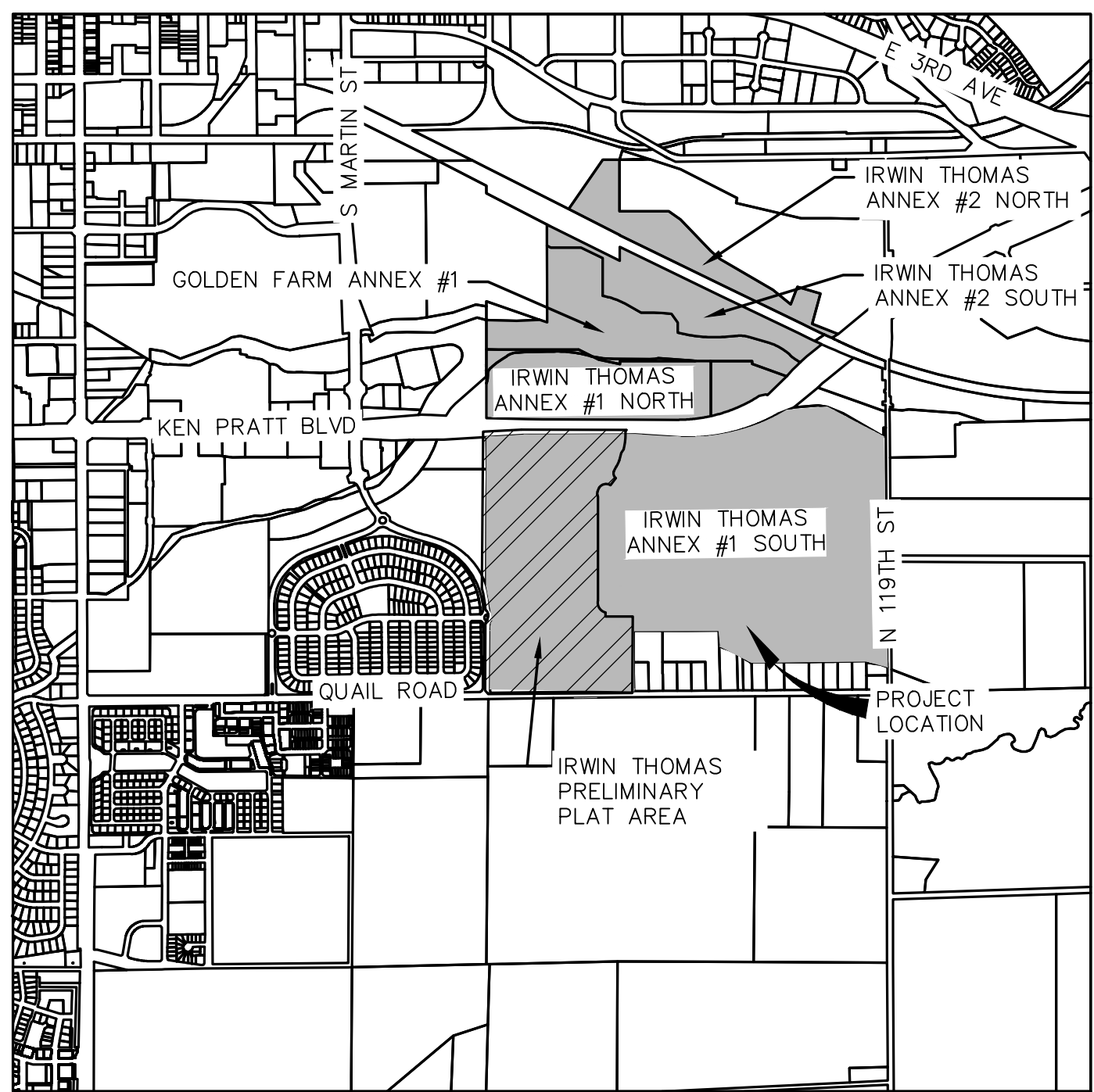


IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT

PART OF THE NORTHWEST QUARTER, NORTHEAST QUARTER, SOUTHEAST QUARTER AND EAST ONE-HALF OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF BOULDER, STATE OF COLORADO



VICINITY MAP

NOT TO SCALE

THE PURPOSE OF THIS AMENDMENT IS TO REMOVE THE AREA SET FORTH IN THE IRWIN THOMAS PRELIMINARY PLAT FROM THE IRWIN THOMAS FINAL DEVELOPMENT PLAN. THE AREA CALCULATION IN THE TABLE BELOW, SHOWS THE TOTAL ACREAGE OF ALL 3 AREAS THAT REMAIN IN THE PUD. SEE THE LEGAL DESCRIPTIONS OF THE AREAS ON THIS SHEET, AS WELL AS A BOUNDARY MAP ON SHEET 2 OF THIS SET.

THE ORIGINAL PUD WAS MADE UP OF 3 ANNEXATIONS, THE IRWIN THOMAS ANNEXATIONS 1&2 AND THE GOLDEN FARM ANNEXATION. THE AREAS OF THESE ANNEXATIONS ARE SHOWN ON THE KEY MAP ON THIS SHEET.

NORTH PARCEL LEGAL DESCRIPTION

A PARCEL OF LAND SITUATE IN SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH P.M., CITY OF LONGMONT, COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 11 WHENCE THE WEST LINE OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEING BOUNDED ON THE NORTH END BY 3.25" ALUMINUM CAP STAMPED LS 34993 AND ON THE SOUTH END BY 3.25" ALUMINUM CAP STAMPED LS 20685, HEREON IS ASSUMED TO BEAR N 00°23'38" E A DISTANCE OF 2618.53' AND CONSIDERING ALL BEARINGS HEREIN RELATIVE THERETO:

THENCE S 89°49'54" E A DISTANCE OF 1143.12 FEET TO THE POINT OF BEGINNING;
THENCE N 89°49'52" E A DISTANCE OF 164.58 FEET;
THENCE S 00°16'40" W A DISTANCE OF 504.44 FEET;
THENCE N 89°49'19" E A DISTANCE OF 484.71 FEET;
THENCE S 55°08'38" E A DISTANCE OF 140.51 FEET;
THENCE S 43°57'24" E A DISTANCE OF 429.71 FEET;
THENCE S 49°04'29" E A DISTANCE OF 119.74 FEET;
THENCE S 59°47'40" E A DISTANCE OF 596.86 FEET;
THENCE S 50°54'20" E A DISTANCE OF 225.05 FEET;
THENCE N 21°01'10" E A DISTANCE OF 184.68 FEET;
THENCE S 73°46'50" E A DISTANCE OF 236.00 FEET;
THENCE S 15°28'33" W A DISTANCE OF 306.12 FEET;
THENCE S 65°16'54" E A DISTANCE OF 265.95 FEET;
THENCE S 58°21'32" W A DISTANCE OF 71.65 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 26°25'09" E, HAVING A RADIUS OF 5950.00 FEET, A CENTRAL ANGLE OF 00°00'32" AND AN ARC LENGTH OF 0.93 FEET;
THENCE N 63°34'35" W A DISTANCE OF 2860.50 FEET;
THENCE N 31°25'52" E A DISTANCE OF 11.30 FEET;
THENCE N 34°42'22" E A DISTANCE OF 568.16 FEET;
TO THE POINT OF BEGINNING;
CONTAINING AN AREA OF 799,982 SQUARE FEET OR 18.365 ACRES.

FLOODPLAIN NOTES

FLOODPLAIN INFORMATION PER FIRM FLOOD INSURANCE RATE MAP NO 08013C0287J DATED DECEMBER 18, 2012 AND FIRM FLOOD INSURANCE RATE MAP NO 08013C0288J DATED DECEMBER 18, 2012.

THIS PROPERTY LIES IN AREAS DETERMINED TO BE WITHIN

- OTHER AREAS - AREAS OUTSIDE THE 2% ANNUAL CHANCE FLOOD
- ZONE X - AREAS OF 25% ANNUAL CHANCE OF FLOOD OR AREAS WITH 1% ANNUAL CHANCE OF FLOOD WITH AVERAGE DEPTHS OF LESS THAN ONE FOOT OR WITHIN DRAINAGE AREAS LESS THAN ONE SQUARE MILE AND AREAS PROTECTED BY LEVEES FROM THE 100 YEAR FLOOD.
- ZONE AE - SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL FLOOD CHANCE, BASE FLOOD ELEVATIONS DETERMINED.
- ZONE AH - SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL FLOOD CHANCE, FLOOD DEPTHS OF 1 TO 3 FEET, (USUALLY AREAS OF PONDING) BASE FLOOD ELEVATIONS DETERMINED.

THE ADDITIONAL FLOODPLAINS SHOWN ARE BASED ON PRELIMINARY FEMA FIRM MAP 08013C0289K FROM SEPTEMBER 30, 2019 AND LONGMONT'S APPEAL OF FEMA'S PRELIMINARY FIRM MAP. THESE MAPS ARE NOT FINAL AND ARE EXPECTED TO BE REVISED, THESE ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

PUD NOTES

1. WHEN THE MINING AND RECLAMATION PLANS ARE REVISED THROUGH THE COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY (DRMS) THE OPERATOR WILL BE REQUIRED TO ENTER INTO AN UPDATED AGREEMENT WITH ALL STRUCTURE OWNERS WITHIN 200' OF THE REVISED MINING CELLS (COL - SEWER AND STORM SEWER), CDOT (HWY 119). THE DRMS WILL REQUIRE A SLOPE STABILITY ANALYSIS TO DEMONSTRATE THAT THE REDUCED SETBACK IS SAFE. THE REVISED SETBACKS INDICATED ON A PORTION OF THE MINING ADJACENT TO HWY 119 ARE INTENDED TO ILLUSTRATE THE REVISED SETBACK ALONG A PORTION OF THE HWY 119 FRONTAGE, SOUTH OF THE ROAD. PRIOR TO MINING WITHIN THE AREAS DESIGNATED AS A 100 FOOT SETBACK THE OPERATOR WILL PROVIDE UPDATED STRUCTURE AGREEMENTS TO THE CITY AND THE SLOPE STABILITY ANALYSIS REFERENCED ABOVE.
2. OWNER TO SCHEDULE ON-SITE MEETING WITH COLORADO PARKS AND WILDLIFE PRIOR TO MINING TO REVIEW IMPACTS OF BIRD NEST(S) WITHIN SETBACK AFTER CONSTRUCTION ACTIVITIES COMMENCE.
3. APPLICANT TO CONSULT WITH USFWS PRIOR TO MINING RELATED ACTIVITIES ADJACENT TO ST. VRAIN CREEK AND LEFTHAND CREEK RIPARIAN CORRIDORS TO CONFIRM NO IMPACT ON ENDANGERED SPECIES HABITAT. NO KNOWN ENDANGERED SPECIES HABITAT ON SITE.
4. CONSIDERING THE TREES ON AND ADJACENT TO THE PROPERTY AND GRASSLANDS, THE DEVELOPER SHOULD FOLLOW THESE BIRD NEST MITIGATION PROCEDURES:
 - 4.1. AVOIDANCE - TO THE EXTENT PRACTICABLE, CONDUCT HABITAT-DISTURBING ACTIVITIES (E.G., TREE REMOVAL, GRADING, SCRAPING, AND GRUBBING) SEPTEMBER 1 THROUGH MARCH 1, OUTSIDE OF THE NESTING SEASON.
 - 4.2. HABITAT MANIPULATION/REMOVAL - IF WORK ACTIVITIES ARE PLANNED DURING THE NESTING SEASON (MARCH 1 - AUGUST 31), REMOVE OR ALTER VEGETATION WITHIN CONSTRUCTION FOOTPRINTS AND ROAD RIGHTS-OF-WAY PRIOR TO MARCH 1 TO DISCOURAGE NESTING WITHIN AREAS SCHEDULED FOR SUMMER CONSTRUCTION. NOTE THAT SOME EARLY NESTING SPECIES SUCH AS HAWKS AND OWLS BEGIN NESTING IN FEBRUARY AND MARCH AND MAY REQUIRE SPECIFIC CLEARANCE SURVEYS OR AVOIDANCE ACTIVITIES. REMOVAL OR ALTERATION OF VEGETATION WILL ALSO DISCOURAGE NESTING IN AREAS ADJACENT TO THE CONSTRUCTION FOOTPRINTS AND ENCOURAGE BIRDS TO NEST IN MORE SUITABLE HABITAT OUTSIDE OF THE PROJECT AREA. VEGETATION-ALTERING ACTIVITIES CAN INCLUDE MOWING AND/OR TRIMMING TO A HEIGHT OF FOUR (4) INCHES OR LESS, GRAZING VEGETATION TO A HEIGHT OF FOUR (4) INCHES OR LESS, DISKING, OR HERBICIDE APPLICATION. THE MOST APPROPRIATE TREATMENT WILL DEPEND ON SITE CONDITIONS AND LEVEL OF POTENTIAL NESTING ACTIVITY.
 - 4.3. HABITAT MAINTENANCE - ONCE VEGETATION HAS BEEN REMOVED AND/OR TRIMMED, APPROPRIATE MEASURES (I.E., REPEATED MOWING/TRIMMING) SHOULD BE IMPLEMENTED TO ASSURE VEGETATION DOES NOT GROW TO MORE THAN FOUR (4) INCHES HIGH.
 - 4.4. CLEARANCE SURVEYS - IF THE AVOIDANCE DESCRIBED ABOVE CANNOT BE COMPLETED, PRECONSTRUCTION CLEARANCE SURVEYS SHALL BE CONDUCTED DURING THE NESTING SEASON BY A QUALIFIED BIOLOGIST TO IDENTIFY ANY ACTIVE NESTS AND IMPLEMENT AVOIDANCE MEASURES. CLEARANCE SURVEYS SHOULD BE CONDUCTED LESS THAN 1 WEEK PRIOR TO THE PLANNED DISTURBANCE. CLEARANCE SURVEYS FOR MOWED AREAS SHOULD BE CONDUCTED DURING THE NESTING SEASON TO ENSURE NO GROUND-NESTING SPECIES HAVE MOVED IN.
 - 4.5. NEST BUFFERS - IF ACTIVE NESTS OF SONGBIRD SPECIES ARE FOUND NO WORK SHALL BE ALLOWED WITHIN 50 FEET OF ANY ACTIVE NEST. THE BUFFER WOULD BE DELINEATED AND MARKED (BY FLAGGING OR A BARRIER) PRIOR TO CONSTRUCTION ACTIVITIES. IF ACTIVE NESTS OF RAPTORS ARE FOUND WITHIN 1/2 MILE OF THE PROJECT SITE, COLORADO PARKS AND WILDLIFE SHOULD BE CONSULTED ON RECOMMENDED BUFFER DISTANCES AND TIME PERIODS.
5. A DEMOLITION PERMIT IS REQUIRED PRIOR TO DEMOLITION OF THE EXISTING RESIDENCE NEAR THE INTERSECTION OF 119TH STREET AND QUICKSILVER ROAD.
6. EXISTING MATURE TREES SURROUNDING THE RESIDENCE NEAR THE INTERSECTION OF 119TH STREET AND QUICKSILVER ROAD WILL BE SURVEYED, AND MITIGATED IF APPLICABLE, CONSISTENT WITH CITY FORESTRY SURVEY AND MITIGATION REQUIREMENTS PRIOR TO DEMOLITION OR CONSTRUCTION COMMENCING ON THE SITE.

MIDDLE PARCEL LEGAL DESCRIPTION

A PARCEL OF LAND SITUATE IN SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH P.M., CITY OF LONGMONT, COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 11 WHENCE THE WEST LINE OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEING BOUNDED ON THE NORTH END BY 3.25" ALUMINUM CAP STAMPED LS 34993 AND ON THE SOUTH END BY 3.25" ALUMINUM CAP STAMPED LS 20685, HEREON IS ASSUMED TO BEAR N 00°23'38" E A DISTANCE OF 2618.53' AND CONSIDERING ALL BEARINGS HEREIN RELATIVE THERETO:

THENCE S 44°07'23" E A DISTANCE OF 861.13 FEET TO THE POINT OF BEGINNING;
THENCE S 63°34'35" E A DISTANCE OF 785.57 FEET;
THENCE N 00°16'40" E A DISTANCE OF 139.25 FEET;
THENCE S 63°34'35" E A DISTANCE OF 2201.79 FEET;
THENCE S 51°28'15" W A DISTANCE OF 223.41 FEET;
THENCE S 46°31'45" W A DISTANCE OF 47.02 FEET;
THENCE S 46°14'25" W A DISTANCE OF 449.80 FEET;
THENCE S 75°36'32" W A DISTANCE OF 67.34 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 32°29'28" W, HAVING A RADIUS OF 1490.89 FEET, A CENTRAL ANGLE OF 20°28'42" AND AN ARC LENGTH OF 532.86 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 11°57'37" W, HAVING A RADIUS OF 1499.43 FEET, A CENTRAL ANGLE OF 12°06'13" AND AN ARC LENGTH OF 316.75 FEET;
THENCE N 89°46'53" W A DISTANCE OF 1458.66 FEET;
THENCE N 88°35'07" W A DISTANCE OF 420.12 FEET;
THENCE N 00°09'49" E A DISTANCE OF 957.15 FEET;
THENCE S 89°03'48" E A DISTANCE OF 304.11 FEET;
THENCE N 87°51'12" E A DISTANCE OF 223.07 FEET;
THENCE S 70°42'17" E A DISTANCE OF 78.66 FEET;
THENCE N 00°09'49" E A DISTANCE OF 972.28 FEET;
TO THE POINT OF BEGINNING;
CONTAINING AN AREA OF 3,878,224 SQUARE FEET OR 89.032 ACRES.

SOUTH PARCEL LEGAL DESCRIPTION

A PARCEL OF LAND SITUATE IN SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH P.M., CITY OF LONGMONT, COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 11 WHENCE THE WEST LINE OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEING BOUNDED ON THE NORTH END 3.25" ALUMINUM CAP STAMPED LS 34993 AND ON THE SOUTH END BY 3.25" ALUMINUM CAP STAMPED LS 20685, HEREON IS ASSUMED TO BEAR N 00°23'38" E A DISTANCE OF 2618.53' AND CONSIDERING ALL BEARINGS HEREIN RELATIVE THERETO:

THENCE S 88°26'32" E A DISTANCE OF 1364.08 FEET TO THE POINT OF BEGINNING;
THENCE S 89°47'31" E A DISTANCE OF 92.74 FEET;
THENCE S 86°10'33" E A DISTANCE OF 453.38 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT WHOSE RADIUS POINT BEARS N 02°47'20" E, HAVING A RADIUS OF 1761.52 FEET, A CENTRAL ANGLE OF 37°39'31" AND AN ARC LENGTH OF 1157.79 FEET;
THENCE N 85°23'01" E A DISTANCE OF 262.28 FEET;
THENCE S 80°30'18" E A DISTANCE OF 90.60 FEET;
THENCE S 67°36'37" E A DISTANCE OF 167.64 FEET;
THENCE S 60°10'29" E A DISTANCE OF 457.20 FEET;
THENCE S 46°31'45" W A DISTANCE OF 47.02 FEET;
THENCE S 00°06'56" E A DISTANCE OF 1231.26 FEET;
THENCE S 00°02'50" W A DISTANCE OF 1141.37 FEET;
THENCE N 89°58'52" W A DISTANCE OF 50.09 FEET;
THENCE N 00°02'50" E A DISTANCE OF 80.70 FEET;
THENCE N 70°49'00" W A DISTANCE OF 70.96 FEET;
THENCE N 79°37'39" W A DISTANCE OF 133.21 FEET;
THENCE NORTH A DISTANCE OF 14.08 FEET;
THENCE WEST A DISTANCE OF 1120.00 FEET;
THENCE N 58°27'33" W A DISTANCE OF 98.96 FEET;
THENCE SOUTH A DISTANCE OF 333.86 FEET;
THENCE WEST A DISTANCE OF 55.00 FEET;
THENCE NORTH A DISTANCE OF 367.62 FEET;
THENCE N 58°27'33" W A DISTANCE OF 31.07 FEET;
THENCE N 66°50'00" W A DISTANCE OF 157.10 FEET;
THENCE N 00°22'00" E A DISTANCE OF 145.94 FEET;
THENCE WEST A DISTANCE OF 840.04 FEET;
THENCE N 00°22'00" E A DISTANCE OF 138.59 FEET;
THENCE N 89°39'38" W A DISTANCE OF 238.51 FEET;
THENCE N 0°00'31" W A DISTANCE OF 36.30 FEET;
THENCE S 89°59'29" W A DISTANCE OF 20.00 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 13°57'26" E, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 76°52'42" AND AN ARC LENGTH OF 134.18 FEET;
THENCE N 12°12'33" E A DISTANCE OF 15.30 FEET;
THENCE N 0°03'11" W A DISTANCE OF 995.52 FEET;
THENCE N 15°25'38" W A DISTANCE OF 14.34 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 74°34'22" E, HAVING A RADIUS OF 40.00 FEET, A CENTRAL ANGLE OF 19°56'55" AND AN ARC LENGTH OF 13.93 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS S 85°28'44" E, HAVING A RADIUS OF 123.50 FEET, A CENTRAL ANGLE OF 27°19'24" AND AN ARC LENGTH OF 58.89 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS S 58°09'20" E, HAVING A RADIUS OF 79.50 FEET, A CENTRAL ANGLE OF 87°42'16" AND AN ARC LENGTH OF 121.69 FEET;
THENCE N 38°06'19" E A DISTANCE OF 83.01 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 40°09'49" E, HAVING A RADIUS OF 63.50 FEET,

A CENTRAL ANGLE OF 40°26'20" AND AN ARC LENGTH OF 44.82 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS N 80°27'08" E, HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 30°27'07" AND AN ARC LENGTH OF 26.57 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS S 69°05'45" E, HAVING A RADIUS OF 231.50 FEET, A CENTRAL ANGLE OF 3°54'39" AND AN ARC LENGTH OF 15.80 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS S 65°11'06" E, HAVING A RADIUS OF 81.50 FEET, A CENTRAL ANGLE OF 11°50'45" AND AN ARC LENGTH OF 16.85 FEET;
THENCE N 36°39'40" E A DISTANCE OF 35.39 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT WHOSE RADIUS POINT BEARS N 53°20'20" W, HAVING A RADIUS OF 264.00 FEET, A CENTRAL ANGLE OF 21°12'11" AND AN ARC LENGTH OF 97.70 FEET;
THENCE N 15°27'29" E A DISTANCE OF 65.87 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT WHOSE RADIUS POINT BEARS N 74°32'31" W, HAVING A RADIUS OF 515.50 FEET, A CENTRAL ANGLE OF 15°17'16" AND AN ARC LENGTH OF 137.55 FEET;
THENCE N 0°10'12" E A DISTANCE OF 53.29 FEET;

TO THE POINT OF BEGINNING;
CONTAINING AN AREA OF 6084360 SQUARE FEET OR 139.678 ACRES.

PROPERTY OWNER DEDICATION AND ACKNOWLEDGMENT

_____, BEING THE OWNER OF THE LAND DESCRIBED HEREIN HAS/HAVE CAUSED SAID LAND TO BE PLANNED UNDER THE NAME OF IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT. ALL CONDITIONS, TERMS, AND SPECIFICATIONS DESIGNATED OR DESCRIBED ON THIS DOCUMENT SHALL BE BINDING ON THE OWNERS, AND THEIR HEIRS, SUCCESSORS AND ASSIGNS.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS DAY OF _____, 20____.

MANAGER, RLSJ PROPERTIES LLC

NOTARY CERTIFICATE OF PROPERTY OWNER ACKNOWLEDGEMENT

STATE OF _____ COUNTY OF _____
THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20____.

BY _____

NOTARY PUBLIC

COMMISSION EXPIRATION

NOTARY SEAL

PROPERTY OWNER DEDICATION AND ACKNOWLEDGMENT

_____, BEING THE OWNER OF THE LAND DESCRIBED HEREIN HAS/HAVE CAUSED SAID LAND TO BE PLANNED UNDER THE NAME OF IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT. ALL CONDITIONS, TERMS, AND SPECIFICATIONS DESIGNATED OR DESCRIBED ON THIS DOCUMENT SHALL BE BINDING ON THE OWNERS, AND THEIR HEIRS, SUCCESSORS AND ASSIGNS.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS DAY OF _____, 20____.

PARTNER, GOLDEN FARM, LLLP

NOTARY CERTIFICATE OF PROPERTY OWNER ACKNOWLEDGEMENT

STATE OF _____ COUNTY OF _____
THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20____.

BY _____

NOTARY PUBLIC

COMMISSION EXPIRATION

NOTARY SEAL

MAYORS CERTIFICATE

I HEREBY CERTIFY THAT THE SITE PLAN OF THE ABOVE DESCRIBED PROPERTY IS APPROVED BY THE CITY OF LONGMONT, COLORADO.

MAYOR, CITY OF LONGMONT

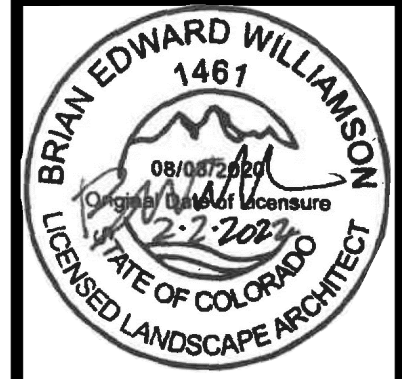
DATE

SEAL

SHEET INDEX	
COVER SHEET	1
BOUNDARY MAP	2
BOULDER COUNTY MAPS AND NOTES	3
GRAVEL MINING	4
RECLAMATION	5

REVISIONS	DESCRIPTION

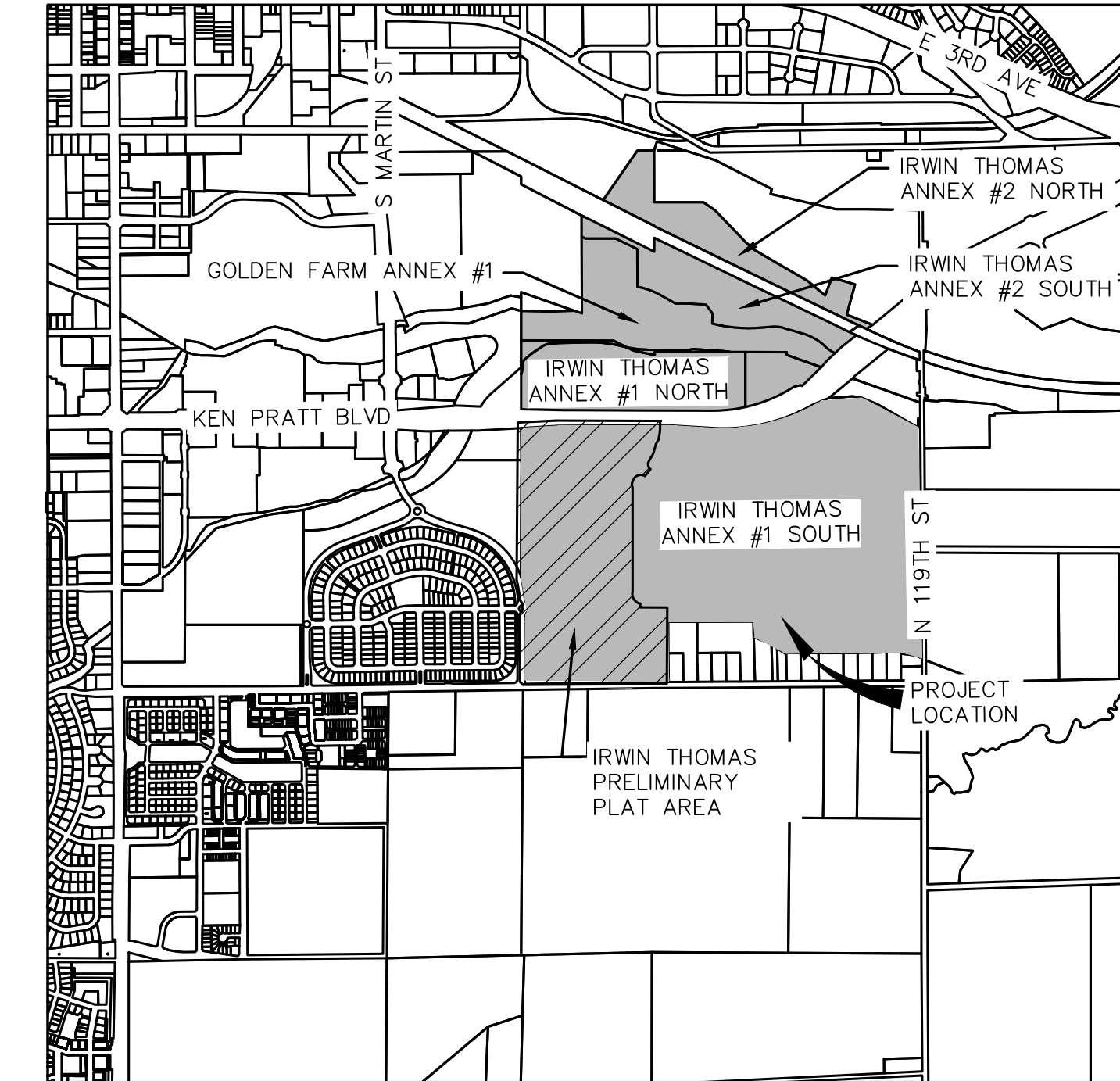
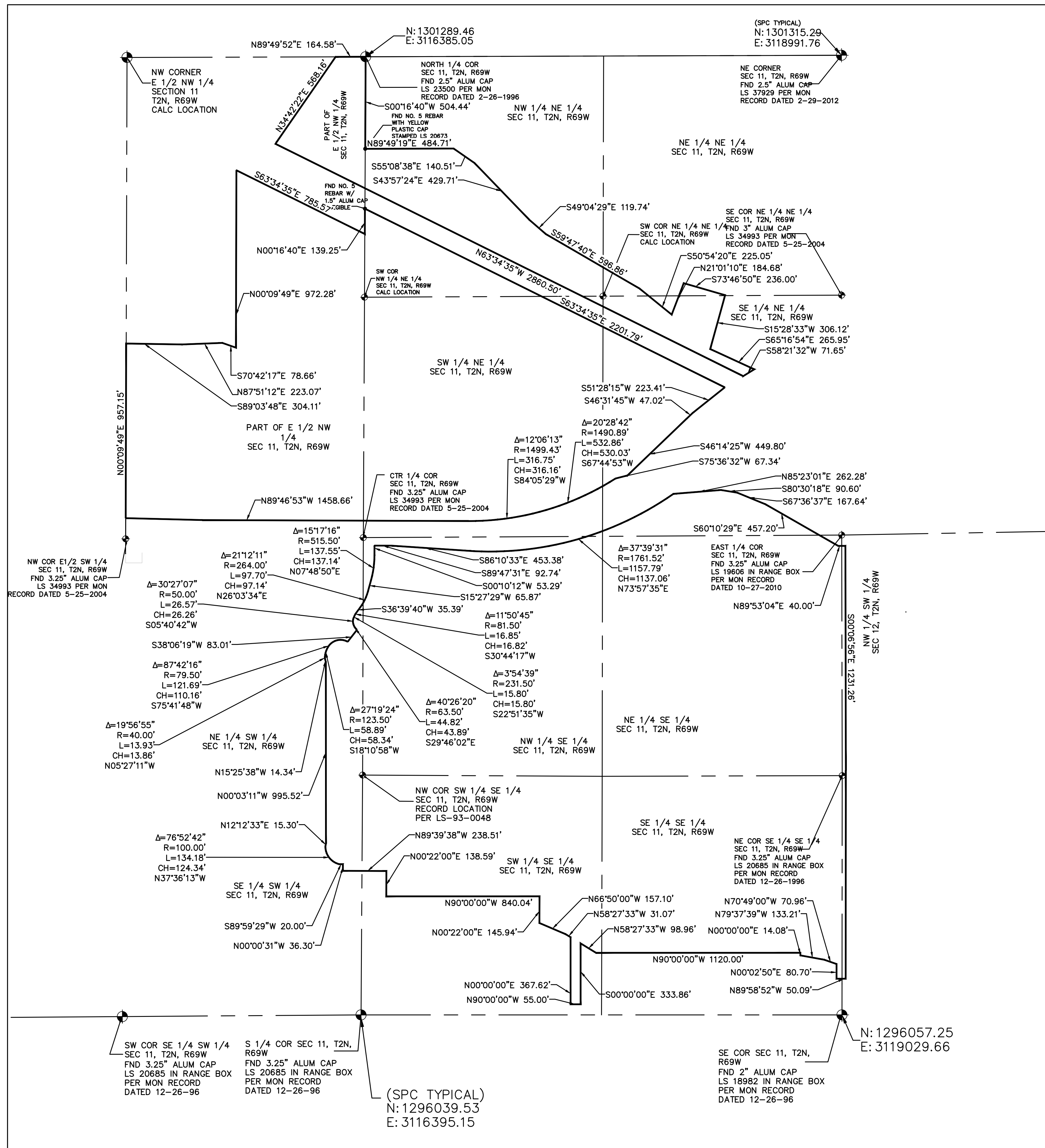
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DESIGNED: BW
FILENAME: 1241.0001 FDP PUD



IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT COVER SHEET



JOB NO. 1241.0001.02
SCALE: NTS
DATE: JANUARY 2022
SHEET



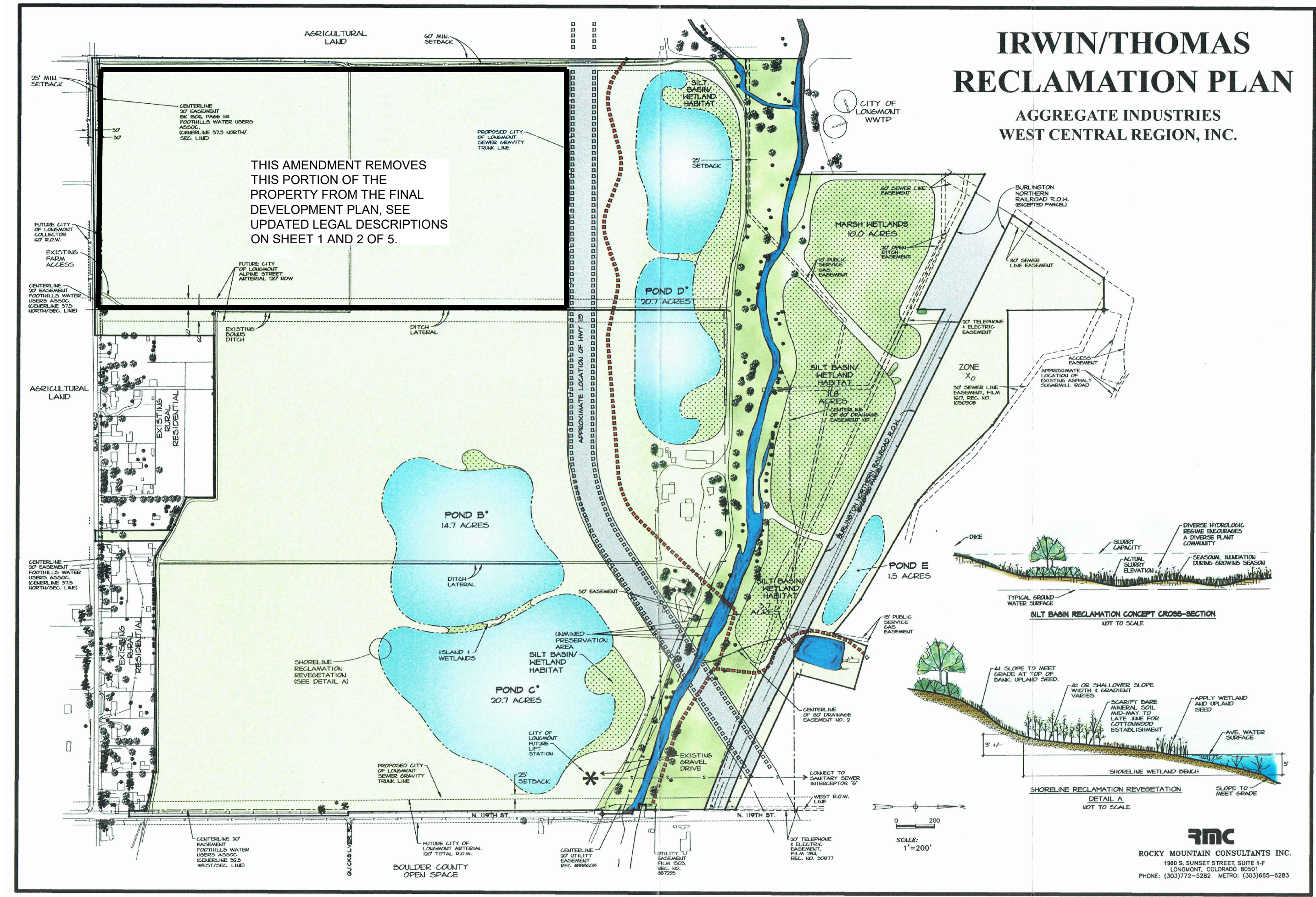
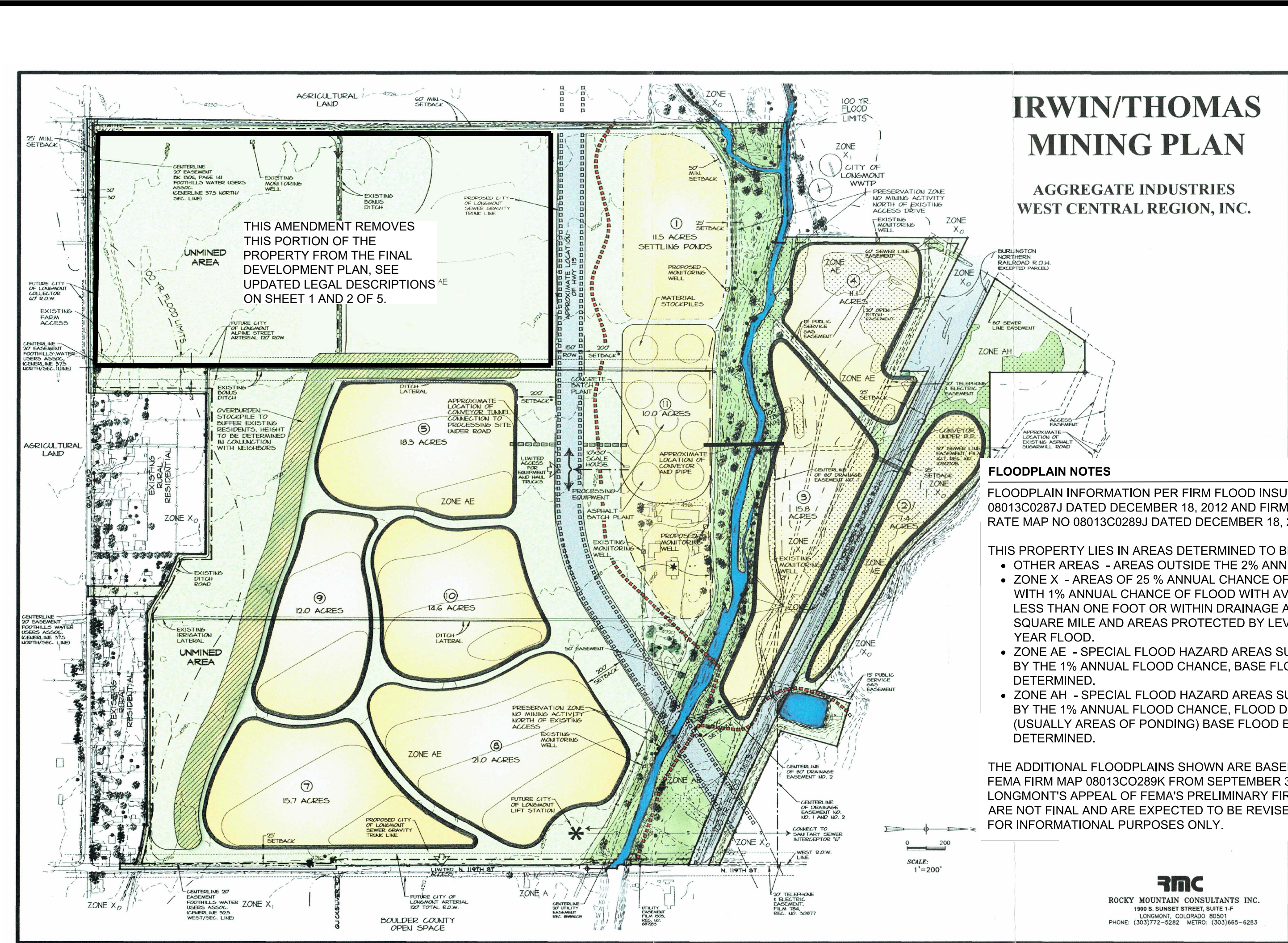
REVISIONS	DESCRIPTION

DATE	
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CHECKED	BW
DESIGNED	BW
FILENAME	1241.0001 FDP PUD



**IRWIN THOMAS FINAL PUD DEVELOPMENT
 PLAN AMENDMENT
 BOUNDARY MAP**

TST, INC. CONSULTING ENGINEERS 748 Whalers Way Suite 200 Fort Collins Colorado 80525 Phone: 970.226.0557	
JOB NO.	1241.0001.02
SCALE	1"=300'
DATE	JANUARY 2022
SHEET	2 of 5



NOTE: THESE MAPS ARE FOR REFERENCE TO THE PREVIOUS BOULDER COUNTY PERMIT. THEY ARE UPDATED TO REFLECT THE AMENDED LIMITS OF MINING AND AMENDED PUD BOUNDARY. SEE SHEETS 4 AND 5 OF THIS PLAN SET FOR SPECIFIC MINING AND RECLAMATION MAPS AND INFORMATION AS REVIEWED AND APPROVED BY THE CITY OF LONGMONT

NOTES

1. THE DEVELOPMENT CONSISTS OF OPEN MINING AND RECLAMATION ON APPROXIMATELY 120.5 ACRES OF A 346 ACRE AREA ON THE IRWIN/THOMAS PROPERTY LOCATED AT THE NORTHWEST INTERSECTION OF QUAIL ROAD AND NORTH 119TH STREET.
2. ROADS/PARKING - THE FOLLOWING ROADS SHALL SERVE THE DEVELOPMENT SUBJECT TO THE CONDITIONS AND LIMITATIONS AS FURTHER SET FORTH: N. 119TH STREET, QUICKSILVER RD, AND STATE HIGHWAY 119. ACCESS TO THE SITE FROM STATE HIGHWAY 119 IS SHOWN ON SHEET 269 OF THE COLORADO DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION DRAWINGS FOR STATE HIGHWAY 119, PREPARED BY CARTER AND BURGESS, AND REVISED ON MARCH 13, 2002. THIS ACCESS MAY BE REVISED ONLY UPON THE APPROVAL OF THE COLORADO DEPARTMENT OF TRANSPORTATION AND THE CITY OF LONGMONT. THE USE OF QUICKSILVER ROAD IS SUBJECT TO APPROVALS BEFORE UTILIZING NORTH 119TH STREET FOR TRUCK HAULING. THE DEVELOPER SHALL PROVIDE WRITTEN CONSENT FROM THE COLORADO DEPARTMENT OF TRANSPORTATION BEFORE CONDUCTING ANY CONSTRUCTION WORK WITHIN ANY PORTION OF THE STATE HIGHWAY 119 RIGHT-OF-WAY. EMPLOYEE PARKING WILL BE LOCATED IN A DESIGNATED GRAVEL PARKING AREA ADJACENT TO THE SCALE HOUSE. SEE NOTE 14 FOR REQUIREMENTS REGARDING THE ST. VRAIN AND LEFT HAND CREEK RIPARIAN SETBACKS.
3. LANDSCAPING/RECLAMATION - THE DEVELOPER SHALL PROVIDE REVEGETATION FOR THE DEVELOPMENT IN ACCORDANCE WITH THE CITY AND COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY (DRMS) APPROVED MINING PLAN AND RECLAMATION PLANS. THIS REVEGETATION SHALL INCLUDE THE INSTALLATION OF A SEEDED TEMPORARY SCREENING BERM, ON THE WESTERN EDGE OF THE PROPERTY BETWEEN ANY MINED AREAS AND HARVEST MOON DRIVE AND ALONG THE SOUTHERN LIMITS OF THE MINING TO SCREEN THE ACTIVITY FROM THE EXISTING HOMES ALONG QUAIL ROAD. THE BERM AND SEEDING SHALL BE COMPLETED BEFORE ANY MINING IS COMMENCED SOUTH OF STATE HIGHWAY 119 AS SHOWN ON THE MINING PLAN. THE BERM SHALL BE REMOVED AT THE COMPLETION OF MINING ACTIVITIES ON THE SOUTH SIDE OF HWY 119. FINAL RECLAMATION OF ANY CITY OWNED PROPERTY TO BE REVIEWED AND APPROVED BY THE CITY. ANY CHANGES TO THE PLANS AS PRESENTED FOR THE CITY OWNED PROPERTY TO BE COORDINATED WITH THE MINING OPERATOR.
4. SIGNAGE - ALL SIGNS FOR THE DEVELOPMENT SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE LONGMONT LAND DEVELOPMENT CODE. THE DEVELOPER HAS POSTED ONE SIGN ALONG N. 119TH STREET AND ONE SIGN ALONG QUAIL ROAD STATING THAT MINING WILL TAKE PLACE ON THE SITE IN THE FUTURE. THE CONTENT, SIZE, AND LOCATION OF THE SIGNS MUST BE APPROVED BY THE CITY OF LONGMONT PRIOR TO INSTALLATION.
5. THE DEVELOPER SHALL PAY CITY OF LONGMONT TRANSPORTATION INVESTMENT FEES AT THE TIME OF BUILDING PERMIT.
6. ENFORCEMENT - THE CITY MAY CONDUCT A PERIODIC REVIEW OF THE DEVELOPMENT AS NECESSARY TO ASSURE COMPLIANCE WITH THE FINAL DEVELOPMENT PLAN FOR GRAVEL MINING AND RECLAMATION. THIS RIGHT INCLUDES THE RIGHT TO ENTER UPON THE PROPERTY INCLUDED WITHIN THE DEVELOPMENT AT ANY TIME, WITHOUT PRIOR NOTICE, TO INSPECT FOR COMPLIANCE WITH THE TERMS OF THE PUD. ALL SITE VISITORS TO THE ACTIVE MINING SITE WILL BE REQUIRED TO GO THROUGH APPROPRIATE MINE SAFETY AND HEALTH ADMINISTRATION (MSHA) TRAINING, WEAR REQUIRED SAFETY EQUIPMENT AND CHECK IN AT THE SCALE HOUSE PRIOR TO ENTERING THE SITE.
7. THE PROPOSED MINING PODS RANGE IN SIZE FROM 6 TO 19 ACRES AND WILL BE MINED IN THE NUMBERED SEQUENCE INDICATED ON THE PUD PLAN.
8. THE FINAL RECLAMATION PLAN INCLUDES FIVE IRREGULARLY SHAPED PONDS TOTALING ABOUT 73 ACRES WITH THE AREA BETWEEN THE ST. VRAIN CREEK AND BURLINGTON NORTHERN RAILROAD CONSISTING OF ABOUT 25.5 ACRES OF WETLANDS. THE EXACT NUMBER AND CONFIGURATION OF THE PONDS MAY VARY BASED ON THE GRAVEL RESOURCE AND AVAILABLE FILL MATERIAL.
9. THE MAIN ACCESS TO SITE WILL BE LOCATED ON N. 119TH STREET, DIRECTLY ACROSS FROM QUICKSILVER ROAD. NO TRAFFIC WILL LEAVE THE SITE TRAVELING SOUTH ON N. 119TH STREET BEYOND QUICKSILVER RD AND TRUCKS ENTERING THE SITE MUST NOT TRAVEL BETWEEN QUAIL ROAD AND QUICKSILVER RD. THERE IS A PROHIBITION ON TRUCK HAULING ON QUAIL STREET AND SOUTH OF QUICKSILVER RD ON NORTH 119TH STREET. ACCESS TO THE MINING CELLS LOCATED NORTH OF ST. VRAIN CREEK WILL BE VIA THE EXISTING EASEMENT AND ACCESS ROAD ONTO NORTH 119TH ST.
10. IF SUSTAINED WINDS EXCEED 30 MPH AT MINING SITES, LOADING AND HAULING OPERATIONS WILL CEASE UNTIL THE WIND SPEED DROPS BELOW 30 MPH. CONVEYING, AND DRILLING OPERATIONS MAY CONTINUE. WIND SPEED SHALL BE MEASURED AT THE MINE SITE. THE

APPLICANT WILL UTILIZE THE FOLLOWING ADDITIONAL MEASURES TO MANAGE DUST DURING MINING AND RECLAMATION OF THE PROPERTY:

- 10.1. EMISSIONS FROM ALL MATERIAL HANDLING (I.E. REMOVAL, LOADING AND HAULING) WILL BE CONTROLLED BY WATERING UNLESS NATURAL MOISTURE IS SUFFICIENT TO CONTROL EMISSIONS.
- 10.2. ON SITE HAUL ROADS WILL BE WATERED AS OFTEN AS NEEDED TO CONTROL FUGITIVE PARTICULATE EMISSIONS.

11. ANY DITCH CROSSINGS OR RELOCATIONS SHALL BE DONE ONLY UPON THE CONSENT OF THE DITCH COMPANIES AND IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
12. THE APPLICANTS SHALL OBTAIN ALL APPLICABLE PERMITS AS REQUIRED AND NECESSARY. THIS INCLUDES, BUT IS NOT LIMITED TO: FLOODPLAIN DEVELOPMENT PERMITS, NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMITS, AIR POLLUTION CONTROL EMISSION PERMITS, CONSTRUCTION MATERIALS REGULAR OPERATION (112) RECLAMATION PERMITS, WATER DISCHARGE PERMITS, CITY OF LONGMONT STORM WATER CONSTRUCTION ACTIVITY PERMIT AND ANY WELL PERMITS OR TEMPORARY SUBSTITUTE SUPPLY PLANS REQUIRED BY THE STATE ENGINEER.
13. THIS USE MUST COMPLY WITH ALL APPLICABLE STATE AND LOCAL NOISE STANDARDS AND STATE AND LOCAL FUGITIVE DUST STANDARDS.
14. THE ST. VRAIN CREEK AND LEFT HAND CREEK RIPARIAN SETBACKS SHALL BE MARKED WITH PERMANENT MONUMENTS ON THE GROUND FOR THE DURATION OF THE MINING PERIOD. NO MINING ACTIVITIES SHALL OCCUR WITHIN THIS DEFINED AREA. THE APPLICANTS MUST RECLAIM ALL ADJACENT AREAS IN ACCORDANCE WITH THE PLANS APPROVED BY THE CITY BEFORE REMOVING ANY MONUMENT.
15. OUTSIDE STORAGE, AND THE STORAGE OF FUEL, OIL, AND GREASE, AS WELL AS THE REPAIR OF EQUIPMENT AND MACHINERY, ARE ACCESSORY USES TO THIS APPROVAL, PROVIDED THE APPLICANTS MEET ALL APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL REGULATIONS. ACCESSORY ACTIVITIES WILL TAKE PLACE WITHIN ACTIVE MINING CELL AND WILL BE RELOCATED AS MINING AND RECLAMATION PROCEED. ACCESSORY ACTIVITIES MAY TAKE PLACE BETWEEN 7AM AND 7PM OR DAWN TO DUSK (WHICHEVER IS MORE RESTRICTIVE) MONDAY THROUGH SATURDAY. NO ACTIVITY IS PERMITTED ON SUNDAY. MAINTENANCE OF EQUIPMENT MAY TAKE PLACE BEFORE OR AFTER NORMAL WORKING HOURS IF REQUIRED TO REPAIR EQUIPMENT NECESSARY FOR OPERATIONS (I.E. CONVEYOR) OR TO RESPOND TO AN EMERGENCY.
16. THE PROPERTY WILL COMPLY WITH THE CITY OF LONGMONT'S REQUIREMENTS FOR DRAINAGE.
17. DEVELOPMENT ON THE PROPERTY SHALL COMPLY WITH THE CITY'S FLOOD PLAIN REGULATIONS BASED ON THE BEST FLOODPLAIN DATA AVAILABLE AT THE TIME OF DEVELOPMENT.
18. THIS APPROVAL RECOGNIZES THE FOLLOWING:
 - MINING OF APPROXIMATELY 3.5 MILLION TONS OF MATERIAL;
 - A TOTAL OF 150 AVERAGE DAILY TRIPS TO THE SITE, NOT TO EXCEED 200 TRIPS PER DAY;
 - ACCESSORY PROCESSING OF SAND AND GRAVEL INCLUDING SCREENING AND STOCKPILING. THE MINING OPERATOR MAY INSTALL A PORTABLE SCREENING PLANT IN THE BOTTOM OF AN ACTIVE MINING CELL TO SORT MATERIAL PRIOR TO REMOVAL FROM THE SITE.
20. THE APPLICANTS SHALL MITIGATE ADVERSE IMPACTS ON NEIGHBORING WELLS CAUSED BY DE-WATERING OR OTHER MINING OPERATIONS THAT RESULT IN LOWER GROUND WATER LEVELS OUTSIDE OF MINING BOUNDARIES. TO MEET THIS REQUIREMENT, THE APPLICANTS SHALL INSTALL PIEZOMETERS ADJACENT TO RESIDENTIAL AREAS SUFFICIENT TO DETERMINE THE EFFECT ON ADJOINING PROPERTIES. IF MINING OPERATIONS CAUSE A REDUCTION BY MORE THAN 10% IN WATER QUALITY OR QUANTITY, THE APPLICANTS SHALL PROVIDE REPLACEMENT WATER EQUAL TO OR BETTER IN QUANTITY AND QUALITY TO THE ORIGINAL CONDITIONS. IN FULFILLING THIS CONDITION, THE APPLICANTS SHALL BE RESPONSIBLE FOR CONDUCTING INDUSTRY RECOGNIZED WATER QUALITY/ QUANTITY ANALYSES AT LEAST FOUR TIMES A YEAR. THE APPLICANTS COMMIT TO MONITOR GROUNDWATER WELLS QUARTERLY THROUGHOUT THE LIFE OF THE MINE.
21. THE MINING PODS WILL BE MINED ONE AT A TIME SO THAT ONLY ONE POD OR PORTIONS OF TWO PODS AND THE PROCESSING SITE ARE DISTURBED DURING ANY PHASE OF MINING. THE MINED PORTION OF ANY MINING POD IN ANY PHASE SHALL BE LIMITED TO THAT SHOWN ON THE APPROVED PLAN. IF MINING IS UNDERWAY IN MORE THAN ONE POD AT A TIME, THE COMBINED MINING AREA SHALL NOT EXCEED 35

ACRES. FOR PURPOSES OF INTERPRETING THIS CONDITION, "COMBINED MINING AREA" SHALL MEAN ANY AREA THAT HAS BEEN DISTURBED IN PREPARATION OF MINING, OR IN WHICH MINING IS UNDERWAY, OR IN WHICH GRADING FOR RECLAMATION FOR IS UNDERWAY. ONCE GRADING OF A RECLAIMED MINING POD IS COMPLETED IT WILL NOT LONGER BE CONSIDERED AS PART OF THE COMBINED MINING AREA. REVEGETATION AND WEED MANAGEMENT WITHIN RECLAIMED PODS WILL BE ONGOING THROUGHOUT THE LIFE OF THE MINE.

22. THE APPLICANTS SHALL OBTAIN AN ACCESS PERMIT FROM THE CITY OF LONGMONT BEFORE USING NORTH 119TH STREET FOR ANY TRUCK HAULING. BEFORE ISSUING THE ACCESS PERMIT, THE CITY MAY DETERMINE WHAT, IF ANY, MITIGATION MEASURES TO NORTH 119TH/ STREET AND QUICK SILVER ROAD ARE NECESSARY. MITIGATION MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO: PAYMENT BY THE APPLICANTS OF A PRO-RATA SHARE OF THE COSTS OF ANY ACCELERATION OR DECELERATION LANES, PAVEMENT REHABILITATION, TRAFFIC CONTROL DEVICES, OR OTHER MEASURES NECESSARY TO CORRECT ADVERSE IMPACTS TO THE STREET. ANY COSTS ASSOCIATED WITH DETERMINING THE PROPER MITIGATION MEASURES ARE THE RESPONSIBILITY OF THE APPLICANTS.
23. THE APPLICANTS SHALL OBTAIN WRITTEN CONSENT FROM THE BURLINGTON NORTHERN RAILROAD BEFORE CONDUCTING ANY CONSTRUCTION WORK WITHIN ANY PORTION OF RAILROAD RIGHT-OF-WAY.
24. THE APPLICANTS SHALL REQUIRE ALL SAND AND GRAVEL LOADS HAULED FROM THE SITE IN ANY APPLICANT-OWNED OR LEASED TRUCKS, OR BY HAULERS UNDER CONTRACT TO THE APPLICANTS TO BE COVERED WITH TARPS, TO PREVENT FUGITIVE DUST AND GRAVEL FROM ESCAPING DURING HAULING.
25. MINING OPERATIONS AND TRUCK HAULING ARE LIMITED TO MONDAYS THROUGH FRIDAYS; DURING THE PERIOD OF DAYLIGHT SAVINGS TIME THE HOURS OF OPERATION SHALL BE 7:00 A.M. TO 7:00 P.M., AND DURING THE PERIOD OF STANDARD TIME THE HOURS OF OPERATION SHALL BE 7:00 A.M. TO 7:00 P.M. OR DAYLIGHT TO DARK (WHICHEVER IS MORE RESTRICTIVE). ON SATURDAYS, WORK IS RESTRICTED TO EQUIPMENT MAINTENANCE, MAINTENANCE NECESSARY TO ENSURE COMPLIANCE WITH REQUIRED PERMITS, AND HAULING. HAULING ON SATURDAYS IS RESTRICTED TO THE HOURS LISTED ABOVE AND SEPARATE CITY STAFF APPROVAL. NO WORK AT THE SITE CAN OCCUR ON SUNDAYS.
26. THE APPLICANT SHALL REQUIRE ALL APPLICANT- OWNED OR LEASED TRUCKS AND ALL TRUCKS UNDER CONTRACT TO THE APPLICANTS TO UTILIZE "WHITE NOISE" BACK UP BEEPERS AS OPPOSED TO STANDARD BACK UP BEEPERS. ALL MINING AND LOADING EQUIPMENT ASSOCIATED WITH THE MINING AND RECLAMATION SHALL ALSO UTILIZE "WHITE NOISE" BACK UP BEEPERS.
27. SITE ACCESS ONTO N. 119TH STREET AND MINING OPERATIONS SHALL NOT INHIBIT SAFE USE OF THE ST. VRAIN GREENWAY UNLESS APPROVED BY THE CITY OF LONGMONT. PER THE EXISTING MOU BETWEEN THE CITY AND THE GRAVEL OPERATOR, THE CITY WILL INSTALL A 6' TALL CHAIN LINK FENCE 10' TO 15' SOUTH OF THE ST. VRAIN GREENWAY TRAIL TO LIMIT ACCESS FROM THE TRAIL INTO THE MINING SITE. TIMING OF THE INSTALLATION OF THE FENCE SHALL BE COORDINATED WITH THE OPERATOR TO ASSURE THAT THE FENCE IS IN PLACE WHEN THE OPERATOR IS READY TO BEGIN MINING THE AREA NORTH OF HWY 119.
28. ALL MINING ACTIVITIES SHALL COMPLY WITH THE MEMORANDUM OF UNDERSTANDING BETWEEN THE APPLICANTS, AGGREGATE INDUSTRIES AND THE CITY OF LONGMONT DATED DECEMBER 20, 2005.
29. THIS PDP/FDP IS CONCEPTUAL IN NATURE. EXACT CONFIGURATION OF MINING AND RECLAMATION MAY CHANGE SUBJECT TO SITE CONDITIONS AND MATERIAL AVAILABLE FOR FILL. ANY CHANGES WILL BE COORDINATED WITH THE LANDOWNER AND THE CITY OF LONGMONT. REVISIONS TO THE MINING AND RECLAMATION PLAN THAT DO NOT REQUIRE AN AMENDMENT TO THE DRMS PERMIT MAY BE APPROVED THROUGH THE ADMINISTRATIVE STAFF REVIEW PROCESS AT THE CITY OF LONGMONT. THE OPERATOR WILL SUBMIT ANY REQUIRED TECHNICAL REVISION TO THE DRMS.

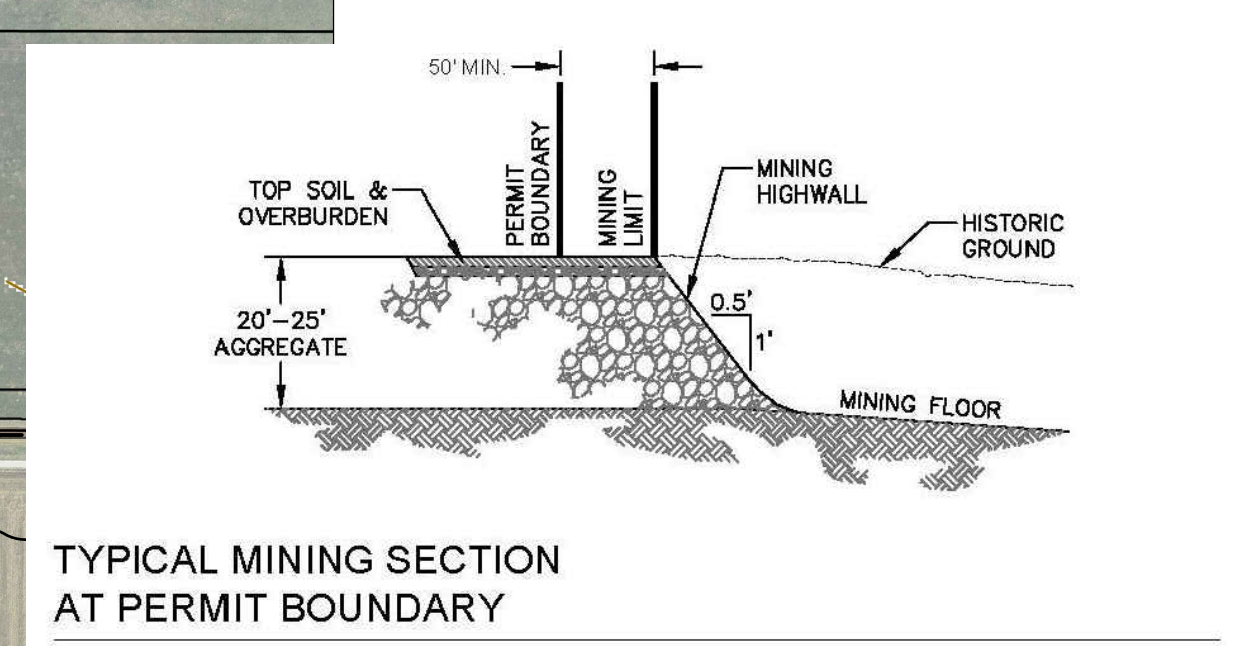
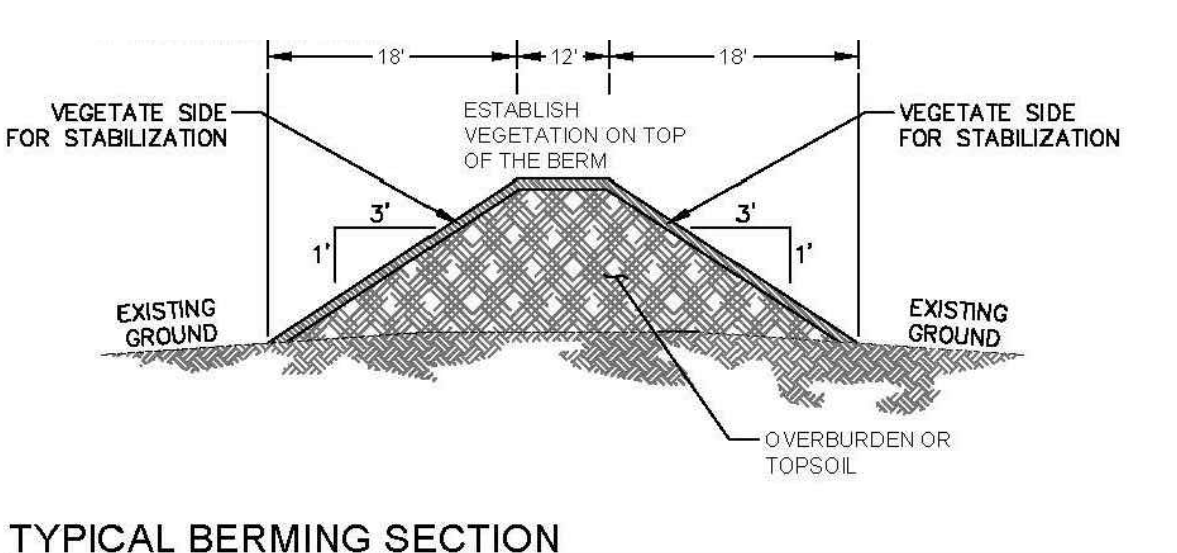
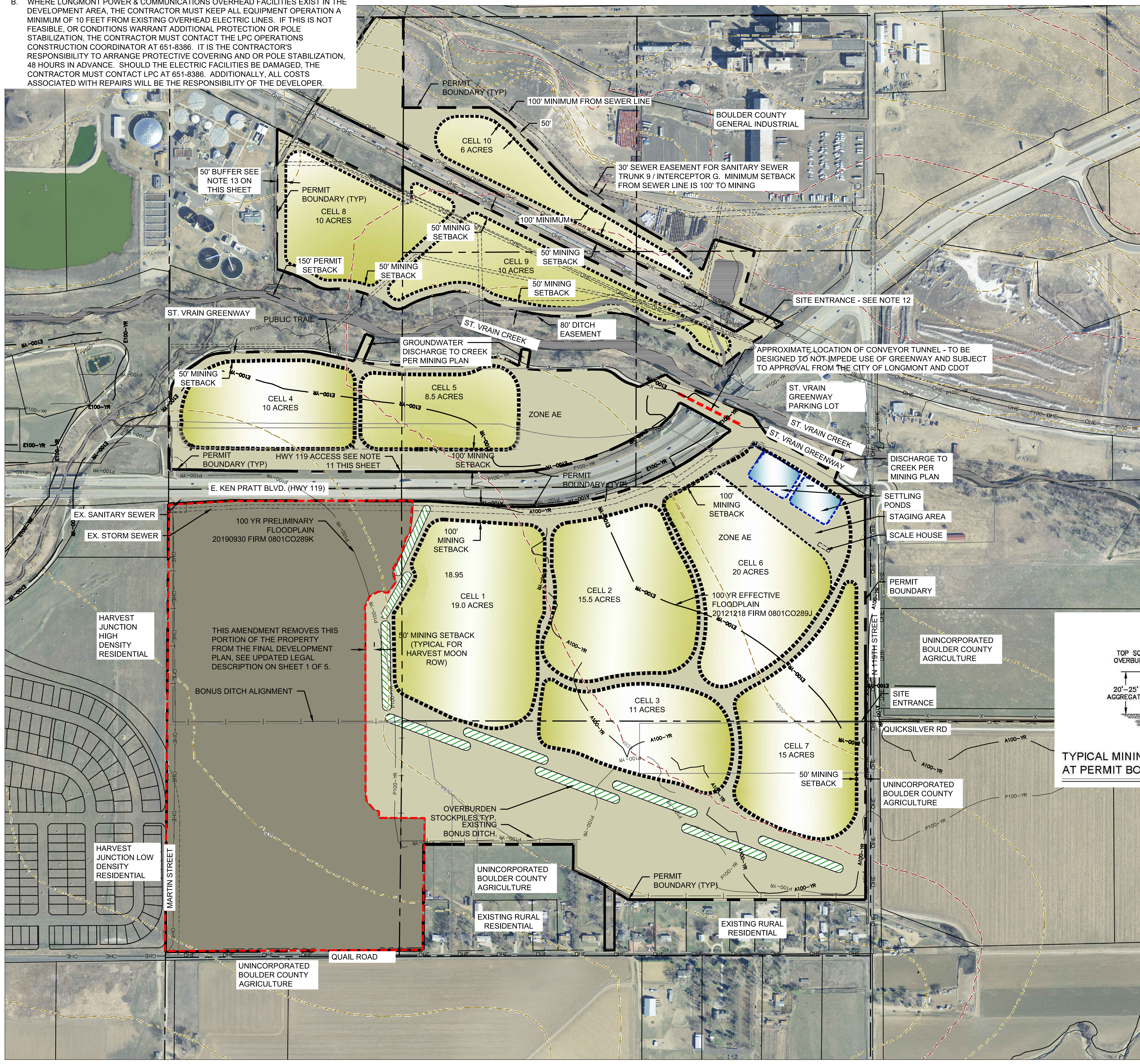
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FILENAME	1241.0001 FDP PUD
IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT GRAVEL MINING AND RECLAMATION	
<p>TST, INC. CONSULTING ENGINEERS 748 Whalers Way Suite 200 Fort Collins Colorado 80525 Phone: 970.226.0557</p>	
JOB NO.	1241.0001.02
SCALE	NTS
DATE	JANUARY 2022
SHEET	3 of 5

IRWIN THOMAS PRELIMINARY/FINAL PUD DEVELOPMENT PLAN FOR GRAVEL MINING AND RECLAMATION

- NOTE:**
- A. WHERE UNDERGROUND ELECTRIC CABLES THAT RUN NEAR THE PROJECT WORK AREA, THEY CANNOT BE DE-ENERGIZED FOR CROSSING PURPOSES. THE CONTRACTOR MUST TAKE ALL PRECAUTION NECESSARY TO PREVENT DAMAGE TO THE CABLES OR INJURY TO THE CONSTRUCTION CREW. SHOULD THE CONTRACTOR DAMAGE THESE FACILITIES, CONTACT LONGMONT POWER & COMMUNICATIONS IMMEDIATELY AT 651-8386. LONGMONT POWER & COMMUNICATIONS WILL REPAIR THE FACILITIES AND BILL THE DEVELOPER FOR ALL ASSOCIATED COSTS.
 - B. WHERE LONGMONT POWER & COMMUNICATIONS OVERHEAD FACILITIES EXIST IN THE DEVELOPMENT AREA, THE CONTRACTOR MUST KEEP ALL EQUIPMENT OPERATION A MINIMUM OF 10 FEET FROM EXISTING OVERHEAD ELECTRIC LINES. IF THIS IS NOT FEASIBLE, OR CONDITIONS WARRANT ADDITIONAL PROTECTION OR POLE STABILIZATION, THE CONTRACTOR MUST CONTACT THE LPC OPERATIONS CONSTRUCTION COORDINATOR AT 651-8386. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE PROTECTIVE COVERING AND OR POLE STABILIZATION, 48 HOURS IN ADVANCE. SHOULD THE ELECTRIC FACILITIES BE DAMAGED, THE CONTRACTOR MUST CONTACT LPC AT 651-8386. ADDITIONALLY, ALL COSTS ASSOCIATED WITH REPAIRS WILL BE THE RESPONSIBILITY OF THE DEVELOPER.

- NOTES:**
1. THE PROPOSED IRWINTHOMAS MINE PERMIT AREA IS COMPRISED OF 4 DISTINCT MINING AREAS SEPARATED BY COLORADO HIGHWAY 119, ST. VRAIN CREEK, AND THE BURLINGTON NORTHERN AND SANTA FE (BNSF) RAILROAD. MINING AREA 1 IS LOCATED SOUTH OF HWY 119, MINING AREA 2 IS NORTH OF HWY 119 AND SOUTH OF ST. VRAIN CREEK, MINING AREA 3 IS NORTH OF ST. VRAIN CREEK AND SOUTH OF THE BNSF RAILROAD, AND MINING AREA 4 IS NORTH OF THE RAILROAD.
 2. THE PROPOSED PERMIT BOUNDARY ENCOMPASSES APPROXIMATELY 295.6 ACRES WITH ONLY ABOUT 138 ACRES CURRENTLY PLANNED FOR MINING. HOWEVER, THE AFFECTED LAND BOUNDARY ESSENTIALLY FOLLOWS THE PERMIT BOUNDARY TO ALLOW FOR RECLAMATION ACTIVITIES AND FUTURE POTENTIAL MINING OPERATIONS.
 3. IN ADDITION TO AREAS DISTURBED BY MINING, ACCESS ROADS, MATERIAL CONVEYING, STOCKPILES, OR OTHER MINING RELATED ACTIVITIES MAY OCCUR IN AREAS NOT SUBJECT TO MINING AND RIPARIAN SETBACKS AND BUFFERS.
 4. SETBACKS FROM THE MINE PIT TOP OF SLOPE TO THE PROPOSED PERMIT BOUNDARY OR MAN-MADE STRUCTURES NOT OWNED BY THE APPLICANT WILL BE 50 FEET OR GREATER.
 5. ITEMS OWNED BY THE APPLICANT OR PROPERTY OWNER LOCATED WITHIN THE PERMIT AREA SUCH AS UNIMPROVED ROADS, IRRIGATION LATERALS, FENCES, WATER WELLS AND ASSOCIATED PUMPS, AND OTHER STRUCTURES MAY BE REMOVED OR RELOCATED DURING MINING AND RECLAMATION.
 6. TEST PITS HAVE VERIFIED THAT COMMERCIAL DEPOSITS OF SAND AND GRAVEL EXIST UP TO 25 FEET BELOW THE SURFACE OF THE GROUND.
 7. MINING IS EXPECTED TO ENCOUNTER GROUNDWATER WITHIN FIVE FEET OF THE GROUND SURFACE. THE DEPOSIT WILL BE DRY MINED USING DEWATERING TRENCHES AND PUMPS.
 8. DURING MINING ADJACENT TO THE ST. VRAIN CREEK RIPARIAN AREA, PRECAUTIONS WILL BE TAKEN TO NOT DISTURB THE CREEK CHANNEL AND DESIRABLE VEGETATION.
 9. A MINE OFFICE/SCALE HOUSE TRAILER WILL BE ESTABLISHED NEAR SITE ENTRANCES BOTH NORTH AND SOUTH OF ST. VRAIN CREEK. LOCATIONS ARE SUBJECT TO CITY STAFF APPROVAL.
 10. BEST MANAGEMENT PRACTICES WILL BE USED TO LIMIT DISCHARGE OF STORMWATER AND SEDIMENT ONTO ADJACENT PROPERTIES AND WATERWAYS.
 11. THE EXISTING HWY 119 ACCESS WILL CONTINUE TO FUNCTION FOR AGRICULTURE ACCESS AND MAINTENANCE. ONCE MINING AND RECLAMATION BEGIN, ACTIVITY ASSOCIATED WITH THE HWY 119 ACCESS WILL INCLUDE BRINGING EQUIPMENT INTO THE SITE, THE EQUIPMENT OPERATORS VEHICLE, ANY REQUIRED MAINTENANCE OF THE EQUIPMENT AND VEGETATION MANAGEMENT. MINED MATERIAL MAY BE TRANSPORTED VIA THE CONVEYOR AS SHOWN ON THE MINING PLAN OR VIA HAUL TRUCKS UTILIZING DIRECT ACCESS ONTO HWY 119 AT THE CONTROLLED INTERSECTION. SPECIFIC DETAILS REGARDING TRANSPORT OF MATERIAL FROM THE HWY 119 ACCESS OR VIA THE CONVEYOR SHALL BE REVIEWED AND APPROVED BY CDOT AND THE CITY OF LONGMONT.
 12. ACCESS TO CELLS 8, 9 AND 10 WILL BE VIA AN EXISTING ACCESS EASEMENT TO NORTH 119TH ST. SPECIFIC CONFIGURATION, REQUIRED IMPROVEMENTS AN APPROVED HAUL ROUTE TO BE APPROVED BY THE CITY PRIOR TO MINING THESE CELLS. THE OPERATOR WILL ENTER INTO A ROAD MAINTENANCE AGREEMENT WITH THE CITY PRIOR TO MINING THOSE CELLS.
 13. THE EXISTING SWALE ON THE WEST SIDE OF CELL 8 IS A MAJOR DRAINAGE CONVEYANCE AND DISCHARGE FOR THE WATER TREATMENT PLANT. THE CHANNEL CANNOT BE IMPACTED AND MUST REMAIN OPERATIONAL AT ALL TIMES. FIELD VERIFY PRIOR TO ANY MINING ACTIVITIES THAT THE 50' PROPOSED BUFFER IS ADEQUATE TO PROTECT THE EXISTING SWALE, AND IF IT IS NOT, INCREASE THE BUFFER AMOUNT TO ENSURE PROPER OPERATION OF THE SWALE.



LEGEND:

PERMIT BOUNDARY	---
PROPOSED HAUL ROAD	---
PROPOSED MINING LIMITS	---
EXISTING PARCELS	---
EXISTING DITCH	---
EXISTING GAS LINE	GAS
EXISTING OVERHEAD ELECTRIC	OHE
EXISTING EASEMENT	---
EXISTING 5 FOOT CONTOUR	4880
EXISTING 25 FOOT CONTOUR	4700
100 YR EFFECTIVE FLOOD PLANE	100-yr
100 YR PRELIMINARY FLOOD PLANE	100-yr
100 YR PROPOSED FLOOD PLANE	100-yr

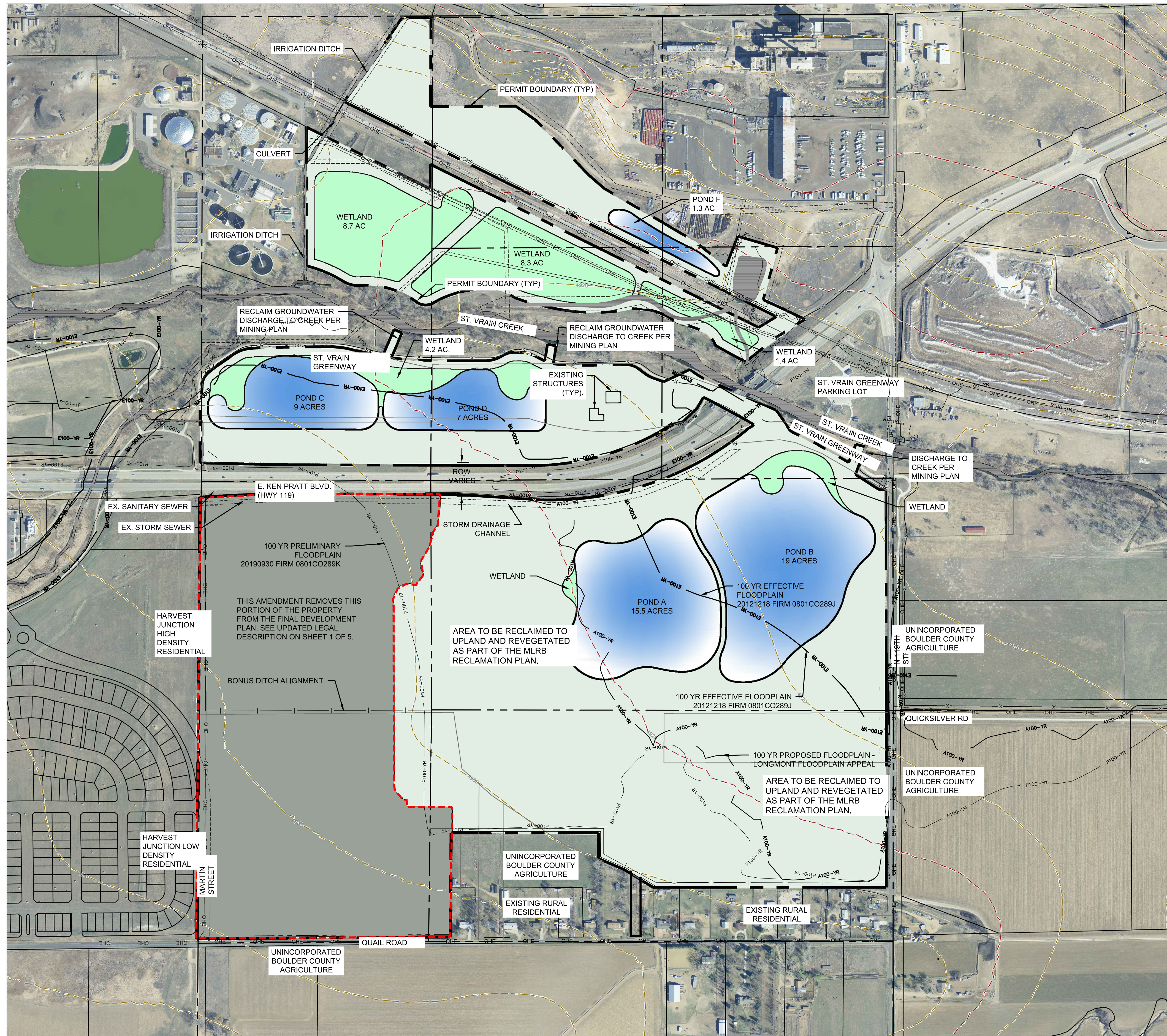
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IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT	
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DESIGNED	BW
FILENAME	1241.0001 FDP PUD
GRAVEL MINING	GRAVEL MINING
JOB NO:	1241.0001.02
SCALE:	1" = 300'
DATE:	JANUARY 2022
SHEET:	4 of 5

IRWIN THOMAS PRELIMINARY/FINAL PUD DEVELOPMENT PLAN FOR GRAVEL MINING AND RECLAMATION



NOTES

- THE PROPOSED FINAL LAND USES FOR THE IRWIN / THOMAS MINE ARE SINGLE FAMILY NEIGHBORHOOD, MIXED USE CORRIDOR, AND MIXED NEIGHBORHOOD. AGRICULTURE MAY BE AN INTERIM LAND USE BETWEEN RECLAMATION AND DEVELOPMENT. AGRICULTURAL USES SHALL BE LIMITED TO CROP PRODUCTION AND MAY NOT INCLUDE ANY LIVESTOCK.
- MINE CELLS WILL BE BACKFILLED TO CREATE UPLAND, OPEN WATER POND, AND WETLAND AREAS.
- ALL SLOPES SHALL BE GRADED TO 3H:1V OR FLATTER. ROUGH GRADING WILL ESTABLISH FINAL ELEVATIONS, SLOPES, AND TRANSITIONS. TRANSITIONS BETWEEN UPLANDS, WETLANDS, AND POND SLOPES SHALL BE GRADED WITH A SMOOTH, GRADUAL TOPOGRAPHY.
- FINAL GRADING WILL INCLUDE ADDITION OF TOPSOIL AND SURFACE PREPARATION FOR REVEGETATION. SPECIAL ATTENTION SHALL BE GIVEN TO TRANSITIONS FROM RECLAIMED AREAS TO UNDISTURBED LAND.
- ALL AVAILABLE TOPSOIL AND OVERBURDEN MATERIAL WILL BE USED FOR OVERFILLING AND RECLAMATION.
- THE GROWTH MEDIUM FOR REVEGETATION WILL BE A COMBINATION OF OVERBURDEN AND TOPSOILS.
- TWO DIFFERENT MIXES OF UPLAND GRASSES WILL BE USED IN AREAS THAT WILL NOT EXPERIENCE PERIODIC FLOODING, SEASONAL GROUNDWATER, OR OTHER MOIST SOIL CONDITIONS. ONE SEED MIX WILL BE USED SIMPLY FOR QUICK SOIL STABILIZATION AND EROSION CONTROL. THIS MIX WILL MAINLY BE USED IN MA1 WHERE FURTHER AGRICULTURAL OR OTHER DEVELOPMENT IS EXPECTED TO OCCUR FOLLOWING PERMIT RELEASE. THE SECOND GRASS SEED MIX FOR AREAS LEFT AS OPEN SPACE IS COMPOSED OF A LONG LASTING AND REGENERATING NATIVE UPLAND SEED MIXTURE.

Upland Grass Seed - Soil Stabilization	Application Rate* (#PLS/acre)
Intermediate Wheatgrass	3
Blue grama	0.75
Bottlebrush squirreltail	0.75
TOTAL	4.5

*Application rate is for drill seeding. If seed is to be broadcast, the application rate will be doubled.

Upland Grass Seed - Native Open Space	Application Rate* (#PLS/acre)
Western Wheatgrass	4
Blue grama	1
Side-oats grama	1.5
Switchgrass	1
Sand drossseed	0.5
Indian Ricegrass	1
TOTAL	9

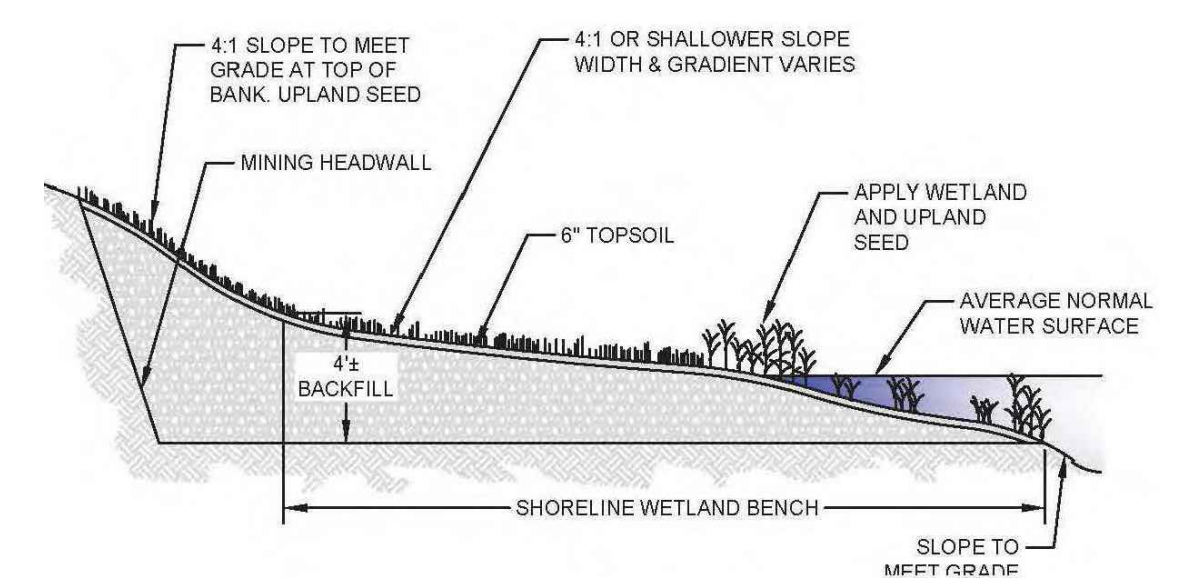
*Application rate is for drill seeding. If seed is to be broadcast, the application rate will be doubled.

- IN AREAS WHERE WETLANDS COULD POTENTIALLY BE DEVELOPED, THE SEED MIXTURE WILL BE MODIFIED TO INCLUDE MORE TRANSITION AND WETLAND GRASSES AND GRASS-LIKE SPECIES. THESE SEED MIXES, ESPECIALLY IF STANDING WATER OR SATURATED SOILS EXIST DURING PLANTING, WILL LIKELY NEED TO BE BROADCAST.
- | Wetland/Transition Grass Seed | Application Rate* (#PLS/acre) |
|-------------------------------|-------------------------------|
| Western Wheatgrass | 2.5 |
| Switchgrass | 2.5 |
| Bottlebrush squirreltail | 1.5 |
| Alkali sycamore | 1.5 |
| Colorado rush | 1.5 |
| Meadow sedge | 1.5 |
| Total | 11 |
- *Application rate is for drill seeding. If seed is to be broadcast, the application rate will be doubled.

- UPLAND GRASS SEED WILL BE PLANTED WITH A DRILL EQUIPPED WITH DEPTH BANDS AND PRESS WHEELS. THE SEEDING AREA WILL THEN BE COVERED WITH CERTIFIED WEED-LESS STRAW MULCH AT A RATE OF 2,000 POUNDS PER ACRE. THE STRAW WILL BE CRIMPED INTO THE SOIL TO CONTROL EROSION UNTIL THE GRASS BECOMES ESTABLISHED.
- DRILL SEEDING IS THE PREFERRED METHOD FOR REVEGETATION. IF BROADCAST SEEDING IS NECESSARY ON MOIST SOILS, STEEP SLOPES, OR IN EXCESSIVELY ROCKY AREAS, SUCCESS CAN BE ENCOURAGED BY BROADCASTING ONTO GROWTH MEDIUM THAT IS VERY LOOSE. IF THE SEED IS BROADCAST IN THOSE CIRCUMSTANCES, THEN THE SEEDING AREA WILL BE DRAGGED TO HELP BURY THE SEED.
- PERIODIC INSPECTION FOR NOXIOUS WEEDS, AT LEAST ONCE A YEAR EARLY IN THE SEASON, AND MORE FREQUENTLY AS NEEDED, WILL BE DONE AS PART OF A WEED MANAGEMENT PLAN.
- THE MINE OFFICE/SCALE HOUSE TRAILER AND ANY OTHER STRUCTURES ASSOCIATED WITH MINING WILL BE REMOVED FROM THE SITE DURING FINAL RECLAMATION ACTIVITIES.
- BEST MANAGEMENT PRACTICES WILL BE USED TO CONTROL EROSION AND STORMWATER SUSPENDED SEDIMENT RUNOFF FROM THE SITE DURING RECLAMATION ACTIVITIES.
- THE FINAL RECLAMATION PLAN INCLUDES FIVE IRREGULARLY SHAPED PONDS TOTALING ABOUT 73 ACRES WITH THE AREA BETWEEN THE ST. VRAIN CREEK AND BURLINGTON NORTHERN RAILROAD CONSISTING OF ABOUT 26.5 ACRES OF WETLANDS. THE EXACT NUMBER, AREA OF OPEN WATER, AND CONFIGURATION OF THE PONDS AND WETLANDS MAY VARY BASED ON THE GRAVEL RESOURCE AND AVAILABLE FILL MATERIAL. FINAL LAYOUT OF THE OPEN WATER WILL BE DETERMINED WHEN MINING HAS BEEN COMPLETED AND RECLAMATION TAKES PLACE, PER THE APPROVED RECLAMATION PLAN. RECLAMATION PLANS FOR PROPERTIES THAT ARE OWNED BY THE CITY SHALL BE APPROVED BY THE CITY PRIOR TO THE BEGINNING OF RECLAMATION WORK.
- BEFORE RECLAMATION ACTIVITIES COMMENCE ON LAND NORTH OF HWY 119, THE OPERATOR SHALL WALK THE SITE WITH THE CITY TO DETERMINE THE EXTENTS OF SEEDING WITH THE VARIOUS SEED MIXES SPECIFIED FOR THE PROJECT.
- THE OPERATOR WILL WORK WITH THE CITY TO ADD DIVERSITY TO THE SEED MIXES PROPOSED FOR CITY-OWNED PROPERTY PRIOR TO RECLAMATION OF MINING ACTIVITIES IN THESE AREAS.

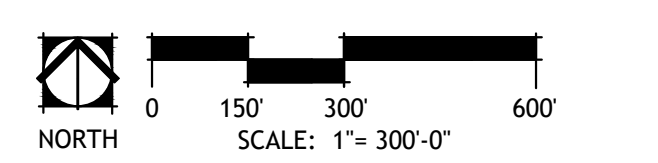
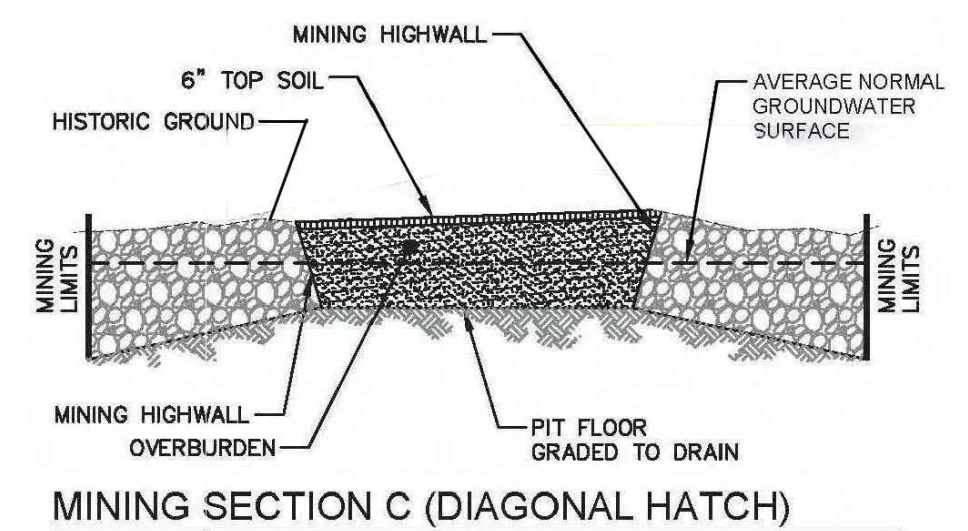
POND LINER NOTES

- PRIOR TO CONSTRUCTION, OVERBURDEN AND CLAYSTONE MATERIAL TESTING SHALL BE PERFORMED FOR USE IN FINAL DESIGN. THE FOLLOWING SPECIFICATIONS AND PROCEDURES ARE PROVIDED AS A GENERAL GUIDELINE FOR PERMITTING PURPOSES. FINAL SPECIFICATIONS AND DESIGN.
- CRITERIA WILL BE DEVELOPED DURING THE FINAL DESIGN PROCESS.
- EACH LAYER OF FILL SHALL BE SCARIFIED TO ALLOW PROPER BONDING BETWEEN LAYERS.
- DENSITY AND MOISTURE CONTENT TESTING SHALL BE PERFORMED AT A RATE OF 1 TEST FOR EACH 2,000 YARDS PLACED.
- ALL CLAY LINER MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% ASTM-D698-78 STANDARD PROCTOR AT +2% OF OPTIMUM MOISTURE CONTENT.
- NO LINER MATERIAL SHALL BE PLACED IN THE LINER SLOPE WHILE EITHER THE MATERIAL, EMBANKMENT, OR FOUNDATION IS FROZEN.
- NO ORGANIC MATERIAL SHALL BE PLACED IN THE LINER SLOPE.
- EACH LAYER OR LIFT SHALL BE CONSTRUCTED CONTINUOUSLY AND APPROXIMATELY HORIZONTAL FOR THE WIDTH AND LENGTH OF EACH LIFT.
- LINER MATERIAL SHALL BE COMPOSED OF CLAYEY OVERBURDEN AND WEATHERED CLAYSTONE THAT BREAKS DOWN DURING PROCESSING.
- BEDROCK CLAYSTONE MATERIAL MAY BE RIPPED, MOISTURE TREATED, AND ALLOWED TO AIR SLAKE FOR A MINIMUM OF ONE DAY PRIOR TO ITS PLACEMENT IN THE LINER. LINER MATERIAL IS DEFINED AS MATERIAL HAVING A INCH OR SMALLER COBBLE, A MINIMUM OF 50% FINES BY CLAY WEIGHT PASSING THE US STANDARD 200 SIEVE, AND A PLASTICITY INDEX OF 10% OR GREATER FOR THE PORTION OF MATERIAL FINER THAN THE US STANDARD 40 SIEVE.
- SUFFICIENT MOISTURE SHALL BE ADDED AT THE BORROW AREA SO NO MORE THAN 3% ADDITIONAL MOISTURE IS REQUIRED TO BRING ANY LINER MATERIAL TO SPECIFICATIONS ONCE PLACED IN THE FILL.
- LINER MATERIAL SHALL BE PLACED IN MAXIMUM OF 9-INCH LOOSE LIFTS PRIOR TO COMPACTION.
- A CATERPILLAR 815 OR 825 SHEEPSFOOT COMPACTOR (OR EQUIVALENT) WILL BE USED FOR COMPACTING EFFORTS.
- THE COMPLETED LINER SHALL BE PROTECTED FROM DAMAGE CAUSED BY DESICCATION OR FREEZING TEMPERATURES BY PLACING A MINIMUM OF 12-INCHES PIT RUN MATERIAL ON THE ENTIRE SLOPE.



LEGEND:

- PERMIT BOUNDARY
- PROPOSED HAUL ROAD
- PROPOSED MINING LIMITS
- EXISTING PARCELS
- EXISTING DITCH
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING EASEMENT
- EXISTING 5 FOOT CONTOUR
- EXISTING 25 FOOT CONTOUR
- 100 YR EFFECTIVE FLOODPLAIN
- 100 YR PRELIMINARY FLOODPLAIN
- 100 YR PROPOSED FLOODPLAIN



REVISIONS:	
BY:	
DATE:	
DRAWN:	PDB
CHECKED:	BW
DESIGNED:	BW
FILENAME:	1241.0001 FDP PUD
IRWIN THOMAS FINAL PUD DEVELOPMENT PLAN AMENDMENT RECLAMATION	
JOB NO:	1241.0001.02
SCALE:	1"=300'
DATE:	JANUARY 2022
SHEET:	5 of 5

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