

GENERAL

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR REQUIREMENTS OF KUNA CITY PUBLIC WORKS DEPARTMENT, THE ADA COUNTY HIGHWAY DISTRICT, AND/OR THE ISPCW (2005 EDITION)
- A PRE CONSTRUCTION CONFERENCE WILL BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF WORK. ALL CONTRACTORS, SUBCONTRACTORS AND/OR UTILITY CONTRACTORS SHOULD BE PRESENT.
- ALL LOT, BLOCK, STREET RIGHT-OF-WAY, AND EASEMENT DIMENSIONS SHALL BE TAKEN FROM THE FINAL PLAT OF KAMIE PLACE SUBDIVISION.
- THE CONTRACTOR(S) SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND, AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THIS SHALL INCLUDE CLEARING AND GRUBBING WHICH CONSISTS OF CLEARING THE GROUND SURFACE OF ALL TREES, STUMPS, BRUSH, UNDERGROWTH, HEDGES, HEAVY GROWTH OF GRASS OR WEEDS, FENCES, STRUCTURES, DEBRIS, RUBBISH, ROCK AND SUCH MATERIAL WHICH, IN THE OPINION OF THE ENGINEER, IS UNSUITABLE FOR THE FOUNDATION OF PAVEMENTS. ALL MATERIAL NOT SUITABLE FOR FUTURE USE ON SITE SHALL BE DISPOSED OF OFF SITE.
- SURVEY CONTROL POINTS WHICH ARE CRITICAL TO THE CONSTRUCTION OF THE PROJECT ARE LOCATED WITHIN THE LIMITS OF WORK. THE CONTRACTOR SHALL TAKE PRECAUTION TO PROTECT THE POINTS IN PLACE.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND FUNCTIONING.
- 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, SAFETY DEVICES AND CONTROL OF TRAFFIC WITHIN AND AROUND THE CONSTRUCTION AREA.
- EXISTING A.C. PAVEMENT SHALL BE CUT TO A NEAT STRAIGHT LINE PARALLEL OR PERPENDICULAR TO THE STREET CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING.
- ALL MATERIALS FURNISHED ON OR FOR THE PROJECT MUST MEET THE MINIMUM REQUIREMENTS OF THE APPROVING AGENCIES OR AS SET FORTH HEREIN, WHICHEVER IS MORE RESTRICTIVE.
- CONTRACTORS MUST FURNISH PROOF THAT ALL MATERIALS INSTALLED ON THIS PROJECT MEET THE REQUIREMENTS OF ITEM #9 AT THE REQUEST OF THE AGENCY AND/OR THE ENGINEER.
- ALL CONTRACTORS WORKING WITHIN THE PUBLIC ROAD RIGHT-OF-WAY ARE REQUIRED TO SECURE A RIGHT-OF-WAY PERMIT FROM ACHD AT LEAST 24 HOURS PRIOR TO ANY CONSTRUCTION.
- ALL COSTS OF RETESTING FOR PREVIOUSLY FAILED TESTS SHALL BE BACKCHARGED TO THE CONTRACTOR BY THE OWNER.
- 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.
- THE CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, IRRIGATION AND SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY NECESSARY NPDES PERMITS, FILING ANY NOI'S, AND PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY. CONTACT THE EPA AT (208) 378-5746 FOR THE REQUIRED INFORMATION. A SHORT TERM ACTIVITY EXEMPTION FOR DEWATERING SHALL BE OBTAINED IN ACCORDANCE WITH DEQ REQUIREMENTS. CONTACT DEQ AT (208) 373-0557. SAID PERMIT SHALL BE PRESENTED TO THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ALL UTILITIES INCLUDING SERVICE LINES WITHIN THE STREET TRAVEL WAYS SHALL BE IN PLACE PRIOR TO CURB, GUTTER, SIDEWALKS AND STREET CONSTRUCTION.
- THE PIPE CONTRACTOR SHALL REPLACE ALL PAVEMENT AND CONCRETE REMOVED FOR THE INSTALLATION OF WATER, SEWER, OR IRRIGATION PIPE. ALL PAVEMENT SHALL BE REPLACED WITHIN SEVEN CALENDAR DAYS FROM THE TIME THE PAVEMENT AND/OR CONCRETE IS REMOVED. CONCRETE AND PAVEMENT SHALL BE REPLACED PER ISPCW STANDARDS.
- NO PAVING SHALL OCCUR UNTIL THE CONTRACTOR OBTAINS WRITTEN APPROVAL OF ALL INSTALLED WATER, SEWER, AND PRESSURE IRRIGATION FACILITIES FROM THE CITY OF KUNA.
- ALL PLANS USED FOR CONSTRUCTION SHALL BEAR THE CITY OF KUNA "APPROVED FOR CONSTRUCTION" STAMP.
- ROCK EXCAVATED ON SITE DURING THE CONSTRUCTION OF ALL UTILITIES, AND STREETS SHALL BE DISPOSED OF OFF SITE.

ROADWAY

- ALL CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE 2005 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.
- WHEN DISCREPANCIES OCCUR BETWEEN PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. UNTIMELY NOTIFICATION SHALL NEGATE ANY CONTRACTORS CLAIM FOR ADDITIONAL COMPENSATION.
- INSPECTION OF WORK WITHIN THE RIGHT-OF-WAYS SHALL BE BY THE ADA COUNTY HIGHWAY DISTRICT AND THE OWNER'S ENGINEER.
- ALL TOPS OF VALVE BOXES AND SEWER MANHOLES SHALL BE SET FLUSH WITH THE SLOPE OF THE FINISHED STREET GRADES. THE ROADWAY CONTRACTOR SHALL INSTALL AND ADJUST ALL SPACERS, GRADE RINGS, MANHOLE RINGS AND LIDS.
- EXISTING A.C. PAVEMENT SHALL BE CUT TO A NEAT STRAIGHT LINE PARALLEL OR PERPENDICULAR TO THE STREET CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING.
- ALL COSTS OF RETESTING FOR PREVIOUSLY FAILED TESTS SHALL BE BACKCHARGED TO THE CONTRACTOR BY THE OWNER.
- 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.
- ALL STORM DRAINAGE APPURTENANCES SHALL BE INSPECTED AND CERTIFIED BY ADA COUNTY HIGHWAY DISTRICT.
- ALL WATER VALVES WILL BE PLACED SO AS NOT TO CONFLICT WITH ANY CONCRETE CURB, GUTTER, VALLEY GUTTER, AND SIDEWALK IMPROVEMENTS.
- ALL WATER METERS AND FIRE HYDRANTS ARE TO BE LOCATED OUT OF THE ROAD RIGHT-OF-WAY. THERE MUST BE AT LEAST A ONE (1) FOOT SEPARATION BETWEEN BACK OF SIDEWALK (OR CURB IF NO SIDEWALK) AND THE LEADING EDGE OF ANY FIRE HYDRANT.
- OVER EXCAVATION AND ADDITIONAL GRANULAR BACKFILL MAY BE REQUIRED IN HIGH GROUNDWATER AREAS WHICH ARE TO BE DETERMINED BY THE FIELD INSPECTOR.
- ALL WORK SHALL BE INSPECTED BY THE ADA COUNTY HIGHWAY DISTRICT OR BY THE OWNERS ENGINEERS IN ACCORDANCE WITH THE LATEST EDITION OF THE "CONSTRUCTION QUALITY ASSURANCE MANUAL."
- ALL MATERIAL PLACED AS FILL OR BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 306 OF THE 2005 EDITION OF ADA COUNTY HIGHWAY DISTRICT STANDARD SPECIFICATIONS.
- ROADWAY CONSTRUCTION WILL MEET SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION STANDARD DRAWINGS: (2005 EDITION)
 - RESIDENTIAL STREET SECTION, DRAWING NO. SD-801, AND SECTIONS AS SHOWN ON ROADWAY DETAIL SHEET.
 - STANDARD 6" VERTICAL CURB & GUTTER, DRAWING NO. SD-701.
 - ROLLED CURB AND GUTTER, DRAWING NO. SD-702.
 - PEDESTRIAN RAMP FOR HANDICAPPED, DRAWING NO. SD-712.
 - SIDEWALKS, DRAWING NO. SD-709.
 - STANDARD DROP INLET TYPE I, DRAWING NO. SD-801.
 - 4.0' CONCRETE VALLEY GUTTER, DRAWING NO. SD-708.

SEWER

- ALL SEWER CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPCW), UNIFORM PLUMBING CODE, AND THE LAWS OF THE STATE OF IDAHO.
- FINAL APPROVAL AND ACCEPTANCE OF ALL SEWER CONSTRUCTION WILL BE BY THE CITY OF KUNA.
- ALL SEWER PIPE AND FITTINGS SHALL BE POLY-VINYL-CHLORIDE (PVC) CONFORMING TO THE PROVISIONS OF ASTM D-3034, SDR-35 FOR SIZES 4-INCH THROUGH 15-INCH; ASTM F-879, SDR 35, T-1 WALL FOR SIZES 18-INCH THROUGH 27-INCH; OR ASTM F-794 T-46 FOR SIZES 18" THROUGH 36".
- SEWER INSPECTIONS WILL BE BY THE OWNER'S ENGINEER AND THEIR DECISIONS SHOULD BE CONSIDERED AS FINAL. SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER.
- STUB OUTS FOR SERVICE LINES SHALL BE MARKED IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE OWNER OR CITY ENGINEER WHEN THIS IS ACCOMPLISHED SO THAT ANY DESTRUCTION OF SAME IS NOT BACKCHARGED TO THE SEWER CONTRACTOR.
- WHEN CONSTRUCTION IS SATISFACTORILY COMPLETED, CLEANED AND TESTED THE DEVELOPER SHALL REQUEST A FINAL ACCEPTANCE INSPECTION BY THE CITY. THE FINAL ACCEPTANCE INSPECTION SHALL OCCUR AFTER ALL OTHER UTILITIES ARE INSTALLED. AT A MINIMUM, THE FINAL ACCEPTANCE INSPECTION SHALL CONSIST OF CLEANING ALL SEWER MAINS, VISUALLY INSPECTING EACH MANHOLE, WITNESSING A FINAL SEWER AIR TEST AND WATER PRESSURE TEST, DEFLECTION TESTING OF THE SEWER MAINS, VISUAL INSPECTION OF THE SEWER MAINS, AND PROVIDING A VHS VIDEO TAPE OF ALL SEWER MAIN VISUAL INSPECTIONS. ALL TESTING IS TO BE PROVIDED AND PAID FOR BY THE DEVELOPER AS PART OF THE SUBDIVISION.
- ALL MANHOLES SHALL BE CONSTRUCTED SO AS TO BE WATER TIGHT AND WITH THE TOP OF CONE LOCATED WITHIN ONE (1) FOOT OF THE FINISHED GRADE. THE SEWER CONTRACTOR SHALL SUPPLY ALL LID ASSEMBLIES AND THE REQUIRED NUMBER OF RISER AND GRADE RINGS. THE SEWER CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF THE TOP OF THE EXISTING AND CONSTRUCTED MANHOLE CONES TO ASSURE THAT ALL RING ELEVATIONS MATCH FINAL STREET GRADES. MANHOLES SHALL HAVE 12 INCH MAXIMUM OF GRADE RINGS. EACH OF THE GRADE RINGS SHALL BE SET IN A BED OF NON-SHRINK GROUT OR MORTAR AND TROWELED SMOOTH WITH THE INSIDE OF THE MANHOLE. THE NON-SHRINK GROUT SHALL ALSO BE APPLIED BETWEEN METAL FRAME AND GRADE RINGS. STACKING OF THE GRADE RINGS AND FRAME WITHOUT NON-SHRINK GROUT OR MORTAR WILL NOT BE ALLOWED.

SEWER (CONT'D)

- THE PAVING CONTRACTOR SHALL SET THE GRADE RINGS AND POUR THE CONCRETE COLLARS PER STANDARD DRAWING NO. SD 508. THE PAVING CONTRACTOR SHALL CONTACT ADA COUNTY HIGHWAY DISTRICT 24 HOURS PRIOR TO POURING CONCRETE COLLARS.
- THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT 48 HOURS PRIOR TO CONSTRUCTION AT 922-3397.
- SEWER STUB OUTS WILL BE TO THE POINTS SHOWN ON THE DRAWINGS OR AS MARKED BY THE ENGINEER IN THE FIELD. SERVICE LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. NO. SD-511A. THOSE SEWER SERVICE STUB OUTS BEGINNING AT A MANHOLE WILL HAVE THE TOP OF THE FOUR INCH SERVICE PIPE MATCH THE TOP OF THE MAINLINE PIPE. THE SEWER SERVICE MARKER SHALL BE IN PLACE FOR THE FINAL INSPECTION.
- THE HORIZONTAL SEPARATION OF THE WATER AND SEWER MAINS SHALL BE A MINIMUM OF TEN (10) FEET.
- GROUNDWATER LEVELS SHALL BE MAINTAINED BELOW THE BOTTOM OF THE TRENCH DURING THE PIPE LAYING AND PIPE JOINING OPERATIONS.
- THE TRENCH BACKFILL ABOVE THE PIPE ZONE WILL BE INSPECTED BY THE ADA COUNTY HIGHWAY DISTRICT 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 ADA COUNTY HIGHWAY DISTRICT REQUIREMENTS AND THE RESULTS SHALL BE SUBMITTED TO KUNA CITY AND ADA COUNTY HIGHWAY DISTRICT PRIOR TO FINAL ACCEPTANCE.
- ALL STATIONING RELATES TO THE GRAVITY SEWER CENTERLINE.
- THE SEWER MAIN SHALL BE TESTED FOR DEFLECTION IN ACCORDANCE WITH THE ISPCW.
- SEWER SERVICE LINES SHALL BE INSTALLED PRIOR TO STREET IMPROVEMENTS.
- KUNA CITY WILL PROVIDE PERIODIC INSPECTIONS FOR AN EIGHT HOUR DAY, FROM 8:00 A.M. TO 5:00 P.M., FOR A FORTY TWO HOUR WEEK. THE CONTRACTOR SHALL REMBURSE THE CITY AT RATES ESTABLISHED BY THE CITY FOR INSPECTION IN EXCESS OF THE NORMAL WORK WEEK, INCLUDING LEGAL HOLIDAYS. OVERTIME INSPECTION RATES AND A LIST OF LEGAL HOLIDAYS CAN BE OBTAINED FROM THE KUNA CITY PUBLIC WORKS DEPARTMENT.
- WHERE IT IS NECESSARY FOR THE SEWER OR NON POTABLE WATER LINE AND WATER LINE TO CROSS EACH OTHER AND THE SEWER OR NON POTABLE LINE IS LESS THAN 18" BELOW OR ABOVE THE WATER MAIN, THE SEWER OR NON POTABLE WATER LINE CROSSING SHALL BE PVC PRESSURE PIPE CONFORMING TO AWMA C-900 (CLASS 160) OR ASTM D2241 (CLASS 250) STANDARDS WITH WATERTIGHT JOINTS, OR EQUAL CONSTRUCTION, FOR A DISTANCE OF 10' ON BOTH SIDES OF THE WATER LINE IN ACCORDANCE WITH IDAPA 58.01.08.550.06.g.1.2.b. ONE FULL LENGTH OF BOTH WATER MAIN AND SEWER OR NON POTABLE WATER LINE SHALL BE CENTERED OVER THE CROSSING POINT SO THAT ALL JOINTS WILL BE AS FAR FROM THE CROSSING AS POSSIBLE. IN LIEU OF CONSTRUCTING OR RECONSTRUCTING THE SEWER OR NON POTABLE WATER LINE TO CONFORM TO WATER MAIN STANDARDS, THE WATER LINE, SEWER LINE OR NON POTABLE WATER LINE OR ALL LINES MAY BE SLEEVED IN WATER CLASS CLASS PIPE A HORIZONTAL DISTANCE OF 10' ON BOTH SIDES OF THE CROSSING.
- SEWER CONSTRUCTION WILL MEET SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND THE ADA COUNTY HIGHWAY DISTRICT STANDARD DRAWINGS:
 - STANDARD MANHOLE - TYPE A, DRAWING NO. SD-501.
 - STANDARD SHALLOW MANHOLE, DRAWING NO. SD-505.
 - MANHOLE COLLAR DETAIL, DRAWING NO. SD-508.
 - MANHOLE COVER & FRAME, DRAWING NO. SD-507.
 - STANDARD SEWER SERVICE LINE, DRAWING NO. SD-511-A.
 - SEWER SERVICE MARKER, DRAWING NO. SD-512.
- THE CONTRACTOR SHALL LEAVE THE EXCAVATION FOR THE UPSTREAM END OF ALL SERVICE LINES OPEN FOR FIELD VERIFICATION OF THE INVERT ELEVATION BY THE CITY'S INSPECTOR. THE CONTRACTOR SHALL NOT BACKFILL THE ENDS OF SERVICE LINES UNTIL THE CONTRACTOR HAS OBTAINED APPROVAL FROM KUNA CITY'S INSPECTOR OR MADE OTHER ARRANGEMENTS FOR THE VERIFICATION OF SERVICE LINE INVERT ELEVATIONS.
- ALL PIPE, MAINS, AND SERVICES SHALL BE BEDDED WITH TYPE 1 BEDDING. IN AREAS OF ROCK EXCAVATION BEDDING SHALL BE SIX (6) INCHES BELOW THE PIPE.
- ALL INSTALLED SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH DIVISION 500 OF THE ISPCW SPECIFICATIONS FOLLOWING INSTALLATION OF ALL UTILITIES AND PRIOR TO PAVING. A REPRESENTATIVE OF THE CITY MUST OBSERVE THE TESTING. TESTING SHALL INCLUDE AIR PRESSURE TESTING, DEFLECTION TESTING, AND VISUAL INSPECTION USING A CLOSED CIRCUIT TELEVISION CAMERA. A COPY OF THE VISUAL INSPECTION TAPE SHALL BE PROVIDED TO THE CITY OF KUNA IN VHS FORMAT PRIOR TO FINAL ACCEPTANCE OF THE SEWER LINE. ALL SEWER LINES SHALL BE CLEANED PRIOR TO THE DEFLECTION TEST AND INTERNAL CAMERA INSPECTION.

WATER

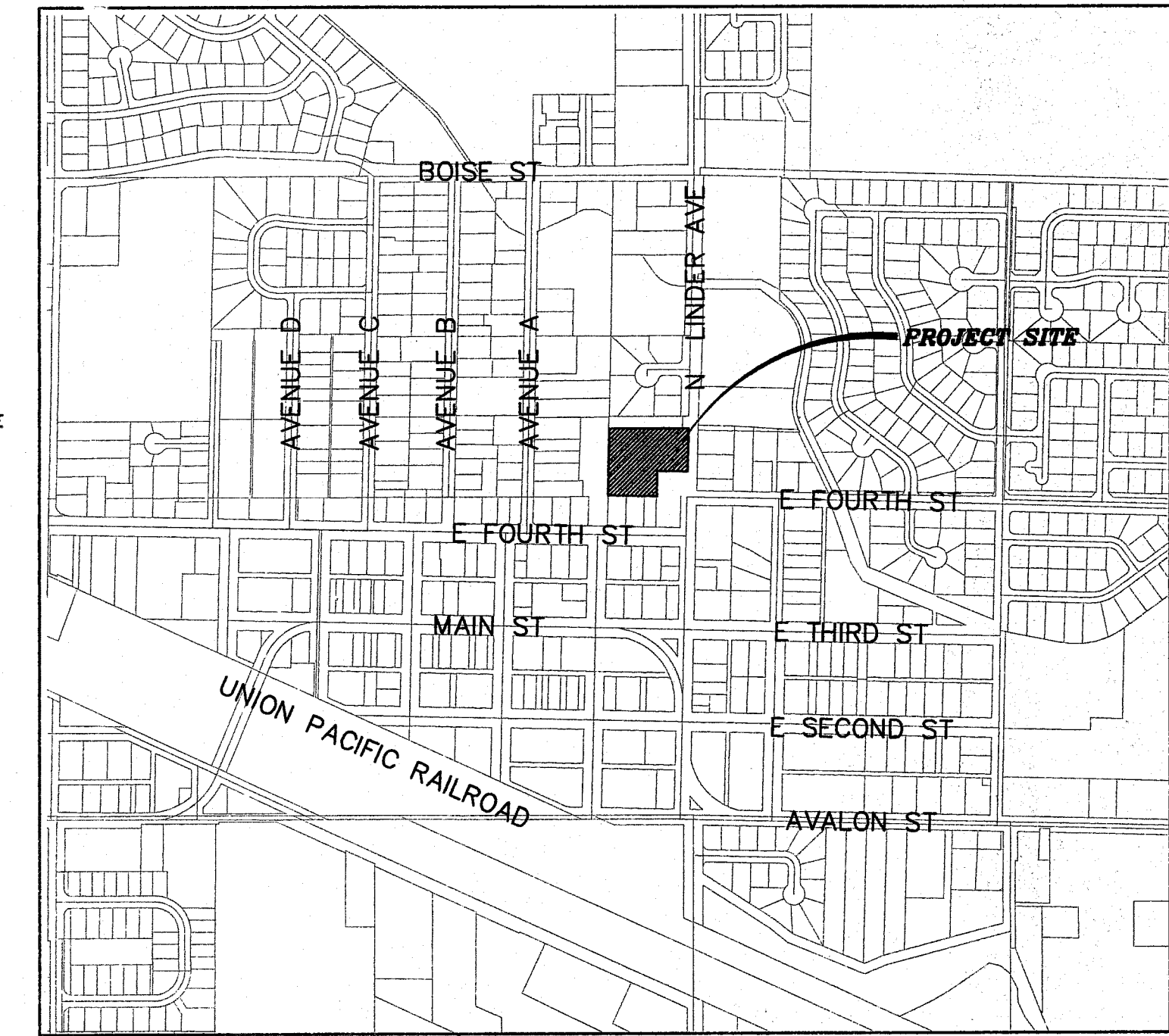
- ALL WATER CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPCW), UNIFORM PLUMBING CODE, AND THE LAWS OF THE STATE OF IDAHO.
- ALL WATER MAINS SHALL BE POLY-VINYL-CHLORIDE (PVC) CONFORMING TO THE PROVISIONS OF AWMA C-900, CLASS 150, SDR 18, OR CLASS 150 GEMENT MORTAR LINED DUCTILE IRON CONFORMING TO AWMA C-104 AND AWMA C-151. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON CONFORMING TO AWMA C-110. ALL PLASTIC PIPE SHALL BE INSTALLED WITH A # 12 DIRECT BURIAL TRACER WIRE PLACED ALONG THE NORTH AND EAST SIDE OF THE MAIN. THE TRACER WIRE SHALL BE ACCESSIBLE AT ALL VALVE BOXES AND SHALL BE EXTENDED ALONG THE OUTSIDE OF THE LOWER PORTION OF THE VALVE BOX AND ALONG THE INSIDE OF THE UPPER PORTION. MINIMUM BURIAL DEPTH FOR ALL WATER MAINS SHALL BE 4- FEET FROM FINISH GRADE TO THE TOP OF PIPE.
- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF FOUR (4) FEET. AFTER INSTALLATION OF THE WATER MAINS, THE TRENCHES SHALL BE COMPACTED TO 95 % OF MAXIMUM DENSITY TO PREVENT FURTHER SETTLEMENT. ALL INSTALLED WATER LINES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH DIVISION 400 OF THE ISPCW SPECIFICATIONS FOLLOWING INSTALLATION OF ALL UTILITIES AND PRIOR TO PAVING. EACH METER SETTER SHALL BE OPENED TO VERIFY THAT THE COPORATION STOP IS OPEN AND THE SERVICE IS FUNCTIONAL PRIOR TO PAVING. A REPRESENTATIVE OF THE CITY MUST OBSERVE THE TESTING. ALL INSTALLED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH DIVISION 400, OF THE ISPCW SPECIFICATIONS AND SATISFACTORILY PASS A BACTERIOLOGICAL TEST CONDUCTED BY THE CITY PRIOR TO BEING PUT INTO SERVICE.
- WHERE IT IS NECESSARY FOR THE NON POTABLE WATER LINE AND WATER LINE TO CROSS EACH OTHER AND THE NON POTABLE LINE IS LESS THAN 18" BELOW OR ABOVE THE WATER MAIN, THE NON POTABLE WATER LINE CROSSING SHALL BE PVC PRESSURE PIPE CONFORMING TO AWMA C-900 (CLASS 160) OR ASTM D2241 (CLASS 250) STANDARDS WITH WATERTIGHT JOINTS, OR EQUAL CONSTRUCTION, FOR A DISTANCE OF 10' ON BOTH SIDES OF THE WATER LINE IN ACCORDANCE WITH IDAPA 58.01.08.550.06.g.1.2.b. ONE FULL LENGTH OF BOTH WATER MAIN AND SEWER OR NON POTABLE WATER LINE SHALL BE CENTERED OVER THE CROSSING POINT SO THAT ALL JOINTS WILL BE AS FAR FROM THE CROSSING AS POSSIBLE. IN LIEU OF CONSTRUCTING OR RECONSTRUCTING THE SEWER OR NON POTABLE WATER LINE TO CONFORM TO WATER MAIN STANDARDS, THE NON POTABLE WATER LINE MAY BE SLEEVED A HORIZONTAL DISTANCE 10' BOTH SIDES OF THE CROSSING. CONSTRUCTION SHALL BE IN CONFORMANCE WITH ISPCW SD-407. NON-POTABLE WATER LINE SEPARATION, THE SEPARATION REQUIREMENTS AS OUTLINED IN DIVISION 405, NON-POTABLE WATER LINE SEPARATION, OF THE ISPCW SPECIFICATIONS SHALL APPLY TO BOTH MAINLINES AND SERVICE LINES. WHERE SEWER MAINS AND SERVICES DO NOT CONFORM TO THE SEPARATION REQUIREMENTS WATER CLASS PIPE IS REQUIRED.
- ALL MAIN LINE WATER VALVES SHALL BE RESILIENT-SEATED GATE VALVES CONFORMING TO AWMA C-509 OR AWMA C-515. ALL WATER VALVES SHALL BE FURNISHED WITH A STANDARD 5-1/4 INCH DIAMETER, TWO PIECE ADJUSTABLE CAST IRON VALVE BOX, TYLER/UNION 6855 SERIES "OR EQUAL". THE CAST IRON COVER SHALL BE MARKED WITH THE WORD "WATER" AS AN INTEGRAL PART OF THE COVER.
- ALL TEES, PLUGS, BENDS, AND OTHER LOCATIONS WHERE UNBALANCED FORCES EXIST SHALL BE SECURED AND ANCHORED BY SUITABLE THRUST BLOCKING AS SHOWN ON SD-403 (ISPCW).
- NO. 12 DIRECT BURIAL WIRE SHALL BE PLACED ALONG THE NORTH AND EAST SIDE OF WATER MAINS AND SERVICE LINES. WIRE SHALL BE TAPED TO GATE VALVES SO IT IS ACCESSIBLE FROM ABOVE BUT DOES NOT INTERFERE WITH VALVE OPERATION.
- (A) THE DISTRIBUTION SYSTEM SHALL BE PRESSURE TESTED TO 150 PSI OR 50 PSI ABOVE MAXIMUM WORKING PRESSURE IN THE AREA, WHICHEVER IS GREATER, OR SECTION 401 OF THE ISPCW TO THE SATISFACTION OF KUNA CITY. (B) PRIOR TO USE OF THE PIPE LINE, IT SHALL BE DISINFECTED ACCORDING TO SECTION 401 (ISPCW) AND THEN FLUSHED. THE DISINFECTION AND FINAL FLUSHING PROCEDURE SHALL BE TESTED TO DETERMINE IF THE APPROPRIATE MINIMUM CHLORINE (CL) RESIDUALS HAVE BEEN EXCEEDED. (C) EACH METER SETTER SHALL BE OPENED TO VERIFY THAT THE COPORATION STOP IS OPEN AND THE SERVICE IS FUNCTIONAL PRIOR TO PAVING.
- THE DEVELOPER IS REQUIRED TO RETAIN A QUALIFIED REGISTERED ENGINEER TO PERFORM INSPECTION SERVICES DURING CONSTRUCTION. THE ENGINEER SHALL FURNISH THE CITY A WRITTEN CERTIFICATION THAT THE PROJECT WAS COMPLETE IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. COPIES OF ALL AIR TEST, PRESSURE TEST, AND BACTERIOLOGICAL TEST RESULTS SHALL BE FURNISHED WITH THE CERTIFICATION LETTER.
- CONTRACTOR TO FIELD VERIFY ALL VALVE BOX LID ELEVATIONS TO ASSURE THAT SAID LID ELEVATIONS MATCH FINAL STREET GRADE, AND ALL METER LID ELEVATIONS TO MATCH AN EXTENSION OF THE SIDEWALK GRADE.
- VALVES FLANGED OR M.J. SHALL BE LOCATED IN THE STREET, ALL GATE VALVES SHALL BE SET AS CLOSE (FLANGE CONNECTED) AS POSSIBLE TO MAIN LINE FITTINGS. ALL WATER METERS AND FIRE HYDRANTS ARE TO BE LOCATED OUT OF THE ROAD RIGHT-OF-WAY. THERE MUST BE AT LEAST A ONE (1) FOOT SEPARATION BETWEEN ANY BACK OF SIDEWALK (OR CURB IF NO SIDEWALK) AND THE LEADING EDGE OF ANY FIRE HYDRANT.
- UPON THE COMPLETION OF WORK, THE CONTRACTOR SHALL SUBMIT A SET OF AS-BUILT PLANS TO KUNA CITY & OWNER'S ENGINEER.

WATER (CONT'D)

- INDIVIDUAL WATER SERVICES SHALL BE INSTALLED FOR EACH CONNECTION. A SINGLE WATER SERVICE CONNECTION SHALL CONSIST OF A PIPE SADDLE WITH 1-INCH COPORATION STOP; 1 INCH CLASS 200, SDR 7.3 POLYETHYLENE PIPE CONFORMING TO AWMA C-901; 18-INCH TALL 3/4-INCH COPPER METER SETTER WITH LOCKABLE SHUTOFF VALE AND CHECK VALVE; AND 18-INCH DIAMETER BY 30-INCH TALL INSULATED METER BOX AS MANUFACTURED BY "MID-STATES PLASTICS, INC.", OR APPROVED EQUAL; AND A CAST IRON FRAME AND COVER TAPPED WITH A 1-INCH DIAMETER HOLE FOR THE CITY AUTORED METER SENSOR; APPROVED BY THE CITY. A DUAL WATER SERVICE CONNECTIONS SHALL CONSIST OF PIPE SADDLE WITH 1-INCH COPORATION STOP; 1-INCH CLASS 200. SDR 7.3 POLYETHYLENE PIPE CONFORMING TO AWMA C-901; A TEE ALLOWING FOR TWO INDIVIDUAL WATER METERS TO BE INSTALLED IN A SINGLE METER BOX; TWO 18-INCH TALL 3/4-INCH COPPER METER SETTERS WITH LOCKABLE SHUTOFF VALVE AND CHECK VALVE; A 20-INCH DIAMETER BY 36-INCH TALL INSULATED METER BOX AS MANUFACTURED BY "RAVEN ROUND METER BOX", OR APPROVED EQUAL; AND A CAST IRON FRAME AND COVER AS MANUFACTURED BY D&L FOUNDRY & SUPPLY MODEL NO. L-2240-11, OR APPROVED EQUAL. THE 1-INCH WATER SERVICE FOR EACH CONNECTION SHALL BE EXTENDED A MINIMUM OF 10 FEET ON THE HOUSE SIDE OF THE METER, OR AS REQUIRED TO EXTEND PAST TO THE OTHER UTILITIES LOCATED IN THE 10-FOOT EASEMENT. WATER METERS SHALL BE FURNISHED AND INSTALLED BY THE CITY.
- THE CONTRACTOR MAY PRESSURE TEST ALL WATER LINES AFTER DISINFECTION AND FLUSHING BUT PRIOR TO INSTALLATION OF OTHER UTILITIES. AFTER ALL UTILITIES ARE INSTALLED AND PRIOR TO PAVING THE CONTRACTOR SHALL PERFORM A FINAL PRESSURE TEST WITH KUNA CITY PERSONNEL IN ATTENDANCE. THE CONTRACTOR SHALL FURNISH ALL PERSONNEL AND EQUIPMENT NECESSARY TO CONDUCT THE TEST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CONTINUOUS WATER SERVICE TO ALL EXISTING WATER USERS AFFECTED BY CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING & MARKING ALL EXISTING SERVICE CONNECTIONS WITH AN 8-FOOT, 2"x4" BOARD, PAINTED BLUE.
- THE CONTRACTOR SHALL FURNISH KUNA CITY WITH REPORTS FROM A CERTIFIED LABORATORY OF THE BACTERIA SAMPLES SHOWING THAT THE WATER LINES HAVE PASSED BACTERIA SAFETY REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY KUNA CITY WHEN LEAVING THE JOB FOR ANY REASON AND BEFORE STARTING TO WORK AGAIN. CONTRACTOR SHALL ALSO DO A FINAL WALK OVER AND INSPECTION OF JOB WITH KUNA CITY WHEN FINISHED WITH THE JOB.
- THE PAVING CONTRACTOR SHALL SET WATER VALVE RISERS IN CONCRETE COLLARS SIMILAR TO ISPCW STANDARD DRAWING. SD-508.
- ALL FIRE HYDRANTS SHALL BE DRY BARREL FIRE HYDRANTS CONFORMING TO AWMA C-502. HYDRANTS SHALL HAVE A FIVE (5) FOOT SETTING; MINIMUM 5-1/4 INCH VALVE OPENING; 150 PSI WORKING PRESSURE; ONE 4-1/2 INCH DIAMETER NATIONAL STANDARD PUMPER NOZZLE; AND TWO 2-1/2 INCH DIAMETER NATIONAL STANDARD THREADED FIRE HOSE NOZZLES. THE VALVE OPERATOR SHALL OPEN LEFT (COUNTER CLOCKWISE). THE HYDRANT SHALL BE EQUIPPED WITH A BREAKABLE TRAFFIC FLANGE; A DRAIN THAT AUTOMATICALLY OPENS WHEN THE HYDRANT IS CLOSED; AND A SIX (6) INCH MECHANICAL JOINT CONNECTION. THE HYDRANT SHALL BE EQUIPPED WITH A SIX (6) INCH FLANGED BY MECHANICAL JOINT RESILIENT-SEAT GATE VALVE WITH CAST IRON VALVE BOX ATTACHED DIRECTLY TO THE MAIN LINE TEE. HYDRANTS SHALL BE INSTALLED SUCH THAT THE BREAKABLE TRAFFIC FLANGE IS SET TWO (2) INCHES MINIMUM, 8-INCHES MAXIMUM ABOVE THE BACK OF THE SIDEWALK OR FINISH GRADE AS APPLICABLE. FIRE HYDRANTS SHALL BE A CLOW MEDALLION HYDRANT, WATEROUS PACER 100 HYDRANT, OR MUELLER A423. NO OTHERS WILL BE ACCEPTED. HYDRANT SPACING SHALL BE 450 FEET. DRAWING LOCATIONS SHALL BE APPROVED IN WRITING BY THE KUNA RURAL FIRE DEPARTMENT. A COPY OF THE PRELIMINARY PLAT SHOWING THE FIRE HYDRANT LOCATIONS WITH THE FIRE DEPARTMENTS APPROVAL SHALL BE SUBMITTED WITH THE CONSTRUCTION PLANS FOR FINAL REVIEW AND APPROVAL BY THE CITY ENGINEER.
- ALL PIPE, MAINS, AND SERVICES SHALL BE BEDDED WITH TYPE 1 BEDDING. IN AREAS OF ROCK EXCAVATION BEDDING SHALL BE SIX (6) INCHES BELOW THE PIPE.
- ALL NEW WATER SYSTEM COMPONENTS MUST BE PRESSURE TESTED, DISINFECTED, FLUSHED AND PASS A BACTERIOLOGICAL TEST PRIOR TO FINAL CONNECTION TO THE EXISTING SYSTEM AT ALL LOCATIONS WHERE THE EXISTING BLOW-OFFS AND ISOLATION VALVES ARE TO BE REMOVED AND RELOCATED, AND ANY OTHER LOCATION WHERE THE EXISTING SYSTEM IS NOT COMPLETELY ISOLATED BY A GATE VALVE.
- IN AREAS WHERE ROCK EXCAVATION IS REQUIRED ALL BLASTING FOR OTHER UTILITIES SHALL OCCUR PRIOR TO INSTALLATION OF ANY SEWER MAINS, WATER MAINS OR SERVICE LINE CROSSING. BLASTING FOR ROCK EXCAVATION IN THE PROXIMITY OF XISTING UTILITIES FROM PREVIOUS PHASES OF THE SUBDIVISION OR NEIGHBORING SUBDIVISIONS MAY BE PERFORMED AS LONG AS IT IS EQUAL DISTANCE HORIZONTAL AS IS THE EXCAVATION DEPTH FROM THE EXISTING UTILITY OR A MINIMUM OF 15 FEET, WHICHEVER IS GREATER. THE CONTRACTOR PERFORMING THE BLASTING SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY EXISTING UTILITIES.
- THE DEVELOPER SHALL SUBMIT A COPY OF THE DESIGN APPROVAL LETTER FROM THE IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY PRIOR TO BEGINNING CONSTRUCTION.

DEVELOPMENT PLANS FOR KAMIE PLACE SUBDIVISION

LOCATED IN THE NE 1/4 OF THE SE 1/4 OF SECTION 23 TOWNSHIP 2 NORTH, RANGE 1 WEST, BOISE MERIDIAN KUNA, ADA COUNTY, IDAHO 8007



NAVD 1988 DATUM VICINITY MAP
1" = 600'

PLAN SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET, INDEX, VICINITY MAP & NOTES
2	FINAL PLAT
3	EROSION AND SEDIMENT CONTROL PLAN
4	GRADING PLAN
5	STREET PLAN & PROFILE
6	DRAINAGE DETAILS
7	WATER & SEWER PLAN & PROFILE (LINE A)
8	PRESSURE IRRIGATION PLAN AND DETAILS
9	GRAVITY IRRIGATION PLAN AND DETAILS
10	MASTER UTILITY PLAN

GENERAL LEGEND

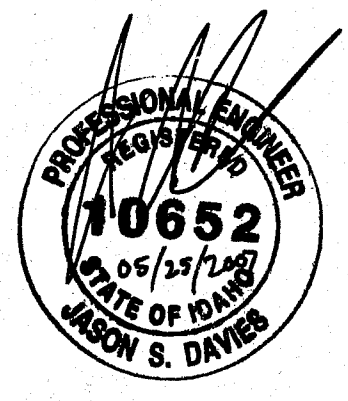
-SS-	EXISTING SEWER LINE	●	SANITARY SEWER MANHOLE
-W-	EXISTING WATER LINE	○	EXISTING SANITARY SEWER MANHOLE
-SD-	NEW STORM DRAIN	○	4" SEWER SERVICE LINE
-W-	NEW WATER LINE	○	PROPOSED FIRE HYDRANT
-S-	NEW SEWER LINE	○	EXISTING FIRE HYDRANT
-PI-	NEW PRESSURE IRRIGATION LINE W/SERVICE	○	NEW SEWER LINE CLEAN OUT
-X-X-X-X-	EXISTING FENCE	○	LOT NUMBER
-EP-	EXISTING EDGE OF PAVEMENT	○	CATCH BASIN - ISPCW SD-601 W/12" SUMP
-EP-	NEW EDGE OF PAVEMENT	○	DIRECTION OF DRAINAGE FLOW
-C.O.	BOUNDARY LINE	○	STREET LIGHT
○	ROADWAY CENTER LINE	○	EXISTING DECIDUOUS TREE (CALIPER)
○	ROADWAY RIGHT-OF-WAY	○	EXISTING POWER LINE & POLE
○	EASEMENT BOUNDARY	○	PEDESTRIAN RAMP PER I.S.P.W.C. SD-712B
○	LOT LINE	○	
○	EXISTING CONTOUR	○	
○	FINAL GRADE CONTOUR	○	
○	ELEVATION @ STATION	○	
○	POINT (TOP BACK OF ROLLED CURB UNLESS OTHERWISE NOTED)	○	
○	TVC = TOP BACK VERTICAL CURB	○	
○	TRLC = TOP REVERSE LIP CURB	○	
○	PC = POINT OF CURVATURE	○	
○	PT = POINT OF TANGENCY	○	
○	FL = GUTTER FLOW LINE	○	

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. Violations or waivers must be specifically and previously approved by the District in writing. Acceptance of the improvement plans by this District does not relieve the Registered Engineer of these responsibilities.

DATE: _____
ADA COUNTY HIGHWAY DISTRICT

RECEIVED
JUL 10 2007
KUNAP & Z

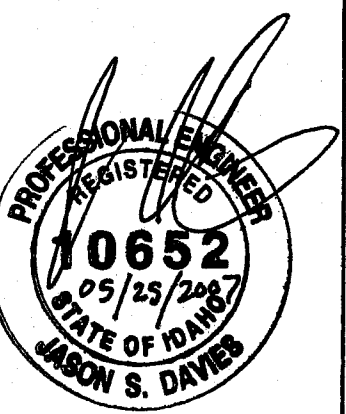
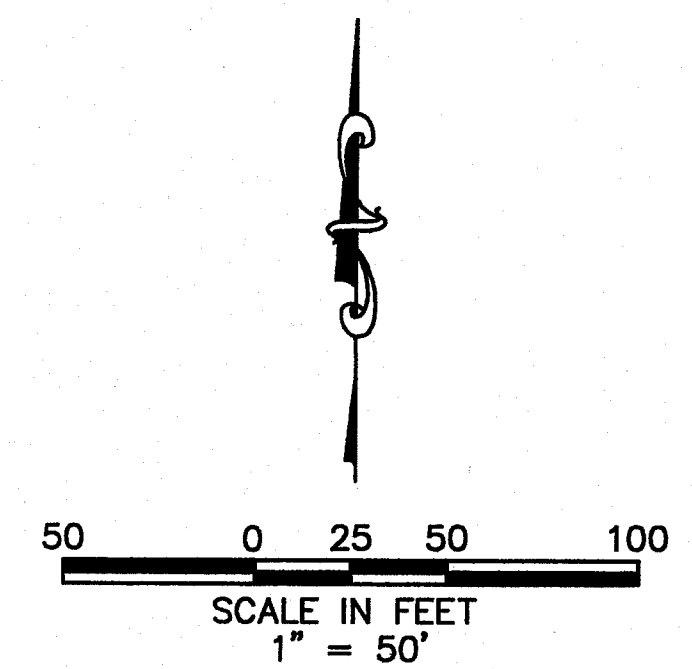
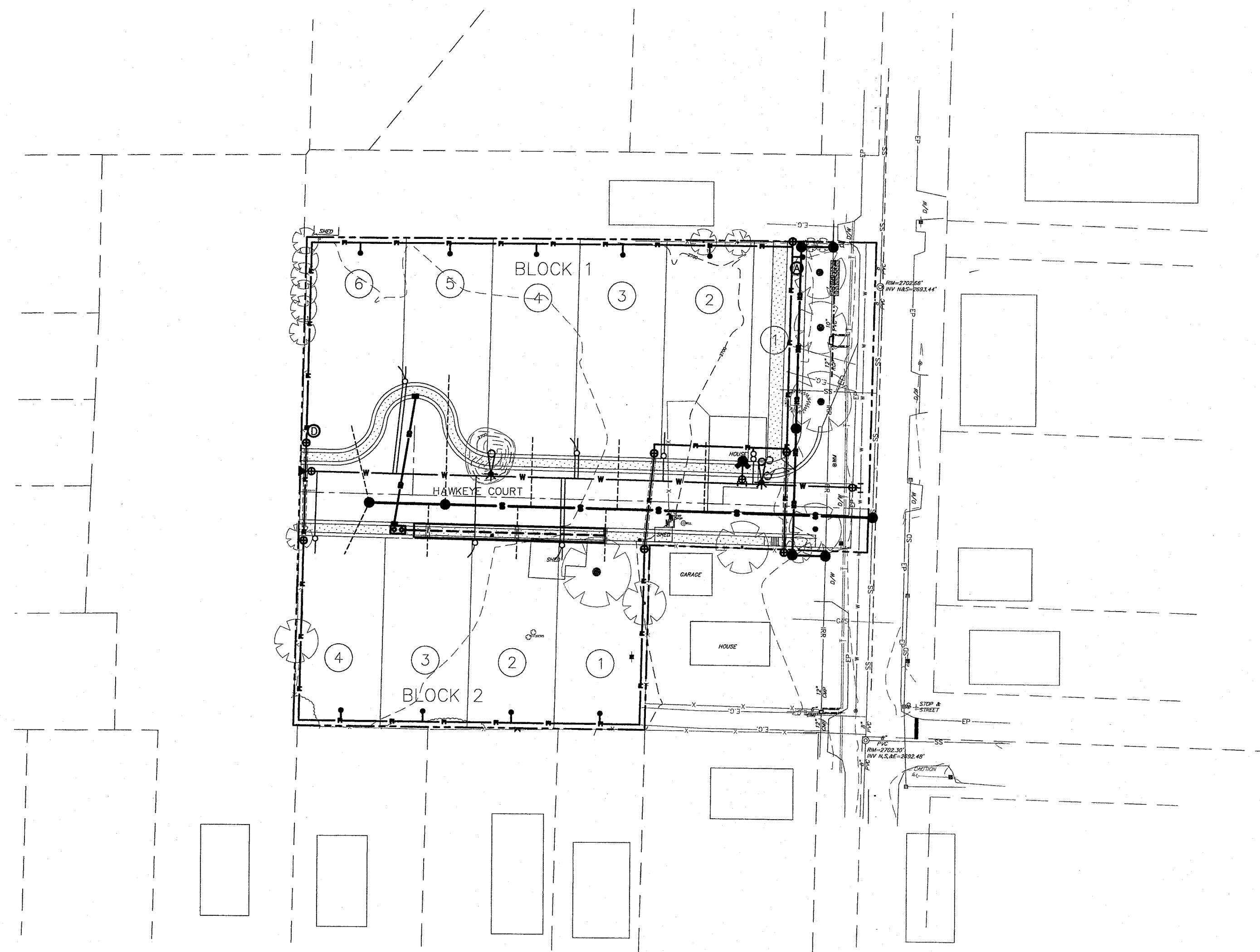


DEVELOPER
B&B DEVELOPMENT, LLC
2604 N COLE ROAD
BOISE, ID 83704
TEL: 208-573-2300

REVISED NO. DATE DESCRIPTION	<p>Bailey Engineering, Inc. CIVIL ENGINEERING PLANNING CADD 1472 E. IRON EAGLE DRIVE EAGLE, ID 83616 TEL 208-938-0013 FAX 208-938-0016</p>			
DRAWN BY: JAA		CHECKED BY: CHAD S. KINKELA P.E.	PROJECT NO. C28079	DATE: 05-25-07
COVER SHEET				
KAMIE PLACE SUBDIVISION				
B&B DEVELOPMENT				

UTILITY LEGEND

SS	EXISTING SEWER LINE
W	EXISTING WATER LINE
SD	NEW STORM DRAIN
W	NEW WATER LINE
S	NEW SEWER LINE
PI	NEW PRESSURE IRRIGATION LINE W/SERVICE
---	BOUNDARY LINE
---	ROADWAY CENTER LINE
---	ROADWAY RIGHT-OF-WAY
---	LOT LINE
●	SANITARY SEWER MANHOLE
⊙	EXISTING SANITARY SEWER MANHOLE
---	4" SEWER SERVICE LINE
---	TYPICAL WATER SERVICE
⊕	PROPOSED FIRE HYDRANT
⊕	EXISTING FIRE HYDRANT
①	LOT NUMBER
⊥	STREET SIGN
⊕	STREET LIGHT ALL STREET LIGHTS ARE 200 WATTS



REVISED NO. DATE DESCRIPTION		<p>Bailey Engineering, Inc. CIVIL ENGINEERING PLANNING CADD 1472 E. IRON EAGLE DRIVE TEL: 208-938-0013 EAGLE, ID 83616 FAX: 208-938-0518</p>
DRAWN BY: HJ CHECKED BY: CHAD S. KINKELA P.E. PROJECT NO. C25079 DATE: 05-25-07		
MASTER UTILITIES PLAN		
KAMIE PLACE SUBDIVISION		
B&B DEVELOPMENT		SHEET 10