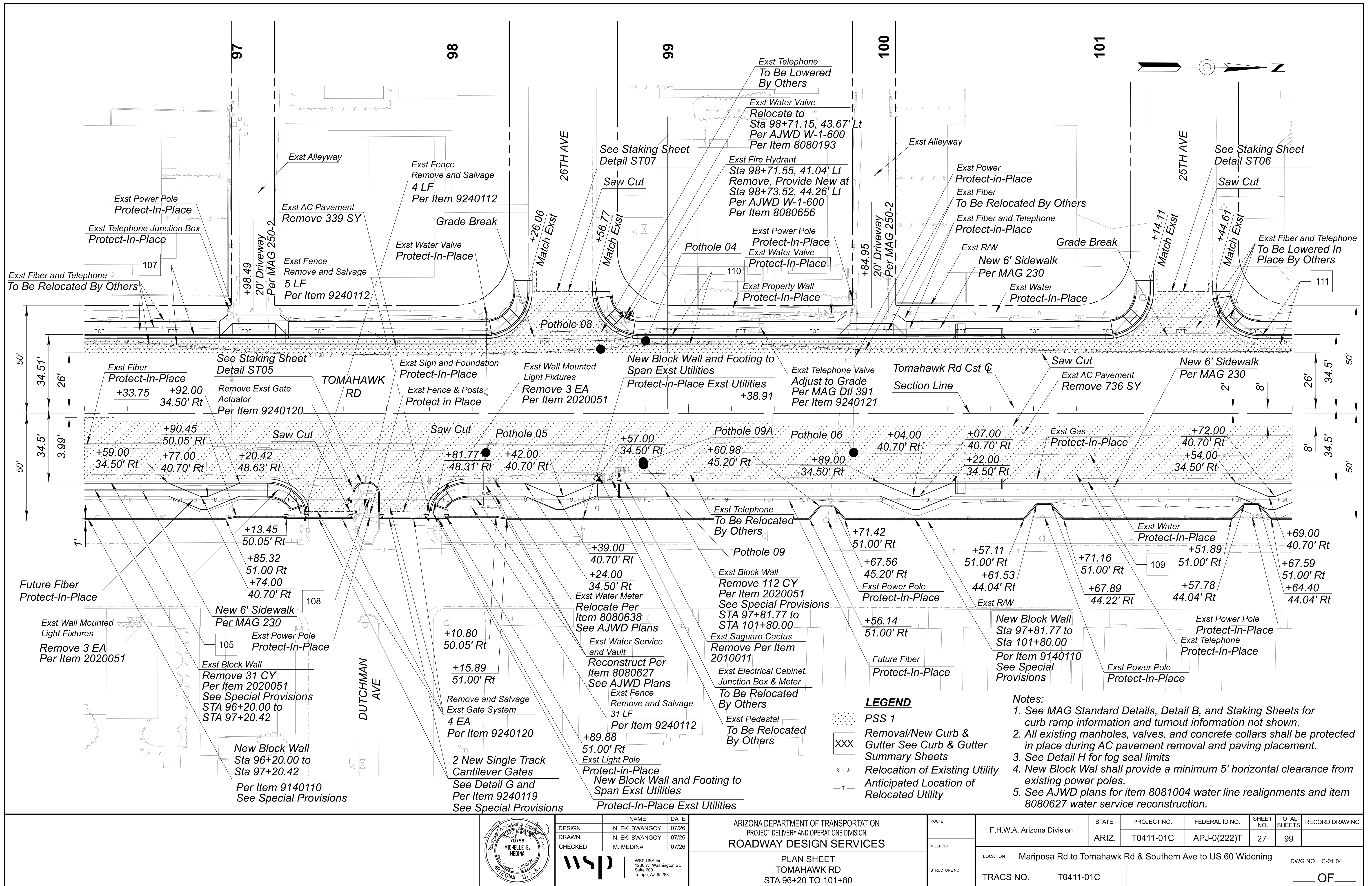
USBF128053 7/24/2026 3:30:17 PM c:\bms\wsp-us-pw-az\dms04674\T0411gc01.dgn \ Model Name: T0411ds.dgn [Sheet]		 WSP USA, Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288	NAME N. EKI BWANGOY DATE 07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 24	TOTAL SHEETS 99	RECORD DRAWING	
			DESIGN N. EKI BWANGOY DATE 07/26		MILEPOST								LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening
			CHECKED M. MEDINA DATE 07/26		STRUCTURE NO.								TRACS NO. T0411-01C
____ OF ____													

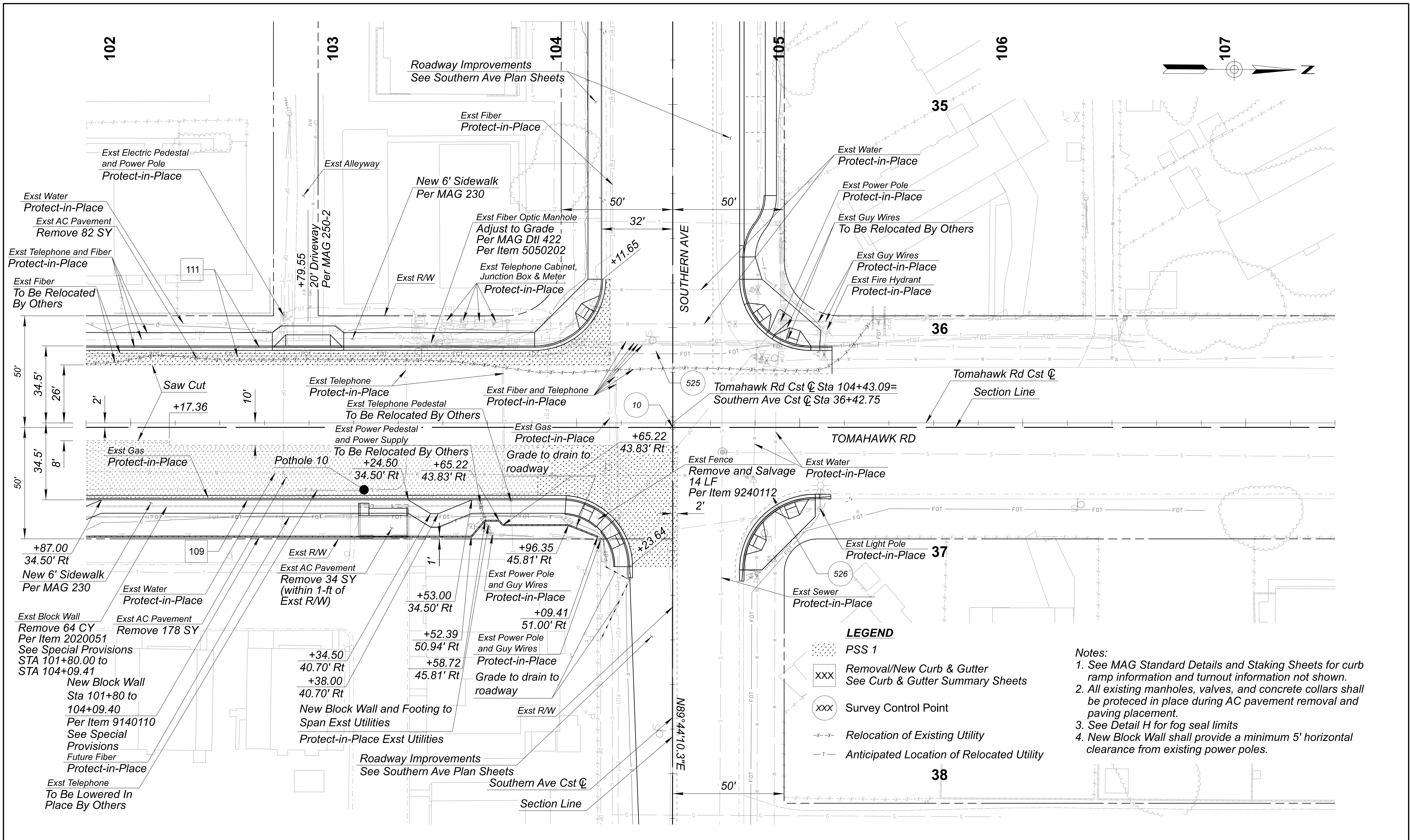


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	CHECKED	M. MEDINA	07/26										
	 WSP USA, Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288				PLAN SHEET TOMAHAWK RD STA 85+00 TO 90+60			LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening DWG NO. C-01.02					
				TRACS NO. T0411-01C		OF							

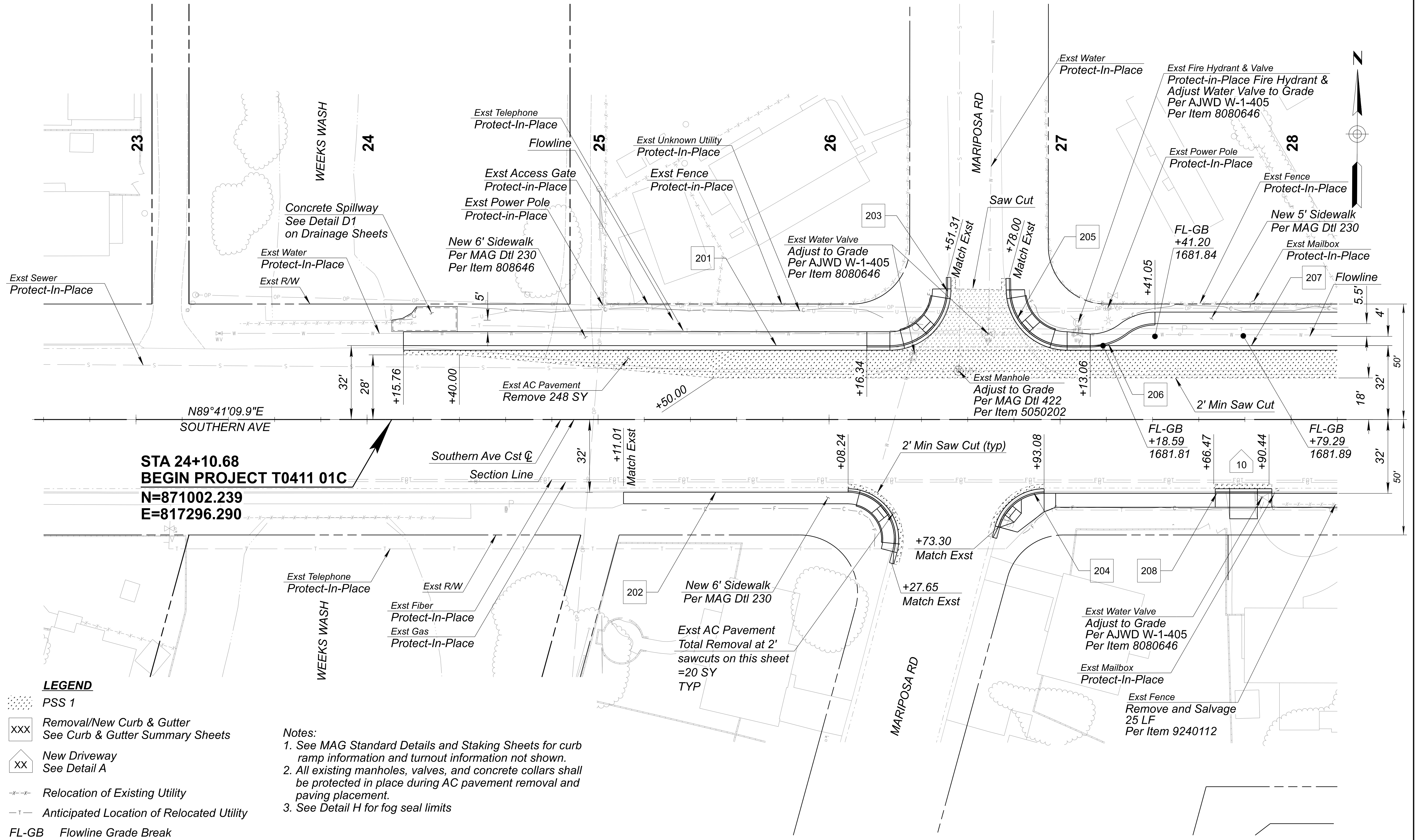


		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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	DRAWN	N. EKI BWANGOY	07/26		PLAN SHEET TOMAHAWK RD STA 90+60 TO 96+20	MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening	DWG NO. C-01.03				
	CHECKED	M. MEDINA	07/26									
		WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288				STRUCTURE NO.	TRACS NO. T0411-01C		OF			





		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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	DRAWN	N. EKI BWANGOY	07/26		 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288	STRUCTURE NO.	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. C-01.05
	CHECKED	M. MEDINA	07/26	TRACS NO. T0411-01C					OF			
	PLAN SHEET TOMAHAWK RD STA 101+80 TO 107+20											



LEGEND

PSS 1

Removal/New Curb & Gutter
See Curb & Gutter Summary Sheets

New Driveway
See Detail A

Relocation of Existing Utility

Anticipated Location of Relocated Utility

FL-GB Flowline Grade Break

- Notes:**
1. See MAG Standard Details and Staking Sheets for curb ramp information and turnout information not shown.
 2. All existing manholes, valves, and concrete collars shall be protected in place during AC pavement removal and paving placement.
 3. See Detail H for fog seal limits



	NAME	DATE
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

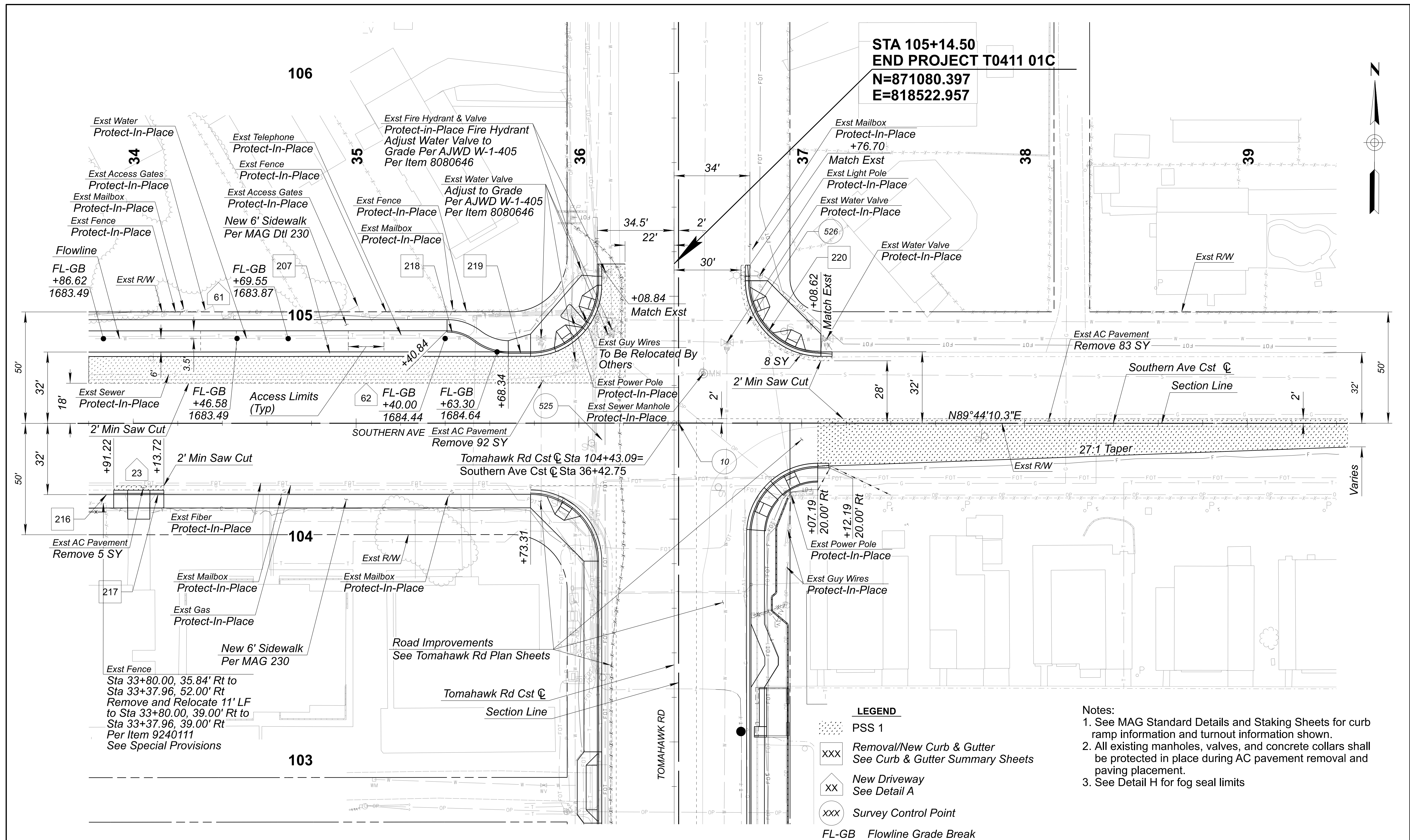
wsp

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

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

PLAN SHEET
SOUTHERN AVE
STA 22+60 TO 28+20

ROUTE	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	ARIZ.	T0411-01C	APJ-0(222)T	29	99	
LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. C-01.06
TRACS NO.	T0411-01C					OF



LEGEND

XXX PSS 1

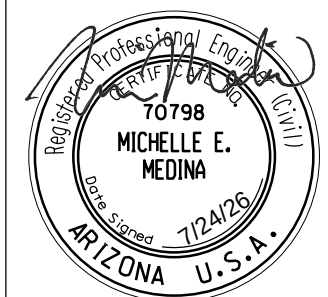
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See Curb & Gutter Summary Sheets

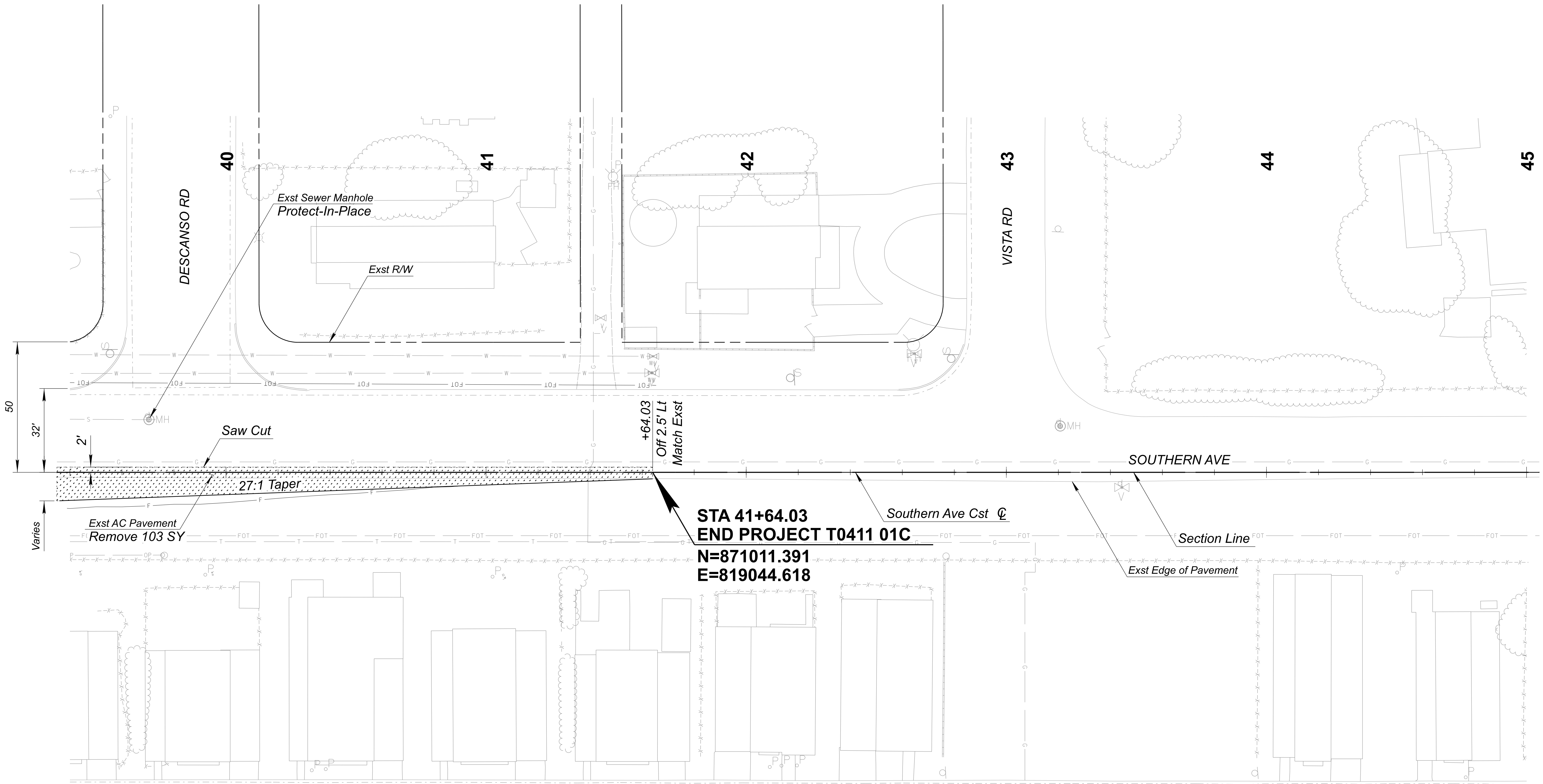
XX New Driveway
See Detail A

xxx Survey Control Point

FL-GB Flowline Grade Break

- Notes:**
1. See MAG Standard Details and Staking Sheets for curb ramp information and turnout information shown.
 2. All existing manholes, valves, and concrete collars shall be protected in place during AC pavement removal and paving placement.
 3. See Detail H for fog seal limits

	NAME N. EKI BWANGOY DATE 07/26		ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES		ROUTE	F.H.W.A. Arizona Division		STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 31	TOTAL SHEETS 99	RECORD DRAWING
	DRAWN N. EKI BWANGOY 07/26		PLAN SHEET SOUTHERN AVE STA 33+80 TO 39+40		MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening		TRACS NO. T0411-01C		DWG NO. C-01.08		OF	
	CHECKED M. MEDINA 07/26				STRUCTURE NO.								

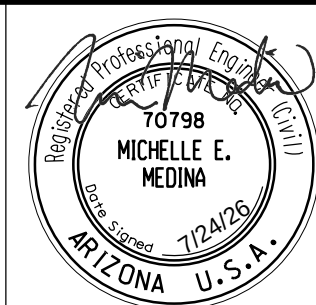


LEGEND

 PSS 1

Notes:

1. All existing manholes, valves, and concrete collars shall be protected in place during AC pavement removal and paving placement.
2. See Detail H for fog seal limits



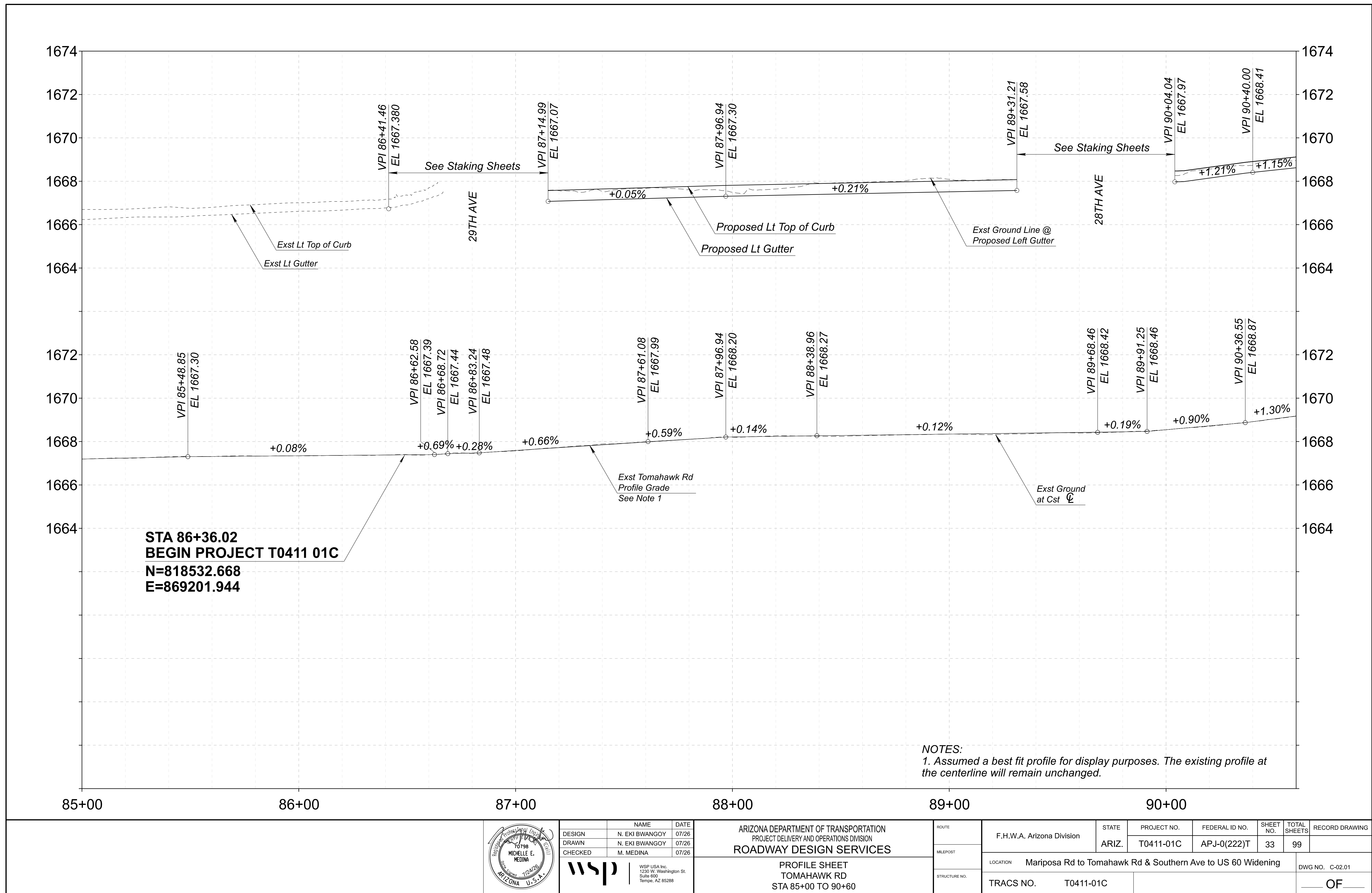
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DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

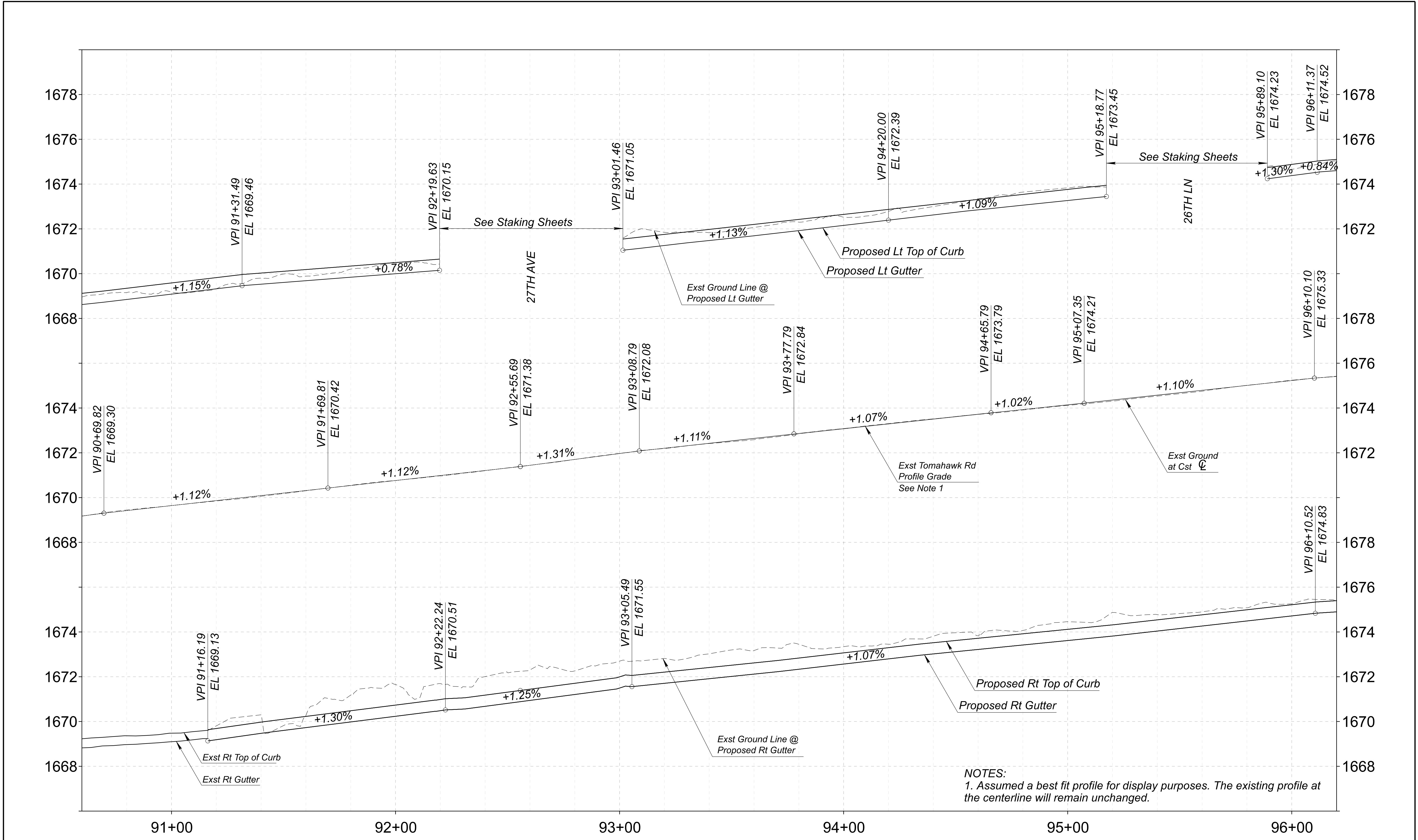
wsp
WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

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

PLAN SHEET
SOUTHERN AVE
STA 39+40 TO 45+00

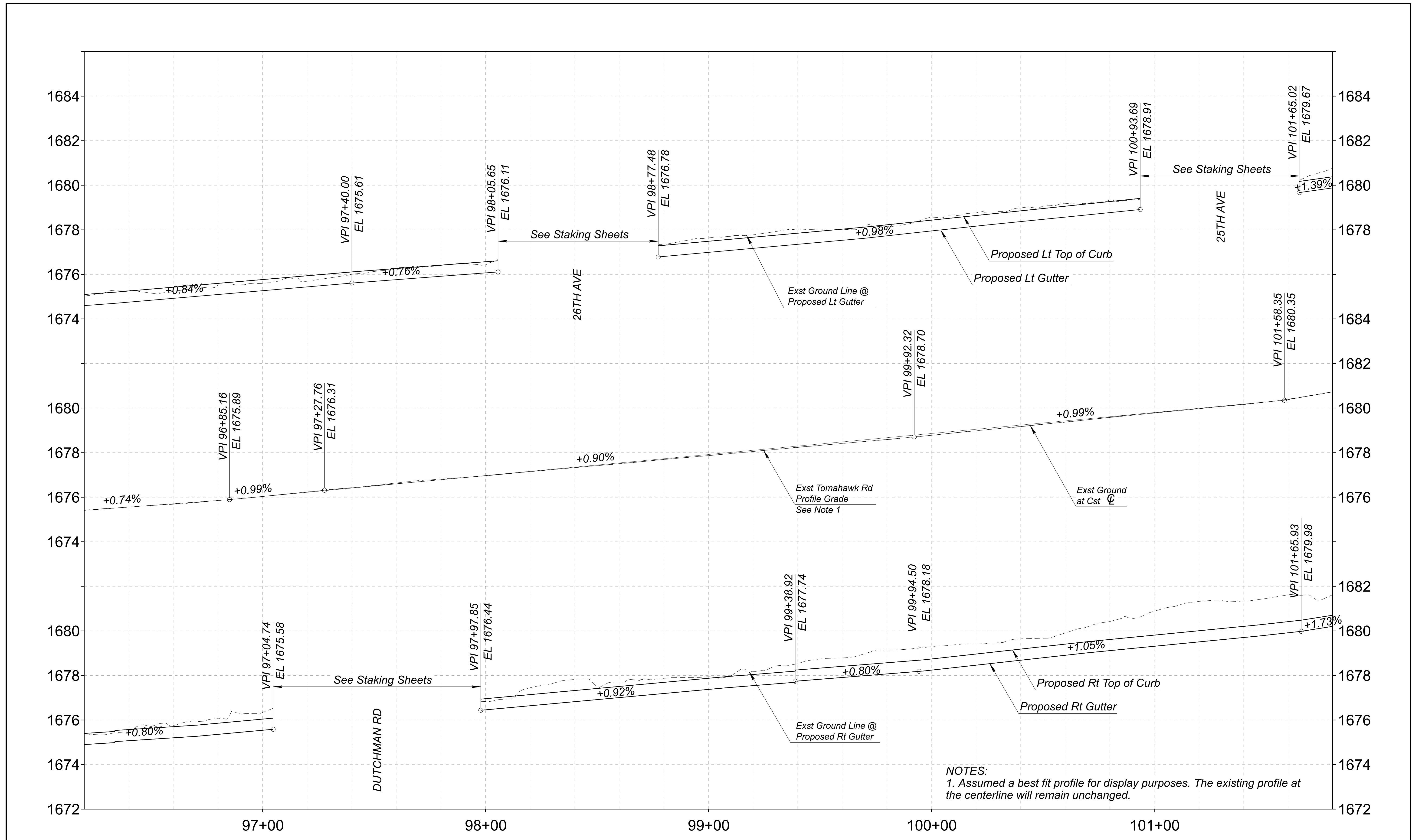
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STRUCTURE NO.	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. C-01.09
	TRACS NO. T0411-01C						OF





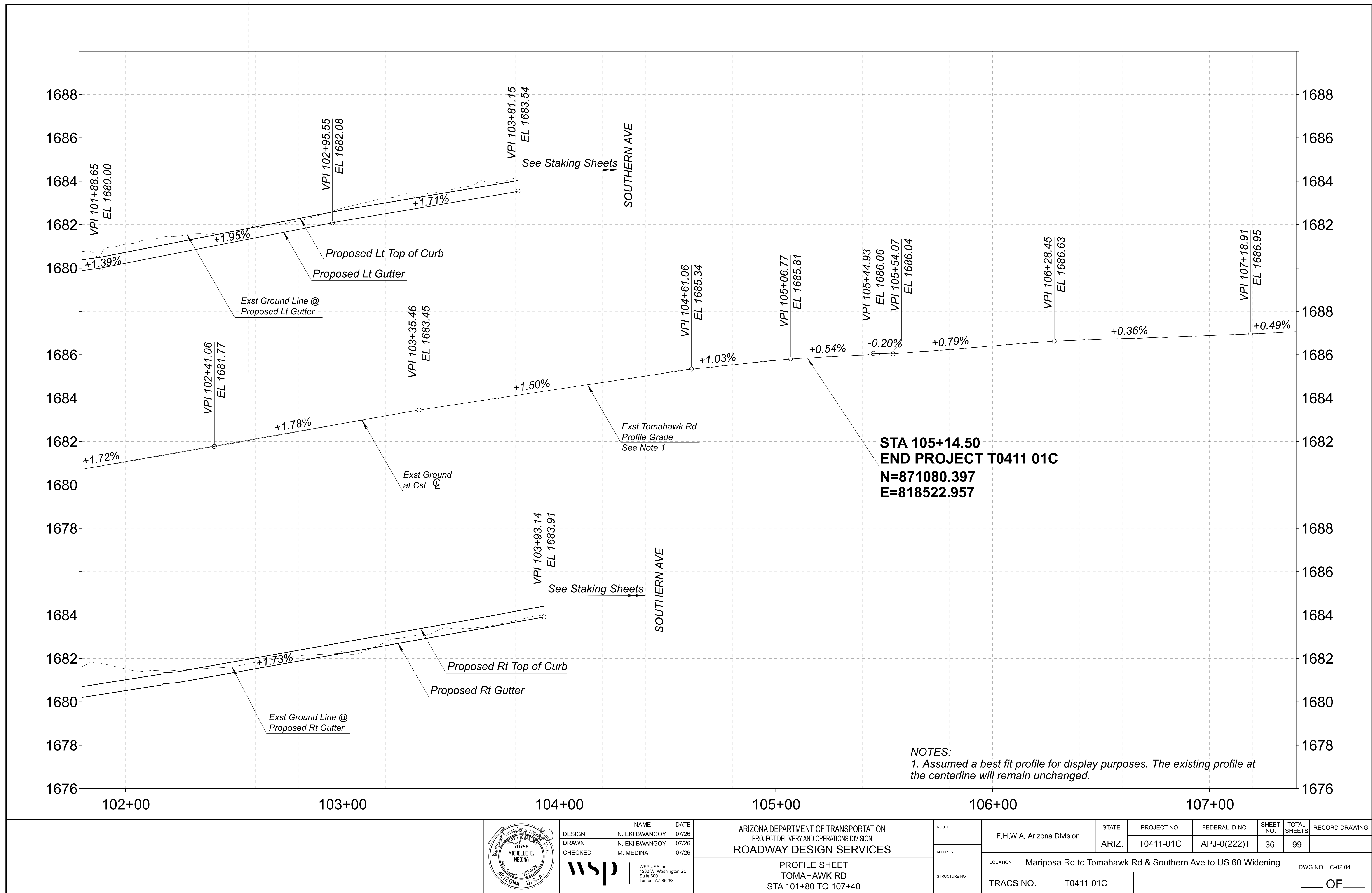
NOTES:
1. Assumed a best fit profile for display purposes. The existing profile at the centerline will remain unchanged.

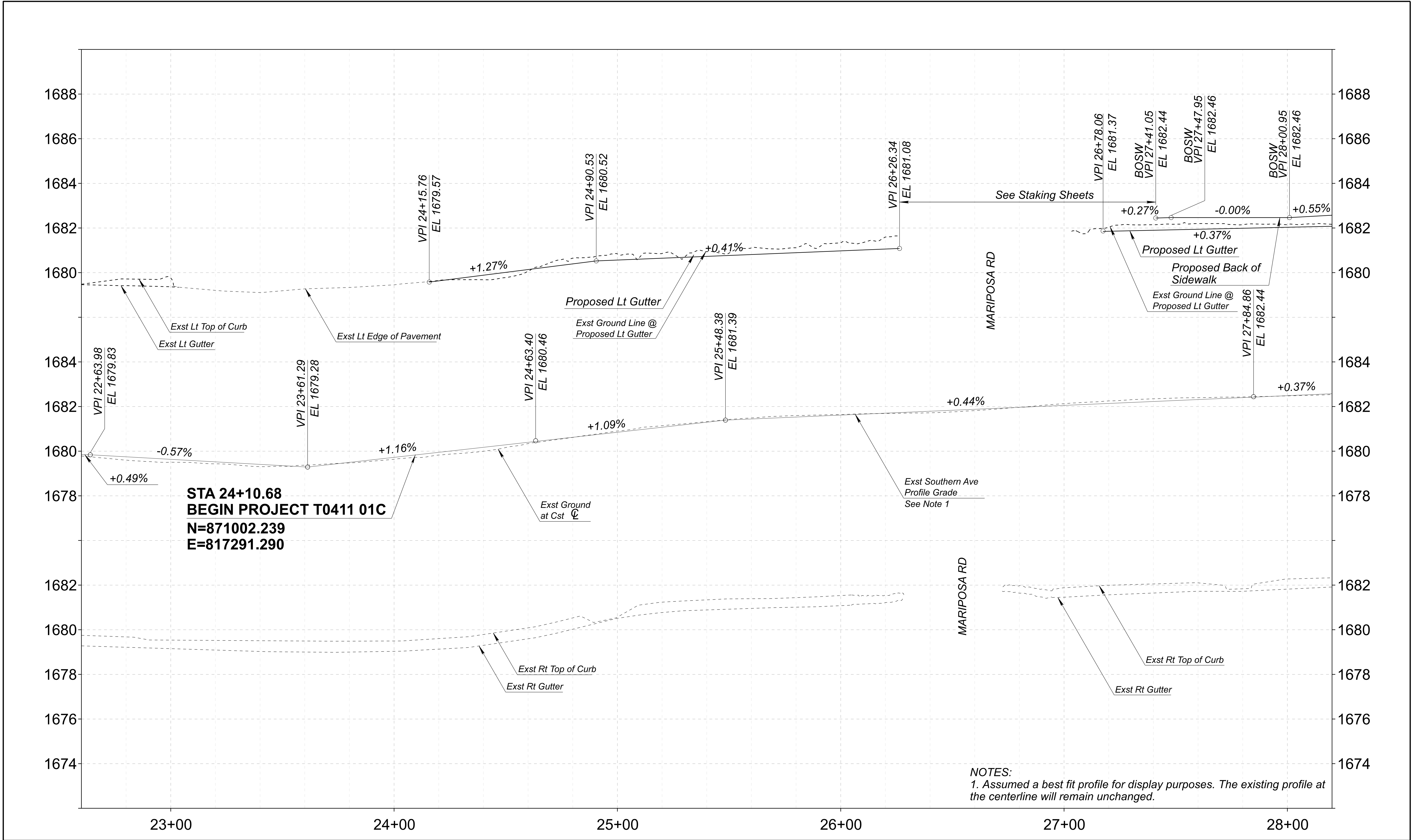
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	DRAWN	N. EKI BWANGOY	07/26													
	CHECKED	M. MEDINA	07/26													
			WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288		PROFILE SHEET TOMAHAWK RD STA 90+60 TO 96+20					LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening				DWG NO. C-02.02		
						TRACS NO. T0411-01C				___ OF ___						



NOTES:
1. Assumed a best fit profile for display purposes. The existing profile at the centerline will remain unchanged.

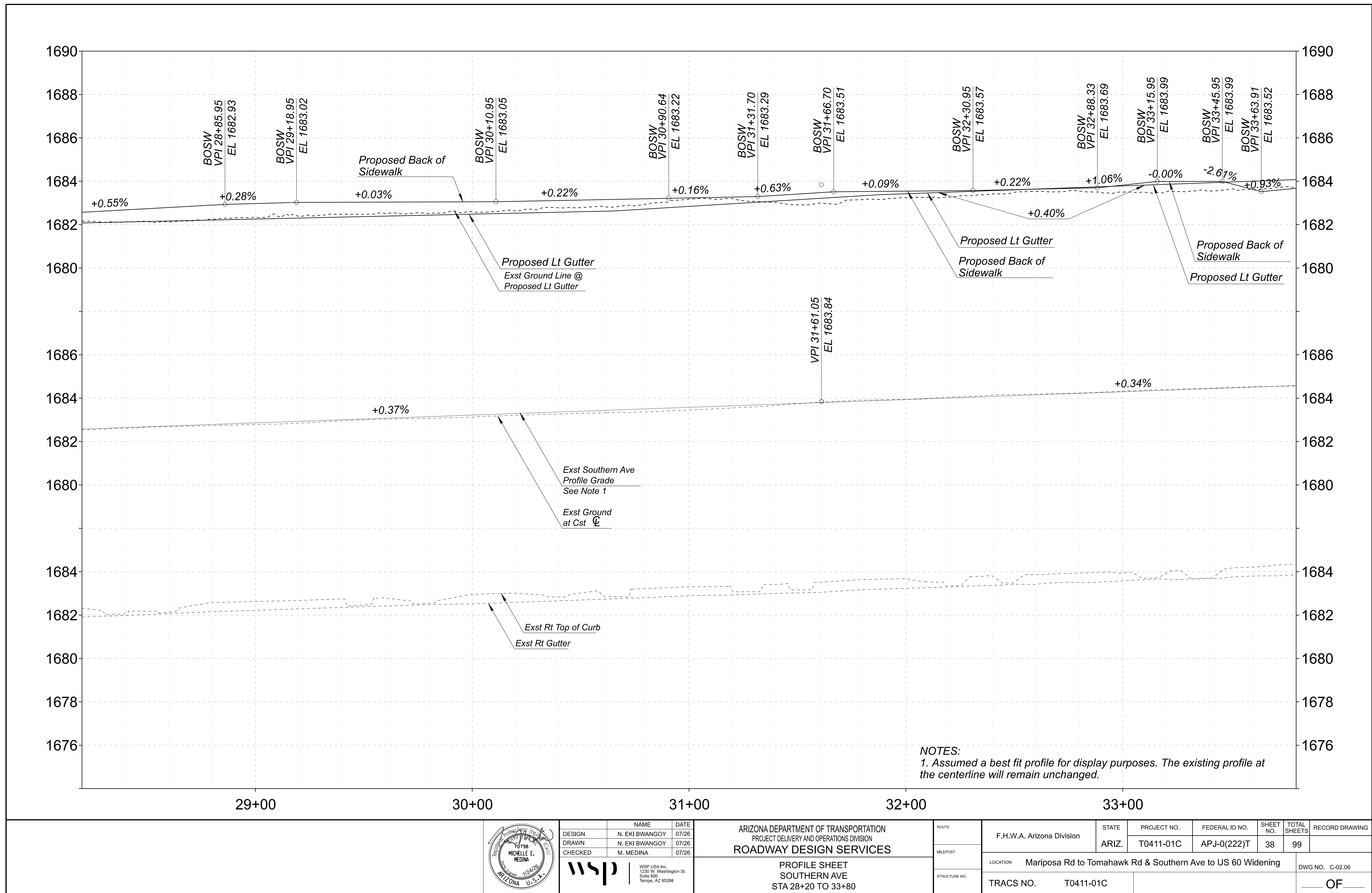
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	CHECKED		M. MEDINA	07/26					STRUCTURE NO.		TRACS NO.		T0411-01C				DWG NO. C-02.03	
			wsp		PROFILE SHEET TOMAHAWK RD STA 96+60 TO 101+80												OF	

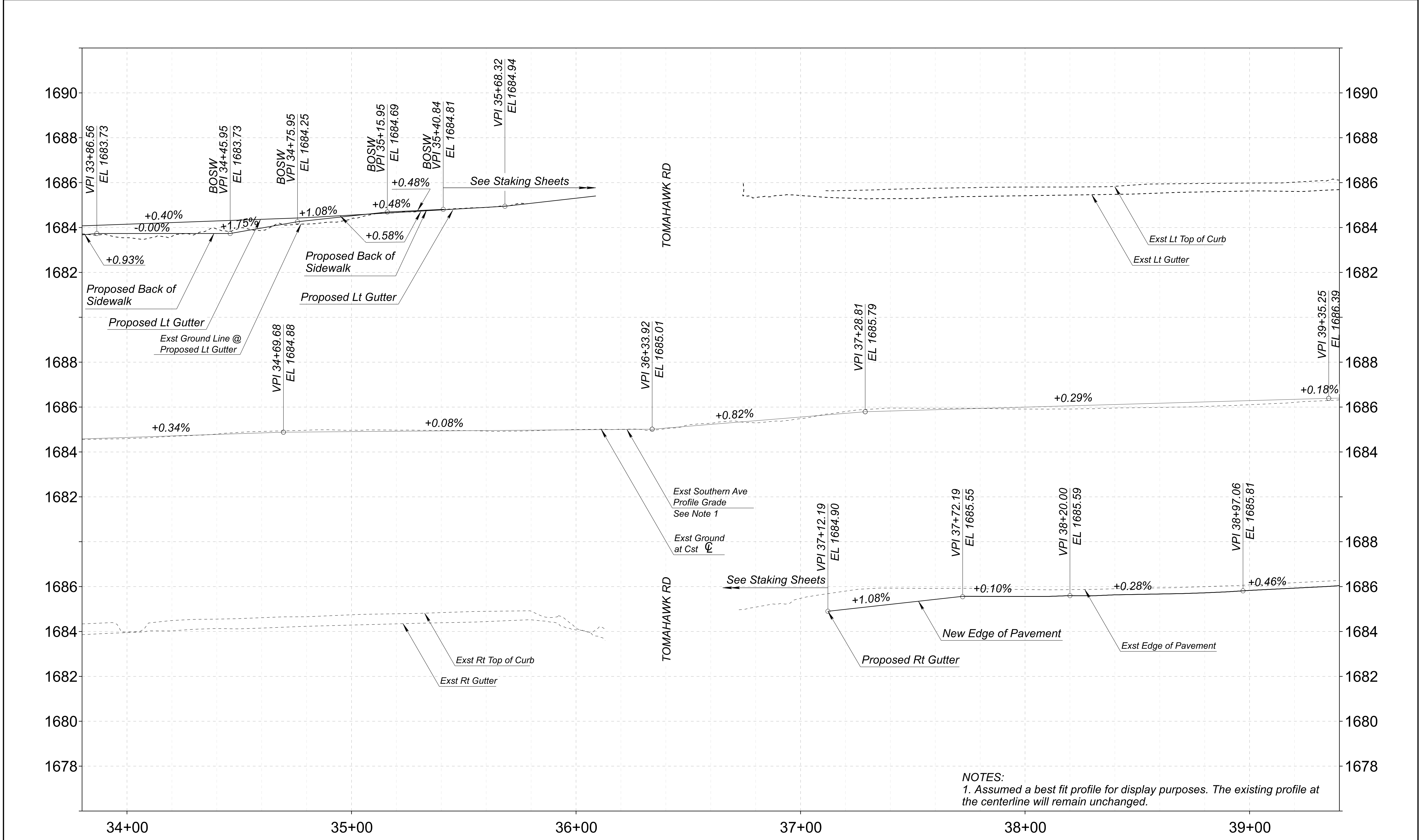




NOTES:
1. Assumed a best fit profile for display purposes. The existing profile at the centerline will remain unchanged.

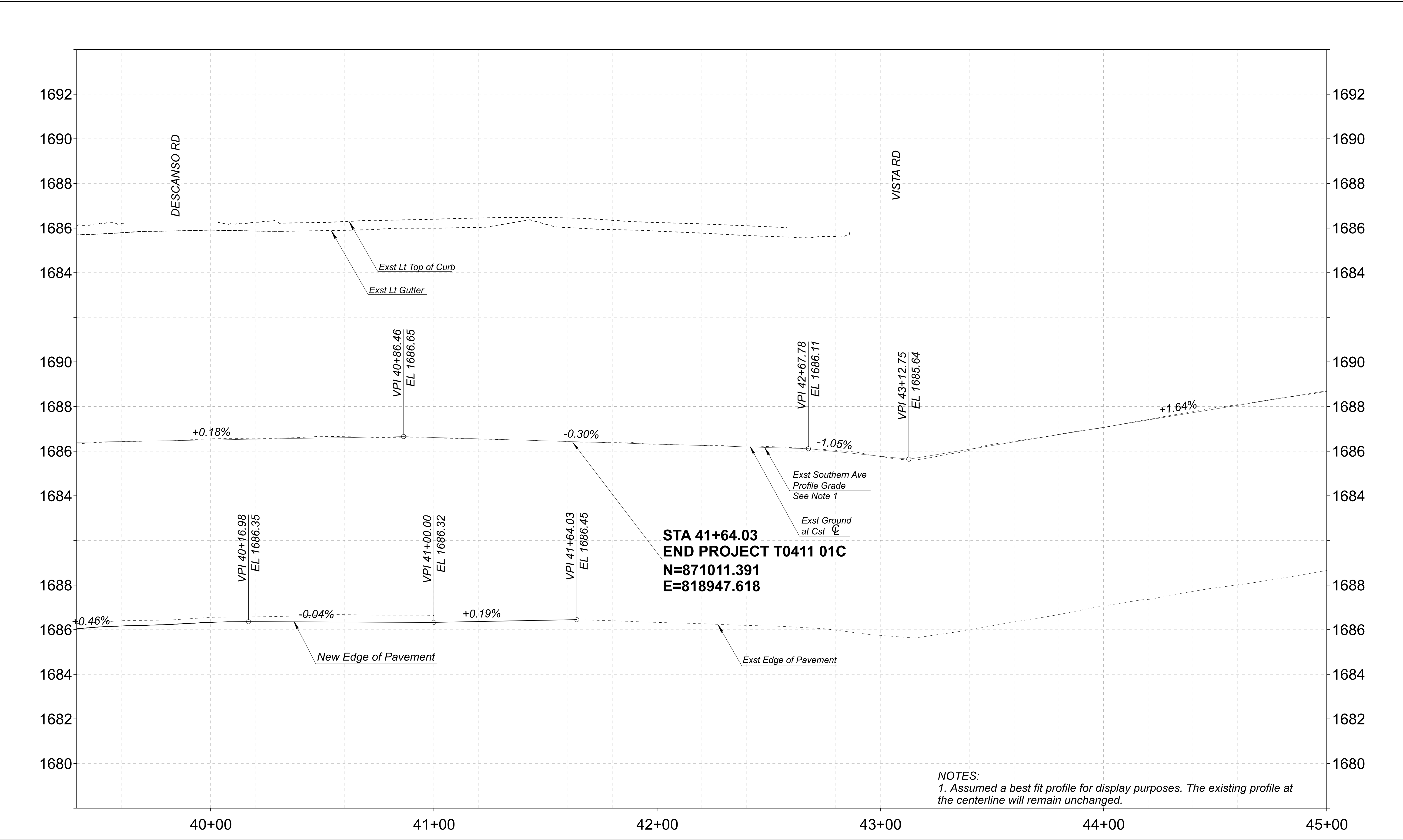
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	DESIGN N. EKI BWANGOY		07/26		MILEPOST			T0411-01C	APJ-0(222)T	37	99	
	DRAWN N. EKI BWANGOY		07/26		 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288	STRUCTURE NO.	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening DWG NO. C-02.05					
	CHECKED M. MEDINA		07/26	TRACS NO. T0411-01C OF								
PROFILE SHEET SOUTHERN AVE STA 22+60 TO 28+20												





NOTES:
1. Assumed a best fit profile for display purposes. The existing profile at the centerline will remain unchanged.

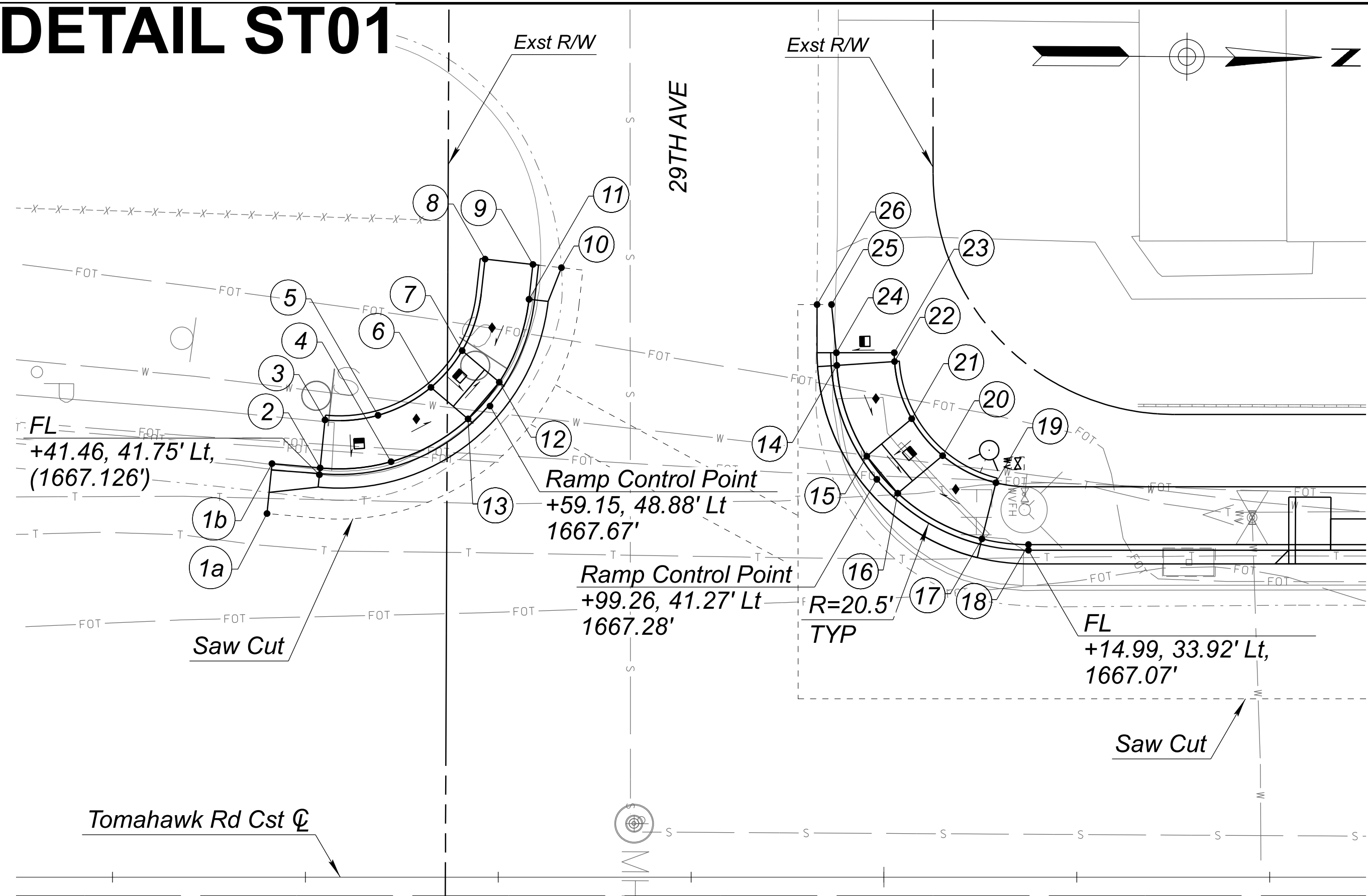
	<table><tr><td></td><td>NAME</td><td>DATE</td></tr><tr><td>DESIGN</td><td>N. EKI BWANGOY</td><td>07/26</td></tr><tr><td>DRAWN</td><td>N. EKI BWANGOY</td><td>07/26</td></tr><tr><td>CHECKED</td><td>M. MEDINA</td><td>07/26</td></tr></table>			NAME	DATE	DESIGN	N. EKI BWANGOY	07/26	DRAWN	N. EKI BWANGOY	07/26	CHECKED	M. MEDINA	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES		ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	39	TOTAL SHEETS	99	RECORD DRAWING	
		NAME	DATE																											
	DESIGN	N. EKI BWANGOY	07/26																											
	DRAWN	N. EKI BWANGOY	07/26																											
CHECKED	M. MEDINA	07/26																												
LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening																	DWG NO.		C-02.07											
TRACS NO. T0411-01C																	OF													
		WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288		PROFILE SHEET SOUTHERN AVE STA 33+80 TO 39+40		MILEPOST																								
						STRUCTURE NO.																								



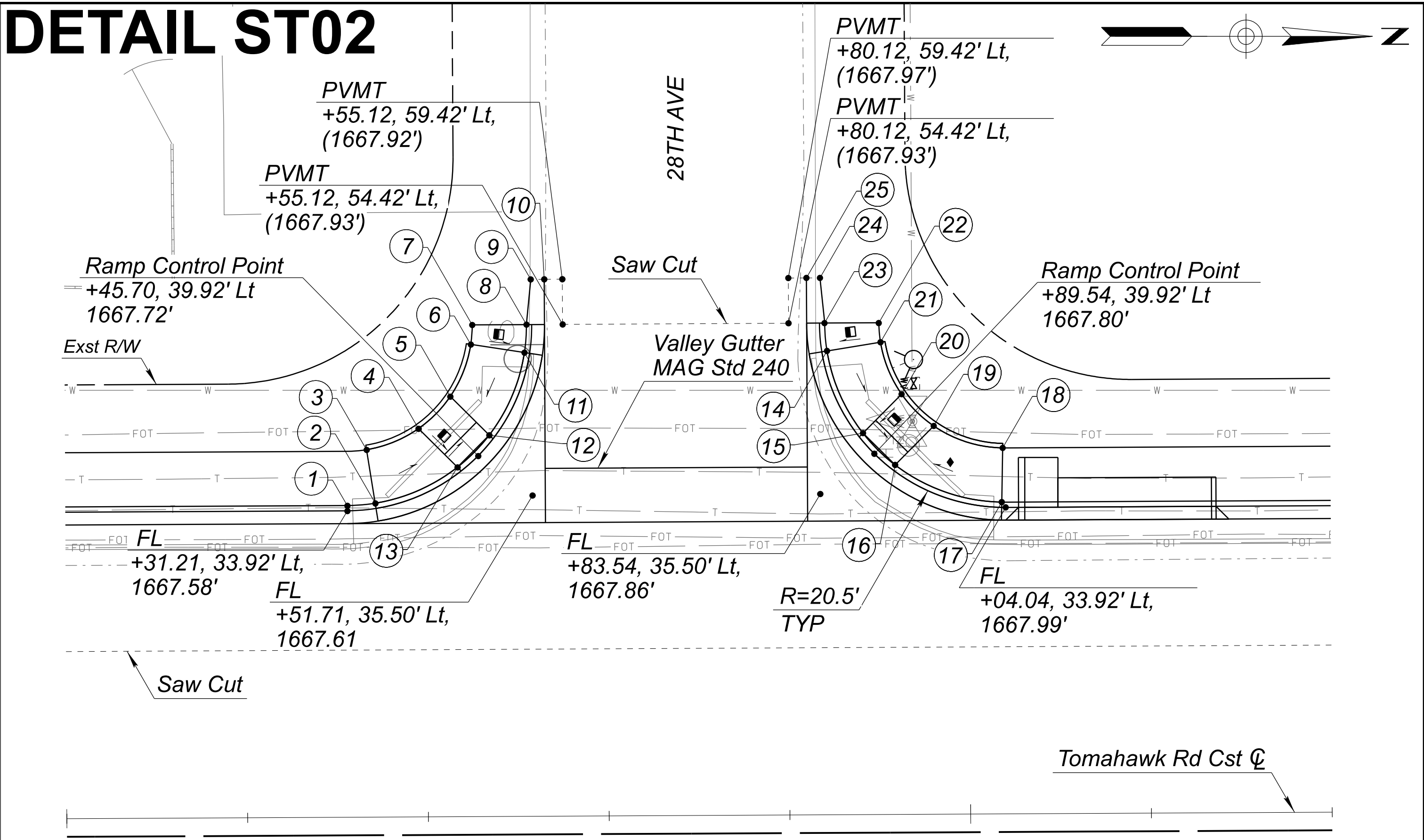
NOTES:
1. Assumed a best fit profile for display purposes. The existing profile at the centerline will remain unchanged.

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	DESIGN	N. EKI BWANGOY	07/26																												
	DRAWN	N. EKI BWANGOY	07/26																												
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N. EKI BWANGOY	07/26																														
M. MEDINA	07/26																														
						MILEPOST	ARIZ.	T0411-01C	APJ-0(222)T	40	99																				
	 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288		PROFILE SHEET SOUTHERN AVE STA 39+40 TO 45+00			STRUCTURE NO.	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO. C-02.08																			
							TRACS NO. T0411-01C					___ OF ___																			

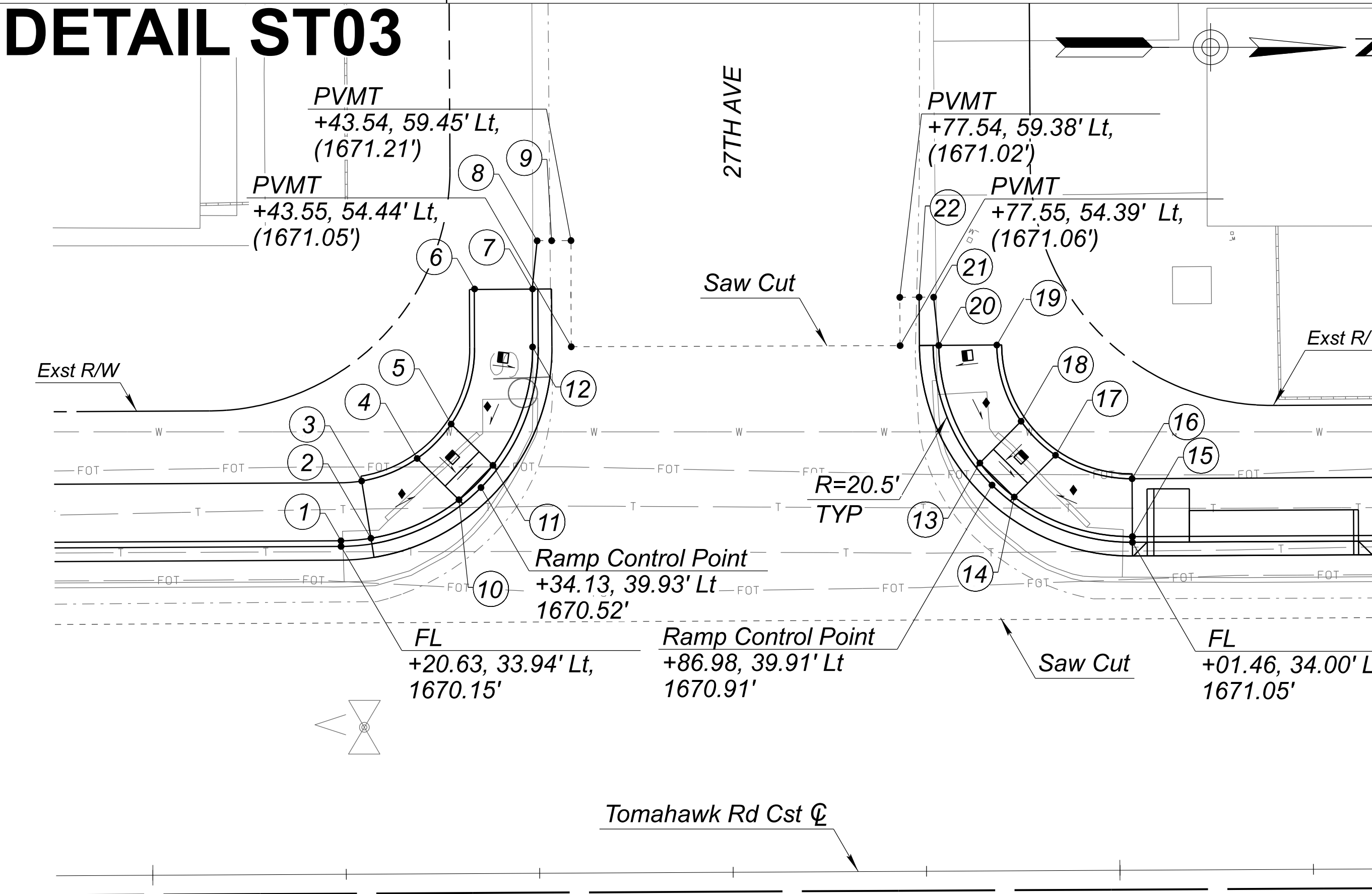
DETAIL ST01



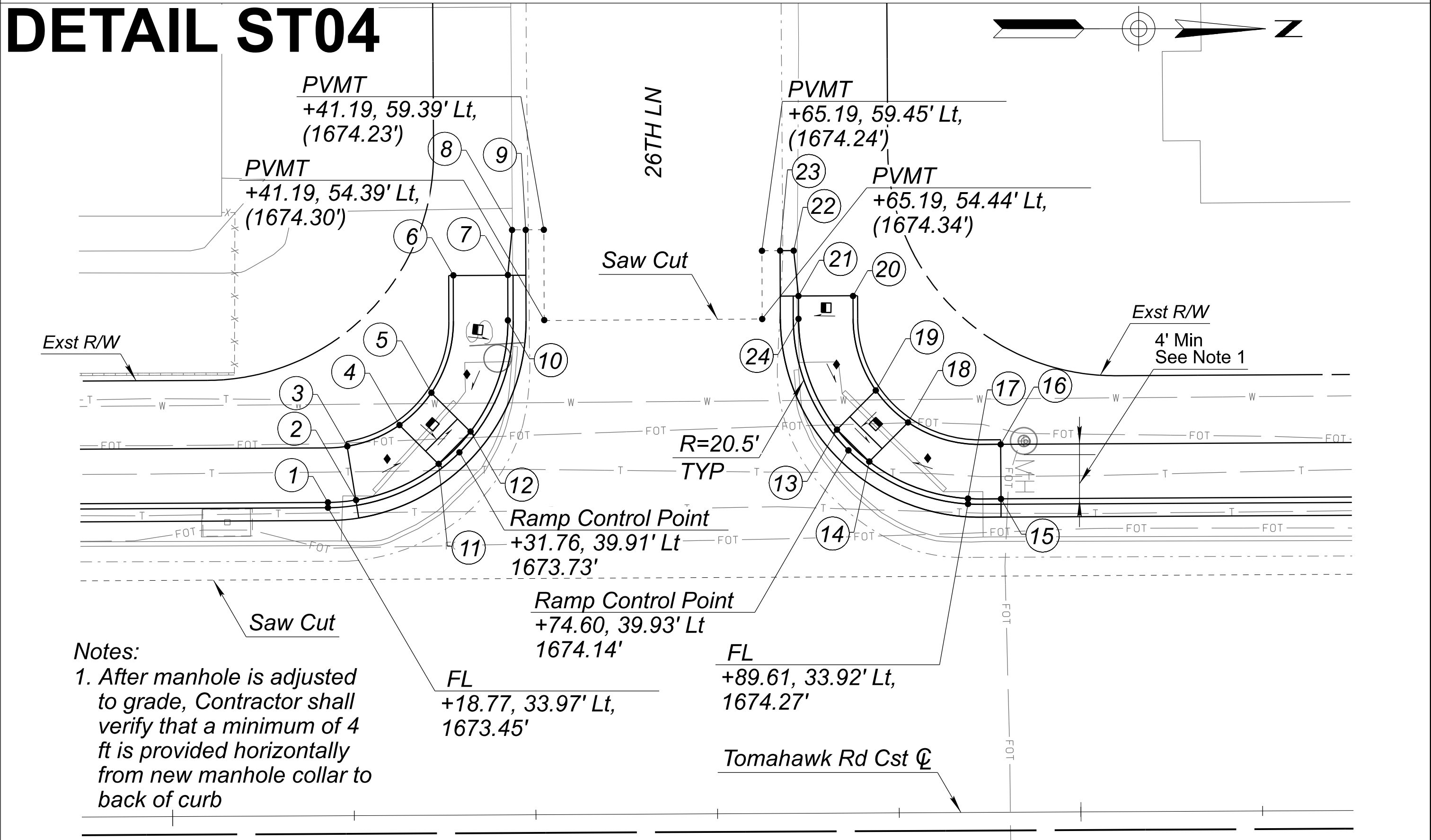
DETAIL ST02



DETAIL ST03



DETAIL ST04



NOTES:

- See Curb and Gutter Summary Sheets for info. not shown
- See Sheets C-03.05 & C-03.06 for curb ramp point data
- See MAG Std Dtl 236-5 for info. not shown
- Contractor shall verify existing elevations prior to construction.

LEGEND

- ◆ = 12:1 Max Slope
- = 2% Max Slope
- () = Exst Elevation
- FL = Flowline
- PVMT = Pavement Elevation

DESIGN

NAME	N. EKI BWANGOY	DATE	07/26
DRAWN	N. EKI BWANGOY	DATE	07/26
CHECKED	M. MEDINA	DATE	07/26

WSP

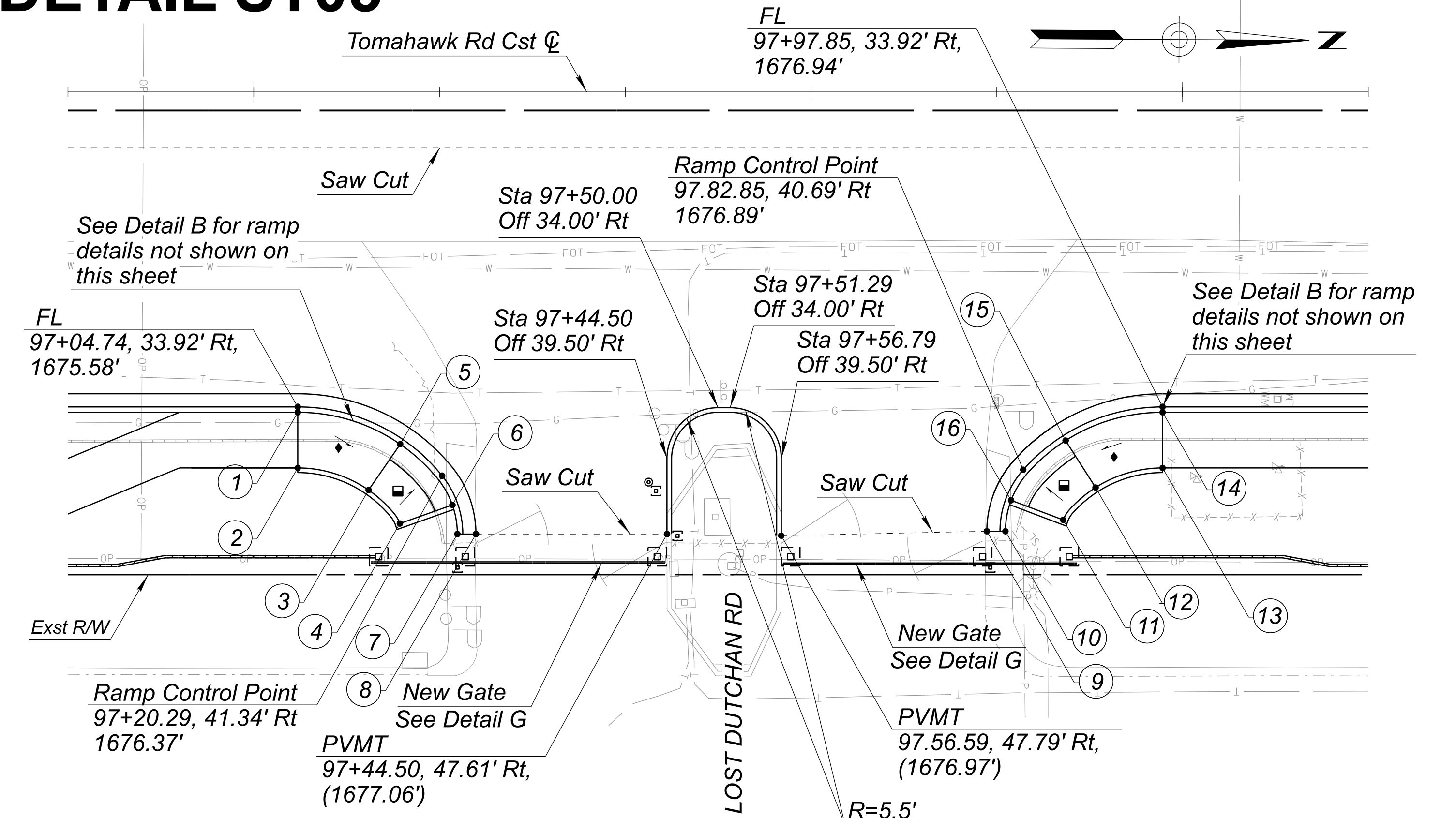
WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

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

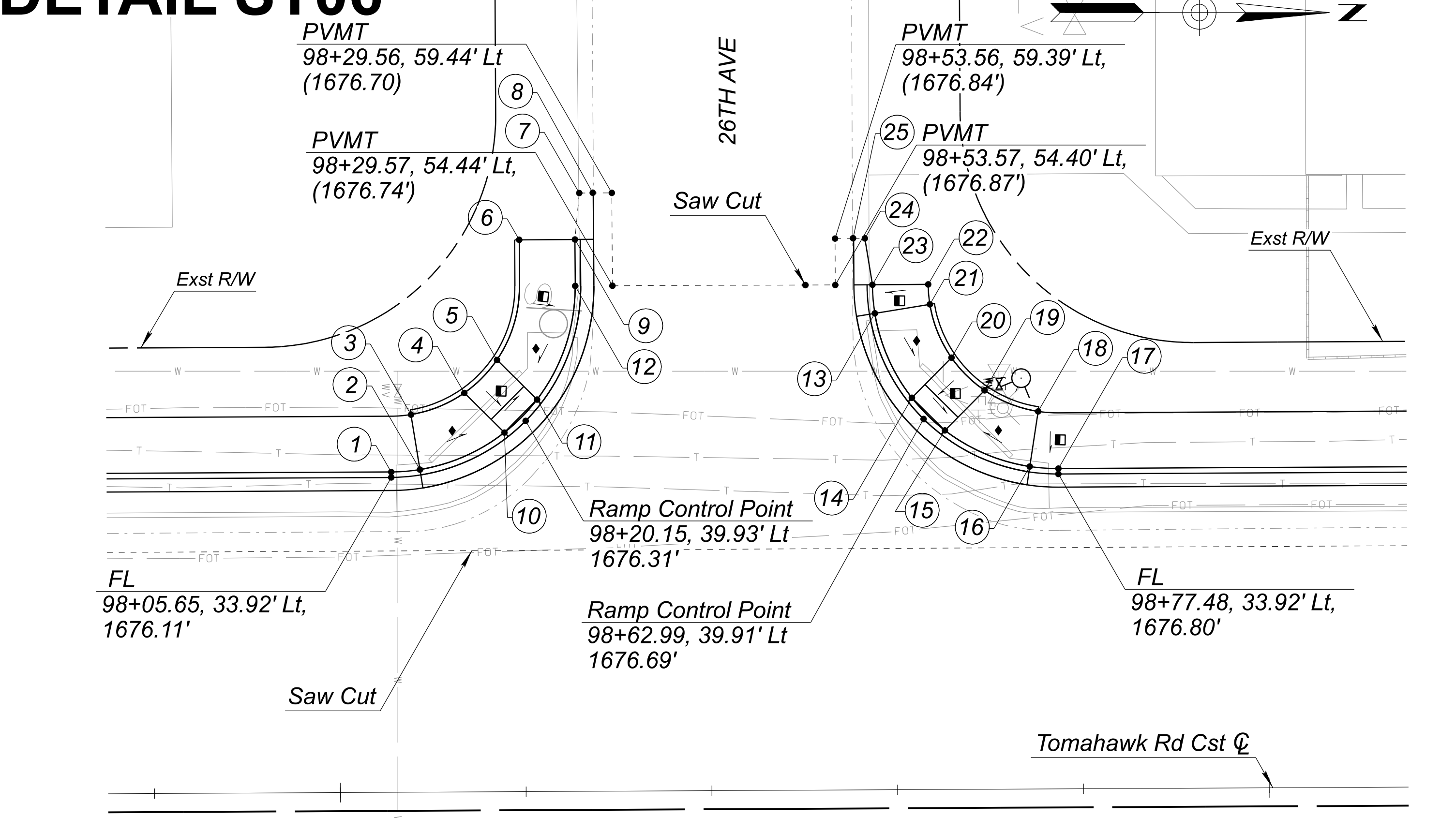
STAKING SHEET

ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	41	TOTAL SHEETS	99	RECORD DRAWING	
LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening												
TRACS NO.	T0411-01C												
DWG NO. C-03.01													
OF													

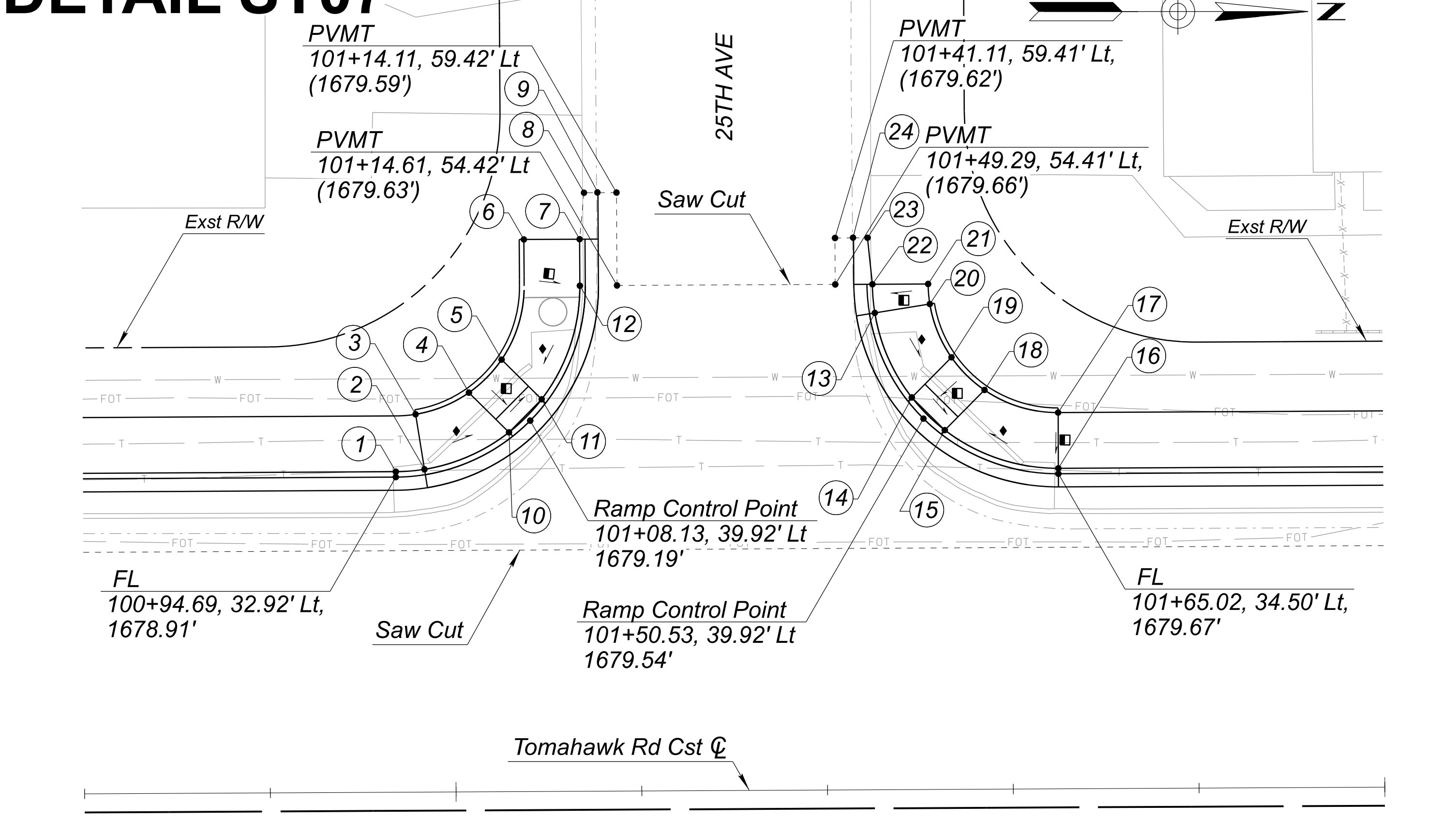
DETAIL ST05



DETAIL ST06



DETAIL ST07



NOTES:
1. See Curb and Gutter Summary Sheets for info. not shown
2. See Sheets C-03.05 & C-03.06 for curb ramp point data
3. See MAG Std Dtl 236-5 and Detail B for info. not shown
4. Contractor shall verify existing elevations prior to construction.

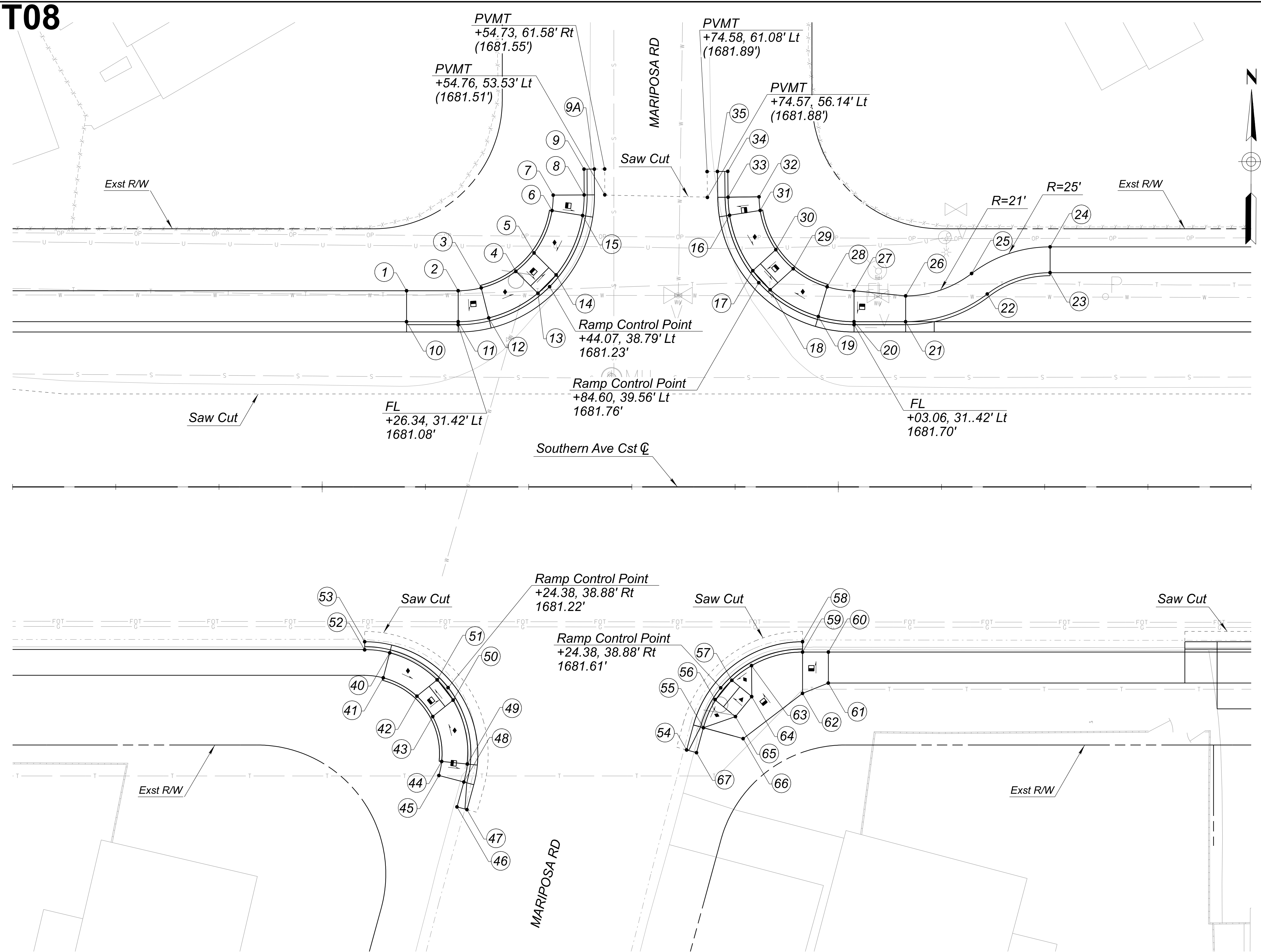
LEGEND	
$\blacklozenge$ = 12:1 Max Slope	() = Exst Elevation
$\blacksquare$ = 2% Max Slope	FL = Flowline
	PVMT = Pavement Elevation



	NAME	DATE
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26
WSP USA, Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288		

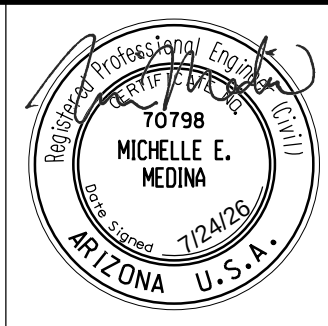
ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	SHEETS	RECORD DRAWING
	MILEPOST		ARIZ.	T0411-01C	APJ-0(222)T	42	99	
	STAKING SHEET	LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					DWG NO.
STRUCTURE NO.		TRACS NO.	T0411-01C					____ OF ____

DETAIL ST08



NOTES:
1. See Curb and Gutter Summary Sheets for info. not shown
2. See sheets C-03.05 & C-03.06 for curb ramp point data
3. See MAG Std Dtls 236-3 and 236-5 for info. not shown
4. Contractor shall verify existing elevations prior to construction.

LEGEND	
▲ = 15:1 Max Slope	() = Exst Elevation
◆ = 12:1 Max Slope	FL = Flowline
■ = 2% Max Slope	PVMT = Pavement Elevation



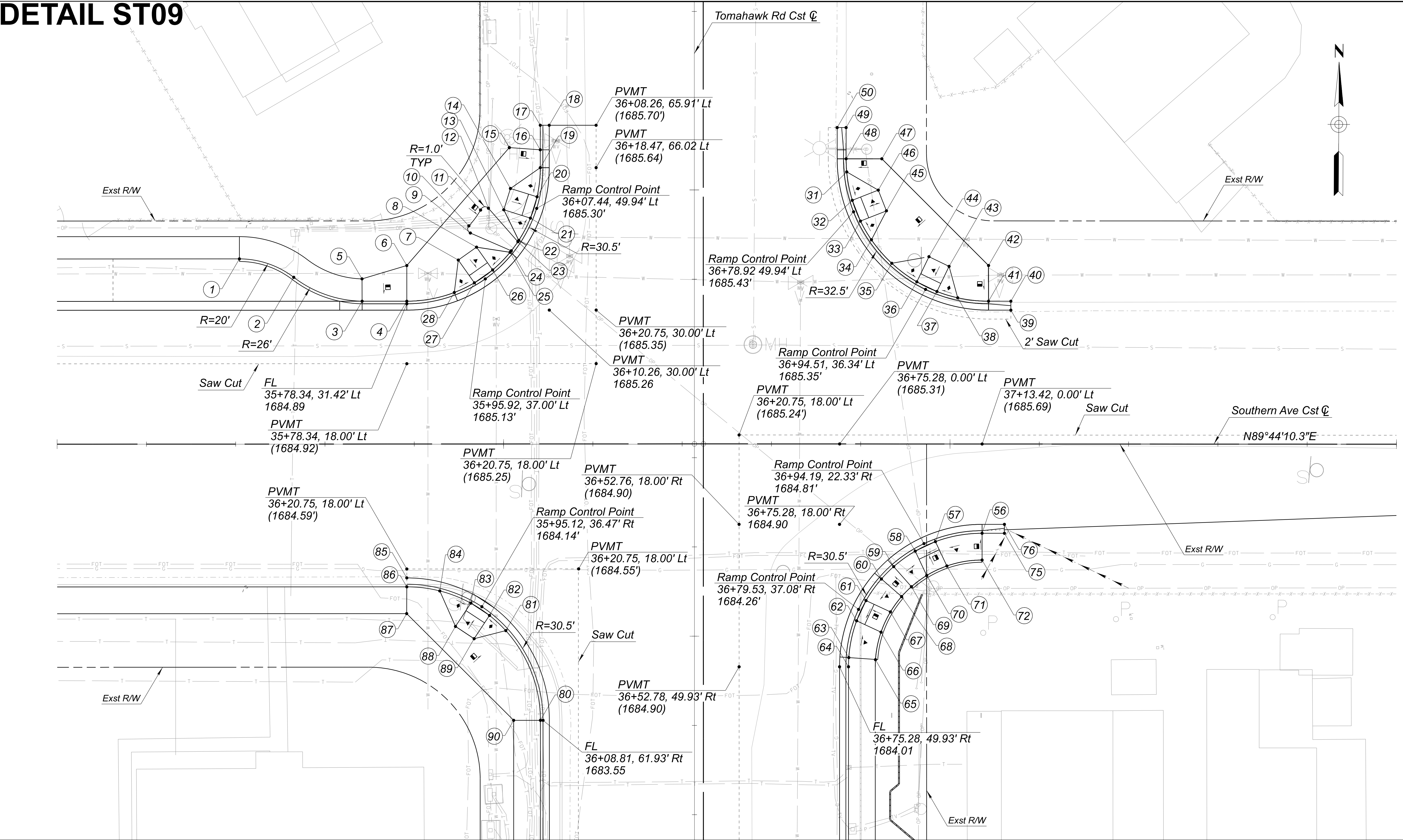
NAME	DATE
DESIGN N. EKI BWANGOY	07/26
DRAWN N. EKI BWANGOY	07/26
CHECKED M. MEDINA	07/26

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	
STAKING SHEET	

ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	43	TOTAL SHEETS	99	RECORD DRAWING
MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening											DWG NO. C-03.03
STRUCTURE NO.	TRACS NO. T0411-01C											OF

DETAIL ST09



NOTES: 1. See Curb and Gutter Summary Sheets for info. not shown 2. See sheets C-03.05 & C-03.06 for curb ramp point data 3. See MAG Std Dtls 236-3 and 236-5 for info. not shown 4. Contractor shall verify existing elevations prior to construction.	LEGEND ▲ = 15:1 Max Slope ◆ = 12:1 Max Slope ■ = 2% Max Slope () = Exst Elevation FL = Flowline PVMT = Pavement Elevation		DESIGN	N. EKI BWANGOY	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 44	TOTAL SHEETS 99	RECORD DRAWING			
			DRAWN	N. EKI BWANGOY	07/26												
			CHECKED	M. MEDINA	07/26												
			 WSP USA, Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85288						STAKING SHEET	MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						
								STRUCTURE NO.	TRACS NO. T0411-01C							___ OF ___	

SIDEWALK AND RAMP DATA POINTS					
DETAIL ST01					
PT #	STA	OFF	C (in.)	TC (in.)	
1a	86+36.24	39.92 LT	(Match Exst)	-	
1b	86+36.55	42.9 LT	-	(Match Exst)	
1	86+41.20	39.27 LT	(Match Exst)	-	
2	86+41.53	42.46 LT	(6)	(6)	
3	86+42.03	47.43 LT	7	-	
4	86+48.89	43.1 LT	6	6	
5	86+47.53	47.91 LT	7	7	
6	86+53.02	50.8 LT	1	7	
7	86+56.26	54.62 LT	1	7	
7a	86+56.23	60.50 LT	7	7	
8	86+58.63	64.12 LT	7	7	
9	86+63.60	63.56 LT	6	6	
10	86+66.55	63.23 LT	(Match Exst)	-	
11	86+63.19	59.94 LT	4	4	
12	86+60.11	51.34 LT	0	0	
13	86+56.87	47.53 LT	0	0	
14	86+95.11	53.09 LT	6	6	
15	86+98.22	43.66 LT	0	0	
16	87+01.43	39.82 LT	0	0	
17	87+10.16	35.09 LT	6	6	
18	87+14.98	34.5 LT	6	6	
19	87+11.61	40.91 LT	7	7	
20	87+06.09	43.72 LT	1	7	
21	87+02.88	47.55 LT	1	7	
22	87+01.10	53.49 LT	7	7	
23	87+01.07	54.4 LT	7	-	
24	86+95.07	54.4 LT	6	6	
25	86+94.56	59.4 LT	(Match Exst)	(Match Exst)	
26	86+93.06	59.4 LT	(Match Exst)	-	

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST02				
PT #	STA	OFF	C (in.)	TC (in.)
1	89+31.21	34.5 LT	6	6
2	89+34.29	34.74 LT	6	6
3	89+33.36	40.67 LT	7	7
4	89+39.12	42.97 LT	1	7
5	89+42.66	46.5 LT	1	7
6	89+44.96	52.26 LT	7	7
7	89+45.12	54.42 LT	7	-
8	89+51.12	54.42 LT	6	6
9	89+51.62	59.42 LT	(Match Exst)	(Match Exst)
10	89+53.12	59.42 LT	(Match Exst)	-
11	89+50.88	51.33 LT	6	6
12	89+46.95	42.21 LT	0	0
13	89+43.41	38.68 LT	0	0
14	89+84.36	51.33 LT	6	6
15	89+88.30	42.21 LT	0	0
16	89+91.84	38.68 LT	0	0
17	90+03.61	34.51 LT	6	6
18	90+03.74	40.5 LT	7	7
19	89+96.13	42.97 LT	1	7
20	89+92.59	46.5 LT	1	7
21	89+90.29	52.26 LT	7	7
22	89+90.12	54.42 LT	7	-
23	89+84.12	54.42 LT	6	6
24	89+83.62	59.42 LT	(Match Exst)	(Match Exst)
25	89+82.12	59.42 LT	(Match Exst)	-

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST05				
PT #	STA	OFF	C (in.)	TC (in.)
1	97+04.74	34.5 RT	6	6
2	97+04.74	40.5 RT	7	7
3	97+12.37	42.88 RT	1	7
4	97+15.74	46.48 RT	1	7
5	97+15.78	37.94 RT	0	0
6	97+21.39	44.48 RT	0	6
7	97+21.93	47.62 RT	-	6
8	97+23.93	47.61 RT	(Match Exst)	-
9	97+78.93	47.31 RT	(Match Exst)	-
10	97+80.93	47.31 RT	-	6
11	97+87.15	46.1 RT	1	7
12	97+90.64	42.6 RT	1	7
13	97+97.85	40.5 RT	7	7
14	97+97.85	34.5 RT	6	6
15	97+87.41	37.54 RT	0	0
16	97+81.54	43.98 RT	0	6

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST03				
PT #	STA	OFF	C (in.)	TC (in.)
1	92+19.63	34.5 LT	6	6
2	92+22.73	34.74 LT	6	6
3	92+21.80	40.67 LT	7	7
4	92+27.55	42.97 LT	1	7
5	92+31.08	46.51 LT	1	7
6	92+33.54	60.43 LT	7	7
7	92+39.54	60.44 LT	6	6
8	92+40.07	65.45 LT	(Match Exst)	(Match Exst)
9	92+41.54	65.44 LT	(Match Exst)	-
10	92+31.84	38.69 LT	0	0
11	92+35.38	42.22 LT	0	0
12	92+39.55	54.44 LT	4	4
13	92+85.73	42.2 LT	0	0
14	92+89.27	38.67 LT	0	0
15	93+01.46	34.5 LT	6	6
16	93+01.46	40.5 LT	7	7
17	92+93.56	42.96 LT	1	7
18	92+90.02	46.5 LT	1	7
19	92+87.55	54.4 LT	7	7
20	92+81.55	54.39 LT	6	6
21	92+81.04	59.39 LT	(Match Exst)	(Match Exst)
22	92+79.54	59.39 LT	(Match Exst)	-

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST06				
PT #	STA	OFF	C (in.)	TC (in.)
1	98+05.65	34.51 LT	6	6
2	98+08.74	34.75 LT	6	6
3	98+07.81	40.68 LT	7	7
4	98+13.56	42.98 LT	1	7
5	98+17.09	46.52 LT	1	7
6	98+19.56	59.43 LT	7	7
7	98+26.06	64.44 LT	-	(Match Exst)
8	98+27.56	64.44 LT	(Match Exst)	-
9	98+25.56	59.44 LT	6	6
10	98+17.85	38.69 LT	0	0
11	98+21.39	42.23 LT	0	0
12	98+25.57	54.44 LT	4.5	4.5
13	98+57.81	51.32 LT	6	6
14	98+61.75	42.2 LT	0	0
15	98+65.29	38.67 LT	0	0
16	98+74.40	34.74 LT	6	6
17	98+77.48	34.5 LT	6	6
18	98+75.33	40.67 LT	7	7
19	98+69.58	42.96 LT	1	7
20	98+66.04	46.5 LT	1	7
21	98+63.74	52.25 LT	7	7
22	98+63.57	54.4 LT	7	7
23	98+57.57	54.4 LT	6	6
24	98+56.77	59.4 LT	-	(Match Exst)
25	98+55.56	59.4 LT	(Match Exst)	-

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST04				
PT #	STA	OFF	C (in.)	TC (in.)
1	95+17.21	34.5 LT	6	6
2	95+20.35	34.74 LT	6	6
3	95+19.42	40.67 LT	7	7
4	95+25.18	42.96 LT	1	7
5	95+28.71	46.5 LT	1	7
6	95+31.19	59.4 LT	7	7
7	95+37.19	59.39 LT	6	6
8	95+37.70	64.39 LT	(Match Exst)	(Match Exst)
9	95+39.20	64.39 LT	(Match Exst)	-
10	95+37.19	54.39 LT	4.5	4.5
11	95+29.47	38.67 LT	0	0
12	95+33.00	42.2 LT	0	0
13	95+73.36	42.23 LT	0	0
14	95+76.90	38.69 LT	0	0
15	95+91.38	34.51 LT	6	6
16	95+91.38	40.51 LT	7	7
17	95+89.10	34.51 LT	5	5
18	95+81.18	42.97 LT	1	7
19	95+77.65	46.51 LT	1	7
20	95+75.20	56.95 LT	7	7
21	95+69.20	56.95 LT	6	6
22	95+68.69	61.95 LT	(Match Exst)	(Match Exst)
23	95+67.20	61.96 LT	(Match Exst)	-
24	95+69.20	54.44 LT	5	5

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST07				
PT #	STA	OFF	C (in.)	TC (in.)
1	100+93.69	34.5 LT	6	6
2	100+96.78	34.74 LT	6	6
3	100+95.85	40.67 LT	7	7
4	101+01.60	42.97 LT	1	7
5	101+05.14	46.51 LT	1	7
6	101+07.61	59.42 LT	7	7
7	101+13.61	59.42 LT	6	6
8	101+14.11	64.42 LT	-	(Match Exst)
9	101+15.61	64.42 LT	(Match Exst)	-
10	101+05.90	38.68 LT	0	0
11	101+09.43	42.21 LT	0	0
12	101+13.61	54.42 LT	4.5	4.5
13	101+45.35	51.33 LT	6	6
14	101+49.29	42.21 LT	0	0
15	101+52.82	38.68 LT	0	0
16	101+65.02	34.5 LT	6	6
17	101+65.03	40.5 LT	7	7
18	101+57.11	42.97 LT	1	7
19	101+53.58	46.5 LT	1	7
20	101+51.28	52.26 LT	7	7
21	101+51.11	54.41 LT	7	7
22	101+45.11	54.41 LT	6	6
23	101+44.61	59.41 LT	-	(Match Exst)
24	101+43.11	59.41 LT	(Match Exst)	-

LEGEND

PT # = Point Number on Staking Sheet
STA = Station
OFF = Offset
C = Concrete
TC = Top of Curb



DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

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Suite 600
Tempe, AZ 85288

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE
STAKING SHEET	MILEPOST
	STRUCTURE NO.

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	ARIZ.	T0411-01C	APJ-0(222)T	45	99	
LOCATION		Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening				DWG NO. C-03.06
TRACS NO.		T0411-01C				OF

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST08				
PT #	STA	OFF	C (in.)	TC (in.)
1	26+16.34	38 LT	7	-
2	26+26.34	38 LT	7	-
3	26+30.81	38.55 LT	7	7
4	26+37.52	41.78 LT	1	7
5	26+41.04	45.32 LT	1	7
6	26+44.53	53.52 LT	7	7
7	26+44.76	56.52 LT	7	-
8	26+50.76	56.56 LT	6	6
9	26+50.73	61.56 LT	-	(Match Exst)
9A	26+52.73	61.57 LT	(Match Exst)	-
10	26+16.34	32 LT	6	6
11	26+26.34	32 LT	6	6
12	26+32.26	32.73 LT	6	6
13	26+41.80	37.52 LT	0	0
14	26+45.33	41.06 LT	0	0
15	26+50.46	52.58 LT	6	6
16	26+78.94	52.62 LT	6	6
17	26+83.44	41.88 LT	0	0
18	26+86.81	38.19 LT	0	0
19	26+96.14	33 LT	6	6
20	27+03.06	32 LT	6	6
21	27+13.06	32 LT	6	6
22	27+28.77	37.29 LT	6	6
23	27+41.05	41.5 LT	6	6
24	27+41.05	46.5 LT	7	-
25	27+25.83	41.34 LT	7	-
26	27+13.06	37 LT	7	-
27	27+03.06	38 LT	7	-
28	26+97.84	38.76 LT	7	7
29	26+91.27	42.27 LT	1	7
30	26+87.90	45.96 LT	1	7
31	26+84.86	53.56 LT	7	7
32	26+84.64	56.2 LT	7	-
33	26+78.64	56.13 LT	6	6

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST08				
PT #	STA	OFF	C (in.)	TC (in.)
34	26+78.58	61.13 LT	-	(Match Exst)
35	26+76.58	61.1 LT	(Match Exst)	-
40	26+13.09	32.15 RT	6	6
41	26+11.83	36.99 RT	7	7
42	26+18.35	40.55 RT	1	7
43	26+21.42	44.5 RT	1	7
44	26+23.15	53.19 RT	7	7
45	26+22.61	55.91 RT	7	-
46	26+26.13	61.99 RT	-	(Match Exst)
47	26+28.06	62.52 RT	(Match Exst)	-
48	26+27.45	57.17 RT	6	6
49	26+28.12	53.69 RT	6	6
50	26+25.36	41.32 RT	0	0
51	26+22.27	37.38 RT	0	0
52	26+08.24	31.5 RT	(6)	(Match Exst)
53	26+08.24	30 RT	(Match Exst)	-
54	26+70.62	50.96 RT	(Match Exst)	-
55	26+73.86	46.66 RT	6	6
56	26+76.20	41.33 RT	0	0
57	26+79.37	37.47 RT	0	0
58	26+93.08	30 RT	(Match Exst)	-
59	26+93.08	32 RT	(6)	(Match Exst)
60	26+98.08	32 RT	6	(Match Exst)
61	26+98.08	38 RT	7	-
62	26+93.08	40 RT	7	-
63	26+83.20	34.62 RT	6	6
64	26+83.24	40.63 RT	5.5	-
65	26+80.07	44.5 RT	5.5	-
66	26+81.58	48.77 RT	6	-
67	26+72.55	51.49 RT	(Match Exst)	(Match Exst)

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST09				
PT #	STA	OFF	C (in.)	TC (in.)
1	35+40.84	41.5 LT	6	6
2	35+53.02	37.37 LT	6	6
3	35+68.33	32 LT	6	6
4	35+78.34	32 LT	6	6
5	35+68.31	37 LT	7	-
6	35+78.34	40 LT	7	-
7	35+89.88	41.22 LT	6	-
8	35+93.97	44.11 LT	6	-
9	35+92.58	47.28 LT	6	-
10	35+92.25	48.88 LT	6	-
11	35+94.87	52.42 LT	6	-
12	35+96.63	52.83 LT	6	-
13	36+00.07	52.48 LT	6	-
14	36+01.57	57.25 LT	6	-
15	36+01.32	66.41 LT	7	-
16	36+08.26	65.91 LT	6	6
17	36+08.26	71.41 LT	(Match Exst)	(Match Exst)
18	36+10.26	71.41 LT	(Match Exst)	-
19	36+08.26	61.91 LT	6	6
20	36+07.53	55.38 LT	0	0
21	36+06.04	50.61 LT	0	0
22	36+03.43	45.62 LT	6	6
23	36+03.23	45.32 LT	6	6
24	36+01.75	43.29 LT	6	6
25	36+01.48	42.96 LT	6	6
26	35+97.57	39 LT	0	0
27	35+93.49	36.12 LT	0	0
28	35+88.98	33.96 LT	6	6
31	36+76.84	60.96 LT	6	6
32	36+78.09	54.6 LT	0	0
33	36+79.92	49.94 LT	0	0
34	36+82.38	45.75 LT	6	6
35	36+86.94	40.49 LT	6	6
36	36+92.55	36.34 LT	0	0
37	36+97.06	34.17 LT	0	0
38	37+01.71	32.76 LT	6	6
39	37+13.62	30 LT	(Match Exst)	-
40	37+13.62	32 LT	(Match Exst)	(Match Exst)
41	37+08.62	32 LT	6	6
42	37+08.62	40 LT	7.5	-
43	36+99.77	39.8 LT	6	-
44	36+95.27	41.97 LT	6	-
45	36+85.74	52.23 LT	6	-
46	36+83.91	56.88 LT	6	-
47	36+84.70	63.9 LT	7.5	-
48	36+76.70	63.89 LT	6	6
49	36+76.70	70.89 LT	(Match Exst)	(Match Exst)
50	36+74.70	70.89 LT	(Match Exst)	-

SIDEWALK AND RAMP DATA POINTS				
DETAIL ST09				
PT #	STA	OFF	C (in.)	TC (in.)
56	37+07.19	20 RT	6	6
57	36+96.74	21.89 RT	0	0
58	36+92.22	24.02 RT	0	0
59	36+87.40	27.48 RT	6	6
60	36+84.64	30.26 RT	6	6
61	36+81.20	35.1 RT	0	0
62	36+79.10	39.63 RT	0	0
63	36+77.35	47.87 RT	6	6
64	36+77.28	49.93 RT	6	6
65	36+83.33	48.28 RT	7	7
66	36+84.57	42.17 RT	1	7
67	36+86.67	37.64 RT	1	7
68	36+89.16	34.2 RT	7	7
69	36+91.37	31.98 RT	7	7
70	36+94.79	29.47 RT	1	7
71	36+99.31	27.34 RT	1	7
72	37+07.19	26 RT	7	7
73	37+10.69	25.87 RT	7	7
74	37+10.72	19.87 RT	6	6
75	37+12.19	20 RT	(Match Exst)	(Match Exst)
76	37+12.20	18 RT	(Match Exst)	-
80	36+08.23	61.93 RT	6	6
81	36+00.49	41.83 RT	6	6
82	35+96.90	38.48 RT	0	0
83	35+92.66	35.66 RT	0	0
84	35+85.70	32.93 RT	6	6
85	35+78.31	30 RT	(Match Exst)	-
86	35+78.31	32 RT	(Match Exst)	(Match Exst)
87	35+78.28	38 RT	7	-
88	35+89.21	40.88 RT	6	-
89	35+93.38	43.63 RT	6	-
90	36+02.23	61.93 RT	7	-

LEGEND

PT # = Point Number on Staking Sheet
STA = Station
OFF = Offset
C = Concrete
TC = Top of Curb



WSP

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85288

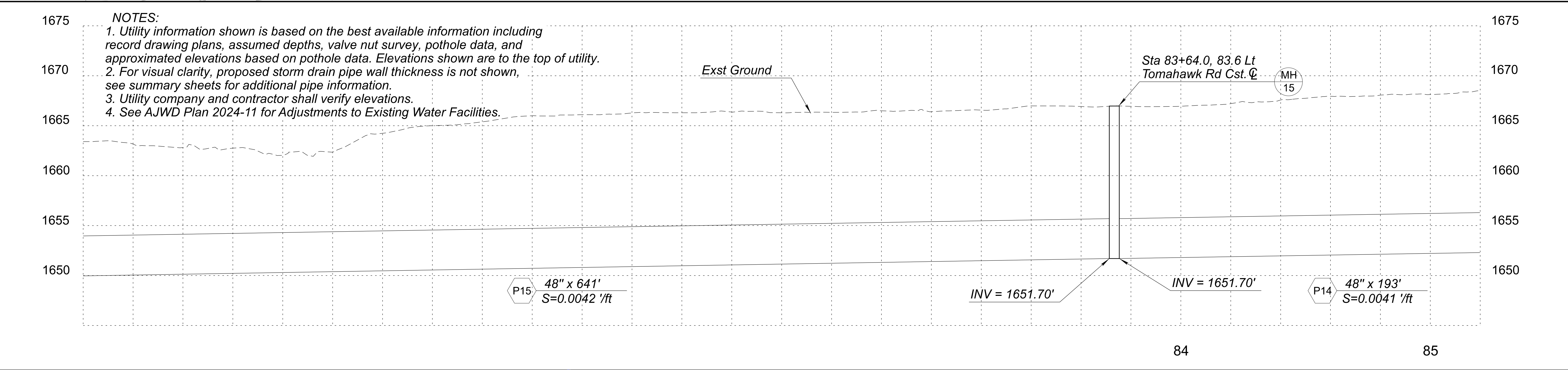
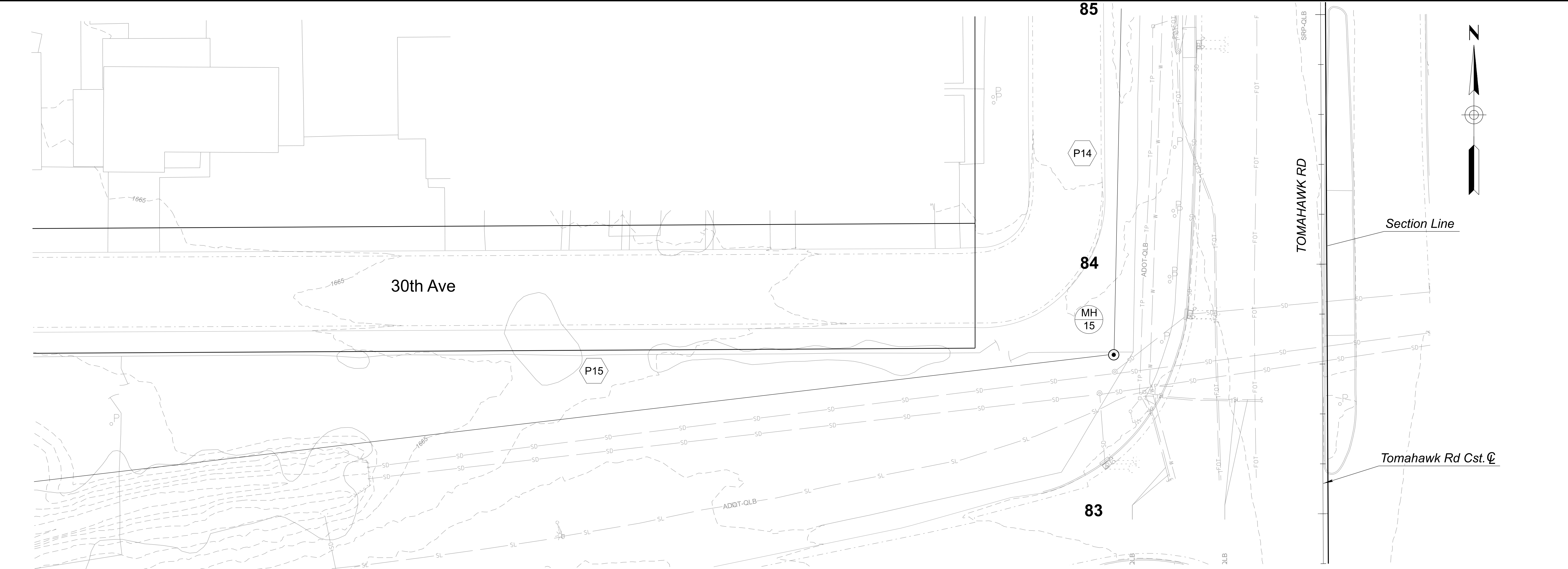
DESIGN	N. EKI BWANGOY	07/26
DRAWN	N. EKI BWANGOY	07/26
CHECKED	M. MEDINA	07/26

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

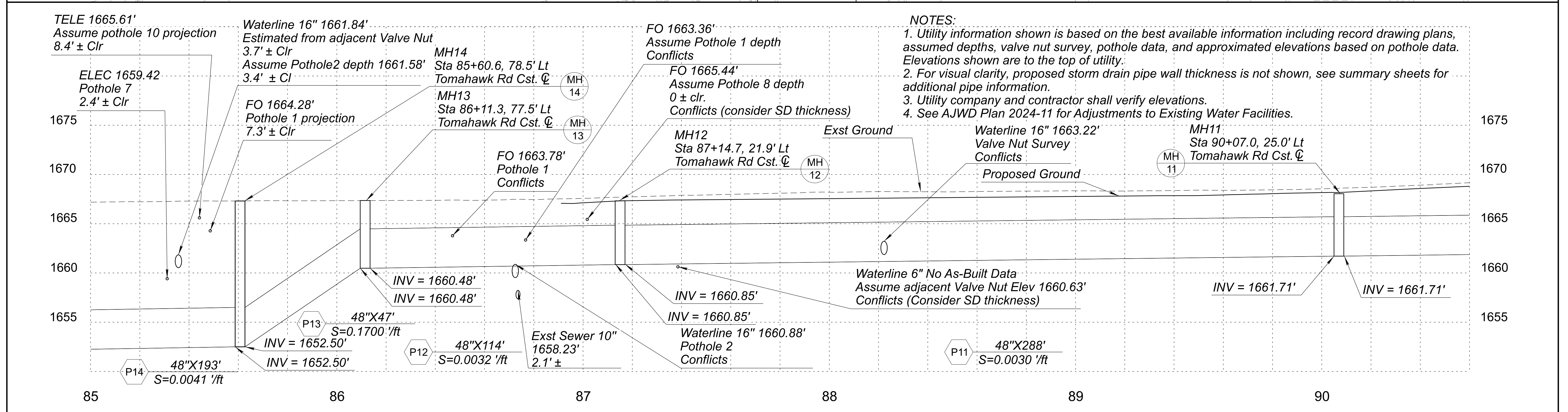
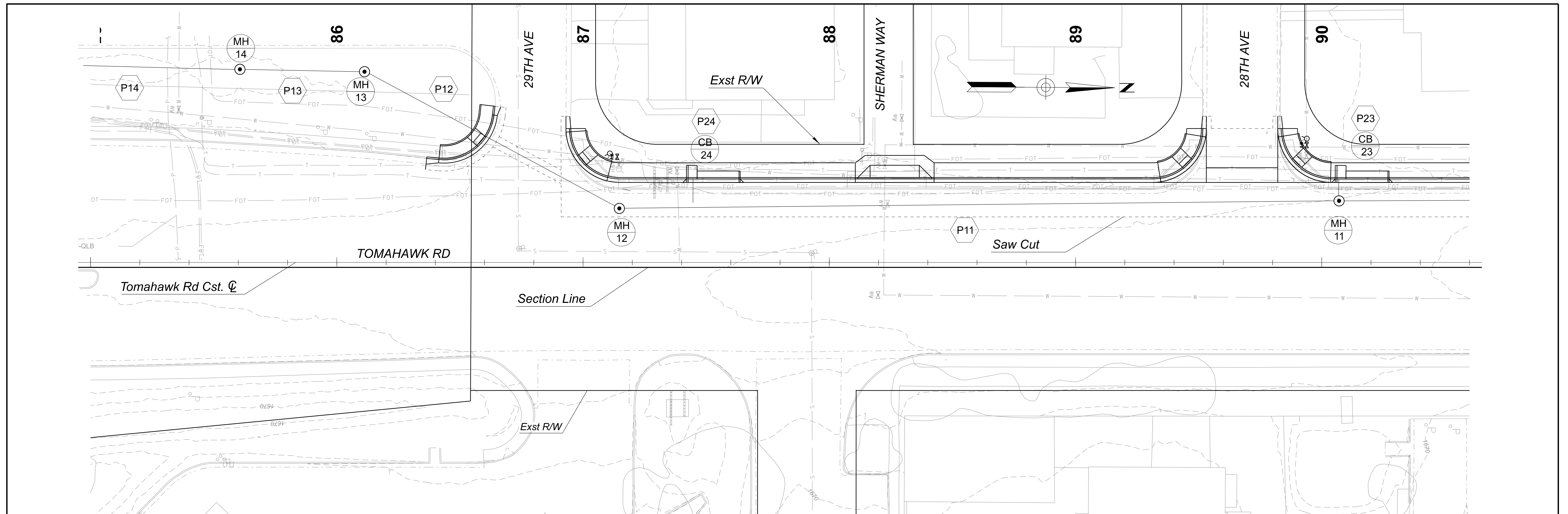
STAKING SHEET

ROUTE	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	46	TOTAL SHEETS	99	RECORD DRAWING
MILEPOST		LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening										
STRUCTURE NO.		TRACS NO. T0411-01C										

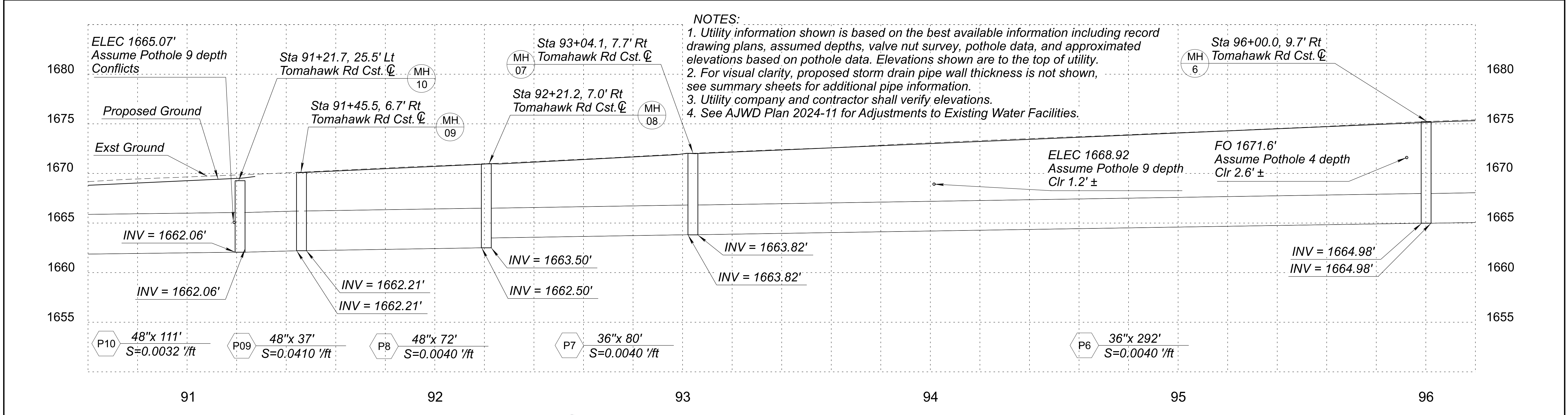
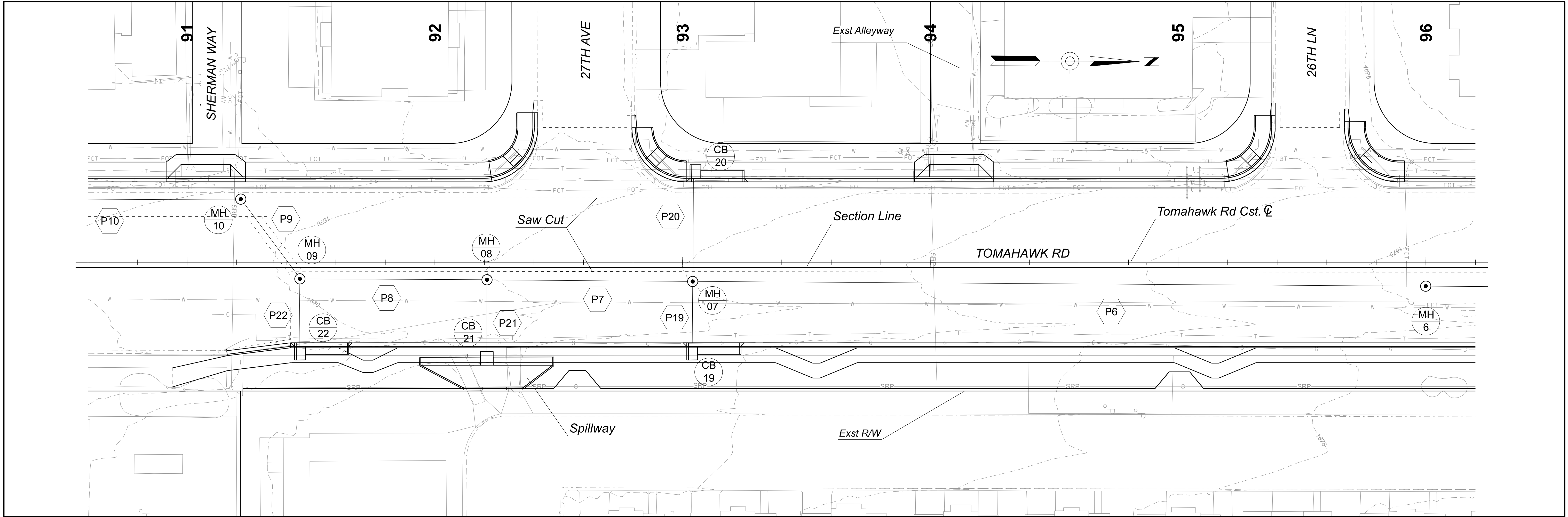
DWG NO. C-03.07
____ OF ____



	DESIGN		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 48	TOTAL SHEETS 99	RECORD DRAWING		
	DRAWN		C.YANG	07/26											
	CHECKED		G. BAMBAUER	07/26											
 WSP USA, Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281					DRAINAGE PLAN & PROFILE SHEET TOMAHAWK RD STA 83+67 TO 85+00										
LOCATION US 60 Tomahawk Rd & Southern Ave Widening														DWG No. D-01.01	
TRACS NO. T0411-01C														___ OF ___	

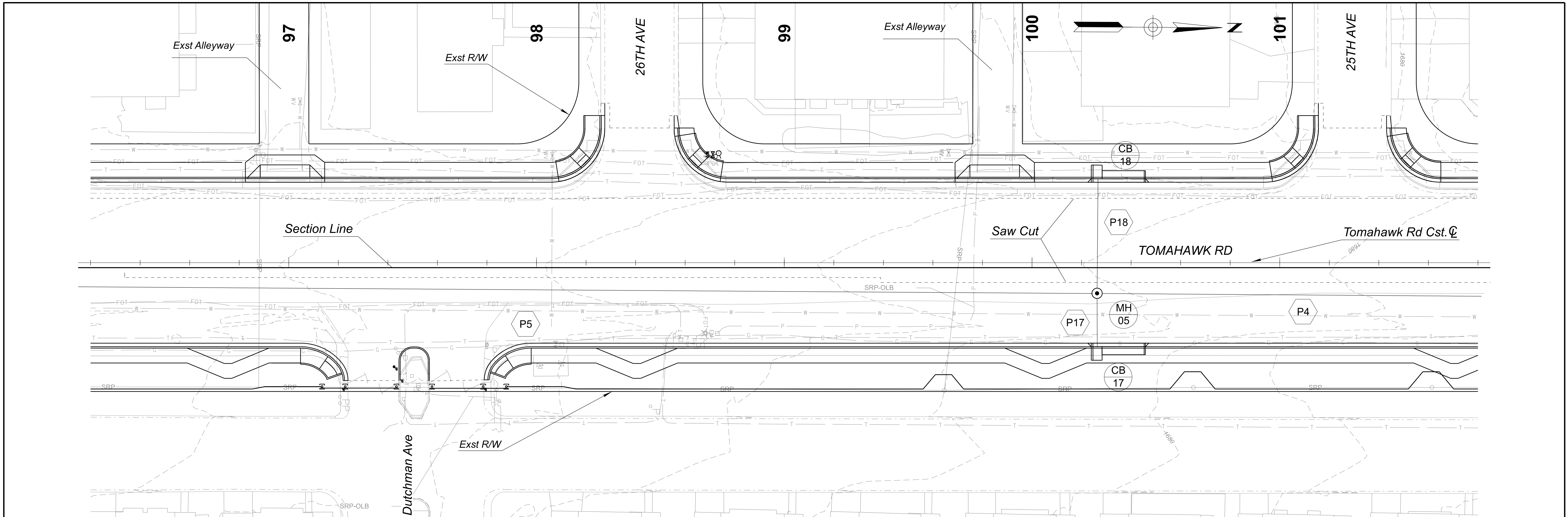


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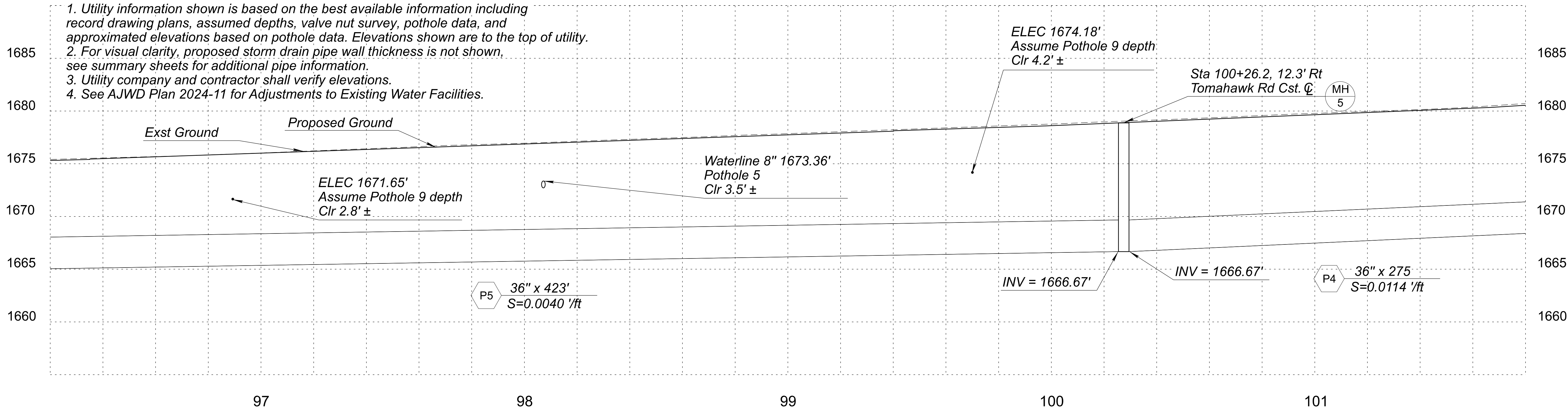
- NOTES:
1. Utility information shown is based on the best available information including record drawing plans, assumed depths, valve nut survey, pothole data, and approximated elevations based on pothole data. Elevations shown are to the top of utility.
 2. For visual clarity, proposed storm drain pipe wall thickness is not shown, see summary sheets for additional pipe information.
 3. Utility company and contractor shall verify elevations.
 4. See AJWD Plan 2024-11 for Adjustments to Existing Water Facilities.

	NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING		
	DESIGN	C.YANG	07/26		US 60			T0411-01C	APJ-0(222)T	50	99			
	DRAWN	C.YANG	07/26		MILEPOST			LOCATION US 60 Tomahawk Rd & Southern Ave Widening						
	CHECKED	G. BAMBAUER	07/26		STRUCTURE NO.			TRACS NO. T0411-01C						
 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281				DRAINAGE PLAN & PROFILE SHEET TOMAHAWK RD STA 90+60 TO 96+20	DWG No. D-01.03 ____ OF ____									



NOTES:

1. Utility information shown is based on the best available information including record drawing plans, assumed depths, valve nut survey, pothole data, and approximated elevations based on pothole data. Elevations shown are to the top of utility.
2. For visual clarity, proposed storm drain pipe wall thickness is not shown, see summary sheets for additional pipe information.
3. Utility company and contractor shall verify elevations.
4. See AJWD Plan 2024-11 for Adjustments to Existing Water Facilities.



	NAME	DATE
DESIGN	C. YANG	07/26
DRAWN	C. YANG	07/26
CHECKED	G. BAMBAUER	07/26

wsp
WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION
DRAINAGE PLAN & PROFILE SHEET
TOMAHAWK RD
STA 96+20 TO 101+80

ROUTE
US 60
MILEPOST
STRUCTURE NO.

F.H.W.A. Arizona Division
ARIZ.

STATE
ARIZ.

PROJECT NO.
T0411-01C

FEDERAL ID NO.
APJ-0(222)T

SHEET NO.
51

TOTAL SHEETS
99

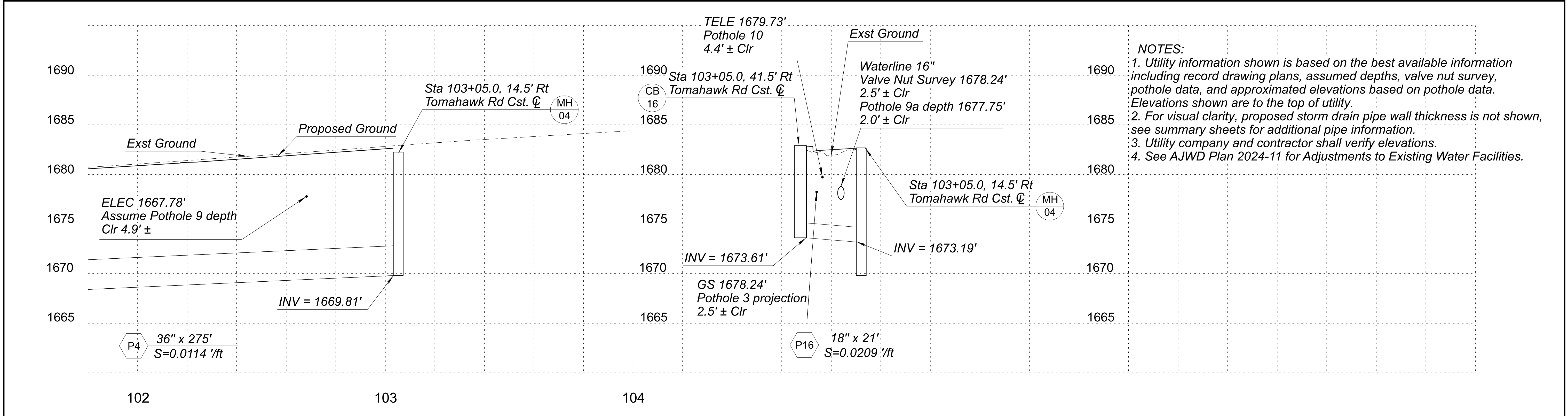
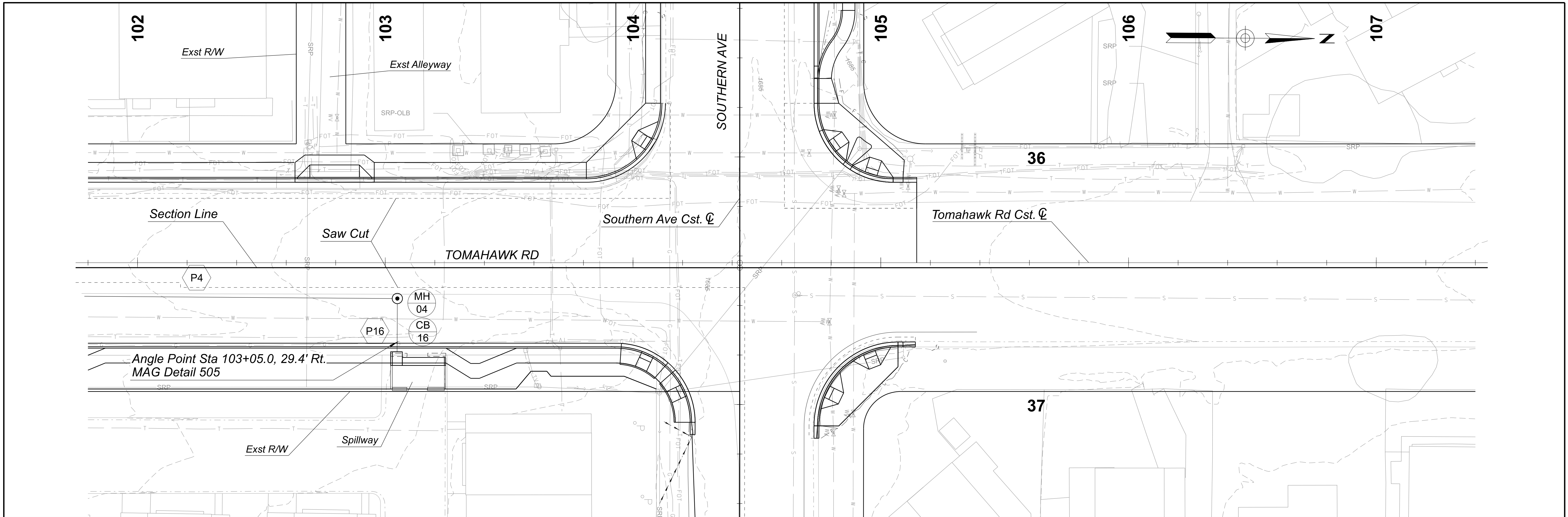
RECORD DRAWING

LOCATION
US 60 Tomahawk Rd & Southern Ave Widening

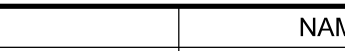
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T0411-01C

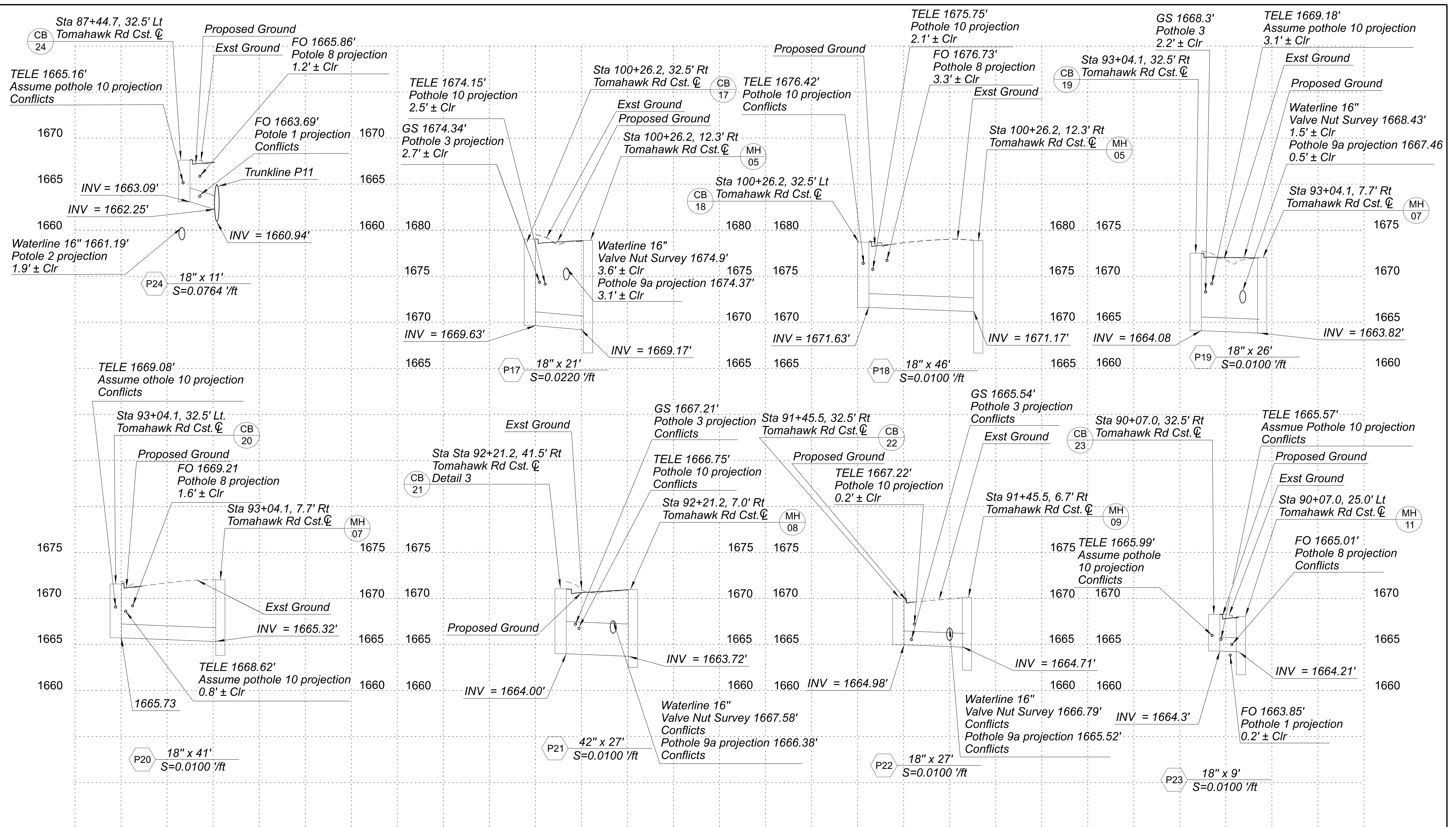
DWG No. D-01.04

OF

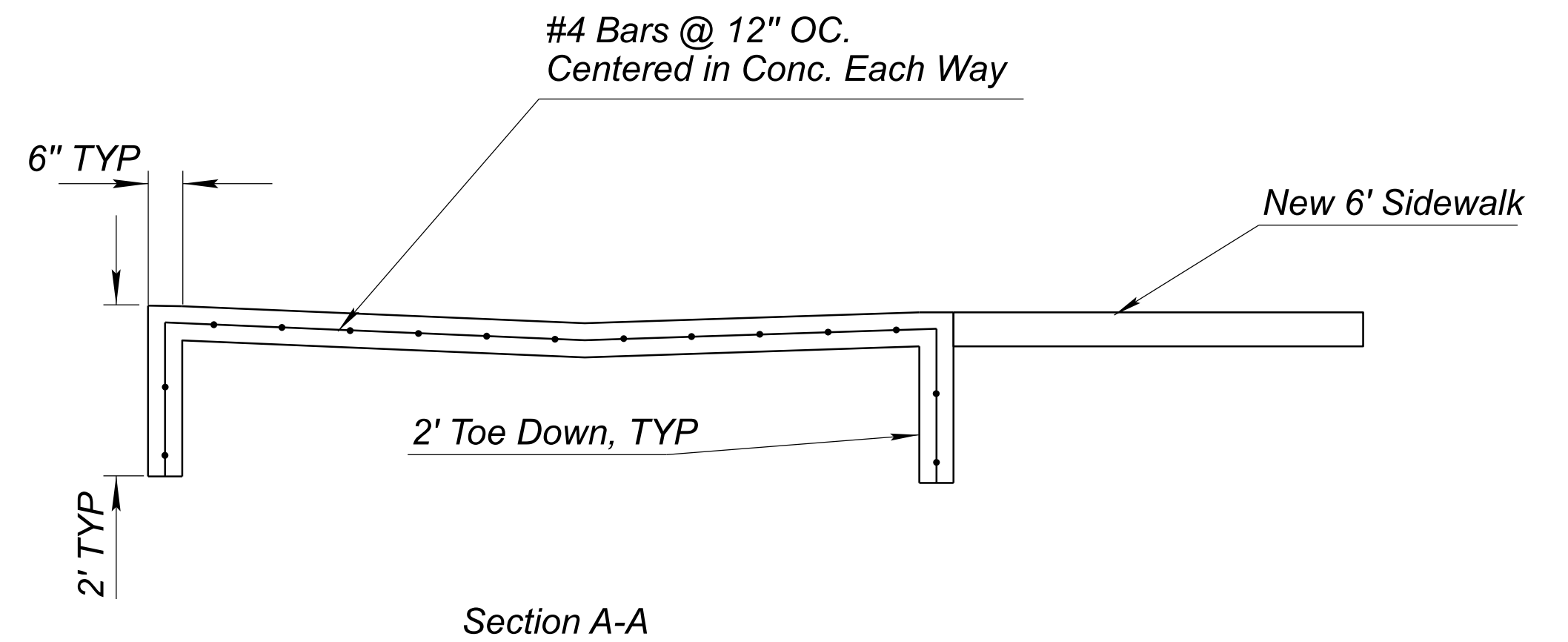
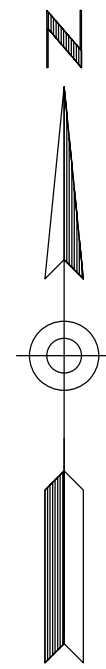
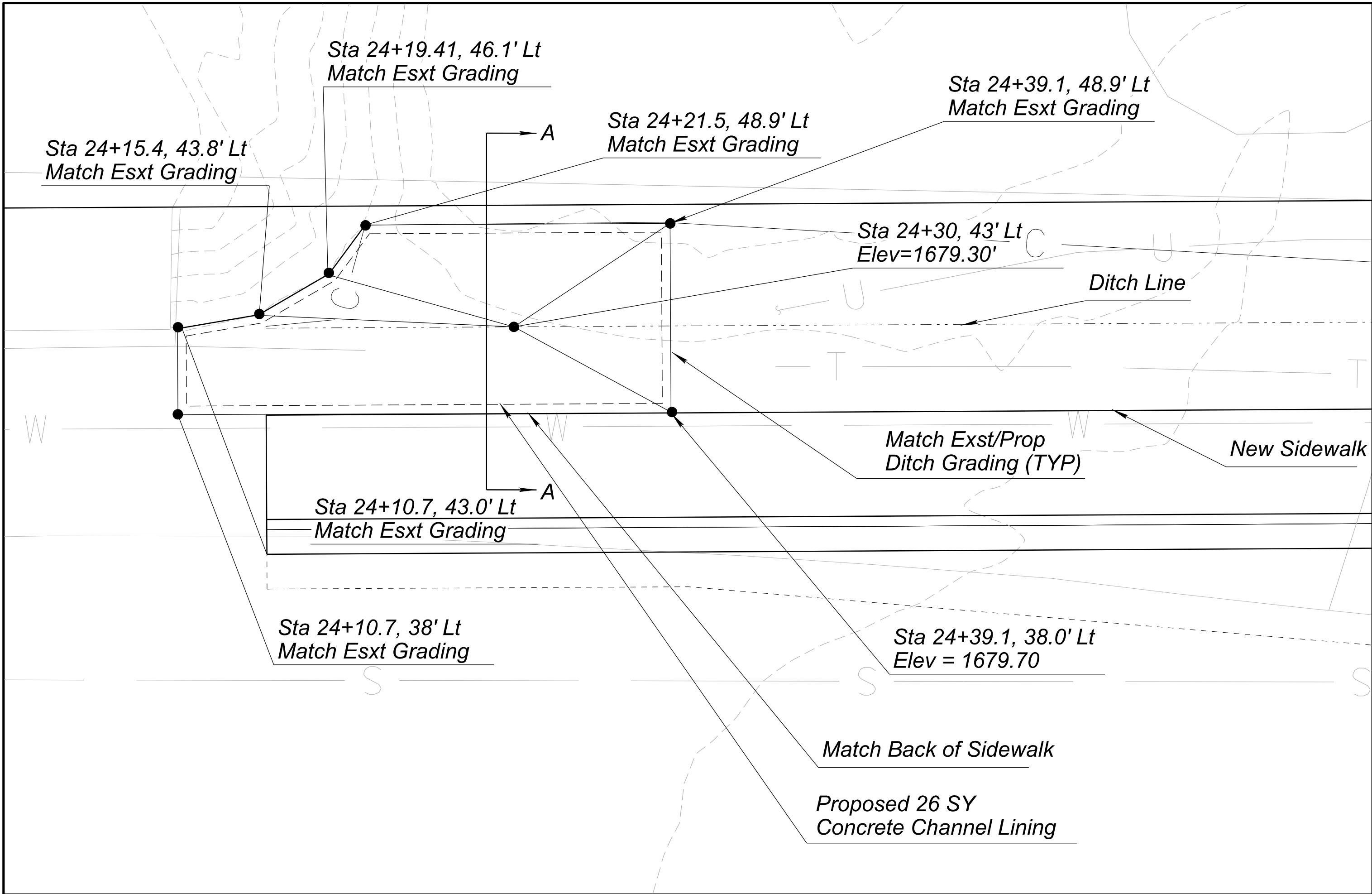


- NOTES:
- Utility information shown is based on the best available information including record drawing plans, assumed depths, valve nut survey, pothole data, and approximated elevations based on pothole data. Elevations shown are to the top of utility.
 - For visual clarity, proposed storm drain pipe wall thickness is not shown, see summary sheets for additional pipe information.
 - Utility company and contractor shall verify elevations.
 - See AJWD Plan 2024-11 for Adjustments to Existing Water Facilities.

	NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	C.YANG	07/26					T0411-01C	APJ-0(222)T	52	99	
	DRAWN	C.YANG	07/26		DRAINAGE PLAN & PROFILE SHEET TOMAHAWK RD STA 101+80 TO 107+40	MILEPOST	LOCATION US 60 Tomahawk Rd & Southern Ave Widening DWG No. D-01.05					
	CHECKED	G. BAMBAUER	07/26									
 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281												



		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING		
	DESIGN	C.YANG	07/26		US 60		ARIZ.	T0411-01C	APJ-0(222)T	53	99			
	DRAWN	C.YANG	07/26		MILEPOST	LOCATION US 60 Tomahawk Rd & Southern Ave Widening								DWG No. D-02.01
	CHECKED	G. BAMBAUER	07/26		STRUCTURE NO.	TRACS NO. T0411-01C								OF
	WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281			DRAINAGE PROFILE SHEET TOMAHAWK RD										

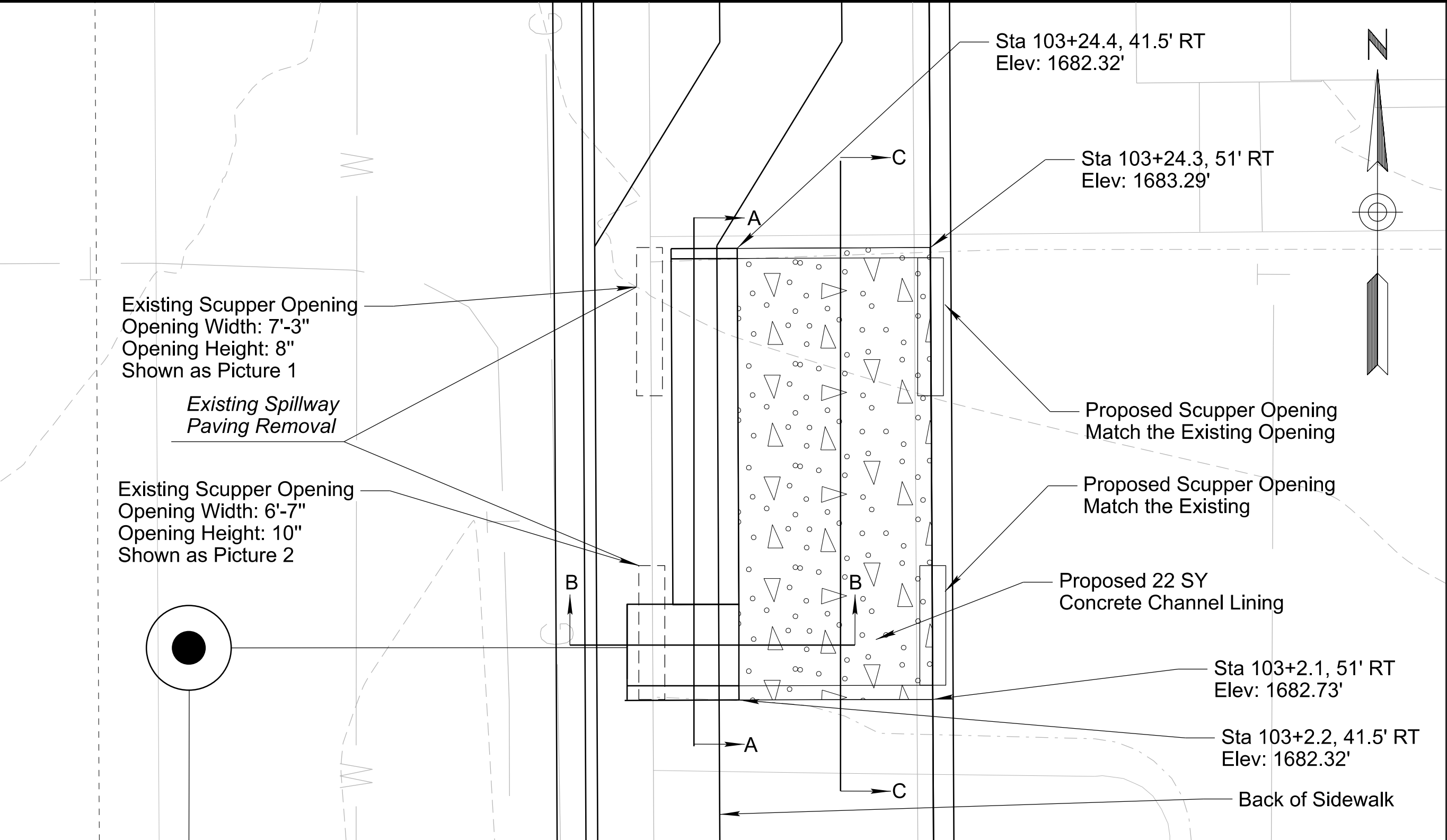


- NOTES:
1. Concrete Channel Lining: Concrete Shall Be Class S ($f'_c = 3000$ psi).
 2. Reinforcing Steel Shall be Grade 60.
 3. Station/Offsets are based off Southern Ave Cst CL.
 4. Concrete Channel Lining Shall be Paid for under Item 9201006.
 5. Field Verify Depth to Utilities and Adjust Toe-down Depth as Needed.

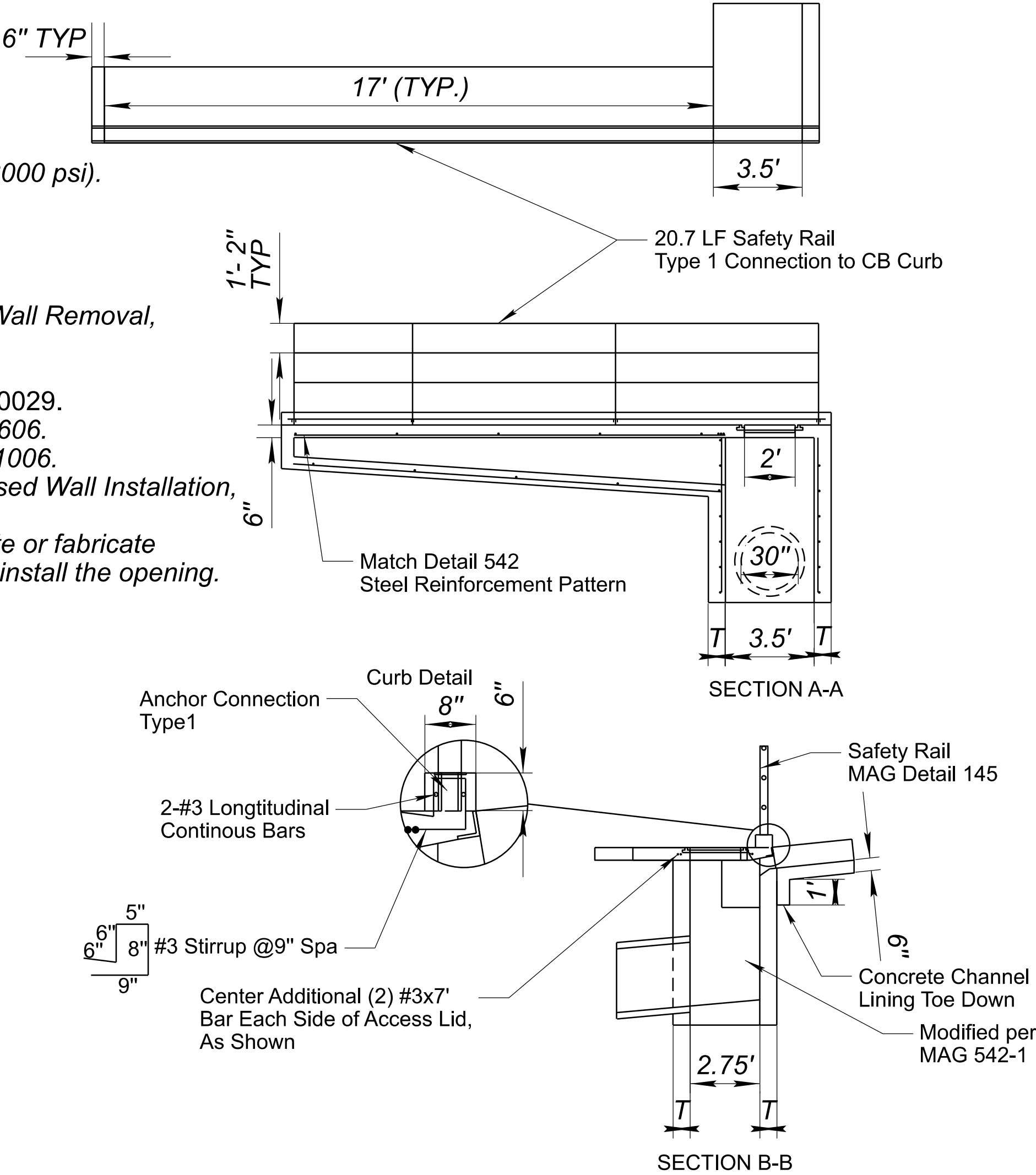
DETAIL D1

Southern Ave Concrete Channel Lining

	 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281	NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING					
		DESIGN	G. BAMBAUER	07/26					T0411-01C	APJ-0(222)T	54	99						
		DRAWN	Y. CHENG	07/26														
		CHECKED	J. FLY	07/26														
		DRAINAGE DETAIL D1							MILEPOST	LOCATION US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. D-03.01		
										STRUCTURE NO.	TRACS NO. T0411-01C				___ OF ___			

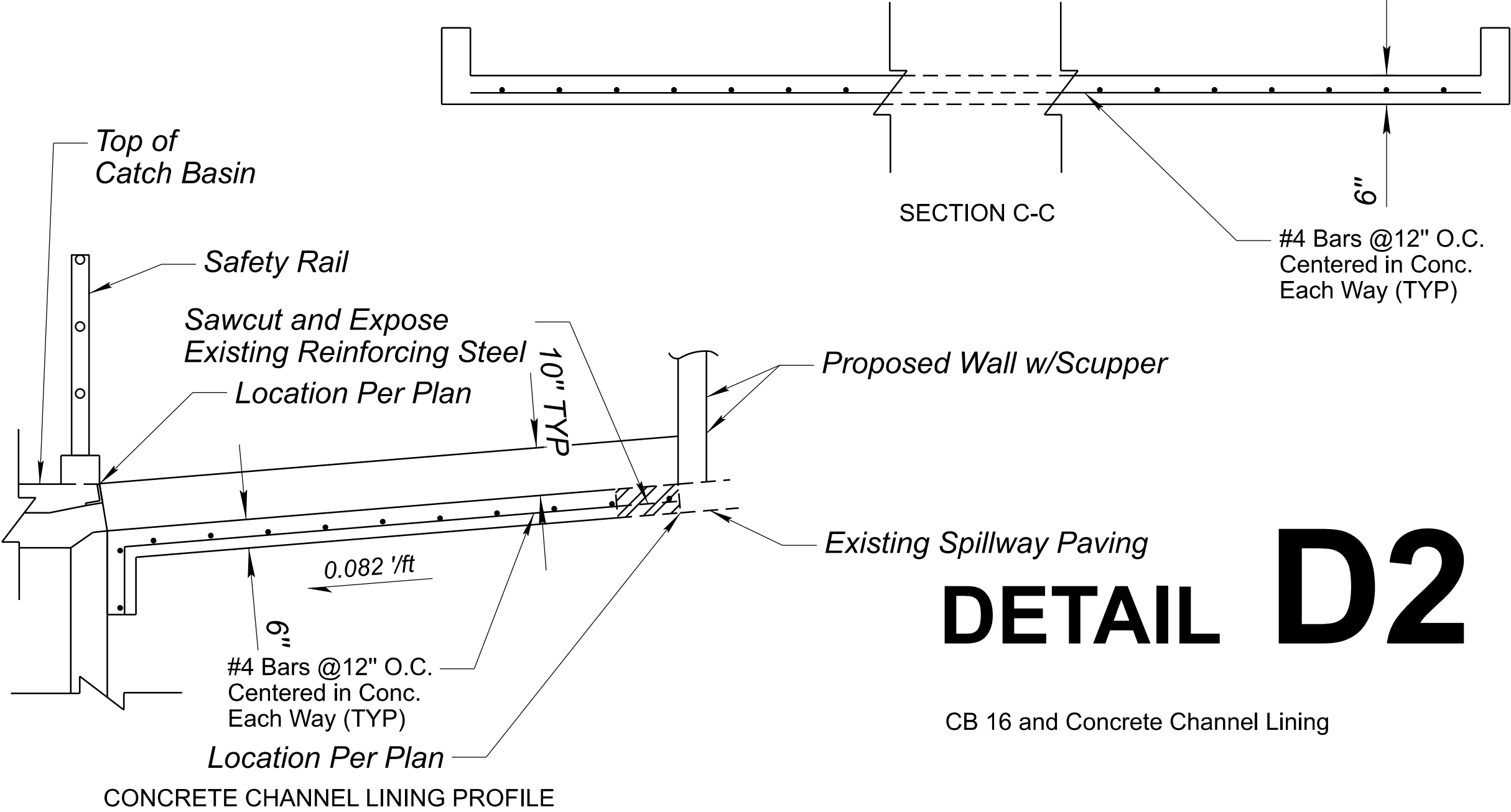


- NOTES:**
1. T=8".
 2. See MAG Detail No.145 Type 1 for Safety Rail.
 3. Catch Basin Revised Based on MAG Detail No. 542-1. CB16 MAG Detail No.542-1, Modified to Accept Safety Rail.
 4. Concrete Channel Lining: Concrete Shall Be Class S ($f_c = 3000$ psi). Reinforcing Steel Shall Be Grade 60. Compact Soil Below Channel Lining to 95% Max Density.
 5. Station/Offsets Are Based Off Tomahawk Rd Cst CL.
 6. Safety Rail Shall be Paid for under Item No. 6110200.
 7. Existing Scupper Removal Shall Be Paid for under Existing Wall Removal, Bid Item No. 2020051.
 8. Existing Spillway Paving Removal Shall Be Paid for under Removal of Asphaltic Concrete Pavement, Bid Item No. 2020029.
 9. Modified Catch Basin Shall be Paid for under Item No. 5030606.
 10. Concrete Channel Lining Shall be Paid for under Item 9201006.
 11. Proposed Scupper Opening Shall be Paid for Under Proposed Wall Installation, Bid Item No. 9140110.
 12. Contractor Shall Remove and salvage existing scupper grate or fabricate new scupper grate to match the existing scupper grate and install the opening. See Photo in this Detail.



Picture 1

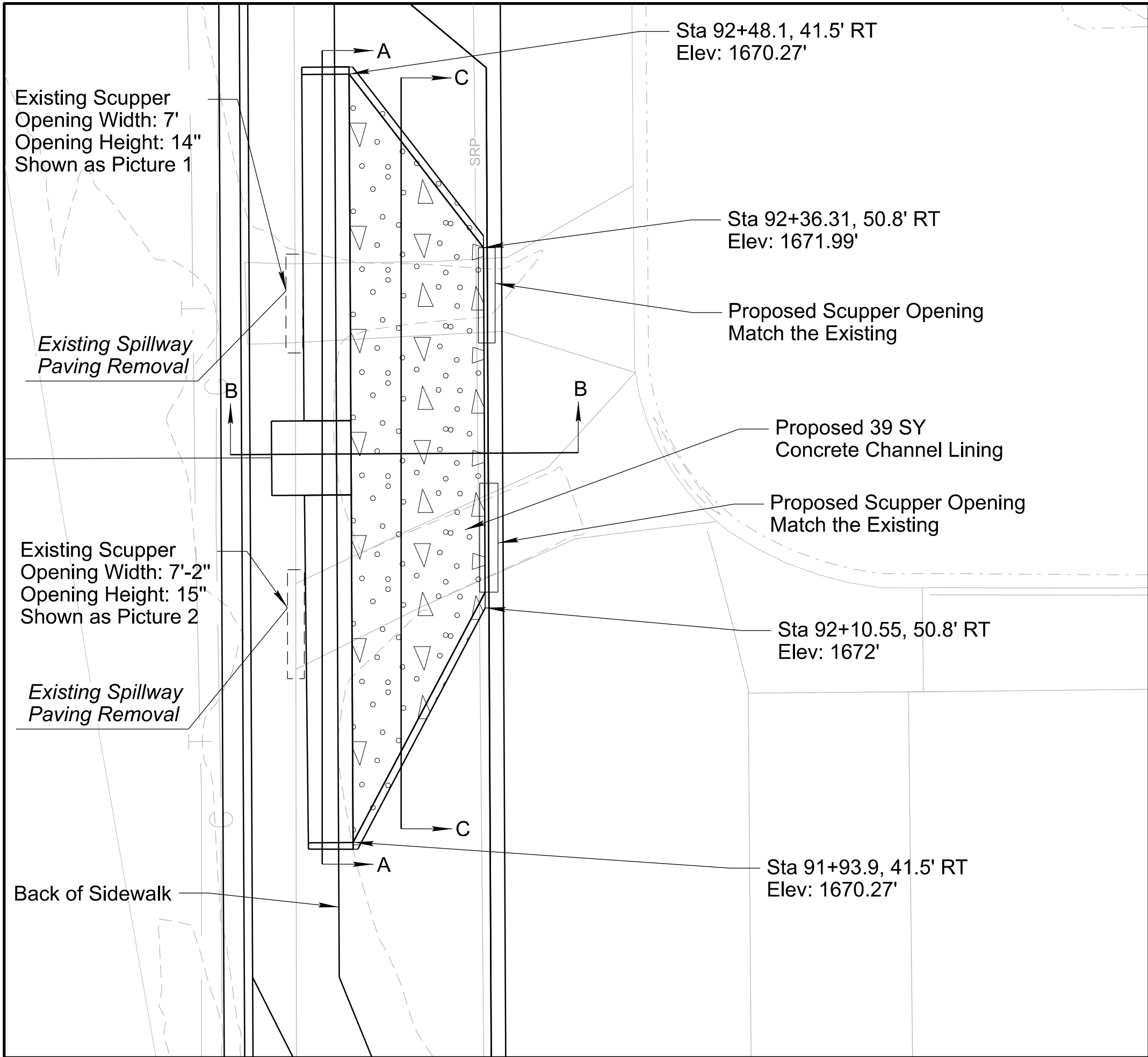
Picture 2



DETAIL D2

CB 16 and Concrete Channel Lining

		ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 55	TOTAL SHEETS 99	RECORD DRAWING						
DESIGN G. BAMBAUER 07/26		NAME G. BAMBAUER DATE 07/26		DRAWN Y. CHENG 07/26		CHECKED J. FLY 07/26		LOCATION US 60 Tomahawk Rd-Southern Ave Widening								
DRAINAGE DETAIL D2		DRAINAGE DETAIL D2		TRACS NO. T0411-01C		DWG NO. D-03.02		OF								



Picture 2

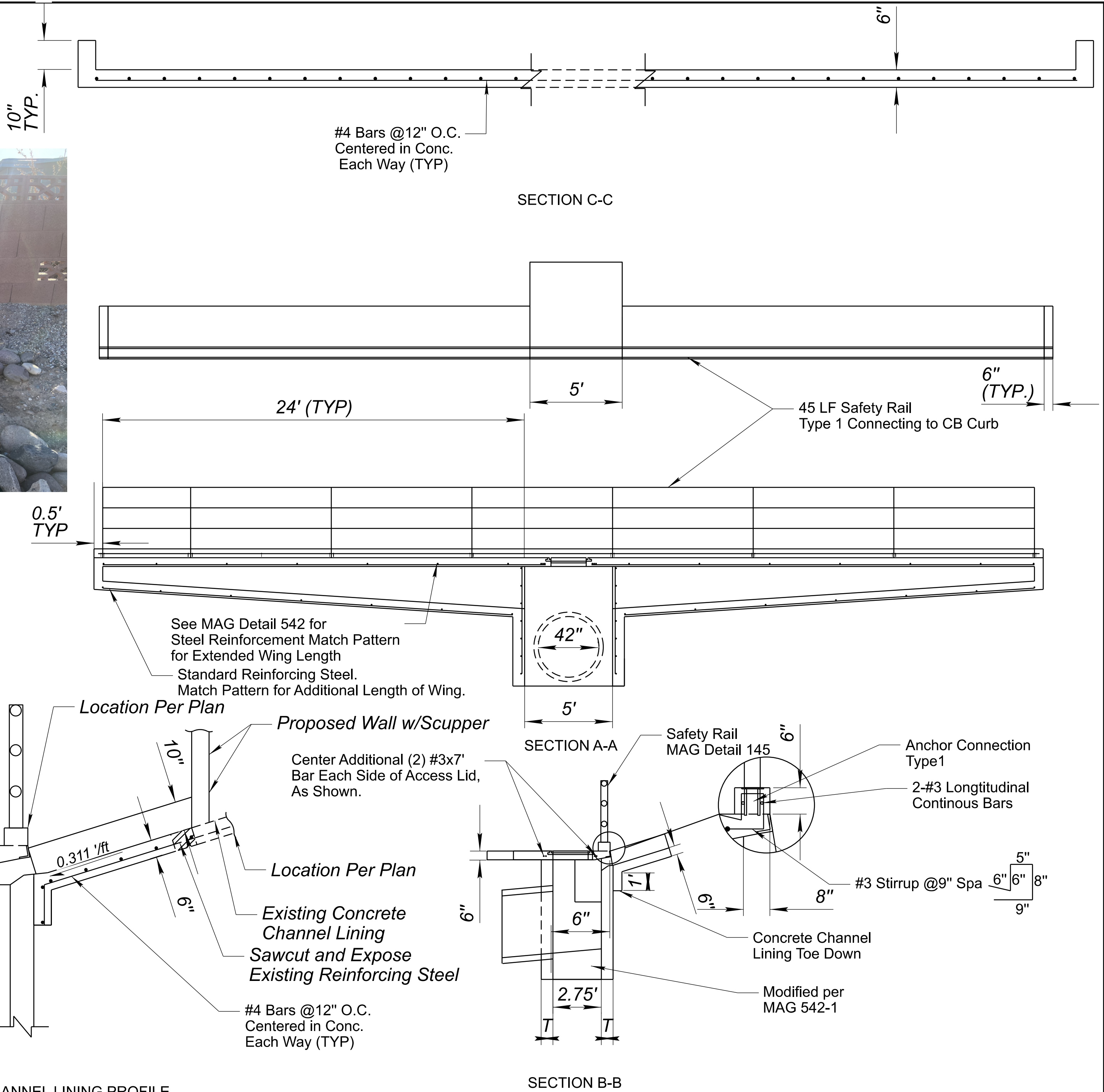


Picture 1

NOTES:

1. T=8".
2. See MAG Detail No.145 Type 1 for Safety Rail.
3. Catch Basin Revised Based on MAG Detail No. 542-1.CB16 MAG Detail No.542-1, Modified to Accept Safety Rail.
4. Concrete Channel Lining: Concrete Shall Be Class S ($f'c = 3000$ psi).
Reinforcing Steel Shall Be Grade 60. Compact Soil Below Channel Lining to 95% Max Density.
5. Station/Offsets Are Based Off Tomahawk Rd Cst CL.
6. Safety Rail Shall be Paid for under Item No. 6110200.
7. Existing Scupper Removal Shall be Paid for under Existing Wall Removal, Bid Item No. 2020051.
8. Existing Spillway Paving Removal Shall be Paid for under Removal of Asphaltic Concrete Pavement, Bid Item No. 2020029.
9. Modified Catch Basin Shall be Paid for under Item No. 5030606.
10. Concrete Channel Lining Shall be Paid for under Item 9201006.
11. Proposed Scupper Opening Shall be Paid for Under Proposed Wall Installation, Bid Item No. 9140110.
12. Contractor Shall Remove and salvage existing scupper grate or fabricate new scupper grate to match the existing scupper grate and install the opening. See Photo in this Detail.

CONCRETE CHANNEL LINING PROFILE



DETAIL D3

CB 21 and Concrete Channel Lining

  WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281	DESIGN G. BAMBAUER 07/26	NAME G. BAMBAUER 07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES		ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 56	TOTAL SHEETS 99	RECORD DRAWING
	DRAWN Y. CHENG 07/26	CHECKED J. FLY 07/26			MILEPOST			LOCATION US 60 Tomahawk Rd-Southern Ave Widening				
	DRAINAGE DETAIL D3		STRUCTURE NO.		TRACS NO. T0411-01C		DWG NO. D-03.03 ____ OF ____					

PAVEMENT MARKING GENERAL NOTES:

1. Final striping, Waterborne-Type II, shall be placed on the final surface course and all other marking shall be applied at the same time. The contractor shall contact the Engineer at least 10 days prior to Final Striping Operations to inspect and verify Final Striping Layout.
2. The contractor shall clean the roadway surface to the satisfaction of the Engineer, by sweeping and air-jet blowing, immediately prior to the placement of all pavement markings. The roadway surface shall be dry and the air and pavement temperatures shall be a minimum of 55 degrees F and rising for the placement of permanent striping.
3. It is the contractor's responsibility to ensure that the final surface course is placed so that the striping is offset one foot clear of any construction joint, unless otherwise directed by the Engineer.
4. At the completion of the final pavement surface each day, center lines, lane lines and edge lines shall be striped with one application of standard waterborne traffic paint at the location of the permanent striping.
5. The contractor shall be responsible for the layout and installation of permanent pavement markings on the final surface course following control points that have been set no more than 50 feet apart along the lines to be striped.

SIGNING GENERAL NOTES:

1. All signs shall be in compliance with the 2023 Manual on Uniform Traffic Control Devices (MUTCD), the current Arizona supplement (2026) to the 2023 MUTCD, the ADOT Signing and Marking Standard Drawings, the Town of Gilbert standard details and current Traffic Engineering Manual of Approved Signs.
2. The contractor shall obtain a traffic engineering permit five (5) days prior to sign installation.
3. The contractor shall protect and preserve all roadway signs, sign posts, object markers, and milepost markers. The contractor shall replace any signs, sign posts, foundations, and markers damaged as a result of the contractor's operations, at no additional cost to the Department.
4. Sign locations and post lengths are approximate. The contractor shall verify sign locations and post lengths with the Engineer prior to excavating and constructing foundations for sign supports.
5. The bottom of each sign shall be at least 7 feet above the nearest edge of pavement and at least 7 feet above the ground under the sign.
6. Offsets for all signs shall be measured from the edge of the roadway to the nearest edge of the sign.
7. All bolts used to install new signing shall have hex heads, not slotted heads.
8. Signs shown on the plans to be removed shall have foundations removed and holes backfilled and compacted to match surrounding grade.
9. The contractor shall be responsible for obtaining and verifying all underground utility locations where new sign posts are installed, and use caution to not damage existing lighting and ITS conduits.
10. The retroreflective sheeting, which shall meet the criteria establishedfor sheeting type in accordance with ASTM D4956, shall be as follows: New regulatory and warning signs - Type XI sheeting.
11. Shop drawings will be required for all proposed signs.

APPROXIMATE PAVEMENT MARKING QUANTITIES

Bid Item #	Item		Unit	Measured Quantity
7080401	Waterborne-Type II Pavement Marking (Painted) (White)	4" White	Linear Feet	5489
7080402	Waterborne-Type II Pavement Marking (Painted) (Yellow)	4" Yellow	Linear Feet	8906
7080405	Waterborne-Type II Pavement Marking (Painted Symbol) (Bike Lane w/ Arrow)		Each	10
7080406	Waterborne-Type II Pavement Marking (Painted Symbol) (Arrow)		Each	7
7080408	Waterborne-Type II Pavement Marking (Painted Legend) (Only)		Each	5

APPROXIMATE SIGN QUANTITIES

Bid Item #	Item	Unit	Quantity
2020053	Remove (Foundations and Posts)	Each	18
2020057	Remove and Salvage (Signs)	Each	33
6070038	Slip Base (for Perforated Sign Post)	Each	21
6070055	Sign Post (Perforated) (2 1/2 S)	L.FT.	262
6070060	Foundation For Sign Post (Concrete)	Each	21
6080005	Warning, Marker or Regulatory Sign Panel	SQ.FT.	231

45640

DAVID B. KINNEAR

DATE SIGNED 07-26-26

REGISTERED PROFESSIONAL ENGINEER

ARIZONA, U.S.A.

David B. Kinneare

Expires 12/31/27

DESIGN

DBK

07/26

DRAWN

DBK

07/26

CHECKED

SAS

07/26

United Civil Group

2803 North 7th Avenue

Phoenix, Arizona 85007

(602) 265 - 6155

ARIZONA DEPARTMENT OF TRANSPORTATION

PROJECT DELIVERY AND OPERATIONS DIVISION

ROADWAY DESIGN SERVICES

SIGNING & PAVEMENT MARKING

GENERAL NOTES SHEET

ROUTE

US 60

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE

ARIZ.

PROJECT NO.

T0411-01C

FEDERAL ID NO.

APJ-0(222)T

SHEET NO.

57

TOTAL SHEETS

99

RECORD DRAWING

LOCATION

Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening

TRACS NO.

T0411-01C

DWG NO.

T-01.01

OF

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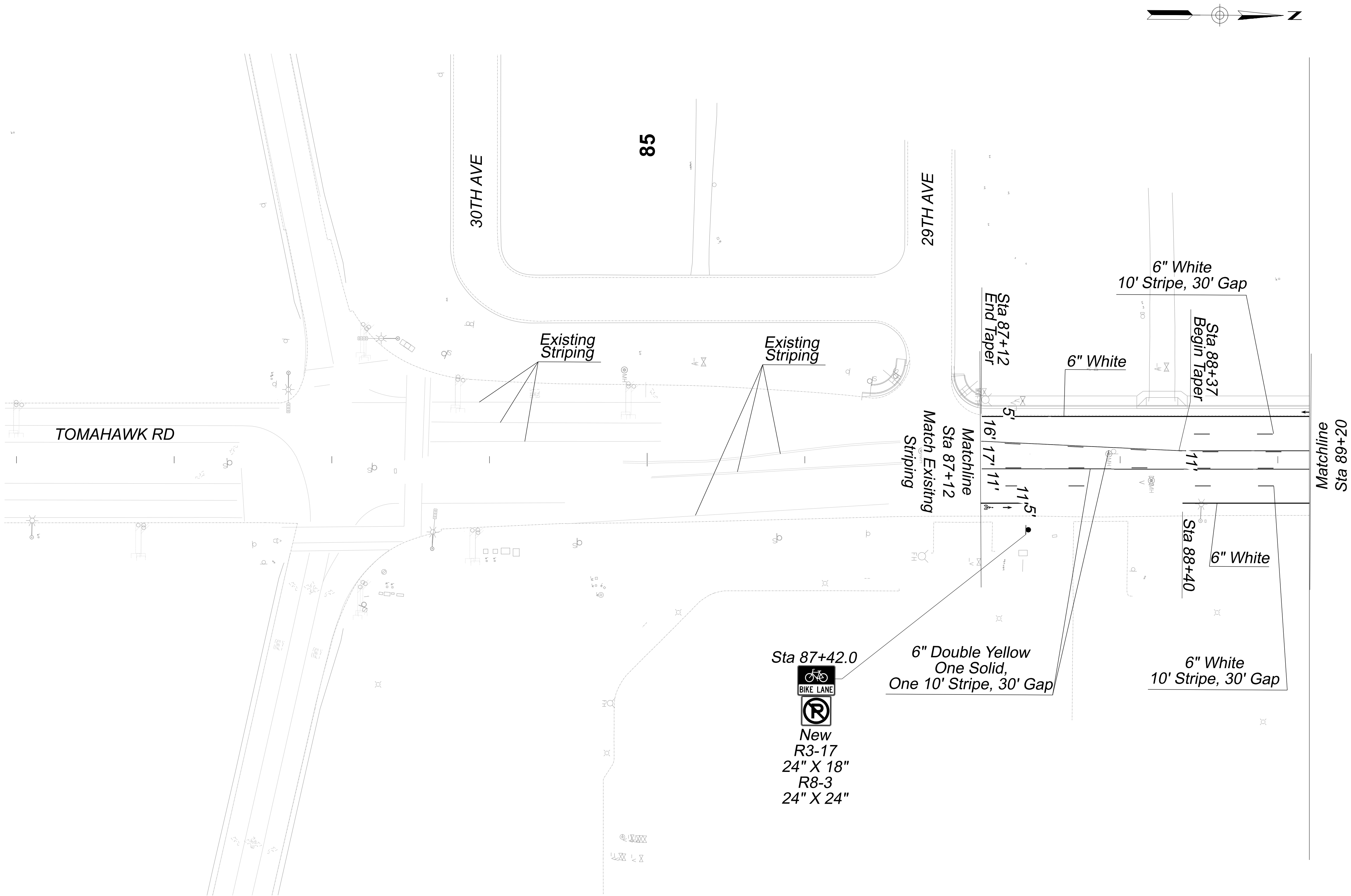
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Plan Dwg No.	Station	MOAS Sign Code	Work					Offset (ft)	Mounting Height (ft)	Background Color	Panel				Bid Item Number	Ground Mounted					Overhead		Remarks				
			New	Existing							Legend	Width (in.)	Height (in.)	Area (sq. ft.)		Type	Foundations	Posts			Stringer			Structure Type	No. of Lights		
				Replace Panel	Relocate Panel	Modify Legend	Remove and Salvage											To Remain	Type	Total length (ft)	New Slipbases	Type				Total Length (ft)	
-	Sta 87+42.0	R3-17	X						6	9	W	Bike Lane	30	24	5.0	RWM	6080005	1	2 1/2 S	13	1						
	+	R8-3	X						6	7	W	No Parking	24	24	4.0	RWM	6080005										To be placed under R3-17
-	Sta 89+42.6	D3-1	X						6	12	G	TOMAHAWK RD	30	9	1.875	RWM	6080005	1	2 1/2 S	13	1						
	+	D3-1	X						6	11	G	28th Ave	30	9	1.875	RWM	6080005										To be placed under D3-1
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005										To be placed under D3-1
-	Sta 89+50.8	D3-1					X					TOMAHAWK RD					2020057										Remove foundation and post (2020053)
	+	D3-1					X					28th Ave					2020057										
	+	R1-1					X					Stop Sign					2020057										
-	Sta 90+18.4	R2-1-35		X								Speed Limit 35	24	30	5.0	RWM	6080005										Remove and Salvage Sign (2020057)
-	Sta 90+87.0	W4-2L	X						6	7	Y	Lane Ends	48	48	16.0	RWM	6080005	1	2 1/2 S	13	1						
-	Sta 91+17.0	OM1-1					X					Object Marker					2020057										Remove foundation and post (2020053)
-	Sta 91+17.0	Specialty					X					End of Sidewalk					2020057										Remove foundation and post (2020053)
-	Sta 92+08	R3-17	X						6	9	W	Bike Lane	30	24	5.0	RWM	6080005	1	2 1/2 S	13	1						
	+	R8-3	X						6	7	W	No Parking	24	24	4.0	RWM	6080005										To be placed under R3-17
-	Sta 92+31.1	D3-1	X						6	12	G	TOMAHAWK RD	30	9	1.875	RWM	6080005	1	2 1/2 S	13	1						
	+	D3-1	X						6	11	G	27th Ave	30	9	1.875	RWM	6080005										To be placed under D3-1
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005										To be placed under D3-1
-	Sta 92+38.6	D3-1					X					TOMAHAWK RD					2020057										Remove foundation and post (2020053)
	+	D3-1					X					27th AVE					2020057										
	+	R1-1					X					Stop Sign					2020057										
-	Sta 93+54.2	R3-9b	X						6	9	W	Center Lane Only	24	36	6.0	RWM	6080005										Install on Street Light Pole
	+	R8-3	X						6	7	W	No Parking	24	24	4.0	RWM	6080005										To be placed under R3-9b
-	Sta 95+27.2	D3-1	X						6	12	G	TOMAHAWK RD	30	9	1.875	RWM	6080005	1	2 1/2 S	13	1						
	+	D3-1	X						6	11	G	26th Ln	30	9	1.875	RWM	6080005										To be placed under D3-1
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005										To be placed under D3-1
-	Sta 95+35.5	D3-1					X					TOMAHAWK RD					2020057										Remove foundation and post (2020053)
	+	D3-1					X					26th Ln					2020057										
	+	R1-1					X					Stop Sign					2020057										
-	Sta 98+02.2	R3-17	X						6	9	W	Bike Lane	30	24	5.0	RWM	6080005	1	2 1/2 S	13	1						
	+	R8-3	X						6	7	W	No Parking	24	24	4.0	RWM	6080005										To be placed under R3-17
-	Sta 98+16.5	D3-1	X						6	12	G	TOMAHAWK RD	30	9	1.875	RWM	6080005	1	2 1/2 S	13	1						
	+	D3-1	X						6	11	G	26th Ave	30	9	1.875	RWM	6080005										To be placed under D3-1
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005										To be placed under D3-1
-	Sta 98+22.8	D3-1					X					TOMAHAWK RD					2020057										Remove foundation and post (2020053)
	+	D3-1					X					26th Ave					2020057										
	+	R1-1					X					Stop Sign					2020057										
-	Sta 100+93.6	R2-1-35	X						6	7	W	Speed Limit 35	24	30	5.0	RWM	6080005	1	2 1/2 S	11.5	1						
-	Sta 101+04.1	D3-1	X						6	12	G	TOMAHAWK RD	30	9	1.875	RWM	6080005	1	2 1/2 S	13	1						
	+	D3-1	X						6	11	G	25th Ave	30	9	1.875	RWM	6080005										To be placed under D3-1
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005										To be placed under D3-1

	DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 58	TOTAL SHEETS 99	RECORD DRAWING						
	DRAWN	DBK	07/26															
	CHECKED	SAS	07/26															
	United Civil Group 2803 North 7th Avenue Phoenix, Arizona 85007 (602) 265 - 6155																	
SIGN SUMMARY SHEET					MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. T-02.01						
						TRACS NO. T0411-01C												
												OF						

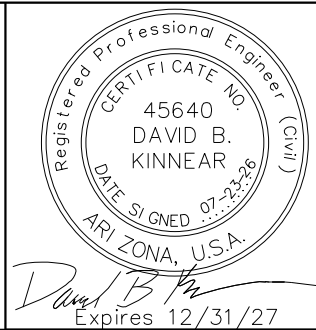
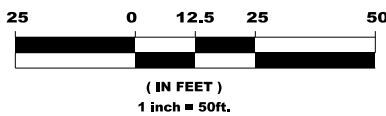
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			New	Existing							Legend	Width (in.)	Height (in.)	Area (sq. ft.)		Type	Foundations	Posts			Stringer			Structure Type	No. of Lights	
				Replace Panel	Relocate Panel	Modify Legend	Remove and Salvage											To Remain	Type	Total length (ft)	New Slipbases	Type				Total Length (ft)
-	Sta 101+10.5	D3-1					X				TOMAHAWK RD					2020057								Remove foundation and post (2020053)		
	+	D3-1					X				25th Ave					2020057										
	+	R1-1					X				Stop Sign					2020057										
-	Sta 102+22	R3-9b	X						6	7	W	Center Lane Only	24	36	6.0	RWM	6080005	1	2 1/2 S	12	1					
-	Sta 103+13	R3-17	X						6	9	W	Bike Lane	30	24	5.0	RWM	6080005	1	2 1/2 S	13	1					
	+	R8-3	X						6	7	W	No Parking	24	24	4.0	RWM	6080005								To be placed under R3-17	
-	Sta 103+28.8	R3-9b					X				Center Lane Only					2020057								Remove foundation and post (2020053)		
-	Sta 103+93.8	R1-1	X								Stop Sign	36	36	9.0	RWM	6080005	1	2 1/2 S	12	1						
-	Sta 104+14.5	R1-1					X				Stop Sign					2020057								Remove foundation and post (2020053)		
-	Sta 104+85.3	R1-1					X				Stop Sign					2020057								Remove foundation and post (2020053)		
-	Sta 105+11.6	R1-1	X								Stop Sign	36	36	9.0	RWM	6080005	1	2 1/2 S	12	1						
-	Sta 106+26.2	R2-1-35		X							Speed Limit 35	24	30	5.0	RWM	6080005										
-	Sta 20+98.7	D3-1		X							SOUTHERN AVE	30	9	1.875	RWM	6080005										
	+	D3-1		X							CACTUS RD	30	9	1.875	RWM	6080005										
	+	R1-1		X							Stop Sign	36	36	9.0	RWM	6080005										
-	Sta 26+37.3	D3-1					X				SOUTHERN AVE					2020057								Remove foundation and post (2020053)		
	+	D3-1					X				MARIPOSA RD					2020057										
	+	R1-1					X				Stop Sign					2020057										
-	Sta 26+45.3	D3-1	X						6	12	G	SOUTHERN AVE	30	9	1.875	RWM	6080005	1	2 1/2 S	13	1					
	+	D3-1	X						6	11	G	MARIPOSA RD	30	9	1.875	RWM	6080005								To be placed under D3-1	
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005								To be placed under D3-1	
-	Sta 26+77.3	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005	1	2 1/2 S	12	1					
-	Sta 26+77.3	R1-1					X				Stop Sign					2020057								Remove foundation and post (2020053)		
-	Sta 33+62.5	R3-7R					X				Right Lane Must Turn Right					2020057								Remove foundation and post (2020053)		
-	Sta 33+62.5	R3-7R	X						6	7	W	Right Lane Must Turn Right	30	30	6.25	RWM	6080005	1	2 1/2 S	12	1					
-	Sta 34+08.0	R2-1-35					X				Speed Limit 35					2020057								Remove foundation and post (2020053)		
-	Sta 34+08.0	R2-1-35	X						6	7	W	Speed Limit 35	24	30	5.0	RWM	6080005	1	2 1/2 S	11.5	1					
-	Sta 35+77.1	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005	1	2 1/2 S	12	1					
-	Sta 35+92.5	R1-1					X				Stop Sign					2020057								Remove foundation and post (2020053)		
-	Sta 36+05.7	R1-1					X				Stop Sign					2020057								Remove foundation and post (2020053)		
-	Sta 36+91.9	D3-1					X				TOMAHAWK RD					2020057								Remove foundation and post (2020053)		
	+	D3-1					X				SOUTHERN AVE					2020057										
	+	R1-1					X				Stop Sign					2020057										
-	Sta 37+10.5	D3-1	X						6	12	G	TOMAHAWK RD	48	9	3.0	RWM	6080005	1	2 1/2 S	13	1					
	+	D3-1	X						6	11	G	SOUTHERN AVE	30	9	3.0	RWM	6080005								To be placed under D3-1	
	+	R1-1	X						6	7	R	Stop Sign	36	36	9.0	RWM	6080005								To be placed under D3-1	
-	Sta 37+82.2	R2-1-35					X				Speed Limit 35					2020057								Remove foundation and post (2020053)		
-	Sta 37+82.2	R2-1-35	X						6	7	W	Speed Limit 35	24	30	5.0	RWM	6080005	1	2 1/2 S	11.5	1					

	DESIGN	DBK	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	US 60	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	59	TOTAL SHEETS	99	RECORD DRAWING	
	DRAWN	DBK	07/26		MILEPOST			LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening							DWG NO.	T-02.02		
	CHECKED	SAS	07/26		STRUCTURE NO.			TRACS NO. T0411-01C							OF				
	United Civil Group 2803 North 7th Avenue Phoenix, Arizona 85007 (602) 265-6155				SIGN SUMMARY SHEET														



Sta 87+42.0

New
R3-17
24" X 18"
R8-3
24" X 24"



NAME		DATE
DESIGN	DBK	07/26
DRAWN	DBK	07/26
CHECKED	SAS	07/26

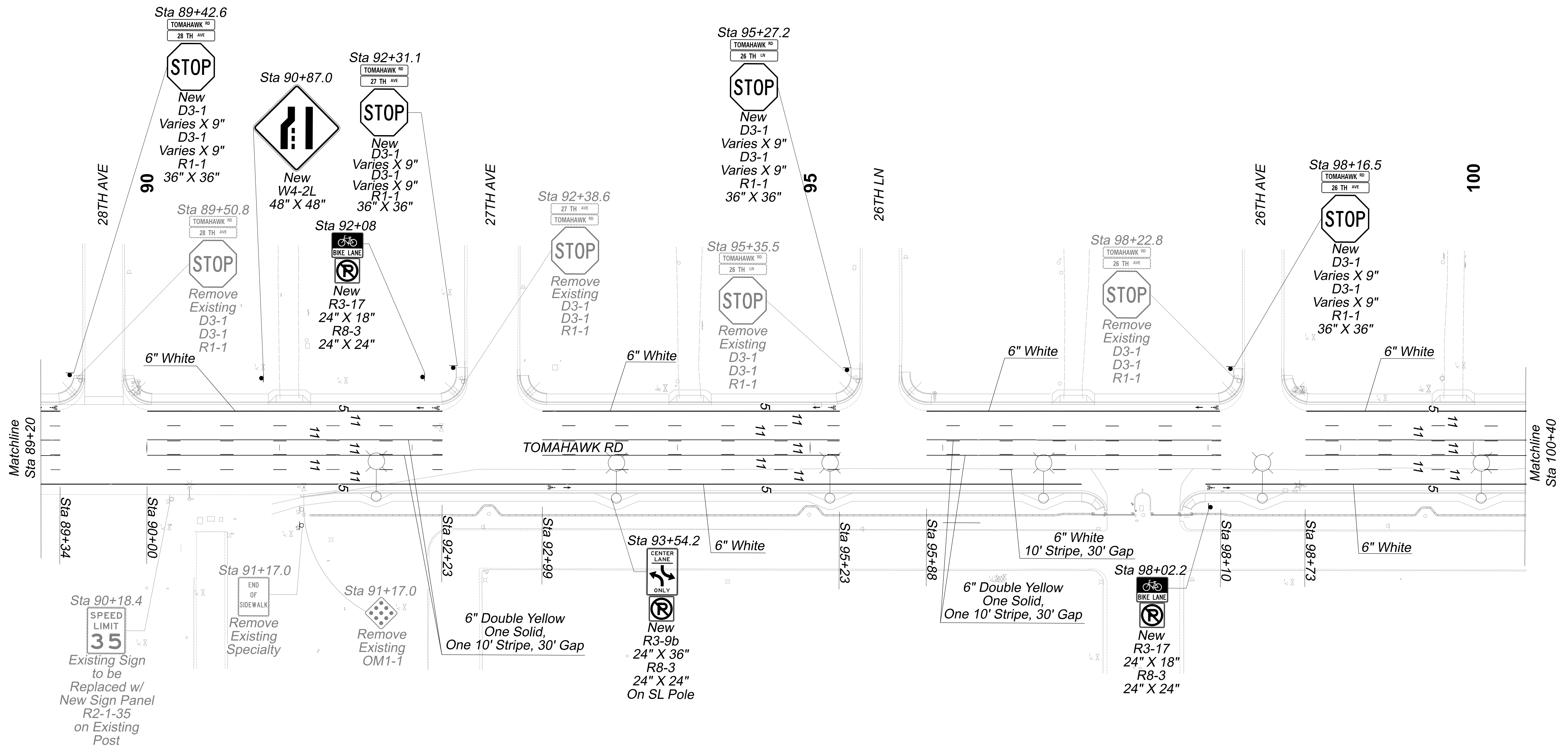
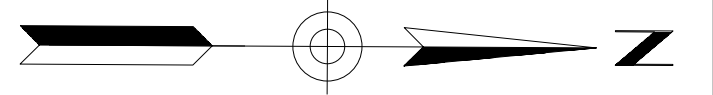


United Civil Group
2803 North 7th Avenue
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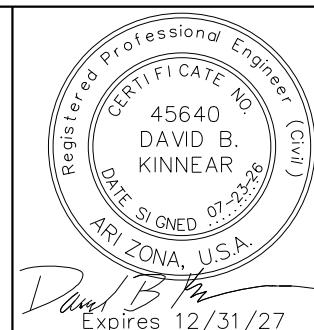
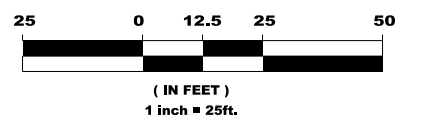
ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

SIGNING & PAVEMENT MARKING
TOMAHAWK RD
STA 87+12 TO STA 89+20

ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 60	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. T-03.01
STRUCTURE NO.	TRACS NO. T0411-01C						___ OF ___



Note:
Existing signs shall have the sign panel, posts and foundation removed and salvaged.
Some existing signs are being replaced with new sign panels.



	NAME	DATE
DESIGN	DBK	07/26
DRAWN	DBK	07/26
CHECKED	SAS	07/26

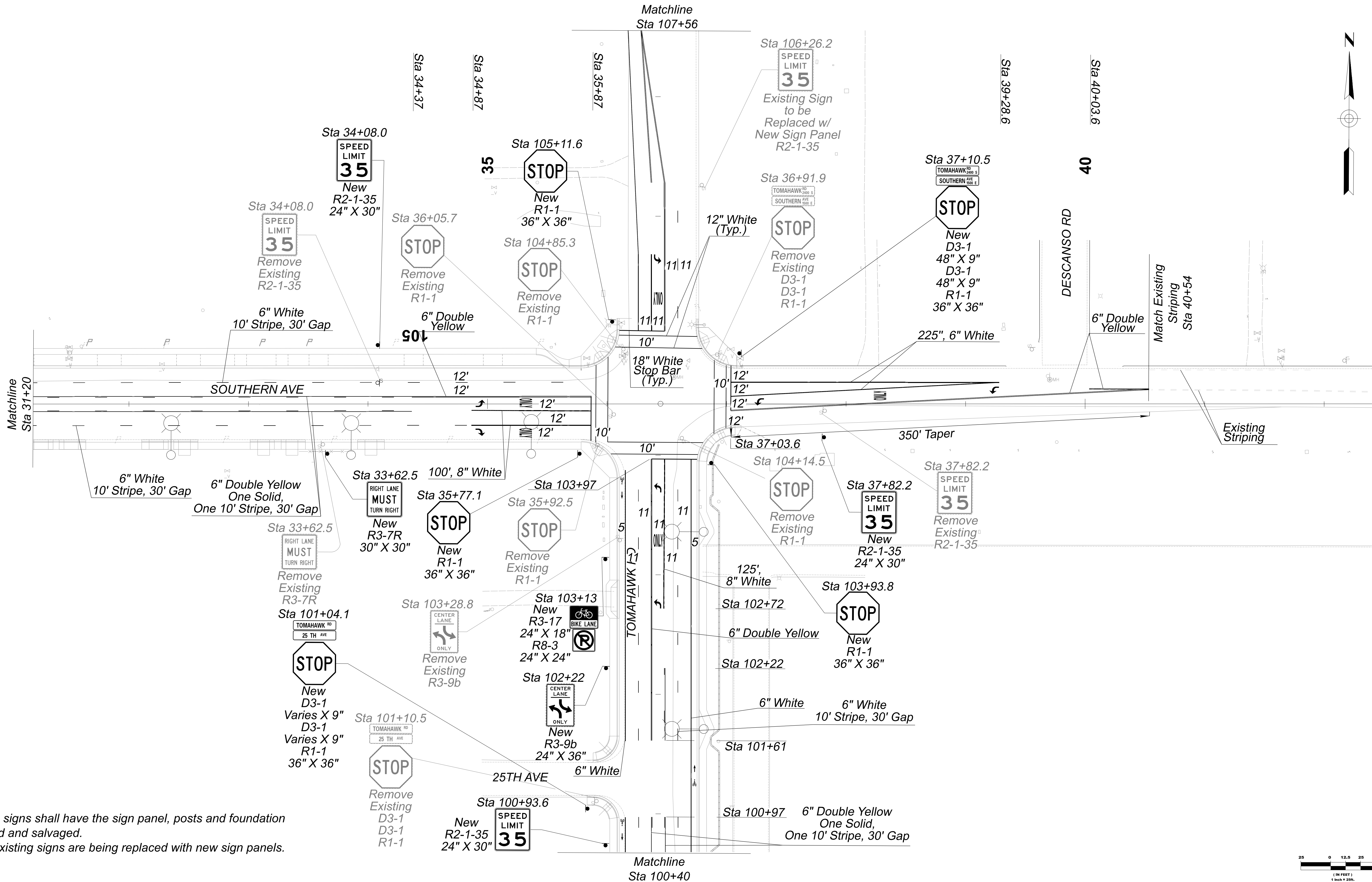


United Civil Group
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Phoenix, Arizona 85007
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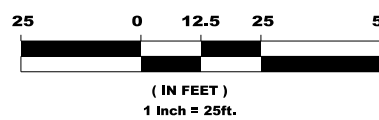
ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

SIGNING & PAVEMENT MARKING SHEET
TOMAHAWK RD
STA 89+20 TO 100+40

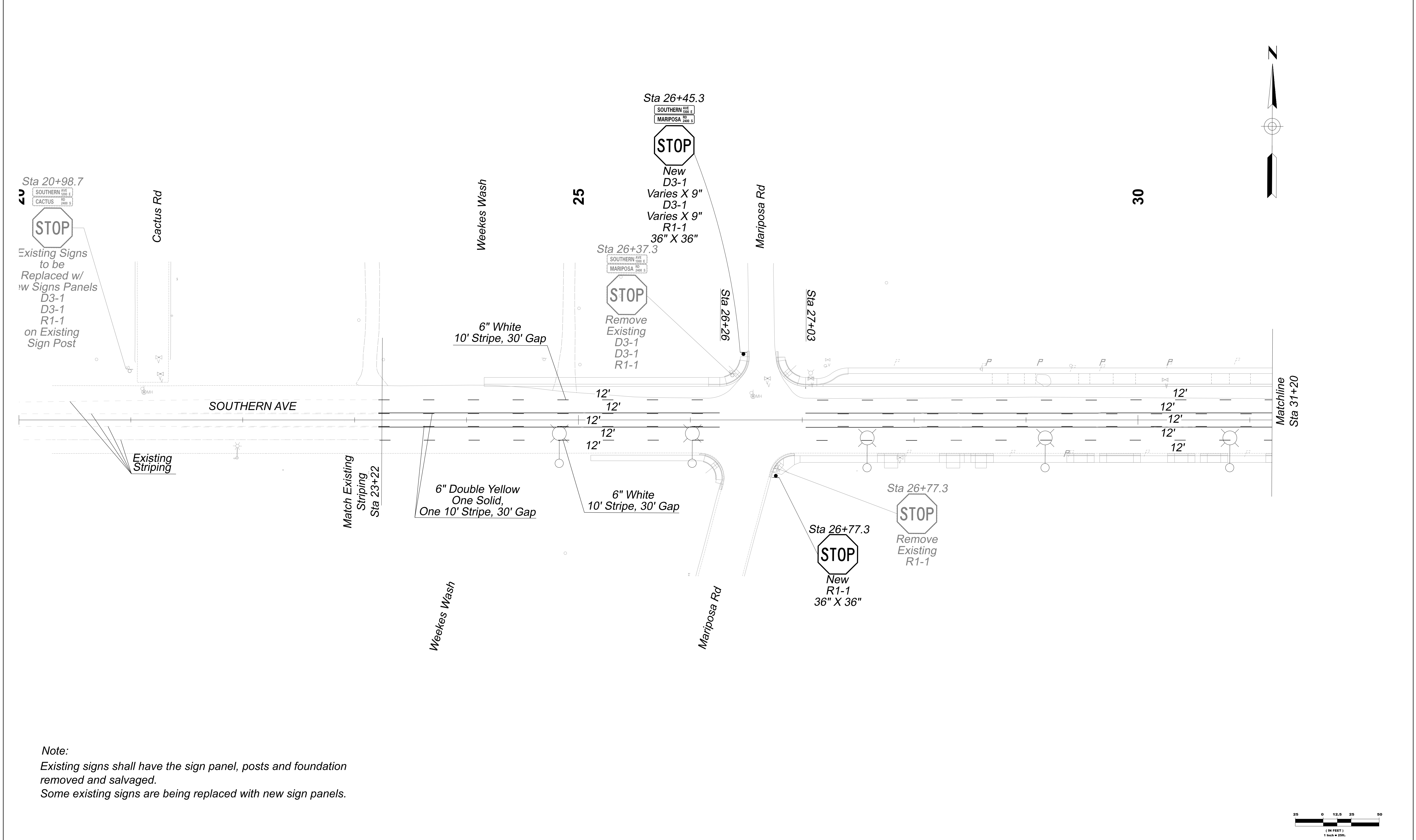
ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
US 60		ARIZ.	T0411-01C	APJ-0(222)T	61	99	
MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. T-03.02
STRUCTURE NO.	TRACS NO. T0411-01C						___ OF ___



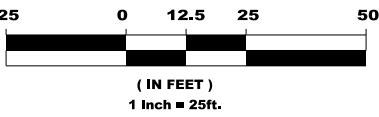
Note:
Existing signs shall have the sign panel, posts and foundation removed and salvaged.
Some existing signs are being replaced with new sign panels.



REGISTERED PROFESSIONAL ENGINEER 45640 DAVID B. KINNEAR DATE SIGNED 07-26-26 ARIZONA, U.S.A. Expires 12/31/27 UCG United Civil Group 2803 North 7th Avenue Phoenix, Arizona 85007 (602) 265-6155	<table><tr><th>DESIGN</th><th>NAME</th><th>DATE</th></tr><tr><td>DRAWN</td><td>DBK</td><td>07/26</td></tr><tr><td>CHECKED</td><td>SAS</td><td>07/26</td></tr></table>	DESIGN	NAME	DATE	DRAWN	DBK	07/26	CHECKED	SAS	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES SIGNING & PAVEMENT MARKING SHEET TOMAHAWK RD - STA 100+40 TO STA 107+56 SOUTHERN AVE - STA 31+20 TO 40+54	<table><tr><td>ROUTE</td><td>US 60</td></tr><tr><td>MILEPOST</td><td></td></tr><tr><td>STRUCTURE NO.</td><td></td></tr></table>	ROUTE	US 60	MILEPOST		STRUCTURE NO.		<table><tr><td rowspan="2">F.H.W.A. Arizona Division</td><td rowspan="2">STATE ARIZ.</td><td>PROJECT NO.</td><td>FEDERAL ID NO.</td><td>SHEET NO.</td><td>TOTAL SHEETS</td><td rowspan="2">RECORD DRAWING</td></tr><tr><td>T0411-01C</td><td>APJ-0(222)T</td><td>62</td><td>99</td></tr></table>	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING	T0411-01C	APJ-0(222)T	62	99
	DESIGN	NAME	DATE																											
	DRAWN	DBK	07/26																											
	CHECKED	SAS	07/26																											
ROUTE	US 60																													
MILEPOST																														
STRUCTURE NO.																														
F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING																								
		T0411-01C	APJ-0(222)T	62	99																									
				LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening			DWG NO. T-03.05																							
				TRACS NO. T0411-01C			___ OF ___																							



Note:
Existing signs shall have the sign panel, posts and foundation removed and salvaged.
Some existing signs are being replaced with new sign panels.



	NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING	
	DESIGN	DBK	07/26					T0411-01C	APJ-0(222)T	63	99		
	DRAWN	DBK	07/26					LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					
	CHECKED	SAS	07/26					TRACS NO. T0411-01C					
	 United Civil Group 2803 North 7th Avenue Phoenix, Arizona 85007 (602) 265-6155												

LIGHTING GENERAL NOTES:

1. The location of utilities, including existing roadway lighting features (poles, luminaires, pull boxes and conduit) are approximate. The contractor shall be responsible, per Section 730-6 of the Standard Specifications, for contacting all utilities for exact locations prior to any construction activity. The contractor is responsible for maintaining proper clearances as required by the utility company.
2. Each pole mounted luminaire shall be individually fused with in-line connectors in the hand hole of the light pole.
3. Once installed, all luminaires shall be energized for 100 hours before final acceptance in accordance with Section 732-3.02 of the ADOT Standard Specifications. The contractor shall be responsible for correcting any problems for six months after the luminaires pass a final inspection in accordance with Section 106.13 of the ADOT Standard Specifications. The contractor shall provide a name and telephone number to the Engineer of a contact person ADOT & City of Apache Junction can call after the job is completed.
4. The contractor shall verify the actual location of the electrical service with the utility company prior to trenching and installing the conduit, pull boxes and transformer pads for service conductors. All trenches shall be inspected by ADOT prior to backfilling.
5. All mast arm style light poles shall be installed with the mast arm perpendicular to the roadway centerline unless otherwise noted.
6. Conduit and pull box locations shown on the plans are schematic. Actual locations shall be adjusted for field conditions.
7. All work shall conform to the ADOT Standard Specifications, Standard Drawings for Traffic Signals and Lighting, and the Special Provisions including subsequent addenda prior to bid date.
8. The contractor shall stake all pole foundations, pull box, and conduit locations and obtain approval from the Engineer prior to any excavation or trenching activities.
9. The contractor shall obtain approval from the Engineer when field adjustments are necessary to avoid conflict with utilities or construction.
10. Material and equipment shall be installed in accordance with the current standards and recommendations of the National Electric Code, the National Electric Safety Code, and with local codes which apply. Where discrepancies arise between codes, the most restrictive regulation shall apply.
11. It is the contractor's responsibility to contact the utility company for coordination of lighting changes on power utilities. Contact William Howard of Salt River Project at (602) 236-0854.
12. It is the contractor's responsibility to restore all property, landscaping, paving and driveways that are disturbed during construction to their original condition in conformance with Section 107.11 of the ADOT Standard Specifications.
13. All conduits which will not have circuit wire or cable pulled into it during construction shall have detectable mule tape pull wire installed in it and the ends sealed in a utility company approved manner to keep all moisture and foreign matter out of the conduit.
14. All luminaires shall be marked with their lamp wattage and "LED". These markings shall be clearly visible from the ground. The asset tag number shall be provided by the City for each luminaire and installed on the inside of the hand hole cover by the contractor. Alternatively, a QR code sticker shall be installed on the inside of the hand hole cover and inside the fixture if the luminaire manufacturer offers QR code stickers.

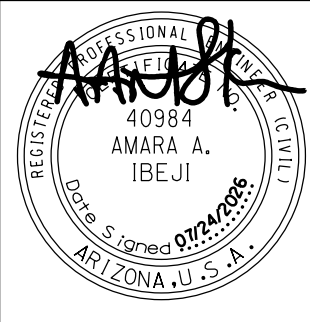
CITY OF APACHE JUNCTION GENERAL NOTES FOR LIGHTING:

1. All workmanship, material and installation shall comply with the current MAG Uniform Standard Details and Specifications as amended by the City of Mesa, the City of Mesa Engineering & Design Standards and the latest adopted edition of the National Electric Code.
2. Before disconnecting any existing streetlights, the new light system shall be working or temporary lighting installed. Existing streetlights to be removed and new streetlights shall not operate at the same time. All underground circuit conductors shall be black, unless otherwise noted.
3. Where street lights or circuits are 120 volt, one conductor shall be unfused and be either white or marked white, as required.
4. All circuit conductors in conduit shall be XHHW/XHHW-2 insulation.
5. Minimum depth from top of curb or roadway to top of conduit shall be twenty-four (24) inches. Maximum depth shall be forty-eight (48) inches, unless otherwise approved.
6. Underground wiring shall be installed in schedule 40 rigid PVC conduit, UL approved for above ground and underground use with 90 degree C wire. Where twenty-four (24) inches cover is not possible, galvanized rigid steel conduit (grs) shall be used.
7. Galvanized rigid steel conduit (GRS) shall be double wrapped with 20-mil tape to six (6) inches past the threaded metal coupling. Compression couplings are not allowed. Prior approval is needed for any design using grs conduit. All conduits shall be blown out using 90-psi air pressure before pulling wire.
8. A two-piece expansion joint coupling shall be installed in PVC conduit runs at intervals not to exceed one-hundred (100) feet. Pull boxes shall not exceed two-hundred (200) feet separation. All forty-five (45) and ninety (90) degree bends of conduit shall have a radius of not less than eighteen (18) inches. Factory bends only shall be used.
9. All joints between PVC conduit, couplings and fittings shall be prepared with purple primer and cemented together with gray PVC cement.
10. The conduit locations shown on plans are diagrammatic representations only. Contractor is to install conduit to avoid conflicts. The contractor may, at his option, bore for the placement of conduit per Mesa STD Detail M-18. All conduits shall be placed within existing right-of-way unless otherwise approved.
11. Street light conduits should be installed prior to residential driveway installations. If street light conduit is installed after residential driveway installation, contractor shall bore conduit under driveway. Meandering the conduit behind the entrance will not be permitted.
12. Backfill requirements for all trenches shall conform to article 300 of the National Electric Code, section 601 of the uniform standard specifications, and Mesa STD Detail M-1203.3 for street trench backfill and pavement replacement.
13. With the exception of detached sidewalks, pull boxes shall be installed (see Mesa STD Details SL-75.01 - SL-75.03) five (5) feet (center to center) between street light poles and pull boxes.
14. Photocell receptacle shall be positioned on luminaire so that when installed, the photocell will face north. Photocell shall be Phillips City Touch Node or approved equivalent for each new street light fixture. Nodes shall be purchased from Arizona Electric Supply (AEC), contact Dave Dillman at 480.834.8050.
15. All shorting caps to be low profile type. No higher than 1-1/2" above socket.
16. All finished pole foundations, service entrance sections, lighting control cabinet pads and pullboxes shall be at sidewalk grade unless otherwise noted. When concrete foundations are poured, they shall be vibrated with a mechanical vibrator.
17. Pole foundations shall cure for 72 hours before installing light poles or removing pole bracing.

18. All pole foundations shall have a copper grounding plate per Mesa STD detail SL-76.01.
19. All poles shall be wired using two (2) No. 12 black THHN/THWN 90 degree C stranded copper conductors, 600 volt, NEC approved and one (1) No.12 green THHN/THWN solid copper bond wire grounding the luminaire. Wires shall run from the luminaire to minimum of twelve (12) inches below pole handhole for termination. Poles having multiple luminaires shall have two (2) conductors and one (1) bond wire per luminaire, and the conductors shall be marked as pairs at the handhole.
20. The photocell shall come prewired with the fixture.
21. All lighting conductors and bond wires shall be copper.
22. All PVC conduit runs shall contain a minimum No. 8 green XHHW insulated seven (7) strand copper bond wire.
23. The No. 6 stranded grounding wire in the concrete pole foundation going to the grounding plate shall be insulated with XHHW insulation through the concrete foundation and two (2) inches each side of the concrete foundation.
24. Each luminaire shall be fused behind the pole handhole cover using an HEB type fuse holder with insulating boots and a 5-AMP FNM fuse or approved equal.
25. All finished street light pole foundations and controller pad shall be at sidewalk grade and adjacent to sidewalk unless otherwise noted. Street light pull boxes shall be at sidewalk grade and twelve (12) inches from sidewalk unless otherwise noted. (Mesa STD Detail SL-75.02, installation note 1).
26. Contractor to provide manufacturer fixture cutsheets for City approval prior to purchasing and installation.
27. Contractor shall coordinate with SRP and City of Apache Junction for de-energizing of streetlight conductors.

SALT RIVER PROJECT POWER DISTRICT:

1. Salt River Project (SRP) maintains energized aerial electric power lines in the immediate vicinity of this project. Do not consider these lines to be insulated. Construction personnel working in proximity to these lines are exposed to an extreme hazard from electrical shock. Contractors, their employees and all other construction personnel working on this project are warned of the danger and instructed to take adequate protective measures, including maintaining a minimum ten feet (10') clearance between the lines and all construction equipment and personnel (see OSHA Standard 1926.550(a)16). As an additional safety precaution, contractors are instructed to call SRP at (602) 236-8888 to arrange, if possible, to have these lines de-energized or relocated when the work reaches their immediate vicinity. The cost of such temporary arrangements shall be borne by the contractor.
2. SRP maintains energized underground electrical power lines in the immediate vicinity of this project, and these lines have been noted there in as potential conflicts. These power lines represent an extreme hazard from electrical shock to any construction personnel or equipment coming in contact with them. Arizona law requires all parties planning excavation in public right of way to contact all utility firms for location of the underground facilities. Contractors must be instructed to call the Blue Stake Center (602) 263-1100 for such location service. Contractors, their employees, and all other personnel working near any underground power lines are warned to take adequate protective measures (see OSHA Standard 1926-651(a)). As an additional safety precaution, contractors are also instructed to call SRP at (602) 236-8888 to arrange, if possible, to have these lines de-energized when the work reaches their immediate vicinity. The cost of such temporary arrangements would be borne by the contractor. If de-energization is feasible, the contractor must give the salt river project at least two (2) days advance notice of this requirement.



	NAME	DATE
DESIGN	H. OLIVEN	07/26
DRAWN	CPG	07/26
CHECKED	A. IBEJI	07/26
 WSP USA, Inc. 1230 W. Washington St. Suite 405 Tempe, AZ 85281		

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	
LIGHTING GENERAL NOTES AND SCHEDULES	

ROUTE US 60	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
MILEPOST		ARIZ.	T0411-01C	APJ-0(222)T	64	99	
LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening							DWG NO. T-04.01
STRUCTURE NO.	TRACS NO.	T0411-01C					____ OF ____

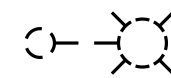
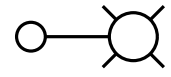
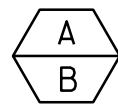
LIGHTING POLE AND LUMINAIRE SCHEDULE												
Pole No.	Circuit	Roadway	Station	Offset		Pole			Foundation	Luminaire		
				Left	Right	Height	Type ¹	Mast Arm	Type	Lumens	Type ²	Dist. Type
1	A	Tomahawk Rd	91+93.07		38.05	35'	P106	8'	STD - F104	16,000	RFM	R3M
2	A	Tomahawk Rd	93+54.09		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
3	A	Tomahawk Rd	95+15.11		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
4	A	Tomahawk Rd	96+76.13		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
5	A	Tomahawk Rd	98+41.13		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
6	A	Tomahawk Rd	100+06.13		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
7	A	Tomahawk Rd	101+71.13		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
8	A	Tomahawk Rd	103+36.14		38.15	35'	P106	8'	STD - F104	16,000	RFM	R3M
9	B	Southern Ave	24+83.02		38.79	35'	P106	8'	STD - F104	16,000	RFM	R3M
10	B	Southern Ave	26+01.85		38.73	35'	P106	8'	STD - F104	16,000	RFM	R3M
11	B	Southern Ave	27+58.16		42.70	35'	P106	8'	STD - F104	16,000	RFM	R3M
12	B	Southern Ave	29+17.24		42.70	35'	P106	8'	STD - F104	16,000	RFM	R3M
13	B	Southern Ave	30+82.24		42.70	35'	P106	8'	STD - F104	16,000	RFM	R3M
14	B	Southern Ave	32+35.4		42.70	35'	P106	8'	STD - F104	16,000	RFM	R3M
15	B	Southern Ave	33+86.07		42.70	35'	P106	8'	STD - F104	16,000	RFM	R3M
16	B	Southern Ave	35+36.75		41.79	35'	P106	8'	STD - F104	16,000	RFM	R3M

¹ P106= City Of Mesa P106 Pole (Furnished by City of Apache Junction)
² RFM= Medium Cobra Head Style LED Roadway Luminaire

LIGHTING CONDUIT AND CONDUCTORS					
	CONDUIT RUN NUMBER	1	2	3	4
	CONDUIT SIZE IN INCHES	1.5	2	2	2
	METHOD OF INSTALLATION ³	T	T	DD	T
AWG	CIRCUIT				
#8	Lighting (Pullbox to Pole)	2			
	Lighting Circuit A		2		
	Lighting Circuit B			2	2
	Insulated Green Bond	1	1	1	1
	FILL	7%	4%	4%	4%

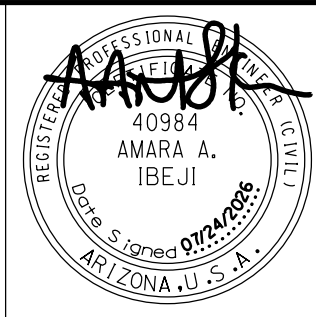
³ T=Trench, DD=Directional Drill

LEGEND:

-  Existing Pole with Luminaire
-  35' P106 Pole with Luminaire
-  A. Pole Number
B. Circuit Number
-  C. Conduit Run Number
-  Conduit Run
-  #5 Junction Pullbox
-  Lighting Control Cabinet

SPECIAL NOTES:

- Contractor shall provide and install conduit and trench to power company point of service. Coordinate with power company for exact location prior to construction. See SRP plans for exact routing of conduit. Install conduit, street light and pull box per SRP requirements and specifications, these drawings and per City of Apache Junction supplemental specifications.
- The owner or the contractor shall notify the City of Apache Junction engineering division when street light design drawings have been sent to SRP. The owner or the contractor shall also provide the City with an SRP job number and an SRP contact name and address that the letter of authorization shall reference.
- Contractor to provide all materials required for the installation of street lights within the scope of this project.
- City of Apache Junction representative is required to be present when poles are installed.
- All landscape vegetation shall be located a minimum of thirty-six inches (36") from all pull boxes and street light poles.
- All trees shall be located a minimum of thirty feet (30') from outside base of the tree to all pull boxes and street light poles.



	NAME	DATE
DESIGN	H. OLIEN	07/26
DRAWN	CPG	07/26
CHECKED	A. IBEJI	07/26



WSP USA, Inc.
1230 W. Washington St.
Suite 405
Tempe, AZ 85281

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

LIGHTING
POLE, CONDUIT AND
CONDUCTOR SCHEDULES

ROUTE
US 60

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE
ARIZ.

PROJECT NO.
T0411-01C

FEDERAL ID NO.
APJ-0(222)T

SHEET
NO.
65

TOTAL
SHEETS
99

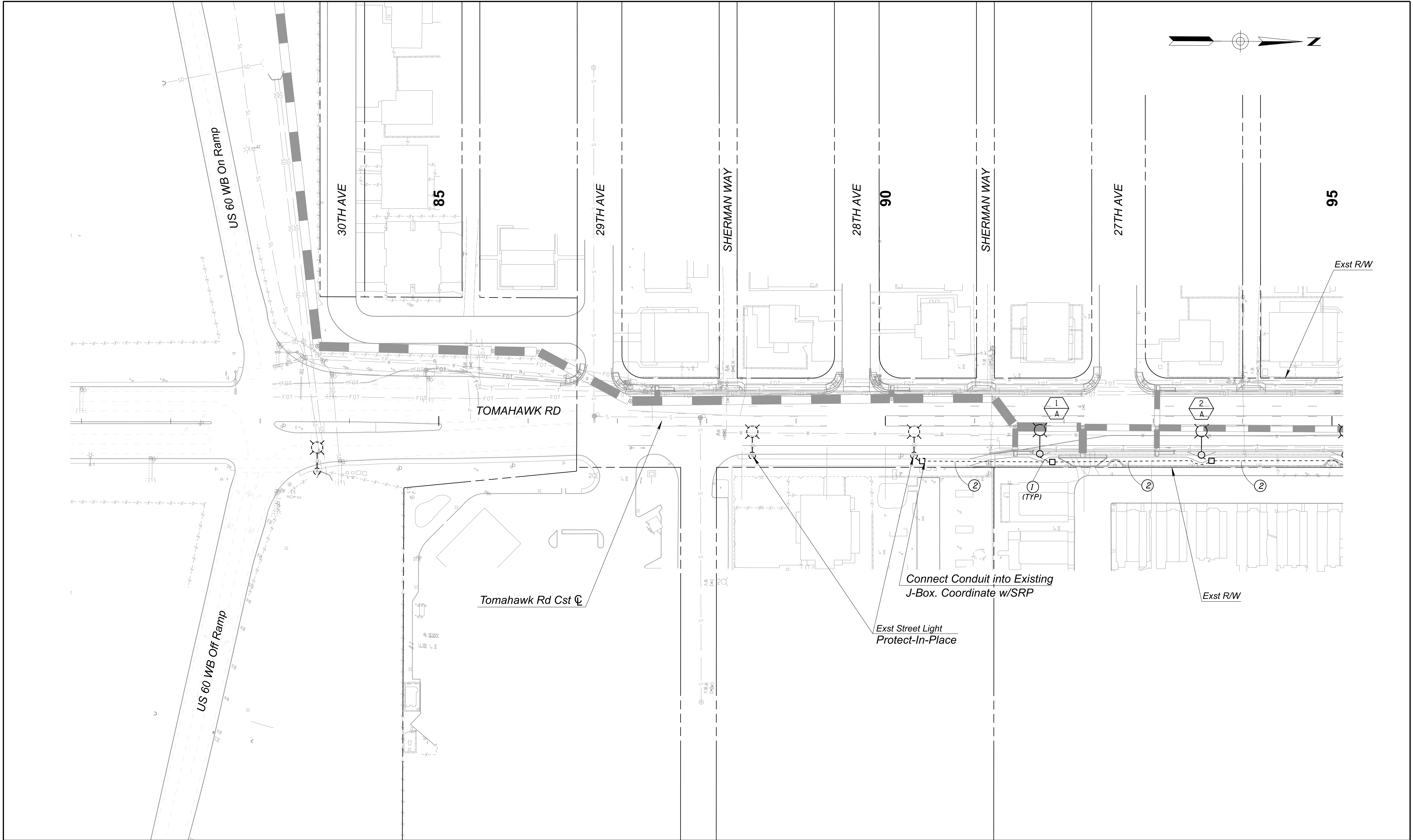
RECORD DRAWING

LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening

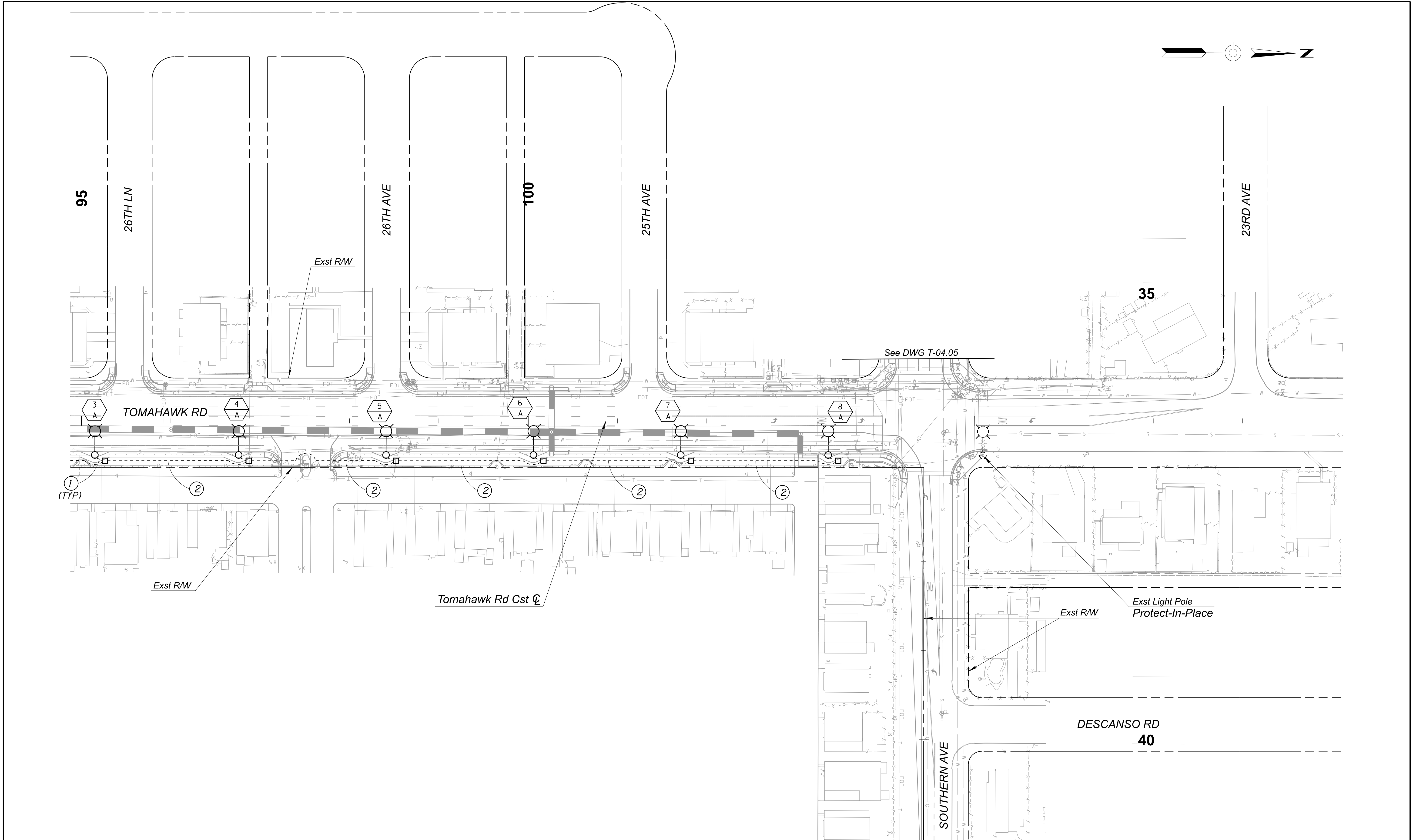
TRACS NO. T0411-01C

DWG NO. T-04.02

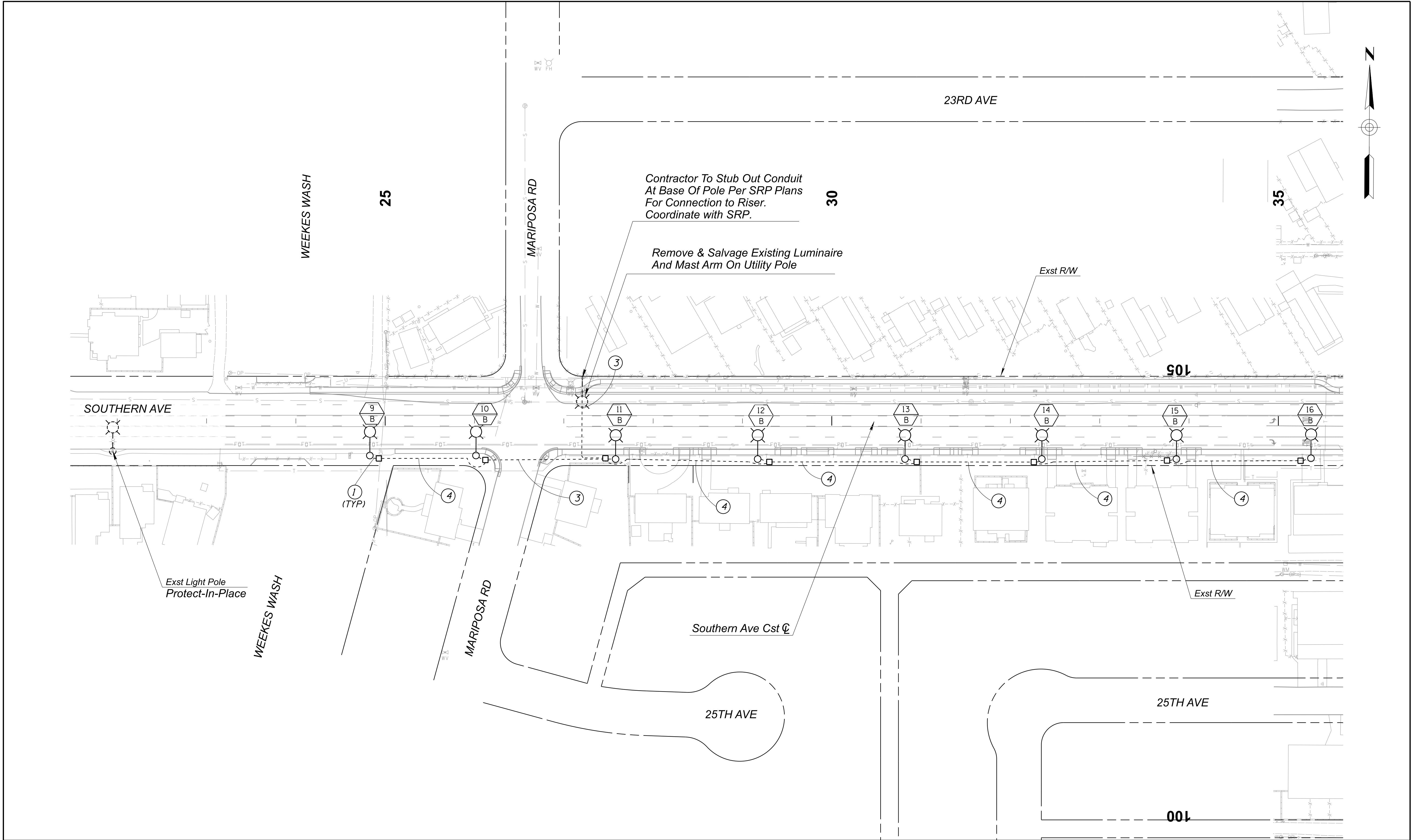
____ OF ____



AMARA A. AMARA A. IBEJI 40984 REGISTERED PROFESSIONAL ENGINEER ARIZONA U.S.A. WSP WSP USA Inc. 1230 W. Washington St. Suite 405 Tempe, AZ 85281	<table><tr><td>DESIGN</td><td>H. OLIE</td><td>07/26</td></tr><tr><td>DRAWN</td><td>CPG</td><td>07/26</td></tr><tr><td>CHECKED</td><td>A. IBEJI</td><td>07/26</td></tr></table>	DESIGN	H. OLIE	07/26	DRAWN	CPG	07/26	CHECKED	A. IBEJI	07/26	<table><tr><td>NAME</td><td>DATE</td></tr><tr><td>H. OLIE</td><td>07/26</td></tr><tr><td>CPG</td><td>07/26</td></tr><tr><td>A. IBEJI</td><td>07/26</td></tr></table>	NAME	DATE	H. OLIE	07/26	CPG	07/26	A. IBEJI	07/26	<table><tr><td>ARIZONA DEPARTMENT OF TRANSPORTATION</td><td>F.H.W.A. Arizona Division</td><td>STATE</td><td>ARIZ.</td></tr><tr><td>PROJECT DELIVERY AND OPERATIONS DIVISION</td><td></td><td>PROJECT NO.</td><td>T0411-01C</td></tr><tr><td>TRAFFIC DESIGN SERVICES</td><td></td><td>FEDERAL ID NO.</td><td>APJ-0(222)T</td></tr><tr><td>LIGHTING PLAN</td><td></td><td>SHEET NO.</td><td>66</td></tr><tr><td>TOMAHAWK RD</td><td></td><td>TOTAL SHEETS</td><td>99</td></tr><tr><td>STA 81+00 TO 95+00</td><td></td><td>RECORD DRAWING</td><td></td></tr></table>	ARIZONA DEPARTMENT OF TRANSPORTATION	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT DELIVERY AND OPERATIONS DIVISION		PROJECT NO.	T0411-01C	TRAFFIC DESIGN SERVICES		FEDERAL ID NO.	APJ-0(222)T	LIGHTING PLAN		SHEET NO.	66	TOMAHAWK RD		TOTAL SHEETS	99	STA 81+00 TO 95+00		RECORD DRAWING		<table><tr><td>ROUTE</td><td>US 60</td></tr><tr><td>MILEPOST</td><td></td></tr><tr><td>STRUCTURE NO.</td><td></td></tr></table>	ROUTE	US 60	MILEPOST		STRUCTURE NO.		<table><tr><td>LOCATION</td><td>Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening</td><td>DWG NO.</td><td>T-04.03</td></tr><tr><td>TRACS NO.</td><td>T0411-01C</td><td></td><td>OF</td></tr></table>	LOCATION	Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening	DWG NO.	T-04.03	TRACS NO.	T0411-01C		OF
	DESIGN	H. OLIE	07/26																																																									
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	DESIGN		H. OLIE	07/26		ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES		ROUTE US 60		F.H.W.A. Arizona Division		STATE ARIZ.		PROJECT NO. T0411-01C		FEDERAL ID NO. APJ-0(222)T		SHEET NO. 67		TOTAL SHEETS 99		RECORD DRAWING	
	DRAWN		CPG	07/26																			
	CHECKED		A. IBEJI	07/26																			
WSP USA Inc. 1230 W. Washington St. Suite 405 Tempe, AZ 85281						LIGHTING PLAN TOMAHAWK RD STA 95+00 TO 109+00		MILEPOST		LOCATION		Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening		DWG NO. T-04.04									
								STRUCTURE NO.		TRACS NO. T0411-01C						OF							



	NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES				ROUTE		STATE		PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING		
	DESIGN		H. OLIE	07/26					US 60		F.H.W.A. Arizona Division		ARIZ.	T0411-01C	APJ-0(222)T	68	99	
	DRAWN		CPG	07/26					MILEPOST		LOCATION		Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening					
	CHECKED		A. IBEJI	07/26	 WSP USA Inc. 1230 W. Washington St. Suite 405 Tempe, AZ 85281				STRUCTURE NO.		TRACS NO.		T0411-01C		____ OF ____			
LIGHTING PLAN SOUTHERN AVE STA 22+00 TO 36+00																		

TRAFFIC CONTROL GENERAL NOTES:

1.

The contractor shall prepare a traffic control plan in accordance with section 701 of the Specifications. All traffic control plans are subject to the approval of the ADOT Engineer before beginning construction.
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.

The contractor shall maintain access to all local businesses and residential properties to the greatest extent possible. For unavoidable closures, the business or parcel shall be notified a minimum of 5 working days in advance of the closure.
4.

The contractor shall maintain traffic on a paved surface at all times.
5.

All existing signs in conflict with the construction signs shall be removed, relocated or covered in place, as directed by the ADOT Engineer. The contractor shall store and reinstall items which have been removed or relocated in a manner approved by the ADOT Engineer at no additional cost to the department.
6.

Speed limit signing is preliminary and is subject to review and change by the ADOT Engineer as dictated by field conditions.
7.

"Truck Crossing" signs (W8-6) shall be installed wherever truck ingress or egress is expected.
8.

Signing for double fines in work zones, when allowed by the ADOT Engineer shall generally conform to Figure SA-12 of the ADOT Temporary Traffic Control Design Guidelines 2019. Such signing shall only be in place during working periods when workers are present.
9.

The retroreflective sheeting on all construction signs shall meet the minimum criteria established in section 1007 of the Specifications.
10.

All construction signs shall have black letters on an orange background, except as otherwise noted.
11.

For signs installed on embedded posts, sign mounting height is a minimum of 7 feet as measured from the bottom of the sign to the near edge of the pavement. For signs installed on spring or rigid stands, sign mounting height is a minimum of 1 foot above the pavement.
12.

For signs installed on embedded posts, the nearest edge or corner of a sign should be 12 feet from the nearest edge of pavement, 2 feet from back of sidewalk or 2 feet behind the back of guardrail.
13.

Embedded posts may be used in place of spring or rigid sign stands, as long as they are not placed through pavement.
14.

2 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 the "End Road Work Thank You" sign.
15.

Construction signs shall not be displayed to traffic more than 30 minutes prior to the 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 part of the sign installation cost. No further compensation will be made. These signs shall be removed within 30 minutes after completion of the construction activities.
16.

When traffic control devices are not in use, they shall be moved at least 30 feet from the roadway and covered or turned away from traffic.
17.

Channelizing devices shall be placed 35 feet on center in tapers and 70 feet on center in tangents, except as otherwise noted on the plans.
18.

For night setups, a type C steady-burning yellow light shall be mounted on every channelizing device.
19.

The contractor shall not utilize cones for channelization devices unless otherwise directed by the Engineer.
20.

The contractor shall utilize a flashing arrow panel in the sequential chevron mode for each closure of a through lane. The contractor shall not utilize a flashing arrow panel in connection with any shifting taper.
21.

The contractor shall position changeable message boards in advance of each road closure and as directed by the ADOT Engineer. Changeable message boards shall be in place at least 14 days prior to construction activities.
22.

An adequate number of type 3 barricades shall be placed across each roadway to be closed. A 48 inch by 30 inch "Road Closed" sign shall be attached to one of the type 3 barricades closing the roadway. A type A flashing warning light shall be mounted on each end of each type 3 barricade during nighttime activities.
23.

All existing pavement markings in conflict with traffic control striping if required shall be removed by methods specified in subsection 701-3.06 of the Specifications and as approved by the ADOT Engineer. For a daytime shift in traffic, the shift may be accomplished through channelizing devices with the existing pavement markings remaining in place.
24.

The contractor shall clean the roadway surface to the satisfaction of the ADOT Engineer by sweeping and air-jet blowing, immediately prior to the placement of all temporary pavement markings. The roadway surface shall be dry.
25.

Temporary pavement markings shall be placed on any new roadway surface open to traffic. Right edge lines may be omitted, other striping should follow the guidelines for interim striping in the MUTCD.
26.

Temporary striping shall be preformed pavement marking tape (Type 2). The pavement temperature shall be at least 60°F or higher when the tape is applied to the pavement.
27.

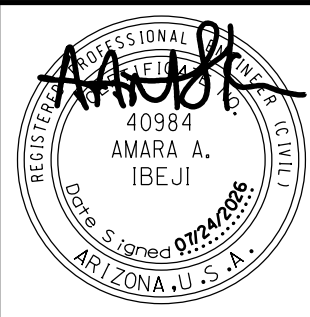
When no longer required, temporary pavement markings shall be removed. Preformed tape, type 2, shall be removed at no extra cost to the contract. Painting over striping does not constitute stripe obliteration.
28.

All drawings are schematic only and not to scale. All dimensions are in feet, unless otherwise noted.

Design References:

MUTCD - Manual On Uniform Traffic Control Devices Part 6, Temporary Traffic Control, 2023 Edition as amended by the 2026 ADOT supplement.

TCDG - ADOT Temporary Traffic Control Design Guidelines, 2025.



	NAME	DATE
DESIGN	H. OLIE	07/26
DRAWN	CPG	07/26
CHECKED	A. IBEJI	07/26



WSP USA, Inc.
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Suite 405
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	MILEPOST			T0411-01C	APJ-0(222)T	69	99	
TRAFFIC CONTROL GENERAL NOTES		LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. T-05.01
	STRUCTURE NO.	TRACS NO. T0411-01C						___ OF ___

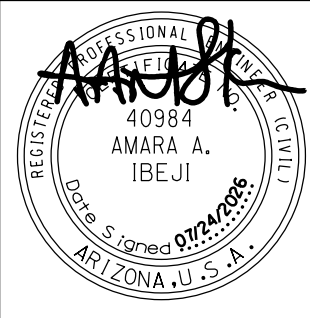
MAINTENANCE OF TRAFFIC			
ACTIVITY NO	CONSTRUCTION ACTIVITY	TRAFFIC CONTROL	COMMENTS
1	Long Term Advance Signs	Provide long term specialty signs: "ROAD WORK (DATE) TO (DATE) EXPECT DELAYS" in advance of the work zone. Provide "END ROAD WORK THANK YOU" signs downstream from the work zone.	Place signs on embedded posts. Signs are to remain in place for the duration of the project. The "EXPECT DELAYS" sign should be installed at least 2 weeks before work begins.
2	Phase 1 Widen To The North	Close center 2 way left turn lane and shift traffic. Close SB left turn lane at Tomahawk/Southern intersection. Setup should basically follow MUTCD Typical Applications 24 and 31 (No through lane closures or turn prohibitions).	Setup is to remain in place 24 hours a day.
3	Phase 2 Widen To The East Construct Storm Drain Trunkline	Close center 2 way left turn lane and shift traffic. Close SB left turn lane at Tomahawk/Southern intersection. Setup should basically follow MUTCD Typical Application 24.	Setup is to remain in place 24 hours a day.
4	Phase 3 Widen To The South And West Construct Storm Drain Trunkline	Close center 2 way left turn lane and shift traffic. Open left turn lanes at Tomahawk/Southern intersection. Open 4 lanes on Southern. Setup should basically follow MUTCD Typical Application 24.	Setup is to remain in place 24 hours a day.
5	Phase 4 Permanent Striping	Maintain 1 lane of traffic in each direction. Mobile operation per MUTCD Typical Application 35.	Setup is to be taken down whenever work is not under way.
6	Phase 5 Construct Storm Drain Outside Of Roadway, Lighting, Signing And Miscellaneous Work	Use MUTCD Typical Application 4.	Setup is to be taken down whenever work is not under way.

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 the approval of the Engineer. Any modifications to these plans shall require review and approval by the Engineer.

APPROXIMATE TRAFFIC CONTROL QUANTITIES (OUTSIDE OF LUMP SUM)									
CONSTRUCTION ACTIVITIES									
Item No.	Description	Unit	Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 6	Total
	Durations	Days*	177	14	77	56	2	14	
7015091	Specialty Signs	Sq. Ft.	280						280
7016050	Truck-Mounted Attenuator	Each-Day		14	77	56	4	14	165
7016067	Changeable Message Board (Contractor Furnished)	Each-Day	354						354
7016075	Flagging Services (Civilian)	Hour		224					224

* All durations are in calendar days
Note: Traffic control for miscellaneous activities are not included in above table.



	NAME	DATE
DESIGN	H. OLIE	07/26
DRAWN	CPG	07/26
CHECKED	A. IBEJI	07/26

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ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES		ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 70	TOTAL SHEETS 99	RECORD DRAWING
TRAFFIC CONTROL MAINTENANCE OF TRAFFIC		MILEPOST	LOCATION Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening						DWG NO. T-05.02
		STRUCTURE NO.	TRACS NO. T0411-01C		____ OF ____				

CONTROL MEASURE INDEX SHEET (CMIS)

TO BE COMPLETED FOR PROJECTS WITH ONE (1) ACRE OR MORE OF SOIL/GROUND DISTURBANCE OUTSIDE OF JURISDICTIONAL WATERS OF THE U.S. (≥ 1 ACRE*)

* For projects that meet the definition of maintenance under AZPDES CGP, the permit threshold is five (≥ 5) acres. Consult with ADOT EP Water Resources Management to define Jurisdictional Waters of the U. S.

I. PROJECT DESCRIPTION

A. Owner Name and Address:

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

B. Project TRACS Number: T0411-01C

C. Project Name/Location (be consistent with the
plan set cover sheet):
Tomahawk Road - Southern Avenue Widening

City: Apache Junction County: Pinal

Beginning Latitude (NAD 83): 33° 23' 15" N

Beginning Longitude (NAD 83): 111° 31' 43" W

Ending Latitude (NAD 83): 33° 23' 35" N

Ending Longitude (NAD 83): 111° 31' 57" 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:
Widen Tomahawk Road and Southern Avenue
to Improve Traffic Condition. Add Storm Drain
within Tomahawk Road.

II. HYDROLOGIC INFORMATION

A. Percentage of the site that is impervious before
and after construction:

Percentage before Construction: 55%

Percentage after Construction: 78%

B. Receiving Water(s), refer to the plan set cover sheet and
the NHD Plus HR Availability Map Web Link below:

https://usgs.maps.arcgis.com/apps/MapTools/index.html?appid=41a5c2ca49bd4a83b239450e61022d53

(If unnamed, state as unnamed)

Weekes Wash

III. SOIL STABILIZATION MEASURES

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.

IV. MEASURES TO CONTROL STORMWATER AND AIR QUALITY

A. Temporary Stormwater and Air Quality Control Measures (CMs) / Best
Management Practices (BMPs)

Temporary Diversion Dikes
Temporary Rock Check Dams
Stabilized Construction Entrance/Exit Gravel Pad
Soil Stabilizer for Wind Erosion and Dust Control

Rock Inlet/Outlet Protection
Sediment Control Berms

Silt Fences
Wattles (Excelsior/Straw/Compost)
Excelsior Logs / Sediment Logs
Erosion Control Mattings

Seeding (Class II with final mulch cover)

Gravelbag
Catch Basin Temporary Fabric Filter

Designated Washout Areas
Protected Chemical and Material Storage Area
Equipment Maintenance Procedures

Others Describe:

B. Permanent and Post-construction Stormwater and Air Quality
Control Measures (CMs) / Best Management Practices (BMPs):

Crown Ditch/Dike
Rock Protection
Rock Riprap Channel Lining
Sediment Basin
Embankment Curb
Spillways
Downdrains
Minibenching
Solid Waste Management
Rock-filled Stormwater Infiltration CM/BMP as Infiltration Basin and/or Trench
Filtration Structures
Infiltration Basin and/or Trench
Retention and/or Detention Basins
Bioretention
Manufactured Treatment Devices

Seeding established as a perennial vegetative cover with a density
of 70% of the native background vegetative cover.

Others Describe:
Tie Storm Drain into Existing Detention Basin.

** Track and report to ADOT EP Water Resources Management:

ADOTWater@azdot.gov

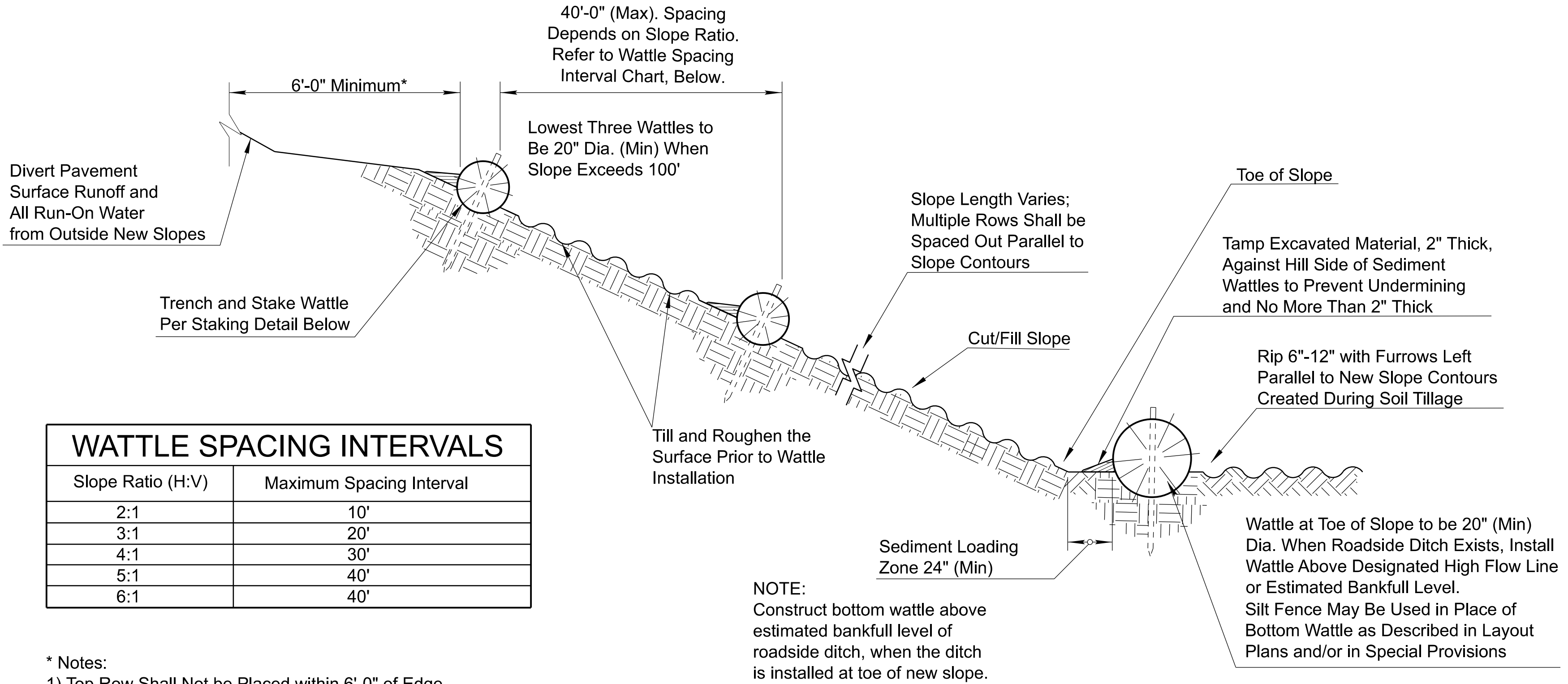
Note:
Quantity Summary Provided on Sht EC-02.10



DESIGN	NAME	DATE
G. BAMBAUER	G. BAMBAUER	07/26
Y. CHENG	Y. CHENG	07/26
J. FLY	J. FLY	07/26

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE US 60
STORMWATER & AIR QUALITY CONTROL MEASURE INDEX SHEET (CMIS)	MILEPOST
	STRUCTURE NO.

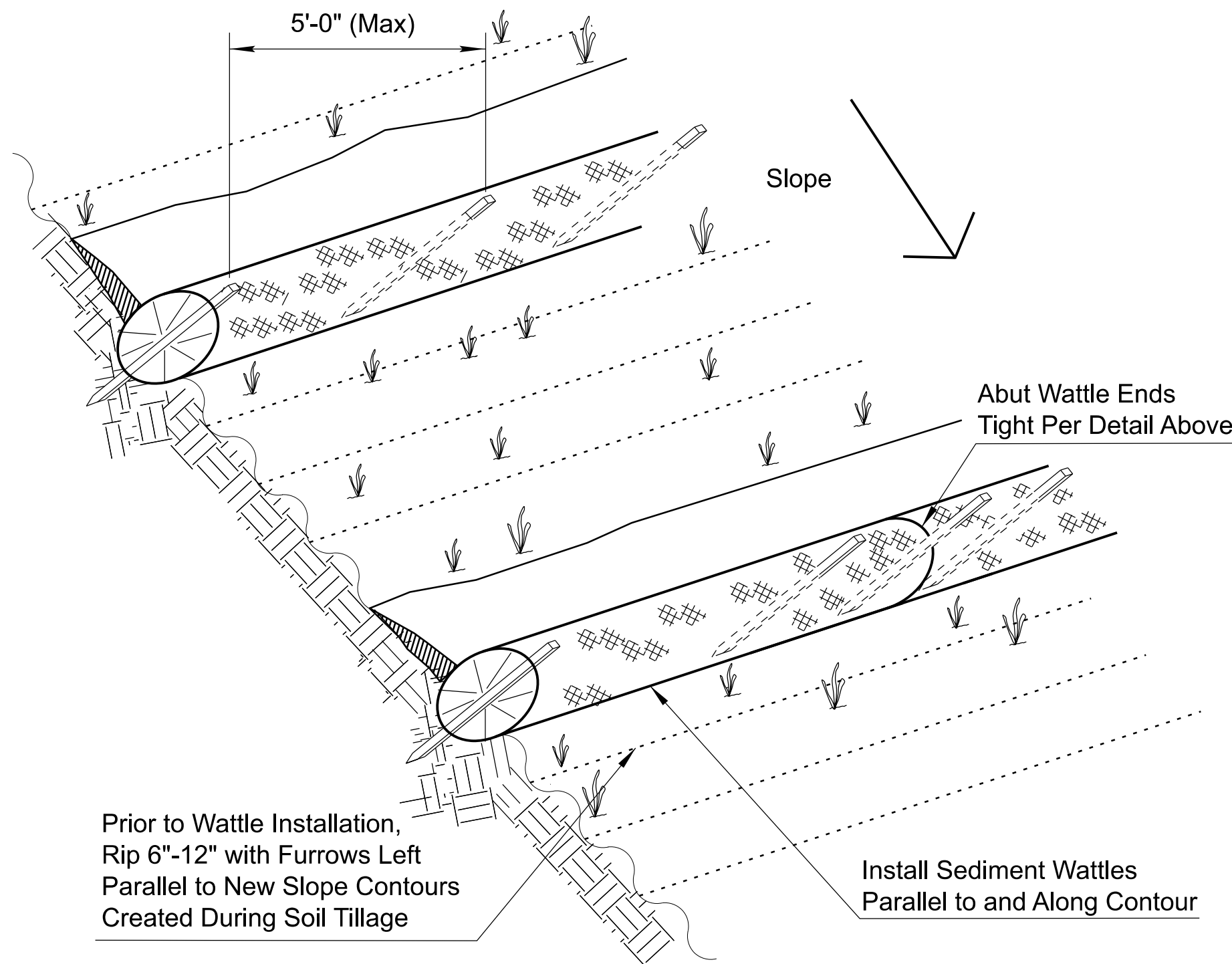
F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 71	TOTAL SHEETS 99	RECORD DRAWING
LOCATION US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. EC-01.01
TRACS NO. T0411-01C						OF



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'

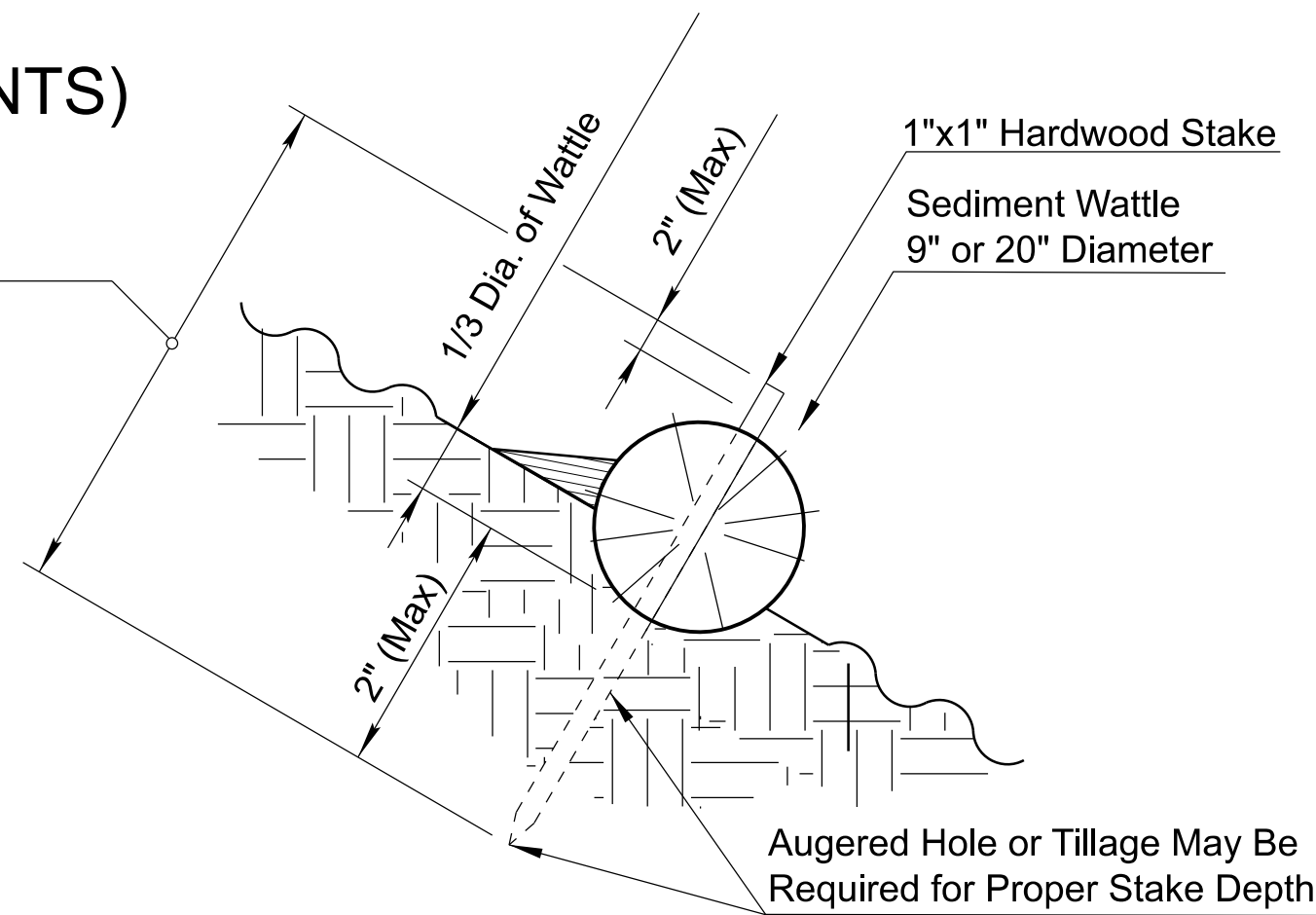
- * Notes:
- 1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Barrier.
 - 2) For erosive soils, place rows of wattles closer together.
 - 3) For soils with low erosive potential, place rows of wattles further apart.



SEDIMENT WATTLE LAYOUT (NTS)

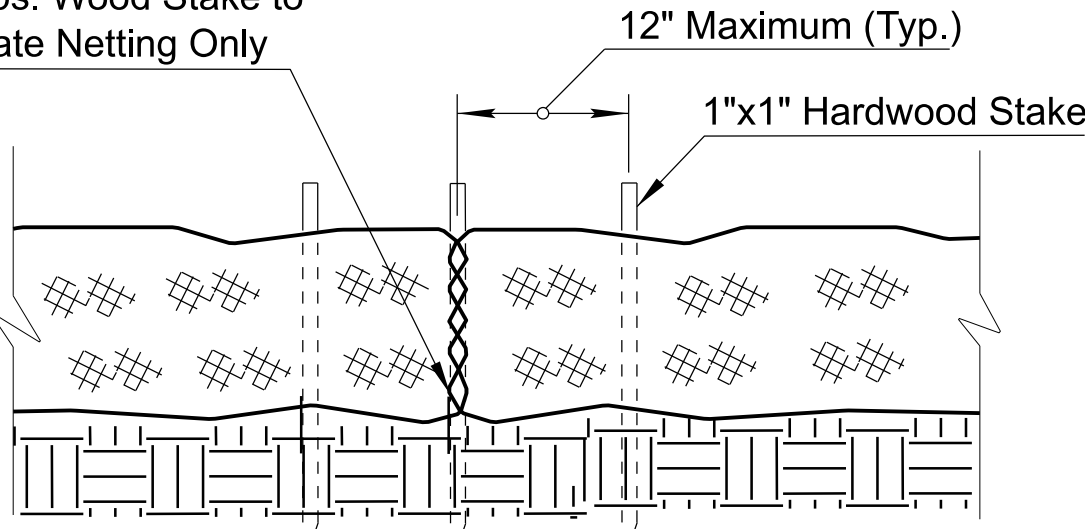
SECTION (NTS)

Stake Length:
24" for 9" Dia. Wattle
33" for 20" Dia. Wattle

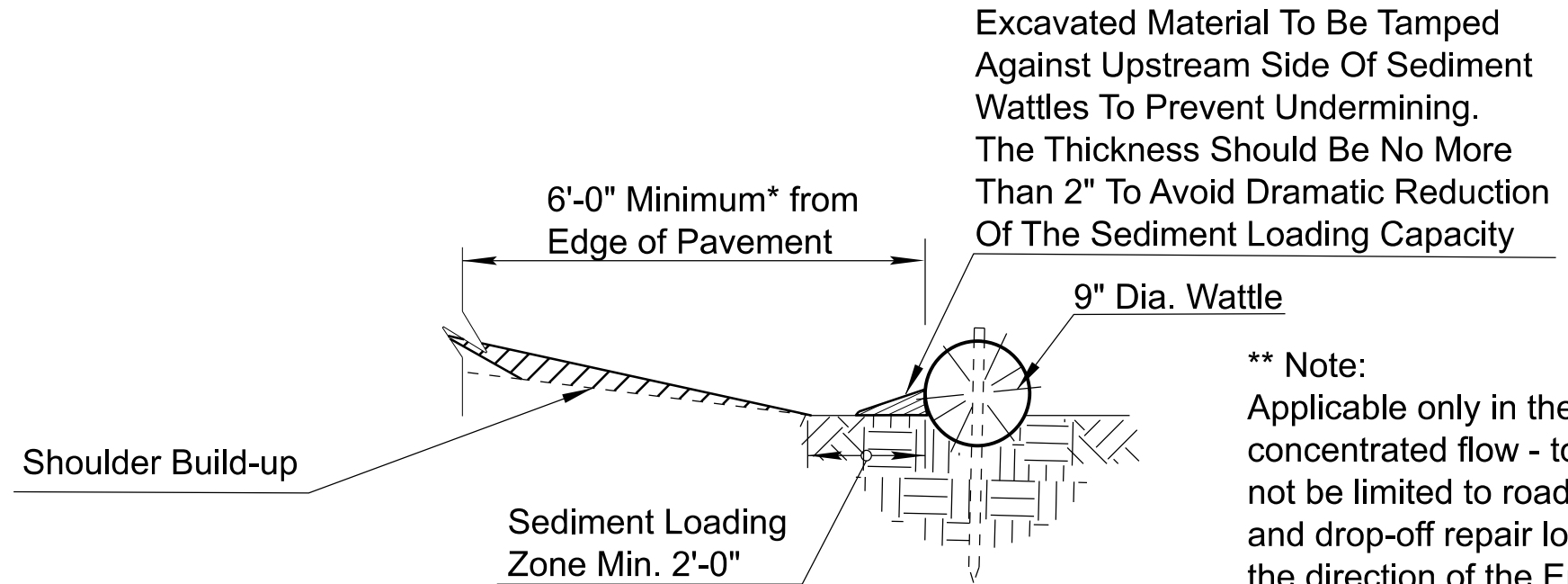


SEDIMENT WATTLE STAKING DETAIL (NTS)

Abut Wattle Ends Tight. No Gaps. Wood Stake to Penetrate Netting Only



SEDIMENT WATTLE OVERLAP (NTS)



NEW SHOULDER BUILDUP ** PROTECTION SECTION (NTS)

NOTES:

1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers' specifications to meet site conditions for slope protection and in accordance with good engineering practices. No Sediment Wattles shall be installed in urban freeway medians, nor where cable barrier systems are employed.
2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattle ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled excelsior or straw blankets.
3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help abut them tightly.
4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle CM/BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
5. Construction of cut slopes 2:1 and steeper in soil and rock materials that can be ripped shall be constructed, whenever possible, by Minibenching. Refer to Slope Minibenching CM/BMP Detail.
6. Loosening surface soil is not required where Minibenches are used. For seeded areas, tillage shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Specifications and project special provisions.
7. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
8. Installation and maintenance of Sediment Wattle CM's/BMP's shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
9. Install and maintain Sediment Wattle CM's/BMP's to carry the stormwater of at least 2-year, 24-hour events.
10. The Sediment Wattle CM's/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal of this temporary CM/BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
11. Refer to Specification Section 810-2.06(C) for Sediment Wattle material specifications.
12. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES3

SEDIMENT WATTLE



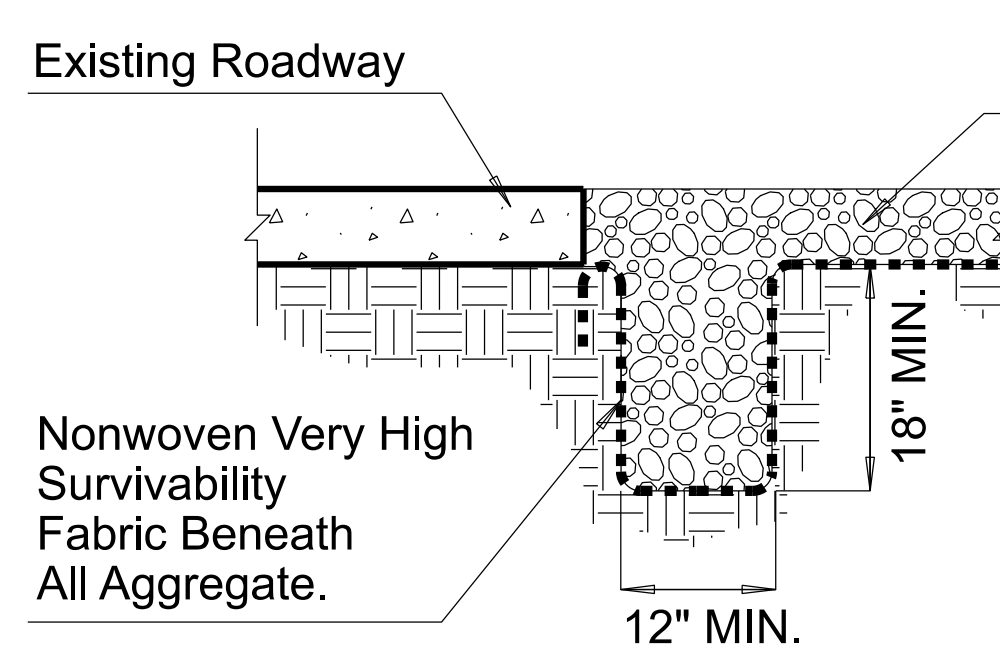
DESIGN	G. BAMBAUER	DATE	07/26
DRAWN	Y. CHENG	DATE	07/26
CHECKED	J. FLY	DATE	07/26

WSP USA, Inc.
1230 W. Washington St.
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ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS

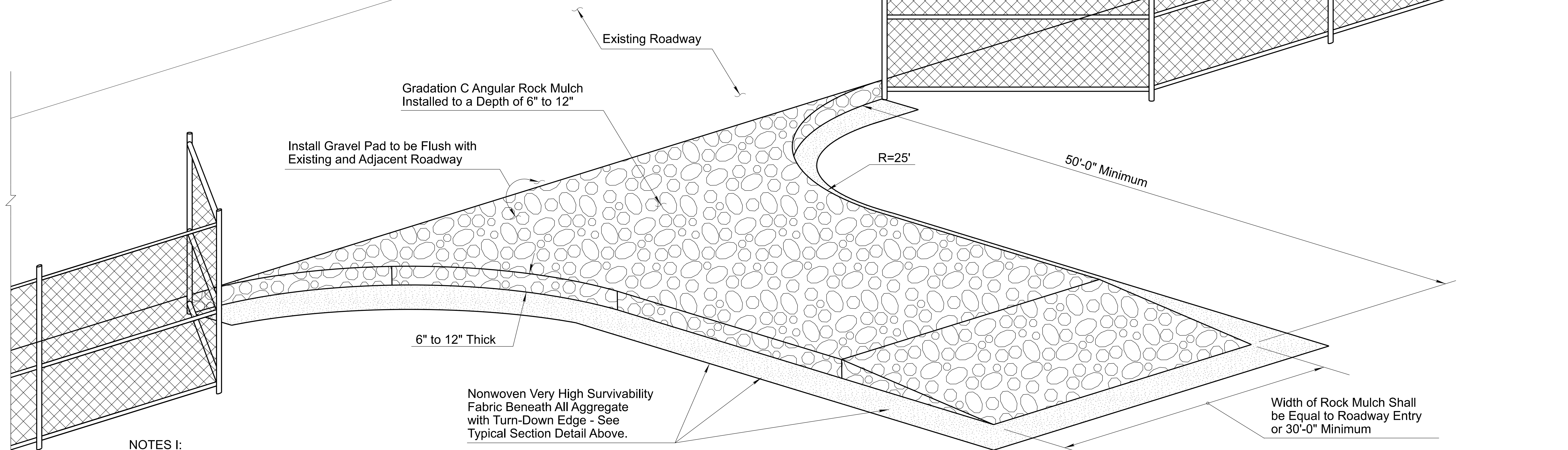
ROUTE	US 60	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	72	TOTAL SHEETS	99	RECORD DRAWING
MILEPOST		LOCATION US 60 Tomahawk Rd-Southern Ave Widening										DWG NO. EC-01.02	
STRUCTURE NO.		TRACS NO. T0411-01C										____ OF ____	



**EDGE TREATMENT TRENCHING
TYPICAL SECTION (NTS)**

NOTES II:

1. Install nonwoven fabric when water is applied for construction vehicle/equipment cleaning on Gravel Pad.
2. Edge treatment trenching and nonwoven fabric shall not be required if NO wash water is used for vehicle/equipment cleaning.
3. The depth of Gravel Pad varies from 6" to 12" based on the necessities of construction vehicle/equipment as per the approval of the Engineer.



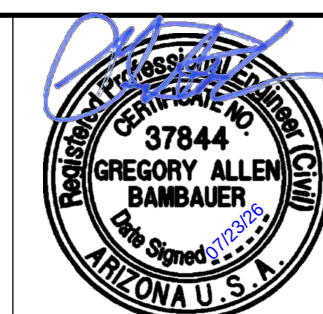
BIRD'S EYE VIEW (NTS)

NOTES I:

1. Install Stabilized Construction Entrance/Exit Gravel Pad CM/BMP for traffic entering or exiting a construction site where sedimentation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad CM/BMP as needed as project progresses. Replace Rock Mulch materials in drive paths when dirt or mud accumulates.
3. Nonwoven Very High Survivability Fabric shall conform to the standards of Sub-section 1014-4.04 of the Specifications.
4. Rock Mulch materials shall be fractured/crushed rocks in angular shape and as defined in the Sub-section 810-2.03 of the Specifications. Natural river-run materials, especially rounded natural river rocks are not acceptable.
5. Make field adjustments and corrections of Construction Entrance/Exit Gravel Pad CM/BMP immediately if it is causing flooding and/or affecting roadway safety.
6. When paid separately, the Stabilized Construction Entrance/Exit Gravel Pad CM/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
7. * Fence/barricade pay/bid item shall not be included as a component of the Stabilized Construction Entrance/Exit Gravel Pad CM/BMP pay/bid item.
8. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES6

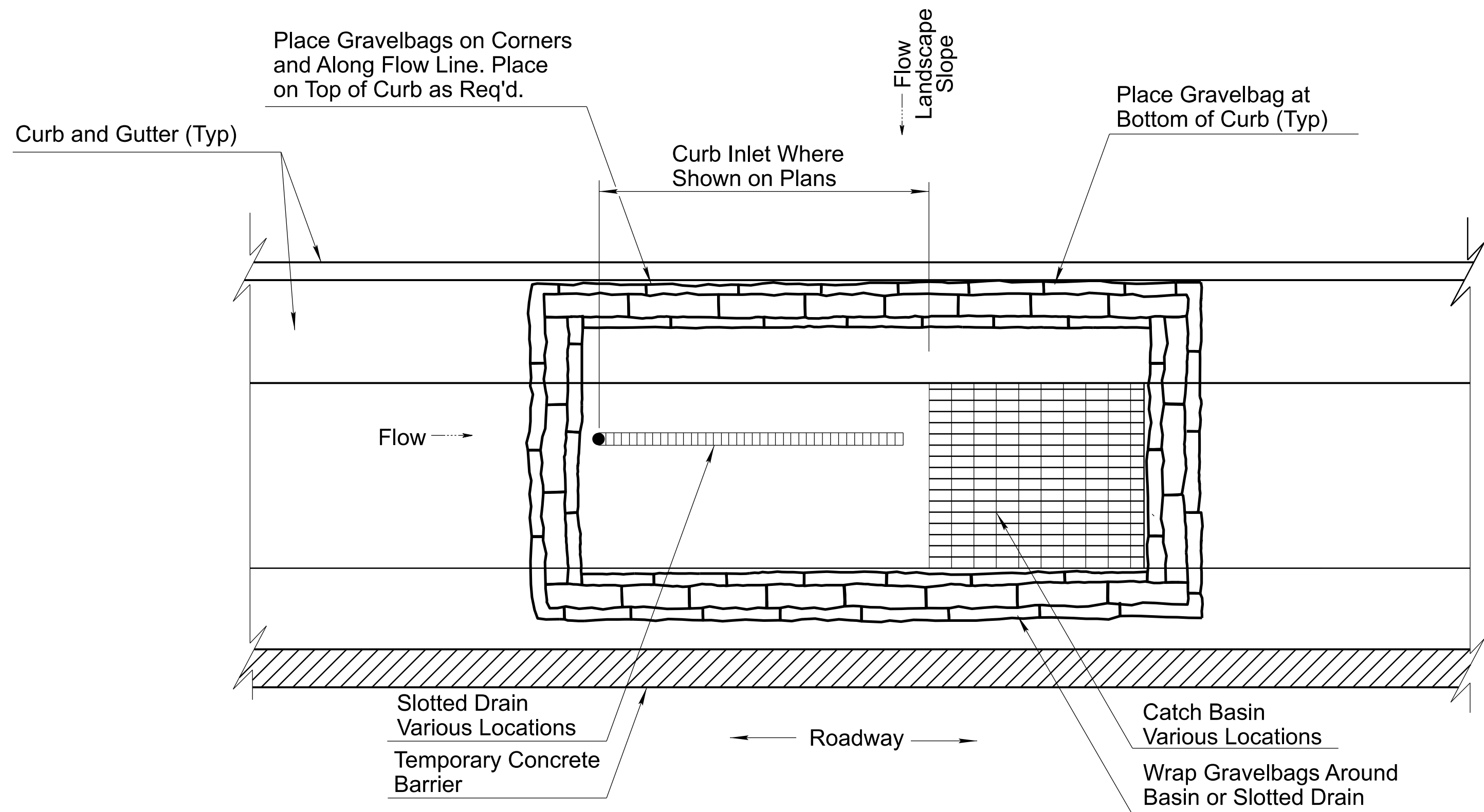
STABILIZED CONSTRUCTION ENTRANCE/EXIT GRAVEL PAD



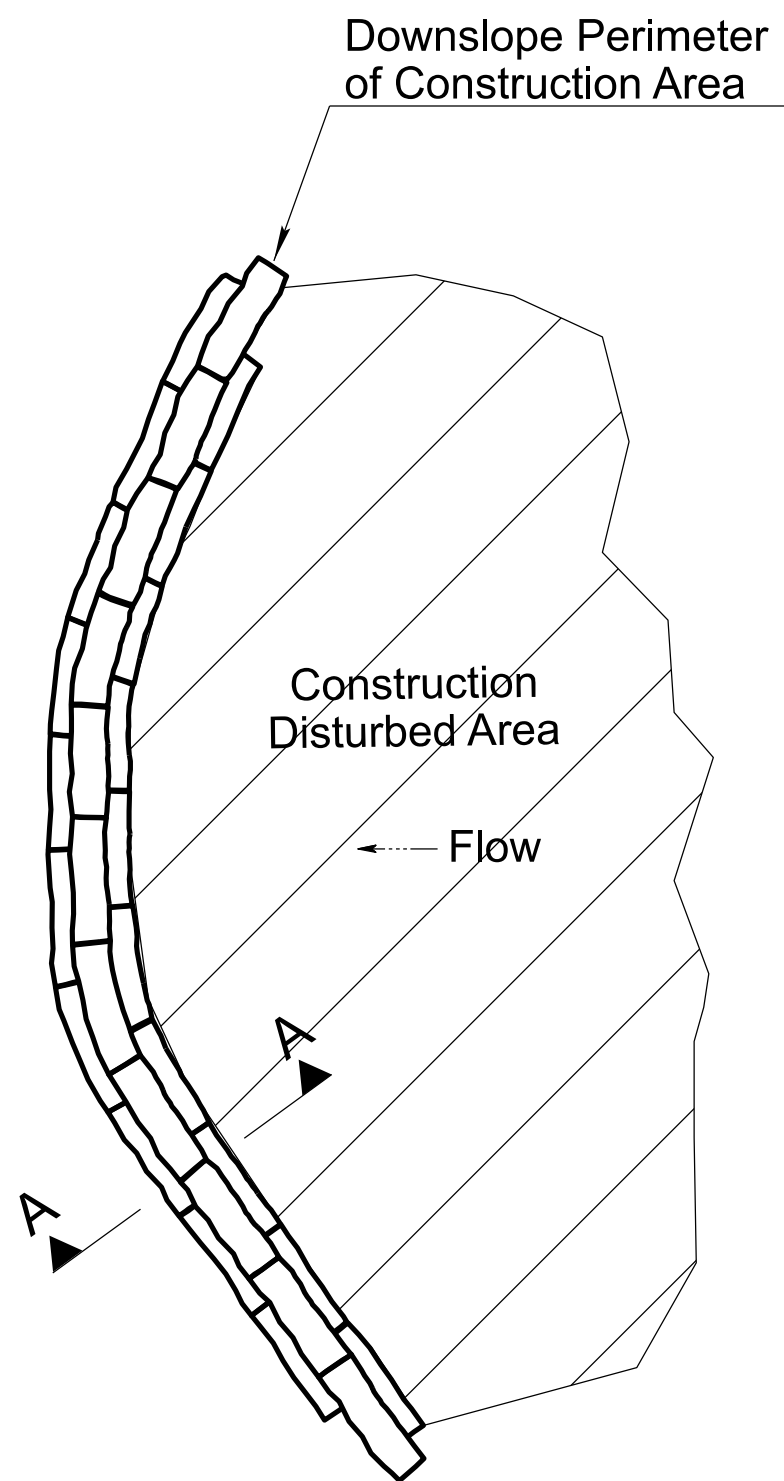
DESIGN	NAME	DATE
G. BAMBAUER	G. BAMBAUER	07/26
DRAWN	Y. CHENG	07/26
CHECKED	J. FLY	07/26

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES
STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS

ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 73	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST	LOCATION US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. EC-01.03
STRUCTURE NO.	TRACS NO. T0411-01C						OF

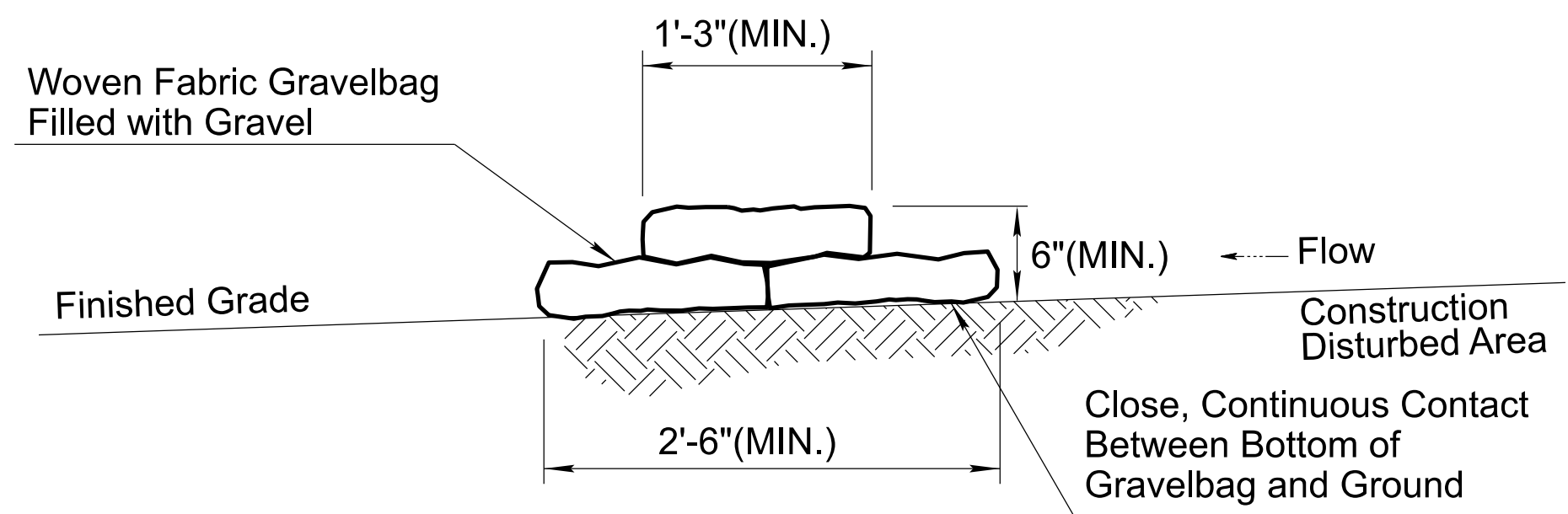


**STORM DRAIN/INLET CATCH BASIN AT CURB
PLAN VIEW (NTS)**

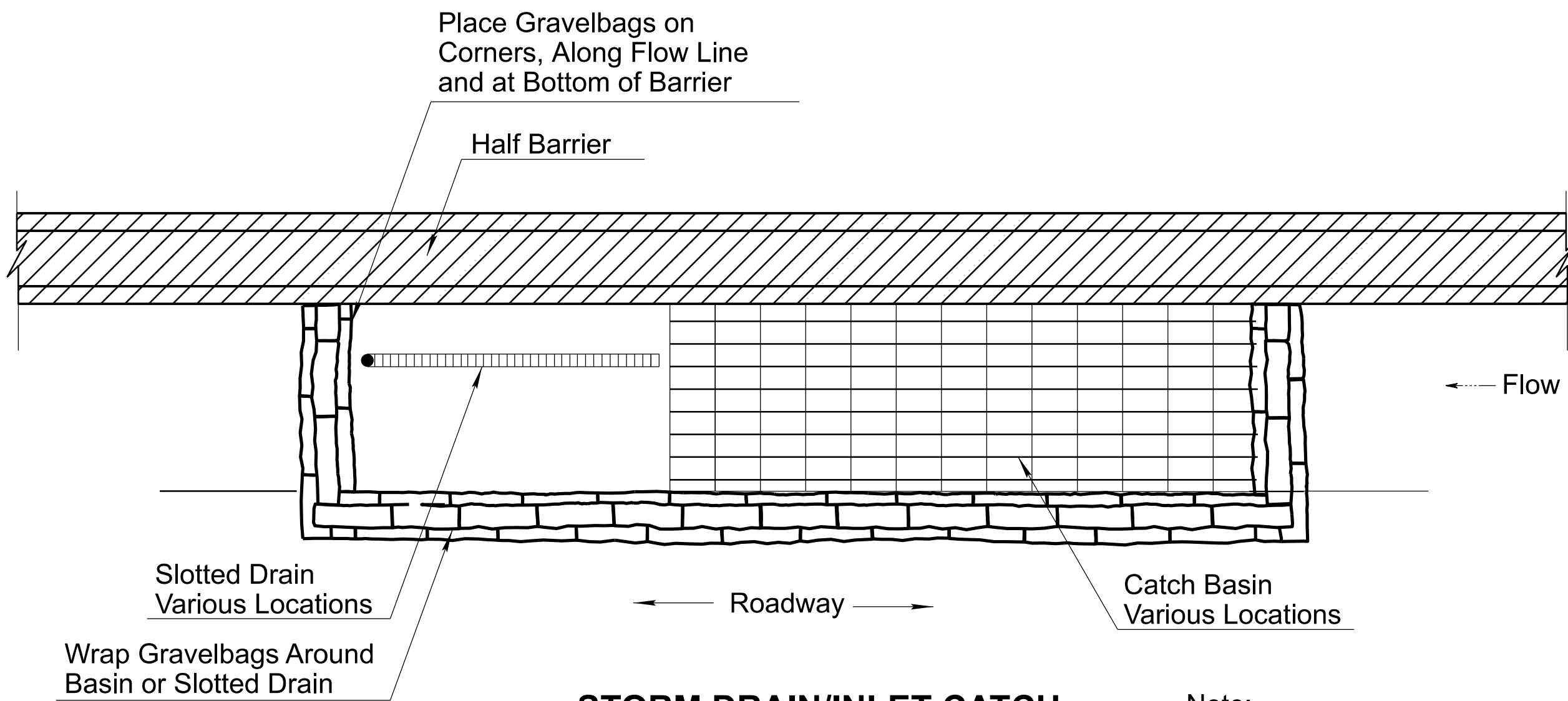


Note:
Apply Under Traffic Control or
Outside of ClearZone/Recovery Area

**GRAVELBAG SEDIMENT TRAP
PLAN VIEW (NTS)**



**SECTION A-A
(NTS)**



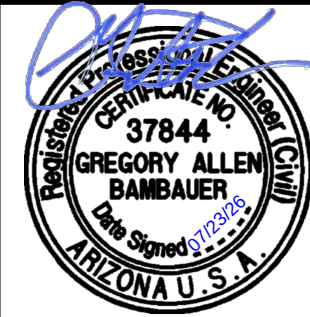
**STORM DRAIN/INLET CATCH BASIN AT HALF BARRIER
PLAN VIEW (NTS)**

Note:
Apply Under Traffic Control.

NOTES:

1. Gravelbag material shall be from polypropylene, polyethylene, or polyamide woven fabric. Refer to Special Provisions for Mullen burst strength and ultraviolet stability requirements.
2. When sediment depth reaches 3 inches, remove and properly dispose of accumulated material.
Do not apply Gravelbag CM/BMP in the area of open traffic.
3. When applied as a perimeter control CM/BMP, Gravelbags shall be used for surface areas where wattles and silt fences are not suitable.
4. Do not install Gravelbags as multiple ditch check dams.
5. The installation and maintenance of Gravelbag CMs/BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Gravelbag CMs/BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
6. Gravelbags are designed for temporary water quality protection only.
7. Remove Gravelbags per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
8. Make field adjustments and corrections of Gravelbag CM/BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
9. Refer to Special Provisions for gradation of gravel material.
10. The Gravelbag CM/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal, as well as returning the area to an acceptable condition as approved by the Engineer.
11. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

**DETAIL ES9
GRAVELBAG PROTECTION**

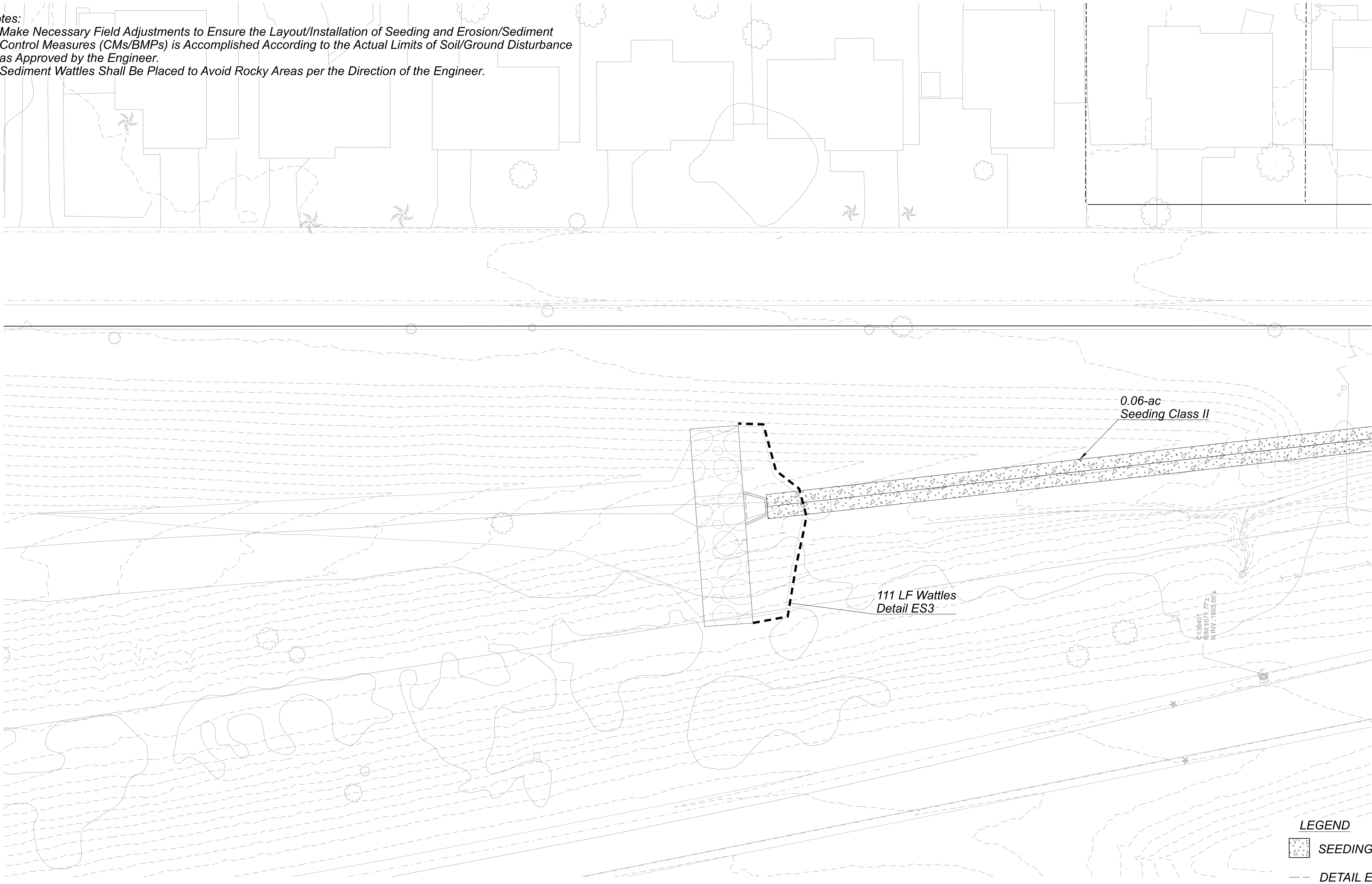
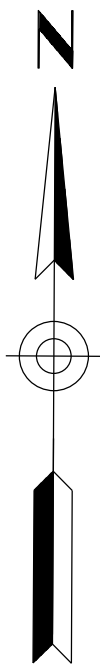


DESIGN	NAME	DATE
G. BAMBAUER	G. BAMBAUER	07/26
Y. CHENG	Y. CHENG	07/26
J. FLY	J. FLY	07/26

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES
STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS

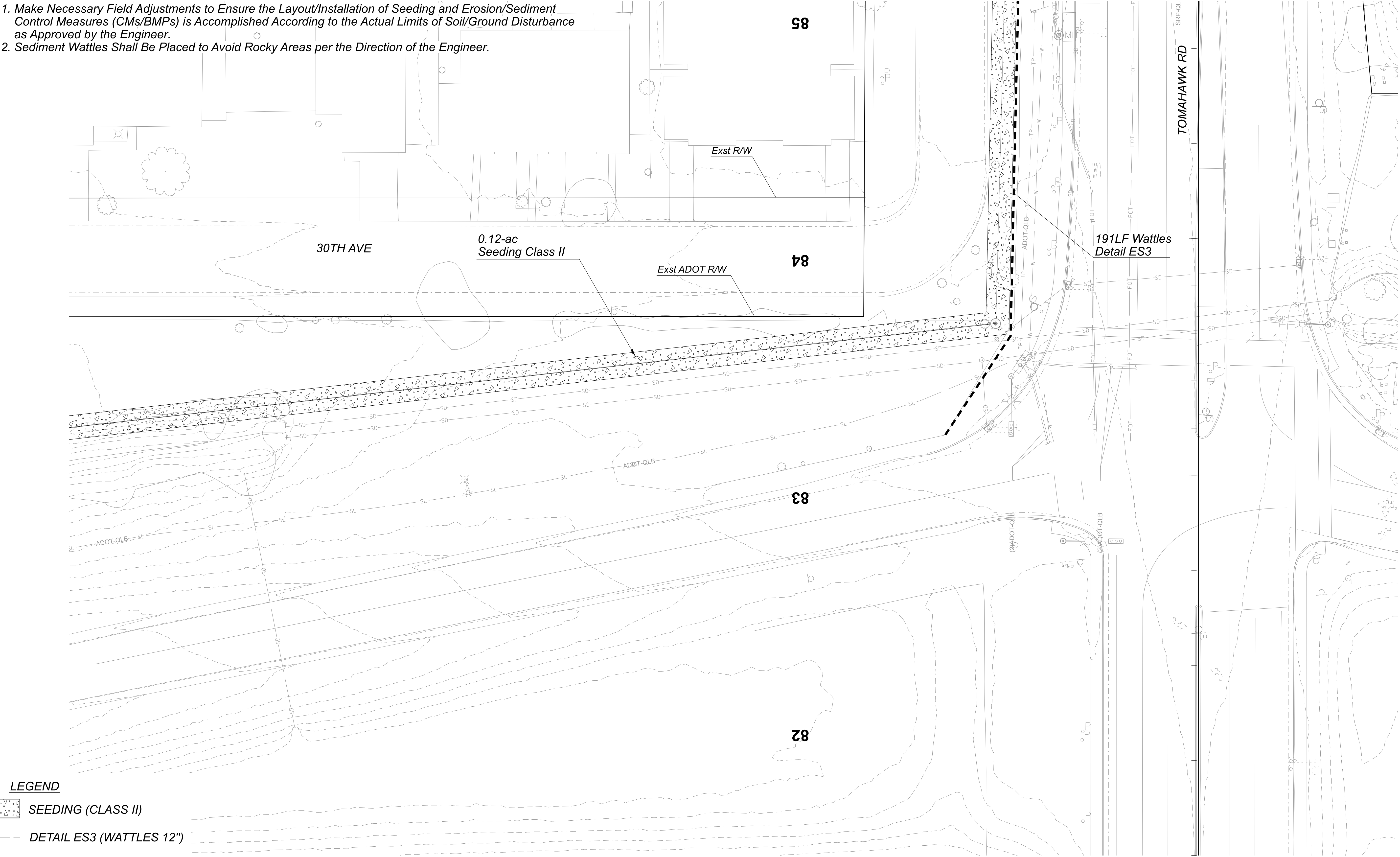
ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 74	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST	LOCATION US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. EC-01.04
STRUCTURE NO.	TRACS NO. T0411-01C						OF

- Notes:
- 1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMS/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
 - 2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

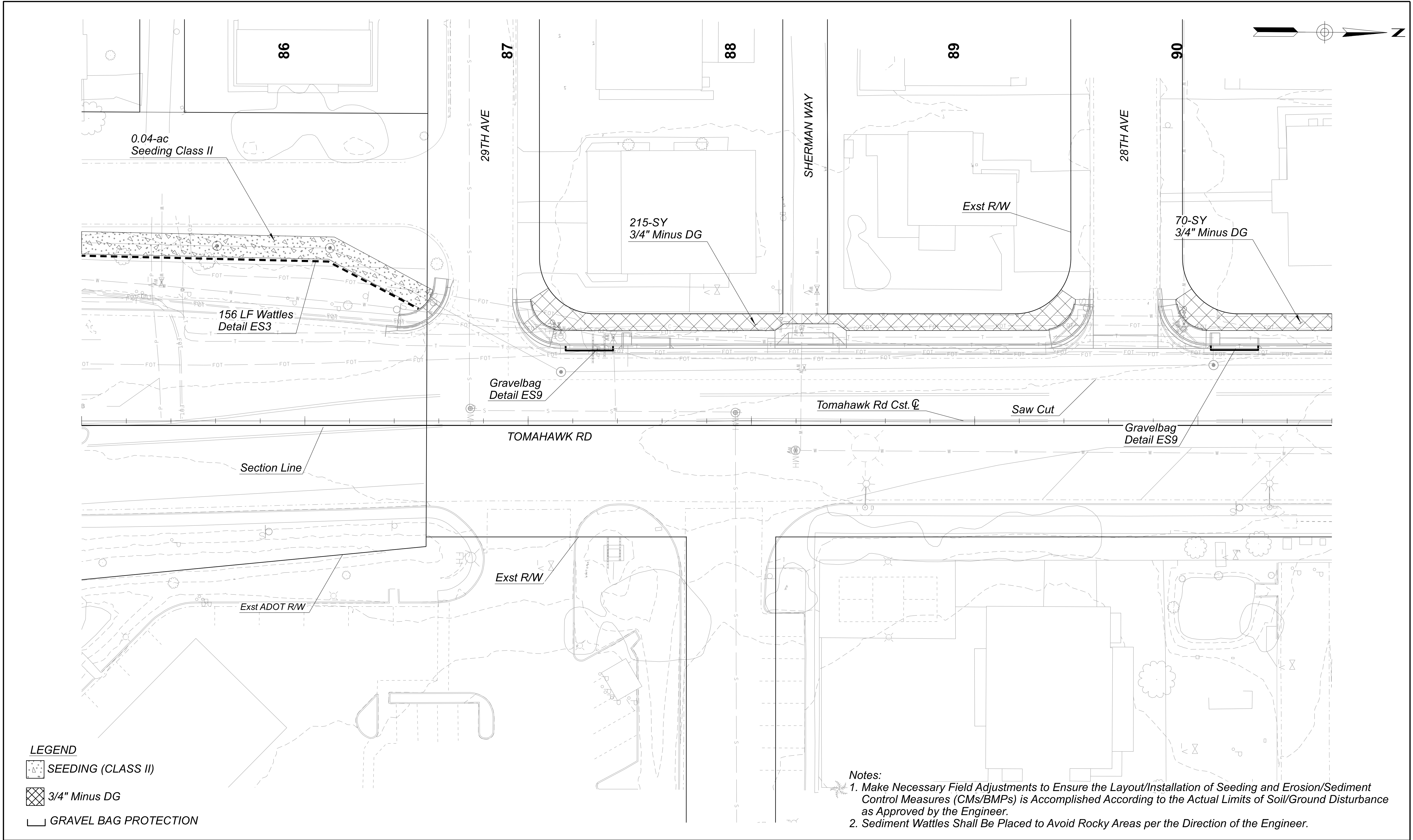


		NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING					
		DESIGN	G. BAMBAUER	07/26					T0411-01C	APJ-0(222)T	75	99						
		DRAWN	Y. CHENG	07/26					LOCATION US 60 Tomahawk Rd-Southern Ave Widening			DWG NO. EC-02.00						
		CHECKED	J. FLY	07/26	EROSION CONTROL PLAN TOMAHAWK RD STA 85+00				MILEPOST					TRACS NO. T0411-01C				
		WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281		STRUCTURE NO.													OF	

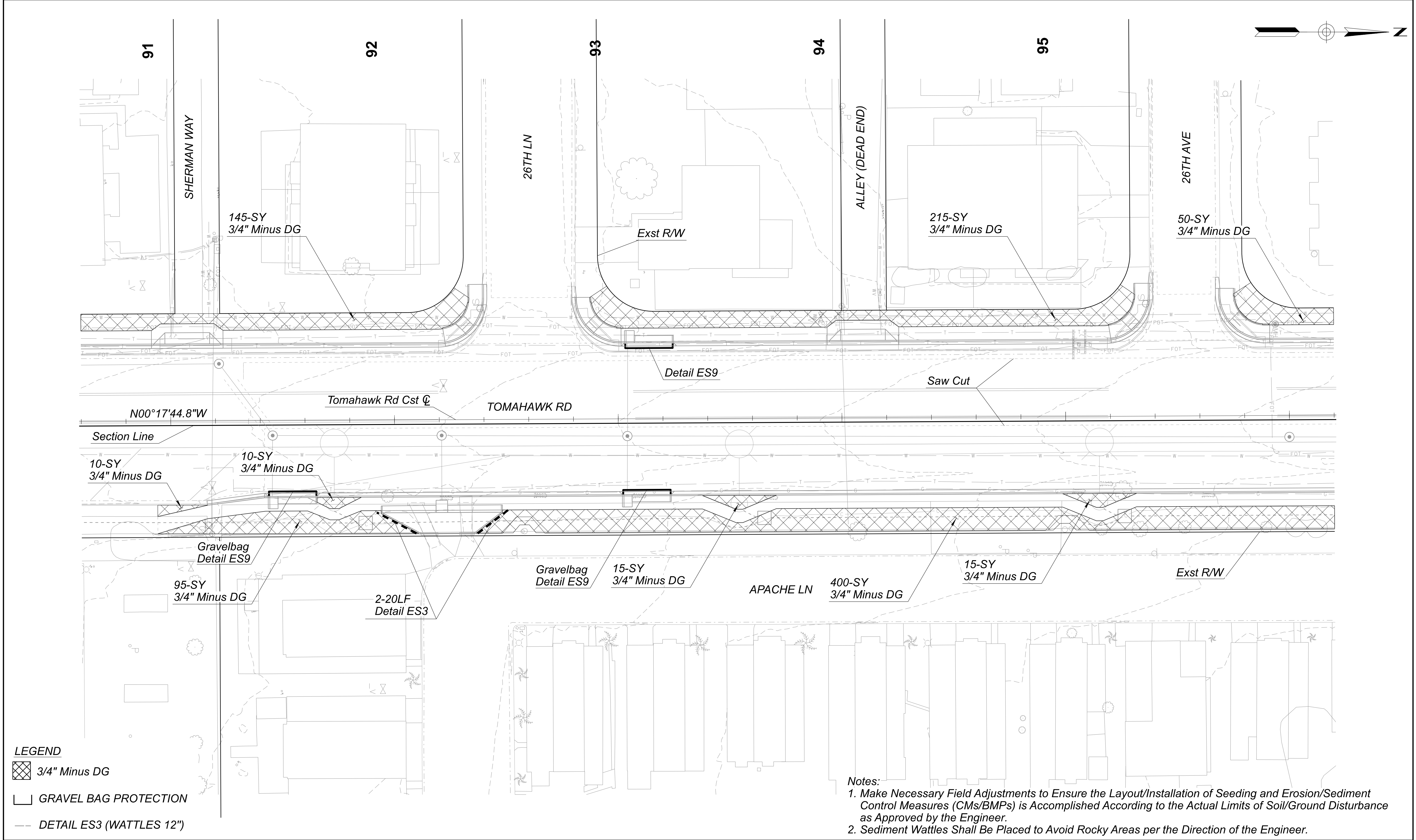
- Notes:
1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMs/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
 2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.



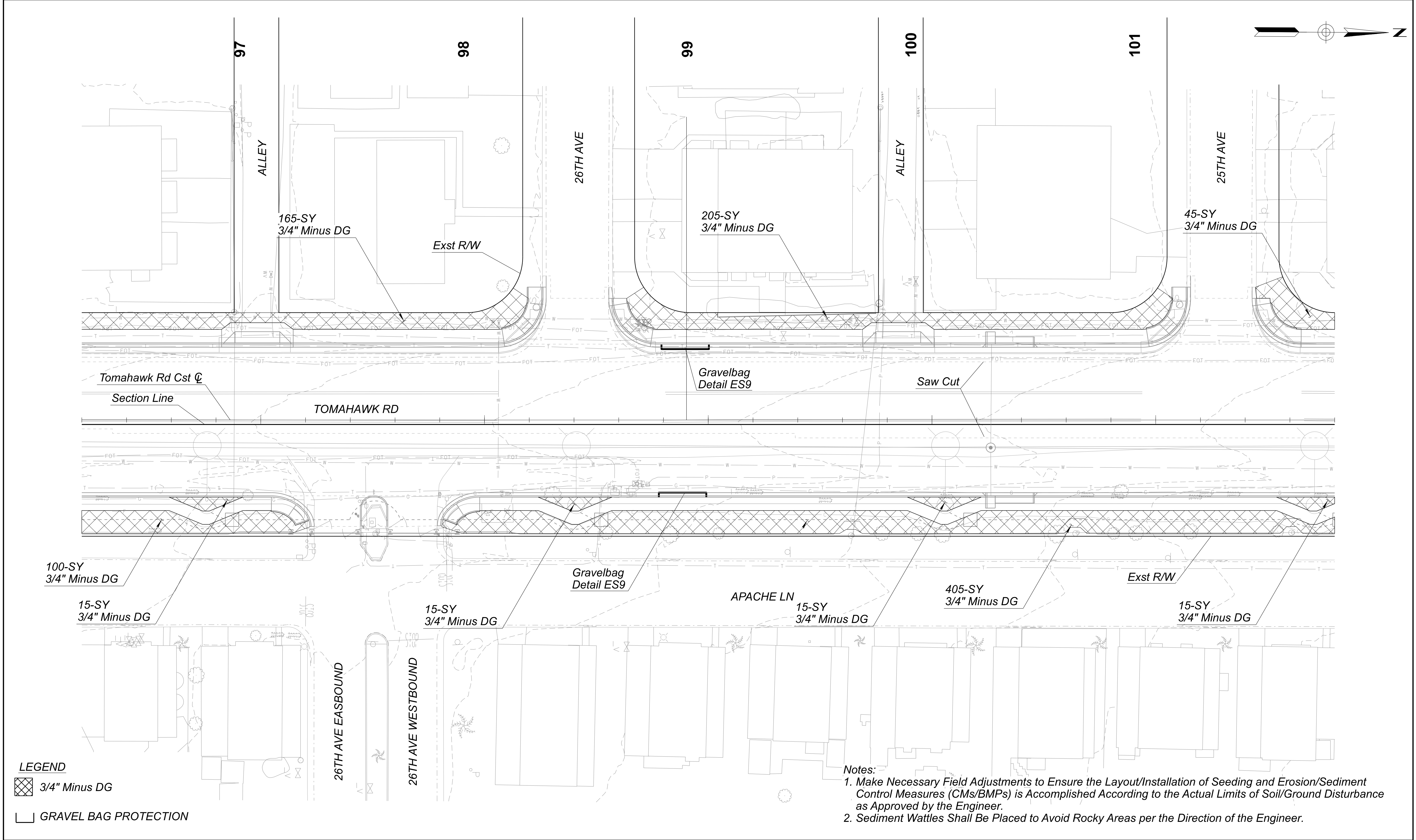
	DESIGN	G. BAMBAUER	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	76	TOTAL SHEETS	99	RECORD DRAWING	
	DRAWN	Y. CHENG	07/26		MILEPOST	LOCATION US 60 Tomahawk Rd-Southern Ave Widening											DWG NO.	EC-02.01
	CHECKED	J. FLY	07/26		STRUCTURE NO.	TRACS NO. T0411-01C											___ OF ___	
	 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281				EROSION CONTROL PLAN TOMAHAWK RD STA 85+00													



		DESIGN G. BAMBAUER 07/26 DRAWN Y. CHENG 07/26 CHECKED J. FLY 07/26 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES EROSION CONTROL PLAN TOMAHAWK RD STA 85+00 TO 90+60	ROUTE US 60 MILEPOST STRUCTURE NO.	F.H.W.A. Arizona Division ARIZ.	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 77	TOTAL SHEETS 99	RECORD DRAWING
											DWG NO. EC-02.02



  WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281	NAME G. BAMBAUER DATE 07/26		ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES		ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 78	TOTAL SHEETS 99	RECORD DRAWING
	DESIGN Y. CHENG DATE 07/26				MILEPOST			LOCATION US 60 Tomahawk Rd-Southern Ave Widening				
	CHECKED J. FLY DATE 07/26				EROSION CONTROL PLAN TOMAHAWK RD STA 90+60 TO 96+20		STRUCTURE NO.	TRACS NO. T0411-01C				



LEGEND

- 3/4" Minus DG
- GRAVEL BAG PROTECTION

- Notes:
1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMS/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
 2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

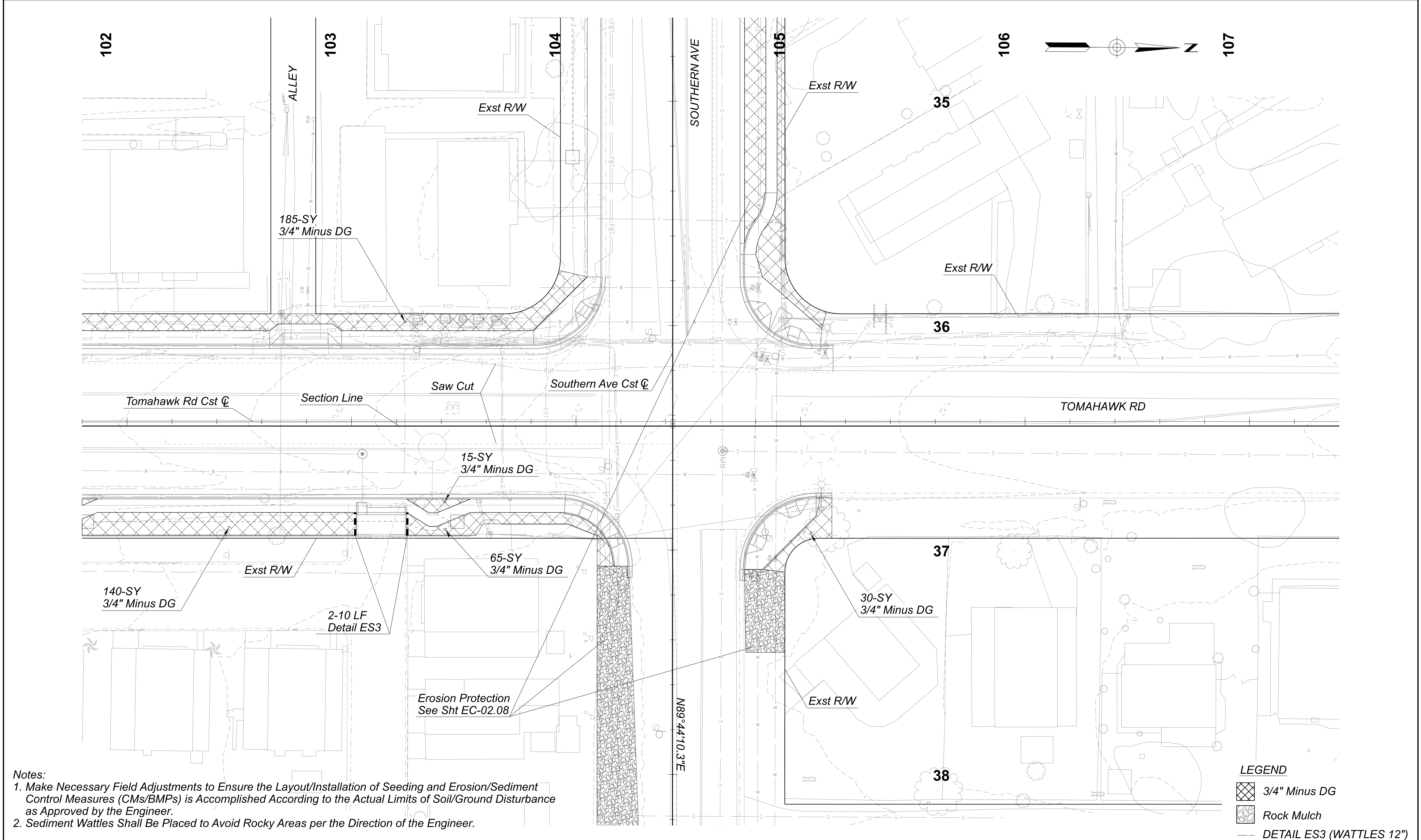


DESIGN	NAME	DATE
DRAWN	G. BAMBAUER	07/26
CHECKED	Y. CHENG	07/26
	J. FLY	07/26

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES
EROSION CONTROL PLAN TOMAHAWK RD STA 96+20 TO 101+80

ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 79	TOTAL SHEETS 99	RECORD DRAWING
LOCATION	US 60 Tomahawk Rd-Southern Ave Widening					DWG NO. EC-02.04	
STRUCTURE NO.	TRACS NO. T0411-01C					OF	



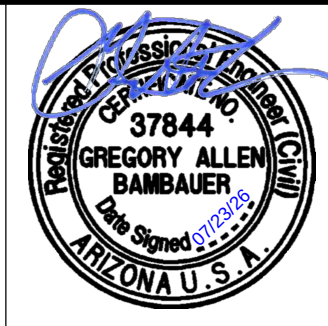
- Notes:
- 1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMS/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
 - 2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

LEGEND

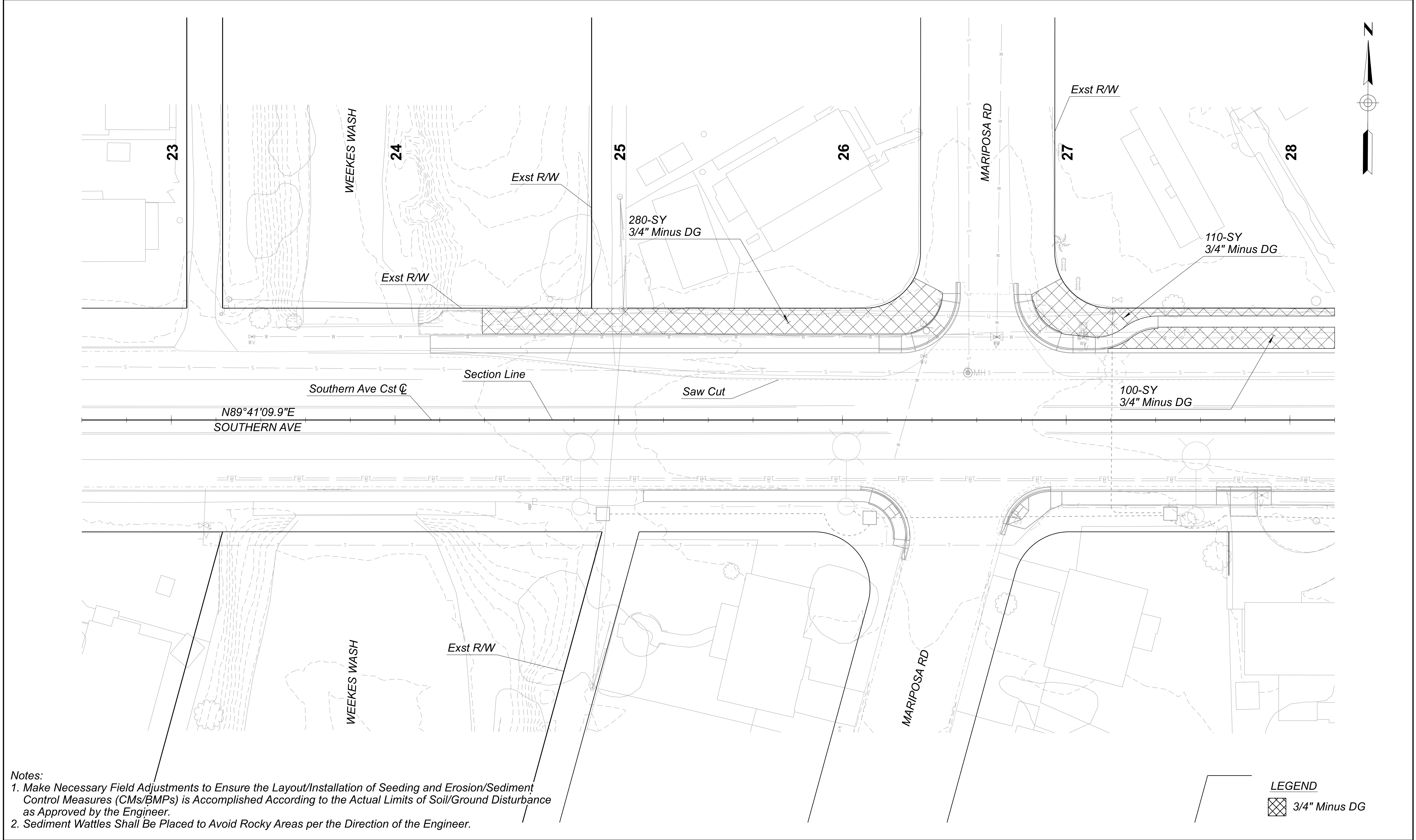
3/4" Minus DG

Rock Mulch

DETAIL ES3 (WATTLES 12")



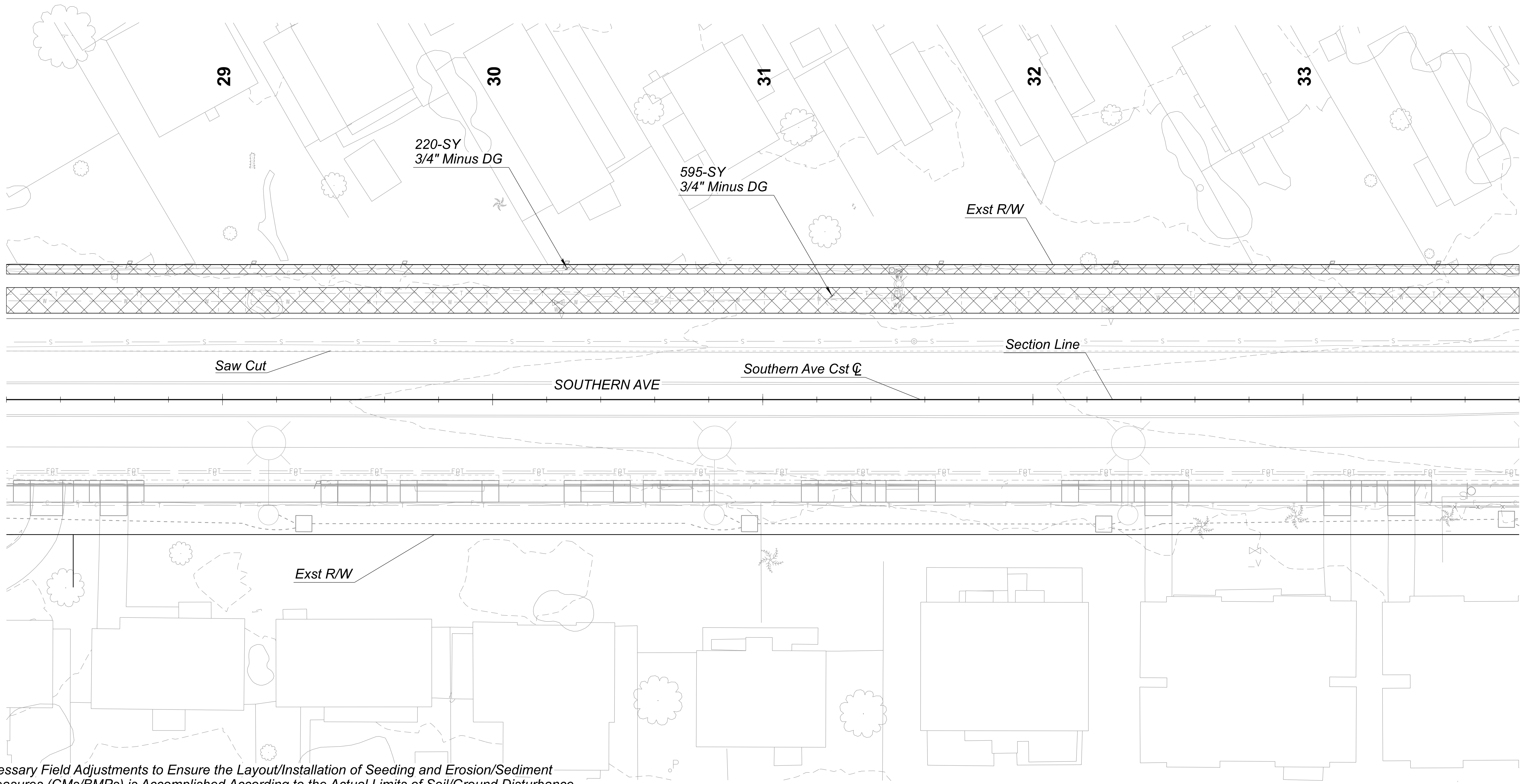
	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES			ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING		
DESIGN	G. BAMBAUER	07/26							T0411-01C	APJ-0(222)T	80	99			
DRAWN	Y. CHENG	07/26													
CHECKED	J. FLY	07/26	EROSION CONTROL PLAN TOMAHAWK RD STA 101+80 TO 107+40			MILEPOST			US 60 Tomahawk Rd-Southern Ave Widening						DWG NO. EC-02.05
 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281						STRUCTURE NO.									



Notes:
1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMs/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

LEGEND
3/4" Minus DG

	DESIGN	G. BAMBAUER	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	US 60	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	T0411-01C	FEDERAL ID NO.	APJ-0(222)T	SHEET NO.	81	TOTAL SHEETS	99	RECORD DRAWING	
	DRAWN	Y. CHENG	07/26		MILEPOST					LOCATION	US 60 Tomahawk Rd-Southern Ave Widening								
	CHECKED	J. FLY	07/26		wsp WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281	EROSION CONTROL PLAN SOUTHERN AVE STA 22+60 TO 28+20	STRUCTURE NO.		TRACS NO.	T0411-01C	____ OF ____								



Notes:

1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMs/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

LEGEND

 3/4" Minus DG

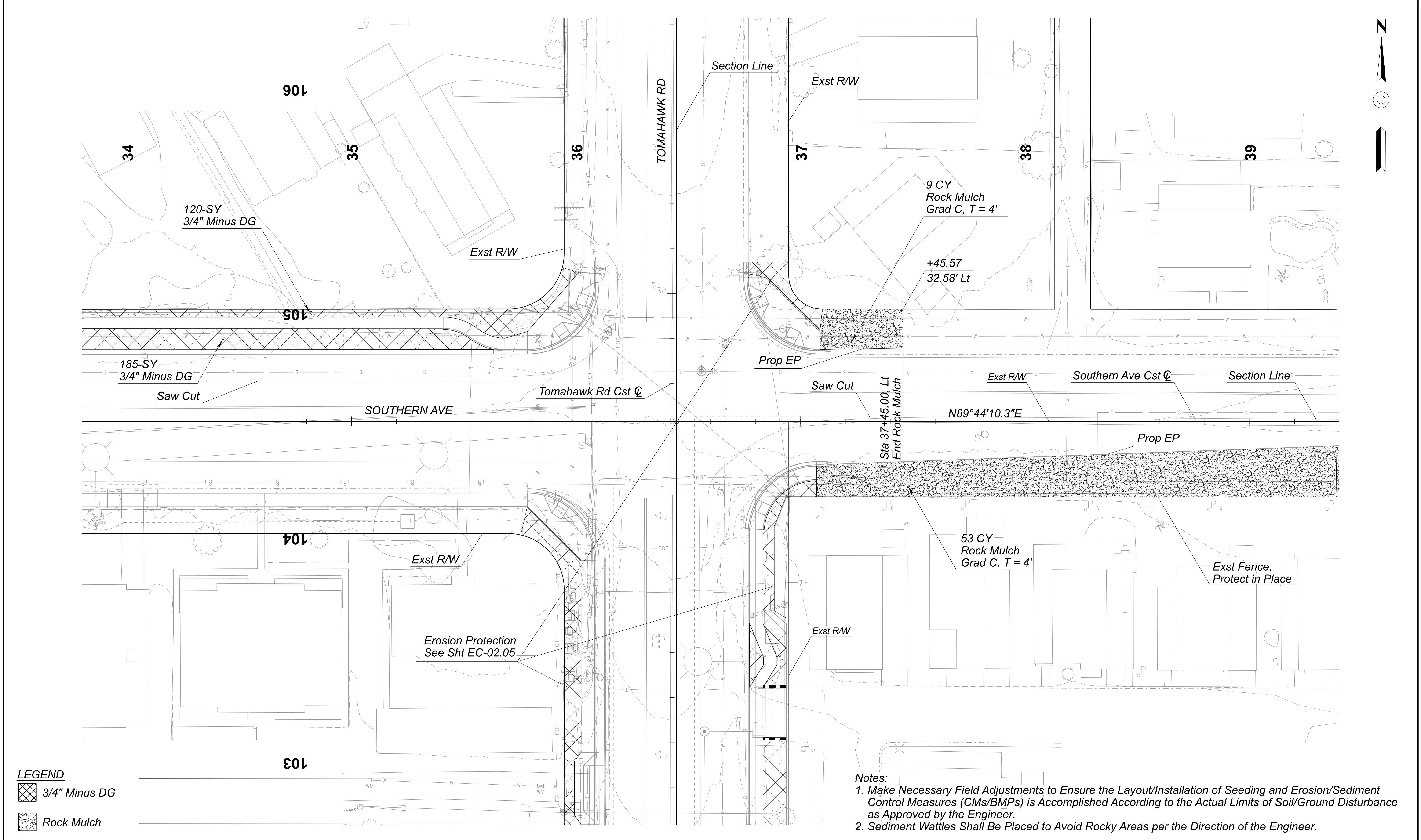


	NAME	DATE
DESIGN	G. BAMBAUER	07/26
DRAWN	Y. CHENG	07/26
CHECKED	J. FLY	07/26

wsp WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES
EROSION CONTROL PLAN SOUTHERN AVE STA 28+20 TO 33+80

ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 82	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST	LOCATION US 60 Tomahawk Rd-Southern Ave Widening					DWG NO. EC-02.07	
STRUCTURE NO.	TRACS NO. T0411-01C					____ OF ____	



LEGEND

 3/4" Minus DG

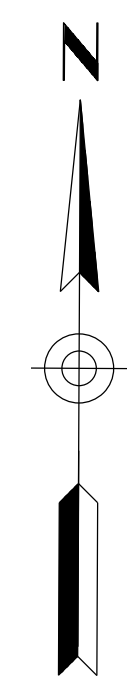
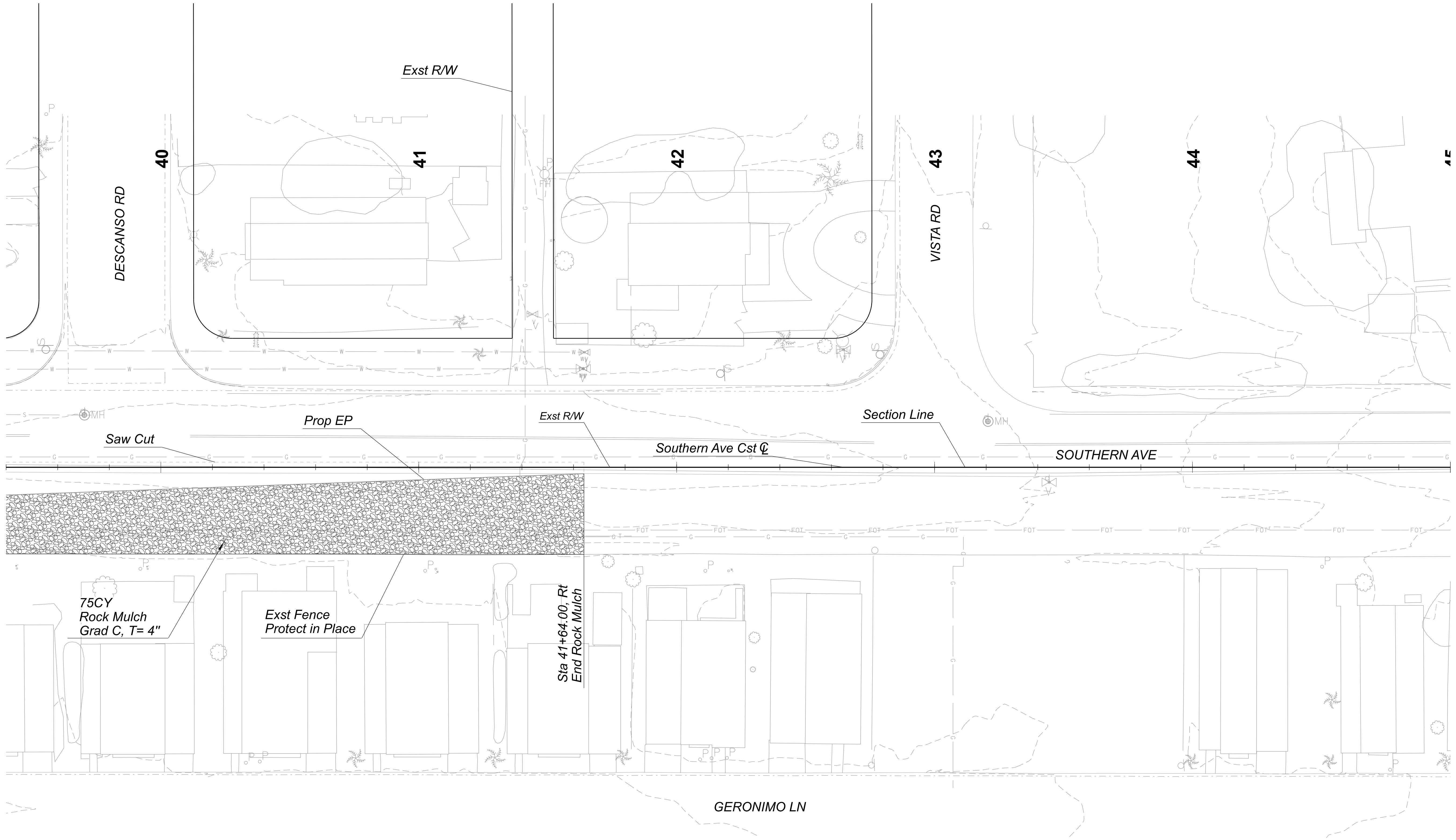
 Rock Mulch

Notes:

1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMs/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.

2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

	DESIGN	G. BAMBAUER	DATE	07/26	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	ROUTE	US 60	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DRAWN	Y. CHENG		07/26			T0411-01C			APJ-0(222)T	83	99		
	CHECKED	J. FLY		07/26										
	 WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281				EROSION CONTROL PLAN SOUTHERN AVE STA 33+80 to 39+40		LOCATION US 60 Tomahawk Rd-Southern Ave Widening DWG NO. EC-02.08							
						STRUCTURE NO.		TRACS NO. T0411-01C		____ OF ____				



Notes:

1. Make Necessary Field Adjustments to Ensure the Layout/Installation of Seeding and Erosion/Sediment Control Measures (CMs/BMPs) is Accomplished According to the Actual Limits of Soil/Ground Disturbance as Approved by the Engineer.
2. Sediment Wattles Shall Be Placed to Avoid Rocky Areas per the Direction of the Engineer.

LEGEND

-  1-1/2" Minus DG
-  Rock Mulch

		WSP USA Inc. 1230 W. Washington St. Suite 600 Tempe, AZ 85281	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES EROSION CONTROL PLAN SOUTHERN AVE STA 39+40 TO 45+00	ROUTE US 60 MILEPOST STRUCTURE NO.	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING			
					T0411-01C		APJ-0(222)T	84	99					
					LOCATION US 60 Tomahawk Rd-Southern Ave Widening							DWG NO. EC-02.09		
					TRACS NO. T0411-01C							___ OF ___		

SWPPP EROSION CONTROL QUANTITIES SUMMARY

Payitem No.	Item Description	Unit	Sheet No.										Quantity
			EC-02.00	EC-02.01	EC-02.02	EC-02.03	EC-02.04	EC-02.05	EC-02.06	EC-02.07	EC-02.08	EC-02.09	
8030104	DECOMPOSED GRANITE(3/4" MINUS)	SQ.YD.			285	955	980	435	490	815	305		4265
8101029	ROCK MULCH (Gradation C)	CU.YD									62	75	137
8050003	SEEDING (CLASS II)	ACRE	0.06	0.12	0.04								1
8101018	EROSION CONTROL (STABLIZED CONSTRUCTION EXTRANCE/EXIT GRAVEL PAD)	SQ.YD.	1										1
8101017	EROSION CONTROL (TEMPORARY GRAVELBAG)	EACH			2	3	2						7
8101023	EROSION CONTROL (WATTLES) (12")	L.FT.	111	191	156	40		20					518



	NAME	DATE
DESIGN	G. BAMBAUER	07/26
DRAWN	Y. CHENG	07/26
CHECKED	J. FLY	07/26

WSP USA, Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SERVICES	
EROSION CONTROL PLAN	

ROUTE US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 85	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST		LOCATION US 60 Tomahawk Rd-Southern Ave Widening					
STRUCTURE NO.	TRACS NO. T0411-01C		DWG NO. _____ OF _____				

ADEQ GENERAL WATER NOTES:

1. In accordance with A.A.C. R18-5-504, all construction materials will be lead free, excluding leaded joints for cast iron pipes.
2. Each product added directly to water during production or treatment shall conform to ANSI/NSF Standard 60.
3. A material or product installed after January 1, 1993, that comes into contact with water or a water treatment chemical shall conform to ANSI/NSF Standard 61.
4. All pipes, valves and related appurtenances will conform to NSF Standard 61 and bear the NSF-pw seal of approval.
5. The water system will be designed using good engineering practice in accordance with Engineering Bulletin No. 10, as stated in A.A.C. R18-5-502.
6. A minimum pressure of 20 psi will be provided under all conditions of flow.
7. The contractor will be responsible for the excavation required or ordered by the engineer as stated in MAG 601.2.1.
8. The minimum cover to the top of pipe is 3 feet per Engineering Bulletin No.10.
9. All thrust restraint will be designed for a safety factor 1.5 or greater with maximum pressure conditions given in Engineering Bulletin No. 10.
10. The water main will be designed to maintain a slope without a local high point.
11. All water mains will be designed for a minimum of 150 psi with allowances for water hammer in accordance with the Engineering Bulletin No.10.
12. In accordance with A.A.C. R18-5-502(C), the water pipe will have a minimum horizontal separation of 6 feet and a minimum vertical separation of 2 feet above a sewer. If horizontal or vertical separation is not possible, pipes will be constructed with a pressure tested mechanical joint ductile iron pipe or an approved equal. In addition to the pipe construction, a water main will have a vertical separation of 18 inches if crossing below a sewer.
13. In accordance with A.A.C. R18-5-502(C), the water pipe and sewer manholes will not come in contact and will have a minimum horizontal separation of 6 feet from the center of the manhole.
14. In accordance with A.A.C. R18-5-502(C), the water pipe will have a minimum horizontal separation of 6 feet and minimum vertical separation of 2 feet from force mains or pressure sewers. If a sewer-force crosses above a water main within 6 feet vertically, the sewer main pipes will be encased in 6 inches of concrete or constructed with a pressure tested mechanical joint ductile iron pipe for 10 feet before and after the crossing.
15. In accordance with A.A.C. R18-5-502(C), sewer mains will be at least 50 feet away from a groundwater well. Sewer mains can be at least 20 feet away from the well if pressure tested without excessive leakage to (a) 50 psi to be used for gravity sewers; or (b) 150 psi to be used for force mains. Additionally, a well will be constructed at least 100 feet from (a) a septic tank or subsurface disposal; (b) discharge or activity regulated under the Individual Aquifer Protection Permit; (c) underground storage; (d) hazardous waste facilities regulated under the Arizona Hazardous Waste Management Act.
16. All new waterlines will be pressure tested in accordance with current AWWA/ANSI C605 for PVC and AWWA/ANSI C600 for Ductile Iron Pipe.
17. All new water system components or equipment will be disinfected and flushed in accordance with Engineering Bulletin No. 8, Disinfection of Water Systems, or AWWA/ANSI C651-14.
18. After disinfection, all water system components or equipment will be bacteriologically tested by a Bacti test through an Arizona Department of Health Services certified laboratory.

APACHE JUNCTION WATER DISTRICT CONSTRUCTION NOTES:

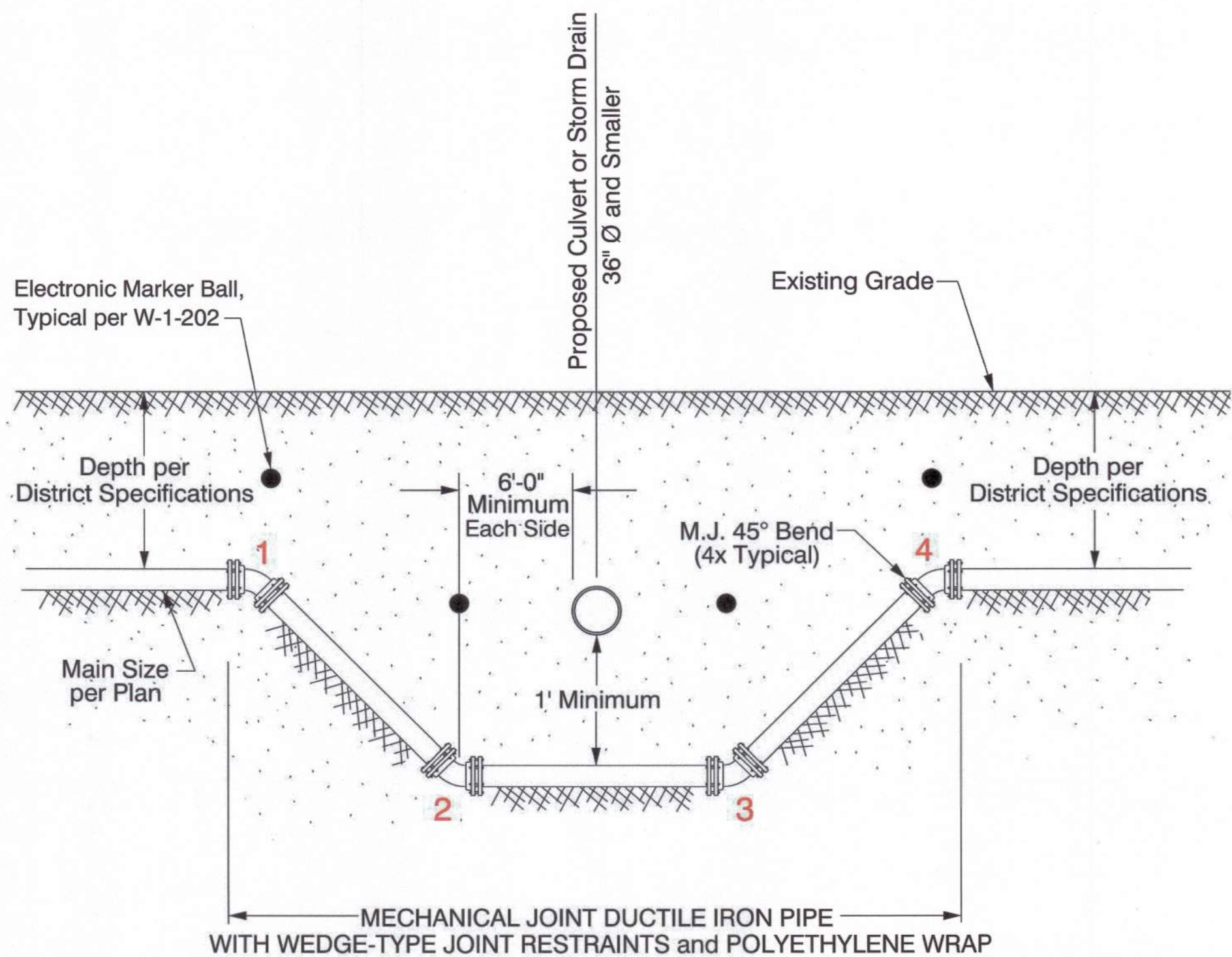
- A. Contractor will expose any lines being tied into to verify location.
- B. Backfilling will not be done until lines are inspected and approved by the District Inspector or other Authorized District Representative.
- C. Valves will be furnished and installed by the contractor according to Apache Junction Water District standards, M.A.G., and/or City of Apache Junction supplements.
- D. Backflow prevention assemblies will be furnished and installed by the contractor according to Apache Junction Water District standards, M.A.G., and/or City of Apache Junction supplements. Assemblies two (2) inches and smaller will be placed in protective cage painted a neutral or earth tone color. Larger assemblies three (3) inches and above will be painted a neutral or earth tone color.
- E. Fire hydrants will be furnished and installed by the contractor and will be painted chrome yellow after installation. Private fire hydrants will be painted red. Non-potable water flushing hydrants will be painted silver and be embossed with “EFFLUENT” across the barrel.
- F. All service lines will be Type 'K' copper tubing. The minimum size service line is one (1) inch. Service lines will be continuous under pavement without a connection or extension. Details W-1-800 and W-1-802.
- G. All service taps 2-inch and smaller will use lead-free bronze double strap service saddle.
- H. All taps on existing water mains will utilize a ductile iron tapping sleeve appropriate for the pipe material being connected to.
- I. Apache Junction Water District will install all meters after all paperwork is completed and the appropriate fees have been paid. Services up to two (2) inches will be installed per details W-1-800 and W-1-802. 3-inch and larger services will be installed in accordance with Apache Junction Water District standard details, W-1-603, W-1-803 thru W-1-806, W-1-808, and W-1-809.
- J. Pavement replacement will be according to the jurisdiction having authority according to the terms and conditions of the permit issued.
- K. Pothole repairs in pavement will be per detail W-1-101.
- L. As-built drawings, signed and sealed by the subdivider’s engineer or surveyor, must be submitted to and accepted by the District before final acceptance of the work. Bound CAD files are required upon acceptance of the as-builts.

APPROXIMATE WATER MATERIAL QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	16-inch Class 350 Ductile Iron Pipe	LF	250
2	6-inch Class 350 Ductile Iron Pipe	LF	180
3	16x6-inch Mechanical Joint Ductile Iron Tee	EA	1
4	6-inch Mechanical Joint Ductile Iron Tees	EA	3
5	16-inch 45° Mechanical Joint Ductile Iron Ells	EA	12
6	28-inch Standard Steel Casing	LF	8
7	EPDM Model 'C' or 'W' Rubber End Seals	EA	2
8	Garlock Ranger II Casing Spacers	EA	2
9	6-inch 45° Mechanical Joint Ductile Iron Ells	EA	4
10	6-inch Fire Hydrant Assembly	EA	4
11	6-inch Resilient Wedge Gate Valves, MJ x MJ	EA	4
12	Gate Valve Boxes and Covers	EA	6
13	Mueller Hymax 6-inch Pipe Coupling	EA	10
14	Mueller Hymax 16-inch Pipe Coupling	EA	6
15	8x6-inch Ductile Iron Tapping Sleeve, 6-inch FLG x MJ Resilient Wedge Gate Valve	EA	1
16	6-inch 90° Mechanical Joint Ductile Iron Ell	EA	1
17	6-inch Wedge-Type Joint Restraints	EA	12
18	16-inch Wedge-Type Joint Restraints	EA	12
19	6-inch Restraining Pipe Joint Gaskets	EA	20
20	16-inch Restraining Pipe Joint Gaskets	EA	12
21	16x2-inch Brass Double Strap Service Saddle	EA	2
22	2-inch Brass Corporation Stop, IPT x CC	EA	2
23	2-inch Type K Copper	LF	60
24	Polyethylene Pipe Wrap	LF	450
25	MAG4 Water Meter Box with Lid	EA	2
26	14 GA. Solid Core Copper Tracer Wire (Blue)	LF	450

CONFLICT No.	STATION	RESOLUTION
A1	86+68	Replace and lower existing 16-inch ductile iron pipe a minimum of 2 feet below the existing 10-inch sewer main per Detail W-1-505 and encase the sewer main in concrete.
A2	87+10	Relocate existing fire hydrant and hydrant valve per Detail W-1-600.
A5	89+93	
A10	98+73	
A11	31+50	
A3	87+38	Abandon existing 6-inch water service lateral and construct new per Item B3.
A4	87+41	Lower and replace the existing 16-inch ductile iron pipe per Detail W-1-506.
A6	91+45	Replace and lower existing 16-inch ductile iron pipe a minimum of 1-foot below the proposed 18-inch laterals. One long dip section under all three crossings, per W-1-505.
A7	92+21	
A8	93+04	
A9	98+05	Contractor to relocate two existing 2-inch water services per Detail W-1-802 off of the existing 16-inch water main. AJWD forces will tie over the private side of the relocated water services.
B3	88+04	Relocate existing 6-inch service lateral to existing 8-inch D.I. with 8 x 6 tapping sleeve and 6-inch gate valve per detail W-1-404 and tie over service.

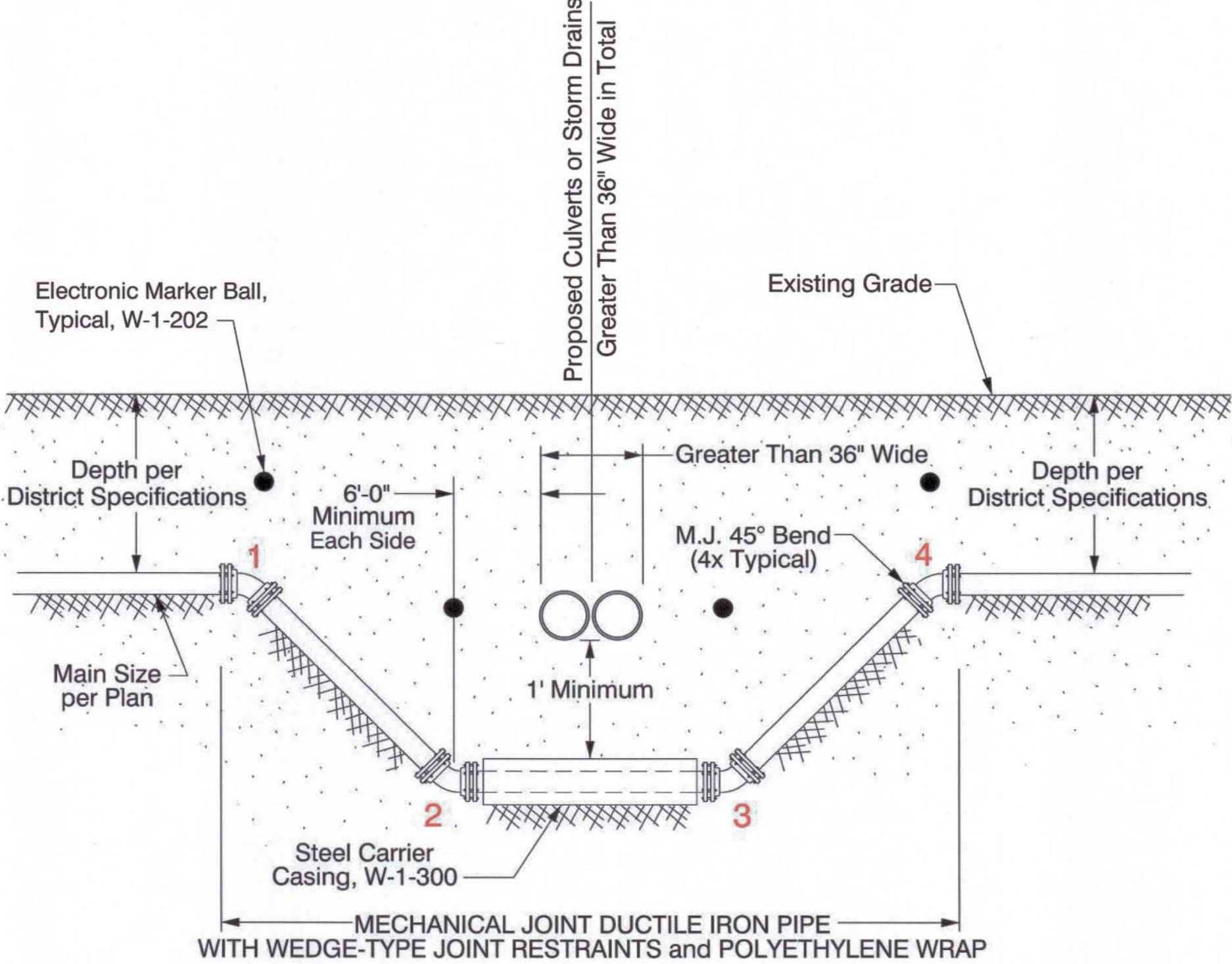
	TASK	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE:	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL I.D. NO. APJ-0(222)T	SHEET NO. 86	TOTAL SHEETS 99	RECORD DRAWING
	DESIGN:	C.BRIGGS	04/26									
	DRAWN:	C.BRIGGS	04/26									
	CHECKED:	M.LOGGINS	04/26									
APACHE JUNCTION WATER DISTRICT 300 E. SUPERSTITION BLVD. BUILDING D APACHE JUNCTION, ARIZONA 85119				WATER DETAILS AND NOTES TOMAHAWK ROAD	STRUCTURE NO.:	LOCATION: US 60 Tomahawk Road & Southern Widening						
TRACS NO. T0411-01C						DWG No.						
WATER RELOCATIONS						W1 OF W11						



NOTES:

1. Joint Restraints per Section 7e, District Specifications, Detail W-1-502.
2. Ductile Iron Pipe per Section 7a, District Specifications.
3. Fittings per Section 7d, District Specifications.
4. Air Release/Vacuum Valves Required at High Points on All Mains 12-Inches and Larger. Detail W-1-701.
5. Polyethylene Encasement per Section 7c, District Specifications, Detail W-1-301.
6. Mains Crossing Highways, Railroads, or Streams Require Shutoff Valves on Each Side.
7. No Services Will Be Installed Within the Dip Section.
8. Electronic Marker Balls per Detail W-1-202.
9. Proposed Storm Drains or Culverts Larger than 36-inches Require Steel Carrier Casing, W-1-300.

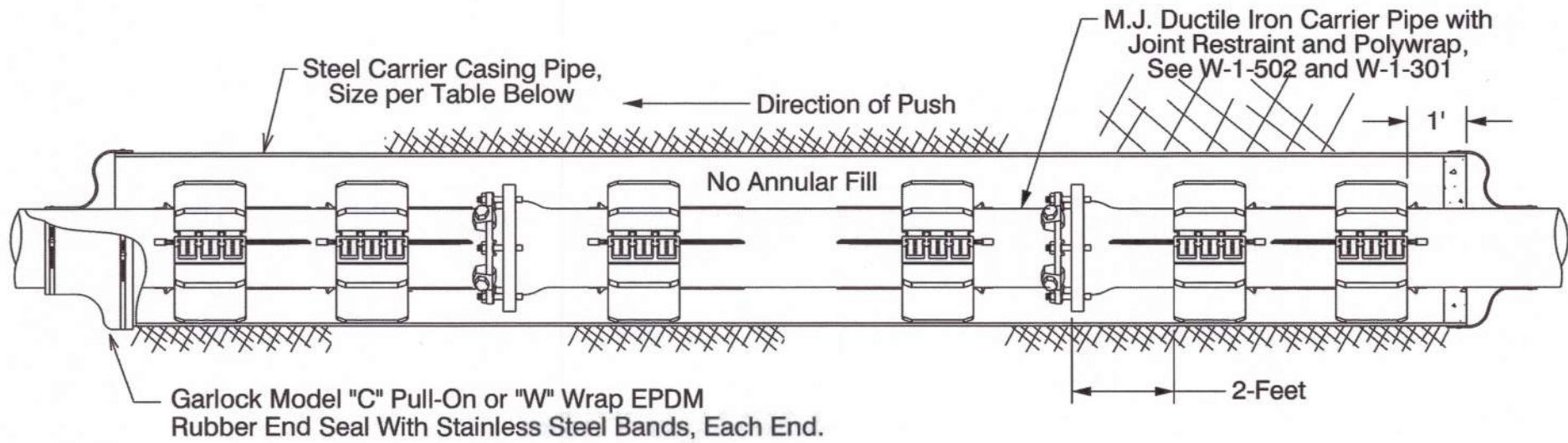
W-1-505 - VERTICAL REALIGNMENT of WATER MAINS



NOTES:

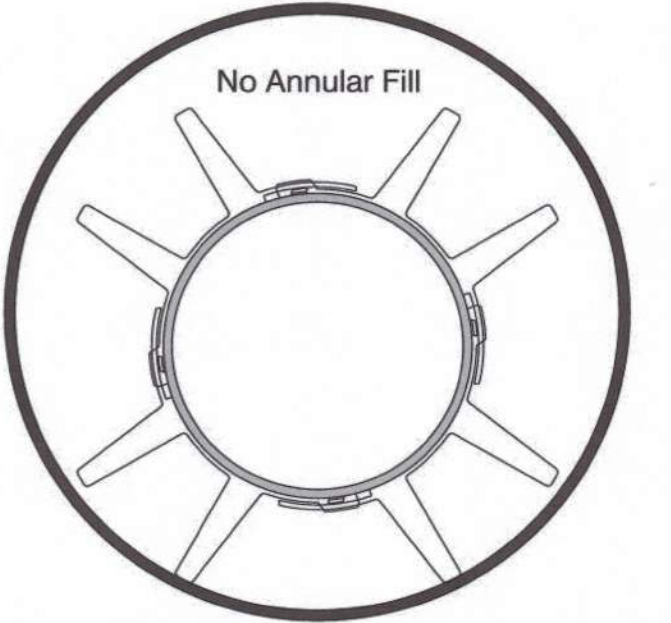
1. Joint Restraints per Section 7e, District Specifications, Detail W-1-502.
2. Ductile Iron Pipe per Section 7a, District Specifications.
3. Fittings per Section 7d, District Specifications.
4. Air Release/Vacuum Valves Required at High Points On All Mains 12-Inches and Larger. Detail W-1-701.
5. Polyethylene Encasement per Section 7c, District Specifications, Detail W-1-301.
6. Mains Crossing Highways, Railroads, Box Culverts, or Streams Require Shutoff Valves on Each Side.
7. No Services Will Be Installed Within the Dip Section.
8. Electronic Marker Balls per Detail W-1-202.
9. Proposed Culverts or Storm Drains That Are Greater Than 36-Inches in Total Width Requires Steel Carrier Casing per W-1-300.

W-1-506 - VERTICAL REALIGNMENT of WATER MAIN
at DUAL BARREL with STEEL CARRIER CASING



NOTES:

1. Casing spacers will be Garlock Ranger II Casing Spacers or approved equal. A submittal or RFI is required for equal.
2. Steel carrier casing pipe will meet or exceed AWWA C200 standard for Seamless Steel Pipe, 8-inches and Larger.
3. Steel carrier casing will meet or exceed the requirements of ASTM A139, Grade B, whose minimum yield strength is 35,000 Kilopound per Square Inch and whose minimum tensile strength is 60,000 Kilopounds per Square Inch (Ksi).
4. For installations of casing parallel with the road, a non-corrosive, non-shrink grout will be used to seal each bulkhead along with the EPDM rubber end seals. See note 5. A vent pipe is required, Detail W-2-300.
5. For installations of casing perpendicular to the road, the grout bulkheads are not required. See note 6.
6. After insertion of the carrier pipe into the casing, the ends of the casing will be closed by installing 1/8 inch thick EPDM Rubber End Seals using Garlock Model "C" or "W" End Seals.
7. The carrier pipe will be restrained and polywrapped prior to the skid installation and insertion into the carrier casing. The pipe will be pushed so the joints are always being compressed.
8. Casing spacers will be spaced a maximum of 2 feet on each side of a pipe joint. Maximum distance between two spacers will be 4 feet. A spacer is required at least 1-foot inside each end of the carrier casing pipe. In no case will there be less than four (4) spacers no matter the length of casing. Spacers are shown for illustrative purposes only. Approved spacers will be installed according to Manufacturer's specifications.
10. Grout holes, when required for steel casing 36-inches and larger, will be welded closed. An asphaltic coating or other corrosion coating is required on the inside at the weld.



SECTION CUT

PIPE SIZE	OD M.J. BELL (AWWA C111 K ³)	PIPE BARREL OD	CASING SIZE	CASING SIZE ID	CASING SCHEDULE	WALL THICKNESS	RUNNER HEIGHT*	RUNNERS REQ'D	PART NO.
6"	11.12"	6.90"	16"	15.25"	STD.	.375	2.95"	5	MIDI-M
8"	13.37"	9.05"	18"	17.25"	STD.	.375	2.95"	6	MIDI-M
12"	17.88"	13.20"	22"	21.25"	STD.	.375	3.54"	9	MIDI-M
16"	22.50"	17.40"	28"	27.25"	STD.	.375	3.94"	4	MEDI-L
20"	27.00"	21.60"	32"	31.25"	STD.	.375	3.94"	5	MEDI-L
24"	31.50"	25.80"	36"	35.25"	STD.	.375	3.94"	5	MEDI-L
30"	39.12"	32.00"	42"	41.25"	STD.	.500	4.33"	7	GKO-XL
36"	46.00"	38.30"	48"	47.25"	STD.	.500	4.33"	9	GKO-XL
48"	60.00"	50.80"	66"	65.25"	STD.	.750	4.92"	11	GKO-XL

*Height of the skid to extend a minimum of 1/2-inch above the O.D. of the pipe bell or gland.
** Casing 36" and greater used in trenchless operations requires grout holes, MAG 602.3

W-1-300 - STEEL CARRIER CASING for WATER MAINS

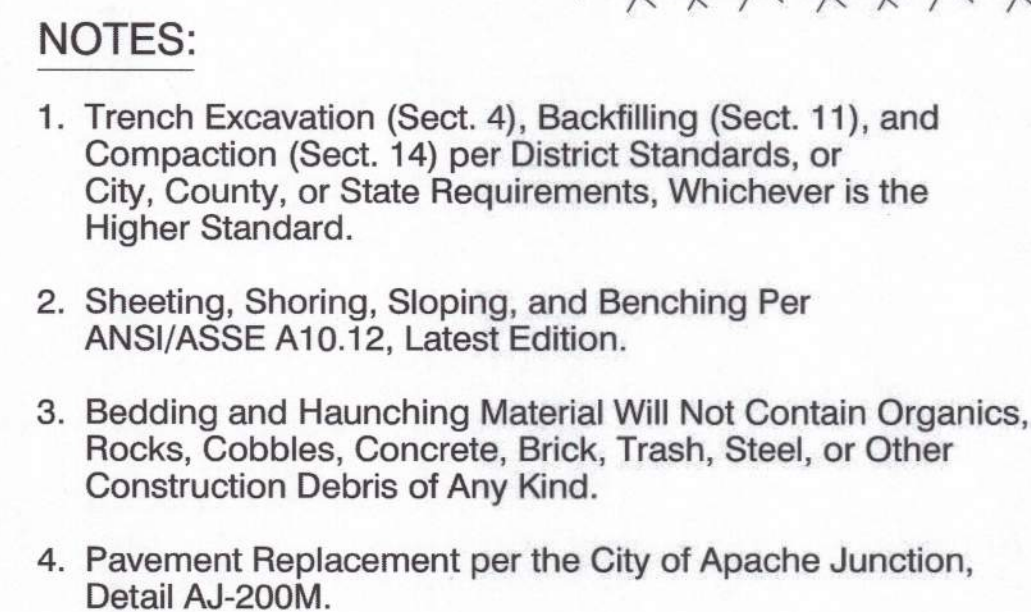


TASK	NAME	DATE
DESIGN:	C.BRIGGS	04/26
DRAWN:	C.BRIGGS	04/26
CHECKED:	M.LOGGINS	04/26
APACHE JUNCTION WATER DISTRICT 300 E. SUPERSTITION BLVD. BUILDING D APACHE JUNCTION, ARIZONA 85119		

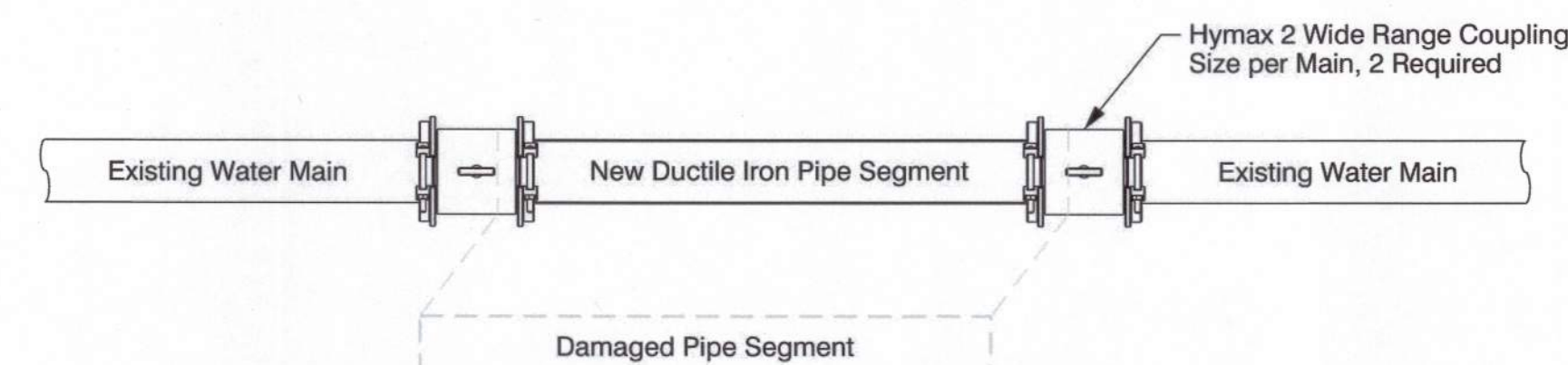
ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

WATER DETAILS AND NOTES
TOMAHAWK ROAD

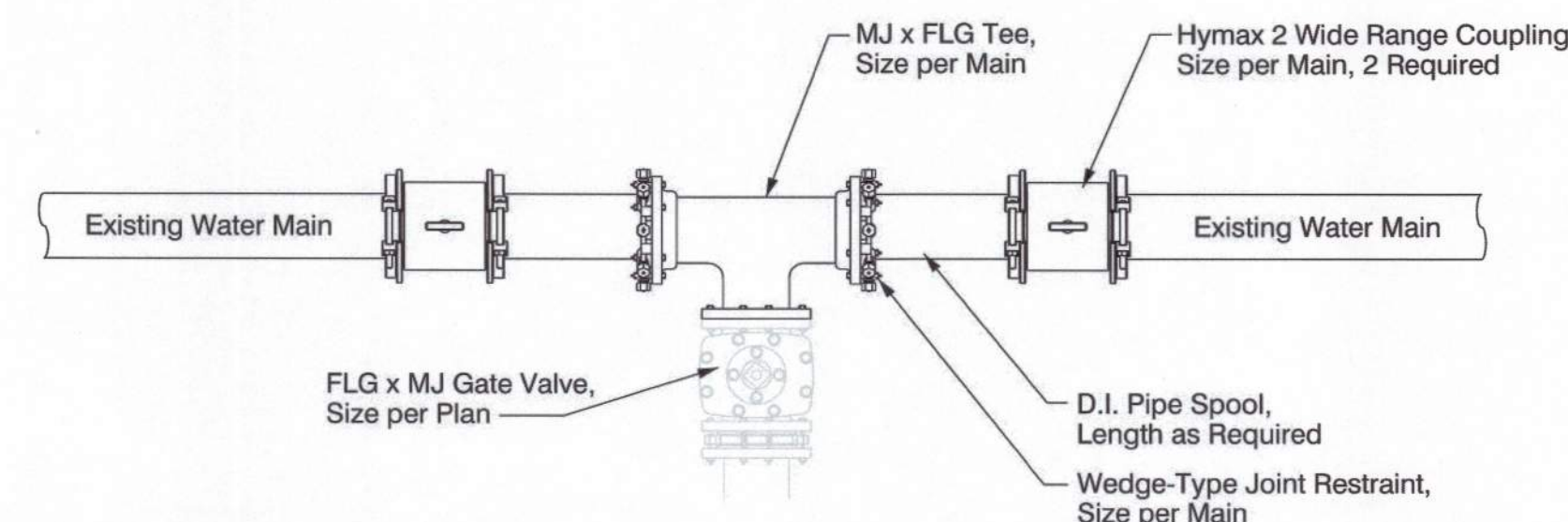
ROUTE: US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL I.D. NO. APJ-0(222)T	SHEET NO. 87	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST:	LOCATION: US 60 Tomahawk Road & Southern Widening						DWG No.
STRUCTURE NO.:	TRACS NO. T0411-01C		WATER RELOCATIONS			W2 of W11	



Nominal Pipe Size	Min. Trench Width	Max. Trench Width
6-Inch	18-Inches	30-Inches
8-Inch	20-Inches	32-Inches
12-Inch	24-Inches	36-Inches
16-Inch	28-Inches	40-Inches
24-Inch	36-Inches	48-Inches
30-Inch	42-Inches	54-Inches
36-Inch	48-Inches	60-Inches

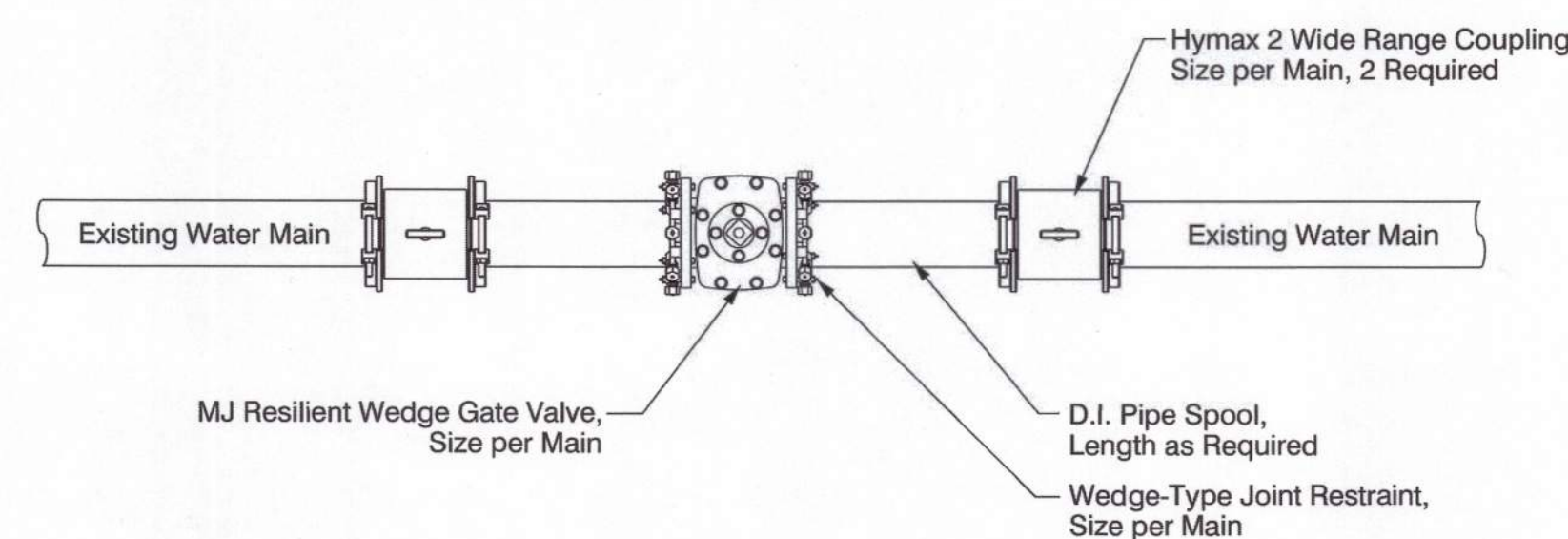


TYPE A - SECTIONAL PIPE REPAIR



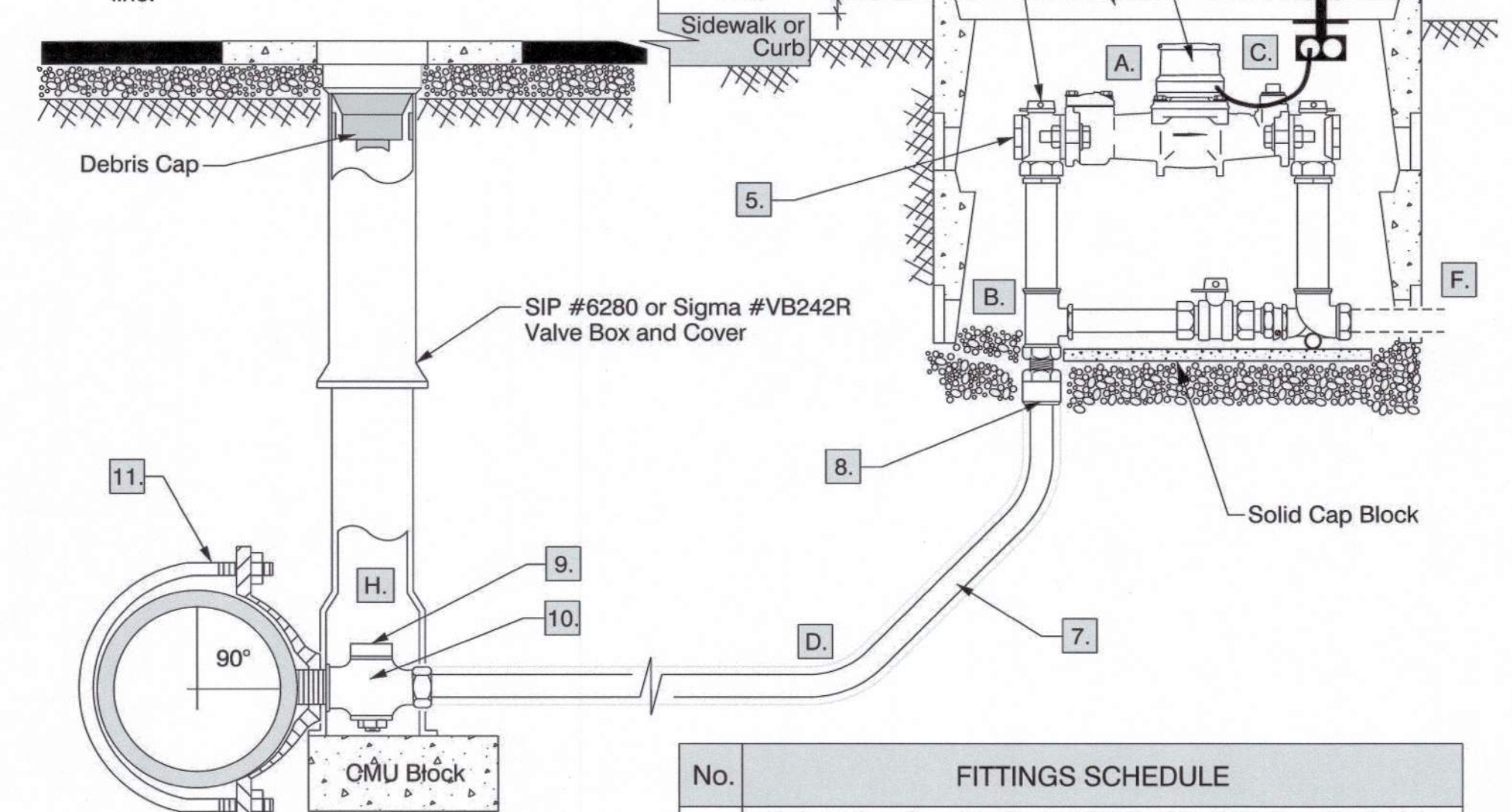
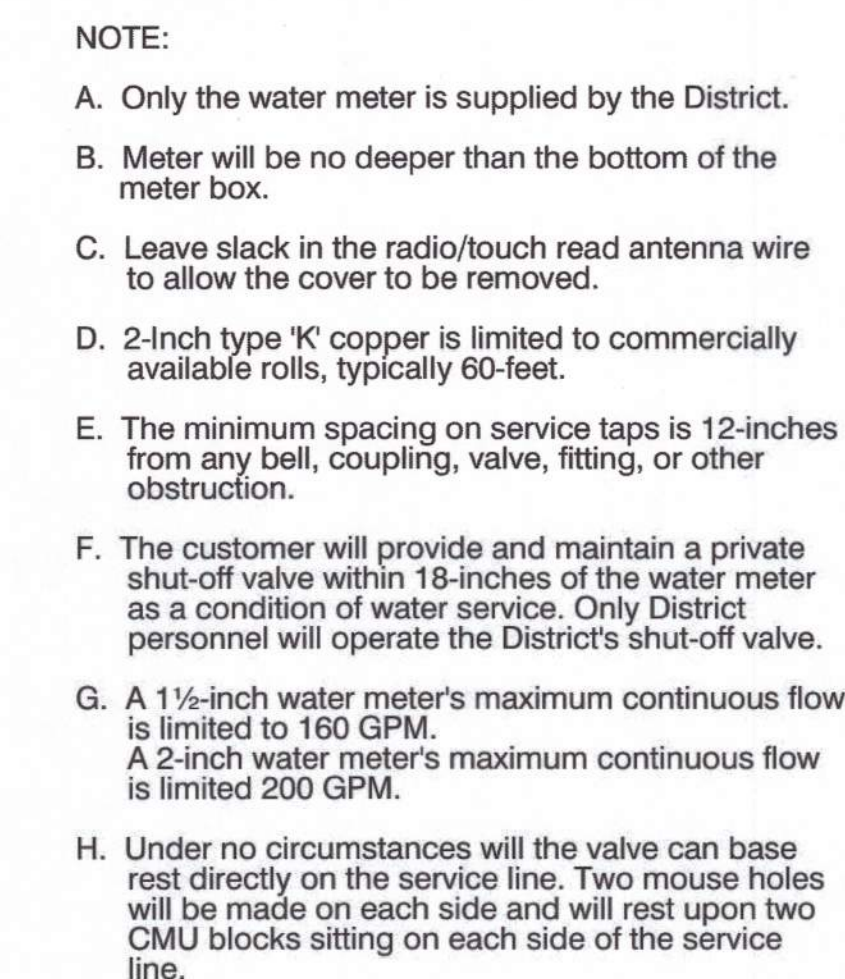
TYPE B - SECTIONAL TEE or CROSS INSERTION

The concept for a cross is the same as a tee



TYPE C - SECTIONAL GATE VALVE INSERTION

- NOTES: TYPE C - SECTIONAL GATE VALVE INSERTION
- Length of the new water main segment will be determined by the size and location of the damaged area. It may be necessary to go further on one or both sides to find pipe in good condition. Additional fittings and pipe may be required.
 - All fittings that will come into contact with potable water will be disinfected prior to installation per AWWA C651 and ADEQ Bulletin No. 8.
 - If polywrap is present, the new segment of pipe and fittings will be wrapped per Detail W-1-301.
 - Gate valve box and cover, Detail W-1-405.
 - Pipe bedding and backfill, W-1-100 and Section 11.
 - Pavement replacement per jurisdiction having authority as specified in the encroachment permit.



SADDLE TAP CONNECTION TO DUCTILE IRON PIPE

No.	FITTINGS SCHEDULE
8.	Straight Coupling, Mueller H1542BN, CC x MIP 2" or 2" x 1-1/2"
9.	2" Brass Square Nut Wrench Adapter, Mueller B-20299
10.	2" Ball Curb Valve, Mueller B-25122N, CC x MIP
11.	Bronze Service Saddle, Mueller BR2B Series, Double Strap, FIP Thread

TASK	NAME	DATE
DESIGN:	C.BRIGGS	04/26
DRAWN:	C.BRIGGS	04/26
CHECKED:	M.LOGGINS	04/26

APACHE JUNCTION WATER DISTRICT
300 E. SUPERSTITION BLVD.
BUILDING D
APACHE JUNCTION, ARIZONA 85119

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

WATER DETAILS AND NOTES
TOMAHAWK ROAD

ROUTE: US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL I.D. NO. APJ-0(222)T	SHEET NO. 88	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST:	LOCATION: US 60 Tomahawk Road & Southern Widening						DWG No.
STRUCTURE NO.:	TRACS NO. T0411-01C		WATER RELOCATIONS			W3 OF W11	

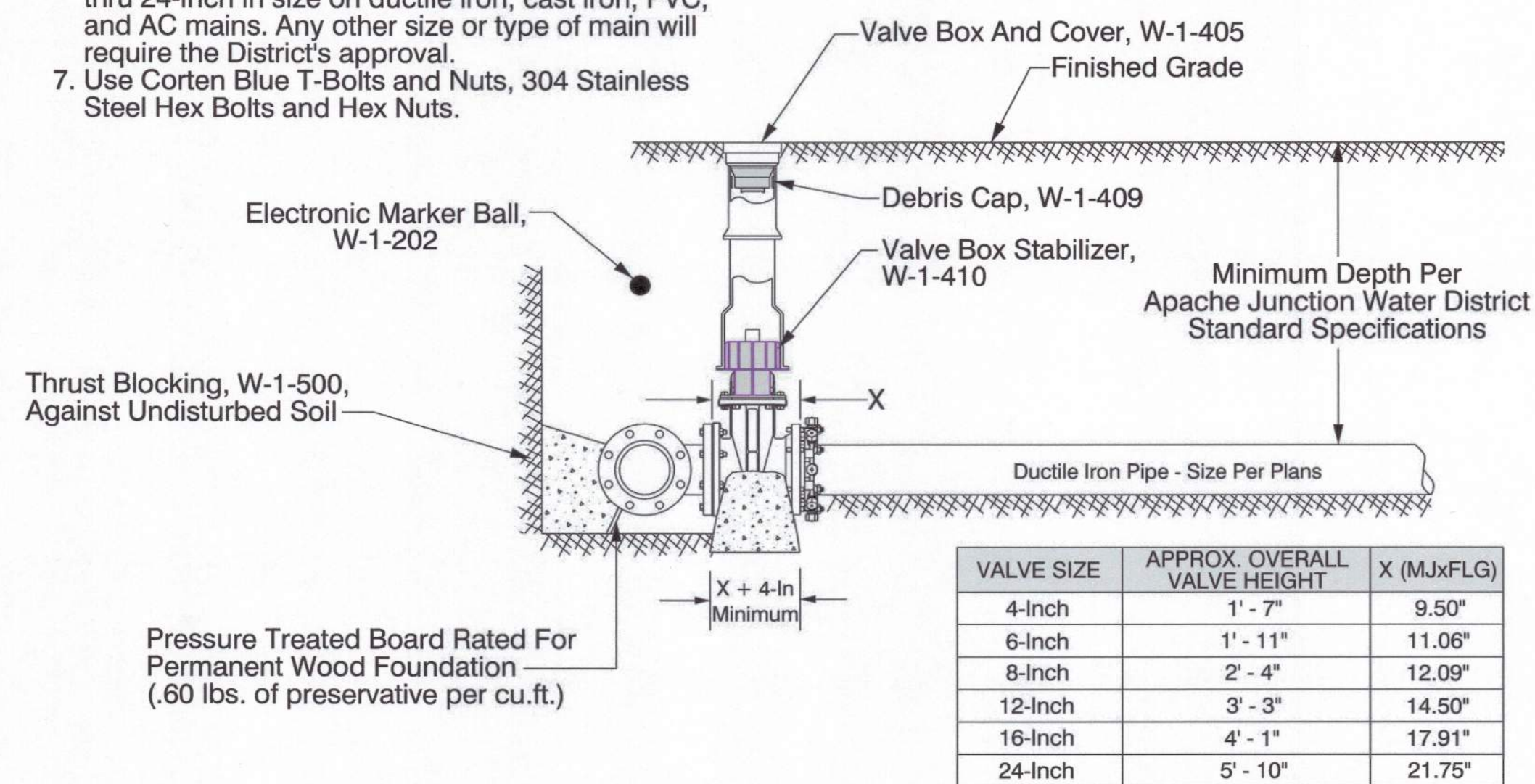


VALVE SIZE	X (MJxFLG)
4-Inch	9.12"
6-Inch	11.12"
8-Inch	13.37"
12-Inch	17.94"
16-Inch	22.56"
24-Inch	31.58"

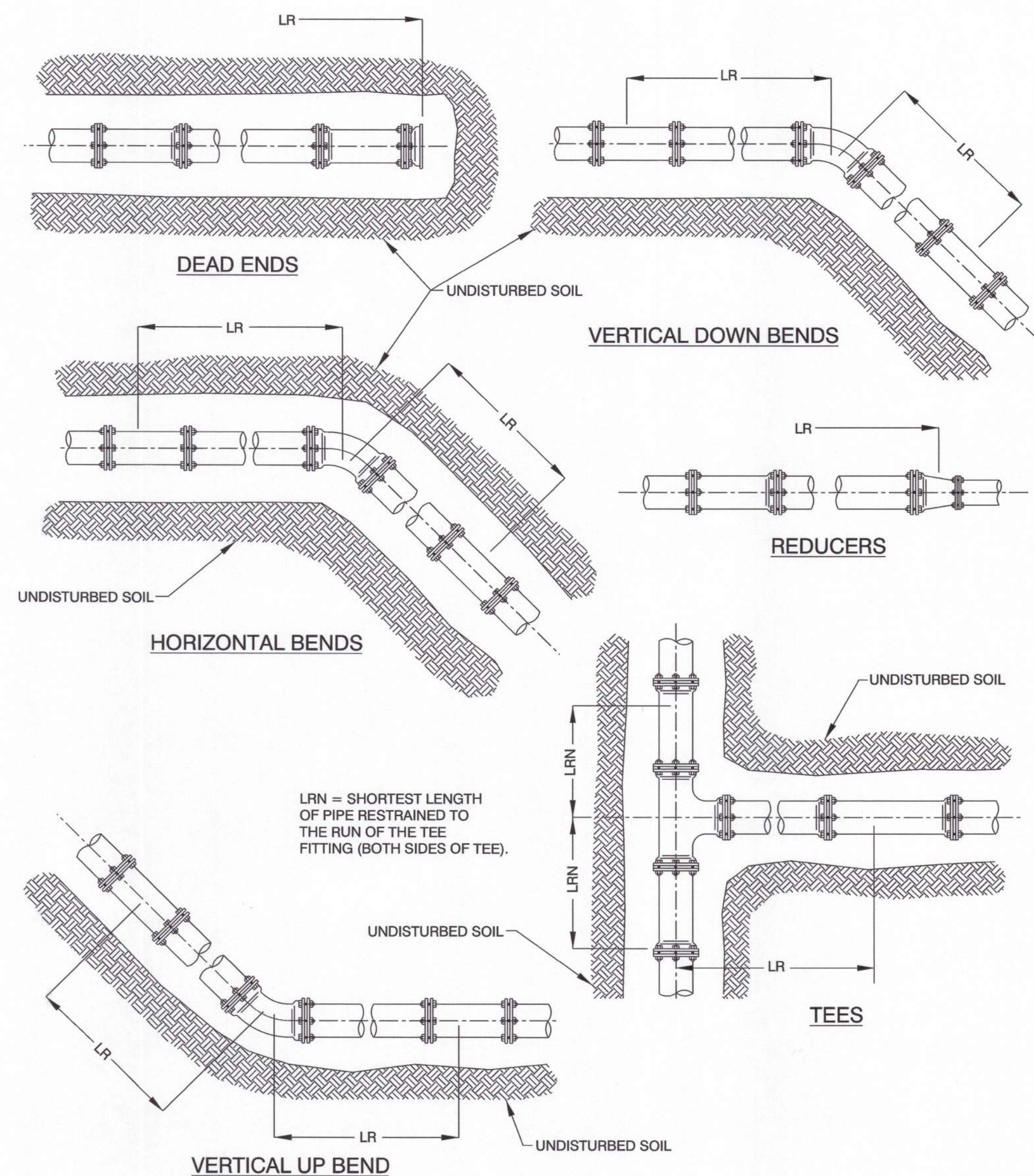
NOTE:

1. All flanges, bolts, and nuts will be kept free of concrete.
2. Air pressure test the tapping sleeve before the live tap is made.
3. Polywrap all new pipe and fittings.
4. Size on size taps require a 1/2-Inch undersize cutter.
5. Tapping sleeve to be placed a minimum of 18-Inches from any bell, coupling, valve, fitting, or other obstruction.
6. This detail covers tapping sleeves 4-Inch thru 24-Inch in size on ductile iron, cast iron, PVC, and AC mains. Any other size or type of main will require the District's approval.
7. Use Corten Blue T-Bolts and Nuts, 304 Stainless Steel Hex Bolts and Hex Nuts.

MAIN SIZE	Tapping Valve ID AWWA Standard	Tapping Machine Shell Cutter OD
4-Inch	4¼ Inch	3½ Inch
6-Inch	6¾ Inch	5½ Inch
8-Inch	8¾ Inch	7½ Inch
12-Inch	12¼ Inch	11½ Inch
16-Inch	16¼ Inch	14½ Inch
24-Inch	24¼ Inch	18½ Inch



W-1-404 - 4-INCH THROUGH 24-INCH DUCTILE IRON
TAPPING SLEEVE and VALVE



**W-1-502 & W-2-502 - RESTRAINED LENGTHS TABLE for NEW DUCTILE IRON
and C909 PVC WATER MAINS with POLYETHYLENE WRAP**

RESTRAINED LENGTHS (LR) in FEET for NEW DUCTILE IRON and
C909 PVC WATER MAINS with POLYETHYLENE WRAP

NOMINAL PIPE SIZE INCHES	HORIZONTAL BENDS			TEES		DEAD ENDS	REDUCED	
	90°	45°	22-1/2°	LRN=0'	LRN=10'		SIZE	L
4	26	11	5	69	18	72	6x4	46
6	36	15	7	99	47	102	8x4	84
8	47	19	9	130	78	133	8x6	49
10	56	23	11	157	103	159	12x4	11
12	65	27	13	185	131	187	12x6	93
14	74	31	15	211	156	214	12x8	68
16	82	34	16	238	183	241	16x6	136
18	90	37	18	263	207	266	16x8	120
20	98	41	20	289	233	292	16x12	70
24	113	47	22	337	280	340	24x8	205
30*	170	70	34	394	199	411	24x12	172
36*	201	83	40	438	239	493	24x16	128

* Calculated Using <https://dipra.org> Thrust Restraint Calculator.

NOMINAL PIPE SIZE INCHES	VERTICAL OFFSETS					
	90° BEND FITTINGS		45° BEND FITTINGS		22-1/2° BEND FITTINGS	
	DOWN BEND	UP BEND	DOWN BEND	UP BEND	DOWN BEND	UP BEND
4	72	26	30	11	14	5
6	102	36	42	15	20	7
8	133	47	55	19	26	9
10	159	56	66	23	32	11
12	187	65	77	27	37	13
14	214	74	89	31	42	15
16	241	82	100	34	48	16
18	266	90	110	38	53	18
20	292	98	121	41	58	20
24	340	113	141	47	68	22
30*	411	170	170	70	82	34
36*	493	201	204	83	98	40

* Calculated Using <https://dipra.org> Thrust Restraint Calculator.

NOTES:

1. All Joints Within The Specified Length, LR, Must Be Restrained. All Lengths Are Given in Feet.
2. The Maximum Test Pressure Will Not Exceed 200 psi
3. The Minimum Depth Of Bury Is 3-Feet To Top Of Pipe for 8" and Smaller. 4-Feet for 12" and Larger.
4. Restrained Lengths May Be Reduced When Supported By Engineering Calculations.
5. Thrust Restraint Calculators Available Online at: <https://dipra.org>, <https://ebaa.com>, <https://pe.mcwane.com>, and <http://starpipeproducts.net>.
6. Assumptions Are Made Using The Above Mentioned Thrust Restraint Calculators, Such As: Type 3 Laying Conditions, 1.5 Safety Factor, 5-Foot of Cover, Test Pressure of 150 psi, And A GP Soil Type ("Casa Grande". I.E. High Clay And Salt).

TASK	NAME	DATE
DESIGN:	C.BRIGGS	04/26
DRAWN:	C.BRIGGS	04/26
CHECKED:	M.LOGGINS	04/26

APACHE JUNCTION WATER DISTRICT
300 E. SUPERSTITION BLVD.
BUILDING D
APACHE JUNCTION, ARIZONA 85119

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

WATER DETAILS AND NOTES
TOMAHAWK ROAD

ROUTE:
US 60

MILEPOST:

STRUCTURE NO.:

F.H.W.A. Arizona Division

STATE
ARIZ

PROJECT NO.

T0411-01C

FEDERAL I.D. NO.

APJ-0(222)T

SHEET
NO.

TOTAL SHEETS:	
------------------	--

RECORD DRAWING

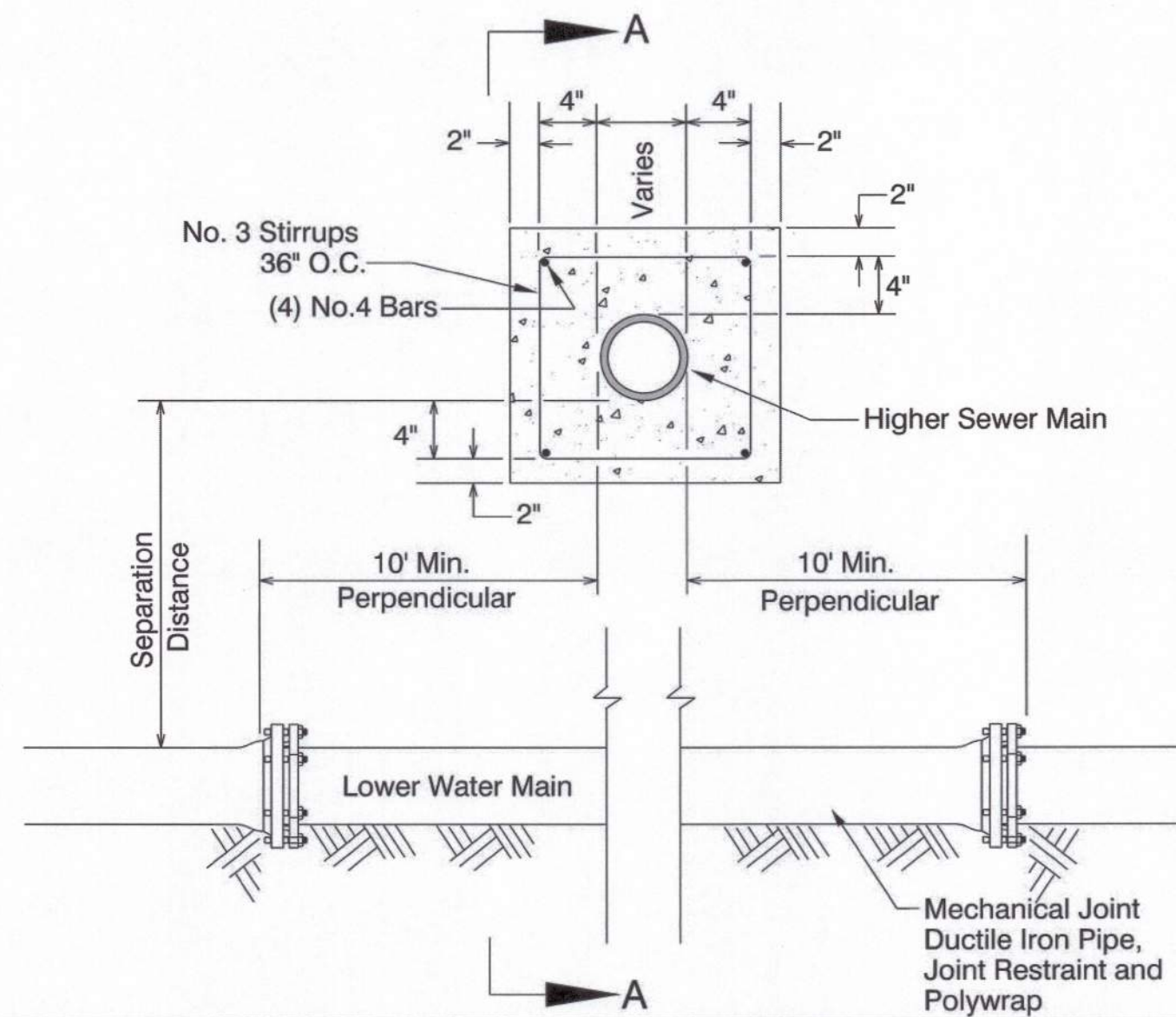
LOCATION:	US 60 Tomahawk Road & Southern Widening
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TRACS NO. T0411-01C

WATER RELOCATIONS

DWG No.

W5 OF W11

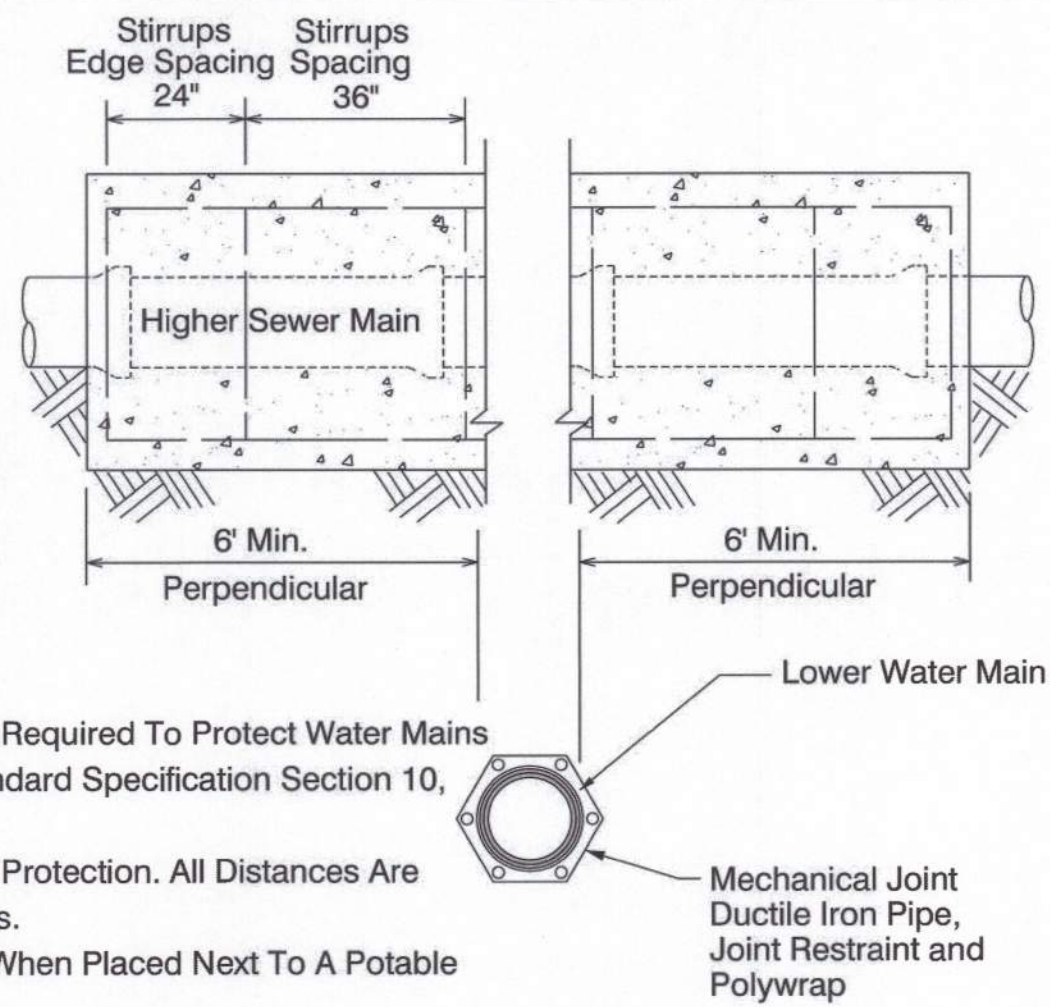


ADEQ Bulletin No. 10, Chapter 7, Section F,
Protection of Water Mains Near Sewers, Item 3,
Vertical Separation:

When a sewer crosses a water pipe at a point at which the sewer is 2 feet or more below the water pipe, no extra protection is required. At all other crossings the sewer pipe shall be constructed of ductile iron pipe with mechanical joints, or approved equal, for a distance of at least 6 feet in each direction measured perpendicular to the water line. As an alternate, the sewer shall be encased in concrete of 6 inch minimum thickness for the same distance.

NOTES:

1. Class 'C' Concrete, Per Section Mag 725
2. Separation Distances And/or Other Extra Protection Are Required To Protect Water Mains From Contamination By Sanitary Sewer Mains. See Standard Specification Section 10, "Protection Of Water Mains Near Sewers".
3. See Cross Section Detail For Limits Of Separation/Extra Protection. All Distances Are Measured Perpendicular From The Outside Of The Pipes.
4. Reclaimed Water Will Be Considered A Sanitary Sewer When Placed Next To A Potable Water Main.
5. Concrete Encasement of the Water Main is not Permitted.



SECTION A-A

**W-3-504 - WATER and SANITARY SEWER ENCASEMENT
for PIPE CROSSINGS**

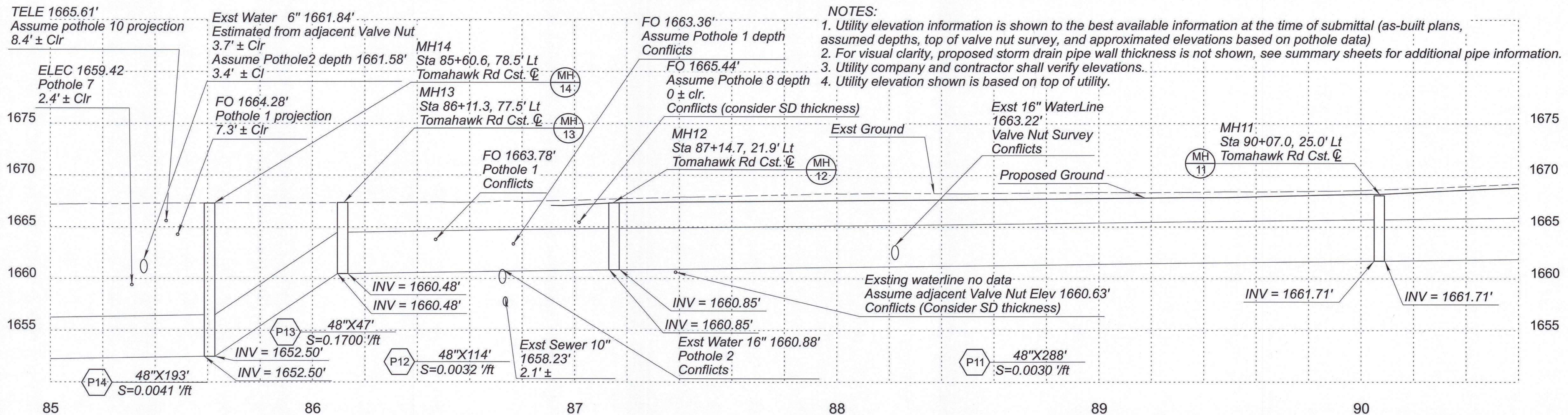
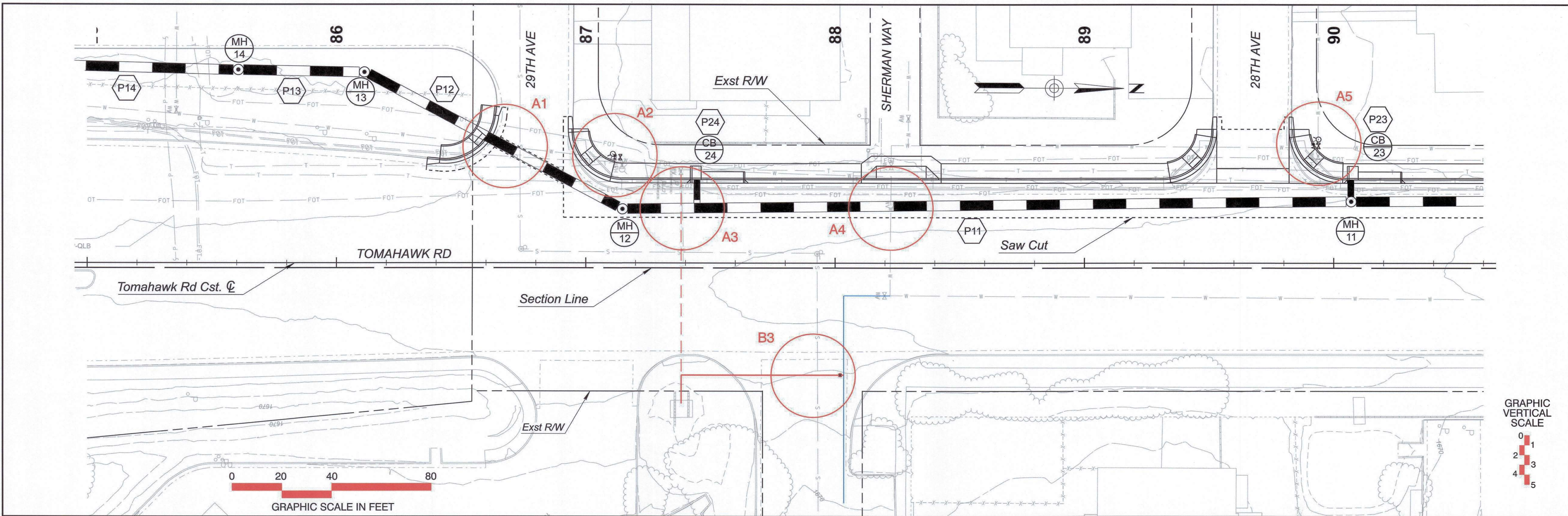


TASK	NAME	DATE
DESIGN:	C.BRIGGS	04/26
DRAWN:	C.BRIGGS	04/26
CHECKED:	M.LOGGINS	04/26

APACHE JUNCTION WATER DISTRICT
300 E. SUPERSTITION BLVD.
BUILDING D
APACHE JUNCTION, ARIZONA 85119

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	WATER DETAILS AND NOTES TOMAHAWK ROAD
---	---

ROUTE: US 60	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL I.D. NO. APJ-0(222)T	SHEET NO. 91	TOTAL SHEETS 99	RECORD DRAWING
MILEPOST:	LOCATION: US 60 Tomahawk Road & Southern Widening						DWG No.
STRUCTURE NO.:	TRACS NO. T0411-01C		WATER RELOCATIONS			W6 OF W11	



	NAME	DATE
DESIGN	C. YANG	03/26
DRAWN	C. YANG	03/26
CHECKED	G. BAMBAUER	03/26

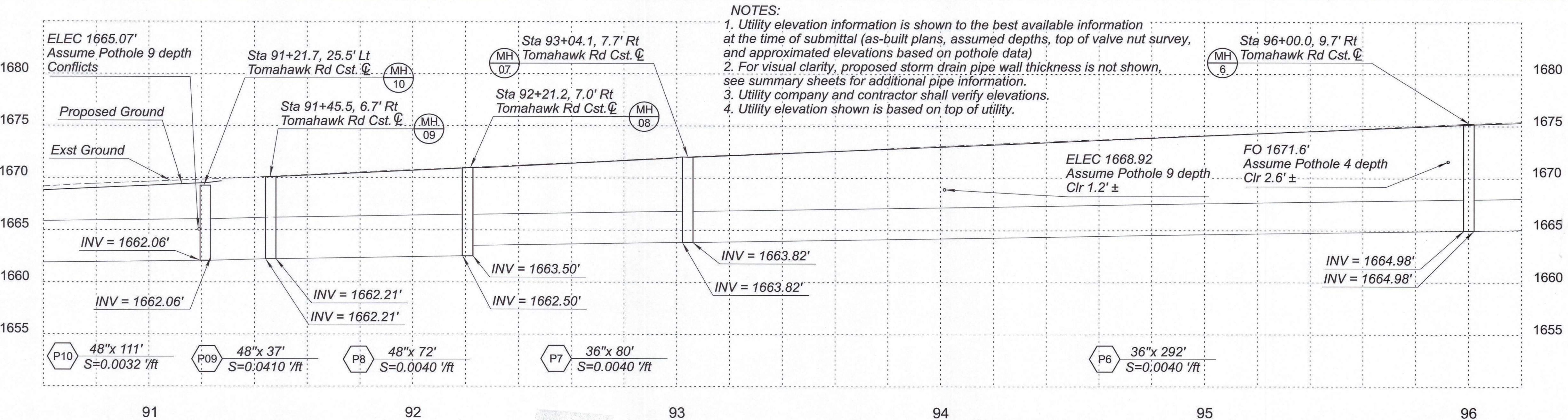
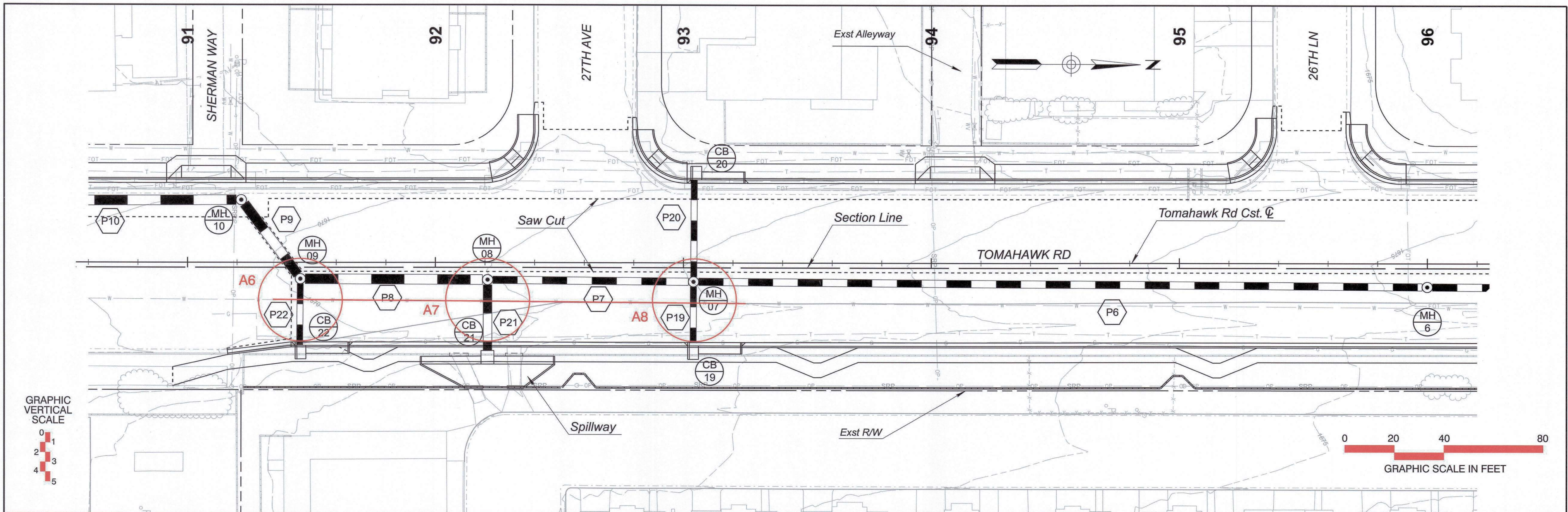


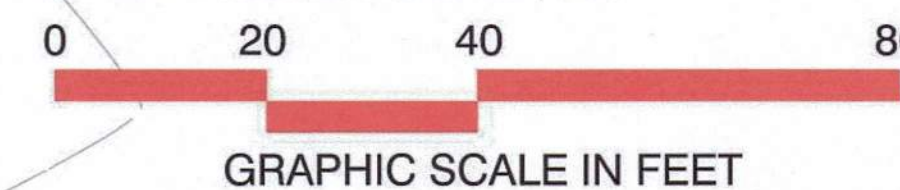
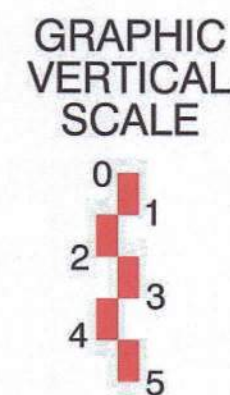
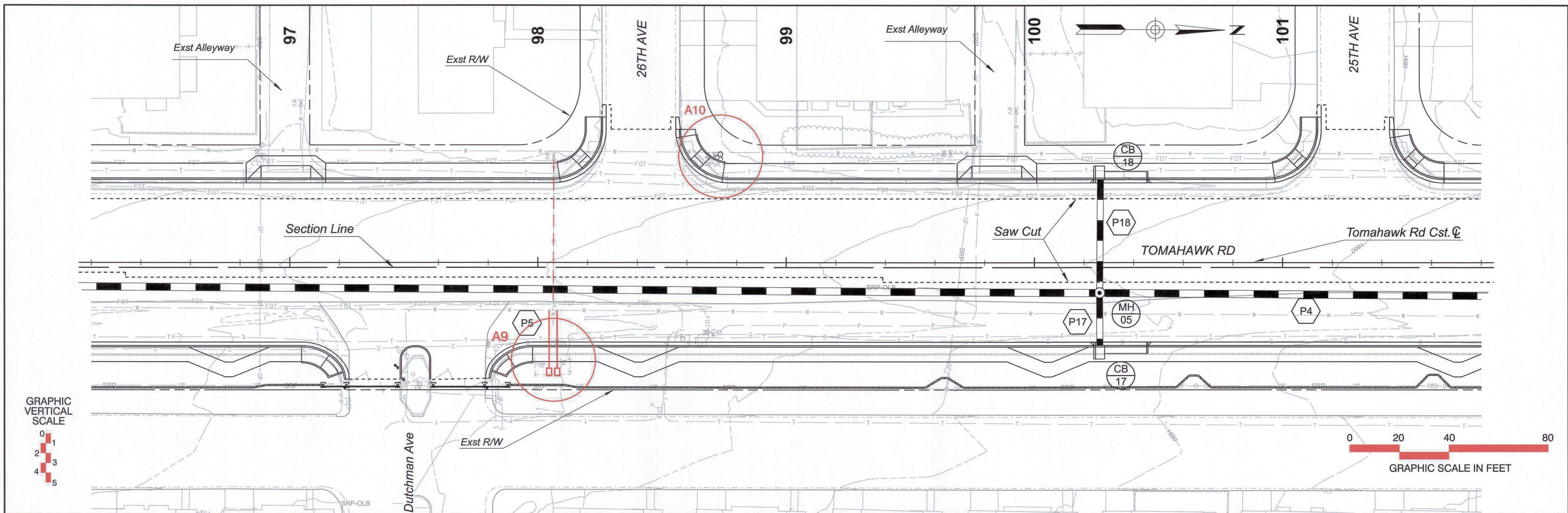
WSP USA Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION
DRAINAGE PLAN & PROFILE SHEET
TOMAHAWK RD
STA 85+00 TO 90+60

ROUTE
US 60
MILEPOST
STRUCTURE NO.

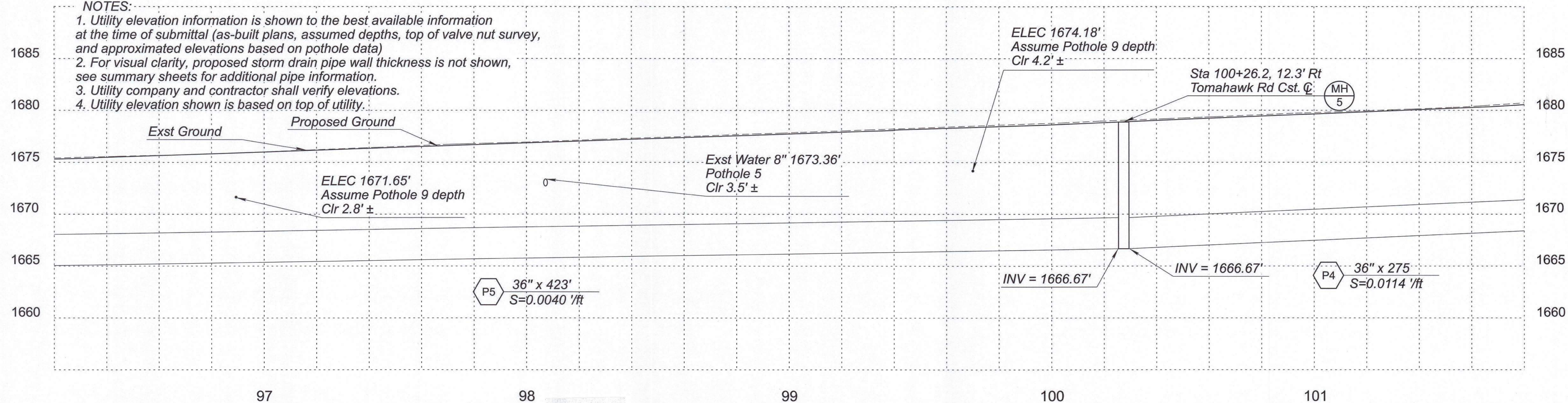
F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 92	TOTAL SHEETS 99	RECORD DRAWING
LOCATION US 60 Tomahawk Rd & Southern Ave Widening						DWG No. D-01.02
TRACS NO. T0411-01C		WATER RELOCATIONS			W7 OF W11	





NOTES:

1. Utility elevation information is shown to the best available information at the time of submittal (as-built plans, assumed depths, top of valve nut survey, and approximated elevations based on pothole data)
2. For visual clarity, proposed storm drain pipe wall thickness is not shown, see summary sheets for additional pipe information.
3. Utility company and contractor shall verify elevations.
4. Utility elevation shown is based on top of utility.



DESIGN	NAME	DATE
DRAWN	C. YANG	03/26
CHECKED	G. BAMBAUER	03/26

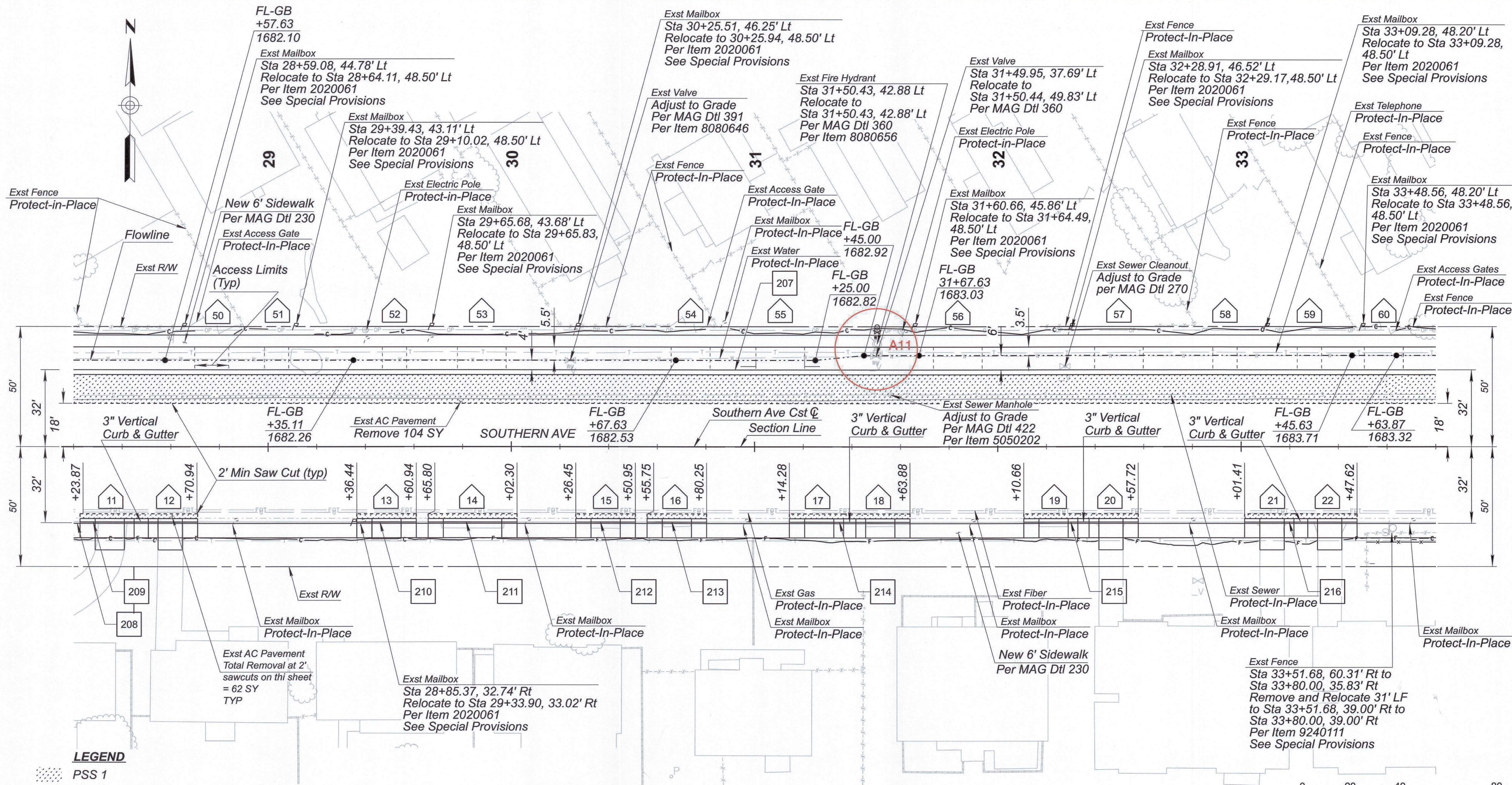
WSP USA Inc.
1230 W. Washington St.
Suite 600
Tempe, AZ 85281

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION
DRAINAGE PLAN & PROFILE SHEET
TOMAHAWK RD
STA 96+20 TO 101+80

ROUTE
US 60
MILEPOST
STRUCTURE NO.

STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	T0411-01C	APJ-0(222)T	94	99	
LOCATION US 60 Tomahawk Rd & Southern Ave Widening					DWG No. D-01.04
TRACS NO. T0411-01C					W9 OF W11

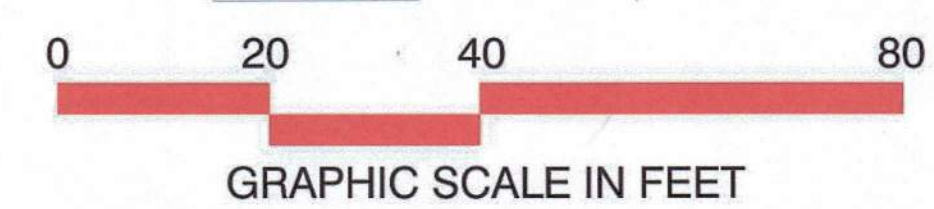
WATER RELOCATIONS



LEGEND

- PSS 1
- Removal/New Curb & Gutter
See Curb & Gutter Summary Sheets
- New Driveway
See Detail A
- FL-GB Flowline Grade Break

Notes:
 1. All existing manholes, valves, and concrete collars shall be protected in place during AC pavement removal and paving placement.

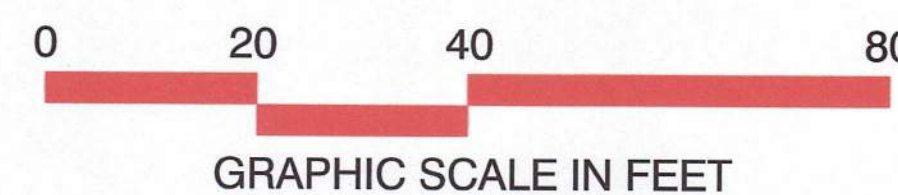
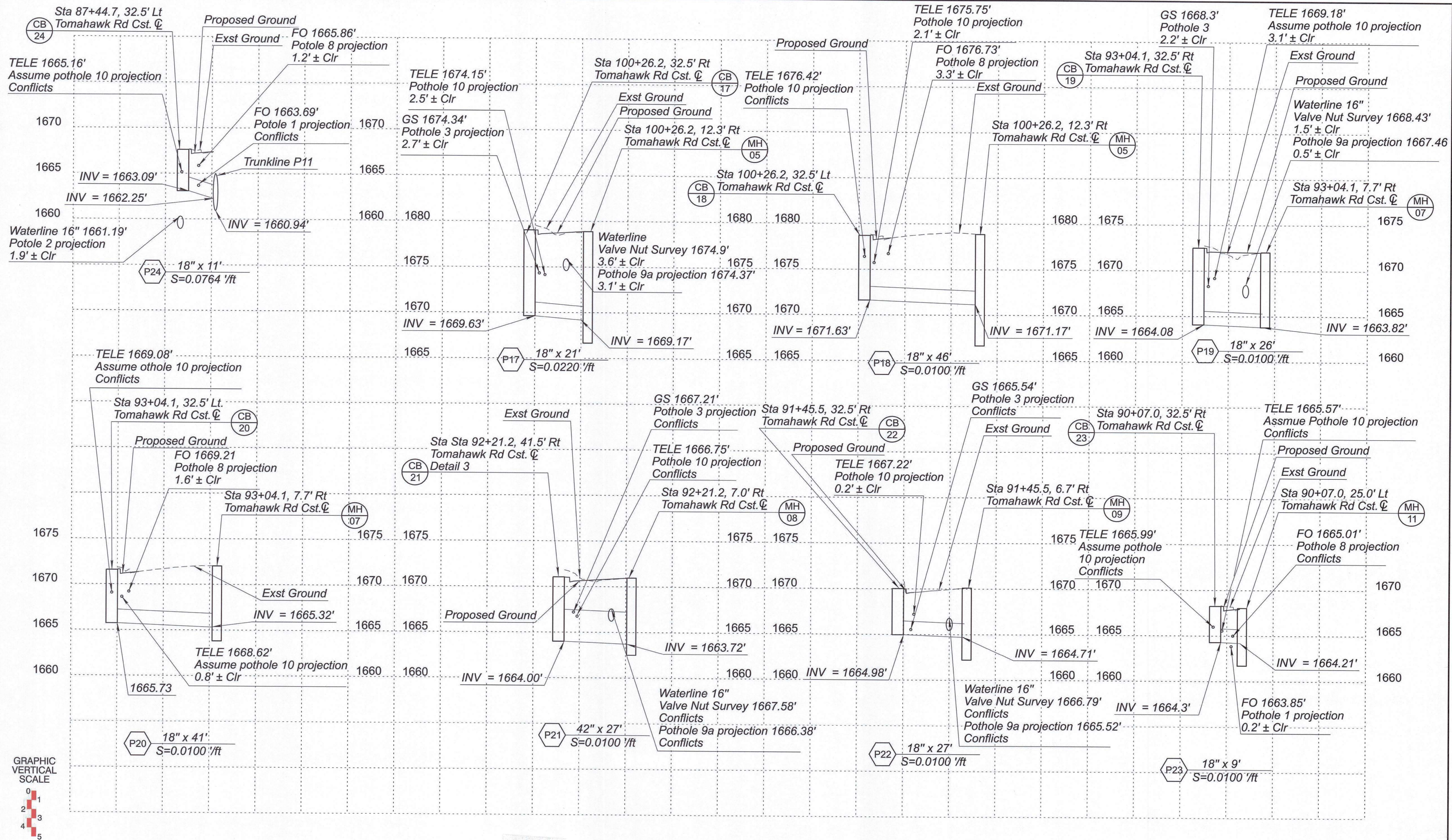


	NAME	DATE
DESIGN	N. EKI BWANGOY	03/26
DRAWN	N. EKI BWANGOY	03/26
CHECKED	M. MEDINA	03/26

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

PLAN SHEET
 SOUTHERN AVE
 STA 28+20 TO 33+80

ROUTE	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	ARIZ.	T0411-01C	APJ-0(222)T	95	99	
LOCATION	TRACS NO.	WATER RELOCATIONS	DWG NO.			
Mariposa Rd to Tomahawk Rd & Southern Ave to US 60 Widening	T0411-01C	W10 OF W11	C-01.07			



	NAME	DATE
DESIGN	C. YANG	03/26
DRAWN	C. YANG	03/26
CHECKED	G. BAMBAUER	03/26

wsp WSP USA Inc.
1220 W. Washington St.
Suite 600
Tempe, AZ 85281

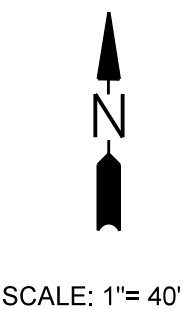
ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DRAINAGE PROFILE SHEET
TOMAHAWK RD

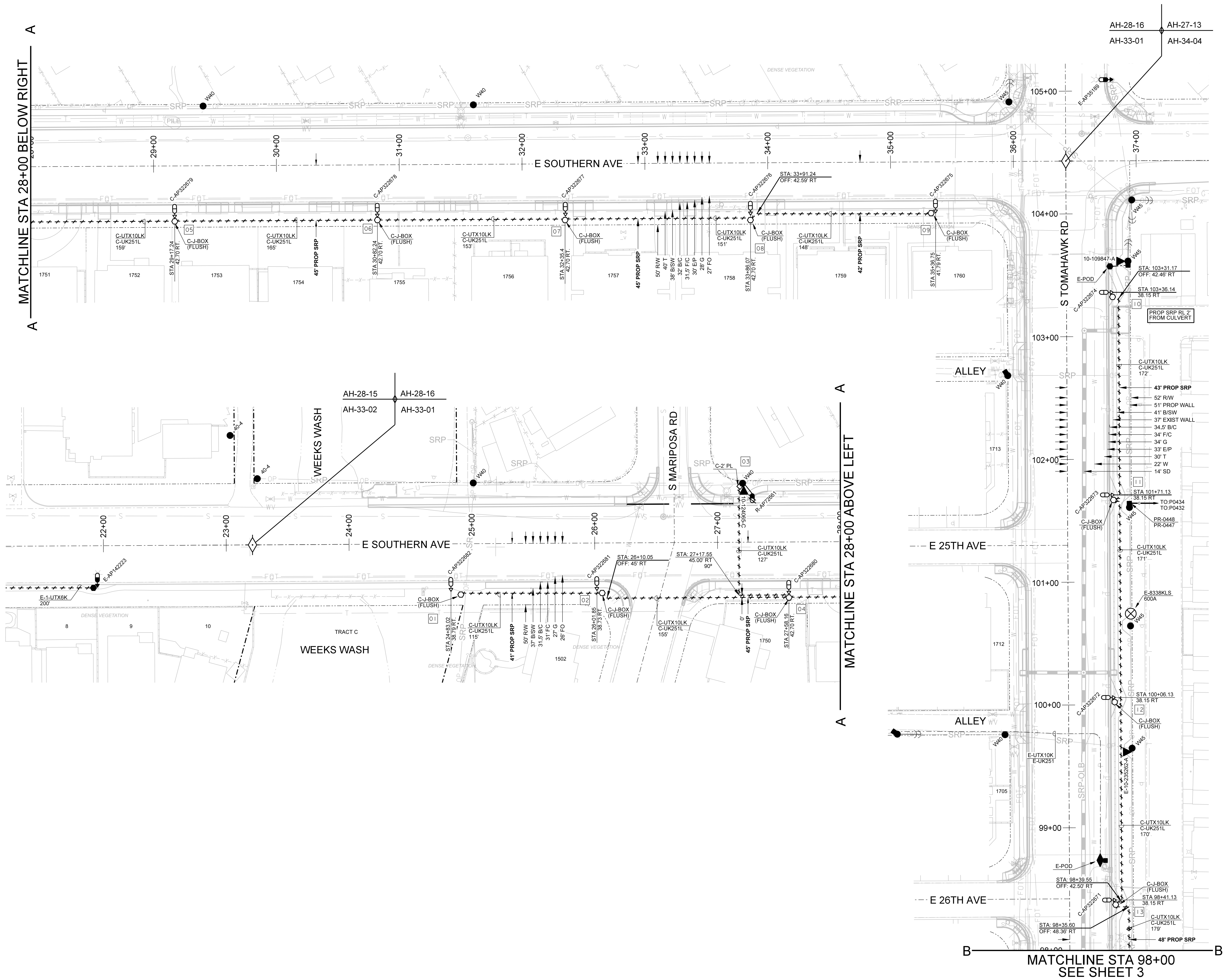
ROUTE
US 60
MILEPOST
STRUCTURE NO.

F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. T0411-01C	FEDERAL ID NO. APJ-0(222)T	SHEET NO. 96	TOTAL SHEETS 99	RECORD DRAWING
LOCATION US 60 Tomahawk Rd & Southern Ave Widening						DWG No. D-02.01
TRACS NO. T0411-01C			WATER RELOCATIONS			W11 OF W11

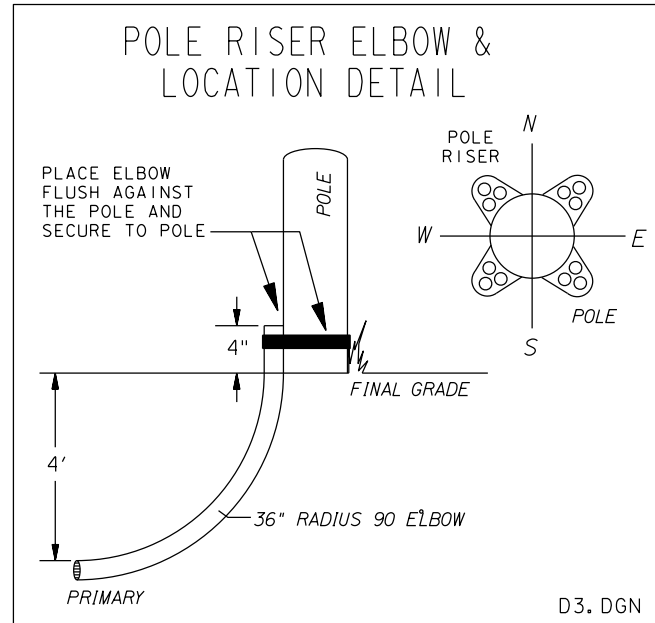
MAINLINE



A MATCHLINE STA 28+00 BELOW RIGHT



A MATCHLINE STA 28+00 ABOVE LEFT



CONTACTS:
DESIGN CONSULTANT:
TERESA MORENO-GRIMALDO
MOBILE: (602) 885-2015
DESIGN TECH:
MICHAEL CAMPBELL
PHONE: (602) 236-3667
PROJECT LEADER:
WILLIAM HOWARD
MOBILE: (602) 349-6945
INSPECTIONS: (602) 236-0436

NATURAL GAS YES ☐ NO ☐	
JOB NAME CUS UE BA AP TOMAHAWK RD STLTS	
ADDRESS/LOCATION TOMAHAWK RD AND SOUTHERN AVE, APAC, APACHE JUNCTION	
CONTACT RAQUEL SCHATZ	PHONE 480-474-8549
BILLING ACCT NO.	
FIS JO	MAP 1/4 NE S 34 T 1N R 8E
40/ACRE AH-34-04	COORDS 44 1/16E 0 15/16N
AMP NO T3612935	AMP VERSION
COST CENTER 22660	
ROUTING CODE DD1.5CSI.E+0	
SHEET NO. 98 TOTAL SHEETS 99	
SHEET NUMBER 2 OF 3	

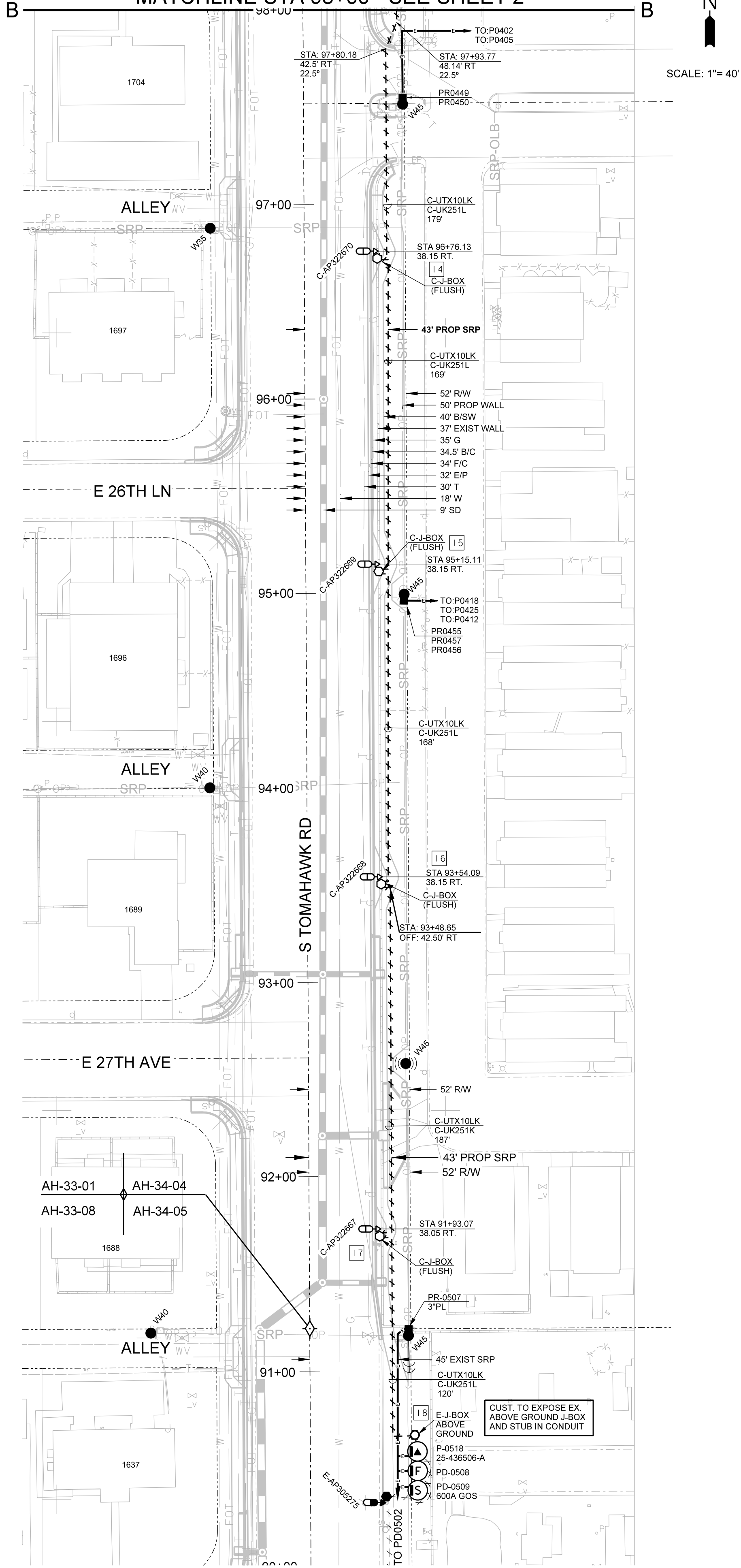


SRP PROPRIETARY

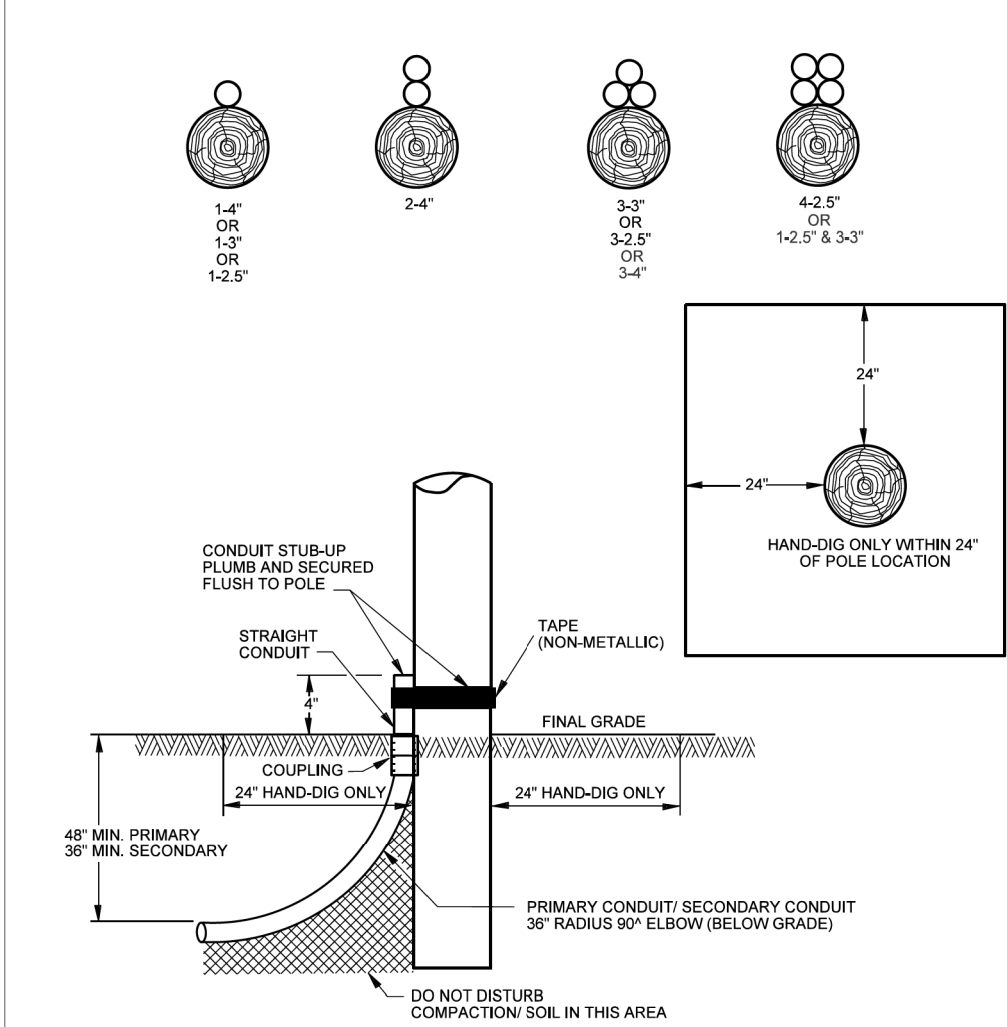
FOR CONSTRUCTION JULY 17, 2026 PRINTED BY R&S

MAINLINE

MATCHLINE STA 98+00 - SEE SHEET 2



Required Conduit Configuration to fit Riser Boots
(The quadrant configuration for the pole riser will be specified by the Designer)



Electric Service Specifications	REV. DATE: 06/01/09	ISSUE DATE: 06/01/09
SRP PROPRIETARY MATERIAL	TRENCHING AND CONDUIT POLE RISER ELBOW AND LOCATION	REV. DATE: 11/11/09
	6-5	APPROVAL: J. L. HARRIS
		85106310.DGN

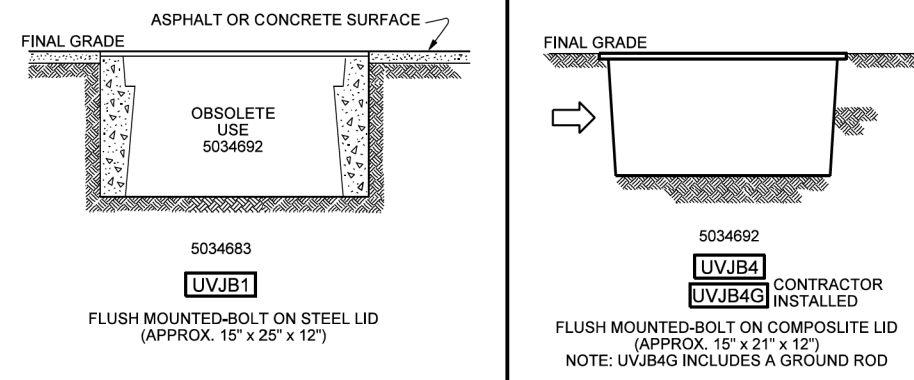
- NOTES
- CUSTOMER TO STAKE LIGHT LOCATION PER APPROVED MUNICIPAL PLAN.
 - GRADE STAKE TO BE WITHIN 2 FEET OF J-BOX LOCATION. CUSTOMER TO STAKE J-BOX LOCATION. AVOID CONFLICT WITH SIDEWALK, LANDSCAPING, ETC.
 - GROUND ROD TO BE INSTALLED FOR EACH STREET LIGHT LOCATION PER STANDARDS ON PAGE 5-1-1.
 - SEE SONOTUBE INSTALLATION DETAIL, PAGE 9-1-1, IF APPLICABLE.
 - #6 BARE COPPER GROUND WIRE TO BE ATTACHED FROM GROUNDING LUG ON STREET LIGHT POLE TO GROUND ROD IN J-BOX.
 - J-BOX MAY BE POSITIONED BEHIND THE POLE. EXCEPT IN THE CITIES OF CHANDLER AND GILBERT.
 - IF POLE IS IN PROXIMITY OF METALLIC APPARATUS SEE CONSTRUCTION STANDARDS. SECTION 5 TELEMETRIC SERVICE REQUIREMENTS NOTE 6.
 - FOR PEDESTAL MOUNTED POLES THE J-BOX IS LOCATED ABOVE THE WATER LINE. SEE POLE PLACEMENT, WATER RETENTION BASIN.
 - SOME CLEARANCE RESTRICTIONS APPLY TO J-BOX LOCATIONS NEAR TRANSFORMERS. SEE DESIGN AND MISCELLANEOUS. CLEAR AREA FOR CUSTOMER EQUIPMENT. ADJACENT TO TRANSFORMER.
 - FOR MUNICIPAL OWNED STREETLIGHT RELOCATIONS, THE DISTANCE FROM J-BOX TO STREETLIGHT MAY BE INCREASED UP TO 15'.

Outdoor Lighting Standards	REV. DATE: 06/01/09	ISSUE DATE: 11/11/09
SRP PROPRIETARY MATERIAL	DESIGN AND MISCELLANEOUS STREETLIGHT POLE J-BOX LOCATION DETAILS	REV. DATE: 01/18/09
	3-11-1	APPROVAL: J. L. HARRIS
		85106310.DGN

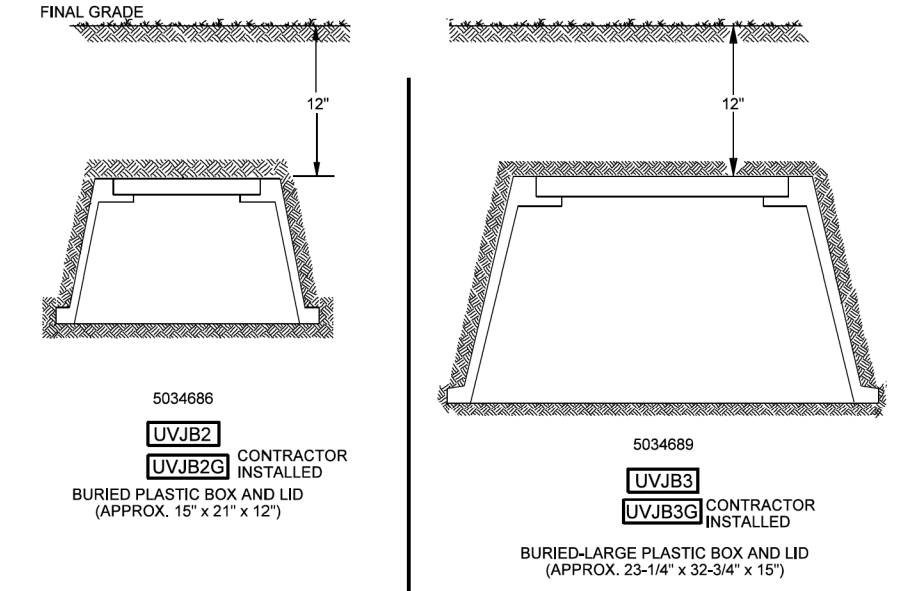
- NOTES
- Minimum vertical or horizontal separations between electric conduit systems and communications conduit systems (NESC Rule 320B):
 - Minimum clearance between an electric conduit system and other existing underground structures or utilities (Note 4):
 - Horizontal clearance for parallel structures (NESC Rule 320B):
 - An alternative to 12" of 85-90% compacted earth is a rigid support for the upper structure to prevent it from transferring any direct load to lower structure.
 - Conduit should be installed as far as practical from a water main to protect it from being undermined if the main breaks.
 - Municipals and other utilities may have additional requirements.

Electric Service Specifications	REV. DATE: 04/10/09	ISSUE DATE: 04/10/09
SRP PROPRIETARY MATERIAL	CLEARANCES UNDERGROUND CONDUIT	REV. DATE: 11/20/10
	5-3	APPROVAL: M. DUNN
		85061406.DGN

DETAILS

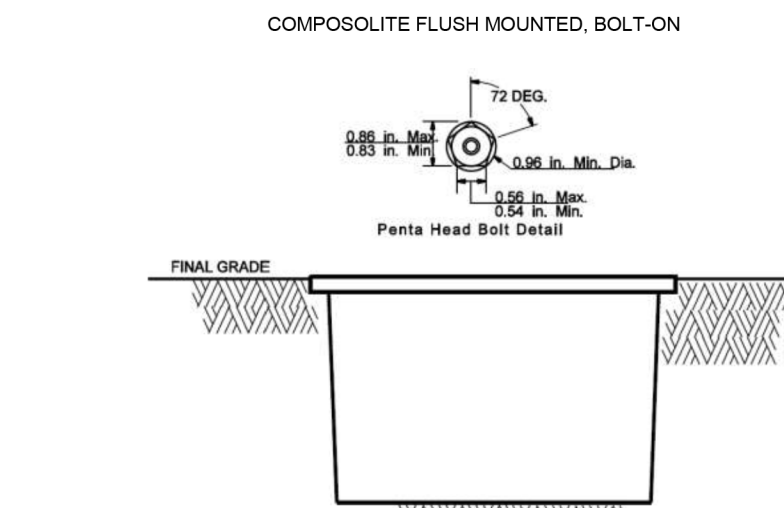


- NOTES
- CARE MUST BE TAKEN TO PROVIDE A SMOOTH, LEVEL, WELL COMPACTED BASE TO SET THE BOX ON. COMPACT AROUND SIDES OF BOX TO PREVENT SETTLING.



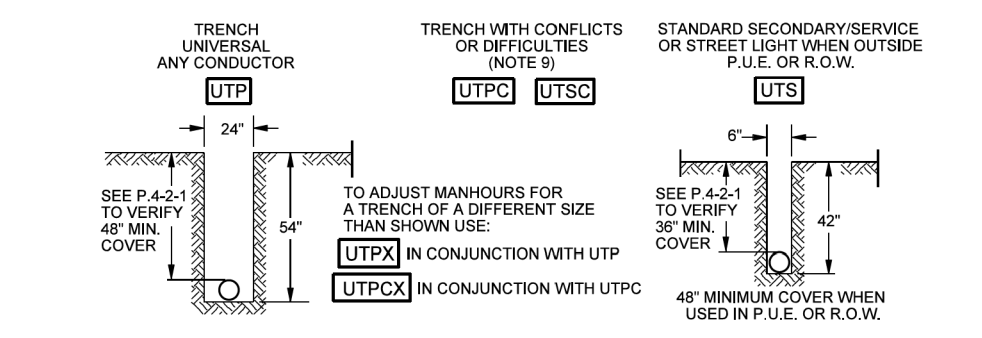
Underground Distribution Construction Standards	REV. DATE: 01/15/07	ISSUE DATE: 01/15/07
SRP PROPRIETARY MATERIAL	VAULTS, MANHOLES AND BOXES JUNCTION BOX INSTALLATION	REV. DATE: 03/06/10
	7-3-1	APPROVAL: N. SABBAN
		85106310.DGN

SECTION 11: CONTRACTOR-SUPPLIED MATERIAL

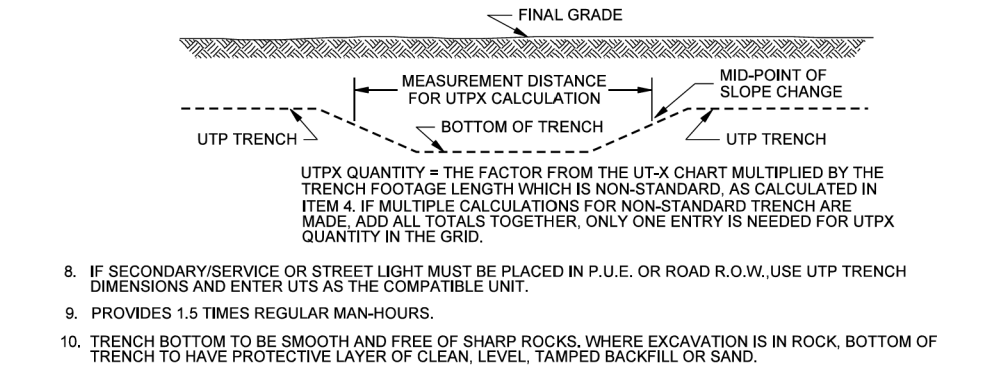


SRP Material Item No.	5034692
Description	Box to be polymer concrete material with polymer concrete bolt down (non-conductive cover).
Approved Suppliers	Armorcast Products, Carson & Associates, CDR Systems, Hubbel-Lenoir, Newbasia
Part Number	A6001429A, HLW1118-12 BOX, HLW1118-PO LID, PA40-1015-12, PC1118B513 BOX, PC1118C504-17/UH0390AA, PCA111812-00043

Electric Service Specifications	REV. DATE: 06/02/04	ISSUE DATE: 06/02/04
SRP PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL J-BOX 15" X 21" X 12"	REV. DATE: 11/20/10
	11-3	APPROVAL: M. DUNN
		85011434.DGN



- NOTES
- TRENCH DEPTHS AND CONDUIT COVER ARE TO BE MEASURED FROM FINAL GRADE STAKES. ALL TRENCH DEPTHS OR CONDUIT COVER REQUIREMENTS SPECIFIED ON A JOB DRAWING SHALL BE FOLLOWED.
 - THESE TRENCH CODES PROVIDE MAN-HOURS FOR EXCAVATION ONLY AND DO NOT PROVIDE FOR TRENCH BACKFILL.
 - THE TOTAL TRENCH FOOTAGE LENGTH WILL BE SHOWN IN THE GRID AS STANDARD TRENCH. EITHER UTP FOR PRIMARY OR UTPS FOR SECONDARY. STREET LIGHT, OR SERVICE, WHEN TRENCH IS PROVIDED BY CUSTOMER. THIS IS THE ONLY CODING REQUIRED ON THE JOB GRID.
 - NON STANDARD TRENCH LOCATIONS WILL BE IDENTIFIED ON THE JOB ORDER SKETCH WITH REQUIRED WIDTH AND DEPTH DIMENSIONS GIVEN.
 - WHEN TRENCHING IS PROVIDED BY SRP, NON STANDARD TRENCHES SHALL HAVE 2 COMPATIBLE UNIT CODES IN THE GRID. UTP PLUS THE UTPX, TO ADJUST THE TIME FOR DIGGING.
 - WHEN SPECIFIED DEPTH CANNOT BE OBTAINED BECAUSE OF SOLID ROCK, A MINIMUM EARTH COVER OF 24" IS ACCEPTABLE. PROVIDE A MINIMUM 7" ENCASMENT OF CONCRETE SURROUNDING THE CONDUIT.
 - USE EXAMPLE SHOWN TO FIGURE LENGTH OF UTPX TRENCH, UNLESS THE ENTIRE TRENCH IS NON STANDARD.



Underground Distribution Construction Standards	REV. DATE: 01/15/07	ISSUE DATE: 01/15/07
SRP PROPRIETARY MATERIAL	TRENCHING EXCAVATION CODES	REV. DATE: 03/06/10
	6-11-1	APPROVAL: B. PREST
		85106310.DGN

WOOD POLE RISERS	DESCRIPTION	QTY	UOI
5038002	SCREW LAG, HOT DIP GALVANIZED, 1/4" DIA.	36	EA
5039124	SIGN, DECAL 5" X 9"	1	EA
5035064	BOOT, POLE RISER, CLASS 2 AND LOWER POLES	1	EA
5031717 - 5031721	MOLD, POLE RISER	VARIOUS	EA
5035085	BOOT, POLE RISER	1	EA
5087781	BOOT, EXTENSION (NOTE 1)	1	EA
STEEL POLE RISERS	DESCRIPTION	QTY	UOI
5024659	WASHER, FLAT, CUT STEEL, ZINC PLATED, 1/4"	0.25	LBS
5028962	SCREW, STEEL, SELF DRILLING	36	EA
5039124	SIGN, DECAL 5" X 9"	1	EA
5035085 - 5035086	BOOT POLE RISER	1	EA
5031717 - 5031721	MOLD, POLE RISER	VARIOUS	EA
5087781	BOOT, EXTENSION (NOTE 1)	1	EA

Underground Distribution Construction Standards	REV. DATE: 01/15/09	ISSUE DATE: 01/15/09
SRP PROPRIETARY MATERIAL	RISERS PLASTIC RISER MOLD SERVICE	REV. DATE: 11/11/10
	5-12-1	APPROVAL: J. L. HARRIS
		85106310.DGN

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NATURAL GAS YES ☐ NO ☐	
JOB NAME CUS UE BA AP TOMAHAWK RD STLTS	
ADDRESS/LOCATION TOMAHAWK RD AND SOUTHERN AVE, APAC, APACHE JUNCTION	
CONTACT RAQUEL SCHATZ	PHONE 480-474-8549
BILLING ACCT NO.	
FIS JO	MAP 1/4 NE S 34 T 1N R 8E
40/ACRE AH-34-04	COORDS 44 1/16E 0 15/16N
AMP NO T3612935	AMP VERSION
COST CENTER 22660	SERVICE
ROUTING CODE DD1.5CSI.E+0	