

Jones Gillam Responsible Salina, KS 67401 Kansas City, MC 785,827,0386 iar@iargrachite

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REVISION: REV-1 08-16-24

DATE: 5-23-2024

JOB: 22-3262

SHEET NO.:

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- 1. CIVIL SITE WORK AND UTILITY INSTALLATION SHALL FOLLOW WYOMING PUBLIC WORKS 2015 STANDARD SPECIFICATIONS WITH CITY OF LARAMIE PROVISIONS AND STANDARD DETAILS.
- 2. BACKFILL AND PREPARATION UNDER FOUNDATIONS SHALL FOLLOW RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT (PROJECT NO. 24245022) PREPARED BY TERRACON DATED June 10, 2024
- 3. NEW CURB AND GUTTER ON SITE SHALL BE CITY OF LARAMIE ROLL—OVER CURB.

Approximate Cut/Fill Quantities

To bottom of sub grade
6500 Cubic Yards
4800 Cubic Yards

Approximate Road Base Fill Req
Fill 1300 Cubic Yards

Approximate Asphalt Quantity
2950 Square Yards

TYPICAL CROSS SECTION FOR SITE SURFACING

-6" THICK, CONCRETE SIDEWALK (TYP)

/--ROLL-OVER CURB (TYP) ¦

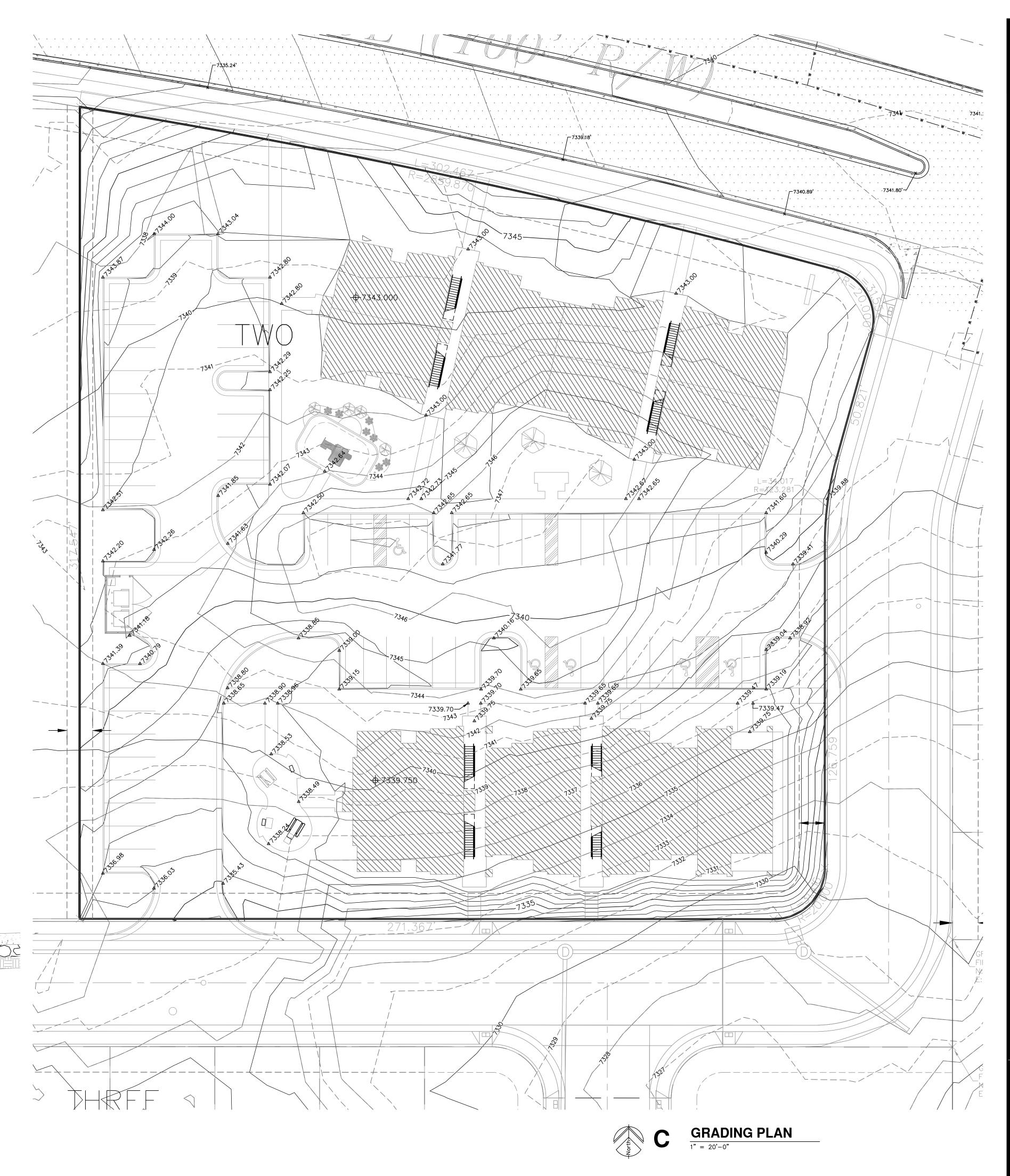
— 4" ASPHALT PAVING, 1" NOMINAL GRADING

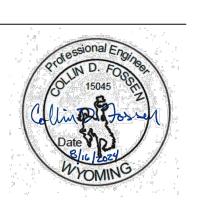
SLOPE AND WIDTH VARY, SEE PLAN

— 6" MINIMUM GRADE L ROAD BASE, COMPACTED TO 195% STANDARD

— SCARIFY AND RECOMPACT 6" MINIMUM NATIVE FILL MATERIAL UNDER ALL PAVED OR CONCRETE SURFACES

2" MINIMUM SOD OR OTHER LANDSCAPE SURFACE, SEE LANDSCAPE PLANS





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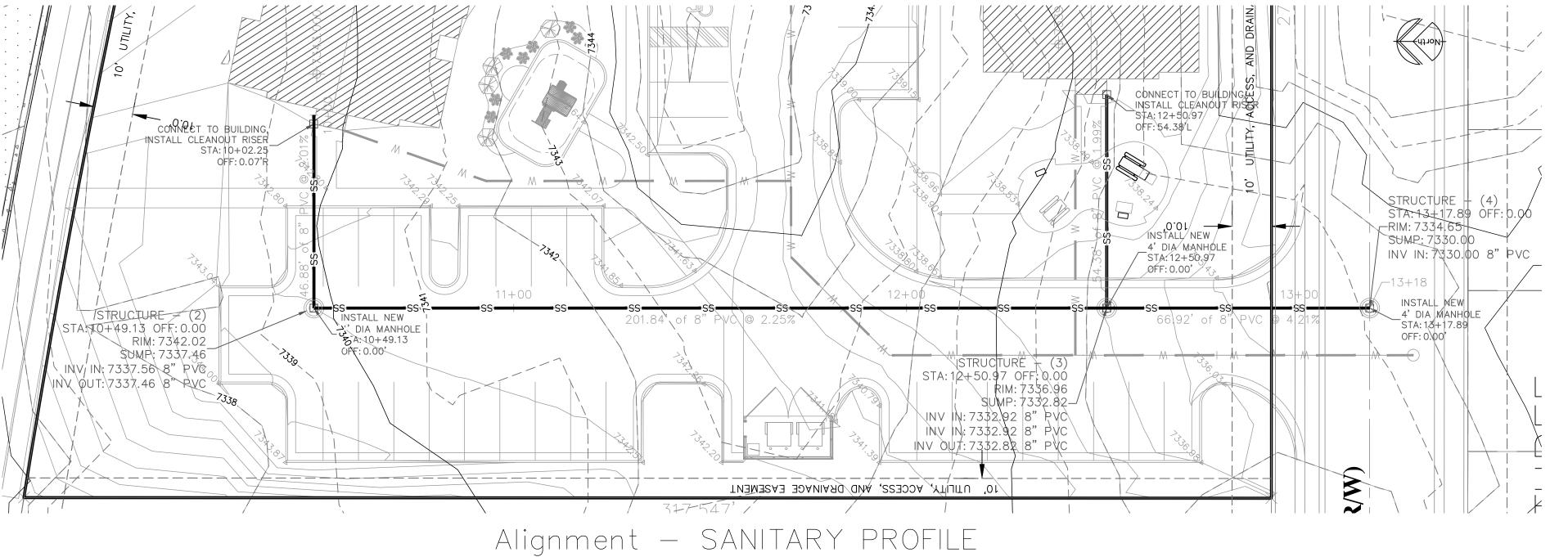
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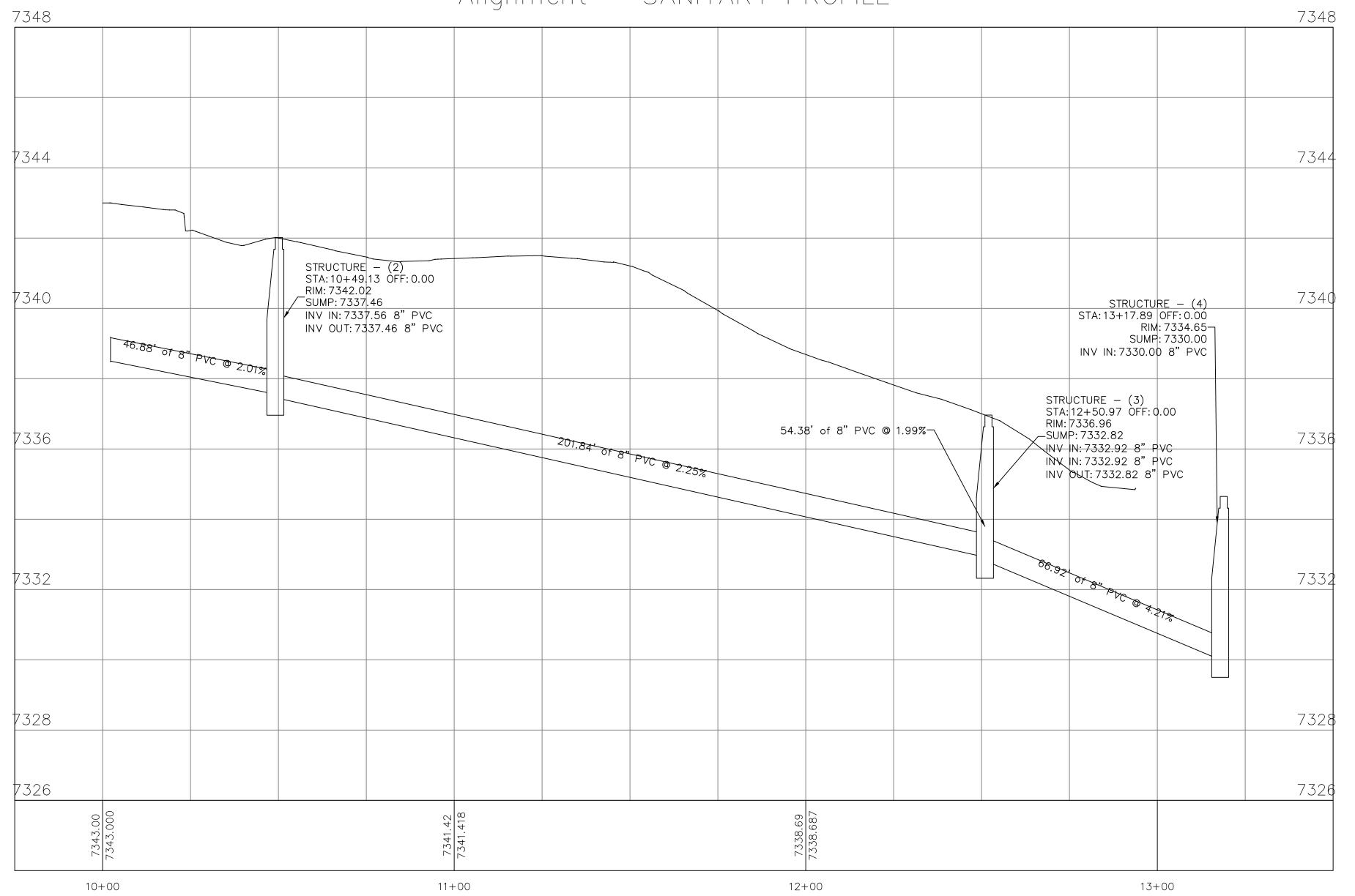
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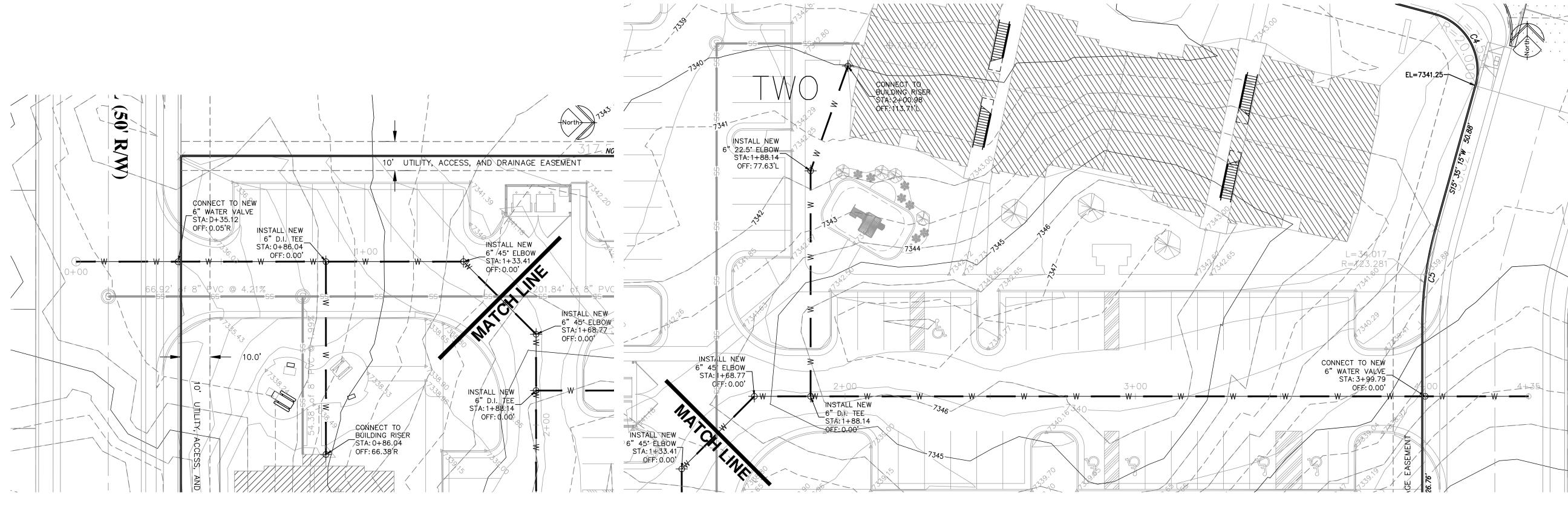
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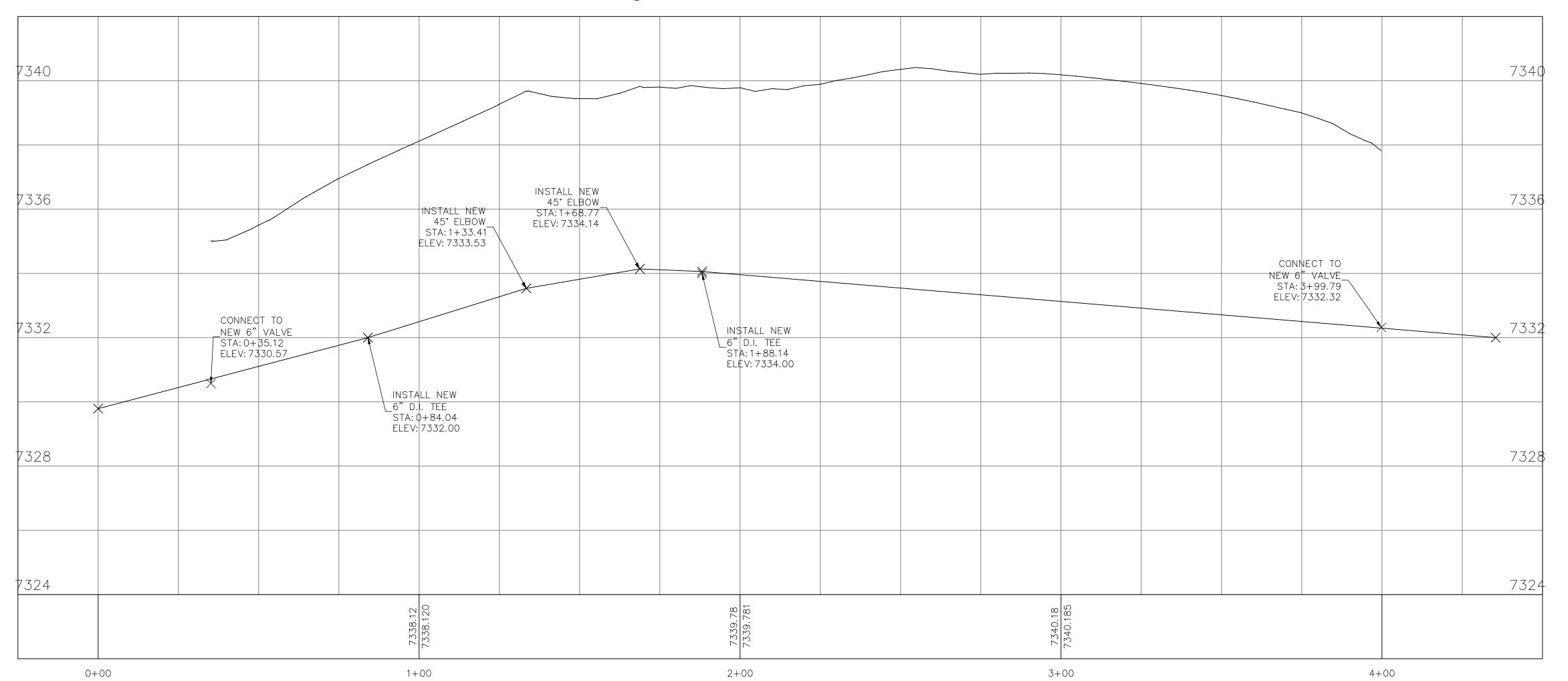


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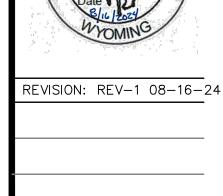
Alignment - WATER PROFILE



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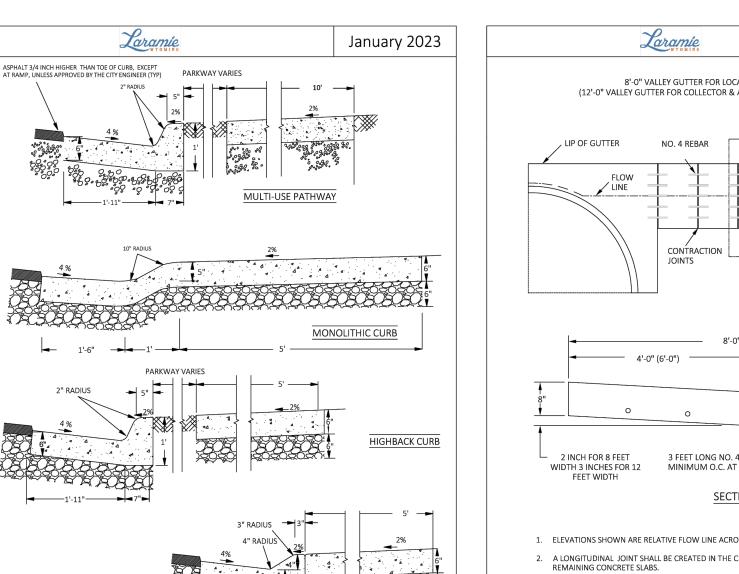
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5-23-2024

22-3262 SHEET NO .:



CON-2

RING & COVER SEE NOTE 3.

ROLL-OVER CURB

11"

TYPICAL CROSS SECTIONS

Laramie

PRECAST MANHOLE - CONTINUED

Laramie

TYPE I: HORIZONTAL LAYER INSULATION

W = 3D+2[F-(X+D+0.5)]

W = WIDTH OF INSULATION, (FEET)

D = PIPE DIAMETER, (FEET) X = INSULATION DEPTH, (FEET)

F = FROST DEPTH (6 FEET)

SOIL SURFACE OR FLOWLINE OF DRAINAGE PIPE OVER WATERLINE

1. INSULATION TYPE TO BE THERMAX EXTERIOR INSULATION, BY DOW CHEMICAL OR EQUIVALENT, UNLESS OTHERWISE

2. HORIZONTAL LAYER INSULATION IS TO BE USED EXCEPT WHERE REQUIRED WIDTH IS NOT AVAILABLE OR OTHERWISE

3. TYPE 1 BEDDING MATERIAL SHALL BE COMPACTED A MINIMUM OF 6 INCHES ABOVE AND BELOW PIPE.

WATERLINE INSULATION

5. INSTALLATION IN ROCK SHALL INCLUDE INSULATION ON ALL FOUR SIDES.

4. A MINIMUM OF 18 INCHES OF COMPACTED BACKFILL IS REQUIRED ABOVE INSULATION FOR LOAD PROTECTION.

6. INSULATION SHALL BE REQUIRED UNDER STORM SEWER MAINS OR OPEN PIPES LARGER THAN 8 INCHES IN DIAMETER.

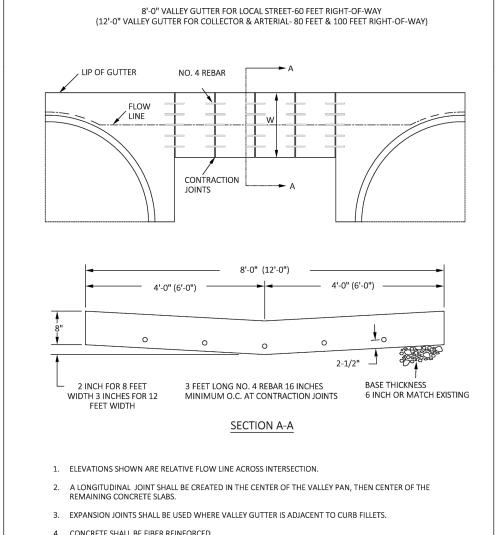
TYPE II: INVERTED U INSULATION

a+2b≥W

THICKNESS (T) OF INSULATION:

BACKFILL INCHES

WA-3

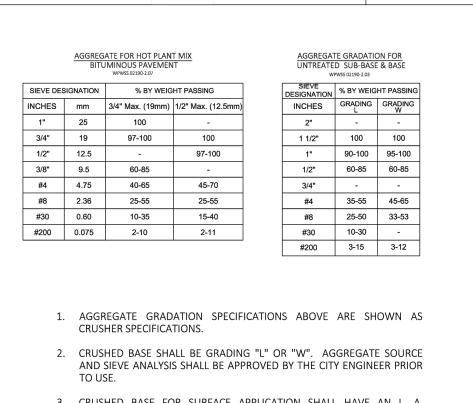


January 2023

VALLEY GUTTER AND CURB FILLETS

CONCRETE SHALL BE FIBER REINFORCED.



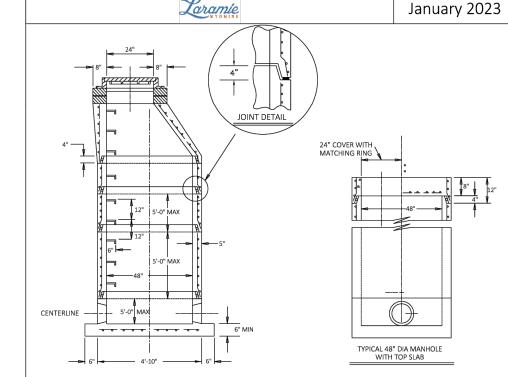


Laramie

January 2023

- 3. CRUSHED BASE FOR SURFACE APPLICATION SHALL HAVE AN L. A. ABRASION (AASHTO T-96) RATING OF 40% OR LESS.
- 4. AGGREGATE FOR HOT PLANT MIX SHALL MEET COMPOSITION OF MIXTURES AS DETAILED IN WPWSS 2512 AND THE CITY OF LARAMIE PAVEMENT STUDY, 2ND EDITION, MAY 2017.
- 5. ALL SUB-SURFACE COURSES OF HOT PLANT MIX BITUMINOUS PAVEMENT SHALL BE A MAXIMUM MATERIAL GRADING SPECIFICATION OF 3/4 INCH. ALL SURFACE COURSES OF HOT PLANT MIX BITUMINOUS PAVEMENT SHALL BE A MAXIMUM GRADING SPECIFICATION OF 1/2 INCH.

ROADWAY MATERIALS	PV-1



- ALL MANHOLE RING AND COVER AND TRAFFIC RATED LIDS MUST MEET OR EXCEED HS-20 LOAD RATINGS.
- STEPS SHALL BE NON-CORROSIVE STEPS OF RUBBER-ENCASED STEEL, ALUMINUM, OR NYLON. STEPS SHALL WITHSTAND VERTICAL LOADS OF 800 POUNDS AND HORIZONTAL PULLOUT LOADS OF 400 POUNDS.
- JOINT MATERIAL SHALL BE "RAM-NEK" OR EQUAL. CONCRETE ADJUSTMENT RINGS SET IN MORTAR REQUIRED. BRICKS, WOOD, OR ANY OTHER SUBSTANCE IS NOT ACCEPTABLE.
- CONCRETE CHANNELS AND SHELVES SHALL BE SMOOTH FINISHED.

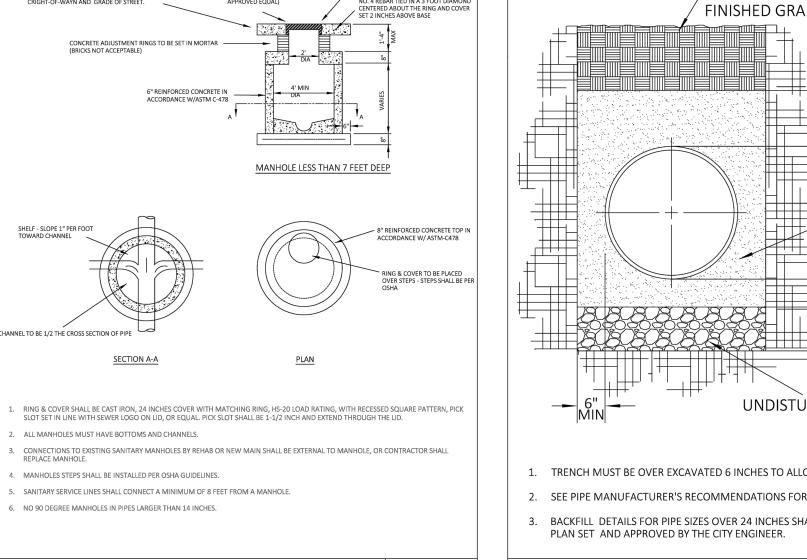
PRECAST MANHOLE

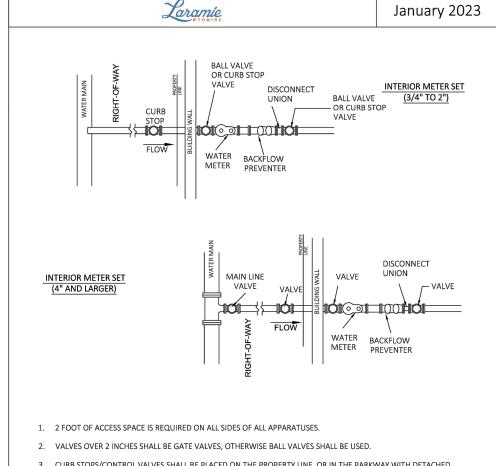
- CONCRETE CHANNEL INVERT SHALL HAVE 0.1 FOOT MINIMUM DROP ACROSS MANHOLE UNLESS OTHERWISE APPROVED BY WYDEQ. THE MAXIMUM DISTANCE BETWEEN THE TOP OF THE UPPERMOST STEP AND THE TOP OF THE RING & COVER SHALL BE PER OSHA.
- MANHOLE BASE THICKNESS SHALL BE 6 INCHES MINIMUM ON ≤ 48 INCHES DIAMETER, 8 INCHES MINIMUM ON LARGER DIAMETERS. BASE RADIUS
- . ACTUAL MANHOLE SIZE SHALL BE DETERMINED THROUGH DESIGN. SHOP DRAWINGS FOR ALL MANHOLES SHALL BE SENT TO AND APPROVED BY THE CITY ENGINEER.

SA-1

TEE TO BE A MJxMJx

WA-12

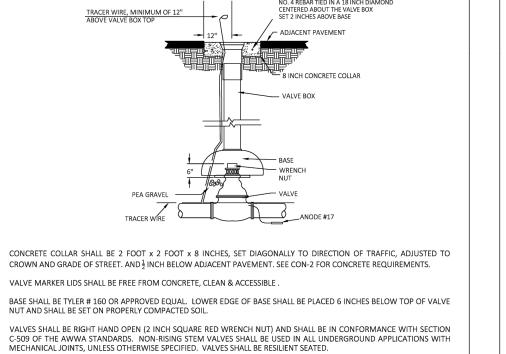




3. CURB STOPS/CONTROL VALVES SHALL BE PLACED ON THE PROPERTY LINE, OR IN THE PARKWAY WITH DETACHED SIDEWALKS, AND OUTSIDE OF DRIVEWAYS, VALLEY PANS ETC 4. THE PRIMARY SHUTOFF VALVE SHALL BE LOCATED WITHIN CITY RIGHT-OF-WAY.

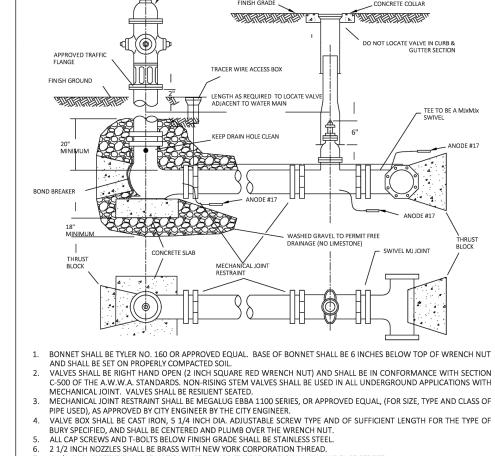
5. ALL METERS SHALL BE INSTALLED HORIZONTALLY.

- 6. SERVICE SIZES MUST BE ONE OF THE FOLLOWING: 3/4 INCH, 1 INCH, 1-1/2 INCH, 2 INCH, 4 INCH, 6 INCH OR 8 INCH. 7. COMMERCIAL INTERIOR METER SETS SHALL INCLUDE A FLOOR DRAIN WITH CAPACITY EQUAL TO TWICE THE SIZE OF REDUCED PRESSURE BACK FLOW DEVICE FOR DRAINAGE.
- 8. IF FIRE SUPPRESSION IS REQUIRED, IT IS ACCEPTABLE TO COMBINE THE FIRE AND WATER SERVICE CONNECTION. RESIDENTIAL & COMMERCIAL INTERIOR METER SETS



- . VALVES SHALL BE PLACED ON PROPERLY COMPACTED SOIL WITH THE SAME BEDDING SPECIFICATIONS APPLYING AS FOR THE ADJOINING PIPELINE. PERMANENT BLOCKING SHALL NOT BE PLACED UNDER THE VALVES. 5. VALVE BOXES SHALL BE CASTINGS INC, MODEL 550, 5-1/4 INCH DIA., ADJUSTABLE SCREW TYPE AND OF SUFFICIENT LENGTH FOR THE DEPTH OF BURY SPECIFIED, AND SHALL BE CENTERED AND PLUMB OVER THE WRENCH NUT, UNLESS EQUAL APPROVED BY THE CITY ENGINEER.
- IF VALVE IS LOCATED OUTSIDE OF PAVEMENT, THE VALVE SHALL BE MARKED WITH A FLEXIBLE FIBERGLASS POST. 8. TRACER WIRE MUST BE INSTALLED WITH ALL VALVES AND HYDRANTS, INCLUDING BLOWOFF HYDRANTS. TRACER WIRE SHALL BE EXTENDED 1 FOOT BEYOND THE FINISHED GRADE SURFACE FOR EASE OF ACCESS. 9. TRACER WIRE SHALL BE A MINIMUM OF 12 GAUGE, SOLID STRAND COPPER CONDUCTOR WITH A POLYVINYL CHLORIDE (PVC) INSULATION, OVER WHICH A NYLON (POLYAMIDE) JACKET RATED FOR 600 VOLTS, IS APPLIED.
- 10. ALL VALVE BOXES AND FITTINGS SHALL BE WRAPPED IN A MINIMUM OF 8 MIL POLYETHYLENE WRAP.

ATED LINE VALVE VALVE DOV AND TRACED WIDE	λλ/Λ 10	1



4 1/2 INCH NOZZLE SHALL BE NATIONAL STANDARD THREAD, AND SHALL ALWAYS FACE STREET.

OPERATING NUT AND CAP NUTS SHALL BE 1 INCH SQUARE, RIGHT HAND OPEN.

FIRE HYDRANT SHALL BE APPROPRIATELY CATHODICALLY PROTECTED USING A MINIMUM 17# PACKAGED ANODE. ANODES SHALL BE CONNECTED TO THE HYDRANT BY THERMITE WELD SPECIFIC FOR THE APPLICATION.

TRACER WIRE ON FIRE HYDRANT ASSEMBLY SHALL BE CONNECTED TO AND PROVIDE ELECTRICAL CONTINUITY WITH THE TRACER WIRE ON THE MAIN LINE. TRACER WIRE SHALL BE LOCATED IN TRACER WIRE CONSECUED TO THE MAIN LINE. TRACER WIRE SHALL BE LOCATED IN TRACER WIRE ACCESS BOX, SEE DETAIL WA-11.

ALL FITTINGS, VALVES, AND FIRE HYDRANT ASSEMBLIES SHALL USE MECHANICAL RESTRAINTS FOR CONNECTION TO THE SYSTEM. BOLTS AND NUTS USED SHALL BE STAINLESS STEEL ONLY.

FIRE HYDRANT & VALVE ASSEMBLY

WATER LINE VALVE, VALVE BOX, AND TRACER WIRE | WA-10

