STAFF REPORT Administrative Hearing December 6, 2018

PROJECT NAME

FTC FOXSTONE #PDP180007

STAFF

Pete Wray, Senior City Planner

PROJECT INFORMATION

PROJECT DESCRIPTION:

This is a request for a Project Development Plan without a subdivision plat to build an unmanned telecommunications site located within the Securcare Self Storage property at 1961 Caribou Drive. The telecommunication facility consists of three antenna arrays on a new, self-supporting, forty (40) foot tall tower, with associated equipment concealed on the ground. This facility will house wireless telecommunications equipment to provide wireless service to the surrounding area. This tower and facility will be used for structural support of up to three wireless providers. Each provider will install antennas and on-the-ground base station equipment. The site is located in the Employment (E) zone district and, as such, is subject to a Type I review and approval by an administrative hearing officer.

APPLICANT: Verizon Wireless LLC

3131 S. Vaughn Way Aurora, CO 80014

OWNER: Securcare Properties I, LLC

9296 Teddy Lane, Ste. 100

Littleton, CO 80124

RECOMMENDATION: Approval of the FTC Foxstone Wireless Telecommunications Facility,

PDP180007.

EXECUTIVE SUMMARY

Staff finds the proposed FTC Foxstone Wireless Telecommunications Facility Project Development Plan complies with the applicable requirements of the City of Fort Collins Land Use Code (LUC), more specifically:

- The Project Development Plan complies with the process located in Division 2.2 Common Development Review Procedures for Development Applications of Article 2 Administration.
- The Project Development Plan complies with relevant standards of Article 3 General Development Standards.
- The Project Development Plan complies with relevant standards located in Division 4.27, Employment (E) of Article 4 Districts.

COMMENTS:

1. Background:

The property was annexed into the City as part of the Harmony Annexation 2nd on September 5, 1977. The property was developed in 1995 as the Timberline Storage PUD, with a Second Filing for additional storage in 1996. The property is now Securcare Self Storage.

The surrounding zoning and land uses are as follows:

Direction	Zone District	Existing Land Uses
North	Employment (E)	Collingwood Offices
South	Employment (E)	Vacant, Single-family detached residential
East	Employment (E)	Caribou Apartments
West	Low Density Residential (RL)	Single-family detached residential

2. <u>Compliance with Article 2 of the Land Use Code – Administration – Common Development</u> Review Procedures for Development Applications:

A. Section 2.2.2. Step 2: Neighborhood Meetings

The proposed development is for a wireless telecommunications facility, which is a permitted use in the E – Employment Zoning District, subject to an administrative (Type 1) review and public hearing. The Land Use Code does not require that a neighborhood meeting be held for development proposals that are not subject to a Planning and Zoning Board (Type 2) review. A neighborhood meeting was not held for this proposed project.

3. Compliance with Article 3 of the Land Use Code – General Development Standards:

The project complies with all applicable General Development Standards as follows:

A. Section 3.6.6 – Emergency Access

The existing Self Storage site access and emergency access drive are not proposed to be changed. The applicant proposes a fifteen (15) foot access easement with the existing emergency access drive to provide emergency access to the tower. This path will allow emergency vehicles to access the site and provide fire and emergency services pursuant to Chapter 9 of the City Code.

B. Section 3.8.13(C)(1) – Setbacks

Wireless Telecommunication Facilities must be set back from the property one foot for every one foot in the facility's height. The applicant may also demonstrate the facility is designed to collapse rather than topple to meet this requirement. The proposed tower facility is forty (40) feet high and the distance from the base of the pole to the nearest property line is approximately sixty (60) feet, which meets this requirement.

C. Section 3.8.13(C)(2) – Wireless Telecommunications Facilities

Whether manned or unmanned, wireless telecommunication facilities shall be consistent with the architectural style of the surrounding architectural environment (planned or existing) considering exterior materials, roof form, scale, mass, color, texture and character. Such facilities shall also be compatible with the surrounding natural environment considering land forms, topography, and other natural features. If such facility is an accessory use to an

existing use, the facility shall be constructed out of materials that are equal to or better than the materials of the principal use.

The proposed tower facility is consistent with the existing architectural style and environment. The character of the site and its surroundings is reflective of light industrial and business uses and associated buildings. The proposed material, metal and fiberglass, is equal to or better than the materials used on the storage buildings and associated outbuildings located on the development site.

D. Section 3.8.13(C)(5) – Fencing

Fencing material shall consist of wood, masonry, stucco or other acceptable materials and be opaque. Fencing shall not exceed six feet in height. The proposed fence is made of wood and will not exceed six feet in height in accordance with this standard.

E. Section 3.8.13(C)(8) – Color

Wireless telecommunication facilities shall be painted to match as closely as possible the color and texture of the wall, building or surrounding built environment. Muted colors, earth tones and subdued colors shall be used. The proposed color will be a beige to match existing storage buildings on site and fit in with the surrounding business park buildings in surrounding neighborhood in accordance with this standard.

F. Section 3.8.13(C)(11) – Access Roadways

The proposed access roadway meets the requirements for emergency access per Section 3.6.6, satisfying this standard.

G. Section 3.8.13(C)(15) – Stealth Technology

Applicants must use stealth technology to the extent reasonably feasible to minimize the visual impact of the facility. As an alternative to a monopole, the proposed three-leg tower with screen panels to conceal the antennas was recommended by staff. The proposed facility represents a "mimic" structure comparable to a water or clock tower, with a contextual relationship to the adjacent area. The facility is located in the far northeast corner of the site and at the greatest distance from adjacent neighborhoods.

4. Compliance with Article 4 of the Land Use Code – Division 4.27, Employment (E)

The project complies with all applicable Article 4 standards as follows:

A. Section 4.27(B)(1) – Permitted Uses

The proposed use, wireless telecommunications facility, is permitted in the E zone, subject to a Type I administrative review, in compliance with this section of the code.

5. Findings of Fact/Conclusion:

In evaluating the request for proposed FTC Foxstone Wireless Telecommunications Facility Project Development Plan, Staff makes the following findings of fact:

A. The Project Development Plan complies with the process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.

- B. The Project Development Plan complies with relevant standards of Article 3 General Development Standards.
- C. The Project Development Plan complies with relevant standards located in Division 4.27, Employment (E) of Article 4 District.

RECOMMENDATION:

Staff recommends that the Administrative Hearing Officer approve the FTC Foxstone Wireless Telecommunications Facility, PDP180007.

ATTACHMENTS

- 1. Site Vicinity Map
- 2. FTC Foxstone Telecommunications Facility Planning Objectives
- 3. FTC Foxstone Wireless Telecommunications Facility Planning Document Set (including site plan and elevations)



Verizon Wireless - FTC Foxstone Vicinity Map



PLANNING OBJECTIVES VERIZON WIRELESS FTC FOXSTONE DEVELOPMENT REVIEW FOR WIRELESS COMMUNICATION SITE

PROJECT INFORMATION

<u>Applicant Information</u>: Verizon Wireless (VAW) LLC, d/b/a/ Verizon Wireless, 3131 South Vaughn Way, Aurora, CO 80014

Representative: Jennifer Daniels, Leasing and Zoning Consultant, Centerline Solutions, 16360 Table Mountain Pkwy, Golden, CO 80403; (303) 993-3293 x1216

<u>Land Owner Information</u>: Securcare Properties I, LLC. 9296 Teddy Lane Suite 100, Littleton CO, 80124 - Owner Contact: Caleb Crossland (970) 222-1341

Engineering Firm Preparing Site Plan: Centerline Solutions, LLC. 16035 Table Mountain Pkwy, Golden, CO 80403; (720) 304-6882

Address of Project: 1961 Caribou Dr.

PLANNING OBJECTIVES

Verizon Wireless proposes to develop a new telecommunications site, "Verizon Wireless FTC Foxstone" at 1961 Caribou Dr. in the northeast corner of the site. The purpose of this site is to provide improved 4G-LTE voice and data capacity for Verizon Wireless customers in the area. The proposed site will be part of a continuous telecommunications network serving the greater Fort Collins area. Verizon Wireless has recently developed several sites within the City of Fort Collins and approval of this application will allow Verizon Wireless to meet its federally mandated obligations under the license granted by the Federal Communications Commission (FCC) pursuant to the Telecommunications Act of 1996. The explosive growth of data usage from "smartphones" and similar devices has made it necessary to increase data capacity in densely populated areas. The proposed facility will address the need for additional capacity for the neighborhoods directly to the west and southeast.

The proposed site will include a total of one (1) monopole with three (3) antenna arrays consisting of four (4) antennas each. The monopole will be located in the northeast corner of the property. The associated equipment will be located at the base of the pole within fencing to match existing. The following pages provide detail regarding compliance with the City's zoning requirements for Wireless Telecommunication Sites.

LAND USE CODE SECTION 3.8.13
REQUIREMENTS FOR WIRELESS TELECOMMUNICATION

3.8.13 Wireless Telecommunication

- (A) *Location*. Subject to the requirements of paragraph (B) of this Section, wireless telecommunication equipment may be attached to or mounted on any existing building or structure (or substantially similar replacement structure) located in any zone district of the city. Wireless telecommunication equipment shall not, however, be permitted to be attached to or mounted on any residential building containing four (4) or fewer dwelling units.
 - FTC Foxstone: This property does not contain any dwelling units.
- (B) *Co-location*. No wireless telecommunication facility or equipment owner or lessee or employee thereof shall act to exclude or attempt to exclude any other wireless telecommunication provider from using the same building, structure or location. Wireless telecommunication facility owners or lessees or employees thereof shall cooperate in good faith to achieve co-location of wireless telecommunication facilities and equipment with other wireless telecommunication providers.
 - FTC Foxstone: Verizon Wireless will not act to exclude or attempt to exclude any other competitor from using the property for the location of future antennas or telecommunication equipment.

(C) Standards.

- (1) *Setbacks*. With respect to a wireless telecommunication facility that is a tower or a monopole, the setback of the facility from the property lines shall be one (1) foot for every foot of height. However, to the extent that it can be demonstrated that the structure will collapse rather than topple, this requirement can be waived by the Director. In addition, the setbacks for ground-mounted wireless telecommunication equipment shall be governed by the setback criteria established in Articles 3 and/or 4.
 - FTC Foxstone: The proposed monopole is (40) forty feet high and the distance from the base of the pole to the parent property line is approximately (60) sixty feet.
- (2) Wireless Telecommunication Facilities. Whether manned or unmanned, wireless telecommunication facilities shall be consistent with the architectural style of the surrounding architectural environment (planned or existing) considering exterior materials, roof form, scale, mass, color, texture and character. Such facilities shall also be compatible with the surrounding natural environment considering land forms, topography, and other natural features. If such

facility is an accessory use to an existing use, the facility shall be constructed out of materials that are equal to or better than the materials of the principal use.

- FTC Foxstone: The proposed telecommunication facility was designed in consideration of advice received from the Fort Collins Planning Dept. to appropriately blend with the existing structures on the property. Photo-simulations of the proposed installation have been provided.
- (3) Wireless Telecommunication Equipment. Wireless telecommunication equipment shall be of the same color as the building or structure to which or on which such equipment is mounted.

Whenever a wireless telecommunication antenna is attached to a building roof, the height of the antenna shall not be more than fifteen (15) feet over the height of the building. All wireless telecommunication equipment shall be located as far from the edge of the roof as possible. Even if the building is constructed at or above the building height limitations contained in Section 3.8.17, the additional fifteen (15) feet is permissible.

Whenever wireless telecommunication equipment is mounted to the wall of a building or structure, the equipment shall be mounted in a configuration as flush to the wall as technically possible and shall not project above the wall on which it is mounted.

Roof- and ground-mounted wireless telecommunication equipment shall be screened by parapet walls or screen walls in a manner compatible with the building's design, color and material.

• FTC Foxstone: Not applicable – Monopole is proposed.

(4) Landscaping. Wireless telecommunication facilities and ground-mounted wireless telecommunications equipment may need to be landscaped with landscaping materials that exceed the levels established in Section 3.2.1, due to the unique nature of such facilities. Landscaping may therefore be required to achieve a total screening effect at the base of such facilities or equipment to screen the mechanical characteristics. A heavy emphasis on coniferous plants for year-round screening may be required.

If a wireless telecommunication facility or ground-mounted wireless telecommunication equipment has frontage on a public street, street trees shall be planted along the roadway in accordance with the policies of the City Forester.

• FTC Foxstone: No landscaping is proposed.

- (5) Fencing. Chain link fencing shall be unacceptable to screen facilities. Fencing material shall consist of wood, masonry, stucco or other acceptable materials and be opaque. Fencing shall not exceed six (6) feet in height.
 - FTC Foxstone: Proposed fence will be (5) five feet and match existing aluminum fence.
- (6) *Berming*. Berms shall be considered as an acceptable screening device. Berms shall feature slopes that allow mowing, irrigation and maintenance.
 - FTC Foxstone: No berming is proposed.
- (7) *Irrigation*. Landscaping and berming shall be equipped with automatic irrigation systems meeting the water conservation standards of the city.

FTC Foxstone: No landscaping or berming is proposed; hence, no irrigation is required.

- (8) *Color*. All wireless telecommunication facilities and equipment shall be painted to match as closely as possible the color and texture of the wall, building or surrounding built environment. Muted colors, earth tones and subdued colors shall be used.
 - FTC Foxstone: Monopole color will match the theme of the surrounding built environment.
- (9) *Lighting*. The light source for security lighting shall be high pressure sodium and feature down-directional, sharp cut-off luminaries so that there is no spillage of illumination off-site. Light fixtures, whether freestanding or tower-mounted, shall not exceed twenty-two (22) feet in height.
 - FTC Foxstone: No security lighting is proposed for this facility.
- (10) *Interference*. Wireless telecommunication facilities and equipment shall operate in such a manner so as not to cause interference with other electronics such as radios, televisions or computers.
 - FTC Foxstone: The Verizon Wireless telecommunications site will not interfere with other electronic devices.
- (11) Access Roadways. Access roads must be capable of supporting all of the emergency response equipment of the Poudre Fire Authority.
 - FTC Foxstone: No new access roads are proposed at this site.
- (12) Foothills and Hogbacks. Wireless telecommunication facilities and equipment located in or near the foothills bear a special responsibility for mitigating visual disruption. If such a location is selected, the applicant shall provide computerized, three-dimensional, visual simulation of the

facility or equipment and other appropriate graphics to demonstrate the visual impact on the view of the city's foothills and hogbacks.

- FTC Foxstone: Foothills or Hogbacks are not an issue for this site.
- (13) Airports and Flight Paths. Wireless telecommunication facilities and equipment located near airports and flight paths shall obtain the necessary approvals from the Federal Aviation Administration.
 - FTC Foxstone: The proposed wireless telecommunication equipment is not located near an airport or within a flight path.
- (14) *Historic Sites and Structures*. Wireless telecommunication facilities and equipment shall not be located on any historic site or structure unless permission is first obtained from the city's Landmark Preservation Commission as required by Chapter 14 of the City Code.
 - FTC Foxstone: The subject property is not a historic site or structure.
- (15). Stealth Technology: To the extent reasonably feasible, the applicant shall employ "stealth technology" so as to convert the wireless telecommunication into wireless telecommunication equipment, as the best method by which to mitigate and/or camouflage visual impacts. Stealth technology consists of, but is not limited to, the use of grain bins, silos, or elevators, church steeples, water towers, clock towers, bell towers, false penthouses or other similar "mimic" structures. Such "mimic" structures shall have a contextual relationship to the adjacent area.
 - FTC Foxstone: Concealed or "Stealth Technology" was initially proposed but was advised against during conceptual review. The FTC Planning Department requested that a monopole be used for this specific location.

verizon

UTILITY PLANS FOR: SITE NAME: FTC FOXSTONE SITE ADDRESS: 1961 CARIBOU DR. FT.COLLINS, CO 80525

LARIMER COUNTY

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

GENERAL CONTRACTOR NOTE

DRAWING SCALES SHOWN ARE ACCURATE WHEN PLOTTED ON 11"X17" SHEET. FOR 24"X36" SHEETS USE APPROPRIATE SCALE FACTOR 2X THAT OF SCALE SHOWN OR CONTACT CENTERLINE SOLUTIONS FOR FURTHER INFORMATION. DIMENSIONS SHOWN TAKE PRECEDENCE.

CALL 811 TWO BUSINESS DAYS BEFORE DIGGING. THE CONTRACTOR SHALL NOTIFY ONE CALL TO LOCATE ALL UNDERGROUND FACILITIES BEFORE DIGGING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO STAY CLEAR OF ALL UNDERGROUND FACILITIES.

THESE DRAWINGS MAY NOT SHOW ALL UNDERGROUND PIPING AND UTILITIES. THE CONTRACTOR SHALL EXERCISE EXTREME CARE DURING ALL EXCAVATION AND OTHER CONSTRUCTION ACTIVITIES.

VERIZON WIRELESS IS RESPONSIBLE FOR ALL UTILITY LOCATES AND UTILITY RELOCATIONS REQUIRED FOR THIS INSTALLATION. VERIZON WIRELESS WILL SCHEDULE AND COORDINATE ALL WORK WITH THE OWNER TO ENSURE NO DISRUPTION TO OWNERS OPERATIONS.

VERIZON WIRELESS SHALL BE ABBREVIATED "VZW" THROUGHOUT.

APPROVAL BLOCK

TITLE	SIGNATURE	DATE
OWNER		
ENGINEER		
PROJECT MANAGER		
	OR "SIGN-OFF" BY PARTIES TO THE CO	

PROJECT TEAM

PROPERTY OWNER: SECURCARE PROPERTIES I LLC CONTACT: CALEB CROSSLAND PHONE: 970.222.1341

APPLICANT: VERIZON

VERIZON 3131 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

CONSTRUCTION MANAGER: VERIZON WIRELESS KENT MCDERMOTT 406.941.2110

RF ENGINEER: VERIZON WIRELESS RAM NANDIRAJU PH. 303.873.2693 M:720.467.0443

SITE ACQUISITION: CENTERLINE SOLUTIONS, LLC JENNIFER DANIELS PH: 303.993.3293

A&E FIRM: CENTERLINE SOLUTIONS, LLC BRAD BRYANT, PM PH: 303.993.3293 X1383

ENGINEER OF RECORD: CENTERLINE SOLUTIONS, LLC KHRISTOPHER SCOTT, PE PH: 303.993.3293

CIVIL SURVEYOR:
DALEY LAND SURVEYING, INC.
17011 LINCOLN AVENUE STE. 361
PARKER, CO 80134-3144
ROB DALEY, PLS
PH: 303.953.9841

JURISDICTION: -

ZONING DESIGNATION:

PROJECT DATA

PARCEL NUMBER: - 8731422001

OCCUPANCY GROUP: - U

CONSTRUCTION TYPE: - V-B

FULLY SPRINKLERED: - NO

LEGAL DESCRIPTION:

NO. OF STORIES:

THE LAND REFERRED TO IN SCHEDULE A IS SITUATED IN THE CITY OF FT. COLLINS, COUNTY OF LARIMER, STATE OF COLORADO AND IS DESCRIBED AS FOLLOWS: PARCEL ONE: LOT ONE, TIMBERLINE STORAGE P.U.D., PARCEL TWO: LOT ONE, A PLAT OF TIMBERLINE STORGE P.U.D., SECOND FILING, A MINOR SUBDIVISION, CITY OF FT. COLLINS, COUNTY OF LARIMER, STATE OF COLORADO.

CITY OF FT.COLLINS

GOVERNING CODES IF APPLICABLE:

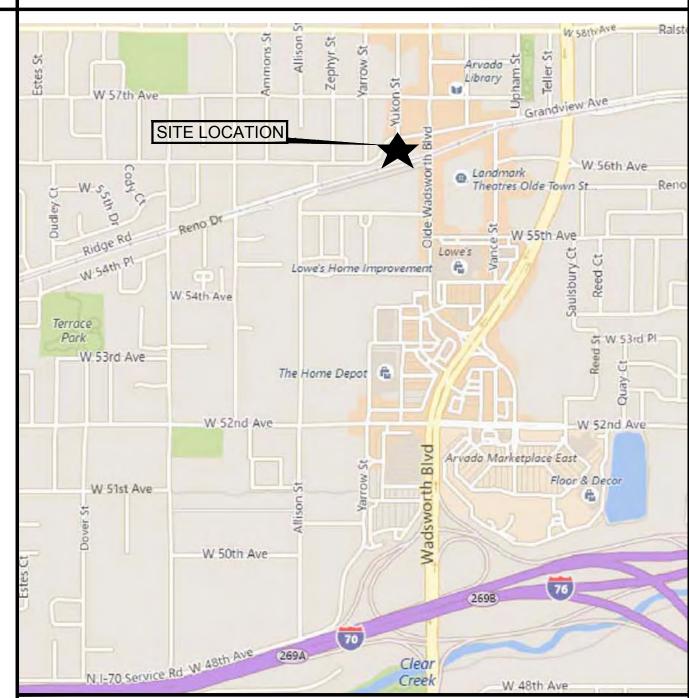
2015 IBC, 2015 IECC, 2015 IFC, 2015 IMC, 2015 IPC, 2015 IRBC, 2014 NEC.

A.D.A. COMPLIANCE:
NOT REQUIRED PER IBC 1103.2.9

PROJECT DESCRIPTION

NEW UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF (3) SECTORS OF CONCEALED ANTENNAS, AND CONCEALED EQUIPMENT ON A NEW 3 LEG TOWER.

VICINITY MAP



REFERENCE DOCUMENTS

ISSUED FOR: ZONING 10/11/18

ENLARGED SITE PLAN, EQUIPMENT PLAN & ANTENNA DETAIL

ANTENNA DETAIL, ANTENNA SCHEDULE & CABLE SCHEDULE

LARIMER COUNTY URBAN AREA STREET STANDARDS - NOTES

City of Fort Collins, Colorado

UTILITY PLAN APPROVAL

City Engineer

Water & Wastewater Utility

Stormwater Utility

Parks & Recreation

Traffic Engineer

Environmental Planner

DRAWING INDEX

TITLE SHEET

LAND SURVEY

LAND SURVEY

LAND SURVEY

UTILITY COORDINATION PLAN

PHOTO SIMULATION WEST

NORTH & EAST ELEVATIONS

GENERAL NOTES (SHEET 2 OF 4)

GENERAL NOTES (SHEET 3 OF 4)

GENERAL NOTES (SHEET 4 OF 4)

OVERALL SITE PLAN

WEST ELEVATION

GENERAL NOTES

PHOTO SIMULATIONS EAST & NORTH

LS1

LS3

Z1

Z3.2

GN1

GN3

DRIVING DIRECTIONS TO SITE

FROM THE VERIZON OFFICE LOCATED AT 3131 S. VAUGHN WAY, AURORA, COLORADO:

TAKE I-225 FOR 7.6 MILES TO EXIT 1A. TAKE RAMP LEFT FOR I-70 WEST TOWARD DENVER FOR 13.4 MILES. AT EXIT 269A TAKE RAMP RIGHT AND FOLLOW SIGNS FOR CO-121 NORTH. TRAVEL NORTH FOR 1.1 MILE. TURN LEFT ONTO OLDE WADSWORTH BLVD. (STREET BECOMES WEST 53RD AVE. ON RIGHT AND OLDE WADSWORTH AVE. ON LEFT). DRIVE NORTHWEST AND NORTH ON OLDE WADSWORTH AVE. FOR .5 MILE AND TURN LEFT ONTO GRANDVIEW AVE. ARRIVE AT SITE ON THE LEFT IN 249 FEET.

UTILITIES

APPROVED:

APPROVED:

APPROVED:

APPROVED:

APPROVED:

APPROVED:

APPROVED:

POWER COMPANY:

City of Collins

CONTACT: AUSTIN KREAGER WK: / CELL: 970-221-6700 TELCO COMPANY:

TBD

CONTACT: TBD WK: / CELL:



Date

Date

Date

Date

Date

Date

Date

verizon

AURORA, CO 80014

PROJECT INFORMATION:
SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

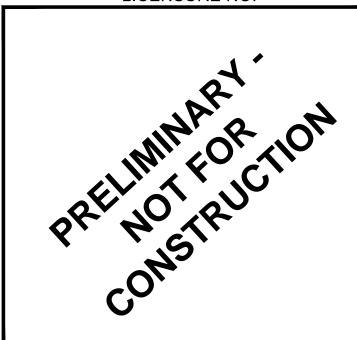
REV:	DATE:	DESCRIPTION:	BY:
1	03/23/18	90% ZONING	GW
2	04/06/18	90% ZONING REV A	GW
3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T1

TOPOGRAPHIC SURVEY

VERIZON WIRELESS SITE FTC FOXSTONE

SITUATED IN THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH P.M. COUNTY OF LARIMER, STATE OF COLORADO

SURVEYOR'S CERTIFICATE I, Robert Daley, do hereby certify only to Centerline Solutions, that on January 3, 2018, a topographic survey was conducted under my supervision using the normal standard of care of

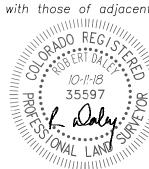
This drawing does not represent a Land Survey, Land Survey Plat, Improvement Land Survey Plat or Improvement Location Certificate and any monuments or boundary lines shown are for information only and are not to be relied on.

Professional Land Surveyors and the map hereon accurately represents said survey, to the best of

This survey relied upon First American Title Insurance Company Commitment No.: 5509—2972970 for legal descriptions and easements.

This survey does not constitute a title search by this surveyor or Daley Land Surveying, Inc. of the property shown and described hereon to determine:

1. Ownership of this tract of land.
2. Rights—of—way, easements and encumbrances recorded or unrecorded affecting this tract of land.
3. Compatibility of this description with those of adjacent tracts of land.



Job No. 1203–200 For and on behalf of Daley Land Surveying, Inc. 17011 Lincoln Ave., #361 Parker CO. 80134 303 953 9841 Robert Daley, PLS 35597

BASIS OF BEARINGS

The bearings shown on this survey are referenced to the East Line of the Northeast Quarter of Section 31, Township 7 North, Range 68 West, assumed to bear North 00°05'00" West, 2660.34 feet, monumented as shown hereon.

COORDINATE SYSTEM AND DATUM:

Horizontal coordinates are referenced to NAD83, Vertical datum is NAVD88 and originates from the local C.O.R.S. network, utilizing the Geoid12A model.

UTILITIES:

The utilities which are readily visible upon the ground, such as manholes, power and light poles, inlets, etc. were located by field surveys and shown hereon. Sub—surface utilities, if shown, are the result of field surveys of utility location marks provided by others.

NOTICE: According to Colorado law you must commence any legal action based upon any 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

LEGAL DESCRIPTION PARENT TRACT:

Per Commitment No.: 5509—2972970 IEffective Date: November 15, 2017 at 5:00 p.m., First American Title Insurance Company.

The land referred to in Schedule A is situated in the County of Larimer, State of Colorado and is

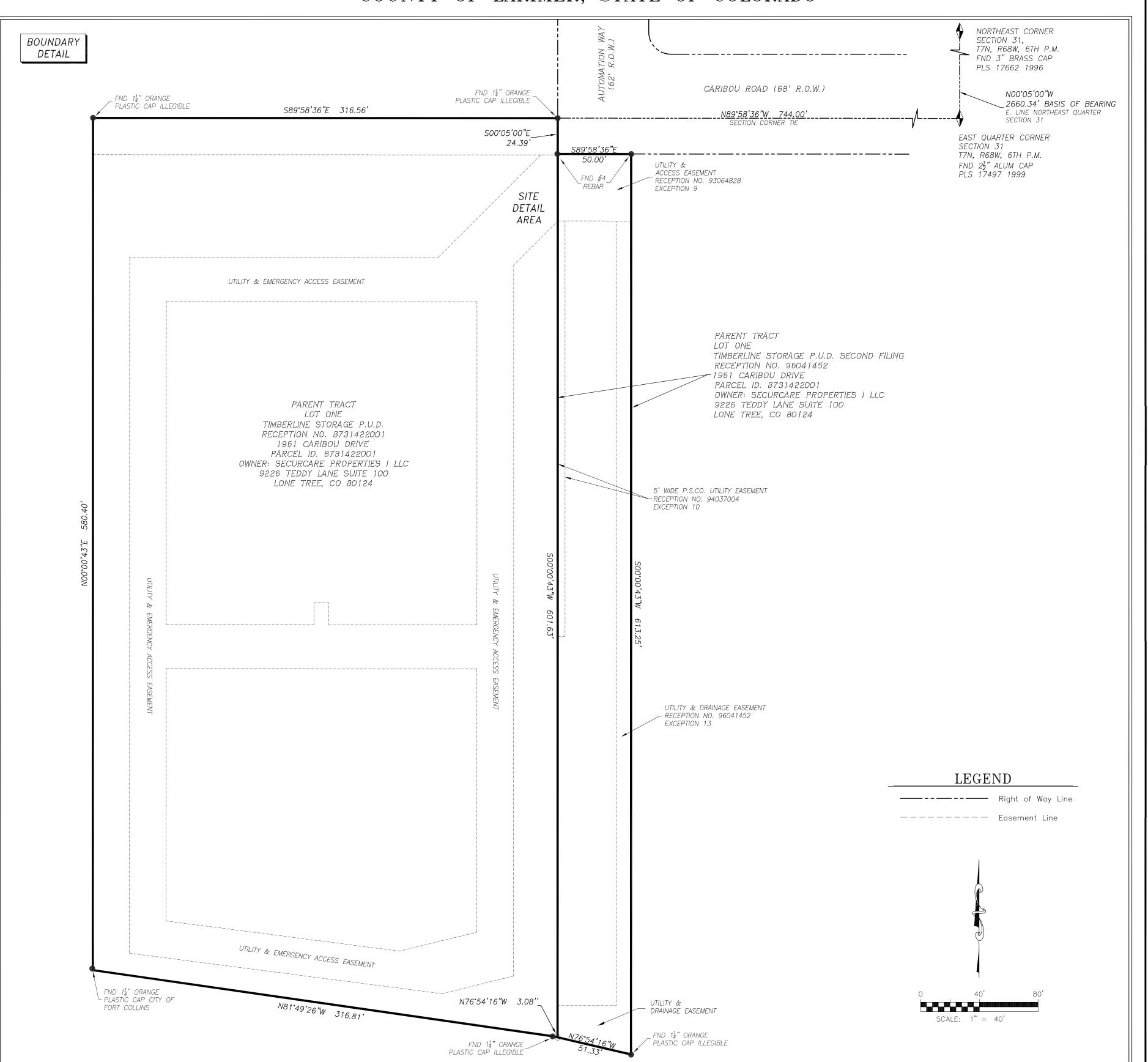
Parcel One: Lot 1, Timberline Storage P.U.D., County of Larimer, State of Colorado.

Parcel Two: Lot 1, A Plat of Timberline Storage P.U.D., Second Filing, a Minor Subdivision, County of Larimer, State of Colorado.

EXCEPTIONS LISTED IN TITLE COMMITMENT:

Item 1. Not survey related
Item 2. Not survey related
Item 3. Shown hereon, if any
Item 4. Not survey related
Item 5. Not survey related
Item 6. Not survey related
Item 7. Not survey related
Item 8. Blanket statements
Item 9. Shown hereon
Item 10. Shown hereon
Item 11. Not survey related
Item 12. Shown hereon
Item 13. Shown hereon
Item 14. Not survey related

Item 15. Not survey related Item 16. Not survey related





VERIZON WIRELESS SERVICES 3151 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DRIVE FORT COLLINS, CO 80525

LARIMER COUNTY

	Rev:	Date:	Description:	Ву:
	1	01/05/18	SURVEY	AV
	2	4/13/18	LEASE/EASEMENTS	AV
	3	9/17/18	ADD WATER LINE	RD
	4	10/11/18	REV. ESMTS	RD

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
Golden, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY:	CHK BY:	APV BY:
AVV/RD	RD	RD

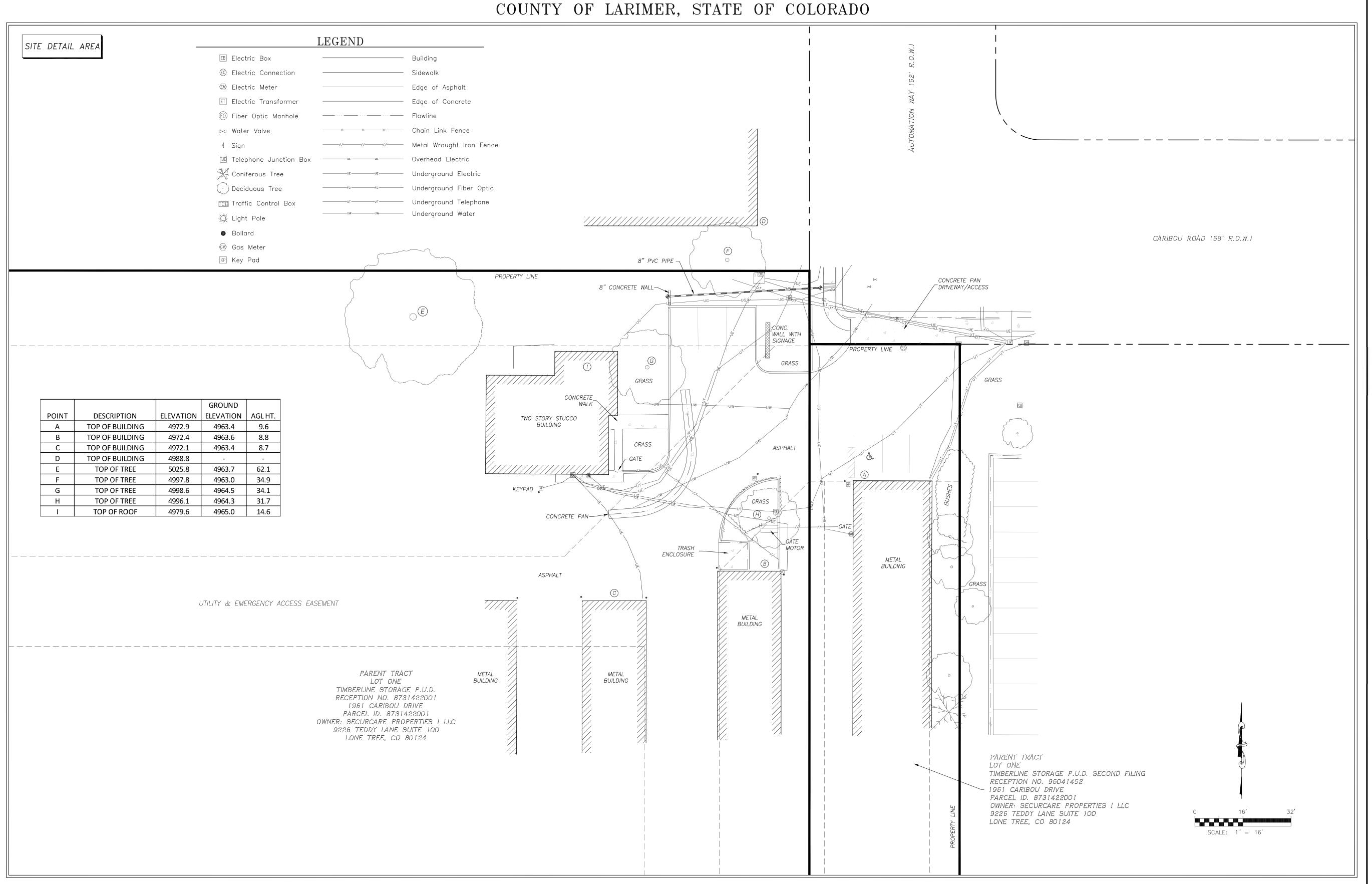
SHEET TITLE:

LAND SURVEY

SHEET NUMBER:

LS1

TOPOGRAPHIC SURVEY VERIZON WIRELESS SITE FTC FOXSTONE SITUATED IN THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH P.M.





VERIZON WIRELESS SERVICES 3151 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:
SITE NAME:

FTC FOXSTONE

1961 CARIBOU DRIVE FORT COLLINS, CO 80525

LARIMER COUNTY

	Rev:	Date:	Description:	Ву:
	1	01/05/18	SURVEY	AV
	2	4/13/18	LEASE/EASEMENTS	AV
	3	9/17/18	ADD WATER LINE	RD
	4	10/11/18	REV. ESMTS	RD

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY

Golden, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

AVV/RD RD RD

SHEET TITLE:

LAND SURVEY

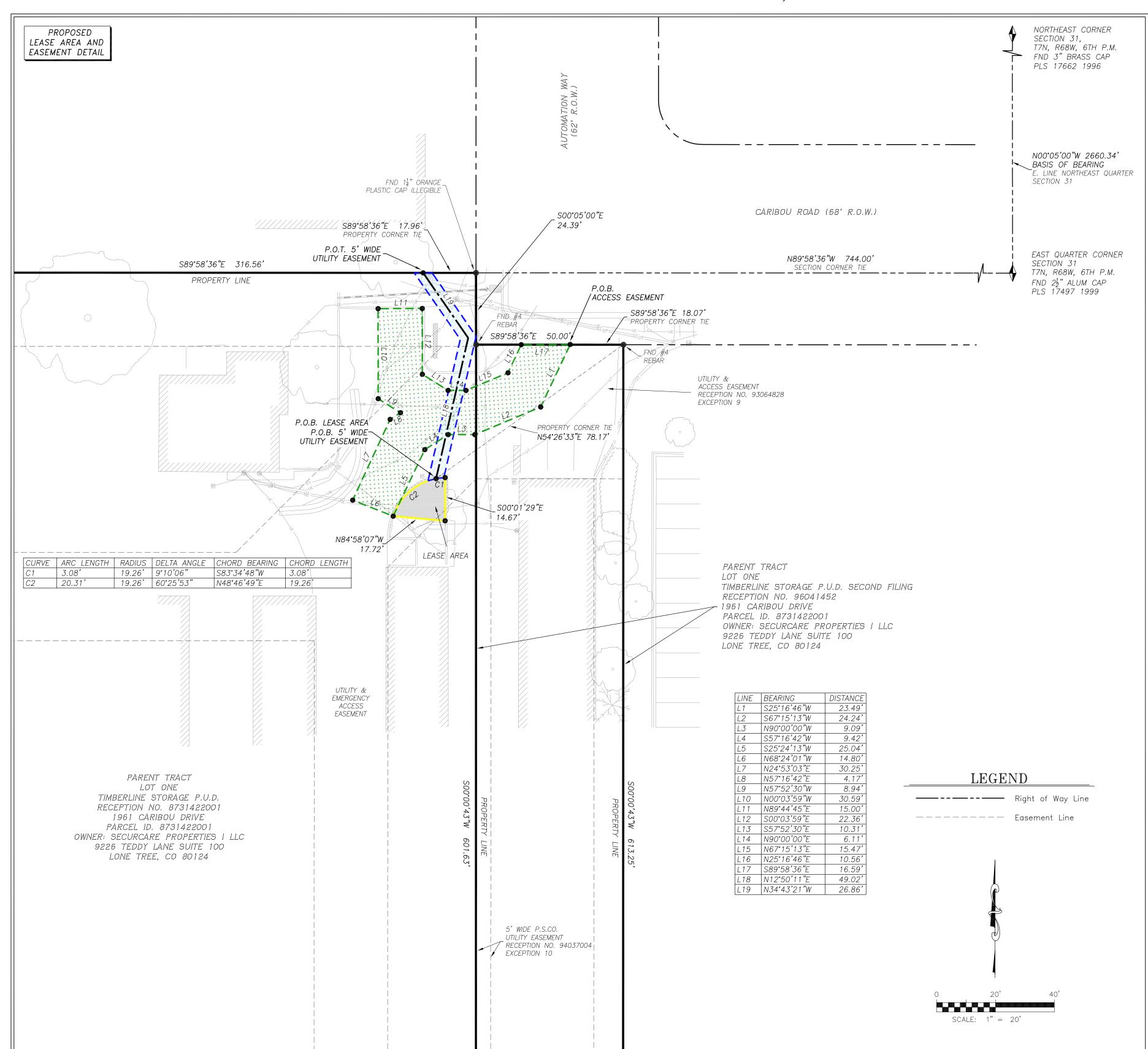
SHEET NUMBER:

LS2

TOPOGRAPHIC SURVEY

VERIZON WIRELESS SITE FTC FOXSTONE

SITUATED IN THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH P.M. COUNTY OF LARIMER, STATE OF COLORADO



ACCESS EASEMENT - PROPOSED:

A strip of land over and across that parcel of land described as Lot One, Timberline Storage P.U.D. recorded at Reception No. 8731422001 and Lot One, Timberline Storage P.U.D. Second Filing recorded at Reception No. 96041452 of the Public Records of the County of Larimer (Parent Tract), located in the Southeast Quarter of Section 31, Township 7 North, Range 68 West, of the Sixth Principal Meridian, County of Larimer, State of Colorado, said 15 foot wide strip being 7.50 feet on both sides of the following described centerline:

For the purpose of this description the bearings are referenced to the East Line of the Northeast Quarter of Section 31, Township 7 North, Range 68 West, assumed to bear North 00°05'00" West, 2660.34 feet. Monumented by a $2\frac{1}{2}$ " alum cap stamped PLS 17497 1999 at the East Quarter Corner of said Section 31 and by a 3" brass cap stamped PLS 17662 1996 at the Northeast Corner of said Section 31.

Beginning at a point on the north line of Timberline Storage P.U.D. Second Filing whence the northeast corner of said Lot One, Timberline Storage P.U.D. Second Filing (Parent Tract), bears South 89°58'36" East, a distance of 18.07 feet;

THENCE South 25°16'46" West, a distance of 23.39 feet; THENCE South 67°15'13" West, a distance of 24.24 feet; THENCE North 90°00'00" West, a distance of 9.09 feet; THENCE South 57°16'42" West, a distance of 9.42 feet;

THENCE South 25°24'13" West, a distance of 25.04 feet to the southwest corner of the hereinbefore described Lease Area;

THENCE North 68°24'01" West, a distance of 14.80 feet; THENCE North 24°53'03" East, a distance of 30.25 feet; THENCE North 57°16'42" East, a distance of 4.17 feet; THENCE North 57°52'30" West, a distance of 8.94 feet; THENCE North 00°03'59" West, a distance of 30.59 feet; THENCE North 89°44'45" East, a distance of 15.00 feet; THENCE South 00°03'59" East, a distance of 22.36 feet; THENCE South 57°52'30" East, a distance of 10.31 feet;

THENCE North 90°00'00" East, a distance of 6.11 feet; THENCE North 67°15'13" East, a distance of 15.47 feet;

THENCE North 25°16'46" East, a distance of 10.56 feet to the north line said Lot One, Timberline Storage P.U.D. Second Filing (Parent Tract)

THENCE South 89°58'36" East, along said north line, a distance of 16.59 feet to the Point of

Containing 1843 Square Feet, or 0.016 Acres, more or less.

A parcel of land over and across that parcel of land described as Lot One, Timberline Storage P.U.D. recorded at Reception No. 8731422001 of the Public Records of the County of Larimer (Parent Tract), located in the Southeast Quarter of Section 31, Township 7 North, Range 68 West, of the Sixth Principal Meridian, County of Larimer, State of Colorado, being more particularly described as

For the purpose of this description the bearings are referenced to the East Line of the Northeast Quarter of Section 31, Township 7 North, Range 68 West, assumed to bear North 00°05'00" West, 2660.34 feet. Monumented by a $2\frac{1}{2}$ alum cap stamped PLS 17497 1999 at the East Quarter Corner of said Section 31 and by a 3" brass cap stamped PLS 17662 1996 at the Northeast Corner of

Beginning at a point whence the northeast corner of Lot One, Timberline Storage P.U.D. Second Filing as recorded at Reception No. 96041452 of the Public Records of the County of Larimer (Parent Tract), bears North 54°26'33" East, a distance of 78.17 feet, also being the Point of Beginning of the hereinafter described 5' wide Utility Easement;

THENCE along a curve to the right, an arc length of 3.08 feet, said curve having a radius of 19.26 feet, a delta angle of 9°10'06", a chord bearing of North 83°34'48" East and a chord length

THENCE South 00°01'29" East, a distance of 14.67 feet; THENCE North 84°58'07" West, a distance of 17.72 feet;

THENCE along a curve to the right, an arc length of 20.31 feet, said curve having a radius of 19.26 feet, a delta angle of 60°25'53", a chord bearing of North 48°46'49" East and a chord length of 19.26 feet to the Point of Beginning.

Containing 181 Square Feet, or 0.004 Acres, more or less.

<u>5' WIDE UTILITY EASEMENT - PROPOSED:</u>

A 5' wide strip of land over and across that parcel of land described as Lot One, Timberline Storage P.U.D. recorded at Reception No. 8731422001 of the Public Records of the County of Larimer (Parent Tract), located in the Southeast Quarter of Section 31, Township 7 North, Range 68 West, of the Sixth Principal Meridian, County of Larimer, State of Colorado, said 5 foot wide strip being 2.50 feet on both sides of the following described centerline:

For the purpose of this description the bearings are referenced to the East Line of the Northeast Quarter of Section 31, Township 7 North, Range 68 West, assumed to bear North 00°05'00" West, 2660.34 feet. Monumented by a $2\frac{1}{2}$ alum cap stamped PLS 17497 1999 at the East Quarter Corner of said Section 31 and by a 3" brass cap stamped PLS 17662 1996 at the Northeast Corner of said Section 31.

Beginning at a point on the northerly line of the hereinbefore described lease area whence the northeast corner of Lot One, Timberline Storage P.U.D. Second Filing as recorded at Reception No. 96041452 of the Public Records of the County of Larimer (Parent Tract), bears North 54°26'33" East, a distance of 78.17 feet; said point also being the Point of Beginning of the hereinbefore described Lease Area;

THENCE North 12°50'11" East, a distance of 49.02 feet;

THENCE North 34°43'21" West, a distance of 26.86 feet to the north line of said Lot 1, Timberline Storage P.U.D. (Parent Tract) and the Point of Terminus, whence the northeast corner of said Lot One, Timberline Storage P.U.D. (Parent Tract), bears South 89°58'36" East, a distance of 17.96 feet.

Containing 380 Square Feet, or 0.009 Acres, more or less.

The sidelines of said 5 foot wide strip to be lengthened or shortened to intersect the north line of the hereinbefore described Lease Area and said Lot One, Timberline Storage P.U.D. Second Filing (Parent Tract).



VERIZON WIRELESS SERVICES 3151 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:

SITE NAME:

FTC FOXSTONE 1961 CARIBOU DRIVE

FORT COLLINS, CO 80525 LARIMER COUNTY

Rev:	Date:	Description:	Ву:
1	01/05/18	SURVEY	AV
2	4/13/18	LEASE/EASEMENTS	AV
3	9/17/18	ADD WATER LINE	RD
4	10/11/18	REV. ESMTS	RD

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY Golden, CO 80403 303-993-3293 WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:

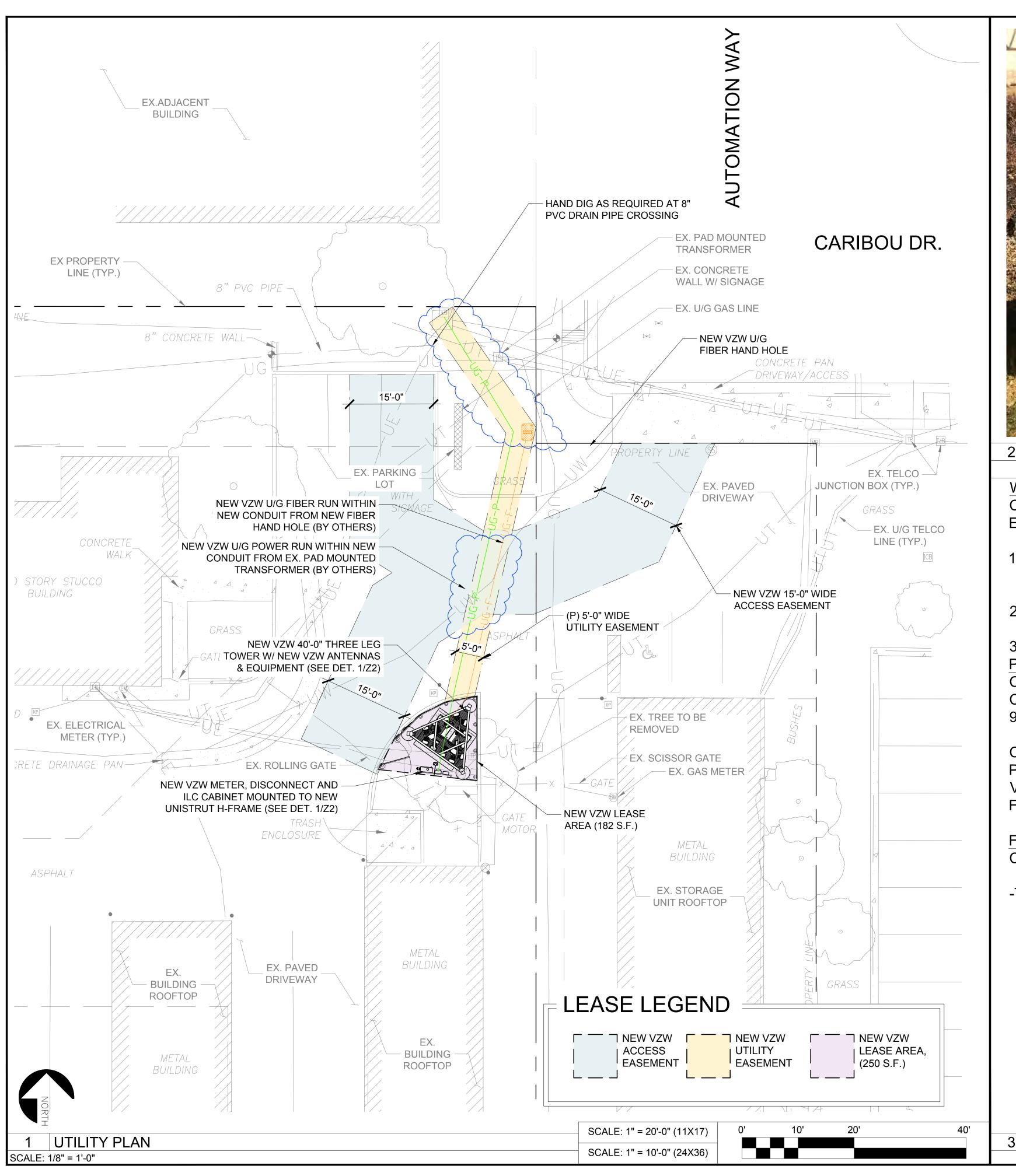


DRAWN BY: CHK BY: APV BY: AVV/RD RD

SHEET TITLE:

LAND SURVEY

SHEET NUMBER:





2 EXISTING TRANSFORMER ON NORTH SIDE OF SITE

WATER / WASTEWATER PIPE CROSSING COORDINATION:
CONTACT: DAN MOGEN WATER / WASTEWATER & STORMWATER
ENGINEERING, CITY OF FT. COLLINS 970-224-6192 DMOGEN@FCGOV.COM

- 1. CONTRACTOR TO HAVE POSITVE IDENTIFICATION OF ALL EXISTING UNDERGROUND SERVICES IN THE PROPOSED ROUTE OF THE NEW POWER AND FIBER RUNS, PRIOR TO BEGINNING ANY WORK.
- 2. AREAS DEPICTED WITH BLUE CLOUDS HAVE SERVICE CROSSING AND SHALL BE HAND DUG

POWER COORDINATION NOTES:
CITY OF FORT COLLINS LIGHT & POWER
CONTACT AUSTIN KREAGER
970-224-6152

CITY WILL PROVIDE SINGLE PHASE POWER. EXISTING TRANSFORMER WILL PROBABLY NEED TO BE UPSIZED TO ACCOMODATE THE ADDITIONAL LOAD. VERIZONS CONTRACTOR WILL INSTALL THE CONDUIT AND SECONDARIES FROM THE TRANSFORMER TO THE METER LOCATION.

FIBER COORDINATION NOTES: CONTACT: TBD

-TBD UPON COORDINATION WITH FIBER SERVICE PROVIDER.

	City of Fort Collins, Colorado UTILITY PLAN APPROVAL	
APPROVED:		
ADDDOVED.	City Engineer	Date
APPROVED:	Water & Wastewater Utility	 Date
APPROVED:		
ADDDOVED.	Stormwater Utility	Date
APPROVED:	Parks & Recreation	 Date
APPROVED:		
APPROVED:	Traffic Engineer	Date
APPROVED.	Environmental Planner	Date
APPROVED:		
		Date

3 SITE SPECIFIC UTILITY NOTES



3131 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:
SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

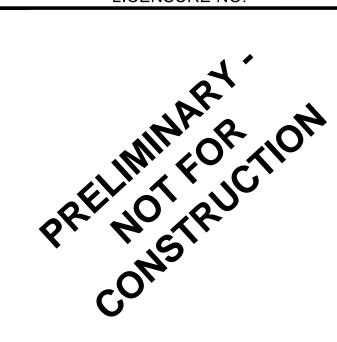
l	LARIMER COUNTY			
	REV:	DATE:	DESCRIPTION:	BY:
	1	03/23/18	90% ZONING	GW
	2	04/06/18	90% ZONING REV A	GW
	3	05/01/18	90% ZONING REV B	GW
	4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

UTILITY COORDINATION PLAN

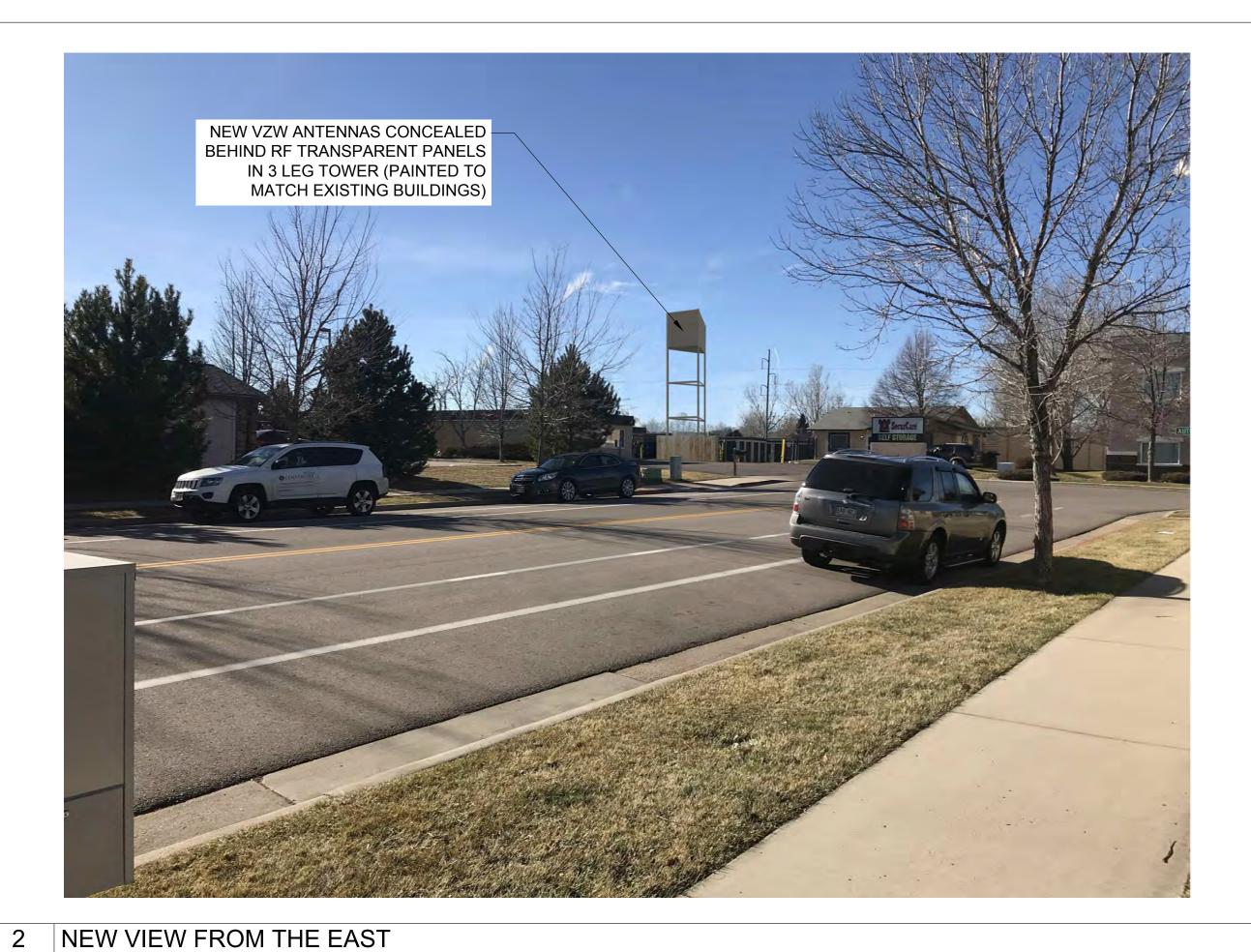
SHEET NUMBER:

UC1





1 EXISTING VIEW FROM THE EAST



3 EXISTING VIEW FROM THE NORTH



4 NEW VIEW FROM THE NORTH



3131 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION: SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

LARIMER COUNTY			
REV:	DATE:	DESCRIPTION:	BY:
1	03/23/18	90% ZONING	GW
2	04/06/18	90% ZONING REV A	GW
3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY GOLDEN, CO 80403 303-993-3293 WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

PHOTO SIMULATIONS EAST & NORTH

SHEET NUMBER:

PH1



1 EXISTING VIEW FROM THE WEST

NEW VZW ANTENNAS CONCEALED
BEHIND RF TRANSPARENT PANELS
IN 3 LEG TOWER (PAINTED TO
MATCH EXISTING BUILDINGS)

2 NEW VIEW FROM THE WEST

4 NOT USED

3 NOT USED



3131 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

REV:	DATE:	DESCRIPTION:	BY:
1	03/23/18	90% ZONING	GW
2	04/06/18	90% ZONING REV A	GW
3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY GOLDEN, CO 80403 303-993-3293 WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:

PRELIMINARY CONSTRUCTION

DRAWN BY: CHK BY: APV BY:

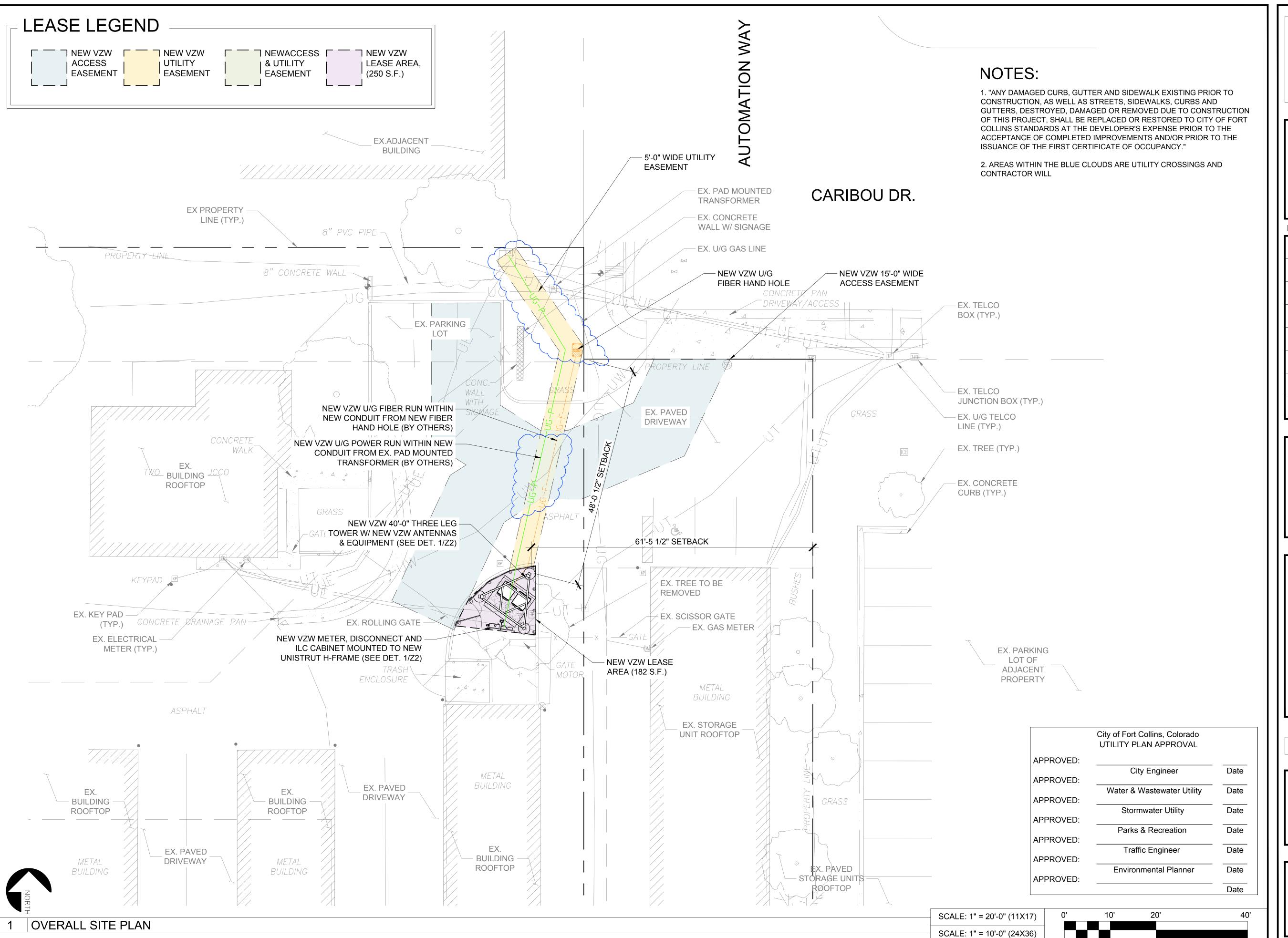
GW BB KS

SHEET TITLE:

PHOTO SIMULATION WEST

SHEET NUMBER:

PH2





3131 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:
SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

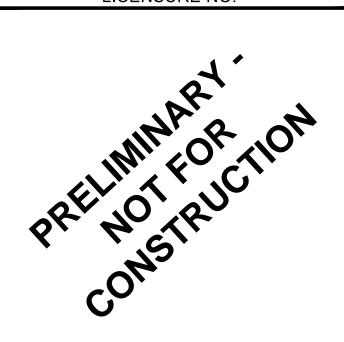
	LARI	IMER COUNTY	
REV:	DATE:	DESCRIPTION:	BY:
1	03/23/18	90% ZONING	GW
2	04/06/18	90% ZONING REV A	GW
3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



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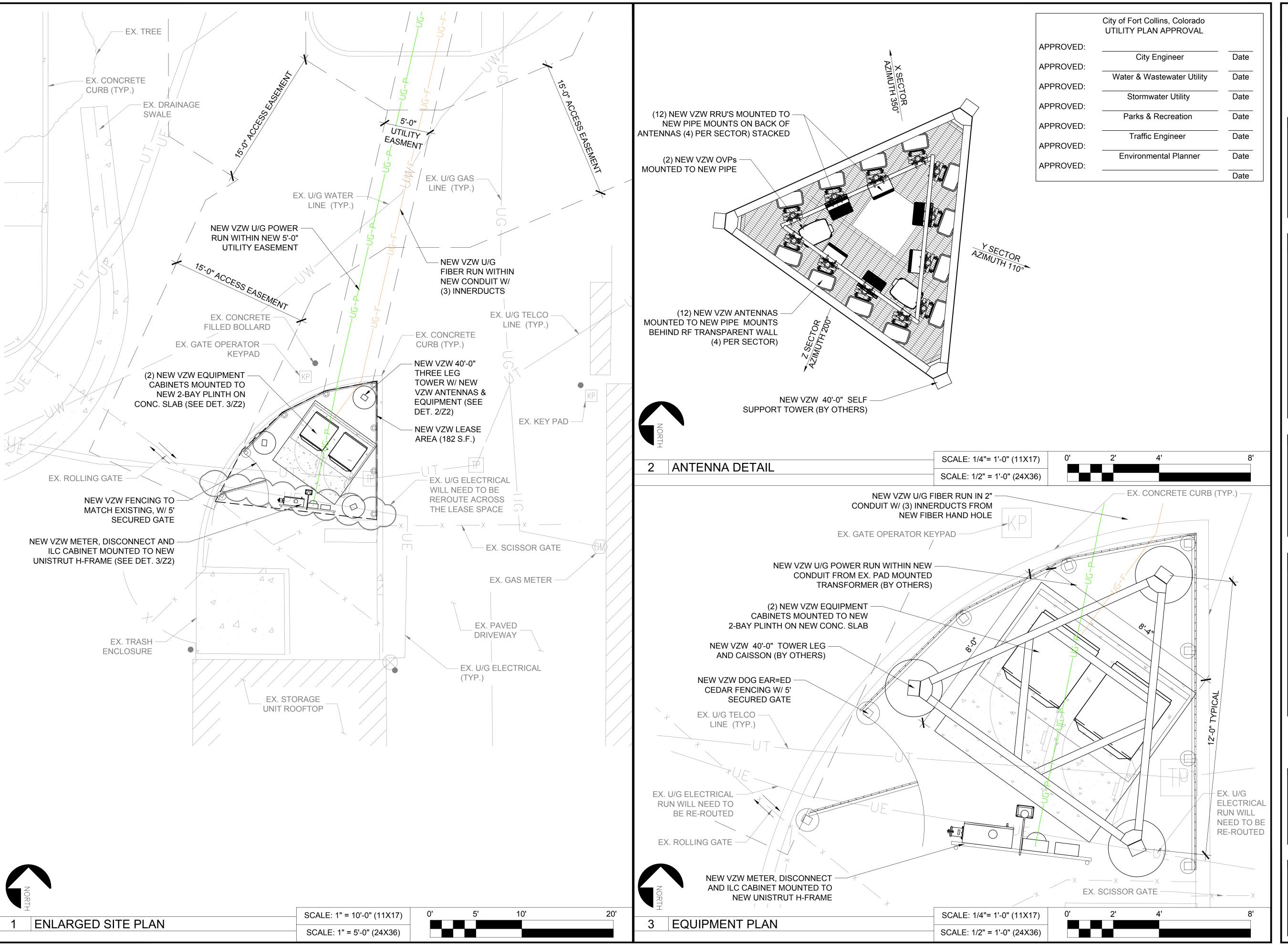
GW BB KS

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

Z1





PROJECT INFORMATION:

SITE NAME:

AURORA, CO 80014

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

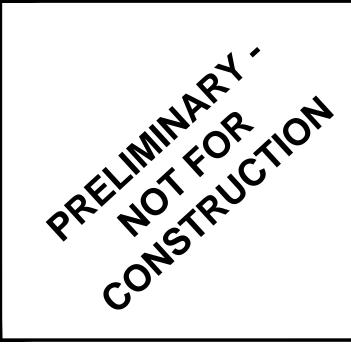
REV: DA	TE:	DESCRIPTION:	DV:
		BECCIAI HOIV.	BY:
1 03/2	23/18	90% ZONING	GW
2 04/0	06/18	90% ZONING REV A	GW
3 05/0	01/18	90% ZONING REV B	GW
4 10/1	11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY GOLDEN, CO 80403 303-993-3293 WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



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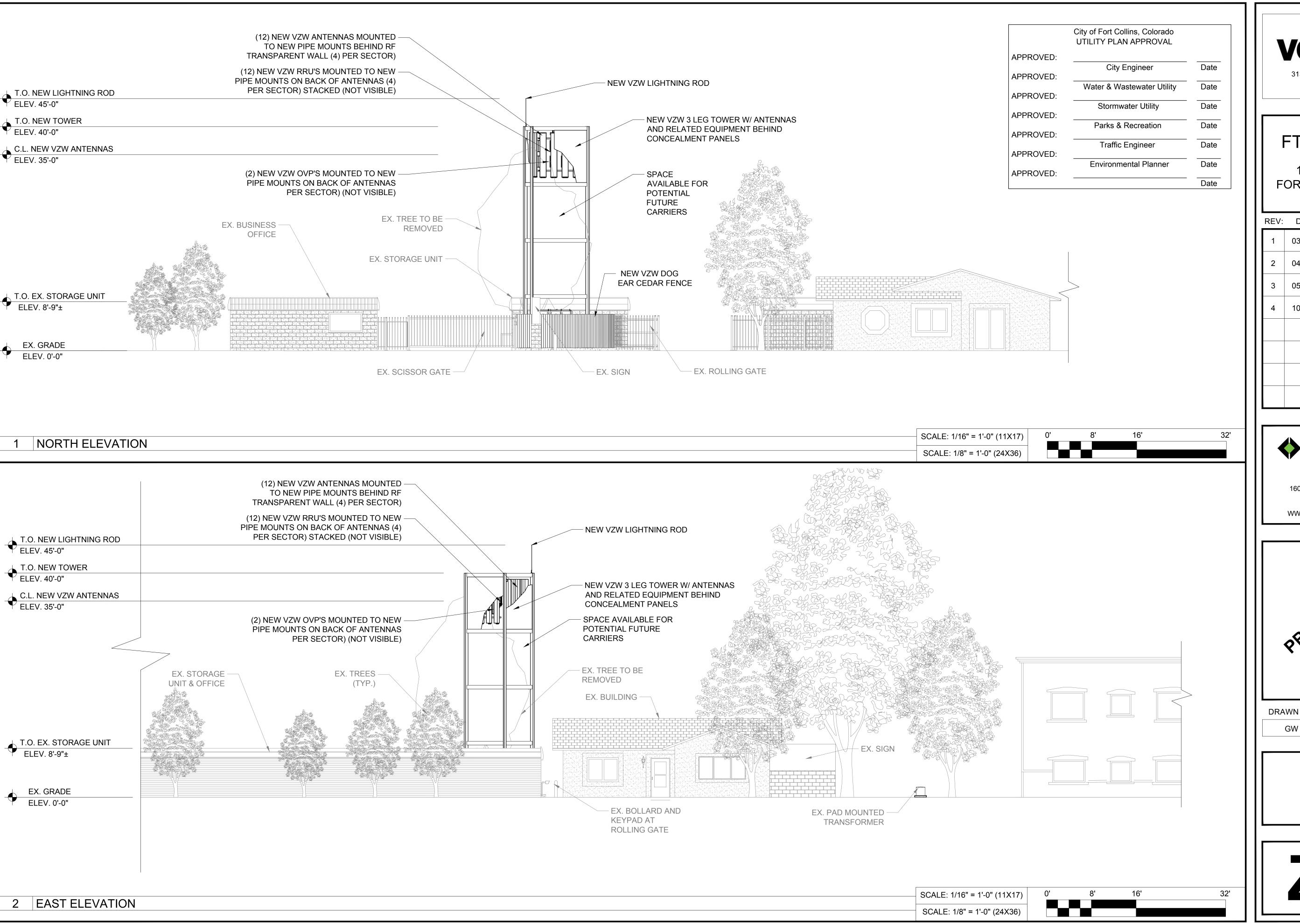
GW BB KS

SHEET TITLE:

ENLARGED SITE PLAN EQUIPMENT PLAN & ANTENNA DETAIL

SHEET NUMBER:

Z2





PROJECT INFORMATION:

AURORA, CO 80014

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

REV:	DATE:	DESCRIPTION:	BY:
1	03/23/18	90% ZONING	GW
2	04/06/18	90% ZONING REV A	GW
3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:

PRELIMINARY CONSTRUCTION CONSTRUCTION

DRAWN BY: CHK BY: APV BY:

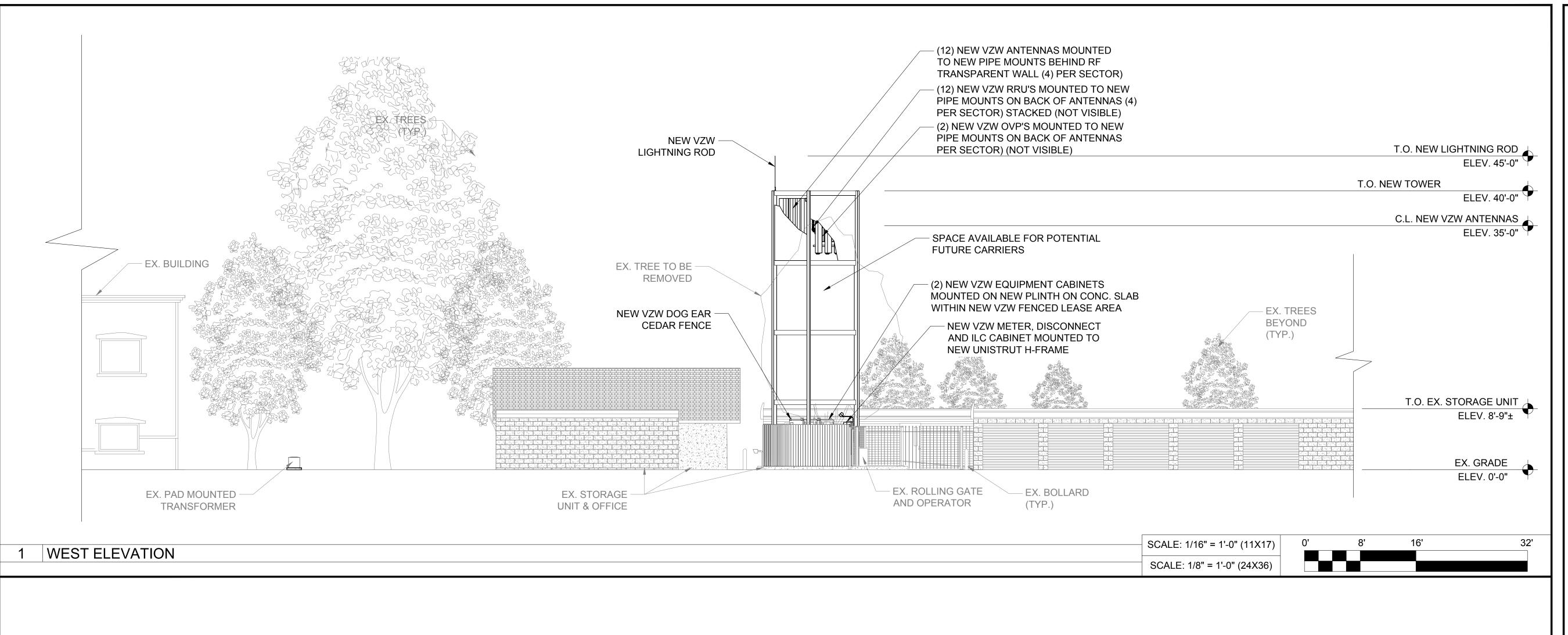
GW BB KS

SHEET TITLE:

NORTH & EAST ELEVATIONS

SHEET NUMBER:

Z3.1



City of Fort Collins, Colorado UTILITY PLAN APPROVAL APPROVED: Date City Engineer APPROVED: Water & Wastewater Utility Date APPROVED: Date Stormwater Utility APPROVED: Date Parks & Recreation APPROVED: Date Traffic Engineer APPROVED: Date Environmental Planner APPROVED: Date

SCALE: NTS

SCALE: NTS

2 NOT USED
SCALE: N.T.S.

Verizon

3131 S. VAUGHN WAY, SUITE 550
AURORA, CO 80014

PROJECT INFORMATION:

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

		LANIMEN COONTT				
	REV:	DATE:	DESCRIPTION:	BY:		
	1	03/23/18	90% ZONING	GW		
	2	04/06/18	90% ZONING REV A	GW		
	3	05/01/18	90% ZONING REV B	GW		
	4	10/11/18	100% ZONING	ВВ		

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:

PRELIMINARY CONSTRUCTION

DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

WEST ELEVATION

SHEET NUMBER:

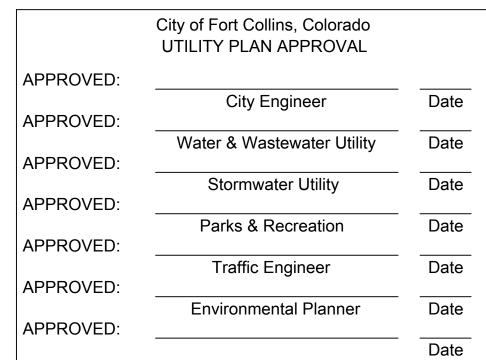
Z3.2

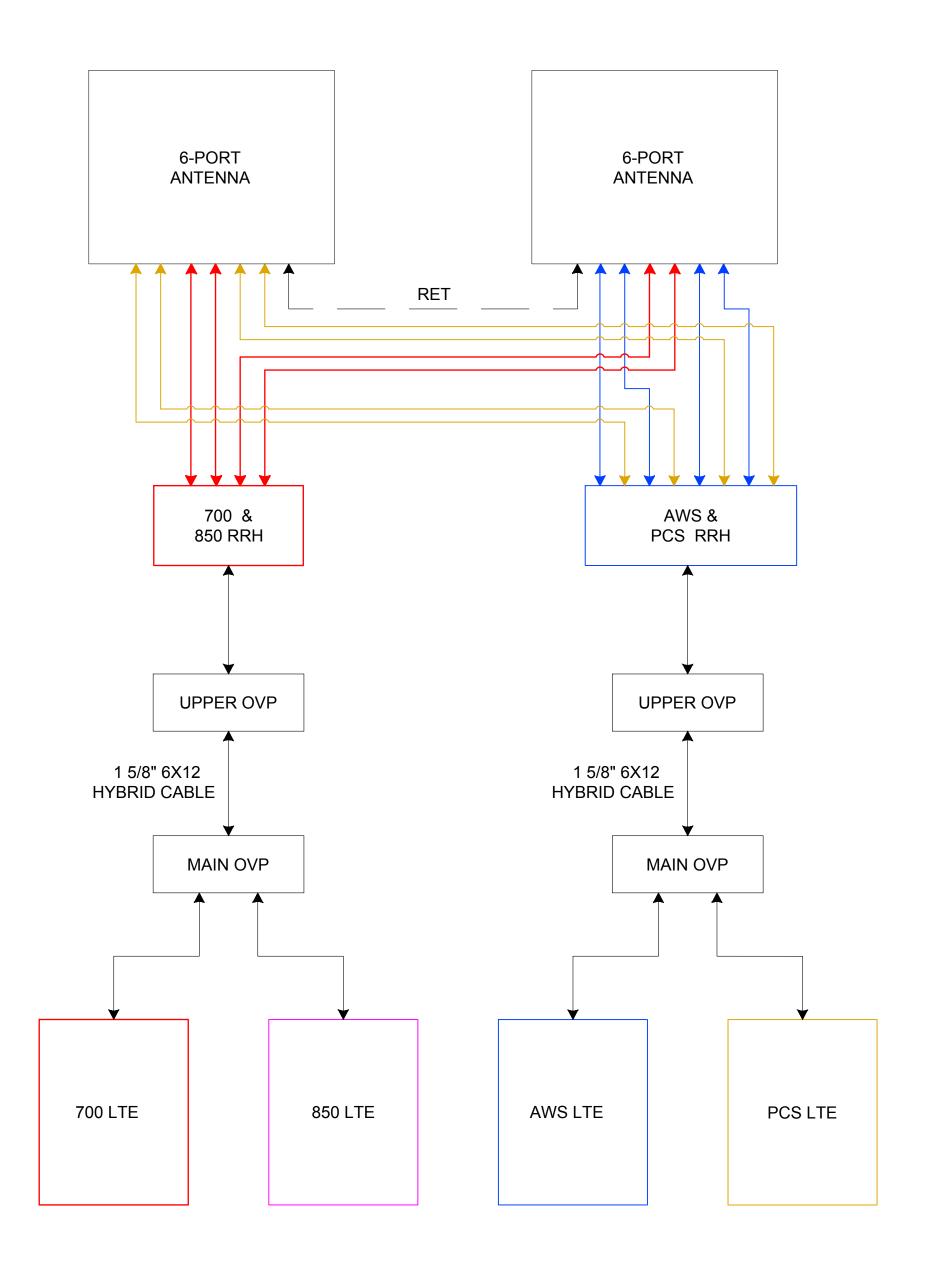
NEV	V VZW /	ANTENNA / R	RH / OV	P SCHE	DULE:
Ą	SECTOR	MODEL / TECHNOLOGY	QUANTITY	AZIMUTH	RAD CENTER
ANTENNA	X	NHH-65B-R2B	4	350°	35'-0"
A A	Y	NHH-65B-R2B	4	110°	35'-0"
	Z	NHH-65B-R2B	4	200°	35'-0"
	X	700/850, AWS/PCS	1,1,1,1	N/A	N/A
RRH	Y	700/850, AWS/PCS	1,1,1,1	N/A	N/A
	Z	700/850, AWS/PCS	1,1,1,1	N/A	N/A
Ъ	TOWER	RxxDC-4750-PF-48	2	N/A	N/A
OVP	GROUND	RxxDC-4750-PF-48	2	N/A	N/A
ANTE	ENNA & EQ	UIPMENT COUNTS	PER RFDS	INFO. LIST	ED ON T1

NIE'	NIENALNIZMA OADLE LENOTHO							
	NEW VZW CABLE LENGTHS:							
FRON	И (RRH) TO	(ANTENNAS)						
NA RS	SECTOR CABLE/COAX SIZE (NOMINAL)		CABLE/COAX (QUANTITY)	ESTIMATED CABLE/COAX (LENGTH)				
ANTENNA JUMPERS	X	½"Ø	16	10'±				
AAD	Y	½"Ø	16	10'±				
	Z	½"Ø	16	10'±				
FRON	M (MAIN OV	P) TO (RRH)						
RRH JUMPERS	SECTOR	CABLE/HYBRID SIZE (NOMINAL)	CABLE/HYBRID (QUANTITY)	ESTIMATED CABLE/HYBRID (LENGTH)				
	Х	HYB 1X1	2	10'±				
H.	Υ	HYB 1X1	2	10'±				
X	Z	HYB 1X1	2	10'±				
FROM	FROM (MAIN OVP) TO (MAIN OVP)							
MAIN TRUNK	SECTOR	CABLE/HYBRID SIZE (NOMINAL)	CABLE/HYBRID (QUANTITY)	ESTIMATED CABLE/HYBRID (LENGTH)				
	X, Y, Z	HYB 6X12 (1 1/4")	2	45'±				

NOTE:

DISTANCES ARE ACCURATE BASED ON THE EXISTING SITE DRAWINGS. NO ADDITIONAL FOOTAGE ADDED.





NOTE: REFER TO VERIZON'S FINAL RFDS INFORMATION FOR TOTAL ANTENNA, RRH, & OVP MODEL & COUNT

2 RF PLUMBING DIAGRAM SCALE: N.T.S.

State of the second of the sec

PROJECT INFORMATION:

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

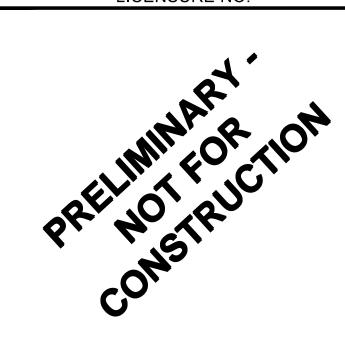
REV:	DATE:	DESCRIPTION:	BY:
1	03/23/18	90% ZONING	GW
2	04/06/18	90% ZONING REV A	GW
3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

ANTENNA & CABLE SCHEDULES AND RF PLUMBING DIAGRAM

SHEET NUMBER:

Z4

1 ANTENNA & CABLE SCHEDULES

SCALE: NTS

General Notes (City of Fort Collins and Larimer County)

Appendix E-1-FC/Lar

- 1. All materials, workmanship, and construction of public improvements shall meet or exceed the standards and specifications set forth in the *Larimer County Urban Area Street Standards* and applicable state and federal regulations. Where there is conflict between these plans and the specifications, or any applicable standards, the most restrictive standard shall apply. All work shall be inspected and approved by the Local Entity.
- 2. All references to any published standards shall refer to the latest revision of said standard, unless specifically stated otherwise.
- 4. The engineer who has prepared these plans, by execution and/or seal hereof, does hereby affirm responsibility to the Local Entity, as beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the Local Entity Engineer shall not relieve the engineer who has prepared these plans of all such responsibility. Further, to the extent permitted by law, the engineer hereby agrees to hold harmless and indemnify the Local Entity, and its officers and employees, from and against all liabilities, claims, and demands which may arise from any errors and omissions contained in these plans.
- 5. All sanitary sewer, storm sewer, and water line construction, as well as power and other "dry" utility installations, shall conform to the Local Entity standards and specifications current at the date of approval of the plans by the Local Entity Engineer.
- 6. The type, size, location and number of all known underground utilities are approximate when shown on the drawings. It shall be the responsibility of the Developer to verify the existence and location of all underground utilities along the route of the work before commencing new construction. The Developer shall be responsible for unknown underground utilities.
- 7. The Engineer shall contact the Utility Notification Center of Colorado (UNCC) at 1-800-922-1987, at least 2 working days prior to beginning excavation or grading, to have all registered utility locations marked. Other unregistered utility entities (i.e. ditch / irrigation company) are to be located by contacting the respective representative. Utility service laterals are also to be located prior to beginning excavation or grading. It shall be the responsibility of the Developer to relocate all existing utilities that conflict with the proposed improvements shown on these plans.
- 8. The Developer shall be responsible for protecting all utilities during construction and for coordinating with the appropriate utility company for any utility crossings required.
- 9. If a conflict exists between existing and proposed utilities and/or a design modification is required, the Developer shall coordinate with the engineer to modify the design. Design modification(s) must be approved by the Local Entity prior to beginning construction.
- 10. The Developer shall coordinate and cooperate with the Local Entity, and all utility companies involved, to assure that the work is accomplished in a timely fashion and with a minimum disruption of service. The Developer shall be responsible for contacting, in advance, all parties affected by any disruption of any utility service as well as the utility companies.
- 18. The Local Entity shall not be responsible for any damages or injuries sustained in this Development as a result of groundwater seepage, whether resulting from groundwater flooding, structural damage or other damage unless such damage or injuries are sustained as a result of the Local Entity failure to properly maintain its water, wastewater, and/or storm drainage facilities in the development.
- 21. The Developer shall be responsible for insuring that no mud or debris shall be tracked onto the existing public street system. Mud and debris must be removed within 24 hours by an appropriate mechanical method (i.e. machine broom sweep, light duty front-end loader, etc.) or as approved by the Local Entity street inspector.
- 30. The Developer shall be responsible for all aspects of safety including, but not limited to, excavation, trenching, shoring, traffic control, and security. Refer to OSHA Publication 2226, Excavating and Trenching.
 36. Dimensions for layout and construction are not to be scaled from any drawing. If pertinent dimensions are not
- shown, contact the Designer for clarification, and annotate the dimension on the as-built record drawings.

 The Developer shall have, onsite at all times, one (1) signed copy of the approved plans, one (1) copy of the
- appropriate standards and specifications, and a copy of any permits and extension agreements needed for the job.

 38. If, during the construction process, conditions are encountered which could indicate a situation that is not identified in the plans or specifications, the Developer shall contact the Designer and the Local Entity Engineer
- immediately.

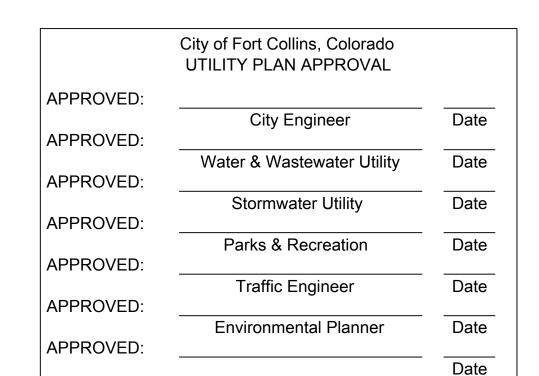
 39. Developer shall be responsible for recording as-built information on a set of record drawings kept on the construction site, and available to the Local Entity's Inspector at all times. Upon completion of the work, the
- 42. Damaged curb, gutter and sidewalk existing prior to construction, as well as existing fences, trees, streets, sidewalks, curbs and gutters, landscaping, structures, and improvements destroyed, damaged or removed due to construction of this project, shall be replaced or restored in like kind at the Developer's expense, unless otherwise indicated on these plans, prior to the acceptance of completed improvements and/or prior to the issuance of the first Certificate of Occupancy.

Appendix E-2

A. Standard Grading and Erosion and Sediment Control Construction Plan Notes

contractor(s) shall submit record drawings to the Local Entity Engineer.

- 1. The erosion control inspector must be notified at least twenty-four (24) hours prior to any construction on this site.
- There shall be no earth-disturbing activity outside the limits designated on the accepted plans.
- 4. At all times during construction, the Developer shall be responsible for preventing and controlling on-site erosion including keeping the property sufficiently watered so as to minimize wind blown sediment. The Developer shall also be responsible for installing and maintaining all erosion control facilities shown herein.
- 8. When temporary erosion control measures are removed, the Developer shall be responsible for the clean up and removal of all sediment and debris from all drainage infrastructure and other public facilities.
- 9. The contractor shall clean up any inadvertent deposited material immediately and make sure streets are free of all materials by the end of each working day.
- 14. A designated area shall be provided on site for concrete truck chute washout. The area shall be constructed so as to contain washout material and located at least fifty (50) feet away from any waterway during construction. Upon completion of construction activities the concrete washout material will be removed and properly disposed of prior to the area being restored.





3131 S. VAUGHN WAY, SUITE 550 AURORA, CO 80014

PROJECT INFORMATION:

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

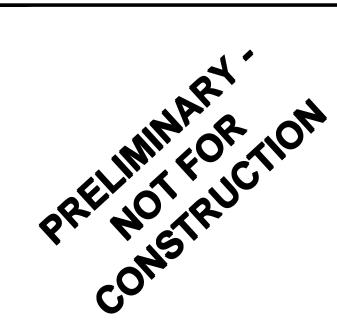
١	REV:	DATE:	DESCRIPTION:	BY:
	1	03/23/18	90% ZONING	GW
	2	04/06/18	90% ZONING REV A	GW
	3	05/01/18	90% ZONING REV B	GW
	4	10/11/18	100% ZONING	ВВ
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PLANS PREPARED BY:



16035 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
303-993-3293
WWW.CENTERLINESOLUTIONS.COM

LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

CONSTRUCTION NOTES

SHEET NUMBER:

FCN1

DESIGN NOTES

1.0 GENERAL CONDITIONS

1.1 DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO THE IBC 2015 EDITION AND ALL OTHER APPLICABLE STATE CODES, ORDINANCES, AND REGULATIONS. IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS, AND REGULATIONS. SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURER'S REQUIREMENTS. USE THE MOST STRINGENT PROVISION.

1.2 IT IS THE EXPRESS INTENT OF THE PARTIES INVOLVED IN THIS PROJECT THAT THE CONTRACTOR OR SUBCONTRACTOR OR INDEPENDENT CONTRACTOR OR THEIR RESPECTIVE EMPLOYEES SHALL EXCULPATE THE ARCHITECT, THE ENGINEER, THE CONSTRUCTION MANAGER, THE OWNER, AND THEIR AGENTS, FROM ANY LIABILITY WHATSOEVER AND HOLD THEM HARMLESS AGAINST LOSS, DAMAGES, LIABILITY OR ANY EXPENSE ARISING IN ANY MATTER FROM THE WRONGFUL OR NEGLIGENT ACT, OR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FAILURE TO CONFORM TO THE STATE SCAFFOLDING ACT IN CONNECTION WITH THE WORK.

1.3 DESIGN LOADS ARE:

WIND SPEED 100 MPH 3 SEC SNOW LOAD 30 PSF

GENERAL CONSTRUCTION NOTES:

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL

GENERAL CONTRACTOR: T.B.D. CONTRACTOR: T.B.D. OWNER: VERIZON WIRELESS

- 2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND VERIZON WIRELESS PROJECT SPECIFICATIONS.
- 3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- 4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- 5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- 6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- 8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- 10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- 11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- 12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- 13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
- 14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.

- 15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- 16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- 19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- 20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- 21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- 22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER AND RF. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
- 23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- 24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- 25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- 26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- 27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- 28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- 29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- 30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- 31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- 32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
- 33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY VERIZON WIRELESS TECHNICIANS.
- 34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- 35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION VERIZON WIRELESS MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- 36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- 7. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- 38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

ANTENNA MOUNTING

- 41. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
- 42. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
- 43. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
- 44. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- 45. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
- 46. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
- 47. ALL UNUSED PORTS ON ANY ANTENNA SHALL BE COVERED WITH CONCEALER CAP WITH PROPER WEATHER PROOFING OR BE TERMINATED WITH A 50 Ω LOAD.
- 48. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5° AS DEFINED BY THE FINAL RF DESIGN. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5° AS DEFINED BY THE RFDS.
- 49. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR, U.O.N.
- 50. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO VERIZON WIRELESS.
- 51. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION, U.O.N.
- 52. ANTENNAS SHALL HAVE SEPARATION PER RF DESIGN, U.O.N.

TORQUE REQUIREMENTS

- 53. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
- 54. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
 - A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
 - B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
- 55. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
- 56. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
- 57. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
- 58. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 29.8 NM).
- 59. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 2.3 NM).

FIBER & POWER CABLE MOUNTING

- 60. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (6) SIX FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
- 61. CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
- 62. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.



PROJECT INFORMATION:

AURORA, CO 80014

SITE NAME:

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LARIMER COUNTY

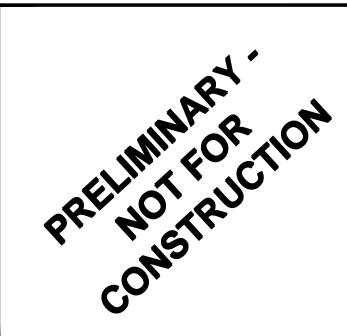
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GW BB KS

SHEET TITLE:

GENERAL NOTES (SHEET 1 OF 4)

SHEET NUMBER

GN1

GENERAL CONSTRUCTION NOTES CONTINUED:

COAXIAL CABLE NOTES

- 63. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
- 64. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- 65. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
- 66. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
- 67. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- 68. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- 69. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH VERIZON WIRELESS STANDARDS.

GENERAL CABLE AND EQUIPMENT NOTES

- 70. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- 71. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
- 72. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
- 73. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED. SELF BONDING TAPE AND PLASTIC ENCLOSURES ALSO PERMITTED PER ATT-002-290-041 SECTION 7.
- 74. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
- A. TEMPERATURE SHALL BE ABOVE 50° F.
- B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
- C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
- D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
- 75. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
- 76. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
- 77. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
- 78. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

GENERAL SITE WORK & DRAINAGE NOTES:

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1.1 REFERENCES:

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

1.2 INSPECTION AND TESTING:

- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE SUBCONTRACTOR.
- B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

1.3 SITE MAINTENANCE AND PROTECTION:

- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- 1. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

PART 2 - PRODUCTS

- 2.1 SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2 NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE. FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3 POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.4 SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND AND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5 GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).
- 2.6 COARSE AGGREGATE FOR ACCESS ROAD SUB-BASE COURSE SHALL CONFORM TO ASTM D2940.
- 2.7 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
- 2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR ENGINEERED APPROVED EQUAL.
- 2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES, 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCH. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

PART 3 - EXECUTION

3.1 GENERAL:

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
- B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
- C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
- 1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
- 2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
- 3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
 - A. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
- B. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- C. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.

3.2 BACKFILL:

- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
- 1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
- 2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
- 3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.
- B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.3 TRENCH EXCAVATION:

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
- B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.



PROJECT INFORMATION:

AURORA, CO 80014

SITE NAME:

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1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

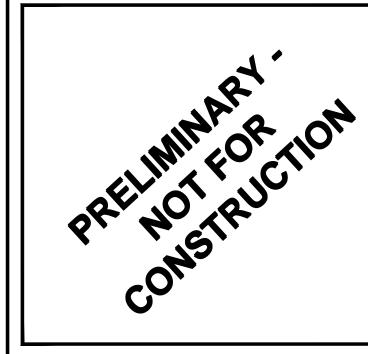
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3	05/01/18	90% ZONING REV B	GW
4	10/11/18	100% ZONING	ВВ

PLANS PREPARED BY:



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LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

GW BB KS

SHEET TITLE:

GENERAL NOTES (SHEET 2 OF 4)

SHEET NUMBER

GN2

GENERAL CONSTRUCTION NOTES CONTINUED:

COAXIAL CABLE NOTES

- 63. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
- 64. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- 65. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
- 66. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
- 67. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- 68. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- 69. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH VERIZON WIRELESS STANDARDS.

GENERAL CABLE AND EQUIPMENT NOTES

- 70. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- 71. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
- 72. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
- 73. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED. SELF BONDING TAPE AND PLASTIC ENCLOSURES ALSO PERMITTED PER ATT-002-290-041 SECTION 7.
- 74. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
- A. TEMPERATURE SHALL BE ABOVE 50° F.
- B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
- C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
- D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
- 75. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
- 76. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
- 77. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
- 78. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

GENERAL SITE WORK & DRAINAGE NOTES:

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1.1 REFERENCES:

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

1.2 INSPECTION AND TESTING:

- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE SUBCONTRACTOR.
- B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

1.3 SITE MAINTENANCE AND PROTECTION:

- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- 1. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

PART 2 - PRODUCTS

- 2.1 SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2 NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE. FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3 POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.4 SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND AND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5 GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).
- 2.6 COARSE AGGREGATE FOR ACCESS ROAD SUB-BASE COURSE SHALL CONFORM TO ASTM D2940.
- 2.7 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
- 2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR ENGINEERED APPROVED EQUAL.
- 2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES, 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCH. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

PART 3 - EXECUTION

3.1 GENERAL:

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
- B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
- C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
- 1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
- 2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
- 3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
 - A. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
- B. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- C. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.

3.2 BACKFILL:

- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
- 1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
- 2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
- 3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.
- B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.3 TRENCH EXCAVATION:

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
- B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.



PROJECT INFORMATION:

AURORA, CO 80014

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FTC FOXSTONE

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LARIMER COUNTY

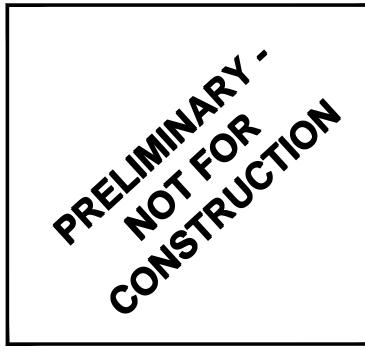
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PLANS PREPARED BY:



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LICENSURE NO:



DRAWN BY: CHK BY: APV BY:

KS

GW BB

SHEET TITLE:

GENERAL NOTES (SHEET 3 OF 4)

SHEET NUMBER

GN3

3.6 CURING:

- FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVELY HOT AND COLD TEMPERATURES AND SHALL BE MAINTAINED WITH MINIMUM MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE.
- CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST AT LEAST OVERNIGHT. IMMEDIATELY FOLLOWING THE INITIAL CURING. BEFORE THE CONCRETE HAS DRIED. ADDITIONAL CURING SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING MATERIALS OR METHODS:
- PONDING OR CONTINUOUS SPRINKLING.
- ABSORPTIVE MAT OR FABRIC KEPT CONTINUOUSLY WET.
- NON-ABSORPTIVE FILM (POLYETHYLENE) OVER PREVIOUSLY SPRINKLED SURFACE.
- SAND OR OTHER COVERING KEPT CONTINUOUSLY WET.
- CONTINUOUS STEAM (NOT EXCEEDING 150 F) OR VAPOR MIST BATH.
- SPRAYED- ON CURING COMPOUND APPLIED IN TWO COATS, SPRAYED IN PERPENDICULAR DIRECTION
- THE FINAL CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OF DAYS OR FRACTION THEREOF, NOT NECESSARILY CONSECUTIVE, DURING WHICH TEMPERATURE OF THE AIR IN CONTACT WITH CONCRETE IS ABOVE 50F HAS TOTALED SEVEN (7) DAYS. CONCRETE SHALL NOT BE PERMITTED TO FREEZE DURING THE CURING PERIOD. RAPID DRYING AT THE END OF THE CURING PERIOD SHALL BE PREVENTED.

GENERAL FIBER REINFORCED PLASTIC NOTES:

1.1 ALL FRP MATERIAL SHALL BE EXTREN SERIES 500 OR EQUIV.

1.2 ALL ADHESIVE SHALL BE PLEXUS METHACRYLATE ADHESIVE OR EQUIV.

1.3 ALL FRP CONNECTIONS SHALL BE FULL BONDED EACH SIDE

WITH $\frac{3}{8}$ " PLATE AND MINIMUM (2) $\frac{3}{8}$ " TAPERED FLAT HEAD FRP SCREWS PER MEMBER

1.4 ALL PANELS SHALL BE FULL BONDED W/ $\frac{3}{8}$ " PAN HEAD FRP SCREWS AT 12" O.C.

GENERAL STRUCTURAL STEEL NOTES:

PART 1 - GENERAL

1.1 SCOPE:

PROVIDE FABRICATION AND ERECTION OF STRUCTURAL STEEL AND OTHER ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED BY OTHER SECTIONS OF THESE SPECIFICATIONS.

1.2 REFERENCES:

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN (ASD).
- AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM). ASTM A36: STRUCTURAL STEEL
 - ASTM A53: PIPE, STEEL BLACK AND HOT DIPPED, ZINC-COATED WELDED AND SEAMLESS. ASTM A108: STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY. ASTM A123: ZINC (HOT-DIPPED GALVANIZED) COATING ON IRON AND STEEL PRODUCTS. ASTM A307: CARBON STEEL BOLTS AND STUDS, 60,000 P.S.I. TENSILE STRENGTH. ASTM A325: HIGH-STRENGTH BOLT FOR STRUCTURAL STEEL JOINTS.

ASTM A490: HEAT-TREATED, STRUCTURAL STEEL BOLTS, 150 (KSI) (1035MPA) TENSILE STRENGTH.

ASTM A500: COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES.

ASTM A563: CARBON AND ALLOY STEEL NUTS.

ASTM B695: COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL.

ASTM F436: HARDENED STEEL WASHERS.

ASTM F959: COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATOR FOR USE WITH STRUCTURAL FASTENERS.

- AMERICAN WELDING SOCIETY (AWS):
 - AWS A5.1: COVERED CARBON STEEL ARC WELDING ELECTRODES AWS A5.5: LOW ALLOY STEEL COVERED ARC WELDING ELECTRODES. AWS D1.1: STRUCTURAL WELDING CODE - STEEL.
- RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC): "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR ASTM A490 BOLTS." AS ENDORSED BY AISC.
- STEEL STRUCTURES PAINTING COUNCIL (SSPC): SSPC-SP3: POWER TOOL CLEANING. SSPC-PAINT 11: RED IRON OXIDE, ZINC CHROME, RAW LINSEED OIL OR ALKYD PAINT.

1.3 SUBMITTALS:

SUBMIT THE FOLLOWING FOR APPROVAL:

FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND ALL TOP STEEL ELEVATIONS.

WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1

PART 2 - PRODUCTS

2.1 STRUCTURAL STEEL:

- SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A572. ANGLES SHALL CONFORM TO ASTM A36.
- STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B
- 2.2 ANCHOR BOLTS:
- ANCHOR BOLTS SHALL CONFORM TO ASTM A307 WITH HEAVY HEXAGONAL NUTS.
- 2.3 BOLTS:
- COMMON (MACHINE) BOLTS SHALL CONFORM TO ASTM A307 GRADE A AND NUTS TO ASTM A563. ONE COMMON BOLT ASSEMBLY SHALL CONSIST OF A BOLT. A HEAVY HEX NUT AND A HARDENED WASHER.
- B. HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325; ONE HIGH STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY HEX NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST THE ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
- 2.4 WELDING ELECTRODES:
- WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED.
- 2.5 PRIMER:
- PRIMER SHALL BE RED OXIDE-CHROMATE PRIMER COMPLYING WITH SSPC PAINT SPECIFICATION NO. 11.

PART 3 - EXECUTION

3.1 FABRICATION:

- SHOP FABRICATE AND ASSEMBLY MATERIALS AS SPECIFIED HEREIN.
- FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC-ASD SPECIFICATION, AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.
- ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM.
- PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY AND FOR IDENTIFICATION AS TO LOCATION FOR WHICH INTENDED.
- FABRICATE AND DELIVER IN A SEQUENCE WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.
- WHERE FINISHING IS REQUIRED, COMPLETE THE ASSEMBLY, INCLUDING THE WELDING OF UNITS, BEFORE START OF FINISHING OPERATIONS.
- PROVIDE FINISH SURFACE OF MEMBERS EXPOSED IN THE FINAL STRUCTURE FREE FROM MARKINGS. BURNS. AND OTHER DEFECTS.
- PROVIDE CONNECTIONS AS SPECIFIED HEREIN:
- PROVIDE BOLTS AND WASHERS OF TYPES AND SIZE REQUIRED FOR COMPLETION OF FIELD ERECTION. USE 3/4 INCH DIAMETER A325 BOLTS UNLESS NOTED OTHERWISE.
- INSTALL HIGH STRENGTH THREADED FASTENERS IN ACCORDANCE WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS."
- WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE, QUALITY OF WELD, AND METHODS USED IN CORRECTING WELDED WORK.
- THE FABRICATOR SHALL FURNISH AND INSTALL ERECTION CLIPS FOR FIT-UP OF WELDED CONNECTIONS.
- DOUBLE ANGLE MEMBERS SHALL HAVE WELDED FILLERS SPACED IN ACCORDANCE WITH CHAPTER E4 OF THE AISC-ASD SPECIFICATION.
- GUSSET AND STIFFENER PLATES SHALL BE 3/8 INCH THICK MINIMUM.

3.2 PRIMING:

- STRUCTURAL STEEL SHALL BE PRIMED AS SPECIFIED HEREIN, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
- STRUCTURAL STEEL SURFACE PREPARATION SHALL CONFORM TO SSPC-SP3, "POWER **TOOL CLEANING."**
- SURFACE PREPARATION AND PRIMER SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE AS INCLUDED IN THE ASD MANUAL OF STEEL CONSTRUCTION.

- MATERIALS SHALL REMAIN CLOSED UNTIL REQUIRED FOR USE, MANUFACTURER'S POT-LIFE REQUIREMENTS SHALL BE STRICTLY ADHERED TO.
- PRIMER SHALL BE APPLIED TO DRY, CLEAN, PREPARED SURFACE AND UNDER FAVORABLE CONDITIONS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER PRIMING SHALL NOT BE DONE WHEN AMBIENT TEMPERATURE IS LESS THAN 50 DEGREE F. THE RELATIVE HUMIDITY IS MORE THAN 90 PERCENT. OR THE SURFACE TEMPERATURE IS LESS THAN 5 DEGREE F ABOVE THE DEW POINT.
- GENERALLY ALL PRIMER SHALL BE SPRAY APPLIED. BRUSH OR ROLLER APPLICATION SHALL BE RESTRICTED TO TOUCHUP AND TO AREAS NOT ACCESSIBLE BY SPRAY GUN.
- PRIMER SHALL BE UNIFORMLY APPLIED WITHOUT RUNS, SAGS, SOLVENT BLISTERS, DRY SPRAY OR OTHER BLEMISHES. ALL BLEMISHES AND OTHER IRREGULARITIES SHALL BE REPAIRED OR REMOVED AND THE AREA RE-COATED. SPECIAL ATTENTION SHALL BE PAID TO CREVICES, WELD LINES, BOLT HEADS, CORNERS, EDGES, ETC., TO OBTAIN THE REQUIRED NOMINAL FILM THICKNESS.
- THE DRY FILM THICKNESS OF THE PRIMER SHALL BE 2.0 MILS.
- IF THE PRIMER IS DAMAGED BY WELDING OR PHYSICAL ABUSE, THE AREA SHALL BE TOUCHED UP AND REPAIRED. THE TOUCHUP PAINT SHALL BE COMPATIBLE WITH THE APPLIED PRIMER WITH MINIMUM DRY FILM THICKNESS OF 1.5 MILS

3.3 INSTALLATION:

- INSTALLATION OF STRUCTURAL STEEL SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE."
- STRUCTURAL FIELD WELDING SHALL BE DONE BY THE ELECTRIC SUBMERGED OR SHIELDED METAL ARC PROCESS. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1.
- PROVIDE ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL STEEL TO ELEVATOR SHAFT WALLS AND OTHER IN-PLACE WORK. PROVIDE TEMPLATES AND OTHER DEVICES NECESSARY FOR PRESETTING BOLTS AND ANCHORS TO ACCURATE LOCATIONS.
- SPLICE MEMBERS ONLY WHERE INDICATED ON THE DRAWINGS.
- ANY GAS CUTTING TORCHES HAVE TO BE APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.
- PROVIDE TEMPORARY SHORING BRACING WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS. REMOVE TEMPORARY CONNECTIONS AND MEMBERS WHEN PERMANENT MEMBERS ARE IN PLACE AND THE FINAL CONNECTIONS HAVE BEEN MADE.
- ALIGN AND ADJUST MEMBERS, AND OTHER SURFACES WHICH WILL BE IN THE PERMANENT CONTACT, BEFORE ASSEMBLY.
- HIGH-STRENGTH BOLTS AS A MINIMUM, SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE LATEST AISC SPECIFICATION. ALL HIGH-STRENGTH BOLTS SPECIFIED ON THE DESIGN DRAWINGS TO BE USED IN PRETENSIONED OR SLIP-CRITICAL JOINTS SHALL BE TIGHTENED TO A BOLT TENSION NOT LESS THAN THAT GIVEN IN AISC TABLE J3.1. INSTALLATION SHALL BE BY ANY OF THE FOLLOWING METHODS: TURN-OF NUT METHOD, A DIRECT-TENSION-INDICATOR, TWIST-OFF-TYPE TENSION-CONTROL BOLT, CALIBRATED WRENCH, OR ALTERNATIVE DESIGN BOLT.



PROJECT INFORMATION:

AURORA, CO 80014

SITE NAME:

FTC FOXSTONE

1961 CARIBOU DR. FORT COLLINS, CO 80525

LARIMER COUNTY

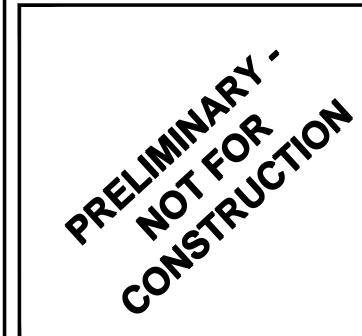
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PLANS PREPARED BY:



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LICENSURE NO:



APV BY: DRAWN BY: CHK BY:

SHEET TITLE:

GENERAL NOTES (SHEET 4 OF 4)

SHEET NUMBER