

# CITY COUNCIL MEETING AGENDA MEMO

Meeting Date: | January 21, 2025 | Staff Member/Dept: | Abby Rivin, Senior Planner

Planning and Building Department

Agenda Item: Recommendation to Approve Amended Right-of-Way Encroachment Agreement 22779A

for the Bluebird Village Community Housing Project.

# Recommended Motion:

I move to authorize the Mayor to sign Amended Right-of-Way Encroachment Agreement 22794A with 4% Bluebird Housing Partners LLC.

# Reasons for Recommendation:

- The Ketchum City Council approved Right-of-Way Encroachment Agreement 22779 for the Bluebird Village Community Housing Project on August 1, 2022. The approved in the original agreement included the sidewalk snowmelt system, skybridge connecting the two buildings over the alleyway, metal canopies, window shades, an irrigation line, and building footing foundations encroaching within the East Avenue and 5<sup>th</sup> Street rights-of-way.
- Amended Right-of-Way Encroachment Agreement 22779A modifies the original agreement to include a planter that encroaches 3 inches into the public right-of-way along the 5<sup>th</sup> Street sidewalk. No other changes or modifications to the design of the sidewalks, alley, or right-of-way improvements are proposed.
- The encroachments specified in Amended Right-of-Way Encroachment Agreement 22779A comply with all standards for permanent right-of-way encroachments specified in Ketchum Municipal Code §12.12.060.

Policy Analysis and Background (non-consent items only):

# Sustainability Impact:

None OR state impact here: The snowmelt system for the right-of-way improvements associated with the Bluebird Village Community Housing Project meets the city's snowmelt requirements for commercial projects. Exhibit A includes the applicant's narrative response explaining how the snowmelt system complies with the city's requirements.

# **Financial Impact:**

None OR Adequate funds exist in account:	There is no financial requirement from the city for this
	action.

# Attachments:

1. Amended Right-of-Way Encroachment Agreement 22779A

# WHEN RECORDED, PLEASE RETURN TO:

OFFICE OF THE CITY CLERK CITY OF KETCHUM POST OFFICE BOX 2315 KETCHUM, IDAHO 83340

# **RIGHT-OF-WAY ENCROACHMENT AGREEMENT 22779A**

THIS AGREEMENT, made and entered into this \_\_\_\_\_day of \_\_\_\_\_, 2025, by and between the CITY OF KETCHUM, IDAHO, a municipal corporation ("Ketchum"), whose address is Post Office Box 2315, Ketchum, Idaho 83340 and Greg Dunfield, representing 4% Bluebird Housing Partners LLC and GMD Development, whose address is 520 Pike Street Suite 1010, Seattle, WA 98101, and Charles Friedman, representing 4% Bluebird Housing Partners LLC and Ketchum Community Development Corporation (collectively referred to as "Owner"), whose address is whose address is Post Office Box 6452, Ketchum, Idaho 83340.

## RECITALS

WHEREAS, Owner wishes to permit the construction, installation, and placement of a hydronic snowmelt system, pavers, metal shades, window shade boxes, an irrigation line, building foundation footings, and a planter t for the development of the Bluebird Village Community Housing Project within the public rights-of-way on East Avenue, 5<sup>th</sup> Street, and the Ketchum Townsite Block 45 alleyway. These improvements are shown in Exhibit A attached hereto and incorporated herein (collectively referred to as the "Improvements") and are described in Exhibit B attached hereto.

WHEREAS, Ketchum finds that said Improvements will not impede the use of said public right-of-way at this time subject to the terms and provisions of this Agreement;

WHEREAS, the Owner will restore the street, alley, sidewalk, curb, and gutter and any landscaping back to the original condition acceptable to the Streets and Facilities Director;

NOW, THEREFORE, in contemplation of the above stated facts and objectives, it is hereby agreed as follows:

## TERMS AND CONDITIONS

- 1. Ketchum shall permit Owner to contruct, install, maintain, and repair the Improvements identified in Exhibit A within within the public rights-of-way on East Avenue, 5th Street, and the Ketchum Townsite Block 45 alleyway until notified by Ketchum to remove the infrastructure at which time Owner shall remove infrastructure at Owner's expense.
- 2. Owner shall be responsible for the maintenance of said Improvements and shall repair said improvements within 48 hours upon notice from Ketchum that repairs are needed.
  - 3. Snowmelt systems installed in the public right-of-way shall be installed and operate at all times during the winter according to the following:
    - The system shall meet the requirements of the International Energy Conservation Code (2018 IECC, 403.12.2)

- The system shall have an electronic main control board to operate the system that is programmable and optimizes the way the system functions.
- Installation of in-ground control sensors linked to the main control board that
  detect snow and ice on the surface, monitor the the sidewalk or driveway
  temperature, and automatically activates the system to be turned on or off
  based on the snow condition and air temperature.
- 4. Owner shall be responsible for restoring the alley, sidewalk, curb, and gutter and landscaping that is altered due to the construction and installation of the vault, to the satisfaction of the Director of Streets and Facilities.
- 5. In consideration of Ketchum allowing Owner to maintain the Improvements in the public right-of-way, Owner agrees to indemnify and hold harmless Ketchum from and against any and all claims of liability for any injury or damage to any person or property arising from the Improvements constructed, installed and maintained in the public right-of-way. Owner shall further indemnify and hold Ketchum harmless from and against any and all claims arising from any breach or default in the performance of any obligation on Owner's part to be performed under this Agreement, or arising from any negligence of Owner or Owner's agents, contractors or employees and from and against all costs, attorney's fees, expenses and liabilities incurred in the defense of any such action or proceeding brought thereon. In the event any action or proceeding is brought against Ketchum by reason of such claim, Owner, upon notice from Ketchum, shall defend Ketchum at Owner's expense by counsel satisfactory to Ketchum. Owner, as a material part of the consideration to Ketchum, hereby assumes all risk of damages to property or injury to persons in, upon or about the Improvements constructed, installed and maintained in the public right-of-way arising from the construction, installation and maintenance of said Improvements and Owner hereby waives all claims in respect thereof against Ketchum.
- 6. Ketchum shall not be liable for injury to Owner's business or loss of income therefrom or for damage which may be sustained by the person, goods, wares, merchandise or property of Owner, its tenants, employees, invitees, customers, agents or contractors or any other person in or about the Subject Property caused by or resulting from the Improvements constructed, installed, removed or maintained in the public right-of-way.
- 7. Owner understands and agrees that by maintaining the Improvements in the public right-of-way pursuant to this Agreement, Owner obtains no claim or interest in said public right-of-way which is adverse to that of Ketchum and that Owner obtains no exclusive right to said public right-of-way nor any other right to use the public right-of-way not specifically described herein.
- 8. In the event either party hereto retains an attorney to enforce any of the rights, duties and obligations arising out of this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party reasonable attorney's fees at the trial and appellate levels and, whether or not litigation is actually instituted.
- 9. This Agreement shall be governed by, construed, and enforced in accordance with the laws and decisions of the State of Idaho. Venue shall be in the District Court of the fifth Judicial District of the State of Idaho.
- 10. This Agreement sets forth the entire understanding of the parties hereto and shall not be changed or terminated orally. It is understood and agreed by the parties hereto that there are no verbal promises or implied promises, agreements, stipulations or other

representations of any kind or character pertaining to the Improvements maintained in the public right-of-way other than as set forth in this Agreement.

- 11. No presumption shall exist in favor of or against any party to this Agreement as the result of the drafting and preparation of this document.
  - 12. This Agreement shall be recorded with the Blaine County Recorder by Ketchum.
- 13. The parties fully understand all of the provisions of this Agreement, and believe them to be fair, just, adequate, and reasonable, and accordingly accept the provisions of this Agreement freely and voluntarily.

OWNER:	CITY OF KETCHUM:
By: ID 4% Bluebird KCDC LLC, an Idaho limited liability company its Managing Member	By: Neil Bradshaw Its: Mayor
By: Ketchum Community Development Corporation an Idaho nonprofit corporation its Sole Member and Manager	n Attest:
By: Name: Charles Friedman Its: Executive Director	By: Trent Donat, City Clerk
By: ID 4% Bluebird GMD LLC, an Idaho limited liability company its Non-Managing Member	
By: GMD Development LLC A Washington limited liability company Its Sole Member and Manager	
By: Name: Gregory M. Dunfield Its: Manager	
STATE OF, ) ) ss. County of )	
On this day of, 2025, and for said State, personally appeared Charles F Managing Member of 4% Bluebird KCDC LCC, instrument and acknowledged to me that he executions.	and the person who executed the foregoing
IN WITNESS WHEREOF, I have hereunto day and year first above written.	o set my hand and affixed my official seal the
	Notary Public for Residing at Commission expires

STATE OF, ) ss. County of )	
) ss.	
County of )	
and for said State, personally appear	, 2025, before me, the undersigned Notary Public in red Gregory M. Dunfield, known or identified to me to be the bird GMD LLC, and the person who executed the foregoing that he executed the same.
IN WITNESS WHEREOF, I I day and year first above written.	have hereunto set my hand and affixed my official seal the
	Notary Public for
	Residing at
	Commission expires

# **EXHIBIT A**

# BLUEBIRD VILLAGE CITY OF KETCHUM, BLAINE COUNTY, IDAHO JULY 2022

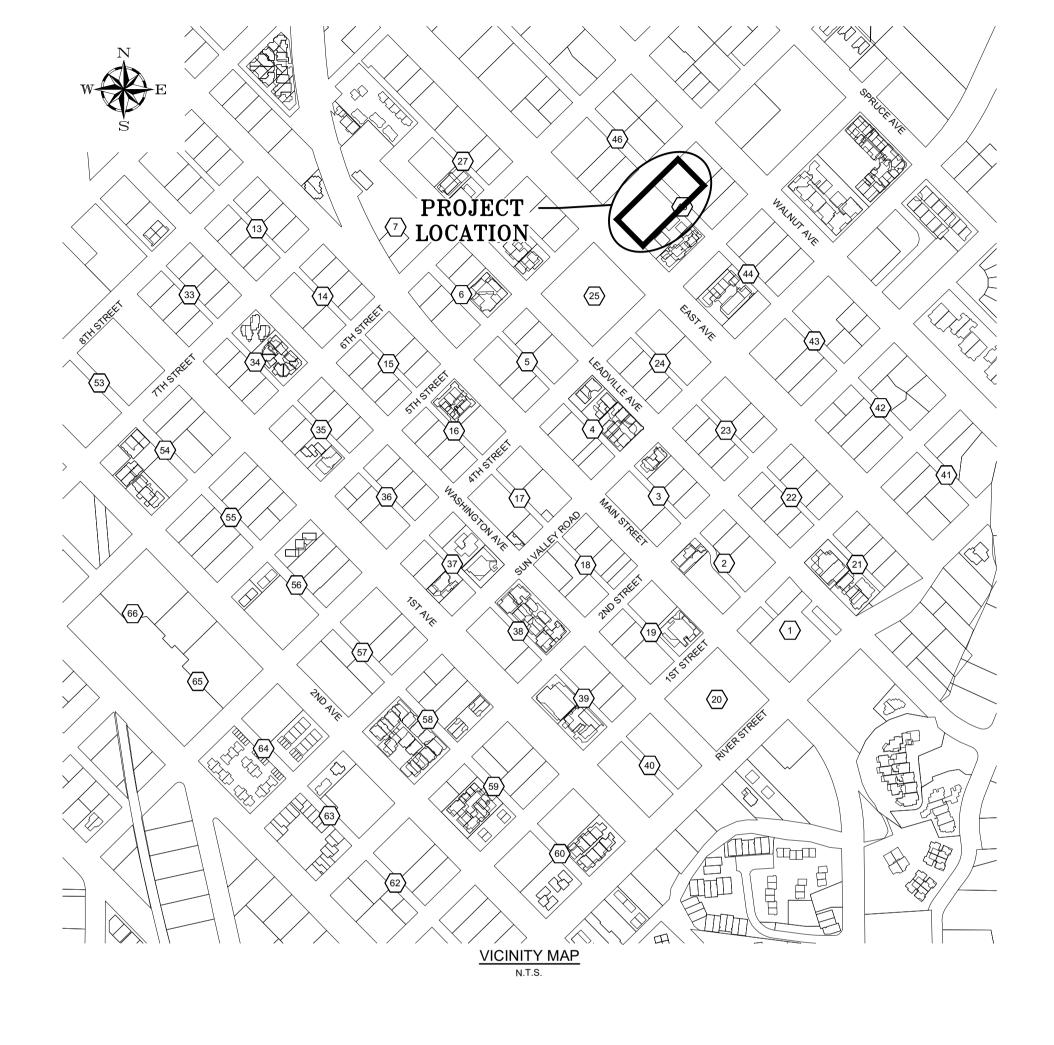
# CONSTRUCTION NOTES

- I. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION" (ISPWC) AND CITY OF KETCHUM STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND KEEPING A COPY OF THE ISPWC AND CITY OF KETCHUM STANDARDS ON SITE DURING CONSTRUCTION.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS IN AN APPROXIMATE WAY. 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 (1-800-342-1585) TO LOCATE ALL EXISTING UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.
- 3. CONTRACTOR SHALL COORDINATE RELOCATIONS OF DRY UTILITY FACILITIES (POWER, CABLE, PHONE, TV) WITH THE APPROPRIATE UTILITY FRANCHISE.
- 4. 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.
- $\mathsf{5}.\;\;\mathsf{THE}\;\mathsf{CONTRACTOR}\;\mathsf{SHALL}\;\mathsf{OBTAIN}\;\mathsf{ALL}\;\mathsf{NECESSARY}\;\mathsf{PERMITS}\;\mathsf{PRIOR}\;\mathsf{TO}\;\mathsf{CONSTRUCTION}\;\mathsf{(THIS}\;\mathsf{MAY}\;\mathsf{INCLUDE}$ ENCROACHMENT PERMITS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) PERMIT COVERAGE).
- 6. ALL CLEARING & GRUBBING SHALL CONFORM TO ISPWC SECTION 201.
- 7. ALL EXCAVATION & EMBANKMENT SHALL CONFORM TO ISPWC 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-698. 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.
- 8. ALL 2" MINUS GRAVEL SHALL CONFORM TO ISPWC 802, TYPE II (ITD STANDARD 703.04, 2"), SHALL BE PLACED IN CONFORMANCE WITH ISPWC 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.
- 9. ALL 3/4" MINUS CRUSHED GRAVEL SHALL CONFORM TO ISPWC 802, TYPE I (ITD STANDARD 703.04, 3/4" B), SHALL BE PLACED IN CONFORMANCE WITH ISPWC 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.
- 10. ALL ASPHALTIC CONCRETE PAVEMENT WORK SHALL CONFORM TO ISPWC SECTION(S) 805, 810, AND 811 FOR CLASS II PAVEMENT. ASPHALT AGGREGATE SHALL BE 1/2" (13MM) NOMINAL SIZE CONFORMING TO TABLE 803B IN ISPWC SECTION 803. ASPHALT BINDER SHALL BE PG 58-28 CONFORMING TO TABLE A-1 IN ISPWC SECTION 805.
- 11. ASPHALT SAWCUTS SHALL BE AS INDICATED ON THE DRAWINGS, OR 24" INCHES FROM EDGE OF EXISTING ASPHALT, IF NOT INDICATED OTHERWISE SO AS TO PROVIDE A CLEAN PAVEMENT EDGE FOR MATCHING. NO WHEEL CUTTING SHALL BE ALLOWED.
- 12. TRAFFIC CONTROL SHALL BE PER THE TRAFFIC CONTROL PLAN. CONTRACTOR WILL NEED TO MAINTAIN ACCESS TO ALL PRIVATE PROPERTIES, UNLESS OTHERWISE COORDINATE WITH THE PROPERTY OWNER THROUGH THE CITY ENGINEER.
- 13. ALL CONCRETE WORK SHALL CONFORM TO ISPWC SECTIONS 701, 703, AND 705. ALL CONCRETE SHALL BE 3,000 PSI MINIMUM, 28 DAY, AS DEFINED IN ISPWC SECTION 703, TABLE 1. 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.
- 14. ALL TRENCHING SHALL CONFORM TO ISPWC STANDARD DRAWING SD-301. TRENCHES SHALL BE BACKFILLED AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99
- 15.PER IDAHO CODE § 55-1613, THE CONTRACTOR SHALL RETAIN AND PROTECT ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS; 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.
- 16. CONSTRUCTION OF WATER MAINS AND ALL OTHER RELATED APPURTENANCES SHALL BE IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), IDAPA 58.01.08, IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS AND THE CITY OF KETCHUM UTILITIES DEPARTMENT STANDARDS.
- 17. CONTRACTOR SHALL PRESSURE TEST, DISINFECT, AND CONDUCT BIOLOGICAL TESTING IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS, AND THE PRESSURE TESTING, DISINFECTION, AND MICROBIOLOGICAL TESTING PROCEDURES.
- 18. ALL WATER SUPPLY FIXTURES, FITTINGS, PIPING, AND ALL RELATED APPURTENANCES SHALL BE ANSI/NSF STD. 61 COMPLIANT.
- 19. ALL WATER SUPPLY FIXTURES. FITTINGS. PIPING. AND ALL RELATED APPURTENANCES SHALL COMPLY WITH THE LOW LEAD ACT REQUIRING ALL MATERIALS TO HAVE A LEAD CONTENT EQUAL TO OR LESS THAT 0.25%.
- 20.THE CONTRACTOR SHALL USE ANSI/NSF STANDARD 60 CHEMICALS AND COMPOUNDS DURING INSTALLATION & DISINFECTION OF POTABLE WATER MAIN.
- 21.EXISTING CONDITIONS AND BOUNDARY INFORMATION SHOWN HEREON ARE PER A SURVEY CONDUCTED BY GALENA ENGINEERING. TOPOGRAPHIC INFORMATION IS AS IT EXISTED ON THE DATE THE FIELD SURVEY WAS PERFORMED (05/22/19).
- 22. DOCUMENTATION OF TESTING FOR WORK IN ROW MEETING SECTION 12.04.040 D WILL BE REQUIRED FOR ASPHALT,
- CONCRETE, AND BASE MATERIALS AND WILL BE NECESSARY FOR C OF O.

# SHEET INDEX

SHEET#	<b>DESCRIPTION</b>
CO.1	COVER SHEET
C0.2	DETAIL SHEET
C0.3	DETAIL SHEET
00.4	CHIDATIA

C1.0 GRADING, DRAINAGE, AND UTILITY PLAN



SYR MH = Syringa Manhole

KISTING ITEMS					PROPOSED ITEMS	
	Property Line Adjoiner's Lot Line Centerline Idaho Power Easement	—————————————————————————————————————	PB = Buried Power Line Overhead Power Line Light PBOX = Power Box	AP = Angle Point BEG = Beginning BS = Bottom of Step CC = Curb Cut CL = Centerline	NEW ASPHALT  CONCRETE SIDEWALK  ADA COMPLIANT RAMP	DRYWELL  SD—— STORM DRAIN
O O A	FD5/8 = Found 5/8" Rebar  FD1/2 = Found 1/2" Rebar  CNTRL = Survey Control  5' Contour Interval	E S	PP = Power Pole  EVAULT = Power Vault  OUT = Power Outlet  Sewer Main	COR = Corner  EOA = Edge of Asphalt  EOC = Edge of Concrete  EOP = Edge of Pavers  FFE = Finished Floor @ Entry	CONCRETE 6" ROLLED C & G  ROLLED CURB W/ VERTICAL CURB  CURB TRANSITION ZERO REVEAL TO 6" ROLLED CURB	CATCH BASIN  CATCH BASIN  SAWCUT LINE  APPROXIMATE LIMITS OF DISTURBANCE  ROAD PAINT
<b>X</b>	1' Contour Interval Curb & Gutter FNC = Fence Line Building	SD	SS = Sewer Service  SMH = Sewer Manhole  Roof Drain  Storm Drain  DWELL = Dry Well	GFF = Garage Finished Floor IC = Illegible Cap LIP = Lip of Gutter LP = Low Point NC = No Cap	ZERO REVEAL CURB & GUTTER  REVERSE PAN ROLLED CURB & GUTTER  CURB TRANSITION REVERSE PAN ROLLED TO 6" VERTICAL C & G	2.0% GRADE  LIP 50.00 STREET LIGHT  6"W  6"W  ROAD PAINT  GRADE  SPOT ELEVATION  STREET LIGHT
• EOA • • • • • • • • • • • • • • • • • • •	Asphalt  Boll = Bollard  SGN = Sign  GM = Gas Main	— KCW — 8" — — — — — — — — — — — — — — — — —	Ketchum City Line (8")  Abandoned Ketchum Spring Line (10")  Abandoned Ketchum Spring Line (4")  Abandoned Water Service	NG = Natural Ground PC = Point of Curvature PT = Point of Tangent TA = Top of Asphalt	ADA ACCESS TRUNCATED DOME  SIGN FIRE HYDRANT  WATER VALVE	● M WATER METER  WATER MAIN FITTING W/ THRUST BLOCKS  WATER VALVE
TVTVT	TVB = Cable TV Buried  TVBOX = Cable TV Riser  PHB = Buried Telephone Line  PHBOX = Telephone Riser  SVR MH = Syringa Manhole	⊙ M	WMTR = Water Meter Abandoned Fire Hydrant WV = Water Valve	TBC = Top Back of Curb TBRC = Top Back of Rolled Curb TBVC = Top Back of Vertical Curb TC = Top of Concrete TP = Top of Pavers	5' CONTOUR INTERVAL 1' CONTOUR INTERVAL PAVERS	——ss——σ 4" PVC SEWER SERV ————————————————————————————————————

TS = Top of Step

DRAWN BY CHECKED BY

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OMPACTED SUBGRADE

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

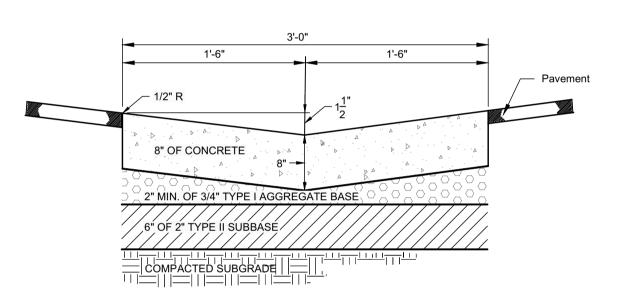
SLOPE VARIES
3" OF ASPHALT
4" OF 3/4" MINUS AGGREGATE LEVELING COURSE
6" OF 2" MINUS AGGREGATE BASE COURSE
COMPACTED SUBGRADE
∠SLAB SHIELD FOIL-FACED INSULATION (R-5 MIN)

# BELOW SAND, PERFORATE AT 12" O.C. EACH WAY.

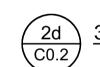
- 1. SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE. 2. MATERIALS SHALL CONFORM WITH CURRENT ISPWC STANDARDS, DIVISION 800
- 3. PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL
- REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.



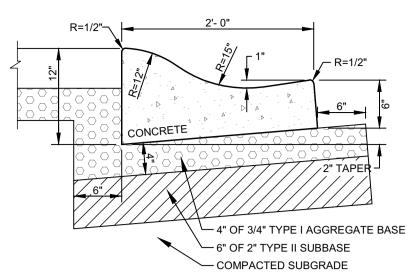
TYPICAL HEATED ASPHALT SECTION



- 1. SUBBASE CAN BE 2" TYPE II OR  $\frac{3}{4}$ " TYPE I CRUSHED AGGREGATE BASE COURSE. 2. MATERIALS SHALL CONFORM WITH CURRENT ISPWC STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
- 3. PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
- 4. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT
- TERMINAL POINTS OF RADII. 5. CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM



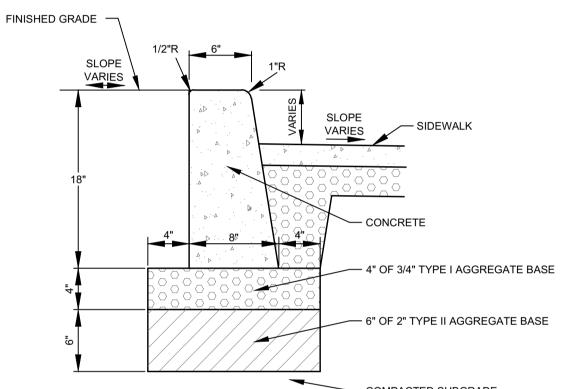
36" CONCRETE VALLEY GUTTER



- SUBBASE CAN BE 2" TYPE II OR ¾" TYPE I CRUSHED AGGREGATE BASE COURSE. 2. MATERIALS SHALL CONFORM WITH CURRENT ISPWC STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
- 3. PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
- 4. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS
- 5. CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING (8-FEET W/SIDEWALK).



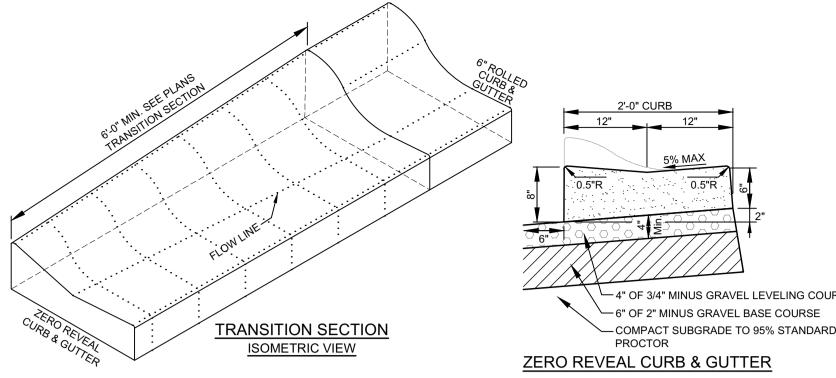
6" CONCRETE ROLLED CURB & GUTTER



- COMPACTED SUBGRADE
- SUBBASE CAN BE 2" TYPE II OR  $\frac{3}{4}$ " TYPE I CRUSHED AGGREGATE BASE COURSE. 2. MATERIALS SHALL CONFORM WITH CURRENT ISPWC STANDARDS, DIVISION 800
- AGGREGATES AND ASPHALT.
- 3. PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
- 4. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS
- 5. CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING

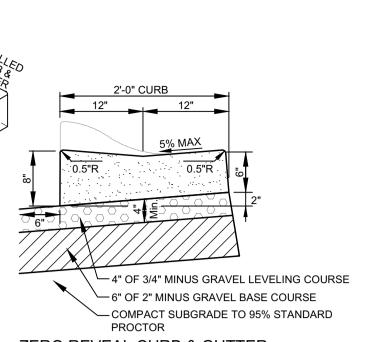


CONCRETE VERTICAL CURB



- 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.
- CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS TO MATCH SIDEWALK WITH 10-FEET MAXIMUM SPACING.
- MATERIALS SHALL CONFORM WITH CURRENT ISPWC STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.





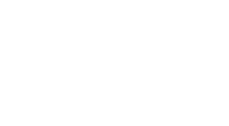
2f C0.2 **6" CONCRETE REVERSE GUTTER PAN ROLLED CURB & GUTTER** 

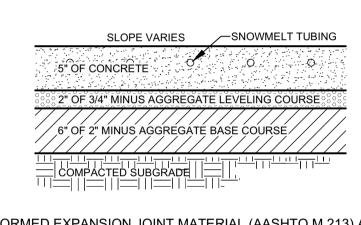
6" CONCRETE ROLLED CURB WITH

VARIABLE HEIGHT VERTICAL CURB



ZERO REVEAL CURB WITH  $\left(\begin{array}{c} 2g \\ C0.2 \end{array}\right)$ **REVERSE GUTTER PAN** 





- 6" OF 2" TYPE II SUBBASE - COMPACTED SUBGRADE

- 4" OF 3/4" TYPE I AGGREGATE BASE

SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE. 2. MATERIALS SHALL CONFORM WITH CURRENT ISPWC STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.

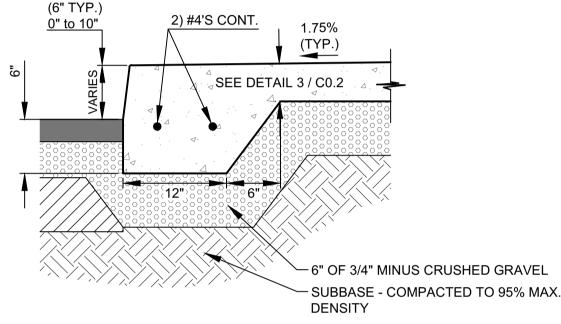
CONCRETE.

- STAMPED BY A LICENSED ENGINEER, IS PROVIDED. 4. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS
- OF RADII. 5. CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING
- (8-FEET W/SIDEWALK).

24" WIDE CONCRETE VALLEY GUTTER

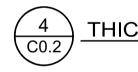
- 1. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.
- 2. CONTINUOUS PLACEMENT PREFERRED. SCORE AT INTERVALS TO MATCH WIDTH OF WALK NOT TO EXCEED 5 FEET SPACING.
- 3. 1/2" TRANSVERSE PREFORMED BITUMINOUS JOINTS AT THE TERMINUS POINTS FOR CURVE AND WHERE SIDEWALK IS PLACED BETWEEN TWO PERMANENT FOUNDATIONS.
- 4. MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPWC SPECIFICATIONS. 5. SURFACING MATERIAL FOR THE NEW SIDEWALKS ALONG EAST AVENUE AND

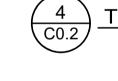




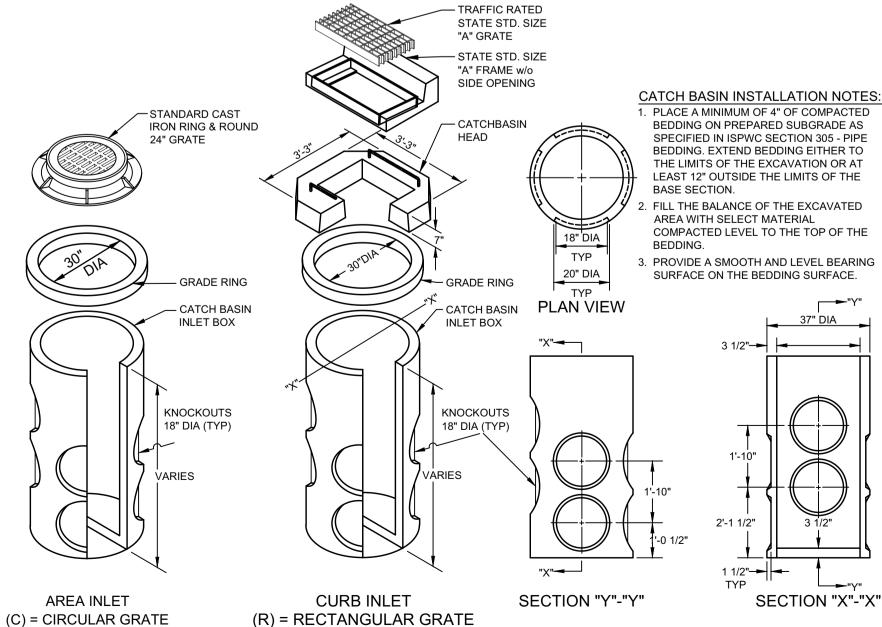
1. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.

- 2. CONTINUOUS PLACEMENT PREFERRED. SCORE AT INTERVALS TO MATCH WIDTH OF WALK NOT TO EXCEED 5 FEET SPACING.
- 3. 1/2" TRANSVERSE PREFORMED BITUMINOUS JOINTS AT THE TERMINUS POINTS FOR CURVE AND WHERE SIDEWALK IS PLACED BETWEEN TWO PERMANENT FOUNDATIONS.
- 4. MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPWC SPECIFICATIONS.

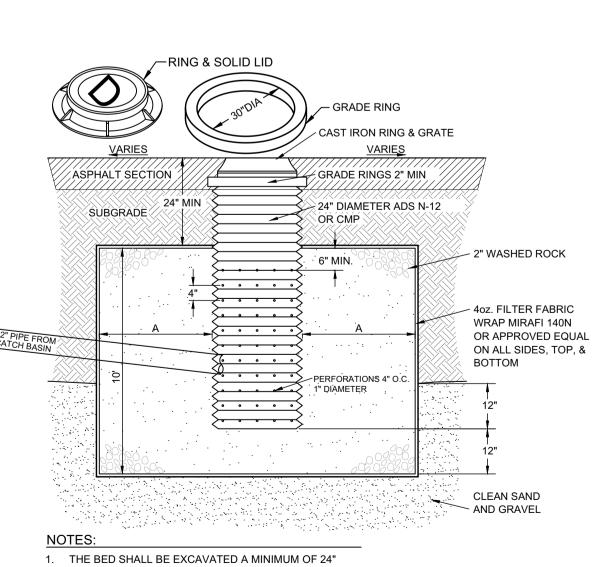




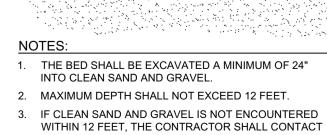
THICKENED SIDEWALK EDGE



30" DIAMETER CATCH BASIN

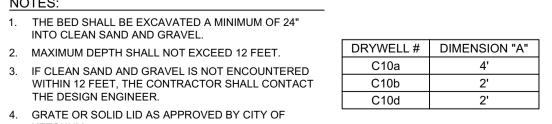


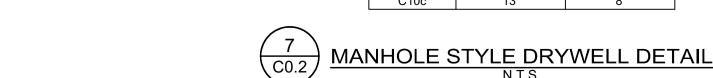
DRYWELL DETAIL

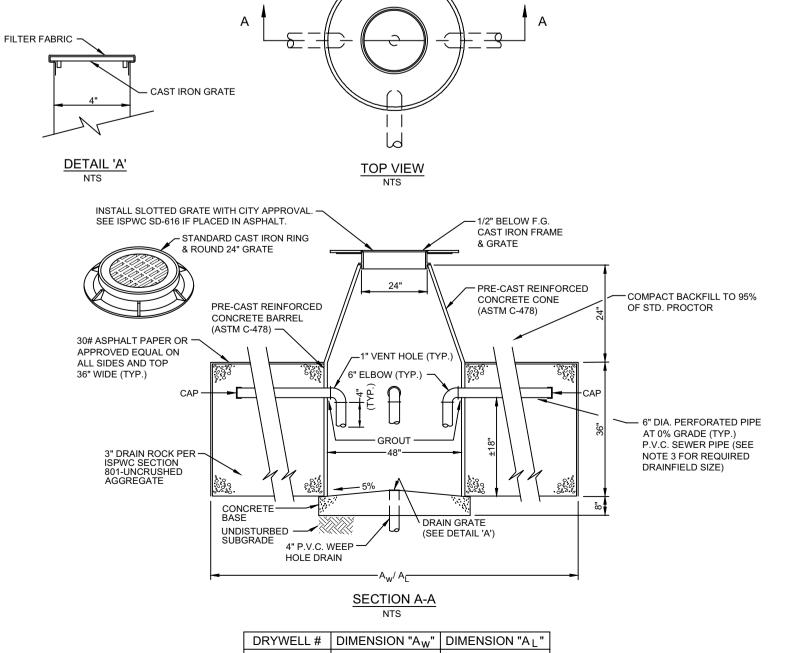


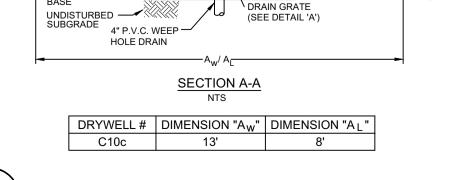
THE DESIGN ENGINEER.

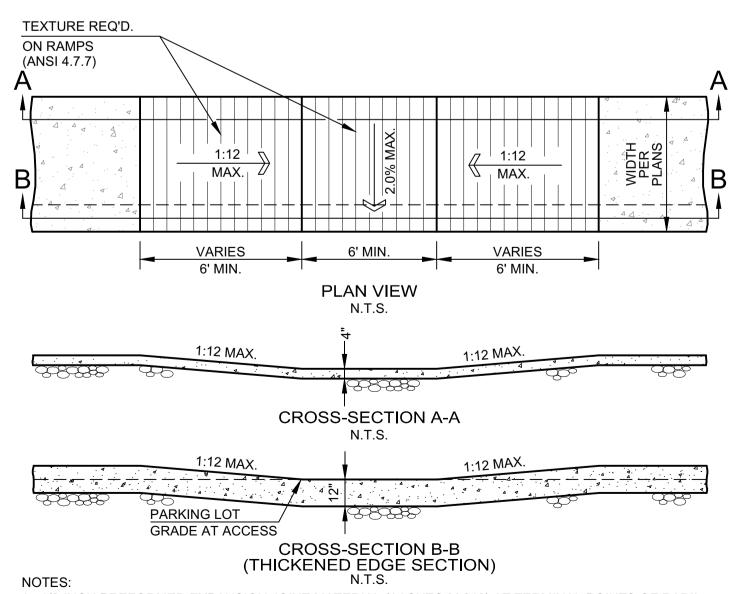
KETCHUM.











1. 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII. 2. CONTINUOUS PLACEMENT PREFERRED. SCORE AT INTERVALS TO MATCH WIDTH OF WALK NOT TO EXCEED 5 FEET SPACING.

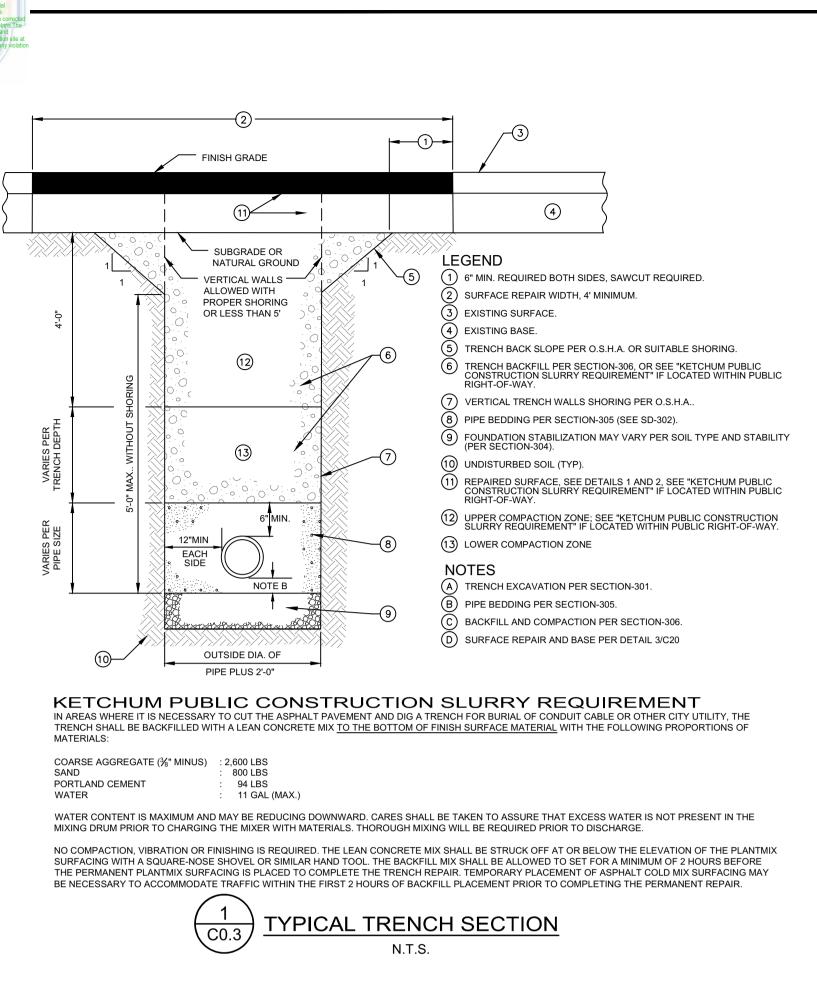
3. 1/2" TRANSVERSE PREFORMED BITUMINOUS JOINTS AT THE TERMINUS POINTS FOR CURVE AND WHERE SIDEWALK IS PLACED BETWEEN TWO PERMANENT FOUNDATIONS.

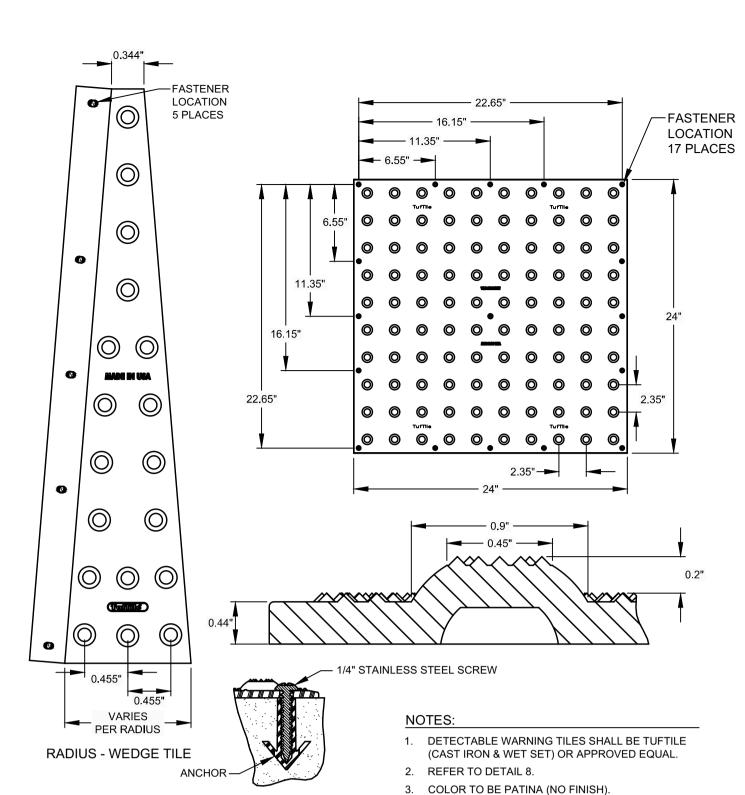
4. MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPWC SPECIFICATIONS.

PARKING AREA ADA ACCESS RAMP DETAIL N.T.S.

BLUI (480

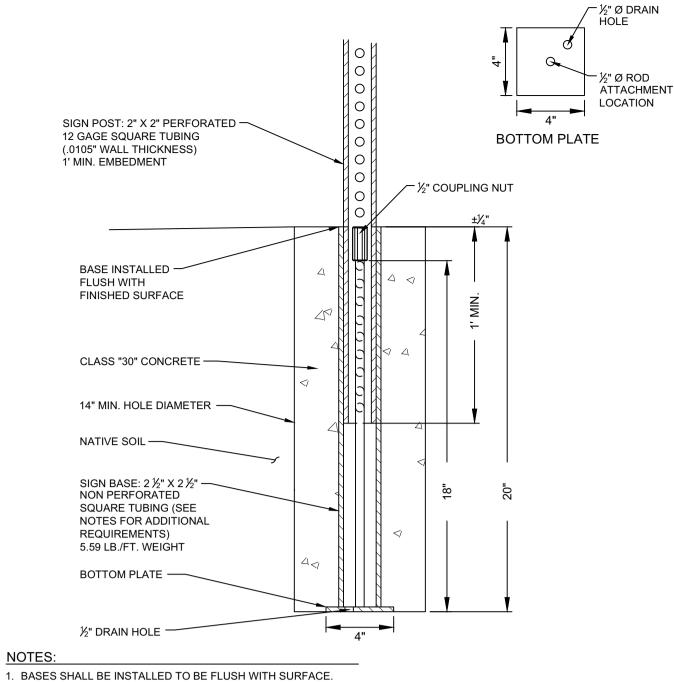
**DRAWN BY** CHECKED BY





DETECTABLE WARNING PLATE

ANCHOR DETAIL



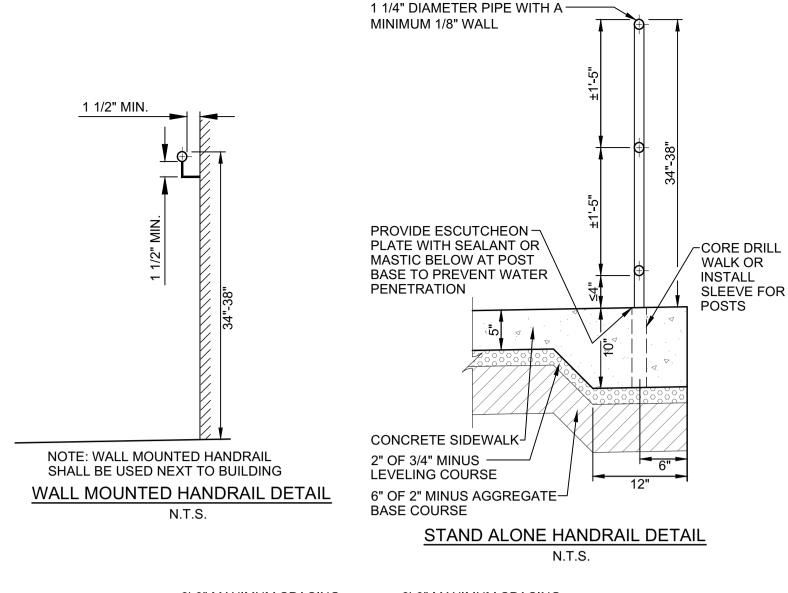
2. ALL INSTALLATIONS SHALL HAVE 14" Ø MINIMUM FOUNDATION OR GROUTED INTO SOLID ROCK. 3. ALL STREET SIGNS SHALL BE IN ACCORDANCE WITH THE MOST

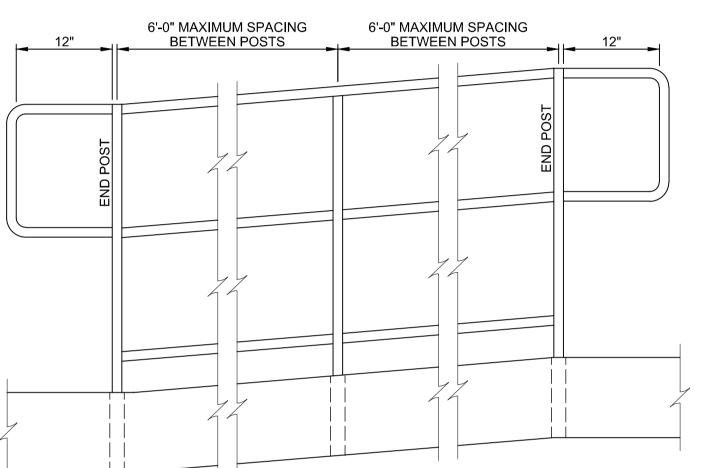
CURRENT EDITION OF THE MUTCD. 4. SIGN PLACEMENT SHALL BE APPROVED BY THE CITY OF

KETCHUM

5. CITY TO PROVIDE BASES.



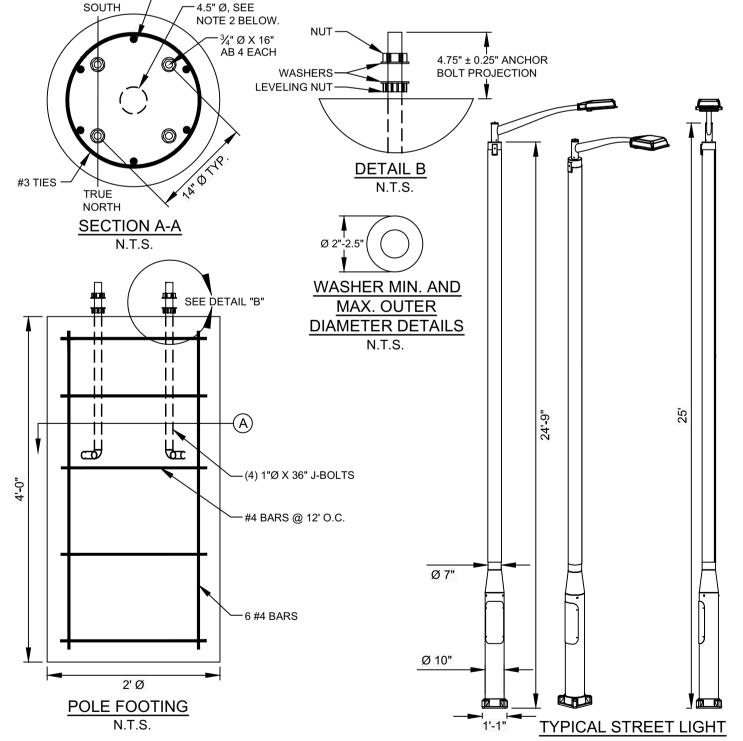




1. HANDRAIL SHALL BE PAINTED. PAINT SPECIFICATIONS PER OWNER

2. CLEAR WIDTH: THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36 INCHES MINIMUM PER ADA REQUIREMENTS (405.5)

TYPICAL HANDRAIL DETAIL



STREET LIGHT IS SOLARONE RFS DESIGN 158 LFP OR APPROVED EQUAL

5. STREET LIGHT SHALL BE 25' IN HEIGHT OR AS APPROVED BY CITY OF KETCHUM.

4. GROUNDING WIRE MUST BE 60" FROM BASE SO IT CAN REACH THE GROUNDING LUG INSIDE THE POLE.

GRID-TIED POLES.

A) PWL 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. ONE FULL. UNCUT LENGTH OF BOTH PWI, AND NPWI, PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE CROSSING, AND EITHER 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 C) EITHER THE NPWL OR WATER LINE OR BOTH MUST BE ENCASED WITH A SLEEVEING MATERIAL ACCEPTABLE TO DEQ FOR A HORIZONTAL

SIGN BASE MATERIAL & DIMENSION REQUIREMENTS

NTERNAL ROD MATERIAL & DIMENSION REQUIREMENTS

BOTTOM PLATE MATERIAL & DIMENSION REQUIREMENTS

2½" OUTSIDE TUBE STEEL (20" LENGTH)

2" COLD ROLLED ROD (18" LENGTH)

2 1/8" INSIDE TUBE STEEL

5" COUPLING NUTS

4" X 4" X 1/4" STEEL STRAP

a" THICK

DISTANCE OF 10 FEET ON BOTH SIDES OF THE CROSSING. POTABLE WATER LINE [PWL] BELOW NON-POTABLE WATER LINE [NPWL] SAME REQUIREMENTS AS ZONE 2 EXCEPT THE NPWL MUST

VERTICAL SEPARATION REQUIREMENTS

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

HORIZONTAL SEPARATION REQUIREMENTS ZONE 1: (GREATER THAN 10-FEET HORIZONTAL SEPARATION):

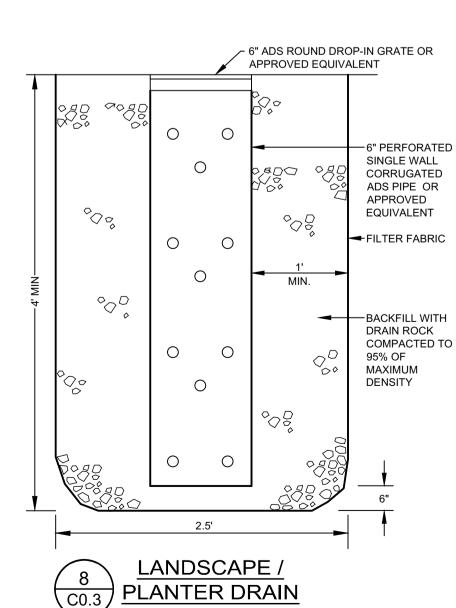
A) NO SPECIAL REQUIREMENTS. ZONE 2: (BETWEEN 6-FEET AND 10-FEET HORIZONTAL SEPARATION): A) NO SPECIAL REQUIREMENTS FOR POTABLE OR NON-POTABLE

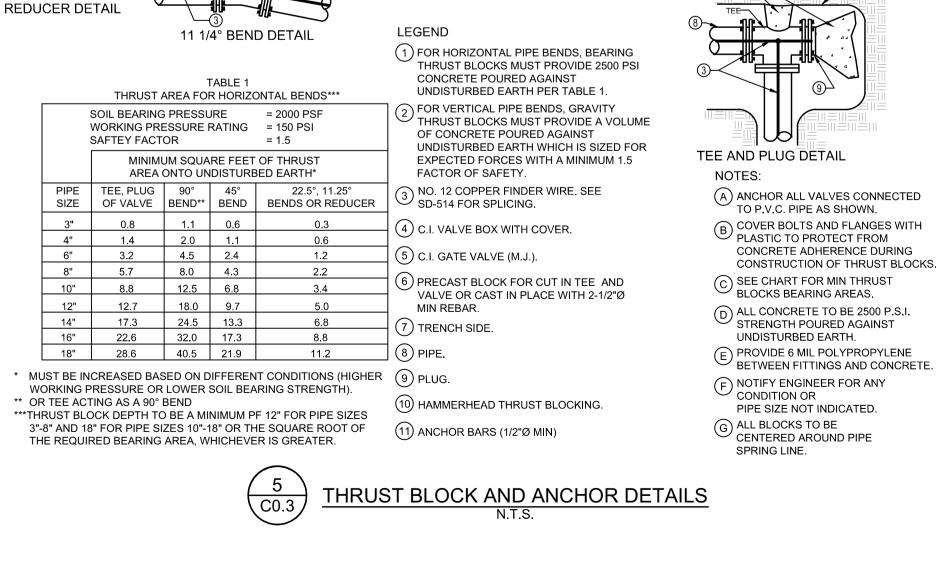
B) WATER AND NPWL SEPARATED BY AT LEAST 6 FEET AT OUTSIDE WALLS, AND

D) NPWL CONSTRUCTED TO POTABLE WATER MAIN STANDARDS, AND PRESSURE TESTED FOR WATER TIGHTNESS, OR

E) SITE SPECIFIC REQUIREMENTS APPROVED BY DEQ.

POTABLE AND NON-POTABLE WATER LINE (NPWL) SEPARATION





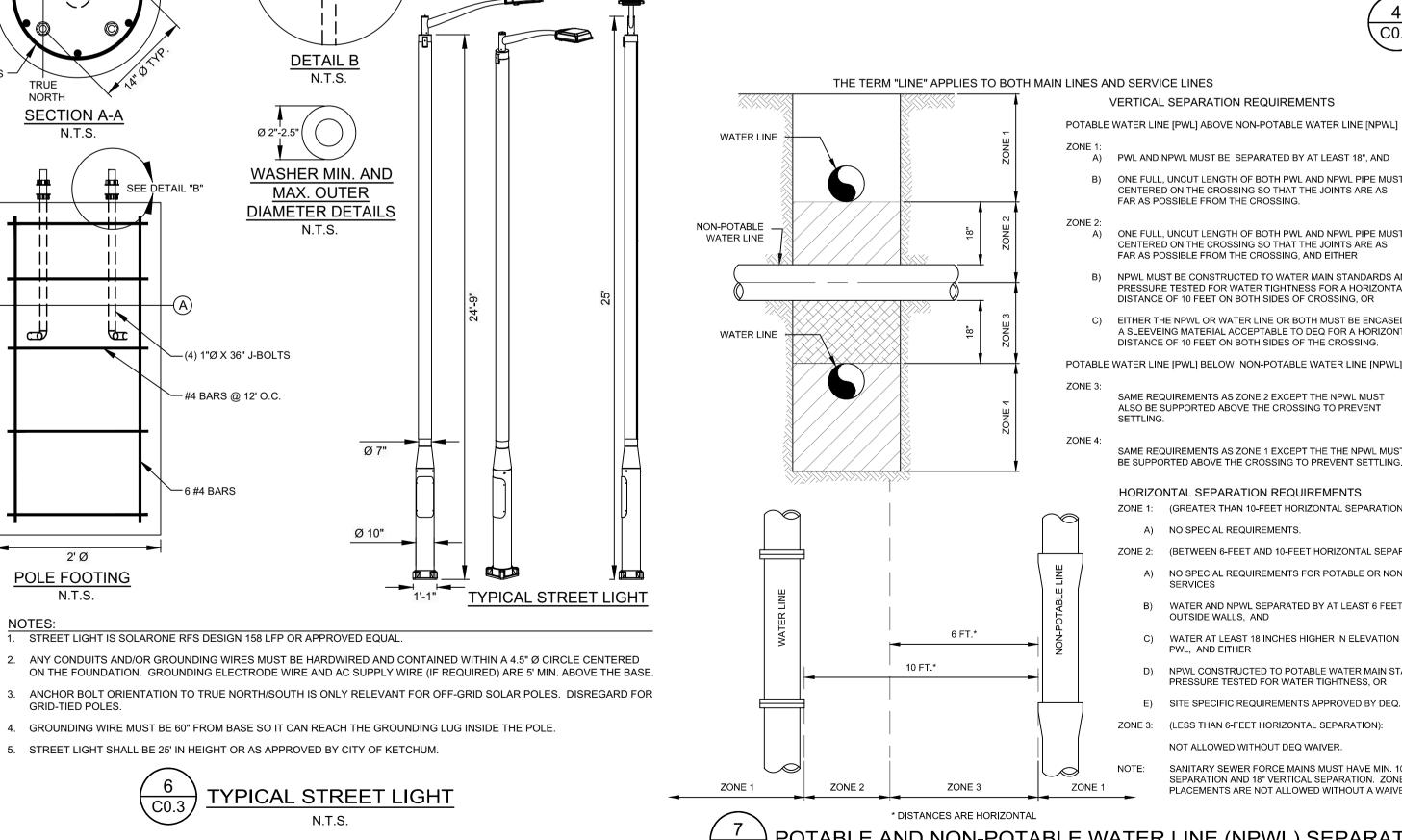
DO NOT LOCATE IN CONCRETE

BLOCKING

TYPICAL BEND DETAIL

VALVE ANCHOR DETAIL

VERTICAL BEND DETAIL



BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.

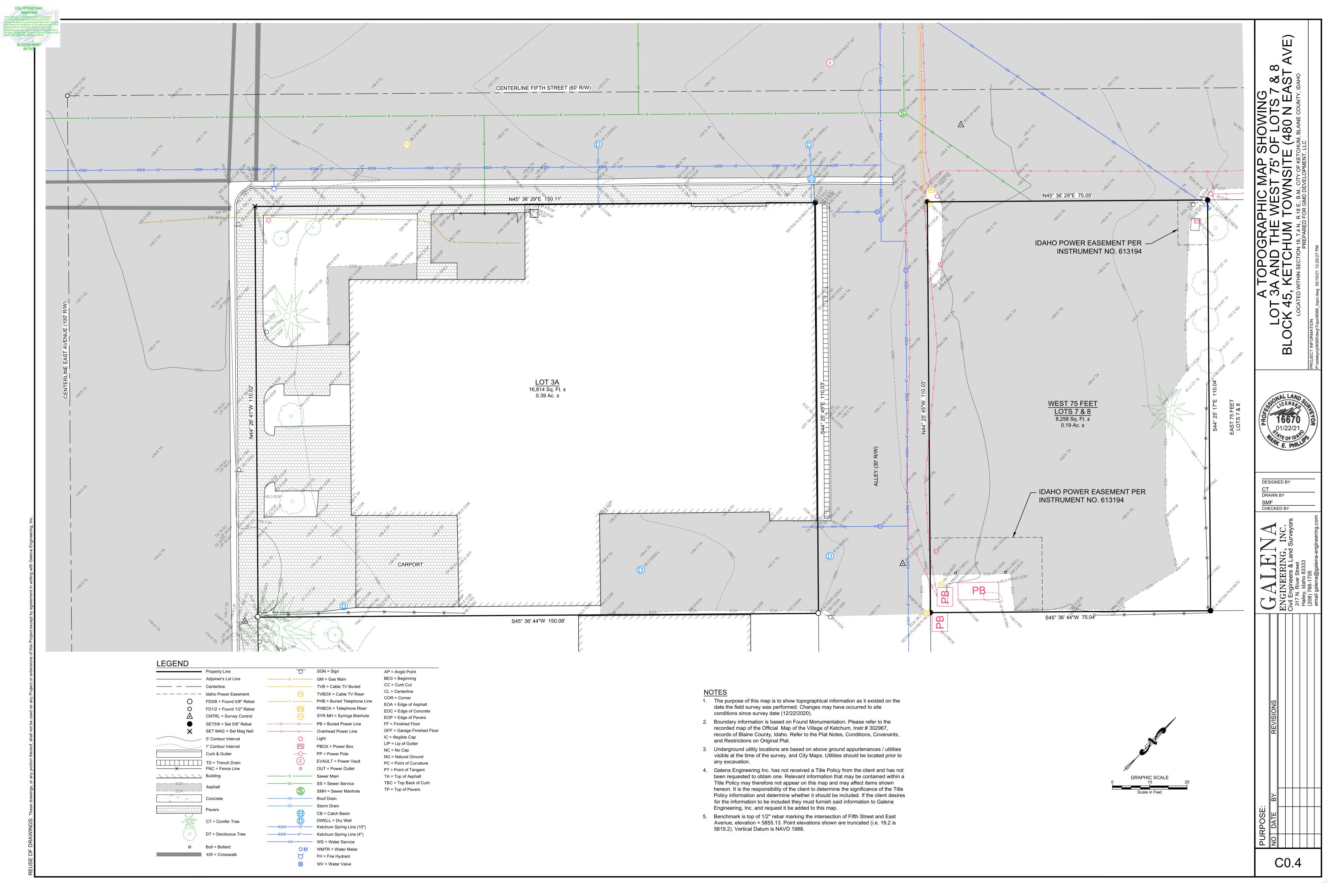
C) WATER AT LEAST 18 INCHES HIGHER IN ELEVATION THAN THE PWL, AND EITHER

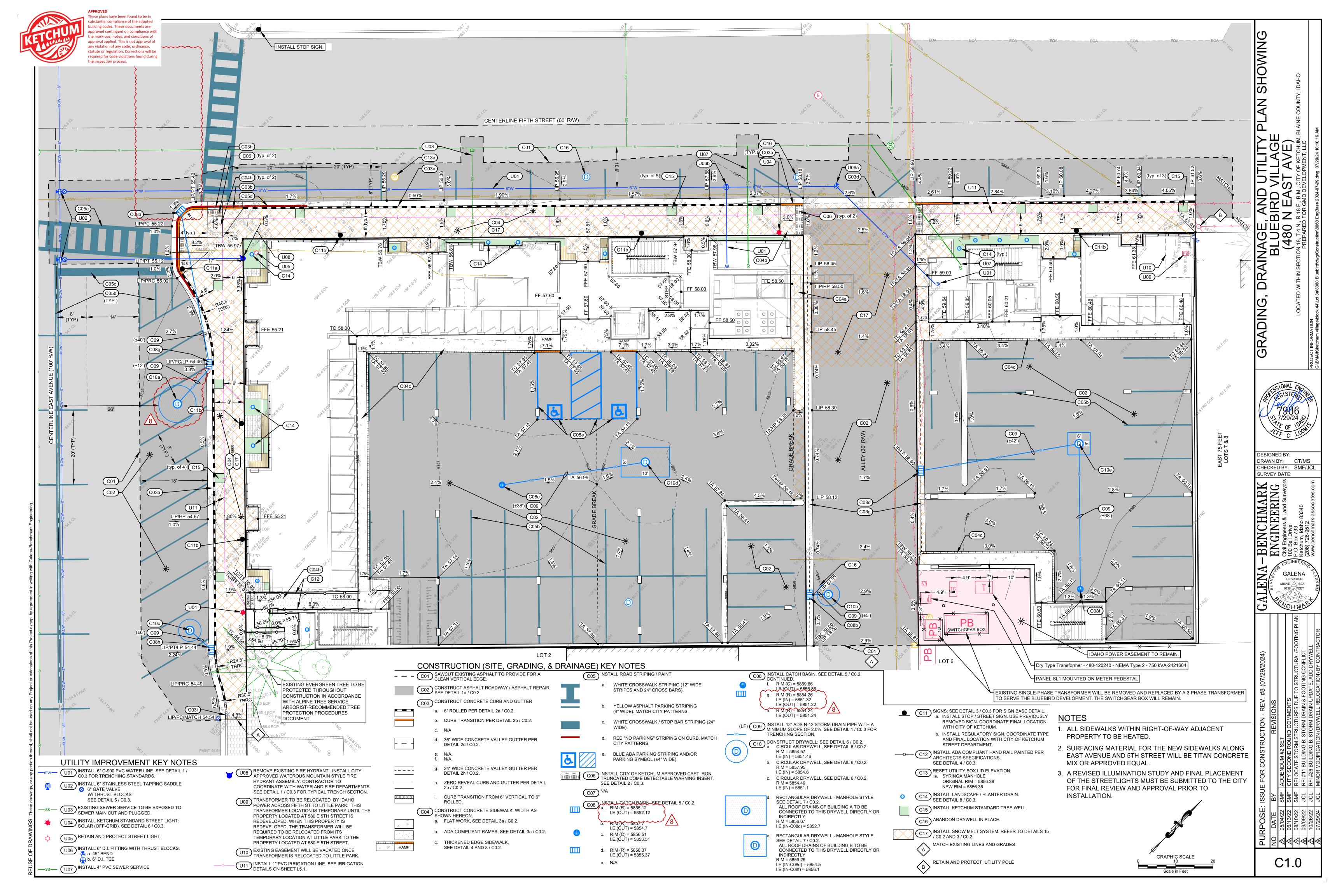
ZONE 3: (LESS THAN 6-FEET HORIZONTAL SEPARATION): NOT ALLOWED WITHOUT DEQ WAIVER. SANITARY SEWER FORCE MAINS MUST HAVE MIN. 10' HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION. ZONE 2 AND ZONE 3 PLACEMENTS ARE NOT ALLOWED WITHOUT A WAIVER GRANTED BY DEQ.

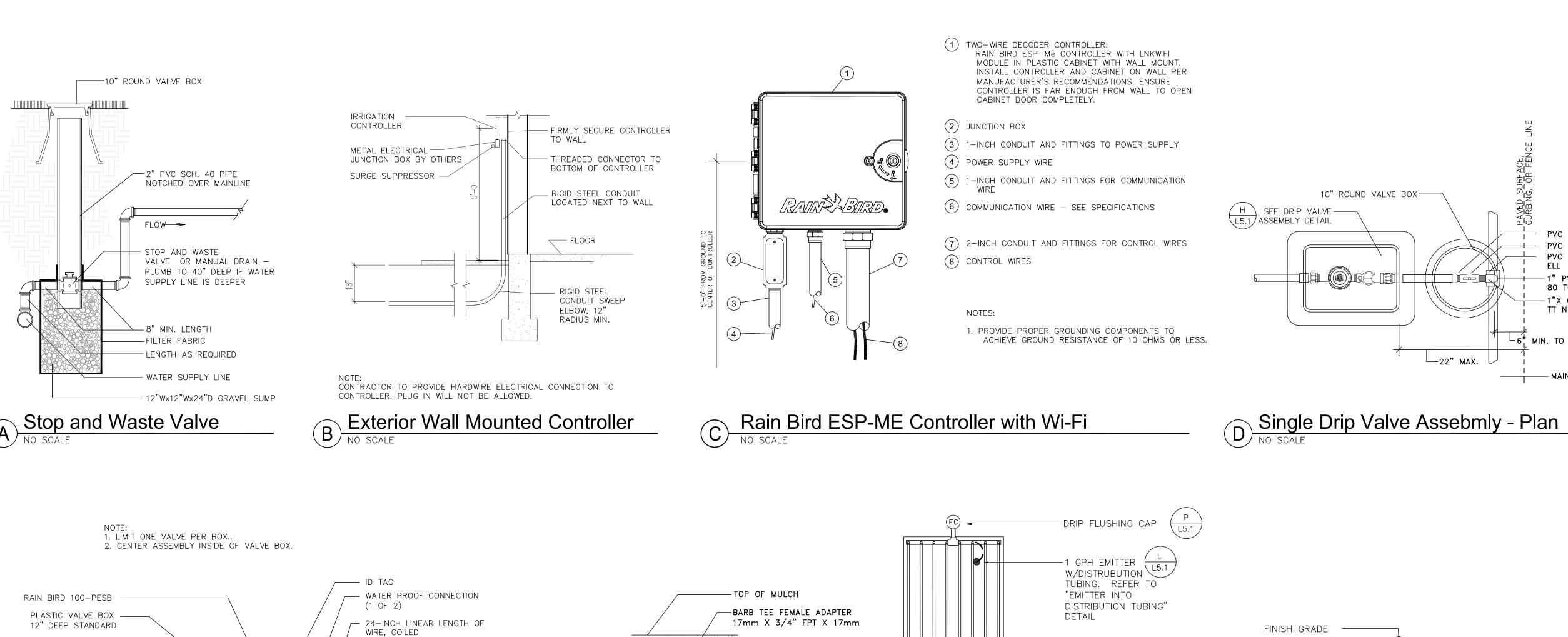
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CHECKED BY







TOP OF MULCH

---- FINISH GRADE

PVC SCH. 8
OR ELBOW

-PVC MANIFOLD LINE

PVC SCH. 80 TEE

RAIN BIRD-

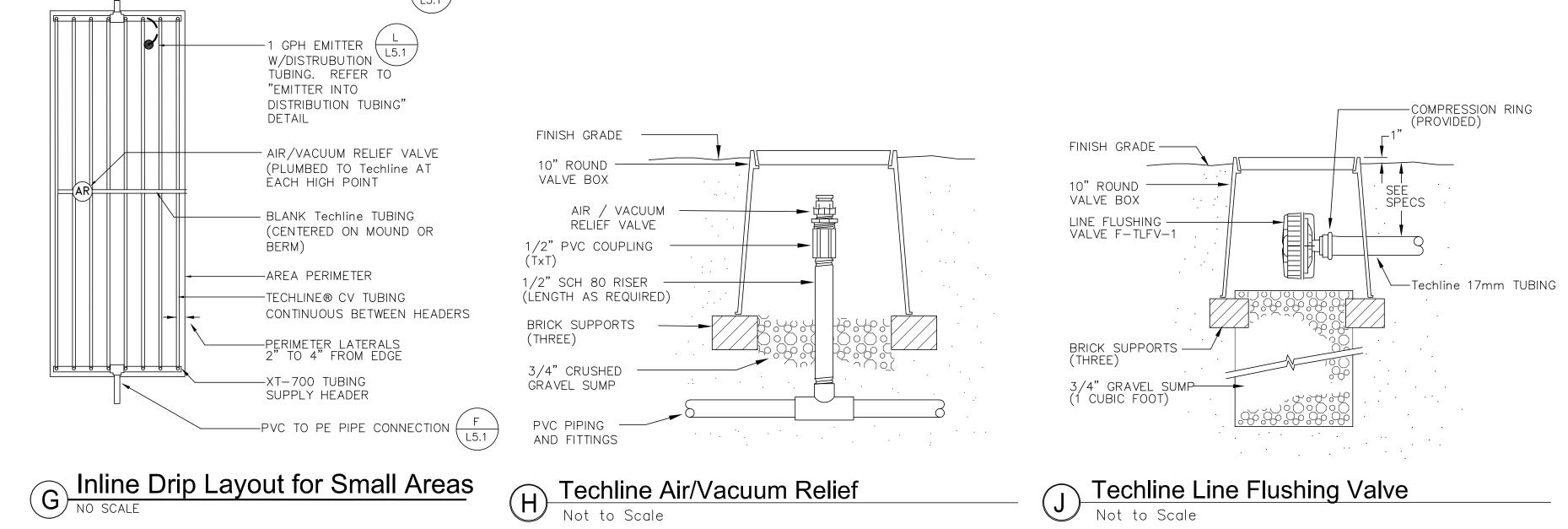
PRB-QKCHK-100

PVC SCH. 80 ACTION —

UNION FOR SERVICE

ASSEMBLY (1 OF 2)

BASKET FILTER



└─22" MAX.

PVC SCH. 80 MALE ADAPTER

80 TOE NIPPLE TO MAIN LINE

PVC BALL VALVE TT

1" PVC SCH. 80 TT90 W/ SCH.

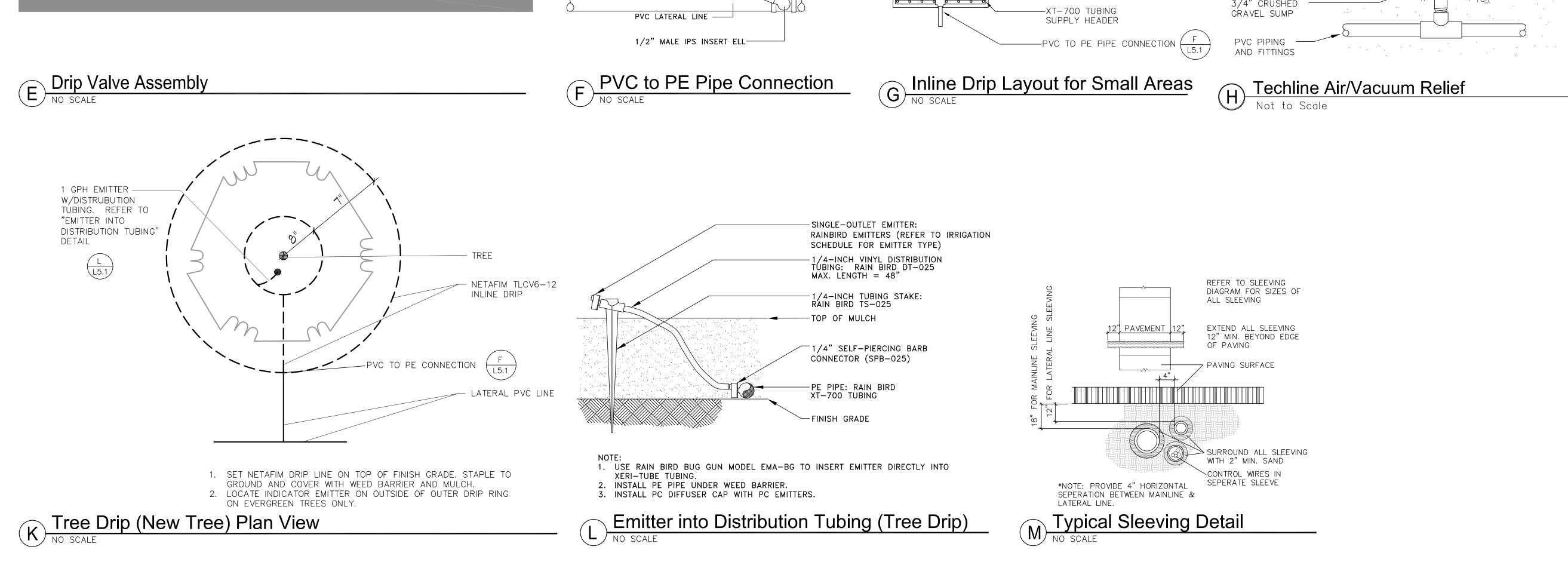
TT NIPPLE

MIN. TO TOP OF BOX

— MAIN SUPPLY LINE

PVC SCH. 80 SLIP TEE OR

—1"X CL. PVC SCH. 80



INLINE DRIP TUBING/DRIP

DISTRIBUTION TUBING

UNDER WEED FABRIC

\_3/4" MALE NPT X 1/2"

FLEXIBLE POLYETHYLENE PIPE

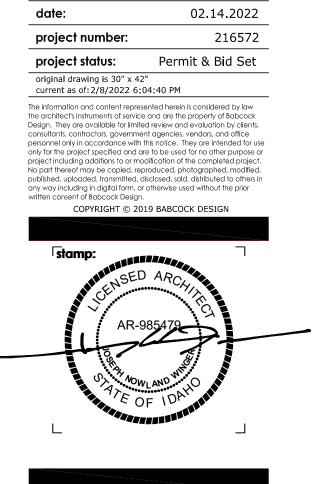
FINISH GRADE

BARB ADAPTER

SCH 40 TEE OR

ELBOW-





BLUEBIRD



# MUSGROVE ENGINEERING, P.A.

Bill A. Carter, P.E. – Principal Todd D. Nelson, P.E. – Principal Kurt E. Lechtenberg, P.E. – Principal Jason A. Rice, P.E. – Principal Thad S. Mason, P.E. – Principal Matthew N. Bradley, P.E. - Principal

# **BOISE OFFICE:**

234 S. Whisperwood Way Boise, Idaho 83709 208-384-0585

## **IDAHO FALLS OFFICE:**

645 W. 25<sup>TH</sup> Street Idaho Falls, Idaho 83402 208-523-2862 July 27, 2022

# Bluebird Village – GMD Development LLC

City Review Comments:

The following Narrative for the Snow Melt System and requirements:

# Snow Melt System:

- 1. Please provide a narrative response explaining how snowmelt system complies with these snowmelt requirements for commercial project:
  - All sidewalks and alley way will have snow melt per cities requirements.
- 2. Snowmelt systems installed in the public right-of-way shall be installed and operate at all times during the winter according to the following:
  - A snow melt controller is installed along with outside air temperature sensors and snow/ice sensors for each zone.
- 3. The system shall meet the requirements of the International Energy Conservation Code (2018 IECC, 403.12.2)
  - The snow melt system meets the required code.
  - See Sequence of Operation below:

# **GENERAL**:

The Snowmelt System shall consist of snow / ice melt sensors, slab sensors, lead/lag heating water pumps, two control valve at each snow melt manifold, natural gas boiler and snow melt radiant in-slab pipe.

## OPERATION:

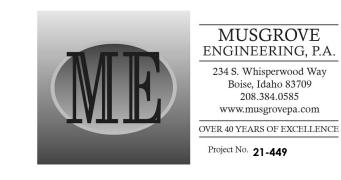
The Snowmelt System shall be enabled to idle mode whenever the outside air temperature is 40°f (adjustable) or lower and no moisture is detected. In idle mode, the heating water pump and boiler system shall be enabled. The Snowmelt System shall maintain a slab temperature of 40°f (adjustable) in idle mode. The boiler system shall maintain supply temperature of 90°f (adjustable) in idle mode.

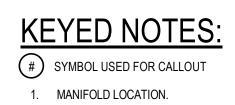
When the outside air temperature is above 40°f (adjustable) the Snowmelt System shall stop the heating pumps and boiler system.

When the Snowmelt System detects moisture, and the outside air temperature is below  $40^{\circ}f$  (adjustable) the Snowmelt System shall start in melting mode. In melting mode, the heating water pump and boiler system shall be enabled. The Snowmelt System shall maintain a slab temperature of  $38^{\circ}f$  (adjustable) until the moisture sensor does not detect moisture. The boiler system shall maintain a supply temperature of  $130^{\circ}f$  (adjustable) in melting mode. The Snowmelt System shall return to idle mode when the moisture sensor is not sensing moisture.

If lead heater water pump fails, the lag heater water pump shall start. An alarm shall be sent to the operator's workstation on failure of pump to start.

- 4. The system shall have an electronic main control board to operate the system that is programmable and optimizes the way the system functions.
  - A snow melt controller is installed along with outside air temperature sensors and snow/ice sensors for each zone.
- 5. Installation of in-ground control sensors linked to the main control board that detect snow and ice on the surface, monitor the sidewalk or driveway temperature, and automatically activates the system to be turned on or off based on the snow condition and air temperature.
  - A snow melt controller is installed along with outside air temperature sensors and snow/ice sensors for each zone.
- 6. See attached sheets for more information.







Babcock Design

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sheet information:

revisions: 
num. description date

6 City 3rd Rnd Comments 7.12.22

date: 02.14.2022
project number: 216572
project status: PERMIT SET

original drawing is 30" x 42"
current as of: 7/12/2022 2:22:19 PM

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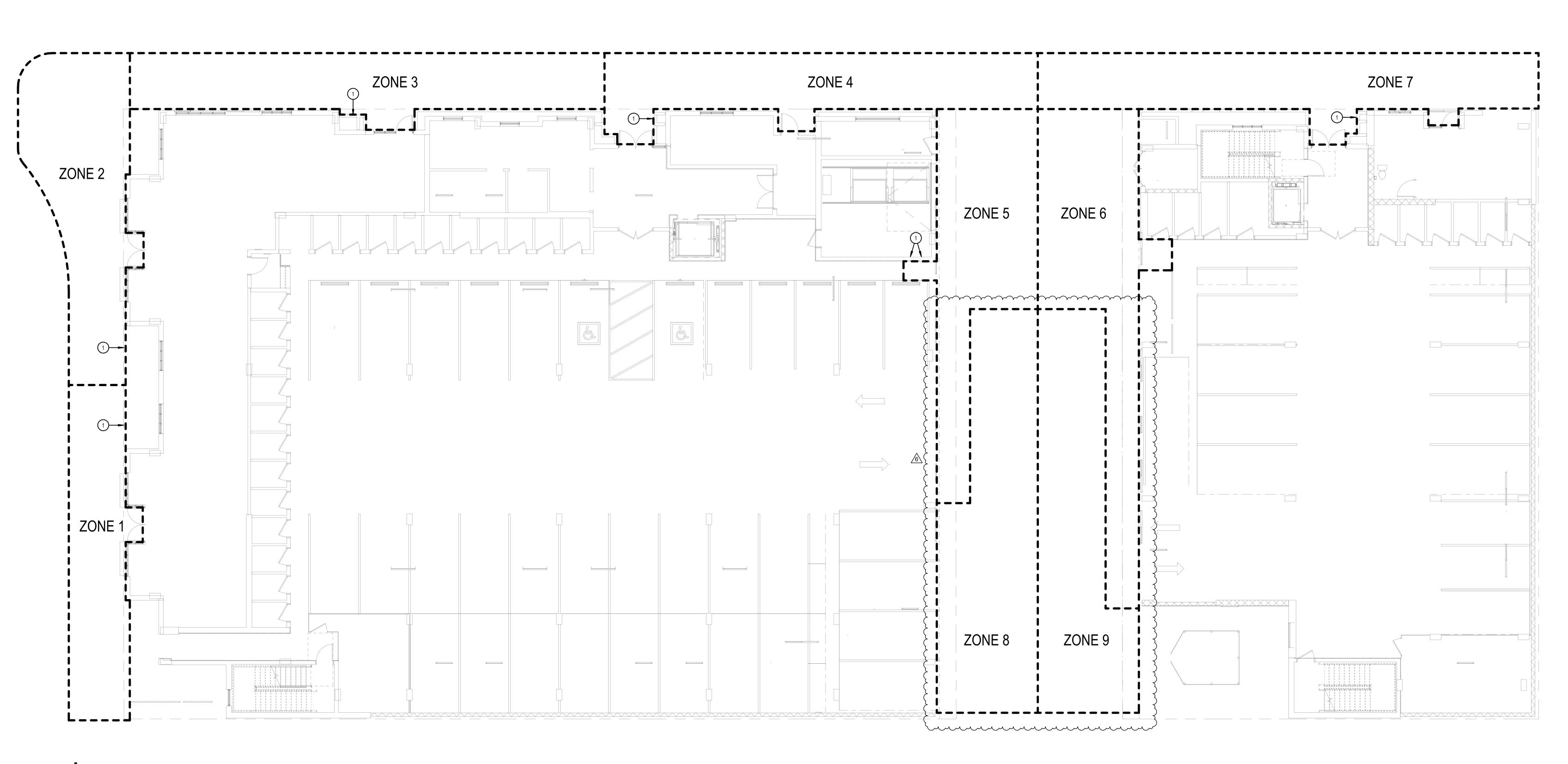
13789

7/12/2022

OR F 1800

NELSON

LUEBIRD VILLAGE
for:
GMD DEVELOPMENT LLC
480 N. EAST AVE. KETCHUM, ID



SNOW MELT ZONE PLAN
1/8" = 1'-0"

02.14.2022 216572 project number: PERMIT SET project status: original drawing is 30" x 42" current as of: 7/27/2022 9:14:35 AM

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BI



}		CONDENSING HOT WATER BOILER SCHEDULE														
}	SYMBOL	ADEA CEDVED	THERMAL	FUE	EWT	LWT	BOILER FLOW	MAX P.D.	CAP	ACITY	MANUE ACTURED AND MODEL	REMARKS				
<b>\</b>	STIVIBOL	AREA SERVED	EFFICIENCY	FUEL	(°F)	(°F)	(GPM)	(FT HQ)	INPUT MBH	OUTPUT MBH	- MANUFACTURER AND MODEL	REMARKS				
<u>}</u>	<u>B-101</u>	SNOW MELT SYSTEM	95%	NAT. GAS	110	130	69.0	5.3	705	613	LOCKINVAR MODEL FTXL-725	1,2,3				
(	<u>B-102</u>	SNOW MELT SYSTEM	95%	NAT. GAS	110	130	69.0	5.3	705	613	LOCKINVAR MODEL FTXL-725	1,2,3				
}	REMARKS:		•			•	•		•			•				

# 1. APPROVED ALTERNATE MANUFACTURERS: SUBMIT FOR APPROVAL.

- 2. PROVIDE BOILER VENTING KIT, NEUTRALIZING KIT, COMBUSTION AIR INTAKE KIT, SEISMIC VIBRATION ISOLATORS, LOW WATER CUT-OFF, FLOW SWITCH, MODULATING GAS BURNER, CONDENSATE TRAP, 316L STAINLESS STEEL COMBUSTION CHAMBER, EXHAUST PIPE, CSD-1 AND OSA RESET.
- 3. BOILER SHALL BE PROVIDED W/FACTORY START-UP, START-UP IS NOT COMPLETE UNTIL ALL BURNERS AND BLOWER ARE CALIBRATED FOR PEAK PERFORMANCE AND AT COMPLETION OF PROJECT ALL BURNERS, BLOWERS, HEAT EXCHANGERS, AND OTHER INTERNAL PARTS SHALL BE THOROUGHLY CLEANED OF CONSTRUCTION DEBRIS.

	BOILER PUMP SCHEDULE																		
SYMBOL	AREA SERVED	TYPE		CAPACITY		MOTOR SUC		MOTOR		MOTOR				l l		TRIPLE DUTY	OPERATING WEIGHT	MANUFACTURER AND MODEL	REMARKS
STINIBOL	AREA SERVED	ITPE	FLOW (GPM)	HEAD (FT)	MIN EFF	AMPS	RPM	V/Ø	DIFFUSER	VALVE	(LBS)	WANOFACTORER AND MODEL	NEWARKS						
<u>BP-101</u>	SNOW MELT SYSTEM	INLINE	69.0	30		2.5		115/1	N/A	N/A	50	GRUNDFOS MAGNA3 40-80	1,2						
<u>BP-102</u>	SNOW MELT SYSTEM	INLINE	69.0	30		2.5		115/1	N/A	N/A	50	GRUNDFOS MAGNA3 40-80	1,2						

# 1. APPROVED ALTERNATE MANUFACTURERS: ARMSTRONG, B & G, TACO, WILO, PACO, PEERLESS, PATTERSON.

2. CONTROL PUMP THROUGH CONDENSING BOILER.

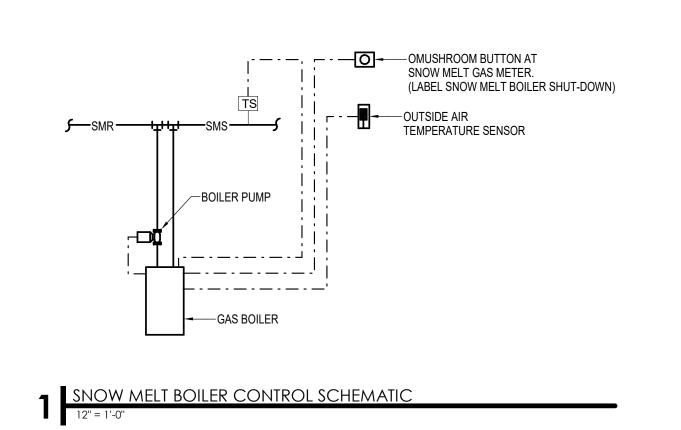
	PUMP SCHEDULE																						
CVARDOL	ADEA CEDVED	TVDE		CAPACITY			MOTOR		MOTOR		MOTOR		MOTOR		MOTOR		MOTOR		SUCTION	TRIPLE	OPERATING	MANUEACTURED AND MODEL	DEMARKS
SYMBOL	AREA SERVED	TYPE	FLOW (GPM)	HEAD (FT)	MIN EFF	HP	RPM	V/Ø	DIFFUSER	DUTY VALVE	WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS										
<u>P-101</u>	SNOW MELT SECONDARY LOOP	INLINE	50	35		3/4		208/1	N/A	N/A	30	BELL AND GOSSET ECOCIRC XL MODEL 65-130	1,2,3,4,5										
<u>P-102</u>	SNOW MELT SECONDARY LOOP	INLINE	50	35		3/4		208/1	N/A	N/A	30	BELL AND GOSSET ECOCIRC XL MODEL 65-130	1,2,3,4,5										

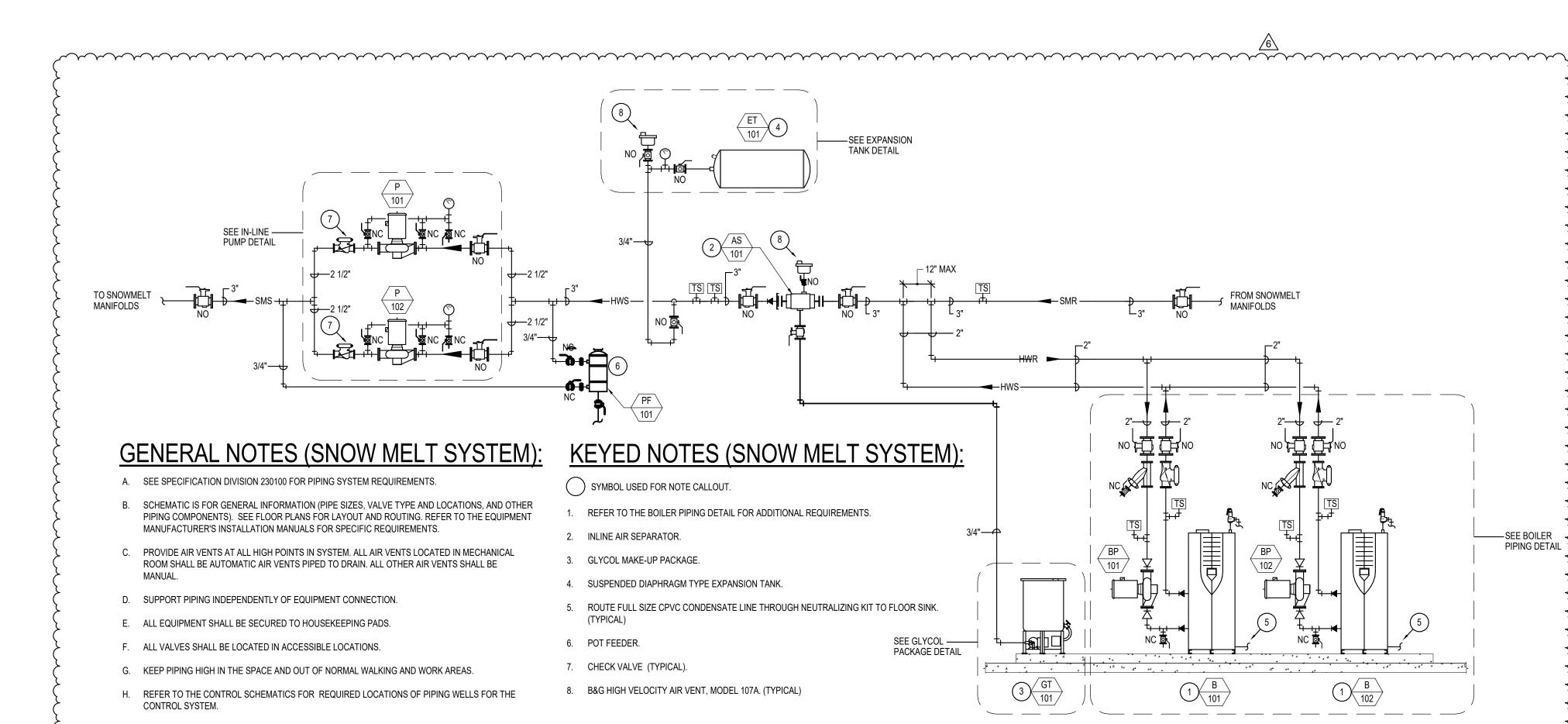
- 1. APPROVED ALTERNATE MANUFACTURERS: ARMSTRONG, GRUNDFOS, TACO, WILO, PACO, PEERLESS, PATTERSON.
- 2. PROVIDE UNIT WITH PREMIUM EFFICIENCY MOTOR WITH INTEGRAL VFD.
- 3. PUMP SEALS SHALL BE COMPATIBLE WITH PROPYLENE GLYCOL.
- 4. NOTE CONTROL BASED PRESSURE. DIFFERENTIAL (VARIABLE FLOW). PUMPS TO OPERATE IN PARALLEL. BOTH PUMPS SHALL START ON CALL FOR HEATING.
- 5. SUPPORT PUMP FROM STRUCTURE.

				S	NOW MEL	T MANIF	OLD SCI	HEDULE				
ZONE#	AREA (ft <sup>2</sup> )	INSULATION Rv (°F x ft² x hr/Btu)	HEAT LOAD (Btu/hr/ft²)	# OF LOOPS	TUBE TYPE & SIZE	TUBE SPACING (in)	SUPPLY WATER (°F)	DESIGN TEMP. DROP (°F)	SURFACE TEMP. (°F)	FLOW RATE (GPM)	HEAD LOSS (PSI)	REMARKS
SNOWMELT ZONE 1	495	10.0	130	4	hePEX 3/4"	9" O.C.	130	25	35	6.5	3.5	1,2,3,4,5
SNOWMELT ZONE 2	765	10.0	130	6	hePEX 3/4"	9" O.C.	130	25	35	10.1	3.8	1,2,3,4,5
SNOWMELT ZONE 3	775	10.0	130	6	hePEX 3/4"	9" O.C.	130	25	35	10.2	3.9	1,2,3,4,5
SNOWMELT ZONE 4	735	10.0	130	6	hePEX 3/4"	9" O.C.	130	25	35	9.7	3.4	1,2,3,4,5
SNOWMELT ZONE 5	790	10.0	130	6	hePEX 3/4"	9" O.C.	130	25	35	10.4	4.1	1,2,3,4,5
SNOWMELT ZONE 6	920	10.0	130	7	hePEX 3/4"	9" O.C.	130	25	35	12.1	4.1	1,2,3,4,5
SNOWMELT ZONE 7	810	10.0	130	7	hePEX 3/4"	9" O.C.	130	25	35	10.7	2.9	1,2,3,4,5
SNOWMELT ZONE 8	1,160	10.0	130	9	hePEX 3/4"	9" O.C.	130	25	35	15.3	3.9	1,2,3,4,5
SNOWMELT ZONE 9	1,050	10.0	130	8	hePEX 3/4"	9" O.C.	130	25	35	13.8	4.1	1,2,3,4,5

- 1. SNOW MELT CIRCUITS TO BE EQUAL LENGTHS OFF EACH MANIFOLD WITH A 300 FT MAXIMUM TUBE LENGTH. PROVIDE A BALL VALVE FOR EACH OF THE LOOPS. RADIANT FLOOR MANIFOLD DESIGN BASED ON UPONOR STAINLESS STEEL MANIFOLD WITH ISOLATION VALVES AND VISUAL FLOW GAUGES. ALTERNATES SHALL BE EQUAL IN QUALITY AND PERFORMANCE..
- 2. PANEL TUBING TO BE WITHIN 4" OF PERIMETER.
- 3. PROVIDE A 35% PROPYLENE GLYCOL 65% WATER SOLUTION.
- 4. TUBING TO BE RATED FOR 180°F AT 100 PSI SERVICE.
- 5. TUBING FOR SNOW MELT SYSTEM MUST BE LAID OUT IN A COUNTER FLOW PATTERN. SEE DETAIL ON SHEET M4.3.

	MECHANICAL SPECIALTY EQUIPMENT SCHEDULE											
SYMBOL	EQUIPMENT DESCRIPTION	SYSTEM SERVED	DESCRIPTION	MANUFACTURER AND MODEL								
<u>AS-101</u>	INLINE AIR SEDIMENT SEPARATOR	HYDRONIC SYSTEM	DESIGN FLOW IS 75 GPM WITH A DESIGN PD OF 1.0 FT-H Q.	B & G MODEL 3" ALTERNATE APPROVED MANUFACTURERS: TACO, ARMSTRONG, AND PAC								
ET-101	EXPANSION TANK (HORIZONTAL DIAPHRAGM TYPE)	HYDRONIC SYSTEM	21.7 GAL. CAPACITY, 11.3 ACCEPTANCE GAL., BLADDER TYPE EXPANSION TANK. (PRE-CHARGED TO 12 PSI)	BELL AND GOSSETT HORIZONTAL D-40 ALTERNATE APPROVED MANUFACTURERS: TACO, ARMSTRONG, AND PAC								
<u>GT-101</u>	SINGLE PUMP GLYCOL FEEDER	HYDRONIC SYSTEM	PROVIDE WITH LOW LEVEL CUT-OFF AND ALARM ARRANGEMENT INCLUDING A 110V SIGNAL FOR REMOTE ALARM, ISOLATION VALVES, STRAINER, PRESSURE TANK WITH PRESSURE CONTROL, PRESSURE REDUCING VALVE AND GAUGE, 55 GAL. TRANSLUCENT POLYETHYLENE SOLUTION CONTAINER WITH LID TO ACCOMMODATE RELIEF VALVE PIPING, (110V, 60 HZ MOTOR AND CONTROLS WITH PLUG AND CORD). PRESET SYSTEM TO 12 PSI. SOLUTION SHALL BE 40% DOWFROST PROPYLENE GLYCOL WITH INHIBITOR AND 60% WATER.	AXIOM MODEL SF100 ALTERNATE APPROVED MANUFACTURERS: WESSELS								
<u>PF-101</u>	POT FEEDER	HYDRONIC SYSTEM	5 GALLON POT FEEDER MOUNTED ON WALL 36" A.F.F.	JL WINGERT ALTERNATE APPROVED MANUFACTURERS: SUBMIT FOR APPROVAL								





 $\mathcal{A}$ 

THE SNOWMELT SYSTEM SHALL CONSIST OF SNOW / ICE MELT SENSORS, SLAB SENSORS, LEAD/LAG HEATING WATER PUMPS,

WHEN THE SNOW MELT SYSTEM DETECTS MOISTURE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 40°F (ADJUSTABLE) THE

SNOW MELT SYSTEM SHALL START IN MELTING MODE. IN MELTING MODE THE HEATING WATER PUMP AND BOILER SYSTEM SHALL BE ENABLED. THE SNOW MELT SYSTEM SHALL MAINTAIN A SLAB TEMPERATURE OF 38°F (ADJUSTABLE) UNTIL THE

MOISTURE SENSOR DOES NOT DETECT MOISTURE. THE BOILER SYSTEM SHALL MAINTAIN A SUPPLY TEMPERATURE OF 130°F

IF LEAD HEATER WATER PUMP FAILS THE LAG HEATER WATER PUMP SHALL START. AN ALARM SHALL BE SENT TO THE

SNOW MELT CONTROL

(ADJUSTABLE) IN MELTING MODE. THE SNOW MELT SYSTEM SHALL RETURN TO IDLE MODE WHEN THE MOISTURE SENSOR IS NOT

OUTSIDE AIR

SNOW AND ICE

SENSOR 7-ZONES

TEMPERATURE SENSOR

TWO CONTROL VALVE AT EACH SNOW MELT MANIFOLD, NATURAL GAS BOILER AND SNOW MELT RADIANT IN-SLAB PIPE.

OPERATION:

PUMPS AND BOILER SYSTEM.

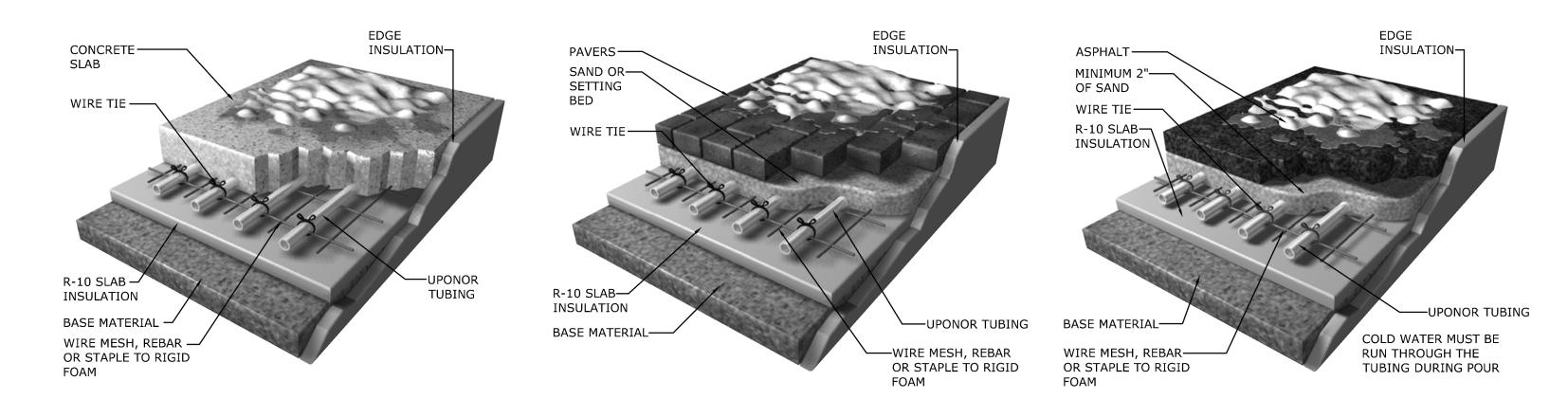
OPERATORS WORKSTATION ON FAILURE OF PUMP TO START.

MANIFOLD 2 WAY CONTROL VALVE

SNOW MELT CONTROL SCHEMATIC

**∫——**|**□**|—∫ PUMP - AUTO ADAPT MODE

SENSING MOISTURE.

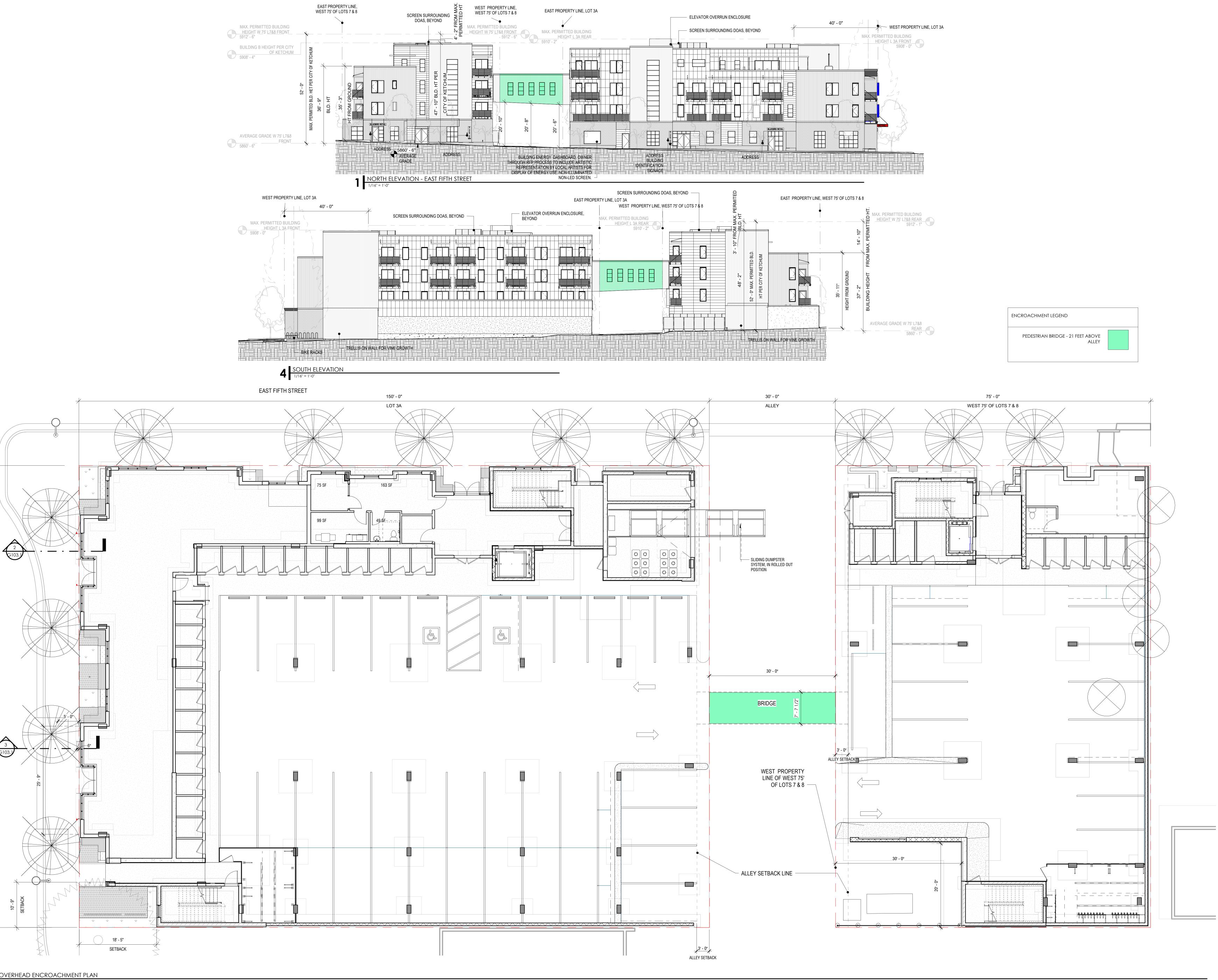


4 SNOWMELT TUBING INSTALLATION DETAIL

12" = 1'-0"

3 SNOW MELT SYSTEM PIPING SCHEMATIC

M302



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801.531.1144 babcock**design.**com

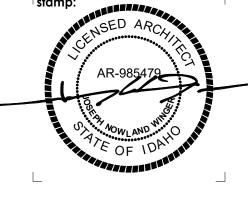
revisions: 🖄

City 2nd Rnd Comments 06.14.22

City 3rd Rnd Comments 7.12.22

02.14.2022 project number: 216572 Permit Set project status:

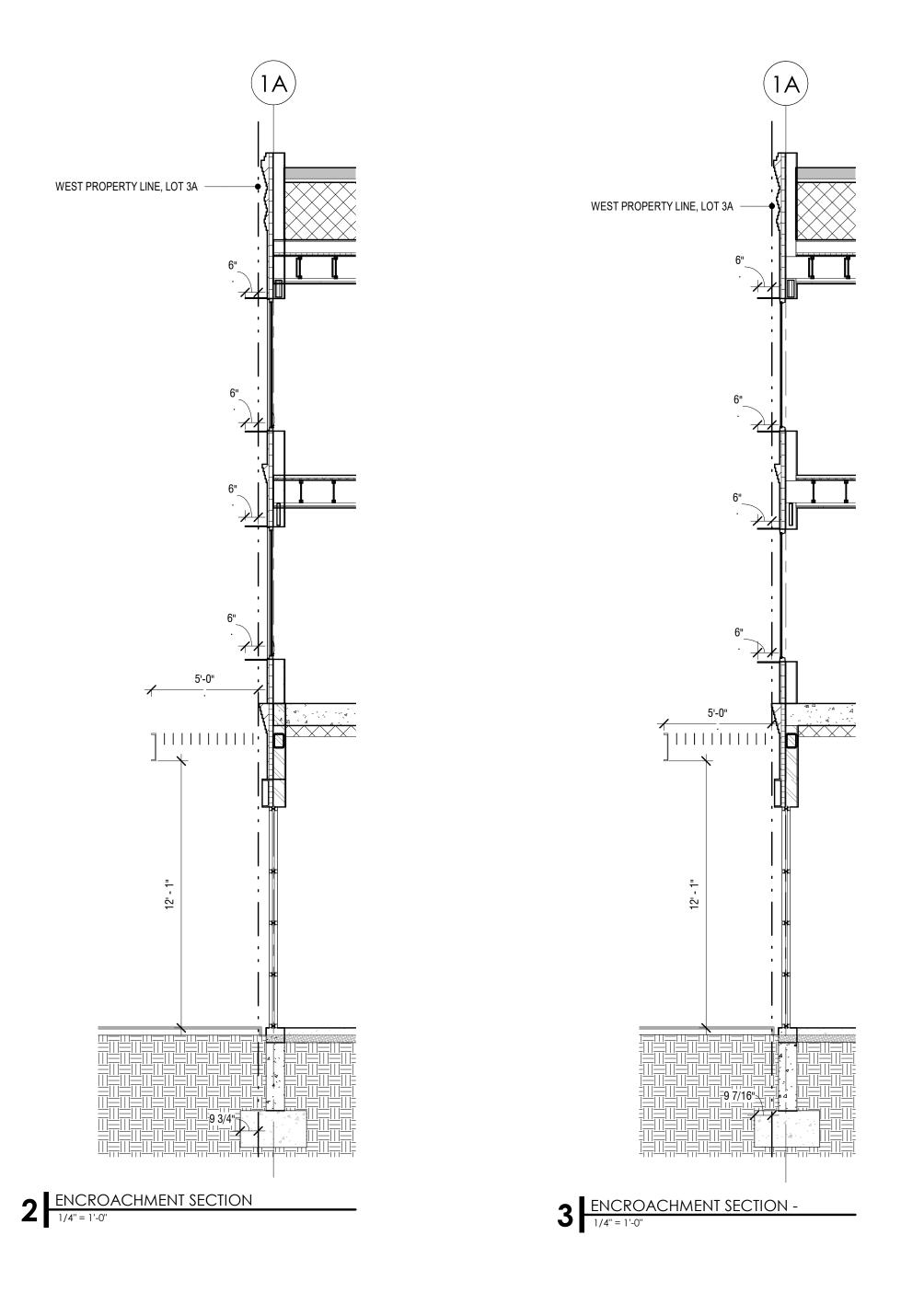
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8 OVERHEAD ENCROACHMENT PLAN
1/8" = 1'-0"

WEST ELEVATION - NORTH EAST AVENUE

3/32" = 1'-0"

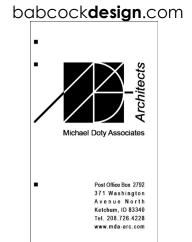


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sheet information:
revisions: 🖄

num. description date

5 City 3rd Rnd Comments 7.12.22

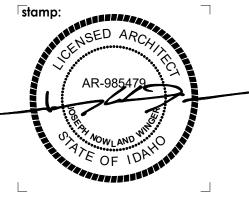
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project number: 216572
project status: Permit Set

original drawing is 30" x 42"
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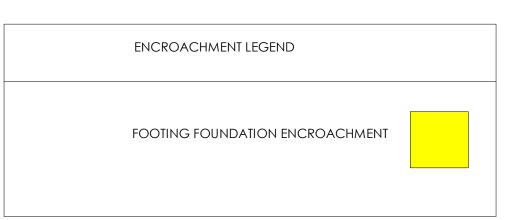
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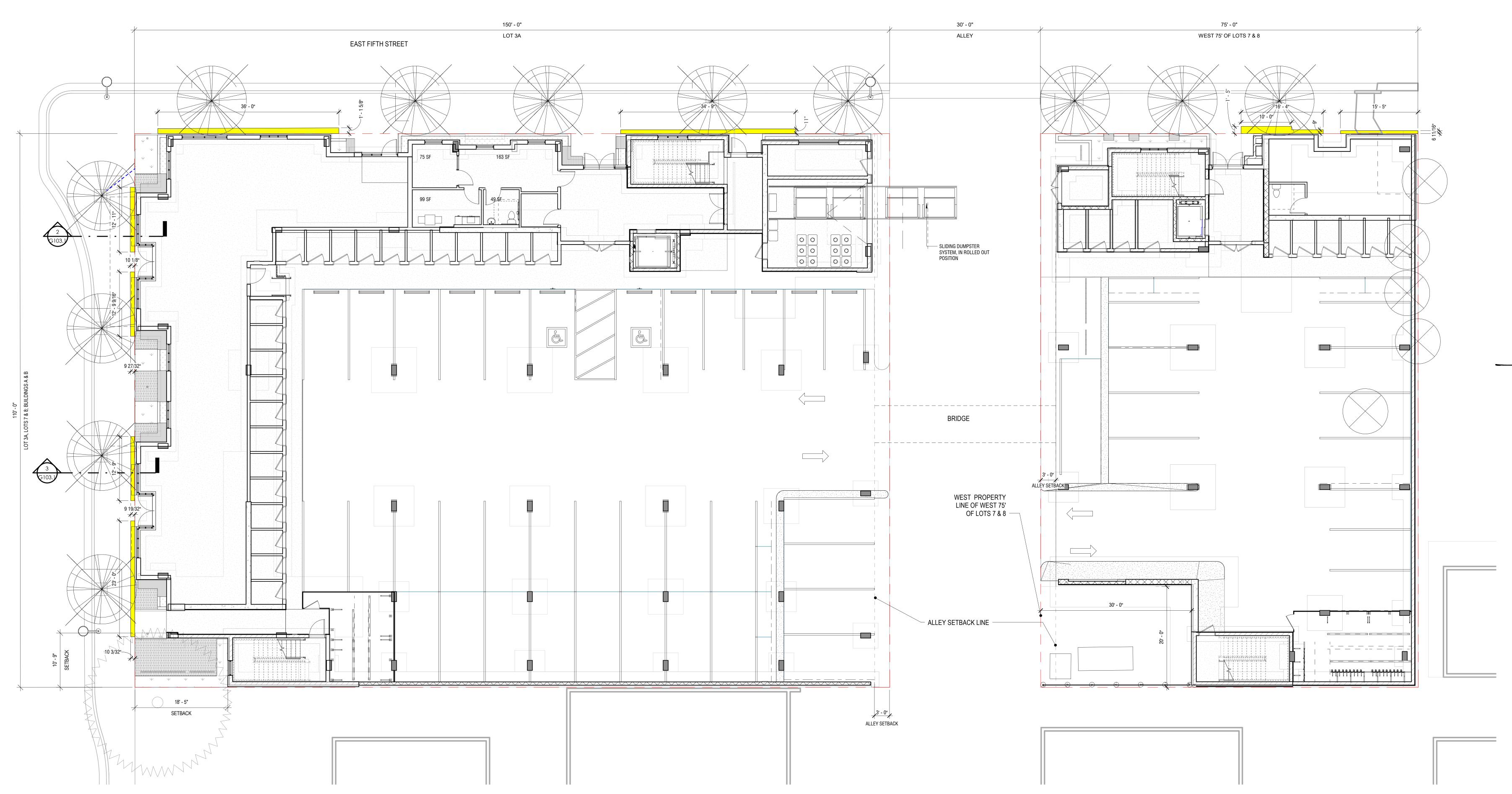


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2 FIRST FLOOR ENCROACHMENT PLAN - FOOTINGS
1/8" = 1'-0"

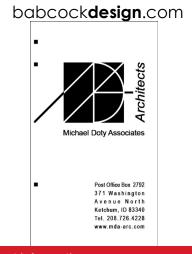


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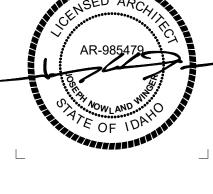
5 City 3rd Rnd Comments 7.12.22

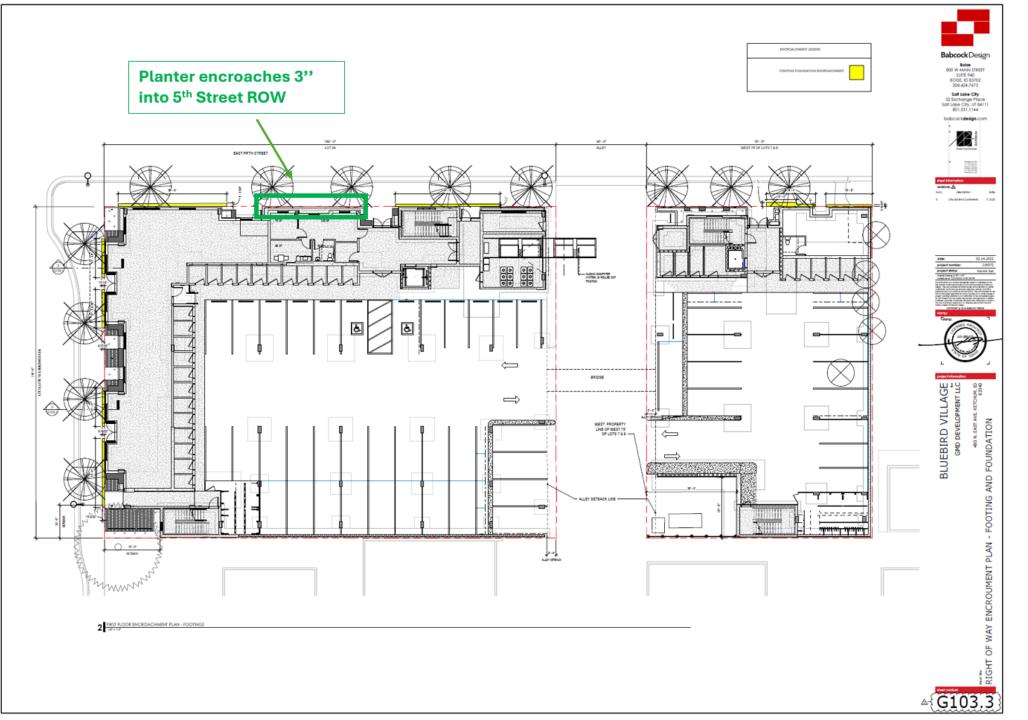
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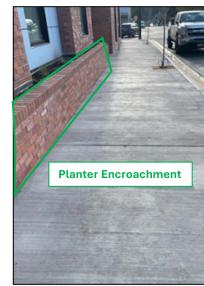
project number: 216572 project status: Permit Set original drawing is 30" x 42" current as of: 7/27/2022 3:45:18 PM

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# **EXHIBIT B**

# **EXHIBIT B**

- 1. Installation of a hydronic snow melt system in all surfaces as outlined on sheet G103.2 and as further described:
  - a. From the outermost bounds of the property line along East avenue to the back of curb within the City right-of-way, excluding tree wells.
  - b. From the outermost bounds of the property line along Fifth Street to the back of curb within the City right-of-way, excluding the tree wells.
  - c. From the outermost bounds of the property line along the alley within the City right-of-way.
- 2. Encroachment for (2) metal shades 5 foot encroachment at east ave. as outlined on sheet G103.1. (8) 3/8" x 6" steel window shade-boxes 6" encroachment at east avenue as outlined on sheet G103.1 and as further described below.
  - a. (2) Metal shades, as referenced on sheet G103.1, projects 5'-0" west of the property line. Length of metal shades is 25'-9". Bottom of awning is approximately 12'-1" above finished grade at sidewalk below. Top of awning is approximately 13'-4" above finished grade at sidewalk below. Height varies slightly with sidewalk grade.
  - b. (8) 3/8" x 6" steel window shade boxes project 6" west of property line as referenced on sheet G103.1 Length of architectural features is 6'-1". The height of the architectural features is 6'-1". The bottom of the lower architectural features, is 16'-7" above finished grade at sidewalk below. Top of the lower architectural feature is 22'-8" above finished grade at sidewalk below. Height varies with sidewalk grade. The bottom of the upper architectural features is 27'-0" above finished grade at sidewalk below. Top of upper architectural feature is 33'-1" above finished grade at sidewalk below. Height varies with sidewalk grade.
- 3. Encroachment for bridge at alley within the City right-of-way as outlined on sheet G103.0. and as further described below.
  - a. (1) bridge, as referenced on sheet G103.0, projects 30'-0" west to east, by 7'-7 ½" north to south past the property line into the city right-of-way. Bottom of bridge varies from east to west and is approximately 20'-10" and 20'-6" respectively above finished grade at alley below. Top of bridge varies from west to east and is approximately 34'-7 5/8" and 35'-1 3/4" respectively above finished grade at alley below.
- 4. Encroachment for building footings within the City right-of-way as outlined on sheet G103.3 at east avenue and fifth street. Footings vary is size and length. Refer to sheet G103.3, footing encroach into the ROW. Footings do not encroach into city ROW more than 1'-1 5/8"
- 5. Planter encroaches 3 inches into 5th Street ROW along sidewalk.