

ENGINEERING PLANS
FOR
***BOB SIKES INDUSTRIAL PARK WWTF EFFLUENT
DISPOSAL EXPANSION***

***OKALOOSA COUNTY WATER & SEWER SYSTEM
OKALOOSA COUNTY, FLORIDA
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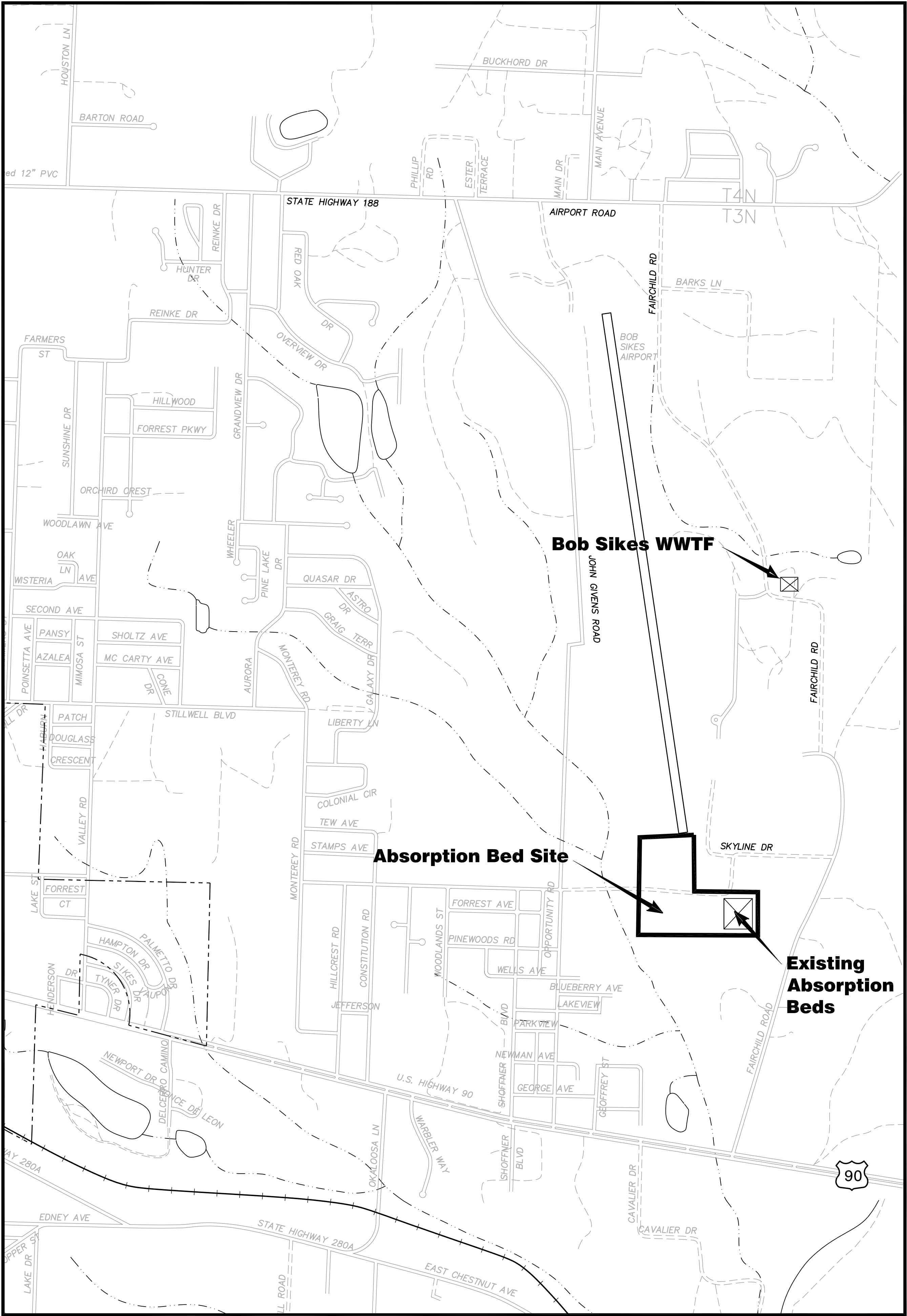
FEBRUARY 2009
Job No. 41-264 PHASE II



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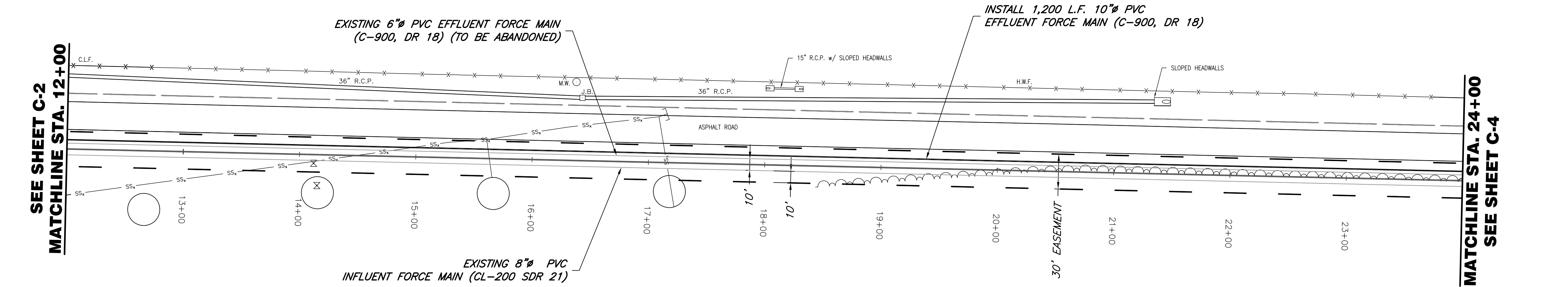
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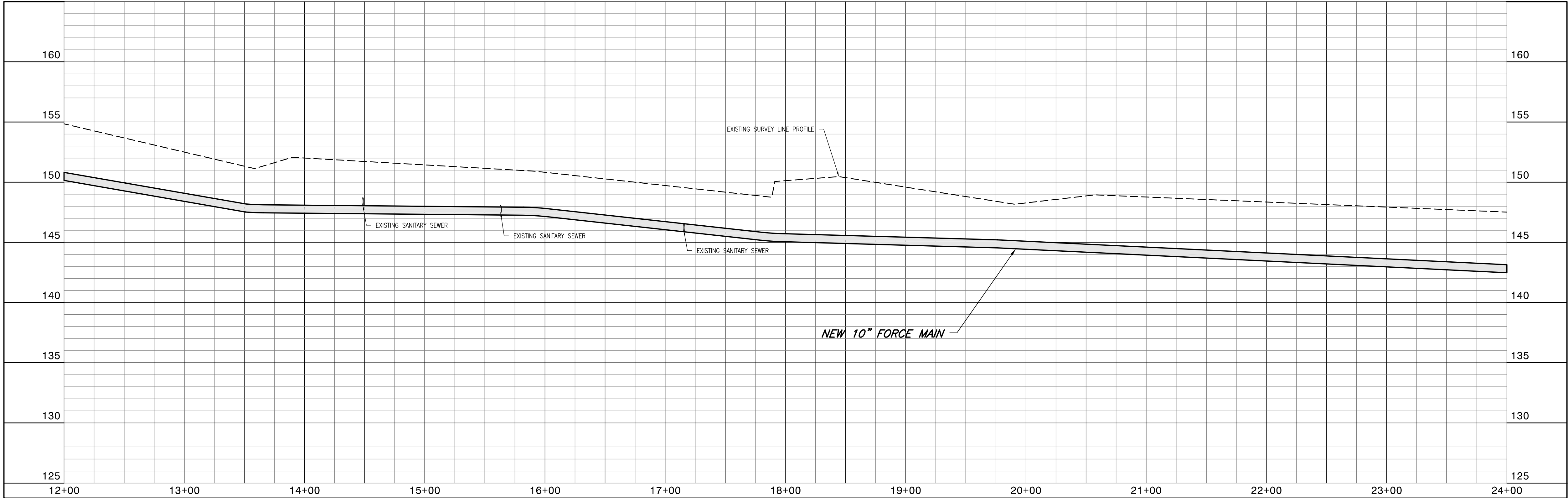
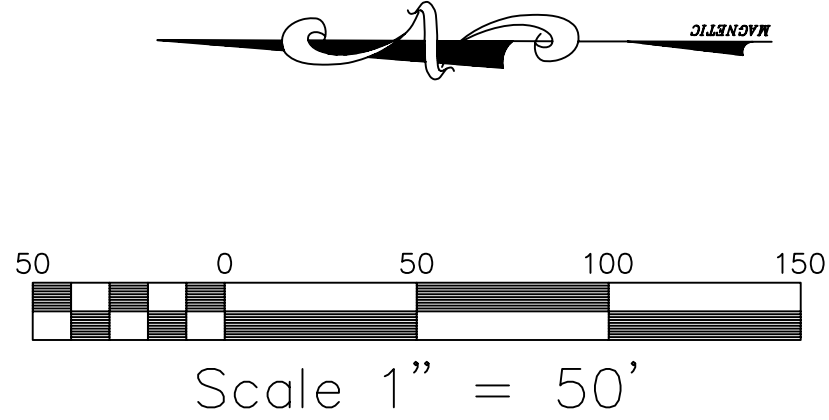
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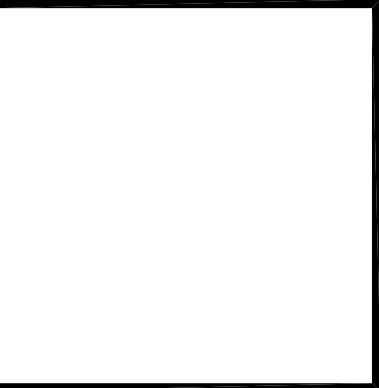
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NOTE:
1. NEW 10" FORCE MAIN TO BE INSTALLED 3' MINIMUM FROM
EXISTING 6" FORCE MAIN (TO BE ABANDONED)



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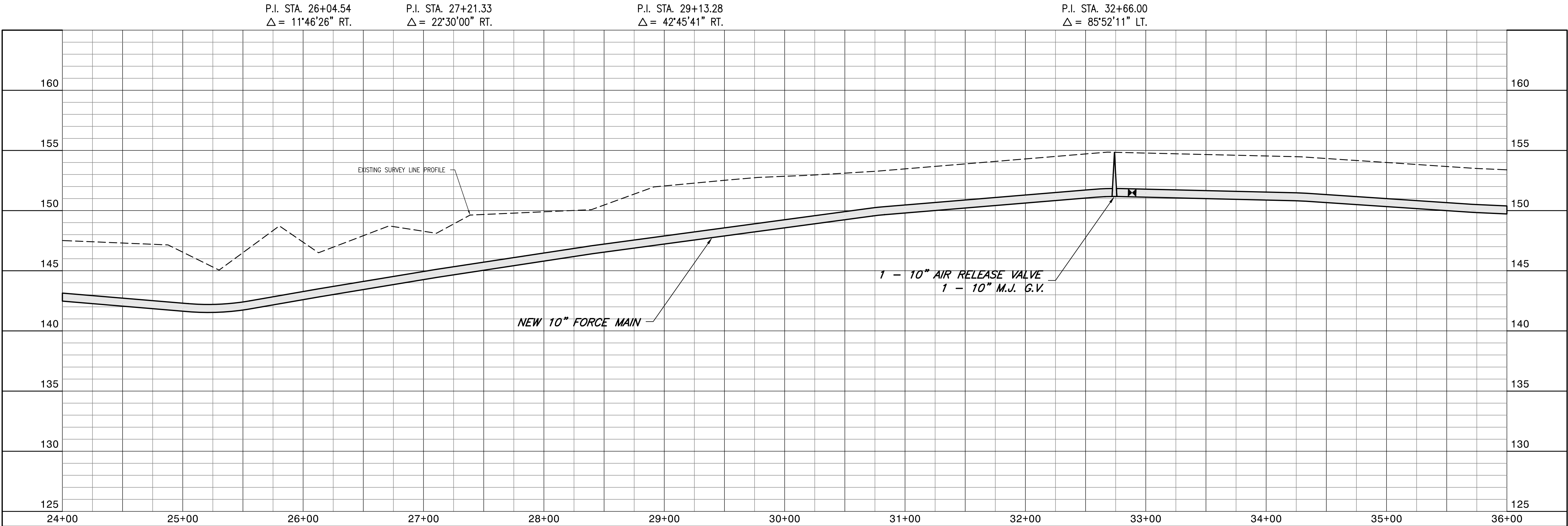
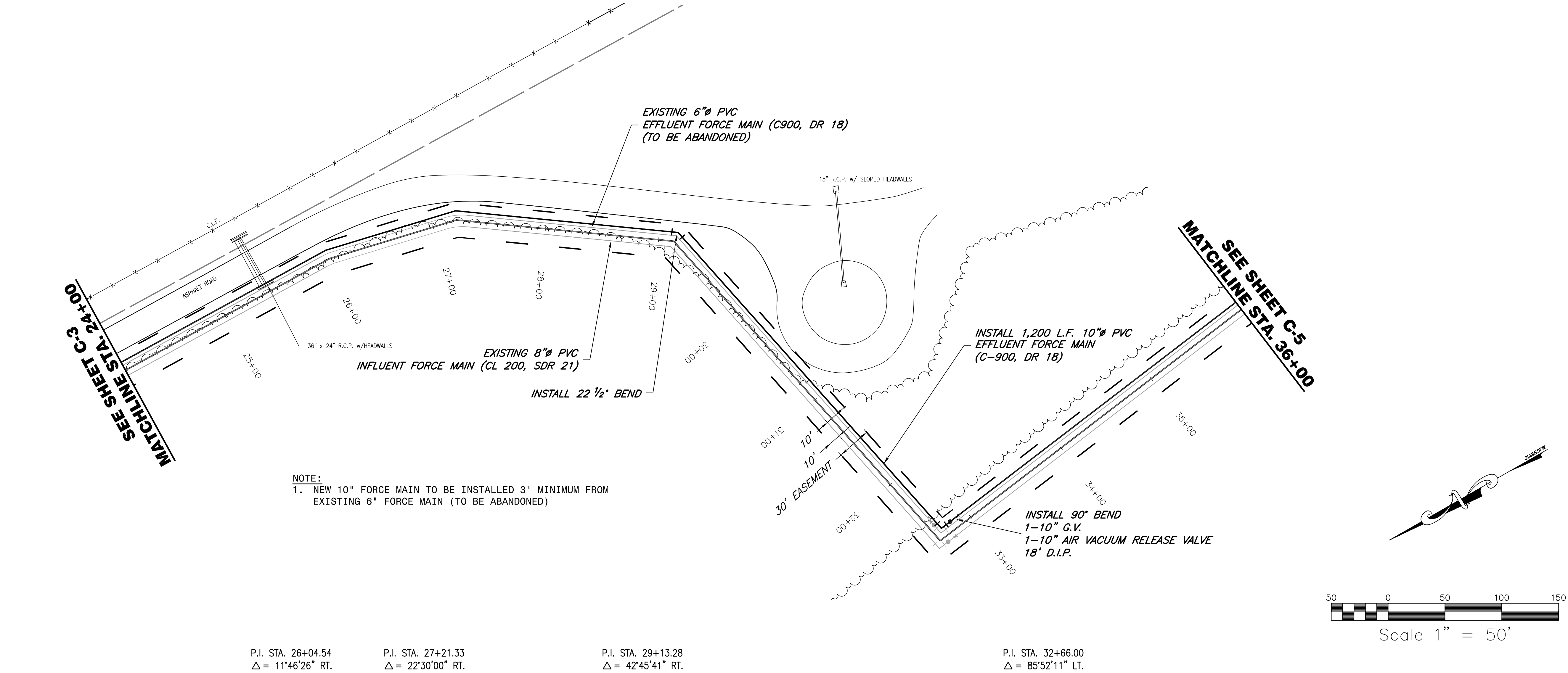
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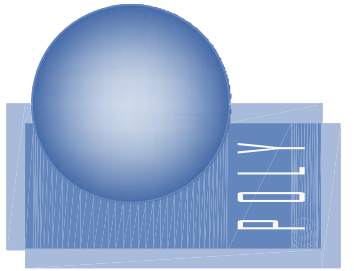
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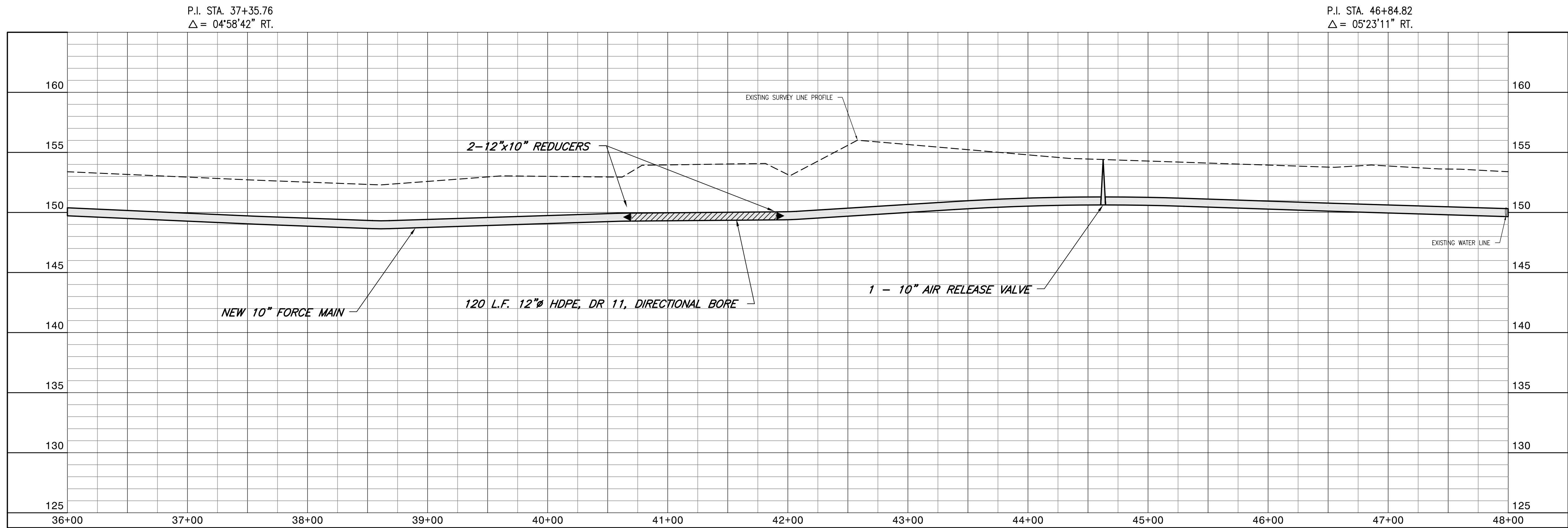
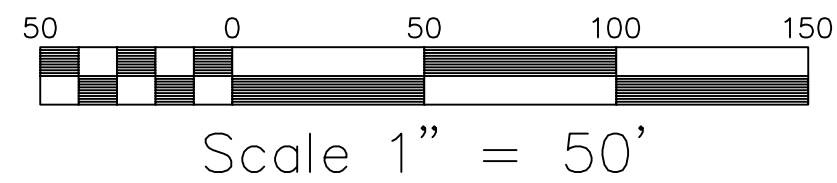
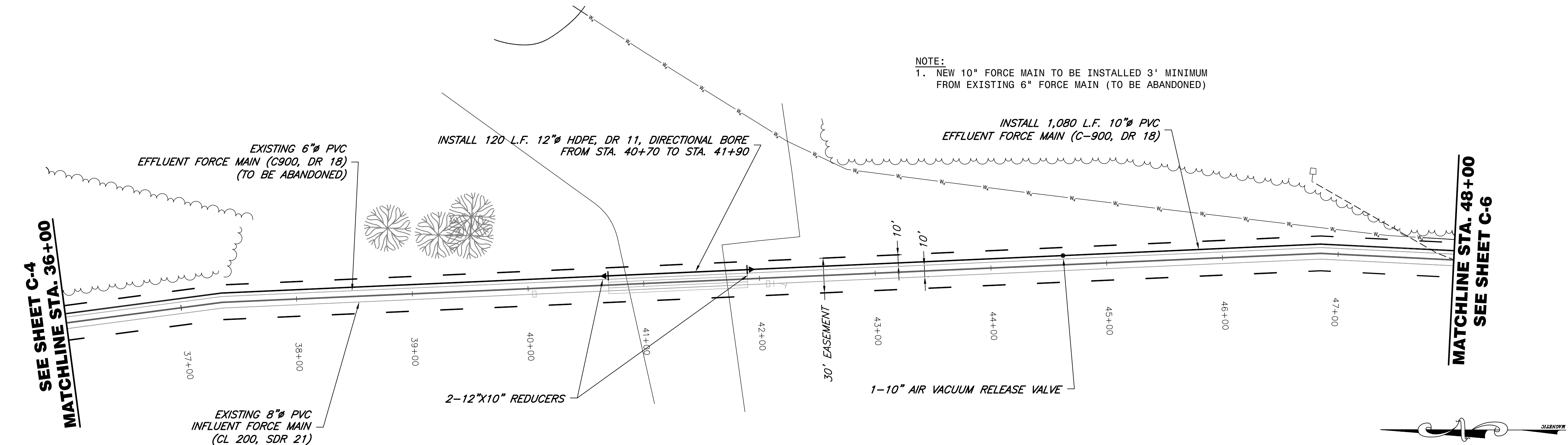
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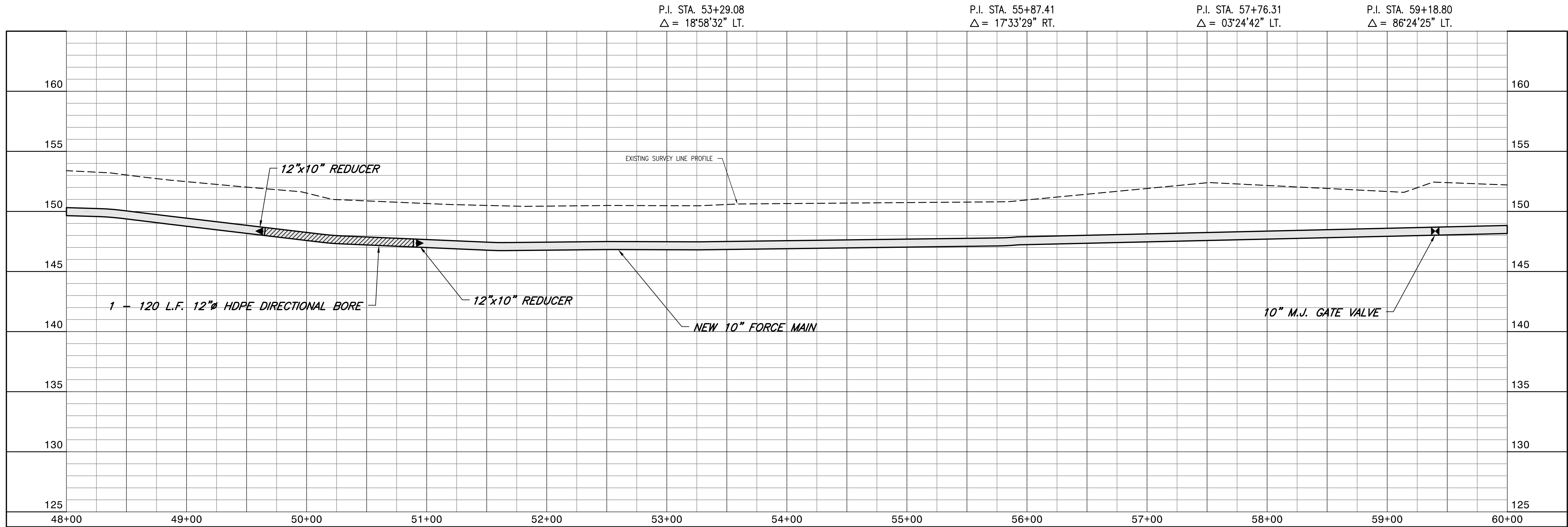
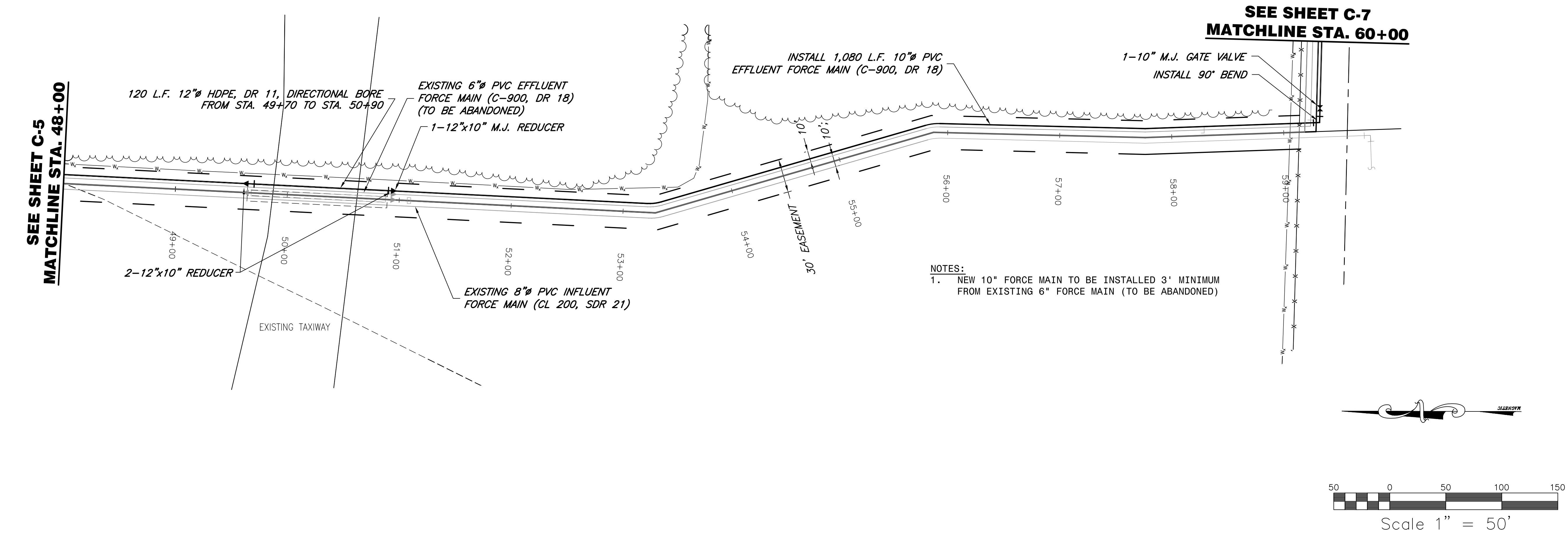
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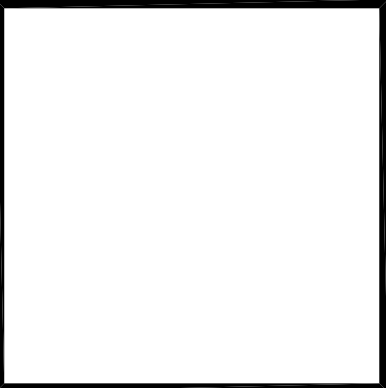
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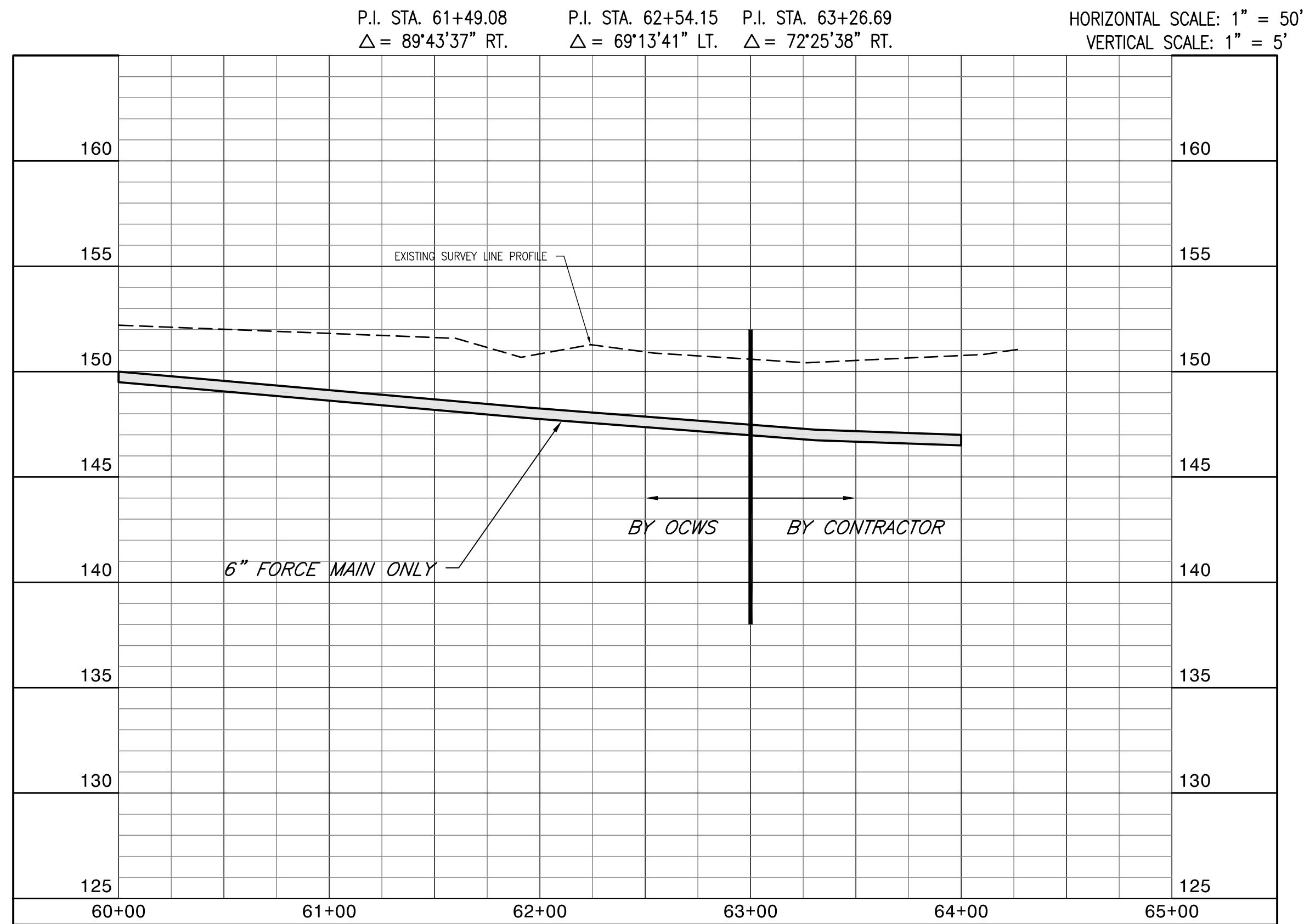
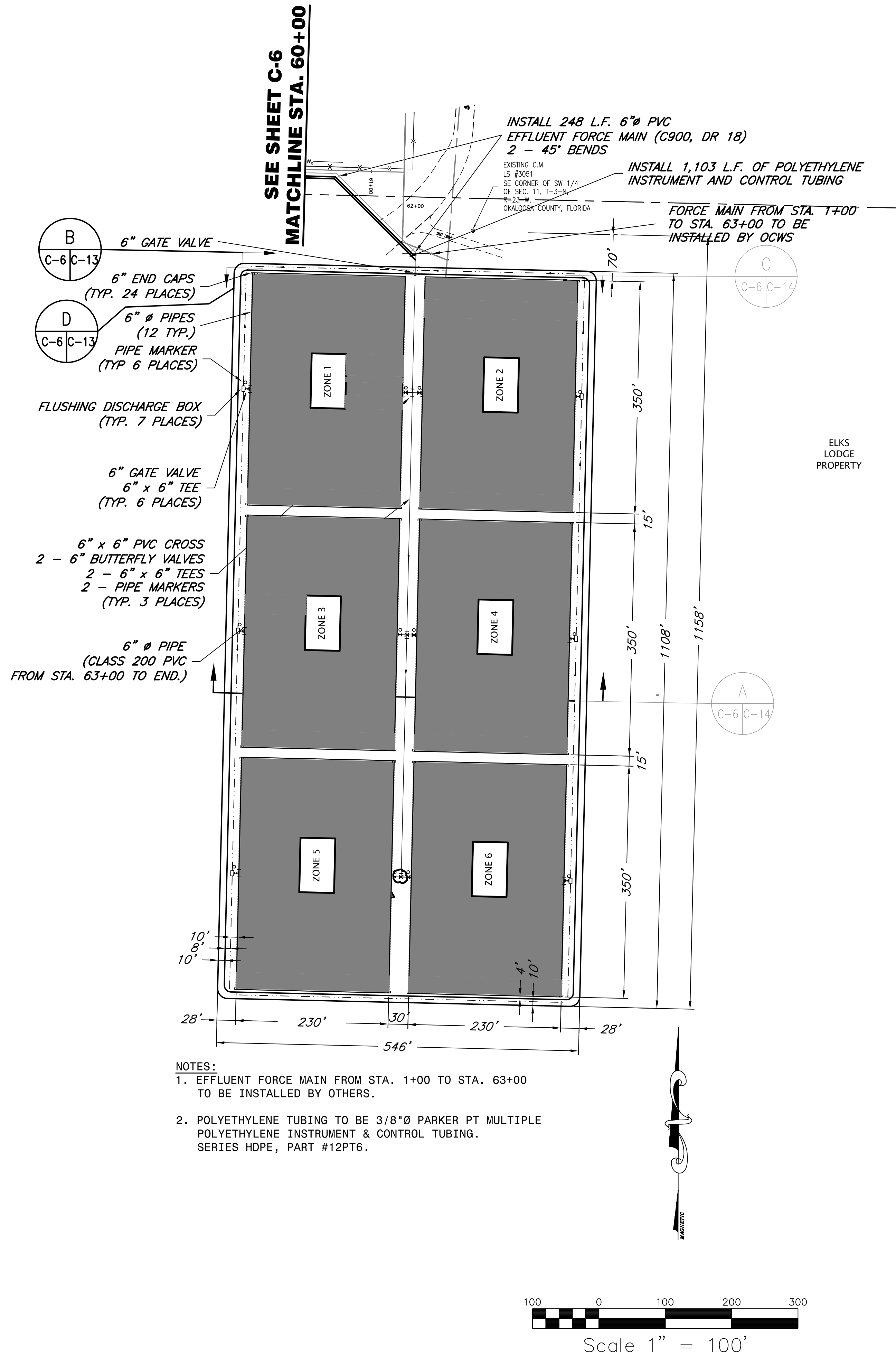
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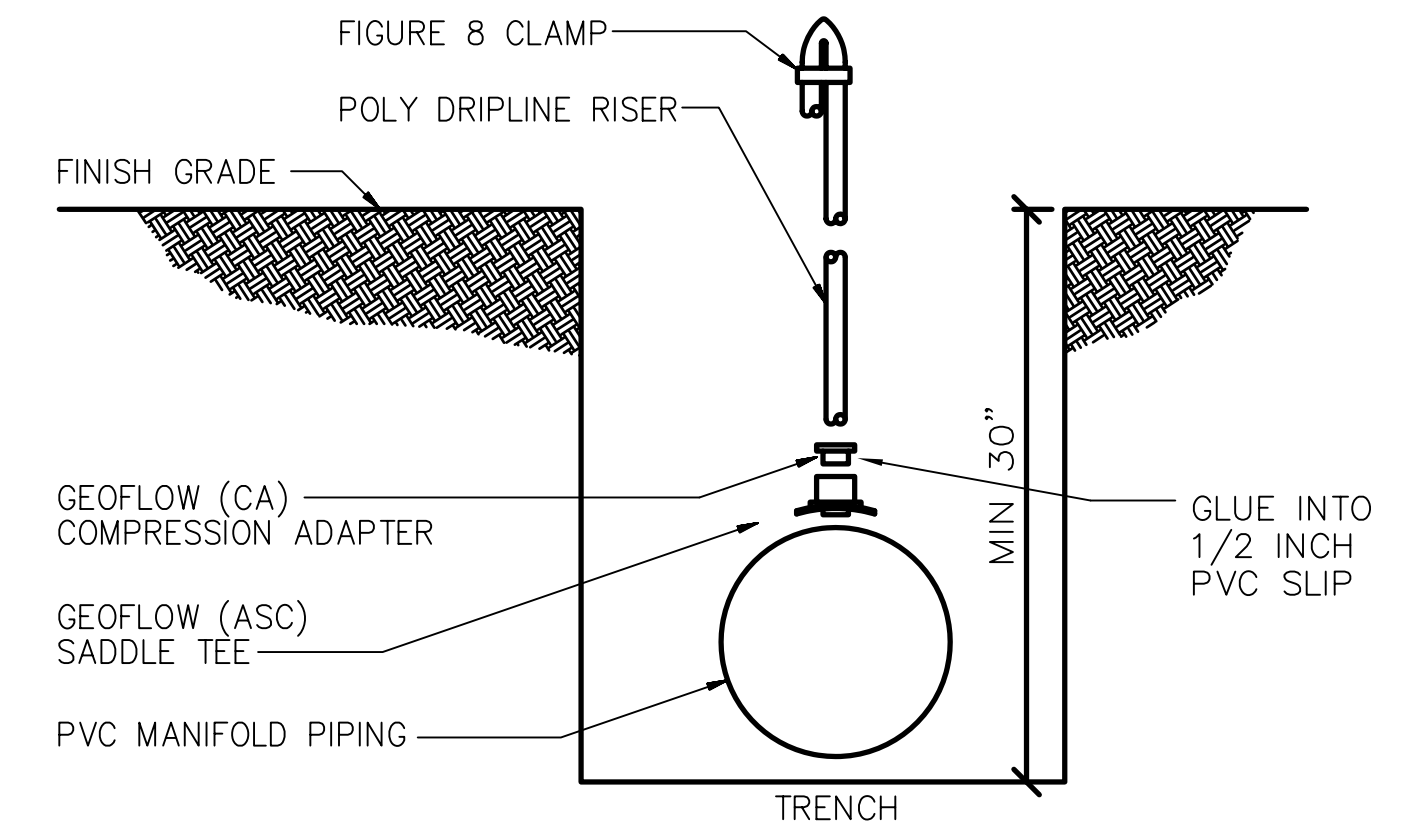
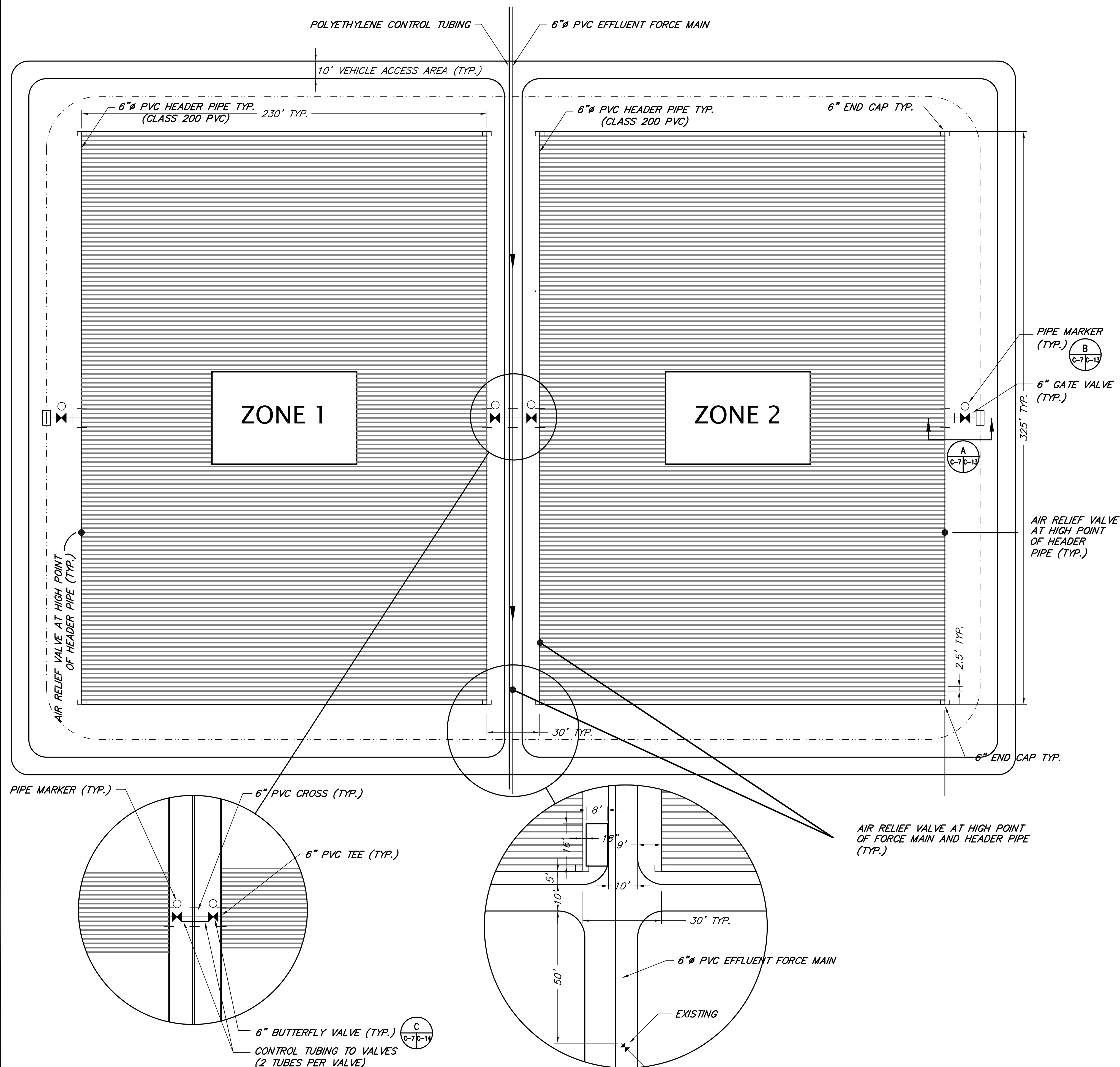
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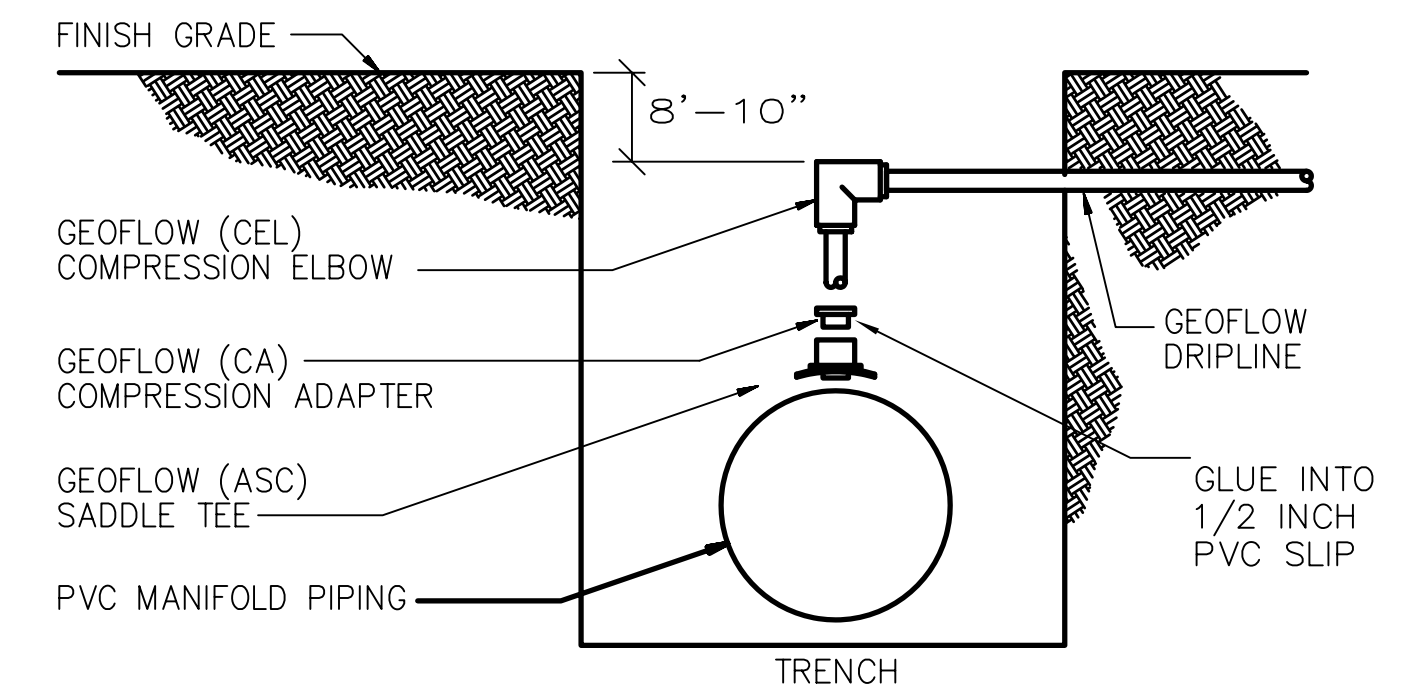
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SADDLE TEE MANIFOLD (STEP #2)



SADDLE TEE MANIFOLD (STEP #3)

- NOTES:
1. GEOFLOW IRRIGATION TUBING TO BE INSTALLED PRIOR TO 6" PVC MANIFOLD HEADER PIPES. (NOT SHOWN)
 2. INSTALL 6" HEADER PIPES AND GEOFLOW SADDLE TEE, COMPRESSION ADAPTER AND RISER INTO PRE-DRILLED HOLES (IN 6" PVC) AS SHOWN IN STEP #2.
 3. ATTACH GEOFLOW TUBING TO RISER USING GEOFLOW COMPRESSION ELBOW AS SHOWN IN STEP #3.

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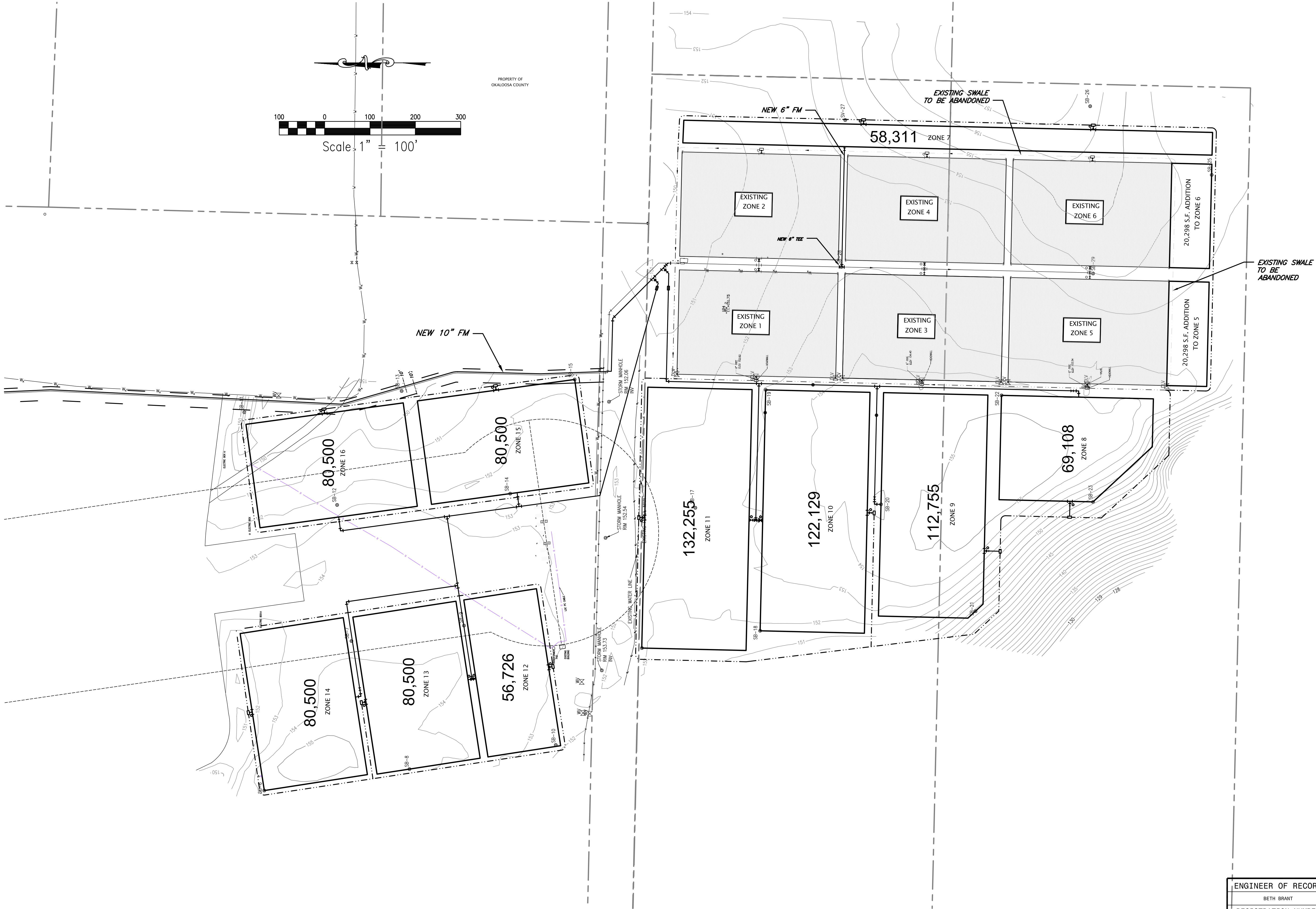
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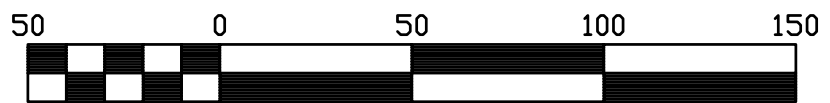
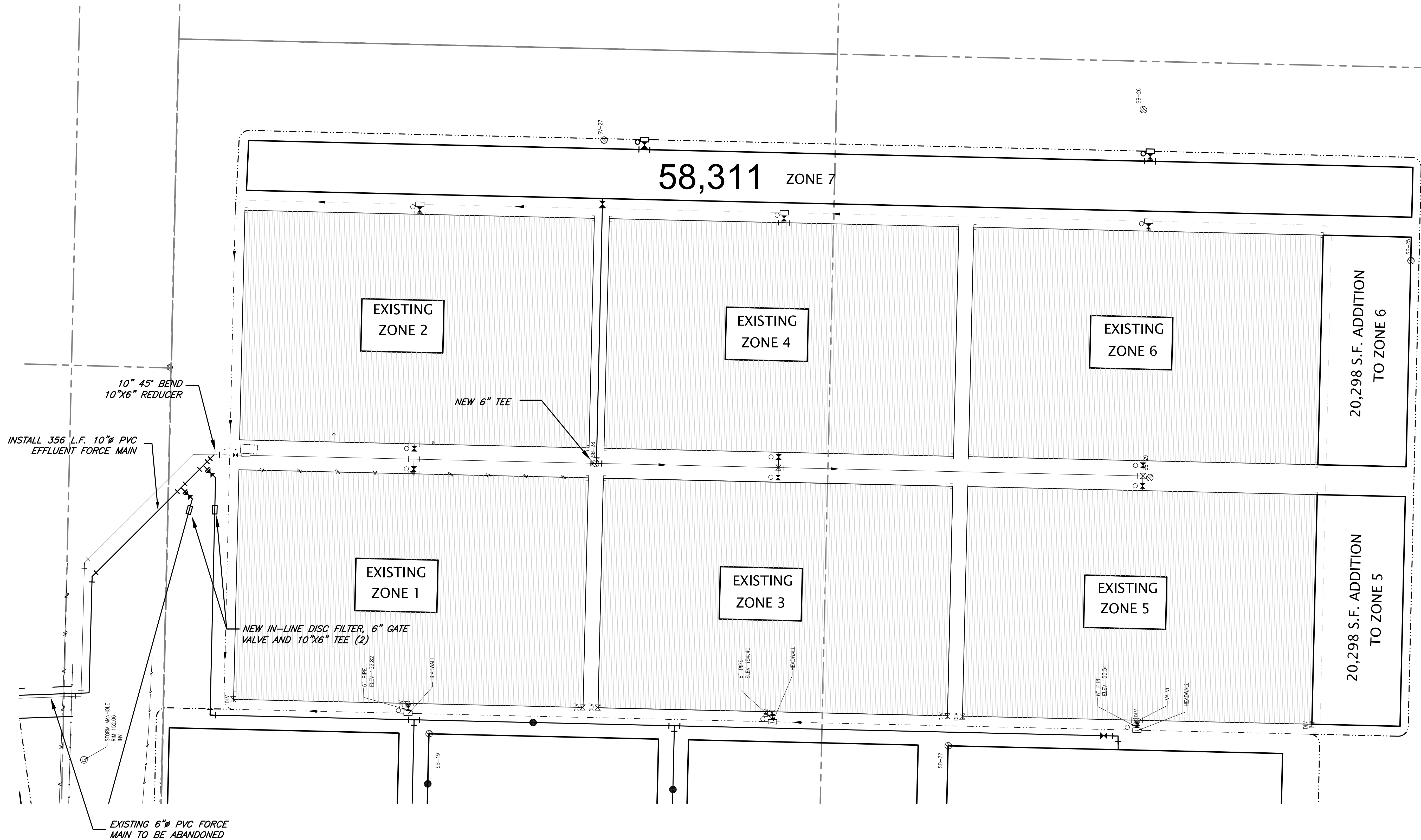
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Scale 1" = 50'

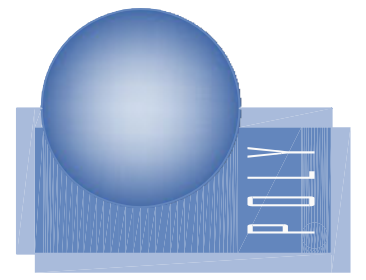
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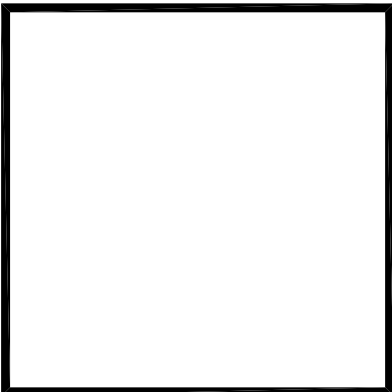
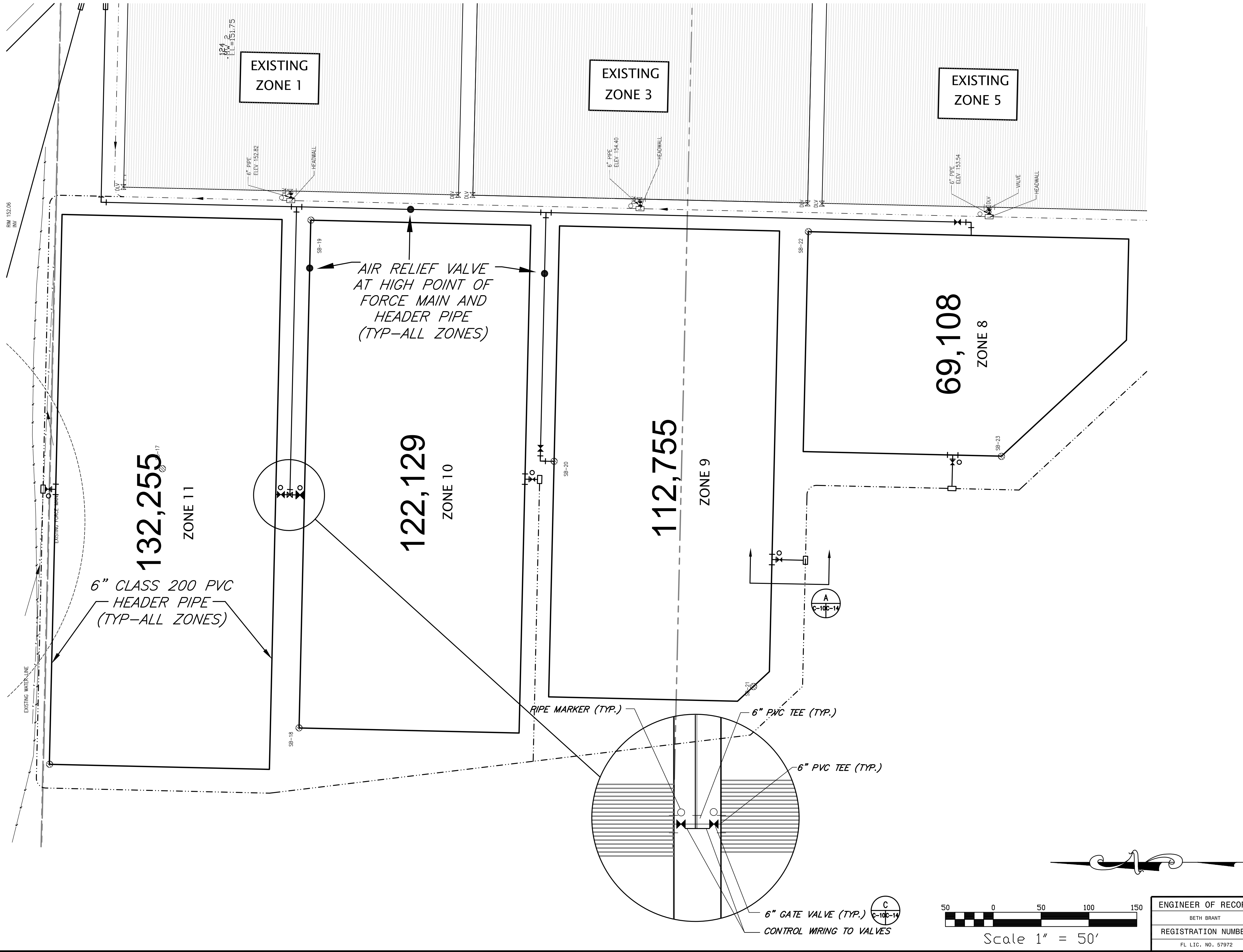
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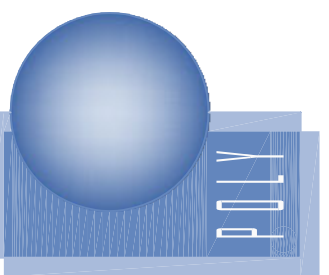
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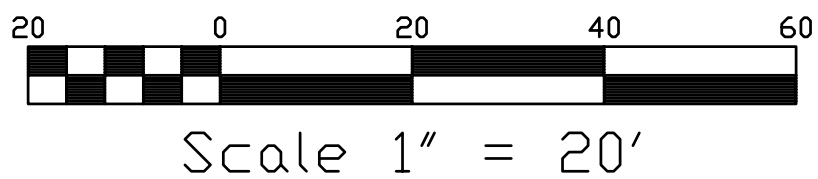
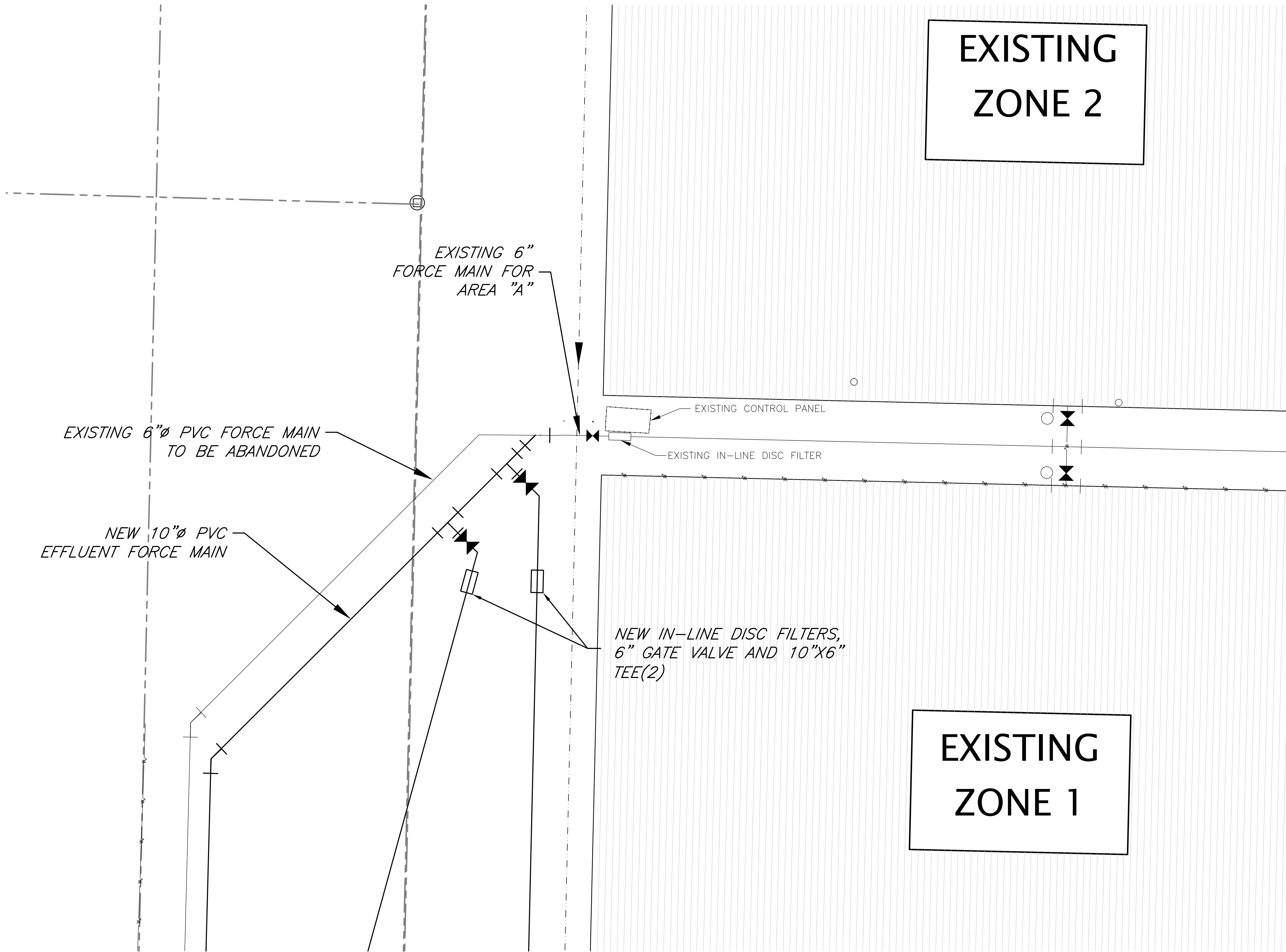
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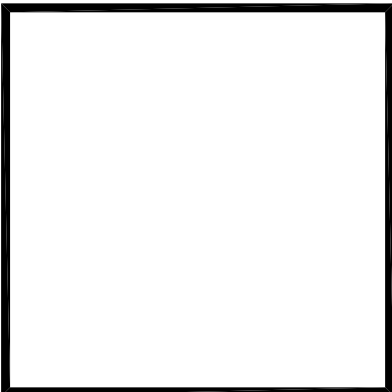
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10' VEHICLE ACCESS AREA

10'

230 L.F. DRIP ABSORPTION FIELD "1"

5'

10' VEHICLE ACCESS AREA

5'

230 L.F. DRIP ABSORPTION FIELD "2"

10'

10' VEHICLE ACCESS AREA

SEE O&M MANUALS FOR DETAILED CONFIGURATION

Figure 1: Typical layout of a 20' wide absorption area. The diagram shows a cross-section of a landscape with various zones and dimensions. From left to right: a 10'-0" VEHICLE ACCESS AREA; a 2'-0" zone; a 3'-0" zone; a 10'-0" central zone; another 3'-0" zone; and a final 2'-0" zone leading to the EDGE OF ABSORPTION AREA. The ground surface is marked with 'x's representing drip irrigation tubes. A hatched area below the surface is labeled 'SLOPE ALL SWALES @ 0.05% MIN.' with a 6" depth indicated. A 10" TYP. depth is also shown. A north arrow is in the bottom right corner.

Diagram illustrating the plan view of a 10' wide absorption area. The area is divided into sections with dimensions: 2'-0" (left), 3'-0" (middle), 3'-0" (middle), 2'-0" (right), and 10'-0" (right). The total width is 20'-0". The area is labeled "EDGE OF ABSORPTION AREA" and "VEHICLE ACCESS AREA". A "DRIP TUBE" is shown on the left, connected to a "6" Ø HEADER" with a "10" TYP." dimension. The slope is indicated as "SLOPE ALL SWALES @ 0.05% MIN." and a "6" dimension is shown at the bottom right.

Diagram illustrating the cross-section of a drainage system. The total width is 20'-0". The left side is a 10'-0" VEHICLE ACCESS AREA. The right side is a 10'-0" EDGE OF ABSORPTION AREA. The central section is divided into segments: 2'-0", 3'-0", 10'-0", 3'-0", and 2'-0". The bottom of the central section is labeled SLOPE ALL SWALES @0.05% MIN. The bottom of the right side is labeled 10" TYP. and 6" Ø HEADER. A DRIP TUBE is shown on the right side.

[illegible]

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Project No.
41-264

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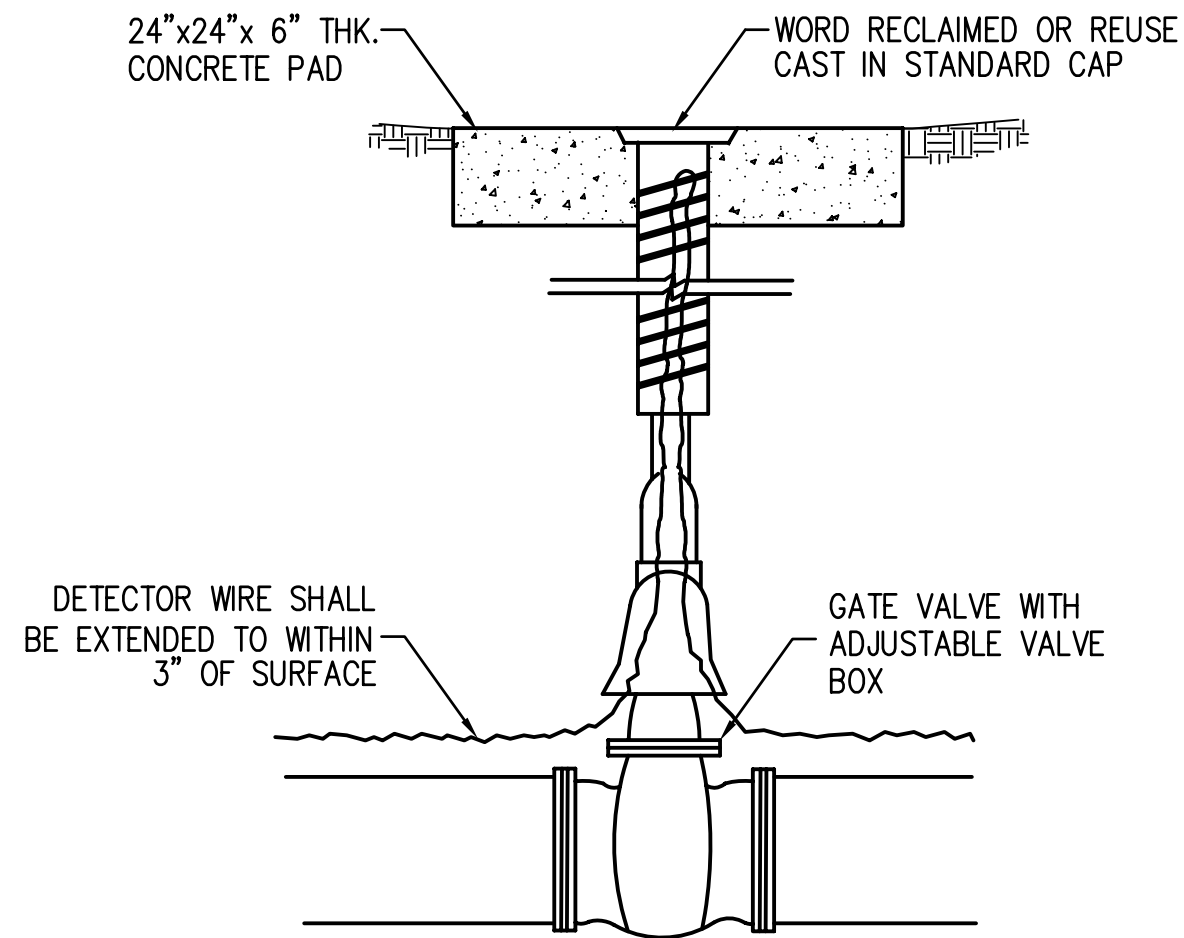
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DETAILS

Sheet No

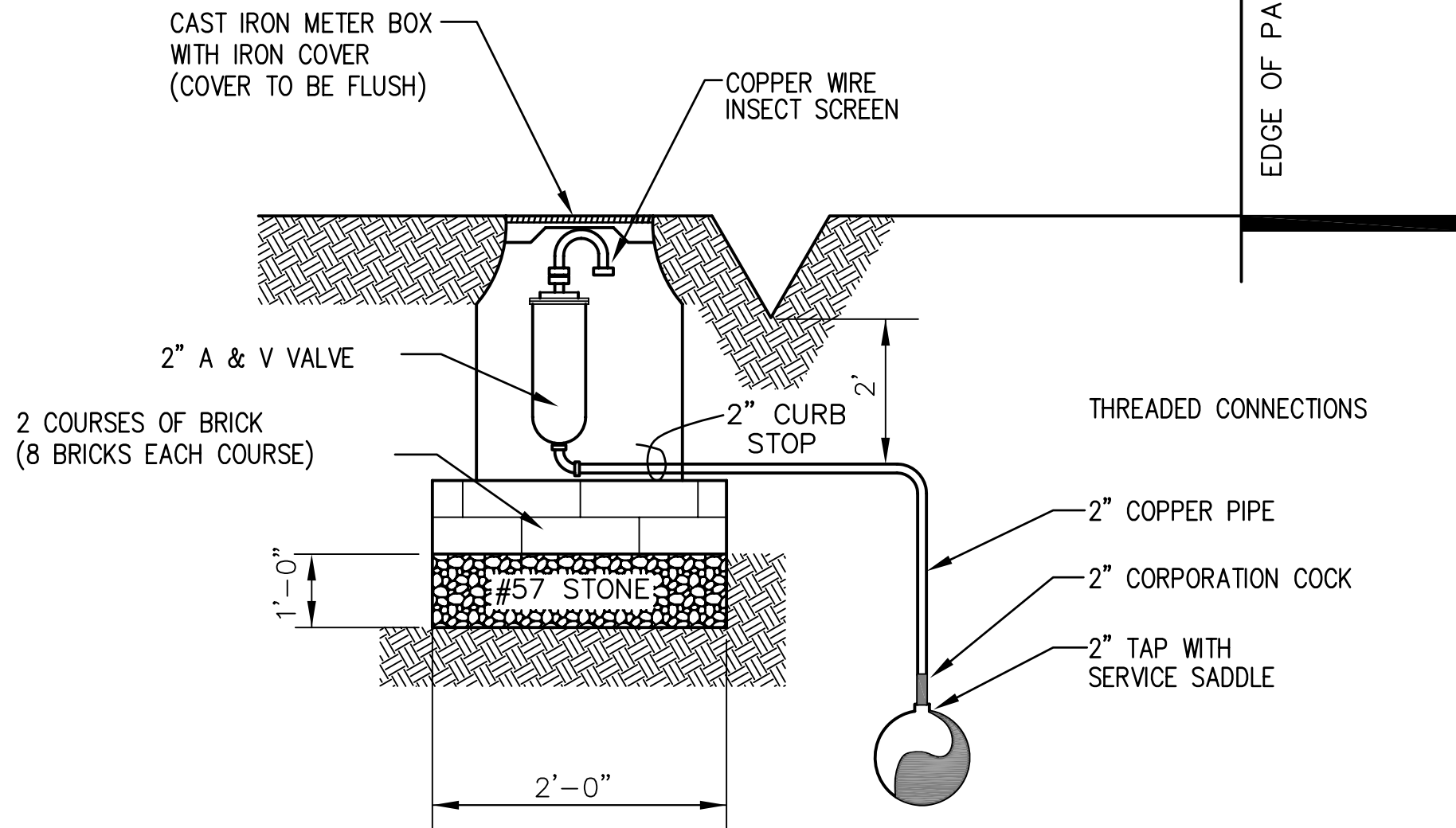
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13 OF 14

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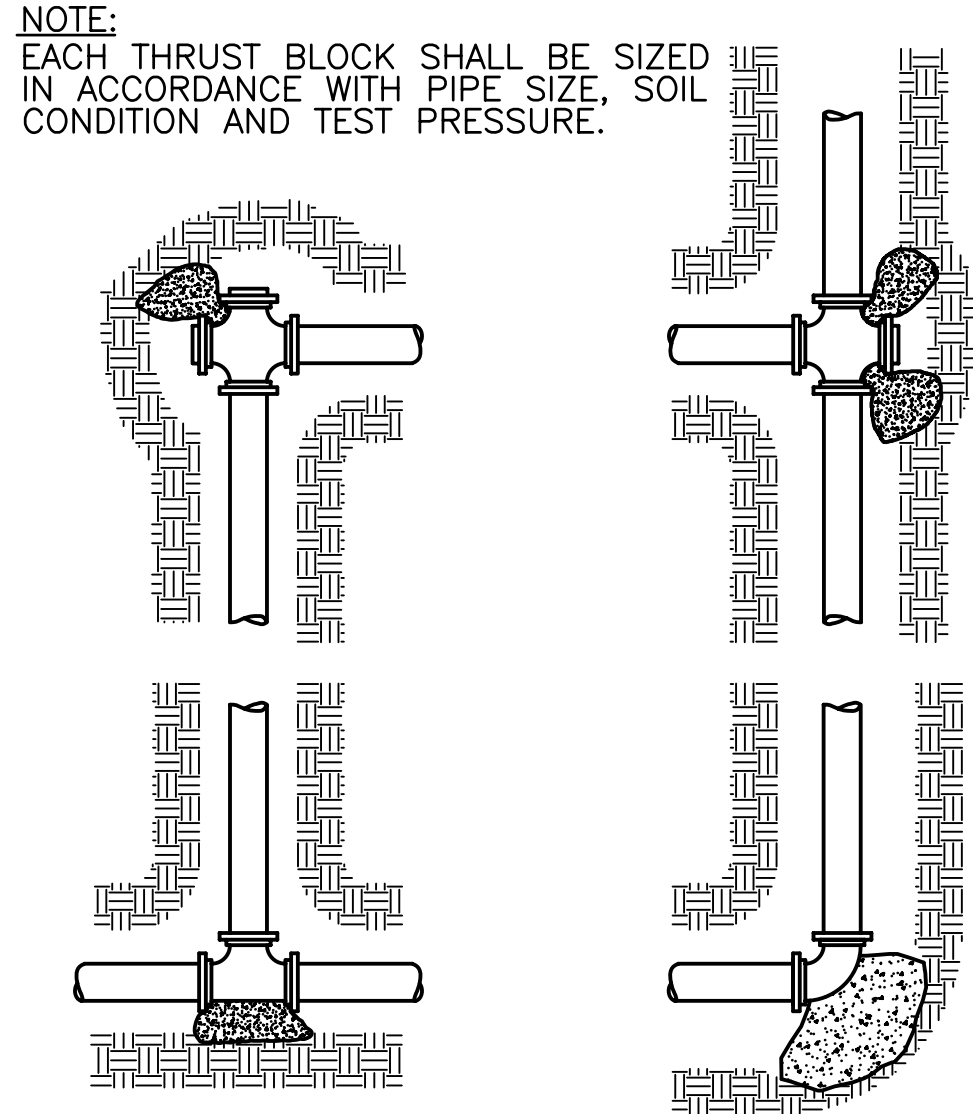
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GATE VALVE & BOX
NO SCALE

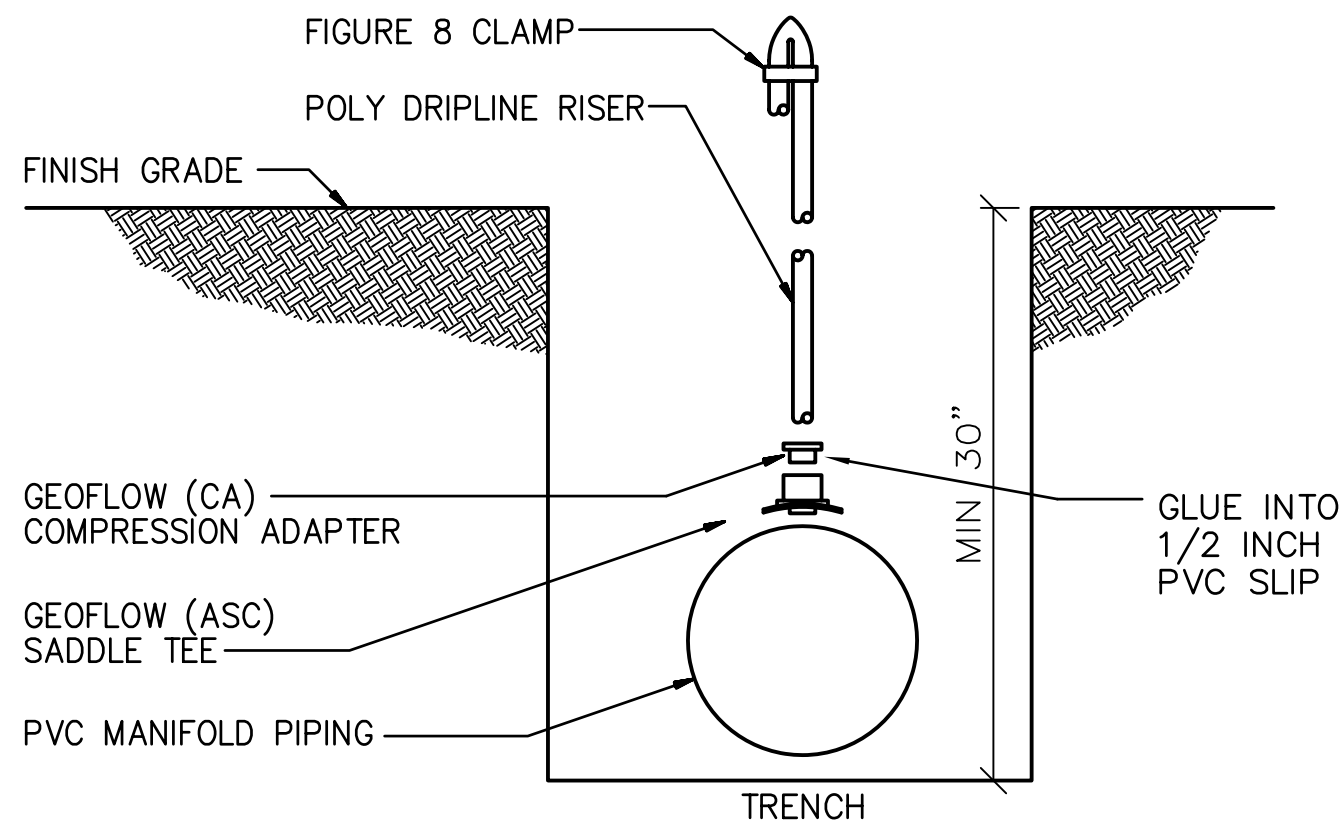


**TYPICAL AIR & VACUUM
RELEASE VALVE ASSEMBLY**
NO SCALE

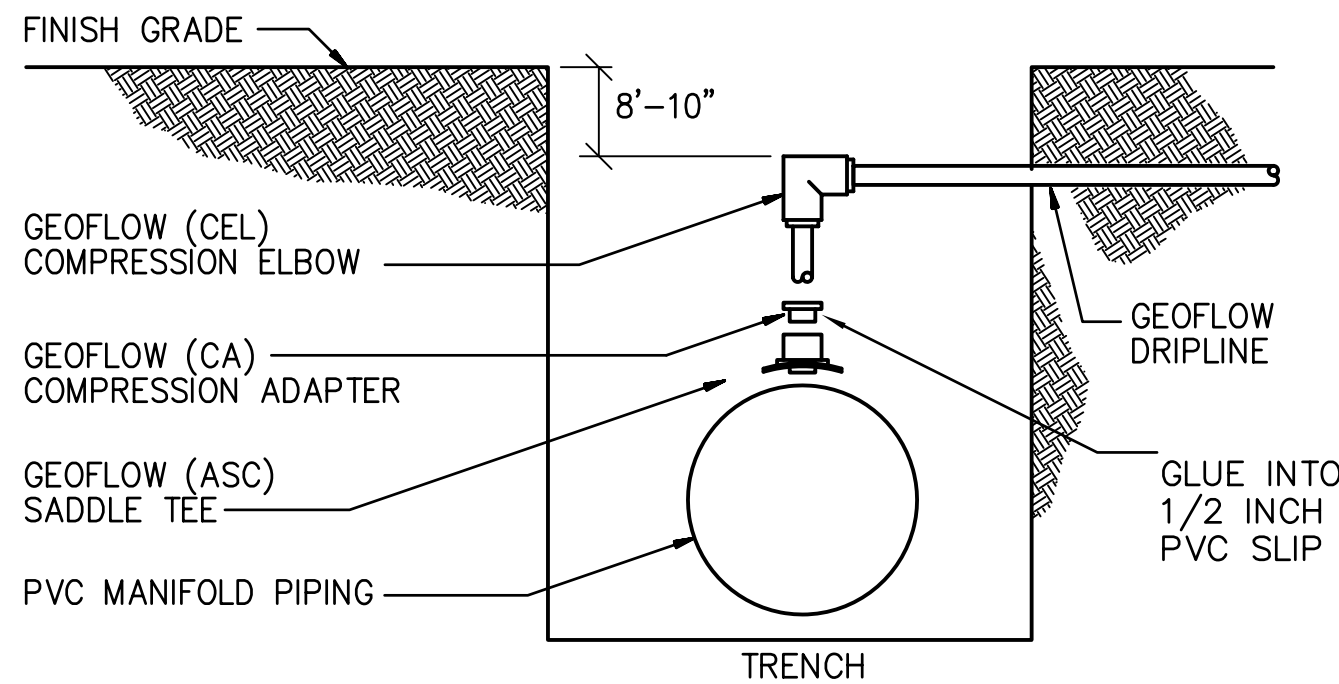


THRUST BLOCK DETAIL
NO SCALE

PIPE DIAMETER	MINIMUM THRUST BLOCK BEARING AREA
3"	2 SQ.FT.
6"	4.5 SQ.FT.



SADDLE TEE MANIFOLD (STEP #2)
NO SCALE



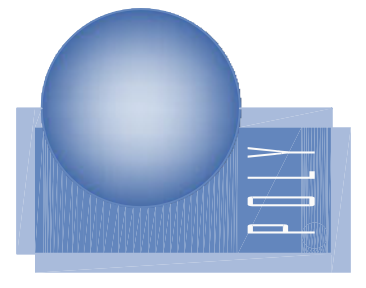
SADDLE TEE MANIFOLD (STEP #3)
NO SCALE

- NOTES:**
- GEOFLOW IRRIGATION TUBING TO BE INSTALLED PRIOR TO 6" PVC MANIFOLD HEADER PIPES. (NOT SHOWN)
 - INSTALL 6" HEADER PIPES AND GEOFLOW SADDLE TEE, COMPRESSION ADAPTER AND RISER INTO PRE-DRILLED HOLES (IN 6" PVC) AS SHOWN IN STEP #2.
 - ATTACH GEOFLOW TUBING TO RISER USING GEOFLOW COMPRESSION ELBOW AS SHOWN IN STEP #3.

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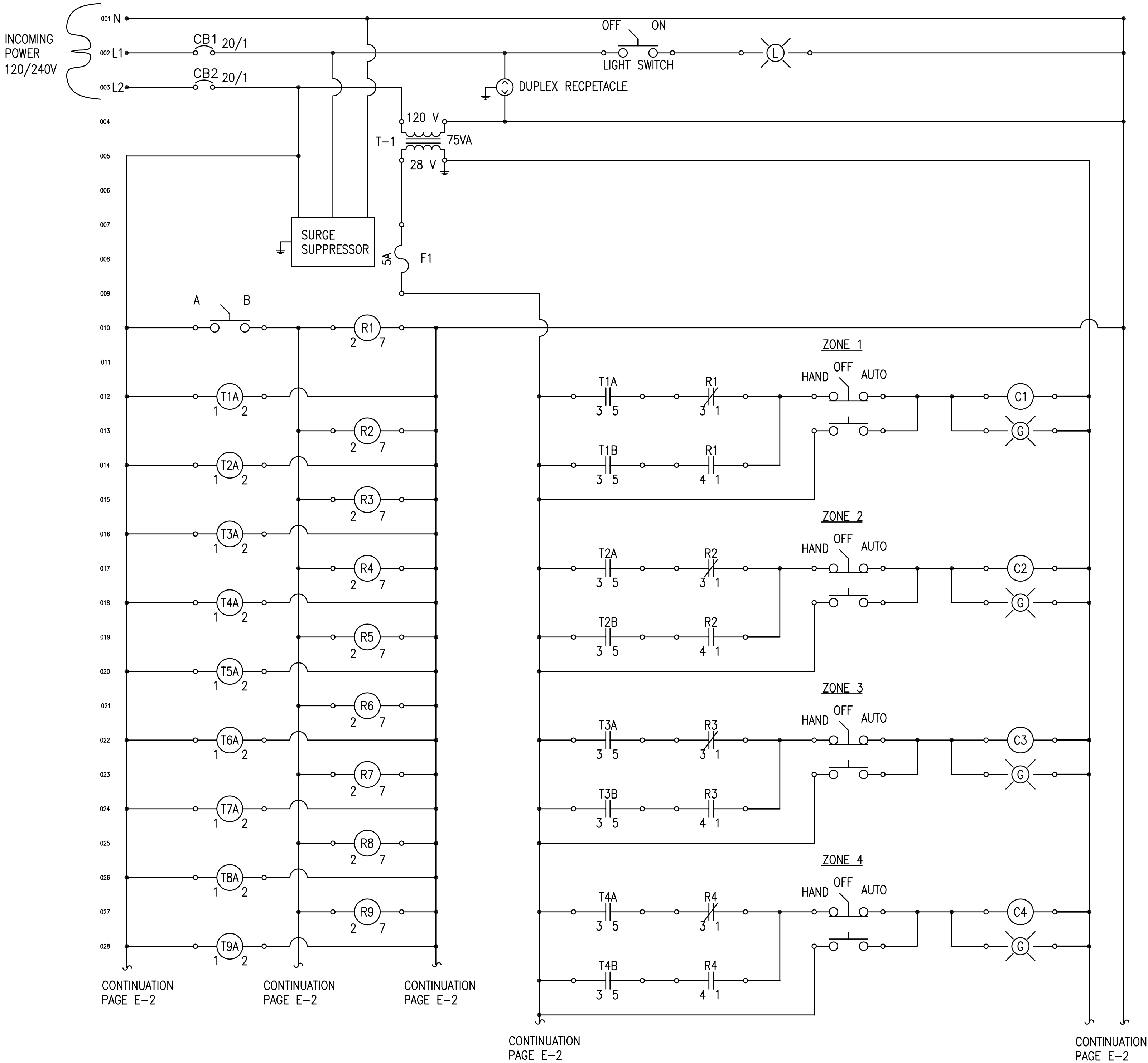
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Sheet title
ABSORPTION BED
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Sheet No

C-14
14 OF 14

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CONTROL DIAGRAM
SCALE: NONE

ELECTRICAL SYMBOL LEGEND:

- Controls:
- GENERAL PURPOSE RELAY, RELAY R1 INDICATED. CONTACT ARRANGEMENT AS REQUIRED.
 - TIME DELAY RELAY, RELAY T1 INDICATED. CONTACT ARRANGEMENT AS REQUIRED.
 - CONTACTOR COIL, CONTACTOR C1 INDICATED. CONTACT ARRANGEMENT AS REQUIRED.
 - NORMALLY CLOSED CONTACTS - COIL 'R1', CONTACT '1' INDICATED.
 - NORMALLY OPEN CONTACTS - COIL 'R1', CONTACT '1' INDICATED.
 - PILOT LIGHT - PUSH-TO-TEST TYPE, OIL TIGHT. LETTER INDICATES LENS COLOR: R=RED, G=GREEN, A=AMBER.
 - HAND-OFF-AUTO ROTARY SELECTOR SWITCH, OIL-TIGHT.
 - TWO-POSITION ROTARY SELECTOR SWITCH, OIL-TIGHT.
 - FUSE. 5A OVERCURRENT RATING INDICATED.
 - CONTROL POWER TRANSFORMER. 75 VA POWER RATING INDICATED. 120V PRIMARY VOLTAGE, 28V SECONDARY VOLTAGE INDICATED.
 - FIELD WIRING POINT OR TERMINAL BLOCK
 - CIRCUIT BREAKER, "CB1" INDICATED "20/1" DENOTES 20 AMP, SINGLE POLE.
 - SWITCH, SINGLE POLE TOGGLE
 - PRESSURE SWITCH, NORMALLY OPEN. SWITCH PS1 INDICATED.

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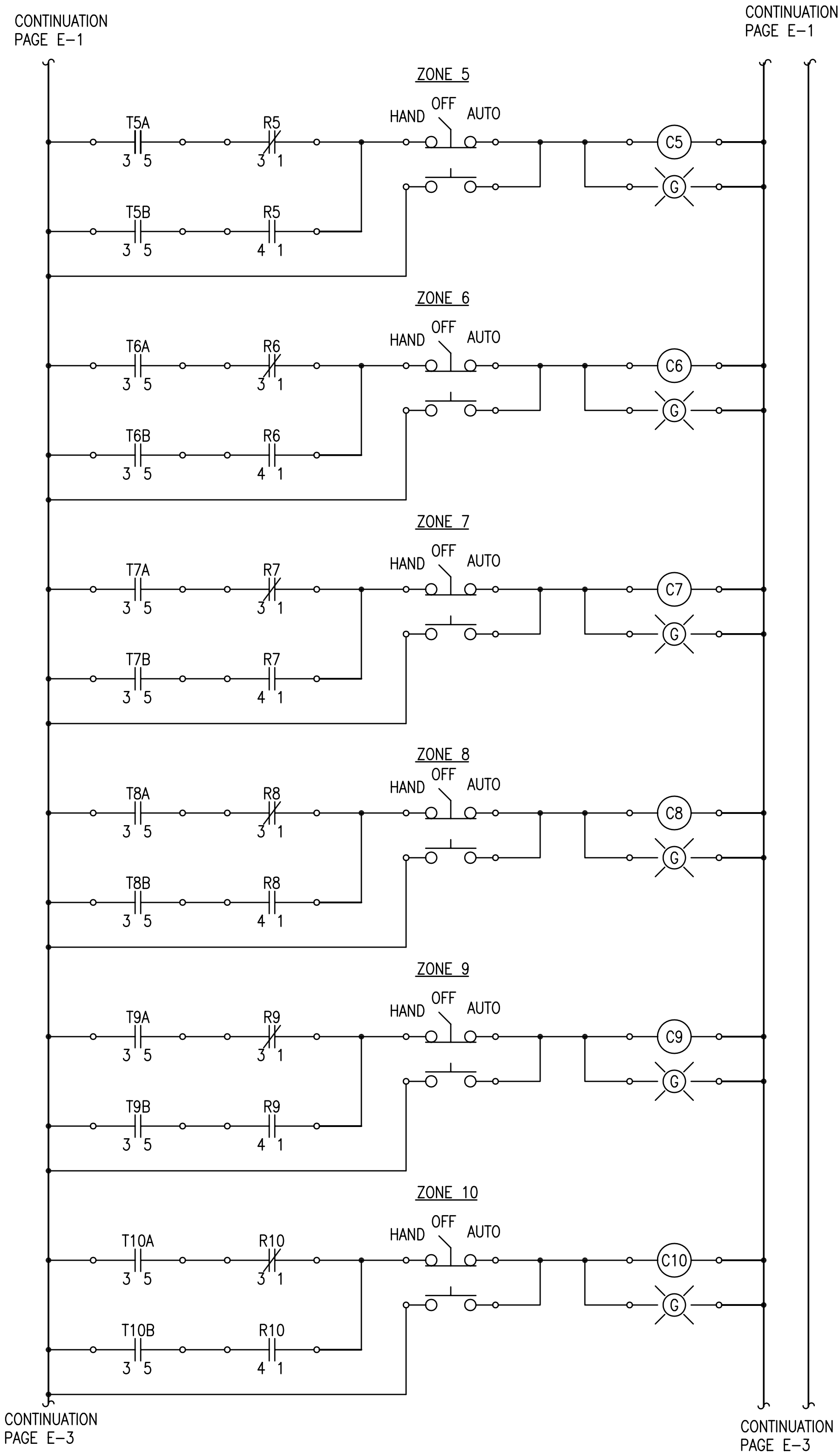
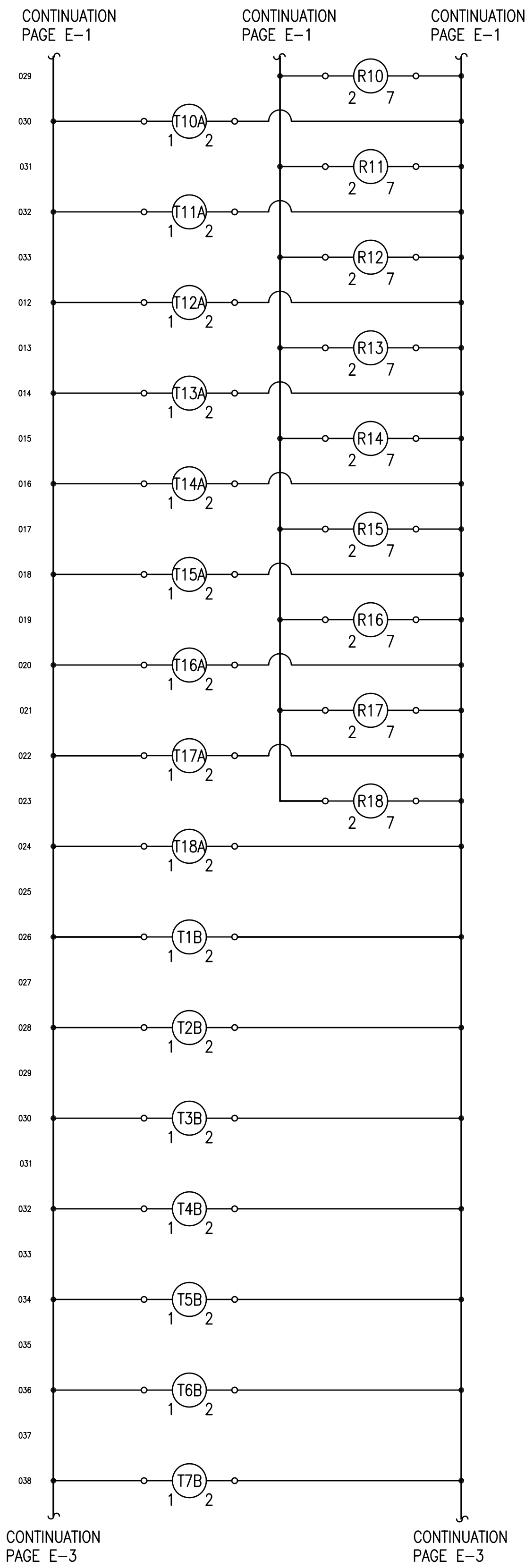
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Sheet title
CONTROL DIAGRAM

Sheet No.

E-1
1 OF 5



CONTROL DIAGRAM

SCALE: NONE

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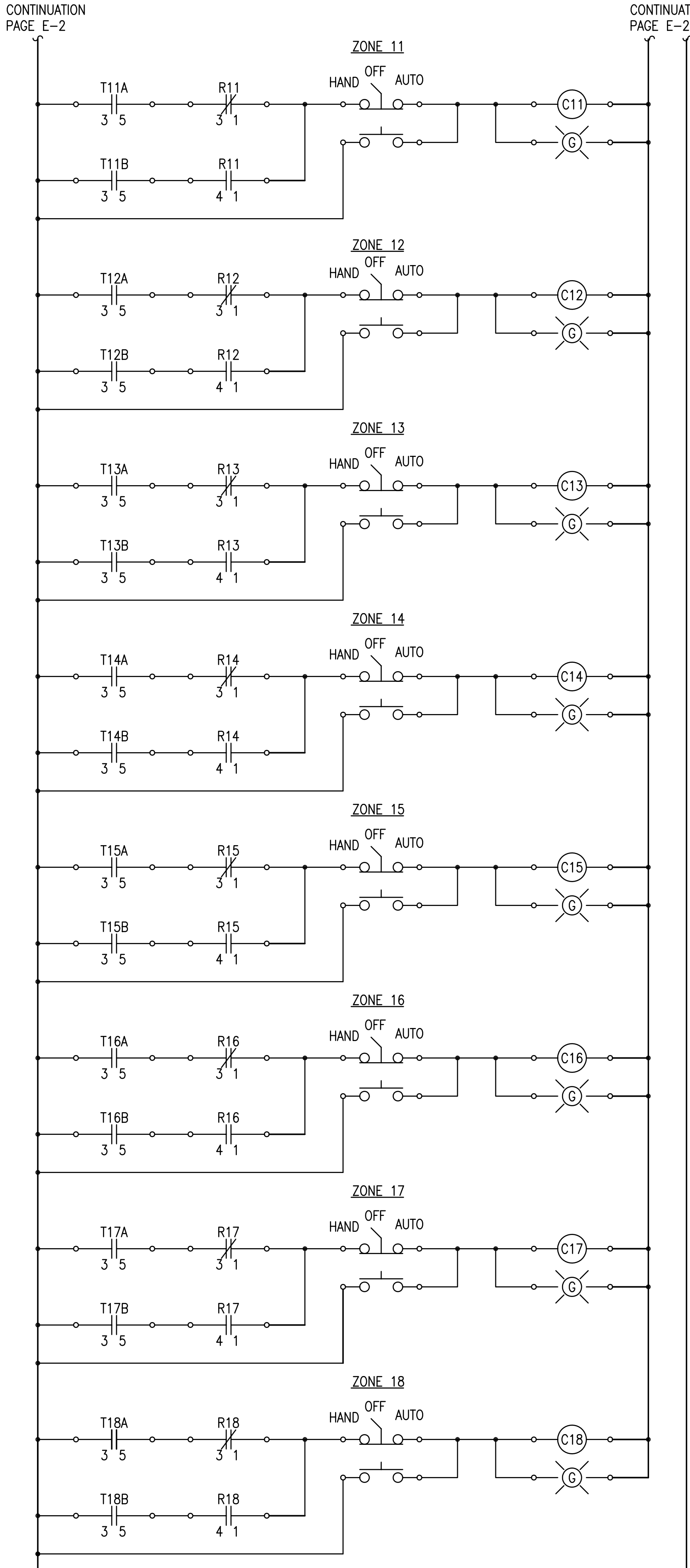
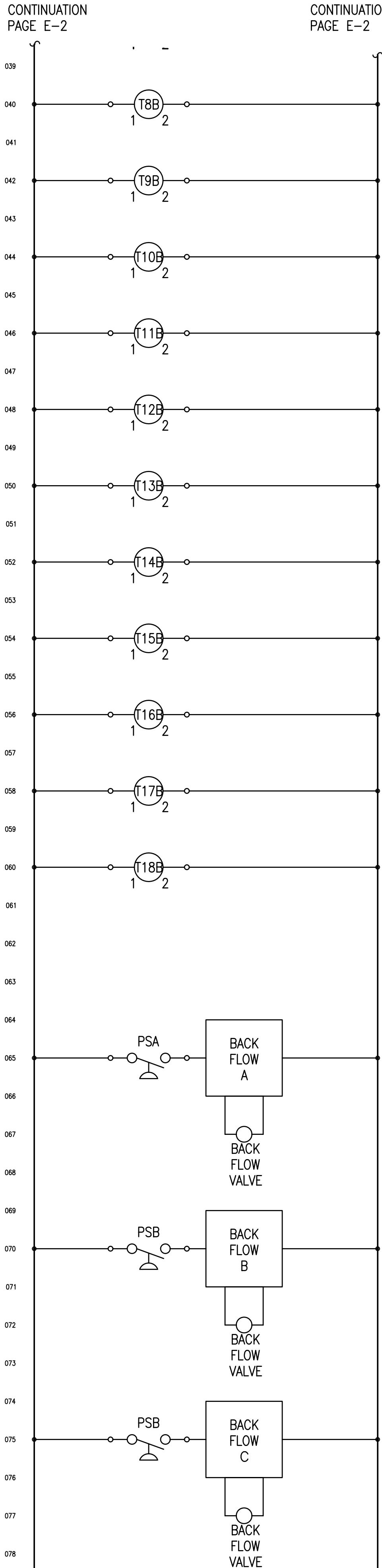
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Sheet title
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2 OF 5

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JWB

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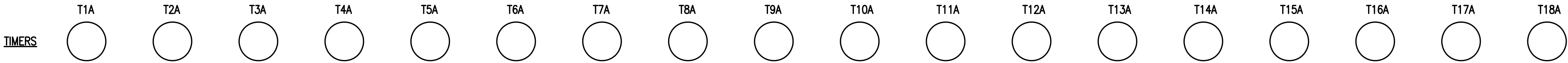
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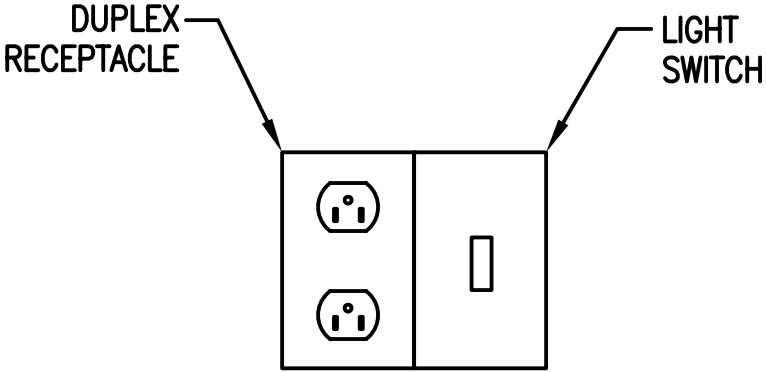
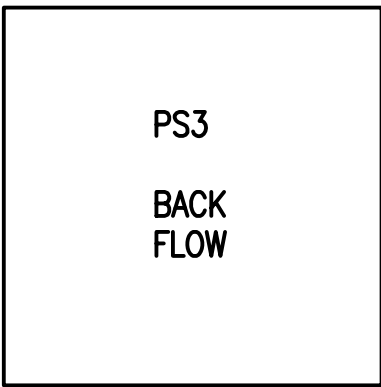
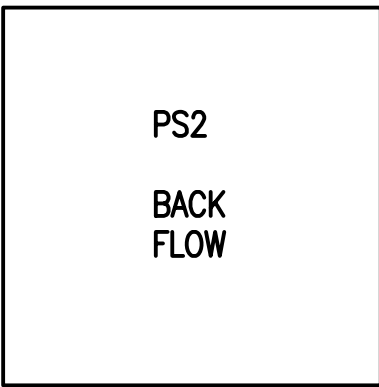
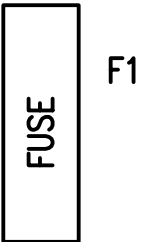
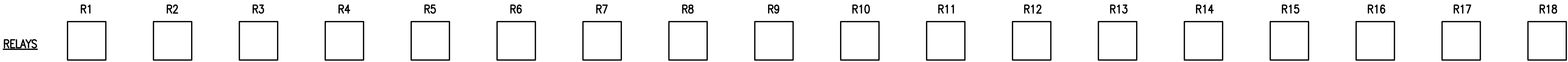
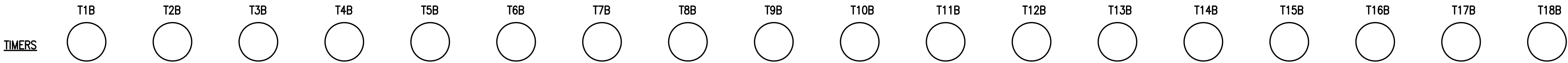
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3 OF 5

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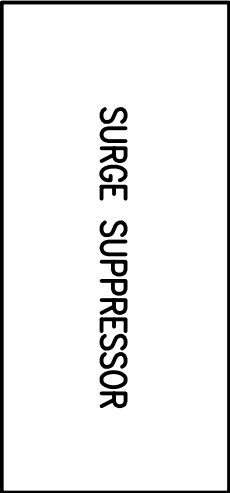
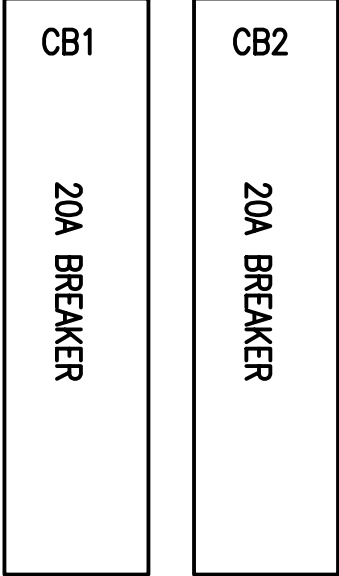


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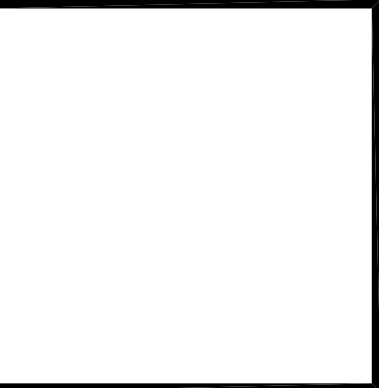


TERMINAL BLOCKS

CONTROL PANEL - INSIDE
SCALE: NONE



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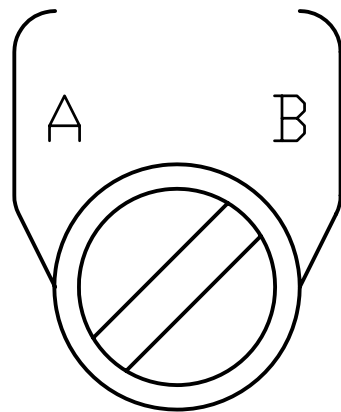
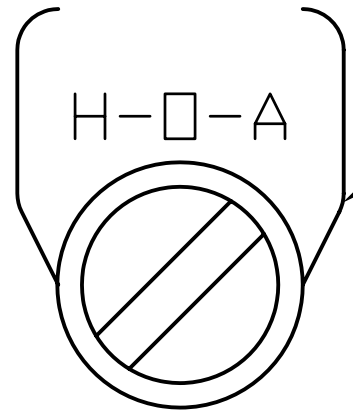
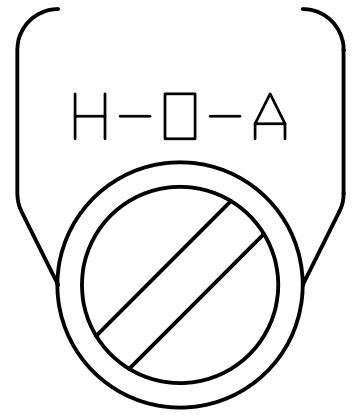
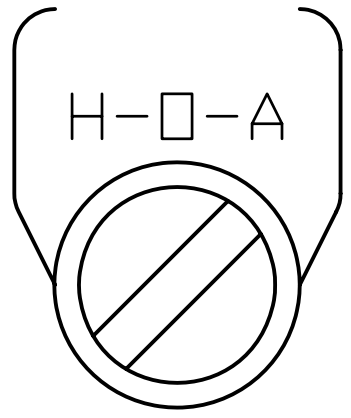
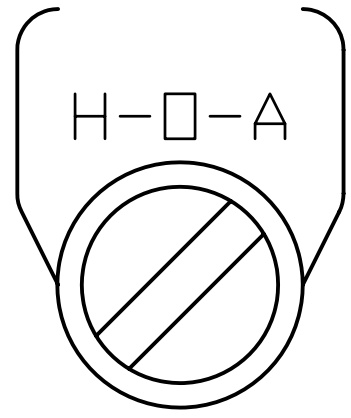
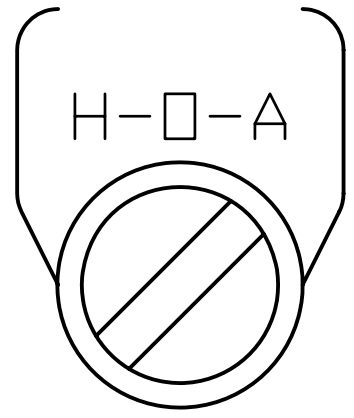
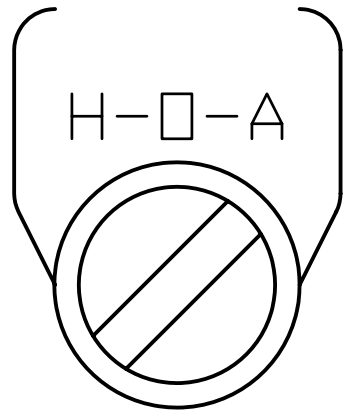
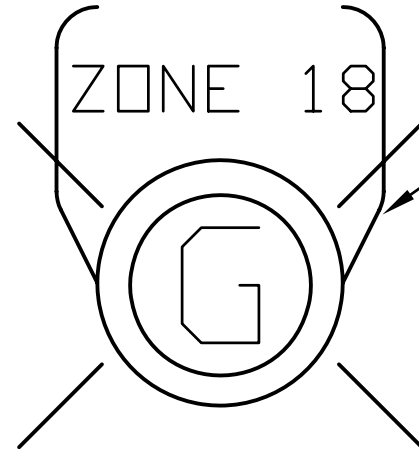
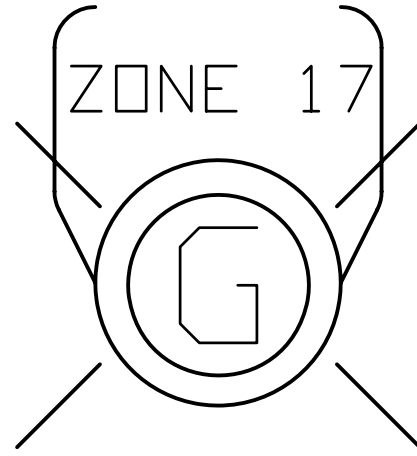
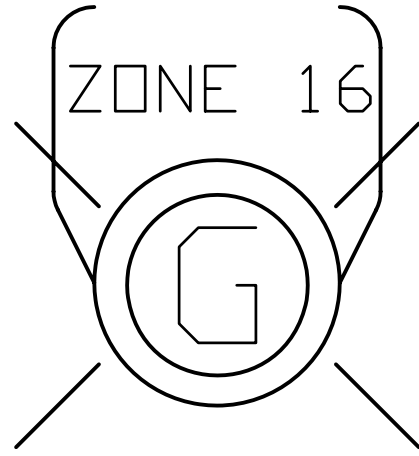
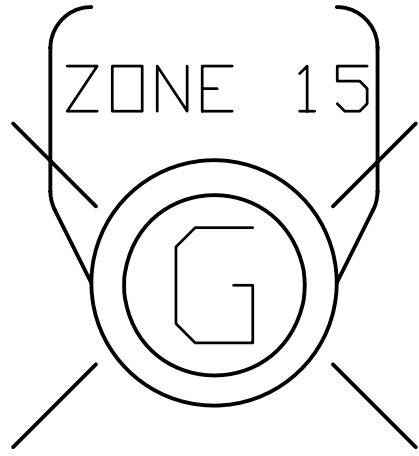
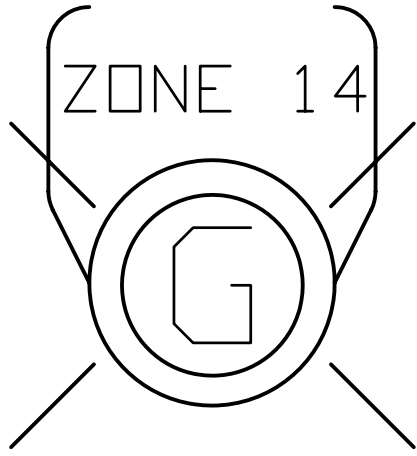
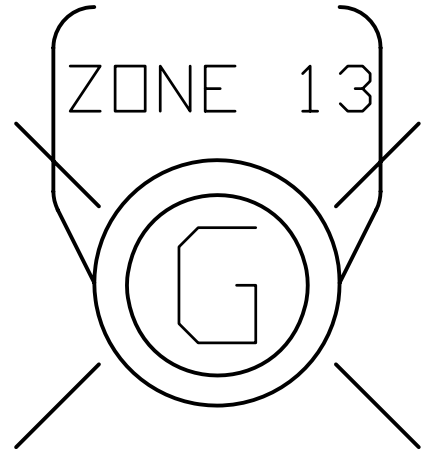
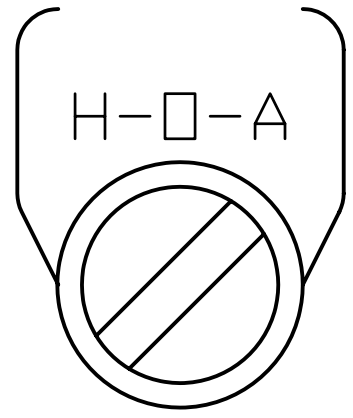
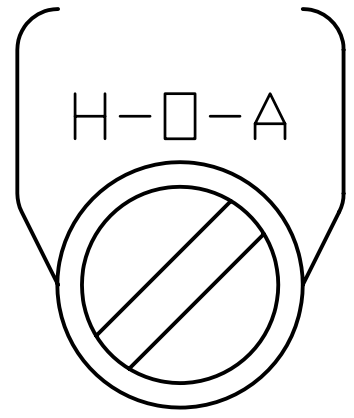
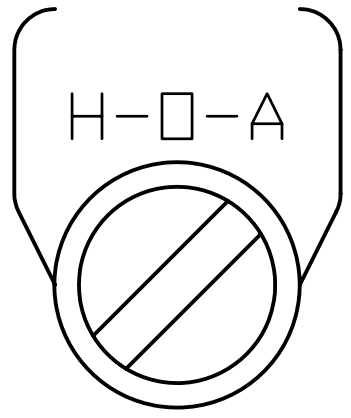
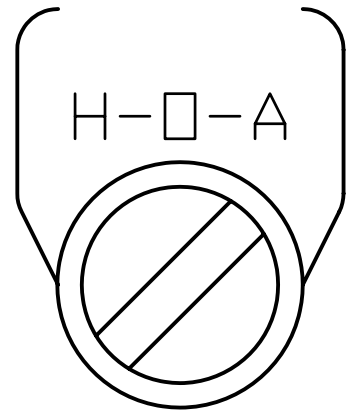
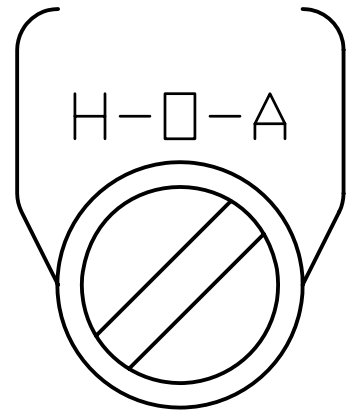
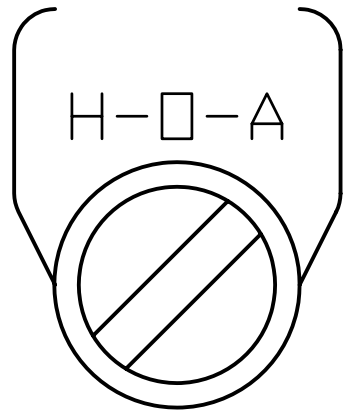
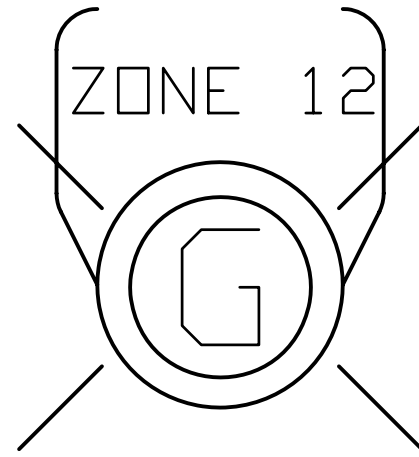
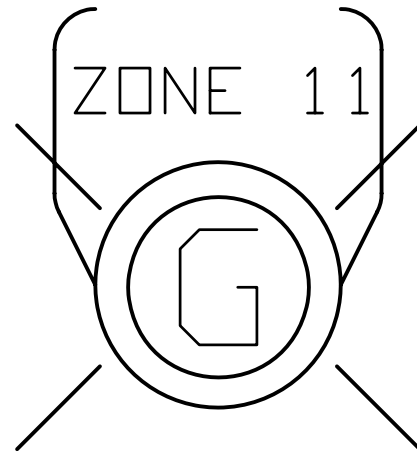
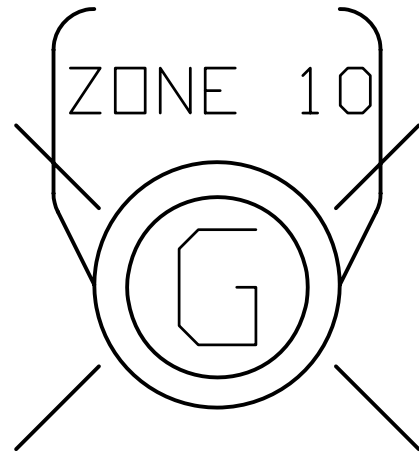
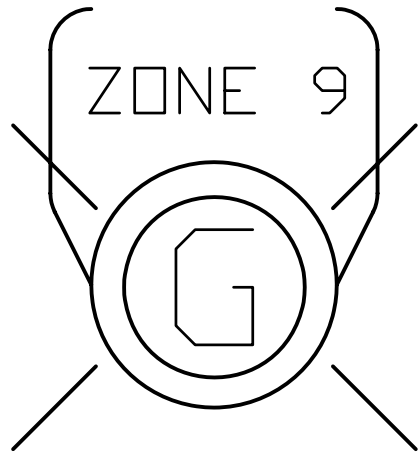
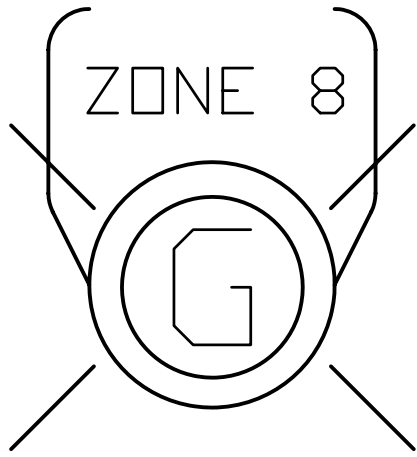
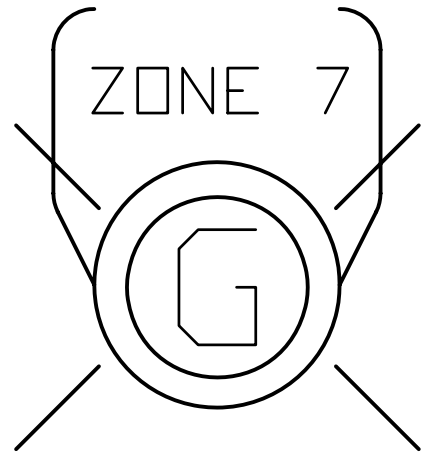
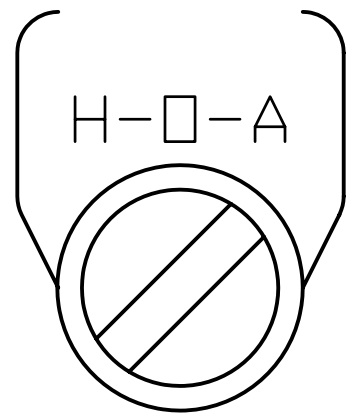
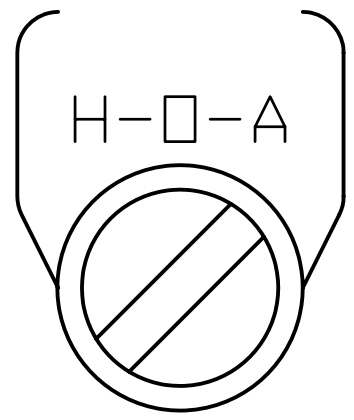
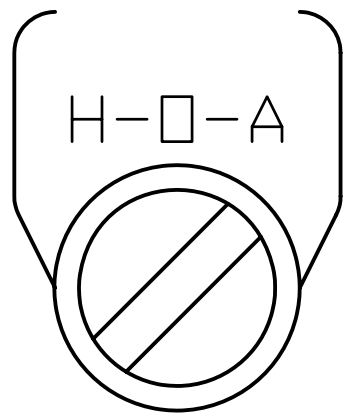
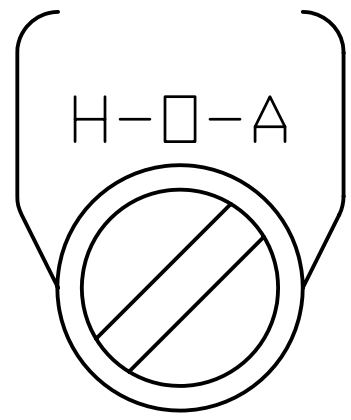
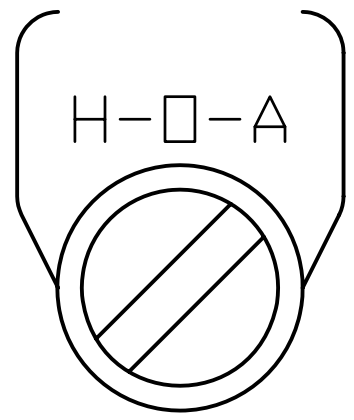
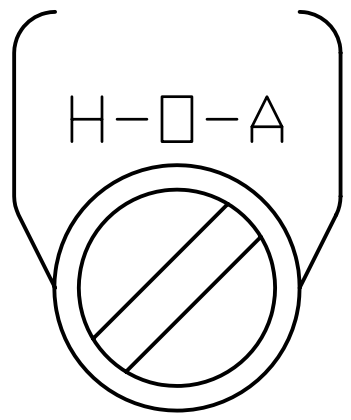
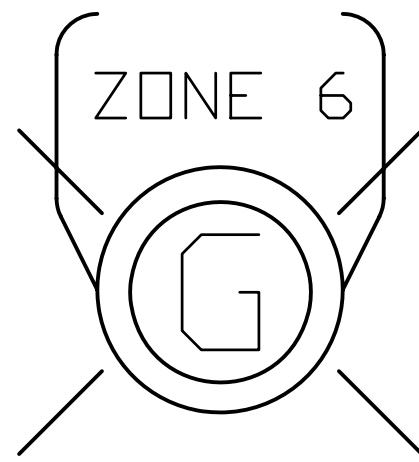
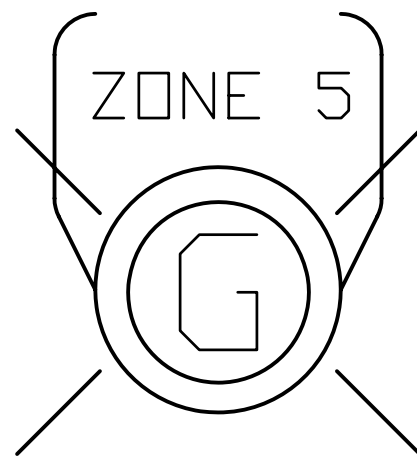
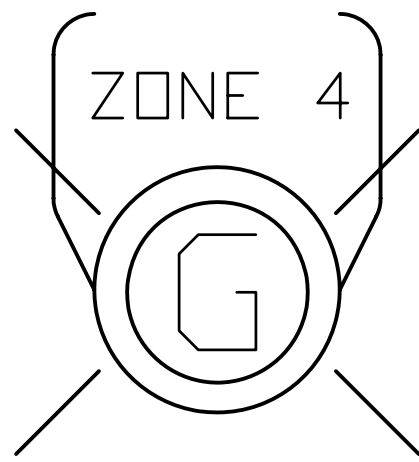
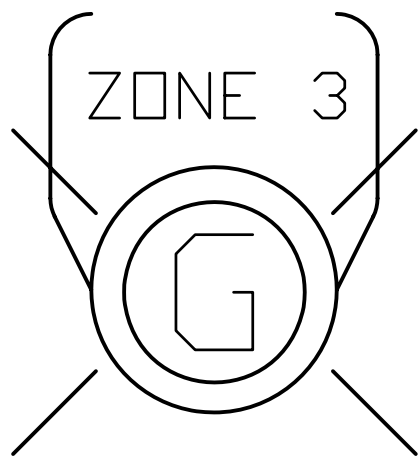
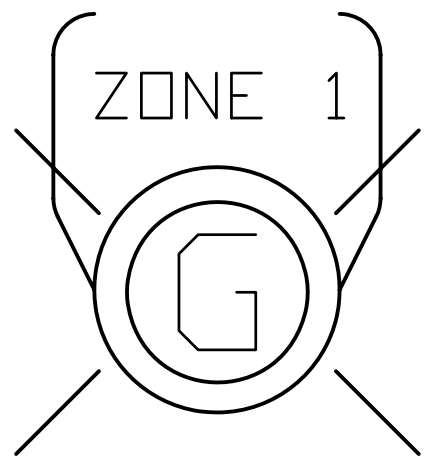
Project No.
41-264

Sheet title
CONTROL
PANEL
INSIDE

Sheet No

E-4
4 of 5

Polyengineering, Inc. - G:\CLEANSTUFF-29-999\41264 CrestView WWTF Operating Permit\WP\PHASE 1\ELECTRICAL\E-5.dwg [Layout1] Last Printed: March 13, 2009 - 10:12am By: Alderman

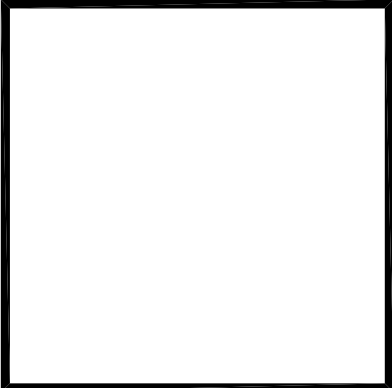


CONTROL PANEL - FRONT
SCALE: NONE

PILOT LIGHT (TYPICAL)

HAND-OFF-AUTO ROTARY SELECTOR
SWITCH (TYPICAL)

ENGINEER OF RECORD
JOSEPH W. BOWMAN
REGISTRATION NUMBER
FL LIC. NO. 59881



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CA-1818

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BOB SIKES PARK
WWTF EFFLUENT DISPOSAL
EXPANSION
PHASE II
OKALOOSA COUNTY WATER AND SEWER SYSTEM
OKALOOSA COUNTY, FLORIDA

POLYENGINEERING, INC.
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Revisions			
Key	Drawn By	Apprvd. By	Date
1			
2			
3			
4			

Field Book No.
.

Drawn By
CEB

Apprvd. By
JWB

Date
FEBRUARY 2009

Project No.
41-264

Sheet title
CONTROL
PANEL
FRONT

Sheet No
E-5
5 of 5