

April 21, 2023



**Public Works & Engineering**  
**City of Lone Tree**  
9220 Kimmer Dr., Suite 100  
Lone Tree, Colorado 80124

**Re: Drainage Compliance Letter for Ridgeway Southwest Village, Preliminary Plan Amendment No.1**

To whom it may concern:

The intent of this letter is to demonstrate the land use changes that have been proposed with this amendment to the Ridgeway Southwest Village Preliminary Plan is in compliance with the previously approved Phase II Drainage Report. Refer to Appendix A and B for the proposed changes in land use.

The proposed changes in land use are as follows:

- Previously approved tract CB (13.22 acres, commercial) is now proposed to be tract DG (1.36 acres, open space), Tract DG (1.36) acres, open space), Tract DF (8.68 acres, S.F.A) and Tract CB (3.18 acres, commercial).
- Previously approved Tract CS (16.85 acres, S.F.A.) and Tract CT (5.10 acres, open space) is now proposed to be Tract CS (10.00 acres, commercial) and Tract CT (11.95 acres, open space).

The change in land use affect basins RC7, RB8b, RC2, RC3, RC4, RE2b, RE3, RE4, RE5, E180, & E190. Below are tables summarizing the imperviousness values based on the approved drainage report, and the imperviousness based on the land use change.

## **Basin Description**

RC7 (9.82 acres on site) – Per the approved preliminary plan, the land usage for this basin consisted of commercial and was located in Tract CB. With this amendment, the land usage is now S.F.A along with commercial. This basin now lies within tracts DF & CB with this amendment. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by the existing storm inlets. The storm water will then be routed towards EURV Pond R.

RB8b (1.63 acres on site) – Per the approved preliminary plan, the land usage for this basin consisted of open space and was located in Tract CB. With this amendment, this basin now contains S.F.A. along with open space. This basin now lies within tracts DF & DG with this

amendment. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by the existing storm inlets. The storm water will then be routed towards EURV Pond R.

RC2 (1.42 acres on site) – Per the approved preliminary plan, the land usage within Tract CB for this basin consisted of open space. With this amendment, the land usage within Tract DF is now S.F.A. and the land usage within Tract DG is open space. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by the existing storm inlets. The storm water will then be routed towards EURV Pond R.

RC3 (0.21 acres on site) – Per the approved preliminary plan, the land usage within Tract CB for this basin consisted of open space. With this amendment, the land usage within Tract DF is now S.F.A. and the land usage within Tract CB is commercial. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by the existing storm inlets. The storm water will then be routed towards EURV Pond R.

RC4 (0.01 acres on site) – Per the approved preliminary plan, the land usage within Tract CB for this basin consisted of open space. With this amendment, the land usage within Tract CB is now commercial. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by the existing storm inlets. The storm water will then be routed towards EURV Pond R.

RE2b (0.26 acres on site) – Per the approved preliminary plan, the land usage within Tract CS for this basin consisted of open space. With this amendment, the land usage within Tract CS is now commercial. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by an existing sump inlet. The storm water will then be routed towards Existing EURV Pond E.

RE3 (0.25 acres on site) – Per the approved preliminary plan, the land usage within Tract CS for this basin consisted of S.F.A. With this amendment, the land usage within Tract CS is now commercial. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by existing storm inlets. The storm water will then be routed towards Existing EURV Pond E.

RE4 (4.09 acres on site) – Per the approved preliminary plan, the land usage within Tract CS for this basin consisted of S.F.A. With this amendment, the land usage within Tract CS is now commercial. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by existing storm inlets. The storm water will then be routed towards Existing EURV Pond E.

RE5 (4.01 acres on site) – Per the approved preliminary plan, the land usage within Tract CS for this basin consisted of S.F.A. With this amendment, the land usage within Tract CS is now commercial. The runoff from this basin will be directed to Ridgeway Parkway, where it will be captured by existing storm inlets. The storm water will then be routed towards Existing EURV Pond E.

E180 (5.92 acres on site) – Per the approved preliminary plan, the land usage within Tract CT for this basin consisted of open space. With this amendment, the land usage within Tract CS remains open/undeveloped. The runoff from this basin will be routed towards Existing EURV Pond E.

E190 (6.58 acres on site) – Per the approved preliminary plan, the land usage within Tract CT for this basin consisted of open space. With this amendment, the land usage within Tract CS remains open/undeveloped. The runoff from this basin will be routed towards Existing EURV Pond E.

**Table 1. Impervious Values per Approved Drainage Report  
RC and RB Basins – Tributary to EURV Pond R**

Basin ID	Percent Impervious	Area Onsite	Impervious Area
RC7	85.0%	9.82	8.35
RB8b	37.1%	1.63	0.60
RC2	75.9%	1.42	1.08
RC3	85.0%	0.21	0.18
RC4	85.0%	0.01	0.01
<b>Total</b>	<b>78.0%</b>	<b>13.09</b>	<b>10.22</b>

**Table 2. Proposed Impervious Values**

Basin ID	Percent Impervious	Area Onsite	Impervious Area
RC7	78.6%	9.82	7.72
RB8b	33.1%	1.63	0.54
RC2	67.4%	1.42	0.96
RC3	75.0%	0.21	0.16
RC4	85.0%	0.01	0.01
<b>Total</b>	<b>71.7%</b>	<b>13.09</b>	<b>9.38</b>

**Table 3. Impervious Values per Approved Drainage Report  
RE and E Basins – Tributary to EURV Pond R**

Basin ID	Percent Impervious	Area Onsite	Impervious Area
RE3	75.0%	0.25	0.19
RE2b	75.0%	0.26	0.20
RE4	75.0%	4.09	3.07
RE5	75.0%	4.01	3.01
E180	13.3%	5.92	0.79
E190	33.6%	6.58	2.21
<b>Total</b>	<b>44.8%</b>	<b>21.11</b>	<b>9.46</b>

**Table 4. Proposed Impervious Values**

<b>Basin ID</b>	<b>Percent Impervious</b>	<b>Area Onsite</b>	<b>Impervious Area</b>
RE3	85.0%	0.25	0.21
RE2b	85.0%	0.26	0.22
RE4	85.0%	4.09	3.48
RE5	85.0%	4.01	3.41
E180	14.9%	5.92	0.88
E190	14.9%	6.58	0.98
<b>Total</b>	<b>43.5%</b>	<b>21.11</b>	<b>9.18</b>

## **Conclusions**

Based on the above data, the change in land use decreases the overall imperviousness for the affected basins. For basins tributary to EURV Pond R, the percent impervious decreased from 78.0% to 71.7%. For basins tributary to WQCV Pond E, the percent impervious decreased from 44.8% to 43.5% because this proposed amendment decreases the percent impervious from the values listed in the previous approved drainage report. This amendment is in compliance with the previously approved drainage study and the City of Lone Tree Drainage Criteria.

## **Appendices**

**Appendix A** – Ridgeway Southwest Village Overall Site Plan (Previously Approved)

**Appendix B** – Ridgeway Southwest Village Overall Site Plan (Proposed with this Amendment)

**Appendix C** – Previously Approved Drainage Map

**Appendix D** – Drainage Maps (Proposed with this Amendment)

**Appendix C** – Hydrologic Calculations



Sincerely,

**JR Engineering, LLC**

Aaron Clutter, P.E.  
State of Colorado No. 36742  
For and on Behalf of JR Engineering

Date \_\_\_\_\_

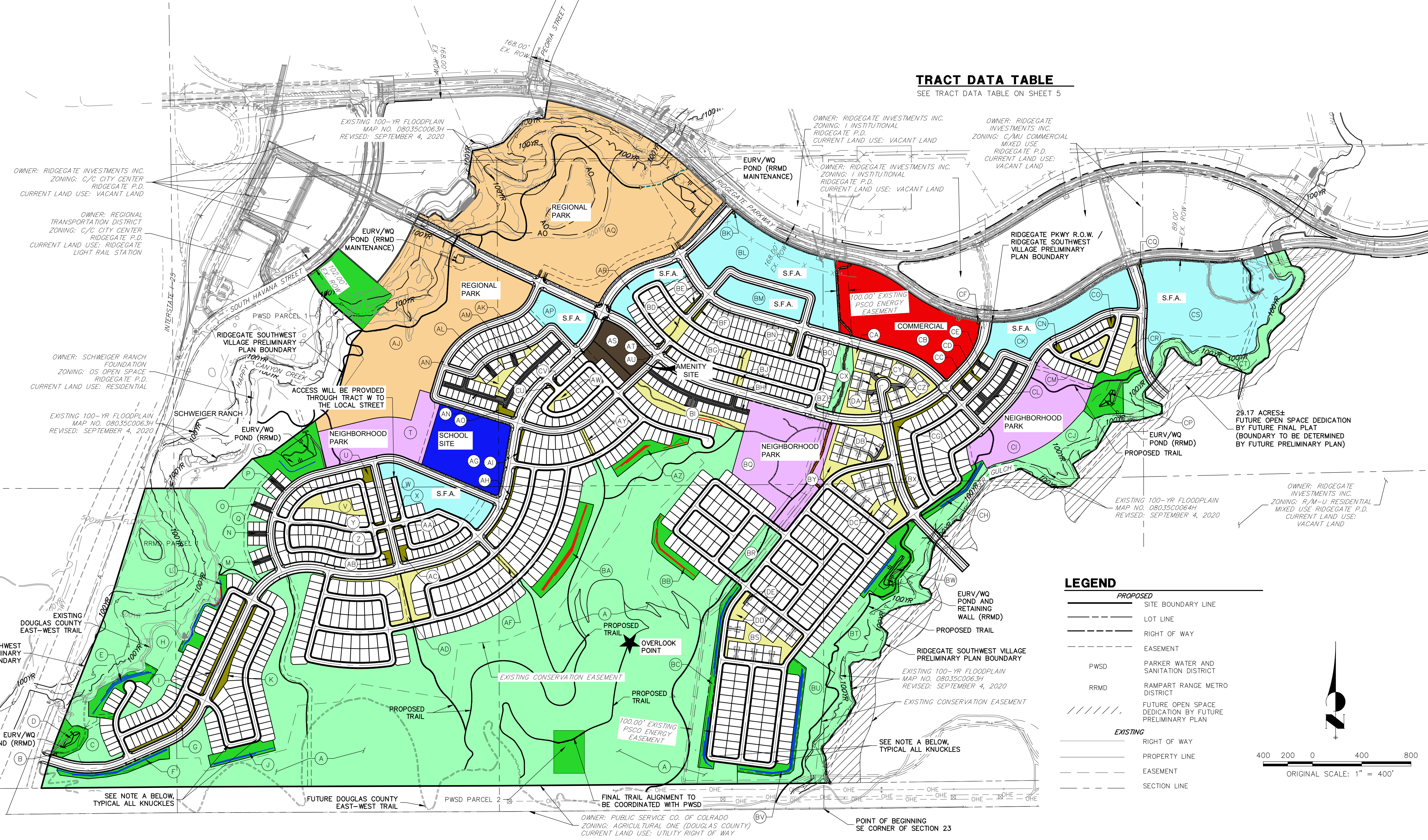
**Appendix A- Ridgeway Southwest Village Overall Site  
Plan (Previously Approved)**



# RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN

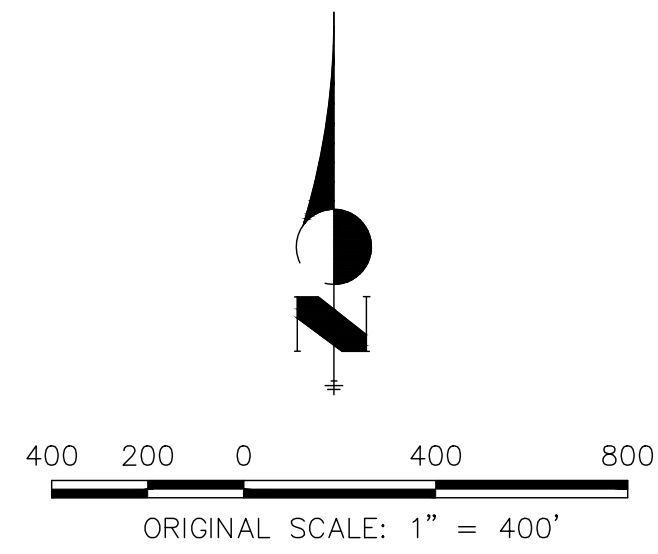
A PORTION OF THE RIDGEGATE PLANNED DEVELOPMENT DISTRICT, EAST SIDE PROPERTY  
 A PART OF SECTION 14, SECTION 22, SECTION 23, AND SECTION 24, T6S, R67W  
 OF THE 6TH P.M., CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO  
 698.82 ACRES - 1,220 RESIDENTIAL S.F.D. LOTS AND 107 TRACTS- PP20-37R

**TRACT DATA TABLE**  
 SEE TRACT DATA TABLE ON SHEET 5



**LEGEND**

- PROPOSED**
- SITE BOUNDARY LINE
  - LOT LINE
  - RIGHT OF WAY
  - EASEMENT
  - PWSD PARKER WATER AND SANITATION DISTRICT
  - RRMD RAMPART RANGE METRO DISTRICT
  - /// FUTURE OPEN SPACE DEDICATION BY FUTURE PRELIMINARY PLAN
- EXISTING**
- RIGHT OF WAY
  - PROPERTY LINE
  - EASEMENT
  - SECTION LINE



NOTE:  
 TRACTS R, AE, AX, AV, AND BP NOT USED

**RETAINING WALL LEGEND**

- RRMD MAINTAINED RETAINING WALL
- MASTER HOA MAINTAINED RETAINING WALL

**MAINTENANCE RESPONSIBILITY**

- RAMPART RANGE METRO DISTRICT
- MASTER HOA

**TRACT LEGEND**

- HOA ENHANCED LANDSCAPE AREA
- HOA LANDSCAPE AREA
- OPEN SPACE (PUBLIC)
- REGIONAL PARK
- NEIGHBORHOOD PARK
- COMMERCIAL
- S.F.A.
- INSTITUTIONAL (SCHOOL)
- PRIVATE ALLEY
- VILLAGE RECREATION AND AMENITY CENTER (HOA)
- UTILITY / INFRASTRUCTURE

NOTE A:  
 KNUCKLES WILL BE EVALUATED FOR SNOW STORAGE AT BENDS DURING THE FINAL PLATTING PROCESS.

PRELIMINARY PLAN  
 RIDGEGATE SOUTHWEST VILLAGE  
 PREPARED BY:  
**J-R ENGINEERING**  
 A Westrian Company  
 PREPARED FOR:  
  
 SUBMITTAL DATE: 1/12/2021

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, OR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
**SHEA HOMES**  
 9380 STATION STREET  
 SUITE 600  
 LONE TREE, CO 80124  
 (303) 791-8180

PREPARED BY  
**J-R ENGINEERING**  
 A Westrian Company  
  
 Centennial 300-740-9888 • Colorado Springs 719-588-2593  
 Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE
JCS	7/13/20
JCS	8/27/20
JCS	10/28/20
JCS	11/3/20

No.	REVISION
1	1ST SUBMITTAL
2	2ND SUBMITTAL
3	3RD SUBMITTAL
4	4TH SUBMITTAL

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=400'	N/A	1/12/21	JCS	CGM	JCS

RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN  
 OVERALL SITE PLAN

SHEET 4 OF 57  
 JOB NO. 15950.00



**Appendix B- Ridgeway Southwest Village Overall Site  
Plan (Proposed with this Amendment)**



# RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN

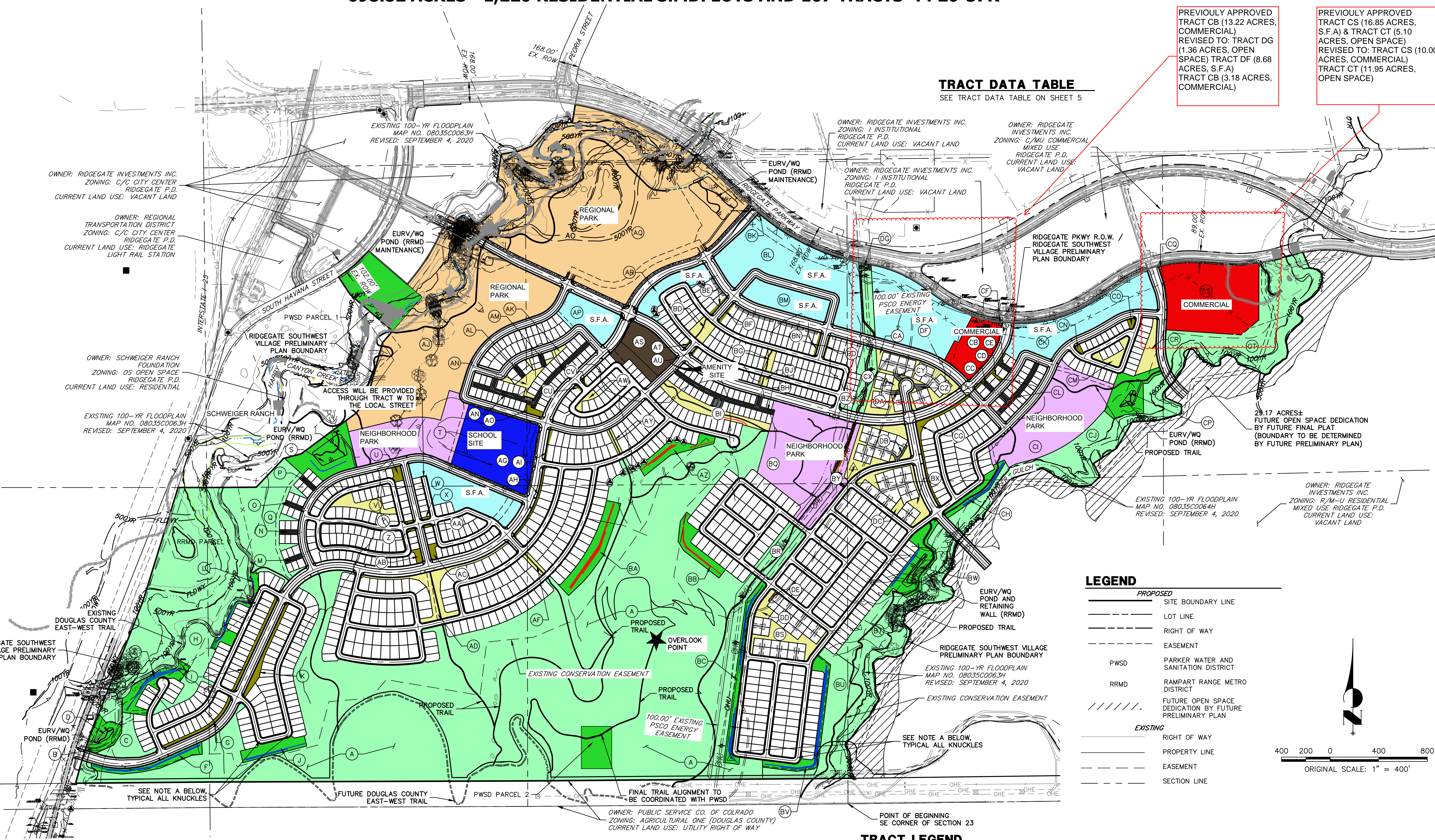
A PORTION OF THE RIDGEGATE PLANNED DEVELOPMENT DISTRICT, EAST SIDE PROPERTY  
 A PART OF SECTION 14, SECTION 22, SECTION 23, AND SECTION 24, T6S, R67W  
 OF THE 6TH P.M., CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO  
 698.82 ACRES - 1,220 RESIDENTIAL S.F.D. LOTS AND 107 TRACTS- PP20-37R

PREVIOUSLY APPROVED TRACT CB (13.22 ACRES, COMMERCIAL) REVISED TO: TRACT DG (1.36 ACRES, OPEN SPACE) TRACT DF (8.68 ACRES, S.F.A) TRACT CB (3.18 ACRES, COMMERCIAL)

PREVIOUSLY APPROVED TRACT CS (16.85 ACRES, S.F.A) & TRACT CT (5.10 ACRES, OPEN SPACE) REVISED TO: TRACT CS (10.00 ACRES, COMMERCIAL) TRACT CT (11.95 ACRES, OPEN SPACE)

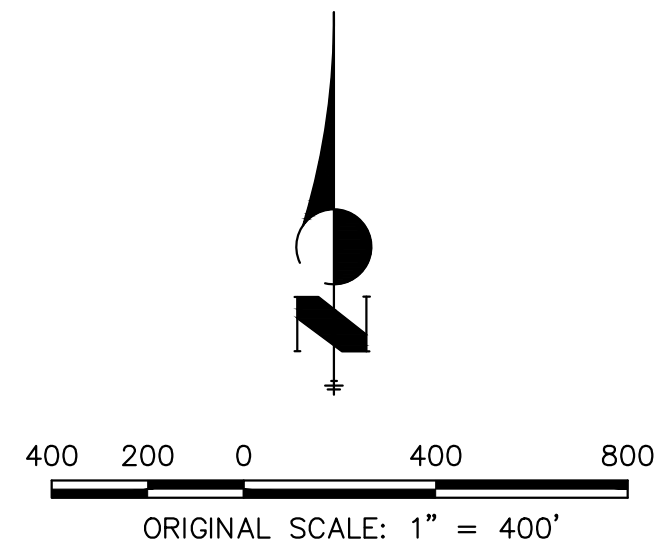
### TRACT DATA TABLE

SEE TRACT DATA TABLE ON SHEET 5



### LEGEND

- PROPOSED**
- SITE BOUNDARY LINE
  - LOT LINE
  - RIGHT OF WAY
  - EASEMENT
  - PWS
  - RRMD
  - FUTURE OPEN SPACE DEDICATION BY FUTURE PRELIMINARY PLAN
- EXISTING**
- RIGHT OF WAY
  - PROPERTY LINE
  - EASEMENT
  - SECTION LINE



NOTE:  
TRACTS R, AE, AX, AV, AND BP NOT USED

### RETAINING WALL LEGEND

- RRMD MAINTAINED RETAINING WALL
- MASTER HOA MAINTAINED RETAINING WALL

### MAINTENANCE RESPONSIBILITY

- RAMPART RANGE METRO DISTRICT
- MASTER HOA

### TRACT LEGEND

- HOA ENHANCED LANDSCAPE AREA
- HOA LANDSCAPE AREA
- OPEN SPACE (PUBLIC)
- REGIONAL PARK
- NEIGHBORHOOD PARK
- COMMERCIAL
- S.F.A.
- INSTITUTIONAL (SCHOOL)
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- UTILITY / INFRASTRUCTURE

NOTE A:  
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PRELIMINARY PLAN  
 RIDGEGATE SOUTHWEST VILLAGE  
 PREPARED BY:  
**J-R ENGINEERING**  
 A Westrian Company  
 PREPARED FOR:  
  
 SUBMITTAL DATE: 1/12/2021

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

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NO.	REVISION	DATE
1	1ST SUBMITTAL	7/13/20
2	2ND SUBMITTAL	8/27/20
3	3RD SUBMITTAL	10/28/20
4	4TH SUBMITTAL	11/3/20
5	PRELIMINARY PLAN AMENDMENT	4/14/23

RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN  
 OVERALL SITE PLAN

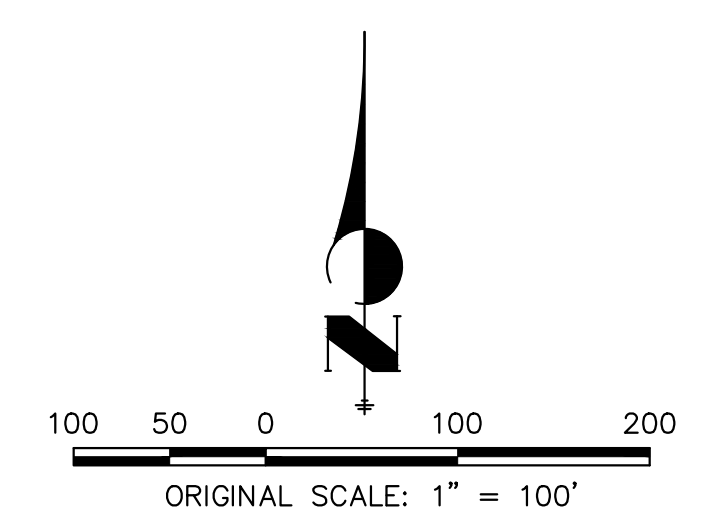
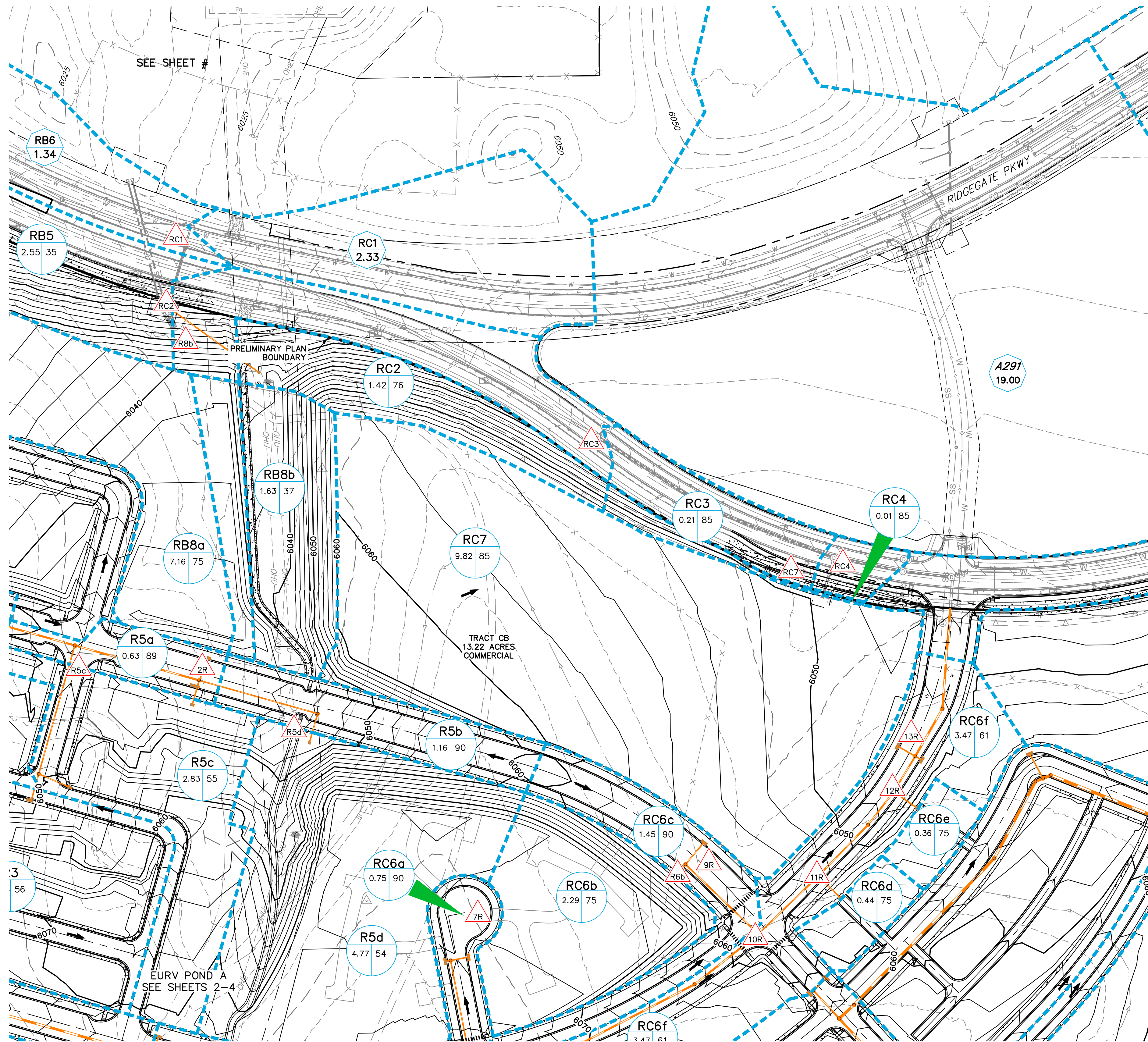
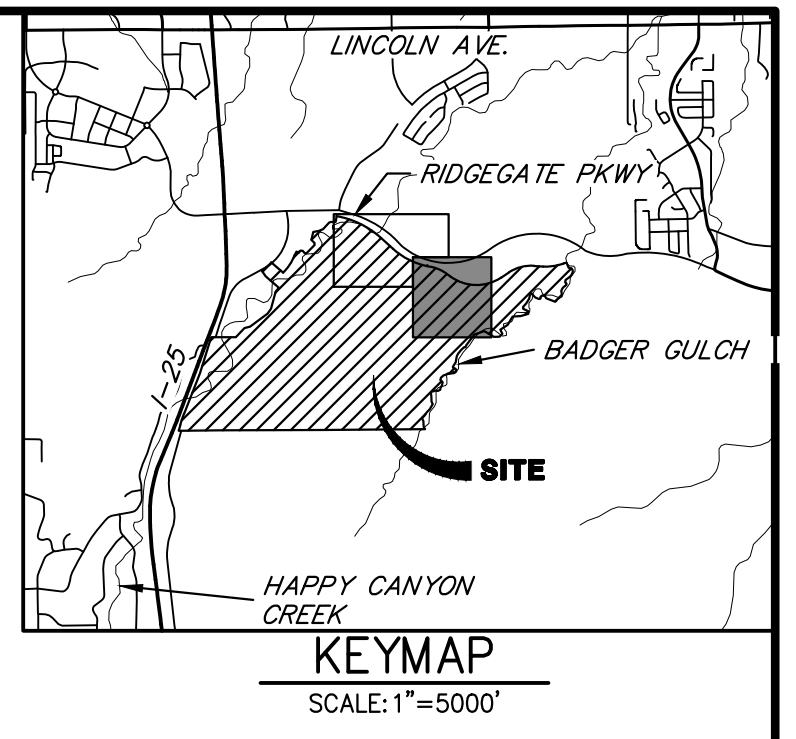
SHEET 4 OF 57  
 JOB NO. 15950.00



## **Appendix C- Previously Approved Drainage Map**



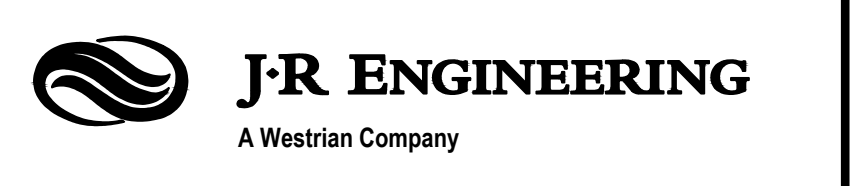
# PREVIOUSLY APPROVED DRAINAGE MAP



### DRAINAGE LEGEND

- A  
B  
C A=BASIN DESIGNATION
- B=BASIN AREA
- C=PERCENT IMPERVIOUS (%)
- BASIN BOUNDARY
- PROP ON-SITE STORM SEWER
- EX OFF-SITE STORM SEWER
- PROPOSED CONTOURS
- 6100 EXISTING CONTOURS
- PROP MINOR DRAINAGEWAY
- EX MINOR DRAINAGEWAY
- PROP DRAINAGE ARROW
- EX DRAINAGE ARROW

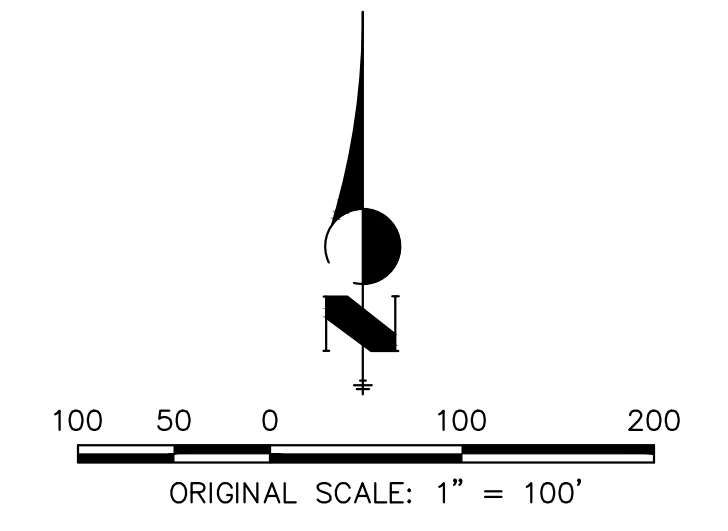
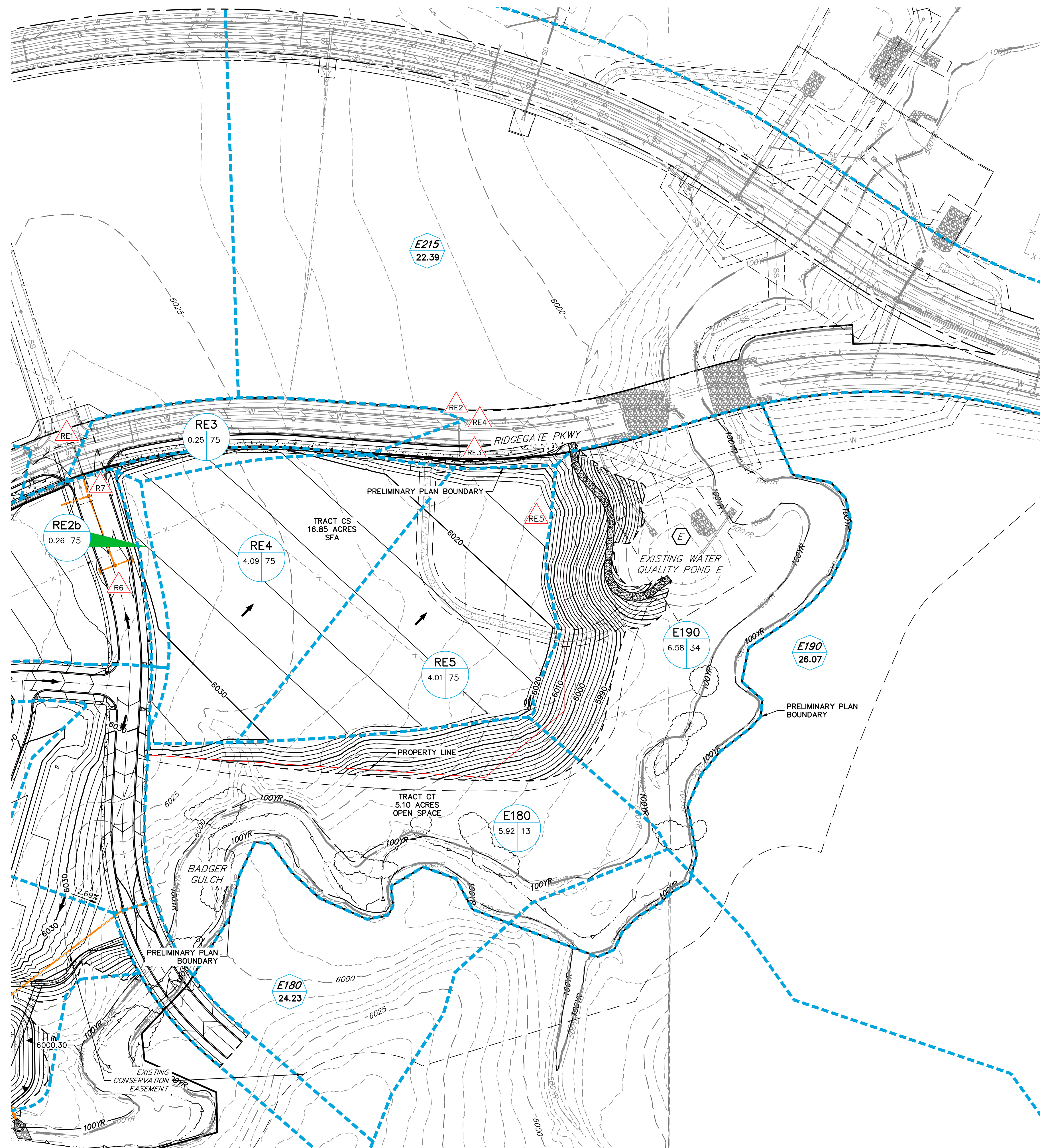
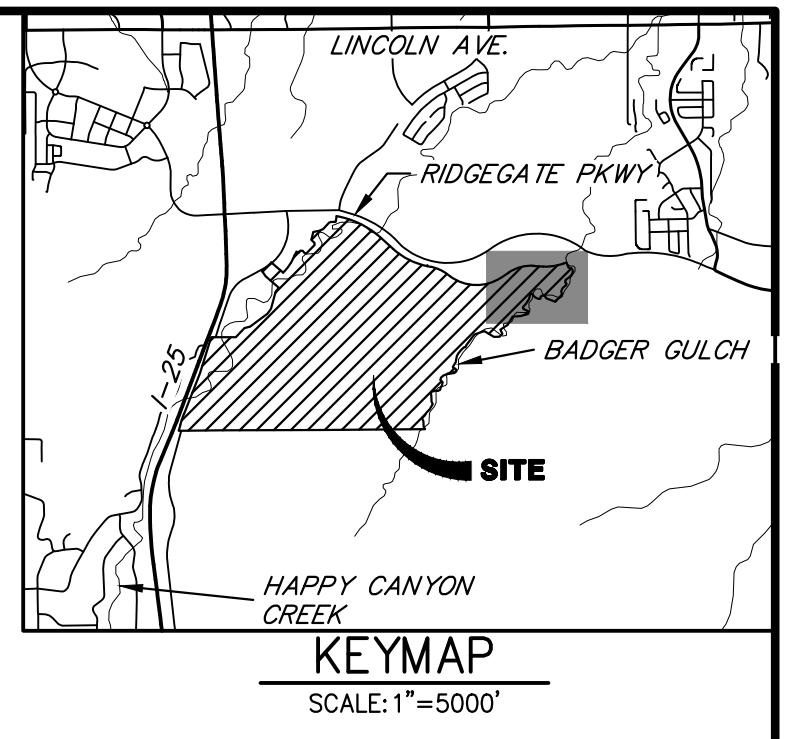
PREVIOUSLY APPROVED DRAINAGE MAP  
RIDGEGATE DEVELOPMENT  
JOB NO. 15950.00  
4/21/23  
SHEET 1 OF 2



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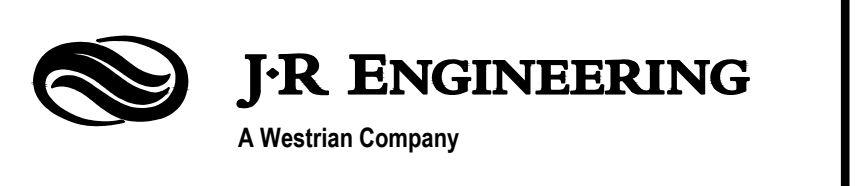
# PREVIOUSLY APPROVED DRAINAGE MAP



**DRAINAGE LEGEND**

	A= BASIN DESIGNATION B= BASIN AREA C= PERCENT IMPERVIOUS (%)
	BASIN BOUNDARY
	PROP ON-SITE STORM SEWER
	EX OFF-SITE STORM SEWER
	6100 PROPOSED CONTOURS
	6100 EXISTING CONTOURS
	PROP MINOR DRAINAGEWAY
	EX MINOR DRAINAGEWAY
	PROP DRAINAGE ARROW
	EX DRAINAGE ARROW

PREVIOUSLY APPROVED DRAINAGE MAP  
RIDGEGATE DEVELOPMENT  
JOB NO. 15950.00  
4/21/23  
SHEET 2 OF 2



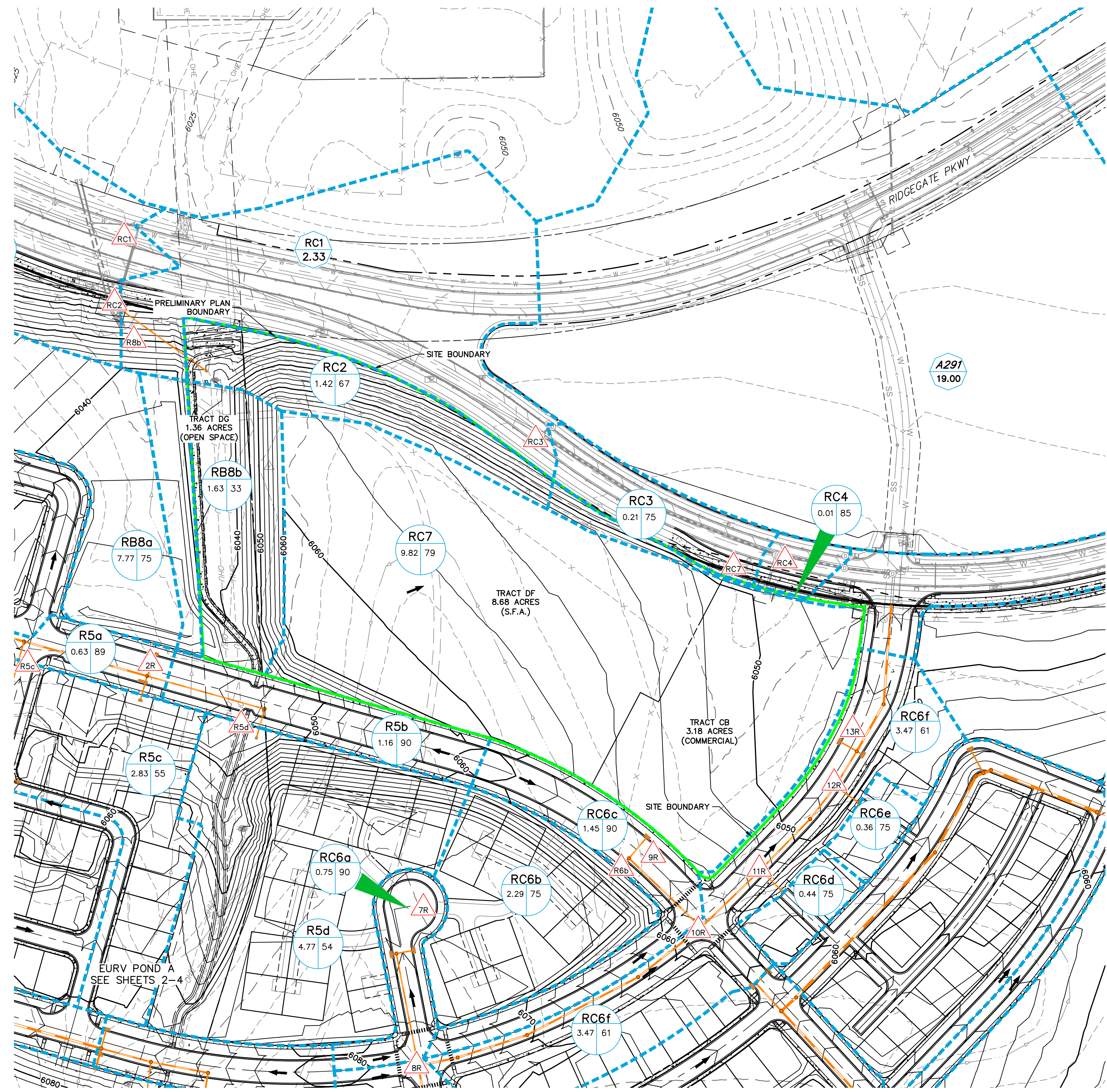
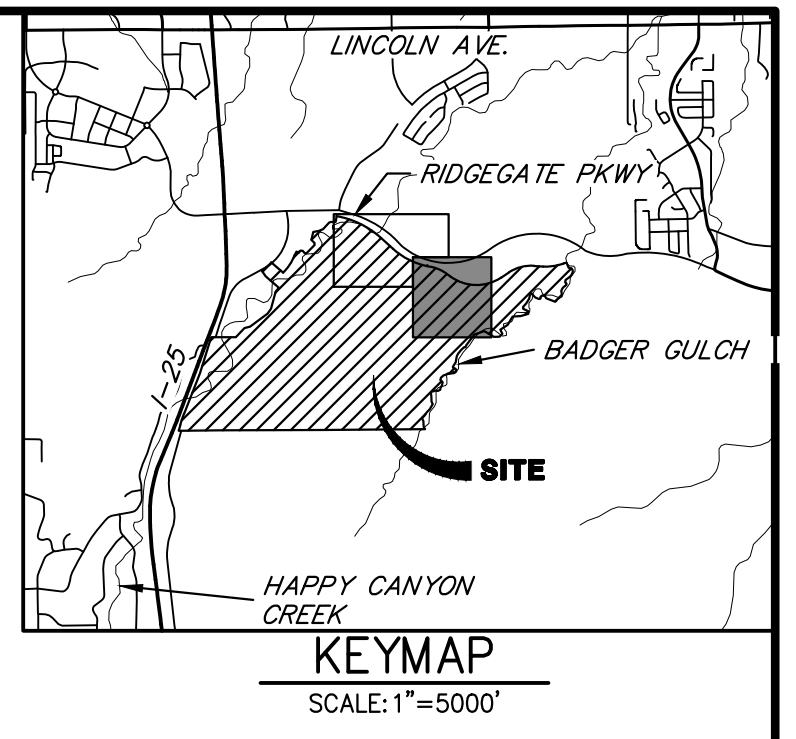
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**Appendix D- Drainage Maps (Proposed with this  
Amendment)**



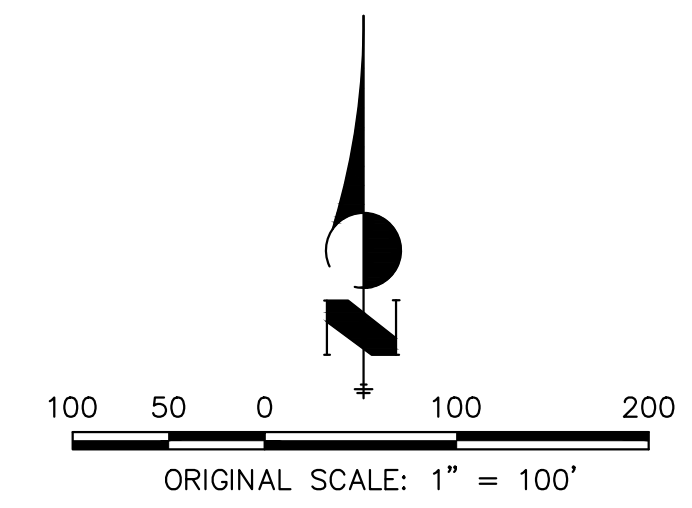
# PROPOSED DRAINAGE PLAN



### DRAINAGE LEGEND

- |  |                          |
|--|--------------------------|
|  | A=BASIN DESIGNATION      |
|  | B=BASIN AREA             |
|  | C=PERCENT IMPERVIOUS (%) |
|  | BASIN BOUNDARY           |
|  | PROP ON-SITE STORM SEWER |
|  | EX OFF-SITE STORM SEWER  |
|  | PROPOSED CONTOURS        |
|  | EXISTING CONTOURS        |
|  | EX MINOR DRAINAGEWAY     |
|  | PROP DRAINAGE ARROW      |
|  | EX DRAINAGE ARROW        |
|  | SITE BOUNDARY            |

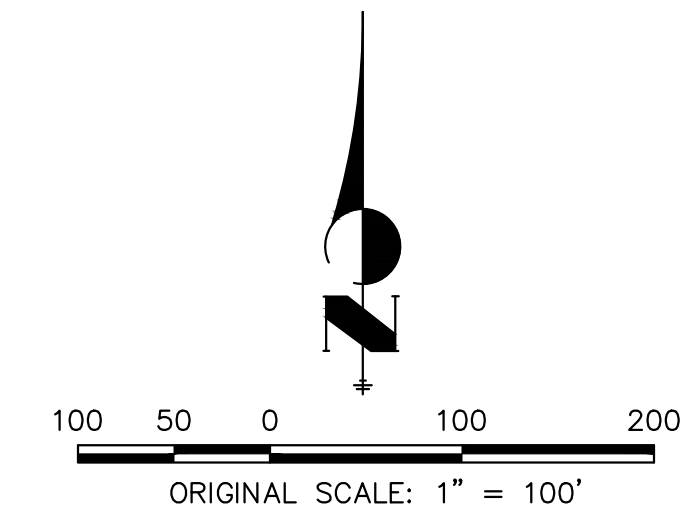
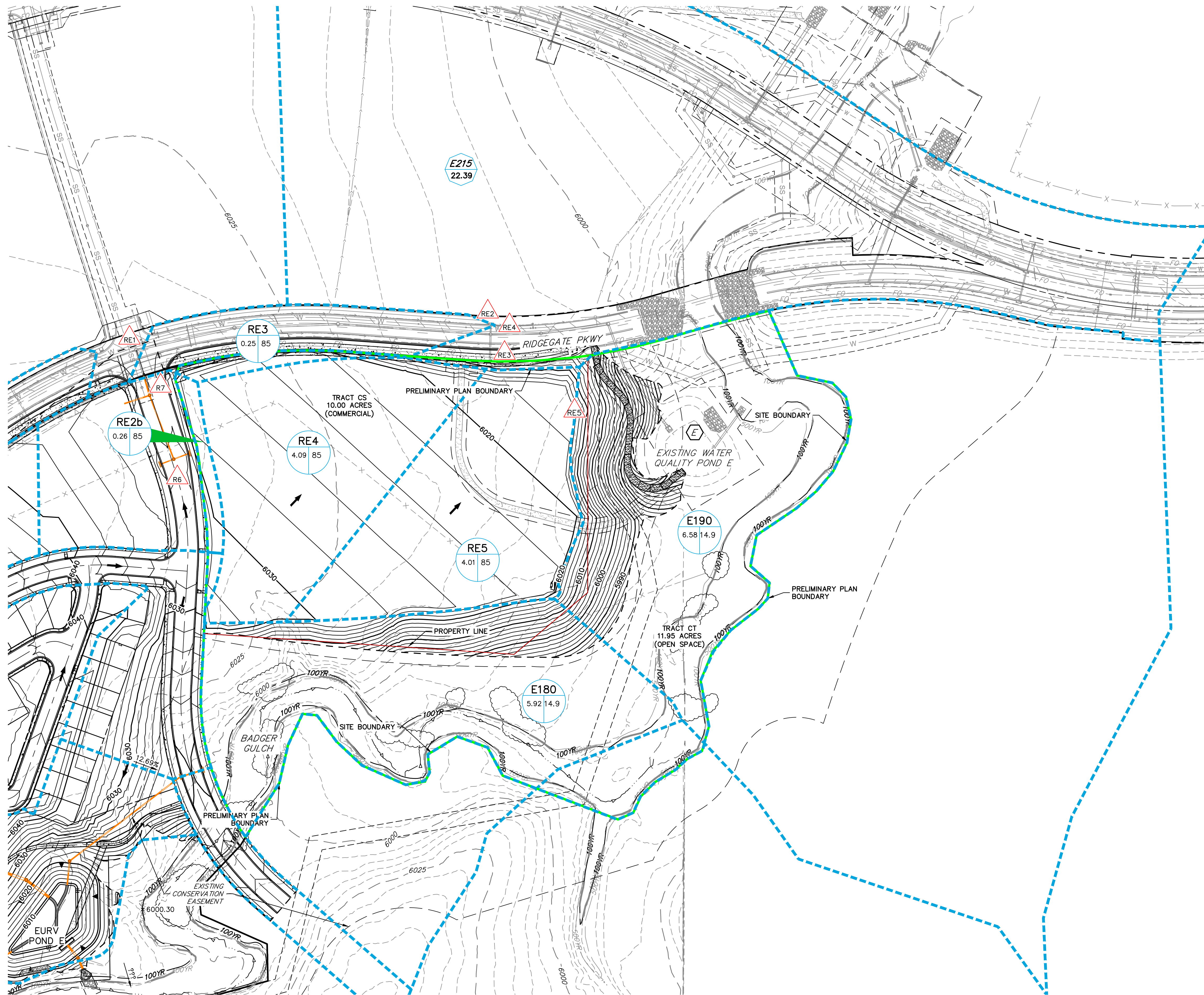
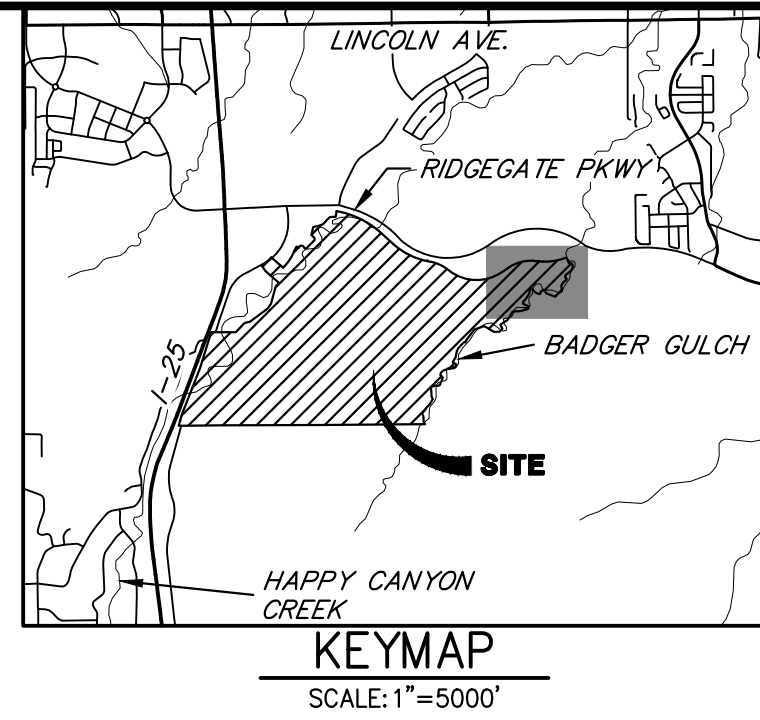
PROPOSED DRAINAGE PLAN  
 RIDGEGATE DEVELOPMENT  
 JOB NO. 15950.00  
 4/21/23  
 SHEET 1 OF 2



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# PROPOSED DRAINAGE PLAN



### DRAINAGE LEGEND

- |  |   |
|--|---|
|  | A=BASIN DESIGNATION<br>B=BASIN AREA<br>C=PERCENT IMPERVIOUS (%) |
|  | BASIN BOUNDARY  |
|  | PROP ON-SITE STORM SEWER  |
|  | EX OFF-SITE STORM SEWER   |
|  | 6100 PROPOSED CONTOURS  |
|  | 6100 EXISTING CONTOURS  |
|  | EX MINOR DRAINAGEWAY  |
|  | PROP DRAINAGE ARROW   |
|  | EX DRAINAGE ARROW   |
|  | SITE BOUNDARY   |

PROPOSED DRAINAGE PLAN  
RIDGEGATE DEVELOPMENT  
JOB NO. 15950.00  
4/21/23  
SHEET 2 OF 2



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## **Appendix E- Hydrologic Calculations**

### COMPOSITE % IMPERVIOUS CALCULATIONS

Subdivision: Ridgegate  
 Location: Lone Tree

Project Name: Southwest Village  
 Project No.: 15950.00  
 Calculated By: DKR  
 Checked By: \_\_\_\_\_  
 Date: 4/21/23

**RC and RB Basins - Tributary to EURV Pond R**

Basin ID	Total Area (ac)	S.F.A.			Roads/Trails			Open Space/Park/Pond			Undeveloped Lawn			Commercial			Basins Total Weighted % Imp.
		% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	
RC7	9.82	75%	6.26	47.8%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	3.56	30.8%	78.6%
RB8b	1.63	75%	0.53	24.4%	90%	0.15	8.3%	10%	0.00	0.0%	2%	0.38	0.5%	85%	0.00	0.0%	33.1%
RC2	1.42	75%	1.20	63.4%	90%	0.06	3.8%	10%	0.00	0.0%	2%	0.16	0.2%	85%	0.00	0.0%	67.4%
RC3	0.21	75%	0.21	75.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	0.00	0.0%	75.0%
RC4	0.01	75%	0.00	0.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	0.01	85.0%	85.0%
<b>TOTAL</b>	<b>13.09</b>																<b>71.7%</b>

## COMPOSITE % IMPERVIOUS CALCULATIONS

Subdivision: Ridgeway  
 Location: Lone Tree

Project Name: Southwest Village  
 Project No.: 15950.00  
 Calculated By: DKR  
 Checked By: \_\_\_\_\_  
 Date: 4/21/23

RE and E Basins - Tributary to WQ Pond E

Basin ID	Total Area (ac)	S.F.A.			Roads/Pond			Open Space/Park/Trail			Undeveloped Lawn			Commercial			Basins Total Weighted % Imp.
		% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	
RE3	0.25	75%	0.00	0.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	0.25	85.0%	85.0%
RE2b	0.26	75%	0.00	0.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	0.26	85.0%	85.0%
RE4	4.09	75%	0.00	0.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	4.09	85.0%	85.0%
RE5	4.01	75%	0.00	0.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	0.00	0.0%	85%	4.01	85.0%	85.0%
E180	5.92	75%	0.00	0.0%	90%	0.00	0.0%	10%	0.00	0.0%	2%	5.00	1.7%	85%	0.92	13.2%	14.9%
E190	6.58	75%	0.00	0.0%	90%	0.65	8.9%	10%	0.11	0.2%	2%	5.50	1.7%	85%	0.32	4.1%	14.9%
<b>TOTAL</b>	<b>21.11</b>																<b>43.5%</b>