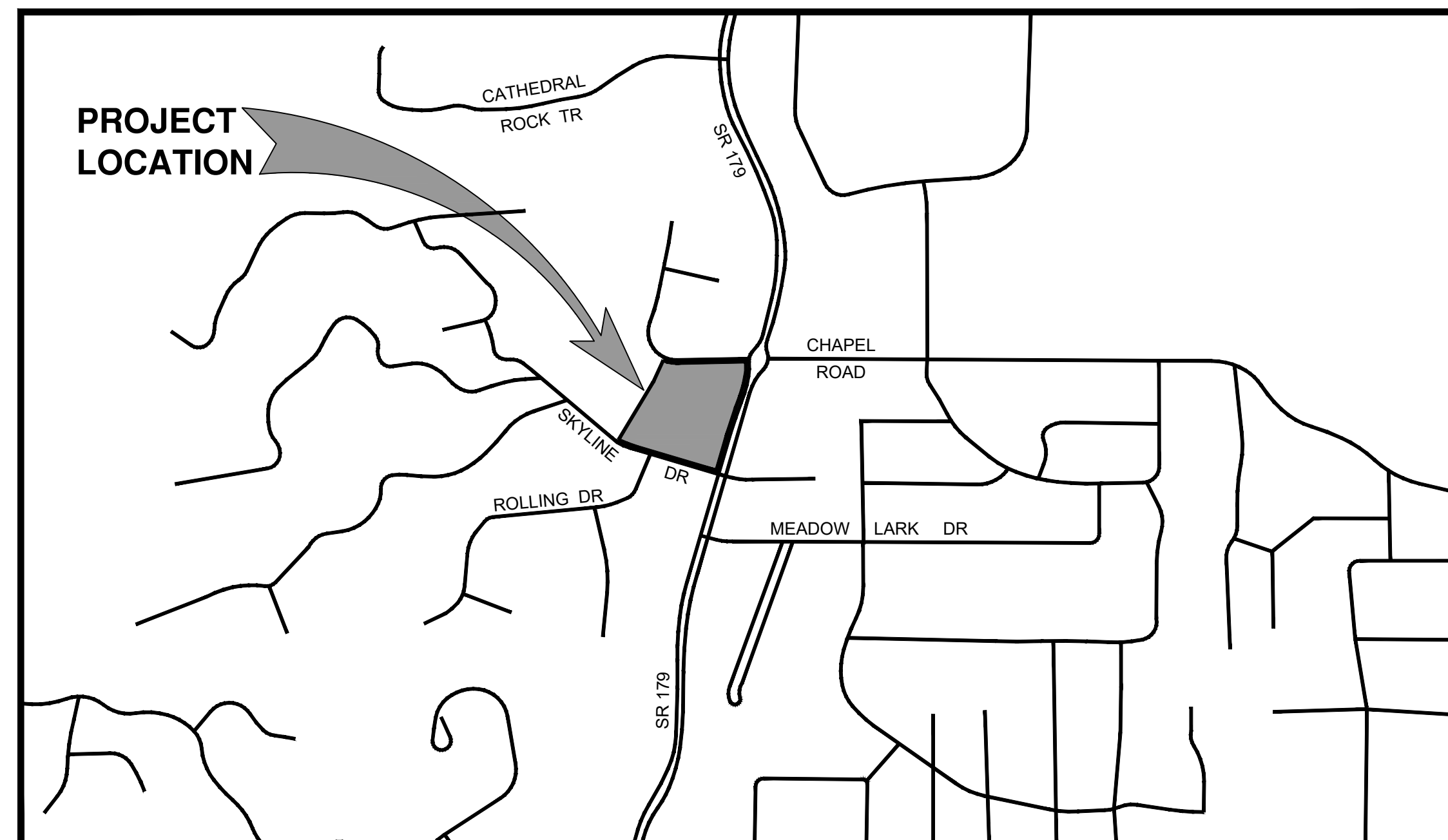
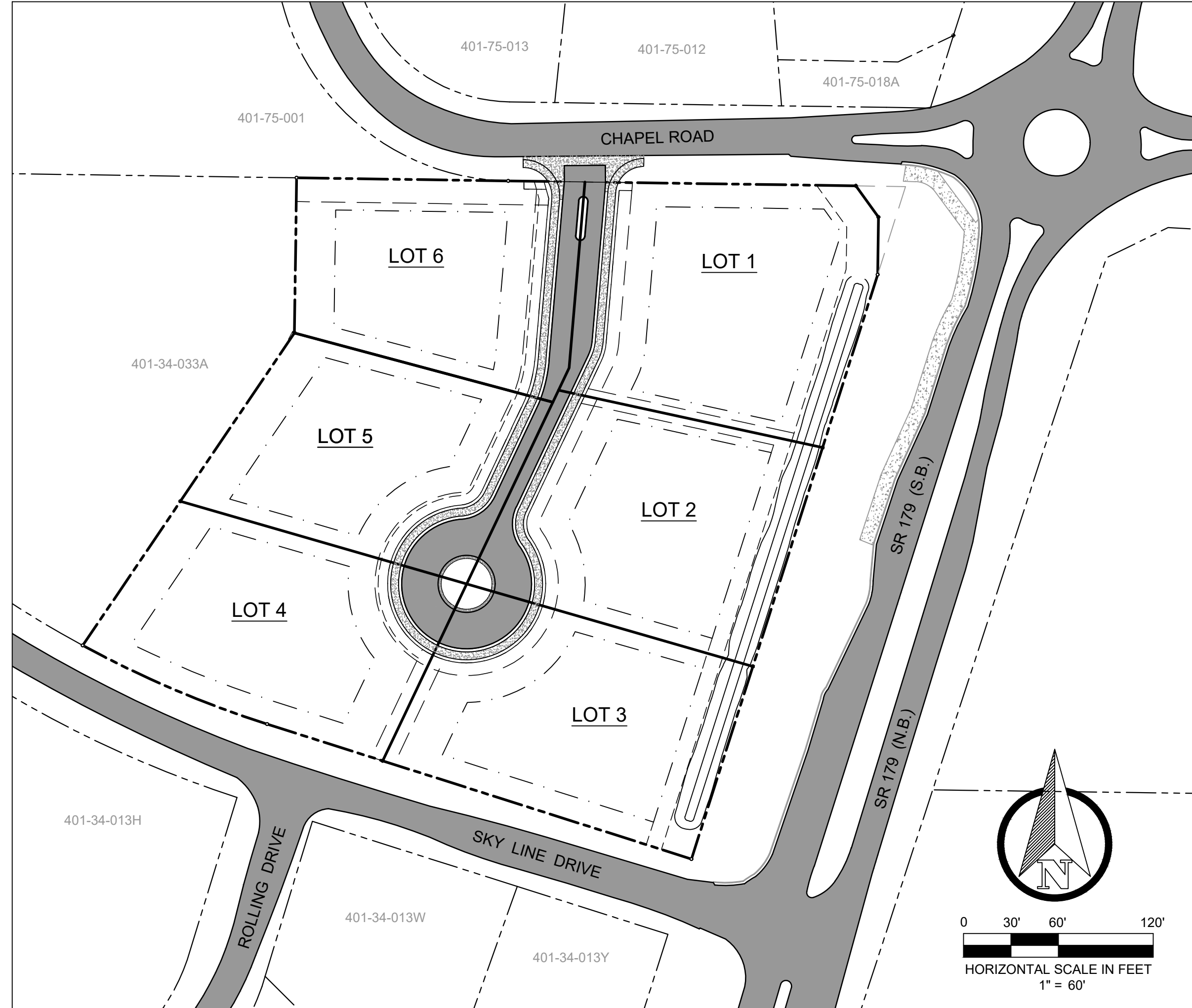


# CHAPEL VIEW TERRACE

## 10 SKY LINE DRIVE CITY OF SEDONA, ARIZONA

APN: 401-34-033B  
 PARCEL B, AS RECORDED IN INSTRUMENT #3686479 & INSTRUMENT #3807829, LOCATED IN  
 THE NW 1/4 OF SECTION 30, T17N, R6E, G&SRB&M, COCONINO COUNTY, ARIZONA



VICINITY MAP  
 SEDONA, ARIZONA  
 NO SCALE

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### DEVELOPER:

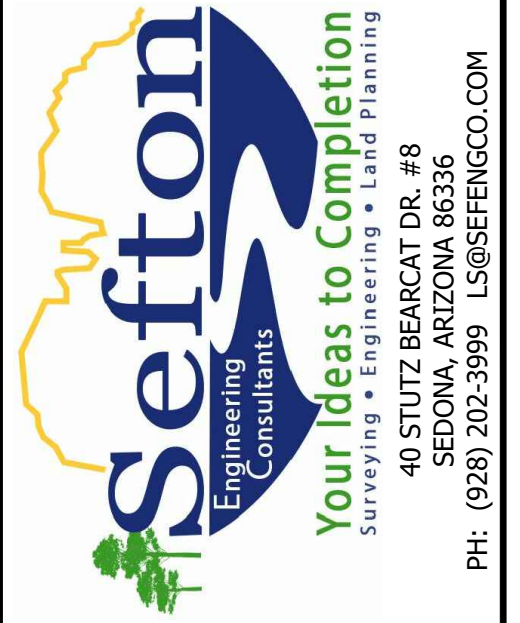
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COVER SHEET

# CHAPEL VIEW TERRACE

CITY OF SEDONA, ARIZONA

SHEET TITLE:	COVER SHEET
PROJECT TITLE:	CHAPEL VIEW TERRACE
DRAWN BY:	RJB
SCALE:	AS NOTED
DATE:	02/10/2022
PROJECT NO:	210305
SHEET NO.	C-1



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1 GENERAL

- 1.1 ALL PAVING, GRADING PIPING AND UTILITY LINE CONSTRUCTION WORK WITHIN THE PUBLIC RIGHT-OF-WAY, ON PRIVATE STREETS, ACCESS WAYS, LOT GRADING, MATERIALS, AND WORKMANSHIP SHALL COMPLY WITH ENGINEERING STANDARDS AND SPECIFICATIONS, AND SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) AND A.D.O.T. STANDARD DETAILS AND SPECIFICATIONS. GRADING WORK SHALL CONFORM TO MAG SPECS, THE SOILS REPORT AND CHAPTER 70 ENTITLED "EXCAVATION AND GRADING" OF THE UNIFORM BUILDING CODE (UBC) LATEST EDITION, SUBSECTIONS 7001 TO 7005, 7009 TO 7013, FIGURES 70-1 AND 70-2 AND AS STATED THEREIN. LOCAL MUNICIPAL STANDARD DETAILS WILL CONTINUE TO APPLY WHERE NOT ADOPTED OR INCLUDED BY MAG. THE FOLLOWING NOTES AND SPECIFICATIONS ARE HEREBY MADE A PART OF THE CONTRACT DOCUMENTS AND PROJECT MANUAL. WHERE THERE EXISTS A CONFLICT BETWEEN THESE NOTES, MAG SPECS, UBC, THE SOILS REPORT OR THE PROJECT MANUAL, THE MORE STRINGENT OF THE REQUIREMENTS SHALL GOVERN UNLESS PRIOR CLARIFICATION FROM THE ENGINEER HAS BEEN GIVEN IN WRITING TO THE CONTRACTOR. THE CONTRACTOR AS STATED HEREIN SHALL MEAN THE GENERAL CONTRACTOR AND HIS ASSOCIATED SUBCONTRACTORS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION AND PERFORMANCE OF THE WORK OF ALL OF HIS SUBCONTRACTORS AND SUPPLIERS.

- 1.2 ALL WORK SHALL BE BID AND INSTALLED BY THE CONTRACTOR COMPLETE AND OPERATIONAL TO LINES, GRADES AND FUNCTIONS INDICATED ON ALL PLANS AND SPECIFICATIONS. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO COMPLETE ALL PROJECT EARTHWORK AND SITE WORK INCLUDING BUT NOT LIMITED TO: SITE CLEARING, GRUBBING, DEMOLITION'S, DEBRIS REMOVALS FROM THE SITE, IMPORT AND/OR EXPORT OF SOILS AND OTHER MATERIALS TO AND FROM THE SITE, BORROW MATERIALS, TEMPORARY SOILS MATERIAL STOCKPILING, BACKFILL OF ONSITE BORROW PITS, MOVING OF MATERIALS, CUT AND FILL, SLOPES, SOILS AND BANK STABILIZATION AND PROTECTION, BERMING, ROADWAY EXCAVATIONS, RELOCATION'S, STRUCTURE EXCAVATIONS, TRENCHING, ALL BACKFILLING, SITE GRADING, PAVING, PIPING, UTILITY LINE AND STORM DRAINAGE CONSTRUCTION, CURBS, SITE CONCRETE WORK AND OTHER MISCELLANEOUS SITE WORK STRUCTURES AND ITEMS INDICATED ON THE PLANS AND IN THE CONTRACT DOCUMENTS.

- 1.15 ANY DIFFERENCE BETWEEN PLANS AND SPECIFICATIONS AND QUESTIONS AS TO THEIR MEANING SHALL BE DETERMINED PRIOR TO BID OPENING OF THE CONTRACT AND SHALL BE INTERPRETED BY THE ENGINEER. THE GENERAL INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS WILL GOVERN AND SHALL NOT WARRANT ANY ADDITIONAL COMPENSATION TO THE CONTRACTOR. THE ENGINEER WILL PROVIDE FULL INSTRUCTIONS WHEN DISCREPANCIES ARE DISCOVERED IN THE DOCUMENTS.
- 1.16 THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LIMITS OF THE WORK AREA PRIOR TO BEGINNING CONSTRUCTION ALL CONSTRUCTION LIMITS, AREAS OF WORK, SETBACKS, PERIMETERS, ADJACENT PROPERTY LINES, BOUNDARIES, AND OTHER CRITERIA DEFINING THE LIMITS OF THE CONTRACTOR'S WORK AREA AND LIMITS, SHALL BE STAKED BY THE CONTRACTOR'S SURVEYOR PRIOR TO CONSTRUCTION OR CLEARING OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH THE EXTENT OF WORK TO BE DONE IN EACH SEPARATE PHASE OF THE PROJECT, AND ANY WORK NECESSARY IN INACTIVE PHASES REQUIRED TO DEEM THE ACTIVE PHASES FINISHED, SAFE, AND SERVICEABLE.
- 1.17 THE CONTRACTOR OR SUBCONTRACTORS SHALL NOT DEVIATE FROM THESE PLANS OR MAKE FIELD CHANGES WITHOUT WRITTEN APPROVAL FROM THE NATION. ANY CHANGES MADE WITHOUT APPROVAL OF THE PROJECT ENGINEER ARE SUBJECT TO REMOVAL AT THE EXPENSE OF THE CONTRACTOR.
- 1.18 THE PROJECT ENGINEER RESERVES THE RIGHT TO MAKE MINOR FIELD MODIFICATIONS TO GRADES AND STRUCTURE DESIGNS TO ACCOMMODATE FIELD CONDITIONS FOUND ON SITE THAT DO NOT INVOLVE COST OR TIME. THIS INCLUDES BUT IS NOT LIMITED TO MINOR MODIFICATIONS TO GRADE, ALIGNMENT, SLOPE OR STRUCTURE LOCATIONS.
- 1.19 NO JOB WILL BE CONSIDERED COMPLETE UNTIL FINE GRADING IS COMPLETE AND ALL CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEEP CLEAN OF ALL DIRT AND DEBRIS. ALL SURVEY MONUMENTS ARE INSTALLED AND ALL VALVES, MANHOLES AND BOXES HAVE BEEN ADJUSTED ACCORDING TO THE PLANS AND STANDARD DETAILS.
- 1.20 EXISTING GRADES INDICATED ON PLANS ARE BASED ON PRE-GRADING CONDITIONS. LOSSES IN MATERIAL DUE TO SHRINKAGE OF MATERIAL, DEMOLITION OF EXISTING SITE FEATURES, CLEARING AND GRUBBING OF THE SITE SHALL BE INCLUDED IN CONTRACTOR'S BID.
- 1.21 SHOP DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR PER MAG SECTION 105.2.
- 1.22 ALL SERVICES SHALL BE MAINTAINED TO ALL AREAS AT ALL TIMES DURING THE CONSTRUCTION PERIOD, EXCEPT WHEN IT IS NECESSARY TO SHUT DOWN A LINE TO MAKE A CONNECTION WITH THE NEW LINE. RESIDENTS SHALL BE GIVEN A 24 HOUR NOTICE WHEN IT IS KNOWN THAT SERVICE WILL BE INTERRUPTED.
- 1.23 NO EXISTING SURVEY MONUMENTATION SHALL BE REMOVED OR DISTURBED BY THE CONTRACTOR WITHOUT NOTIFICATION AND APPROVAL OF THE PROJECT SURVEYOR. THE CONTRACTOR SHALL CONTACT THE PROJECT MANAGER FOR THE SETTING OF REFERENCE POINTS 48 HOURS PRIOR TO DISTURBING OR REMOVING ANY MONUMENTS. THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR COSTS TO REESTABLISH MONUMENTATION OR CONTROLS REMOVED WITHOUT PRIOR NOTICE AND APPROVAL.
- 1.24 THE CONTRACTOR SHALL COORDINATE HIS WORK AND COOPERATE WITH ANY OTHER PERSONS OR ENTITIES OPERATING ON OR ADJACENT TO THE SITE OF THE PROJECT.
- 1.25 RETAINING WALLS SHALL BEAR INTO NATURAL BEDROCK, OR COMPACTED SOIL WHICH HAS A BEARING VALUE OF 3,000 P.S.F. VERIFICATION OF SAID BEARING VALUE TO BE PROVIDED BY THE SOILS ENGINEER.

2 PERMITS

- 2.1 CONTRACTOR SHALL OBTAIN ALL PERMITS AT HIS OWN EXPENSE FROM FEDERAL, STATE OR LOCAL MUNICIPAL AND AIR POLLUTION CONTROL AUTHORITIES PRIOR TO BEGINNING CONSTRUCTION.
- 2.2 REQUIRED PERMITS SHALL BE SECURED BY THE CONTRACTOR FROM THE APPROPRIATE AGENCIES.
- 2.3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AT HIS OWN EXPENSE ALL APPROPRIATE INSURANCE FORMS FOR PERMIT REQUIREMENTS.
- 2.4 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE FOR THE RELOCATION AND RELOCATION COSTS, IF ANY, OF ALL UTILITIES, AND SUBMIT A UTILITY RELOCATION SCHEDULE TO THE MUNICIPALITY AND DESIGN ENGINEER PRIOR TO CONSTRUCTION. ALL PUBLIC UTILITY EQUIPMENT POLES, BOXES, STRUCTURES AND MUNICIPAL UTILITY COMPANY EQUIPMENT SHALL BE RELOCATED BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY BEFORE ANY WORK IS STARTED.

3 APPROVALS

- 3.1 THE CONTRACTOR IS TO USE ONLY THAT OFFICIAL CONSTRUCTION SET OF DRAWINGS WHICH CONTAINS THE APPROVAL OF THE GOVERNMENT AGENCY SIGNED ON THE COVER SHEET OF THE PLANS. THE CONTRACTOR SHALL NOT PLACE BIDS ON A SET OF DRAWINGS UNSIGNED BY THE GOVERNMENT AGENCY AND/OR MARKED "NOT FOR CONSTRUCTION".

4 RECORD DRAWINGS

- 4.1 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND KEEP AN UPDATED RECORD SET OF AS-BUILT INFORMATION DRAWINGS IN GOOD CONDITION ON THE JOB SITE FOR THE PROJECT MANAGER & UTILITY DIRECTOR TO INSPECT AND PROVIDE A COPY TO THE PROJECT ENGINEER AT COMPLETION OF THE WORK, WITH THE RECORD SET SHOWING FIELD VERIFIED LOCATIONS OF ALL VALVES, BOXES, MANHOLES, UTILITY POLES, PIPE SLEEVES, UTILITY ENCASEMENT AND OTHER UTILITY LINES AND EQUIPMENT ABOVE AND BELOW GROUND WHICH THE CONTRACTOR ENCOUNTERS AND INSTALLS IN HIS AREA OF WORK.
- 4.2 ACCEPTANCE OF THE COMPLETED PAVING, GRADING OR UTILITY INSTALLATION WILL NOT BE GIVEN UNTIL REPRODUCIBLE AS-BUILT PLANS HAVE BEEN SUBMITTED BY THE CONTRACTOR TO THE ENGINEER AND APPROVED BY THE LOCAL GOVERNING AGENCY INCLUDING HOUSING AND UTILITY DEPARTMENTS.

5 OBSERVATION

- 5.1 ALL MATERIALS USED AND ALL WORK DONE BY THE CONTRACTOR SHALL BE SUBJECT AT ALL TIMES TO THE OBSERVATION, TESTING AND APPROVAL OF THE ENGINEER AND GOVERNING AGENCY. SPECIAL INSPECTION AND TESTING SERVICES SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE, AS REQUIRED BY THE CONTRACT DOCUMENTS.
- 5.2 THE CONTRACTOR SHALL CONTACT THE APPROPRIATE PUBLIC UTILITY COMPANIES FOR INSPECTION OF TRENCHING, BEDDING AND BACKFILLING DONE IN CONJUNCTION WITH INSTALLATION OF THOSE UTILITIES ON THIS PROJECT.
- 5.3 SUBMITTAL OF AN ENGINEER'S CERTIFICATE OF COMPLETION IS REQUIRED BY A.D.E.Q. FOR ALL WATER AND SEWER SYSTEM CONSTRUCTION. RELATED INSPECTION AND TESTING SHALL BE PROVIDED BY THE DEVELOPER'S ENGINEER AT THE DEVELOPER'S EXPENSE.
- 5.4 SOILS COMPACTION TEST RESULTS MUST BE SUBMITTED TO THE PROJECT ENGINEER'S OFFICE FOR ALL FILL MATERIAL FOR ROADS, TRENCH BACKFILL AND SITE FILL MATERIALS UNDER SLABS AND STRUCTURES. NO FILL MATERIALS SHALL BE PLACED WITHOUT TESTING DURING PLACEMENT. NO EARTH MATERIAL SHALL BE PLACED WITHOUT APPROVAL OF THE PREVIOUS LISTS. THE CONTRACTOR SHALL SUBMIT ALL TEST RESULTS TO THE PROJECT ENGINEER.
- 5.5 THE CONTRACTOR WILL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF ALL TESTING INCLUDING THE FOLLOWING ITEMS WHICH SHALL BE TESTED IN ACCORDANCE WITH MAG SPECIFICATIONS FOR:
  - 1. SUBGRADE COMPACTION
  - 2. BASE COURSE COMPACTION
  - 3. ASPHALT PAVEMENT MIX DESIGN QUALITY
  - 4. CONCRETE STRENGTH
  - 5. TRENCH BEDDING AND BACKFILL
  - 6. TESTING FOR UTILITIES, PIPING AND DRAINAGE SYSTEMS
  - 7. RETAINING WALLS CONCRETE AND COMPACTION
- 5.6 THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR 24 HOURS PRIOR TO BEGINNING DIFFERENT ASPECTS OF CONSTRUCTION SO THAT INSPECTIONS MAY BE SCHEDULED.

6 FINAL ACCEPTANCE

- 6.1 APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ACCEPTANCE OF COMPLETED IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED, AND FINAL CLEANUP IS COMPLETE.
- 6.2 APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ACCEPTANCE OF COMPLETED IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED, AND FINAL CLEANUP IS COMPLETE.

7 UTILITIES

- 7.1 A UTILITY COORDINATION MEETING SHALL BE COORDINATED BY THE CONTRACTOR PRIOR TO THE START OF ANY WORK. ALL UTILITY ISSUES SHALL BE ADDRESSED IN ACCORDANCE WITH MAG
- 7.2 THE CONTRACTOR SHALL CALL "BLUE STAKE" AND NOTIFY THE APPROPRIATE PRIVATE, PUBLIC AND MUNICIPAL UTILITY COMPANIES 48 HOURS PRIOR TO ANY CONSTRUCTION WORK TO VERIFY LOCATION AND DEPTH OF ALL UTILITY LINES IN THE AREA OF WORK. UTILITIES IF INDICATED ON PLANS ARE APPROXIMATE LOCATIONS ONLY, TAKEN FROM THE UTILITY COMPANY MAPS. IF THE CONTRACTOR ENCOUNTERS ANY LINES NOT INDICATED ON THE DRAWINGS OR MARKED IN THE FIELD BY THE UTILITY COMPANY THAT MAY INTERFERE WITH HIS WORK, HE SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY IMMEDIATELY FOR DISPOSITION OF THOSE FACILITIES.
- 7.3 THE CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF GRADE, TRENCHING, BACKFILLING, PAD CONSTRUCTION AND CONCRETE PADS FOR UTILITY EQUIPMENT INSTALLED ON THIS PROJECT. CONTRACTOR SHALL CONTACT LOCAL UTILITY COMPANIES FOR DETAILS AND REQUIREMENTS.
- 7.4 REQUIRED UTILITY SLEEVES SHALL BE PLACED PRIOR TO SUBBASE CONSTRUCTION AND PAVING. CONTACT APPROPRIATE UTILITY COMPANIES FOR REQUIREMENTS IN ALL AREAS.
- 7.5 ALL WATER MAINS, APPURTENANCES, AND INSTALLATION SHALL CONFORM TO A.W.W.A. STANDARDS AND ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, AND ARIZONA WATER COMPANY REQUIREMENTS. WATER SYSTEM SHALL BE TESTED PER A.D.E.Q. BULLETIN NO. 10 TO THE APPROPRIATE A.W.W.A. STANDARDS.
- 7.6 ALL FIRE HYDRANTS SHALL MEET ALL REQUIREMENTS OF A.W.W.A. C-509-80.

8 CONSTRUCTION STAKING

- 8.1 THE ACCURACY OF ALL CONSTRUCTION WORK SHALL BE MAINTAINED AND VERIFIED BY A REGISTERED LAND SURVEYOR. CONSTRUCTION STAKING SUITABLE TO THE ENGINEER WILL BE SET ESTABLISHING LINES AND GRADES (FINISH OR FLOWLINE) FOR ALL CONSTRUCTION INCLUDING ROADS, CURB AND GUTTER, SIDEWALKS, UTILITIES, STRUCTURES, AND OTHER WORK AS CONSIDERED NECESSARY BY THE PROJECT ENGINEER. ALL SURVEY CONTROL SHALL BE SET BY THE SURVEYOR FROM MONUMENTS ACCEPTABLE TO THE ENGINEER.
- 8.2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING.

9 GRADING AND EARTHWORK

- 9.1 PERFORM ALL EARTHWORK GRADING, CUTTING AND FILLING AS PER THE PROJECT SOILS REPORT FOR THIS PROJECT.
- 9.2 NO GRADING OR TRENCHING WORK SHALL BEGIN PRIOR TO SUPPORTING AND PROTECTING EXISTING ONSITE AND ADJACENT PROPERTY FROM SETTLING, CRACKING, OR OTHER DAMAGE WHICH MIGHT RESULT.
- 9.3 WATER SOURCE: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR OBTAINING ALL WATER REQUIRED FOR SOIL COMPACTION, DRINKING PURPOSES AND DUST CONTROL. (MAG SPEC 225)
- 9.4 CLEARING AND GRUBBING: EXAMINE SITE AND PROVIDE NECESSARY EQUIPMENT AND LABOR TO REMOVE FROM THE SITE AND DISPOSE OF STUMPS, ROOTS, ROCKS, LOOSE FILL, VEGETATION, DEBRIS, AND ANY OTHER OBJECTIONABLE MATERIALS FROM THE BUILDING AND FILL AREAS. CLEAN, UNCLASSIFIED ONSITE SOILS MAY BE USED IN GENERAL AS FILL MATERIAL. SEE MAG SPECIFICATION SECTIONS 201 AND 215.
- 9.5 TOPSOIL THAT WILL BE AFFECTED BY ROUGH GRADING OR EXCAVATION SHALL BE STOCKPILED ON THE SITE SEPARATELY AND SHALL NOT BE USED FOR FILL, BUT SHALL BE CONSERVED AND USED FOR FINE AND FINISH GRADING.
- 9.6 SITE DRAINAGE: CONSTRUCTION OF ALL SWALES, CHANNELS, DRAINAGE PIPES, DRAINAGE STRUCTURES AND BANK PROTECTION SHALL BE CONSTRUCTED DURING THE FIRST PHASES OF SITE CONSTRUCTION TO PROTECT ALL OTHER CONSTRUCTION FROM SURFACE WATERS. DIVERT RUN OFF WATER AROUND CONSTRUCTION OPERATIONS. CARE SHALL BE TAKEN BY THE CONTRACTOR NOT TO ADVERSELY AFFECT ADJACENT PROPERTIES. DRAIN EXCAVATIONS BY PUMPING OR OTHER SATISFACTORY METHOD TO PREVENT SOFTENING OF THE FOUNDATION SOILS, UNDERCUTTING OF FOOTINGS, OR OTHER ACTIONS DETRIMENTAL TO PROPER CONSTRUCTION PROCEDURES.
- 9.7 THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL WALLS AND FOUNDATIONS. ALL STORM DRAINS, DRAIN LINES, OVERFLOWS, OUTLETS, AND/OR OTHER DRAINAGE TYPE OUTLETS WHICH CONDUCT MOISTURE NEAR THE STRUCTURES SHALL BE POSITIVELY DRAINED AWAY FROM THE STRUCTURE. NO WATER SHALL BE PERMITTED TO POND NEAR STRUCTURES OR FOUNDATIONS. ALL DRAINAGE SHALL BE CHANNLED AND TAKEN A MINIMUM OF 10 FEET AWAY FROM ALL STRUCTURES.
- 9.8 SUBGRADE PREPARATION: IF THE NATURAL SUBGRADE IS LESS THAN THE REQUIRED DENSITY, IT SHALL BE SCARIFIED AND COMPACTED TO A MINIMUM DEPTH OF TWELVE INCHES OR AS NOTED IN THE SOILS REPORT IMMEDIATELY PRIOR TO PLACING SUBSEQUENT FILL MATERIAL THEREON. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND REPAIR OF DAMAGE TO PREPARED SUBGRADE CAUSED BY CONTRACTORS OPERATIONS OR PUBLIC TRAFFIC UNTIL ACCEPTANCE OF PROJECT. NO MATERIALS SHALL BE PLACED UPON THE PREPARED SUBGRADE UNTIL IT MEETS THE SPECIFIED REQUIREMENTS. ROADWAY SUBGRADE COMPACTION INCLUDES SUBGRADE UNDER ALL PAVEMENT, CURB, SIDEWALKS, SHOULDERS AND FILL SLOPES. SUBGRADE TOLERANCES SHALL BE AS SPECIFIED IN MAG SECTION 301. OPEN LANDSCAPED AREAS SHALL BE GRADED TO +/- 0.20 FEET.
- 9.9 EARTH FILL: AREAS TO BE FILLED SHALL BE LEVELED TO PROVIDE A LEVEL BASE TO SUPPORT FILL MATERIALS. SUBGRADE AND SUBBASE AREAS REQUIRING FILL MATERIAL SHALL BE SCARIFIED MOISTENED AND COMPACTED PRIOR TO PLACING FILL. ALL FILL, SUBGRADE AND SUBBASE MATERIALS SHALL BE COMPACTED TO SPECIFIED DENSITIES AT OR NEAR OPTIMUM MOISTURE CONTENTS AS VERIFIED AND RECOMMENDED BY THE SOILS ENGINEER. FILL IN HORIZONTAL LIFTS NOT EXCEEDING SIX INCHES IN LOOSE THICKNESS BEFORE COMPACTION. SLOPED SURFACES SHALL BE FLOWED, STEPPED, AND BENCHED SO THAT THE FILL MATERIAL WILL BOND WITH THE EXISTING MATERIAL. BENCH AT THE TOE OF FILL SLOPES AND PERIODIC INTERVALS UP THE FILL SLOPES BENCHES.
- 9.10 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE SOILS ENGINEER FOR SCHEDULING OF COMPACTION TESTING. THE FREQUENCY OF DENSITY AND MOISTURE TESTS REQUIRED FOR ADEQUATE CONTROL SHALL BE THE RESPONSIBILITY OF THE SOILS ENGINEER WHO SHALL CERTIFY TO THE ENGINEER AND CONTRACTOR AT PROJECT END THAT THE ROADBED FILL IS COMPACTED AS OUTLINED HEREIN. COMPACTION SHALL BE ACHIEVED BY MECHANICAL MEANS. IN NO CASE SHALL STRUCTURE BACKFILLING BE FLOOD WATER SETTLED.
- 9.11 ALL SLOPE CONSTRUCTION AND ROADWAY EXCAVATION SHALL CONFORM TO THE REQUIREMENTS OF MAG SPECIFICATIONS SECTIONS 201, 205, 212, 301, AND UBC SECTION 7009 AND 8010. CUT AND FILL SLOPES SHALL BE AS INDICATED ON THE DETAILS AND PLANS. CUT AND FILL SLOPE GRADIENTS SHALL NOT EXCEED 2:1 IN STEEPNESS WITHOUT WRITTEN AUTHORIZATION FROM THE PROJECT ENGINEER AND EXAMINATION BY THE PROJECT ENGINEER. ALL SLOPE CONDITIONS SHALL BE PROVIDED WITH THE APPROPRIATE BENCHES AS SPECIFIED IN THE REFERENCE DOCUMENTS AND INDICATED ON THE PLANS. IF SOILS CONDITIONS ARE ENCOUNTERED WHICH DO NOT ALLOW THE ESTABLISHMENT OF THE INDICATED CUT OR FILL SLOPES, THE PROJECT ENGINEER AND SOILS ENGINEER SHALL BE CONTACTED IMMEDIATELY TO DETERMINE AN ADJUSTMENT TO THE SLOPE GRADIENT OR TO ESTABLISH A METHOD OF STABILIZATION. ALL FILL SLOPES SHALL BE COMPACTED AS EACH LIFT OF FILL MATERIAL IS PLACED. ALL CUT AND FILL SLOPES SHALL BE UNIFORMLY GRADED TO LINES AND GRADES INDICATED. TOPS OF ALL CUT SLOPES SHALL BE ROUNDED AND ALL UNSTABLE AND LOOSE MATERIAL AT TOP OF SLOPE SHALL BE REMOVED. TOP OF CUT SLOPES OVER 10' HIGH SHALL BE PROVIDED WITH BROW DITCHES FOR DRAINAGE.
- 9.12 COMPACT TO THE FOLLOWING SPECIFIED PERCENT OF MAXIMUM DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D698 AND MAG SECTION 211.
  - MINIMUM PERCENT COMPACTION:
    - SUBGRADE SOIL:
      - ROADWAY AND STRUCTURE AREAS-----95
      - PAVED AREAS (PAVEMENTS, SIDEWALKS, & PADS)-----95
    - EARTH FILL:
      - ROADWAY AND STRUCTURE AREAS-----95
      - PAVED AREAS (PAVEMENTS, SIDEWALKS, & PADS)-----95
      - GRASSED AND PLANTING AREAS-----85
      - AGGREGATE BASE COURSE-----100
      - BACKFILL AROUND STRUCTURES-----95
      - BACKFILL FOR UTILITY TRENCHES (PER MAG SECTION 601) EXCEPT AS FOLLOWS: BACKFILL FOR TRENCHES SHALL BE COMPACTED TO 100%.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND UNDERSTANDING THE PROJECT SOIL REPORT.



NOTES - SHEET 1 OF 3  
CHAPEL VIEW TERRACE  
CITY OF SEDONA, ARIZONA

SHEET TITLE:	
PROJECT TITLE:	
DRAWN BY:	RJB
SCALE:	NONE
DATE:	02/10/2022
PROJECT NO:	210305
SHEET NO.	C-2

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## 9 GRADING AND EARTHWORK

- 9.1.3 EXCAVATION: EXCAVATE TO THE DIMENSIONS AND DEPTHS INDICATED ON THE DRAWINGS. FOUNDATIONS SHALL REST ON ENGINEERED COMPACTED FILL OR UNDISTURBED NATURAL SOILS AT GRADE ELEVATIONS INDICATED. IF SUITABLE SOIL IS NOT REACHED AT THE DEPTHS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE SOILS ENGINEER AND ENGINEER. THE CONTRACTOR WILL BE DIRECTED, IN WRITING, TO EXCAVATE TO THE DEPTH OF SUITABLE SOIL. EXCAVATION FOR FOUNDATIONS WHICH ARE CARRIED BELOW THE DEPTHS INDICATED SHALL HAVE THE CONCRETE EXTENDED TO THE BOTTOM OF THE EXCAVATION AT THE CONTRACTOR'S EXPENSE. SEE MAG SPECIFICATION SECTION 206.
- 9.1.4 WATERING: CAREFULLY WATER EARTH FILL DURING PLACING BY MEANS OF A FINE SPRAY OR OTHER APPROVED METHOD, SO THAT EACH LAYER IS THOROUGHLY AND UNIFORMLY WETTED. MOISTURE CONTENT OF THE MATERIAL SHALL BE CAREFULLY CONTROLLED AT ALL TIMES AND CHECKED AT PROPER INTERVALS TO INSURE CORRECT MOISTURE FOR COMPACTION SPECIFIED. SEE MAG SECTION 225 AND SOILS REPORT.

## 10 PAVING

- 10.1 COMPLETE ASPHALTIC CONCRETE PAVEMENT INSTALLATION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- A. TACK COATING OF CONCRETE SURFACES, UNDILUTED .02 TO .10 GAL/SY, DILUTED 1:1 MIXTURE, .05 TO .15 GAL/SY, OR AS DIRECTED.
- B. PAINT FOR PAVEMENT STRIPING AND MARKING SHALL CONFORM TO FEDERAL SPEC. NO. TTP-155E, "PAINT, TRAFFIC, HIGHWAY, WHITE AND YELLOW". COLORS FOR PAVEMENT MARKING AND STRIPING SHALL BE AS SPECIFIED BY THE PROJECT ENGINEER.
- C. TRAFFIC CONTROL DEVICES: SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" LATEST EDITION, PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- 10.2 ASPHALTIC PAVEMENT SHALL CONFORM TO MAG SPECIFICATION SECTION 32 WITH THICKNESS AND DESIGN MIX AS INDICATED ON THE PLANS.
- 10.3 ALL FRAMES, COVERS, VALVE BOXES, AND MANHOLES IN PAVED AREAS AND RIGHT-OF-WAY SHALL BE ADJUSTED TO GRADE BY THE PAVING CONTRACTOR. IN NON-PAVED AREAS THEY SHALL BE ADJUSTED TO GRADE BY THE GENERAL CONTRACTOR.
- 10.4 ALL PAVING WORK SHALL BE PLACED IN STRICT CONFORMANCE TO MAG SECTION 321 PAR.321.3 WEATHER AND MOISTURE CONDITIONS. ALL WORK AND MATERIALS PLACED IN VIOLATION OF THESE REQUIREMENTS WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 10.5 EXACT POINT OF PAVEMENT MATCHING, TERMINATION AND/OR OVERLAY, IF NECESSARY, SHALL BE SUBJECT TO FIELD APPROVAL BY THE ENGINEER, HIS REPRESENTATIVE AND LOCAL MUNICIPAL AUTHORITIES. EDGE OF EXISTING PAVEMENT WHERE NECESSARY SHALL BE UNIFORMLY SAWCUT AND TACKY COAT APPLIED. 10.6 THE CONTRACTOR SHALL IN ALL AREAS OF PAVING PROVIDE A UNIFORM DENSE SURFACE SMOOTH AND TRUE TO LINE. SURFACE SHALL BE FREE OF PITS, DEPRESSIONS, ROCK POCKETS AND PATCHES.
- 10.6 THE CONTRACTOR SHALL IN ALL AREAS OF PAVING PROVIDE A UNIFORM DENSE SURFACE SMOOTH AND TRUE TO LINE. SURFACE SHALL BE FREE OF PITS, DEPRESSIONS, ROCK POCKETS AND PATCHES.

## 11 FIELD INSPECTION

- 11.1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL CONSTRUCTION STAKING. ANY ADDITIONAL STAKING WILL BE AT THE COST OF THE CONTRACTOR.
- 11.2 THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR 24 HOURS PRIOR TO BEGINNING DIFFERENT ASPECTS OF CONSTRUCTION SO THAT INSPECTIONS MAY BE SCHEDULED.
- 11.3 ANY QUESTIONS RAISED RELATIVE TO ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

## 12 SUSPENSION OF WORK

- 12.1 THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN HIS JUDGMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS DANGER TO THE PUBLIC HEALTH OR SAFETY.

## 13 WARRANTY

- 13.1 ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN TWO YEARS FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE CONTRACTOR.

## 14 EROSION CONTROL NOTES

(SPECIFICATIONS FOR PERMANENT SEEDING)

- 14.1 SITE PREPARATION
- A. INSTALL NECESSARY SURFACE WATER CONTROL MEASURES PRIOR TO PLANTING PERMANENT SEEDING.
- B. GRADE TO PERMIT USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION.
- C. PROVIDE ADEQUATE DRAINAGE WHERE INTERNAL WATER MOVEMENT, ESPECIALLY AT TOES OF SLOPES, MAY CAUSE SEEPS OR SLIPPAGE BEFORE SEEDING IS WELL ESTABLISHED.
- 14.2 SEEDBED PREPARATION
- A. AS PRACTICAL, PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- B. IMMEDIATELY BEFORE SEEDING, RAKE OR OTHERWISE LOOSEN PLANTING SURFACE TO PROVIDE A SMOOTH, FRABLE SURFACE FREE OF EARTH CLODS, HUMPS AND DEPRESSIONS, AND DISPOSE OF LOOSE STONES HAVING A DIMENSION GREATER THAN ONE INCH AND DEBRIS BROUGHT TO THE SURFACE DURING CULTIVATION.
- 14.3 PLANTING
- A. APPLY SEED MIX AT THE RATE OF 11 POUNDS PER ACRE. MIX SHALL CONTAIN THE FOLLOWING PROPORTION OF PURE LIVE SEED: SAND DROPSEED (SPOROBOLUS CRYPTANDRUS) 1 LB SIDEOTS GRAMA (BOUITELOUS CURTIPENDULA) 5 LB CRESTED WHEAT GRASS (AGROPYRON CRISTATUM) 5 LB
- B. APPLY SEED IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER WITH HALF THE SPECIFIED APPLICATION RATE APPLIED IN EACH DIRECTION.
- C. IMMEDIATELY AFTER SEEDING, UNIFORMLY SPREAD SCREENED MANURE AT THE RATE OF ONE CUBIC YARD PER 1000 SQUARE FEET AND WATER UNTIL THE GROUND IS WET TO A MINIMUM DEPTH OF TWO INCHES.
- D. HYDRAULIC SEEDING USING 1500 POUNDS OF WOOD CELLULOSE FIBER PER ACRE MAY BE UTILIZED IN LIEU OF PLANTING.
- 14.4 MAINTENANCE
- A. PROTECT PLANTED AREAS FROM GRAZING, FIRE, TRAFFIC, AND WEED GROWTH.
- B. MAINTAIN PLANTED AREAS UNTIL A GOOD STAND OF GRASS IS ESTABLISHED. AREAS AS REQUIRED IF NO GROWTH IS PRESENT WITHIN 15 DAYS OF PLANTING.

## 15 TEMPORARY EROSION CONTROL

- 15.1 EROSION CONTROL BERMS AND ROCK CHECK DAMS
- A. PROVIDE EARTHEN BERMS AT TOES OF SLOPES REMAINING BARE BETWEEN CONSTRUCTION PHASES.
- B. PLACE TEMPORARY ROCK CHECK DAMS IN ROAD DITCHES AND CHANNELS IF RIP-RAP PROTECTION WILL NOT BE PROVIDED WITHIN 60 DAYS.
- 15.2 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EROSION CONTROL MEASURES SUCH AS SAND BAGGING, TEMPORARY DE-SILTING BASIN CONSTRUCTION BERMS, VISQUEEN, ETC. TO PROTECT ADJOINING PROPERTIES FROM EROSION.

## 16 SEWER LINE NOTES

- 16.1 ALL PVC LINES WILL BE BURIED WITH A GREEN #14 TRACE WIRE WITH A "CAUTION SEWER LINE BELOW" TAPE.
- 16.2 SEWER "YARD" LINES WILL BE CONSTRUCTED OF 4" ABS/PVC PIPE WITH GLUE JOINTS. NO JOINTS TO BE CONSTRUCTED WITHIN 6 FEET EITHER SIDE OF WATER "YARD" LINE CROSSINGS.
- 16.3 UNLESS SPECIFICALLY CALLED OUT ALL INVERTS ARE TO BE THREE (3) FEET BELOW FINISHED FLOOR STUBBED OUT.
- 16.4 MARK EACH STUB-OUT PER M.S.D. 440-1. IF BUILDING LOCATION IS KNOWN THEN MARK PER M.S.D. 440-2.
- 16.5 EXFILTRATION FROM MANHOLES SHALL BE LIMITED TO 0.1 GALLONS PER HOUR PER VERTICAL FOOT.
- 16.6 ALL NEW SEWER LINES ARE TO BE TESTED FOR INFILTRATION/EXFILTRATION AS PER A.D.E.Q. BULLETIN # 11. MAXIMUM ALLOWABLE INFILTRATION/EXFILTRATION IS 0.158 GALLONS/INCH DIAMETER/100 FEET.
- 16.7 SHORT TERM DEFLECTION TESTING FOR AT LEAST 20% OF PVC SEWER SHALL BE PERFORMED. SHORT TERM DEFLECTION IN EXCESS OF 5% SHALL BE CONSIDERED UNSERVICEABLE AND SHALL BE REPAIRED AND RETESTED.
- 16.8 THE ENGINEER SHALL REVISE THESE PLANS TO "AS BUILT" CONDITIONS AND RETURN THEM TO YAVAPAI COUNTY ENVIRONMENTAL SERVICES PRIOR TO THE ACCEPTANCE OF ANY IMPROVEMENTS SHOWN ON THESE PLANS.
- 16.9 SEWER PIPE SHALL BE IN ACCORDANCE WITH SECTION 745 OF THE MAG STANDARD SPECIFICATIONS.
- 16.10 CONSTRUCTION AND TESTING OF SEWER LINES SHALL BE IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS SECTION 615.
- 16.11 INSTALLATION OF PVC SEWER MUST BE IN CONFORMANCE WITH STANDARD SPECIFICATION ASTM D2321.
- 16.12 WATER TIGHTNESS TESTING OF THE SEWER LINE SHALL BE PERFORMED IN ACCORDANCE WITH MAG SPECIFICATION 615.10.
- 16.13 SEWER SERVICE TAPS SHALL BE INSTALLED IN ACCORDANCE WITH MAG STANDARD DETAIL 440. SERVICE PIPE SHALL BE 4-INCH FOR HOUSE CONNECTIONS. TAP LOCATION AND SERVICE LINES SHALL BE FIELD LOCATED AND MARKED WITH A GREEN # 4 REBAR OR AS SPECIFIED.
- 16.14 SEWER LINES MUST HAVE 3' MINIMUM COVER OVER PIPE.
- 16.15 TRENCH EXCAVATION, BEDDING, AND BACKFILLING FOR SEWER PIPES SHALL BE IN COMPLIANCE WITH MAG SPECIFICATIONS SECTION 601.
- 16.16 SEWER MAINS (GRAVITY, PRESSURE, FORCE) SHALL BE KEPT AT A MINIMUM OF 100 FEET FROM DRINKING WATER WELLS, UNLESS THE FOLLOWING CONDITIONS ARE MET: 1. WATER MAIN PIPE, PRESSURE TESTED IN PLACE TO 150 PSI WITHOUT EXCESSIVE LEAKAGE, MAY BE USED FOR PRESSURE SEWERS AND FORCE MAINS AT DISTANCES GREATER THAN 20 FEET FROM DRINKING WATER WELLS.

## 17 WATER LINE NOTES

- 17.1 ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE ARIZONA WATER COMPANY (A.W.CO.) STANDARD SPECIFICATIONS TO INCLUDE E-4-1-1 AND E-8-1.
- 17.2 CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS.
- 17.3 THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- 17.4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "BLUE STAKE" AT 1-800-STAKE IT (1-800-782-5348) TWO WORKING DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
- 17.5 DUCTILE IRON PIPE (PUSH-ON TYPE) CLASS 350, CEMENT LINED AND CONFORMING TO AWWA C151 SHALL BE USED AS MAIN LINE WATER PIPING. ALL MAIN LINE VALVES SHALL CONFORM TO AWWA C500 WITH A MINIMUM WORKING PRESSURE OF 200 PSI. ALL CAST IRON FITTINGS TO BE CEMENT LINED IN ACCORDANCE WITH AWWA C104 AND SHALL CONFORM TO AWWA C110 WITH A MINIMUM WORKING PRESSURE OF 250 PSI.
- 17.6 WATER MAINS NEAR SEWER MAINS SHALL HAVE SEPARATION OR PROTECTION IN ACCORDANCE WITH AAC R18-9-811 INCLUDED HEREIN.
- A. IN ORDER TO PROTECT PUBLIC WATER SYSTEMS FROM POSSIBLE CONTAMINATION, A WATER MAIN SHALL NOT:
1. INFRINGE UPON AN AREA WHICH IS WITHIN SIX FEET OF EITHER SIDE OF A SEWER MAIN AND SHALL NOT BE BELOW, AT THE SAME LEVEL AS, OR LESS THAN TWO FEET ABOVE THE TOP OF THE SEWER MAIN, UNLESS EXTRA PROTECTION IS PROVIDED. EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING THE SEWER MAIN AND WATER MAIN WITH MECHANICAL JOINT DUCTILE IRON PIPE OR WITH SLIP-JOINT DUCTILE IRON PIPE IF JOINT RESTRAINT IS PROVIDED OR SHALL CONSIST OF ENCASING THE SEWER MAIN IN AT LEAST SIX INCHES OF CONCRETE.
2. UNDER ANY CIRCUMSTANCES, INFRINGE UPON AN AREA WHICH IS WITHIN TWO FEET BELOW THE SEWER MAIN.
- B. WHEN UNUSUAL CONDITIONS SUCH AS, BUT NOT LIMITED TO, HIGHWAY OR BRIDGE CROSSINGS PREVENT THE WATER AND SEWER MAIN SEPARATIONS REQUIRED BY SUBSECTION A ABOVE FROM BEING MET, THE DEPARTMENT WILL REVIEW AND MAY APPROVE, REQUEST FOR AUTHORIZATION TO USE ALTERNATE CONSTRUCTION TECHNIQUES, MATERIALS AND JOINTS ON A CASE-BY-CASE BASIS.
- C. NO WATER PIPE SHALL PASS THROUGH, OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND MANHOLES SHALL BE SIX FEET MEASURED FROM THE CENTER OF THE MANHOLE.
- D. THE MINIMUM SEPARATION BETWEEN FORCE, GRAVITY OR PRESSURE SEWERS AND WATER MAINS SHALL BE TWO FEET VERTICALLY AND SIX FEET HORIZONTALLY UNDER ALL CONDITIONS. WHERE A SEWER FORCE MAIN CROSSES ABOVE, OR LESS THAN TWO FEET BELOW A WATER LINE, THE SEWER MAIN SHALL BE ENCASED IN AT LEAST SIX INCHES OF CONCRETE FOR 10 FEET ON EITHER SIDE OF THE WATER MAIN.
- E. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE SEWER MAIN TO THE OUTSIDE OF THE WATER MAIN. THESE SEPARATION REQUIREMENTS DO NOT APPLY TO BUILDING PLUMBING OR INDIVIDUAL HOUSE SERVICE CONNECTIONS.
- F. ALL WATER SERVICE LINES THAT ARE UNDER PAVEMENT SHALL BE SLEEVED IN 4" CLASS 160 PVC PIPE CONDUIT.
- G. THRUST BLOCKS SHALL BE INSTALLED AT ALL ANGLES, TEES AND IN ACCORDANCE WITH AWC STANDARDS E-9-5-1, E-9-5-2 OR PER DETAILS.
- 17.7 A ONE (1) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN A STORM DRAIN CROSSING A WATER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF STORM DRAIN. EXTRA PROTECTION IS REQUIRED PER MAG SPECIFICATIONS WHEN THESE REQUIREMENTS ARE NOT MET.
- 17.8 A THREE (3) FOOT MINIMUM HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN A FIRE HYDRANT AND ANY WATER SERVICE LINE.
- 17.9 RECLAIMED WASTEWATER MAINS SHALL BE CONSIDERED THE SAME AS WATER MAINS FOR THE PURPOSE OF MINIMUM COVER AND SEPARATION.
- 17.10 VERTICAL CLEARANCE BETWEEN WATER MAINS AND SEWER SERVICE CONNECTIONS:

THE WATER MAIN MAIN SHALL NOT BE LESS THAN SIX (6) INCHES ABOVE THE SEWER SERVICE EVEN IF THE SEWER SERVICE CONNECTION IS CONSTRUCTED WITH DUCTILE IRON PIPE IN ACCORDANCE WITH NOTE 3B OF MAG STANDARD DETAIL 404-11.

## 18 STORM SEWER NOTES

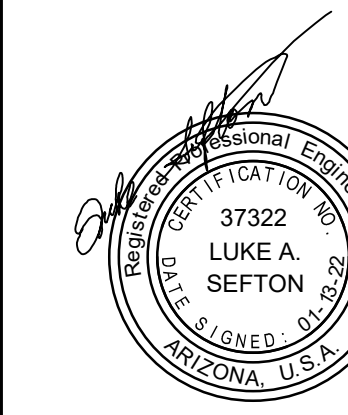
- 18.1 ALL CORRUGATED METAL PIPE TO BE 14 GAUGE, UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
- 18.2 ALL CORRUGATED METAL PIPE SHALL HAVE FLARED END SECTIONS, EXCEPT WHERE HEADWALLS ARE USED.
- 18.3 ALL DRAINAGE CULVERTS AND PIPES SHALL HAVE A MINIMUM COVER OF 12".

## 19 DRY UTILITIES NOTES

- 19.1 GAS MAINS SHALL HAVE A MINIMUM COVER OF 36" WITH SAND SHADE 6" BELOW AND ABOVE PIPING. MAINTAIN A MINIMUM OF 1 FOOT VERTICAL AND HORIZONTAL SEPARATION BETWEEN GAS LINE AND OTHER UTILITIES. CONSULT CITIZEN'S UTILITIES FOR FUR-OTHER REQUIREMENTS.
- 19.2 PRIMARY ELECTRIC LINES SHALL HAVE A MINIMUM COVER OF 48". CONSULT APS FOR FURTHER REQUIREMENTS.
- 19.3 CABLE TV LINES SHALL BE INSTALLED PER THE REQUIREMENTS OF SEDONA CABLEVISION.
- 19.4 TELEPHONE LINES SHALL BE INSTALLED PER THE REQUIREMENTS OF US WEST.

## 20 LANDSCAPING NOTES

- 20.1 ALL EXISTING TREES AND SHRUBS NOT AFFECTED BY BUILDING CONSTRUCTION OR ROAD DEVELOPMENT MUST BE FENCED WITH A CONSTRUCTION ENVELOPE FENCE TO PROTECT THEM DURING CONSTRUCTION.



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NOTES - SHEET 2 OF 3

CHAPEL VIEW TERRACE

CITY OF SEDONA, ARIZONA

SHEET TITLE:

PROJECT TITLE:

DRAWN BY: RJB

SCALE: NONE

DATE: 02/10/2022

PROJECT NO: 210305

SHEET NO.

C-3

**21 ADEQ WATER AND SEWER SYSTEM NOTES**

- 1 WATER SYSTEM THRUST BLOCKING AND/OR JOINT RESTRAINT
- 2 PIPE LINES SHALL BE PROVIDED WITH CONCRETE THRUST BLOCKS AT ALL CHANGES IN DIRECTION AND SIZE AND AT ALL TEES, VALVES, PLUGS, AND DEAD ENDS, PER MAG STANDARD DETAILS 301 AND 380 AND YAG STANDARD DETAIL 3-03. PIPE LINES MAY ALSO BE PROVIDED WITH RESTRAINED JOINTS AT ALL CHANGES IN DIRECTION AND SIZE AND AT ALL TEES, VALVES, PLUGS, AND DEAD ENDS, PER MAG STANDARD DETAILS 302 AND 303.
- 3 TRENCHING AND BACKFILLING
  - 3.1 ROUGH GRADING SHALL BE COMPLETED PRIOR TO INSTALLATION OF UNDERGROUND UTILITIES.
  - 3.2 TRENCH BOTTOM SHALL BE COMPACTED BY SUITABLE MEANS APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF BEDDING MATERIAL. BEDDING MATERIAL SHALL BE PLACED TO PROVIDE UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE. THE CONTRACTOR SHALL ENSURE THAT A MINIMUM COMPACTED DEPTH OF 6" IS MAINTAINED UNDERNEATH THE PIPE. BELL HOLES SHOULD BE PROVIDED AT EACH JOINT TO PERMIT PROPER ASSEMBLY WHILE MAINTAINING UNIFORM SUPPORT.
  - 3.3 BEDDING MATERIAL SHALL BE AGGREGATE BASE COURSE WITH A MAXIMUM PARTICLE SIZE OF 3/4" AND SHALL BE NON-PLASTIC. WHERE DEPTH OF COVER IS 2-FT. OR LESS, BACKFILL MATERIAL SHALL BE ROUNDED GRAVEL WITH A MAXIMUM PARTICLE SIZE OF 1/2" AND WITH NO MORE THAN 20% PASSING THE #200 SIEVE.
- 4 GENERAL CONTRACTOR TO STUB OUT UTILITIES 1-FT WITHIN EACH PROPERTY AND MARKED. SEWER TO BE MARKED PER M.S.D. 440-1. IF BUILDING LOCATION IS KNOWN THEN MARK PER M.S.D. 440-2, ALL OTHER UTILITIES TO BE MARKED WITH METAL STUD PER M.S.D. 440-1 BUT PAINTED GREEN FOR SEWER, BLUE FOR WATER AND RED FOR APS. PIPES ALSO TO HAVE TRACER WIRE AND MARKING TAPE.
- 5 BACKFILL SHALL BE PLACED IN LAYERS OF NOT MORE THAN 8" LOOSE DEPTH AND COMPACTED TO ACHIEVE COMPACTION OF 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 AND T-191 OR ASTM D-2922 AND D-3017. THE CONTRACTOR SHALL CONTRACT WITH AN INDEPENDENT TESTING LABORATORY TO PROVIDED COMPACTION TESTING. TESTS SHALL BE PROVIDED AT MINIMUM INTERVALS OF ONE TEST PER 50 CUBIC YARDS OF TRENCH BACKFILL. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER DAILY.
- 6 TRENCHING, PIPELAYING, BACKFILLING, AND ALL OTHER CONSTRUCTION SHALL BE PERFORMED UNDER THE INSPECTION, COORDINATION, AND SUPERVISION OF A REGISTERED PROFESSIONAL CIVIL ENGINEER.
- 7 NO TRENCH SHALL BE FILLED WITH BEDDING MATERIAL OR BACKFILL UNTIL THE EXCAVATION AND PIPE LAYING, RESPECTIVELY, HAVE BEEN APPROVED BY THE OWNER OR HIS AUTHORIZED REPRESENTATIVE.
- 8 THE EXCAVATION METHOD EMPLOYED SHALL BE THE CONTRACTOR'S OPTION. MATERIAL SHALL NOT BE STOCKPILED TO A DEPTH OF MORE THAN 5 FEET ABOVE FINISHED GRADE WITHIN 25 FEET OF ANY EXCAVATION OR STRUCTURE. EXCAVATION SHALL EXTEND SUFFICIENT DISTANCE FROM WALLS AND FOOTINGS TO ALLOW PLACING AND REMOVAL OF FORMS, INSTALLATION OF SERVICES AND INSPECTION BY THE ENGINEER. WITHIN 12" OF FINISHED GRADE SHOWN ON THE DRAWINGS, AND FOR THE MANHOLES, FILL AND BACKFILL SHALL BE NATIVE MATERIAL, FREE FROM BROKEN CONCRETE, ORGANIC MATERIAL, OR OTHER DEBRIS WITH SUFFICIENT FINES TO FILL ALL VOIDS AND TO INSURE A UNIFORMLY COMPACTED MASS OF THE REQUIRED DENSITY AND HAVING A MAXIMUM SIZE OF 2 - 1/4 INCHES WITH 0 TO 20% MINUS #200. ALL FILL AND BACKFILL SHALL BE PLACED IN LAYERS OF NOT MORE THAN 8" LOOSE AND COMPACTED TO 95% OF MAXIMUM DENSITY, DETERMINED BY AASHTO TEST METHOD T-99, PRIOR TO PLACEMENT OF THE NEXT LAYER.

**22 WATER AND SEWER SYSTEM DESIGN**

- 22.1 WATER AND SEWER MAINS SHALL BE SEPARATED IN ORDER TO PROTECT PUBLIC WATER SYSTEMS FROM POSSIBLE CONTAMINATION. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE SEWER MAIN TO THE OUTSIDE OF THE WATER MAIN. SEPARATION REQUIREMENTS ARE AS FOLLOWS:
1. WATER MAIN SHALL NOT BE PLACED: (AAC: 18-5-502)
    - A. WITHIN SIX FEET, HORIZONTAL DISTANCE, AND BELOW TWO FEET, VERTICAL DISTANCE, ABOVE THE TOP OF A SEWER MAIN UNLESS EXTRA PROTECTION IS PROVIDED (WHEN A WATER MAIN IS ABOVE A SEWER MAIN; EXTRA PROTECTION IS REQUIRED WHEN THE WATER MAIN IS CLOSER THAN TWO (2) FEET TO THE SEWER MAIN. WHEN A WATER MAIN IS BELOW A SEWER MAIN; THE MINIMUM SEPARATION IS TWO (2) FEET AND EXTRA PROTECTION IS ALWAYS REQUIRED PER MAG SPECIFICATIONS). EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING THE SEWER MAIN WITH MECHANICAL JOINT DUCTILE IRON PIPE OR WITH SLIP-JOINT DUCTILE IRON PIPE IF JOINT RESTRAINT IS PROVIDED. ALTERNATE EXTRA PROTECTION SHALL CONSIST OF ENCASED BOTH THE WATER AND SEWER MAINS IN AT LEAST SIX INCHES OF CONCRETE FOR AT LEAST TEN FEET BEYOND THE AREA COVERED BY THIS SUBPARAGRAPH.
    - B. WITHIN TWO FEET HORIZONTALLY AND TWO FEET BELOW THE SEWER MAIN.
  2. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND MANHOLES SHALL BE SIX FEET, MEASURED FROM THE CENTER OF THE MANHOLE.
  3. THE MINIMUM SEPARATION BETWEEN FORCE MAINS OR PRESSURE SEWERS AND WATER MAINS SHALL BE TWO FEET VERTICALLY AND SIX FEET HORIZONTALLY UNDER ALL CONDITIONS. WHERE A SEWER FORCE MAIN CROSSES ABOVE OR LESS THAN SIX FEET BELOW A WATER LINE, THE SEWER MAIN SHALL BE ENCASED IN AT LEAST SIX INCHES OF CONCRETE OR CONSTRUCTED USING MECHANICAL JOINT DUCTILE IRON PIPE FOR TEN FEET ON EITHER SIDE OF THE WATER MAIN.
  4. A ONE (1) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN A STORM DRAIN CROSSING A WATER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF STORM DRAIN. EXTRA PROTECTION IS REQUIRED PER MAG SPECIFICATIONS WHEN THESE REQUIREMENTS ARE NOT MET.
  5. A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN A SEWER MAIN OR STORM DRAIN AND A WATER MAIN. THE MINIMUM HORIZONTAL SEPARATION IS MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
  6. WHENEVER TWO PARALLEL WATER MAINS ARE REQUIRED, THERE SHALL BE A TEN (10) FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN THE TWO MAINS TO ALLOW FOR TAPPING, TIE-OVER, AND MAINTENANCE.
  7. A THREE (3) FOOT MINIMUM HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN A FIRE HYDRANT AND ANY WATER SERVICE LINE.
  8. RECLAIMED WASTEWATER MAINS SHALL BE CONSIDERED THE SAME AS WATER MAINS FOR THE PURPOSE OF MINIMUM COVER AND SEPARATION.
  9. VERTICAL CLEARANCE BETWEEN WATER MAINS AND SEWER SERVICE CONNECTIONS: THE WATER MAIN SHALL NOT BE LESS THAN 6 INCHES ABOVE THE SEWER SERVICE EVEN IF THE SEWER SERVICE CONNECTION IS CONSTRUCTED WITH DUCTILE IRON PIPE IN ACCORDANCE WITH NOTE 3B OF MAG STANDARD DETAIL 404-1.
  10. WHEN THE SEWER SERVICE IS ABOVE THE WATER MAIN IS NOT ALLOWED.
  11. SEPARATION FROM STORM DRAINS AND CULVERTS; WATER AND SEWER MAINS SHALL MAINTAIN SIX (6) FEET HORIZONTAL AND ONE FOOT VERTICAL SEPARATION FROM STORM DRAINS AND CULVERTS.
  12. MINIMUM COVER IS TO BE MEASURED TO SUBGRADE UNLESS THERE IS NO PAVEMENT; THEN IT IS MEASURED TO FINISHED GRADE. IN ALL CASES, SEWER LINES ARE TO BE AT A DEPTH SUFFICIENT TO PROVIDE GRAVITY SERVICE TO ALL ADJACENT BUILDING PADS. SERVICE LINES ARE TO BE LAID AT GRADES AND DEPTHS PRESCRIBED IN THE INTERNATIONAL PLUMBING CODE.
- 22.2 MANHOLES
- ALL MANHOLES SHALL BE 4-FT. ID PRECAST CONCRETE WITH POURED-IN-PLACE CONCRETE BASE AND TRAFFIC BEARING RING AND COVER. ALL COVERS SHALL BE 2-FT. IN DIAMETER AND SHALL BE MARKED "SEWER". TEST MANHOLES FOR WATER TIGHTNESS (INFILTRATION) PER R 18-9-E301.4.01.D.3.F. WATER TIGHTNESS SHALL BE TESTED BY EITHER 1) FILLING THE MANHOLE WITH WATER AND ENSURING THAT THE DROP IN WATER LEVEL DOES NOT EXCEED 0.001% OF THE TOTAL MANHOLE VOLUME IN ONE HOUR, OR 2) AIR PRESSURE TESTING USING THE "STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE AIR PRESSURE (VACUUM) TEST". ASTM C-1244-93. TEST 100% OF ALL MANHOLES. MANHOLES SHALL CONFORM TO A.D.E.Q. AND M.A.G. SPECIFICATIONS. CONSTRUCTION SHALL CONFORM TO M.A.G. STD. DTLS. 420-1 AND 420-2.
- 22.3 CONCRETE
- CLASS A CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. ALL POURED-IN-PLACE CONCRETE FOR WATER CONTAINING AND/OR TRANSPORTING CHAMBERS, MANHOLES AND BOXES, AND FOUNDATIONS SHALL BE CLASS A CONCRETE, AND SHALL BE SMOOTH FINISHED ON WATER CONTACT SURFACES. THRUST BLOCKS, VALVE ANCHORS, AND CONCRETE SURROUNDS MAY BE FORMED FROM CLASS C CONCRETE. THE EXCAVATION METHOD EMPLOYED SHALL BE THE CONTRACTOR'S GRADE WITHIN 25 FEET OF ANY EXCAVATION OR STRUCTURE. EXCAVATION SHALL EXTEND A SUFFICIENT DISTANCE FROM WALLS AND FOOTINGS TO ALLOW PLACING AND REMOVAL OF FORMS, INSTALLATION OF SERVICES AND INSPECTION BY THE ENGINEER.

**23 SEWER AND WATER LINE TESTING**

- GRAVITY SANITARY SEWER TESTING:
- ALL GRAVITY SANITARY SEWER MAINS SHALL BE TESTED IN ACCORDANCE WITH THE ARIZONA ADMINISTRATIVE CODE. ALL ACCEPTANCE TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE PROJECT ENGINEER OR AUTHORIZED REPRESENTATIVE. TESTING SHALL CONSIST OF THE FOLLOWING:
1. TEST EACH SECTION OF GRAVITY PIPELINE FOR LEAKAGE AND PRESSURE RATING AFTER BACKFILLING OCCURS AND BEFORE ROAD IS PAVED. PERFORM LEAKAGE TESTS WITH THE AIR TEST AS SPECIFIED BELOW. TEST LATERALS FROM THE MAIN LINE TO PROPERTY LINE.
  2. IN ADDITION TO PRESSURE AND LEAKAGE TESTING, A DEFLECTION TEST SHALL BE PERFORMED ON ALL GRAVITY PIPELINES INSTALLED, A RIGID BALL OR MANDREL DEFLECTION TESTING EQUIPMENT AND LABOR SHALL BE PROVIDED. TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. ANY SECTION OF THE PIPELINE WHICH SHOWS DEFLECTION IN EXCESS OF 5 PERCENT OF THE AVERAGE INSIDE DIAMETER AS PER ASTM D3034 SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. ENGINEER MAY REQUIRE CONTRACTOR TO TEST PVC PIPE AFTER BACKFILL HAS BEEN IN PLACE FOR 30 DAYS.
  3. VIDEO INSPECTION
    - 3.a. THE CONTRACTOR WILL BE REQUIRED TO VIDEO RECORD THE INTERIOR OF THE SEWER LINE USING A VIDEO CAMERA. ANY DEFECTS OR "SAGS" IN THE PIPE OR CONSTRUCTION METHODS REVEALED BY THE INSPECTION SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
    - 3.b. THE CONTRACTOR SHALL RE-VIDEO THE PIPE AFTER IT HAS BEEN REPAIRED OR EXCAVATED. ANY ADDITIONAL INSPECTION(S) REQUIRED, BASED ON A FAILURE OR DEFICIENCY DISCOVERED DURING THE INSPECTION, SHALL BE PAID FOR BY THE CONTRACTOR. ALL SEWER LINE VIDEOS SHALL BE TURNED IN TO THE PROJECT MANAGER AFTER ACCEPTANCE.
  4. AIR TESTING (ASTM F1417)
    - 4.a. PERFORM AIR TESTS FOR PLASTIC MAINLINE AND WILL INCLUDE LATERAL PIPES TO THE PROPERTY LINES WHERE APPLICABLE.
    - 4.b. CONTRACTOR SHALL FURNISH ALL FACILITIES REQUIRED INCLUDING: NECESSARY PIPING CONNECTIONS, TEST PUMPING EQUIPMENT, PRESSURE GAUGES OR MANOMETERS, BULKHEADS, ALL MISCELLANEOUS ITEMS REQUIRED. OBTAIN APPROVAL OF EQUIPMENT AND ACCEPTANCE OF METHODS PROPOSED FOR USE. CONDUCT. INITIAL TEST ON FIRST SECTION OF PIPE LAID BY EACH CREW.
    - 4.c. INTRODUCE LOW-PRESSURE AIR UNTIL INTERNAL AIR PRESSURE IS 4.0 PSI. ALLOW TWO TO FIVE MINUTES FOR INTERNAL AIR PRESSURE AND TEMPERATURE TO STABILIZE. ADJUST PRESSURE TO 3.5 PSI AND START TEST. THE TIME REQUIRED FOR THE PRESSURE TO DECREASE 1.0 PSI FROM 3.5 TO 2.5 PSI GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUND WATER ABOVE THE PIPE INVERT SHALL NOT BE LESS THAN THE MINIMUM TEST TIME IN THE FOLLOWING FOR THE GIVEN DIAMETERS: NOMINAL PIPE TIME (MIN) PER DIAMETER PER 100FT OF PIPE: 4"=.66 MIN; 6"=1.48 MIN; 8"=2.510 MIN; 10"=3.912 MIN; 12"=5.615 MIN; 15"=8.918 MIN; 18" =12.8 MIN.
  5. MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH AAC R18-9-E301D.3, ASTM C -1244 AND MAG SPECIFICATION SECTION 615.
- WATER SYSTEM PRESSURE AND LEAKAGE TESTING:
1. THE CONTRACTOR SHALL PROVIDE THE LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE PRESSURE TESTS AND LEAKAGE TESTS.
  2. ALL TESTS PERFORMED FOR EACH PIPE TEST SECTION, FACILITY, OR PART OF A FACILITY SHALL BE OBSERVED AND APPROVED BY THE ENGINEER BEFORE ACCEPTANCE. IN THE EVENT THE CONTRACTOR PERFORMS ANY TEST WITHOUT OBSERVED BY THE ENGINEER, THE CONTRACTOR WILL BE REQUIRED TO TEST THE SECTION, FACILITY, OR PART OF A FACILITY AGAIN IN CONFORMANCE WITH THIS SPECIFICATION AT NO COST TO THE OWNER.
  3. SUBMIT TEST RESULTS OF ALL TESTING INCLUDED IN THIS SECTION, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: PRESSURE TESTS AND GAUGE CALIBRATIONS.
  4. THE ENGINEER AND PROJECT MANAGER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY TESTING AND/OR DISINFECTING.
  5. TEST PRESSURES SHALL BE 150 PSI, MEASURED AT THE LOWEST POINT OF THE PIPE SEGMENT BEING TESTED. ONLY POTABLE WATER SHALL BE USED FOR FLUSHING AND TESTING THE POTABLE WATER SYSTEM.
  6. THE CONTRACTOR WILL BE RESPONSIBLE FOR DISPOSAL OF ANY WATER ASSOCIATED WITH HYDROSTATIC TESTING. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER TO DETERMINE DISPOSAL LOCATIONS. PERMITTING, COORDINATION, AND APPROVAL OF DISPOSAL LOCATIONS ARE THE RESPONSIBILITY OF CONTRACTOR. ALL TEMPORARY PLUGS, BULKHEADS, OR BLIND FLANGES USED FOR HYDROSTATIC TESTING WILL BE FURNISHED BY THE CONTRACTOR AND INCIDENTAL TO THE COST OF THE PIPELINE.
  7. ALL PRESSURE MAINS SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH MAG SPECIFICATION SECTION 610. SUBSECTION 610.15 EXCEPT THAT THE MAXIMUM ALLOWABLE LEAKAGE FROM THE PIPE LINE SHALL BE DETERMINED BY THE FOLLOWING FORMULA: WHERE: L = SD<sup>2</sup>P/133,200; L = ALLOWABLE LEAKAGE IN GALLONS PER HOUR, S = LENGTH OF PIPE TESTED IN FEET, D = NOMINAL DIAMETER OF PIPE IN INCHES, AND P = AVERAGE TEST PRESSURE IN PSI GAGE DURING THE HYDROSTATIC TEST AS MEASURED AT THE LOWEST POINT IN THE TEST SECTION.
  8. EACH SECTION OF PRESSURE MAIN TO BE TESTED SHALL BE SLOWLY FILLED WITH WATER AND THE SPECIFIED TEST PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP CONNECTED TO THE PIPE IN A MANNER SATISFACTORY TO THE ENGINEER. BEFORE APPLYING THE SPECIFIED TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. THE WATER PRESSURE SHALL BE BROUGHT TO THE SPECIFIED TEST PRESSURES AND MAINTAINED FOR AT LEAST 2 HOURS. LEAKAGE WILL BE DETERMINED BY MEASURING THE QUANTITY OF WATER TO BE SUPPLIED TO MAINTAIN THE SPECIFIED TEST PRESSURE. THE CONTRACTOR SHALL REPAIR AND RETEST ANY LINES THAT FAILED.
  9. PRESSURE TESTING OF NEW MAINS SHALL BE BY THE CONTRACTOR PER MAG SECTION 610.15 AND PROJECT ENGINEER OR REPRESENTATION WILL BE PRESENT AT ALL TESTING.
- WATER SYSTEM CHLORINATION FLUSHING AND BACTERIOLOGICAL TESTING:
1. CHLORINATION, FLUSHING AND BACTERIOLOGICAL TESTING CHLORINATION AND FLUSHING OF NEW MAINS SHALL BE PERFORMED BY THE CONTRACTOR PER MAG SECTION 611 AND PART V OF ADEQ ENGINEERING BULLETIN NO. 8. BEFORE BEING PLACED IN SERVICE, ALL NEWLY INSTALLED PIPE, VALVES, HYDRANTS, AND APPURTENANCES SHALL BE FLUSHED, DISINFECTED, KEPT CLEAN, AND WILL BE SAMPLED FOR ACCEPTABLE BACTERIOLOGICAL ANALYSIS. THE CONTRACTOR WILL HAVE SAMPLE TAKEN FROM EACH AND EVERY 500-FOOT INTERVAL, AND AT EACH END. FOR EACH HYDRANT LATERAL OVER 18- FEET IN LENGTH, A SAMPLE WILL BE TAKEN AT THE HYDRANT END. ON NEW WATERLINE WITHOUT HYDRANT, TEMPORARY SAMPLING TAPS SHALL BE PROVIDED, AND THEN REMOVED AND PLUGGED AFTER ACCEPTABLE BACTERIOLOGICAL RESULTS ARE RECEIVED. HYDRANT USED FOR SAMPLING SHALL BE FITTED WITH AN APPROVED SAMPLING TAP.
  2. PRE-DISINFECTION FLUSHING: PIPE SHALL FIRST BE FLUSHED TO REMOVE ANY SOLID OR CONTAMINATED MATERIAL. FLUSHING VELOCITY SHALL BE AT LEAST 2.5- FEET PER SECOND IN THE PIPE. FLUSHING PERIOD SHALL BE AT LEAST 5 MINUTES FOR EVERY 150- FEET OF NEW PIPE BUT IN NO CASE LESS THAN 30 MINUTES. B. ONE 2-1/2 INCH HYDRANT OPENING WILL, UNDER NORMAL PRESSURE OF 40 PSI, PROVIDE THIS VELOCITY IN PIPE SIZES UP TO AND INCLUDING 12- INCHES.
  3. FINAL FLUSHING AND TESTING. FOLLOWING CHLORINATION, ALL TREATED WATER SHALL BE FLUSHED FROM THE PIPE UNTIL THE REPLACEMENT WATER TREATED THROUGHOUT ITS LENGTHS SHOWS AN ABSENCE OF CHLORINE. IF CHLORINE IS NORMALLY USED IN THE SOURCE OF SUPPLY, TESTS SHALL SHOW A RESIDUAL NOT IN EXCESS OF THAT CARRIED IN THE SYSTEM. FLUSHING VELOCITY SHALL BE AT LEAST 2.5- FEET PER SECOND IN THE WATERLINE. FLUSHING PERIOD SHALL BE AT LEAST 5 MINUTES FOR EVERY 150- FEET OF NEW WATERLINE BUT IN NO CASE LESS THAN 30 MINUTES. ALL HYDRANTS ON THE NEW WATERLINE SHALL BE FLUSHED TO REMOVE EXCESS CHLORINE FROM THE HYDRANT AND HYDRANT BRANCH.
  4. THE CONTRACTOR WILL PROVIDE A COPY OF ALL TEST TO THE PROJECT ENGINEER AND UTILITY DEPARTMENT.

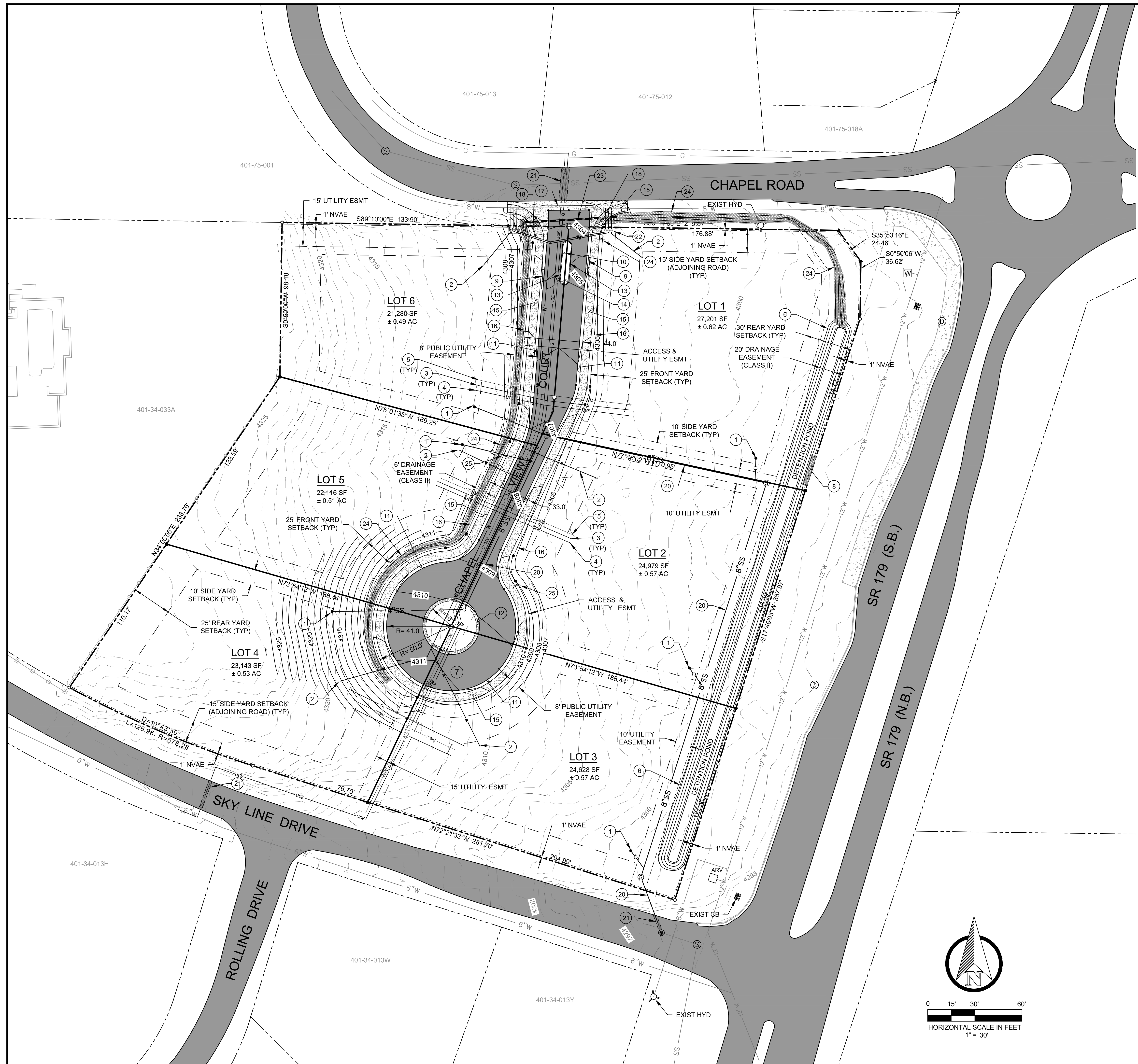


**CHAPEL VIEW TERRACE**  
CITY OF SEDONA, ARIZONA

NOTES - SHEET 3 OF 3

SHEET TITLE:	NOTES - SHEET 3 OF 3
PROJECT TITLE:	CHAPEL VIEW TERRACE
DRAWN BY:	RJB
SCALE:	NONE
DATE:	02/10/2022
PROJECT NO:	210305
SHEET NO.	C-4

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**CONSTRUCTION NOTES:**

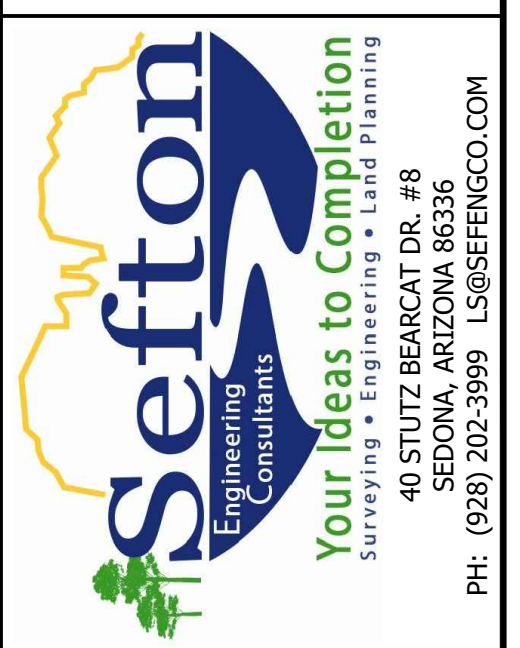
1. SURVEY AND TOPOGRAPHY DATA PROVIDED BY ARIZONA LAND SOLUTIONS LAND SURVEYING AND WAS PERFORMED IN MAY OF 2021.
2. ALL NEW SIDEWALKS, DRIVEWAYS, EXPOSED SURFACES OF CONCRETE DRAINAGE STRUCTURES, AND OTHER EXPOSED CONCRETE SURFACES SHALL BE INTEGRALLY COLORED "SEDONA RED". THE AMOUNT OF CONCRETE COLOR ADDITIVE REQUIRED IS 3.05 LBS OF DAVIS 160 LIQUID PER SACK OF CONCRETE. THIS IS THE SEDONA RED AS MANUFACTURED BY HANSON CONCRETE IN COTTONWOOD ARIZONA. VARIATIONS IN THE ADDITIVE TO ACCOMPLISH THE "SEDONA RED" SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.

**KEY NOTES:**

- 1 4" SEWER SERVICE LINE WITH CLEANOUT IN BOX MARKED "SEWER" AT PROPERTY LINE (SEE DETAIL)
- 2 1" WATER SERVICE AND METER
- 3 GAS SERVICE LINE
- 4 200A UNDERGROUND ELECTRIC SERVICE
- 5 COMMUNICATION LINE.
- 6 DETENTION POND (SEE SHEET C-6)
- 7 PROPOSED ROAD (SEE SHEETS C-7)
- 8 20' RIPRAP WEIR (SEE SHEET C-6)
- 9 10' WIDE GATE
- 10 GATE KEY PAD
- 11 24" ROLL CURB - CATCH (TYPE D) (SEE DETAIL)
- 12 24" ROLL CURB - SPILL (TYPE C) (SEE DETAIL)
- 13 6" VERTICAL CURB (SEE DETAIL)
- 14 RAISED LANDSCAPED MEDIAN
- 15 5' CONCRETE SIDEWALK (SEE DETAIL)
- 16 NO PARKING SIGN
- 17 VALLEY GUTTER (SEE DETAIL)
- 18 CURB RAMP (SEE DETAIL)
- 19 NOT USED
- 20 SANITARY SEWER MAIN (SEE SHEET C-10)
- 21 ROAD REPAIR (SEE DETAIL)
- 22 3 WATER METERS EACH SIDE OF ENTRANCE RUN SERVICE LINES FOR LOTS 2-5 IN COMMON TRENCH
- 23 CULVERT (SEE SHEET C-6)
- 24 DRAINAGE SWALE (SEE DETAILS)
- 24 STOP SIGN
- 25 NO PARKING SIGN

**LINETYPE LEGEND**

EXISTING STORM SEWER LINE	---
EXISTING WATER SERVICE	---
EXISTING SANITARY SERVICE	---
EXISTING UNDERGROUND ELECTRIC LINE	---
EXISTING GAS LINE	---
EXISTING CONTOURS	---
PROPOSED CONTOURS	---
PROPOSED STORM SEWER LINE	---
PROPOSED 4" SANITARY SERVICE	---
PROPOSED UNDERGROUND ELECTRIC LINE	---
PROPOSED COMMUNICATION LINE	---
PROPOSED GAS LINE	---
PROPOSED ROAD CENTERLINE	---
PARCEL BOUNDARY & RIGHT-OF-WAY LINE	---
PROPOSED LOT LINE	---
BUILDING SETBACK LINE	---
EXISTING EASEMENT LINE	---
PROPOSED EASEMENT LINE	---



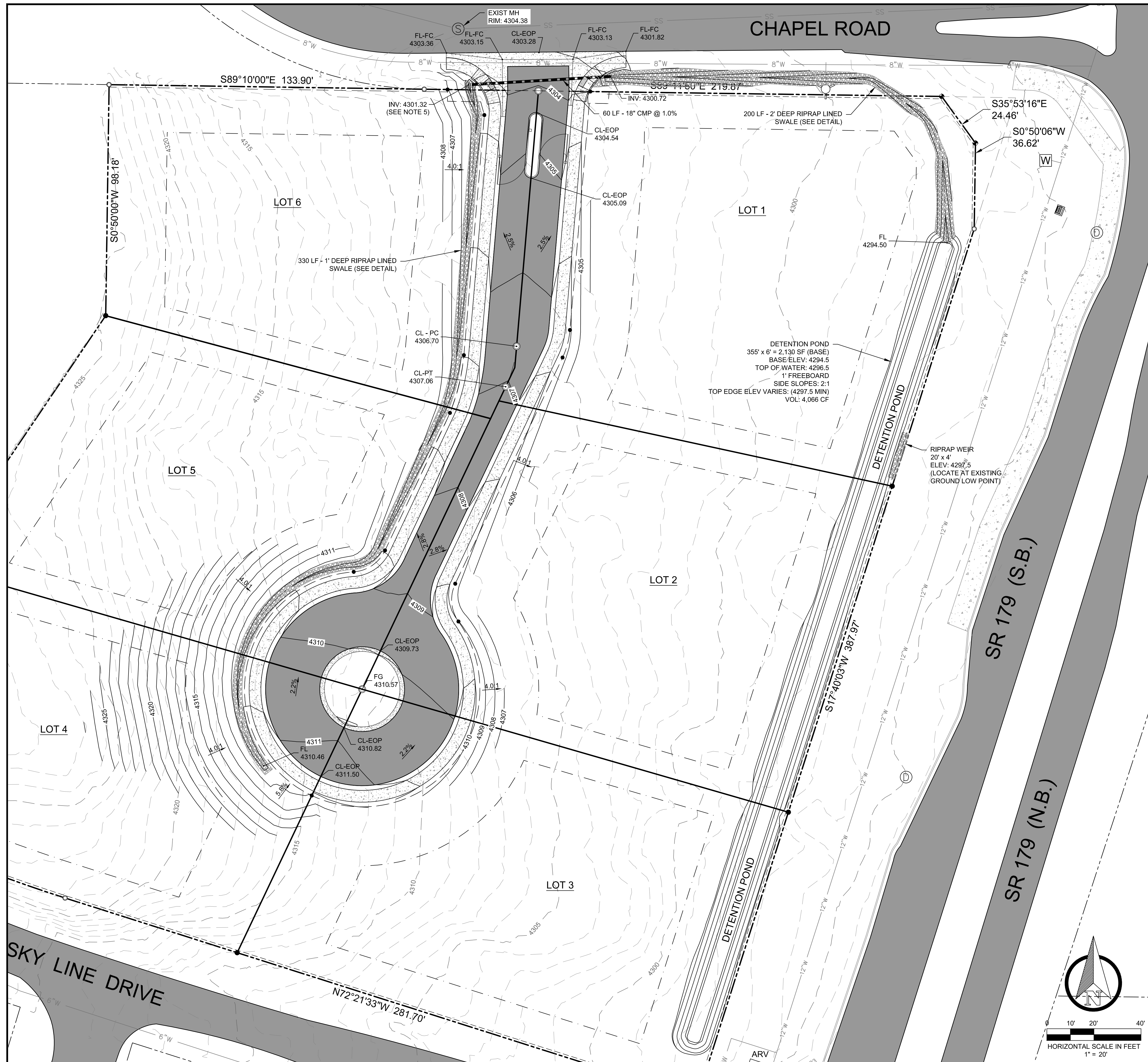
**OVERALL SITE & UTILITY PLAN**

# CHAPEL VIEW TERRACE

CITY OF SEDONA, ARIZONA

SHEET TITLE: OVERALL SITE & UTILITY PLAN  
 PROJECT TITLE: CHAPEL VIEW TERRACE  
 DRAWN BY: RJB  
 SCALE: 1" = 30'  
 DATE: 02/10/2022  
 PROJECT NO: 210305  
 SHEET NO. **C-5**

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**GENERAL GRADING AND DRAINAGE NOTES:**

1. SURVEY AND TOPOGRAPHY DATA PROVIDED BY ARIZONA LAND SOLUTIONS LAND SURVEYING AND WAS PERFORMED IN MAY OF 2021.
2. VERTICAL DATUM IS TIED TO THE CITY OF SEDONA BENCHMARK No. 204, A CHISELED "X" IN A FLANGE BOLT ON FIRE HYDRANT No. 52 AT THE INTERSECTION OF GENEVA DRIVE AND CHAPEL ROAD, ELEVATION = 4320.717'
3. THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING ALL VEGETATION, NON-COMPLYING FILL, AND OTHER UNSUITABLE MATERIALS.
4. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 12" SHALL BE ALLOWED IN FILLS IN THE ABSENCE OF A SOILS REPORT AND INSPECTION BY A SOILS ENGINEER.
5. CONSTRUCT 2' DEEP BASIN FROM LARGE STONES AND RIPRAP AROUND CULVERT WITH 2:1 SIDE SLOPES.

**VOLUMES**

EARTHWORKS: (PR LESS EX)  
 CUT: 2400 CY  
 FILL: 350 CY  
 NET: 2400 - (350 + 40) = 2010 CY (SURPLUS)

MATERIALS:  
 ASPHALT & BASE  
 8,012 SF x 0.75 FT = 223 CY

CURB CONCRETE:  
 623 LF x 1.25 SF = 29 CY

SIDEWALK CONCRETE:  
 4,730 SF x 0.33 FT = 58 CY

VALLEY GUTTER CONCRETE:  
 493 SF x 0.75 FT = 14 CY

SITE NET (EARTHWORK)  
 2010 + 223 + 29 + 58 + 14 = 2334 CY (SURPLUS)


NOTE: VOLUMES ARE APPROXIMATE

**SPOT ELEVATIONS LEGEND**

BM	BENCH MARK
CL	CENTER LINE
EG	EXISTING GROUND
EOP	EDGE OF PAVEMENT
FC	FINISHED CONCRETE
FL	FLOW LINE
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY

**NOTES:**

1. SEE SHEET C-7 FOR ROAD PLAN & PROFILE
2. SEE SHEET C-8 FOR ROAD SECTIONS.

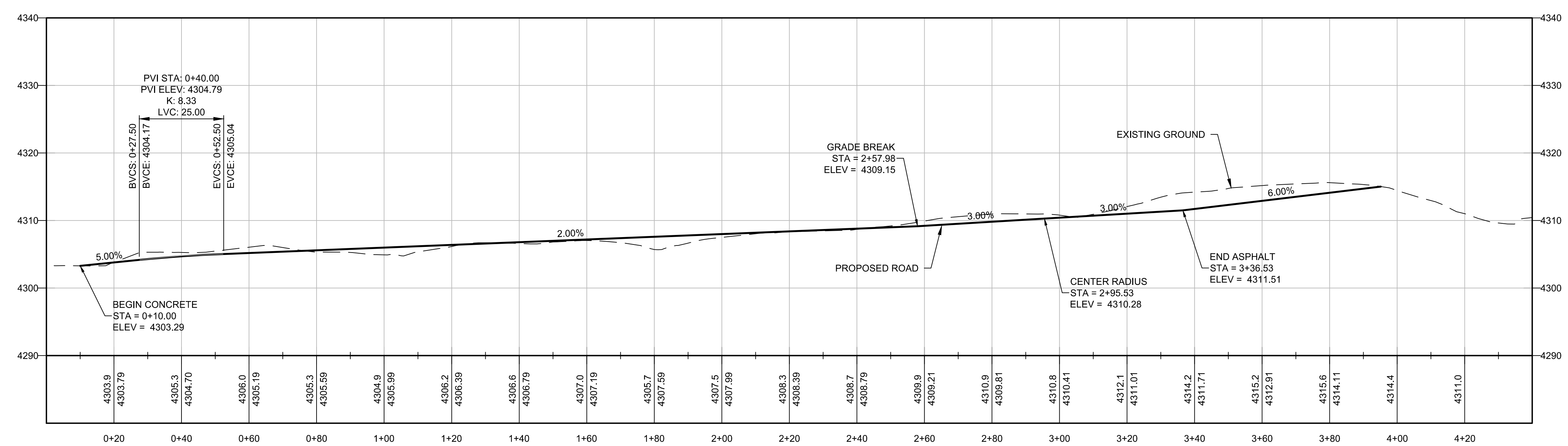
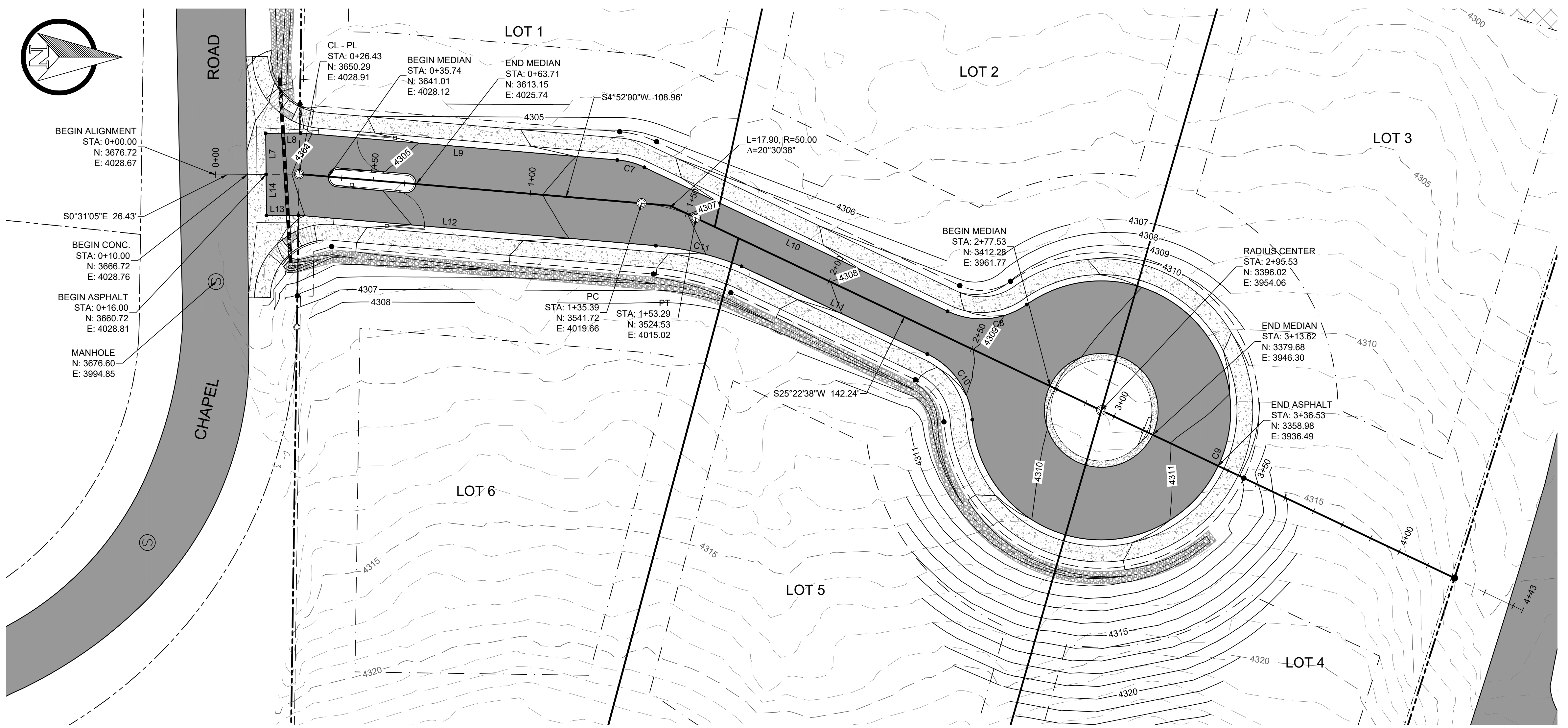
  
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**GRADING & DRAINAGE PLAN**  
**CHAPEL VIEW TERRACE**  
 CITY OF SEDONA, ARIZONA

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SHEET TITLE: \_\_\_\_\_  
 PROJECT TITLE: \_\_\_\_\_  
 DRAWN BY: RJB  
 SCALE: 1" = 20'  
 DATE: 02/10/2022  
 PROJECT NO: 210305  
 SHEET NO. **C-6**

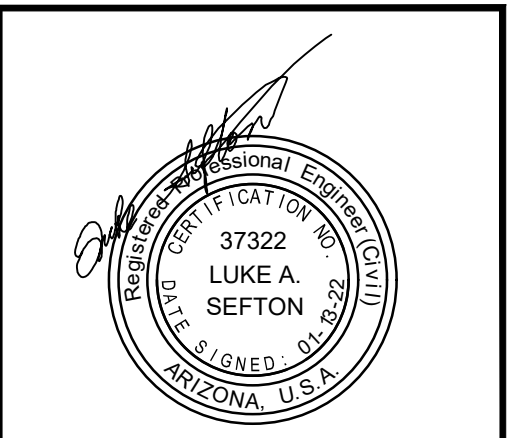
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LINE #	LENGTH	DIRECTION
L7	13.00	N89° 26' 56.77"E
L8	11.06	S0° 31' 05.12"E
L9	100.75	S4° 52' 00.07"W
L10	106.37	S25° 22' 38.43"W
L11	65.11	N25° 15' 19.45"E
L12	113.69	N4° 52' 00.07"E
L13	10.13	N0° 21' 08.13"W
L14	13.00	N89° 26' 15.61"E

CURVE #	LENGTH	RADIUS	DELTA	CHD BEARING	CHD LEN
C7	8.95	24.20	21.20	S15° 07' 19"W	8.90
C8	26.40	25.00	60.50	S4° 52' 21"E	25.19
C9	215.39	41.00	301.00	N64° 37' 22"W	40.38
C10	26.40	25.00	60.50	N55° 37' 38"E	25.19
C11	28.05	92.50	17.37	N13° 33' 13"E	27.94

**NOTE:**  
 1. SEE SHEET C-8 FOR ROAD SECTIONS.



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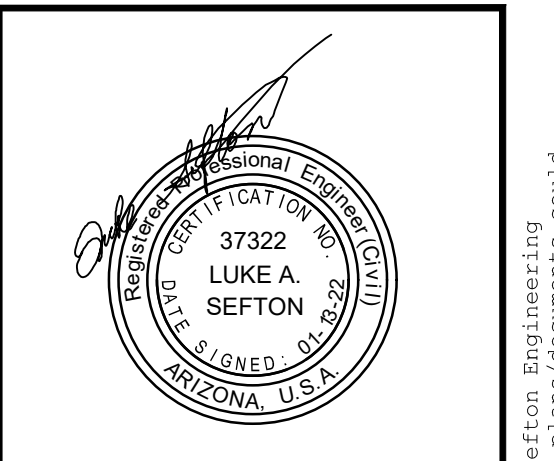
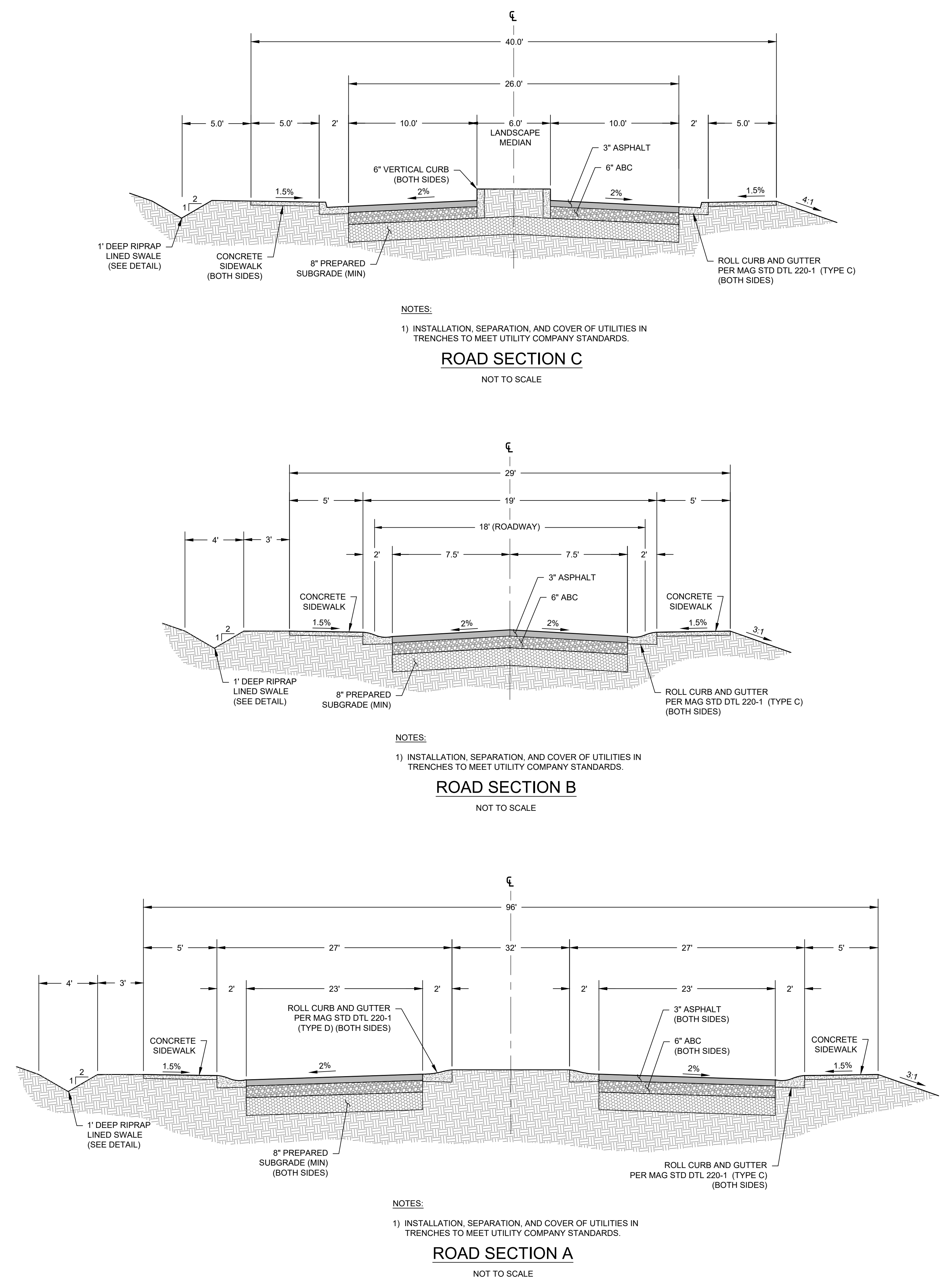
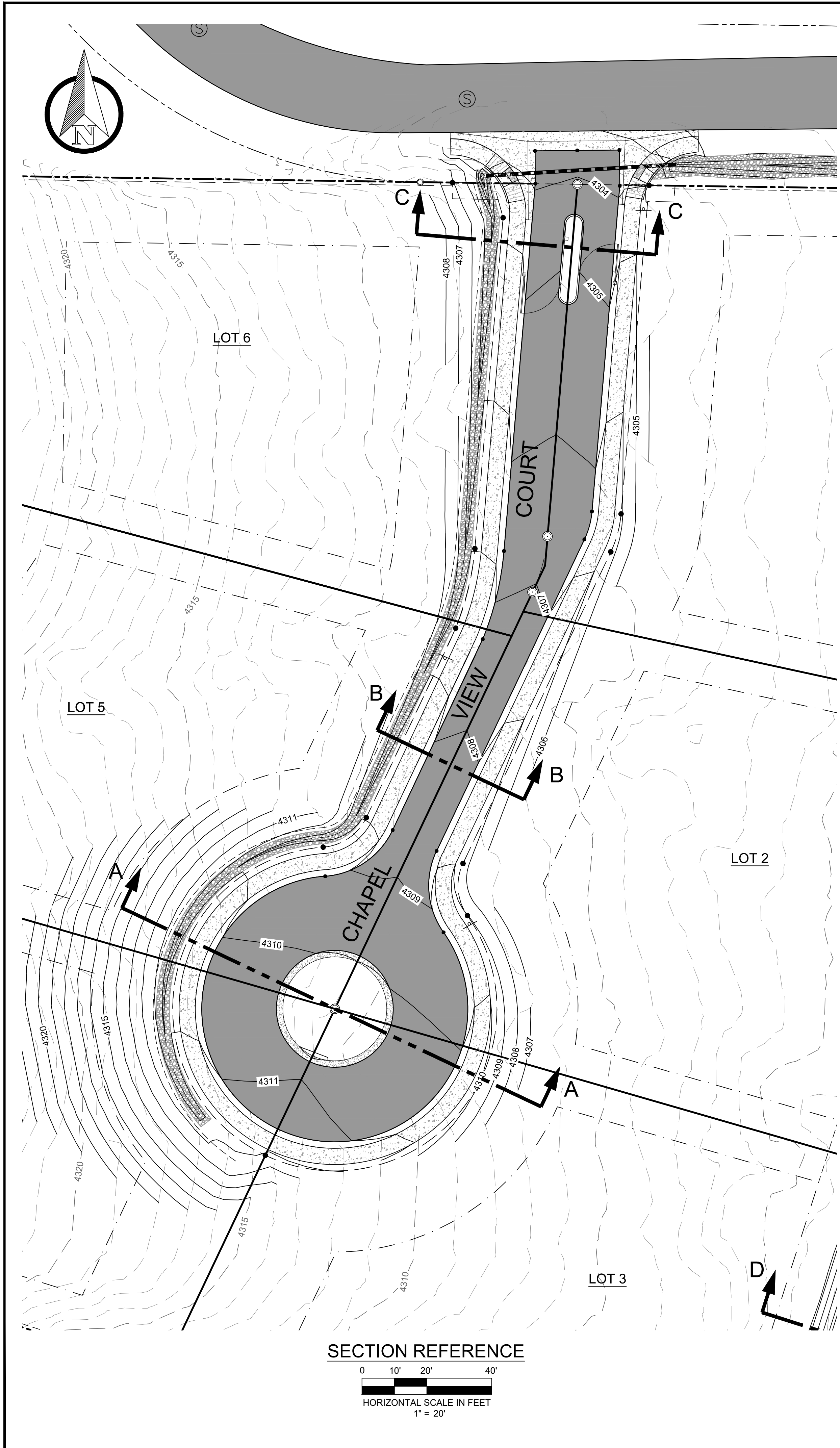
ROAD PLAN & PROFILE

# CHAPEL VIEW TERRACE

CITY OF SEDONA, ARIZONA

SHEET TITLE: ROAD PLAN & PROFILE  
 PROJECT TITLE: CHAPEL VIEW TERRACE  
 DRAWN BY: RJB  
 SCALE: AS NOTED  
 DATE: 02/10/2022  
 PROJECT NO: 210305  
 SHEET NO: C-7

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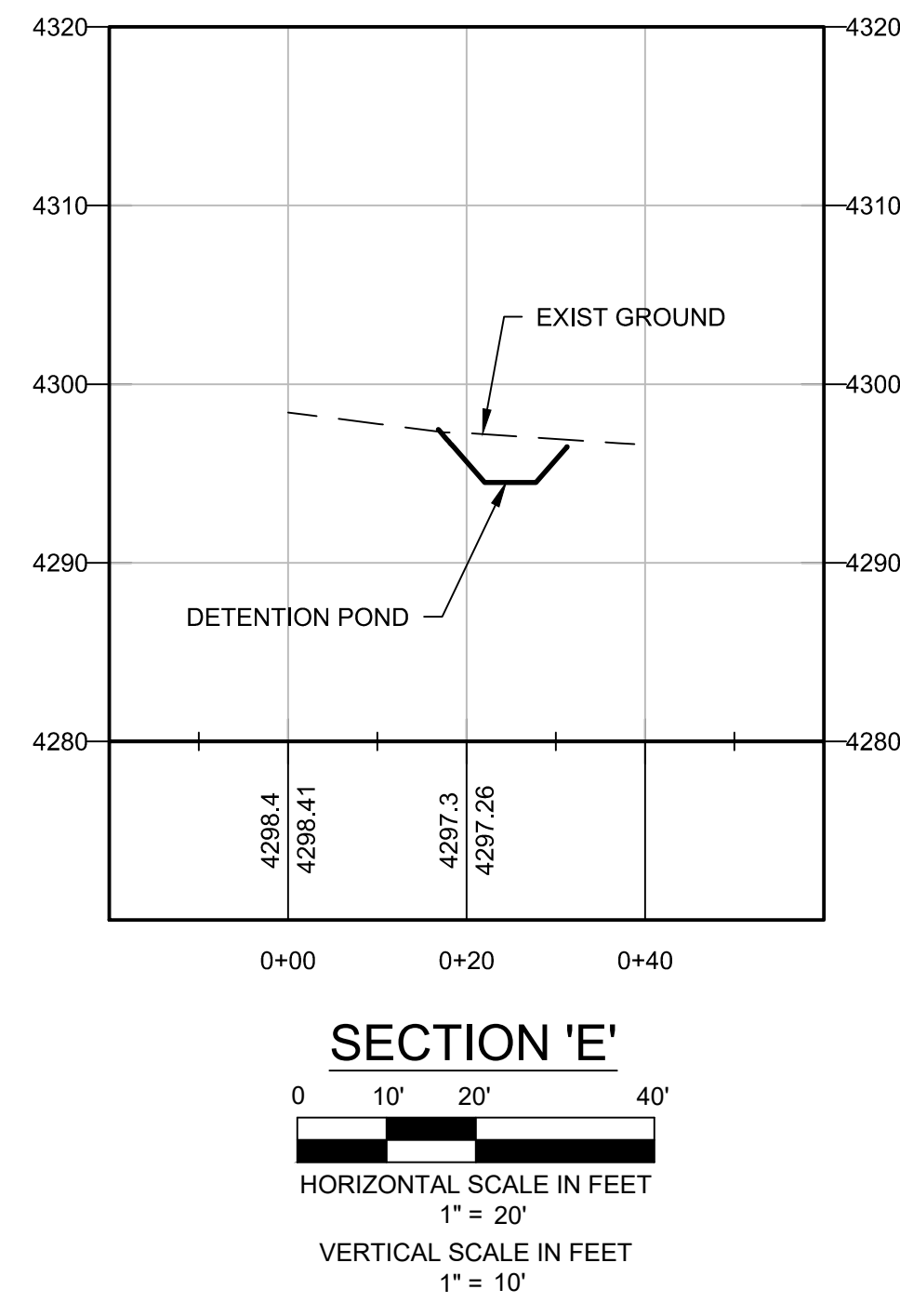
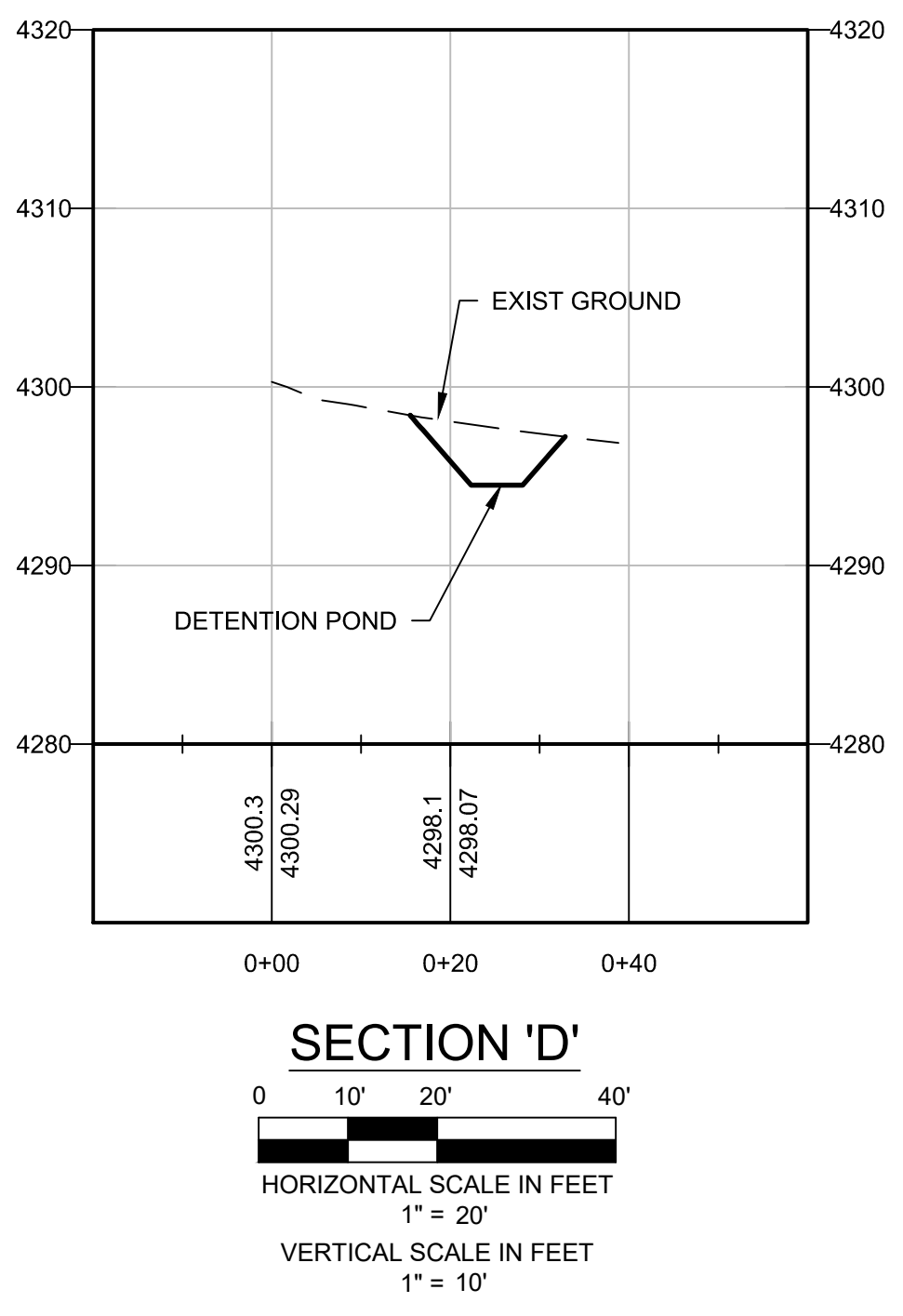
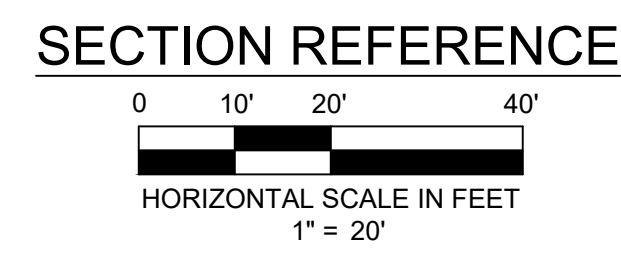
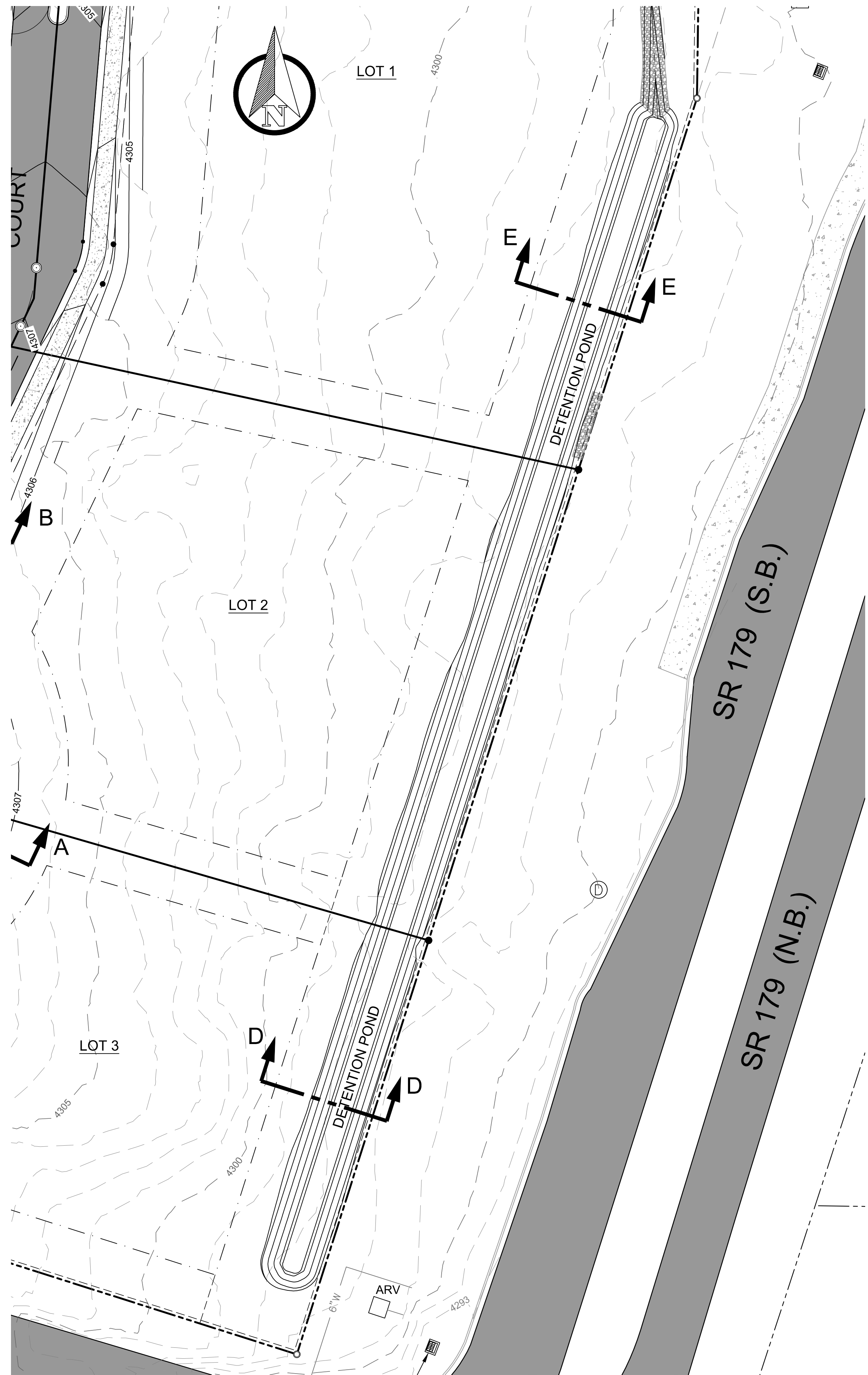


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SECTIONS - ROAD	
<b>CHAPEL VIEW TERRACE</b>	
CITY OF SEDONA, ARIZONA	
SHEET TITLE:	SECTIONS - ROAD
PROJECT TITLE:	CHAPEL VIEW TERRACE
DRAWN BY:	RJB
SCALE:	AS NOTED
DATE:	02/10/2022
PROJECT NO:	210305
SHEET NO.	<b>C-8</b>

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SECTIONS - DETENTION POND

# CHAPEL VIEW TERRACE

CITY OF SEDONA, ARIZONA

SHEET TITLE:

PROJECT TITLE:

DRAWN BY: RJB

SCALE: AS NOTED

DATE: 02/10/2022

PROJECT NO: 210305

SHEET NO.

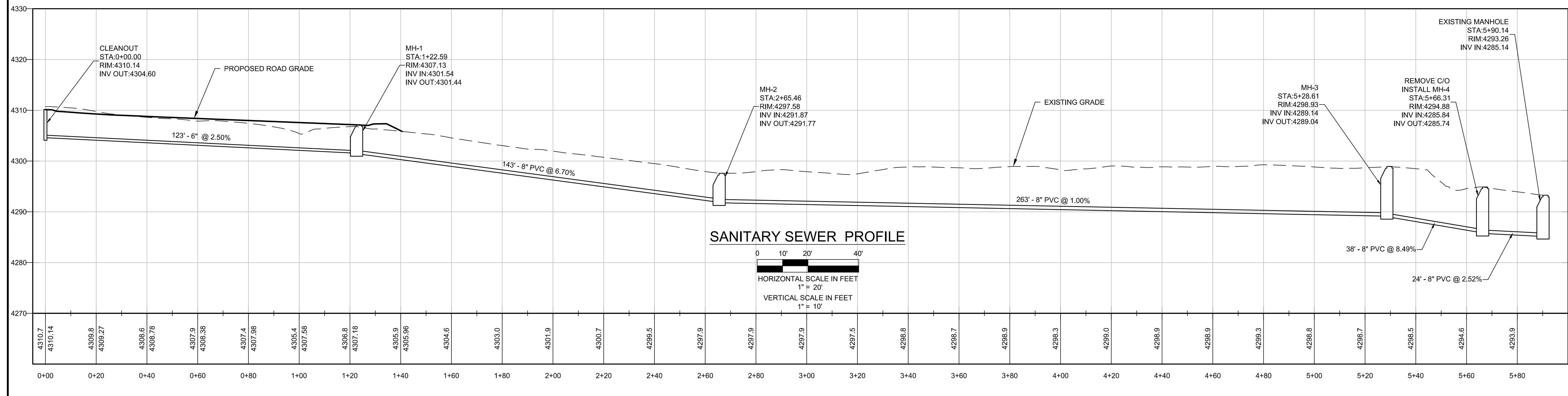
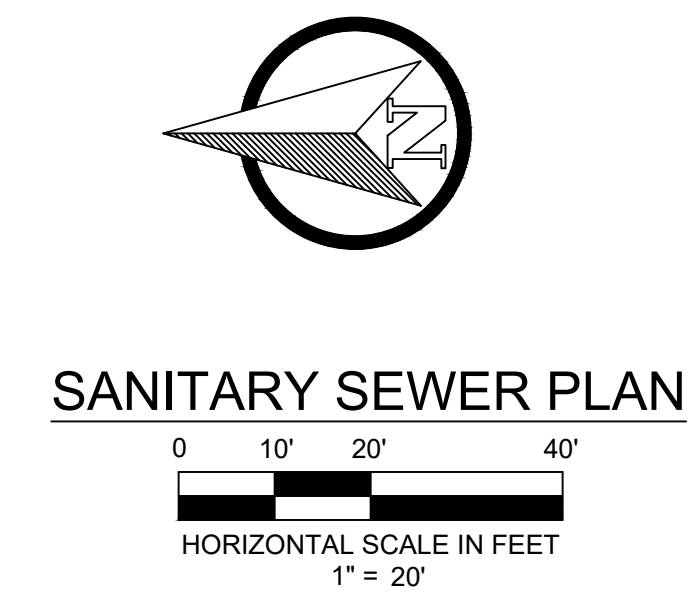
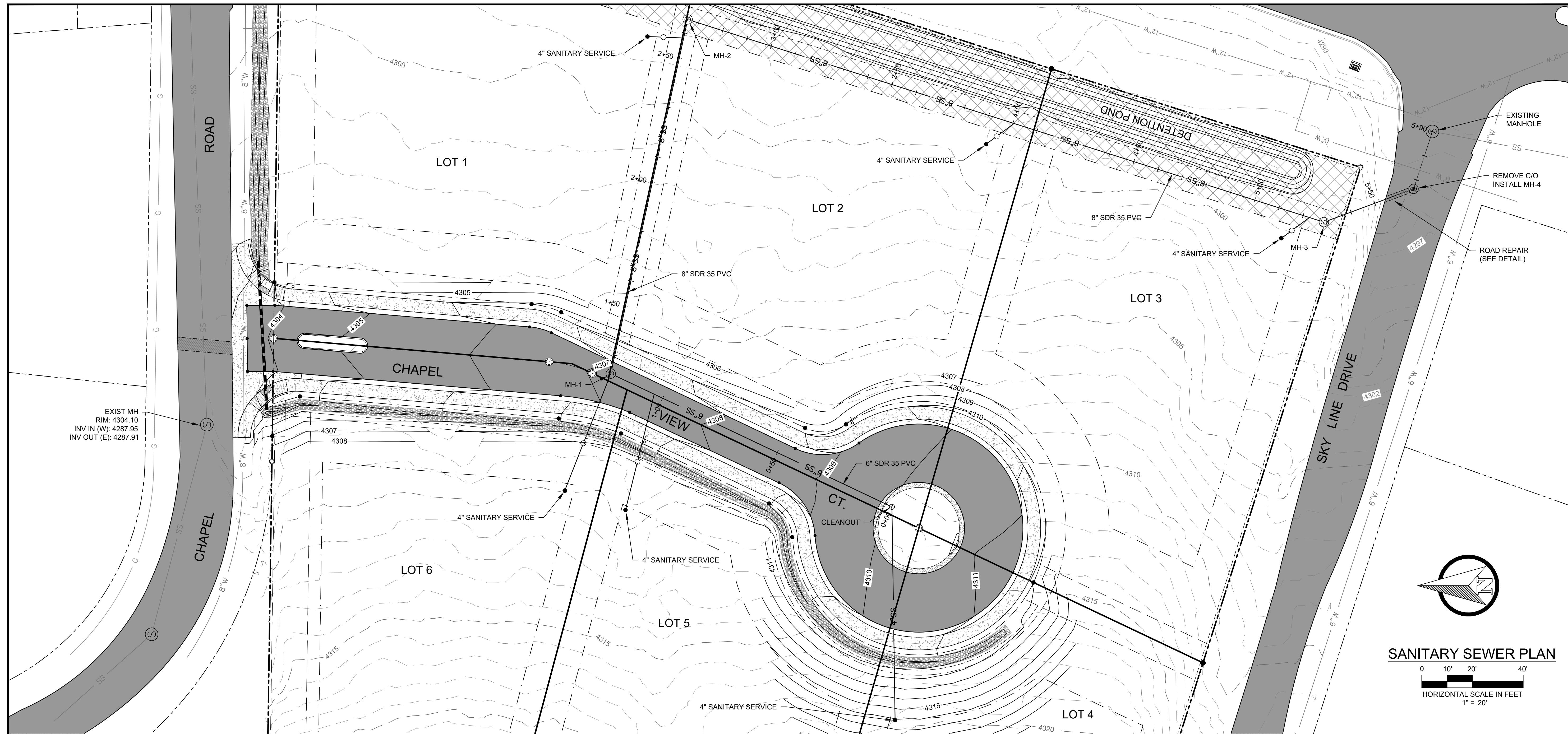
## C-9



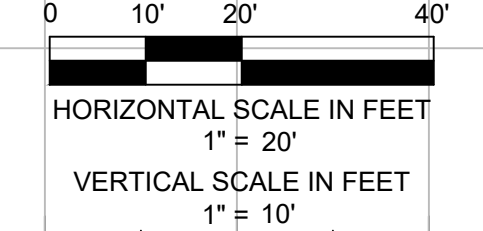
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**SANITARY SEWER PROFILE**



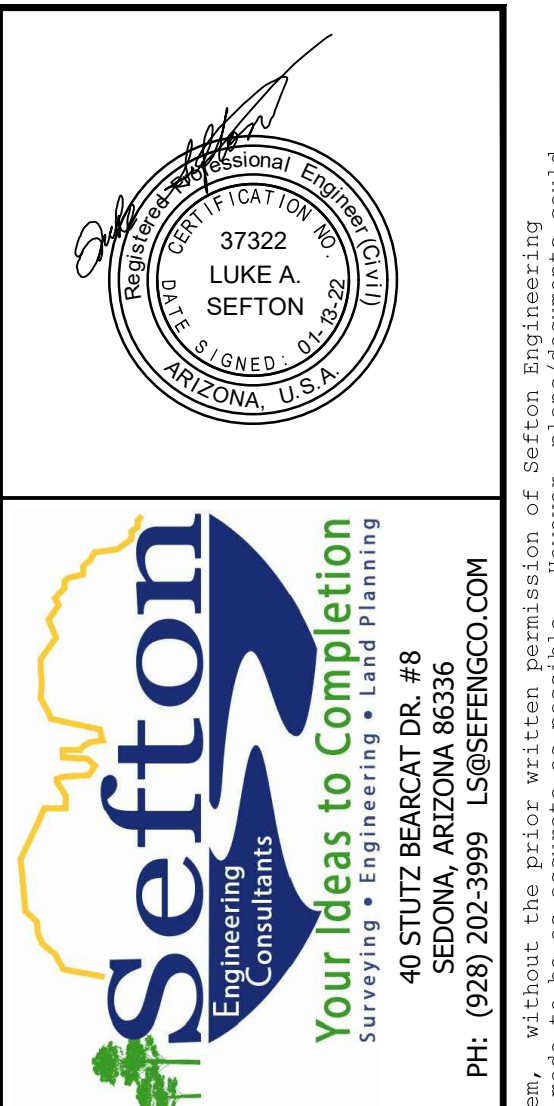
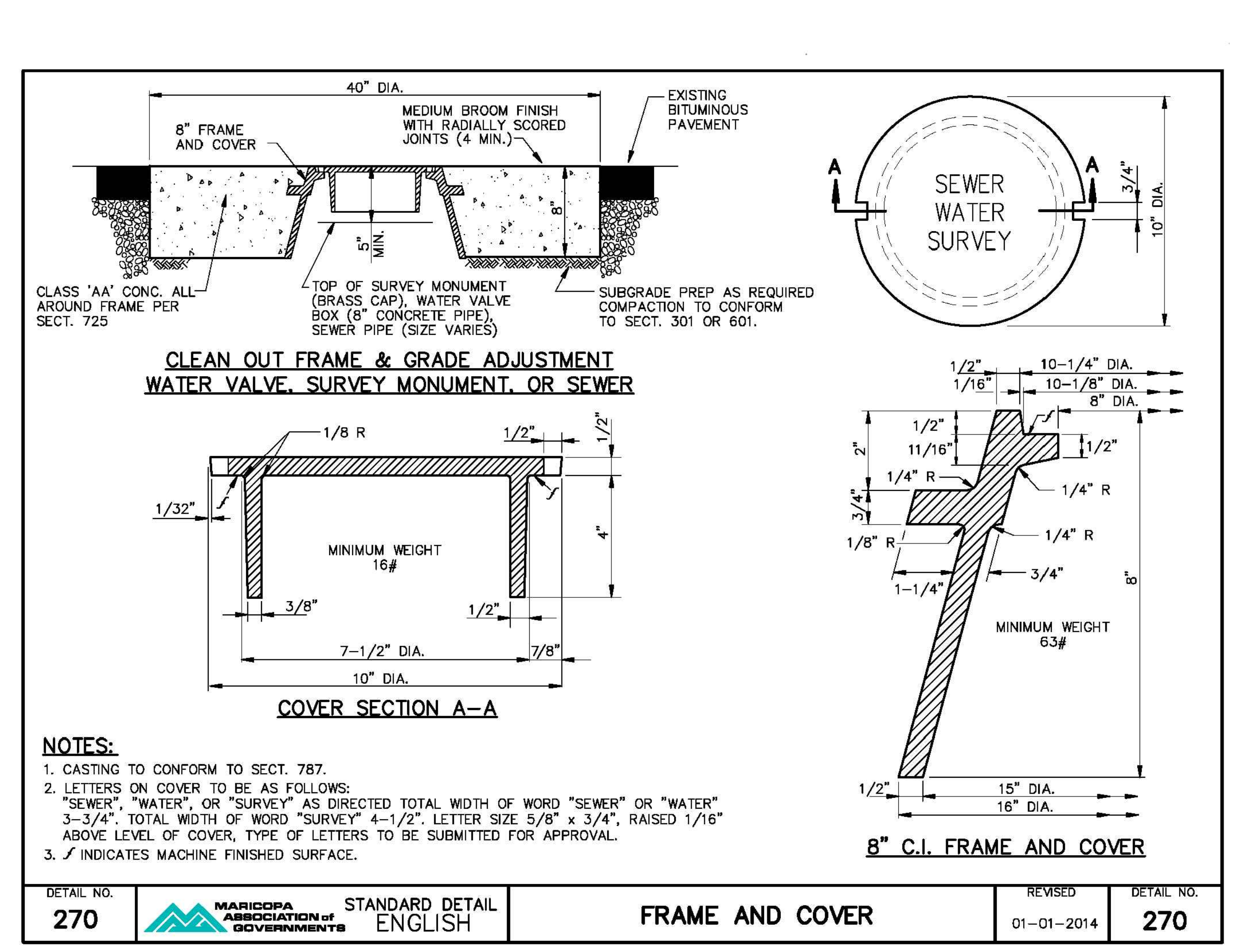
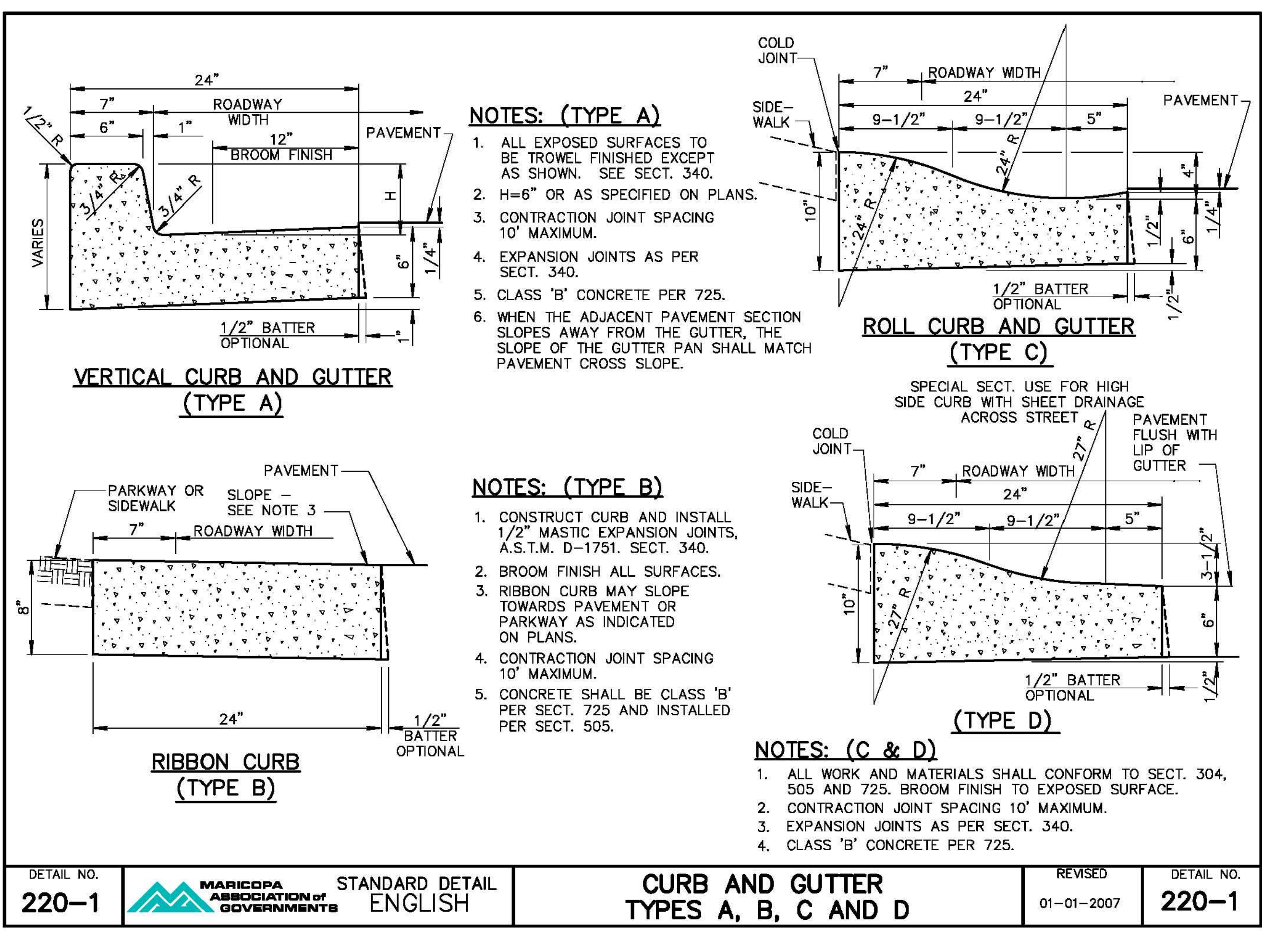
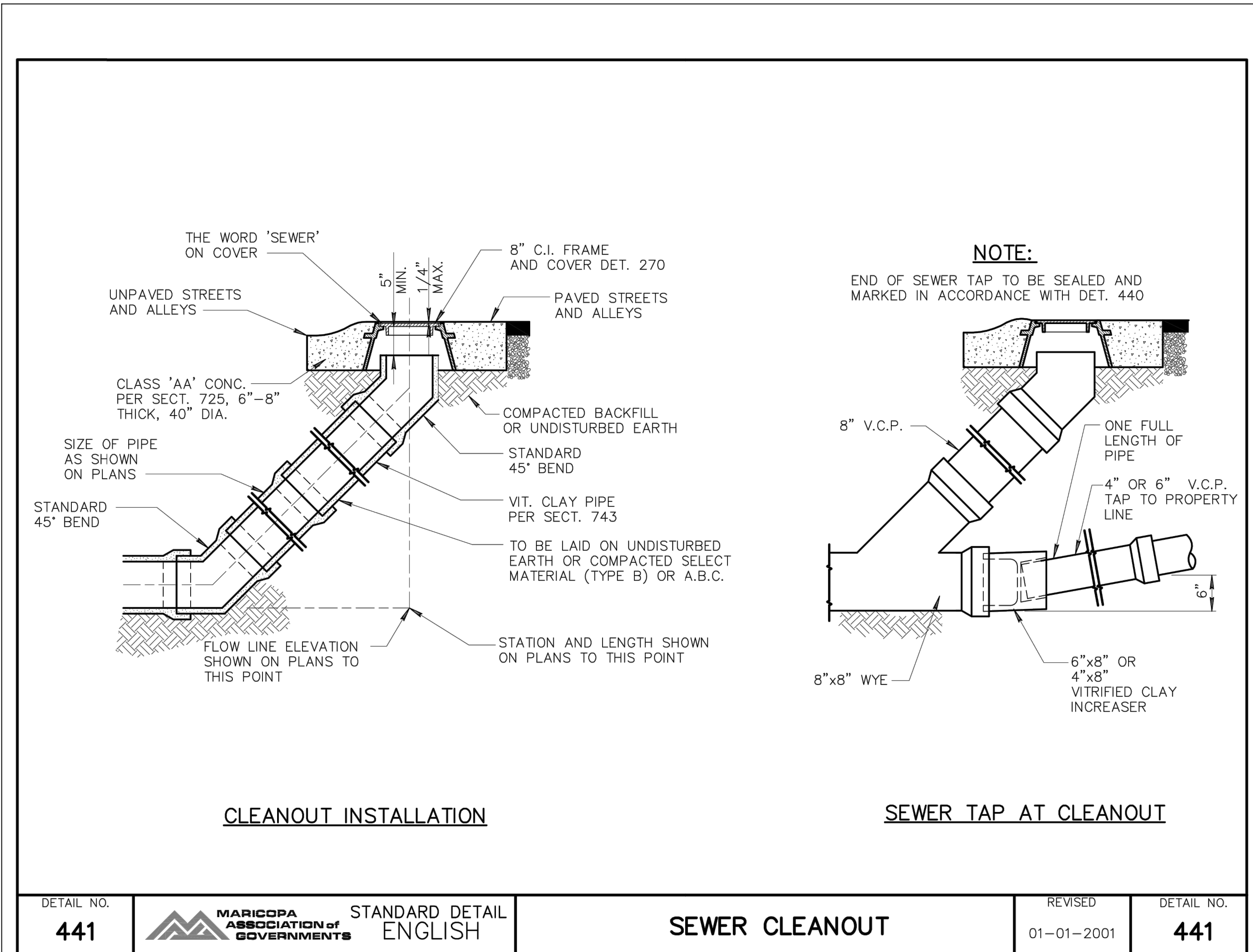
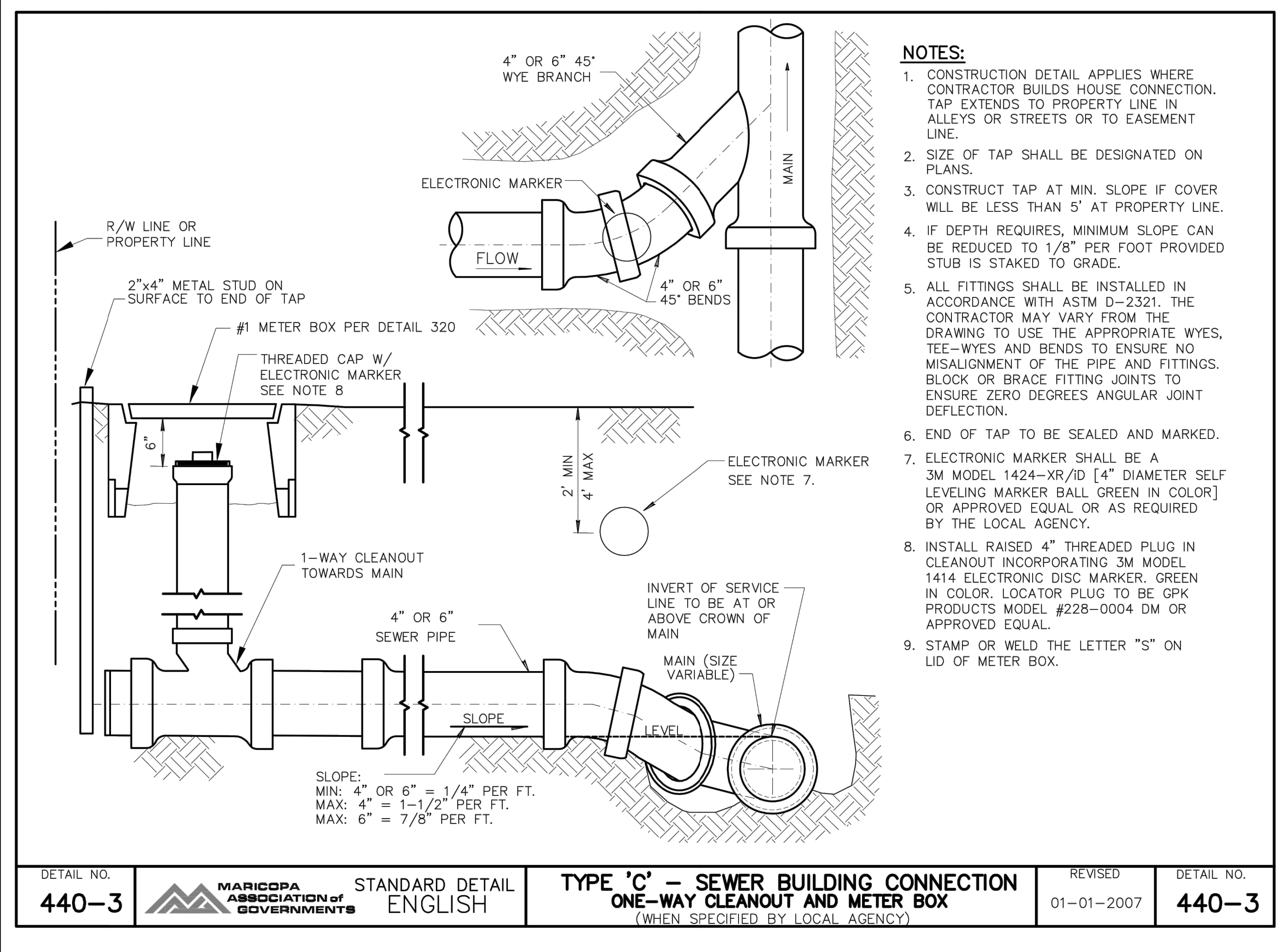
  
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**SANITARY SEWER PLAN & PROFILE**  
**CHAPEL VIEW TERRACE**  
 CITY OF SEDONA, ARIZONA

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SHEET TITLE: **SANITARY SEWER PLAN & PROFILE**  
 PROJECT TITLE: **CHAPEL VIEW TERRACE**  
 DRAWN BY: **RJB**  
 SCALE: **AS NOTED**  
 DATE: **02/10/2022**  
 PROJECT NO: **210305**  
 SHEET NO: **C-10**

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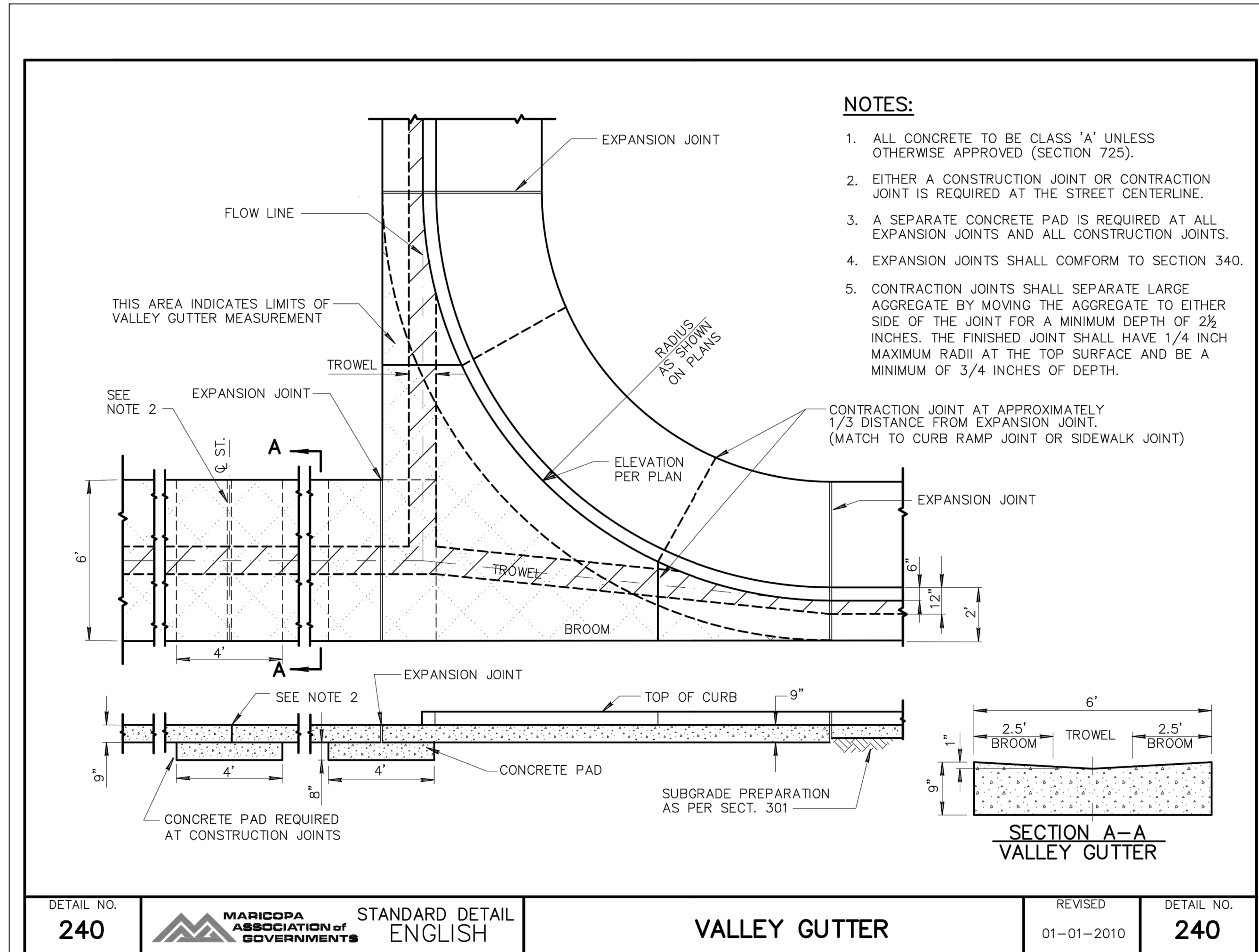
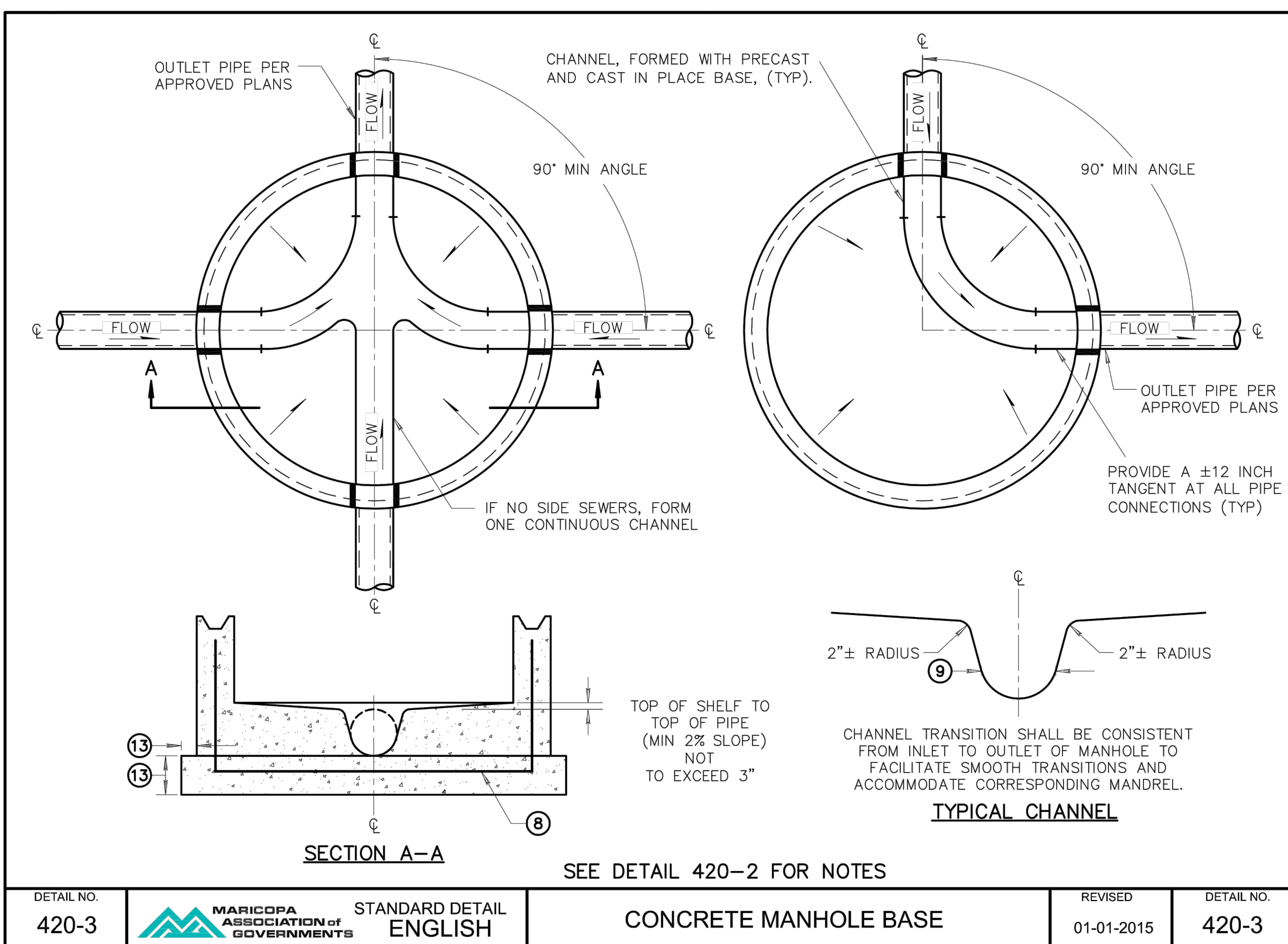
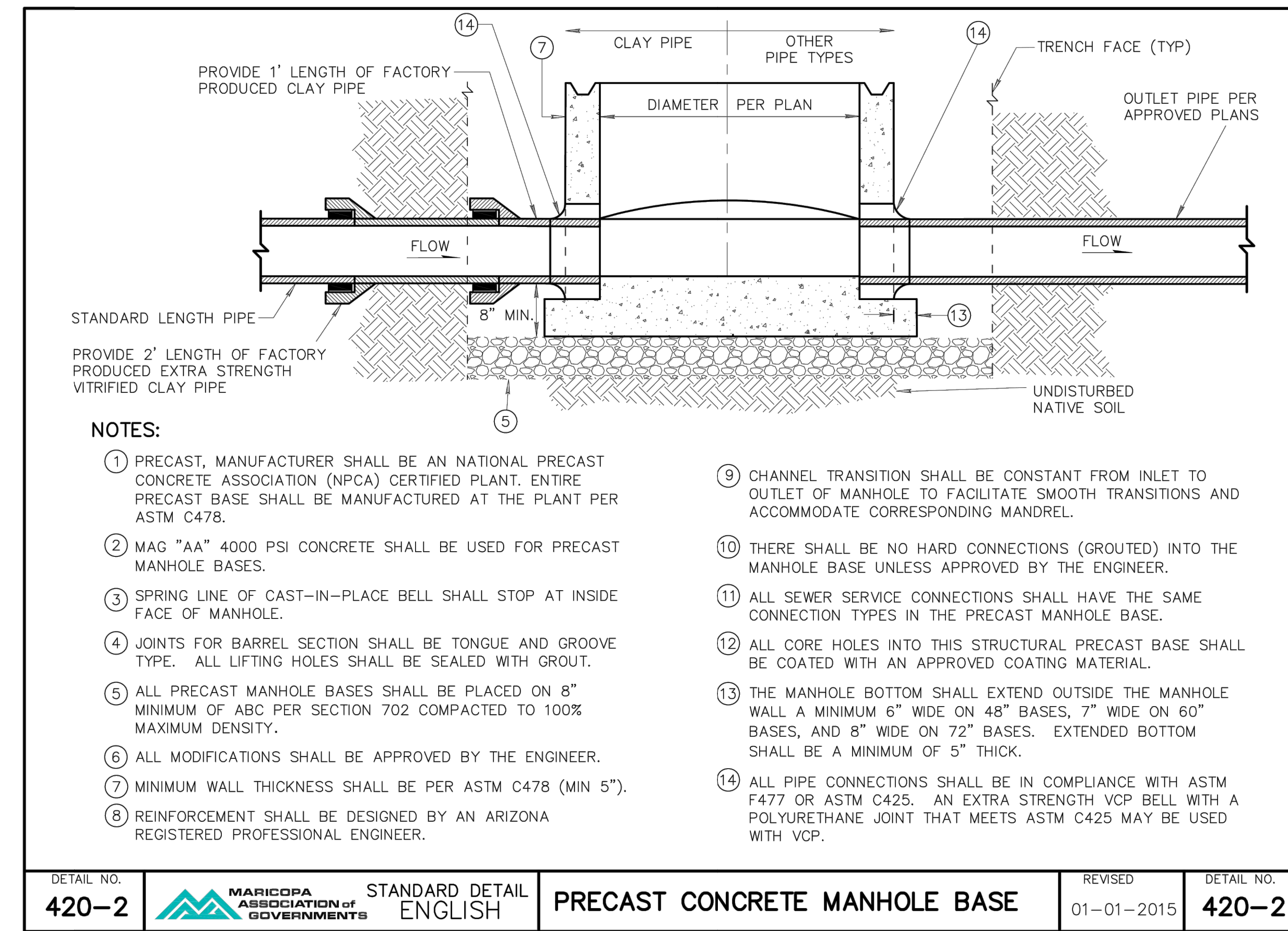
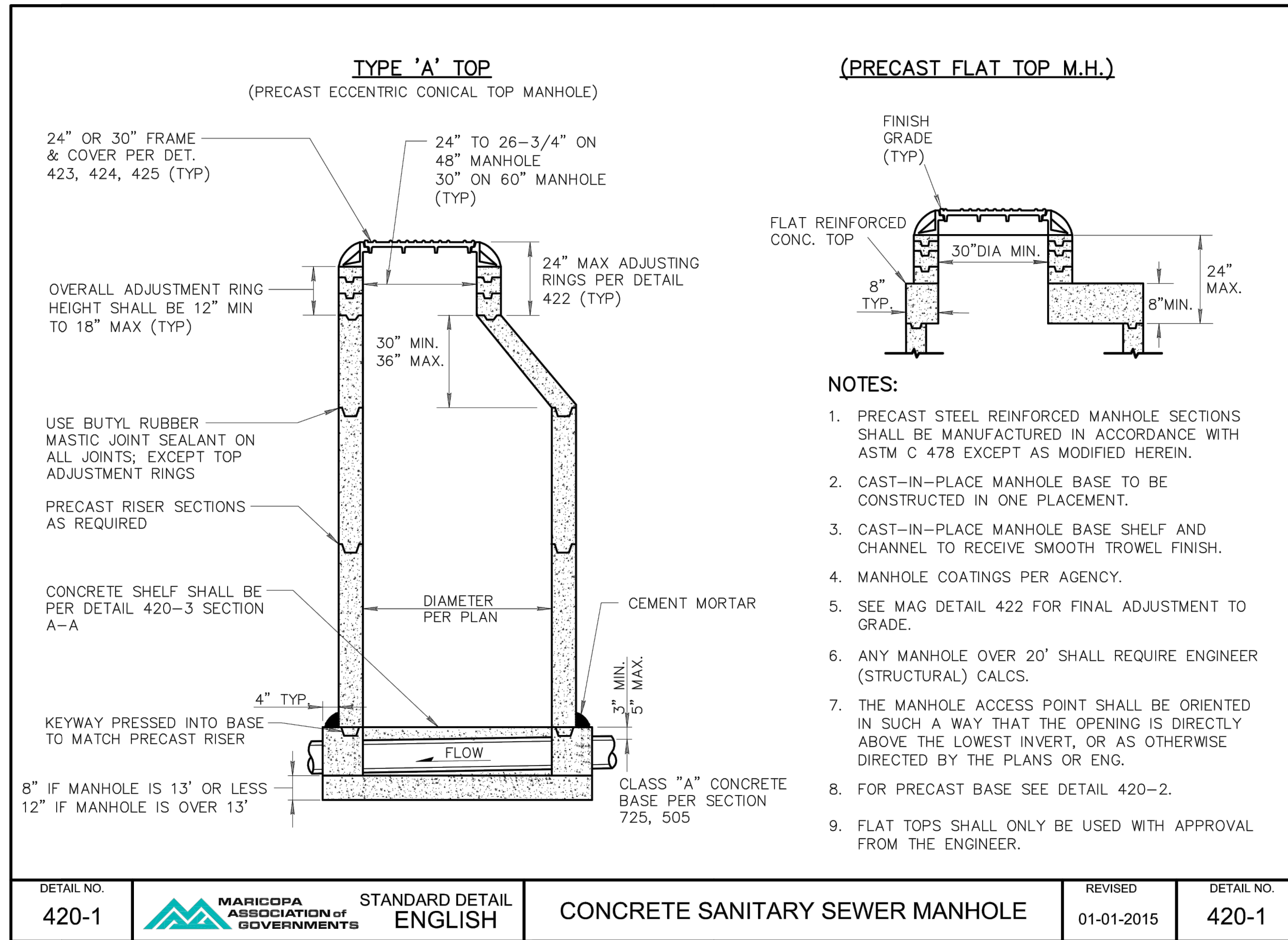
DETAILS - SHEET 1 OF 3

**CHAPEL VIEW TERRACE**  
CITY OF SEDONA, ARIZONA

SHEET TITLE:  
PROJECT TITLE:  
DRAWN BY: RJB  
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DATE: 02/10/2022  
PROJECT NO: 210305  
SHEET NO.

**C-11**

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DETAILS - SHEET 2 OF 3

# CHAPEL VIEW TERRACE

CITY OF SEDONA, ARIZONA

SHEET TITLE:

PROJECT TITLE:

DRAWN BY: RJB

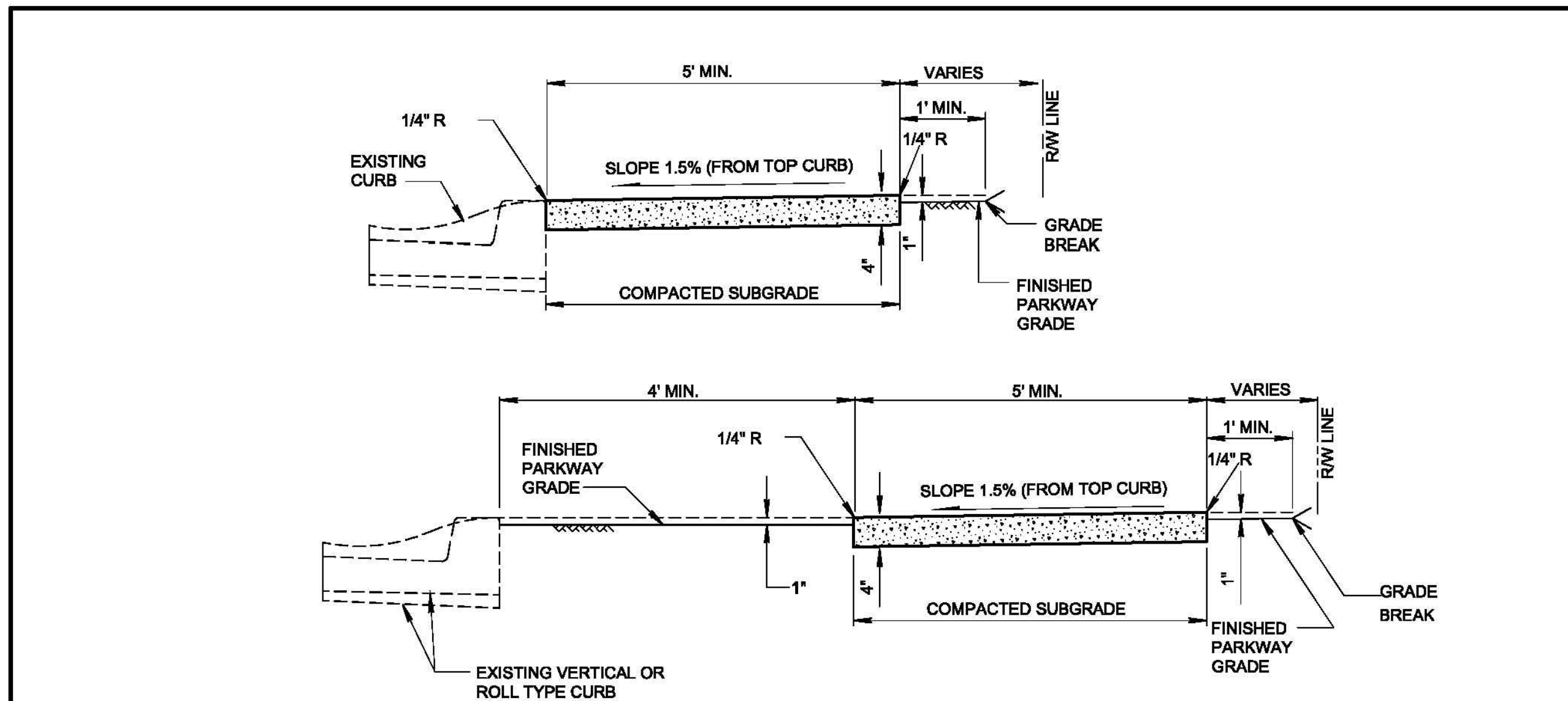
SCALE: AS NOTED

DATE: 02/10/2022

PROJECT NO: 210305

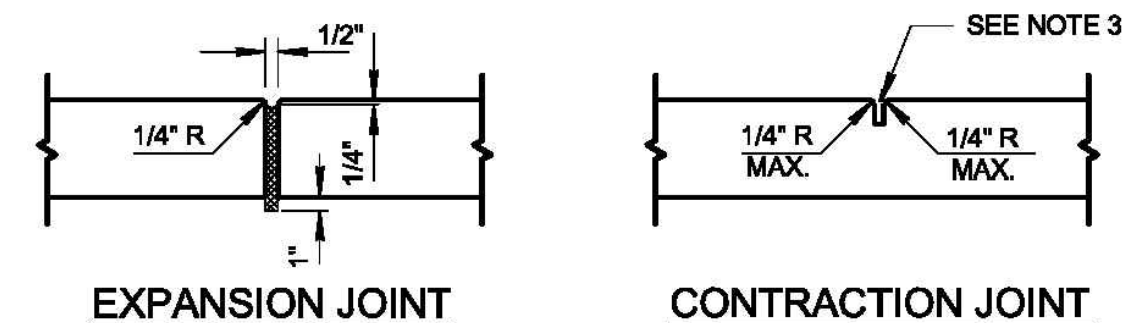
SHEET NO.

C-12

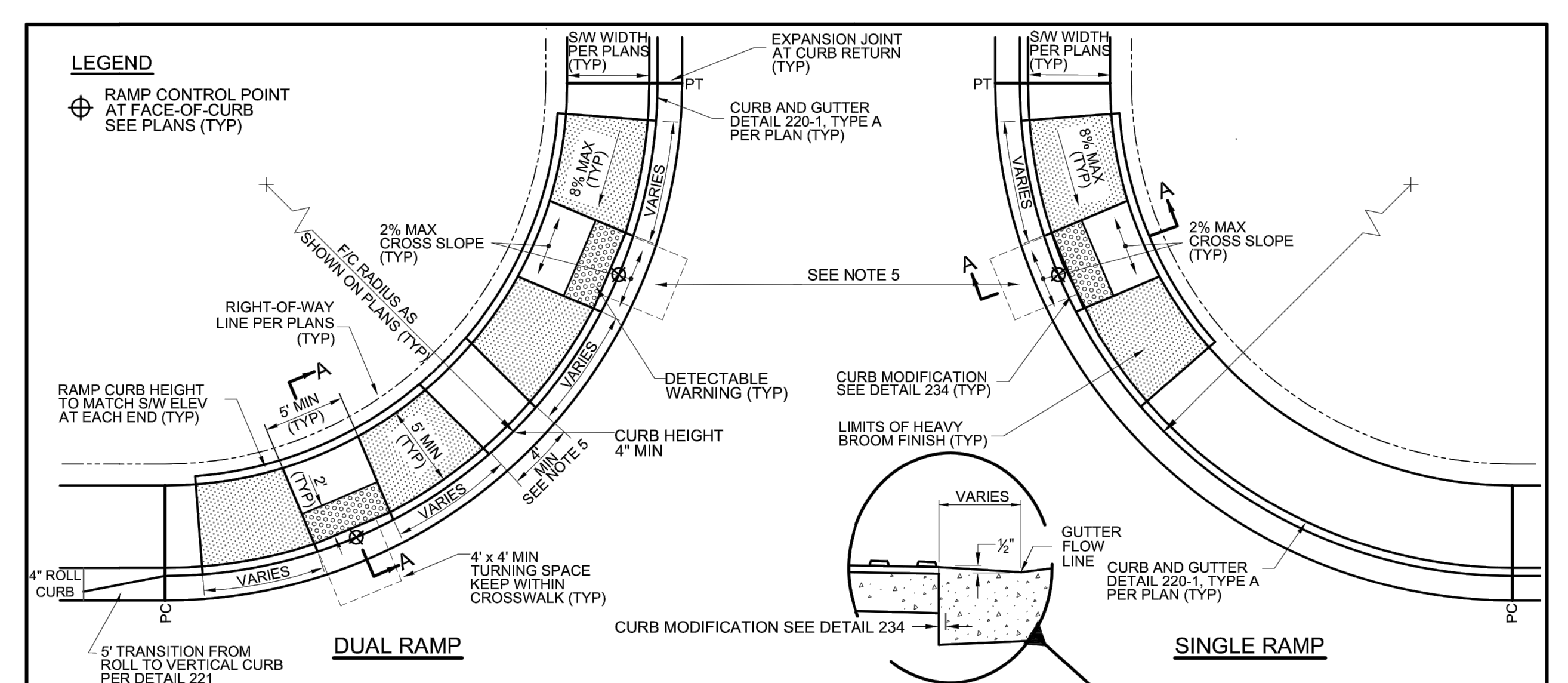


**NOTES:**

1. SIDEWALK CONSTRUCTION SHALL CONFORM TO SECTION 340.
2. EXPANSION JOINTS SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, PER SECTION 729.
3. LARGE AGGREGATE, IN CONTRACTION JOINT SHALL BE SEPARATED TO A DEPTH OF 1", FINISH DEPTH SHALL BE A MINIMUM OF 3/4".
4. EXPANSION JOINTS SHALL CONFORM TO SECTION 340, BE INSTALLED PRIOR TO CONCRETE PLACEMENT, AND AT A MAXIMUM SPACING OF 50'. CONCRETE SHALL BE CLASS 'B' PER SECTION 725.
5. WHEN SIDEWALK AND ADJACENT CURB ARE CONSTRUCTED MONOLITHICALLY, ALL EXPANSION AND CONTRACTION JOINTS SHALL EXTEND ACROSS THE CURB.

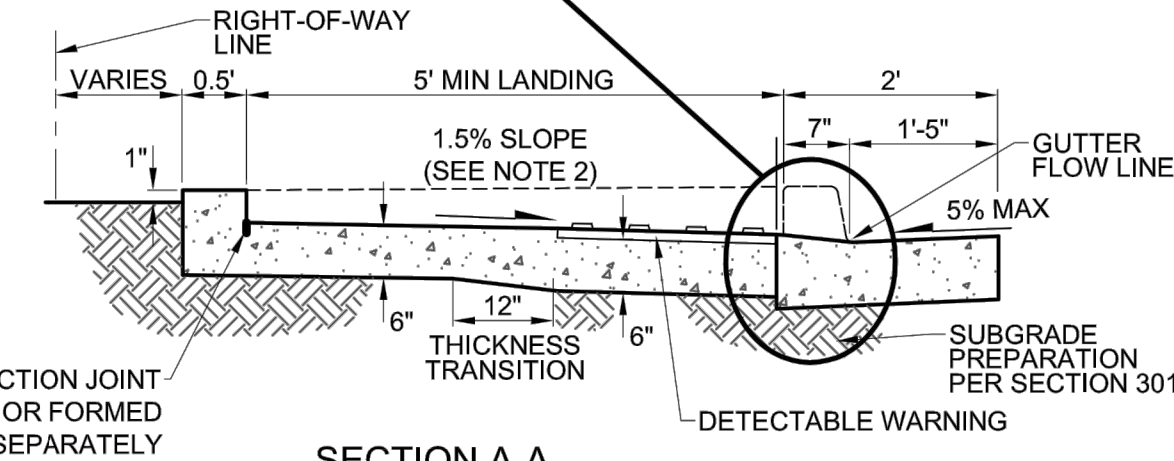


DETAIL NO. 230	MARICOPA ASSOCIATION OF GOVERNMENTS	STANDARD DETAIL ENGLISH	SIDEWALKS	REVISED 01-01-2014	DETAIL NO. 230
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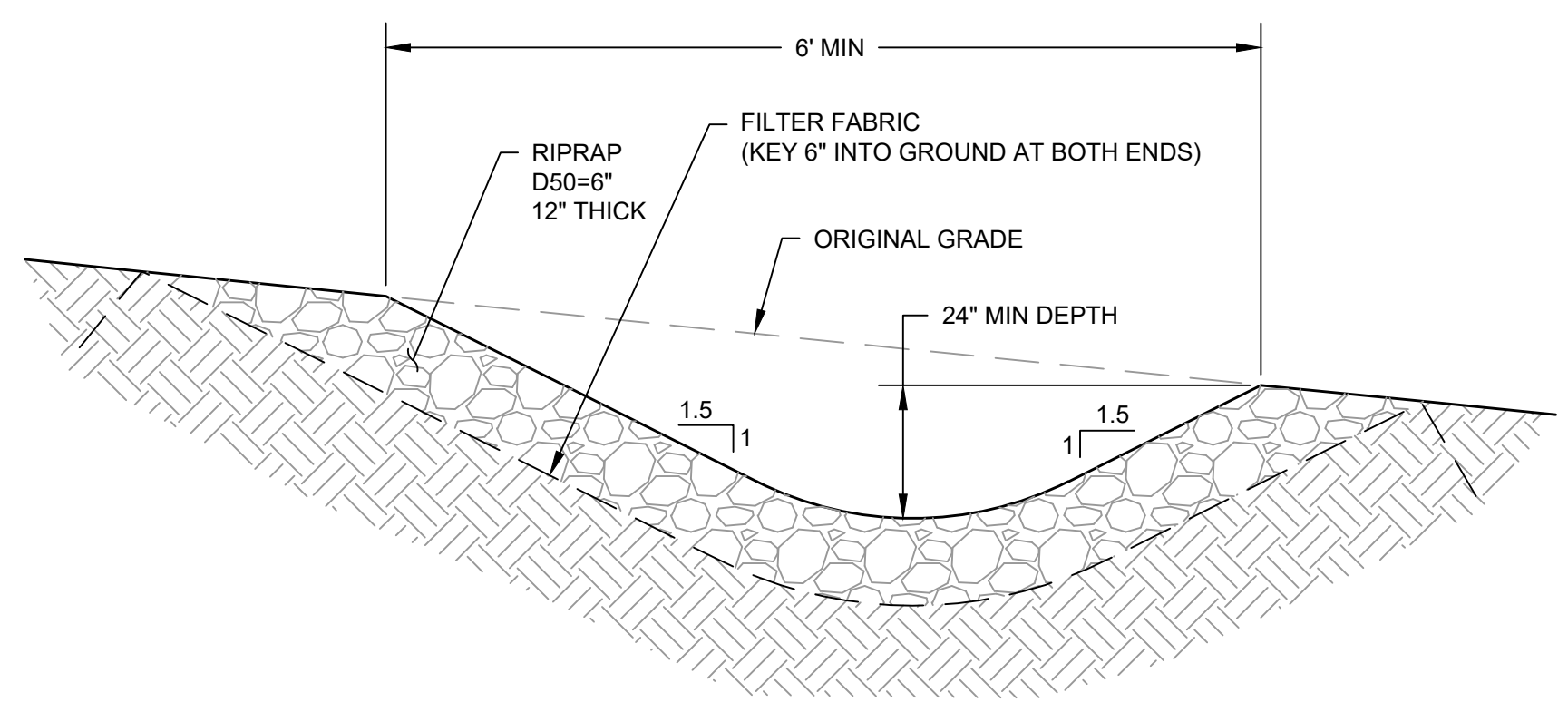


**NOTES:**

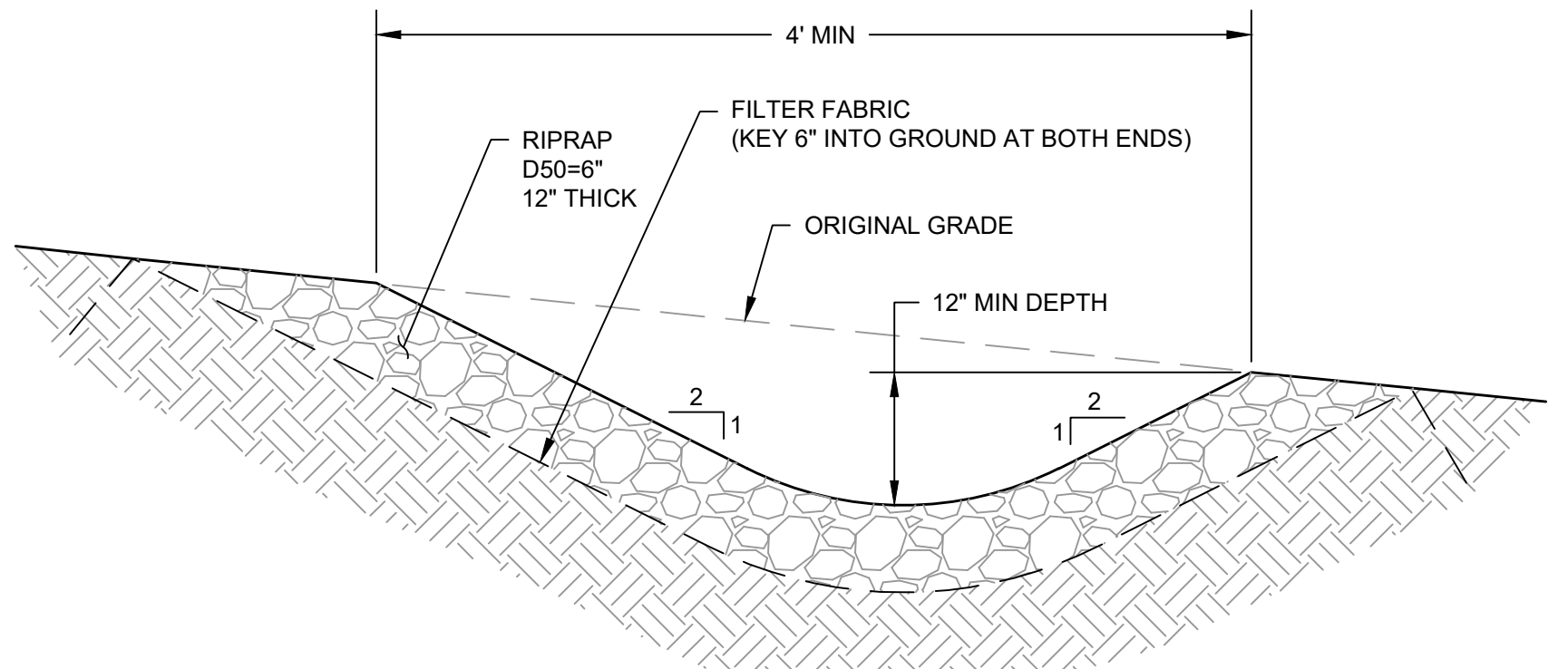
1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
5. DISTANCE BETWEEN RAMP MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.
7. TYPICALLY USED FOR RETROFITS. REQUIRES AGENCY APPROVAL PRIOR TO USE.



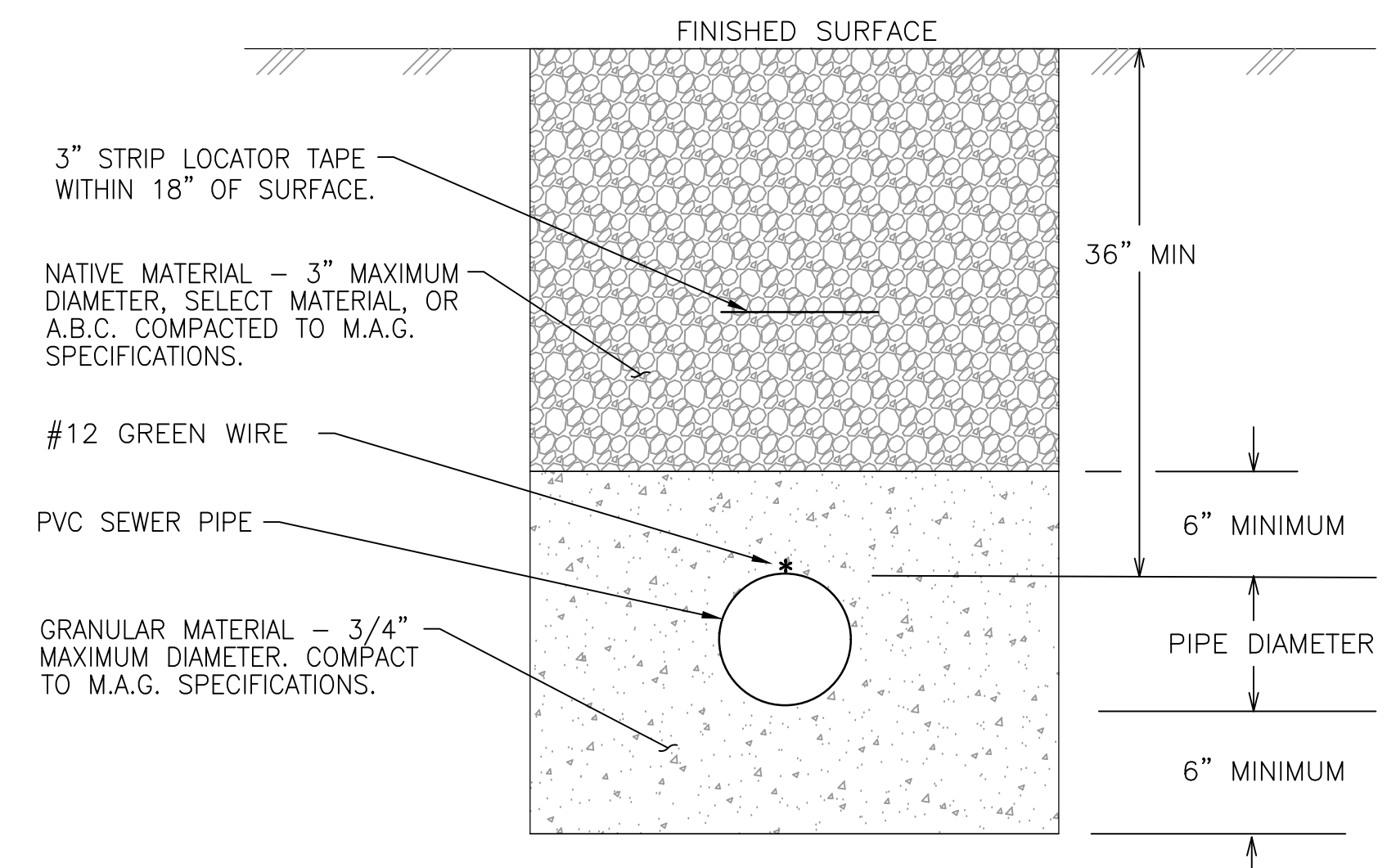
DETAIL NO. 236-5	MARICOPA ASSOCIATION OF GOVERNMENTS	STANDARD DETAIL ENGLISH	25' - 35' R - RADIAL PARALLEL CURB RAMP	REVISED 01-01-2018	DETAIL NO. 236-5
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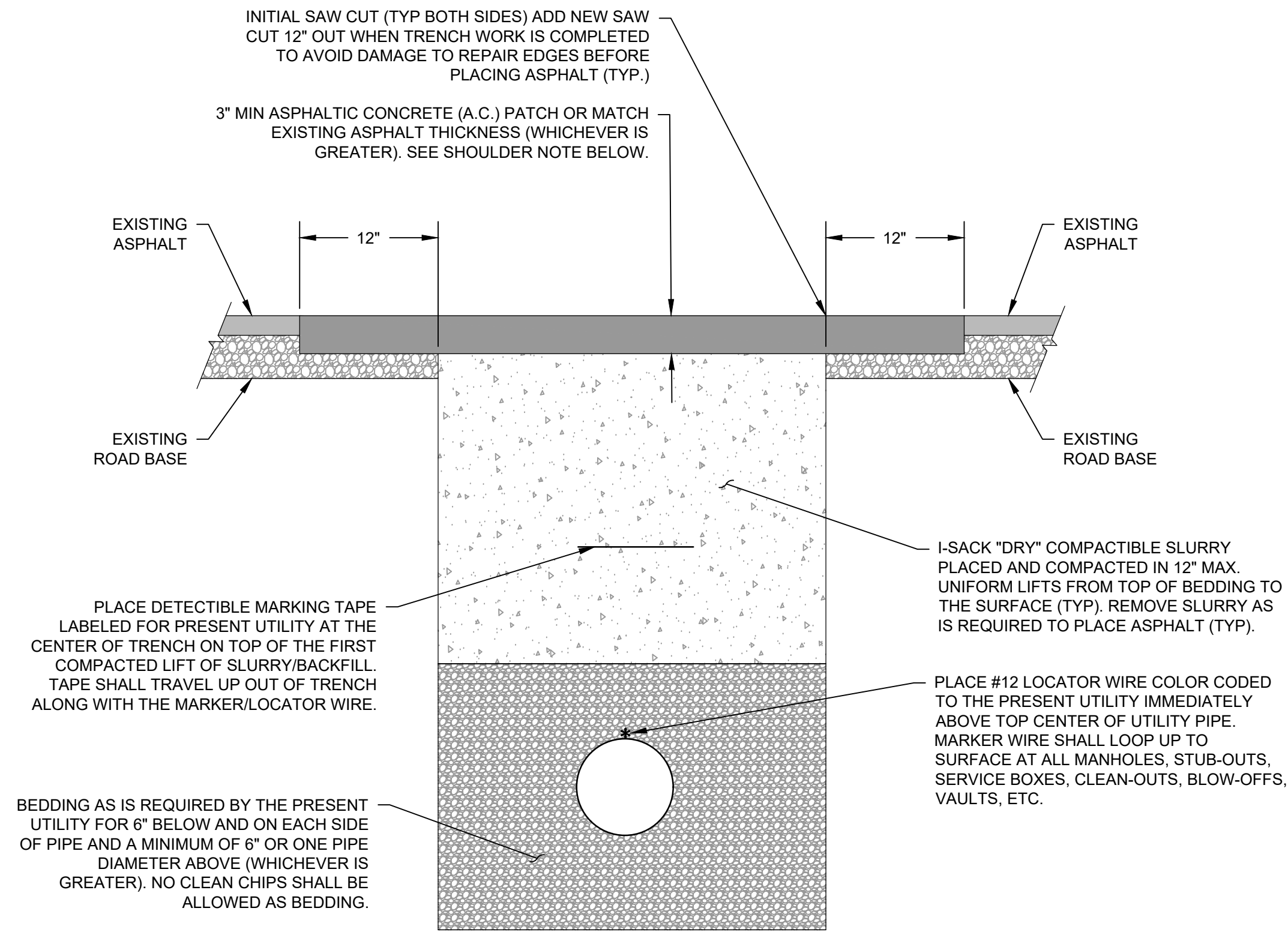
**2' DEEP RIPRAP LINED DITCH**  
NOT TO SCALE



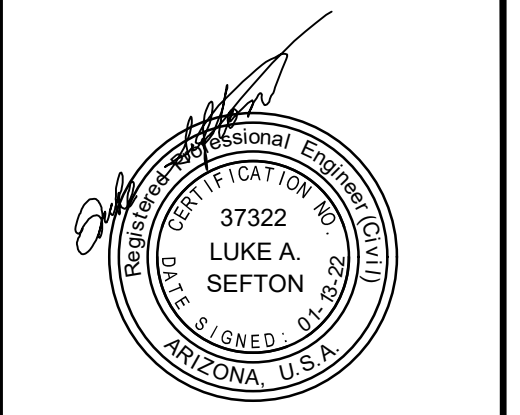
**1' DEEP RIPRAP LINED DITCH**  
NOT TO SCALE



**SEWER LINE TYPICAL TRENCH DETAIL**  
NOT TO SCALE



**TYPICAL STANDARD UTILITY TRENCH CROSS-SECTION**  
**TYPICAL ROAD REPAIR CROSS-SECTION**  
NOT TO SCALE



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DETAILS - SHEET 3 OF 3

**CHAPEL VIEW TERRACE**  
CITY OF SEDONA, ARIZONA

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SHEET NO.

**C-13**

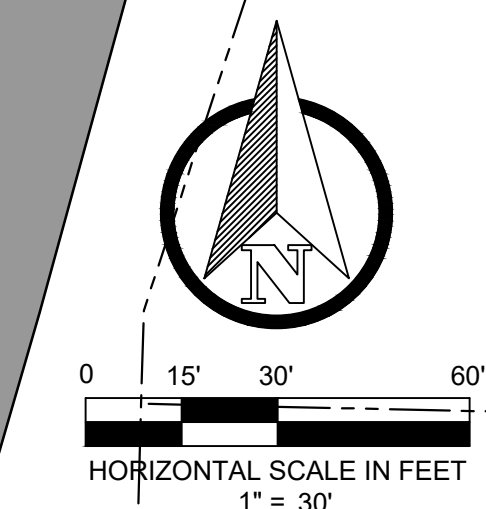
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**STORM WATER MANAGEMENT POLLUTION PREVENTION PLAN (SWMP) NOTES**

- THE SWMP IS INTENDED TO BE A DYNAMIC PLAN THAT CAN BE REVISED EITHER AS A RESULT OF UNANTICIPATED CONDITIONS DURING DESIGN OR AS A RESULT OF CHANGING CONDITIONS IN THE FIELD. MAKING CHANGES TO THE PLAN WHERE IT IS NOT EFFECTIVE IS A REQUIREMENT OF THE AZPDES PERMIT. ANY CHANGES TO THE PLAN SHALL BE NOTED AND DATED ON THE PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT A NOTICE OF INTENT (NOI) AND A NOTICE OF TERMINATION (NOT) IS SENT AT THE BEGINNING AND END OF THE PROJECT TO THE PROPER AUTHORITIES. THE CONTRACTOR IS RESPONSIBLE FOR UNDERSTANDING THE REQUIREMENT OF THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (AZPDES) PERMITTING PROGRAM. ESTABLISHED UNDER SECTION 402 OF THE CLEAN WATER ACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SWMP ACTIVITIES AND FOR ALL SUB CONSULTANTS ON SITE. THE CONTRACTOR SHALL OBTAIN AN NOI AT [HTTP://CDX.EPA.GOV](http://cdx.epa.gov), THE SWMP TEMPLATE IS LOCATED AT [HTTP://WATER.EPA.GOV/POLLUTION/PDES/BASICS/UPLOAD/SWMP\\_CGP2012\\_SWMP\\_TEMPLATE.DOCX](http://water.epa.gov/pollution/pdes/basics/upload/swmp_cgp2012_swmp_template.docx). FURTHER INFORMATION CAN BE FOUND AT [HTTP://WATER.EPA.GOV/POLLUTION/PDES/STORMWATER/POLLUTION-PREVENTION-PLANS-FOR-CONSTRUCTION-ACTIVITIES.CFM](http://water.epa.gov/pollution/pdes/stormwater/pollution-prevention-plans-for-construction-activities.cfm). A TUTORIAL IS AVAILABLE AT [HTTP://WWW.EPA.GOV/PDES/PUBS/ENOI\\_2012CGP\\_USERMANUAL.PDF](http://www.epa.gov/pdes/pubs/enoi_2012cgp_usermanual.pdf) FOR REGISTRATION. IF YOU HAVE ANY QUESTION YOU MAY CALL 1-888-890-1995 OR FOR NOI INFORMATION YOU MAY CALL 1-866-352-7755.
- LIMIT LAND DISTURBANCE AND PRESERVE EXISTING VEGETATION. SENSITIVITY TO THE ENVIRONMENT DURING CONSTRUCTION IS A DEFINING FACTOR IN PRESERVING NATURAL VEGETATION. THE EXTENT OF THE CUT AND FILL SLOPES SHOULD BE FIELD SURVEYED AND STAKED PRIOR TO CONSTRUCTION TO DEFINE ALL AREAS THAT REQUIRE GRADING. AREAS OUTSIDE THESE LIMITS SHOULD BE PROTECTED FROM ALL CONSTRUCTION ACTIVITIES. TREES THAT LIE WITHIN TRANSITION AREAS OF SIGNIFICANT CUT OR FILL AND OUTSIDE REQUIRED CLEAR-ZONE DISTANCES SHALL BE FLAGGED AND/OR FENCED FOR PROTECTION. EXISTING TREES AT OR NEAR THE TOE OF FILL SLOPES SHALL BE SAVED WITH PROTECTIVE TREE WELLS.
- MINIMIZE SOIL EXPOSURE AND RE-VEGETATE DENuded AREAS. TRY TO SCHEDULE CONSTRUCTION TO COINCIDE WITH THE DRY SEASON OF THE SITE'S LOCATION. LIMIT THE SIZE OF THE EXPOSED AREA AND AMOUNT OF TIME IT IS EXPOSED. UNDER THE EPA'S GENERAL PERMIT ALL BARE GROUND SHALL BE SEEDED WITHIN 14 DAYS AFTER GRADING IS FINISHED WITH SOME EXCEPTIONS.
- PROTECT FILL SLOPES FROM ROADWAY RUNOFF. DROWN DRAINS AND RIPRAP PROTECTION HAVE BEEN CALLED OUT ON THE PLAN AS NEEDED. THE CONTRACTOR SHOULD MONITOR SLOPES TO ENSURE ADEQUATE PROTECTION IS PROVIDED THROUGH OUT THE CONSTRUCTION ACTIVITIES.
- PREVENT EROSION IN AREAS WHERE RUNOFF CONCENTRATES. CONTRACTOR SHALL PROVIDE PROTECTION OF ALL DITCHES, OPEN CHANNELS, CULVERT AND CHANNEL OUTLETS AS SHOWN ON THE CONSTRUCTION PLAN.
- TRAP SEDIMENT BEFORE IT LEAVES THE SITE. IT IS PREFERABLE TO PROVIDE EROSION CONTROL INSTEAD OF SEDIMENT CONTROL WHERE PRACTICABLE. IT IS IMPORTANT THAT REGULAR MAINTENANCE OF ANY SEDIMENT TRAPPING IS CONDUCTED ON A REGULAR BASIS IN ORDER FOR IT TO OPERATE EFFECTIVELY. THIS INCLUDES REMOVING ACCUMULATIONS OF SEDIMENT AND MAKING NECESSARY REPAIRS AND ADJUSTMENTS. TEMPORARY SEDIMENT BARRIERS SHOULD BE PLACED AROUND CATCH BASIN INLETS DURING CONSTRUCTION TO TRAP SEDIMENT BEFORE IT ENTERS THE INLET. SEDIMENT TRAPPING IS NECESSARY AT SOIL STOCKPILES AND THESE STOCKPILES SHOULD BE LOCATED ABOVE AND AWAY FROM STREAMS, WASHES AND SWALES TO PREVENT THEM FROM BEING WASHED DOWNSTREAM. A STABILIZED CONSTRUCTION ENTRANCE SHOULD BE PROVIDED TO REMOVE SEDIMENT FROM THE TIRES OF THE VEHICLES BEFORE THEY LEAVE THE SITE.
- AS NEEDED A SPILL CONTAINMENT AREA SHOULD BE PROVIDED AT THE JOB SITE FOR STORING CHEMICALS, FUELS, PAINTS AND OTHER MATERIALS. THIS AREA WILL PREVENT CHEMICALS FROM MIXING WITH STORM WATER AND DISCHARGING INTO STREAMS AND WASHES, OR SEEPING INTO AND CONTAMINATING THE SURROUNDING SOIL. THE PROTECTED AREA SHOULD BE EXCAVATED OR BERMED, AND LINED WITH PLASTIC SO THAT AN ACCIDENTAL SPILL FROM A CHEMICAL DRUM WILL BE CONTAINED. IT SHOULD BE LOCATED IN AREAS WHERE ANY SPILL WILL BE PREVENTED FROM DISCHARGING OFF-SITE. PROCEDURES SHALL BE ESTABLISHED TO PREVENT CONTAMINATION OF ON-SITE SOILS FROM EQUIPMENT MAINTENANCE. CONSTRUCTION EQUIPMENT SHALL BE REGULARLY MAINTAINED TO REPAIR LEAKY HOSES AND GASKETS. USED OIL, HYDRAULIC FLUIDS, FILTERS, BATTERIES AND TIRES SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH STATE AND FEDERAL LAWS.
- SOLID WASTE MATERIALS SHOULD BE COLLECTED DAILY. A TRASH CONTAINER OR DUMPSTER SHOULD BE PROVIDED AT THE SITE TO CONTAIN SMALLER WASTE MATERIALS. THE TRASH CONTAINERS SHOULD BE COVERED TO PREVENT MIXING WITH RAINWATER OR LOSS OF CONTENTS BY HIGH WINDS. OTHER TYPES OF LARGER DEBRIS, SUCH AS: VEGETATION FORM CLEARING OPERATIONS SHOULD BE COLLECTED AND STOCKPILED ON A DAILY BASIS AND DISPOSED OF REGULARLY. THE STOCKPILE LOCATION SHALL BE LOCATED AWAY FROM STREAMS AND WASHES.
- TEMPORARY PITS OR BERMED AREAS SHOULD BE PROVIDED AT THE CONSTRUCTION SITE FOR THE WASHOUT OF CONCRETE TRUCKS AND FOR WASHING AGGREGATE MATERIALS AND TOOLS. THE WASH WATER SHOULD BE KEPT OUT OF STREAMS AND WASHES. WASHOUT AREAS SHOULD BE LARGE ENOUGH TO RETAIN ALL WASH WATER. HARDENED CONCRETE SHOULD BE ROUTINELY REMOVED AND DISPOSED OF IN ORDER TO MAINTAIN ADEQUATE WATER PERCOLATION.
- PROPER IMPLEMENTATION, INSPECTION AND MAINTENANCE OF POLLUTION CONTROL MEASURES IS ESSENTIAL TO ACHIEVE THE GOALS OF EROSION AND SEDIMENT CONTROL AND TO IDENTIFY POTENTIAL PROBLEMS. A RAIN GAGE SHOULD BE KEPT AT THE SITE TO RECORD THE DEPTH OF RAINFALL. THE CONTRACTOR SHOULD COORDINATE THE IMPLEMENTATION, INSPECTION AND MAINTENANCE OF THE POLLUTION CONTROLS WITH THE PROJECT INSPECTOR. THE CONTRACTOR SHOULD ALSO MONITOR WEATHER FORECASTS AND MAKE ALL SITE INSPECTIONS AND NECESSARY REPAIRS BEFORE STORMS ARE EXPECTED. THE CONTRACTOR SHALL MONITOR AND RECORD WEEKLY EXTENDED WEATHER FORECASTS. THESE FORECASTS SHALL BE DISCUSSED BY THE CONTRACTOR AT REGULARLY SCHEDULED WEEKLY PROGRESS MEETINGS. IN THE EVENT THAT EXTENDED FORECASTS REPORT A HIGH PROBABILITY FOR PRECIPITATION IN THE GIVEN PROJECT AREA, THE CONTRACTOR SHALL REVIEW AND SUPPLEMENT EXISTING EROSION CONTROL MEASURES. HE SHALL ALSO INSTALL ADDITIONAL MEASURES IN AREAS DETERMINED TO BE SUSCEPTIBLE TO EROSION AND/OR SEDIMENTATION, AS DIRECTED BY THE PROJECT ENGINEER. THE EPA GENERAL PERMIT REQUIRES REGULAR INSPECTIONS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A RAINFALL OF 1/4 INCH OR GREATER.
- THE CONTRACTOR MUST RECORD ANY DAMAGES OR DEFICIENCIES IN THE CONTROL MEASURES ON AN INSPECTION REPORT FORM. THIS REPORT DOCUMENTS THE INSPECTION OF THE POLLUTION PREVENTION MEASURES. THE SAME FORM CAN BE USED TO REQUEST REPAIRS AND TO PROVE THAT REQUIRED INSPECTIONS AND MAINTENANCE WERE PERFORMED. AS A CONDITION OF THE GENERAL PERMIT, THE CONTRACTOR SHALL CORRECT DAMAGE OR DEFICIENCIES AS SOON AS PRACTICABLE AFTER THE INSPECTION; BUT IN NO CASE LATER THAN 7 DAYS AFTER THE INSPECTION. ANY CHANGES THAT MAY BE REQUIRED TO CORRECT DEFICIENCIES IN THE SWMP SHOULD ALSO BE MADE AS SOON AS PRACTICABLE AFTER THE INSPECTION; BUT IN NO CASE LATER THAN 7 DAYS AFTER THE INSPECTION.
- OVERVIEW OF INSPECTION REQUIREMENTS, CONSTRUCTION OPERATORS COVERED UNDER THE 2012 CGP ARE SUBJECT TO THE FOLLOWING REQUIREMENTS IN PART 4:
  - INSPECTION FREQUENCY (SEE PART 4.1.4)
    - YOU ARE REQUIRED TO CONDUCT INSPECTIONS EITHER:
      - ONCE EVERY 7 CALENDAR DAYS, OR
      - ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.25 INCHES OR GREATER.
    - YOUR INSPECTION FREQUENCY IS INCREASED IF THE SITE DISCHARGES TO A SENSITIVE WATER. SEE PART 4.1.3. YOUR INSPECTION FREQUENCY MAY BE DECREASED TO ACCOUNT FOR STABILIZED AREAS, OR FOR ARID, SEMI-ARID, OR DROUGHT-STRIKEN CONDITIONS, OR FOR FROZEN CONDITIONS. SEE PART 4.1.4.
    - AREAS THAT NEED TO BE INSPECTED (SEE PART 4.1.5)
      - CLEARED, GRADED, OR EXCAVATED AREAS OF THE SITE.
      - STORMWATER CONTROLS (E.G., PERIMETER CONTROLS, SEDIMENT BASINS, INLETS, EXIT POINTS ETC.) AND POLLUTION PREVENTION PRACTICES (E.G., POLLUTION PREVENTION PRACTICES FOR VEHICLE FUELING/MAINTENANCE AND WASHING, CONSTRUCTION PRODUCT STORAGE, HANDLING, AND DISPOSAL, ETC.) AT THE SITE.
      - MATERIAL, WASTE, OR BORROW AREAS COVERED BY THE PERMIT, AND EQUIPMENT STORAGE AND MAINTENANCE AREAS.
      - AREAS WHERE STORMWATER FLOWS WITHIN THE SITE.
      - STORMWATER DISCHARGE POINTS; AND
      - AREAS WHERE STABILIZATION HAS BEEN IMPLEMENTED.
  - WHAT TO CHECK FOR DURING YOUR INSPECTION (SEE PART 4.1.6)
    - DURING YOUR SITE INSPECTION, YOU ARE REQUIRED TO CHECK:
      - WHETHER STORMWATER CONTROLS OR POLLUTION PREVENTION PRACTICES REQUIRE MAINTENANCE OR CORRECTIVE ACTION, OR WHETHER NEW OR MODIFIED CONTROLS ARE REQUIRED;
      - FOR THE PRESENCE OF CONDITIONS THAT COULD LEAD TO SPILLS, LEAKS, OR OTHER POLLUTANT ACCUMULATIONS AND DISCHARGES;
      - WHETHER THERE ARE VISIBLE SIGNS OF EROSION AND SEDIMENT ACCUMULATION AT POINTS OF DISCHARGE AND TO THE CHANNELS AND STREAMBANKS THAT ARE IN THE IMMEDIATE VICINITY OF THE DISCHARGE;
      - IF A STORMWATER DISCHARGE IS OCCURRING AT THE TIME OF THE INSPECTION, WHETHER THERE ARE OBVIOUS, VISUAL SIGNS OF POLLUTANT DISCHARGES; AND
      - IF ANY PERMIT VIOLATIONS HAVE OCCURRED ON THE SITE.
    - INSPECTION REPORTS (SEE PART 4.1.7)
      - WITHIN 24 HOURS OF COMPLETING EACH INSPECTION, YOU ARE REQUIRED TO COMPLETE AN INSPECTION REPORT THAT INCLUDES:
        - DATE OF INSPECTION;
        - NAMES AND TITLES OF PERSONS CONDUCTING THE INSPECTION;
        - SUMMARY OF INSPECTION FINDINGS;
        - RAIN GAUGE OR WEATHER STATION READINGS IF YOUR INSPECTION IS TRIGGERED BY THE 0.25 INCH STORM THRESHOLD; AND
        - IF YOU DETERMINE THAT A PORTION OF YOUR SITE IS UNSAFE TO ACCESS FOR THE INSPECTION, DOCUMENTATION OF WHAT CONDITIONS PREVENTED THE INSPECTION AND WHERE THESE CONDITIONS OCCURRED ON THE SITE.
  - REMOVAL OF TEMPORARY CONTROLS WHEN THE PROJECT IS COMPLETE IS THE RESPONSIBILITY OF THE CONTRACTOR. AFTER ALL CONSTRUCTION ACTIVITIES HAVE STOPPED, THE CONTRACTOR MUST KEEP A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN. RECORDS OF ALL THE DATA USED TO COMPLETE THE NOTICE OF INTENT MUST ALSO BE KEPT FOR A PERIOD OF THREE YEARS FOLLOWING FINAL STABILIZATION. THE RETENTION PERIOD MAY BE EXTENDED BY THE EPA'S REQUEST.
  - AS A CONDITION OF THE GENERAL PERMIT, A COPY OF THE CONTRACTOR'S NOI AND A COPY OF THE SWMP ARE TO REMAIN AT THE JOB SITE THROUGHOUT THE CONSTRUCTION PROCESS AND AVAILABLE DAILY TO THE PROJECT MANAGER.
  - DUST CONTROL IN ACCORDANCE WITH THE COUNTY REQUIREMENTS SHALL BE PROVIDED AT ALL TIMES WHILE UNDER CONSTRUCTION.
  - THE CONTRACTOR SHALL KEEP THE SITE WATERED DOWN (OR OTHER APPROVED METHODS) TO PREVENT DUST MIGRATING OFFSITE.
  - THE CONTRACTOR SHALL ON A DAILY OR AS NEEDED BASIS CLEAN ALL ROADS LEADING OUT OF THE SITE AND SHALL PLACE SAND BAGS (OR OTHER APPROVED METHODS) TO TRAP SEDIMENT BEFORE IT ENTERS INTO THE STORM DRAIN SYSTEM.
  - ALL DUMP TRUCKS ENTERING AND EXITING THE SITE SHALL BE COVERED WITH AN APPROVED COVER TO PREVENT DUST AND FLYING DEBRIS.
  - THE CONTRACTOR WILL PROVIDE THE COUNTY A SIGNED COPY OF THE SWMP BEFORE BEGINNING CONSTRUCTION.

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

CONTRACTOR SIGNATURE \_\_\_\_\_ PRINT NAME OF CONTRACTOR AND COMPANY \_\_\_\_\_



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**STORM WATER POLLUTION PREVENTION PLAN**

**CHapel VIEW TERRACE**

**CITY OF SEDONA, ARIZONA**

SHEET TITLE: \_\_\_\_\_ PROJECT TITLE: \_\_\_\_\_

DRAWN BY: RJB

SCALE: 1" = 30'

DATE: 02/10/2022

PROJECT NO: 210305

SHEET NO. **C-14**

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