

CITY OF KINGMAN, ARIZONA

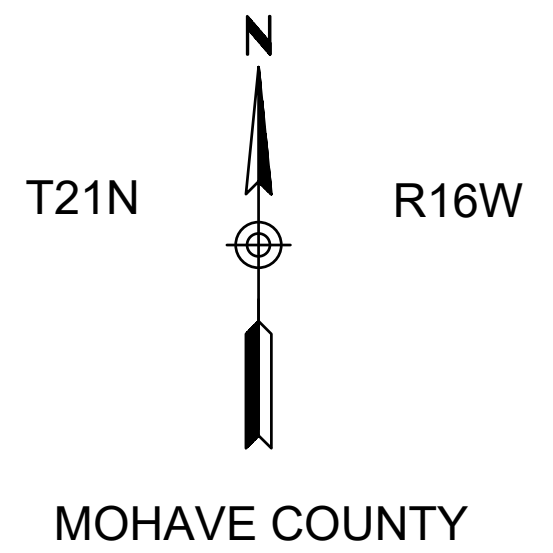
EASTERN STREET DESIGN PHASE 1

I-40 NORTH RIGHT-OF-WAY LIMITS TO AIRWAY AVENUE

CITY OF KINGMAN PROJECT NO. ENG 21-0001

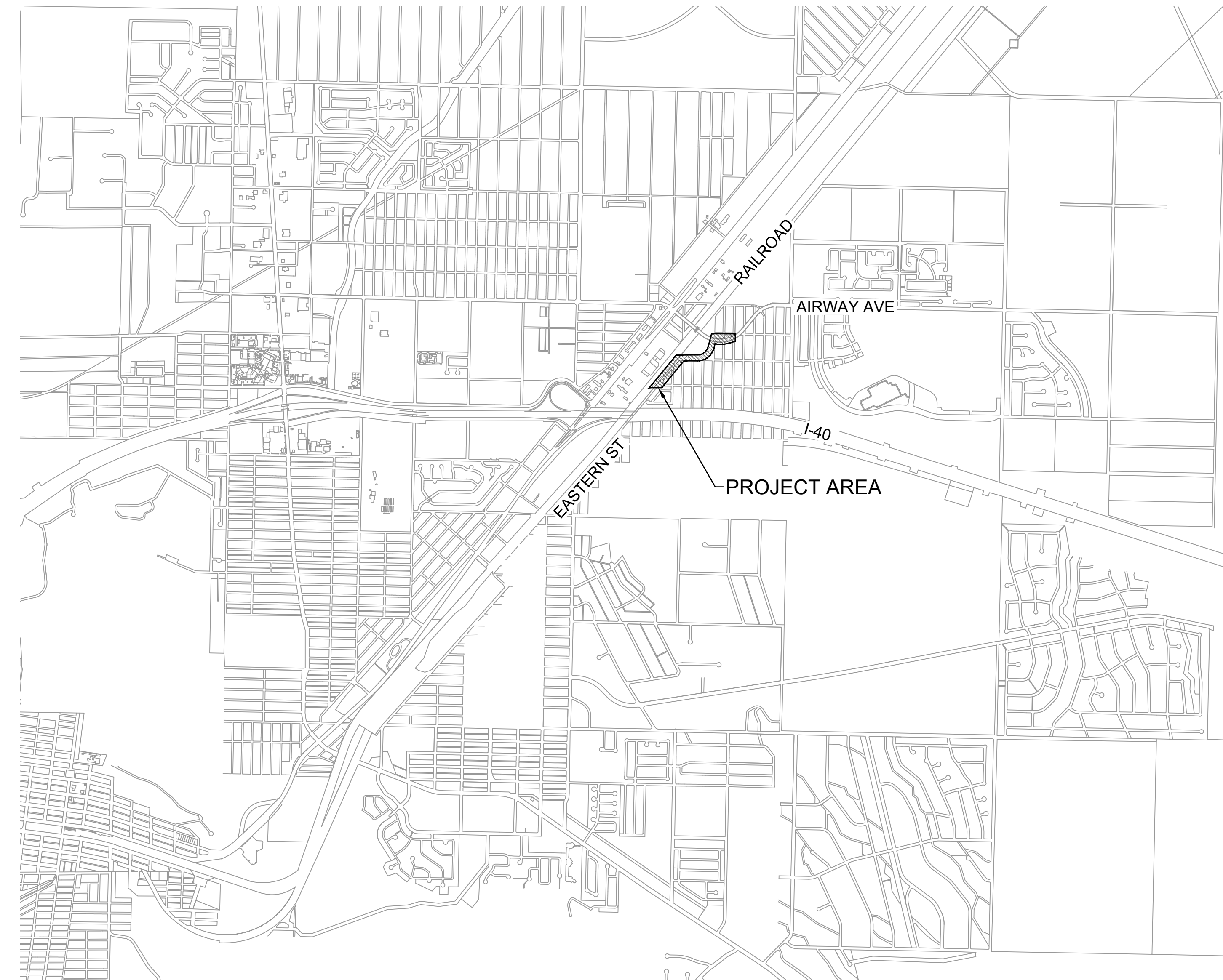
DATE: FEBRUARY 2023

| DRAINAGE NOTES | | | |
|----------------|---|-------|------|
| NO. | DESCRIPTION | QTY | UNIT |
| 1 | 18" RGRCP, CLASS III | 114 | LF |
| 2 | 18" RGRCP, CLASS IV | 390 | LF |
| 3 | 24" RGRCP, CLASS III | 155 | LF |
| 4 | 36" RGRCP, CLASS IV | 299 | LF |
| 5 | 8" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK 392, REMOVE FLUSH VALVE AND EXTEND WATERLINE AS SHOWN | 86 | LF |
| 6 | CATCH BASIN PER MAG STD DET 530, L=3.5' | 3 | EA |
| 7 | CATCH BASIN PER MAG STD DET 531 L=5.5' | 3 | EA |
| 8 | CATCH BASIN PER MAG STD DET 532 L=8.0' | 1 | EA |
| 9 | CATCH BASIN PER MAG STD DET 533-1 L=17' | 5 | EA |
| 10 | 12" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK SET 392 | 342 | LF |
| 11 | MANHOLE PER MAG STD DET 520 & 522 & CITY OF KINGMAN DET 422 | 8 | EA |
| 12 | FIVE BARREL 10' X 6' BOX CULVERT PER ADOT STD DET SD 6.05, SEE SHEET DT06 & DT07 | 139 | LF |
| 13 | HEADWALL PER MAG STD DET 501, "U TYPE" | 1 | EA |
| 14 | INLET WING PER ADOT STD DET SD 6.10, LENGTH PER PLAN, SEE SHEET DT08 & DT09 | 2 | EA |
| 15 | OUTLET WING PER ADOT STD DET SD 6.10, LENGTH PER PLAN, SEE SHEET DT08 & DT09 | 2 | EA |
| 16 | SAFETY RAIL PER MAG STD DET 145, TYPE 1 | 242 | LF |
| 17 | GROUTED RIPRAP PER MAG SECTION 220, D50=6", T=12" | 48 | CY |
| 18 | GROUTED RIPRAP PER MAG SECTION 220, D50=12", T=24" | 13 | CY |
| 19 | MATCH EXISTING 6" CONCRETE CHANNEL LINING | 1,206 | SY |
| 20 | EXTRA PROTECTION CONCRETE ENCASEMENT PER MAG STD DET 404 | 3 | EA |
| 21 | FLUSHING PIPE ASSEMBLY PER COK STD DET 390 | 2 | EA |
| 22 | CATCH BASIN PER DETAIL ON SHEET DT14 | 1 | EA |
| 23 | CONCRETE PIPE COLLAR PER MAG STD DET 505 | 2 | EA |
| 24 | 8" SDR 35 SEWER PIPE, REMOVE CLEANOUT AND EXTEND SEWERLINE AS SHOWN | 57 | LF |
| 25 | 6" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK 392 | 309 | LF |
| 26 | NEW FENCE TO TIE INTO OLD FENCE | 2 | EA |
| 27 | INSTALL FENCE PER COK STD DET 160 WITHOUT BARBED WIRE | 371 | LF |
| 28 | CONNECT TO EXISTING 12" WATERLINE WITH AN 12" X 12" TAPPING SLEEVE AND VALVE, BOX AND COVER PER MAG DETAIL 340 | 2 | EA |
| 29 | SEWER CLEANOUT PER COK STD DET 441 | 2 | EA |
| 30 | 6" TEE WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 & 303-2 | 2 | EA |
| 31 | CONNECT TO EXISTING 6" WATERLINE WITH AN 6" X 6" TAPPING SLEEVE AND VALVE, BOX AND COVER PER MAG DETAIL 340 | 2 | EA |



BENCHMARKS

- PRIMARY HORIZONTAL CONTROL BENCHMARK #1**
3 INCH BRASS CAP FLUSH IN CONCRETE SOUTHEAST CORNER OF SECTION 7 NAVD88 EL = 3508.33'
N 15323735519'
E 622033.7759'
#565
- PRIMARY VERTICAL CONTROL BENCHMARK #2**
NGS BENCHMARK DESIGNATION D 525 4 IN BRASS CAP FLUSH IN CONCRETE SOUTHWEST CORNER OF INTERSECTION OF EASTERN STREET WITH LOUISE AVENUE NAVD88 EL = 3564.67'
N 1528314.7549'
E 622013.2833
#900
- SECONDARY HORIZONTAL AND VERTICAL CONTROL**
- BENCHMARK #3**
GLO BRASS CAP IN HANDHOLE EAST QUARTER CORNER OF SECTION 18 NAVD88 EL=3541.82'
N 1529730.6415'
E 622033.8721'
HORIZONTAL=#566
- BENCHMARK #4**
2 INCH ALUMINUM CAP IN CONCRETE WEST QUARTER CORNER OF SECTION 8 NAVD88 EL=3467.20'
N 1535014.3409'
E 622040.3899'
#567
- BENCHMARK #5**
3 INCH GLO BRASS CAP IN CONCRETE WEST QUARTER CORNER OF SECTION 8 NAVD88 EL=3440.03'
N 1537650.8357'
E 624688.3788'
=#571
- BENCHMARK #6**
2 INCH ALUMINUM CAP FLUSH IN CONCRETE SOUTH QUARTER CORNER OF SECTION 8 NAVD88 EL=3526.72'
N 1532369.2597'
E 624674.1332'
#580



VICINITY MAP
SCALE: 1"=2000'

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS S89°54'25"E OF THE SOUTHWEST QUARTER OF SECTION 8, T21N, R16W OF THE GILA & SALT RIVER MERIDIAN, MOHAVE COUNTY, ARIZONA CALCULATED FROM COORDINATE VALUES SHOWN ON THE RETRACEMENT AND DEPENDENT RESURVEY BY TRIMBLE GPS OF SECTIONS 1-23 AND 26-35 OF T.21 N., R.16 W., G.&S.R.M., MOHAVE COUNTY, ARIZONA. THIS SURVEY WAS PERFORMED BY THE CITY OF KINGMAN SURVEYING DEPARTMENT, SIGNED & SEALED BY JACK M. KESSLER PLS#8904 ON 10/28/03 AND RECORDED IN THE MOHAVE COUNTY RECORDER'S OFFICE AS RECEPTION NUMBER 2003-92693.

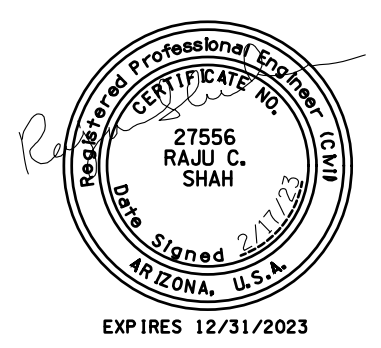
CONTROL INFORMATION

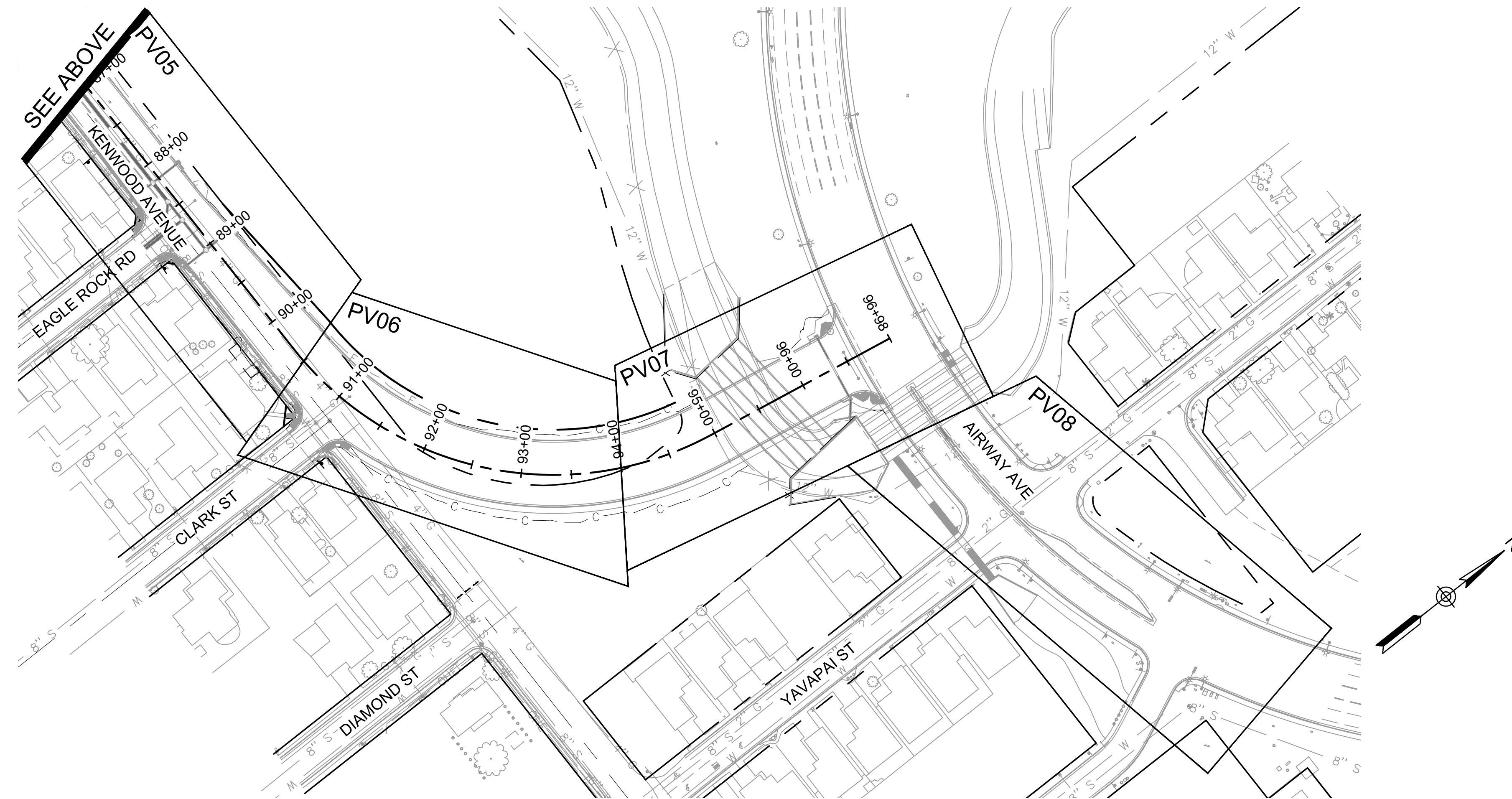
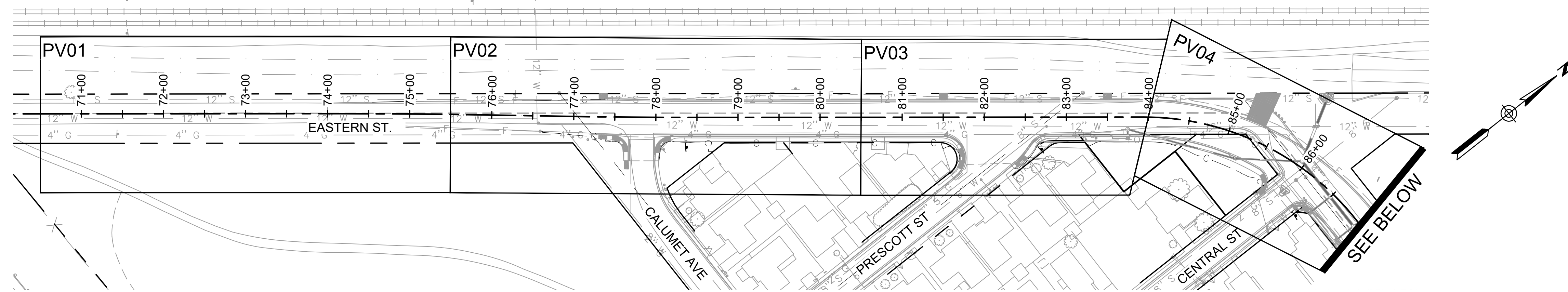
ALL BEARINGS ARE GROUND/GRID BEARINGS
ALL DISTANCES ARE GROUND DISTANCES (INTERNATIONAL FEET)
COORDINATES SHOWN ARE BASED ON NAD83 ARIZONA STATE PLANE PROJECTION SYSTEM - WEST ZONE - GROUND COORDINATES (INTERNATIONAL FEET)
ELEVATIONS SHOWN ARE BASED ON NAVD88
THE GRID TO GROUND SCALE FACTOR UTILIZED FOR THIS PROJECT IS 1.00023215388

SHEET INDEX

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| 6 | TX | TYPICAL SECTIONS |
| 7 - 8 | GC | GEOMETRIC CONTROL |
| 9 - 11 | HC | HORIZONTAL CONTROL |
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| 41 | DW | DRIVEWAY PROFILES |
| 42 - 49 | DR | DRAINAGE PLAN AND PROFILE SHEETS |
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| 56 - 58 | TS | TRAFFIC SIGNAL |

| PAVING NOTES | | | | REMOVAL NOTES | | | |
|--------------|--|--------|------|---------------|--|-------|------|
| NO. | DESCRIPTION | QTY | UNIT | NO. | DESCRIPTION | QTY | UNIT |
| 1 | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 13,536 | SY | A | SAWCUT & REMOVE EXISTING PAVEMENT | 7,960 | SY |
| 2 | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 13,536 | SY | B | REMOVE & RELOCATE EXISTING FIRE HYDRANT PER COK STD DET 360 | 1 | EA |
| 3 | CURB & GUTTER PER MAG STD DET 220 | 3,858 | LF | C | REMOVE & RELOCATE EXISTING POWER POLE BY OTHERS | 3 | EA |
| 4 | SIDEWALK PER COK STD DET 230 | 10,334 | SF | D | REMOVE SIDEWALK | 5,170 | SF |
| 5 | SIDEWALK RAMP PER COK STD DET 233 | 7 | EA | E | REMOVE CONCRETE CURB & GUTTER | 1,710 | LF |
| 6 | CONCRETE DRIVEWAY PER MAG STD DET 250-2 MATCH EXST WIDTH, MIN 16' | 1 | EA | F | EXISTING SIGN TO BE SALVAGED AND RETURNED TO COK PUBLIC WORKS. WHERE APPLICABLE COK WILL SUPPLY NEW SIGNS. NEW BASE AND POST TO BE INSTALLED PER COK DET 132 | 8 | EA |
| 7 | RESET FRAME AND COVER FOR MANHOLE PER COK STD DET 422 | 3 | EA | G | EXISTING CONCRETE TO BE REMOVED | 283 | SF |
| 8 | RESET FRAME & COVER FOR WATER VALVE PER COK DET. 391.1 | 9 | EA | H | RELOCATE EXISTING UTILITY BOX | 3 | EA |
| 9 | SINGLE CURB PER MAG STD DET 222 TYPE A | 340 | LF | I | RELOCATE EXISTING WATER METER | 1 | EA |
| 10 | SIDEWALK RAMP PER MAG STD DET 238-2 | 1 | EA | J | RELOCATE EXISTING WATER VALVE | 4 | EA |
| 11 | DRIVEWAY/RAMP PER DETAIL SHEET DT02 | 168 | SF | M | REMOVE EXISTING ACCESS GATE | 1 | EA |
| 12 | CURB TERMINATION TYPE A PER MAG STD DET 222 | 8 | EA | K | REMOVE EXISTING WING WALL | 1 | EA |
| 13 | CURB TRANSITION TYPE A TO TYPE C PER MAG STD DET 221 | 9 | EA | L | REMOVE EXISTING CHANNEL LINING AND BACKFILL PER MAG STD DTL 200-1 TYPE "A" | 2,063 | SY |
| 14 | SIDEWALK RAMP PER MAG STD DET 237-1 | 2 | EA | | | | |
| 15 | EXISTING SURVEY MARKER TO BE RESET BY COK SURVEY DEPARTMENT (NON PAYMENT ITEM) | 6 | EA | | | | |
| 16 | CURB TRANSITION TYPE A TO TYPE E PER MAG STD DET 220-2 | 2 | EA | | | | |
| 17 | 6" REMOVABLE TYPE-2 BOLLARD PER MAG STD DET 140 | 4 | EA | | | | |
| 18 | SIDEWALK RAMP PER MODIFIED COK DET 236 | 1 | EA | | | | |
| 19 | VALLEY GUTTER PER MAG STD DET 240 | 470 | SF | | | | |
| 20 | PRESERVE EXISTING LANDSCAPING BETWEEN NEW SAW AND EXISTING BLOCK WALL | 1 | EA | | | | |
| 21 | MODIFIED SIDEWALK RAMP PER COK STD DET 233 SEE DETAIL G ON SHEET DT02 | 1 | EA | | | | |





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 WWW.RPAENG.COM

EASTERN STREET
 CALUMET TO AIRWAY AVE

C.O.K. PROJECT NO.
 ENG 21-0001
 FILENAME
 02-221038-KM01.dwg

CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118



EASTERN STREET
 KEY MAP

SHEET NO.
KM01
 02 OF 58

ABBREVIATIONS

| | | | |
|--------------------------------------|-------------------|--|-----------|
| ACRES | AC | MAXIMUM | MAX |
| AGGREGATE BASE | AB | MEASURED | (M) |
| AHEAD | AHD | MILE POST | MP |
| AIR RELEASE VALVE | ARV | MILLIMETER | MM |
| ALUMINUM | AL | MINIMUM | MIN |
| ANGLE POINT | AP | MINUTES | ' |
| APPROXIMATE | APPROX | MISCELLANEOUS | MISC |
| ARIZONA DEPARTMENT OF TRANSPORTATION | ADOT | MONUMENT | MON |
| ASPHALTIC CONCRETE | AC | NATIONAL GEODETIC VERTICAL DATUM | NGVD |
| ASSESSORS PARCEL NUMBER | APN | NATURAL GROUND | NG |
| AVENUE | AVE | NORTH | N |
| BACK OF CURB | B/C | NOT TO SCALE | NTS |
| BACK OF CURB RETURN | BCR | NUMBER | NO |
| BACKFLOW PREVENTER | BFP | OFFSET | OFF |
| BEGIN | BEG | OUTSIDE DIAMETER | OD |
| BLACK | BK | PARCEL | PAR |
| BOULEVARD | BLVD | PARKWAY | PKWY |
| BRASS CAP | BC | PAVEMENT | PVMT |
| CALCULATED | C | PEDESTRIAN | PED |
| CATCH BASIN | CB | PLACE | PL |
| CENTERLINE | C/L OR ϵ | POINT OF COMPOUND CURVE | PCC |
| CITY OF KINGMAN | COK | POINT OF CURVATURE | PC |
| CONCRETE BOX CULVERT | CBC | POINT OF INTERSECTION | PI |
| CAST IN PLACE CONCRETE PIPE | CIP / C.I.P. | POINT OF REVERSE CURVE | PRC |
| CONSTRUCTION | CONSTR | POINT OF TANGENT | PT |
| CORNER | COR | POINT ON CURVE | POC |
| COUNTY | CO | POINT ON TANGENT | POT |
| DEGREES | ° | POINT ON SEMI-TANGENT | POST |
| DEGREE OF CURVE | D | PORTLAND CEMENT CONCRETE PAVEMENT | PCCP |
| DELTA | Δ | PROPOSED | PROP |
| DEPARTMENT | DEPT | PROTECT IN PLACE | PIP |
| DETAIL | DET | PUBLIC UTILITY EASEMENT | PUE |
| DRAWING | DWG | RADIUS | R |
| DRAINAGE | DRAIN | RAILROAD | RR |
| DRIVE | DR | REBAR AND CAP | R&C |
| DRIVEWAY | D/W | RECORD | (R) |
| DUCTILE IRON PIPE | DIP / D.I.P. | REINFORCED CONCRETE PIPE | RCP |
| EACH | EA | RUBBER GASKET REINFORCED CONCRETE PIPE | RGRCP |
| EASEMENT | ESMT | RIGHT | CP |
| EAST | E | RIGHT-TURN LANE | R / RT |
| EDGE OF PAVEMENT | EP | RIGHT-OF-WAY | RTL |
| ELECTRIC JUNCTION BOX | EJB | ROAD | R/W |
| ELECTRIC CABINET | CAB | ROAD | RD |
| ELECTRIC METER | EM | SCUPPER | SCPR |
| ELECTRIC STUB UP | ESU | SECONDS | " |
| ELECTRIC VAULT | EV | SECTION | SEC |
| ELECTRICAL | ELEC | SHEET | SHT |
| ELEVATION | ELEV | SIDEWALK | S/W |
| END CURB RETURN | ECR | SIGN OR STREET SIGN | SGN |
| EQUATION | EQUA | SOUTH | S |
| EXISTING | EXIST | SOUTHWEST GAS | SWG |
| FACE OF CURB | F/C | STORM DRAIN MANHOLE | SQ |
| FEDERAL | FED | SQUARE | SQ |
| FEET | FT OR ' " | SQUARE FEET | SF |
| FINISHED GRADE | FG | SQUARE YARD | SY |
| FIBER OPTICS | FO | STANDARD | STD |
| FLOWLINE | FL | STATE ROUTE | SR |
| FOUND | FD | STATION | STA |
| GREEN | GN | STREET | ST |
| GUTTER | G | SUBDIVISION | SUBD |
| HANDHOLE | HH | TANGENT LENGTH | TL |
| HEADWALL | HDWL | TELEPHONE | T |
| HIGHWAY | HWY | TELEVISION | TV |
| HIGH WATER ELEVATION | HWE | TEMPORARY CONSTRUCTION ESMT | TCE |
| HYDRAULIC GRADE LINE | HGL | TEMPORARY | TEMP |
| INCH | IN OR " | TO BE VERIFIED | TBV |
| INVERT | INV | TOP OF CURB | TC |
| IRRIGATION | IRR | TOP OF WALL | TW |
| JUNCTION | JCT | TOWNSHIP | T |
| LANE | LN | TRAFFIC INTERCHANGE | TI |
| LINEAR FEET | LF | TRANSFORMER | TSFM |
| LEFT | L / LT | TWO-WAY LEFT-TURN LANE | TWLTL |
| LEFT-TURN LANE | LTL | TYPICAL | TYP |
| LENGTH OF CURVE | L | UNKNOWN | UNKN |
| MOHAVE COUNTY RECORDER | MCR | VALLEY GUTTER | VG |
| MARICOPA COUNTY HIGHWAY DEPARTMENT | MCHD | VEHICULAR NON-ACCESS EASEMENT | VNA |
| MARICOPA ASSOCIATION OF GOVERNMENTS | MAG | VOLUME | VOL |
| | | WATER | WTR / WAT |
| | | WATER METER | WM |
| | | WELL WATER LINE | WELL |
| | | WATER VAULT/MANHOLE | WMH |
| | | WEST | W |
| | | WITH | W/ |

SYMBOL LEGEND

| | | | |
|--|--|--|------------------------------------|
| | HANDHOLE | | STREETLIGHT |
| | BRASS CAP | | STREETLIGHT |
| | ALUMINUM CAP | | STREETLIGHT |
| | CURB & GUTTER (VERTICAL TYPE) | | ELECTRICAL PULLBOX |
| | CURB TRANSITION | | BOLLARD |
| | CONCRETE DRIVEWAY OR DRIVEWAY ENTRANCE | | LANDSCAPE LIGHT |
| | SIDEWALK RAMP | | ELECTRIC PULLBOX |
| | EXISTING IRRIGATION STRUCTURE | | WATER PUMP |
| | EXISTING WATER/GAS VALVE | | MONUMENT / SECTION LINE |
| | NEW WATER/GAS VALVE | | EXISTING R/W LINE |
| | EXISTING WATER METER | | NEW R/W LINE |
| | NEW WATER METER | | PROPERTY LINE |
| | EXISTING FIRE HYDRANT | | CROWN LINE |
| | NEW OR RELOCATED FIRE HYDRANT | | EASEMENT LINE |
| | EXISTING UTILITY POLE | | SECTION LINE |
| | EXISTING STREET LIGHT | | ROADWAY CENTERLINE |
| | MAIL BOX | | EXISTING FENCE |
| | DOWN GUY ANCHOR | | EXISTING OVERHEAD ELECTRIC |
| | NEW STREET LIGHT | | EXISTING UNDERGROUND ELECTRIC |
| | NEW PEDESTRIAN LIGHT | | EXISTING UNDERGROUND TELEPHONE |
| | TREE | | EXISTING UNDERGROUND TV CABLE |
| | PALM TREE | | EXISTING SANITARY SEWER PIPE |
| | TRAFFIC SIGNAL | | EXISTING SANITARY SEWER FORCE MAIN |
| | BACKFLOW ASSEMBLY | | EXISTING RECLAIMED WATER PIPE |
| | AIR RELEASE VALVE | | EXISTING STORM DRAIN PIPE |
| | TELEPHONE MANHOLE | | EXISTING WATER PIPE |
| | TELEPHONE PEDESTAL | | EXISTING NATURAL GAS PIPE |
| | CABLE TV STRUCTURE | | NEW PIPE FOR STORM DRAIN |
| | PLUG/ CAP | | TOE OF SLOPE |
| | SEWER MANHOLE | | CUT LIMITS |
| | WATER VAULT/MANHOLE | | FILL LIMITS |
| | STORM DRAIN MANHOLE | | EXISTING CMU WALL |
| | IRRIGATION MANHOLE | | NEW FENCE |
| | CONCRETE BOX CULVERT | | HIGH WATER LEVEL |
| | DETECTABLE WARNING | | SAWCUT LINE |
| | STAMPED ASPHALT PAVEMENT | | NEW LIGHTING CONDUIT |
| | REMOVALS | | FIBER OPTIC |
| | NEW AC PAVEMENT | | NEW CMU WALL |
| | NEW CONCRETE (RAMP, D/W, VG) | | EXIST BLOCK WALL |
| | NEW SIDEWALK | | NEW GUARDRAIL W/ END TREATMENT |
| | BRICK PAVERS | | ROADSIDE SWALE / FLOWLINE |
| | CATCH BASIN ACCESS | | |
| | GASLINE MARKER | | |
| | STREET LIGHT POLE | | |
| | FIRE DEPARTMENT CONNECTION | | |
| | ELECTRIC PULLBOX | | |
| | GAS MANHOLE | | |
| | NEW TRAFFIC SIGN | | |
| | EXIST TRAFFIC SIGN | | |
| | RIPRAP | | |
| | CUT OFF WALL | | |
| | STORM DRAIN PIPE | | |



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CALUMET TO AIRWAY AVE

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310 NORTH 4TH STREET
KINGMAN, ARIZONA 86401
PHONE (928) 753-8122 FAX (928) 753-8118



EASTERN STREET
ABBREVIATIONS/LEGEND

SHEET NO.
IX01
03 OF 58

RITTOCH-POWELL & ASSOCIATES GENERAL NOTES

1. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE PRESENTED TO THE ENGINEER. ANYONE WHO TAKES IT UPON THEMSELVES THE INTERPRETATION OF THE DRAWINGS OR MAKES REVISIONS TO THE SAME WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.
2. THE ESTIMATED QUANTITIES SHOWN ARE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETENESS AND ACCURACY OF A DETAILED ESTIMATE BASED ON THESE PLANS, CURRENT CODES, AND SITE VISITATION.
3. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK AND EXCESS OR DEFICIENCY IN QUANTITIES. NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.
4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, POWER POLES, ETC.
6. THE CONTRACTOR SHALL MAKE NO CLAIM AGAINST THE OWNER OR THE SURVEYOR REGARDING ALLEGED INACCURACY OF CONSTRUCTION STAKES SET BY THE SURVEYOR UNLESS ALL SURVEY STAKES SET BY THE ENGINEER ARE MAINTAINED INTACT AND CAN BE VERIFIED AS TO THEIR ORIGIN. IF, IN THE OPINION OF THE SURVEYOR, THE STAKES ARE NOT MAINTAINED INTACT AND CANNOT BE VERIFIED AS TO THEIR ORIGIN, ANY REMEDIAL WORK REQUIRED TO CORRECT ANY ITEM OF IMPROPER CONSTRUCTION WORK SHALL BE PERFORMED AT THE SOLE EXPENSE OF THE RESPONSIBLE CONTRACTOR OR SUBCONTRACTOR.
7. THE SURVEYOR WILL MAKE FIELD AS-BUILT MEASUREMENTS OF THE WORK UPON NOTIFICATION BY THE CLIENT OR HIS REPRESENTATIVE THAT THE WORK IS COMPLETE AND READY FOR AS-BUILT SURVEY. FOR PIPE WORK, THE CONTRACTOR IS RESPONSIBLE FOR LEAVING TRENCHES OPEN SO THAT AS-BUILTS CAN BE PERFORMED TO COMPLY WITH THE CITY REQUIREMENTS. IF THE TRENCHES ARE BACKFILLED AND OBSCURED TO THE POINT THAT AS-BUILT MEASUREMENTS CANNOT BE PERFORMED, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POT HOLE UTILITY TRENCHES AS NECESSARY TO COMPLETE AN AS-BUILT SURVEY.
8. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THE PLANS NOT ABLE TO BE CONSTRUCTED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
9. EXISTING UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED ACCORDING TO INFORMATION PROVIDED BY THE AGENCY OPERATING EACH UTILITY. LOCATIONS SHOWN ARE APPROXIMATE ONLY, AND ARE NOT RELIABLE FOR CONSTRUCTION PURPOSES. CALL ARIZONA 811 FOR FIELD LOCATION AT (602) 263-1100. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
10. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION, OR VARIANCE FROM THESE PLANS. ANY VARIATIONS FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER.
11. ANY INSPECTION BY THE CITY, COUNTY, ENGINEER, OR OTHER JURISDICTIONAL AGENCY, SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH APPLICABLE CODES AND AGENCY REQUIREMENTS.

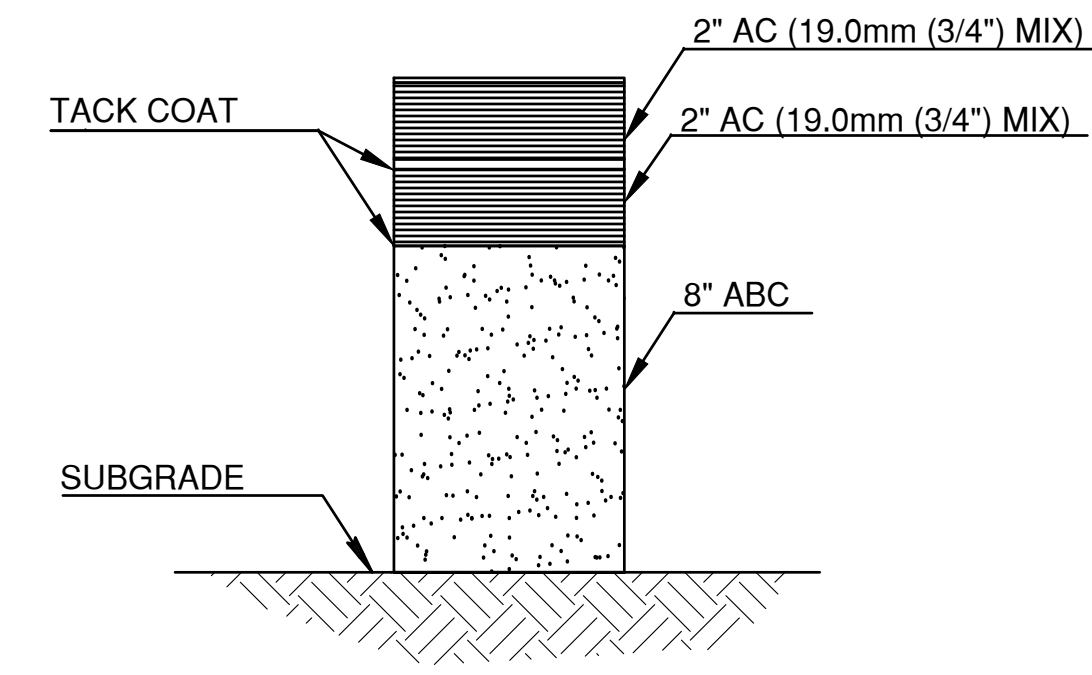
RITTOCH-POWELL & ASSOCIATES GENERAL NOTES (CONT.)

12. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL STORM DRAIN PIPES, STORM WATER RETENTION PIPES AND DRAINAGE FACILITIES FROM DAMAGE DURING ALL STAGES OF CONSTRUCTION. THE DEPTH OF COVER ON THE STORM DRAIN PIPE IS DESIGNED FOR FINAL GRADE. THEREFORE, EXTRA CARE SUCH AS BERMING OVER PIPES, FLAGGING OR SIGNAGE SHOULD BE USED DURING CONSTRUCTION TO MAINTAIN COVER OR PROTECT THE PIPES.
13. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES FOR THIS PROJECT DUE TO THE VARYING FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
14. UNDERGROUND UTILITIES SHALL BE MARKED IN ACCORDANCE WITH SECTION 40-360 OF THE ARIZONA REVISED STATUTES AND LOCAL MUNICIPALITY REQUIREMENTS.
15. ALL STATIONS, OFFSETS, ROADWAY DIMENSIONS, & CONTROL POINTS ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED.
16. THE CONTRACTOR MUST VERIFY VERTICAL CLEARANCE WITH ADJACENT AND/OR UNDERLYING UTILITIES PRIOR TO AND DURING EXCAVATION.
17. ALL CONSTRUCTION TO BE PERFORMED ACCORDING TO APPLICABLE COK STREETS AND SIDEWALKS DEVELOPMENT RULES AND REGULATIONS, COK UTILITY REGULATIONS, MAG STANDARD DETAILS AND MAG SPECIFICATIONS, REVISIONS THROUGH 2020.
18. FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL HORIZONTAL AND VERTICAL CONTROLS ARE APPROXIMATE AND TO THE BEST AVAILABLE INFORMATION.
19. EXISTING UTILITIES AND OTHER FACILITIES HAVE BEEN PLACED ON THE PLANS FROM FIELD SURVEYS, EXISTING MAPS AND OTHER CURRENT PLANS WITHIN THE AREA OF THIS PROJECT. THE CONTRACTOR WILL DETERMINE THE EXACT LOCATION AND/OR ELEVATION OF EXISTING UTILITIES WHICH PERTAIN TO AND AFFECT THE CONSTRUCTION OF THIS PROJECT.
20. A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING, THE CONTRACTOR SHALL CALL FOR BLUE STAKES AT THE ARIZONA 811 CENTER (PHONE: 1800-STAKEIT) OR (602)-263-1100.
21. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. PERMITS FROM THE CITY OF KINGMAN SHALL BE AT NO COST TO THE CONTRACTOR.
22. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE FLOOD CONTROL DISTRICT AND/OR THE ENGINEER AND ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. A FLOOD PLAIN USE PERMIT WILL BE REQUIRED FROM MCFC.
23. THE ENGINEER WILL DETERMINE THE NUMBER AND LOCATION OF THE REQUIRED COMPACTION TESTS FOR STRUCTURAL BACKFILL.
24. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECIFICATION 401 & PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009 EDITION), AND SPECIFICATIONS INCLUDED IN THIS CONTRACT.
25. NO JOB WILL BE CONSIDERED COMPLETED UNTIL ROADS, CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEEPED CLEAN OF ALL DIRT AND DEBRIS.
26. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE CONTRACTOR WILL BE REQUIRED TO CLEAN ADJACENT (OFF-PROJECT) ROADWAYS USED DURING THE COURSE OF CONSTRUCTION.
27. CATCH BASIN CONNECTOR PIPES SHALL BE LAID ON A STRAIGHT ALIGNMENT AND SLOPE UNLESS OTHERWISE SPECIFIED. IF BREAKS IN ALIGNMENT AND SLOPE ARE NECESSARY TO MEET FIELD CONDITIONS, THE MAXIMUM DEFLECTION SHALL BE 22.5 DEGREES. CONTRACTOR SHALL PROVIDE A PIPE COLLAR PER MAG DETAIL 505 AT EACH DEFLECTION.

ESTIMATED EARTHWORK

VOLUMES LISTED BELOW WERE CALCULATED USING AVAILABLE TOPOGRAPHIC DATA AND EXISTING FIELD CONDITIONS. VOLUME INFORMATION DOES NOT REFLECT SHRINK/SWELL, CLEAR/GRUB, PRE-COMPACTION, LOSSES DUE TO OVER EXCAVATION, ETC. CONTRACTOR SHALL SATISFY HIMSELF AS TO ACTUAL FIELD CONDITIONS, AND ANTICIPATED CONDITIONS DURING THE TIME OF CONSTRUCTION, AND SHALL BASE THEIR QUANTITY TAKE OFF AND BID ACCORDINGLY.

CUT: 5,604 C.Y.
 FILL: 457 C.Y.
 NET (CUT): 5,147 C.Y.



PAVEMENT STRUCTURAL SECTION NO. 1



RITTOCH-POWELL & Associates
 602-263-1177
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|---|--|--------------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 04-221038-GN01.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET GENERAL NOTES | | SHEET NO. GN01 04 OF 58 |

**CITY OF KINGMAN
NOTES FOR STREET/PAVING PLANS**

- ENGINEERING DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOUR BEFORE ANY CONSTRUCTION BEGINS TELEPHONE (928) 753-8195.
- ALL CONSTRUCTION TO CONFORM TO M.A.G. SPECIFICATIONS AND DETAILS AND CITY OF KINGMAN SUPPLEMENT TO M.A.G. SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON THE PLANS.
- COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 & CITY OF KINGMAN SUPPLEMENTS.
- 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.
- CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY.
- ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 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.
- EXACT POINT OF PAVEMENT MATCHING, TERMINATION AND OVERLAY, IF NECESSARY SHALL B DETERMINED IN THE FIELD BY THE CITY ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE
- AN APPROVED PAVING PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE RIGHT-OF-WAY SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
- ALL EXISTING CATCH BASINS MUST BE RE-LOCATED WHEN THEY ARE SHOWN IN A NEWLY PROPOSED DRIVEWAY.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- NO PAVING CONSTRUCTION SHALL BE STARTED UNTIL ALL UTILITY LINES ARE COMPLETED UNDER PROPOSED PAVED AREAS.
- THE PERMIT HOLDER SHALL ARRANGE FOR THE RELOCATION AND RELOCATION COSTS OF ALL UTILITIES, INCLUDING ANY STREET LIGHTS, AND SUBMIT A UTILITY RELOCATION SCHEDULE PRIOR TO THE ISSUANCE OF A CONSTRUCTION PERMIT.
- UTILITY FACILITIES IN CONFLICT WITH THIS WORK SHALL BE RELOCATED BY THE DEVELOPER. THIS ACTIVITY SHALL BE COORDINATED WITH THE OWNER OF THE UTILITY TO PREVENT ANY UNNECESSARY INTERRUPTION OF SERVICE.
- THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADJUSTMENT AND PLACEMENT OF CONCRETE COLLARS, FRAMES, COVERS, AND VALVE BOXES AS NECESSARY FOR A COMPLETE JOB AS APPROVED BY THE CITY ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE.
- CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND PRIOR TO FINAL INSPECTION.
- GRADING BETWEEN BACK OF CURB AND PROPERTY LINE SHALL BE LIMITED TO 4:1 SLOPE.
- BASE COURSE SHALL NOT BE PLACED UNTIL SUB-GRADE HAS BEEN APPROVED BY THE CITY ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE.
- NO JOB WILL BE CONSIDERED COMPLETED UNTIL, CURBS, PAVEMENTS AND SIDEWALKS HAVE BEEN SWEEP CLEAN OF ALL DIRT AND DEBRIS; AND SURVEY MONUMENTS ARE INSTALLED.
- THE LOCATION OF ALL WATER VALVES, FIRE HYDRANTS AND MANHOLES MUST AT ALL TIMES DURING CONSTRUCTION BE REFERENCED BY THE CONTRACTOR AND MADE AVAILABLE TO THE CITY.
- EXISTING STREET AND TRAFFIC SIGNS WILL BE MAINTAINED DURING CONSTRUCTION AND RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE CITY ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE.
- CERTIFICATE OF OCCUPANCY (C OF O) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS DENIED UNTIL ALL OFFSITE IMPROVEMENTS ARE COMPLETED.
- TREES AND SHRUBBERY IN THE RIGHT-OF-WAY THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE ENGINEERING INSPECTOR.
- ALL HDPE STORM DRAIN PIPE SHALL BE MANUFACTURED, DESIGNED AND INSTALLED IN ACCORDANCE WITH AASHTO M252, AASHTO M294, MAG AND THESE SPECIAL PROVISIONS.
- ALL HDPE STORM DRAIN PIPE SHALL BE TYPE 'S' CORRUGATED, WITH WATERTIGHT JOINTS.
- AT A MINIMUM, ALL HDPE STORM DRAIN PIPE JOINTS SHALL MEET THE ASTM D-3212 WATERTIGHT REQUIREMENT OF 10.8 PSI (25 COLUMN FEET OF WATER HEAD).
- THE CONTRACTOR SHALL PROVIDE A COPY OF AN ACCEPTED INDEPENDENT 3RD PARTY LAB CERTIFICATION THAT ALL THE PIPE AND JOINTS TO BE USED ON THE PROJECT MEET THE ASTM D-3212 WATERTIGHT STANDARD.
- ALL HDPE PIPE CONNECTIONS TO MANHOLES SHALL MEET ASTM C-923 REQUIREMENTS.

**CITY OF KINGMAN
NOTES FOR SEWER PLANS**

- ENGINEERING DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS TELEPHONE (928) 753-8195.
- ANY SEWER MAIN 15" IN SIZE OR 12' IN DEPTH, OR GREATER, REQUIRES 5' MANHOLES.
- ALL CONSTRUCTION TO CONFORM TO M.A.G. SPECIFICATIONS AND DETAILS AND CITY OF KINGMAN SUPPLEMENT TO M.A.G. SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON THE PLANS.
- COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 & CITY OF KINGMAN SUPPLEMENTS.
- NEW SEWER LINES ARE TO BE BUILT IN STANDARD UTILITY LOCATIONS PER CITY OF KINGMAN DETAIL 120.
- 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.
- ALL LINES MUST BE TESTED FOR UNIFORM SLOPE BY LAMP LIGHTING OR REMOTE CAMERA BEFORE THEY ARE ACCEPTED AS COMPLETE. TESTING METHOD MUST BE APPROVED IN ADVANCE BY THE ENGINEERING DEPARTMENT. THE RESULTS SHALL BE RECORDED AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- DEFLECTION TESTING FOR THE ENTIRE LENGTH OF PVC SEWER LINES SHALL BE PERFORMED IN ACCORDANCE WITH MAG STANDARD SPECIFICATION 615.11(C) AND AAC R18-9-E301(D)(2)(I).
- ALL MANHOLES SHALL BE TESTED USING ONE OF THE FOLLOWING PROCEDURES:
 - WATER TESTING
IN ACCORDANCE WITH AAC R-18-9-E301(D)(3)(E), THE ENTIRE MANHOLE SHALL BE FILLED WITH WATER AND EXFILTRATION SHALL BE LIMITED TO 0.0034 OF THE TOTAL MANHOLE VOLUME IN ONE HOUR.
 - VACUUM TESTING
IN ACCORDANCE WITH AAC R-18-9-E301(D)(3)(E), MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ASTM C1244-02, "STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE AIR PRESSURE (VACUUM) TEST PRIOR TO BACKFILL".
- THE CONTRACTOR SHALL PERFORM MANHOLE TESTING AFTER INSTALLATION OF THE MANHOLE CONE TO VERIFY WATER TIGHTNESS OF THE MANHOLE FROM THE TOP CONE DOWN. UPON SATISFACTORY TEST RESULTS, THE CONTRACTOR SHALL INSTALL THE MANHOLE RINGS AND SPACERS, COMPLETE WITH THE JOINTS AND SEAL THE MANHOLE TO A WATER TIGHT CONDITION.
- THE ENTIRE SEWER LINE SHALL BE TESTED FOR TIGHTNESS FOR EACH PIPE MATERIAL IN ACCORDANCE WITH AAC R18-9- E301(D)(2)(J).
- ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- NEW MANHOLES ARE TO BE BUILT WITHOUT STEPS.
- A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION FROM ANY UNDERGROUND UTILITY SHALL BE PROVIDED FOR SEWER MAINS, AND WATER MAINS. THE MINIMUM HORIZONTAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, OR WATER MAIN TO OUTSIDE OF UNDERGROUND UTILITY.
- A ONE (1) FOOT MINIMUM VERTICAL SEPARATION FROM ANY DRY UNDERGROUND UTILITY CROSSING SHALL BE PROVIDED FOR SEWER MAINS, SEWER SERVICES, WATER MAINS, AND WATER SERVICES. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, SEWER SERVICE, WATER MAIN, OR WATER SERVICE TO OUTSIDE OF DRY UNDERGROUND UTILITY.
- A TWO (2) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ANY WATER MAIN OR STORM DRAIN CROSSING A SEWER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN TO OUTSIDE OF WATER MAIN OR STORM DRAIN MAIN. SEE CITY OF KINGMAN STANDARD DETAIL 404 FOR ADDITIONAL INFORMATION AND/OR PROVISIONS FOR CLEARANCE.
- EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

- ANY SEWER LINES THAT ARE INSTALLED WITH LESS THAN .004 FT/FT SLOPE MUST BE INSTALLED USING A LASER.
- WHEN DIP SEWER PIPE IS USED, AN EPOXY LINING IS REQUIRED AS APPROVED BY THE CITY ENGINEER.
- CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND PRIOR TO FINAL INSPECTION.
- PLAN APPROVAL IS VALID FOR ONE YEAR.

**CITY OF KINGMAN
NOTES FOR WATER PLANS**

- ENGINEERING DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS TELEPHONE (928) 753-8195.
- ALL WATER VALVE BOXES SHALL BE PER CITY OF KINGMAN DETAIL 391-1 & 391-2.
- ALL CONSTRUCTION TO CONFORM TO M.A.G. SPECIFICATIONS AND DETAILS AND CITY OF KINGMAN SUPPLEMENT TO SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON THE PLANS.
- COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 & CITY OF KINGMAN SUPPLEMENTS.
- NEW WATER LINES ARE TO BE BUILT IN STANDARD UTILITY LOCATIONS PER CITY OF KINGMAN DETAIL 120.
- 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.
- PIPE DEFLECTION SHALL NOT EXCEED ONE-HALF (½) THE MANUFACTURERS' RECOMMENDATIONS.
- ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE CONTRACTOR IS TO NOTIFY THE PUBLIC THAT WILL BE AFFECTED BY ANY SHUTDOWNS A MINIMUM OF 48 HOURS IN ADVANCE.
- A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION FROM ANY UNDERGROUND UTILITY SHALL BE PROVIDED FOR SEWER MAINS AND WATER MAINS. THE MINIMUM HORIZONTAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN OR WATER MAIN TO OUTSIDE OF UNDERGROUND UTILITY.
- A ONE (1) FOOT MINIMUM VERTICAL SEPARATION FROM ANY DRY UNDERGROUND UTILITY CROSSING SHALL BE PROVIDED FOR SEWER MAINS, SEWER SERVICES, WATER MAINS, AND WATER SERVICES. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, SEWER SERVICE, WATER MAIN, OR WATER SERVICE TO OUTSIDE OF DRY UNDERGROUND UTILITY.
- A TWO (2) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ANY SEWER MAIN AND STORM DRAIN CROSSING A WATER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF SEWER MAIN OR STORM DRAIN MAIN. SEE CITY OF KINGMAN STANDARD DETAIL 404 FOR ADDITIONAL INFORMATION AND/OR PROVISIONS FOR CLEARANCE.
- EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- WATER SERVICES SHALL BE INSTALLED PERPENDICULAR TO THE WATER MAIN. WATER SERVICES AT THE END OF CUL-DE SACS MAY VARY AS NECESSARY, BUT WILL BE APPROVED ON A CASE BY CASE BASIS.
- ALL SERVICES SHALL RUN IN A STRAIGHT LINE FROM THE WATER MAIN TO THE METER BOX.
- NEITHER WATER SERVICE METER BOX NOR ANY PORTION OF A WATER SERVICE SHALL BE INSTALLED UNDER AN EXISTING OR PROPOSED DRIVEWAY OR SIDEWALK RAMP.
- CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND PRIOR TO FINAL INSPECTION.
- PLAN APPROVAL IS VALID FOR ONE YEAR.



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**EASTERN STREET
CALUMET TO AIRWAY AVE**

CITY OF KINGMAN
ENGINEERING DEPARTMENT

310 NORTH 4TH STREET
KINGMAN, ARIZONA 86401
PHONE (928) 753-8122 FAX (928) 753-8118

EASTERN STREET

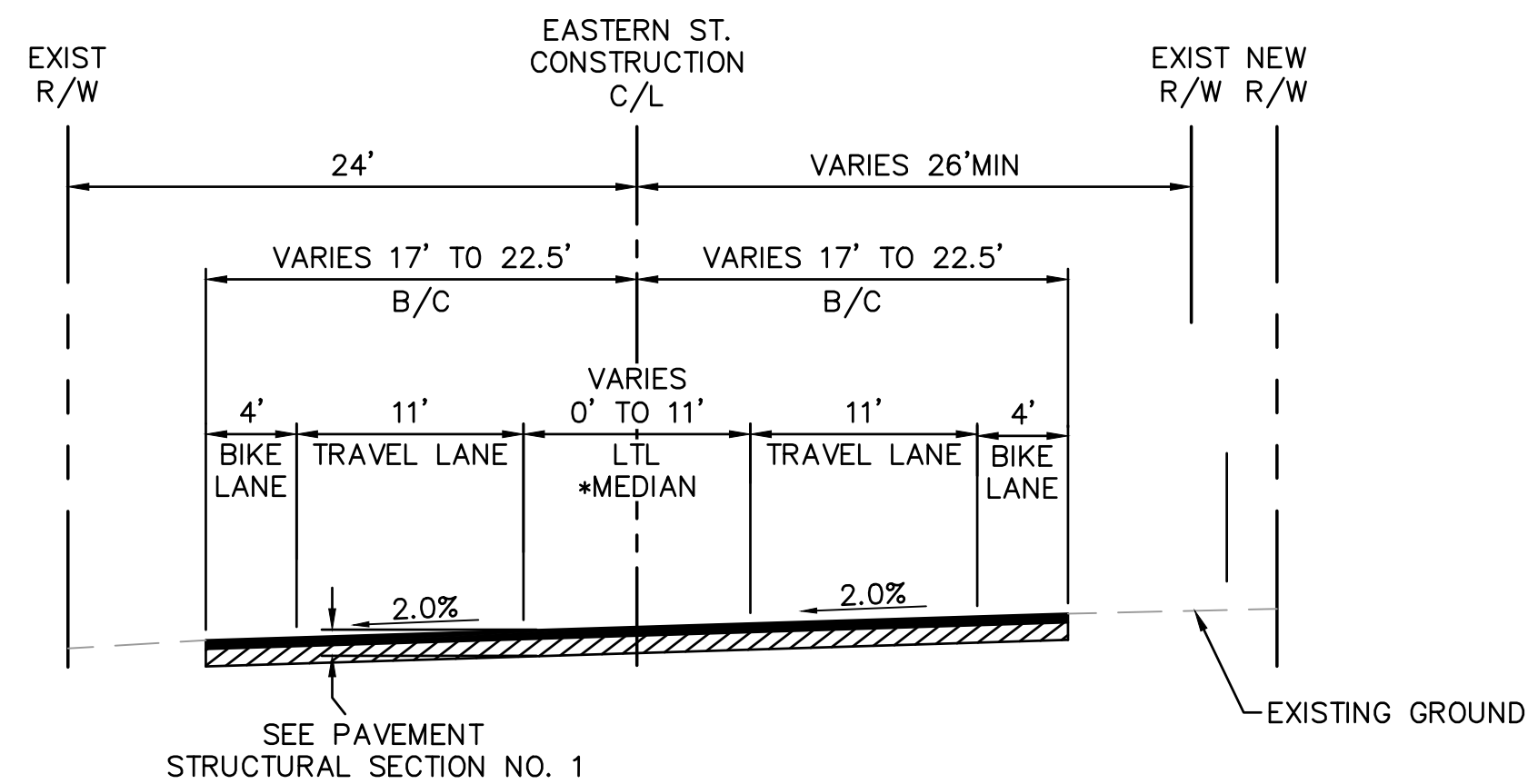
GENERAL NOTES

C.O.K. PROJECT NO.
ENG 21-0001

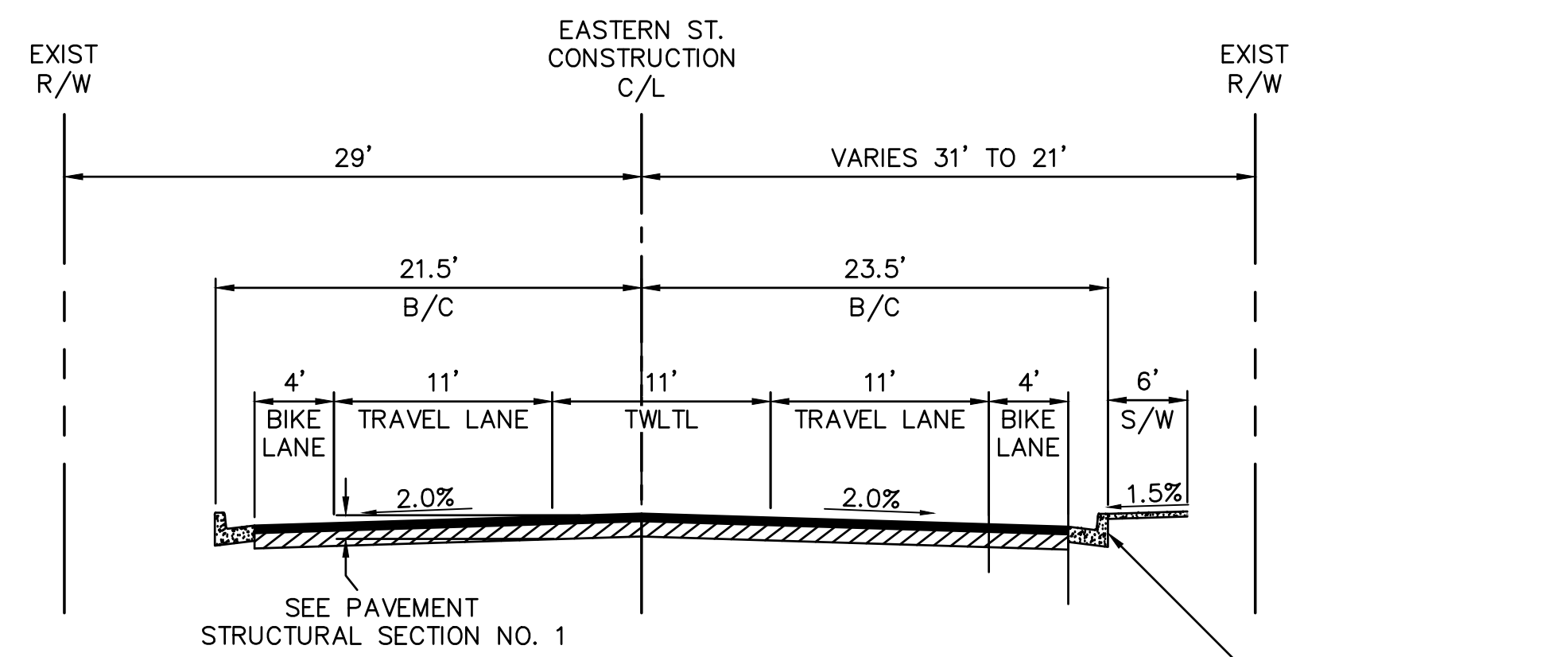
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EXPIRES 12/31/2023

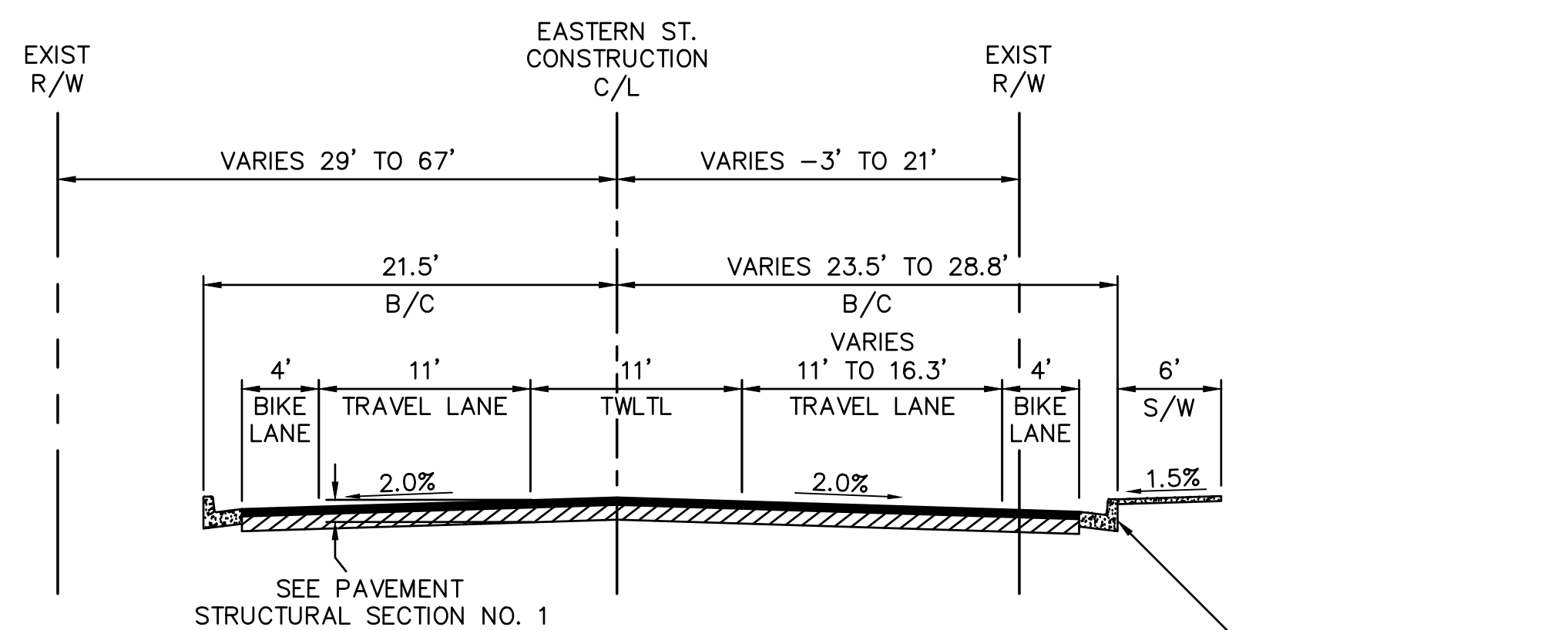
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GN02
05 OF 58



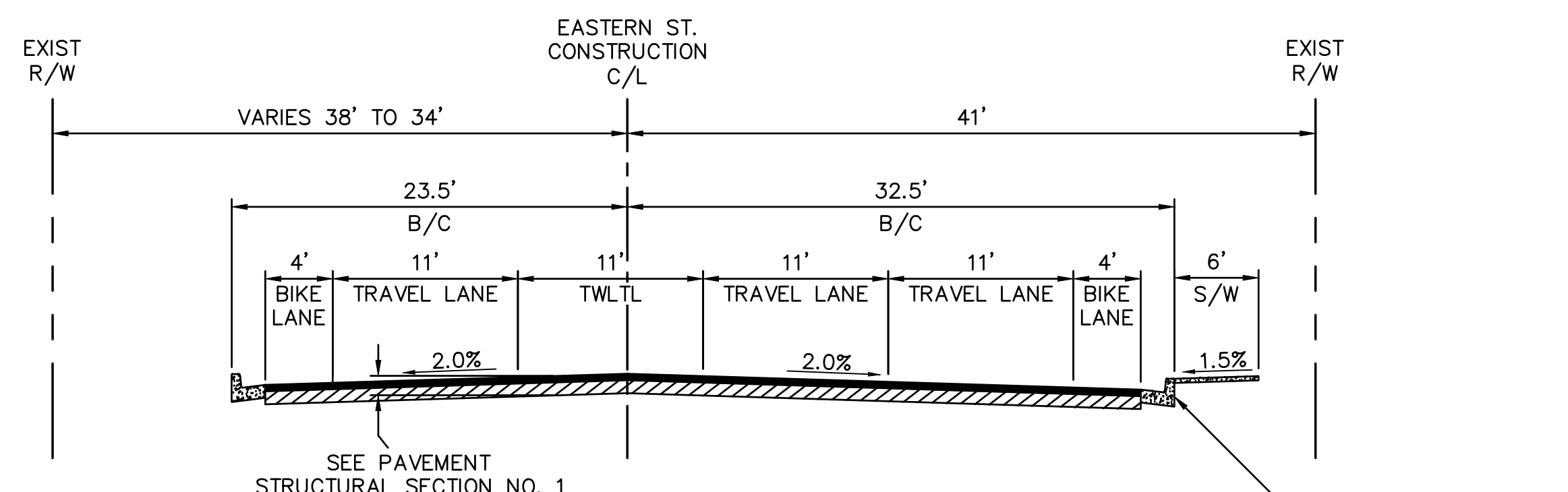
TYPICAL PAVED ROADWAY SECTION - EASTERN STREET
 N.T.S.
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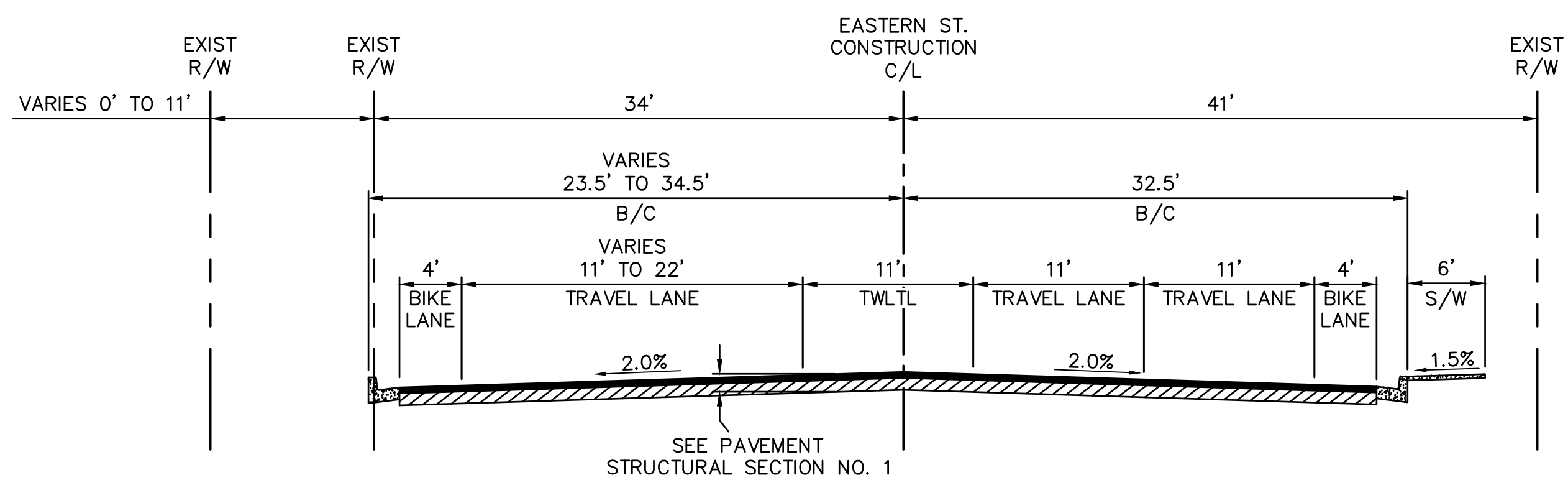
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 N.T.S.
 STA 77+40.55 TO STA 83+91.35



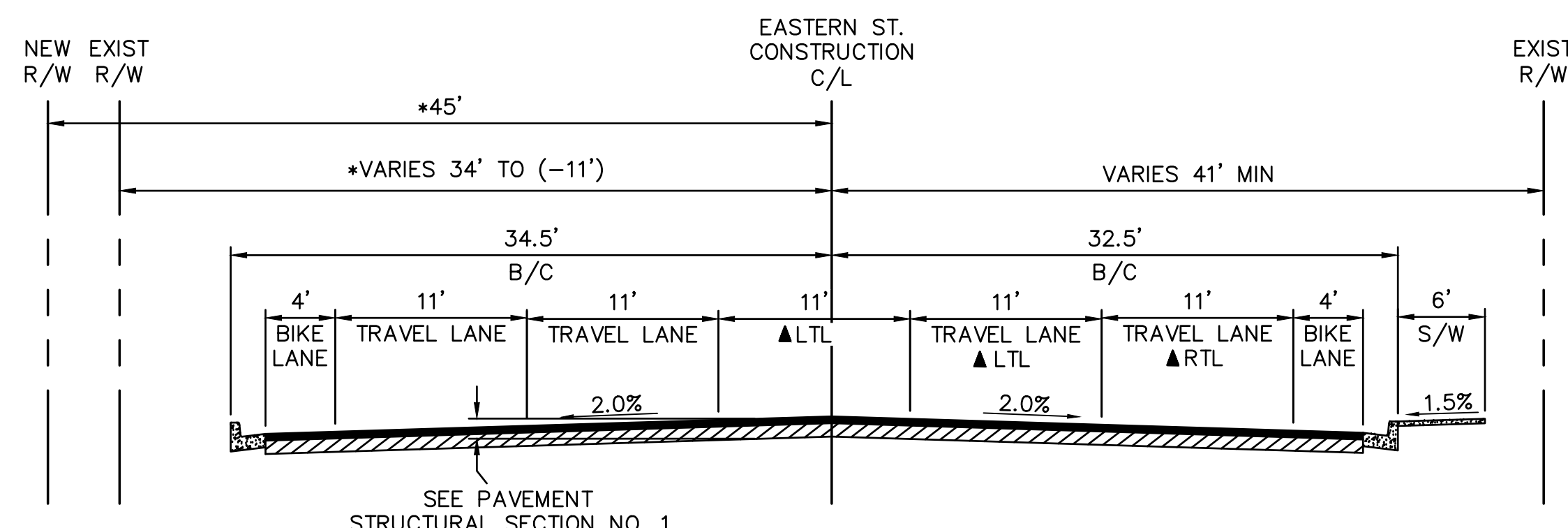
TYPICAL PAVED ROADWAY SECTION - EASTERN STREET
 N.T.S.
 STA 83+91.35 TO STA 85+53.49



TYPICAL PAVED ROADWAY SECTION - KENWOOD AVENUE
 N.T.S.
 STA 86+40.83 TO STA 88+54.35
 *STA 88+12.60 TO STA 88+54.35



TYPICAL PAVED ROADWAY SECTION - KENWOOD AVENUE
 N.T.S.
 STA 88+54.35 TO STA 90+34.35



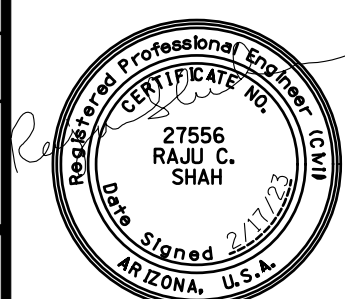
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 N.T.S.
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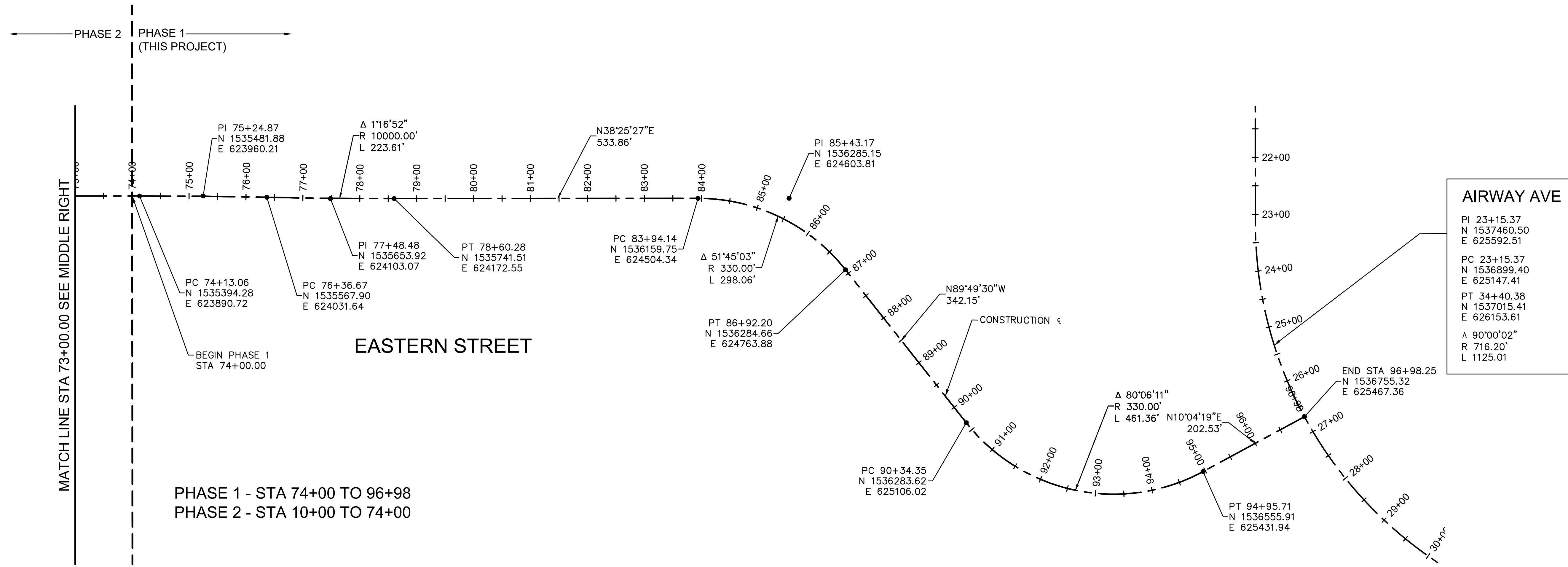
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EASTERN STREET
 CALUMET TO AIRWAY AVE
 C.O.K. PROJECT NO. ENG 21-0001
 FILENAME 06-221038-TX01.dwg

CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118



EASTERN STREET
 TYPICAL SECTIONS
 SHEET NO. TX01
 06 OF 58



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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 07-221038-GC01.dwg |
| EASTERN STREET GEOMETRIC CONTROL | | SHEET NO. GC01 07 OF 58 |

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS S89°54'25"E FOR THE NORTH LINE FOR THE NORTH LINE OF THE SOUTHWEST QUARTER OF SECTION 8, T21N, R16W OF THE GILA & SALT RIVER MERIDIAN, MOHAVE COUNTY, ARIZONA, CALCULATED FROM COORDINATE VALUES SHOWN ON THE RETRACEMENT AND DEPENDENT RESURVEY BY TRIMBLE GPS OF SECTIONS 1-23 AND 26-35 OF T.21 N., R.16 W., G.&S.R.M., MOHAVE COUNTY, ARIZONA. THIS SURVEY WAS PERFORMED BY THE CITY OF KINGMAN SURVEYING DEPARTMENT, SIGNED & SEALED BY JACK M. KESSLER PLS#8904 ON 10/28/03 AND RECORDED IN THE MOHAVE COUNTY RECORDER'S OFFICE AS RECEPTION NUMBER 2003-92693.

CONTROL INFORMATION

ALL BEARINGS ARE GROUND/GRID BEARINGS

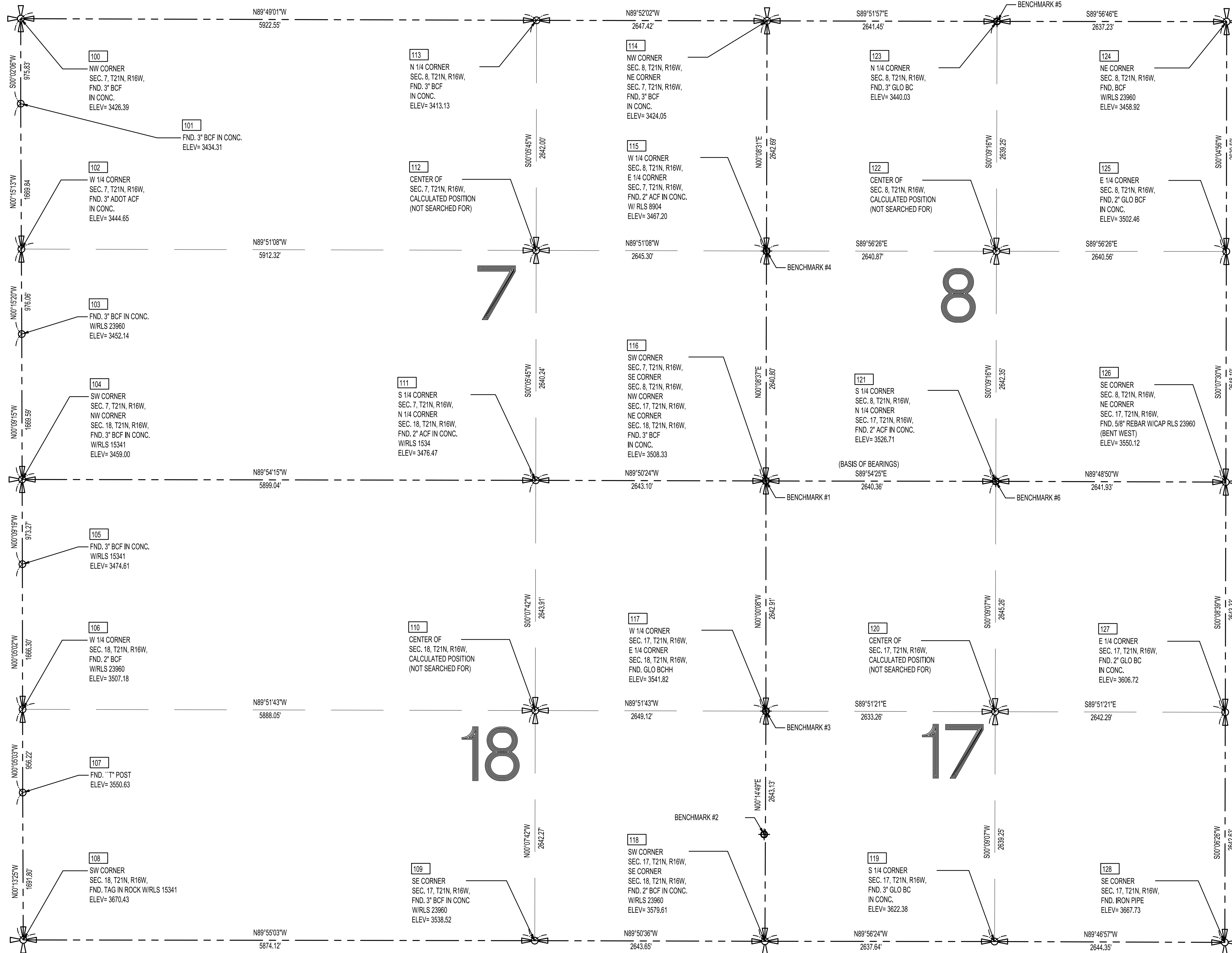
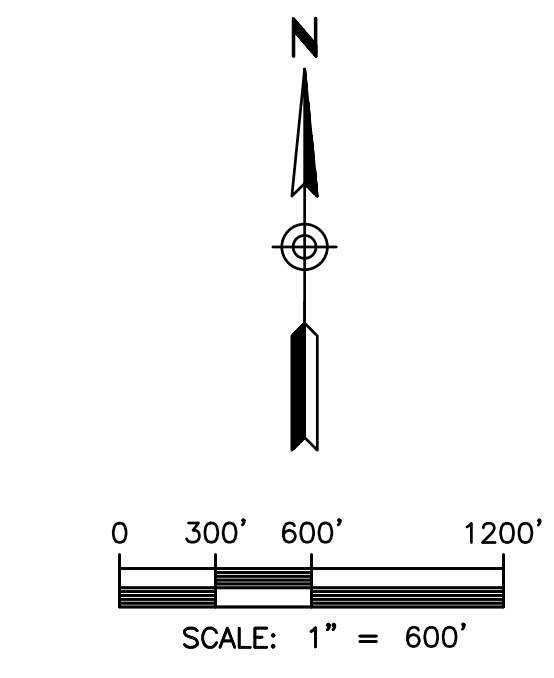
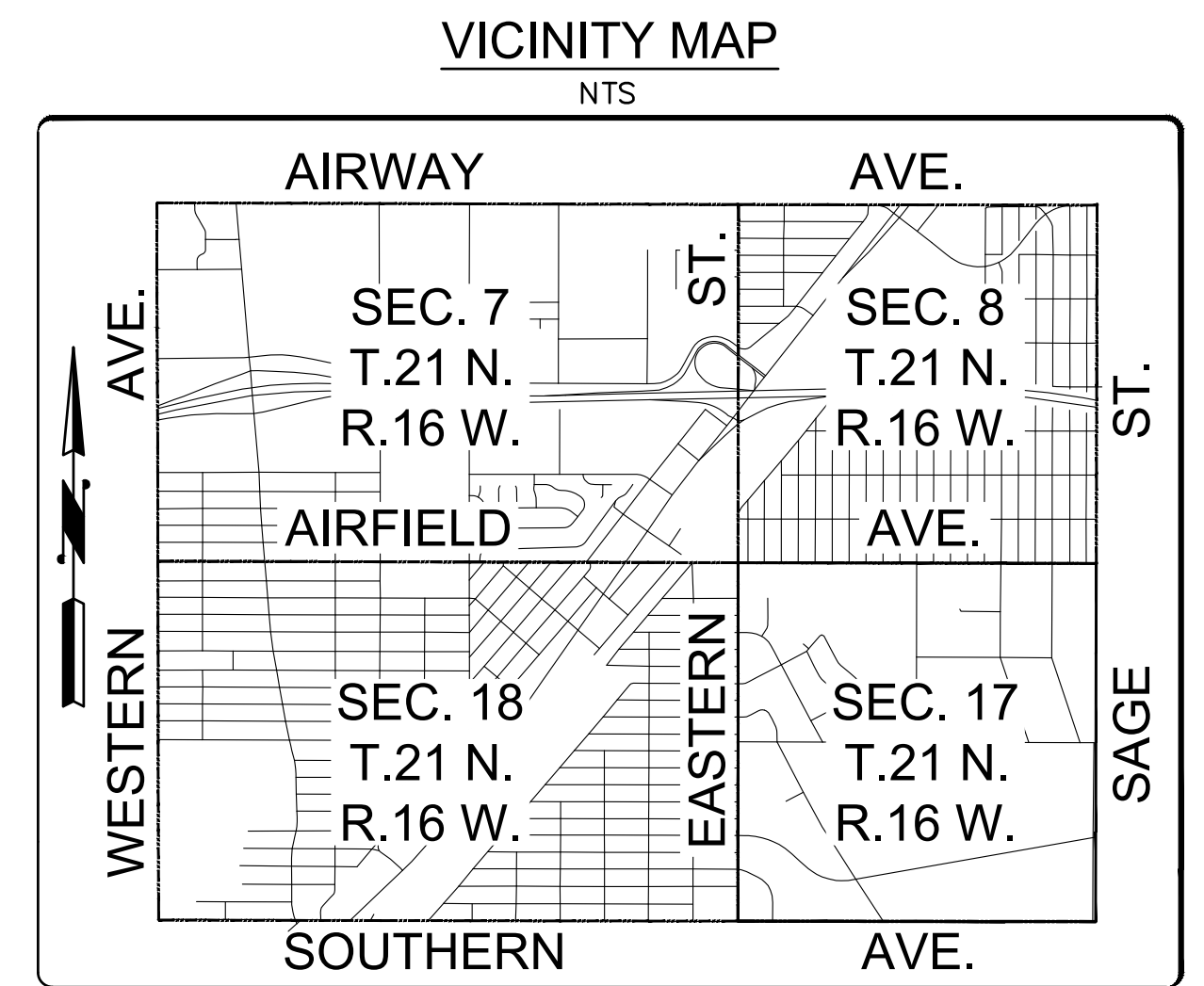
ALL DISTANCES ARE GROUND DISTANCES (INTERNATIONAL FEET)

COORDINATES SHOWN ARE BASED ON NAD83 ARIZONA STATE PLANE PROJECTION SYSTEM - WEST ZONE - GROUND COORDINATES (INTERNATIONAL FEET)

ELEVATIONS SHOWN ARE BASED ON NAVD88

THE GRID TO GROUND SCALE FACTOR UTILIZED FOR THIS PROJECT IS 1.00023215388

GEOMETRIC CONTROL FOR SECTIONS 7, 8, 17 & 18, TOWNSHIP 21 NORTH, RANGE 16 WEST OF THE GILA AND SALT RIVER MERIDIAN, CITY OF KINGMAN, MOHAVE COUNTY, ARIZONA



TABLE

| PT. | NORTHING | EASTING | ELEV |
|-----|------------|-----------|---------|
| 100 | 1537682.08 | 613476.00 | 3426.39 |
| 101 | 1536706.25 | 613475.41 | 3434.31 |
| 102 | 1535036.42 | 613482.80 | 3444.65 |
| 103 | 1534060.37 | 613487.16 | 3452.14 |
| 104 | 1532990.79 | 613491.65 | 3459.00 |
| 105 | 1531417.52 | 613494.29 | 3474.61 |
| 106 | 1529751.22 | 613496.73 | 3507.18 |
| 107 | 1528795.01 | 613498.13 | 3550.63 |
| 108 | 1527103.22 | 613504.73 | 3670.43 |
| 109 | 1527094.77 | 619378.84 | 3538.52 |
| 110 | 1529737.03 | 619384.76 | - |
| 111 | 1532380.93 | 619390.69 | 3476.47 |
| 112 | 1535021.16 | 619395.10 | - |
| 113 | 1537663.16 | 619399.52 | 3413.13 |
| 114 | 1537657.02 | 622046.93 | 3424.05 |
| 115 | 1535014.34 | 622040.39 | 3467.20 |
| 116 | 1532373.55 | 622033.78 | 3508.33 |
| 117 | 1529730.64 | 622033.87 | 3541.82 |
| 118 | 1527087.54 | 622022.48 | 3622.38 |
| 119 | 1527084.77 | 624660.12 | 3622.38 |
| 120 | 1529724.01 | 624667.12 | - |
| 121 | 1532369.26 | 624674.13 | 3526.71 |
| 122 | 1535011.60 | 624681.26 | - |
| 123 | 1537621.69 | 624692.80 | 3440.03 |
| 124 | 1537648.36 | 627325.61 | 3458.92 |
| 125 | 1535008.86 | 627321.82 | 3502.46 |
| 126 | 1532360.68 | 627316.05 | 3550.12 |
| 127 | 1259717.35 | 627309.40 | 3606.72 |
| 128 | 1527074.73 | 627304.45 | 3667.73 |

BENCHMARKS

PRIMARY HORIZONTAL CONTROL:
BENCHMARK #1
 3 INCH BRASS CAP FLUSH IN CONC. SOUTHEAST CORNER OF SEC. 7 NAVD88 EL = 3508.33'
BENCHMARK #2
 SOUTH WEST CORNER OF INTERSECTION OF EASTERN ST. WITH LOUISE AVE. NAVD88 EL = 3564.67'
 N 1528314.7549'
 E 622033.7759'
 #565

SECONDARY HORIZONTAL AND VERTICAL CONTROL:
BENCHMARK #3
 3 INCH GLO BRASS CAP IN HANDHOLE EAST QUARTER CORNER OF SEC. 18 NAVD88 EL=3541.82'
 N 1529730.6415'
 E 622033.8721'
 #566

BENCHMARK #4
 2 INCH ALUMINUM CAP IN CONC. WEST QUARTER CORNER OF SEC. 8 NAVD88 EL=3467.20'
 N 1535014.3409'
 E 622040.3899'
 #567

PRIMARY VERTICAL CONTROL:
BENCHMARK #2
 NGS BENCHMARK DESIGNATION D 525 4 IN BRASS CAP FLUSH IN CONC. SOUTH WEST CORNER OF INTERSECTION OF EASTERN ST. WITH LOUISE AVE. NAVD88 EL = 3564.67'
 N 1528314.7549'
 E 622033.2833'
 #900

BENCHMARK #5
 3 INCH GLO BRASS CAP IN CONC. NORTH QUARTER CORNER OF SEC. 8 NAVD88 EL=3440.03'
 N 1537650.8357'
 E 624688.3788'
 #571

BENCHMARK #6
 2 INCH ALUMINUM CAP FLUSH IN CONC. SOUTH QUARTER CORNER OF SEC. 8 NAVD88 EL=3526.72'
 N 1532369.2597'
 E 624674.1332'
 #580

PREPARED FOR

CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 N. 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE: 928.753.8134
 CONTACT: ERIC SPARKMAN

PREPARED BY

RITCOH-POWELL & ASSOCIATES
 1001 N CENTRAL AVENUE
 SUITE 900
 PHOENIX, ARIZONA 85004
 PHONE: 602.263.1177
 CONTACT: TROY A. RAY

CERTIFICATION

I, TROY A. RAY, HEREBY CERTIFY THAT THIS DRAWING AND THE FIELD SURVEYS IT WAS BASED ON WERE PERFORMED AND PREPARED UNDER MY SUPERVISION DURING THE MONTH OF JUNE 2017 AND OCTOBER 2016 RESPECTIVELY. THE SURVEY AND THE MONUMENTS IT IS BASED ON ARE CORRECT AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Troy A. Ray
 TROY A. RAY
 R.L.S. 33868

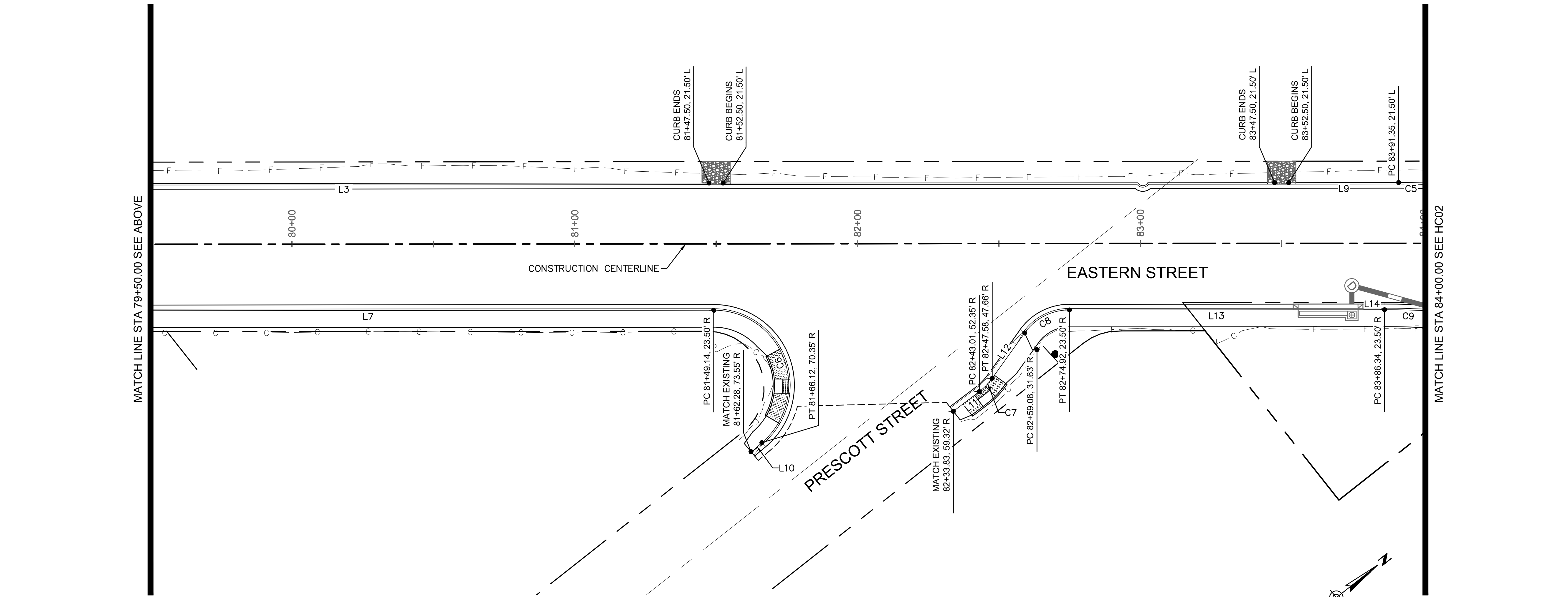
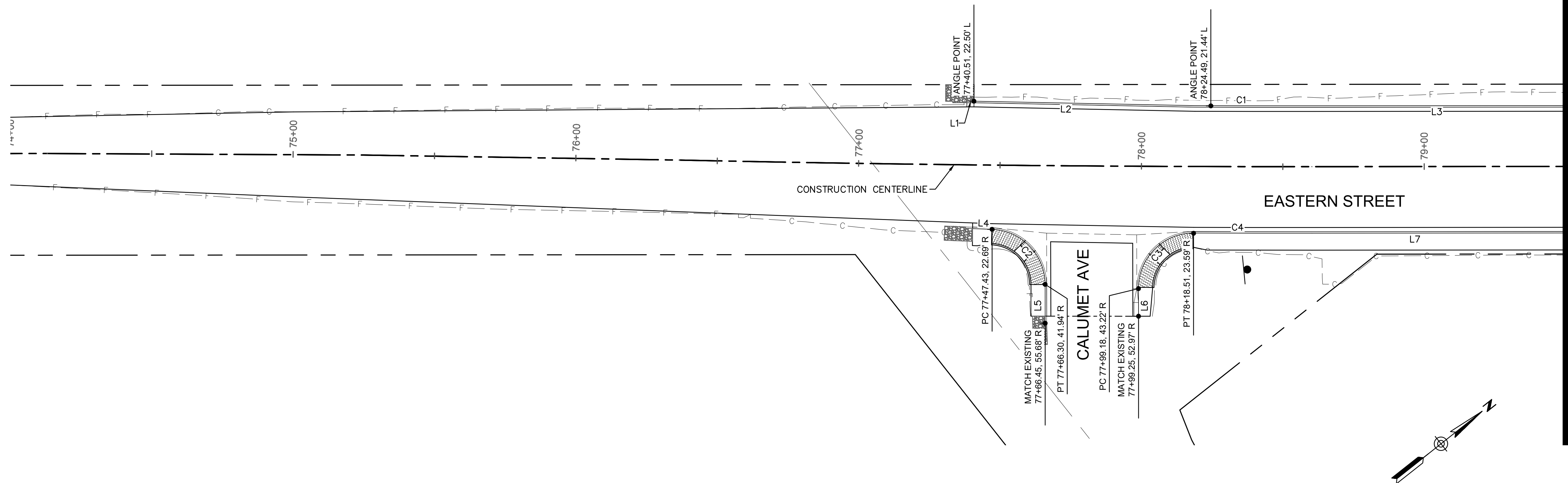
LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- PROJECT BENCHMARKS AS NOTED
- FOUND MONUMENT AS NOTED
- ACF ALUMINUM CAP FLUSH
- ADOT ARIZONA DEPARTMENT OF TRANSPORTATION
- BC BRASS CAP
- BCF BRASS CAP FLUSH
- BCHH BRASS CAP IN HANDHOLE
- CONC. CONCRETE
- ELEV. ELEVATION
- FND. FOUND
- GLO GOVERNMENT LAND OFFICE
- RLS REGISTERED LAND SURVEYOR
- SEC. SECTION
- ACF ALUMINUM CAP FLUSH



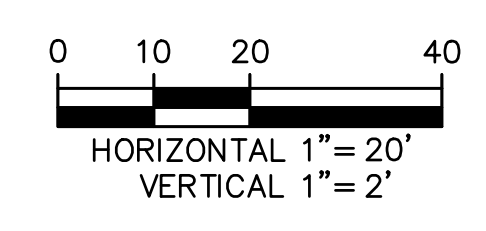
RPA
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| | | |
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 08-221038-GC02.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET BENCHMARK CONTROL SHEET | | SHEET NO. GC02 08 OF 58 |



| CURVE TABLE | | | |
|-------------|------------|-----------|---------|
| CURVE | DELTA | RADIUS | LENGTH |
| C1 | 0°14'15" | 9978.50' | 41.34' |
| C2 | 87°41'30" | 19.50' | 29.84' |
| C3 | 90°20'38" | 19.50' | 30.75' |
| C4 | 0°14'20" | 10023.50' | 41.79' |
| C5 | 21°08'00" | 362.50' | 133.71' |
| C6 | 140°09'18" | 26.50' | 64.82' |
| C7 | 17°07'54" | 22.00' | 6.58' |
| C8 | 54°20'33" | 19.50' | 18.49' |
| C9 | 22°30'28" | 294.00' | 115.49' |

| LINE TABLE | | |
|------------|-------------|---------|
| LINE | BEARING | LENGTH |
| L1 | N38°02'41"E | 2.54' |
| L2 | S39°37'09"W | 78.14' |
| L3 | S38°25'27"W | 287.22' |
| L4 | N40°39'52"E | 6.90' |
| L5 | N51°38'39"W | 13.72' |
| L6 | N51°40'51"W | 9.84' |
| L7 | S38°25'27"W | 288.85' |
| L9 | S38°25'27"W | 38.85' |
| L10 | S4°29'37"E | 5.01' |
| L11 | S1°12'47"W | 11.53' |
| L12 | S15°55'06"E | 19.72' |
| L13 | S38°25'27"W | 91.87' |
| L14 | S38°25'27"W | 9.55' |



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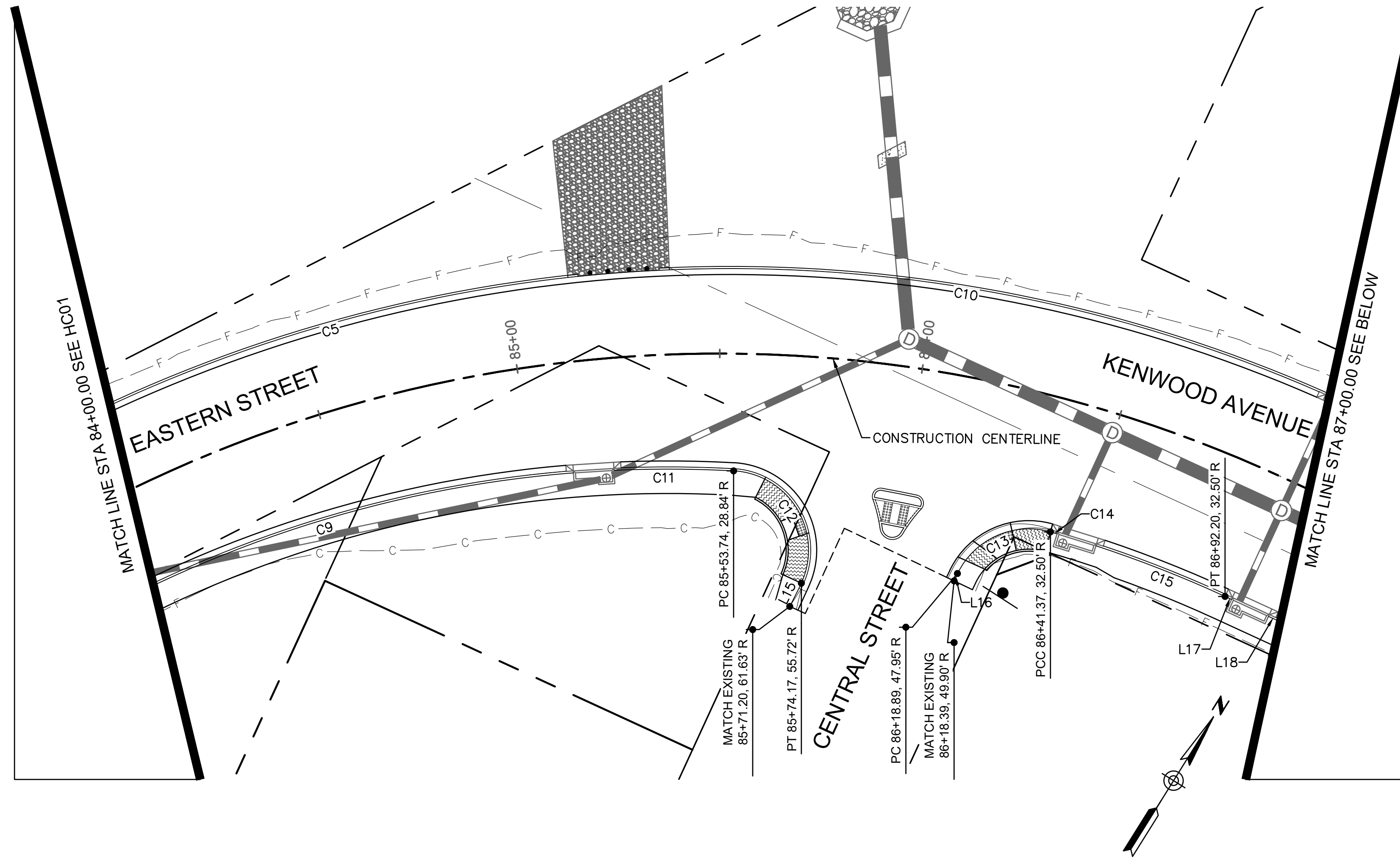
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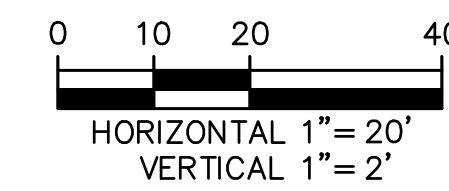
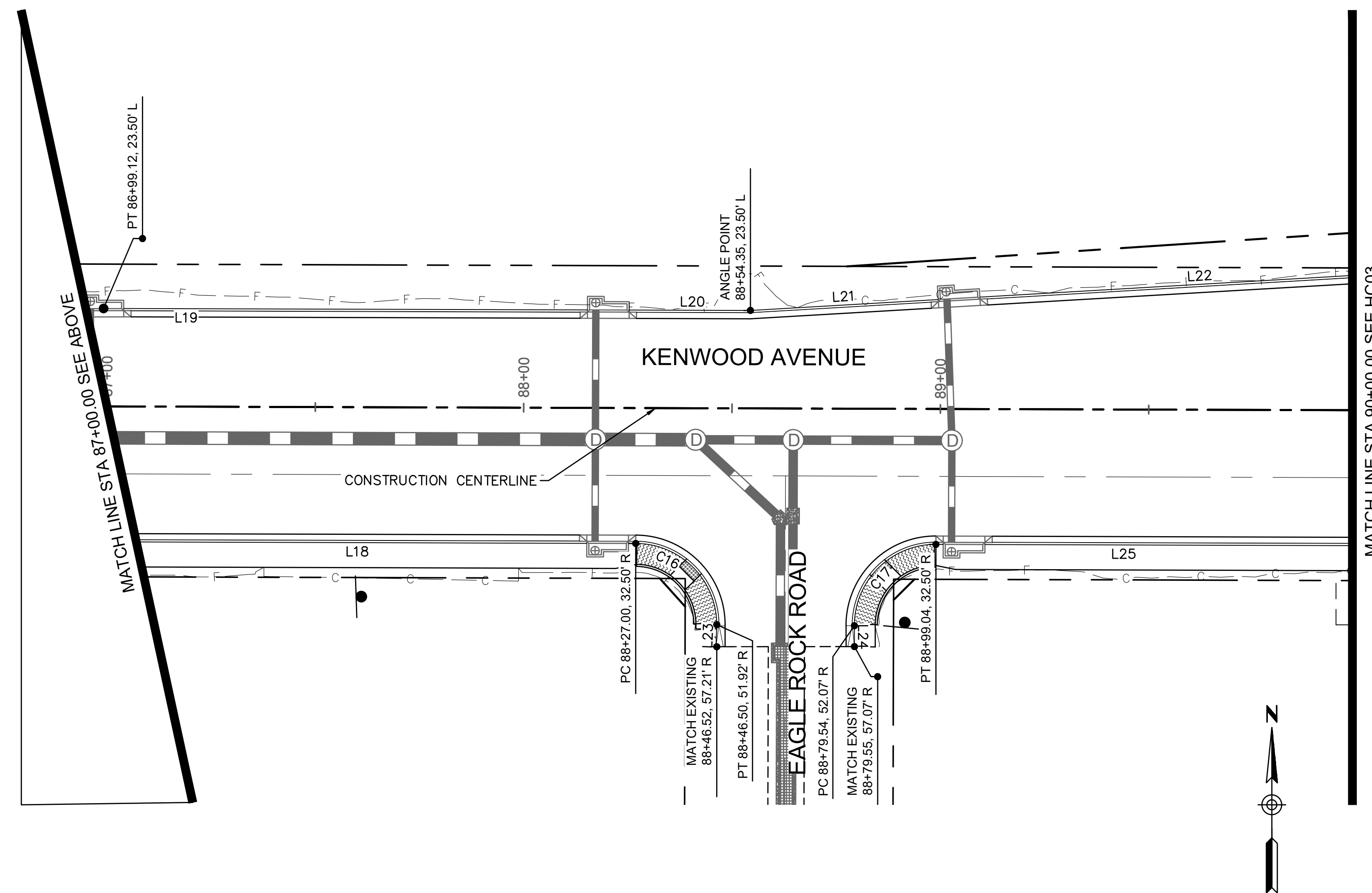
EASTERN STREET
HORIZONTAL CONTROL

SHEET NO.
HC01
09 OF 58



| CURVE TABLE | | | |
|-------------|------------|---------|---------|
| CURVE | DELTA | RADIUS | LENGTH |
| C5 | 21°08'00" | 362.50' | 133.71' |
| C9 | 22°30'28" | 294.00' | 115.49' |
| C10 | 26°38'01" | 362.50' | 168.51' |
| C11 | 5°44'00" | 294.00' | 29.42' |
| C12 | 111°29'14" | 19.50' | 37.94' |
| C13 | 80°25'09" | 19.50' | 27.37' |
| C14 | 0°19'04" | 297.50' | 1.65' |
| C15 | 6°34'18" | 297.50' | 34.12' |
| C16 | 89°45'18" | 19.50' | 30.55' |
| C17 | 90°12'54" | 19.50' | 30.70' |

| LINE TABLE | | |
|------------|-------------|---------|
| LINE | BEARING | LENGTH |
| L15 | N2°23'31"E | 5.00' |
| L16 | N0°56'25"E | 1.86' |
| L17 | N89°49'30"W | 1.75' |
| L18 | N89°49'30"W | 111.29' |
| L19 | N89°49'30"W | 111.30' |
| L20 | S89°49'30"E | 29.11' |
| L21 | N86°40'40"E | 45.15' |
| L22 | N86°40'40"E | 125.18' |
| L23 | N2°13'14"E | 5.00' |
| L24 | S0°02'24"E | 5.00' |
| L25 | N89°49'30"W | 123.57' |



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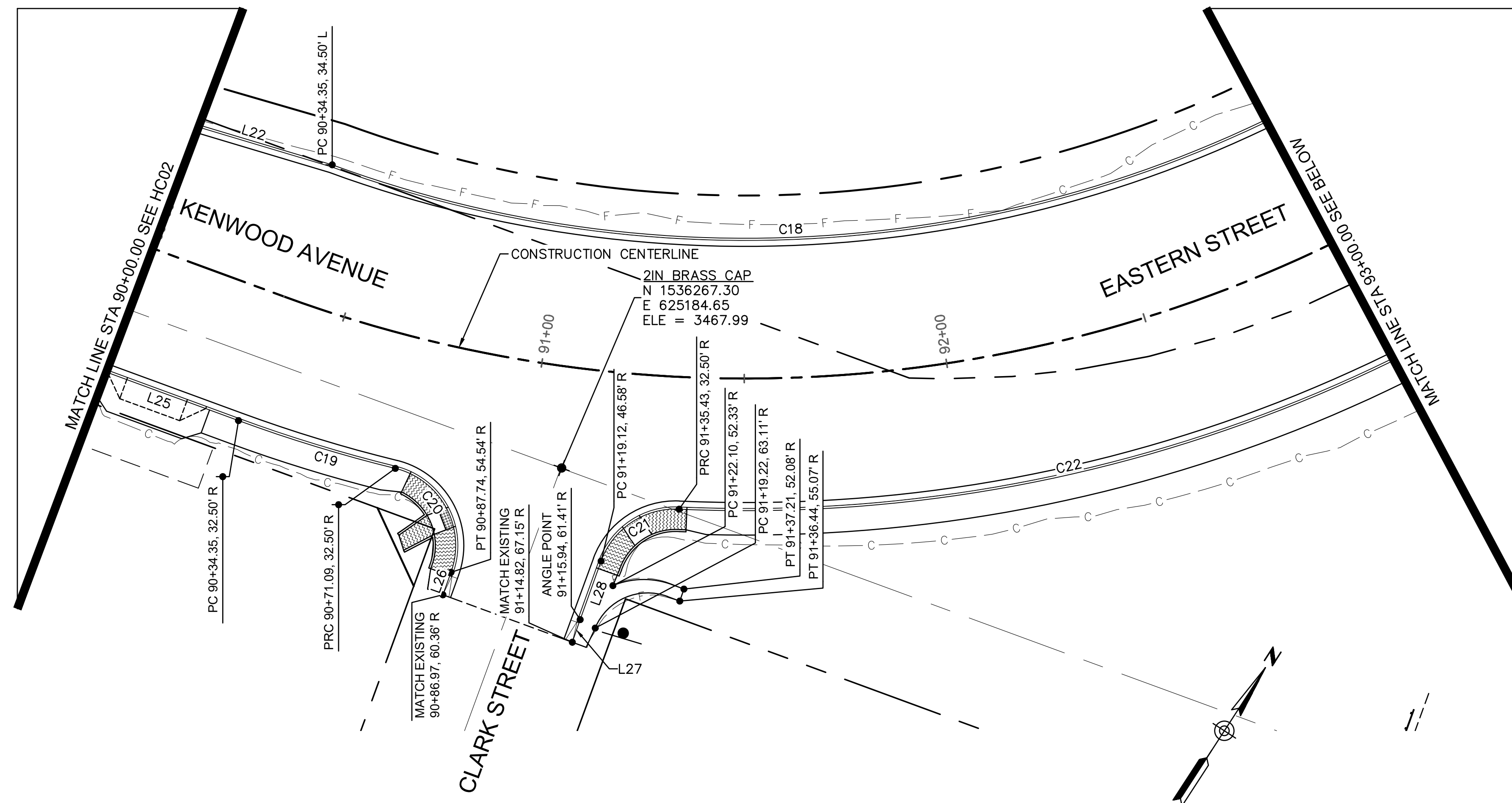
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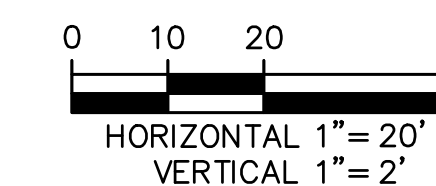
EASTERN STREET
HORIZONTAL CONTROL

SHEET NO.
HC02
10 OF 58



| CURVE TABLE | | | |
|-------------|-----------|---------|---------|
| CURVE | DELTA | RADIUS | LENGTH |
| C18 | 80°06'11" | 295.50' | 413.13' |
| C19 | 6°22'44" | 362.50' | 40.36' |
| C20 | 96°02'41" | 19.50' | 32.69' |
| C21 | 72°27'56" | 19.50' | 24.66' |
| C22 | 62°33'16" | 362.50' | 395.77' |
| C23 | 85°38'12" | 24.50' | 36.62' |
| C24 | 85°33'20" | 24.50' | 36.58' |

| LINE TABLE | | |
|------------|-------------|---------|
| LINE | BEARING | LENGTH |
| L22 | N86°40'40"E | 125.18' |
| L25 | N89°49'30"W | 123.57' |
| L26 | N0°10'31"W | 5.00' |
| L27 | S0°56'12"E | 5.00' |
| L28 | S0°13'03"E | 16.17' |
| L29 | N10°04'19"E | 131.19' |
| L30 | S10°04'19"W | 131.25' |
| L31 | N84°22'21"W | 9.08' |



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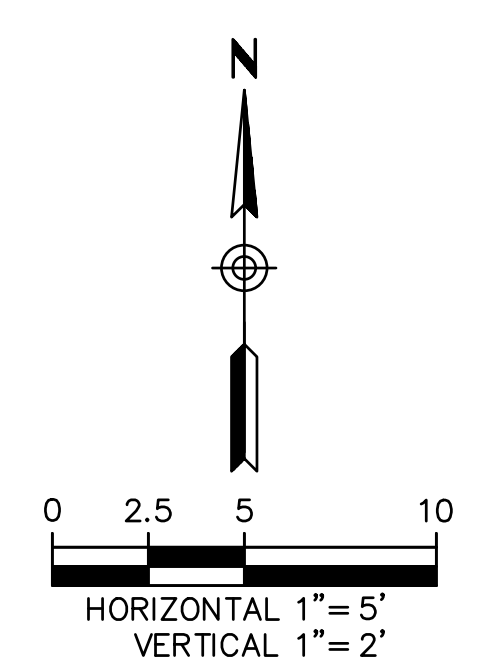
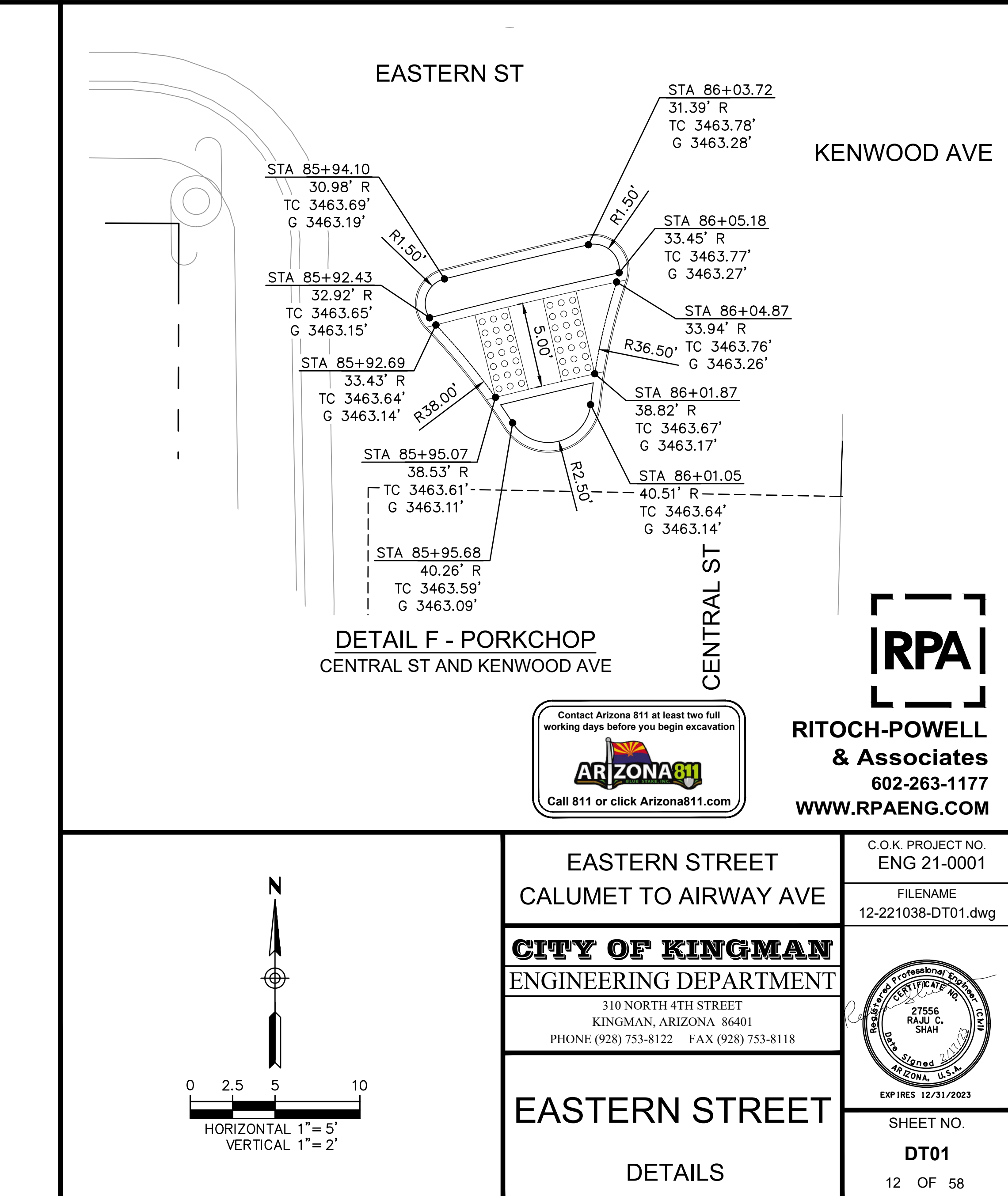
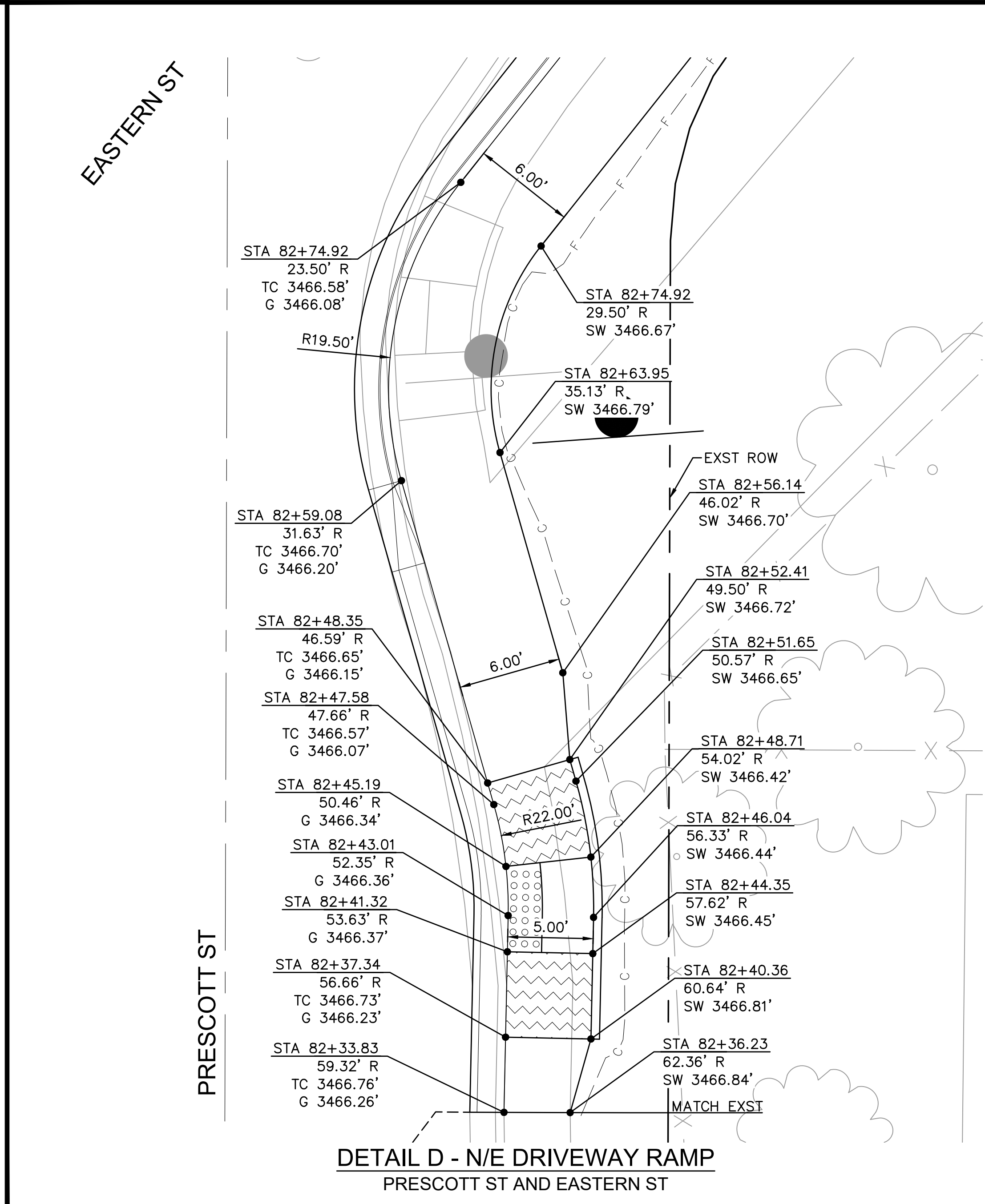
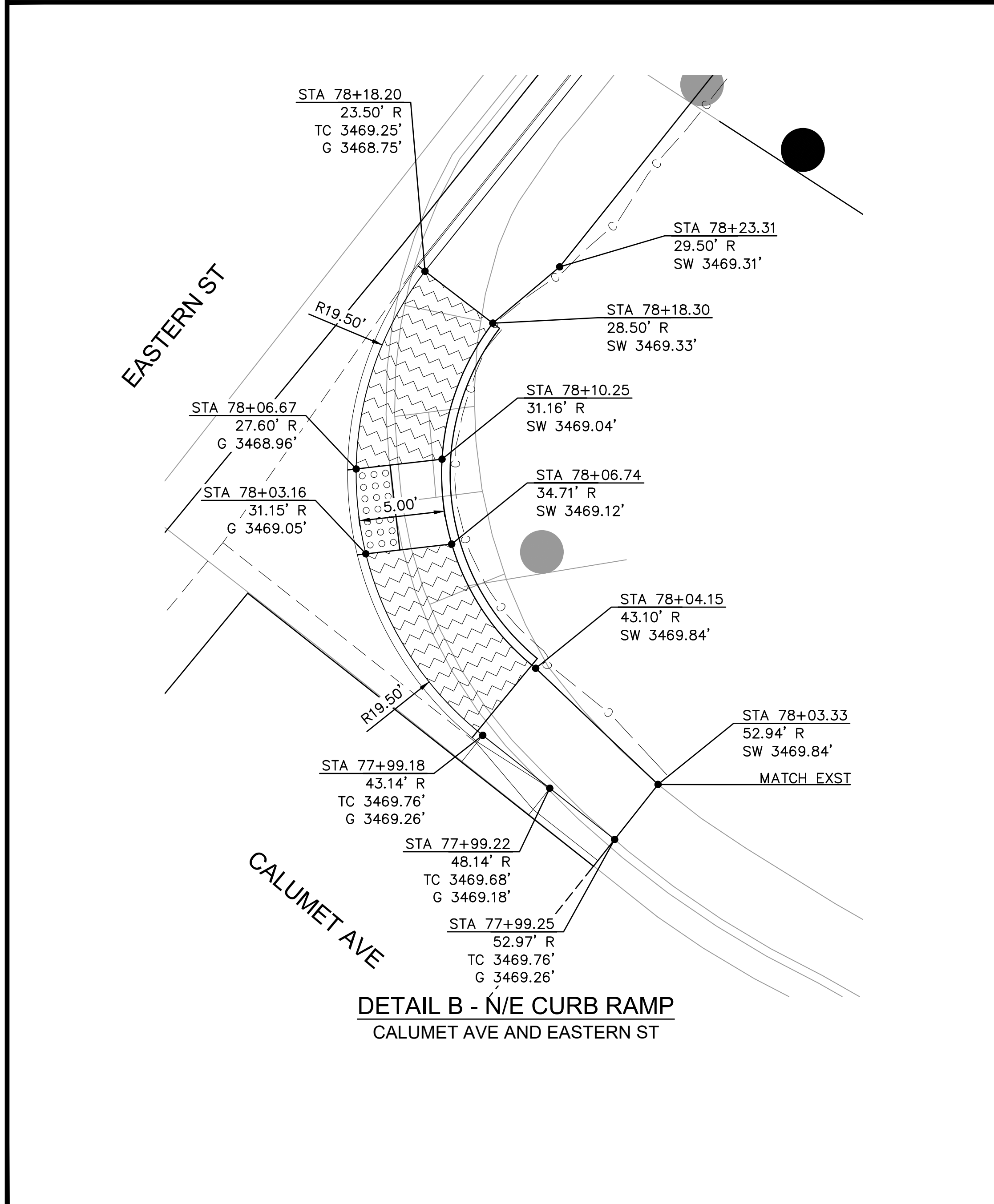
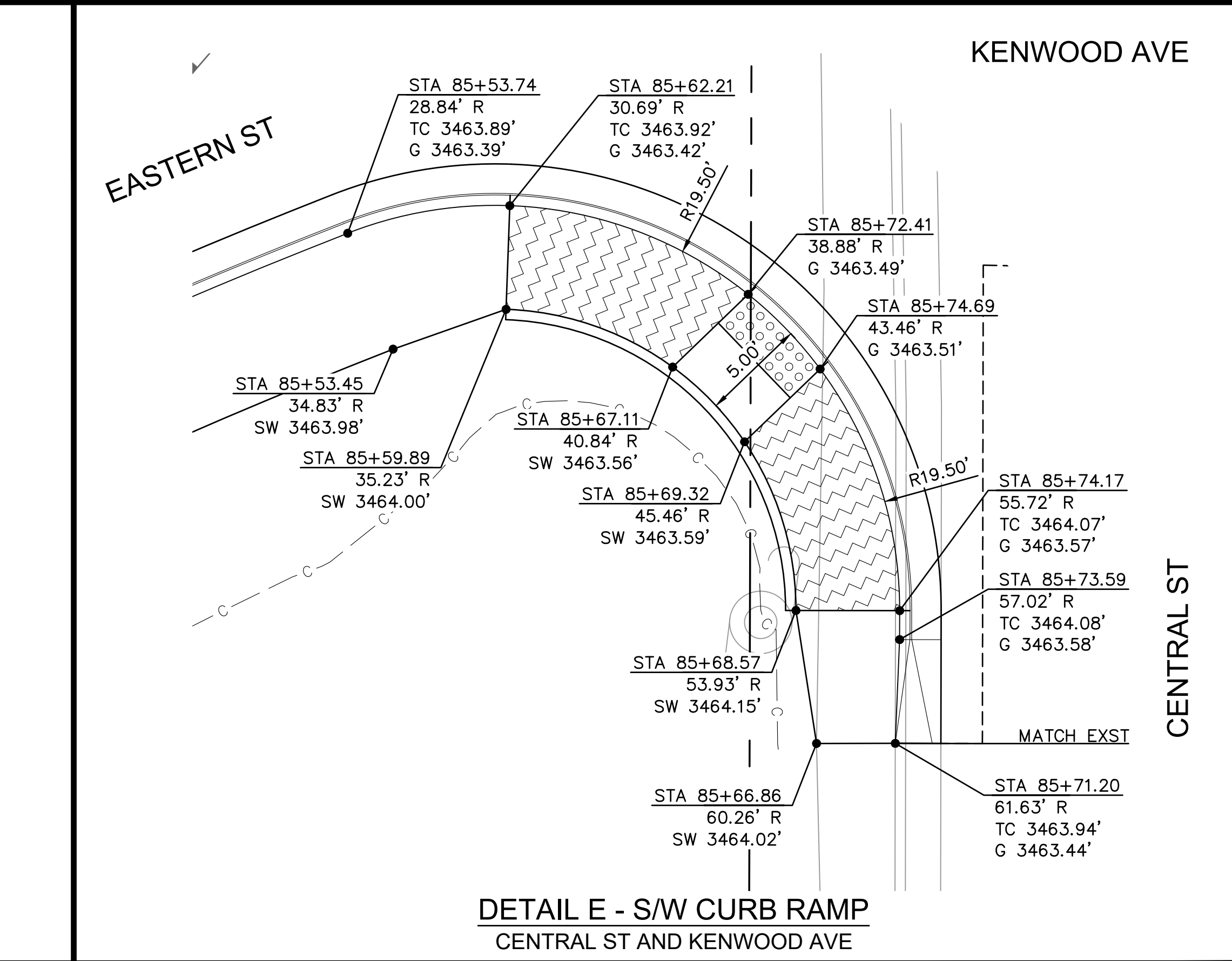
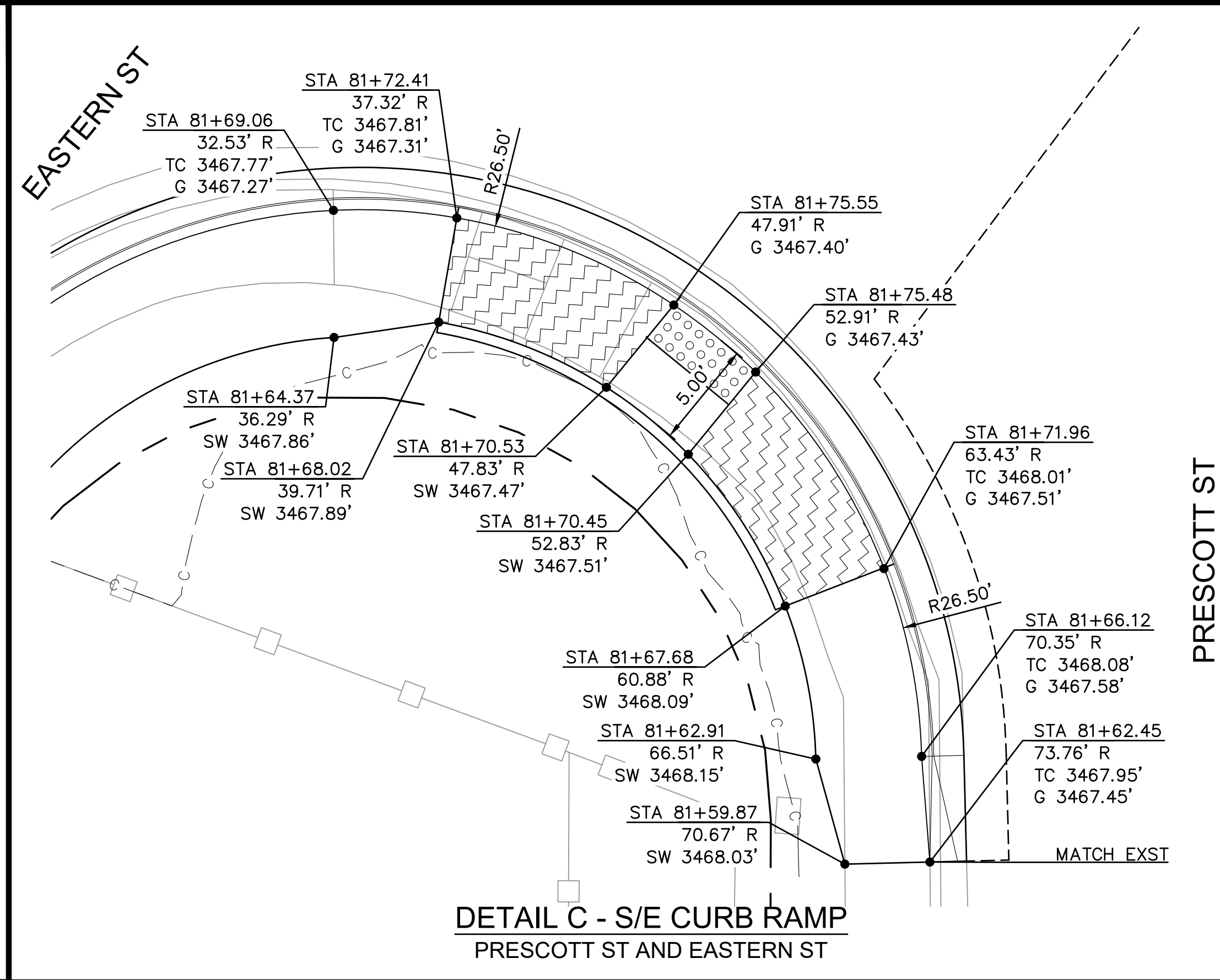
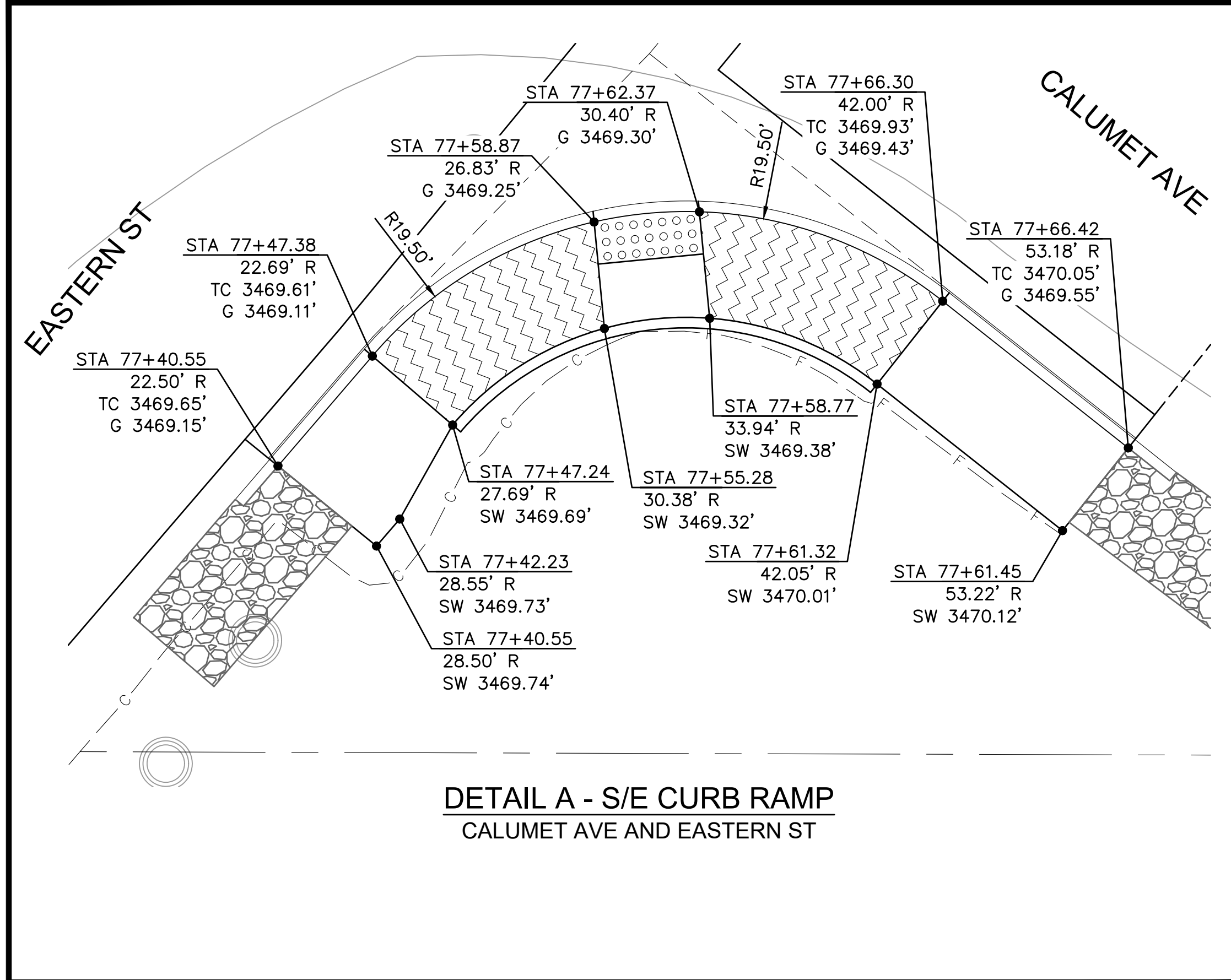
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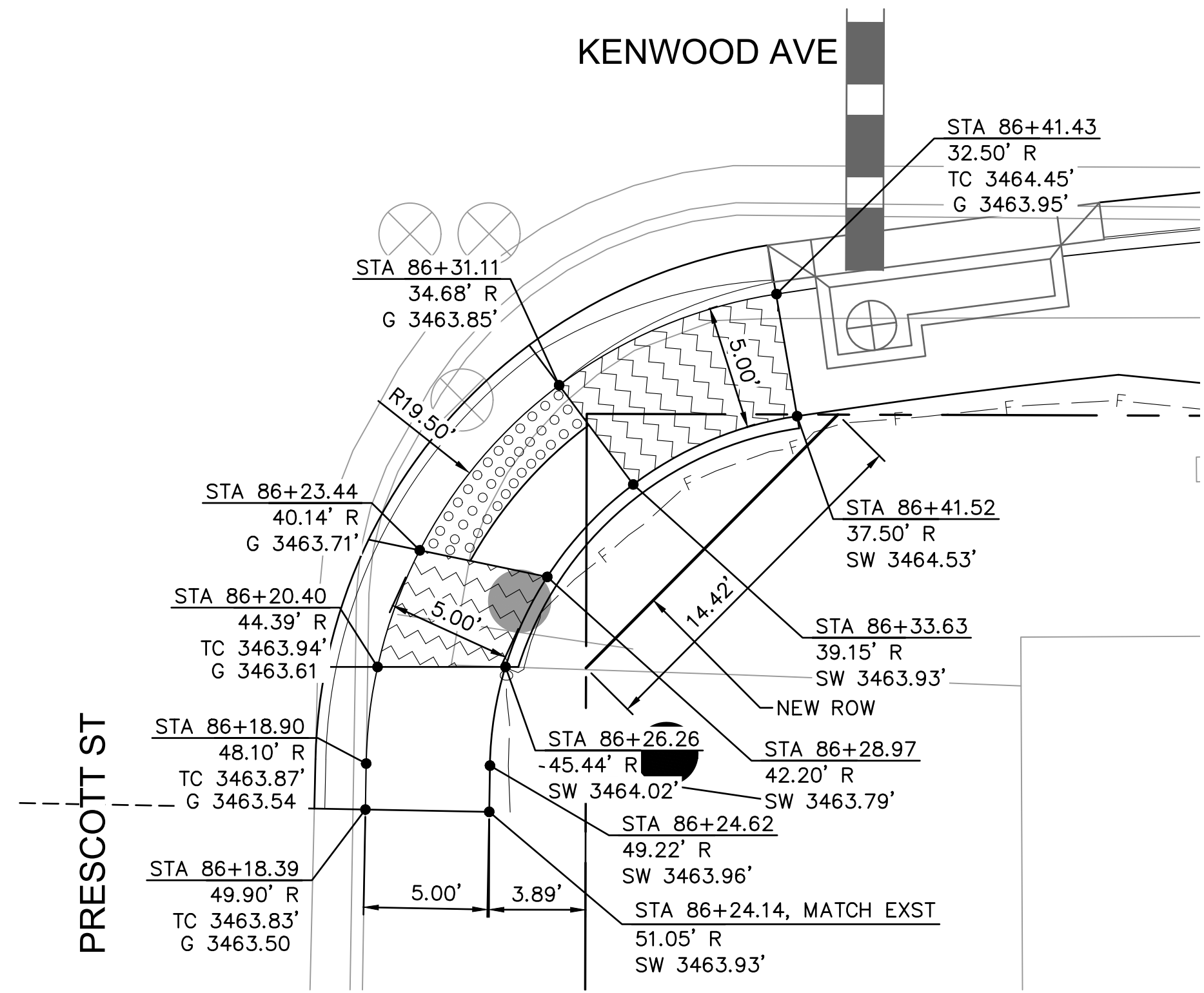
EASTERN STREET
HORIZONTAL CONTROL

SHEET NO.
HC03
11 OF 58

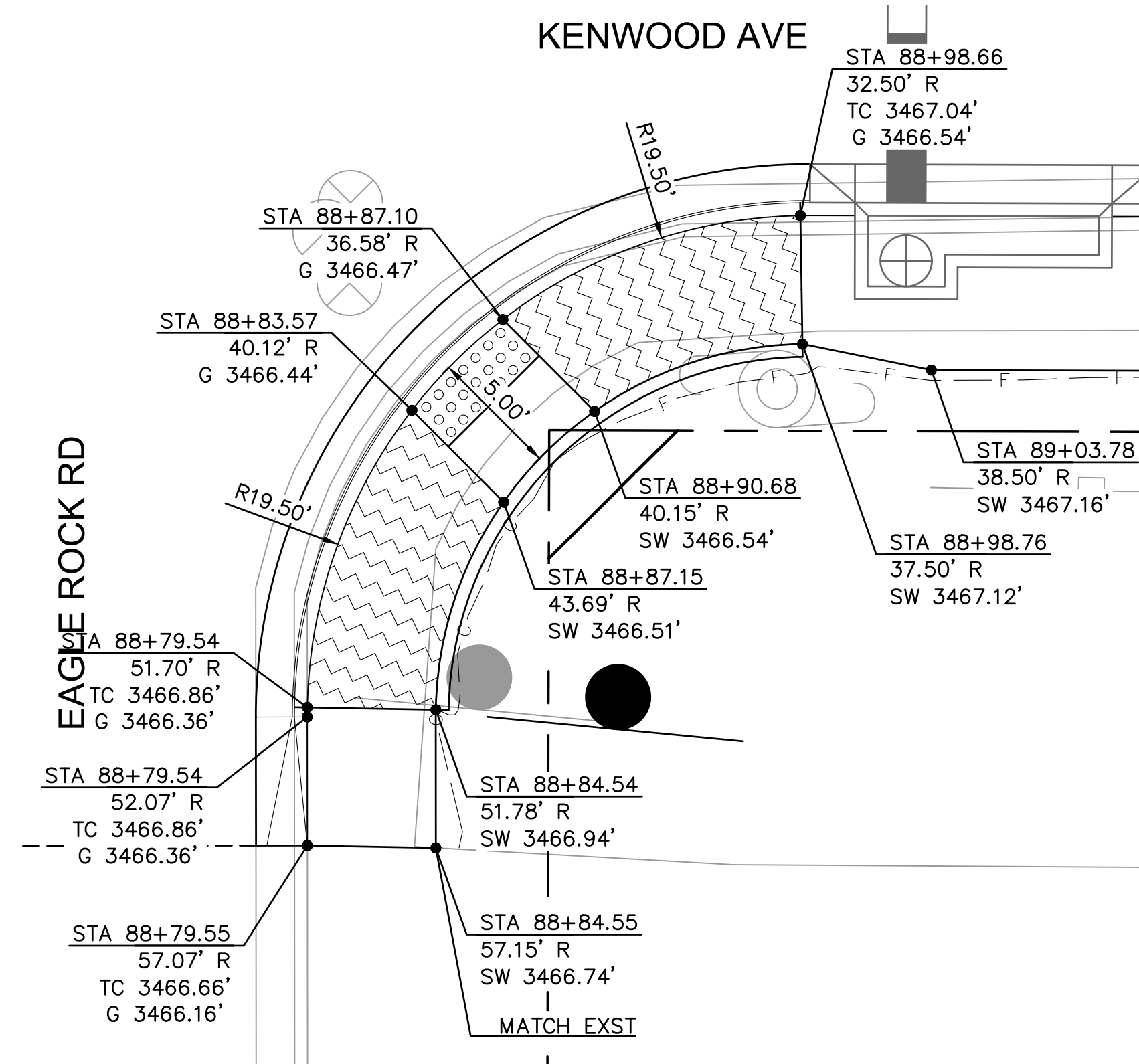


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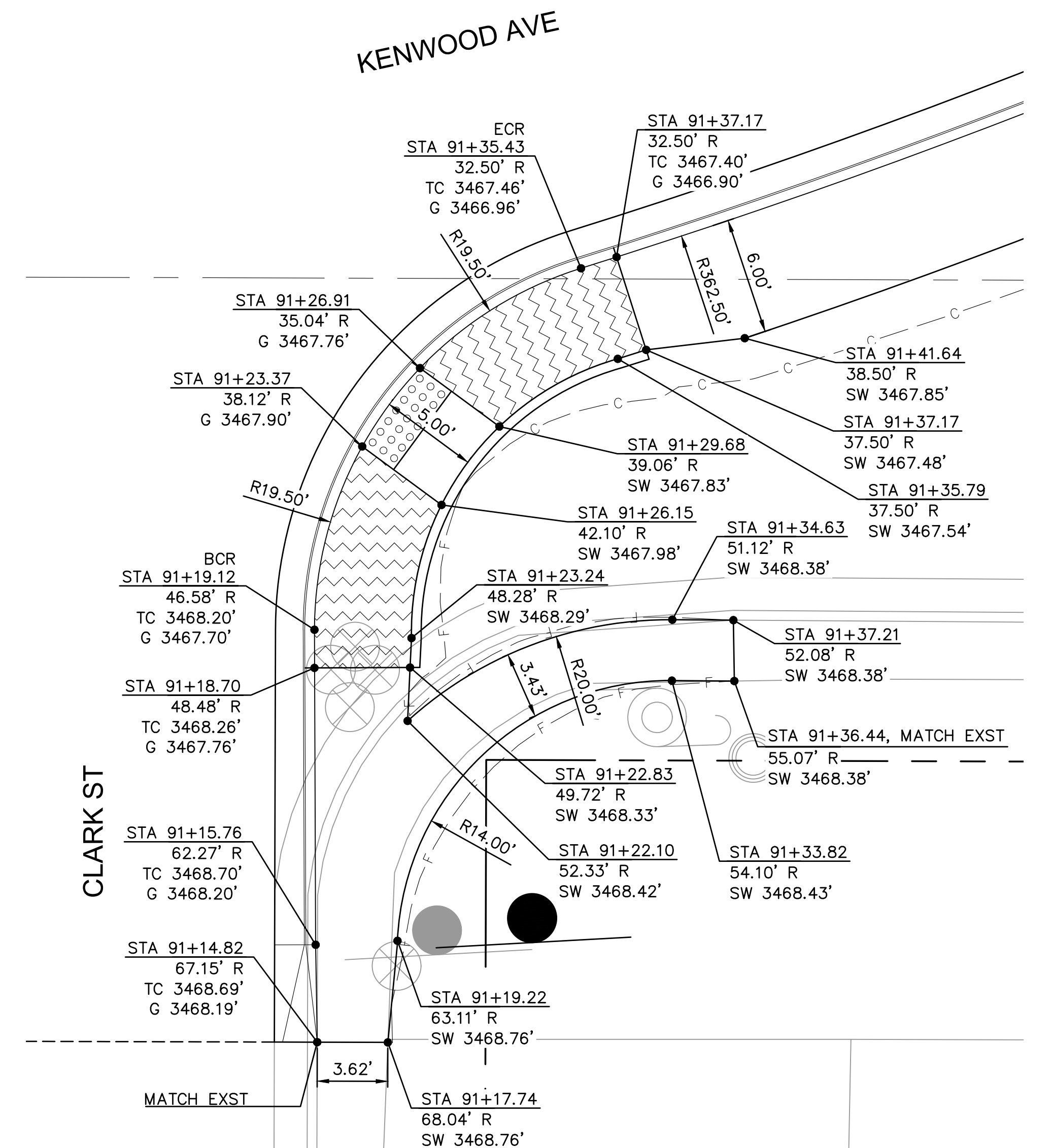
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 12-221038-DT01.dwg |
| EASTERN STREET DETAILS | |  SHEET NO. DT01 12 OF 58 |



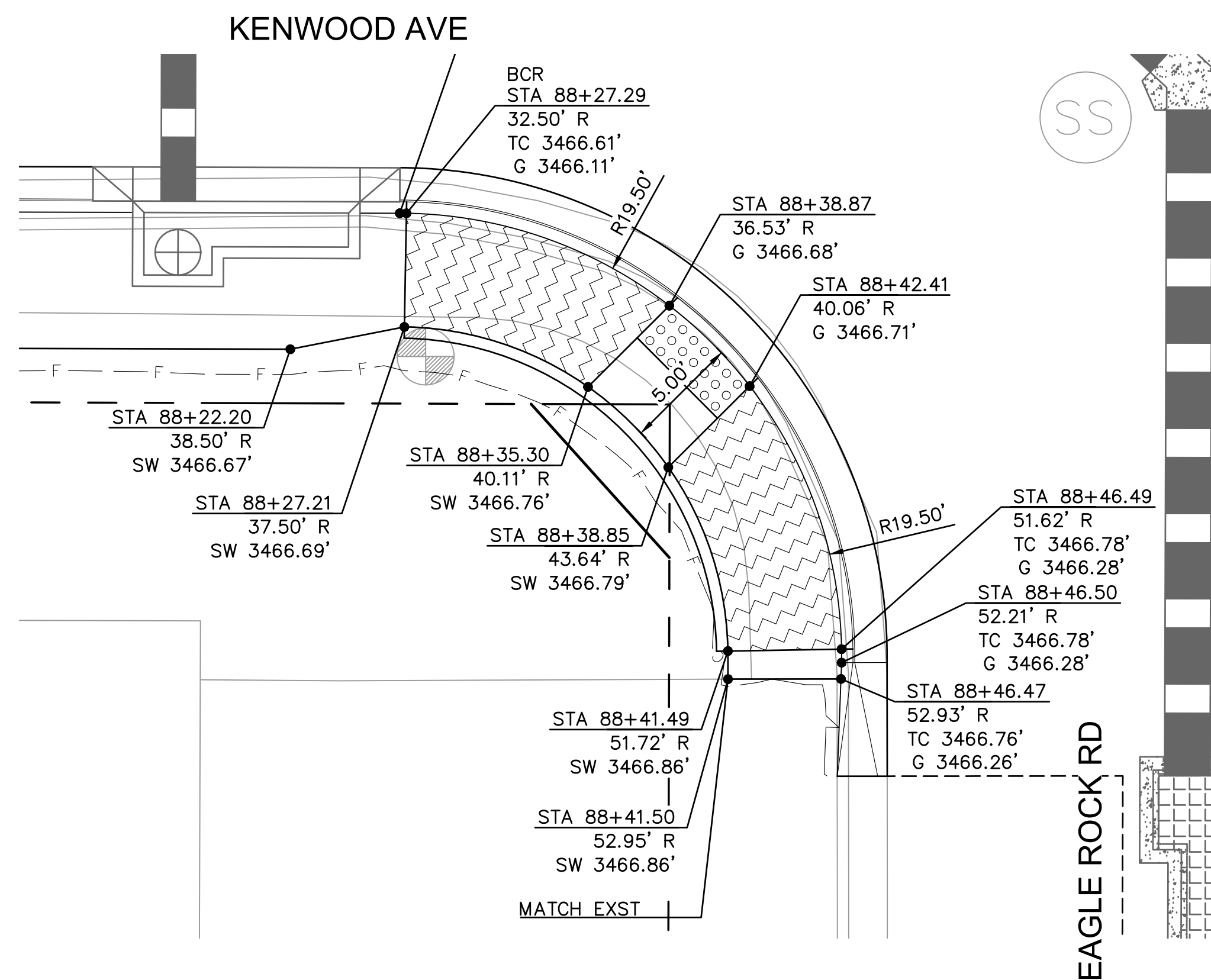
DETAIL G - S/E CURB RAMP
CENTRAL ST AND KENWOOD AVE



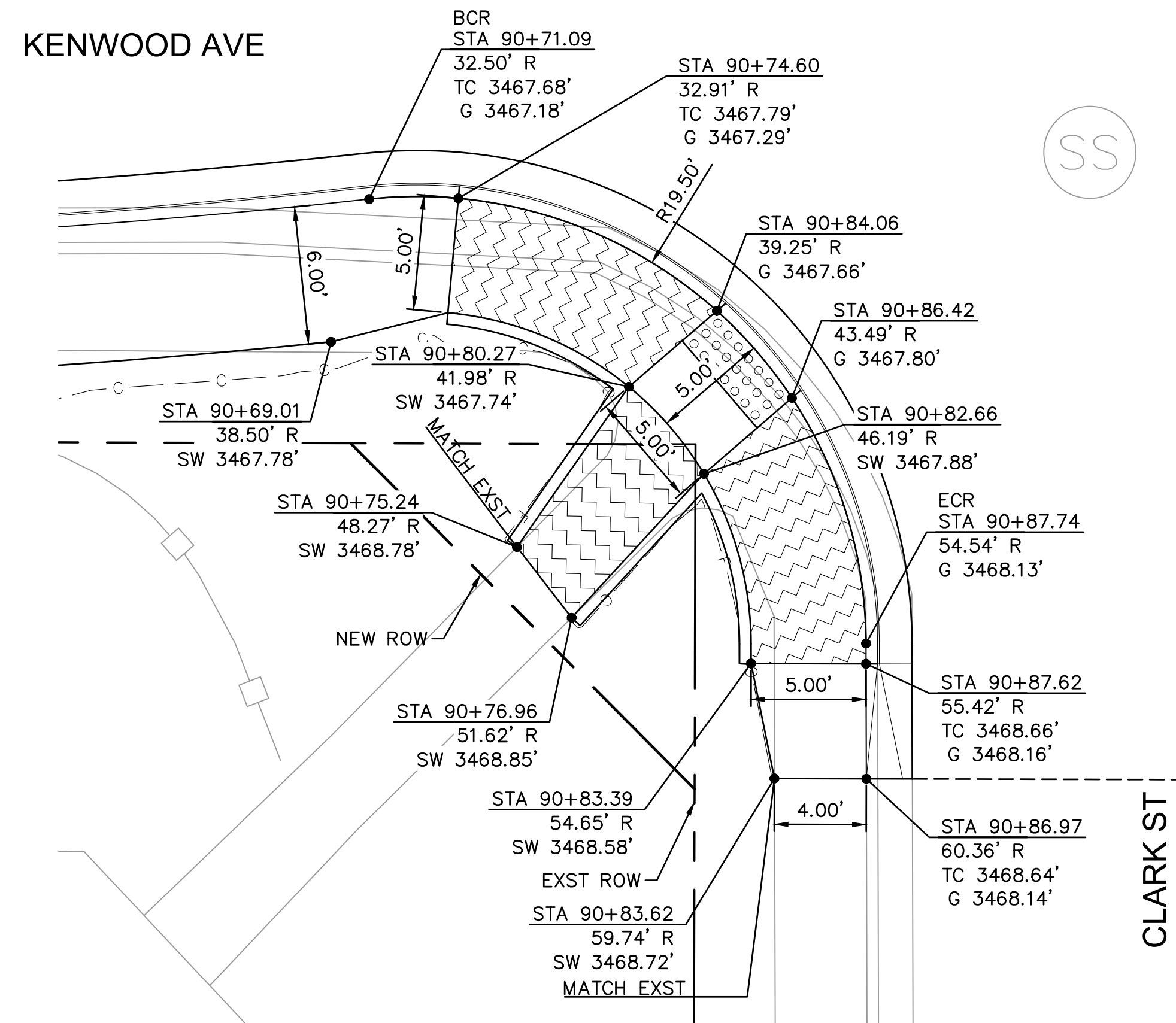
DETAIL I - S/E CURB RAMP
EAGLE ROCK RD AND KENWOOD AVE



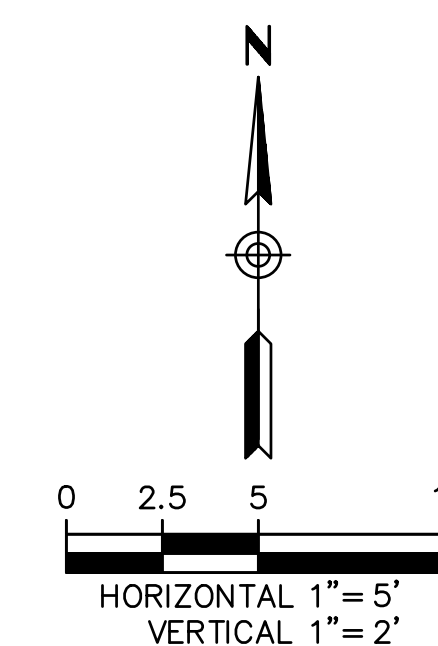
DETAIL K - S/E CURB RAMP
CLARK ST AND KENWOOD AVE



DETAIL H - S/W CURB RAMP
EAGLE ROCK RD AND KENWOOD AVE



DETAIL J - S/W CURB RAMP
CLARK ST AND KENWOOD AVE



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ENG 21-0001
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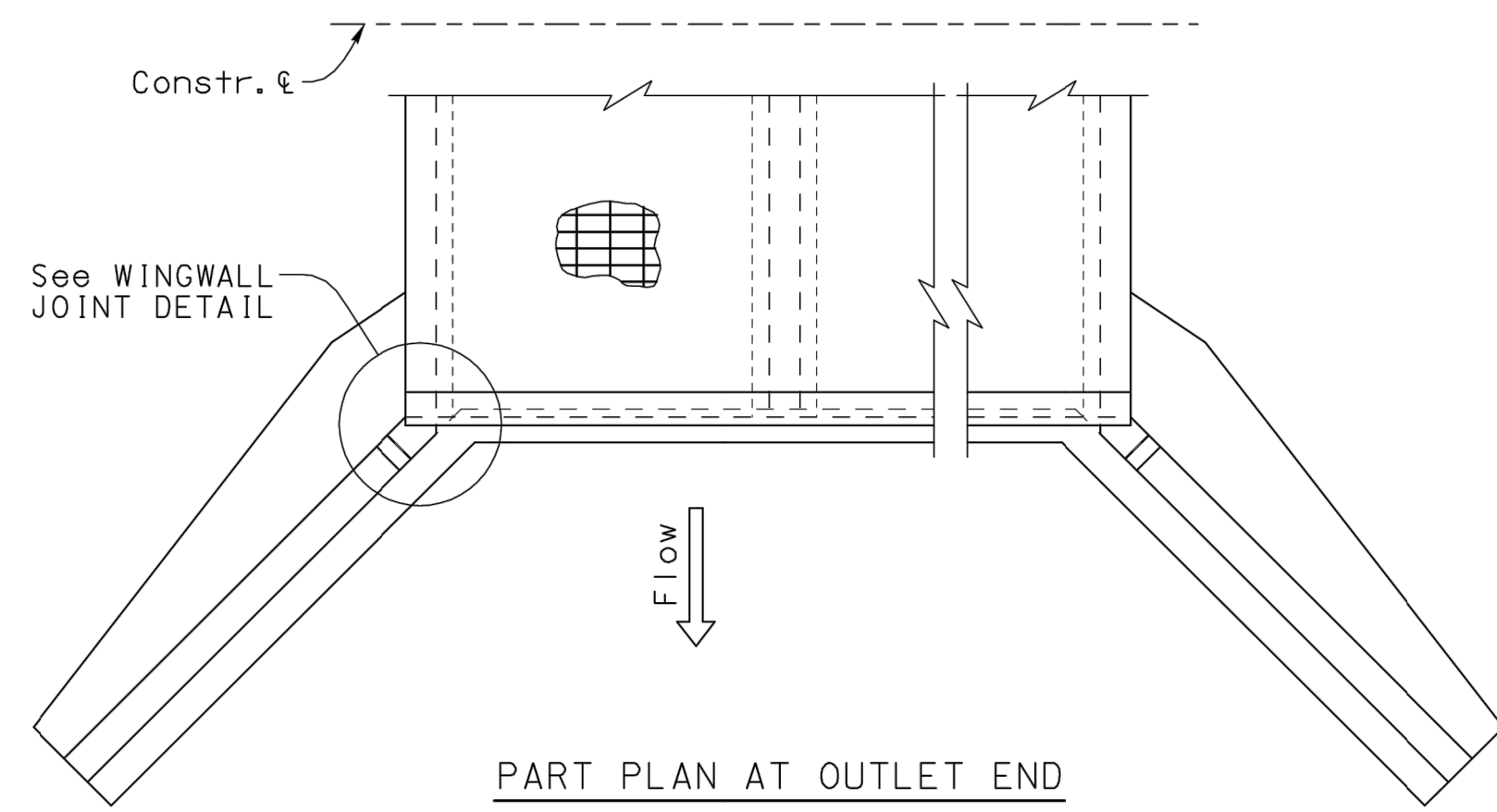


EASTERN STREET
DETAILS

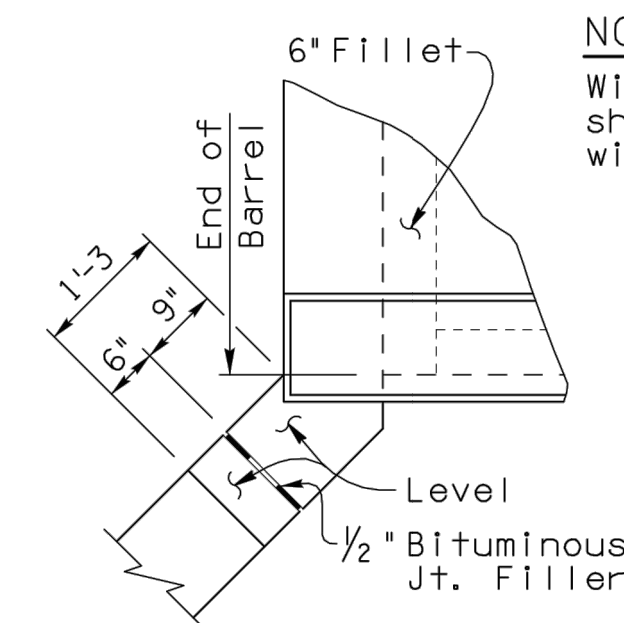
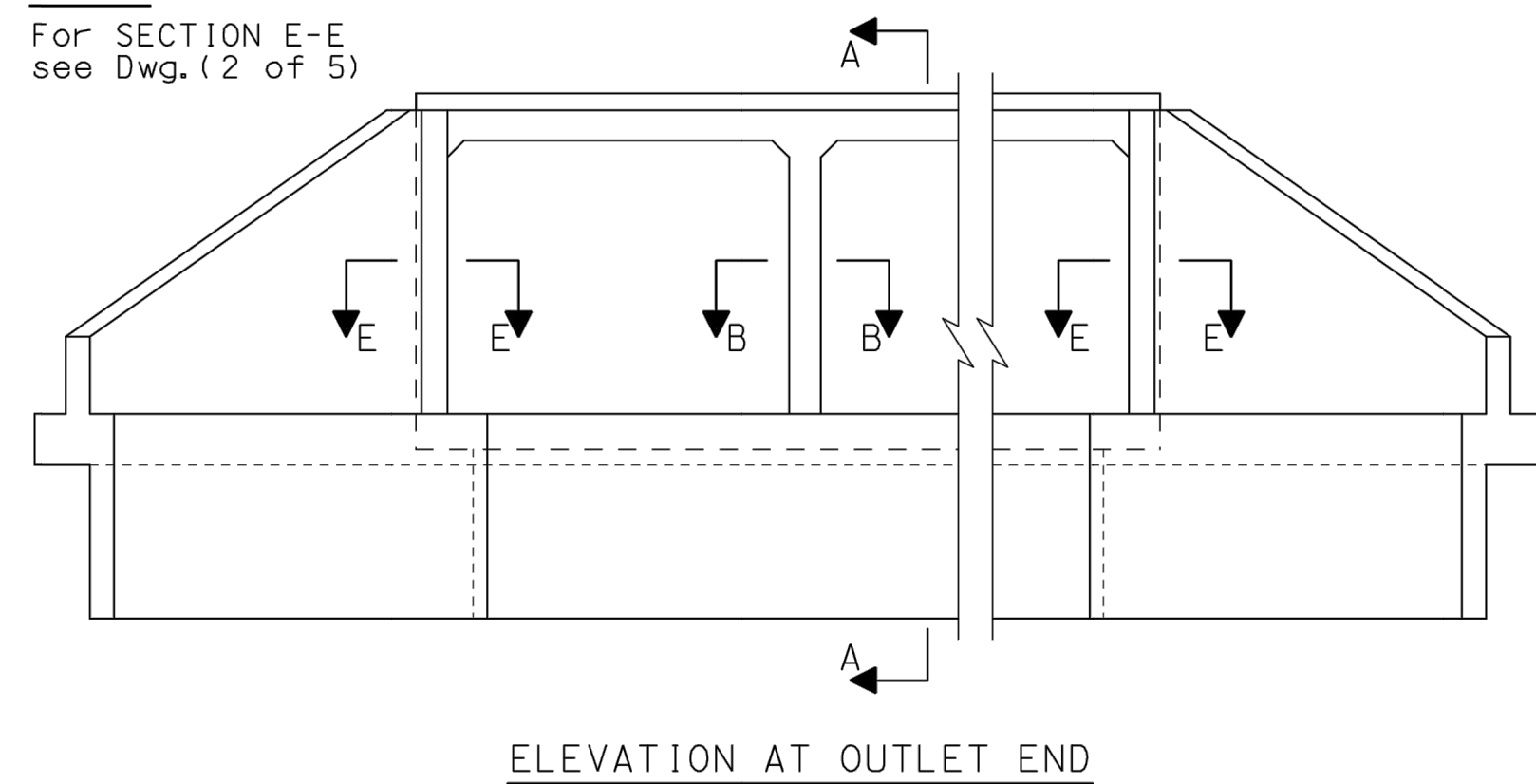
SHEET NO.
DT02
13 OF 58

Note to Designers: This Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Comments within the inner border line shall not be entered.

| NO. | DESCRIPTION OF REVISIONS | DATE | BY |
|-----|--------------------------|------|----|
| 1. | Original Issue | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |

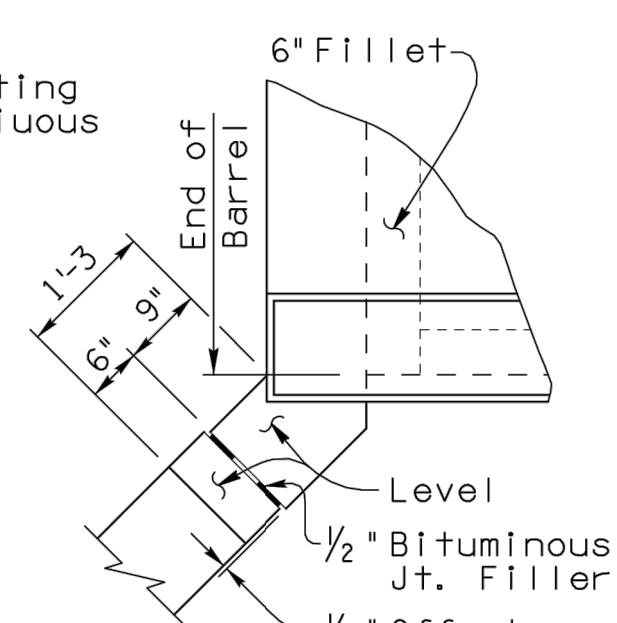


NOTE:
For SECTION E-E see Dwg. (2 of 5)



WINGWALL JOINT DETAIL
(For Barrel Height < 8 Ft.)

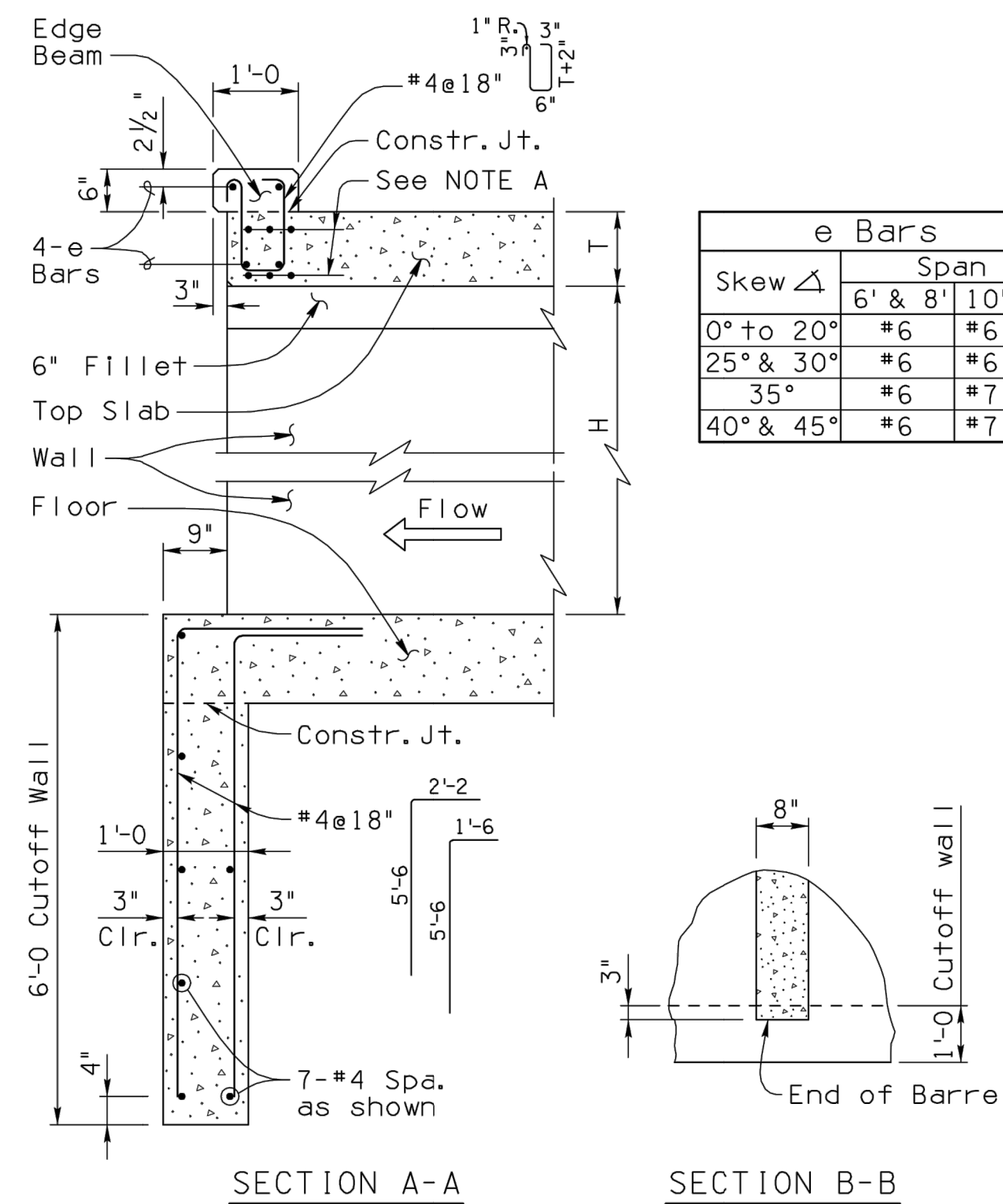
NOTE:
Wing wall footing shall be continuous with no joint.



WINGWALL JOINT DETAIL
(For Barrel Height ≥ 8 Ft.)

NOTE A:

Use 3-#7 @3' spa. top and bott bars for culverts skewed 6° to 30°. Use 3-#8 @3' spa. top and bott bars for culverts skewed 31° to 45°. Culverts skewed over 45° require a special edge beam design. Edge beam reinforcing quantity shall be added to table quantities.



NOTE:

Special design sections shall be adjoined with standard barrels when necessary. Culvert barrels always begin and end with Table No. 1.

Thickness of top and bottom slabs vary with depths of fill as shown.

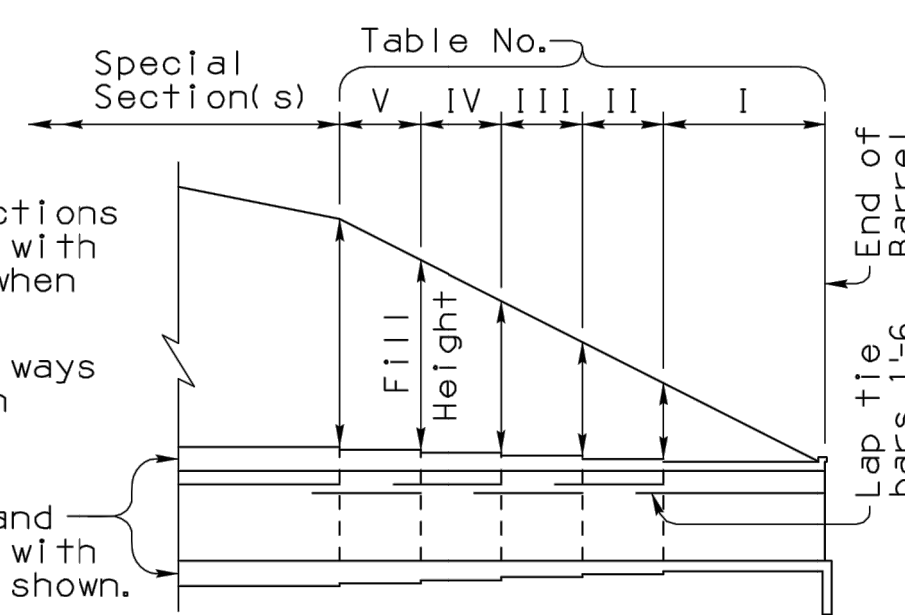


DIAGRAM SHOWING TABLE NO. TO BE USED FOR VARIOUS FILL HEIGHTS

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 5th Edition 2010.

Loading Class - HL-93.

Design:
Soil weight = 120 p.c.f.

All Concrete shall be Class "S" (f'c = 3000 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Chamfer all exposed corners 3/4" unless noted otherwise.

Compact backfill for footing and wing base minimum 95 percent of ASTM D698 maximum dry density.

All structures shall have formed Construction joints in the top slab and walls (optional in floor slab) and spaced not more than 38'-6" apart or as shown in Project Plans. Joints shall be perpendicular to the centerline of the box. Reinforcing steel shall project 1'-6" thru the joint. The joint shall be made with a 1/4" plywood bulkhead which shall be left in place or the alternate joint detail shown on Dwg. (2 of 5) may be used.

See Project Plans for culvert layout, invert elevations, finished grade elevations, headwall, apron, and other site specific details.

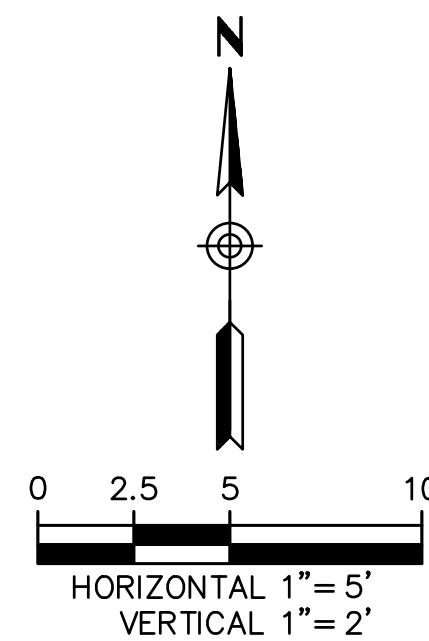
Dimensions shall not be scaled from drawings.

Pay item quantities of concrete and reinforcing steel include all labor and materials for box culvert, footing, headwalls and aprons. Total Quantities include Barrel and Headwall Quantities shown in Tables (plus added quantity for apron when used). Barrel Quantities Table is per linear foot of box (multiply by length of box to obtain barrel total). Headwall Quantities Table includes wings, edge beam and cutoff wall.

NOTE:

For Dimensions, Quantities and additional Details, see SD 6.01 (2 to 5).

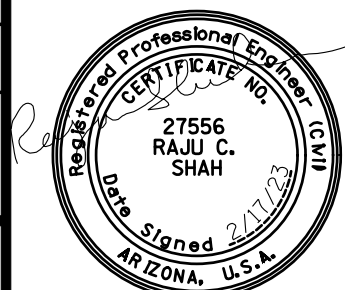
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| APPROVED FOR DISTRIBUTION <i>Tean A. Nehme</i> | REINFORCED CONCRETE BOX CULVERTS MISCELLANEOUS DETAILS |
| ROUTE | PROJECT NO. |
| LOCATION | FA NO. |
| | DRAWING NO. SD 6.01 (1 of 5) |
| | SHEET NO. OF |



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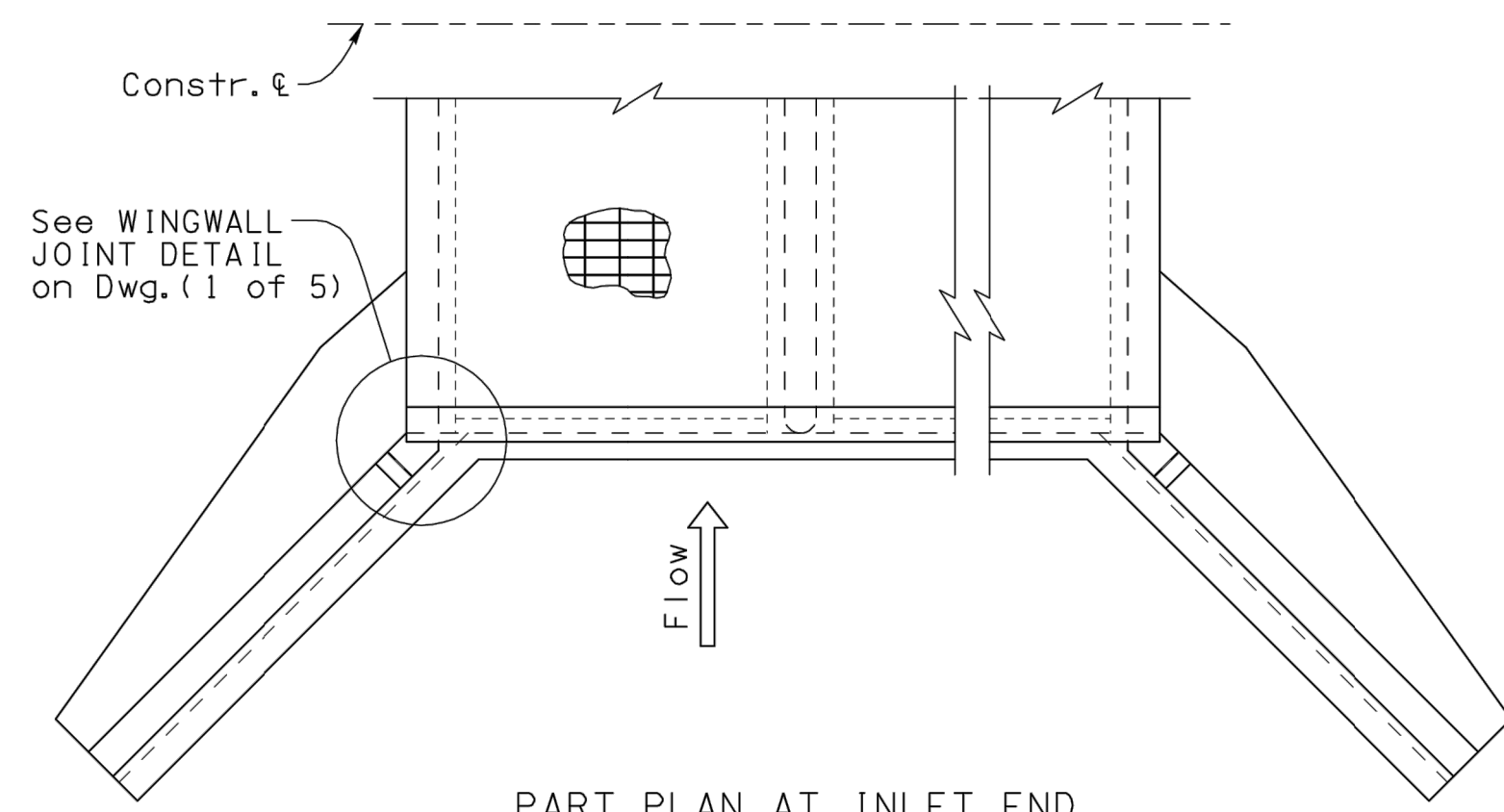
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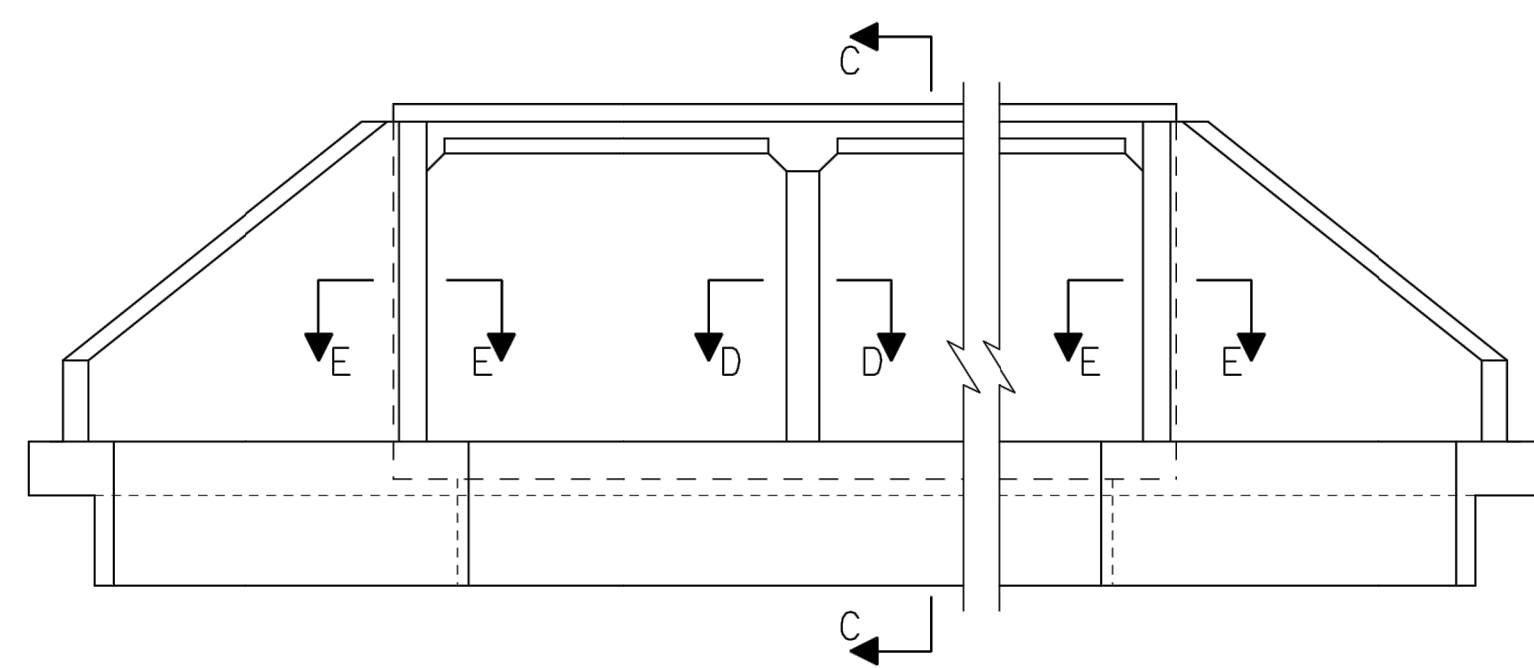
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DETAILS
SHEET NO.
DT03
14 OF 58

Note to Designers: This Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of the suitability and applicability by a licensed professional engineer. Comments within the inner border line shall not be entered.

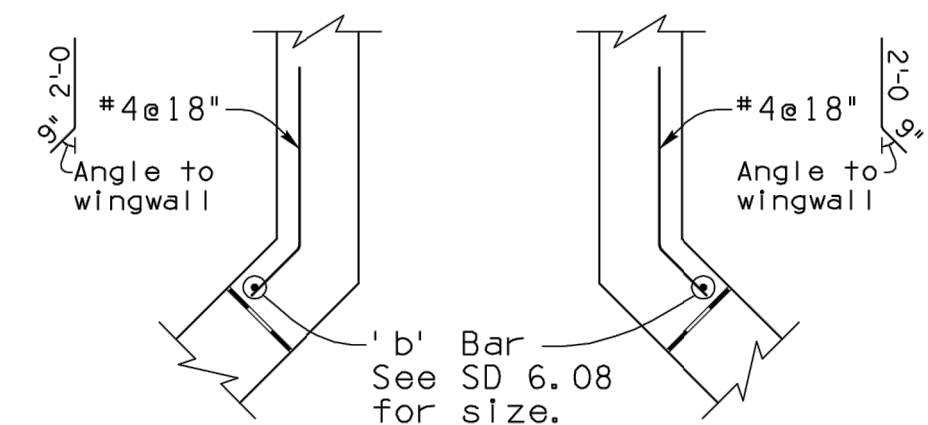
| NO. | DESCRIPTION OF REVISIONS | DATE |
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| 4 | | |



PART PLAN AT INLET END

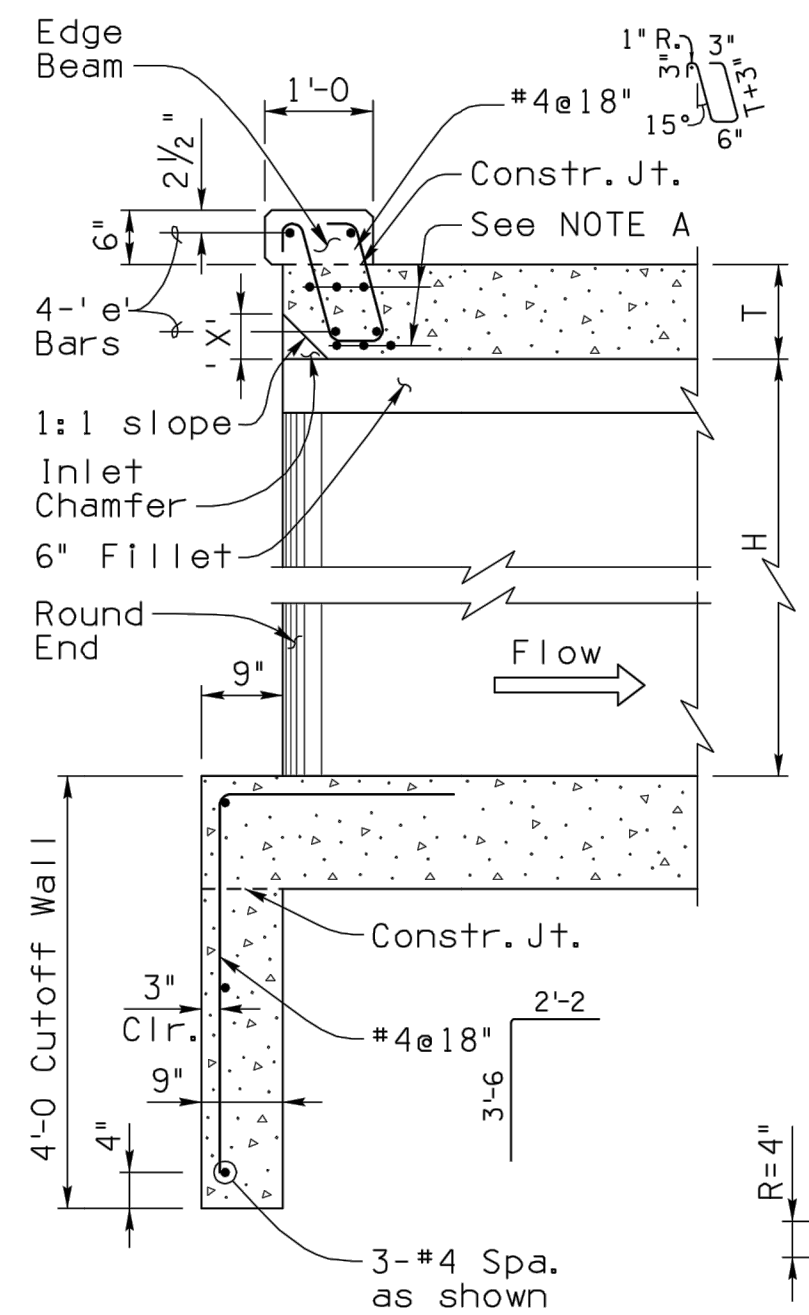


ELEVATION AT INLET END

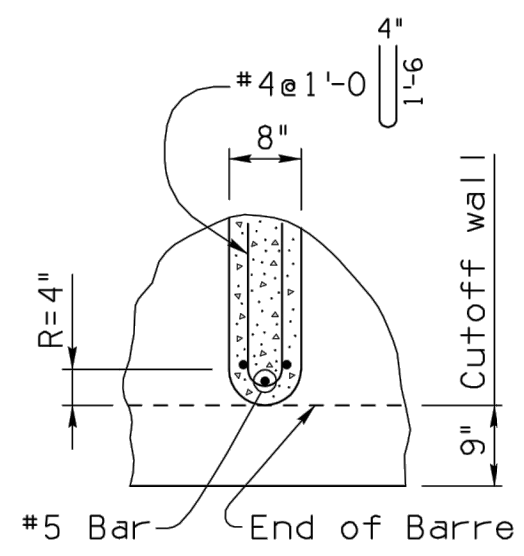


SECTION E-E

NOTE A:
 Use 3-#7 @3' spa. top and bott bars for culverts skewed 6° to 30°.
 Use 3-#8 @3' spa. top and bott bars for culverts skewed 31° to 45°.
 Culverts skewed over 45° require a special edge beam design. Edge beam reinforcing quantity shall be added to table quantities.



SECTION C-C

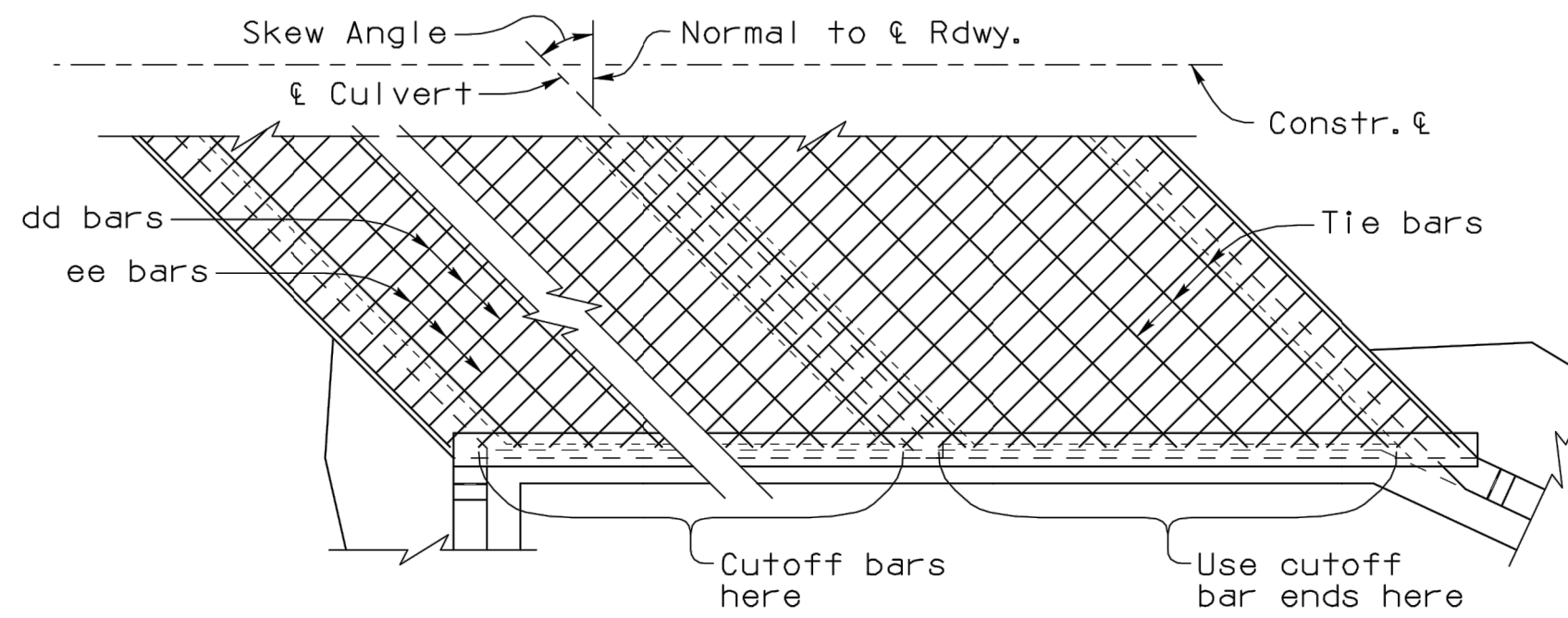


SECTION D-D

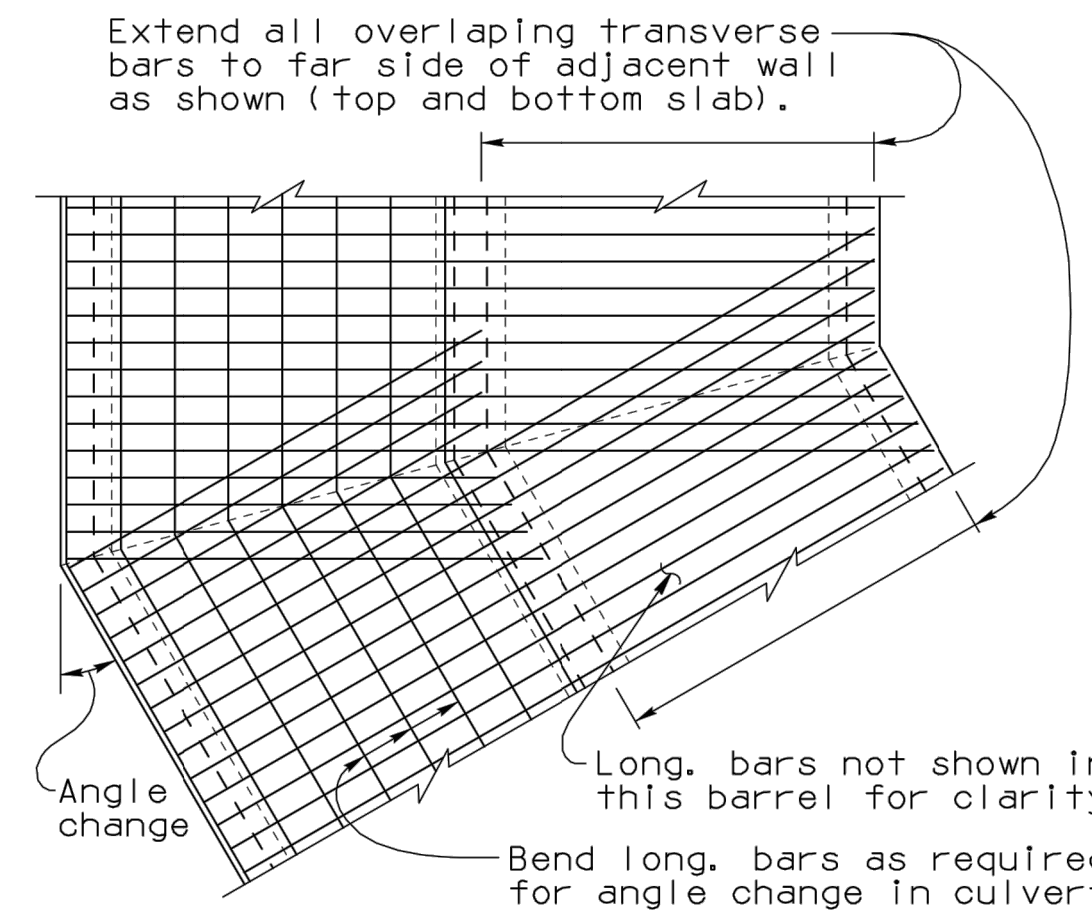
| Span 'S' | Dim. 'X' |
|----------|----------|
| 6' | 3" |
| 8' | 4" |
| 10' | 5" |
| 12' | 6" |

NOTE:
 For 'e' Bars table, see Dwg. (1 of 5)

ALT. CONSTRUCTION JOINT DETAIL



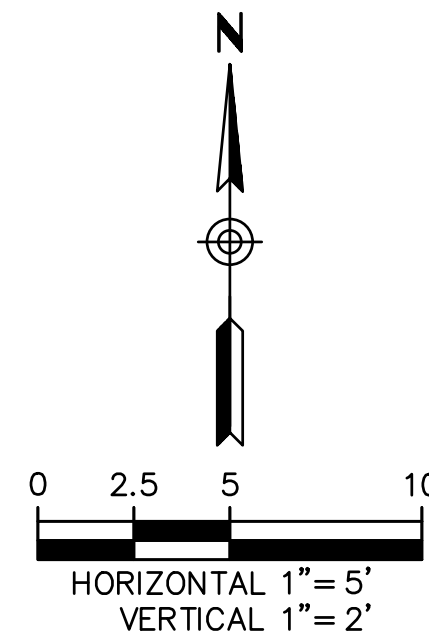
PART PLAN - SKEWED CULVERT
 (Showing Reinf. Steel Placement)



PART PLAN - ANGLED CULVERT
 (Showing Reinf. Steel Placement)

NOTE:
 For General Notes, Dimensions, Quantities and additional Details, see SD 6.01 (1 & 3, 4, 5).

| | |
|---|--|
| DESIGN APPROVED <i>Shafiq H. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION <i>Tean A. Nehme</i> | REINFORCED CONCRETE BOX CULVERTS MISCELLANEOUS DETAILS |
| ROUTE | PROJECT NO. |
| LOCATION | FA NO. |
| | DRAWING NO. SD 6.01 (2 of 5) |
| | SHEET NO. OF |

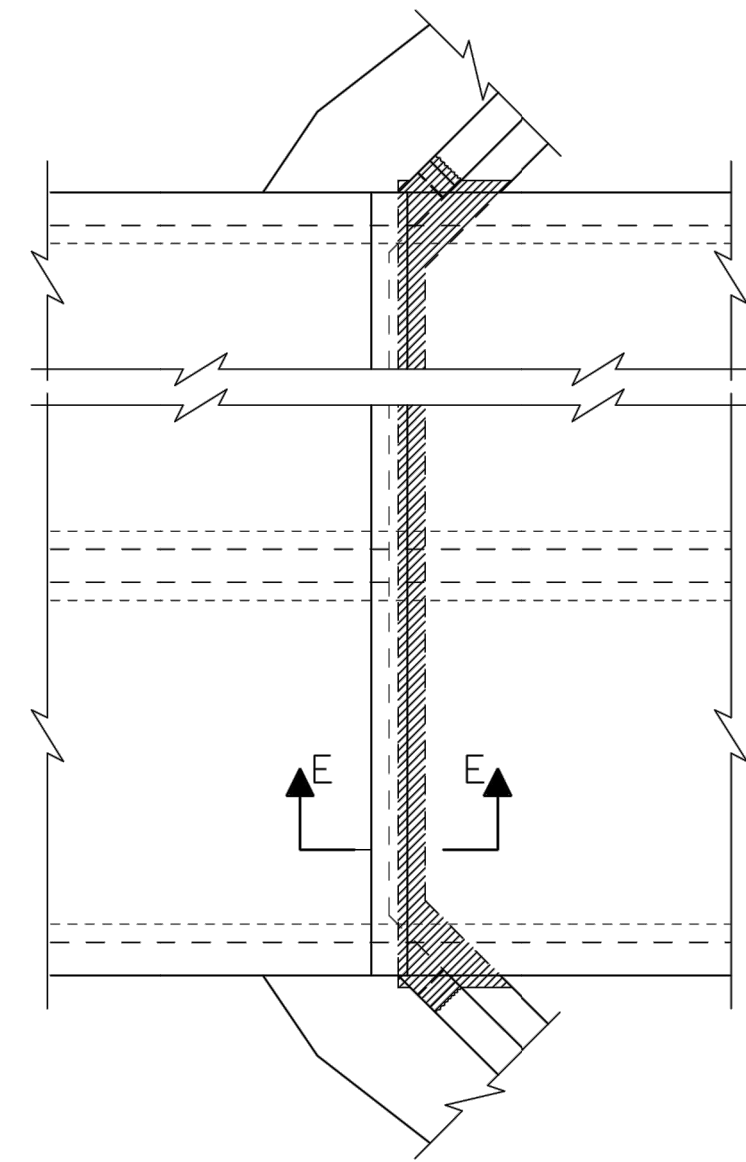


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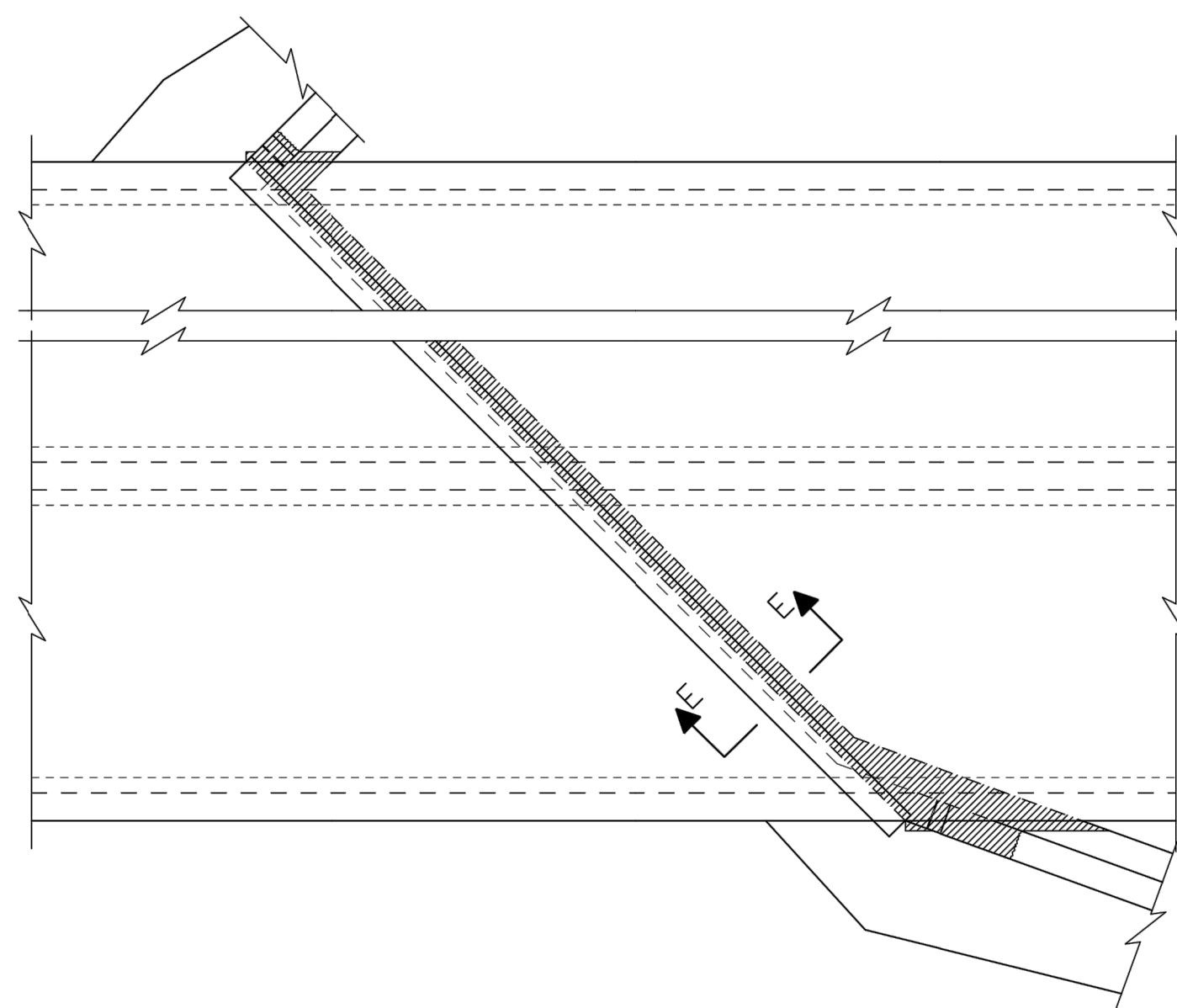
| | |
|---|--------------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | FILENAME 15-221038-DT04.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | |
| EASTERN STREET DETAILS | SHEET NO. DT04 15 OF 58 |

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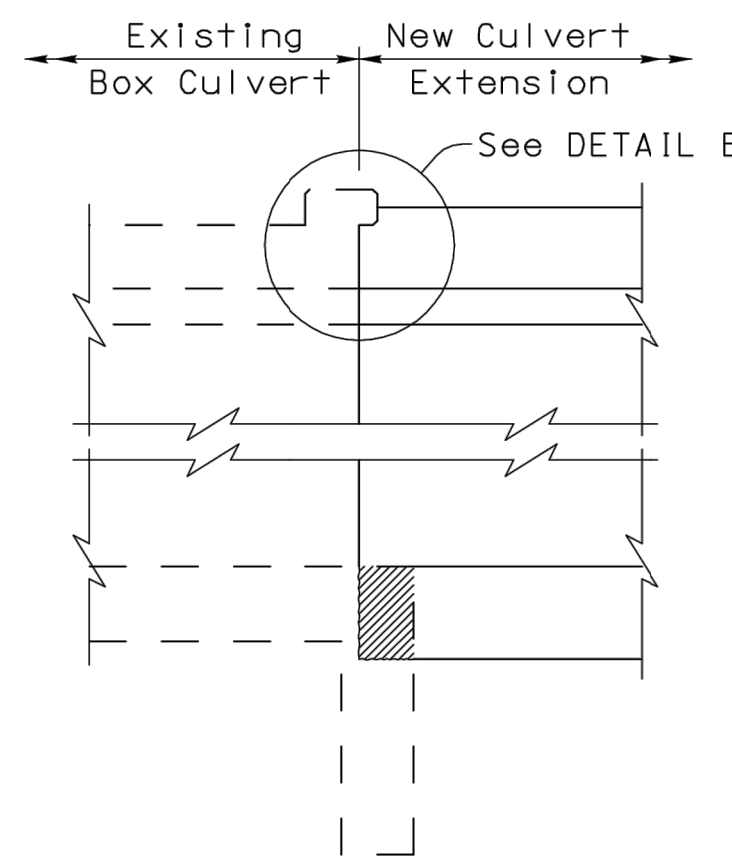


PART PLAN CULVERT EXTENSION
(Showing Right Angle Culvert)



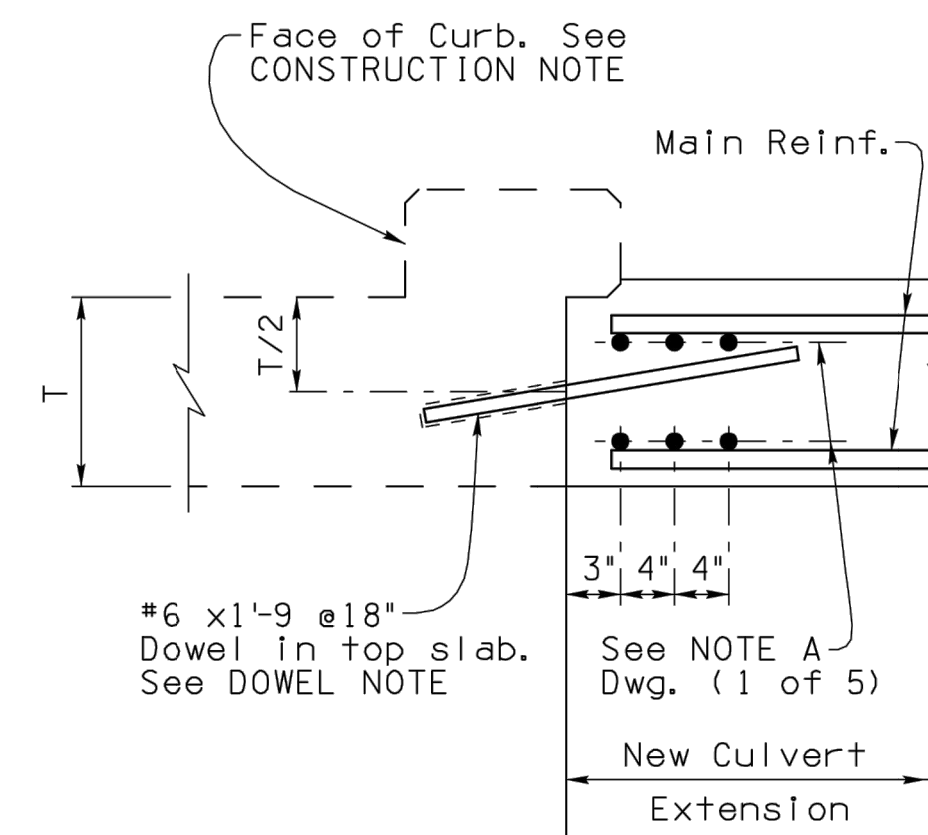
PART PLAN CULVERT EXTENSION
(Showing Skewed Culvert)

REMOVAL NOTE:
 Indicates payment limits for removal of concrete.



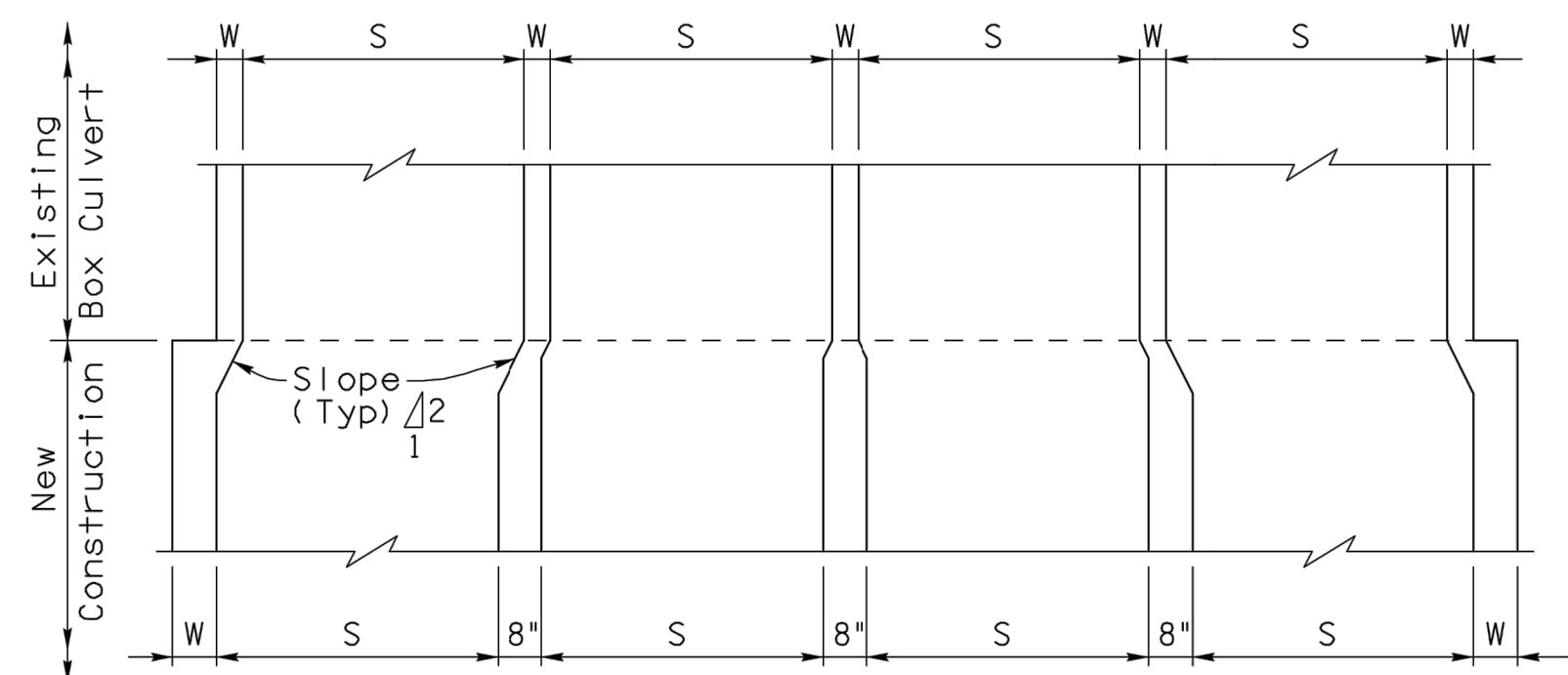
SECTION E-E

DOWEL NOTE:
 Drill 1"Ø hole, 8" deep, for #6 dowel. Epoxy dowel in hole with an approved epoxy adhesive. Epoxy anchorage shall develop a min. tensile pullout strength of 13 kips. Details of the Anchorage System shall be submitted to the Engineer for approval prior to installation.

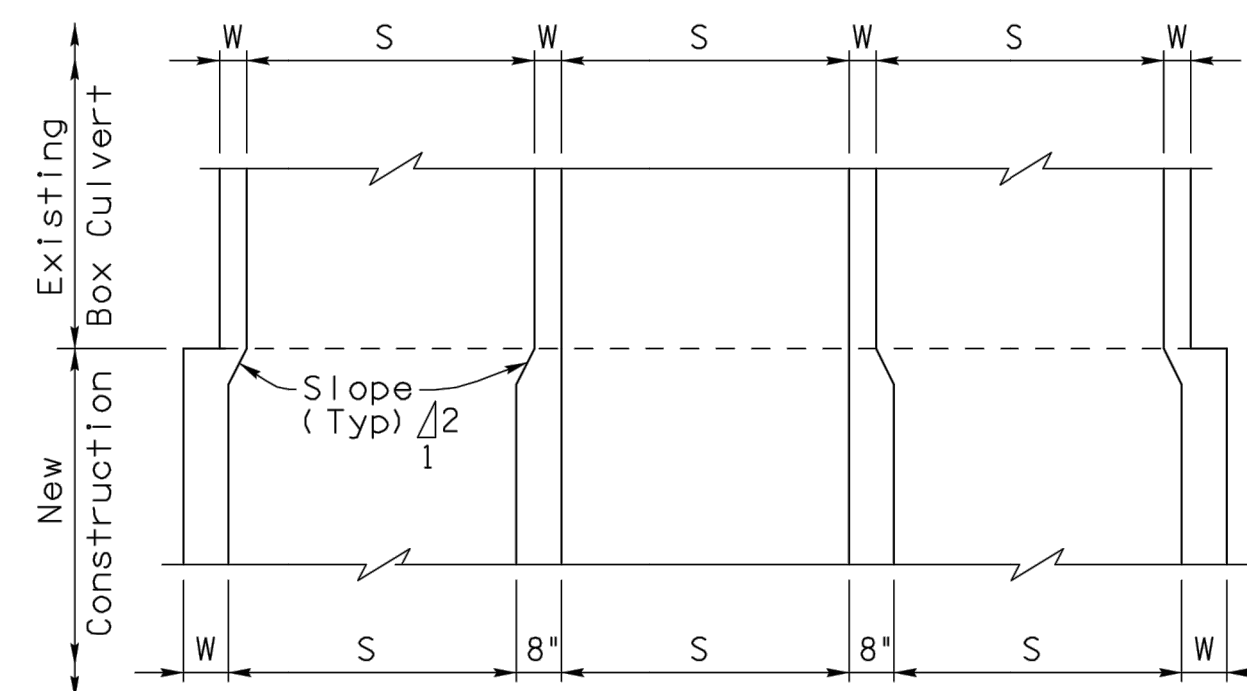


DETAIL B

CONSTRUCTION NOTE:
 Remove existing headwall as required for new construction. If concrete headwall is removed to face of curb, no dowels are needed. Use projecting reinforcing steel for bond in new concrete. Curb to remain unless within 1'-0" of finish grade. Wingwalls to be removed a Min. of 1'-6" to provide steel for bond.



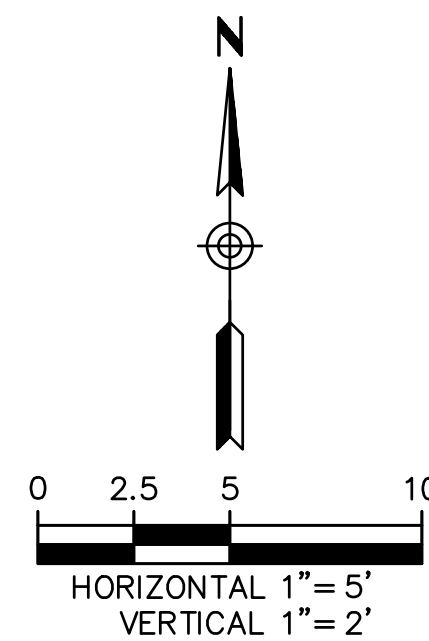
SECTION THRU CULVERT WALLS
(Even Number of Cells)



SECTION THRU CULVERT WALLS
(Odd Number of Cells)

NOTE:
 For General Notes, Dimensions, Quantities and additional Details, see SD 6.01 (1, 2 & 4, 5).

| | |
|---|---|
| DESIGN APPROVED <i>Shafi K. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION <i>Tean A. Nehme</i> | REINFORCED CONCRETE BOX CULVERTS EXTENSION DETAILS |
| ROUTE | PROJECT NO. |
| LOCATION | FA NO. |
| | DRAWING NO. SD 6.01 (3 of 5) |
| | SHEET NO. OF |



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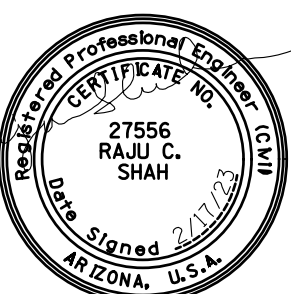
EASTERN STREET
 CALUMET TO AIRWAY AVE

C.O.K. PROJECT NO.
 ENG 21-0001

CITY OF KINGMAN
 ENGINEERING DEPARTMENT

FILENAME
 16-221038-DT05.dwg

310 NORTH 4TH STREET
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EASTERN STREET

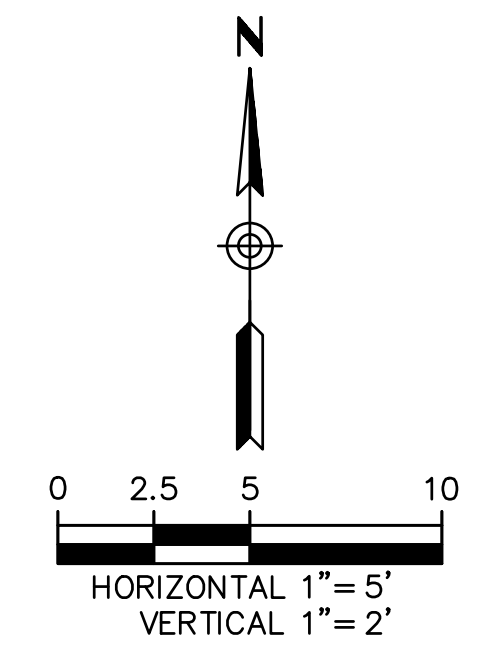
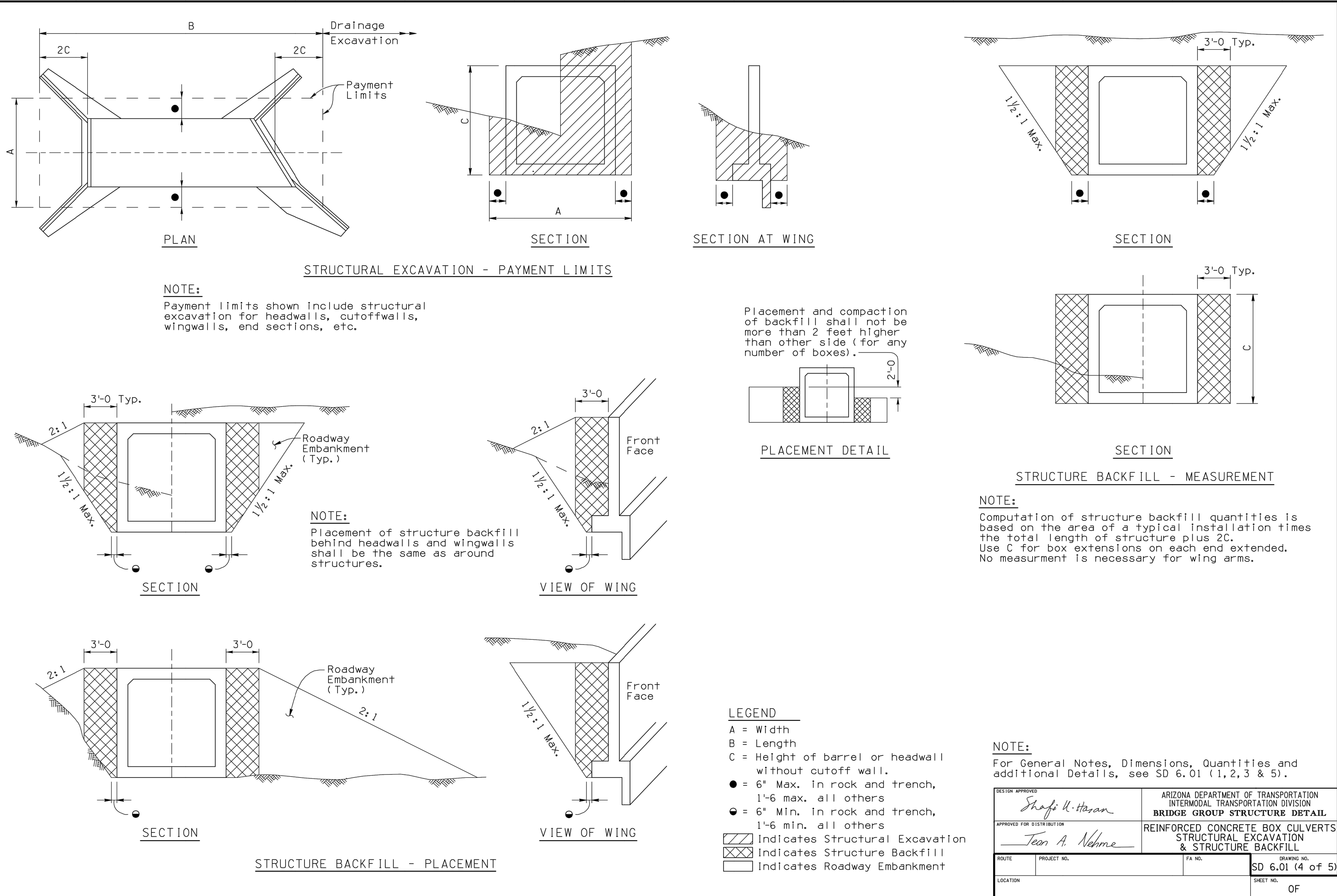
SHEET NO.

DETAILS

DT05
 16 OF 58

Note to Designer: This drawing is for informational purposes only. It is not intended to be used for any specific application without the professional examination and verification of the suitability and applicability by a licensed professional engineer. Comments within the inner border line shall not be altered.

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NOTE:
For General Notes, Dimensions, Quantities and additional Details, see SD 6.01 (1, 2, 3 & 5).

| | |
|---|--|
| DESIGN APPROVED <i>Shafiq H. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION <i>Tean A. Nehme</i> | REINFORCED CONCRETE BOX CULVERTS STRUCTURAL EXCAVATION & STRUCTURE BACKFILL |
| ROUTE | PROJECT NO. |
| LOCATION | FA NO. |
| | DRAWING NO. SD 6.01 (4 of 5) |
| | SHEET NO. OF |

| | |
|---|--------------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | FILENAME 17-221038-DT06.dwg |
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| EASTERN STREET | SHEET NO. DT06 17 OF 58 |
| DETAILS | |

Notes to Designer:
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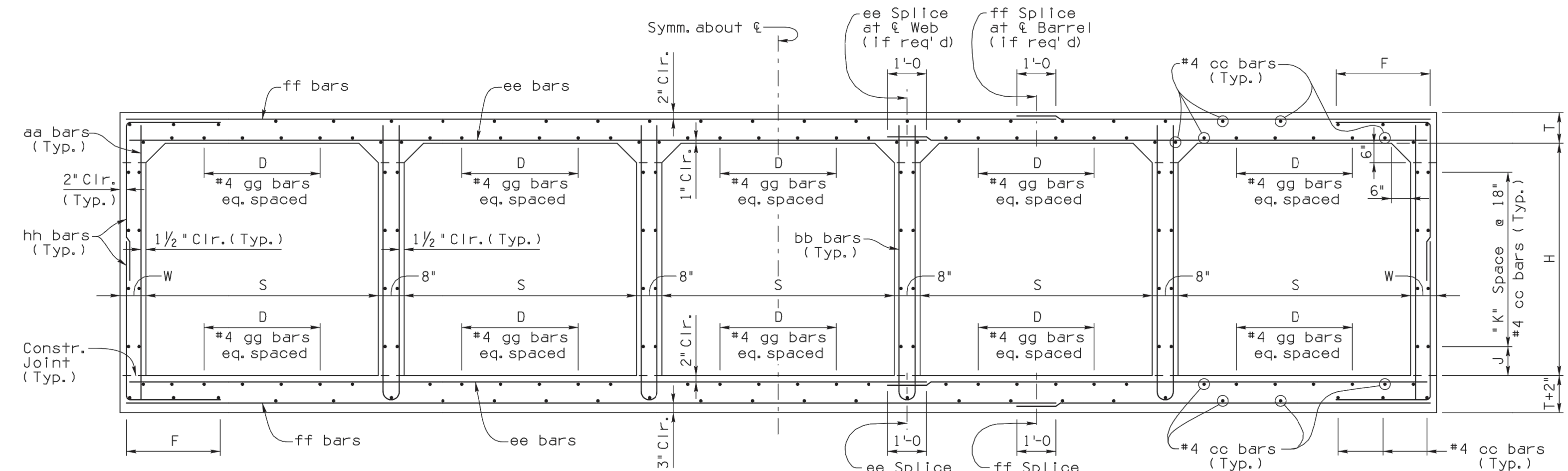
TABLE I
 0'-10' FILL

| Span * S' | Height * H' | aa | | bb | | cc | | ee | | ff | | gg | | hh | | | | | | | |
|-----------|-------------|---------------|------------|----------|---------|----------|---------|----------|----------|---------|----------|---------|----------|----------|---------|-----|-------|---|----|--------|--------|
| | | Top Slab * T' | Walls * W' | Bar Size | Spacing | Bar Size | Spacing | Number # | Bar Size | Spacing | Bar Size | Spacing | Number # | Bar Size | Spacing | F | | | | | |
| 5' | 9 1/2' | 8" | 5 | 12" | 6'-4" | 5 | 12" | 12'-9" | 120 | 5 | 8" | 34'-8" | 5 | 8" | 34'-8" | 40 | 3'-0" | 4 | 7" | 6'-0" | 2'-5" |
| 6' | 9 1/2' | 8" | 5 | 12" | 7'-4" | 5 | 12" | 14'-9" | 132 | 5 | 8" | 34'-8" | 5 | 8" | 34'-8" | 40 | 3'-0" | 4 | 7" | 6'-6" | 2'-5" |
| 7' | 9 1/2' | 8" | 5 | 12" | 8'-4" | 5 | 12" | 16'-9" | 144 | 5 | 8" | 34'-8" | 5 | 8" | 34'-8" | 40 | 3'-0" | 4 | 7" | 7'-0" | 2'-5" |
| 8' | 9 1/2' | 9" | 5 | 12" | 6'-4" | 5 | 12" | 12'-8" | 120 | 5 | 7" | 44'-10" | 6 | 8" | 44'-10" | 60 | 4'-0" | 5 | 8" | 6'-6" | 2'-6" |
| 6' | 9 1/2' | 9" | 5 | 12" | 7'-4" | 5 | 12" | 14'-8" | 132 | 5 | 7" | 44'-10" | 6 | 8" | 44'-10" | 60 | 4'-0" | 5 | 8" | 7'-0" | 2'-6" |
| 7' | 9 1/2' | 9" | 5 | 12" | 8'-4" | 5 | 12" | 16'-8" | 144 | 5 | 7" | 44'-10" | 6 | 8" | 44'-10" | 60 | 4'-0" | 5 | 8" | 7'-6" | 2'-6" |
| 8' | 9 1/2' | 9" | 5 | 12" | 9'-4" | 5 | 12" | 18'-8" | 144 | 5 | 7" | 44'-10" | 6 | 8" | 44'-10" | 60 | 4'-0" | 5 | 8" | 8'-0" | 2'-6" |
| 6' | 10 1/2' | 11" | 5 | 12" | 7'-6" | 5 | 12" | 14'-11" | 132 | 5 | 6" | 55'-2" | 6 | 6" | 55'-2" | 100 | 5'-0" | 5 | 6" | 7'-2" | 2'-8" |
| 7' | 10 1/2' | 11" | 5 | 12" | 8'-6" | 5 | 12" | 16'-11" | 144 | 5 | 6" | 55'-2" | 6 | 6" | 55'-2" | 100 | 5'-0" | 5 | 6" | 7'-6" | 2'-8" |
| 8' | 10 1/2' | 11" | 5 | 12" | 9'-6" | 5 | 12" | 18'-11" | 144 | 5 | 6" | 55'-2" | 6 | 6" | 55'-2" | 100 | 5'-0" | 5 | 6" | 8'-0" | 2'-8" |
| 9' | 10 1/2' | 11" | 5 | 12" | 10'-6" | 5 | 12" | 20'-11" | 156 | 5 | 6" | 55'-2" | 6 | 6" | 55'-2" | 100 | 5'-0" | 5 | 6" | 8'-6" | 2'-8" |
| 10' | 10 1/2' | 11" | 5 | 12" | 11'-6" | 5 | 12" | 22'-11" | 168 | 5 | 6" | 55'-2" | 6 | 6" | 55'-2" | 100 | 5'-0" | 5 | 6" | 9'-0" | 2'-8" |
| 8' | 12 1/2' | 13" | 5 | 12" | 9'-10" | 5 | 12" | 19'-7" | 144 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 130 | 6'-0" | 6 | 7" | 8'-6" | 2'-10" |
| 9' | 12 1/2' | 13" | 5 | 12" | 10'-10" | 5 | 12" | 21'-7" | 156 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 130 | 6'-0" | 6 | 7" | 9'-0" | 2'-10" |
| 10' | 12 1/2' | 13" | 5 | 12" | 11'-10" | 5 | 12" | 23'-7" | 168 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 130 | 6'-0" | 6 | 7" | 9'-6" | 2'-10" |
| 11' | 12 1/2' | 13" | 5 | 12" | 12'-10" | 5 | 12" | 25'-7" | 168 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 130 | 6'-0" | 6 | 7" | 10'-0" | 2'-10" |
| 12' | 12 1/2' | 13" | 5 | 12" | 13'-10" | 5 | 12" | 27'-7" | 180 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 130 | 6'-0" | 6 | 7" | 10'-6" | 2'-10" |

* Total number of bars in the cross-section.
 * Includes lap splice length.

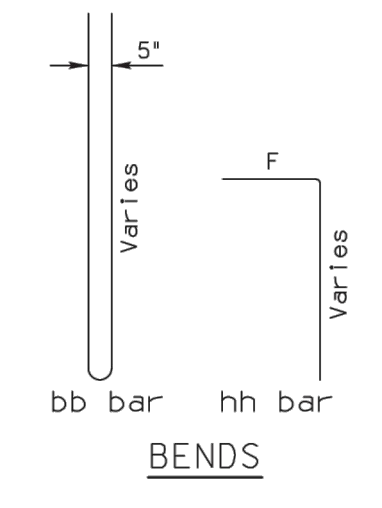
TABLE II
 10'-15' FILL

| Span * S' | Height * H' | aa | | bb | | cc | | ee | | ff | | gg | | hh | | | | | | | |
|-----------|-------------|---------------|------------|----------|---------|----------|---------|----------|----------|---------|----------|---------|----------|----------|---------|----|-------|---|----|--------|--------|
| | | Top Slab * T' | Walls * W' | Bar Size | Spacing | Bar Size | Spacing | Number # | Bar Size | Spacing | Bar Size | Spacing | Number # | Bar Size | Spacing | F | | | | | |
| 5' | 8' | 8" | 5 | 12" | 6'-1" | 5 | 12" | 12'-3" | 120 | 5 | 8" | 34'-8" | 5 | 7" | 34'-8" | 40 | 3'-0" | 4 | 7" | 6'-0" | 2'-5" |
| 6' | 8' | 8" | 5 | 12" | 7'-1" | 5 | 12" | 14'-3" | 132 | 5 | 8" | 34'-8" | 5 | 7" | 34'-8" | 40 | 3'-0" | 4 | 7" | 6'-6" | 2'-5" |
| 7' | 8' | 8" | 5 | 12" | 8'-1" | 5 | 12" | 16'-3" | 144 | 5 | 8" | 34'-8" | 5 | 7" | 34'-8" | 40 | 3'-0" | 4 | 7" | 7'-0" | 2'-5" |
| 5' | 10 1/2' | 9" | 5 | 12" | 6'-6" | 5 | 12" | 13'-1" | 120 | 5 | 7" | 44'-10" | 6 | 7" | 44'-10" | 50 | 4'-0" | 4 | 7" | 6'-3" | 2'-6" |
| 6' | 10 1/2' | 9" | 5 | 12" | 7'-6" | 5 | 12" | 15'-1" | 132 | 5 | 7" | 44'-10" | 6 | 7" | 44'-10" | 50 | 4'-0" | 4 | 7" | 6'-9" | 2'-6" |
| 7' | 10 1/2' | 9" | 5 | 12" | 8'-6" | 5 | 12" | 17'-1" | 144 | 5 | 7" | 44'-10" | 6 | 7" | 44'-10" | 50 | 4'-0" | 4 | 7" | 7'-3" | 2'-6" |
| 8' | 10 1/2' | 9" | 5 | 12" | 9'-6" | 5 | 12" | 19'-1" | 144 | 5 | 7" | 44'-10" | 6 | 7" | 44'-10" | 50 | 4'-0" | 5 | 7" | 7'-9" | 2'-6" |
| 6' | 12 1/2' | 11" | 5 | 12" | 7'-10" | 5 | 12" | 15'-7" | 132 | 5 | 6" | 55'-2" | 7 | 7" | 55'-2" | 60 | 5'-0" | 5 | 7" | 7'-4" | 2'-8" |
| 7' | 12 1/2' | 11" | 5 | 12" | 8'-10" | 5 | 12" | 17'-7" | 144 | 5 | 6" | 55'-2" | 7 | 7" | 55'-2" | 60 | 5'-0" | 5 | 7" | 7'-10" | 2'-8" |
| 8' | 12 1/2' | 11" | 5 | 12" | 9'-10" | 5 | 12" | 19'-7" | 144 | 5 | 6" | 55'-2" | 7 | 7" | 55'-2" | 60 | 5'-0" | 5 | 7" | 7'-6" | 2'-8" |
| 9' | 12 1/2' | 11" | 5 | 12" | 10'-10" | 5 | 12" | 21'-7" | 156 | 5 | 6" | 55'-2" | 7 | 7" | 55'-2" | 60 | 5'-0" | 5 | 7" | 8'-0" | 2'-8" |
| 10' | 12 1/2' | 11" | 5 | 12" | 11'-10" | 5 | 12" | 23'-7" | 168 | 5 | 6" | 55'-2" | 7 | 7" | 55'-2" | 60 | 5'-0" | 5 | 7" | 8'-6" | 2'-8" |
| 8' | 15' | 13" | 5 | 12" | 10'-3" | 5 | 12" | 20'-4" | 144 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 70 | 6'-0" | 5 | 7" | 8'-9" | 2'-11" |
| 9' | 15' | 13" | 5 | 12" | 11'-3" | 5 | 12" | 22'-4" | 156 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 70 | 6'-0" | 5 | 7" | 9'-3" | 2'-11" |
| 10' | 15' | 13" | 5 | 12" | 12'-3" | 5 | 12" | 24'-4" | 168 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 70 | 6'-0" | 6 | 7" | 9'-9" | 2'-11" |
| 11' | 15' | 13" | 5 | 10" | 13'-3" | 5 | 12" | 26'-4" | 168 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 70 | 6'-0" | 6 | 7" | 10'-9" | 3'-5" |
| 12' | 15' | 13" | 5 | 10" | 14'-3" | 5 | 12" | 28'-4" | 180 | 6 | 7" | 65'-6" | 7 | 7" | 65'-6" | 70 | 6'-0" | 6 | 7" | 11'-3" | 3'-5" |



TYPICAL SECTION
 (Shown as 6'-0 x 6'-0 Table I)

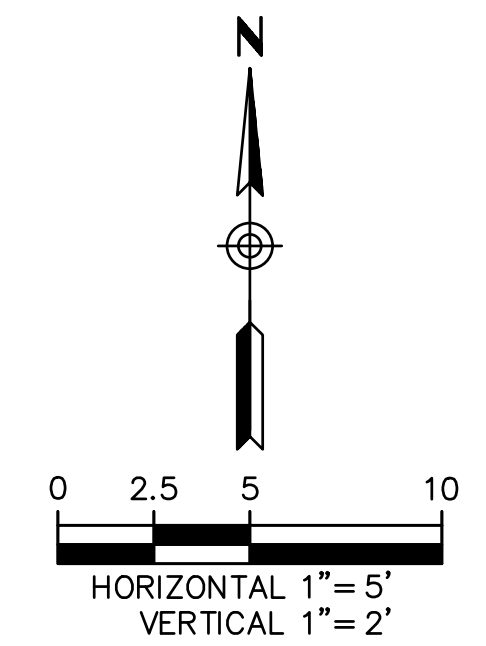
NOTE:
 Reinforcing shown for 6'-0 x 6'-0 Table I box.
 Use the appropriate table to determine the reinforcing requirements of selected box.



| Height * H' | J * J' Dims. | K * K' Spacing |
|-------------|--------------|----------------|
| 5' | 2 | 2 |
| 6' | 3 | 3 |
| 7' | 4 | 4 |
| 8' | 4 | 4 |
| 9' | 5 | 5 |
| 10' | 6 | 6 |
| 11' | 6 | 6 |
| 12' | 7 | 7 |

NOTE:
 For General Notes, Dimensions, and additional Details, see SD 6.01 (1 to 4). For Quantities and Tables III thru V see SD 6.05 (2 of 2).

| | |
|--|---|
| DESIGN APPROVED <i>Shafiq U. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION <i>Jason A. Nohme</i> | REINFORCED CONCRETE BOX CULVERTS FIVE BARREL (0' - 15' FILLS) |
| ROUTE: PROJECT NO.: | FA NO.: |
| LOCATION: | DRAWING NO. SD 6.05 (1 of 2) |
| | SHEET NO. OF |



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| CITY OF KINGMAN ENGINEERING DEPARTMENT | FILENAME 18-221038-DT07.dwg |
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Notes to Designer:
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| | | |
|-----|----------|-------------------------|
| NO. | DATE | DESCRIPTION OF REVISION |
| 1 | 11/22/11 | ADD |
| 2 | 11/22/11 | ADD |
| 3 | 11/22/11 | ADD |
| 4 | 11/22/11 | ADD |

TABLE NO. III
 15'-20' FILL

| Span * S' | Height * H' | Top Slab * T' | Walls * W' | aa | bb | cc | ee | ff | gg | hh | F |
|-----------|-------------|---------------|------------|----------|----------|----------|----------|----------|----------|----------|------|
| | | | | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | |
| 5' | 9 1/2" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 6' | 9 1/2" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 7' | 9 1/2" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 8' | 12" | 9" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-6 |
| 9' | 12" | 9" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-6 |
| 10' | 15" | 11" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-8 |
| 11' | 15" | 11" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-8 |
| 12' | 18" | 13" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3'-5 |

* Total number of bars in the cross-section.
 * Includes lap splice length.

TABLE NO. V
 25'-30' FILL

| Span * S' | Height * H' | Top Slab * T' | Walls * W' | aa | bb | cc | ee | ff | gg | hh | F |
|-----------|-------------|---------------|------------|----------|----------|----------|----------|----------|----------|----------|------|
| | | | | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | |
| 5' | 12 1/2" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 6' | 12 1/2" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 7' | 12 1/2" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 8' | 16" | 9" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-6 |
| 9' | 16" | 9" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-6 |
| 10' | 19" | 11" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-9 |
| 11' | 19" | 11" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-9 |
| 12' | 23" | 13" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3'-5 |

TABLE NO. IV
 20'-25' FILL

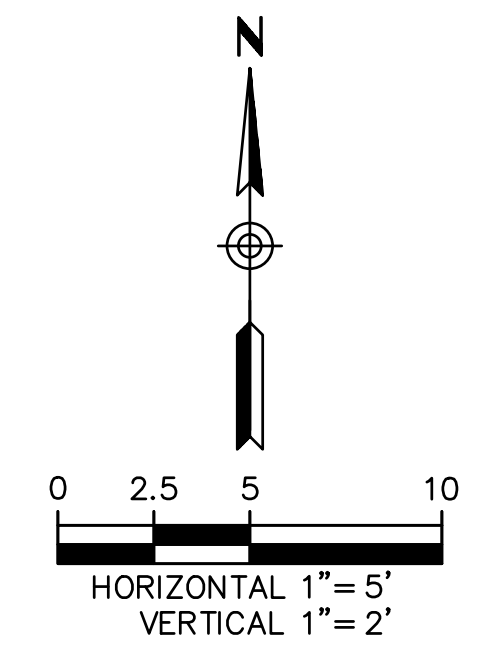
| Span * S' | Height * H' | Top Slab * T' | Walls * W' | aa | bb | cc | ee | ff | gg | hh | F |
|-----------|-------------|---------------|------------|----------|----------|----------|----------|----------|----------|----------|------|
| | | | | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | Bar Size | |
| 5' | 11" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 6' | 11" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 7' | 11" | 8" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-5 |
| 8' | 14" | 9" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-6 |
| 9' | 14" | 9" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-6 |
| 10' | 17" | 11" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-9 |
| 11' | 17" | 11" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2'-9 |
| 12' | 20 1/2" | 13" | 8" | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3'-5 |

QUANTITIES PER LINEAR FOOT OF BARREL (FIVE BARREL)

| Span * S' | Height * H' | Table I | | Table II | | Table III | | Table IV | | Table V | |
|-----------|-------------|----------------|-------------------|----------------|-------------------|----------------|-------------------|----------------|-------------------|----------------|-------------------|
| | | Concrete C. Y. | Reinf. Steel Lbs. | Concrete C. Y. | Reinf. Steel Lbs. | Concrete C. Y. | Reinf. Steel Lbs. | Concrete C. Y. | Reinf. Steel Lbs. | Concrete C. Y. | Reinf. Steel Lbs. |
| 5' | 9 1/2" | 2.991 | 417.7 | 2.616 | 434.2 | 2.391 | 452.6 | 3.306 | 455.6 | 3.620 | 465.4 |
| 6' | 9 1/2" | 3.139 | 438.2 | 2.824 | 454.9 | 3.139 | 473.4 | 3.454 | 476.4 | 3.769 | 506.6 |
| 7' | 9 1/2" | 3.287 | 458.6 | 2.972 | 475.6 | 3.287 | 524.3 | 3.602 | 519.3 | 3.917 | 553.4 |
| 8' | 12" | 3.681 | 593.8 | 3.953 | 606.6 | 4.362 | 610.0 | 4.907 | 613.5 | 5.453 | 689.7 |
| 9' | 12" | 3.835 | 615.4 | 4.108 | 627.3 | 4.516 | 630.7 | 5.062 | 634.3 | 5.607 | 710.9 |
| 10' | 15" | 3.989 | 636.4 | 4.262 | 648.1 | 4.671 | 670.5 | 5.216 | 678.3 | 5.761 | 759.2 |
| 11' | 15" | 4.144 | 650.5 | 4.416 | 680.7 | 4.825 | 688.6 | 5.370 | 692.7 | 5.916 | 774.2 |
| 12' | 18" | 4.915 | 860.3 | 5.588 | 885.8 | 6.429 | 909.7 | 7.102 | 949.8 | 7.775 | 1077.3 |
| 13' | 18" | 5.082 | 883.6 | 5.755 | 907.8 | 6.596 | 931.7 | 7.269 | 971.8 | 7.941 | 1099.9 |
| 14' | 18" | 5.248 | 898.2 | 5.921 | 921.8 | 6.762 | 945.7 | 7.435 | 985.8 | 8.108 | 1114.5 |
| 15' | 18" | 5.415 | 920.8 | 6.088 | 943.8 | 6.929 | 967.8 | 7.602 | 1036.9 | 8.275 | 1177.0 |
| 16' | 18" | 5.582 | 943.4 | 6.255 | 965.8 | 7.096 | 1019.7 | 7.769 | 1065.8 | 8.441 | 1205.4 |
| 17' | 23" | 6.881 | 1176.0 | 7.882 | 1114.9 | 9.082 | 1269.8 | 10.083 | 1306.8 | 11.083 | 1384.1 |
| 18' | 23" | 7.060 | 1199.6 | 8.061 | 1137.0 | 9.261 | 1292.4 | 10.262 | 1331.2 | 11.262 | 1413.8 |
| 19' | 23" | 7.239 | 1223.2 | 8.240 | 1189.7 | 9.440 | 1321.1 | 10.441 | 1361.2 | 11.441 | 1438.7 |
| 20' | 23" | 7.418 | 1238.7 | 8.419 | 1215.9 | 9.619 | 1376.8 | 10.620 | 1384.0 | 11.620 | 1455.6 |
| 21' | 23" | 7.597 | 1262.3 | 8.598 | 1239.9 | 9.798 | 1401.7 | 10.799 | 1413.1 | 11.799 | 1497.2 |

NOTE:
 For General Notes, Dimensions, and additional Details, see SD 6.01 (1 to 4). For Typical Section and Details, see SD 6.05 (1 of 2).

| | |
|--|--|
| DESIGN APPROVED <i>Shafiq U. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION <i>Jason A. Nahme</i> | REINFORCED CONCRETE BOX CULVERTS FIVE BARREL (15' - 30' FILLS) |
| ROUTE: PROJECT NO.: | FA NO.: |
| LOCATION: | DRAWING NO. SD 6.05 (2 of 2) |
| | SHEET NO. OF |



2/23/2012 C:\Users\hp083\Down\oads\SD\sheet\sd605-2_0212.dgn



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CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118

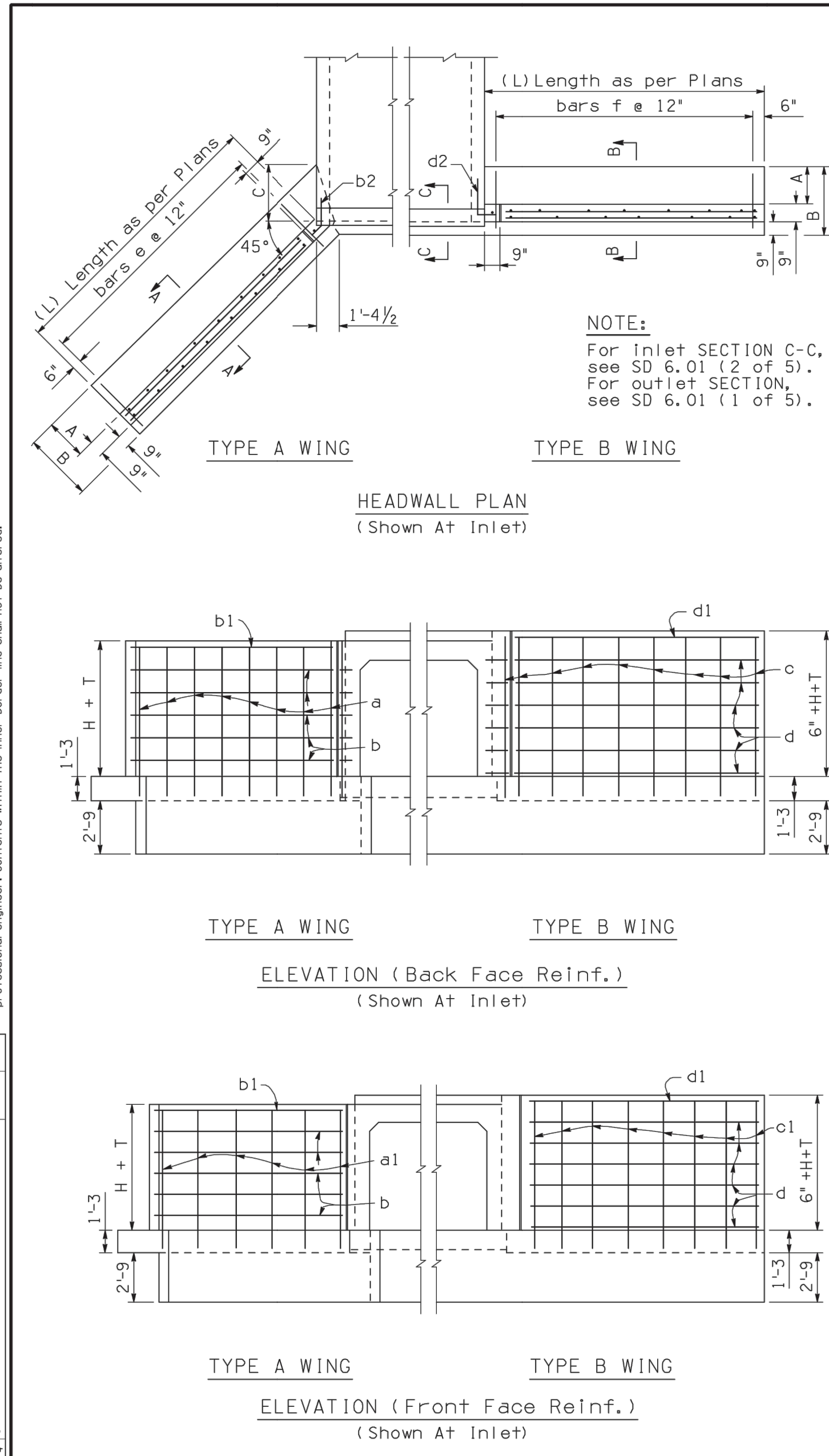
C.O.K. PROJECT NO. ENG 21-0001
 FILENAME 19-221038-DT08.dwg

 SHEET NO. **DT08**
 19 OF 58

EASTERN STREET
DETAILS

Notes to Designer:
 This information presented in this Standard Detail has been prepared in accordance with recognized engineering practices and is for general use. It should not be used for a specific application without the approval of a professional engineer. Contents within the inner border line shall not be altered.

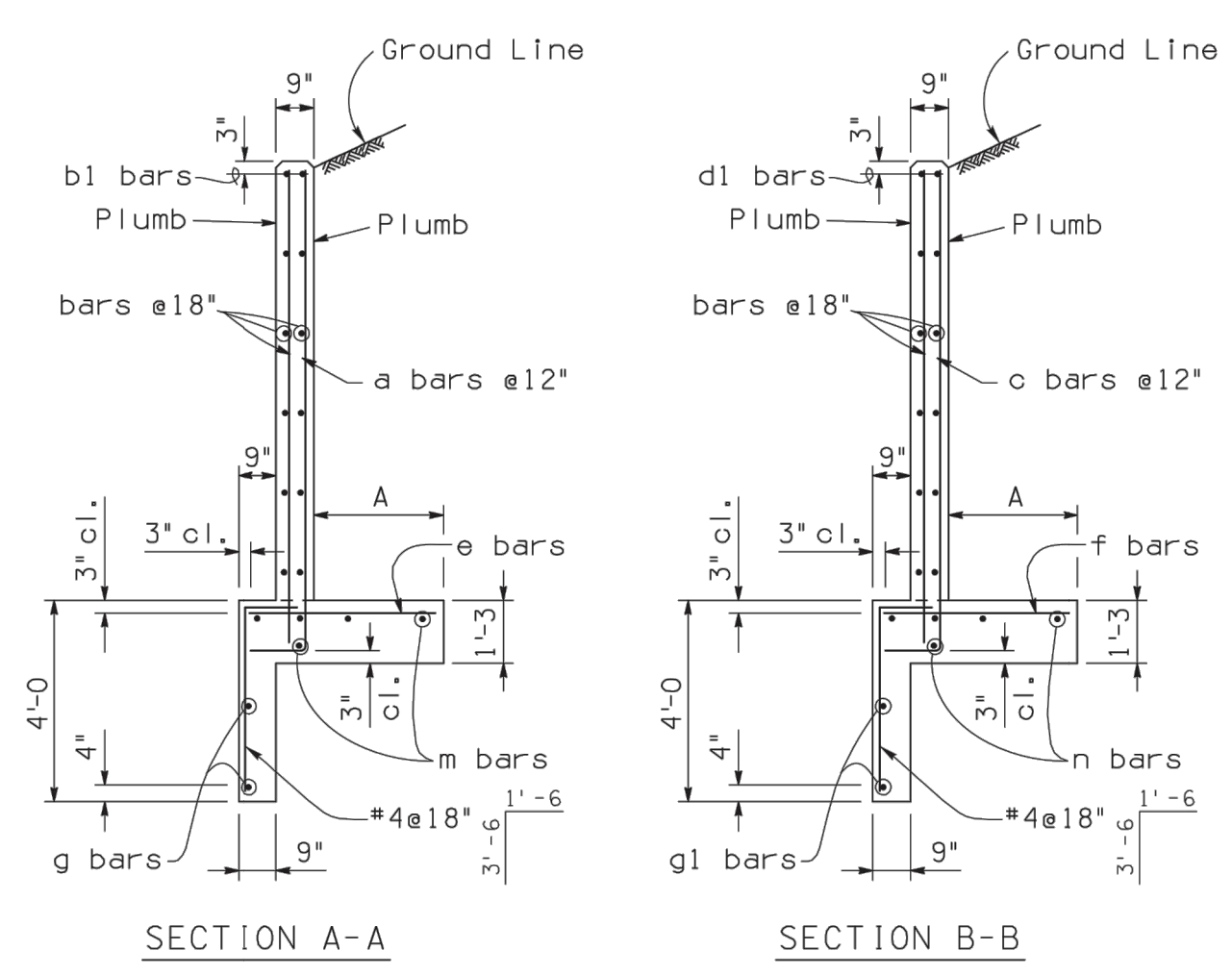
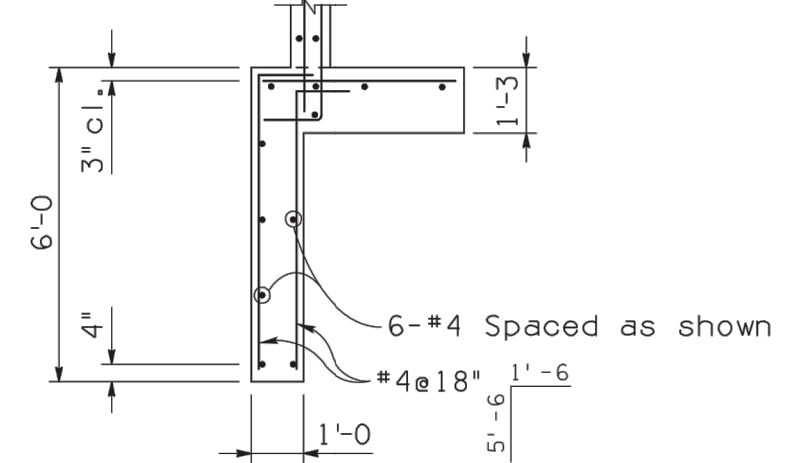
| NO. | REVISION | DATE |
|-----|----------------|----------|
| 1 | Original Issue | 11/11/20 |
| 2 | | |
| 3 | | |
| 4 | | |



| HEIGHT OF OPENING | A | B | C |
|-------------------|-------|-------|-------|
| 5' | 2'-6" | 4'-0" | 3'-6" |
| 6' | 3'-0" | 4'-6" | 4'-3" |
| 7' | 3'-3" | 4'-9" | 4'-7" |

NOTE:
 For Inlet SECTION C-C, see SD 6.01 (2 of 5).
 For Outlet SECTION, see SD 6.01 (1 of 5).

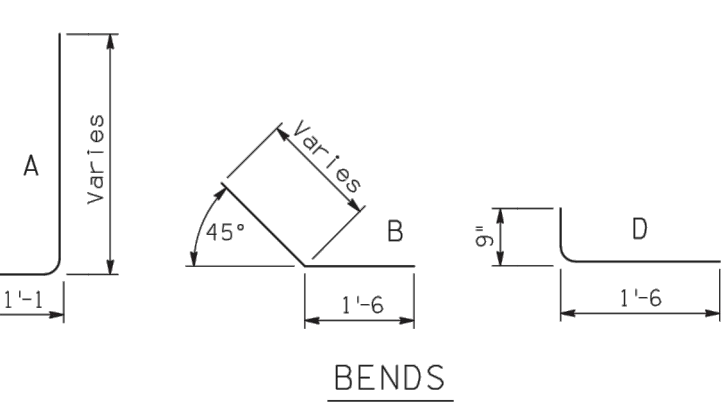
For details not shown, see SECTION A-A or SECTION B-B.



| Mark | Bend | 5' Height | | | 6' Height | | | 7' Height | | |
|-------------|------|-----------|------|--------|-----------|------|--------|-----------|------|--------|
| | | No. | Size | Length | No. | Size | Length | No. | Size | Length |
| TYPE A WING | | | | | | | | | | |
| a | A | 16 | #5 | 7'-6" | 18 | #6 | 8'-6" | 20 | #7 | 9'-6" |
| al | str. | 8 | #4 | 6'-6" | 10 | #4 | 7'-6" | 10 | #4 | 8'-6" |
| b | str. | 12 | #4 | 6'-0" | 16 | #4 | 7'-0" | 20 | #4 | 8'-0" |
| b1 | str. | 4 | #6 | 6'-0" | 4 | #6 | 7'-0" | 4 | #6 | 8'-0" |
| b2 | B | 8 | #4 | 2'-3" | 10 | #4 | 2'-3" | 12 | #4 | 2'-3" |
| e | str. | 16 | #5 | 3'-6" | 18 | #5 | 4'-0" | 20 | #5 | 4'-3" |
| g | B | 4 | #4 | 8'-9" | 4 | #4 | 9'-9" | 4 | #4 | 10'-9" |
| m | str. | 10 | #4 | 7'-0" | 10 | #4 | 8'-0" | 10 | #4 | 9'-0" |
| TYPE B WING | | | | | | | | | | |
| c | A | 16 | #5 | 8'-0" | 18 | #6 | 9'-0" | 20 | #7 | 10'-0" |
| cl | str. | 8 | #4 | 7'-0" | 10 | #4 | 8'-0" | 10 | #4 | 9'-0" |
| d | str. | 12 | #4 | 6'-0" | 16 | #4 | 7'-0" | 20 | #4 | 8'-0" |
| dl | str. | 4 | #6 | 6'-0" | 4 | #6 | 7'-0" | 4 | #6 | 8'-0" |
| d2 | D | 8 | #4 | 2'-3" | 10 | #4 | 2'-3" | 12 | #4 | 2'-3" |
| f | str. | 14 | #5 | 3'-6" | 16 | #5 | 4'-0" | 18 | #5 | 4'-3" |
| gl | str. | 4 | #4 | 8'-3" | 4 | #4 | 9'-3" | 4 | #4 | 10'-3" |
| n | str. | 10 | #4 | 7'-0" | 10 | #4 | 8'-0" | 10 | #4 | 9'-0" |

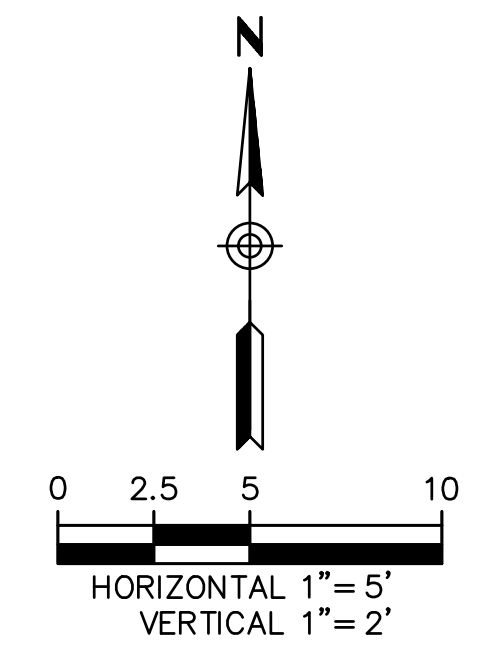
| Span | Height | HW, Type A Wings | | HW, Type B Wings | |
|------|--------|------------------|-----------------|------------------|-----------------|
| | | For L=H+2 | Per each Add Ft | For L=H+2 | Per each Add Ft |
| 5' | 5' | Conc. | 0.4164 | 25 | 7.07 |
| | | Steel | 0.4164 | 25 | 7.07 |
| 6' | 6' | Conc. | 0.4673 | 33 | 8.75 |
| | | Steel | 0.4673 | 33 | 8.75 |
| 7' | 7' | Conc. | 0.5067 | 41 | 10.43 |
| | | Steel | 0.5067 | 41 | 10.43 |
| 8' | 8' | Conc. | 0.5416 | 51 | 12.37 |
| | | Steel | 0.5416 | 51 | 12.37 |
| 9' | 9' | Conc. | 0.5729 | 61 | 14.54 |
| | | Steel | 0.5729 | 61 | 14.54 |
| 10' | 10' | Conc. | 0.6006 | 71 | 16.94 |
| | | Steel | 0.6006 | 71 | 16.94 |

| 6' Spans | | 8' Spans | | 10' Spans | |
|----------|-------|----------|-------|-----------|-------|
| Conc. | 0.859 | 1.114 | 1.370 | 1.625 | 1.880 |
| Steel | 76 | 103 | 130 | 157 | 184 |



NOTE:
 For General Notes, Dimensions, and additional Details, see SD 6.01 (1 & 2 of 5).

| | |
|---|--|
| DESIGN APPROVED: <i>Shafiq U. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION: <i>Jason A. Nohme</i> | REINFORCED CONCRETE BOX CULVERTS INLET OR OUTLET - LEVEL WINGS CULVERT HEIGHT 5' to 7' |
| ROUTE: PROJECT NO.: | FA NO.: |
| LOCATION: | DRAWING NO. SD 6.10 (1 of 2) |
| | SHEET NO. OF |



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 310 NORTH 4TH STREET
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EASTERN STREET
 DETAILS

C.O.K. PROJECT NO.
 ENG 21-0001

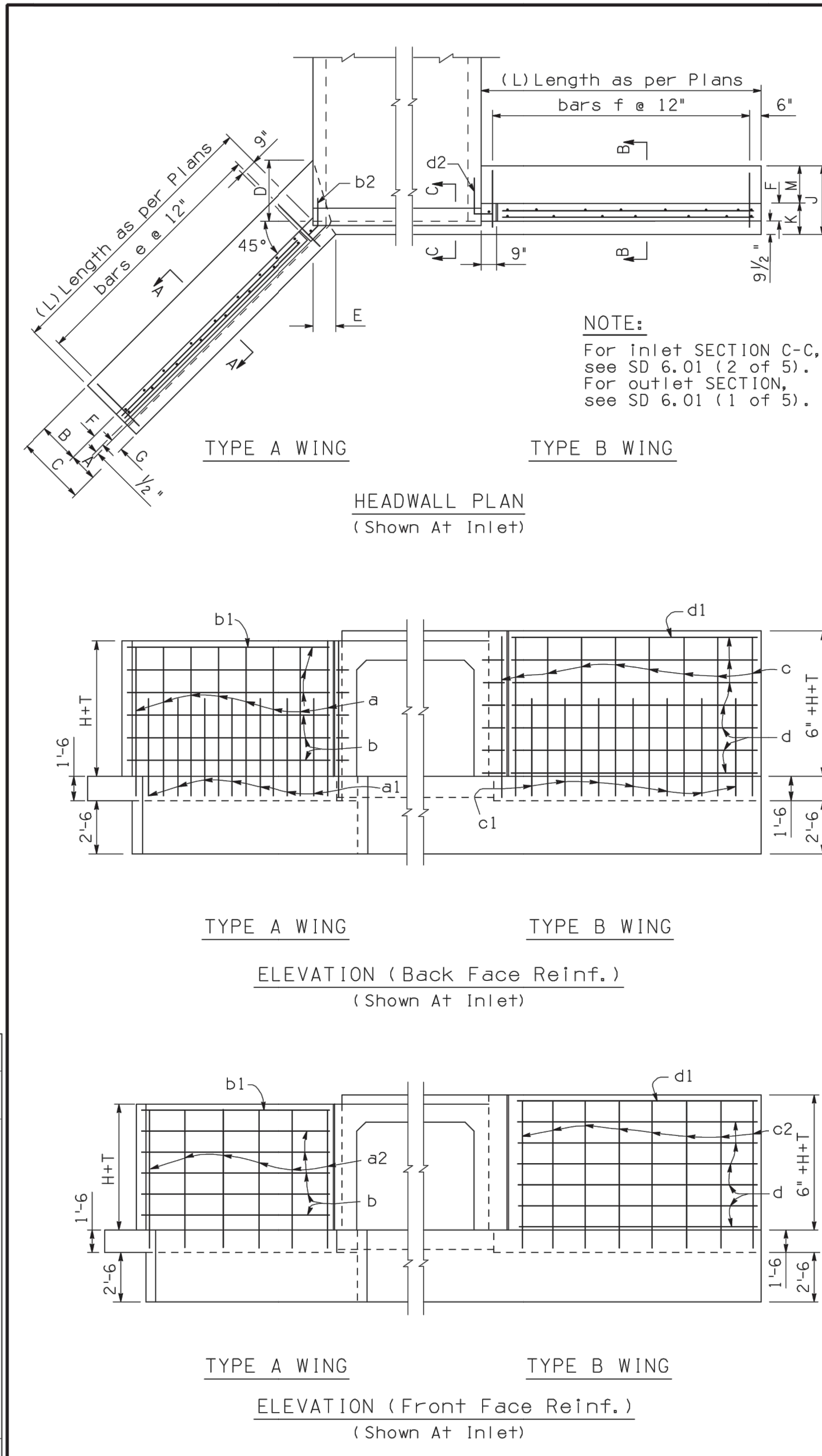
FILENAME
 20-221038-DT09.dwg

PROFESSIONAL ENGINEER
 27556
 RAJU G. SHAH
 ARIZONA U.S.A.
 EXPIRES 12/31/2023

SHEET NO.
DT09
 20 OF 58

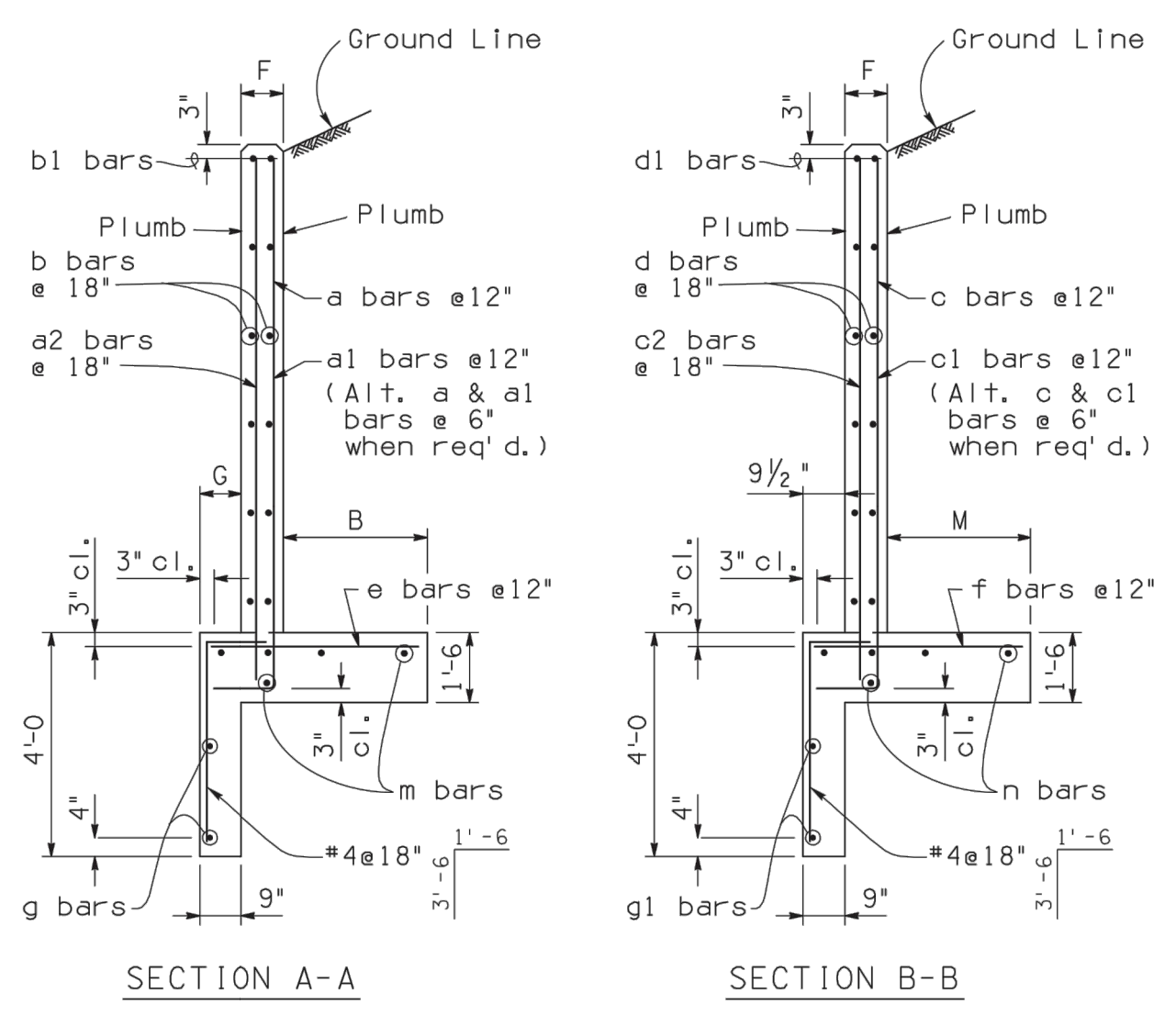
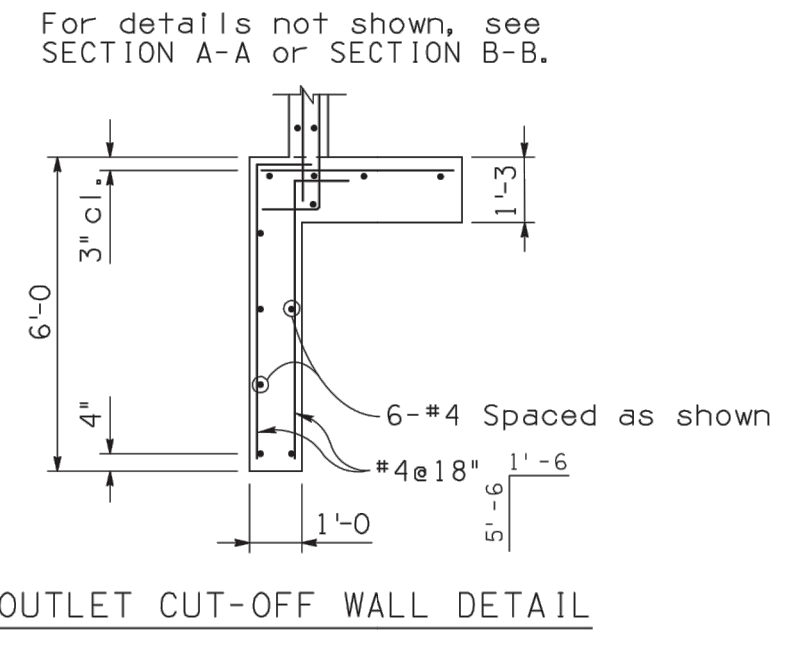
Note: As Designer, The Information Presented In This Standard Detail has been prepared in accordance with recognized engineering practices and is for general use. It is not intended to be used for any specific application without the approval of a professional engineer. Contents within the inner border line shall not be altered.

| NO. | REVISION OR EXTENSION | DATE |
|-----|-----------------------|----------|
| 1 | Original Issue | 3/9/2012 |
| 2 | | |
| 3 | | |
| 4 | | |



| Height of Opening | A | B | C | D | E | F | G | J | K | M |
|-------------------|-------|-------|-------|-------|-----------|-----------|-------|-------|--------|-------|
| 8' | 1'-9" | 3'-9" | 5'-6" | 5'-4" | 1'-0 1/4" | 11 1/2" | 0'-9" | 5'-6" | 1'-9" | 3'-9" |
| 9' | 2'-0" | 4'-0" | 6'-0" | 5'-8" | 2'-1" | 11 1/2" | 1'-0" | 6'-0" | 1'-9" | 4'-3" |
| 10' | 2'-0" | 4'-6" | 6'-6" | 6'-4" | 2'-1" | 11 1/2" | 1'-0" | 6'-6" | 1'-9" | 4'-3" |
| 11' | 2'-4" | 4'-8" | 7'-0" | 6'-7" | 2'-6 1/2" | 1'-0 1/2" | 1'-3" | 7'-0" | 1'-10" | 5'-2" |
| 12' | 2'-6" | 4'-9" | 7'-3" | 6'-9" | 2'-9 1/2" | 1'-1 1/2" | 1'-4" | 8'-0" | 1'-11" | 6'-1" |

NOTE:
For Inlet SECTION C-C, see SD 6.01 (2 of 5).
For Outlet SECTION, see SD 6.01 (1 of 5).

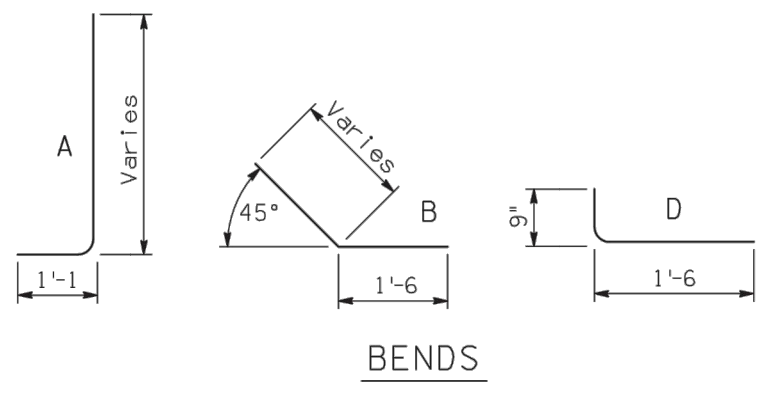


| Mark | Bend | 8' Height | | 9' Height | | 10' Height | | 11' Height | | 12' Height | | | | | | |
|-------------|------|-----------|------|-----------|------|------------|--------|------------|------|------------|-------|----|--------|-------|----|--------|
| | | No. | Size | No. | Size | No. | Size | No. | Size | No. | Size | | | | | |
| TYPE A WING | | | | | | | | | | | | | | | | |
| a | A | 20 | #7 | 11'-0" | 22 | #8 | 12'-3" | 24 | #6 | 13'-3" | 26 | #7 | 14'-3" | 28 | #7 | 15'-3" |
| a1 | A | | | | | 24 | #6 | 6'-6" | 26 | #7 | 6'-9" | 28 | #7 | 7'-0" | | |
| a2 | str. | 14 | #4 | 9'-0" | 14 | #4 | 11'-0" | 16 | #4 | 12'-0" | 18 | #4 | 13'-0" | 18 | #4 | 14'-0" |
| b | str. | 20 | #4 | 9'-0" | 24 | #4 | 10'-0" | 28 | #4 | 11'-0" | 28 | #4 | 12'-0" | 32 | #4 | 13'-0" |
| b1 | str. | 4 | #6 | 9'-0" | 4 | #6 | 10'-0" | 4 | #6 | 11'-0" | 4 | #6 | 12'-0" | 4 | #6 | 13'-0" |
| b2 | B | 12 | #4 | 2'-3" | 14 | #4 | 2'-3" | 16 | #4 | 2'-3" | 16 | #4 | 2'-3" | 18 | #4 | 2'-3" |
| e | str. | 20 | #5 | 5'-0" | 22 | #6 | 5'-6" | 24 | #7 | 6'-0" | 26 | #7 | 6'-6" | 28 | #8 | 6'-9" |
| g | B | 4 | #4 | 12'-3" | 4 | #4 | 13'-9" | 4 | #4 | 14'-9" | 4 | #4 | 16'-0" | 4 | #4 | 17'-0" |
| m | str. | 10 | #4 | 9'-6" | 10 | #4 | 10'-6" | 10 | #4 | 11'-6" | 10 | #4 | 12'-6" | 10 | #4 | 13'-6" |
| TYPE B WING | | | | | | | | | | | | | | | | |
| c | A | 20 | #7 | 11'-6" | 22 | #8 | 12'-9" | 24 | #6 | 13'-9" | 26 | #7 | 14'-9" | 28 | #7 | 15'-9" |
| c1 | A | | | | | 24 | #6 | 6'-6" | 26 | #7 | 6'-9" | 28 | #7 | 7'-0" | | |
| c2 | str. | 14 | #4 | 10'-3" | 14 | #4 | 11'-6" | 16 | #4 | 12'-6" | 18 | #4 | 13'-6" | 18 | #4 | 14'-6" |
| d | str. | 24 | #4 | 9'-0" | 28 | #4 | 10'-0" | 28 | #4 | 11'-0" | 32 | #4 | 12'-0" | 36 | #4 | 13'-0" |
| d1 | str. | 4 | #6 | 9'-0" | 4 | #6 | 10'-0" | 4 | #6 | 11'-0" | 4 | #6 | 12'-0" | 4 | #6 | 13'-0" |
| d2 | B | 14 | #4 | 2'-3" | 16 | #4 | 2'-3" | 16 | #4 | 2'-3" | 18 | #4 | 2'-3" | 20 | #4 | 2'-3" |
| f | str. | 20 | #5 | 5'-0" | 22 | #6 | 5'-6" | 24 | #7 | 6'-0" | 26 | #7 | 6'-6" | 28 | #8 | 7'-6" |
| g1 | str. | 4 | #4 | 11'-3" | 4 | #4 | 12'-3" | 4 | #4 | 13'-3" | 4 | #4 | 14'-3" | 4 | #4 | 15'-3" |
| n | str. | 10 | #4 | 9'-6" | 10 | #4 | 10'-6" | 10 | #4 | 11'-6" | 10 | #4 | 12'-6" | 10 | #4 | 13'-6" |

| Span | Height | Hw. Type A Wings | | Hw. Type B Wings | | | | | |
|------|--------|------------------|-----------------|------------------|-----------------|-------|-------|-------|----|
| | | For L=H+2 | For each Add Ft | For L=H+2 | For each Add Ft | | | | |
| 8' | 8' | 15.07 | 1017 | 0.682 | 46 | 15.05 | 1095 | 0.703 | 49 |
| | 9' | 15.44 | 1045 | 0.690 | 46 | 15.41 | 1128 | 0.707 | 49 |
| 10' | 9' | 18.30 | 1462 | 0.753 | 61 | 18.18 | 1556 | 0.771 | 63 |
| | 10' | 21.49 | 1655 | 0.817 | 64 | 21.20 | 1708 | 0.835 | 65 |
| 12' | 8' | 15.78 | 1071 | 0.695 | 46 | 15.80 | 1155 | 0.714 | 49 |
| | 9' | 18.67 | 1488 | 0.759 | 61 | 18.59 | 1582 | 0.777 | 63 |
| 12' | 10' | 21.86 | 1680 | 0.822 | 64 | 21.61 | 1734 | 0.840 | 65 |
| | 11' | 25.95 | 2197 | 0.963 | 78 | 25.61 | 2295 | 0.922 | 81 |
| 12' | 30.03 | 2596 | 1.015 | 87 | 30.86 | 2908 | 1.035 | 98 | |

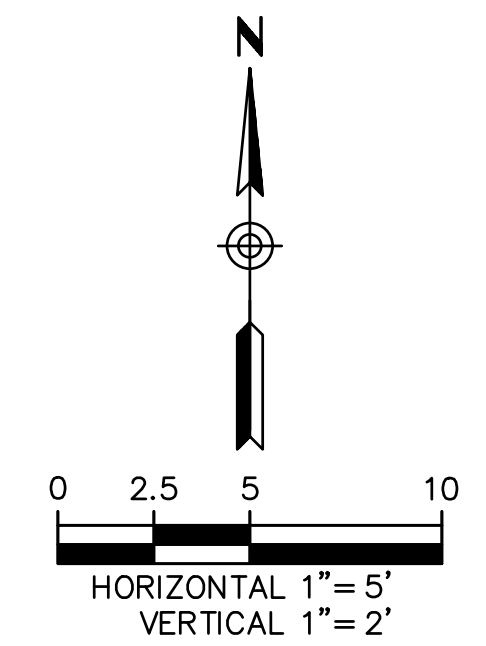
* Includes curb and cut-off wall quantities for a single barrel.

| 8' Spans | 10' Spans | | 12' Spans | | |
|----------|-----------|-------|-----------|-------|-----|
| | Conc. | Steel | Conc. | Steel | |
| 1.114 | 103 | 1.370 | 130 | 1.625 | 155 |



NOTE:
For General Notes, Dimensions, and additional Details, see SD 6.01 (1 & 2 of 5).

| | |
|--|--|
| DESIGN APPROVED <i>Shafa U. Hasan</i> | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL |
| APPROVED FOR DISTRIBUTION <i>Jan A. Nahme</i> | REINFORCED CONCRETE BOX CULVERTS INLET OR OUTLET - LEVEL WINGS CULVERT HEIGHT 8' TO 12' |
| ROUTE | PROJECT NO. |
| LOCATION | FA NO. |
| | DRAWING NO. SD 6.10 (2 of 2) |
| | SHEET NO. OF |



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EASTERN STREET
CALUMET TO AIRWAY AVE

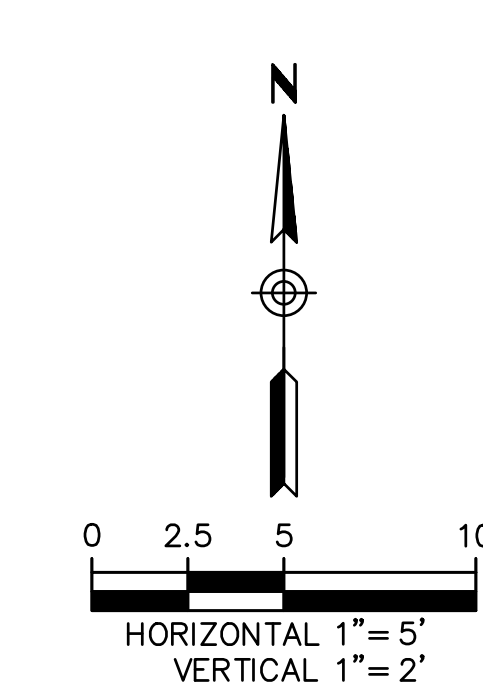
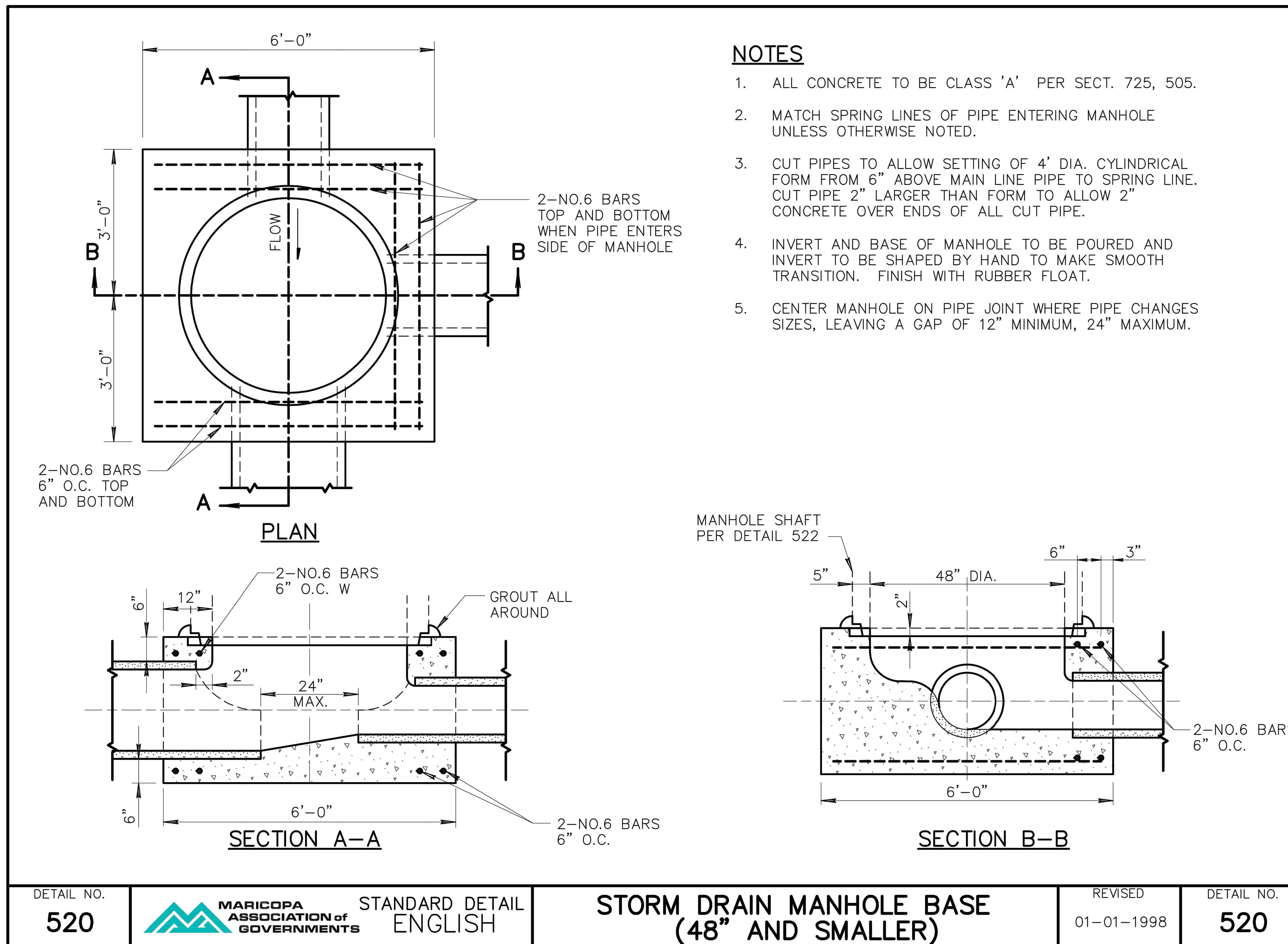
CITY OF KINGMAN
ENGINEERING DEPARTMENT
310 NORTH 4TH STREET
KINGMAN, ARIZONA 86401
PHONE (928) 753-8122 FAX (928) 753-8118

C.O.K. PROJECT NO.
ENG 21-0001
FILENAME
21-221038-DT10.dwg



EASTERN STREET
DETAILS

SHEET NO.
DT10
21 OF 58

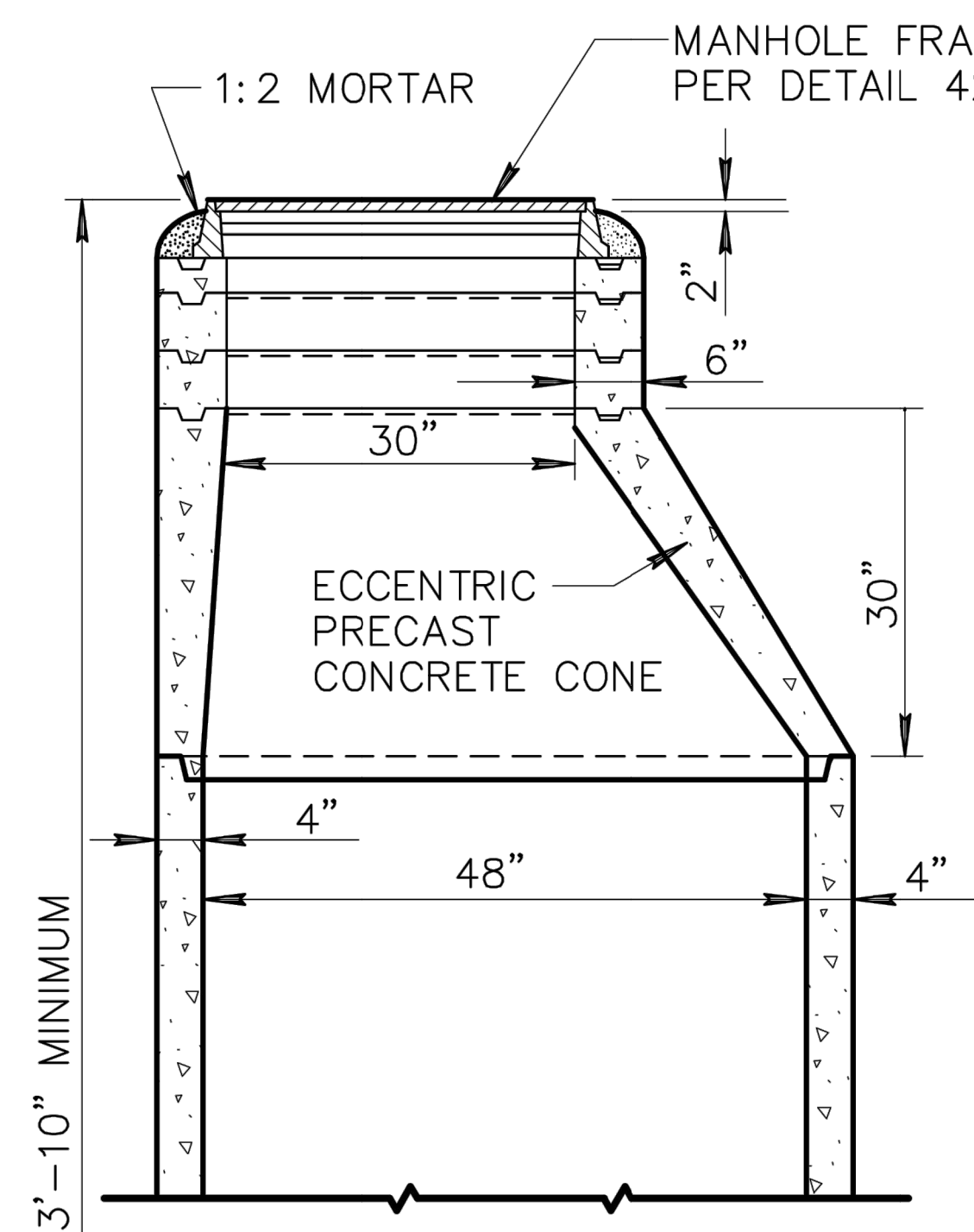


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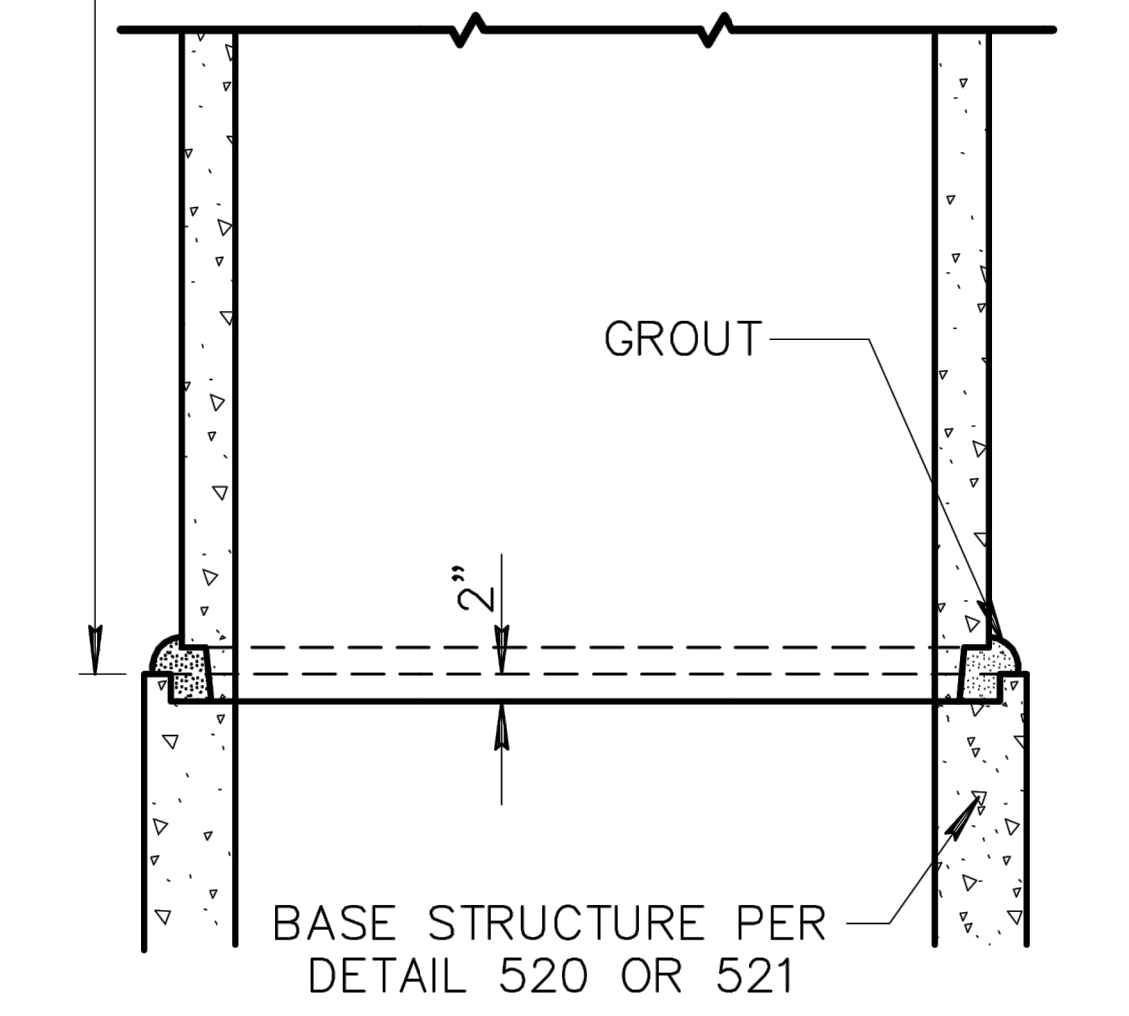


| | | | | | |
|--------------------------|--|----------------------------|---|-----------------------|--------------------------|
| DETAIL NO. 520 | MARICOPA ASSOCIATION of GOVERNMENTS | STANDARD DETAIL ENGLISH | STORM DRAIN MANHOLE BASE (48" AND SMALLER) | REVISED 01-01-1998 | DETAIL NO. 520 |
|--------------------------|--|----------------------------|---|-----------------------|--------------------------|

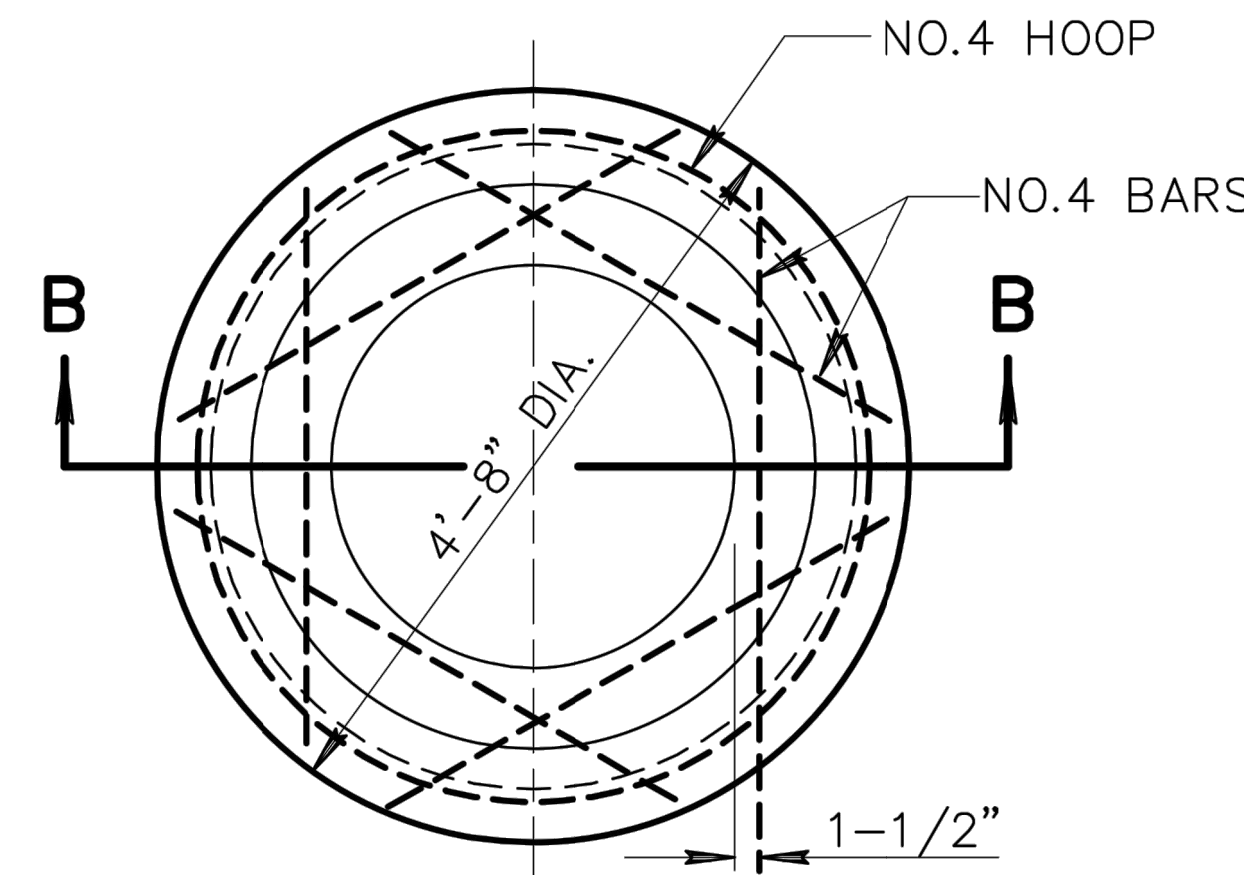
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|---|-----------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | FILENAME 22-221038-DT11.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | |
| EASTERN STREET | SHEET NO. DT11 |
| DETAILS | 22 OF 58 |



ALL JOINTS SHALL BE FILLED WITH 1:2 MORTAR AND NEATLY POINTED OR WIPED ON INSIDE OF SHAFT.

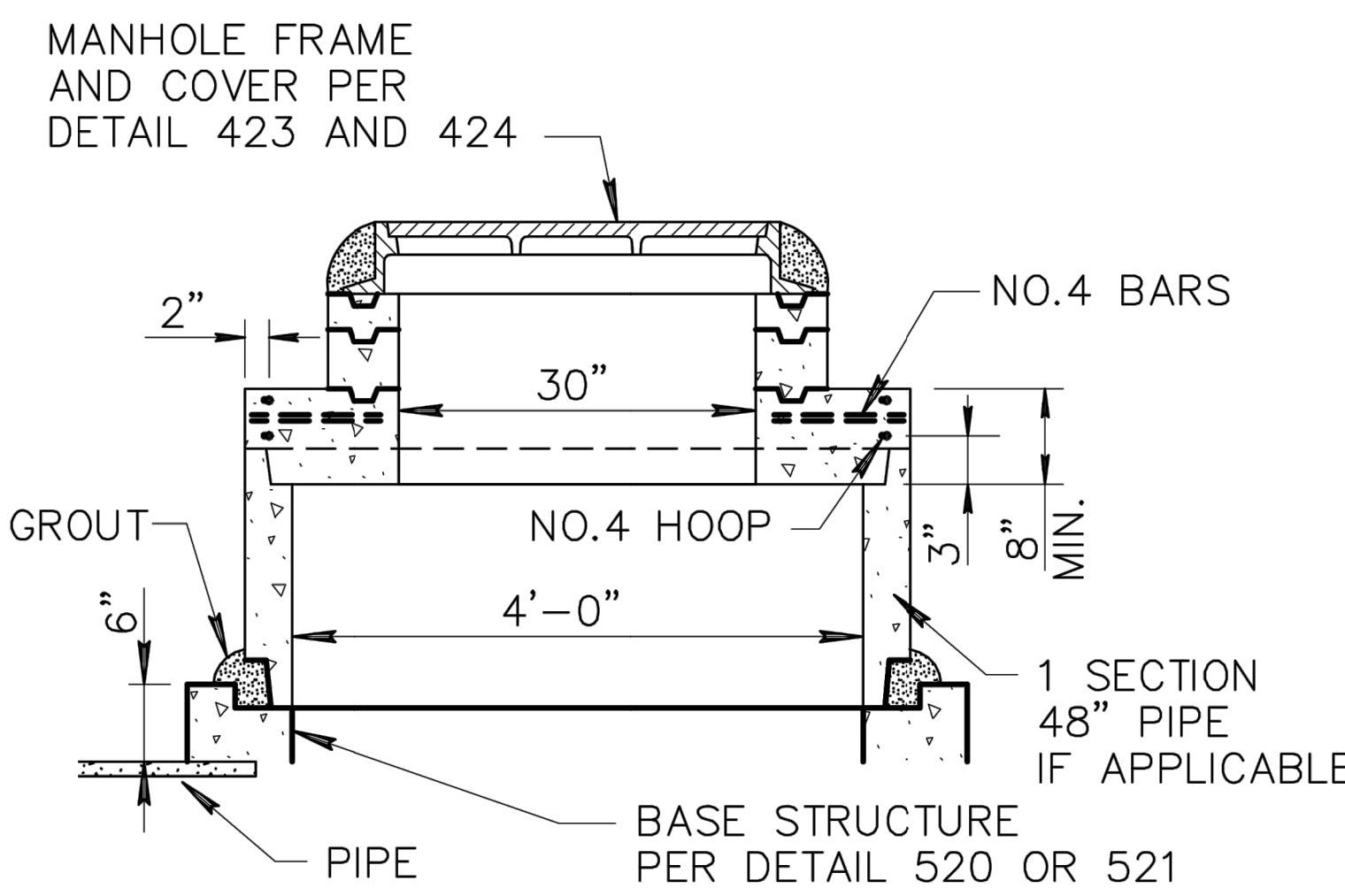


VERTICAL SECTION OF ECCENTRIC MANHOLE SHAFT



PLAN

USE WHERE THERE IS 3'-10\"/>

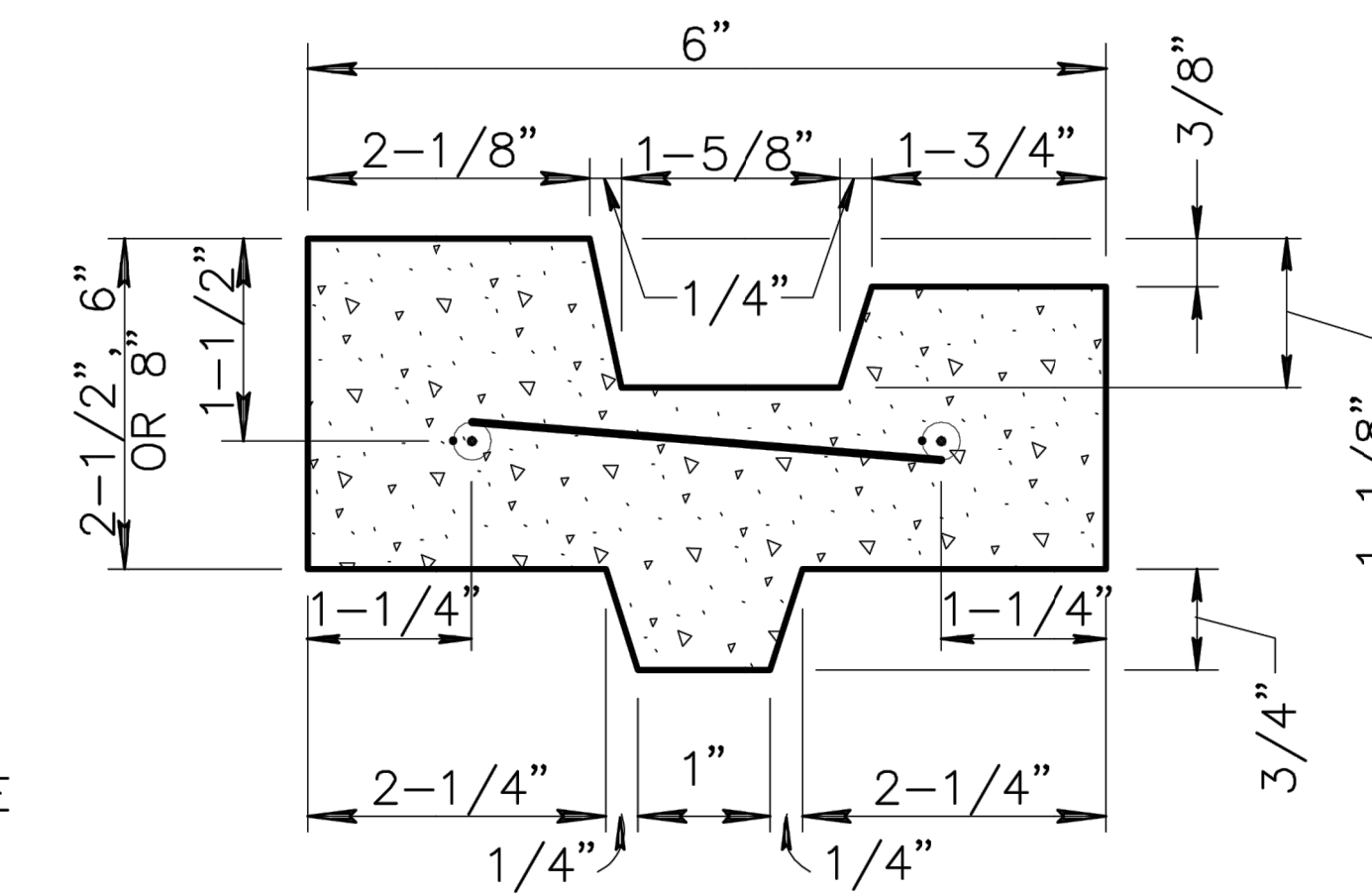


SECTION B-B

SHALLOW MANHOLE

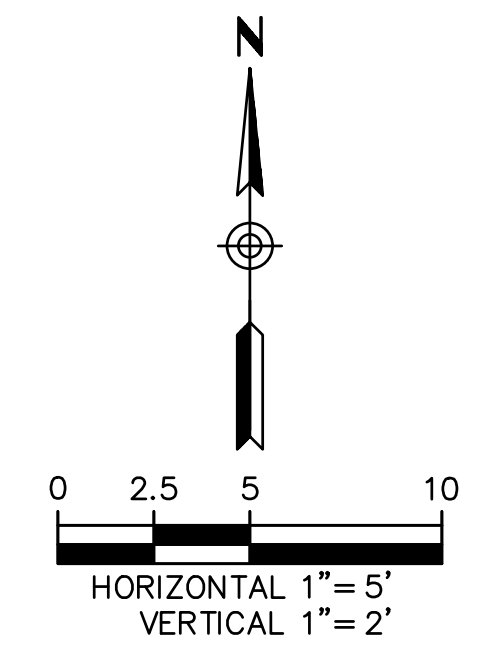
NOTES:

1. PRECAST CONCRETE CONES AND SECTIONS TO BE A.S.T.M. C-478.
2. BRICK MAY BE USED IN LIEU OF OR IN COMBINATION WITH CONCRETE ADJUSTING RINGS.
3. PRECAST CONCRETE SECTIONS 48\"/>



2-1/2\"/>

REINFORCED CONCRETE ADJUSTING RING



| | | | | |
|--------------------------|--------------------------------|----------------------------------|-----------------------|--------------------------|
| DETAIL NO. 522 | STANDARD DETAIL ENGLISH | STORM DRAIN MANHOLE SHAFT | REVISED 01-01-2015 | DETAIL NO. 522 |
|--------------------------|--------------------------------|----------------------------------|-----------------------|--------------------------|



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EASTERN STREET
 CALUMET TO AIRWAY AVE

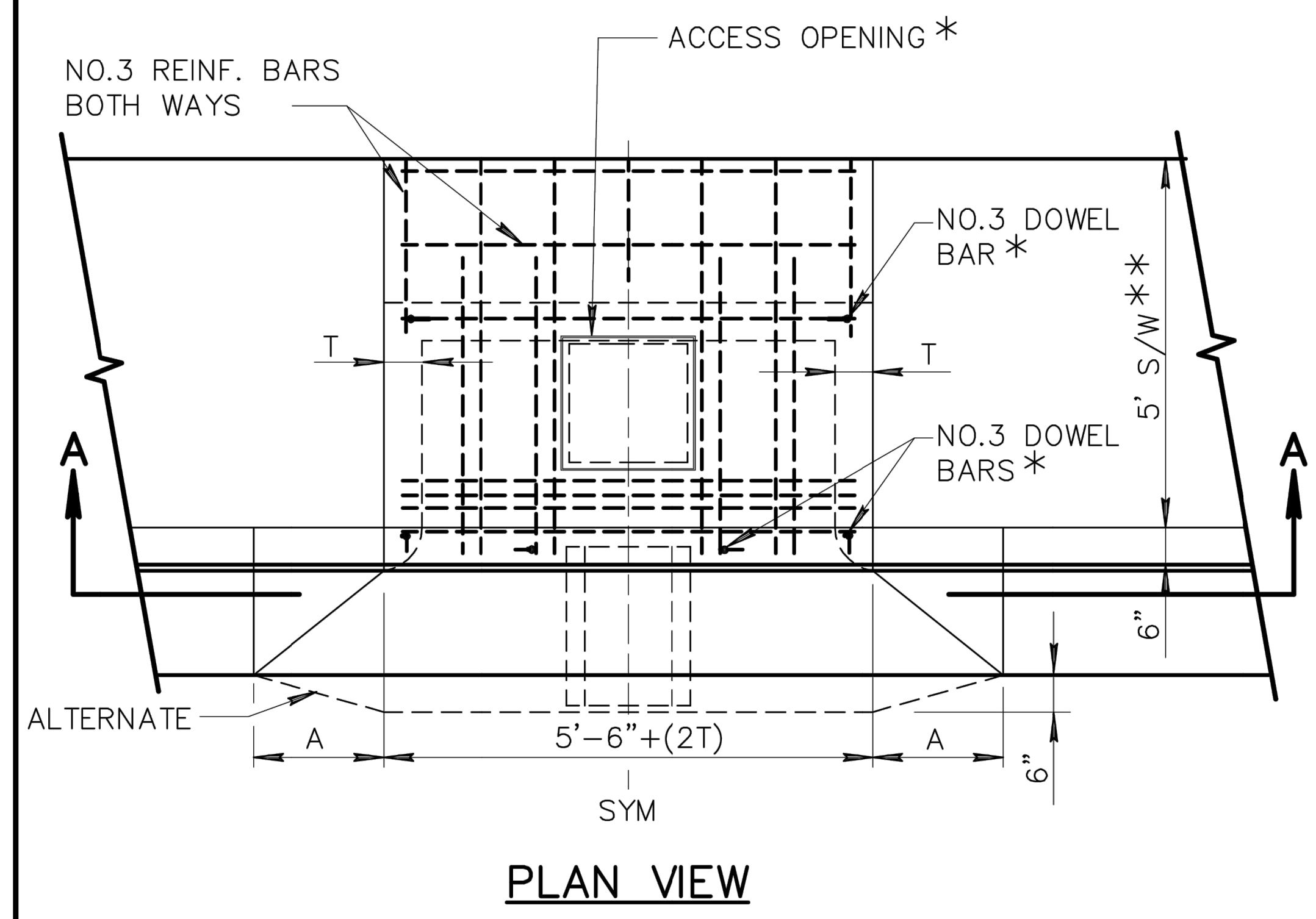
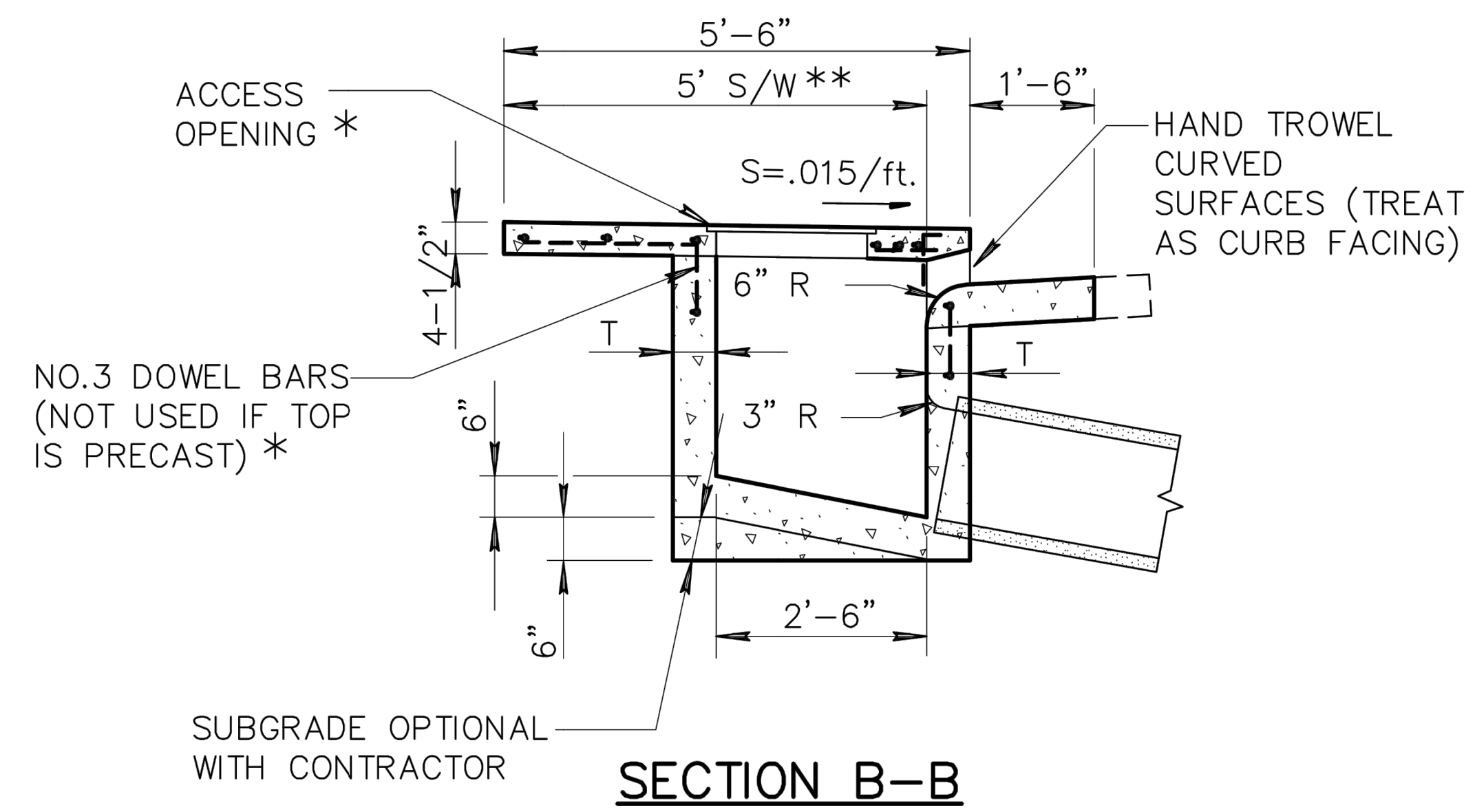
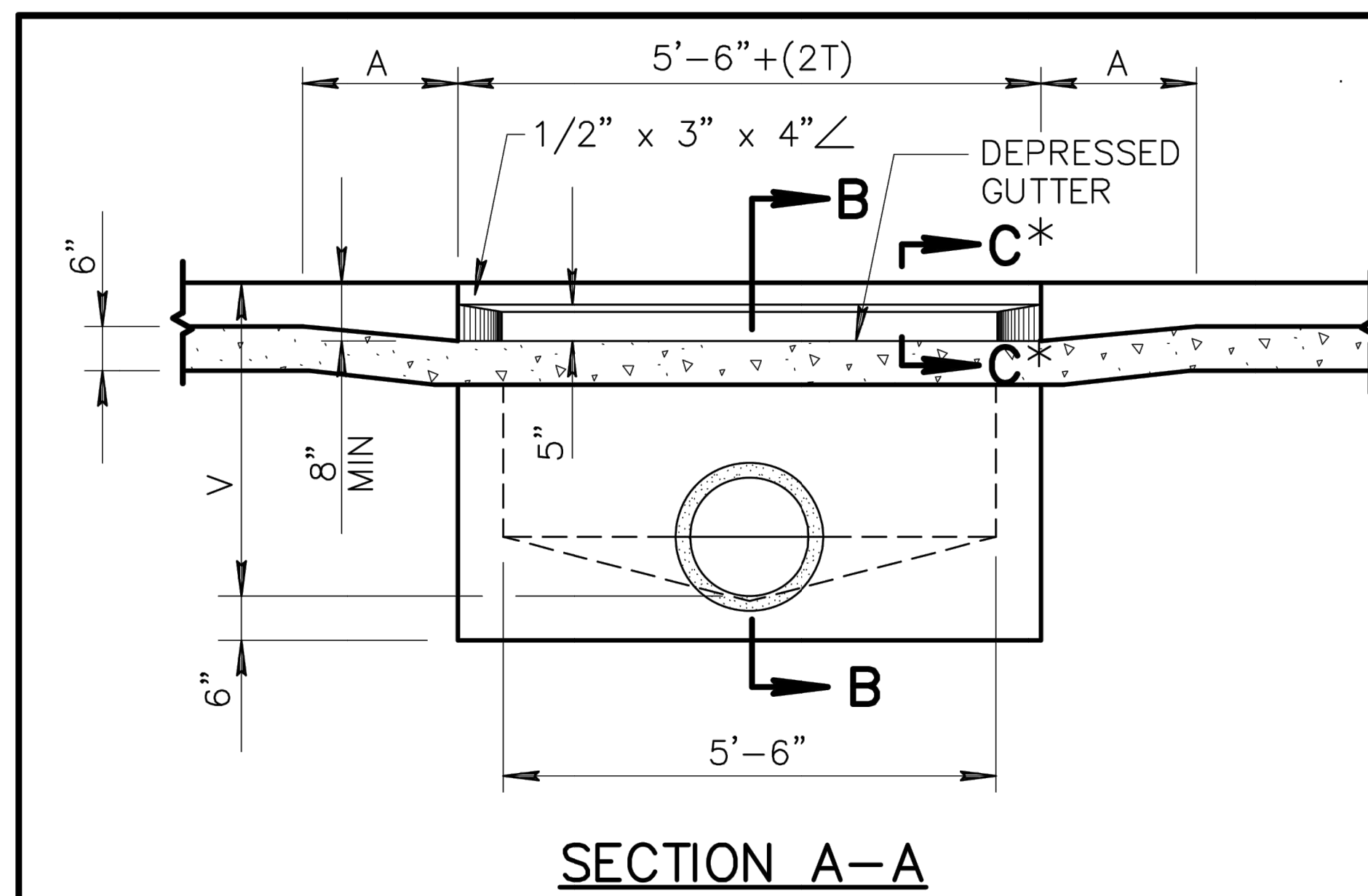
C.O.K. PROJECT NO.
 ENG 21-0001
 FILENAME
 22-221038-DT12.dwg

CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118



EASTERN STREET
 DETAILS

SHEET NO.
DT12
 22 OF 58



NOTES:

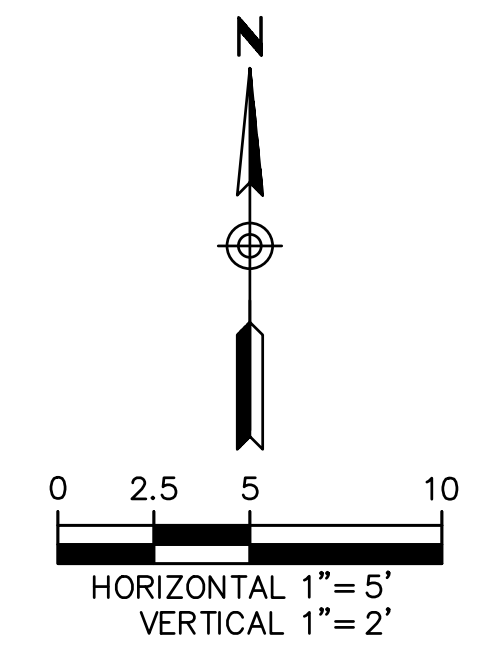
1. THE ENTIRE CATCH BASIN COVER MAY BE POURED IN PLACE OR PRECAST.
2. CONNECTION PIPES MAY BE PLACED IN ANY POSITION AROUND THE WALLS PROVIDED THE POSITION IS CONSISTENT WITH THE PLAN.
3. OUTLET PIPE SHALL BE TRIMMED TO FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.
4. FLOOR OF BASIN SHALL BE TROWELLED TO A HARD SMOOTH SURFACE AND SHALL SLOPE FROM ALL DIRECTIONS TO OUTLET.
5. ALL STRUCTURAL STEEL TO BE PAINTED ONE SHOP COAT OF NO. 1 D PAINT AND TWO FIELD COATS OF NO. 10 PAINT AS PER SECT. 790.
6. CONCRETE SHALL BE CLASS A PER SECTION 725.

| CURB | A |
|------|-------|
| 4" | 3'-3" |
| 6" | 1'-9" |
| 7" | 1'-0" |

DIMENSIONS

T=6" IF V=4' OR LESS
 T=8" IF V IS BETWEEN 4' AND 8'
 T=10" IF V IS 8' OR MORE (IF V EXCEEDS 10' SPECIAL DESIGN IS REQUIRED)
 V=3'-6" UNLESS OTHERWISE SPECIFIED.

* SEE DETAILS 536-1 AND 536-2 FOR DETAILS AND SECTIONS COMMON TO ALL CURB OPENING CATCH BASINS.
 ** 4' LOCATIONS WHERE 4' S/W IS REQUIRED.

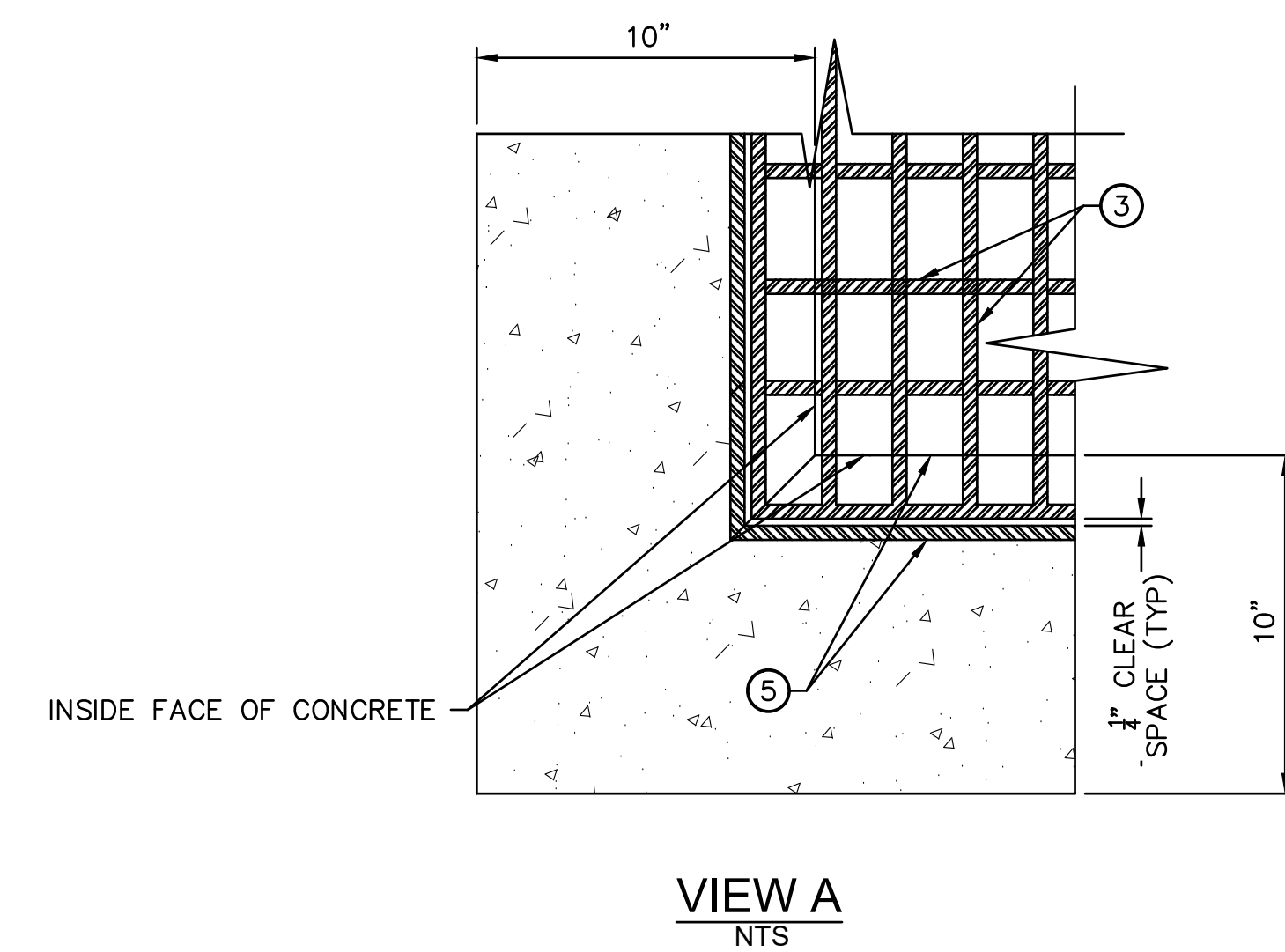
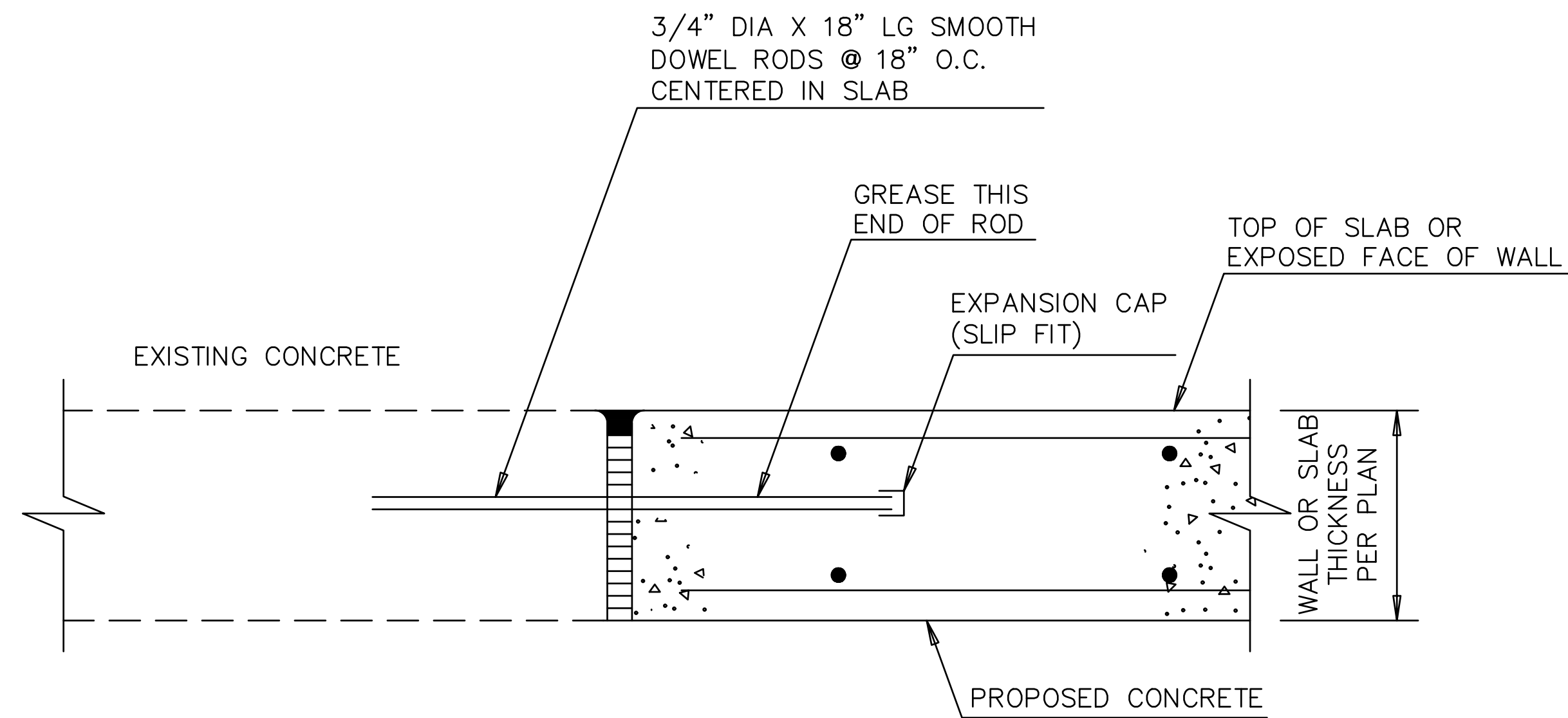
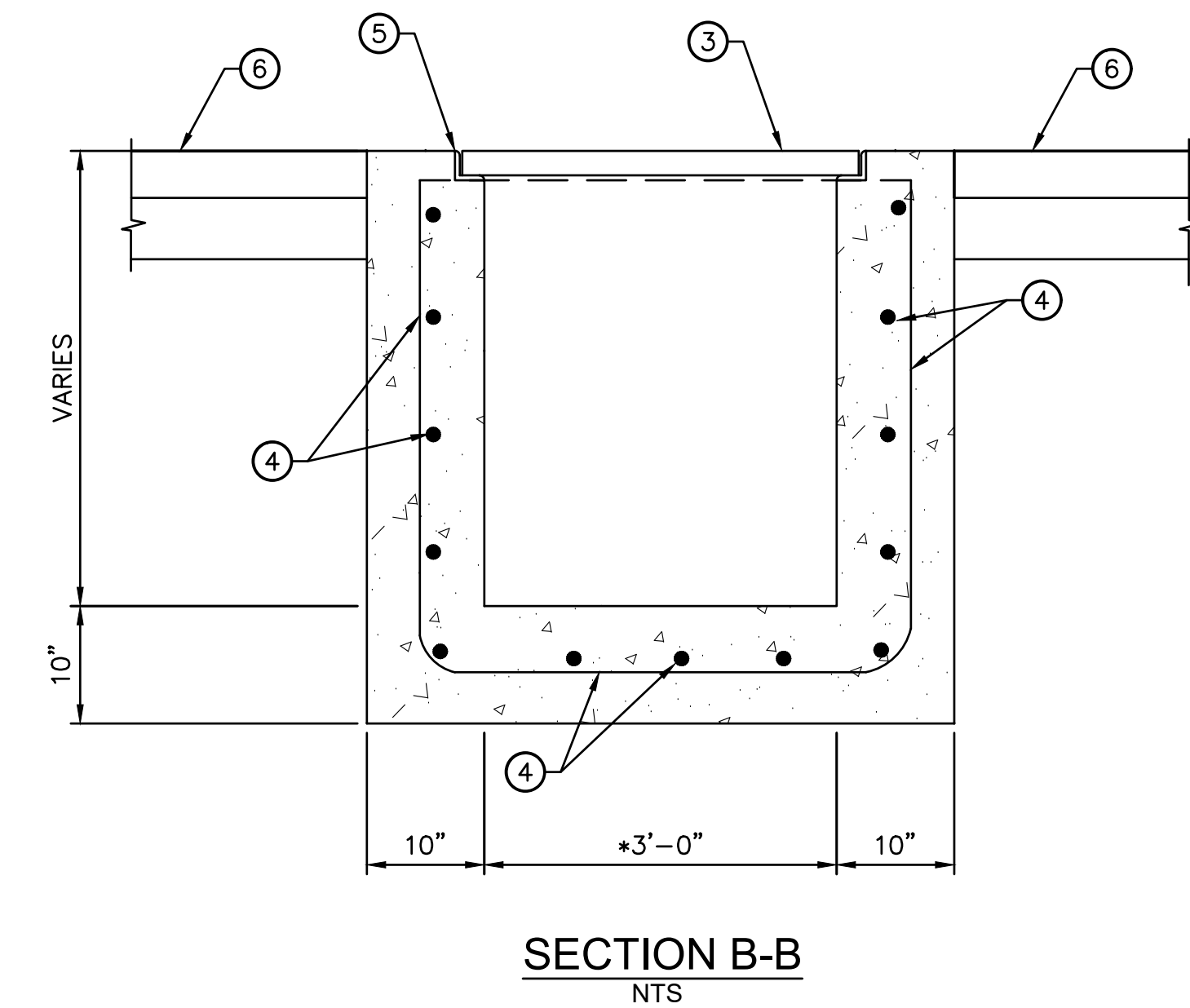
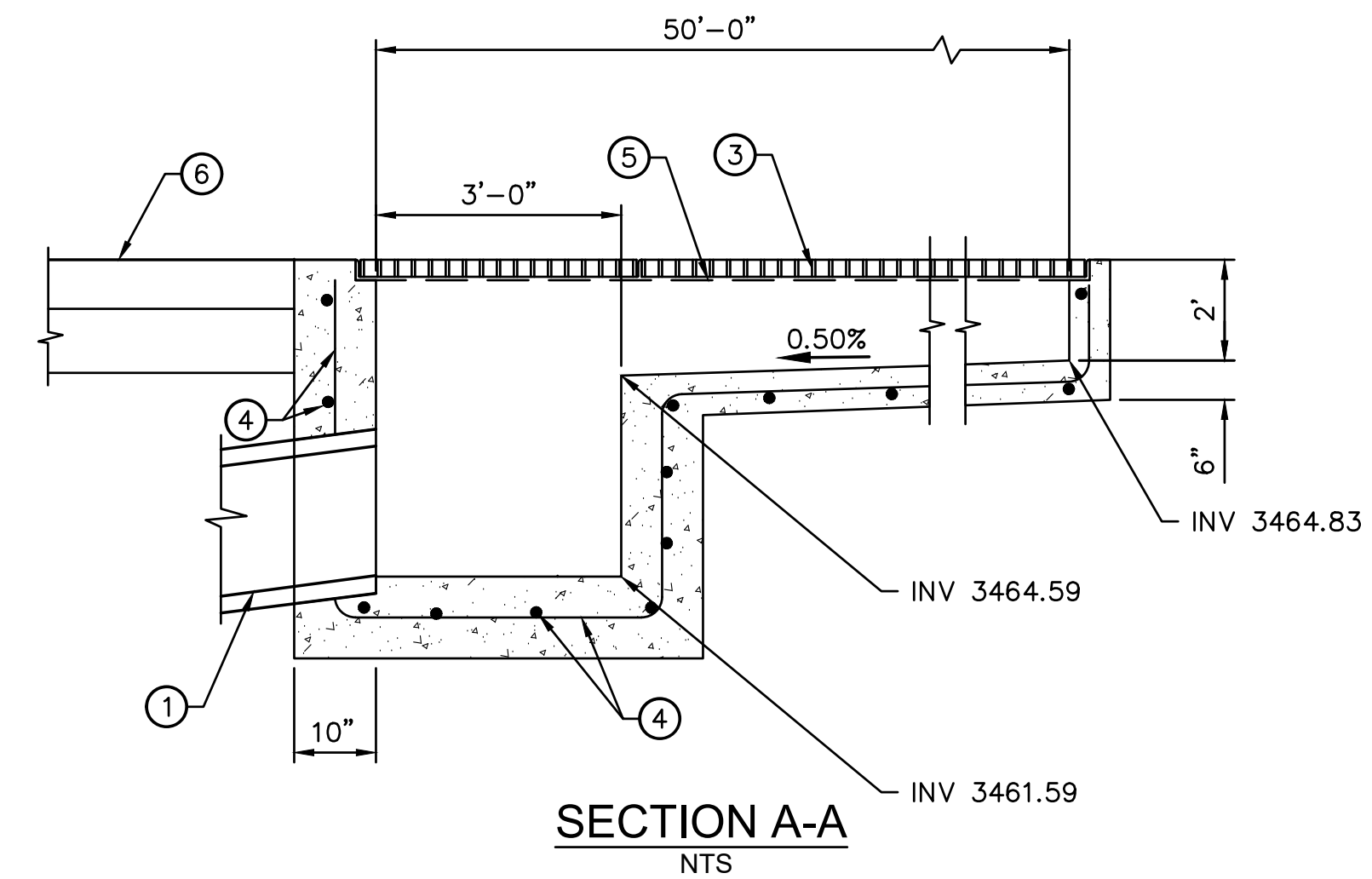
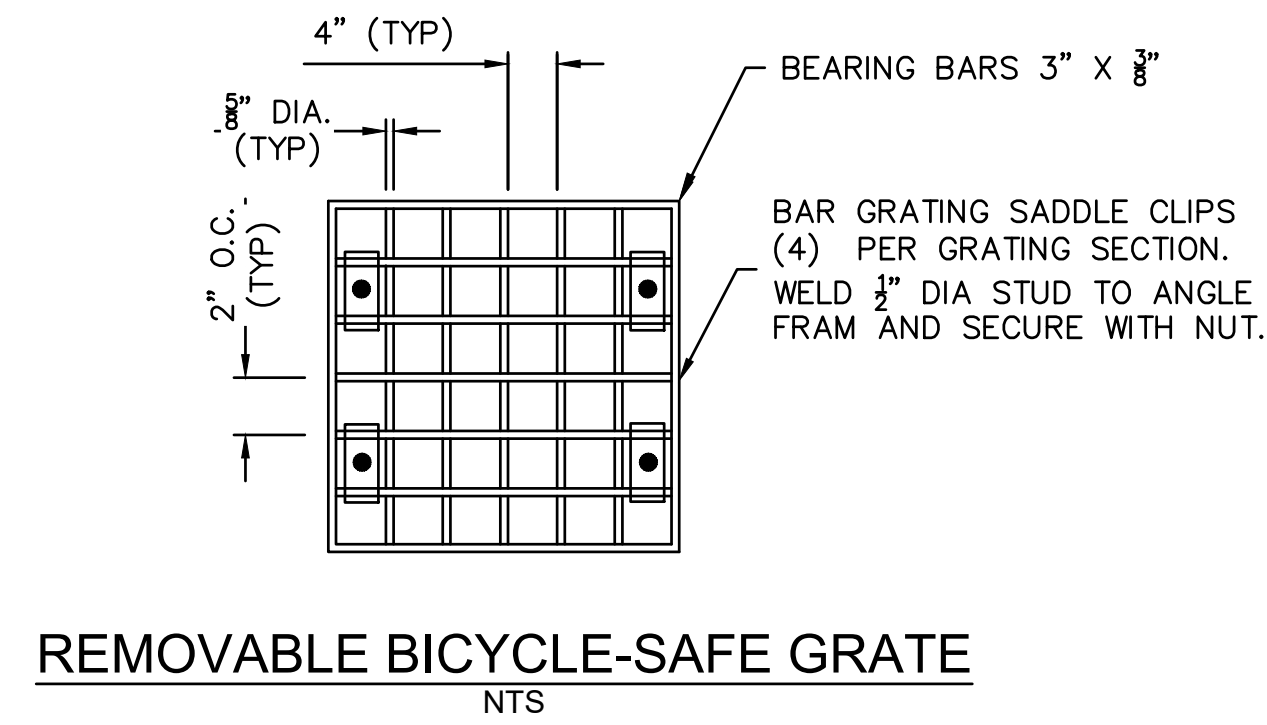
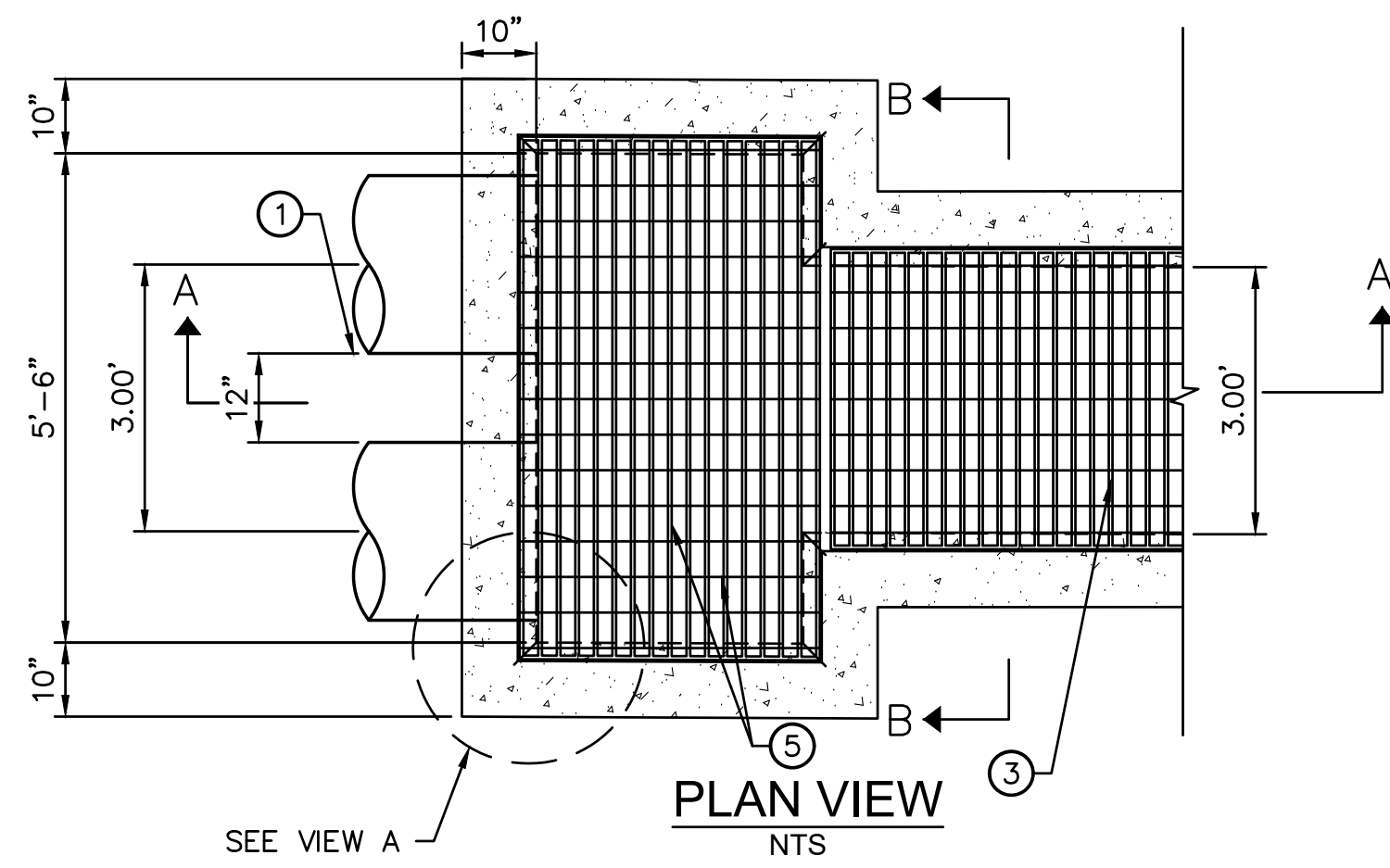


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| | | | | | |
|--------------------------|-------------------------------------|----------------------------|--|-----------------------|--------------------------|
| DETAIL NO. 531 | MARICOPA ASSOCIATION OF GOVERNMENTS | STANDARD DETAIL ENGLISH | 5'-6" CURB OPENING CATCH BASIN - TYPE 'B' | REVISED 01-01-1998 | DETAIL NO. 531 |
|--------------------------|-------------------------------------|----------------------------|--|-----------------------|--------------------------|

| | |
|---|-----------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | FILENAME 23-221038-DT13.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | |
| EASTERN STREET | SHEET NO. DT13 |
| DETAILS | 23 OF 58 |



KEY NOTES

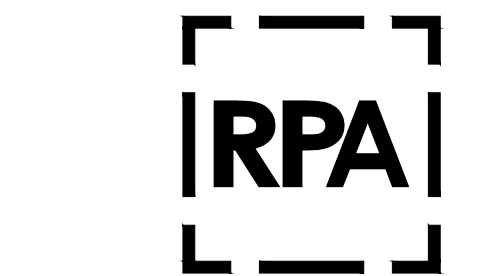
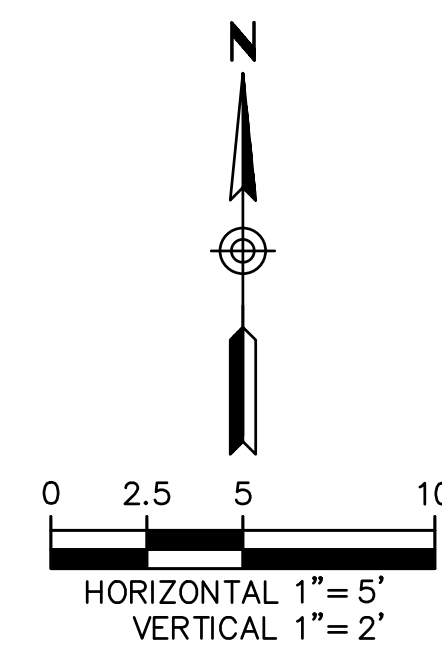
- ① 24" DIA RGRCP PIPE
- ② SLOPE TO DRAIN AS SHOWN
- ③ REMOVABLE BICYCLE - SAFE GRATE PER DETAIL THIS SHEET
- ④ #4 REINF. @ 8" O.C. EA. WAY CENTERED IN WALL/SLAB
- ⑤ L3 1/2 X 3 X 3/8 (LLH) ANGULAR FRAME
- ⑥ AC STRUCTURAL SECTION PER CIVIL PLANS

NOTES

- 1. Hot-Dip Galvanize the Grate and frame after Fabrication in See Roadway Plans for Location in Accordance with AASHTO Designation M 111.
- 2. See Roadway Plans for Location and Number of Grates Required.
- 3. Weld all Joints with a 1/4 inch Fillet Weld unless Noted Otherwise
- 4. See Civil Drawings for Location of Trench Drain.
- 5. Touch up Metal (as Required) with A Rust Inhibitor Primer over Clean Metal and Finish (2) Coats of Zinc Rich Primer.
- * Inside Face of Concrete to Inside Face of Concrete

DESIGN DATA

HL-93 in Accordance with AASHTO LFRD Bridge Design and Interim Specifications.
Structural Steel: Fy =36,000 psi.
Welding: E70 Electrodes



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EASTERN STREET
CALUMET TO AIRWAY AVE

C.O.K. PROJECT NO.
ENG 21-0001

CITY OF KINGMAN
ENGINEERING DEPARTMENT

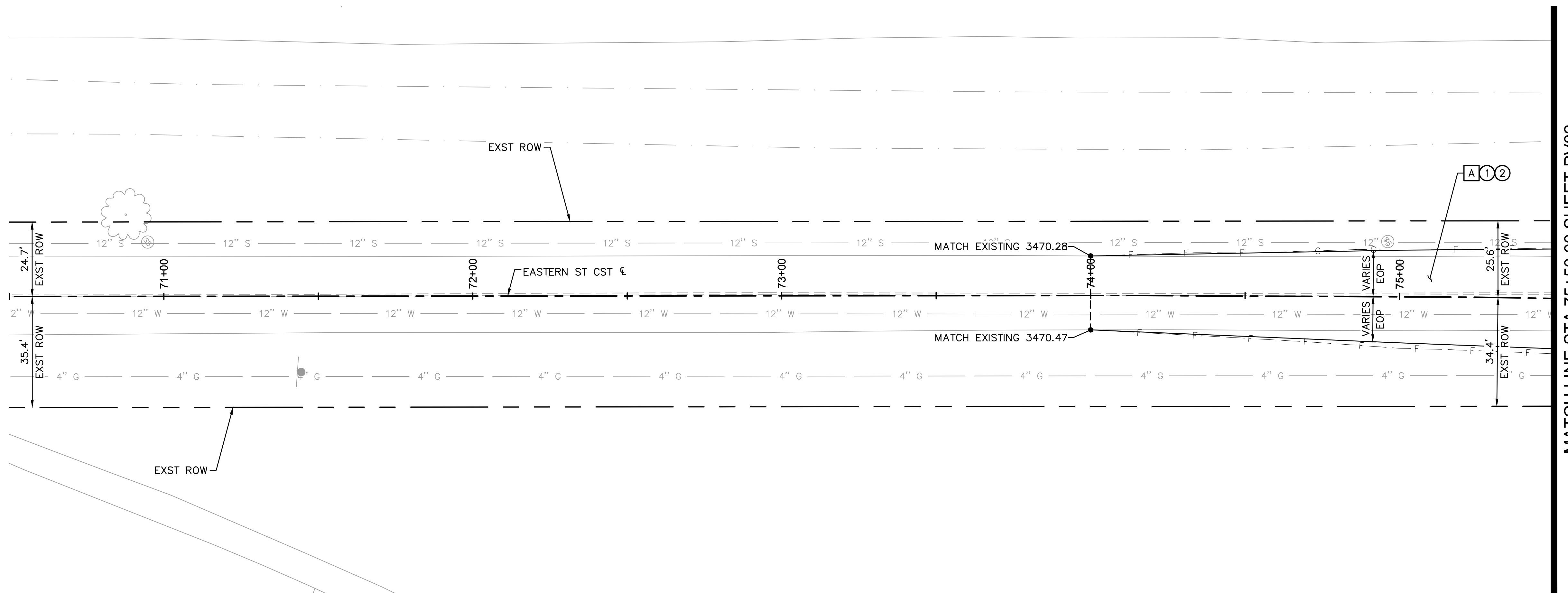
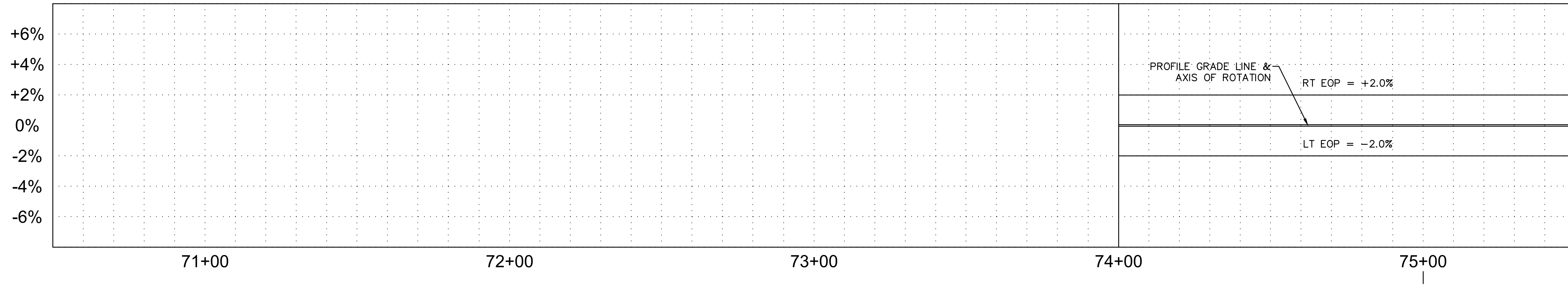
FILENAME
25-221038-DT14.dwg

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KINGMAN, ARIZONA 86401
PHONE (928) 753-8122 FAX (928) 753-8118



EASTERN STREET
DRAINAGE DETAILS

SHEET NO.
DT14
25 OF 58

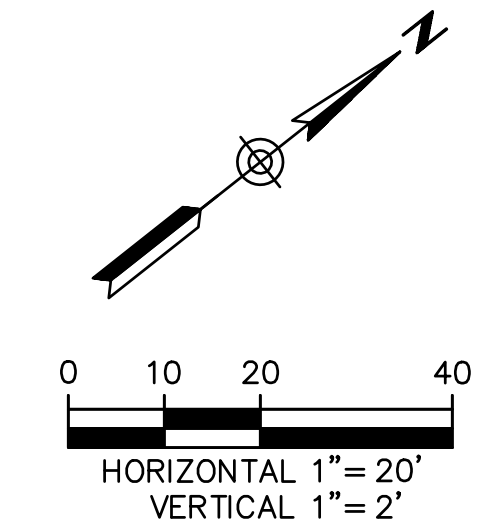


EASTERN STREET

MATCH LINE STA 75+50.00 SHEET PV02

| REMOVAL NOTES | | | |
|---------------|-----------------------------------|------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 398 | SY |

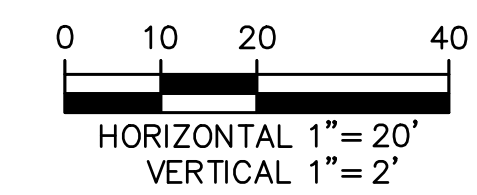
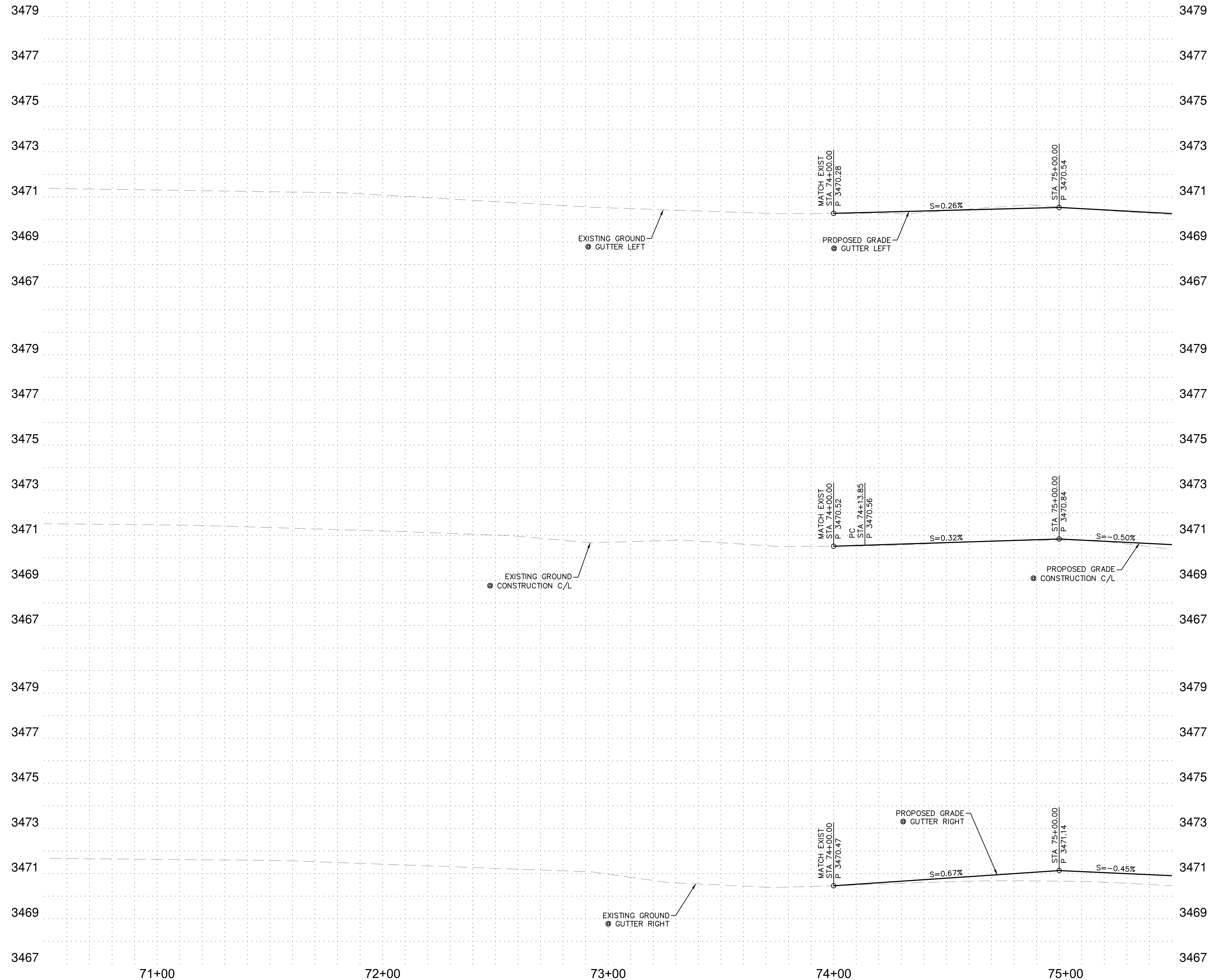
| CONSTRUCTION NOTES | | | |
|--------------------|--|------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| ① | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 472 | SY |
| ② | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 472 | SY |



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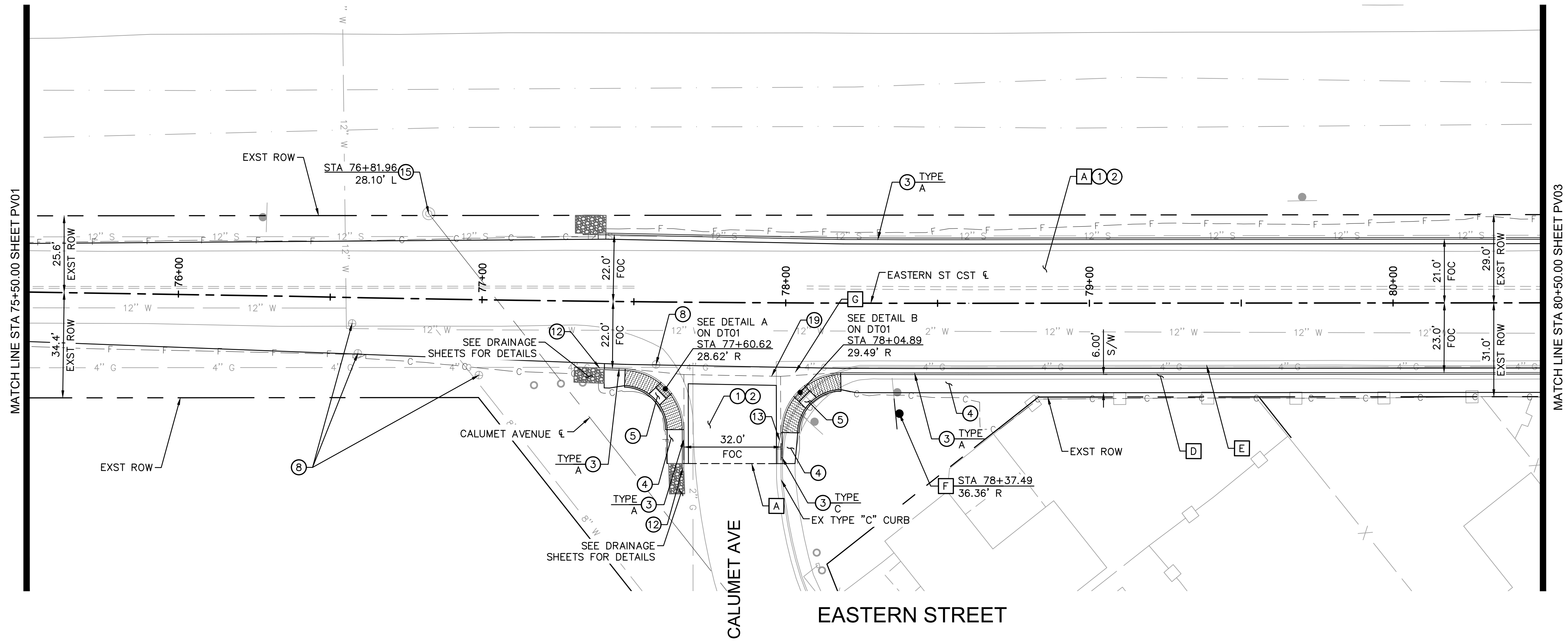
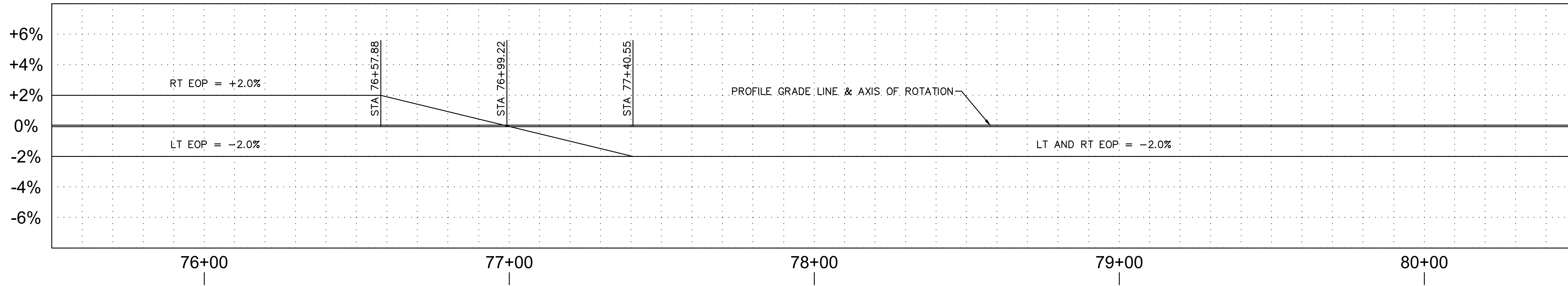
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|--|--|--|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 26-221038-PV01.dwg |
| EASTERN STREET ROADWAY PLAN | | SHEET NO. PV01 26 OF 58 |

- NOTE:
1. ALL MEASUREMENTS AND ELEVATIONS ARE TO THE TOP OF FACE OF CURB AND GUTTER LINE
 2. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN IS BASED ON RECORD DRAWINGS OF THE VARIOUS UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



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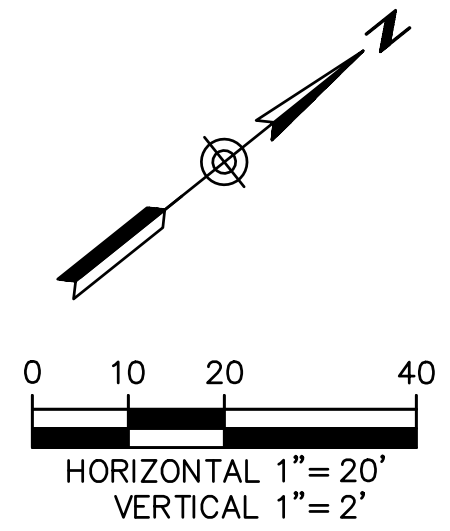
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 27-221038-PR01.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET | | SHEET NO. PR01 |
| ROADWAY PROFILE | | 27 OF 58 |



| REMOVAL NOTES | | | |
|---------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 1,856 | SY |
| D | REMOVE SIDEWALK | 1,089 | SF |
| E | REMOVE CONCRETE CURB & GUTTER | 271 | LF |
| F | EXISTING SIGN TO BE SALVAGED AND RETURNED TO COK PUBLIC WORKS. WHERE APPLICABLE COK WILL SUPPLY NEW SIGNS. NEW BASE AND POST TO BE INSTALLED PER COK DET 132 | 2 | EA |
| G | EXISTING CONCRETE TO BE REMOVED | 283 | SF |

| CONSTRUCTION NOTES | | | |
|--------------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| 1 | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 2,272 | SY |
| 2 | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 2,272 | SY |
| 3 | CURB & GUTTER PER MAG STD DET 220 | 567 | LF |
| 4 | SIDEWALK PER COK STD DET 230 | 1,528 | SF |
| 5 | SIDEWALK RAMP PER COK STD DET 233 | 2 | EA |
| 8 | RESET FRAME & COVER FOR WATER VALVE PER COK DET. 391.1 | 4 | EA |
| 12 | CURB TERMINATION TYPE A PER MAG STD DET 222 | 2 | EA |
| 13 | CURB TRANSITION TYPE A TO TYPE C PER MAG STD DET 221 | 1 | EA |
| 15 | EXISTING SURVEY MARKER TO BE RESET BY COK SURVEY DEPARTMENT (NON PAYMENT ITEM) | 1 | EA |
| 19 | VALLEY GUTTER PER MAG STD DET 240 | 470 | SF |

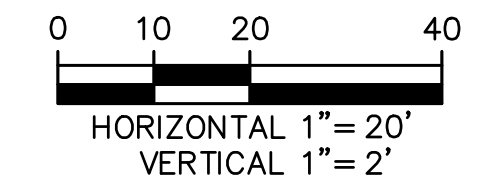
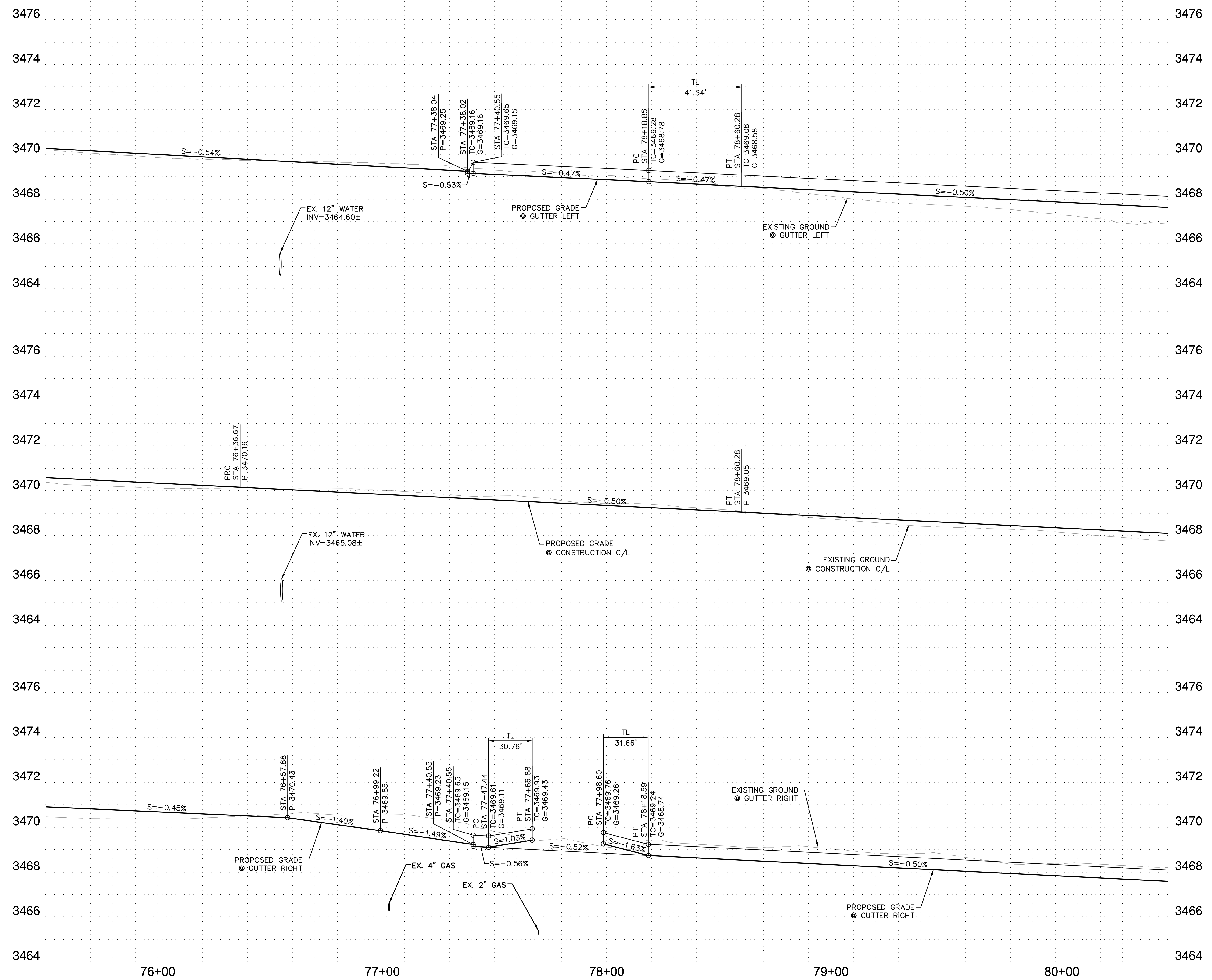
NOTE:
 1. EXISTING SIGNS TO BE SALVAGED AND RETURNED TO COK PUBLIC WORKS. COK WILL SUPPLY NEW SIGNS. NEW POST AND BASE IS COK DETAIL 132.



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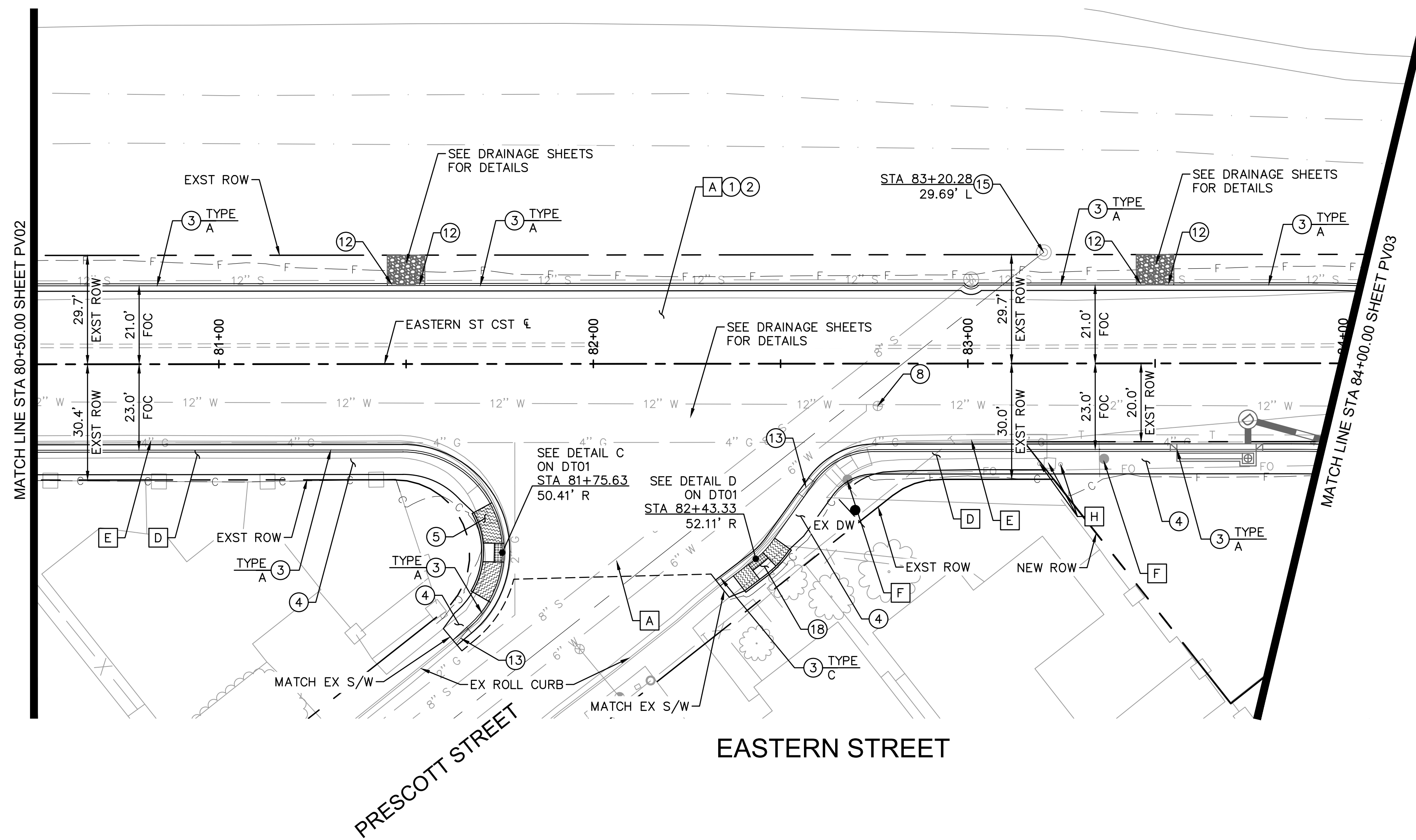
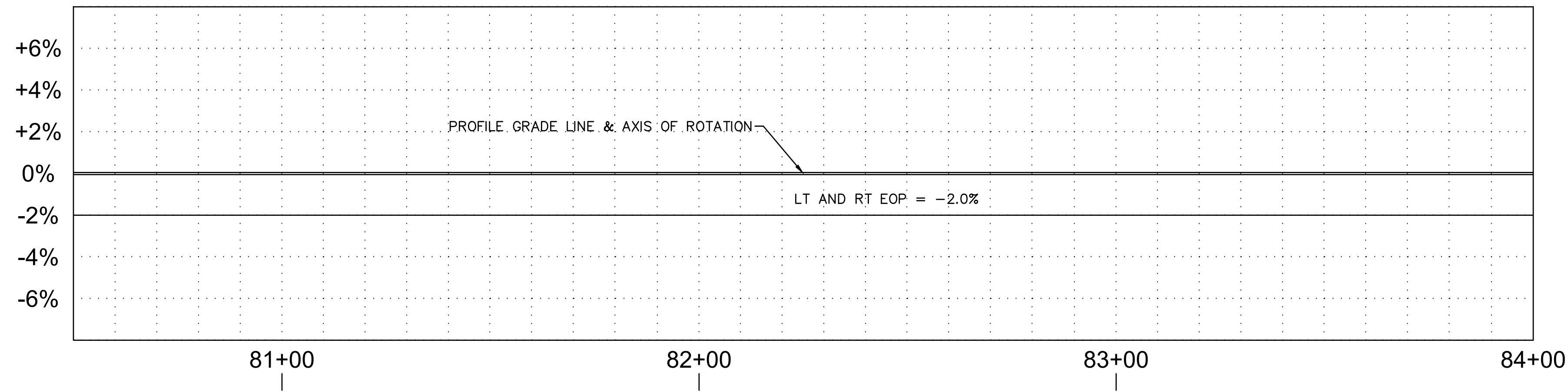
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 28-221038-PV02.dwg |
| EASTERN STREET ROADWAY PLAN | | SHEET NO. PV02 28 OF 58 |

NOTE:
 1. ALL MEASUREMENTS AND ELEVATIONS ARE TO THE TOP OF FACE OF CURB AND GUTTER LINE
 2. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN IS BASED ON RECORD DRAWINGS OF THE VARIOUS UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



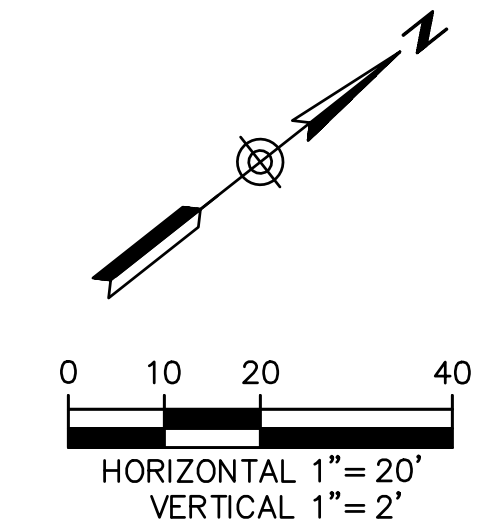
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|--|--|
| <p>EASTERN STREET CALUMET TO AIRWAY AVE</p> | <p>C.O.K. PROJECT NO. ENG 21-0001 FILENAME 29-221038-PR02.dwg</p> |
| <p>CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118</p> | |
| <p>EASTERN STREET ROADWAY PROFILE</p> | <p>SHEET NO. PR02 29 OF 58</p> |



| REMOVAL NOTES | | | |
|---------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 1,745 | SY |
| D | REMOVE SIDEWALK | 1,206 | SF |
| E | REMOVE CONCRETE CURB & GUTTER | 276 | LF |
| F | EXISTING SIGN TO BE SALVAGED AND RETURNED TO COK PUBLIC WORKS. WHERE APPLICABLE COK WILL SUPPLY NEW SIGNS. NEW BASE AND POST TO BE INSTALLED PER COK DET 132 | 1 | EA |
| H | RELOCATE EXISTING UTILITY BOX | 2 | EA |

| CONSTRUCTION NOTES | | | |
|--------------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| 1 | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 1,908 | SY |
| 2 | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 1,908 | SY |
| 3 | CURB & GUTTER PER MAG STD DET 220 | 697 | LF |
| 4 | SIDEWALK PER COK STD DET 230 | 1,743 | SF |
| 5 | SIDEWALK RAMP PER COK STD DET 233 | 1 | EA |
| 8 | RESET FRAME & COVER FOR WATER VALVE PER COK DET. 391.1 | 1 | EA |
| 12 | CURB TERMINATION TYPE A PER MAG STD DET 222 | 4 | EA |
| 13 | CURB TRANSITION TYPE A TO TYPE C PER MAG STD DET 221 | 2 | EA |
| 15 | EXISTING SURVEY MARKER TO BE RESET BY COK SURVEY DEPARTMENT (NON PAYMENT ITEM) | 1 | EA |
| 18 | SIDEWALK RAMP PER MODIFIED COK DET 236 | 1 | EA |



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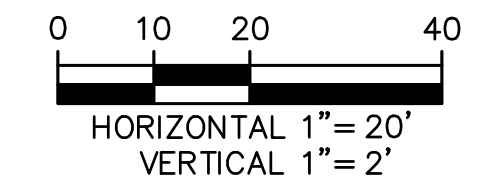
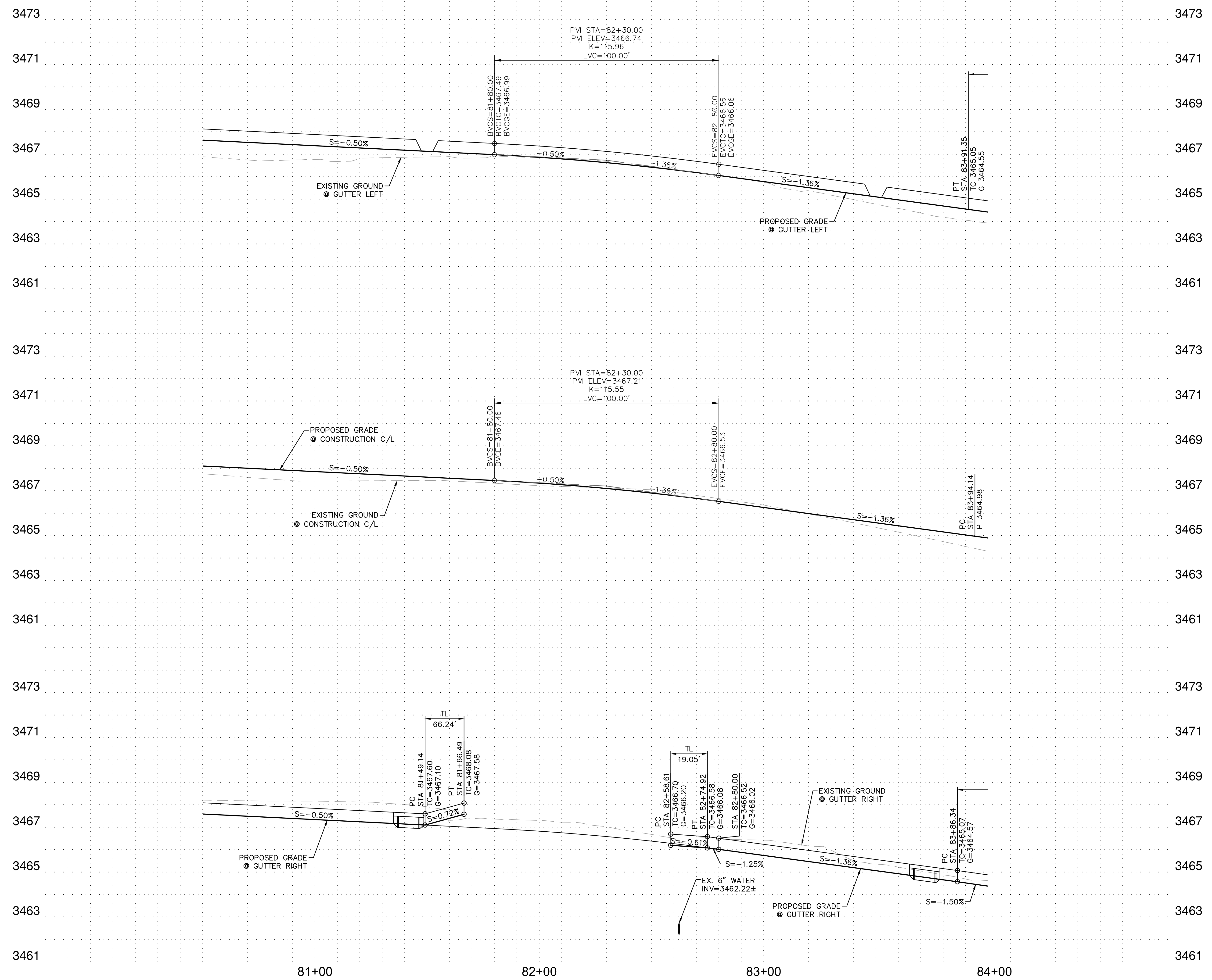
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| | | |
|---|--|-----------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 30-221038-PV03.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET ROADWAY PLAN | | |
| SHEET NO. PV03 | | 30 OF 58 |

NOTE:
 1. ALL MEASUREMENTS AND ELEVATIONS ARE TO THE TOP OF FACE OF CURB AND GUTTER LINE
 2. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN IS BASED ON RECORD DRAWINGS OF THE VARIOUS UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



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EASTERN STREET
 CALUMET TO AIRWAY AVE

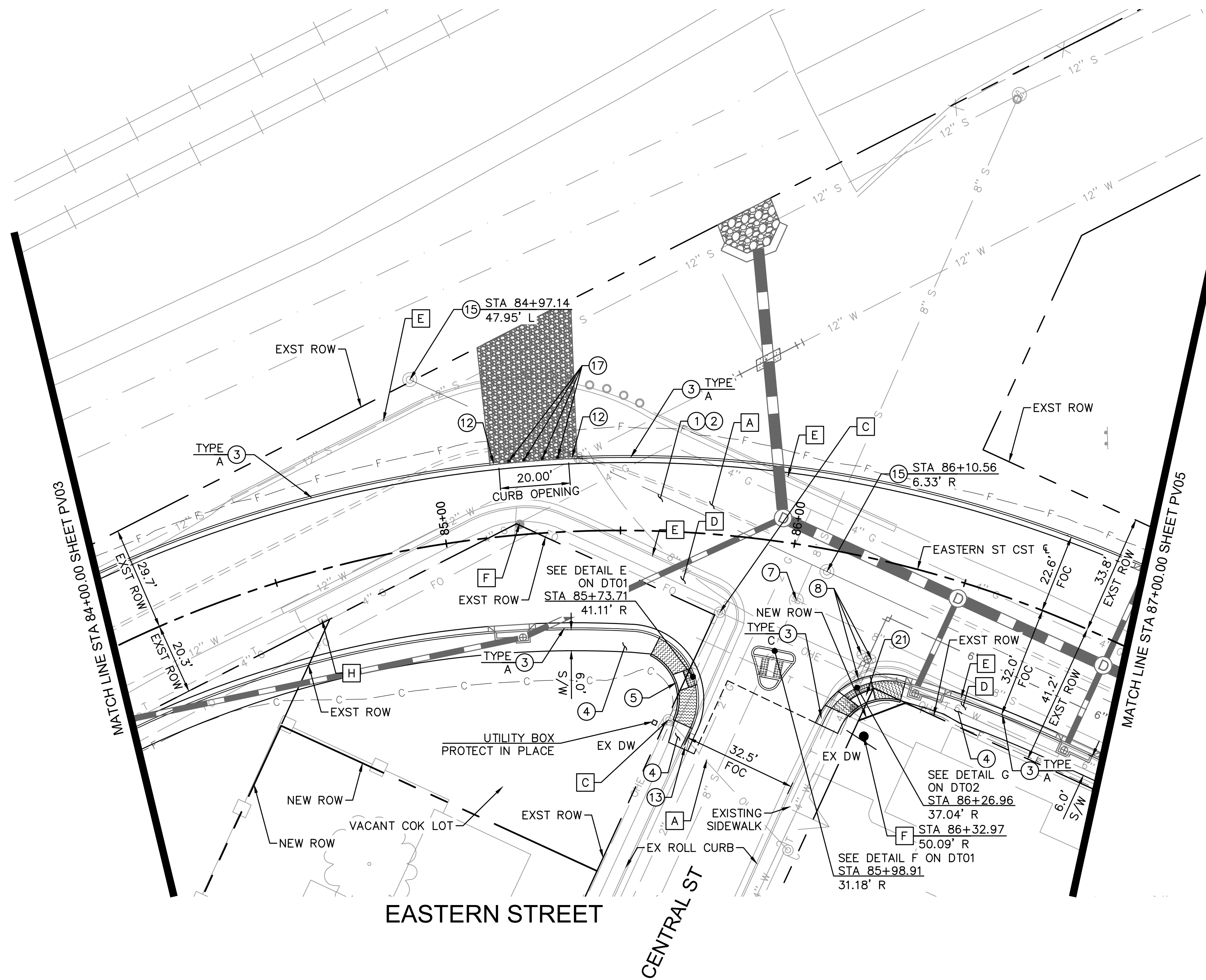
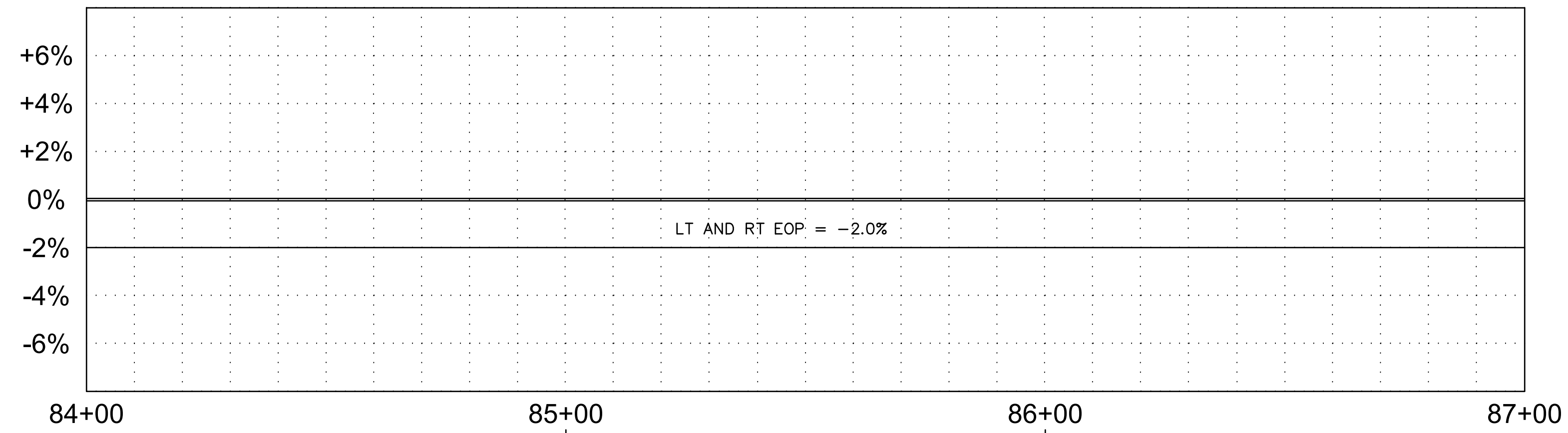
C.O.K. PROJECT NO.
 ENG 21-0001
 FILENAME
 31-221038-PR03.dwg

CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118



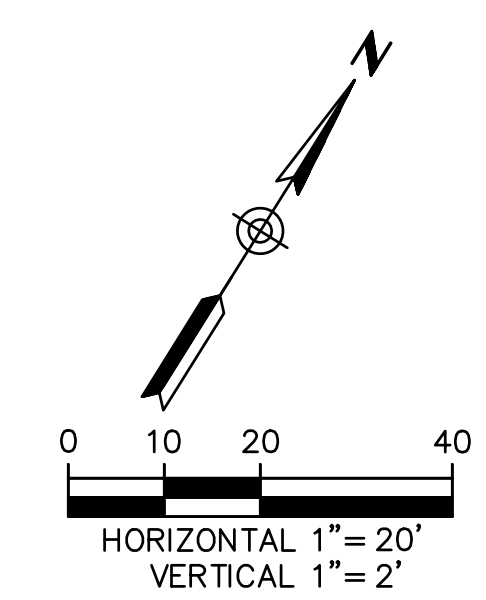
EASTERN STREET
 ROADWAY PROFILE

SHEET NO.
PR03
 31 OF 58



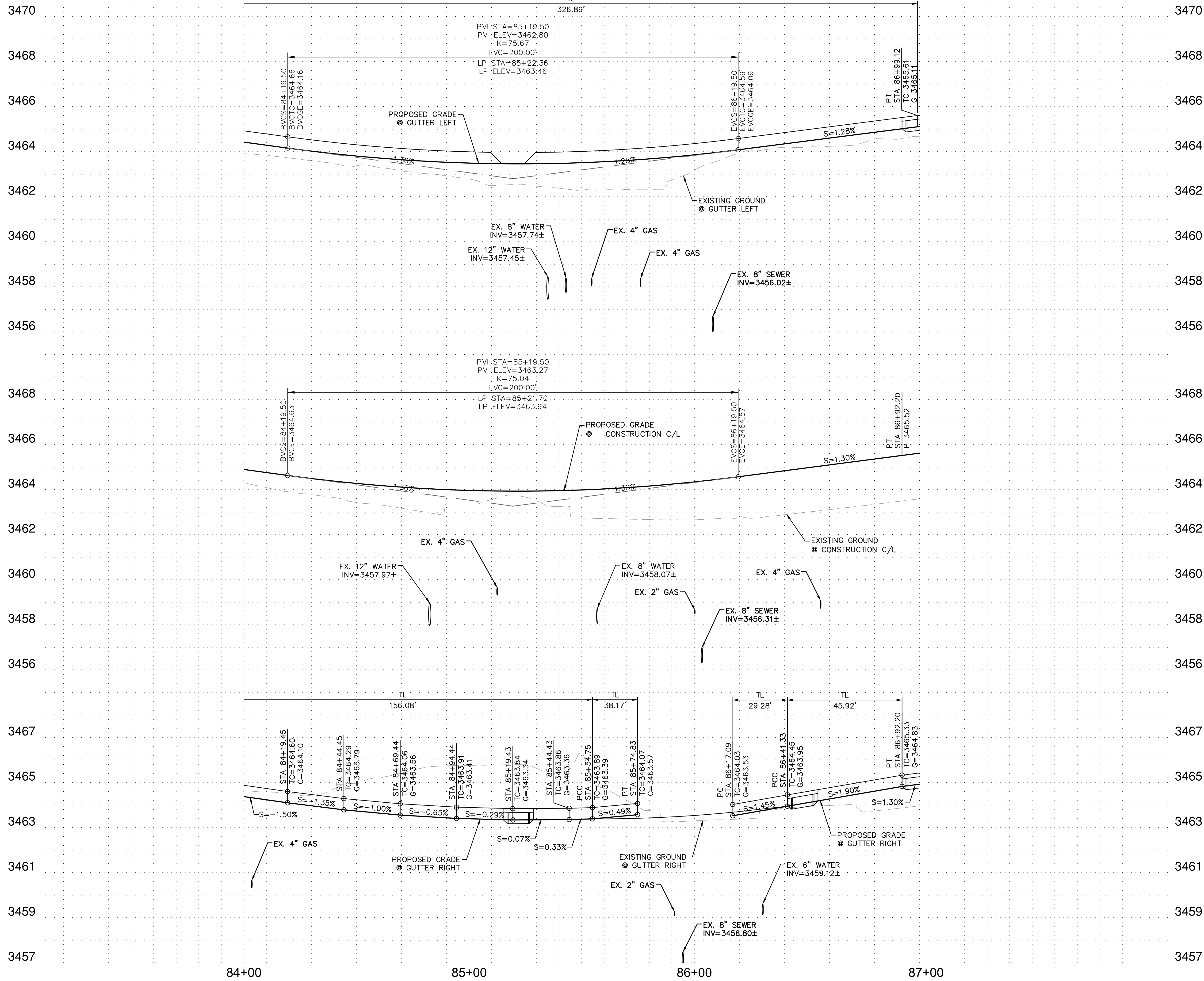
| REMOVAL NOTES | | | |
|---------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 1,286 | SY |
| C | REMOVE & RELOCATE EXISTING POWER POLE BY OTHERS | 2 | EA |
| D | REMOVE SIDEWALK | 1,062 | SF |
| E | REMOVE CONCRETE CURB & GUTTER | 517 | LF |
| F | EXISTING SIGN TO BE SALVAGED AND RETURNED TO COK PUBLIC WORKS. WHERE APPLICABLE COK WILL SUPPLY NEW SIGNS, NEW BASE AND POST TO BE INSTALLED PER COK DET 132 | 2 | EA |
| H | RELOCATE EXISTING UTILITY BOX | 1 | EA |

| CONSTRUCTION NOTES | | | |
|--------------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| 1 | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO. 1 | 1,634 | SY |
| 2 | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 1,634 | SY |
| 3 | CURB & GUTTER PER MAG STD DET 220 | 540 | LF |
| 4 | SIDEWALK PER COK STD DET 230 | 1,322 | SF |
| 5 | SIDEWALK RAMP PER COK STD DET 233 | 1 | EA |
| 7 | RESET FRAME AND COVER FOR MANHOLE PER COK STD DET 422 | 1 | EA |
| 8 | RESET FRAME & COVER FOR WATER VALVE PER COK DET. 391.1 | 3 | EA |
| 12 | CURB TERMINATION TYPE A PER MAG STD DET 222 | 2 | EA |
| 13 | CURB TRANSITION TYPE A TO TYPE C PER MAG STD DET 221 | 2 | EA |
| 15 | EXISTING SURVEY MARKER TO BE RESET BY COK SURVEY DEPARTMENT (NON PAYMENT ITEM) | 2 | EA |
| 17 | 6" REMOVABLE TYPE-2 BOLLARD PER MAG STD DET 140 | 4 | EA |
| 21 | MODIFIED SIDEWALK RAMP PER COK STD DET 233 SEE DETAIL G ON SHEET DT02 | 1 | EA |

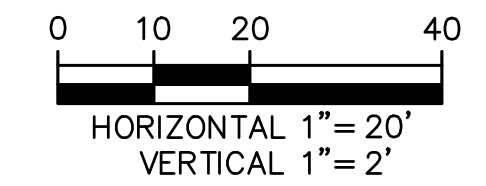


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| | | |
|---|--|--------------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 32-221038-PV04.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET ROADWAY PLAN | | SHEET NO. PV04 32 OF 58 |

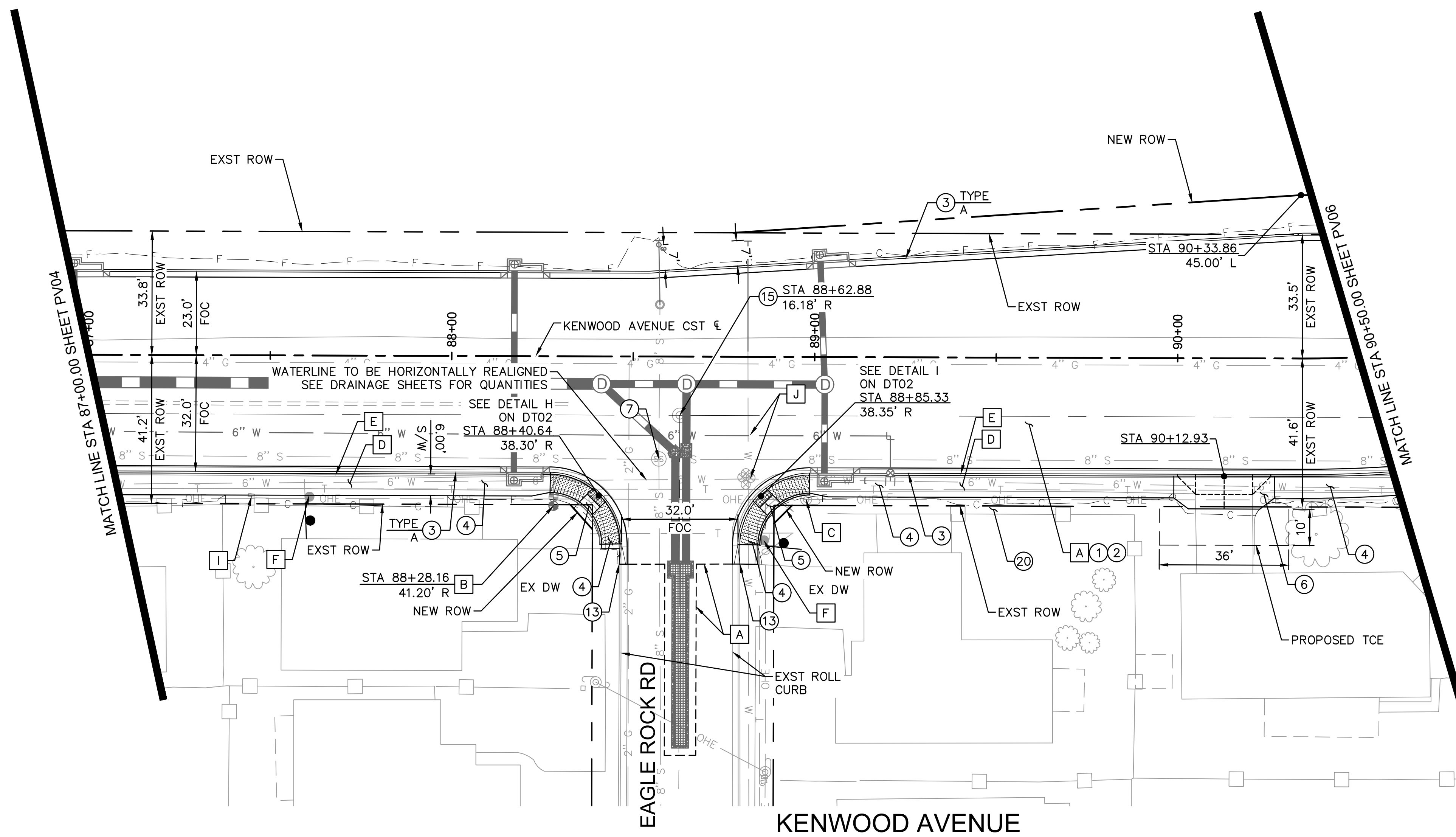
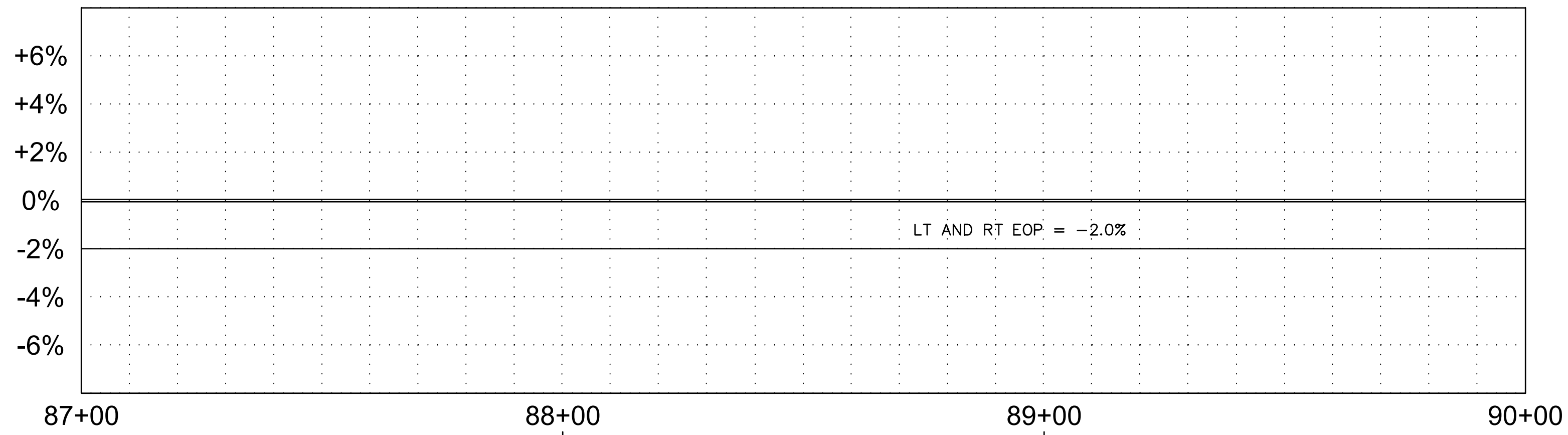


NOTE:
 1. ALL MEASUREMENTS AND ELEVATIONS ARE TO THE TOP OF FACE OF CURB AND GUTTER LINE
 2. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN IS BASED ON RECORD DRAWINGS OF THE VARIOUS UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



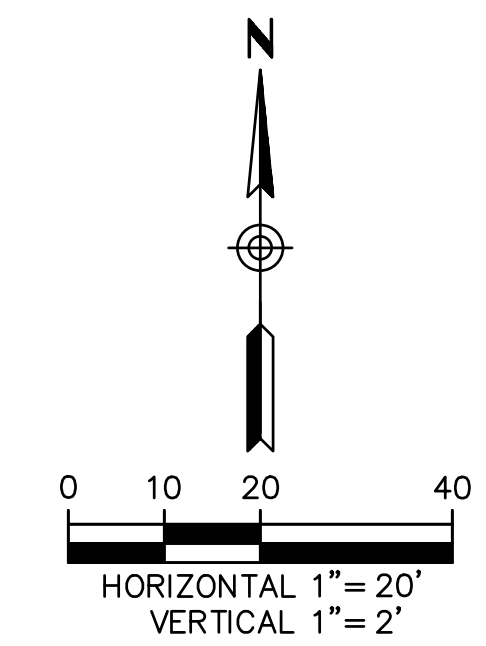
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| | | |
|--|--|--|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 33-221038-PR04.dwg |
| EASTERN STREET ROADWAY PROFILE | | SHEET NO. PR04 33 OF 58 |



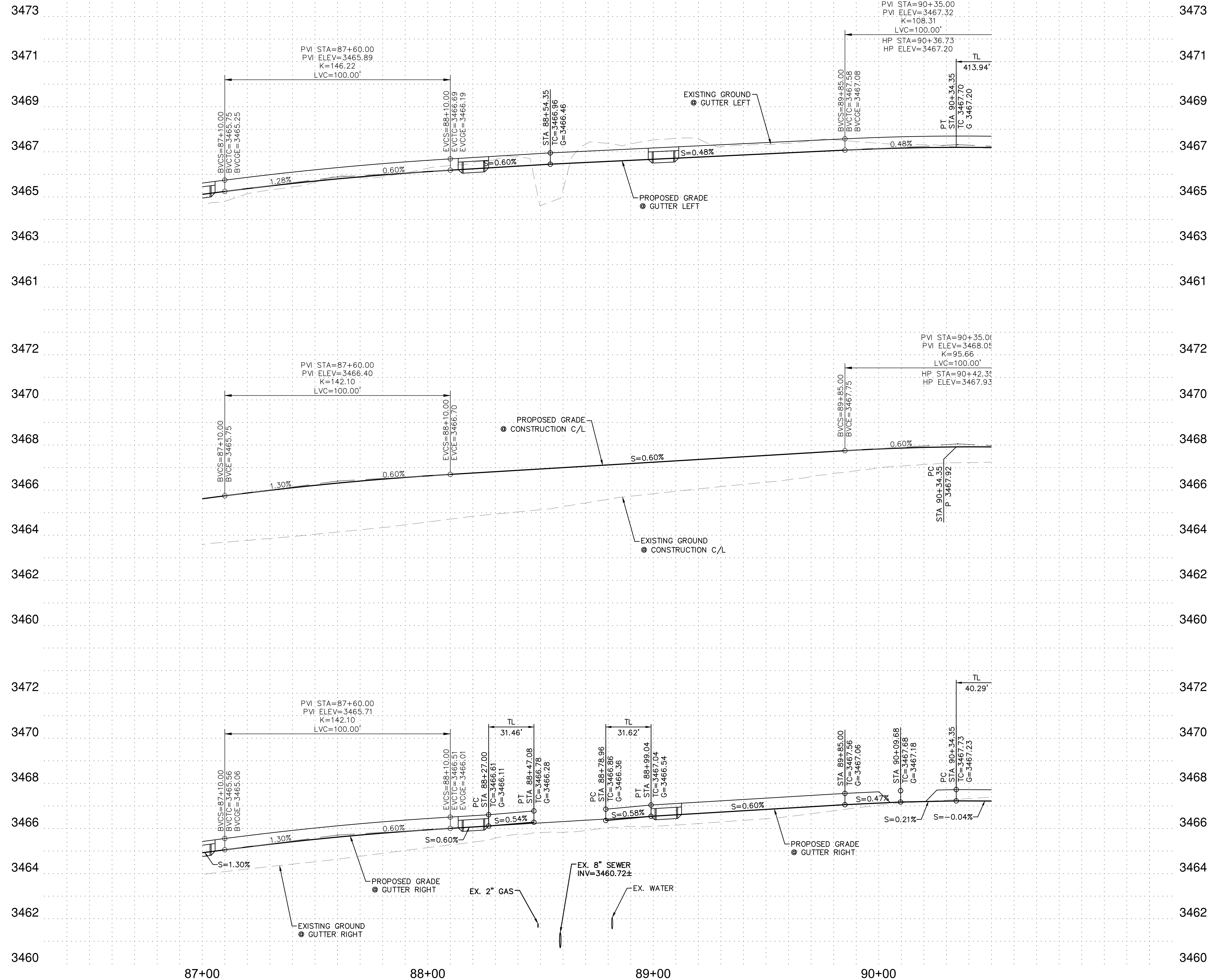
| REMOVAL NOTES | | | |
|---------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 1,565 | SY |
| B | REMOVE & RELOCATE EXISTING FIRE HYDRANT PER COK STD DET 360 | 1 | EA |
| C | REMOVE & RELOCATE EXISTING POWER POLE BY OTHERS | 1 | EA |
| D | REMOVE SIDEWALK | 1,377 | SF |
| E | REMOVE CONCRETE CURB & GUTTER | 353 | LF |
| F | EXISTING SIGN TO BE SALVAGED AND RETURNED TO COK PUBLIC WORKS. WHERE APPLICABLE COK WILL SUPPLY NEW SIGNS, NEW BASE AND POST TO BE INSTALLED PER COK DET 132 | 2 | EA |
| I | RELOCATE EXISTING WATER METER | 1 | EA |
| J | RELOCATE EXISTING WATER VALVE | 4 | EA |

| CONSTRUCTION NOTES | | | |
|--------------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| 1 | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 2,303 | SY |
| 2 | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 2,303 | SY |
| 3 | CURB & GUTTER PER MAG STD DET 220 | 502 | LF |
| 4 | SIDEWALK PER COK STD DET 230 | 1,549 | SF |
| 5 | SIDEWALK RAMP PER COK STD DET 233 | 2 | EA |
| 6 | CONCRETE DRIVEWAY PER MAG STD DET 250-2 MATCH EXST WIDTH, MIN 16' | 1 | EA |
| 7 | RESET FRAME AND COVER FOR MANHOLE PER COK STD DET 422 | 1 | EA |
| 13 | CURB TRANSITION TYPE A TO TYPE C PER MAG STD DET 221 | 2 | EA |
| 15 | EXISTING SURVEY MARKER TO BE RESET BY COK SURVEY DEPARTMENT (NON PAYMENT ITEM) | 1 | EA |
| 20 | PRESERVE EXISTING LANDSCAPING BETWEEN NEW S/W AND EXISTING BLOCK WALL | 1 | EA |

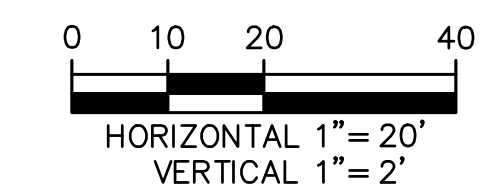


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| | | |
|---|--|-----------------------------------|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 34-221038-PV05.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET ROADWAY PLAN | | |
| SHEET NO. PV05 | | EXPIRES 03/31/2024 |
| 34 OF 58 | | |



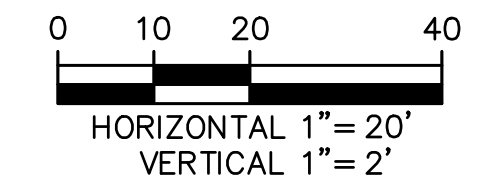
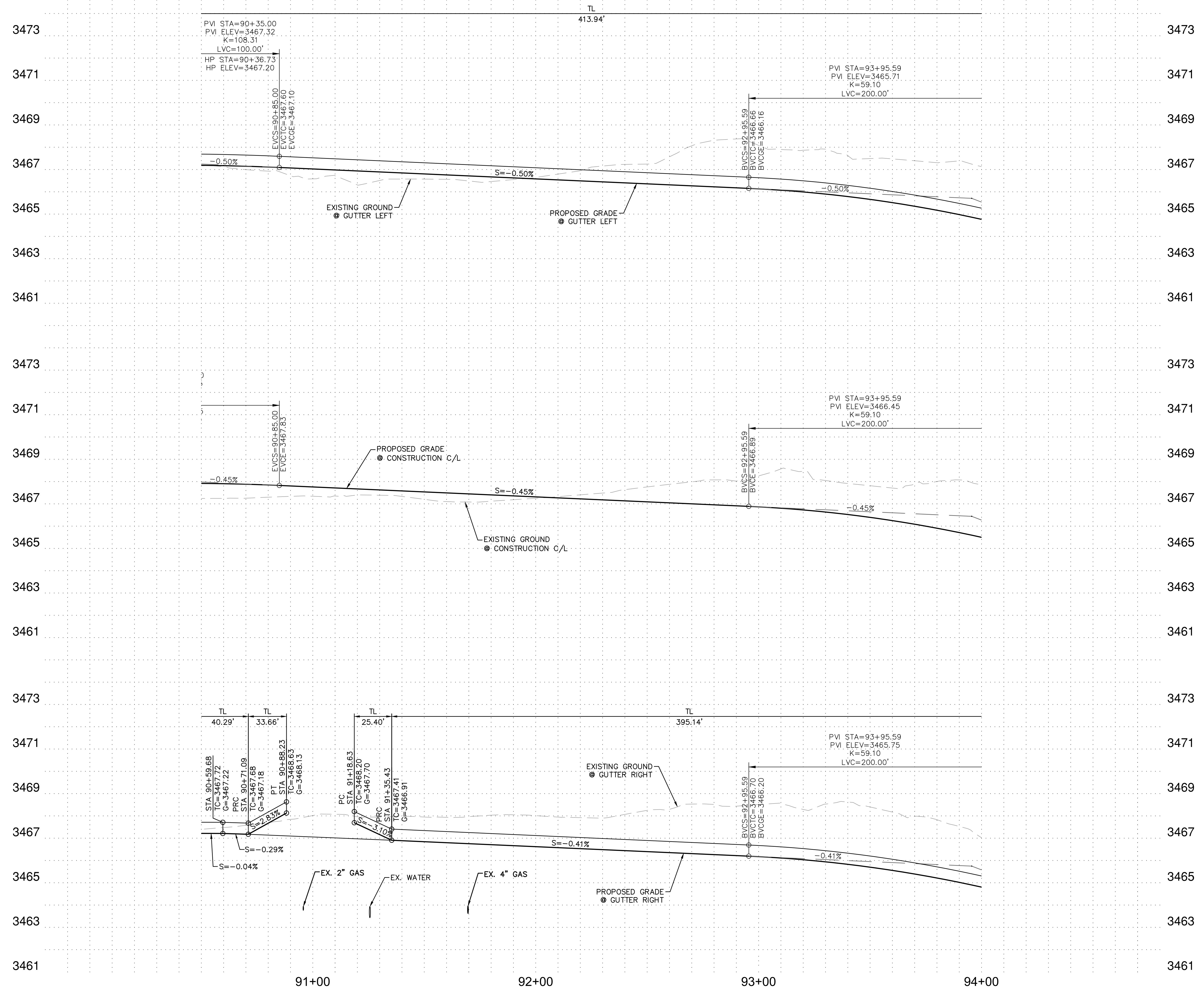
- NOTE:
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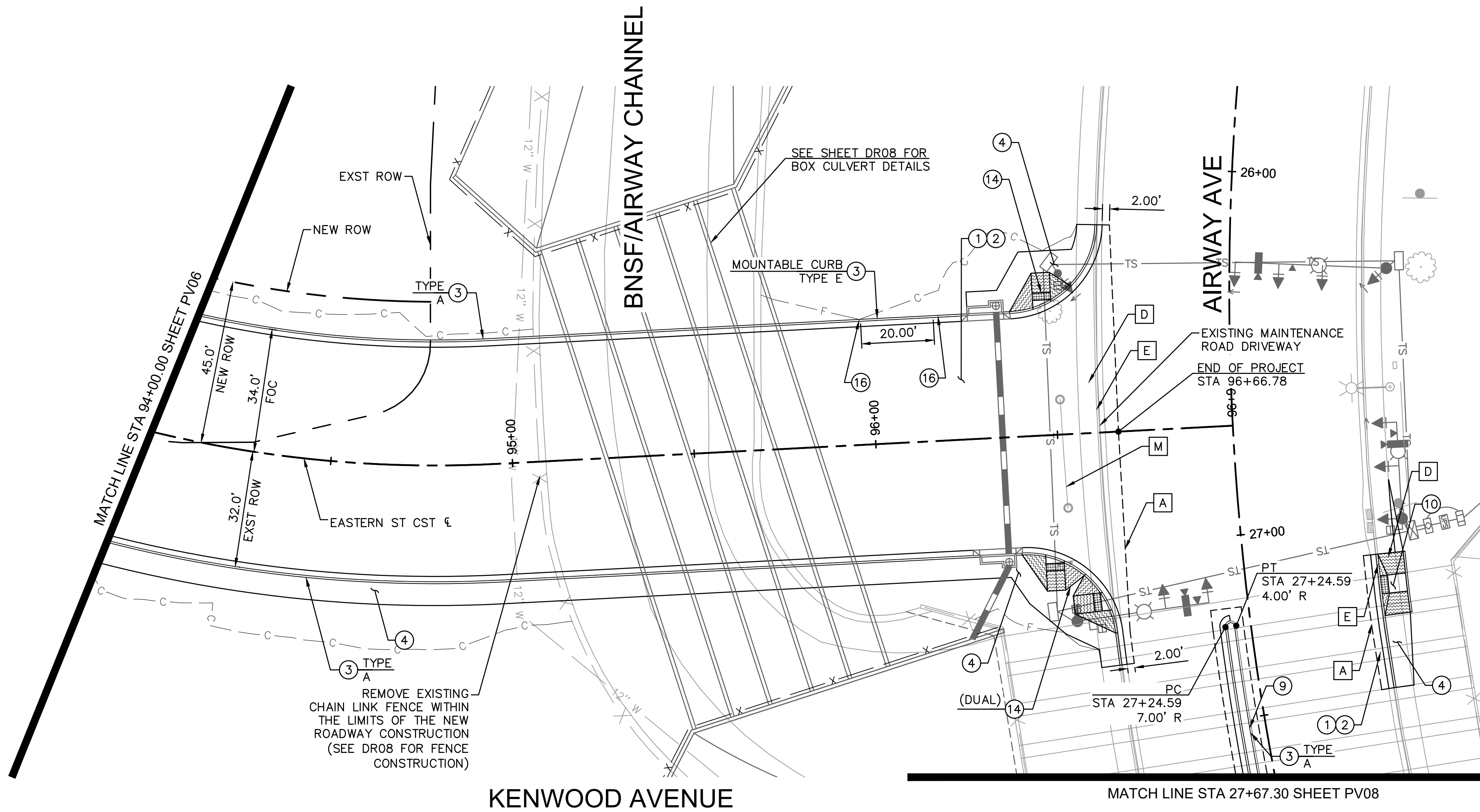
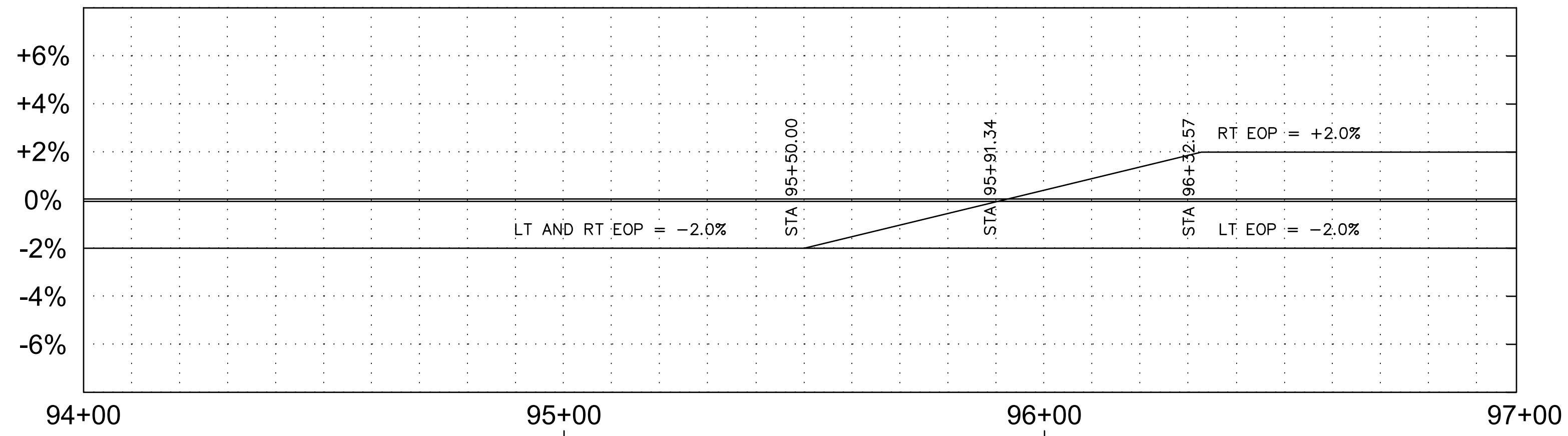
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 35-221038-PR05.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET ROADWAY PROFILE | | SHEET NO. PR05 35 OF 58 |

NOTE:
 1. ALL MEASUREMENTS AND ELEVATIONS ARE TO THE TOP OF FACE OF CURB AND GUTTER LINE
 2. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN IS BASED ON RECORD DRAWINGS OF THE VARIOUS UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



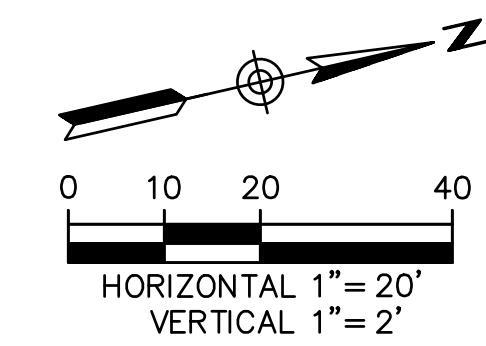
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|--|--|--|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 37-221038-PR06.dwg |
| EASTERN STREET ROADWAY PROFILE | | SHEET NO. PR06 37 OF 58 |



| CONSTRUCTION NOTES | | | |
|--------------------|-----------------------------------|------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 93 | SY |
| D | REMOVE SIDEWALK | 87 | SF |
| E | REMOVE CONCRETE CURB & GUTTER | 205 | LF |
| M | REMOVE EXISTING ACCESS GATE | 1 | EA |

| CONSTRUCTION NOTES | | | |
|--------------------|--|-------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| 1 | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 1,942 | SY |
| 2 | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 1,942 | SY |
| 3 | CURB & GUTTER PER MAG STD DET 220 | 545 | LF |
| 4 | SIDEWALK PER COK STD DET 230 | 2,198 | SF |
| 9 | SINGLE CURB PER MAG STD DET 222 TYPE A | 45 | LF |
| 10 | SIDEWALK RAMP PER MAG STD DET 238-2 | 1 | EA |
| 14 | SIDEWALK RAMP PER MAG STD DET 237-1 | 2 | EA |
| 16 | CURB TRANSITION TYPE A TO TYPE E PER MAG STD DET 220-2 | 2 | EA |

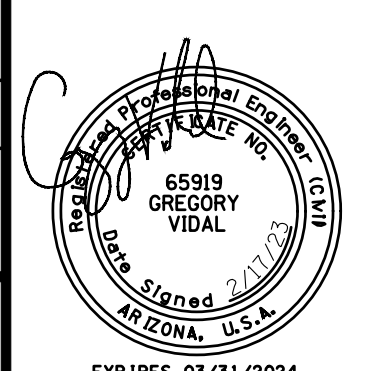


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EASTERN STREET
 CALUMET TO AIRWAY AVE

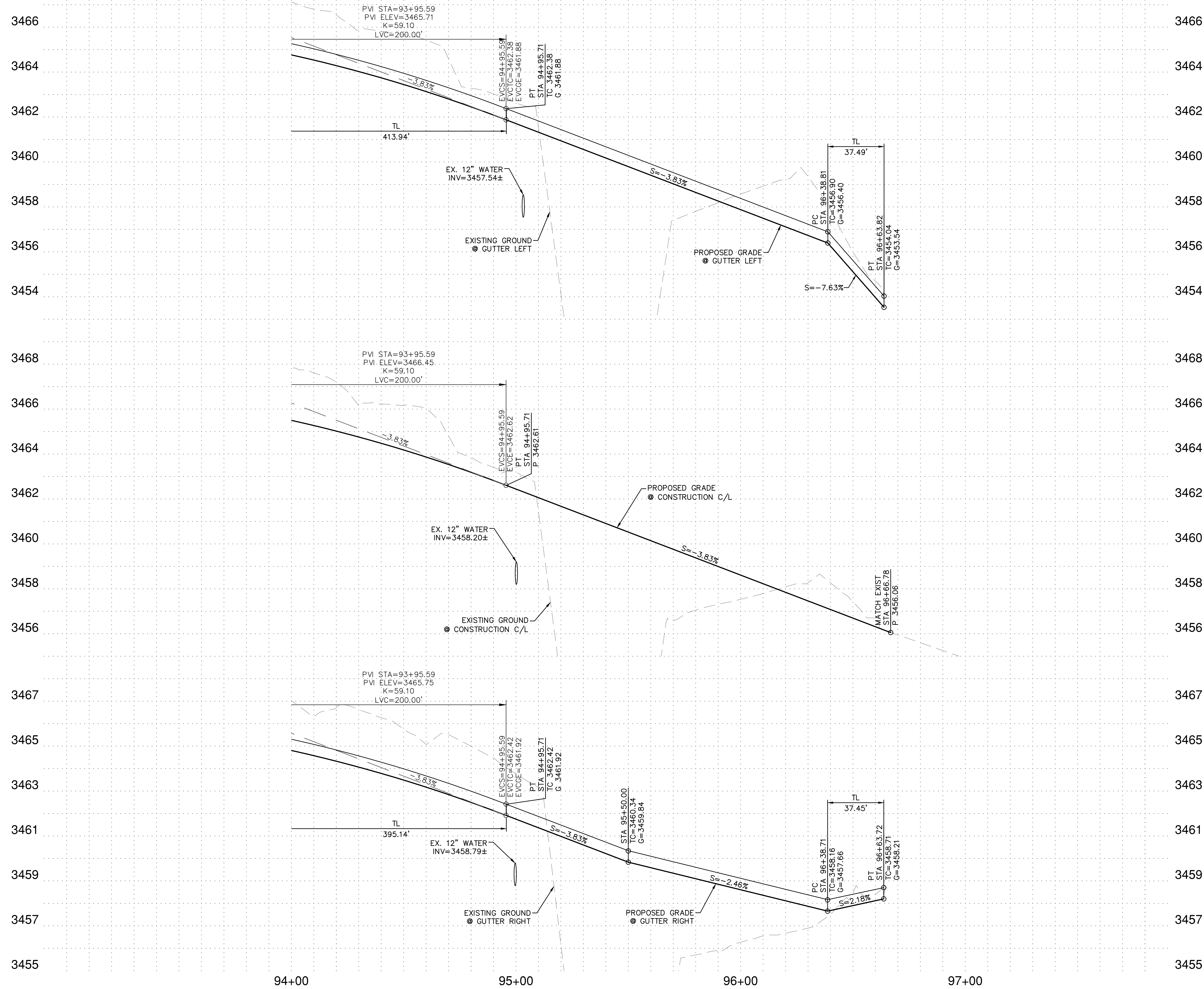
C.O.K. PROJECT NO.
 ENG 21-0001
 FILENAME
 38-221038-PV07.dwg

CITY OF KINGMAN
 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118

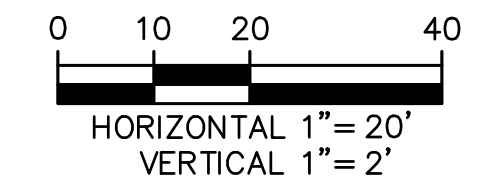


EASTERN STREET
 ROADWAY PLAN

SHEET NO.
PV07
 38 OF 58



NOTE:
 1. ALL MEASUREMENTS AND ELEVATIONS ARE TO THE TOP OF FACE OF CURB AND GUTTER LINE
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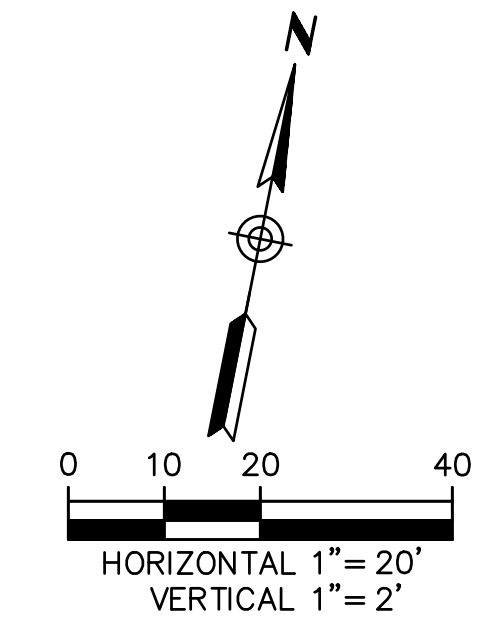
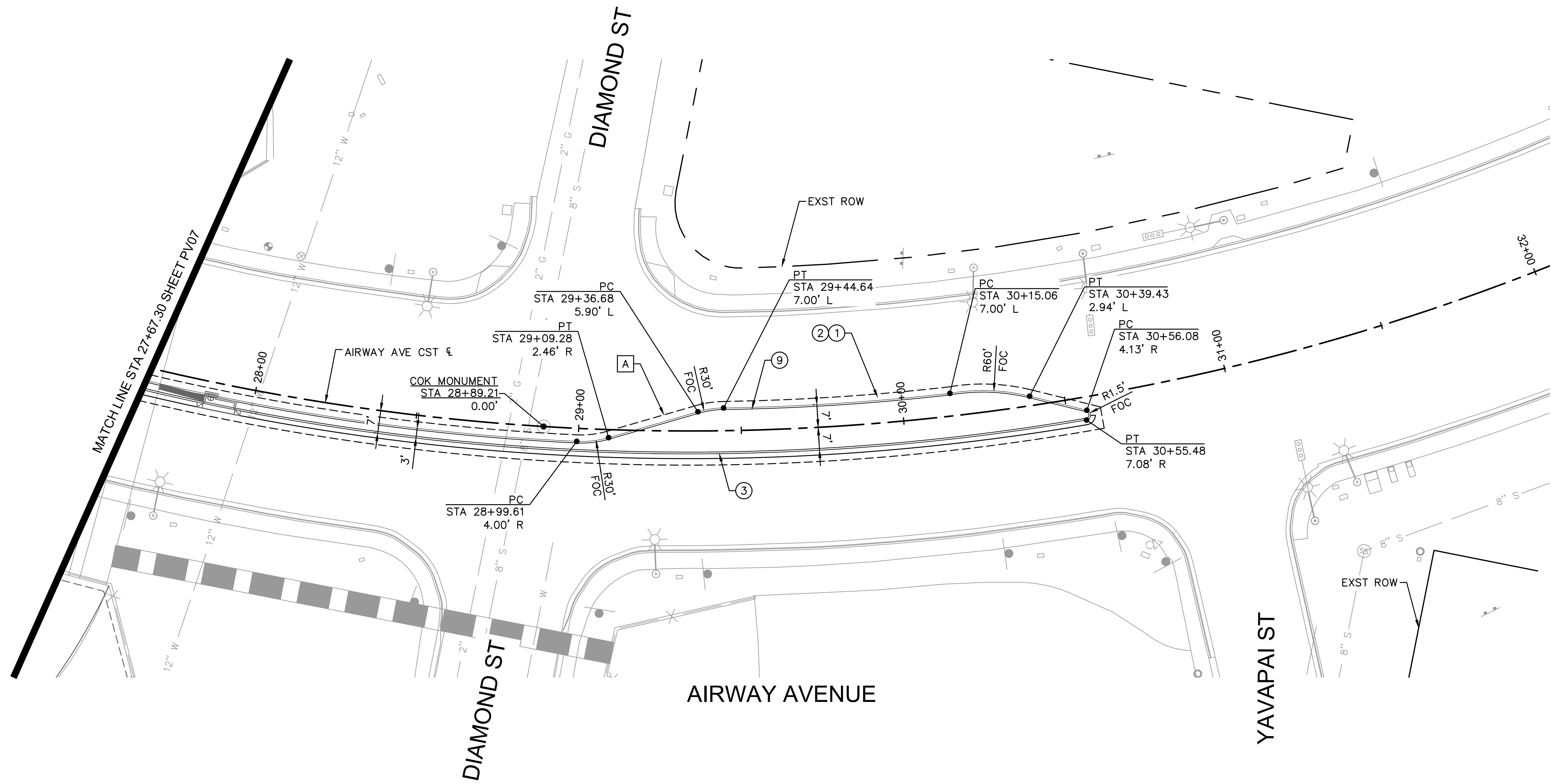
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 39-221038-PR07.dwg |
| EASTERN STREET ROADWAY PROFILE | | SHEET NO. PR07 39 OF 58 |

CONSTRUCTION NOTES

| NO. | DESCRIPTION | QTY. | UNITS |
|-----|-----------------------------------|------|-------|
| A | SAWCUT & REMOVE EXISTING PAVEMENT | 427 | SY |

CONSTRUCTION NOTES

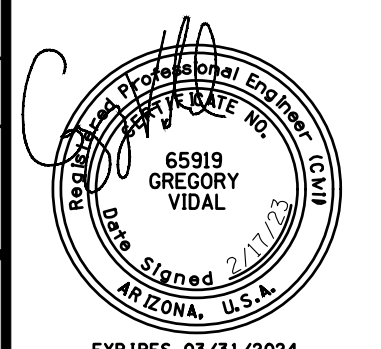
| NO. | DESCRIPTION | QTY. | UNITS |
|-----|--|------|-------|
| ① | ASPHALT CONCRETE PVMT PER PVMT STRUCTURAL SECTION NO.1 | 427 | SY |
| ② | AGGREGATE BASE COURSE PER PVMT STRUCTURAL SECTION NO. 1 (INCLUDES SUBGRADE PREP) | 427 | SY |
| ③ | CURB & GUTTER PER MAG STD DET 220 | 294 | LF |
| ⑨ | SINGLE CURB PER MAG STD DET 222 TYPE A | 295 | LF |



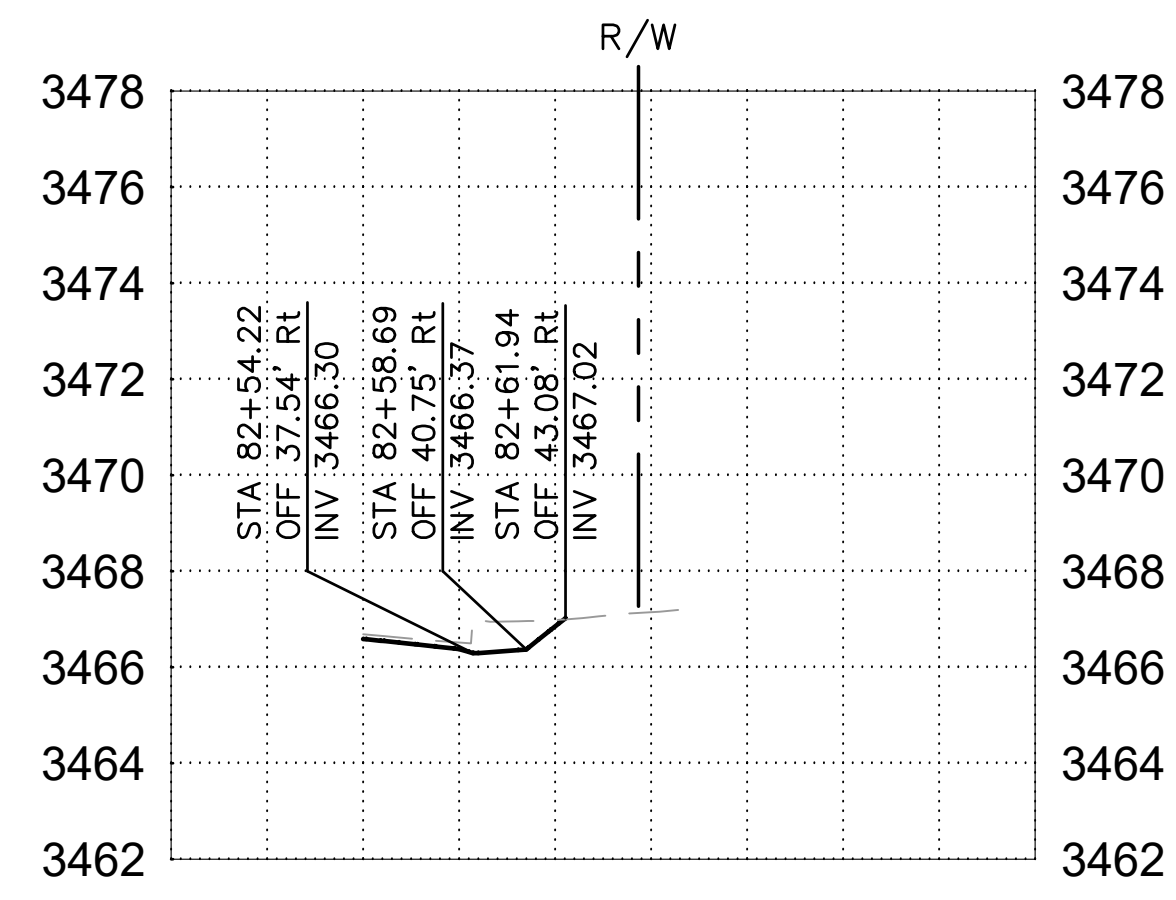
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| EASTERN STREET CALUMET TO AIRWAY AVE | C.O.K. PROJECT NO. ENG 21-0001 |
| | FILENAME 40-221038-PV08.dwg |

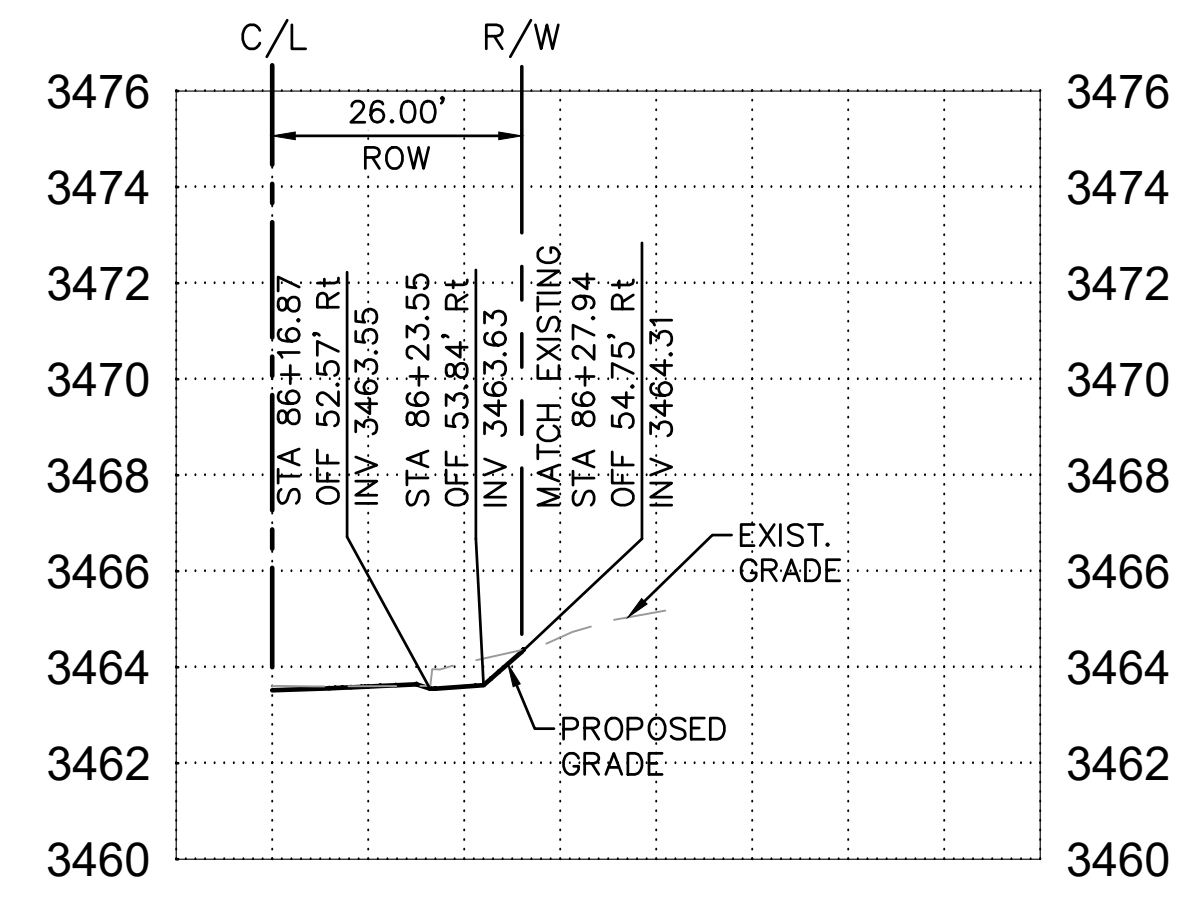
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ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118



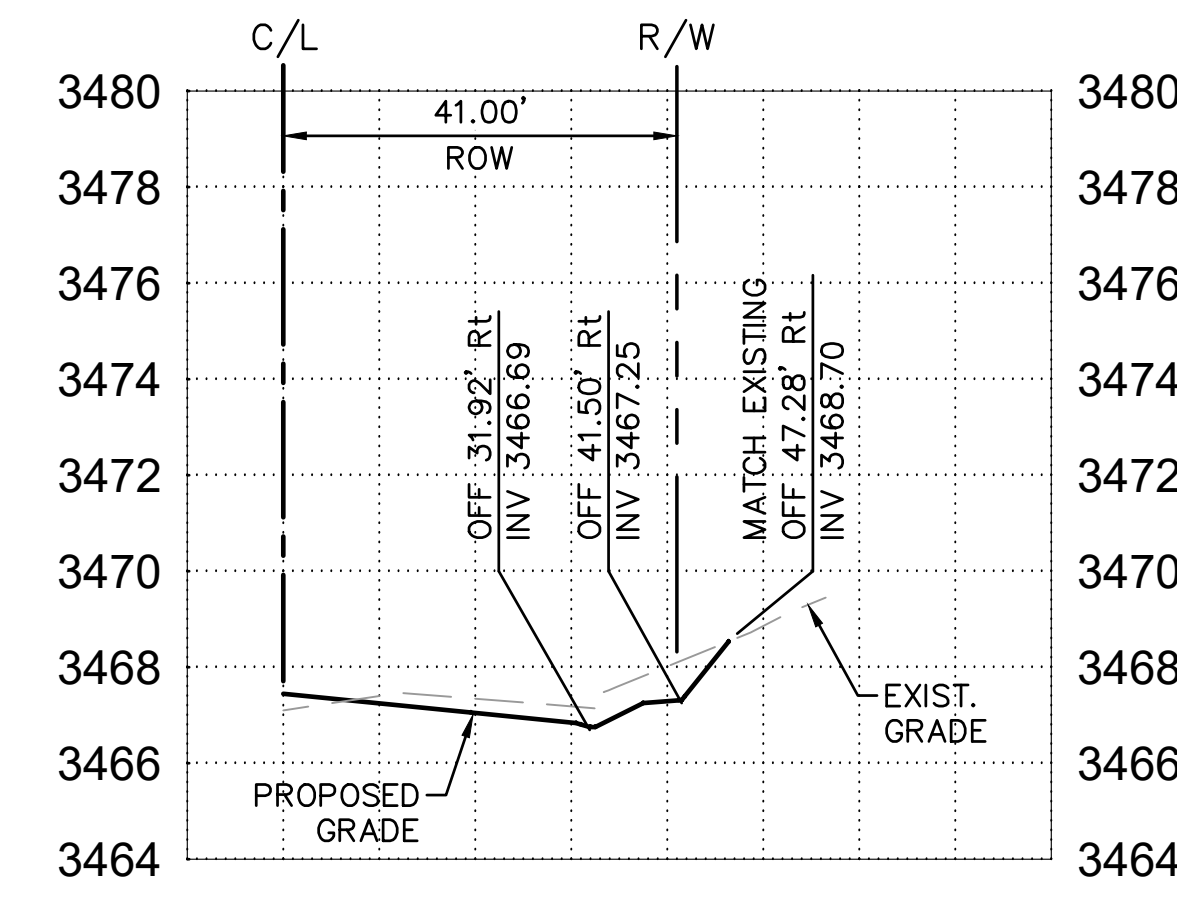
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| EASTERN STREET ROADWAY PLAN | SHEET NO. PV08 40 OF 58 |
|--------------------------------|--------------------------------------|



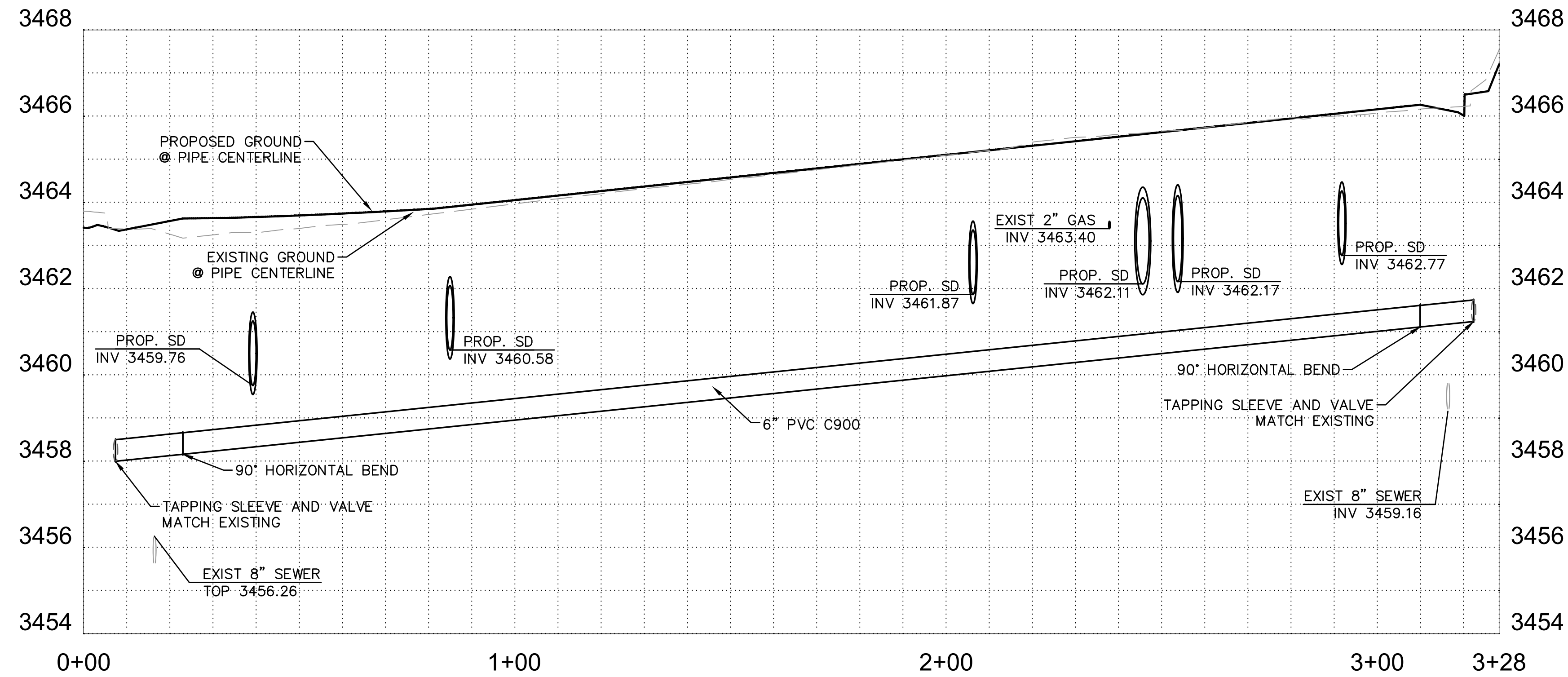
Prescott St DW



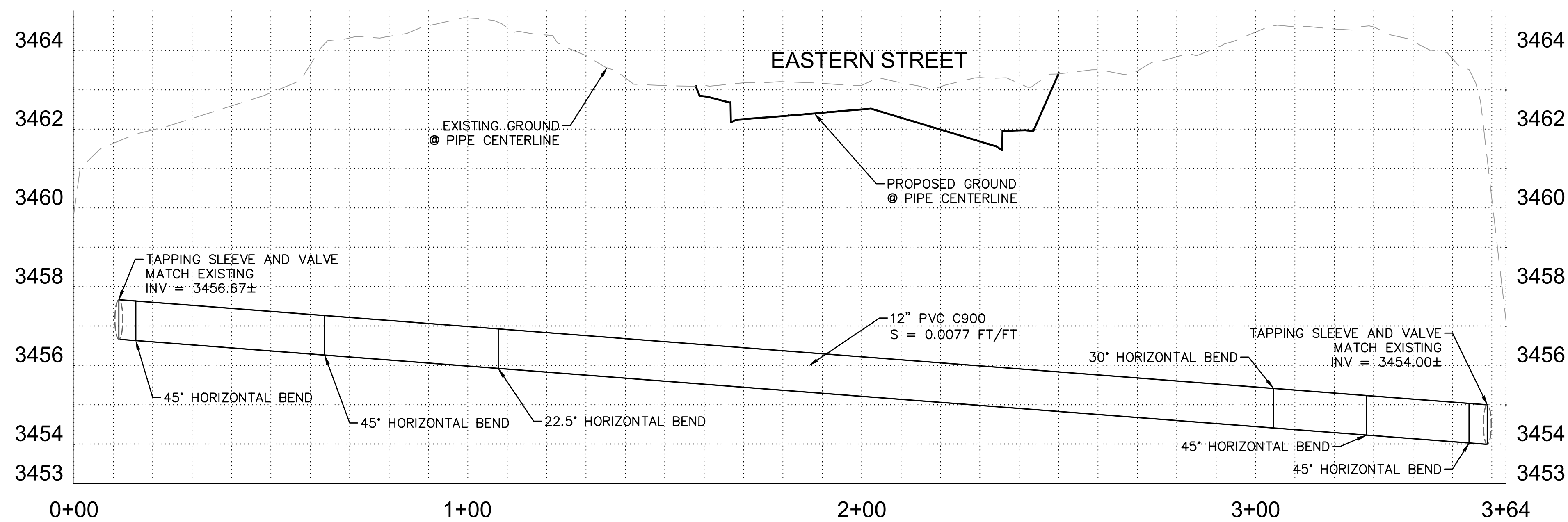
Central DW



Kenwood Ave DW 90+12.93



PROPOSED 6" WATERLINE
SEE DR04 & DR05 FOR STA OFF



PROPOSED 12" WATERLINE
SEE DR08 FOR STA OFF

NOTE:
CONTRACTOR TO VERIFY DEPTH
BEFORE CONSTRUCTION

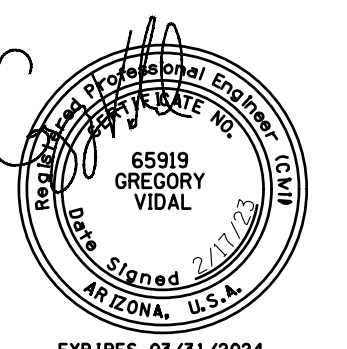


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EASTERN STREET
CALUMET TO AIRWAY AVE

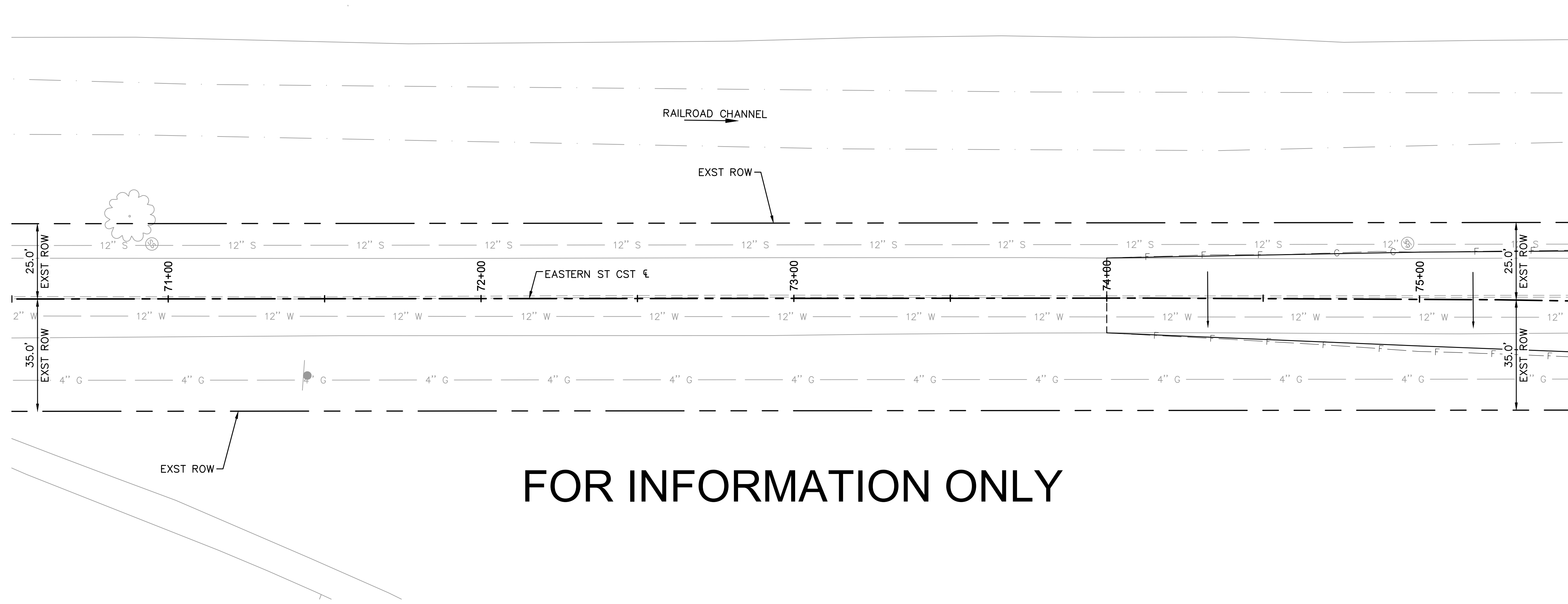
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ENG 21-0001
FILENAME
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CITY OF KINGMAN
ENGINEERING DEPARTMENT
310 NORTH 4TH STREET
KINGMAN, ARIZONA 86401
PHONE (928) 753-8122 FAX (928) 753-8118



EASTERN STREET
DRIVEWAY & WATERLINE
PROFILE

SHEET NO.
DW01
41 OF 58



MATCH LINE STA 75+50.00 SHEET DR02

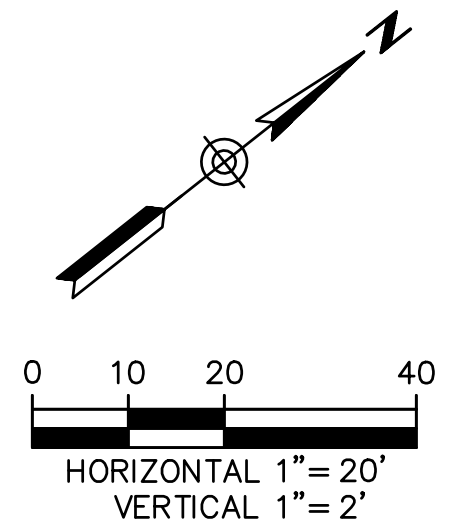
FOR INFORMATION ONLY

EASTERN STREET

SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS

| | | | | | |
|------|-------|-------|-------|-------|-------|
| 3478 | | 3478 | | | |
| 3476 | | 3476 | | | |
| 3474 | | 3474 | | | |
| 3472 | | 3472 | | | |
| 3470 | | 3470 | | | |
| 3468 | | 3468 | | | |
| 3466 | | 3466 | | | |
| 3464 | | 3464 | | | |
| 3462 | | 3462 | | | |
| 3460 | | 3460 | | | |
| 3458 | | 3458 | | | |
| 3456 | | 3456 | | | |
| | 71+00 | 72+00 | 73+00 | 74+00 | 75+00 |

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EASTERN STREET
CALUMET TO AIRWAY AVE

CITY OF KINGMAN
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 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
 PHONE (928) 753-8122 FAX (928) 753-8118

C.O.K. PROJECT NO.
 ENG 21-0001

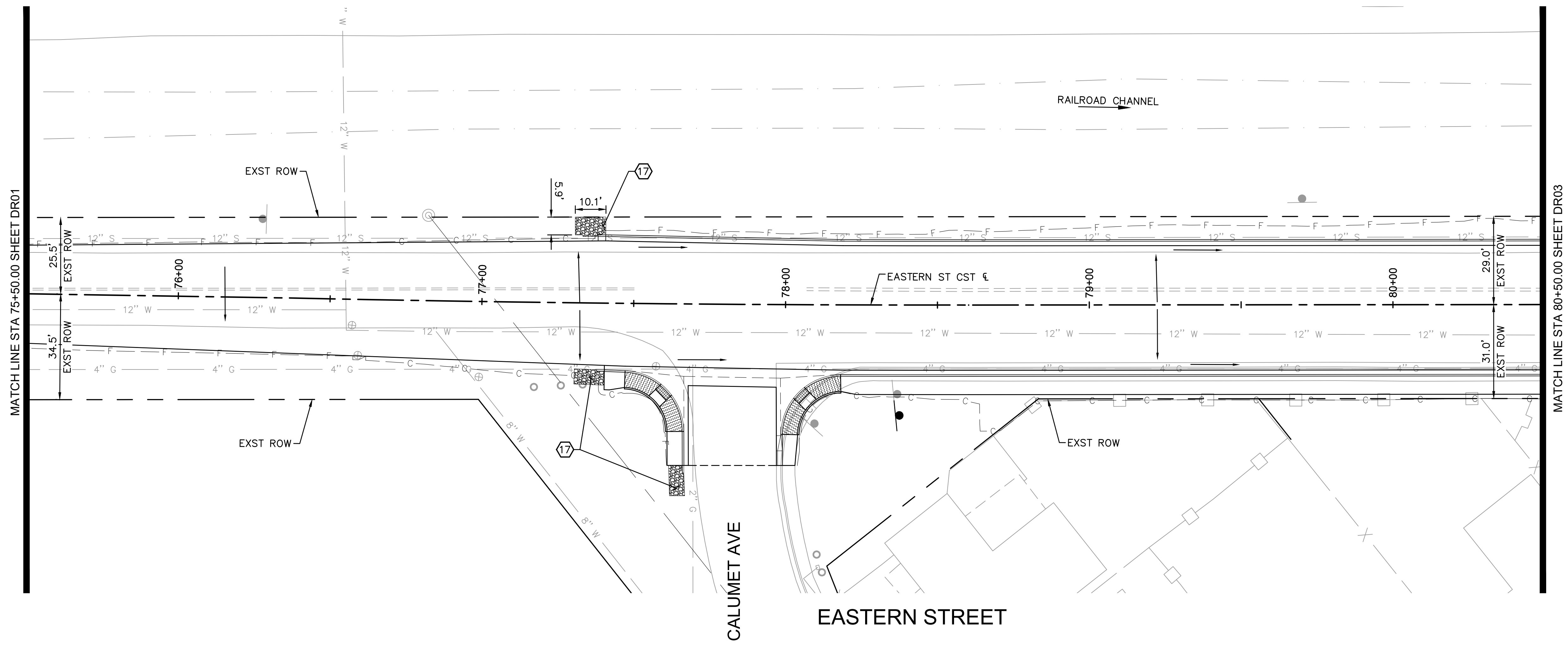
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 42-221038-DR01.dwg

EASTERN STREET
DRAINAGE PLAN
AND PROFILE

SHEET NO.
DR01
 42 OF 58

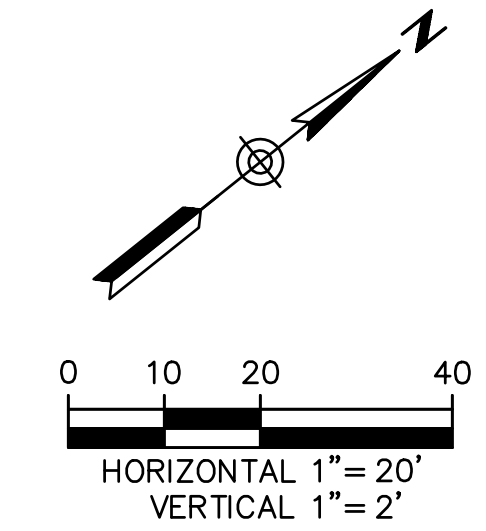
DRAINAGE NOTES

| NO. | DESCRIPTION | QTY. | UNITS |
|-----|---|------|-------|
| 17 | GRAUDED RIPRAP PER MAG SECTION 220, D50=6", T=12" | 3 | CY |



SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS

| | | | | | |
|------|----------------------|-------|-------|-------|-------|
| 3478 | | 3478 | | | |
| 3476 | | 3476 | | | |
| 3474 | | 3474 | | | |
| 3472 | | 3472 | | | |
| 3470 | | 3470 | | | |
| 3468 | FOR INFORMATION ONLY | 3468 | | | |
| 3466 | | 3466 | | | |
| 3464 | | 3464 | | | |
| 3462 | | 3462 | | | |
| 3460 | | 3460 | | | |
| 3458 | | 3458 | | | |
| 3456 | | 3456 | | | |
| | 76+00 | 77+00 | 78+00 | 79+00 | 80+00 |



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EASTERN STREET
CALUMET TO AIRWAY AVE

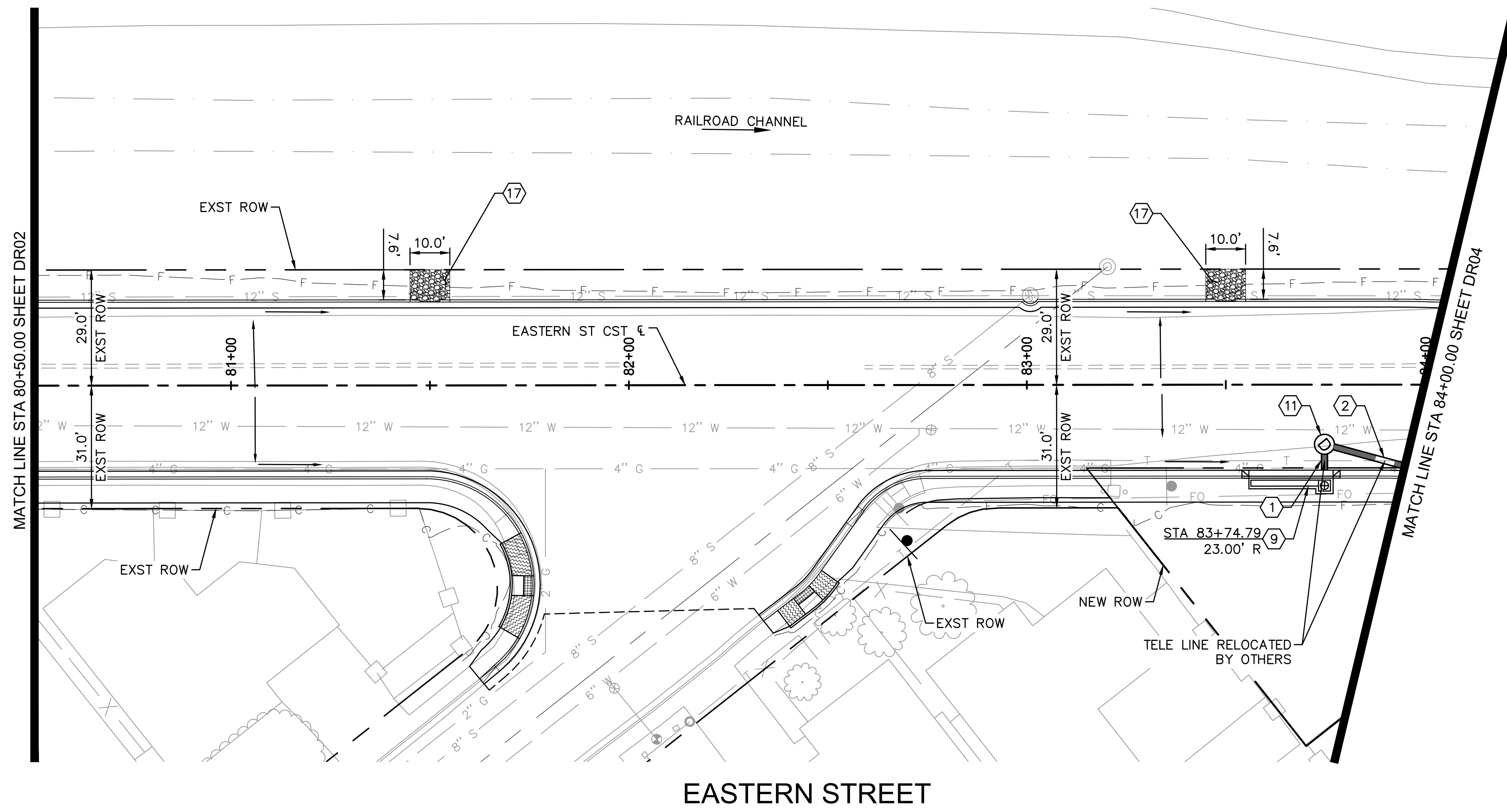
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 ENGINEERING DEPARTMENT
 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
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C.O.K. PROJECT NO.
 ENG 21-0001
 FILENAME
 43-221038-DR02.dwg



EASTERN STREET
 DRAINAGE PLAN
 AND PROFILE

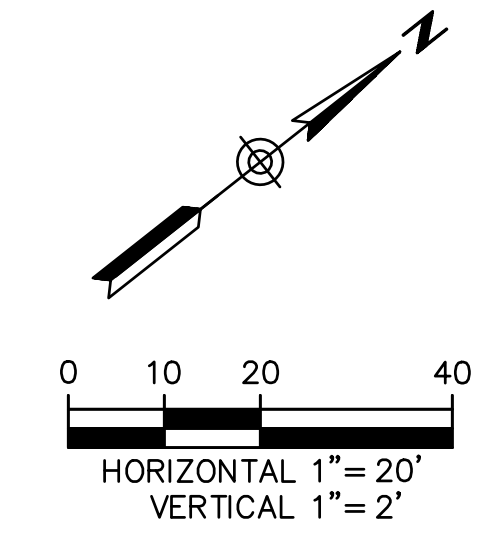
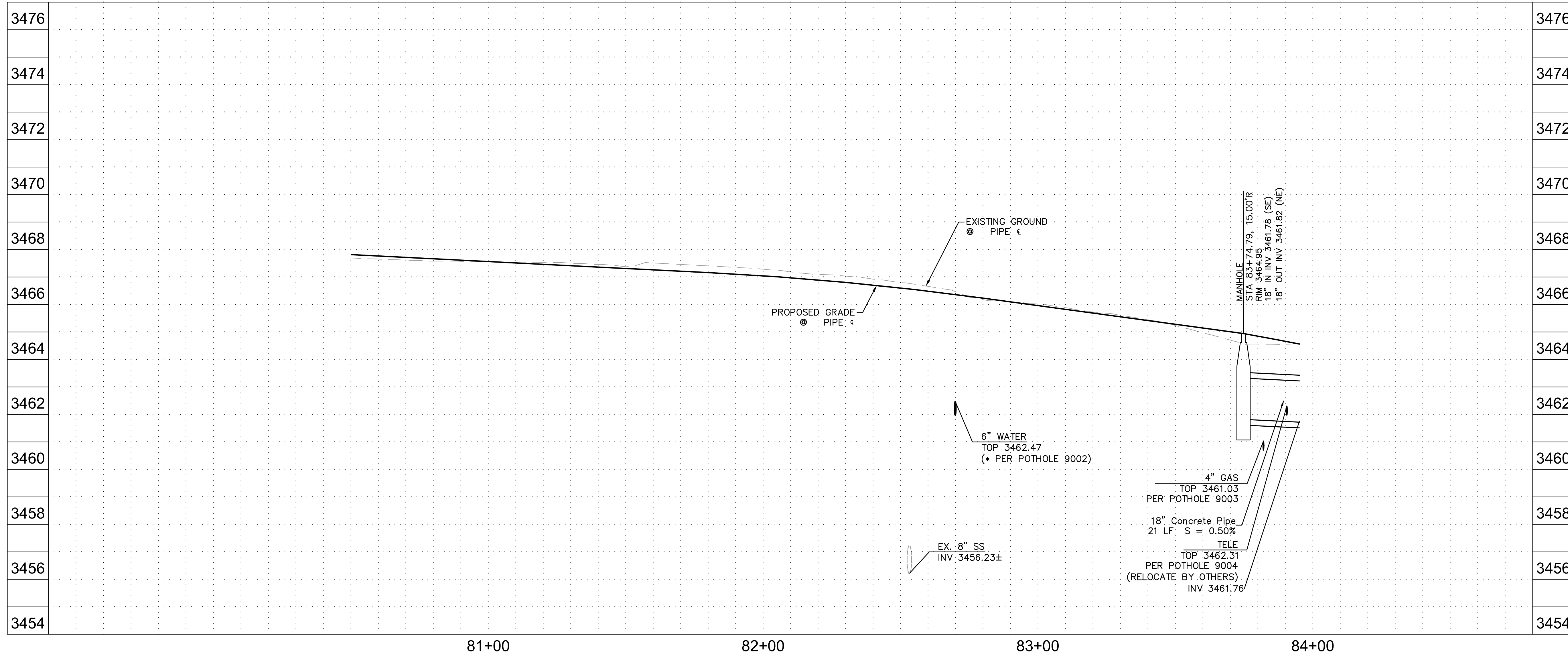
SHEET NO.
DR02
 43 OF 58



EASTERN STREET

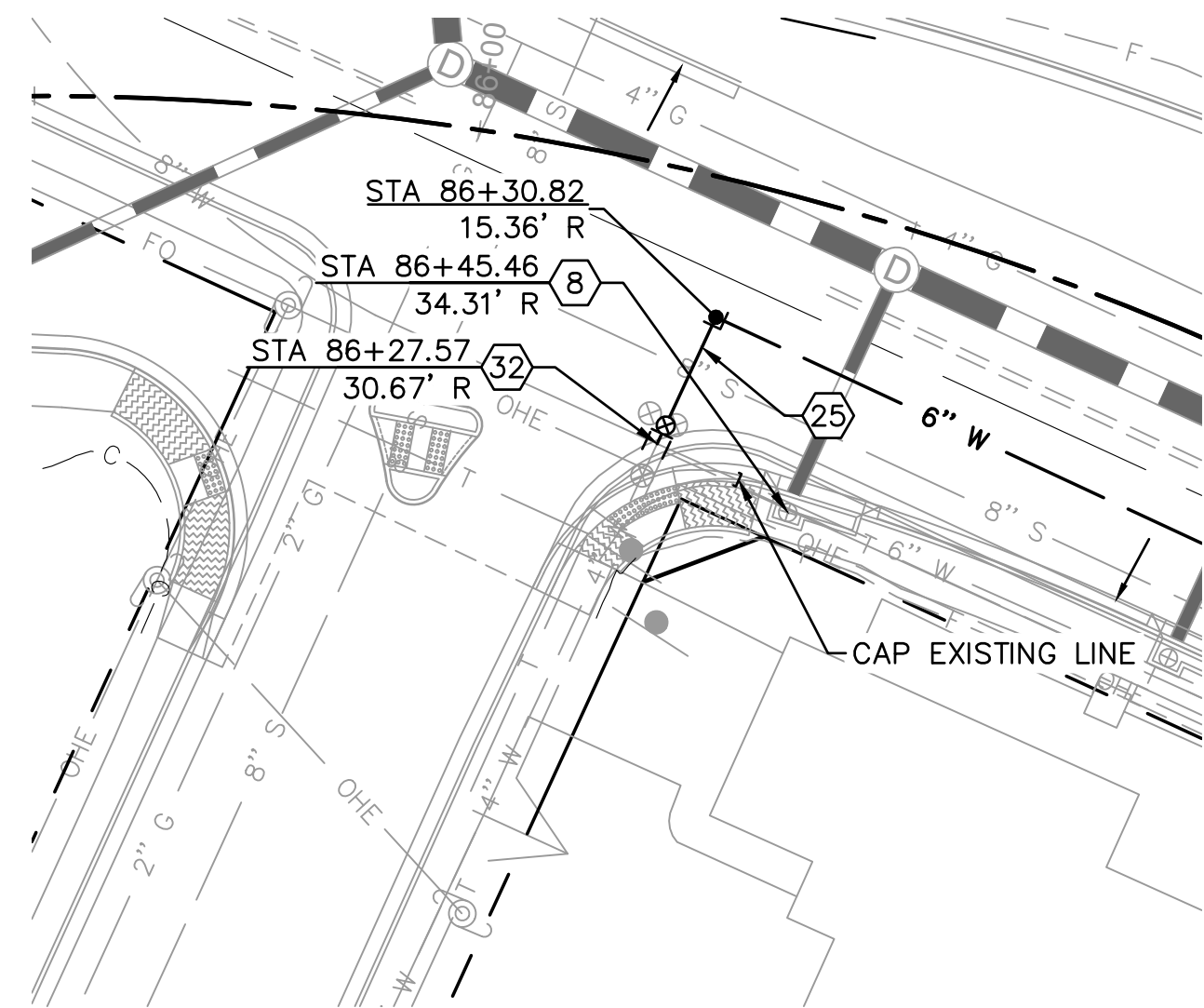
| DRAINAGE NOTES | | | |
|----------------|---|------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| ① | 18" RGRCP, CLASS III | 10 | LF |
| ② | 18" RGRCP, CLASS IV | 19 | LF |
| ⑨ | CATCH BASIN PER MAG STD DET 533-1 L=17' | 1 | EA |
| ⑪ | MANHOLE PER MAG STD DET 520 & 522 & CITY OF KINGMAN DET 422 | 1 | EA |
| ⑰ | GROUTED RIPRAP PER MAG SECTION 220, D50=6", T=12" | 6 | CY |

SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS

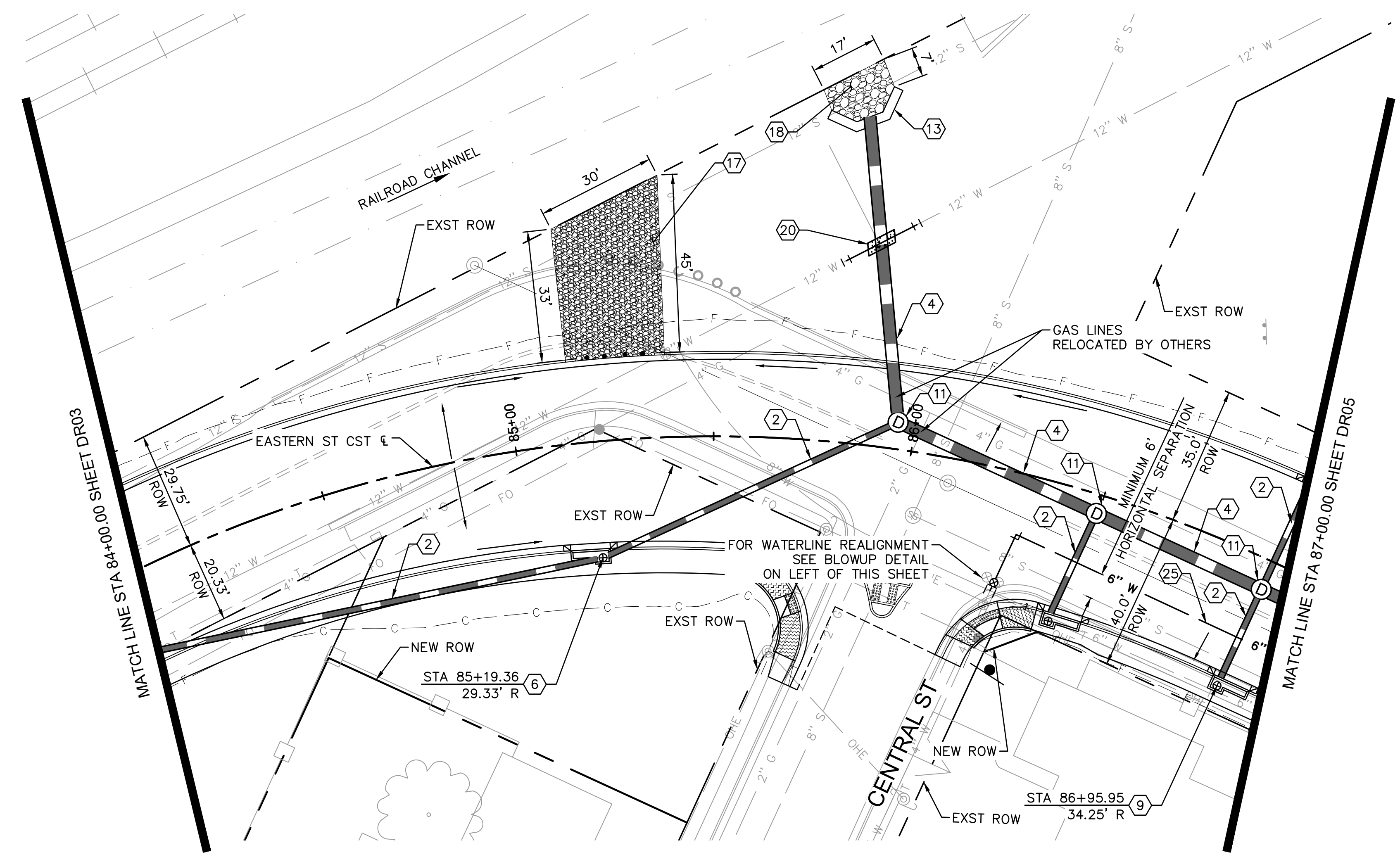


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|--|--|--|
| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 44-221038-DR03.dwg |
| EASTERN STREET DRAINAGE PLAN AND PROFILE | | SHEET NO. DR03 44 OF 58 |



REALIGNMENT DETAIL



EASTERN STREET

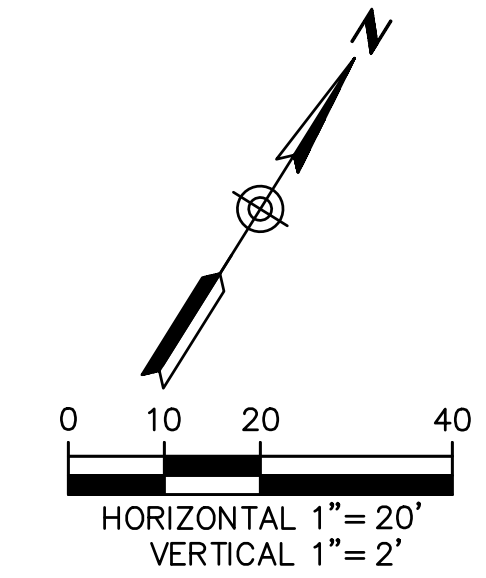
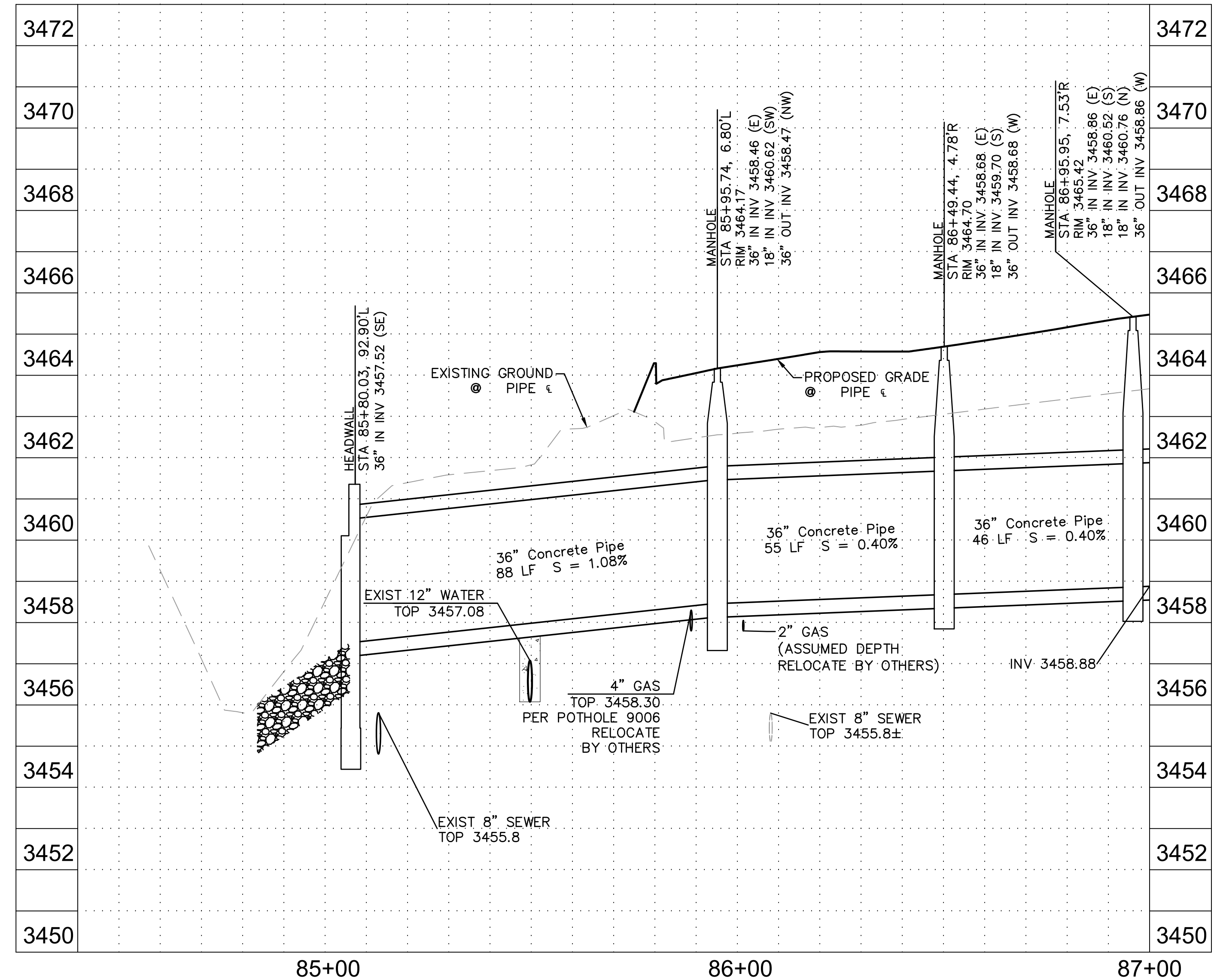
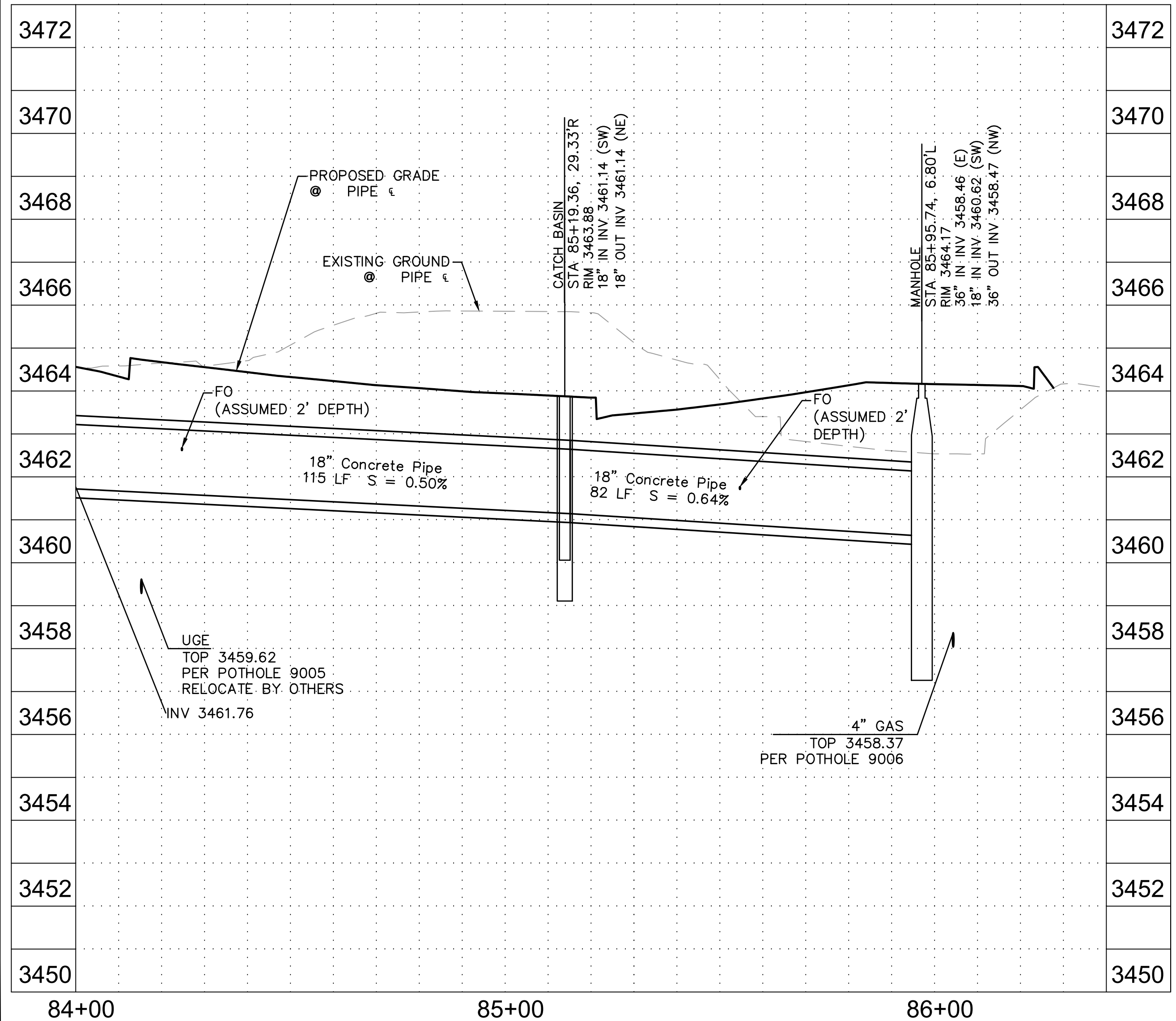
KENWOOD AVENUE

| CONSTRUCTION NOTES | | |
|--------------------|---|------------|
| NO. | DESCRIPTION | QTY. UNITS |
| 2 | 18" RGRCP, CLASS IV | 267 LF |
| 4 | 36" RGRCP, CLASS IV | 166 LF |
| 6 | CATCH BASIN PER MAG STD DET 530, L=3.5' | 1 EA |
| 8 | CATCH BASIN PER MAG STD DET 532 L=8.0' | 1 EA |
| 9 | CATCH BASIN PER MAG STD DET 533-1 L=17' | 1 EA |
| 11 | MANHOLE PER MAG STD DET 520 & 522 & CITY OF KINGMAN DET 422 | 3 EA |
| 13 | HEADWALL PER MAG STD DET 501, "U TYPE" | 1 EA |
| 17 | GROUTED RIPRAP PER MAG SECTION 220, D50=6", T=12" | 39 CY |
| 18 | GROUTED RIPRAP PER MAG SECTION 220, D50=12", T=24" | 13 CY |
| 20 | EXTRA PROTECTION CONCRETE ENCASEMENT PER MAG STD DET 404 | 1 EA |
| 25 | 6" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK 392 | 87 LF |
| 32 | CONNECT TO EXISTING 6" WATERLINE WITH AN 6" X 6" TAPPING SLEEVE AND VALVE, BOX AND COVER PER MAG DETAIL 340 | 1 EA |

SEE SHEET 41 FOR WATERLINE PROFILE

SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS

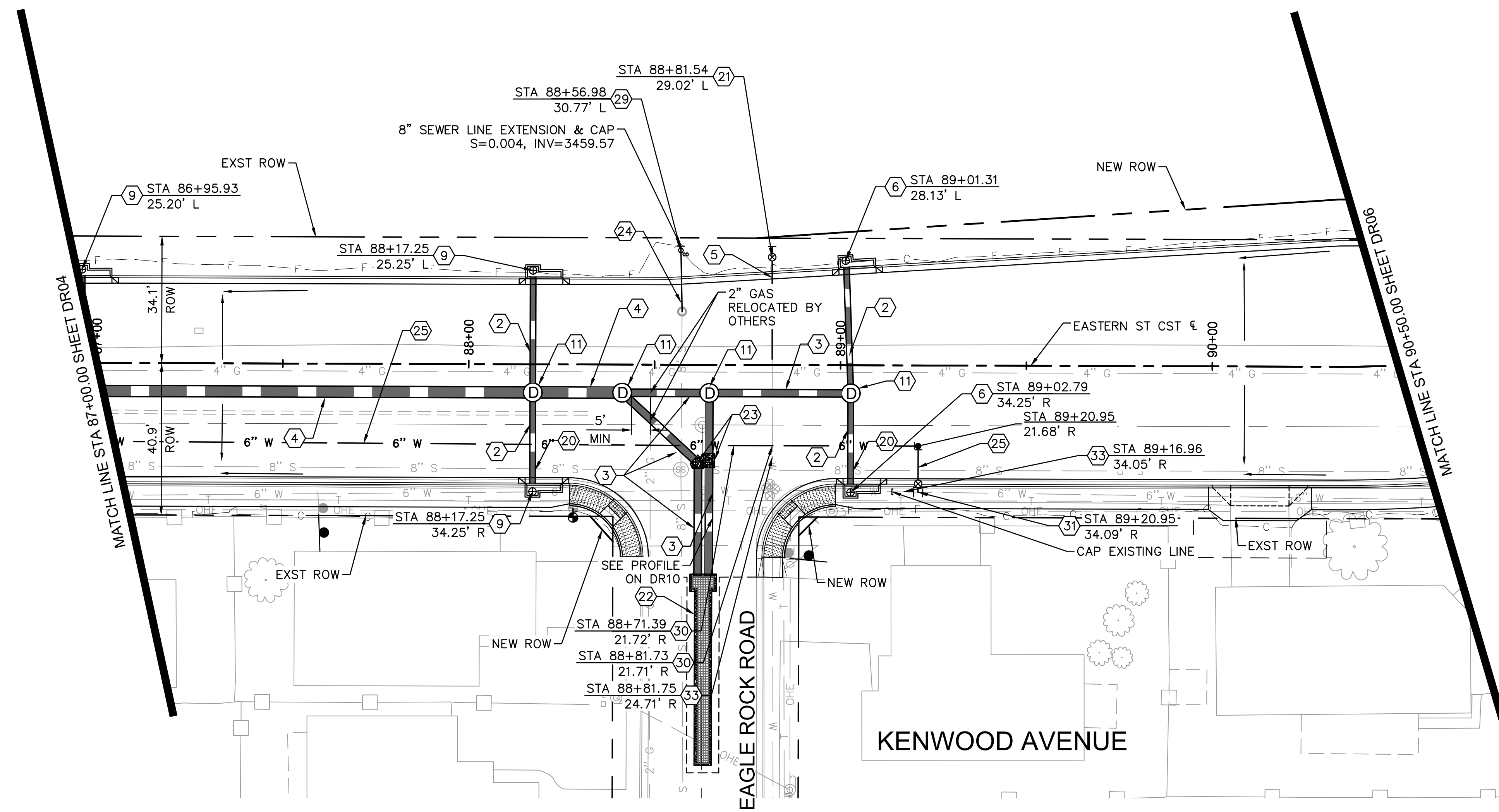
* CONTRACTOR TO VERTICALLY REALIGN WITH THRUST BLOCKS PER MAG STD DET 370 & 381



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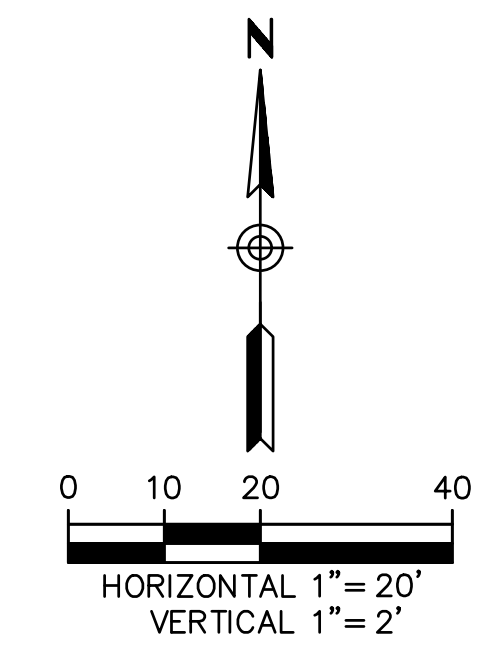
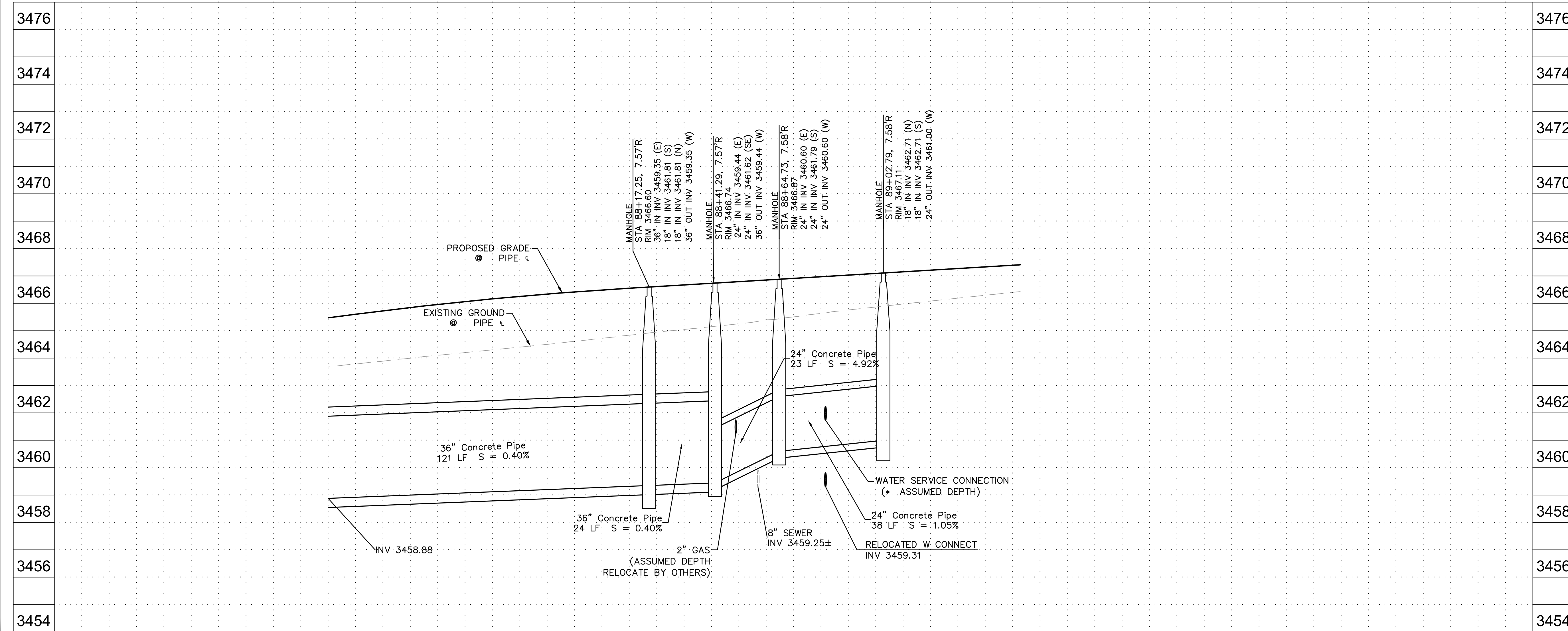
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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 45-221038-DR04.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET DRAINAGE PLAN AND PROFILE | | SHEET NO. DR04 45 OF 58 |



| DRAINAGE NOTES | | | |
|----------------|---|------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| 2 | 18" RGRCP, CLASS IV | 104 | LF |
| 3 | 24" RGRCP, CLASS III | 155 | LF |
| 4 | 36" RGRCP, CLASS IV | 133 | LF |
| 5 | 8" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK 392, REMOVE FLUSH VALVE AND EXTEND WATERLINE AS SHOWN | 30 | LF |
| 6 | CATCH BASIN PER MAG STD DET 530, L=3.5' | 2 | EA |
| 9 | CATCH BASIN PER MAG STD DET 533-1 L=17' | 3 | EA |
| 11 | MANHOLE PER MAG STD DET 520 & 522 & CITY OF KINGMAN DET 422 | 4 | EA |
| 20 | EXTRA PROTECTION CONCRETE ENCASUREMENT PER MAG STD DET 404 | 2 | EA |
| 21 | FLUSHING PIPE ASSEMBLY PER COK STD DET 390 | 1 | EA |
| 22 | CATCH BASIN PER DETAIL ON SHEET DT14 | 1 | EA |
| 23 | CONCRETE PIPE COLLAR PER MAG STD DET 505 | 2 | EA |
| 24 | 8" SDR 35 SEWER PIPE, REMOVE CLEANOUT AND EXTEND SEWERLINE AS SHOWN | 18 | LF |
| 25 | 6" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK 392 | 222 | LF |
| 29 | SEWER CLEANOUT PER COK STD DET 441 | 1 | EA |
| 30 | 6" TEE WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 & 303-2 | 2 | EA |
| 32 | CONNECT TO EXISTING 6" WATERLINE WITH AN 6" X 6" TAPPING SLEEVE AND VALVE, BOX AND COVER PER MAG DETAIL 340 | 1 | EA |

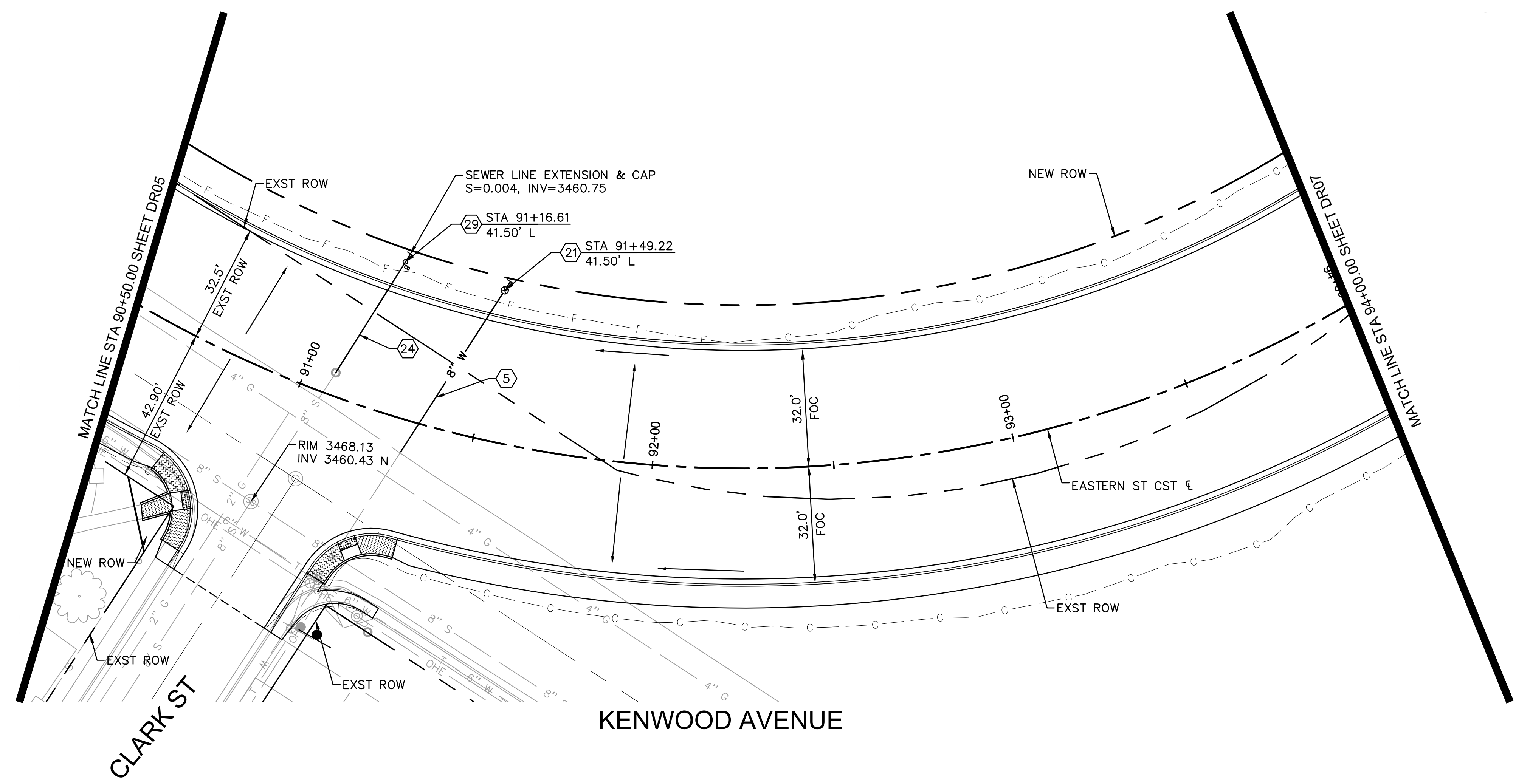
SEE SHEET 41 FOR WATERLINE PROFILE
 SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS

* CONTRACTOR TO VERTICALLY REALIGN WITH TRUST BLOCKS PER MAG STD DET 370 & 381
 * CONTRACTOR TO CONFIRM EXISTING 8" SEWER LINE INVERTS PRIOR TO CONSTRUCTING NEW SEWER LINE



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| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET DRAINAGE PLAN AND PROFILE | | SHEET NO. DR05 46 OF 58 |

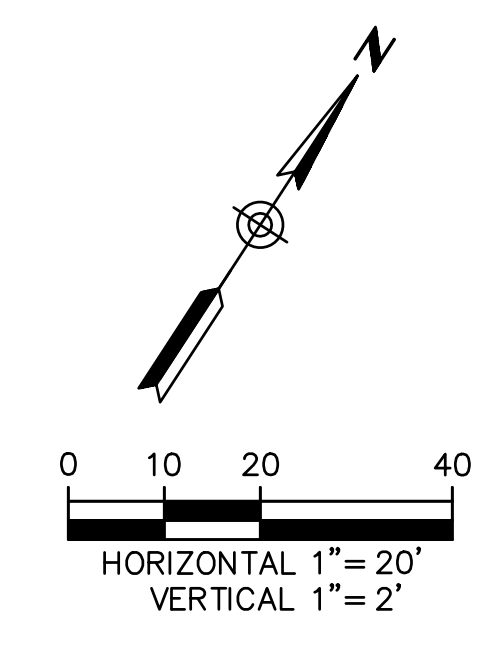


| DRAINAGE NOTES | | | |
|----------------|---|------|-------|
| NO. | DESCRIPTION | QTY. | UNITS |
| (5) | 8" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DTL 381, TRENCH PER COK 392, REMOVE FLUSH VALVE AND EXTEND WATERLINE AS SHOWN | 56 | LF |
| (21) | FLUSHING PIPE ASSEMBLY PER COK STD DET 390 | 1 | EA |
| (24) | 8" SDR 35 SEWER PIPE, REMOVE CLEANOUT AND EXTEND SEWERLINE AS SHOWN | 39 | LF |
| (29) | SEWER CLEANOUT PER COK STD DET 441 | 1 | EA |

* CONTRACTOR TO CONFIRM EXISTING 8" SEWER LINE INVERTS PRIOR TO CONSTRUCTING NEW SEWER LINE

| | | |
|------|--|------|
| 3478 | | 3478 |
| 3476 | | 3476 |
| 3474 | | 3474 |
| 3472 | | 3472 |
| 3470 | | 3470 |
| 3468 | | 3468 |
| 3466 | | 3466 |
| 3464 | | 3464 |
| 3462 | | 3462 |
| 3460 | | 3460 |
| 3458 | | 3458 |
| 3456 | | 3456 |

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EASTERN STREET
 CALUMET TO AIRWAY AVE

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 310 NORTH 4TH STREET
 KINGMAN, ARIZONA 86401
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C.O.K. PROJECT NO.
 ENG 21-0001

FILENAME
 47-221038-DR06.dwg

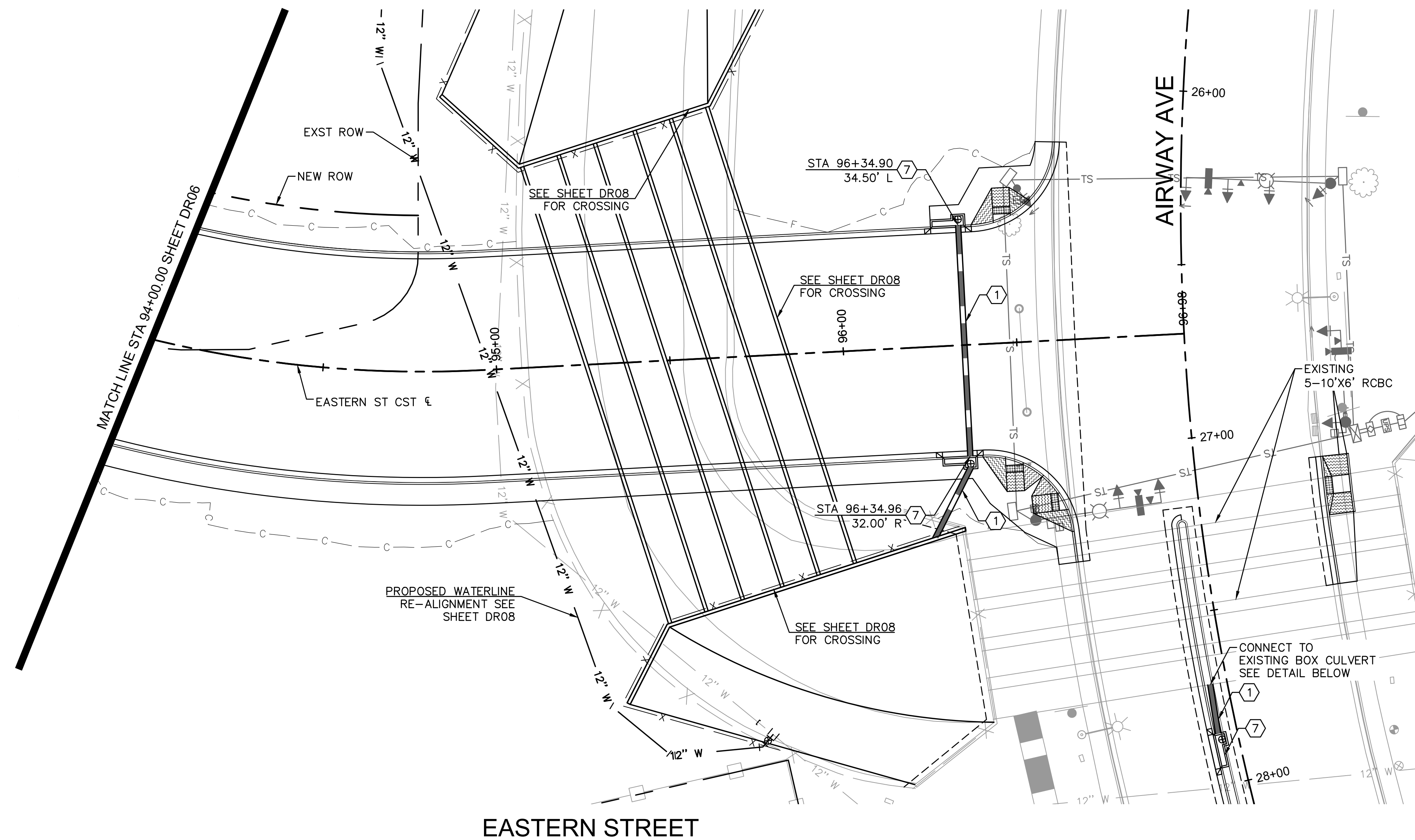


EASTERN STREET
 DRAINAGE PLAN
 AND PROFILE

SHEET NO.
DR06
 47 OF 58

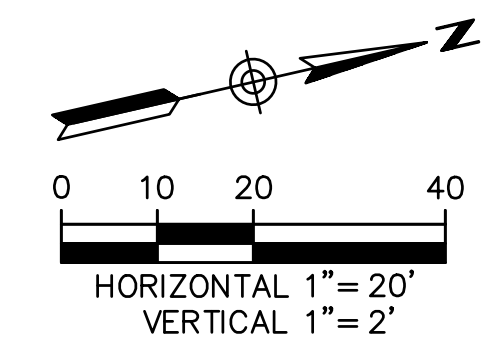
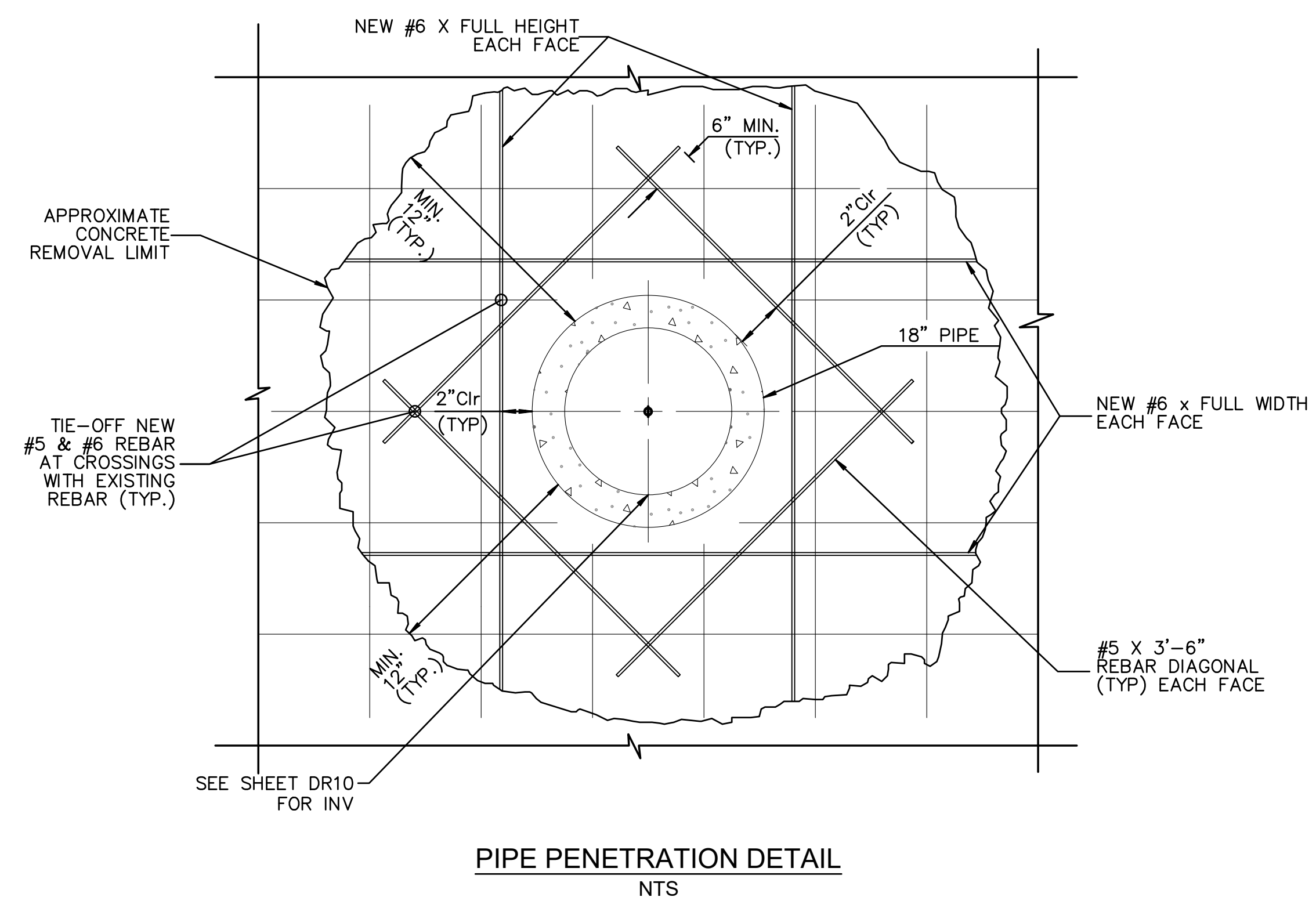
DRAINAGE NOTES

| NO. | DESCRIPTION | QTY. | UNITS |
|-----|--|------|-------|
| ① | 18" RGRCP, CLASS III | 104 | LF |
| ⑦ | CATCH BASIN PER MAG STD DET 531 L=5.5' | 3 | EA |



SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS

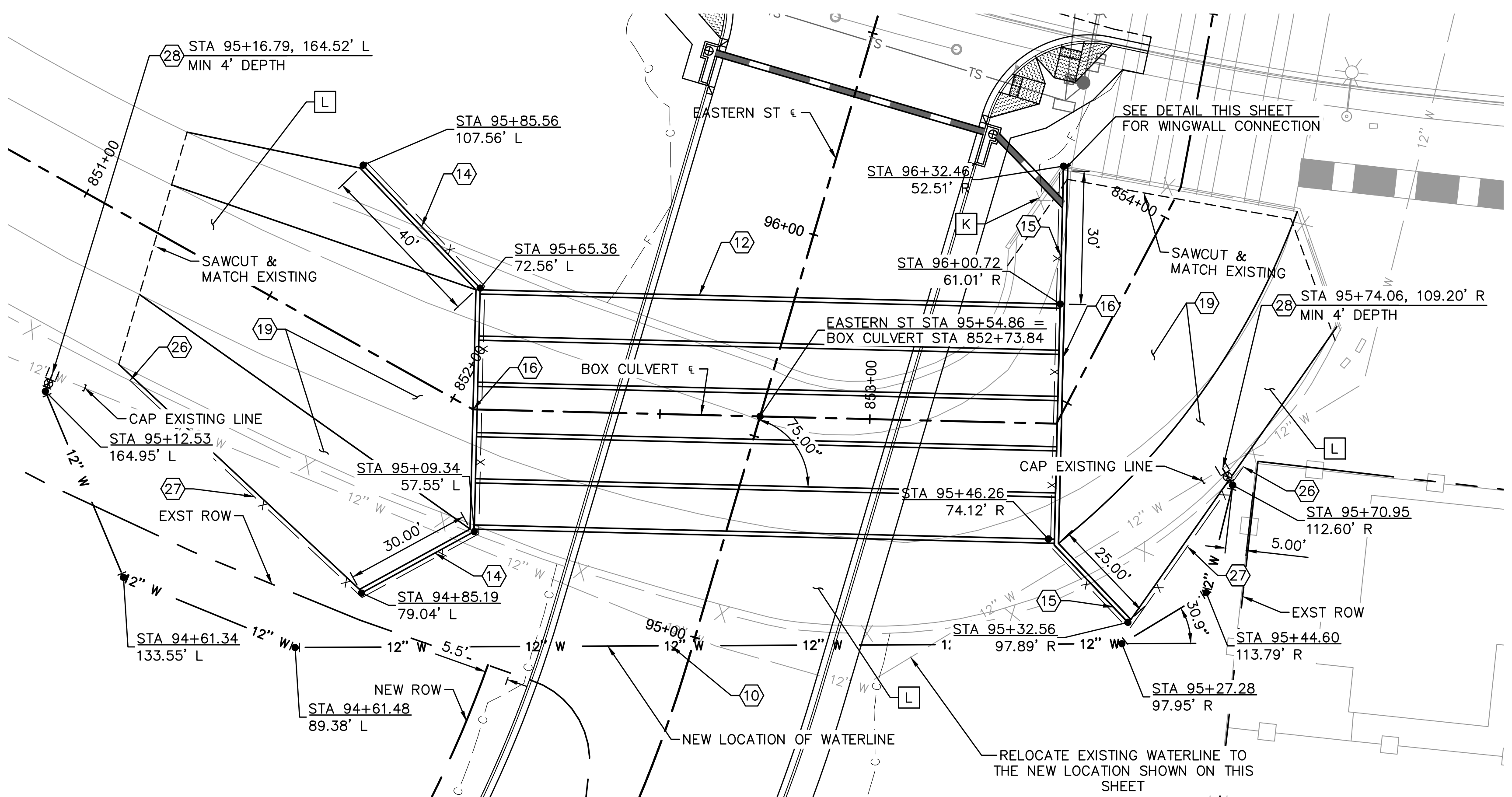
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|------|---------------------------------|------|
| 3478 | | 3478 |
| 3476 | | 3476 |
| 3474 | | 3474 |
| 3472 | | 3472 |
| 3470 | INTENTIONALLY LEFT BLANK | 3470 |
| 3468 | | 3468 |
| 3466 | | 3466 |
| 3464 | | 3464 |
| 3462 | | 3462 |



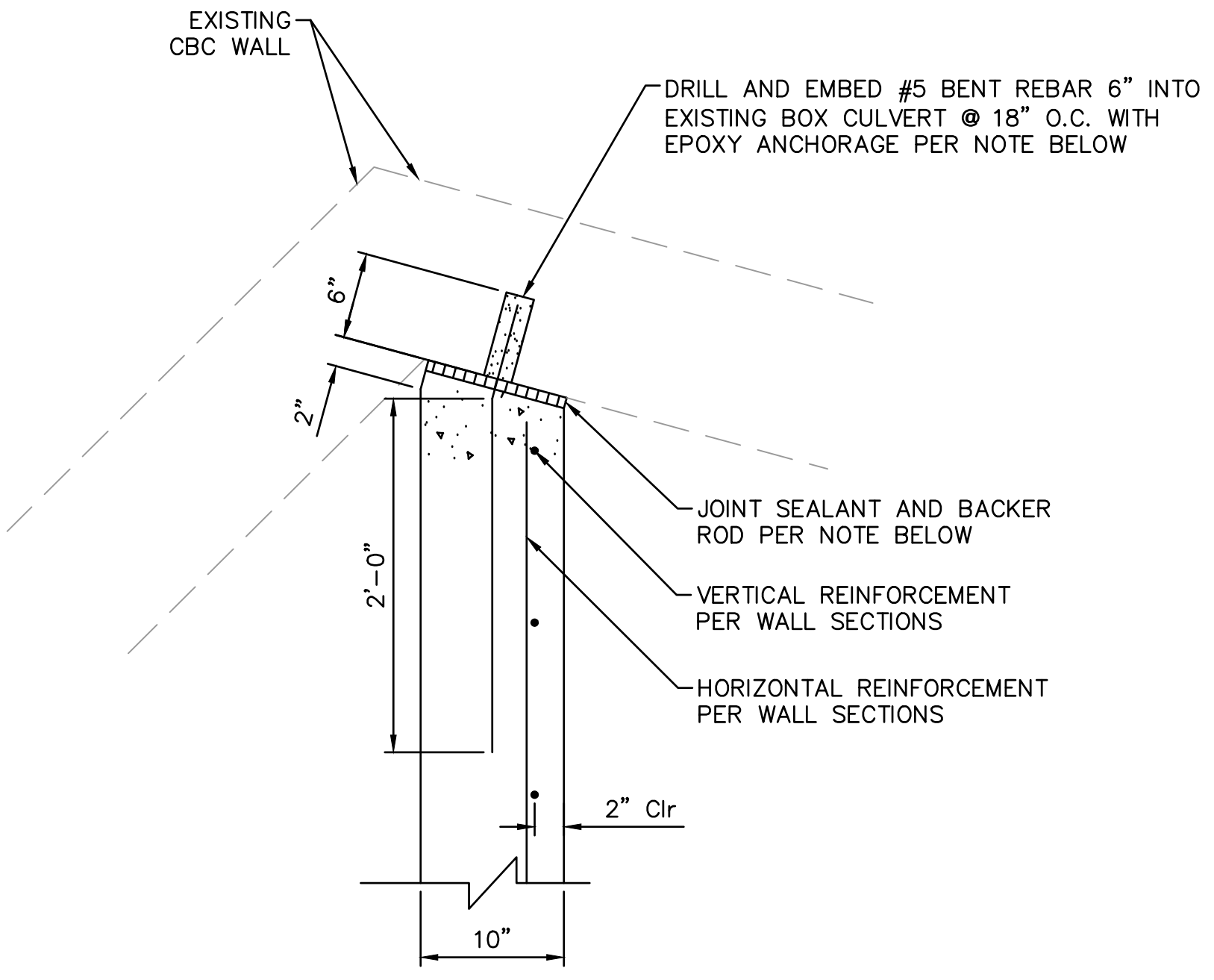
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| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 48-221038-DR07.dwg | |
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| EASTERN STREET DRAINAGE PLAN AND PROFILE | | SHEET NO. DR07 48 OF 58 | |



NOTE:
WING WALL STATION OFFSETS ARE BASED OFF EASTERN ST



CONNECTION TO EXISTING CBC
NTS

NOTE:
EPOXY ANCHORAGE SHALL BE HILTI HIT-RE500 OR APPROVED EQUAL.

CONCRETE JOINT SEALANT: SILICONE SEALANT AS MANUFACTURED BY DOW CORNING FOR HORIZONTAL CONTRACTION JOINTS IN FLAT CONCRETE SLABS, OR APPROVED EQUAL, PROVIDE BOND BREAKER OR BACK-UP ROD AS RECOMMENDED BY THE MANUFACTURER. INSTALL SEALANT AS RECOMMENDED BY THE MANUFACTURER.

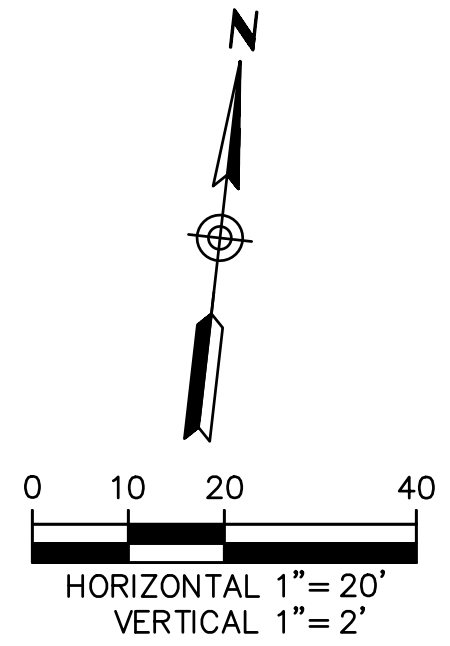
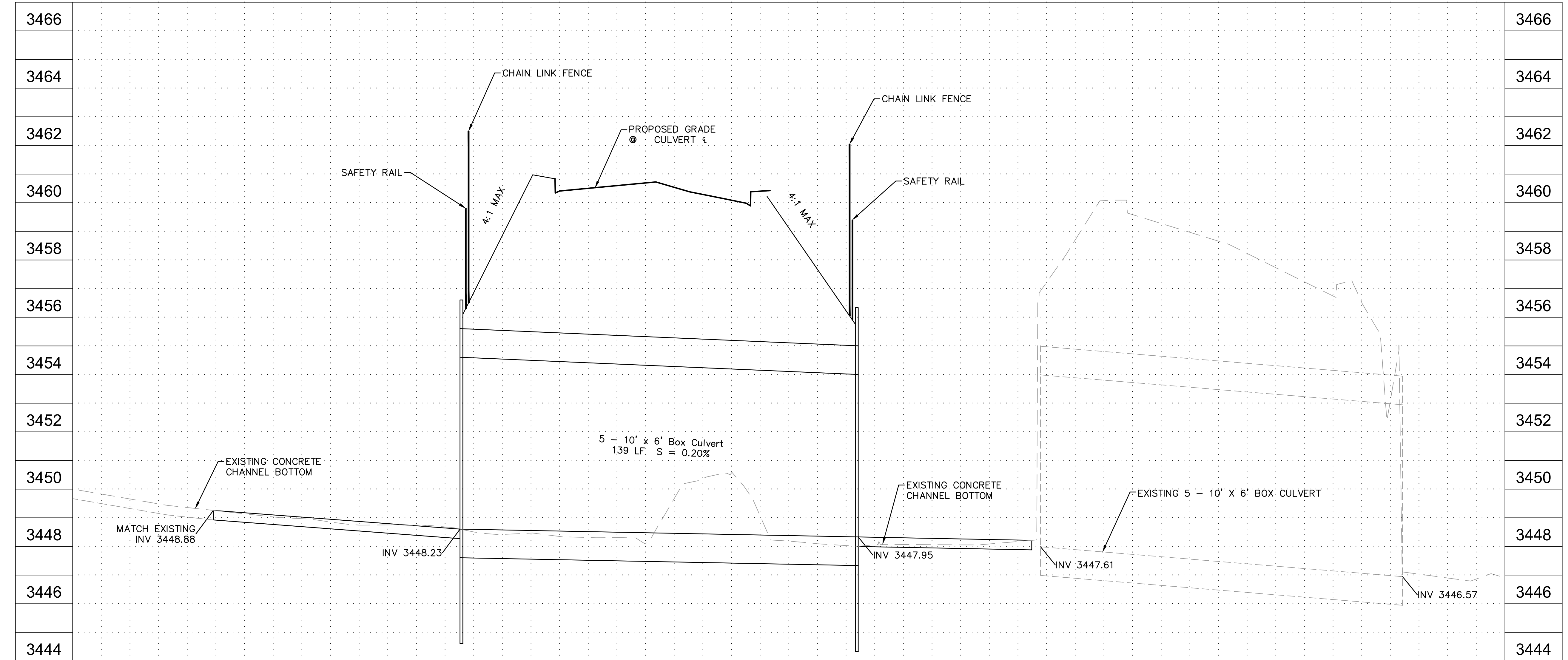
REMOVAL NOTES

| NO. | DESCRIPTION | QTY. | UNITS |
|-----|--|------|-------|
| K | REMOVE EXISTING WING WALL | 1 | EA |
| L | REMOVE EXISTING CHANNEL LINING AND BACKFILL PER MAG STD DTL 200-1 TYPE "A" | 2063 | SY |

DRAINAGE NOTES

| NO. | DESCRIPTION | QTY. | UNITS |
|-----|--|-------|-------|
| 10 | 12" WATERLINE PVC C-900, CLASS 235 AND THRUST BLOCKS PER STD DET 381, TRENCH PER COK SET 392 | 342 | LF |
| 12 | FIVE BARREL 10' X 6' BOX CULVERT PER ADOT STD DET SD 6.05, SEE SHEET DT06 & DT07 | 139 | LF |
| 14 | INLET WING PER ADOT STD DET SD 6.10, LENGTH PER PLAN, SEE SHEET DT08 & DT09 | 2 | EA |
| 15 | OUTLET WING PER ADOT STD DET SD 6.10, LENGTH PER PLAN, SEE SHEET DT08 & DT09 | 2 | EA |
| 16 | SAFETY RAIL PER MAG STD DET 145, TYPE 1 | 242 | LF |
| 19 | MATCH EXISTING 6" CONCRETE CHANNEL LINING | 1,206 | SY |
| 26 | NEW FENCE TO TIE INTO OLD FENCE | 2 | EA |
| 27 | INSTALL FENCE PER COK STD DET 160 WITHOUT BARBED WIRE | 371 | LF |
| 28 | CONNECT TO EXISTING 12" WATERLINE WITH AN 12" X 12" TAPPING SLEEVE AND VALVE, BOX AND COVER PER MAG DETAIL 340 | 2 | EA |

SEE SHEET DR09-DR10 FOR PIPE PROFILE AND GRATE ELEVATIONS



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EASTERN STREET
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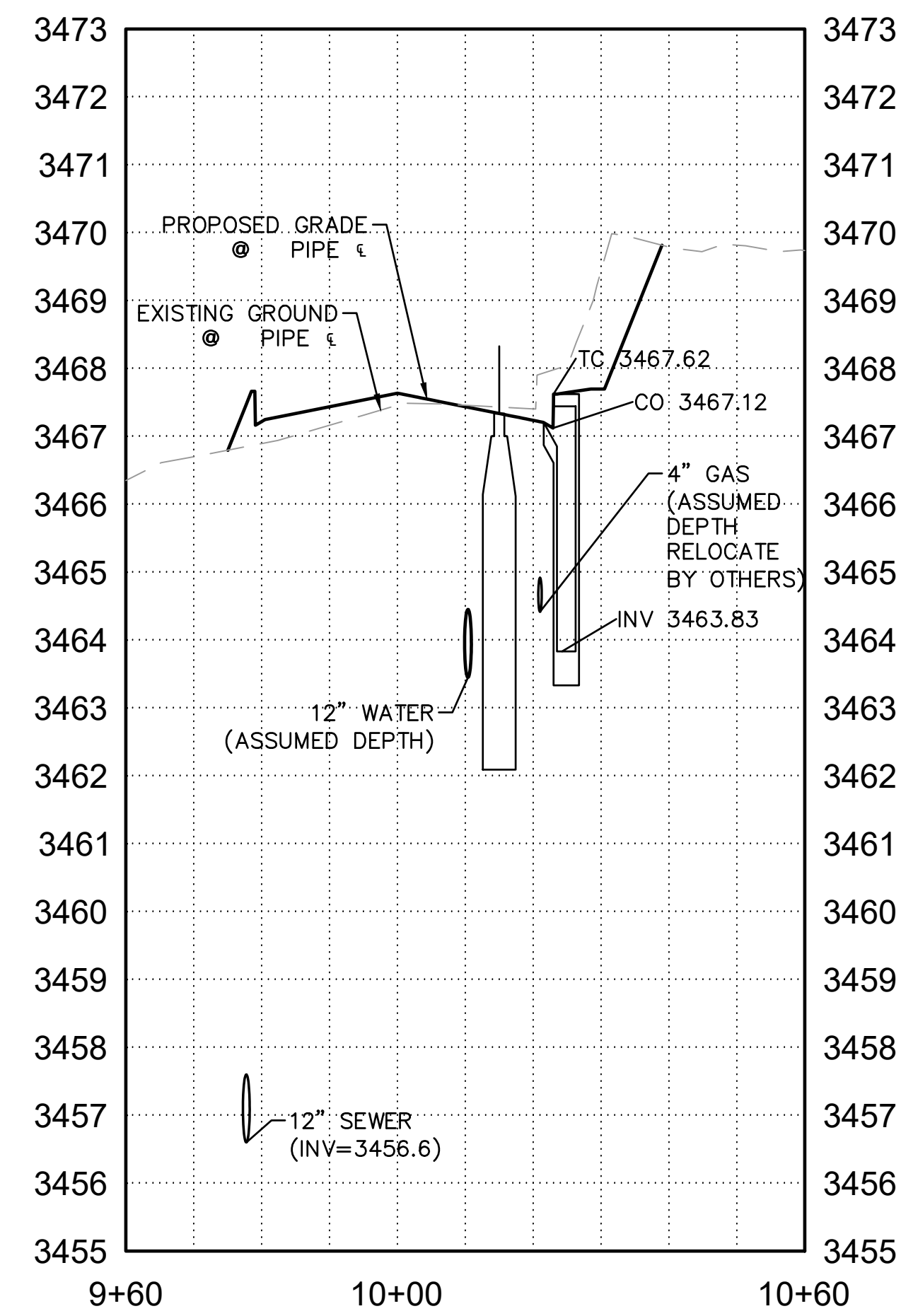
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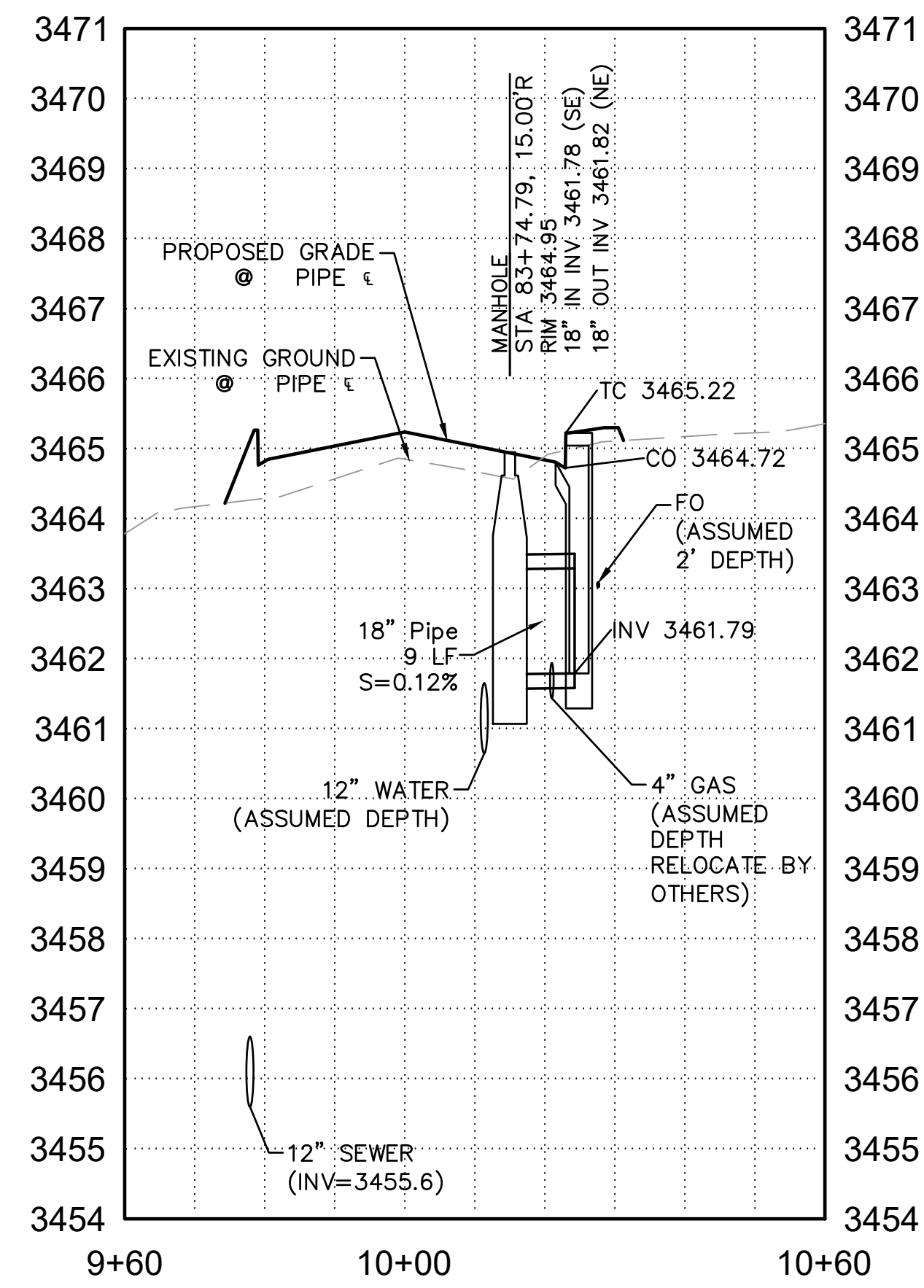


EASTERN STREET
DRAINAGE PLAN
AND PROFILE

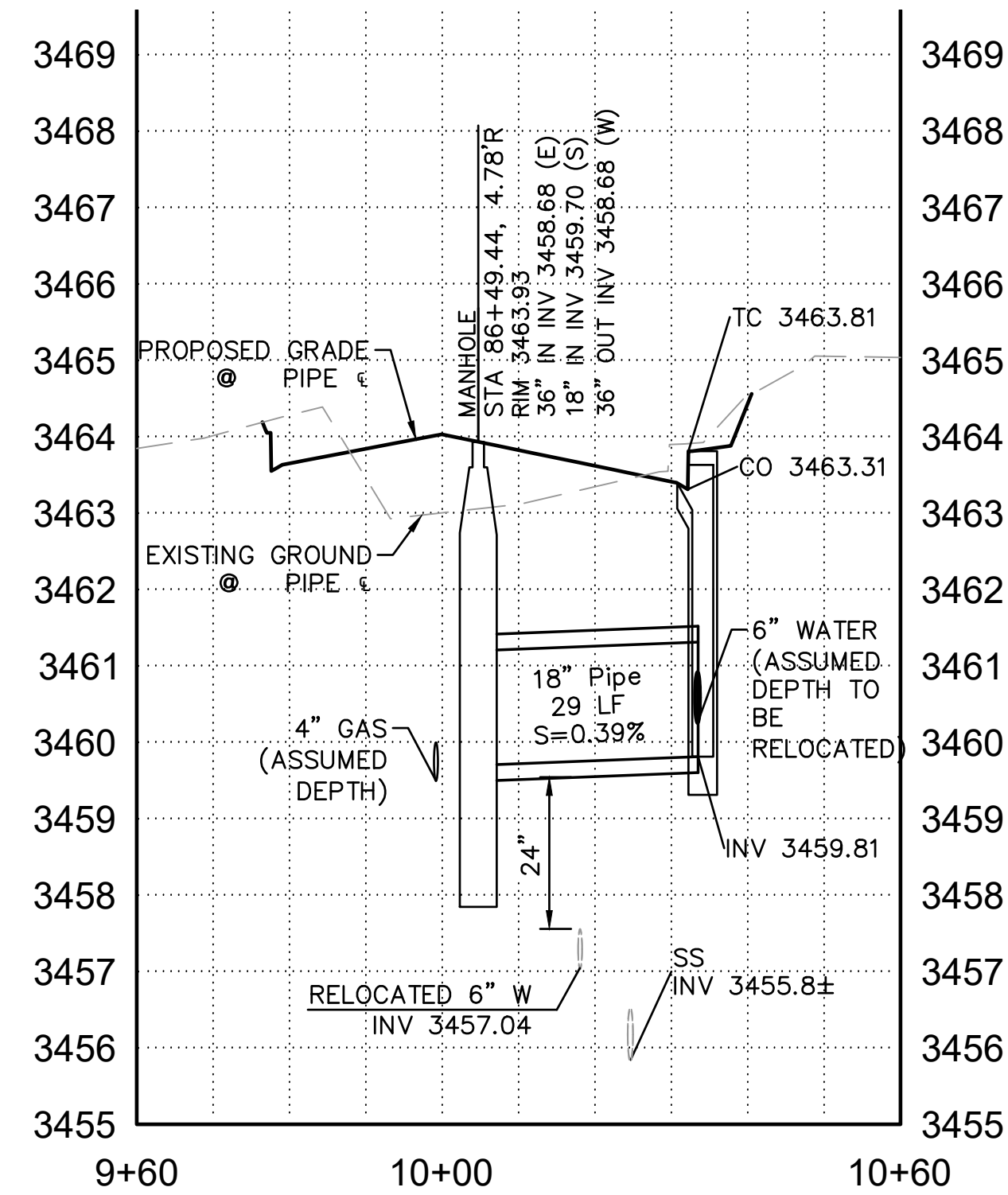
SHEET NO.
DR08
49 OF 58



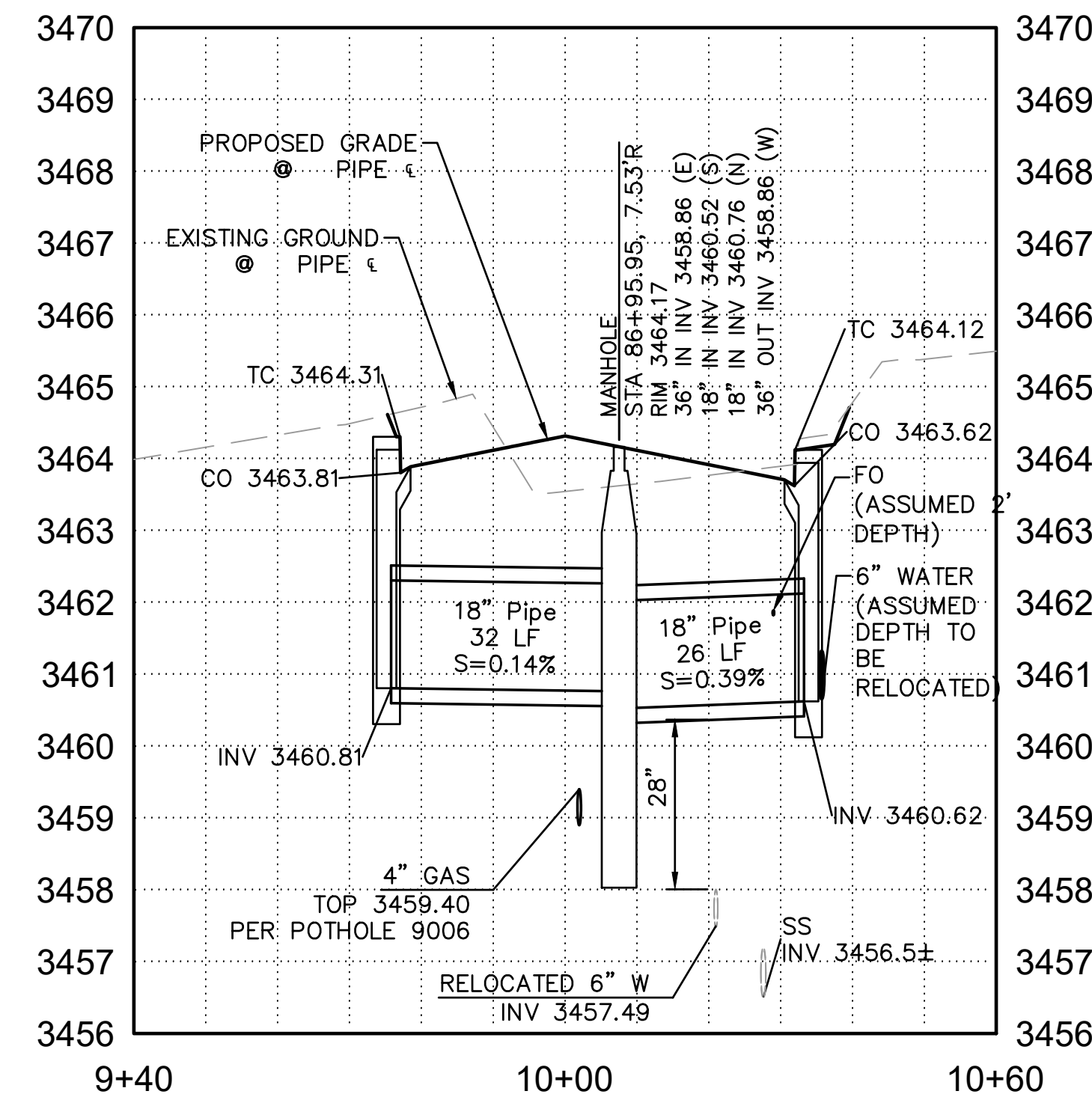
EASTERN STREET
ROADWAY CONSTRUCTION €
STA 81+44



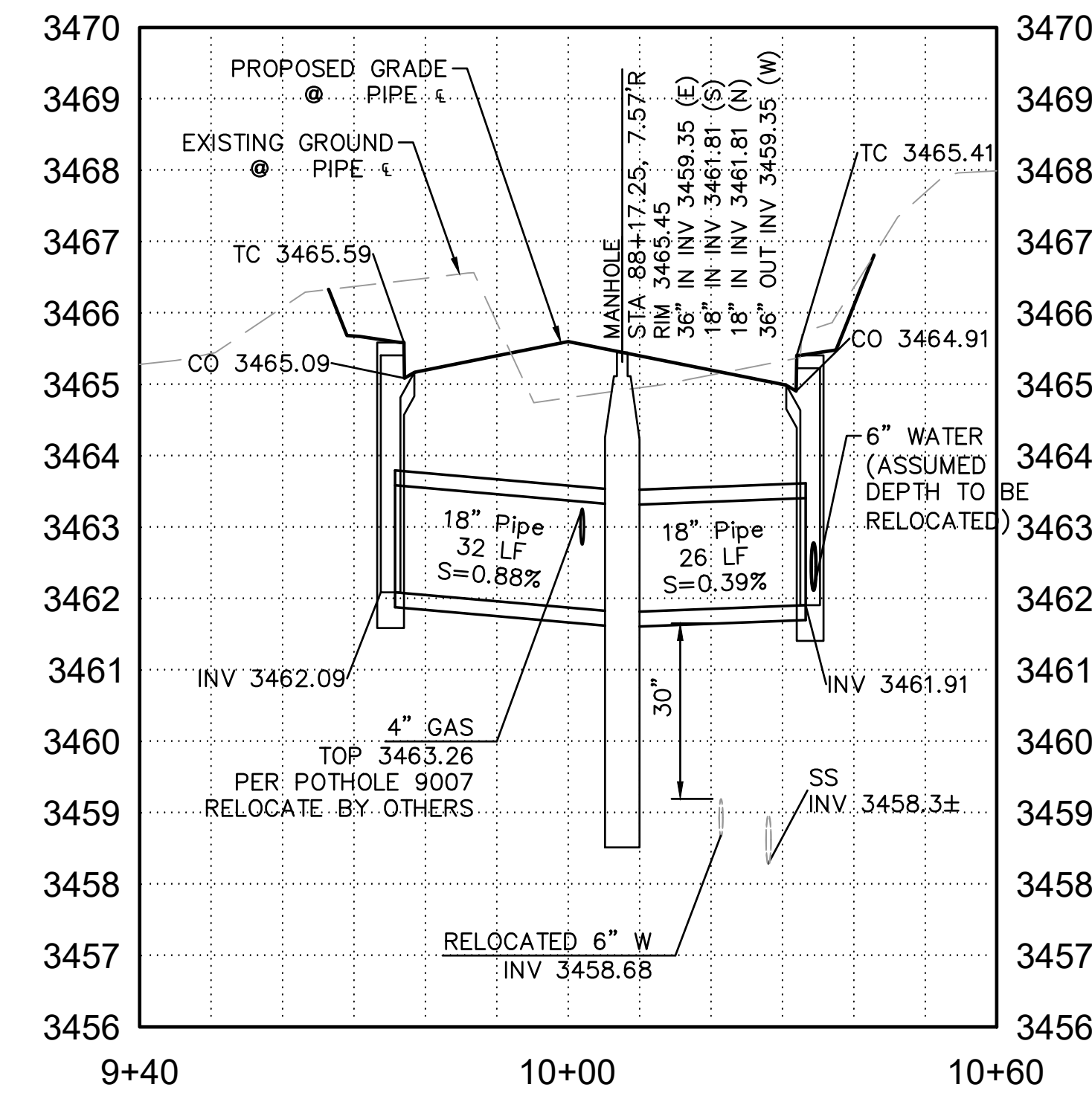
EASTERN STREET
ROADWAY CONSTRUCTION €
STA 83+74



KENWOOD AVENUE
ROADWAY CONSTRUCTION €
STA 86+49



KENWOOD AVENUE
ROADWAY CONSTRUCTION €
STA 86+95



KENWOOD AVENUE
ROADWAY CONSTRUCTION €
STA 88+17



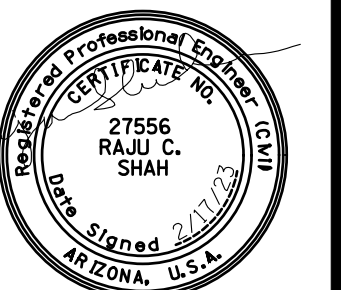
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CALUMET TO AIRWAY AVE

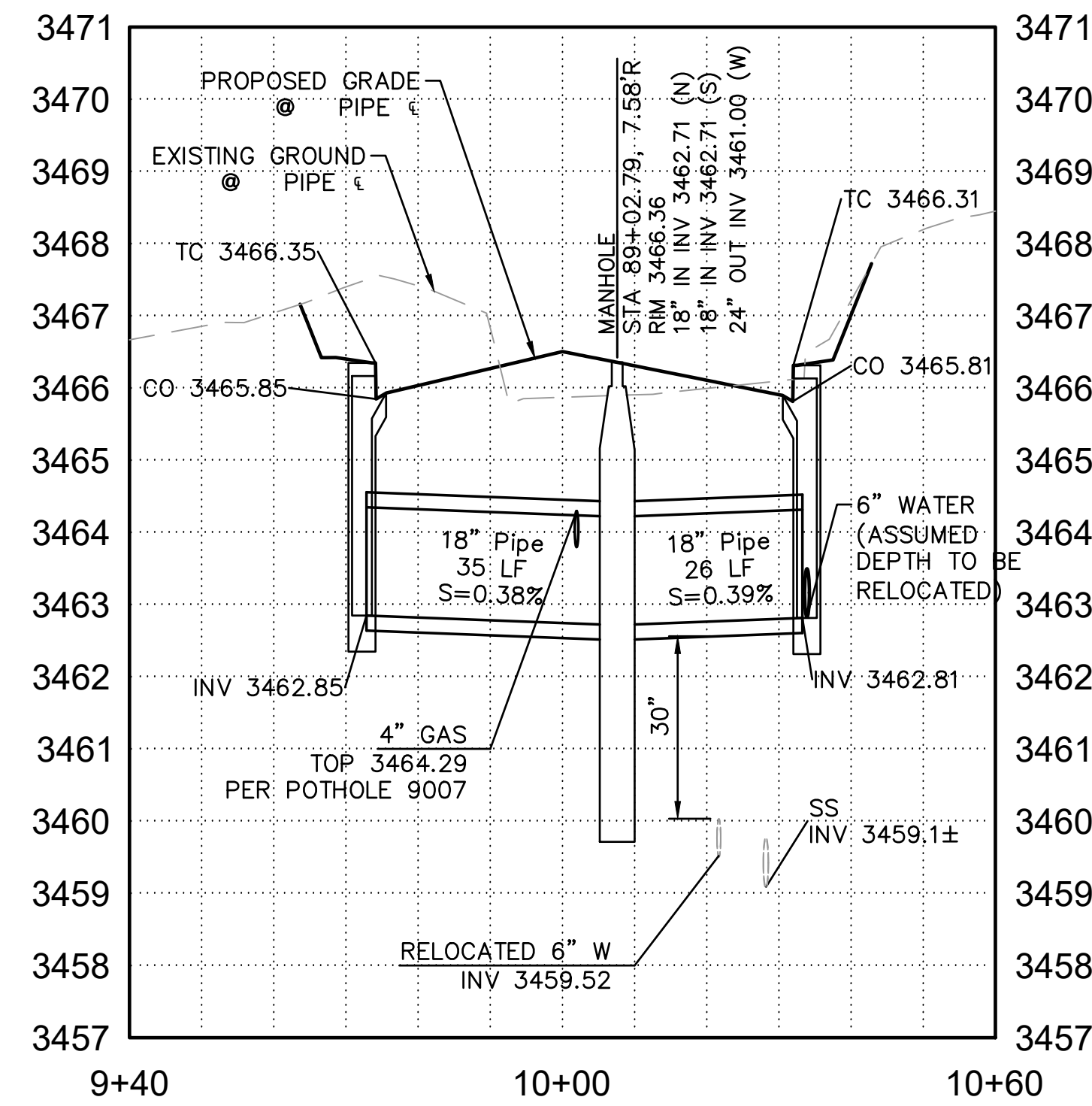
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ENG 21-0001
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50-221038-DR09.dwg

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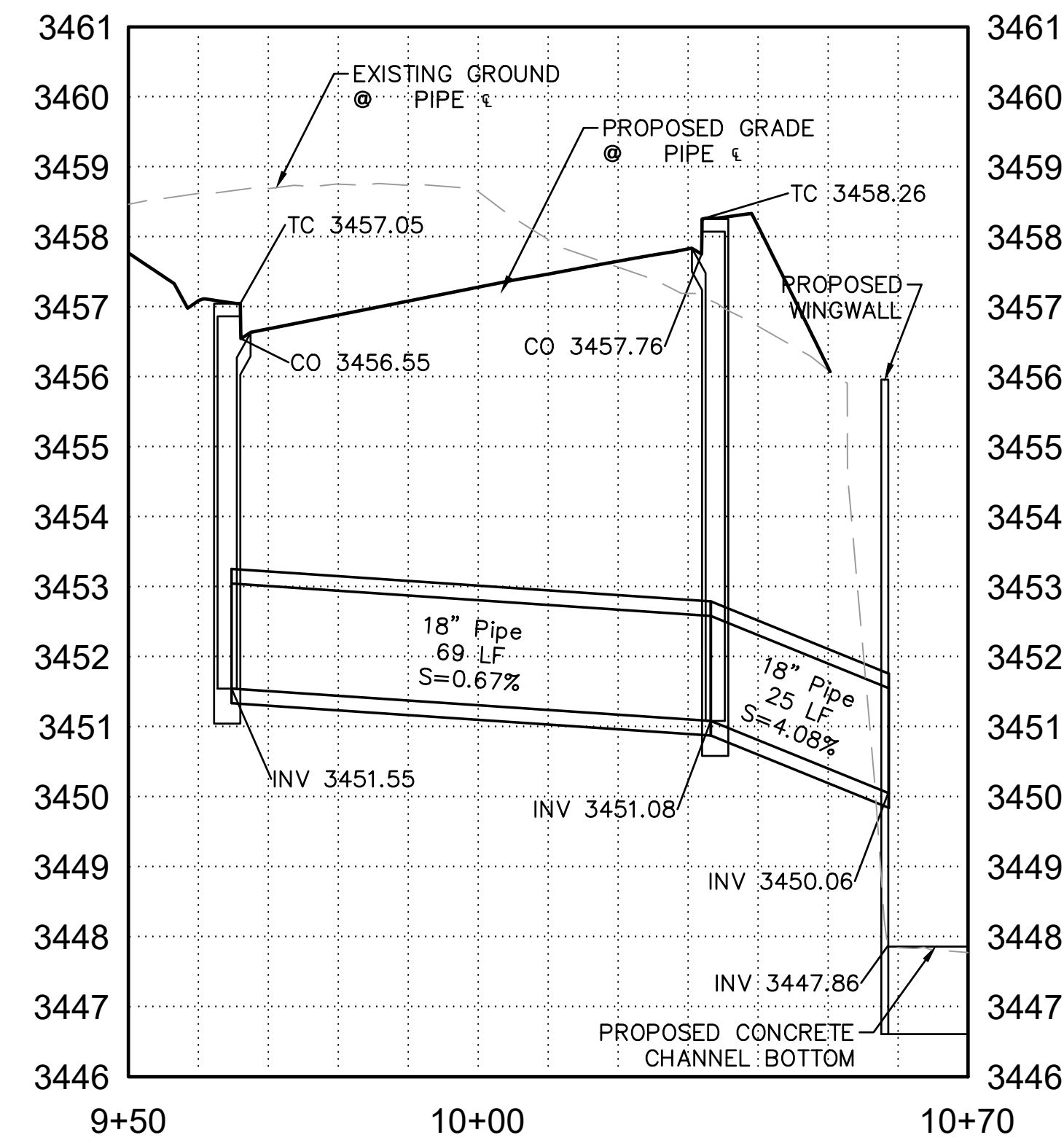


EASTERN STREET
CONNECTOR PIPE PROFILES

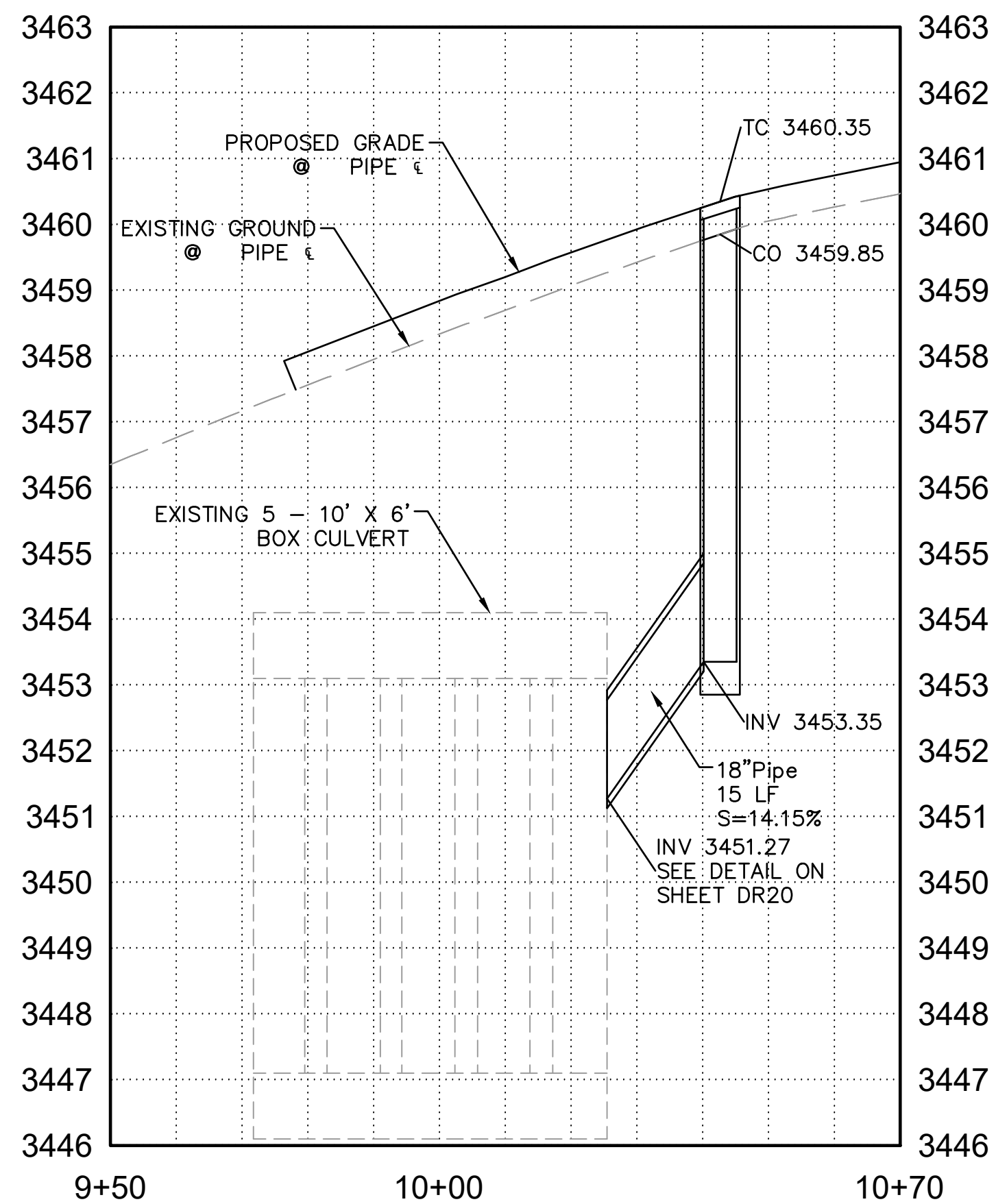
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50 OF 58



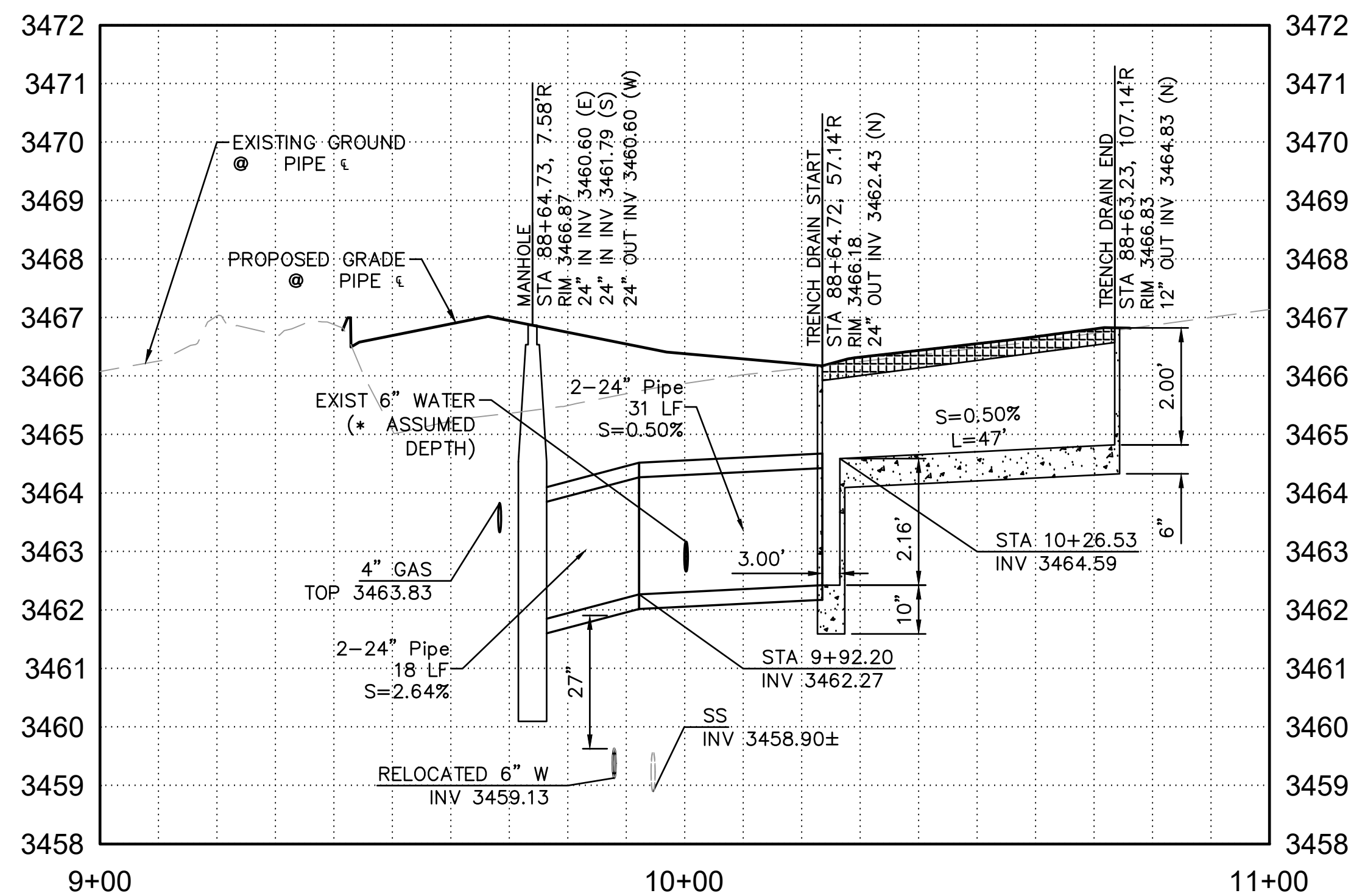
EASTERN STREET
ROADWAY CONSTRUCTION &
STA 89+02



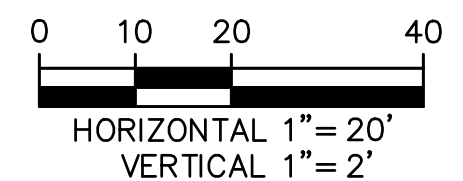
EASTERN STREET
ROADWAY CONSTRUCTION &
STA 96+34



AIRWAY AVENUE



EAGLE ROCK ROAD
ROADWAY CONSTRUCTION &
STA 88+63



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| EASTERN STREET CALUMET TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 21-0001 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 51-221038-DR10.dwg |
| EASTERN STREET CONNECTOR PIPE PROFILES | | SHEET NO. DR10 51 OF 58 |



PAVEMENT MARKING NOTES:

FINAL STRIPING

1. FINAL STRIPING SHALL BE 90 MIL (0.090 INCHES) THICK ALKYD EXTRUDED THERMOPLASTIC REFLECTORIZED STRIPING PLACED OVER THE EXISTING STRIPING, PLACED AT A MINIMUM OF 30 CALENDAR DAYS AFTER THE INITIAL STRIPING. ALL OTHER MARKINGS SHALL BE APPLIED AT THE SAME TIME.
2. AT THE COMPLETION OF THE FINAL PAVEMENT SURFACE, CENTER LINES, LANE LINES, EDGE LINES AND STOP BARS SHALL BE STRIPED WITH ONE APPLICATION OF STANDARD REFLECTORIZED TRAFFIC PAINT AT THE LOCATIONS OF THE PERMANENT STRIPING. THE PAINT SHALL HAVE A MAXIMUM THICKNESS OF 15 MILS WET (5 MILS DRY).

RAISED / REFLECTIVE PAVEMENT MARKERS

3. ALL REFLECTIVE RAISED / RECESSED PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW. TYPE C PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE CLEAR REFLECTIVE FACE OF EACH MARKER IS FACING APPROACHING TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW.
4. ALL REFLECTIVE RAISED / RECESSED PAVEMENT MARKERS SHALL HAVE AN ABRASION-RESISTANT COATING ON THE FACE OF THE PRISMATIC REFLECTORS AND SHALL CONFORM TO DETAIL M-19 OF THE ADOT STANDARD DRAWINGS. THEY SHALL BE INSTALLED WITH A BITUMINOUS ADHESIVE WHICH IS ON THE ADOT APPROVED PRODUCTS LIST.
5. WHERE RAISED / RECESSED PAVEMENT MARKERS ARE PLACED ALONG SOLID STRIPING, THE NEAREST EDGE OF EACH MARKER SHALL BE OFFSET TWO INCHES FROM THE NEAREST EDGE OF THE STRIPE.

PAVEMENT PREPARATION

6. 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. THE ROADWAY SURFACE SHALL BE DRY AND THE AIR AND PAVEMENT TEMPERATURES SHALL NOT BE LESS THAN 60 DEGREES F FOR THE INSTALLATION OF TYPE I, II, OR III PAVEMENT MARKING TAPE. TYPE I TAPE SHALL NOT BE INSTALLED IF RAIN IS ANTICIPATED 48 HOURS PRIOR TO OR AFTER INTENDED INSTALLATION DATE.

STRIPING AND LEGENDS

7. SINGLE ARROW LEGENDS SHALL BE INSTALLED IN ACCORDANCE WITH ADOT STANDARD DRAWINGS. "ONLY" LEGENDS SHALL BE INSTALLED PER CITY OF KINGMAN STANDARD DETAIL NO. 138-1.
8. ALL FINAL STOP BARS, CROSSWALK LINES, AND PAVEMENT ARROWS SHALL BE 90 MIL (0.090 INCH) THICK, EXTRUDED THERMOPLASTIC REFLECTORIZED MARKINGS.
9. 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.
10. 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.
11. THE CONTRACTOR SHALL BREAK THE CENTER LINES AND EDGE LINES ACROSS ANY INTERSECTIONS WITH DEDICATED ROADWAYS OR AS OTHERWISE DIRECTED BY THE ENGINEER. IN ADDITION, THE CONTRACTOR SHALL NOT PLACE ANY CENTER LINES WITHIN 10 FEET OF THE NEAREST EDGE OF PAVEMENT OF THE INTERSECTING ROADWAY.

OBLITERATION

12. 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.

GENERAL

13. THE CONTRACTOR SHALL PRESERVE ALL ROADWAY SIGNS, SIGN SUPPORTS, OBJECT MARKERS, AND MILEPOST MARKERS. THE CONTRACTOR SHALL REPLACE ANY SIGNS, SIGN SUPPORTS OR MARKERS DAMAGED AS A RESULT OF THE CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.
14. THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY AND NOT TO SCALE. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS AND DETAILS WHEN INSTALLING PAVEMENT MARKINGS.

SIGNING NOTES:

GENERAL

1. ALL SIGNS SHALL BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (ADOT SIGNING AND MARKING STANDARD DRAWINGS, AND THE ADOT TRAFFIC ENGINEERING MANUAL OF APPROVED SIGNS.

LOCATION

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.

PANEL

5. ALL NEW SIGNS SHALL BE FABRICATED OF FLAT SHEET ALUMINUM AS INDICATED IN SECTION 608 OF THE ADOT STANDARD SPECIFICATIONS.

SHEETING

6. THE RETROREFLECTIVE SHEETING ON ALL NEW SIGNS SHALL MEET CRITERIA ESTABLISHED IN SECTION 1007 OF THE ADOT STANDARD SPECIFICATIONS AND IN SECTION 380 OF ADOT'S TRAFFIC POLICIES, GUIDELINES AND PROCEDURES

POSTS

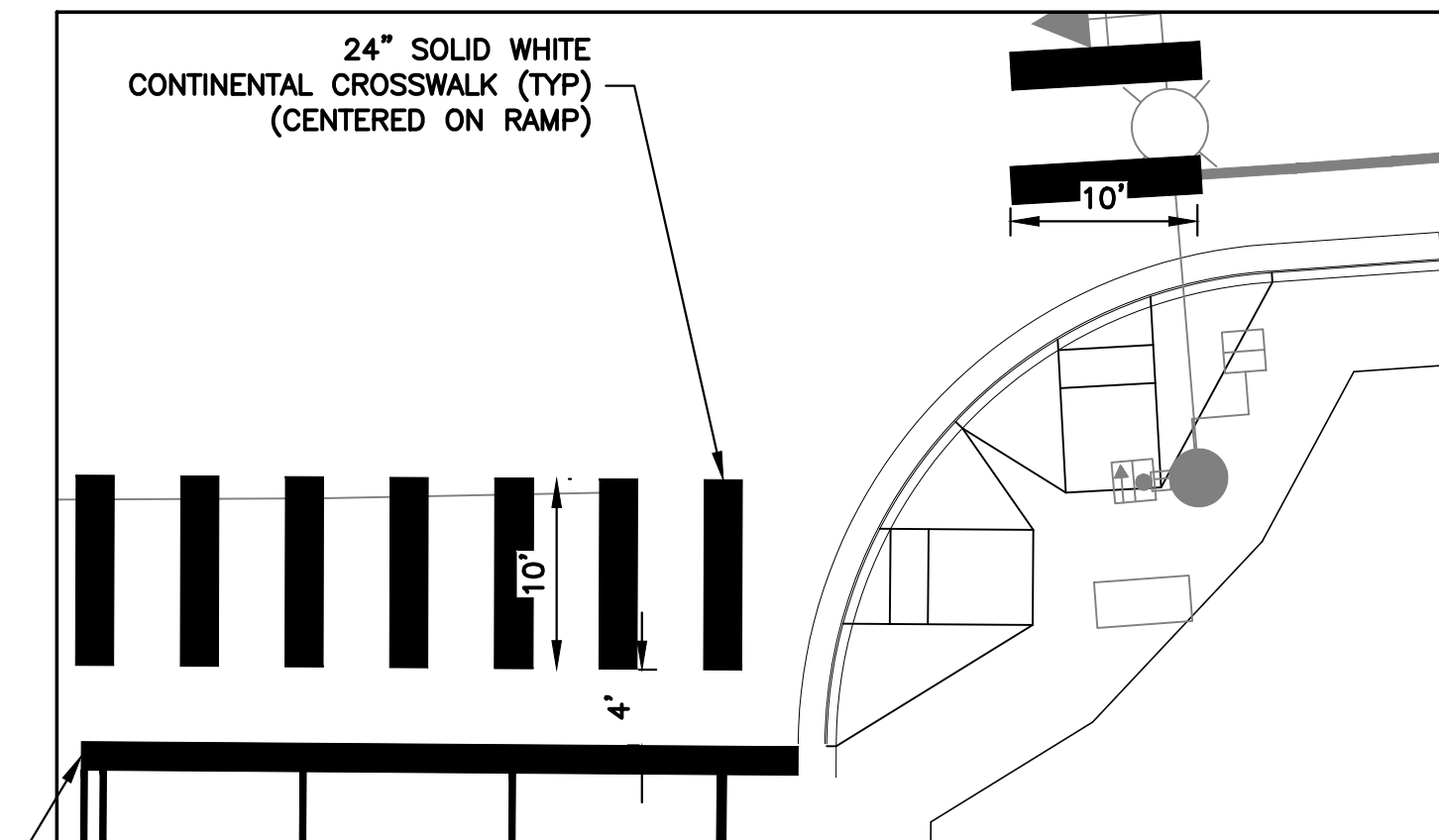
7. ALL NEW SIGNS SHALL BE INSTALLED ON NEW SQUARE TUBE POSTS WITH FOUNDATIONS AS INDICATED PER ADOT STANDARD DRAWING S-3 SHT 15.
8. THE ENGINEER MAY MODIFY THE SIGNING PLANS.

SHOP DRAWINGS

9. SHOP DRAWINGS WILL BE REQUIRED.

REMOVALS

10. THE CONTRACTOR SHALL REMOVE EXISTING SIGNING WHERE INDICATED IN THE SIGN SUMMARY.
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.



CROSSWALK DETAIL

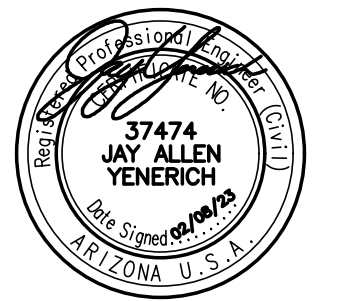
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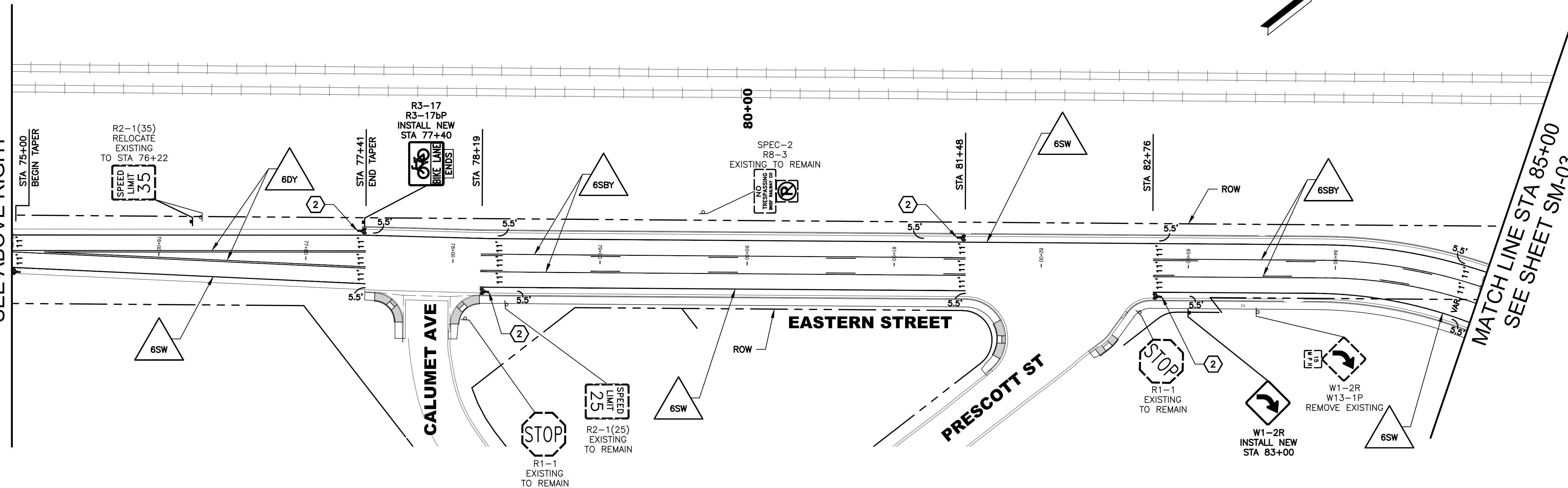
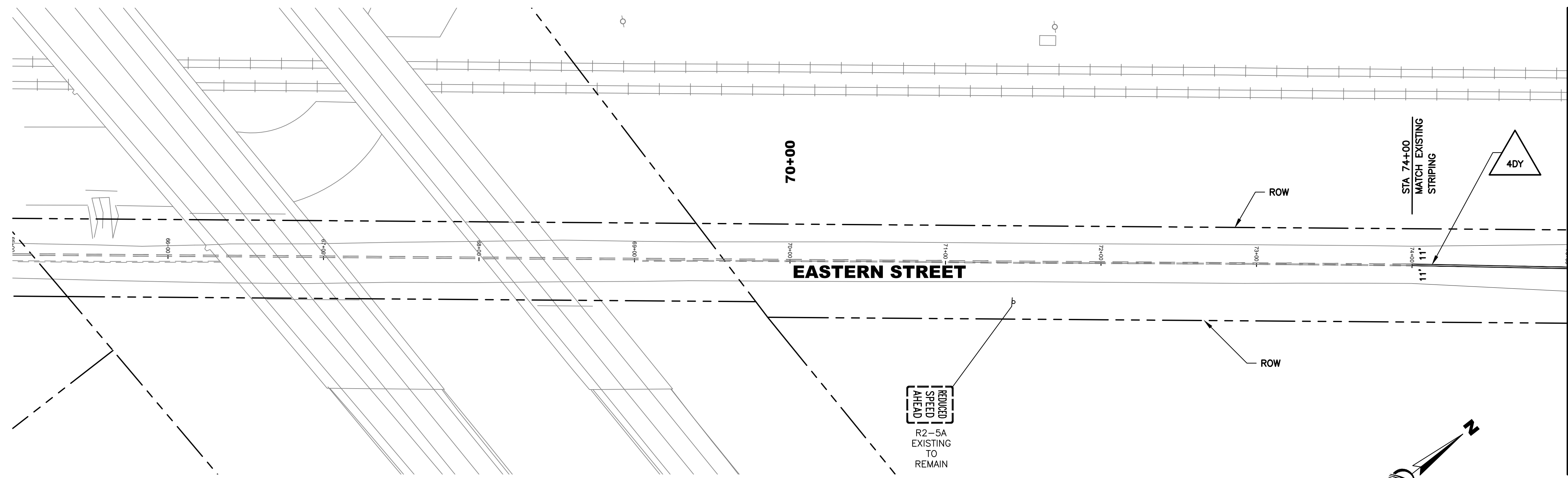
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 10605 N. Hayden Rd. Suite 140
 Scottsdale, AZ 85260
 480.659.4250 p
 480.659.0566 f
 info@civtech.com

| | | |
|--|--|----------------------------------|
| EASTERN STREET PASADENA TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 15-048 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 15-1150-SMPL01.dwg |
| EASTERN STREET SIGNING AND MARKING GENERAL NOTES | | SHEET NO. SM-01 52 OF 58 |



Feb 14, 2023 - 8:24am
jYenerich

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CONSTRUCTION NOTES:

- 1 OBLITERATE EXISTING STRIPING IN CONFLICT WITH THE PROPOSED STRIPING.
- 2 BIKE LANE SYMBOL TO BE INSTALLED PER CITY OF KINGMAN STD DET 138-2-D10.
- 3 INSTALL WHITE DIRECTIONAL ARROW, TYPE 1 PREFORMED PLASTIC PAVEMENT MARKING TAPE, PER CITY OF KINGMAN STD DET 138-1-D4.
- 4 INSTALL "ONLY" LEGEND, TYPE 1 PREFORMED PLASTIC PAVEMENT MARKING TAPE, PER CITY OF KINGMAN STD DET 138-1-D6.

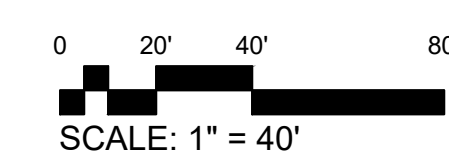
STRIPING LEGEND

- 6DY 6" DOUBLE YELLOW LINE
- 6SW 6" SOLID WHITE LINE
- 6SBY 6" SOLID YELLOW LINE AND 6" BROKEN YELLOW LINE WITH A 10' LINE SEGMENT AND A 30' GAP
- 6BW 6" BROKEN WHITE LINE, 10' SEGMENT WITH A 30' GAP
- 12SW 12" SOLID WHITE LINE
- 16SW 16" SOLID WHITE LINE



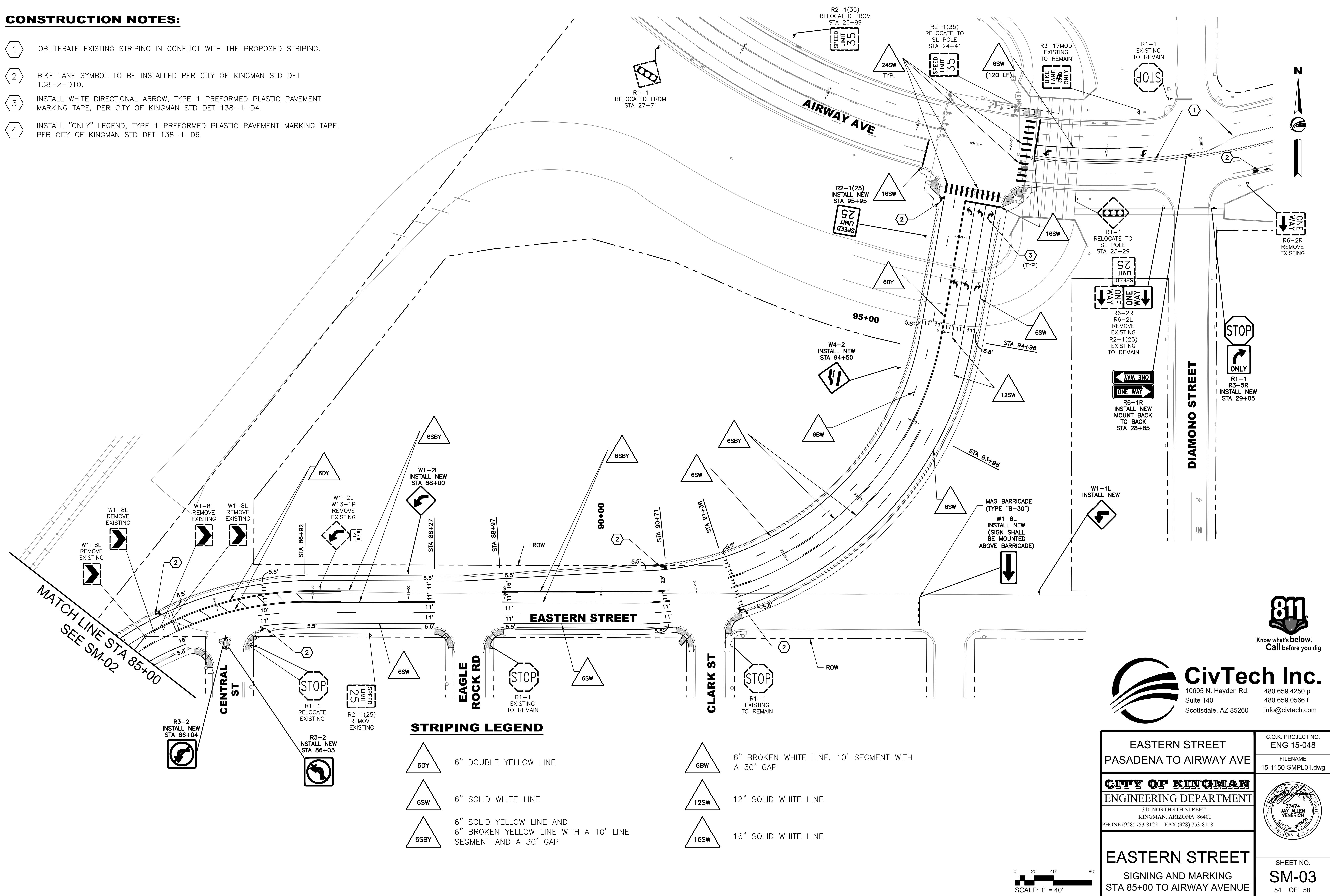
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| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | 37474 JAY ALLEN YENERICH Professional Engineer Arizona U.S.A. |
| EASTERN STREET SIGNING AND MARKING STA 65+00 TO 85+00 | | SHEET NO. SM-02 53 OF 58 |



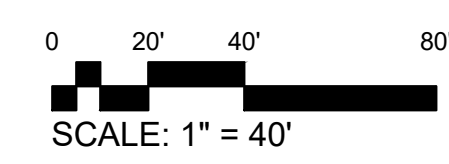
CONSTRUCTION NOTES:

- 1 OBLITERATE EXISTING STRIPING IN CONFLICT WITH THE PROPOSED STRIPING.
- 2 BIKE LANE SYMBOL TO BE INSTALLED PER CITY OF KINGMAN STD DET 138-2-D10.
- 3 INSTALL WHITE DIRECTIONAL ARROW, TYPE 1 PREFORMED PLASTIC PAVEMENT MARKING TAPE, PER CITY OF KINGMAN STD DET 138-1-D4.
- 4 INSTALL "ONLY" LEGEND, TYPE 1 PREFORMED PLASTIC PAVEMENT MARKING TAPE, PER CITY OF KINGMAN STD DET 138-1-D6.



STRIPING LEGEND

- | | | | |
|--|--|--|--|
| | 6" DOUBLE YELLOW LINE | | 6" BROKEN WHITE LINE, 10' SEGMENT WITH A 30' GAP |
| | 6" SOLID WHITE LINE | | 12" SOLID WHITE LINE |
| | 6" SOLID YELLOW LINE AND 6" BROKEN YELLOW LINE WITH A 10' LINE SEGMENT AND A 30' GAP | | 16" SOLID WHITE LINE |



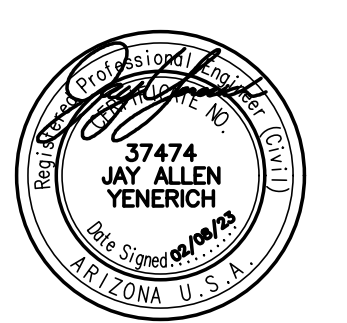


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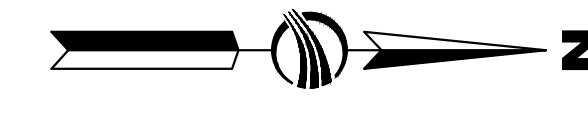
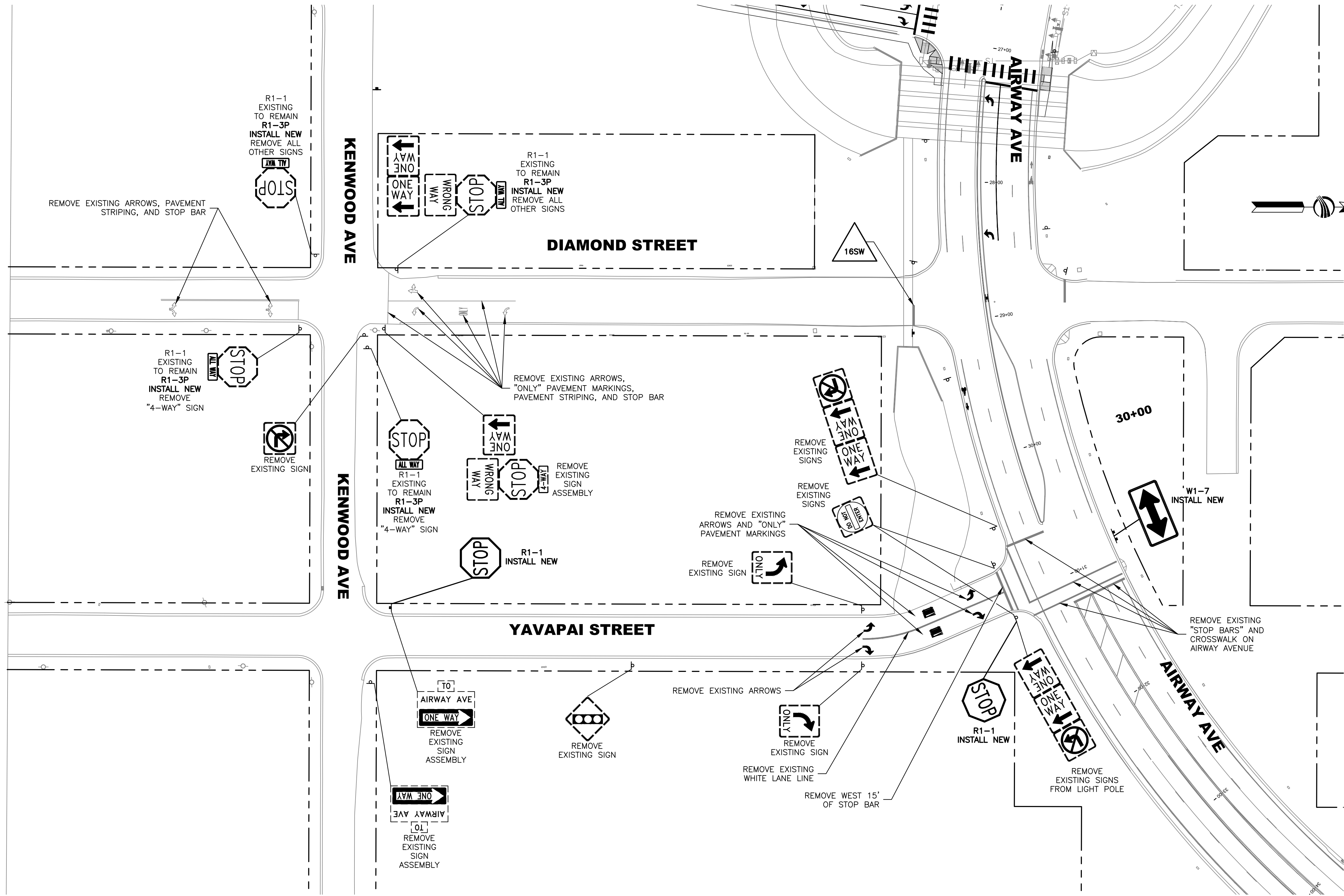
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|---|--|
| <p>EASTERN STREET PASADENA TO AIRWAY AVE</p> | <p>C.O.K. PROJECT NO. ENG 15-048</p> |
| <p>CITY OF KINGMAN ENGINEERING DEPARTMENT</p> <p style="font-size: x-small;">310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118</p> | <p>FILENAME 15-1150-SMPL01.dwg</p> |
| <p>EASTERN STREET SIGNING AND MARKING STA 85+00 TO AIRWAY AVENUE</p> | <p>SHEET NO. SM-03 54 OF 58</p> |



Feb 14, 2023 - 8:24am

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CONSTRUCTION NOTES:

- 1 OBLITERATE EXISTING STRIPING IN CONFLICT WITH THE PROPOSED STRIPING.
- 2 BIKE LANE SYMBOL TO BE INSTALLED PER CITY OF KINGMAN STD DET 138-2-D10.
- 3 INSTALL WHITE DIRECTIONAL ARROW, TYPE 1 PREFORMED PLASTIC PAVEMENT MARKING TAPE, PER CITY OF KINGMAN STD DET 138-1-D4.
- 4 INSTALL "ONLY" LEGEND, TYPE 1 PREFORMED PLASTIC PAVEMENT MARKING TAPE, PER CITY OF KINGMAN STD DET 138-1-D6.

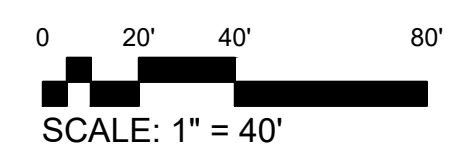
STRIPING LEGEND

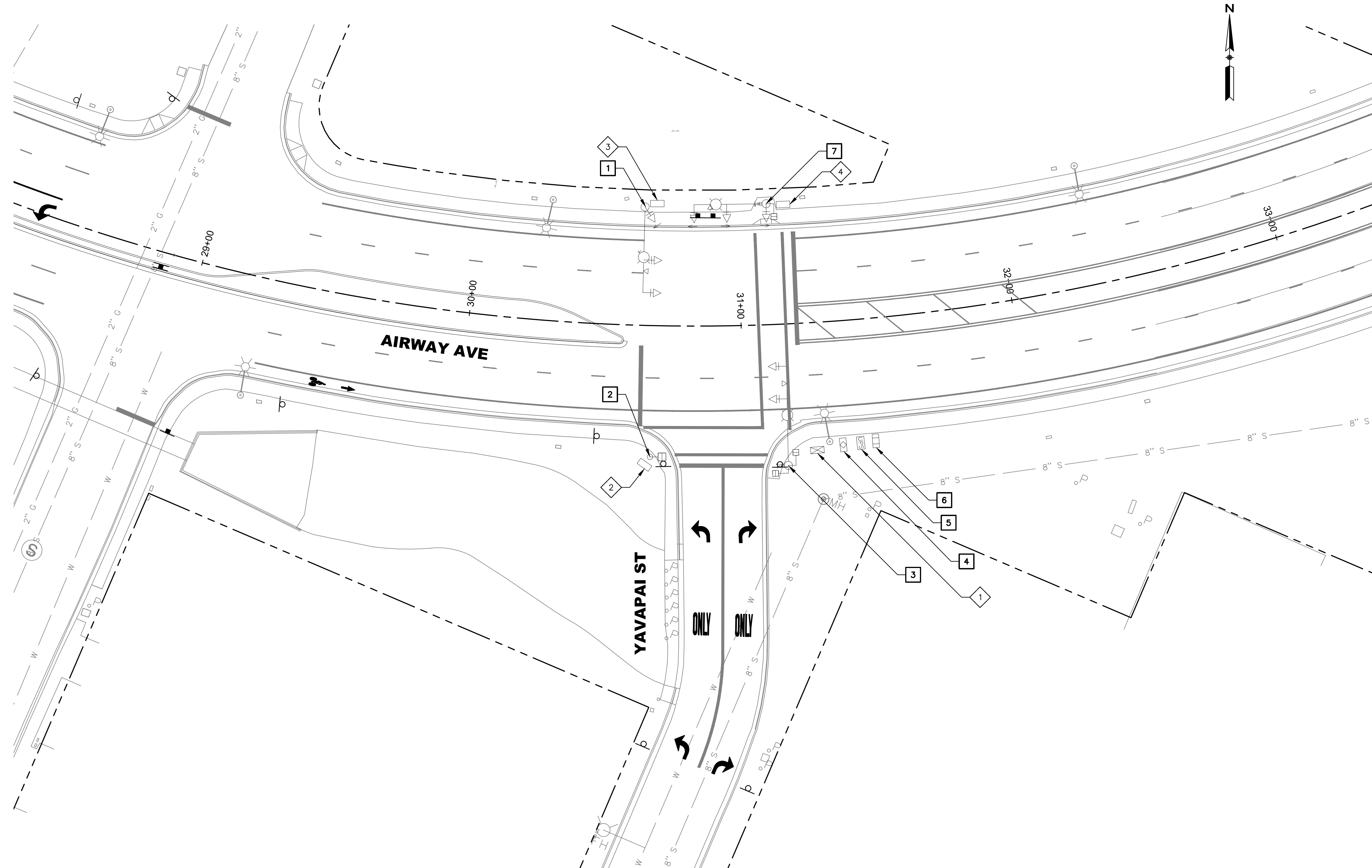
- 6" DOUBLE YELLOW LINE
- 6" SOLID WHITE LINE
- 6" SOLID YELLOW LINE AND 6" BROKEN YELLOW LINE WITH A 10' LINE SEGMENT AND A 30' GAP
- 6" BROKEN WHITE LINE, 10' SEGMENT WITH A 30' GAP
- 12" SOLID WHITE LINE
- 16" SOLID WHITE LINE



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| EASTERN STREET PASADENA TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 15-048 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | FILENAME 15-1150-SMPL01.dwg |
| EASTERN STREET SIGNING AND MARKING STA 65+00 TO 85+00 | | SHEET NO. SM-04 55 OF 58 |





x CONSTRUCTION NOTES

1. RELOCATE EXISTING TYPE Q SIGNAL POLE AND EQUIPMENT TO NEW FOUNDATION ON NORTHWEST CORNER OF EASTERN STREET AND AIRWAY AVENUE.
2. RELOCATE EXISTING TYPE A SIGNAL POLE AND EQUIPMENT TO NEW FOUNDATION ON SOUTHWEST CORNER OF EASTERN STREET AND AIRWAY AVENUE.
3. RELOCATE EXISTING TYPE Q SIGNAL POLE AND EQUIPMENT TO NEW FOUNDATION ON SOUTHEAST CORNER OF EASTERN STREET AND AIRWAY AVENUE.
4. RELOCATE EXISTING SIGNAL CONTROL CABINET TO NEW FOUNDATION ON NORTHEAST CORNER OF EASTERN STREET AND AIRWAY AVENUE.
5. RELOCATE EXISTING UNINTERRUPTIBLE POWER CABINET TO NEW FOUNDATION ON NORTHEAST CORNER OF EASTERN STREET AND AIRWAY AVENUE.
6. RELOCATE EXISTING METER PEDESTAL TO NEW FOUNDATION ON NORTHEAST CORNER OF EASTERN STREET AND AIRWAY AVENUE.
7. RELOCATE EXISTING TYPE Q SIGNAL POLE AND EQUIPMENT TO NEW FOUNDATION ON NORTHEAST CORNER OF EASTERN STREET AND AIRWAY AVENUE.

GENERAL REMOVAL NOTES:

1. REMOVE AND SALVAGE EXISTING POLES, MAST ARMS, LUMINAIRES, MOUNTING ASSEMBLIES, CONTROL CABINET AND SIGNAL FACES. REFER TO CONSTRUCTION NOTES ON THIS SHEET FOR RELOCATION OF EXISTING SIGNAL EQUIPMENT AND HARDWARE. ALL SIGNAL EQUIPMENT NOT BEING RELOCATED SHALL BE DELIVERED TO THE CITY OF KINGMAN PUBLIC WORKS YARD. THE CONTRACTOR SHALL CONTACT CITY OF KINGMAN STREET SUPERINTENDENT AT 928-692-3135 TO COORDINATE THE DELIVERY OF SALVAGED SIGNAL EQUIPMENT.
2. ALL EXISTING PULL BOXES AND FOUNDATIONS SHALL BE ABANDONED AND LEFT IN PLACE BY THE CONTRACTOR OR AS DIRECTED BY THE CITY INSPECTOR.
3. EXISTING CONDUCTORS SHALL BE ABANDONED AND LEFT IN PLACE OR AS DIRECTED BY THE CITY INSPECTOR.

| PULL BOX SCHEDULE | | | |
|-------------------|--------------------|-----------|------------------|
| NO. | TYPE | LOCATION* | REMARKS |
| 1 | NO. 7 W/ EXTENSION | SE CORNER | ABANDON EXISTING |
| 2 | NO. 7 | SW CORNER | ABANDON EXISTING |
| 3 | NO. 7 | NW CORNER | ABANDON EXISTING |
| 4 | NO. 7 | NE CORNER | ABANDON EXISTING |

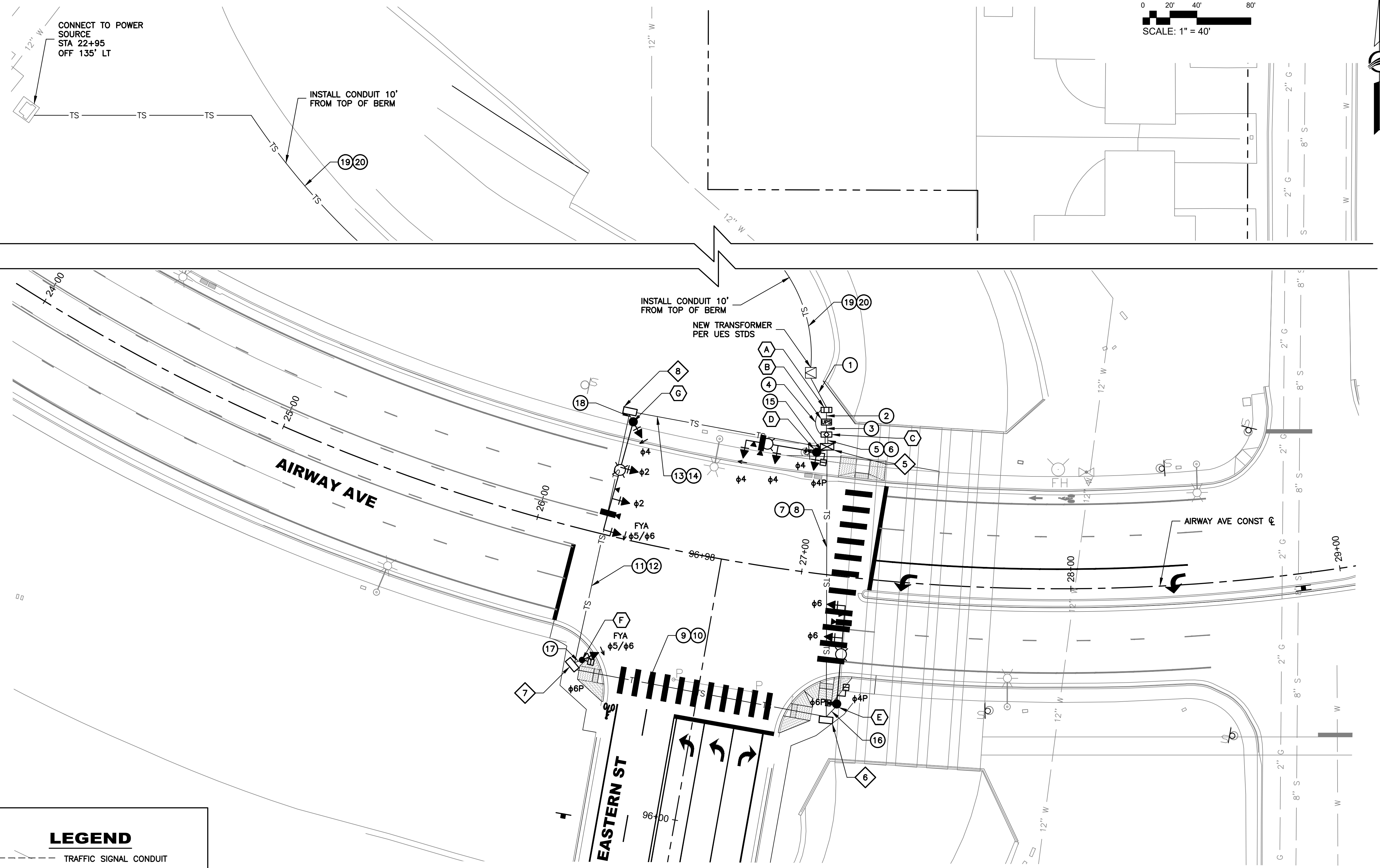


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| EASTERN STREET PASADENA TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 15-048 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 15-1150-TSPL01.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET TRAFFIC SIGNAL REMOVAL SHEET | | SHEET NO. TS-01 56 OF 58 |

Feb 14, 2023 - 8:25am
 jYenerich

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CONSTRUCTION NOTES

1. THE SIGNAL CONTROL CABINET SHALL BE RELOCATED FROM THE SOUTHEAST CORNER OF THE INTERSECTION OF YAVAPAI STREET AND AIRWAY AVENUE.
2. THE METER PEDESTAL CABINET SHALL BE RELOCATED FROM THE SOUTHEAST CORNER OF THE INTERSECTION OF YAVAPAI STREET AND AIRWAY AVENUE.
3. THE UNINTERRUPTIBLE POWER CABINET SHALL BE RELOCATED FROM THE SOUTHEAST CORNER OF THE INTERSECTION OF YAVAPAI STREET AND AIRWAY AVENUE.
4. UNDERGROUND ELECTRICAL CONDUIT AND FITTINGS TO BE INSTALLED PER ADOT SPECS 732-3. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AND PLACE CONDUIT TO AVOID SUCH UTILITIES.
5. NEW ADOT #7 PULL BOXES PER ADOT STD DWG T.S. 1-4 AND ADOT SPECS 732-2 SHALL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED ON THE PLANS.
6. VIDEO DETECTION SHALL BE INSTALLED. DETECTION SHALL BE ECONOLITE AUTOSCOPE VISION OR APPROVED EQUAL.
7. THE VIDEO DETECTORS SHALL EACH HAVE A SEPARATE CHANNEL IN THE CONTROL CABINET AND THE DETECTOR RACK.
8. VIDEO DETECTORS SHALL BE INSTALLED AND FUNCTIONAL BEFORE THE DAY OF TURN-ON.
9. THE ELEVATION OF THE TOP OF THE POLE FOUNDATIONS SHALL MATCH THE TOP OF THE ADJACENT RAMP CURB, AND SHALL BE INSPECTED BY THE CITY PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL PROVIDE COMPACTED FILL AROUND THE FOUNDATIONS FOR COMPLETE STRUCTURAL SUPPORT.
10. THE CONTRACTOR SHALL PERFORM A GROUND RESISTANCE TEST FOR EACH INSTALLED GROUND ROD AND POLE FOUNDATION GROUNDING COIL IN ACCORDANCE WITH ADOT STANDARDS SUBSECTION 732-3.03.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING HEIGHT OF SIGNAL MAST ARMS IS NOMINAL 21- FEET ABOVE PAVEMENT.
12. PAVEMENT MARKINGS ARE SHOWN FOR REFERENCE ONLY. SEE SIGNING & STRIPING PLAN FOR INSTALLATION REQUIREMENTS.
13. CONTRACTOR TO PROVIDE 90° BEND ON CONDUIT RUN NO. 1, ALONG WITH A 30- FEET LENGTH OF ELECTRIC SERVICE CABLE FOR CONNECTION TO EXISTING TRANSFORMER BY UNISOURCE ENERGY ELECTRIC CO. CONTRACTOR TO COORDINATE THIS EFFORT PER TRAFFIC SIGNAL NOTE X ON SHEET X.
14. ALL PULL BOXES SHALL BE LEFT IN A CLEAN CONDITION, FREE OF DIRT AND DEBRIS UPON COMPLETION OF THE WORK.
15. CONDUIT RUN TO BE DIRECTIONAL BORE ACROSS AIRWAY AVENUE.
16. A POLICE OFFICER SHALL BE ON SITE DURING SIGNAL START-UP.

LEGEND

- TRAFFIC SIGNAL CONDUIT
- ☐ METER PEDESTAL
- ☐ CONTROLLER CABINET
- ☐ NO. 5 PULLBOX
- ☐ NO. 8 PULLBOX
- ☐ NO. 7 PULLBOX
- ☐ TRAFFIC SIGNAL HEAD
- ☐ VIDEO DETECTION
- ☐ PEDESTRIAN PUSH BUTTON
- ☐ PEDESTRIAN SIGNAL HEAD
- ☐ VIDEO DETECTION ZONE AND PHASE NUMBER
- ☐ TRAFFIC SIGNAL (SEE POLE SCHEDULE)
- ☐ CONDUIT RUN NUMBER (SEE CONDUCTOR SCHEDULE)
- ☐ CONSTRUCTION NOTES
- ☐ EXISTING PULLBOX (SEE PULLBOX SCHEDULE)
- ☐ NEW PULLBOX (SEE PULLBOX SCHEDULE)
- ☐ ADA COMPLIANT PAD

GENERAL NOTES

1. ALL MATERIAL AND INSTALLATION SHALL CONFORM TO THE ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) 2021 STANDARD SPECIFICATIONS AND ADOT'S MOST CURRENT TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS.
2. THE LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ALL INVOLVED UTILITIES MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE, PER SECTION 730-6 OF THE ADOT STANDARD SPECIFICATIONS, FOR CONTACTING ALL UTILITIES FOR EXACT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY.
3. FOR ELECTRICAL SERVICE, THE CONTRACTOR SHALL COORDINATE WITH MARVIN YARBOROUGH OF UNISOURCE ENERGY SERVICES AT (928) 681-8928. ALL APPLICATIONS FEES AND CONNECTIONS FEES HAVE BEEN PAID BY THE KINGMAN TO UNISOURCE ENERGY SERVICES AFTER REVIEW BY THE CITY INSPECTOR.
4. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION OF TWO AND A HALF (2.5) INCH CONDUIT FOR THE PRIMARY CIRCUIT BETWEEN THE NEW TRANSFORMER LOCATION AND THE POWER PEDESTAL AS SHOWN ON THE PLANS. THE BURY DEPTH OF THE CONDUIT SHALL BE A MINIMUM OF 59 INCHES AND SHALL BE INSTALLED IN ACCORDANCE WITH UES STANDARD DETAILS AND SPECIFICATIONS. AS WELL, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION OF A NEW TRANSFORMER BASEMENT. UNISOURCE ELECTRIC WILL PROVIDE THE CONDUIT, CONDUCTORS AND THE TRANSFORMER BASEMENT BUT, THE CONTRACTOR WILL BE RESPONSIBLE FOR PICKUP FROM UNISOURCE'S OPERATIONS YARD AND INSTALLATION. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT INTO THE EXISTING TRANSFORMER WITH UES ELECTRIC. UES ELECTRIC WILL SUPPLY AND INSTALL THE TRANSFORMER AND PRIMARY CONDUCTORS. UES ELECTRIC WILL LAND THE CONDUCTORS ON EACH END. UES ELECTRIC SHALL BE NOTIFIED PRIOR TO BACKFILL SO THEY MAY INSPECT THEIR FACILITIES. A GREEN TAG FROM THE CITY OF KINGMAN BUILDING AND LIFE SAFETY DIVISION WILL BE REQUIRED BEFORE THE PANEL IS ENERGIZED.

| NO. | TYPE | LOCATION* | REMARKS |
|-----|--------------------|-------------------|---------------------------------|
| 5 | NO. 7 W/ EXTENSION | STA 27+03, 47' LT | PER ADOT DETAILS T.S. 1-2 & 1-4 |
| 6 | NO. 7 | STA 27+14, 52 RT | PER ADOT DETAILS T.S. 1-2 & 1-4 |
| 7 | NO. 7 | STA 26+25, 50' RT | PER ADOT DETAILS T.S. 1-2 & 1-4 |
| 8 | NO. 7 | STA 26+24, 47' LT | PER ADOT DETAILS T.S. 1-2 & 1-4 |

*ALL STATIONING FROM AIRWAY AVENUE. STATIONS AND OFFSETS SHOWN ARE APPROXIMATE, ACTUAL LOCATIONS ARE TO BE FIELD VERIFIED BY THE INSPECTOR PRIOR TO PULL BOX INSTALLATION.



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| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 15-1150-TSPL01.dwg |
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| EASTERN STREET SIGNAL PLAN SHEET | | SHEET NO. TS-02 57 OF 58 |

CABINET AND POLE SCHEDULE

| TRAFFIC SIGNAL CONTROLLER | | | | REMARKS | LOCATION* | | | |
|---------------------------|----------------------------|------------|--|--|----------------------------|-----------|--|-------------------|
| CABINET | TYPE | CONTROLLER | AUX. CONTROL | | | | | |
| A | METER PEDESTAL WITH BYPASS | | PER ADOT DETAILS T.S. 2-6 T.S. 3-10 T.S. 3-11 | SEE NOTE 2 SERVICE ADDRESS: 3368 AIRWAY AVENUE KINGMAN, ARIZONA 86401 | STA 27+01, 61' LT | | | |
| B | UPS | | | SEE NOTE 3 | STA 27+02, 56' LT | | | |
| C | PEC | IV | MPS, 8Ø MENU DRIVEN W/LED DISPLAY, ECONOLITE COLBALT | 20 AMP FUSED LIGHTING CONTACTOR AND PEC. | STA 27+03, 52' LT | | | |
| POLE | | MAST ARM | SIGNALS | | P.B. SIGN | REMARKS | LOCATION | |
| NO. | TYPE | SIG. | LUM. | MTG. | FACE | | | |
| D | Q | 25' | 20' | 2-II 1-V 1-V | 1-R 1-F 1-M/H 1-F | R10-4b(R) | 250 WATT, 240V HPS LUMINAIRE TYPE III, MEDIUM CUTOFF. (1) ADA PED PUSH BUTTON. (1) COUNTDOWN PEDESTRIAN SIGNAL. | STA 27+00, 45' LT |
| E | Q | 35' | 20' | 2-II 1-VII | 2-F 2-M/H | R10-4b(L) | 250 WATT, 240V HPS LUMINAIRE TYPE III, MEDIUM CUTOFF. (1) ADA PED PUSH BUTTON. (2) COUNTDOWN PEDESTRIAN SIGNALS. | STA 27+16, 45' RT |
| F | A | - | - | 1-V 1-IV | 1-M/H 1-FYA | | (1) COUNTDOWN PEDESTRIAN SIGNAL. | STA 26+28, 47' RT |
| G | Q | 40' | 20' | 1-II 2-II 1-V | 1-FYA 2-F 1-R | | 250 WATT, 240V HPS LUMINAIRE TYPE III, MEDIUM CUTOFF. | STA 26+26, 43' LT |

PEC = PHOTO ELECTRIC CELL
 UPS = UNINTERRUPTIBLE POWER SUPPLY
 M/H = MAN/HAND WITH COUNTDOWN SIGNAL
 P.B. = PUSH BUTTON
 EVPE = EMERGENCY VEHICLE PREEMPTION

* ALL STATIONING FROM AIRWAY DRIVE. STATIONS AND OFFSETS SHOWN ARE APPROXIMATE, ACTUAL LOCATIONS ARE TO BE FIELD VERIFIED BY THE TRAFFIC SIGNAL INSPECTOR PRIOR TO PULL BOX INSTALLATION.

CONDUCTOR SCHEDULE

| CONDUIT RUN NO. | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|---------------------|---------------------------------|-----|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|-----|-----|--|
| CONDUIT SIZE (INCH) | | 2.5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | 2.5 | |
| AWG | CIRCUIT PHASE | | | | | | | | | | | | | | | | | | | | | |
| IMSA * | NO. OF CABLES | | | | | | | | | | | | | | | | | | | | | |
| | NO. OF CONDUCTORS | | | | | | | | | | | | | | | | | | | | | |
| | SIGNAL φ2 | | | | | | | | | | | | | | | | | | | | | |
| | SIGNAL φ4 | | | | | | | | | | | | | | | | | | | | | |
| | SIGNAL φ5 | | | | | | | | | | | | | | | | | | | | | |
| | SIGNAL φ6 | | | | | | | | | | | | | | | | | | | | | |
| | SIGNAL COMMON | | | | | | | | | | | | | | | | | | | | | |
| | PEDESTRIAN SIGNAL φ4 | | | | | | | | | | | | | | | | | | | | | |
| | PEDESTRIAN SIGNAL φ6 | | | | | | | | | | | | | | | | | | | | | |
| | PEDESTRIAN SIGNAL COMMON | | | | | | | | | | | | | | | | | | | | | |
| | PEDESTRIAN P.B. φ4 | | | | | | | | | | | | | | | | | | | | | |
| | PEDESTRIAN P.B. COMMON | | | | | | | | | | | | | | | | | | | | | |
| | SPARES | | | | | | | | | | | | | | | | | | | | | |
| #14 | CAMERA DETECTION φ4 | | | | | | | | | | | | | | | | | | | | | |
| | CAMERA DETECTION φ5 | | | | | | | | | | | | | | | | | | | | | |
| | CAMERA DETECTION φ6 | | | | | | | | | | | | | | | | | | | | | |
| #12 | LIGHTING 240V | | | | | | | | | | | | | | | | | | | | | |
| #8 | GROUND INSULATED BOND (GREEN) □ | | | | | | | | | | | | | | | | | | | | | |
| #6 | SERVICE | | | | | | | | | | | | | | | | | | | | | |
| ◇ | EMERGENCY VEHICLE PRE-EMPTION | | | | | | | | | | | | | | | | | | | | | |

ALL CONDUCTORS ARE NEW.

□ THE INSULATED BOND SHALL HAVE THE INSULATION STRIPPED INSIDE THE PULL BOXES.

* THE ISMA 20-CONDUCTOR, 7-CONDUCTOR, AND 4-CONDUCTOR CABLES SHALL BE #12 AWG ISMA 19-01.

◇ CONDUCTORS BY POWER COMPANY. CONDUIT BY CONTRACTOR PER POWER COMPANY REQUIREMENTS.

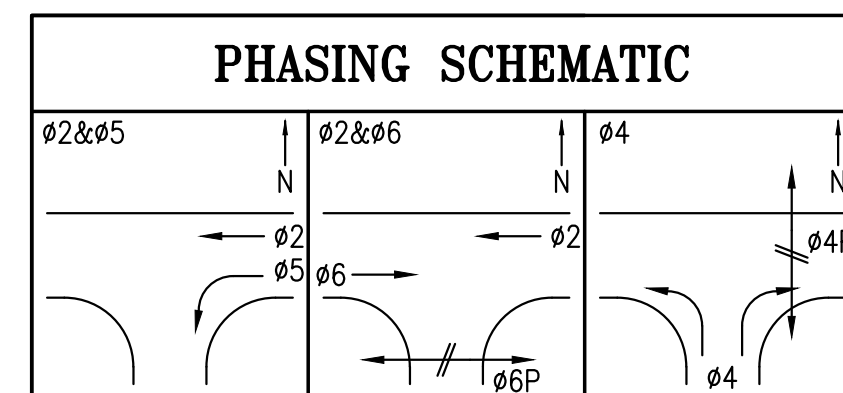
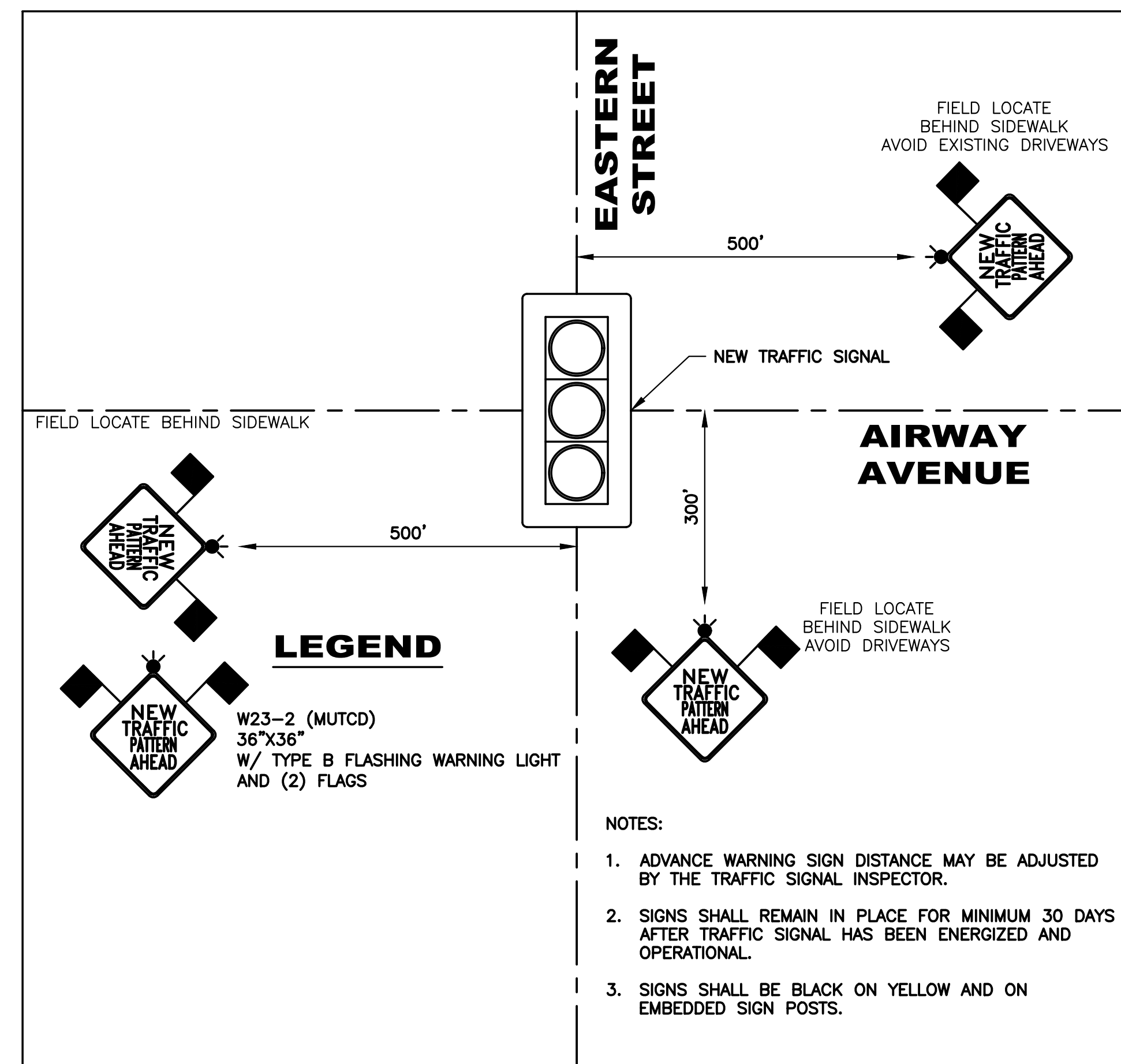
◇ EMERGENCY VEHICLE PER-EMPTION SHALL BE OPTICOM CABLE, 3M #138, OR APPROVED EQUAL. THE CABLE SHALL RUN CONTINUOUSLY (NO SPACES) FROM THE END OF THE SIGNAL MAST ARM TO THE CONTROL CABINET.

TRAFFIC SIGNAL EQUIPMENT NOTES

1. THE SIGNAL CONTROL CABINET SHALL BE RELOCATED FROM THE SOUTHEAST CORNER OF THE INTERSECTION OF YAVAPAI STREET AND AIRWAY AVENUE.
2. THE METER PEDESTAL CABINET SHALL BE RELOCATED FROM THE SOUTHEAST CORNER OF THE INTERSECTION OF YAVAPAI STREET AND AIRWAY AVENUE.
3. THE UNINTERRUPTIBLE POWER CABINET SHALL BE RELOCATED FROM THE SOUTHEAST CORNER OF THE INTERSECTION OF YAVAPAI STREET AND AIRWAY AVENUE.
4. THE CONTRACTOR SHALL FIELD VERIFY ALL POLE LOCATIONS AND ELEVATIONS WITH THE CITY OF KINGMAN INSPECTOR, PRIOR TO ANY CONSTRUCTION ACTIVITY. ALL EXPOSED CONDUIT AND FITTINGS INSTALLED ABOVE GROUND, SHALL BE RIGID METAL TYPE PER THE STANDARD SPECIFICATIONS.
5. ALL 12" SIGNAL FACES SHALL HAVE 5" LOUVERED BACKPLATES.
6. THE CONTRACTOR SHALL COORDINATE THE RELOCATION OF THE SIGNAL CABINET AND THE NEW CONTROLLER TURN-ON, A MINIMUM OF 10 DAYS IN ADVANCE, WITH THE CITY OF KINGMAN. ALL TRAFFIC SIGNAL INDICATIONS SHALL BE LED MODULES. DUAL ARC TUBE LAMPS SHALL BE USED ON ALL HORIZONTAL MOUNTED LUMINAIRES.
7. THE CONTRACTOR SHALL FURNISH AND INSTALL ADVANCE WARNING SIGNING PER DETAIL ON THIS SHEET. THE COST OF FURNISHING AND INSTALLING SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE SIGNAL EQUIPMENT.

ADVANCE WARNING SIGNING FOR NEW TRAFFIC SIGNAL INSTALLATION

SCALE: NTS



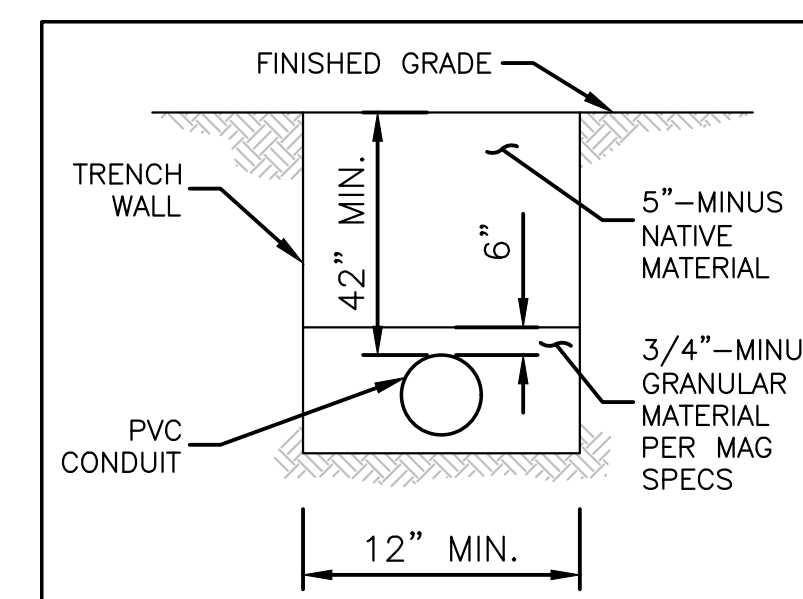
| SIGNAL HEADS INBOARD & SIDEMOUNT | | | PEDESTRIAN HEADS | | PUSH BUTTON | |
|----------------------------------|-------------|-----------------|-------------------|-----------------|-------------------|---------------------|
| 4 CONDUCTOR CABLE | BASIC COLOR | SIGNAL INTERVAL | 4 CONDUCTOR CABLE | SIGNAL INTERVAL | 4 CONDUCTOR CABLE | PUSH BUTTON STATION |
| RED | RED | RED | RED | DON'T WALK | RED | PUSH BUTTON |
| BLACK | YELLOW | GREEN | GREEN | WALK | WHITE | P.B. COM. |
| GREEN | GREEN | WHITE | WHITE | PED. COM. | GREEN | SPARE |
| WHITE | VEH. COM. | BLACK | BLACK | SPARE | BLACK | SPARE |

THE CABLE SHALL BE TAGGED AS TO ASSIGNED PHASE

IMSA CABLE 19-1, #14AWG, 20 CONDUCTOR

| CABLE #1 | CABLE #2 | CONDUCTOR COLOR | | SIGNAL INTERVAL |
|------------|------------|-----------------|---------------|-----------------|
| | | BASIC COLOR | TRACER STRIPE | |
| φ1 | φ5 | RED | WHITE | RED |
| | | BLACK | WHITE | YELLOW |
| | | GREEN | WHITE | GREEN |
| φ2 | φ6 | RED | --- | RED |
| | | ORANGE | --- | YELLOW |
| | | GREEN | --- | GREEN |
| φ3 | φ7 | BLACK | RED | RED |
| | | ORANGE | RED | YELLOW |
| | | BLUE | RED | GREEN |
| φ4 | φ8 | RED | BLACK | RED |
| | | ORANGE | BLACK | YELLOW |
| | | GREEN | BLACK | GREEN |
| φ2 PED | φ6 PED | BLUE | --- | WALK |
| | | BLACK | --- | DON'T WALK |
| | | WHITE | BLACK | PUSH BUTTON |
| φ4 PED | φ8 PED | BLUE | WHITE | WALK |
| | | RED | GREEN | DON'T WALK |
| | | WHITE | RED | PUSH BUTTON |
| ALL PHASES | ALL PHASES | WHITE | --- | P.B. COM. |
| | | BLUE | BLACK | SPARE |

CABLE #2 SHALL BE MARKED WITH 2 INDIVIDUAL 3/8 INCH WIDE STAINLESS STEEL BANDS SIDE BY SIDE WITH A 1/2 INCH GAP BETWEEN BANDS, AT EACH PULL BOX LOCATION. INDIVIDUAL CONDUCTORS IN THE CABLE SHALL BE TAGGED AS TO ASSIGNED PHASE.



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| EASTERN STREET PASADENA TO AIRWAY AVE | | C.O.K. PROJECT NO. ENG 15-048 |
| CITY OF KINGMAN ENGINEERING DEPARTMENT | | FILENAME 15-1150-TSPL01.dwg |
| 310 NORTH 4TH STREET KINGMAN, ARIZONA 86401 PHONE (928) 753-8122 FAX (928) 753-8118 | | |
| EASTERN STREET CONDUCTOR AND POLE SCHEDULE SHEET | | |
| | | SHEET NO. TS-03 58 OF 58 |