



Seth Francis
Managing Partner
Blue River Real Estate

October 10, 2024

Dear Town of Frisco Planning Commission:

Thank you for considering our project for Sketch Plan approval for a Major Site Plan Application. In our submittal package you will see all required documents as well as our project narrative that is outlined below.

Regards,
Blue River Real Estate

Project Description

This multi-family residential home is composed of 19 units over four levels. Each unit is composed of two bedrooms and three bathrooms and range in size from 1,580 a square foot to 1,594 a square foot.

The lower level is composed of an at grade parking garage with 38 parking spots (1 parking spot per bedroom) and 2 ADA spots. It also includes a bike storage facility.

There is a double driveway with access to four exterior guest parking spots and an exterior bike storage area. There is also one residential unit on this level.

Levels two through four consist of residential units.

Exterior Materials:

Please see the material color board provided on Exterior Elevations in the submittal package. Wood, metal and stone siding will be utilized.

Landscape Features:

The lot is located on a unique site that has a pond and a large amount of wetlands surrounding the pond. The current structure, that will be demolished prior to the new development, has a deck and a parking area in the wetlands setback that will be restored to wetlands. The other areas in the wetlands, the bridge and surrounding walkway, will be refurbished.

Exterior Lighting:

All the exterior lighting will be dark sky compliant.

Building Scales:

We are seeking an architectural bulk plane relief variance from the Planning Commission on the north and west sides of the property. There are minimal roof overhangs on the gables on the west and north sides and the total amount of encroachment does not exceed 350 cubic feet.

The sloped roofs are at least 2/12.

Please see attached the drawings/document submitted with the package for additional information.

THE GLADE

SKETCH REVIEW SUBMITTAL

200N 7TH AVENUE

OUTLET E-2, REPLAT A, RIVER PINES SUBDIVISION
TOWN OF FRISCO, SUMMIT COUNTY
COLORADO

WORKSHOP

ARCHITECTURE & DEVELOPMENT
STUDIO

2755 CANYON BLVD 1ST FLOOR
BOULDER, CO 80302

Phone: 808.226.5145

www.workshop-hi.com
info@workshop-hi.com

SYMBOLS

DRAWING IN SEQUENCE
DISCIPLINE
DETAILS ON DRAWING

D / A - 1

OR

1

A-3.01

1

A-3.01

WALL SECTION OR DETAIL SECTION
CAN ALSO BE NOTED : SEE DET. 1 / A-1 OR

1

A-3.01

BUILDING SECTION

1

A-3.01

DRAWING TITLE

MATCHLINE
SHADED PORTION IS
THE SIDE CONSIDERED

WORK POINT , CONTROL
POINT , DATUM POINT ,
OR SOIL BORING

FIN. FL. EL.

FINISHED FLOOR LEVEL

C1

FLOORING MATERIAL

PROPERTY LINE

CONCRETE
CAST IN PLACE OR PRECAST

CMU
CONCRETE MASONRY UNIT

PLYWOOD

INSULATION, BATT

EARTH

GYPSON BOARD, OMIT DOUBLE LINES AT SMALL SCALE

WOOD, FINISH

WOOD, FRAMING THROUGH MEMBER

WOOD, FRAMING INTERRUPTED MEMBER

DISCIPLINES:

ARCHITECTURAL: A
STRUCTURAL ENGINEERING: S
MECHANICAL ENGINEERING: M
PLUMBING: P
FIRE SPRINKLER FS
ELECTRICAL ENGINEERING E

104

DOOR OR OPENING NUMBER

102

WINDOW OR LOUVER NUMBER

1

REVISION

H A E
D INT B
G ELEV KE F
A

KEY TO ELEVATIONS

1

COLUMN GRID LINE

7-2

WALL TYPE

1-2

WALL TYPE (RATED)

MATERIAL INDICATIONS

CONCRETE
CAST IN PLACE OR PRECAST

CMU
CONCRETE MASONRY UNIT

PLYWOOD

INSULATION, BATT

EARTH

GYPSON BOARD, OMIT DOUBLE LINES AT SMALL SCALE

WOOD, FINISH

WOOD, FRAMING THROUGH MEMBER

WOOD, FRAMING INTERRUPTED MEMBER

PLAN INDICATIONS

7'-8"

DIMENSION LINES TO
FACE OF GYPSUM BOARD

POCKET DOOR

DIMENSION LINES TO
CENTER OF OPENING, UON

EXISTING
PARTITION

NEW FRAMED PARTITION
WITH ACOUSTIC INSULATION

DEMOLITION
PARTITION

NEW FRAMED
PARTITION

ABBREVIATIONS

<div><div>& L</div><div>Angle</div><div>At</div><div>Centerline</div><div>Diameter or Round</div><div>Perpendicular</div><div>Round or Number</div><div>Existing</div></div>	<div><div>And</div><div>Angle</div><div>At</div><div>Centerline</div><div>Diameter or Round</div><div>Perpendicular</div><div>Round or Number</div><div>Existing</div></div>	<div><div>EL</div><div>ELEC.</div><div>EMER</div><div>ENCL</div><div>E. P.</div><div>EQ.</div><div>EQPT.</div><div>EXST.</div><div>EXPO.</div><div>EXP.</div><div>EXT.</div></div> <div><div>Elevation</div><div>Electrical</div><div>Emergency</div><div>Enclosure</div><div>Electrical Panel</div><div>Equal</div><div>Equipment</div><div>Existing</div><div>Exposed</div><div>Expansion</div><div>Exterior</div></div>	<div><div>F. A.</div><div>F. D.</div><div>FDN.</div><div>F. E.</div><div>F. E. C.</div></div> <div><div>Fire Alarm</div><div>Floor Drain</div><div>Foundation</div><div>Fire Extinguisher</div><div>Fire Extinguisher Cabinet</div></div>	<div><div>FIN.</div><div>FL.</div><div>FLASH.</div><div>FLUOR.</div><div>F. O. C.</div><div>F. O. F.</div><div>F. O. S.</div><div>FFRP.</div></div> <div><div>Finish</div><div>Floor</div><div>Flashing</div><div>Fluorescent</div><div>Face of Concrete</div><div>Face of Finish</div><div>Face of Studs</div><div>Fireproof</div></div>	<div><div>FR.</div><div>F. S.</div><div>FT.</div><div>FTG.</div><div>FURN.</div><div>FURR.</div><div>FUT.</div></div> <div><div>Frame</div><div>Finish System</div><div>Foot or Feet</div><div>Footing</div><div>Furniture</div><div>Furring</div><div>Future</div></div>	<div><div>GALV.</div><div>GL.</div><div>GND.</div><div>GR.</div><div>GYP.</div></div> <div><div>Galvanize</div><div>Glass</div><div>Ground</div><div>Grade</div><div>Gypsum</div></div>	<div><div>H. B.</div><div>H. C.</div><div>HDWD.</div><div>HDWE.</div><div>H. M.</div><div>HORIZ.</div><div>HGT.</div></div> <div><div>Hose Bibb</div><div>Hollow Core</div><div>Hardwood</div><div>Hardware</div><div>Hollow Metal</div><div>Horizontal</div><div>Height</div></div>	<div><div>I. D.</div></div> <div><div>Inside Diameter (Dim.)</div></div>	<div><div>INCL.</div><div>INSUL.</div></div> <div><div>Inclusive or Included</div><div>Insulation Interior</div></div>	<div><div>JT.</div><div>KIT.</div></div> <div><div>Joint</div><div>Kitchen</div></div>	<div><div>LAV.</div><div>LKR.</div><div>LT.</div></div> <div><div>Lavatory</div><div>Locker</div><div>Light</div></div>	<div><div>MAX.</div><div>MECH.</div><div>MEMB.</div><div>MET.</div><div>MFR.</div><div>MIN.</div><div>MIR.</div><div>MISC.</div><div>MTD.</div><div>MUL.</div></div> <div><div>Maximum</div><div>Mechanical</div><div>Membrane</div><div>Metal</div><div>Manufacturer</div><div>Minimum</div><div>Mirror</div><div>Miscellaneous</div><div>Mounted</div><div>Mullion</div></div>	<div><div>N.</div><div>N. I. C.</div><div>NO. or #</div><div>NOM.</div><div>N. T. S.</div></div> <div><div>North</div><div>Not In Contract</div><div>Number</div><div>Nominal</div><div>Not to Scale</div></div>	<div><div>O. A.</div><div>OBS.</div><div>O. C.</div><div>O. D.</div></div> <div><div>Overall</div><div>Obscure</div><div>On Center</div><div>Outside Diameter (Dim.)</div></div>	<div><div>OFF.</div><div>OPNG.</div><div>OPP.</div><div>P. LAM.</div><div>PLAS.</div><div>PLYWD.</div><div>PR.</div><div>PT.</div><div>PTN.</div></div> <div><div>Office</div><div>Opening</div><div>Opposite</div><div>Plastic Laminate</div><div>Plaster</div><div>Plywood</div><div>Pair</div><div>Point</div><div>Partition</div></div>	<div><div>REF.</div><div>REFR.</div><div>REINF.</div><div>REQ.</div><div>RESIL.</div><div>RM.</div><div>R. O.</div></div> <div><div>Reference</div><div>Refrigerator</div><div>Reinforced</div><div>Required</div><div>Resilient</div><div>Room</div><div>Rough Opening</div></div>	<div><div>S.</div><div>S. C.</div><div>SCHED.</div><div>SECT.</div><div>SH.</div><div>SHR.</div><div>SHI.</div><div>SM.</div><div>SL.</div><div>SPEC.</div><div>SQ.</div></div> <div><div>South</div><div>Solid Core</div><div>Schedule</div><div>Section</div><div>Shelf</div><div>Shower</div><div>Sheet</div><div>Similar</div><div>Slope</div><div>Specification</div><div>Square</div></div>	<div><div>STD.</div><div>STL.</div><div>STOR.</div><div>STRL.</div><div>SUSP.</div><div>SYM.</div></div> <div><div>Standard</div><div>Steel</div><div>Storage</div><div>Structural</div><div>Suspension</div><div>Symmetrical</div></div>	<div><div>T. C.</div><div>TEL.</div><div>TEMP.</div><div>T. & Q.</div><div>THK.</div><div>T. P.</div><div>T. V.</div><div>T. W.</div><div>TYP.</div></div> <div><div>Top of Curb</div><div>Telephone</div><div>Tempered</div><div>Tongue and Groove</div><div>Thick</div><div>Top of Pavement</div><div>Television</div><div>Top of Wall</div><div>Typical</div></div>	<div><div>T. C.</div><div>TEL.</div><div>TEMP.</div><div>T. & Q.</div><div>THK.</div><div>T. P.</div><div>T. V.</div><div>T. W.</div><div>TYP.</div></div> <div><div>Top of Curb</div><div>Telephone</div><div>Tempered</div><div>Tongue and Groove</div><div>Thick</div><div>Top of Pavement</div><div>Television</div><div>Top of Wall</div><div>Typical</div></div>	<div><div>UNFIN.</div><div>U. O. N.</div></div> <div><div>Unfinished</div><div>Unless Otherwise Noted</div></div>	<div><div>V.I.F.</div></div> <div><div>Verify In Field</div></div>	<div><div>W.</div><div>W /</div><div>W.C.</div><div>WD.</div><div>WDW.</div><div>W / O</div><div>WP.</div><div>WR.</div><div>WSCT.</div></div> <div><div>West</div><div>With</div><div>Water Closet</div><div>Wood</div><div>Window</div><div>Without</div><div>Waterproof</div><div>Water Resistant</div><div>Wainscot</div></div>
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PROJECT LOCATION

PROJECT TEAM

<div><div>OWNER</div><div>BLUE RIVER REAL ESTATE FUND IV LLC PO BOX 7035 BRECKENRIDGE, CO 80424 PH: 347.834.1009 SETH FRANCIS</div></div>	<div><div>ARCHITECT</div><div>WORKSHOP A&D 2755 CANYON BLVD 1ST FLOOR BOULDER, CO 80302 PH: 808.599.9744 JASON SELLEY</div></div>	<div><div>CIVIL</div><div>TEN MILE ENGINEERING INC. PO BOX 1785 FRISCO, CO 80443 PH: 970.485.5773 JOSEPH MAGLICIC</div></div>	<div><div>MECHANICAL</div><div>JMK ENGINEERING 2755 CANYON BLVD 1ST FLOOR BOULDER, CO 80302 PH: 808.437.4163 JUSTIN KILLINGSWORTH</div></div>	<div><div>ELECTRICAL</div><div>JMK ENGINEERING 2755 CANYON BLVD 1ST FLOOR, BOULDER, CO 80302 PH: 808.437.4163 JUSTIN KILLINGSWORTH</div></div>
<div><div>GENERAL CONTRACTOR</div><div>CAMPBELL CONSTRUCTION LLC 110 S. 1ST AVE UNIT 1, PO BOX 4272 FRISCO, CO 80443 PH: 970.389.7246 PETE CAMPBELL</div></div>	<div><div>SURVEYOR</div><div>RANGE WEST INC. P.O. BOX 589 SILVERTHORNE, CO 80498 970.468.6281 JESSICA KOETTERITZ</div></div>	<div><div>ENERGY CONSULTANT</div><div>DEEPER GREEN CONSULTING PO BOX 2865 FRISCO, CO 80443 PH: 970.387.8977 MATT WRIGHT</div></div>		

SHEET INDEX

ARCHITECTURAL	
000	COVER
G001	PROJECT LOCATION, GENERAL NOTES, PROJECT DATA, CODE NOTES & SHEET INDEX
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A202	OVERALL LEVEL THREE FLOOR PLAN
A203	OVERALL LEVEL FOUR FLOOR PLAN
A204	OVERALL ROOF PLAN
A301	EXTERIOR ELEVATIONS
A302	EXTERIOR ELEVATIONS
A400	BULK PLANE DIAGRAMS & CONCEPT RENDERING

PROJECT DATA

ZONING DATA:
ADDRESS: 200N 7TH AVENUE, FRISCO, CO LOT E-2 RIVER PINES SUB RESUB OUTLOT E R
PARCEL: 2097-3521-03-001
ZONING: MU MIXED USE
LOT AREA: 85,377 SQ.FT. / 1.96 ACRES

OVERALL FLOOR AREA CALCULATIONS

GROUND LEVEL:	LEVEL 2:
GARAGE PARKING AREA: 11,250 SQ.FT. LOBBY AREA: 430 SQ.FT. MECH/TRASH AREA: 740 SQ.FT. SECURE BIKE STORAGE AREA: 190 SQ.FT. UNIT #101 (INCLUDING DECKS): 2,150 SQ.FT.	COMMON CIRCULATION AREA: 1,780 SQ.FT. RESIDENTIAL UNITS(INCLUDING DECK): 11,928 SQ.FT. UTILITY ROOMS: 166 SQ.FT.
TOTAL: 13,220 SQ.FT.	TOTAL: 13,874 SQ.FT.
LEVEL 3:	LEVEL 4:
COMMON CIRCULATION AREA: 1,780 SQ.FT. RESIDENTIAL UNITS(INCLUDING DECK): 11,534 SQ.FT. UTILITY ROOMS: 166 SQ.FT.	COMMON CIRCULATION AREA: 1,780 SQ.FT. RESIDENTIAL UNITS(INCLUDING DECK): 11,534 SQ.FT. UTILITY ROOMS: 166 SQ.FT.
TOTAL: 13,480 SQ.FT.	TOTAL: 13,480 SQ.FT.

UNIT AREA CALCULATIONS

UNIT #101:	UNIT #301:	UNIT #401:
INTERIOR FLOOR AREA: 1,590 SQ.FT. DECK AREA: 560 SQ.FT.	INTERIOR FLOOR AREA: 1,594 SQ.FT. DECK AREA: 424 SQ.FT.	INTERIOR FLOOR AREA: 1,594 SQ.FT. DECK AREA: 424 SQ.FT.
UNIT #201:	UNIT #302:	UNIT #402:
INTERIOR FLOOR AREA: 1,594 SQ.FT. DECK AREA: 502 SQ.FT.	INTERIOR FLOOR AREA: 1,585 SQ.FT. DECK AREA: 324 SQ.FT.	INTERIOR FLOOR AREA: 1,585 SQ.FT. DECK AREA: 324 SQ.FT.
UNIT #202:	UNIT #303:	UNIT #403:
INTERIOR FLOOR AREA: 1,585 SQ.FT. DECK AREA: 640 SQ.FT.	INTERIOR FLOOR AREA: 1,580 SQ.FT. DECK AREA: 442 SQ.FT.	INTERIOR FLOOR AREA: 1,580 SQ.FT. DECK AREA: 442 SQ.FT.
UNIT #203:	UNIT #304:	UNIT #404:
INTERIOR FLOOR AREA: 1,580 SQ.FT. DECK AREA: 442 SQ.FT.	INTERIOR FLOOR AREA: 1,580 SQ.FT. DECK AREA: 212 SQ.FT.	INTERIOR FLOOR AREA: 1,580 SQ.FT. DECK AREA: 212 SQ.FT.
UNIT #204:	UNIT #305:	UNIT #405:
INTERIOR FLOOR AREA: 1,580 SQ.FT. DECK AREA: 212 SQ.FT.	INTERIOR FLOOR AREA: 1,585 SQ.FT. DECK AREA: 308 SQ.FT.	INTERIOR FLOOR AREA: 1,585 SQ.FT. DECK AREA: 308 SQ.FT.
UNIT #205:	UNIT #306:	UNIT #406:
INTERIOR FLOOR AREA: 1,585 SQ.FT. DECK AREA: 308 SQ.FT.	INTERIOR FLOOR AREA: 1,590 SQ.FT. DECK AREA: 310 SQ.FT.	INTERIOR FLOOR AREA: 1,590 SQ.FT. DECK AREA: 310 SQ.FT.
UNIT #206:		
INTERIOR FLOOR AREA: 1,590 SQ.FT. DECK AREA: 310 SQ.FT.		

WORKSHOP

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project

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SKETCH REVIEW SUBMITTAL

200 N 7TH AVENUE
OUTLET E-2, REPLAT A
RIVER PINES SUBDIVISION
TOWN OF FRISCO, SUMMIT COUNTY
COLORADO

phase

SKETCH REVIEW

job number

2412

date

OCTOBER 1, 2024

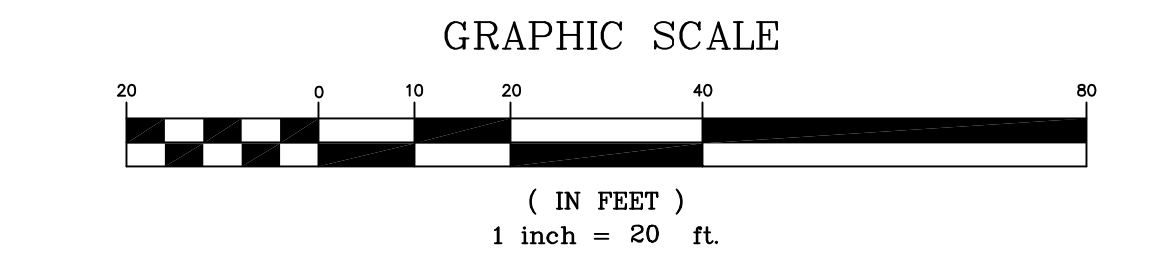
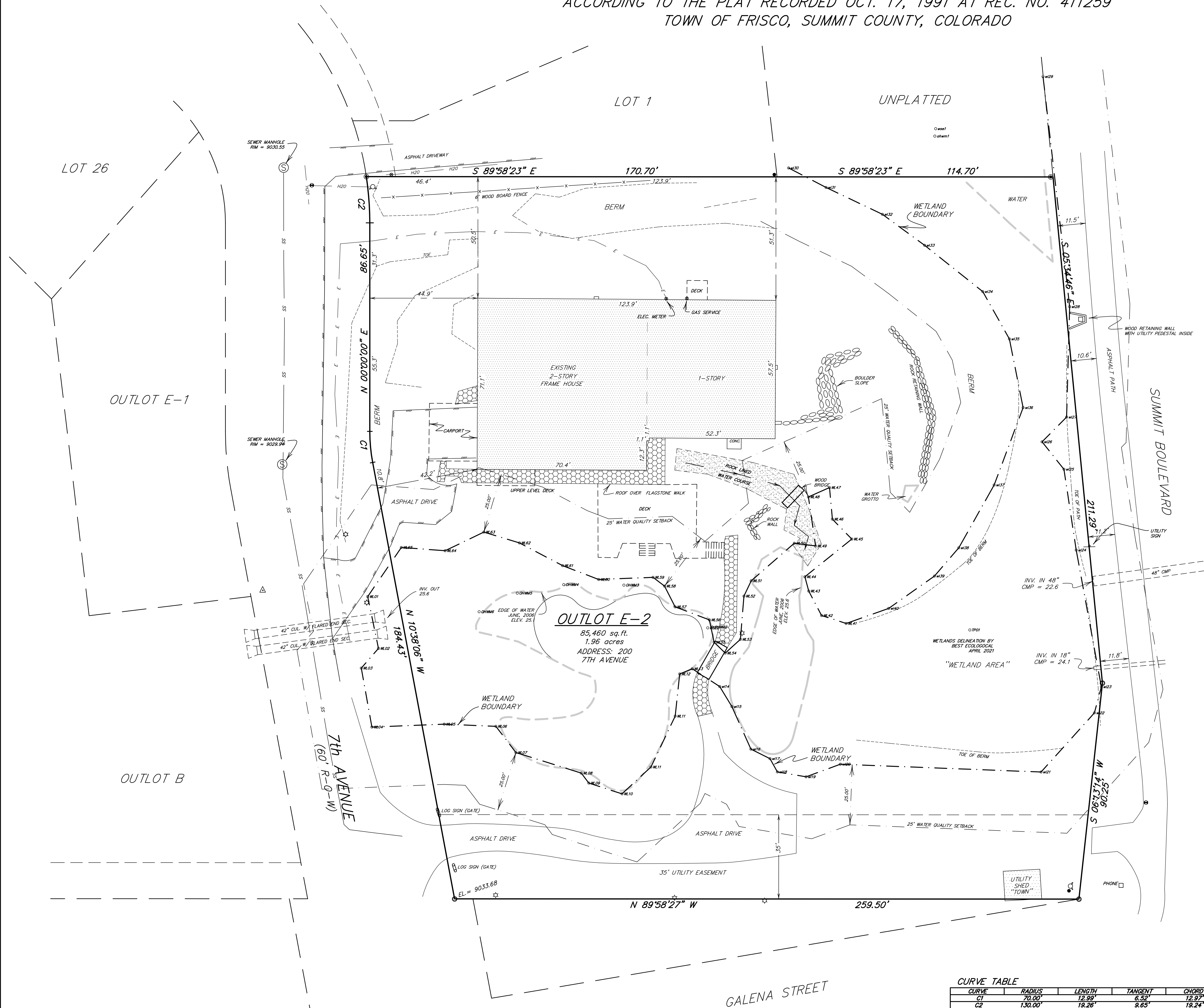
drawing title

PROJECT LOCATION,
CODE NOTES &
SHEET INDEX

sheet number

G001

A WETLAND LOCATION MAP OF A PORTION OF
OUTLOT E-2, REPLAT A, RIVER PINES SUBDIVISION
ACCORDING TO THE PLAT RECORDED OCT. 17, 1991 AT REC. NO. 411259
TOWN OF FRISCO, SUMMIT COUNTY, COLORADO



ELEVATIONS BASED ON U.S.G.S. DATUM (NGVD 1929)
DATE OF ORIGINAL SURVEY: MAY 22 - JUNE 9, 2006
DATE OF UPDATED SURVEY: APRIL 21-27, 2021
(INCLUDES FEATURES FROM SURVEY DONE IN 2003 + 2006)
CONTOUR INTERVAL=2 FEET

- LEGEND**
- PREVIOUSLY SET REBAR & PLASTIC CAP (PLS 26292)
 - FOUND REBAR & PLASTIC CAP (PLS 10847)
 - FOUND #4 REBAR
 - ☆ LIGHT POLE
 - ⦿ FIRE HYDRANT
 - ⊙ GATE VALVE
 - ⊙ CURB STOP (WATER SERVICE)
 - UTILITY PEDESTAL
 - ⦿ FLAGSTONE WALK
 - ⦿ PINE TREE WITH TRUNK DIAMETER
 - ⦿ SPRUCE TREE WITH TRUNK DIAMETER
 - ⦿ ASPEN TREE WITH TRUNK DIAMETER
 - LOCATED PINE TREES 6" AND GREATER AND ASPENS 4" AND GREATER
 - WILLOW PLANT
 - 32.5 x SPOT ELEVATION
 - VEGETATION LINE
 - W22 WETLAND FLAG AS LOCATED WITH FLAG NUMBER (BEST ECOLOGICAL)
 - H20 UNDERGROUND WATER LINE AS LOCATED BY 811
 - SS UNDERGROUND SEWER SERVICE LINE AS LOCATED BY 811
 - E UNDERGROUND ELECTRIC LINE AS LOCATED BY 811

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	70.00'	12.99'	6.52'	12.97'	N 05°19'03" W	10°38'06"
C2	130.00'	19.26'	9.65'	19.24'	N 04°14'39" W	08°29'19"

NOTE: 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 HEREON.

full size sheet is 24" x 36" x 0.25 0.5 1 2

CODE DATA

MULTIFAMILY DEVELOPMENT DENSITY:

TOTAL LOT AREA: 85,460 SQ.FT. / 1.9619 ACRE
WETLAND AREA (2021 SURVEY) : 27,372 SQ.FT. / .6284 ACRE
TOTAL AREA ALLOCATED FOR DENSITY (DIAGONAL HATCH): 58,088 SQ.FT. / 1.3335 ACRE
ALLOWED LOT DENSITY: 14 DWELLING UNITS PER ACRE = 1.3335 X 14 = 18.669
19 TOTAL DWELLING UNITS ALLOWED

MULTIFAMILY PARKING REQUIREMENTS:

1 STALL REQUIRED FOR EVERY BEDROOM
38 BEDROOMS TOTAL = 38 STALLS REQUIRED
STANDARD PARKING STALLS PROVIDED: 38

ACCESSIBLE STALLS REQUIRED: 2 <= 50 STANDARD STALLS
ACCESSIBLE STALLS PROVIDED: 2

MULTIFAMILY BICYCLE PARKING:

ONE BICYCLE PARKING SPACE IS REQUIRED FOR EVERY BEDROOM. 50% OF THE TOTAL SPACES MUST BE ENCLOSED, SECURE BICYCLE PARKING.

38 BIKE STALLS REQUIRED | 38 BIKE STALLS PROVIDED

MU DISTRICT DIMENSIONAL STANDARDS (TABLE 3-2):

TABLE 3-2: MU DISTRICT DIMENSIONAL STANDARDS	
PROJECT STANDARDS	
Maximum density	14 du/acre
LOT STANDARDS	
Minimum lot area	None
Minimum lot frontage	None
Minimum open space	10% of GFA
Maximum lot coverage	60%
SETBACKS	
Minimum front yard setback	20 ft.
Minimum front yard setback, Main Street requirements	5 ft.
Minimum side yard setback	10 ft.
Minimum side yard setback, Main Street requirements	5 ft.
Minimum rear yard setback	10 ft.
Minimum rear yard setback, Main Street requirements	10 ft.
BUILDING STANDARDS	
Maximum building height	45 ft. (pitched); 35 ft. (flat)

SNOW STORAGE STANDARDS:

SNOW STORAGE SHALL BE PROVIDED ON PREMISES IN THE AMOUNT OF 100 SQUARE FEET FOR EVERY 350 SQUARE FEET OF PAVED SURFACE AREA AND ANY UNPAVED PARKING AND DRIVEWAY AREAS.

PAVED DRIVEWAY & GUEST PARKING AREA: 2,815 Q.FT.
PAVED WALKWAY AREA: 1,646 SQ.FT.

SNOW STORAGE AREA REQUIRED: 1,275 SQ.FT.
SNOW STORAGE AREA PROVIDED: 1,428 SQ.FT.



A NEW SITE PLAN
1/16" = 1'-0"



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COLORADO



phase SKETCH REVIEW

job number 2412

date OCTOBER 1, 2024

drawing title

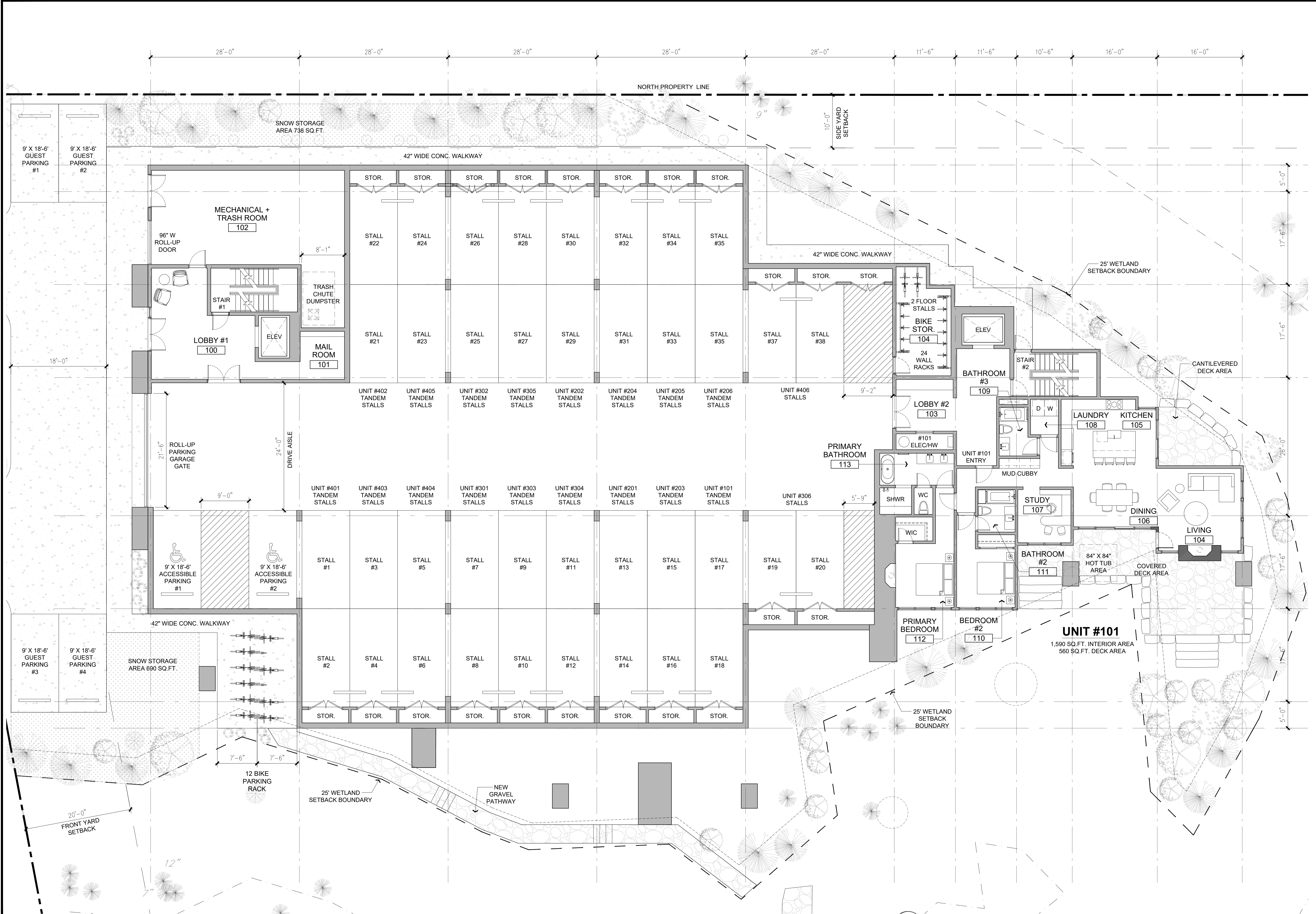
SITE PLAN

sheet number

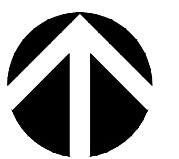
A100

full size sheet is 24" x 36"

0 .25 .5 1 2



A OVERALL GROUND LEVEL FLOOR PLAN
1/8" = 1'-0"



0 4' 8'



ARCHITECTURE & DEVELOPMENT
STUDIO

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△	△
△	△
△	△
△	△
△	△

phase **SKETCH REVIEW**

job number **2412**

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drawing title

**OVERALL GROUND
LEVEL FLOOR PLAN**

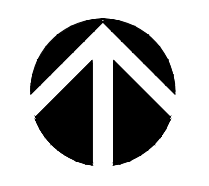
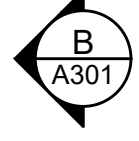
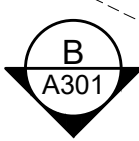
sheet number

A200

full size sheet is 24" x 36"

0 .25 .5 1 2

NORTH PROPERTY LINE



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STUDIO

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stamp

project

THE GLADE SKETCH REVIEW SUBMITTAL

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OUTLET E-2, REPLAT A
RIVER PINES SUBDIVISION
TOWN OF FRISCO, SUMMIT COUNTY
COLORADO

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phase SKETCH REVIEW

job number 2412

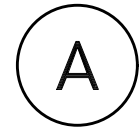
date OCTOBER 1, 2024

drawing title

OVERALL LEVEL TWO
FLOOR PLAN

sheet number

A201



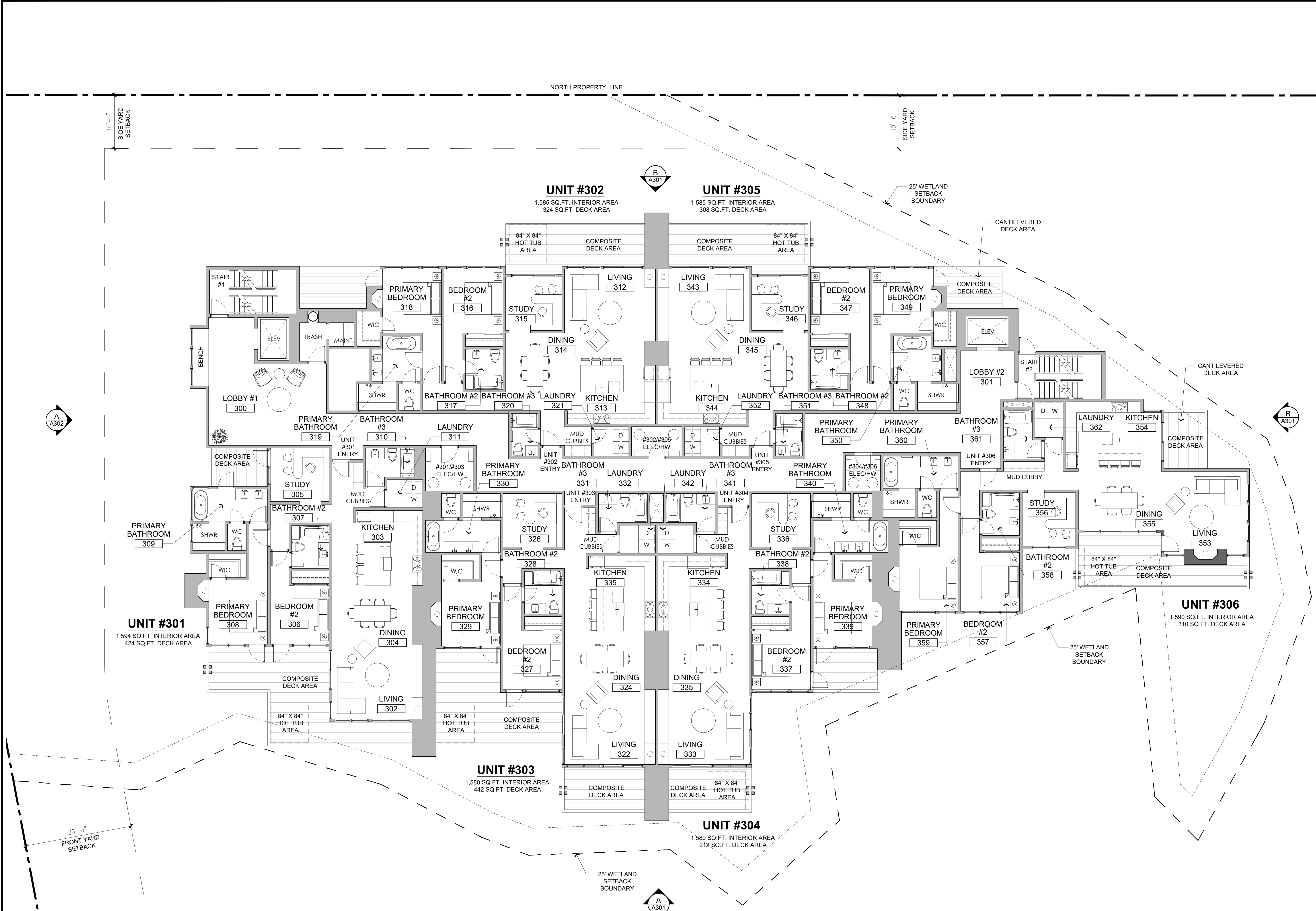
OVERALL LEVEL TWO FLOOR PLAN

1/8" = 1'-0"

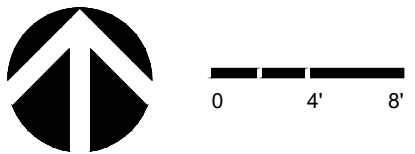
0 4' 8'

full size sheet is 24" x 36"

0 .25 .5 1 2



A OVERALL LEVEL THREE FLOOR PLAN
1/8" = 1'-0"



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**THE GLADE
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200 N 7TH AVENUE
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TOWN OF FRISCO, SUMMIT COUNTY
COLORADO

phase **SKETCH REVIEW**

job number **2412**

date **OCTOBER 1, 2024**

drawing title

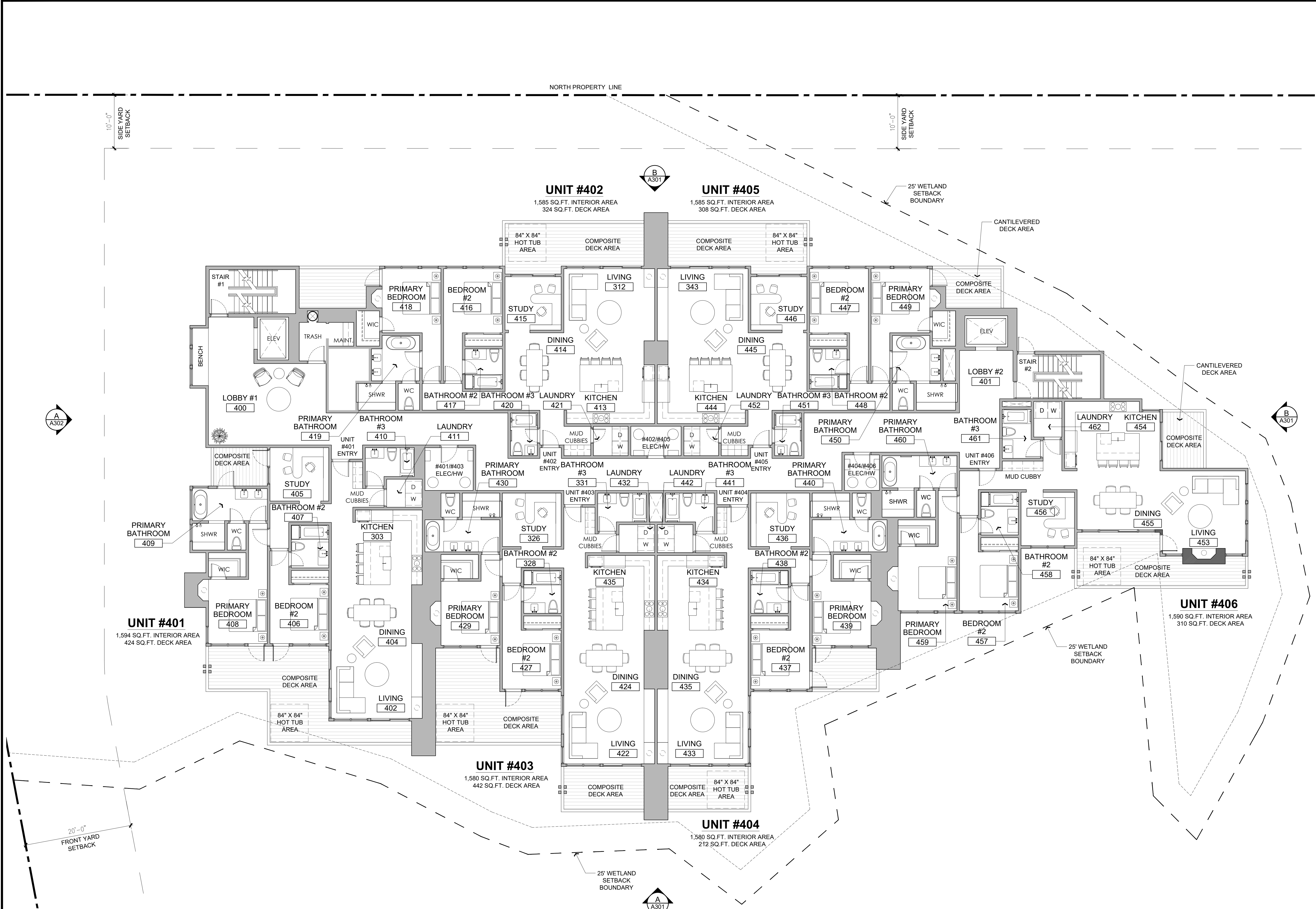
**OVERALL LEVEL
THREE FLOOR PLAN**

sheet number

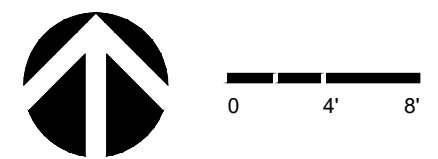
A202

full size sheet is 24" x 36"

0 .25 .5 1 2



A OVERALL LEVEL FOUR FLOOR PLAN
1/8" = 1'-0"



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phase **SKETCH REVIEW**

job number **2412**

date **OCTOBER 1, 2024**

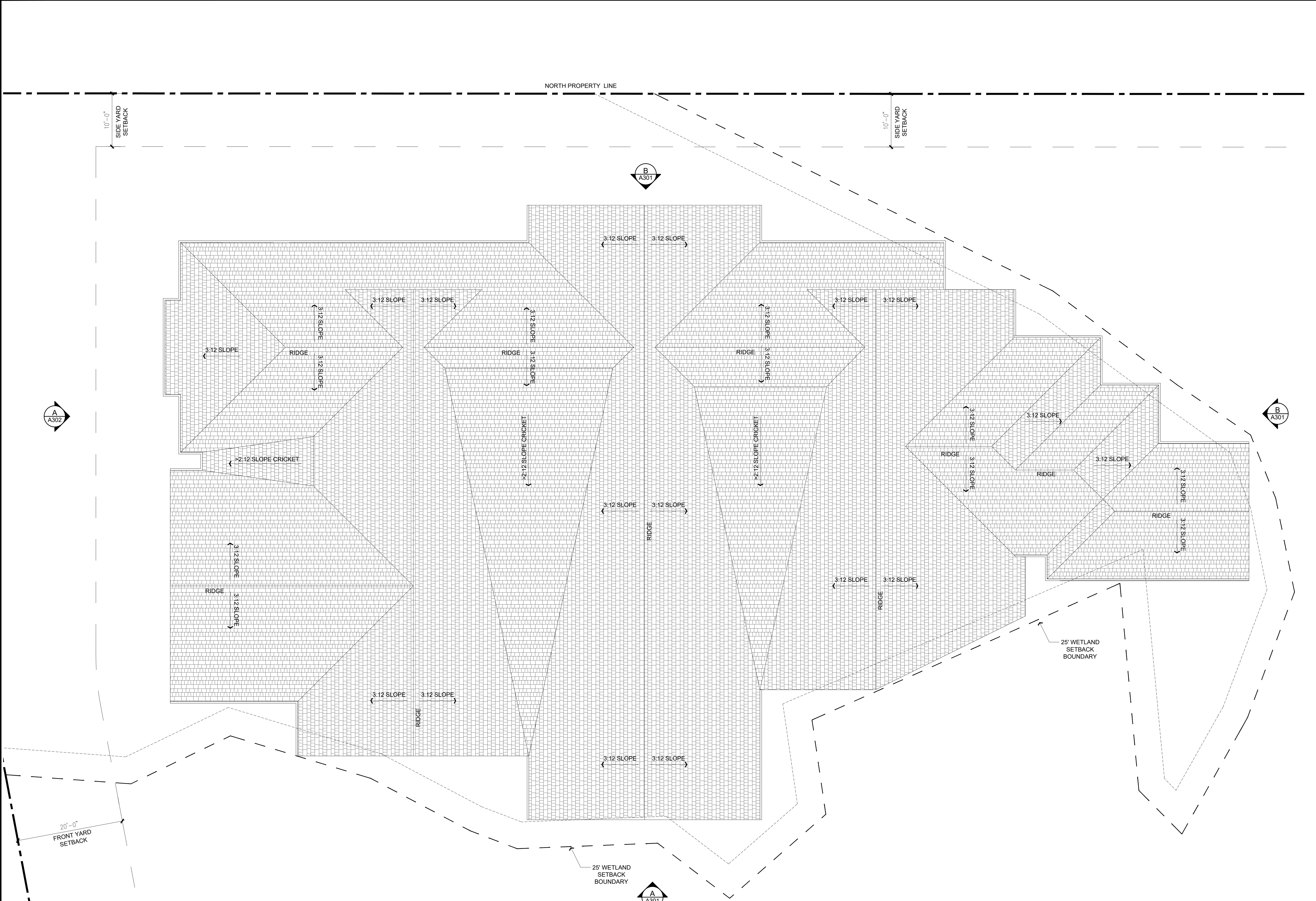
drawing title

**OVERALL LEVEL
FOUR FLOOR PLAN**

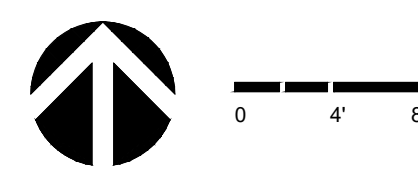
sheet number

A203

full size sheet is 24" x 36" 0 .25 .5 1" 2



A OVERALL ROOF PLAN
1/8" = 1'-0"



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phase **SKETCH REVIEW**

job number **2412**

date **OCTOBER 1, 2024**

drawing title
**OVERALL ROOF
PLAN**

sheet number

A204

full size sheet is 24" x 36"

0 .25 .5 1 2



A NORTH ELEVATION
1/8" = 1'-0"



B SOUTH ELEVATION
1/8" = 1'-0"

1
CEDAR LAP SIDING
OLYMPIC SEMITRANSSPARENT
"NATURALTONE FIR 718"

2
METAL SIDING & ACCENT ROOFING
CORRUGATED "MATTE BLACK"

3
VARIED CEDAR LAP
OLYMPIC SEMITRANSSPARENT
"NATURALTONE FIR 718"

4
CEDAR SLAT SCREEN/RAILING
OLYMPIC SEMITRANSSPARENT
"NATURALTONE FIR 718"

5
STEEL, WINDOWS
FLASHING & RAILINGS
MATTE BLACK

6
STONE VENEER
TELLURIDE STONE - "BLANCA PEAK"

7
COMPOSITION SHINGLES
GAF TIMBERLINE ULTRA HD
"CHARCOAL"

0 4' 8'



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phase **SKETCH REVIEW**

job number **2412**

date **OCTOBER 1, 2024**

drawing title

**EXTERIOR
ELEVATIONS**

sheet number

A301

full size sheet is 24" x 36" x 36"

0 .25 .5 1 2



A EAST ELEVATION
1/8" = 1'-0"



B WEST ELEVATION
1/8" = 1'-0"

1
CEDAR LAP SIDING
OLYMPIC SEMITRANSSPARENT
"NATURALTONE FIR 718"

2
METAL SIDING & ACCENT ROOFING
CORRUGATED "MATTE BLACK"

3
VARIED CEDAR LAP
OLYMPIC SEMITRANSSPARENT
"NATURALTONE FIR 718"

4
CEDAR SLAT SCREEN/RAILING
OLYMPIC SEMITRANSSPARENT
"NATURALTONE FIR 718"

5
**STEEL, WINDOWS
FLASHING & RAILINGS**
MATTE BLACK

6
STONE VENEER
TELLURIDE STONE - "BLANCA PEAK"

7
COMPOSITION SHINGLES
GAF TIMBERLINE ULTRA HD
"CHARCOAL"

0 4' 8'



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COLORADO



phase **SKETCH REVIEW**

job number **2412**

date **OCTOBER 1, 2024**

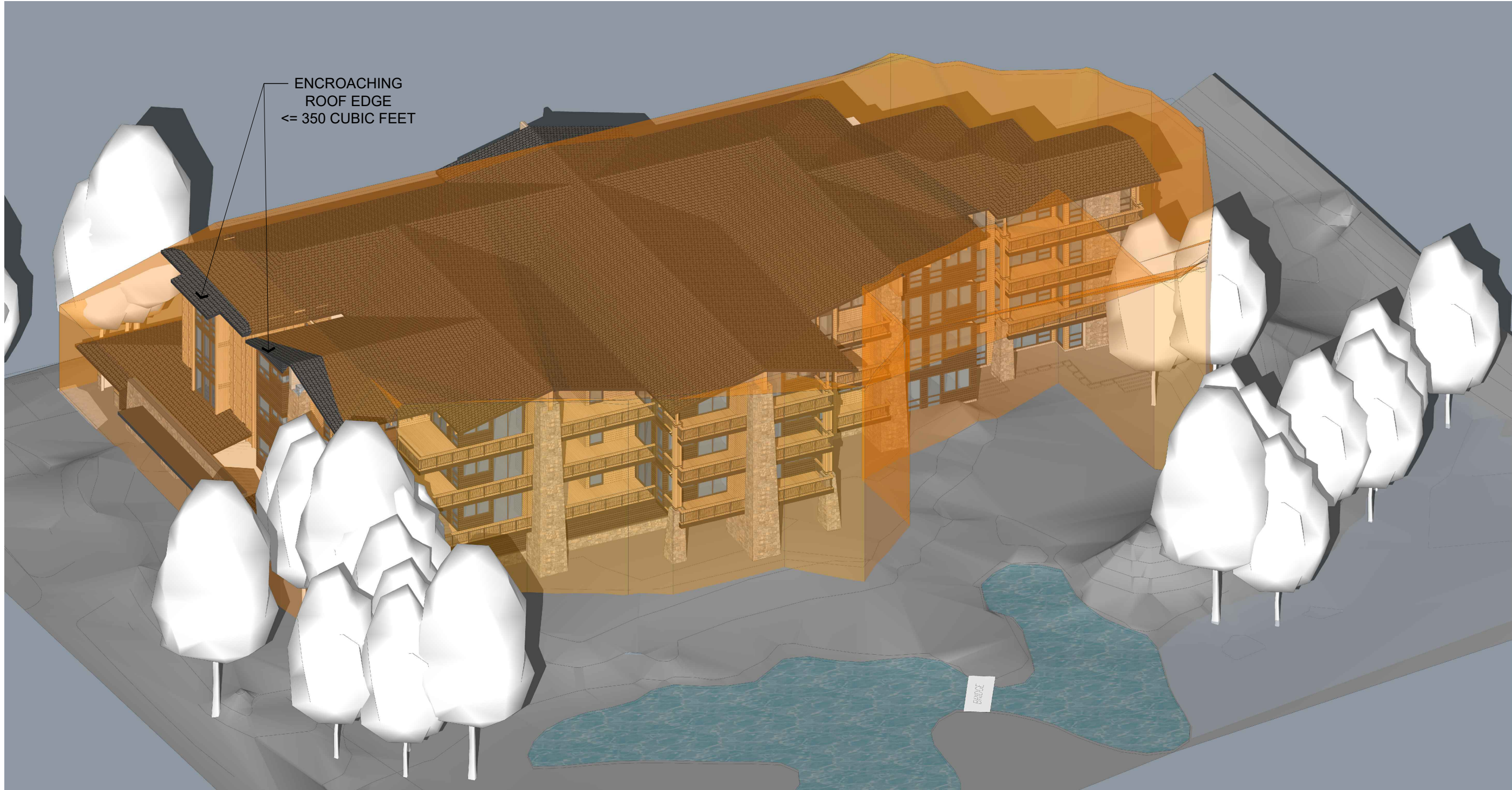
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**EXTERIOR
ELEVATIONS**

sheet number

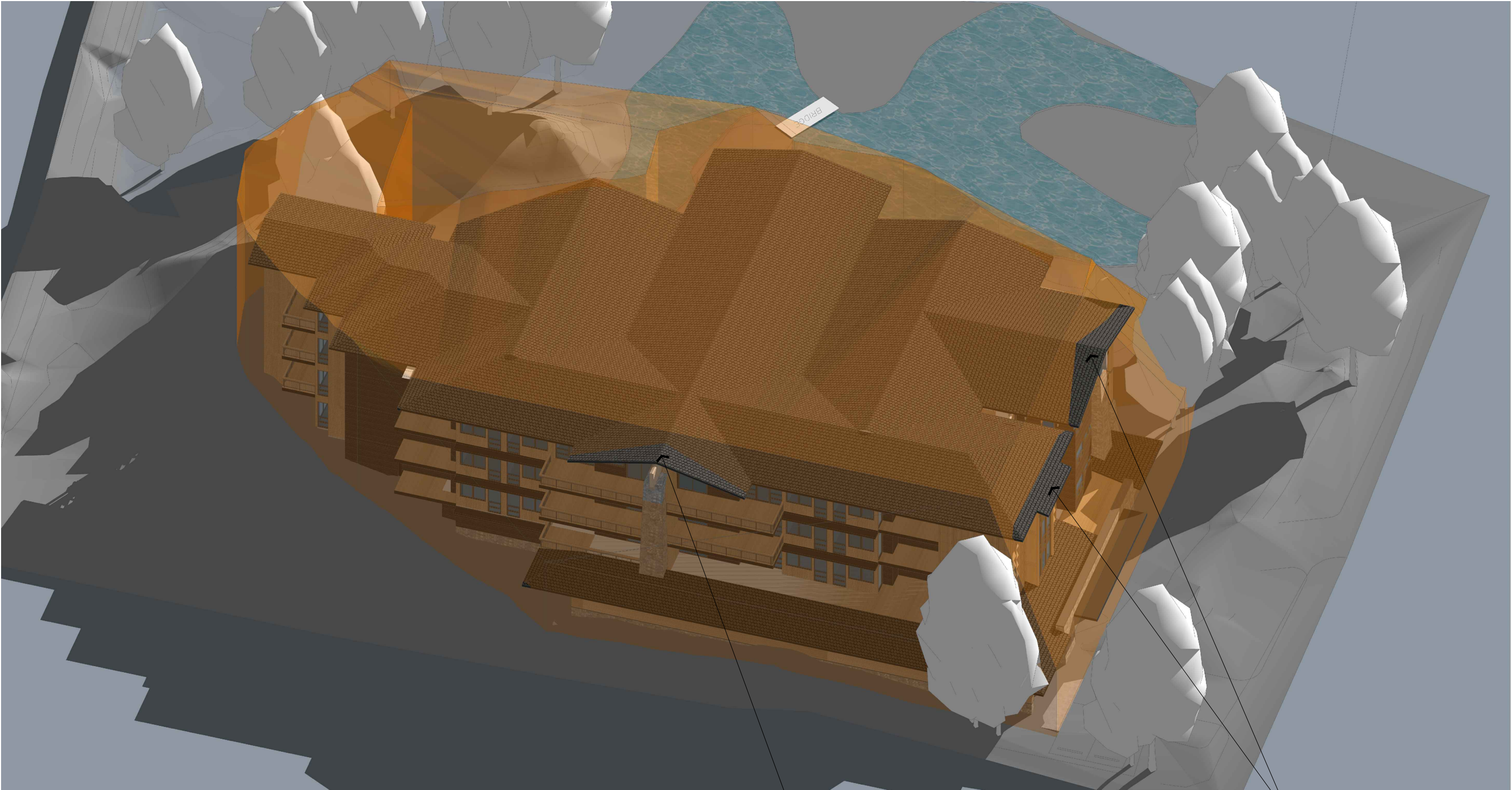
A302

full size sheet is 24" x 36" 0 .25 .5 1 2



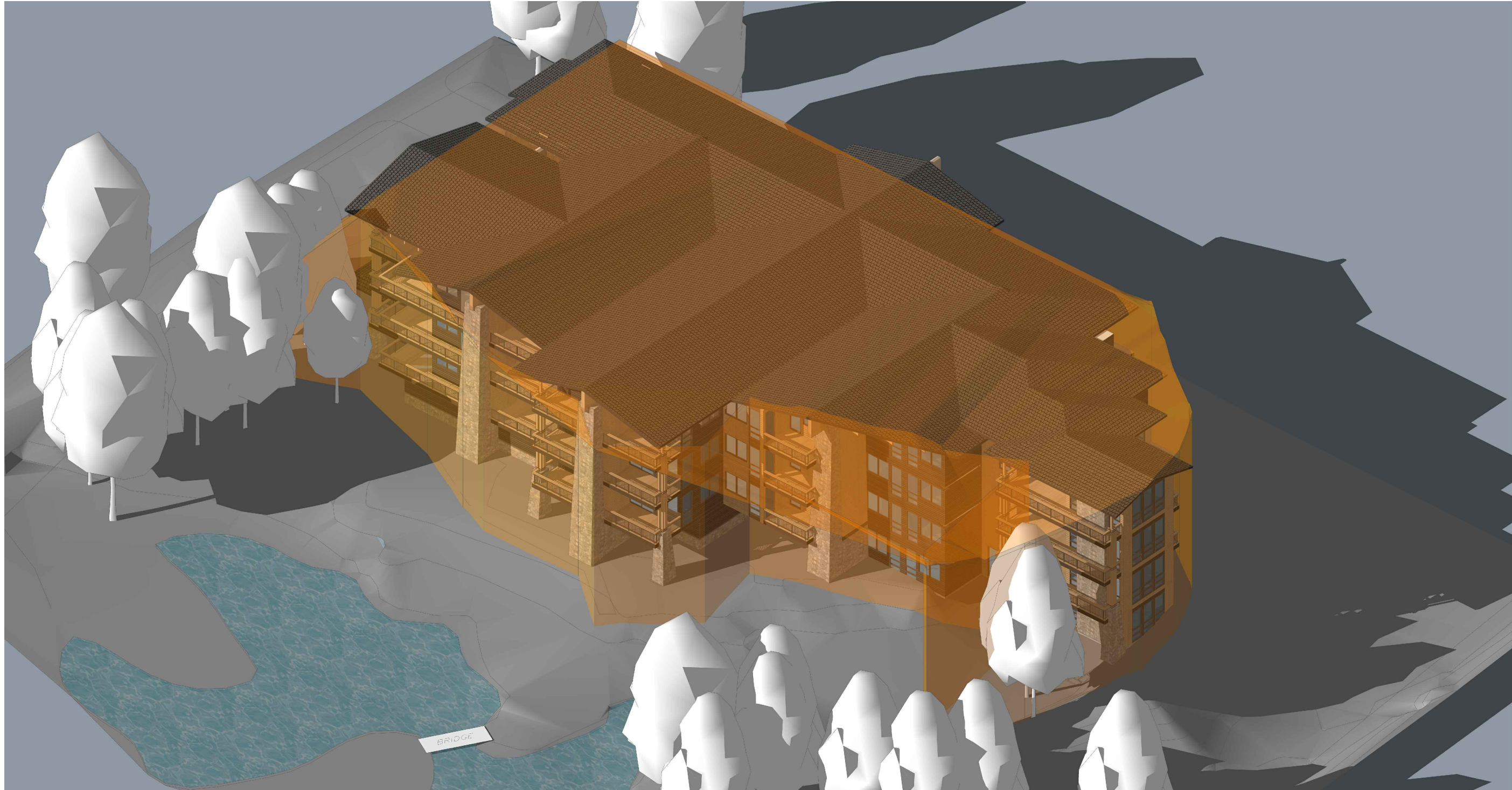
BIRDS EYE TOWARD NORTH EAST

A BULK PLANE DIAGRAM
NOT TO SCALE



BIRDS EYE TOWARD SOUTH EAST

B BULK PLANE DIAGRAM
NOT TO SCALE



BIRDS EYE TOWARD NORTH WEST

C BULK PLANE DIAGRAM
NOT TO SCALE



D SOUTH ELEVATION CONCEPT RENDERING
NOT TO SCALE



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phase **SKETCH REVIEW**

job number **2412**

date **OCTOBER 1, 2024**

drawing title

**BULK PLANE
DIAGRAMS &
CONCEPT
RENDERING**

sheet number

A400

CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO
 FROM THE PROPOSED WORK.

TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR INSPECTION AT ANY
 ON THE PROJECT IF SO ORDERED.

STREET STATIONING IS ALONG THE CENTERLINE OF THE ROADWAY UNLESS OTHERWISE
 FOR SEWATE WATER & SANITARY SEWER PLANS THE STATIONING IS ALONG THE
 RLINE OF THE PIPE.

PROFILE GRADE ON THE PLANS IS ALONG THE ROADWAY CENTERLINE UNLESS
 WISE NOTED.

5. THE CONTRACTOR SHALL HAVE ON HIS POSSESSION AT THE SITE A COPY OF THE APPROVED CONSTRUCTION PLANS.
6. LIMITS OF WORK: NO AREAS SHALL BE DISTURBED OUTSIDE OF THE TEMPORARY CONSTRUCTION EASEMENTS AND THE ROADWAY DISTURBANCE LIMITS.
7. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF FRISCO STANDARDS AND SPECIFICATIONS APPLICABLE TO THE WORKSHIP SHALL BE SUBJECT TO INSPECTION BY THE DEVELOPER, SUBMITTEE, COUNTY, OR THEIR REPRESENTATIVES. ONE OR ALL OF THE PARTIES HAS THE RIGHT TO REJECT MATERIALS AND WORKMANSHIP WHICH DO NOT CONFORM TO SPECIFICATIONS.
8. THE CONTRACTOR SHALL NOTIFY THE TOWN OF FRISCO AND THE PUBLIC UTILITY COMPANIES PRIOR TO PROCEEDING WITH ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT THE ENGINEER AT HIS OWN EXPENSE. ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER THE CONTRACTOR DISCOVERS ANY UTILITIES NOT SHOWN ON THE PLANS, HE SHALL CONTACT THE ENGINEER IMMEDIATELY. ALL WORK PERFORMED IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
9. CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO TOWN OF FRISCO PERSONNEL TO PERFORM REQUIRED INSPECTIONS AND PRIOR TO ANY CONSTRUCTION AT THIS SITE.
10. ALL EXCAVATION SHALL COMPLY WITH CITY OF FRISCO REGULATIONS.
11. CONTRACTOR SHALL OBTAIN APPROVAL FOR ALL TRAFFIC CONTROL AND ROAD/ALLEY REQUIREMENTS NECESSARY FROM THE TOWN OF FRISCO. NO ROAD/ALLEY CLOSURES MAY OCCUR WITHOUT APPROVAL AND NOTIFICATION OF TOWN OF FRISCO AND THE FIRE DEPARTMENT.
12. CONTRACTOR SHALL OBTAIN APPROVAL FOR ALL CONSTRUCTION STAGING REQUIREMENTS OFF THE PROPERTY NECESSARY FROM THE TOWN OF FRISCO.

1. All areas to be seeded will be properly prepared to provide a friable soil surface in the upper 6 inches, minimum.
2. Areas to be seeded will be drill seeded with the appropriate mix (Table 2 or 3) at the rates specified. Seed may be broadcast or hydroseeded on steep slopes. The specified seedings will be doubled for broadcast seeding or increased by 50 percent for hydroseeding.
3. seeded areas will be mulched at a rate of at least two tons per acre of certified, weed-free straw mulch, or one ton per acre of wood cellulose, if hydromulching is completed. Hydromulching will be completed as a separate step after seeding.
4. Areas which will be seeded by use of m-binder tiller at a rate of 3 to 4 pounds/1,000 square feet on slopes flatter than 2:1. Mulch will be secured with netting on slopes steeper than 3:1.

SEED MIX TYPE I			
COMMON NAME	SCIENTIFIC NAME	% MIX	POUNDS PLS/ACRE
IDAHO FESCUE	FESTUCA IDAHOENSIS	20	3.9
ALPINE BLUEGRASS	POA ALPINA	20	1.7
WESTERN WHEATGRASS	PASCOPYRUM SMITHII	20	15.8
JUNE GRASS	KOELERIA CRISTATA	15	0.6
ARIZONA FESCUE	FESTUCA ARIZONICA	20	3.2
WHITE YARROW	ACHILLEA MILLEFOLIUM	5	0.2
TOTAL			25.4

1. Mix should be drill seeded, except on steep slopes where broadcast or hydroseeding are acceptable at 200 and 150 percent of rate shown, respectively.
2. The following wildflowers may also be seeded in certain areas.
 - Blanket Flower 0.8 Pounds PLS/Acre
 - Lupine 4.4 Pounds PLS/Acre
 - Firecracker Penstemon 0.2 Pounds PLS/Acre
 - California Poppy 0.4 Pounds PLS/Acre
3. Divide Pounds PLS/Acre by 43.5 to obtain Pounds PLS/1,000 SQ. Ft.

SEED MIX TYPE II			
COMMON NAME	SCIENTIFIC NAME	% MIX	POUNDS PLS/ACRE
WESTERN WHEATGRASS	PASCOPYRUM SMITHII	20	15.8
REDTOP	AGROSTIS ALBA	15	0.3
TUFTED HAIRGRASS	DESCHAMPSIA CAESPITOSA	15	0.5
IDAHO FESCUE	FESTUCA IDAHOENSIS	30	5.8
ALPINE BLUEGRASS	POA ALPINA	20	1.7
TOTAL			24.1

1. Mix should be drill seeded, except on steep slopes where broadcast or hydroseeding are acceptable at 200 and 150 percent of rate shown, respectively.
2. Divide Pounds PLS/Acre by 43.5 to obtain Pounds PLS/1,000 Sq Ft.

EARTHWORK OPERATIONS SHALL BE IN ACCORDANCE WITH GEOTECHNICAL REPORT FOR THE PROJECT.

PAVING SHALL NOT START UNTIL SUBGRADE COMPACTING TESTS ARE TAKEN AND MEET THE REQUIREMENTS OF THE PLANS AND SPECS AND FINAL PAVEMENT DESIGN BY GEOTECHNICAL ENGINEER AND/OR TOWN OF FRISCO STANDARDS, WHICHEVER ARE MORE STRINGENT.

THE MINIMUM DEPTH SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THIS PROJECT. THE MINIMUM DEPTH OF ASPHALT SHALL BE 3 INCHES.

THE CONTRACTOR SHALL SAW-CUT ALL EXISTING PAVEMENT WHERE MATCH LINES WITH EXISTING EDGE OF PAVEMENT OCCUR.

PORTLAND CEMENT CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS:

- 1. CEMENT TO FIBER RATIO: DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE ONLY AND COULD VARY. END SECTIONS ARE INCLUDED IN THE PIPE LENGTH SHOWN ON THE PLANS.
- 2. COMPRESSIVE STRENGTH OF 4000 PSI AFTER 28 DAYS OF CURE TIME;
- 3. AIR CONTENT OF 6.5% \pm 1.5%;
- 4. C. MAXIMUM CLUMP OF 3";
- 5. "FIBER MESH" FIBERS SHALL BE ADDED TO CONCRETE FOR STRENGTH, AT A RATE OF 1.5 POUNDS OF FIBER PER CUBIC YARD OF CONCRETE.

5. ROADWAY RETAINING WALL VERTICAL AND HORIZONTAL INFORMATION HAVE BEEN ESTABLISHED AS PART OF THESE ROADWAY PLANS. STRUCTURAL, GEOTECHNICAL, AND DRAINAGE ENGINEERING FOR THE WALLS IS BY OTHERS (SEE SEPARATE DESIGN DOCUMENTS).
6. COMPACTION TESTING FOR THE BASE COURSE IN THE ROADWAY SHALL MEET 95% OF MODIFIED PROCTOR (ASTM D-1557) THE MATERIAL BEING WITHIN 2.0 PERCENT OF OPTIMUM MOISTURE CONTENT. THE SUBGRADE SHALL BE COMPACTED TO 98 PERCENT MAXIMUM THEORETICAL DENSITY AS DETERMINED BY THE RICE DENSITY METHOD (ASTM D-2041). TESTS SHALL BE MADE AT A FREQUENCY OF EVERY 200 LINEAR FEET AND AT EVERY 12" COMPACTED LIFT OF FILL PLACED, AND FOR EVERY LIFT OF ASPHALT PLACED OR ROLLED. ASPHALT DENSITY TESTING SHALL BE PERFORMED ON EACH LIFT AT INTERVALS OF 12" TEST PER DEPTH. EVERY 200 LINEAR FEET PER LANE. TEST LOCATIONS ON EACH LIFT AND EACH LANE SHALL BE STAGGED.
7. DURING EARTHWORK OPERATION GEOTECHNICAL ENGINEER SHALL ASSESS ACTUAL SUB-SURFACE CONDITIONS, AND REQUEST ADDITIONAL REQUIREMENTS IF NECESSARY.

1. LOCATION AND ELEVATION OF EXISTING STORM SEWER AND CULVERTS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION. ANY DIFFERENCES FROM DESIGN PLAN SHALL BE REPORTED TO DESIGN ENGINEER.
2. STORM SEWER SHALL BE HDPE (HIGH DENSITY POLYETHYLENE).
3. ALL CULVERTS SHALL HAVE END SECTIONS ON BOTH THE UPSTREAM AND DOWNSTREAM ENDS OF THE PIPE UNLESS OTHERWISE NOTED ON THE PLANS AND SHALL EXTEND 1 TO 3 FEET BEYOND EACH EDGE OF SHOULDERED PAVED DRIVE.
4. STORM SEWER BEDDING AND PIPE ZONE BACKFILL SHALL BE 3/4 APPROVED ALTERNATE.
5. PIPE LENGTHS FOR STORM SEWER ARE APPROXIMATE HORIZONTAL DISTANCES FROM ONE PLAN TO THE NEXT. MINIMUM PIPE LENGTH SHALL BE SUFFICIENT TO PROVIDE THE ROAD SHOULDERS AND SIDE SLOPES TO NOT BE STEEPER THAN SHOWN ON THE TYPICAL ROAD SECTION.

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO FRISCO SANITATION DISTRICT DESIGN STANDARDS AND SPECIFICATIONS FOR SEWER CONSTRUCTION".
2. ALL SEWER MAINS AND SERVICES SHALL BE SDR 35 (UNLESS OTHERWISE NOTED).
3. ALL MANHOLE RIMS WITHIN THE 100-YEAR FLOOD PLAIN SHALL BE SET AT THE 100-YEAR FLOOD PLAIN ELEVATION AND SHALL HAVE GASKETED BOLT DOWN LIDS.
4. MANHOLES SHALL BE WRAPPED WITH BITUTHENE.
5. SANITARY SEWER BEING AND PIPE ZONE BACKFILL GRADATION SHALL BE 1/4" TO 3/4" OR APPROVED ALTERNATE.
6. PIPELINE FLUSHING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING A CLEANING COMPANY THAT WILL HIGH-PRESSURE JET CLEAN THE LINES TO INSURE THAT SLAG, ROCKS, OR OTHER FOREIGN MATERIAL ARE NOT LEFT IN ANY OF THE PIPELINES. WHEN FLUSHING, CARE SHOULD BE TAKEN TO AVOID ANY DAMAGE TO THE EXISTING SEWER SYSTEM OR TO THE SURROUNDING SOILS. FLUSHING WATER AND FLUSHED DEBRIS SHALL NOT BE ALLOWED TO ENTER THE EXISTING SEWER SYSTEM.
7. SEWER LINE ALIGNMENT, AND GRADE VERIFICATION, ONCE THE SEWER PIPELINES HAVE BEEN Laid, THE CONTRACTOR SHALL BE INSPECTED BY MEANS OF CLOSED CIRCUIT TELEVISION (CCTV). DOCUMENTATION SHALL CONSIST OF A COLOR, VHS-FORMAT VIDEOAPE, LOG SHEETS, AND A WRITTEN REPORT DETAILING THE CONDITION OF THE PIPELINE AND LATERAL CONNECTIONS/OPENINGS. THE REPORT SHALL NOTE THE TIME AND DATE OF VIDEO INSPECTION, THE TESTER THAT MADE THE INSPECTION, THE LOCATION OF THE INSPECTION, THE DIRECTION OF FLOW, SURFACE MATERIAL, PIPELINE LENGTH, PIPE SECTION LENGTH, PIPE SIZE, PIPE MATERIAL, LATERAL CONNECTIONS, VIDEO TAPE NUMBER, COUNTDOWN NUMBER, AND A DETAILED LOGGING OF ANY DEFECTS AND THE WORK DONE TO REPAIR, OR TO BE REPAIRED, THE DEFECTS.
8. LEAKAGE. ALL PIPELINES SHALL BE TESTED FOR LEAKAGE BY MEANS OF AN AIR PRESSURE TEST. THE TEST SHALL BE PERFORMED AS FOLLOWS:

- PREPARATION FOR TESTS: FLUSH AND CLEAN THE PIPELINE PRIOR TO TESTING IN ORDER TO WET THE PIPE SURFACES AND PRODUCE MORE CONSISTENT RESULTS. PLUG AND BRACE ALL MANHOLES IN THE PIPELINE AND THE UPPER CONNECTIONS. CHECK ALL PIPE PLUGS WITH A SOAP SOLUTION TO DETECT ANY AIR LEAKAGE. IF LEAKS ARE FOUND, REPAIR THE AIR PRESSURE, ELIMINATE THE LEAKS, AND START THE TEST PROCEDURE OVER AGAIN.
- B. PROCEDURE FOR TEST: ADD AIR UNTIL THE INTERNAL PRESSURE OF THE PIPELINE IS RAISED TO APPROXIMATELY 2 PSI, AT WHICH TIME THE FLOW OF AIR SHALL BE REDUCED AND THE PRESSURE MAINTAINED BETWEEN 3.5 AND 4.5 PSI FOR A SUFFICIENT TIME TO ALLOW THE AIR TEMPERATURE TO COME TO EQUILIBRIUM WITH THE TEMPERATURE OF THE PIPE.
- C. AFTER THE TEMPERATURE HAS STABILIZED, PERMIT THE PRESSURE TO DROP TO 3.5 PSIG IN EXCESS OF THE GROUND WATER PRESSURE ABOVE THE TOP OF THE SEWER, AT WHICH TIME A STOP WATCH OR SWEEP SECOND HAND WATCH SHALL BE USED TO DETERMINE THE TIME ELAPSED REQUIRED FOR THE AIR PRESSURE TO DROP TO 3.0 PSIG.
- D. THE TIME ELAPSED SHALL NOT BE LESS THAN THE FOLLOWING:
- | PIPE SIZE (INCHES) | TIME (MINUTES) |
|--------------------|----------------|
| 6 | 5 |
| 8 | 5 |
| 10 | 6.5 |
| 12 | 7.5 |
- E. BRACE ALL PLUGS SUFFICIENTLY TO PREVENT BLOWOUTS AND VENT THE PIPELINE COMPLETELY BEFORE ATTEMPTING TO REMOVE PLOUGHS.
- F. PROVIDE PRESSURIZING EQUIPMENT WITH A RELIEF VALVE SET AT 5 PSI TO AVOID OVER-PRESSURIZING AND DAMAGING AN OTHERWISE ACCEPTABLE LINE.
9. MANHOLE VISUAL EXAMINATION. THE ENGINEER SHALL VISUALLY CHECK EACH MANHOLE, BOTH EXTERIOR AND INTERIOR, FOR FLAWS, CRACKS, HOLES, OR OTHER INADEQUACIES, WHICH MIGHT AFFECT THE OPERATION OR WATERTIGHT INTEGRITY OF THE MANHOLE. SHOULD ANY INADEQUACIES BE FOUND, THE CONTRACTOR, AT ITS OWN EXPENSE, SHALL MAKE ANY REPAIRS DEEMED NECESSARY BY THE ENGINEER. CONTRACTOR TO NOTIFY ENGINEER 48 HOURS PRIOR TO INSTALLATION OF MAN HOLES.
10. MANHOLE LEAKAGE TEST (VACUUM). ALL MANHOLES SHALL BE TESTED FOR LEAKAGE AND ALL TESTS SHALL BE WITNESSED BY THE ENGINEER. THE LEAKAGE TEST SHALL BE CONDUCTED PRIOR TO BACK-FILLING AROUND THE MANHOLE AND SHALL BE CARRIED OUT IN THE FOLLOWING MANNER:
- A. MANHOLES SHALL BE VACUUM TESTED AFTER ASSEMBLY AND PRIOR TO BACKFILLING.
 - B. CARE SHALL BE TAKEN TO EFFECT A SEAL BETWEEN THE VACUUM BASE AND THE MANHOLE RIM. PIPE PLUGS SHALL BE SECURED TO PREVENT MOVEMENT WHILE THE VACUUM IS DROPPED.
 - C. A VACUUM OF 10 INCHES OF MERCURY SHALL BE DRAWN. THE TIME FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY SHALL BE RECORDED.
 - D. ACCEPTANCE SHALL BE DEFINED AS WHEN THE TIME TO DROP TO 9 INCHES MEETS OR EXCEEDS THE FOLLOWING:
- | DIA | TIME TO DROP 1" HG |
|-------|--------------------|
| 12 | 120 SECONDS |
| 10 | 120 SECONDS |
| 8 | 120 SECONDS |
| 6 FT. | 120 SECONDS |
- E. IF THE MANHOLE FAILS THE TEST, MAKE NECESSARY REPAIRS. REPAIRS AND REPAIR PROCESSES MUST BE ACCEPTABLE TO TOWN ENGINEER.
- F. IF PREFORMED PLASTIC GASKETS ARE PULLED OUT DURING THE VACUUM TEST, THE MANHOLE SHALL BE DISASSEMBLED AND THE GASKETS SHALL BE REPLACED.
11. ALL SEWER LINE WORK SHALL BE INSPECTED BY THE DESIGN ENGINEER DURING CONSTRUCTION.
12. AS BUILT DRAWINGS SHALL BE PROVIDED BY A PROFESSIONAL ENGINEER.
13. EXISTING SEWER MAIN ELEVATIONS MUST BE FIELD VERIFIED.

1. ALL MATERIALS AND WORKSMANSHIP SHALL BE IN CONFORMANCE WITH THE TOWN OF FRISCO WATER DISTRICT CURRENT RULES AND REGULATIONS. WATER SYSTEM SPECIFICATIONS AND TESTING PROCEDURES SHALL BE IN CONFORMANCE WITH TOWN OF FRISCO WATER DISTRICT STANDARDS.
2. ALL WATER MAINS SHALL BE AWWA, CLASS 52, PUSH ON JOINT, DUCTILE IRON PIPE (DIP) WITH RUBBER GASKET..
3. SERVICE LINES SHALL BE 1" K COPPER.
ALL SERVICE LINES SHALL HAVE A BACKFLOW PREVENTION DEVICE INSTALLED UPSTREAM OF THE WATER METER CONSISTING OF A DOUBLE CHECK VALVE ASSEMBLY SIMILAR OR EQUAL TO A WATTS REGULATOR NO. 7.
4. MINIMUM COVER WITHIN STREETS IS 9.5 FEET AND 8.5 FEET IN UNPAVED LOCATIONS. INSULATION REQUIRED AT DEPTHS BELOW 8.5'.
5. THE CONTRACTOR IS RESPONSIBLE FOR:
 - A. NOTIFYING ALL CUSTOMERS POSSIBLY AFFECTED BY OUTAGE OF WATER DURING CONSTRUCTION.
 - B. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL APPLICABLE LICENSES, PERMITS, BONDS, ETC. REQUIRED FOR THE MAIN INSTALLATION/SYSTEM MODIFICATION.

- C. CONTACTING TOWN OF FRISCO WATER DISTRICT FOR PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- NOTE: BE ADVISED THAT OCCASIONALLY VALVES IN OUR SYSTEM MAY BE INOPERABLE, ON SUCH OCCASIONS IT MAY BECOME NECESSARY TO BACK UP AN ADDITIONAL BLOCK FOR THE SHUT OUT. IT WILL THEN BE NECESSARY TO MAKE THE ADDITIONAL CONNECTIONS TO GIVE THE AFFECTED CUSTOMERS WATER. A MANDATORY 24 HOURS ADVANCE NOTICE, ALSO BE ADVISED THAT WHEN VALVE MAINTENANCE IS REQUIRED, A DELAY OF SEVERAL DAYS SHOULD BE EXPECTED
6. ALL WATER LINE WORK SHALL BE INSPECTED BY THE DESIGN ENGINEER DURING CONSTRUCTION
 7. AS BUILT DRAWINGS SHALL BE PREPARED BY A COLORADO PROFESSIONAL ENGINEER PER THE TOWN OF FRISCO WATER DISTRICT REQUIREMENTS.
 8. FOR DETAILS OF IRRIGATION REQUIREMENTS AND METER REQUIREMENTS SEE LANDSCAPE PLANS..
 9. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE MECHANICAL DESIGN ACCOUNTS FOR FIRE PROTECTION AND CONFIRMING THE 4" WATER SERVICE SPECIFIED IS SIZE APPROPRIATELY.

10. VALVES SHALL BE RESILIENT SEAT NRS GATE VALVES AND SHALL OPEN-LEFT (WUELLER), WATEROUS OR CLOW BRAND RESILIENT WEDGE VALVES ONLY). CHECK WITH WATER SUPT. FOR VERIFICATION OF SPECIFIC MODEL NUMBERS.

11. VALVE BOXES SHALL BE OVAL BASE BOTTOM TYPE. CHECK WITH WATER SUPT. FOR VERIFICATION OF SPECIFIC MODEL NUMBERS.

12. ALL FIRE HYDRANTS SHALL BE WATEROUS "PACER" WITH 34-INCH MOUNTAIN STANDARD FLANGE MEETING THE FOLLOWING REQUIREMENTS:

NOZZLE 5-1/4 INCH
INLET 6 INCH FOR MECHANICAL JOINT
DEPTH OF BURY 9'-6" OR 8'-6" (AS REQUIRED TO MEET THE WATERLINE COVER)
OPERATING NUT/ 1 INCH PENTAGON
OPEN LEFT(COW)
OUTLETS TWO 2-1/2 INCH, ONE 5-1/4 INCH PUMPER NOZZLE
(THREADS TO MATCH EXISTING)
THREADS NATIONAL STANDARD
CAP WITH PENTAGON NUT
COLOR RED (ALL ABOVE GROUND PARTS)
THRUST RESTRAINT BOTTOM THRUST BLOCK AND 2-3/4" TIE RODS FROM MAIN TEE
TO HYDRANT BOTTOM.
ELEVATION OF NOZZLE 42" OPERATING NUT ABOVE FINISHED GROUND SURFACE
AT TRAFFIC PLANE.

ALL HYDRANTS TO BE SHOP PRIMED AND PAINTED RED. BOLLARDS AS SPECIFIED BY TOWN.
13. WATER METER KIT WILL BE PROVIDED BY TOWN. THE CHARGE FOR THE WATER METER KIT
WILL BE PAID BY THE DEVELOPER AT THE TIME OF THE BUILDING PERMIT ISSUANCE. THE
METER KIT WILL HAVE A FLOTE ROQUIT.
14. AIR RELEASE VALVES (ARV'S) SHALL BE APCO MODEL NO. 143 C COMBINATION AIR/VACUUM
VALVE OR APPROVED EQUAL.
15. MECHANICAL JOINT RESTRAINT DEVICES SHALL BE:
FOR CASTLE IRON PIPE: FOR CS PVC PIPE:
MEGALUG 1700 SERIES IBBE IRON INC. SERIES 1500
ROMAL ROM GRIP
UNI-FLANGE 1400 SERIES
STAR GRIP 3000 SERIES
SIGMA-LOCK

6. PIPE JOINT RESTRAINT DEVICES, TIE RODS AND THRUST BLOCKS SHALL BE INSTALLED PER DETAILS. ALL RESTRAINT RODS AND HARDWARE ARE TO BE STAINLESS STEEL OR CORTEN.
17. CHLORINATION
- ALL MAIN EXTENSIONS AND PRIVATE PIPE EXTENSIONS SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA C651. THE CHLORINATING AGENT AND METHOD OF APPLICATION, SHALL BE APPROVED BY THE TOP.
- THE CHLORINATION OF THE FINISHED PIPELINE SHALL BE DONE PRIOR TO THE HYDROSTATIC TESTING. BEFORE FILLING THE PIPE WITH WATER, THE PIPE SHALL BE CLEAN AND FREE OF DEBRIS TO THE SATISFACTION OF THE TOWN. TOS WILL NOT PROVIDE LABOR OR MATERIAL FOR DISINFECTION TO APPLICANT'S INSTALLING MAINS UNDER PRIVATE CONTRACT.
- CHLORINE TABLETS MAY BE USED FOR DISINFECTION IN 12-INCH AND SMALLER PIPE. SIXTEEN INCH AND LARGER PIPE REQUIRES A CHLORINE SLURRY FED INTO THE WATER USED IN FILLING THE PIPE. CHLORINE TABLETS SHALL BE ATTACHED TO THE INSIDE TOP OF THE PIPE WITH AN APPROVED ADHESIVE. INSTEAD OF NSF STARS 31 PRIOR TO THE PIPE INSTALLATION IN THE TRENCH. AN APPROVED ADHESIVE IS DOW CORNING 732 MULTI-PURPOSE SEALANT.
- NUMBER OF HYPOCHLORITE TABLETS OF 5 GRAM STRENGTH
REQUIRED FOR A DOSE OF 50 MILLIGRAMS/LITER*
- | PIPE LENGTH
(FEET) | PIPE DIAMETER (INCHES)
6 | 8 | 12 |
|-----------------------|-----------------------------|---|----|
| 13 OR LESS | 2 | 2 | 5 |
| 18 | 2 | 3 | 6 |
| 20 | 2 | 3 | 7 |
- *BASED ON 3 3/4" GRAM AVAILABLE CHLORINE PER TABLET

AFTER THE PIPE IS FILLED WITH WATER AND CHLORINE, THE CHLORINATED WATER SHALL BE HELD IN CONTACT WITH THE PIPE FOR 24 HOURS. AT THE END OF THE 24 HOUR PERIOD, THE WATER IN THE PIPELINE SHALL BE TESTED BY THE TOWN OF FRISCO TO INSURE A RESIDUAL CHLORINE CONCENTRATION OF 2.0 MG/L. IF THE CHLORINE CONCENTRATION IS LESS THAN 2.0 MG/L, THE PIPE SHALL BE THOROUGHLY FLUSHED TO REMOVE THE HEAVILY CHLORINATED WATER. THE CONTRACTOR SHALL TAKE CARE IN FLUSHING THE PIPELINE TO PREVENT PROPERTY, ENVIRONMENTAL OR DANGER TO THE PUBLIC.

SAMPLES OF WATER WILL BE COLLECTED FOR BACTERIOLOGICAL EXAMINATION AND RESIDUAL CHLORINE CONTENT TESTING BEFORE THE PIPE IS PUT INTO SERVICE. TESTING OF RESIDUAL CHLORINE AND SAMPLING WILL BE DONE BY THE LOCAL HEALTH AUTHORITY OR THEIR DESIGNATED

18. **HYDROSTATIC TESTING**
- NO HYDROSTATIC TESTS SHALL BE MADE ON ANY PORTION OF THE PIPELINE UNTIL FIELD PLACED CONCRETE HAS HAD ADEQUATE CURING TIME, DEFINED AS FOLLOWS:
- CONCRETE SHALL BE CURED BY A METHOD RECOMMENDED BY ACI 308. WHEN THE DAILY MEAN AMBIENT TEMPERATURE IS ABOVE 40°, THE FINISHED CONCRETE SHALL BE CURED CONTINUOUSLY WITH WET COVERINGS FOR THE TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED COMPRESSIVE STRENGTH, WHICHEVER PERIOD IS LESS, WHEN THE MEAN DAILY AMBIENT TEMPERATURE IS 40° OR LOWER, THE FINISHED CONCRETE SHALL BE CONTINUALLY CURED AT A MINIMUM TEMPERATURE OF 55° F FOR THE PERIOD RECOMMENDED BY ACI 308 TO PREVENT DAMAGE FROM ENVIRONMENTAL FREEZING AND PROVIDE THE SERVICE CATEGORY STRENGTHS REQUIRED FOR EACH PLACEMENT.
- TOP SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF TESTING. ALL TESTING SHALL BE MADE IN THE PRESENCE OF TOP WATER DEPARTMENT STAFF.
- ONLY THE FOLLOWING METHODS ARE ACCEPTABLE FOR SUPPLYING POTABLE WATER FOR HYDROSTATIC TESTING:
- WATER MAY BE TAKEN FROM A NEARBY PRESSURIZED WATER SOURCE WHICH HAS BEEN PREVIOUSLY CHLORINATED, TESTED AND ACCEPTED, SUCH AS A FIRE HYDRANT.
- WATER MAY BE DELIVERED TO THE SITE IN A CHLORINATED WATER TRUCK HAVING A MINIMUM CAPACITY OF 1000 GALLONS. THE WATER TRUCK SHALL BE USED EXCLUSIVELY FOR THE TRANSPORTATION OF POTABLE WATER.

- ANY PREVIOUSLY TESTED, CHLORINATED AND ACCEPTED WATER MAIN, WHICH IS PRESSURIZED AND IS TO SERVE THE NEW MAIN EXTENSION, MAY BE TAPPED ON THE PRESSURIZED SIDE OF THE MAIN.
- IN ANY EVENT, THE METHOD OF SUPPLYING WATER AS WELL AS THE SOURCE OF WATER FOR HYDROSTATIC TESTING MUST BE CERTIFIED AND APPROVED BY TOB. USE OF BARRELS, SANITARY OR OTHERWISE, TO SUPPLY WATER FOR HYDROSTATIC TESTING IS STRICTLY PROHIBITED.
- TESTING OF WILL FURNISH ONLY THE CALIBRATED PIPES AND TAP PUMPS FOR TESTING. THE PIPELINE SHALL BE PROPERLY BACKFILLED AND SHALL BE IN A STATE OF READINESS FOR TESTING. ALL BULKHEADS, PUMPS, TAPS, AND APPURTENANCES NECESSARY TO FILL THE PIPELINE AND MAINTAIN THE REQUIRED PRESSURE SHALL BE IN PLACE. THE PIPELINE SHALL BE FILLED WITH WATER AND THE PRESSURE OF 150 POUNDS PER SQUARE INCH SHALL BE APPLIED TO THE PIPELINE BY MEANS OF A CONTINUOUSLY OPERATING PUMP, EQUIPPED WITH A BYPASS VALVE FOR REGULATING PRESSURE. WHEN FILLING THE PIPELINE, IT SHALL BE FILLED AT A RATE, WHICH WILL NOT CAUSE ANY SURGES, NOR WILL IT EXCEED THE RATE AT WHICH THE AIR CAN BE RELEASED.
- IF THE AIR IN THE LINE CANNOT BE PROPERLY REMOVED BY TAP BLOWOFFS OR HYDRANTS ARE NOT AVAILABLE OR ARE NOT EFFECTIVE IN PURGING AIR FROM THE LINE, TOP SHALL REQUIRE A TAP TO PURGE THE LINE. THE LOCATION AND SIZE OF TAP SHALL BE AT TOP'S DISCRETION.
- WHILE THE TEST PRESSURE IS MAINTAINED, AN EXAMINATION SHALL BE MADE OF THE PIPELINE IN GENERAL, AND ANY LEAKS SHALL BE REPAIRED. ANY PIPE OR FITTING FOUND TO BE FAULTY SHALL BE REMOVED. ANY LEAKS FOUND THROUGH THE BONNET OF THE LINE VALVE OR THE LINE VALVE LEAKING THROUGH THE BONNET SHALL BE REPAIRED IN PLACE OR REMOVED AND REPLACED. CUTTING AND REPLACING PAVEMENT, EXCAVATING, AND BACKFILLING MAY ALL BE NECESSARY PARTS OF LOCATING AND REPAIRING LEAKS DISCOVERED BY PRESSURE TESTING OF PIPE.
- AFTER ALL VISIBLE LEAKS HAVE BEEN STOPPED, THE FULL TEST-PRESSURE SHALL BE MAINTAINED FOR 2 CONTINUOUS HOURS. ALLOWABLE LEAKAGE FOR EACH SECTION BETWEEN LINE VALVES SHALL BE NO FLOWING LEAKS THROUGH 20-INCH THROUGH 20-INCH DISTRIBUTION AND TRANSMISSION MAINS:
- | PIPE SIZE
(INCHES) | ALLOWABLE LEAKAGE
PER 1,000 FEET OF PIPE
(GALLONS PER HOUR) |
|-----------------------|---|
| 6 | DIP
55 |
| 8 | 8 |
| 12 | 1.10 |

HOLD TESTING SHOW A LEAKAGE RATE IN EXCESS OF THE RATES SHOWN, THE PIPELINE SHALL NOT BE ACCEPTED. THE PIPELINE SHALL BE REPAIRED, RECHLORINATED AS DESCRIBED IN NOTE 12 AND RETESTED UNTIL IT MEETS THE TEST REQUIREMENTS.

9. THE CONTRACTOR IS RESPONSIBLE FOR:

- A. NOTIFYING ALL CUSTOMERS POSSIBLY AFFECTED BY OUTFAGE OF WATER DURING CONSTRUCTION
- B. THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE, ALL APPLICABLE LICENSES, PERMITS, BONDS, ETC. REQUIRED FOR THE MAIN INSTALLATION/SYSTEM MODIFICATION.
- C. CONTACTING TOWN OF FRISCO FOR PRE-CONSTRUCTION MEETING AND INSPECTION, 970-XXX-XXXX, AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- D. IN CASE OF AN EMERGENCY AFTER WORKING HOURS, CALL TOWN OF FRISCO AT 970-668-0815.

NOTE: BE ADVISED THAT OCCASIONALLY VALVES IN OUR SYSTEM MAY BE INOPERABLE. ON SUCH OCCASIONS IT MAY BECOME NECESSARY TO BACK UP AN ADDITIONAL BLOCK FOR THE SHUT OUT. IT WILL THEN BE NECESSARY TO MAKE THE ADDITIONAL NOTIFICATIONS TO GIVE THE AFFECTED CUSTOMERS THE MANDATORY 24 HOURS ADVANCE NOTICE. ALSO BE ADVISED THAT WHEN VALVE MAINTENANCE IS REQUIRED, A DELAY OF SEVERAL DAYS SHOULD BE EXPECTED.

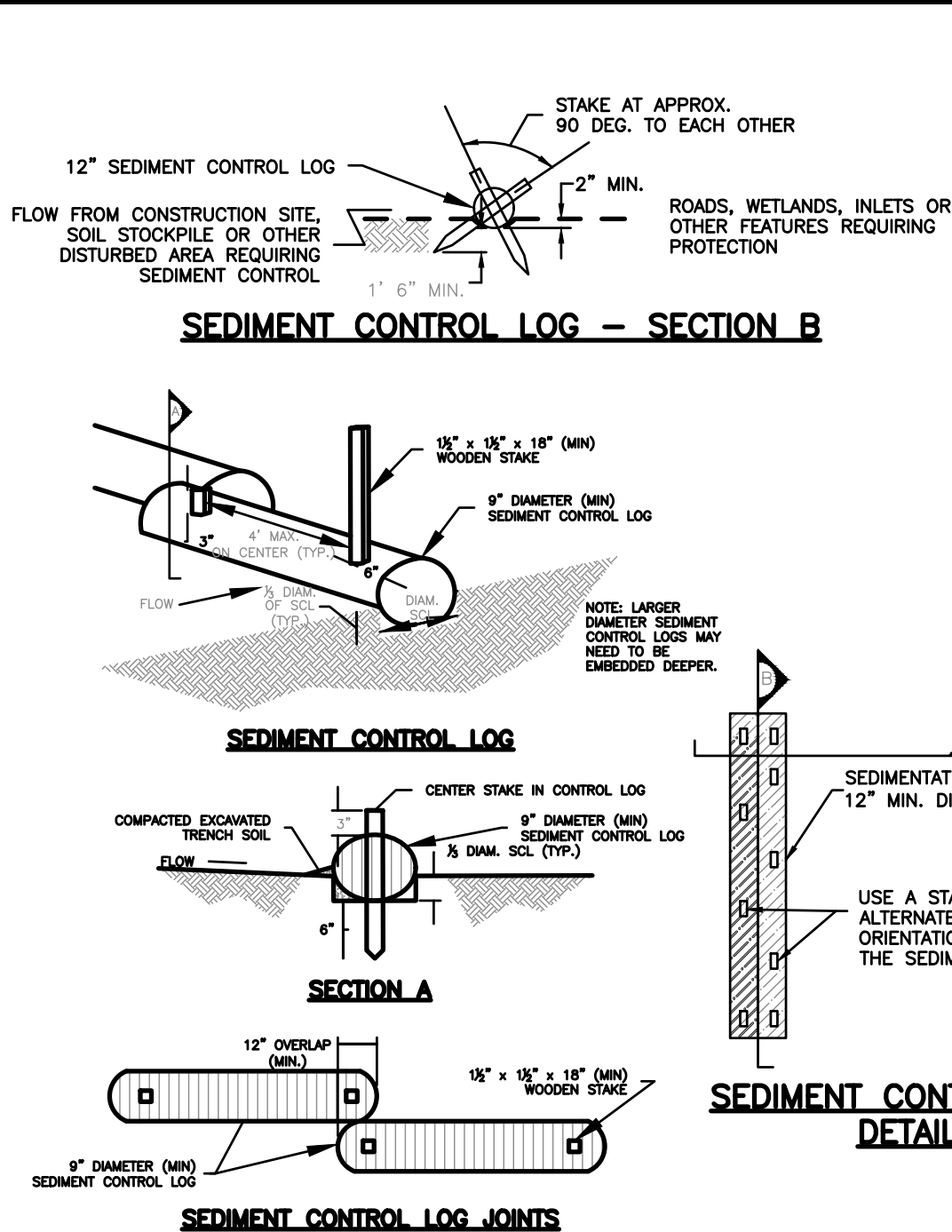
20. WATER REVENUE ZONING AND PIPE ZONE CLASSIFICATION SHALL BE GRADED AS FOLLOWS:

SIEVE SIZE 1/2" to 1 1/2" NO. 200	TOTAL PASSING BY SIZE (% BY WEIGHT) 100 0-3
---	--

OR TOWN OF FRISCO APPROVED CONTRACTOR ALTERNATE.

21. IRRIGATION METER TO BE CONSTRUCTED WITHIN BUILDING

22. CLAY CHECK DAMS MAY BE REQUIRED IF GROUNDWATER IS ENCOUNTERED.



PLASTIC CAP, TYP.

STUDDED STEEL TEE POST

5' MIN.

EXISTING GRADE

1' MIN.

10' MAX SPACING

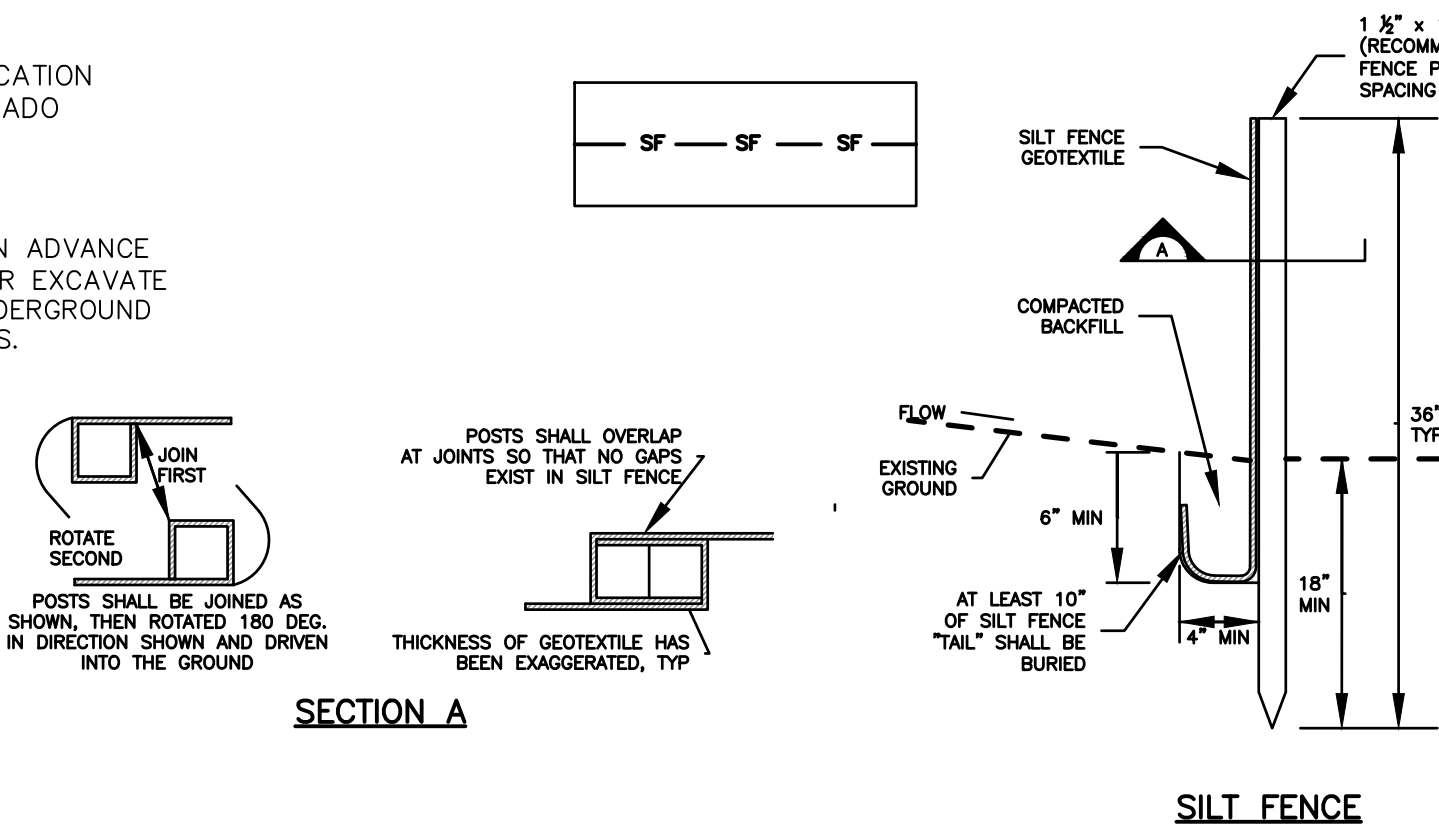
ORANGE RESINET CONSTRUCTION FENCE OR APPROVED EQUAL

STUDDED STEEL TEE POST

4' MIN.

CALL UTILITY NOTIFICATION

CENTER OF COLORADO
811
CALL 2 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.



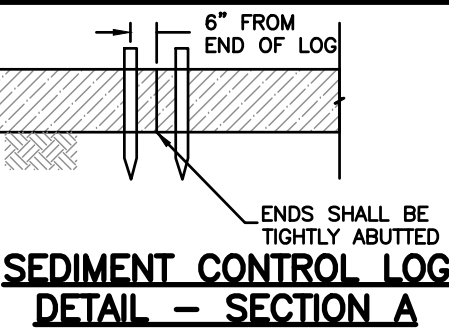
SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
4. SILT FENCE SHALL BE SECURED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
7. SILT FENCE SHALL BE SECURED TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AN ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL MEASURE.
7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



SEDIMENT CONTROL LOG
DETAIL - SECTION A

- ### SEDIMENT CONTROL LOG INSTALLATION NOTES
1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
 2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE/LAND-DISTURBING ACTIVITIES.
 3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCLOSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS.
 4. SEDIMENT CONTROL LOGS MAY BE USED AS SNAKE CHECK DAMS IN DITCHES AND SWALEWAYS. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY CHANNELS.
 5. IT IS NOT RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 3/4 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THE DEPTH IS REQUIRED AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING.
 6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED WITH THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAND ROLLER.
 7. FOLLOW MANUFACTURER'S GUIDANCE FOR STAKING. IF MANUFACTURER'S INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 12" INTO THE GROUND. IF THE STAKES ARE PROTECTED FROM THE TOP OF THE LOG, STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REMOVED.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE AFTER ANY WEATHER EVENT SUCH AS A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE RECORDED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENT IS APPROXIMATELY 1/3 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION, IF IT IS NOT USED FOR THE PROJECT. LOGS SHOULD BE RECYCLED, REUSED, RESEED, AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL AGENCY.

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-LOCATION OF CONSTRUCTION FENCE.
2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.
4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

CONSTRUCTION FENCE MAINTENANCE NOTE

1. INSPECT BMPs: EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE AFTER A WEATHER EVENT THAT COULD CAUSE A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE INITIATED AS SOON AS POSSIBLE.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE CONSTRUCTION PROJECT IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, MULCH, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

TEN MILE
ENGINEERING, INC.
Professional Civil Engineers

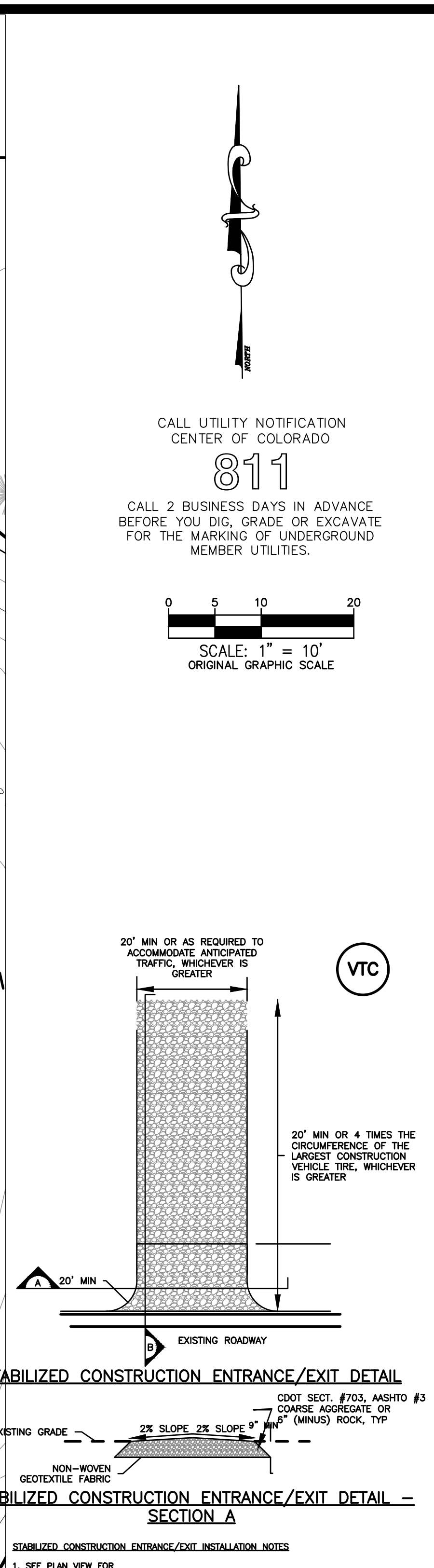
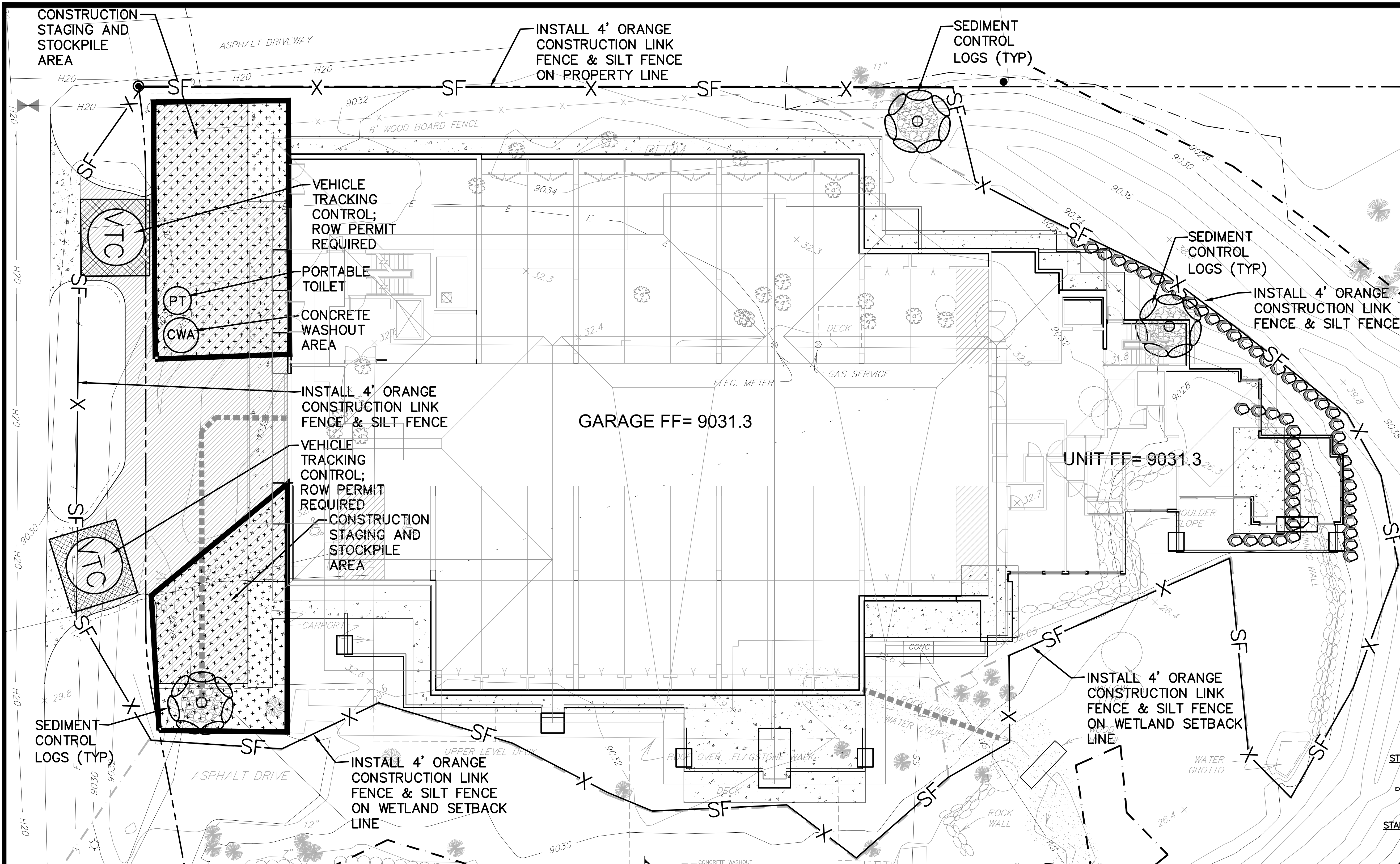
200 N. 7TH STREET
OUTLOT E-2, REPLAT A, RIVER PINES SUBDIVISION
TOWN OF EDGEMOUNT COUNTY, COLORADO

SKETCH PLAN

GENERAL NOTES AND DETAILS

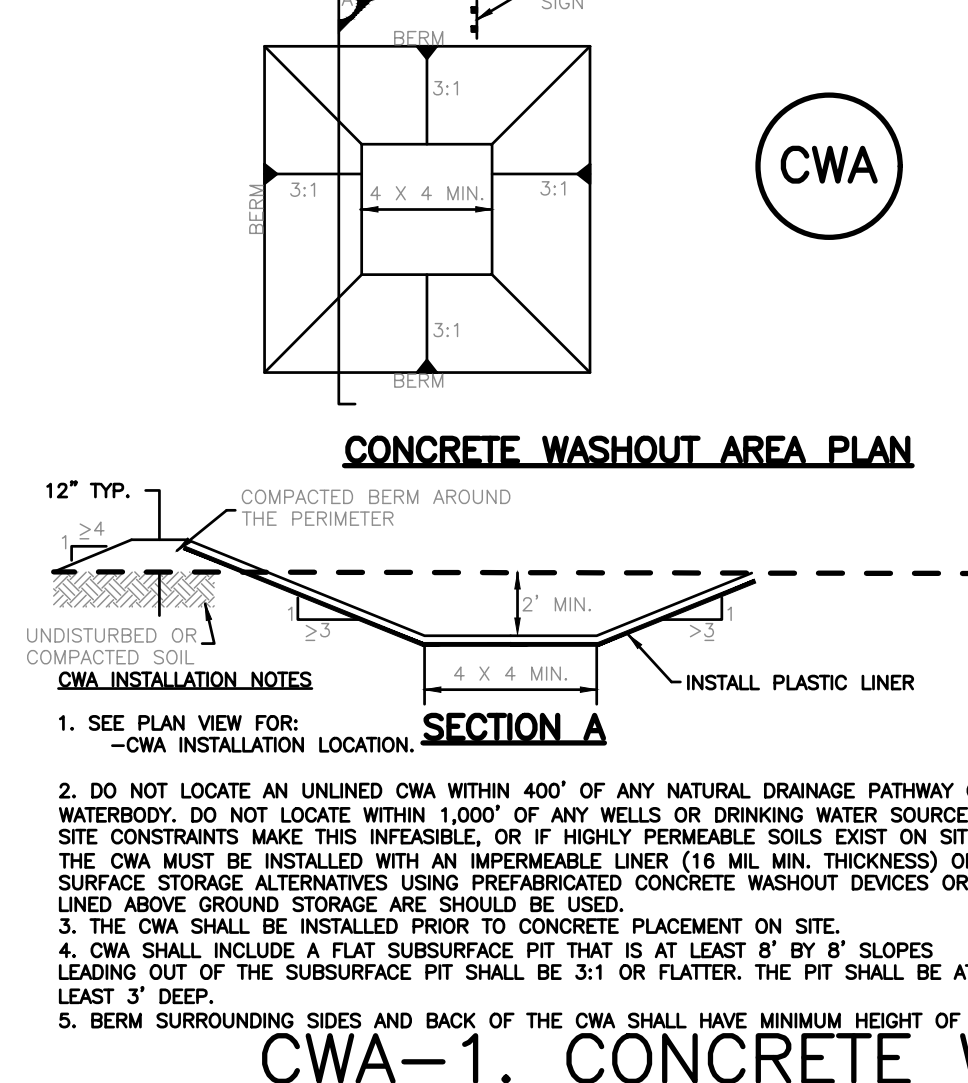
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Project 200 N. 7TH	
Date 9/26/24	Sheet 1
Scale NTS	



STANDARD EROSION & SEDIMENT CONTROL NOTES:

1. The contractor must notify Town of Frisco at least 48 hours prior to starting construction.
2. All grading, erosion, and sediment control must conform with approved plans. Revisions to disturbance areas, slopes, and/or erosion and sediment control measures are not permitted without prior approval from the Town of Frisco.
3. Erosion control measures must be installed prior to grading activities.
4. All temporary and permanent soil erosion and sediment control practices must be maintained and repaired as needed to ensure continued performance of their intended function. For example, erosion control blankets, straw bale dikes or silt fences may require periodic replacement. Sediment traps and basins will require periodic sediment removal.
5. All topsoil, where physically practicable, must be salvaged and not topsoil shall be removed from the site except as set forth in the approved plans. Topsoil and overburden must be segregated and stockpiled separately. Topsoil and overburden must be redistributed within the graded area after rough grading to provide a suitable base for areas, which must be seeded and planted. Runoff from the stockpiled area must be controlled to prevent erosion and resultant sedimentation of receiving water.
6. The landowner and/or contractor must immediately take all necessary steps to control increased sediment discharge.
7. The landowner and/or contractor is responsible for clean up and removal of all sediment and debris from all drainage infrastructure and other public facilities.
8. The landowner and/or contractor must take reasonable precautions to ensure that vehicles do not track or spill earth materials on to streets/roads and must immediately remove such material if this occurs.
9. The landowner and/or contractor is responsible for controlling waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste, as applicable. In addition, spill prevention and containment BMP's for construction materials, waste and fuel must be provided, as applicable.
10. If it is necessary to move material in excess of 300 cubic yards and/or 10,000 square feet of land disturbance area to or from another Town of Frisco site, an approved grading and erosion control plan and is necessary for the off-site property. If the material is moved to a property located within another jurisdiction, evidence is required that the local government has approved the grading operation.
11. The storm water volume capacity of detention ponds must be restored and storm sewer lines will be cleaned upon completion of the project.
12. Soil stabilization measures must be applied within 30 days to the disturbed areas that may not be at final grade, but will be left dormant for longer than 60 days.
13. Fugitive dust emissions resulting from grading activities and/or wind shall be controlled using the best available control technology, as defined by the Colorado Department of Public Health and Environment, at the time of grading.
14. The erosion and sediment control plan may be modified by the Town of Frisco, or its authorized representative, as field conditions warrant.



- CWA MAINTENANCE NOTES**
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED, ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-1. CONCRETE WASHOUT AREA

No.	Revision/Issue	Date	Description
1	SKETCH PLAN SUBMITTAL	9/26/24	TOF SKETCH PLAN SUBMITTAL

TEN MILE ENGINEERING, INC.
Professional Civil Engineers
P.O. Box 1785
Frisco, CO 80443
970.485.5773
Joe@tenmileengineering.com

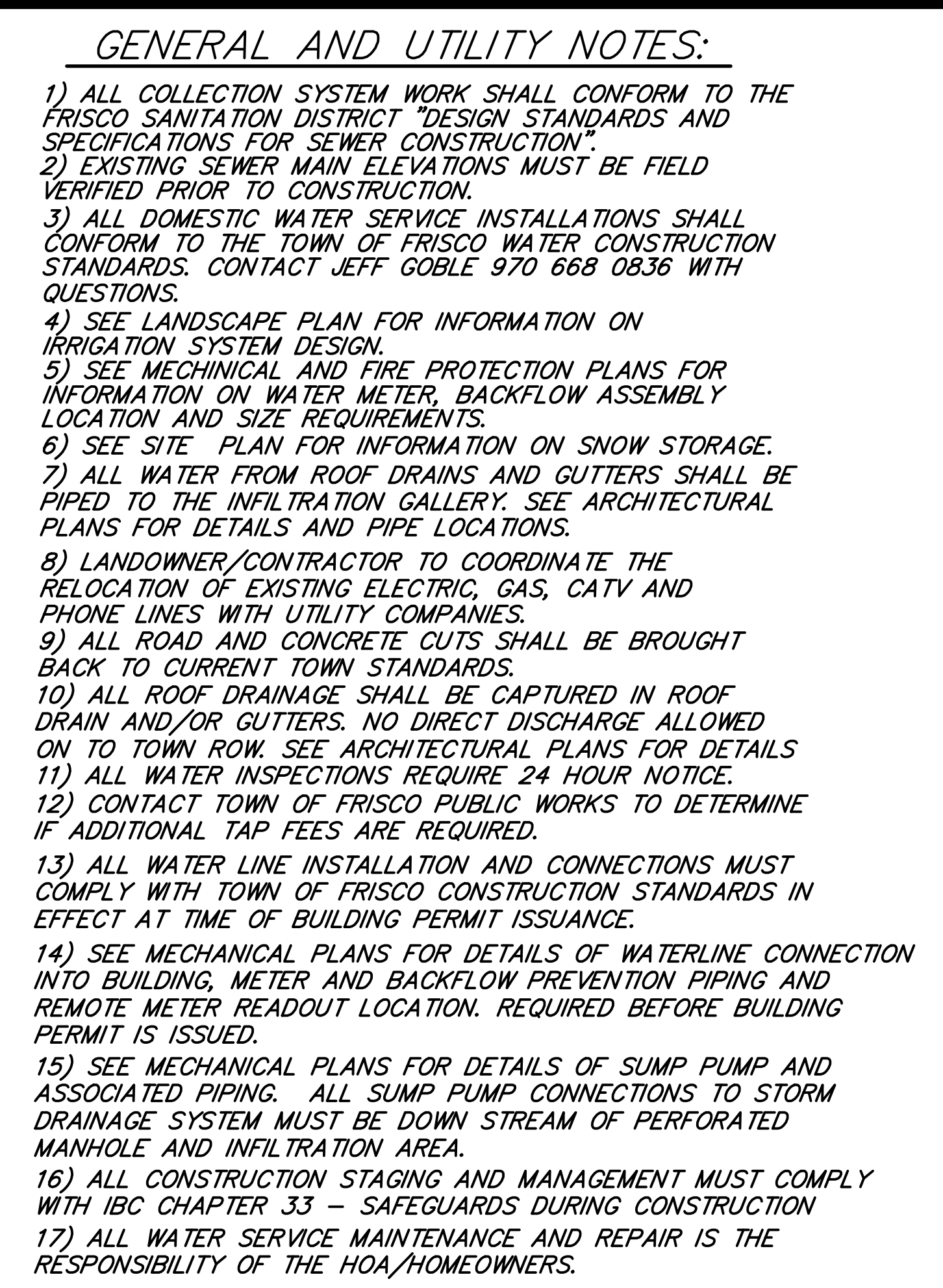
200 N. 7TH STREET
OUTLOT E-2, REPLAT A, RIVER PINES SUBDIVISION
TOWN OF FRISCO, SUMMIT COUNTY, COLORADO

SKETCH PLAN-EROSION CONTROL
AND WATER QUALITY PLAN

Project200 N. 7TH

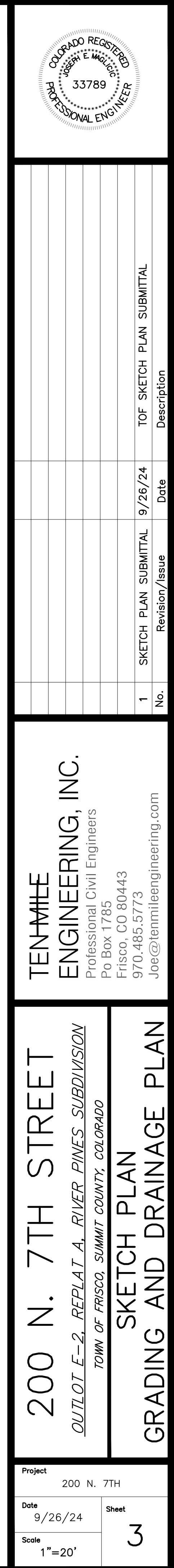
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Scale1"=10'2

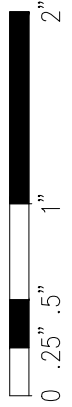


NOTE:

1. OWNER RESPONSIBLE FOR THE INSTALLATION OF HEAT TAPE IN ALL GUTTERS AND DOWNSPOUTS AS NECESSARY.
2. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR DETERMINING ACTUAL VERTICAL & HORIZONTAL LOCATIONS PRIOR TO START OF CONSTRUCTION. REPORT ALL CONFLICTS TO ENGINEER. ACTUAL LOCATION ON PROPOSED IMPROVEMENTS MAY VARY.
3. NO PARKING — FIRE LANE SIGNS SHALL BE INCORPORATED INTO THE PLANS AS DIRECTED BY THE FIRE DEPARTMENT AND TOWN OF FRISCO.
4. SEE PLANS AND PERMITS BY OTHERS FOR ALL REQUIREMENTS ASSOCIATED WITH THE DEMOLITION OF EXISTING STRUCTURES.



full size sheet is 24" x 36"



CODE DATA

MULTIFAMILY DEVELOPMENT DENSITY:

TOTAL LOT AREA: 85,460 SQ.FT. / 1.9619 ACRE
WETLAND AREA (2021 SURVEY) : 27,372 SQ.FT. / .6284 ACRE
TOTAL AREA ALLOCATED FOR DENSITY (CROSS HATCH): 58,088 SQ.FT. / 1.3335 ACRE

ALLOWED LOT DENSITY: 14 DWELLING UNITS PER ACRE = 1.3335 X 14 = 18.669

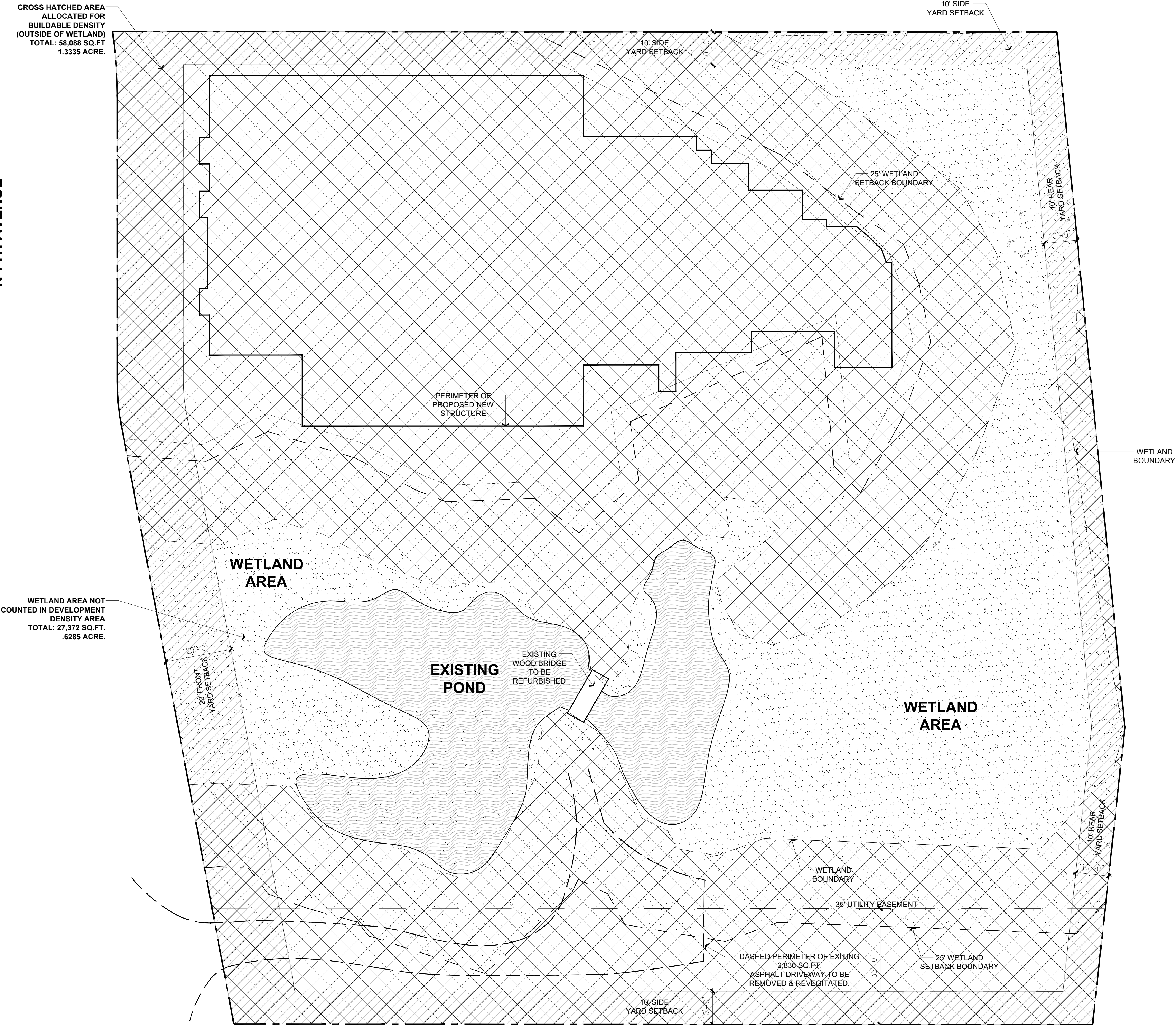
19 TOTAL DWELLING UNITS ALLOWED

MU DISTRICT DIMENSIONAL STANDARDS (TABLE 3-2):

TABLE 3-2: MU DISTRICT DIMENSIONAL STANDARDS

PROJECT STANDARDS	
Maximum density	14 du/acre
LOT STANDARDS	
Minimum lot area	None
Minimum lot frontage	None
Minimum open space	10% of GFA
Maximum lot coverage	60%
SETBACKS	
Minimum front yard setback	20 ft.
Minimum front yard setback, Main Street requirements	5 ft.
Minimum side yard setback	10 ft.
Minimum side yard setback, Main Street requirements	5 ft.
Minimum rear yard setback	10 ft.
Minimum rear yard setback, Main Street requirements	10 ft.
BUILDING STANDARDS	
Maximum building height	45 ft. (pitched); 35 ft. (flat)

N 7TH AVENUE



ARCHITECTURE & DEVELOPMENT STUDIO

2755 CANYON BLVD 1ST FLOOR
BOULDER, CO 80502

Phone: 808.226.5145

www.workshop-hi.com
info@workshop-hi.com

stamp

project

THE GLADE
SKETCH REVIEW SUBMITTAL

200 N 7TH AVENUE
OUTLET E-2, REPLAT A
RIVER PINES SUBDIVISION
TOWN OF FRISCO, SUMMIT COUNTY
COLORADO



phase SKETCH REVIEW

job number 2412

date OCTOBER 1, 2024

drawing title

DEVELOPMENT
DENSITY DIAGRAM

sheet number



Seth Francis
Managing Partner
Blue River Real Estate
PO Box 7035, Breckenridge, CO 80424
Cell: 347-834-1009
sjfrancis1985@gmail.com

October 17, 2024

Dear Town of Frisco Planning Commission:

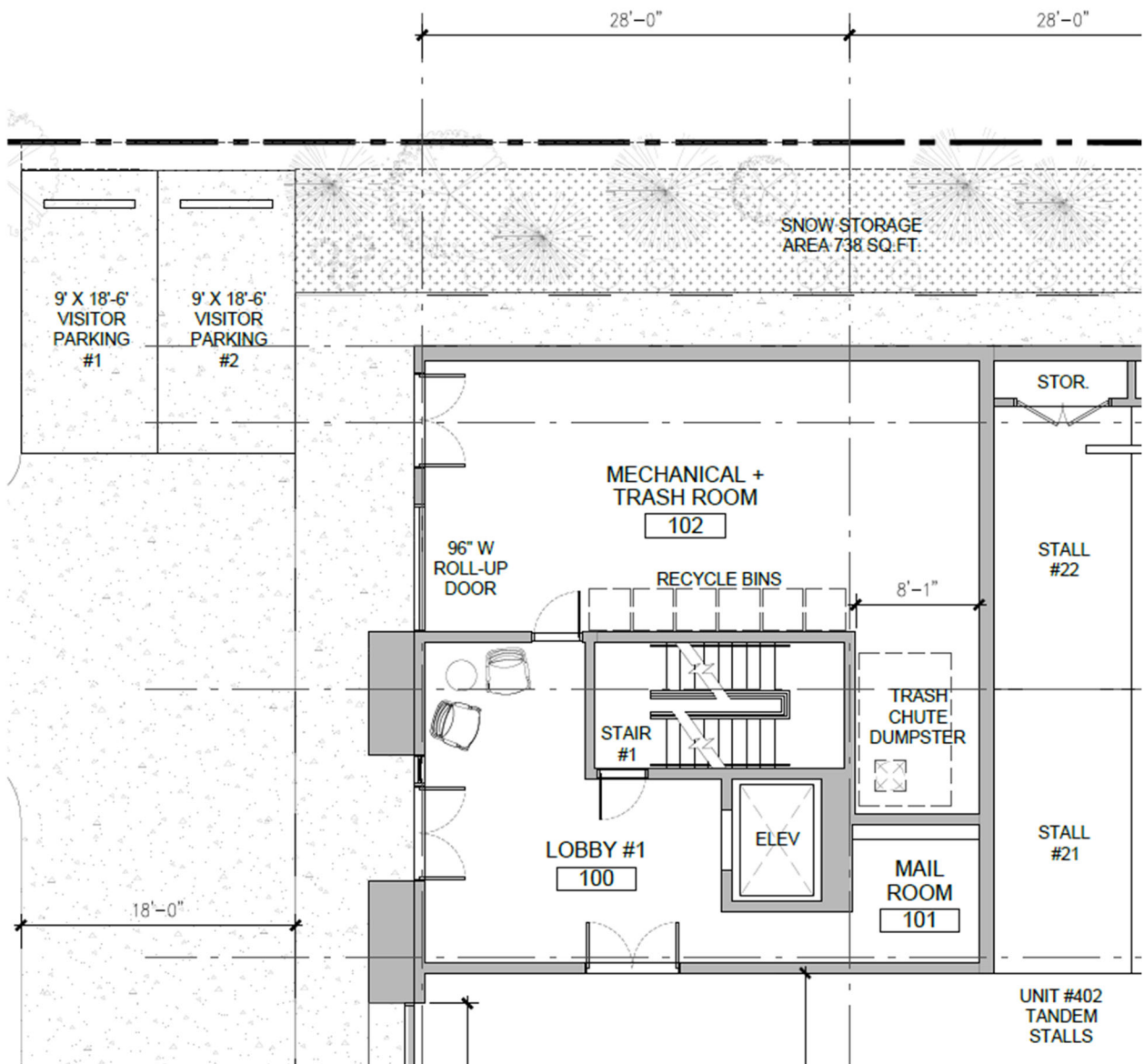
At the request of the Planning Department, I have included the following supplemental information to the plans submitted on October 4, 2024.

- 200 N 7th Ave is situated in the River Pines Planned Unit Development (PUD) and is in the overlay zoning district.
- One visitor parking space is required for every 5 units as per the Unified Development Code (UDC). As there are 19 Units, 4 guest parking stalls will be provided as per the site plan.
- See attached a density calculation map showing how the number of units (19) are being calculated.
- See picture below of the garbage room with recycling bins added. I will be reaching out to a local garbage company next week to ensure that the trash and recycling enclosure is large enough to hold both types of materials. I will also be requesting a letter next week from a waste hauler company documenting that they can access the proposed location and it is an adequate facility.
- All studies/offices shown in the plans will have a 48" opening and no doors will be installed to ensure they qualify as studies/offices.

Regards,

Seth Francis

Seth Francis
Managing Member of Blue River Real Estate Fund IV LLC





Seth Francis
Managing Partner
Blue River Real Estate
PO Box 7035, Breckenridge, CO 80424
Cell: 347-834-1009
sjfrancis1985@gmail.com

October 4, 2024

Dear Town of Frisco Planning Commission:

200 N 7th Ave, the location of the proposed residential condominium development, is situated in the River Pines Planned Unit Development (PUD) which is presently zoned as mixed-use. As part of this application, we are proposing a conditional use permit to develop a 19 unit all-residential condominium development. As discussed below, we believe that the compatibility of the proposed use with its location, as well as the surrounding land uses, make it well suited to the granting of a conditional use approval.

Section of 180-2.5.1.A Conditional Uses Purpose of the Town of Frisco Unified Development Code (UDC) states:

1. Conditional uses are land uses that, because of their unique character, size, operating characteristics, and potential impacts, must undergo special review with the potential for conditional approval in order to be undertaken in a particular zoning district. The conditional use process allows for the integration of certain land uses within the Town based on appropriate conditions imposed by the Planning Commission. Review is based primarily on compatibility of the use with its proposed location and with surrounding land uses and by reviewing the impacts a conditional use may have. Conditions are intended to minimize or ameliorate any negative circumstances that might arise by the use. Conditional uses shall not be allowed where the conditional use would create a nuisance, traffic congestion, a threat to the public health, safety, or welfare of the community or a violation of any provision of the Town Code, state law, rule, or regulation promulgated pursuant thereto.

The Approval Criteria of the Town of Frisco Unified Development Code (“Code”) for Conditional Uses is set forth at Section of 180-2.5.1.D. In response to the listed Approval Criteria set forth in the Code, I have described how the proposed residential condominium

development meets each of the required items (in *italics*) as required by Section 180-2.5.1.D, specifically as follows:

1. The conditional use is consistent with the purpose and intent of the zone district in which it is proposed to be located, furthers the applicable goals of the Frisco Community Plan, and is a desirable use that will contribute to the general welfare of the community;
 - a. *200 N 7th Ave is located in the River Pines PUD, which was zoned all residential, with the exception of 4.5 acres which was zoned as multi-use.*
 - b. *Outlot E as per the PUD originally included 200 N 7th Ave as well as a parcel across the street (now defined as 201 N 7th Ave (Lot E-1-A) and 203 N 7th Ave (Lot E-1-B).*
 - c. *Both 201 N 7th Ave (Lot E-1-A) and 203 N 7th Ave (Lot E-1-B) were given conditional use to build all residential. As such, based on my understanding of the River Pines PUD there are currently no commercial units/properties.*
 - d. *As such, to meet the current zoning of the River Pines PUD, we propose a conditional use to develop a residential only at 200 N 7th Ave.*
2. The conditional use is compatible with the mix of development in the immediate vicinity of the parcel in terms of density, height, bulk, architecture, landscaping, and open space, as well as with any applicable adopted regulatory master plan or PUD (*See, Section 1a–d, above*); and
3. The conditional use is consistent and compatible with the character of the immediate vicinity of the parcel proposed for development and surrounding land uses and enhances the mixture of complimentary uses and activities in the immediate vicinity of the parcel proposed for development.
 - a. *Based on my review of the Summit County GIS, the River Pines PUD is currently all residential. Mixed used zone properties in the River Pines PUD have received conditional use to be all residential (i.e. 201 N 7th Ave (Lot E-1-A) and 203 N 7th Ave (Lot E-1-B).*
 - b. *The proposed residential condominium development at 200 N 7th Ave meets all River Pines PUD requirements in terms of density, height, bulk, architecture, landscaping, and open space.*
4. The location, size, design and operating characteristics of the proposed conditional use minimizes adverse effects, including visual impacts, impacts on pedestrian and vehicular circulation, parking, refuse and recycling services/area, service delivery, noise, vibrations and odor on surrounding properties.

- a. *The proposed residential condominium development at 200 N 7th Ave meets all bulk plan requirements. Further, a traffic study has been completed to show that 7th Ave. and nearby intersections will support the proposed residential condominium development.*
 - b. *The proposed residential condominium will have a similar frontage on 7th Ave as the current structure. There is a planned underground garage where vehicles will be parked. There will be an enclosed trash room where the garbage dumpster will remain, rather than multiple garbage cans that currently sit outside and in view of the street.*
5. There are adequate public facilities and services to serve the conditional use including but not limited to roads, potable water, sewer, solid waste, parks, police, fire protection, emergency medical services, hospital and medical services, drainage systems and schools.
 - a. *We have confirmed with the Sanitation Department that the current pump station on Summit Boulevard can support the proposed residential condominium development.*
 - b. *We have confirmed with the Water District that the current water lines on 7th Ave can support the proposed residential condominium development.*
 - c. *The property is zoned for 23 units based on acreage (1.96 acres), but due to the wetlands on site and the density rules as per the UDC, only 19 units can be built. As such, less units than the original zoning is being proposed.*
 - d. *Kim McDonald of Summit Fire and EMS has indicated that the proposed residential condominium development requires a NFPA 13 system and standpipes to meet code.*
 - e. *A local civil engineer has been engaged to ensure adequate drainage. In addition, there is a large area of pavement on the south side of the property that will be removed to create additional permeability and to return this area to a more natural state.*

Moreover, for all of the foregoing reasons, we respectfully submit that an all-residential development would enhance the River Pines PUD neighborhood and is consistent and compatible with the character and intent of the River Pines PUD.

Regards,

Seth Francis

Seth Francis
Managing Member of Blue River Real Estate Fund IV LLC

200 N 7th Ave, Frisco, CO 80443
Major Site Plan Application
Construction Plan Around Wetland Setback

September 27, 2024

Dear Town of Frisco Planning Commission,

A five foot buffer between the proposed building and the 25' wetland setback is sufficient for construction purposes. Mini-excavators can fit within a 5' buffer as well as cherry pickers to install siding.

In addition, there are certain decks that fall within this 5' buffer. However, these decks are cantilevered and are on the 2nd floors and above, as such machinery can be driven below these decks.

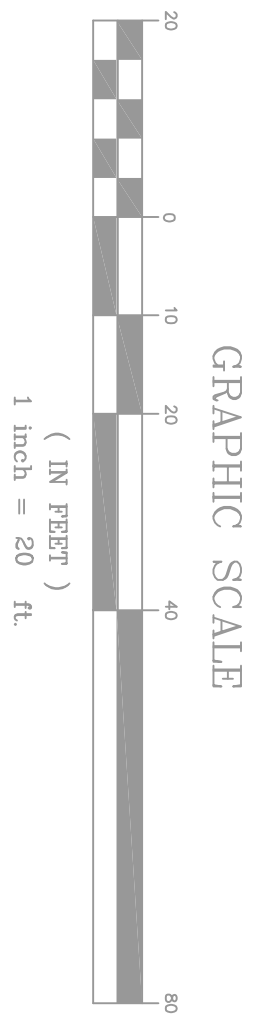
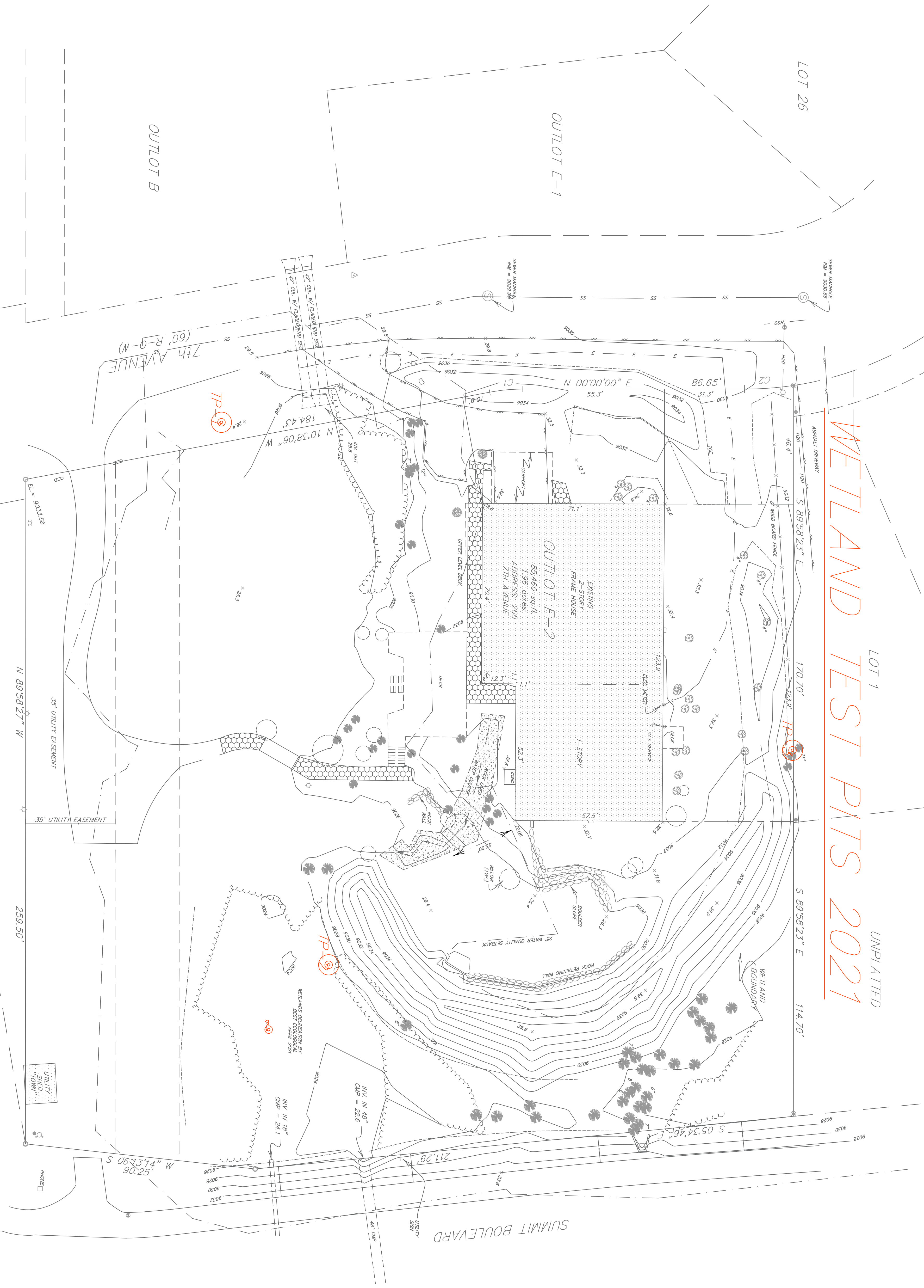
Regards,



Pete Campbell
Campbell Construction, LLC.
110 S. 1st Ave Unit 1, PO Box 4272, Frisco, CO 80443
C: 970-389-7246
F: 970-668-6187
pcampbell@co-cce.com
[CC&E Home Page](#)

A TOPOGRAPHIC MAP OF A PORTION OF
OUTLOT E-2, REPLAT A, RIVER PINES SUBDIVISION
ACCORDING TO THE PLAT RECORDED OCT. 17, 1991 AT REC. NO. 411259
TOWN OF FRISCO, SUMMIT COUNTY, COLORADO

LOT 1
UNPLATTED
WETLAND TEST PITS 2021



ELEVATIONS BASED ON U.S.G.S. DATUM (NGVD 1929)
DATE OF ORIGINAL SURVEY: MAY 22 - JUNE 9, 2006
DATE OF UPDATED SURVEY: APRIL 21-27, 2021
DATE OF UPDATED WETLANDS SURVEY: OCTOBER 1, 2021
(INCLUDES FEATURES FROM SURVEY DONE IN 2003 + 2006)
CONTOUR INTERVAL=2 FEET

LEGEND

- PREVIOUSLY SET REBAR & PLASTIC CAP (PLS 26292)
- FOUND REBAR & PLASTIC CAP (PLS 10847)
- FOUND #4 REBAR
- ☆ LIGHT POLE
- △ FIRE HYDRANT
- GATE VALVE
- CURB STOP (WATER SERVICE)
- UTILITY PEDESTAL
- ▨ FLAGSTONE WALK
- PINE TREE WITH TRUNK DIAMETER 8"
- SPRUCE TREE WITH TRUNK DIAMETER 9"
- ASPEN TREE WITH TRUNK DIAMETER 5"
- LOCATED PINE TREES 6" AND GREATER AND ASPENS 4" AND GREATER
- WILLOW PLANT
- × SPOT ELEVATION
- ~ VEGETATION LINE
- WETLAND FLAG AS LOCATED WITH FLAG NUMBER (BEST ECOLOGICAL)
- 420' UNDERGROUND WATER LINE AS LOCATED BY 811
- SS UNDERGROUND SEWER SERVICE LINE AS LOCATED BY 811
- E UNDERGROUND ELECTRIC LINE AS LOCATED BY 811

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	AREA
C2	130.00'	19.26'	9.65'	19.24'	N 04°14.59' W	0829.19'

NOTE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

AQUATIC RESOURCE/ WETLAND DELINEATION REPORT

**STUDIO ONE/7TH AVENUE
DECEMBER 2021**

Prepared by:

Virgil O. Best II, Principal
Best Ecological Design Group
Post Office Box 2301-153
Silverthorne, Colorado 80498
970.389.7670
bestecological@outlook.com

Prepared for:

Stephen Flanagan/Studio One Architecture
515 Greenland Rd NE
Atlanta, Georgia 30342
404.549.7084

EXECUTIVE SUMMARY

The purpose of this report is to describe and document the aquatic resources/wetlands and other features located on the subject property as they relate to regulatory requirements under Section 404 of the Clean Water Act., as administered by the U.S. Army Corps of Engineers.

The wetland delineation was conducted during September of 2021. Findings verified the presence of wetland indicators in multiple test pits and soil probe samples. Wetland indicators include the presence of hydrology, hydric soils, and hydrophytic vegetation.

Delineation methodology was conducted in accordance with the 1987 "U.S. Army Corps of Engineers Wetlands Delineation Manual" with updates according to the Western Mountains, Valleys & Coast Regional Supplement.

The wetland conditions of the overall subject property are atypical due to human manipulation. Hydrologic functions have shifted over time as a result of human manipulations, the hydrologic regime has shifted over time as a result of long-term drought.

Sources of hydrology supplying the subject wetland have also been altered by development patterns in the neighborhood subdivisions.

The greater wetland complex of the post-glacial alluvial outwash fan and historic floodplain, north of the east-west core of Frisco, is bounded topographically by a broadly curving ridge reaching from I-70 near North Tenmile Creek on the west, to the north side of Tenmile Creek, north of North 7th Ave. Walter Byron Park wetlands are at the toe of this topographic divide and demonstrate an old channel course of Tenmile Creek. The divide separates the Tenmile Creek drainage from the Meadow Creek drainage.

The area of interest in this study is bounded by Tenmile Creek on the north, Galena Street on the south and Dillon reservoir on the east. The wetland corridor of the unnamed tributary has been subject to both direct impacts and indirect impacts of development. The wetland complex has been bisected by roads, culverts and infrastructure, and is constricted by residential development on the multiple parcels that bound the wetlands. Runoff from the roadways, public lands and private lands contribute many pollutants.

The subject wetland is Palustrine Scrub-shrub and Palustrine Unconsolidated Bottom with inclusions of Palustrine Aquatic Bottom that appear to have developed as a result of human manipulation. The SW is a portion of a greater wetland complex associated with an unnamed tributary to Tenmile Creek/Dillon Reservoir.

No Fen or fen-type wetlands are found in the subject wetlands.

The SW is located within the Upper Blue River watershed drainage area of the Upper Colorado River Region. HUC 1401002.

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ACRONYMS & ABBREVIATIONS

THAT MIGHT APPEAR IN THIS DOCUMENT

AC	ACREAGE /ACRES
AJD	APPROVED JURISDICTIONAL DETERMINATION
EPA	ENVIRONMENTAL PROTECTION AGENCY
FAC	FACULTATIVE WETLAND INDICATOR STATUS
FACU	FACULTATIVE-UPLAND WETLAND INDICATOR STATUS
FACW	FACULTATIVE-WET WETLAND INDICATOR STATUS
FEN	FEN WETLAND
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
JD	JURISDICTIONAL DETERMINATION
NRCS	NATURAL RESOURCES CONSERVATION SERVICE
NWI	NATIONAL WETLAND INVENTORY
NWPL	NATIONAL WETLAND PLANT LIST
OBL	OBLIGATE WETLAND INDICATOR STATUS
PFO	PALUSTRINE FORESTED
PSS	PALUSTRINE SCRUB-SHRUB
ROW	RIGHT-OF-WAY
RPW	RELATIVELY PERMANENT WATERWAY
SF	SQUARE FOOTAGE
SP	SUBJECT PROPERTY
SW	SUBJECT WETLAND
TMC	TENMILE CREEK
TNW	TRADITIONAL NAVIGABLE WATERWAY
UPL	UPLAND/UPLAND INCLUSION
USACE	U. S. ARMY CORPS OF ENGINEERS
USFWS	U. S. FISH AND WILDLIFE SERVICE
USGS	U.S. GEOLOGICAL SURVEY
WMVC	WESTERN MOUNTAINS, VALLEYS AND COAST REGIONAL SUPPLEMENT

CHAPTER 1 – INTRODUCTION

Applicant/property owner's/agent's name and contact information.

Ownership of Record: 200 7th Ave LLC

Address & Contact: C/O Steven Hurlburt
35 Lafayette Drive NE
Atlanta, Georgia 30309

Owner's Agent
requesting services/
Applicant Stephen Flanagan
Studio One Architecture
515 Greenland Road NE
Atlanta, Georgia 30342
404.549.7084 o
404.247.4996 m
s.flanagan@studioone.us

Consulting/
Owner's Agent: Virgil O. Best II, Principal
Best Ecological Design Group

Address & Contact: Post Office Box 2301-152
Silverthorne, Colorado 80498
970.389.7670
bestecological@outlook.com

Surveying: Range West, Inc

Address: Post Office Box 589
Silverthorne, Colorado 80498
970.468.6281

Subject Property: Outlot E-2, River Pines Sub
200 N. 7th Avenue
Frisco, Colorado 80443

SUBJECT WETLAND

Conditions in the subject wetland (SW) are atypical and demonstrate a wide range of characteristics consistent with a history of manipulation, including direct impacts and indirect impacts. Subject wetlands are Palustrine Scrub-Shrub (PSS1Bh), Palustrine Emergent (PEM1Hh) and Palustrine Aquatic Bed (PAB1Hh). The PAB1 wetland appears to be a heavily degraded PUB2 wetland. The PUB2 wetland would have been the result of the dredge and fill activities that took place in the original PSS wetland. The PAB1 wetland is a stagnant low energy system that only experiences minimal seasonal flush and nutrient cycling. The man-made pond now acts as a sink for polluted runoff from the roads and properties of the surroundings. Excess nutrients from landscapes, gardens & roadways feed an annual algal bloom. Anecdotal information supplied by a one-time, on-site contact indicated that the pond is or has been stocked with fish (a few individuals were observed during this field investigation); that the pond is treated annually with algaecide, and that mechanical aeration is provided year-round. Additionally, pump systems are utilized to divert water from the pond to run water through a constructed rock fountain/waterfall/water feature. Diverted flows re-enter the pond near wetland flag W-50.

Review of Google Earth images of the subject property (SP) from 1999 show a pre-impoundment palustrine wetland complex, images from 2006 show the pond. It is thus assumed that during this time (1999 to 2006) the ponds were excavated in the wetland, and that the dredge materials were placed as fill in the wetlands and used for a berm/dam and bridge abutments for a footbridge. Changes or manipulations after 2006, if any, are not visible on images from subsequent years. The existing impoundment is approximately 6,750 square feet/0.15-acres of water surface, an average depth of approximately 2.5', and a maximum depth of approximately 4.0'. Permit history for manipulations of the aquatic resource is unknown.

The SW is a bisected portion of a once greater wetland complex. Based on observations of the ecological characteristics of the wetland complex as well as the surrounding topography, and surrounding hydrology, primary hydrology is sourced from the alluvial aquifer. The zone of the stream reach where the unnamed tributary historically branched off the main channel, west of 4th Ave. is now developed. TMC recharges the alluvial aquifer in the same zone. TMC surface flows no longer enter the tributary. Flows from the alluvial aquifer surface in the tributary channel around 5th Ave., a little over a tenth of a mile from the SW. However, there is no culvert under 6th avenue on this tributary, so the channel is severed. Flows from the aquifer surfacing east of 6th avenue are conveyed underneath 7th Ave. through two 42" culverts to the SW. Surface flows fill the pond to maximum water surface elevation during the runoff season. Hydrology from the aquifer maintains ponded water through the winter, at an estimated depth of 1.5'-2.0'. Additional hydrology is supplied by seasonal precipitation and runoff. See Map 1 for the location of the subject wetland area on the subject property.

The purpose of this report is to identify and describe aquatic & wetland resources and, to identify known possible sensitive plant, fish, wildlife species, and cultural/historic properties in the survey area. This report should serve to identify and outline resources for evaluation under the Clean Water Act Section 404 regulations and requirements as administered by The U.S. Army Corps of Engineers, and:

- Document the wetland boundary determination.

- Document and present the condition of the SW.

- Provide early indications of known sensitive species and historic/cultural properties on the subject property.

- Provide background information.

CHAPTER 2 – LOCATION

The Subject Property is located in the County of Summit, State of Colorado.

200 N. 7th Avenue, Frisco, Colorado 80443. Located in Section 35, Township 5S, Range 78W. Latitude 39.5565° North. Longitude -106.0576° West.

Driving directions to the SP: From the intersection of I-70 & CO Hwy 9 in Frisco, exit southbound on Hwy 9. Continue to Frisco Main Street, turn right. Continue two blocks to 6th Ave, turn right. Continue to Galena Street, turn right. Continue east on Galena St., curving left onto N. 7th Avenue. The subject wetland and subject property are on the right. See Map 1.

CHAPTER 3 – METHODS

The delineation was conducted during multiple visits in 2021. The initial review for delineation was conducted in April, the site was re-visited during the summer for additional analysis. Delineation methodology was conducted in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, with updates according to the Western Mountains, Valleys & Coast Regional Supplement (2010).

The delineation boundaries are identified by a single flag series. Flag series W-1 to W-65 begins near the lamp post at the southern corner of the main driveway and continues counter-clockwise, returning to the point of origin.

The wetland boundary determinations were based on density and dominance of hydrophytic plant species and prevalence of moist or saturated hydrologic conditions as well as variations in the hydric soils.

Soils of the SP & SW were examined in multiple probe samples. Soil probe test depths varied around 12", all samples reached gravelly C-horizon materials. Soil colors were determined according to Munsell soil color charts.

Hydrologic conditions were determined by the presence of moisture in the soil samples. All wetland positive test samples demonstrated moist conditions at depth during the examination period. Additional probe samples utilized moisture and redoximorphic soil indicators to verify wetland hydrology, or upland conditions.

CHAPTER 4 – EXISTING CONDITIONS

ECOLOGICAL SETTING

The SW is located at approximately 9,030' elevation, positioned on the historic floodplain of Tenmile Creek. The SW is on an unnamed tributary, and has two culverts under State Hwy 9, flows continue eastward and discharge into the TMC inlet of Dillon reservoir.

Atypical conditions exist in the subject wetland and surrounding wetlands as a result of development disturbance (roads & culverts) and long-term drought. Grenadier gravelly loam and mixed alluvial materials dominate the soils profile of the SW.

WETLAND COMPLEX - HISTORICAL DISTURBANCE

As introduced above, the SW has been subject to a history of manipulation associated with the residential subdivisions of the town including roads and culverts, and direct impacts on-site. Degradation within the subject wetland complex has resulted in marginal wetland qualifying conditions in the fringe areas of the site.

SUBJECT WETLAND - OVERVIEW

Subject wetlands are Palustrine Scrub-Shrub (PSS1Bh), Palustrine Emergent (PEM1Ch), and Palustrine Aquatic Bed (PAB1Hh). Hydrology is provided by the alluvial aquifer, direct precipitation, and run off from the greater area. Directed surface zonal saturation by culverts under the roadways, or direct precipitation, supply water for groundcover vegetation. Approximate acreage of wetland types withing the SW complex are PSS 0.29-acres, PEM 0.18-acres, PAB 0.15-acres.

Test pits demonstrated historic hydric soils; gravelly loam, sandy loam, sand/silt loam underlain by clayey gravelly substrate. Samples demonstrated redoximorphic features, in wetland areas.

The total area of the subject wetland equals 27,614.58 SF/0.63-acres. See Map 1.

SUBJECT WETLAND - VEGETATION

Vegetation of the SW is dominated by hydrophytic shrubs and herbs. Mixed *Salix* species give the SW its dominant characteristic. The herbaceous layer is dominated by mixed hydrophytic plant species.

TABLE 1 - DOMINANT PLANT SPECIES OF THE SUBJECT WETLAND

Scientific Name	Common Name	Indicator Status
<i>Betula glandulosa</i>	<i>Bog Birch</i>	OBL
<i>Carex aquatilis</i>	Leafy Tussock Sedge	OBL
<i>Carex nebrascensis</i>	Nebraska Sedge	OBL
<i>Carex urticulata</i>	Northwest Territory Sedge	OBL
<i>Mertensia ciliata</i>	Chiming Bells	FACW
<i>Poa palustris</i>	Fowl Bluegrass	FAC
<i>Salix drummondiana</i>	Drummond's willow	FACW
<i>Salix planifolia</i>	Plane leaf Willow	OBL

SUBJECT WETLAND - SOILS AND SUBSTRATE

Soils of the SW & SP are mapped by NRCS as Grenadier gravelly loam 0-6-% slopes.

Predominant soils of the SW demonstrate low chroma Munsell colors in the A/B-Horizons. C-Horizons in the SW demonstrated low chroma and redoximorphic features with moderate colors and contrast against the matrix.

SUBJECT WETLAND – HYDROLOGY

Hydrology in the SW is supplied by groundwater of the TMC alluvial aquifer. Groundwater levels supply the deep root zone of hydrophytic woody species all year. Seasonal fluctuations in the groundwater elevation create shallow sheet flows that combine with pond water surface elevations to saturate soils for shallow rooted hydrophytes. Snowpack and summer precipitation provide additional hydrology.

WETLAND/AQUATIC RESOURCE CLASSIFICATION

Wetlands of the SW are Palustrine Scrub-shrub with inclusions of Palustrine emergent, and Palustrine Aquatic Bed. PSS1BHh, PEM1BHh & PAB1Hh.

NEARBY WETLANDS & AQUATIC RESOURCES

Wetlands of the greater wetland complex in the tributary drainage area are Palustrine scrub-shrub, Palustrine emergent, and Lacustrine (Dillon Reservoir).

INTERSTATE OR FOREIGN COMMERCE

There is no observed or documented interstate or foreign commerce associated with the SW.

KNOWN SENSITIVE SPECIES

No known sensitive plant or animal species were found on the SP; none were observed in the SW during the course of the on-site investigation.

CULTURAL OR HISTORICAL PROPERTIES OR FEATURES

No cultural or historical properties or features were found or observed on the SP; none were observed in the SW during the course of the on-site investigation.

SUBJECT WETLAND/AQUATIC RESOURCE JURISDICTION

The SW is to be treated as jurisdictional by the USACE, unless an AJD is requested, and findings support non-jurisdictional status. An AJD is not being requested at this time. The subject wetlands are also under the jurisdiction of Town of Frisco, Colorado regulations

CHAPTER 5 – REFERENCES

Resources

U.S. Army Corps of Engineers, Wetland Delineation Manual (1987) & Western Mountains, Valleys, and Coast Regional Supplement (2010)

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016.

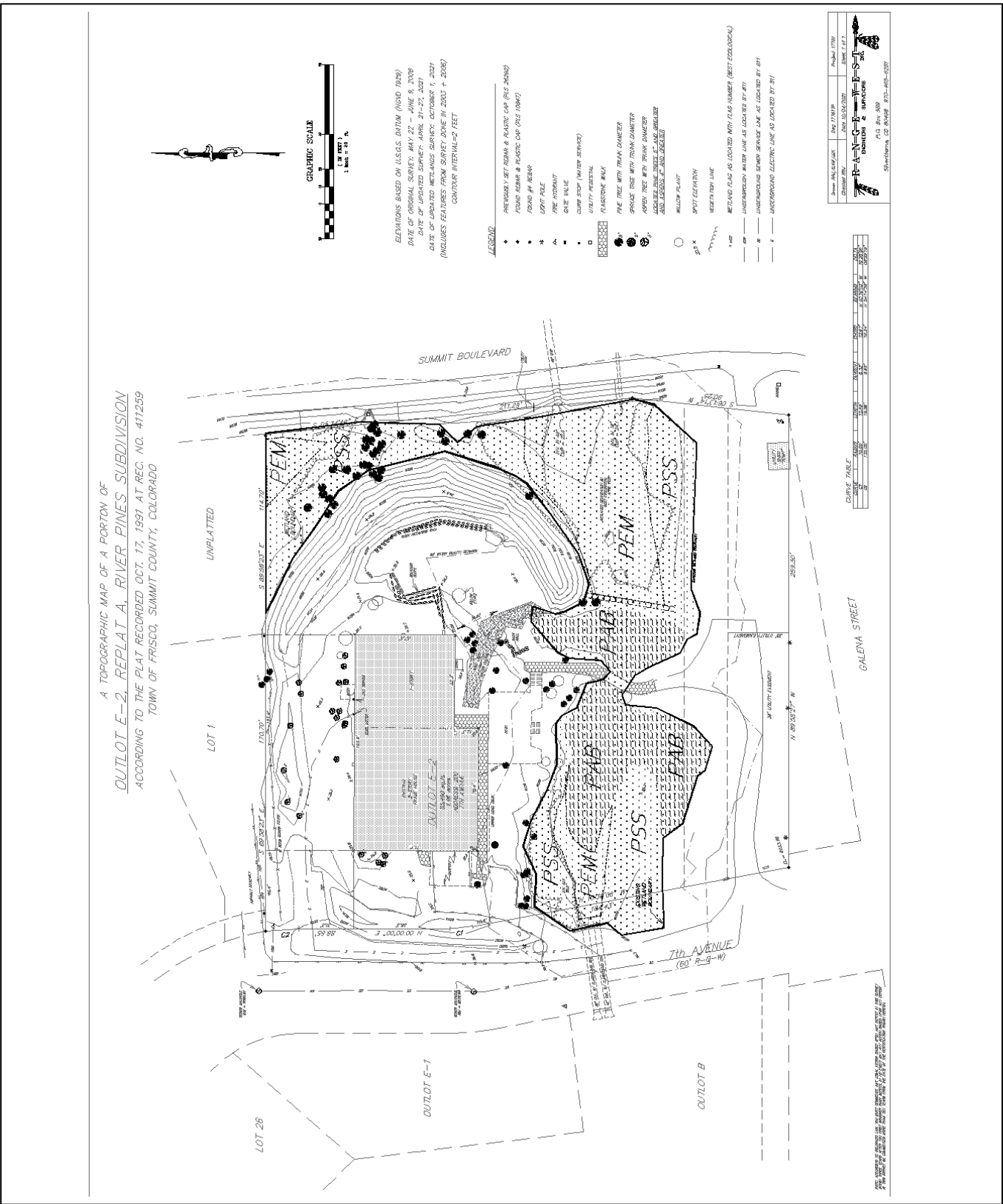
The National Wetland Plant List: 2016 wetland ratings.

Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

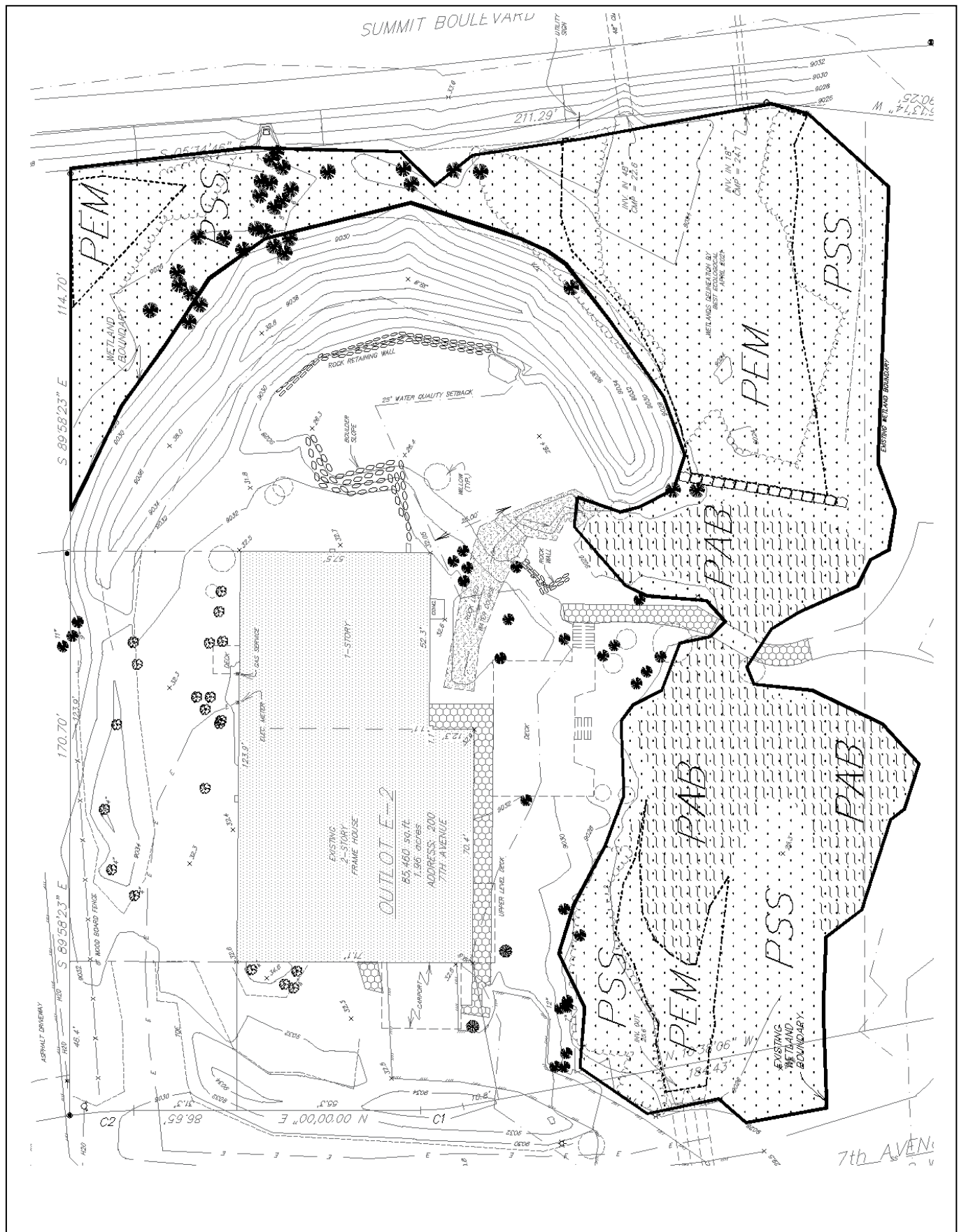
U.S. Natural Resources Conservation Service, WSS Web Soil Survey of Summit County Area (2021)

Weber, W. A. and, R. C. Wittmann, Colorado Flora – Western Slope, 4th. (2012)

MAP 1 – WETLAND DELINEATION



MAP 2 – WETLAND DELINEATION DETAIL



WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Operation Frisco City/County: Frisco/Summit Sampling Date: 4/24/21*
Applicant/Owner: Stephen Flanagan/Studio One Architecture State: CO Sampling Point: TP-1
Investigator(s): Best Ecological/Virgil Best Section, Township, Range: S35, T5S, R78W
Landform (hillslope, terrace, etc.): Alluvial terrace Local relief (concave, convex, none): Undulating Slope (%): <5%
Subregion (LRR): E Lat: 39.5565 N Long: -106.0576 W Datum: WGS84
Soil Map Unit Name: Grenadier Gravelly Loam NWI classification: PSS1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☒, Soil ☒, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					
<small>*Test pits were revisited during active growth season for verification of active current year hydrology. Primary hydrology is driven by the alluvial aquifer, secondary hydrology is provided by precipitation. Atypical conditions exist due to site manipulation & extended drought.</small>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>3'</u>)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>10</u> x 1 = <u>10</u> FACW species <u>80</u> x 2 = <u>160</u> FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>90</u> (A) <u>170</u> (B) Prevalence Index = B/A = <u>1.88</u>
1. <u>Salix drummondiana</u>	<u>80%</u>	<u>Yes</u>	<u>FacW</u>	
2. _____				
3. _____				
4. _____				
5. _____				
= Total Cover				
Herb Stratum (Plot size: <u>3'</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ____ 5 - Wetland Non-Vascular Plants ¹ ____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Carex aquatilis</u>	<u>10%</u>	<u>Yes</u>	<u>Obl</u>	
2. <u>Calamagrostis canadensis</u>	<u>10%</u>	<u>Yes</u>	<u>FacW</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>80%</u>				
Remarks: Groundcover is dominated by dense, layered litter.				

SOIL

Sampling Point: TP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10yr 3/2						Sandy loam	
8-10"	10yr 4/2		5yr 4/6		c	m	Sand/Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input checked="" type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: sand/clay loam

Depth (inches): 8" to 10"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☒ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 6"

Saturation Present? Yes ☒ No ☐ Depth (inches): 2"

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Operation Frisco City/County: Frisco/Summit Sampling Date: 4/24/21*
 Applicant/Owner: Stephen Flanagan/Studio One Architecture State: CO Sampling Point: TP-2
 Investigator(s): Best Ecological/Virgil Best Section, Township, Range: S35, T5S, R78W
 Landform (hillslope, terrace, etc.): Alluvial terrace Local relief (concave, convex, none): Undulating Slope (%): <5%
 Subregion (LRR): E Lat: 39.5565 N Long: -106.0576 W Datum: WGS84
 Soil Map Unit Name: Grenadier Gravelly Loam NWI classification: PEM1H

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒, Soil ☒, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ☒
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	
Remarks:		
*Test pits were revisited during active growth season for verification of active current year hydrology. Primary hydrology is driven by the alluvial aquifer, secondary hydrology is provided by precipitation. Atypical conditions exist due to site manipulation & extended drought.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>3'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Picea engelmannii</u>	<u>5%</u>	<u>Yes</u>	<u>Fac</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	<u>5%</u>	_____	_____	Prevalence Index worksheet:
<u>5%</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>3'</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Salix drummondiana</u>	<u>80%</u>	<u>Yes</u>	<u>FacW</u>	OBL species <u>10</u> x 1 = <u>10</u>
2. _____	_____	_____	_____	FACW species <u>95</u> x 2 = <u>190</u>
3. _____	_____	_____	_____	FAC species <u>5</u> x 3 = <u>15</u>
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	<u>80%</u>	_____	_____	UPL species _____ x 5 = _____
<u>80%</u> = Total Cover				Column Totals: <u>110</u> (A) <u>225</u> (B)
Herb Stratum (Plot size: <u>3'</u>)				Prevalence Index = B/A = <u>2.04</u>
1. <u>Carex aquatilis</u>	<u>10%</u>	<u>Yes</u>	<u>Obl</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Carexnebrascensis</u>	<u>15%</u>	<u>Yes</u>	<u>FacW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	<u>25%</u>	_____	_____	
<u>25%</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>_____</u> = Total Cover				
% Bare Ground in Herb Stratum <u>50%</u>				
Remarks: Groundcover is dominated by dense, layered litter.				

SOIL

Sampling Point: TP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10yr 3/2						Sandy loam	
6-10"	10yr 4/2		5yr 4/6		c	m	Sand/Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input checked="" type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: sand/clay loam

Depth (inches): 6" to 10"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☒ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 6"

Saturation Present? Yes ☒ No ☐ Depth (inches): 2"
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Operation Frisco City/County: Frisco/Summit Sampling Date: 4/24/21*
 Applicant/Owner: Stephen Flanagan/Studio One Architecture State: CO Sampling Point: TP-3
 Investigator(s): Best Ecological/Virgil Best Section, Township, Range: S35, T5S, R78W
 Landform (hillslope, terrace, etc.): Alluvial terrace Local relief (concave, convex, none): Undulating Slope (%): <5%
 Subregion (LRR): E Lat: 39.5565 N Long: -106.0576 W Datum: WGS84
 Soil Map Unit Name: Grenadier Gravelly Loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation ☒, Soil ☒, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ☒
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks:		
<small>*Test pits were revisited during active growth season for verification of active current year hydrology. Primary hydrology is driven by the alluvial aquifer, secondary hydrology is provided by precipitation. Atypical conditions exist due to site manipulation & extended drought.</small>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>3'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Picea engelmannii</u>	<u>20%</u>	<u>Yes</u>	<u>Fac</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	<u>70%</u>	<u>= Total Cover</u>		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>3'</u>)				
1. <u>Juniperus communis</u>	<u>50%</u>	<u>Yes</u>	<u>Upl</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species <u>10</u> x 3 = <u>30</u>
5. _____	<u>50%</u>	<u>= Total Cover</u>		FACU species _____ x 4 = _____
Herb Stratum (Plot size: _____)				UPL species <u>50</u> x 5 = <u>250</u>
1. _____	_____	_____	_____	Column Totals: <u>60</u> (A) <u>280</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>4.66</u>
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
_____ = Total Cover				
Remarks:				
Groundcover is dominated by dense, layered litter.				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

SOIL

Sampling Point: **TP-3**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10yr 3/3						Sandy loam	
8-10"	10yr 4/4							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Frost-Heave Hummocks (D7) |

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Summit Asbestos Testing

Asbestos Demolition Survey
200 N 7th Avenue
Frisco, Colorado 80443



Prepared For:

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Survey Date: September 13, 16, and 17th, 2024
Summit Asbestos Testing Job Number: 1165

CERTIFICATION STATEMENT

As the certified inspector responsible for the development of this inspection report, I certify that it has been written and reviewed in a manner of full compliance with applicable rules and regulations as required by Federal and State regulations. See Appendix A for copies of certifications.

Respectfully Submitted,

Signature: Tyler Habbe

Signature: Nicole Rolfe

Date: September 23, 2024

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Expiration Date: June 14, 2025

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Summit Asbestos Testing, LLC, Asbestos Consulting Firm License # ACF-22742
Expiration Date: March 5, 2025

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1. EXECUTIVE SUMMARY / SCOPE OF SERVICES

Summit Asbestos Testing was contracted by Seth Francis to perform a full demolition asbestos building survey for Asbestos Containing Building Material (ACBM) due to the potential demolition of the single-family home located at 200 N 7th Avenue, Frisco, Colorado 80443. All materials are included in the asbestos demolition survey, including exterior finishes.

Asbestos Containing Building Material (ACBM) is defined by state and federal regulations as any material that contains greater than 1% asbestos. **The results of this demolition asbestos containing materials survey determined that asbestos containing materials are not present based on lab analysis.**

The survey, conducted on September 13, 16, and 17, 2024, consisted of a walk-through to determine the delineation and quantification of homogeneous areas, an assessment as to whether the suspect ACBM is friable or non-friable, a physical assessment of the condition of the suspect ACBM, collection of representative bulk samples, and delivery of bulk samples of suspect ACBM to an independent analytical laboratory.

2. SITE DESCRIPTION

This asbestos demolition survey was conducted at 200 N 7th Ave Frisco, Colorado 80443. This single-family home was originally built in 1970. Per conversations the previous owner, the home had a full gut remodel down to studs in 1990. One addition was added to the home and therefore sampled separately. The two-story home contains nine bedrooms and seven bathrooms. According to the Summit County Assessor's office the home is approximately 9,909 square feet of which 7,431 square feet is on the main level and 2,478 on the second level. All building materials are included in this asbestos survey. No TSI or window glazing was identified. The insulation was fiberglass and therefore not sampled.

3. ASBESTOS INSPECTION METHODOLOGY

ACM is defined by state and federal regulations as any material that contains greater than 1% asbestos as determined by laboratory analysis.

State and Federal regulations requires that all suspect ACBM be properly sampled and analyzed prior to conducting any renovation or demolition activities above the established trigger levels (32 square feet, or 50 linear feet, or the equivalent of a 55 gallon drum for residential properties, and 160 square feet, 260 linear feet, or the equivalent of a 55 gallon drum for commercial properties or properties designated for demolition).

This survey involved identification and sampling of suspect ACBM within the identified scope of work prior to potential demolition. Suspect ACBM includes nearly all building materials with the exception of metal, glass and wood. However,

if the metal, glass or wood material contains a coating, then these materials fall into the suspect ACM category. The sampling protocol and methodology employed by Summit Asbestos Testing is outlined in this section.

3.1 Asbestos Sample Density

AHERA regulations specify sampling density protocol based on the quantity and type of material. Sample locations in the facility were selected by Summit Asbestos Testing to be representative of the various homogeneous materials. The Summit Asbestos Testing inspector collected the appropriate number of representative samples at selected locations using a random sampling scheme.

Sample density was selected using the following regulatory criteria:

- ❖ For surfacing materials, a minimum of 3 bulk samples collected of homogeneous areas less than 1,000 square feet. At least 5 bulk samples collected for homogeneous areas between 1,000 square feet and 5,000 square feet. Seven or more bulk samples collected for homogeneous areas greater than 5,000 square feet.
- ❖ For thermal system insulation (TSI), not assumed to be ACM: At least 3 bulk samples from each homogeneous area. At least 1 bulk sample from each homogeneous area of patched TSI if the patched section is less than 6 linear feet or less than 6 square feet. As many samples as necessary from each mechanical system where cement or plaster is used on fittings such as tees, elbows, or valves.
- ❖ For suspect miscellaneous material, not assumed to be ACM, bulk samples are collected in a manner sufficient to determine whether the material is ACM or non-ACM. However, a minimum of two samples for each miscellaneous material must be collected per State and Federal regulations.

3.2 Homogeneous Areas/Materials

Prior to collecting any samples, Summit Asbestos Testing performed a visual inspection of all areas within the areas identified in the scope of work to determine the presence of suspected ACM. Homogeneous areas and materials were identified and listed to develop a sampling plan. The square footage of each homogeneous area was measured in order to determine the appropriate number of samples to be collected. Summit Asbestos Testing attempts to capture the square footage measurements as exacting as possible; however, for the purpose of this report the measurements are considered an estimate. This information was recorded on the Homogeneous Areas in Scope of Work Form; see Section 4.1 (Table 1).

Homogeneous areas are defined by AHERA protocol and state regulation as an area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color, appearance, texture, date of application, and/or manufacturers' labels.

3.3 Physical Assessment

Summit Asbestos Testing conducted a physical assessment of each identified homogeneous material. The assessment included determining the condition, potential for disturbance, and the friability of the material. By regulatory definition, friable means that material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure, and includes previously non-friable material that becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

The condition of all confirmed ACBMs were evaluated as:

- ❖ Good (no visible damage or showing only very limited damage),
- ❖ Damaged (less than 25% localized damage or 10% distributed damage),
- ❖ Significantly damaged (25% or greater localized damage or 10% or greater distributed damaged)

3.4 Sample Collection

Bulk samples of suspect ACBM were collected in general conformance with AHERA protocols as outlined in CDPHE's—Colorado Regulation 8. The sampling locations are selected so that they are representative of the homogeneous area with regards to the material present and its potential asbestos content. When fewer than 9 samples are collected per homogeneous area, a random sampling scheme is used to determine the sample location.

Each sample collected in this inspection was placed in a sealable container at the time of sampling and assigned a unique sample ID. This unique sample ID was recorded on the sampling container with indelible marker. Sample IDs and sample locations were recorded on the Bulk Sample Locations and Results Form (see Section 4.2-Table 2) and on the Sample Area Diagram (Appendix A).

Once sampling was complete, all unique sample IDs were recorded on a chain of custody form, and then submitted to an accredited laboratory. The sampling tools were cleaned between each sample collection to prevent cross-contamination.

One-hundred and three (103) bulk samples were collected and submitted under chain of custody to EMSL, Analytical of Denver, CO (AIHA Lab ID 189946). Samples were analyzed using Polarized Light Microscopy (PLM), per EPA method 600/R-93/116. EMSL, Analytical participates in the National Voluntary Laboratory Accreditation Program (NVLAP), a quality assurance program for PLM analysis.

By regulation, a homogeneous area shall be determined to contain ACM based on a finding that the result of any single sample collected from that homogeneous area shows that asbestos is present in an amount greater than one percent. Additionally, a homogeneous area is considered not to contain ACM only if the results of all samples required to be collected from the area show asbestos in amounts of one percent or less.

If the asbestos content of a sample of friable asbestos is estimated to be 1% asbestos or less, but greater than 0% (trace), by a method other than point counting (such as visual estimation), the determination shall be repeated using the point counting technique with PLM. If the result obtained by point count is different from a result obtained by visual estimation, the point count result must be used.

Any materials that contain greater than one percent (1%) asbestos by PLM analysis is considered an ACM and must be handled in accordance with OSHA, EPA, and applicable state and local regulations.

Laboratory analysis results for this project are summarized in Section 4.2. See Appendix C for laboratory report and chain of custody.

4. ASBESTOS SUMMARY TABLES

4.1 Table 1: Homogeneous Areas in Scope of Work

HA #	Material Category	Physical Description	Functional Space/Locations	Qty in Scope (approximate sq ft)	Samples Collected
1	SM	Thick sponge surfacing material	Garage addition walls and ceiling, lobby walls	1,366	5
2	M	Drywall joint compound composite	Beneath HA 14	1,366	2
3	SM	Skim Coat	Lobby Ceiling	95	3
4	M	Drywall joint compound composite	Beneath HA 3	95	2
5	M	Bare drywall joint compound composite	Lobby mechanical room walls and ceiling	224	2
6	M	12x12 tan linoleum Floor, mastic, bottom layer of linoleum	Lobby mechanical room floor	25	2
7	M	Flagstone/ mortar	Lobby floor, west living room entrance floor, column and fireplace. South entrance room floor and south hallway floor, N center bedroom fireplace, primary bedroom E wall, S entrance hallway W wall.	1404	2
8	M	White carpet/mastic/padding	Flooring throughout, excluding kitchen, pool room, bar, south hallway, lobby and all bathrooms	4000	2
9	SM	Spanish lace sponge surfacing material	Walls and ceiling throughout, excluding HA1-4, primary bedroom, primary bathroom, NE bedroom, N center bedroom, NE bedroom, W bath, kitchen powder room walls, primary mechanical room, and shower room	11,000	7
10	M	Drywall and joint compound composite	Beneath HA 9	11,000	3

11	SM	Aggressive sponge surfacing material	Primary bedroom walls and ceiling, primary bathroom walls and ceiling, primary mechanical room walls and ceiling, NE shower room walls and ceiling	3,050	5
12	M	Composite drywall joint compound	Primary bedroom walls and ceiling, primary bathroom walls and ceiling, primary mechanical room walls and ceiling, NE shower room walls and ceiling	3,050	2
13	M	Brown/black wallpaper	Kitchen powder room walls	104	2
14	SM	Orange peel surfacing material	N bedroom hallway walls and ceiling, NE bedroom walls and ceiling, N center bedroom walls and ceiling, NW bedroom walls and ceiling, W bathroom walls and ceiling	1590	5
15	M	Drywall joint compound composite	Beneath HA 14	1590	2
16	M	12x12 white tile/ brown grout/thin set	Bar floor	69	2
17	M	4x4 Green/ white tile, white grout/thin set	Bar shelves	66	2
18	M	16x16 brown tile/ brown grout/thin set	Kitchen floor, kitchen powder room floor,	145	2
19	M	4x4 tan tile /mastic/thin set	kitchen backsplash	50	2
20	M	12x12 white/brown tile/grout/thin set	W bath floor	40	2
21	M	4x4 blue tile/grout/mastic	W bathroom E wall, W bathroom shower walls	315	2
22	M	12x12 dark grey tile/thin set	Pool room E wall	40	2

23	M	1x2 Glass tile/grout/thin set	Pool room E wall, and W wall	32	2
24	M	1x1 Glass tile/grout	Pool room W wall	13	2
25	M	10x10 charcoal tile/thin set	Pool room W wall	25	2
26	M	12x8 white tile/grout	Pool room W wall	43	2
27	M	16x16 crème tile/grout	Theatre bath floor	45	2
28	M	12x12 peel and stick tile/mastic	Primary mechanical floor/ primary laundry floor	50	2
29	M	5x5 tan linoleum	Upper-level mechanical floor	20	2
30	M	12x12 white crème tile/grout/thin set	Flooring of all upper-level bathrooms	105	2
31	M	16x16 tan tile/tan grout/thin set	Primary bedroom bath floor	75	2
32	M	Brown drywall/joint compound composite	N, E, S walls pool room	363	2
33	SM	Light skim coat surfacing material	Walls of kitchen powder room	160	3
34	M	Drywall/joint compound	Beneath HA 33	160	2
35	M	Grey backer board	Beneath HA 22	40	2
36	M	White floor leveler	Bottom layer of pool room floor	74	2
37	M	White backer board	Beneath HA 24, 25 and 26	81	2

38	M	White fibrous floor leveler	Beneath HA 31,27 and 30	370	2
39	M	Grey floor leveler	Beneath HA 18, 30 and 31	325	2
40	M	Black roof caulking	Upper W roof on exhaust vents and waterproofing patches throughout	50	2
41	M	Black rolled roofing shingle	Middle upper/lower divider roof	153	2
42	M	White waterproof roofing	E lower roof throughout	1200	2
43	M	Green asphalt shingle	Perimeter of building	2300	2
<p>HA=Homogeneous Area</p> <p>Material Category Abbreviations: SM= Surfacing Material, TSI= Thermal System Insulation, MISC = Miscellaneous</p> <p>DW= Drywall, JC= Joint Compound</p>					

4.2 Table 2: Bulk Sample Locations and Results

HA #	Sample ID	Sample Locations		Condition	Friable	² Classification of ACM & Rationale	Results
		Homogeneous Area/Location	Specific Sample Location			See footnote 2	
1	TSP-SM-05	Garage addition west wall	7.4' from floor, 3' north of south wall	G	Friable	-	ND
2	DW/JC-M-06	Garage addition north wall	Adjacent to west wall, 1.2' from floor	G	Friable	-	ND
2	DW/JC-M-07	Lobby south wall	Adjacent to east wall, 5' from floor	G	Friable	-	ND
3	SK-SM-08	Lobby ceiling	Center	G	Friable	-	ND
3	SK-SM-09	Lobby ceiling	3' NE of SW wall 7' S of N wall	G	Friable	-	ND
3	SK-SM-10	Lobby ceiling	2' W of E wall, 8' N of S wall	G	Friable	-	ND
4	DW/JC-M-11	Lobby ceiling	Adjacent to N wall	G	Friable	-	ND
4	DW/JC-M-12	Lobby ceiling	Adjacent to E wall	G	Friable	-	ND
5	BDW/JC-M-13	Lobby mechanical room, west wall	4.1' from floor, 1.2' north of south wall	G	Friable	-	ND
5	BDW/JC-M-14	Lobby mechanical room, east wall	2' from floor, 7.7' north of south wall	G	Friable	-	ND

5	12XTL-M-15	Lobby mechanical room floor	1,2; west of east wall, 1.4' north of south wall	G	Non friable	-	ND
6	12XTL-M-16	Lobby mechanical room, floor	North edge of floor, 2.4' east of west wall	G	Non friable	-	ND
7	FM-M-17	S entrance, floor	Center at dining room threshold	G	Non friable	-	ND
7	FM-M-18	S entrance, W wall	Center, 2' above ground	G	Non friable	-	ND
8	WC-M-19	W living room, floor	2' W of E wall, 3' N of S wall	G	Non friable	-	ND
8	WC-M-20	Primary bedroom, floor	2' N of S wall, 10' W of E wall	G	Non friable	-	ND
9	SPL-SM-21	Stairwell to upper level, west wall	1.6' from floor, 13.3' south of north wall	G	Friable	-	ND
9	SPL-SM-22	Upper-level SW bathroom, east wall	6.4' from floor, 1' north of south wall	G	Friable	-	ND
9	SPL-SM-23	Upper-level NE bedroom, ceiling	7' north of south wall, 3' west of east wall	G	Friable	-	ND
9	SPL-SM-24	West living room, south wall	6.6' from floor, 6.7' east of west wall	G	Friable	-	ND
9	SPL-SM-25	Sitting room, west wall	2.8' from floor, 4.4' south of north wall	G	Friable	-	ND
9	SPL-SM-26	Theater room, south wall	5.9' from floor, 2.2' east of west wall	G	Friable	-	ND
9	SPL-SM-27	Pool table room, ceiling	5' west of east wall, 2' north of south wall	G	Friable	-	ND

10	DW/JC-M-28	Upper-level SW bedroom, north wall	Adjacent to W wall, 6' above ground	G	Friable	-	ND
10	DW/JC-M-29	Dining room, S wall	Adjacent to E wall, 7' above ground	G	Friable	-	ND
10	DW/JC-M-30	Home theatre, west wall	Adjacent to north wall, 3' from floor	G	Friable	-	ND
11	AGS-SM-31	Primary bedroom, ceiling	Center at S bathroom threshold	G	Friable	-	ND
11	AGS-SM-32	Primary bathroom, laundry area east wall	4' S of N wall, 5' above ground	G	Friable	-	ND
11	AGS-SM-33	Shower room, W wall	2' S of threshold, 5' above ground	G	Friable	-	ND
11	AGS-SM-34	Primary bedroom, W wall	2' S of bed, 2' above ground	G	Friable	-	ND
11	AGS-SM-35	Primary bedroom, W exercise wall	2' S of corner, 4' above ground	G	Friable	-	ND
12	CDW/JC-M-36	Primary bedroom-vanity west wall	2.8' from floor, adjacent to interior north wall	G	Friable	-	ND
12	CDW/JC-M-37	Primary bedroom ceiling, (above soaking tub)	8" south of north wall, adjacent to interior east wall	G	Friable	-	ND
13**	WP-M-38	Kitchen powder room, W wall	Center, 5' above ground	G	Friable	-	ND
13**	WP-M-39	Kitchen powder room, S wall	Adjacent to E wall, 4' above ground	G	Friable	-	ND
14	OP-SM-40	W closet, W wall	Center of wall in closet at end of	G	Friable	-	ND

			N bed hallway, 5' above ground				
14	OP-SM-41	N center bedroom, N wall	4' W of E wall, 4' above ground	G	Friable	-	ND
14	OP-SM-42	W bathroom, W wall	Center, 5' above ground	G	Friable	-	ND
14	OP-SM-43	N bedroom, W wall	Center, 3' above ground	G	Friable	-	ND
14	OP-SM-44	NE bedroom, N wall	2' W of E wall 5' above ground	G	Friable	-	ND
15	OPDW/JC-M-45	N center bedroom, W wall	Adjacent to S wall, 4' above ground	G	Friable	-	ND
15	OPDW/JC-M-46	N bedroom hallway N wall	Adjacent to W wall 7' above ground	G	Friable	-	ND
16	12XWT-M-47	Bar floor	Threshold at center	G	Non friable	-	ND
16	12XWT-M48	Bar floor	SW corner	G	Non friable	-	ND
17	4XGT-M-49	Bar shelf	3' S of threshold	G	Non friable	-	ND
17	4XGT-M-50	Bar shelf	S shelf at center	G	Non friable	-	ND
18	16XXBT-M-51	Kitchen floor	SW threshold center	G	Non friable	-	ND
18	16XBT-M-52	Kitchen floor	SE threshold center	G	Non friable	-	ND
19	4XTT-M-53	Kitchen N wall	10' W, 4' above ground	G	Non friable	-	ND
19	4XTT-M-54	Kitchen N wall	15' W, 5' above ground	G	Non friable	-	ND

20	12XWBT-M-55	W bathroom floor	center at threshold	G	Non friable	-	ND
20	12XWBT-M-56	W bathroom floor	2' N of toilet adjacent to W wall	G	Non friable	-	ND
21	4XBT-M-57	W bathroom shower	W side of shower 6' above ground	G	Non friable	-	ND
21	4XBT-M-58	W bathroom shower	SW corner of shower 7' above ground	G	Non friable	-	ND
22	12XDGT-M-59	Pool room N wall	NW corner of fireplace, 6' above ground	G	Non friable	-	ND
22	12DGT-M-60	Pool room E wall	NE corner of fireplace, 5' above ground	G	Non friable	-	ND
23	1X2GT-M-61	Pool room N wall	Fireplace, center, 4' above ground	G	Non friable	-	ND
23	1X2GT-M-62	Pool Room E wall	Fireplace E side, 5' above ground	G	Non friable	-	ND
24	1X1GT-M-63	Pool room W wall	6' S of N wall, 3' above ground	G	Non friable	-	ND
24	1X1GT-M-64	Pool room W wall	10' S of N wall, 2' above ground	G	Non friable	-	ND
25	10XCT-M-65	Pool room W wall	7' S of N wall, 4' above ground	G	Non friable	-	ND
25	10XCT-M-66	Pool room W wall	10' S of N wall, 3' above ground	G	Non friable	-	ND
26	12X8WT-M-67	Pool room W wall	adjacent to S wall, 3' above ground	G	Non friable	-	ND

26	12X8WT-M-68	Pool room W wall	adjacent to N wall, 3' above ground	G	Non friable	-	ND
27	16XCT-M-69	Theatre bathroom floor	Center	G	Non friable	-	ND
27	16XCT-M-70	Theatre bathroom floor	SW corner	G	Non friable	-	ND
28	12XPST-M-71	Primary mechanical room/laundry floor	Center at threshold	G	Non friable	-	ND
28	12XPST-M-72	Primary mechanical room/laundry floor	NW corner of fireplace, 6' above ground	G	Non friable	-	ND
29	5XTL-M-73	Upper-level mechanical room floor	threshold at center	G	Non friable	-	ND
29	5XTL-M-74	Upper-level mechanical room floor	2' W of threshold	G	Non friable	-	ND
30	12XWCT-M-75	NW/NE shared bathroom floor	NW bedroom bathroom threshold	G	Non friable	-	ND
30	12XWCT-M-76	SW bathroom floor	center at threshold	G	Non friable	-	ND
31	16XTTG-M-77	Primary bedroom bathroom floor	Threshold at center	G	Non friable	-	ND
31	16XTTG-M-78	Primary bedroom bathroom floor	adjacent to N wall, 1' E of shower	G	Non friable	-	ND
32	BDW/JC-M-79	Pool room S wall	adjacent to S wall, 6' above ground	G	Friable	-	ND
32	BDW/JC-M-80	Pool room E wall	Adjacent to N wall, 5' above ground	G	Friable	-	ND

33	LSK-SM-81	Kitchen powder room W wall	center, 5' above ground	G	Friable	-	ND
33	LSK-SM-82	Kitchen powder room S wall	adjacent to E wall, 6' above ground	G	Friable	-	ND
33	LSK-SM-83	Kitchen powder S wall	6' S of N wall, 4' above ground	G	Friable	-	ND
34	WPDW/JC-M-84	Kitchen powder room N wall	Adjacent to W wall, 3' above ground	G	Friable	-	ND
34	WPDW/JC-M-85	Kitchen powder room E wall	adjacent to N wall, 5' above ground	G	Friable	-	ND
35	GBB-M-86	Pool room N wall	Beneath sample 61	G	Non friable	-	ND
35	GBB-M-87	Pool room N wall	Beneath sample 62	G	Non friable	-	ND
36	WFL-M-88	Pool room floor	2' S of pool	G	Non friable	-	ND
36	WFL-M-89	Pool room floor	4' N of pool	G	Non friable	-	ND
37	WBB-M-90	Pool room W wall	Beneath sample 63	G	Non friable	-	ND
37	WBB-M-91	Pool room W wall	Beneath sample 64	G	Non friable	-	ND
38	WFFL-M-92	Primary bedroom bathroom floor	Beneath sample 77	G	Friable	-	ND
38	WFFL-M-93	NW/NE shared bathroom floor	Beneath sample 75	G	Friable	-	ND
39	GFL-M-94	Primary bedroom bathroom floor	beneath sample 77	G	Non friable	-	ND
39	GFL-M-95	SW bathroom floor	beneath sample 76	G	Non friable	-	ND

HA=Homogeneous Area

Condition Abbreviations: SD= Significantly Damaged, D= Damaged, G= Good

Results: ND= None Detected

¹ Current Condition: Is the Material Friable or Non-Friable in Current Condition:

F= Friable NF=Non-Friable

²ACM must be classified into one of the following categories:

1: Damaged or significantly damaged thermal system insulation ACM

2: Damaged friable surfacing material

3: Significantly damaged friable surfacing ACM

4: Damaged or significantly damaged friable miscellaneous ACM

5: ACM with potential for damage

6: ACM with potential for significant damage

7: Any remaining friable ACM or friable suspected ACM

³If any samples in the same Homogeneous Area (HA#) contain asbestos, then all samples in the same Homogeneous Area (HA#) must be considered asbestos containing.

⁴Drywall systems (drywall, joint compound, and tape/mesh) where the surfacing material layer is adhered to the drywall layer and considered not scrapable, all layers must be treated as one system. Therefore, if the surfacing material (based on lab analysis) is asbestos containing, then the entire drywall system shall be considered asbestos containing.

5. FINDINGS

The results of this asbestos demolition building survey conducted at the single-family home located at 200 N 7th Ave Frisco, Colorado 80443. indicate that none of the samples submitted for lab analysis was found to contain more than (1%) asbestos.

If any suspect asbestos containing material is discovered during demolition, not identified in this report and within the scope of renovation, it must be sampled by a Colorado State Certified Asbestos Inspector prior to proceeding with work.

6. RECOMMENDATIONS

Based on the laboratory analytical results, any identified friable asbestos containing materials exceeding the established trigger levels for demolition (160 square feet, 260 linear feet, or the equivalent of a 55 gallon drum) must be removed by a Colorado State Certified General Abatement Contractor prior to conducting any removal or demolition activities associated with these materials. All work associated with these materials must be performed in accordance with all Local, State and Federal regulations.

Contractors and employees working in this building should be made aware of the possibility that concealed ACBM may be found during renovation or demolition. Any discovered material must not be disturbed without consulting the owner or manager of the building to determine if those materials were previously identified and sampled to determine if it is ACBM.

As per AHERA, a suspect material is to be considered as asbestos containing unless it is proven otherwise by appropriate sampling. Please work safely and if you encounter any other suspect asbestos building materials not listed in this report, please contact a state certified asbestos building inspector for additional sampling. Furthermore, if additional areas are added to the scope of work not identified in this report, sampling of all suspect ACBM within the new areas must be performed prior to renovation/demolition activities, per state and federal regulations.

At the time of this report, the EPA has not prohibited the manufacture and import of miscellaneous materials, such as vinyl floorings, mastics, roofing materials, etc., which may be asbestos containing. As a result, Summit Asbestos Testing recommends testing of future replacement materials for the presence of asbestos prior to installation.

7. STATE and FEDERAL COMPLIANCE & REGULATORY REQUIREMENTS

This survey was performed in accordance with Federal, State and local regulations for conducting asbestos building surveys to meet Colorado Air Quality Control Commission (AQCC), Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), and National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements.

7.1 Colorado Air Quality Control Commission Requirements

Colorado Regulation 8 definitions and requirements include:

I.B. Definitions:

“Demolition’ means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility...”

III.C.5. Asbestos Spill Response:

“In the event of an asbestos spill involving less than 50 linear feet on pipes, 32 square feet on other surfaces, or the volume equivalent of one 55-gallon drum, the building owner should...” (Refer to pages 8.114 and 8.115 for exact recommendations).

“In the event of an asbestos spill involving greater than 50 linear feet on pipes, 32 square feet on other surfaces, or the volume equivalent of one 55-gallon drum, the owner shall...” (Refer to page 8.115 for exact requirements).

III.C.6. Renovation and Demolition Projects:

“Prior to any renovation or demolition in any single family housing which may disturb 50 linear feet of material on pipes, 32 square feet of material on other surfaces, or the volume equivalent of one 55-gallon drum of material identified by the EPA

as a suspect asbestos-containing material, the facility components(s) to be affected by the renovation or demolition shall have an inspection performed by a building inspector certified under these regulations. The inspection must be performed to the AHERA standards as given in 40 CFR Part 763 (1992).”

Note: Effective March 30, 2003, State Legislature, House Bill 1016 enacts a quantity change, as well as other regulatory requirements that will alter all of the following minimum level requirements. This format of quantities will remain the same with this notation, until CAQCC Regulation 8 is revised.

“Prior to any renovation or demolition in any public or commercial building which may disturb 260 linear feet of material on pipes, 160 square feet of material on other surfaces, or the volume equivalent of one 55-gallon drum of material identified by the EPA as a suspect asbestos-containing material, the facility component(s) to be affected by the renovation or demolition shall have an inspection performed by a building inspector certified under these regulations. The inspection must be performed to the AHERA standards as given in 40 CFR Part 763 (1992).”

7.2 National Emission Standards for Hazardous Pollutants (NESHAPS)

NESHAPS definitions and requirements include:

Section 61.141 Definitions:

“Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.”

Section 61.145 Standard of demolition and renovation:

“Prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II no friable ACM...”

“If a facility is being demolished...if the combined amount of RACM is at least 260 linear feet on pipes or at least 160 square feet on other facility components, or at least 35 cubic feet off facility components where the length or area could not be measured previously...”

“In a facility being renovated, including any individual nonscheduled renovation operation, if the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed... is at least 260 linear feet on pipes or at least 160 square feet on other facility components, or at least 35 cubic feet off facility components where the length or area could not be measured previously...”

7.3 Asbestos Hazard Emergency Response Act (AHERA)

AHERA definitions and requirements include:

As referenced in 40 C.F.R. Part 763 (1992), "...requires a minimum number of samples for surfacing materials, thermal system insulating materials, and requires samples in a manner sufficient to determine whether the material is ACM or not ACM for miscellaneous materials.

7.4 Occupational Safety and Health Administration (OSHA)

OSHA definitions and requirements include:

Any material that contains over one-percent (1%) of any type of Asbestos is considered Asbestos containing material (ACM) and must be handled according to OSHA and EPA regulations if disturbed.

Compliance and Implementation of OSHA 1926.1101 (replaces OSHA 1926.58) is required, as published, no later than October 01, 1995 which requires the Building Owner Methods of Compliance, Respiratory Protection, Hygiene Facilities and Practices for Employees. Communication of Hazards, Housekeeping, Medical Surveillance and the Designation and Training of Competent Persons, including:

The Building/Facility Owner (including a lessee) must identify the presence, location and quantity of ACM and/or PACM (presumed asbestos-containing material) at the work site before beginning work.

The Building/Facility Owner must notify, (in writing or in person), the presence, location and quantity of ACM or PACM at the work sites to prospective employers whose employees will work in or next to areas with ACM or PACM. Owner's employees who will work in or next to such areas, all employers on multi-employer worksites whose employees will work in or next to such areas, tenants who will occupy such areas, etc.

"An employer or owner may demonstrate that PACM (Presumed Asbestos Containing Material) does not contain asbestos by the following: (A) Having a complete inspection conducted pursuant to the requirements of AHERA (40 CFR Part 763, Subpart E) which demonstrates that the material is not ACM; (B) Performing tests of the material containing PACM which demonstrates that no asbestos is present in the material...the tests, evaluation and sample collection shall be conducted by an accredited inspector."

OSHA Standard Interpretations, dated November 24, 2003---Compliance requirements for renovation work involving material containing less than 1% asbestos

You **must** inform employees about the presence of material containing <1% asbestos when you know it is present. When employees perform work activities involving such material, you are required per 29 CFR 1926.1101(f)(2)(i) to assess their exposures to asbestos. In connection with this requirement you must, per 29 CFR 1926.1101(f)(6)(i), provide affected employees an opportunity to observe any monitoring of asbestos exposure. After the monitoring, you must, per 29 CFR 1926.1101(f)(5)(i) and (ii), inform employees of the monitoring results representing their asbestos exposures. In accordance

with 29 CFR 1926.1101(e) and (k)(7), if asbestos exposures exceed or are likely to exceed one or both of the PELs, then you must provide warning by posting the area where these overexposures are occurring as a regulated area.

Note: The aforementioned regulatory phrases are not the regulations in their entirety. Consult the regulatory agency, which may apply. https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10862&p_table=standards

8. LIMITATIONS AND ASSUMPTIONS

Summit Asbestos Testing and the findings presented in this Asbestos Survey Report make no representations or assumption as to past and/or future conditions/occurrences of the specific areas surveyed and are based solely on the conditions observed during our survey and that are noted in this report.

The survey did incorporate destructive sampling techniques to identify materials in previously inaccessible areas (behind walls, above ceilings, etc.). These activities created small openings for investigation. Reasonable effort was made by Summit Asbestos Testing to locate and sample accessible suspect building materials within the potential demolition areas identified in the scope of work described in Section 1. The selection of sample locations and frequency of sampling was based on Summit Asbestos Testing's observations and the assumption that like materials in the same area are homogeneous in content (as per AHERA definitions).

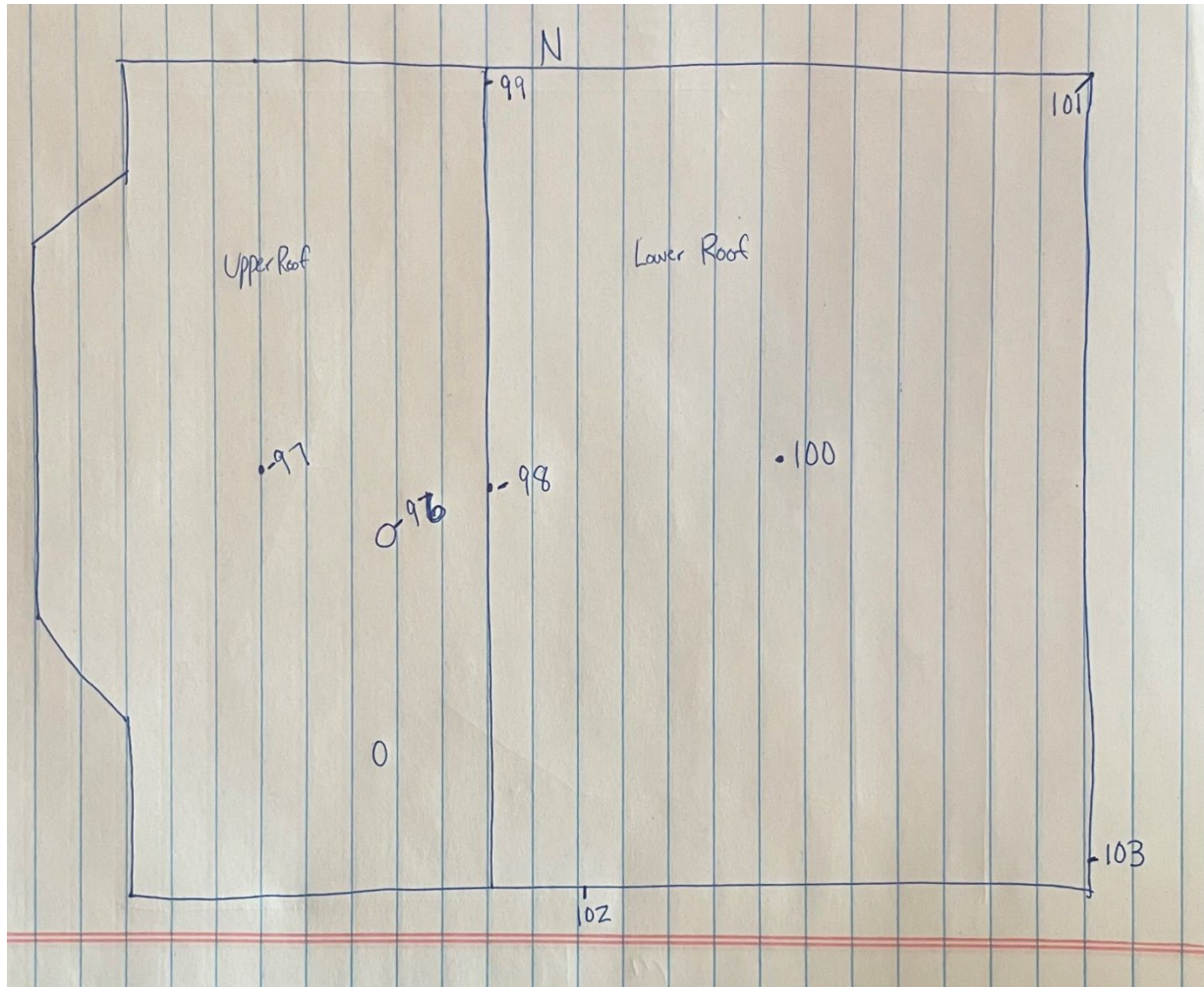
Summit Asbestos Testing is not responsible or liable for any opinions, conclusions or recommendations provided by others regarding the data presented in this Demolition Asbestos Survey

Appendix A: Sample Area Diagram

Sample Locations

Not to Scale

Exterior/ Roof



[illegible]

Hand-drawn floor plan of a house on lined paper. The plan shows a central 'open room' with a 'door' and 'window'. To the left is a 'kitchen' with a 'stove' and 'sink'. To the right is a 'bathroom' with a 'toilet' and 'bathtub'. The plan is labeled with 'SE' (South East) and 'SW' (South West) directions. A red line runs horizontally across the bottom of the drawing.

Appendix B: Certifications





Appendix C: Laboratory Analytical Report and Chain of Custody



EMSL ANALYTICAL, INC.
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32R2-3PUP-G6YG

Client Information
Summit Asbestos Testing
Breckenridge, CO
SMA142

Project Overview
Client
PO Number
Project Name
Project ID
Bill To
Report To Contact
Report To Email
Special Instructions

200 N 7th Avenue Frisco, Colorado
200 N 7th Avenue Frisco, Colorado
200 N 7th Avenue Frisco, Colorado
SMA142

Project Site
Building
Type
Address
City
State
Zip

Single Family
200 N 7th Avenue Frisco,
Colorado 80443

Testing Laboratory
Houston
Houston, TX 77040

Asbestos Bulk

HA	Sample ID	Material	Location	Date/Time Collected	Test Method	TAT	Notes
1	TSP-SM-01	SM1	1	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
1	TSP-SM-02	SM1	1	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
1	TSP-SM-03	SM1	1	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
1	TSP-SM-04	SM1	1	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
1	TSP-SM-05	SM1	1	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
2	DW/JC-M-06	M2	2	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
2	DW/JC-M-07	M2	2	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
3	SK-SM-08	SM3	3	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
3	SK-SM-09	SM3	3	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
3	SK-SM-10	SM3	3	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
4	DW/JC-M-11	M4	4	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
4	DW/JC-M-12	M4	4	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
5	BDW/JC-M-13	M5	5	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
5	BDW/JC-M-14	M5	5	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
6	12XTL-M-15	M6	6	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	

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32R2-3PUP-G6YG



HA	Sample ID	Material	Location	Date/Time Collected	Test Method	TAT	Notes
6	12XTL-M-16	M6	6	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
7	FM-M-17	M7	7	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
7	FM-M-18	M7	7	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
8	WC-M-19	M8	8	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
8	WC-M-20	M8	8	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-21	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-22	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-23	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-24	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-25	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-26	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
9	SPL-SM-27	SM9	9	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
10	DW/JC-M-28	M10	10	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
10	DW/JC-M-29	M10	10	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
10	DW/JC-M-30	M10	10	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
11	AGS-SM-31	SM11	11	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
11	AGS-SM-32	SM11	11	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
11	AGS-SM-33	SM11	11	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
11	AGS-SM-34	SM11	11	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
11	AGS-SM-35	SM11	11	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
12	CDW/JC-M-36	M12	12	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture

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HA	Sample ID	Material	Location	Date/Time Collected	Test Method	TAT	Notes
12	CDW/JC-M-37	M12	12	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
13	WP-M-38	M13	13	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
13	WP-M-39	M13	13	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
14	OP-SM-40	SM14	14	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
14	OP-SM-41	SM14	14	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
14	OP-SM-42	SM14	14	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
14	OP-SM-43	SM14	14	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
14	OP-SM-44	SM14	14	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
15	OPDW/JC-M-45	M15	15	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
15	OPDW/JC-M-46	M15	15	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
16	12XWT-M-47	M16	16	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
16	12XWT-M-48	M16	16	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
17	4XGT-M-49	M17	17	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
17	4XGT-M-50	M17	17	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
18	16XXBT-M-51	M18	18	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
18	16XXBT-M-52	M18	18	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
19	4XTT-M-53	M19	19	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
19	4XTT-M-54	M19	19	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
20	12XWBT-M-55	M20	20	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
20	12XWBT-M-56	M20	20	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
21	4XBT-M-57	M21	21	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture

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H/A	Sample ID	Material	Location	Date/Time Collected	Test Method	TAT	Notes
21	4XBT-M-58	M21	21	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
22	12XDG-M-59	M22	22	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
22	12XDG-M-60	M22	22	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
23	1X2GT-M-61	M23	23	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
23	1X2GT-M-62	M23	23	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
24	1X1GT-M-63	M24	24	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
24	1X1GT-M-64	M24	24	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
25	10XCT-M-65	M25	25	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze silicone
25	10XCT-M-66	M25	25	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze silicone
26	12X8WT-M-67	M26	26	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
26	12X8WT-M-68	M26	26	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
27	16XCT-M-69	M27	27	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
27	16XCT-M-70	M27	27	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
28	12XPST-M-71	M28	28	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
28	12XPST-M-72	M28	28	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
29	5XTL-M-73	M29	29	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
29	5XTL-M-74	M29	29	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
30	12XWCT-M-75	M30	30	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
30	12XWCT-M-76	M30	30	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
31	16XTTG-M-78	M31	31	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze white fibrous floor leveler
31	16XTTG-M-79	M31	31	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze white fibrous floor leveler

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32R2-3PUP-G6YG

H/A	Sample ID	Material	Location	Date/Time Collected	Test Method	TAT	Notes
32	BDW/JC-M-79	M32	32	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
32	BDW/JC-M-80	M32	32	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
33	LSK-SM-81	M33	33	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
33	LSK-SM-82	M33	33	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
33	LSK-SM-83	M33	33	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
34	WPDW/JC-M-84	M34	34	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
34	WPDW/JC-M-85	M34	34	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	Do not analyze texture
35	GBB-M-86	M35	35	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
35	GBB-M-87	M35	35	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
36	WFL-M-88	M36	36	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
36	WFL-M-89	M36	36	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
37	WBB-M-90	M37	37	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
37	WBB-M-91	M37	37	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
38	WFFL-M-92	M38	38	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
38	WFFL-M-93	M38	38	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
39	GFL-M-94	M39	39	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
39	GFL-M-95	M39	39	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
40	BRC-M-96	M40	40	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
40	BRC-M-97	M40	40	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
41	BARS-M-98	M41	41	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
41	BARS-M-99	M41	41	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	

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32R2-3PUP-G6YG

152406504

HA	Sample ID	Material	Location	Date/Time Collected	Test Method	TAT	Notes
42	WWR-M-100	M42	42	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
42	WWR-M-101	M42	42	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
43	GAS-M-102	M43	43	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	
43	GAS-M-103	M43	43	Sep 17, 2024 9:46 AM	PLM EPA 600	48 Hour	

WA

WA

Sampled By / Date

Sep 17, 2024

Relinquished By / Date

Sep 17, 2024

Received (Lab) / Date

Analytical from Topcon 9/18/24 9:40am

EFX 796910088617



EMSL Analytical, Inc.

5950 Fairbanks N. Houston Rd. Houston, TX 77040

Tel/Fax: (713) 686-3635 / (713) 686-3645

<http://www.EMSL.com/houstonlab@emsl.com>

EMSL Order: 152406504

Customer ID: SMAT42

Customer PO:

Project ID:

Attention: Nicole Rolfe
Summit Asbestos Testing
PO Box 927
Breckenridge, CO 80424

Phone: (970) 406-8038

Fax:

Received Date: 09/18/2024 9:40 AM

Analysis Date: 09/18/2024 - 09/19/2024

Collected Date: 08/14/2024 - 09/17/2024

Project: 200 N 7th Avenue Frisco, Colorado/200 N 7th Avenue Frisco, Colorado

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TSP-SM-01 <small>152406504-0001</small> <i>Inseparable paint / coating layer included in analysis</i>	Thick Sponge Surfacing Material - SM1	White/Red Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 1					
TSP-SM-02 <small>152406504-0002</small> <i>Inseparable paint / coating layer included in analysis</i>	Thick Sponge Surfacing Material - SM1	White/Red Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 1					
TSP-SM-03 <small>152406504-0003</small> <i>Inseparable paint / coating layer included in analysis</i>	Thick Sponge Surfacing Material - SM1	White/Red Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 1					
TSP-SM-04 <small>152406504-0004</small> <i>Inseparable paint / coating layer included in analysis</i>	Thick Sponge Surfacing Material - SM1	White/Red/Green Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 1					
TSP-SM-05 <small>152406504-0005</small> <i>Inseparable paint / coating layer included in analysis</i>	Thick Sponge Surfacing Material - SM1	White/Red Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 1					
DW/JC-M-06 <small>152406504-0006</small> <i>This is a composite result of drywall and jt. compound.</i>	Drywall/Joint Compound Composite - M2	Brown/White/Red Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
HA: 2					
DW/JC-M-07 <small>152406504-0007</small> <i>This is a composite result of drywall and jt. compound</i>	Drywall/Joint Compound Composite - M2	Brown/Red Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
HA: 2					
SK-SM-08 <small>152406504-0008</small> <i>Inseparable paint / coating layer included in analysis</i>	Skim Coat - SM3	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 3					
SK-SM-09 <small>152406504-0009</small> <i>Inseparable paint / coating layer included in analysis</i>	Skim Coat - SM3	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 3					
SK-SM-10 <small>152406504-0010</small> <i>Inseparable paint / coating layer included in analysis</i>	Skim Coat - SM3	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
HA: 3					

Initial report from: 09/19/2024 19:19:19



EMSL Analytical, Inc.

5950 Fairbanks N. Houston Rd. Houston, TX 77040

Tel/Fax: (713) 686-3635 / (713) 686-3645

<http://www.EMSL.com> / houstonlab@emsl.com

EMSL Order: 152406504

Customer ID: SMAT42

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
DW/JC-M-11	Drywall/Joint Compound	Brown/White Fibrous	10% Cellulose	20% Ca Carbonate	None Detected
152406504-0011	Composite - M4	Heterogeneous		40% Gypsum	
This is a composite result of drywall and jt. compound.				30% Non-fibrous (Other)	
			HA: 4		
DW/JC-M-12	Drywall/Joint Compound	Brown/White Fibrous	10% Cellulose	20% Ca Carbonate	None Detected
152406504-0012	Composite - M4	Heterogeneous		40% Gypsum	
This is a composite result of drywall and jt. compound				30% Non-fibrous (Other)	
			HA: 4		
BDW/JC-M-13	Bare Drywall/Joint Compound	Brown/White Fibrous	10% Cellulose	20% Ca Carbonate	None Detected
152406504-0013	Composite - M5	Heterogeneous		40% Gypsum	
This is a composite result of drywall and jt. compound.				30% Non-fibrous (Other)	
			HA: 5		
BDW/JC-M-14	Bare Drywall/Joint Compound	Brown/White Fibrous	10% Cellulose	20% Ca Carbonate	None Detected
152406504-0014	Composite - M5	Heterogeneous		40% Gypsum	
This is a composite result of drywall and jt. compound				30% Non-fibrous (Other)	
			HA: 5		
12XTL-M-15- Linoleum	12X12 Tan Linoleum Floor - M6	Tan Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0015		Homogeneous			
			HA: 6		
12XTL-M-15-Mastic	12X12 Tan Linoleum Floor - M6	Yellow/Clear Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0015A		Homogeneous			
			HA: 6		
12XTL-M-15- Linoleum 2	12X12 Tan Linoleum Floor - M6	Gray Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0015B		Homogeneous			
			HA: 6		
12XTL-M-16-Linoleum	12X12 Tan Linoleum Floor - M6	Tan Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0016		Homogeneous			
			HA: 6		
12XTL-M-16-Mastic	12X12 Tan Linoleum Floor - M6	Clear Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0016A		Homogeneous			
			HA: 6		
12XTL-M-16-Linoleum 2	12X12 Tan Linoleum Floor - M6	Gray Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0016B		Homogeneous			
			HA: 6		
FM-M-17-Flagstone	Flagstone/Mortar - M7	Gray Non-Fibrous		20% Ca Carbonate	None Detected
152406504-0017		Homogeneous		80% Non-fibrous (Other)	
			HA: 7		
FM-M-17-Mortar	Flagstone/Mortar - M7	Tan Non-Fibrous		20% Ca Carbonate	None Detected
152406504-0017A		Homogeneous		80% Non-fibrous (Other)	
			HA: 7		
FM-M-18-Flagstone	Flagstone/Mortar - M7	Tan Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0018		Homogeneous			
			HA: 7		

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
FM-M-18-Mortar 152406504-0018A	Flagstone/Mortar - M7	Gray Non-Fibrous Homogeneous	HA: 7	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
WC-M-19-Carpet 152406504-0019	White Carpet - M8	White Fibrous Homogeneous	90% Synthetic HA: 8	10% Non-fibrous (Other)	None Detected
WC-M-19-Mastic 152406504-0019A	White Carpet - M8	Beige Non-Fibrous Homogeneous	HA: 8	100% Non-fibrous (Other)	None Detected
WC-M-19-Pad 152406504-0019B	White Carpet - M8	Various Non-Fibrous Homogeneous	HA: 8	100% Non-fibrous (Other)	None Detected
WC-M-19-Mastic 2 152406504-0019C	White Carpet - M8	Blue Non-Fibrous Homogeneous	HA: 8	100% Non-fibrous (Other)	None Detected
WC-M-20-Carpet 152406504-0020	White Carpet - M8	White Non-Fibrous Homogeneous	90% Synthetic HA: 8	10% Non-fibrous (Other)	None Detected
WC-M-20-Mastic 152406504-0020A	White Carpet - M8	Beige Non-Fibrous Homogeneous	HA: 8	100% Non-fibrous (Other)	None Detected
WC-M-20-Pad 152406504-0020B	White Carpet - M8	Various Non-Fibrous Homogeneous	HA: 8	100% Non-fibrous (Other)	None Detected
WC-M-20-Mastic 2 152406504-0020C	White Carpet - M8	Blue Non-Fibrous Homogeneous	HA: 8	100% Non-fibrous (Other)	None Detected
SPL-SM-21 152406504-0021 Inseparable paint / coating layer included in analysis	Spanish Lace Sponge Surfacing Material - SM9	White/Beige Non-Fibrous Heterogeneous	HA: 9	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
SPL-SM-22 152406504-0022 Inseparable paint / coating layer included in analysis	Spanish Lace Sponge Surfacing Material - SM9	White Non-Fibrous Heterogeneous	HA: 9	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
SPL-SM-23 152406504-0023 Inseparable paint / coating layer included in analysis	Spanish Lace Sponge Surfacing Material - SM9	White Non-Fibrous Heterogeneous	HA: 9	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
SPL-SM-24 152406504-0024 Inseparable paint / coating layer included in analysis	Spanish Lace Sponge Surfacing Material - SM9	White/Beige Non-Fibrous Heterogeneous	HA: 9	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
SPL-SM-25 152406504-0025	Spanish Lace Sponge Surfacing Material - SM9	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

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		Non-Asbestos		Asbestos	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
Inseparable paint / coating layer included in analysis					
HA: 9					
SPL-SM-26	Spanish Lace Sponge Surfacing Material - SM9	Tan/White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0026					
Inseparable paint / coating layer included in analysis					
HA: 9					
SPL-SM-27	Spanish Lace Sponge Surfacing Material - SM9	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0027					
Inseparable paint / coating layer included in analysis					
HA: 9					
DW/JC-M-28	Drywall/Joint Compound Composite - M10	Brown/White Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 60% Gypsum 10% Non-fibrous (Other)	None Detected
152406504-0028					
This is a composite result of drywall and jt. compound.					
HA: 10					
DW/JC-M-29	Drywall/Joint Compound Composite - M10	Brown/White Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
152406504-0029					
This is a composite result of drywall and jt. compound.					
HA: 10					
DW/JC-M-30	Drywall/Joint Compound Composite - M10	Brown/White Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
152406504-0030					
This is a composite result of drywall and jt. compound					
HA: 10					
AGS-SM-31	Aggressive Sponge Surfacing Material - SM11	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0031					
Inseparable paint / coating layer included in analysis					
HA: 11					
AGS-SM-32	Aggressive Sponge Surfacing Material - SM11	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0032					
Inseparable paint / coating layer included in analysis					
HA: 11					
AGS-SM-33	Aggressive Sponge Surfacing Material - SM11	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0033					
Inseparable paint / coating layer included in analysis					
HA: 11					
AGS-SM-34	Aggressive Sponge Surfacing Material - SM11	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0034					
Inseparable paint / coating layer included in analysis					
HA: 11					
AGS-SM-35	Aggressive Sponge Surfacing Material - SM11	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0035					
Inseparable paint / coating layer included in analysis					
HA: 11					
CDW/JC-M-36	Drywall/Joint Compound Composite - M12	Brown/White Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
152406504-0036					
This is a composite result of drywall and jt. compound.					
HA: 12					

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			% Fibrous	% Non-Fibrous	% Type
CDW/JC-M-37	Drywall/Joint Compound	Brown/White Fibrous	10% Cellulose	20% Ca Carbonate 40% Gypsum	None Detected
152406504-0037	Composite - M12	Heterogeneous		30% Non-fibrous (Other)	
This is a composite result of drywall and jt. compound					
			HA: 12		
WP-M-38	Black/Brown Wallpaper - M13	Brown/Black Fibrous	30% Cellulose	70% Non-fibrous (Other)	None Detected
152406504-0038		Homogeneous			
			HA: 13		
WP-M-39	Black/Brown Wallpaper - M13	Brown/Black Non-Fibrous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
152406504-0039		Heterogeneous			
			HA: 13		
OP-SM-40	Orange Peel Surfacing Material - SM14	White Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0040		Heterogeneous			
Inseparable paint / coating layer included in analysis					
			HA: 14		
OP-SM-41	Orange Peel Surfacing Material - SM14	White Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0041		Heterogeneous			
Inseparable paint / coating layer included in analysis					
			HA: 14		
OP-SM-42	Orange Peel Surfacing Material - SM14	Tan/White/Pink Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0042		Heterogeneous			
Inseparable paint / coating layer included in analysis					
			HA: 14		
OP-SM-43	Orange Peel Surfacing Material - SM14	Tan/White/Pink Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0043		Heterogeneous			
Inseparable paint / coating layer included in analysis					
			HA: 14		
OP-SM-44	Orange Peel Surfacing Material - SM14	Tan/White/Pink Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0044		Heterogeneous			
Inseparable paint / coating layer included in analysis					
			HA: 14		
OPDW/JC-M-45	Drywall/Joint Compound	Brown/White Fibrous	10% Cellulose	20% Ca Carbonate 40% Gypsum	None Detected
152406504-0045	Composite - M15	Heterogeneous		30% Non-fibrous (Other)	
This is a composite result of drywall and jt. compound.					
			HA: 15		
OPDW/JC-M-46	Drywall/Joint Compound	Brown/White Non-Fibrous	10% Cellulose	20% Ca Carbonate 40% Gypsum	None Detected
152406504-0046	Composite - M15	Heterogeneous		30% Non-fibrous (Other)	
Inseparable paint / coating layer included in analysis					
			HA: 15		
12XWT-M-47-Tile	12X12 White Tile/Brown Grout Inset - M16	White Non-Fibrous		100% Non-fibrous (Other)	None Detected
152406504-0047		Homogeneous			
			HA: 16		
12XWT-M-47-Grout	12X12 White Tile/Brown Grout Inset - M16	Brown Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0047A		Homogeneous			
			HA: 16		
12XWT-M-47-Thinset	12X12 White Tile/Brown Grout Inset - M16	Gray Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0047B		Homogeneous			

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
12XWT-M-48-Tile 152406504-0048	12X12 White Tile/Brown Grout Inset - M16	White Non-Fibrous Homogeneous	HA: 16	100% Non-fibrous (Other)	None Detected
			HA: 16		
12XWT-M-48-Grout 152406504-0048A	12X12 White Tile/Brown Grout Inset - M16	Brown Non-Fibrous Homogeneous	HA: 16	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 16		
12XWT-M-48-Thinset 152406504-0048B	12X12 White Tile/Brown Grout Inset - M16	Gray Non-Fibrous Homogeneous	HA: 16	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 16		
4XGT-M-49-Tile 152406504-0049	4X4 Green/ White Tile/White Grout Inset - M17	Green Non-Fibrous Homogeneous	HA: 17	100% Non-fibrous (Other)	None Detected
			HA: 17		
4XGT-M-49-Grout 152406504-0049A	4X4 Green/ White Tile/White Grout Inset - M17	White Non-Fibrous Homogeneous	HA: 17	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 17		
4XGT-M-4-Thinset/Mastic 152406504-0049B	4X4 Green/ White Tile/White Grout Inset - M17	White/Beige Non-Fibrous Heterogeneous	HA: 17	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 17		
4XGT-M-50-Tile 152406504-0050	4X4 Green/ White Tile/White Grout Inset - M17	Green Non-Fibrous Homogeneous	HA: 17	100% Non-fibrous (Other)	None Detected
			HA: 17		
4XGT-M-50-Grout 152406504-0050A	4X4 Green/ White Tile/White Grout Inset - M17	White Non-Fibrous Homogeneous	HA: 17	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 17		
4XGT-M-50-Mastic 152406504-0050B	4X4 Green/ White Tile/White Grout Inset - M17	White/Beige Non-Fibrous Homogeneous	HA: 17	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 17		
16XXBT-M-51-Tile 152406504-0051	16X16 BrownTile/Brown Grout Inset - M18	Brown Non-Fibrous Homogeneous	HA: 18	100% Non-fibrous (Other)	None Detected
			HA: 18		
16XXBT-M-51-Grout 152406504-0051A	16X16 BrownTile/Brown Grout Inset - M18	Brown Non-Fibrous Homogeneous	HA: 18	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 18		
16XXBT-M-51-Thinset 152406504-0051B	16X16 BrownTile/Brown Grout Inset - M18	Gray/White Non-Fibrous Homogeneous	HA: 18	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 18		
16XXBT-M-51-Mastic 152406504-0051C	16X16 BrownTile/Brown Grout Inset - M18	Brown/Black Non-Fibrous Homogeneous	HA: 18	100% Non-fibrous (Other)	None Detected
			HA: 18		
16XXBT-M-52-Tile 152406504-0052	16X16 BrownTile/Brown Grout Inset - M18	Brown Non-Fibrous Homogeneous	HA: 18	100% Non-fibrous (Other)	None Detected
			HA: 18		

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			% Fibrous	% Non-Fibrous	% Type
16XXBT-M-52-Grout 152406504-0052A	16X16 BrownTile/Brown Grout Inset - M18	Brown Non-Fibrous Homogeneous	HA: 18	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
16XXBT-M-52-Thinset 152406504-0052B	16X16 BrownTile/Brown Grout Inset - M18	Gray/White Non-Fibrous Homogeneous	HA: 18	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4XTT-M-53-Tile 152406504-0053	4X4 Tan Tile - M19	Tan Non-Fibrous Homogeneous	HA: 19	100% Non-fibrous (Other)	None Detected
4XTT-M-53-Thinset 152406504-0053A	4X4 Tan Tile - M19	White Non-Fibrous Homogeneous	HA: 19	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4XTT-M-54-Mastic 152406504-0054	4X4 Tan Tile - M19	Brown Non-Fibrous Homogeneous	HA: 19	100% Non-fibrous (Other)	None Detected
4XTT-M-54-Tile 152406504-0054A	4X4 Tan Tile - M19	Tan Non-Fibrous Homogeneous	HA: 19	100% Non-fibrous (Other)	None Detected
4XTT-M-54-Thinset 152406504-0054B	4X4 Tan Tile - M19	White Non-Fibrous Homogeneous	HA: 19	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
12XWBT-M-55-Tile 152406504-0055	12X12 White/Brown Tile - M20	Brown/White Non-Fibrous Homogeneous	HA: 20	100% Non-fibrous (Other)	None Detected
12XWBT-M-55-Grout 152406504-0055A	12X12 White/Brown Tile - M20	White Non-Fibrous Homogeneous	HA: 20	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12XWBT-M-55-Thinset 152406504-0055B	12X12 White/Brown Tile - M20	White Non-Fibrous Homogeneous	HA: 20	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12XWBT-M-56-Tile 152406504-0056	12X12 White/Brown Tile - M20	Brown/White Non-Fibrous Homogeneous	HA: 20	100% Non-fibrous (Other)	None Detected
12XWBT-M-56-Grout 152406504-0056A	12X12 White/Brown Tile - M20	White Non-Fibrous Homogeneous	HA: 20	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12XWBT-M-56-Thinset 152406504-0056B	12X12 White/Brown Tile - M20	White Non-Fibrous Homogeneous	HA: 20	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4XBT-M-57-Tile 152406504-0057	4X4 Blue Tile - M21	Gray/White/Blue Non-Fibrous Homogeneous	HA: 21	100% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4XBT-M-57-Grout 152406504-0057A	4X4 Blue Tile - M21	White Non-Fibrous Homogeneous	HA: 21	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4XBT-M-57-Mastic 152406504-0057B	4X4 Blue Tile - M21	Yellow Non-Fibrous Homogeneous	HA: 21	100% Non-fibrous (Other)	None Detected
4XBT-M-58-Tile 152406504-0058	4X4 Blue Tile - M21	Gray Non-Fibrous Homogeneous	HA: 21	100% Non-fibrous (Other)	None Detected
4XBT-M-58-Grout 152406504-0058A	4X4 Blue Tile - M21	Gray/White Non-Fibrous Homogeneous	HA: 21	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4XBT-M-58-Mastic 152406504-0058B	4X4 Blue Tile - M21	Yellow Non-Fibrous Homogeneous	HA: 21	100% Non-fibrous (Other)	None Detected
12XDGT-M-59-Backer Board 152406504-0059	12X12 Dark Gray Tile - M22	Gray Fibrous Homogeneous	HA: 22	40% Cellulose 20% Ca Carbonate 40% Non-fibrous (Other)	None Detected
12XDGT-M-59-Thinset 152406504-0059A	12X12 Dark Gray Tile - M22	Gray Non-Fibrous Homogeneous	HA: 22	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12XDGT-M-60-Tile 152406504-0060	12X12 Dark Gray Tile - M22	Gray Non-Fibrous Homogeneous	HA: 22	100% Non-fibrous (Other)	None Detected
12XDGT-M-60-Back Board 152406504-0060A	12X12 Dark Gray Tile - M22	Gray Fibrous Homogeneous	HA: 22	35% Cellulose 20% Ca Carbonate 45% Non-fibrous (Other)	None Detected
12XDGT-M-60-Thinset 152406504-0060B	12X12 Dark Gray Tile - M22	Gray Non-Fibrous Homogeneous	HA: 22	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1X2GT-M-61-Tile 152406504-0061	1X2 Glass Tile - M23	Brown/Clear Non-Fibrous Homogeneous	HA: 23	100% Non-fibrous (Other)	None Detected
1X2GT-M-61-Grout 152406504-0061A	1X2 Glass Tile - M23	Beige Non-Fibrous Homogeneous	HA: 23	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1X2GT-M-61-Thinset 152406504-0061B	1X2 Glass Tile - M23	Gray Non-Fibrous Homogeneous	HA: 23	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1X2GT-M-62-Tile 152406504-0062	1X2 Glass Tile - M23	Brown/Clear Non-Fibrous Homogeneous	HA: 23	100% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1X2GT-M-62-Grout 152406504-0062A	1X2 Glass Tile - M23	Beige Non-Fibrous Homogeneous	HA: 23	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1X2GT-M-62-Thinset 152406504-0062B	1X2 Glass Tile - M23	Gray Non-Fibrous Homogeneous	HA: 23	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1X1GT-M-63-Tile 152406504-0063	1X1 Glass Tile - M24	Brown/Clear Non-Fibrous Homogeneous	HA: 24	100% Non-fibrous (Other)	None Detected
1X1GT-M-63-Grout 152406504-0063A	1X1 Glass Tile - M24	Beige Non-Fibrous Homogeneous	HA: 24	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1X1GT-M-64-Tile 152406504-0064	1X1 Glass Tile - M24	Brown/Clear Non-Fibrous Homogeneous	HA: 24	100% Non-fibrous (Other)	None Detected
1X1GT-M-64-Grout 152406504-0064A	1X1 Glass Tile - M24	White/Beige Non-Fibrous Homogeneous	HA: 24	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
10XCT-M-65-Tile 152406504-0065	10X10 Charcol Tile - M25	Brown/Black Non-Fibrous Homogeneous	HA: 25	100% Non-fibrous (Other)	None Detected
10XCT-M-65-Thinset 152406504-0065A	10X10 Charcol Tile - M25	Gray Non-Fibrous Homogeneous	HA: 25	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
10XCT-M-66-Tile 152406504-0066	10X10 Charcol Tile - M25	Brown/Black Non-Fibrous Homogeneous	HA: 25	100% Non-fibrous (Other)	None Detected
10XCT-M-66-Thinset 152406504-0066A	10X10 Charcol Tile - M25	Gray/White Non-Fibrous Homogeneous	HA: 25	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12X8WT-M-67-Tile 152406504-0067	12X8 White Tile - M26	White/Beige Non-Fibrous Homogeneous	HA: 26	100% Non-fibrous (Other)	None Detected
12X8WT-M-67-Grout 152406504-0067A	12X8 White Tile - M26	Beige Non-Fibrous Homogeneous	HA: 26	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12X8WT-M-68-Tile 152406504-0068	12X8 White Tile - M26	White/Beige Non-Fibrous Homogeneous	HA: 26	100% Non-fibrous (Other)	None Detected
12X8WT-M-68-Grout 152406504-0068A	12X8 White Tile - M26	Beige Non-Fibrous Homogeneous	HA: 26	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12X8WT-M-68-Thinset 152406504-0068B	12X8 White Tile - M26	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
16XCT-M-69-Tile 152406504-0069	16X16 Crème Tile - M27	Red Non-Fibrous Homogeneous	HA: 26	100% Non-fibrous (Other)	None Detected
			HA: 27		
16XCT-M-69-Grout 152406504-0069A	16X16 Crème Tile - M27	Beige Non-Fibrous Homogeneous	HA: 27	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 27		
16XCT-M-70-Tile 152406504-0070	16X16 Crème Tile - M27	Brown/Red Non-Fibrous Homogeneous	HA: 27	100% Non-fibrous (Other)	None Detected
			HA: 27		
16XCT-M-70-Grout 152406504-0070A	16X16 Crème Tile - M27	Beige Non-Fibrous Homogeneous	HA: 27	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 27		
16XCT-M-70-Thinset 152406504-0070B	16X16 Crème Tile - M27	Gray Non-Fibrous Homogeneous	HA: 27	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 27		
12XPST-M-71-Tile 152406504-0071	12X12 Peel and Stick Tile - M28	Beige Non-Fibrous Homogeneous	HA: 28	100% Non-fibrous (Other)	None Detected
			HA: 28		
12XPST-M-71-Mastic 152406504-0071A	12X12 Peel and Stick Tile - M28	Yellow Non-Fibrous Homogeneous	HA: 28	100% Non-fibrous (Other)	None Detected
			HA: 28		
12XPST-M-72-Tile 152406504-0072	12X12 Peel and Stick Tile - M28	Beige Non-Fibrous Homogeneous	HA: 28	100% Non-fibrous (Other)	None Detected
			HA: 28		
12XPST-M-72-Mastic 152406504-0072A	12X12 Peel and Stick Tile - M28	Yellow Non-Fibrous Homogeneous	HA: 28	100% Non-fibrous (Other)	None Detected
			HA: 28		
5XTL-M-73 152406504-0073	5X5 Tan Linoleum - M29	Tan Fibrous Homogeneous	HA: 29	10% Glass 90% Non-fibrous (Other)	None Detected
			HA: 29		
5XTL-M-74-Linoleum 152406504-0074	5X5 Tan Linoleum - M29	Tan Fibrous Homogeneous	HA: 29	10% Glass 90% Non-fibrous (Other)	None Detected
			HA: 29		
5XTL-M-74-Mastic 152406504-0074A	5X5 Tan Linoleum - M29	Yellow Non-Fibrous Homogeneous	HA: 29	100% Non-fibrous (Other)	None Detected
			HA: 29		
12XWCT-M-75-Tile 152406504-0075	12X12 White Crème Tile - M30	White Non-Fibrous Homogeneous	HA: 30	100% Non-fibrous (Other)	None Detected
			HA: 30		
12XWCT-M-75-Grout 152406504-0075A	12X12 White Crème Tile - M30	White Non-Fibrous Homogeneous	HA: 30	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
			HA: 30		

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
12XWCT-M-75-Thinset 152406504-0075B	12X12 White Crème Tile - M30	Tan Non-Fibrous Homogeneous	HA: 30	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12XWCT-M-75-Backer Board 152406504-0075C	12X12 White Crème Tile - M30	Gray Fibrous Homogeneous	40% Cellulose HA: 30	20% Ca Carbonate 40% Non-fibrous (Other)	None Detected
12XWCT-M-76-Tile 152406504-0076	12X12 White Crème Tile - M30	White Non-Fibrous Homogeneous	HA: 30	100% Non-fibrous (Other)	None Detected
12XWCT-M-76-Grout 152406504-0076A	12X12 White Crème Tile - M30	Beige Non-Fibrous Homogeneous	HA: 30	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
16XTTG-M-78-Tile 152406504-0077	16X16 Tan Tile/Tan Grout - M31	Tan Non-Fibrous Homogeneous	HA: 31	100% Non-fibrous (Other)	None Detected
16XTTG-M-78-Grout 152406504-0077A	16X16 Tan Tile/Tan Grout - M31	Beige Non-Fibrous Homogeneous	HA: 31	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
16XTTG-M-78-Thinset 152406504-0077B	16X16 Tan Tile/Tan Grout - M31	Gray Non-Fibrous Homogeneous	HA: 31	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
16XTTG-M-77-Tile 152406504-0078	16X16 Tan Tile/Tan Grout - M31	Tan Non-Fibrous Homogeneous	HA: 31	100% Non-fibrous (Other)	None Detected
16XTTG-M-77-Grout 152406504-0078A	16X16 Tan Tile/Tan Grout - M31	Tan/Beige Non-Fibrous Homogeneous	HA: 31	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
16XTTG-M-77-Thinset 152406504-0078B	16X16 Tan Tile/Tan Grout - M31	Gray Non-Fibrous Homogeneous	HA: 31	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
BDW/JC-M-79 152406504-0079 <i>This is a composite result of drywall and jt. compound</i>	Brown Drywall/Joint Compound Composite - M32	Brown/White Fibrous Heterogeneous	10% Cellulose HA: 32	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
BDW/JC-M-80 152406504-0080 <i>This is a composite result of drywall and jt. compound</i>	Brown Drywall/Joint Compound Composite - M32	Brown/White Fibrous Heterogeneous	10% Cellulose HA: 32	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
LSK-SM-81 152406504-0081 <i>Inseparable paint / coating layer included in analysis</i>	Light Skim Coat Surfacing Material - M33	White Non-Fibrous Heterogeneous	HA: 33	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
LSK-SM-82 152406504-0082	Light Skim Coat Surfacing Material - M33	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

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			Non-Asbestos	Asbestos	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
Inseparable paint / coating layer included in analysis			HA: 33		
LSK-SM-83	Light Skim Coat Surfacing Material - M33	White Non-Fibrous Heterogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
152406504-0083					
Inseparable paint / coating layer included in analysis			HA: 33		
WPDW/JC-M-84	Drywall/Joint Compound Composite - M34	Brown/White Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 60% Gypsum 10% Non-fibrous (Other)	None Detected
152406504-0084					
This is a composite result of drywall and jt. compound			HA: 34		
WPDW/JC-M-85	Drywall/Joint Compound Composite - M34	Brown/White Fibrous Heterogeneous	10% Cellulose	20% Ca Carbonate 40% Gypsum 30% Non-fibrous (Other)	None Detected
152406504-0085					
This is a composite result of drywall and jt. compound			HA: 34		
GBB-M-86-Plaster	Gray Backer Board - M35	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
152406504-0086			HA: 35		
GBB-M-86-Backer Board	Gray Backer Board - M35	Gray Fibrous Homogeneous	30% Cellulose	10% Ca Carbonate 60% Non-fibrous (Other)	None Detected
152406504-0086A			HA: 35		
GBB-M-86-Netting	Gray Backer Board - M35	White Fibrous Homogeneous	90% Synthetic	10% Non-fibrous (Other)	None Detected
152406504-0086B			HA: 35		
GBB-M-87-Backer Board	Gray Backer Board - M35	Gray Fibrous Homogeneous	30% Cellulose	20% Ca Carbonate 50% Non-fibrous (Other)	None Detected
152406504-0087			HA: 35		
GBB-M-87-Netting	Gray Backer Board - M35	White Fibrous Homogeneous	90% Synthetic	10% Non-fibrous (Other)	None Detected
152406504-0087A			HA: 35		
WFL-M-88	White Floor Leveler - M36	Gray/White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0088					
Inseparable paint / coating layer included in analysis			HA: 36		
WFL-M-89	White Floor Leveler - M36	Gray/White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0089					
Inseparable paint / coating layer included in analysis			HA: 36		
WBB-M-90-Plaster	White Backer Board - M37	Tan/White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
152406504-0090			HA: 37		
WBB-M-90-Backer Board	White Backer Board - M37	Gray/White Fibrous Homogeneous	30% Cellulose	20% Ca Carbonate 50% Non-fibrous (Other)	None Detected
152406504-0090A			HA: 37		

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
WBB-M-90-Netting 152406504-0090B	White Backer Board - M37	White Fibrous Homogeneous	90% Synthetic HA: 37	10% Non-fibrous (Other)	None Detected
WBB-M-91-Plaster 152406504-0091	White Backer Board - M37	Tan/White Non-Fibrous Homogeneous	HA: 37	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
WBB-M-91-Backer Board 152406504-0091A	White Backer Board - M37	Gray/White Fibrous Homogeneous	30% Cellulose HA: 37	20% Ca Carbonate 50% Non-fibrous (Other)	None Detected
WBB-M-91-Netting 152406504-0091B	White Backer Board - M37	White Fibrous Homogeneous	90% Synthetic HA: 37	10% Non-fibrous (Other)	None Detected
WFFL-M-92 152406504-0092	White Fibrous Floor Leveler - M38	Gray Fibrous Homogeneous	30% Cellulose HA: 38	20% Ca Carbonate 50% Non-fibrous (Other)	None Detected
WFFL-M-93 152406504-0093	White Fibrous Floor Leveler - M38	Gray/White Fibrous Homogeneous	30% Cellulose HA: 38	20% Ca Carbonate 50% Non-fibrous (Other)	None Detected
GFL-M-94 152406504-0094	Gray Floor Leveler - M39	Gray Non-Fibrous Homogeneous	HA: 39	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
GFL-M-95 152406504-0095	Gray Floor Leveler - M39	Gray Non-Fibrous Homogeneous	HA: 39	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
BRC-M-96 152406504-0096	Black Roof Caulking - M40	Black Fibrous Homogeneous	15% Cellulose HA: 40	85% Non-fibrous (Other)	None Detected
BRC-M-97 152406504-0097	Black Roof Caulking - M40	Black Fibrous Homogeneous	15% Cellulose HA: 40	85% Non-fibrous (Other)	None Detected
BARS-M-98 152406504-0098	Black Roll Shingle - M41	Black Fibrous Homogeneous	15% Cellulose HA: 41	85% Non-fibrous (Other)	None Detected
BARS-M-99 152406504-0099	Black Roll Shingle - M41	Black Fibrous Homogeneous	25% Cellulose HA: 41	75% Non-fibrous (Other)	None Detected
WWR-M-100 152406504-0100	White Waterproof Roofing - M42	Brown/White Non-Fibrous Homogeneous	HA: 42	100% Non-fibrous (Other)	None Detected
WWR-M-101 152406504-0101	White Waterproof Roofing - M42	Brown/White Non-Fibrous Homogeneous	HA: 42	100% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
GAS-M-102 152406504-0102	Green Asphalt Shingle - M43	Black/Green Non-Fibrous Homogeneous	15% Cellulose HA: 43	85% Non-fibrous (Other)	None Detected
GAS-M-103 152406504-0103	Green Asphalt Shingle - M43	Black/Green Fibrous Homogeneous	10% Glass HA: 43	90% Non-fibrous (Other)	None Detected

Analyst(s)

Faeryn Swift (85)

Jenny Drapela (89)

Michelle Leggett, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Houston, TX NVLAP Lab Code 102106-0, AZ 0925, CO AL-15355, LA 04126, TX 300159

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**SOILS AND FOUNDATION INVESTIGATION
PROPOSED MULTI-FAMILY HOUSING
LOT E-2
RIVER PINES SUB RESUB OUTLOT E REPLAT A RIVER PINES
200 N 7TH AVENUE
FRISCO, COLORADO**

Prepared For:

**Studio One Architecture, Inc.
515 Greenland Rd. NE
Atlanta, GA 30342**

Attention: Stephen Flanagan

Project No. SU02052.000-120-R1

June 14, 2021



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SCOPE

This report presents the results of our Soils and Foundation Investigation for the Proposed Multi-Family Housing on Lot E-2, River Pines Sub Resub Outlot E Replat A River Pines in Frisco, Colorado. We conducted this investigation to evaluate subsurface conditions at the site and provide geotechnical engineering recommendations for the proposed multi-family housing. Our report was prepared from data developed during our field exploration, engineering analysis, and experience. This report includes a description of the subsurface conditions observed in six exploratory pits and presents geotechnical engineering recommendations for design and construction of the residence foundations, floor systems, and details influenced by the subsoils. The scope was described in a Service Agreement (SU-21-0031) dated March 30, 2021.

Recommendations contained in this report were developed based on our understanding of the planned construction. Once building plans are completed, we should review to determine whether our recommendations and design criteria are appropriate. A summary of our conclusions is presented below.

SUMMARY OF CONCLUSIONS

1. Subsurface conditions observed in the exploratory pits consisted of about 16 inches to 4 feet 8 inches of fill underlain primarily by silt and sand. Beneath the silt and sand we encountered gravel to a maximum explored depth of 11 feet. Groundwater was observed in TP-3, TP-5, and TP-6 at depths of 4 feet, 9 feet and 10 feet, respectively.
2. We anticipate that excavations for the new multi-family housing will result in natural gravel being the predominant soil at anticipated foundation elevations. The building can be constructed on footing foundations supported by the undisturbed, natural gravel. Design and construction criteria are presented in the report. It is critical that we observe the excavation to check whether conditions are as anticipated, prior to placing footings.



3. Surface drainage should be designed to provide for rapid removal of surface water away from the building.
4. The design and construction criteria for foundations and floor systems in this report were compiled with the expectation that all other recommendations presented related to surface and subsurface drainage, landscaping irrigation, backfill compaction, etc. will be incorporated into the project and that the owner will maintain the structure, use prudent irrigation practices and maintain surface drainage. It is critical that all recommendations in this report are followed.

SITE CONDITIONS

The site is located on the east side of N. 7th Avenue in Frisco, CO as shown on Figure 1. The property is bordered by Highway 9 to the east, N. 7th Avenue to the west, existing single-family residences to the north, and an asphalt drive to the south. An existing two-story structure with a large, south-facing deck resides in the northern portion of the lot. A large wetland exists in the southern portion of the lot and borders the existing deck. A large berm curves around the eastern portion of the lot in between the existing structure and Highway 9. The ground surface across the site slopes down gently to the south. Vegetation consists of scattered aspens, willows and grasses.

PROPOSED CONSTRUCTION

Building plans for the multi-family housing have not yet been developed. The existing building will be demolished. We understand the proposed construction will likely be a two-story duplex over a shared garage space. The garage level floor will likely be slab-on-grade. Required excavations are not expected to exceed 8 feet for foundations. Foundation loads are expected to be about 1,000 to 3,000 pounds per linear foot of foundation wall, with maximum column loads of 40 kips or less. Once building plans have been developed, we should be contacted to re-evaluate our recommendations.



SUBSURFACE CONDITIONS

Subsurface conditions were investigated by observing six exploratory pits excavated at the approximate locations shown on Figure 2. Subsurface conditions observed in the pits were logged by our geologist and engineering technician who obtained samples of the soils during excavation. Graphic logs of the soils observed in the pits are shown on Figure 3.

Subsurface conditions observed in the test pits consisted of about 16 inches to 4 feet 8 inches of fill overlying silty sand and silt with sand. Beneath the silt and sand we encountered poorly-graded gravel to the maximum depth explored of 11 feet below existing ground surface. The sand and gravel soils contained cobbles and boulders up to 4 feet in diameter. Groundwater was observed in TP-3, TP-5, and TP-6 at depths of 4 feet, 9 feet and 10 feet, respectively. The pits were back-filled after excavation operations were completed.

Samples obtained in the field were returned to our laboratory where field classifications were checked and samples were selected for pertinent testing. Swell consolidation testing conducted on samples of the onsite silt and sand soils, shown on Figures 8 and 9, indicate low to moderate compressibility when wetted under a constant surcharge. Gradation test results of the fill and sand and gravel soils are presented on Figures 4, 5, 6 and 7. Laboratory test results are summarized on Table I.

GEOLOGY

We reviewed the following geologic mapping showing the site.

1. Geologic Map of the Frisco Quadrangle, Summit County, Colorado, (Map MF-2340) by Karl S. Kellogg, Paul J Bartos and Cindy L. Williams with the U.S. Geologic Survey, 2002.



The site is mapped on the contact between Pinedale Outwash deposits (upper Pleistocene) and alluvium (Holocene). Our field investigation and observations at the site support the mapping. We did not observe geologic constraints on this site that would inhibit the planned construction.

SITE EARTHWORK

We anticipate excavation of the soils can be accomplished using conventional, heavy duty excavating equipment. Hard cobbles and boulders should be expected. Some boulders will be large. A hydraulic hammer chisel (excavator attachment) or similar device may be required to split large boulders. Sides of excavations need to be sloped to meet local, state and federal safety regulations. We anticipate the gravel soils will likely classify as Type C soils based on OSHA standards governing excavations. Temporary slopes deeper than 4 feet that are not retained should be no steeper than 1.5 to 1 (horizontal to vertical) in Type C soils. Some sloughing of the excavation face may occur as the soils dry out. Contractors are required to identify the soils encountered and ensure that applicable standards are met. Contractors are responsible for site safety and maintenance of the work site.

Groundwater was observed in the pits, as noted in **SUBSURFACE CONDITIONS**. Water seepage should be expected during excavation. The footing areas should be protected from any seepage and precipitation through the use of shallow trenches and sumps. Trenches should be 1 to 2 feet below footing subgrade elevation. Excavations should be sloped to a gravity discharge or to a temporary sump where water can be removed by pumping, if necessary. It is very important that an excavation dewatering plan be in place prior to excavation. If the footing subgrade soils are exposed without proper drainage and become softened due to equipment traffic, subexcavation and replacement may be required. This process can be costly. We can provide additional recommendations at the time of construction.



Structural Fill

Structural fill may be required below footings and slabs. Groundwater conditions at the site must be considered and planned for prior to removal of unsuitable soils. The on-site gravel soils, free of organic matter, debris and rocks larger than 6 inches in diameter, can be used as structural fill. The onsite silt and sand soils should not be used as structural fill because they are moisture sensitive and it will be difficult to achieve proper compaction. Proper moisture content and processing is imperative to attain suitable compaction levels and reduce potential settlement. Care should be taken during fill placement so the larger rocks do not become nested or grouped together. If required, import fill should consist of CDOT Class 4, 5 or 6 aggregate base course or similar soil. If groundwater is encountered in subexcavations, it will likely be necessary to place clean stone fill. We should provide additional recommendations at the time of construction. Structural fill should have no rocks larger than 6 inches. We can evaluate potential fill materials upon request. Lean-mix concrete (flowable fill) can also be used to fill voids.

Prior to placing any structural fill, all existing fill, topsoil, silt and sand soils must be removed. Structural fill should be placed in thin loose lifts, moisture conditioned to within +/-2 percent of optimum moisture content, and compacted to at least 98 percent of ASTM D 698 maximum dry density. Moisture content and density of structural fill should be tested by a representative of our firm during placement.

FOUNDATIONS

The residence can be supported on footing foundations on the undisturbed, natural gravel soils. The onsite silt and sand soils are not suitable to support footing foundations. All silt and sand soils should be removed beneath footings and slabs. Prior to concrete placement, the footing areas should be compacted to provide a flat and level subgrade. Loose and disturbed soils should be removed. Structural fill, if



required, should be tested by our representative and meet the criteria in Structural Fill. Our representative should observe conditions exposed in the completed foundation excavation to confirm whether the exposed soils are as anticipated and suitable for support of the foundation. If subexcavation and replacement of soils beneath footings is necessary, our representative should observe the subexcavation bottom prior to fill placement.

1. Soils loosened during the forming process for the footings should be removed or compacted prior to placing concrete. Lean concrete may also be used to fill depressions resulting from the removal of boulders.
2. Footings can be sized using a maximum allowable soil pressure of 3,000 psf. We expect settlement of footings will be approximately 1 inch or less.
3. To resist lateral loads, a coefficient of friction of 0.45 can be used for concrete in contact with soil. Lateral loads can be resolved by evaluating passive resistance using a passive equivalent fluid density of 350 pcf for granular backfill that is compacted to the criteria in Foundation Wall Backfill and will not be removed. These values have not been factored; appropriate factors of safety should be applied in design. Deflection is necessary to develop passive pressures.
4. Continuous wall footings should have a minimum width of at least 16 inches. Foundations for isolated columns should have minimum dimensions of 24 inches by 24 inches. Larger sizes may be required, depending upon foundation loads.
5. Grade beams and foundation walls should be well reinforced, top and bottom, to span undisclosed loose or soft soil pockets and resist lateral earth pressures. We recommend reinforcement sufficient to span an unsupported distance of at least 10 feet. Reinforcement should be designed by the structural engineer.
6. The soils under exterior footings should be protected from freezing. We recommend the bottom of footings be constructed at a depth of at least 40 inches below finished exterior grade.



SLABS-ON-GRADE

We expect the lower level floor will be slab-on-grade. Based on our laboratory test data and experience, we judge slab-on-grade construction supported by the undisturbed, natural gravel soils or properly placed granular structural fill will have a low risk of damaging differential movement. All silt and sand soils and any existing fill or topsoil should be removed beneath slabs. Fill placed to attain subgrade elevations below floor slabs should be placed in accordance with the recommendations outlined in Structural Fill. We recommend the following precautions for slab-on-grade construction at this site. These precautions will not prevent movement from occurring; they tend to reduce damage if slab movement occurs.

1. Slabs should be separated from exterior walls and interior bearing members with slip joints which allow free vertical movement of the slabs.
2. Underslab plumbing should be pressure tested for leaks before the slabs are constructed. Plumbing and utilities which pass through slabs should be isolated from the slabs with sleeves and provided with flexible couplings.
3. Frequent control joints should be provided, in accordance with American Concrete Institute (ACI) recommendations, to reduce problems associated with shrinkage and curling.
4. We recommend a 4-inch layer of clean gravel be placed beneath the slabs to provide a flat, uniform subgrade. This material should consist of minus 2 inch aggregate with at least 50% retained on the No. 4 sieve and less than 2% passing the No. 200 sieve.
5. The 2018 International Residential Code (IRC R506) states that a 4-inch base course layer consisting of clean graded sand, gravel, crushed stone or crushed blast furnace slag shall be placed beneath below grade floors (unless the underlying soils are free-draining), along with a vapor retarder.

IRC states that the vapor retarder can be omitted where approved by the building official. The merits of installation of a vapor retarder below floor slabs depend on the sensitivity of floor coverings and building use



to moisture. A properly installed vapor retarder is more beneficial below concrete slab-on-grade floors where floor coverings, painted floor surfaces, or products stored on the floor will be sensitive to moisture. The vapor retarder is most effective when concrete is placed directly on top of it, rather than placing a sand or gravel leveling course between the vapor retarder and the floor slab. Placement of concrete on the vapor retarder may increase the risk of shrinkage cracking and curling. Use of concrete with reduced shrinkage characteristics including minimized water content, maximized coarse aggregate content, and reasonably low slump will reduce the risk of shrinkage cracking and curling. Considerations and recommendations for the installation of vapor retarders below concrete slabs are outlined in Section 3.2.3 of the 2006 American Concrete Institute (ACI) Committee 302, "Guide for Concrete Floor and Slab Construction (ACI 302.R-96)".

FOUNDATION WALLS

Foundation walls which extend below-grade should be designed for lateral earth pressures where backfill is not present to about the same extent on both sides of the wall. Many factors affect the values of the design lateral earth pressure. These factors include, but are not limited to, the type, compaction, slope and drainage of the backfill, and the rigidity of the wall against rotation and deflection. For a very rigid wall where negligible or very little deflection will occur, an "at-rest" lateral earth pressure should be used in design. For walls that can deflect or rotate 0.5 to 1 percent of wall height (depending upon the backfill types), lower "active" lateral earth pressures are appropriate. Our experience indicates typical below-grade walls in residences deflect or rotate slightly under normal design loads, and that this deflection results in satisfactory wall performance. Thus, the earth pressures on the walls will likely be between the "active" and "at-rest" conditions.

If on-site gravel soils are used as backfill and the backfill is not saturated, we recommend design of basement walls at this site using an equivalent fluid density of at least 52 pcf. This value assumes deflection; some minor cracking of walls may occur. If very little wall deflection is desired, a higher design value is appropriate.



The structural engineer should also consider site-specific grade restrictions, the effects of large openings on the behavior of the walls, and the need for lateral bracing during backfill.

Retaining walls that are free to rotate and allow the active earth pressure condition to develop can be designed using an equivalent fluid density of at least 42 pcf for on-site gravel soil backfill.

Foundation Wall Backfill

Proper placement and compaction of foundation backfill is important to reduce infiltration of surface water and settlement of backfill. The natural gravel soils can be used as backfill, provided they are free of rocks larger than 6 inches in diameter, organics, and debris. The upper 2 feet of fill should be a relatively impervious material to limit infiltration. Backfill which will support surface improvements (sidewalks, driveways, etc.) should be placed in thin loose lifts, moisture conditioned to within ± 2 percent of optimum moisture content, and compacted to at least 95 percent of ASTM D 698 maximum dry density. Backfill in landscape areas should be compacted to at least 90 percent of ASTM D 698 maximum dry density. Thickness of lifts will likely need to be reduced if there are small confined areas of backfill, which limit the size and weight of compaction equipment. Some settlement of the backfill should be expected even if the material is placed and compacted properly. In our experience, settlement of properly compacted granular backfill could be on the order of 0.5 to 1 percent of backfill thickness. Fine-grained soils such as the on-site silt will have greater potential for settlement. Increasing the minimum compaction level will reduce settlement potential. Care should be taken not to overcompact the backfill and damage foundation walls. Moisture content and density of the backfill should be tested during placement by a representative of our firm. Observation of the compaction procedure is necessary. Testing without observation can lead to undesirable performance.



CONCRETE

Concrete in contact with soil can be subject to sulfate attack. We measured the water-soluble sulfate concentration in a sample taken from the site at 0.01 percent. For this level of sulfate concentration, ACI 332-08 *Code Requirements for Residential Concrete* indicates there are no special requirements for sulfate resistance.

Superficial damage may occur to the exposed surfaces of highly permeable concrete, even though sulfate levels are likely relatively low. To control this risk and to resist freeze-thaw deterioration, the water-to-cementitious materials ratio should not exceed 0.50 for concrete in contact with soils that are likely to stay moist due to surface drainage or high water tables. Concrete should have a total air content of 6 percent \pm 1.5 percent.

SURFACE DRAINAGE

Surface drainage is critical to the performance of foundations, floor slabs and concrete flatwork. Recommendations in this report are based on effective drainage for the life of the structure and cannot be relied upon if effective drainage is not maintained. We recommend the following precautions be observed during construction and maintained at all times after construction is completed:

1. The ground surface surrounding the exterior of the building should be sloped to drain away from the building in all directions. We recommend providing a slope of at least 12 inches in the first 10 feet in landscape areas. There are instances where this slope cannot be achieved. A slope of 6 inches in the first 10 feet should be used as a minimum. We recommend a slope of at least 3 inches in the first 10 feet in paved areas. A swale should be provided around the uphill side of the building to divert surface runoff.



2. Backfill around the exterior of foundation walls should be placed as described in Foundation Wall Backfill. Increases in the moisture content of the backfill soils after placement often results in settlement. Settlement is most common adjacent to north facing walls. Re-establishing proper slopes (homeowner maintenance) away from the building may be necessary.
3. Landscaping should be carefully designed to minimize irrigation. Plants used near foundation walls should be limited to those with low moisture requirements; irrigated grass should not be located within 5 feet of the foundation. Lawn sprinklers should not discharge within 5 feet of the foundation and should be directed away from the building. Low-volume emitters can be used within 5 feet of the foundation.
4. Impervious plastic membranes should not be used to cover the ground surface immediately surrounding the building. These membranes tend to trap moisture and prevent normal evaporation from occurring. Geotextile fabrics can be used to control weed growth and allow some evaporation to occur.
5. Roof downspouts and drains should discharge well beyond the limits of all backfill. Splash blocks and/or extensions should be provided at all downspouts so water discharges onto the ground beyond the backfill. We generally recommend against burial of downspout discharge. Where it is necessary to bury downspout discharge, solid, rigid pipe should be used and it should slope to an open gravity outlet. Buried downspout discharge pipes should be heated (with thermostat) during winter months to prevent freezing. Downspout extensions, splash blocks and buried outlets must be maintained by the owner.

CONSTRUCTION OBSERVATIONS

This report has been prepared for the exclusive use of Studio One Architecture, Inc. and the design/construction team to provide geotechnical design and construction criteria for the proposed project. The information, conclusions, and recommendations presented herein are based upon consideration of many factors including, but not limited to, the type of structure proposed, the geologic setting, and the subsurface conditions encountered. The conclusions and recommendations contained in the report are not valid for use by others. Standards of practice evolve in the area of geotechnical engineering. The recommendations provided in this report



are appropriate for about three years. If the proposed project is not constructed within about three years, we should be contacted to determine if we should update this report.

We recommend that CTL | Thompson, Inc. provide construction observation services to allow us the opportunity to verify whether soil conditions are consistent with those found during this investigation. If others perform these observations, they must accept responsibility to judge whether the recommendations in this report remain appropriate.

GEOTECHNICAL RISK

The concept of risk is an important aspect with any geotechnical evaluation primarily because the methods used to develop geotechnical recommendations do not comprise an exact science. We never have complete knowledge of subsurface conditions. Our analysis must be tempered with engineering judgment and experience. Therefore, the recommendations presented in any geotechnical evaluation should not be considered risk-free. Our recommendations represent our judgment of those measures that are necessary to increase the chances that the structure will perform satisfactorily. It is critical that all recommendations in this report are followed during construction. The homeowner must assume responsibility for maintaining the structure and use appropriate practices regarding drainage and landscaping. Improvements performed by the owner after construction, such as finishing a basement or construction of additions, retaining walls, decks, patios, landscaping and exterior flatwork, should be completed in accordance with recommendations in this report.



RADON

Radon is a gaseous, radioactive element that comes from the radioactive decay of uranium, which is commonly found in igneous rocks. The average indoor radon level in Summit County is approximately 9 pCi/L (<http://county-radon.info/CO/Summit.html>), which is above the recommended action level of 4 pCi/L as recommended by the Environmental Protection Agency. Testing for radon gas at the site is beyond the scope of this study. Due to the many factors that affect the radon levels in a specific building, accurate testing of radon levels is usually only possible after construction is complete. Typically, radon mitigation systems consist of ventilation systems installed beneath lower level slabs and crawlspaces. The infrastructure for such a mitigation system can normally be installed during construction at a relatively low cost, which is recommended. The building should be tested for radon once construction is complete. If test results indicate mitigation is required, the installed system can then be used for mitigation. We are not experts in radon testing or mitigation. If the client is concerned about radon, then a professional in this special field of practice should be consulted.



LIMITATIONS

The exploratory pits were located to provide a reasonably accurate picture of subsurface conditions. Variations in the subsurface conditions not indicated by the pits will occur. A representative of our firm should observe placement of and test structural fill. We should observe the completed foundation excavation to confirm that the exposed soils are suitable for support of the footings. This investigation was conducted in a manner consistent with that level of care and skill ordinarily exercised by geotechnical engineers currently practicing under similar conditions. No warranty, express or implied, is made. If we can be of further service in discussing the contents of this report, please call.

CTL | THOMPSON, INC.

Lindsey Baker
Engineering Technician III

LKB:GWB/kh

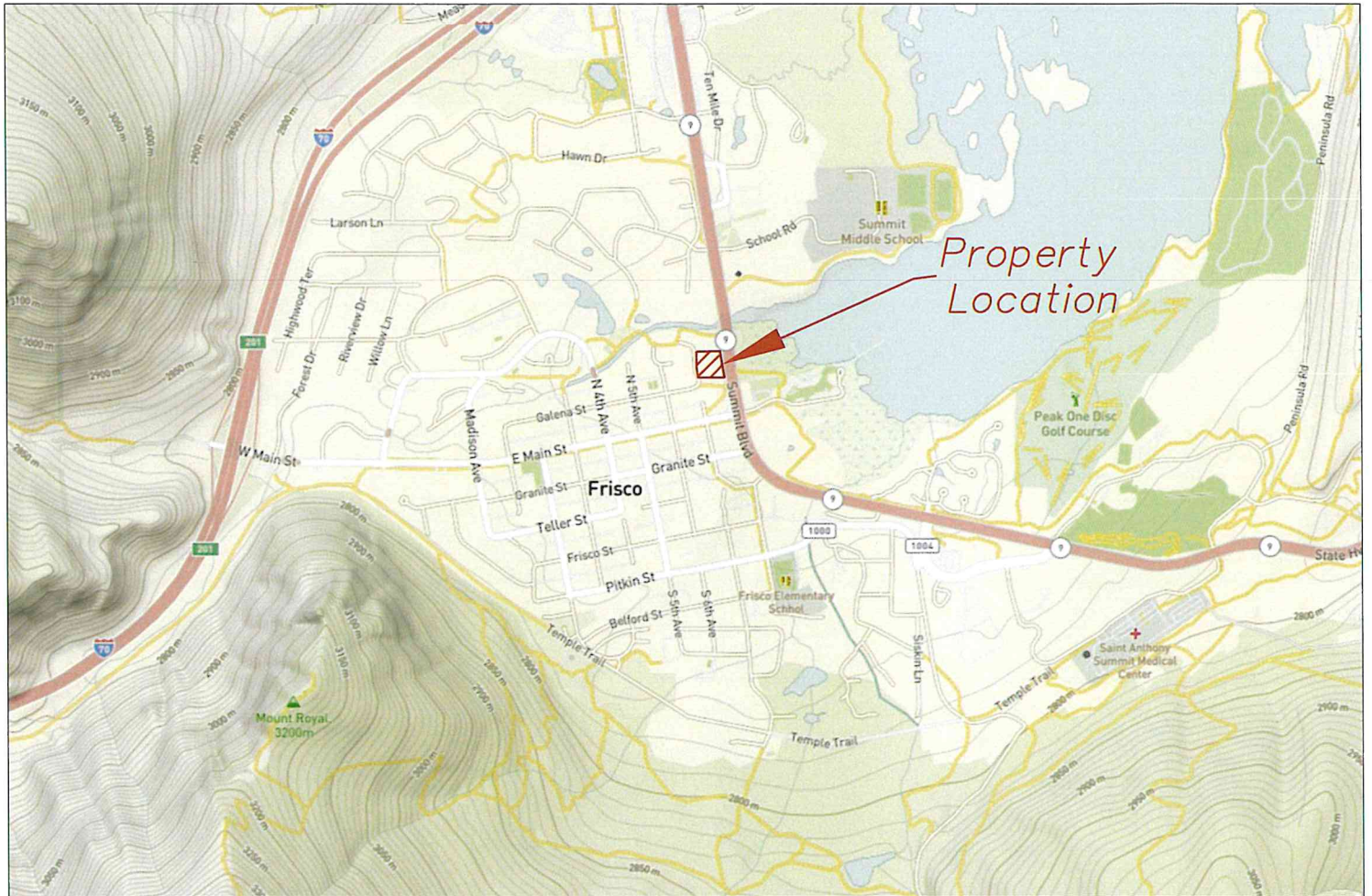
Reviewed by:

George W. Benecke III, P.E.
Division Manager, Summit County

cc: s.flanagan@studioone.us

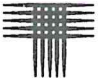


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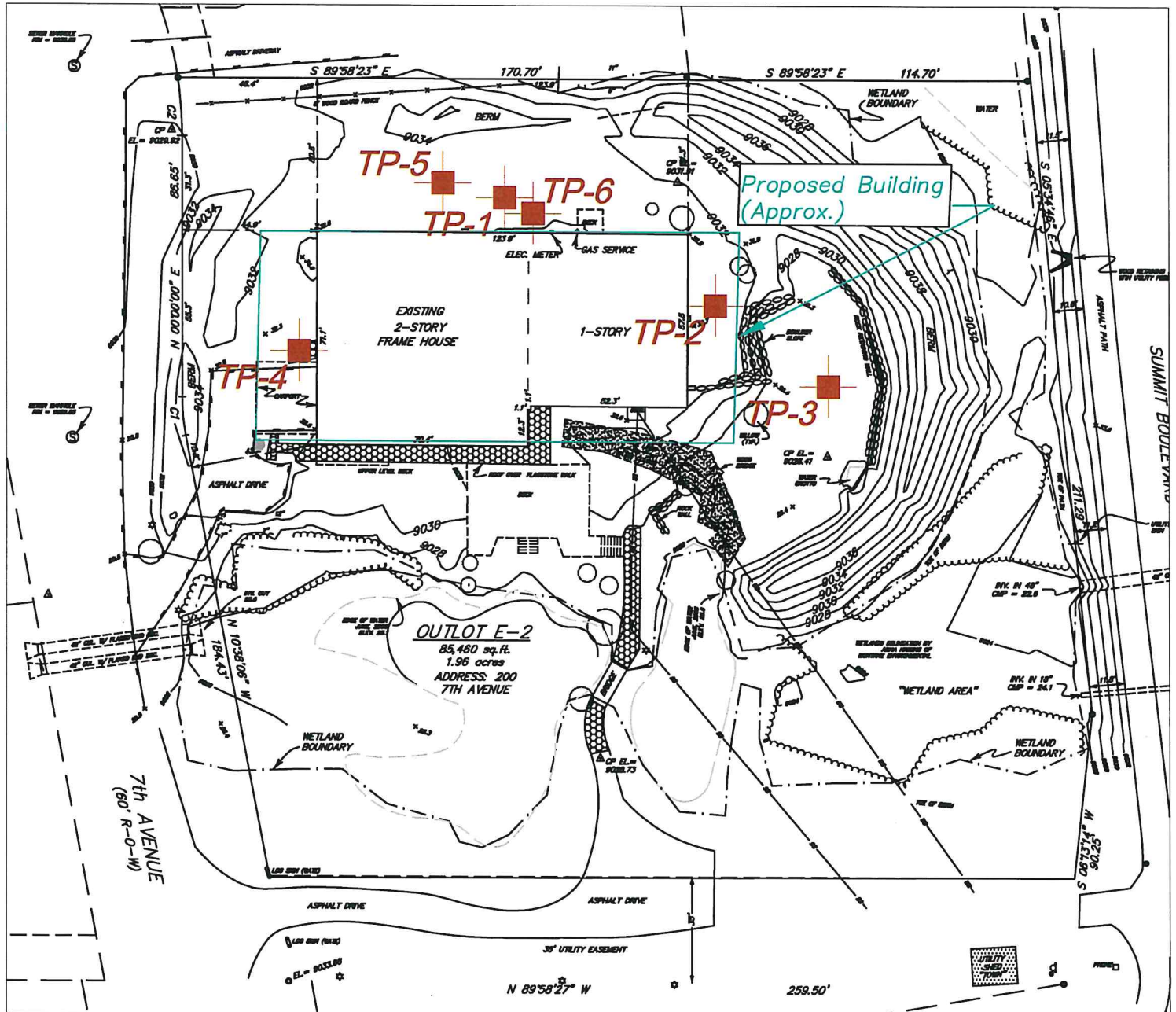


VICINITY MAP

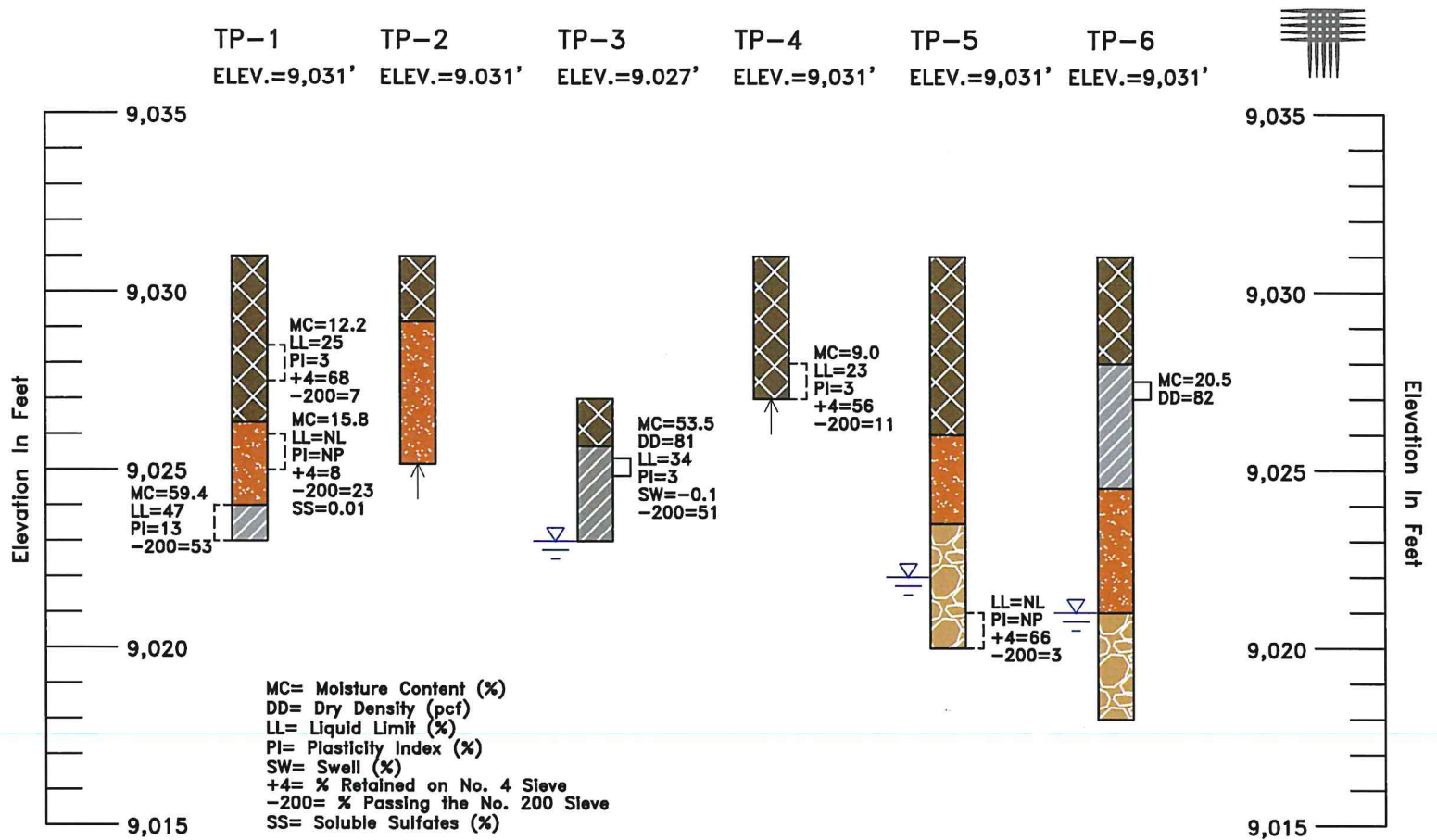
Figure 1



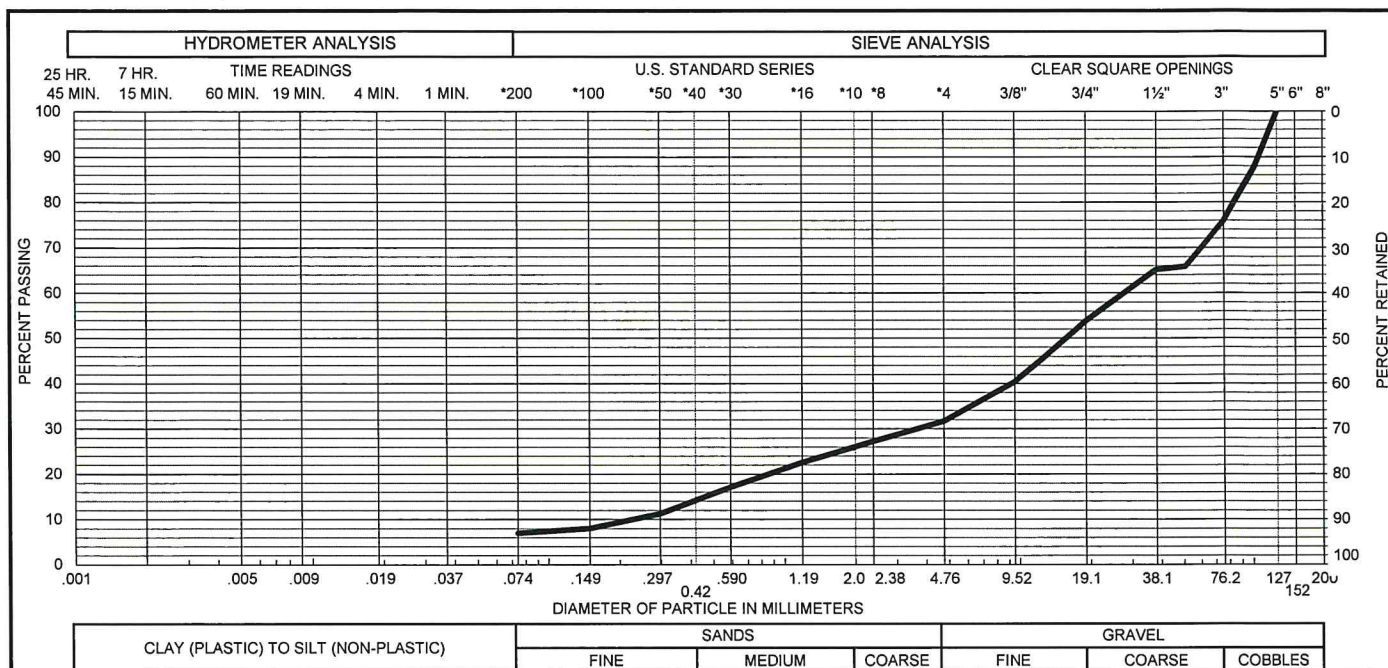
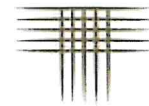
Scale: 1 inch = 50 feet



LOCATIONS OF EXPLORATORY PITS



SUMMARY LOGS OF EXPLORATORY PITS



Sieve Size	% Passing
4 in.	88
3 in.	76
2 in.	66
1.5 in.	65
3/4 in.	54
1/2 in.	46
3/8 in.	40
No. 4	32
No. 8	27
No. 16	23
No. 30	17
No. 50	11
No. 100	8
No. 200	7

Curve No. 1

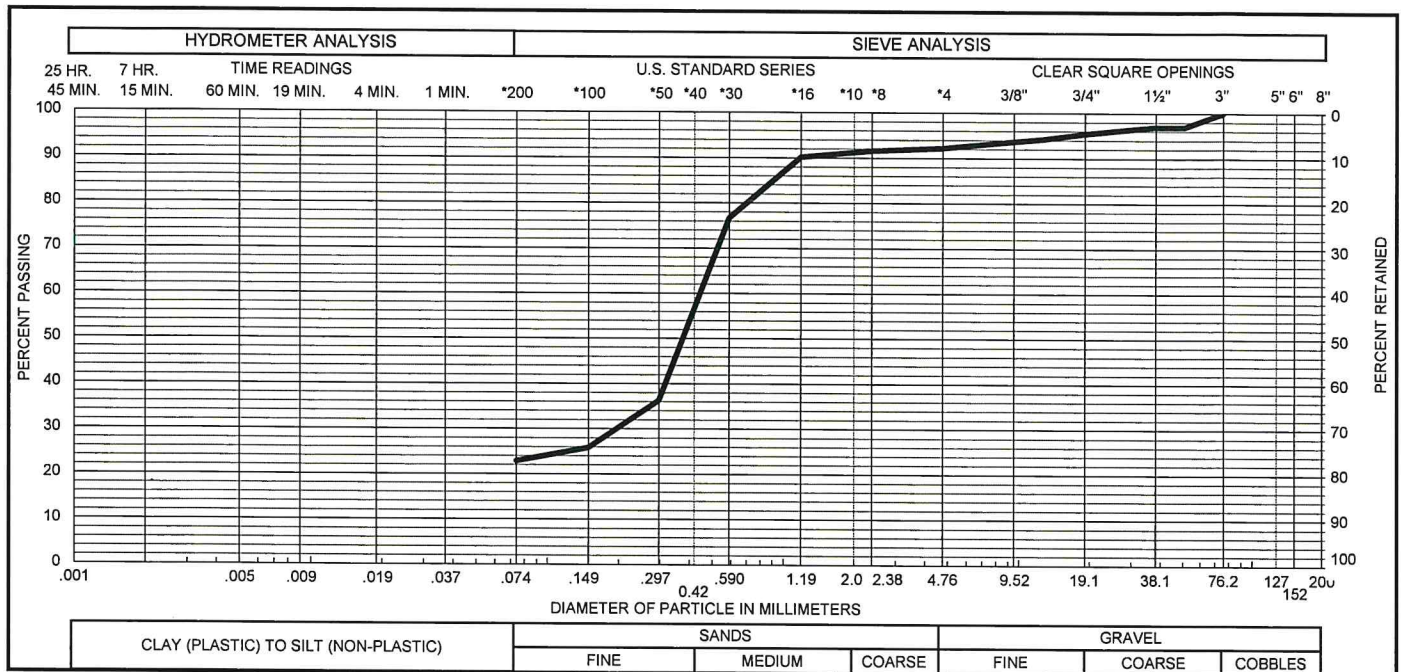
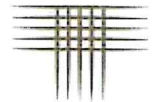
Sample of Fill;
Well-Graded Gravel w/ Silt & Sand
From TP-1 @ 2'6"-3'6"

GRAVEL(USCS)	68 %	SAND(USCS)	25 %
SILT & CLAY	7 %	LIQUID LIMIT	25 %
PLASTICITY INDEX			3 %

Gradation Test Results

CTLJT PROJECT NO. SU02052.000-120-R1

Figure 4



Sieve Size	% Passing
3 in.	100
2 in.	97
1.5 in.	97
3/4 in.	95
1/2 in.	94
3/8 in.	94
No. 4	92
No. 8	92
No. 16	90
No. 30	77
No. 50	36
No. 100	26
No. 200	23

Curve No. 1

Sample of Silty Sand (SM)

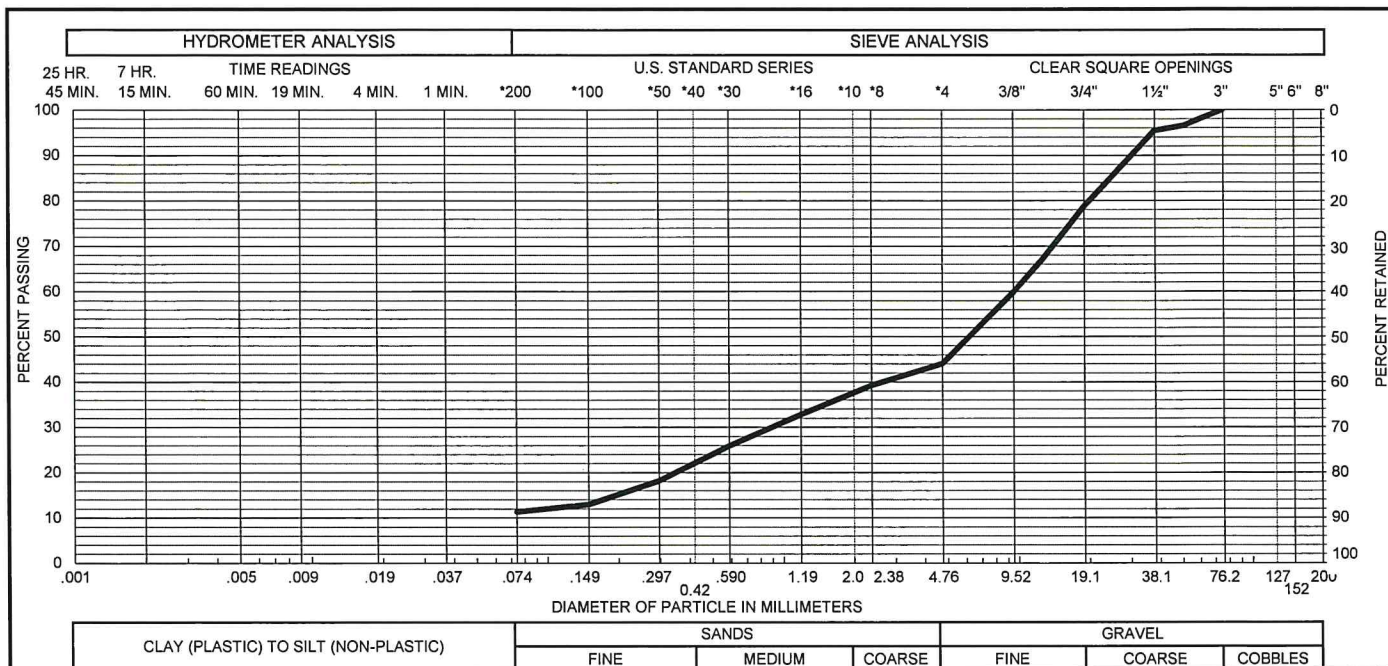
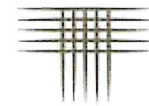
From TP-1 @ 5'-6'

GRAVEL(USCS)	8 %	SAND(USCS)	69 %
SILT & CLAY	23 %	LIQUID LIMIT	NL %
PLASTICITY INDEX			NP %

Gradation Test Results

Figure 5

CTL/T PROJECT NO. SU02052.000-120-R1



Sieve Size	% Passing
3 in.	100
2 in.	97
1.5 in.	95
3/4 in.	79
1/2 in.	67
3/8 in.	60
No. 4	44
No. 8	39
No. 16	33
No. 30	26
No. 50	18
No. 100	13
No. 200	11

Curve No. 1

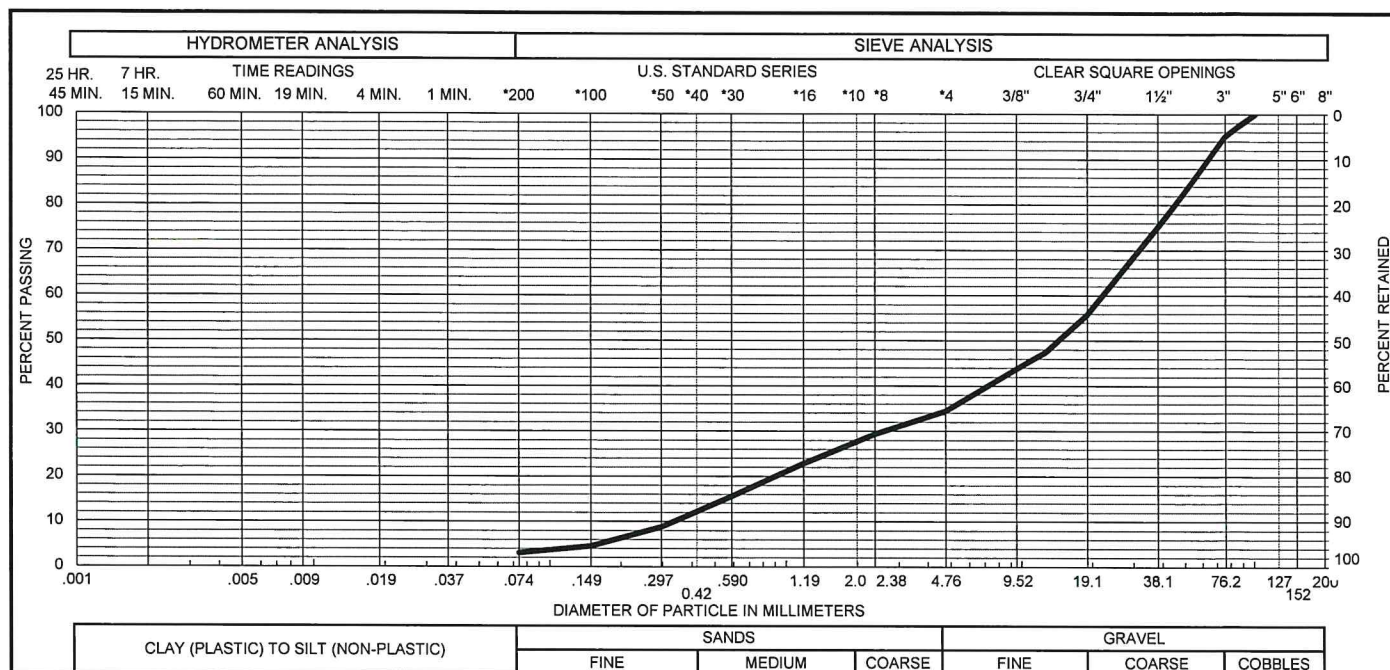
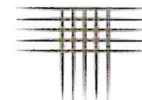
Sample of Fill;
Poorly-Graded Gravel w/ Silt & Sand
From TP-4 @ 3'-4'

GRAVEL(USCS)	56 %	SAND(USCS)	33 %
SILT & CLAY	11 %	LIQUID LIMIT	23 %
PLASTICITY INDEX			3 %

Gradation Test Results

CTL/T PROJECT NO. SU02052.000-120-R1

Figure 6



Sieve Size	% Passing
4 in.	100
3 in.	95
2 in.	84
1.5 in.	75
3/4 in.	56
1/2 in.	47
3/8 in.	44
No. 4	34
No. 8	29
No. 16	23
No. 30	16
No. 50	9
No. 100	5
No. 200	3

Curve No. 1

Sample of Well-Graded Gravel with Sand (GW)

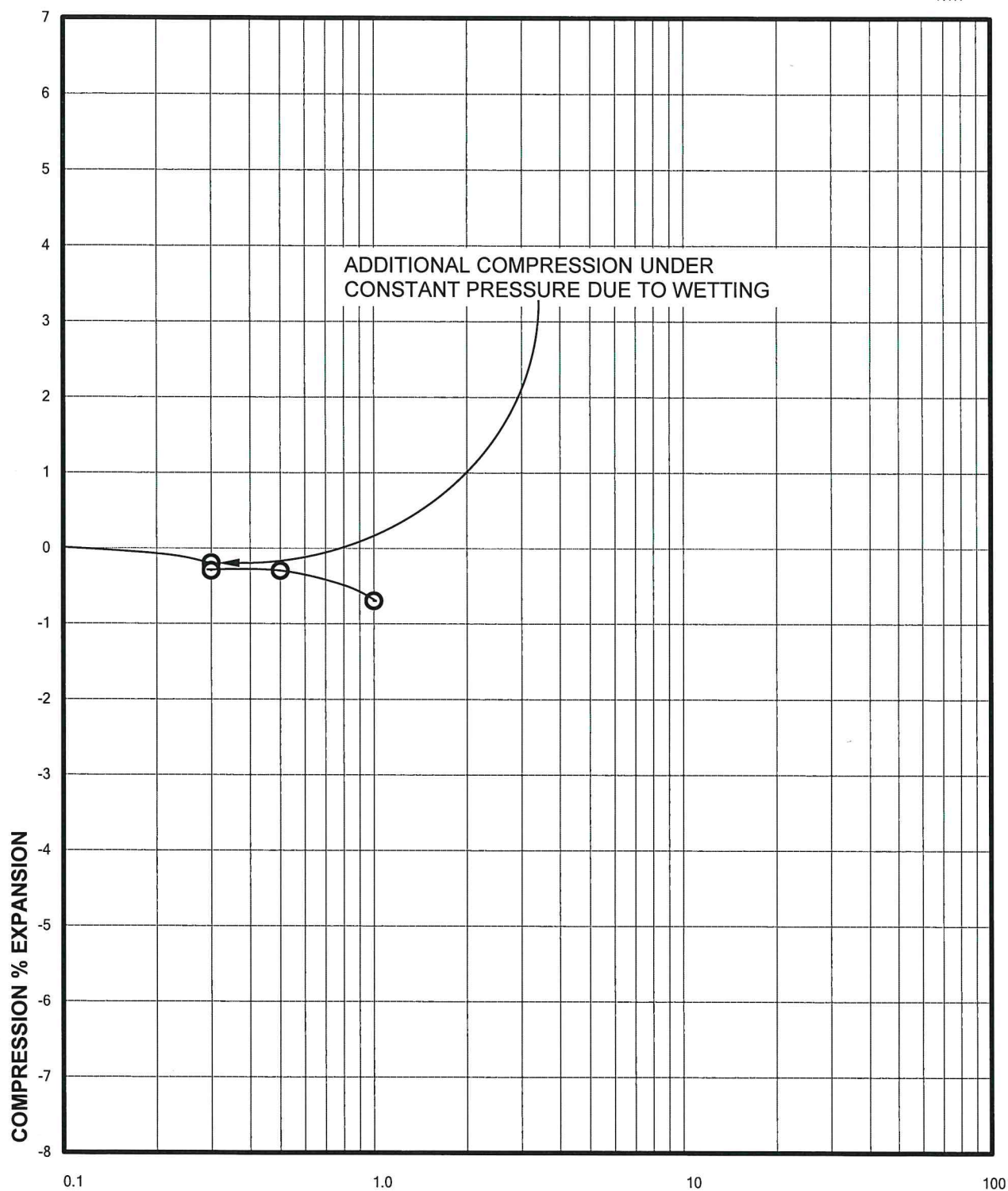
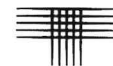
From TP-5 @ 10'-11'

GRAVEL(USCS)	66 %	SAND(USCS)	31 %
SILT & CLAY	3 %	LIQUID LIMIT	NL %
PLASTICITY INDEX			NP %

Gradation Test Results

CTL|T PROJECT NO. SU02052.000-120-R1

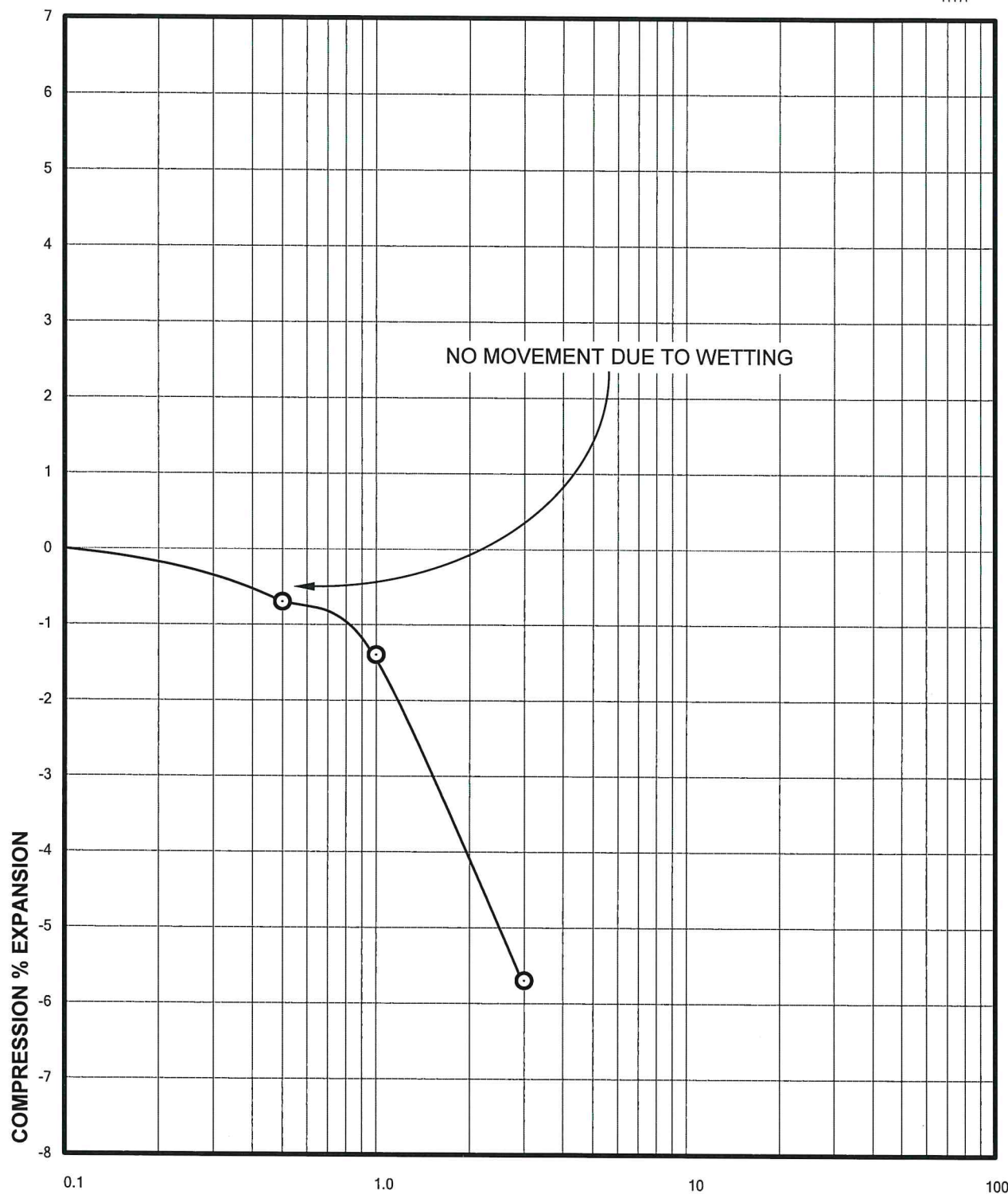
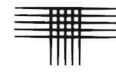
Figure 7



APPLIED PRESSURE - KSF
Sample of Silt with Sand (ML)
From TP-3 @ 20"

DRY UNIT WEIGHT= 81 PCF
MOISTURE CONTENT= 35.5 %

Swell Consolidation Test Results



APPLIED PRESSURE - KSF
Sample of Silty Sand (SM)
From TP-6 @ 3'6"

DRY UNIT WEIGHT= 82 PCF
MOISTURE CONTENT= 20.5 %

Swell Consolidation Test Results

TABLE I

SUMMARY OF LABORATORY TESTING
CTLJT PROJECT NO. SU02052.000-120-R1

EXPLORATORY PIT	DEPTH	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	ATTERBERG LIMITS		SWELL TEST RESULTS*			PERCENT GRAVEL (%)	SULFATE CONC. (%)	PASSING NO. 200 SIEVE (%)	DESCRIPTION
				LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SWELL (%)	APPLIED PRESSURE (PSF)	SWELL PRESSURE (PSF)				
TP-1	2'6"-3'6"	12.2		25	3				68		7	Fill; Well-Graded Gravel w/ Silt & Sand
TP-1	5'-6'	15.8		NL	NP				8	0.01	23	Silty Sand (SM)
TP-1	7'-8'	59.4		47	13						53	Silt with Sand (ML)
TP-3	20"	53.5	81	34	3	-0.1	300	NA			51	Silt with Sand (ML)
TP-4	3'-4'	9.0		23	3				56		11	Fill; Poorly-Graded Gravel w/ Silt & Sand
TP-5	10'-11'			NL	NP				66		3	Well-Graded Gravel with Sand (GW)
TP-6	3'6"	20.5	82				500	NA				Silt with Sand (ML)

Sept 26, 2024

Seth Francis
Blue River Real Estate Fund IV LLC
PO Box 7035
Breckenridge, CO 80424

RE: Traffic Analysis – 200 North 7th Avenue

Dear Seth,

The following memo addresses the Traffic Impact Analysis associated with the proposed development of 19 units at 200 North 7th Avenue in Frisco, Colorado. Ten Mile Engineering, Inc. (TME) has based the analysis on the Institute of Transportation Engineers (ITE) Trip Generation Rates – 9th Addition for residential condominiums and townhomes.

Existing Conditions: The 200 North 7th Ave site currently has a 9-bedroom home located on it that is utilized as a short-term rental. There is parking for approximately 6 cars. The existing lot is accessed by Granite Street to the west. North 7th Avenue is a dead-end/cul de sac road to the north and all traffic utilizes Granite Street for access and egress. It is estimated that the existing home generates approximately 15 trips per day when fully occupied.

Proposed Conditions: The site is proposed to be redeveloped into 19 condominium units within one structure. The parking for the units will be in a common parking garage below the units. Each unit will have two parking spaces. The garages will exit directly onto a paved driveway that connects to North 7th Avenue. Additionally, 4 guest surface parking spaces are provided outside the garage.

Estimated Traffic Generation: Based upon the ITE Trip Generation Rates – 9th Addition for residential condominium and townhome each unit is projected to generate approximately 3.34 trips per day or a total of approximately 64 trips for the nineteen units per day. For purposes of this analysis Ten Mile Engineering has taken a conservative approach to the estimating expected trips by using 4 trips per day per unit for a total of 76 trips per day. This would equate to an

TEN MILE ENGINEERING, INC.

increase of 61 trips per day on Granite Street. It can be anticipated that 50% of the cars will turn south at 6th Avenue intersection to access Main Street and go either east or west and 40 percent of the traffic generated will continue north on Granite Street to access areas on Main Street from 5th or 4th Avenue. It should be noted that the 4th Avenue intersection with Main Street has four way stop signs.

Conclusions: Based upon the analysis the following are TME's conclusions with respect to the Traffic Impact related to the development of 200 North 7th Avenue.

- 1) The additional traffic at the Granite Street and 6th Avenue intersection will be minimal and the intersection can handle the increase in traffic without changing the level of service.
- 2) The additional traffic at the Granite Street and 4th and 5th Avenue intersections will be minimal and the intersection can handle the increase in traffic without changing the level of service.
- 3) The traffic impacts of the proposed development can be accommodated by the existing adjacent road and alley network within the Town of Frisco core.

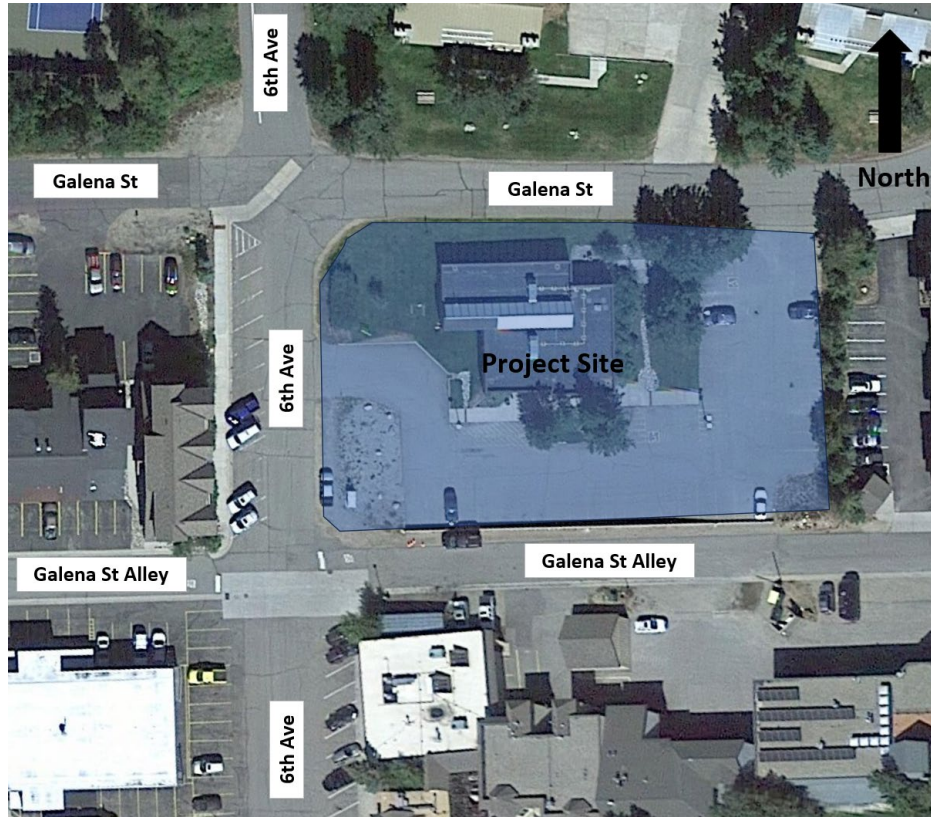
Please feel free to contact me with questions or comments.

Sincerely,


Joseph E. Maglicic P.E.
Ten Mile Engineering, Inc.
PO 1785
Frisco CO 80443
970.485.5773
tenmileengineer@aol.com



**Transportation Impact Analysis
for
602 Galena Street
Frisco, Colorado**



March 1, 2024

PREPARED FOR:
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Contact: Suzanne Allen-Sabo



PREPARED BY:
McDowell Engineering, LLC
PO Box 4259
Eagle, CO 81631
970.623.0788

Contact: Kari J. McDowell Schroeder, PE, PTOE
Project Number: M1627

Statement of Engineering Qualifications

Kari J. McDowell Schroeder, PE, PTOE is a Transportation and Traffic Engineer for McDowell Engineering, LLC. Ms. McDowell Schroeder has over twenty-seven years of extensive traffic and transportation engineering experience. She has completed numerous transportation studies and roadway design projects throughout the State of Colorado. Ms. McDowell Schroeder is a licensed Professional Engineer in the State of Colorado and has her certification as a Professional Traffic Operations Engineer from the Institute of Transportation Engineers.

Transportation Impact Analysis

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1.0 Project Description

McDowell Engineering has prepared this Level Three Auxiliary Traffic Impact Study for the proposed residential development at 602 Galena Street in Frisco, Colorado. The purpose of this transportation impact analysis is to forecast and analyze the impacts of the additional traffic volumes associated with the residential development on the surrounding roadway network.

The development is located directly northeast of the Galena Street Alley and 6th Avenue intersection. The proposed development will be constructed on a single lot. The Frisco Colorado Workforce Center currently occupies the proposed project site. The owner is proposing to demolish the existing workforce building and develop multifamily residential units.

The project site currently has two accesses located on the north and west side of the parcel. One access has direct connectivity to Galena Street and the other to 6th Ave. The proposed site plan is shown in **Figure 1**.

Figure 1: Site Plan



1.1 Project Phasing

The residential development at 602 Galena Street is proposed to be constructed in one phase. This study analyzes a buildout condition of the subdivision with estimated completion in Year 2024. Analysis has been performed for both short-term buildout Year 2024 conditions as well as the long-range planning Year 2045.

1.2 Project Access Locations

The residential development at 602 Galena Street will have two accesses with direct connectivity Galena Street and 6th Ave. Refer to the site plan in **Figure 1**.

1. Galena Street & North Site Access
2. 6th Avenue & West Site Access

1.3 Intersection Analysis Locations

In addition to the site accesses, this report also studies two additional off-site intersections:

1. Galena Street & 6th Avenue
2. Galena Street Alley & 6th Avenue

2.0 Existing Conditions

2.1 Road Network

Galena Street: Galena Street is a two-lane, east-west, paved roadway. This roadway is a collector roadway that serves neighborhood traffic movements over short distances. The posted speed limit is 20mph within the vicinity of the project site. Galena Street is traffic controlled by stop signs and extends from 1st Avenue (western limit) to 7th Avenue (eastern limit).

6th Avenue: 6th Avenue is a two-lane, north-south, paved roadway. This roadway is a collector roadway that serves neighborhood traffic movements over short distances. The posted speed limit is 20mph within the vicinity of the project site.

2.2 Traffic Data Collection

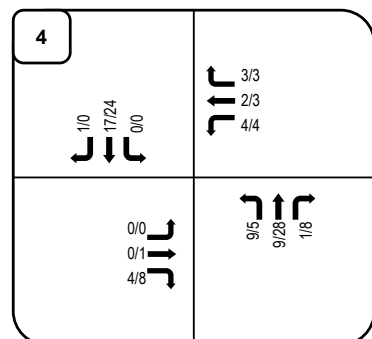
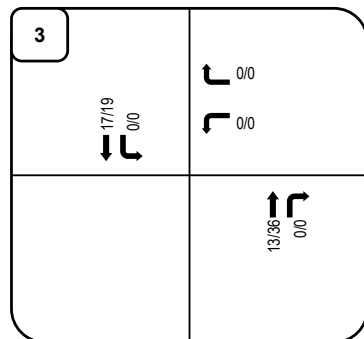
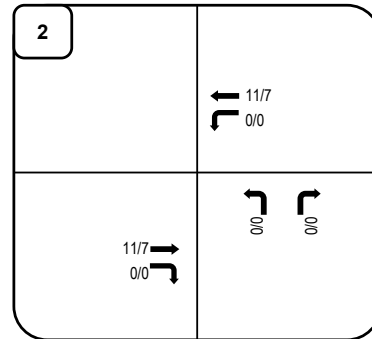
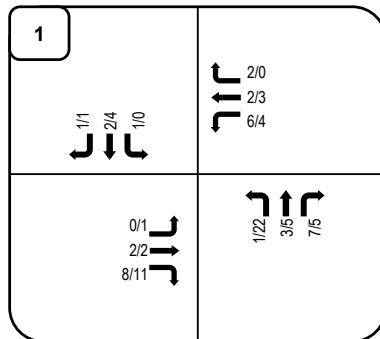
Current Year 2023 traffic data was collected at the intersections of 6th Avenue with Galena Street and the Galena Street Alley. Weekday peak hour turning movement counts were taken on Thursday, August 17, 2023, from 7:00am – 9:00am and 4:00pm – 6:00pm. Weekday morning peak hour occurred between 8:00am – 9:00am. Weekday afternoon peak hour occurred between 4:30pm – 5:30pm.

Figure 2 below shows the Year 2023 existing traffic volumes. The raw traffic data collected can be found in the **Appendix**.

Traffic counts were not collected at the north and south site access. Therefore, the traffic counts at the Galena Street & 6th Avenue intersection and at the Galena Street Alley & 6th Avenue were used to extrapolate the traffic volumes at the site accesses.

These traffic counts were taken in August. However, historical traffic data shows that the traffic peak near Frisco, CO occurs in July. A seasonal adjustment factor was applied to August traffic counts to equate them to peak season traffic counts. See **Section 3.4** for more details regarding the seasonal adjustment factor applied to the June traffic counts.

Figure 3: Year 2023 Seasonally Adjusted Existing Traffic



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements



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3.0 Infrastructure Assumptions

3.1 Existing & Committed Capital Improvement Projects

The Town of Frisco is not currently planning for any capital improvement projects near the project vicinity.

3.2 Planned or Existing Land Development Projects

There are currently no planned or existing land development projects near the project vicinity.

3.3 Background Traffic Growth

A traffic growth rate of 1.0% was used for the expected annual growth on the Town of Frisco's local roads. A standard 1.0% traffic growth rate was used based on previous direction from the Town of Frisco. Many of the lots surrounding the roads studied in this analysis are fully developed. Therefore, the 1.0% annual growth rate on 6th Avenue and Galena Street is considered a conservative (high) estimate of future traffic growth.

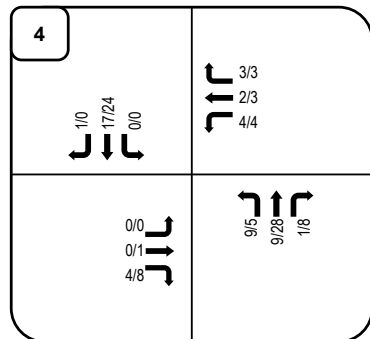
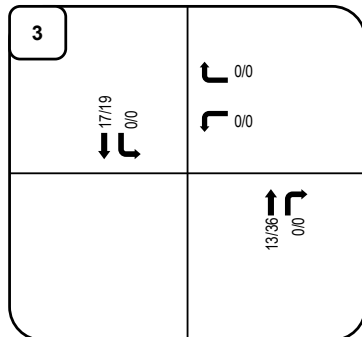
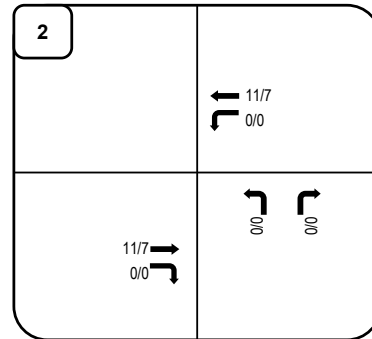
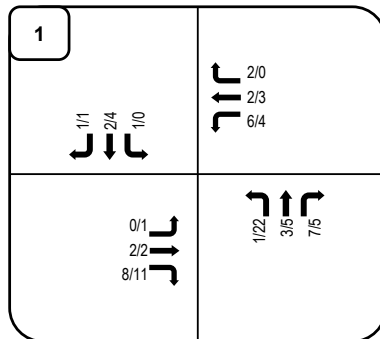
3.4 Seasonal Adjustment Factor

As mentioned in **Section 2.3**, a seasonal adjustment factor was used to convert the August 2023 counts to the peak July 2023 summer traffic volumes. CDOT's *OTIS*¹ has continuous traffic count data. The continuous traffic data was used to determine a seasonal adjustment factor on State Highway 9 near Frisco, CO. This seasonal adjustment factor was then applied to the street network studied in this analysis. The seasonal adjustment factor found equaled 1.05. This factor was applied to the street network in this analysis. The continuous traffic count data used to derive the seasonal adjustment factor can be found in the **Appendix**.

Projected Year 2023 and 2045 background traffic are shown in **Figure 3** and **Figure 4**.

¹ Colorado Department of Transportation, Online Transportation Information System, 2023.

Figure 4: Year 2024 Background Traffic



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements

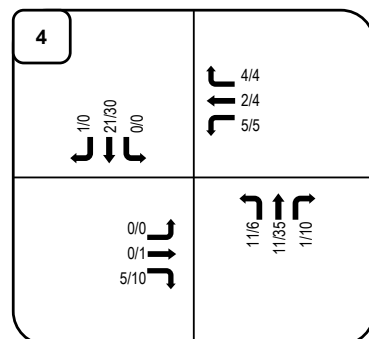
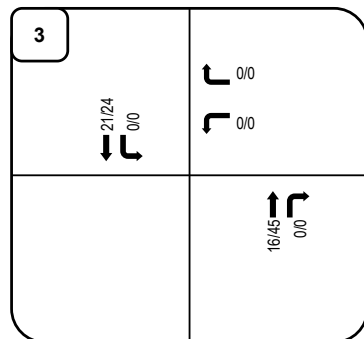
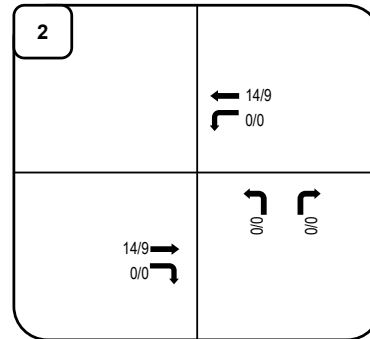
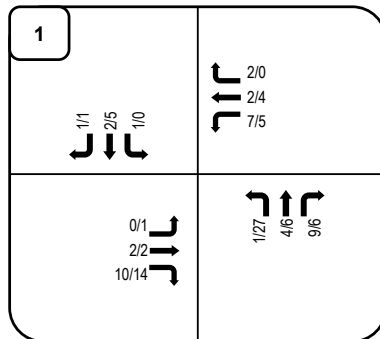


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Figure 5: Year 2045 Background Traffic



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements



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3.5 Background Intersection Traffic Levels of Service and Recommendations

Using *Highway Capacity Manual 6th Edition 2016² (HCM)* methodology, Synchro Version 10 software was used to determine the delay (in seconds) and Level of Service (LOS.) HCM LOS is defined by the following criteria:

Table 1: Year HCM Level of Service Criteria

LOS	Expected Delay to Minor Street Traffic	Average Signal Delay (Seconds/Vehicle)	Average Stop-Controlled Delay (Seconds/Vehicle)
A	Little or no delay.	0-10	0-10
B	Short traffic delays.	>10-20	>10-15
C	Average traffic delays.	>20-35	>15-25
D	Long traffic delays.	>35-55	>25-35
E	Very long traffic delays.	>55-80	>35-50
F	When volume exceeds the capacity of the lane extreme delays will be encountered with queuing that may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improving the intersection.	>80	>50

Table 2 shown below shows the resulting LOS as determined by HCM analysis:

Table 2: Background Traffic Level of Service

#	Int.	Traffic Control	Approach or Control Delay	Approach	Year 2023 Existing Level of Service (Delay in Seconds)			Year 2024 Background Level of Service (Delay in Seconds)			Year 2045 Background Level of Service (Delay in Seconds)		
					AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
1	Galena St & 6th Ave	EB/WB Stop	A	EB	A (8.5)	A (8.6)	-	A (8.5)	A (8.6)	-	A (8.5)	A (8.6)	-
			A	WB	A (8.7)	A (9.2)	-	A (8.7)	A (9.2)	-	A (8.8)	A (9.3)	-
			A	NB	A (0.6)	A (5.4)	-	A (0.6)	A (5.2)	-	A (0.5)	A (4.9)	-
			A	SB	A (1.8)	A (0.0)	-	A (1.8)	A (0.0)	-	A (1.8)	A (0.0)	-
2	North Acc. & Galena St	NB Stop	A	EB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	WB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	NB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
3	West Acc. & 6th Ave	WB Stop	A	WB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	NB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	SB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
4	Galena St Alley & 6th Ave	EB/WB Stop	A	EB	A (8.4)	A (8.6)	-	A (8.4)	A (8.6)	-	A (8.4)	A (8.6)	-
			A	WB	A (8.8)	A (9.0)	-	A (8.8)	A (9.0)	-	A (8.8)	A (9.1)	-
			A	NB	A (3.5)	A (0.9)	-	A (3.5)	A (0.8)	-	A (3.5)	A (0.9)	-
			A	SB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-

As can be seen in **Table 2**, all intersections are anticipated to operate at an acceptable overall LOS A through long-term Year 2045 background traffic conditions.

² Highway Capacity Manual, 6th Edition. Transportation Research Board, 2016.

Galena Street & 6th Avenue: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 background traffic conditions.

North Access & Galena Street: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 background traffic conditions.

West Access & 6th Avenue: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 background traffic conditions.

Galena Street Alley & 6th Avenue: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 background traffic conditions.

The Synchro reports can be found in the **Appendix**.

4.0 Project Traffic

4.1 Trip Generation

Existing Land Use: The existing lot currently has the Frisco Colorado Workforce Center building. This building was estimated to measure approximately 5,000 square ft. This building will be demolished to make space for the proposed residential development.

Proposed Residential Development: The owner is proposing to develop 54 residential dwelling units.

The existing and proposed land uses fall under two land use codes (LUC) per the Institute of Transportation Engineers' 11th *Edition of the Trip Generation Manual*³ (*Trip Generation Manual*), #220 Multifamily Housing (Low-Rise), #710 – General Office Building.

As per ITE's *Trip Generation Handbook*⁴ methodology, the trip generation regression equations were utilized as part of this analysis.

Multimodal Reduction: A 5% multimodal reduction was applied when calculating the total number of vehicular trips. The project site is located near several commercial/retail buildings. Biking or walking to these commercial/retail buildings is possible due to the proximity. The low-speed limits on Galena Street, 6th Avenue, and Galena Street Alley encourage multimodal modes of transportation. Therefore, a multimodal reduction was applied.

Project Trip Generation: The project is anticipated to generate a total of 400 vehicle trips per day (vpd) on the average weekday, including 44 vehicles per hour (vph) during the morning peak hour and 55vph during the evening peak hour.

This equates to an increase of 318vpd over the traffic generated by the existing land use. The new residential use is anticipated to generate an additional 32vph in the morning peak hour and 42vph in the evening peak hour.

Refer to **Table 3** for trip generation calculations and further breakdown of these trips.

³ Trip Generation Manual, 11th Edition. Institute of Transportation Engineers, 2021.

⁴ Trip Generation Handbook, An ITE Recommended Practice. Institute of Transportation Engineers, 2001.

Table 3: Trip Generation Table

ITE Code	Units ²		Eq. Coef	ITE Trip Generation Equation ³			Average Weekday Trips (VPD)	Morning Peak Hour		Evening Peak Hour	
				Avg. Weekday	AM Peak Hour	PM Peak Hour		Inbound	Outbound	Inbound	Outbound
								% Trips	% Trips	% Trips	% Trips
Existing Land Use											
#710 - General Office Building	5	KSF	Type a= b=	B 0.87 3.05	B 0.86 1.16	B 0.83 1.29	86	88% 11	12% 2	17% 3	83% 11
Multi-Modal Reduction	-5%						-4	-1	0	0	-1
Existing Trips							82	10	2	3	10
Proposed Land Use											
#220 - Multifamily Housing (Low-Rise)	54	DU	Type a= b=	A 6.41 75.31	A 0.35 28.13	A 0.42 34.78	421	24% 11	76% 36	62% 36	38% 22
Multi-Modal Reduction	-5%						-21	-1	-2	-2	-1
Proposed Trips							400	10	34	34	21
Proposed New Trips							318	0	32	31	11

Notes:

¹ Values obtained from *Trip Generation, 11th Edition*, Institute of Transportation Engineers, September 2021.

² DU = Dwelling Units, KSF = 1,000 Square Feet

³ Fitted curve equations from ITE Land Uses - Equation Type A is $T = a * X + b$, Equation Type B is $\ln(T) = a * \ln(X) + b$, Rate is $T = a * X$

4.2 Trip Distribution

The anticipated arrival and departure routes of project-generated traffic is influenced by several factors including the following:

- The location of the site relative to other facilities and the roadway network.
- The configuration of the existing and proposed adjacent roadway network.
- Relative location of neighboring population centers.

Directional Distribution: All the commercial developments and population centers are located south of the project site. Therefore, it was assumed 100% of the site-generated traffic would originate south of the project site. The site plan shown in **Figure 1** shows the internal road will be one way with the west access serving as the site entrance and the north accesses serving as the site exit. Refer to **Figure 5** for a detailed graphic of the anticipated directional distribution.

4.3 Site-Generated Traffic

When the trip generation expected for the residential development (**Table 3**) is applied to the estimated trip distribution (**Figure 5**), the result is the anticipated

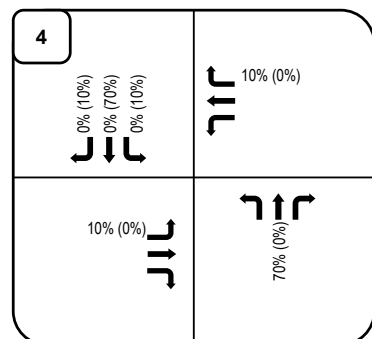
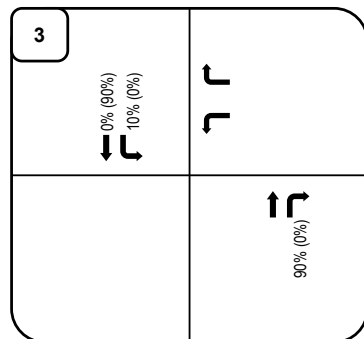
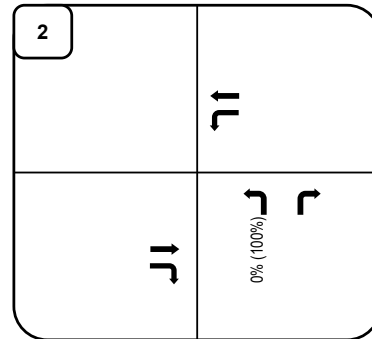
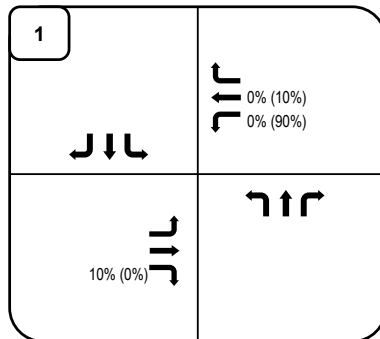
assignment of trips on the roadway system. **Figure 6** depicts the new vehicle trips that are anticipated from the residential development.

4.4 Total Traffic

The total traffic anticipated is the sum of background traffic with the site-generated traffic.

For Year 2024, the background traffic (**Figure 3**) added to the site-generated traffic (**Figure 6**) yields the total Year 2024 traffic in **Figure 7**. For Year 2045, the background traffic (**Figure 4**) added to the site-generated traffic (**Figure 6**) yields the total Year 2045 traffic in **Figure 8**.

Figure 6: Project Generated Traffic Distribution (602 Galena St)



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements

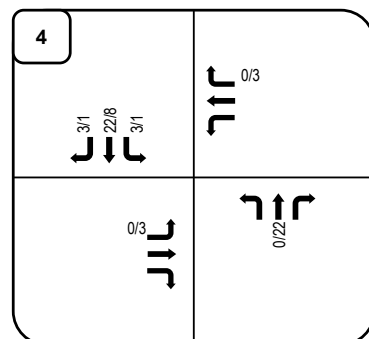
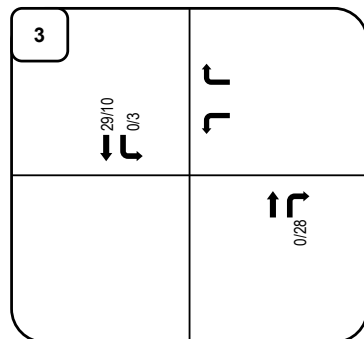
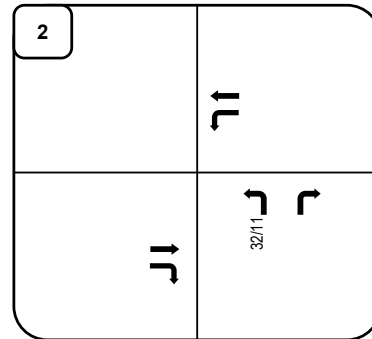
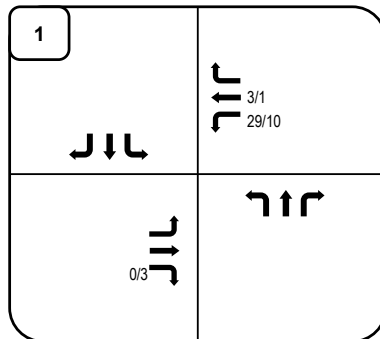


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Figure 7: Project Generated Traffic Assignment (602 Galena St)



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements

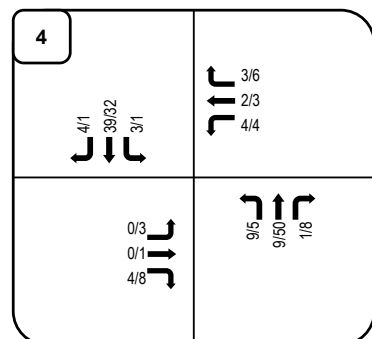
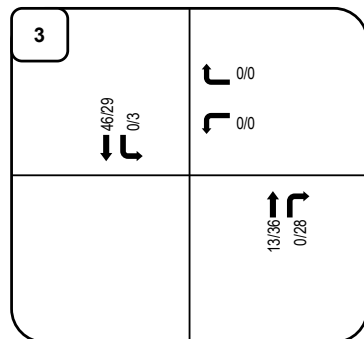
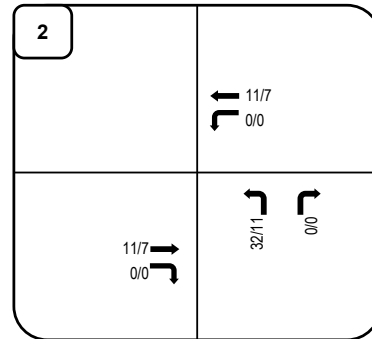
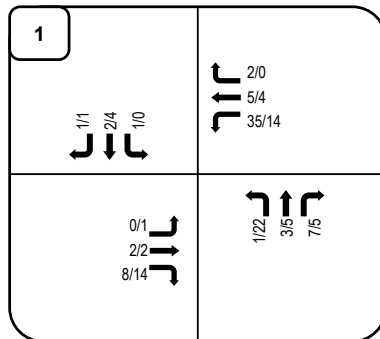


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Figure 8: Year 2024 Total Traffic



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements

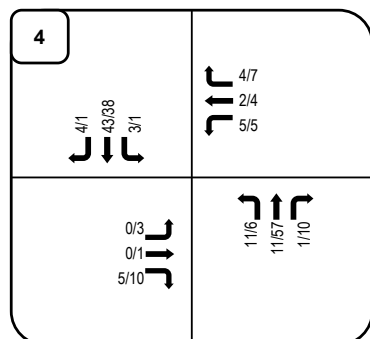
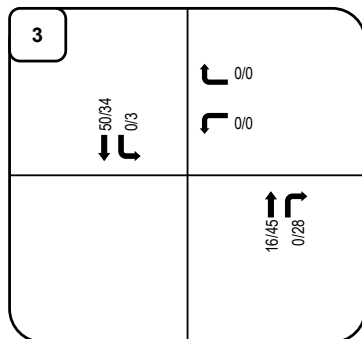
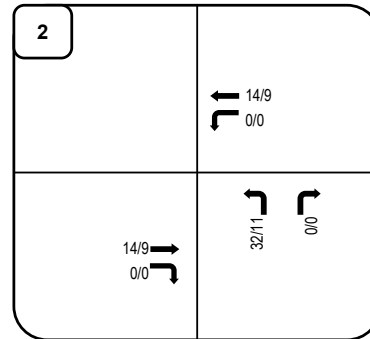
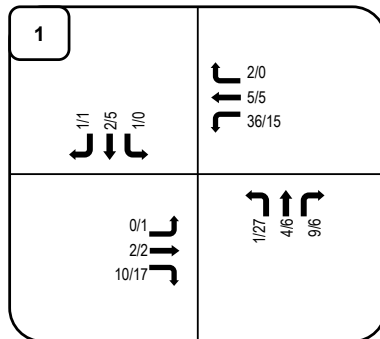


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Figure 9: Year 2045 Total Traffic



LEGEND:

Directional Distribution = Inbound% (Outbound %)

Turning Movements



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5.0 Traffic Analysis

5.1 Auxiliary Turn Lane Analysis

The need for auxiliary turn lanes at the analyzed intersections was based upon the anticipated operational results from Synchro HCM analysis, turning movement volumes, through movement volumes, and posted speed limit. **Table 4** summarizes the recommended auxiliary turn lane requirements.

Table 4: Auxiliary Turn Lane Requirements

#	Int.	Mvmt	Accel or Decel	Posted Speed Limit (MPH)	Road Classification	Year 2023 Existing			Year 2024 BG			Year 2045 BG			Year 2024 Total			Year 2045 Total			Existing Turn Lane	Required Turn Lane	Trigger Year & Condition
						AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT			
1	Galena St & 6th Ave	EBL	Decel	20	NR-C	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	None	Not Required	Not Triggered
		EBR	Decel	20	NR-C	8	10	0	8	11	0	10	14	0	8	14	0	10	17	0	None	Not Required	Not Triggered
		WBL	Decel	20	NR-C	6	4	0	6	4	0	7	5	0	33	13	0	34	14	0	None	Not Required	Not Triggered
		WBR	Decel	20	NR-C	2	0	0	2	0	0	2	0	0	2	0	0	2	0	0	None	Not Required	Not Triggered
		NBL	Decel	20	NR-C	1	21	0	1	22	0	1	27	0	1	22	0	1	27	0	None	Not Required	Not Triggered
		NBR	Decel	20	NR-C	7	5	0	7	5	0	9	6	0	7	5	0	9	6	0	None	Not Required	Not Triggered
		SBL	Decel	20	NR-C	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	None	Not Required	Not Triggered
2	North Acc. & Galena St	SBR	Decel	20	NR-C	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	None	Not Required	Not Triggered
		EBR	Decel	20	NR-C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	Not Required	Not Triggered
		WBL	Decel	20	NR-C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	Not Required	Not Triggered
		NBL	Decel	10	NR-C	0	0	0	0	0	0	0	0	0	30	10	0	30	10	0	None	Not Required	Not Triggered
3	West Acc. & 6th Ave	NBR	Decel	10	NR-C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	Not Required	Not Triggered
		SBL	Decel	20	NR-C	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	None	Not Required	Not Triggered
4	Galena St Alley & 6th Ave	NBR	Decel	20	NR-C	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	None	Not Required	Not Triggered
		EBL	Decel	20	NR-C	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	None	Not Required	Not Triggered
		EBR	Decel	20	NR-C	4	8	0	4	8	0	5	10	0	4	8	0	5	10	0	None	Not Required	Not Triggered
		WBL	Decel	20	NR-C	4	4	0	4	4	0	5	5	0	4	4	0	5	5	0	None	Not Required	Not Triggered
		WBR	Decel	20	NR-C	3	3	0	3	3	0	4	4	0	3	6	0	4	7	0	None	Not Required	Not Triggered
		NBL	Decel	20	NR-C	9	5	0	9	5	0	11	6	0	9	5	0	11	6	0	None	Not Required	Not Triggered
		NBR	Decel	20	NR-C	1	8	0	1	8	0	1	10	0	1	8	0	1	10	0	None	Not Required	Not Triggered
		SBL	Decel	20	NR-C	0	0	0	0	0	0	0	0	0	3	1	0	3	1	0	None	Not Required	Not Triggered
		SBR	Decel	20	NR-C	1	0	0	1	0	0	1	0	0	4	1	0	4	1	0	None	Not Required	Not Triggered

¹Based upon *State Highway Access Code* requirements for an R-A roadway with posted speed of 45mph.

Galena Street & 6th Avenue: No auxiliary turn lanes are required at this intersection.

North Access & Galena Street: No auxiliary turn lanes are required at this intersection.

West Access & 6th Avenue: No auxiliary turn lanes are required at this intersection.

Galena Street Alley & 6th Avenue: No auxiliary turn lanes are required at this intersection.

5.2 Total Traffic Level of Service

An *HCM* analysis under total traffic conditions was performed for the proposed site access under both short-term Year 2024 and long-term Year 2045 traffic conditions. The results can be seen in **Table 5**.

Table 5: HCM Total Traffic LOS

#	Int.	Traffic Control	Approach or Control Delay	Approach	Year 2024 Total Level of Service (Delay in Seconds)			Year 2045 Total Level of Service (Delay in Seconds)		
					AM	PM	SAT	AM	PM	SAT
1	Galena St & 6th Ave	EB/WB Stop	A	EB	A (8.5)	A (8.6)	-	A (8.5)	A (8.6)	-
			A	WB	A (8.9)	A (9.2)	-	A (8.9)	A (9.4)	-
			A	NB	A (0.6)	A (5.2)	-	A (0.5)	A (4.9)	-
			A	SB	A (1.8)	A (0.0)	-	A (1.8)	A (0.0)	-
2	North Acc. & Galena St	NB Stop	A	EB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	WB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	NB	A (8.8)	A (8.6)	-	A (8.8)	A (8.7)	-
3	West Acc. & 6th Ave	WB Stop	A	WB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
			A	NB	A (0.0)	A (0.7)	-	A (0.0)	A (0.6)	-
			A	SB	A (0.0)	A (0.0)	-	A (0.0)	A (0.0)	-
4	Galena St Alley & 6th Ave	EB/WB Stop	A	EB	A (8.5)	A (8.8)	-	A (8.5)	A (8.8)	-
			A	WB	A (8.9)	A (9.0)	-	A (9.0)	A (9.2)	-
			A	NB	A (3.5)	A (0.6)	-	A (3.5)	A (0.7)	-
			A	SB	A (0.5)	A (0.2)	-	A (0.4)	A (0.2)	-

As can be seen in **Table 5**, all intersections are anticipated to operate at an acceptable overall LOS A through long-term Year 2045 total traffic conditions.

Galena Street & 6th Ave: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 total traffic conditions.

North Access & Galena St: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 total traffic conditions.

West Access & 6th Ave: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 total traffic conditions.

Galena Street Alley & 6th Ave: This intersection is anticipated to operate at an acceptable LOS A through Year 2045 total traffic conditions.

The Synchro reports can be found in the **Appendix**.

5.3 Site Accesses Sight Distance

Sight distance requirements are determined by **Section 3.2.2** of the *American Association of State Highway and Transportation Officials (AASHTO): A Policy on Geometric Design of Highways and Streets*⁵ (AASHTO's Greenbook). Table 3-1 *Stopping Sight Distance on Level Roadways*³ identifies sight distance requirements based on speed limits. A roadway with a posted speed limit of 20mph requires a 115ft of sight distance. The civil and landscape design shall keep sight distance triangles.

⁵ AASHTO's A policy on Geometric Design of Highways and Streets

6.0 Summary and Recommendations

The proposed development at 602 Galena Street will be constructed on one lot. The lot currently has the Frisco Colorado Workforce Center building. The workforce center building will be demolished to accommodate the proposed 54 residential dwelling units.

Trip Generation: The project is anticipated to generate a total of 400 vehicle trips per day (vpd) on the average weekday, including 44 vehicles per hour (vph) during the morning peak hour and 55vph during the evening peak hour.

This equates to an increase of 318vpd over the traffic generated by the existing land use. The new residential use is anticipated to generate an additional 32vph in the morning peak hour and 42vph in the evening peak hour.

Site Access: The project site currently has two accesses located on the north and west side of the parcel. One access has direct connectivity to Galena Street and the other to 6th Avenue. The proposed site plan is shown in **Figure 1**.

Background and Total Level of Service: As can be seen in **Table 2** and **Table 5**, all intersections are anticipated to operate at an acceptable overall LOS A through long-term Year 2045 total traffic conditions.

Site Access Sight Distance: The civil and landscape design shall keep sight distance triangles clear.

Turn Lane Analysis: No auxiliary turn lanes are required at the analyzed intersections.

Summary: Based upon the analysis presented in this report, the proposed development at 602 Galena Street is anticipated to be successfully incorporated into the existing roadway network.

7.0 Appendix

7.1 Reference Documents

1. *State Highway Access Code*. State of Colorado, 2002.
2. Colorado Department of Transportation, Online Transportation Information System, 2023.
3. *Highway Capacity Manual, 6th Edition*. Transportation Research Board, 2016.
4. *Trip Generation Manual, 11th Edition*. Institute of Transportation Engineers, 2021.
5. *Trip Generation Handbook, An ITE Recommended Practice*. Institute of Transportation Engineers, 2001.
6. *A Policy on Geometric Design of Highways and Streets 7th Edition*, American Association of State Highway and Transportation Officials, 2018.

7.2 Included Documents

1. McDowell Engineering Scoping Form
2. IDAX Traffic Counts
3. Seasonal Adjustment Factor Calculations
4. Synchro reports



Traffic Study Scoping Form

Contact Information	
Consultant Name:	McDowell Engineering
Tele:	(970)623-0788
E-mail:	kari@mcdowelleng.com
Developer/Owner Name:	NHP Foundation

Project Information <i>(Attach proposed site plan.)</i>								
Project Name:								
Project Location:		602 Galena Street, Frisco, CO 80443						
Project Description: Application type (rezoning, subdivision), acreage, new or re-development, etc.		Developing multifamily residential homes. 3 stories with 48 total units						
Existing Land Uses	ITE Code	#units or Size	Proposed Land Uses	ITE Code	#units or Size	Existing / Proposed Land Uses	ITE Code	#units or Size
Frisco Colorado Workforce Center	#710	5 KSF	Multifamily Housing Low Rise	#221	48 DU			
<i>Please attach Trip Generation Summary table for large or mixed use projects.</i>								

Assumptions				
Study Horizons	Current Year: 2023	Buildout Year: 2024	Long Term Year: 2045	
Study Area Boundaries <i>(Attach map if needed.)</i>	North: Galena St		South: Galena St Alley	
	East: Existing Building		West: 6th Ave	
Intersections to be Evaluated <i>(Attach map if needed.)</i>	1. 6th Ave & Galena St		6.	
	2. 6th Ave & Galena St Alley		7.	
	3. Site Access West of site		8.	
	4. Site Access North of site		9.	
	5.		10.	
Trip Distribution	<i>See attached sketch.</i>			
Trip Reductions*	Internal Capture	Use: 0%	Pass By	Use: 0%
	Multimodal Reduction	Use: 10%		
<i>*Include in Trip Generation table if provided. Submit calculations based upon ITE's Trip Generation Handbook.</i>				

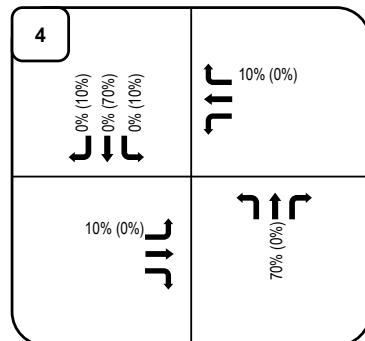
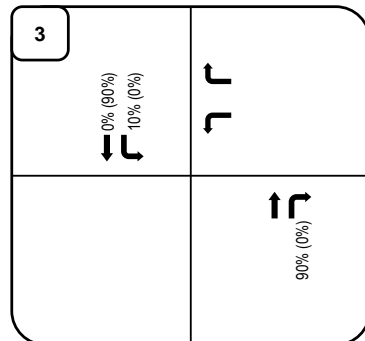
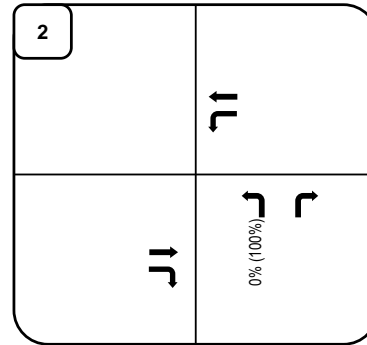
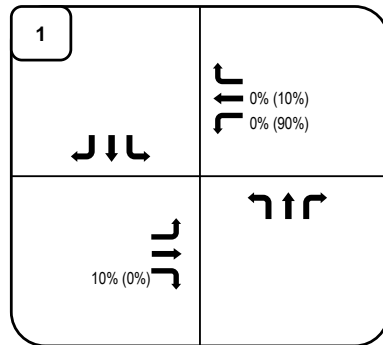
McDowell Engineering Traffic Study Scoping Form

Assumptions (continued)			
Anticipated Future Traffic Growth Rates <i>(Describe methodology.)</i>	1.0% growth rate based on previous McDowell Engineering TIS studies in Frisco, CO	Study Time Periods <i>(Check all that apply.)</i>	<input checked="" type="checkbox"/> AM (7-9) <input checked="" type="checkbox"/> PM (4-6) <input type="checkbox"/> SAT (noon) <input type="checkbox"/> Other:
Other Factors <i>(Proposed/assumed transportation improvements, other studies, nearby proposed developments, etc.)</i>	Will apply a seasonal adjustment factor to convert the traffic counts to peak traffic volumes which are during the month of July. Trip generation table will be included in TIS report with the confirmed existing and proposed land uses.		
Analysis Methods & Issues <i>(Check all that apply.)</i>	<input checked="" type="checkbox"/> Synchro <input type="checkbox"/> HCS <input type="checkbox"/> aaSidra or Rodel <input type="checkbox"/> Intersections <input type="checkbox"/> Roadway Sections <input type="checkbox"/> Signal Warrants <input type="checkbox"/> Safety/Sight Distance <input type="checkbox"/> Queuing & Storage <input type="checkbox"/> CDOT (Access Permit, etc.) <input checked="" type="checkbox"/> Identify Bicycle, Pedestrian & Transit Accommodations <input type="checkbox"/> TDM <input type="checkbox"/> Neighborhood Impacts <input type="checkbox"/> Other:		

Attachments, Notes, & Other Assumptions:

Signed: (Applicant or Consultant) Print Name: (Applicant or Consultant) Date:	Review Agency: Department: Signed: Print Name: Date:
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Project Generated Traffic Distribution (602 Galena St)



LEGEND:

Directional Distribution = Inbound% (Outbound %)

AM/PM Volumes = XX/XX VPH (in PCEs)

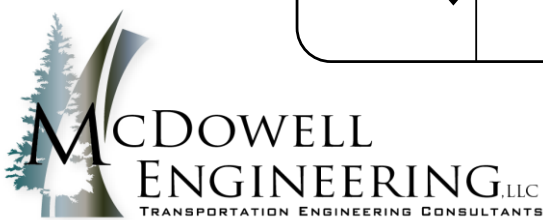
Turning Movements

Project Number M1627

Prepared By EP

8/31/2023

DRAFT - FOR INTERNAL USE ONLY



602 Galena St
Frisco, CO

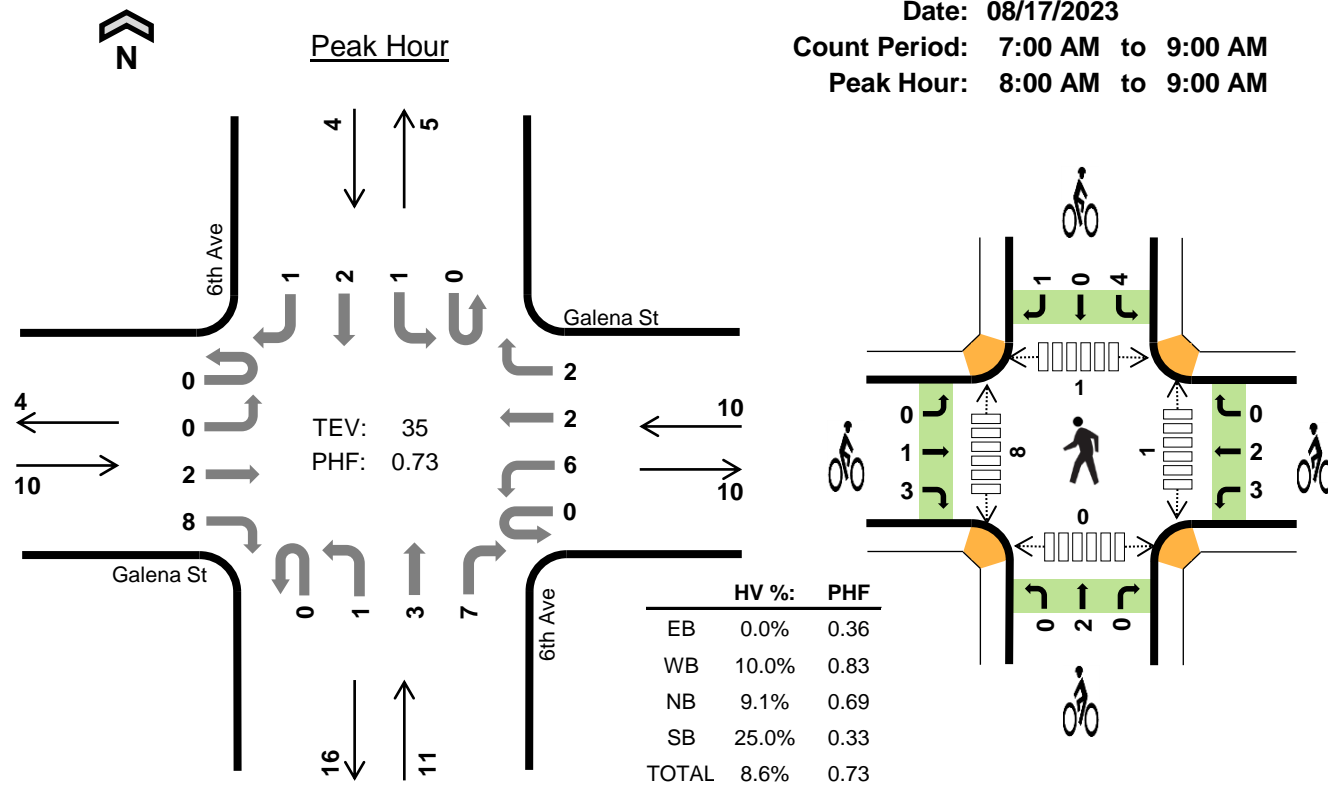
6th Ave Galena St



Date: 08/17/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



Two-Hour Count Summaries

Interval Start		Galena St				Galena St				6th Ave				6th Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	3	0
7:15 AM		0	1	0	3	0	0	0	0	0	0	0	0	0	0	2	0	6	0
7:30 AM		0	0	0	1	0	2	0	0	0	1	0	0	0	0	1	0	5	0
7:45 AM		0	0	0	1	0	1	0	0	0	1	0	2	0	0	0	0	5	19
8:00 AM		0	0	1	0	0	2	1	0	0	0	0	3	0	0	0	0	7	23
8:15 AM		0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	4	21
8:30 AM		0	0	0	7	0	1	0	1	0	0	0	2	0	0	1	0	12	28
8:45 AM		0	0	1	1	0	1	1	1	0	1	3	0	0	1	1	1	12	35
Count Total		0	1	2	14	0	10	2	2	0	3	3	10	0	1	5	1	54	0
Peak Hour	All	0	0	2	8	0	6	2	2	0	1	3	7	0	1	2	1	35	0
	HV	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3	0
	HV%	-	-	0%	0%	-	0%	0%	50%	-	0%	0%	14%	-	0%	0%	100%	9%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	1	1	2	1	4	1	0	6
8:15 AM	0	0	0	0	0	0	1	1	3	5	0	0	0	0	0
8:30 AM	0	0	1	0	1	2	3	0	0	5	0	2	0	0	2
8:45 AM	0	1	0	1	2	2	1	0	1	4	0	2	0	0	2
Count Total	0	1	1	1	3	4	7	3	6	20	2	9	1	0	12
Peak Hour	0	1	1	1	3	4	5	2	5	16	1	8	1	0	10

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Galena St				Galena St				6th Ave				6th Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	3
Count Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3	0

Two-Hour Count Summaries - Bikes

Interval Start	Galena St			Galena St			6th Ave			6th Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	2	0	0	0	1	0	0	0	3	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	4
8:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	2	6
8:15 AM	0	0	0	0	1	0	0	1	0	3	0	0	5	11
8:30 AM	0	0	2	3	0	0	0	0	0	0	0	0	5	13
8:45 AM	0	1	1	0	1	0	0	0	0	0	0	1	4	16
Count Total	0	1	3	3	4	0	0	2	1	4	1	1	20	0
Peak Hour	0	1	3	3	2	0	0	2	0	4	0	1	16	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

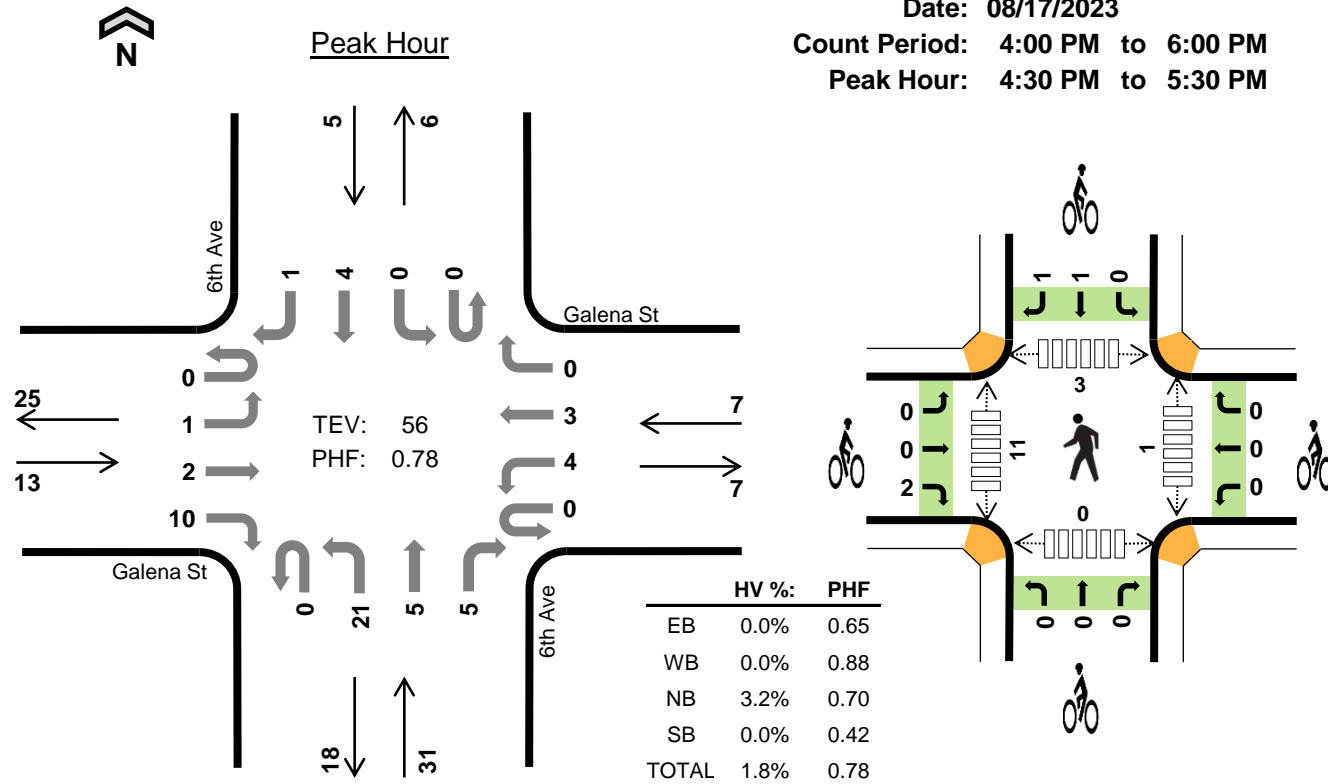
6th Ave Galena St



Date: 08/17/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



Two-Hour Count Summaries

Interval Start		Galena St				Galena St				6th Ave				6th Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	1	0	1	0	1	0	0	0	4	0	2	0	0	1	0	10	0
4:15 PM		1	0	0	1	0	1	2	0	0	3	1	0	0	0	1	0	10	0
4:30 PM		0	0	0	3	0	2	0	0	0	5	0	2	0	0	0	0	12	0
4:45 PM		0	0	0	3	0	0	1	0	0	7	2	2	0	0	3	0	18	50
5:00 PM		0	1	1	3	0	2	0	0	0	5	0	0	0	0	1	0	13	53
5:15 PM		0	0	1	1	0	0	2	0	0	4	3	1	0	0	0	1	13	56
5:30 PM		0	0	0	4	0	3	0	0	0	1	1	1	0	0	2	0	12	56
5:45 PM		0	0	0	1	0	1	1	0	0	3	1	2	0	0	0	0	9	47
Count Total		1	2	2	17	0	10	6	0	0	32	8	10	0	0	8	1	97	0
Peak Hour	All	0	1	2	10	0	4	3	0	0	21	5	5	0	0	4	1	56	0
	HV	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
	HV%	-	0%	0%	0%	-	0%	0%	-	-	5%	0%	0%	-	-	0%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	3	0	2	0	5	0	3	2	0	5
4:15 PM	0	1	0	0	1	0	1	0	0	1	1	1	0	0	2
4:30 PM	0	0	1	0	1	0	0	0	1	1	1	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	0	0	1	0	2	1	0	3
5:00 PM	0	0	0	0	0	1	0	0	1	2	0	6	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5
5:30 PM	0	0	0	0	0	1	0	1	0	2	0	3	1	0	4
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Count Total	0	1	1	0	2	6	1	3	3	13	2	18	6	0	26
Peak Hour	0	0	1	0	1	2	0	0	2	4	1	11	3	0	15

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Galena St				Galena St				6th Ave				6th Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes

Interval Start	Galena St			Galena St			6th Ave			6th Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	1	2	0	0	0	0	1	1	0	0	0	0	5	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	8
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	1	2	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	5
Count Total	2	2	2	1	0	0	2	1	0	0	2	1	13	0
Peak Hour	0	0	2	0	0	0	0	0	0	0	1	1	4	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

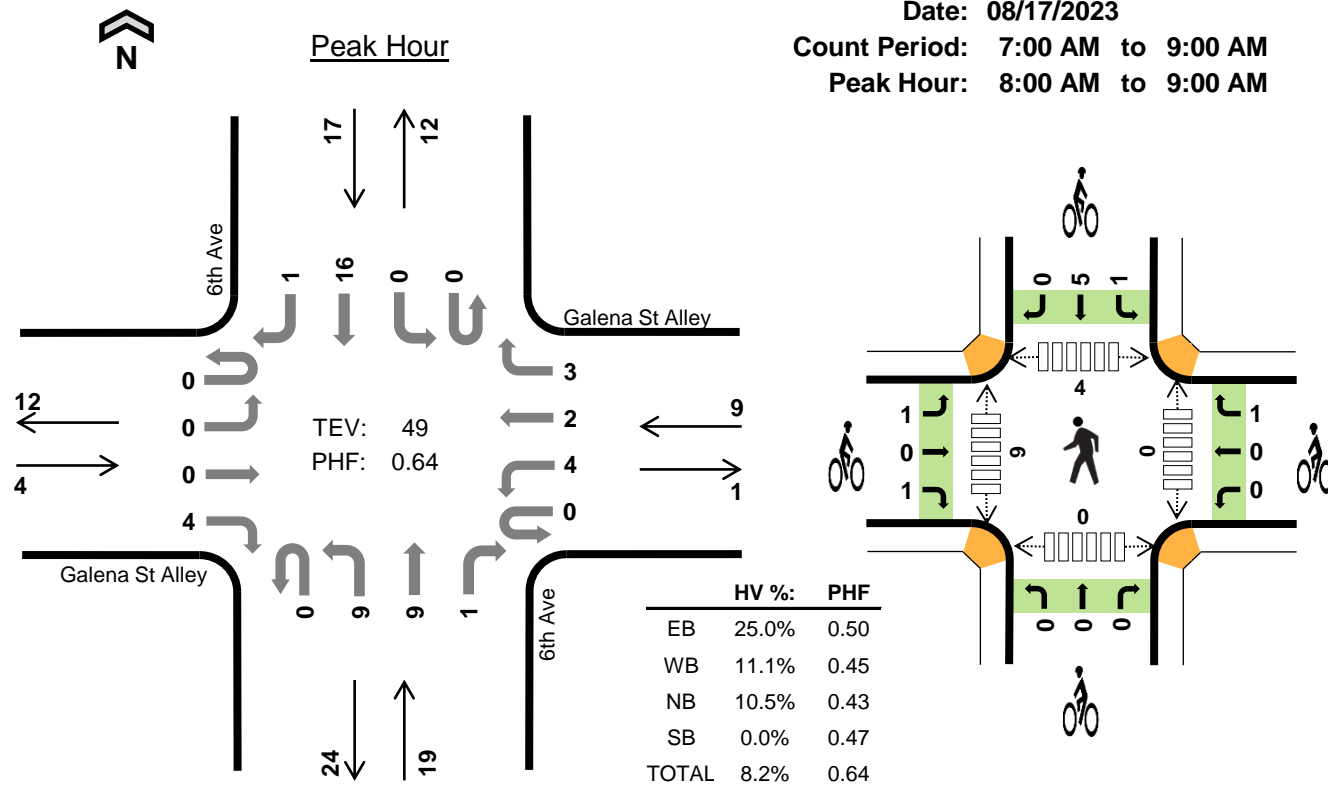
6th Ave Galena St Alley



Date: 08/17/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



Two-Hour Count Summaries

Interval Start		Galena St Alley				Galena St Alley				6th Ave				6th Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
7:15 AM		0	0	0	1	0	0	0	0	0	0	1	0	0	0	6	0	8	0
7:30 AM		0	0	0	2	0	0	0	0	0	0	1	1	0	0	4	0	8	0
7:45 AM		0	0	0	1	0	0	2	0	0	2	3	1	0	0	2	1	12	31
8:00 AM		0	0	0	1	0	2	0	0	0	0	3	0	0	0	2	0	8	36
8:15 AM		0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	5	33
8:30 AM		0	0	0	1	0	1	2	2	0	1	0	1	0	0	8	1	17	42
8:45 AM		0	0	0	2	0	1	0	1	0	7	4	0	0	0	4	0	19	49
Count Total		0	0	0	8	0	4	4	3	0	11	15	3	0	0	30	2	80	0
Peak Hour	All	0	0	0	4	0	4	2	3	0	9	9	1	0	0	16	1	49	0
	HV	0	0	0	1	0	0	0	1	0	2	0	0	0	0	0	0	4	0
	HV%	-	-	-	25%	-	0%	0%	33%	-	22%	0%	0%	-	-	0%	0%	8%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2
7:30 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2
7:45 AM	0	1	0	0	1	0	0	1	1	2	2	0	0	0	2
8:00 AM	1	0	0	0	1	1	0	0	0	1	0	4	4	0	8
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
8:30 AM	0	1	0	0	1	0	0	0	5	5	0	3	0	0	3
8:45 AM	0	0	2	0	2	1	0	0	1	2	0	2	0	0	2
Count Total	2	2	2	0	6	2	1	2	7	12	2	13	4	0	19
Peak Hour	1	1	2	0	4	2	1	0	6	9	0	9	4	0	13

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Galena St Alley				Galena St Alley				6th Ave				6th Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
8:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	4
Count Total	0	0	0	2	0	0	1	1	0	2	0	0	0	0	0	0	6	0
Peak Hour	0	0	0	1	0	0	0	1	0	2	0	0	0	0	0	0	4	0

Two-Hour Count Summaries - Bikes

Interval Start	Galena St Alley			Galena St Alley			6th Ave			6th Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	2	3
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	4
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	5
8:30 AM	0	0	0	0	0	0	0	0	0	1	4	0	5	9
8:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	2	9
Count Total	1	0	1	0	0	1	0	1	1	1	6	0	12	0
Peak Hour	1	0	1	0	0	1	0	0	0	1	5	0	9	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

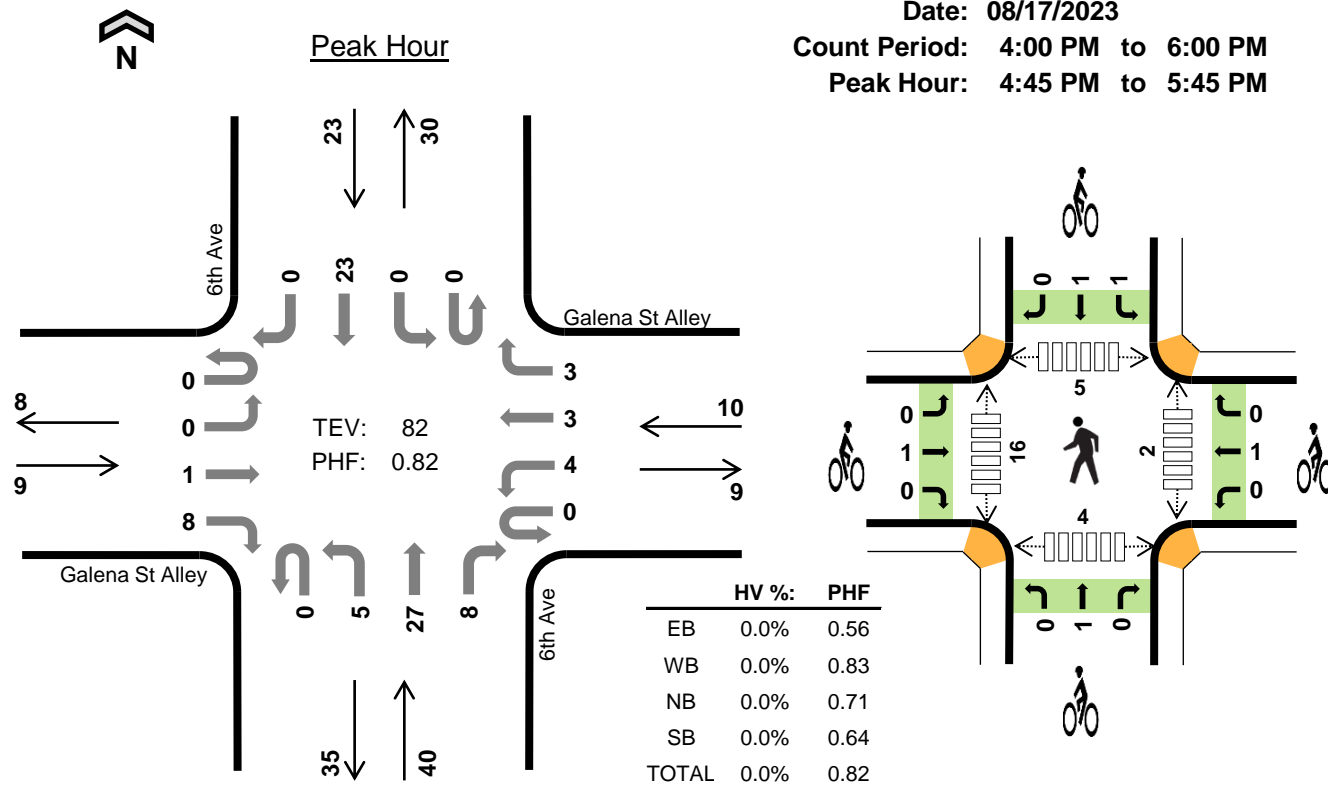
6th Ave Galena St Alley



Date: 08/17/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:45 PM to 5:45 PM



Two-Hour Count Summaries

Interval Start		Galena St Alley				Galena St Alley				6th Ave				6th Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	1	0	0	4	0	0	0	4	8	0	0	0	2	0	19	0
4:15 PM		0	0	1	4	0	3	0	1	0	1	4	0	0	0	4	0	18	0
4:30 PM		0	1	0	1	0	2	0	1	0	1	5	1	0	0	5	0	17	0
4:45 PM		0	0	0	1	0	1	1	1	0	2	11	1	0	0	7	0	25	79
5:00 PM		0	0	1	3	0	1	0	1	0	1	6	2	0	0	6	0	21	81
5:15 PM		0	0	0	2	0	1	1	1	0	0	7	4	0	0	1	0	17	80
5:30 PM		0	0	0	2	0	1	1	0	0	2	3	1	0	0	9	0	19	82
5:45 PM		0	0	0	1	0	2	0	1	0	4	9	2	0	0	3	0	22	79
Count Total		0	1	3	14	0	15	3	6	0	15	53	11	0	0	37	0	158	0
Peak Hour	All	0	0	1	8	0	4	3	3	0	5	27	8	0	0	23	0	82	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	-	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	-	0%	-	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	0	1	0	1	0	0	1	1	4	1	0	6
4:15 PM	0	0	0	0	0	0	0	0	1	1	5	1	1	1	8
4:30 PM	1	0	0	0	1	0	0	0	1	1	2	3	0	2	7
4:45 PM	0	0	0	0	0	1	0	0	1	2	0	2	0	0	2
5:00 PM	0	0	0	0	0	0	1	0	1	2	1	6	2	0	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	2	1	8
5:30 PM	0	0	0	0	0	0	0	1	0	1	1	3	1	3	8
5:45 PM	0	1	0	0	1	0	1	0	1	2	1	0	4	0	5
Count Total	1	1	1	0	3	1	3	1	5	10	11	24	11	7	53
Peak Hour	0	0	0	0	0	1	1	1	2	5	2	16	5	4	27

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Galena St Alley				Galena St Alley				6th Ave				6th Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
Count Total	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	3	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Bikes

Interval Start	Galena St Alley			Galena St Alley			6th Ave			6th Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2	5
5:00 PM	0	0	0	0	1	0	0	0	0	1	0	0	2	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	5
5:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	2	5
Count Total	0	1	0	1	1	1	0	1	0	2	2	1	10	0
Peak Hour	0	1	0	0	1	0	0	1	0	1	1	0	5	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Monthly Summary Data

CDOT OTIS Station ID 000240, ON US 9 South of Frisco

CALYR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2023	25561	26129	25423	20266	17932	22107	26085	24365				
2022	25343	26314	25528	19385	17755	22419	25576	25157	23340	20126	19542	23392
2021	23613	23681	24455	19981	18729	23885	26569	24052	22303	19357	19779	23740
2020	26091	24334	16206	8459	12873	20096	25398	24184	23870	21272	18851	22557
2019	26864	25558	25043	19475	17420	19707	22715	25287	23769	18932	19522	23106
2018	24454	23112	23746	17638	16681	21491	25586	23805	21848	17993	19613	24572
2017	22314	22238	22640	16863	15739	20133	23872	22365	20694	17736	17914	22213
2016	20067	20166	19771	15583	15315	20234	24369	22538	21058	17606	17498	20596
2015	22254	24105	22746	16768	14626	19975	24189	22612	20612	17216	16072	18628
2014	22074	21741	22695	17203								21545
2013	19202	21802	21597	15304	14226	18639	23409	22113	18964	16174	17346	20515
2012	21020	20867	21856	14988	13970	18252	21689	21020	18465	15317	14911	16463
2011	19904	19013	19970	14963	12362	17049	20609	20745	18187	15322	15089	20645
2010	21080	20612	21125	15130	13030	17052	21181	19662	18019	14514	15010	19458
2009	21034	20678	20526	15689	13641	17657	21077	19819	17562	14586	15975	19679
2008	20905	20794	21778	16242	14218	17918	21285	20247	18055	15894	15800	19566
2007	17702	17620	18759	14050	12673				18771	16492	17633	19734
2006		20998	21722	16262	14383	18215	21499	19876	17816	14343	16474	17318
2005	18989	20995	21210	15207	13908	18387	21607	19988	17201	14418	14704	16870
2004	19416	19455	20094	14881	13235	16055	23816	22623	20655	16435	11737	19643
2003	20478	20373	20468	15362	13761	18156	20179	19480	16843	14964	14829	18654
2002	20789	21729	22454	16137	14536	17957	22030	20763	18125	15505	16223	19895
Average	21,864	21,923	21,810	16,174	14,810	19,269	23,137	22,035	19,808	16,710	16,726	20,419

Seasonal Adjustment Factors

CDOT OTIS Station ID 000240, ON US 9 South of Frisco

















		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		21,864	21,923	21,810	16,174	14,810	19,269	23,137	22,035	19,808	16,710	16,726	20,419
Jan	21,864	1.00	1.00	1.00	0.74	0.68	0.88	1.06	1.01	0.91	0.76	0.76	0.93
Feb	21,923	1.00	1.00	0.99	0.74	0.68	0.88	1.06	1.01	0.90	0.76	0.76	0.93
Mar	21,810	1.00	1.01	1.00	0.74	0.68	0.88	1.06	1.01	0.91	0.77	0.77	0.94
Apr	16,174	1.35	1.36	1.35	1.00	0.92	1.19	1.43	1.36	1.22	1.03	1.03	1.26
May	14,810	1.48	1.48	1.47	1.09	1.00	1.30	1.56	1.49	1.34	1.13	1.13	1.38
Jun	19,269	1.13	1.14	1.13	0.84	0.77	1.00	1.20	1.14	1.03	0.87	0.87	1.06
Jul	23,137	0.95	0.95	0.94	0.70	0.64	0.83	1.00	0.95	0.86	0.72	0.72	0.88
Aug	22,035	0.99	0.99	0.99	0.73	0.67	0.87	1.05	1.00	0.90	0.76	0.76	0.93
Sep	19,808	1.10	1.11	1.10	0.82	0.75	0.97	1.17	1.11	1.00	0.84	0.84	1.03
Oct	16,710	1.31	1.31	1.31	0.97	0.89	1.15	1.38	1.32	1.19	1.00	1.00	1.22
Nov	16,726	1.31	1.31	1.30	0.97	0.89	1.15	1.38	1.32	1.18	1.00	1.00	1.22
Dec	20,419	1.07	1.07	1.07	0.79	0.73	0.94	1.13	1.08	0.97	0.82	0.82	1.00

Monthly Summary Data from CDOT OTIS:










<https://dtdapps.coloradodot.info/otis/TrafficData#ui/0/0/1/station/000126/criteria//19/false/true/>

Data Retrieved on September 25, 2023









1: 6th Ave & Galena St
2023 Existing AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Future Volume (Veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	9	7	2	2	1	3	8	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	16	18	2	24	14	7	3			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	16	18	2	24	14	7	3			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	100			100		
cM capacity (veh/h)	994	875	1082	977	879	1075	1619			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	11	11	12	4								
Volume Left	0	7	1	1								
Volume Right	9	2	8	1								
cSH	1037	974	1619	1608								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.5	8.7	0.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.7	0.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			15.7%		ICU Level of Service					A		
Analysis Period (min)			15									

















2: North Acc. & Galena St
2023 Existing AM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	10	0	0	10	0	0
Future Volume (Veh/h)	10	0	0	10	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	11	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			11		22	11
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			11		22	11
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1608		995	1070
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	11	11	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2023 Exisitng AM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	12	0	0	16
Future Volume (Veh/h)	0	0	12	0	0	16
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	13	0	0	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	30	13			13	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	30	13			13	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	984	1067			1606	
Direction, Lane #	NB 1	SB 1				
Volume Total	13	17				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1606				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2023 Existing AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	4	2	3	9	9	1	0	16	1
Future Volume (Veh/h)	0	0	4	4	2	3	9	9	1	0	16	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	4	4	2	3	10	10	1	0	17	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	52	48	18	52	48	10	18			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52	48	18	52	48	10	18			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	99			100		
cM capacity (veh/h)	938	838	1061	939	838	1071	1599			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	9	21	18								
Volume Left	0	4	10	0								
Volume Right	4	3	1	1								
cSH	1061	952	1599	1608								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	0	0								
Control Delay (s)	8.4	8.8	3.5	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.4	8.8	3.5	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.6									
Intersection Capacity Utilization			18.4%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2023 Existing PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	10	4	3	0	21	3	5	0	4	1
Future Volume (Veh/h)	1	2	10	4	3	0	21	3	5	0	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	11	4	3	0	23	3	5	0	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	58	58	4	68	56	6	5			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	58	58	4	68	56	6	5			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	99			100		
cM capacity (veh/h)	926	821	1079	904	823	1077	1616			1612		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	7	31	5								
Volume Left	1	4	23	0								
Volume Right	11	0	5	1								
cSH	1021	867	1616	1612								
Volume to Capacity	0.01	0.01	0.01	0.00								
Queue Length 95th (ft)	1	1	1	0								
Control Delay (s)	8.6	9.2	5.4	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.2	5.4	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.2									
Intersection Capacity Utilization			18.3%	ICU Level of Service					A			
Analysis Period (min)			15									

















2: North Acc. & Galena St
2023 Existing PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	7	0	0	7	0	0
Future Volume (Veh/h)	7	0	0	7	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	0	8	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			8		16	8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			8		16	8
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1612		1002	1074
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	8	8	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2023 Exisitng PM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	34	0	0	18
Future Volume (Veh/h)	0	0	34	0	0	18
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	37	0	0	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	57	37			37	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	57	37			37	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	950	1035			1574	
Direction, Lane #	NB 1	SB 1				
Volume Total	37	20				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1574				
Volume to Capacity	0.02	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2023 Existing PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	8	4	3	3	5	27	8	0	23	0
Future Volume (Veh/h)	0	1	8	4	3	3	5	27	8	0	23	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	9	4	3	3	5	29	9	0	25	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	73	73	25	78	68	34	25			38		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	73	73	25	78	68	34	25			38		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	910	815	1051	900	819	1040	1589			1572		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	10	10	43	25								
Volume Left	0	4	5	0								
Volume Right	9	3	9	0								
cSH	1022	910	1589	1572								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.6	9.0	0.9	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.0	0.9	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			17.0%	ICU Level of Service					A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2024 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Future Volume (Veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	9	7	2	2	1	3	8	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	16	18	2	24	14	7	3			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	16	18	2	24	14	7	3			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	100			100		
cM capacity (veh/h)	994	875	1082	977	879	1075	1619			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	11	11	12	4								
Volume Left	0	7	1	1								
Volume Right	9	2	8	1								
cSH	1037	974	1619	1608								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.5	8.7	0.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.7	0.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			15.7%	ICU Level of Service					A			
Analysis Period (min)			15									

















2: North Acc. & Galena St
2024 BG AM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	11	0	0	11	0	0
Future Volume (Veh/h)	11	0	0	11	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	0	0	12	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			12		24	12
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			12		24	12
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1607		992	1069
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	12	12	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2024 BG AM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	13	0	0	17
Future Volume (Veh/h)	0	0	13	0	0	17
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	14	0	0	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	14			14	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	14			14	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	982	1066			1604	
Direction, Lane #	NB 1	SB 1				
Volume Total	14	18				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1604				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2024 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	4	2	3	9	9	1	0	17	1
Future Volume (Veh/h)	0	0	4	4	2	3	9	9	1	0	17	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	4	4	2	3	10	10	1	0	18	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	53	50	18	53	50	10	19	11				
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	53	50	18	53	50	10	19	11				
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1	4.1				
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	2.2				
p0 queue free %	100	100	100	100	100	100	99	100				
cM capacity (veh/h)	937	837	1060	937	837	1071	1597	1608				
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	9	21	19								
Volume Left	0	4	10	0								
Volume Right	4	3	1	1								
cSH	1060	951	1597	1608								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	0	0								
Control Delay (s)	8.4	8.8	3.5	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.4	8.8	3.5	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			18.4%	ICU Level of Service					A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2024 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	11	4	3	0	22	5	5	0	4	1
Future Volume (Veh/h)	1	2	11	4	3	0	22	5	5	0	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	12	4	3	0	24	5	5	0	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	62	62	4	73	60	8	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	62	62	4	73	60	8	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	99			100		
cM capacity (veh/h)	920	816	1079	896	818	1075	1616			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	7	34	5								
Volume Left	1	4	24	0								
Volume Right	12	0	5	1								
cSH	1023	861	1616	1610								
Volume to Capacity	0.01	0.01	0.01	0.00								
Queue Length 95th (ft)	1	1	1	0								
Control Delay (s)	8.6	9.2	5.2	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.2	5.2	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.0									
Intersection Capacity Utilization			18.5%		ICU Level of Service					A		
Analysis Period (min)			15									

















2: North Acc. & Galena St
2024 BG PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	7	0	0	7	0	0
Future Volume (Veh/h)	7	0	0	7	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	0	8	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			8	16		8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			8	16		8
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			100	100		100
cM capacity (veh/h)			1612	1002		1074
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	8	8	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2024 BG PM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	36	0	0	19
Future Volume (Veh/h)	0	0	36	0	0	19
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	39	0	0	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	60	39			39	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60	39			39	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	947	1033			1571	
Direction, Lane #	NB 1	SB 1				
Volume Total	39	21				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1571				
Volume to Capacity	0.02	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			











4: 6th Ave & Galena St Alley /Galena St Alley
2024 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	8	4	3	3	5	28	8	0	24	0
Future Volume (Veh/h)	0	1	8	4	3	3	5	28	8	0	24	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	9	4	3	3	5	30	9	0	26	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	75	75	26	80	70	34	26			39		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75	75	26	80	70	34	26			39		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	908	813	1050	897	817	1039	1588			1571		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	10	10	44	26								
Volume Left	0	4	5	0								
Volume Right	9	3	9	0								
cSH	1020	908	1588	1571								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.6	9.0	0.8	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.0	0.8	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			17.0%	ICU Level of Service					A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2024 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	8	35	5	2	1	3	7	1	2	1
Future Volume (Veh/h)	0	2	8	35	5	2	1	3	7	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	9	38	5	2	1	3	8	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	18	18	2	24	14	7	3			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18	18	2	24	14	7	3			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	96	99	100	100			100		
cM capacity (veh/h)	989	875	1082	977	879	1075	1619			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	11	45	12	4								
Volume Left	0	38	1	1								
Volume Right	9	2	8	1								
cSH	1037	969	1619	1608								
Volume to Capacity	0.01	0.05	0.00	0.00								
Queue Length 95th (ft)	1	4	0	0								
Control Delay (s)	8.5	8.9	0.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.9	0.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			7.1									
Intersection Capacity Utilization			19.0%	ICU Level of Service					A			
Analysis Period (min)			15									

2: North Acc. & Galena St
2024 Total AM.syn

















						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations					 	
Traffic Volume (veh/h)	11	0	0	11	32	0
Future Volume (Veh/h)	11	0	0	11	32	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	0	0	12	35	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			12		24	12
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			12		24	12
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	100
cM capacity (veh/h)			1607		992	1069
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	12	12	35			
Volume Left	0	0	35			
Volume Right	0	0	0			
cSH	1700	1700	992			
Volume to Capacity	0.01	0.01	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			5.2			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

3: 6th Ave /6th Ave & West Acc.
2024 Total AM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	13	0	0	46
Future Volume (Veh/h)	0	0	13	0	0	46
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	14	0	0	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	64	14			14	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	64	14			14	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	942	1066			1604	
Direction, Lane #	NB 1	SB 1				
Volume Total	14	50				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1604				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley










2024 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	4	2	3	9	9	1	3	39	4
Future Volume (Veh/h)	0	0	4	4	2	3	9	9	1	3	39	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	4	4	2	3	10	10	1	3	42	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	84	81	44	84	82	10	46			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	84	81	44	84	82	10	46			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	99			100		
cM capacity (veh/h)	892	803	1026	893	801	1071	1562			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	9	21	49								
Volume Left	0	4	10	3								
Volume Right	4	3	1	4								
cSH	1026	920	1562	1608								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	0	0								
Control Delay (s)	8.5	9.0	3.5	0.5								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	9.0	3.5	0.5								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			14.7%		ICU Level of Service					A		
Analysis Period (min)			15									

1: 6th Ave & Galena St
2024 Total PM.syn









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	14	14	4	0	22	5	5	0	4	1
Future Volume (Veh/h)	1	2	14	14	4	0	22	5	5	0	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	15	15	4	0	24	5	5	0	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	62	62	4	76	60	8	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	62	62	4	76	60	8	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	98	100	100	99			100		
cM capacity (veh/h)	919	816	1079	889	818	1075	1616			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	19	34	5								
Volume Left	1	15	24	0								
Volume Right	15	0	5	1								
cSH	1032	873	1616	1610								
Volume to Capacity	0.02	0.02	0.01	0.00								
Queue Length 95th (ft)	1	2	1	0								
Control Delay (s)	8.6	9.2	5.2	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.2	5.2	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.6									
Intersection Capacity Utilization			21.4%	ICU Level of Service					A			
Analysis Period (min)			15									

2: North Acc. & Galena St
2024 Total PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	7	0	0	7	11	0
Future Volume (Veh/h)	7	0	0	7	11	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	0	8	12	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			8	16		8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			8	16		8
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			100	99		100
cM capacity (veh/h)			1612	1002		1074
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	8	8	12			
Volume Left	0	0	12			
Volume Right	0	0	0			
cSH	1700	1700	1002			
Volume to Capacity	0.00	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.0	8.6			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.

2024 Total PM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	36	28	3	29
Future Volume (Veh/h)	0	0	36	28	3	29
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	39	30	3	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	92	54			69	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	92	54			69	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	906	1013			1532	
Direction, Lane #	NB 1	SB 1				
Volume Total	69	35				
Volume Left	0	3				
Volume Right	30	0				
cSH	1700	1532				
Volume to Capacity	0.04	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.6				
Lane LOS		A				
Approach Delay (s)	0.0	0.6				
Approach LOS						
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			7.4%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley











2024 Total PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1	8	4	3	6	5	50	8	1	32	1
Future Volume (Veh/h)	3	1	8	4	3	6	5	50	8	1	32	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	9	4	3	7	5	54	9	1	35	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	114	110	36	116	106	58	36			63		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114	110	36	116	106	58	36			63		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	99	100			100		
cM capacity (veh/h)	851	777	1037	850	781	1007	1575			1540		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	14	68	37								
Volume Left	3	4	5	1								
Volume Right	9	7	9	1								
cSH	964	903	1575	1540								
Volume to Capacity	0.01	0.02	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.8	9.0	0.6	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.8	9.0	0.6	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			15.4%	ICU Level of Service					A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2023 Existing AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Future Volume (Veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	9	7	2	2	1	3	8	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	16	18	2	24	14	7	3			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	16	18	2	24	14	7	3			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	100			100		
cM capacity (veh/h)	994	875	1082	977	879	1075	1619			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	11	11	12	4								
Volume Left	0	7	1	1								
Volume Right	9	2	8	1								
cSH	1037	974	1619	1608								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.5	8.7	0.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.7	0.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			15.7%		ICU Level of Service					A		
Analysis Period (min)			15									

















2: North Acc. & Galena St
2023 Existing AM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations					 	
Traffic Volume (veh/h)	10	0	0	10	0	0
Future Volume (Veh/h)	10	0	0	10	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	11	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			11		22	11
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			11		22	11
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1608		995	1070
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	11	11	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2023 Exisitng AM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	12	0	0	16
Future Volume (Veh/h)	0	0	12	0	0	16
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	13	0	0	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	30	13			13	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	30	13			13	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	984	1067			1606	
Direction, Lane #	NB 1	SB 1				
Volume Total	13	17				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1606				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2023 Existing AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	4	2	3	9	9	1	0	16	1
Future Volume (Veh/h)	0	0	4	4	2	3	9	9	1	0	16	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	4	4	2	3	10	10	1	0	17	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	52	48	18	52	48	10	18			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52	48	18	52	48	10	18			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	99			100		
cM capacity (veh/h)	938	838	1061	939	838	1071	1599			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	9	21	18								
Volume Left	0	4	10	0								
Volume Right	4	3	1	1								
cSH	1061	952	1599	1608								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	0	0								
Control Delay (s)	8.4	8.8	3.5	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.4	8.8	3.5	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.6									
Intersection Capacity Utilization			18.4%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2023 Existing PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	10	4	3	0	21	3	5	0	4	1
Future Volume (Veh/h)	1	2	10	4	3	0	21	3	5	0	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	11	4	3	0	23	3	5	0	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	58	58	4	68	56	6	5			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	58	58	4	68	56	6	5			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	99			100		
cM capacity (veh/h)	926	821	1079	904	823	1077	1616			1612		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	7	31	5								
Volume Left	1	4	23	0								
Volume Right	11	0	5	1								
cSH	1021	867	1616	1612								
Volume to Capacity	0.01	0.01	0.01	0.00								
Queue Length 95th (ft)	1	1	1	0								
Control Delay (s)	8.6	9.2	5.4	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.2	5.4	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.2									
Intersection Capacity Utilization			18.3%	ICU Level of Service					A			
Analysis Period (min)			15									

















2: North Acc. & Galena St
2023 Existing PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	7	0	0	7	0	0
Future Volume (Veh/h)	7	0	0	7	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	0	8	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			8		16	8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			8		16	8
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1612		1002	1074
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	8	8	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2023 Exisitng PM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	34	0	0	18
Future Volume (Veh/h)	0	0	34	0	0	18
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	37	0	0	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	57	37			37	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	57	37			37	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	950	1035			1574	
Direction, Lane #	NB 1	SB 1				
Volume Total	37	20				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1574				
Volume to Capacity	0.02	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2023 Existing PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	8	4	3	3	5	27	8	0	23	0
Future Volume (Veh/h)	0	1	8	4	3	3	5	27	8	0	23	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	9	4	3	3	5	29	9	0	25	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	73	73	25	78	68	34	25			38		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	73	73	25	78	68	34	25			38		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	910	815	1051	900	819	1040	1589			1572		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	10	10	43	25								
Volume Left	0	4	5	0								
Volume Right	9	3	9	0								
cSH	1022	910	1589	1572								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.6	9.0	0.9	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.0	0.9	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			17.0%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2024 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Future Volume (Veh/h)	0	2	8	6	2	2	1	3	7	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	9	7	2	2	1	3	8	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	16	18	2	24	14	7	3			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	16	18	2	24	14	7	3			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	100			100		
cM capacity (veh/h)	994	875	1082	977	879	1075	1619			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	11	11	12	4								
Volume Left	0	7	1	1								
Volume Right	9	2	8	1								
cSH	1037	974	1619	1608								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.5	8.7	0.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.7	0.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			15.7%	ICU Level of Service					A			
Analysis Period (min)			15									

















2: North Acc. & Galena St
2024 BG AM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	11	0	0	11	0	0
Future Volume (Veh/h)	11	0	0	11	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	0	0	12	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			12		24	12
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			12		24	12
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1607		992	1069
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	12	12	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2024 BG AM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	13	0	0	17
Future Volume (Veh/h)	0	0	13	0	0	17
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	14	0	0	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	14			14	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	14			14	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	982	1066			1604	
Direction, Lane #	NB 1	SB 1				
Volume Total	14	18				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1604				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2024 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	4	2	3	9	9	1	0	17	1
Future Volume (Veh/h)	0	0	4	4	2	3	9	9	1	0	17	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	4	4	2	3	10	10	1	0	18	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	53	50	18	53	50	10	19			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	53	50	18	53	50	10	19			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	99			100		
cM capacity (veh/h)	937	837	1060	937	837	1071	1597			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	9	21	19								
Volume Left	0	4	10	0								
Volume Right	4	3	1	1								
cSH	1060	951	1597	1608								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	0	0								
Control Delay (s)	8.4	8.8	3.5	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.4	8.8	3.5	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			18.4%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2024 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	11	4	3	0	22	5	5	0	4	1
Future Volume (Veh/h)	1	2	11	4	3	0	22	5	5	0	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	12	4	3	0	24	5	5	0	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	62	62	4	73	60	8	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	62	62	4	73	60	8	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	99			100		
cM capacity (veh/h)	920	816	1079	896	818	1075	1616			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	7	34	5								
Volume Left	1	4	24	0								
Volume Right	12	0	5	1								
cSH	1023	861	1616	1610								
Volume to Capacity	0.01	0.01	0.01	0.00								
Queue Length 95th (ft)	1	1	1	0								
Control Delay (s)	8.6	9.2	5.2	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.2	5.2	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.0									
Intersection Capacity Utilization			18.5%		ICU Level of Service					A		
Analysis Period (min)			15									

















2: North Acc. & Galena St
2024 BG PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	7	0	0	7	0	0
Future Volume (Veh/h)	7	0	0	7	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	0	8	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			8	16		8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			8	16		8
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			100	100		100
cM capacity (veh/h)			1612	1002		1074
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	8	8	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2024 BG PM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	36	0	0	19
Future Volume (Veh/h)	0	0	36	0	0	19
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	39	0	0	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	60	39			39	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60	39			39	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	947	1033			1571	
Direction, Lane #	NB 1	SB 1				
Volume Total	39	21				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1571				
Volume to Capacity	0.02	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2024 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	8	4	3	3	5	28	8	0	24	0
Future Volume (Veh/h)	0	1	8	4	3	3	5	28	8	0	24	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	9	4	3	3	5	30	9	0	26	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	75	75	26	80	70	34	26			39		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75	75	26	80	70	34	26			39		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	908	813	1050	897	817	1039	1588			1571		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	10	10	44	26								
Volume Left	0	4	5	0								
Volume Right	9	3	9	0								
cSH	1020	908	1588	1571								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.6	9.0	0.8	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.0	0.8	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			17.0%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2045 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	10	7	2	2	1	4	9	1	2	1
Future Volume (Veh/h)	0	2	10	7	2	2	1	4	9	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	8	2	2	1	4	10	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	18	20	2	28	16	9	3	14				
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18	20	2	28	16	9	3	14				
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1	4.1				
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	2.2				
p0 queue free %	100	100	99	99	100	100	100	100				
cM capacity (veh/h)	991	872	1082	970	877	1073	1619	1604				
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	12	15	4								
Volume Left	0	8	1	1								
Volume Right	11	2	10	1								
cSH	1043	968	1619	1604								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.5	8.8	0.5	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.8	0.5	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.2									
Intersection Capacity Utilization			16.6%	ICU Level of Service					A			
Analysis Period (min)			15									

















2: North Acc. & Galena St
2045 BG AM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	14	0	0	14	0	0
Future Volume (Veh/h)	14	0	0	14	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	0	15	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			15		30	15
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			15		30	15
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1603		984	1065
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	15	15	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%		ICU Level of Service	
Analysis Period (min)			15		A	

















3: 6th Ave /6th Ave & West Acc.
2045 BG AM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	16	0	0	21
Future Volume (Veh/h)	0	0	16	0	0	21
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	40	17			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	40	17			17	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	972	1062			1600	
Direction, Lane #	NB 1	SB 1				
Volume Total	17	23				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1600				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2045 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	5	2	4	11	11	1	0	21	1
Future Volume (Veh/h)	0	0	5	5	2	4	11	11	1	0	21	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	5	5	2	4	12	12	1	0	23	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	65	60	24	65	60	12	24			13		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	65	60	24	65	60	12	24			13		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	100	99			100		
cM capacity (veh/h)	918	824	1053	919	824	1068	1591			1606		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	5	11	25	24								
Volume Left	0	5	12	0								
Volume Right	5	4	1	1								
cSH	1053	947	1591	1606								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	8.4	8.8	3.5	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.4	8.8	3.5	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			19.6%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2045 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	14	5	4	0	27	6	6	0	5	1
Future Volume (Veh/h)	1	2	14	5	4	0	27	6	6	0	5	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	15	5	4	0	29	7	7	0	5	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	76	78	6	90	74	10	6			14		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	76	78	6	90	74	10	6			14		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	98			100		
cM capacity (veh/h)	898	798	1077	868	801	1071	1615			1604		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	9	43	6								
Volume Left	1	5	29	0								
Volume Right	15	0	7	1								
cSH	1026	837	1615	1604								
Volume to Capacity	0.02	0.01	0.02	0.00								
Queue Length 95th (ft)	1	1	1	0								
Control Delay (s)	8.6	9.3	4.9	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.3	4.9	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.9									
Intersection Capacity Utilization			18.8%	ICU Level of Service						A		
Analysis Period (min)			15									

















2: North Acc. & Galena St
2045 BG PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	9	0	0	9	0	0
Future Volume (Veh/h)	9	0	0	9	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	0	0	10	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			10		20	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			10		20	10
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1610		997	1071
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	10	10	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%		ICU Level of Service	
Analysis Period (min)			15		A	

















3: 6th Ave /6th Ave & West Acc.
2045 BG PM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	45	0	0	24
Future Volume (Veh/h)	0	0	45	0	0	24
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	49	0	0	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	75	49			49	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	75	49			49	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	928	1020			1558	
Direction, Lane #	NB 1	SB 1				
Volume Total	49	26				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1558				
Volume to Capacity	0.03	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			











4: 6th Ave & Galena St Alley /Galena St Alley
2045 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	10	5	4	4	6	35	10	0	30	0
Future Volume (Veh/h)	0	1	10	5	4	4	6	35	10	0	30	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	11	5	4	4	7	38	11	0	33	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	96	96	33	102	90	44	33			49		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	96	96	33	102	90	44	33			49		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	99	100	100			100		
cM capacity (veh/h)	876	791	1041	866	796	1027	1579			1558		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	12	13	56	33								
Volume Left	0	5	7	0								
Volume Right	11	4	11	0								
cSH	1014	885	1579	1558								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.6	9.1	0.9	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.1	0.9	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			19.4%		ICU Level of Service					A		
Analysis Period (min)			15									









1: 6th Ave & Galena St
2024 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	8	35	5	2	1	3	7	1	2	1
Future Volume (Veh/h)	0	2	8	35	5	2	1	3	7	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	9	38	5	2	1	3	8	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	18	18	2	24	14	7	3			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18	18	2	24	14	7	3			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	96	99	100	100			100		
cM capacity (veh/h)	989	875	1082	977	879	1075	1619			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	11	45	12	4								
Volume Left	0	38	1	1								
Volume Right	9	2	8	1								
cSH	1037	969	1619	1608								
Volume to Capacity	0.01	0.05	0.00	0.00								
Queue Length 95th (ft)	1	4	0	0								
Control Delay (s)	8.5	8.9	0.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.9	0.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			7.1									
Intersection Capacity Utilization			19.0%	ICU Level of Service					A			
Analysis Period (min)			15									

2: North Acc. & Galena St
2024 Total AM.syn

















						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations					 	
Traffic Volume (veh/h)	11	0	0	11	32	0
Future Volume (Veh/h)	11	0	0	11	32	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	0	0	12	35	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			12		24	12
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			12		24	12
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	100
cM capacity (veh/h)			1607		992	1069
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	12	12	35			
Volume Left	0	0	35			
Volume Right	0	0	0			
cSH	1700	1700	992			
Volume to Capacity	0.01	0.01	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			5.2			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

3: 6th Ave /6th Ave & West Acc.
2024 Total AM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	13	0	0	46
Future Volume (Veh/h)	0	0	13	0	0	46
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	14	0	0	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	64	14			14	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	64	14			14	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	942	1066			1604	
Direction, Lane #	NB 1	SB 1				
Volume Total	14	50				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1604				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley











2024 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	4	2	3	9	9	1	3	39	4
Future Volume (Veh/h)	0	0	4	4	2	3	9	9	1	3	39	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	4	4	2	3	10	10	1	3	42	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	84	81	44	84	82	10	46			11		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	84	81	44	84	82	10	46			11		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	99			100		
cM capacity (veh/h)	892	803	1026	893	801	1071	1562			1608		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	9	21	49								
Volume Left	0	4	10	3								
Volume Right	4	3	1	4								
cSH	1026	920	1562	1608								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	0	0								
Control Delay (s)	8.5	9.0	3.5	0.5								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	9.0	3.5	0.5								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			14.7%		ICU Level of Service					A		
Analysis Period (min)			15									

1: 6th Ave & Galena St
2024 Total PM.syn









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	14	14	4	0	22	5	5	0	4	1
Future Volume (Veh/h)	1	2	14	14	4	0	22	5	5	0	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	15	15	4	0	24	5	5	0	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	62	62	4	76	60	8	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	62	62	4	76	60	8	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	98	100	100	99			100		
cM capacity (veh/h)	919	816	1079	889	818	1075	1616			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	19	34	5								
Volume Left	1	15	24	0								
Volume Right	15	0	5	1								
cSH	1032	873	1616	1610								
Volume to Capacity	0.02	0.02	0.01	0.00								
Queue Length 95th (ft)	1	2	1	0								
Control Delay (s)	8.6	9.2	5.2	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.2	5.2	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.6									
Intersection Capacity Utilization			21.4%	ICU Level of Service					A			
Analysis Period (min)			15									

2: North Acc. & Galena St
2024 Total PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations					 	
Traffic Volume (veh/h)	7	0	0	7	11	0
Future Volume (Veh/h)	7	0	0	7	11	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	0	8	12	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			8	16	8	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			8	16	8	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	99	100	
cM capacity (veh/h)			1612	1002	1074	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	8	8	12			
Volume Left	0	0	12			
Volume Right	0	0	0			
cSH	1700	1700	1002			
Volume to Capacity	0.00	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.0	8.6			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.

2024 Total PM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	36	28	3	29
Future Volume (Veh/h)	0	0	36	28	3	29
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	39	30	3	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	92	54			69	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	92	54			69	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	906	1013			1532	
Direction, Lane #	NB 1	SB 1				
Volume Total	69	35				
Volume Left	0	3				
Volume Right	30	0				
cSH	1700	1532				
Volume to Capacity	0.04	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.6				
Lane LOS		A				
Approach Delay (s)	0.0	0.6				
Approach LOS						
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			7.4%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley










2024 Total PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1	8	4	3	6	5	50	8	1	32	1
Future Volume (Veh/h)	3	1	8	4	3	6	5	50	8	1	32	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	9	4	3	7	5	54	9	1	35	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	114	110	36	116	106	58	36			63		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114	110	36	116	106	58	36			63		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	99	100			100		
cM capacity (veh/h)	851	777	1037	850	781	1007	1575			1540		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	14	68	37								
Volume Left	3	4	5	1								
Volume Right	9	7	9	1								
cSH	964	903	1575	1540								
Volume to Capacity	0.01	0.02	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.8	9.0	0.6	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.8	9.0	0.6	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			15.4%	ICU Level of Service					A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2045 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	10	36	5	2	1	4	9	1	2	1
Future Volume (Veh/h)	0	2	10	36	5	2	1	4	9	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	39	5	2	1	4	10	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	20	20	2	28	16	9	3			14		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	20	20	2	28	16	9	3			14		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	96	99	100	100			100		
cM capacity (veh/h)	986	872	1082	970	877	1073	1619			1604		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	46	15	4								
Volume Left	0	39	1	1								
Volume Right	11	2	10	1								
cSH	1043	963	1619	1604								
Volume to Capacity	0.01	0.05	0.00	0.00								
Queue Length 95th (ft)	1	4	0	0								
Control Delay (s)	8.5	8.9	0.5	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.9	0.5	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.9									
Intersection Capacity Utilization			19.0%	ICU Level of Service					A			
Analysis Period (min)			15									

2: North Acc. & Galena St
2045 Total AM.syn

















						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	14	0	0	14	32	0
Future Volume (Veh/h)	14	0	0	14	32	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	0	15	35	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			15		30	15
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			15		30	15
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	100
cM capacity (veh/h)			1603		984	1065
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	15	15	35			
Volume Left	0	0	35			
Volume Right	0	0	0			
cSH	1700	1700	984			
Volume to Capacity	0.01	0.01	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			4.7			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

3: 6th Ave /6th Ave & West Acc.
2045 Total AM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	16	0	0	50
Future Volume (Veh/h)	0	0	16	0	0	50
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	71	17			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	71	17			17	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	933	1062			1600	
Direction, Lane #	NB 1	SB 1				
Volume Total	17	54				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1600				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley










2045 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	5	2	4	11	11	1	3	43	4
Future Volume (Veh/h)	0	0	5	5	2	4	11	11	1	3	43	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	5	5	2	4	12	12	1	3	47	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	96	92	49	96	94	12	51			13		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	96	92	49	96	94	12	51			13		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	100	99			100		
cM capacity (veh/h)	875	790	1020	875	789	1068	1555			1606		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	5	11	25	54								
Volume Left	0	5	12	3								
Volume Right	5	4	1	4								
cSH	1020	917	1555	1606								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	8.5	9.0	3.5	0.4								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	9.0	3.5	0.4								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			16.8%		ICU Level of Service				A			
Analysis Period (min)			15									

1: 6th Ave & Galena St
2045 Total PM.syn









													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	1	2	17	15	5	0	27	6	6	0	5	1	
Future Volume (Veh/h)	1	2	17	15	5	0	27	6	6	0	5	1	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	1	2	18	16	5	0	29	7	7	0	5	1	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type								None					None
Median storage veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	76	78	6	93	74	10	6						14
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	76	78	6	93	74	10	6						14
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1						4.1
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2						2.2
p0 queue free %	100	100	98	98	99	100	98						100
cM capacity (veh/h)	896	798	1077	862	801	1071	1615						1604
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total	21	21	43	6									
Volume Left	1	16	29	0									
Volume Right	18	0	7	1									
cSH	1033	847	1615	1604									
Volume to Capacity	0.02	0.02	0.02	0.00									
Queue Length 95th (ft)	2	2	1	0									
Control Delay (s)	8.6	9.4	4.9	0.0									
Lane LOS	A	A	A										
Approach Delay (s)	8.6	9.4	4.9	0.0									
Approach LOS	A	A											
Intersection Summary													
Average Delay			6.5										
Intersection Capacity Utilization			22.8%	ICU Level of Service					A				
Analysis Period (min)			15										

2: North Acc. & Galena St
2045 Total PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	9	0	0	9	11	0
Future Volume (Veh/h)	9	0	0	9	11	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	0	0	10	12	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			10		20	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			10		20	10
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1610		997	1071
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	10	10	12			
Volume Left	0	0	12			
Volume Right	0	0	0			
cSH	1700	1700	997			
Volume to Capacity	0.01	0.01	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.0	8.7			
Lane LOS						
Approach Delay (s)	0.0	0.0	8.7			
Approach LOS						
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			13.3%		ICU Level of Service	
Analysis Period (min)			15		A	

















3: 6th Ave /6th Ave & West Acc.

2045 Total PM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	45	28	3	34
Future Volume (Veh/h)	0	0	45	28	3	34
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	49	30	3	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	107	64			79	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	107	64			79	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	889	1000			1519	
Direction, Lane #	NB 1	SB 1				
Volume Total	79	40				
Volume Left	0	3				
Volume Right	30	0				
cSH	1700	1519				
Volume to Capacity	0.05	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.6				
Lane LOS		A				
Approach Delay (s)	0.0	0.6				
Approach LOS						
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			7.6%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley










2045 Total PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1	10	5	4	7	6	57	10	1	38	1
Future Volume (Veh/h)	3	1	10	5	4	7	6	57	10	1	38	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	11	5	4	8	7	62	11	1	41	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	135	130	42	136	126	68	42			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	135	130	42	136	126	68	42			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	99	99	100			100		
cM capacity (veh/h)	823	756	1029	821	761	996	1567			1527		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	17	80	43								
Volume Left	3	5	7	1								
Volume Right	11	8	11	1								
cSH	958	877	1567	1527								
Volume to Capacity	0.02	0.02	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.8	9.2	0.7	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.8	9.2	0.7	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			16.6%		ICU Level of Service					A		
Analysis Period (min)			15									









1: 6th Ave & Galena St
2045 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	10	7	2	2	1	4	9	1	2	1
Future Volume (Veh/h)	0	2	10	7	2	2	1	4	9	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	8	2	2	1	4	10	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	18	20	2	28	16	9	3			14		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18	20	2	28	16	9	3			14		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	100			100		
cM capacity (veh/h)	991	872	1082	970	877	1073	1619			1604		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	12	15	4								
Volume Left	0	8	1	1								
Volume Right	11	2	10	1								
cSH	1043	968	1619	1604								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.5	8.8	0.5	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.8	0.5	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.2									
Intersection Capacity Utilization			16.6%		ICU Level of Service				A			
Analysis Period (min)			15									

















2: North Acc. & Galena St
2045 BG AM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	14	0	0	14	0	0
Future Volume (Veh/h)	14	0	0	14	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	0	15	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			15		30	15
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			15		30	15
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1603		984	1065
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	15	15	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2045 BG AM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	16	0	0	21
Future Volume (Veh/h)	0	0	16	0	0	21
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	40	17			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	40	17			17	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	972	1062			1600	
Direction, Lane #	NB 1	SB 1				
Volume Total	17	23				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1600				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2045 BG AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	5	2	4	11	11	1	0	21	1
Future Volume (Veh/h)	0	0	5	5	2	4	11	11	1	0	21	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	5	5	2	4	12	12	1	0	23	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	65	60	24	65	60	12	24			13		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	65	60	24	65	60	12	24			13		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	100	99			100		
cM capacity (veh/h)	918	824	1053	919	824	1068	1591			1606		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	5	11	25	24								
Volume Left	0	5	12	0								
Volume Right	5	4	1	1								
cSH	1053	947	1591	1606								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	8.4	8.8	3.5	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.4	8.8	3.5	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			19.6%		ICU Level of Service				A			
Analysis Period (min)			15									









1: 6th Ave & Galena St
2045 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	14	5	4	0	27	6	6	0	5	1
Future Volume (Veh/h)	1	2	14	5	4	0	27	6	6	0	5	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	15	5	4	0	29	7	7	0	5	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	76	78	6	90	74	10	6	14				
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	76	78	6	90	74	10	6	14				
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1	4.1				
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	2.2				
p0 queue free %	100	100	99	99	100	100	98	100				
cM capacity (veh/h)	898	798	1077	868	801	1071	1615	1604				
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	9	43	6								
Volume Left	1	5	29	0								
Volume Right	15	0	7	1								
cSH	1026	837	1615	1604								
Volume to Capacity	0.02	0.01	0.02	0.00								
Queue Length 95th (ft)	1	1	1	0								
Control Delay (s)	8.6	9.3	4.9	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.3	4.9	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay	5.9											
Intersection Capacity Utilization	18.8%			ICU Level of Service					A			
Analysis Period (min)	15											

















2: North Acc. & Galena St
2045 BG PM.syn

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	9	0	0	9	0	0
Future Volume (Veh/h)	9	0	0	9	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	0	0	10	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			10	20		10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			10	20		10
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			100	100		100
cM capacity (veh/h)			1610	997		1071
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	10	10	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS						
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS						
Intersection Summary						
Average Delay						
			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

















3: 6th Ave /6th Ave & West Acc.
2045 BG PM.syn

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	45	0	0	24
Future Volume (Veh/h)	0	0	45	0	0	24
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	49	0	0	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	75	49			49	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	75	49			49	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	928	1020			1558	
Direction, Lane #	NB 1	SB 1				
Volume Total	49	26				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1558				
Volume to Capacity	0.03	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			










4: 6th Ave & Galena St Alley /Galena St Alley
2045 BG PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	10	5	4	4	6	35	10	0	30	0
Future Volume (Veh/h)	0	1	10	5	4	4	6	35	10	0	30	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	11	5	4	4	7	38	11	0	33	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	96	96	33	102	90	44	33			49		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	96	96	33	102	90	44	33			49		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	99	100	100			100		
cM capacity (veh/h)	876	791	1041	866	796	1027	1579			1558		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	12	13	56	33								
Volume Left	0	5	7	0								
Volume Right	11	4	11	0								
cSH	1014	885	1579	1558								
Volume to Capacity	0.01	0.01	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.6	9.1	0.9	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.1	0.9	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			19.4%		ICU Level of Service					A		
Analysis Period (min)			15									









1: 6th Ave & Galena St
2045 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	10	36	5	2	1	4	9	1	2	1
Future Volume (Veh/h)	0	2	10	36	5	2	1	4	9	1	2	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	39	5	2	1	4	10	1	2	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	20	20	2	28	16	9	3			14		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	20	20	2	28	16	9	3			14		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	96	99	100	100			100		
cM capacity (veh/h)	986	872	1082	970	877	1073	1619			1604		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	46	15	4								
Volume Left	0	39	1	1								
Volume Right	11	2	10	1								
cSH	1043	963	1619	1604								
Volume to Capacity	0.01	0.05	0.00	0.00								
Queue Length 95th (ft)	1	4	0	0								
Control Delay (s)	8.5	8.9	0.5	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	8.9	0.5	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.9									
Intersection Capacity Utilization			19.0%		ICU Level of Service				A			
Analysis Period (min)			15									

2: North Acc. & Galena St
2045 Total AM.syn

















						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	14	0	0	14	32	0
Future Volume (Veh/h)	14	0	0	14	32	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	0	15	35	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			15		30	15
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			15		30	15
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	100
cM capacity (veh/h)			1603		984	1065
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	15	15	35			
Volume Left	0	0	35			
Volume Right	0	0	0			
cSH	1700	1700	984			
Volume to Capacity	0.01	0.01	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			4.7			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

3: 6th Ave /6th Ave & West Acc.
2045 Total AM.syn

















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	16	0	0	50
Future Volume (Veh/h)	0	0	16	0	0	50
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	71	17			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	71	17			17	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	933	1062			1600	
Direction, Lane #	NB 1	SB 1				
Volume Total	17	54				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1600				
Volume to Capacity	0.01	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%	ICU Level of Service		A
Analysis Period (min)			15			

4: 6th Ave & Galena St Alley /Galena St Alley










2045 Total AM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	5	2	4	11	11	1	3	43	4
Future Volume (Veh/h)	0	0	5	5	2	4	11	11	1	3	43	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	5	5	2	4	12	12	1	3	47	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	96	92	49	96	94	12	51			13		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	96	92	49	96	94	12	51			13		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	100	99			100		
cM capacity (veh/h)	875	790	1020	875	789	1068	1555			1606		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	5	11	25	54								
Volume Left	0	5	12	3								
Volume Right	5	4	1	4								
cSH	1020	917	1555	1606								
Volume to Capacity	0.00	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	8.5	9.0	3.5	0.4								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.5	9.0	3.5	0.4								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			16.8%		ICU Level of Service				A			
Analysis Period (min)			15									

1: 6th Ave & Galena St
2045 Total PM.syn

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	1	2	17	15	5	0	27	6	6	0	5	1	
Future Volume (Veh/h)	1	2	17	15	5	0	27	6	6	0	5	1	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	1	2	18	16	5	0	29	7	7	0	5	1	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type								None					None
Median storage veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	76	78	6	93	74	10	6						14
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	76	78	6	93	74	10	6						14
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1						4.1
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2						2.2
p0 queue free %	100	100	98	98	99	100	98						100
cM capacity (veh/h)	896	798	1077	862	801	1071	1615						1604
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total	21	21	43	6									
Volume Left	1	16	29	0									
Volume Right	18	0	7	1									
cSH	1033	847	1615	1604									
Volume to Capacity	0.02	0.02	0.02	0.00									
Queue Length 95th (ft)	2	2	1	0									
Control Delay (s)	8.6	9.4	4.9	0.0									
Lane LOS	A	A	A										
Approach Delay (s)	8.6	9.4	4.9	0.0									
Approach LOS	A	A											
Intersection Summary													
Average Delay			6.5										
Intersection Capacity Utilization			22.8%	ICU Level of Service					A				
Analysis Period (min)			15										

2: North Acc. & Galena St
2045 Total PM.syn

















						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	9	0	0	9	11	0
Future Volume (Veh/h)	9	0	0	9	11	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	0	0	10	12	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			10		20	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			10		20	10
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1610		997	1071
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	10	10	12			
Volume Left	0	0	12			
Volume Right	0	0	0			
cSH	1700	1700	997			
Volume to Capacity	0.01	0.01	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.0	8.7			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.7			
Approach LOS			A			
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

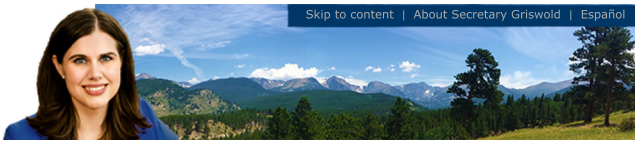
3: 6th Ave /6th Ave & West Acc.
2045 Total PM.syn

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↩			↩
Traffic Volume (veh/h)	0	0	45	28	3	34
Future Volume (Veh/h)	0	0	45	28	3	34
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	49	30	3	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	107	64			79	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	107	64			79	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	889	1000			1519	
Direction, Lane #	NB 1	SB 1				
Volume Total	79	40				
Volume Left	0	3				
Volume Right	30	0				
cSH	1700	1519				
Volume to Capacity	0.05	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.6				
Lane LOS		A				
Approach Delay (s)	0.0	0.6				
Approach LOS						
Intersection Summary						
Average Delay		0.2				
Intersection Capacity Utilization		7.6%		ICU Level of Service		A
Analysis Period (min)		15				

4: 6th Ave & Galena St Alley /Galena St Alley

2045 Total PM.syn

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1	10	5	4	7	6	57	10	1	38	1
Future Volume (Veh/h)	3	1	10	5	4	7	6	57	10	1	38	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	11	5	4	8	7	62	11	1	41	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	135	130	42	136	126	68	42			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	135	130	42	136	126	68	42			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	99	99	100			100		
cM capacity (veh/h)	823	756	1029	821	761	996	1567			1527		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	17	80	43								
Volume Left	3	5	7	1								
Volume Right	11	8	11	1								
cSH	958	877	1567	1527								
Volume to Capacity	0.02	0.02	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	8.8	9.2	0.7	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.8	9.2	0.7	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			16.6%		ICU Level of Service				A			
Analysis Period (min)			15									



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Name:	Blue River Real Estate Fund IV LLC
Principal Street Address:	169 Rocky Mountain Way, Breckenridge, CO, Colorado, 80424, US
Principal Mailing Address:	PO Box 7035, Breckenridge, CO, 80424, US
Registered Agent:	Seth Francis
Registered Agent Street Address:	169 Rocky Mountain Way, Breckenridge, CO, 80424, US
Registered Agent Mailing Address:	PO Box 7035, Breckenridge, CO, 80424, US
Status:	Good Standing
Form:	Limited Liability Company
Jurisdiction:	CO
Formation Date:	2024-02-29

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