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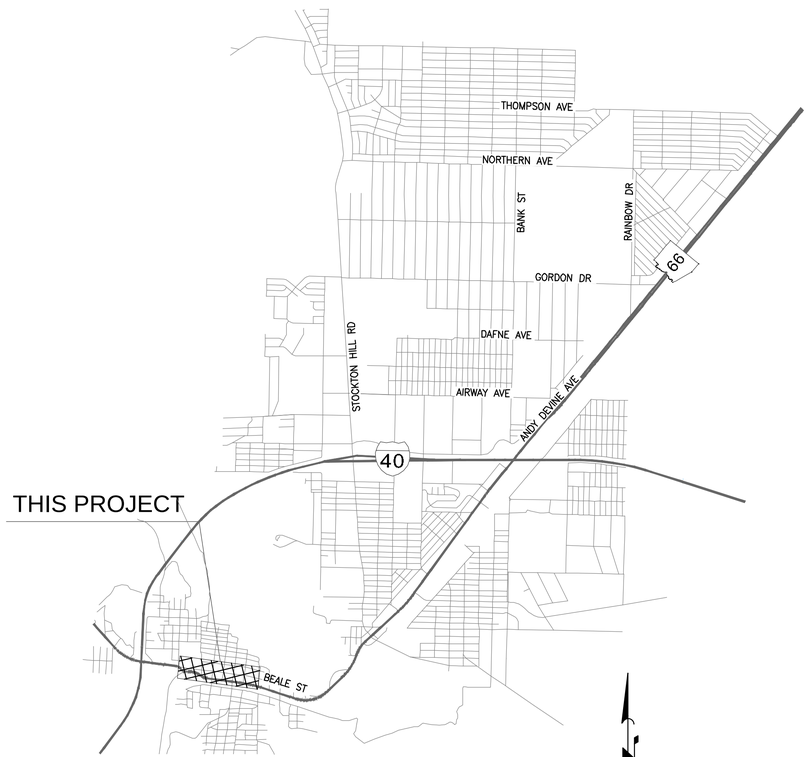
CITY OF KINGMAN
PUBLIC WORKS DEPARTMENT

KINGMAN DOWNTOWN INFRASTRUCTURE



VICINITY MAP

NTS

2023

MAYOR
KEN WATKINS

VICE MAYOR
CHERISH SAMMELI

CITY MANAGER
RON FOGGIN

CITY COUNCIL

CAMERON PATT
SHAWN SAVAGE
JAMIE SCOTT STEHLY
SMILEY WARD
KEITH WALKER

PUBLIC WORKS DIRECTOR

ROB OWEN

INDEX OF SHEETS

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2	GN01	GENERAL NOTES & PROJECT CONTROL
3	GN02	KEY MAP
4	GN03	TYPICAL SECTION
5-15	DT01-DT12	DETAIL SHEETS
16-24	P02-P12	PLAN AND PROFILE SHEETS
25-27	P14-P16	STREET GRADE PLANS
28-29	PM01-PM-02	PAVEMENT MARKING & SIGNING PLANS
30-37	SL02-SL10	STREET LIGHT PLANS
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39-43	L1.0-L1.4	LANDSCAPE PLAN
44-48	L2.0-L2.4	IRRIGATION PLAN
49	L3.0	LANDSCAPE DETAILS
50	L4.0	HARDSCAPE DETAILS
51-52	L5.0-L5.1	IRRIGATION DETAILS

AS-BUILT CERTIFICATION:

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TOTHE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER DATE

REGISTRATION NUMBER

APPROVED FOR:
THE CITY OF KINGMAN

CITY ENGINEER (OF DESIGINEE) DATE

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

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

COVER SHEET

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
CS01

SHEET NO. 1 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-CS.dwg

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SIGNING GENERAL NOTES:

1. ALL SIGNS SHALL BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION, THE ARIZONA SUPPLEMENT TO THE MUTCD 2009 EDITION, SIGNING AND MARKING STANDARD DRAWINGS, AND THE ADOT TRAFFIC ENGINEERING MANUAL OF APPROVED SIGNS.
2. THE SIGN LOCATIONS AND THE POST LENGTHS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE SIGN LOCATIONS AND ACTUAL POST LENGTHS WITH THE ENGINEER PRIOR TO INSTALLING SIGNS.
3. 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.
4. OFFSETS FOR ALL SIGNS SHALL BE MEASURED FROM THE EDGE OF THE ROADWAY TO THE NEAREST EDGE OF THE SIGN.
5. ALL NEW SIGNS SHALL BE FABRICATED OF FLAT SHEET ALUMINUM SIGN PANELS WITH DIRECT APPLIED OR SILK SCREENED CHARACTERS AS LISTED IN SECTION 608.
6. THE RETROREFLECTIVE SHEETING ON ALL NEW SIGNS SHALL MEET CRITERIA ESTABLISHED IN SECTION 1007 OF THE SPECIFICATIONS.
7. ALL NEW SIGNS SHALL BE INSTALLED ON NEW SQUARE TUBE POSTS WITH FOUNDATIONS IN ACCORDANCE WITH ADOT SIGNING AND MARKING STANDARD DRAWING S-3.
8. THE ENGINEER MAY MODIFY THE SIGNING PLANS.
9. THE CONTRACTOR SHALL NOT ORDER ANY SIGN FABRICATION UNTIL SHOP DRAWINGS ARE APPROVED.
10. THE CONTRACTOR SHALL REMOVE EXISTING SIGNING WHERE INDICATED IN THE SIGNING PLANS. COMPLETE REMOVAL OF THE FOUNDATIONS AND BASES IS REQUIRED WHEN SIGNS ARE REMOVED. CUTTING THE SUPPORT FLUSH WITH THE GROUND SURFACE DOES NOT CONSTITUTE REMOVAL.
11. THE CONTRACTOR SHALL INVENTORY ALL SIGNS TO BE REMOVED OR COVERED AND NOTE DAMAGED SIGNS TO THE ENGINEER AT THE TIME OF COVERING OR REMOVAL. ALL SIGNS DAMAGED BY COVERING OR REMOVAL SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.

PAVEMENT MARKING GENERAL NOTES:

1. 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.
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 DEGREE F AND RISING FOR THE PLACEMENT OF THERMOPLASTIC 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. WHEN STRIPE OBLITERATION IS NECESSARY, IT SHALL BE ACCOMPLISHED BY AN APPROVED METHOD. PAINTING OVER STRIPING, REMOVAL OF PAVEMENT, AND OVERLAYING PAVEMENT DO NOT CONSTITUTE STRIPE OBLITERATION.
5. FINAL STOP BAR, SYMBOLS AND LEGENDS SHALL BE ALKYD EXTRUDED THERMOPLASTIC, 0.090 INCH THICK, PAVEMENT MARKING MATERIAL PLACED 30 DAYS AFTER THE INITIAL WATERBORNE TYPE I PAINTED STRIPING.
6. THE DIMENSIONS SHOWN TO PAVEMENT STRIPING ARE TO THE CENTER OF THE STRIPING.
7. ALL FINAL STOP BARS, CROSSWALK/LINES, AND PAVEMENT MARKING ARROWS SHALL BE 90 MIL (0.090 INCH) THICK EXTRUDED THERMOPLASTIC.

APPROXIMATE PAVEMENT MARKING AND SIGNING QUANTITIES

ITEM DESCRIPTION	QUANTITY	UNIT
OBLITERATE PAVEMENT MARKING (STRIPE)	1	LS
WATERBORNE-TYPE I PAVEMENT MARKING (PAINTED)(WHITE)*	8614	LF
PAVEMENT MARKING (WHITE EXTRUDED THERMOPLASTIC)(0.090)*	6513	LF
INSTALL ADA PARKING SYMBOL	12	EA
MOUNT SIGN ON LIGHT POLE	12	EA
REMOVE EXISTING SIGN	58	EA
SIGN POST (PERFORATED)(2S)	440	LF
WARNING, MARKER OR REGULATORY SIGN PANEL	345	SF
INSTALL FLASHING LED EQUIPMENT FOR STOP SIGN PER DETAIL T-1	4	EA

*PAVEMENT MARKING QUANTITIES ARE BASED ON 4" EQUIVALENT QUANTITIES

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARDS SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
3. THE CITY ENGINEER'S OFFICE SHALL BE NOTIFIED 24 HOURS PRIOR TO STARTING EACH PHASE OF CONSTRUCTION (928) 753-8195.
4. PRIOR TO ANY CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR/DEVELOPER SHALL NOTIFY THE LANDSCAPE ARCHITECT AT (480) 250-0116. ANY CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL CONDITIONS USING THE FOLLOWING REQUIREMENTS:
   - A. ALL TREES IMPACTED BY CONSTRUCTION SHALL BE REPLACED WITH THE SAME SIZE AND TYPE OF TREE ALLOCATION DETERMINED BY THE CITY.
   - B. ALL IRRIGATION SYSTEMS SHALL BE RESTORED TO FULLY FUNCTIONING STATUS. ANY IRRIGATION LOCATED BENEATH ASPHALT OR CONCRETE SHALL BE SLEEVED WITH SCHEDULE 40 PVC TWO (2) NOMINAL SIZES LARGER.
   - C. THE AREA OF CONSTRUCTION SHALL BE TREATED WITH PRE - EMERGENT HERBICIDE (IE; SURFLAN).
   - D. GRANITE A SIZE AND COLOR TO MATCH EXISTENCE SHALL BE SPREAD A MINIMUM OF TWO (2) INCHES THICK.
   - E. THE STREET DIVISION SHALL BE CONTACTED TO INSPECT ALL WORK BEFORE A CONDITIONAL ACCEPTANCE IS ISSUED.
   - F. THE CONTRACTOR/DEVELOPER SHALL MAINTAIN THE AREA FOR NINETY (90) DAYS AFTER CONDITIONAL ACCEPTANCE. AFTER THE NINETY (90) DAYS THE CITY SHALL BE CONTACTED FOR FINAL ACCEPTANCE AND ASSUMPTION OF MAINTENANCE.
6. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY ENGINEER AND/OR ALL WORK IN MATERIAL NOT IN CONFORMANCE WITH THE SPECIFICATIONS AND PLANS IS SUBJECT TO REPLACEMENT AT CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL UNCOVER ALL EXISTING LINES TO VERIFY THEIR LOCATION. THE CONTRACTOR SHALL LOCATE OR HAVE LOCATED ALL EXISTING UNDERGROUND UTILITIES (ELECTRIC, TELEPHONE, PIPELINES, ETC.) AND STRUCTURES IN ADVANCE OF CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OR ANY CONFLICTS PRIOR TO THE START OF CONSTRUCTION. BLUESTAKE TELEPHONE (602) 263-1100.
8. THE CITY OF KINGMAN IS NOT RESPONSIBLE FOR LIABILITY INCURRED DUE TO DELAYS AND/OR DAMAGES TO UTILITIES IN CONJUNCTION WITH THIS CONSTRUCTION. THE CITY WILL NOT PARTICIPATE IN THE COST OF CONSTRUCTION OR UTILITY RELOCATION. ANY UTILITY LOCATIONS NEEDED TO FACILITATE CONSTRUCTION WILL BE PERFORMED BY THE UTILITY OWNER.
9. NO FINAL ACCEPTANCE SHALL BE ISSUED UNTIL 4 MILL PHOTO MYLAR REPRODUCIBLE "AS-BUILT" PLANS CERTIFIED AND SEALED BY A REGISTERED CIVIL ENGINEER HAVE BEEN SUBMITTED AND ACCEPTED BY THE CITY ENGINEER.
10. BACKFILLING OF UTILITY TRENCHES OR POTHOLES SHALL NOT BE STARTED UNTIL LINES ARE APPROVED BY THE CITY ENGINEER. ALL BACKFILL SHALL BE HALF-SACK. ABC OR NATIVE MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MAG SECTION 601, TYPE I. BACKFILL PLACEMENT AND SURFACE REPLACEMENT SHALL BE IN ACCORDANCE WITH MAG STD DTL 200 TTOP.
11. AN APPROVED SET OF PLANS SHALL BE MAINTAINED ON THE JOB SITE AT ALL TIMES THAT WORK IS IN PROGRESS. DEVIATION FROM THE PLANS SHALL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION.
12. SETBACKS FOR UTILITY POLES, STRUCTURES, AND OTHER SIMILAR FACILITIES GREATER THAN 18' IN HEIGHT SHALL BE 5.5' BACK OF CURB. IN CASES WHERE THE FACILITIES ARE ADJACENT TO A DECELERATION LANE OR BUS BAY, WITH SETBACK CAN BE REDUCED TO 2.5' BACK OF CURB.
13. STREETLIGHTS SHALL USE LED LUMINARIES CONTROLLED BY INDIVIDUAL PHOTOCELLS PER CITY OF KINGMAN.
14. ALL LUMINARIES SHALL BE CITY OF KINGMAN APPROVED LUMINARIES.
15. ALL JUNCTION BOXES SHALL BE INSTALLED AT FINISHED GRADE AND SHALL BE ADJACENT TO EACH POLE.
16. STREET LIGHT CONDUCTORS SHALL BE N0. 12 AWG SOLID SOFT-DRAWN COPPER AND BARE THE UL LABEL EXCEPT FOR GREEN GROUNDING. GREEN GROUND SHALL BE NO. 8 AWG. INSTALLATION SHALL BE TYPE THWN.
17. CONCRETE BASES ARE REQUIRED FOR ALL STREET LIGHTS. CONCRETE FOR POLE FOUNDATIONS SHALL BE CLASS A (3,000#) AND CONFORM TO PUBLIC WORKS CONSTRUCTION (MAG SPECIFICATIONS).
18. CONDUIT SHALL BE INSTALLED BETWEEN POLES AND JUNCTION BOXES IN ALL AREAS AS SHOWN. CONDUIT REQUIRED FOR STREET, ALLEY OR DRIVEWAY CROSSINGS SHOULD BE 4". SCHEDULE 40 POLYVINYL CHLORIDE FOR ALL INSTALLATIONS
19. CONDUIT RUNS BETWEEN STREET LIGHT POLE AND JUNCTION BOX SHALL BE 1". THE CONDUIT SHALL BE EITHER 1" SCHEDULE POLYVINYL CHLORIDE OR LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT THAT CONFORMS TO THE INSTALLATION AND USE OF SPECIFICATIONS SET FORTH IN THE NATIONAL ELECTRICAL CODE, SECTION 351.
20. THE CONTRACTOR SHALL AFFIX STREETLIGHT NUMBER ON EACH POLE AS SHOWN ON THE JOB ORDER PLAN PRIOR TO FINAL INSPECTION.
21. STREETLIGHT CONDUCTOR TRENCHES WILL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY CITY OF KINGMAN INSPECTOR.
22. CITY OF KINGMAN TO MAINTAIN SERVICE FOR EXISTING STREETLIGHT THROUGHOUT THE VARIOUS CONSTRUCTION PHASES.
23. ANY VARIANCE TO AN APPROVED LUMINAIRE SHALL REQUIRE A NEW DESIGN ACCOMPANIED WITH POINT-TO-POINT LIGHTING CALCULATIONS AT TEN FOOT INTERVALS INDICATING MAINTAINED FOOTCANDLE LEVELS BETWEEN LUMINARIES' AND ACROSS THE WIDTH OF THE ROAD WAY FOR APPROVAL BY THE CITY ENGINEER.
24. THE JUNCTION BOX NEAREST TO A POLE SHALL BE LOCATED INSIDE THE PUBLIC RIGHT-OF-WAY OR IN A PUBLIC UTILITY EASEMENT UNLESS OTHERWISE DIRECTED.
25. CONTRACTOR TO REMOVE OVERHEAD CANOPY STRUCTURE LOCATED ON BUSINESS BETWEEN 2ND & 3RD ON WB BEALE STREET. BUSINESSES INCLUDE ROOT OUTLET TEEN CENTER (#213), SEA DOG MERCHANTS (#211), AND SHADY GROVE RECORDS (#209).
26. BUSINESSES TO REMOVE ALL FENCING, RAISED DRINK PLATFORMS, SEATING AREAS, ETC. BEFORE CONSTRUCTION.
27. PARKLETS TO BE REMOVED BY BUSINESS OWNERS WITH CITY OF KINGMAN SUPPORT PRIOR TO CONSTRUCTION.
28. THIS SET OF PLANS HAS BEEN INITIALLY REVIEWED BY THE CITY OF KINGMAN. SUCH REVIEW IS PART OF THE PROCESS THAT DEVELOPER(S)/CONTRACTOR(S) MUST GO THROUGH IN ORDER TO OBTAIN A CONSTRUCTION PERMIT. THE RESULTS OF SUCH INITIAL REVIEW SHALL NOT DICTATE THE CITY OF KINGMAN'S FINAL DETERMINATION AS TO THE ACCEPTABILITY OF THE PLANS, NOR SHALL IT PREVENT THE CITY OF KINGMAN FROM REQUIRING ERRORS AND OMISSIONS, AS FOUND ON PLANS, BE ADDRESSED BY DEVELOPER(S) /CONTRACTOR(S), WHERE SUCH ERRORS AND OMISSIONS CAUSE THE PLANS TO BE IN VIOLATION OF OR INADEQUATE UNDER APPLICABLE FEDERAL/STATE/COUNTY/LOCAL CODES, ORDINANCES, REGULATIONS, OR OTHER LAWS. THIS REVIEWED AND STAMPED SET OF PLANS MUST BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES.
29. EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
30. CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND PRIOR TO FINAL INSPECTION.
31. GRADING BETWEEN BACK OF CURB AND PROPERTY LINE SHALL BE LIMITED TO 4:1 SLOPE.
32. ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

PROJECT SURVEY CONTROL

SURVEY IS BASED ON CITY OF KINGMAN CONTROL DATA RECEIVED ON APRIL 26, 2020.

HORIZONTAL DATUM IS CITY OF KINGMAN ARIZONA STATE PLANE WEST (NAD 27), PER BOOK 10 OF RECORDS OF SURVEYS, PAGE 38, RECORDS OF MOHAVE COUNTY ARIZONA.

PRIMARY BENCHMARK IS CITY OF KINGMAN BENCHMARK DESIGNATED AS "91-54", THE TOP OF THE SOUTHEAST BOLT ON A TRAFFIC LIGHT AT THE NORTHWEST CURB RETURN OF BEALE STREET AND FIRST STREET, HAVING AN ELEVATION OF 3334.69' CITY OF KINGMAN NAVD 88 DATUM.

SECONDARY BENCHMARK IS CITY OF KINGMAN BENCHMARK DESIGNATED AS "91-94", A PK NAIL IN THE TOP OF THE CURB RETURN AT THE SOUTHEAST CORNER OF THIRD STREET AND BEALE STREET HAVING AN ELEVATION OF 3344.16', CITY OF KINGMAN NAVD 88 DATUM.

CITY OF KINGMAN TO PROVIDE ALL SURVEY TO BUILD THE PROJECT.

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

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

GENERAL NOTES & PROJECT CONTROL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO. 3720205006

DRAWING NAME GN01

SHEET NO. 2 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-G01.dwg

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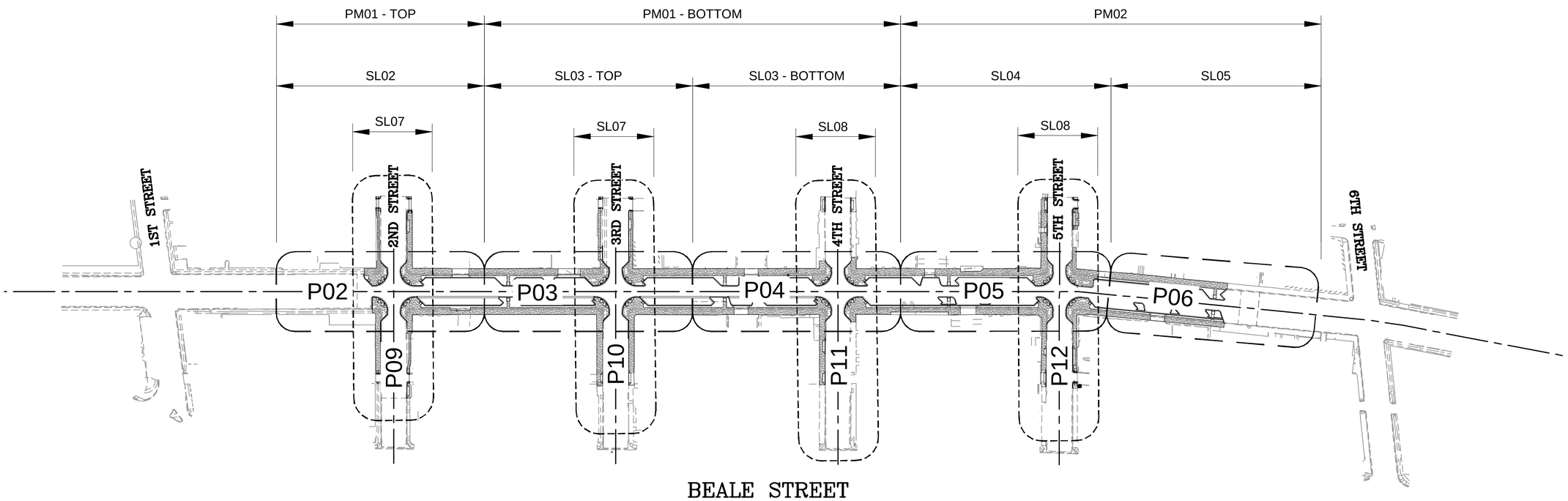

N.T.S.

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

KEY MAP

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
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Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
GN02

SHEET NO. 3 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-G02.dwg

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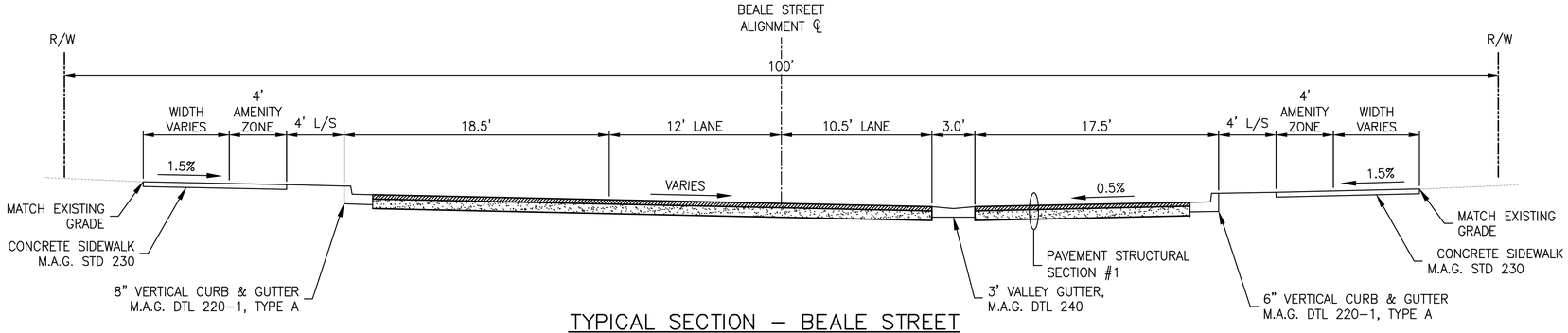
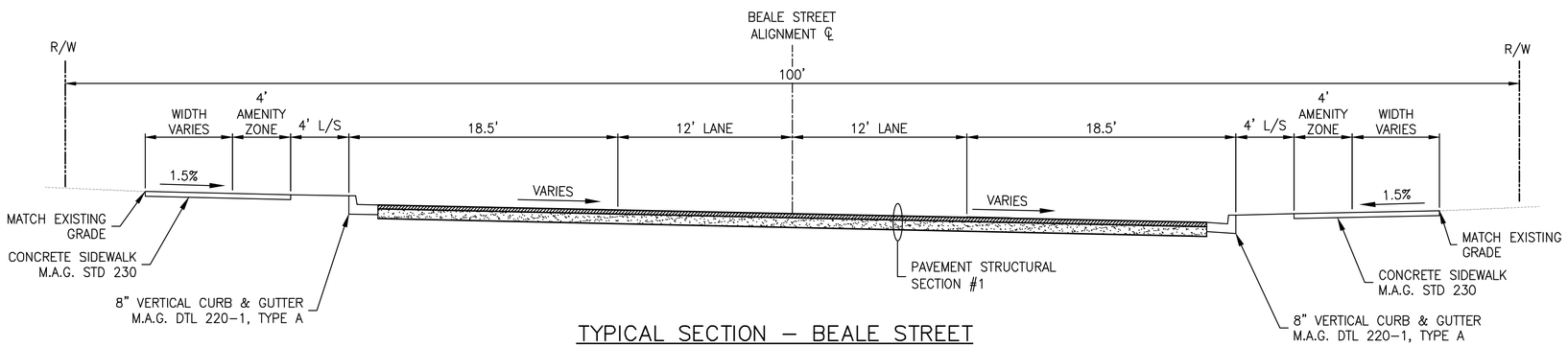


TYPICAL SECTION – BEALE STREET

N.T.S.

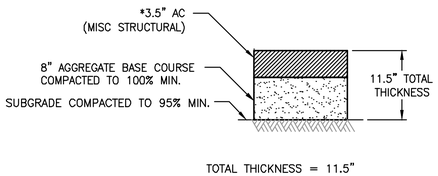
STA 19+10.88 TO STA 34+64.32



TYPICAL SECTION – BEALE STREET

N.T.S.

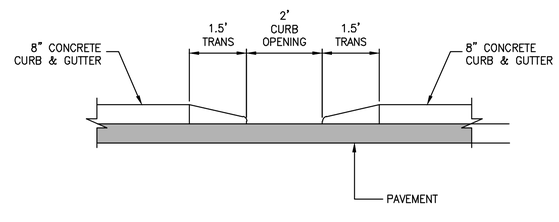
STA 34+64.32 TO STA 46+90+.90



TOTAL THICKNESS = 11.5"

PAVEMENT STRUCTURAL SECTION NO. 1

N.T.S.



CURB OPENING DETAIL

N.T.S.

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

TYPICAL SECTION

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.

EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
GN03

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT01.dwg

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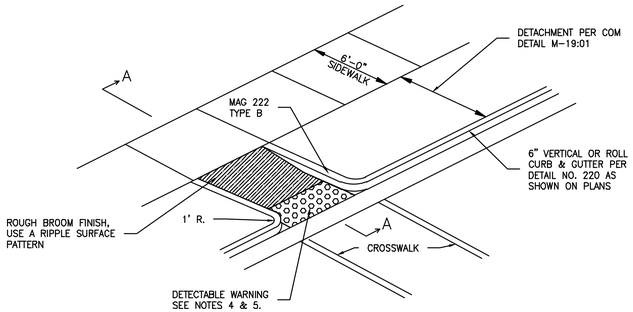
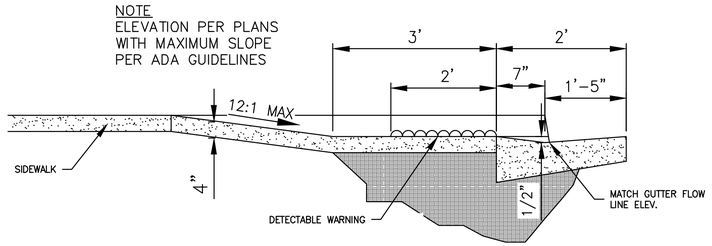


NOTES

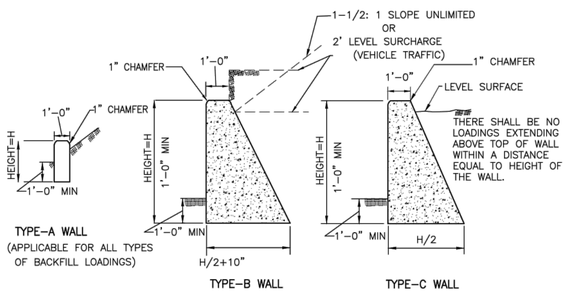
1. TYPE 'D' RAMP TO BE USED AT MID-BLOCK AND "T" INTERSECTIONS.
2. CLASS 'B' CONCRETE PER MAG SECTION 725.
3. MAXIMUM DISTANCE BETWEEN PEDESTRIAN PUSH BUTTON FACE & ACCESSIBLE APPROACH SHALL BE 10 INCHES.

NOTE
ELEVATION PER PLANS WITH MAXIMUM SLOPE PER ADA GUIDELINES



MID-BLOCK CROSSING AND ADA STALL RAMP DETAIL

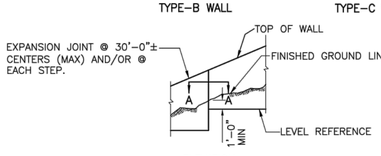
N.T.S.



TYPE-A WALL
(APPLICABLE FOR ALL TYPES OF BACKFILL LOADINGS)

TYPE-B WALL

TYPE-C WALL



ELEVATION

WALL TYPE	HEIGHT	BASE	CONCRETE CF/FT
A	1'-6"	1'-0"	1.50 cu ft.
	2'-0"	1'-0"	2.00 cu ft.
B	3'-0"	2'-4"	4.99 cu ft.
	4'-0"	2'-10"	7.66 cu ft.
	5'-0"	3'-4"	10.82 cu ft.
	6'-0"	3'-10"	14.49 cu ft.
C	3'-0"	1'-6"	3.75 cu ft.
	4'-0"	2'-0"	6.00 cu ft.
	5'-0"	2'-6"	8.75 cu ft.
	6'-0"	3'-0"	12.00 cu ft.

CONCRETE
CONCRETE SHALL BE CLASS "S"

DESIGN CONDITIONS
WALLS ARE TO BE USED FOR THE LOADING CONDITIONS SHOWN FOR EACH TYPE WALL. DESIGN H MAY BE XCEEDED BY SIX INCHES BEFORE GOING TO NEXT SIZE.

DESIGN DATA
FC = 1200 PSI
F'C = 3000 PSI
EARTH = 120 PCF
AND EQUIVALENT FLUID PRESSURE=36 PSF PER FOOT OF HEIGHT

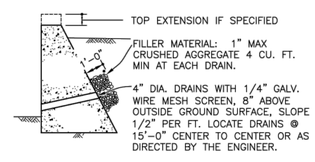
WALLS SHOWN FOR 1-1/2:1 UNLIMITED SLOPING SUCHARGE ARE DESIGNED IN ACCORDANCE WITH RANKINE'S FORMULA FOR UNLIMITED SLOPING SURCHARGE WITH ø = 42'.

NOTE: MAXIMUM TOE PRESSURE UNDER WALL FOOTING = 1-1/2 TONS/SQ. FT. SPECIAL DESIGN REQUIRED WHERE FOOTING MATERIAL IS INCAPABLE OF SUPPORTING THIS PRESSURE.

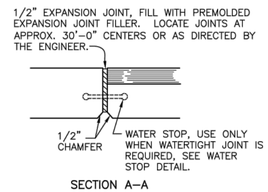
EXCAVATION AND BACKFILL
COMPACTION OF BACKFILL MATERIAL BY JETTING OR PONDING WITH WATER WILL NOT BE PERMITTED.

EACH LAYER OF BACKFILL SHALL BE MOISTENED AS DIRECTED BY THE ENGINEER AND THOROUGHLY TAMPED, ROLLED OR OTHERWISE COMPACTED UNTIL THE RELATIVE COMPACTION IS NOT LESS THAN 90 PERCENT.

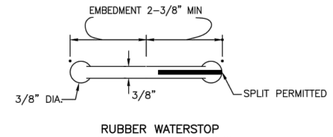
NO BACKFILL MATERIAL SHALL BE DEPOSITED AGAINST CONCRETE RETAINING WALLS UNTIL THE CONCRETE HAS DEVELOPED A STRENGTH OF 2,500 PSI IN COMPRESSION AS DETERMINED BY TEST CYLINDERS, OR UNTIL 28 DAYS AFTER WALL HAS BEEN PLACED.



TYPICAL DRAINAGE
WHEN H IS GREATER THAN 4'-0"



SECTION A-A



RUBBER WATERSTOP
USE ONLY WHEN WATERTIGHT JOINT IS REQUIRED.

GRAVITY RETAINING WALL DETAIL

N.T.S.

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

DETAILS

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT01

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT01a.dwg

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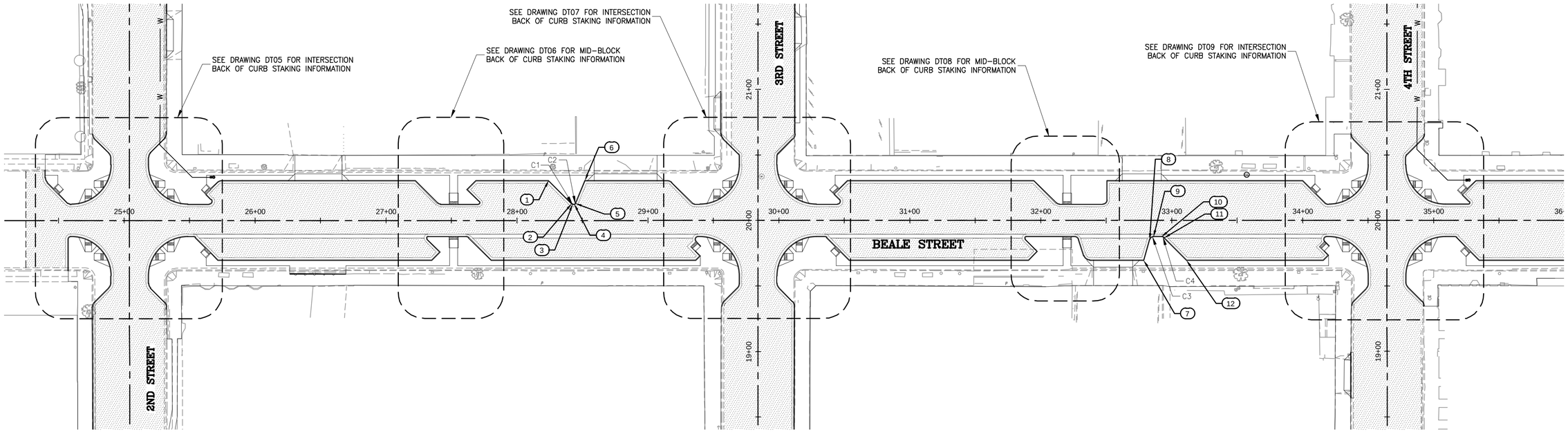

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/28+24.18	30.48, LT	3344.20
2	BEALE ST/28+41.89	12.78, LT	3342.94
3	BEALE ST/28+42.58	12.50, LT	3342.93
4	BEALE ST/28+43.75	12.50, LT	3342.93
5	BEALE ST/28+44.67	13.10, LT	3342.95
6	BEALE ST/28+51.83	30.48, LT	3344.06
7	BEALE ST/32+78.69	30.53, RT	3346.49
8	BEALE ST/32+83.16	14.71, RT	3345.98
9	BEALE ST/32+86.06	12.50, RT	3345.97
10	BEALE ST/32+91.98	12.50, RT	3346.06
11	BEALE ST/32+94.13	13.41, RT	3346.14
12	BEALE ST/33+11.25	30.53, RT	3347.05

CURVE DATA			
CURVE #	LENGTH	RADIUS	DELTA
C1	0.76	1.00	43°36'52"
C2	1.16	1.01	66°09'45"
C3	3.92	3.00	74°49'07"
C4	2.40	3.00	45°49'53"

40 0 40 80
scale feet
HORIZ: 1"=40' VERT: N/A

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

STAKING PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT02
SHEET NO. 6 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-G03.dwg

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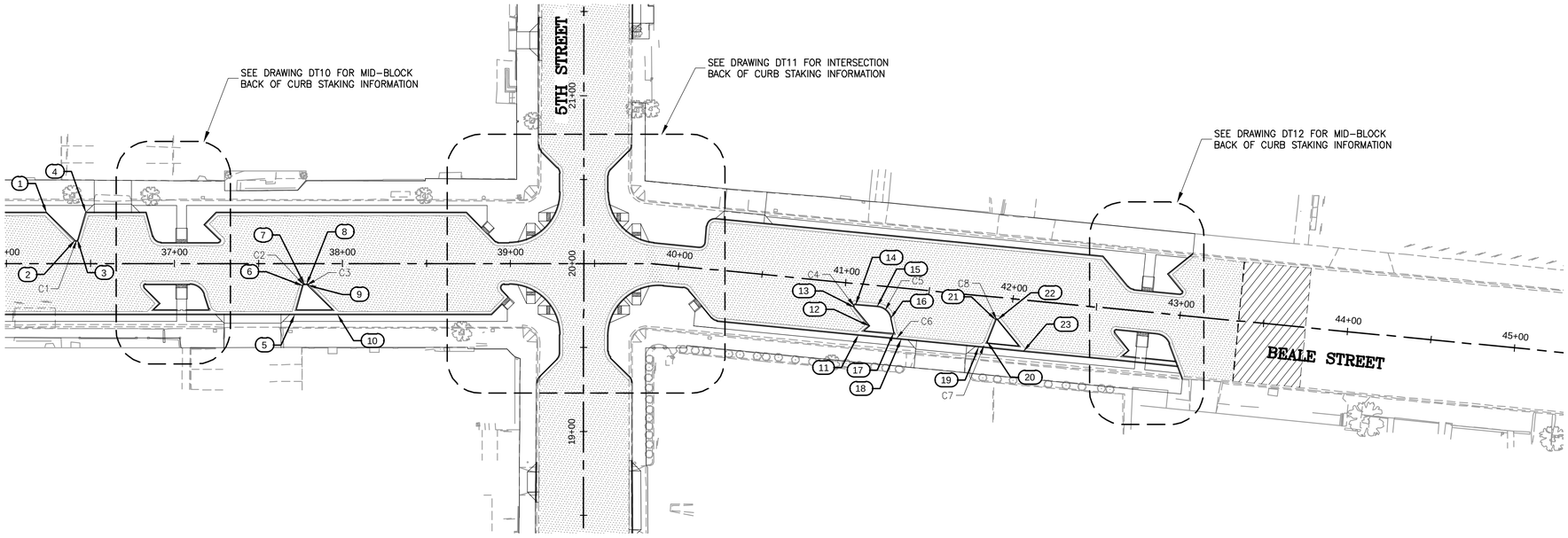

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/36+23.80	30.46, LT	3353.49
2	BEALE ST/36+40.58	13.68, LT	3352.43
3	BEALE ST/36+42.25	14.10, LT	3352.46
4	BEALE ST/36+47.20	30.46, LT	3353.78
5	BEALE ST/37+71.47	30.53, RT	3352.83
6	BEALE ST/37+76.36	13.26, RT	3352.96
7	BEALE ST/37+77.33	12.50, RT	3353.00
8	BEALE ST/37+78.54	12.50, RT	3353.02
9	BEALE ST/37+79.25	12.83, RT	3353.01
10	BEALE ST/37+96.95	30.53, RT	3352.89
11	BEALE ST/41+10.47	30.54, RT	3352.57
12	BEALE ST/41+16.65	24.36, RT	3352.13
13	BEALE ST/41+06.54	14.25, RT	3352.59
14	BEALE ST/41+07.21	12.50, RT	3352.66

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
15	BEALE ST/41+20.08	12.50, RT	3352.59
16	BEALE ST/41+28.64	18.75, RT	3352.31
17	BEALE ST/41+31.37	27.09, RT	3351.97
18	BEALE ST/41+36.11	30.50, RT	3352.50
19	BEALE ST/41+82.56	30.50, RT	3352.44
20	BEALE ST/41+87.36	26.88, RT	3351.93
21	BEALE ST/41+91.09	13.45, RT	3352.46
22	BEALE ST/41+91.93	13.23, RT	3352.46
23	BEALE ST/42+09.23	30.54, RT	3352.45

CURVE DATA			
CURVE #	LENGTH	RADIUS	DELTA
C1	2.06	1.00	118°10'23"
C2	1.33	1.00	76°09'03"
C3	0.80	1.01	45°24'36"
C4	2.41	1.00	138°05'59"
C5	11.33	9.00	72°06'18"
C6	6.23	5.00	71°26'02"
C7	6.46	5.00	74°00'46"
C8	1.04	0.50	119°28'35"

40 0 40 80
scale feet
HORIZ: 1"=40' VERT: N/A

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

STAKING PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
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CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT03

SHEET NO. 7 of 52

File: G:\InfrastructureTrans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-G04.dwg

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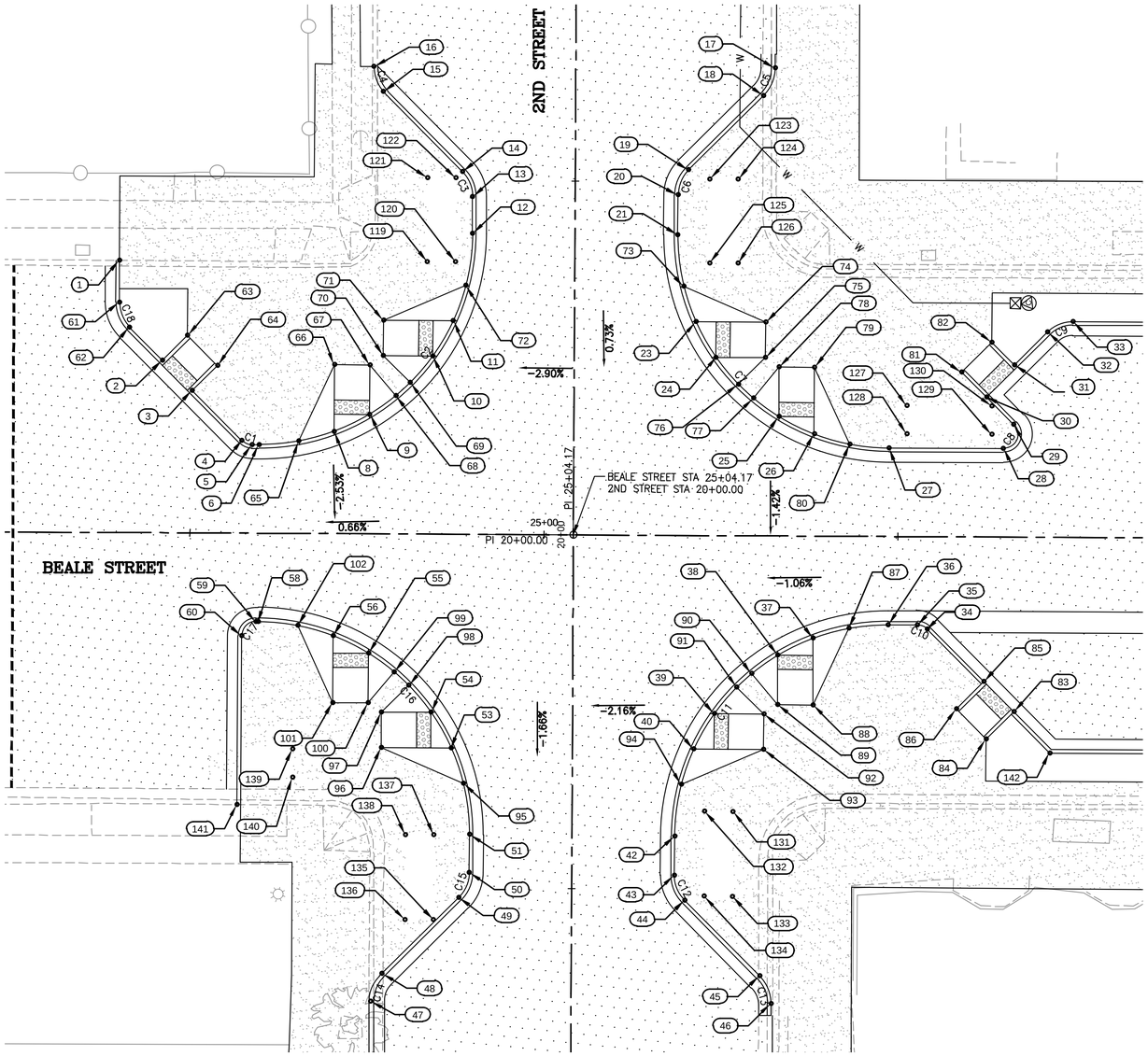

BEALE STREET AND 2ND STREET INTERSECTION

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	1.57	2.00	44°59'55"
C2	47.13	30.00	90°00'08"
C3	3.92	5.00	44°57'08"
C4	3.87	5.50	40°18'26"
C5	4.34	5.50	45°12'39"
C6	3.93	5.00	44°59'34"
C7	47.12	30.00	90°00'05"
C8	4.71	2.00	134°59'51"
C9	3.93	5.00	44°59'51"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C10	1.57	2.00	45°00'09"
C11	47.13	30.00	90°00'46"
C12	3.93	5.00	44°59'34"
C13	4.31	5.50	44°52'26"
C14	4.35	5.50	45°20'39"
C15	3.93	5.00	45°00'26"
C16	47.12	30.00	89°59'00"
C17	3.14	2.00	90°00'05"
C18	3.94	5.00	45°06'50"

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/24+39.85	38.47, LT	3335.91
2	BEALE ST/24+45.98	24.36, LT	3336.14
3	BEALE ST/24+50.22	20.11, LT	3336.28
4	BEALE ST/24+57.25	13.09, LT	3336.50
5	BEALE ST/24+58.66	12.50, LT	3336.53
6	BEALE ST/24+59.66	12.50, LT	3336.54
8	BEALE ST/24+70.28	14.44, LT	3336.57
9	BEALE ST/24+75.28	16.89, LT	3336.59
10	BEALE ST/24+84.17	25.19, LT	3336.63
11	BEALE ST/24+87.02	30.19, LT	3336.65
12	BEALE ST/24+89.66	42.50, LT	3336.70
13	BEALE ST/24+89.66	47.72, LT	3336.72
14	BEALE ST/24+88.20	51.25, LT	3336.73
15	BEALE ST/24+76.97	62.50, LT	3336.79
16	BEALE ST/24+75.64	66.05, LT	3336.13
17	BEALE ST/25+32.31	66.15, LT	3337.34
18	BEALE ST/25+30.70	62.24, LT	3337.34
19	BEALE ST/25+20.13	51.67, LT	3337.32
20	BEALE ST/25+18.67	48.13, LT	3337.31
21	BEALE ST/25+18.67	42.50, LT	3336.83
23	BEALE ST/25+21.31	30.20, LT	3337.10
24	BEALE ST/25+24.16	25.20, LT	3337.22
25	BEALE ST/25+33.09	16.86, LT	3337.48

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
26	BEALE ST/25+38.09	14.43, LT	3337.60
27	BEALE ST/25+48.67	12.50, LT	3337.83
28	BEALE ST/25+64.82	12.50, LT	3338.16
29	BEALE ST/25+66.24	15.91, LT	3338.34
30	BEALE ST/25+62.41	19.74, LT	3338.42
31	BEALE ST/25+66.30	24.34, LT	3338.52
32	BEALE ST/25+71.00	29.04, LT	3338.64
33	BEALE ST/25+74.53	30.50, LT	3338.68
34	BEALE ST/25+54.19	13.09, RT	3337.31
35	BEALE ST/25+52.78	12.50, RT	3337.23
36	BEALE ST/25+48.68	12.50, RT	3337.13
37	BEALE ST/25+38.10	14.43, RT	3337.02
38	BEALE ST/25+33.10	16.86, RT	3336.96
39	BEALE ST/25+24.17	25.19, RT	3336.83
40	BEALE ST/25+21.32	30.19, RT	3336.76
42	BEALE ST/25+18.68	42.51, RT	3336.63
43	BEALE ST/25+18.68	48.06, RT	3336.54
44	BEALE ST/25+20.14	51.59, RT	3336.44
45	BEALE ST/25+30.78	62.22, RT	3336.19
46	BEALE ST/25+32.39	66.10, RT	3336.13
47	BEALE ST/24+75.82	66.07, RT	3334.61
48	BEALE ST/24+77.43	62.14, RT	3334.66
49	BEALE ST/24+88.22	51.35, RT	3334.90

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
50	BEALE ST/24+89.68	47.81, RT	3334.98
51	BEALE ST/24+89.68	42.42, RT	3335.07
53	BEALE ST/24+87.04	30.19, RT	3335.28
54	BEALE ST/24+84.18	25.19, RT	3335.38
55	BEALE ST/24+75.28	16.88, RT	3335.58
56	BEALE ST/24+70.28	14.44, RT	3335.68
58	BEALE ST/24+59.68	12.50, RT	3335.86
59	BEALE ST/24+59.36	12.50, RT	3335.85
60	BEALE ST/24+57.36	14.50, RT	3335.62
61	BEALE ST/24+39.84	32.55, LT	3335.69
62	BEALE ST/24+41.30	29.03, LT	3335.99
63	BEALE ST/24+49.52	27.89, LT	3336.21
64	BEALE ST/24+53.76	23.65, LT	3336.27
65	BEALE ST/24+65.31	13.04, LT	3336.56
66	BEALE ST/24+70.28	23.89, LT	3336.47
67	BEALE ST/24+75.28	23.89, LT	3336.53
68	BEALE ST/24+78.97	19.54, LT	3336.61
69	BEALE ST/24+81.00	21.41, LT	3336.62
70	BEALE ST/24+77.17	25.19, LT	3336.55
71	BEALE ST/24+77.17	30.19, LT	3336.56
72	BEALE ST/24+88.76	35.19, LT	3336.67
73	BEALE ST/25+19.57	35.20, LT	3336.98
74	BEALE ST/25+31.16	30.20, LT	3337.49

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
75	BEALE ST/25+31.16	25.20, LT	3337.47
76	BEALE ST/25+27.33	21.41, LT	3337.33
77	BEALE ST/25+29.47	19.44, LT	3337.39
78	BEALE ST/25+33.09	23.86, LT	3337.52
79	BEALE ST/25+38.09	23.86, LT	3337.67
80	BEALE ST/25+43.14	13.01, LT	3337.71
81	BEALE ST/25+58.87	23.28, LT	3338.32
82	BEALE ST/25+63.12	27.52, LT	3338.43
83	BEALE ST/25+66.49	24.68, RT	3337.74
84	BEALE ST/25+62.60	28.56, RT	3337.68
85	BEALE ST/25+62.25	20.43, RT	3337.59
86	BEALE ST/25+58.36	24.32, RT	3337.54
87	BEALE ST/25+43.10	13.02, RT	3337.07
88	BEALE ST/25+38.10	23.86, RT	3337.12
89	BEALE ST/25+33.10	23.86, RT	3337.03
90	BEALE ST/25+29.44	19.48, RT	3336.91
91	BEALE ST/25+27.35	21.40, RT	3336.88
92	BEALE ST/25+31.17	25.19, RT	3337.00
93	BEALE ST/25+31.17	30.19, RT	3337.04
94	BEALE ST/25+19.58	35.19, RT	3336.71
95	BEALE ST/24+88.78	35.19, RT	3335.19
96	BEALE ST/24+77.19	30.20, RT	3335.23
97	BEALE ST/24+77.18	25.20, RT	3335.33

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
98	BEALE ST/24+81.01	21.41, RT	3335.46
99	BEALE ST/24+78.95	19.51, RT	3335.51
100	BEALE ST/24+75.28	23.88, RT	3335.35
101	BEALE ST/24+70.28	23.88, RT	3335.32
102	BEALE ST/24+65.28	13.03, RT	3335.76
119	BEALE ST/24+83.31	38.51, LT	3336.67
120	BEALE ST/24+87.31	38.51, LT	3336.69
121	BEALE ST/24+83.31	50.39, LT	3336.73
122	BEALE ST/24+87.31	50.39, LT	3336.73
123	BEALE ST/25+23.18	50.38, LT	3337.27
124	BEALE ST/25+27.18	50.38, LT	3337.41
125	BEALE ST/25+23.17	38.51, LT	3337.12
126	BEALE ST/25+27.17	38.51, LT	3337.31
127	BEALE ST/25+51.17	18.51, LT	3338.00
128	BEALE ST/25+51.17	14.51, LT	3337.97
129	BEALE ST/25+63.17	14.50, LT	3338.21
130	BEALE ST/25+63.17	18.50, LT	3338.38
131	BEALE ST/25+26.88	38.99, RT	3336.95
132	BEALE ST/25+22.88	38.99, RT	3336.81
133	BEALE ST/25+26.88	50.99, RT	3336.70
134	BEALE ST/25+22.88	50.99, RT	3336.52
135	BEALE ST/24+84.66	54.49, RT	3334.83
136	BEALE ST/24+80.66	54.49, RT	3334.83

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
137	BEALE ST/24+84.66	42.49, RT	3335.07
138	BEALE ST/24+80.66	42.49, RT	3335.07
139	BEALE ST/24+64.67	30.49, RT	3335.09
140	BEALE ST/24+64.66	34.49, RT	3334.99
141	BEALE ST/24+56.86	38.37, RT	3334.80
142	BEALE ST/25+71.60	30.50, RT	3337.74

REVISIONS:

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4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
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INTERSECTION DETAIL

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BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

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RICHARD D. YANO
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EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT05

SHEET NO. 8 of 52

File: G:\InfrastructureTrans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT03.dwg

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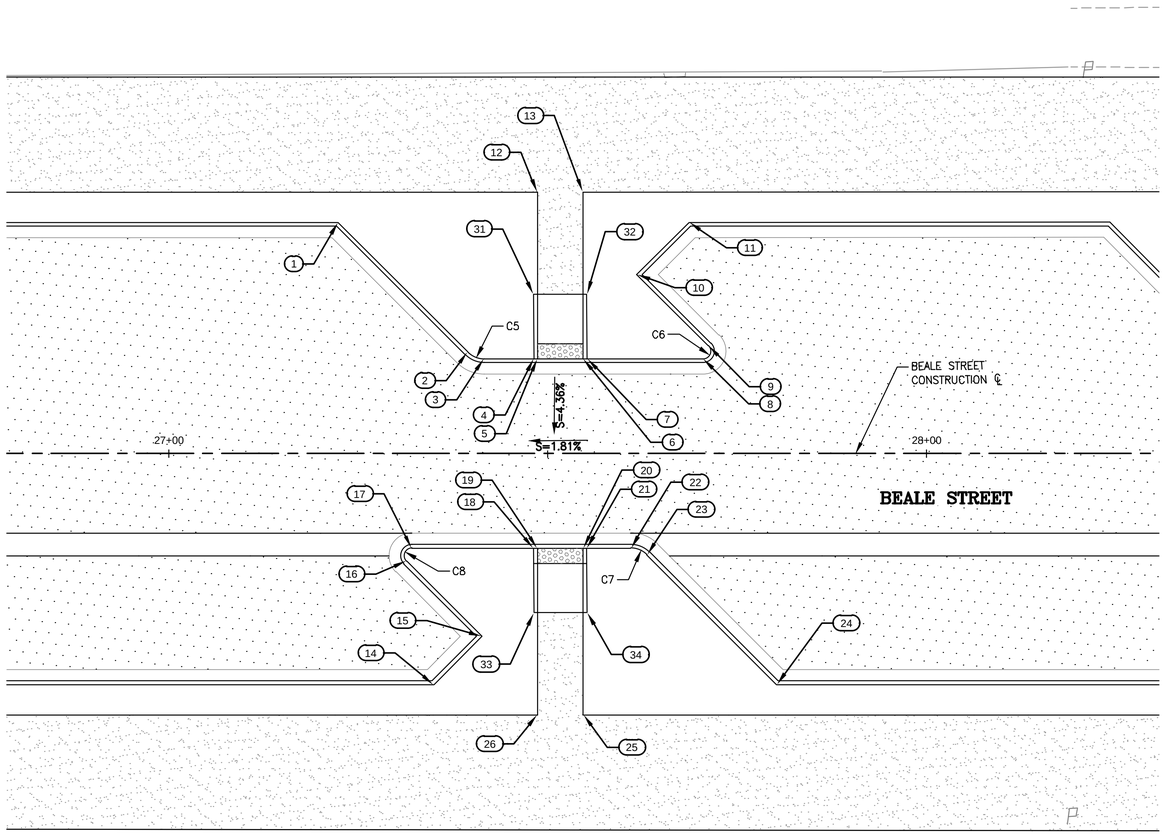

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE STREET/27+22.36	30.49, LT	3342.91
2	BEALE STREET/27+39.48	13.37, LT	3341.98
3	BEALE STREET/27+41.60	12.49, LT	3342.00
4	BEALE STREET/27+48.19	12.53, LT	3342.12
5	BEALE STREET/27+48.65	12.49, LT	3342.13
6	BEALE STREET/27+54.65	12.49, LT	3342.23
7	BEALE STREET/27+55.19	12.49, LT	3342.24
8	BEALE STREET/27+70.47	12.49, LT	3342.50
9	BEALE STREET/27+71.18	14.19, LT	3342.57
10	BEALE STREET/27+61.75	23.62, LT	3342.86
11	BEALE STREET/27+68.62	30.49, LT	3343.79
12	BEALE STREET/27+48.65	34.50, LT	3343.71
13	BEALE STREET/27+54.65	34.50, LT	3343.78
14	BEALE STREET/27+34.96	30.50, RT	3341.61
15	BEALE STREET/27+41.32	24.15, RT	3341.12
16	BEALE STREET/27+31.39	14.22, RT	3340.99
17	BEALE STREET/27+32.09	12.51, RT	3340.99

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
18	BEALE STREET/27+48.13	12.51, RT	3341.06
19	BEALE STREET/27+48.65	12.51, RT	3341.06
20	BEALE STREET/27+54.65	12.51, RT	3341.16
21	BEALE STREET/27+55.13	12.51, RT	3341.17
22	BEALE STREET/27+60.95	12.50, RT	3341.30
23	BEALE STREET/27+63.09	13.39, RT	3341.37
24	BEALE STREET/27+80.19	30.50, RT	3342.30
25	BEALE STREET/27+54.65	34.50, RT	3341.86
26	BEALE STREET/27+48.65	34.50, RT	3341.76
31	BEALE STREET/27+48.14	20.99, LT	3342.54
32	BEALE STREET/27+55.14	20.99, LT	3342.64
33	BEALE STREET/27+48.19	21.02, RT	3341.13
34	BEALE STREET/27+55.19	21.02, RT	3341.25

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C5	2.36	3.00	45°00'00"
C6	2.36	1.00	135°00'00"
C7	2.36	3.00	45°00'00"
C8	2.36	1.00	135°00'00"

MID-BLOCK CROSSING BETWEEN 2ND STREET AND 3RD STREET

10 0 10 20
scale feet
HORIZ: 1"=10'

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

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

MID-BLOCK CROSSING DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
Date Signed 08/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT06
SHEET NO. 9 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT04.dwg

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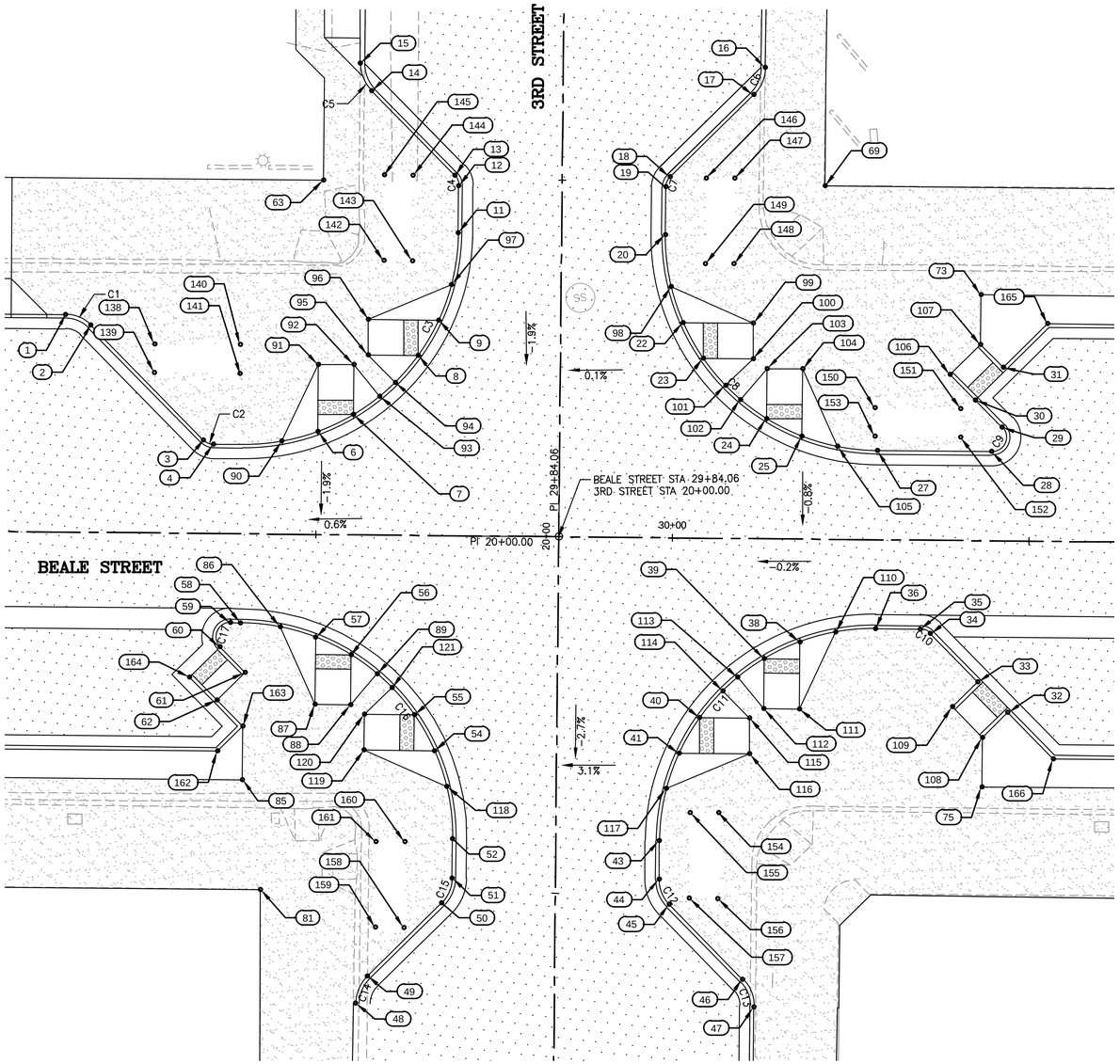

BEALE STREET AND 3RD STREET INTERSECTION

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	3.93	5.00	45°00'09"
C2	1.57	2.00	45°00'09"
C3	47.11	30.00	89°58'50"
C4	1.57	2.00	45°01'30"
C5	4.26	5.50	44°20'21"
C6	4.29	5.50	44°38'19"
C7	1.57	2.00	44°58'30"
C8	47.13	30.00	90°01'08"
C9	4.71	2.00	134°59'54"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C10	1.57	2.00	45°00'06"
C11	47.13	30.00	90°00'23"
C12	3.93	5.00	45°00'00"
C13	4.33	5.50	45°08'00"
C14	4.29	5.50	44°41'01"
C15	3.93	5.00	45°00'00"
C16	47.12	30.00	89°59'40"
C17	4.71	2.00	134°59'51"

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/29+14.64	30.50, LT	3343.34
2	BEALE ST/29+18.18	29.04, LT	3343.32
3	BEALE ST/29+34.13	13.09, LT	3342.98
4	BEALE ST/29+35.54	12.50, LT	3342.93
6	BEALE ST/29+50.13	14.42, LT	3342.98
7	BEALE ST/29+55.13	16.84, LT	3343.03
8	BEALE ST/29+64.09	25.21, LT	3343.16
9	BEALE ST/29+66.94	30.21, LT	3343.22
11	BEALE ST/29+69.58	42.49, LT	3343.34
12	BEALE ST/29+69.58	49.09, LT	3343.51
13	BEALE ST/29+68.99	50.51, LT	3343.55
14	BEALE ST/29+57.22	62.28, LT	3343.65
15	BEALE ST/29+55.61	66.11, LT	???
16	BEALE ST/30+12.39	66.08, LT	3342.99
17	BEALE ST/30+10.78	62.23, LT	3343.63
18	BEALE ST/29+99.16	50.61, LT	3343.48
19	BEALE ST/29+98.58	49.20, LT	3343.45
20	BEALE ST/29+98.58	42.51, LT	3343.39
22	BEALE ST/30+01.21	30.21, LT	3343.27
23	BEALE ST/30+04.06	25.20, LT	3343.21
24	BEALE ST/30+13.01	16.85, LT	3343.09
25	BEALE ST/30+18.01	14.42, LT	3343.03
27	BEALE ST/30+28.58	12.50, LT	3342.93

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
28	BEALE ST/30+44.63	12.50, LT	3343.29
29	BEALE ST/30+46.04	15.91, LT	3343.50
30	BEALE ST/30+42.24	19.72, LT	3343.58
31	BEALE ST/30+46.13	24.32, LT	3343.67
32	BEALE ST/30+47.22	24.05, RT	3342.19
33	BEALE ST/30+42.98	19.80, RT	3342.11
34	BEALE ST/30+36.27	13.09, RT	3341.98
35	BEALE ST/30+34.85	12.50, RT	3341.95
36	BEALE ST/30+28.57	12.50, RT	3341.91
38	BEALE ST/30+18.01	14.42, RT	3341.73
39	BEALE ST/30+13.01	16.85, RT	3341.65
40	BEALE ST/30+04.07	25.18, RT	3341.45
41	BEALE ST/30+01.21	30.18, RT	3341.36
43	BEALE ST/29+98.57	42.50, RT	3341.15
44	BEALE ST/29+98.57	47.90, RT	3341.37
45	BEALE ST/30+00.03	51.44, RT	3341.25
46	BEALE ST/30+10.41	61.81, RT	3340.96
47	BEALE ST/30+12.02	65.71, RT	3340.25
48	BEALE ST/29+56.18	65.72, RT	???
49	BEALE ST/29+57.79	61.86, RT	3340.80
50	BEALE ST/29+68.10	51.54, RT	3341.15
51	BEALE ST/29+69.57	48.01, RT	3341.28
52	BEALE ST/29+69.57	42.50, RT	3341.37

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
54	BEALE ST/29+66.92	30.18, RT	3341.74
55	BEALE ST/29+64.06	25.18, RT	3341.91
56	BEALE ST/29+55.13	16.85, RT	3342.27
57	BEALE ST/29+50.13	14.42, RT	3342.43
58	BEALE ST/29+39.57	12.50, RT	3342.75
59	BEALE ST/29+38.13	12.50, RT	3342.75
60	BEALE ST/29+36.72	15.91, RT	3342.24
61	BEALE ST/29+40.28	19.47, RT	3342.39
62	BEALE ST/29+36.39	23.36, RT	3342.25
63	BEALE ST/29+50.61	49.67, LT	3343.52
69	BEALE ST/30+20.89	49.55, LT	???
73	BEALE ST/30+42.94	34.50, LT	3343.76
75	BEALE ST/30+43.69	34.50, RT	3342.12
81	BEALE ST/29+42.70	49.87, RT	???
85	BEALE ST/29+40.01	34.50, RT	3342.00
86	BEALE ST/29+45.13	13.02, RT	3342.59
87	BEALE ST/29+50.13	23.85, RT	3342.17
88	BEALE ST/29+55.13	23.85, RT	3342.09
89	BEALE ST/29+58.78	19.46, RT	3342.14
90	BEALE ST/29+45.13	13.02, LT	3342.93
91	BEALE ST/29+50.13	23.85, LT	3343.10
92	BEALE ST/29+55.13	23.84, LT	3343.12
93	BEALE ST/29+58.79	19.46, LT	3343.08

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
94	BEALE ST/29+60.93	21.43, LT	3343.11
95	BEALE ST/29+57.09	25.21, LT	3343.15
96	BEALE ST/29+57.09	30.21, LT	3343.22
97	BEALE ST/29+68.68	35.21, LT	3343.27
98	BEALE ST/29+99.49	35.21, LT	3343.32
99	BEALE ST/30+11.06	30.20, LT	3343.31
100	BEALE ST/30+11.06	25.20, LT	3343.23
101	BEALE ST/30+07.23	21.42, LT	3343.16
102	BEALE ST/30+09.35	19.47, LT	3343.13
103	BEALE ST/30+13.01	23.85, LT	3343.21
104	BEALE ST/30+18.01	23.85, LT	3343.22
105	BEALE ST/30+23.01	13.04, LT	3342.98
106	BEALE ST/30+38.70	23.26, LT	3343.57
107	BEALE ST/30+42.94	27.50, LT	3343.68
108	BEALE ST/30+43.69	27.58, RT	3342.12
109	BEALE ST/30+39.45	23.34, RT	3342.04
110	BEALE ST/30+23.01	13.01, RT	3341.82
111	BEALE ST/30+18.01	23.85, RT	3341.72
112	BEALE ST/30+13.01	23.85, RT	3341.63
113	BEALE ST/30+09.35	19.47, RT	3341.57
114	BEALE ST/30+07.25	21.40, RT	3341.53
115	BEALE ST/30+11.07	25.18, RT	3341.59
116	BEALE ST/30+11.07	30.18, RT	3341.57

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
117	BEALE ST/29+99.46	35.18, RT	3341.27
118	BEALE ST/29+68.66	35.18, RT	3341.59
119	BEALE ST/29+57.06	30.18, RT	3341.90
120	BEALE ST/29+57.06	25.18, RT	3342.03
121	BEALE ST/29+60.88	21.39, RT	3342.06
138	BEALE ST/29+27.16	26.49, LT	3343.18
139	BEALE ST/29+27.16	22.49, LT	3343.14
140	BEALE ST/29+39.16	26.49, LT	3343.13
141	BEALE ST/29+39.16	22.49, LT	3343.09
142	BEALE ST/29+59.16	38.49, LT	3343.35
143	BEALE ST/29+63.16	38.49, LT	3343.33
144	BEALE ST/29+63.14	50.49, LT	3343.52
145	BEALE ST/29+59.16	50.49, LT	3343.53
146	BEALE ST/30+04.23	50.48, LT	3343.51
147	BEALE ST/30+08.23	50.48, LT	3343.54
148	BEALE ST/30+08.22	38.48, LT	3343.42
149	BEALE ST/30+04.23	38.49, LT	3343.39
150	BEALE ST/30+28.22	18.49, LT	3343.20
151	BEALE ST/30+40.22	18.49, LT	3343.48
152	BEALE ST/30+40.22	14.49, LT	3343.29
153	BEALE ST/30+28.22	14.49, LT	3343.11
154	BEALE ST/30+06.85	38.51, RT	3341.42
155	BEALE ST/30+02.84	38.51, RT	3341.32

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
156	BEALE ST/30+06.82	50.51, RT	3341.29
157	BEALE ST/30+02.84	50.51, RT	3341.19
158	BEALE ST/29+62.86	55.01, RT	3341.06
159	BEALE ST/29+58.86	55.01, RT	3341.13
160	BEALE ST/29+62.86	42.99, RT	3341.48
161	BEALE ST/29+58.86	43.01, RT	3341.56
162	BEALE ST/29+36.50	30.50, RT	3341.69
163	BEALE ST/29+40.01	26.98, RT	3342.26
164	BEALE ST/29+32.50	20.18, RT	3342.25
165	BEALE ST/30+52.31	30.50, LT	3343.77
166	BEALE ST/30+53.68	30.50, RT	3342.22

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

INTERSECTION DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT07

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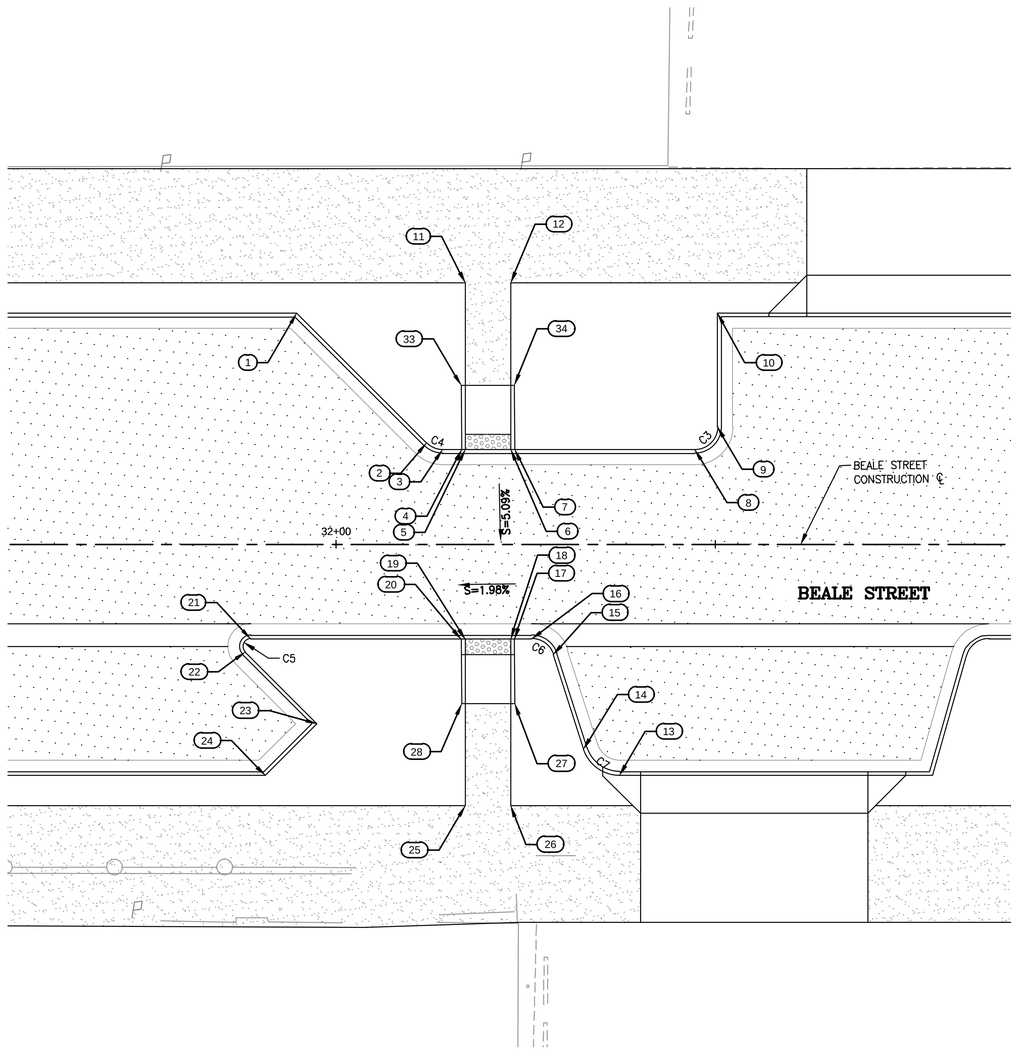

MID-BLOCK CROSSING BETWEEN 3RD STREET AND 4TH STREET

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/31+94.80	30.50, LT	3345.99
2	BEALE ST/32+11.92	13.38, LT	3345.18
3	BEALE ST/32+14.04	12.50, LT	3345.19
4	BEALE ST/32+16.55	12.50, LT	3345.30
5	BEALE ST/32+17.01	12.50, LT	3345.31
6	BEALE ST/32+23.01	12.50, LT	3345.48
7	BEALE ST/32+23.55	12.50, LT	3345.51
8	BEALE ST/32+47.30	12.50, LT	3346.06
9	BEALE ST/32+50.30	15.50, LT	3346.24
10	BEALE ST/32+50.30	30.50, LT	3347.47
11	BEALE ST/32+17.01	34.50, LT	3346.77
12	BEALE ST/32+23.01	34.50, LT	3347.09
13	BEALE ST/32+37.38	30.50, RT	3345.30
14	BEALE ST/32+32.62	27.03, RT	3344.63
15	BEALE ST/32+28.62	14.58, RT	3344.44
16	BEALE ST/32+25.76	12.50, RT	3344.29
17	BEALE ST/32+23.49	12.53, RT	3344.25

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
18	BEALE ST/32+23.00	12.53, RT	3344.24
19	BEALE ST/32+17.00	12.53, RT	3344.15
20	BEALE ST/32+16.49	12.53, RT	3344.14
21	BEALE ST/31+88.70	12.50, RT	3343.67
22	BEALE ST/31+88.00	14.21, RT	3343.71
23	BEALE ST/31+97.45	23.66, RT	3343.94
24	BEALE ST/31+90.62	30.50, RT	3344.34
25	BEALE ST/32+17.00	34.50, RT	3344.82
26	BEALE ST/32+23.00	34.50, RT	3344.91
27	BEALE ST/32+23.54	21.03, RT	3344.34
28	BEALE ST/32+16.54	21.03, RT	3344.23
33	BEALE ST/32+16.49	20.97, LT	3345.70
34	BEALE ST/32+23.50	20.98, LT	3345.97

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C3	4.71	3.00	89°59'54"
C4	2.36	3.00	45°00'06"
C5	2.36	1.00	134°59'54"
C6	3.78	3.00	72°11'32"
C7	6.30	5.00	72°11'32"

10 0 10 20
scale feet
HORIZ: 1"=10'

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

REVISIONS:

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PHONE: 602-733-6000
FAX: 602-733-6100

MID-BLOCK CROSSING DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT08

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT06.dwg

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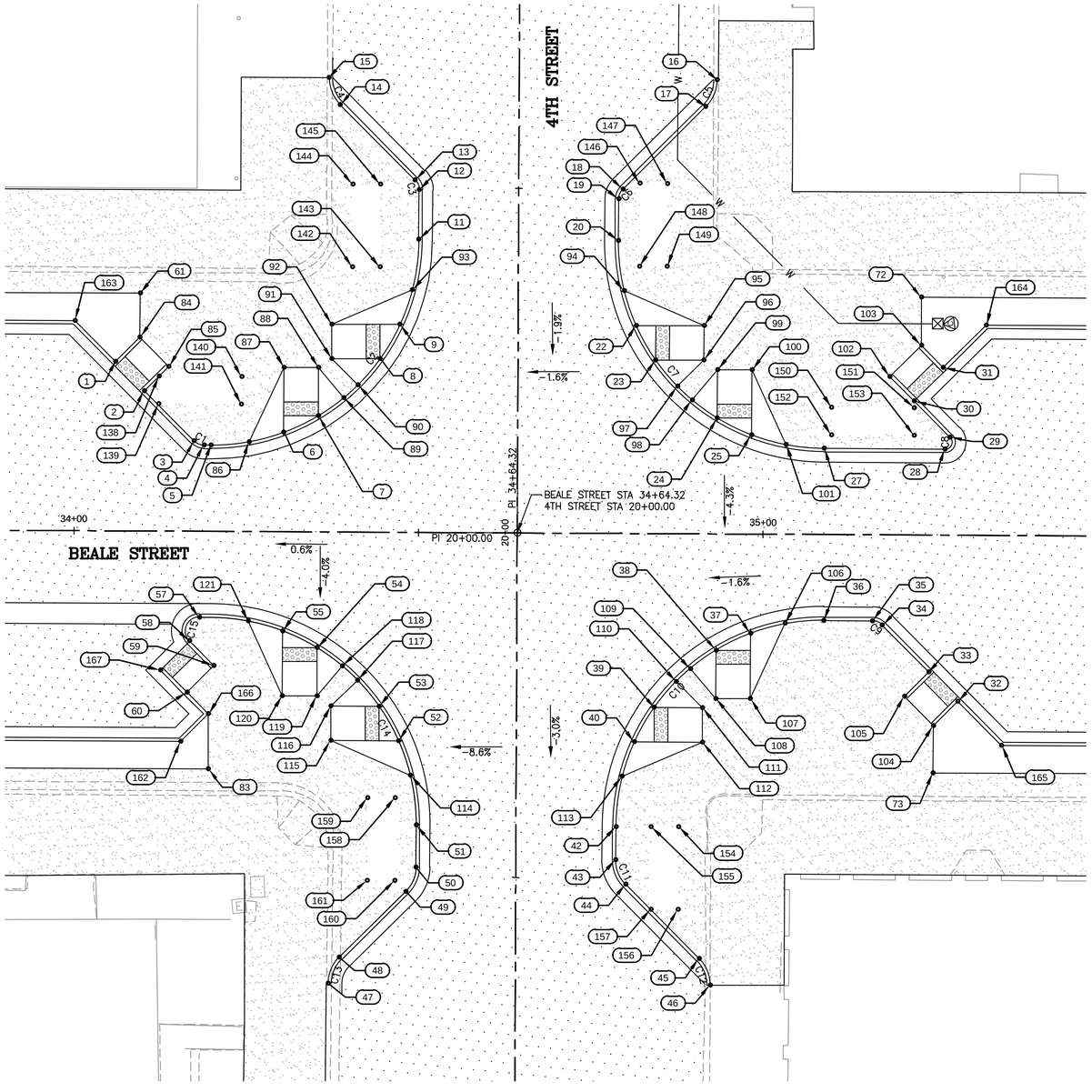

BEALE STREET AND 4TH STREET INTERSECTION

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	1.57	2.00	45°00'06"
C2	47.14	30.00	90°02'03"
C3	1.57	2.00	44°58'19"
C4	4.33	5.50	45°08'10"
C5	4.32	5.50	45°02'17"
C6	1.57	2.00	45°01'41"
C7	47.10	30.00	89°57'48"
C8	2.36	1.00	134°59'39"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C9	1.57	2.00	44°59'58"
C10	47.15	30.00	90°03'25"
C11	3.92	5.00	44°57'06"
C12	4.29	5.50	44°41'06"
C13	4.28	5.50	44°34'09"
C14	47.10	30.00	89°56'43"
C15	4.71	2.00	134°59'54"

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/34+05.87	24.59, LT	3350.48
2	BEALE ST/34+10.12	20.35, LT	3350.54
3	BEALE ST/34+17.38	13.09, LT	3350.64
4	BEALE ST/34+18.79	12.50, LT	3350.67
5	BEALE ST/34+19.79	12.50, LT	3350.68
6	BEALE ST/34+30.37	14.43, LT	3350.85
7	BEALE ST/34+35.37	16.86, LT	3350.94
8	BEALE ST/34+44.27	25.16, LT	3351.13
9	BEALE ST/34+47.14	30.16, LT	3351.22
11	BEALE ST/34+49.79	42.52, LT	3351.42
12	BEALE ST/34+49.79	49.70, LT	3351.53
13	BEALE ST/34+49.20	51.11, LT	3351.58
14	BEALE ST/34+38.30	62.01, LT	3351.81
15	BEALE ST/34+36.69	65.91, LT	3351.20
16	BEALE ST/34+92.98	65.87, LT	3351.85
17	BEALE ST/34+91.37	61.98, LT	3352.53
18	BEALE ST/34+79.37	49.98, LT	3352.58
19	BEALE ST/34+78.79	48.56, LT	3352.54
20	BEALE ST/34+78.79	42.48, LT	3352.38
22	BEALE ST/34+81.43	30.19, LT	3352.33
23	BEALE ST/34+84.29	25.19, LT	3352.30
24	BEALE ST/34+93.27	16.83, LT	3352.25
25	BEALE ST/34+98.27	14.41, LT	3352.23

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
27	BEALE ST/35+08.79	12.50, LT	3352.18
28	BEALE ST/35+26.32	12.50, LT	3352.51
29	BEALE ST/35+27.03	14.21, LT	3352.56
30	BEALE ST/35+21.82	19.41, LT	3352.52
31	BEALE ST/35+26.01	24.31, LT	3352.61
32	BEALE ST/35+28.39	24.13, RT	3351.10
33	BEALE ST/35+24.15	19.88, RT	3351.30
34	BEALE ST/35+17.35	13.09, RT	3351.61
35	BEALE ST/35+15.93	12.50, RT	3351.61
36	BEALE ST/35+08.86	12.50, RT	3351.50
37	BEALE ST/34+98.27	14.43, RT	3351.14
38	BEALE ST/34+93.27	16.87, RT	3350.96
39	BEALE ST/34+84.33	25.23, RT	3350.55
40	BEALE ST/34+81.48	30.23, RT	3350.36
42	BEALE ST/34+78.86	42.53, RT	3349.93
43	BEALE ST/34+78.87	47.38, RT	3349.76
44	BEALE ST/34+80.33	50.92, RT	3349.43
45	BEALE ST/34+91.03	61.61, RT	3348.71
46	BEALE ST/34+92.64	65.47, RT	3348.06
47	BEALE ST/34+37.21	65.52, RT	3348.12
48	BEALE ST/34+38.82	61.68, RT	3348.18
49	BEALE ST/34+48.40	52.09, RT	3348.52
50	BEALE ST/34+49.87	48.55, RT	3348.65

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
51	BEALE ST/34+49.86	42.47, RT	3348.80
52	BEALE ST/34+47.25	30.26, RT	3349.14
53	BEALE ST/34+44.41	25.26, RT	3349.29
54	BEALE ST/34+35.37	16.82, RT	3349.62
55	BEALE ST/34+30.37	14.40, RT	3349.76
57	BEALE ST/34+18.25	12.50, RT	3350.09
58	BEALE ST/34+16.84	15.91, RT	3350.13
59	BEALE ST/34+20.41	19.49, RT	3349.81
60	BEALE ST/34+16.52	23.37, RT	3349.74
61	BEALE ST/34+09.41	34.50, LT	3350.67
72	BEALE ST/35+22.83	34.50, LT	3352.70
73	BEALE ST/35+24.85	34.50, RT	3350.49
83	BEALE ST/34+19.65	34.50, RT	3349.27
84	BEALE ST/34+09.41	28.13, LT	3350.59
85	BEALE ST/34+13.65	23.89, LT	3350.63
86	BEALE ST/34+25.37	13.02, LT	3350.77
87	BEALE ST/34+30.37	23.86, LT	3350.93
88	BEALE ST/34+35.37	23.86, LT	3351.00
89	BEALE ST/34+39.03	19.48, LT	3351.01
90	BEALE ST/34+41.09	21.37, LT	3351.06
91	BEALE ST/34+37.27	25.15, LT	3351.04
92	BEALE ST/34+37.27	30.15, LT	3351.08
93	BEALE ST/34+48.88	35.16, LT	3351.31

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
94	BEALE ST/34+79.70	35.19, LT	3352.35
95	BEALE ST/34+91.28	30.20, LT	3352.40
96	BEALE ST/34+91.29	25.20, LT	3352.34
97	BEALE ST/34+87.46	21.41, LT	3352.28
98	BEALE ST/34+89.61	19.43, LT	3352.27
99	BEALE ST/34+93.27	23.83, LT	3352.33
100	BEALE ST/34+98.27	23.83, LT	3352.35
101	BEALE ST/35+03.27	13.01, LT	3352.20
102	BEALE ST/35+18.29	22.95, LT	3352.51
103	BEALE ST/35+22.83	27.49, LT	3352.61
104	BEALE ST/35+24.85	27.66, RT	3350.88
105	BEALE ST/35+20.61	23.42, RT	3351.08
106	BEALE ST/35+03.27	12.91, RT	3351.32
107	BEALE ST/34+98.27	23.87, RT	3350.74
108	BEALE ST/34+93.27	23.87, RT	3350.67
109	BEALE ST/34+89.58	19.59, RT	3350.81
110	BEALE ST/34+87.51	21.44, RT	3350.71
111	BEALE ST/34+91.33	25.22, RT	3350.58
112	BEALE ST/34+91.34	30.22, RT	3350.34
113	BEALE ST/34+79.74	35.23, RT	3350.18
114	BEALE ST/34+48.97	35.26, RT	3349.00
115	BEALE ST/34+37.42	30.27, RT	3349.28
116	BEALE ST/34+37.41	25.27, RT	3349.37

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
117	BEALE ST/34+41.27	21.48, RT	3349.42
118	BEALE ST/34+39.02	19.42, RT	3349.50
119	BEALE ST/34+35.37	23.82, RT	3349.43
120	BEALE ST/34+30.37	23.82, RT	3349.49
121	BEALE ST/34+25.37	13.01, RT	3349.90
138	BEALE ST/34+12.21	22.48, LT	3350.59
139	BEALE ST/34+12.21	18.48, LT	3350.57
140	BEALE ST/34+24.21	22.47, LT	3350.82
141	BEALE ST/34+24.21	18.47, LT	3350.78
142	BEALE ST/34+40.21	38.47, LT	3351.20
143	BEALE ST/34+44.21	38.47, LT	3351.27
144	BEALE ST/34+40.21	50.47, LT	3351.41
145	BEALE ST/34+44.21	50.47, LT	3351.50
146	BEALE ST/34+81.84	50.79, LT	3352.53
147	BEALE ST/34+85.84	50.79, LT	3352.56
148	BEALE ST/34+81.84	38.79, LT	3352.39
149	BEALE ST/34+85.84	38.80, LT	3352.43
150	BEALE ST/35+09.84	18.47, LT	3352.35
151	BEALE ST/35+21.84	18.47, LT	3352.50
152	BEALE ST/35+09.84	14.47, LT	3352.27
153	BEALE ST/35+21.84	14.47, LT	3352.45
154	BEALE ST/34+87.98	42.52, RT	3349.71
155	BEALE ST/34+83.98	42.52, RT	3349.74

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
156	BEALE ST/34+87.93	54.52, RT	3349.15
157	BEALE ST/34+83.98	54.52, RT	3349.19
158	BEALE ST/34+46.82	38.52, RT	3348.97
159	BEALE ST/34+42.82	38.52, RT	3349.05
160	BEALE ST/34+46.82	50.52, RT	3348.58
161	BEALE ST/34+42.82	50.52, RT	3348.68
162	BEALE ST/34+15.65	30.50, RT	3348.92
163	BEALE ST/33+99.97	30.50, LT	3350.39
164	BEALE ST/35+32.21	30.50, LT	3352.72
165	BEALE ST/35+34.76	30.50, RT	3350.72
166	BEALE ST/34+19.65	26.50, RT	3349.56
167	BEALE ST/34+12.63	20.19, RT	3349.93

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

INTERSECTION DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
Date Signed 06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT09

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT07.dwg

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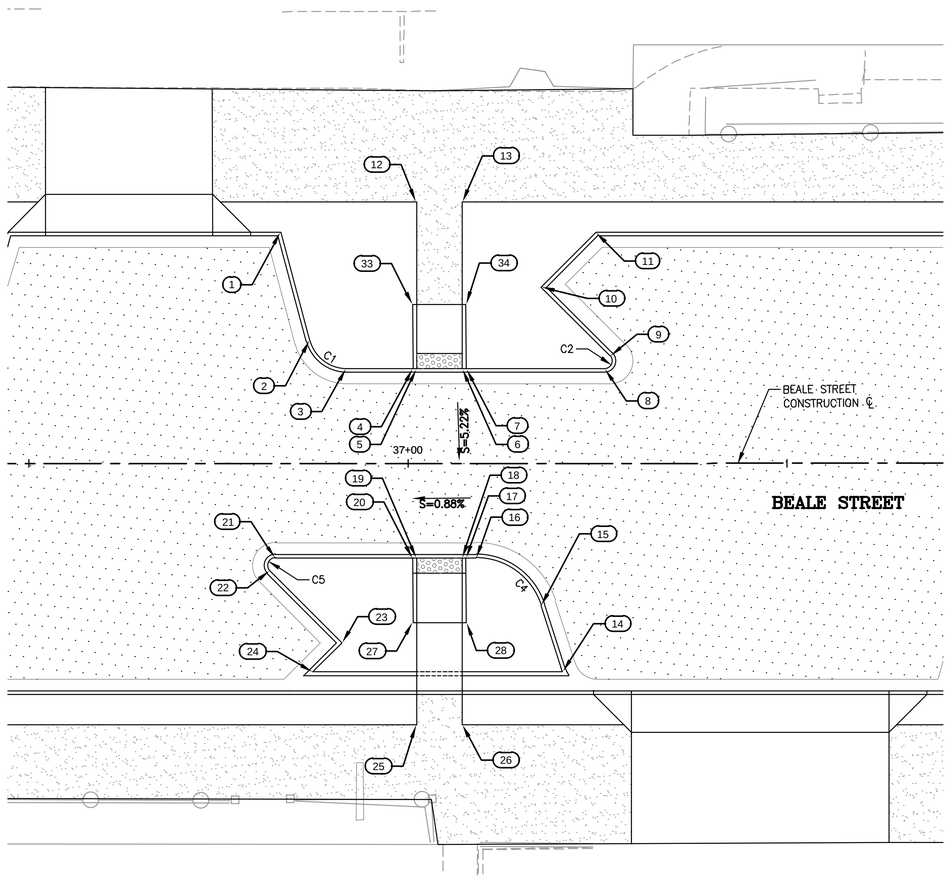

MID-BLOCK CROSSING BETWEEN 4TH STREET AND 5TH STREET

BACK OF CURB STAKING TABLE			
POINT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/36+83.20	30.50, LT	3354.48
2	BEALE ST/36+87.06	16.20, LT	3353.26
3	BEALE ST/36+91.88	12.50, LT	3353.15
4	BEALE ST/37+00.67	12.46, LT	3353.28
5	BEALE ST/37+01.13	12.46, LT	3353.28
6	BEALE ST/37+07.13	12.46, LT	3353.31
7	BEALE ST/37+07.67	12.46, LT	3353.32
8	BEALE ST/37+25.93	12.47, LT	3353.47
9	BEALE ST/37+26.64	14.17, LT	3353.56
10	BEALE ST/37+17.56	23.25, LT	3353.93
11	BEALE ST/37+24.78	30.47, LT	3354.89
12	BEALE ST/37+01.13	34.50, LT	3354.88
13	BEALE ST/37+07.13	34.50, LT	3354.90
14	BEALE ST/37+20.37	27.50, RT	3351.95
15	BEALE ST/37+17.54	18.78, RT	3352.13
16	BEALE ST/37+08.97	12.54, RT	3352.05
17	BEALE ST/37+07.62	12.54, RT	3352.02

BACK OF CURB STAKING TABLE			
POINT #	ALIGNMENT/STATION	OFFSET	ELEVATION
18	BEALE ST/37+07.13	12.50, RT	3352.02
19	BEALE ST/37+01.13	12.50, RT	3351.95
20	BEALE ST/37+00.62	12.54, RT	3351.94
21	BEALE ST/36+82.52	12.50, RT	3351.78
22	BEALE ST/36+81.81	14.21, RT	3351.68
23	BEALE ST/36+91.28	23.67, RT	3351.27
24	BEALE ST/36+87.45	27.50, RT	3351.03
25	BEALE ST/37+01.13	34.50, RT	3351.78
26	BEALE ST/37+07.13	34.50, RT	3352.02
27	BEALE ST/37+00.67	21.01, RT	3351.50
28	BEALE ST/37+07.67	21.00, RT	3351.69
33	BEALE ST/37+00.62	20.97, LT	3353.74
34	BEALE ST/37+07.62	20.97, LT	3353.76

CURB TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	6.54	5.00	74°53'57"
C2	2.36	1.00	135°00'02"
C4	11.34	9.00	72°11'24"
C5	2.36	1.00	135°00'02"

10 0 10 20
scale feet
HORIZ: 1"=10'

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

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

MID-BLOCK CROSSING DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT10

SHEET NO. 13 of 52

File: G:\InfrastructureTrans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT08.dwg

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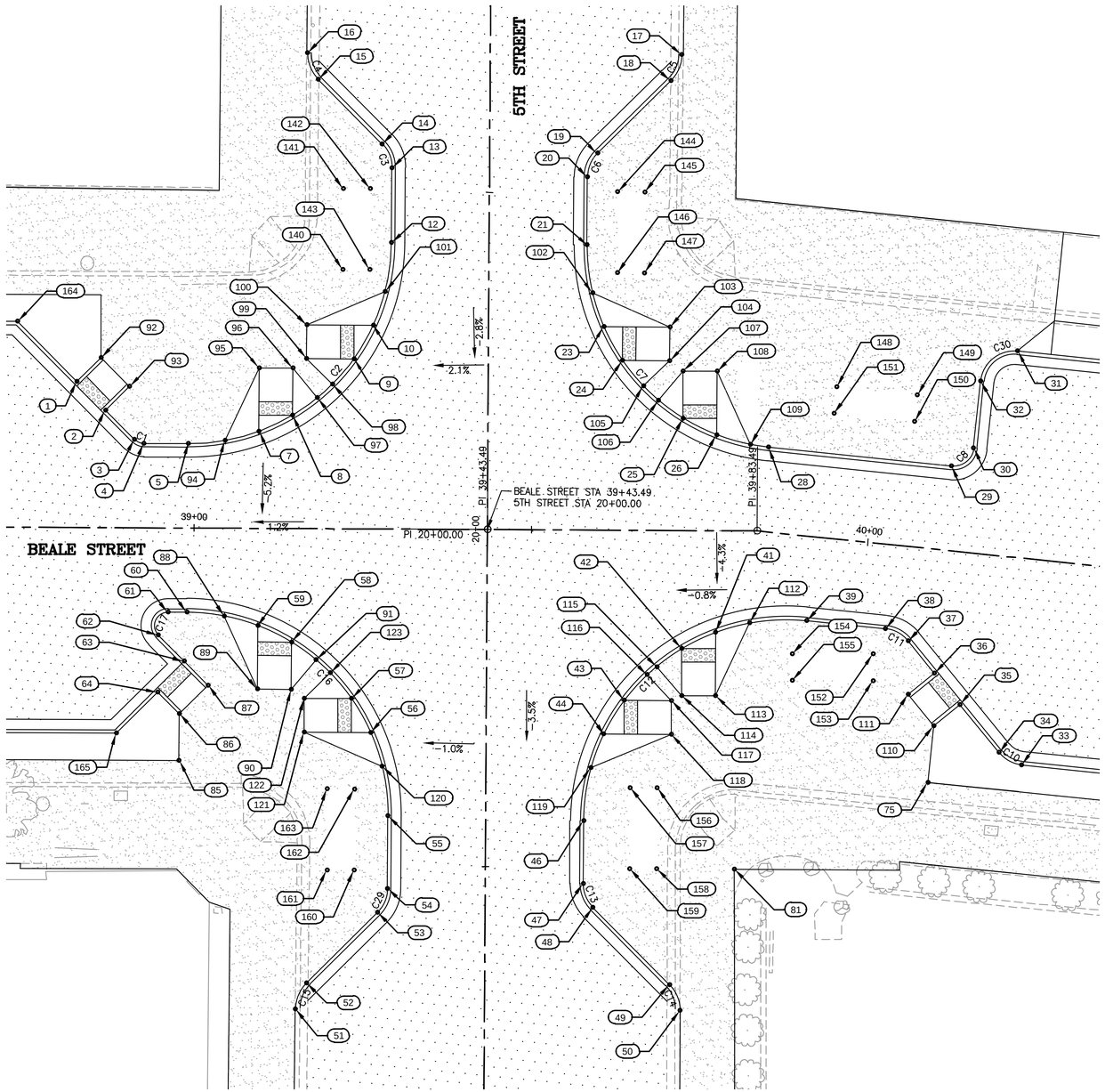

BEALE STREET AND 5TH STREET INTERSECTION

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/38+82.50	21.65, LT	3355.82
2	BEALE ST/38+86.74	17.41, LT	3355.72
3	BEALE ST/38+91.07	13.09, LT	3355.63
4	BEALE ST/38+92.48	12.50, LT	3355.57
5	BEALE ST/38+99.03	12.50, LT	3355.52
7	BEALE ST/39+09.51	14.39, LT	3355.63
8	BEALE ST/39+14.51	16.80, LT	3355.68
9	BEALE ST/39+23.55	25.21, LT	3355.81
10	BEALE ST/39+26.40	30.21, LT	3355.86
12	BEALE ST/39+29.03	42.47, LT	3355.99
13	BEALE ST/39+29.04	53.57, LT	3356.41
14	BEALE ST/39+27.57	57.11, LT	3356.62
15	BEALE ST/39+18.04	66.64, LT	3356.96
16	BEALE ST/39+16.43	70.57, LT	???
17	BEALE ST/39+71.97	70.58, LT	???
18	BEALE ST/39+70.36	66.72, LT	3356.65
19	BEALE ST/39+59.52	55.88, LT	3356.36
20	BEALE ST/39+58.05	52.35, LT	3356.17
21	BEALE ST/39+58.04	42.29, LT	3355.81
23	BEALE ST/39+60.58	30.17, LT	3355.61
24	BEALE ST/39+63.38	25.17, LT	3355.52
25	BEALE ST/39+72.40	16.66, LT	3355.31
26	BEALE ST/39+77.40	14.21, LT	3355.22
28	BEALE ST/39+83.90	12.50, LT	3355.10

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
29	BEALE ST/40+11.14	12.50, LT	3355.35
30	BEALE ST/40+14.14	15.50, LT	3355.49
31	BEALE ST/40+19.14	30.50, LT	3355.02
32	BEALE ST/40+14.14	25.50, LT	3355.44
33	BEALE ST/40+26.03	30.50, RT	3352.55
34	BEALE ST/40+22.50	29.04, RT	3352.65
35	BEALE ST/40+16.02	22.56, RT	3353.43
36	BEALE ST/40+11.78	18.32, RT	3353.95
37	BEALE ST/40+07.42	13.96, RT	3354.48
38	BEALE ST/40+03.89	12.50, RT	3354.59
39	BEALE ST/39+92.13	12.50, RT	3354.47
41	BEALE ST/39+77.39	15.06, RT	3354.10
42	BEALE ST/39+72.36	17.50, RT	3353.95
43	BEALE ST/39+63.88	25.22, RT	3353.63
44	BEALE ST/39+60.87	30.21, RT	3353.47
46	BEALE ST/39+57.94	43.11, RT	3353.11
47	BEALE ST/39+57.93	52.44, RT	3352.87
48	BEALE ST/39+59.39	55.98, RT	3352.71
49	BEALE ST/39+70.79	67.37, RT	3352.01
50	BEALE ST/39+72.40	71.20, RT	???
51	BEALE ST/39+15.36	71.26, RT	???
52	BEALE ST/39+16.97	67.40, RT	3351.86
53	BEALE ST/39+27.48	56.89, RT	3352.65
54	BEALE ST/39+28.94	53.36, RT	3352.86

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
55	BEALE ST/39+28.95	42.53, RT	3353.12
56	BEALE ST/39+26.31	30.18, RT	3353.54
57	BEALE ST/39+23.45	25.18, RT	3353.72
58	BEALE ST/39+14.51	16.85, RT	3354.12
59	BEALE ST/39+09.51	14.42, RT	3354.30
60	BEALE ST/38+98.95	12.50, RT	3354.65
61	BEALE ST/38+96.18	12.50, RT	3354.67
62	BEALE ST/38+94.76	15.91, RT	3354.35
63	BEALE ST/38+98.63	19.78, RT	3354.21
64	BEALE ST/38+94.74	24.38, RT	3353.87
75	BEALE ST/40+12.48	34.50, RT	3353.07
81	BEALE ST/39+80.33	50.19, RT	3352.75
85	BEALE ST/38+97.92	34.50, RT	3353.22
86	BEALE ST/38+97.92	27.56, RT	3353.68
87	BEALE ST/39+02.17	23.32, RT	3353.93
88	BEALE ST/39+04.51	13.02, RT	3354.47
89	BEALE ST/39+09.51	23.85, RT	3353.85
90	BEALE ST/39+14.51	23.85, RT	3353.83
91	BEALE ST/39+18.17	19.46, RT	3353.98
92	BEALE ST/38+86.04	25.19, LT	3355.86
93	BEALE ST/38+90.28	20.95, LT	3355.76
94	BEALE ST/39+04.51	13.01, LT	3355.58
95	BEALE ST/39+09.51	23.80, LT	3355.79
96	BEALE ST/39+14.51	23.80, LT	3355.80

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
97	BEALE ST/39+18.16	19.39, LT	3355.73
98	BEALE ST/39+20.38	21.43, LT	3355.76
99	BEALE ST/39+16.55	25.22, LT	3355.82
100	BEALE ST/39+16.55	30.22, LT	3355.90
101	BEALE ST/39+28.13	35.21, LT	3355.92
102	BEALE ST/39+58.89	35.17, LT	3355.69
103	BEALE ST/39+70.39	30.16, LT	3355.52
104	BEALE ST/39+70.38	25.16, LT	3355.45
105	BEALE ST/39+66.49	21.39, LT	3355.44
106	BEALE ST/39+68.73	19.29, LT	3355.39
107	BEALE ST/39+72.40	23.66, LT	3355.41
108	BEALE ST/39+77.40	23.66, LT	3355.37
109	BEALE ST/39+82.40	12.79, LT	3355.14
110	BEALE ST/40+12.48	26.09, RT	3353.34
111	BEALE ST/40+08.24	21.85, RT	3353.74
112	BEALE ST/39+82.39	13.66, RT	3354.24
113	BEALE ST/39+77.39	24.49, RT	3353.79
114	BEALE ST/39+72.39	24.48, RT	3353.71
115	BEALE ST/39+68.69	20.24, RT	3353.82
116	BEALE ST/39+67.28	21.41, RT	3353.77
117	BEALE ST/39+70.88	25.23, RT	3353.66
118	BEALE ST/39+70.88	30.23, RT	3353.49
119	BEALE ST/39+59.01	35.21, RT	3353.33
120	BEALE ST/39+28.05	35.18, RT	3353.36

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
121	BEALE ST/39+16.44	30.17, RT	3353.58
122	BEALE ST/39+16.45	25.17, RT	3353.76
123	BEALE ST/39+20.27	21.39, RT	3353.88
140	BEALE ST/39+21.82	38.48, LT	3355.99
141	BEALE ST/39+21.82	50.48, LT	3356.29
142	BEALE ST/39+25.82	50.48, LT	3356.29
143	BEALE ST/39+25.82	38.48, LT	3355.97
144	BEALE ST/39+62.54	50.17, LT	3356.03
145	BEALE ST/39+66.54	50.16, LT	3355.97
146	BEALE ST/39+62.54	38.17, LT	3355.70
147	BEALE ST/39+66.54	38.16, LT	3355.67
148	BEALE ST/39+93.03	22.47, LT	3355.31
149	BEALE ST/40+05.03	22.47, LT	3355.36
150	BEALE ST/40+05.03	18.50, LT	3355.32
151	BEALE ST/39+93.03	18.50, LT	3355.26
152	BEALE ST/40+02.45	16.42, RT	3354.11
153	BEALE ST/40+02.85	20.40, RT	3353.90
154	BEALE ST/39+90.51	17.60, RT	3354.25
155	BEALE ST/39+90.91	21.57, RT	3354.05
156	BEALE ST/39+68.83	38.18, RT	3353.19
157	BEALE ST/39+64.83	38.18, RT	3353.17
158	BEALE ST/39+68.83	50.18, RT	3352.78
159	BEALE ST/39+64.83	50.19, RT	3352.75
160	BEALE ST/39+23.95	50.65, RT	3352.79

BACK OF CURB STAKING TABLE			
PT #	ALIGNMENT/STATION	OFFSET	ELEVATION
161	BEALE ST/39+19.95	50.66, RT	3352.77
162	BEALE ST/39+23.94	38.59, RT	3353.21
163	BEALE ST/39+19.95	38.59, RT	3353.17
164	BEALE ST/38+73.66	30.50, LT	3356.01
165	BEALE ST/38+88.62	30.50, RT	3353.41

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	1.57	2.00	44°59'58"
C2	47.10	30.00	89°56'46"
C3	3.93	5.00	45°03'44"
C4	4.36	5.50	45°26'37"
C5	4.29	5.50	44°39'43"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C6	3.92	5.00	44°56'16"
C7	44.23	30.00	84°28'14"
C8	4.71	3.00	90°00'04"
C10	3.93	5.00	44°59'56"
C11	3.93	5.00	44°59'56"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C12	50.02	30.00	95°32'01"
C13	3.93	5.00	45°03'29"
C14	4.30	5.50	44°46'38"
C15	4.29	5.50	44°41'17"
C16	47.15	30.00	90°02'59"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C17	4.71	2.00	135°00'02"
C29	3.92	5.00	44°56'31"
C30	7.85	5.00	90°00'57"

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

INTERSECTION DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
Date Signed 06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT11

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT09.dwg

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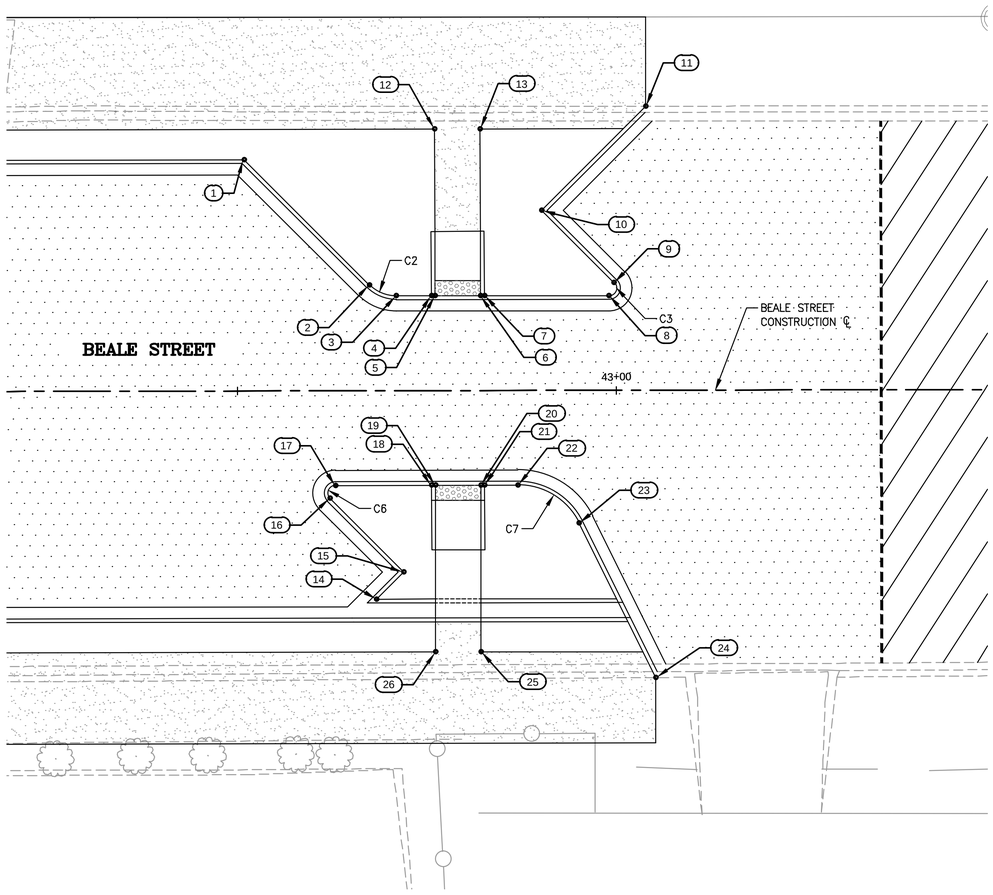


MID-BLOCK CROSSING BETWEEN 5TH STREET AND 6TH STREET

BACK OF CURB STAKING TABLE			
POINT #	ALIGNMENT/STATION	OFFSET	ELEVATION
1	BEALE ST/42+50.92	30.50, LT	3354.92
2	BEALE ST/42+67.46	13.96, LT	3353.64
3	BEALE ST/42+70.99	12.50, LT	3353.59
4	BEALE ST/42+75.64	12.50, LT	3353.59
5	BEALE ST/42+76.10	12.50, LT	3353.59
6	BEALE ST/42+82.10	12.50, LT	3353.60
7	BEALE ST/42+82.64	12.50, LT	3353.60
8	BEALE ST/42+99.04	12.50, LT	3353.61
9	BEALE ST/42+99.74	14.21, LT	3353.69
10	BEALE ST/42+90.23	23.72, LT	3354.22
11	BEALE ST/43+03.98	37.47, LT	3354.69
12	BEALE ST/42+76.10	34.50, LT	3355.02
13	BEALE ST/42+82.10	34.50, LT	3355.01

BACK OF CURB STAKING TABLE			
POINT #	ALIGNMENT/STATION	OFFSET	ELEVATION
14	BEALE ST/42+68.33	27.50, RT	3351.87
15	BEALE ST/42+71.91	23.92, RT	3352.02
16	BEALE ST/42+62.20	14.21, RT	3352.44
17	BEALE ST/42+62.90	12.50, RT	3352.51
18	BEALE ST/42+75.59	12.50, RT	3352.52
19	BEALE ST/42+76.10	12.50, RT	3352.52
20	BEALE ST/42+82.10	12.50, RT	3352.52
21	BEALE ST/42+82.59	12.50, RT	3352.52
22	BEALE ST/42+86.99	12.50, RT	3352.53
23	BEALE ST/42+95.05	17.51, RT	3352.33
24	BEALE ST/43+05.16	37.92, RT	3352.63
25	BEALE ST/42+82.10	34.50, RT	3352.46
26	BEALE ST/42+76.10	34.50, RT	3352.45

CURB TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C2	3.93	5.00	44°59'56"
C3	2.36	1.00	135°00'04"
C6	2.36	1.00	135°00'04"
C7	10.00	9.00	63°39'16"

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

MID-BLOCK CROSSING DETAIL

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

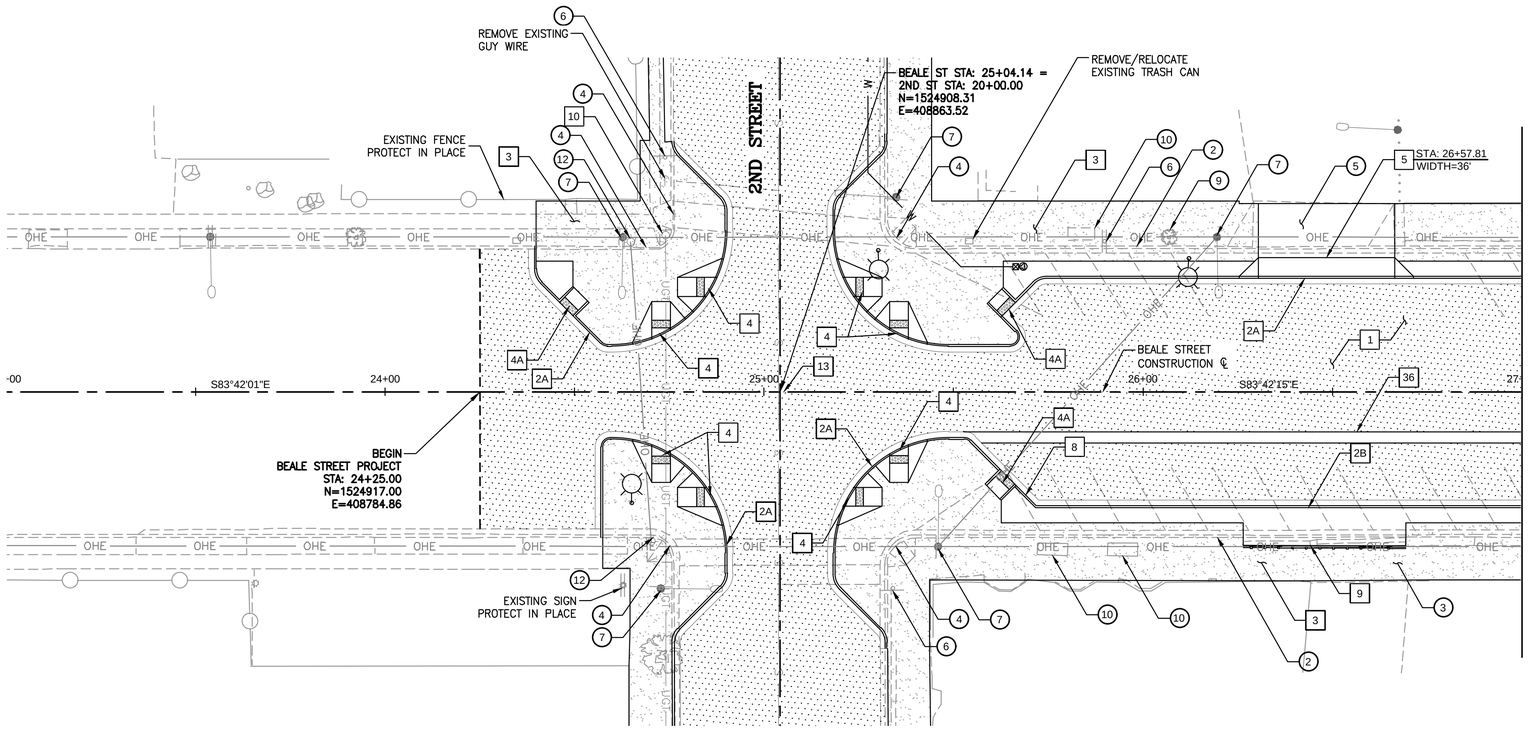
DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

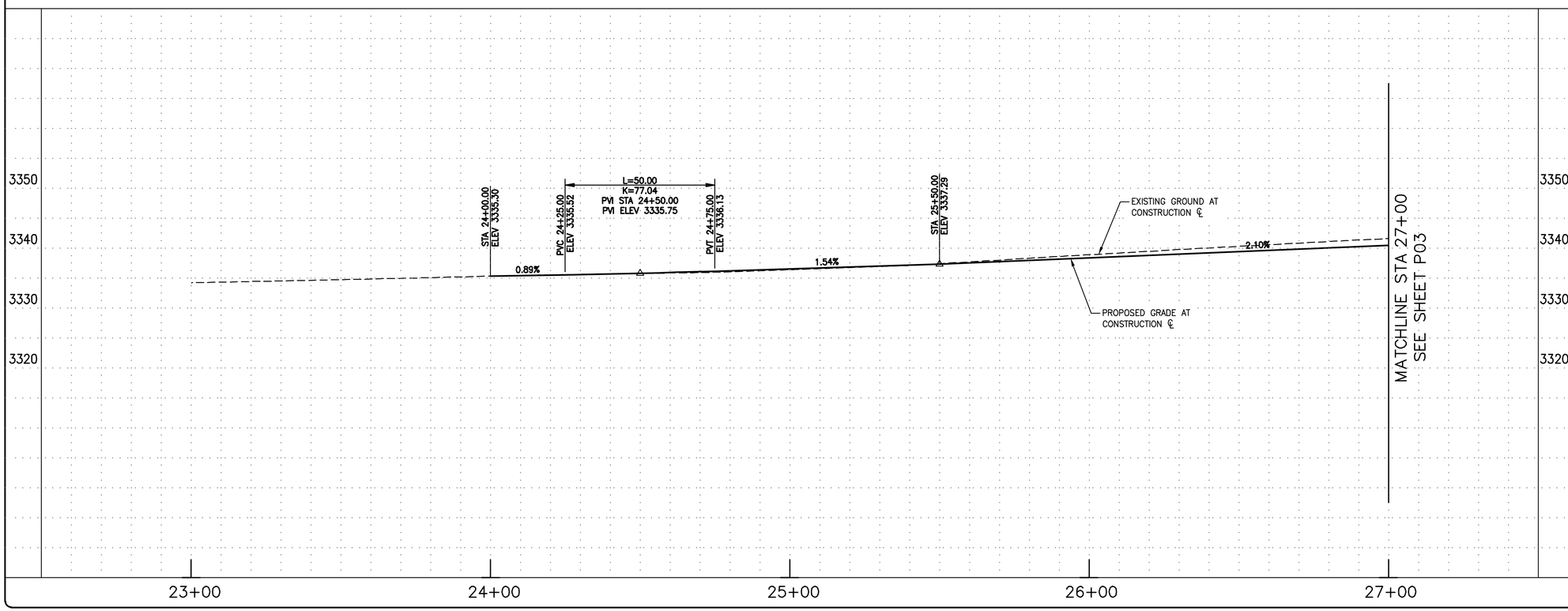
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
DT12

File: G:\Infrastructure\Trans\Projects\3720\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-DT10.dwg





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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	2957 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	500 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	2636 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	5 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	492 SF
6	REMOVE EXISTING SIGN POST AND FOUNDATION	3 EA
7	REMOVE EXISTING LIGHT POLE, FOUNDATION, AERIAL LINES AND APPURTENANCES	5 EA
9	REMOVE EXISTING TREE	1 EA
10	REMOVE EXISTING LANDSCAPE PLANTER	3 EA
12	REMOVE EXISTING STREET LIGHT	2 EA

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	1566 SY
2A	CONSTRUCT 8" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	360 LF
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	362 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	9152 SF
4	CONSTRUCT DIRECTIONAL CURB RAMP, MAG STD DTL 237-1	8 EA
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	3 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	812 SF
8	CONSTRUCT 2' CURB CUT PER DETAIL DWG DT01	1 EA
9	CONSTRUCT 18" RETAINING WALL WITH SAFETY RAIL, MAG STD DTL 145	43 LF
10	REMOVE & RELOCATE EXISTING POWER POLE	1 EA
13	REMOVE, CLEAN AND RESET SURVEY MARKER, MAG STD DTL 120-1, TYPE B	1 EA
36	CONSTRUCT 3' VALLEY GUTTER, MAG STD DTL 240	153 LF
41	CONSTRUCT MOUNTABLE CURB, MAG DTL 220-2	90 LF

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES. CO-OPERATE WITH THE UTILITY COMPANIES IN PROTECTING ALL SERVICES.
3. EXACT LOCATIONS OF EXISTING UTILITIES SHOWN ARE UNKNOWN. LOCATIONS AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND BURIED CABLES PRIOR TO CONSTRUCTION BY CALLING BLUESTAKE 1-800-STAKE-IT, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 Date Signed ARIZONA U.S.A.

EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
P02

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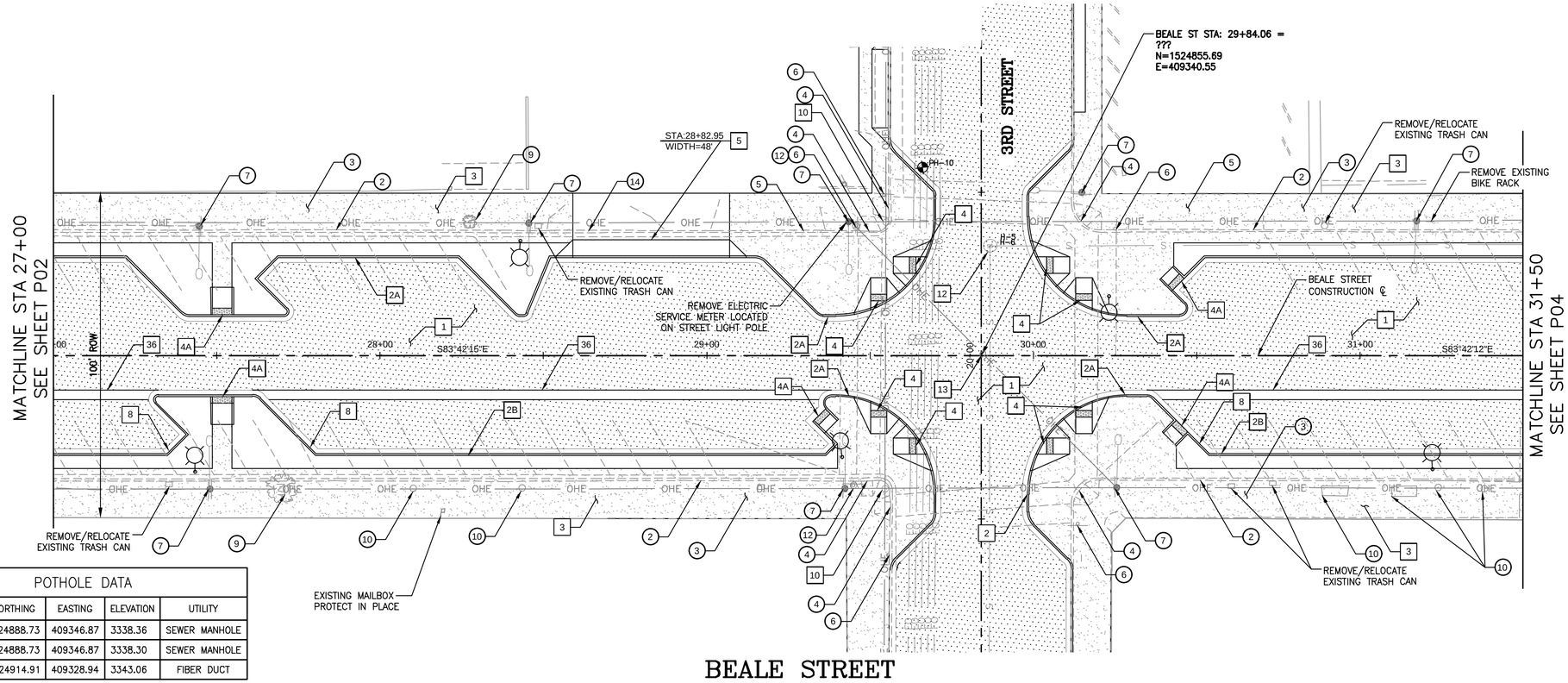
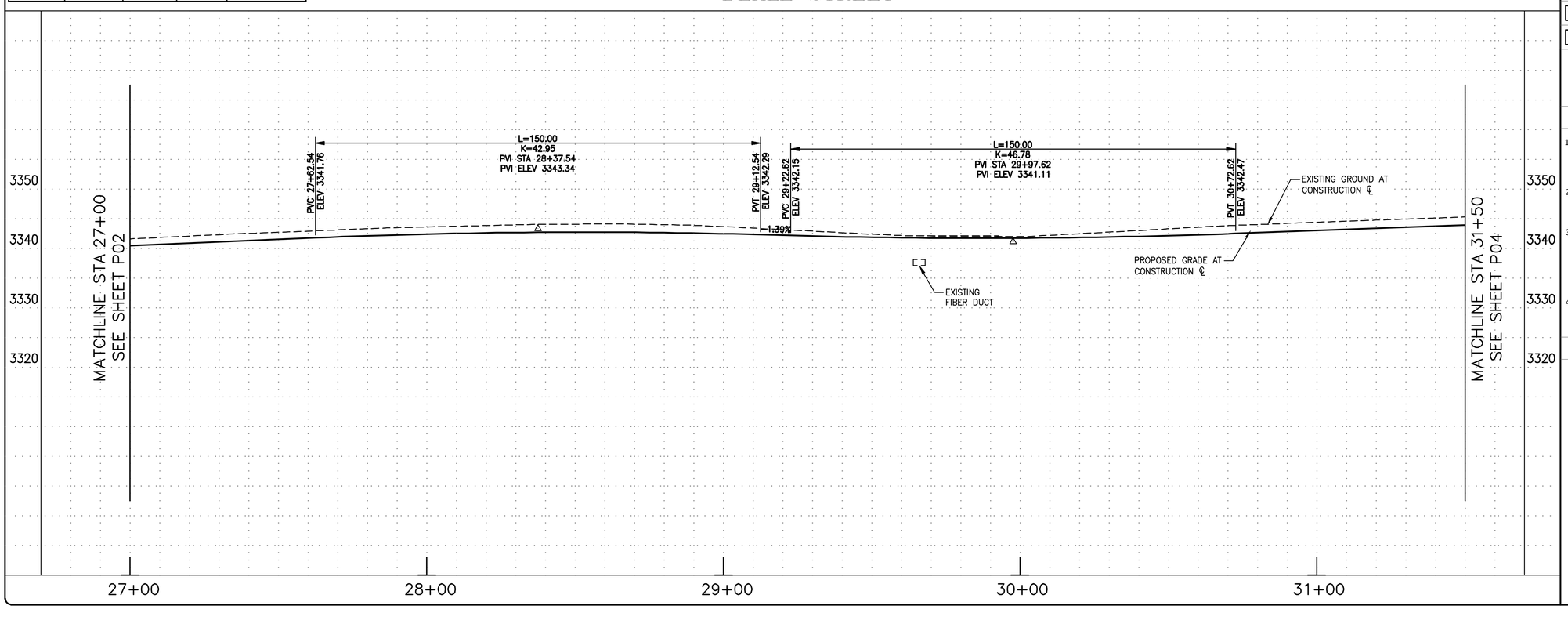


POTHOLE DATA				
POTHOLE #	NORTHING	EASTING	ELEVATION	UTILITY
5	1524888.73	409346.87	3338.36	SEWER MANHOLE
6	1524888.73	409346.87	3338.30	SEWER MANHOLE
10	1524914.91	409328.94	3343.06	FIBER DUCT



REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	4077 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	970 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	8536 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	6 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	156 SF
6	REMOVE EXISTING SIGN POST AND FOUNDATION	5 EA
7	REMOVE EXISTING LIGHT POLE, FOUNDATION, AERIAL LINES AND APPURTENANCES	8 EA
9	REMOVE EXISTING TREE	2 EA
10	REMOVE EXISTING LANDSCAPE PLANTER	6 EA
12	REMOVE EXISTING STREET LIGHT	2 EA
14	REMOVE EXISTING ASPHALT DRIVEWAY	662 SF

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	2284 SY
2A	CONSTRUCT 8" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	914 LF
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	361 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	13810 SF
4	CONSTRUCT DIRECTIONAL CURB RAMP, MAG STD DTL 237-1	8 EA
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	5 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	945 SF
8	CONSTRUCT 2' CURB CUT PER DETAIL DWG DT01	3 EA
10	REMOVE & RELOCATE EXISTING POWER POLE	4 EA
12	ADJUST & CLEAN EXISTING MANHOLE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 422	1 EA
13	REMOVE, CLEAN AND RESET SURVEY MARKER, MAG STD DTL 120-1, TYPE B	1 EA
36	CONSTRUCT 3' VALLEY GUTTER, MAG STD DTL 240	314 LF

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES. CO-OPERATE WITH THE UTILITY COMPANIES IN PROTECTING ALL SERVICES.
3. EXACT LOCATIONS OF EXISTING UTILITIES SHOWN ARE UNKNOWN. LOCATIONS AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND BURIED CABLES PRIOR TO CONSTRUCTION BY CALLING BLUESTAKE 1-800-STAKE-IT, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

PLAN AND PROFILE

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 ARIZONA U.S.A.

EXPIRES: 9/30/2024

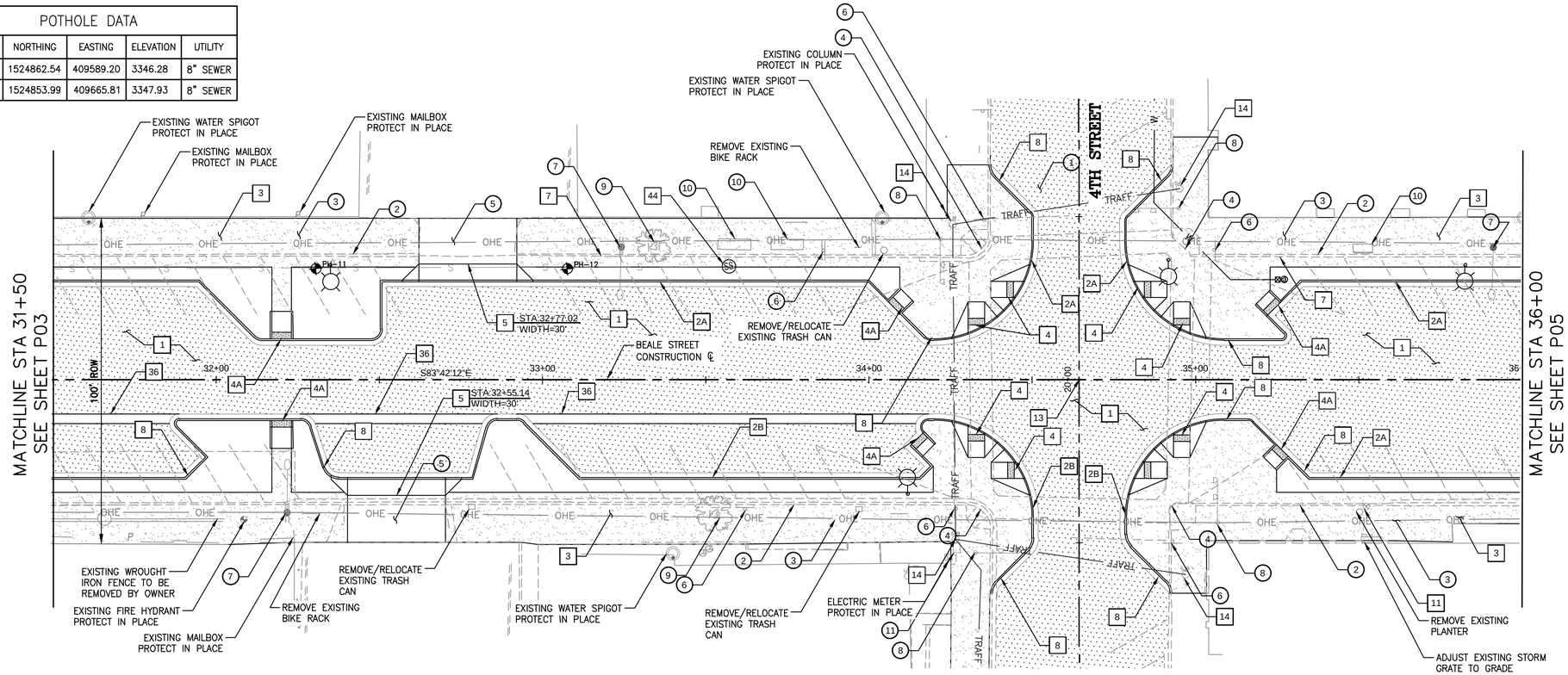
PROJECT NO. 3720205006

DRAWING NAME P03

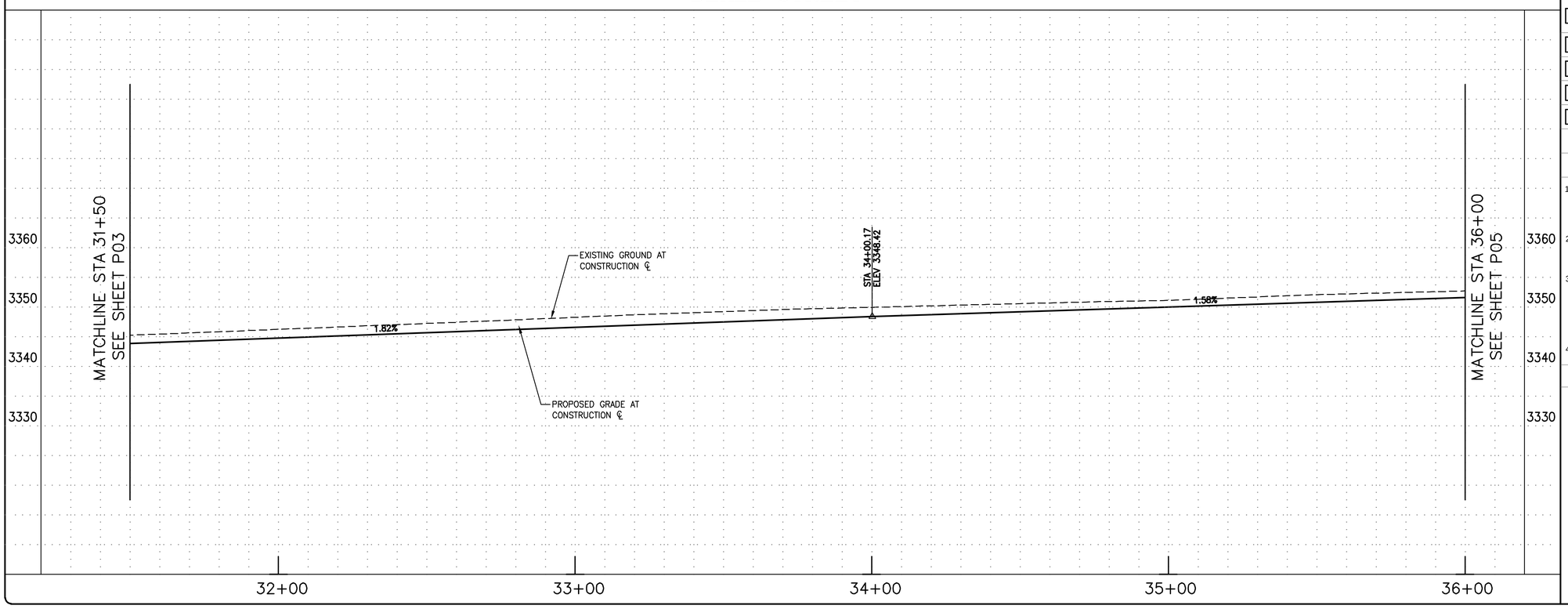
SHEET NO. 17 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P03.dwg

POTHOLE DATA				
POTHOLE #	NORTHING	EASTING	ELEVATION	UTILITY
11	1524862.54	409589.20	3346.28	8" SEWER
12	1524853.99	409665.81	3347.93	8" SEWER



BEALE STREET



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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	4139 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	886 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	9622 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	4 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	746 SF
6	REMOVE EXISTING SIGN POST AND FOUNDATION	6 EA
7	REMOVE EXISTING LIGHT POLE, FOUNDATION, AERIAL LINES AND APPURTENANCES	3 EA
8	REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL, POLE AND FOUNDATION	4 EA
9	REMOVE EXISTING TREE	2 EA
10	REMOVE EXISTING LANDSCAPE PLANTER	3 EA
11	REMOVE AND SALVAGE EXISTING CABINET, EQUIPMENT AND FOUNDATION	1 EA

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	2278 SY
2A	CONSTRUCT 8" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	756 LF
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	432 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	15156 SF
4	CONSTRUCT DIRECTIONAL CURB RAMP, MAG STD DTL 237-1	8 EA
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	6 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	1202 SF
7	CONNECT NEW ROOF DRAIN PIPE AT BUILDING FACE. EXTEND NEW PIPE AND DAYLIGHT AT NEW FACE OF CURB. CONTRACTOR TO VERIFY EXISTING DOWNSPOUT AND OUTFALL PIPE AND MATCH EXISTING SIZE	3 EA
8	CONSTRUCT 2' CURB CUT PER DETAIL DWG DT01	10 EA
11	ADJUST & CLEAN EXISTING WATER OR GAS VALVE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 270	1 EA
13	REMOVE, CLEAN AND RESET SURVEY MARKER, MAG STD DTL 120-1, TYPE B	1 EA
14	ADJUST EXISTING JUNCTION BOX TO FINISH GRADE	4 EA
36	CONSTRUCT 3' VALLEY GUTTER, MAG STD DTL 240	210 LF
44	CONSTRUCT SANITARY SEWER MANHOLE, MAG STD DTL 420-1	1 EA

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES. CO-OPERATE WITH THE UTILITY COMPANIES IN PROTECTING ALL SERVICES.
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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
P04
SHEET NO. 18 of 52

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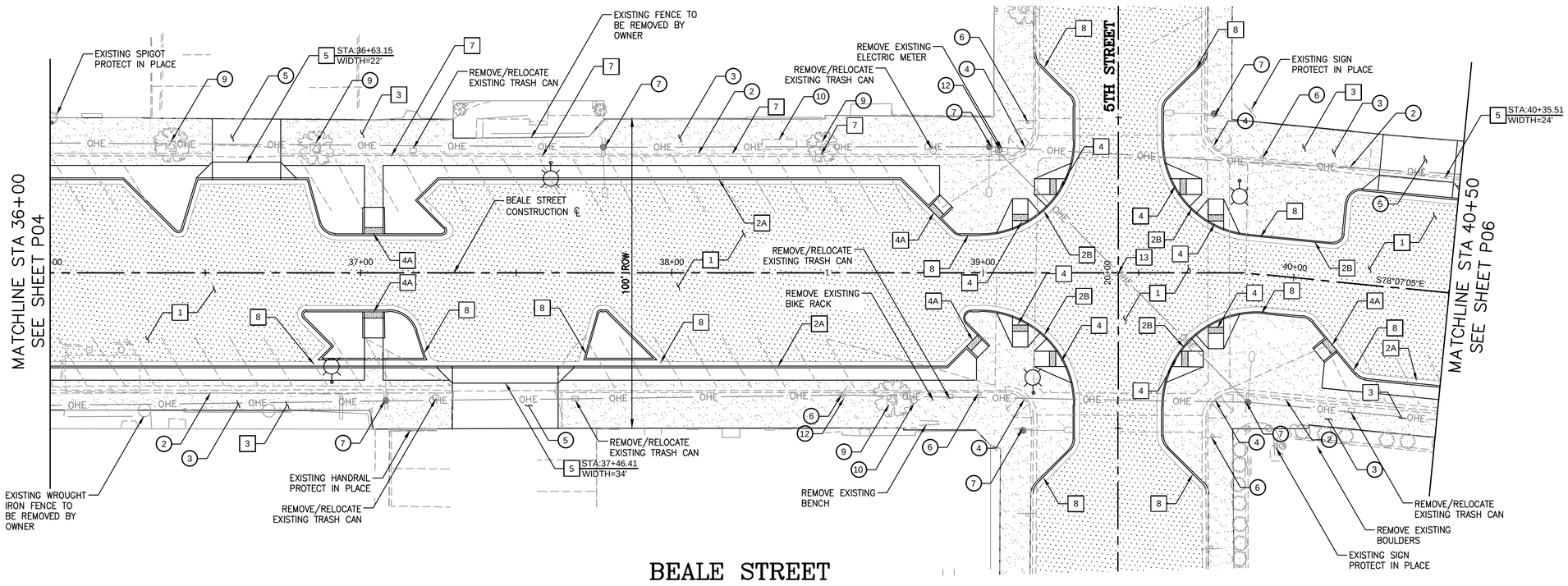

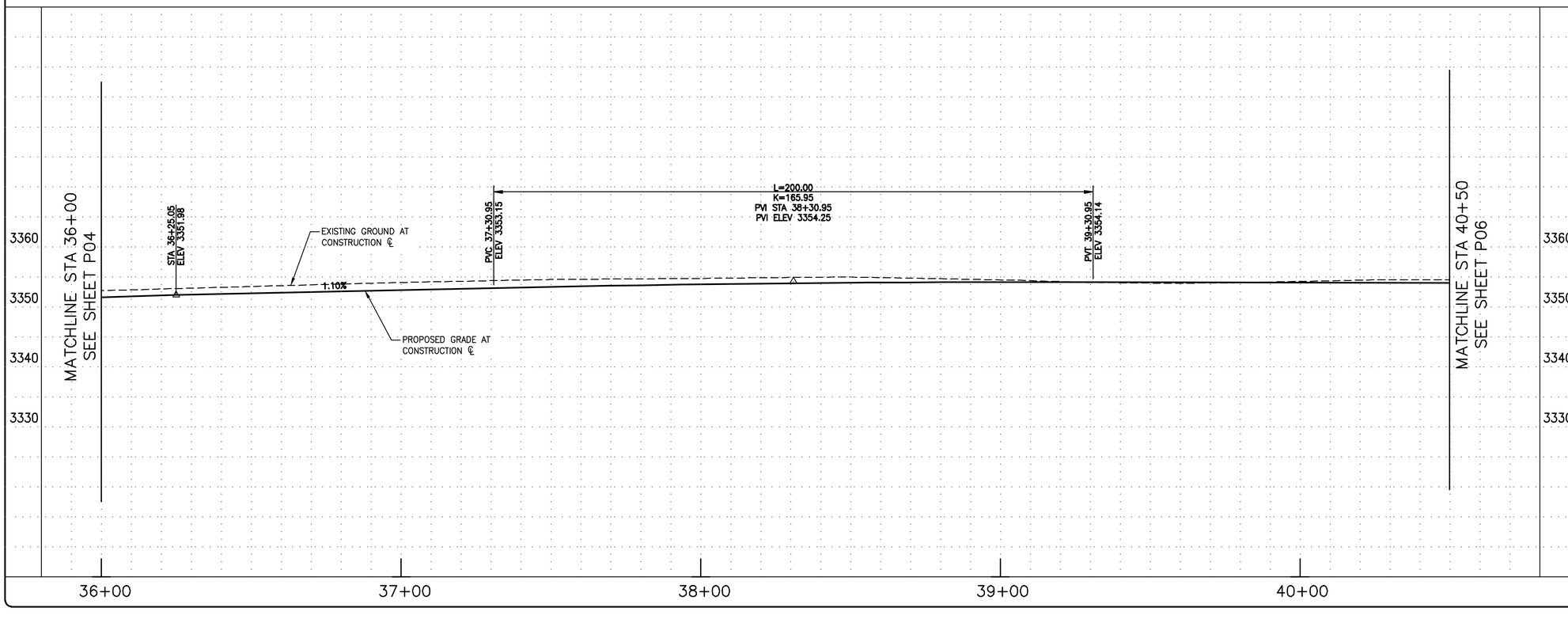

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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	4133 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	912 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	7966 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	4 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	590 SF
6	REMOVE EXISTING SIGN POST AND FOUNDATION	5 EA
7	REMOVE EXISTING LIGHT POLE, FOUNDATION, AERIAL LINES AND APPURTENANCES	6 EA
9	REMOVE EXISTING TREE	4 EA
10	REMOVE EXISTING LANDSCAPE PLANTER	2 EA
12	REMOVE EXISTING STREET LIGHT	2 EA

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	2336 SY
2A	CONSTRUCT 8" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	825 LF
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	462 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	15058 SF
4	CONSTRUCT DIRECTIONAL CURB RAMP, MAG STD DTL 237-1	8 EA
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	5 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	1594 SF
7	CONNECT NEW ROOF DRAIN PIPE AT BUILDING FACE. EXTEND NEW PIPE AND DAYLIGHT AT NEW FACE OF CURB. CONTRACTOR TO VERIFY EXISTING DOWNSPOUT AND OUTFALL PIPE AND MATCH EXISTING SIZE	4 EA
8	CONSTRUCT 2' CURB CUT PER DETAIL DWG DT01	12 EA
13	REMOVE, CLEAN AND RESET SURVEY MARKER, MAG STD DTL 120-1, TYPE B	1 EA

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES. CO-OPERATE WITH THE UTILITY COMPANIES IN PROTECTING ALL SERVICES.
3. EXACT LOCATIONS OF EXISTING UTILITIES SHOWN ARE UNKNOWN. LOCATIONS AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND BURIED CABLES PRIOR TO CONSTRUCTION BY CALLING BLUESTAKE 1-800-STAKE-IT, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

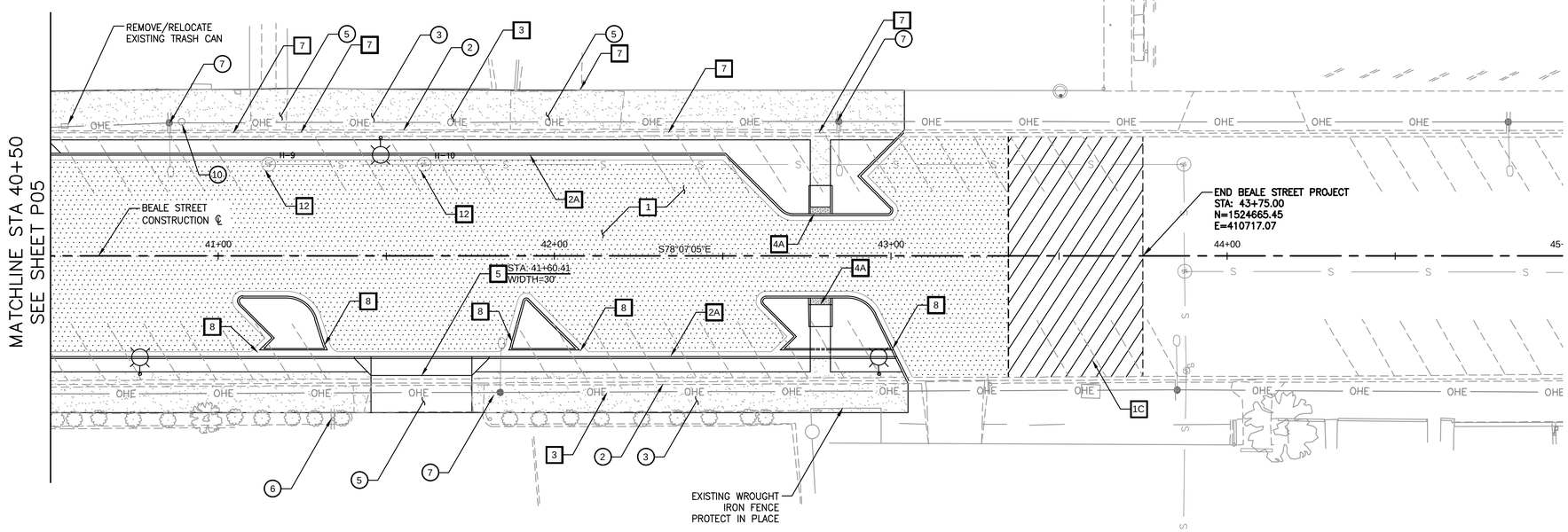
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

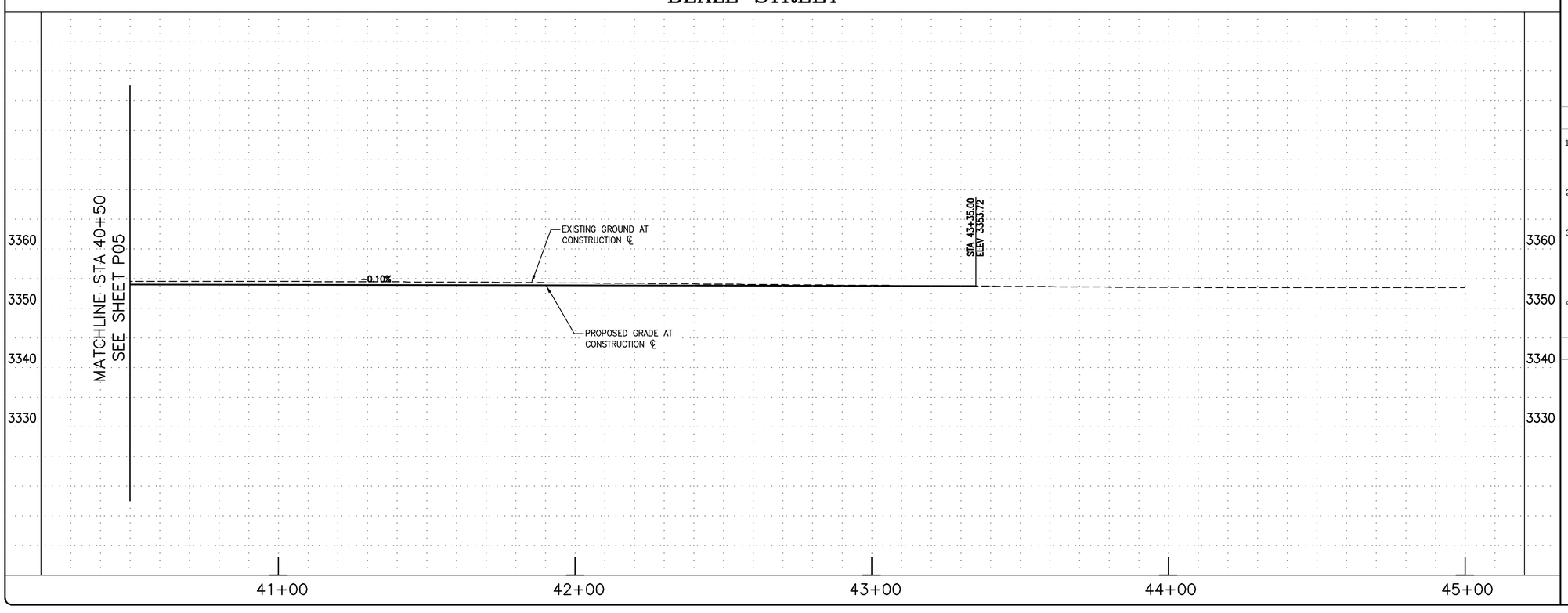
DRAWING NAME
P05

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CAD\09-Sheets\5006-P05.dwg

Point Table				
POTHOLE #	NORTHING	EASTING	ELEVATION	UTILITY
9	1524745.63	410468.14	3353.57	SEWER MANHOLE
10	1524736.08	410513.34	3353.31	SEWER MANHOLE



BEALE STREET



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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	1301 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	330 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	5518 SF
5	REMOVE EXISTING CONCRETE DRIVEWAY	705 SF
6	REMOVE EXISTING SIGN POST AND FOUNDATION	1 EA
7	REMOVE EXISTING LIGHT POLE, FOUNDATION, AERIAL LINES AND APPURTENANCES	4 EA
10	REMOVE EXISTING LANDSCAPE PLANTER	1 EA

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	2601 SY
1C	MILL & OVERLAY 1.5" EXISTING PAVEMENT	317 SY
2A	CONSTRUCT 8" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	1174 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	11020 SF
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	2 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	1606 SF
7	CONNECT NEW ROOF DRAIN PIPE AT BUILDING FACE. EXTEND NEW PIPE AND DAYLIGHT AT NEW FACE OF CURB. CONTRACTOR TO VERIFY EXISTING DOWNSPOUT AND OUTFALL PIPE AND MATCH EXISTING SIZE	9 EA
8	CONSTRUCT 2' CURB CUT PER DETAIL DWG DT01	6 EA
12	ADJUST & CLEAN EXISTING MANHOLE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 422	2 EA

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO. 3720205006

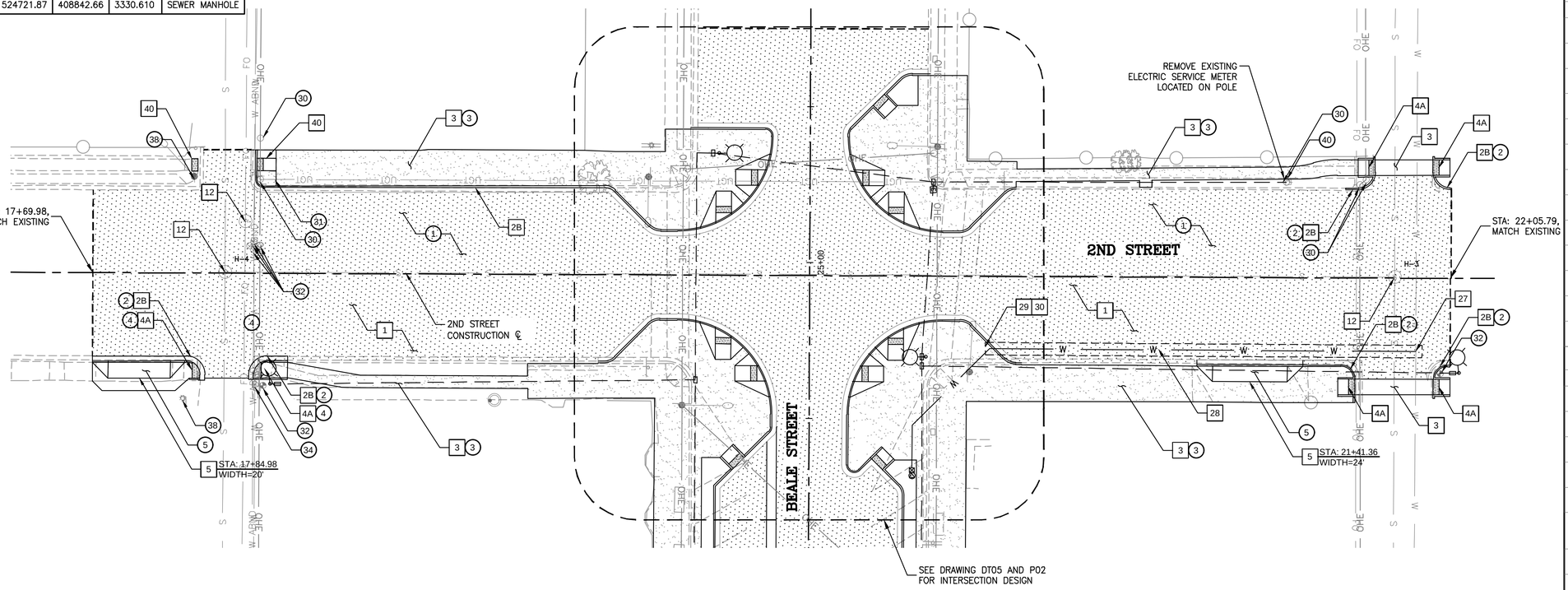
DRAWING NAME P06

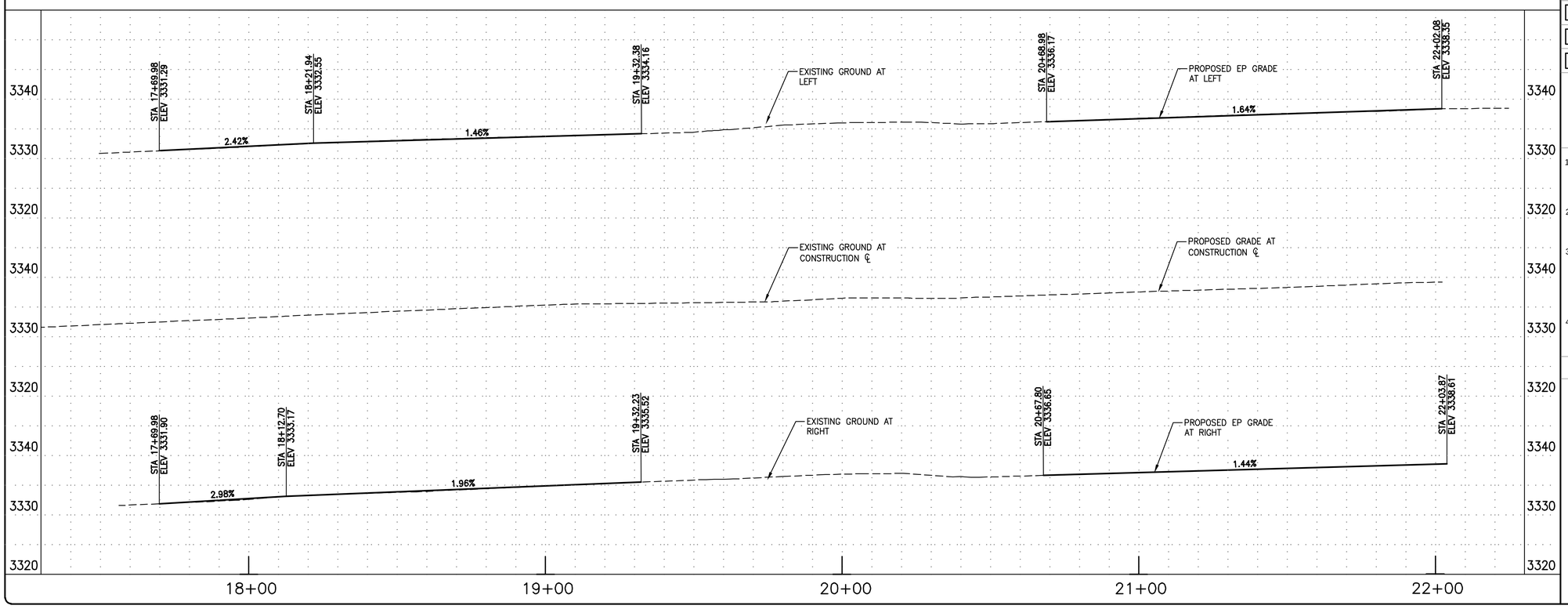
SHEET NO. 20 of 52

File: G:\Infrastructure\Trans\Projects\20203720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P06.dwg

POTHOLE DATA

POTHOLE #	NORTHING	EASTING	ELEVATION	UTILITY
3	1525094.90	408883.76	3336.480	SEWER MANHOLE
4	1524721.87	408842.66	3330.610	SEWER MANHOLE





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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	1747 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	132 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	920 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	2 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	101 SF
30	EXISTING POWER POLE; PROTECT IN PLACE	NPI
31	EXISTING GUY WIRE; PROTECT IN PLACE	NPI
32	EXISTING FIRE HYDRANT; PROTECT IN PLACE	NPI
33	EXISTING MANHOLE; PROTECT IN PLACE	NPI
34	EXISTING VALVE; PROTECT IN PLACE	NPI
35	EXISTING WATER METER; PROTECT IN PLACE	NPI
38	EXISTING STREET LIGHT; PROTECT IN PLACE	NPI
40	EXISTING ELECTRIC METER; PROTECT IN PLACE	NPI

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	2078 SY
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	268 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	3269 SF
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	6 EA
5	CONSTRUCT CONCRETE DRIVEWAY MAG STD DTL 250-1	269 SF
12	ADJUST & CLEAN EXISTING MANHOLE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 422	3 EA
27	CONNECT 1" COPPER SERVICE TO EXISTING WATER MAIN; SERVICE SADDLE WITH I.P. THREADS	1 EA
28	INSTALL 1" COPPER WATER LINE	140 LF
29	INSTALL 1" IRRIGATION WATER METER	1 EA
30	INSTALL IRRIGATION CONTROLLER	1 EA
40	INSTALL DETECTABLE WARNING, MAG STD DTL 234	2 EA

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GENERAL CONSTRUCTION NOTES

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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

2ND STREET PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

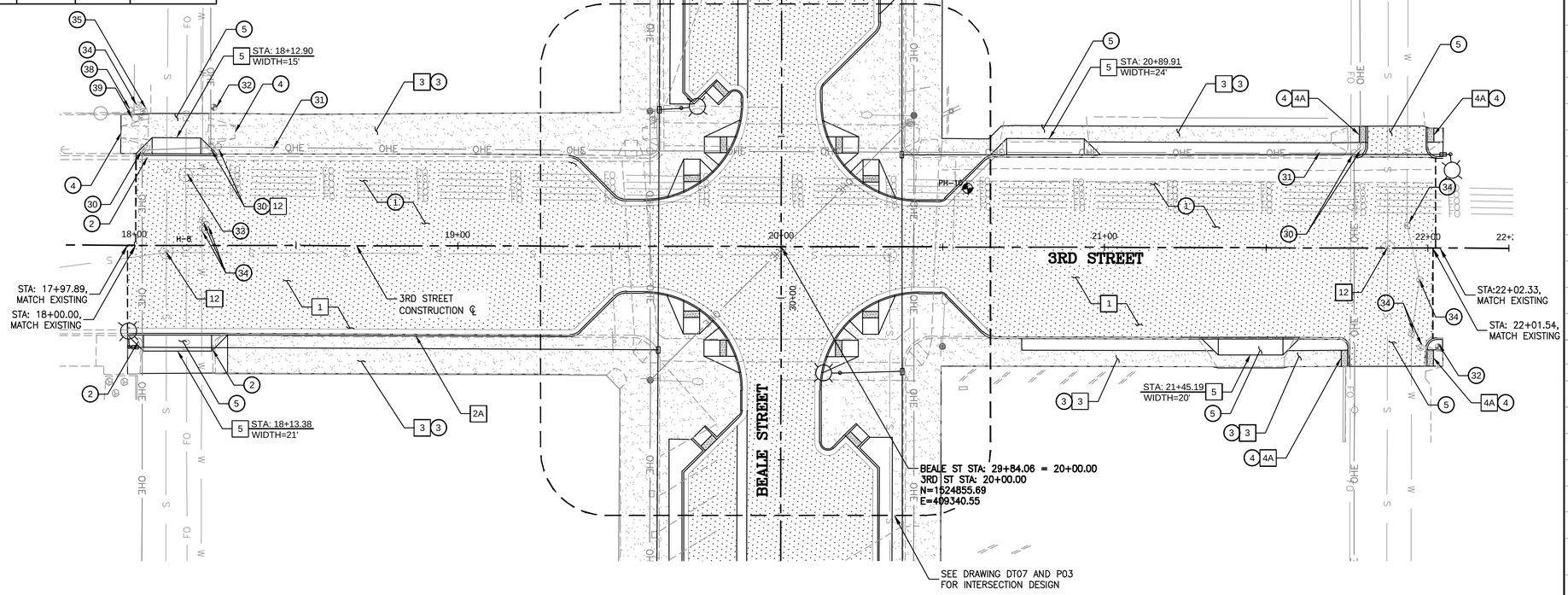
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

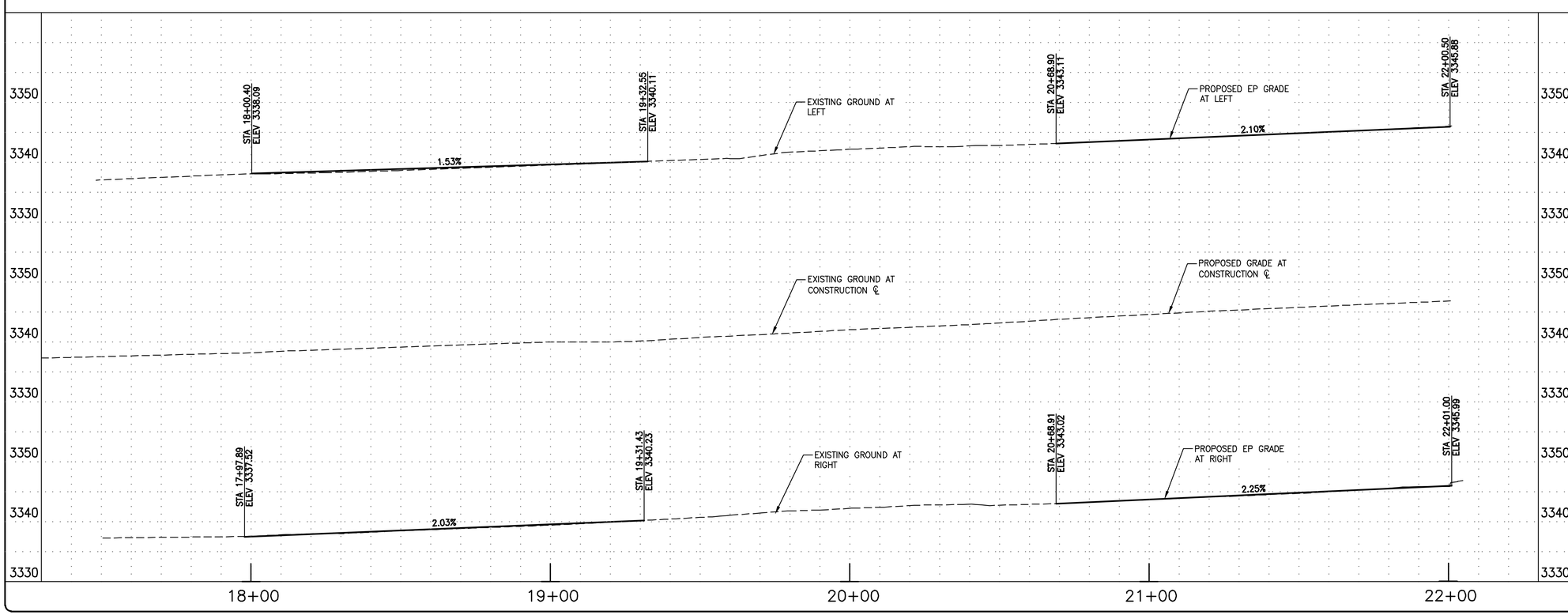
PROJECT NO.
3720205006

DRAWING NAME
P09

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P09.dwg

POTHOLE DATA				
POTHOLE #	NORTHING	EASTING	ELEVATION	UTILITY
8	1524666.42	409321.89	3333.60	SEWER MANHOLE
10	1524914.91	409328.94	3343.06	FIBER DUCT





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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	1552 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	85 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	4614 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	8 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	510 SF
30	EXISTING UTILITY POLE; PROTECT IN PLACE	NPI
31	EXISTING GUY WIRE; PROTECT IN PLACE	NPI
32	EXISTING FIRE HYDRANT; PROTECT IN PLACE	NPI
33	EXISTING MANHOLE; PROTECT IN PLACE	NPI
34	EXISTING VALVE; PROTECT IN PLACE	NPI
35	EXISTING WATER METER; PROTECT IN PLACE	NPI
38	EXISTING STREET LIGHT; PROTECT IN PLACE	NPI
39	EXISTING JUNCTION BOX; PROTECT IN PLACE	NPI

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	1758 SY
2A	CONSTRUCT 8" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	135 LF
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	258 LF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	4265 SF
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	4 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	740 SF
12	ADJUST & CLEAN EXISTING MANHOLE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 422	3 EA

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

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LEGEND

ASPHALT PAVEMENT

scale 20 0 20 40 feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

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4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

3RD STREET PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

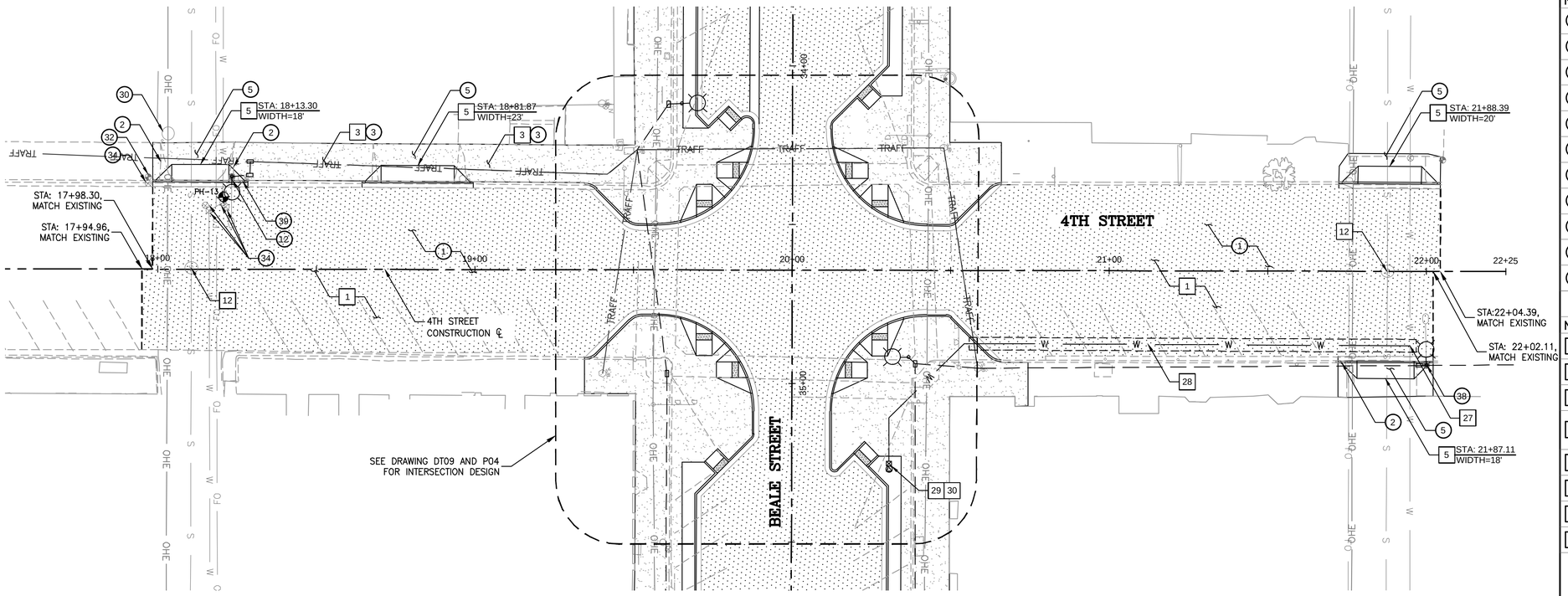
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
Date Signed 06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

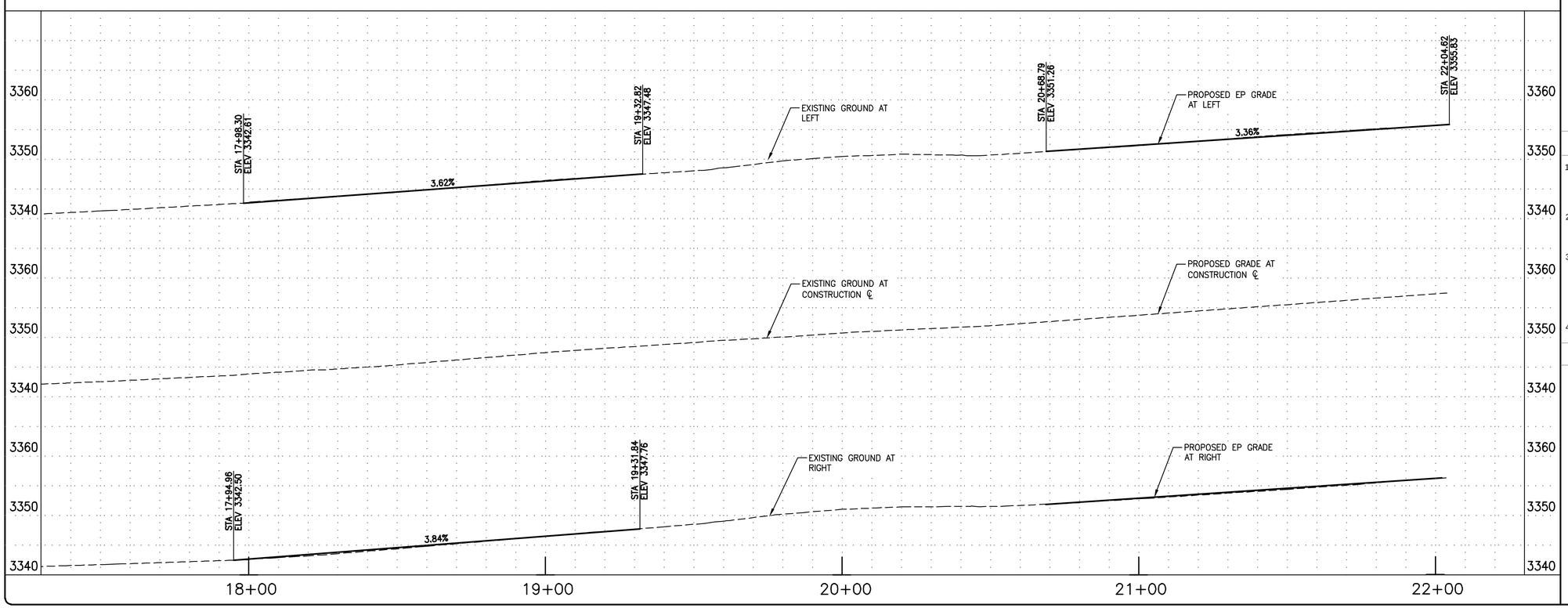
PROJECT NO.
3720205006

DRAWING NAME
P10

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P10.dwg

POTHOLE DATA				
POTHOLE #	NORTHING	EASTING	ELEVATION	UTILITY
13	1524627.09	409775.84	3343.61	10" WATER





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REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	1653 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	130 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	2341 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	2 EA
12	REMOVE EXISTING STREET LIGHT	1 EA
30	EXISTING UTILITY POLE; PROTECT IN PLACE	NPI
32	EXISTING FIRE HYDRANT; PROTECT IN PLACE	NPI
33	EXISTING MANHOLE; PROTECT IN PLACE	NPI
34	EXISTING VALVE; PROTECT IN PLACE	NPI
38	EXISTING STREET LIGHT; PROTECT IN PLACE	NPI
39	EXISTING JUNCTION BOX; PROTECT IN PLACE	NPI

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	1844 SY
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	1360 SF
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	917 SF
12	ADJUST & CLEAN EXISTING MANHOLE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 422	2 EA
27	CONNECT 1" COPPER SERVICE TO EXISTING WATER MAIN; SERVICE SADDLE WITH I.P. THREADS	1 EA
28	INSTALL 1" COPPER WATER LINE	140 LF
29	INSTALL 1" IRRIGATION WATER METER	1 EA
30	INSTALL IRRIGATION CONTROLLER	1 EA

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

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LEGEND

ASPHALT PAVEMENT

scale 20 0 20 40 feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

4TH STREET PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
P11
SHEET NO. 23 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P11.dwg

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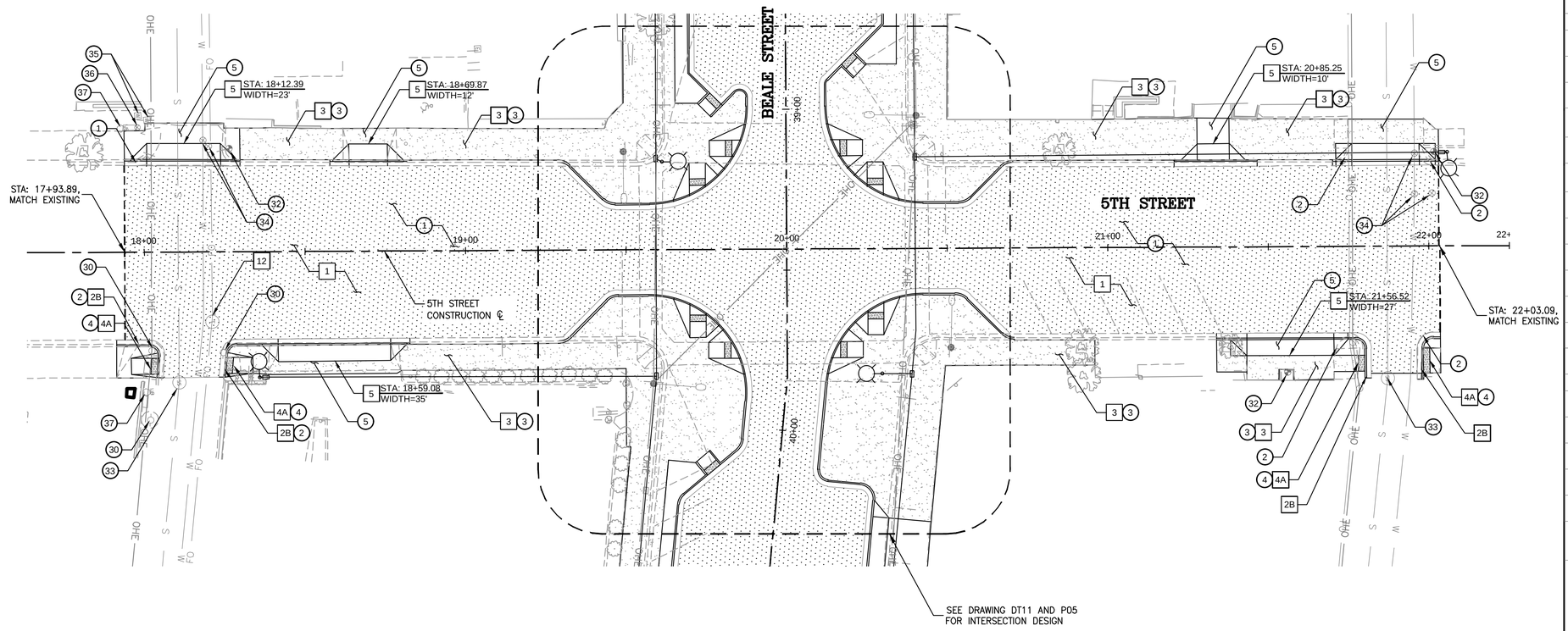

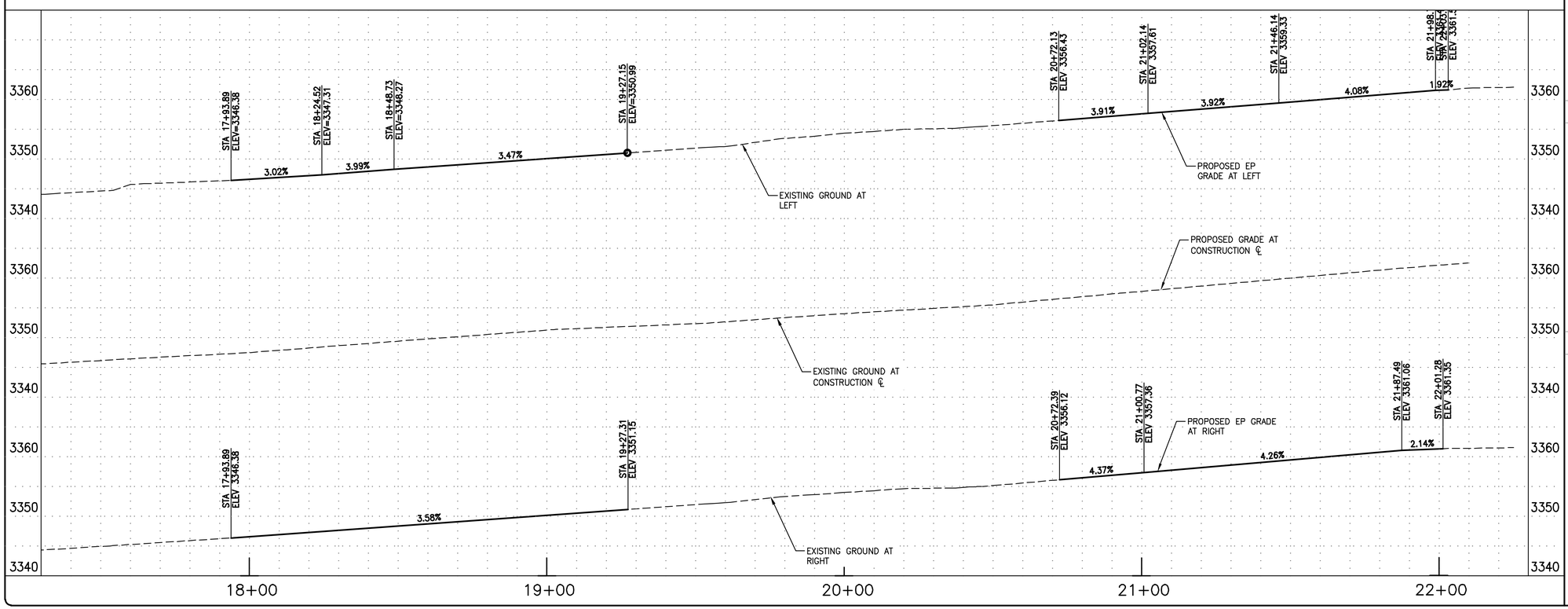

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QTY
1	SAWCUT AND REMOVE EXISTING PAVEMENT	1665 SY
2	REMOVE EXISTING CONCRETE CURB & GUTTER	153 LF
3	REMOVE EXISTING CONCRETE SIDEWALK	4047 SF
4	REMOVE EXISTING PEDESTRIAN RAMP	8 EA
5	REMOVE EXISTING CONCRETE DRIVEWAY	101 SF
30	EXISTING UTILITY POLE; PROTECT IN PLACE	NPI
32	EXISTING FIRE HYDRANT; PROTECT IN PLACE	NPI
33	EXISTING MANHOLE; PROTECT IN PLACE	NPI
34	EXISTING VALVE; PROTECT IN PLACE	NPI
35	EXISTING WATER METER; PROTECT IN PLACE	NPI
36	EXISTING IRRIGATION VALVE; PROTECT IN PLACE	NPI
37	EXISTING IRRIG. JUNCTION BOX; PROTECT IN PLACE	NPI

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
1	CONSTRUCT ASPHALT PAVEMENT, STRUCTURAL SECTION NO. 1	1857 SY
2B	CONSTRUCT 6" CONCRETE VERTICAL CURB & GUTTER, MAG STD DTL 220-1, TYPE A	475 SF
3	CONSTRUCT CONCRETE SIDEWALK, MAG STD DTL 230	2893 SF
4A	CONSTRUCT DIRECTIONAL CURB RAMP, PER MID-BLOCK AND ADA STALL DTL 01A	4 EA
5	CONSTRUCT CONCRETE DRIVEWAY, MAG STD DTL 250-1	1298 SF
12	ADJUST & CLEAN EXISTING MANHOLE FRAME AND COVER TO FINISH GRADE, MAG STD DTL 422	1 EA

- SEE LIGHTING SHEETS FOR ADDITIONAL INFORMATION
- SEE PAVEMENT MARKINGS & SIGNING FOR ADDITIONAL INFORMATION

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES. CO-OPERATE WITH THE UTILITY COMPANIES IN PROTECTING ALL SERVICES.
3. EXACT LOCATIONS OF EXISTING UTILITIES SHOWN ARE UNKNOWN. LOCATIONS AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND BURIED CABLES PRIOR TO CONSTRUCTION BY CALLING BLUESTAKE 1-800-STAKE-IT, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

scale 20 0 20 40 feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

5TH STREET PLAN AND PROFILE

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 Date Signed ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO. 3720205006

DRAWING NAME P12

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P12.dwg

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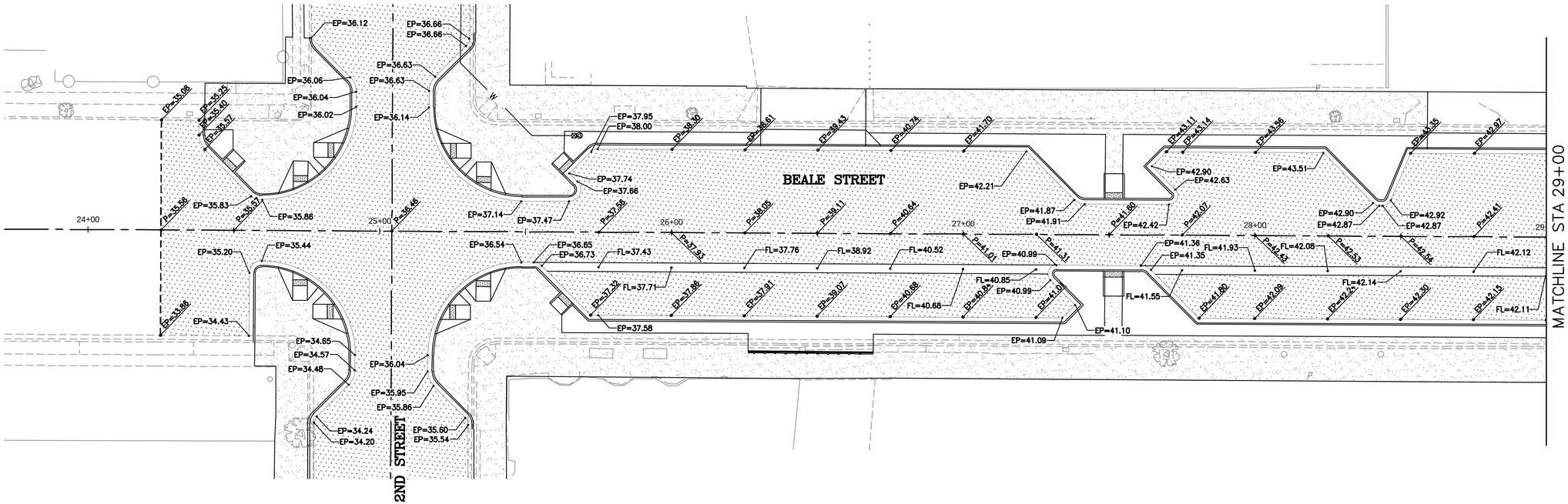

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: N/A

REVISIONS:

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4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

BEALE STREET GRADES

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
P14
SHEET NO. 25 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P14.dwg

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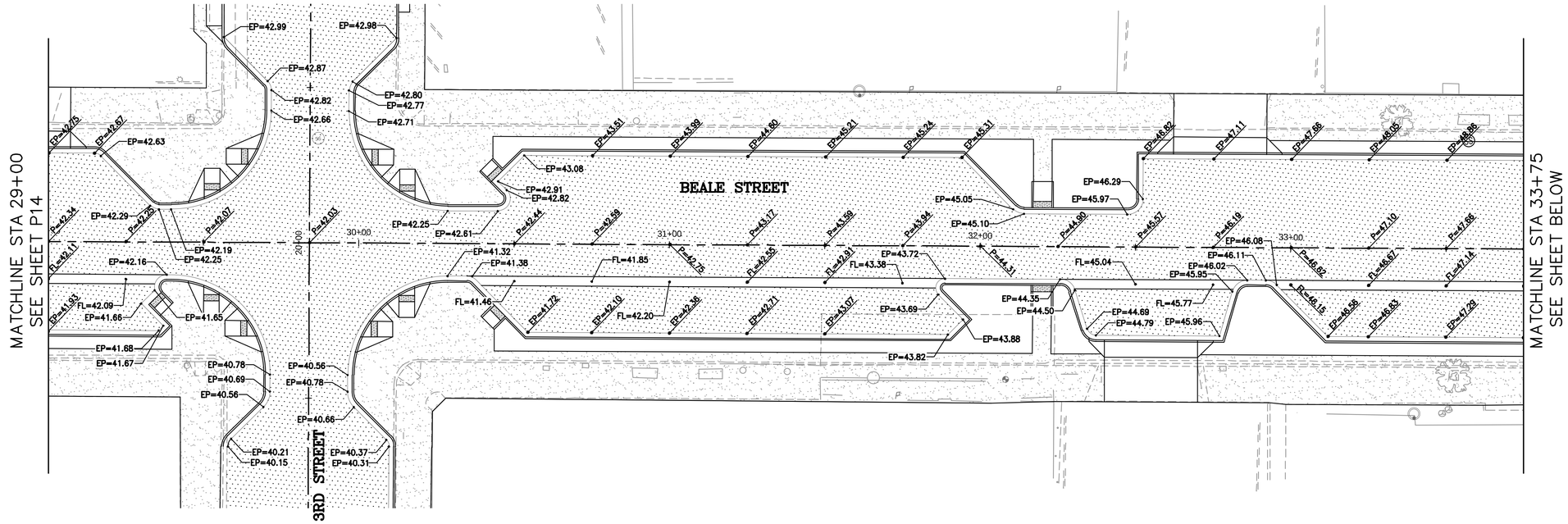

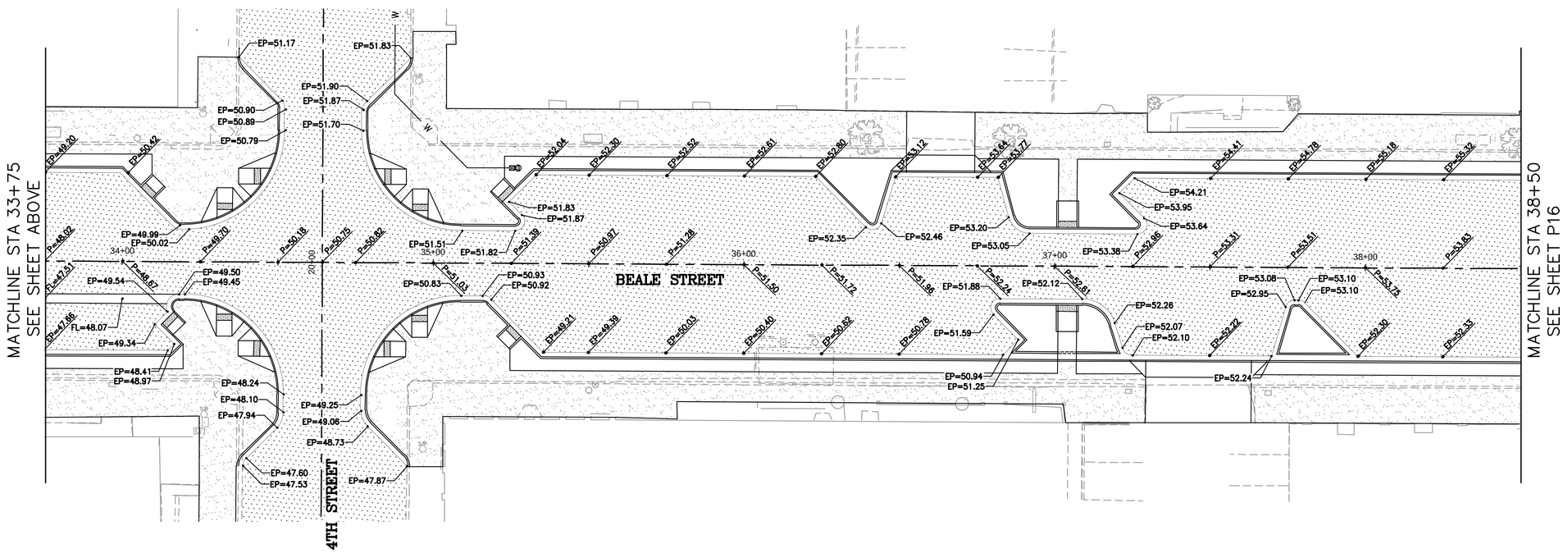

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

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4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

BEALE STREET GRADES

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
P15

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P15.dwg

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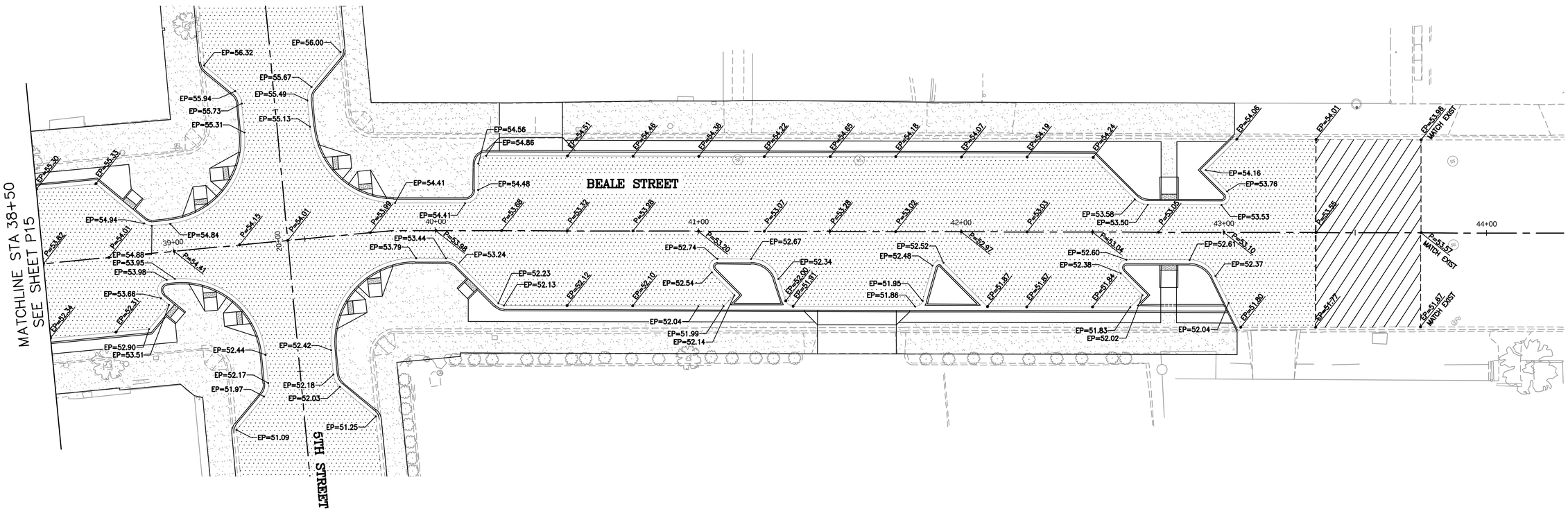

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

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4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

BEALE STREET GRADES

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

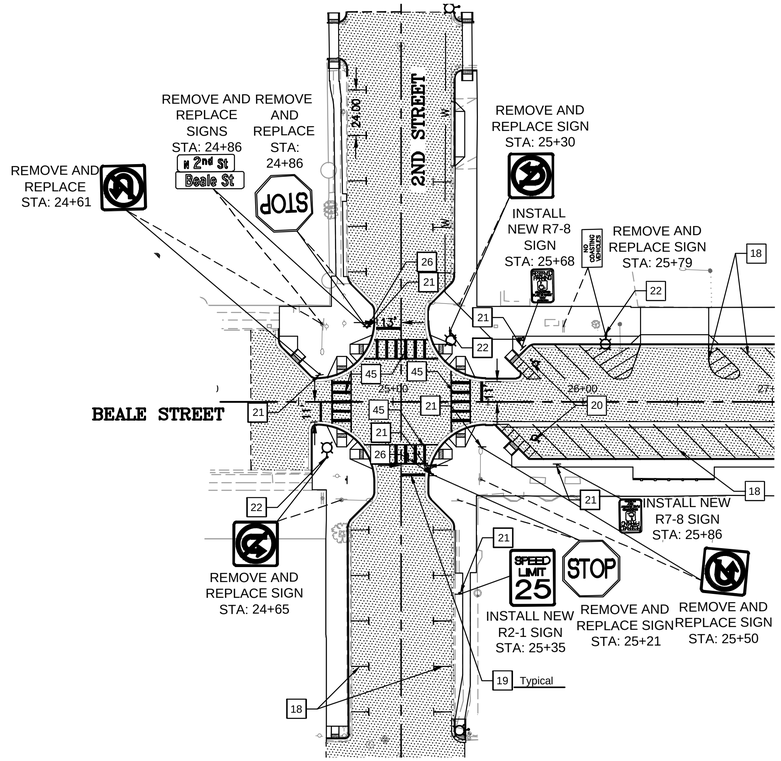
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

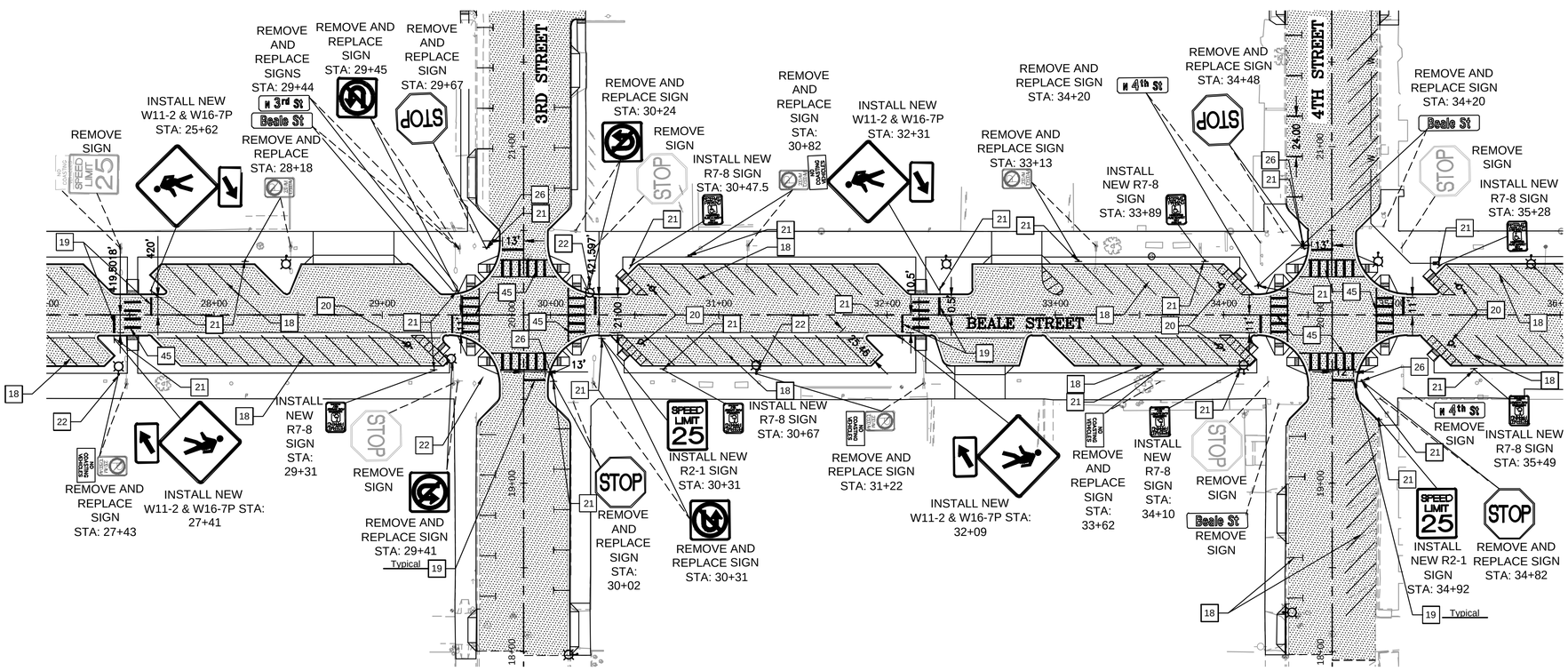
PROJECT NO.
3720205006

DRAWING NAME
P16

SHEET NO. 27 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-P16.dwg





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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
18	INSTALL NEW 4" WHITE PAVEMENT MARKINGS	4417 LF
19	INSTALL NEW 12" WHITE STOP BAR	204 LF
20	INSTALL NEW ACCESSIBLE PARKING SPACE SYMBOL	9 EA
21	INSTALL NEW SIGN POST AND FOUNDATION PER ADOT STD DTL S-3	29 EA
22	MOUNT SIGN ON THE PROPOSED LIGHT POLE	9 EA
23	REMOVE AND REPLACE EXISTING SIGN	31 EA
24	REMOVE EXISTING SIGN	7 EA
26	INSTALL FLASHING LED EQUIPMENT FOR STOP SIGN PER DETAIL T-1 (SEE PM02)	2 EA
45	INSTALL NEW 12" CROSSWALK LINE	1393 LF

PAVEMENT MARKING NOTES

1. USE WATERBORNE PAINT FOR ALL PARKING LOT MARKINGS, INCLUDING STALLS, LEGENDS AND OTHER MARKINGS.
2. USE THERMOPLASTIC FOR STOP BARS AND CROSSWALKS.
3. IN THE INTERIM CONDITION, PRIOR TO FINAL PAVEMENT INSTALL PARKING LOT AND STOP BAR PAVEMENT MARKINGS USING WATERBORNE PAINT.
4. PAVEMENT MARKING QUANTITIES ARE DOUBLED IN FINAL ESTIMATE TO ACCOUNT FOR INTERIM AND FINAL CONDITIONS

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

40 0 40 80
scale feet
HORIZ: 1"=40' VERT: 1"=20'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PAVEMENT MARKING SHEET 01

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

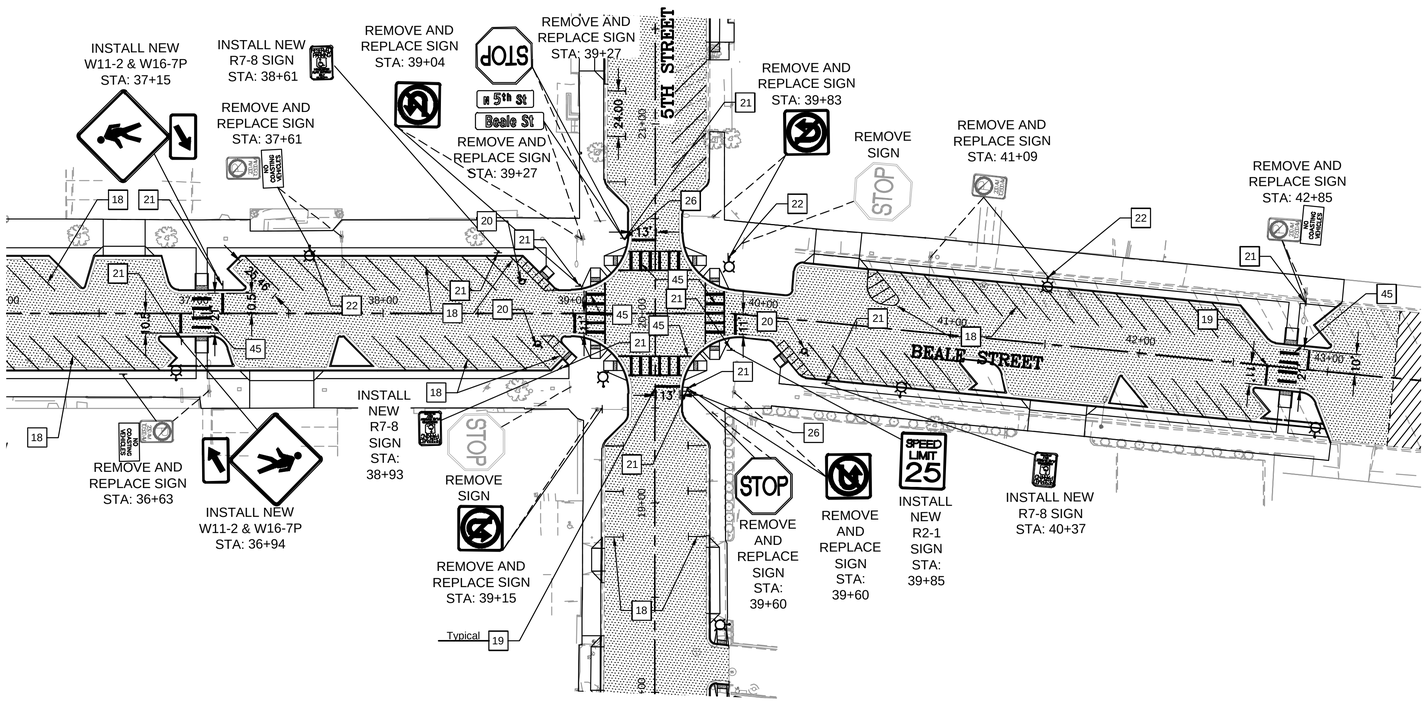
DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

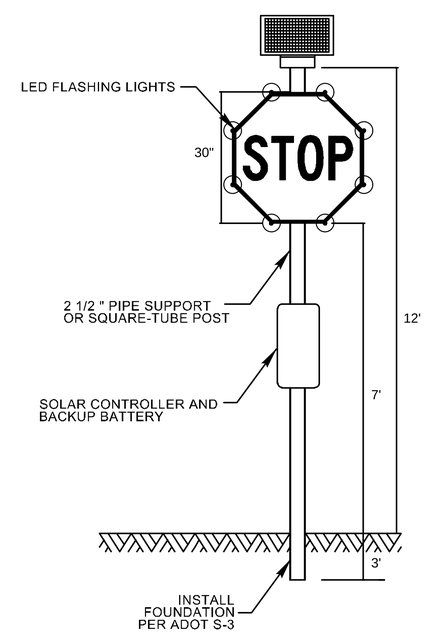
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO. 3720205006

DRAWING NAME
PM01

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-PM01.dwg





DETAIL T–1
NOT TO SCALE

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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
18	INSTALL NEW 4" WHITE PAVEMENT MARKINGS	2026 LF
19	INSTALL NEW 12" WHITE STOP BAR	69 LF
20	INSTALL NEW ACCESSIBLE PARKING SPACE SYMBOL	3 EA
21	INSTALL NEW SIGN POST AND FOUNDATION PER ADOT STD DTL S–3	11 EA
22	MOUNT SIGN ON THE PROPOSED LIGHT POLE	3 EA
23	REMOVE AND REPLACE EXISTING SIGN	18 EA
24	REMOVE EXISTING SIGN	2 EA
26	INSTALL FLASHING LED EQUIPMENT FOR STOP SIGN PER DETAIL T–1 (SEE PM02)	2 EA
45	INSTALL NEW 12" CROSSWALK LINE	505 LF

PAVEMENT MARKING NOTES

1. USE WATERBORNE PAINT FOR ALL PARKING LOT MARKINGS, INCLUDING STALLS, LEGENDS AND OTHER MARKINGS.
2. USE THERMOPLASTIC FOR STOP BARS AND CROSSWALKS.
3. IN THE INTERIM CONDITION, PRIOR TO FINAL PAVEMENT INSTALL PARKING LOT AND STOP BAR PAVEMENT MARKINGS USING WATERBORNE PAINT.
4. PAVEMENT MARKING QUANTITIES ARE DOUBLED IN FINAL ESTIMATE TO ACCOUNT FOR INTERIM AND FINAL CONDITIONS

GENERAL CONSTRUCTION NOTES

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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

40 0 40 80
scale feet
HORIZ: 1"=40' VERT: 1"=20'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

PAVEMENT MARKING SHEET 02

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

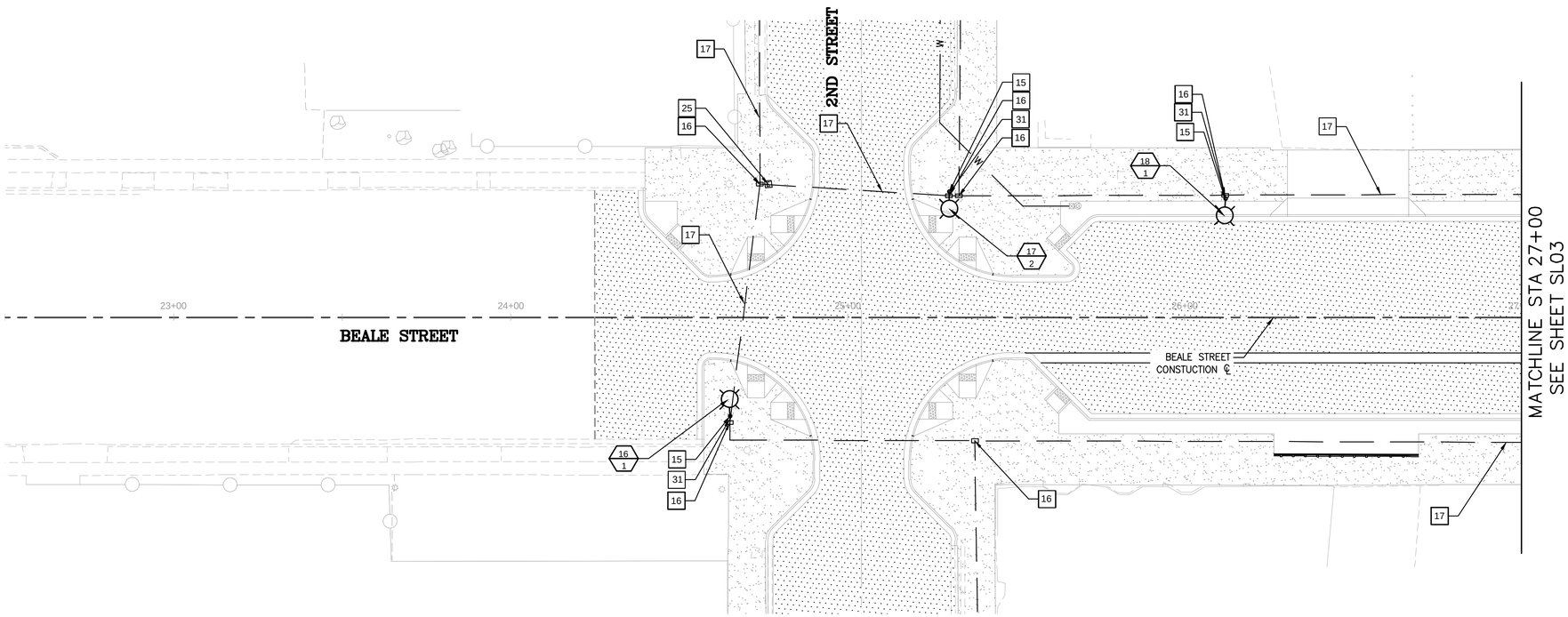
DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 Date Signed ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
PM02
SHEET NO. 29 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-PM02.dwg



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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
15	INSTALL NEW ARLEN 20 ALUMINUM POLE W/RECEPTACLE, FOUNDATION, ARM AND LUMINAIRE (CEM CLASSICAL EPIC MEDIUM LED) SEE SHEET SL09	3 EA
16	INSTALL NEW #5 PULL BOX	5 EA
17	JUNCTION BOX TO JUNCTION BOX FEEDS ON BEALE STREET FROM 1ST UP TO 4TH: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 2.5" CONDUIT WITH 2–#4 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 2.0" CONDUIT WITH 2–#2 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT	645 LF
25	INSTALL NEW MEYERS LOAD CENTER CABINET AND FOUNDATION (200 AMPS)	1 EA
31	JUNCTION BOX TO STREETLIGHT FEEDS ON BEALE STREET: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 1" CONDUIT WITH 2–#10 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 1" CONDUIT WITH 2–#10 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT D)NO GFCI. MOUNTING HARDWARE WILL STILL NEED TO BE INSTALLED IN DECORATIVE BASE FOR FUTURE GFCI INSTALLATION E) NO AMP KITS	95 LF

SL / CIR — STREET LIGHT # / CIRCUIT #

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

NOTES

1. STREETLIGHT FOUNDATIONS FROM GRANDVIEW TO 1ST WILL BE VACUUM EXCAVATED TO ACCOUNT FOR IMMEDIATELY ADJACENT UTILITIES
2. CENTER OF STREETLIGHT FOUNDATIONS SHALL BE INSTALLED 1'-3' OFF BACK OF SIDEWALK AND FIELD ADJUSTED BASED ON LOCATION OF EXISTING UTILITIES
3. CONDUIT AND JUNCTION BOXES SHALL BE FIELD ADJUSTED BASED ON LOCATION OF UTILITIES
4. CITY OF KINGMAN SHALL RELOCATE ANY IRRIGATION OR CITY UNDERGROUND POWER PRIOR TO CONSTRUCTION

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

STREET LIGHT PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

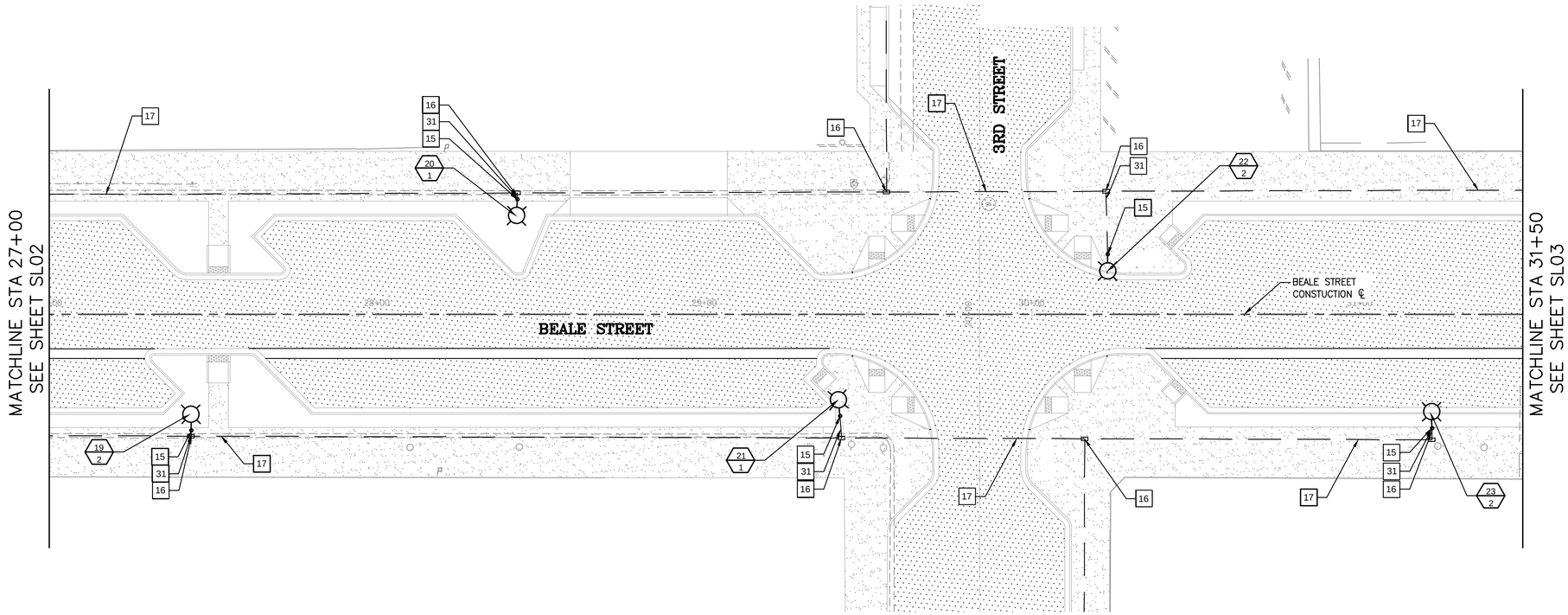
DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

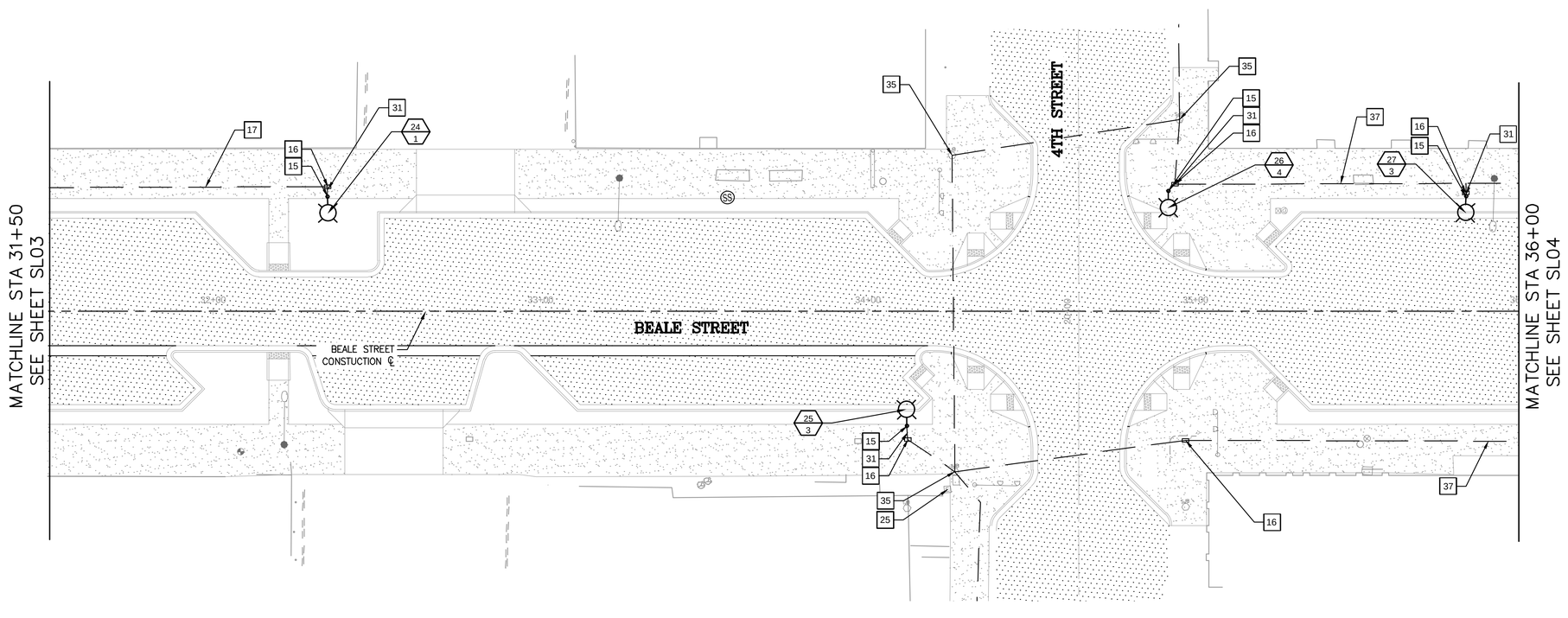
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
Date Signed
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
SL02

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-SL02.dwg





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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
15	INSTALL NEW ARLEN 20 ALUMINUM POLE W/RECEPTACLE, FOUNDATION, ARM AND LUMINAIRE (CEM CLASSICAL EPIC MEDIUM LED) SEE SHEET SL09	9 EA
16	INSTALL NEW #5 PULL BOX	12 EA
17	JUNCTION BOX TO JUNCTION BOX FEEDS ON BEALE STREET FROM 1ST UP TO 4TH: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 2.5" CONDUIT WITH 2–#4 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 2.0" CONDUIT WITH 2–#2 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT	956 LF
25	INSTALL NEW MEYERS LOAD CENTER CABINET AND FOUNDATION (200 AMPS)	1 EA
31	JUNCTION BOX TO STREETLIGHT FEEDS ON BEALE STREET: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 1" CONDUIT WITH 2–#10 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 1" CONDUIT WITH 2–#10 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT D)NO GFCI. MOUNTING HARDWARE WILL STILL NEED TO BE INSTALLED IN DECORATIVE BASE FOR FUTURE GFCI INSTALLATION E) NO AMP KITS	227 LF
35	EXISTING SIGNAL JUNCTION BOX TO REMAIN	4 EA
37	JUNCTION BOX TO JUNCTION BOX FEEDS ON BEALE STREET FROM 4TH TO 6TH: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 2.5" CONDUIT WITH 2–#6 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 2.0" CONDUIT WITH 2–#2 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT	468 LF

SL — STREET LIGHT #
CIR — CIRCUIT #

GENERAL CONSTRUCTION NOTES

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4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

NOTES

1. STREETLIGHT FOUNDATIONS FROM GRANDVIEW TO 1ST WILL BE VACUUM EXCAVATED TO ACCOUNT FOR IMMEDIATELY ADJACENT UTILITIES
2. CENTER OF STREETLIGHT FOUNDATIONS SHALL BE INSTALLED 1'-3' OFF BACK OF SIDEWALK AND FIELD ADJUSTED BASED ON LOCATION OF EXISTING UTILITIES
3. CONDUIT AND JUNCTION BOXES SHALL BE FIELD ADJUSTED BASED ON LOCATION OF UTILITIES
4. CITY OF KINGMAN SHALL RELOCATE ANY IRRIGATION OR CITY UNDERGROUND POWER PRIOR TO CONSTRUCTION

20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

STREET LIGHT PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

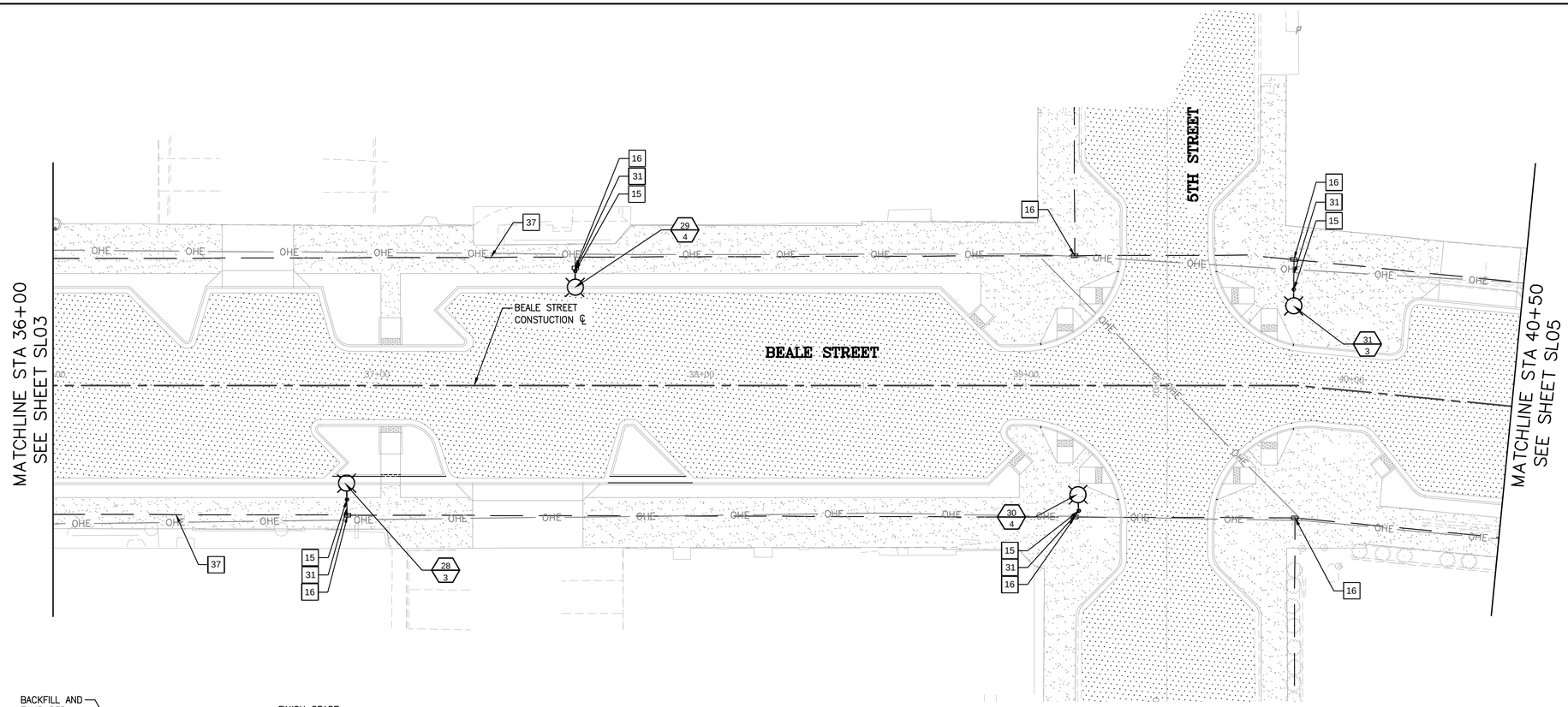
DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

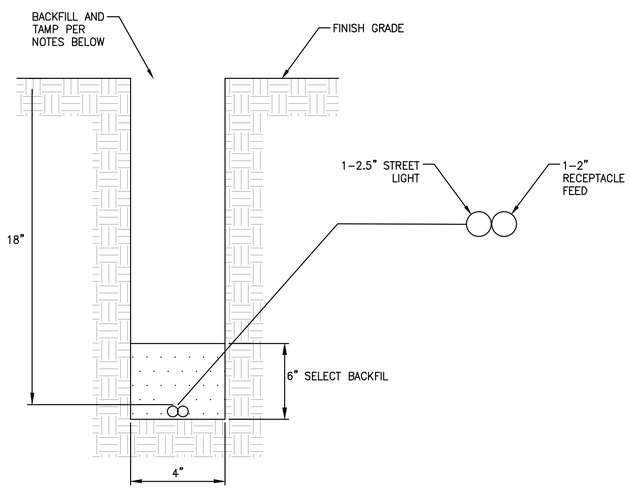
Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
SL03

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-SL03.dwg





DETAIL S-1
NOT TO SCALE

TRENCHING
TRENCHES SHALL HAVE A MINIMUM WIDTH OF 4" AND A MINIMUM COVER OVER CONDUIT OF 18". THE CONDUIT SHALL HAVE A MINIMUM COVER OF 18" FROM FINAL GRADE. BOTTOM OF TRENCH MUST BE SMOOTH, FLAT, WITHOUT SURFACE IRREGULARITIES AND FREE OF DEBRIS AND ORGANIC MATERIALS.

BACKFILL
BEDDING AND SHADE MUST BE ABLE TO PASS 100% THROUGH A $\frac{3}{8}$" SIEVE, 80% THROUGH A #4 SIEVE, AND 60% THROUGH A #10 SIEVE. 6" OF LEVEL BEDDING SHALL BE PLACED IN THE TRENCH TOPPED BY 8" OF SHADE.

COMPACTION
AT LEAST 6" OF SELECT MATERIAL MUST BE PLACED OVER THE FACILITY BEFORE TAMPING. ACCEPTABLE COMPACTION METHODS ARE HAND-TAMPING WITH PNEUMATIC OR VIBRATING EQUIPMENT, AND WATER JETTING OR FLOODING IN ACCORD WITH MAG SPECS. SECTION 601.4.5 COMPACT BACKFILL TO A DENSITY OF 90% OF STANDARD PROCTOR MAG SPEC SECTION 601.4.4, TYPE 1

Sheet	Roadway Section	Power Source 1st @ Beale Street		Power Source 4st @ Beale Street	
		Circuit 1	Circuit 2	Circuit 3	Circuit 4
SL 01	Grandview - 1st	5	5		
SL 02 top	1st intersection	1	2		
SL 06 top	1st st	1	1		
SL 02 bottom	2nd St intersection	3	2		
SL 06 bottom	2nd st	1	1		
SL 03 top	3rd St intersection	2	3		
SL 07 top	3rd St	1	1		
SL 03 bottom	4th St intersection	1		2	1
SL 07 Bottom	4th st			1	1
SL 04 Top+bottom	5th St Intersection			5	4
SL 08 Top	5th			1	1
SL 05	6th St Intersection			1	1
SL 08 bottom	6th			1	1
Total		15	15	11	9
Total amps/pole					0.83
Amps/circuit		**12.5**	**12.5**	**9.17**	**7.5**
Max Amps/ Circuit	20 amps				
Allowable Amps/Circuit 80%	16 amps				
Max Distance (ft)		1550	1550	1400	1400
Voltage Drop Ohms		9.63	9.63	10.14	8.3
Max Allowable drop Ohms		12	12	12	12

Sheet	Roadway Section	Power Source 1st @ Beale Street		Power Source 4st @ Beale Street	
		Circuit 1	Circuit 2	Circuit 3	Circuit 4
SL 01	Grandview - 1st	5	5		
SL 02 top	1st intersection	1	2		
SL 06 top	1st st				
SL 02 bottom	2nd St intersection	3	2		
SL 06 bottom	2nd st				
SL 03 top	3rd St intersection	2	3		
SL 07 top	3rd St				
SL 03 bottom	4th St intersection	1		2	1
SL 07 Bottom	4th st				
SL 04 Top+bottom	5th St Intersection			5	4
SL 08 Top	5th				
SL 05	6th St Intersection			1	1
SL 08 bottom	6th				
Total		12	12	8	6
Breaker/Circuit		50 amp breaker	50 amp breaker	50 amp breaker	50 amp breaker
Total amps/pole					
Amps/circuit		**20**	**20**	**20**	**20**
Max Distance (ft)		1550	1550	1400	1400
Voltage Drop Ohms		9.69	9.69	8.75	8.75
Max Allowable drop Ohms		12	12	12	12

Conduit					
STREET TYPE AND ROAD WIDHT	LAND USE	AVERAGE FOOT-CANDLES	UNIFORMITY RATIO (AVG-TO-MIN)	SPACING PATTERN	MOUNTING HEIGHT
ILLUMINATION STANDARDS					
COLLECTOR ROAD 45'-65'	COMMERCIAL	0.7-0.9	4:1 - 6:1	STAGGERED	20'-30'
SIDEWALK 5'	NA	0.3-0.7	4:1	NA	NA
ILLUMINATION PROVIDED					
COLLECTOR ROAD 60'	COMMERCIAL	0.9	3:1	STAGGERED	29'
SIDEWALK 12'	COMMERCIAL	0.5	5:1		

Conduit and Conductor Schedule

Construction Note	Conduit		Conductors
	Size (inches)		
17	2.5"	Street Light, Speaker, Festive Lights	2#4 THWN, 1#8 Bare
	2"	Receptacles	2#2 THWN, 1#8 Bare
31	1"	Street Light, Speaker, Festive Lights	2#10 THWN, 1#8 Bare
	1"	Receptacles	2#10 THWN, 1#8 Bare
37	2.5"	Street Lights	2#6 THWN, 1#8 Bare
	2"	Receptacles	2#2 THWN, 1#8 Bare

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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
15	INSTALL NEW ARLEN 20 ALUMINUM POLE W/RECEPTACLE, FOUNDATION, ARM AND LUMINAIRE (CEM CLASSICAL EPIC MEDIUM LED) SEE SHEET SL09	4 EA
16	INSTALL NEW #5 PULL BOX	5 EA
31	JUNCTION BOX TO STREETLIGHT FEEDS ON BEALE STREET: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 1" CONDUIT WITH 2-#10 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 1" CONDUIT WITH 2-#10 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT D)NO GFCI. MOUNTING HARDWARE WILL STILL NEED TO BE INSTALLED IN DECORATIVE BASE FOR FUTURE GFCI INSTALLATION E) NO AMP KITS	125 LF
37	JUNCTION BOX TO JUNCTION BOX FEEDS ON BEALE STREET FROM 4TH TO 6TH: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 2.5" CONDUIT WITH 2-#6 THWN AND 1 #8 BARE FOR STREETLIGHTS B)SINGLE 2.0" CONDUIT WITH 2-#2 THWN AND 1 #8 BARE FOR FUTURE GFCI'S C)NO SPARE CONDUIT	900 LF

SL STREET LIGHT #
CIR CIRCUIT #

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION JANUARY 2022 EDITION AND THE CITY OF KINGMAN STANDARD DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES. CO-OPERATE WITH THE UTILITY COMPANIES IN PROTECTING ALL SERVICES.
3. EXACT LOCATIONS OF EXISTING UTILITIES SHOWN ARE UNKNOWN. LOCATIONS AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND BURIED CABLES PRIOR TO CONSTRUCTION BY CALLING BLUESTAKE 1-800-STAKE-IT, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. VARIANCE FROM THIS DRAWING AND/OR SPECIFICATIONS WILL REQUIRE PRIOR APPROVAL OF THE CITY ENGINEER.

LEGEND

ASPHALT PAVEMENT

NOTES

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20 0 20 40
scale feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

WSP USA Environment & Infrastructure, Inc.
4600 E. WASHINGTON STREET, SUITE 600
PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

STREET LIGHT PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

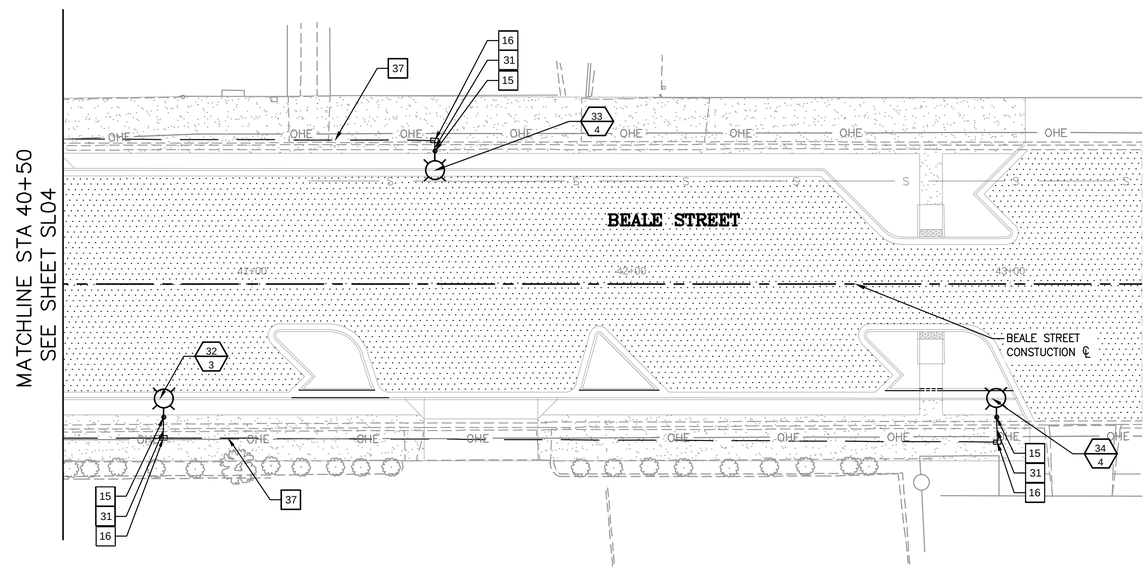
DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
Date Signed 06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
SL04

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-SL04.dwg



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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
15	INSTALL NEW ARLEN 20 ALUMINUM POLE W/RECEPTACLE, FOUNDATION, ARM AND LUMINAIRE (CEM CLASSICAL EPIC MEDIUM LED) SEE SHEET SL09	3 EA
16	INSTALL NEW #5 PULL BOX	3 EA
31	OPEN TRENCH (CONDUIT PLACEMENT PER DETAIL S-1, SEE SHEET SL05) INSTALL NEW 1" CONDUIT WITH 2 #10 THWN, 1 #8 BARE FOR STREETLIGHT, SPEAKER AND FESTIVE LIGHTING. FOR THE RECEPTACLE, INSTALL 2#10 THWN AND 1#8. INSTALL 20 AMP FUSE KIT AND 20 AMP GFCI FOR EACH RECEPTACLE	75 LF
37	OPEN TRENCH (CONDUIT PLACEMENT PER DETAIL S-1, SEE SHEET SL05) 1-3" CONDUIT INSTALL 2#6 THWN 1#8 BARE (FOR STREET LIGHTS 1-3" CONDUIT. INSTALL RECEPTACLE CONDUCTORS 2#2 THWN, 1#8 BARE AND 1-2" SPARE	345 EA

SL / CIR — STREET LIGHT # / CIRCUIT #

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LEGEND

ASPHALT PAVEMENT

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PHOENIX, ARIZONA 85034
PHONE: 602-733-6000
FAX: 602-733-6100

STREET LIGHT PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil)
CERTIFICATE NO. 39391
RICHARD D. YANO
06/01/23
ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO.
3720205006

DRAWING NAME
SL05

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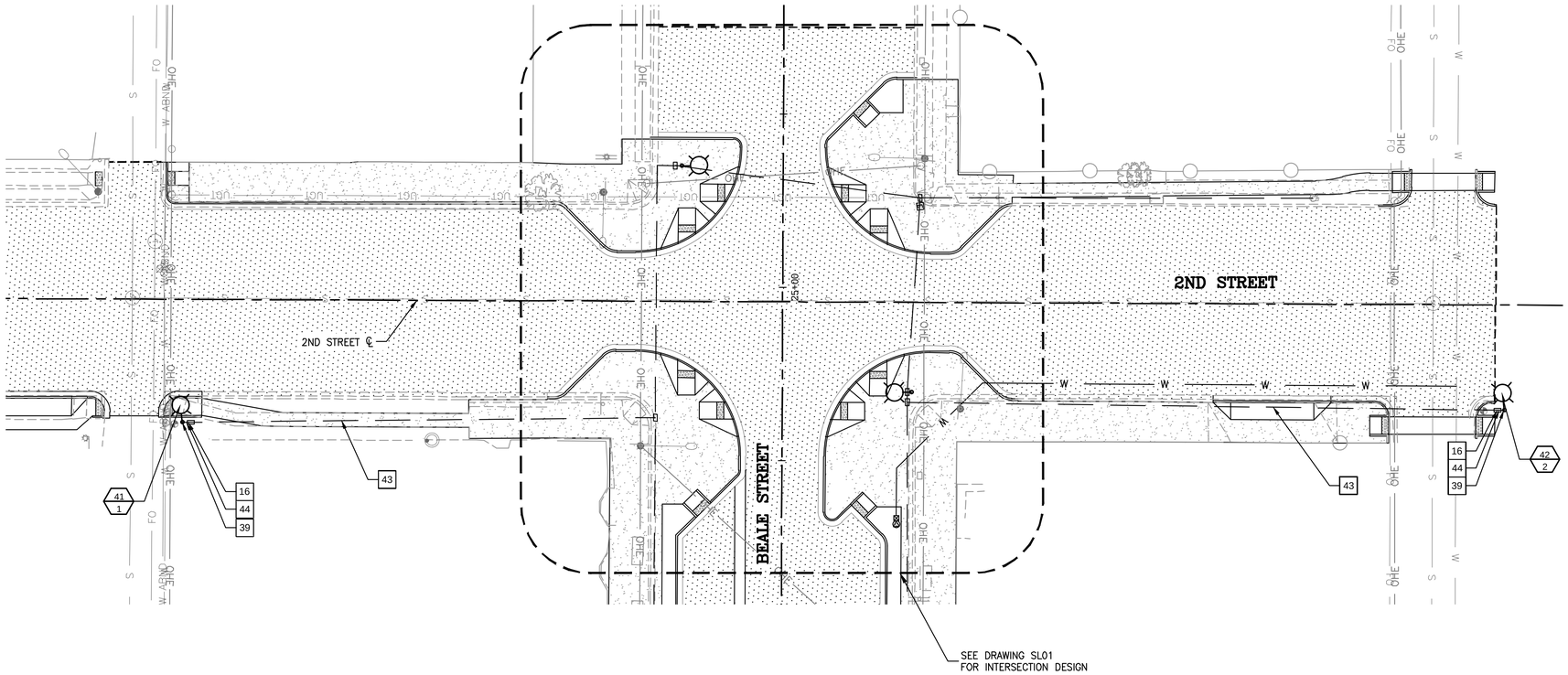

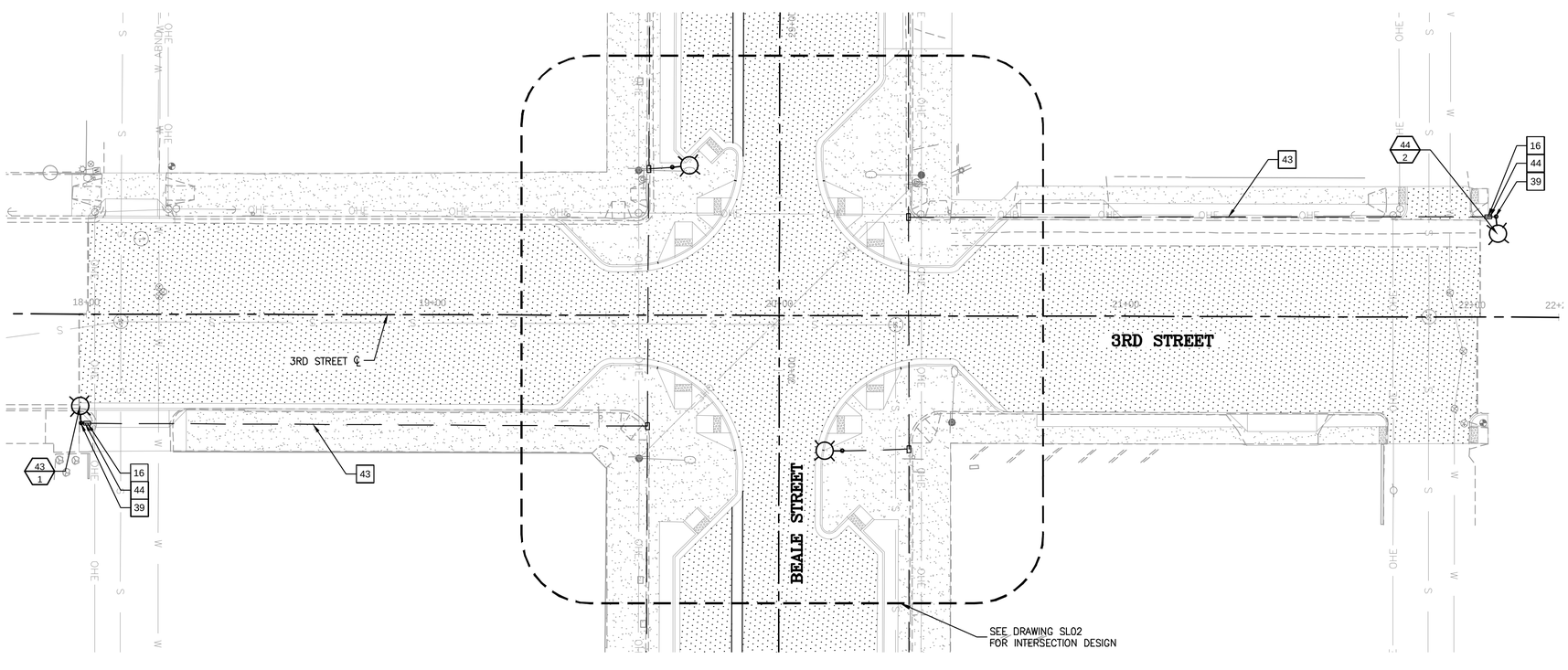

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
16	INSTALL NEW #5 PULL BOX	4 EA
39	INSTALL NEW ARLEN 20 ALUMINUM POLE, FOUNDATION, ARM AND LUMINAIRE (CEM CLASSICAL EPIC MEDIUM LED) SEE SHEET SL09	4 EA
43	JUNCTION BOX TO JUNCTION BOX FEEDS ON NORTH/SOUTH CROSS STREETS: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 2.5" CONDUIT WITH 2-#6 THWN AND 1 #8 BARE FOR STREETLIGHTS B)NO SPARE CONDUIT	676 LF
44	JUNCTION BOX TO STREETLIGHT FEEDS ON NORTH/SOUTH CROSS STREETS: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 1.0" CONDUIT WITH 2-#10 THWN AND 1 #8 BARE FOR STREETLIGHTS B)NO SPARE CONDUIT	100 LF

SL — STREET LIGHT #
CIR — CIRCUIT #

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LEGEND

ASPHALT PAVEMENT

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STREET LIGHT PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO. 3720205006

DRAWING NAME
SL07

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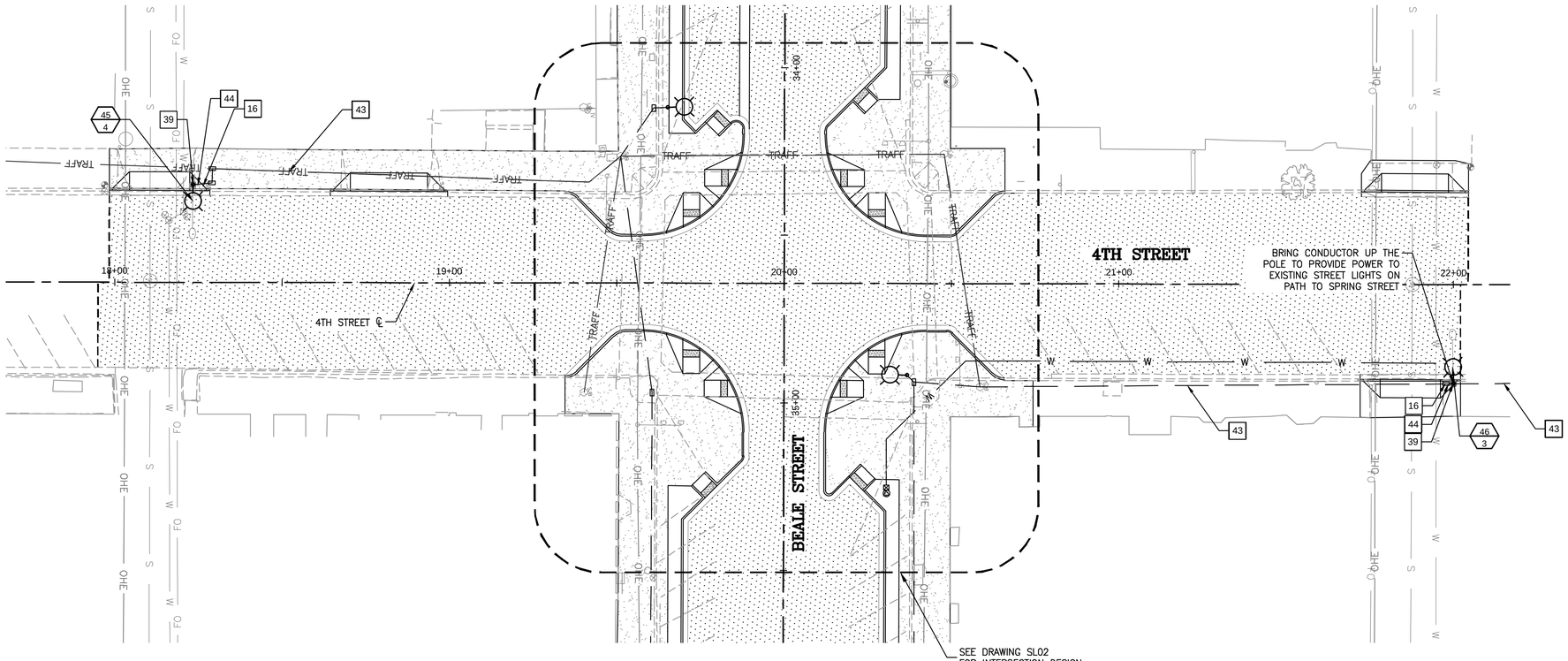

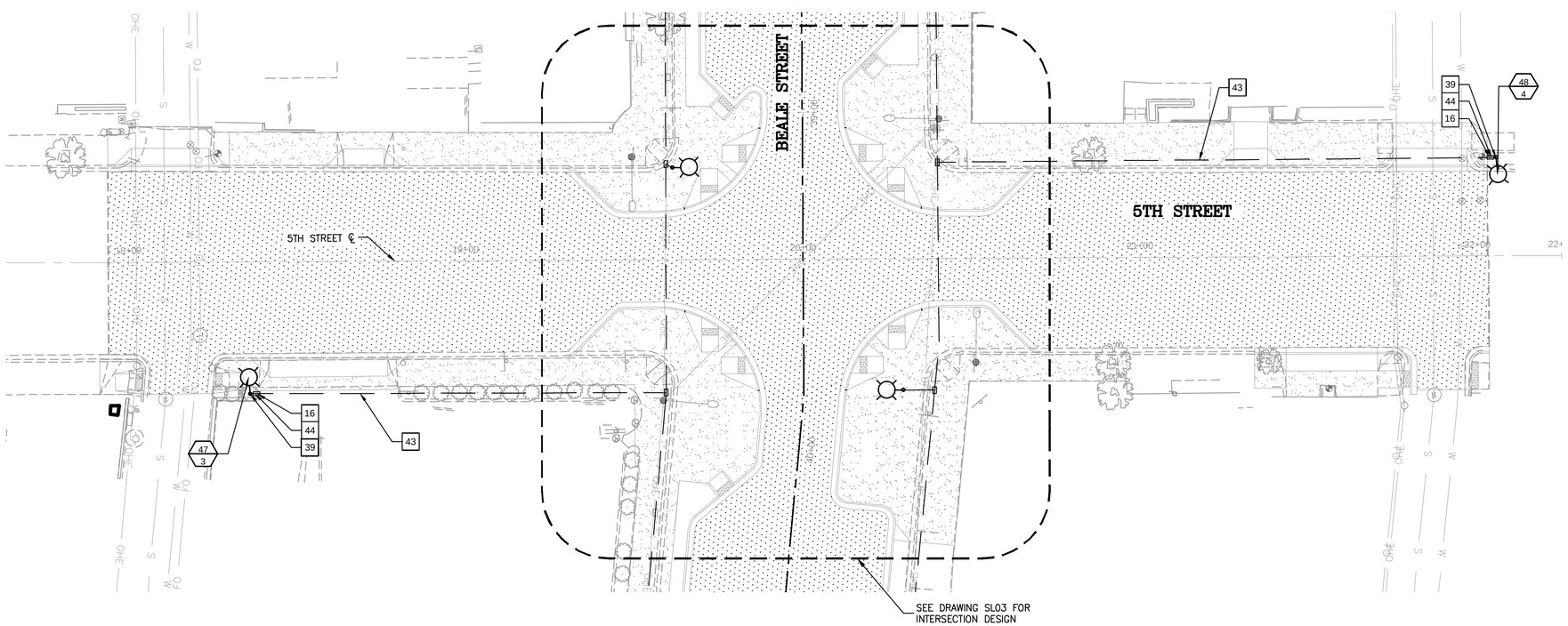

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CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY
16	INSTALL NEW #5 PULL BOX	4 EA
39	INSTALL NEW ARLEN 20 ALUMINUM POLE, FOUNDATION, ARM AND LUMINAIRE (CEM CLASSICAL EPIC MEDIUM LED) SEE SHEET SL09	4 EA
43	JUNCTION BOX TO JUNCTION BOX FEEDS ON NORTH/SOUTH CROSS STREETS: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 2.5" CONDUIT WITH 2-#6 THWN AND 1 #8 BARE FOR STREETLIGHTS B)NO SPARE CONDUIT	955 LF
44	JUNCTION BOX TO STREETLIGHT FEEDS ON NORTH/SOUTH CROSS STREETS: OPEN TRENCH, DIRECTIONAL BORE, OR SOFT DIG CONDUIT AND INSTALL WIRE AS FOLLOWS: A)SINGLE 1.0" CONDUIT WITH 2-#10 THWN AND 1 #8 BARE FOR STREETLIGHTS B)NO SPARE CONDUIT	100 LF

SL / CIR — STREET LIGHT # / CIRCUIT #

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LEGEND

ASPHALT PAVEMENT

scale 20 0 20 40 feet
HORIZ: 1"=20' VERT: 1"=10'

REVISIONS:

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STREET LIGHT PLAN

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 Date Signed ARIZONA U.S.A.
EXPIRES: 9/30/2024

PROJECT NO. 3720205006

DRAWING NAME SL08

SHEET NO. 35 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CAD\09-Sheets\5006-SL08.dwg

Streetworks

Catalog #	Type
Project	
Comments	Date
Prepared by	

DESCRIPTION

The EPIC Collection delivers custom luminaire flexibility with high quality, yet availability expectations of standard specification grade product. The EPIC Collection can be dressed to suit any application. Recognizing evolving environmental and legislative trends, the EPIC Collection delivers world class LED optical and performance solutions to the decorative luminaire marketplace.

SPECIFICATION FEATURES

Construction
TOP: Cast aluminum top housing attaches to cast aluminum mounting arm hub with four stainless steel fasteners. One-piece silicone gasket between mounting hub and top casting seals out moisture and contaminants. (See the mounting accessories section for a full selection of mounting arms. (Only these arms are compatible with the Epic luminaire). MIDSECTION: Continuous silicone gaskets seal lens to top casting and shade. The mid section features cast aluminum construction and stainless steel assembly. SHADES: Heavy gauge precision spun aluminum shades offer superior surface finish and consistency in form. DOORFRAME: Die-cast aluminum 1/8" thick door and doorframe seat to underside of shade with a thick wall continuous silicone gasket. Mounting hub ships attached to mounting arm.

Optics
Choice of twelve patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the optics, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and nominal 70 CRI. Optional 3000K CCT and 5000K CC. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics.

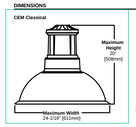
Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less that 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

Finish
Housing is finished in five-stage super TGIC polyester powder coat paint. 2.5 mil minimal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection. Options to meet Buy American and other domestic preference requirements.

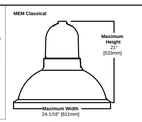
Warranty
Five-year warranty.

DIMENSIONS

CEM Classical



MEM Classical



See configurations for more detailed information.

CEM/MEM
EPIC MEDIUM LED

1 - 4 LightBARs
Solid State LED

DECORATIVE AREA LUMINAIRE

CERTIFICATION DATA
UL/cUL Listed
IP66 LightBARs
LM79 / LM80 Compliant
2G Vibration Tested
ISO 9001

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

EPA
Effective Projected Area: (Sq. Ft.) 0.94

SHIPPING DATA
Approximate Net Weight:
45 lbs. [20 kgs.]

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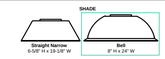
CONFIGURATIONS

HOUSING

MID SECTION

SHADE



MOUNTING OPTION

POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBARS)

Number of LightBARs	E01	E02	E03	E04
Drive Current	350mA Drive Current			
Power (Watts)	25W	52W	75W	97W
Current @ 120V (A)	0.22	0.44	0.63	0.82
Current @ 277V (A)	0.10	0.20	0.28	0.36
Power (Watts)	31W	58W	82W	99W
Current @ 347V (A)	0.11	0.19	0.28	0.29
Current @ 480V (A)	0.09	0.15	0.20	0.21
T2 Lumens	2,948	5,896	8,844	11,792
T2 BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3
T3 Lumens	2,936	5,873	8,809	11,745
T3 BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3
T4 Lumens	2,876	5,752	8,627	11,503
T4 BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3
SWQ Lumens	3,054	6,108	9,161	12,215
SWQ BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2
SWQ Lumens	2,987	5,975	8,962	11,949
SWQ BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2
SXQ Lumens	2,982	5,963	8,945	11,926
SXQ BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3	B4-U0-G3
SL2 Lumens	2,878	5,756	8,634	11,512
SL2 BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
SL3 Lumens	2,894	5,788	8,682	11,576
SL3 BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
SL4 Lumens	2,823	5,647	8,470	11,294
SL4 BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
RW Lumens	2,357	5,915	8,872	11,829
RW BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3	B3-U0-G3
SL1/SLR Lumens	2,616	5,231	7,847	10,462
SL1/SLR BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3

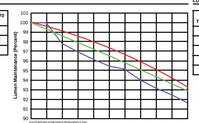
POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBARS)

Number of LightBARs	F01	F02	F03	F04
Drive Current	1A Drive Current			
Power (Watts)	26W	55W	78W	102W
Current @ 120V (A)	0.22	0.46	0.66	0.86
Current @ 277V (A)	0.10	0.21	0.29	0.37
Power (Watts)	32W	60W	85W	105W
Current @ 347V (A)	0.11	0.19	0.28	0.30
Current @ 480V (A)	0.09	0.15	0.21	0.22
T2 Lumens	2,434	4,867	7,301	9,735
T2 BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3
T3 Lumens	2,424	4,848	7,272	9,696
T3 BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3
T4 Lumens	2,374	4,748	7,122	9,496
T4 BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2
SWQ Lumens	2,521	5,042	7,563	10,084
SWQ BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
SWQ Lumens	2,466	4,932	7,398	9,864
SWQ BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2
SXQ Lumens	2,461	4,923	7,384	9,845
SXQ BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3	B4-U0-G3
SL2 Lumens	2,376	4,752	7,127	9,503
SL2 BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2
SL3 Lumens	2,389	4,778	7,167	9,556
SL3 BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2
SL4 Lumens	2,331	4,662	6,993	9,323
SL4 BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2
RW Lumens	2,441	4,883	7,324	9,765
RW BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3
SL1/SLR Lumens	2,159	4,318	6,478	8,637
SL1/SLR BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B1-U0-G3

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.



LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.98
50°C	0.96

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ORDERING INFORMATION

Sample Number: CEM-E04-LED-E1-T2-FL-GM

Product Family 1	Number of LightBARs 2, 3	Lump Type	Voltage	Distribution	Mid Section Type	Shade Type	Color 1
CEM= Epic Classical Medium MEM= Epic Modern Medium BA-CEM= Epic Classical Medium, Buy American Act TAA-CEM= Epic Classical Medium, Trade Agreements Act BA-MEM= Epic Modern Medium, Buy American Act TAA-MEM= Epic Modern Medium, Trade Agreements Act Example: CEM	E01= (1 21 LED LightBAR) E02= (2 21 LED LightBARs) E03= (3) 21 LED LightBARs) E04= (4) 21 LED LightBARs) F01= (1) 7 LED LightBar F02= (2) 7 LED LightBARs F03= (3) 7 LED LightBARs F04= (4) 7 LED LightBARs	LD= Solid State Light Emitting Diodes	E1= Electronic (120-277V) 347=347V 480=480 V	T1= Type I T3= Type III T4= Type IV SL2= Type II w/Split Control SL3= Type III w/Split Control SL4= Type IV w/Split Control SWQ= Type V Square Medium SWD= Type V Square Wide SXQ= Type V Square Extra Wide RW= Rectangular Wide SL1= 90° Split Light Eliminator Left SLR= 90° Split Light Eliminator Right	SO= Solid SR= Solid Rings	SW= Straight Narrow SW= Straight Wide FL= Flute	AP=Gray BZ=Bronze BK=Black DP= Dark Platinum GM= Graphite Metallic GN=Hartford Green WH=White

Options (Add as Suffix)

2L=Two Circuits 1
700=700 CRI / 5000K CCT 7
700p=70 CRI / 5000K CCT 7
3K80=80 CRI / 3000K CCT 7
LCP= LightBAR Cover Plate Matches Housing
MS-LXX=Motion Sensor for ON/OFF Operation 8 Motion LXX= Motion Sensor for Bi-Level Switching
PMXX= Pendant Mount (XX=Pendant Length in Inches, 9.5" min / 48.0" max) 10
HSS=Factory Installed House Side Shield 11 Specify Lens Type When Ordering
DM0P=Parallel 10kV MOV Surge Protection Device
DM0S=Series 20kV MOV Surge Protective Device
20kV Rated per UL 1449 Surge Protective Device

Accessories (Order Separately) 15, 16

Mounting Accessories (Order Separately)

Classical
SA6150-XX=Bishop Wall Mount Arm
SA6151-XX=Traditional Wall Mount Arm with Cross Rod
SA6152-XX=Traditional Wall Mount Arm
SA6153-XX=Traditional Wall Mount Arm with 45° Strap
SA6154-XX=Bishop Single Pole Mount Arm
SA6155-XX=Bishop Single Pole Mount Arm with Cross Rod
SA6156-XX=Bishop Single Pole Mount Arm with Strap
SA6157-XX=Bishop Twin Pole Mount Arm with Cross Rods
SA6158-XX=Traditional Single Pole Mount Arm
SA6159-XX=Traditional Single Pole Mount Arm with Rounded Upper Bar
SA6160-XX=Traditional Single Pole Mount Arm with Rounded Lower Bar 14
SA6161-XX=Traditional Single Pole Mount Arm with 45° Upper Bar
SA6162-XX=Traditional Single Pole Mount Arm with 45° Lower Bar 14
SA6163-XX=Traditional Single Pole Mount Arm with 45° Upper Strap
SA6165-XX=Traditional Twin Pole Mount Arm
SA6166-XX=Traditional Twin Pole Mount Arm with Rounded Upper Bars
SA6167-XX=Traditional Twin Pole Mount Arm with Rounded Lower Bars 14
SA6168-XX=Traditional Twin Pole Mount Arm with 45° Upper Bars
SA6170-XX=Traditional Twin Pole Mount Arm with 45° Upper Straps
SA6171-XX=Wall Mount Adapter

Modern
SA6101-XX=Bishop Wall Mount Arm
SA6102-XX=Bishop Wall Mount Arm with Cross Rod
SA6103-XX=Traditional Wall Mount Arm
SA6104-XX=Traditional Wall Mount Arm with 45° Strap
SA6105-XX=Bishop Single Pole Mount Arm
SA6106-XX=Bishop Single Pole Mount Arm with Cross Rod
SA6107-XX=Bishop Single Pole Mount Arm with Strap
SA6108-XX=Bishop Twin Pole Mount Arm with Cross Rods
SA6109-XX=Traditional Single Pole Mount Arm
SA6110-XX=Traditional Single Pole Mount Arm with Rounded Upper Bar
SA6111-XX=Traditional Single Pole Mount Arm with Rounded Lower Bar 14
SA6112-XX=Traditional Single Pole Mount Arm with 45° Upper Bar
SA6113-XX=Traditional Single Pole Mount Arm with 45° Lower Bar 14
SA6114-XX=Traditional Single Pole Mount Arm with 45° Upper Strap
SA6115-XX=Wall Mount Adapter
SA6117-XX=Traditional Twin Pole Mount Arm with Rounded Upper Bars
SA6118-XX=Traditional Twin Pole Mount Arm with Rounded Lower Bars 14
SA6119-XX=Traditional Twin Pole Mount Arm with 45° Upper Bars
SA6120-XX=Traditional Twin Pole Mount Arm with 45° Lower Bars 14
SA6121-XX=Traditional Twin Pole Mount Arm with 45° Upper Straps
SA6122-XX=Wall Mount Adapter

SA6160-BZ-PER7-U135641

Accessory Options 16
Mounting Hardware 17
M=Modern Finial 17
A=Architectural Finial 17
N=Nostalgic Finial 17
PER7=Twistlock Photocontrol Receptacle 18
PER7NEMA=7 Pin Twistlock Photocontrol Receptacle 18

LOCATED ON
SA6160-BZ-PER7-U135641
PER7 option SA6160 arm is factory-supplied
with line voltage leads + low voltage leads
#7 in length for connection to power and
dimming leads of driver within luminaire.
U135641 = PER7 location changed to top
upright instead of lower bar.

NOTES:
1. Arm not included. Order separately. See accessories.
2. Standard 4000K CCT and greater than 70 RI.
3. Only for use with 400+ Watts HID or LED LightBAR powered by LA.
4. Only for use with 400+ Watts systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Not for use with magnetic ballast operating equipment. Consult your lighting representative at Cooper Lighting Solutions for more information.
6. Low-level output varies by bar count. Consult factory. Requires quantity of two or more LightBARs.
7. Consult customer service for lead times and multiplier.
8. Sensor mounted to the luminaire. Available in E01-E04 and F01-F04 configurations. Replace "XX" with mounting height in feet for proper lens selection, (e.g. MS-L20). Consult factory for additional information.
9. Sensor mounted to the luminaire. Available in E02-E04 and F02-F04 configurations. Replace "X" with number of LightBARs operating in low output mode and replace XX with mounting height in feet for proper lens selection. Consult factory for additional information. Not for use with magnetic ballast operating equipment.
10. Pendant mount option "PMXX" must be used with House Pendant mount kit only. Includes pendant pipe, swivel hanger and canopy cover. Other pendant lengths can be specified in inches (XX). Minimum pendant length is 9-1/2". For lengths above 48", consult your lighting representative at Cooper Lighting Solutions for more information.
11. Not for use with "LCP" or "DM" options.
12. Dimming leads provide for external 0-10V control system (by others).
13. Replace XX with color suffix.
14. Not available with Modern Arms.
15. One required for each LightBAR.
16. Add as suffix to mounting accessory. Example: VA6106-BK-R.
17. Not available with finials, pendant mount "PMXN" or bishop wall mounts.
18. Requires use of 4" O.D. round straight pole.
19. Contact your Cooper Lighting representative for designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to Cooper Lighting's website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
20. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

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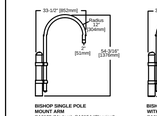
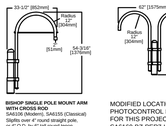
MOUNTING ACCESSORIES

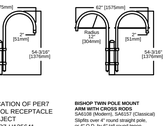
Pole mount arms are designed to fit both medium CEM/MEM housings. (Only these arms are compatible with the Epic luminaire). Arms feature a precision welded cast aluminum mounting hub for attachment of fixture head to arm with four stainless steel fasteners. Wall mount arms complement pole mount luminaires and attractively transition fixture scale in lower mounting height pedestrian environments. Wall mount arms are designed to fit both medium CEM/MEM housings. Arms feature a precision welded cast aluminum mounting hub for attachment of fixture head to arm with four stainless steel fasteners.



MIDHOP SINGLE POLE MOUNT ARM
SA6106 (Modern), SA6154 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 24 lbs. E.P.A. 0.92

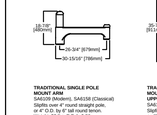


MIDHOP SINGLE POLE MOUNT ARM WITH CROSS ROD
SA6108 (Modern), SA6155 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 25 lbs. E.P.A. 0.98

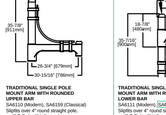


MIDHOP TWIN POLE MOUNT ARM WITH CROSS RODS
SA6108 (Modern), SA6157 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 39 lbs. E.P.A. 1.55

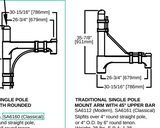
MODIFIED LOCATION OF PER7 PHOTOCONTROL RECEPTACLE FOR THIS PROJECT
SA6160-BZ-PER7-U135641



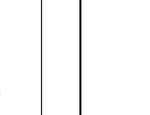
TRADITIONAL SINGLE POLE MOUNT ARM
SA6106 (Modern), SA6158 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 20 lbs. E.P.A. 0.98



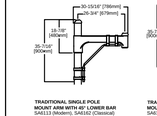
TRADITIONAL SINGLE POLE MOUNT ARM WITH ROUNDED UPPER BAR
SA6110 (Modern), SA6159 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 28 lbs. E.P.A. 1.4



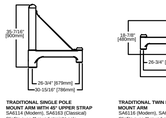
TRADITIONAL SINGLE POLE MOUNT ARM WITH ROUNDED LOWER BAR
SA6112 (Modern), SA6160 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 26 lbs. E.P.A. 1.16



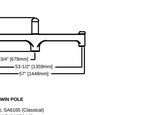
TRADITIONAL SINGLE POLE MOUNT ARM WITH 45° UPPER BAR
SA6112 (Modern), SA6161 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 28 lbs. E.P.A. 1.39



TRADITIONAL SINGLE POLE MOUNT ARM WITH 45° LOWER BAR
SA6114 (Modern), SA6162 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 24 lbs. E.P.A. 1.17



TRADITIONAL SINGLE POLE MOUNT ARM WITH DECORATIVE STRAP
SA6116 (Modern), SA6163 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 24 lbs. E.P.A. 1.17



TRADITIONAL TWIN POLE MOUNT ARM
SA6118 (Modern), SA6165 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall round tenon.
Weight: 30 lbs. E.P.A. 1.44

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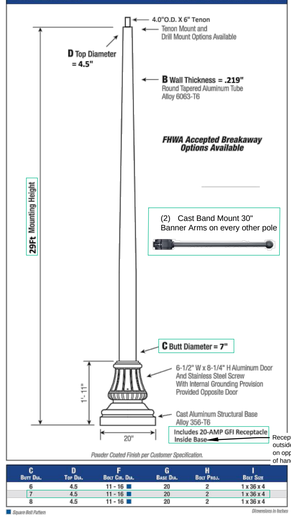
ARLEN 20

STRUCTURAL - Tapered Round Aluminum Pole



C Butt Dia.	D Top Dia.	E Bolt Cir. Dia.	F Base Dia.	G Base Thk.	H Bolt Pattern	I Bolt Size
6	4.5	11 - 16 ■	20	2	1 x 36 x 4	
7	4.5	11 - 16 ■	20	2	1 x 36 x 4	
8	4.5	11 - 16 ■	20	2	1 x 36 x 4	

■ Square Bolt Pattern — Dimensions in Inches

Base
Cast Aluminum, 1-Piece Structural Pedestal Base of Alloy 356 per ASTM B26 or B108. The base shaft have an access door with cast aluminum cover and stainless steel attaching hardware. An internal grounding provision will be provided opposite the access door.

Pole
The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft shall be joined to the structural base by means of a complete circumferential weld in accordance with AWS Specification D1.2. The assembly shall be full-length heat-treated after weld to produce a T6 temper.

Anchorage
Anchorage Kit will include four (4) J-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of threaded end will be galvanized per ASTM A153. Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel). A bolt circle template will be provided.

NOTE: *All ARLEN 20 pole options may be specified in designs utilizing Direct Buried anchorage.*

Vibration Damper
When determined necessary by Hapco, a Vibration Damper will be factory installed inside the pole shaft. Customer specification of the damper is available.

WARNING: *Do not install light pole without luminaire.*

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ARLEN 20

STRUCTURAL Tapered Round Aluminum Pole

A Wall Nom. Thickness	B Wall Min. Thickness	C Butt Dia.	Trim Dia. Top Washer	Maximum EPA 90	100	110	120	130	140	Catalog Number*
8	0.125	6	100	37.7	30.4	24.9	20.8	17.6	15.1	- A0S2806-4-TR-**
	0.156	6	100	45.0	36.2	29.7	24.8	21.0	18.1	- A0S3006-4-TR-**
	0.125	7	100	51.7	41.7	34.2	28.6	24.3	20.9	- A0S2807-4-TR-**
	0.188	7	100	66.6	53.8	44.2	37.0	31.4	27.0	- A0S3007-4-TR-**
	0.188	8	100	66.6	53.8	44.2	37.0	31.4	27.1	- A0S3008-4-TR-**
	0.250	8	100	86.6	69.8	44.2	37.0	31.4	27.1	- A0S3008-4-TR-**
10	0.125	6	100	29.9	24.0	19.9	16.9	13.8	11.2	- A0S1806-4-TR-**
	0.156	6	100	36.3	29.4	23.1	19.2	16.2	14.0	- A0S1006-4-TR-**
	0.125	7	100	41.3	33.3	27.2	22.7	19.2	16.5	- A0S1807-4-TR-**
	0.188	7	100	52.6	42.4	34.8	29.0	24.6	21.2	- A0S1007-4-TR-**
	0.188	8	100	52.6	42.4	34.8	29.0	24.6	21.2	- A0S1008-4-TR-**
	0.250	8	100	69.5	55.7	44.8	29.0	24.6	21.2	- A0S1008-4-TR-**
12	0.125	6	100	24.3	19.4	15.8	12.8	10.8	9.3	- A0S1206-4-TR-**
	0.188	6	100	28.7	23.0	18.6	15.4	13.0	11.0	- A0S1206-4-TR-**
	0.125	7	100	34.0	27.3	22.1	18.4	15.5	13.2	- A0S1207-4-TR-**
	0.188	7	100	43.2	34.8	28.2	23.5	19.8	17.0	- A0S1207-4-TR-**
	0.188	8	100	43.2	34.8	28.2	23.6	19.9	17.0	- A0S1208-4-TR-**
14	0.125	6	100	19.7	15.7	12.4	10.1	8.4	7.2	- A0S1406-4-TR-**
	0.188	6	100	23.9	19.0	15.2	12.4	10.4	8.9	- A0S1406-4-TR-**
	0.125	7	100	28.5	22.8	18.3	15.1	12.6	10.8	- A0S1407-4-TR-**
	0.188	7	100	36.4	29.1	23.5	19.4	16.4	14.0	- A0S1407-4-TR-**
	0.188	8	100	36.4	29.2	23.5	19.3	16.4	14.0	- A0S1408-4-TR-**
16	0.125	6	100	15.9	12.6	9.7	7.8	6.5	5.5	- A0S1606-4-TR-**
	0.188	6	100	19.7	15.6	12.2	10.0	8.2	7.0	- A0S1606-4-TR-**
	0.125	7	100	23.3	18.5	14.7	12.0	10.0	8.5	- A0S1607-4-TR-**
	0.188	7	100	30.3	24.2	19.4	16.0	13.4	11.4	- A0S1607-4-TR-**
	0.188	8	100	30.3	24.2	19.4	16.0	13.4	11.4	- A0S1608-4-TR-**
18	0.125	6	100	12.9	10.1	7.6	6.0	4.9	4.1	- A0S1806-4-TR-**
	0.188	6	100	16.4	12.8	9.9	8.0	6.5	5.5	- A0S1806-4-TR-**
	0.125	7	100	19.3	15.3	11.9	9.6	7.8	6.7	- A0S1807-4-TR-**
	0.188	7	100	25.6	20.4	16.1	13.2	11.0	9.3	- A0S1807-4-TR-**
	0.188	8	100	25.6	20.4	16.1	13.2	11.0	9.4	- A0S1808-4-TR-**
20	0.125	6	100	10.4	8.0	5.8	4.4	3.5	2.9	- A0S2006-4-TR-**
	0.188	6	100	13.7	10.6	8.0	6.2	5.1	4.2	- A0S2006-4-TR-**
	0.125	7	100	16.1	12.6	9.6	7.7	6.3	5.2	- A0S2007-4-TR-**
	0.188	7	100	21.8	17.2	13.4	10.9	9.0	7.6	- A0S2007-4-TR-**
	0.188	8	100	21.8	17.3	13.4	10.9	9.0	7.6	- A0S2008-4-TR-**
25	0.125	6	60	6.1	4.4	2.6	1.6	1.1	0.8	- A0S2506-4-TR-**
	0.188	6	40	8.7	6.5	4.3	3.0	2.3	1.8	- A0S2506-4-TR-**
	0.125	7	100	10.1	7.6	5.2	3.9	2.9	2.4	- A0S2507-4-TR-**
	0.188	7	100	15.0	11.6	8

Project		Catalog #	B4-A-1B-UL	Type	
Prepared by		Notes		Date	

Telensa

Telecell

Universal Luminaire Controller

Interactive Menu

- Ordering Information page 2
- Product Specifications page 2

Product Certifications

FC DECLARED, IP66, UL LISTED, TSTI

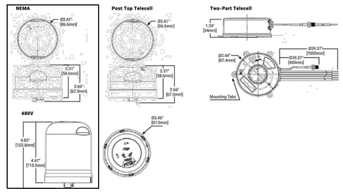
Quick Facts

- Up to 8 miles long range connectivity to base station
- Revenue grade metering within <0.5% accuracy
- Self-commissioning automatically connects to optimized base station
- Integrated GPS plots fixture locations in CMS and asset management mapping system

Connected Systems

- Telensa

Dimensional Details



Telensa

Telecell

Ordering Information

SAMPLE ORDER NUMBER: **T2A1N-B-3-UL**

Catalog Number	Description
[redacted]	[redacted]
T2A1P-B-3-UL	Internal NEMA Post Top Telecell - 120-277VAC, Internal Post Top, Black, UL Listed [1]
T2A1U-G-3	Two Part Internal Telecell - 120-277VAC, Two part Internal, Gray [2,3]
T2A1N-Y-3-UL	NEMA Telecell - 347-480VAC, NEMA type, Yellow, UL Listed [4]

NOTES:
1. Contact factory for alternative colors.
2. Antenna is required and must be ordered separately.
3. Contact factory for extended service/entry version.
4. Contact factory for 480VAC availability.

Antenna Order Information (Required for Post Top and Two-Part Internal Versions - Order Seperately)

Catalog Number	Description
ANT-S-EF-M	Easy Fit Internal Telecell Antenna - 915MHz SMA (Image 1 below)
ANT-S-LP-A	Low Profile Internal Telecell Antenna - 915MHz SMA (Image 2 below)
ANT-S-TW-A	Twig Internal Telecell Antenna - 915MHz SMA (Image 3 below)

Antenna Options

1. Easy-Fit (ANT-S-EF-M)	2. Low Profile (ANT-S-LP-A)	3. Twig (ANT-S-TW-A)
H: 120mm [5.12"]	H: 154mm [4.59"]	H: 102mm [4.02"]

Product Specifications

Construction

120-277VAC / 347-480VAC Versions:
- Housing Material: UL rated polycarbonate
- IP Rating: IP66
- Temperature (°C/°F): -40° to +70°/-40° to +158°
- Relative Humidity Range: 5% - 95%
- UV Resistance: UL UV (F1) rated

Certifications

120-277VAC / 347-480VAC Versions:
- Standards Available: FCC/UL/IC
- Manufacturing: ISO9001 and ISO14001

Electrical

120-277VAC / 347-480VAC Versions:
- Voltage (nominal): 120-277VAC
- Wattage (typical): 0.7W
- Switching: 10A
- Dimming (on board): 0-10V or DALI
- Surge Protection: 10kV/5kA (tested to ANSI 136.1)

347-480VAC Version only:
- Voltage (nominal): 347-480VAC
- Wattage (typical): 2.2W
- Switching: 5A
- Dimming (on board): 0-10V or DALI
- Surge Protection: 6kV/3kA (tested to ANSI 136.1)

Accuracy

120-277VAC / 347-480VAC Versions:
- Metering: High accuracy revenue grade(<0.5%)
- Location: 2.5M or 8.2FT CEP

UNB Radio

120-277VAC / 347-480VAC Versions:
- Supported bands: 902-928 MHz
- Receiver Sensitivity (min): -124dBm
- Transmit power (max ERP): 25-100 mW

NFC Radio

120-277VAC / 347-480VAC Versions:
- Supported

Physical Attributes

	NEMA	2-Part	Post Top	480V NEMA
Connections	[redacted]	5 Wire (Dimming)	5/7 PIN (ANSI C136.41)	5/7 PIN (ANSI C136.41)
	[redacted]	3 Wire (ON / OFF Only)	3 PIN (ANSI C136.10)	3 PIN (ANSI C136.10)
Dimensions (H x D)	[redacted]	1.34" x 3.72" [34 x 89mm]	2.31" x 5.41" [58.6 x 86.6mm]	4.47" x 3.46" [113.5 x 87.9mm]
Antenna	[redacted]	External*	External*	Internal

NOTES: *Purchased separately

Cooper Lighting Solutions
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Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

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LIGHTING EQUIPMENT DETAILS

PROJECT: KINGMAN DOWNTOWN INFRASTRUCTURE
BEALE ST - 1ST ST TO 6TH ST
KINGMAN, ARIZONA

DESIGNED BY: HMR
DRAWN BY: AA
CHECKED BY: DY
DATE: JUNE 2023

Registered Professional Engineer (Civil) CERTIFICATE NO. 39391 RICHARD D. YANO 06/01/23 Date Signed ARIZONA U.S.A.

EXPIRES: 9/30/2024

PROJECT NO. 3720205006

DRAWING NAME
SL10

SHEET NO. 37 of 52

File: G:\Infrastructure\Trans\Projects\2020\3720205006 Kingman Downtown Infrastructure Design\05-CADD\09-Sheets\5006-SL10.dwg