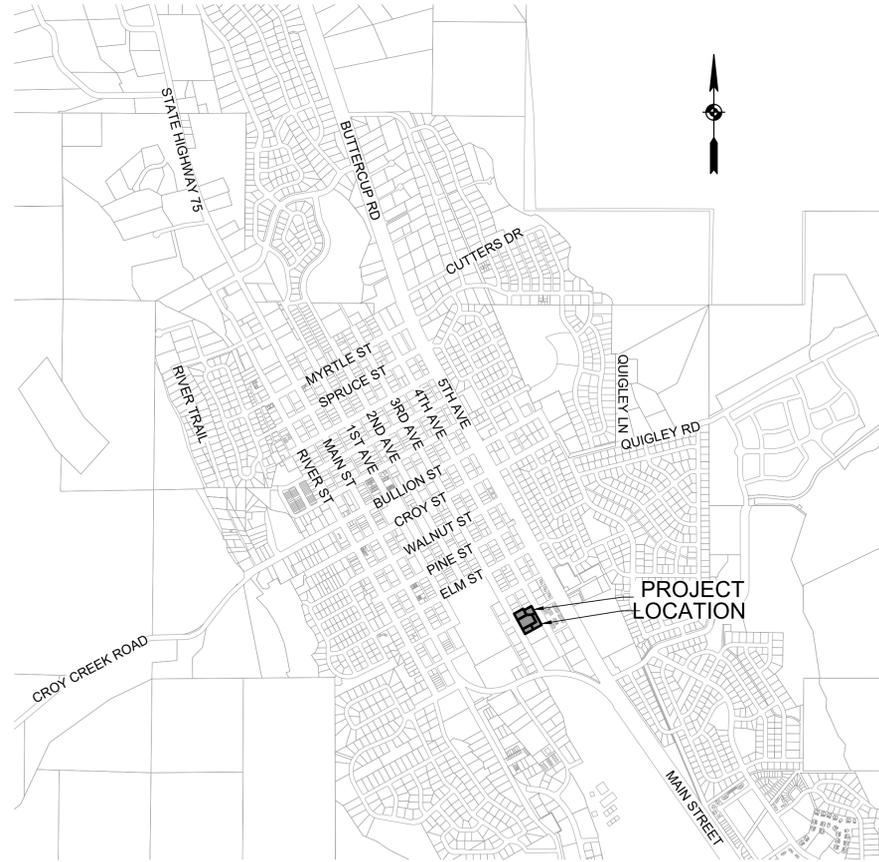


THE INN AT ELLSWORTH ESTATE HAILEY, IDAHO

APRIL 2024

GENERAL CONSTRUCTIONS NOTES

- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION" (ISPCW) AND CITY OF HAILEY STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND KEEPING A COPY OF THE ISPCW AND CITY OF HAILEY STANDARDS ON SITE DURING CONSTRUCTION.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS IN AN APPROXIMATE WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING UTILITIES PRIOR TO COMMENCING AND DURING THE CONSTRUCTION. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULT FROM HIS FAILURE TO ACCURATELY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL CALL DIGLINE (1-800-342-1565) TO LOCATE ALL EXISTING UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.
- CONTRACTOR SHALL COORDINATE RELOCATIONS OF DRY UTILITY FACILITIES (POWER, CABLE, PHONE, TV) WITH THE APPROPRIATE UTILITY FRANCHISE.
- THE CONTRACTOR SHALL CLEAN UP THE SITE AFTER CONSTRUCTION SO THAT IT IS IN A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION (THIS MAY INCLUDE ENCROACHMENT PERMITS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) PERMIT COVERAGE).
- ALL CLEARING & GRUBBING SHALL CONFORM TO ISPCW SECTION 201.
- ALL EXCAVATION & EMBANKMENT SHALL CONFORM TO ISPCW SECTION 202. SUBGRADE SHALL BE EXCAVATED AND SHAPED TO LINE, GRADE, AND CROSS-SECTION SHOWN ON THE PLANS. THE SUBGRADE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-998. THE CONTRACTOR SHALL WATER OR AERATE SUBGRADE AS NECESSARY TO OBTAIN OPTIMUM MOISTURE CONTENT. IN-LIEU OF DENSITY MEASUREMENTS, THE SUBGRADE MAY BE PROOF-ROLLED TO THE APPROVAL OF THE ENGINEER.
- PROOF-ROLLING:** AFTER EXCAVATION TO THE SUBGRADE ELEVATION AND PRIOR TO PLACING COURSE GRAVEL, THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE WITH A 5-TON SMOOTH DRUM ROLLER, LOADED WATER TRUCK, OR LOADED DUMP TRUCK, AS ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF UNSUITABLE SUBGRADE MATERIAL AREAS, AND/OR AREAS NOT CAPABLE OF COMPACTION ACCORDING TO THESE SPECIFICATIONS. UNSUITABLE OR DAMAGED SUBGRADE IS WHEN THE SOIL MOVES, PUMPS AND/OR DISPLACES UNDER ANY TYPE OF PRESSURE INCLUDING FOOT TRAFFIC LOADS.
- IF, IN THE OPINION OF THE ENGINEER, THE CONTRACTOR'S OPERATIONS RESULT IN DAMAGE TO, OR PROTECTION OF, THE SUBGRADE, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR THE DAMAGED SUBGRADE BY OVER-EXCAVATION OF UNSUITABLE MATERIAL TO FIRM SUBSOIL, LINE EXCAVATION WITH GEOTEXTILE FABRIC, AND BACKFILL WITH PIT RUN GRAVEL.
- ALL 2" MINUS GRAVEL SHALL CONFORM TO ISPCW 802, TYPE II (ITD STANDARD 703.04, 2"), SHALL BE PLACED IN CONFORMANCE WITH ISPCW SECTION 801 AND COMPACTED PER SECTION 202. MINIMUM COMPACTION OF PLACED MATERIAL SHALL BE 90% OF MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99.
- ALL 3/4" MINUS CRUSHED GRAVEL SHALL CONFORM TO ISPCW 802, TYPE I (ITD STANDARD 703.04, 3/4" B), SHALL BE PLACED IN CONFORMANCE WITH ISPCW SECTION 802 AND COMPACTED PER SECTION 202. MINIMUM COMPACTION OF PLACED MATERIAL SHALL BE 95% OF MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99 OR ITD T-91.
- ALL ASPHALTIC CONCRETE PAVEMENT WORK SHALL CONFORM TO ISPCW SECTION(S) 805, 810, AND 811 FOR CLASS II PAVEMENT. ASPHALT AGGREGATE SHALL BE 1/2" (13MM) NOMINAL SIZE CONFORMING TO TABLE 803B IN ISPCW SECTION 803. ASPHALT BINDER SHALL BE PG 58-26 CONFORMING TO TABLE A-1 IN ISPCW SECTION 805.
- ALL EDGES OF EXISTING ASPHALT PAVING SHALL BE SAW CUT 24" TO PROVIDE A CLEAN PAVEMENT EDGE FOR MATCHING. NO WHEEL CUTTING SHALL BE ALLOWED. PRIOR TO REPLACING ASPHALT, THE UNDERLYING SURFACE INCLUDING VERTICAL SAWCUT JOINTS SHALL BE CLEANED OF ALL DEBRIS AND A TACK COAT SHALL BE APPLIED TO ALL CURBS, SAWCUTS, OR OVERLAY SURFACES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL PER THE CURRENT EDITION OF THE US DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL CONCRETE WORK SHALL CONFORM TO ISPCW SECTIONS 701, 703, AND 705 AND CITY OF HAILEY STANDARD DRAWINGS. ALL CONCRETE SHALL BE 4,000 PSI MINIMUM, 28 DAY, AS DEFINED IN ISPCW SECTION 703, TABLE 1 WITH A MINIMUM OF 1.5 LBS/CY FIBER REINFORCEMENT. IMMEDIATELY AFTER PLACEMENT PROTECT CONCRETE BY APPLYING MEMBRANE-FORMING CURING COMPOUND, TYPE 2, CLASS A PER ASTM C 309-94. APPLY CURING COMPOUND PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS. CONTRACTOR SHALL PROVIDE MIX DESIGN, CURING AND PROTECTION PLAN (ISPCW 703.3.5), AND POST FOUR CURE SEALING COMPOUND TYPE AND APPLICATION PLAN TO CITY OF HAILEY PRIOR TO INSPECTIONS.
- ALL TRENCHING SHALL CONFORM TO ISPCW STANDARD DRAWING SD-301 AND CITY OF HAILEY STANDARD DRAWING 18.14.010.A.1. TRENCHES SHALL BE BACKFILLED AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
- PER IDAHO CODE § 55-1613, THE CONTRACTOR SHALL RETAIN AND PROTECT ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS THAT ARE LOST OR DISTURBED BY CONSTRUCTION SHALL BE REESTABLISHED AND RE-MONUMENTED, AT THE EXPENSE OF THE AGENCY OR PERSON CAUSING THEIR LOSS OR DISTURBANCE AT THEIR ORIGINAL LOCATION OR BY SETTING OF A WITNESS CORNER OR REFERENCE POINT OR A REPLACEMENT BENCHMARK OR CONTROL POINT, BY OR UNDER THE DIRECTION OF A PROFESSIONAL LAND SURVEYOR.
- EXISTING CONDITIONS AND BOUNDARY INFORMATION SHOWN HEREON ARE PER A SURVEY CONDUCTED BY GALENA-BENCHMARK ENGINEERING, RECEIVED ON APRIL 11, 2024.

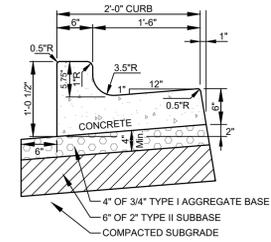


VICINITY MAP
N.T.S.

SHEET INDEX

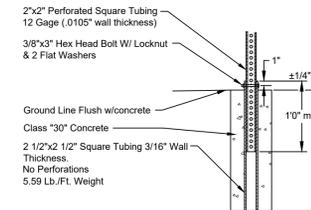
| SHEET# | DESCRIPTION |
|--------|---|
| C0.1 | COVER SHEET AND DETAIL |
| C0.2 | DETAIL SHEET |
| C0.3 | DETAIL SHEET |
| C0.4 | DETAIL SHEET |
| C1.0 | PHASE 1 DEMOLITION PLAN |
| C1.2 | PHASE 1 CONCEPTUAL SITE AND UTILITY PLAN |
| C2.0 | MASTERPLAN DEMOLITION PLAN |
| C2.1 | MASTERPLAN CONCEPTUAL SITE AND UTILITY PLAN |

CIVIL ENGINEER
SAMANTHA STAHLNECKER, PE
OPAL ENGINEERING, PLLC
416 S. MAIN STREET SUITE 204
PO BOX 2530
HAILEY, IDAHO 83333



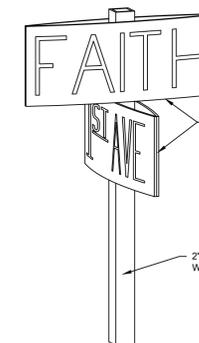
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
 - 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.
 - CONTINUOUS PLACEMENT PREFERRED. SCORE INTERVALS 10-FOOT MAXIMUM SPACING (8-FOOT W/SIDEWALK).
 - CURB AND GUTTER CONSTRUCTION SHALL CONFORM TO ISPCW DRAWING SD-701.

5
C0.1
6" CONCRETE VERTICAL CURB & GUTTER
N.T.S.



SIGN POST INSTALLATION DETAIL WITH ONE PIECE ANCHOR POST FOR USE IN CONCRETE SIDEWALKS
N.T.S.

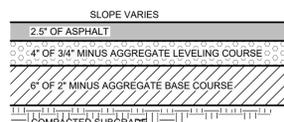
- NOTES:
- Anchor sleeves shall be installed so that the holes will align and the top be flush with the sign post anchor.
 - All installations shall have 8" square concrete foundations or grouted into solid rock.



ROAD SIGN DETAIL
N.T.S.

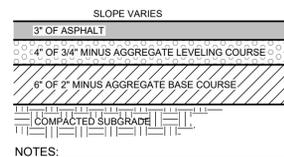
- NOTES:
- All Street Signs shall be in accordance with the most current edition of the MUTCD.
 - Sign placement shall be approved by the City of Hailey.

4
C0.1
CITY OF HAILEY STREET SIGN DETAIL (18.14.014.D)
N.T.S.



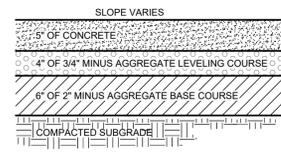
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.

1
C0.1
TYPICAL PARKING LOT ASPHALT SECTION
N.T.S.



- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
 - CURBED STREET SECTION CONSTRUCTION SHALL CONFORM TO CITY OF HAILEY STANDARD DRAWING 18.14.012.F.1.

2
C0.1
TYPICAL ASPHALT SECTION
N.T.S.



- NOTES:
- INSTALL SCORE JOINTS AT INTERVALS TO MATCH WIDTH OF WALK NOT TO EXCEED 5 FEET SPACING IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTION FOR SIDEWALK GREATER THAN 5 FEET IN WIDTH. INSTALL EXPANSION JOINTS EVERY 10 FEET IN LONGITUDINAL DIRECTION.
 - 1/2" TRANSVERSE PREFORMED BITUMINOUS JOINTS AT THE TERMINUS POINTS FOR CURVE AND WHERE SIDEWALK IS PLACED BETWEEN TWO PERMANENT FOUNDATIONS OR ADJACENT TO THE STRUCTURE. PLACE 3/8" EXPANSION JOINT MATERIAL ALONG THE BACK OF WALK THE FULL LENGTH.
 - SIDEWALK CONSTRUCTION JOINTS SHALL BE CONSTRUCTED APPROXIMATELY 3/8" WIDE, 3/4" IN DEPTH AND FINISHED AND EDGED SMOOTH. A PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED EVERY 40' FOR NEW SIDEWALK CONSTRUCTION.
 - WHEN TRANSITIONING NEW SIDEWALK TO EXISTING, A MINIMUM 5' TRANSITIONAL PANEL SHALL BE SEPARATED AND ISOLATED WITH EXPANSION MATERIAL.
 - SIDEWALK ALIGNMENT TRANSITIONS SHALL HAVE A MINIMUM RADIUS OF 30' TO THE FACE OF CURB.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - CONCRETE THICKNESS PER THIS DETAIL OR MATCH EXISTING, WHICHEVER IS GREATER.

3
C0.1
TYPICAL CONCRETE SECTION
N.T.S.



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PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

REVISION NO. DATE DESCRIPTION

PRELIMINARY
NOT FOR
CONSTRUCTION

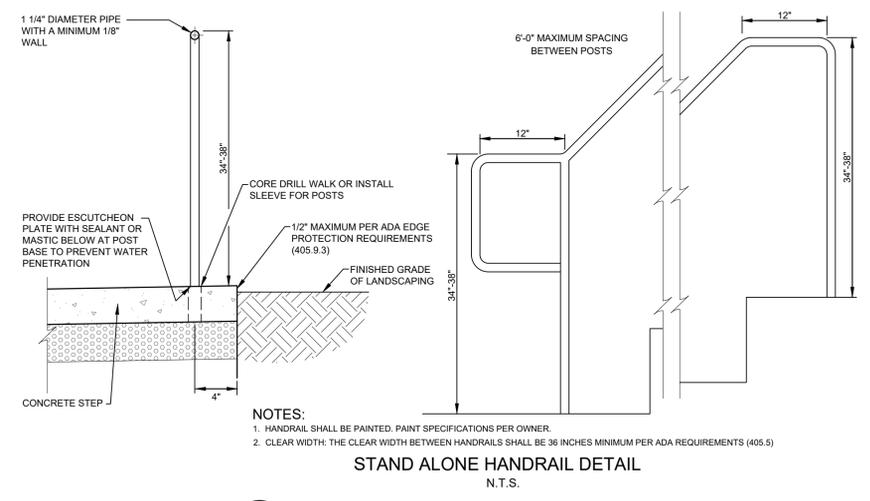
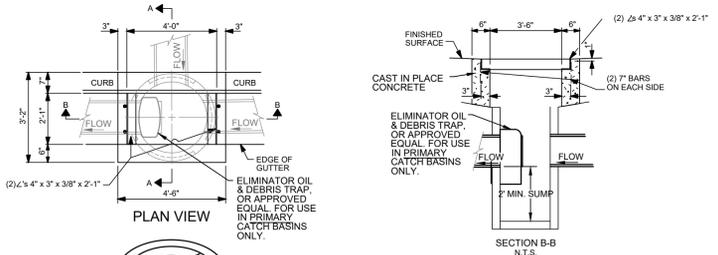
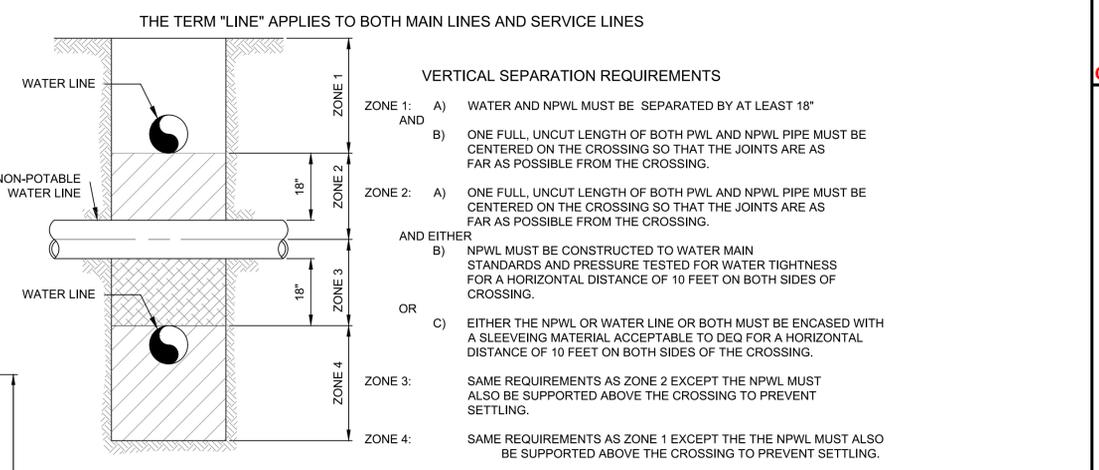
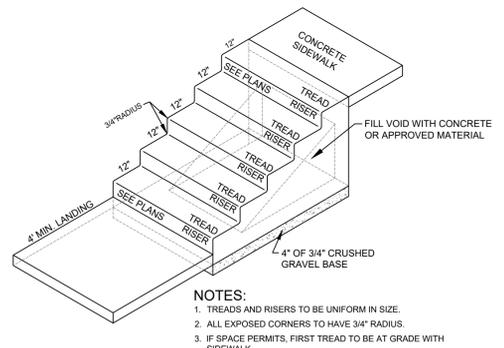
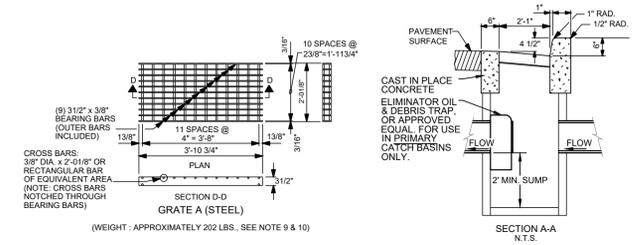
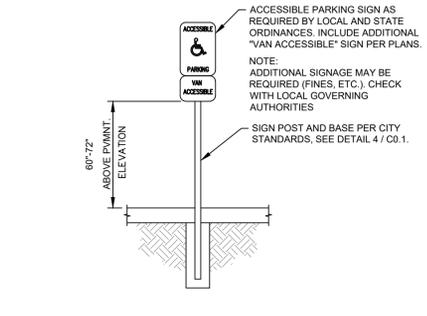
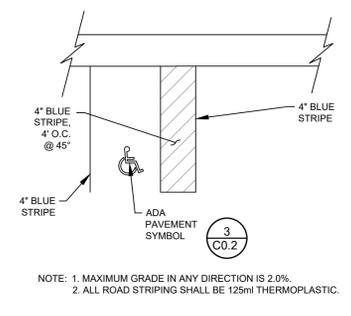
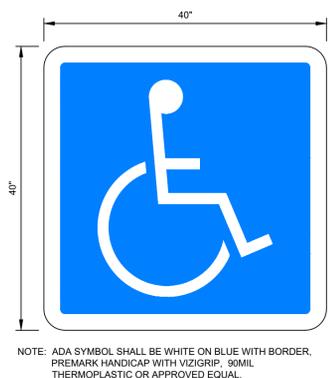
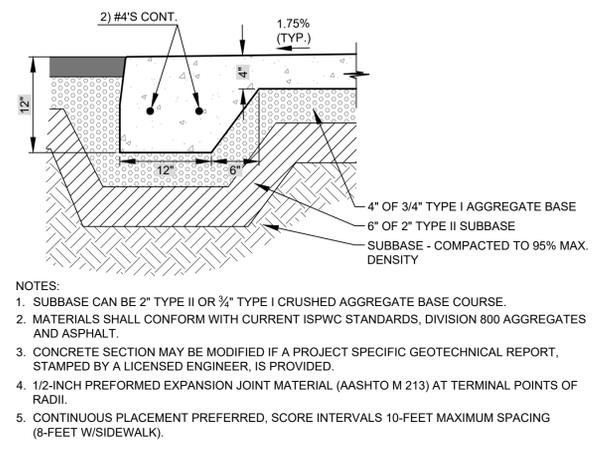
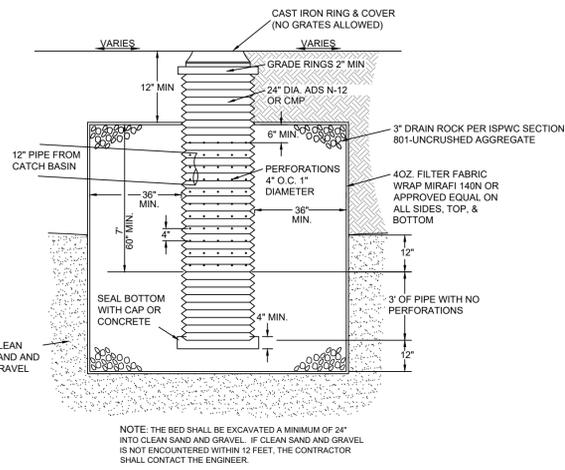
COVER SHEET AND DETAILS

THE INN AT ELLSWORTH ESTATE
PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.

23018
PROJECT NUMBER

C0.1

REUSE OF DRAWINGS: These drawings, or any portion thereof, shall not be used on any project or extensions of this project except by agreement in writing with Opal Engineering, PLLC.



CATCH BASIN INSTALLATION NOTES:

- A PRIMARY CATCH BASIN IS DEFINED AS THE FIRST STORM STRUCTURE UPSTREAM OF A DRYWELL. A SATELLITE CATCH BASIN IS DEFINED AS THE STORM STRUCTURE UPSTREAM OF THE PRIMARY CATCH BASIN.
- THE OIL & DEBRIS TRAP SHALL BE INSTALLED ON THE OUTLET OF THE PRIMARY CATCH BASIN ONLY, NOT ON SATELLITE CATCH BASINS.
- A 1" SIDE DRAFT IS ALLOWED FOR FORM REMOVAL.
- PLACE A MINIMUM OF 4" OF COMPACTED BEDDING ON PREPARED SUBGRADE AS SPECIFIED IN ISWPC SECTION 305 - PIPE BEDDING. EXTEND BEDDING EITHER TO THE LIMITS OF THE EXCAVATION OR AT LEAST 12" OUTSIDE THE LIMITS OF THE BASE SECTION.
- FILL THE BALANCE OF THE EXCAVATED AREA WITH SELECT MATERIAL COMPACTED LEVEL TO THE TOP OF THE BEDDING.
- PROVIDE A SMOOTH AND LEVEL BEARING SURFACE ON THE BEDDING SURFACE.
- STEEL ANGLES SHALL BE SET SO THAT EACH BEARING BAR OF PREFABRICATED GRATE SHALL HAVE FULL BEARING ON BOTH ENDS. THE FINISHED TOP OF CONCRETE SHALL BE EVEN WITH THE ANGLEGRATE SURFACE. THE STRUCTURAL STEEL NEED NOT BE PAINTED BUT SHALL MEET THE REQUIREMENTS OF ASTM A36.
- ALL METAL REINFORCEMENT USED SHALL BE NO. 4 BARS. THE METAL REINFORCEMENT SHALL BE SMOOTH CUT TO ACCOMMODATE PIPES.
- INLET/CATCH BASIN GRATES MAY EITHER BE RESISTANCE WELDED OR ARC WELDED. IN EITHER CASE, THE GRATE SHALL BE TRUE AND FLUSH.

THE TERM "LINE" APPLIES TO BOTH MAIN LINES AND SERVICE LINES

VERTICAL SEPARATION REQUIREMENTS

ZONE 1: A) WATER AND NPWL MUST BE SEPARATED BY AT LEAST 18" AND B) ONE FULL, UNCUT LENGTH OF BOTH PWL AND NPWL PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE CROSSING.

ZONE 2: A) ONE FULL, UNCUT LENGTH OF BOTH PWL AND NPWL PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE CROSSING. AND EITHER B) NPWL MUST BE CONSTRUCTED TO WATER MAIN STANDARDS AND PRESSURE TESTED FOR WATER TIGHTNESS FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF CROSSING.

OR

ZONE 3: SAME REQUIREMENTS AS ZONE 2 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.

ZONE 4: SAME REQUIREMENTS AS ZONE 1 EXCEPT THE THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.

HORIZONTAL SEPARATION REQUIREMENTS

ZONE 1: A) NO SPECIAL REQUIREMENTS.

ZONE 2: A) NO SPECIAL REQUIREMENTS FOR POTABLE OR NON-POTABLE SERVICES AND B) WATER AND NPWL SEPARATED BY AT LEAST 6 FEET AT OUTSIDE WALLS. AND C) WATER AT LEAST 18 INCHES HIGHER IN ELEVATION THAN THE NPWL. AND EITHER D) NPWL CONSTRUCTED TO POTABLE WATER MAIN STANDARDS AND PRESSURE TESTED FOR WATER TIGHTNESS. OR E) SITE SPECIFIC REQUIREMENTS APPROVED BY DEQ.

ZONE 3: NOT ALLOWED WITHOUT DEQ WAIVER.

NOTE: SANITARY SEWER FORCE MAINS MUST HAVE MIN. 10' HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION. ZONE 2 AND ZONE 3 PLACEMENTS ARE NOT ALLOWED WITHOUT A WAIVER GRANTED BY DEQ.

* DISTANCES ARE HORIZONTAL

opai

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PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

| REVISION NO. | DATE | DESCRIPTION |
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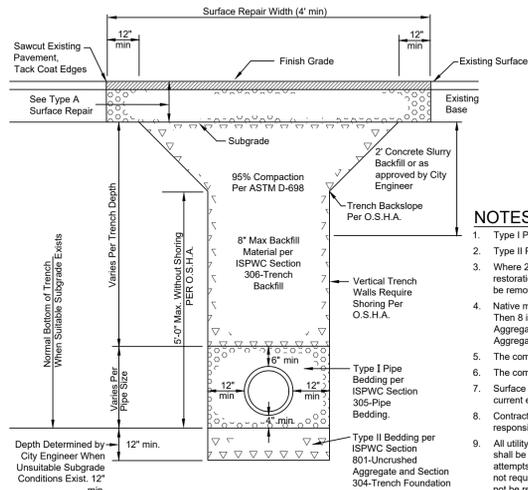
DETAILS SHEET

THE INN AT ELLSWORTH ESTATE
PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.

23018
PROJECT NUMBER

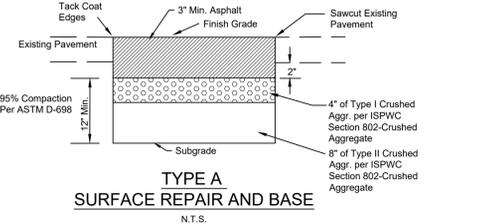
C0.2

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EXISTING STREET TYPICAL TRENCH SECTION
N.T.S.

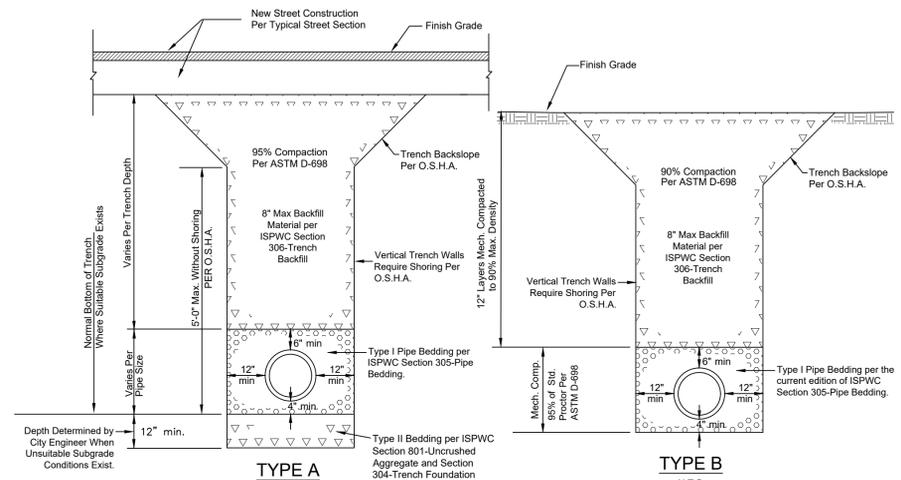
1 TRENCH AND SURFACE REPAIR DETAIL (18.14.010.A.1)
N.T.S.



TYPE A SURFACE REPAIR AND BASE
N.T.S.

NOTES

- Type I Pipe Bedding material shall meet the requirements of the current edition of the ISPCW Standards-Section 305-Pipe Bedding.
- Type II Pipe Bedding material shall meet the requirements of the current edition of the ISPCW Standards-Section 305-Pipe Bedding.
- Where 25% or more of any portion of the surface area of any pavement has been damaged within the project limits, full width restoration shall be required. Any strip of remaining pavement less than 2 feet in width along curb and gutter or pavement edge shall be removed and replaced.
- Native materials may be used for backfill unless, in the sole opinion of the City Engineer, the native material is found to be unstable. Then 8 inch minus aggregate, which meets the requirements of the current edition of the ISPCW Standards-Section 801-Uncrushed Aggregate or crushed aggregate, which meets the requirements of the current edition of the ISPCW Standards-Section 802-Crushed Aggregate, will be required as backfill.
- The completed patch shall not deviate from existing surface more than .02 ft/10 ft in any direction.
- The completed patch shall not pond water in excess of .02 feet in depth.
- Surface repair in gravel shoulder areas within 3 feet of pavement edge shall be 3 inch depth of Type I crushed aggregate per the current edition of the ISPCW Standards-Section 802-Crushed Aggregate.
- Contractor shall be responsible for maintenance of street repair for one year after installation. PUC regulated utilities shall be responsible for a period of three years.
- All utility crossings, including but not limited to power, telephone, cable TV, gas, and water services, which cross existing paved roads shall be constructed by horizontal boring. Open cuts across paved roadways will only be allowed after a minimum of three failed attempts with approved boring tools. When utility mains are located under existing pavement, open cuts will be allowed and boring is not required. If in the judgment of the City Engineer, boring may be detrimental to the health, safety, or welfare of the public, boring will not be required and trenching will be allowed. A six foot trench, two feet deeper than the proposed utility shall be excavated adjacent to the edge of pavement for evaluation of soil conditions by the City Engineer to determine if boring shall be attempted or if trenching will be allowed.
- All trenches shall be repaved within 72 hours of starting the work unless prior approval to delay repaving has been provided by the City Engineer.
- Concrete Slurry Mix Design
Coarse Aggregate (3/8" minus) 2,600 lbs
Sand 800 lbs
Cement 94 lbs (max)
Water 11 gals (max)

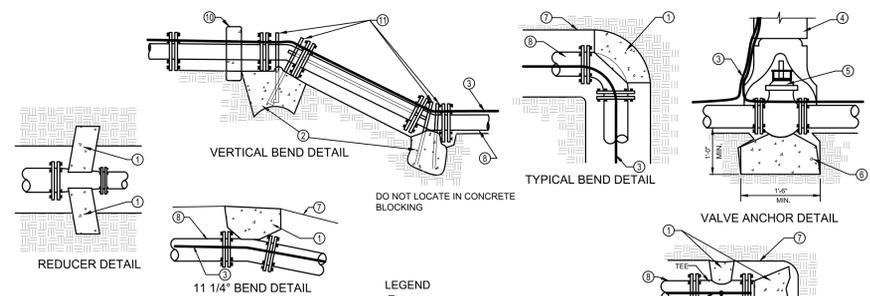


TYPICAL TRENCH SECTIONS
N.T.S.

NOTES

- Type I Pipe Bedding material shall meet the requirements of the current edition of the ISPCW Standards-Section 305-Pipe Bedding.
- Type II Pipe Bedding material shall meet the requirements of the current edition of the ISPCW Standards-Section 305-Pipe Bedding.
- Native materials may be used for backfill unless, in the sole opinion of the City Engineer, the native material is found to be unstable; then either 8-inch minus uncrushed aggregate per the current edition of the ISPCW Standards-Section 801-Uncrushed Aggregate or Type I or II crushed aggregate per the current edition of the ISPCW Standards-Section 802-Crushed Aggregate will be required as backfill.
- All work in public traffic ways is subject to approval by the City Engineer. He shall be notified one day before any excavation is started. No backfill shall be placed until the backfill material has been approved by the City Engineer.
- Type A Trench Section shall be used when crossing a public or private road, street or driveway section is defined as the area under an existing asphalt or gravel surface or curb and sidewalk, plus (4') four feet beyond each edge.
- Type B Trench Section shall be used outside of any Type A, where new streets are not planned.
- Rock shall be excavated to at least standard trench width per the current edition of the ISPCW Standards-Section 302-Rock Excavation.

2 CITY OF HAILEY DETAIL NEW DEVELOPMENT TYPICAL TRENCH SECTION (18.14.010.A.2)
N.T.S.



LEGEND

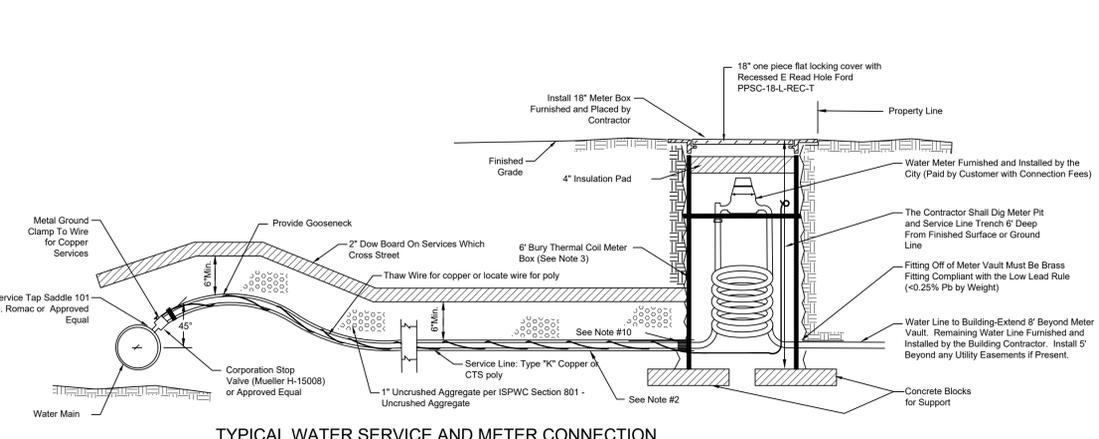
- FOR HORIZONTAL PIPE BENDS, BEARING THRUST BLOCKS MUST PROVIDE 2500 PSI CONCRETE POURED AGAINST UNDISTURBED EARTH PER TABLE 1.
- FOR VERTICAL PIPE BENDS, GRAVITY THRUST BLOCKS MUST PROVIDE A VOLUME OF CONCRETE POURED AGAINST UNDISTURBED EARTH WHICH IS SIZED FOR EXPECTED FORCES WITH A MINIMUM 1.5 FACTOR OF SAFETY.
- NO. 12 COPPER FINDER WIRE. SEE SD-514 FOR SPLICING.
- C.I. VALVE BOX WITH COVER.
- PRECAST BLOCK FOR CUT IN TEE AND VALVE OR CAST IN PLACE WITH 2-1/2" MIN REBAR.
- TRENCH SIDE.
- PIPE.
- PLUG.
- HAMMERHEAD THRUST BLOCKING.
- ANCHOR BARS (1/2" MIN)

TABLE 1 THRUST AREA FOR HORIZONTAL BENDS***

| PIPE SIZE | SOIL BEARING PRESSURE = 2000 PSF WORKING PRESSURE RATING = 150 PSI SAFETY FACTOR | | MINIMUM SQUARE FEET OF THRUST AREA ONTO UNDISTURBED EARTH* | |
|-----------|--|------------|--|--------------------------------|
| | TEE, PLUG OF VALVE | 90° BEND** | 45° BEND | 22.5°, 11.25° BENDS OR REDUCER |
| 3" | 0.8 | 1.1 | 0.6 | 0.3 |
| 4" | 1.4 | 2.0 | 1.1 | 0.6 |
| 6" | 3.2 | 4.5 | 2.4 | 1.2 |
| 8" | 5.7 | 8.0 | 4.3 | 2.2 |
| 10" | 8.8 | 12.5 | 6.8 | 3.4 |
| 12" | 12.7 | 18.0 | 9.7 | 5.0 |
| 14" | 17.3 | 24.5 | 13.3 | 6.8 |
| 16" | 22.6 | 32.0 | 17.3 | 8.8 |
| 18" | 28.6 | 40.5 | 21.9 | 11.2 |

* MUST BE INCREASED BASED ON DIFFERENT CONDITIONS (HIGHER WORKING PRESSURE OR LOWER SOIL BEARING STRENGTH).
** OR TEE ACTING AS A 90° BEND
*** THRUST BLOCK DEPTH TO BE A MINIMUM OF 12" FOR PIPE SIZES 3"-6" AND 18" FOR PIPE SIZES 10"-18" OR THE SQUARE ROOT OF THE REQUIRED BEARING AREA, WHICHEVER IS GREATER.

3 THRUST BLOCK AND ANCHOR DETAILS
N.T.S.



TYPICAL WATER SERVICE AND METER CONNECTION
N.T.S.

NOTES

- Water Services shall be installed in accordance with the current edition of the ISPCW-Section 404-Water Service Line and Meters.
- Water Service Line shall have a 6" min. bury depth.
- 0.75" Meter vaults shall be Mueller 250CS187ZFBBN or Ford PFCBH-388-18-72-FP-NL. 1" Meter Vaults shall be Mueller 330CS187ZFBBN. 1.5" Meter Vaults shall be Mueller 550VS277ZBBN or equal. 2" Meter Vaults shall be Mueller 550VS277ZBBN or equal.
- Service Line shall be 3/4" diameter Type K copper or polyethylene pressure pipe 250 psi DR 9 copper tube size (CTS) unless otherwise specified. Copper service pipe shall be encased with elastic pipe sleeving material from corporation stop to vault with both ends wrapped with PASCO 10mm PVC #9052 pipe tape.
- CAUTION: OPEN CORPORATION VALVE BEFORE BACKFILL.
- An owner constructing a new public water system in a subdivision or development shall constitute a water tap and service for each potential user and extend it to the property line. Water services shall be marked with a blue painted metal fence post.
- All copper service shall be wrapped with #6 gauge copper wire thermally insulated wrap every 5'. A No. 12 AWG copper with insulation tracer wire will be wrapped around all PVC pipe at a minimum of 10 foot intervals for the full length of the pipe. Run wire to top of vault.
- Water service lines which cross the street shall be insulated with 2" thick by 2" wide Dow Board. Insulation shall be installed from the water main to the vault.
- Water service lines shall be bedded with Type I Pipe Bedding per the current edition of ISPCW Section 305 -Pipe Bedding.
- Connection to the meter box or curb stop shall be: Mueller 110 Compression H-15451 for 3/4" Copper or CTS poly; Mueller H15451 CTS x I.P.; or Ford C14-33-Q-NL.
- No service or irrigation connections within 6 feet of meter vault.
- Separate service connections to main by a minimum of 2 feet and stagger multiple connections made on the pipe along the circumference.
- Materials used shall be compliant with ANSI/ISO 601.
- All services shall conform to the vertical and horizontal separation requirements per DEC.
- All parts must be brass and compliant with the low lead rule (<0.25% Pb by weight).
- All brands and model numbers specified herein, or an approved equal, shall be required. Approved equals shall be determined by the City.

4 CITY OF HAILEY RESIDENTIAL WATER SERVICE CONNECTION DETAIL (18.14.010.B.3)
N.T.S.

SEWER CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPCW) AND THE CITY OF HAILEY STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND KEEPING A COPY OF THE ABOVE STANDARDS AND SPECIFICATIONS AND A SET OF PLANS STAMPED WITH THE DEG APPROVAL STAMP AND A COPY OF THE DEG APPROVAL LETTER ON SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL SERVICES SHALL COMPLY WITH IDAPA 58.01.08.542.07 a AND IDAPA 58.01.08.542.07 b WHICH ADDRESS THE REQUIREMENTS FOR SEPARATION DISTANCES BETWEEN POTABLE WATER LINES (INCLUDING MAINS AND SERVICE LINES) WITH NON-POTABLE LINES (SEE ILLUSTRATION OF THESE SEPARATION REQUIREMENTS ON SHEET C0.2). IN ADDITION, WATER SERVICES SHALL BE CONSTRUCTED WITH AT LEAST 25 FEET HORIZONTAL SEPARATION FROM INFILTRATION TRENCHES AND DRY WELLS.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS IN AN APPROXIMATE WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING UTILITIES DURING THE CONSTRUCTION. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULT FROM HIS FAILURE TO ACCURATELY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING WATER AND SEWER MAINS AT ALL PROPOSED CROSSINGS. SOME RELOCATION OF WATER AND SEWER MAINS MAY BE REQUIRED IN ADDITION TO THOSE SHOWN ON THE PLANS.
- POTABLE/NON-POTABLE CROSSINGS SHALL COMPLY WITH ISPCW STANDARD DRAWING NO. SD-407 AND IDAPA SECTION 58.01.08.542.07.
- THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL NECESSARY PERMITS PRIOR TO EXCAVATION.
- SEWER SERVICE LINES SHALL BE PLACED AT A SLOPE OF 2%, WITH MARKERS PER ISPCW. CLEANOUTS ARE REQUIRED AT CHANGES IN ALIGNMENT, GRADE, AND MINIMUM 150' LENGTH.
- ALL PIPE SHALL BE BEDDED WITH (ISPCW) TYPE I BEDDING MATERIAL.
- TRENCHES SHALL BE BACK FILLED AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
- THE CONTRACTOR SHALL PRESSURE TEST ALL SEWER SERVICE CONNECTIONS IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION".

WATER CONSTRUCTION NOTES

- WATER SERVICE CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY OF HAILEY STANDARDS. NO WATER SERVICE SHALL BE BACKFILLED UNTIL THEY HAVE BEEN INSPECTED AND APPROVED BY THE CITY.
- WATER SERVICES SHALL HAVE A MINIMUM COVER OF SIX FEET (6.0'), MEASURED FROM FINISHED GRADE.
- ALL 4" AND LARGER WATER LINES SHALL BE CONSTRUCTED WITH AWWA C-900, CLASS 235 PVC PIPE. ALL WATER MAINS SHALL BE PRESSURE TESTED IN CONFORMANCE WITH ISPCW SECTION 401.3.6 AND THE CITY OF HAILEY STANDARDS. TRACER WIRE SHALL BE NO. 12 GAUGE COPPER LOCATING WIRE INSULATED PER ISPCW SECTION 401 AND THE CITY OF HAILEY SPECIFICATIONS.
- ALL WATER DISTRIBUTION AND WATER SERVICE INSTALLATION MATERIALS AND CHEMICALS USED TO DISINFECT POTABLE WATER COMPONENTS MUST BE COMPLIANT WITH ANSINSF STANDARD 6061. ALL MATERIALS MUST BE COMPLIANT WITH THE LOW LEAD RULE (<0.25% Pb BY WEIGHT).
- ALL TEES, PLUGS, CAPS AND BENDS SHALL BE SECURED AND ANCHORED BY SUITABLE THRUST BLOCKING (MECHANICAL RESTRAINTS ARE NOT ALLOWED). THRUST BLOCKS SHALL CONFORM TO ISPCW SD-403 AND THE CITY OF HAILEY STANDARDS.
- ALL VALVES SHALL BE GATE VALVES WITH NON-RISING STEM, "O" RING SEALS, AND TWO-INCH OPERATING NUTS MEETING AWWA STANDARDS PER ISPCW SECTION 402. ALL GATE VALVES LOCATED IN PAVEMENT SHALL BE FITTED WITH CAST IRON VALVE BOXES WITH CONCRETE COLLARS PER ISPCW SD-406 AND THE CITY OF HAILEY SPECIFICATIONS.
- ALL WATER MAIN FITTINGS SHALL BE DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF AWWA C-110 FOR 250 PSI WORKING PRESSURE. JOINTS ON BURIED VALVES SHALL BE MECHANICAL JOINTS UNLESS OTHERWISE NOTED. FLANGED JOINTS SHOULD IN GENERAL BE AVOIDED UNDERGROUND.
- FIRE HYDRANTS SHALL CONFORM WITH THE CITY OF HAILEY STANDARDS.
- ALL TAPPING SADDLES SHALL BE CONSTRUCTED FROM T-304 STAINLESS STEEL WITH ANSI/AWWA C-207 CLASS 150 FLANGES. ALL WELDS SHALL CONFORM TO ASTM A-380. THE TEST OUTLET SHALL BE 3/4" NPT WITH 3/4" NPT PLUG.
- ALL WATER MAINS SHALL COMPLY WITH IDAPA 58.01.08.542.07 a AND IDAPA 58.01.08.542.07 b WHICH ADDRESS THE REQUIREMENTS FOR SEPARATION DISTANCES BETWEEN POTABLE WATER LINES (INCLUDING MAINS AND SERVICE LINES) WITH NON-POTABLE LINES (SEE ILLUSTRATION OF THESE SEPARATION REQUIREMENTS ON SHEET C0.2). IN ADDITION, WATER MAINS SHALL BE CONSTRUCTED WITH AT LEAST 25 FEET HORIZONTAL SEPARATION FROM INFILTRATION TRENCHES AND DRY WELLS.
- ALL WATER SERVICES SHALL BE IN COMPLIANCE WITH ISPCW SECTION 404 AND THE CITY OF HAILEY STANDARDS. A USE EC APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) SHALL BE INSTALLED ON PRIMARY SERVICE CONNECTIONS (INCLUDING FIRE SUPPRESSION SERVICES, IF APPLICABLE) IN ACCORDANCE WITH THE CITY OF HAILEY WATER DEPARTMENT, FIRE MARSHAL, PLUMBING BUREAU, AND STATE OF IDAHO BACKFLOW PREVENTION REQUIREMENTS. IN AREAS WHERE MULTIPLE WATER SERVICE LINES ARE IN SAME TRENCH SEPARATE LINES BY 6".
- THE CONTRACTOR SHALL KEEP THE EXISTING WATER DISTRIBUTION SYSTEM LIVE, TO THE GREATEST EXTENT POSSIBLE, WHILE INSTALLING THE NEW WATER MAIN AND SERVICES MINIMIZING DISRUPTION TO EXISTING WATER SYSTEM USERS. THE NEW WATER MAIN AND SERVICES SHALL BE INSTALLED, BACKFILLED, PRESSURE TESTED AND DISINFECTED AND FLUSHED PRIOR TO CONNECTING THE NEW MAIN TO THE EXISTING MAIN. THE MAXIMUM ALLOWABLE SERVICE OUTAGE FOR ANY SHUTDOWN IS 4 HOURS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROMPTLY REMOVING AND DISPOSING OF WATER ENTERING THE TRENCH DURING THE TIME THE TRENCH IS BEING PREPARED FOR INSTALLATION OF THE UTILITY, INCLUDING COMPLETION OF BACKFILL OF THE PIPE ZONE, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL DISPOSE OF THE WATER IN A SUITABLE MANNER WITHOUT CAUSING DAMAGE TO PROPERTY.
- EXTRA FITTINGS MAY BE NECESSARY IN ADDITION TO THOSE SHOWN HEREON TO CONTROL ELEVATION AND AVOID UNDERGROUND CONFLICTS.



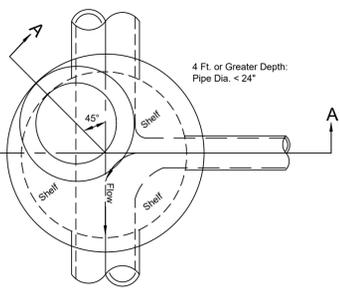
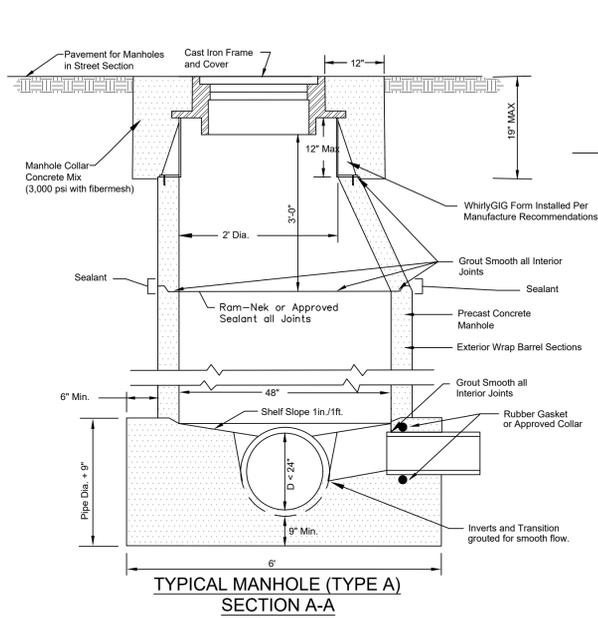
OPAL ENGINEERING, PLLC
PO BOX 2630 - HAILEY, ID 83433
WWW.OPAL-ENGINEERING.COM

| REVISION NO. | DATE | DESCRIPTION |
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PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

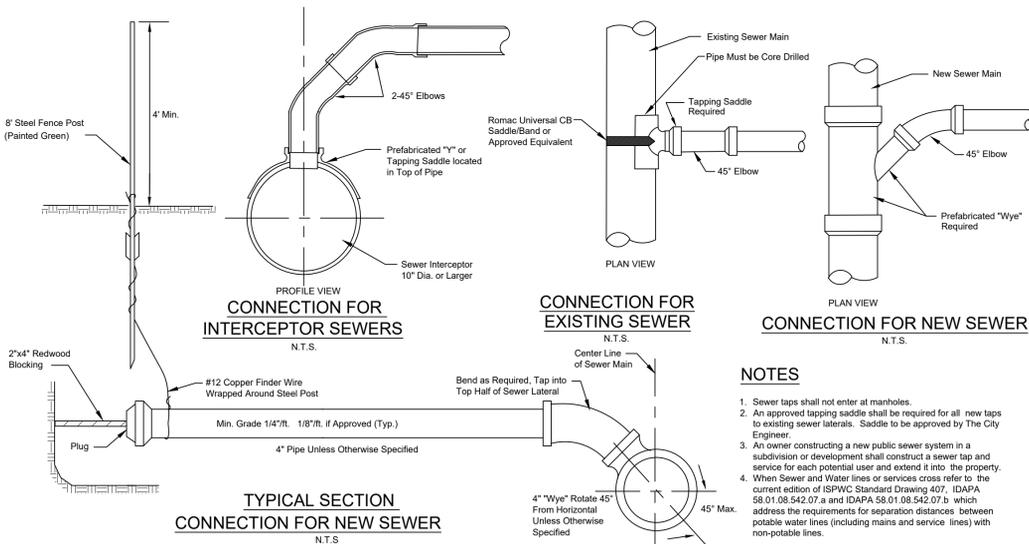
PRELIMINARY NOT FOR CONSTRUCTION

DETAILS SHEET
THE INN AT ELLSWORTH ESTATE
PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.



- NOTES**
- Optional cast in place manhole base with approved pipe connections may be used with city approval.
 - Service lines shall not be connected to manholes.
 - Manhole frame and cover:
 - See Drawing No. 18.14.010.C.3
 - Frame, cover, and concrete collar, shall be 0" to 1/4" below the grade of pavement
 - WhirlyGIGs allowed up to 12" height.
 - Where PVC is utilized, a rubber ring or gasket collar is to be installed where the pipe is in contact with manhole base and/or manhole channel, in order to insure a watertight seal.
 - See drawing No. 18.14.010.C.2 for shallow manhole Type B.
 - Frame and cover shall be adjusted to grade after paving. A steel plate shall cover the concrete cone prior to placing gravel and pavement. A neat circular cut shall be made in the new pavement to install the grade rings, frame and concrete collar.
 - Manhole shall be located so that the Frame and Cover will be six (6) feet from the centerline for residential streets or per the Approved Construction Plans for other streets.
 - Fiberglass Dust Pan Required on all Manholes that are not on Paved Streets.
 - Exterior wrap material shall be EZ-Wrap Rubber or approved equal.
 - Concrete collar shall be provided for all manholes.
 - No steps are allowed. If steps are removed repair holes with grout.
 - Torque Boot to manufacturers specifications (60 milb typical).

1
CITY OF HAILEY DETAIL SEWER MANHOLE - TYPE A (18.14.010.C.1)
N.T.S.



- NOTES**
- Sewer taps shall not enter at manholes.
 - An approved tapping saddle shall be required for all new taps to existing sewer laterals. Saddle to be approved by The City Engineer.
 - An owner constructing a new public sewer system in a subdivision or development shall construct a sewer tap and service for each potential user and extend it into the property.
 - When Sewer and Water lines or services cross refer to the current edition of ISPWC Standard Drawing 407, IDAPA 58.01.08.542.07 a and IDAPA 58.01.08.542.07 b which address the requirements for separation distances between potable water lines (including mains and service lines) with non-potable lines.

2
CITY OF HAILEY SEWER SERVICE CONNECTION DETAIL (18.14.010.C.4)
N.T.S.

FLUSHING AND DISINFECTION

A. FLUSHING PRIOR TO DISINFECTION

- BEFORE CHLORINATION, FLUSH THE MAINS THOROUGHLY AFTER THE PRESSURE AND LEAKAGE TEST ARE COMPLETE.
- USE A MINIMUM FLUSHING VELOCITY IN THE MAIN OF 2.5 FEET/SECOND.
- IF NO HYDRANT IS INSTALLED AT THE END OF THE MAIN, PROVIDE A TAP OF THE SIZE SUFFICIENT TO PRODUCE A VELOCITY IN THE MAIN OF AT LEAST 2.5 FEET/SECOND.
- TABLE 1 SHOWS THE RATES OF FLOW REQUIRED TO PRODUCE A VELOCITY OF 2.5 FEET/SECOND IN VARIOUS SIZE PIPES.
- EXERCISE EXTREME CARE AND CONDUCT A THOROUGH INSPECTION DURING THE WATER MAIN LAYING TO PREVENT AND DETECT SMALL STONES, PIECES OF CONCRETE, PARTICLES OF MATERIAL, OR OTHER FOREIGN MATERIAL THAT MAY HAVE ENTERED THE MAINS.
- CLEAN LARGE MATERIAL BY FLUSHING AND INSPECTING ALL HYDRANTS ON THE LINES TO ENSURE THAT THE ENTIRE VALVE OPERATING MECHANISM OF EACH HYDRANT IS IN GOOD CONDITION.

B. DISINFECTION OF WATER PIPES

- GENERAL.
 - COMPLY WITH ANSI/AWWA C 651: DISINFECTING WATER MAINS, THESE SPECIFICATIONS, AND ENGINEER'S DIRECTION.
 - KEEP THE INTERIOR OF ALL PIPE, FITTINGS AND APPURTENANCES FREE FROM DIRT, HEAVY AND FOREIGN PARTICLES.
 - DISINFECT ALL WATER PIPES AND APPURTENANCES PRIOR TO PLACING IN SERVICE.
- FORM OF CHLORINE USED TO BE PRE-APPROVED BY THE ENGINEER.
 - LIQUID CHLORINE.
 - FORM: LIQUID CONTAINING 100% AVAILABLE CHLORINE UNDER PRESSURE IN STEEL CONTAINERS.
 - STANDARD: ANSI/AWWA B 301.
 - EXECUTION: USED ONLY BY TRAINED PERSONNEL WITH APPROPRIATE GAS-FLOW CHLORINATORS AND EJECTORS.
 - AUTHORIZATION: ONLY WITH WRITTEN AUTHORIZATION OF THE ENGINEER.
- SODIUM HYPOCHLORITE.
 - FORM: LIQUID CONTAINING APPROXIMATELY 5% TO 15% AVAILABLE CHLORINE.
 - STANDARD: ANSI/AWWA B 300.
- CALCIUM HYPOCHLORITE.
 - FORM: GRANULAR OR IN 5G TABLETS CONTAINING APPROXIMATELY 65% AVAILABLE CHLORINE BY WEIGHT.
 - STANDARD: ANSI/AWWA B 300.

3. METHODS OF CHLORINATION USED TO BE PRE-APPROVED BY THE ENGINEER.

- TABLET OR GRANULE METHOD.
 - SOLUTION STRENGTH: 25 MG/L MINIMUM.
 - USE: ONLY IF THE PIPES AND APPURTENANCES ARE KEPT CLEAN AND DRY DURING CONSTRUCTION. DO NOT USE SOLVENT WELDED PLASTIC OR SCREWED JOINT STEEL PIPE.
 - PLACEMENT WHEN USING GRANULES: DURING CONSTRUCTION, PLACE CALCIUM HYPOCHLORITE GRANULES AT THE UPSTREAM END OF EACH BRANCH MAIN, AND AT 500-FOOT INTERVALS.
 - GRANULAR QUANTITY: REFER TO TABLE 2
 - PLACEMENT WHEN USING TABLETS: DURING CONSTRUCTION, PLACE 5G CALCIUM HYPOCHLORITE TABLETS IN EACH SECTION OF PIPE AND ALSO PLACE ONE TABLET IN EACH HYDRANT, HYDRANT BRANCH AND OTHER APPURTENANCES. ATTACH TABLETS TO THE INSIDE OF THE PIPE USING AN ADHESIVE SUCH AS PERMATEX NO. 2 OR APPROVED SUBSTITUTION. ASSURE NO ADHESIVE IS ON THE TABLET EXCEPT ON THE BROAD SIDE ATTACHED TO THE SURFACE OF THE PIPE. ATTACH ALL THE TABLETS AT THE INSIDE TIP OF THE MAIN, WITH APPROXIMATELY EQUAL NUMBERS OF TABLETS AT EACH END OF A GIVEN PIPE LENGTH. IF THE TABLETS ARE ATTACHED BEFORE THE PIPE SECTION IS PLACED IN THE TRENCH, MARK THEIR POSITION ON THE SECTION SO IT CAN BE READILY DETERMINED THAT THE PIPE IS INSTALLED WITH THE TABLETS AT THE TOP.
 - TABLET QUANTITY: REFER TO TABLE 3
 - ADJUST FOR PIPE LENGTH OTHER THAN 18 FEET.
 - BASED ON 3.25G AVAILABLE CHLORINE PER TABLET.
 - FILLING PROCEDURE: WHEN GRANULE OR TABLET INSTALLATION HAS BEEN COMPLETED, FILL THE MAIN WITH CLEAN WATER AT A VELOCITY NOT EXCEEDING 1 FPS. TAKE PRECAUTIONS TO ASSURE THAT AIR POCKETS ARE ELIMINATED. LEAVE THIS WATER IN THE PIPE FOR AT LEAST 24 HOURS. IF THE WATER TEMPERATURE IS LESS THAN 41° F, LEAVE THE WATER IN THE PIPE FOR AT LEAST 48 HOURS. POSITION VALVE SO THAT THE CHLORINE SOLUTION IN THE MAIN BEING TREATED WILL NOT FLOW INTO WATER MAINS IN ACTIVE SERVICE.
- CONTINUOUS FEED METHOD.
 - SOLUTION STRENGTH: DOSE AT 25 MG/L FOR 4 HOURS.
 - RESIDUAL: 10 MG/L AT 24 HOURS.
 - DOSING METHODS:
 - LIQUID CHLORINE: SOLUTION FEED VACUUM-OPERATED CHLORINATOR IN COMBINATION WITH A BOOSTER PUMP.
 - DIRECT FEED: NOT ALLOWED.
 - HYPOCHLORITE SOLUTION: CHEMICAL FEED PUMP DESIGNED FOR FEEDING CHLORINE SOLUTIONS.
 - CALCIUM HYPOCHLORITE GRANULES: REFER TO PREVIOUS SECTION.
 - FILLING PROCEDURE: USE APPROVED SOURCE TO FLOW CLEAN WATER AT A CONSTANT, MEASURED RATE INTO THE NEWLY LAID WATER MAIN. FILL AT A POINT NOT MORE THAN 10 FEET DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN. MEASURE THE CHLORINE CONCENTRATION AT REGULAR INTERVALS AND ENSURE A 25 MG/L DOES. POSITION VALVES SO THAT THE CHLORINE SOLUTION IN THE MAIN BEING TREATED DOES NOT FLOW INTO WATER MAINS IN ACTIVE SERVICE. DO NOT STOP CHLORINE APPLICATION UNTIL THE ENTIRE MAIN IS FILLED WITH CHLORINATED WATER. RETAIN THE CHLORINATED WATER IN THE MAIN FOR AT LEAST 4 HOURS, OPERATING ALL VALVES AND HYDRANTS IN THE SECTION TREATED. AT THE END OF THE 24 HOUR PERIOD, VERIFY THE TREATED WATER IN ALL PORTIONS OF THE MAIN HAS RESIDUAL OF 10 MG/L FREE CHLORINE.
- SLUG METHOD.
 - SOLUTION STRENGTH: 100 MG/L
 - DOSING METHODS: PER ENGINEER'S DIRECTION.
 - FILLING PROCEDURE: USE APPROVED SOURCE TO FLOW CLEAN WATER AT A CONSTANT, MEASURED RATE INTO THE NEWLY LAID WATER MAIN. FILL AT A POINT NOT MORE THAN 10 FEET DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN. MEASURE CONCENTRATION AT REGULAR INTERVALS TO ENSURE 100 MG/L DOSE APPLY THE CHLORINE CONTINUOUSLY AND FOR THE TIME REQUIRED TO DEVELOP A SOLID COLUMN OR "SLUG" OF CHLORINATED WATER THAT WILL, AS IT MOVES THROUGH THE MAIN, EXPOSE ALL INTERIOR SURFACES TO A 100 MG/L FOR AT LEAST 3 HOURS. MEASURE THE CHLORINE RESIDUAL IN THE SLUG AS IT MOVES THROUGH THE MAIN. IF AT ANY TIME IT DROPS BELOW 50 MG/L, STOP FLOW AND RELOCATE CHLORINATION EQUIPMENT AT THE HEAD OF THE SLUG, AND AS FLOW IS RESUMED, ADD CHLORINE TO RESTORE THE FREE CHLORINE IN THE SLUG TO NOT LESS THAN 100 MG/L. AS THE CHLORINATED WATER FLOWS PAST FITTINGS AND VALVES, OPERATE VALVES AND HYDRANTS TO DISINFECT APPURTENANCES AND PIPE BRANCHES.

C. FINAL FLUSHING.

- AFTER THE RETENTION PERIOD, FLUSH THE CHLORINATED WATER FROM THE MAIN UNTIL CHLORINE MEASUREMENTS SHOW THAT THE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT IN THE SYSTEM, OR IS ACCEPTABLE FOR DOMESTIC USE.
- DISPOSAL OF FLUSHING WATER TO BE DONE IN A MANNER SO THAT IT DOES NOT.
 - REACH SURFACE WATERS OR WATERS OF THE STATE
 - DAMAGE SURROUNDING PROPERTIES
 - TAKE PLACE DURING PERIODS WHEN THE AMBIENT TEMPERATURE IS ABOVE 85° WITHOUT PRIOR APPROVAL OF THE ENGINEER
- IF WATER CAN NOT BE RETAINED ON SITE AND IF IT IS NOT ALLOWED TO ENTER THE SANITARY SEWER COLLECTION SYSTEM, WATER SHALL BE DECHLORINATED TO HAVE A MAXIMUM AVAILABLE CHLORINE CONCENTRATION OF 0.13 MG/L AND THE APPROPRIATE PRIVATE, FEDERAL AND STATE DISCHARGE AND DISPOSAL APPROVALS SHALL BE ACQUIRED PRIOR TO COMMENCEMENT OF FLUSHING ACTIVITIES. SHOULD THERE BE A POTENTIAL FOR THE GROUNDWATER RULE TO BE VIOLATED AS A RESULT OF A CHLORINATED DISCHARGE THE ENGINEER SHALL COORDINATE DISPOSAL WITH REGIONAL DEQ STAFF PRIOR TO FLUSHING.

D. BACTERIOLOGICAL TESTS.

- AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE, TEST SAMPLES COLLECTED FROM THE MAIN(S) FOR COLIFORM BACTERIA. TAKE 2 SAMPLES FROM EACH LOCATION AT LEAST 24 HOURS APART.
- UNLESS OTHERWISE DIRECTED BY THE ENGINEER, COLLECT SAMPLES FROM EACH 1,200 FEET ON THE NEW MAIN AND ONE FROM EACH BRANCH.

E. REDISINFECTION.

- IF THE INITIAL DISINFECTION FAILS TO PRODUCE APPROVED BACTERIOLOGICAL SAMPLES, REFLUSH AND RESAMPLE THE MAIN.
- IF CHECK SAMPLES SHOW BACTERIAL CONTAMINATION, RE-CHLORINATE THE MAIN UNTIL APPROVED RESULTS ARE OBTAINED.

F. SWABBING.

- IF CONNECTIONS ARE NOT DISINFECTED ALONG WITH THE NEWLY INSTALLED MAIN, SWAB OR SPRAY THE INTERIOR OF ALL PIPES AND FITTINGS USED IN MAKING THE CONNECTIONS WITH A 1% HYPOCHLORITE SOLUTION BEFORE INSTALLATION.

TABLE 1
REQUIRED FLOW AND OPENINGS TO FLUSH PIPELINES
40 PSI RESIDUAL PRESSURE IN WATER MAIN (1)

| Pipe Diam. (inch) | Flow Required to Produce 2.5 fps (approx) Velocity in Main, (Gpm) | Size of Tap (inch) | | Hydrant Outlets | |
|-------------------|---|--------------------|-----|-----------------|-------------|
| | | (1) (1-1/2) | (2) | Number | Size (inch) |
| 4 | 100 | 1 | | 1 | 2-1/2 |
| 6 | 220 | 1 | | 1 | 2-1/2 |
| 8 | 400 | 2 | 1 | 1 | 2-1/2 |
| 10 | 600 | 3 | 2 | 1 | 2-1/2 |
| 12 | 900 | | 2 | 2 | 2-1/2 |
| 16 | 1600 | | 4 | 2 | 2-1/2 |

1) With a 40 psi pressure in the main with the hydrant flowing to atmosphere, a 2- 1/2 inch hydrant outlet will discharge approximately 1,000 gpm and a 4-1/2 inch hydrant will discharge approximately 2500 gpm.
2) Number of taps on pipe based on discharge through 5 feet of galvanized iron (GI) pipe with one 90° elbow.

TABLE 2
OUNCES OF GRANULES

| Pipe Diameter (inches) | Amount (ounces) |
|------------------------|-----------------|
| 4 | 1.7 |
| 6 | 3.8 |
| 8 | 6.7 |
| 10 | 10.5 |
| 12 | 15.1 |
| 16 | 28.8 |
| 18 | 34.0 |
| 20 | 41.9 |
| 24 | 60.4 |

TABLE 3
NUMBER OF TABLETS (1)

| Pipe Diameter (inches) | Number of 5g Tablets (2) |
|------------------------|--------------------------|
| 4 | 1 |
| 6 | 1 |
| 8 | 2 |
| 10 | 3 |
| 12 | 4 |
| 16 | 6 |
| 18 | 7 |
| 20 | 9 |
| 24 | 13 |



PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

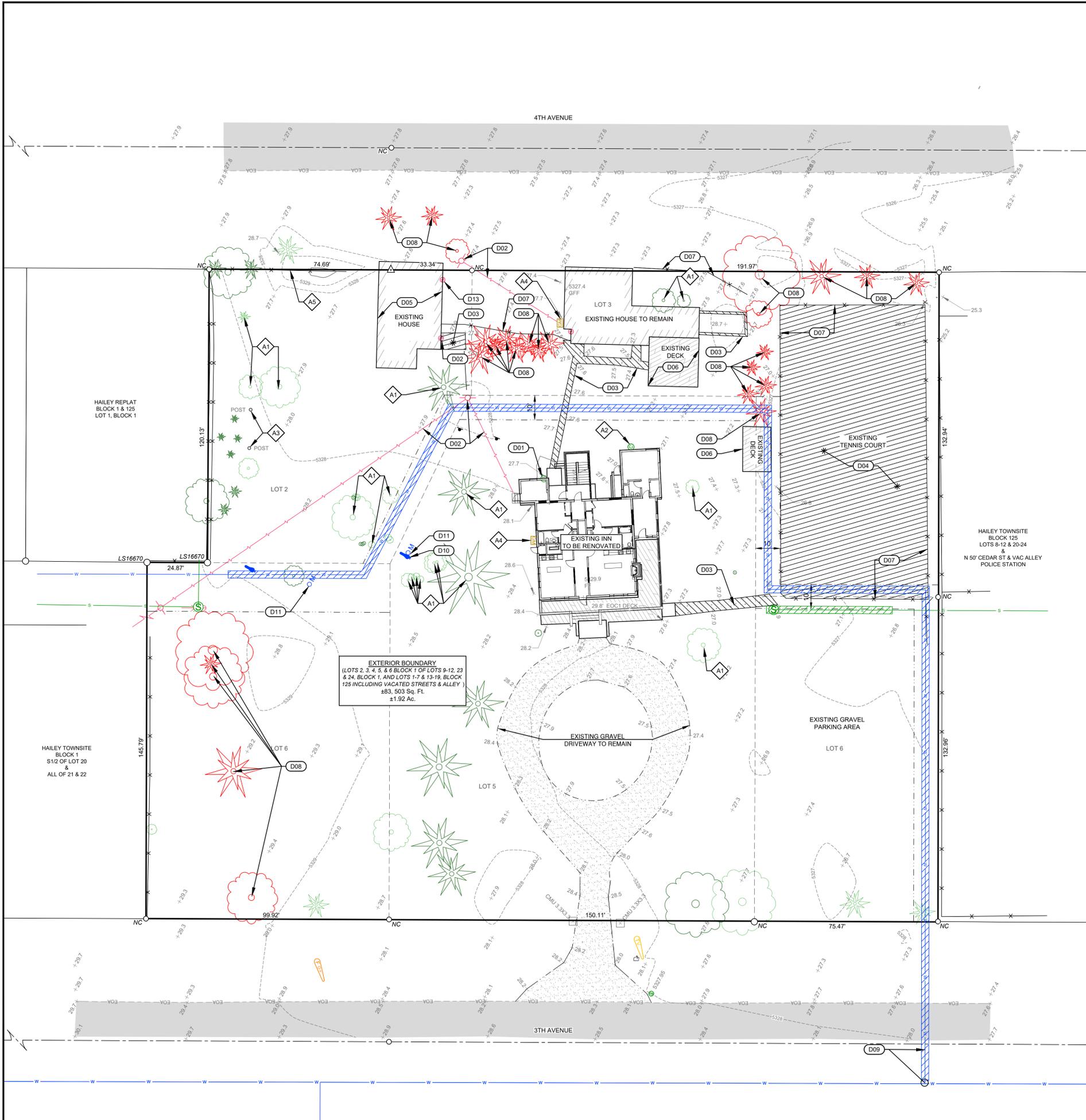
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**PRELIMINARY
NOT FOR
CONSTRUCTION**

DETAILS SHEET

THE INN AT ELLSWORTH ESTATE
PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.

REUSE OF DRAWINGS: These drawings, or any portion thereof, shall not be used on any Project or extensions of this Project except by agreement in writing with Opal Engineering, PLLC.



EXTERIOR BOUNDARY
 (LOTS 2, 3, 4, 5, & 6 BLOCK 1 OF LOTS 9-12, 23 & 24, BLOCK 1, AND LOTS 1-7 & 13-19, BLOCK 125 INCLUDING VACATED STREETS & ALLEY 183, 503 Sq. Ft. ±1.92 Ac.)

NOTES
 1. SEE SHEET C0.1 FOR CONSTRUCTION GENERAL NOTES.

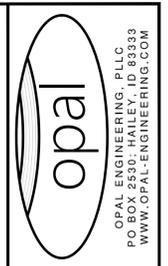
LEGEND
EXISTING ITEMS

- FOUND 5/8" REBAR
- FOUND 1/2" REBAR
- FOUND 5/8" REBAR W/1.5" AC
- △ CALCULATED POINT (NOTHING FOUND OR SET)
- PROPERTY LINE
- ADJOINER'S LOT LINE (BLAINE COUNTY GIS)
- CENTERLINE
- INTERIOR LOT LINE (CALCULATED - INTERIOR LOT LINES NOT SURVEYED)
- UTILITY EASEMENT PER PLAT INSTRUMENT NUMBER 196806, TO BE MODIFIED
- OVERHEAD POWER LINE
- 5' CONTOUR INTERVAL
- 1' CONTOUR INTERVAL
- CONCRETE SIDEWALK
- ASPHALT
- GRAVEL DRIVE
- DECK
- BUILDING
- GAS MARKER
- GAS METER
- CABLE TV RISER
- POST
- POWER METER
- UTILITY POLE
- GUYWIRE
- SEWER MAIN
- SEWER SERVICE
- SEWER MANHOLE
- SEWER CLEANOUT
- WATER MAIN
- WATER SERVICE
- WATER METER
- FROST FREE HYDRANT
- FIBER OPTIC MARKER
- MAILBOX
- CONIFEROUS TREE
- DECIDUOUS TREE
- CONIFEROUS TREE TO BE REMOVED
- DECIDUOUS TREE TO BE REMOVED

- PROPOSED ITEMS**
- SAWCUT LINE
 - ASPHALT TO BE REMOVED
 - CONCRETE TO BE REMOVED
 - WATER LINE TO BE ABANDONED AFTER PHASE 1 WATER MAIN INSTALLED
 - SEWER LINE TO BE ABANDONED AFTER PHASE 1 SEWER MAIN INSTALLED

DEMOLITION KEYNOTES

- (D01) REMOVE EXISTING CLEANOUT.
 - (D02) REMOVE EXISTING POWER INFRASTRUCTURE, COORDINATE WITH IDAHO POWER.
 - (D03) DEMOLISH, REMOVE, AND DISPOSE OF EXISTING CONCRETE SIDEWALK.
 - (D04) DEMOLISH, REMOVE, AND DISPOSE OF EXISTING TENNIS COURT.
 - (D05) DEMOLISH, REMOVE, AND LEGALLY DISPOSE OF EXISTING BUILDING. SEE ARCHITECTURAL PLANS.
 - (D06) DEMOLISH, REMOVE, AND DISPOSE OF EXISTING DECK.
 - (D07) REMOVE AND DISPOSE OF EXISTING FENCE.
 - (D08) REMOVE AND DISPOSE OF EXISTING TREE / VEGETATION.
 - (D09) CUT, CAP, AND ABANDON EXISTING WATER MAIN AT CONNECTION TO 3RD AVENUE WATER MAIN.
 - (D10) REMOVE EXISTING FROST FREE HYDRANT.
 - (D11) REMOVE AND DISPOSE OF EXISTING WATER METER.
- △ RETAIN AND PROTECT:
 1. TREE
 2. CLEANOUT
 3. POST
 4. GAS METER
 5. FENCE



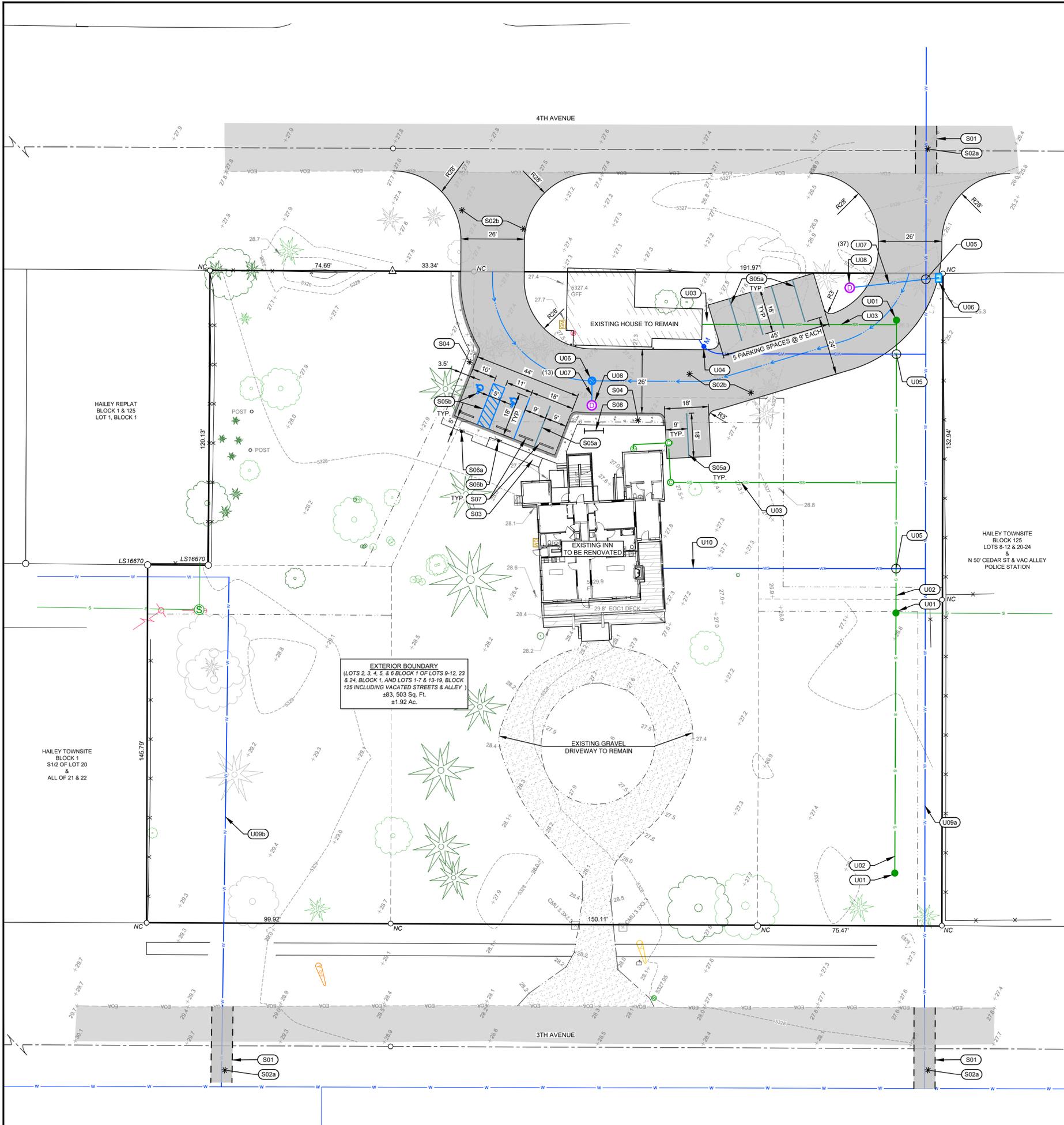
PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

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 CONSTRUCTION**

**PHASE 1
 DEMOLITION PLAN**
 THE INN AT ELLSWORTH ESTATE
 PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.
 23018
 PROJECT NUMBER
 C1.0

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EXTERIOR BOUNDARY
 (LOTS 2, 3, 4, 5, & 6 BLOCK 1 OF LOTS 9-12, 23 & 24, BLOCK 1, AND LOTS 1-7 & 13-19, BLOCK 125 INCLUDING VACATED STREETS & ALLEY 153, 503 Sq. Ft. ±1.92 Ac.)

EXISTING GRAVEL DRIVEWAY TO REMAIN

EXISTING INN TO BE RENOVATED

EXISTING HOUSE TO REMAIN

5 PARKING SPACES @ 9' EACH

HAILEY TOWNSITE BLOCK 125 LOTS 9-12 & 20-24 & N 50' CEDAR ST & VAC ALLEY POLICE STATION

HAILEY REPLAT BLOCK 1 & 125 LOT 1, BLOCK 1

HAILEY TOWNSITE BLOCK 1 S1/2 OF LOT 20 & ALL OF 21 & 22

NOTES

- SEE SHEET C0.1 FOR CONSTRUCTION GENERAL NOTES.
- SEE SURVEY BY GALENA-BENCHMARK ENGINEERING FOR SURVEY NOTES.

LEGEND

| EXISTING ITEMS | PROPOSED ITEMS |
|--|--------------------------------|
| ○ FOUND 5/8" REBAR | — SAWCUT LINE |
| ○ FOUND 1/2" REBAR | — NEW ASPHALT |
| △ FOUND 5/8" REBAR W/1.5" AC | — CONCRETE SIDEWALK |
| △ CALCULATED POINT (NOTHING FOUND OR SET) | — THICKENED EDGE SIDEWALK |
| — PROPERTY LINE | — BUILDING |
| — ADJOINER'S LOT LINE (BLAINE COUNTY GIS) | — FLOW LINE |
| — CENTERLINE | — 12" STORM DRAIN |
| — INTERIOR LOT LINE (CALCULATED - INTERIOR LOT LINES NOT SURVEYED) | — CATCH BASIN |
| — UTILITY EASEMENT PER PLAT INSTRUMENT NUMBER 196806 | — DRYWELL |
| — OVERHEAD POWER LINE | — ROAD PAINT |
| — 5' CONTOUR INTERVAL | — ADA PAINT & SYMBOL |
| — 1' CONTOUR INTERVAL | — WATER SERVICE W/ METER VAULT |
| — CONCRETE SIDEWALK | — SEWER SERVICE W/ CLEANOUT |
| — ASPHALT | — SEWER MANHOLE |
| — GRAVEL DRIVE | — SIGN |
| — DECK | |
| — BUILDING | |
| — GAS MARKER | |
| — GAS METER | |
| — CABLE TV RISER | |
| — POST | |
| — POWER METER | |
| — UTILITY POLE | |
| — GUYWIRE | |
| — SEWER MAIN | |
| — SEWER SERVICE | |
| — SEWER MANHOLE | |
| — SEWER CLEANOUT | |
| — WATER MAIN | |
| — WATER SERVICE | |
| — FROST FREE HYDRANT | |
| — FIBER OPTIC MARKER | |
| — MAILBOX | |
| — CONIFEROUS TREE | |
| — DECIDUOUS TREE | |
| — CONIFEROUS TREE TO BE REMOVED | |
| — DECIDUOUS TREE TO BE REMOVED | |

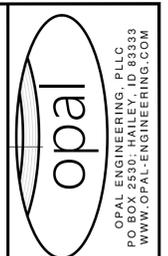
SITE IMPROVEMENT KEY NOTES

- (S01) SAWCUT EXISTING ASPHALT
- (S02) ASPHALT:
 - a. CONSTRUCT ASPHALT REPAIR. SEE DETAIL 2 / C0.1.
 - b. CONSTRUCT ASPHALT PARKING LOT. SEE DETAIL 1 / C0.1.
- (S03) CONSTRUCT CONCRETE RAMP PER ARCHITECTURAL PLANS. SEE DETAIL 7 / C0.1 FOR HANDRAIL.
- (S04) CONSTRUCT CONCRETE THICKENED-EDGE SIDEWALK PER DETAIL 2 / C0.2. WIDTH AS SHOWN.
- (S05) INSTALL ROAD STRIPING / PAINT
 - a. WHITE ASPHALT PARKING STRIPING (4" WIDE). MATCH CITY PATTERNS.
 - b. BLUE ADA PARKING STRIPING (4" WIDE) AND SYMBOL. SEE DETAILS 3 & 4 / C0.2.
- (S06) INSTALL SIGNS PER DETAIL 5, SHEET C0.2. SEE DETAIL 4, SHEET C0.1 FOR SIGN BASE DETAIL.
 - a. INSTALL ADA STANDARD "RESERVED PARKING" SIGN.
 - b. INSTALL ADA STANDARD "RESERVED PARKING" SIGN OVER "VAN ACCESSIBLE" SIGN.
- (S07) INSTALL PRECAST CONCRETE CURB STOP PER MANUFACTURER RECOMMENDATIONS.
- (S08) INSTALL BIKE RACK. SEE ARCHITECTURAL PLANS.

UTILITY KEY NOTES

- (U01) INSTALL SEWER MANHOLE. SEE DETAIL 1 / C0.4.
- (U02) INSTALL 8" PVC SEWER MAIN. SEE DETAIL 2 / C0.3 FOR TRENCHING.
- (U03) INSTALL 4" PVC SEWER SERVICE AT 2.0% MINIMUM SLOPE WITH CLEANOUT(S) PER THE UNIFORM PLUMBING CODE. CLEANOUTS SHALL BE TRAFFIC RATED PER ISPPVC STANDARD DRAWING 506A. SEE DETAIL 2 / C0.3 FOR TRENCHING AND DETAIL 2 / C0.4 FOR SERVICE CONNECTION.
- (U04) INSTALL 3/4" WATER SERVICE. SEE DETAIL 2 / C0.3 FOR TRENCHING AND SURFACE REPAIR AND DETAIL 4 / C0.3 FOR SERVICE CONNECTION. METER BOX, AND INSULATION REQUIREMENTS.
- (U05) POTABLE / NON-POTABLE WATER LINE CROSSING. REFER TO DETAIL 8 / C0.2.
- (U06) INSTALL CATCH BASIN PER DETAIL 6 / C0.2.
- (U07) INSTALL 12" ADS N-12 STORM DRAIN PIPE WITH A MINIMUM SLOPE OF 2.0%. SEE DETAIL 8 / C0.2 FOR POTABLE AND NON-POTABLE WATER LINE SEPARATION AND DETAIL 2 / C0.3 FOR TRENCHING.
- (U08) DRYWELL. SEE DETAIL 1 / C0.2.
- (U09) INSTALL C900 WATER MAIN. SEE DETAILS 1 & 2, SHEET C0.3 FOR TRENCHING.
 - a. 8"Ø
 - b. 6"Ø
- (U10) INSTALL 4"Ø WATER SERVICE. WATER METER TO BE LOCATED INSIDE FIRE RISER ROOM FOR DOMESTIC METERING.

- RETAIN AND PROTECT:
- TREE
 - CLEANOUT
 - POST
 - GAS METER



OPAL ENGINEERING, PLLC
 P.O. BOX 2530 - HAILEY, ID 83333
 WWW.OPAL-ENGINEERING.COM

PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

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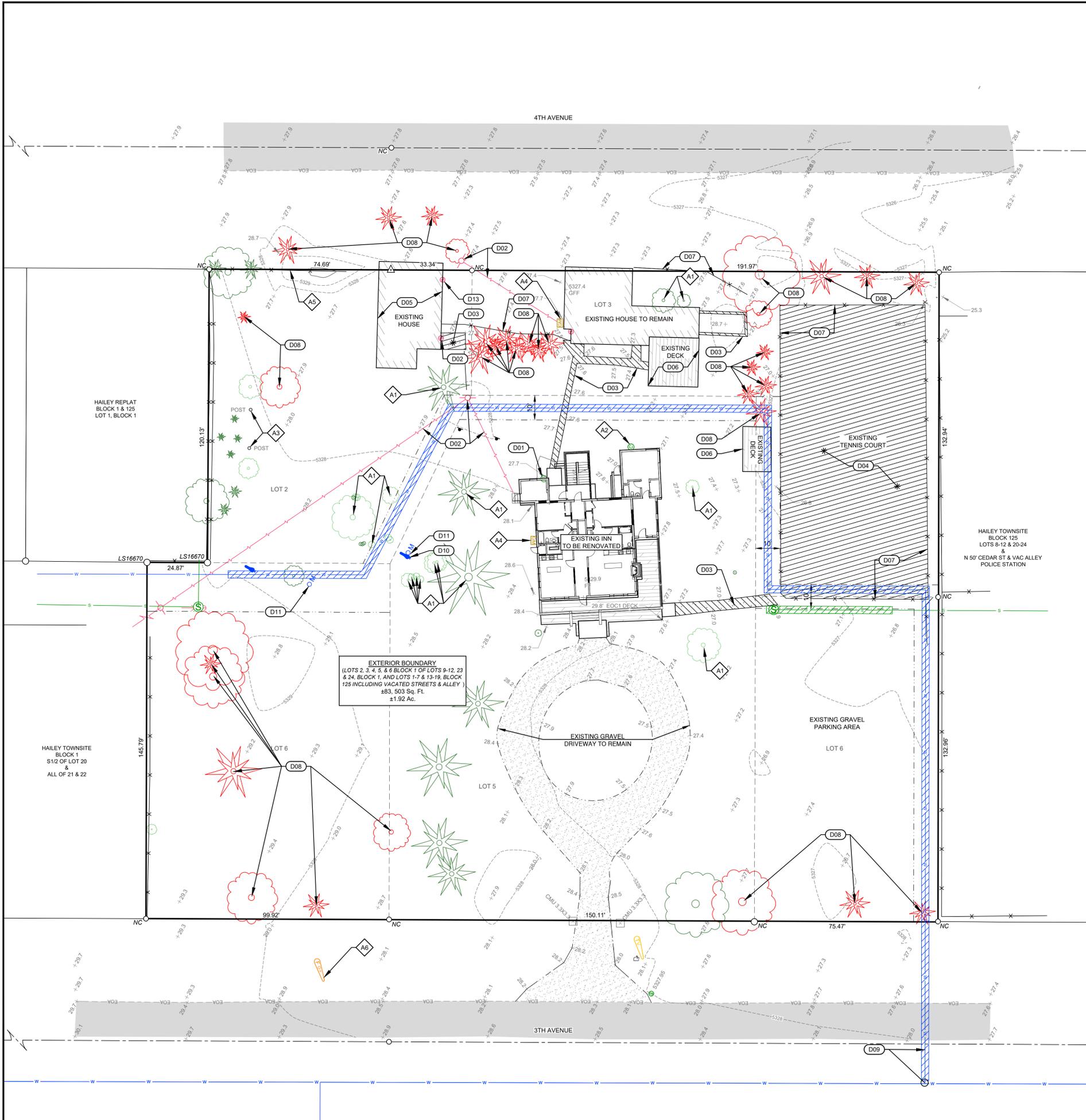
**PHASE 1
CONCEPTUAL SITE AND UTILITY PLAN**

THE INN AT ELLSWORTH ESTATE
 PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.

23018
PROJECT NUMBER

C1.1

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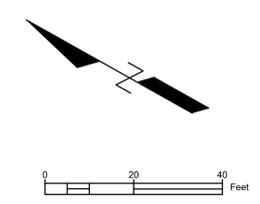


NOTES
 1. SEE SHEET C0.1 FOR CONSTRUCTION GENERAL NOTES.

- LEGEND**
- EXISTING ITEMS**
- FOUND 5/8" REBAR
 - FOUND 1/2" REBAR
 - FOUND 5/8" REBAR W/1.5" AC
 - △ CALCULATED POINT (NOTHING FOUND OR SET)
 - PROPERTY LINE
 - ADJOINER'S LOT LINE (BLAINE COUNTY GIS)
 - CENTERLINE
 - INTERIOR LOT LINE (CALCULATED - INTERIOR LOT LINES NOT SURVEYED)
 - UTILITY EASEMENT PER PLAT INSTRUMENT NUMBER 196806, TO BE MODIFIED
 - OVERHEAD POWER LINE
 - 5' CONTOUR INTERVAL
 - 1' CONTOUR INTERVAL
 - CONCRETE SIDEWALK
 - ASPHALT
 - GRAVEL DRIVE
 - DECK
 - BUILDING
 - GAS MARKER
 - GAS METER
 - CABLE TV RISER
 - POST
 - POWER METER
 - UTILITY POLE
 - GUYWIRE
 - SEWER MAIN
 - SEWER SERVICE
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 - MAILBOX
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- PROPOSED ITEMS**
- SAWCUT LINE
 - ASPHALT TO BE REMOVED
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 - WATER LINE TO BE ABANDONED AFTER PHASE 1 WATER MAIN INSTALLED
 - SEWER LINE TO BE ABANDONED AFTER PHASE 1 SEWER MAIN INSTALLED

- DEMOLITION KEYNOTES**
- (D01) REMOVE EXISTING CLEANOUT.
 - (D02) REMOVE EXISTING POWER INFRASTRUCTURE, COORDINATE WITH IDAHO POWER.
 - (D03) DEMOLISH, REMOVE, AND DISPOSE OF EXISTING CONCRETE SIDEWALK.
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 - (D08) REMOVE AND DISPOSE OF EXISTING TREE / VEGETATION.
 - (D09) CUT, CAP, AND ABANDON EXISTING WATER MAIN AT CONNECTION TO 3RD AVENUE WATER MAIN.
 - (D10) REMOVE EXISTING FROST FREE HYDRANT.
 - (D11) REMOVE AND DISPOSE OF EXISTING WATER METER.

- RETAIN AND PROTECT:**
- (A1) TREE
 - (A2) CLEANOUT
 - (A3) POST
 - (A4) GAS METER
 - (A5) FENCE
 - (A6) FIBER OPTICS LINE



PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

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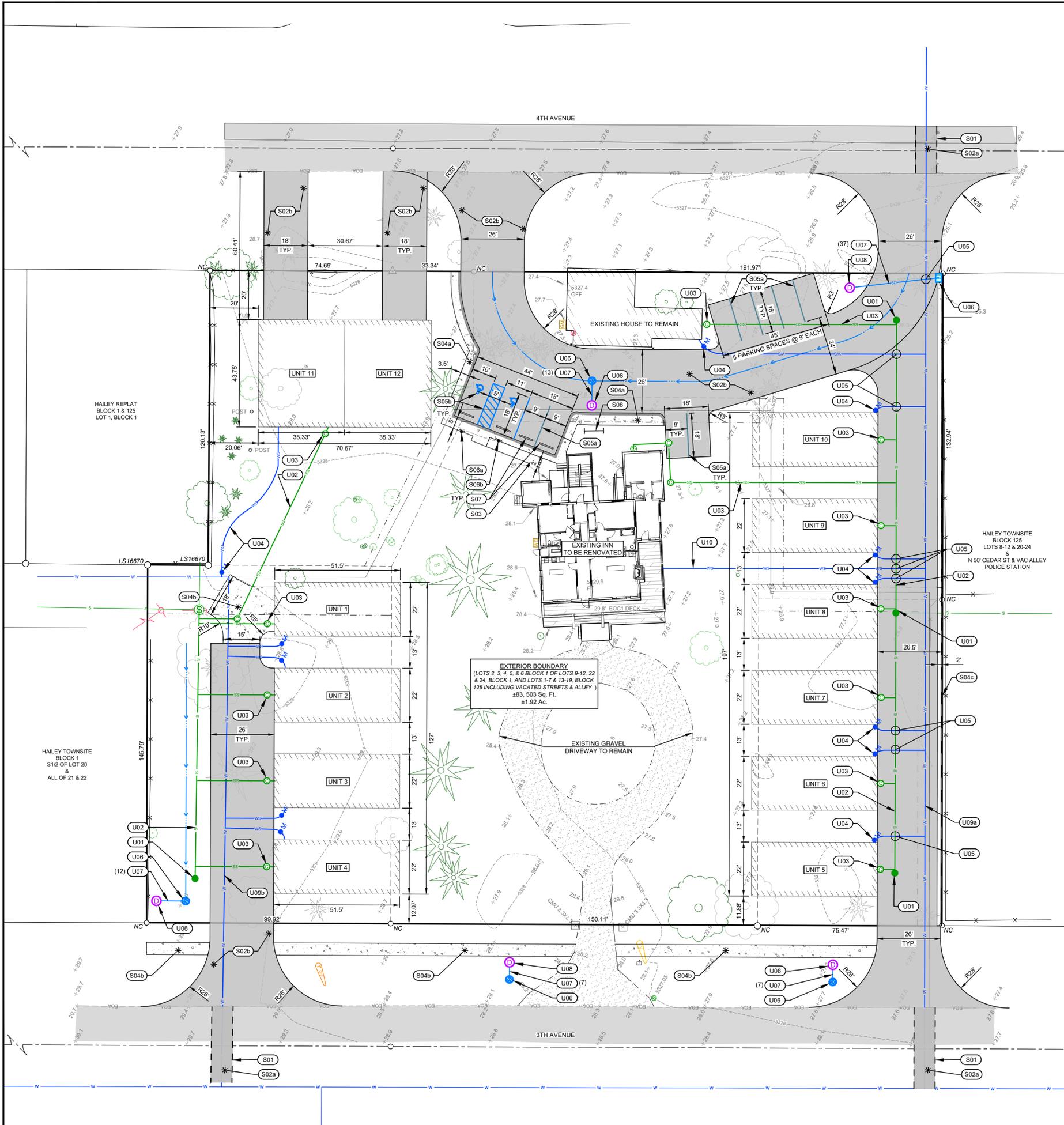
**MASTERPLAN
DEMOLITION PLAN**

THE INN AT ELLSWORTH ESTATE
 PREPARED FOR ARCH COMMUNITY HOUSING TRUST, INC.

23018
PROJECT NUMBER

C2.0

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NOTES

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LEGEND

| EXISTING ITEMS | PROPOSED ITEMS |
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| ○ FOUND 5/8" REBAR | — SAWCUT LINE |
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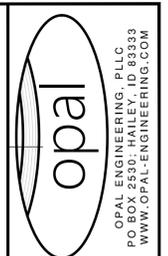
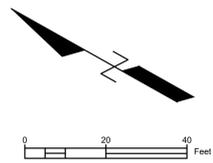
SITE IMPROVEMENT KEY NOTES

- S01 SAWCUT EXISTING ASPHALT
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 - a. CONSTRUCT ASPHALT REPAIR. SEE DETAIL 2 / C0.1.
 - b. CONSTRUCT ASPHALT PARKING LOT. SEE DETAIL 1 / C0.1.
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 - c. 6" CONCRETE CURB AND GUTTER PER DETAIL 5 / C0.1.
- S05 INSTALL ROAD STRIPING / PAINT
 - a. WHITE ASPHALT PARKING STRIPING (4" WIDE). MATCH CITY PATTERNS.
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- U08 DRYWELL: SEE DETAIL 1 / C0.2.
- U09 INSTALL C900 WATER MAIN. SEE DETAILS 1 & 2, SHEET C0.3 FOR TRENCHING.
 - a. 8'Ø
 - b. 6'Ø
- U10 INSTALL 4"Ø WATER SERVICE. WATER METER TO BE LOCATED INSIDE FIRE RISER ROOM FOR DOMESTIC METERING.

- ◊ RETAIN AND PROTECT:
 1. TREE
 2. CLEANOUT
 3. POST
 4. GAS METER



PURPOSE: ISSUE FOR REQUEST FOR PROPOSALS (4/26/2024)

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MASTERPLAN
CONCEPTUAL SITE AND UTILITY PLAN
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