4430 South Adams County Parkway

# Request for Comments 

Case Name: Copeland Precast East<br>Project Number: RCU2024-00015

June 14, 2024

The Adams County Planning Commission is requesting comments on the following application: Conditional use permit application to allow accessory outdoor storage in excess of $100 \%$ of the building area within the Industrial-1 zone district. The site is also affected by the Airport Influence Zone and the Airport Noise Overlay. This request is located at 35582 E. 56th Ave. The Assessor's Parcel Number is 0181700000018.

Applicant Information: Copeland Holdings
BART COPELAND
904 S. LIPAN ST.
DENVER, CO 80223
Please forward any written comments on this application to the Community and Economic Development Department at 4430 South Adams County Parkway, Suite W2000A Brighton, CO $80601-8216$ or call (720) $523-6800$ by $07 / 11 / 2024$ in order that your comments may be taken into consideration in the review of this case. If you would like your comments included verbatim please send your response by way of e-mail to GJBarnes@adcogov.org.

Once comments have been received and the staff report written, the staff report and notice of public hearing dates may be forwarded to you upon request. The full text of the proposed request and additional colored maps can be obtained by contacting this office or by accessing the Adams County web site at www.adcogov.org/current-land-use-cases. Thank you for your review of this case.


Greg Barnes
Principal Planner


## Written Explanation

Copeland Precast is a precast concrete manufacturing company. We operate in Denver and want to build an additional plant on $56^{\text {th }}$ Avenue between S. Imboden Rd. and N. Quail Run Road. We are a modern precast plant that builds precast underground utilities. We would like to build a new facility that includes an office and a manufacturing plant with a batch plant. We would pour concrete, build structures, and ship precast items at this location.

The timeline for this project would be to start building as soon as possible once all zoning and permits have been obtained, with a estimated building time of 12 months. Improvements to the property will include a well, septic, power, drainage, roads, parking, office, manufacturing warehouse, fencing, landscaping, and more, as specified to meet Adams County's requirements. In this precast manufacturing plant, we estimate we will bring 25 jobs to the area. We will positively impact the surrounding communities with development and improvements and help create economic growth.

## COPELAND PRECAST CONCRETE

Landscape Plans
Watkins, Colorado


GENERAL LANDSCAPE NOTES





 7. ALL LANDSCAPED AREAS SHALL BE WATERED BY A FULLY AUTOMATC UNDERGGOUND IRRIGATION


## LANDSCAPE MAINTENANCE NOTES












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## IRRIGATION NOTES


2. ReEETO "ARIGATON DRIp EMITTER SCHEDUEEN THIS DRAWING SET FOR QUANTTIES AND SIZES OF
3. VALVES AND VALLE EBXXES SHALL BE COMMERCIAL GRADE WTH PRESSURE REDUCING VALVES USED
4. Contractor shal intal in i irigation controleg ror these improvements. 120 V
5. CONTRACTOR SHALL INSTALL A AEW IRIIGATION BACKLLOW PREVENTER FOR THESE IMPROVEMENTS
(SEE LOCATON ON PLANS).





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9. THE CONTRACTOR SHALL EE RESPONSILLE FOR THE REPAIR OF ANY OF THER TRENCHES OR





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PROJECT NAME: Copeland Precast East

## APPLICANT

| Name(s): | Bart Copeland | Phone \#: | 303-601-8369 |
| :---: | :---: | :---: | :---: |
| Address: | 904 S. Lipan Street |  |  |
| City, State, Zip: | Denver, CO, 80223 |  |  |
| 2nd Phone \#: | 303-936-4817 | Email: | bart@copelandprecast.com |

## OWNER

| Name(s): | Bart Copeland- Copeland Holdings | Phone \#: | 303-601-8369 |
| :---: | :---: | :---: | :---: |
| Address: | 904 S. Lipan Street |  |  |
| City, State, Zip: | Denver, CO, 80223 |  |  |
| 2nd Phone \#: | 303-936-4817 | Email: | Bart@copelandprecast.com |

TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

|  | Eric Tuin- 2n Civil |  |  |
| :--- | :--- | :--- | :--- |
| Name: | Phone \#: | $\boxed{303-925-0544}$ |  |
| Address: | 6 Inverness Ct. East Suite 125 |  |  |
| City, State, Zip: | Englewood, CO, 80112 |  |  |
| 2nd Phone \#: |  |  | Email: |
|  |  |  | eric@2ncivil.com |

## DESCRIPTION OF SITE

Address:

City, State, Zip: Watkins, CO, 80137
Area (acres or square feet):

## 78 Acres

Tax Assessor
Parcel Number

## Parcel\# APN 1817-00-0-00-018

Existing
Zoning:

## |-1

Existing Land Use:

## AG

Proposed Land Use:

## Precast Concrete Plant

Have you attended a Conceptual Review? YES $x$


If yes, please list PRE\#: PRC2019-0002 Copeland Precast

I hereby certify that I am making this application as owner of the above-described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name:

Name:


## Written Explanation

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# Memorandum 

Case Name: $\quad$ Copeland Holdings LLC - Landscape Relief<br>Case Number: VSP2020-00018<br>Date: $\quad$ September 3, 2020

Request: The applicant is requesting administrative relief from the following sections of the Adams County Development Standards and Regulations:

- Section 4-16-06-01 (Bufferyards)
- Bufferyard D (Between a new industrial uses and existing Agricultural uses) requires a 15 -foot minimum bufferyard width with three (3) trees per (60) linear feet of lot line and a six (6) foot high sight obscuring fence or wall located on the interior line of the buffer yard.
- The applicant has proposed a landscape buffer to be installed around the perimeter of the outdoor storage area. The perimeter landscape buffer includes a landscape berm to provide additional screening.

Address/PIN: 0181700000018

Zone Designation: Industrial-1
Future Land Use Designation: Mixed Use Employment

| Minor Amendment |  |
| :--- | :--- |
| Complies with Criteria |  |
| The strict application of the regulations in <br> question is unreasonable given the <br> development proposal or the measures <br> proposed by the applicant or the property has <br> extraordinary or exceptional physical <br> conditions or unique circumstances which do | Yes, the strict application of the regulations <br> in question would require the applicant to <br> not generally exist in nearby properties in the <br> normally exist in this area. |
| same general area and such conditions will |  |
| not allow a reasonable use of the property in |  |
| its current zone in absence of relief. |  |

The granting of the administrative relief will not result in an adverse impact upon surrounding properties.

Granting administrative relief will not result in an adverse impact upon the surrounding areas because the buffer that is being proposed will mitigate the impacts on the east side of the property. The remaining adjacent properties will not be impacted by the development.

## Staff Evaluation

Per Section 4-16, all new developments are required to install landscape material as an integral part of the site design and development process. Pursuant to Section 4-16-06-01, the applicant has applied for relief from certain landscape requirements, including a Type D bufferyard between a new industrial use and an existing agriculturally zoned property that requires a 15 -foot landscape bufferyard and 6 -foot screen fence between the uses.

The requirements of this section apply to the entire site, but the applicant is looking for relief from buffering the east property line of the site, which abuts an agriculturally zoned parcel. Specifically, this request is to eliminate the number of trees required along the eastern edge of the property, as well as the required 6 -foot privacy fence.

The applicant has stated that the physical conditions on the property and the Type D bufferyard are unreasonable considering the surrounding landscape, as well as the amount of irrigation required to sustain such landscaping in such a rural area. The applicant states that this would help maintain a uniform landscape, as well as save a large amount on water usage each year, while providing no negative impacts to surrounding properties.

The intent of the landscaping regulations is being preserved because the proposed landscaping berm and native grass seed will adequately buffer the east side of the property from the agriculturally zoned piece of land. Granting this administrative relief will not result in an adverse impact upon surrounding properties because the large berm. Street frontage along East $56^{\text {th }}$ Avenue will have landscaping in conformance with the regulations. The remaining boundary of the development abuts additional property within the same parcel.

Staff is recommending that a condition of approval that the applicant provides a landscaping plan to be reviewed and approved prior to issuance of a Certificate of Occupancy, with the landscaping to be installed at the beginning of the next planting season; a bond with be provided in lieu of the landscaping.

Staff recommends APPROVAL of this request for administrative relief based on 3 findings of fact.

1. The strict application of the regulations in question is unreasonable given the development proposal and the subject property has extraordinary and exceptional
physical conditions and such conditions will not allow a reasonable use of the property in its current zone in absence of relief;
2. The intent of the landscape regulations section and the specific regulations in question is preserved; and
3. The granting of administrative relief will not result in an adverse impact upon surrounding properties.

Recommended Conditions of Approval:

1. Provide a landscape plan that includes the types of vegetation that are being proposed, as well as the location of the landscaping. This plan must be submitted for review and approved prior to any issuance of Certificate of Occupancy. If landscaping is not installed this season, a landscape bond and agreement shall be provided to the County.
2. Living ground cover must be $50 \%$ established after the first growing season.
3. Landscape material must have a $100 \%$ survival rate after one year and a $90 \%$ survival rate thereafter.

Nick Eagleson
Senior Strategic Planner

Decision: $\qquad$ Approval: 9/8/2020
Jen Rutter, Devêbpment Servlces Manager

## SPECIAL WARRANTY DEED

THIS DEED is dated the 20th day of February, 2019, and is made between
 (whether one, or more than one),

Lester L. Lakey and
Floyd R. Ehmann Revocable Trust dated September 8, 2016 and
Karl F. Ehmann and/or Jeanette E. Ehmann, Trustees under Ehmann Revocable Trust, established June 17, 1996
the "Grantor" of the County of Denver and State of Colorado and
Copeland Holdings, LLCl a Colorado limited liability company
(whether one, or more than one), the "Grantee", whose legal address is 2 Robincrest Lane, Siute B-5, Littleton, CO 80123 of the County of Arapahoe and State of Colorado.

WITNESS, that the Grantor, for and in consideration of the sum of Nine Hundred Thousand Dollars and No Cents ( $\$ 900,000.00$ ), the receipt and sufficiency of which is hereby acknowledged, hereby grants, bargains, sells, conveys and confirms unto the Grantee and the Grantee's heirs and assigns forever, all the real properiy, together with any improvements thereon, located in the County of Adams and State of Colorado described as follows:

The West Half of the Southeast Quarter (W1/2 SE 1/4) of Section 8, Township 3 South, Range 64 West of the 6th P.M., County of Adams, State of Colorado,

EXCEPT the South 45.00 feet thereof deeded to Adams County in Resolution Accepting Deed recorded January 31, 1984 in Book 2835 at Page 807 and re-recorded February 8, 1984 in Book 2838 at Page 547.
also known by street address as: 78 Acres on East 56th Avenue, Watkins, CO 80137
TOGETHER with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, the reversions, remainders, rents, issues and profits thereof, and all the estate, right, title, interest, claim and demand whatsoever of the Grantor, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances;

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the Grantee, and the Grantee's heirs and assigns forever, The Grantor, for the Grantor and the Grantor's heirs and assigns, does covenant, grant, bargain, and agree that the Grantor shall and will WARRANT THE TITLE AND DEFEND the above described premises, in the quiet and peaceable possession of the Grantee and the heirs and assigns of the Grantee, against all and every person or persons claiming the whole or any part thereof, by, through, or under the Grantor except and subject to:

## See Exhibit "A" attached hereto and made a part hereof

IN WITNESS WHEREOF, the Grantor has executed this deed on the date set forth above.

## SEE ATTACHED SIGNATURE PAGE

## SEE ATTACHED NOTARY ACKNOWLEDGEMENT

THIS DEED is dated the 20th day of February, 2019, and is made between (whether one, or more than one),

Lester L. Lakey and
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TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the Grantee, and the Grantee's heirs and assigns forever, The Grantor, for the Grantor and the Grantor's heirs and assigns, does covenant, grant, bargain, and agree that the Grantor shall and will WARRANT THE TITLE AND DEFEND the above described premises, in the quiet and peaceable possession of the Grantee and the heirs and assigns of the Grantee, against all and every person or persons claiming the whole or any part thereof, by, through, or under the Grantor except and subject to:

See Exhibit " A " attached hereto and made a part hereof
IN WITNESS WHEREOF, the Grantor has executed this deed on the date set forth above.

## SIGNATURE AND NOTARY PAGE

Floyd R. Ehmann Revocable Trust dated September 8, 2016


STATE OF ALASKA
counfyof Thirel Juadicial District

The foregoing instrument was acknowledged before me this $19^{\text {th }}$ day of February, 2019 by Floyd R. Ehmann as Trustee of the Floyd R. Ehmann Revocable Trust dated September 8, 2016.

WITNESS MY HAND AND OFFICIAL SEAL.
My commission expires:


## STATE OF ALASKA <br> NOTARY PUBLIC

Erin Hodgson
My Cormmission Expires August 1, 2021

## SIGNATURE AND NOTARY PAGE

Ehmann Revocable Trust, established June 17, 1996


Karl F. Ehmann, Trustee


STATE OF COLORADO
COUNTY OF


The foregoing instrument was acknowledged before me this 19 day of February, 2019 by Karl F. Ehmann and Jeanette E. Ehmann as Trustees of the Ehmann Revocable Trust, established June 17, 1996.

WITNESS MY HAND AND OFFICIAL SEAL.
My commission expires:
$1105 / 2021$


## SIGNATURE AND NOTARY PAGE



STATE OF COLORADO
COUNTY OF


The foregoing instrument was acknowledged before me this $\square$ day of February, 2019 by Lester L. Laky.

WITNESS MY HAND AND OFFICIAL SEAL.
My commission expires:
May 30,2020

## EXHIBIT "A" <br> EXCEPTIONS TO TITLE

1. Taxes for the year 2019, and subsequent years; special assessments or charges not certified to the County Treasurer.
2. Reservations contained in QuitClaim Deed between the Union Pacific Railroad Company and Union Pacific Land Resources Corporation recorded April 14, 1971 in Book 1684 at Page 281.
NOTE: Release and Quitclaim Deed recorded November 23, 1998 in Book 5547 at Page 272.
3. Request for Notification of Surface Development recorded May 20, 2002 at Reception No. C0971787.
4. Mineral Deed recorded June 26, 2006 at Reception No. 20060626000646110.
5. Memorandum of Oil and Gas Lease recorded October 4, 2010 at Reception No. 2010000066720 and rerecorded February 7, 2012 at Reception No. 2012000008831.
Assignment of Oil and Gas Lease recorded November 9, 2011 at Reception No. 2011000078878 and rerecorded January 31, 2012 at Reception No. 2012000007210.
Notice of Lease Extension recorded July 18, 2013 at Reception No. 2013000062037.
Affidavit of Production recorded May 1, 2015 at Reception No. 2015000031847.
Memorandum of Joint Operating Agreement recorded May 4, 2016 at Reception No. 2016000034245.
Assignment, Bill of Sale and Conveyance recorded October 28, 2016 at Reception No. 2016000092569.
Assignment and Bill of Sale recorded November 28, 2016 at Reception No. 2016000102144.
6. Memorandum of Oil and Gas Lease recorded January 28, 2011 at Reception No. 2011000006675 and rerecorded February 9, 2012 at Reception No. 2012000009518.
Memorandum of Joint Operating Agreement recorded May 4, 2016 at Reception No. 2016000034245. Assignment, Bill of Sale and Conveyance recorded October 28, 2016 at Reception No. 2016000092569. Assignment and Bill of Sale recorded November 28, 2016 at Reception No. 2016000102144.
7. Memorandum of Oil and Gas Lease recorded February 2, 2011 at Reception No. 2011000007829 and rerecorded February 9, 2012 at Reception No. 2012000009524.
Affidavit of Production recorded May 1, 2015 at Reception No. 2015000031847.
Memorandum of Joint Operating Agreement recorded May 4, 2016 at Reception No. 2016000034245. Assignment, Bill of Sale and Conveyance recorded October 28, 2016 at Reception No. 2016000092569. Assignment and Bill of Sale recorded November 28, 2016 at Reception No. 2016000102144.
8. Mineral Deed, Conveyance, Assignment and Bill of Sale recorded December 3, 2014 at Reception No. $\underline{2014000084716 .}$
9. Memorandum of Oil and Gas Lease recorded April 24, 2017 at Reception No. 2017000035003. Memorandum of Oil and Gas Lease recorded April 24, 2017 at Reception No. 2017000035004. Assignment of Oil and Gas Lease recorded August 15, 2017 at Reception No. 2017000070973. Assignment and Bill of Sale recorded November 16, 2017 at Reception No. 2017000101574.
10. Easement, Right-of-Way, and Surface Use Agreement recorded June 27, 2017 at Reception No. $\underline{2017000054956 .}$


## REAL PROPERTY TRANSFER DECLARATION - (TD-1000)

## GENERAL INFORMATION

Purpose: The Real Property Transfer Declaration provides essential information to the county assessor to help ensure fair and uniform assessments for all property for property tax purposes. Refer to 39-14-102(4), Colorado Revised Statutes (C.R.S.).

Requirements: All conveyance documents (deeds) subject to the documentary fee submitted to the county clerk and recorder for recordation must be accompanied by a Real Property Transfer Declaration. This declaration must be completed and signed by the grantor (seller) or grantee (buyer). Refer to 39-14-102(1)(a), C.R.S.

Penalty for Noncompliance: Whenever a Real Property Transfer Declaration does not accompany the deed, the clerk and recorder notifies the county assessor who will send a notice to the buyer requesting that the declaration be returned within thirty days after the notice is mailed.

If the completed Real Property Transfer Declaration is not returned to the county assessor within the 30 days of notice, the assessor may impose a penalty of $\$ 25.00$ or $.025 \%$ (.00025) of the sale price, whichever is greater. This penalty may be imposed for any subsequent year that the buyer fails to submit the declaration until the property is sold. Refer to 39-14-102(1)(b), C.R.S.

Confidentiality: The assessor is required to make the Real Property Transfer Declaration available for inspection to the buyer. However, it is only available to the seller if the seller filed the declaration. Information derived from the Real Property Transfer Declaration is available to any taxpayer or any agent of such taxpayer subject to confidentiality requirements as provided by law. Refer to 39-5-121.5, C.R.S. and 39-13-102(5)(c), C.R.S.

1. Address and/or legal description of the real property sold: Please do not use P.O. box numbers.

78 Acres on East 56th Avenue Watkins, Colorado 80137
2. Type of property purchased:

Single Family Residential
_ Multi-Unit Res
___ Agricultural

Townhome Condominium
Commercial

- Mixed Use

Industrial
X Vacant Land

Other $\qquad$

Date of closing: February 20, 2019
Date of contract if different than closing: April 25, 2018
4. Total sale price: Including all real and personal property. $\$ 900,000.00$
5. Was any personal property included in the transaction? Personal property would include, but is not limited to, carpeting, draperies, free standing appliances, equipment, inventory, furniture. If the personal property is not listed, the entire purchase price will be assumed to be for the real property as per 39-13-102, C.R.S.
__Yes X No If yes, approximate value \$ $\qquad$ Describe $\qquad$
6. Did the total sale price include a trade or exchange of additional real or personal property? If yes, give the approximate value of the goods or services as of the date of closing.

Yes $X$ No If yes, value \$
If yes, does this transaction involve a trade under IRS Code Section 1031? $\qquad$ Yes $\qquad$ No
7. Was $\mathbf{1 0 0 \%}$ interest in the real property purchased? Mark "no" if only a partial interest is being purchased. X Yes $\qquad$ No If no, interested purchased $\qquad$ \%
8. Is this a transaction among related parties? Indicate whether the buyer or seller are related. Related parties include persons within the same family, business affiliates, or affiliated corporations.
$\qquad$ Yes $\qquad$
9. Check any of the following that apply to the condition of the improvements at the time of purchase.

Excellent $\qquad$ Fair $\qquad$ Poor $\square$ Salvage X Vacant land.

If the property is financed, please complete the following.
10. Total amount financed.
11. Type of financing: (check all that apply)

Asciomed
12. Terms:
__ Variable; Starting interest rate $\qquad$ \%
Fixed; Starting interest rate
Length of time


Balloon payment $\qquad$ Yes $\qquad$ No. If yes, amount yearsBalon pay
$\qquad$ Due date $\qquad$
13. Please explain any special terms, seller concessions, or financing and any other information that would help the assessor understand the terms of sale.

For properties other than residential (Residential is defined as: single family detached, townhomes, apartments and condominiums) please complete questions 14-16 if applicable. Otherwise, skip to \#17 to complete.
14. Did the purchase price include a franchise or license fee? If yes, franchise or license fee value \$
$\qquad$ Yes $\qquad$ $X$ No
$\qquad$
15. Did the purchase price involve an installment land contract? $\qquad$ Yes $\xrightarrow{X}$ No If yes, date of contract $\qquad$
16. If this was a vacant land sale, was an on-site inspection of the property conducted by the buyer prior to the closing? $\qquad$ Yes $\qquad$ No

Remarks: Please include any additional information concerning the sale you may feel is important.
17. Signed this 20th day of February , 2019

Buyer(s):
Copeland Holdings, LLC, a Colorado limited liability cormpany

18. All future correspondence (tax bills, property yaluations, etc.) regarding this property should be mailed to:
$\qquad$ Address (mailing)

Daytime Phone
Littleton, CO 80123
City, State and Zip Code

COPELAND HOLDINGS (COPELAND, BART)<br>904 SOUTH LIPAN STREET<br>DENVER CO 80223

RE: Well Permit Number 84564 F<br>Located in the SW 1/4, of the SE 1/4, Section 8, Township 3 S, Range 64 W, S P.M.

## NOTICE

This permit to construct a well was issued on $8 / 3 / 2020$. The expiration date of the permit is $8 / 3 / 2021$. In order for the permit to remain valid, certain actions must be taken by the well owner. As of this date, evidence of Well Contruction has been provided but the Pump Installation and Production Equipment Test Report has not been received. Furthermore, a request for extension of the current expiration date has also not been received by the Division of Water Resources.

This permit was approved under Section 37-90-137(4), Colorado Revised Statutes. The well must be constructed and the pump installed prior to the expiration date of the permit. These reports are the responsibility of the licensed water well contractors, or the well owner if the work was performed by the owner. The Well Construction and Yield Estimate Report (GWS-31) and the Pump Installation and Production Equipment Test Report (GWS-32) must be received by the Division of Water Resources prior to the expiration date of the permit.

If pumping equipment has not been installed in the well, the well owner may request a one-time one-year extension of the expiration date on form GWS-64, General Request for Extension of Well Permit Expiration Date. The completed form must be received with a $\$ 60$ filing fee by the Division of Water Resources prior to the expiration date of the permit. If the expiration date has already been extended for one year, the statute does not allow more than one extension of time to be granted.

If the well has been constructed but pumping equipment will not be installed by the expiration date, and an extension of the expiration date has not been approved, the permit will expire and be of no force or effect. It will be necessary for you to obtain a new well permit by submitting a completed application for an existing well along with a $\$ 100.00$ filing fee.

Well permitting forms, including extension requests, and well construction/pump installation forms can be found on the forms page of the DWR website at this link: dwr.colorado.gov/forms Completed forms may be submitted as an attachment to an email addressed to DWRpermitsonline@state.co.us or printed and sent by mail to the address at the top of the form.

Should you have any questions, please contact our office through the AskDWR portal on our website. The link to AskDWR can be found under "Ask a Question" on the DWR homepage: dwr.colorado.gov. Thank-you for your immediate attention.

1313 Sherman St., Suite 818 Denver, CO 80203 dwr.colorado.gov Jared S. Polis, Governor I Dan Gibbs, Executive Director | Kevin G. Rein, State Engineer/Director

| Permit Number | $84564-$ F | Receipt |  |
| :--- | :--- | :--- | :--- |
| Permit Category | General Purpose | WDID | 10004886 |
| Permit Status | Well Constructed |  |  |

## this page is not the actual permit

The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. To view the actual permit, click here, or navigate to Imaged Documents to view all documents related to this permit.

## - Application/Permit History

## Action History

| Action | Action Date | Date Received |  |
| :---: | :---: | :---: | :---: |
| Permit Expiration Date | 8/3/2021 |  |  |
| Pump Installed | 7/12/2021 | 7/13/2021 |  |
| Well Constructed | 11/2/2020 | 12/30/2020 |  |
| Permit Issued | 8/3/2020 |  |  |
| Application Information Submitted | 7/31/2020 | 7/30/2020 |  |
| Application Information Requested | 7/29/2020 |  | Need info on the aquifer and pumping rate |
| Application Received | 7/24/2020 |  |  |

ADAMS COUNTY

## Permit to Install An On-site Waste <br> Water Treatment System



## Associated Professionals

| Business Name: |  | OWTS Installer |
| :--- | :--- | :--- |
| Name: | NAWT Certification: |  |
|  |  | Exp.: |
|  |  | Phone: |
|  |  | Email: |
| Business Name: | Rocky Mountain Engineer Design | OWTS Designer |
| Name: | Matthew Meier | NAWT Certification: CI0002631 |
|  | 14 Inverness Dr E, Suite E-136 | Exp.: |
|  | Englewood, CO 80112 | Phone: |

## CONDITIONS FOR INSTALLATION

Installers must be licensed by Adams County Health Department. No installation shall be covered or used until inspected, correction made if necessary, and approved or expressly authorized by Adams County Health Department. The system installer must provide a record drawing before the system is covered.

## LIMITATIONS AND DISCLAIMER

A permit to Install shall expire 1 Year from the date of issuance unless extended to a fixed date upon request by the Applicant and approved by Adams County Health Department.

# Permit to Install An On-site Waste Water Treatment System 

## PROPERTY INFORMATION: OWNER INFORMATIONOWNER INFORMATION: Bart Copeland

Address: 35582 E 56th Ave Watkins
CO 80137
County: Adams
APN: 0181700000018

| Dwelling Type: | Commercial |
| ---: | :--- |
| No. of Bedrooms: | 0 |
| Water Supply: | Private Well |
| Onsite ID: | Commercial |

Address: 904 S Lipan St, Denver, CO 80223-2717

PERMIT INFORMATION: OWTS000014370
Permit Type: New Permit

## OWTS PERMIT COMMENTS

Install the system as per RMG Engineering design \# 172373, REVISED on 8/5/2020.
Install one 1,060 gallon, two-compartment treatment tank, followed by a 1,060 gallon dosing tank. The tanks must be approved by CDPHE, and must be installed no deeper than 48 inches below grade with risers to grade. An effluent filter must be installed on the outlet invert of the treatment tank. The pump shall be an Orenco PF 5005 high head effluent pump or equivalent. The $S$ series pump control panel must be equipped with an HOA switch, an audio/visual alarm, counter for the time the pump runs and the number of cycles the pump operates, and have an electrical disconnect in line of sight of the pump. The soil treatment area shall be 4,000 square foot NDDS field, with 4 zones of 5 lines, all the laterals shall be 100 feet long, with $1 / 4$ inch holes on center facing down. The laterals must be Schedule 40 pipe, or Class 200 pipe. The laterals must be installed between 12 and 24 inches below grade due to groundwater encountered at $6.5^{\prime}$. Each zone must have one observation pipe at the far end of the zone. Observe all regulations setbacks that pertain to this site. Install all system components at depths specified relative to the site benchmark.

Issued By: Jeff McCarron
Date of Issue: 05/14/2024

March 1, 2019

Adams County Community and Economic Development Department
4430 South Adams County Parkway, $3^{\text {rd }}$ Floor, Suite W3000
Brighton, CO 80601

## Attn: Greg Barnes

## Re: Copeland Precast, Case \# RCU2019-00002

Public Service Company of Colorado's (PSCo) Right of Way \& Permits Referral Desk has reviewed the request for the Copeland Precast Rezone and has no objection to this proposed rezone, contingent upon PSCo's ability to maintain all existing rights and this amendment should not hinder our ability for future expansion, including all present and any future accommodations for natural gas transmission and electric transmission related facilities.

The property owner/developer/contractor must complete the application process for any new natural gas or electric service via FastApp-Fax-Email-USPS (go to:
https://www.xcelenergy.com/start, stop, transfer/new construction service activation for builders). It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center at 1-800-922-1987 to have all utilities located prior to any construction.

## Donna George

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

## Legal Description

# A PARCEL OF PROPERTY LOCATED IN SECTION 8, TOWNSHIP 3 SOUTH, RANGE 64 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS: <br> THE WEST $1 / 2$ OF THE SOUTHEAST 1/4 OF SECTION 8 EXCEPT THE SOUTH 45.00 FEET. <br> PARCEL OF PROPERTY CONTAINS 78.6 ACRES MORE OR LESS. 

ADDRESS: 35582 EAST $56{ }^{\text {TH }}$ AVE., WATKINS, CO 80437

Summary
Account Id R0083297

Parcel Number 0181700000018

Make Checks Payable To: Adams County Treasurer POST DATED CHECKS ARE NOT ACCEPTED PARTIAL PAYMENTS ARE NOT ACCEPTED
If you have sold this property, please forward this statement to
the new owner or return to this office marked "property sold."
IF YOUR TAXES ARE PAID BY A MORTGAGE COMPANY
KEEP THIS NOTICE FOR YOUR RECORDS.
Please see reverse side of this form for additional information

[^0] RETAIN TOP PORTION FOR YOUR RECORDS


1889 York Street
Denver, CO 80206
(303) 333-1105

FAX (303) 333-1107
E-mail: Isc@lscdenver.com

September 7, 2018
Mr. Bart Copeland
Copeland Precast
904 S. Lipan Street
Denver, CO 80223

Re: Copeland Precast<br>Traffic Impact Analysis<br>Adams County, CO<br>LSC \#180930

Dear Mr. Copeland:
In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed Copeland Precast development. As shown on Figure 1, the site is located north of $\mathrm{E} .56^{\text {th }}$ Avenue and east of Imboden Road in Adams County, Colorado.

## REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

## LAND USE AND ACCESS

The site is proposed to be built in two phases. Phase 1 is proposed to include about 4,000 square feet of office space and about 20,000 square feet of manufacturing space. Phase 2 is estimated to include a 741,000 square-foot industrial park. This density is based on the 68 acres in Phase 2 developing at a floor area ratio of about 0.25 . Access is proposed to E. $56^{\text {th }}$ Avenue from one full movement location for each phase. Figure 2a shows the Phase 1 site plan and Figure 2b shows the overall site plan.

## ROADWAY AND TRAFFIC CONDITIONS

## Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- E. 56 ${ }^{\text {th }}$ Avenue is an east-west, two-lane roadway south of the site. The intersection with Imboden Road is stop-sign controlled. The posted speed limit in the vicinity of the site is 55 mph . The 2012 Adams County Transportation Plan shows E. $56^{\text {th }}$ Avenue as a future sixlane principal arterial. It is assumed to be four lanes by 2040.
- Imboden Road is a north-south, two-lane roadway west of the site. The intersection with E. $56^{\text {th }}$ Avenue is stop-sign controlled. The posted speed limit in the vicinity of the site is 45 mph . The 2012 Adams County Transportation Plan shows Imboden Road as a future sixlane principal arterial. It is assumed to be four lanes by 2040.


## Existing Traffic Conditions

Figure 3 shows the existing lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic and daily traffic volumes are from the attached traffic counts conducted by Counter Measures in August, 2018.

## 2020 and 2040 Background Traffic

Figure 4 shows the estimated 2020 background traffic and Figure 5 shows the estimated 2040 background traffic. The 2020 background traffic is based on an annual growth rate of three percent. The 2040 background traffic is based on the projected 2035 volumes from the 2012 Adams County Transportation Plan grown for five years at an annual rate of two percent.

## Existing, 2020, and 2040 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in the study area were analyzed to determine the existing, 2020, and 2040 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- E. 56 ${ }^{\text {th }}$ Avenue/N. Imboden Road: All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to do so through 2020. By 2040, this intersection is expected to be signalized and as such is expected to operate at LOS "C" during both peak-hours.


## TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from Trip Generation, $10^{\text {th }}$ Edition, 2017 by the Institute of Transportation Engineers (ITE).

Phase 1 of the site is projected to generate about 118 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 14 vehicles would enter
and about 4 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 5 vehicles would enter and about 13 vehicles would exit.

At buildout, the overall site is projected to generate about 2,614 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 254 vehicles would enter and about 60 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 67 vehicles would enter and about 247 vehicles would exit.

## TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; the site's proposed land use; and the traffic counts.

## TRIP ASSIGNMENT

Figure 7a shows the estimated Phase 1 site-generated traffic volumes based on the directional distribution percentages (from Figure 6) and the Phase 1 trip generation estimate (from Table 2).

Figure 7 b shows the estimated Buildout site-generated traffic volumes based on the directional distribution percentages (from Figure 6) and the Buildout trip generation estimate (from Table 2). Phase 1 will use the western access and Phase 2 will use the eastern access.

## 2020 AND 2040 TOTAL TRAFFIC

Figure 8 shows the 2020 total traffic which is the sum of the 2020 background traffic volumes (from Figure 4) and the Phase 1 site-generated traffic volumes (from Figure 7a). Figure 8 also shows the recommended 2020 lane geometry and traffic control.

Figure 9 shows the 2040 total traffic which is the sum of 2040 background traffic volumes (from Figure 5) and the Buildout site-generated traffic volumes (from Figure 7b). Figure 9 also shows the recommended 2040 lane geometry and traffic control.

## PROJECTED LEVELS OF SERVICE

The intersections in the study area were analyzed to determine the 2020 and 2040 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- E. 56 ${ }^{\text {th }}$ Avenue/N. Imboden Road: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2020. By 2040, this intersection is expected to be signalized and as such is expected to operate at LOS "C" during both morning and afternoon peak-hours.
- E. 56 ${ }^{\text {th }}$ Avenue/Phase 1 Site Access: All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2040.
- E. 56 ${ }^{\text {th }}$ Avenue/Phase 2 Site Access: All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2040.


## CONCLUSIONS AND RECOMMENDATIONS

## Trip Generation

1. Phase 1 of the site is projected to generate about 118 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, about 14 vehicles would enter and about 4 vehicles would exit the site. During the afternoon peak-hour, about 5 vehicles would enter and about 13 vehicles would exit.
2. At buildout, the overall site is projected to generate about 2,614 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, about 254 vehicles would enter and about 60 vehicles would exit the site. During the afternoon peak-hour, about 67 vehicles would enter and about 247 vehicles would exit.

## Projected Levels of Service

3. All movements at the intersections analyzed are expected to operate at LOS "D" or better through 2040 with the recommended improvements.

## Conclusions

4. The impact of the proposed Copeland Precast development can be accommodated by the existing and planned roadway network with the following recommended improvements.

## Recommendations for Phase 1

5. The site access approach to E. $56^{\text {th }}$ Avenue should be stop-sign controlled.
6. No turn lanes are recommended for Phase 1 but it may be appropriate to dedicate right-ofway or contribute towards future paving of E. $56^{\text {th }}$ Avenue between N. Imboden Road and the site access. An eastbound left-turn lane is recommended when E. $56^{\text {th }}$ Avenue is widened to four lanes in the future. The length of the lane will be based on the posted speed limit at the time the lane is constructed.

## Recommendations for Phase 2

7. Left-turn and right-turn lanes are recommended on E. $56^{\text {th }}$ Avenue approaching the Phase 2 site access. The lengths of the lanes will be based on the posted speed limit at the time the lanes are constructed. Separate left- and right-turn lanes are recommended on
the site access approaching E. $56^{\text {th }}$ Avenue and should be stop-sign controlled. The length of the southbound left-turn lane should be 200 feet.
8. The intersection of E. $56^{\text {th }}$ Avenue/N. Imboden Road will likely require a number of turn lanes by 2040. It may be appropriate for Phase 2 of development to contribute towards these improvements.
9. E. $56^{\text {th }}$ Avenue and N. Imboden Road will likely need to be widened by 2040 to accommodate the projected volumes in the 2012 Adams County Transportation Plan. It may be appropriate for Phase 2 of development to contribute to the widening of E. $56{ }^{\text {th }}$ Avenue adjacent to the site.

We trust our findings will assist you in gaining approval of the proposed Copeland Precast development. Please contact me if you have any questions or need further assistance.

Sincerely,


Enclosures: Tables 1 and 2
Figures 1-9
Traffic Count Reports
Level of Service Definitions
Level of Service Reports
Z: \LSC $\backslash$ Projects $\backslash 2018 \backslash 180930$-CopelandPrecast $\backslash$ Report \CopelandPrecast-090718.wpd

Table 1

## Intersection Levels of Service Analysis

Copeland Precast
Adams County, CO

## LSC \#180930; September, 2018

|  |  | Existing Traffic |  | 2020 Background |  | 2020 Total |  | 2040 Background |  | 2040 Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Traffic | Level of Service AM | Level of Service PM | Level of Service AM | Level of Service PM | Level of Service AM | Level of Service PM | Level of Service | Level of Service PM | Level of Service AM | Level of Service PM |
| $\underline{\text { Intersection Location }}$ | Control | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |


| E. 56th Avenue/N. Imboden Road | TWSC |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NB Left |  | A | A | A | A | A | A | -- | -- | -- | -- |
| EB Left/Through |  | B | B | B | B | B | B | -- | -- | -- | -- |
| EB Right |  | A | A | A | A | A | A | -- | -- | -- | -- |
| WB Approach |  | B | B | A | B | B | B | -- | -- | -- | -- |
| SB Left |  | A | A | A | A | A | A | -- | -- | -- | -- |
| Critical Movement Delay |  | 10.4 | 10.1 | 10.1 | 10.2 | 10.5 | 10.3 | -- | -- | -- | -- |
|  | Signalized |  |  |  |  |  |  |  |  |  |  |
| EB Left |  | -- | -- | -- | -- | -- | -- | D | D | D | D |
| EB Through |  | -- | -- | -- | -- | -- | -- | D | C | D | C |
| EB Right |  | -- | -- | -- | -- | -- | -- | D | D | D | C |
| WB Left |  | -- | -- | -- | -- | -- | -- | D | D | D | D |
| WB Through |  | -- | -- | -- | -- | -- | -- | D | D | D | D |
| WB Right |  | -- | -- | -- | -- | -- | -- | D | D | D | D |
| NB Left |  | -- | -- | -- | -- | -- | -- | B | B | B | B |
| NB Through |  | -- | -- | -- | -- | -- | -- | B | B | B | B |
| NB Right |  | -- | -- | -- | -- | -- | -- | B | B | B | B |
| SB Left |  | -- | -- | -- | -- | -- | -- | B | B | B | B |
| SB Through |  | -- | -- | -- | -- | -- | -- | B | B | B | B |
| SB Right |  | -- | -- | -- | -- | -- | -- | C | B | C | C |
| Entire Intersection Delay (sec /veh) |  | -- | -- | -- | -- | -- | -- | 27.8 | 30.0 | 27.8 | 32.7 |
| Entire Intersection LOS |  | -- | -- | -- | -- | -- | -- | C | C | C | C |
| E. 56th Avenue/Phase 1 Site Access | TWSC |  |  |  |  |  |  |  |  |  |  |
| EB Left or Approach |  | -- | -- | -- | -- | A | A | -- | -- | A | A |
| SB Approach |  | -- | -- | -- | -- | A | A | -- | -- | A | A |
| Critical Movement Delay |  | -- | -- | -- | -- | 8.3 | 8.4 | -- | -- | 9.8 | 9.5 |
| E. 56th Avenue/Phase 2 Site Access | TWSC |  |  |  |  |  |  |  |  |  |  |
| EB Approach or Left |  | -- | -- | -- | -- | -- | -- | -- | -- | A | A |
| SB Left |  | -- | -- | -- | -- | -- | -- | -- | -- | D | B |
| SB Right |  | -- | -- | -- | -- | -- | -- | -- | -- | A | B |
| Critical Movement Delay |  | -- | -- | -- | -- | -- | -- | -- | -- | 26.1 | 14.7 |














COUNTER MEASURES INC.

## 1889 YORK STREET <br> DENVER.COLORADO <br> 303-333-7409

N/S STREET: IMBODEN RD
E/W STREET: 56TH AVE CITY:
COUNTY: ADAMS

File Name: IMBO56TH Site Code : 00000005 Start Date : 8/1/2018 Page No : 1

Groups Printed-1 - VEHICLES

|  | IMBODEN RD Southbound |  |  |  | 56TH AVE <br> Westbound |  |  |  | IMBODEN RD Northbound |  |  |  | 56TH AVE <br> Eastbound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | $\begin{array}{r} \text { Int. } \\ \text { Total } \end{array}$ |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |  |
| 06:30 AM | 0 | 28 | 3 | 0 | 0 | 0 | 0 | 0 | 9 | 3 | 1 | 0 | 0 | 1 | 3 | 0 | 48 |
| 06:45 AM | 1 | 22 | 5 | 0 | 0 | 1 | 0 | 0 | 3 | 11 | 1 | 0 |  | 0 |  | 0 | 53 |
| Total | 1 | 50 | 8 | 0 | 0 | 1 | 0 | 0 | 12 | 14 | 2 | , | 4 | , | 8 | 0 | 101 |


| 07:00 AM | 0 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 7 | 0 | 35 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 07:15 AM | 0 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 1 | 0 | 1 | 0 | 5 | 0 | 29 |
| 07:30 AM | 0 | 22 | 2 | 0 | 1 | 0 | 0 | 0 | 10 | 4 | 0 | 0 | 0 | 0 | 5 | 0 | 44 |
| 07:45 AM | 0 | 16 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 27 |
| Total | 0 | 65 | 7 | 0 | 1 | 0 | 0 | 0 | 26 | 16 | 1 | 0 | 1 | 0 | 18 | 0 | 135 |


| 08:00 AM | 0 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 1 | 0 | 1 | 0 | 19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 08:15 AM | 0 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 2 | 0 | 9 | 0 | 34 |



| 04:00 PM | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 13 | 0 | 0 | 3 | 0 | 8 | 0 | 39 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $04: 15 \mathrm{PM}$ | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 8 | 0 | 3 | 0 | 34 |
| $04: 30 \mathrm{PM}$ | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 20 | 0 | 0 | 5 | 0 | 3 | 0 | 43 |
| $04: 45 \mathrm{PM}$ | 0 | 16 | 6 | 0 | 2 | 0 | 0 | 0 | 6 | 20 | 1 | 0 | 8 | 0 | 7 | 0 | 66 |
| Total | 0 | 41 | 12 | 0 | 2 | 0 | 0 | 0 | 15 | 66 | 1 | 0 | 24 | 0 | 21 | 0 | 182 |


| 05:00 PM | 0 | 12 | 4 | 0 | 1 | 0 | 0 | 0 | 2 | 21 | 0 | 0 | 10 | 0 | 8 | 0 | 58 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05:15 PM | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 14 | 0 | 0 | 5 | 0 | 4 | 0 | 37 |
| 05:30 PM | 0 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 17 | 1 | 0 | 7 | 0 | 4 | 0 | 48 |
| 05:45 PM | 0 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 14 | 0 | 0 | 4 | 0 | 2 | 0 | 35 |
| Total | 0 | 51 | 9 | 0 | 1 | 0 | 0 | 0 | 6 | 66 | 1 | 0 | 26 | 0 | 18 | 0 | 178 |
| Grand Total | 1 | 229 | 41 | 0 | 4 | 1 | 0 | 0 | 61 | 173 | 5 | 0 | 58 | 1 | 75 | 0 | 649 |
| Apprch \% | 0.4 | 84.5 | 15.1 | 0.0 | 80.0 | 20.0 | 0.0 | 0.0 | 25.5 | 72.4 | 2.1 | 0.0 | 43.3 | 0.7 | 56.0 | 0.0 |  |
| Total \% | 0.2 | 35.3 | 6.3 | 0.0 | 0.6 | 0.2 | 0.0 | 0.0 | 9.4 | 26.7 | 0.8 | 0.0 | 8.9 | 0.2 | 11.6 | 0.0 |  |

## COUNTER MEASURES INC.

## 1889 YORK STREET <br> DENVER.COLORADO <br> 303-333-7409

File Name: IMBO56TH
Site Code : 00000005
Start Date: 8/1/2018
Page No : 2
COUNTY: ADAMS



## COUNTER MEASURES INC.

1889 YORK STREET
N/S STREET: IMBODEN RD
EN STREET: 56TH AVE
DENVER.COLORADO
303-333-7409
File Name: IMBO56TH Site Code : 00000005 Start Date: 8/1/2018 Page No : 2
COUNTY: ADAMS


Page 1
Location: IMBODEN RD N/O 56TH AVE City:
County: ADAMS
Direction: SOUTHBOUND-NORTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409


Location: IMBODEN RD S/O 56TH AVE City:
County: ADAMS
Direction: NORTHBOUND-SOUTHBOUND

Site Code: 073014 Station ID: 073014


Location: 56TH AVE E/O IMBODEN RD City:
County: ADAMS
Direction: WESTBOUND-EASTBOUND

## DENVER,COLORADO 80206

303-333-7409

Site Code: 073015 Station ID: 073015

| Start <br> Time | $\begin{gathered} \text { 31-Jul-18 } \\ \text { Tue } \end{gathered}$ | WB EB |  |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| 12:00 AM |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 01:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 02:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 03:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 04:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 05:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 06:00 |  | 9 | 8 |  |  |  |  |  |  | 17 |
| 07:00 |  | 1 | 1 |  |  |  |  |  |  | 2 |
| 08:00 |  | 4 | 4 |  |  |  |  |  |  | 8 |
| 09:00 |  | 5 | 8 |  |  |  |  |  |  | 13 |
| 10:00 |  | 8 | 4 |  |  |  |  |  |  | 12 |
| 11:00 |  | 2 | 3 |  |  |  |  |  |  | 5 |
| 12:00 PM |  | 6 | 2 |  |  |  |  |  |  | 8 |
| 01:00 |  | 8 | 6 |  |  |  |  |  |  | 14 |
| 02:00 |  | 2 | 2 |  |  |  |  |  |  | 4 |
| 03:00 |  | 3 | 3 |  |  |  |  |  |  | 6 |
| 04:00 |  | 6 | 6 |  |  |  |  |  |  | 12 |
| 05:00 |  | 1 | 0 |  |  |  |  |  |  | 1 |
| 06:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 07:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 08:00 |  | 2 | 2 |  |  |  |  |  |  | 4 |
| 09:00 |  | 1 | 0 |  |  |  |  |  |  |  |
| 10:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 11:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| Total |  | 58 | 49 |  |  |  |  |  |  | 107 |
| Percent |  | 54.2\% | 45.8\% |  |  |  |  |  |  |  |
| AM Peak | - | 06:00 | 06:00 | - |  | - | - | - | - | 06:00 |
| Vol. | - | 9 | 8 | - | - | - | - | - | - | 17 |
| PM Peak | - | 13:00 | 13:00 | - | - | - | - | - | - | 13:00 |
| Vol. | - | 8 | 6 | - | - | - | - | - | - | 14 |
| Grand |  | 58 | 49 |  |  |  |  |  |  | 107 |
| Percent |  | 54.2\% | 45.8\% |  |  |  |  |  |  |  |
| ADT |  | ADT 107 |  |  |  |  |  |  |  |  |

Page 1
Location: 56TH AVE W/O IMBODEN RD City:
County: ADAMS
Direction: WESTBOUND-EASTBOUND

303-333-7409
Site Code: 073013
Station ID: 073013

| Start Time | 31-Jul-18 |  |  |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tue | WB | EB |  |  |  |  |  |  |  |
| 12:00 AM |  | 5 | 10 |  |  |  |  |  |  | 15 |
| $01: 00$ |  | 5 | 5 |  |  |  |  |  |  | 10 |
| 02:00 |  | 4 | 2 |  |  |  |  |  |  | 6 |
| 03:00 |  | 15 | 3 |  |  |  |  |  |  | 18 |
| 04:00 |  | 23 | 5 |  |  |  |  |  |  | 28 |
| 05:00 |  | 43 | 7 |  |  |  |  |  |  | 50 |
| 06:00 |  | 45 | 21 |  |  |  |  |  |  | 66 |
| 07:00 |  | 36 | 21 |  |  |  |  |  |  | 57 |
| 08:00 |  | 28 | 24 |  |  |  |  |  |  | 52 |
| 09:00 |  | 36 | 30 |  |  |  |  |  |  | 66 |
| 10:00 |  | 14 | 20 |  |  |  |  |  |  | 34 |
| 11:00 |  | 36 | 18 |  |  |  |  |  |  | 54 |
| 12:00 PM |  | 30 | 35 |  |  |  |  |  |  | 65 |
| 01:00 |  | 26 | 21 |  |  |  |  |  |  | 47 |
| 02:00 |  | 32 | 30 |  |  |  |  |  |  | 62 |
| 03:00 |  | 29 | 40 |  |  |  |  |  |  | 69 |
| 04:00 |  | 33 | 68 |  |  |  |  |  |  | 101 |
| 05:00 |  | 38 | 49 |  |  |  |  |  |  | 87 |
| 06:00 |  | 21 | 54 |  |  |  |  |  |  | 75 |
| 07:00 |  | 27 | 23 |  |  |  |  |  |  | 50 |
| 08:00 |  | 24 | 34 |  |  |  |  |  |  | 58 |
| 09:00 |  | 18 | 14 |  |  |  |  |  |  | 32 |
| 10:00 |  | 12 | 10 |  |  |  |  |  |  | 22 |
| 11.00 |  | 23 | 20 |  |  |  |  |  |  | 43 |
| Total |  | 603 | 564 |  |  |  |  |  |  | 1167 |
| Percent |  | 51.7\% | 48.3\% |  |  |  |  |  |  |  |
| AM Peak | - | 06:00 | 09:00 | - | - |  |  |  |  | 06:00 |
| Vol. | - | 45 | 30 | - | - |  |  |  | - | 66 |
| PM Peak | - | 17:00 | 16:00 | - | - |  |  |  | - | 16:00 |
| Vol. | - | 38 | 68 | - | - |  | - | - | - | 101 |
| Grand |  | 603 | 564 |  |  |  |  |  |  | 1167 |
| Percent |  | 51.7\% | 48.3\% |  |  |  |  |  |  |  |
| ADT |  | ADT 1,167 |  |  |  |  |  |  |  |  |

## LEVEL OF SERVICE DEFINITIONS <br> From Highway Capacity Manual, Transportation Research Board, 2010

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

| LOS | Average <br> Vehicle Delaysec/vehicle | Operational Characteristics |
| :---: | :---: | :---: |
| A | <10 seconds | Describes operations with low control delay, up to $10 \mathrm{sec} / \mathrm{veh}$. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values. |
| B | 10 to 20 seconds | Describes operations with control delay greater than 10 seconds and up to $20 \mathrm{sec} / \mathrm{veh}$. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay. |
| C | 20 to 35 seconds | Describes operations with control delay greater than 20 and up to $35 \mathrm{sec} / \mathrm{veh}$. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping. |
| D | 35 to 55 seconds | Describes operations with control delay greater than 35 and up to $55 \mathrm{sec} / \mathrm{veh}$. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. |
| E | 55 to 80 seconds | Describes operations with control delay greater than 55 and up to $80 \mathrm{sec} / \mathrm{veh}$. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent. |
| F | $\begin{gathered} >80 \\ \text { seconds } \end{gathered}$ | Describes operations with control delay in excess of $80 \mathrm{sec} / \mathrm{veh}$. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels. |

## LEVEL OF SERVICE DEFINITIONS From Highway Capacity Manual, Transportation Research Board, 2010

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)
Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

| LOS | Average Vehicle Control Delay | Operational Characteristics |
| :---: | :---: | :---: |
| A | <10 seconds | Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn. |
| B | 10 to 15 seconds | Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn. |
| C | 15 to 25 seconds | Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane. |
| D | 25 to 35 seconds | This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points. |
| E | 35 to 50 seconds | The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach. |
| F | >50 seconds | The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns. |


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 2.7 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | $\uparrow$ | 「 |  | * |  | ${ }^{*}$ | $\uparrow$ |  | ${ }^{1}$ | $\uparrow$ |  |
| Traffic Vol, veh/h | 5 | 1 | 20 | 0 | 1 | 0 | 26 | 21 | 3 | 1 | 77 | 10 |
| Future Vol, veh/h | 5 | 1 | 20 | 0 | 1 | 0 | 26 | 21 | 3 | 1 | 77 | 10 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 150 | - | - | - | 150 | - | - | 50 | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 1 | 26 | 0 | 1 | 0 | 33 | 27 | 4 | 1 | 99 | 13 |



| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 3 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ${ }_{1} 1$ | 「 |  | $\uparrow$ |  | ${ }^{*}$ | 个 |  | ${ }^{1}$ | $\uparrow$ |  |
| Traffic Vol, veh/h | 30 | 0 | 23 | 3 | 0 | 0 | 11 | 72 | 2 | 0 | 55 | 13 |
| Future Vol, veh/h | 30 | 0 | 23 | 3 | 0 | 0 | 11 | 72 | 2 | 0 | 55 | 13 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 150 | - | - | - | 150 | - | - | 50 | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 0 | 29 | 4 | 0 | 0 | 14 | 91 | 3 | 0 | 70 | 16 |



| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 2.8 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ${ }_{1} 1$ | ¢ |  | $\uparrow$ |  | ${ }^{7}$ | $\uparrow$ |  | ${ }^{*}$ | $\uparrow$ |  |
| Traffic Vol, veh/h | 5 | 1 | 21 | 1 | 1 | 1 | 28 | 22 | 3 | 1 | 82 | 11 |
| Future Vol, veh/h | 5 | 1 | 21 | 1 | 1 | 1 | 28 | 22 | 3 | 1 | 82 | 11 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 150 | - | - | - | 150 | - | - | 50 | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 1 | 27 | 1 | 1 | 1 | 36 | 28 | 4 | 1 | 105 | 14 |



| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 3.1 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | $\uparrow$ | 「 |  | \$ |  | ${ }^{1}$ | t |  | ${ }_{1}$ | 个 |  |
| Traffic Vol, veh/h | 32 | 1 | 24 | 3 | 1 | 1 | 12 | 76 | 2 | 1 | 58 | 14 |
| Future Vol, veh/h | 32 | 1 | 24 | 3 | 1 | 1 | 12 | 76 | 2 | 1 | 58 | 14 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 150 | - | - | - | 150 | - | - | 50 | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 1 | 30 | 4 | 1 | 1 | 15 | 96 | 3 | 1 | 73 | 18 |





| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 5.2 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\mathbf{\uparrow}$ | $\mathbf{F}$ |  | M |  |
| Traffic Vol, veh/h | 14 | 5 | 3 | 0 | 0 | 4 |
| Future Vol, veh/h | 14 | 5 | 3 | 0 | 0 | 4 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, $\%$ | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 5 | 3 | 0 | 0 | 4 |


| Major/Minor M | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 3 | 0 | - | 0 | 38 | 3 |
| Stage 1 | - | - | - | - | 3 | - |
| Stage 2 | - | - | - | - | 35 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1619 | - | - | - | 974 | 1081 |
| Stage 1 | - | - | - | - | 1020 | - |
| Stage 2 | - | - | - | - | 987 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1619 | - | - | - | 965 | 1081 |
| Mov Cap-2 Maneuver | - | - | - | - | 965 | - |
| Stage 1 | - | - | - | - | 1011 | - |
| Stage 2 | - | - | - | - |  | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 5.3 |  | 0 |  | 8.3 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 1619 | - | - | - | 1081 |
| HCM Lane V/C Ratio |  | 0.009 | - | - | - | 0.004 |
| HCM Control Delay (s) |  | 7.2 | 0 | - | - | 8.3 |
| HCM Lane LOS |  | A | A | - | - | A |
| HCM 95th \%tile Q(veh) |  | 0 | - | - | - | 0 |


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 3.5 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | $\uparrow$ | F |  | \& |  | ${ }^{*}$ | F |  | ${ }_{1}$ | 个 |  |
| Traffic Vol, veh/h | 32 | 3 | 24 | 10 | 6 | 2 | 12 | 76 | 5 | 1 | 58 | 14 |
| Future Vol, veh/h | 32 | 3 | 24 | 10 | 6 | 2 | 12 | 76 | 5 | 1 | 58 | 14 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 150 | - | - | - | 150 | - | - | 50 | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 4 | 30 | 13 | 8 | 3 | 15 | 96 | 6 | 1 | 73 | 18 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 5.4 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  |  | $\mathbf{F}$ |  | M |  |
| Traffic Vol, veh/h | 5 |  | 5 | 0 | 0 | 13 |
| Future Vol, veh/h | 5 | 4 | 5 | 0 | 0 | 13 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, $\#$ | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 4 | 5 | 0 | 0 | 14 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: | ---: | :---: |
| Conflicting Flow All | 5 | 0 | - | 0 | 19 | 5 |  |
| $\quad$ Stage 1 | - | - | - | - | 5 | - |  |
| Stage 2 | - | - | - | - | 14 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 1616 | - | - | - | 998 | 1078 |  |
| $\quad$ Stage 1 | - | - | - | - | 1018 | - |  |
| Stage 2 | - | - | - | - | 1009 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1616 | - | - | - | 995 | 1078 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 995 | - |  |
| Stage 1 | - | - | - | -1015 | - |  |  |
| Stage 2 | - | - | - | - | 1009 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 4 | 0 | 8.4 |
| HCM LOS |  | A |  |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1616 | - | - | -1078 |
| HCM Lane V/C Ratio | 0.003 | - | - | -0.013 |
| HCM Control Delay (s) | 7.2 | 0 | - | - |
| HCM Lane LOS | A | A | - | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | - |


|  | ＊ | $\rightarrow$ | 7 | $\bigcirc$ | $4$ | 4 | 4 | $\dagger$ | 7 | $V$ | $\frac{1}{7}$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 44 | 「 | ${ }^{1 /}$ | 44 | F゙ | \％ | 44 | 「 | ${ }^{7}$ | 44 | 「 |
| Traffic Volume（veh／h） | 280 | 150 | 140 | 120 | 225 | 50 | 215 | 170 | 80 | 35 | 260 | 420 |
| Future Volume（veh／h） | 280 | 150 | 140 | 120 | 225 | 50 | 215 | 170 | 80 | 35 | 260 | 420 |
| Initial Q（Qb），veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 304 | 163 | 152 | 130 | 245 | 54 | 234 | 185 | 87 | 38 | 283 | 457 |
| 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 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 378 | 649 | 289 | 306 | 364 | 163 | 507 | 1830 | 816 | 659 | 1697 | 757 |
| Arrive On Green | 0.15 | 0.18 | 0.18 | 0.07 | 0.10 | 0.10 | 0.07 | 0.51 | 0.51 | 0.03 | 0.48 | 0.48 |
| Sat Flow，veh／h | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 |
| Grp Volume（v），veh／h | 304 | 163 | 152 | 130 | 245 | 54 | 234 | 185 | 87 | 38 | 283 | 457 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 |
| Q Serve（g＿s），s | 15.0 | 3.9 | 8.7 | 6.5 | 6.6 | 3.2 | 6.7 | 2.7 | 2.8 | 1.1 | 4.5 | 21.2 |
| Cycle Q Clear（g＿c），s | 15.0 | 3.9 | 8.7 | 6.5 | 6.6 | 3.2 | 6.7 | 2.7 | 2.8 | 1.1 | 4.5 | 21.2 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 378 | 649 | 289 | 306 | 364 | 163 | 507 | 1830 | 816 | 659 | 1697 | 757 |
| V／C Ratio（X） | 0.80 | 0.25 | 0.53 | 0.43 | 0.67 | 0.33 | 0.46 | 0.10 | 0.11 | 0.06 | 0.17 | 0.60 |
| Avail Cap（c＿a），veh／h | 378 | 1279 | 571 | 306 | 995 | 444 | 507 | 1830 | 816 | 725 | 1697 | 757 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（I） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 32.4 | 35.0 | 37.0 | 36.9 | 43.3 | 41.7 | 11.6 | 12.4 | 12.5 | 12.3 | 14.8 | 19.2 |
| Incr Delay（d2），s／veh | 11.9 | 0.2 | 1.5 | 0.9 | 2.2 | 1.2 | 0.7 | 0.1 | 0.3 | 0.0 | 0.2 | 3.6 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 7.6 | 1.7 | 3.4 | 2.9 | 3.0 | 1.3 | 2.6 | 1.1 | 1.0 | 0.4 | 1.8 | 8.2 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 44.3 | 35.2 | 38.4 | 37.9 | 45.4 | 42.9 | 12.3 | 12.5 | 12.7 | 12.3 | 15.0 | 22.7 |
| LnGrp LOS | D | D | D | D | D | D | B | B | B | B | B | C |
| Approach Vol，veh／h |  | 619 |  |  | 429 |  |  | 506 |  |  | 778 |  |
| Approach Delay，s／veh |  | 40.5 |  |  | 42.8 |  |  | 12.4 |  |  | 19.4 |  |
| Approach LOS |  | D |  |  | D |  |  | B |  |  | B |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（ $G+Y+R c$ ），$s$ | 8.3 | 56.5 | 12.0 | 23.3 | 12.0 | 52.7 | 20.0 | 15.3 |  |  |  |  |
| Change Period（Y＋Rc），s | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 7.0 | 30.0 | 7.0 | 36.0 | 7.0 | 30.0 | 15.0 | 28.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋l1），s | 3.1 | 4.8 | 8.5 | 10.7 | 8.7 | 23.2 | 17.0 | 8.6 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 1.4 | 0.0 | 1.5 | 0.0 | 2.1 | 0.0 | 1.6 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 27.8 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


|  | 4 |  | $\checkmark$ | 7 | 4 | 4 | $4$ | 4 | \％ | （ | $\ddagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{1}$ | 44 | 「 | ${ }^{1}$ | 44 | 「＇ | ${ }^{1}$ | 性 | 「＇ | ${ }^{1 /}$ | 44 | 「 |
| Traffic Volume（veh／h） | 420 | 225 | 215 | 80 | 150 | 35 | 140 | 260 | 120 | 50 | 170 | 280 |
| Future Volume（veh／h） | 420 | 225 | 215 | 80 | 150 | 35 | 140 | 260 | 120 | 50 | 170 | 280 |
| Initial Q（Qb），veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 457 | 245 | 234 | 87 | 163 | 38 | 152 | 283 | 130 | 54 | 185 | 304 |
| 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 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 507 | 851 | 380 | 244 | 261 | 116 | 574 | 1715 | 765 | 567 | 1626 | 725 |
| Arrive On Green | 0.22 | 0.24 | 0.24 | 0.06 | 0.07 | 0.07 | 0.06 | 0.48 | 0.48 | 0.04 | 0.46 | 0.46 |
| Sat Flow，veh／h | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 |
| Grp Volume（v），veh／h | 457 | 245 | 234 | 87 | 163 | 38 | 152 | 283 | 130 | 54 | 185 | 304 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 |
| Q Serve（g＿s），s | 22.5 | 5.6 | 13.2 | 4.5 | 4.5 | 2.3 | 4.5 | 4.5 | 4.6 | 1.6 | 3.0 | 12.9 |
| Cycle Q Clear（g＿c），s | 22.5 | 5.6 | 13.2 | 4.5 | 4.5 | 2.3 | 4.5 | 4.5 | 4.6 | 1.6 | 3.0 | 12.9 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 507 | 851 | 380 | 244 | 261 | 116 | 574 | 1715 | 765 | 567 | 1626 | 725 |
| V／C Ratio（X） | 0.90 | 0.29 | 0.62 | 0.36 | 0.62 | 0.33 | 0.26 | 0.16 | 0.17 | 0.10 | 0.11 | 0.42 |
| Avail Cap（c＿a），veh／h | 507 | 1297 | 579 | 273 | 764 | 341 | 594 | 1715 | 765 | 632 | 1626 | 725 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 31.8 | 31.1 | 33.9 | 39.6 | 45.0 | 44.0 | 12.6 | 14.5 | 14.6 | 13.1 | 15.5 | 18.2 |
| Incr Delay（d2），s／veh | 19.2 | 0.2 | 1.6 | 0.9 | 2.4 | 1.6 | 0.2 | 0.2 | 0.5 | 0.1 | 0.1 | 1.8 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 12.5 | 2.4 | 5.2 | 2.0 | 2.0 | 0.9 | 1.8 | 1.8 | 1.7 | 0.6 | 1.2 | 4.9 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 51.0 | 31.2 | 35.6 | 40.4 | 47.4 | 45.6 | 12.8 | 14.7 | 15.1 | 13.2 | 15.7 | 20.0 |
| LnGrp LOS | D | C | D | D | D | D | B | B | B | B | B | B |
| Approach Vol，veh／h |  | 936 |  |  | 288 |  |  | 565 |  |  | 543 |  |
| Approach Delay，s／veh |  | 42.0 |  |  | 45.1 |  |  | 14.3 |  |  | 17.8 |  |
| Approach LOS |  | D |  |  | D |  |  | B |  |  | B |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（ $G+Y+R c$ ），$s$ | 8.4 | 52.8 | 10.4 | 28.5 | 10.9 | 50.2 | 27.0 | 11.8 |  |  |  |  |
| Change Period（Y＋Rc），s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |
| Max Green Setting（Gmax），s | 7.5 | 30.5 | 7.5 | 36.5 | 7.5 | 30.5 | 22.5 | 21.5 |  |  |  |  |
| Max Q Clear Time（g＿c＋l1），s | 3.6 | 6.6 | 6.5 | 15.2 | 6.5 | 14.9 | 24.5 | 6.5 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 2.3 | 0.0 | 2.3 | 0.0 | 2.0 | 0.0 | 0.9 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 30.0 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


|  | 4 |  | \％ | 7 | 4 | 4 | 4 | $\dagger$ | $p$ | （ | $\frac{1}{\dagger}$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 中4 | 7 | ${ }^{*}$ | 中4 | 7 | ${ }^{7}$ | 中4 | 「 | ${ }^{1}$ | 44 | 7 |
| Traffic Volume（veh／h） | 280 | 226 | 140 | 147 | 243 | 59 | 215 | 170 | 194 | 73 | 260 | 420 |
| Future Volume（veh／h） | 280 | 226 | 140 | 147 | 243 | 59 | 215 | 170 | 194 | 73 | 260 | 420 |
| Initial Q（Qb），veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 304 | 246 | 152 | 160 | 264 | 64 | 234 | 185 | 211 | 79 | 283 | 457 |
| 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 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 379 | 672 | 300 | 304 | 388 | 173 | 502 | 1765 | 787 | 615 | 1674 | 746 |
| Arrive On Green | 0.15 | 0.19 | 0.19 | 0.07 | 0.11 | 0.11 | 0.07 | 0.50 | 0.50 | 0.04 | 0.47 | 0.47 |
| Sat Flow，veh／h | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 |
| Grp Volume（v），veh／h | 304 | 246 | 152 | 160 | 264 | 64 | 234 | 185 | 211 | 79 | 283 | 457 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 |
| Q Serve（g＿s），s | 14.8 | 6.0 | 8.6 | 7.0 | 7.2 | 3.7 | 6.9 | 2.8 | 7.7 | 2.2 | 4.6 | 21.4 |
| Cycle Q Clear（g＿c），s | 14.8 | 6.0 | 8.6 | 7.0 | 7.2 | 3.7 | 6.9 | 2.8 | 7.7 | 2.2 | 4.6 | 21.4 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 379 | 672 | 300 | 304 | 388 | 173 | 502 | 1765 | 787 | 615 | 1674 | 746 |
| V／C Ratio（X） | 0.80 | 0.37 | 0.51 | 0.53 | 0.68 | 0.37 | 0.47 | 0.10 | 0.27 | 0.13 | 0.17 | 0.61 |
| Avail Cap（c＿a），veh／h | 379 | 1279 | 571 | 304 | 995 | 444 | 502 | 1765 | 787 | 660 | 1674 | 746 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（I） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 31.9 | 35.3 | 36.4 | 37.1 | 42.9 | 41.4 | 12.3 | 13.4 | 14.6 | 12.3 | 15.2 | 19.7 |
| Incr Delay（d2），s／veh | 11.8 | 0.3 | 1.3 | 1.7 | 2.1 | 1.3 | 0.7 | 0.1 | 0.8 | 0.1 | 0.2 | 3.7 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 7.5 | 2.6 | 3.4 | 3.6 | 3.2 | 1.5 | 2.7 | 1.1 | 2.9 | 0.9 | 1.9 | 8.4 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 43.7 | 35.7 | 37.7 | 38.8 | 45.0 | 42.7 | 13.0 | 13.5 | 15.5 | 12.4 | 15.4 | 23.4 |
| LnGrp LOS | D | D | D | D | D | D | B | B | B | B | B | C |
| Approach Vol，veh／h |  | 702 |  |  | 488 |  |  | 630 |  |  | 819 |  |
| Approach Delay，s／veh |  | 39.6 |  |  | 42.6 |  |  | 14.0 |  |  | 19.6 |  |
| Approach LOS |  | D |  |  | D |  |  | B |  |  | B |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（ $G+Y+R c$ ），$s$ | 9.4 | 54.7 | 12.0 | 23.9 | 12.0 | 52.1 | 20.0 | 15.9 |  |  |  |  |
| Change Period（Y＋Rc），s | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 7.0 | 30.0 | 7.0 | 36.0 | 7.0 | 30.0 | 15.0 | 28.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋l1），s | 4.2 | 9.7 | 9.0 | 10.6 | 8.9 | 23.4 | 16.8 | 9.2 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 1.8 | 0.0 | 2.1 | 0.0 | 2.0 | 0.0 | 1.8 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 27.8 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.1 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 1 | 4 | 个 |  |  | 4 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 485 | 0 | - | 0 | 775 | 243 |  |
| Stage 1 | - | - | - | - | 485 | - |  |
| Stage 2 | - | - | - | - | 290 | - |  |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |  |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |  |
| Pot Cap-1 Maneuver | 1074 | - | - | - | 335 | 758 |  |
| $\quad$ Stage 1 | - | - | - | - | 585 | - |  |
| Stage 2 | - | - | - | - | 734 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1074 | - | - | - | 331 | 758 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 331 | - |  |
| Stage 1 | - | - | - | - | 577 | - |  |
| Stage 2 | - | - | - | - | 734 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0.2 | 0 | 9.8 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1074 | - | - | -758 |
| HCM Lane V/C Ratio | 0.013 | - | - | -0.006 |
| HCM Control Delay (s) | 8.4 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 2.7 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{1}$ | 44 | 44 | 「 | ${ }^{*}$ | 「 |
| Traffic Vol, veh/h | 216 | 265 | 396 | 24 | 6 | 50 |
| Future Vol, veh/h | 216 | 265 | 396 | 24 | 6 | 50 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 300 | - | - | 300 | 0 | 100 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 235 | 288 | 430 | 26 | 7 | 54 |



|  | 4 |  | \％ | 7 | $\checkmark$ | 4 | 4 | 4 | $p$ |  | $\downarrow$ | $\pm$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 中4 | 7 | ${ }^{7}$ | 中4 | 「7 | ${ }^{7}$ | 中4 | 「 | ${ }^{7}$ | 中4 | F |
| Traffic Volume（veh／h） | 420 | 245 | 215 | 191 | 224 | 72 | 140 | 260 | 150 | 60 | 170 | 280 |
| Future Volume（veh／h） | 420 | 245 | 215 | 191 | 224 | 72 | 140 | 260 | 150 | 60 | 170 | 280 |
| Initial Q（Qb），veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 457 | 266 | 234 | 208 | 243 | 78 | 152 | 283 | 163 | 65 | 185 | 304 |
| 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 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 500 | 888 | 396 | 286 | 355 | 158 | 537 | 1558 | 695 | 514 | 1466 | 654 |
| Arrive On Green | 0.22 | 0.25 | 0.25 | 0.07 | 0.10 | 0.10 | 0.07 | 0.44 | 0.44 | 0.04 | 0.41 | 0.41 |
| Sat Flow，veh／h | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 |
| Grp Volume（v），veh／h | 457 | 266 | 234 | 208 | 243 | 78 | 152 | 283 | 163 | 65 | 185 | 304 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 |
| Q Serve（g＿s），s | 22.0 | 6.1 | 13.0 | 7.0 | 6.6 | 4.7 | 4.9 | 4.9 | 6.4 | 2.1 | 3.2 | 13.9 |
| Cycle Q Clear（g＿c），s | 22.0 | 6.1 | 13.0 | 7.0 | 6.6 | 4.7 | 4.9 | 4.9 | 6.4 | 2.1 | 3.2 | 13.9 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 500 | 888 | 396 | 286 | 355 | 158 | 537 | 1558 | 695 | 514 | 1466 | 654 |
| V／C Ratio（X） | 0.91 | 0.30 | 0.59 | 0.73 | 0.68 | 0.49 | 0.28 | 0.18 | 0.23 | 0.13 | 0.13 | 0.46 |
| Avail Cap（c＿a），veh／h | 500 | 1279 | 571 | 286 | 746 | 333 | 542 | 1558 | 695 | 565 | 1466 | 654 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（I） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 30.2 | 30.4 | 33.0 | 39.8 | 43.5 | 42.6 | 14.8 | 17.1 | 17.6 | 15.5 | 18.2 | 21.3 |
| Incr Delay（d2），s／veh | 21.4 | 0.2 | 1.4 | 8.9 | 2.3 | 2.4 | 0.3 | 0.3 | 0.8 | 0.1 | 0.2 | 2.4 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 12.4 | 2.6 | 5.1 | 2.2 | 3.0 | 1.9 | 2.0 | 2.0 | 0.2 | 0.8 | 1.3 | 5.5 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 51.6 | 30.6 | 34.4 | 48.7 | 45.8 | 45.0 | 15.1 | 17.4 | 18.4 | 15.6 | 18.4 | 23.7 |
| LnGrp LOS | D | C | C | D | D | D | B | B | B | B | B | C |
| Approach Vol，veh／h |  | 957 |  |  | 529 |  |  | 598 |  |  | 554 |  |
| Approach Delay，s／veh |  | 41.6 |  |  | 46.8 |  |  | 17.1 |  |  | 21.0 |  |
| Approach LOS |  | D |  |  | D |  |  | B |  |  | C |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ）， s | 9.2 | 48.8 | 12.0 | 30.0 | 11.8 | 46.3 | 27.0 | 15.0 |  |  |  |  |
| Change Period（Y＋Rc），s | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 7.0 | 30.0 | 7.0 | 36.0 | 7.0 | 30.0 | 22.0 | 21.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋l1），s | 4.1 | 8.4 | 9.0 | 15.0 | 6.9 | 15.9 | 24.0 | 8.6 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 2.3 | 0.0 | 2.5 | 0.0 | 1.9 | 0.0 | 1.4 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 32.7 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |



| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 300 | 0 | - | 0 | 553 | 150 |  |
| Stage 1 | - | - | - | - | 300 | - |  |
| Stage 2 | - | - | - | - | 253 | - |  |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |  |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |  |
| Pot Cap-1 Maneuver | 1258 | - | - | - | 463 | 870 |  |
| $\quad$ Stage 1 | - | - | - | - | 725 | - |  |
| Stage 2 | - | - | - | - | 766 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1258 | - | - | - | 462 | 870 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 462 | - |  |
| Stage 1 | - | - | - | - | 723 | - |  |
| Stage 2 | - | - | - | - | 766 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0.1 | 0 | 9.5 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1258 | - | - | -815 |
| HCM Lane V/C Ratio | 0.003 | - | - | -0.017 |
| HCM Control Delay (s) | 7.9 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 3.2 |  |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{7}$ | 44 | 44 | 「 | ${ }^{*}$ | 「 |
| Traffic Vol, veh/h | 56 | 396 | 266 | 6 | 24 | 210 |
| Future Vol, veh/h | 56 | 396 | 266 | 6 | 24 | 210 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control F | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 300 | - | - | 300 | 0 | 100 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 61 | 430 | 289 | 7 | 26 | 228 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 296 | 0 | - | 0 | 626 | 145 |  |
| $\quad$ Stage 1 | - | - | - | - | 289 | - |  |
| Stage 2 | - | - | - | - | 337 | - |  |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |  |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |  |
| Pot Cap-1 Maneuver | 1262 | - | - | - | 416 | 876 |  |
| $\quad$ Stage 1 | - | - | - | - | 735 | - |  |
| Stage 2 | - | - | - | - | 695 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1262 | - | - | - | 396 | 876 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 396 | - |  |
| Stage 1 | - | - | - | - | 700 | - |  |
| Stage 2 | - | - | - | - | 695 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 1 | 0 | 11 |
| HCM LOS |  | B |  |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1262 | - | - | - | 396 | 876 |
| HCM Lane V/C Ratio | 0.048 | - | - | -0.066 | 0.261 |  |
| HCM Control Delay (s) | 8 | - | - | - | 14.7 | 10.6 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - | 0.2 | 1 |

## STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES APPLICATION COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

PHOTO COPIES, FAXED COPIES, PDF COPIES OR EMAILS WILL NOT BE ACCEPTED.

Any additional information that you would like the Division to consider in developing the permit should be provided with the application. Examples include effluent data and/or modeling and planned pollutant removal strategies.

Beginning July 1, 2016, invoices will be based on acres disturbed. DO NOT PAY THE FEES NOW - Invoices will be sent after the receipt of the application.

Disturbed Acreage for this application (see page 4)
$\square$ Less than 1 acre
(\$83 initial fee, \$165 annual fee)

- 1-30 acres
(\$175 initial fee, \$350 annual fee)
$\square$ Greater than 30 acres
(\$270 initial fee, \$540 annual fee)


## A. PERMIT INFORMATION

## Reason for Application

Existing Cert \#

## B. PERMITTED PROJECT/FACILITY INFORMATION



| Receiving Water Name | Receiving Water Type |
| :---: | :---: |

## C. CONTACT INFORMATION

1) *OPERATOR - RESPONSIBLE OFFICIAL - the party that has operation control over day to day activities - may be the same as the Owner

| Responsible Person (Title): Owner | First Name: Bart | Last Name: Copeland |
| :---: | :---: | :---: |
| Telephone No: 303-936-4817 | Email Address: Bart@copelandprecast.com | Organization: Copeland Holdings |
| Mailing Address: 904 S. Lipan St |  |  |
| City: Denver | State: CO | Zip Code: 80223 |

2) *PROPERTY OWNER (CO-PERMITTEE) RESPONSIBLE OFFICIAL

3) *SITE CONTACT (local contact for questions relating to the facility \& discharge authorized by this permit)


## 4) *BILLING CONTACT

| Responsible Person (Title): Owner <br> Telephone No: 303-936-4817 |  |  |  |  | First Name: Email Address: | Bart |  | Organization: | Last Name: Copeland Copeland Holdings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Bart@cc |  |  |  |  |  |
| Mailing Address: 904 S. Lipan St |  |  |  |  |  |  |  |  |  |  |  |
| City: Denver |  |  |  |  |  | State: CO |  |  | Zip Code: 80223 |  |  |  |
| 5) OTHER CONTACT TYPES |  |  |  |  |  |  |  |  |  |  |  |
| Title | First Name | Last Name | Phone | Email |  | Address | City | State | Zip | Contact Type | Other |

## 6) Former Permittee (transfer)

Responsible Person (Title):
Email Address:

First Name: Last Name: $\qquad$

## D. LEGAL DESCRIPTION

Legal description: if subdivided, provide the legal description below, or indicate that it is not applicatable. Do not supply Township/Range/Section or metes and bounds description of the site.


## E. AREA OF CONSTRUCTION SITE

| Total area of construction site | 78 |  | acres |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| Total area of project disturbance | 11.9 |  |  |

## F. NATURE OF CONSTRUCTION ACTIVITY

Check the appropriate box(s) or provide a brief description that indicates the general nature of the construction activities. (The full description of activities must be included in the Stormwater Management Plan.)
$\checkmark$ Commercial Development
ㅁ Residential Development
$\square$ Highway and Transportation Development
$\square$ Pipeline and Utilities (including natural gas, electricity, water, and communications)Oil and Gas Exploration and Well Pad DevelopmentNon-structural and other development (i.e. parks, trails, stream realignment, bank stabilization, demolition, etc.)
$\square$ Other

## G. ANTICIPATED CONSTRUCTION SCHEDULE

Construction Start Date: 02/01/2021 Final Stabilization Date: 02/01/2023

- Construction Start Date - This is the day you expect to begin ground disturbing activities, including grubbing, stockpiling, excavating, demolition, and grading activities.
- Final Stabilization Date - in terms of permit coverage, this is when he site is finally stabilized. This means that all ground surface disturbing activities at the site have been completed and all disturbed areas have either been built on, paved, or a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels.
- Permit coverage must be maintained until the site is finally stabilized. Even if you are only doing one part of the project, the estimated final stabilization date must be for the overall project. If permit coverage is still required once your part is completed, the permit certification may be transferred to a new responsible operator.


## SIGNATURE REQUIREMENTS:

## TERMINATION CERTIFICATION

By checking this box I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity by the general permit. I understand that discharging pollutants in stormwater associated with construction activities to the waters of the State of Colorado, where such discharges are not authorized by a CDPS permit, is unlawful under the Colorado Water Quality Control Act and the Clean Water Act.

## ஏ STORMWATER MANAGEMENT PLAN CERTIFICATION (on new and renewals)

By checking this box "I certify under penalty of law that a complete Stormwater Management Plan, has been/or will be completed, prior to the commencement of any construction activity. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the Stormwater Management Plan is/or will be, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for falsely certifying the completion of said SWMP, including the possibility of fine and imprisonment for knowing violations."

THIS PORTION OF THE SIGNATURE LANGUAGE IS REQUIRED ON ALL SUBMITTALS
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
"I understand that submittal of this application is for coverage under the State of Colorado General Permit for Stormwater Discharges Associated with Construction Activity for the entirety of the construction site/project described and applied for, until such time as the application is amended or the certification is transferred, inactivated, or expired."


Signature of Operator

## Date Signed

Bart Copeland

## Owner

Title

Name (printed)
Bart Copeland
Bart Copeland (Jan 26, 2021 08:30 MST)
Signature of Owner
Date Signed

## Bart Copelnad

## Owner

Title

Signature: The applicant must be either the owner and operator of the construction site. Refer to Part B of the instructions for additional information.
The application must be signed by the applicant to be considered complete. In all cases, it shall be signed as follows:
(Regulation 61.4 (1ei)
a) In the case of corporations, by the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates
b) In the case of a partnership, by a general partner.
c) In the case of a sole proprietorship, by the proprietor.
d) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, (a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates).

## COR 400000 Permit appl

Final Audit Report

| Created: | 2021-01-26 |
| :--- | :--- |
| By: | Jeremiah Birdsell (jeremiah@copelandprecast.com) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAATbhzOHK7vZhvgnXTabOncOftp5IUexQ_ |

## "COR 400000 Permit appl" History

Document created by Jeremiah Birdsell (jeremiah@copelandprecast.com) 2021-01-26-3:18:31 PM GMT- IP address: 96.76.170.74

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$\dot{\sigma}_{6}$ Document e-signed by Bart Copeland (bart@copelandprecast.com)
Signature Date: 2021-01-26-3:30:24 PM GMT - Time Source: server- IP address: 96.76.170.73
( Agreement completed.
2021-01-26-3:30:24 PM GMT


[^0]:    R0083297
    COPELAND HOLDING LLC
    6397 W PRENTICE AVE
    LITTLETON, CO 80123-5195

