CITY OF FORT LUPTON
CITY COUNCIL

Zo Stieber, Mayor

Shannon Rhoda, Ward 1
Chris Ceretto, Ward 2
Michael Sanchez, Ward 3

David Crespin, Ward 1
Tommy Holton, Ward 2
Bruce Fitzgerald, Ward 3

AM 2020-067

APPROVE A RESOLUTION ACCEPTING A FINAL PUD PLAT, KNOWN AS THE NORTH LAND PUD THIRD FILING

I. Agenda Date: Council Meeting – March 17, 2020

II. Attachments:

a. Proposed Resolution
b. Land Use Application & Project Description
c. North Land PUD Plat Map
d. Drainage Report
e. Traffic Study
f. Referral Responses

III. Summary Statement:

The applicant, Land 5 Investments, LLC, has resubmitted a final PUD plat, known as the North Land PUD Third Filing ("PUD Plat"), for the City Council's consideration. The Subdivision is located south and adjacent to County Road 18, and east and adjacent to the Union Pacific Railroad right-of-way. This third filing constitutes the northern most portion of the North Land PUD, which was annexed as the North Land Annexation No. 3 in 2009, and zoned PUD in 2011. The plat is meant to replace the previously approved North Land PUD Third Filing, which was brought before City Council on March 18, 2019.

IV. Submitted by: _____
City Planner

V. Finance Reviewed _____
Finance Director

VI. Approved for Presentation: _____
City Administrator

VII. Attorney Reviewed _____ Approved _____ Pending Approval

VIII. Certification of Council Approval: _____ City Clerk _____ Date

IX. Detail of Issue/Request:

The applicant, Land 5 Investments, LLC, has resubmitted a final PUD plat, known as the North Land PUD Third Filing ("PUD Plat"), for the City Council's consideration. The Subdivision is located south and adjacent to County Road 18, and east and adjacent to the Union Pacific Railroad right-of-way. This third filing constitutes the northern most portion of the North Land PUD, which was annexed as the North Land Annexation No. 3 in 2009, and zoned PUD in 2011. The plat is meant to replace the previously approved North Land PUD Third Filing, which was brought before City Council on March 18, 2019.

The subdivision is 110.55 acres, more or less, and will subdivide the property into ten PUD lots for industrial uses. The lots range from 4 to 15 acres, and there is approximately 7 acres of new road and utility right of way being dedicated. This includes the extension of North Land Drive up to County Road 18.

Other submittal documents may not be included with this packet, but can be made available for review upon request, including the North Land Drive extension drawings.

X. Legal/Political Considerations:

This final PUD plat is being reviewed under the final plat provisions of the code in the Subdivision Regulations. Section 17-23 states that a final plat is to be reviewed by City Council, and does not require Planning Commission review. The Code requires that a subdivision improvements agreement be submitted by the applicant for review by the City Attorney and City Council. A subdivision improvements agreement has been addressed in the conditions of approval included on the proposed resolution.

This is the final step in the major subdivision process. The first step is approval of a sketch PUD plat (reviewed and approved in 2010), and the second step is approval of the preliminary PUD plat (reviewed and approved in 2011). During the review of the preliminary PUD plat, the zoning was also changed to PUD, and PUD guidelines were approved.

Notifications are not required for a final plat; however, referral agencies were provided with the submittal documents for review. All referral comments received are enclosed with this Action Memorandum.

XI. Alternatives/Options:

The City Council has the following three options for each request:

a) Approve the request for a final plat; or
b) Deny the request for a final plat; or
c) Delay action on the resolution to gather more information

XII. Financial Considerations:

The applicant has submitted all required fees and a fee deposit for review of this land use application.

XIII. Staff Recommendation:

Staff recommends approval of the final PUD plat, known as the North Land PUD Third Filing.

RESOLUTION NO. 2020Rxxx

A RESOLUTION OF THE CITY COUNCIL OF FORT LUPTON APPROVING A FINAL PUD PLAT, KNOWN AS THE NORTH LAND PUD THIRD FILING, LOCATED IN A PART OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 66 WEST OF THE 6TH P.M., CITY OF FORT LUPTON, COUNTY OF WELD, STATE OF COLORADO.

WHEREAS, the Fort Lupton City Council held a public meeting to consider and review the request for a final PUD plat, known as the North Land PUD Third Filing ("Final PUD Plat") on March 17, 2020; and

WHEREAS, after review of the application and supporting information, the City Council finds that the Final PUD Plat is in conformance with the Colorado Revised Statutes, City codes and polies, and Comprehensive Plan adopted by the City; and

NOW THEREFORE BE IT RESOLVED that the Fort Lupton City Council reviewed the plans and supporting documentation, referral comments, as well as any citizen input in response to this application. Based upon review of the applicable policies and goals in the Fort Lupton Comprehensive Plan, review of the Subdivision Regulations, and an analysis of referral and staff comments, the City hereby approves the North Land PUD Third Filing with the following conditions:

I. Prior to recording the Final PUD Plat, the applicant shall:

A. The title of the Final PUD Plat shall be updated so that it is "North Land PUD Third Filing", and include the Project No.: LUP2020-0004 & Plan No. FPL2020-0001.

B. The certification blocks shown on the Final PUD Plat shall be updated to comply with the requirements of Section 17-50 of the Municipal Code.

C. The map should mark the location of the abandoned well head and delineate a 75-foot "no build" radius.

D. All utility easements shall be clearly labeled and verified with the utility companies.

E. Any redline comments provided by staff shall be made to the Final PUD Plat.

F. Applicant shall provide written evidence that the comments received from the Public Works Director have been adequately addressed.

G. Applicant shall provide written evidence that the comments received from Weld County Planning Services have been adequately addressed.

H. Applicant shall provide written evidence that any requirements of the Fort Lupton Fire Protection District have been adequately addressed.

I. Applicant shall provide written evidence that the comments received from the Public Service Company have been adequately addressed.

J. Applicant shall provide written evidence that the comments received from United Power have been adequately addressed.

K. Applicant shall provide a subdivision improvements agreement for review and approval by City Council.

APPROVED AND PASSED BY A MAJORITY VOTE OF THOSE ELECTED TO THE CITY COUNCIL OF THE CITY OF FORT LUPTON, COLORADO THIS 17th DAY OF MARCH 2020.

City of Fort Lupton, Colorado

_____

Zo Stieber, Mayor

Attest:

_____

Maricela Peña,
City Clerk

Approved as to form:

_____

Andy Ausmus, City Attorney

LAND USE APPLICATION & PROJECT DESCRIPTION

Form PLAN002

CITY OF Fort Lupton EST 1836

COME PAINT YOUR FUTURE WITH US

Planning & Building

130 S. McKinley Avenue
Fort Lupton, CO 80621
Phone: 303.857.6694
Fax: 303.857.0351
www.fortlupton.org

Project No. _____

Land Use Application Form

A. CONTACT INFORMATION

1) Property Owner Name: Lloyd Land

Company: Land 5 Investments, LLC

Phone: 303-898-8496 Email: land391957@aol.com

Address: 12501 Riverdale Road, Brighton, CO 80602

Preferred method of contact? Email: ☑ Phone: ☐ Mail: ☐

2) Representative Name: Vern Burke , JC York

Company: VB Architect , JT Consulting, Inc

Phone: 303-884-5012, 303-222-6222 Email: vernburke@comcast.net, jcyork@j-tconsulting.com

Address: _____

Preferred method of contact? Email: ☑ Phone: ☐ Mail: ☐

3) Billing Contact *(where invoices should be directed to)*: Owner listed above

Billing Company: _____

Phone: _____ Email: _____

Address: _____

B. SITE DESCRIPTION

Site Address: 13456 CR 18, Ft Lupton, CO

Parcel Number: Weld County 130929200004

Existing Zone Classification: PUD Proposed Zone Classification: no change

Water Type: Municipal Name: Ft Lupton

Sewage Type: Municipal District Name or Location Hauled to: Ft Lupton

C. APPLICATION TYPE (CHECK ALL THAT APPLY)

☐ Sketch Plat	☐ Administrative Site Plan	☐ PUD Plan (Preliminary & Final)
☐ Preliminary Plat	☐ Special Use Permit	☐ Variance
☑ Final Plat	☐ Oil & Gas Permit	☐ Administrative Variance
☐ Minor Subdivision	☐ Annexation & Initial Zone	☐ Appeal
☐ Amended Plat	☐ Change of Zone	☐ Other: _____
☐ Site Plan	☐ Comp Plan Amendment	

Project No. _____

D. PROJECT DESCRIPTION

Project Name: North Land PUD, Filing 3

Please provide a short description of the proposed project in the space provided below:

Extension of North Land Dr and utilities to CR 18. Final Plat of 10 lots, 110.55 acres total

E. REQUIRED DOCUMENTS

For an application to be considered complete, and for planning staff to begin review and schedule any applicable public hearings, this Land Use Application Form must be fully completed and all required attachments included. Planning staff will review the application for completeness and will provide notice to the representative and/or owner whether the application has been deemed complete.

F. CERTIFICATIONS

Representative Certification

By signing this application, I attest that I am acting with the knowledge and consent of all owners of the property that is the subject of this application, and that I have been designated to act as the representative for the project described in this land use application. I further certify that all information submitted with this application is true and accurate to the best of my knowledge.

Representative: _____ Date: _____

Owner Certification

I hereby certify that I am the legal owner of record of the property that is the subject of this application. I hereby authorize the representative listed on this application, if any, to communicate directly with City officials and to submit documentation and information regarding this application on my behalf.

Owner: Land 5 Investments, LLC Lloyd Land Date: 12-27-19

For Office Use Only

Received Date: _____

If the application is not complete, state reasons why it is incomplete:

Deemed Complete Date: _____

Fees Submitted: _____ Escrow Submitted: _____

North Land PUD - Filing 3
Site Improvements Description
2019 Re-submittal

Project consists of Final Plat of 110 acres at the north end of the North Land Industrial PUD immediately south of Weld County Road 18, just east of the Union Pacific railroad tracks. This will delineate 10 parcels of real estate ranging approximately from smallest around 4 acres to largest at 15 acres in size, the remaining parcels averaging about10 acres each. About 7. acres of new road and utilities Right Of Way will be dedicated to the City at the completion of new roadway and municipal utilities construction.

Site construction involves a roadway extension of North Land Drive, borrow ditches adjacent to the roadway, the extension of water main and sanitary sewer force main pipelines in the roadway corridor, and culverts to convey drainage flows under the new roadway.

North Land Drive is currently constructed from Weld County Road 16 to the north for approximately ½ mile. The new roadway extension will continue from this point to the north to tie into Weld County Road 18. The roadway will cross the Fulton Waste Ditch at an existing crossing where a 60 inch diameter RCP culvert has been installed. The roadway will have a 24 foot wide paved surface with 2 foot wide gravel shoulders. Borrow ditches will be graded adjacent to the roadway to convey drainage flows. The water main pipeline extension will consist of connecting to the existing 12 inch diameter PVC water line at the end of the existing roadway, and installing new 12 inch diameter PVC water main pipe from that point to the north to Weld County Road 18, where it will terminate. Fire hydrants and isolation valves will be installed along the corridor where required. The sanitary sewer force main pipeline extension will consist of connecting to the existing 3 inch diameter HDPE force main at the end of the existing roadway, and installing new 3 inch diameter HDPE force main pipe from that point to the north to Weld County Road 18, where it will terminate.

MAPS

NORTH LAND PUD, FILING NO. 3

Part of the Northwest 1/4 of Section 29,
Township 2 North, Range 66 West of the 6th P.M.,
City of Fort Lupton, County of Weld, State of Colorado

Sheet 1 of 3

DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 66 WEST OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

CONSIDERING THE NORTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 29 TO BEAR NORTH 89°35'09" EAST, BEING MONUMENTED ON THE EAST END BY A 3/4" REBAR WITH 2" ALUMINUM CAP, PLS 25937 IN MONUMENT BOX, AND ON THE WEST END BY A 3/4" REBAR WITH 2 1/2" ALUMINUM CAP, ILLEGIBLE IN MONUMENT BOX, AND WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO;

COMMENCING AT THE NORTH 1/4 CORNER OF SAID SECTION 29; THENCE SOUTH 00°32'26" EAST, COINCIDENT WITH THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 29, A DISTANCE OF 2634.25 FEET TO THE CENTER 1/4 CORNER OF SAID SECTION 29 ALSO BEING THE NORTHEAST CORNER OF LOT 11, NORTH LAND PUD SECOND FILING, PHASE 1 AS SHOWN ON THE PLAT RECORDED FEBRUARY 20, 2014 AS RECEPTION NO. 3997168 IN THE RECORDS OF THE CLERK AND RECORDER FOR WELD COUNTY, COLORADO; THENCE SOUTH 89°32'19" WEST, COINCIDETN WITH THE NORTH LINE OF SAID NORTH LAND PUD SECOND FILING, PHASE 1, A DISTANCE OF 1322.03 FEET TO THE CENTER-WEST 1/16 CORNER OF SAID SECTION 29, ALSO BEING THE NORTHWEST CORNER OF SAID LOT 10, NORTH LAND PUD SECOND FILING, PHASE 1; THENCE SOUTH 89°32'29" WEST, COINCIDENT WITH THE SOUTH LINE OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29, A DISTANCE OF 520.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF THE UNION PACIFIC RAILROAD; THENCE NORTH 00°41'21" WEST, COINCIDENT WITH SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 2635.77 FEET TO THE NORTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE NORTH 89°35'09" EAST, COINCIDENT WITH SAID NORTH LINE, A DISTANCE OF 319.31 FEET TO THE NORTHWEST CORNER OF A PARCEL OF LAND DESCRIBED IN DEED RECORDED OCTOBER 15, 1980 AS RECEPTION NO. 1838916 IN THE RECORDS OF THE CLERK AND RECORDER FOR WELD COUNTY, COLORADO; THENCE SOUTH 00°54'55" EAST, COINCIDENT WITH THE WEST LINE OF SAID PARCEL, A DISTANCE OF 226.89 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL; THENCE NORTH 89°55'17" EAST, COINCIDENT WITH THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 209.17 FEET TO THE SOUTHEAST CORNER OF SAID PARCEL; THENCE NORTH 01°52'15" WEST, COINCIDENT WITH THE EAST LINE OF SAID PARCEL, A DISTANCE OF 227.98 FEET TO THE NORTHEAST CORNER OF SAID PARCEL AND THE NORTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE NORTH 89°35'09" EAST, COINCIDENT WITH SAID NORTH LINE, A DISTANCE OF 1324.19 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL CONTAINS 110.55 ACRES, MORE OR LESS.

DEDICATION:

KNOW ALL MEN BY THESE PRESENTS, THAT LAND 5 INVESTMENTS, LLC, BEING THE SOLE OWNER OF THE LAND DESCRIBED HEREIN, HAVE CAUSED SAID LAND TO BE LAID OUT AND PLATTED UNDER THE NAME OF NORTH LAND PUD, FILING NO. 3, PHASE NO. 1, AND DO HEREBY DEDICATE TO THE CITY OF FORT LUPTON AND ITS LICENSEES FOR PUBLIC USE FOREVER ALL STREETS, ALLEYS AND UTILITY EASEMENTS AS INDICATED HEREON. IN COMPLIANCE WITH THE CITY OF FORT LUPTON SUBDIVISION REGULATIONS AND BY CONTRACTUAL AGREEMENT, THE LANDOWNERS SHALL BEAR ALL EXPENSES INVOLVED IN IMPROVEMENTS.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS_____

DAY OF _____, 20_____.

OWNERS: LAND 5 INVESTMENTS, LLC

_____

LOYD L. LAND – PRESIDENT

STATE OF COLORADO)
) SS
COUNTY OF WELD)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

BY _____

ON THIS _____DAY OF_____, 20_____

WITNESS MY HAND AND OFFICIAL SEAL

_____

NOTARY PUBLIC

OWNER'S APPROVAL:

KNOW ALL MEN BY THESE PRESENTS, THAT LAND 5 INVESTMENTS, LLC.

BEING THE SOLE OWNERS OF THE LAND DESCRIBED HEREIN, AND _____ ARE ALL OF THE MORTGAGEES AND HOLDERS OF LIENS UPON THE PROPERTY, AND EACH AND ALL HEREBY CONSENT TO THIS PLAT AND JOIN THE CONVEYANCE AND DEDICATION OF ALL STREETS, ROADS, ALLEYS, EASEMENTS, PUBLIC WAYS AND PLACES SHOWN HEREON.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS_____

DAY OF _____, 20_____.

OWNERS: LAND 5 INVESTMENTS, LLC

_____

LOYD L. LAND – PRESIDENT

STATE OF COLORADO)
) SS
COUNTY OF WELD)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

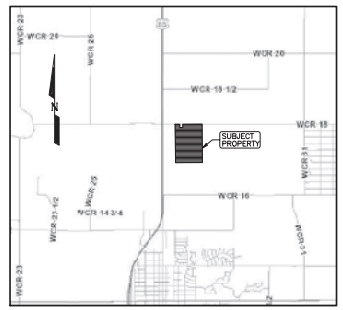
BY _____

ON THIS_____DAY OF_____, 20_____

WITNESS MY HAND AND OFFICIAL SEAL

_____

NOTARY PUBLIC



VICINITY MAP: NTS

CITY ENGINEER'S APPROVAL:

APPROVED THIS ____ DAY OF _____, 20___.

_____

CITY ENGINEER

PLANNING COMMISSION RECOMMENDATION:

RECOMMENDED THIS ____ DAY OF _____, 20___ BY RESOLUTION NO._____

_____

CHAIRPERSON,
FORT LUPTON PLANNING COMMISSION

MAYOR'S CERTIFICATE:

THIS IS TO CERTIFY THAT A PLAT OF THE ABOVE-DESCRIBED PROPERTY WAS APPROVED

BY RESOLUTION NO. _____ OF THE CITY OF FORT LUPTON PASSED AND

ADOPTED ON THE ____ DAY OF _____, A.D., 20___, AND THAT THE MAYOR OF THE CITY OF FORT LUPTON, AS AUTHORIZED BY SAID RESOLUTION ON BEHALF OF THE CITY OF FORT LUPTON, HEREBY ACKNOWLEDGES AND ADOPTS THE SAID PLAT UPON WHICH THIS CERTIFICATE IS ENDORSED FOR ALL PURPOSES INDICATED THEREON.

_____

MAYOR

ATTEST:

_____

CITY CLERK

CITY ADMINISTRATOR'S APPROVAL:

APPROVED THIS ____ DAY OF _____, 20___.

_____

CITY ADMINISTRATOR

CITY WATER AND SEWER DEPARTMENT APPROVAL:

APPROVED THIS ____ DAY OF _____, 20___.

_____

DIRECTOR OF PUBLIC WORKS

SURVEYOR'S IMPROVEMENT CERTIFICATE:

I HEREBY CERTIFY THAT, ON THE DATE SHOWN, A FIELD SURVEY WAS CONDUCTED UNDER MY SUPERVISION OF THE ABOVE-DESCRIBED PROPERTY, AND THAT ALL BUILDING IMPROVEMENTS, EASEMENTS AND RIGHTS-OF-WAY IN EVIDENCE OR KNOWN TO ME ARE CORRECTLY SHOWN ON THE ABOVE PLAT. I FURTHER CERTIFY THAT THERE ARE NO ENCROACHMENTS BY AND/OR ON THIS PROPERTY, UNLESS OTHERWISE NOTED.

CURTIS D. HOOS PLS 37971
FOR AND ON BEHALF OF:
AMERICAN WEST LAND SURVEYING CO.
A COLORADO CORPORATION

SURVEYOR'S CERTIFICATE:

I, CURTIS D. HOOS, A DULY REGISTERED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT OF FORT LUPTON COMMUNITY CENTER SUBDIVISION SECOND AMENDMENT WAS PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THIS PLAT HAS BEEN PREPARED IN COMPLIANCE WITH ALL APPLICABLE LAWS OF THE STATE OF COLORADO AT THE TIME OF THIS SURVEY AND WITHIN MY CONTROL, AND IS ACCURATE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

CURTIS D. HOOS PLS 37971
FOR AND ON BEHALF OF:
AMERICAN WEST LAND SURVEYING CO.
A COLORADO CORPORATION

NOTES:

1) BASIS OF BEARING: THE NORTH LINE OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 66 WEST IS ASSUMED TO BEAR NORTH 89°35'09" EAST, BEING MONUMENTED ON THE EAST END BY A 3/4" REBAR WITH 2" ALUMINUM CAP, PLS 25937 IN MONUMENT BOX, AND ON THE WEST END BY A 3/4" REBAR WITH 2 1/2" ALUMINUM CAP, ILLEGIBLE IN MONUMENT BOX, AND WITH ALL BEARINGS SHOWN HEREON RELATIVE THERETO.

2) ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY, COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508, C.R.S.

3) CERTIFICATION DEFINED: THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" BY A REGISTERED PROFESSIONAL LAND SURVEYOR, IN THE PRACTICE OF LAND SURVEYING, CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THOSE FACTS OF FINDINGS WHICH ARE SUBJECT OF THE CERTIFICATION, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESS OR IMPLIED.

4) ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTIONS BASED UPON A DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

5) THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY AMERICAN WEST LAND SURVEYING CO. TO DETERMINE OWNERSHIP OR EASEMENTS OF RECORD.

6) ALL DISTANCES SHOWN HEREON ARE MEASURED GROUND DISTANCES REPORTED IN U.S. SURVEY FEET.

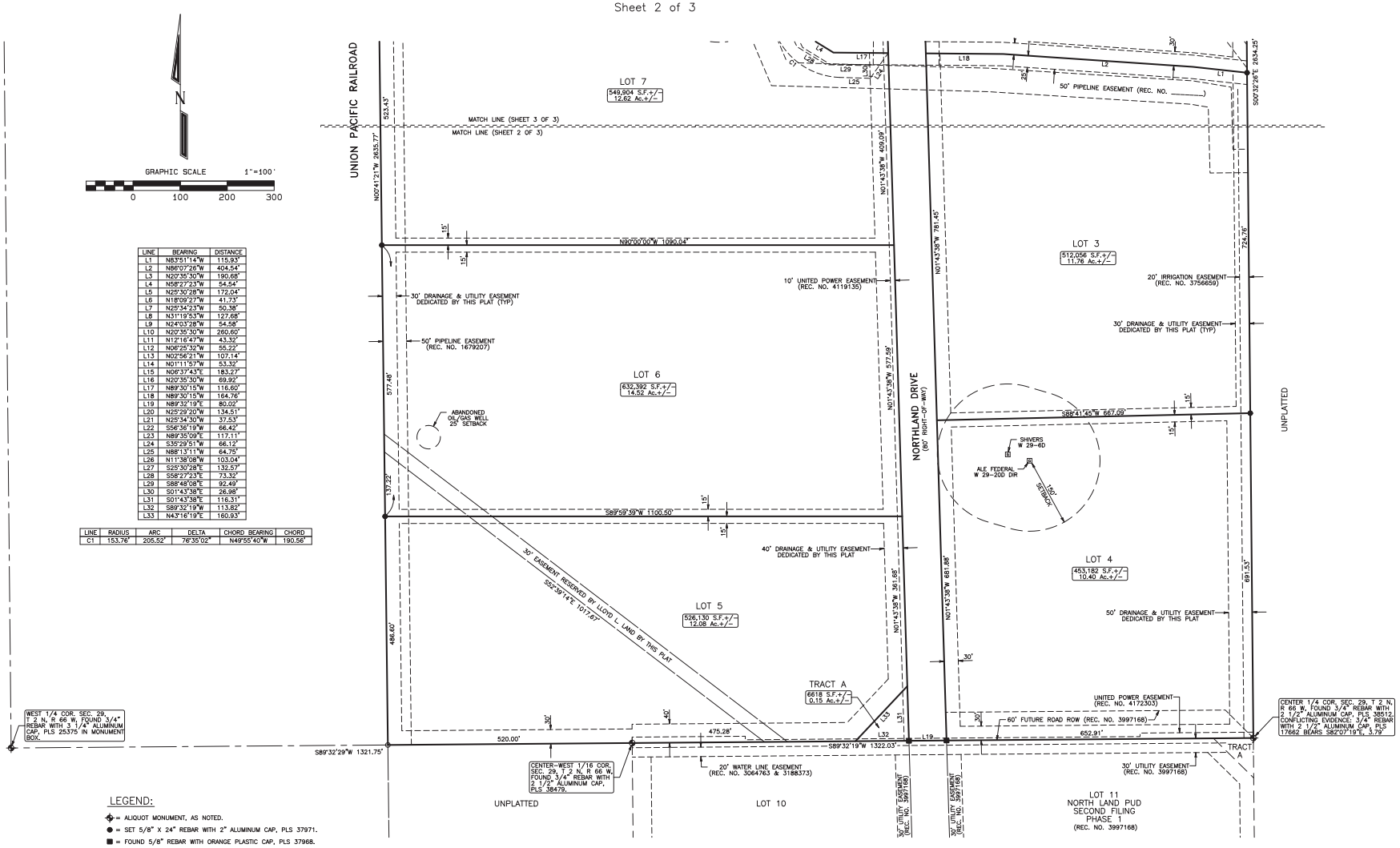
American West
Land Surveying Co.
A Colorado Corporation
PO Box 129, Brighton, CO 80601 * P:303-659-1532 F:303-655-0575 * amwestls.com

SCALE 1" = 100'	DRAWN BY: CDH	CHECKED BY: MJH | DATE: FEB. 24, 2020
REVISIONS:		
JOB NO: 20-	FILE: F:\SURVEYS\M-N\North Land PUD\FILING 3_REV12092019.pro	

NORTH LAND PUD, FILING NO. 3

Part of the Northwest 1/4 of Section 29,
Township 2 North, Range 66 West of the 6th P.M.,
City of Fort Lupton, County of Weld, State of Colorado

Sheet 2 of 3



LINE	BEARING	DISTANCE
L1	N83°51'14"W	115.93'
L2	N86°07'26"W	404.54'
L3	N20°35'30"W	190.68'
L4	N58°27'23"W	54.54'
L5	N25°30'28"W	172.04'
L6	N18°09'27"W	41.73'
L7	N25°34'23"W	50.38'
L8	N31°19'53"W	127.68'
L9	N24°03'28"W	54.58'
L10	N20°35'30"W	260.60'
L11	N12°16'47"W	43.32'
L12	N06°25'32"W	55.22'
L13	N02°56'21"W	107.14'
L14	N01°11'57"W	53.32'
L15	N06°37'43"E	183.27'
L16	N20°35'30"W	69.92'
L17	N89°30'15"W	116.60'
L18	N89°30'15"W	164.76'
L19	N89°32'19"E	80.02'
L20	N25°29'20"W	134.51'
L21	N25°34'30"W	37.53'
L22	S56°36'19"W	66.42'
L23	N89°35'09"E	117.11'
L24	S35°29'51"W	66.10'
L25	N88°13'11"W	64.75'
L26	N11°38'08"W	103.04'
L27	S25°30'28"E	132.57'
L28	S58°27'23"E	73.32'
L29	S88°48'08"E	92.49'
L30	S01°43'38"E	26.98'
L31	S01°43'38"E	116.31'
L32	S89°32'19"W	113.82'
L33	N43°16'19"E	160.93'

LINE	RADIUS	ARC	DELTA	CHORD BEARING	CHORD
C1	153.76'	205.52'	76°35'02"	N49°55'40"W	190.56'

LEGEND:

- = ALIQUOT MONUMENT, AS NOTED.
- = SET 5/8" X 24" REBAR WITH 2" ALUMINUM CAP, PLS 37971.
- = FOUND 5/8" REBAR WITH ORANGE PLASTIC CAP, PLS 37968.
- = FOUND 5/8" REBAR WITH 1 1/2" ALUMINUM CAP, PLS 28283.
- = FOUND 5/8" REBAR.
- = FOUND 1/2" REBAR.
- = OIL/GAS WELL AS NOTED. SETBACK TO BE CENTERED ON EXISTING WELL HEAD.

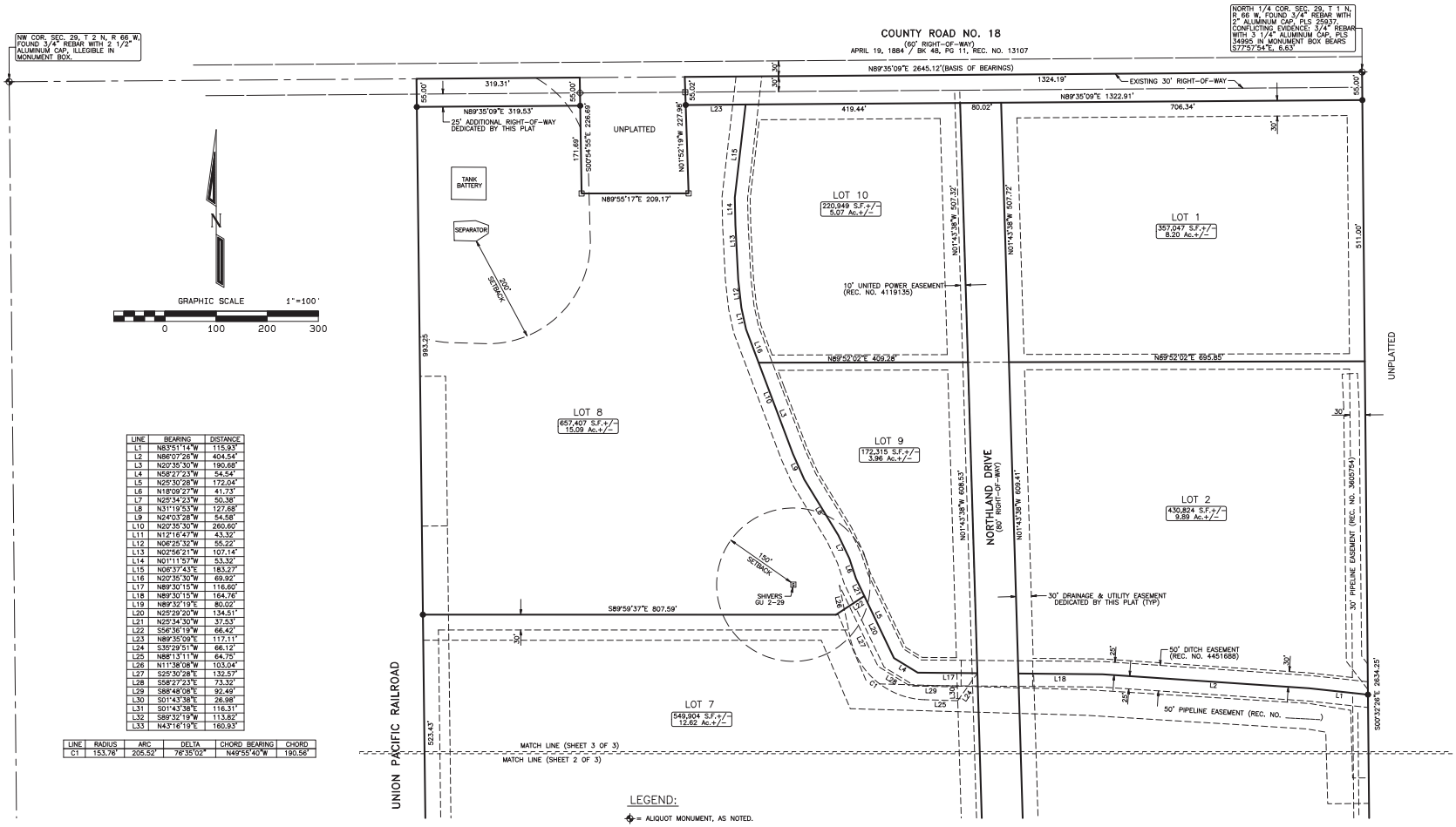
American West
Land Surveying Co.
A Colorado Corporation
PO Box 129, Brighton, CO 80601 * P:303-656-1532 F:303-655-0575 * amwestls.com

SCALE 1" = 100'	DRAWN BY: CDH	CHECKED BY: MJH DATE: FEB. 24, 2020
REVISIONS:		
JOB NO: 20-	FILE: F:\SURVEYS\M-N\North Land PUD\FILING 3_REV12092019.pro	

NORTH LAND PUD, FILING NO. 3

Part of the Northwest 1/4 of Section 29,
Township 2 North, Range 66 West of the 6th P.M.,
City of Fort Lupton, County of Weld, State of Colorado

Sheet 3 of 3



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L12	N06°25'32"W	55.22'
L13	N02°56'21"W	107.14'
L14	N01°11'57"W	53.32'
L15	N06°37'43"E	183.27'
L16	N20°35'30"W	69.92'
L17	N89°30'15"W	116.60'
L18	N89°30'15"W	164.76'
L19	N89°32'19"E	80.02'
L20	N25°29'20"W	134.51'
L21	N25°34'30"W	37.53'
L22	S56°36'19"W	66.42'
L23	N89°35'09"E	117.11'
L24	S35°29'51"W	66.12'
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L31	S01°43'38"E	116.31'
L32	S89°32'19"W	113.82'
L33	N43°16'19"E	160.93'

LINE	RADIUS	ARC	DELTA	CHORD BEARING	CHORD
C1	153.76'	205.52'	76°35'02"	N49°55'40"W	190.56'

LEGEND:

- ⊕ = ALIQUOT MONUMENT, AS NOTED.
- ● = SET 5/8" X 24" REBAR WITH 2" ALUMINUM CAP, PLS 37971.
- ■ = FOUND 5/8" REBAR WITH ORANGE PLASTIC CAP, PLS 37968.
- ◇ = FOUND 5/8" REBAR WITH 1 1/2" ALUMINUM CAP, PLS 28283.
- □ = FOUND 5/8" REBAR.
- ○ = FOUND 1/2" REBAR.
- ⊠ = OIL/GAS WELL AS NOTED. SETBACK TO BE CENTERED ON EXISTING WELL HEAD.

American West
Land Surveying Co.
A Colorado Corporation
PO Box 129, Brighton, CO 80601 * P:303-656-1532 F:303-655-0575 * amwestls.com

SCALE 1" = 100' | DRAWN BY: CDH | CHECKED BY: MJH | DATE: FEB. 24, 2020
REVISIONS:
JOB NO: 20- | FILE: F:\SURVEYS\M-N\North Land PUD\FILING 3_REV12092019.pro

NORTH LAND DRIVE EXTENSION
PROBABLE COSTS

J&T Consulting, Inc.

LAND 5 INVESTMENTS

12.18.19

Opinion of Probable Construction Costs

Northland Road Extenstion

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Item Number	Description	Quantity	Unit	Unit Price	Total Price
	General Items				
1	Project Mobilization/Demobilization	1	LS	$13,000	$13,000
2	Traffic Control	1	LS	$2,500	$2,500
3	Erosion Control	1	LS	$20,000	$20,000
4	Vacuum Truck / Probe Potholing	1	LS	$1,500	$1,500
5	Construction Staking	1	LS	$16,000	$16,000
	Roadway Infrastructure				
6	6.5" Hot Mix Asphalt Pavement in Widening	8,332	SY	$46	$383,271
7	Class 6 Roadbase Under Pavement (10")	2,314	CY	$42	$97,168
8	Earthwork - Cut to Subgrade	841	CY	$10	$8,410
9	Earthwork - Fill to Subgrade	6,924	CY	$24	$166,176
	Water Line				
10	12" C900 PVC with Tracer Wires	2,621	LF	$50	$131,050
11	12" 45° Bend With Thrust Block	1	EA	$875	$875
12	Fire Hydrant Assembly Including Swivel Tee, 6" Gate Valve, Dip Fittings, DIP Pipe, Thrust Blocks, and Tracer Wire Test Box	8	EA	$3,650	$29,200
13	12" Gate Valve	8	EA	$3,325	$26,600
14	12" Plug with Thrust Block	1	EA	$650	$650
15	Flowfill Backfill at Culvert Crossing	10	CY	$150	$1,500
	Sanitary Sewer				
16	3" ø HDPE Pipe	2,625	LF	$25	$65,625
17	3" HDPE Wye	1	EA	$325	$325
18	3" HDPE 45° Bend	1	EA	$250	$250
19	4' Diameter Manhole	1	EA	$4,500	$4,500
20	Flowfill Backfill at Culvert Crossing	10	CY	$150	$1,500
	Storm Sewer				

J&T Consulting, Inc.

LAND 5 INVESTMENTS

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Northland Road Extenstion

© 2019 **J&T Consulting, Inc.**

Item Number	Description	Quantity	Unit	Unit Price	Total Price
21	18" RCP Culvert	33	LF	$60	$1,980
22	18" RCP FES	2	EA	$1,100	$2,200
	Other Items				
23	Seeding Restoration, Including Grading, Soil Prep	1	LS	$13,000	$13,000
				Subtotal	**$987,280**

Construction Engineering / Materials Testing (8%)	**$78,980**
Construction Total	**$1,066,260**

DRAINAGE REPORT

PHASE II
DRAINAGE REPORT

NORTHLAND PUD PHASE 3
NW 1/4, SECTION 29, T2N, R66W
CITY OF FORT LUPTON, CO

DECEMBER 2019

PREPARED FOR:

LAND 5 INVESTMENTS, LLC
12501 RIVERDALE ROAD
BRIGHTON, CO 80602

PREPARED BY:

J&T Consulting, Inc.

305 DENVER AVENUE, SUITE D
FORT LUPTON, CO 80621
PHONE: 303-857-6222
FAX: 303-857-6224

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CERTIFICATION

"This report for the Phase II drainage design of Northland PUD Phase 3 was prepared by me (or under my direct supervision) in accordance with the provisions of the City of Fort Lupton Storm Drainage Design and Technical Criteria, and was designed to comply with the provisions thereof. I understand that the City of Fort Lupton does not and will assume liability for drainage facilities designed by others."

James C. York, PE
Registered Professional Engineer
State of Colorado No. 36846

I. GENERAL LOCATION AND DESCRIPTION

A. Location

The purpose of this report is to describe and address the drainage impacts resulting from future development associated with Northland PUD Phase 3 and the extension of Northland Drive.

The site is located in the northwest quarter of Section 29, Township 2 North, Range 66 West of the 6th P.M., Weld County, Colorado. No streets are currently within the site. Northland Drive currently terminated at the south edge of the area contained in this drainage report. The site is bounded on the north by WCR 18, the west, south, and east by private property. Colorado Highway is the closest road to the west. The Fulton Waste Ditch runs through the study area east to west at approximately the middle before turning north at approximately the center splitting the property east to west. There is generally farmland around the property. To the south is Phase II of Northland PUD Phase 3. South of WCR 16 there is industrial use property.

B. Description of Property

The entire site encompasses 108.47 acres. The majority of the site generally slopes from southeast to northwest at 3 to 5 percent. The existing vegetation within the site consists of manly of wheat. The soils on the site are made up of Altvan Loam, Julesburg Sandy Loam, Otero Sandy Loam, and Vona Sandy Loam per the Natural Resources Conservation Service. Altvan Loam is hydrologic soil group B. The rest of the soils are hydrologic group A. Altvan Loam have a moderate infiltration rate when thoroughly wet and consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture and has a moderate rate of water transmission. The rest of the soil types have a high infiltration rate when thoroughly wet and consist mainly of deep, well drained to excessively drained sands or gravel sands.

Northland PUD Phase 3 proposes industrial lots of approximately two to twenty-three acres in size. A paved roadway with borrow ditches will provide access to the lots. There is the Fulton Waste Ditch located centrally creating a boundary separating the northeast corner from the rest of the site. The proposed use of the site is industrial.

II. DRAINAGE BASINS AND SUB-BASINS

A. Major Basin Description

The majority of the historic storm water runoff generated by this site sheet flows to the northwest and west and exits the site along the north and west property lines. Off-site runoff sheet flows onto the site from a previous phase of the Northland PUD Phase 3 to the south.

The existing land use is agriculture. The planned use is industrial lots.

This site does not lie within any existing major drainageway planning studies.

According to the current FEMA Flood Insurance Rate Map (FIRM) Community Panels No. 08123C-2110E, revised January 20, 2016, the project site lies within Zone X, area of minimal flood hazard.

The Fulton Waste Ditch is located on the property.

B. Sub-Basin Description

The proposed project site was divided into four (4) onsite historic basins (E-A – E-D) separated by ridges present in the topography. The existing runoff from the site travels from the east, west, and south to the north. The following is a description of each basin:

Basin E-A contains the northwest section of the property, consisting of 2.35 acres. The flow travels from the southwest to the northeast generally.

Basin E-B contains the Fulton Waste Ditch which is located centrally along the east-west middle division and turns north at the center of the property, consisting of 2.08 acres. The flow travels from the east to the north generally.

Basin E-C contains the northeast section of the property, consisting of 28.10 acres. The flow travels from the southeast to the northwest generally.

Basin E-D contains the south and west section of the property, consisting of 75.93 acres. The flow travels from southeast to the northwest.

All offsite areas will be directed to the roadside ditches and have been attenuated on their respective properties. Due to this, the offsite area has not been used to calculate overland flow. Storm water runoff generated from the off-site areas to the south flows to the roadside ditches and

head north. There is no offsite flows from the west or east. Runoff from offsite contributes to the sizing of culverts and swales.

The configuration of the four (4) historic on-site drainage basins used in the design of the drainage system are shown on the Historic Drainage Map.

III. DRAINAGE FACILITY DESIGN

A. General Concept

This study analyzes the 5-year and 100-year storm events for industrial development. The site has been designed with on-site detention for the 100-year storm event while releasing flows following the standards as laid out by the City of Fort Lupton.

Typically, storm water runoff will flow from rooftops and combine with overland flow from yards. Runoff will be allowed to sheet flow and then be collected in “side lot” swales which will convey these flows to a drainage swale system. The drainage swale system will collect the on-site runoff from lot specific detention ponds and off-site runoff that enters the site and convey the flows to roadside ditches.

The proposed developed project site area was broken up into six (6) on-site drainage basins (P-A – P-F). The on-site basins are separated by either roadways or ridges present in the topography. All basins except for P-C are estimated at being 55% impervious using the assumption that majority of the area will be gravel storage or parking. The following is a description of each basin:

Basin P-A is located in the northwest of the property, consisting of 2.35 acres. The basin generates a detention volume of approximately 0.107 acre-feet and 0.241 acre-feet for the 5 and 100-yr storm events.

Basin P-B is made up of most of the west half of the property, consisting of 52.59 acres. The basin generates a detention volume of approximately 2.389 acre-feet and 5.402 acre-feet for the 5 and 100-yr storm events.

Basin P-C is the Fulton Waste Ditch which is located centrally along the east-west middle division and turns north at the center of the property, consisting of 2.40 acres. There is no detention necessary for this basin. There are no changes to the basin.

Basin P-D is located between the north-south portion of the Fulton Waste Ditch and the proposed road, consisting of 9.59 acres. The basin generates a detention volume of approximately 0.392 acre-feet and 0.992 acre-feet for the 5 and 100-yr storm events.

Basin P-E is located in the northeast of the property bounded by the proposed road to the west and the Fulton Waste Ditch to the south, consisting of 18.39 acres. The basin generates a detention volume of approximately 0.752 acre-feet and 1.902 acre-feet for the 5 and 100-yr storm events.

Basin P-F is located the southeast of the property bounded by the proposed road to the west and the Fulton Waste Ditch to the north, consisting of 23.16 acres. The basin generates a detention volume of approximately 0.945 acre-feet and 2.395 acre-feet for the 5 and 100-yr storm events.

A summary of these values can be found below.

NORTHLAND ROAD EXTENSION DRAINAGE REPORT

DEVELOPED BASIN SUMMARY TABLE

Basin	Basin Area (Acres)	Basin 5 year Volume (ac-ft)	Basin 100 year Volume (ac-ft)
P-A	2.35	0.107	0.241
P-B	52.59	2.389	5.402
P-C	2.40	-	-
P-D	9.59	0.392	0.992
P-E	18.39	0.752	1.902
P-F	23.16	0.945	2.395

The configuration of the six (6) developed on-site drainage basins used in the design of the drainage system are shown on the Developed Drainage Map.

On-site basin runoff will be collected in the on-site detention ponds. The discharge will be limited through an outlet structure for the prescribed rate for the water quality volume, 5-, and 100- year rates listed in the *City of Fort Lupton Storm Drainage: Design and Technical Criteria*.

Culverts will be utilized to convey flows under the roadway, and at driveways at each lot where a drainage swale is required. Flow under Northland Drive south of the Fulton Waste Ditch will be conveyed through a 18” diameter culvert flowing east to west.

The typical plan for drainage patterns is to use swales and ditches to direct the runoff to the detention ponds on each lot. The outflow from the detention ponds will be directed to roadside ditches at the allowable rates. The swales, ditches, and detention ponds will be sized for control of the offsite contributing areas runoff.

Owners of all lots, as the property is subdivided and developed, will be responsible to control all runoff on each lot with individual detention ponds on-site.

Onsite drainage facilities have been designed to convey the 100-year developed onsite to the onsite detention ponds. The detention pond outlet structures will be designed to pass no more than the historic 5 year storm runoff for each detention ponds tributary area.

B. Specific Details

The detention ponds are located by the individual site developers with considerations for maintenance. The slopes are kept to a maximum of 4:1 to allow for any needed mowing and safe access to the bottom of the detention pond for maintenance and repairs.

Basins P-D and P-E, located in the northeast portion of the property, will be required to use drywell structures consist of a grated manhole with open bottom and perforated side walls. Flow to the subsurface is regulated by an 8” orifice to avoid a rapid discharge to the subsurface and allow settling of solids during large storm events. The top of the drywell structure will be located approximately 6” above finished grade to minimize the risk of sediment entering the drywell.

Basin P-B and P-F have the option use detention ponds and/or infiltration drywell structures. The maximum release rate from a detention pond will be the historic 5 year runoff rate. Regional detention for the basins will be constructed in the west of the property for additional storm water management.

The concentrated flows from the detention pond outlets will be directed to the regional detention and then to existing drainage conveyances. All discharge will be directed to the north towards WCR 18.

REFERENCES

Storm Drainage: Design and Technical Criteria. City of Fort Lupton, Colorado.

Urban Storm Drainage Criteria Manual Volume 1, Urban Drainage and Flood Control District, August, 2018.

Urban Storm Drainage Criteria Manual Volume 2, Urban Drainage and Flood Control District, September, 2017.

Urban Storm Drainage Criteria Manual Volume 3, Urban Drainage and Flood Control District, April, 2018.

SOFTWARE USED FOR DRAINAGE CALCULATIONS

UDFCD UD-Rational version 2.0, May 2017 for TOC and basin peak flows

UDFCD UD-Detention version 3.07, February 2017 for detention volumes

Calculation of Peak Runoff using Rational Method

Designer: CMSH
Company: J&T
Date: 11/15/2018
Project: Northland, Fort Lupton
Location: Historic Basins

Version 2.00 released May 2017

Cells of this color are for required user-input
Cells of this color are for optional override values
Cells of this color are for calculated results based on overrides

$$t_i = \frac{0.395(1.1 - C_5)\sqrt{L_i}}{S_i^{0.33}}$$

$$t_t = \frac{L_t}{60K\sqrt{S_t}} = \frac{L_t}{60V_t}$$

$$\text{Computed } t_c = t_i + t_t$$

$$\text{Regional } t_c = (26 - 17i) + \frac{L_t}{60(14i + 9)\sqrt{S_t}}$$

$t_{minimum}$ = 5 (urban)
$t_{minimum}$ = 10 (non-urban)

$$\text{Selected } t_c = \max\{t_{minimum}, \min(\text{Computed } t_c, \text{Regional } t_c)\}$$

Select UDFCD location for NOAA Atlas 14 Rainfall Depths from the pulldown list OR enter your own depths obtained from the NOAA website (click this link)

	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
1-hour rainfall depth, P1 (in) =	0.83	1.09	1.33	1.69	1.99	2.31	3.14
Rainfall Intensity Equation Coefficients = a	28.50	10.00	0.786				
b							
c							

$$I(in/hr) = \frac{a * P_1}{(b + t_c)^c}$$

$$Q(cfs) = CIA$$

Subcatchment Name	Area (ac)	NRCS Hydrologic Soil Group	Percent Imperviousness	Runoff Coefficient, C							Overland (Initial) Flow Time					Channelized (Travel) Flow Time							Time of Concentration			Rainfall Intensity, I (in/hr)							Peak Flow, Q (cfs)						
				2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	Overland Flow Length L_i (ft)	U/S Elevation (ft) (Optional)	D/S Elevation (ft) (Optional)	Overland Flow Slope S_i (ft/ft)	Overland Flow Time t_i (min)	Channelized Flow Length L_t (ft)	U/S Elevation (ft) (Optional)	D/S Elevation (ft) (Optional)	Channelized Flow Slope S_t (ft/ft)	NRCS Conveyance Factor K	Channelized Flow Velocity V_t (ft/sec)	Channelized Flow Time t_t (min)	Computed t_c (min)	Regional t_c (min)	Selected t_c (min)	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
E-A	2.35	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	500.00			0.010	43.92	91.34			0.010	5	0.50	3.04	46.96	27.30	27.30	1.37	1.81	2.20	2.80	3.30	3.83	5.20	0.03	0.05	0.38	1.72	2.63	3.92	6.65
E-B	2.08	A	2.0	0.01	0.01	0.01	0.01	0.04	0.13	0.27	0.00			0.002	0.00	2076.00			0.004	15	0.95	36.47	36.47	84.61	36.47	1.15	1.52	1.85	2.36	2.78	3.22	4.38	0.01	0.02	0.03	0.05	0.24	0.84	2.43
E-C	28.10	A	2.0	0.01	0.01	0.01	0.01	0.04	0.13	0.27	500.00			0.010	44.17	1133.26			0.010	5	0.50	37.78	81.95	46.01	46.01	0.99	1.31	1.60	2.04	2.40	2.78	3.78	0.14	0.22	0.32	0.62	2.83	9.82	28.36
E-D	75.93	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	500.00			0.010	43.92	2827.97			0.010	5	0.50	94.27	138.18	76.45	76.45	0.71	0.93	1.14	1.45	1.70	1.98	2.69	0.46	0.86	6.32	28.74	43.88	65.37	110.90

Calculation of Peak Runoff using Rational Method

Designer: CMSH
Company: J&T
Date: 6/18/2019
Project: Northland, Fort Lupton
Location: Proposed Basins - Historic Runoff

Version 2.00 released May 2017

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$$t_i = \frac{0.395(1.1 - C_5)\sqrt{L_i}}{S_i^{0.33}}$$

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1-hour rainfall depth, P1 (in) =	0.83	1.09	1.33	1.69	1.99	2.31	3.14

	a	b	c
Rainfall Intensity Equation Coefficients =	28.50	10.00	0.786

$$I(in/hr) = \frac{a * P_1}{(b + t_c)^c}$$

$$Q(cfs) = CIA$$

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P-A	2.35	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	300.00			0.010	34.02	291.34			0.010	7	0.70	6.94	40.96	30.89	30.89	1.27	1.68	2.05	2.61	3.07	3.56	4.84	0.03	0.05	0.35	1.60	2.45	3.64	6.18
P-B	52.64	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	300.00			0.010	34.02	2441.69			0.010	20	2.00	20.35	54.37	69.51	54.37	0.89	1.18	1.44	1.82	2.15	2.49	3.39	0.40	0.75	5.53	25.12	38.35	57.14	96.95
P-C	2.39	A	2.0	0.01	0.01	0.01	0.01	0.04	0.13	0.27	0.00			0.010	0.00	2078.62			0.005	15	1.06	32.66	32.66	78.45	32.66	1.23	1.63	1.98	2.52	2.97	3.45	4.68	0.02	0.02	0.03	0.07	0.30	1.03	2.99
P-D	9.59	A	2.0	0.01	0.01	0.01	0.01	0.04	0.13	0.27	148.00			0.010	24.03	1132.31			0.010	20	2.00	9.44	33.47	46.00	33.47	1.21	1.60	1.95	2.48	2.92	3.40	4.61	0.06	0.09	0.13	0.26	1.18	4.09	11.81
P-E	18.39	A	2.0	0.01	0.01	0.01	0.01	0.04	0.13	0.27	300.00			0.010	34.22	1508.00			0.010	20	2.00	12.57	46.78	52.74	46.78	0.98	1.30	1.58	2.01	2.37	2.75	3.74	0.09	0.14	0.21	0.40	1.83	6.36	18.36
P-F	23.14	A	2.0	0.01	0.01	0.01	0.01	0.04	0.13	0.27	300.00			0.010	34.22	1528.44			0.010	20	2.00	12.74	46.95	53.11	46.95	0.98	1.30	1.58	2.01	2.37	2.75	3.73	0.12	0.18	0.26	0.51	2.30	7.98	23.05

Calculation of Peak Runoff using Rational Method

Designer: CMSH
Company: J&T
Date: 6/18/2019
Project: Northland, Fort Lupton
Location: Proposed Basins

Version 2.00 released May 2017

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Subcatchment Name	Area (ac)	NRCS Hydrologic Soil Group	Percent Imperviousness	Runoff Coefficient, C							Overland (Initial) Flow Time					Channelized (Travel) Flow Time							Time of Concentration			Rainfall Intensity, I (in/hr)							Peak Flow, Q (cfs)						
				2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	Overland Flow Length L_i (ft)	U/S Elevation (ft) (Optional)	D/S Elevation (ft) (Optional)	Overland Flow Slope S_i (ft/ft)	Overland Flow Time t_i (min)	Channelized Flow Length L_t (ft)	U/S Elevation (ft) (Optional)	D/S Elevation (ft) (Optional)	Channelized Flow Slope S_t (ft/ft)	NRCS Conveyance Factor K	Channelized Flow Velocity V_t (ft/sec)	Channelized Flow Time t_t (min)	Computed t_c (min)	Regional t_c (min)	Selected t_c (min)	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
P-A	2.35	B	55.0	0.42	0.45	0.50	0.59	0.63	0.68	0.74	300.00			0.010	20.41	291.34			0.010	7	0.70	6.94	27.35	19.56	19.56	1.64	2.17	2.65	3.36	3.96	4.60	6.25	1.60	2.28	3.12	4.70	5.91	7.37	10.83
P-B	52.59	B	55.0	0.42	0.45	0.50	0.59	0.63	0.68	0.74	300.00			0.010	20.41	2441.69			0.010	20	2.00	20.35	40.76	41.02	40.76	1.07	1.42	1.73	2.20	2.59	3.01	4.09	23.43	33.35	45.58	68.73	86.45	107.75	158.40
P-C	2.40	A	55.0	0.39	0.40	0.42	0.45	0.49	0.54	0.61	0.00			0.010	0.00	2078.62			0.005	15	1.06	32.66	32.66	45.99	32.66	1.23	1.63	1.98	2.52	2.97	3.45	4.68	1.14	1.57	1.99	2.73	3.52	4.45	6.84
P-D	9.59	A	55.0	0.39	0.40	0.42	0.45	0.49	0.54	0.61	148.00			0.010	15.34	1132.31			0.010	20	2.00	9.44	24.78	27.95	24.78	1.44	1.91	2.33	2.96	3.49	4.05	5.50	5.34	7.35	9.34	12.81	16.53	20.89	32.10
P-E	18.39	A	55.0	0.39	0.40	0.42	0.45	0.49	0.54	0.61	300.00			0.010	21.84	1508.00			0.010	20	2.00	12.57	34.41	31.70	31.70	1.25	1.66	2.02	2.57	3.02	3.51	4.77	8.89	12.22	15.52	21.31	27.49	34.73	53.38
P-F	23.16	A	55.0	0.39	0.40	0.42	0.45	0.49	0.54	0.61	300.00			0.010	21.84	1528.44			0.010	20	2.00	12.74	34.58	31.90	31.90	1.25	1.65	2.01	2.56	3.01	3.49	4.75	11.15	15.33	19.48	26.73	34.49	43.58	66.97

Hydrologic Soil Group—Weld County, Colorado, Southern Part
(Northland Development)

Map Scale: 1:4,700 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Weld County, Colorado, Southern Part
Survey Area Data: Version 17, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 20, 2015—Oct 21, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Altvan loam, 0 to 1 percent slopes	B	42.8	37.1%
29	Julesburg sandy loam, 0 to 1 percent slopes	A	25.2	21.8%
50	Otero sandy loam, 0 to 1 percent slopes	A	22.8	19.7%
76	Vona sandy loam, 1 to 3 percent slopes	A	24.7	21.4%
Totals for Area of Interest			**115.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Component Text Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the selected area. The component descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit. A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the associated soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas (components) for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The "Map Unit Component Nontechnical Descriptions" report gives a brief, general description of the soil components that occur in a map unit. Descriptions of nonsoil (miscellaneous areas) and minor map unit components may or may not be included. This description is written by the local soil scientists responsible for the respective soil survey area data. A more detailed description can be generated by the "Map Unit Description" report.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Component Text Descriptions

Weld County, Colorado, Southern Part

Map Unit: 1—Altvan loam, 0 to 1 percent slopes

Description Category: GENSOIL

Altvan: 90 percent

The Altvan component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on terraces. The parent material consists of old alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R067BY002CO Loamy Plains ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

Description Category: GENSOIL

Cascajo: 9 percent

Generated brief soil descriptions are created for major soil components. The Cascajo soil is a minor component.

Description Category: GENSOIL

Aquic haplustolls: 1 percent

Generated brief soil descriptions are created for major soil components. The Aquic Haplustolls soil is a minor component.

Map Unit: 29—Julesburg sandy loam, 0 to 1 percent slopes

Description Category: GENSOIL

Julesburg: 85 percent

The Julesburg component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on terraces. The parent material consists of south platte river alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R067BY024CO Sandy Plains ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2s. This soil does not meet hydric criteria.

Description Category: GENSOIL

Edgar: 4 percent

Generated brief soil descriptions are created for major soil components. The Edgar soil is a minor component.

Description Category: GENSOIL

Remmit: 4 percent

Generated brief soil descriptions are created for major soil components. The Remmit soil is a minor component.

Description Category: GENSOIL

Valent: 4 percent

Generated brief soil descriptions are created for major soil components. The Valent soil is a minor component.

Description Category: GENSOIL

Vona: 3 percent

Generated brief soil descriptions are created for major soil components. The Vona soil is a minor component.

Map Unit: 50—Otero sandy loam, 0 to 1 percent slopes

Description Category: GENSOIL

Otero: 85 percent

The Otero component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on smooth plains. The parent material consists of eolian deposits and/or mixed outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R067BY024CO Sandy Plains ecological site. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 6 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Haverson: 8 percent

Generated brief soil descriptions are created for major soil components. The Haverson soil is a minor component.

Description Category: GENSOIL

Kim: 7 percent

Generated brief soil descriptions are created for major soil components. The Kim soil is a minor component.

Map Unit: 76—Vona sandy loam, 1 to 3 percent slopes

Description Category: GENSOIL

Vona: 85 percent

The Vona component makes up 85 percent of the map unit. Slopes are 1 to 3 percent. This component is on plains, high terraces. The parent material consists of alluvium and/or eolian deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R067BY024CO Sandy Plains ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 9 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Remmit: 9 percent

Generated brief soil descriptions are created for major soil components. The Remmit soil is a minor component.

Description Category: GENSOIL

Olney: 3 percent

Generated brief soil descriptions are created for major soil components. The Olney soil is a minor component.

Description Category: GENSOIL

Julesburg: 3 percent

Generated brief soil descriptions are created for major soil components. The Julesburg soil is a minor component.

Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part
Survey Area Data: Version 17, Sep 10, 2018

National Flood Hazard Layer FIRMette

FEMA

0 250 500 1,000 1,500 2,000 Feet 1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- B 20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/31/2018 at 5:49:33 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Culvert Report

Culvert Crossing Road South of Waste Ditch

Invert Elev Dn (ft)	=	83.45
Pipe Length (ft)	=	46.00
Slope (%)	=	0.15
Invert Elev Up (ft)	=	83.52
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

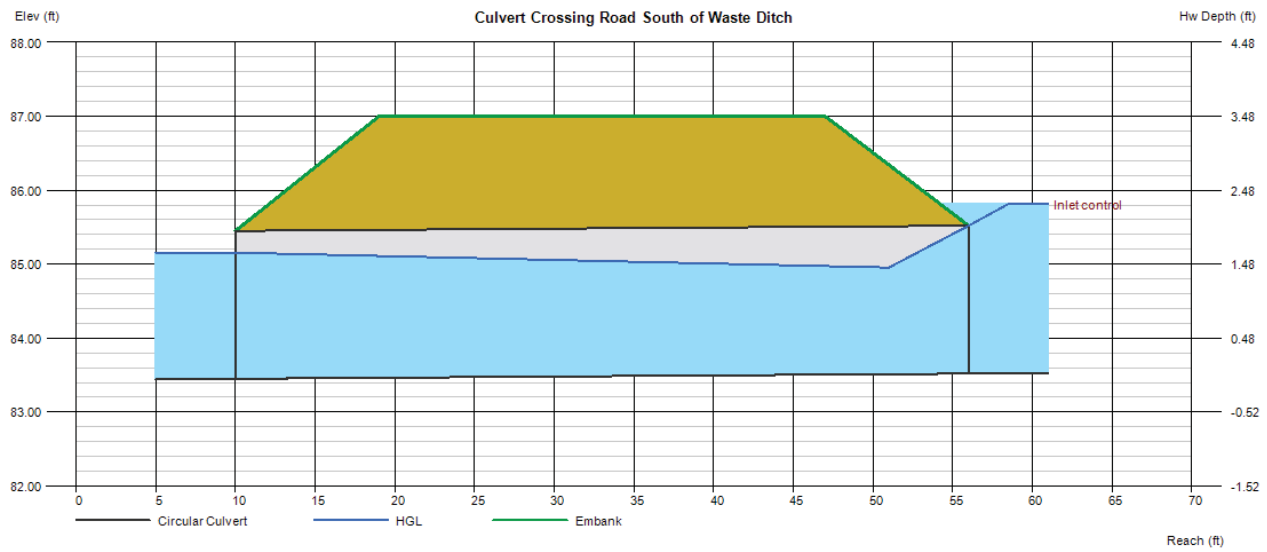
Top Elevation (ft)	=	87.00
Top Width (ft)	=	28.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	15.33
Qmax (cfs)	=	15.33
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	15.33
Qpipe (cfs)	=	15.33
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.37
Veloc Up (ft/s)	=	6.48
HGL Dn (ft)	=	85.16
HGL Up (ft)	=	84.93
Hw Elev (ft)	=	85.81
Hw/D (ft)	=	1.15
Flow Regime	=	Inlet Control



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Dec 18 2019

P-B Drainage Swale - 100 Year Runoff

Trapezoidal

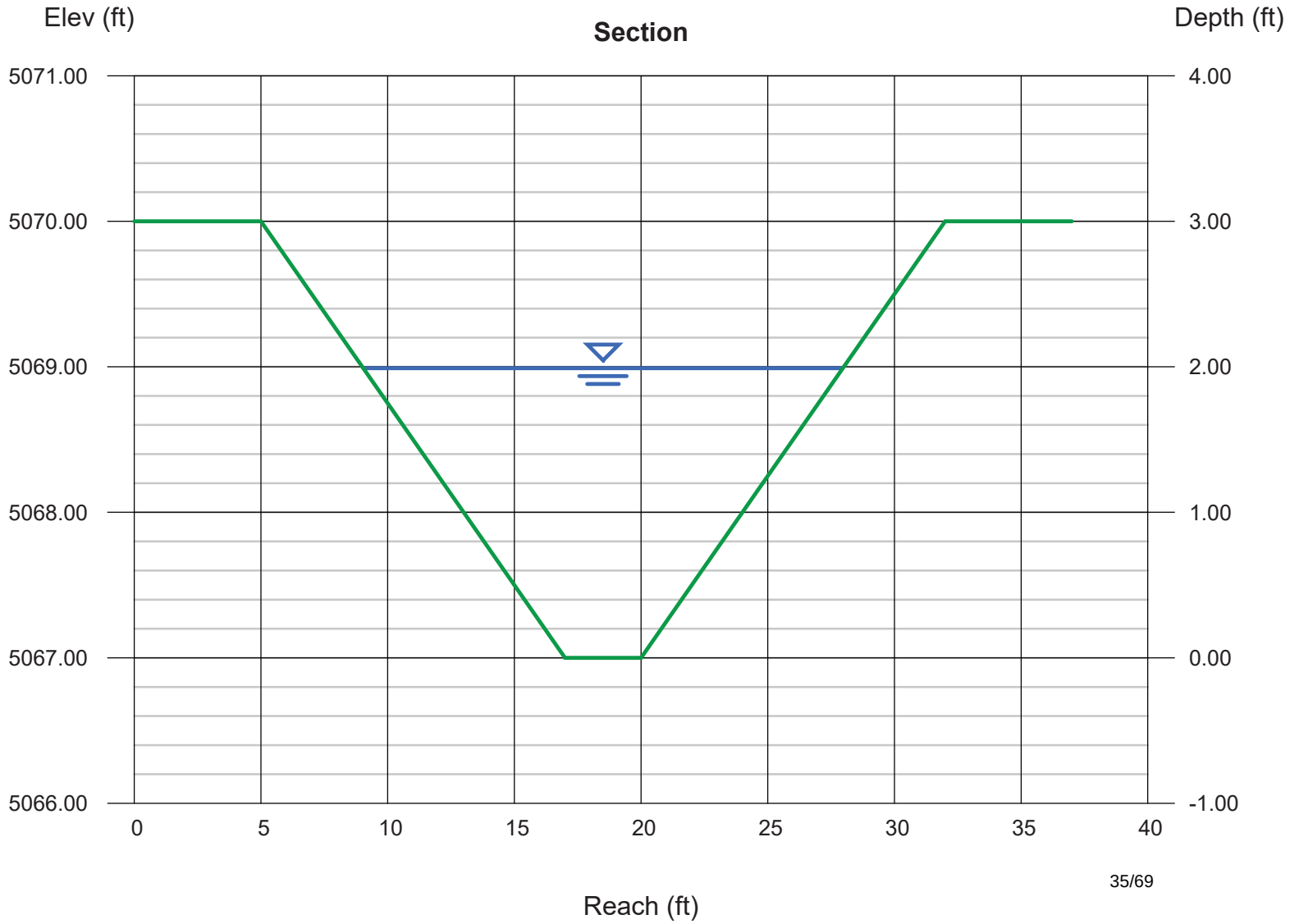
Bottom Width (ft)	=	3.00
Side Slopes (z:1)	=	4.00, 4.00
Total Depth (ft)	=	3.00
Invert Elev (ft)	=	5067.00
Slope (%)	=	0.60
N-Value	=	0.025

Calculations

Compute by:		Known Q
Known Q (cfs)	=	107.75

Highlighted

Depth (ft)	=	1.99
Q (cfs)	=	107.75
Area (sqft)	=	21.81
Velocity (ft/s)	=	4.94
Wetted Perim (ft)	=	19.41
Crit Depth, Yc (ft)	=	1.81
Top Width (ft)	=	18.92
EGL (ft)	=	2.37



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Dec 18 2019

P-D Drainage Swale - 100 Year Runoff

Trapezoidal

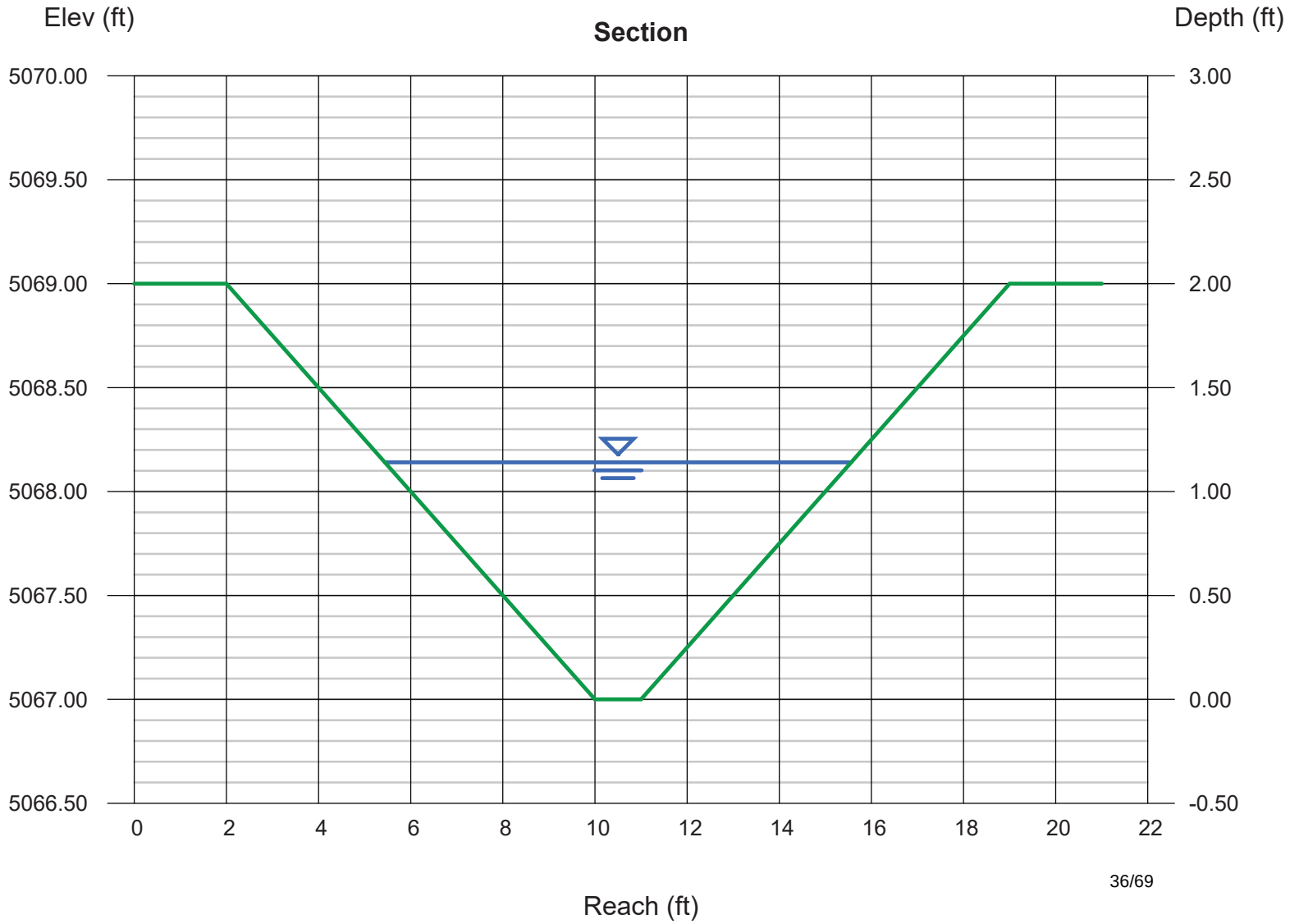
Bottom Width (ft)	= 1.00
Side Slopes (z:1)	= 4.00, 4.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 5067.00
Slope (%)	= 0.60
N-Value	= 0.025

Calculations

Compute by:	Known Q
Known Q (cfs)	= 20.89

Highlighted

Depth (ft)	= 1.14
Q (cfs)	= 20.89
Area (sqft)	= 6.34
Velocity (ft/s)	= 3.30
Wetted Perim (ft)	= 10.40
Crit Depth, Yc (ft)	= 1.00
Top Width (ft)	= 10.12
EGL (ft)	= 1.31



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Dec 18 2019

P-E Drainage Swale - 100 Year Runoff

Trapezoidal

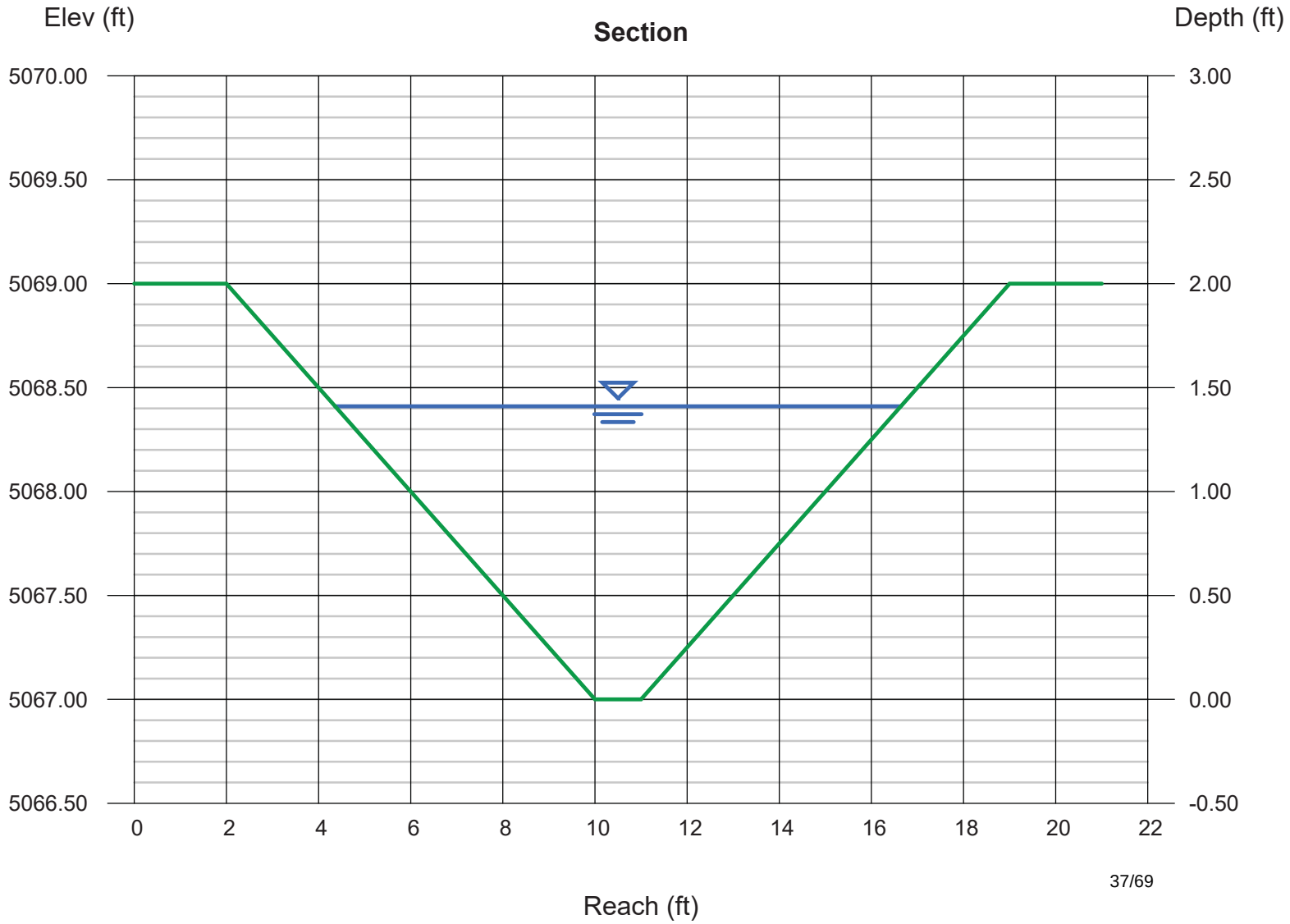
Bottom Width (ft)	= 1.00
Side Slopes (z:1)	= 4.00, 4.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 5067.00
Slope (%)	= 0.60
N-Value	= 0.025

Calculations

Compute by:	Known Q
Known Q (cfs)	= 34.73

Highlighted

Depth (ft)	= 1.41
Q (cfs)	= 34.73
Area (sqft)	= 9.36
Velocity (ft/s)	= 3.71
Wetted Perim (ft)	= 12.63
Crit Depth, Yc (ft)	= 1.25
Top Width (ft)	= 12.28
EGL (ft)	= 1.62



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Dec 18 2019

P-F Drainage Swale - 100 Year Runoff

Trapezoidal

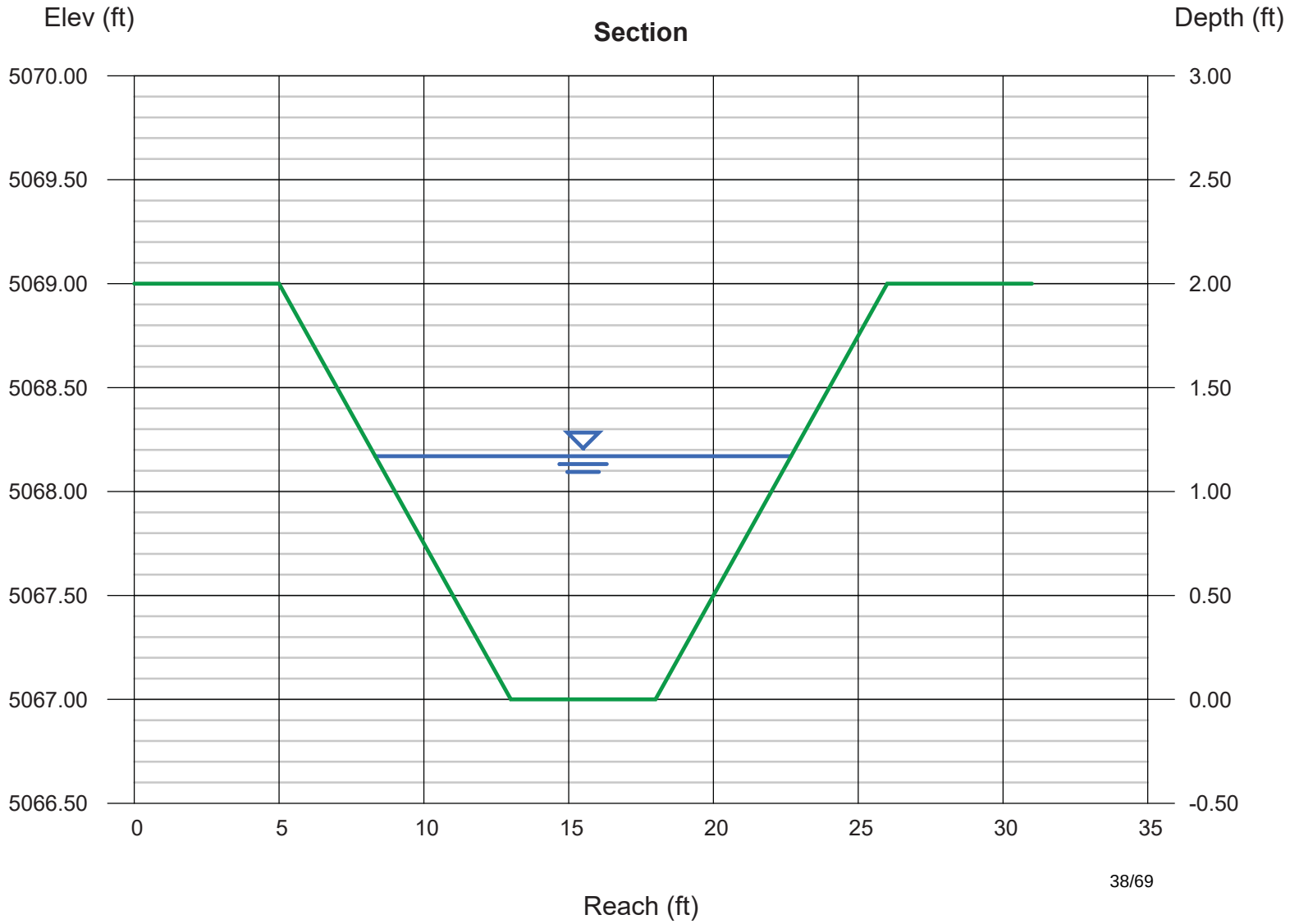
Bottom Width (ft)	= 5.00
Side Slopes (z:1)	= 4.00, 4.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 5067.00
Slope (%)	= 0.60
N-Value	= 0.025

Calculations

Compute by:	Known Q
Known Q (cfs)	= 43.58

Highlighted

Depth (ft)	= 1.17
Q (cfs)	= 43.58
Area (sqft)	= 11.33
Velocity (ft/s)	= 3.85
Wetted Perim (ft)	= 14.65
Crit Depth, Yc (ft)	= 1.02
Top Width (ft)	= 14.36
EGL (ft)	= 1.40



1000 500 0 1000 2000 3000

SCALE IN FEET

J&T Consulting, Inc.
305 Denver Avenue - Suite D
Fort Lupton, CO 80621
Ph: 303-857-6222 Fax: 303-857-6224
www.j-tconsulting.com

Northland Road Extension

General Location Map

Land 5 Investments, LLC

REVISIONS

No	Date	By	Chk	Description

Job #	18116
Date	11.01.18
Drawn By	CMSH
Designed By	TPY
Checked By	JCY
File	JT-Drainage
Scale	1" = 200'

Sheet: 1 Of: 1

LEGEND:

BASIN DELINEATION

BASIN TOC PATH

FLOW DIRECTION

DRAINAGE BASIN DESIGNATION

E1

.85 | 1.24

BASIN AREA

5-YR RUNOFF COEFFICIENT

200 100 0 200 400 600

SCALE IN FEET

J&T Consulting, Inc.

305 Denver Avenue - Suite D
Fort Lupton, CO 80621
Ph: 303-857-6222 Fax: 303-857-6224
www.j-tconsulting.com

Northland Road Extension

Historic Drainage Basin Map

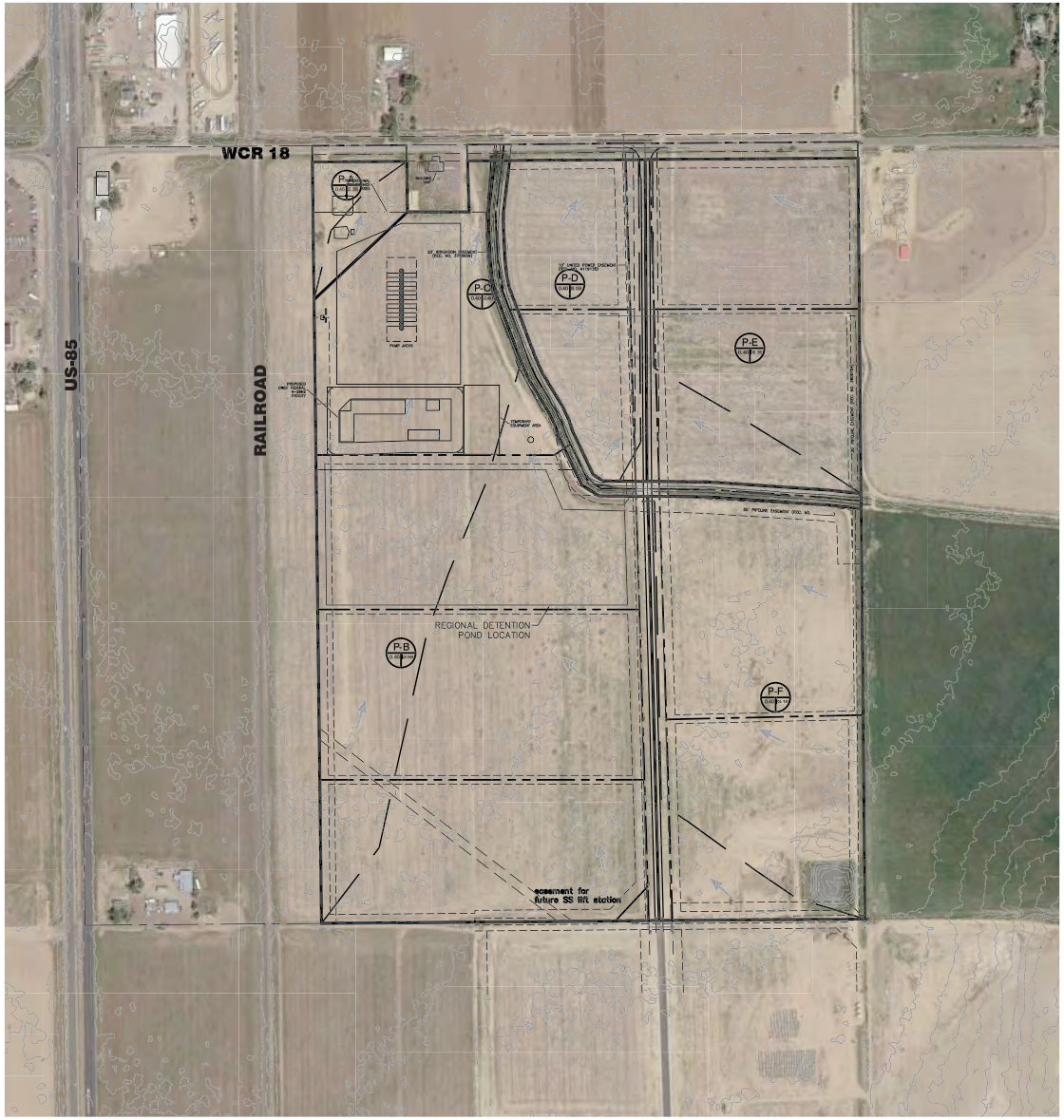
Land 5 Investments, LLC

REVISIONS

No	Date	By	Chk	Description

Job #	18116
Date	11.01.18
Drawn By	CMSH
Designed By	TPY
Checked By	JCY
File	JT-Drainage
Scale	1" = 200'

Sheet: 1 Of: 1



LEGEND:

BASIN DELINEATION

BASIN TOC PATH

FLOW DIRECTION

DRAINAGE BASIN DESIGNATION

E1

.85 | 1.24

BASIN AREA

5-YR RUNOFF COEFFICIENT

200 100 0 200 400 600

SCALE IN FEET

J&T Consulting, Inc.
305 Denver Avenue - Suite D
Fort Lupton, CO 80621
Ph: 303-857-6222 Fax: 303-857-6224
www.j-tconsulting.com

Northland Road Extension

Proposed Drainage Basin Map

Land 5 Investments, LLC

REVISIONS

No	Date	By	Chk	Description

Job #	18116
Date	12.16.19
Drawn By	CMSH
Designed By	TPY
Checked By	JCY
File	JT-Drainage
Scale	1" = 200'

Sheet: 1 Of: 1

TRAFFIC REPORT

DELICH ASSOCIATES Traffic & Transportation Engineering
2272 Glen Haven Drive Loveland, Colorado 80538
Phone: (970) 669-2061 Fax: (970) 669-5034

MEMORANDUM

COLORADO LICENSED
JOSEPH M. DELICH
39306
12/31/19
PROFESSIONAL ENGINEER

TO: Lloyd Land, Land 5 Investments
Roy Vestsal, Fort Lupton staff

FROM: Joseph Delich

DATE: December 31, 2019

SUBJECT: North Land PUD, Phase 3 Trip Generation Comparison
(File: 1915ME01)

This memorandum provides a trip generation comparison pertaining to the proposed North Land PUD, Phase 3 in Fort Lupton, Colorado. The proposed North Land PUD, Phase 3 development located east of US85 and south of (adjacent to) Weld County Road 18. The "North Land PUD, Phase 3 Development Transportation Impact Study," dated March 2019 was prepared for this development and was accepted by the City of Fort Lupton. The original site plan is shown in Appendix A. In the original transportation impact study, there were 8 lots and Northland Drive was not directly north/south. In the revised site plan, there are 10 lots and Northland Drive is directly north/south. The scope of this Trip Generation Comparison was discussed with Roy Vestal, Fort Lupton Public Works Director. This is to determine if the proposed use generates similar traffic to the prior uses.

In the cited TIS, The North Land PUD, Phase 3 development addressed in the TIS consisted of approximately 8 lots (103.19 acres). The trip generation in the North Land PUD, Phase 3 TIS utilized **Trip Generation, 10th Edition**, ITE, as the reference document. The trip generation for subject Lots was: 1,494 daily trip ends, 211 morning peak hour trip ends, and 189 afternoon peak hour trip ends. The trip generation for the North Land PUD, Phase 3 (from the cited TIS) is shown in Table 1.

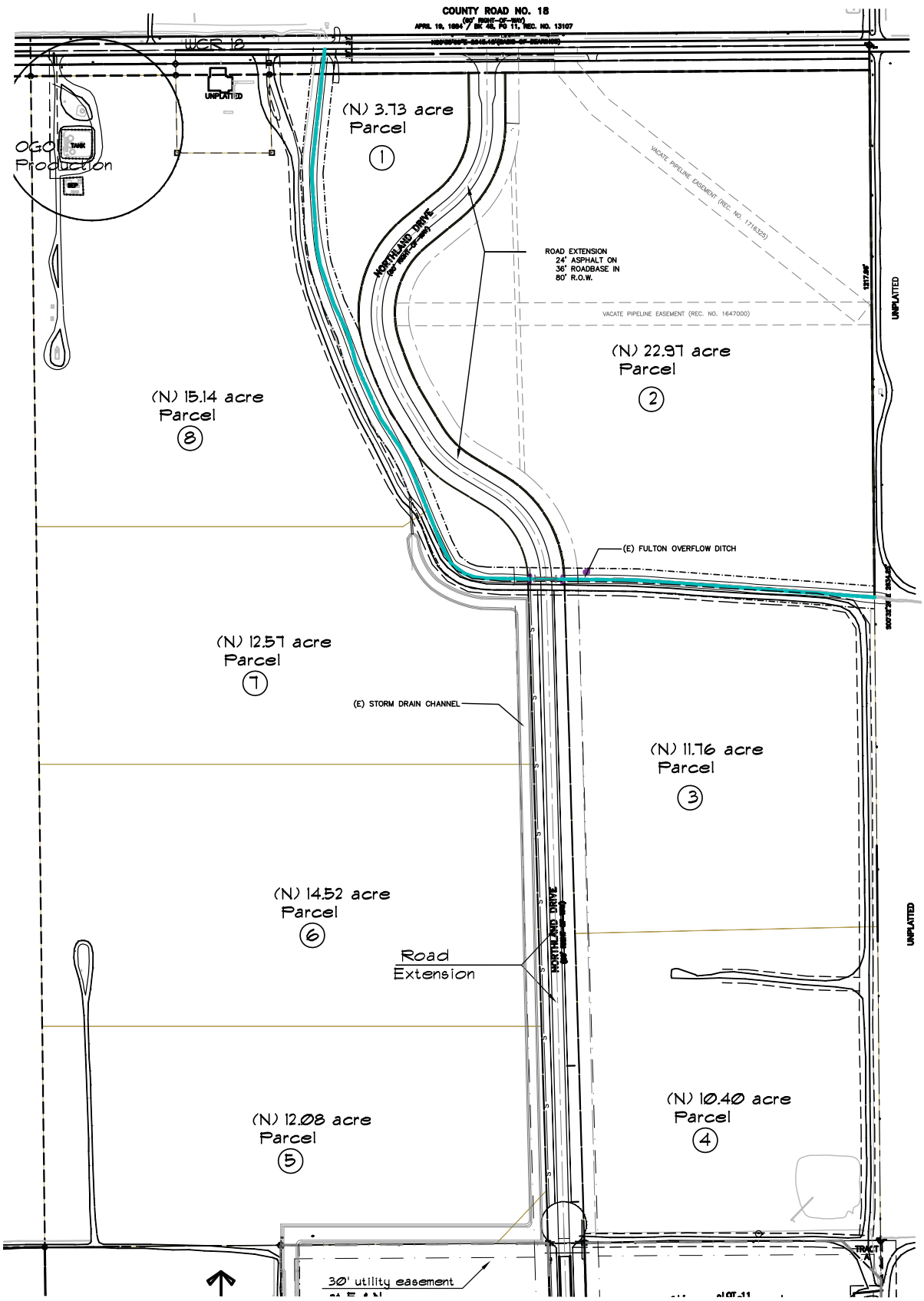
The new site plan of North Land PUD, Phase 3 is provided in Appendix B. The North Land PUD, Phase 3 development will consist of similar uses with 10 lots and no curve in Northland Drive. The trip generation was calculated using the currently accepted reference document, **Trip Generation, 10th Edition**, ITE. Light Industrial (Code 110) was used to determine the trip generation. The calculated trip generation for the revised North Land PUD, Phase 3 development is shown in Table 2. The calculated trip generation is: 1500 daily trip ends, 211 morning peak hour trip ends, and 189 afternoon peak hour trip ends. This is an increase of 4 daily trip ends and the same for the morning and afternoon peak hour trip ends compared to the cited TIS.

From the foregoing analyses, it is concluded that the trip generation for the proposed North Land PUD, Phase 3 will be an increase of 4 daily trip ends and the swame in the morning and afternoon peak hours compared to that used in the cited TIS. Therefore, it is respectfully requested that no further transportation analyses be required for the proposed North Land PUD, Phase 3 until a specific user is proposed on a lot. Do not hesitate to contact me if you have questions or desire additional information

TABLE 1 Trip Generation per the cited North Land PUD, Phase 3 TIS												
Code	Use	Size	AWDTE		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	In	Rate	Out	Rate	In	Rate	Out
110	Light Industrial - Lot 1	10.9 KSF	4.96	54	0.62	7	0.08	1	0.08	1	0.55	6
110	Light Industrial - Lot 2	67.0 KSF	4.96	332	0.62	42	0.08	5	0.08	5	0.55	37
110	Light Industrial - Lot 3	34.3 KSF	4.96	170	0.62	21	0.08	3	0.08	3	0.55	19
110	Light Industrial - Lot 4	30.3 KSF	4.96	150	0.62	19	0.08	2	0.08	2	0.55	17
110	Light Industrial - Lot 5	35.3 KSF	4.96	176	0.62	22	0.08	3	0.08	3	0.55	19
110	Light Industrial - Lot 6	42.4 KSF	4.96	210	0.62	26	0.08	3	0.08	3	0.55	23
110	Light Industrial - Lot 7	36.7 KSF	4.96	182	0.62	23	0.08	3	0.08	3	0.55	20
110	Light Industrial - Lot 8	44.2 KSF	4.96	220	0.62	27	0.08	4	0.08	4	0.55	24
Total Assigned Trips				1494		187		24		24		165

TABLE 2 Revised Trip Generation												
Code	Use	Size	AWDTE		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	In	Rate	Out	Rate	In	Rate	Out
110	Light Industrial - Lot 1	23.9 KSF	4.96	118	0.62	15	0.08	2	0.08	2	0.55	13
110	Light Industrial - Lot 2	28.9 KSF	4.96	144	0.62	18	0.08	2	0.08	2	0.55	16
110	Light Industrial - Lot 3	34.3 KSF	4.96	170	0.62	21	0.08	3	0.08	3	0.55	19
110	Light Industrial - Lot 4	30.4 KSF	4.96	150	0.62	19	0.08	2	0.08	2	0.55	17
110	Light Industrial - Lot 5	35.3 KSF	4.96	176	0.62	22	0.08	3	0.08	3	0.55	19
110	Light Industrial - Lot 6	42.4 KSF	4.96	210	0.62	26	0.08	3	0.08	3	0.55	23
110	Light Industrial - Lot 7	36.8 KSF	4.96	182	0.62	23	0.08	3	0.08	3	0.55	20
110	Light Industrial - Lot 8	44.0 KSF	4.96	218	0.62	27	0.08	4	0.08	4	0.55	24
110	Light Industrial - Lot 9	11.6 KSF	4.96	58	0.62	7	0.08	1	0.08	1	0.55	6
110	Light Industrial - Lot 10	14.8 KSF	4.96	74	0.62	9	0.08	1	0.08	1	0.55	8
Total Assigned Trips				1500		187		24		24		165

APPENDIX A



NORTH

0 250 500 750

SCALE: n.t.s.

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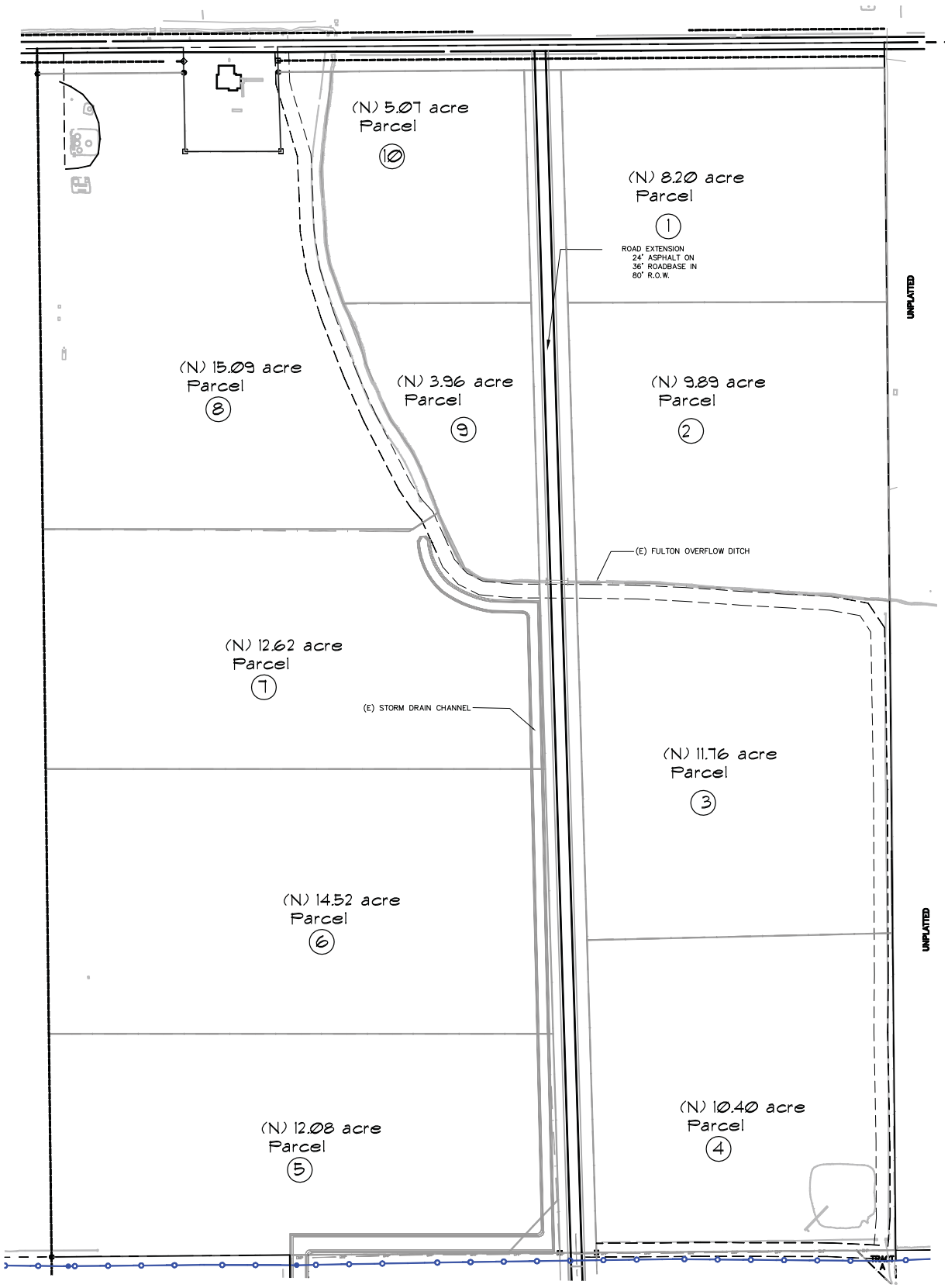
APPENDIX B



NORTH

0 250 500 750

SCALE: n.t.s.

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REFERRAL RESPONSES FROM 2020 APPLICATION

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303. 571. 3284
donna.l.george@xcelenergy.com

March 4, 2020

City of Fort Lupton Planning Department
130 South McKinley Avenue
Fort Lupton, CO 80621

Attn: Alyssa Knutson and Todd Hodges

Re: North Land PUD Filing No. 3 Final Plat
Case #s LUP2020-0004 and FPL2020-0001

Public Service Company of Colorado's Right of Way & Permits Referral Desk has reviewed the final plat for **North Land PUD Filing No. 3**. The property owner/ developer/contractor must complete the application process for any new natural gas service via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities.

Donna George
Right of Way and Permits
Public Service Company of Colorado / Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com

CITY OF Fort Lupton EST 1836
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Public Works

130 S. McKinley Avenue
Fort Lupton, CO 80621
Phone: 303-857-6694
Fax: 303.857.0351
www.fortlupton.org

MEMO

To: Todd Hodges
Alyssa Knutson
CC: JC York (J&T Consulting)

From: Roy Vestal

Date: February 27, 2020

Subject: North Land PUD - Filing No. 3; LU2020-0004; FPL2020-0001
Public Works Review

Public Works has reviewed the submitted documents for the above referenced development project with the following comments:

Be advised, review of construction drawings is for general compliance with city standards. There may be additional concerns as this design develops.

1. **Plat**
   a. *Section 3.19.00* The following statement shall appear on all official development plans and all final plats.
      UTILITY MAINTENANCE STATEMENT
      All public water, storm sewer and sanitary sewer mains and appurtenances located in public ROW shall be maintained by the City of Fort Lupton Public Works Department. All public water, storm sewer, sanitary sewer mains and appurtenances under private drives are located in utility easements. City is responsible for maintenance of these water, storm and sanitary sewer facilities. City is not responsible for repair or replacement of private drive, curb and gutter or landscaping damaged during utility repair or maintenance.

2. **Drainage**
   a. Phase II Drainage Report – The Final Drainage Plan for each lot will need to verify compliance with preliminary design assumptions.
      i. Identify the outfall receiving stream or drainage path. Are there any constrictions for flow along the outfall path?
      ii. Drainage Plan needs to be more graphically illustrative of the drainage patterns with outfalls identified, design points identified, identify detention requirements on applicable lots, table of flows

iii. The road connection at CR 18 - Where does the road side ditches flow to. Shouldn't there be a culvert under North Land Drive? Is the CR 18 flow path to the west?
iv. The western ditch from Phase 1 needs to be identified and shown where it outfalls.

3. **Landscape / Grading** - *Chapter 2 Design Standards*
   a. Erosion and Sediment Control plans are required (*2.11.00*).
   b. A SWMP and Stormwater Discharge permit must be acquired from CDPH&E. Please submit proof of prior to receiving construction permits. Please provide copy of permit from CDPH&E.
   c. Provide seed mix requirement (*2.26.00*)
   d. Include Grading and Erosion Control Standard Notes (*2.11.03*)

4. **Utilities**
   a. Water - Chapter 3

   b. Sanitary Sewer - Chapter 4
      i. *Section 4.12.00* A utility study is required. - Need to know capacity of the 3" pressure sewer system. How does this system function with intermittent contributions from each lot. Does this system push everything through each time or does it stay in the pipe until enough flushes convey contents to the gravity line?

   c. Roadway - Chapter 6
      i. *Section 6.33.00* A Pavement Design Report is required for roadway paving.

   d. Traffic Control - Chapter 8
      i. *Section 8.10.01* A Traffic Memorandum is acceptable.

5. Public Improvement Agreement – The Public Improvements Agreement will be edited with approval information.

Be advised, this is not a thorough review of complete plan set. Additional comments may result in further reviews.

Hello,

Thank you for inviting United Power, Inc. to review and comment on the North Land PUD - Filing No. 3; LU2020-0004; FPL2020-0001. After review of the information, we would like at least an 8' to 10' utility easement around the perimeter of each lot. I was able to identify that lot 6, 5, 4, and 3 have the needed size utility easement around their perimeter. However, the plat is not clearly marked indicating that lots 1, 10, 9, 8, 7, and 2 have a UE around their perimeter.

As a Reminder: No permanent structures are acceptable within the utility easement(s); such as, window wells, wing walls, retaining walls, basement walls, roof overhang, anything affixed to the house like decks, etc. United Power considers any structure that impedes the access, maintenance, and safety of our facilities a permanent structure. No exceptions will be allowed, and any encroachments could result in penalties.

United Power would like to work with the developer early in the construction process on getting an electric design prepared so that we can request any additional easements needed and can be dedicated on the plat rather than obtaining via separate document. The developer can visit https://www.unitedpower.com/construction and submit an application along with CAD data.

We look forward to safely and efficiently providing reliable electric power and outstanding service to future members.

Thank you,

Samantha Riblett
United Power, Inc
Right of Way Administrative Assistant
Main 303-659-0551|D 303-637-1324

UNITED POWER, INC. 500 Cooperative Way ▪ Brighton, CO 80603 303-659-0551 ▪ 800-468-8809 ▪ fax 303-659-2172 www.unitedpower.com

REFERRAL RESPONSES FROM 2019 APPLICATION

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303. 571.3284
donna.l.george@xcelenergy.com

March 8, 2019

City of Fort Lupton Planning Department
130 South McKinley Avenue
Fort Lupton, CO 80621

Attn: Alyssa Knutson and Todd Hodges

Re: North Land PUD Final Plat Filing No. 3, Case #s LUP2019-00002 and FPL2019-0001

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the documentation for **North Land PUD Final Plat F3**. To ensure that adequate utility easements are available within this development, PSCo requests that the following language or plat note be placed on the preliminary and final plats for the subdivision:

> *Minimum 10-foot wide dry utility easements are hereby dedicated on private property abutting all public streets. These easements are dedicated to the City of Fort Lupton for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.*

Public Service Company also requests that **all utility easements be depicted graphically on the preliminary and final plats**. While these easements may accommodate certain utilities to be installed in the subdivision, some additional easements may be required as planning and building progresses.

In addition, 31-23-214 (3), C.R.S., requires the subdivider, at the time of subdivision platting, to provide for major utility facilities such as electric substation sites, gas or electric transmission line easements and gas regulator/meter station sites as deemed necessary by PSCo. While this provision will not be required on every plat, when necessary, PSCo will work with the subdivider to identify appropriate locations. This statute also requires the subdivider to submit a letter of

agreement to the municipal/county commission that adequate provision of electrical and/or gas service has been provided to the subdivisions.

The property owner/developer/contractor must complete the **application process** for any new natural gas service via FastApp-Fax-Email-USPS (go to: https://www.xcelenergy.com/start_stop_transfer/installing_and_connecting_service/). The Builder's Call Line is 1-800-628-2121. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details

As a safety precaution, PSCo would like to remind the developer to call the **Utility Notification Center** at 1-800-922-1987 for utility locates prior to construction.

Donna George
Right of Way and Permits
Public Service Company of Colorado / Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com

DEPARTMENT OF PLANNING SERVICES
1555 N. 17th Ave
Greeley, CO 80631
Website: www.weldgov.com
Email: jflesher@weldgov.com
Phone: (970) 400-3552
Fax: (970) 304-6498

Via Email

March 8, 2019

Alyssa Knutson, Planner
City of Fort Lupton
130 S. McKinley Avenue
Fort Lupton, CO 80621

Subject: North Land PUD Final Plat

Dear Alyssa:

The Weld County Department of Planning Services has reviewed this proposal and submits the following comments for your consideration.

The adjacent property at 13226 CR 18 has a conditional use permit for a church (CUP-64). More information is available upon request.

There is no County commitment to upgrade County roads and bridges to accommodate municipal developments.

The present zoning of adjacent and surrounding unincorporated properties are predominantly Agricultural. Owners of property in the area of this proposal should be made aware that agricultural uses, even when done in a manner consistent with good agricultural practices, may generate impacts such as noise, dust, flies, odors, aerial spraying, and slow-moving equipment on County roadways. It is important for future residents to note that adjacent properties may be in unincorporated Weld County and that Weld County has adopted a Right-to-Farm Statement and recommends it be placed on all plats adjacent to unincorporated areas:

> Weld County is one of the most productive agricultural counties in the United States, typically ranking in the top ten counties in the country in total market value of agricultural products sold. The rural areas of Weld County may be open and spacious, but they are intensively used for agriculture. Persons moving into a rural area must recognize and accept there are drawbacks, including conflicts with long-standing agricultural practices and a lower level of services than in town. Along with the drawbacks come the incentives which attract urban dwellers to relocate to rural areas: open views, spaciousness, wildlife, lack of city noise and congestion, and the rural atmosphere and way of life. Without neighboring farms, those features which attract urban dwellers to rural Weld County would quickly be gone forever.
>
> Agricultural users of the land should not be expected to change their long-established agricultural practices to accommodate the intrusions of urban users into a rural area. Well-run agricultural activities will generate off-site impacts, including noise from tractors and equipment; slow-moving farm vehicles on rural roads; dust from animal pens, field work, harvest and gravel roads; odor from animal confinement, silage and manure; smoke from ditch burning; flies and mosquitoes; hunting and trapping activities; shooting sports, legal hazing of nuisance wildlife; and the use of pesticides and fertilizers in the fields, including the use of aerial spraying. It is common practice for agricultural producers to utilize an accumulation of agricultural machinery and supplies to assist in their agricultural operations. A concentration of miscellaneous agricultural materials often produces a visual disparity between rural and urban areas of the County. Section 35-3.5-102, C.R.S., provides that an agricultural operation shall not be found to be a public or private nuisance if the agricultural operation alleged to be a nuisance employs methods or practices that are commonly or reasonably associated with agricultural production.
>
> Water has been, and continues to be, the lifeline for the agricultural community. It is unrealistic to assume that ditches and reservoirs may simply be moved "out of the way" of residential development. When moving to the

County, property owners and residents must realize they cannot take water from irrigation ditches, lakes or other structures, unless they have an adjudicated right to the water.

Weld County covers a land area of approximately four thousand (4,000) square miles in size (twice the size of the State of Delaware) with more than three thousand seven hundred (3,700) miles of state and County roads outside of municipalities. The sheer magnitude of the area to be served stretches available resources. Law enforcement is based on responses to complaints more than on patrols of the County, and the distances which must be traveled may delay all emergency responses, including law enforcement, ambulance and fire. Fire protection is usually provided by volunteers who must leave their jobs and families to respond to emergencies. County gravel roads, no matter how often they are bladed, will not provide the same kind of surface expected from a paved road. Snow removal priorities mean that roads from subdivisions to arterials may not be cleared for several days after a major snowstorm. Services in rural areas, in many cases, will not be equivalent to municipal services. Rural dwellers must, by necessity, be more self-sufficient than urban dwellers.

People are exposed to different hazards in the County than in an urban or suburban setting. Farm equipment and oil field equipment, ponds and irrigation ditches, electrical power for pumps and center pivot operations, high-speed traffic, sand burs, puncture vines, territorial farm dogs and livestock and open burning present real threats. Controlling children's activities is important, not only for their safety, but also for the protection of the farmer's livelihood.

Thank you for the opportunity to comment on this proposal. This response addresses general requirements, concerns, or issues and is intended to assist in your community's decision-making process regarding this land use proposal. Weld County respectfully reserves the right to make further comment on information or issues as they are discovered.

Sincerely,

Jim Flesher, AICP
Long-Range Planner
Weld County

Fort Lupton Fire Protection District
1121 Denver Avenue • Fort Lupton, Colorado 80621
Office: (303)857-4603 • Fax: (303)857-6619 • Website: www.fortluptonfire.org

Date: 2/21/2019
Project name: North Land PUD
Project address: Between Cr 16 & 18, Fort Lupton, CO 80621
FLFPD Project # 2019-0016
Plan reviewer: Taw Tamlin, Fire Marshal

The Fire District has reviewed the referral reference **North Land PUD** submittal located at **Between Cr 16 & 18**, Fort Lupton, CO 80621. The submittal was reviewed for requirements from the *2012 International Fire Code (IFC)* and National Fire Protection Association (*NFPA)* standards as adopted by the Fort Lupton Fire Protection District, the City Council of Fort Lupton, and Weld County Commissioners. The following specific and general requirements and conditions shall be met at time of construction.

1. Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed. *2012 IFC, C101.1*

2. Fire hydrants shall be provided along required fire apparatus access roads and adjacent public streets. *2012 IFC, C102.1*

3. The minimum number of fire hydrants available to a building shall not be less than that listed in Table C105.1. The number of fire hydrants available to a complex or subdivision shall not be less than that determined by spacing requirements listed in Table C105.1 when applied to fire apparatus access roads and perimeter public streets from which fire operations could be conducted. *2012 IFC, C103.1*

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Public Works

130 S. McKinley Avenue
Fort Lupton, CO 80621
Phone: 303-857-6694
Fax: 303.857.0351
www.fortlupton.org

MEMO

To: JC York (J & T Consulting, Inc.)
Todd Hodges
Alyssa Knutson

From: Roy Vestal

Date: February 20, 2019

Subject: North Land PUD Final Plat - Filing 3;
(Project No. LUP2019-0002 & Plan NO. FPL2019-0001)
Public Works Review

Public Works has reviewed the submitted documents for the above referenced development project with the following comments:

1. Construction Drawings
    a. Grading Permit Note: The SWMP and EC Plan should be submitted to the State for Stormwater Permit.
    b. Plat –The city Transportation Plan identifies Northland Drive as a Collector. The standard section for our collector streets 85-feet of ROW.
        i. The currently shown 5' walk is entirely on the property. The additional 5' can be placed in the ROW (assuming CDOT approves).
    c. Is the Sanitary FM in place currently?
        i. I need more information on what kind of system is proposed for all of Northland. Is it a vacuum system or intending for a lift station at the north end of Northland? How are lots connected?
    d. SH 22 – I believe there is a need for a culvert at the CR 18 south side roadside ditch.
    e. SH 23-28 – Please alternate side of the street for fire hydrants.
        i. May not need as many hydrants as shown. I will defer to Fire Marshall for spacing requirements.
        ii. Hydrant connection shown in profile with a plan. This on the south side of the ditch crossing. Probably do not want hydrant that close to the ditch on either side.
        iii. However, there seems to be no hydrant along the stretch on Sheet 27.

f. Please include final stabilization seeding or landscaping for the detention ponds with final construction drawings.

2. Drainage Study – Phase 2 Study.
   a. Has the final discharge pint been identified and evaluated for flows?
   b. Is the Phase III study to be submitted for the overall subdivision, or is this report going to define development requirements for each site?
   c. Please provide evaluation of culvert crossing for the waster ditch. It was installed prior to ROW dedication and not under authority of City inspection.
   d. Please identify connection between Phase I Northland development drainage.

3. Public Improvement Agreement – A Public Improvements Agreement is required for the construction of roadways, drainage, sanitary sewer, and water main.

4. A pavement design report will be required to determine pavement thickness and section for all roadways. I do prefer the composite section as shown in the drawings.

5. Review of drawings does not infer the drawings are error free and the design engineer and owner are still responsible for any erroneous or missing details. An approval or acceptance by the City does not relieve the owner, engineer, designer, or contractor from responsibility for ensuring that the calculations, plans, specifications, construction, and record drawings are in compliance with City Standards. There may be additional concerns as this design develops.

CITY OF Fort Lupton EST 1836
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Public Works

130 S. McKinley Avenue
Phone: 303.857.6694
Greeley: 970.346.0326

Fort Lupton, CO 80621

www.fortlupton.org Fax: 303.857.0351

SUBDIVISION IMPROVEMENTS AGREEMENT
FOR
NORTH LAND FILING 3

THIS AGREEMENT is made and entered into this _____ day of _____, by and between the **CITY OF FORT LUPTON**, a municipal corporation, in the County of Weld, State of Colorado, hereinafter referred to as the "City," and **LAND 5 INVESTMENTS, LLC**, hereinafter referred to as "Developer", together referred to as the "Parties".

WHEREAS, the Developer submitted a Subdivision entitled "North Land Filing 3, Case No. LUP2019-0002 & Plan No. FPL2019-0001 (the "Plat"), which Plat depicts the proposed project (the "Development") to be constructed by Developer on the "Subject Property"; and

WHEREAS a Subdivision Plat was approved by the City of Fort Lupton City Council on February 6, 2019 by Resolution No. 2019R009 with condition of approval I.C. requiring a Subdivision Improvements Agreement; and

WHEREAS, Developer is required to construct certain public improvements (the "Improvements") as a condition of subdivision approval for the Development; and

WHEREAS, Section 17-23(c) of the City of Fort Lupton Municipal Code requires that a subdivision agreement for public improvements be executed by the Developer and the City and recorded in the office of the Weld County Clerk and Recorder; and

WHEREAS, Section 17-23(f)(7) of the City of Fort Lupton Municipal Code requires that the installation of the required public improvements be guaranteed in the form of letter of credit, cash, or other suitable means, which have been approved by the City Attorney.

NOW, THEREFORE, in consideration of the foregoing, the Parties promise, covenant and agree as follows:

1.0 GENERAL CONDITIONS

1.1 Development Obligation. Developer shall be responsible for performance of the covenants set forth herein. Unless as otherwise amended within this agreement, the Developer shall be responsible for performance of all requirements in this agreement.

1.2 Engineering and Surveying Services. Developer agrees to furnish, at its expense, all necessary engineering and surveying services relating to the design layout and construction of the improvements (the "Improvements") depicted on Exhibit "A" attached hereto and fully incorporated herein by this reference. Said engineering services shall be performed by or under the supervision of a Registered Professional Engineer or Registered Land Surveyor, or

other professionals as appropriate, licensed by the State of Colorado, and in accordance with applicable Colorado law, and shall conform to the standards and criteria for public improvements as established and approved by the City as of the date of submittal to the City.

1.3 Construction Standards. Developer shall construct all Improvements required by this Agreement, in accordance with plans and specifications approved in writing by the City, in conformance with all applicable codes and ordinances as adopted by the City, and in full conformity with the City's construction and specifications applicable at the time of actual construction.

1.4 Development Coordination. Unless specifically provided in this Agreement to the contrary, all submittals to the City or approvals required of the City in connection with this Agreement shall be submitted to or rendered by the City Administrator, or his designee, who shall have general responsibility for coordinating development with Developer.

1.5 Construction Acceptance and Warranty. No later than ten (10) days after the Improvements are completed, Developer shall request and the City shall provide inspection by the City. If Developer does not request this inspection within ten (10) days of completion of the Improvements, the City may conduct the inspection without the approval of Developer. Developer shall provide "as-built" drawings no later than thirty (30) days after the Improvements are completed. If the Improvements completed by Developer are satisfactory, the City shall grant construction acceptance ("Construction Acceptance") within ten (10) days of the Developer's submission of "as-built" drawings, which shall be subject to final acceptance ("Final Acceptance") as set forth herein. If the Improvements completed by Developer are unsatisfactory, the City shall provide written notice to Developer of the repairs, replacements, construction or other work required to receive Construction Acceptance within ten (10) days from the date of City inspection. Developer shall complete all needed repairs, replacements, construction or other work within thirty (30) days of said notice, weather permitting. After Developer does complete the repairs, replacements, construction or other work required, Developer shall request a re-inspection of such work within ten (10) days to determine if Construction Acceptance can be granted. The City shall provide either Construction Acceptance or written notice of additional repairs, replacements, construction or other work required to receive Construction Acceptance within ten (10) days of the re-inspection date. The City shall issue no certificate of occupancy until the City has granted the Construction Acceptance.

1.6 Final Acceptance. At least thirty (30) days before one (1) year has elapsed from the issuance of Construction Acceptance, or as soon thereafter as weather permits, Developer shall request a Final Acceptance inspection. The City shall inspect the Improvements and shall notify the Developer in writing of all deficiencies and necessary repairs. After Developer has corrected all deficiencies and made all necessary repairs identified in said written notice, the City shall issue to Developer a letter of Final Acceptance.

1.7 Testing and Inspection.

(a) At all times during construction of the public improvements, the City shall have access to inspect materials and workmanship, and all materials and work not conforming to the approved plans and specifications shall be repaired or removed and replaced at Developer's expense so as to conform to the approved plans and specifications.

(b) The Developer will be responsible for oversight of the construction of the public improvements. The Developer shall solicit and retain a third-party engineer or inspector, solely at

Developer's cost, to perform oversight, provided the engineer/inspector's qualifications are approved by the City prior to commencement of construction of the public improvements. The Developer will provide the resume of a Civil Engineer, or other qualified inspector(s), of the construction and installation of such improvements before construction may begin. The City Engineer or the City's designee shall determine the amount of oversight required, after consultation with the Developer.

(c) All testing required by the City's *"Standards and Specifications for the Design and Construction of Public Improvements"* shall be the responsibility of the Developer. All test reports shall be provided to the City Engineer.

(d) All work shown on the Improvements plans requires inspection by the City. Inspection services are provided Monday through Friday, except legal holidays, from 8:00 a.m. to 4:00 p.m. During the hours listed above and except as otherwise provided for in advance, inspections shall be scheduled a minimum of three (3) business days in advance.

1.8 Indemnification and Release of Liability. Developer agrees to defend, indemnify and hold harmless the City, its officers, employees, agents or servants, and to pay any and all judgments rendered against said persons on account of any suit, actions or claim caused by, arising from, or on account of acts or omissions by the Developer, its officers, employees, agents, consultants, contractors and subcontractors; provided, however, that Developer's obligation herein shall not apply to the extent said suit, action or claim results from any acts or omissions of officers, employees, agents or servants of the City. Said obligation of Developer shall be limited to suits, actions or claims based upon conduct prior to Final Acceptance by the City of the construction work. Developer acknowledges that the City's review and approval of plans for development of the Subject Property is done in furtherance of the general public's health, safety and welfare and that no immunity is waived and no specific relationship with, or duty of care to, the Developer or third parties is assumed by such review approval.

1.9 Insurance OSHA. Developer shall furnish to the City upon request proof thereof that all employees and contractors engaged in the construction of Improvements are covered by adequate Worker's Compensation Insurance and Public Liability Insurance and shall require faithful compliance with all provisions of the Federal Occupational Safety and Health Act (OSHA).

2.0 CONSTRUCTION OF IMPROVEMENTS

2.1 Rights-of-Way, Easements and Permits. Before the City may approve construction plans for any Improvements herein agreed upon, Developer shall acquire, at its own expense, all rights-of-way and easements depicted on the Plat, as required by the City for the construction of the Improvements. All such conveyances shall be free and clear of liens, taxes and encumbrances and shall be by deed, easement, license, agreement in form and substance acceptable to the City Administrator or the Administrator's designee. All title documents shall be recorded at the Developer's expense.

3.0 INFRASTRUCTURE IMPROVEMENTS

3.1 Public Improvements

The Developer agrees to construct phased public improvements (the "Improvements), within the Subdivision, depicted on Exhibit "A" attached hereto and fully incorporated herein by this reference. The Developer shall be responsible for providing the City with a Security Bond, Letter of Credit, or cash deposit with the City (the "Security") guaranteeing installation of the Improvements that are not completed prior to issuance of the first building permit for each Filing. The amount shall be one hundred twenty-five percent (125%) of the applicable phased estimated cost of the required Improvements per Exhibit "E" attached hereto and fully incorporated herein by this reference. The City may accept portions of the Improvements, reducing the Security for each portion completed and accepted by the City, to no less than twenty-five percent (25%) of the actual or estimated construction costs, whichever is greater, for each completed system. Each Improvement phase shall define a system, i.e. roadways system, sewer system, water system. The remaining twenty-five percent (25%) percent for each system shall be retained to secure the Developer's warranty during the designated warranty period. A warranty period. of one (1) year shall apply to underground utilities. A warrantee period of two (2) years shall apply to surface paving of streets. The City shall release or return the Security to the Developer within Thirty (30) days of receipt of the Conditional Acceptance as provided in paragraph 1.5 herein, less the twenty-five percent (25%) of construction costs to be retained during the warranty period. Upon Final Acceptance of the Improvements as provided in paragraph 1.6 herein, the twenty-five percent (25%) Security retained during the warranty period shall be released or returned to the Developer within Thirty (30) days of issuance of the Final Acceptance.

4.0 SPECIFICATIONS.

All street improvements, curb, gutter and sidewalks and appurtenances thereto, water mains, sewer mains and stormwater improvements shall be constructed and installed so as to meet or exceed City-approved plans, specifications and the Improvements described on Exhibit "A" Public Improvements and Exhibit "B" Landscape and Park Improvements. All streets within the Subdivision shall be constructed to City Standards and Specifications per the approved Construction Plans and based upon a site-specific geotechnical study and pavement design. All streetscaping will meet the requirements of the Fort Lupton Subdivision Regulations. Detention pond improvements will be required at the time of construction on the site as determined by the Phase III Drainage Study submitted.

5.0 OTHER REQUIREMENTS

5.1 Trash, Debris, Mud. Developer agrees that, during construction of the Development and Improvements described herein, Developer shall take any and all steps necessary to control trash, debris and wind or water erosion in the Development. Developer agrees to take any and all steps necessary to prevent the transfer of mud or debris from the construction site into public rights-of-way and to immediately remove such mud and debris from public rights-of-way after notification by the City. If these requirements are not met, the developer will be responsible for reimbursing the City for any costs incurred by the City in mitigating impacts of trash, debris, and mud.

5.2 Erosion Control and Sedimentation Plan. Developer agrees to submit an erosion control and sedimentation plan for review and approval by the City Engineer prior to commencement of construction on the site. Each individual lot will require erosion control measures be taken. Colorado State permits required shall be the responsibility of the Developer.

5.3 Colorado Big Thompson (CBT) Water Shares or equivalent. Developer agrees to dedicate to the City the appropriate water required by the applicable City Codes and regulations and deliverable to the City Water Treatment Plant at the time of development. The City will not receive dedication or supply water service to the project until and unless the subject property is included within the Northern Colorado Water Conservancy District and Municipal Sub-District. The Developer may, at its discretion, elect to pay cash-in-lieu to the City to satisfy the CBT water dedication requirement Said cash-in-lieu payments will be made on a per-lot basis at the time of Final Plat recordation. Dedicated CBT water shares shall remain attached to platted lots.

6.0 MISCELLANEOUS TERMS

6.1 Local Codes and Ordinances. In addition to any of the items listed in this Agreement, all construction in the Development is subject to all local Codes and Ordinances as adopted by the City subject to exceptions agreed or granted.

6.2 Recording of Agreement. The City shall record this Agreement at Developer's expense in the office of the Clerk and Recorder, County of Weld, State of Colorado, and the City shall retain the recorded Agreement.

6.3 Binding Effect of Agreement. This Agreement shall run with the land included within the Development and shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto.

6.4 Modification and Waiver. No modification of the terms of this Agreement shall be valid unless in writing and executed with the same formality as this Agreement, and no waiver of the breach of the provisions of any section of this Agreement shall be construed as a waiver of any subsequent breach of the same section or any other sections which are contained herein.

6.5 Notices. Any notice or communication required or permitted hereunder shall be given in writing and shall be personally delivered or sent by United States mail, postage prepaid, registered or certified mail, return receipt requested, addressed as follows:

CITY:	City of Fort Lupton Attention: City Administrator 130 South McKinley Avenue Fort Lupton, Colorado 80621
DEVELOPER:	Land 5 Investments, LLC 1201 Riverdale Road Brighton, CO 80602

or to such other address or the attention of such other person(s) as hereafter designated in writing by the applicable parties in conformance with this procedure. Notices shall be effective upon mailing or personal delivery in compliance with this paragraph.

6.6 **Force Majeure.** Whenever Developer is required to complete construction, maintenance, repair or replacement of Improvements by an agreed upon deadline, the City shall grant a reasonable extension of time if the performance cannot, as a practical matter, be completed in a timely manner due to acts of God or other circumstances constituting force majeure or beyond the reasonable control of the Developer.

6.7 **Approvals.** Whenever approval or acceptance of a matter is required or requested of the City pursuant to any provisions of this Agreement, the City shall act reasonably in responding to such matter, and no such approval or acceptance shall be unreasonably withheld or delayed.

6.8 **Title and Authority.** Developer warrants to the City that it is the record owner of the Subject Property upon which the Development shall be constructed or is acting in accordance with the authority of the owner. The undersigned further warrants to have full power and authority to enter into this Agreement.

6.9 **Severability.** This Agreement is to be governed and construed according to the laws of the State of Colorado. In the event that any provision of this Agreement is held to be violative of city, state or federal laws and hereby rendered unenforceable, either party, in its sole discretion, may determine whether the remaining provisions will or will not remain in force.

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized officials to place their hands and seals upon this Agreement the day and year first above written.

CITY OF FORT LUPTON, a Colorado municipal corporation

By: _____
Zo Stieber
Mayor

STATE OF COLORADO)
) ss.
COUNTY OF WELD)

SUBSCRIBED AND SWORN to before me this _____ day of _____ 2019, by Zo Stieber as Mayor of the City of Fort Lupton, Colorado.

WITNESS my hand and official seal.

MY COMMISSION EXPIRES: _____

_____

Notary Public

Land 5 Investments, LLC, a Colorado Limited Liability Company

By:_____
Lloyd Land

STATE OF COLORADO)
) ss.
COUNTY OF WELD)

SUBSCRIBED AND SWORN to before me this _____ day of _____ 2019, by George Lee, as a Member of Fulton Village, LLC.

WITNESS my hand and official seal.

MY COMMISSION EXPIRES: _____

_____

Notary Public