

GENERAL

- 1. ALL WORK INCLUDING BUT NOT LIMITED TO CONSTRUCTION OF PRESSURIZED IRRIGATION, SEWER, WATER, STREETS, CURB GUTTER SIDEWALK AND STREETLIGHTS) SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE KUNA STANDARD CONSTRUCTION SPECIFICATIONS, ADA COUNTY HIGHWAY DISTRICT SPECIFICATIONS, IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, IDAHO STATE PLUMBING CODE, IDAHO STATE ELECTRICAL CODE, FEDERAL AND STATE LAWS.
2. CONTRACTOR SHALL PROTECT EXISTING IRRIGATION, SEWER, WATER LINES AND APPURTENANCES AT LEAST TWENTY-FOUR (24) HOURS BEFORE BACKFILLING.
3. CONTRACTOR SHALL NOTIFY OWNER'S ENGINEER AND THE CITY OF KUNA FORTY-EIGHT (48) HOURS BEFORE INITIAL CONSTRUCTION BEGINS.
4. CONTRACTOR SHALL NOTIFY THE CITY OF KUNA BEFORE SHUTTING DOWN A JOB FOR ANY REASON AND PROVIDE 48 HOURS NOTICE BEFORE RESTARTING WORK.
5. CONTRACTOR SHALL STAMP PL, S, OR W IN THE SIDEWALK OR CURB WHERE PRESSURIZED IRRIGATION, SEWER, OR WATER CROSS UNDER THE SIDEWALK OR CURB. WATER (W) STAMP SHALL BE IN LINE WITH THE WATER METER BOX.
6. ALL PIPE (PRESSURIZED IRRIGATION, SEWER & WATER) MAINS AND SERVICES, SHALL BE BEDDED WITH TYPE I OR TYPE II BEDDING IN AREAS OF ROCK EXCAVATION. BEDDING BELOW THE BOTTOM OF PIPE SHALL BE SIX (6) INCHES THICK.
7. CONTRACTOR'S SHALL REMOVE ALL OBSTRUCTIONS, ABOVE AND BELOW GROUND, AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THIS SHALL INCLUDE CLEARING THE GROUND SURFACE OF ALL TREES, STUMPS, BRUSH, UNDERGROWTH, REDGES, HEAVY GROWTH OF GRASS OR WEEDS, FENCES, STRUCTURES, DEBRIS, RUBBISH AND MATERIALS WHICH, IN THE OPINION OF THE ENGINEER, ARE UNSUITABLE FOR THE FOUNDATION OF PAVEMENTS.
8. ALL MATERIALS (S) NOT SUITABLE FOR FUTURE USE ON SITE SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
9. SURVEY CONTROL POINTS WHICH ARE CRITICAL TO THE CONSTRUCTION OF THE PROJECT ARE TO BE LOCATED WITHIN THE WORK LIMITS. THE CONTRACTOR SHALL PROTECT SURVEY CONTROL POINTS.
10. SURVEY CONTROL MONUMENTS SHALL BE PRESERVED, SET, AND/OR RESTORED IN ACCORDANCE WITH IDAHO CODE 50-1303.
11. CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL REPLACEMENT DRAINAGE FACILITIES ARE IN PLACE, FUNCTIONING, AND ACCEPTED BY ACHD OR CITY.
12. ALL CONTRACTORS WORKING WITHIN THE PROJECT BOUNDARIES ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, TRENCH SHORING, SAFETY DEVICES AND TRAFFIC CONTROL WITHIN AND AROUND THE CONSTRUCTION AREA.
13. EXISTING A.C. PAVEMENT SHALL BE SAW CUT TO A NEAT, STRAIGHT LINE PARALLEL OR PERPENDICULAR TO THE STREET CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION BEFORE PAWING.
14. ALL MATERIALS MUST MEET THE MINIMUM REQUIREMENTS OF THE APPROVING AGENCIES OR AS SET FORTH HEREIN, WHICHEVER IS MORE RESTRICTIVE. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.
15. ALL CONTRACTORS WORKING WITHIN THE PUBLIC ROAD RIGHT-OF-WAY SHALL SECURE A RIGHT-OF-WAY PERMIT FROM ACHD AT LEAST 24 HOURS BEFORE ANY CONSTRUCTION.
16. ALL COSTS OF RETESTING FAILED TESTS SHALL BE BORNE BY THE CONTRACTOR.
17. ALL COSTS FOR CORRECTING DEFICIENT WORK SHALL BE BORNE BY THE CONTRACTOR. FAILURE TO CORRECT DEFICIENT WORK WILL BE CAUSE FOR A STOP WORK ORDER.
18. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CURBS, GUTTERS, STORM DRAINS, CHANNEL CROSSINGS AND SEWER ELEVATIONS OR INVERTS BEFORE BEGINNING CONSTRUCTION AND SHALL NOTIFY THE OWNER'S ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PROJECT DRAWINGS.
19. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
20. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED PERMITS, SUBMITTING NOTICE OF INTENT (NOI) TO DISCHARGE STORM WATER, AND PREPARING POLLUTION PREVENTION PLAN (PPP) IN ACCORDANCE WITH ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS, CONTACT THE EPA AT (208) 378-5748 FOR REQUIRED INFORMATION. STORM WATER PERMIT SHALL BE PRESENTED TO THE ENGINEER AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
21. ALL UTILITIES, INCLUDING SERVICE LINES, WITHIN STREET TRAVEL WAYS SHALL BE IN PLACE, TESTED AND FULLY FUNCTIONAL, PRIOR TO CURB, GUTTER, SIDEWALK AND STREET CONSTRUCTION.
22. PAVEMENT AND CONCRETE REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE PAVEMENT AND/OR CONCRETE IS REMOVED PER ISPCW AND ACHD STANDARDS.
23. PAWING SHALL NOT PROCEED UNTIL THE CITY OF KUNA HAS REVIEWED AND APPROVED THE APPROVED FINAL WATER, SEWER, AND PRESSURE IRRIGATION FACILITIES FROM THE CITY OF KUNA.
24. ALL ROCK BLASTING SHALL OCCUR BEFORE INSTALLING SEWER MAINS, WATER MAINS, PRESSURE IRRIGATION MAINS OR SERVICE LINE CROSSINGS. BLASTING IN THE PROXIMITY OF EXISTING UTILITIES MAY BE PERFORMED AS LONG AS THE HORIZONTAL DISTANCE FROM THE EXISTING UTILITY IS EQUAL TO OR GREATER THAN THE EXCAVATION DEPTH FROM THE EXISTING UTILITY OR FIFTEEN (15) FEET, WHICHEVER IS GREATER. THE BLASTING OPERATIONS SHALL BE RESPONSIBLE FOR ANY/ALL DAMAGE TO ANY/ALL EXISTING UTILITIES.
25. THE DEVELOPER SHALL RETAIN AN IDAHO REGISTERED PROFESSIONAL ENGINEER TO PERFORM INSPECTION SERVICES DURING CONSTRUCTION. THE ENGINEER SHALL PROVIDE A WRITTEN CERTIFICATION LETTER TO THE CITY OF KUNA THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, COPIES OF ALL AIR TESTS, DEFLECTION TESTS, PRESSURE TESTS, AND BACTERIOLOGICAL TEST RESULTS SHALL BE FURNISHED WITH THE CERTIFICATION LETTER.
26. THE CITY OF KUNA SHALL CONDUCT INSPECTIONS FOR A PERIOD OF AN EIGHT (8) HOUR DAY, FROM 8:00 A.M. TO 5:00 P.M., FOR A FORTY (40) HOUR WEEK. CONTRACTOR SHALL REIMBURSE THE CITY AT RATES ESTABLISHED BY THE CITY FOR INSPECTIONS EXCEEDING THE NORMAL WORK WEEK, INCLUDING LEGAL HOLIDAYS, OVERTIME INSPECTION RATES AND A LIST OF LEGAL HOLIDAYS AND A REQUEST FOR INSPECTION OUTSIDE BUSINESS HOURS CAN BE OBTAINED FROM THE CITY PUBLIC WORKS DEPARTMENT.
27. WHEN CONSTRUCTION IS SATISFACTORILY COMPLETED, CLEANED AND TESTED AND AFTER ALL OTHER UTILITIES ARE INSTALLED THE DEVELOPER SHALL REQUEST A CITY OF KUNA FINAL ACCEPTANCE INSPECTION. AT A MINIMUM, THE FINAL ACCEPTANCE INSPECTION SHALL INCLUDE:
a. CLEAN ALL SEWER MAINLINES
b. DEFLECTION TEST SEWER MAINLINE
c. VISUALLY INSPECT EACH MANHOLE
d. WITNESS SEWER MAINLINE AIR PRESSURE TEST
e. WITNESS WATER MAINLINE PRESSURE TEST
f. WITNESS PRESSURIZED IRRIGATION PRESSURE TEST
g. CLEAN AND TEST/RELEASE ALL SEWER MAIN LINES
h. VISUAL INSPECTION OF THE SEWER MAINS
i. PROVIDE A DVD OF ALL SEWER MAIN VISUAL INSPECTION
j. ALL TESTING SHALL BE PROVIDED AND PAID FOR BY THE DEVELOPER
28. CITY HAS THE RIGHT TO INSPECT THE WORK AT ANY TIME DURING CONSTRUCTION. ANY WORK NOT CONFORMING TO THE APPROVED PLANS AND SPECIFICATIONS SHALL BE STOPPED IMMEDIATELY BY THE CITY. THE DEVELOPER SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE BY THE CITY. THIS GUARANTEE SHALL COVER ALL DAMAGE, MATERIALS, LABOR, AND WORKMANSHIP.
29. DEVELOPER SHALL NOTIFY ALL PURCHASERS OF LOTS AND THEIR CONTRACTORS THAT CITY UTILITY SYSTEMS HAVE BEEN ACCEPTED BY THE CITY. ANY DAMAGE TO THESE SYSTEMS DURING HOME CONSTRUCTION SHALL BE BILLED DIRECTLY TO THE OWNER OF RECORD WHEN THE DAMAGE IS FOUND.
31. THE DEVELOPER SHALL PROVIDE RECORD DRAWINGS: ONE (1) SET OF ELECTRONIC DRAWINGS ON CD IN PDF FORMAT, AND TWO (2) 24" X 36" SETS ON WHITE PAPER BEFORE FINAL PLAT OR WITHIN 30 DAYS OF FINAL ACCEPTANCE.

ROADWAY

- 1. ALL CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE CURRENT EDITION OF THE ISPCW AND THE ACHD SUPPLEMENTAL SPECIFICATIONS. NO EXCEPTIONS TO DISTRICT POLICY, STANDARDS, AND THE ISPCW WILL BE ALLOWED UNLESS SPECIFICALLY AND PREVIOUSLY APPROVED IN WRITING BY THE DISTRICT.
2. WHEN DISCREPANCIES OCCUR BETWEEN PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. LATELY NOTIFICATION SHALL NEGATE ANY CONTRACTORS CLAIM FOR ADDITIONAL COMPENSATION.
3. INSPECTION OF WORK WITHIN THE RIGHT-OF-WAYS SHALL BE BY THE ADA COUNTY HIGHWAY DISTRICT AND THE OWNER'S ENGINEER. CONTACT ACHD INSPECTION SERVICES AT 387-8284 TO SCHEDULE INSPECTIONS. 48 HOUR ADVANCED NOTICE IS REQUIRED.
4. ALL TOPS OF VALVE BOXES AND SEWER MANHOLES SHALL BE SET FLUSH WITH THE SLOPE OF THE FINISHED STREET GRADDES. THE ROADWAY CONTRACTOR SHALL INSTALL AND ADJUST ALL SPACERS, GRADE RINGS, MANHOLE RINGS AND LIDS.
5. EXISTING A.C. PAVEMENT SHALL BE CUT TO A NEAT STRAIGHT LINE (2' MINIMUM CUT BACK) PARALLEL OR PERPENDICULAR TO THE STREET CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAWING.
6. ALL COSTS OF RESTORING PREVIOUSLY FAILED TESTS SHALL BE BACKCHARGED TO THE CONTRACTOR BY THE OWNER.
7. ALL COSTS TO THE CONTRACTOR INCURRED IN CORRECTING DEFICIENT WORK SHALL BE TO THE CONTRACTORS ACCOUNT. FAILURE TO CORRECT SUCH WORK WILL BE CAUSE FOR A STOP WORK ORDER AND POSSIBLE TERMINATION.
8. ALL STORM DRAINAGE APPURTENANCES SHALL BE INSPECTED BY ADA COUNTY HIGHWAY DISTRICT.
9. ALL WATER VALVES WILL BE PLACED SO AS NOT TO CONFLICT WITH ANY CONCRETE CURB, GUTTER, VALLEY GUTTER, AND SIDEWALK IMPROVEMENTS.
10. ALL WATER METERS ARE TO BE LOCATED OUTSIDE THE ROAD RIGHT-OF-WAY. ALL FIRE HYDRANTS ARE TO BE LOCATED WITHIN THE ROAD RIGHT-OF-WAY. THERE MUST BE AT LEAST ONE (1) FOOT SEPARATION BETWEEN BACK OF SIDEWALK (OR CURB IF NO SIDEWALK) AND THE LEADING EDGE OF ANY FIRE HYDRANT.
11. OVER EXCAVATION AND ADDITIONAL GRANULAR BACKFILL MAY BE REQUIRED IN HIGH GROUNDWATER AREAS WHICH ARE TO BE DETERMINED BY THE FIELD INSPECTOR.
12. ALL MATERIAL PLACED AS FILL OR BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 306 OF THE CURRENT EDITION OF ADA COUNTY HIGHWAY DISTRICT STANDARD SPECIFICATIONS.
13. ROADWAY CONSTRUCTION WILL MEET SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION STANDARD DRAWINGS: (CURRENT EDITION)
1. STREET SECTION, ACHD SUPPLEMENTAL DRAWING NO. SD-801, AND SECTIONS AS SHOWN ON ROADWAY DETAIL SHEET.
2. ASPHALT REPAIR FOR STREET CUTS, ISPCW DRAWINGS SD-301, ACHD SD-303, ACHD SD-806
3. 4.0' CONCRETE VALLEY GUTTER, ACHD SUPPLEMENTAL DRAWING NO. SD-708
4. VERTICAL AND ROLLED CURB AND GUTTER, ACHD SUPPLEMENTAL DRAWING NO. SD-701 AND SD-702.
5. HANDICAP PEDESTRIAN RAMP, DRAWING NO. SD-712A, SD-712C AND SD-712C.
6. DETECTABLE WARNING TRUNCATED DOMES TO BE CAST INTO THE CONCRETE (ADHESIVE MATS NOT ALLOWED) AND COLORED TRAFFIC YELLOW, DRAWING NO. SD-712.
7. SIDEWALKS, ACHD SUPPLEMENTAL DRAWING NO. SD-708.
8. MONITORING WELLS PER ACHD SD-827.
9. SAND AND GREASE TRAP PER ACHD STORMWATER DESIGN GUIDELINES BMP-01.
10. DRAINAGE POND PER ACHD STORMWATER DESIGN GUIDELINES BMP-02.
15. PRIOR TO PLACEMENT OF ANY PAVEMENT MARKINGS CONTACT ACHD INSPECTION FOR VERIFICATION OF COMPLIANCE WITH POLICY AND EXISTING PAVEMENT MARKINGS.
16. FOR SUBDIVISION SIGN INSTALLATION: OUTSIDE INSTALLERS MUST BE BONDED WITH ACHD AND OBTAIN A NO-CHARGE RIGHT-OF-WAY PERMIT.

PRESSURE IRRIGATION

- 1. FOR PRESSURE IRRIGATION NOTES SEE SHEET 6.1.

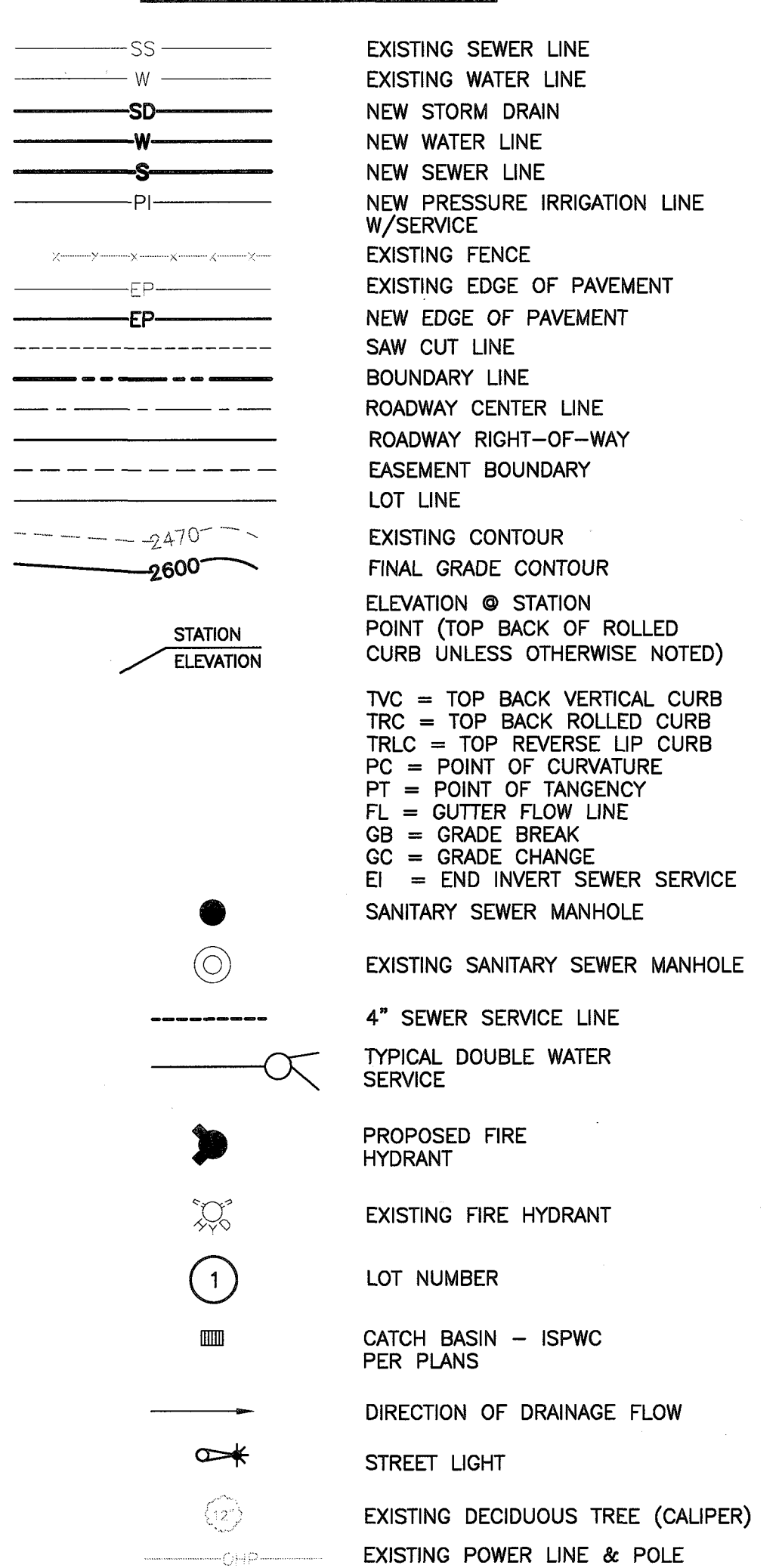
WATER

- 1. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER SERVICE TO ALL EXISTING WATER USERS AFFECTED BY CONSTRUCTION.
2. CONTRACTOR SHALL PREVENT THE ENTRY OF ANIMALS, DIRT AND OTHER FOREIGN MATTER INTO PIPES AND SHALL NOT LEAVE ANY OPEN PIPE AND AT ANY TIME WATER ABSENT FROM WORK SITE.
3. ALL WATER MAIN LINE PIPE SHALL BE PVC CONFORMING TO AWWA C-900 OR 18 (235 PSI) OR CLASS 152 CEMENT MORTAR LINED DUCTILE IRON CONFORMING TO AWWA C-152. ALL FITTINGS SHALL BE DUCTILE IRON CONFORMING TO AWWA C-110.
4. ALL WATER MAIN LINE PIPE AND SERVICES SHALL BE BEDDED WITH TYPE I OR TYPE II BEDDING IN AREAS OF ROCK EXCAVATION, BEDDING SHALL BE SIX (6) INCHES BELOW THE BOTTOM OF PIPE.
5. MINIMUM DEPTH FOR ALL WATER MAIN PIPES SHALL BE FIVE (5) FEET FROM FINISHED GRADE TO TOP OF PIPE.
6. COMPACT TRENCH BACKFILL TO DESK OF ASTM D 881 (MINIMUM).
7. TAPE NO. 12 DIRECT BURIAL TRACER WIRE TO THE CROWN OF WATER MAIN PIPE AND SERVICE LINES. LOOP THE TRACER WIRE FROM THE TRACER WIRE DEPTH FOR ALL WATER MAIN PIPES SHALL BE FIVE (5) FEET FROM FINISHED GRADE TO TOP OF PIPE. THE TRACER WIRE SHALL BE ACCESSIBLE AT ALL VALVE BOXES AND SHALL BE EXTENDED ALONG THE OUTSIDE OF THE LOWER PORTION AND ALONG THE INSIDE OF THE UPPER PORTION OF THE VALVE BOX. WIRE SHALL BE TAPED TO GATE VALVES SO IT IS ACCESSIBLE FROM ABOVE WITHOUT INTERFERING WITH VALVE OPERATION. CONDUCT AN ELECTRICAL CONTINUITY VERIFICATION TEST BEFORE PAWING AND CONFORM TO AWWA C-509. ACCEPTABLE VALVES ARE MULLER MODEL A-2380 AND A-2381 OR CLOW MODEL 2639 AND 2640. OTHER WATER VALVES MUST BE APPROVED BY THE CITY ENGINEER.
9. FURNISH ALL WATER VALVES WITH A STANDARD CAST IRON 5-1/4 INCH DIAMETER 3-PIECE ADJUSTABLE VALVE BOX. THE CAST IRON COVER SHALL BE DESIGN TO SLIP INSIDE THE TOP BEING MARKED WITH THE WORD "WATER" AS AN INTEGRAL PART OF THE COVER. A CONCRETE COLLAR SHALL BE REQUIRED WHEN LOCATED IN PAVEMENT.
10. ALL TEES, PLUGS, BENDS, AND OTHER LOCATIONS WHERE UNBALANCED FORCES EXIST, SHALL BE SECURED AND ANCHORED BY SUITABLE THRUST BLOCKING AS SHOWN ON ISPCW SD-403.
11. SLEEVE WATER SERVICE LINES IN A FOUR (4) INCH DIAMETER SCHEDULE 80 WATER CLASS PIPE WHEREVER THE SERVICE LINE CROSSES A STREET DRAINAGE SEWERAGE BED.
12. OPEN EACH METER SETTER AND VERIFY THAT THE CORPORATION STOP IS OPEN AND THE SERVICE LINE IS OPERABLE BEFORE PAWING.
13. OPERATE EACH VALVE AND FIRE HYDRANT TO ENSURE PROPER FUNCTION BEFORE PAWING. A CITY OF KUNA REPRESENTATIVE SHALL OBSERVE THE TESTING.
14. LEAK-TEST, FLUSH AND DISINFECT ALL WATER MAIN LINES AFTER INSTALLATION OF ALL UTILITIES, BEFORE CONNECTING TO THE DISTRIBUTION SYSTEM, AND BEFORE PAWING. PRESSURE TEST THE DISTRIBUTION SYSTEM PER ISPCW SECTION 401.
15. THE CONTRACTOR SHALL VERIFY THAT THE CITY OF KUNA REPRESENTATIVE SHALL OBSERVE THE SAMPLE EVENT.
16. UTILITIES AFTER ALL UTILITIES ARE INSTALLED AND PRIOR TO PAWING THE CONTRACTOR SHALL PERFORM A FINAL PRESSURE TEST WITH CITY PERSONNEL IN ATTENDANCE. THE CONTRACTOR SHALL FURNISH ALL PERSONNEL AND EQUIPMENT NECESSARY TO CONDUCT THE TEST.
17. DISINFECT AND FLUSH WATER MAINS AND SERVICE LINES WITH CHLORINE. THE DISINFECTANT AND FINAL FLUSHING SHALL BE TESTED TO DETERMINE IF THE APPROPRIATE MINIMUM CHLORINE RESIDUALS HAVE BEEN MET.
18. SAMPLE AND TEST ALL WATER LINES FOR BACTERIAL COLIFORMS. ALL WATER LINES SHALL PASS THE REQUIRED BACTERIOLOGICAL TEST BEFORE BEING PUT INTO SERVICE.
19. CONTRACTOR SHALL PROVIDE BACTERIAL TEST REPORTS FROM A CERTIFIED LABORATORY SHOWING THAT THE WATER LINES HAVE PASSED BACTERIA SAFETY REQUIREMENTS. CITY PERSONNEL SHALL OBSERVE THE SAMPLE EVENT.
19. LOCATE VALVES, FLANGED OR M.J., IN THE STREET UNLESS EXPLICITLY APPROVED BY THE CITY ENGINEER. SET ALL GATE VALVES AS CLOSE (FLANGE CONNECTED) AS POSSIBLE TO WATER MAIN LINE FITTINGS.
20. CONTRACTOR SHALL FIELD VERIFY ALL VALVE BOX LID ELEVATIONS TO ENSURE THAT LID ELEVATIONS MATCH FINAL STREET GRADE, AND ALL METER LID ELEVATIONS MATCH SIDEWALK ELEVATIONS.
21. LOCATE ALL WATER METERS AND FIRE HYDRANTS OUT OF THE ROAD RIGHT-OF-WAY. PROVIDE AT LEAST ONE (1) FOOT SEPARATION BETWEEN BACK OF SIDEWALK (OR CURB IF NO SIDEWALK) AND THE LEADING EDGE OF ANY FIRE HYDRANT.
22. THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING SERVICE CONNECTIONS WITH AN 8 FOOT 2' X 4' BOARD OR METAL POST PAINTED BLUE.
23. PAWING CONTRACTOR SHALL SET WATER VALVE RISERS IN CONCRETE COLLARS PER ISPCW STANDARD DRAWING SD-408.
24. ALL FIRE HYDRANTS SHALL BE DRY BARREL CONFORMING TO AWWA C-502, INSTALLED PER ISPCW SECTION 403 AND ISPCW DWG SD-404. FIRE HYDRANTS SHALL HAVE A FIVE (5) FOOT SETTING MINIMUM, 150 PSI WORKING PRESSURE, ONE 1-1/2 INCH DIAMETER NATIONAL STANDARD FLAME NOZZLE EQUIPPED WITH STOKZ FITTING, AND TWO 1-1/2 INCH DIAMETER NATIONAL STANDARD THREAD FIRE HOSE NOZZLES. THE VALVE OPERATOR SHALL OPEN COUNTER CLOSURE. THE HYDRANT SHALL BE EQUIPPED WITH A DRAIN THAT OPENS WHEN THE HYDRANT IS CLOSED AND A SIX (6) INCH DIAMETER POLYETHYLENE GLYCOL RESILIENT WEDGE GATE VALVE ATTACHED DIRECTLY TO THE WATER MAIN LINE TEE. ALPHA RESTRAINT ALLOWED.
25. FIRE HYDRANTS SHALL BE CLOW MEDALLION, WATEROUS PACER 100, OR MUELLER A423. NO OTHERS WILL BE ACCEPTED. MAXIMUM HYDRANT SPACING SHALL BE 500 FEET. HYDRANT LOCATIONS SHALL BE APPROVED IN WRITING BY THE KUNA RURAL FIRE DEPARTMENT AND SUBMITTED WITH THE CONSTRUCTION PLANS FOR FINAL REVIEW AND APPROVAL BY THE CITY ENGINEER.
26. INSTALL INDIVIDUAL ONE (1)-INCH WATER SERVICES FOR EACH CONNECTION FROM A SINGLE OR DUAL METER VALVE. EXTEND THE ONE (1)-INCH WATER SERVICE TO THE HOUSE CURB OR THE HOUSE CURB AT THE LEAST. THE HOUSE CURB SHALL BE AS REQUIRED TO EXTEND PAST OTHER UTILITIES LOCATED WITHIN THE 10-FOOT UTILITY EASEMENT. DETAILS SHALL BE AS NOTED IN AWWA DWG SD-401.
27. THE CITY OF KUNA SHALL FURNISH ALL WATER MAINS AND SERVICES WITH 18-INCH TALL 1/2-INCH COPPER METER SETTER, CURB STOP, LOCATABLE SHUTOFF VALVE AND CHECK VALVE, 20-INCH DIAMETER BY 36-INCH TALL INSULATED METER BOX AS MANUFACTURED BY MIDDISTATES PLASTICS, INC. WITH 2" X 4" DIMENSIONAL FRAME AND COVER TAPPED WITH A 1-INCH DIAMETER RECESSED HOLE FOR THE CITY AUTOREAD METER SENSOR AS APPROVED BY THE CITY.
28. METER BOXES SHALL BE LOCATED ON THE NORTH OR EAST SIDE OF THE PROPERTY, OR IN CASE OF DUAL WATER SERVICE, ON THE NORTH OR EAST SIDE OF THE COMMON PROPERTY LOT LINE.
30. THE CENTERLINE OF THE METER SETTER SHALL BE LOCATED 18-INCHES BELOW FINISH GRADE. METERS SHALL BE PLACED 18-INCHES INSIDE THE PROPERTY LINE AND 18-INCHES AWAY FROM THE SIDE LOT LINE.
31. MULTIPLE TAPS IN THE SAME PIPE JOINT SHALL BE STAGGERED AND SHALL BE SEPARATED BY A MINIMUM OF ONE AND A HALF (1 1/2) FEET OR AS LISTED IN THE PIPE MANUFACTURERS RECOMMENDATIONS, WHICHEVER IS GREATER.

SEWER

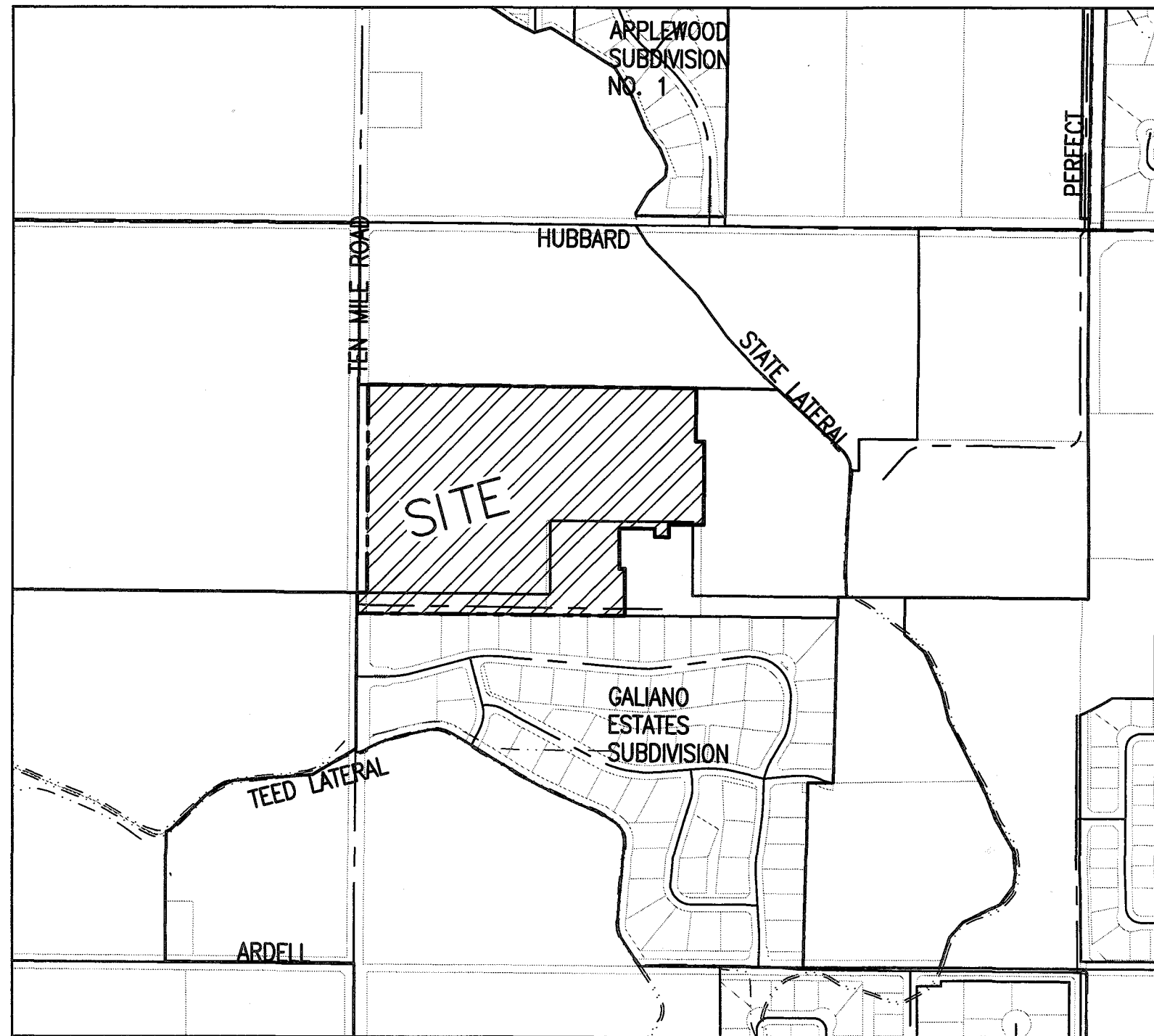
- 1. THE HORIZONTAL SEPARATION OF POTABLE WATER AND SEWER MAINS SHALL BE A MINIMUM OF TEN (10) FEET FROM PIPE EDGE TO PIPE EDGE AS SHOWN IN ISPCW SD 407.
2. GROUNDWATER LEVELS SHALL BE MAINTAINED BELOW THE BOTTOM OF THE TRENCH DURING PIPE LAYING AND JOINING OPERATIONS.
3. TRENCH BACKFILL ABOVE THE PIPE ZONE SHALL BE INSPECTED BY ACHD OR BY THE OWNER'S ENGINEER IN ACCORDANCE WITH THE LATEST EDITION OF THE "CONSTRUCTION QUALITY ASSURANCE MANUAL". COMPACTION TESTS ARE REQUIRED IN THE BACKFILL ABOVE THE PIPE ZONE, WITHIN PUBLIC RIGHT-OF-WAY, ACCORDING TO ACHD REQUIREMENTS. SUBMIT DENSITY TEST RESULTS TO THE CITY OF KUNA AND ACHD BEFORE FINAL ACCEPTANCE.
4. CONTRACTOR SHALL LEAVE THE EXCAVATION FOR THE UPSTREAM END OF ALL SERVICE LINES OPEN TO ALLOW ON SITE VERIFICATION OF THE INVERT ELEVATIONS AND SLOPES BY THE CITY'S INSPECTOR. CONTRACTOR SHALL NOT BACKFILL THE ENDS OF SERVICE LINES UNTIL APPROVED BY THE CITY OF KUNA INSPECTOR OR OTHER ARRANGEMENTS HAVE BEEN MADE FOR THE VERIFICATION OF SERVICE LINE INVERT ELEVATIONS AND SLOPES.
5. CONTRACTOR SHALL INSTALL A REMOVABLE PLUG IN THE DOWN STREAM SIDE OF THE EXISTING MANHOLE WHERE THE NEW CONNECTION WILL BE MADE. THE PLUG SHALL REMAIN IN PLACE UNTIL FINAL ACCEPTANCE OF THE SEWER PROJECT.
6. ALL SEWER PIPE AND FITTINGS 4 INCH THROUGH 15 INCH DIAMETER SHALL BE POLYETHYLENE CHLORIDE (PVC) CONFORMING TO ASTM D-3034. SDR-35, SEWER PIPE AND FITTINGS SIZES 18 INCH THROUGH 36 INCH DIAMETER SHALL BE PVC CONFORMING TO ASTM F 678. PRESSURE SEWER PIPE SHALL CONFORM TO AWWA C900, DR 18 (235 PSI).
7. SEWER SERVICE LINES SHALL BE INSTALLED BEFORE STREET IMPROVEMENTS & SEWER SERVICE MARKERS SHALL BE IN PLACE BEFORE FINAL INSPECTION. CONTRACTOR SHALL NOTIFY THE CITY WHEN SEWER SERVICE STUB OUTS ARE INSTALLED, MARKED & READY FOR INSPECTION.
8. CONTRACT ALL MANHOLES WATER TIGHT. THE TOP OF MANHOLE CONE SHALL BE WITHIN TWELVE (12) INCHES OF FINISHED GRADE. CONTRACTOR SHALL SUPPLY ALL LID ASSEMBLIES AND GRADE RINGS.
9. SEWER CONSTRUCTION SHALL MEET THE SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING STANDARD DRAWINGS AND ACCOMPANYING SPECIFICATIONS FOUND IN "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION" AND ACHD STANDARD DRAWINGS:
1. STANDARD MANHOLE - TYPE A, DRAWING NO. SD-501 AND SD-501A.
2. STANDARD SHALLOW MANHOLE - DRAWING NO. SD-505.
3. MANHOLE COLLAR SET, DRAWING NO. SD-508.
4. MANHOLE COVER AND FRAME - DRAWING NO. SD-507.
5. STANDARD SEWER SERVICE LINE - DRAWING NO. SD-511 & SD-511A.
6. SEWER SERVICE MARKER - DRAWING NO. SD-512.
MANHOLE: APPLY NON-SHRINK GROUT BETWEEN THE METAL FRAME AND GRADE RINGS. GRADE RINGS SHALL NOT BE STACKED WITHOUT NON-SHRINK GROUT OR MORTAR.
11. CONTRACTOR SHALL FIELD VERIFY THE TOP ELEVATION OF MANHOLE CONES TO ASSURE THAT ALL RING ELEVATIONS MATCH FINAL STREET GRADDES.
12. PAWING CONTRACTOR SHALL SET THE GRADE RINGS AND POUR THE CONCRETE COLLARS PER ISPCW DRAWING NO. SD-508. THE PAWING CONTRACTOR SHALL CONTACT ACHD 24 HOURS PRIOR TO POURING CONCRETE COLLARS.
13. EACH GRADE RING IN A BED OF CONCRETE SHALL BE GROUPED TOGETHER, TROWEL SMOOTH WITH THE INSIDE OF THE MANHOLE.
14. PRIOR TO CONNECTING TO THE EXISTING SEWER SYSTEM, WHERE THE CONNECTION IS MADE BETWEEN MANHOLES AND EXISTING SERVICES, ALL SEWER MAINS AND SERVICES MUST BE AIR TESTED.
15. COMPLETE INTEGRITY TESTING, AFTER ALL UTILITIES ARE INSTALLED AND BEFORE PAWING.
16. CONTRACTOR SHALL CONTACT OWNER'S ENGINEER AND THE CITY OF KUNA AT LEAST 24 HOURS BEFORE TESTING. SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH SECTION 402 OF THE ISPCW SPECIFICATIONS. A CITY REPRESENTATIVE MUST OBSERVE THE TESTING. TESTING SHALL INCLUDE AIR PRESSURE TESTING, DEFLECTION TESTING, INVERT ELEVATION SURVEY AND VISUAL INSPECTION USING A CLOSED-CIRCUIT TELEVISION (CCTV) CAMERA. ALL SEWER LINES SHALL BE CLEANED AND CHECKED FOR DEFLECTION BEFORE BEGINNING THE CCTV CAMERA INSPECTION. PROVIDE A COPY (DVD) OF THE VISUAL INSPECTION TO THE CITY OF KUNA FOR QUALITY VERIFICATION. NO SEWER MAINLINE SHALL BE CONSIDERED APPROVED AND ACCEPTED UNTIL THE VISUAL REVIEW IS COMPLETE.
17. SEWER CONSTRUCTION INSPECTIONS WILL BE PERFORMED BY THE OWNER'S ENGINEER OR DESIGNATED REPRESENTATIVE. SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER, IN CONFORMANCE WITH THE APPROVED MASTER PLAN, CONTRACT DRAWINGS, AND ASSOCIATED SPECIFICATIONS.
18. CITY OF KUNA SHALL PROVIDE FINAL APPROVAL AND ACCEPTANCE OF ALL SEWER CONSTRUCTION.

GENERAL LEGEND



DEVELOPMENT PLANS FOR MALASPINA RANCH SUBDIVISION NO. 1

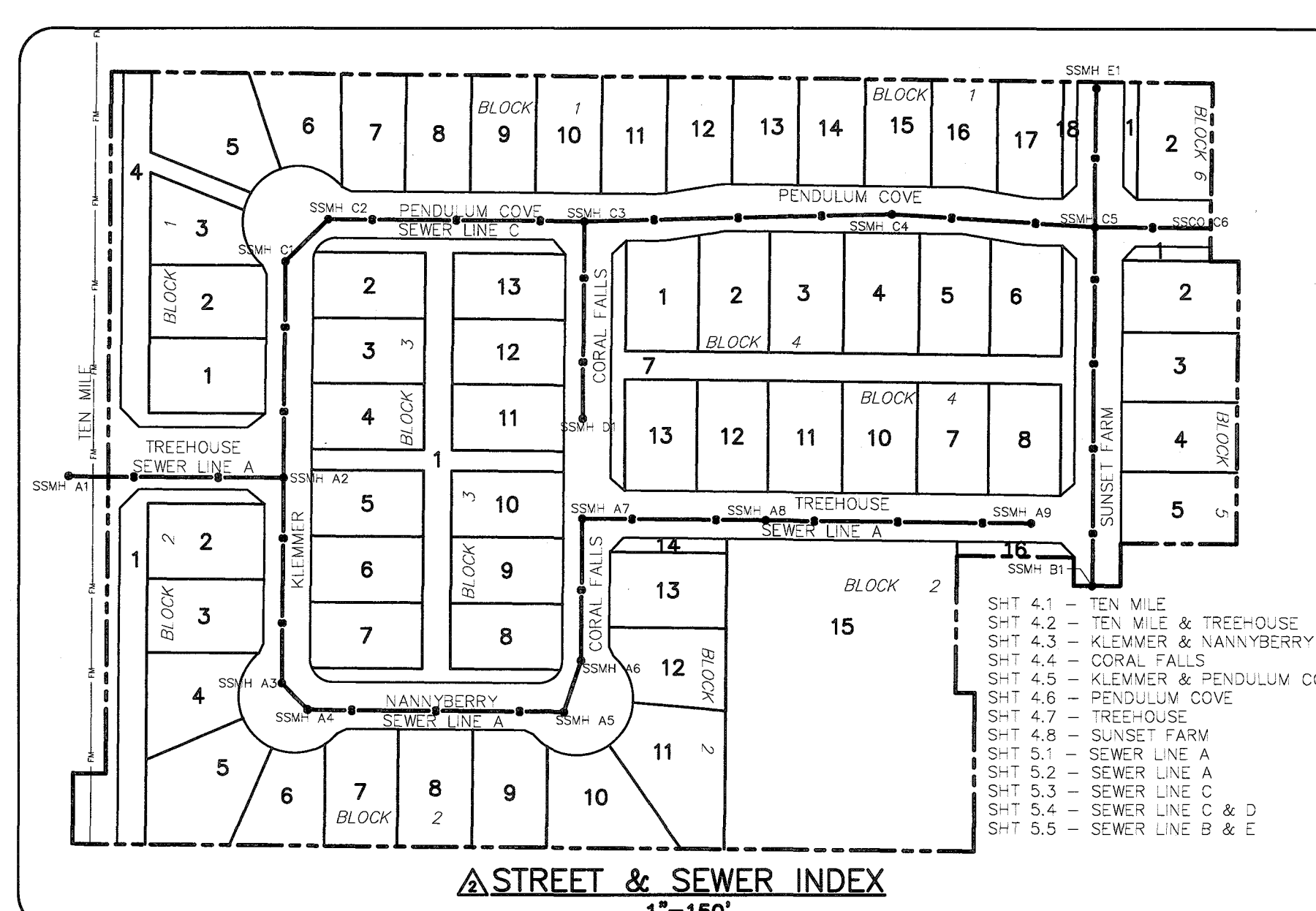
A PORTION OF SECTION 14 TOWNSHIP 2 NORTH, RANGE 1 WEST, B.M. KUNA, ADA COUNTY, IDAHO 2019



VICINITY MAP 1" = 500' NAVD 1988 DATUM

PLAN SHEET INDEX

Table with columns SHEET and DESCRIPTION. Rows include: 1.0 - COVER SHEET, INDEX, VICINITY MAP, & NOTES; 2.1-2.2 - FINAL PLAT; 3.1 - EXISTING SITE & DEMO PLAN; 3.2 - MASTER UTILITY PLAN; 3.3-3.4 - GRADING PLAN & DETAILS; 4.1-4.8 - STREET PLAN & PROFILE; 4.9-4.10 - STREET & DRAINAGE DETAILS; 5.1-5.5 - SEWER & WATER PLAN & PROFILE; 5.6 - WATER DETAILS; 6.1-6.2 - PRESSURE IRRIGATION & DETAILS; 6.3 - STREETLIGHT PLAN & DETAILS.



STREET & SEWER INDEX 1" = 150'

Logo for Bailey Engineering, Inc. with contact information: 4242 N. BROOKSIDE LANE, BOISE, ID 83714. TEL: 208-338-0013. Website: www.baileyengineers.com.

Professional Engineer seal for Kevin S. Craig, No. 17882, State of Idaho, expires 08/30/2020.

Checked by: DAWN A. BAILEY P.E. Drawn by: JBD/BD. Revision table with dates and descriptions.

Vertical text on the right edge: MALASPINA RANCH SUBDIVISION NO. 1 CHALLENGER DEVELOPMENT. COOVER SHEET. DATE: 04-11-2019. PROJECT: C2018-028. SHEET 1.0.

DEVELOPER: JIM CONGER, C/O CHALLENGER DEVELOPMENT INC., 4824 W. FAIRVIEW AVE., BOISE, ID 83706, (208) 336-5355.

THE ENGINEER OF RECORD CERTIFIES THAT THE PLANS ARE PREPARED IN SUBSTANTIAL CONFORMANCE WITH THE ACHD POLICY MANUAL AND STANDARDS IN EFFECT AT THE TIME OF PREPARATION. THE ENGINEER ACKNOWLEDGES THAT ACHD ASSUMES NO LIABILITY FOR ERROR OR DEFICIENCIES IN THE DESIGN. ALL VARIANCES FROM ACHD POLICY SHALL BE APPROVED IN WRITING. THE FOLLOWING VARIANCES, LISTED BY DATE AND SHORT DESCRIPTION, WERE APPROVED FOR THE PROJECT: APPROVED 06/07/2019: REDUCED STORM DRAIN CONVEYANCE PIPE VELOCITIES.

Plans Are Accepted For Public Street Construction

By stamping and signing the improvement plans, the Registered Engineer ensures the District that the plans conform to all District policies and standards. No variances or waivers must be specifically and previously approved by the District in writing. Acceptance of the improvement plans by the District does not relieve the Registered Engineer of these responsibilities. Signed: Greg Karsick, DATE: 9/3/19, ADA COUNTY HIGHWAY DISTRICT.