



TOWN COUNCIL WORK SESSION & MEETING
Zoom Webinar and Town Council Chamber
3 S. Timber Ridge Parkway, Severance, CO 80550

AGENDA
TOWN COUNCIL WORK SESSION & MEETING 2022-11
Tuesday, June 14, 2022, at 6:00 PM

A. CALL TO ORDER WORK SESSION

The Goal of the Work Session is to have the Town Council receive information on topics of Town business from the Town Manager, Town Attorney and Town Staff in order to exchange ideas and opinions regarding these topics.

- 1. Pledge of Allegiance**
- 2. E. Harmony Road Guardrail and Speed Limit Discussion**
 - Discussion
 - Staff Presentation: Nicholas Wharton, Town Manager
- 3. Proposed Ordinance on Amending** Chapter 16 of the Severance Municipal Code by the addition of a new Article 18 entitled "Nonconformities"
 - Legislative
 - Staff Presentation: Keith Martin, Town Attorney

B. CALL TO ORDER REGULAR MEETING

- 1. Roll Call**
- 2. Agenda Review by Town Manager**
- 3. Consent Calendar**

The Consent Calendar is intended to allow the Town Council to spend time and energy on the important items and not routine actions. A Council Member may request an item on this calendar to be "pulled" off the Consent Calendar and considered separately as a regular agenda item. Items remaining on the Consent Calendar will be approved by Town Council with one vote.

a. Minutes 5.24.22

- 4. Approval of Agenda**
- 5. Public Comment**

The purpose of the Public Comment is for members of the public to speak to the Town Council

on any subject not scheduled on the agenda. To accomplish scheduled agenda items, comments should be limited to three minutes for those attending in person or an appropriate time as deemed by the Mayor. The Town Council is not obligated to make decisions or take action on comments but may choose to schedule the matter for a later discussion. Those addressing the Town Council, please state your name and address.

6. Communications

Council approval may be sought for administrative actions in association with staff reports.

- a. Town Attorney
- b. Town Staff
- c. Town Management
- d. Council Members
- e. Mayor

C. TOWN COUNCIL

1. Appointments to Planning Commission

- Legislative
- Staff Presentation: Nicholas Wharton, Town Manager

2. Resolution 2022-23R: Resolution to Declare Council Member Vacancy

- Legislative
- Staff Presentation: Nicholas Wharton, Town Manager

3. Resolution 2022- 24R: State Highway 392 & Weld County Road 23 Intersection Improvements Contract Award

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

4. Resolution 2022-25R: A Resolution of the Town Council of the Town of Severance, Colorado, approving an Intergovernmental Agreement between the Town of Severance and the Weld County School District RE-4 for a Joint School Resource Officer Program

- Legislative
- Staff Presentation: Nicholas Wharton, Town Manager

5. East Harmony Road WCR 19 Intersection Control Analysis

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

6. Ordinance 2022-11: Ordinance Regarding Suspension on the Community Development Department's Acceptance and Processing of Certain New Land Use Applications for Residential Development on Land Within the Boundaries of the Town of Severance Water Utility Enterprise (Tabled)

- Legislative
- Staff Presentation: Keith Martin, Town Attorney

D. EXECUTIVE SESSION

1. Pursuant to Colorado Revised Statutes section 24-6-402(4)(b) and Colorado Revised Statutes section 24-6-402(4)(e)(I) for the purposes of conferring with the Town Attorney

to receive legal advice on specific legal questions regarding the Town's Water Services Agreement with North Weld County Water District, and to determine positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and instructing negotiators with respect to the Town's Water Services Agreement with North Weld County Water District.

2. Pursuant to Colorado Revised Statutes section 24-6-402(4)(a), for the purchase or acquisition of any real or other property interest for the Town's elevated water tank project, and pursuant to Colorado Revised Statutes section 24-6-402(e), for the purposes of determining positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and instructing negotiators with respect to acquiring property for the Town's elevated water tank project.

E. COUNCIL MEMBER PETITIONS

Council Members may ask for items to be added to future agendas.

F. ADJOURN

Town Council MEETING

Tuesday, June 14, 2022, 6:00 PM (MDT)

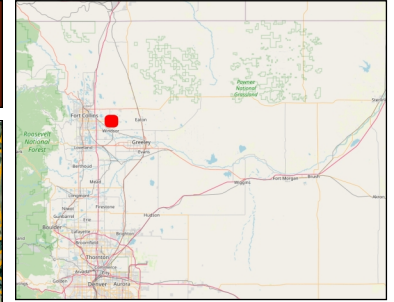
Registration URL

https://us02web.zoom.us/webinar/register/WN_GSL5tq02RNOARXxagWeWpA



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
E. Harmony Road Guardrail and Speed Limit Discussion	Nicholas Wharton, Town Manager	Nicholas J. Wharton, MPA
ACTION REQUESTED		
Management asks that the Town Council discuss and provide feedback to staff on the proposal of adding an additional guardrail on E. Harmony and lowering the speed limit to 45 mph.		<u>Discussion</u>
BRIEF SUMMARY		
Unfortunately, within the last 6 months, we have had two residents, one resulting in a fatality, drive into the outlet ditch for the Windsor Reservoir. On March 1, 2022, the Town of Severance took ownership of this portion of E. Harmony and now has control over adding additional guardrails and or lowering the speed limit if the Town Council deems it necessary.		
PUBLIC SUPPORT/CONCERN		
None at this time.		
ANALYSIS AND RECOMMENDATION		
Management recommends that the Town Council provide feedback on adding an additional guardrail and then direct staff to bring an ordinance to the Town Council at the next available meeting to lower the speed limit on this portion of E. Harmony.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet:		
1. E. Harmony Map 2. Planned Speed Limits Map		



Legend

- Parcels
- Address Label
- Highway
- County Boundary



1: 13,779



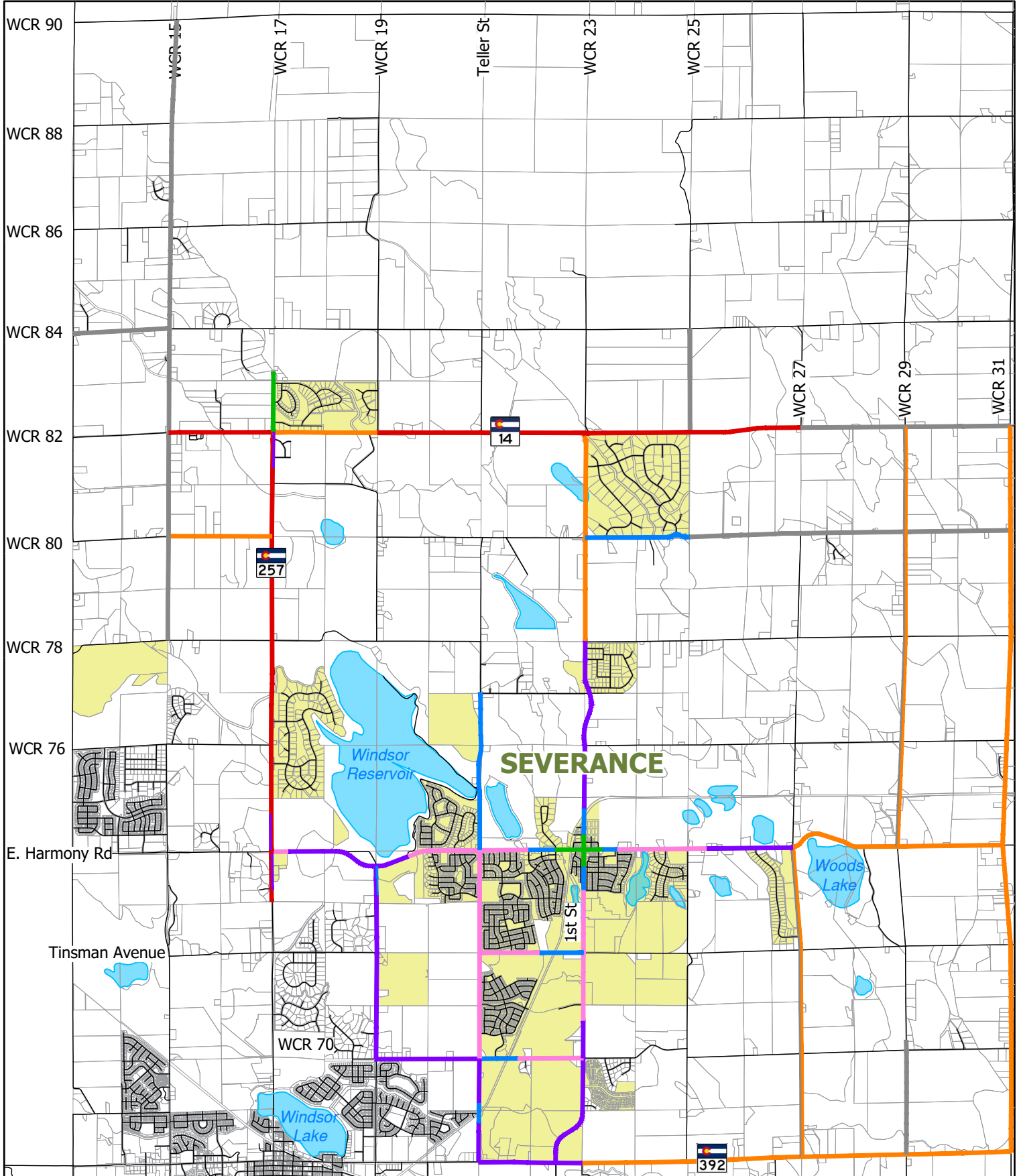
2,296.4 0 1,148.22 2,296.4 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Weld County Colorado

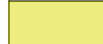
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

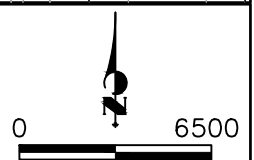
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes



LEGEND

	Severance Town Limits		No Posted Speed		35 MPH		50 MPH
			25 MPH		40 MPH		55 MPH
					45 MPH		65 MPH





AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Proposed Ordinance on Amending Chapter 16 of the Severance Municipal Code by the addition of a new Article 18 entitled "Nonconformities"	Keith Martin, Town Attorney	Keith Martin
ACTION REQUESTED		
Legal and Management asks that the Town Council discuss and provide feedback to staff on the proposed ordinance amending Chapter 16 of the Severance Municipal Code by the addition of a new Article 18 entitled "Nonconformities".		<u>Ordinance Discussion</u> <u>Attorney Approved</u>
BRIEF SUMMARY		
As discussed at previous meetings, the Town Council has determined that the town's regulations regarding adequate public facilities and assured utility system capacity requirements for proposed subdivisions and developments are inadequate to properly integrate utility service reliability safeguards into land use approval processes. As proposed by Legal and Town Management, this ordinance along with additional directions provided by the Town Council will help address these identified inadequate regulations and place reliable safeguards into land use approval processes.		
PUBLIC SUPPORT/CONCERN		
None at this time.		
ANALYSIS AND RECOMMENDATION		
Management recommends that the Town Council provide any changes they deem necessary to Legal, and Management will bring this ordinance to the Town Council at the next available meeting.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet:		
1. Severance Land Use Code Amendments (assured utility capacity) - O060122		

**TOWN OF SEVERANCE
ORDINANCE NO. 2022-XX**

**AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF SEVERANCE,
COLORADO, AMENDING CHAPTER 16 OF THE SEVERANCE MUNICIPAL CODE
BY THE ADDITION OF A NEW ARTICLE 18 ENTITLED “NONCONFORMITIES”**

WHEREAS, the Town Council has determined that the Town’s regulations regarding adequate public facilities and assured utility system capacity requirements for proposed subdivisions and developments requiring site plan approvals presently set forth in Chapter 16 of the Severance Land Use Code are inadequate to properly integrate utility service reliability safeguards into land use approval processes; and

WHEREAS, the Town desires to amend Articles 4 and 5 of Chapter 16 of the Severance Land Use Code to address these existing deficiencies, and the Town finds that enacting more robust regulations relating to adequate public facilities and assured utility capacity requirements will increase the effectiveness of the Land Use Code with regard to its underlying goals, and that amending the Land Use Code to tie together land use decisions and utility supply and demand projections to preserve the integrity of the Land Use Code promotes the public health, safety, and general welfare.

WHEREAS, this ordinance is enacted pursuant to the Town of Severance’s home rule authority under Article XX, § 6 of the Constitution of the State of Colorado, and pursuant to the Town of Severance’s police powers, in order to safeguard and preserve the public health, safety and welfare of the community.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF SEVERANCE, COLORADO:¹

Section 1. Section 16.4.10, “General Provisions,” of the Severance Municipal Code is amended by the addition of a new subsection (e), to read as follows:

(e) Except with respect to property which is platted as a lot or part of a subdivision approved in accordance with the provisions of this Land Use Code (or prior law, if applicable), no building permit or certificate of occupancy shall be issued for any of the following and no person shall perform any of the following:

- (1) construction of any new principal building;
- (2) enlargement of any principal building used for nonresidential purposes by more than twenty-five (25) percent of the existing floor area of such building;
- (3) an act which changes the use of any building.

¹ Additions to the current text of the Code are indicated by underlining, and deletions are indicated by ~~striketrough~~.

Section 2. Subsection 16.4.50(b)(2)(h), “Preliminary plat application process – General development information,” of the Severance Municipal Code is amended to read as follows:

h. General development information. A written description of the existing conditions on the site and the proposed development shall include an explanation of how:

1. The preliminary plat is consistent with the concept Plan and how the items of concern expressed by the Planning Commission, ~~Board of Trustees~~ Town Council and the public at the time of concept Plan have been addressed;
2. The Plan is consistent with this Code and the Comprehensive Plan;
3. Public facilities are consistent with the following adopted Town documents:
 - a. Comprehensive Plan;
 - b. Transportation Master Plan;
 - c. E. Harmony Road/WCR 74 and 1st Street/WCR 23 Corridor Plan;
 - d. Water, Sewer, and Non-potable Water Master Plans;
 - e. Storm Water Master Plan; and
 - f. Other adopted documents related to Town utility enterprises or Town capital improvements.

Section 3. Subsection 16.4.50(b)(2)(i), “Preliminary plat application process – Preliminary grading and drainage Plan and report,” of the Severance Municipal Code is amended to read as follows:

i. Preliminary grading and drainage Plan and report. This Plan and report must be certified by a Colorado-registered professional engineer and include approximate earthwork quantities (how earthwork on the site is “balanced”), storm drainage concepts such as locations of pipe and other conveyance facilities, locations for on-site detention or downstream structural improvements and soil erosion and sedimentation control Plans and specifications. It must also discuss the impacts on any existing floodways and/or floodplains, both on and adjacent to the site, as well as any Federal Emergency Management Agency (FEMA) applications required. It must also provide sufficient information for an initial assessment of whether the site can safely convey storm water runoff to an adequate storm water system and accessible point of disposal with sufficient system capacity to carry necessary flow of the proposed development without overflowing downstream channels and existing storm drainage facilities or causing damage to property.

Section 4. Subsection 16.4.50(b)(2)(j), “Preliminary plat application process – Preliminary water and sewer Plan and study,” of the Severance Municipal code is amended to read as follows:

j. Preliminary water and sewer Plan and study. A Colorado-registered professional engineer shall prepare this Plan. It is necessary that the engineer consult with the appropriate utility service providers regarding the design of all utilities through the subdivision. It must also discuss the projected total water needs of the development for domestic consumption and fire protection, including without limitation, data on projected annual usage (GPY), average day demand (GPD), and maximum day demand (GPD), as well as the projected total flow of wastewater through a treatment plant expected to be generated by the proposed development. If located within the boundaries of the town’s water, non-potable water, or sewer utility enterprise respective service areas, it must also provide sufficient information for an initial assessment of the proposed development’s impact on all parts of the town’s wastewater collection system (including without limitation laterals, interceptors, pumping stations, treatment plants, points of discharge), potable and/or non-potable water systems (including without limitation water source, water quality, treatment, storage, pumping facilities, and metering devices), as well as an evaluation on the adequacy of the town’s water, non-potable water, and/or sewer (where applicable) utility enterprises, respectively, to serve the proposed development together with existing development and development which is reasonably probable of connecting to the applicable town utility system (e.g., legal buildable lots in active subdivisions for which building permits have not been issued).

Section 5. Subsection 16.4.50(c), “Preliminary plat review criteria,” of the Severance Municipal Code is amended by the addition of a new subsection (7), to read as follows:

(7) The preliminary drainage, water and sewer Plans and studies.

Section 6. Subsection 16.4.50(c), “Preliminary plat review criteria,” of the Severance Municipal Code is amended by the addition of a new subsection (8), to read as follows:

(8) The amount of unused capacity of existing utility facilities and services, including without limitation, water, non-potable water, wastewater, and storm water, presently available to serve the proposed development, while maintaining sufficient and acceptable levels of service to existing development.

Section 7. Subsection 16.4.50(c), “Preliminary plat review criteria,” of the Severance Municipal Code is amended by the addition of a new subsection (9), to read as follows:

(9) The recommendations of the Town Engineer and/or other agencies, together with any supporting analysis or other information presented, regarding the available capacity of the water, non-potable water, wastewater, and storm water utility systems that will be impacted by the proposed development, and whether existing utility facilities and services are presently available to, and adequate to serve, the proposed subdivision.

Section 8. Subsection 16.4.55(b)(4), “Preliminary plat findings,” of the Severance Municipal Code is amended by the addition of a new subsection (d), to read as follows:

(d) Existing or proposed utility facilities and services within the service area for the proposed subdivision are currently or will be adequate to meet the expected impact on and use of utility facilities and services by all possible uses of the proposed subdivision, and such uses will not endanger the overall operation of the applicable town utility enterprise or other utility service provider or the quality of service to be provided to existing customers of the applicable town utility enterprise or other utility service provider.

Section 9. Subsection 16.4.55(b)(4), “Preliminary plat findings,” of the Severance Municipal Code is amended by the addition of a new subsection (e), to read as follows:

(e) As applicable, the proposed phasing plan for development of the subdivision is rational in terms of available infrastructure capacity.

Section 10. Section 16.4.55, “Preliminary plat findings,” of the Severance Municipal Code is amended by the addition of a new subsection (c), to read as follows:

(c) The decision maker can condition its approval and require on-site and off-site improvements or contributions to off-site improvements to ensure the proposed development will be served by adequate water, sewer, and stormwater facilities. These improvements include, but are not limited to:

- (1) The construction of mains in all public and private streets or utility easements within and adjacent to the proposed development;
- (2) The construction of mains through the development to serve the lots and buildings within the development and to adjacent properties to allow them to connect to and extend the water or sewer system;
- (3) The construction of off-site improvements needed to:
 - a. Connect to the existing system;
 - b. Provide the storage and flows needed to meet the level of service standards and the requirements of the Water System Plan;
 - c. Provide collection capacity needed to meet the level of service standards and the anticipated demand from the service area;
 - d. Provide the storage and flows needed to meet the water demands generated by the proposed development;
 - e. Provide the storage and flows needed to supply the fire flows needed to serve the development;

- (4) The construction of pressure-reducing valves and similar appurtenances to provide pressure zone separation in the distribution system;
- (5) The construction of pump stations needed to serve the development if it is in a special pressure zone or because of topographical considerations. This will only be required or allowed in accordance with designated permanent pump stations listed or shown in the current Water System Plan or Sewer System Plan;
- (6) The construction of replacements or improvements to existing facilities in order to maintain an established level of service for wastewater discharge from the service area or for water system demand and fire flow to the development;
- (7) The construction of replacements or improvements to existing off-site facilities to the extent that the new development would cause the level of service for existing customers to drop below existing standards; or
- (8) The transfer or dedication of easements or land needed for the construction and maintenance of utility system improvements.

Section 11. Section 16.4.55, “Preliminary plat findings,” of the Severance Municipal Code is amended by the addition of a new subsection (d), to read as follows:

- (d) A preliminary plat shall not be approved unless the Town Council determines that:
 - (1) the town’s or other utility service provider’s potable and non-potable water supply and distribution systems are or will be adequate to deliver the projected treated and non-potable water needs of the proposed development, including pressure and flow for normal operation of plumbing fixtures, water using appliances, requirements set by the responsible fire protection agency, and irrigation, when considered together with the following:
 - a. buildings under construction that will be connected;
 - b. buildings required to connect, but not as yet connected to the utility;
 - c. legal buildable lots in active subdivisions for which building permits have not been issued;
 - d. other proposed subdivisions at final plat stage approval.
 - (2) the town’s or other utility service provider’s wastewater collection system is or will be adequate to accommodate the sewage disposal needs of the proposed development, when considered together with the following:
 - a. buildings under construction that will be connected;
 - b. buildings required to connect, but not as yet connected to the utility;

- c. legal buildable lots in active subdivisions for which building permits have not been issued;
 - d. other proposed subdivisions at final plat stage approval.
- (3) the town's or utility service provider's storm water collection system is or will be adequate to accommodate the projected flows of the proposed development, when considered together with the following:
- a. buildings under construction that will be connected;
 - b. buildings required to connect, but not as yet connected to the utility;
 - c. legal buildable lots in active subdivisions for which building permits have not been issued;
 - d. other proposed subdivisions at final plat stage approval.

Section 12. Subsection 16.4.90(b)(4), "Final plat findings," of the Severance Municipal Code is amended by the addition of a new subsection (d), to read as follows:

d. The Final Plat is found to be in substantial compliance with all respects of the approved Preliminary Plat and incorporates all recommended changes, modifications, and conditions attached to approval of the Preliminary Plat.

Section 13. Subsection 16.4.90(b)(4), "Final plat findings," of the Severance Municipal Code is amended by the addition of a new subsection (e), to read as follows:

e. Plans and specifications for improvements connected with development of the subdivision comply with the subdivision development and design standards set forth in Chapter 16 of the Severance Municipal Code and any other relevant Town, County, State, or Federal regulations, except to the extent modifications, variances, or exceptions have been expressly permitted by the terms of the Preliminary Plat approval. All final water reports, final sanitary sewer reports, final sewage collection and water supply distribution plans, final drainage plans and reports, and construction plans for improvements shall be approved by the Town Engineer prior to the Town Council's action on the Final Plat.

Section 14. Subsection 16.4.90(b)(4), "Final plat findings," of the Severance Municipal Code is amended by the addition of a new subsection (f), to read as follows:

f. The applicant has either installed all required improvements or has executed a Development Agreement pursuant to 16.4.70 of this Code.

Section 15. Subsection 16.4.90(b)(4), "Final plat findings," of the Severance Municipal Code is amended by the addition of a new subsection (g), to read as follows:

- g. The applicant has paid or satisfied all applicable fees and charges.

Section 16. Subsection 16.5.10(a)(2)(i), “Site plan application submittal – Grading and drainage Plan and report,” of the Severance Municipal Code is amended to read as follows:

- i. Grading and drainage Plan and report. This Plan and report must be certified by a Colorado-registered professional engineer and must include approximate earthwork quantities (how earthwork on the site is “balanced”), storm drainage concepts, such as locations of pipe and other conveyance facilities, locations for on-site detention or downstream structural improvements, and soil erosion and sedimentation control Plans and specifications. It must also discuss the impacts on any existing floodways and/or floodplains both on and adjacent to the site as well as any FEMA applications required. It must also provide sufficient information for an initial assessment of whether the site can safely convey storm water runoff to an adequate storm water system and accessible point of disposal with sufficient system capacity to carry necessary flow of the proposed development without overflowing downstream channels and existing storm drainage facilities or causing damage to property.

Section 17. Subsection 16.5.10(a)(2)(j), “Site plan application submittal – Utility Plans and reports prepared by a registered professional engineer, of the Severance Municipal Code is amended to read as follows:

- j. Utility Plans and report prepared by a registered professional engineer. It is necessary that the engineer consult with the appropriate utility service providers regarding the design of all utilities through the ~~subdivision~~ proposed development. It must also discuss the projected total water needs of the development for domestic consumption and fire protection, including without limitation, data on projected annual usage (GPY), average day demand (GPD), and maximum day demand (GPD), as well as the projected total flow of wastewater through a treatment plant expected to be generated by the proposed development. If located within the boundaries of the town’s water, non-potable water, or sewer utility enterprise respective service areas, it must also provide sufficient information for an initial assessment of the proposed development’s impact on all parts of the town’s wastewater collection system (including without limitation laterals, interceptors, pumping stations, treatment plants, points of discharge), potable and/or non-potable water systems (including without limitation water source, water quality, treatment, storage, pumping facilities, and metering devices), as well as an evaluation on the adequacy of the town’s water, non-potable water, and/or sewer (where applicable) utility enterprises, respectively, to serve the proposed development together with existing development and development which is reasonably probable of connecting to the applicable town utility system (e.g., legal buildable lots in active subdivisions for which building permits have not been issued).

Section 18. Subsection 16.5.10(b), “Site plan review criteria,” of the Severance Municipal Code is amended by the addition of a new subsection (7), to read as follows:

- (7) The drainage and utility plans and studies.

Section 19. Subsection 16.5.10(b), “Site plan review criteria,” of the Severance Municipal Code is amended by the addition of a new subsection (8), to read as follows:

(8) The amount of unused capacity of existing utility facilities and services, including without limitation, water, non-potable water, wastewater, and storm water, presently available to serve the proposed development, while maintaining sufficient and acceptable levels of service to existing development.

Section 20. Subsection 16.5.10(b), “Site plan review criteria,” of the Severance Municipal Code is amended by the addition of a new subsection (9), to read as follows:

(9) The recommendations of the Town Engineer and/or other agencies, together with any supporting analysis or other information presented, regarding the available capacity of the water, non-potable water, wastewater, and storm water utility systems that will be impacted by the proposed development, and whether existing utility facilities and services are presently available to, and adequate to serve, the proposed development.

Section 21. Subsection 16.5.20(b)(4), “Site plan findings,” of the Severance Municipal Code is amended by the addition of a new subsection (d), to read as follows:

d. Public facilities are consistent with the following adopted Town documents:

1. Comprehensive Plan;
2. Transportation Master Plan;
3. E. Harmony Road/WCR 74 and 1st Street/WCR 23 Corridor Plan;
4. Water, Sewer, and Non-potable Water Master Plans;
5. Storm Water Master Plan; and
6. Other adopted documents related to Town utility enterprises and Town capital improvements.

Section 22. Subsection 16.5.20(b)(4), “Site plan findings,” of the Severance Municipal Code is amended by the addition of a new subsection (e), to read as follows:

e. Existing or proposed utility facilities and services within the service area for the proposed development are currently or will be adequate to meet the expected impact on and use of utility facilities and services by all possible uses of the proposed development, and such uses will not endanger the overall operation of the town’s utility enterprises or other utility service provider or the quality of service to be provided to existing customers of the applicable town utility enterprise or other utility service provider.

Section 23. Subsection 16.5.20(b)(4), “Site plan findings,” of the Severance Municipal Code is amended by the addition of a new subsection (f), to read as follows:

f. As applicable, the proposed phasing plan for the development is rational in terms of available infrastructure capacity.

Section 24. Section 16.5.20, “Site plan findings,” of the Severance Municipal Code is amended by the addition of a new subsection (c), to read as follows:

(c) The decision maker can condition its approval and require on-site and off-site improvements or contributions to off-site improvements to ensure the proposed development will be served by adequate water, sewer, and stormwater facilities. These improvements include, but are not limited to:

- (1) The construction of mains in all public and private streets or utility easements within and adjacent to the proposed development;
- (2) The construction of mains through the development to serve the lots and buildings within the development and to adjacent properties to allow them to connect to and extend the water or sewer system;
- (3) The construction of off-site improvements needed to:
 - a. Connect to the existing system;
 - b. Provide the storage and flows needed to meet the level of service standards and the requirements of the Water System Plan;
 - c. Provide collection capacity needed to meet the level of service standards and the anticipated demand from the service area;
 - d. Provide the storage and flows needed to meet the water demands generated by the proposed development;
 - e. Provide the storage and flows needed to supply the fire flows needed to serve the development;
- (4) The construction of pressure-reducing valves and similar appurtenances to provide pressure zone separation in the distribution system;
- (5) The construction of pump stations needed to serve the development if it is in a special pressure zone or because of topographical considerations. This will only be required or allowed in accordance with designated permanent pump stations listed or shown in the current Water System Plan or Sewer System Plan;
- (6) The construction of replacements or improvements to existing facilities in order to maintain an established level of service for wastewater discharge from the service area or for water system demand and fire flow to the development;

- (7) The construction of replacements or improvements to existing off-site facilities to the extent that the new development would cause the level of service for existing customers to drop below existing standards; or
- (8) The transfer or dedication of easements or land needed for the construction and maintenance of utility system improvements.

Section 25. Section 16.5.20, “Site plan findings,” of the Severance Municipal Code is amended by the addition of a new subsection (d), to read as follows:

(d) A site plan shall not be approved unless the Town Council determines that:

- (1) the town’s or other utility service provider’s potable and non-potable water supply and distribution systems are or will be adequate to deliver the projected treated and non-potable water needs of the proposed development, including pressure and flow for normal operation of plumbing fixtures, water using appliances, requirements set by the responsible fire protection agency, and irrigation, when considered together with the following:
 - a. buildings under construction that will be connected;
 - b. buildings required to connect, but not as yet connected to the utility;
 - c. legal buildable lots in active subdivisions for which building permits have not been issued;
 - d. other proposed subdivisions at final plat stage approval;
 - e. other proposed developments at site plan stage approval.
- (2) the town’s or other utility service provider’s wastewater collection system is or will be adequate to accommodate the sewage disposal needs of the proposed development, when considered together with the following:
 - a. buildings under construction that will be connected;
 - b. buildings required to connect, but not as yet connected to the utility;
 - c. legal buildable lots in active subdivisions for which building permits have not been issued;
 - d. other proposed subdivisions at final plat stage approval;
 - e. other proposed developments at site plan stage approval.

- (3) the town's or other utility service provider's storm water collection system is or will be adequate to accommodate the projected flows of the proposed development, when considered together with the following:
- a. buildings under construction that will be connected;
 - b. buildings required to connect, but not as yet connected to the utility;
 - c. legal buildable lots in active subdivisions for which building permits have not been issued;
 - d. other proposed subdivisions at final plat stage approval;
 - e. other proposed developments at site plan stage approval.

Section 26. If any article, section, paragraph, sentence, clause, or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The Town Council hereby declares it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 27. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portion hereof are hereby repealed to the extent of such inconsistency or conflict.

Section 28. This ordinance is deemed necessary for the immediate protection of the health, welfare and safety of the community.

INTRODUCED, READ, ADOPTED, APPROVED, AND ORDERED PUBLISHED IN FULL this ____ day of _____, 2022.

TOWN OF SEVERANCE, COLORADO

Matthew Fries, Mayor

ATTEST:

Leah Vanarsdall, MMC, Town Clerk

APPROVED AS TO FORM:

DRAFT



TOWN COUNCIL WORK SESSION & MEETING
Zoom Webinar and Town Council Chamber
3 S. Timber Ridge Parkway, Severance, CO 80550

MINUTES
WORK SESSION & MEETING 2022-10
Tuesday, May 24, 2022, at 6:00 PM

Present:

Mayor:

Matthew Fries

Mayor Pro-tem:

Stephen Gagliardi

Council Members:

Frank Baszler

Dennis 'Zeke' Kane

Michelle Duda

Dan Meyers

Tad Stout

Absent:

Audience: Mark Randolph, Adam Brannon & Casey Kovacik

Staff:

Nicholas Wharton, Town Manager

Lindsay Radcliff-Coombes, Deputy Town Manager

Abdul Barzak, Town Planner

Nancy Mueller CPA, Finance Director

Keith Martin, Town Attorney

Chris Messersmith, Town Engineer

Russ Weber, SafeBuilt

Leah Vanarsdall, Town Clerk

A. CALL TO ORDER WORK SESSION

The Goal of the Work Session is to have the Town Council receive information on topics of Town business from the Town Manager, Town Attorney and Town Staff in order to exchange ideas and opinions regarding these topics.

1. Pledge of Allegiance

Council Member Stout arrived at 6:03 pm

Zhoranna Gourd-Airman 1st Class-led the Pledge

2. Early Grading

- Discussion
- Staff Presentation: Nicholas Wharton, Town Manager

3. Council Member Petitions

- Discussion
- Staff Presentation: Nicholas Wharton, Town Manager

B. CALL TO ORDER REGULAR MEETING

1. Roll Call

2. Agenda Review by Town Manager

3. Consent Calendar

The Consent Calendar is intended to allow the Town Council to spend time and energy on the important items and not routine actions. A Council Member may request an item on this calendar to be "pulled" off the Consent Calendar and considered separately as a regular agenda item. Items remaining on the Consent Calendar will be approved by Town Council with one vote.

MOTION WAS MADE BY Council Member Baszler, seconded by Council Member Dennis Kane to Approve Consent Calendar. All Council Members present voting Yes,

MOTION PASSED

a. 05.10.22 Minutes

b. April Payables

c. April Financial Statement

4. Approval of Agenda

MOTION WAS MADE BY Council Member Baszler, seconded by Mayor Pro-Tem Gagliardi to Approve the Agenda as amended moving Item 4 to 1.

YEAS: Fries, Gagliardi, Baszler, Kane, Meyers

NAYS: Duda

5

1

MOTION PASSED

5. Public Comment

The purpose of the Public Comment is for members of the public to speak to the Town Council on any subject not scheduled on the agenda. To accomplish scheduled agenda items, comments should be limited to three minutes for those attending in person or an appropriate time as deemed by the Mayor. The Town Council is not obligated to make decisions or take action on comments but may choose to schedule the matter for a later discussion. Those addressing the Town Council, please state your name and address.

Council Member Stout - 308 2nd St - resigns from Town Council effective immediately

6. Communications

Council approval may be sought for administrative actions in association with staff reports.

a. Town Attorney

b. Town Staff

Lakeview Restrooms are temporarily closed due to large amount of vandalism

c. Town Management

d. Council Members

MOTION WAS MADE BY COUNCIL MEMBER DUDA, second by Kane to allow Council Member Meyers to remain on the Tailholt Metro District Board of Directors in accordance to Section F of the Town's Code and Ethics.

Yeas: Duda, Fries, Kane, Baszler (abstained)

4

Nays: Gagliardi

1

MOTION PASSED 4-1

e. Mayor

7. Town of Severance and SafeBuilt Scholarship Awards Presentation

Scholarships were awarded to Severance High School Seniors in coordination with SafeBuilt.

Rachel Kovacik received a \$2000 scholarship from **SafeBuilt** and **Dalton Lesser** received a \$2000 scholarship from the **Town of Severance**.

C. TOWN COUNCIL

4. Ordinance 2022-12: An ordinance of the town council of the Town of Severance, Colorado, amending chapter 7 of the Severance Municipal Code by the addition of a new article 7, entitled "noise" and repealing article 9 of chapter 10 of the Severance Municipal Code pertaining to noise

- Legislative

- Staff Presentation: Nicholas Wharton, Town Manager

MOTION WAS MADE BY Council Member Baszler, seconded by Council Member Meyers to Adopt Ordinance 2022-12: An ordinance of the town council of the Town of Severance, Colorado, amending chapter 7 of the Severance Municipal Code by the addition of a new article 7, entitled "noise" and repealing article 9 of chapter 10 of the Severance Municipal Code pertaining to noise. All Council Members present voting Yes,

MOTION PASSED

1. Special Use Review - 864 Cliffrose Way

- Legislative

- Staff Presentation: Abdul Barzak, Town Planner

Felicia Jarrett of 864 Cliffrose Way spoke

MOTION WAS MADE BY Council Member Duda, seconded by Mayor Pro-Tem Gagliardi to

Approve Special Use Review - 864 Cliffrose Way . All Council Members present voting Yes,
MOTION PASSED

2. Via Mobility On-Demand Transit Program - MMOF Application

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

No Action Taken - not approved

3. Resolution 2022-22R: Policy Regarding Electronic Participation For Town Council Meetings

- Legislative
- Staff Presentation: Nicholas Wharton, Town Manager

MOTION WAS MADE BY Council Member Frank Baszler, seconded by Council Member Michelle Duda to Approve Resolution 2022-22R: Policy Regarding Electronic Participation For Town Council Meetings. All Council Members present voting Yes,

MOTION PASSED

5. EXECUTIVE SESSION Pursuant to Section 24-6-402(4)(b) of the Colorado Revised Statutes to confer with the Town Attorney for the purpose of receiving legal advice on specific legal questions regarding integrated water resource planning actions within the boundaries of the Town Water Utility Enterprise service area.

- Legislative
- Staff Presentation: Keith Martin, Town Attorney

MOTION WAS MADE BY Mayor Pro-Tem Gagliardi, seconded by Council Member Baszler to ADJOURN INTO EXECUTIVE SESSION Pursuant to Section 24-6-402(4)(b) of the Colorado Revised Statutes to confer with the Town Attorney for the purpose of receiving legal advice on specific legal questions regarding integrated water resource planning actions within the boundaries of the Town Water Utility Enterprise service area. for the reason stated on the record above. All Council Members present voting Yes,

MOTION

Executive Session opened: 8:01 pm closed: 8:54 pm

6. Ordinance 2022-11: Ordinance Regarding Suspension on the Community Development Department's Acceptance and Processing of Certain New Land Use Applications for Residential Development on Land Within the Boundaries of the Town of Severance Water Utility Enterprise (Second Reading)

- Legislative
- Staff Presentation: Keith Martin, Town Attorney

MOTION WAS MADE BY Council Member Baszler, seconded by Mayor Pro-Tem Gagliardi to TABLE to June 14, 2022, **Ordinance 2022-11**: Ordinance Regarding Suspension on the Community Development Department's Acceptance and Processing of Certain New Land Use Applications for Residential Development on Land Within the Boundaries of the Town of Severance Water Utility Enterprise (Second Reading) . All Council Members present voting Yes,

MOTION PASSED

MOTION WAS MADE BY Council Member Duda, seconded by Council Member Kane to direct Staff to prepare a water sufficiency update and search for grants related to the update. And to direct the Town Attorney to recommend written options to the Council to include amendments to our Land Use Code, as well as, developing service rules, form release agreements, subdivision and site plan developments and annexations disclaimer statements. All Council Members present voting Yes,

MOTION PASSED

D. COUNCIL MEMBER PETITIONS

Council Members may ask for items to be added to future agendas.

E. ADJOURN



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Appointments to Planning Commission	Nicholas Wharton, Town Manager	Nicholas J. Wharton, MPA
ACTION REQUESTED		
Management asks the Town Council to discuss the appointment of a regular and an Alternate Planning Commissioner and take action: • Actions that may be taken: ○ Move to appoint a Planning Commissioner ○ Move to appoint an alternate Planning Commissioner		<u>Action Requested</u> <u>Attorney Approved</u>
BRIEF SUMMARY		
Management has received seven (7) letters of interest for the open positions of Planning Commissioner and Alternate Planning Commissioner. These letters of interest have been included in the packet and all applicants have been asked to be in attendance at the Town Council Meeting to answer any questions the Town Council may have. The selected Planning Commissioner and Alternate Planning Commissioner will take their seats at the July 20th Planning Commission Meeting.		
PUBLIC SUPPORT/CONCERN		
None at this time.		
ANALYSIS AND RECOMMENDATION		
Management recommends that the Town Council take action and move to appoint a Planning Commissioner and an alternate Planning Commissioner.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Jim Umberger 2. Hoss Johnson 3. David Rau 4. Matt Powell 5. Ron Lewis 6. Rudy Diaz 7. Terence Hennessy		

Planning Commission

To whom it may concern,

My name is Jim Umberger a full time resident of Severance, Colorado and I'm interested in the Planning Commission open position. I would like to list some my qualifications that I feel would benefit this position.

- I was a Senior Operation Manager for a multi-billion dollar company.
- I was in charge of the annual multi-million dollar operation budget.
- I was on many different committees for the development and planning of projects, i.e.: land location, drawing design review, process, selection of vendor's, trouble shooting project problems, and in service dates.
- I was part of a team to ensure safe practices; jobs were done safely, on time, and on or under budget.
- Always a team player for the committee and weigh out both sides

These are just a few my personal qualifications I feel would benefit this team.

Here is my personal information:

- Jim Umberger
- 257 Gwyneth Lake Drive
- Severance, Colorado 80550
- [REDACTED]

Thank You
Jim Umberger

Hoss Johnson
1425 Red Fox Circle
Severance, CO 80550
May 27, 2022

Nicholas J. Wharton
Town Manager, MPA, ICMA-CM
Town of Severance
Severance, CO

Dear Nicholas J. Wharton:

I would like to be considered for the open position on the Planning Commission for our town of Severance.

I am native to Colorado being born and raised on the front range, went to College at UNC, graduated, and started working on the front range. Work moved out of state for about 10 years. We lived in PA, NV and CA only to be drawn back to raise my children and continue my career. I currently live in Fox Ridge and have for the past 10+ years.

The front range sure has changed and will continue to change as more and more people discover what Colorado has to offer. The key to this progress will be the balance of the quaint, little, western heritage life-style that has drawn so many people here and providing for this increase in population density.

I simply would like to have a part in the process as we try to reach this balance. This is the reason I would like to throw my hat in the ring.

You and I have worked on a few items in the past and you know I am a straight talking, honest, fair and balanced individual. This is what I have to bring to the table. Should you see this a fit, I would welcome the opportunity.

Appreciate you time and consideration. Look forward to hearing from you in the near future.

Sincerely,

Hoss Johnson

SENT VIA EMAIL (nwharton@severance.org)

June 2, 2022

Mr. Nicholas J. Wharton, Town Manager
Town of Severance
3 South Timber Ridge Parkway
Severance, Colorado 80550

RE: Planning Commission Vacancy – Letter of Interest

Dear Mr. Wharton:

The purpose of this letter is to express my interest in serving on the Severance Planning Commission. I am interested in serving as either a regular member or as an alternate.

I have lived in Northern Colorado since 1978 and watched Severance grow over those years. My family moved to Severance in 2006 and live in Belmont Farms. I remember hunting on that property starting in the late 1970s when it was a State Wildlife Area. My how things have changed.

Attached is my business resume, which likely includes both relevant and extraneous information relative to serving on the Planning Commission. Some relevant highlights are that I am a graduate of Colorado State University and a registered professional engineer. I formed Paragon Consulting Group, Inc., and my team and I have successfully served clients in the Northern Colorado area, as well as notionally, since 1997. I have historically served or currently serve on numerous boards and commissions since moving to Northern Colorado; including the City of Fort Collins Storm Drainage Board, City of Fort Collins Water Resources Board, the Fox Acres Community Services Board, various professional organization boards as well as the board of directors for several private companies. Although not our primary service area focus, I have been involved in many land-use permitting projects over the years that required our team to work with various planning commissions in Colorado and Wyoming. I believe that this experience would be on benefit to the Severance Planning Commission. I am able to commit to the meeting schedule of 6 PM on the third Wednesday of the month.

Please feel free to contact me either by email (dmr@paragoncg.com) or by phone at [REDACTED] [REDACTED] should you have questions or desire additional information.

Sincerely,



David M. Rau, P.E., BCEE

Att: Resume

DAVID M. RAU, P.E., BCEE

PRINCIPAL ENGINEER

PARAGON

PROFESSIONAL EXPERIENCE

Mr. Rau formed the Paragon Consulting Group with a group of colleagues from Terracon Environmental, Inc. Mr. Rau serves as the Principal Engineer for the firm. His duties include the coordination, technical direction and management of technical staff. Mr. Rau has a broad range of technical and management experience. He has successfully completed small, short duration projects such as Phase I Site Assessments and large projects such as multi-million contracts with governmental agencies which spanned several years. Representative projects include UST/RCRA investigations and corrective actions; landfill siting, permitting and closures; water-quality studies; CAFO waste-management plans; contaminant assessments; remedial investigations; soil and groundwater cleanups; hazardous material management; environmental site assessments; water-rights engineering; augmentation plan preparation; consumptive-use analyses; groundwater modeling; stormwater permits/management plans; Spill Prevention, Control and Countermeasures Plans; NPDES permitting and geohydrologic investigations.

Mr. Rau has provided technical services relating to surface and groundwater issues throughout his career. Projects include groundwater assessments, augmentation plans, consumptive use analyses, surface water hydrology and groundwater modeling.

Prior to joining Paragon, Mr. Rau opened Terracon Environmental Inc.'s first Rocky Mountain environmental office in 1989 and managed the environmental section of Terracon's Colorado offices from 1989 until 1997. His duties included the business management of the operation as well as coordination, technical direction and management of technical staff. Representative projects included a wide range of environmental engineering projects for private and governmental clients.

Prior to joining Terracon, Mr. Rau was a project manager with another environmental engineering firm. His duties included business development, cost estimating, contract negotiation, management of technical staff, report writing and coordination with regulatory agencies. The projects he managed included numerous environmental site assessments, RCRA investigations and corrective actions, water-rights engineering, groundwater and soil remediation at a printed circuit board manufacturing facility, a RCRA mixed-waste site closure, review of landfill closures, contamination investigations at landfills, an RI/FS for groundwater contamination at a CERCLA site, and numerous underground storage tank removals and spill cleanups.

Mr. Rau was a water resources engineer with a civil engineering firm in Denver. His primary emphasis was in the area of water-rights transfers. He also worked on surface water hydrology projects, drainageway master plans and designs, water quality monitoring network design, closed conduit and open channel hydraulic designs, pump test analysis and computer modeling development.

As a graduate research assistant, Mr. Rau's research topics included cavitation prediction, liquid flow noise prediction, flow-induced valve torque, and flow-induced vibration. His duties consisted of operating laboratory-scale and field-scale rapid-rate filtration pilot plants, testing of hydraulic models, flow meter development and testing, cavitation studies, pump testing, and control valve testing.

EDUCATION

Post-Graduate Studies in Groundwater Hydrology, Colorado State University.
Master of Science, Civil Engineering, 1985, Colorado State University.
Bachelor of Science, Civil Engineering, 1983, Colorado State University.

REGISTRATIONS

Professional Engineer, Colorado, Wyoming, Arizona, Ohio, New Mexico, West Virginia and Utah
Certified Environmental Manager - Nevada
Diplomat - American Academy of Environmental Engineers
Colorado A/B UST Operator, Registered Environmental Professional

AFFILIATIONS

American Society of Civil Engineers
American Water Resources Association (Member of State Programs Committee, 1987-1991)
American Water Works Association
National Society for Professional Engineers (Past Officer)
Association of Groundwater Scientists and Engineers, National Water Well Association
Solid Waste Association of North America
City of Fort Collins, Storm Drainage Board, 1988-1996, Past Vice Chairman
City of Fort Collins, Water Resources Board, 1996-2000

WORK HISTORY

Paragon Consulting Group, Inc., Principal 1997 - Present
Terracon Environmental, Inc., Principal, 1991-1997; Senior Project Engineer, 1989-1991.
Stewart Environmental Consultants, Inc., Project Manager 1986-1989.
Greenhorne and O'Mara, Water Resource Engineer, 1985-1986.
Colorado State University, Graduate Research Assistant, 1983-1985.
Colorado State University, Laboratory Technician, 1980-1983.
Various Commercial Construction Companies, 1976-1980.

PUBLICATIONS/PRESENTATIONS

Environmental Regulation of Colorado Real Property, Second Edition – Chapter 12: Storage Tanks, Bradford Publishing Company, Denver, Colorado, September 2016, David M. Rau, P.E., BCEE.

Water Rights, National Seasonal Wetlands and Augmentation Ponds for Waterfowl along the Lower South Platte, Fort Morgan, Colorado, August 29, 2013.

Environmental Regulation of Colorado Real Property, Supplement – Chapter 12: Storage Tanks, Bradford Publishing Company, Denver, Colorado, June 2009, David M. Rau, P.E., BCEE.

Enhanced Reductive Dechlorination Results from Successful Pilot and Full Scale HRC® Application, Poster Paper, Sixth International Conference - Remediation of Chlorinated and Recalcitrant Compounds, May 2008.

Environmental Regulation of Colorado Real Property – Chapter 12: Storage Tanks, Bradford Publishing Company, Denver, Colorado, July 2007, David M. Rau, P.E., BCEE.

New Spill Prevention, Control and Countermeasure Plan Rule, Colorado – Wyoming Petroleum Marketer, Fall/Winter 2002, David M. Rau, P.E., DEE.

Underground Storage Tanks – Regulations, Assessment and Remediation, Colorado State University, Fort Collins, Colorado, December 2002, David M. Rau, P.E., DEE.

In-Situ Bioremediation of Soil and Groundwater: A Case Study, In Situ and On-Site Bioremediation, The Fifth International Battelle Symposium, San Diego, California, April 19-22, 1999, David M. Rau, P.E., DEE and Scott A. Rutherford, P.E.

Risk-Based Corrective Actions, Colorado/Wyoming Marketer, Spring 1999, David M. Rau, P.E.

Confined Animal Feeding Operations Control Regulation, CSU Environmental Engineering Seminar Series, Fort Collins, Colorado, April 14, 1997.

Recipe for Cost Effective Remediation, Colorado/Wyoming Marketer, Spring 1997, David M. Rau P.E., and Brick Smith, P.E.

Maximize Your Reimbursement, Colorado Petroleum Storage Tank Fund, presentation at Colorado-Wyoming Petroleum Marketers Association Convention and Trade Show, Snowmass, Colorado, July 29, 1996.

Assessing the Environmental Impact of a Purchase, Petroleum Properties '96 conference sponsored by Oil Price Information Service and Oil Express, Hilton Head Island, South Carolina, May 6-7, 1996.

Recipe for Cost-Effective Remediation, Colorado Real Estate Journal, May 1995, by David M. Rau, P.E. and Brick Smith, P.E.

UST Emergency Response, Litigation, and Remediation, Environmental Engineering Graduate School, Seminar Series, Colorado State University, Fort Collins, Colorado, May 5, 1994.

Subsurface Assessment Seminar, Coors Technical Training Seminar Series, Golden, Colorado, October 26, 1990.

Underground Storage Tanks in Colorado, paper presented at the Colorado Section American Water Resources Association Annual Meeting and Symposium: "Water Quality Issues in Colorado," February 10, 1989, Rau, D. M., Eakins, W., and Winters, S. H.

Water Rights Accounting Program, Proceedings of Colorado Water Engineering and Management Conference, February 17-18, 1987, Colorado State University.

Groundwater Cleanup Activities in Colorado under CERCLA and RCRA, Proceedings of Colorado Water Engineering and Management Conference, February 17-18, 1987, Colorado State University, Stewart, D. R., Rau, D. M., Bauman, J. P.

Distribution of Velocity in Pipes and Transverse Strut Headloss in Closed Conduits, 1985, Masters Thesis, Colorado State University.

The Pressure Recovery Factor, Instrument Society of America, Research Triangle Park, North Carolina, April 1985, National Convention Proceedings, Raymeyer, W. J., and Rau, D. M.

Removal of Giardia Lamblia from Water Supplies-Appropriate Water Treatment Technologies for Small Systems, EPA Cooperative Agreement No. CR808650-01, Interim Report, September 1, 1983 to December 31, 1983, third author.

Removal of Giardia Lamblia from Water Supplies-Appropriate Water Treatment Technologies for Small Systems, EPA Cooperative Agreement No. CR808650-01, Interim Report, March 1, 1983 to August 31, 1983, third author.

SHORT COURSES/CONTINUING EDUCATION

Modern Methods in Canal Operation and Control, United States Bureau of Reclamation Hydraulics Investigations and Laboratory Services Group, Technical Service Center, Denver, Colorado, January 29 to February 2, 2018.

Groundwater Statistics for Environmental Project Managers, Interstate Technology Regulatory Council, Fort Collins, Colorado, January 23, 2018.

Basic Principles and Developments in Flow Measurement, United States Bureau of Reclamation Hydraulics Investigations and Laboratory Services Group, Technical Service Center, Denver, Colorado, January 31 to February 2, 2017.

Annual South Platte Forum, Colorado Water Institute, Loveland, Colorado, October 26-27, 2016.

Western Water Symposium, Colorado State University, Fort Collins, Colorado, July 25, 2016.

Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management, Interstate technology and Regulatory Council, Fort Collins, Colorado, May 3, 2016.

Water Fluency, Colorado Foundation for Water Education, Northern Colorado March 21, 2016 to May 10, 2016.

Annual South Platte Forum, Colorado Water Institute, Loveland, Colorado, October 28-29, 2015.

Irrigationists Symposium, Colorado Division of Water Resources: Division 1, Loveland, Colorado, March 26, 2015.

Aquifer Management Conference, American Ground Water Trust, Denver, Colorado, December 2, 2013.

Colorado Water Supply Acquisition, Development & Protection on Agricultural & Commercial Properties, Half Moon Education, Loveland, Colorado, November 7, 2013.

24th National Tanks Conference and Exposition, New England Interstate Water Pollution Control Commission, Denver, Colorado, September 16-18, 2013.

Aquifer Management Conference, American Ground Water Trust, Denver, Colorado, November 28, 2012.

Irrigationists Symposium, Colorado Division of Water Resources: Division 1, Loveland, Colorado, March 15, 2012.

RCRA Refresher, McCoy, Denver, Colorado, March 30-31, 2011.

Colorado Brownfields Conference, Colorado Brownfields Foundation, Golden, Colorado, November 15-16, 2010.

Colorado Water Law Conference, CLE International, Denver, Colorado, March 13-14, 2008.

Advanced Technologies for Contaminated Site Remediation and Gas Vapor Intrusion Management Seminar, Regenesys, November 9, 2008.

Contaminant Forensics of Petroleum, Chlorinated Hydrocarbons, and Metals – Geochemical Applications for Assessing Contaminant Transport, Risk and Apportioning Liability, Northwest Environmental Training Center, Denver, Colorado, September 2007.

CDPHE Dry Cleaner Guidance, Colorado Department of Public Health and Environment, Denver, Colorado, January 2007.

2002 SPCCP Rule, USEPA Region 8 Oil Program, Denver, Colorado, April 2006.

Practical and Unexpected Implications of the Final AAI and ASTM Requirements, Burns, Figa & Will, Greenwood Village, Colorado, December 2005.

Methyl Tertiary Butyl Ether Regulation, Training/ Outreach Program, Colorado Department of Labor and Employment, Oil and Public Safety, Denver, Colorado, August 2005.

Colorado Water Law, CLE International, Denver, Colorado, March 2005.

MTBE & TBA: Comprehensive Site Assessment and Successful Groundwater Remediation, ITRC Training, Denver, Colorado, December 2004.

Expert Testimony in Civil Litigation, Bridgeport Continuing Education, Los Angeles, California, December 2004.

Remediation Economic Feasibility Summary (EFS) and Monitored Natural Attenuation in Groundwater (MNA) Training/ Outreach Program, Colorado Department of Labor and Employment, Oil and Public Safety, Denver, Colorado, November 2003.

Cleaning Up Contaminated Properties for Reuse and Revitalization: Effective Technical Approaches and Tools, US EPA, Denver, Colorado, July 2003.

2002 SPCCP Rule, USEPA Region 8 Oil Program, Denver, Colorado, February 2003.

Brownfields Opportunities for Western Communities – A Forum on Tools to Redevelop Contaminated Properties, National Association of Local Government environmental Professionals, Fort Collins, Colorado, April 2002.

MTBE Treatment Technology: Design and Implementation, National Ground Water Association, San Diego, California, January 2001.

Construction Project Administration, American Society of Civil Engineers, Atlanta, Georgia, March 2001.

Contract Review and Revision II: Advanced Topics, DPIC Companies, Inc., Monterey, California, December 2001.

Due Diligence at Dawn, Environmental Data Resources, Inc., Denver, Colorado, May 19, 1999.

Computer Simulations & Case Studies, ASTM Technical & Professional Training, February 25, 1999.

Avoiding OSHA Citations and Liability, Lorman Education Services, Denver, Colorado, May 29, 1998.

RBCA Tool Kit, ASTM Technical & Professional Training, New York, New York, May 14, 1998.

Risk-Based Corrective Action, ASTM Technical & Professional Training, New York, New York, May 12-13, 1998.

Environmental Regulations: Are You Lost?, Colorado Department of Public Health and Environment, Colorado State University, Fort Collins, Colorado, February 26, 1998.

Designing Air-Based In Situ and Groundwater Remediation Systems (Part 2), University of Wisconsin-Madison College of Engineering, August 21-23, 1996.

Brownfields Policy Forum, Colorado Department of Public Health and Environment, April 21, 1996.

Innovative Site Remediation Technologies, American Society of Civil Engineers, continuing education, July 23, 1995.

HELP Modeling Workshop for Landfill Design & Evaluation, The University of Wisconsin-Milwaukee, Center for Continuing Engineering Education, Tampa, Florida, December 6-8, 1993.

REGULATION DEVELOPMENT

Member of the Colorado Department of Labor and Employment – Department of Oil and Public Safety, MTBE Standard Committee which developed revisions to the Colorado Storage Tank Regulations 7 C.C.R. 1101-14, 2005.

Member of the Colorado Department of Labor and Employment - Oil Inspection Section, Risk-Based Corrective Action Committee which developed revisions to the Colorado Storage Tank Regulations 7 C.C.R. 1101-14, effective February 1999.

Member of the Colorado Department of Public Health and Environment, Water Quality Control Commission Work Group on Confined Animal Feeding Operations Control Regulation, 4.8.0, 5 C.C.R. 1002-19, 1997.

Member of the Colorado Department of Labor and Employment - Oil Inspection Section, Phase II Cost Control Guideline Development Committee, Fall 1997.

Member of the Colorado Department of Labor and Employment - Oil Inspection Section, Regulation Revision Committee which developed revisions to the Colorado Storage Tank Regulations 7 C.C.R. 1101-14, effective January 1997.

Member of the Colorado Department of Health, Colorado Department of Labor and Employment - Oil Inspection Section and Industry Ad-Hoc Committee which developed proposed language for Colorado House Bill 93-1165 Concerning Petroleum Storage Tanks, Spring 1992.

Member of the Industry Ad-Hoc Committee which developed proposed language for Colorado House Bill 92-1134 Concerning the Petroleum Storage Tank Fund, Spring 1992.

Member of the Colorado Department of Health Ad-Hoc Committee which developed Colorado Regulations Pertaining to Solid Waste Disposal Sites and Facilities to comply with 40 C.F.R. 258, Spring through Fall 1992.

Member of the Colorado Department of Health Committee which developed the Storage Tank Facility Owner/Operator Guidance Documents for Initial Site Characterization, Second-Level Site Assessment, Use of State Cleanup Guidelines, Management of Contaminated Materials, published April 15, 1994.

Member of the Colorado Department of Health Committee which developed the Storage Tank Facility Owner/Operator Guidance Documents for Initial Site Characterization, Second-Level Site Assessment, Use of State Cleanup Guidelines, Management of Contaminated Materials, published December 11, 1992.

RECENT EXPERT WITNESS CASES

Simon Contractors, Incorporated and Cactus Hill Ranch Company v. The Water Supply and Storage Company, Weld County, Colorado District Court No. 2018CV30402 (D).

Larimer & Weld Reservoir Company and Cache la Poudre Irrigating Company v. Harry G. Nequette and Michelle r. Nequette, Larimer County, Colorado District Court No. 2018CV30848 (D)(T).

Robert Kint Glover, Friday LLC, Gerald Kiefer v. Resource Land Holdings, LLC, Serratoga Falls, LLC, and Jesse Mcdowell, Weld County, Colorado District Case No. 2018CW3166 (D)(T).

North Poudre Irrigation Company v. Richard Lee Wagner, Larimer County, Colorado District Court No. 2022CV30060 (T).

RECENT EXPERT WITNESS CASES

Expert Report and Opinions, Weld County, Colorado District Court No. 2018CV30402, December 20, 2018.

Rebuttal Expert Report and Opinions, Weld County, Colorado District Court No. 2018CV30402, February 14, 2019.

Supplemental Expert Report and Opinions, Weld County, Colorado District Court No. 2018CV30402, June 24, 2019.

Supplemental Rebuttal Expert Report and Opinions, Weld County, Colorado District Court No. 2018CV30402, August 12, 2019.

Expert Report and Opinions, Larimer County, Colorado District Court No. 2018CV30848, April 30, 2019.

Supplemental/Rebuttal Expert Report and Opinions, Larimer County, Colorado District Court No. 2018CV30848, August 23, 2019.

Expert Report and Opinions, Weld County, Colorado District Court No. 2018CW3166, June 13, 2019.

Expert Supplemental-Rebuttal Report and Opinions, Weld County, Colorado District Court No. 2018CW3166, October 10, 2019.

Expert Supplemental-Rebuttal Report Number 2 and Opinions, Weld County, Colorado District Court No. 2018CW3166, November 15, 2019.

Expert Supplemental-Rebuttal Report Number 3 and Opinions, Weld County, Colorado District Court No. 2018CW3166, December 31, 2019.

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June 3, 2022

Town of Severance

RE: Planning Commission Vacancy

Good Day!

I am submitting this letter of interest to be considered for a position on the Severance Planning Commission. I have been evaluating and intently considering where I would like to support and serve my community since purchasing a home in Severance, having moved from Firestone, in 2016. This opportunity is one that I am extremely interested in and one where I believe I can provide value.

Personal Background

I grew up on a small ranch in southern Colorado. Having spent my entire childhood and young adulthood in a small ranching and farming community with parents who were actively involved; my mother serving on the School Board for over a decade as well as many other community organizations, and my father serving in many community organizations as well as being elected Mayor for two terms, the importance and value of serving was readily apparent. My family also owned an insurance brokerage business in town for over 35 years as well as many other insurance businesses in other small Colorado towns. This upbringing made it clear that being an integral member of the local business community begets a responsibility to help maintain that community.

Professional Background

I am a graduate of the Colorado State University Construction Management Program.

My professional background consists of over 20 years in Construction Management. I have been focused on horizontal, commercial, industrial and data center/mission critical projects during my tenure. My wife Amy and I own Well Works, LLC which provides construction management consulting and field personnel training/development. My wife has been in the construction management industry for nearly 20 years as well!

During my career I have been fortunate enough to travel and manage projects from coast to coast, border to border, including southern Canada. This has provided a unique understanding of how so many different teams come together to accomplish a common goal. During my career, I have found success cultivating and deploying an ability to integrate into, partner with and lead teams. Success for me isn't just defined as achieving schedule, budget and repeatable results goals, but developing lasting and real relationships.

Because of my professional experience and time supporting the CSU Construction Management department, I was offered the opportunity to build and teach a senior level course on trade management. As a volunteer industry faculty member for two years and now an adjunct faculty member at CSU, I am able to help guide our young leaders as they enter a vital industry, at a very

difficult time. I cherish my time in the classroom and am always amazed at how much I learn from the students each and every year.

Community Involvement

Achieving the rank of Eagle Scout at the age of 14 taught me early on the value of community, giving back and supporting your neighbors. I have used those early lessons to serve my communities when my available capacity would support it.

Over the years I have been an elected board member on each of my community HOA's. In Firestone I was a board member for three terms. In Severance, I was a board member for two terms. During my time on each board, I drafted and through successful voting, amended guidelines to improve and evolve the respective communities consistent with the desires of the community members.

Living in Firestone from 2007-2016, I was able to see the impact of housing growth, commercial growth and infrastructure growth. The results were good, not so good and everything in between. What an amazing learning opportunity! I was able to see from my perspective how community leaders listen to and execute plans driven by what the larger community wants and what is best for the long term viability of the town.

Summary

Having two young children who go to school in the district, the type of upbringing they will have in their community is extremely important to our family. In addition, our professional and personal positions allow us the capacity to take on this responsibility at a time where we have the experience and desire to learn required to be a contributing member.

I am excited for this opportunity. Please do reach out with any questions. If there is any other documentation or information I can provide so you can better evaluate my submission, please advise.

Thank you for your consideration!

Matthew R. Powell

June 2, 2022

Ron Lewis
336 Jay Ave.
Severance, CO 80550


Lineman59@gmail.com

Planning Board Position
Nicholas Wharton
Lindsay Radcliff-Coombes

Dear Mr. Wharton & Ms. Radcliff-Coombes

My name is Ron Lewis, I have lived in the Hidden Lake Subdivision since November of 2020 & I am interested in the planning board position. I have lived along the front range of Colorado for 49 years, 37 of those years working for & retiring from Xcel Energy.

I believe I would be a good fit for this position, having lived in & taken an active role in several smaller communities. (Erie, Lafayette, Louisville, & Superior) I would love to have the opportunity to help bring the perfect balance of growth & development to this community.

Thank you for your consideration.

Sincerely,
Ron Lewis

From: [Rudy Diaz](#)
To: [Lindsay Radcliff Coombes](#); [Nicholas Wharton](#)
Subject: Planning Commission seat
Date: Friday, June 3, 2022 1:42:29 PM

RE: Planning Commission open seats

To the Town of Severance, I am writing you this letter of interest in hopes I will be considered for one of the open seats on the planning commission.

My name is Rudy Diaz and I reside at 301 Audubon Blvd with my wife Sharday and our 2 children, Jordin and Isabella. We have been residents of the community since September 2017. I strive to stay involved in the community as I volunteer as a crossing guard for Range View Elementary and I hold the secretary position on my neighborhood HOA board. I am also a regular attendee on town board council meetings via zoom.

I would like to be considered for one of the open seats on the planning commission as I would like to be a contributor in how our community grows over the next several years. Although I don't come to you with a vast amount of experience in this type of committee. What I can say is I come to you with a willingness to provide my time, be involved and provide my opinions and feedback on any issues that come before the committee.

Thank you for your consideration in filling an open seat.

Rudy Diaz

301 Audubon Blvd



From: [Terence Hennessy](#)
To: [Nicholas Wharton](#)
Subject: Planning Commission vacancy
Date: Friday, June 3, 2022 2:45:45 PM

Dear Sir,

I am writing in response to the Towns notice of the vacancies on the Planning Commission. I am a resident of the Town of Severance and have been for eight years, since June 2014. Residing in the Belmont Farms subdivision. As there is both a regular commission seat and an alternate seat available, I am willing to serve in either position.

Sincerely,
Terence Hennessy

Sent from my iPad



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Resolution 2022-23R: Resolution to Declare Council Member Vacancy	Nicholas Wharton, Town Manager	Nicholas Wharton, Town Manager
ACTION REQUESTED		
Management and Legal ask that the Town Council review and discuss Resolution 2022-23R: A resolution of the Town Council of the Town of Severance, Colorado, declaring a vacancy on the Town Council for a council member seat with a term expiring at the first regular council meeting in January 2026 and then take separate action to start either the appointment process or to hold a special election: • Actions that may be taken: • Move to approve Resolution 2022-23R • Move to appoint a Council Member; or • Move to hold a Special Election		<u>Resolution</u> <u>Attorney Approved</u>
BRIEF SUMMARY		
In accordance with Charter Section 3.02(4) and C.R.S. § 31-4-303, the following procedure is recommended to declare and fill the Council seat vacated by Mr. Stout: 1. First, Council must “declare a vacancy.” ▪ We recommend declaring the vacancy by Resolution to both provide notice of the vacancy to the public via your meeting agenda, and also to clearly establish the date the vacancy is declared, as it triggers important deadlines to fill the vacant seat under C.R.S. § 31-4-303. ▪ We have prepared Resolution No. 2022-23R declaring the vacancy for Council’s consideration at your June 14, 2022, meeting. 2. Next, the Council must discuss and decide whether to appoint an individual to the vacant seat by appointment or by special election. Council may make this decision by motion and a majority vote.		
PUBLIC SUPPORT/CONCERN		
N/A		
ANALYSIS AND RECOMMENDATION		
Management and Legal recommend that the Town Council take action and move to approve Resolution 2022-23R: A resolution of the Town Council of the Town of Severance, Colorado, declaring a vacancy on the Town Council for a council member seat with a term expiring at the first regular council meeting in January 2026 and then take separate action to start the appointment process.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet:		

1. C.5. Declaring and Filling a Vacancy TC
2. Stout Letter
3. 2022-23R - Declaring Vacancy on Town Council

HAYASHI & MACSALKA, LLC
ATTORNEYS AT LAW
1650 38TH STREET
SUITE 103 WEST
BOULDER, COLORADO 80301

WILLIAM P. HAYASHI
MARY LYNN MACSALKA
MARSHALL KEITH MARTIN

Telephone: 303-443-3100
Fax: 303-443-7835
www.h-mlaw.net

MEMORANDUM

TO: Mayor and Town Council, Town of Severance

FROM: Mary Lynn Macsalka and Keith Martin, Town Attorney's Office

DATE: June 1, 2022

RE: Declaring and Filling a Vacancy on the Town Council

Town Council member Tad Stout voluntarily resigned from his Council seat after the last Town Council meeting on May 24, 2022, and provided a letter stating his resignation is effective immediately.

When a vacancy occurs on the Town Council, subsection (4) of Section 3.02 of the Town's Charter provides that "the Council shall declare a vacancy according to standards set forth by ordinance or by C.R.S. § 31-4-303" and that the Council "may appoint an individual to the vacancy until the next regular election or fill the vacancy by special election." The Town's current ordinance regarding Council vacancies, Section 2-2-10(a)(1) and (e), also points to C.R.S. § 31-4-303 for the procedure to fill a vacancy.

In accordance with Charter Section 3.02(4) and C.R.S. § 31-4-303, the following procedure is recommended to declare and fill the Council seat vacated by Mr. Stout:

1. First, Council must "declare a vacancy."
 - We recommend declaring the vacancy by resolution to both provide notice of the vacancy to the public via your meeting agenda, and also to clearly establish the date the vacancy is declared, as it triggers important deadlines to fill the vacant seat under C.R.S. § 31-4-303 (discussed further in step __, below).
 - We have prepared Resolution No. 2022-23R declaring the vacancy for Council's consideration at your June 14, 2022, meeting.
2. Next, the Council must discuss and decide whether to appoint an individual to the vacant seat by appointment or by special election. Council may make this decision by motion and a majority vote.

3. The Council must fill the vacant seat by appointment within **60 days** after the vacancy is declared **or** order a special election to fill the vacant seat within **60 days** after the vacancy occurs.
 - If the Council fails to either appoint an individual to the vacant seat or to order a special election within 60 days, then C.R.S. § 31-4-303 *requires* that the Council “order an election, subject to the municipal election code, to be held as soon as practicable to fill the vacancy until the next regular election and until a successor has been elected.” The Council would no longer have the option of appointing a person to fill the vacant seat at that point.
- 4a. If Council decides to fill the vacant seat by appointment, the Town Council may follow or modify the Town’s past practice for noticing, interviewing, and appointing an individual. In either event, the Town should advertise the vacancy, the qualifications for office, and the process for residents to apply.
- 4b. If Council decides to order a special election to fill the vacant seat, my office will provide a resolution at your next meeting ordering the election to occur on a date within 60 days after the vacancy is declared or as soon as practicable thereafter.

The person appointed or elected to fill the vacant Council seat will serve the remainder of Mr. Stout’s term, through December 2025, and will be eligible to run for a full term in the November 2025 Town election.

The qualifications to serve on the Town Council are set forth in Charter Section 3.03. Any Town resident whom the Town Clerk determines meets the qualifications for Council members in Charter Section 3.03 may apply or run to fill the vacant seat.

We will be available at your June 14, 2022, meeting, along with the Town Manager and Town Clerk, to answer your questions regarding these procedures and any other questions you may have.

cc: Nicholas Wharton, Town Manager
Leah Vanarsdall, Town Clerk
Lindsay Radcliff-Coombes, Deputy Town Manager

Attention Matt Fries,

I Tad R. Stout Resign from my position of Severance Town Councilman effective immediately,

Cheers,

A handwritten signature in black ink, appearing to read "Tad R. Stout". The signature is fluid and cursive, with a long horizontal stroke extending to the right. Above the signature, there are two vertical lines, possibly indicating a date or a mark.

**TOWN OF SEVERANCE
RESOLUTION NO. 2022-23R**

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF SEVERANCE,
COLORADO, DECLARING A VACANCY ON THE TOWN COUNCIL FOR A
COUNCIL MEMBER SEAT WITH A TERM EXPIRING AT THE FIRST REGULAR
COUNCIL MEETING IN JANUARY 2026**

WHEREAS, Town Council member Tad Stout voluntarily resigned from his seat on the Town Council effective March 24, 2022; and

WHEREAS, pursuant to Section 13.06 of the Town of Severance Home Rule Charter (“Charter”), Mr. Stout’s term expires at the first regular Council meeting in January 2026; and

WHEREAS, subsection (4) of Section 3.02 of the Town’s Charter provides that if a vacancy occurs on the Town Council, “the Council shall declare a vacancy according to standards set forth by ordinance or by C.R.S. § 31-4-303” and that the Council “may appoint an individual to the vacancy until the next regular election or fill the vacancy by special election;” and

WHEREAS, in accordance with the Section 3.02 of the Charter, Section 2-2-10 of the Severance Municipal Code, and C.R.S. § 31-4-303, the Town Council must fill the vacant seat by appointment or order a special election to fill the vacant seat within 60 days after the vacancy is declared; and

WHEREAS, the Town Council desires to formally declare a vacancy on the Town Council for a Council member seat with a term expiring at the first regular Council meeting in January 2026 for purposes of invoking the procedure to fill the vacant seat in accordance with the Charter, Severance Municipal Code, and applicable state law.

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE
TOWN OF SEVERANCE COLORADO:**

Section 1. The Town Council formally declares that there is a vacancy on the Town Council for a Council member seat with a term expiring at the first regular Council meeting in January 2026, effective upon approval of this resolution.

RESOLVED AND PASSED THIS 14TH DAY OF JUNE, 2022.

TOWN OF SEVERANCE, COLORADO

Matthew Fries, Mayor

ATTEST:

Leah Vanarsdall, MMC, Town Clerk

APPROVED AS TO FORM:

Hayashi & Macsalka, LLC, Town Attorney



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Resolution 2022- 24R: State Highway 392 & Weld County Road 23 Intersection Improvements Contract Award	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner & Chris Messersmith, Town Engineer
ACTION REQUESTED		
Community Development, Engineering, and Town Management ask that the Severance Town Council review, discuss, and take action on the State Highway 392 & Weld County Road 23 Intersection Improvements Contract Award. Actions that may be taken: 1. Approve Resolution 2022-24R, awarding the project to the lowest qualified bidder Horrocks Engineers, and allow Town Manager to sign and manage. 2. Take no action		<u>Resolution</u> <u>Discussion</u> <u>Action Requested</u> <u>Attorney Approved</u>
BRIEF SUMMARY		
At the direction of the Town Council , the Town of Severance has issued an RFP for design for the State Highway 392 – Weld County Road 19 Intersection Improvements project . The services provided by the selected consultant/consultant team will include the civil engineering/roadway design, surveying, utility relocation design (if required), traffic engineering, and geo-technical engineering. Community Development and Town Engineering staff will provide a brief presentation tonight.		
PUBLIC SUPPORT/CONCERN		
Residents have reached out to Town staff and Town Management regarding safety at this intersection and have expressed the desire for improvements to be made.		
ANALYSIS AND RECOMMENDATION		
After receiving proposals from qualified bidders, Town staff reviewed all proposals, received referrals, and conducted an interview with Horrocks Engineers. Town staff feels that Horrocks Engineers is the clear recommendation based on detailed CDOT Local Agency experience, offering/suggesting methods to accelerate the project schedule, partnering with a firm that is familiar with the project location to minimize duplicate efforts, and the overall project fee being the qualified low bidder. Community Development, Town Engineering, and Town Management recommend that the Town Council award the contract to the lowest qualified bidder Horrocks Engineers and allow Town Manager to sign and manage.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Resolution 2022 - 24R		

2. Professional Services Agreement
3. Horrocks Engineers RFP Proposal SH 392-WCR 23 Intersection Improvements
4. Horrocks COI Town of Severance

**TOWN OF SEVERANCE
RESOLUTION NO. 2022-24R**

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF
SEVERANCE, COLORADO, APPROVING AN AGREEMENT BETWEEN THE
TOWN OF SEVERANCE AND HORROCKS ENGINEERS, INC REGARDING
THE WELD COUNTY ROAD 23/STATE HIGHWAY 392 INTERSECTION
IMPROVEMENTS PROJECT**

WHEREAS, the Town of Severance (“Town”) is in need of professional design services for the construction of the Weld County Road 23/State Highway 392 Intersection Improvements Project (“Project”); and

WHEREAS, the Town published a request for proposals for such services for the Project; and

WHEREAS, the Town has evaluated the proposals submitted in response to the request for proposals, and finds that Horrocks Engineers, Inc. (Horrocks) is the most qualified and the lowest responsible and responsive bidder for the professional design services described in the request for proposals; and

WHEREAS, the Town finds that Horrocks has the expertise, qualifications, and experience to perform the work and duties required for the design of the Project, and desires to select Horrocks for the request for proposals and to enter into an agreement with Horrocks to provide the Professional Services as described in the request for proposals; and

WHEREAS, Town Council finds and declares that it is in the best interest of the Town to award the request for proposals to Horrock is as the lowest responsible and responsive bidder.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF SEVERANCE, COLORADO:

The Agreement for Professional Services for the State Highway 392 – Weld County Road 23 Intersection Improvements between the Town of Severance and Horrocks Engineers, Inc. is approved in substantially the same form as the copy attached hereto and made a part of this resolution. The Town Manager is authorized to execute the Agreement on behalf of the Town.

RESOLVED AND PASSED THIS 14th DAY OF June, 2022.

TOWN OF SEVERANCE, COLORADO

Matthew Fries, Mayor

ATTEST:

Leah Vanarsdall, MMC, Town Clerk

APPROVED AS TO FORM:

Hayashi & Macsalka, LLC, Town Attorney

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT FOR PROFESSIONAL SERVICES (the "Agreement") is made and entered into this 15th day of June, 2022 (the "Effective Date"), by and between the **TOWN OF SEVERANCE**, a Colorado municipal corporation with an address of 3 South Timber Ridge Parkway, PO Box 339, Severance, Colorado 80546 (the "Town"), and **HORROCKS ENGINEERS, INC.**, an independent contractor with a principal place of business at 5670 Greenwood Plaza Boulevard, Suite 100W, Greenwood Village, CO 80111 ("Contractor") (each a "Party" and collectively the "Parties").

WHEREAS, the Town requires professional services; and

WHEREAS, Contractor has held itself out to the Town as having the requisite expertise and experience to perform the required professional services.

NOW, THEREFORE, for the consideration hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

I. SCOPE OF SERVICES

A. Contractor shall furnish all labor and materials required for the complete and prompt execution and performance of all duties, obligations, and responsibilities which are described or reasonably implied from the Scope of Services set forth in **Exhibit A**, attached hereto and incorporated herein by this reference and known as: **STATE HIGHWAY 392 & WELD COUNTY ROAD 23 INTERSECTION IMPROVEMENTS (TR-2101)**.

B. A change in the Scope of Services shall not be effective unless authorized as an amendment to this Agreement. If Contractor proceeds without such written authorization, Contractor shall be deemed to have waived any claim for additional compensation, including a claim based on the theory of unjust enrichment, quantum merit or implied contract. Except as expressly provided herein, no agent, employee, or representative of the Town is authorized to modify any term of this Agreement, either directly or implied by a course of action.

II. TERM AND TERMINATION

A. This Agreement shall commence on the Effective Date, and shall continue until Contractor completes the Scope of Services to the satisfaction of the Town, or until terminated as provided herein.

B. Either Party may terminate this Agreement upon 30 days advance written notice. The Town shall pay Contractor for all work previously authorized and completed as of the date of termination. If, however, Contractor has substantially or materially breached this Agreement, the Town shall have any remedy or right of set-off available at law and equity.

C. Effect of Termination. In the event of termination, Contractor shall immediately discontinue performance, and deliver to the Town all Work Product (as defined herein). Without prejudice to any other rights or remedies it may have hereunder or at law or in equity, the Town may itself or through another service provider take over any unfinished Services and Deliverables by whatever reasonable method it may deem expedient. In addition, at the Town's request, Contractor shall timely: (a) document in reasonable detail the

status of the terminated Services; and (b) deliver to Town copies of all documents and data reasonably required for the completion of any unfinished Services and Deliverables.

III. COMPENSATION

A. In consideration for the completion of the Scope of Services by Contractor, the Town shall pay Contractor **\$177,605.00** billed on a time and material basis, not to exceed the stated amount. This amount shall include all fees, costs and expenses incurred by Contractor, and no additional amounts shall be paid by the Town for such fees, costs and expenses. Contractor may submit periodic invoices, which shall be paid by the Town within 30 days of receipt.

B. Contents of Invoices. Invoices shall include the basis upon which payment is requested, such as actual time, number of hours worked, materials and expenses, along with a general description of the Services performed, the start and completion dates of any such services performed, and who performed such services. Contractor shall provide appropriate supporting documentation with each invoice.

C. Disputes. If there exists a good faith dispute with regard to an item appearing on an invoice, the Town has the right to withhold payment on any amounts that are disputed while the Parties attempt to resolve the dispute, provided that the Town provides Contractor with notice of such dispute within thirty (30) days after receipt of the invoice and pays all undisputed amounts by the due date. The Town's withholding of such disputed amount shall not constitute a breach of this Agreement, nor shall it be grounds for Contractor to suspend or terminate its performance of undisputed Services.

D. Set Off: In addition to any other rights the Town has under this Agreement to indemnification or recoupment, Contractor agrees that the Town is entitled to set off any amounts it may owe Contractor under this Agreement against such claims for indemnity or recoupment.

IV. PROFESSIONAL RESPONSIBILITY

A. Contractor hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law. The work performed by Contractor shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work in the applicable community. The work and services to be performed by Contractor hereunder shall be done in compliance with applicable laws, ordinances, rules and regulations.

B. Contractor further warrants and acknowledges as follows: (1) Contractor shall not access, process or otherwise use Dependency Information other than as necessary to facilitate Services; (2) shall not give any third party access to Dependency Information, including without limitation Contractor's other customers or clients; (3) shall exercise commercially reasonable efforts to prevent unauthorized exposure or disclosure of Dependency Information, and shall implement administrative, technical and physical safeguards for managing unauthorized disclosure or exposure of Dependency Information stored by Contractor; and (4) in the event that Contractor has on-site or remote access to Town systems or networks in connection with the Services hereunder, Contractor will comply with the Town's security requirements.

C. The Town's review, approval or acceptance of, or payment for any services shall not be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

D. Because the Town has hired Contractor for its professional expertise, Contractor agrees not to employ subcontractors to perform any work except as expressly set forth in the Scope of Services.

V. OWNERSHIP

A. Client Materials. All right, title and interest in and to any materials provided by the Town to Contractor, including without limitation, Dependency Information, hardware, software, equipment and other pre-existing technology, other materials of any kind and nature, and any trademarks, service marks, trade logos or other pre-existing intellectual property rights ("Client Materials") are and shall remain the sole property of the Town. Town grants to Contractor a limited, nontransferable, fully-paid, royalty-free, non-sublicensable, nonexclusive right during the term of this Agreement to copy, store, record, transmit, display, view, print or otherwise use the Client Materials solely to the extent necessary to perform its obligations under this Agreement. No Client Materials shall be removed from the Town's premises without the Town's prior written consent. All Client Materials shall be returned upon the earlier of (a) the Town's request for their return; and (b) completion or termination of the Services. Contractor shall maintain such materials in good condition.

B. Work Product. Any materials, items, and work specified in the Scope of Services, and any and all related documentation and materials provided or developed by Contractor ("Work Product") have been or will have been specially ordered or commissioned by the Town, and accordingly, each is and will be a "work made for hire" (as such term is used in 17 U.S.C. § 201) for the Town, effective as of the moment each such item is fixed in a tangible medium, whether or not such item is complete. Contractor hereby transfers and assigns to the Town all of its all right, title, and interest in and to all Work Product, including, but not limited to, all United States and foreign copyright, patent, trademark, trade secret and any other proprietary rights pertaining to such Work Product held by Contractor To the extent, if at all, that it does not constitute a "work made for hire," Contractor hereby transfers, sells, and assigns to the Town all of its right, title, and interest in such work. The Town may, with respect to all or any portion of such work, use, publish, display, reproduce, distribute, destroy, alter, retouch, modify, adapt, translate, or change such work without providing notice to or receiving consent from Contractor. The forgoing shall not apply to previously created and/or owned intellectual property of Contractor. Nothing in this Agreement will prevent Contractor from retaining copies of documents for the lawful use in its own business purposes. Contractor will provide the Town with a ten (10) day written notice prior to disposal of documents it has retained, during which time the Town may take physical possession of same

VI. INDEPENDENT CONTRACTOR

Contractor is an independent contractor. Notwithstanding any other provision of this Agreement, all personnel assigned by Contractor to perform work under the terms of this Agreement shall be, and remain at all times, employees or agents of Contractor for all purposes. Contractor shall make no representation that it is a Town employee for any purposes.

VII. INSURANCE

A. Contractor agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Contractor pursuant to this Agreement. At a minimum, Contractor shall procure and maintain, and shall cause any subcontractor to procure and maintain, the insurance coverages listed below, with forms and insurers acceptable to the Town.

1. Worker's Compensation insurance as required by law.
2. Commercial General Liability insurance with minimum combined single limits of \$1,000,000 each occurrence and \$2,000,000 general aggregate. The policy shall be applicable to all premises and operations, and shall include coverage for bodily injury, broad form property damage, personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall contain a severability of interests provision, and shall include the Town and the Town's officers, employees, and contractors as additional insureds. No additional insured endorsement shall contain any exclusion for bodily injury or property damage arising from completed operations.
3. Professional liability insurance with minimum limits of \$1,000,000 each claim and \$2,000,000 general aggregate.

B. Such insurance shall be in addition to any other insurance requirements imposed by law. The coverages afforded under the policies shall not be canceled, terminated or materially changed without at least 30 days prior written notice to the Town. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage. Any insurance carried by the Town, its officers, its employees or its contractors shall be excess and not contributory insurance to that provided by Contractor. Contractor shall be solely responsible for any deductible losses under any policy.

C. Contractor shall provide to the Town a certificate of insurance as evidence that the required policies are in full force and effect. The certificate shall identify this Agreement.

VIII. INDEMNIFICATION

A. Contractor agrees to indemnify, defend and hold harmless the Town and its officers, insurers, volunteers, representative, agents, employees, heirs and assigns from and against all claims, liability, damages, losses, expenses and demands, including attorney fees, on account of injury, loss, or damage, including without limitation claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, or any other loss of any kind whatsoever, which arise out of or are in any manner connected with this Agreement if such injury, loss, or damage is caused in whole or in part by, the act, omission, error, professional error, mistake, negligence, or other fault of Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor, or which arise out of a worker's compensation claim of any employee of Contractor or of any employee of any subcontractor of Contractor. Contractor's liability under this indemnification provision shall be to the fullest extent of, but shall not exceed, that amount represented by the degree or percentage of negligence or fault attributable to Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor or of any subcontractor of Contractor.

B. If Contractor is providing architectural, engineering, surveying or other design services under this Agreement, the extent of Contractor's obligation to indemnify and hold harmless the Town may be determined only after Contractor's liability or fault has been determined by adjudication, alternative dispute resolution or otherwise resolved by mutual agreement between the Parties, as provided by C.R.S. § 13-50.5-102(8)(c).

IX. IMMIGRATION STATUS OBLIGATIONS

A. Certification. By entering into this Agreement, Contractor hereby certifies that, at the time of this certification, it does not knowingly employ or contract with a worker without authorization, as that term is defined in C.R.S. § 8-17.5-101(9), as amended, who will perform work under this Agreement and that Contractor will participate in either the E-Verify Program administered by the United States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment to confirm the employment eligibility of all employees who are newly hired to perform work under this Agreement.

B. Prohibited Acts. Contractor shall not knowingly employ or contract with a worker without authorization, as that term is defined in C.R.S. § 8-17.5-101(9), as amended, to perform work under this Agreement, or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with a worker without authorization, as that term is defined in C.R.S. § 8-17.5-101(9), as amended, to perform work under this Agreement.

C. Verification.

1. If Contractor has employees, Contractor has confirmed the employment eligibility of all employees who are newly hired to perform work under this Agreement through participation in either the E-Verify Program or the Department Program.

2. Contractor shall not use the E-Verify Program or Department Program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

3. If Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with a worker without authorization, as that term is defined in C.R.S. § 8-17.5-101(9), as amended, who is performing work under this Agreement, Contractor shall: notify the subcontractor and the Town within 3 days that Contractor has actual knowledge that the subcontractor is employing or contracting with a worker without authorization, as that term is defined in C.R.S. § 8-17.5-101(9), as amended, who is performing work under this Agreement; and terminate the subcontract with the subcontractor if within 3 days of receiving the notice required pursuant to subsection 3 hereof, the subcontractor does not stop employing or contracting with the worker without authorization who is performing work under this Agreement; except that Contractor shall not terminate the subcontract if during such 3 days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with a worker without authorization, as that term is defined in C.R.S. § 8-17.5-101(9), as amended, who is performing work under this Agreement.

D. Duty to Comply with Investigations. Contractor shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation conducted pursuant to C.R.S. § 8-17.5-102(5)(a) to ensure that Contractor is complying with the terms of this Agreement.

X. TOWN OBLIGATIONS/CONFIDENTIALITY

A. Dependency Information. The Town shall provide Contractor with data, information, reports and such other documentation ("Dependency Information") as may be available to the Town, and reasonably required by Contractor perform the Services.

B. Access to Property and Records. The Town shall provide Contractor with access to its property and reasonably required by Contractor to perform Services. To the extent required by law, the Town and Contractor agree to make this Agreement and any related records available for public disclosure pursuant to any open records law, including, without limitation, the Colorado Open Records Act, C.R.S. §§ 24-72-200.1, *et seq.* Contractor agrees to hold the Town harmless from the disclosure of any records that the Town reasonably believes it is legally required to disclose.

C. Confidentiality; Protection. From time to time during the Term, either party may disclose or make available to the other party information about its business affairs, products, confidential intellectual property, trade secrets, third-party confidential information, and other sensitive or proprietary information, whether orally or in written, electronic, or other form or media, and whether or not marked, designated or otherwise identified as "confidential" (collectively, "Confidential Information"). Confidential Information does not include information that, at the time of disclosure is: (i) in the public domain; (ii) known to the receiving party at the time of disclosure; (iii) rightfully obtained by the receiving party on a non-confidential basis from a third party; or (iv) independently developed by the receiving party. The receiving party shall not disclose the disclosing party's Confidential Information to any person or entity, except to the receiving party's employees who have a need to know the Confidential Information for the receiving party to exercise its rights or perform its obligations hereunder. Contractor expressly recognizes that the Town is subject to the Colorado Open Records Act and may be required to disclose certain information pursuant to the requirements of that Act. Notwithstanding the foregoing, each party may disclose Confidential Information to the limited extent required (i) in order to comply with the order of a court or other governmental body, or as otherwise necessary to comply with applicable law, provided that the party making the disclosure pursuant to the order shall first have given written notice to the other party so that the disclosing party may interpose an objection to such disclosure or take such other action as it deems appropriate to protect the Confidential Information; or (ii) to establish a party's rights under this Agreement, including to make required court filings.

D. Return of Materials. Upon expiration or termination of this Agreement, except as necessary to exercise the rights granted by the Town to Contractor pursuant to Section III, each Party will return promptly or, at the other Party's request, destroy all documents and other tangible objects containing or representing Confidential Information of the other Party except to the extent that such documents must be retained to satisfy auditing or regulatory requirements. If requested by the other Party, each Party will provide the other Party with written certification of compliance with the foregoing obligations under this Section X.D.

XI. MISCELLANEOUS

A. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in Weld County, Colorado.

B. No Waiver. Delays in enforcement or the waiver of any one or more defaults or breaches of this Agreement by the Town shall not constitute a waiver of any of the other terms or obligation of this Agreement.

C. Integration. This Agreement constitutes the entire agreement between the Parties, superseding all prior oral or written communications.

D. Third Parties. There are no intended third-party beneficiaries to this Agreement.

E. Notice. Any notice under this Agreement shall be in writing, and shall be deemed sufficient when directly presented or sent pre-paid, first class United States Mail to the Party at the address set forth on the first page of this Agreement.

F. Severability. If any provision of this Agreement is found by a court of competent jurisdiction to be unlawful or unenforceable for any reason, the remaining provisions hereof shall remain in full force and effect.

G. Modification. This Agreement may only be modified upon written agreement of the Parties.

H. Assignment. Neither this Agreement nor any of the rights or obligations of the Parties shall be assigned by either Party without the written consent of the other.

I. Governmental Immunity. The Town and its officers, attorneys and employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations or any other rights, immunities or protections provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.*, as amended, or otherwise available to the Town and its officers, attorneys or employees.

J. Rights and Remedies. The rights and remedies of the Town under this Agreement are in addition to any other rights and remedies provided by law. The expiration of this Agreement shall in no way limit the Town's legal or equitable remedies, or the period in which such remedies may be asserted, for work negligently or defectively performed.

K. Subject to Annual Appropriation. Consistent with Article X, § 20 of the Colorado Constitution, any financial obligation of the Town not performed during the current fiscal year is subject to annual appropriation, shall extend only to monies currently appropriated, and shall not constitute a mandatory charge, requirement, debt or liability beyond the current fiscal year.

L. Representative Authority. Each person signing this Agreement represents and warrants that he or she is duly authorized and has the legal capacity to execute the Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

TOWN OF SEVERANCE, COLORADO

Nicholas J. Wharton, MPA, ICMA-CM,
Town Manager

ATTEST:

Leah Vanarsdall, Town Clerk

APPROVED AS TO FORM:

Hayashi & Macsalka, LLC, Town Attorney

CONTRACTOR

By:

John Holzwarth, PE, Colorado Business Leader
Horrocks Engineers, Inc.

EXHIBIT A SCOPE OF SERVICES

Contractor's Duties

During the term of this Agreement, Contractor shall perform the following duties, as directed by the Town:

GENERAL

The Contractor shall ensure the design and scope of work follows the current Manual on Uniform Traffic Controls Devices (MUTCD), American Association of State Highway and Transportation Officials (AASHTO) guidelines, Colorado Department of Transportation (CDOT) M&S Standards and Specifications, State of Colorado State Highway Access Code and Town of Severance current requirements. The Town follows the City of Greeley Design Criteria and Construction Specifications, Streets, Volume I, July 2015. The Contractor's scope of work shall generally include, but is not limited to the following:

- Review and understanding of local and regional traffic demands.
- Identification and mapping of property ownership, existing rights-of-way, and easements.
- Horizontal locating (QL-B) and mapping of all existing utilities within the project area.
- Preparation of a topographical and boundary survey.
- Assume no property or easement acquisition.
- Complete necessary traffic flow analysis.
- Provide memo summarizing traffic analysis and design summary for signal and roadway improvements.
- Complete necessary traffic signal, roadway configuration, lane configuration and improvements arising from traffic analysis. Design to be based on Year 2030 - 2035 traffic volumes. Traffic signal mast arms shall be designed to accommodate future signal heads as the intersection is improved.
- Complete vertical locating (QL-A) in area for traffic signal pole caisson locations, and any other locations required for proposed utilities or utility relocation.
- Provide Subsurface Utility Engineering report.
- Complete necessary drainage design and any utility relocation, if applicable.
- Provide drainage report or memorandum.
- Complete Stormwater Management Plan (SWMP).
- Provide necessary environmental permitting and CDOT clearances for completion of the project.
- Complete conceptual design, preliminary design and final design drawings for construction including, but not limited to, cover sheet, notes, removal and relocation plan, grading plan, erosion control plan, street plan and profile, signing and striping plan, cross sections, utility plans, storm drain plan and profiles, details, traffic signalization plans, etc.

-
- Prepare an Engineers Opinion of Probable Construction Costs.
 - Prepare construction documents and Project Manual that includes bidding information, bid forms, construction contract, conditions of the construction contract, and construction specifications that follow CDOT's requirements, formatting, and specifications. The Town will provide standard front-end documents to the consultant to include in the Project Manual.
 - Attend regular progress meetings.
 - Support and assist the Town with CDOT coordination.
 - Support and assist the Town with utility relocation coordination, as needed.
 - No public meetings are anticipated, the Town will provide all public outreach.

The Contractor shall provide all design, construction documents, project manual, bid schedule, and construction specifications to the Town in electronic format acceptable to the Town (Autodesk Civil 3D, Microsoft Excel, Microsoft Word, etc.).

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

COST ESTIMATE

Horrocks is committed to working with Town to refine this cost estimate as needed prior to final award. This is our current understanding of what will be required, however, we understand that things may need to be adjusted to meet the Town's needs. This estimate includes time and costs associated with A/D Lane improvements on SH 392 and lengthening of left turn lane, per the RFP. We are confident this covers all scope elements as identified in the RFP.

Summary Cost Proposal	Principal	Project Manager	Quality Manager	Roadway Lead	CAD Engineer	Hydraulics Lead	ROW Lead	Utility Coordinator	2 Person Field Crew - SUE	Traffic Engineer	Subs	
WORK ACTIVITY	John Holzwarth	Dan Woodward	Tim Harris	Marie Thoming	Todd Santee	Harry Strasser	Courtney Wallace	Taylor Lane	Field Technician	Cameron Feagle	Olsson	Totals
Project Management and Coordination												
Team Coordination	1	32	2	4			2	2		8		51
Meetings (kickoff, progress, preliminary, final)	2	24	4	12	4	4	4	4		8		66
Subtotal of hours 117	3	56	6	16	4	4	6	6		16		117
Subtotal Labor Costs \$21,972.00	\$798.00	\$11,928.00	\$1,578.00	\$2,656.00	\$324.00	\$852.00	\$696.00	\$660.00		\$2,480.00		\$21,972.00
Preliminary Assessment and Project Kickoff												
Existing Data Collection and Project Setup	1	4	1	2		2	2	2		4		18
ROW Mapping and Existing Topo		1		2	2		2	2			\$5,650.00	9
Initial Utility Mapping		2		2	2			4		2		12
Subtotal of hours 39	1	7	1	6	4	2	4	8		6		39
Subtotal Labor Costs \$6,040.00	\$266.00	\$1,491.00	\$263.00	\$996.00	\$324.00	\$426.00	\$464.00	\$880.00		\$930.00	\$5,650.00	\$11,690.00
Existing Design Verification												
Traffic Analysis and Memo		2	1	1						4	\$9,000.00	8
Structural Section and Geotech Memo		4	1	2								7
ROW Verification and Impacts		2		2			4					
Conceptual Design Review - Severance South		8		4		2				4		
Environmental Resources and Historical Review (APE)		2										2
Subtotal of hours 43		18	2	9		2	4			8		43
Subtotal Labor Costs \$7,984.00		\$3,834.00	\$526.00	\$1,494.00		\$426.00	\$464.00			\$1,240.00	\$9,000.00	\$16,984.00
Preliminary Design												
Finalize Design Concept	1	8	2	8	4	2						25
ROW Plans and Boundary Identification		2		2	4		8					16
Title Commitments				1			2					3
Utility Coordination & SUE Plans		8	1	4		2		8		4		27
Utility Field Work								4	40	4		48
Geotechnical Memo and Pavement Design		4	1								\$6,505.00	5
Draft Utility Plans		4		4				12		2		22
Roadway/Signal Design		16	1	24	40	8				12		101
Environment and Historical Clearances		8	1	2							\$27,500.00	11

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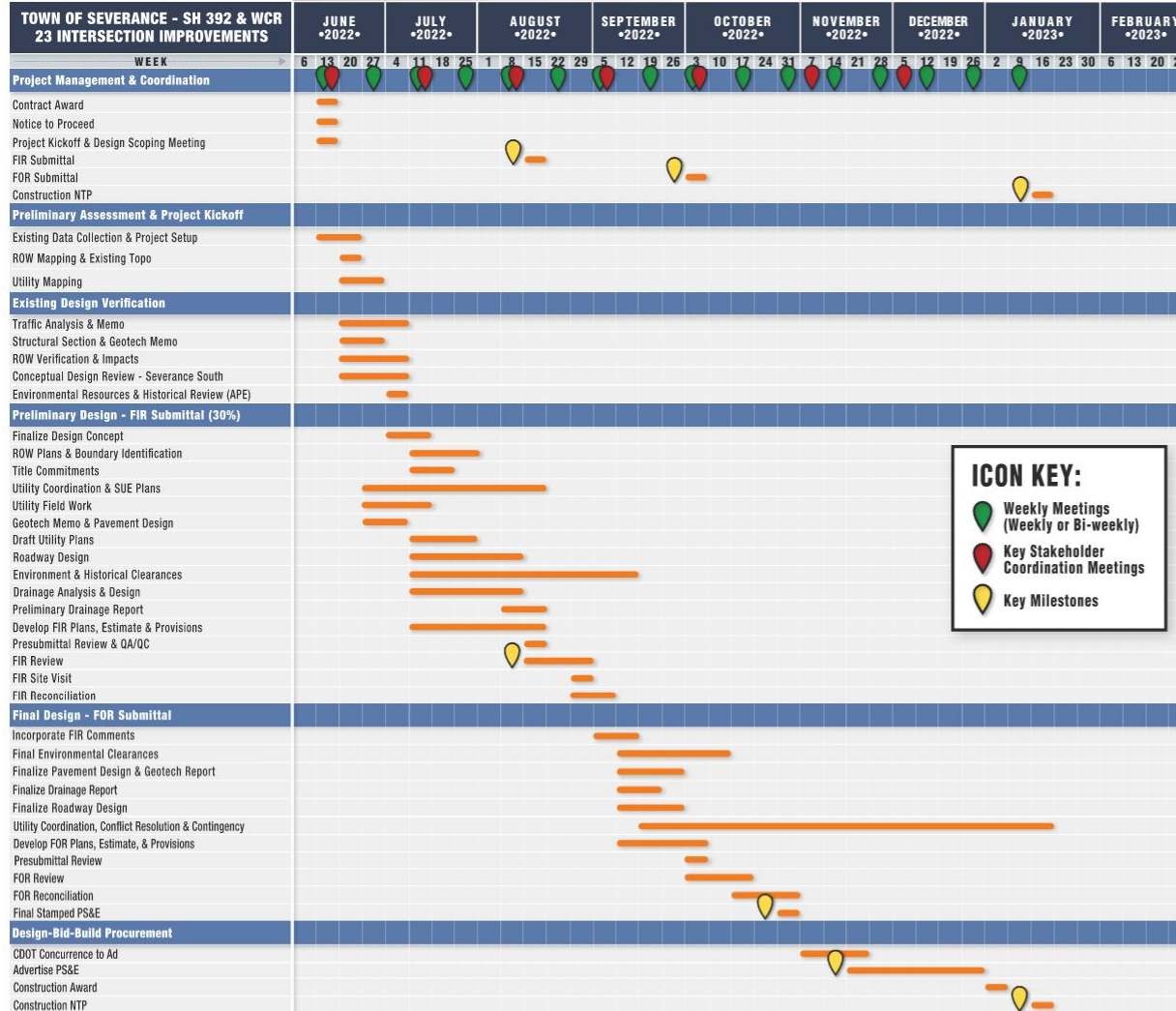
SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

COST ESTIMATE, CONTINUED

Summary Cost Proposal	Principal	Project Manager	Quality Manager	Roadway Lead	CAD Engineer	Hydraulics Lead	ROW Lead	Utility Coordinator	2 Person Field Crew - SUE	Traffic Engineer	Subs	
WORK ACTIVITY	John Holzwarth	Dan Woodward	Tim Harris	Marie Thoming	Todd Santee	Harry Strasser	Courtney Wallace	Taylor Lane	Field Technician	Cameron Feagle	Olsson	Totals
Drainage Analysis and Design		8		4		16						28
Preliminary Drainage Report		8		4		8						20
Develop FIR Plans, Estimate and Provisions		16		16	40	4				2		78
Internal QA/QC	1	4	4	2				2				13
Opinion and Probable Cost		12	1	4		1		4		4		26
Subtotal of hours 423	2	98	11	75	88	41	10	30	40	28		423
Subtotal Labor Costs \$69,410.00	\$532.00	\$20,874.00	\$2,893.00	\$12,450.00	\$7,128.00	\$8,733.00	\$1,160.00	\$3,300.00	\$8,000.00	\$4,340.00	\$34,005.00	\$103,415.00
Final Design/Bidding Support												
Incorporate FIR Comments		4		2	8	2				4		20
Final Environmental Clearances		2		2								
Finalize Pavement Design and Geotech Report		2										
Finalize Drainage Report		1		1		2						
Finalize Roadway Design		8	2	16	16	4				8		54
Develop FOR Plans, Estimate, and Provisions		12		2	24							38
Internal QA/QC		4	2									6
Final Stamped PS&E		1		1		1	1	1		1		
Bidding Support and Project Advertisement		12		4								16
Subtotal of hours 150		46	4	28	48	9	1	1		13		150
Subtotal Labor Costs \$23,544.00		\$9,798.00	\$1,052.00	\$4,648.00	\$3,888.00	\$1,917.00	\$116.00	\$110.00		\$2,015.00		\$23,544.00
SUBTOTALS - HOURS 772	6	225	24	134	144	58	25	45	40	71		772
Fully Burdened Rate, per hour	\$266.00	\$213.00	\$263.00	\$166.00	\$81.00	\$213.00	\$116.00	\$110.00	\$200.00	\$155.00		
Subtotal Labor Costs for	\$1,596.00	\$47,925.00	\$6,312.00	\$22,244.00	\$11,664.00	\$12,354.00	\$2,900.00	\$4,950.00	\$8,000.00	\$11,005.00	\$48,655.00	\$177,605.00
Subtotal of Equipment and Materials												
SUBTOTALS - LABOR and OTHER	\$1,596.00	\$47,925.00	\$6,312.00	\$22,244.00	\$11,664.00	\$12,354.00	\$2,900.00	\$4,950.00	\$8,000.00	\$11,005.00	\$48,655.00	\$177,605.00
TOTAL COST	\$177,605.00											

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

PROJECT SCHEDULE



ICON KEY:

-  Weekly Meetings (Weekly or Bi-weekly)
-  Key Stakeholder Coordination Meetings
-  Key Milestones

We are confident that final plans (FOR) can be completed by this fall, and that final design can be completed by Spring of 2023, as outlined in the RFP. We have developed and presented an achievable and logical schedule that accelerates that timeline.

Our team has shown an aggressive but realistic schedule based on our understanding of the project. However, if funding restrictions or other limitations affect project acceleration, we are prepared to deliver on another schedule developed in conjunction with the Town.

Geotechnical Memo, Pavement Design, and Final Report durations assume using the available and applicable data previously gathered with minimal adjustments and documented with project memos.

Some tasks have either been lumped together with others or broken out individually to help convey intent and simplify the overall schedule for viewing and evaluation purposes. We are confident that our schedule has accounted for all of the items in the RFP as well as others needed to complete the project.



HORROCKS
ENGINEERS



PROFESSIONAL ENGINEERING DESIGN SERVICES

**STATE HIGHWAY 392 & WELD COUNTY ROAD 23
MAY 20, 2022**

May 20, 2022

Town of Severance
Abdul Barzak, Town Planner
Shar Shadowen, Project Manager
3 S. Timber Ridge Parkway
Severance, CO 80550

SUBJECT: Professional Engineering Design Services for State Highway 392 and Weld County Road 23 Intersection Improvements

Dear Mr. Barzak, Ms. Shadowen, and members of the Evaluation Committee:

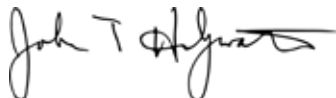
The State Highway 392 and Weld County Road 23 (SH 392 & WCR 23) intersection is experiencing significantly increased traffic volume, as the population growth in and around the Town of Severance (the Town) has steadily increased. Travel demand spurred by travelers driving to and from Severance High School and anticipated from the Severance South Development presents travel delays and safety concerns. The Town is wisely addressing these operational and safety issues, advancing the improvements through the Colorado Department of Transportation (CDOT) Local Agency process, to design and construct an improved intersection.

Horrocks Engineers (Horrocks) is excited to provide this proposal to help the Town convert the SH 392 & WCR 23 stop-controlled intersection into an enhanced and signalized intersection. Horrocks offers the Town and partners at CDOT a team with a comprehensive understanding of the project from our team's experience developing effective intersection designs, many within the CDOT Local Agency framework. Horrocks team members are not only familiar with the Local Agency process but also experienced with CDOT and the City of Greeley's design standards, (which also serve as the Town's design standard). Our partner, Olsson, having completed several of the intersection's supporting traffic, geotechnical, and core infrastructure documentation, means this team is prepared for a fast start to not only efficiently navigate the redesign but accelerate the schedule.

We have developed an implementable delivery approach based on this understanding and comparable experience. Horrocks fully understands the needed scope of services as outlined in the Request for Proposal (RFP) to deliver project success. We have thoughtfully developed and organized our team, who will successfully deliver on all aspects of the projects.

Our proposal details our methodology to assist the Town to successfully deliver a safe and operationally optimized SH 392 & WCR 23 intersection. We acknowledge receipt of Addendum 1 (April 29, 2022) and Addendum 2 (May 11, 2022) and carefully incorporated the clarifications provided into our proposal response. We thank the Town for its time and consideration of our qualifications and look forward to serving the Town.

Sincerely,



John Holzwarth, PE
Colorado Business Leader, Horrocks Engineers
719.330.1791 | johnh@horrocks.com

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HORROCKS
ENGINEERS

HISTORY AND RELEVANT PROJECT EXPERIENCE

HISTORY AND RELEVANT PROJECT EXPERIENCE

The Horrocks team was formed to provide the Town with the most prepared and effective team possible. Horrocks and Olsson, as partners, unite Horrocks' intersection design expertise and mastery of the CDOT Local Agency process with Olsson's established history in Severance—with this SH 392 & WCR 23 intersection specifically. Together, we can optimize the design efficiencies to advance the schedule and deliver an operationally and safety enhanced intersection for the Severance community.

PRIME CONSULTANT

HORROCKS
ENGINEERS

For more than 50 years, Horrocks has been an integral part of improving infrastructure for communities in the western United States. As a full-service civil engineering and professional services firm, we provide all of the disciplines necessary to study, plan, design, and communicate about infrastructure projects—from roads and intersections, to structures, utilities and trails. Horrocks has more than 780 employees located in 20 offices across nine states, including our Colorado office in the Denver metro area (Denver Tech Center). Our northern Colorado office is opening soon in Loveland.



In Colorado, Horrocks brings a team of 40+ transportation professionals, a pool of skilled roadway, traffic, and hydrology and hydraulics engineers; ITS designers; right-of-way (ROW) specialists; and alternative delivery technical experts to meet the Town's project needs. Horrocks is prequalified with CDOT and team members are thoroughly versed in the CDOT Local Agency process.

MUNICIPAL SERVICES

Roadway and Transportation Design

Intersection Design

Traffic Engineering, Intelligent Transportation Systems (ITS)

Regulatory Processing (CDOT Local Agency/ Federally Funded Projects)

Hydraulics and Hydrology

Bike/Ped Planning and Design

ROW Investigation & Acquisition

Subsurface Utility Engineering

Municipal and City Engineering

Utility Coordination Services

Stormwater Water Resources

Post-Bid/ Construction Phase Support





CDOT/LOCAL AGENCY

Our Project Manager, Dan Woodward, joined Horrocks after serving as Fort Collins' Capital Improvements Manager. His knowledge and experience delivering transportation improvements via the CDOT Local Agency process in Fort Collins will prove invaluable for this project. Dan knows and understands the steps needed for owners to remain in compliance with state and federal grants, while still maintaining a focus on the projects goals and schedule. Along with Dan, Tim Harris provides direct CDOT experience having previously served as a Regional Transportation Director and Chief Engineer for CDOT. Our Roadway Design Lead, Marie Thoming, is currently assisting the Town of Lyons through the Local Agency process to complete the long-anticipated St. Vrain Trail Extension. She has worked in close coordination with CDOT Region 4 on the US 34 Encore at Johnstown development project, as intersections and roadways must be completed within CDOT access and design standards. Our traffic signal design lead, Cameron Feagle has served as a CDOT non-project specific (NPS) traffic engineering consultant in both ITS and signal design capacities with Horrocks and with prior firms. Our team is experienced and fully capable of delivering this project in compliance with Local Agency standards.



INTERSECTION DESIGN

We have completed numerous rural and urban intersection projects including the design of new facilities as well as improvements to existing intersections. Our innovative intersection designs have helped solve complex congestion problems and meet the needs of future traffic demands. Within the past year in Colorado, we have been engaged with intersection improvements projects in Weld County, Greeley, Johnstown, and Pueblo. These projects have involved environmental, survey, bridge structures and culverts, geotechnical engineering, ROW design and acquisition, utilities/SUE, drainage/irrigation, traffic modeling, and roadway design. The Horrocks team has extensive experience with traffic analysis and developing preliminary intersection layouts for initial discussion and decision-making and then refining and optimizing intersection layouts by incorporating microsimulations depicting operations of final

configurations. The Horrocks team has hands-on, recent experience designing and optimizing alignments for intersection improvements as well as applying our experience with design delivery and construction-phase support to ensure our designs are constructable and successful.



TRAFFIC ENGINEERING/TRAFFIC SIGNAL DESIGN

Horrocks has extensive experience in the traffic engineering, planning, analysis, design, and construction management of major and minor transportation facilities. Our firm has successfully completed numerous traffic analysis, transportation management, corridor, alignment, circulation, safety, and transportation planning studies as well as intersection designs and traffic signal projects. Our experience designing traffic signals ranges from simple, isolated intersections to complex, urban interstate corridors. With more than 30 years of experience, our traffic signal design staff are well versed in industry policies, procedures, standards, and specifications for traffic and lighting designs. This depth of experience is brought to each traffic signal project we complete. Our technical staff has a comprehensive knowledge of what goes on inside and outside the traffic signal control cabinet. We have assisted local governments to adapt to the latest DOT standards for traffic signals.



PLAN DEVELOPMENT

Horrocks is well versed in plan development in many formats, including the Federal Highway Administration (FHWA), the CDOT, and local municipalities. Working with the Town's project managers to define the plan deliverables can be an ongoing process throughout any project, particularly Local Agency projects that require more flexibility. Through this process, we will help prioritize which elements are needed in a particular plan set for a given stage (i.e. conceptual, preliminary, FIR/FOR, final, etc.). This allows a completely tailored approach for locally funded and/or simpler projects, which allows efficient use of time and resources. Our team is nimble enough to develop efficient and tailored plan sets when desired, and comprehensive enough to deliver full and complete federal and state plan sets following all applicable processes and standards.



ROW INVESTIGATION/ ACQUISITION

Horrocks' property acquisition team offers full-service acquisition services. Our clients benefit from our unified team of project engineers, ROW design engineers, and property acquisition specialists as we deliver a seamless transition throughout a project. Having an in-house property acquisition team enables Horrocks to meet any project schedule, including accelerated delivery projects. We understand that acquisition is not anticipated with this project, but we will ensure all property lines and easements are mapped and clearly marked to ensure there aren't any issues during construction. We coordinate throughout the design process to ensure that changes in design don't impact land access needs and support adjacent property owners as needed, so clients can move their projects forward. Our ROW Lead, Courtney Wallace, is a CDOT-prequalified Acquisitions Agent and is a veteran of Region 4 Local Agency and municipal projects.



DRAINAGE DESIGN

Horrocks has extensive experience in the study, analysis, and design of drainage and hydraulic structures and systems that meet federal, state, local government, and other standards. Horrocks has completed thousands of hydraulic evaluations and designs on most types of storm drain features, including pipes, culverts, detention ponds, weirs, orifices, channels, riprap, rivers, inlets, curb and gutter, pumps, flow control devices, water quality structures, and channel stabilization structures. With years of Northern Colorado experience and extensive work with CDOT Region 4, our team is skilled in providing master planning, hydrologic and hydraulic analysis, stormwater system modeling and design, culvert analysis and design, construction cost analysis, construction plan development, and construction oversight services to municipalities, counties, and state agencies.



SUBSURFACE UTILITY ENGINEERING (SUE)

Utility services available from Horrocks include ASCE 38-02 SUE Quality Levels D-A, record research, field investigations, utility ownership, physical utility attributes, surveying, 2D and 3D mapping and modeling, pipeline condition assessment, pole reports, manhole and vault reports, utility coordination analysis and recommendations, test-holing for existing utilities, and researching planned utilities. Horrocks provides accurate and timely results, including detailed utility inventories, professional utility conflict assessments, recommended relocations, relocation designs, and cost analysis. We know how to ensure that the utility data merges into the design drawings in the correct location and correct line types and layers.



UTILITY RELOCATION AGREEMENTS

Courtney's and Dan's relationships with utility providers as a negotiator and coordination facilitator will enable our team to expedite the utility identification and relocation process. We will work with the Town to develop or amend existing relocation agreements as needed. Working with utility companies to ensure they can provide services with minimal disruption and to move clients' projects forward without delays and additional cost is our objective. As a result of this experience, our focus is to help the project team identify and resolve issues as early as possible, eliminate unnecessary relocations, minimize costs, and facilitate timely relocations.



UTILITY VIDEO SERVICES

Horrocks offers state-of-the-art CCTV equipment, zoom cameras, and other tools to provide inspection, condition assessment, locating, and asset management services for sewer systems. CCTV surveys can be completed in a non-disruptive efficient manner with fast and accurate results. Our utility investigation team is familiar with NASCCO (National Association of Sewer Service Companies) requirements and performs pipeline conditional assessments routinely on various pipe sizes and materials. We can code and effectively identify the location of defects and lateral tie-ins within non-pressurized pipes and conduits per NASCCO-PACP (Pipeline Assessment Certification Program) standards.

SUBCONSULTANT



Olsson is a nationally recognized, employee-owned engineering and design firm with a rich history of success. Founded in 1956, Olsson has more than 1,600 team members in 30 offices across nine states providing planning and design, engineering, environmental, technology, and field services. The strength of Olsson's traffic and transportation services isn't just in bench strength – Olsson also understands how to integrate planning, traffic, and design using multidisciplinary teams that have specific project enhancing services, such as geotechnical engineering, surveying, and environmental services.

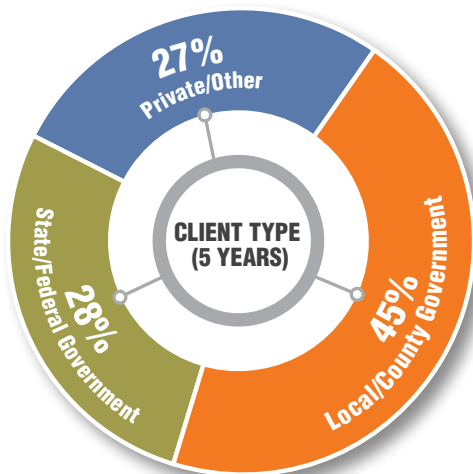
As evidenced by several of the supporting documents included with the Town's solicitation, Olsson has performed several projects within the Town, including design, environmental, and field services support for the Severance Shores and Severance South subdivisions, and the Harmony Centre. Olsson has also coordinated closely with CDOT Region 4 on several traffic and transportation projects within Weld and Larimer counties, most notably on the Town of Windsor's SH 257 and Eastman Park Drive Intersection Improvements project and the City of Greeley's 8th Street Improvements project.

Olsson will be providing survey, geotechnical, environmental, and traffic study expertise for this project. Applying Olsson's recent experience in Severance, as well as their work on several of the preceding studies for the SH 392 corridor, allows for a well-prepared, highly efficient team for the Town.



Pinyon Environmental (Pinyon) augments Olsson's environmental resources for this project, providing specialty experts in CDOT Local Agency environmental documentation. A recognized leading environmental firm in Colorado, Pinyon has built an environmental practice specializing in transportation, understanding the evolving needs related to environmental services throughout the transportation life cycle. The firm has specialists devoted to these services and can support CDOT in advancing projects at the various levels of NEPA clearance (i.e., Categorical Exclusions (CatEx), Environmental Assessments (EA), Environmental Impact Statements (EIS), and Reevaluations). With a decades-long history working with CDOT, Pinyon maintains a master services contract with CDOT, demonstrating the firm's understanding of CDOT environmental clearance procedures.

TYPE OF CLIENTS SERVED - HORROCKS BREAKDOWN



Horrocks is a full-service civil engineering and professional services firm. While a majority of our clients are public sector entities, Horrocks provides a broad spectrum of services to support infrastructure projects for both public and private sector clients.



HORROCKS
ENGINEERS

PRIMARY PROJECT TEAM MEMBERS

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

PROJECT TEAM

Colorado's communities are served by consultant firms, like Horrocks, that are deeply experienced in intersection and roadway design. But Severance is in need of a consultant familiar with local municipal, CDOT Region 4, and City of Greeley design standards as well as experience in accelerated project delivery, who will partner with the Town and advance this project's schedule.

Our proposed Project Manager, Dan Woodward joined Horrocks after serving as the Capital Improvements Project Manager for the City of Fort Collins. He delivered several projects under the Region 4 Local Agency process and knows what it takes as an owner to deliver projects and find solutions that CDOT will approve. Roadway Lead Marie Thoming has been working extensively on intersection improvement projects in Northern Colorado and is immediately familiar with both CDOT Region 4 and City of Greeley Design Criteria. Olsson, having completed preceding studies and the SH-392 Access Construction Documents for Access at CR 23 package, positions the team for an accelerated start to the project. Backed by Horrocks' experienced, local, and highly qualified team, Severance will have the full package—a team who understands:

- CDOT Region 4 Local Agency process and securing approvals
- A compact team to optimize project efficiencies; focused on managing the project, not a large multi-organizational team
- An Owner's perspective of Local Agency project delivery
- Town of Severance goals and priorities

SEVERANCE SH 392 & WCR 23 TEAM



Our team's individual qualifications are introduced in the capsule biographies beginning on the next page. Full resumes for the team are provided in the Appendix-Resumes.

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS



John Holzwarth, PE

Project Principal
CO PE No. 42441



John is an experienced business leader in infrastructure development and delivery with expertise for departments of transportation, which includes highways, bridges, multimodal, transit, and rail. John has progressively strengthened his management, leadership, and delivery skills by serving clients and internal teams to deliver excellence in all aspects of the industry.

John excels in project management, business planning, strategic planning, and relationship building. John has practiced civil and transportation engineering in Colorado for over 17 years and has a detailed understanding of CDOT's work approaches and Local Agency processes, project goals, and vision for the future with hands-on experience delivering projects.

As Project Principal, John is responsible for senior-level oversight of team performance, and ensuring qualified team resources are committed to the project, to support achieving an accelerated schedule.



Dan Woodward, PE

Project Manager
CO PE No. 60383



Dan brings more than 16 years of experience in engineering, construction, and overall project delivery of both locally and federally funded large-scale transportation projects. His work in the public sector as a senior engineer and project manager for FHWA Central Federal Lands Highway Division (CFLHD) and the City of Fort Collins has prepared Dan to serve as an effective consultant project manager. During his tenure with the Fort Collins, Dan led multiple complex signalized intersection improvements, such as the Horsetooth and College Intersection, that were also CDOT Local Agency projects.

His public agency background provided him with in-depth knowledge of how to bring a project efficiently and effectively from the concept stage through construction while navigating the many challenges owners must face along the way. Dan's expertise includes alternative project delivery methods, financial planning and funding strategies, innovative designs and processes, construction scheduling, and leading high performing project teams throughout the life of a project.



Tim Harris, PE

Quality Manager/CDOT Liaison
CO PE No. 22724



Tim is a respected transportation industry veteran who brings over 40 years of experience leading transportation projects in Colorado. He served more than 33 years with CDOT in various leadership roles including Chief Engineer and CDOT Region 2 Regional Transportation Director.

He is adept with executive-level leadership of integrated project teams delivering transportation system improvements across Colorado. Tim's understanding of the Local Agency process is complete and grounded in a CDOT perspective. From this vantage point, he will help assure design proceeds in accordance to CDOT's protocols, thereby streamlining the process of securing timely approvals. He is an engaged, hands-on project leader, and in addition to serving as the CDOT Liaison, Tim will be responsible for quality oversight of the project deliverables.

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS



Marie Thoming, PE

Roadway Lead

CO PE No. 48367



Marie has 25 years of experience in civil engineering, with experience in roadway, rail, and trail design, project management, preparing construction plans and specifications, and oversight of construction bid documents. She follows all company QC/QA procedures for review of construction plans, design calculations, and cost estimates to ensure completeness, accuracy, and conformity to engineering standards and practices.

Marie's career is notable for her specialization with municipal roadway improvements. She has completed numerous transportation infrastructure projects, many Local Agency, for municipalities across the Front Range, including the City and County of Denver, the City of Aurora, Arapahoe County, Weld County, and the City of Greeley.

She is currently nearing completion of the US 34 Encore at Johnstown development project and the 83rd Avenue Corridor Conceptual Design project in Greeley (Local Agency project). Both are notable for their extensive coordination with CDOT Region 4.



Cameron Feagle, PE

Traffic Signal Lead

CO PE No. 54354



Cameron has nine years of experience in the traffic engineering field. His expertise includes traffic signal design, roadway signing and pavement marking design, the development of traffic operation and safety reports, traffic data collection analysis, ITS design, fiber optic network design and support, fiber optic system testing and troubleshooting, construction inspection, and field surveying. Cameron has prepared traffic signal designs for new and existing intersections requiring equipment upgrades. His traffic signal designs evaluate an intersection's geometry, operation, and safety and satisfies the client and the Manual of Uniform Traffic Control Devices (MUTCD) design standards.

Cameron has been engaged on two Northern Colorado intersection improvement projects, the WCR 66 and WCR 41 intersection project in Weld County and the US 34 Encore project in Johnstown.



Harry Strasser, PE, CFM

Drainage Design Lead

CO PE No. 35250



Harry is a Water Resources Engineer with 26 years of experience in drainage and water quality design for roadways, floodplain modeling, storm sewer design, channel design, and utilities design. His expertise includes hydraulic and hydrologic engineering and planning, open channel design, floodplain modeling, drop structure design, stream restoration, storm drains, on-line and off-line detention ponds, low-impact development ponds, water quality ponds, and culverts.

Harry has worked with the gamut of clients including Colorado's municipalities; developers; state departments of transportation, including CDOT Region 4.

Harry recently completed work on the WCR 66 and WCR 41 Intersection Improvement project in Weld County and also brings a wealth of CDOT experience. Specific to Region 4, Harry was heavily involved during CDOT's Flood Recovery projects in Boulder and Larimer Counties, co-locating with CDOT Region 4 staff.

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS



Courtney Wallace

ROW Investigations & Utility
Relocation Agreements



For the past five years, Courtney has been working in the field of ROW acquisition. She has worked extensively in CDOT Region 4, and has earned CDOT prequalification status for acquisitions. Courtney has worked on many different types of Local Public Agency projects, including sidewalks, trails, water pipelines, roadway improvements, and bridges. She can provide support for Right of Entry, title ordering and review, and contracting with appraisers as necessary.

Courtney will also be the lead on coordination with utility providers. She has worked with almost all known providers in Larimer and Weld County and has established relationships with these firms. Having Courtney as the main point of contact for all utility providers increases the efficiency of coordination efforts. Recently, she has organized and facilitated coordination meetings both in-person and virtually for major roadway improvement projects in Weld County.



Nic Schrader, PLS

Survey Lead
CO PLS No. 38693



Nic leads a land survey team for Olsson and coordinates all survey efforts for Colorado including daily operations, business development, and project management. He also provides support in nationwide and large-scale projects for the firm. Nic has extensive experience in the field of land surveying including ALTA/NSPS surveys, boundary and topographic surveys, platting, roadway/alignment surveys, large-scale renewable energy surveys, and construction staking.

Nic has recent experience working in Severance, providing survey support on the Harmony Centre development. Additional comparable arterial project experience includes the 20th Street Turn Lanes Final Design and the 8th Street Improvements (both projects in Greeley) and the SH 257 and the Eastman Park Drive Intersection Improvements project in Windsor.



Braden Hirsch, PE

Geotechnical Lead
CO PE No. 51920



Braden serves as Olsson's team leader for the Field Operations Team in Colorado and as the technical manager for Olsson's AASHTO-accredited materials testing laboratory. He is responsible for the day-to-day coordination of the staff, business development, project management, overseeing the materials testing laboratory, producing engineering and inspection reports for clients, and providing technical guidance for the companywide field information management software.

Braden is thoroughly versed providing geotechnical support for municipal arterial roadway improvements. Recent projects include SH 257 and Eastman Park Drive Intersection Improvements in Windsor, Tipple Parkway Storm Drainage and Street Improvements in Frederick, 8th Street Improvements in Greeley, and Washington Street Widening; 158th to 160th Avenue project in Thornton.

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS



Tayler Lane
SUE Lead



Tayler has eight years of experience using EMS to locate underground utilities and five years of experience in survey. He has served as a Field Supervisor and Field Technician. He routinely manages and coordinates multiple crews simultaneously. Tayler is familiar with advanced survey practices and theories and has proven experience managing and using Terraflex, Radio Detection (EMS), IKE, GPR and other advanced SUE tools. Tayler can collect, review, and modify data using MicroStation and CAD programs.

Tayler leads Horrocks' SUE field teams on our SUE on-call contracts with Douglas County, Weld County, and Adams County. He has delivered SUE investigation on project-specific efforts such as the Weld County WCR 66 and WCR 41 Intersection Improvement project and the US 34 Encore at Johnstown project.



Chris Rolling, PE
Traffic Studies Lead
CO PE No. 46769



With a background in traffic management and roadway design and an emphasis on multimodal transportation, Chris solves transportation challenges from the perspective of multiple users and engineering disciplines.

His background includes arterial street widenings, interchange justification reports, traffic impact studies, corridor studies, walkability studies, bike facility design, and traffic signal design.

Chris was a project team member for the Severance South Master Plan as well as for the SH 257 and Eastman Park Drive Intersection in Windsor. He has an extensive roster of completed arterial roadway and intersection projects in Northern Colorado, including work in Windsor, Greeley, Fort Collins, Loveland, and Frederick.



Paige Magelky
Environmental Lead



Paige has experience in natural resources assessment and survey, stormwater management, field team coordination, and project management. Her field work experience includes wetland and Ordinary High Water Mark (OHWM) delineations, avian use surveys, raptor nest surveys, stormwater inspections, soil quality testing, water quality testing, baseline groundwater sampling and monitoring, and revegetation surveys.

Paige will oversee the team responsible for completing the project's environmental documentation per the Local Agency standards. Paige also comes to the SH 392 & WCR 32 project already familiar with the project area, after serving on the preceding Severance South studies project teams.



Sean Fallon
Local Agency
Environmental Support



Sean is a Historian with over seven years of experience in Section 106 compliance and cultural resource management, conducting surveys and preparing documentation for historic properties, linear resources, historic districts, and cultural landscapes across Colorado. Based in Pinyon's Loveland office, Sean has guided teams through CatEx completion for projects such as the North Shields Improvements in Fort Collins.

Sean's areas of expertise span cultural resources, historic preservation, historical document preparation, Section 106 compliance, and the gamut of agency coordination (including CDOT, SHPO, etc.). Recent roadway and intersection experience includes the Timberline and Lincoln Intersection Improvements and the Taft Hill Road Improvements in Fort Collins.



HORROCKS
ENGINEERS

PROJECT APPROACH

PROJECT APPROACH

PROJECT UNDERSTANDING

The Town of Severance seeks to accelerate improvements to a safety-critical intersection along SH 392. Given recent traffic data and accident history, a signal is warranted along with turn lane improvements. The recently completed Transportation Impact Study, performed by our integrated partner Olsson, details the anticipated improvements with concurrence from CDOT as well. This in-depth knowledge of the needs and existing conditions of the intersection allows our team to engage quickly and effectively, without losing critical time getting up to speed on the project.

Our approach to this project is centered around safety, level of service improvements, and efficient delivery of the improvements on an accelerated timeline. Although the work may seem relatively simple, attention to detail and ensuring effective safety improvements are implemented will be critical to the success of the project. Also, with the recent traffic incidents, accelerating the construction of this project is a primary driver and a key goal. Our team is already familiar with the intersection, as well as the Town, which provides the Town assurances that critical steps and issues that come up along the way will be tracked, monitored, and addressed. Our Project Manager, Dan Woodward, has recent, relevant, and extensive experience with the CDOT Region 4 Local Agency process. As shown throughout the proposal, his recent work with the City of Fort Collins as both a project manager and the Director of Capital Projects provides the Town with immediate knowledge of how to productively navigate the Local Agency processes. This is a key element to our overall approach to the project, as this will allow the Town to address a critical safety issue in the quickest and most cost-effective way possible.

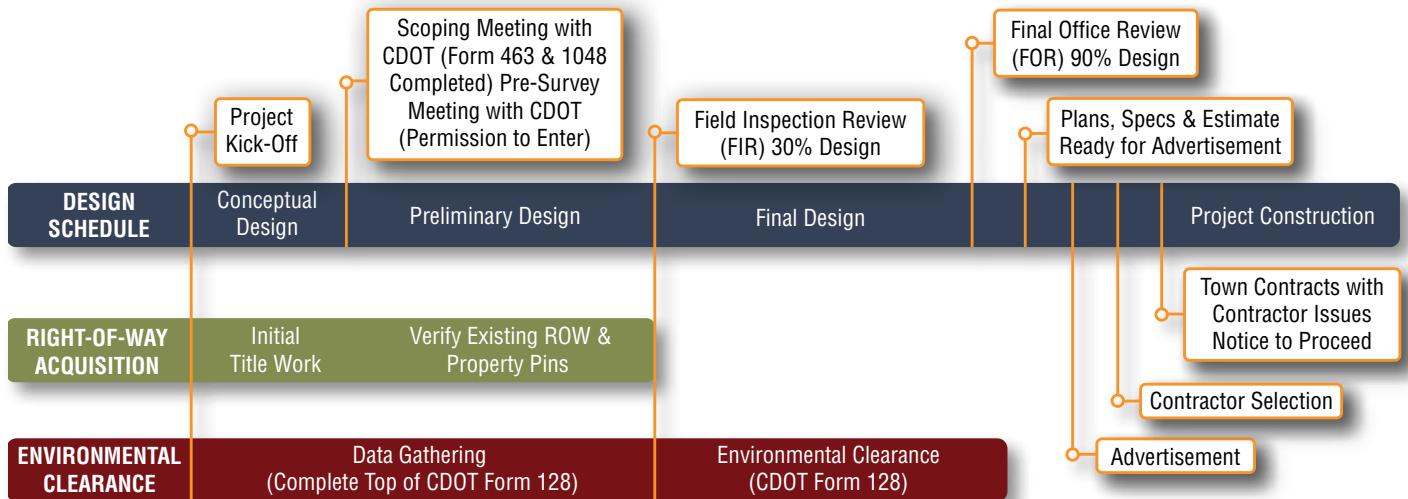


As the project is both federally funded and located on a state highway, coordination with CDOT will be imperative. Our team is experienced in delivering fast-paced Local Agency projects on state highways, and knows how to navigate required processes effectively and efficiently without causing schedule delays or cost increases to the project. The most important piece when delivering projects that are federally funded is a complete understanding of federal and state processes, staying ahead of the requirements, and maintaining regular and open lines of communication. Often, steps can be simplified, particularly on smaller-scale projects similar to this, while still meeting the intent and goals of the Local Agency requirements.

One of the most significant components affecting a Local Agency project schedule can be actively managing time frames associated with CDOT's delivery process. This is where we bring significant value for the Town, with our team's proven experience delivering projects through CDOT's Local Agency process, particularly in Region 4. As shown on the following page, Local Agency processes will primarily impact the design and environmental task delivery for this project. Verification and mapping of ROW will also be required and is shown below, as the Town and CDOT will need to concur with the existing ROW and property lines. Horrocks has the expertise to mitigate these impacts and manage the risk associated with these timelines effectively. The graphic on the following page illustrates our approach to managing concurrent activities to accelerate the project schedule.

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

LOCAL AGENCY PROCESS



Risk mitigation and project controls will be needed to ensure an accelerated project that adheres to applicable guidelines. Our team is well-versed in risk mitigation techniques such as tracking and populating risk registers, designing out of risk, identifying high priority issues, coordinating with entities prior to construction, and maintaining a presence during construction to ensure that any unanticipated issues are corrected immediately so that the project can continue on schedule. Maintaining project controls on schedule and cost is something Horrocks takes great pride in—delivering what we commit to: on-time and within budget.

OUR PROJECT APPROACH

SIGNAL DESIGN AND IMPROVEMENTS

Addendum 2 identifies traffic counts obtained by the Town on May 2nd. This is helpful for concurrence of approach, as well as identifying areas for LOS improvements and other potential usage patterns. The team has recent experience with this intersection and as this is similar to the information utilized by our team to conduct the Transportation Impact Study Severance South last year, our team will incorporate the recently collected information to verify turn lengths, signal timing, and other operational needs to the intersection configuration required. This saves the Town time and money knowing that this will be a straightforward process with approval from the Town, CDOT, and others as required.

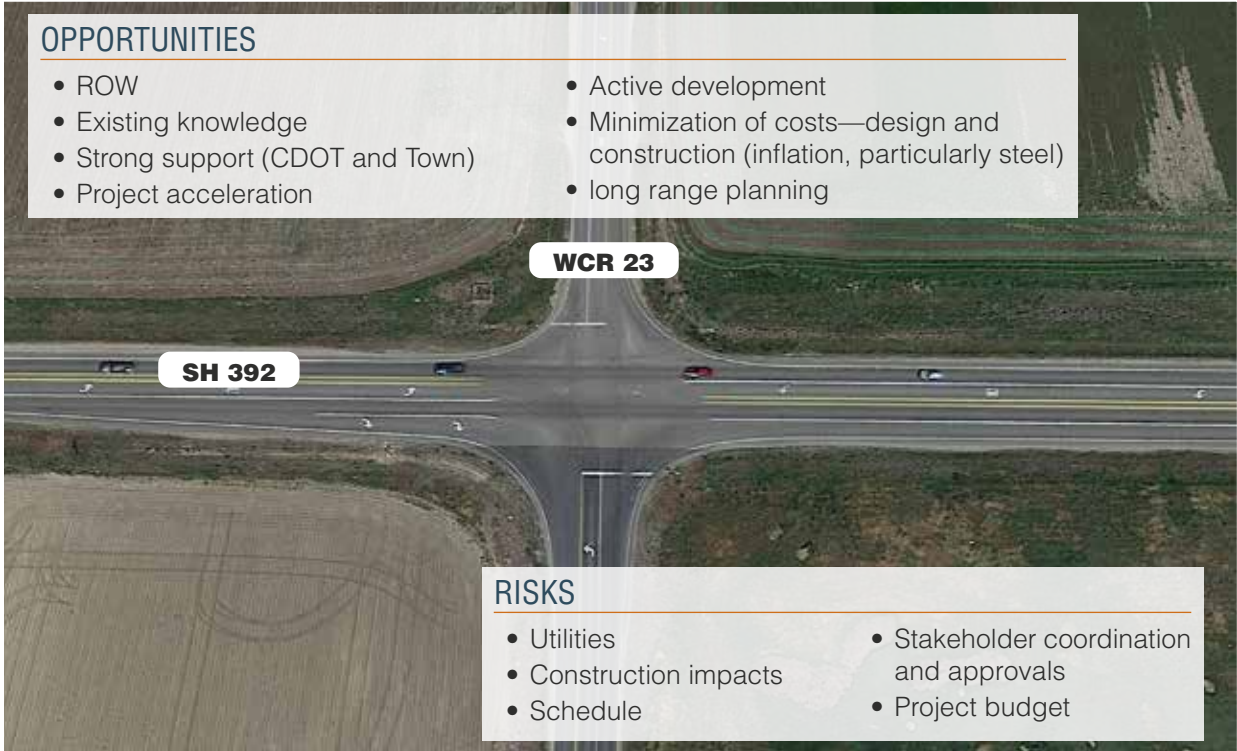
Our team partner, Olsson, will coordinate with the Town and CDOT to answer any questions on the work we have already completed as well as updates to that analysis and results. Our team will provide a traffic memo summarizing capacity and queuing analysis, crash summaries, and design summary for signal and roadway improvements, incorporating the recent traffic counts as needed. As part of this initial phase, our team will also complete the required Technology/SEA assessment. We anticipate providing radio capabilities for CDOT, at a minimum, as they will ultimately own, maintain and operate the signal.



Our key focus in this phase will be on the ultimate design of the roadway in a conceptual layout. Knowing that the signals should not be impacted by future widening, it is imperative to design a feasible conceptual level intersection layout with enough flexibility to accommodate future expansion without impacting the signal infrastructure.

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

ROADWAY DESIGN



OPPORTUNITIES

- ROW
- Existing knowledge
- Strong support (CDOT and Town)
- Project acceleration
- Active development
- Minimization of costs—design and construction (inflation, particularly steel)
- long range planning

WCR 23

SH 392

RISKS

- Utilities
- Construction impacts
- Schedule
- Stakeholder coordination and approvals
- Project budget

Horrocks and Olsson intentionally teamed together for this project to give the Town a robust yet compact delivery team, equipped with current and relevant information about the intersection of SH 392 and WCR 23, as well as the directly adjacent Severance South development. Our team is uniquely positioned to mitigate and manage the risks, as well as leverage the opportunities identified above; along with any others that come up throughout the project. Olsson has performed significant amounts of both exploratory and design work (excerpt shown below, right) in the area in connection with the local developments. Horrocks brings experienced roadway and signal designers to optimize the design as well as Project Managers well-versed in effective project delivery in partnership with CDOT. With Horrocks and Olsson, the Town gets a complete project team capable of delivering the entire project in-house. This is a significant schedule and coordination advantage to the Town, providing for seamless communication and real-time information sharing, rather than having to work through multiple subconsultants and losing time getting everyone up to speed.

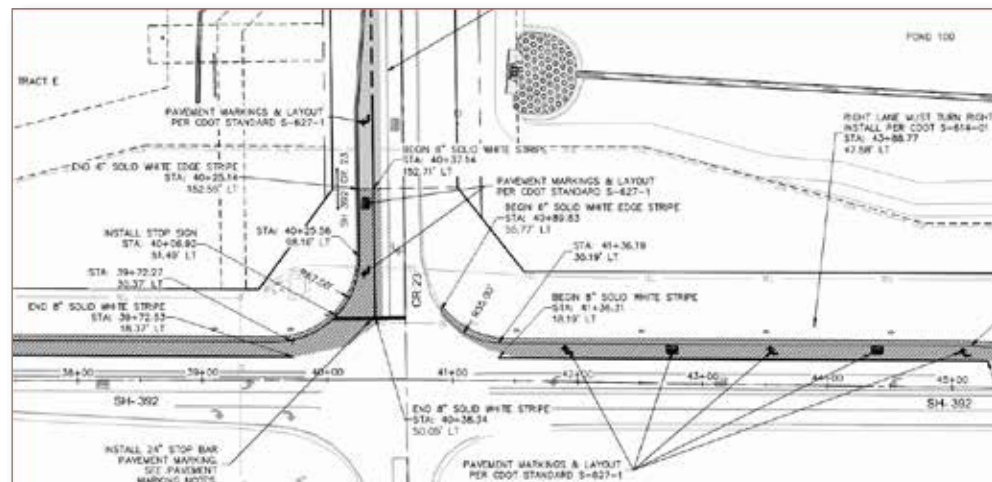


image: Olsson,
SH 392 & WCR 23

ITERATIVE DESIGN REVIEWS

Over-the-shoulder reviews by the three identified reviewing agencies will be greatly encouraged throughout the project development phase. Although official FIR/FOR and For Construction drawings will be produced and reviewed, our approach would be to facilitate reviews in real-time through weekly or biweekly meetings, interim plan sets, emails, phone calls, Microsoft Teams, etc. so that every stakeholder is kept informed throughout the process. The goal would be to have no surprises at any of the official submittal dates, which would allow for efficient reviews and provide substantial schedule savings by avoiding rework or missing opportunities and input that could have been incorporated throughout the process.



ENVIRONMENTAL NEEDS

Concurrently, our team will begin the environmental process as soon as Notice To Proceed is issued. Since compliance with NEPA is required due to grant funding, early identification of environmental deliverables is critical to keep the project on schedule and manage design and construction costs.

We anticipate the project will be cleared as a Categorical Exclusion utilizing CDOT Form 128. To streamline this CDOT clearance, we will complete CDOT's environmental scoping form and review it with the local agency liaison assigned to this project. This process allows us to identify any resources that are not present or will not be impacted and requests concurrence from CDOT to dismiss them from further consideration. Olsson and Pinyon will also provide an Environmental Summary Memorandum documenting all the environmental resources and impacts, which has proven to reduce the amount of documentation required and expedite CDOT review and approval.

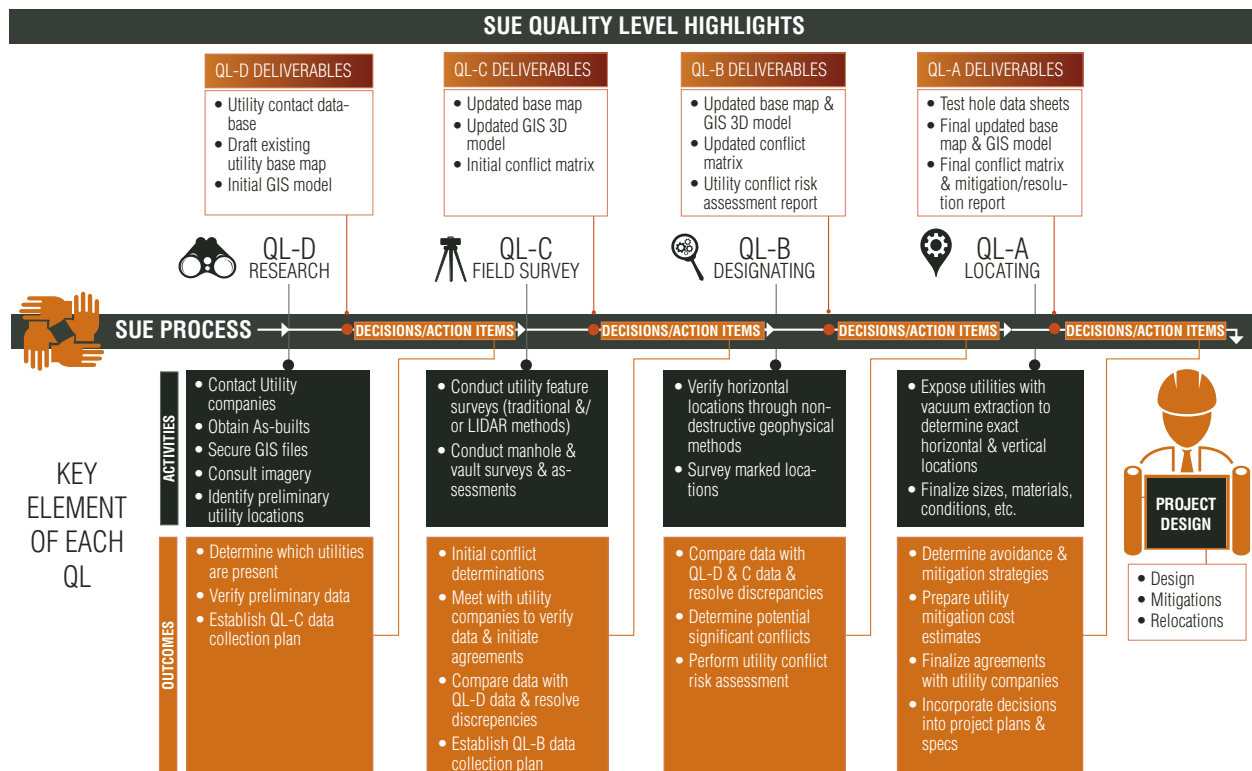


UTILITY IDENTIFICATION AND COORDINATION

Early identification of utility conflicts is critical to our approach. In order to deliver the project effectively, utility conflicts need to be tracked and monitored through a risk and/or utility matrix, that actively manages these risks throughout the project. The SUE process flow chart provided below shows how our team continuously engages utility providers throughout project development, mitigating conflicts as soon as they arise rather than waiting until the end of design to engage utility providers. Our tailored and detailed approach to utility investigations allows for a reduction in cost and schedule, since we understand that each utility has its own needs. Often, QL-A may not be required everywhere, so instead of blanketing the project with test-holes our team analyzes the design and potential for construction impacts, then prioritizes required test-holes to limit cost and impacts. The primary areas that will need QL-A for this project will be due to the signal work and roadway widening areas. There may be other areas identified during the project development phase with the Town, CDOT and others to ensure compliance with state statutes.



SH 392 & WCR 23 INTERSECTION IMPROVEMENTS



Horrocks' relationships with utility providers as a negotiator and coordination facilitator will enable our team to expedite the utility identification and relocation process. We will work with the Town to develop or amend existing relocation agreements as needed. Working with utility companies to ensure they can provide services with minimal disruption and to move clients' projects forward without delays and additional cost is our objective. As a result of this experience, our focus is to help each project team identify and resolve issues as early as possible, eliminate unnecessary relocations, minimize costs, and facilitate timely relocations. Courtney and Dan both have direct experience working with utility providers in this area, and will leverage those relationships during the project.

GEOTECHNICAL INVESTIGATIONS/ PAVEMENT DESIGN

Our team has performed a significant amount of geotechnical work in the direct vicinity of this project and will leverage this information to help define future boring and geotechnical needs. Our focus will be to supplement applicable information and prioritize sections that need further investigation. A proposed typical section has already been developed for widened areas based on previous information. Olsson and Horrocks will evaluate and determine the applicability of that section for the proposed improvements, which will limit costs, time, and efforts associated with the final design.



We propose utilizing the borings and CDOT M-E pavement design on SH 392 and WCR 23 previously completed and detailed in Olsson's Geotechnical Engineering Report dated August 12, 2019 and Addendum No. 1 to that report dated March 24, 2020. As part of this project, Olsson will coordinate with the Town and CDOT to answer any questions regarding the work already completed. Based on previous

work, we don't anticipate needing to perform any new subsurface investigation, testing, or design. We will summarize the existing reports and investigations and coordinate approvals of the structural section with the Town and CDOT as applicable. If additional investigations are needed or requested, our team is prepared to perform this work efficiently.

PROJECT ACCELERATION

Our team understands and appreciates the desire to construct the safety improvements at this intersection as soon as possible. We believe this can be done effectively, without losing quality and potentially gaining cost efficiencies. Horrocks is experienced in fast-paced working environments, with the ability to coordinate, plan and execute project plans and schedules without causing unnecessary costs or issues.

Key to accelerating the project is leveraging the work that has already been completed in the project area, as noted throughout our proposal. With Olsson on our team as a fully integrated partner, we are able to realize significant cost and schedule savings throughout all elements of the project development and delivery phases. Our proposed project schedule takes advantage of these savings and shows an aggressive yet feasible development phase and construction start date, utilizing a traditional Design-Bid-Build project delivery model.



When thinking about the ultimate goals of the intersection, we believe a detailed project delivery plan and approach would be beneficial to the project. Horrocks is well-versed in all modes of project delivery including Design-Bid-Build (DBB) and Construction Manager/General Contractor (CMGC), which we believe are two viable alternatives. As part of the delivery process, our team would utilize CDOT's Project Delivery Selection Matrix (PDSM) to facilitate the most suitable delivery model. This is also a requirement of the CDOT process if alternative delivery models are considered or desired by the Town to further accelerate the schedule. Horrocks, and specifically our Project Manager Dan, has been involved with several of these and is very familiar with the process, including two major intersection reconstructions in Fort Collins along SH 287. Our team is comfortable managing either delivery model and has direct municipal innovative contracting delivery experience through Dan, with a proven track record of successfully accelerating project delivery processes.

PROJECT FUNDING

Based on the schedule outline in the RFP, it appears grant funding from CDOT becomes available in July 2023 (i.e., CDOT FY24). We propose working with CDOT to look at ways to advance this funding. Dan has experience working with Region 4 to achieve this via various strategies, such as:

- Swapping funds with other projects in Region 4 on a different schedule
- Utilizing current dollars and amending existing IGAs as needed, if excess funding is available in FY23 budget
- Other coordination efforts with CDOT to find innovative ways to move funds forward on safety critical projects

Depending on the amount of local funding provided and if the federal funding can be made available sooner, we believe the project can begin construction as soon as winter 2022 and completed by Spring 2023. Our team is prepared and nimble enough to deliver on this aggressive schedule, based on the approach outlined above and our project schedule. If funding timelines remain as shown in the RFP, then our team will continually look at ways to streamline work and procurement needs ahead of next summer, as well as leverage the existing development.



HORROCKS
ENGINEERS

ARTERIAL ROADWAY AND CDOT SIGNAL PROJECTS

Horrocks' experience in Colorado has been largely focused on municipal transportation improvements. Additionally, Horrocks staff bring recent comparable experience delivering intersection improvements in Northern Colorado. This combination of experience demonstrates our preparation and capacity to successfully deliver the SH 392 and WCR 23 Intersection Improvements.

REFERENCE: Roy Bade, Chief Development Officer, Caliber Companies • 480.398.4594 • Roy.Bade@caliberco.com

[illegible]

INSTALL SIGNAL POLE WITH 70' MAST ARM
(PER CDDT STANDARD S-614-40)

INSTALL SIGNAL POLE WITH 30' MAST ARM
(PER CDDT STANDARD S-614-40A)

US 34

INSTALL SIGNAL POLE WITH 30' MAST ARM
(PER CDDT STANDARD S-614-40A)

INSTALL SIGNAL POLE WITH 60' MAST ARM
(PER CDDT STANDARD S-614-40)

TRAFFIC SIGNAL CONTROLLER CABINET

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

83RD AVENUE CORRIDOR (10TH TO 12TH STREET) CONCEPTUAL DESIGN — CITY OF GREELEY (CDOT REGION 4-KEY STAKEHOLDER) | HORROCKS

REFERENCE: Mike Maurer, Senior Project Manager, City of Greeley, 970.336.4122, mikemaurer@greeleygov.com

83rd Avenue had been identified by the City of Greeley, Weld County, Town of Milliken, City of Evans, and the North Front Range MPO as an important north/south arterial roadway. Development in the area for the new Two Rivers Marketplace development was anticipated to significantly increase traffic volumes. When coupled with the corridor's known safety incidents, the City wanted to look ahead at the future capacity, multimodal, and safety needs along the corridor. Horrocks



was selected to develop a conceptual design and cost estimate for an improved multimodal corridor, which included improvements at the intersections at 10th and 12th Streets. Plans for the corridor include transition the near-term two-lane with median to a future four-lane major collector/arterial. The conceptual design will include considerations for alternative modes such as bikes, pedestrians, transit, and also plan for the eventual integration with the adjacent trail network. Horrocks is responsible for all aspects of the project, including project management, alternatives evaluation and roadway conceptual design (led by Marie Thoming), multimodal (bike/pedestrian/transit) design, traffic analysis, and in coordination with CDOT Region 4, Weld County, Greeley Water/Trails Departments, and other utilities and stakeholder agencies.

HORSETOOTH AND COLLEGE INTERSECTION IMPROVEMENTS – CITY OF FORT COLLINS | DAN WOODWARD

REFERENCE: Dean Klingner, Deputy Director, Planning, Development & Transportation, City of Fort Collins, 970.221.6511, dklingner@fcgov.com

This project is provided for the Town's consideration, as Dan Woodward, at the time City of Fort Collins' Project Manager, spearheaded the successful delivery of this Local Agency signalized intersection improvement for one of Fort Collins' busiest intersections. The Drake and College intersection shares several similar issues and goals as SH 392 and WCR 23 with respect to traffic, functionality, congestion, multimodal, and safety.

The success of the Horsetooth and College project was driven by a comprehensive and team approach to planning, design and ultimately construction. The improvements were extensive and included fully rebuilding



SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

the existing intersection with concrete pavement, adding dual left turn lanes in all directions, adding right turn lanes with pedestrian refuge islands on College Avenue, replacing the bridge on Horsetooth Road over Larimer Canal No. 2, widening the College Avenue bridge over Larimer Canal No. 2, updating landscaping and urban design, and installing new medians and a new signal system. The project used the CMGC project delivery method, which allowed the team to engage a construction contractor early to optimize phasing, schedules, pricing, and public outreach. The project team successfully implemented safety, congestion, and multimodal improvements in a balanced manner, leading to a significant reduction in crashes and improvement in overall delay times. The operational and signal improvements combined with multimodal improvements in a cohesive fashion, leading to a better intersection for the City.

SH 257 AND EASTMAN PARK IMPROVEMENTS - TOWN OF WINDSOR | OLSSON

CLIENT PROJECT MANAGER: - Omar Herrera, Town of Windsor Engineering Manager/Deputy Director of Engineering, 970.674.2437, oherrera@windsorgov.com

The Town of Windsor received federal funding to correct a geometric deficiency at the intersection of SH 257 and Eastman Park Drive. The existing intersection didn't allow for smooth movement of large vehicles in the eastbound and westbound left-turn lanes. This project called for relocating the northbound traffic signal and the eastbound traffic signal poles (east side of the intersection) to the east to create a larger turning radius for heavy trucks.



Olsson gave us designs that were sensitive to potential project impacts, mitigated effects on landowners, reduced right-of-way, and navigated difficult design challenges, all while keeping our project vision in mind. Even though the project scope kept evolving to meet the changing needs of the Town of Windsor and CDOT, Olsson has been with us every step up the way – and they have kept stride with all of it.

— Omar Herrera, Engineering Manager/
Deputy Director of Engineering

Olsson transportation staff completed an alternative analysis, made design recommendations, and prepared construction plans and documents in support of this Local Agency project. Olsson also provided geotechnical and materials testing and inspection for this project. Moving the traffic signals allowed the relocation of the northbound through lane and shifted the northbound left-turn lane to the east.

During the initial CDOT Region 4 kickoff meeting, the Olsson team was informed that CDOT staff were no longer able to conduct some of the tasks, and they filled that void with blended staff to take on the extra work. Other additional work included the survey and design of a right-turn acceleration lane and additional environmental analysis tasks. Trusted environmental subconsultant resources completed the analysis tasks and Olsson also accepted a larger utility coordination role and several iterations of design based on changing plans to the adjacent developing property. These scope changes and cost increases were monitored throughout the life of the project and communicated and discussed with the Town of Windsor as they were occurring to ensure there were no surprises. Additional costs and schedule variation were mitigated through communication and high plan quality through final FOR CDOT review, which contained few and easily addressed comments.



HORROCKS
ENGINEERS

COST ESTIMATE

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

COST ESTIMATE

Horrocks is committed to working with Town to refine this cost estimate as needed prior to final award. This is our current understanding of what will be required, however, we understand that things may need to be adjusted to meet the Town's needs. This estimate includes time and costs associated with A/D Lane improvements on SH 392 and lengthening of left turn lane, per the RFP. We are confident this covers all scope elements as identified in the RFP.

Summary Cost Proposal	Principal	Project Manager	Quality Manager	Roadway Lead	CAD Engineer	Hydraulics Lead	ROW Lead	Utility Coordinator	2 Person Field Crew - SUE	Traffic Engineer	Subs	
WORK ACTIVITY	John Holzwarth	Dan Woodward	Tim Harris	Marie Thoming	Todd Santee	Harry Strasser	Courtney Wallace	Taylor Lane	Field Technician	Cameron Feagle	Olsson	Totals
Project Management and Coordination												
Team Coordination	1	32	2	4			2	2		8		51
Meetings (kickoff, progress, preliminary, final)	2	24	4	12	4	4	4	4		8		66
Subtotal of hours 117	3	56	6	16	4	4	6	6		16		117
Subtotal Labor Costs \$21,972.00	\$798.00	\$11,928.00	\$1,578.00	\$2,656.00	\$324.00	\$852.00	\$696.00	\$660.00		\$2,480.00		\$21,972.00
Preliminary Assessment and Project Kickoff												
Existing Data Collection and Project Setup	1	4	1	2		2	2	2		4		18
ROW Mapping and Existing Topo		1		2	2		2	2			\$5,650.00	9
Initial Utility Mapping		2		2	2			4		2		12
Subtotal of hours 39	1	7	1	6	4	2	4	8		6		39
Subtotal Labor Costs \$6,040.00	\$266.00	\$1,491.00	\$263.00	\$996.00	\$324.00	\$426.00	\$464.00	\$880.00		\$930.00	\$5,650.00	\$11,690.00
Existing Design Verification												
Traffic Analysis and Memo		2	1	1						4	\$9,000.00	8
Structural Section and Geotech Memo		4	1	2								7
ROW Verification and Impacts		2		2			4					
Conceptual Design Review - Severance South		8		4		2				4		
Environmental Resources and Historical Review (APE)		2										2
Subtotal of hours 43		18	2	9		2	4			8		43
Subtotal Labor Costs \$7,984.00		\$3,834.00	\$526.00	\$1,494.00		\$426.00	\$464.00			\$1,240.00	\$9,000.00	\$16,984.00
Preliminary Design												
Finalize Design Concept	1	8	2	8	4	2						25
ROW Plans and Boundary Identification		2		2	4		8					16
Title Commitments				1			2					3
Utility Coordination & SUE Plans		8	1	4		2		8		4		27
Utility Field Work								4	40	4		48
Geotechnical Memo and Pavement Design		4	1								\$6,505.00	5
Draft Utility Plans		4		4				12		2		22
Roadway/Signal Design		16	1	24	40	8				12		101
Environment and Historical Clearances		8	1	2							\$27,500.00	11

continued on the following page

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

COST ESTIMATE, CONTINUED

Summary Cost Proposal	Principal	Project Manager	Quality Manager	Roadway Lead	CAD Engineer	Hydraulics Lead	ROW Lead	Utility Coordinator	2 Person Field Crew - SUE	Traffic Engineer	Subs	
WORK ACTIVITY	John Holzwarth	Dan Woodward	Tim Harris	Marie Thoming	Todd Santee	Harry Strasser	Courtney Wallace	Tayler Lane	Field Technician	Cameron Feagle	Olsson	Totals
Drainage Analysis and Design		8		4		16						28
Preliminary Drainage Report		8		4		8						20
Develop FIR Plans, Estimate and Provisions		16		16	40	4				2		78
Internal QA/QC	1	4	4	2				2				13
Opinion and Probable Cost		12	1	4		1		4		4		26
Subtotal of hours 423	2	98	11	75	88	41	10	30	40	28		423
Subtotal Labor Costs \$69,410.00	\$532.00	\$20,874.00	\$2,893.00	\$12,450.00	\$7,128.00	\$8,733.00	\$1,160.00	\$3,300.00	\$8,000.00	\$4,340.00	\$34,005.00	\$103,415.00
Final Design/Bidding Support												
Incorporate FIR Comments		4		2	8	2				4		20
Final Environmental Clearances		2		2								
Finalize Pavement Design and Geotech Report		2										
Finalize Drainage Report		1		1		2						
Finalize Roadway Design		8	2	16	16	4				8		54
Develop FOR Plans, Estimate, and Provisions		12		2	24							38
Internal QA/QC		4	2									6
Final Stamped PS&E		1		1		1	1	1		1		
Bidding Support and Project Advertisement		12		4								16
Subtotal of hours 150		46	4	28	48	9	1	1		13		150
Subtotal Labor Costs \$23,544.00		\$9,798.00	\$1,052.00	\$4,648.00	\$3,888.00	\$1,917.00	\$116.00	\$110.00		\$2,015.00		\$23,544.00
SUBTOTALS - HOURS 772	6	225	24	134	144	58	25	45	40	71		772
Fully Burdened Rate, per hour	\$266.00	\$213.00	\$263.00	\$166.00	\$81.00	\$213.00	\$116.00	\$110.00	\$200.00	\$155.00		
Subtotal Labor Costs for	\$1,596.00	\$47,925.00	\$6,312.00	\$22,244.00	\$11,664.00	\$12,354.00	\$2,900.00	\$4,950.00	\$8,000.00	\$11,005.00	\$48,655.00	\$177,605.00
Subtotal of Equipment and Materials												
SUBTOTALS - LABOR and OTHER	\$1,596.00	\$47,925.00	\$6,312.00	\$22,244.00	\$11,664.00	\$12,354.00	\$2,900.00	\$4,950.00	\$8,000.00	\$11,005.00	\$48,655.00	\$177,605.00
TOTAL COST	\$177,605.00											



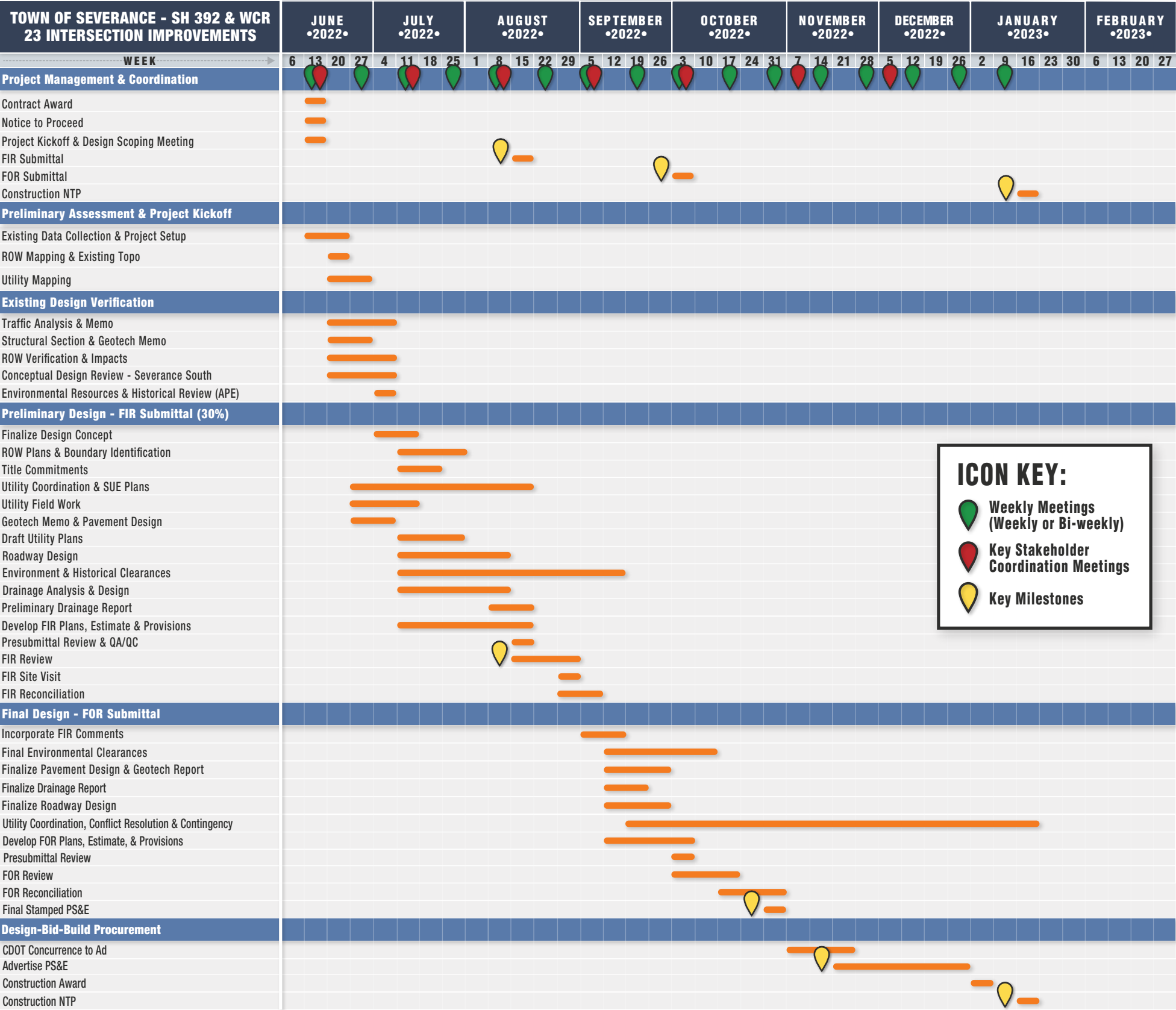
HORROCKS

ENGINEERS

PROJECT SCHEDULE

SH 392 & WCR 23 INTERSECTION IMPROVEMENTS

PROJECT SCHEDULE



ICON KEY:

Weekly Meetings
(Weekly or Bi-weekly)

Key Stakeholder
Coordination Meetings

Key Milestones



We are confident that final plans (FOR) can be completed by this fall, and that final design can be completed by Spring of 2023, as outlined in the RFP. We have developed and presented an achievable and logical schedule that accelerates that timeline.

Our team has shown an aggressive but realistic schedule based on our understanding of the project. However, if funding restrictions or other limitations affect project acceleration, we are prepared to deliver on another schedule developed in conjunction with the Town.

Geotechnical Memo, Pavement Design, and Final Report durations assume using the available and applicable data previously gathered with minimal adjustments and documented with project memos.

Some tasks have either been lumped together with others or broken out individually to help convey intent and simplify the overall schedule for viewing and evaluation purposes. We are confident that our schedule has accounted for all of the items in the RFP as well as others needed to complete the project.



HORROCKS

ENGINEERS

APPENDIX RESUMES



EDUCATION
BS, Civil
Engineering, Old
Dominion University

Coursework for
MBA, University of
Colorado-Denver

**LICENSE/
CERTIFICATION**
CO PE No. 42441

HORROCKS
ENGINEERS

JOHN HOLZWARTH, PE

Principal-in-Charge

John is an experienced business leader in infrastructure development and delivery with expertise for Departments of Transportation, which includes highways, bridges, airports multimodal, transit, and rail. John has progressively grown his management, leadership, and delivery skills by serving clients and internal teams to deliver excellence in all aspects of the industry. John excels in team development, project management, business planning, strategic planning, and relationship-building. John has practiced civil/transportation engineering in Colorado for over 17 years, and has a detailed understanding of CDOT's work approaches and Local Agency processes, project goals, and vision for the future with hands-on experience delivering projects.

RELATED PROJECT EXPERIENCE:

- Drake and College Intersection Improvements, Fort Collins, CO | Project Principal
- CR 66 and CR 41 Intersection Design and Improvements, Weld County, CO | Quality Manager
- Fountain Creek Bridge-Home of Heroes, Pueblo CO | Project Principal
- North Vista Highlands Development, Pueblo, CO | Project Manager
- Douglas County SUE On-Call, Douglas County, CO | Project Principal
 - County Line Rd and Inverness Pkwy intersection reconfiguration
 - Lincoln Ave, Havana St, and Meridian Blvd intersections
 - County Line Road Widening University to Broadway
 - C470 Trail over the Yosemite St Pedestrian Bridge
- Weld County On-Call SUE, Greeley, CO | Project Principal
 - CR 74 and CR 33 intersection
 - O St and 35th Ave intersection
 - CR 80 and CR 37 intersection
- Academy Boulevard Great Streets Plan, Colorado Springs, CO | Project Manager*
- I-25 Gap Planning and Environmental Linkages (PEL), Colorado Springs/Denver South, CO | Principal-in-Charge*

**Project experience prior to joining Horrocks*



EDUCATION
BS, Civil
Engineering,
Colorado State
University

**LICENSE/
CERTIFICATION**
CO PE No. 60383

**CDOT Local
Agency Project
Administration**

HORROCKS
ENGINEERS

DAN WOODWARD, PE

Project Manager

Dan brings more than 15 years of experience in engineering, construction, and overall project delivery of both locally and federally funded large-scale transportation projects. His work in the public sector as a senior engineer and project manager for FHWA and the City of Fort Collins has provided him with in-depth knowledge of how to efficiently and effectively bring a project from the concept stage through construction while navigating the many challenges owners must face along the way.

This recent history with the City of Fort Collins translates to unparalleled understanding of project delivery through CDOT's Region 4 Local Agency process. His expertise includes alternative project delivery methods, financial planning and funding strategies, innovative designs and processes, construction scheduling, and leading high performing project teams throughout the life of a project.

RELATED PROJECT EXPERIENCE:

- Drake and College Intersection Improvements, Fort Collins, CO | Project Manager
- MtxTrax & CR 33 & Site Improvements, Milliken, CO | Project Manager
- CDOT Region 2 Passing Lane Study, Southern Colorado | Project Manager
- Lemay Avenue over BNSF Railroad, Fort Collins, CO | Project Manager*
- Horsetooth Road and College Avenue (Local Agency Project), Fort Collins, CO | Project Manager*
- Prospect Road and College Avenue, Fort Collins, CO | Project Manager*
- Horsetooth and Timberline Road, Fort Collins, CO | Project Manager*
- Larimer County Road 43, Larimer County, CO | Project Engineer*
- Bear Lake Road, Estes Park, CO | Project Engineer*

**Project experience prior to joining Horrocks*



EDUCATION
BS, Civil
Engineering,
Georgia Tech

**LICENSE/
CERTIFICATION**
CO PE No. 22724

**PROFESSIONAL
AFFILIATIONS**
American Society
of Civil Engineers
(ASCE)

ACEC Liaison to
CDOT Region 1/HQ
Mentorship Program

MOVE Colorado,
Chair of
Membership
Committee

Chairman-
Transportation
Committee, City of
Aurora Chamber of
Commerce

HORROCKS
ENGINEERS

TIM HARRIS, PE

Quality Manager/CDOT Liaison

Tim is a respected transportation industry veteran who brings over 40 years of experience leading transportation in Colorado, including more than 33 years with the Colorado Department of Transportation serving in various leadership roles such as Chief Engineer and Regional Transportation Director (RTD). He provided executive oversight on major projects such as US 36, Federal Blvd to Baseline Drive; C-470 Managed Lanes, I-25 to Wadsworth Blvd; and the largest reconstruction project in CDOT history, I-70 Tower Road to I-25 Reconstruction, (renamed Central 70). Tim supports firm growth through enhanced relationships with strategic clients and ensuring client satisfaction by serving as Project Principal on selected projects.

RELATED PROJECT EXPERIENCE:

- CDOT I-70 Exit 203 Interchange, Frisco, CO | Principal-in-Charge*
- CDOT Smart Pavement Pilot project, US 285, North of Fairplay, CO | Project Manager*
- CDOT Tunnels, System Modifications, Statewide, CO | Principal-in-Charge*
- CDOT Division of Transportation Development As-Needed Transportation Planning Services, Statewide, CO | Principal-in-Charge*
- Wyoming DOTs, Quality Control and Engineering, WY and AL | QC and Engineering Review*
- Alabama Department of Transportation I-20/1-65 Interchange Reconstruction Birmingham, AL | QC and Engineering Review.*

**Project experience prior to joining Horrocks*



EDUCATION

BS, Civil
Engineering,
University of
Colorado

**LICENSE/
CERTIFICATION**
CO PE No. 48367

**PROFESSIONAL
AFFILIATIONS**
Women's
Transportation
Seminar (WTS)-
Colorado

HORROCKS
ENGINEERS

MARIE THOMING, PE

Roadway Design Lead

Marie has 25 years of experience in civil engineering, with experience in roadway, rail, and multiuse trail design, project management, preparing construction plans and specifications, and oversight of construction bid documents. Marie follows all company QC/QA procedures for review of construction plans, design calculations, and cost estimates to ensure completeness, accuracy, and conformity to engineering standards and practices.

Marie's roadway experience includes designing and preparing construction plan sets for Complete Streets and bikeway projects. Marie has completed transportation projects, many Local Agency, for municipalities across the Front Range, including the City and County of Denver, the City of Aurora, Arapahoe County, Weld County, and the City of Greeley.

RELATED PROJECT EXPERIENCE:

- St. Vrain Trail Extension (Local Agency Project), Lyons, CO | Project Manager
- Lemay Avenue over BNSF Railroad, Fort Collins, CO | Engineering and Plan Support
- CR 66 and CR 41 Intersection Design, Weld County, CO | Deputy Project Manager, Roadway Design Lead
- 83rd Avenue Corridor (10th to 12th Street) Improvement Project (Local Agency project), Greeley, CO | Roadway Conceptual Design Lead
- WCR 66 Corridor SUE and Conceptual Alignment, Greeley, CO | Project Manager
- US 34 Encore at Johnstown, Larimer County, CO | Roadway Design Lead
- Quincy Avenue Final Design from Gun Club Road to Powhaton Road, Arapaho County | Roadway Designer*
- Montview Boulevard; Peoria to Fitzsimons Improvements, Aurora, CO | Lead Civil Engineer*
- South Broadway Improvements; Arizona Avenue to Exposition Avenue, Denver, CO | Deputy Project Manager and Lead Civil Engineer*
- Weld County Road 49 Design-Build, Weld County, CO | Design Engineer - Construction Traffic Control
- Colfax Avenue/Lipan Street Intersection Improvements, Denver, CO | Project Manager and Lead Civil Engineer*

**Project experience prior to joining Horrocks*

**EDUCATION**

BS, Civil
Engineering/
Mathematics
Minor, University of
Colorado Denver

**LICENSE/
CERTIFICATION**
CO PE No. 54354

ETA Fiber Optic
Technician-Outside
Plant

ETA Fiber Optic
Installer

IMSA Traffic Signal
Field Tech- Levels I
and II

**PROFESSIONAL
AFFILIATIONS**

ITS Rocky Mountain
Electronics
Technicians
Association

Institute of
Transportation
Engineers

International
Municipal Signal
Association

HORROCKS
ENGINEERS

CAMERON FEAGLE, PE***Traffic Signal Design Lead***

Cameron has nine years of experience in the traffic engineering field. His expertise includes traffic signal design, roadway signing and pavement marking design, the development of traffic operation and safety reports, traffic data collection analysis, ITS design, fiber optic network design and support, fiber optic system testing and troubleshooting, construction inspection, and field surveying. Cameron has prepared traffic signal designs for new and existing intersections requiring equipment upgrades. His traffic signal designs evaluate an intersection's geometry, operation, and safety and satisfies the client and the Manual of Uniform Traffic Control Devices (MUTCD) design standards.

Cameron is very qualified to manage project documents including meeting, design, and budget summaries; ensuring the project design aligns with the scope; and coordinating with the client and subconsultants. Cameron is an exceptional engineer and has successfully completed numerous traffic signal designs for both state and local agencies. His designs detail critical project elements and are easily read.

RELATED PROJECT EXPERIENCE:

- CR 66 and CR 41 Intersection Design, Weld County, CO | Traffic Engineer
- US 34 Encore at Johnstown, Larimer County, CO | Traffic Engineer
- CDOT Front Range Traffic Engineering Non-project Specific Services, Centennial, CO | Traffic Engineer, ITS Support
- CDOT Fiber Sharing Projects, Statewide, CO | Fiber Optic Testing*
- E-470 and 38th Avenue Interchange Phase I, Aurora, CO | ITS Design*
- RidgeGate Parkway Widening, Lone Tree, CO | Traffic/Fiber Optic Design*
- Greeley Traffic Signal System Network Architecture Maps, Greeley, CO | ITS Design*
- CDOT I-25 North Fiber Extension, Northern CO | ITS Design*
- Founders Parkway and Allen Way Roadway Improvements Project, Castle Rock, CO | Project Traffic Engineer*
- I-25 and Power Boulevard Interchange Phase 1, Colorado Springs, CO | Project Traffic Engineer*

**Project experience prior to joining Horrocks*



EDUCATION

MS, Water Resources,
University of Colorado

BS, Civil Engineering,
Colorado School of Mines

LICENSE/ CERTIFICATION

CO PE No. 35250

Certified Floodplain Manager-
Association of State Floodplain Managers

PROFESSIONAL AFFILIATIONS

Association of State Floodplain Managers (ASFPM)

Colorado Association of State Floodplain Managers (CASFM)

HORROCKS
ENGINEERS

HARRY STRASSER, PE, CFM

Drainage Design Lead

Harry is a Water Resources Engineer with 26 years of experience in drainage and water quality design for roadways, floodplain modeling, storm sewer design, channel design, and utilities design. His expertise includes hydraulic and hydrologic engineering and planning, design of open channels, modeling floodplains, bridge scour estimation, bridge scour revetment, design of drop structures, stream restoration, storm drains, on-line and off-line detention ponds, low impact development ponds, water quality ponds, and culverts. While Harry has worked with municipalities across Colorado, he brings a deep project portfolio of CDOT and CDOT Local Agency work.

RELATED PROJECT EXPERIENCE:

- CR 66 and CR41 Intersection Design, Weld County, CO | Drainage Design Lead
- North Vista Highlands Development, Pueblo, CO | Drainage Design Engineer
- SH-55: Pear Lane to Middleton Road, Canyon County, ID | Drainage Design Lead
- CDOT R4 Flood Recovery Projects, Boulder and Larimer Counties, CO | Project Manager/Drainage Task Manager*
- CDOT Region 4 South Platte River Repairs to SH 55 and SH 59 Bridges, Logan and Sedgwick Counties, CO | Lead Drainage Engineer*
- CDOT Region 4 Poudre Canyon Recovery Project, Larimer County, CO | Drainage Task Manager
- CDOT Region 2 Powers Blvd. - Briargate to Pine Creek, Colorado Springs, CO | Lead Drainage Engineer*
- Iliff Avenue Corridor, Arapahoe County, CO | Drainage Manager*
- CDOT Region 3 US 40 Elk River Bridge, Steamboat Springs, CO | Drainage Design Engineer*
- CDOT Region 2 US 24 Preliminary Design, Colorado Springs, CO | Lead Drainage Engineer*
- CDOT Region 3 I-70 Frontage Road at Dotsero, Eagle County, CO | Drainage Engineer*
- CDOT Region 3 Grand Avenue Bridge, Grand County, CO | Drainage Engineer*

**Project experience prior to joining Horrocks*

**EDUCATION**

MS, Public Policy,
University of Denver

BA, History,
Colorado State
University

**LICENSE/
CERTIFICATION**
CDOT Qualified
ROW Acquisitions
Agent

**PROFESSIONAL
AFFILIATIONS**
International Right
of Way Association

HORROCKS
ENGINEERS

COURTNEY WALLACE***ROW Investigation and Utility Relocation Agreements Lead***

Courtney has six years of experience in ROW acquisition, including work as a Documents and Records Specialist. She has worked on numerous Colorado projects as the primary acquisition agent, including for several federal aid projects, and has earned CDOT pre-qualification status for acquisitions. Courtney has acquired land for all types of Local Public Agency projects, including roadway improvements, bridges, sidewalks, trails, and water pipelines. She is also able to provide support for Right of Entry, title ordering and review, contracting with appraisers as necessary, and coordination with utility providers. She has obtained licensing agreements from ditch companies and maintains strong relationships with them.

Courtney's communication and negotiation skills have proven so effective that her project role has grown to providing utility coordination services, helping navigate nuanced discussions and agreements among utility providers, engineers, and project owners. Her understanding of public policy and her ability to create positive relationships is the foundation of her success balancing the needs of landowners, the tax-paying public, and her clients.

RELATED PROJECT EXPERIENCE:

- CR 66 and CR 41 Intersection Design, Weld County, CO | ROW Acquisitions Lead, Utility Coordination
- WCR 66 Corridor SUE and Conceptual Alignment, Greeley, CO | ROW Acquisitions Lead
- Aurora ROW Acquisitions On-Call Services, Aurora, CO | Contract Manager, ROW Acquisitions Lead
- 112th Avenue Improvements–ROW and Utility Support Services, Thornton, CO | Project Manager (subconsultant)
- North Weld County Water District CR 66 Water Line Easement, Weld County, CO | Project Manager
- CR 33 and CR 74 ROW Acquisitions, Weld County, CO | Project Manager
- 47th Avenue Road Widening, Evans, CO | ROW Agent*
- CR 17 (North Shields St.) Widening (Federal Aid Project), Larimer County, CO | ROW Agent*

**Project experience prior to joining Horrocks*



EDUCATION
BS, Cartographic
Sciences,
Southwest Missouri
State University

**LICENSE/
CERTIFICATION**
CO PLS No. 38693
Additional State
PLS: AR, MO, NM,
OK

olsson

NIC SCHRADER, PLS

Survey Lead

Nic leads a land survey team for Olsson and coordinates all survey efforts for Colorado including the day-to-day operation, business development, and project management. He also provides support of nationwide and large-scale projects for the firm. Nic has extensive experience in the field of land surveying including ALTA/NSPS surveys, boundary and topographic surveys, platting, roadway/alignment surveys, large scale renewable energy surveys, and construction staking.

RELATED PROJECT EXPERIENCE:

- CAMCO LLC/3 Beans LLC, Harmony Centre; Severance, CO
- CDOT Region 4 Riverine Hydraulics and Geomorphology NPS Survey Services; Various Locations North/East CO
- CDOT, Yeh & Assoc I-70 MP 259.2 Rooney Slide Monitoring; Golden, CO
- 20th Street Turn Lanes Final Design; Greeley, CO
- 8th Street Engineering Design and Construction Administration Services; Greeley, CO
- SH 257 and Eastman Park Drive Intersection Improvements; Windsor, CO
- Town of Windsor, 2019 Projects From On-Call Transportation Planning and Engineering; Windsor, CO
- City of Boulder Pearl Parkway Sidewalk; 48th Court to 49th Street, Boulder, CO
- Oklahoma Department of Transportation (ODOT), US-281 south of Cummins to I-40; Caddo, OK
- ODOT, SH-125 Improvements; Fairland, OK
- ODOT, SH-152 from Texas State Line east to SH-30; Sweetwater, OK
- ODOT, SH-58 Improvements; Comanche County, OK
- ODOT, Old 99 Pavement Rehabilitation; Konawa, OK
- Triad Design Group and ODOT, US-81 Realignment; Chickasha, OK
- Oklahoma Turnpike Authority, Driving Forward Bond Program; Statewide, OK
- Oklahoma Turnpike Authority, I-44 Interchange Loop Design; Oklahoma City, OK



EDUCATION

BS, Civil
Engineering,
University of
Kansas

LICENSE/ CERTIFICATION

CO PE No. 51920

Additional State PE:
KS, NE

Nuclear Gauge
Safety Training

Concrete Field
Testing Technician
Grade I: American
Concrete Institute

Concrete Strength
Testing Technician:
American Concrete
Institute

Soils Special
Inspector:
International Code
Council, #8290786

OSHA 10-Hour
Construction Safety:
6745_991530

Radiation Safety
Officer: APNGA

CAPA LabCAT Level
A: Laydown

CAPA LabCAT Level
B: Plant Materials
Control

olsson

BRADEN HIRSCH, PE

Geotechnical Lead

Braden serves as the team leader for the Field Operations Team in Colorado and as the technical manager for Olsson's Denver AASHTO-accredited materials testing laboratory. He is responsible for the day-to-day coordination of the staff, business development, and project management, overseeing the materials testing laboratory, producing engineering and inspection reports for clients, and providing technical guidance for the companywide field information management software.

RELATED PROJECT EXPERIENCE:

- SH 257 and Eastman Park Drive Intersection Improvements, Windsor, CO
- Tipple Parkway Storm Drainage & Street Improvements, Frederick, CO
- 8th Street Engineering Design and Construction Administration Services, Greeley, CO
- Washington St Widening 158th to 160th Ave, Thornton, CO
- City of Aurora Structural and Geotechnical Reviews, Aurora, CO
- Hunt Midwest, Senior Living Master Development, Loveland, CO
- Expedition Water Solutions, TLM Constructors Expedition Water Solutions #6, Greeley, CO
- Sampson Construction, Scheels; Johnstown, CO
- FMFPE LLC, McWhinney Foothills Mall Multifamily; Fort Collins, CO
- 4Site Advisors, Les Schwab Tire Center; Timnath, CO
- Aims Community College, Outdoor Classroom; Greeley, CO
- Aims Community College, Shade Structures; Greeley, CO
- Aims Community College, Campus Site Design; Greeley, CO
- Wember Fort Lupton Library Geotechnical, Fort Lupton, CO
- Buckley Space Force Base, Citrine/Olsson JV, Buckley BX Parking Lot, Aurora, CO
- City and County of Denver Ross-Barnum and Schlessman Libraries; Denver, CO



EDUCATION
H.S. Diploma, Prairie
View High School

HORROCKS
ENGINEERS

TAYLER LANE

Subsurface Utility Engineering Lead

Tayler has eight years of experience in using EMS to locate underground utilities and five years of experience in survey. He has served as a Field Supervisor and Field Technician, he has strong leadership skills and is capable of managing and coordinating multiple crews at the same time. Tayler also has experience with managing and using Terraflex, Radio Detection (EMS), IKE, GPR, and other advanced SUE practices. Tayler is able to collect, review and modify data using MicroStation and CAD programs. He has worked in several cities and counties throughout Colorado

RELATED PROJECT EXPERIENCE:

- Douglas County SUE On-Call, Douglas County, CO | SUE Lead
 - County Line Rd and Inverness Pkwy intersection reconfiguration
 - Lincoln Ave, Havana St, and Meridian Blvd intersections
 - County Line Road Widening University to Broadway
 - C470 Trail over the Yosemite St Pedestrian Bridge
- Weld County SUE On-Call, Weld County, CO | SUE Lead
 - CR 74 and CR 33 intersection
 - O St and 35th Ave intersection
 - CR 80 and CR 37 intersection
- CR 66 and CR 41 Intersection Design, Weld County, CO | SUE Lead
- WCR 66 Corridor SUE and Conceptual Alignment, Greeley, CO | SUE Lead
- US 34 Encore at Johnstown, Larimer County, CO | SUE Lead
- 112th and Himalaya SUE, Adams County, CO | SUE Lead
- County Line Road Widening SUE, Douglas County, CO | SUE Lead
- Crown Castle Hwy 36 Lyons to Estes Park, Boulder and Larimer Counties, CO | SUE Lead
- 12th Street Outfall: Phase 1A SUE, Greeley, CO | SUE Lead
- Clifton 1st Street and Grand Avenue SUE, Mesa County, CO | SUE Lead (subconsultant)
- South Camp Road SUE, Mesa County, CO | SUE Lead



EDUCATION
BS, Civil
Engineering,
University of
Nebraska-Omaha

**LICENSE/
CERTIFICATION**
CO PE No. 46769
Additional State PE:
IA, NE, SD, WY

olsson

CHRIS ROLLING, PE

Traffic Studies Lead

Chris is driven to move people. With a background in traffic management and roadway design and an emphasis on multimodal transportation, he solves transportation challenges from the perspective of multiple users and engineering disciplines. His background includes arterial street widening projects, interchange justification reports, traffic impact studies, corridor studies, walkability studies, bike facility design, and traffic signal design.

RELATED PROJECT EXPERIENCE:

- Windsor LV LLC and Windsor LVII LLC, Severance South Subdivision, Severance, CO
- SH 257 and Eastman Park Drive Intersection Improvements, Windsor, CO
- Aims Community College, Traffic Signal Warrant Study, Greeley, CO
- Jefferson County School District, Warren Tech Center Minor Transportation Study, Littleton, CO
- Loveland NextPhase Citywide Traffic Study, Loveland, CO
- GVP Windler, Windler Master Community Multimodal Design and Traffic Study, Aurora, CO
- Fort Collins Transportation Capital Project Prioritization Study, Fort Collins, CO
- SH 257 and Garden Drive Intersection Analysis, Windsor, CO
- Eastman Park Drive Corridor Plan, Windsor, CO
- Windsor On-Call Transportation Planning and Engineering, Windsor, CO
- Welker Avenue and 3rd Street Intersection Conceptual Design, Mead, CO
- Hwy 66 and WCR 7 Pedestrian Underpass, Mead, CO
- Tipple Parkway Storm Drainage and Street Improvements, Frederick, CO
- 23rd Avenue and 13th Street, 35th Avenue and 24th Street Signal Improvements, Greeley, CO
- 20th Street and 50th Avenue Traffic Signal, Greeley, CO



PAIGE MAGELKY

Environmental Lead

Paige has experience in natural resources assessment and survey, stormwater management, field team coordination, and project management. Her field work experience includes wetland and OHWM delineations, avian use surveys, raptor nest surveys, stormwater inspections, soil quality testing, water quality testing, baseline groundwater sampling, quarterly groundwater monitoring, and revegetation surveys.

EDUCATION

BS, Biological
Science, Colorado
State University

LICENSE/ CERTIFICATION

40-hour HAZWOPER

SafeLand Safety
Awareness, Oil and
Gas Industry

Stormwater
Management and
Erosion Control
Course

StormwaterONE,
Stormwater
Management for Oil
and Gas Operations

Qualified Compliance
Inspector of
Stormwater

38-Hour USACE
Wetland Delineation
Training Program

BSNF Contractor
Orientation Course

UPPR Railroad
Course

eRailSafe System
Badge

olsson

RELATED PROJECT EXPERIENCE:

- Windsor LV LLC and Windsor LVII LLC, Severance South Subdivision, Severance, CO
- C St – 59th to 66th Ave Roadway Improvements, Greeley CO
- Journey Homes, Rigden Farm Filing 6 Tract Z, Fort Collins, CO
- Journey Homes, Copper Ridge Subdivision, Loveland, CO
- 5th Ave Pipeline Phases 1/2, Greeley, CO
- Sheep Draw 71st Avenue, Greeley, CO
- Confidential Client, E Keota Solar Environmental, Weld County, CO
- PDC Energy Inc, Water Sampling, Weld County, CO
- Noble Energy Inc, 2020 Vegetation Count Status, Weld County, CO
- Cureton Front Range LLC, BEF Connection, Weld County, CO
- Noble Energy Inc, Wells Ranch Vegetation Count Status, Weld County, CO
- Cureton Front Range LLC, Boomslang Well Connect, Weld County, CO
- Cureton Front Range LLC, Whitetail LAP, Weld County, CO
- PDC Energy, Desktop Review Program, Weld County, CO
- HighPoint Resources, Water Sampling, Weld County, CO
- HighPoint Resources, Baseline Sampling Program, Weld County, CO
- HighPoint Resources, Stormwater Inspections, Weld County, CO
- HighPoint Resources, Weld and Adams Counties SPCC Plan, Denver, CO
- PDC Energy Inc, Baseline Groundwater Quality Sampling, Weld County, CO



EDUCATION
MA, History—
Cultural Resource
Management,
Colorado State
University

BA, History, Colorado
State University

**PROFESSIONAL
AFFILIATIONS**
National Council for
Public History



SEAN FALLON

Local Agency Environmental Support

Sean is a Historian with over seven years of experience in Section 106 compliance and cultural resource management, conducting surveys and preparing documentation for historic properties, linear resources, historic districts, and cultural landscapes throughout Colorado. His work at Pinyon includes completion and oversight of field surveys, determinations of State and National Register of Historic Places' eligibility, determinations of Section 106 effects, and identification of mitigation options. Sean has experience in the application and preparation of Section 4(f) findings of de minimis, and completion of documentation for Section 4(f) exemptions for historic resources. His work regularly includes coordination with local governments, historic preservation commissions, non-profit and community organizations, state and federal agencies, and the Colorado State Historic Preservation Officer (SHPO). Sean exceeds the Secretary of the Interior's Professional Qualification Standards as a Historian and brings innovative, technology driven solutions to historic preservation and Section 106 compliance.

RELATED PROJECT EXPERIENCE:

- Timberline and Lincoln Intersection Improvements, Fort Collins, CO
- North Shields Street Improvements, Fort Collins, CO
- Taft Hill Road Improvements, Fort Collins, CO
- Boulder Flood Recovery Support, Boulder County, CO
- Timnath Trails Pedestrian Bridge, Larimer County, CO
- CDOT Region 4 North I-25 Express Lanes Design-Build, Boulder & Larimer Counties, CO
- SH 119 Regional Transportation District Bus Rapid Transit, Boulder County, CO



HORRENG-01

AGALLAHER

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/2/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER American Insurance & Investment Corp. 448 South 400 East Salt Lake City, UT 84111	CONTACT NAME: Ashley Gallaher	
	PHONE (A/C, No, Ext): (801) 364-3434 625 FAX (A/C, No): (801) 355-5234	
	E-MAIL ADDRESS: Ashley.Gallaher@american-ins.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Hartford Fire Insurance Co.	19682
INSURED Horrocks Engineers, Inc. 2162 W Grove Pkwy, Ste 200 Pleasant Grove, UT 84062	INSURER B : Hartford Casualty Insurance Co	29424
	INSURER C : Hartford Ins Co of The Midwest	37478
	INSURER D : XL Specialty Insurance Company	37885
	INSURER E :	
	INSURER F :	

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PROJECT ☐ LOC OTHER:	X		34UUNOZ0016	7/1/2021	7/1/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY			34UENOZ0028	7/1/2021	7/1/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 0			34XHUOZ0017	7/1/2021	7/1/2022	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
C	☒ WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) ☒ Y / N If yes, describe under DESCRIPTION OF OPERATIONS below	N	N / A	34WEOK8H0L	7/1/2021	7/1/2022	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Prof Liab Claim Made			DPR9978619	7/1/2021	7/1/2022	Per Claim 10,000,000
D	Retro Date 1/1/1965			DPR9978619	7/1/2021	7/1/2022	Aggregate 10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Professional Liability Deductible \$200,000

Re: State HWY 392 & Weld County RD 23 Intersection

Town of Severance, and its officers, employees, and contractors are named as additional insured, per written contract, with regards to the General Liability. Coverage is primary and non-contributory. 30 days' notice of cancellation applies; 10 days for non-payment of premium.

CERTIFICATE HOLDER

CANCELLATION

Town of Severance, A Colorado municipal corp. 3 S. Timber Ridge parkway PO Box 339 Severance, CO 80546	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE



COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Various provisions in this policy restrict coverage. Read the entire policy carefully to determine rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the Named Insured shown in the Declarations, and any other person or organization qualifying as a Named Insured under this policy. The words "we", "us" and "our" refer to the stock insurance company member of The Hartford providing this insurance.

The word "insured" means any person or organization qualifying as such under Section II – Who Is An Insured.

Other words and phrases that appear in quotation marks have special meaning. Refer to Section V – Definitions.

SECTION I – COVERAGES

COVERAGE A BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

- (1) The amount we will pay for damages is limited as described in Section III – Limits Of Insurance; and
- (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages A or B or medical expenses under Coverage C.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverages A and B.

- b. This insurance applies to "bodily injury" and "property damage" only if:

- (1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";
 - (2) The "bodily injury" or "property damage" occurs during the policy period; and
 - (3) Prior to the policy period, no insured listed under Paragraph 1. of Section II – Who Is An Insured and no "employee" authorized by you to give or receive notice of an "occurrence" or claim, knew that the "bodily injury" or "property damage" had occurred, in whole or in part. If such a listed insured or authorized "employee" knew, prior to the policy period, that the "bodily injury" or "property damage" occurred, then any continuation, change or resumption of such "bodily injury" or "property damage" during or after the policy period will be deemed to have been known prior to the policy period.
- c. "Bodily injury" or "property damage" will be deemed to have been known to have occurred at the earliest time when any insured listed under Paragraph 1. of Section II – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim:
- (1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
 - (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage"; or
 - (3) Becomes aware by any other means that "bodily injury" or "property damage" has occurred or has begun to occur.
- d. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".
- e. **Incidental Medical Malpractice And Good Samaritan Coverage**
- "Bodily injury" arising out of the rendering of or failure to render the following health care services by any "employee" or "volunteer worker" shall be deemed to be caused by an "occurrence" for:

- (1) Professional health care services such as:
 - (a) Medical, surgical, dental, laboratory, x-ray or nursing services or treatment, advice or instruction, or the related furnishing of food or beverages;
 - (b) Any health or therapeutic service, treatment, advice or instruction; or
 - (c) The furnishing or dispensing of drugs or medical, dental, or surgical supplies or appliances; or
- (2) First aid services, which include:
 - (a) Cardiopulmonary resuscitation, whether performed manually or with a defibrillator; or
 - (b) Services performed as a Good Samaritan.

For the purpose of determining the limits of insurance, any act or omission together with all related acts or omissions in the furnishing of these services to any one person will be considered one "occurrence".

However, this Incidental Medical Malpractice And Good Samaritan Coverage provision applies only if you are not engaged in the business or occupation of providing any of the services described in this provision.

2. Exclusions

This insurance does not apply to:

a. Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the insured. This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- (1) That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. Solely for the purposes of liability assumed in an "insured contract", reasonable attorney fees and necessary litigation expenses incurred by or for a party other than an insured are deemed to be damages because of "bodily injury" or "property damage", provided:

- (a) Liability to such party for, or for the cost of, that party's defense has also been assumed in the same "insured contract"; and
- (b) Such attorney fees and litigation expenses are for defense of that party against a civil or alternative dispute resolution proceeding in which damages to which this insurance applies are alleged.

c. Liquor Liability

"Bodily injury" or "property damage" for which any insured may be held liable by reason of:

- (1) Causing or contributing to the intoxication of any person;
- (2) The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or
- (3) Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in:

- (a) The supervision, hiring, employment, training or monitoring of others by that insured; or
- (b) Providing or failing to provide transportation with respect to any person that may be under the influence of alcohol;

if the "occurrence" which caused the "bodily injury" or "property damage", involved that which is described in Paragraph (1), (2) or (3) above.

However, this exclusion applies only if you are in the business of manufacturing, distributing, selling, serving or furnishing alcoholic beverages. For the purposes of this exclusion, permitting a person to bring alcoholic beverages on your premises, for consumption on your premises, whether or not a fee is charged or a license is required for such activity, is not by itself considered the business of selling, serving or furnishing alcoholic beverages.

d. Workers' Compensation And Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

e. Employer's Liability

"Bodily injury" to:

- (1) An "employee" of the insured arising out of and in the course of:

- (a) Employment by the insured; or
- (b) Performing duties related to the conduct of the insured's business; or
- (2) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraph (1) above.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

f. Pollution

- (1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants":
 - (a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, this subparagraph does not apply to:
 - (i) "Bodily injury" if sustained within a building and caused by smoke, fumes, vapor or soot produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests;
 - (ii) "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor and the owner or lessee of such premises, site or location has been added to your policy as an additional insured with respect to your ongoing operations performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or
 - (iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";
 - (b) At or from any premises, site or location which is or was at any time used by or for any insured or others for

the handling, storage, disposal, processing or treatment of waste;

- (c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:
 - (i) Any insured; or
 - (ii) Any person or organization for whom you may be legally responsible;
- (d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, this subparagraph does not apply to:
 - (i) "Bodily injury" or "property damage" arising out of the escape of fuels, lubricants or other operating fluids which are needed to perform the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids escape from a vehicle part designed to hold, store or receive them. This exception does not apply if the "bodily injury" or "property damage" arises out of the intentional discharge, dispersal or release of the fuels, lubricants or other operating fluids, or if such fuels, lubricants or other operating fluids are brought on or to the premises, site or location with the intent that they be discharged, dispersed or released as part of the operations being performed by such insured, contractor or subcontractor;
 - (ii) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or
 - (iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire"; or
- (e) At or from any premises, site or location on which any insured or any contractors or subcontractors working

directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

(2) Any loss, cost or expense arising out of any:

- (a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (b) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

However, this paragraph does not apply to liability for damages because of "property damage" that the insured would have in the absence of such request, demand, order or statutory or regulatory requirement, or such claim or "suit" by or on behalf of a governmental authority.

g. Aircraft, Auto Or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

- (1) A watercraft while ashore on premises you own or rent;
- (2) A watercraft you do not own that is:
 - (a) Less than 51 feet long; and
 - (b) Not being used to carry persons for a charge;
- (3) Parking an "auto" on, or on the ways next

to, premises you own or rent, provided the "auto" is not owned by or rented or loaned to you or the insured;

(4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft;

(5) "Bodily injury" or "property damage" arising out of:

- (a) The operation of machinery or equipment that is attached to, or part of, a land vehicle that would qualify under the definition of "mobile equipment" if it were not subject to a compulsory or financial responsibility law or other motor vehicle insurance law where it is licensed or principally garaged; or
- (b) The operation of any of the machinery or equipment listed in Paragraph **f.(2)** or **f.(3)** of the definition of "mobile equipment"; or

(6) An aircraft that is not owned by any insured and is hired, chartered or loaned with a paid crew. However, this exception does not apply if the insured has any other insurance for such "bodily injury" or "property damage", whether the other insurance is primary, excess, contingent or on any other basis.

h. Mobile Equipment

"Bodily injury" or "property damage" arising out of:

- (1) The transportation of "mobile equipment" by an "auto" owned or operated by or rented or loaned to any insured; or
- (2) The use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

i. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

j. Damage To Property

"Property damage" to:

- (1) Property you own, rent, or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;
- (2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;
- (3) Property loaned to you;
- (4) Personal property in the care, custody or control of the insured;
- (5) That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or
- (6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs (1), (3) and (4) of this exclusion do not apply to "property damage" (other than damage by fire) to premises, including the contents of such premises, rented to you for a period of seven or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in Section III – Limits Of Insurance.

Paragraph (2) of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs (3) and (4) of this exclusion do not apply to "property damage" arising from the use of elevators.

Paragraphs (3), (4), (5) and (6) of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraphs (3) and (4) of this exclusion do not apply to "property damage" to borrowed equipment while not being used to perform operations at the job site.

Paragraph (6) of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

k. Damage To Your Product

"Property damage" to "your product" arising out of it or any part of it.

l. Damage To Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

m. Damage To Impaired Property Or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

- (1) A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or
- (2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

n. Recall Of Products, Work Or Impaired Property

Damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

- (1) "Your product";
- (2) "Your work"; or
- (3) "Impaired property";

if such product, work, or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

o. Personal And Advertising Injury

"Bodily injury" arising out of "personal and advertising injury".

p. Access or Disclosure Of Confidential Or Personal Information And Data-related Liability

Damages arising out of:

- (1) Any access to or disclosure of any person's or organization's confidential or personal information, including patents, trade secrets, processing methods, customer lists, financial information, credit card information, health information or any other type of nonpublic information; or
- (2) The loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate electronic data.

This exclusion applies even if damages are claimed for notification costs, credit monitoring expenses, forensic expenses,

public relations expenses or any other loss, cost or expense incurred by you or others arising out of that which is described in Paragraph (1) or (2) above.

However, unless Paragraph (1) above applies, this exclusion does not apply to damages because of "bodily injury".

As used in this exclusion, electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

q. Employment-Related Practices

"Bodily injury" to:

- (1) A person arising out of any "employment-related practices"; or
- (2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any "employment-related practices" are directed.

This exclusion applies:

- (1) Whether the injury-causing event described in the definition of "employment-related practices" occurs before employment, during employment or after employment of that person;
- (2) Whether the insured may be liable as an employer or in any other capacity; and
- (3) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

r. Asbestos

- (1) "Bodily injury" or "property damage" arising out of the "asbestos hazard".
- (2) Any damages, judgments, settlements, loss, costs or expenses that:
 - (a) May be awarded or incurred by reason of any claim or suit alleging actual or threatened injury or damage of any nature or kind to persons or property which would not have occurred in whole or in part but for the "asbestos hazard";
 - (b) Arise out of any request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, encapsulate, contain, treat, detoxify or neutralize or in any way respond to or

assess the effects of an "asbestos hazard"; or

- (c) Arise out of any claim or suit for damages because of testing for, monitoring, cleaning up, removing, encapsulating, containing, treating, detoxifying or neutralizing or in any way responding to or assessing the effects of an "asbestos hazard".

s. Recording And Distribution Of Material Or Information In Violation Of Law

"Bodily injury" or "property damage" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- (1) The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law;
- (2) The CAN-SPAM Act of 2003, including any amendment of or addition to such law;
- (3) The Fair Credit Reporting Act (FCRA), and any amendment of or addition to such law, including the Fair and Accurate Credit Transaction Act (FACTA); or
- (4) Any federal, state or local statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003 or FCRA and their amendments and additions, that addresses, prohibits or limits the printing, dissemination, disposal, collecting, recording, sending, transmitting, communicating or distribution of material or information.

Damage To Premises Rented To You – Exception For Damage By Fire, Lightning Or Explosion

Exclusions c. through h. and j. through n. do not apply to damage by fire, lightning or explosion to premises while rented to you or temporarily occupied by you with permission of the owner. A separate limit of insurance applies to this coverage as described in Section III – Limits Of Insurance.

COVERAGE B PERSONAL AND ADVERTISING INJURY LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our

discretion, investigate any offense and settle any claim or "suit" that may result. But:

- (1) The amount we will pay for damages is limited as described in Section III – Limits Of Insurance; and
- (2) Our right and duty to defend end when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages A or B or medical expenses under Coverage C.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverages A and B.

- b. This insurance applies to "personal and advertising injury" caused by an offense arising out of your business but only if the offense was committed in the "coverage territory" during the policy period.

2. Exclusions

This insurance does not apply to:

a. Knowing Violation Of Rights Of Another

"Personal and advertising injury" arising out of an offense committed by, at the direction or with the consent or acquiescence of the insured with the expectation of inflicting "personal and advertising injury".

b. Material Published With Knowledge Of Falsity

"Personal and advertising injury" arising out of oral, written or electronic publication, in any manner, of material, if done by or at the direction of the insured with knowledge of its falsity.

c. Material Published Prior To Policy Period

"Personal and advertising injury" arising out of oral, written or electronic publication, in any manner, of material whose first publication took place before the beginning of the policy period.

d. Criminal Acts

"Personal and advertising injury" arising out of a criminal act committed by or at the direction of the insured.

e. Contractual Liability

"Personal and advertising injury" for which the insured has assumed liability in a contract or agreement. This exclusion does not apply to liability for damages that the insured would have in the absence of the contract or agreement.

f. Breach Of Contract

"Personal and advertising injury" arising out of a breach of contract, except an implied contract to

use another's "advertising idea" in your "advertisement".

g. Quality Or Performance Of Goods – Failure To Conform To Statements

"Personal and advertising injury" arising out of the failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement".

h. Wrong Description Of Prices

"Personal and advertising injury" arising out of the wrong description of the price of goods, products or services.

i. Infringement Of Intellectual Property Rights

- (1) "Personal and advertising injury" arising out of any actual or alleged infringement or violation of any intellectual property rights such as copyright, patent, trademark, trade name, trade secret, trade dress, service mark or other designation of origin or authenticity; or

- (2) Any injury or damage alleged in any claim or "suit" that also alleges an infringement or violation of any intellectual property right, whether such allegation of infringement or violation is made by you or by any other party involved in the claim or "suit", regardless of whether this insurance would otherwise apply.

However, this exclusion does not apply if the only allegation in the claim or "suit" involving any intellectual property right is limited to:

- (1) Infringement, in your "advertisement", of:
 - (a) Copyright;
 - (b) Slogan; or
 - (c) Title of any literary or artistic work; or
- (2) Copying, in your "advertisement", a person's or organization's "advertising idea" or style of "advertisement".

j. Insureds In Media And Internet Type Businesses

"Personal and advertising injury" committed by an insured whose business is:

- (1) Advertising, broadcasting, publishing or telecasting;
- (2) Designing or determining content of web sites for others; or
- (3) An Internet search, access, content or service provider.

However, this exclusion does not apply to Paragraphs a., b. and c. of the definition of "personal and advertising injury" under the Definitions Section.

For the purposes of this exclusion, the placing of frames, borders or links, or advertising, for you or others anywhere on the Internet, is not by itself, considered the business of advertising, broadcasting, publishing or telecasting.

k. Electronic Chatrooms Or Bulletin Boards

"Personal and advertising injury" arising out of an electronic chatroom or bulletin board the insured hosts, owns, or over which the insured exercises control.

l. Unauthorized Use Of Another's Name Or Product

"Personal and advertising injury" arising out of the unauthorized use of another's name or product in your e-mail address, domain name or metatags, or any other similar tactics to mislead another's potential customers.

m. Pollution

"Personal and advertising injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants" at any time.

n. Pollution-Related

Any loss, cost or expense arising out of any:

- (1) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (2) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

o. War

"Personal and advertising injury", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

p. Internet Advertisements And Content Of Others

"Personal and advertising injury" arising out of:

- (1) An "advertisement" for others on your web site;
- (2) Placing a link to a web site of others on your web site;
- (3) Content, including information, sounds, text, graphics, or images from a web site of others displayed within a frame or border on your web site; or
- (4) Computer code, software or programming used to enable:
 - (a) Your web site; or
 - (b) The presentation or functionality of an "advertisement" or other content on your web site.

q. Right Of Privacy Created By Statute

"Personal and advertising injury" arising out of the violation of a person's right of privacy created by any state or federal act.

However, this exclusion does not apply to liability for damages that the insured would have in the absence of such state or federal act.

r. Violation Of Anti-Trust law

"Personal and advertising injury" arising out of a violation of any anti-trust law.

s. Securities

"Personal and advertising injury" arising out of the fluctuation in price or value of any stocks, bonds or other securities.

t. Recording And Distribution Of Material Or Information In Violation Of Law

"Personal and advertising injury" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- (1) The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law;
- (2) The CAN-SPAM Act of 2003, including any amendment of or addition to such law;
- (3) The Fair Credit Reporting Act (FCRA), and any amendment of or addition to such law, including the Fair and Accurate Credit Transaction Act (FACTA); or
- (4) Any federal, state or local statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003 or FCRA and their amendments and additions, that addresses, prohibits or limits the printing, dissemination, disposal, collecting, recording, sending, transmitting, communicating or distribution of material or information.

u. Employment-Related Practices

"Personal and advertising injury" to:

- (1) A person arising out of any "employment-related practices"; or
- (2) The spouse, child, parent, brother or sister of that person as a consequence of "personal and advertising injury" to that person at whom any "employment-related practices" are directed.

This exclusion applies:

- (1) Whether the injury-causing event described in the definition of "employment-related practices" occurs before employment, during employment or after employment of that person;
- (2) Whether the insured may be liable as an employer or in any other capacity; and
- (3) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

v. Asbestos

- (1) "Personal and advertising injury" arising out of the "asbestos hazard".
- (2) Any damages, judgments, settlements, loss, costs or expenses that:
 - (a) May be awarded or incurred by reason of any claim or suit alleging actual or threatened injury or damage of any nature or kind to persons or property which would not have occurred in whole or in part but for the "asbestos hazard";
 - (b) Arise out of any request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, encapsulate, contain, treat, detoxify or neutralize or in any way respond to or assess the effects of an "asbestos hazard"; or
 - (c) Arise out of any claim or suit for damages because of testing for, monitoring, cleaning up, removing, encapsulating, containing, treating, detoxifying or neutralizing or in any way responding to or assessing the effects of an "asbestos hazard".

w. Access Or Disclosure Of Confidential Or Personal Information

"Personal and advertising injury" arising out of any access to or disclosure of any person's or organization's confidential or personal information, including patents, trade secrets, processing methods, customer lists, financial information, credit card information, health

information or any other type of nonpublic information.

This exclusion applies even if damages are claimed for notification costs, credit monitoring expenses, forensic expenses, public relations expenses or any other loss, cost or expense incurred by you or others arising out of any access to or disclosure of any person's or organization's confidential or personal information.

COVERAGE C MEDICAL PAYMENTS

1. Insuring Agreement

- a. We will pay medical expenses as described below for "bodily injury" caused by an accident:

- (1) On premises you own or rent;
 - (2) On ways next to premises you own or rent; or
 - (3) Because of your operations;
- provided that:

- (1) The accident takes place in the "coverage territory" and during the policy period;
- (2) The expenses are incurred and reported to us within three years of the date of the accident; and
- (3) The injured person submits to examination, at our expense, by physicians of our choice as often as we reasonably require.

- b. We will make these payments regardless of fault. These payments will not exceed the applicable limit of insurance. We will pay reasonable expenses for:

- (1) First aid administered at the time of an accident;
- (2) Necessary medical, surgical, X-ray and dental services, including prosthetic devices; and
- (3) Necessary ambulance, hospital, professional nursing and funeral services.

2. Exclusions

We will not pay expenses for "bodily injury":

a. Any Insured

To any insured, except "volunteer workers".

b. Hired Person

To a person hired to do work for or on behalf of any insured or a tenant of any insured.

c. Injury On Normally Occupied Premises

To a person injured on that part of premises you own or rent that the person normally occupies.

d. Workers Compensation And Similar Laws

To a person, whether or not an "employee" of

any insured, if benefits for the "bodily injury" are payable or must be provided under a workers' compensation or disability benefits law or a similar law.

e. Athletics Activities

To a person injured while practicing, instructing or participating in any physical exercises or games, sports, or athletic contests.

f. Products-Completed Operations Hazard

Included within the "products-completed operations hazard".

g. Coverage A Exclusions

Excluded under Coverage A.

SUPPLEMENTARY PAYMENTS – COVERAGES A AND B

1. We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

- a. All expenses we incur.
- b. Up to \$1,000 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.
- c. The cost of appeal bonds or bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.
- d. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to \$500 a day because of time off from work.
- e. All court costs taxed against the insured in the "suit". However, such costs do not include attorneys' fees, attorneys' expenses, witness or expert fees, or any other expenses of a party taxed to the insured.
- f. Prejudgment interest awarded against the insured on that part of the judgment we pay. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.
- g. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

These payments will not reduce the limits of insurance.

2. If we defend an insured against a "suit" and an indemnitee of the insured is also named as a

party to the "suit", we will defend that indemnitee if all of the following conditions are met:

- a. The "suit" against the indemnitee seeks damages for which the insured has assumed the liability of the indemnitee in a contract or agreement that is an "insured contract";
- b. This insurance applies to such liability assumed by the insured;
- c. The obligation to defend, or the cost of the defense of, that indemnitee, has also been assumed by the insured in the same "insured contract";
- d. The allegations in the "suit" and the information we know about the "occurrence" are such that no conflict appears to exist between the interests of the insured and the interests of the indemnitee;
- e. The indemnitee and the insured ask us to conduct and control the defense of that indemnitee against such "suit" and agree that we can assign the same counsel to defend the insured and the indemnitee; and
- f. The indemnitee:
 - (1) Agrees in writing to:
 - (a) Cooperate with us in the investigation, settlement or defense of the "suit";
 - (b) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the "suit";
 - (c) Notify any other insurer whose coverage is available to the indemnitee; and
 - (d) Cooperate with us with respect to coordinating other applicable insurance available to the indemnitee; and
 - (2) Provides us with written authorization to:
 - (a) Obtain records and other information related to the "suit"; and
 - (b) Conduct and control the defense of the indemnitee in such "suit".

So long as the above conditions are met, attorneys' fees incurred by us in the defense of that indemnitee, necessary litigation expenses incurred by us and necessary litigation expenses incurred by the indemnitee at our request will be paid as Supplementary Payments. Notwithstanding the provisions of Paragraph **2.b.(2)** of Section **I – Coverage A – Bodily Injury And Property Damage Liability**, such payments will not be deemed to be damages for "bodily injury" and "property damage" and will not reduce the limits of insurance.

Our obligation to defend an insured's indemnitee and to pay for attorneys' fees and necessary litigation expenses as Supplementary Payments ends when:

- a. We have used up the applicable limit of insurance in the payment of judgments or settlements; or
- b. The conditions set forth above, or the terms of the agreement described in Paragraph f. above, are no longer met.

SECTION II – WHO IS AN INSURED

1. If you are designated in the Declarations as:

- a. An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
- b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to the conduct of your business.
- c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.
- d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
- e. A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.

2. Each of the following is also an insured:

a. Employees And Volunteer Workers

Your "volunteer workers" only while performing duties related to the conduct of your business, or your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts within the scope of their employment by you or while performing duties related to the conduct of your business.

However, none of these "employees" or "volunteer workers" are insureds for:

- (1) "Bodily injury" or "personal and advertising injury":
 - (a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited

liability company), to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business, or to your other "volunteer workers" while performing duties related to the conduct of your business;

- (b) To the spouse, child, parent, brother or sister of that co-"employee" or that "volunteer worker" as a consequence of Paragraph (1)(a) above;
- (c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraphs (1)(a) or (1)(b) above; or
- (d) Arising out of his or her providing or failing to provide professional health care services.

If you are not in the business of providing professional health care services:

- (a) Subparagraphs (1)(a), (1)(b) and (1)(c) above do not apply to any "employee" or "volunteer worker" providing first aid services; and
- (b) Subparagraph (1)(d) above does not apply to any nurse, emergency medical technician or paramedic employed by you to provide such services.

(2) "Property damage" to property:

- (a) Owned, occupied or used by,
- (b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by

you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

b. Real Estate Manager

Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.

c. Temporary Custodians Of Your Property

Any person or organization having proper temporary custody of your property if you die, but only:

- (1) With respect to liability arising out of the maintenance or use of that property; and
- (2) Until your legal representative has been appointed.

d. Legal Representative If You Die

Your legal representative if you die, but only

with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.

e. Unnamed Subsidiary

Any subsidiary, and subsidiary thereof, of yours which is a legally incorporated entity of which you own a financial interest of more than 50% of the voting stock on the effective date of the Coverage Part.

The insurance afforded herein for any subsidiary not named in this Coverage Part as a named insured does not apply to injury or damage with respect to which such insured is also a named insured under another policy or would be a named insured under such policy but for its termination or the exhaustion of its limits of insurance.

3. Newly Acquired Or Formed Organization

Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain financial interest of more than 50% of the voting stock, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

- a. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;
- b. Coverage **A** does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and
- c. Coverage **B** does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

4. Nonowned Watercraft

With respect to watercraft you do not own that is less than 51 feet long and is not being used to carry persons for a charge, any person is an insured while operating such watercraft with your permission. Any other person or organization responsible for the conduct of such person is also an insured, but only with respect to liability arising out of the operation of the watercraft, and only if no other insurance of any kind is available to that person or organization for this liability.

However, no person or organization is an insured with respect to:

- a. "Bodily injury" to a co-"employee" of the person operating the watercraft; or
- b. "Property damage" to property owned by, rented to, in the charge of or occupied by you or the employer of any person who is an insured under this provision.

5. Additional Insureds When Required By Written Contract, Written Agreement Or Permit

The following person(s) or organization(s) are an additional insured when you have agreed, in a written contract, written agreement or because of a permit issued by a state or political subdivision, that such person or organization be added as an additional insured on your policy, provided the injury or damage occurs subsequent to the execution of the contract or agreement.

A person or organization is an additional insured under this provision only for that period of time required by the contract or agreement.

However, no such person or organization is an insured under this provision if such person or organization is included as an insured by an endorsement issued by us and made a part of this Coverage Part.

a. Vendors

Any person(s) or organization(s) (referred to below as vendor), but only with respect to "bodily injury" or "property damage" arising out of "your products" which are distributed or sold in the regular course of the vendor's business and only if this Coverage Part provides coverage for "bodily injury" or "property damage" included within the "products-completed operations hazard".

- (1) The insurance afforded the vendor is subject to the following additional exclusions:

This insurance does not apply to:

- (a) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
- (b) Any express warranty unauthorized by you;
- (c) Any physical or chemical change in the product made intentionally by the vendor;
- (d) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;
- (e) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally

undertakes to make in the usual course of business, in connection with the distribution or sale of the products;

- (f) Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;
 - (g) Products which, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or
 - (h) "Bodily injury" or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
 - (i) The exceptions contained in Sub-paragraphs (d) or (f); or
 - (ii) Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products.
- (2) This insurance does not apply to any insured person or organization, from whom you have acquired such products, or any ingredient, part or container, entering into, accompanying or containing such products.

b. Lessors Of Equipment

- (1) Any person(s) or organization(s) from whom you lease equipment; but only with respect to their liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s).
- (2) With respect to the insurance afforded to these additional insureds this insurance does not apply to any "occurrence" which takes place after the equipment lease expires.

c. Lessors Of Land Or Premises

Any person or organization from whom you lease land or premises, but only with respect to liability arising out of the ownership, maintenance or use of that part of the land or premises leased to you.

With respect to the insurance afforded these additional insureds the following additional exclusions apply:

This insurance does not apply to:

- 1. Any "occurrence" which takes place after you cease to lease that land; or
- 2. Structural alterations, new construction or demolition operations performed by or on behalf of such person or organization.

d. Architects, Engineers Or Surveyors

Any architect, engineer, or surveyor, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

- (1) In connection with your premises; or
- (2) In the performance of your ongoing operations performed by you or on your behalf.

With respect to the insurance afforded these additional insureds, the following additional exclusion applies:

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of or the failure to render any professional services by or for you, including:

- 1. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- 2. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional services by or for you.

e. Permits Issued By State Or Political Subdivisions

Any state or political subdivision, but only with respect to operations performed by you or on your behalf for which the state or political subdivision has issued a permit.

With respect to the insurance afforded these additional insureds, this insurance does not apply to:

- (1) "Bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the state or municipality; or

- (2) "Bodily injury" or "property damage" included within the "products-completed operations hazard".

f. Any Other Party

Any other person or organization who is not an additional insured under Paragraphs **a.** through **e.** above, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

- (1) **In the performance of your ongoing operations;**
- (2) In connection with your premises owned by or rented to you; or
- (3) In connection with "your work" and included within the "products-completed operations hazard", but only if
- (a) The written contract or agreement requires you to provide such coverage to such additional insured; and
- (b) This Coverage Part provides coverage for "bodily injury" or "property damage" included within the "products-completed operations hazard".

However:

- (1) The insurance afforded to such additional insured only applies to the extent permitted by law; and
- (2) If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

With respect to the insurance afforded to these additional insureds, this insurance does not apply to:

"Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

- (1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others

by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional services by or for you.

The limits of insurance that apply to additional insureds is described in Section **III** – Limits Of Insurance.

How this insurance applies when other insurance is available to the additional insured is described in the Other Insurance Condition in Section **IV** – Commercial General Liability Conditions.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.

SECTION III – LIMITS OF INSURANCE

1. The Most We Will Pay

The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

- a. Insureds;
- b. Claims made or "suits" brought; or
- c. Persons or organizations making claims or bringing "suits".

2. General Aggregate Limit

The General Aggregate Limit is the most we will pay for the sum of:

- a. Medical expenses under Coverage **C**;
- b. Damages under Coverage **A**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and
- c. Damages under Coverage **B**.

3. Products-Completed Operations Aggregate Limit

The Products-Completed Operations Aggregate Limit is the most we will pay under Coverage **A** for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".

4. Personal And Advertising Injury Limit

Subject to **2.** above, the Personal and Advertising Injury Limit is the most we will pay under Coverage **B** for the sum of all damages because of all "personal and advertising injury" sustained by any one person or organization.

5. Each Occurrence Limit

Subject to **2.** or **3.** above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:

- a. Damages under Coverage **A**; and

b. Medical expenses under Coverage C

because of all "bodily injury" and "property damage" arising out of any one "occurrence".

6. Damage To Premises Rented To You Limit

Subject to **5.** above, the Damage To Premises Rented To You Limit is the most we will pay under Coverage **A** for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire, lightning or explosion, while rented to you or temporarily occupied by you with permission of the owner.

In the case of damage by fire, lightning or explosion, the Damage to Premises Rented To You Limit applies to all damage proximately caused by the same event, whether such damage results from fire, lightning or explosion or any combination of these.

7. Medical Expense Limit

Subject to **5.** above, the Medical Expense Limit is the most we will pay under Coverage **C** for all medical expenses because of "bodily injury" sustained by any one person.

8. How Limits Apply To Additional Insureds

If you have agreed in a written contract or written agreement that another person or organization be

added as an additional insured on your policy, the most we will pay on behalf of such additional insured is the lesser of:

- a.** The limits of insurance specified in the written contract or written agreement; or
- b.** The Limits of Insurance shown in the Declarations.

Such amount shall be a part of and not in addition to Limits of Insurance shown in the Declarations and described in this Section.

The Limits of Insurance of this Coverage Part apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS

1. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

2. Duties In The Event Of Occurrence, Offense, Claim Or Suit

a. Notice Of Occurrence Or Offense

You or any additional insured must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:

- (1)** How, when and where the "occurrence" or offense took place;
- (2)** The names and addresses of any injured persons and witnesses; and
- (3)** The nature and location of any injury or damage arising out of the "occurrence" or offense.

b. Notice Of Claim

If a claim is made or "suit" is brought against any insured, you or any additional insured must:

- (1)** Immediately record the specifics of the claim or "suit" and the date received; and
- (2)** Notify us as soon as practicable.

You or any additional insured must see to it that we receive written notice of the claim or "suit" as soon as practicable.

c. Assistance And Cooperation Of The Insured

You and any other involved insured must:

- (1)** Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";
- (2)** Authorize us to obtain records and other information;
- (3)** Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and
- (4)** Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.

d. Obligations At The Insureds Own Cost

No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

e. Additional Insureds Other Insurance

If we cover a claim or "suit" under this Coverage Part that may also be covered by other insurance available to an additional insured, such additional insured must submit such claim or "suit" to the other insurer for defense and indemnity.

However, this provision does not apply to the extent that you have agreed in a written

contract or written agreement that this insurance is primary and non-contributory with the additional insured's own insurance.

f. Knowledge Of An Occurrence, Offense, Claim Or Suit

Paragraphs **a.** and **b.** apply to you or to any additional insured only when such "occurrence", offense, claim or "suit" is known to:

- (1) You or any additional insured that is an individual;
- (2) Any partner, if you or the additional insured is a partnership;
- (3) Any manager, if you or the additional insured is a limited liability company;
- (4) Any "executive officer" or insurance manager, if you or the additional insured is a corporation;
- (5) Any trustee, if you or the additional insured is a trust; or
- (6) Any elected or appointed official, if you or the additional insured is a political subdivision or public entity.

This duty applies separately to you and any additional insured.

3. Legal Action Against Us

No person or organization has a right under this Coverage Part:

- a.** To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or
- b.** To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

4. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under Coverages **A** or **B** of this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **b.** below applies. If other insurance is also primary, we will share with all that other insurance by the method described in **c.** below.

b. Excess Insurance

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis:

(1) Your Work

That is Fire, Extended Coverage, Builder's Risk, Installation Risk or similar coverage for "your work";

(2) Premises Rented To You

That is fire, lightning or explosion insurance for premises rented to you or temporarily occupied by you with permission of the owner;

(3) Tenant Liability

That is insurance purchased by you to cover your liability as a tenant for "property damage" to premises rented to you or temporarily occupied by you with permission of the owner;

(4) Aircraft, Auto Or Watercraft

If the loss arises out of the maintenance or use of aircraft, "autos" or watercraft to the extent not subject to Exclusion **g.** of Section **I** – Coverage **A** – Bodily Injury And Property Damage Liability;

(5) Property Damage To Borrowed Equipment Or Use Of Elevators

If the loss arises out of "property damage" to borrowed equipment or the use of elevators to the extent not subject to Exclusion **j.** of Section **I** - Coverage **A** - Bodily Injury And Property Damage Liability;

(6) When You Are Added As An Additional Insured To Other Insurance

Any other insurance available to you covering liability for damages arising out of the premises or operations, or products and completed operations, for which you have been added as an additional insured by that insurance; or

(7) When You Add Others As An Additional Insured To This Insurance

Any other insurance available to an additional insured.

However, the following provisions apply to other insurance available to any person or organization who is an additional insured under this coverage part.

(a) Primary Insurance When Required By Contract

This insurance is primary if you have agreed in a written contract or written agreement that this insurance be primary. If other insurance is also

primary, we will share with all that other insurance by the method described in **c.** below.

(b) Primary And Non-Contributory To Other Insurance When Required By Contract

If you have agreed in a written contract, written agreement, or permit that this insurance is primary and non-contributory with the additional insured's own insurance, this insurance is primary and we will not seek contribution from that other insurance.

Paragraphs **(a)** and **(b)** do not apply to other insurance to which the additional insured has been added as an additional insured.

When this insurance is excess, we will have no duty under Coverages **A** or **B** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1)** The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2)** The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

c. Method Of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

5. Premium Audit

- a.** We will compute all premiums for this Coverage Part in accordance with our rules and rates.
- b.** Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the first Named Insured.
- c.** The first Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

6. Representations

a. When You Accept This Policy

By accepting this policy, you agree:

- (1)** The statements in the Declarations are accurate and complete;
- (2)** Those statements are based upon representations you made to us; and
- (3)** We have issued this policy in reliance upon your representations.

b. Unintentional Failure To Disclose Hazards

If unintentionally you should fail to disclose all hazards relating to the conduct of your business that exist at the inception date of this Coverage Part, we shall not deny coverage under this Coverage Part because of such failure.

7. Separation Of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

- a.** As if each Named Insured were the only Named Insured; and
- b.** Separately to each insured against whom claim is made or "suit" is brought.

8. Transfer Of Rights Of Recovery Against Others To Us

a. Transfer Of Rights Of Recovery

If the insured has rights to recover all or part of any payment, including Supplementary Payments, we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to

impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

b. Waiver Of Rights Of Recovery (Waiver Of Subrogation)

If the insured has waived any rights of recovery against any person or organization for all or part of any payment, including Supplementary Payments, we have made under this Coverage Part, we also waive that right, provided the insured waived their rights of recovery against such person or organization in a contract, agreement or permit that was executed prior to the injury or damage.

9. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V – DEFINITIONS

1. "Advertisement" means the widespread public dissemination of information or images that has the purpose of inducing the sale of goods, products or services through:

- a. (1)** Radio;
- (2)** Television;
- (3)** Billboard;
- (4)** Magazine;
- (5)** Newspaper; or
- b.** Any other publication that is given widespread public distribution.

However, "advertisement" does not include:

- a.** The design, printed material, information or images contained in, on or upon the packaging or labeling of any goods or products; or
- b.** An interactive conversation between or among persons through a computer network.

2. "Advertising idea" means any idea for an "advertisement".

3. "Asbestos hazard" means an exposure or threat of exposure to the actual or alleged properties of asbestos and includes the mere presence of asbestos in any form.

4. "Auto" means:

- a.** A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or
- b.** Any other land vehicle that is subject to a compulsory or financial responsibility law or

other motor vehicle insurance law where it is licensed or principally garaged.

However, "auto" does not include "mobile equipment".

5. "Bodily injury" means physical:

- a.** Injury;
- b.** Sickness; or
- c.** Disease

sustained by a person and, if arising out of the above, mental anguish or death at any time.

6. "Coverage territory" means:

- a.** The United States of America (including its territories and possessions), Puerto Rico and Canada;
- b.** International waters or airspace, but only if the injury or damage occurs in the course of travel or transportation between any places included in **a.** above; or
- c.** All other parts of the world if the injury or damage arises out of:
 - (1)** Goods or products made or sold by you in the territory described in **a.** above;
 - (2)** The activities of a person whose home is in the territory described in **a.** above, but is away for a short time on your business; or
 - (3)** "Personal and advertising injury" offenses that take place through the Internet or similar electronic means of communication

provided the insured's responsibility to pay damages is determined in the United States of America (including its territories and possessions), Puerto Rico or Canada, in a "suit" on the merits according to the substantive law in such territory or in a settlement we agree to.

7. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".

8. "Employment-Related Practices" means:

- a.** Refusal to employ that person;
- b.** Termination of that person's employment; or
- c.** Employment-related practices, policies, acts or omissions, such as coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation, discrimination or malicious prosecution directed at that person.

9. "Executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.

10. "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.

11. "Impaired property" means tangible property, other than "your product" or "your work", that cannot be used or is less useful because:

- a. It incorporates "your product" or "your work" that is known or thought to be defective, deficient, inadequate or dangerous; or
- b. You have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by the repair, replacement, adjustment or removal of "your product" or "your work", or your fulfilling the terms of the contract or agreement.

12. "Insured contract" means:

- a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire, lightning or explosion to premises while rented to you or temporarily occupied by you with permission of the owner is subject to the Damage to Premises Rented To You Limit described in Section III – Limits of Insurance;
- b. A sidetrack agreement;
- c. Any easement or license agreement, including an easement or license agreement in connection with construction or demolition operations on or within 50 feet of a railroad;
- d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
- e. An elevator maintenance agreement;
- f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury" or "property damage" to a third person or organization, provided the "bodily injury" or "property damage" is caused, in whole or in part, by you or by those acting on your behalf. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. includes that part of any contract or agreement that indemnifies a railroad for "bodily injury" or "property damage" arising out of construction or demolition operations, within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing.

However, Paragraph f. does not include that part of any contract or agreement:

- (1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

- (a) Preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

- (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage; or

- (2) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in (1) above and supervisory, inspection, architectural or engineering activities.

13. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" does not include a "temporary worker".

14. "Loading or unloading" means the handling of property:

- a. After it is moved from the place where it is accepted for movement into or onto an aircraft, watercraft or "auto";
- b. While it is in or on an aircraft, watercraft or "auto"; or
- c. While it is being moved from an aircraft, watercraft or "auto" to the place where it is finally delivered;

but "loading or unloading" does not include the movement of property by means of a mechanical device, other than a hand truck, that is not attached to the aircraft, watercraft or "auto".

15. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:

- a. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;
- b. Vehicles maintained for use solely on or next to premises you own or rent;
- c. Vehicles that travel on crawler treads;
- d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:
 - (1) Power cranes, shovels, loaders, diggers or drills; or
 - (2) Road construction or resurfacing equipment such as graders, scrapers or rollers;
- e. Vehicles not described in a., b., c. or d. above that are not self-propelled and are maintained

primarily to provide mobility to permanently attached equipment of the following types:

- (1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or
 - (2) Cherry pickers and similar devices used to raise or lower workers;
- f. Vehicles not described in **a.**, **b.**, **c.** or **d.** above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

- (1) Equipment designed primarily for:
 - (a) Snow removal;
 - (b) Road maintenance, but not construction or resurfacing; or
 - (c) Street cleaning;
- (2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and
- (3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include any land vehicle that is subject to a compulsory or financial responsibility law or other motor vehicle insurance law where it is licensed or principally garaged. Land vehicles subject to a compulsory or financial responsibility law or other motor vehicle insurance law are considered "autos".

16. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.

17. "Personal and advertising injury" means injury, including consequential "bodily injury", arising out of one or more of the following offenses:

- a. False arrest, detention or imprisonment;
- b. Malicious prosecution;
- c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person or organization occupies, committed by or on behalf of its owner, landlord or lessor;
- d. Oral, written or electronic publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;

e. Oral, written or electronic publication, in any manner, of material that violates a person's right of privacy;

f. Copying, in your "advertisement", a person's or organization's "advertising idea" or style of "advertisement"; or

g. Infringement of copyright, slogan, or title of any literary or artistic work, in your "advertisement".

18. "Pollutants" mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

19. "Products-completed operations hazard":

a. Includes all "bodily injury" and "property damage" occurring away from premises you own or rent and arising out of "your product" or "your work" except:

(1) Products that are still in your physical possession; or

(2) Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:

(a) When all of the work called for in your contract has been completed.

(b) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site.

(c) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

b. Does not include "bodily injury" or "property damage" arising out of:

(1) The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the "loading or unloading" of that vehicle by any insured;

(2) The existence of tools, uninstalled equipment or abandoned or unused materials; or

(3) Products or operations for which the classification, listed in the Declarations or in a policy Schedule, states that products-

completed operations are subject to the General Aggregate Limit.

20. "Property damage" means:

- a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or
- b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

As used in this definition, computerized or electronically stored data, programs or software are not tangible property. Electronic data means information, facts or programs:

- a. Stored as or on;
- b. Created or used on; or
- c. Transmitted to or from;

computer software, including systems and applications software, hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

21. "Suit" means a civil proceeding in which damages because of "bodily injury", "property damage" or "personal and advertising injury" to which this insurance applies are alleged. "Suit" includes:

- a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent; or
- b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent.

22. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.

23. "Volunteer worker" means a person who

- a. Is not your "employee";
- b. Donates his or her work;
- c. Acts at the direction of and within the scope of duties determined by you; and
- d. Is not paid a fee, salary or other compensation by you or anyone else for their work performed for you.

24. "Your product":

a. Means:

- (1) Any goods or products, other than real property, manufactured, sold, handled, distributed or disposed of by:
 - (a) You;
 - (b) Others trading under your name; or
 - (c) A person or organization whose business or assets you have acquired; and
- (2) Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.

b. Includes

- (1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and
- (2) The providing of or failure to provide warnings or instructions.

c. Does not include vending machines or other property rented to or located for the use of others but not sold.

25. "Your work":

a. Means:

- (1) Work or operations performed by you or on your behalf; and
- (2) Materials, parts or equipment furnished in connection with such work or operations.

b. Includes

- (1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work", and
- (2) The providing of or failure to provide warnings or instructions.



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Resolution 2022-25R: A Resolution of the Town Council of the Town of Severance, Colorado, approving an Intergovernmental Agreement between the Town of Severance and the Weld County School District RE-4 for a Joint School Resource Officer Program	Nicholas Wharton, Town Manager	Nicholas J. Wharton, MPA
ACTION REQUESTED		
Management asks that the Town Council discuss the proposed Intergovernmental Agreement (IGA) with Weld RE-4 School District for the School Resource Officer Program and take action. • Actions that may be taken: ○ Move Approve the proposed IGA with Weld RE-4 School District for the School Resource Officer Program ○ Take no Action		<u>Resolution</u> <u>Attorney Approved</u> <u>Action Requested</u>
BRIEF SUMMARY		
As discussed with Town Council, Management is requesting the Town Council review and discuss the Intergovernmental Agreement between Weld RE-4 School District and the Town of Severance for the School Resource Officer Program.		
PUBLIC SUPPORT/CONCERN		
None at this time.		
ANALYSIS AND RECOMMENDATION		
Management recommends that the Town Council take action and move to approve the proposed IGA with Weld RE-4 School District for the School Resource Officer Program.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. 2022-25R- Weld RE-4 SRO 2. TOS Weld RE4 SRO IGA		

**TOWN OF SEVERANCE
RESOLUTION NO. 2022-25R**

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF SEVERANCE,
COLORADO, APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN
THE TOWN OF SEVERANCE AND THE WELD COUNTY SCHOOL DISTRICT RE-4
FOR A JOINT SCHOOL RESOURCE OFFICER PROGRAM**

WHEREAS, the Town of Severance (“Town”) and the community are significantly impacted by the demands placed upon them to address incidents and situations directly or indirectly related to juveniles and schools; and

WHEREAS, the problems of delinquency, alcohol and substance abuse, gang involvement and other youth related problems, which negatively affect the community and the schools, can best be addressed in a proactive and preventive manner; and

WHEREAS, the Town and the Weld County School District RE-4 have jointly developed a School Resource Officer Program to provide a district wide school-based approach to establish a positive relationship between students and law enforcement, and prevent delinquency, alcohol and substance abuse, and gang involvement by the community’s youth; and

WHEREAS, such programs are recognized as being effective in developing positive relationships between law enforcement and students and decreasing delinquency.

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE
TOWN OF SEVERANCE COLORADO:**

Section 1. The Intergovernmental Agreement between the Town of Severance and the Weld County School District RE-4, for a Joint School Resource Officer Program, is approved in substantially the same form as the copy attached hereto and made a part of this resolution. The Mayor is authorized to execute the Intergovernmental Agreement on behalf of the Town.

RESOLVED AND PASSED THIS 14TH DAY OF JUNE, 2022.

TOWN OF SEVERANCE, COLORADO

Matthew Fries, Mayor

ATTEST:

Leah Vanarsdall, MMC, Town Clerk

APPROVED AS TO FORM:

Hayashi & Macsalka, LLC, Town Attorney

**INTERGOVERNMENTAL AGREEMENT
BETWEEN WELD RE-4 SCHOOL DISTRICT AND THE TOWN OF SEVERANCE
FOR THE SCHOOL RESOURCE OFFICER PROGRAM**

THIS INTERGOVERNMENTAL AGREEMENT FOR SCHOOL RESOURCE OFFICER PROGRAM (“Agreement”) is made this ____ day of June 2022, between the Town of Severance, Colorado, a Colorado home-rule municipality (“Town”), on behalf of the Town of Severance Police Department (“Severance Police Department”), and the Weld County School District RE-4 (“District”) (hereinafter the Town and District are referred to as “Party” in the singular and “Parties” in the plural).

RECITALS

WHEREAS, pursuant to C.R.S. §§ 29-1-203 and 22-32-122, the District and the Town desire to cooperate to establish and develop a School Resource Officer Program; and

WHEREAS, the joint goals of the School Resource Officer Program, (“SRO Program”) are to:

1. Provide a safe learning environment and help reduce school violence;
2. Improve school law enforcement collaboration; and
3. Improve perceptions and relations between students, staff and law enforcement officials.

WHEREAS, the Parties recognize the outstanding benefits that the SRO Program has for the citizens of the Town and the District, particularly for the students of the District’s schools located within the Town; and

WHEREAS, the Parties intend to share proportionally the costs for any School Resource Officers assigned to the SRO Program; and

WHEREAS, the Town and the District intend this agreement to replace and supersede in all respects all prior agreements between the Parties as it relates to the agreements contained herein between the District and the Town.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals, the mutual promises stated below and other valuable consideration, the Parties agree as follows:

Article I
Term

This Agreement, and performance of the duties called for herein by the SROs shall begin on July 1, 2022 and shall continue in effect through and including June 30, 2023, unless earlier terminated as provided in Article X of this Agreement.

Article II
SRO Program

A. Assignment of School Resource Officers

1. Upon execution of this Agreement, the Town shall initially assign one (1) school resource officer (“SRO” in the singular and “SROs” in the plural) to service the following schools:

Severance High School

Severance Middle School

Range View Elementary School

2. Upon hiring and training of an additional SRO, the Town shall assign a second SRO to service the schools referenced in Article II.A.1 above.

3. The school assignment can be set by mutual agreement of the SRO and the school principal, assuring a presence of the SRO between each of the schools. SROs shall be assigned to work with the administration, faculty, and students at the assigned school on the schedule as provided for in this Agreement.

4. The Town shall assign the duties of supervision of the SROs to the SRO Supervisor, who shall oversee the SROs and shall perform scheduled and non-scheduled visits to the schools. The SROs assigned pursuant to this Agreement will report to the SRO Supervisor. When practicable, during scheduled visits, the SRO Supervisor shall meet with the assigned SRO and school administrators and any staff designated by the principal.

5. The Town may, from time to time, reassign its employees and designate one or more replacement SROs at any time. The District reserves the right to request the removal or re-assignment of any SRO for any reasonable cause and upon written notice to Town as specified in Article VII.

6. If, during the term of this Agreement, any additional schools are annexed into the Town, come into existence, or are closed, then the existing SROs may be reassigned, and/or a new SRO may be appointed and assigned as determined by the SRO Supervisor in consultation with the District. As specified in Article IV, B., the Parties intend to exercise good faith in reaching agreements regarding the re-assignments of SROs and modifications of the funding terms of this Agreement as a result of the happening of one of the conditions specified herein.

7. SROs will not be assigned to Charter Schools in the District under the terms of this Agreement.

8. The SROs shall also respond to and handle non-emergency calls at other schools of the District where there is not an assigned SRO.

9. When practicable, the SRO Supervisor, the SRO and the District's Superintendent or his/her designee shall meet weekly at a time and location to be determined by the Parties to discuss problems, issues, and concerns about the SRO Program.

B. Regular Duty Hours of the SROs

1. The SROs shall be assigned to their primary schools on a full-time basis of eight (8) hours on those days and during those hours that the schools are in regular session in accordance with the calendar established by the Board of Education of the District, as amended from time to time. The primary purpose of the SRO Program is to provide services during normal school hours. However, the District may request that the SRO be assigned additional hours and/or days beyond the normal working hours. The principal(s) of the assigned school(s) and the SRO Supervisor may agree to adjust the working hours of the SRO; provided, however, that overtime hours are not worked. The Superintendent or his/her designee, in cooperation with the SRO Supervisor, may request assignments of SROs beyond the assigned contracted hours. If the Superintendent requests additional coverage from the SROs, subject to the availability of the SRO, then the Town may seek compensation or reimbursement for the additional cost associated with that coverage, if any.

a. The SRO may be temporarily assigned other duties by the Town during school holidays and vacations or during the period of a law enforcement emergency or law enforcement-related training as determined by the Town. The Parties agree that no compensation or refund of any funds provided in Article IV will be owed to the District during such temporary absence or temporary assignment of the SRO except as provided for in Article VII. D.

b. The SRO shall attempt to schedule vacations and floating holidays during periods when school is not in session. Any exception may be granted if approved by the SRO Supervisor after consultation with the principal of any affected school(s). Notwithstanding any provision to the contrary, the Parties agree that no compensation or refund of any funds provided in Article IV will be owed to the District during such approved vacations and floating holidays. The SRO Supervisor will rotate or temporarily reassign an existing remaining SRO associated with the SRO Program or provide a substitute SRO to cover the shortage at any assigned school affected by the SROs absence so that the assigned schools are not completely left without coverage. When a substitute SRO is required, the Town will assign the SRO who has previous experience as the SRO to the extent possible or an officer who is otherwise compatible for school environments. Whenever possible, the Town will utilize the same officers for substitute/replacement purposes so that there are not different officers every day.

2. Subject to Article II.B.1, the SRO shall work during the hours school is in session and coordinate his/her schedule with the school principal or his/her designee of the SRO's assigned school. When schools are closed due to in-service training, the SRO, if invited by the school administrators, may attend the in-service training or use those hours for SRO administrative duties.

C. Summer Duty of the SRO

The Parties shall meet within 30 days of execution of this Agreement to determine where the initial SRO will be assigned to provide services during the school period for year 2022. Upon hiring and training of an additional SRO, the Parties shall meet a mutually convenient date and time to determine the number of SROs that will be assigned to provide services during the 2023 school period. Notwithstanding any provision to the contrary, if fewer SROs are provided by the Town during the 2023 school period than what is called for in Article II of this Agreement, then the Town shall not be required to refund any funds paid by the District.

D. Duties of the SRO

1. The SRO shall wear Town-approved uniforms and drive a marked patrol unit in performance of the duties required by this Agreement. In the event the SRO is authorized to wear civilian clothes for a specific event, the SRO shall comply with the Severance Police Department dress code.

2. Subject to the SRO's discretion and law enforcement authority, the SRO shall take appropriate law enforcement action as requested by school administrators. The SRO may also take such other appropriate law enforcement actions as may be required by law or the Severance Police Department policy and must then notify the school administrator as soon as practicable of any violations or actions which impact school discipline, order or safety, or such other violations and actions as the District reasonably requests be reported. This may include interviewing suspects and victims of criminal violations, issuing summonses, and addressing traffic concerns. Should it become necessary to conduct formal law enforcement interviews with the students, the SRO shall adhere to District policy, regulations and guidelines, Severance Police Department policy, and legal requirements with regard to such interviews.

3. The SRO shall assist other SROs, if applicable, or law enforcement agencies in conducting investigations when requested or required.

4. The SRO shall develop teaching expertise and assist faculty in conducting specialized classes on such topics as the role of policing in the community, search and seizure, traffic laws, crime prevention, victims' rights, community involvement, and youth programs. In addition, the SRO shall encourage and participate in discussion during classes to establish rapport with students. Any additional areas of instruction or SRO participation in school activities must be mutually agreed upon by Severance Police Department, the SRO Supervisor, and the principal or his/her designee of the affected school.

5. The SRO shall seek permission, advice, and guidance from school administrators prior to implementing any program within the SRO's assigned school.

6. The SRO shall assist school administrators, staff, and faculty in developing emergency procedures and emergency management plans to include prevention and/or minimization of dangerous situations which may result from student unrest.

7. The SRO shall be familiar with and abide by all relevant District policies, regulations and guidelines related to safety, student conduct and discipline, including the District's Code of

Conduct except to the extent such policies, regulations, code and guidelines conflict with his/her responsibilities as a law enforcement officer.

8. The SRO shall assist administrators, faculty and staff with the investigation of any suspected violations of law occurring on District premises. It shall be understood and agreed that the SRO, as a law enforcement officer, can only detain or take into physical custody those students for whom there is reasonable suspicion or probable cause that such students have committed a criminal offense. The SRO shall not be assigned to lunchroom duties, hall monitoring or other campus monitoring duties, unless there is a specific problem, in which case, the SRO may assist the school with those duties until the problem is remedied.

9. The SRO shall seek to establish working relationships with student organizations, faculty, staff members, District administrators and community members. In addition, the SRO may attend parent, faculty, student, administration or other meetings to provide information regarding the SRO Program and provide opportunities for involvement and support.

10. The SRO shall coordinate enforcement efforts with campus supervisory personnel, including but not limited to campus supervisors, campus security officers, hall monitors, parking attendants and private security firm personnel.

11. The SRO shall maintain detailed, accurate and up to date records as required by the Severance Police Department, school administrators and central administrators of the District, and submit reports as requested.

12. The SRO shall work proactively with all law enforcement agencies that serve the District's community.

13. The SRO shall work proactively with students, parents and faculty regarding public safety and use problem solving teams and programs to address outstanding problems.

14. The SRO shall provide information and referrals regarding community programs to school administrators, staff, students, and parents so that appropriate assistance can be assessed. These programs may include but are not limited to mental health clinics, peer support, and drug treatment centers. The SRO may make referrals to community agencies and programs when necessary. The SRO shall refer students to the school or district counselor as needed. Referral guidelines shall be determined by the school administrator.

15. The SRO may attend, whenever possible, selected school functions as recommended by school administrators.

16. The SRO shall maintain the confidentiality of any information obtained pursuant to Title 19 of the Colorado Children's Code, and shall not disclose the information except as provided by law or court order.

17. The SRO shall maintain the confidentiality of District records and personally identifiable information in accordance with Parts 2 and 3, Article 72 of Title 24, Colorado Revised Statutes, the Family Educational Rights and Privacy Act of 1974 and its regulations, and District policies.

18. The SRO shall coordinate with and inform the District's Superintendent or his/her designee, of investigations and cases which have a significant impact on a school or the District, or other such matters as are designated by them or as required by law.

19. The SRO shall perform other duties which will promote the goals of the SRO Program and which are mutually agreed upon by the District and the Town.

E. Training

1. Basic SRO training shall be provided to all new SROs prior to beginning assignment as the SRO, or as soon as reasonably possible. Basic SRO training may be obtained through the Colorado Association of SROs, the National Association of SROs or any other organization which provides similar training. The Town shall be responsible for the payment of all expenses associated with the SRO training.

F. Records.

All records of police reports and citations associated with the SRO duties will be maintained by the Severance Police Department and will comply with the school reporting requirements set forth in § 22-32-146, C.R.S.

ARTICLE III
Facilities and Equipment

A. Facilities and Equipment

The District shall provide to each full-time SRO the following equipment and facilities, which are deemed necessary to the performance of the SRO's duties under this Agreement:

1. The District's Superintendent or his/her designee in consultation with the principal at each assigned school shall designate an office space at each assigned school for the exclusive use by the SRO. The designated office space shall be available to the assigned SROs at all times when the school is open for educational or extracurricular activities. In addition, the District shall make reasonable effort to accommodate the SROs' needs to use such designated space at other hours when the school building may not otherwise be open in furtherance of the duties required of the SRO under this Agreement. Except in emergency circumstances, the District shall provide SRO at least seventy-two (72) hour notification if the portion of the building allocated herein to SRO becomes temporarily unavailable.

2. For purposes of this Agreement, SRO is deemed a "school official" with whom the District may share any records that are deemed necessary by the District for use by the SRO in connection with the SRO Program. Confidentiality of the records shall be maintained by the SRO pursuant to state law, District and Severance Police Department policies.

3. The District shall provide for the use of each SRO a desk and any necessary office furniture, a computer and access to a printer. These items shall be paid for and maintained by the District.

B. Maintenance of Facilities and Equipment

All Town or District equipment and facilities, including vehicles, utilized by the SROs or SRO Supervisors in connection with the SRO Program shall be maintained by and at the expense of the respective owners of such equipment.

C. Effect of Termination

In the event this Agreement is terminated, any Town or District facilities or equipment utilized in connection with the SRO Program shall be returned to or retained by the respective owners.

ARTICLE IV
Financing the SRO Program

A. Payment and Payment Estimates

In consideration of the Town providing SROs for the SRO Program, the District shall fund fifty percent (50%) of the employment costs for the SRO initially assigned to the SRO Program annually, and twenty-five percent (25%) for the employment costs for the second SRO assigned after January 2023 to the SRO Program for the term of this contract. A “working day” includes all days school is in session, school vacations, school holidays, and some employee training and leave days. The District shall pay to the Town on a quarterly basis the amount that is equal to fifty percent (50%) of the previous quarter’s employment costs incurred by the Town for each SRO assigned to the SRO Program. Payments shall be made by January 1, April 1, July 1, and October 1 during the term of this Agreement. The Town shall provide the District written notice as to the quarterly amount due thirty (30) days before the payment deadline. By no later than February 1 of each year this Agreement is in effect, the Town shall make reasonable efforts to estimate its costs associated with the SRO Program for which the District will have to pay its proportionate share and will notify District of such amount for the District’s budgetary considerations.

B. Modification of Funding

In the event circumstances and requirements of either Party changes, the District and the Town shall work in good faith, pursuant to Article XI to reach an agreement about future assignments, funding and the number of SROs assigned to the SRO Program. Pursuant to Article VIII, any adjustments shall be taken into consideration in determining the Parties’ fiscal obligations. The District’s proportionate share of funding shall remain as indicated in Subsection A.1. of this Article.

ARTICLE V
Employment Status of SRO

A. SRO Employment Status

It is expressly understood that, at all times during the term of this Agreement, the SROs and SRO Supervisor are employees of the Town. The District and Town acknowledge that the SRO is a law enforcement officer under the direct supervision of the Severance Police Department. The SRO shall remain responsive to the chain of command of the Severance Police Department. SROs shall not represent that they are employees or agents of the District in any capacity.

B. Compliance with Employment Laws

The Town will be responsible for providing SROs with payment of wages, health care benefits, and workers' compensation insurance (including occupational disease). The Town will comply with all withholding taxes, social security, unemployment, workers' compensation, and/or other federal, state and local employment taxes and other requirements of federal, state or local laws, regulations, rules, and ordinances. To the extent permitted by law, the Town shall indemnify and hold the District harmless from and against any and all claims for same.

C. Supplies and Equipment Provided by Town

The Town shall provide the SROs with all supplies and equipment as are normally issued by the Town to law enforcement officers to be used by the SROs in performance of the duties required under this Agreement.

D. Disciplinary Action

The Town, at its sole discretion, will be responsible for taking any necessary or appropriate disciplinary action against any SRO or SRO Supervisor. In exercising these responsibilities, the Town shall consult with the District. The District will provide input and feedback to the SRO and the SRO's Supervisor and shall participate in reviews, evaluations and planning for particular SRO positions. The District shall regularly advise the Town of the SRO's work performance and shall immediately report to the Town any instances of alleged misconduct or discrimination. The District shall make its employees available as witnesses in any Town-conducted disciplinary or termination proceeding or workplace investigation.

ARTICLE VI
Appointment of the SROs

A. SRO Personnel Board Review

The SRO Personnel Board shall recruit, interview, and evaluate SRO applicants and shall forward to the Chief of Police or his/her designee a list of applicants who meet the requirements below and who have received a favorable recommendation by the SRO Personnel Board based on all the requirements and criteria listed below. Such recommendations shall be made only upon a majority vote of the SRO Personnel Board. The SRO Personnel Board shall consist of at least two representatives from the district, one member from the Severance Police Department, one member of Town Management or their designee, and at least one student enrolled in a school of the District.

B. Applicant Requirements

SRO applicants must satisfy all of the following requirements:

1. The applicant must voluntarily seek the SRO position and must indicate a willingness to hold the position for three (3) years.
2. The applicant must be a full-time peace officer, as defined by C.R.S. §16-2.5-101, with a minimum of three (3) years of law enforcement experience.
3. The applicant must be employed as a police officer with the Severance Police Department.
4. The applicant must indicate a willingness that if appointed to the SRO position, he/she will not accept a transfer or promotion from the position until the end of a semester and that he/she will not schedule time off for vacations and floating holidays during periods when school is in session except as provided for in Article II.B.1.(b).

C. Other Considerations

The SRO Personnel Board shall also consider job knowledge, experience, training, education, attitude, communication skills, prior service as an SRO, prior training, education or experience with youth.

D. Application Review

The SRO Personnel Board shall forward a list of recommended applicants to the Chief of Police or designee, who shall appoint officers as SROs at his/her sole discretion from the recommended list of applicants in consultation with the District's Superintendent or designee.

ARTICLE VII

Dismissal, Reassignment, Retirement or Resignation of SROs; Replacement

A. Removal of SRO

In the event the school administrator to which the SRO is assigned believes that the SRO is not effectively performing his/her duties and responsibilities, the administrator shall first speak with the SRO to clearly outline the responsibilities and expectations. Should the school administrator continue to be dissatisfied with the performance of the SRO, the school administrator may recommend in writing to the District's Superintendent or designee, that the SRO be removed from the SRO Program. The Superintendent or designee shall review the reasons provided by the school administrator for the recommendation of removal of the SRO, and then he/she shall advise the Chief of Police or designee within ten (10) business days. The Chief of Police or designee may elect to meet with the Superintendent or designee and the SRO to mediate or resolve any issues that may exist. At such meeting, specified school staff members may be requested to be present. If the issues cannot be resolved within a reasonable period of

time after the mediation, or if mediation is not sought by the Chief of Police or his designee, then the SRO shall be dismissed from the SRO Program.

B. Reassignment

The Chief of Police or designee may dismiss or reassign the SRO or SRO Supervisor from the SRO Program at any time based upon Town or department rules, regulations, policies or directives, or when it is in the best interests of the Town as determined by the Chief of Police. Any vacancy in the SRO Program created by such dismissal or reassignment shall be filled in the manner described in Subsection D of this Article.

C. SRO Transfers, Promotions

The SRO or SRO Supervisor may be transferred or promoted from his/her SRO position during the school year at the discretion of the Chief of Police or designee with adjustment to the Parties' financial obligations set forth in Article IV. SROs requesting a transfer to another position must do so at the end of the school year or semester, unless alternative timing of a particular request is agreed upon by the Town and the District. The SRO must make such request in writing. Transfer request decisions shall be made at the discretion of the Chief of Police or designee. Any vacancy created by such transfer or promotion shall be filled in the manner described in Subsection D of this Article.

D. Effect of SRO Vacancy

In the event of resignation, dismissal, promotion, retirement, rotation or transfer of the SRO, or in the case of long-term absences due to injury, illness, disability or other cause of more than thirty (30) calendar days, the Town shall provide a replacement for the SRO within thirty (30) calendar days of receiving notice of such absence, dismissal, resignation, promotion, retirement, rotation or transfer. When a replacement SRO is required, the Town will assign SROs who have previous experience as an SRO to the extent possible or an officer who is otherwise compatible for school environments. If such replacement cannot be provided within the thirty (30) day timeframe due to personnel and staffing constraints of the Severance Police Department, the Chief of Police or designee may, with adjustment to the Parties' financial obligations per Article V, temporarily reallocate the school assignments of any existing SRO to ensure that, , the high school is assigned an SRO and the SRO Program is assigned a SRO Supervisor. Any reallocation of assignments shall be done in consultation with the District. As soon as practicable, the SRO Personnel Board shall recommend a permanent replacement for the vacated SRO position. Should the vacancy or temporary assignment continue for longer than thirty (30) calendar days, the Parties agree to negotiate, pursuant to Article VIII, an adjustment of the District's financial contribution for the previous quarter. The Parties intend to return the SRO Program to full staffing as soon as practicable. The Parties' financial obligations pursuant to Article IV shall be adjusted for all days there is a vacancy in the SRO position.

ARTICLE VIII
Evaluation

Effectiveness of the SRO Program shall be evaluated annually by the Parties to determine if any modifications to the SRO Program are necessary or advisable. The evaluation shall include, where appropriate, compliance with the terms and conditions of this Agreement, identification of issues or problems and recommendations for improvement, and assessment of quality of services provided. This evaluation is critical to continue a successful program and the Parties agree to invest sufficient time and effort in the evaluation process. The Parties shall also evaluate the financial obligations of each Party and make adjustments as necessary to continue the SRO Program.

ARTICLE IX **Appropriations**

All obligations of the Parties under this contract are solely from currently budgeted funds and this Agreement does not constitute a multiple fiscal year obligation of the Parties. The obligations of each party under this Agreement payable after its respective current fiscal year are contingent upon adequate funds for that purpose being budgeted, appropriated and otherwise made available. All financial obligations of the Parties, including but not limited to the funding obligations of Article IV, are subject to budgeting and the annual appropriation of such funds by the governing body of each party each fiscal year. The Parties shall follow respective internal policies and procedures relative to the renewal of this Agreement.

ARTICLE X **Termination of Agreement**

A. Termination for Material Breach

Subject to Article XI, this Agreement may be terminated by any Party upon material breach by the other Party of any term or condition of this Agreement if such breach continues for a substantial and unreasonable period of time, but in any event, if the breach is continued for a period of ninety (90) days after receipt by the breaching party from the non-breaching party of written notice of the existence of such breach. Once either Party has received written notice of breach, the Parties will first abide by the terms of Article XI. Termination of this Agreement shall not, however, be the sole remedy of any Party and any exercise of this right to terminate shall not preclude the pursuit of any other remedy available in law or in equity to the non-breaching parties.

B. Termination for Non-appropriation

If either Party fails at any time to appropriate the funds necessary to comply with the requirements under Article IV of this Agreement, or if the District fails to timely pay the funds required under Article IV to the Town, the Town may terminate this Agreement upon giving the District thirty (30) days written notice. Upon such termination, the District shall pay for all SRO services provided by the Town under Article IV, Subsection B prior to the date of termination. The Parties shall thereafter have no further obligations under this Agreement.

C. Force Majeure.

Notwithstanding anything to the contrary, in the event of, and to the extent that fire, flood, earthquake, natural catastrophe, explosion, accident, war, illegality, act of God, or any other cause beyond the control of either Party, or labor strikes prevents or delays performance by either Party to this Agreement and any addendum, such Party shall be relieved of the consequences thereof without liability, so long as and to the extent that performance is prevented by such cause.

ARTICLE XI

Good Faith

The Parties, their agents and employees agree to cooperate in good faith in fulfilling the terms of this Agreement. The Parties agree that they will attempt to resolve any disputes concerning the interpretation of this Agreement and unforeseen questions and difficulties which may arise in implementing the Agreement by good faith negotiations before resorting to termination of this Agreement and/or litigation.

ARTICLE XII

Indemnification

To the extent permitted by applicable law, Town shall indemnify and hold District, including but not limited to its employees, agents, board members, officers, and representatives, harmless from and against all claims, liabilities, damages, losses, and expenses, including attorneys' fees, arising out of this Agreement or resulting from the performance of the duties by SROs or SRO Supervisor as required hereunder, to the extent that such claims, liabilities, damages, losses and expenses are proximately caused in whole or in part by any negligent or intentional act or omission or breach of contract of the SROs, SRO Supervisor, or another employee or agent of Town. This indemnification duty shall survive termination of this Agreement.

ARTICLE XIII

Notices

Any and all notices or any other communication required or permitted shall be deemed to have been given when personally delivered or deposited in the United States postal service as regular mail, postage prepaid, and addressed as follows or to such other person or address as a Party may designate in writing to the other Party:

To the District:

Superintendent of Schools
Weld RE-4
1020 Main St.
Windsor, CO 80550

President
Weld RE-4 Board of Education
1020 Main St.
Windsor, CO 80550

To the Town:

Chief of Police
Severance Police Department
209 1st Street
Severance, CO 80546

Town Manager
Town of Severance
3 S. Timber Ridge Parkway
Severance, CO 80550

ARTICLE XIV
Modification

This document constitutes the full understanding of the Parties, and no term, condition, understanding or agreement purporting to modify or vary the terms of this Agreement shall be binding unless in writing signed by both Parties.

ARTICLE XV
Non-Assignment; No Third Party Beneficiary

This Agreement, and each and every covenant within, shall not be capable of assignment except with the prior written consent of both Parties. This Agreement is not intended and shall not create any duty to any student, teacher, District employee, parent or any other person, firm or entity with regard to the provision of any law enforcement services, security, level of safety, or activities undertaken by the SROs or conditions resulting therefrom. No student, teacher, District employee, parent or other person, firm or entity shall be granted or have any private right of action, claim or civil liability remedy against the Town or the District, or their respective officers, employees or agents, by virtue of this Agreement. Nothing in this Agreement shall be construed to create any liability, or to waive any of the immunities, limitations on liability or other provisions of the Governmental Immunity Act, §24-10-101 *et seq.*, C.R.S., or to waive any immunities or limitations on liability otherwise available to the Town, the District, or their officers, employees or agents.

ARTICLE XVI
Merger

This Agreement constitutes a final written expression of all the terms of this Agreement and is a complete and exclusive statement of those terms.

ARTICLE XVII
Counterparts

This Agreement may be signed in counterparts, and each counterpart shall be deemed an original, and all the counterparts taken as a whole shall constitute one and the same instrument.

ARTICLE XVIII
Supersedes Previous Agreement

This Agreement replaces and supersedes all prior SRO Agreements between the District and the Town.

ARTICLE XIX
Severability; Headings

In the event this Agreement or any material provision hereof shall be declared to be invalid, unenforceable, or in violation of any applicable federal, state or local laws or regulations, the Parties will immediately begin negotiations to modify or amend this Agreement in order that this Agreement shall, as amended, express and contain the understanding and intentions of the Parties. The subject heading of the paragraphs of this Agreement are included for purposes of convenience only, and shall not affect the construction or interpretation of its provisions.

WHEREFORE, the parties set their hands and seals to the within Agreement upon the date first-stated above.

WELD COUNTY SCHOOL DISTRICT RE-4
BOARD OF EDUCATION

ATTEST:

By: Russ J. Saut
President

[Signature]
Secretary

TOWN OF SEVERANCE, COLORADO

ATTEST:

[Seal]

Mayor

Town Clerk



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
East Harmony Road WCR 19 Intersection Control Analysis	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner
ACTION REQUESTED		
Community Development, Engineering, and Town Management ask that the Severance Town Council review, discuss, and take action on the E. Harmony Road/ Weld County Road 19 Intersection Control Analysis. Actions that may be taken: 1. Direct Town Staff to move forward with the traffic signal at the intersection and allow Town Manager to manage. 2. Direct Town Staff to move forward with the roundabout at the intersection and allow Town Manager to manage. 3. Take no action		<u>Discussion</u> <u>Action Requested</u>
BRIEF SUMMARY		
Within the Severance Transportation Master Plan, it outlines that at intersections with planned traffic signals, an Intersection Control Analysis (ICA) should be performed during the conceptual design. The ICA would involve an analysis of a roundabout and a traffic signal. The ICA should include a 5-step process, which would screen and evaluate alternatives to determine the best possible intersection type and design. • Provide Background and Project Needs • Review Feasibility • Perform Analysis • Perform Benefit/Cost Analysis • Select Preferred Alternative Tonight a draft ICA is included for the E. Harmony Road/WCR 19 intersection improvements.		
PUBLIC SUPPORT/CONCERN		
Residents have reached out to Town staff and Town Management regarding safety at this intersection and have expressed the desire for improvements to be made.		
ANALYSIS AND RECOMMENDATION		
Community Development, Town Engineering, and Town Management recommend that the Town Council review, discuss, and direct Town staff to move forward with a traffic signal for the E. Harmony Road & WCR 19 Intersection Improvements project, and allow the Town Manager to manage.		
MATERIALS SUBMITTED		

The following materials were submitted and included in this packet:

1. E Harmony Rd & WCR 19 ICA - DRAFT

Intersection Control Analysis
For
E Harmony Rd & WCR 19 Intersection Improvements
Town of Severance, Colorado

May, 2022

Prepared for:

Town of Severance, Colorado

3 S. Timber Ridge Parkway

Severance, CO

Town Planner: Abdul Barzak

(970) 686-1218

Town Engineer: Chris Messersmith, P.E.

(970) 278-0029

Prepared by:

Drexel, Barrell & Co.

1800 38th Street

Boulder, Colorado 80301

Contact: Derek Schuler, P.E., PTOE

(303) 442-4338

DBC Project No: 21638-00BLTR

Town of Severance Project No:

0042.0510.00 HER-WCR1911

1. BACKGROUND AND PROJECT NEEDS

This report is prepared to summarize the potential traffic impacts of the **E Harmony Rd & WCR 19 Intersection Improvements (Project)**.

This report, prepared by Drexel Barrell & Co. (DBC) for the Town of Severance Planning Department, analyzes the potential intersection improvements by constructing a signalized intersection or a two-lane roundabout.

A. PROJECT LOCATION

The Project is located in the Town of Severance (Town), as part of Weld County, at the intersection of E Harmony Rd (WCR 74) and Weld County Road 19 (WCR 19). The project location is identified on the Project Limits Map below.



B. PROJECT DESCRIPTION

The Project is an intersection improvement that will either include the installation of a traffic signal or construction of a roundabout. The approaching roadways are expected to be widened in the next 5-10 years to provide two lanes in each direction.

C. STUDY SCOPE

The study evaluates the potential traffic impacts from installing either a traffic signal or two-lane roundabout for future horizon years. The analysis of future year traffic forecasts is based on projected conditions in years 2027 and 2032 (short range conditions), and projected conditions in year 2040 (long range future conditions) for both the signalized and roundabout layouts. The following transportation scenarios were analyzed for the AM and PM peak hours:

- **Existing Conditions**

The analysis of existing traffic conditions provides a basis for the remainder of the study. Peak hour traffic counts were conducted by All Traffic Data Services (ATD) on Wednesday, May 4, 2022 (See Appendix).

- **Traffic Signal – 2027, 2032 and 2040 Future Conditions**

Traffic conditions are projected for future years using 5% growth for thru movements and 2% growth for left/right movements to/from WCR 19. These projections are used to analyze the signalized intersection in the future horizon years.

- **Two Lane Roundabout – 2027, 2032 and 2040 Future Conditions**

Traffic conditions are projected for future years using 5% growth for thru movements and 2% growth for left/right movements to/from WCR 19. These projections are used to analyze the two-lane roundabout in the future horizon years.

2. REVIEW FEASIBILITY

ROADWAY NETWORK

The primary roadways are described below. Roadway designations were provided in the June 22, 2021, *Severance Transportation Plan*.

E Harmony Road – This is an east-west two-lane roadway. There are paved shoulders on both sides of Harmony Road. The speed limit is posted at 55 mph with advisory speeds of 50 mph due to curvature in the roadway. It is identified as a Major Arterial (Rural Corridor) and is planned to be widened to a four-lane arterial within 1-5 years.

WCR 19 – This is a two-lane north-south county road. There is a narrow unpaved shoulder. This roadway is identified as a Major Arterial (Rural Corridor). The speed limit is posted at 35 mph for the north-bound lane approaching the stop-controlled intersection and at 45 mph for the south-bound lane. WCR 19 is planned to be widened to a four-lane arterial within 5-10 years.

CONCEPTUAL IMPROVEMENTS

Traffic Signal – The layout for the proposed traffic signal with ultimate roadway is shown on sheet 3 of the conceptual plans in Appendix. The existing ROW along E Harmony Rd is 140' wide which provides sufficient room for the future major arterial (rural corridor) section. There may be grading easements required in the southwest and southeast corners of the intersection because of the right-turn auxiliary lanes. This will need to be further evaluated with progress of the design.

The actual proposed option for this project will be the interim signal design for current roadway geometry. The signal poles would be installed at the locations shown to provide adequate room for the future four-lane arterial. The interim roadway layout is shown on sheet 1 of the conceptual plans. This layout would require widening for the NB right-turn lane since the traffic pole would be installed in a channelized (pork-chop) island in the southeast corner. This interim layout would be able to be constructed with

minimal traffic impacts only requiring the NB right-turn lane and WB shoulder to be closed for the installation of signal poles and the channelized island.

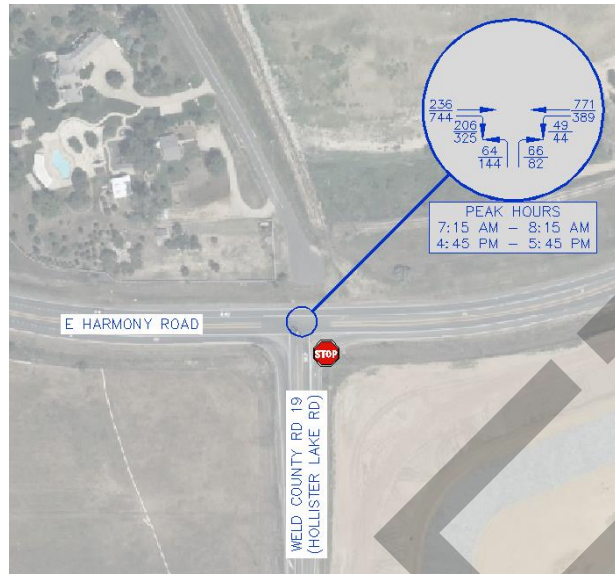
Two-Lane Roundabout – Two lanes are needed within the roundabout from a traffic standpoint as discussed in the next section. The proposed layout is shown on sheet 2 of the conceptual plans. This conceptual layout shows the roundabout tying into the ultimate four lane roadways. If selected, the design for this option would be advanced to show proper connections to the existing roadways. The existing ROW along E Harmony Rd is 140' wide which would be insufficient for the two-lane roundabout. The diameter of the inscribed circle would be approximately 150' and additional easements/ROW would be needed for grading tie-ins.

An interim single-lane roundabout is not considered due to construction traffic control issues. To maintain two-way traffic on both roadways during construction, the larger two-lane roundabout is needed. The construction of a single-lane roundabout would require long term construction zones to build this roundabout in multiple phases with lane/shoulder closures creating narrow roadways and causing long delays. The option for a full road closure during critical construction phases is not feasible as the shortest detour would create an additional five miles of travel per vehicle.

3. PERFORMANCE ANALYSIS

EXISTING TRAFFIC CONDITIONS

Existing intersection operations were evaluated for both the morning and evening peak hours. Intersection count data and daily counts were conducted by All Traffic Data Services (ATD) on Wednesday, May 4, 2022. The intersection turning movement count data is included in Appendix. The resulting peak hour turning movement volumes are provided in the figure below:



Using TrafficWare Synchro software, the weekday AM and PM peak hour intersection operations were determined. The results are provided in Table 1 shown below. The Severance Transportation Plan identifies LOS A through D as acceptable. As shown in the table, the northbound left-turn is experiencing very long delays with a LOS D in the AM peak hour and LOS F in the PM peak hour. A traffic signal warrant analysis was previously conducted by JR Engineering in June 2021. It was determined that the intersection of E Harmony Rd and WCR 19 meets the 8-hour, 4-hour, peak hour, and roadway network warrants.

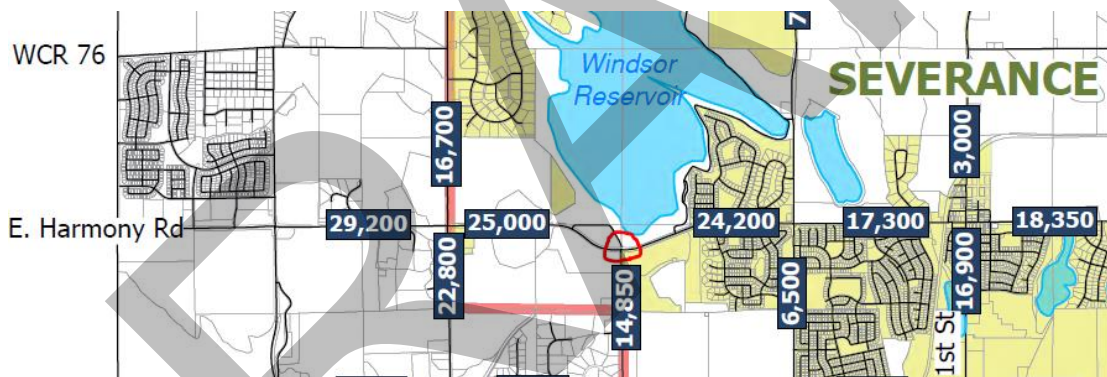
Table 1 Existing Level of Service Analysis / Average Delay in Seconds				
Intersection	Movement	Control	2022	
			AM	PM
E Harmony Rd/ WCR 19	Intersection	Stop	A	B
	EB		A/0.0	A/0.0
	WBL		A/7.9	A/7.9
	NBL		D/33.1	F/120.2

FUTURE TRAFFIC PROJECTIONS

Future traffic conditions were analyzed for both the Traffic Signal and Roundabout configurations. The projected future counts for Year 2027, Year 2032 and Year 2040 were determined by applying an annual compounding growth rate to the existing traffic counts. An annual compounded growth rate of 5% was used for thru traffic on E Harmony Rd and a growth rate of 2% was used for left/right turn movements to and from WCR 19. The resulting traffic projections are shown below:



The projected 2040 Average Daily Traffic (ADT) counts from the *Severance Transportation Plan* are provided in the illustration below. The second image shows projected ADT from this study in vehicles per day (vpd).



FUTURE ADT PROJECTIONS*			
	HARMONY RD West Leg	HARMONY RD East Leg	HOLLISTER LAKE RD South Leg
2027	20,222	16,202	6,768
2032	25,809	20,678	7,473
2040	38,132	30,551	8,755

*5% Growth for E Harmony Rd

*2% Growth for WCR 19

Consideration for six-lane roadways is typically done above 25,000 vpd. Further discussion is needed but having 6 lanes for the west leg only may be advised.

A Synchro analysis was done using the projected traffic counts to determine the weekday AM and PM peak hour intersection operations for the proposed future conditions. The signalized intersection was modeled as a four-lane arterial including auxiliary lanes for the EB right-turn (free), NB right-turn (free), NB dual left-turn, and WB left-turn movements. The roundabout was modeled as a four-lane arterial with two circulatory lanes. The results are provided in Table 2 shown below:

Table 2 Future Level of Service Analysis / Average Delay in Seconds								
Intersection	Movement	Control	2027		2032		2040	
			AM	PM	AM	PM	AM	PM
E Harmony Rd/ WCR 19	Intersection	Signalized	B	B	B	B	B	C
	EB		B/14.0	B/15.7	B/12.5	B/16.3	B/10.7	D/36.8
	WB		B/12.3	A/8.7	B/11.8	A/8.1	B/16.5	A/8.7
E Harmony Rd/ WCR 19	NBL		B/12.0	B/17.3	B/16.8	C/22.4	C/26.3	C/28.1
	Intersection	Roundabout	A	B	B	C	E	F
	EB		A/6.0	B/13.4	A/6.7	C/21.9	A/8.5	F/103.6
	WB		B/10.1	A/6.8	B/14.3	A/8.1	F/54.8	B/11.9
E Harmony Rd/ WCR 19	NB		A/5.0	B/11.4	A/5.5	C/16.6	A/6.7	F/57.3

As shown in the table, the signalized intersection operates with an acceptable LOS through the year 2040. Only the EB thru lanes in the 2040 PM peak hour fall to a LOS D, which is still acceptable according to the Severance Transportation Plan.

The two-lane roundabout operated at an acceptable LOS in the short-range outlook through year 2032. However, the intersection operates at LOS E in the AM and LOS F in the PM peak hours in the year 2040. These are unacceptable operations as they would create very high delays and long queues.

The 2040 traffic was also analyzed using an alternate signal timing of 120 second cycle length rather than 90 seconds which was used in main analysis summarized in table 2.

The results for 120 second cycle length are shown below in table 3:

Table 3 Future Level of Service Analysis / Average Delay in Seconds				
Intersection	Movement	Control	2040	
			AM	PM
E Harmony Rd/ WCR 19	Intersection	Signalized 120 sec cycle	B	B
	EB		A/9.0	B/17.9
	WB		B/11.9	A/7.0
E Harmony Rd/ WCR 19	NBL		D/35.1	D/41.8

This change in the cycle length results in a better intersection performance overall by increasing the green time for the east-bound and west-bound movements. However, this does have a negative impact on the north-bound left turn movement, changing

from LOS C to LOS D. The proposed dual left turn lanes for this movement do allow for larger volumes to clear intersection each cycle.

The Synchro reports are in the Appendix. The reports show the LOS data and also include a queuing analysis. The first image below shows the Traffic Signal 2040 (120s Cycle) PM queue lengths. The second image shows the roundabout 2040 PM queue lengths. Note how far back the west leg queue extends.



CRASH ANALYSIS

DBC has received and reviewed a crash report for this intersection provided by Weld County. The report was generated using software and database from DiExSys (see Appendix). Records from mid-2015 through mid-2020 were available for analysis. The report demonstrates that this intersection is a good candidate for improvements based on crash reduction potential. The Safety Performance Functions show the current intersection is operating at level where any improvements are likely to make a big difference.

Both the traffic signal and roundabout offer significant crash reduction potential for this intersection. Specifically, Broadside and Approach/Overtaking Turn crash types can be reduced with both options. The report indicates greater than 90% probability of crash reduction potential for both types. Of the 18 total crashes identified, 10 involved a vehicle making a left turn. Both options are known to improve left turning safety conditions.

The roundabout typically is considered a better device for crash reduction, although only slightly for this intersection. This intersection contains only 3 legs with less conflict points than a four-leg intersection. Traffic signals, unlike roundabouts, have a general trend of increasing Rear-end type crashes. The crash report indicated less than a 30% crash reduction potential for this type and currently not a primary concern. Finally, there were no patterns found indicating a problem with roadway alignment or sight distance. Only 1 of 18 crashes was outside of the road pavement.

4. BENEFIT/COST ANALYSIS

A conceptual plan level construction cost estimate was developed for both the traffic signal and roundabout options. The estimate is included in the Appendix and provides a cost of \$407,000 for the interim traffic signal and \$754,000 for the two-lane roundabout. The interim traffic signal will have poles placed in same location that will work for the ultimate roadway alignment. The signal mast arms will be sized to

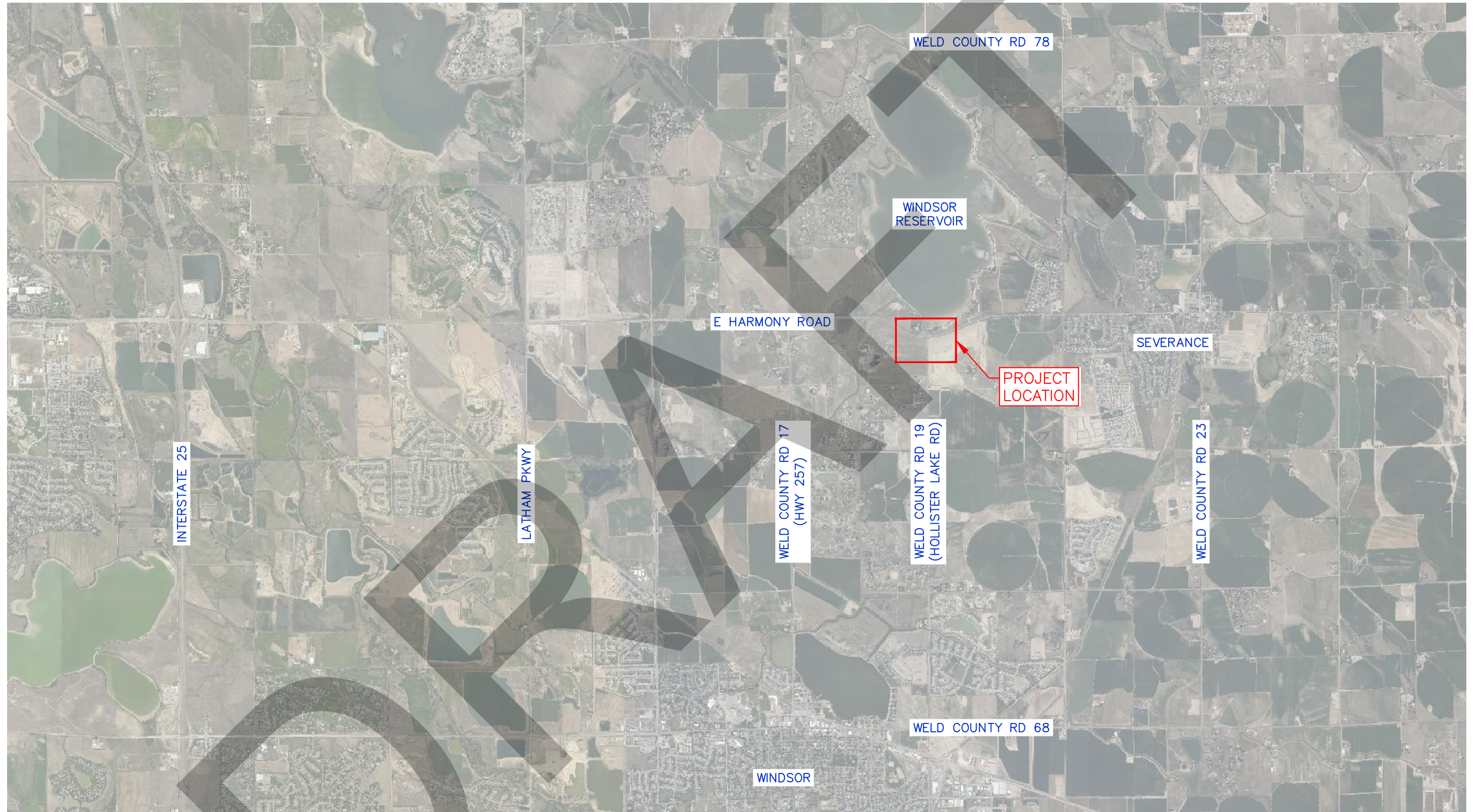
accommodate the appropriate length and additional signal heads for the ultimate alignment. The two-lane roundabout is intended to serve both the interim and ultimate roadway alignment conditions. Both options assume that future capital improvement projects will provide for the lane widening on both roads approaching the intersection. Generally, the traffic signal option will have the higher Benefit/Cost value as it provides the best LOS and lowest cost.

5. PREFERRED ALTERNATIVE

The installation of a traffic signal at the intersection of E Harmony Rd and WCR 19 would provide better traffic operations than the two-lane roundabout through the horizon year 2040. The traffic signal is also preferred over the roundabout because of lower construction costs. A two-lane roundabout (instead of single lane) is needed with initial construction to avoid long traffic detours/congestion during construction. A traffic signal at this intersection provides better continuity with the rest of the roadway network as this would be the only roundabout on E Harmony Rd if it were constructed.

Appendix:

- Traffic Figures
- Conceptual Plans
- Cost Estimate
- Synchro Reports
- Traffic Counts
- Crash Software Analysis



VICINITY MAP
E HARMONY ROAD & WCR 19 INTERSECTION IMPROVEMENTS - TRAFFIC STUDY
SEVERANCE, COLORADO

Drexel, Barrell & Co. Engineers • Surveyors		
DATE:	5/12/2022	DWG. NO.
JOB NO:	21638-00	FIGURE 1



NOTES:
TRAFFIC COUNTS CONDUCTED WEDNESDAY, 5-4-2022

LEGEND:

- X,XXX = 24 HOUR TRAFFIC VOLUME
- ← = LANE MOVEMENT
- XXX
XXX = WEEKDAY AM/PM
PEAK-HOUR TRAFFIC
- STOP = STOP SIGN

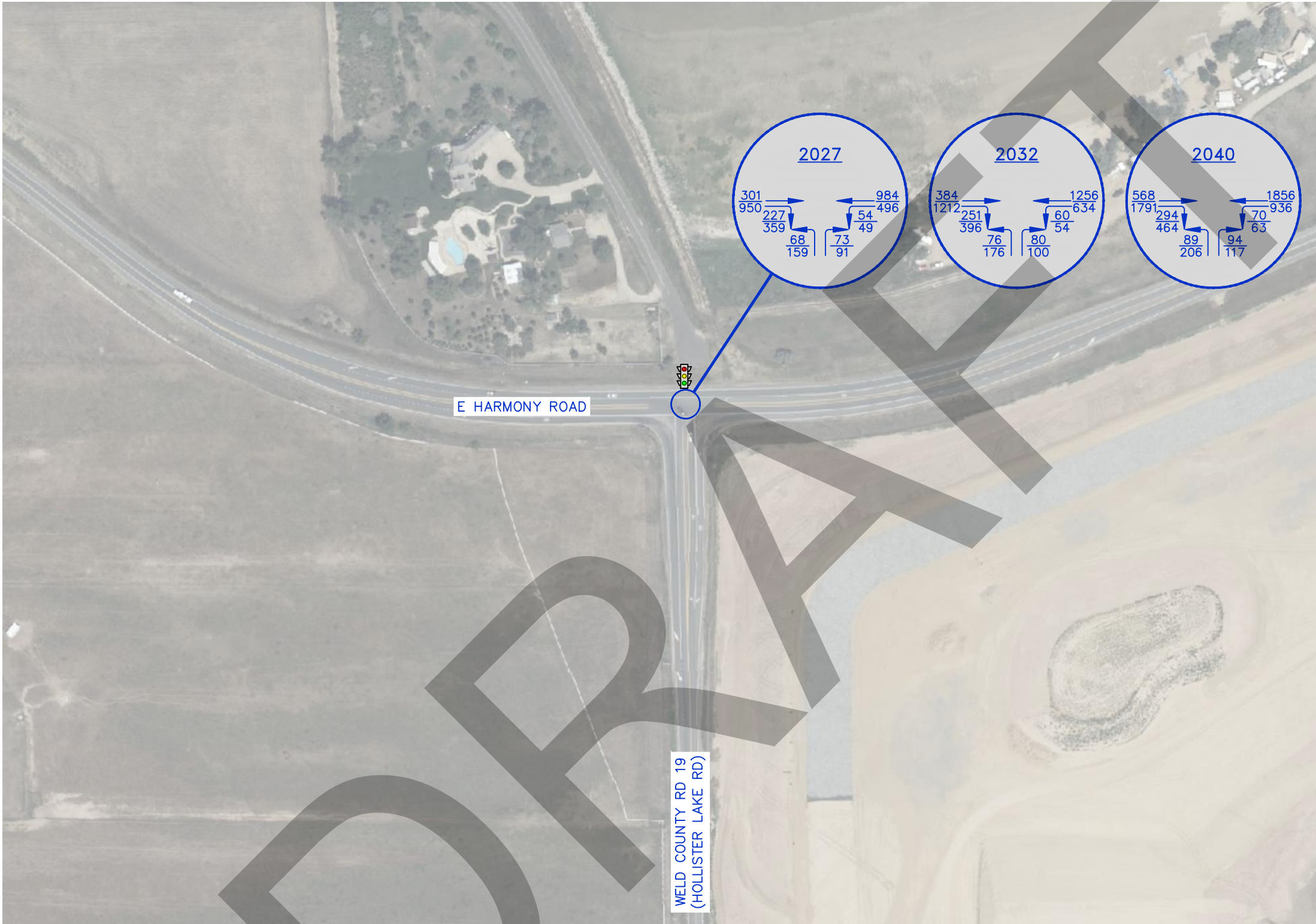


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2022 EXISTING TRAFFIC
E HARMONY ROAD & WCR 19 INTERSECTION IMPROVEMENTS - TRAFFIC STUDY
SEVERANCE, COLORADO

Drexel, Barrell & Co.
Engineers • Surveyors

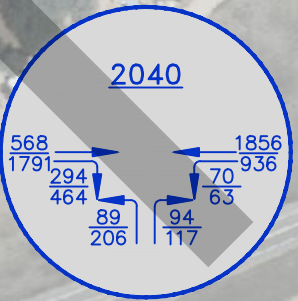
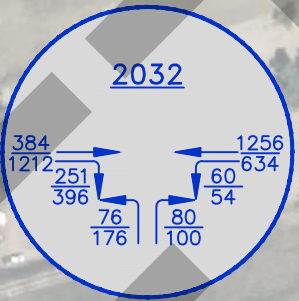
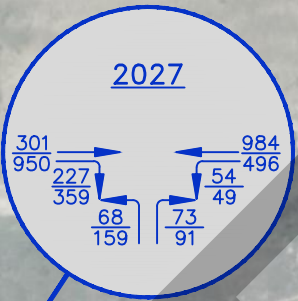
DATE: 5/12/2022	DWG. NO. FIGURE 2
JOB NO: 21638-00	



NOTES:
TRAFFIC COUNTS CONDUCTED WEDNESDAY, 5-4-2022
PROJECTED GROWTH RATE OF 5% USED FOR THRU MOVEMENTS AND 2% USED FOR LEFT AND RIGHT TURN MOVEMENTS

LEGEND:

- X,XXX = 24 HOUR TRAFFIC VOLUME
- ← = LANE MOVEMENT
- XXX
XXX = WEEKDAY AM/PM
PEAK-HOUR TRAFFIC
- = TRAFFIC SIGNAL



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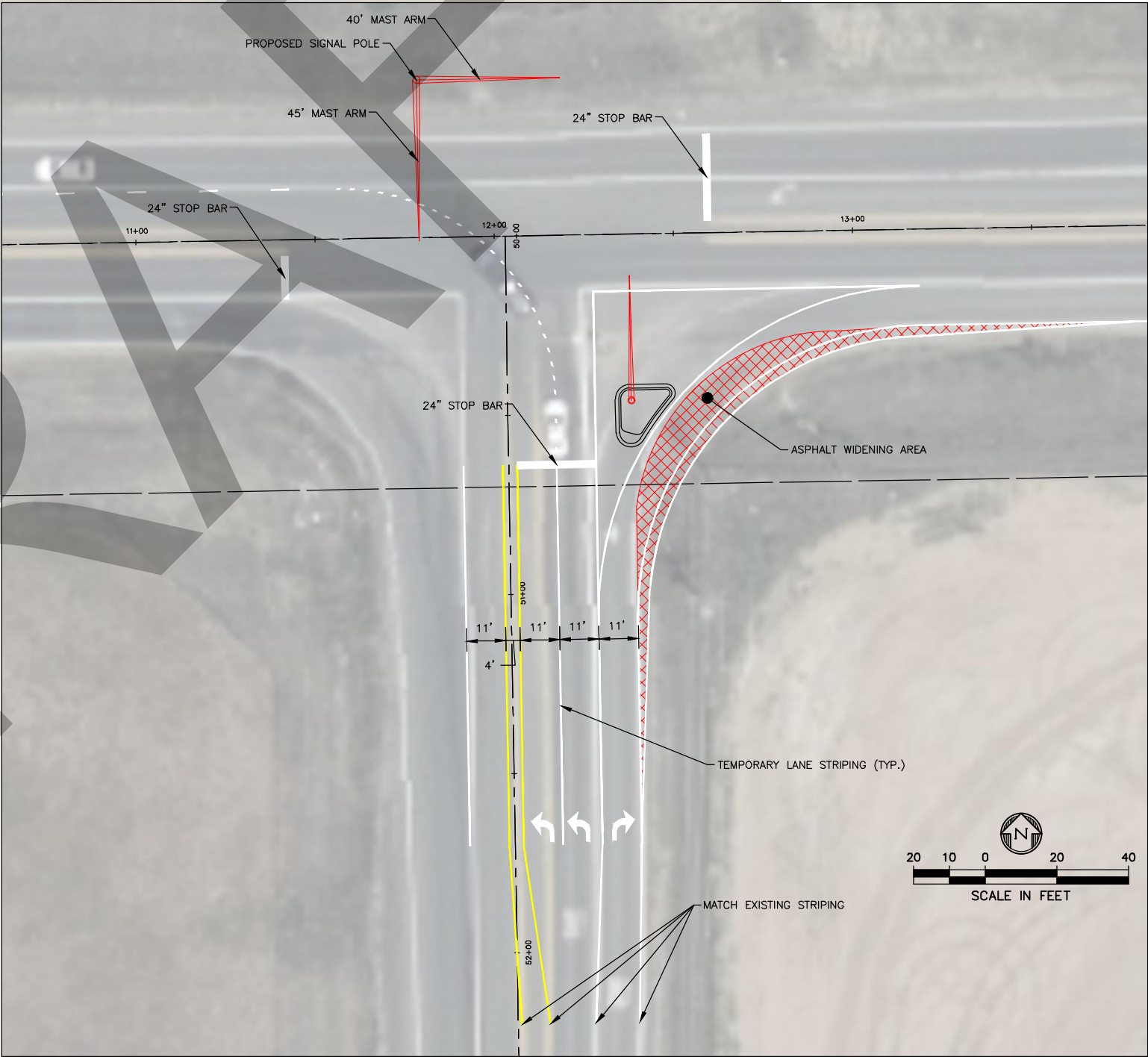
PROJECTED TRAFFIC TOTALS
E HARMONY ROAD & WCR 19 INTERSECTION IMPROVEMENTS - TRAFFIC STUDY
SEVERANCE, COLORADO

Drexel, Barrell & Co.
Engineers • Surveyors

DATE: 5/12/2022	DWG. NO.
JOB NO: 21638-00	FIGURE 3



PROPOSED INTERIM INTERSECTION LAYOUT



- NOTES:
1. ALL LINE WORK IS APPROXIMATE BASED OFF OF AERIAL IMAGERY.
 2. INTERIM INTERSECTION LAYOUT INCLUDES THE INSTALLATION OF PROPOSED TRAFFIC SIGNALS, SMALL MEDIAN PROK-CHOP ISLAND FOR SOUTHEAST CORNER OF INTERSECTION, ASPHALT WIDENING FOR RIGHT TURN LANE FROM WCR 19 TO E HARMONY ROAD, AND TEMPORARY STRIPING FOR ADDITIONAL LEFT TURN LANE ON WCR 19.

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970-278-0029
CHRIS MESSERSMITH, P.E.
TOWN ENGINEER

CONSTRUCTION DRAWINGS:

TOWN OF SEVERANCE
EAST HARMONY ROAD
& WELD COUNTY ROAD 19
INTERSECTION IMPROVEMENTS
SEVERANCE, COLORADO

ISSUE	DATE
CONCEPTUAL DGN	5/11/2022
DESIGNED BY:	KRC
DRAWN BY:	KRC
CHECKED BY:	DFS

FILE NAME: 21638-00-INTERIM SIGNAL

811
Know what's below.
Call before you dig.

DRAWING SCALE IN FEET:
HORIZONTAL: SEE PLAN
VERTICAL: SEE PLAN

CONCEPTUAL
PLANS
EXHIBIT

PROJECT: 21638-00BLTR
DRAWING NO.

EX01

SHEET: 1 OF 3
Page 162 of 223

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NOTES:
1. ALL LINE WORK IS APPROXIMATE BASED OFF OF AERIAL IMAGERY.

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CONSTRUCTION DRAWINGS:
TOWN OF SEVERANCE
EAST HARMONY ROAD
& WELD COUNTY ROAD 19
INTERSECTION IMPROVEMENTS
SEVERANCE, COLORADO

ISSUE	DATE
CONCEPTUAL DGN	5/11/2022
DESIGNED BY:	KRC
DRAWN BY:	KRC
CHECKED BY:	DFS

FILE NAME: 21638-00_TWO LANE ROUNDABOUT



DRAWING SCALE IN FEET:
HORIZONTAL: SEE PLAN
VERTICAL: SEE PLAN

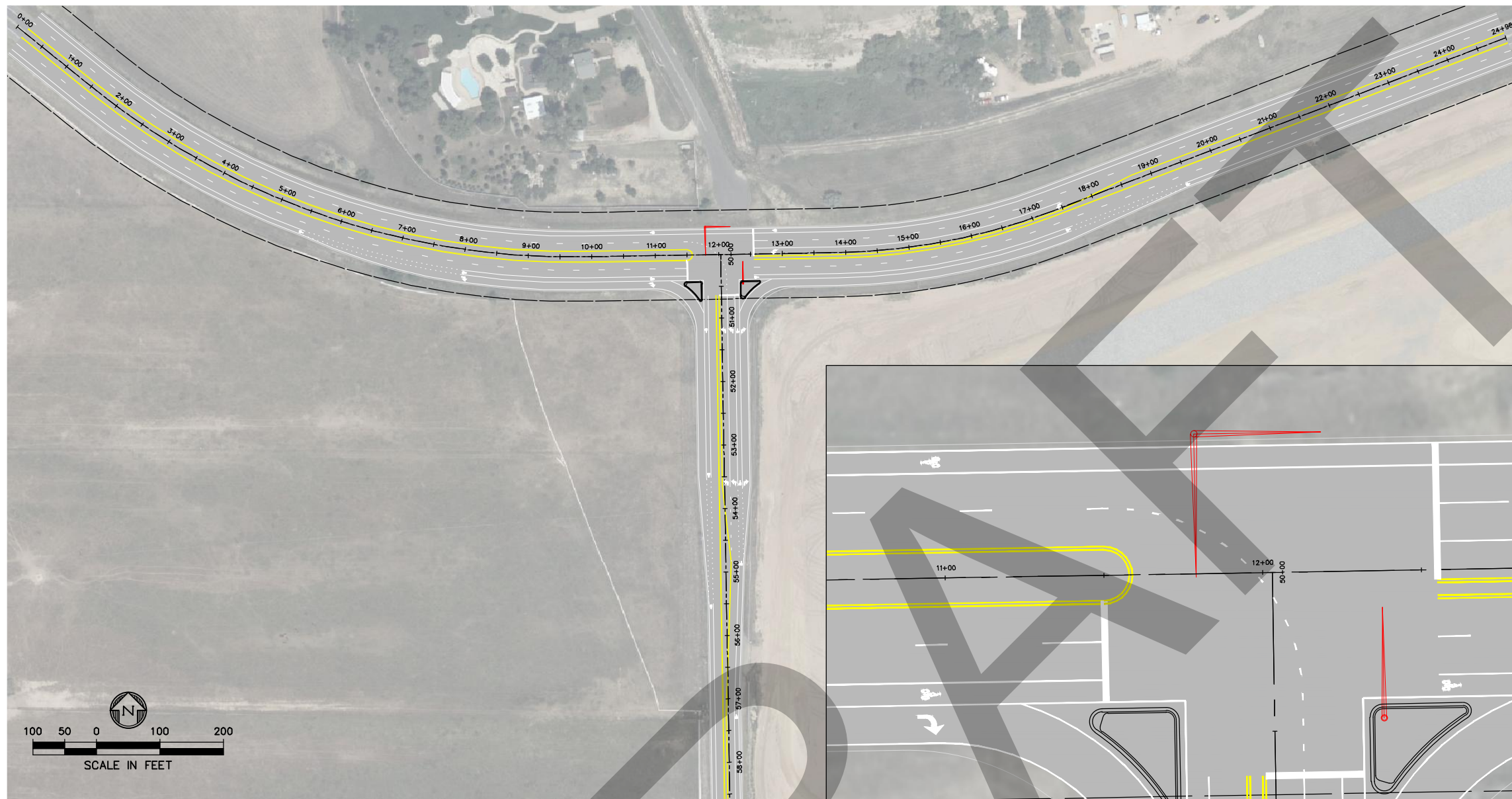
CONCEPTUAL
PLANS
EXHIBIT

PROJECT: 21638-00BLTR
DRAWING NO.

EX02

SHEET: 2 OF 3
Page 163 of 223

PROPOSED TWO LANE ROUNDABOUT LAYOUT



NOTES:

1. ALL LINE WORK IS APPROXIMATE BASED OFF OF AERIAL IMAGERY.
2. FUTURE INTERSECTION LAYOUT BASED OFF OF TYPICAL SECTION FOR RURAL MAJOR ARTERIAL.

PREPARED BY:

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CONSTRUCTION DRAWINGS:
TOWN OF SEVERANCE
EAST HARMONY ROAD
& WELD COUNTY ROAD 19
INTERSECTION IMPROVEMENTS
SEVERANCE, COLORADO

ISSUE	DATE
CONCEPTUAL DGN	5/11/2022
DESIGNED BY:	KRC
DRAWN BY:	KRC
CHECKED BY:	DFS



DRAWING SCALE IN FEET:
HORIZONTAL: SEE PLAN
VERTICAL: SEE PLAN

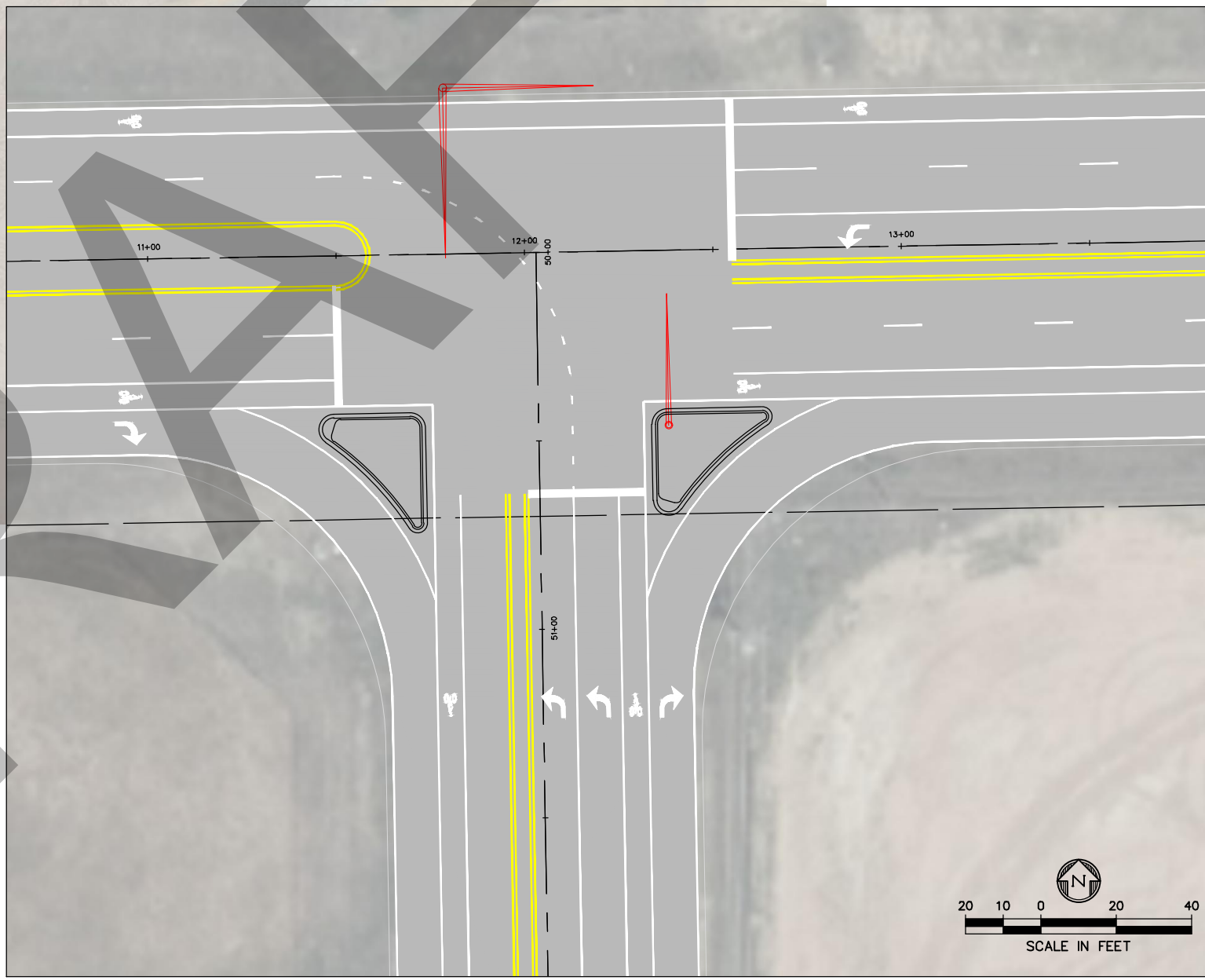
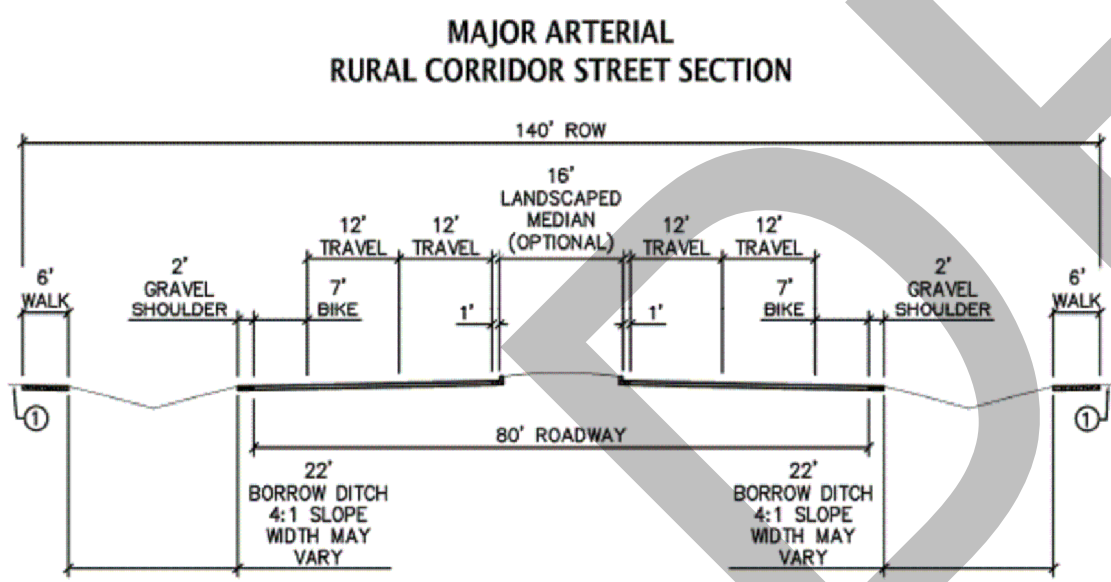
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PLANS
EXHIBIT

PROJECT: 21638-00BLTR
DRAWING NO.

EX03

SHEET: 3 OF 3

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ULTIMATE SIGNALIZED INTERSECTION OPTION

TOWN OF SEVERANCE								
E HARMONY RD & WCR 19 INTERSECTION IMPROVEMENTS PROJECT								
ENGINEER'S ESTIMATE OF PROBABLE COSTS (CONCEPTUAL PLAN LEVEL)								
Drexel, Barrell & Co. - May 2022								
					INTERIM SIGNAL		ROUNABOUT	
Item No.	CONTRACT #	ITEM	UNIT	UNIT PRICE	QUANTITY	COST	QUANTITY	COST
1	201-00000	CLEARING AND GRUBBING	LS	VARIES	1	\$5,000.00	1	\$15,000.00
2	202-00220	REMOVAL OF ASPHALT MAT (FULL DEPTH)	SY	\$ 7.50	23	\$172.50	3,571	\$26,783.33
3	202-00250	REMOVAL OF PAVEMENT MARKING	SF	\$ 5.00	400	\$2,000.00	1,000	\$5,000.00
4	202-00700	REMOVAL OF LIGHT STANDARD	EA	\$ 500.00			1	\$500.00
5	202-00810	REMOVAL OF GROUND SIGN	EA	\$ 250.00	1	\$250.00	3	\$750.00
6	203-00100	UNCLASSIFIED EXCAVATION	CY	\$ 40.00	10	\$400.00	50	\$2,000.00
7	203	EMBANKMENT MATERIAL (FILL)	CY	\$ 50.00	20	\$1,000.00	250	\$12,500.00
8	304	AGGREGATE BASE COURSE (CLASS 6)	CY	\$ 60.00	22	\$1,333.33	606	\$36,333.33
9	403	HOT MIX ASPHALT (GRADING SG) (75) (PG 64-22) (SPECIAL)	TON	\$ 100.00	37	\$3,666.67	917	\$91,666.67
10	403	HOT MIX ASPHALT (GRADING SX) (75) (PG 64-22) (SPECIAL)	TON	\$ 100.00	15	\$1,466.67	367	\$36,666.67
11	412	CONCRETE PAVEMENT (10 INCH) (TRUCK APRON)	SY	\$ 150.00			333	\$50,000.00
12	503-00036	DRILLED SHAFT (36 INCH)	LF	\$ 600.00	13	\$7,500.00		
13	503-00042	DRILLED SHAFT (42 INCH)	LF	\$ 850.00	17	\$14,025.00		
14	603	18 INCH REINFORCED CONCRETE PIPE (SPECIAL)	LF	\$ 120.00			25	\$3,000.00
15	609	CURB AND GUTTER TYPE 2 (SECTION I-B) (SPECIAL)	LF	\$ 35.00	50	\$1,750.00	1,200	\$42,000.00
16	610-00020	ROADWAY MEDIAN COVER MATERIAL (PATTERNED CONCRETE)	SF	\$ 6.00	120	\$720.00	6,000	\$36,000.00
17	612-00001	DELINEATOR (TYPE I)	EA	\$ 40.00	12	\$480.00	12	\$480.00
18	613-00206	2 INCH ELECTRICAL CONDUIT (BORED)	LF	\$ 20.00	160	\$3,200.00		
19	613-00306	3 INCH ELECTRICAL CONDUIT (BORED)	LF	\$ 25.00	320	\$8,000.00		
20	613-04100	ELECTRICAL SERVICE MODIFICATIONS (SPECIAL)	LS	\$ 10,000.00	1	\$10,000.00		
21	613-07003	TYPE THREE PULL BOX	EA	\$ 1,600.00	3	\$4,800.00		
22	613-07004	TYPE FOUR PULL BOX	EA	\$ 1,800.00	1	\$1,800.00		
23	613-10000	WIRING (SPECIAL)	LS	\$ 40,000.00	1	\$40,000.00		
24	613-13000	LUMINAIRE (LED)	EA	\$ 1,500.00	2	\$3,000.00		
25	613-20215	LUMINAIRE ARM (INSTALL ONLY)	EA	\$ 1,500.00	2	\$3,000.00		
26	613-80130	SERVICE METER CABINET	EA	\$ 6,500.00	1	\$6,500.00	1	\$6,500.00
27	614-00012	SIGN PANEL (CLASS II)	SF	\$ 40.00	15	\$600.00	75	\$3,000.00
28	614-01572	STEEL SIGN SUPPORT (2-1/2 INCH ROUND NP-40) (POST & SLIPBASE)	LF	\$ 30.00	30	\$900.00	150	\$4,500.00
29	614-10160	SIGNAL HEAD BACKPLATES (REFLECTIVE) (SPECIAL)	EA	\$ 400.00	10	\$4,000.00		
30	614-70336	TRAFFIC SIGNAL FACE (12-12-12) (SPECIAL)	EA	\$ 1,000.00	9	\$9,000.00		
31	614-70336	TRAFFIC SIGNAL FACE (12-12-12) (FLASHING YELLOW ARROW) (SPECIAL)	EA	\$ 1,000.00	1	\$1,000.00		
32	614-72854	TRAFFIC SIGNAL CONTROLLER, CABINET , & FOUNDATION (SPECIAL)	EA	\$ 35,000.00	1	\$35,000.00		
33	614-72866	FIRE PREEMPTION UNIT AND TIMER (INSTALL ONLY)	EA	\$ 2,000.00	3	\$6,000.00		
34	614-72886	INTERSECTION DETECTION SYSTEM (CAMERA) (SPECIAL)	EA	\$ 9,000.00	3	\$27,000.00		
35	614-81135	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-35 FOOT MAST ARM)	EA	\$ 35,000.00	1	\$35,000.00		
36	614-81140	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-40 FOOT MAST ARM)	EA	\$ 40,000.00	1	\$40,000.00		
37	614-81145	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-45 FOOT MAST ARM)	EA	\$ 45,000.00	1	\$45,000.00		
38	614-86710	MISC TRAFFIC SIGNAL EQUIPMENT (SPECIAL)	LS	\$ 10,000.00	1	\$10,000.00		
39	620-00002	FIELD OFFICE (CLASS 2)	EA	\$ 35,000.00			1	\$35,000.00
40	620-00020	SANITARY FACILITY	EA	\$ 5,000.00	1	\$5,000.00	1	\$5,000.00
41	625-00000	CONSTRUCTION SURVEYING	LS	VARIES	1	\$5,000.00	1	\$25,000.00
42	626-00000	MOBILIZATION	LS	VARIES	1	\$40,000.00	1	\$60,000.00
43	626-01114	PUBLIC INFORMATION MANAGEMENT (TIER IV)	DAY	\$ 90.00	10	\$900.00	90	\$8,100.00
44	627-00004	EPOXY PAVEMENT MARKING	SF	\$ 20.00	100	\$2,000.00	400	\$8,000.00
45	627-01010	PAVEMENT MARKING	SF	\$ 20.00	500	\$10,000.00	2,000	\$40,000.00
46	630-00016	TRAFFIC CONTROL MANAGEMENT (SPECIAL)	LS	VARIES	1	\$10,000.00	1	\$200,000.00
SUBTOTAL						\$406,464		\$753,780
ROUNDED UP TOTAL						\$407,000		\$754,000

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	236	206	49	771	64	66
Future Vol, veh/h	236	206	49	771	64	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Free
Storage Length	-	530	440	-	0	340
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	257	224	53	838	70	72
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	257	0	1202	-
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	945	-
Critical Hdwy	-	-	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	0	1308	-	204	0
Stage 1	-	0	-	-	786	0
Stage 2	-	0	-	-	378	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1308	-	196	-
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	363	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		33.1	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT	
Capacity (veh/h)	196	-	-	1308	-	
HCM Lane V/C Ratio	0.355	-	-	0.041	-	
HCM Control Delay (s)	33.1	0	-	7.9	-	
HCM Lane LOS	D	A	-	A	-	
HCM 95th %tile Q(veh)	1.5	-	-	0.1	-	

Intersection						
Int Delay, s/veh	13.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	744	325	44	389	144	82
Future Vol, veh/h	744	325	44	389	144	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Free
Storage Length	-	530	440	-	0	340
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	809	353	48	423	157	89
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	-	809	0	1327	-
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	518	-
Critical Hdwy	-	-	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	0	817	-	171	0
Stage 1	-	0	-	-	438	0
Stage 2	-	0	-	-	598	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	817	-	161	-
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	563	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1		120.2		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT	
Capacity (veh/h)	161	-	-	817	-	
HCM Lane V/C Ratio	0.972	-	-	0.059	-	
HCM Control Delay (s)	120.2	0	-	9.7	-	
HCM Lane LOS	F	A	-	A	-	
HCM 95th %tile Q(veh)	7.4	-	-	0.2	-	

Timings
4: WCR 19 & E Harmony Rd

Interim Signal AM
05/16/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↘	↑	↖	↗
Traffic Volume (vph)	236	206	49	771	64	66
Future Volume (vph)	236	206	49	771	64	66
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	24.0	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	29.9	67.2	37.5	35.4	21.5	67.2
Actuated g/C Ratio	0.44	1.00	0.56	0.53	0.32	1.00
v/c Ratio	0.31	0.14	0.09	0.85	0.06	0.05
Control Delay	13.6	0.2	6.2	22.7	20.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	0.2	6.2	22.7	20.1	0.1
LOS	B	A	A	C	C	A
Approach Delay	7.3			21.7	9.9	
Approach LOS	A			C	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 67.2
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 16.0
 Intersection Capacity Utilization 53.1%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary

4: WCR 19 & E Harmony Rd

Interim Signal AM

05/16/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑	↗	↙	↑	↖↗	↗		
Traffic Volume (veh/h)	236	206	49	771	64	66		
Future Volume (veh/h)	236	206	49	771	64	66		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	257	0	53	838	70	0		
Adj No. of Lanes	1	1	1	1	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	787	669	561	987	1096	504		
Arrive On Green	0.42	0.00	0.05	0.53	0.32	0.00		
Sat Flow, veh/h	1863	1583	1774	1863	3442	1583		
Grp Volume(v), veh/h	257	0	53	838	70	0		
Grp Sat Flow(s),veh/h/ln	1863	1583	1774	1863	1721	1583		
Q Serve(g_s), s	6.1	0.0	1.0	25.4	0.9	0.0		
Cycle Q Clear(g_c), s	6.1	0.0	1.0	25.4	0.9	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	787	669	561	987	1096	504		
V/C Ratio(X)	0.33	0.00	0.09	0.85	0.06	0.00		
Avail Cap(c_a), veh/h	1384	1176	639	1666	1096	504		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	12.8	0.0	9.0	13.2	15.6	0.0		
Incr Delay (d2), s/veh	0.2	0.0	0.1	2.2	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.5	13.4	0.5	0.0		
LnGrp Delay(d),s/veh	13.0	0.0	9.1	15.4	15.8	0.0		
LnGrp LOS	B		A	B	B			
Approach Vol, veh/h	257			891	70			
Approach Delay, s/veh	13.0			15.1	15.8			
Approach LOS	B			B	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	7.1	33.9				41.0
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		2.9	3.0	8.1				27.4
Green Ext Time (p_c), s		0.1	0.0	7.9				7.6
Intersection Summary								
HCM 2010 Ctrl Delay			14.7					
HCM 2010 LOS			B					

Timings 4: WCR 19 & E Harmony Rd

Interim Signal PM
05/16/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	744	325	44	389	144	82
Future Volume (vph)	744	325	44	389	144	82
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	24.0	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	36.8	74.6	44.1	41.9	22.1	74.6
Actuated g/C Ratio	0.49	1.00	0.59	0.56	0.30	1.00
v/c Ratio	0.88	0.22	0.20	0.40	0.15	0.06
Control Delay	29.2	0.3	7.1	9.4	24.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	0.3	7.1	9.4	24.9	0.1
LOS	C	A	A	A	C	A
Approach Delay	20.4			9.1	15.9	
Approach LOS	C			A	B	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 74.6
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 17.0
Intersection Capacity Utilization 51.7%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary

4: WCR 19 & E Harmony Rd

Interim Signal PM

05/16/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑	↗	↙	↑	↖↗	↗		
Traffic Volume (veh/h)	744	325	44	389	144	82		
Future Volume (veh/h)	744	325	44	389	144	82		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	809	0	48	423	157	0		
Adj No. of Lanes	1	1	1	1	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	933	793	247	1108	945	435		
Arrive On Green	0.50	0.00	0.04	0.59	0.27	0.00		
Sat Flow, veh/h	1863	1583	1774	1863	3442	1583		
Grp Volume(v), veh/h	809	0	48	423	157	0		
Grp Sat Flow(s),veh/h/ln	1863	1583	1774	1863	1721	1583		
Q Serve(g_s), s	29.3	0.0	0.9	9.1	2.7	0.0		
Cycle Q Clear(g_c), s	29.3	0.0	0.9	9.1	2.7	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	933	793	247	1108	945	435		
V/C Ratio(X)	0.87	0.00	0.19	0.38	0.17	0.00		
Avail Cap(c_a), veh/h	1193	1014	312	1437	945	435		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	16.9	0.0	14.2	8.1	21.1	0.0		
Incr Delay (d2), s/veh	5.7	0.0	0.4	0.2	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	16.3	0.0	0.5	4.6	1.3	0.0		
LnGrp Delay(d),s/veh	22.6	0.0	14.6	8.3	21.5	0.0		
LnGrp LOS	C		B	A	C			
Approach Vol, veh/h	809			471	157			
Approach Delay, s/veh	22.6			9.0	21.5			
Approach LOS	C			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	7.2	44.3				51.5
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		4.7	2.9	31.3				11.1
Green Ext Time (p_c), s		0.4	0.0	7.0				9.2
Intersection Summary								
HCM 2010 Ctrl Delay			18.0					
HCM 2010 LOS			B					

Timings
4: WCR 19 & E Harmony Rd

Signal 2027 AM

05/16/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↖	↗
Traffic Volume (vph)	301	227	54	984	68	73
Future Volume (vph)	301	227	54	984	68	73
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	17.3	54.2	25.0	22.9	21.2	54.2
Actuated g/C Ratio	0.32	1.00	0.46	0.42	0.39	1.00
v/c Ratio	0.29	0.16	0.12	0.71	0.06	0.05
Control Delay	15.7	0.2	8.2	15.7	12.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	0.2	8.2	15.7	12.2	0.1
LOS	B	A	A	B	B	A
Approach Delay	9.0			15.3	6.0	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 54.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 12.6

Intersection LOS: B

Intersection Capacity Utilization 39.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary

4: WCR 19 & E Harmony Rd

Signal 2027 AM

05/16/2022

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Volume (veh/h)	301	227	54	984	68	73		
Future Volume (veh/h)	301	227	54	984	68	73		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	327	0	59	1070	74	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1200	537	504	1633	1255	578		
Arrive On Green	0.34	0.00	0.05	0.46	0.36	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	327	0	59	1070	74	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	3.9	0.0	1.1	13.4	0.8	0.0		
Cycle Q Clear(g_c), s	3.9	0.0	1.1	13.4	0.8	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1200	537	504	1633	1255	578		
V/C Ratio(X)	0.27	0.00	0.12	0.66	0.06	0.00		
Avail Cap(c_a), veh/h	3012	1348	595	3627	1255	578		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	13.9	0.0	10.1	12.0	11.9	0.0		
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.5	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.6	6.6	0.4	0.0		
LnGrp Delay(d),s/veh	14.0	0.0	10.2	12.4	12.0	0.0		
LnGrp LOS	B		B	B	B			
Approach Vol, veh/h	327			1129	74			
Approach Delay, s/veh	14.0			12.3	12.0			
Approach LOS	B			B	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	7.1	25.5				32.6
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		2.8	3.1	5.9				15.4
Green Ext Time (p_c), s		0.2	0.0	11.1				11.1
Intersection Summary								
HCM 2010 Ctrl Delay			12.6					
HCM 2010 LOS			B					

Timings 4: WCR 19 & E Harmony Rd

Signal 2027 PM
05/16/2022

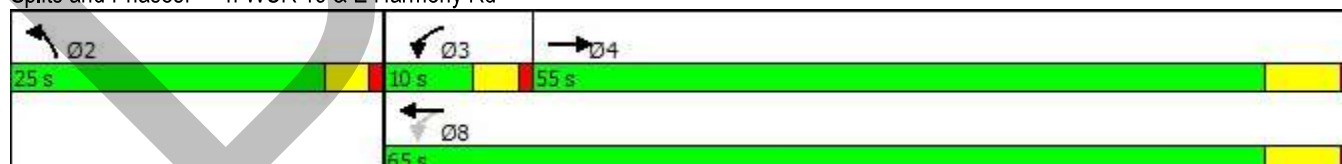
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↗	↗
Traffic Volume (vph)	950	359	49	496	159	91
Future Volume (vph)	950	359	49	496	159	91
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	24.8	62.2	32.1	30.0	21.8	62.2
Actuated g/C Ratio	0.40	1.00	0.52	0.48	0.35	1.00
v/c Ratio	0.73	0.25	0.19	0.32	0.14	0.06
Control Delay	19.5	0.4	7.8	9.4	17.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	0.4	7.8	9.4	17.9	0.1
LOS	B	A	A	A	B	A
Approach Delay	14.3			9.3	11.4	
Approach LOS	B			A	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 62.2
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 12.6
 Intersection Capacity Utilization 46.6%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary
4: WCR 19 & E Harmony Rd

Signal 2027 PM

05/16/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑		
Traffic Volume (veh/h)	950	359	49	496	159	91		
Future Volume (veh/h)	950	359	49	496	159	91		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1033	0	53	539	173	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1545	691	300	1919	1067	491		
Arrive On Green	0.44	0.00	0.05	0.54	0.31	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	1033	0	53	539	173	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	15.7	0.0	1.0	5.6	2.5	0.0		
Cycle Q Clear(g_c), s	15.7	0.0	1.0	5.6	2.5	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1545	691	300	1919	1067	491		
V/C Ratio(X)	0.67	0.00	0.18	0.28	0.16	0.00		
Avail Cap(c_a), veh/h	2561	1146	375	3083	1067	491		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	15.2	0.0	10.9	8.4	17.0	0.0		
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.1	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.7	0.0	0.5	2.7	1.2	0.0		
LnGrp Delay(d),s/veh	15.7	0.0	11.1	8.4	17.3	0.0		
LnGrp LOS	B		B	A	B			
Approach Vol, veh/h	1033			592	173			
Approach Delay, s/veh	15.7			8.7	17.3			
Approach LOS	B			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	7.2	35.6				42.7
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		4.5	3.0	17.7				7.6
Green Ext Time (p_c), s		0.5	0.0	11.8				13.4
Intersection Summary								
HCM 2010 Ctrl Delay			13.5					
HCM 2010 LOS			B					

Timings
4: WCR 19 & E Harmony Rd

Signal 2032 AM
05/23/2022

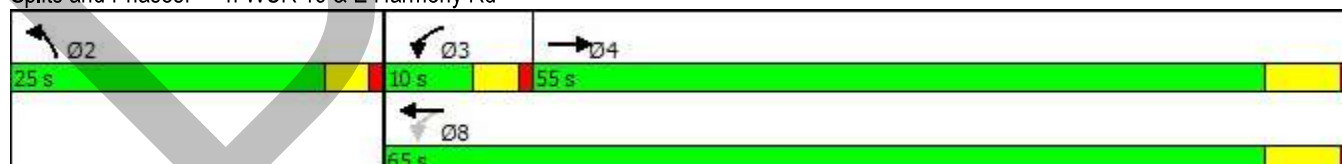
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↘
Traffic Volume (vph)	384	251	60	1256	76	80
Future Volume (vph)	384	251	60	1256	76	80
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	26.2	63.2	33.9	31.8	21.3	63.2
Actuated g/C Ratio	0.41	1.00	0.54	0.50	0.34	1.00
v/c Ratio	0.28	0.17	0.12	0.77	0.07	0.05
Control Delay	13.5	0.2	7.0	15.7	17.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	0.2	7.0	15.7	17.0	0.1
LOS	B	A	A	B	B	A
Approach Delay	8.3			15.3	8.3	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 63.2
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 12.6
 Intersection Capacity Utilization 47.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary

4: WCR 19 & E Harmony Rd

Signal 2032 AM

05/23/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↗	↙	↑↑	↖	↗		
Traffic Volume (veh/h)	384	251	60	1256	76	80		
Future Volume (veh/h)	384	251	60	1256	76	80		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	417	0	65	1365	83	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1536	687	544	1928	1062	488		
Arrive On Green	0.43	0.00	0.05	0.54	0.31	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	417	0	65	1365	83	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	5.1	0.0	1.3	19.5	1.2	0.0		
Cycle Q Clear(g_c), s	5.1	0.0	1.3	19.5	1.2	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1536	687	544	1928	1062	488		
V/C Ratio(X)	0.27	0.00	0.12	0.71	0.08	0.00		
Avail Cap(c_a), veh/h	2547	1140	608	3067	1062	488		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	12.4	0.0	8.7	11.5	16.7	0.0		
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.5	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.6	9.4	0.6	0.0		
LnGrp Delay(d),s/veh	12.5	0.0	8.8	12.0	16.8	0.0		
LnGrp LOS	B		A	B	B			
Approach Vol, veh/h	417			1430	83			
Approach Delay, s/veh	12.5			11.8	16.8			
Approach LOS	B			B	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	7.5	35.5				43.1
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		3.2	3.3	7.1				21.5
Green Ext Time (p_c), s		0.2	0.0	16.2				15.6
Intersection Summary								
HCM 2010 Ctrl Delay			12.2					
HCM 2010 LOS			B					

Timings
4: WCR 19 & E Harmony Rd

Signal 2032 PM

05/16/2022

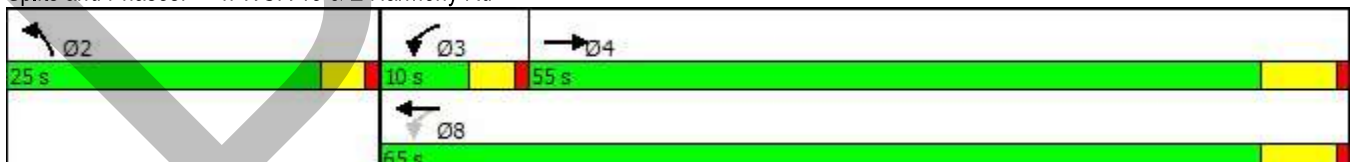
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	1212	396	54	634	176	100
Future Volume (vph)	1212	396	54	634	176	100
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	35.6	73.0	42.9	40.9	21.8	73.0
Actuated g/C Ratio	0.49	1.00	0.59	0.56	0.30	1.00
v/c Ratio	0.76	0.27	0.24	0.35	0.19	0.07
Control Delay	18.8	0.4	7.8	8.6	23.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	0.4	7.8	8.6	23.6	0.1
LOS	B	A	A	A	C	A
Approach Delay	14.2			8.5	15.0	
Approach LOS	B			A	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 73
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 12.8
 Intersection Capacity Utilization 54.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary
4: WCR 19 & E Harmony Rd

Signal 2032 PM

05/16/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑		
Traffic Volume (veh/h)	1212	396	54	634	176	100		
Future Volume (veh/h)	1212	396	54	634	176	100		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1317	0	59	689	191	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1782	797	262	2128	930	428		
Arrive On Green	0.50	0.00	0.05	0.60	0.27	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	1317	0	59	689	191	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	22.9	0.0	1.1	7.5	3.3	0.0		
Cycle Q Clear(g_c), s	22.9	0.0	1.1	7.5	3.3	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1782	797	262	2128	930	428		
V/C Ratio(X)	0.74	0.00	0.23	0.32	0.21	0.00		
Avail Cap(c_a), veh/h	2231	998	316	2686	930	428		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	15.3	0.0	11.9	7.7	21.9	0.0		
Incr Delay (d2), s/veh	1.0	0.0	0.4	0.1	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.4	0.0	0.6	3.7	1.7	0.0		
LnGrp Delay(d),s/veh	16.3	0.0	12.3	7.8	22.4	0.0		
LnGrp LOS	B		B	A	C			
Approach Vol, veh/h	1317			748	191			
Approach Delay, s/veh	16.3			8.1	22.4			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	7.6	45.1				52.7
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		5.3	3.1	24.9				9.5
Green Ext Time (p_c), s		0.5	0.0	14.3				20.1
Intersection Summary								
HCM 2010 Ctrl Delay			14.1					
HCM 2010 LOS			B					

Timings 4: WCR 19 & E Harmony Rd

Signal 2040 AM
05/16/2022

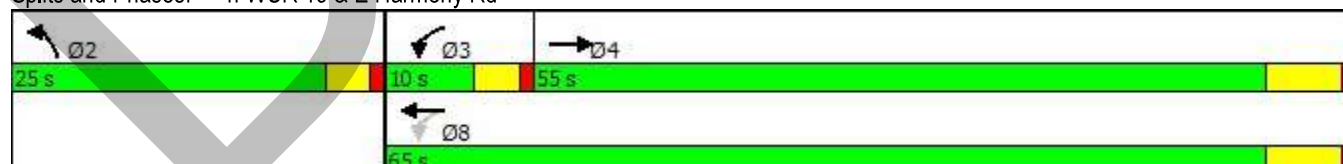
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↗	↗
Traffic Volume (vph)	568	294	70	1856	89	94
Future Volume (vph)	568	294	70	1856	89	94
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	47.1	86.0	56.9	54.8	21.1	86.0
Actuated g/C Ratio	0.55	1.00	0.66	0.64	0.25	1.00
v/c Ratio	0.32	0.20	0.15	0.89	0.12	0.06
Control Delay	11.5	0.3	5.6	19.5	27.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	0.3	5.6	19.5	27.3	0.1
LOS	B	A	A	B	C	A
Approach Delay	7.7			19.0	13.4	
Approach LOS	A			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 86
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 15.4
 Intersection Capacity Utilization 63.8%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary
4: WCR 19 & E Harmony Rd

Signal 2040 AM

05/16/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↗	↘	↑↑	↖↗	↗		
Traffic Volume (veh/h)	568	294	70	1856	89	94		
Future Volume (veh/h)	568	294	70	1856	89	94		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	617	0	76	2017	97	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1955	875	535	2287	825	380		
Arrive On Green	0.55	0.00	0.05	0.65	0.24	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	617	0	76	2017	97	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	8.3	0.0	1.5	41.1	1.9	0.0		
Cycle Q Clear(g_c), s	8.3	0.0	1.5	41.1	1.9	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1955	875	535	2287	825	380		
V/C Ratio(X)	0.32	0.00	0.14	0.88	0.12	0.00		
Avail Cap(c_a), veh/h	1979	886	571	2383	825	380		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	10.6	0.0	7.2	12.8	26.1	0.0		
Incr Delay (d2), s/veh	0.1	0.0	0.1	4.1	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.7	20.9	0.9	0.0		
LnGrp Delay(d),s/veh	10.7	0.0	7.3	16.9	26.3	0.0		
LnGrp LOS	B		A	B	C			
Approach Vol, veh/h	617			2093	97			
Approach Delay, s/veh	10.7			16.5	26.3			
Approach LOS	B			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	8.2	54.4				62.6
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		3.9	3.5	10.3				43.1
Green Ext Time (p_c), s		0.2	0.0	27.7				13.5
Intersection Summary								
HCM 2010 Ctrl Delay			15.6					
HCM 2010 LOS			B					

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:40	7:40	7:40	7:40	7:40	7:40
End Time	7:55	7:55	7:55	7:55	7:55	7:55
Total Time (min)	15	15	15	15	15	15
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	498	506	476	499	465	489
Vehs Exited	498	508	481	495	474	491
Starting Vehs	53	53	69	51	60	57
Ending Vehs	53	51	64	55	51	54
Travel Distance (mi)	244	253	238	247	227	242
Travel Time (hr)	9.8	10.2	9.3	10.2	8.9	9.7
Total Delay (hr)	2.4	2.5	2.1	2.7	2.1	2.4
Total Stops	157	155	135	168	124	147
Fuel Used (gal)	8.7	9.2	8.5	8.9	8.2	8.7

Interval #0 Information Seeding

Start Time	7:40
End Time	7:45
Total Time (min)	5
No data recorded this interval.	

Interval #1 Information Recording

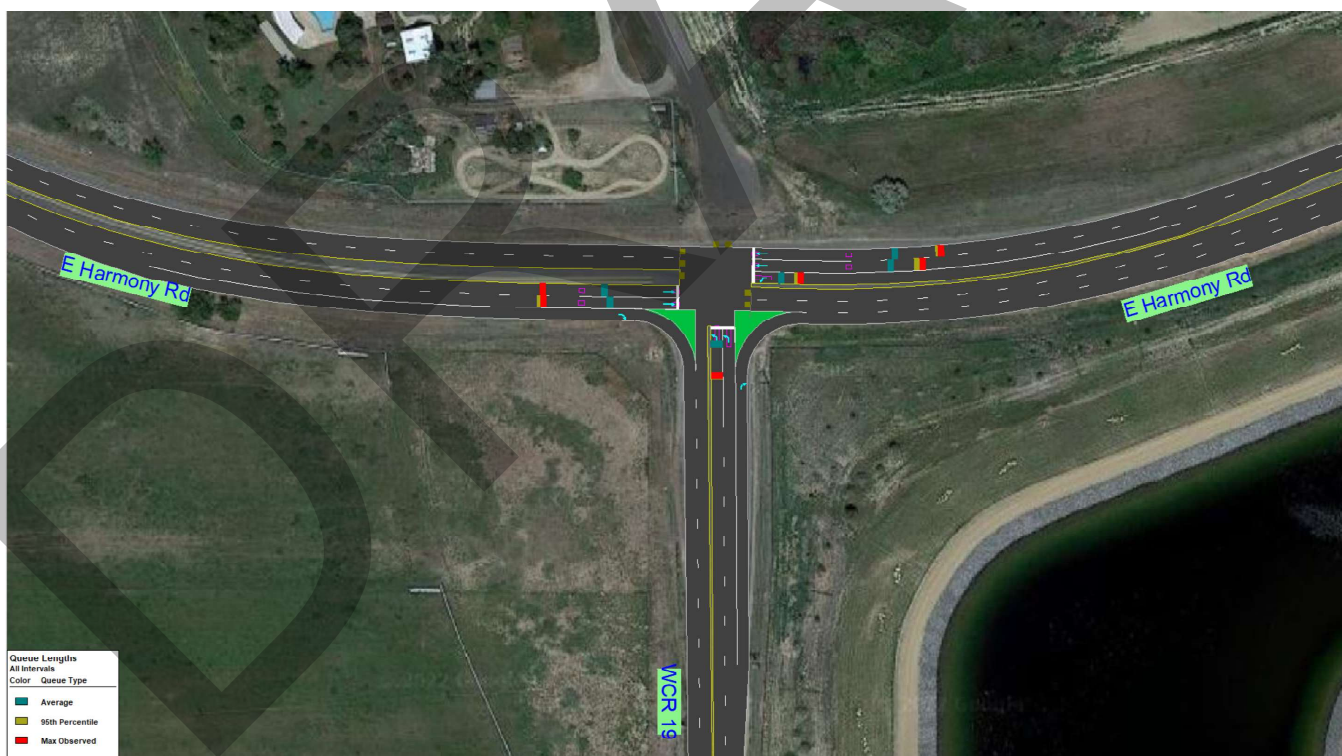
Start Time	7:45					
End Time	7:55					
Total Time (min)	10					
Run Number	1	2	3	4	5	Avg
Vehs Entered	498	506	476	499	465	489
Vehs Exited	498	508	481	495	474	491
Starting Vehs	53	53	69	51	60	57
Ending Vehs	53	51	64	55	51	54
Travel Distance (mi)	244	253	238	247	227	242
Travel Time (hr)	9.8	10.2	9.3	10.2	8.9	9.7
Total Delay (hr)	2.4	2.5	2.1	2.7	2.1	2.4
Total Stops	157	155	135	168	124	147
Fuel Used (gal)	8.7	9.2	8.5	8.9	8.2	8.7

Intersection: 4: WCR 19 & E Harmony Rd

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	L	T	T	L	L
Maximum Queue (ft)	117	101	61	263	232	72	19
Average Queue (ft)	81	57	37	186	176	45	10
95th Queue (ft)	131	123	75	296	272	86	33
Link Distance (ft)	1050	1050		803	803	752	752
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			440				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 0



Timings
4: WCR 19 & E Harmony Rd

Signal 2040 PM

05/16/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	1791	464	63	936	206	117
Future Volume (vph)	1791	464	63	936	206	117
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	55.0		10.0	65.0	25.0	
Total Split (%)	61.1%		11.1%	72.2%	27.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	49.1	88.0	58.9	56.9	21.0	88.0
Actuated g/C Ratio	0.56	1.00	0.67	0.65	0.24	1.00
v/c Ratio	0.99	0.32	0.33	0.44	0.27	0.08
Control Delay	38.2	0.5	9.4	8.4	29.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	0.5	9.4	8.4	29.0	0.1
LOS	D	A	A	A	C	A
Approach Delay	30.5			8.4	18.5	
Approach LOS	C			A	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 88
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 23.2
 Intersection Capacity Utilization 66.6%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary 4: WCR 19 & E Harmony Rd

Signal 2040 PM

05/16/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑		
Traffic Volume (veh/h)	1791	464	63	936	206	117		
Future Volume (veh/h)	1791	464	63	936	206	117		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1947	0	68	1017	224	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1970	881	167	2293	821	378		
Arrive On Green	0.56	0.00	0.05	0.65	0.24	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	1947	0	68	1017	224	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	47.8	0.0	1.3	12.5	4.7	0.0		
Cycle Q Clear(g_c), s	47.8	0.0	1.3	12.5	4.7	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1970	881	167	2293	821	378		
V/C Ratio(X)	0.99	0.00	0.41	0.44	0.27	0.00		
Avail Cap(c_a), veh/h	1970	881	206	2371	821	378		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	19.2	0.0	21.2	7.7	27.3	0.0		
Incr Delay (d2), s/veh	17.6	0.0	1.6	0.1	0.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	27.8	0.0	1.0	6.1	2.3	0.0		
LnGrp Delay(d),s/veh	36.8	0.0	22.8	7.8	28.1	0.0		
LnGrp LOS	D		C	A	C			
Approach Vol, veh/h	1947			1085	224			
Approach Delay, s/veh	36.8			8.7	28.1			
Approach LOS	D			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	8.1	55.0				63.1
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	49.0				59.0
Max Q Clear Time (g_c+I1), s		6.7	3.3	49.8				14.5
Green Ext Time (p_c), s		0.6	0.0	0.0				33.8
Intersection Summary								
HCM 2010 Ctrl Delay			26.9					
HCM 2010 LOS			C					

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:40	4:40	4:40	4:40	4:40	4:40
End Time	4:55	4:55	4:55	4:55	4:55	4:55
Total Time (min)	15	15	15	15	15	15
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	576	590	555	594	585	579
Vehs Exited	579	606	570	593	588	586
Starting Vehs	73	91	81	62	75	74
Ending Vehs	70	75	66	63	72	68
Travel Distance (mi)	286	289	276	291	287	286
Travel Time (hr)	11.7	12.2	11.5	12.0	11.5	11.8
Total Delay (hr)	3.1	3.4	3.2	3.3	2.8	3.2
Total Stops	177	211	198	210	166	192
Fuel Used (gal)	10.4	10.7	10.1	10.5	10.4	10.4

Interval #0 Information Seeding

Start Time	4:40
End Time	4:45
Total Time (min)	5
No data recorded this interval.	

Interval #1 Information Recording

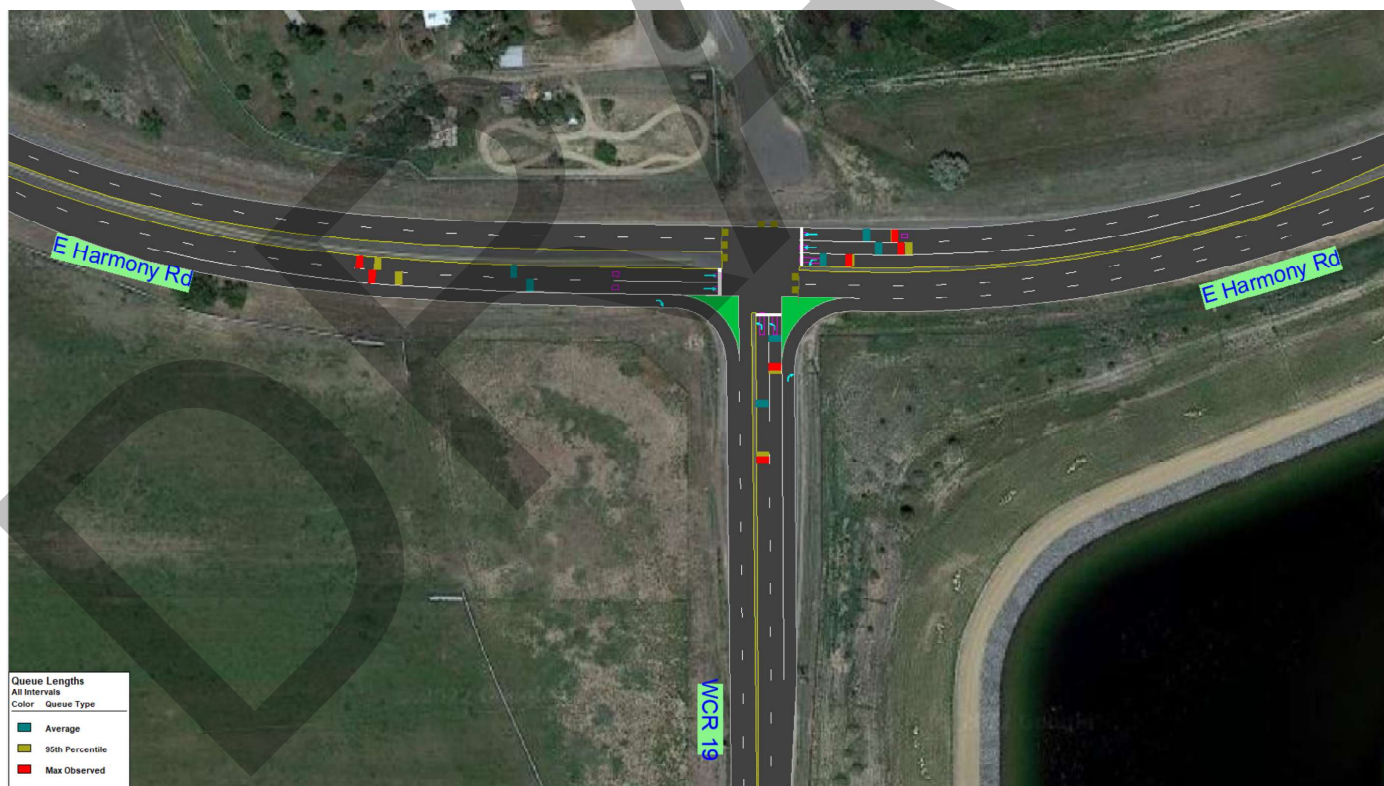
Start Time	4:45					
End Time	4:55					
Total Time (min)	10					
Run Number	1	2	3	4	5	Avg
Vehs Entered	576	590	555	594	585	579
Vehs Exited	579	606	570	593	588	586
Starting Vehs	73	91	81	62	75	74
Ending Vehs	70	75	66	63	72	68
Travel Distance (mi)	286	289	276	291	287	286
Travel Time (hr)	11.7	12.2	11.5	12.0	11.5	11.8
Total Delay (hr)	3.1	3.4	3.2	3.3	2.8	3.2
Total Stops	177	211	198	210	166	192
Fuel Used (gal)	10.4	10.7	10.1	10.5	10.4	10.4

Intersection: 4: WCR 19 & E Harmony Rd

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	L	T	T	L	L
Maximum Queue (ft)	281	270	60	132	116	130	41
Average Queue (ft)	202	186	32	94	88	83	21
95th Queue (ft)	291	279	62	145	136	139	48
Link Distance (ft)	1050	1050		803	803	752	752
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			440				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 0



Timings
4: WCR 19 & E Harmony Rd

Signal 2040 (120s Cycle) AM

05/26/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	568	294	70	1856	89	94
Future Volume (vph)	568	294	70	1856	89	94
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	85.0		10.0	95.0	25.0	
Total Split (%)	70.8%		8.3%	79.2%	20.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	56.7	96.2	66.5	64.5	21.5	96.2
Actuated g/C Ratio	0.59	1.00	0.69	0.67	0.22	1.00
v/c Ratio	0.30	0.20	0.14	0.85	0.13	0.06
Control Delay	10.1	0.3	4.8	15.8	35.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	0.3	4.8	15.8	35.2	0.1
LOS	B	A	A	B	D	A
Approach Delay	6.8			15.4	17.2	
Approach LOS	A			B	B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 96.2
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 13.0
 Intersection Capacity Utilization 63.8%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary
4: WCR 19 & E Harmony Rd

Signal 2040 (120s Cycle) AM

05/26/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑		
Traffic Volume (veh/h)	568	294	70	1856	89	94		
Future Volume (veh/h)	568	294	70	1856	89	94		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	617	0	76	2017	97	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2212	990	582	2496	687	316		
Arrive On Green	0.62	0.00	0.04	0.71	0.20	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	617	0	76	2017	97	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	8.3	0.0	1.5	41.1	2.4	0.0		
Cycle Q Clear(g_c), s	8.3	0.0	1.5	41.1	2.4	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2212	990	582	2496	687	316		
V/C Ratio(X)	0.28	0.00	0.13	0.81	0.14	0.00		
Avail Cap(c_a), veh/h	2658	1189	608	2994	687	316		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	9.0	0.0	6.0	10.6	34.7	0.0		
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.5	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.7	20.1	1.2	0.0		
LnGrp Delay(d),s/veh	9.0	0.0	6.1	12.1	35.1	0.0		
LnGrp LOS	A		A	B	D			
Approach Vol, veh/h	617			2093	97			
Approach Delay, s/veh	9.0			11.9	35.1			
Approach LOS	A			B	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	8.5	71.7				80.2
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	79.0				89.0
Max Q Clear Time (g_c+I1), s		4.4	3.5	10.3				43.1
Green Ext Time (p_c), s		0.2	0.0	39.7				31.1
Intersection Summary								
HCM 2010 Ctrl Delay			12.0					
HCM 2010 LOS			B					

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:40	7:40	7:40	7:40	7:40	7:40
End Time	7:55	7:55	7:55	7:55	7:55	7:55
Total Time (min)	15	15	15	15	15	15
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	521	514	474	504	486	500
Vehs Exited	517	530	460	513	498	504
Starting Vehs	56	70	47	54	59	57
Ending Vehs	60	54	61	45	47	53
Travel Distance (mi)	254	261	229	248	239	246
Travel Time (hr)	9.8	10.2	8.8	9.8	9.2	9.6
Total Delay (hr)	2.1	2.3	1.9	2.2	2.0	2.1
Total Stops	124	121	125	125	121	123
Fuel Used (gal)	9.0	9.3	8.2	8.7	8.5	8.7

Interval #0 Information Seeding

Start Time	7:40
End Time	7:45
Total Time (min)	5
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:45					
End Time	7:55					
Total Time (min)	10					
Run Number	1	2	3	4	5	Avg
Vehs Entered	521	514	474	504	486	500
Vehs Exited	517	530	460	513	498	504
Starting Vehs	56	70	47	54	59	57
Ending Vehs	60	54	61	45	47	53
Travel Distance (mi)	254	261	229	248	239	246
Travel Time (hr)	9.8	10.2	8.8	9.8	9.2	9.6
Total Delay (hr)	2.1	2.3	1.9	2.2	2.0	2.1
Total Stops	124	121	125	125	121	123
Fuel Used (gal)	9.0	9.3	8.2	8.7	8.5	8.7

Queuing and Blocking Report Baseline

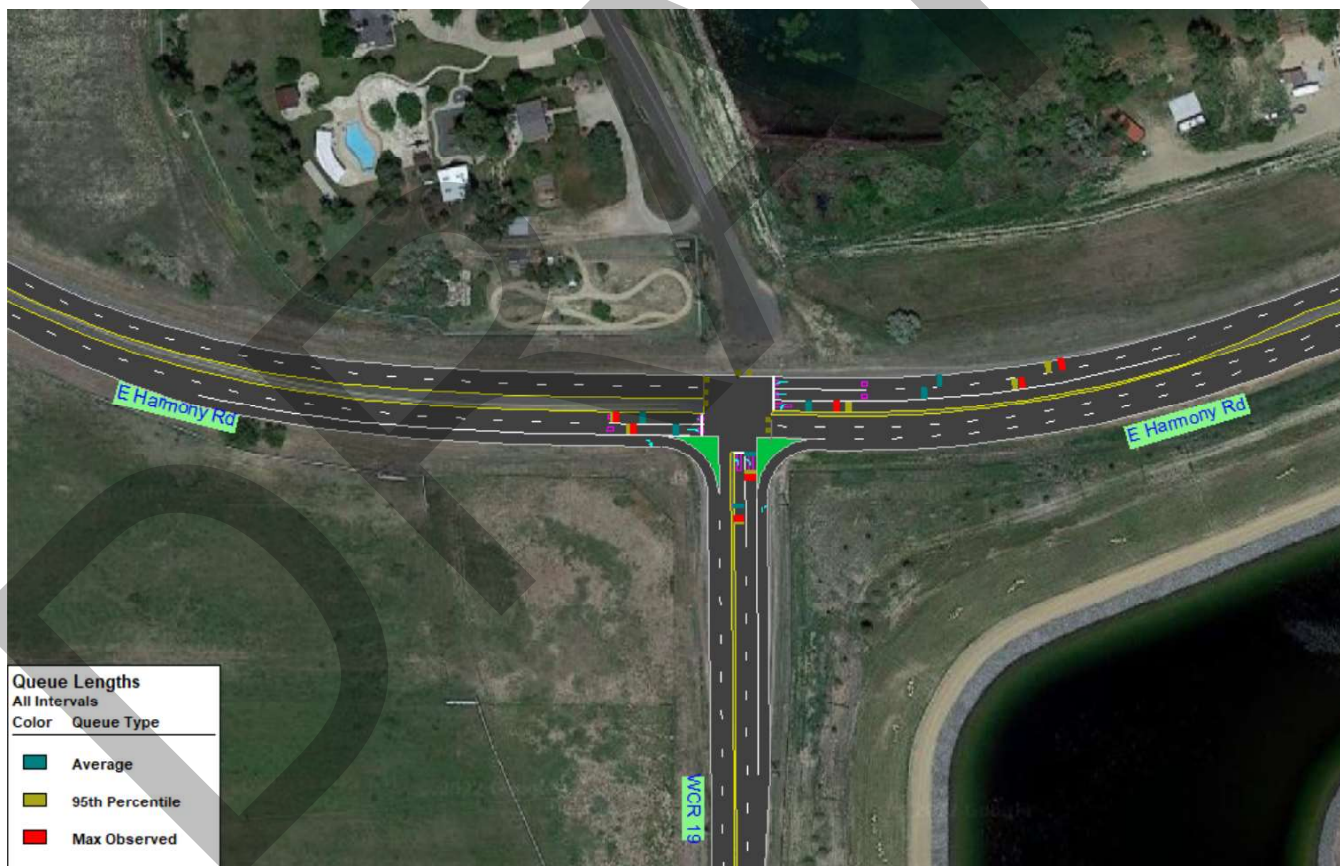
Signal 2040 (120s Cycle) AM
05/26/2022

Intersection: 4: WCR 19 & E Harmony Rd

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	L	T	T	L	L
Maximum Queue (ft)	101	95	59	211	226	78	29
Average Queue (ft)	72	42	37	155	164	53	10
95th Queue (ft)	110	103	73	226	252	96	36
Link Distance (ft)	1050	1050		803	803	752	752
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			440				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 0



Timings
4: WCR 19 & E Harmony Rd

Signal 2040 (120s Cycle) PM

05/26/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↗	↗
Traffic Volume (vph)	1791	464	63	936	206	117
Future Volume (vph)	1791	464	63	936	206	117
Turn Type	NA	Free	pm+pt	NA	Prot	Free
Protected Phases	4		3	8	2	
Permitted Phases		Free	8			Free
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		9.5	24.0	22.5	
Total Split (s)	85.0		10.0	95.0	25.0	
Total Split (%)	70.8%		8.3%	79.2%	20.8%	
Yellow Time (s)	5.0		3.0	5.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Max	
Act Effect Green (s)	66.0	105.5	75.5	73.4	21.7	105.5
Actuated g/C Ratio	0.63	1.00	0.72	0.70	0.21	1.00
v/c Ratio	0.88	0.32	0.40	0.41	0.32	0.08
Control Delay	22.0	0.5	13.8	6.9	41.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	0.5	13.8	6.9	41.0	0.1
LOS	C	A	B	A	D	A
Approach Delay	17.6			7.3	26.2	
Approach LOS	B			A	C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 105.5
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 15.5
 Intersection Capacity Utilization 66.6%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 4: WCR 19 & E Harmony Rd



HCM 2010 Signalized Intersection Summary

4: WCR 19 & E Harmony Rd

Signal 2040 (120s Cycle) PM

05/26/2022

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↗	↙	↑↑	↖↗	↗		
Traffic Volume (veh/h)	1791	464	63	936	206	117		
Future Volume (veh/h)	1791	464	63	936	206	117		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1947	0	68	1017	224	0		
Adj No. of Lanes	2	1	1	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2310	1033	184	2572	637	293		
Arrive On Green	0.65	0.00	0.04	0.73	0.19	0.00		
Sat Flow, veh/h	3632	1583	1774	3632	3442	1583		
Grp Volume(v), veh/h	1947	0	68	1017	224	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1721	1583		
Q Serve(g_s), s	48.2	0.0	1.3	12.5	6.4	0.0		
Cycle Q Clear(g_c), s	48.2	0.0	1.3	12.5	6.4	0.0		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2310	1033	184	2572	637	293		
V/C Ratio(X)	0.84	0.00	0.37	0.40	0.35	0.00		
Avail Cap(c_a), veh/h	2464	1102	209	2776	637	293		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	15.2	0.0	20.9	5.9	40.3	0.0		
Incr Delay (d2), s/veh	2.7	0.0	1.2	0.1	1.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	24.1	0.0	1.4	6.1	3.2	0.0		
LnGrp Delay(d),s/veh	17.9	0.0	22.1	6.0	41.8	0.0		
LnGrp LOS	B		C	A	D			
Approach Vol, veh/h	1947			1085	224			
Approach Delay, s/veh	17.9			7.0	41.8			
Approach LOS	B			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		25.0	8.4	80.0				88.5
Change Period (Y+Rc), s		4.0	4.0	6.0				6.0
Max Green Setting (Gmax), s		21.0	6.0	79.0				89.0
Max Q Clear Time (g_c+l1), s		8.4	3.3	50.2				14.5
Green Ext Time (p_c), s		0.6	0.0	23.8				48.3
Intersection Summary								
HCM 2010 Ctrl Delay			15.9					
HCM 2010 LOS			B					

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:40	4:40	4:40	4:40	4:40	4:40
End Time	4:55	4:55	4:55	4:55	4:55	4:55
Total Time (min)	15	15	15	15	15	15
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	581	590	569	605	583	586
Vehs Exited	608	582	558	608	605	592
Starting Vehs	85	58	72	76	78	75
Ending Vehs	58	66	83	73	56	67
Travel Distance (mi)	287	288	270	291	288	285
Travel Time (hr)	12.0	11.8	11.0	11.9	12.0	11.7
Total Delay (hr)	3.0	3.0	2.6	2.9	3.1	2.9
Total Stops	191	183	161	192	192	183
Fuel Used (gal)	10.6	10.4	9.8	10.5	10.5	10.4

Interval #0 Information Seeding

Start Time	4:40
End Time	4:45
Total Time (min)	5
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:45					
End Time	4:55					
Total Time (min)	10					
Run Number	1	2	3	4	5	Avg
Vehs Entered	581	590	569	605	583	586
Vehs Exited	608	582	558	608	605	592
Starting Vehs	85	58	72	76	78	75
Ending Vehs	58	66	83	73	56	67
Travel Distance (mi)	287	288	270	291	288	285
Travel Time (hr)	12.0	11.8	11.0	11.9	12.0	11.7
Total Delay (hr)	3.0	3.0	2.6	2.9	3.1	2.9
Total Stops	191	183	161	192	192	183
Fuel Used (gal)	10.6	10.4	9.8	10.5	10.5	10.4

Intersection: 4: WCR 19 & E Harmony Rd

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	L	T	T	L	L
Maximum Queue (ft)	271	283	65	128	124	147	102
Average Queue (ft)	215	214	40	95	80	107	46
95th Queue (ft)	293	318	76	148	158	169	111
Link Distance (ft)	1050	1050		803	803	752	752
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			440				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 0



Intersection						
Intersection Delay, s/veh	8.4					
Intersection LOS	A					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	574		1129		153	
Demand Flow Rate, veh/h	586		1151		156	
Vehicles Circulating, veh/h	60		75		334	
Vehicles Exiting, veh/h	1166		415		312	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	6.0		10.1		5.0	
Approach LOS	A		B		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	0.481	0.519
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	275	311	541	610	75	81
Cap Entry Lane, veh/h	1080	1083	1068	1072	880	894
Entry HV Adj Factor	0.982	0.979	0.980	0.981	0.987	0.975
Flow Entry, veh/h	270	304	530	598	74	79
Cap Entry, veh/h	1061	1061	1047	1051	868	872
V/C Ratio	0.255	0.287	0.506	0.569	0.085	0.091
Control Delay, s/veh	5.8	6.2	9.4	10.7	5.0	5.0
LOS	A	A	A	B	A	A
95th %tile Queue, veh	1	1	3	4	0	0

Intersection						
Intersection Delay, s/veh	11.5					
Intersection LOS	B					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1423		592		272	
Demand Flow Rate, veh/h	1452		604		277	
Vehicles Circulating, veh/h	54		176		1054	
Vehicles Exiting, veh/h	726		1155		452	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	13.4		6.8		11.4	
Approach LOS	B		A		B	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.635	0.365
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	682	770	284	320	176	101
Cap Entry Lane, veh/h	1085	1088	990	999	513	540
Entry HV Adj Factor	0.981	0.980	0.980	0.981	0.983	0.980
Flow Entry, veh/h	669	754	278	314	173	99
Cap Entry, veh/h	1064	1066	970	980	504	530
V/C Ratio	0.629	0.708	0.287	0.320	0.343	0.187
Control Delay, s/veh	12.1	14.6	6.6	7.0	12.6	9.3
LOS	B	B	A	A	B	A
95th %tile Queue, veh	5	6	1	1	2	1

Intersection						
Intersection Delay, s/veh	11.3					
Intersection LOS	B					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	690		1430		170	
Demand Flow Rate, veh/h	703		1458		174	
Vehicles Circulating, veh/h	66		85		425	
Vehicles Exiting, veh/h	1477		514		344	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	6.7		14.3		5.5	
Approach LOS	A		B		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	0.489	0.511
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	330	373	685	773	85	89
Cap Entry Lane, veh/h	1075	1079	1060	1065	822	839
Entry HV Adj Factor	0.982	0.980	0.981	0.980	0.976	0.978
Flow Entry, veh/h	324	366	672	758	83	87
Cap Entry, veh/h	1056	1057	1040	1044	802	820
V/C Ratio	0.307	0.346	0.646	0.726	0.103	0.106
Control Delay, s/veh	6.4	6.9	12.8	15.6	5.5	5.4
LOS	A	A	B	C	A	A
95th %tile Queue, veh	1	2	5	7	0	0

Intersection						
Intersection Delay, s/veh	17.6					
Intersection LOS	C					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1747		748		300	
Demand Flow Rate, veh/h	1782		763		306	
Vehicles Circulating, veh/h	60		195		1343	
Vehicles Exiting, veh/h	898		1454		499	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	21.9		8.1		16.6	
Approach LOS	C		A		C	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.470	0.530	0.471	0.529	0.637	0.363
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	838	944	359	404	195	111
Cap Entry Lane, veh/h	1080	1083	976	986	413	441
Entry HV Adj Factor	0.980	0.981	0.980	0.982	0.979	0.982
Flow Entry, veh/h	821	926	352	397	191	109
Cap Entry, veh/h	1058	1063	956	968	404	433
V/C Ratio	0.776	0.871	0.368	0.410	0.473	0.252
Control Delay, s/veh	17.9	25.3	7.8	8.3	19.0	12.3
LOS	C	D	A	A	C	B
95th %tile Queue, veh	8	12	2	2	2	1

Intersection						
Intersection Delay, s/veh	38.4					
Intersection LOS	E					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	937		2093		199	
Demand Flow Rate, veh/h	955		2135		203	
Vehicles Circulating, veh/h	78		99		629	
Vehicles Exiting, veh/h	2156		733		404	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	8.5		54.8		6.7	
Approach LOS	A		F		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.488	0.512
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	449	506	1003	1132	99	104
Cap Entry Lane, veh/h	1066	1070	1049	1054	705	728
Entry HV Adj Factor	0.980	0.981	0.981	0.980	0.980	0.981
Flow Entry, veh/h	440	496	984	1109	97	102
Cap Entry, veh/h	1045	1050	1029	1033	691	714
V/C Ratio	0.421	0.473	0.956	1.074	0.140	0.143
Control Delay, s/veh	8.0	8.8	38.4	69.3	6.8	6.6
LOS	A	A	E	F	A	A
95th %tile Queue, veh	2	3	17	26	0	0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:40	7:40	7:40	7:40	7:40	7:40
End Time	7:55	7:55	7:55	7:55	7:55	7:55
Total Time (min)	15	15	15	15	15	15
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	513	467	454	482	464	476
Vehs Exited	507	469	465	476	471	478
Starting Vehs	56	59	58	53	64	59
Ending Vehs	62	57	47	59	57	55
Travel Distance (mi)	251	232	229	239	229	236
Travel Time (hr)	10.0	9.1	8.8	9.4	8.8	9.2
Total Delay (hr)	2.0	1.6	1.4	1.8	1.5	1.7
Total Stops	130	83	34	110	49	80
Fuel Used (gal)	9.0	8.2	8.1	8.5	8.2	8.4

Interval #0 Information Seeding

Start Time	7:40
End Time	7:45
Total Time (min)	5
No data recorded this interval.	

Interval #1 Information Recording

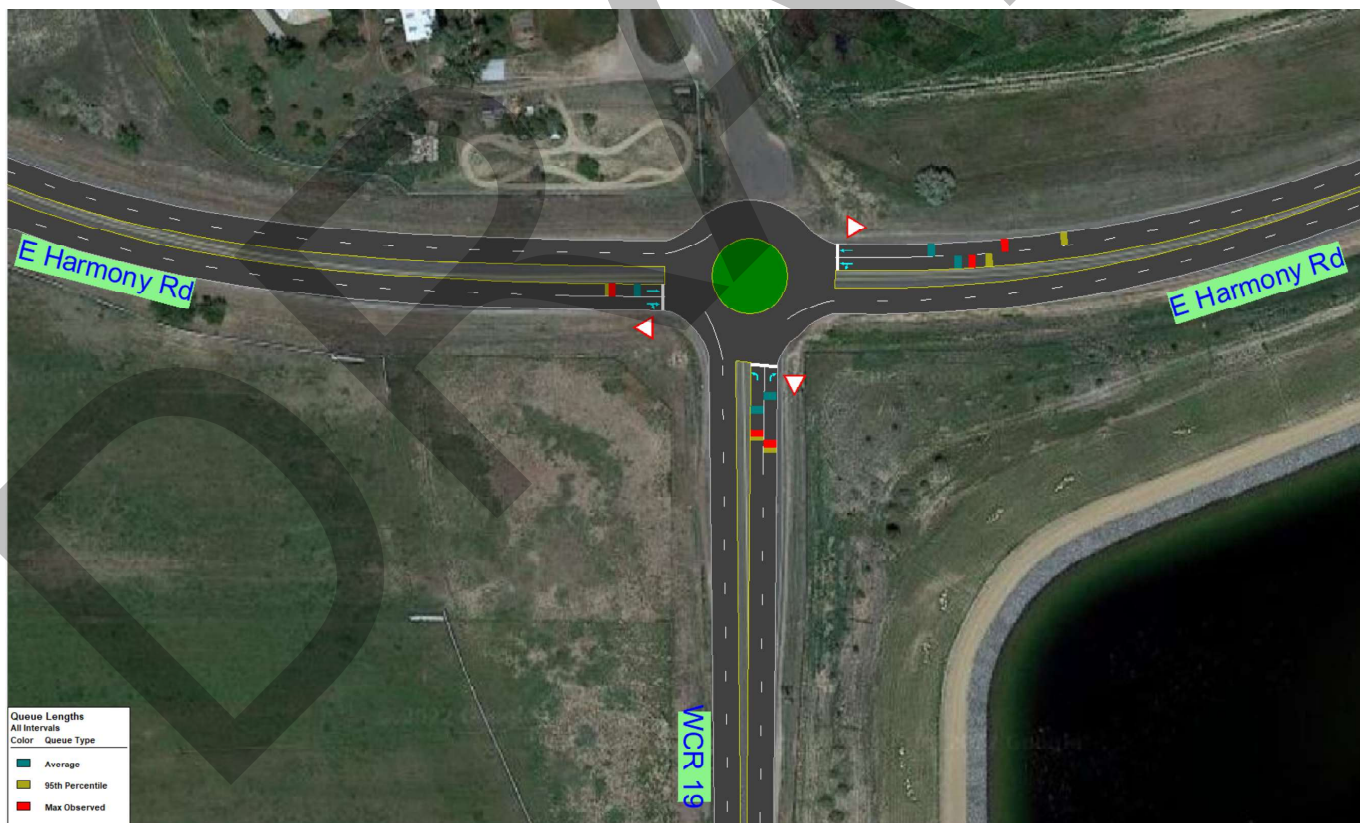
Start Time	7:45					
End Time	7:55					
Total Time (min)	10					
Run Number	1	2	3	4	5	Avg
Vehs Entered	513	467	454	482	464	476
Vehs Exited	507	469	465	476	471	478
Starting Vehs	56	59	58	53	64	59
Ending Vehs	62	57	47	59	57	55
Travel Distance (mi)	251	232	229	239	229	236
Travel Time (hr)	10.0	9.1	8.8	9.4	8.8	9.2
Total Delay (hr)	2.0	1.6	1.4	1.8	1.5	1.7
Total Stops	130	83	34	110	49	80
Fuel Used (gal)	9.0	8.2	8.1	8.5	8.2	8.4

Intersection: 4: WCR 19 & E Harmony Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	LT	T	L	R
Maximum Queue (ft)	48	21	120	113	51	47
Average Queue (ft)	24	7	77	52	35	19
95th Queue (ft)	56	35	151	162	60	55
Link Distance (ft)	1013	1013	756	756	720	720
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 0



Intersection						
Intersection Delay, s/veh	73.8					
Intersection LOS	F					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	2451		1085		351	
Demand Flow Rate, veh/h	2500		1106		358	
Vehicles Circulating, veh/h	69		228		1986	
Vehicles Exiting, veh/h	1265		2116		583	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	103.6		11.9		57.3	
Approach LOS	F		B		F	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.637	0.363
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	1175	1325	520	586	228	130
Cap Entry Lane, veh/h	1073	1077	952	963	255	281
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.982	0.977
Flow Entry, veh/h	1152	1299	510	575	224	127
Cap Entry, veh/h	1052	1056	934	945	250	275
V/C Ratio	1.095	1.231	0.546	0.608	0.895	0.462
Control Delay, s/veh	76.1	128.0	11.1	12.6	74.9	26.2
LOS	F	F	B	B	F	D
95th %tile Queue, veh	28	42	3	4	8	2

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:40	4:40	4:40	4:40	4:40	4:40
End Time	4:55	4:55	4:55	4:55	4:55	4:55
Total Time (min)	15	15	15	15	15	15
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	584	578	572	602	565	580
Vehs Exited	576	546	528	550	550	550
Starting Vehs	79	67	88	104	84	82
Ending Vehs	87	99	132	156	99	114
Travel Distance (mi)	282	273	262	274	274	273
Travel Time (hr)	15.3	16.1	17.7	19.3	12.8	16.3
Total Delay (hr)	6.4	7.5	9.5	10.7	4.2	7.7
Total Stops	409	470	444	498	320	430
Fuel Used (gal)	10.8	10.5	10.5	11.1	10.1	10.6

Interval #0 Information Seeding

Start Time	4:40
End Time	4:45
Total Time (min)	5
No data recorded this interval.	

Interval #1 Information Recording

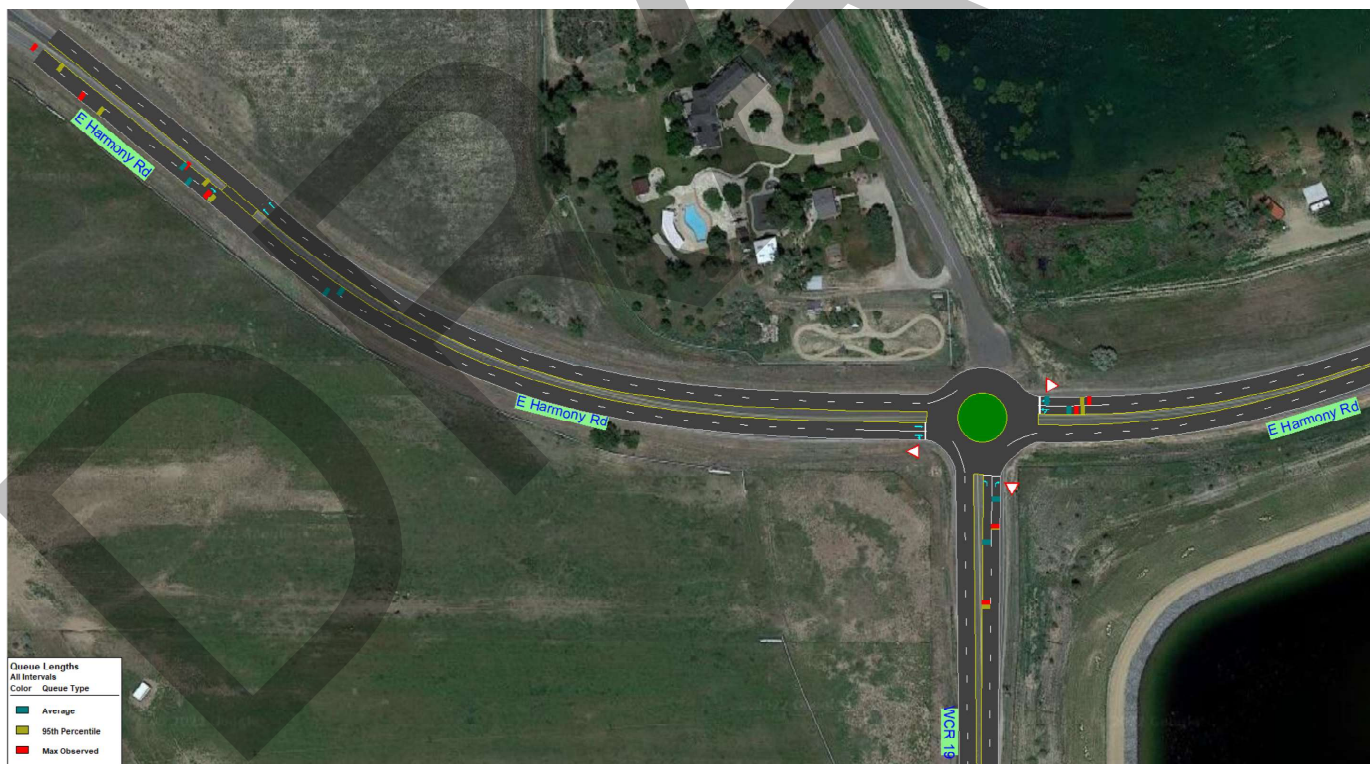
Start Time	4:45					
End Time	4:55					
Total Time (min)	10					
Run Number	1	2	3	4	5	Avg
Vehs Entered	584	578	572	602	565	580
Vehs Exited	576	546	528	550	550	550
Starting Vehs	79	67	88	104	84	82
Ending Vehs	87	99	132	156	99	114
Travel Distance (mi)	282	273	262	274	274	273
Travel Time (hr)	15.3	16.1	17.7	19.3	12.8	16.3
Total Delay (hr)	6.4	7.5	9.5	10.7	4.2	7.7
Total Stops	409	470	444	498	320	430
Fuel Used (gal)	10.8	10.5	10.5	11.1	10.1	10.6

Intersection: 4: WCR 19 & E Harmony Rd

Movement	EB	EB	B5	B5	WB	WB	NB	NB
Directions Served	T	TR	T	T	LT	T	L	R
Maximum Queue (ft)	796	808	67	48	74	23	174	76
Average Queue (ft)	562	588	13	10	50	5	120	41
95th Queue (ft)	1005	1032	122	87	91	32	213	85
Link Distance (ft)	1013	1013	320	320	756	756	720	720
Upstream Blk Time (%)	2	2	0					
Queuing Penalty (veh)	0	0	0					
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 0





ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

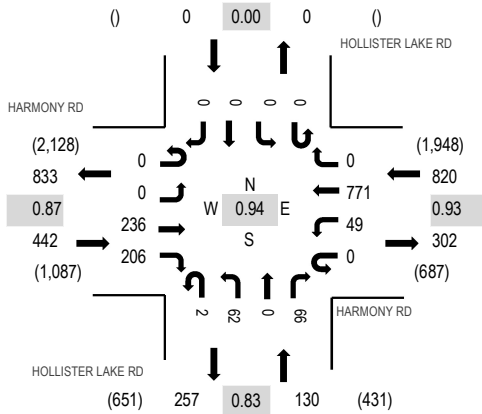
Location: 1 HOLLISTER LAKE RD & HARMONY RD AM

Date: Wednesday, May 4, 2022

Peak Hour: 07:15 AM - 08:15 AM

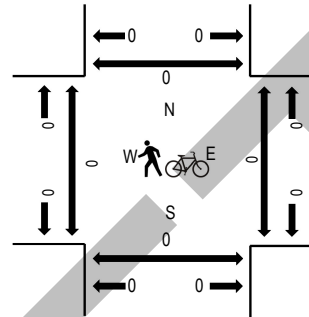
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	HARMONY RD Eastbound				HARMONY RD Westbound				HOLLISTER LAKE RD Northbound				HOLLISTER LAKE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:00 AM	0	0	25	28	0	6	84	0	0	25	0	2	0	0	0	0	170	951	0	0	0	0
6:15 AM	0	0	24	37	0	12	101	0	0	25	0	3	0	0	0	0	202	1,104	0	0	0	0
6:30 AM	0	0	35	43	0	15	144	0	0	49	0	3	0	0	0	0	289	1,250	0	0	0	0
6:45 AM	0	0	39	50	0	12	144	0	0	38	0	7	0	0	0	0	290	1,309	0	0	0	0
7:00 AM	0	0	43	37	0	17	189	0	0	37	0	0	0	0	0	0	323	1,389	0	0	0	0
7:15 AM	0	0	48	46	0	28	205	0	1	17	0	3	0	0	0	0	348	1,392	0	0	0	0
7:30 AM	0	0	43	56	0	2	218	0	0	2	0	27	0	0	0	0	348	1,361	0	0	0	0
7:45 AM	0	0	74	59	0	10	197	0	1	5	0	24	0	0	0	0	370	1,306	0	0	0	0
8:00 AM	0	0	71	45	0	9	151	0	0	38	0	12	0	0	0	0	326	1,126	0	0	0	0
8:15 AM	0	0	77	37	0	12	149	0	0	35	0	7	0	0	0	0	317		0	0	0	0
8:30 AM	0	0	55	39	0	14	142	0	0	31	0	12	0	0	0	0	293		0	0	0	0
8:45 AM	0	0	49	27	0	8	79	0	0	23	0	4	0	0	0	0	190		0	0	0	0
Count Total	0	0	583	504	0	145	1,803	0	2	325	0	104	0	0	0	0	3,466		0	0	0	0
Peak Hour	0	0	236	206	0	49	771	0	2	62	0	66	0	0	0	0	1,392		0	0	0	0



ALL TRAFFIC DATA SERVICES

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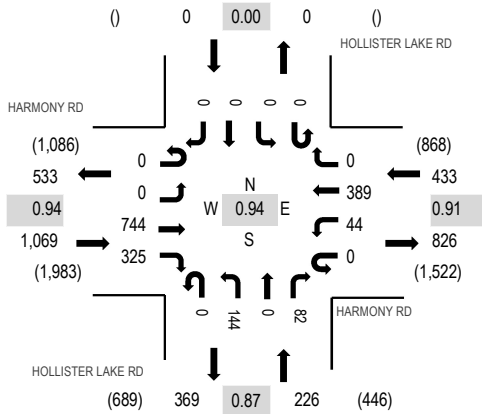
Location: 1 HOLLISTER LAKE RD & HARMONY RD PM

Date: Wednesday, May 4, 2022

Peak Hour: 04:45 PM - 05:45 PM

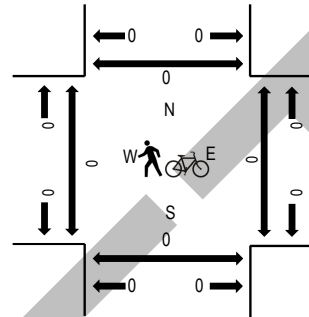
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	HARMONY RD Eastbound				HARMONY RD Westbound				HOLLISTER LAKE RD Northbound				HOLLISTER LAKE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	137	64	0	6	113	0	0	38	0	19	0	0	0	0	377	1,670	0	0	0	0
4:15 PM	0	0	144	88	0	14	115	0	0	35	0	12	0	0	0	0	408	1,690	0	0	0	0
4:30 PM	0	0	172	83	0	12	92	0	0	50	0	16	0	0	0	0	425	1,713	0	0	0	0
4:45 PM	0	0	178	79	0	11	123	0	0	39	0	30	0	0	0	0	460	1,728	0	0	0	0
5:00 PM	0	0	176	72	0	9	89	0	0	40	0	11	0	0	0	0	397	1,627	0	0	0	0
5:15 PM	0	0	192	87	0	10	88	0	0	34	0	20	0	0	0	0	431		0	0	0	0
5:30 PM	0	0	198	87	0	14	89	0	0	31	0	21	0	0	0	0	440		0	0	0	0
5:45 PM	0	0	182	44	0	9	74	0	0	36	0	14	0	0	0	0	359		0	0	0	0
Count Total	0	0	1,379	604	0	85	783	0	0	303	0	143	0	0	0	0	3,297		0	0	0	0
Peak Hour	0	0	744	325	0	44	389	0	0	144	0	82	0	0	0	0	1,728		0	0	0	0



Weld County Public Works Department
DiExSys™ Roadway Safety Systems
Detailed Summary of Crashes Report

05/12/2022

Job #: 20220512140647

Location: Accident History for CR 74 and CR 19

From:06/30/2015 **To:**06/30/2020

Severity

PDO: 11
INJ: 7 11 :Injured
FAT: 0 0 :Killed

Total: 18

Number of Vehicles

One Vehicle: 1
Two Vehicles: 16
Three or More: 1
Unknown: 0

Total: 18

Location

On Road: 17
Off Road Left: 1
Off Road Right: 0
Off Road at Tee: 0
Off in Median: 0
Unknown: 0

Total: 18

Lighting Conditions

Daylight: 14
Dawn or Dusk: 1
Dark - Lighted: 1
Dark - Unlighted: 2
Unknown: 0

Total: 18

Weather Conditions

None: 14
Rain: 1
Snow/Sleet/Hail: 0
Fog: 1
Dust: 0
Wind: 1
Unknown: 1

Total: 18

Crash Rates

PDO: N/A * * MVMT
INJ: N/A * ** 100 MVMT
FAT: N/A ** **Total: N/A ***

Crash Type

Overturning: 0
Other Non Collision: 0
Pedestrians: 0
Broadside: 7
Head On: 0
Rear End: 4
Sideswipe (Same): 1
Sideswipe (Opposite): 0
Approach Turn: 4
Overtaking Turn: 1
Parked Motor Vehicle: 0
Railway Vehicle: 0
Bicycle: 0
Motorized Bicycle: 0
Domestic Animal: 0
Wild Animal: 0
Light/Utility Pole: 0
Traffic Signal Pole: 0
Sign: 1
Bridge Rail: 0
Guard Rail: 0
Cable Rail: 0
Concrete Barrier: 0

Bridge Abutment: 0
Column/Pier: 0
Culvert/Headwall: 0
Embankment: 0
Curb: 0
Delineator Post: 0
Fence: 0
Tree: 0
Large Boulders or Rocks: 0
Barricade: 0
Wall/Building: 0
Crash Cushion: 0
Mailbox: 0
Other Fixed Object: 0
Total Fixed Objects: 1
Rocks in Roadway: 0
Vehicle Cargo/Debris: 0
Road Maintenance Equipment: 0
Involving Other Object: 0
Total Other Objects: 0
Unknown: 0

Total: 18

Mainline/Ramps/Frontage Roads

Mainline: 18
Crossroad (A): 0

Frontage/Ramp Intersections

M: 0 N: 0 O: 0 P: 0

Ramps

B: 0 F: 0 J: 0
C: 0 G: 0 K: 0
D: 0 H: 0 T: 0
E: 0 I: 0 Z: 0

Left Frontage Rd (L): 0
Rt Frontage Rd (R): 0
HOV Lanes (V): 0
Unknown: 0

Total: 18

Road Description

At Intersection: 15
At Driveway Access: 0
Intersection Related: 3
Non Intersection: 0
In Alley: 0
Roundabout: 0
Ramp: 0
Parking Lot: 0
Unknown: 0

Total: 18

Road Conditions

Dry: 16
Wet: 1
Muddy: 0
Snowy: 0
Icy: 1
Slushy: 0
Foreign Material: 0
With Road Treatment: 0
Dry w/Icy Road Treatment: 0
Wet w/Icy Road Treatment: 0
Snowy w/Icy Road Treatment: 0
Icy w/Icy Road Treatment: 0
Slushy w/Icy Road Treatment: 0
Unknown: 0

Total: 18



Weld County Public Works Department
DiExSys™ Roadway Safety Systems
Detailed Summary of Crashes Report

05/12/2022

Job #: 20220512140647

Location: Accident History for CR 74 and CR 19 **From:** 06/30/2015 **To:** 06/30/2020

Vehicle Type	Veh 1	Veh 2	Veh 3	Vehicle Movement	Veh 1	Veh 2	Veh 3
Passenger Car/Van:	8	8	0	Going Straight:	4	12	0
Passenger Car/Van w/Trl:	0	0	0	Slowing:	2	1	1
Pickup Truck/Utility Van:	3	5	0	Stopped in Traffic:	0	4	0
Pickup Truck/Utility Van w/Trl:	0	0	0	Making Right Turn:	0	0	0
SUV:	4	4	1	Making Left Turn:	10	0	0
SUV w/Trl:	0	0	0	Making U-Turn:	1	0	0
Truck 10k lbs or Less:	0	0	0	Passing:	0	0	0
Trucks > 10k lbs/Bus > 15 People:	1	0	0	Backing:	0	0	0
School Bus < 15 People:	0	0	0	Enter/Leave Parked Position:	0	0	0
Non School Bus < 15 People:	0	0	0	Starting in Traffic:	0	0	0
Motorhome:	0	0	0	Parked:	0	0	0
Motorcycle:	0	0	0	Changing Lanes:	1	0	0
Bicycle:	0	0	0	Avoiding Object/Veh in Road:	0	0	0
Motorized Bicycle:	0	0	0	Weaving:	0	0	0
Farm Equipment:	0	0	0	Wrong Way:	0	0	0
Hit and Run - Unknown:	2	0	0	Other:	0	0	0
Other:	0	0	0	Unknown:	0	0	0
Unknown:	0	0	0	Total:	18	17	1

Contributing Factor	Veh 1	Veh 2	Veh 3	Direction	Veh 1	Veh 2	Veh 3
No Apparent Contributing Factor:	12	16	0	North:	10	4	0
Asleep at the Wheel:	0	0	0	Northeast:	0	0	0
Illness:	0	0	0	East:	3	12	1
Distracted by Passenger:	0	0	0	Southeast:	0	0	0
Driver Inexperience:	3	0	0	South:	0	0	0
Driver Fatigue:	0	0	0	Southwest:	0	0	0
Driver Preoccupied:	1	0	0	West:	5	1	0
Driver Unfamiliar with Area:	0	0	0	Northwest:	0	0	0
Driver Emotionally Upset:	0	0	0	Unknown:	0	0	0
Evading Law Enforcement Officer:	0	0	0	Total:	18	17	1
Physical Disability:	0	0	0				
Unknown:	2	1	1				
Total:	18	17	1				

Condition of Driver	Veh 1	Veh 2	Veh 3
No Impairment Suspected:	17	17	1
Alcohol Involved:	1	0	0
RX, Medication, or Drugs Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Pedestrian not Observed:	0	0	0
Unknown:	0	0	0
Total:	18	17	1



Weld County Public Works Department
DiExSys™ Roadway Safety Systems

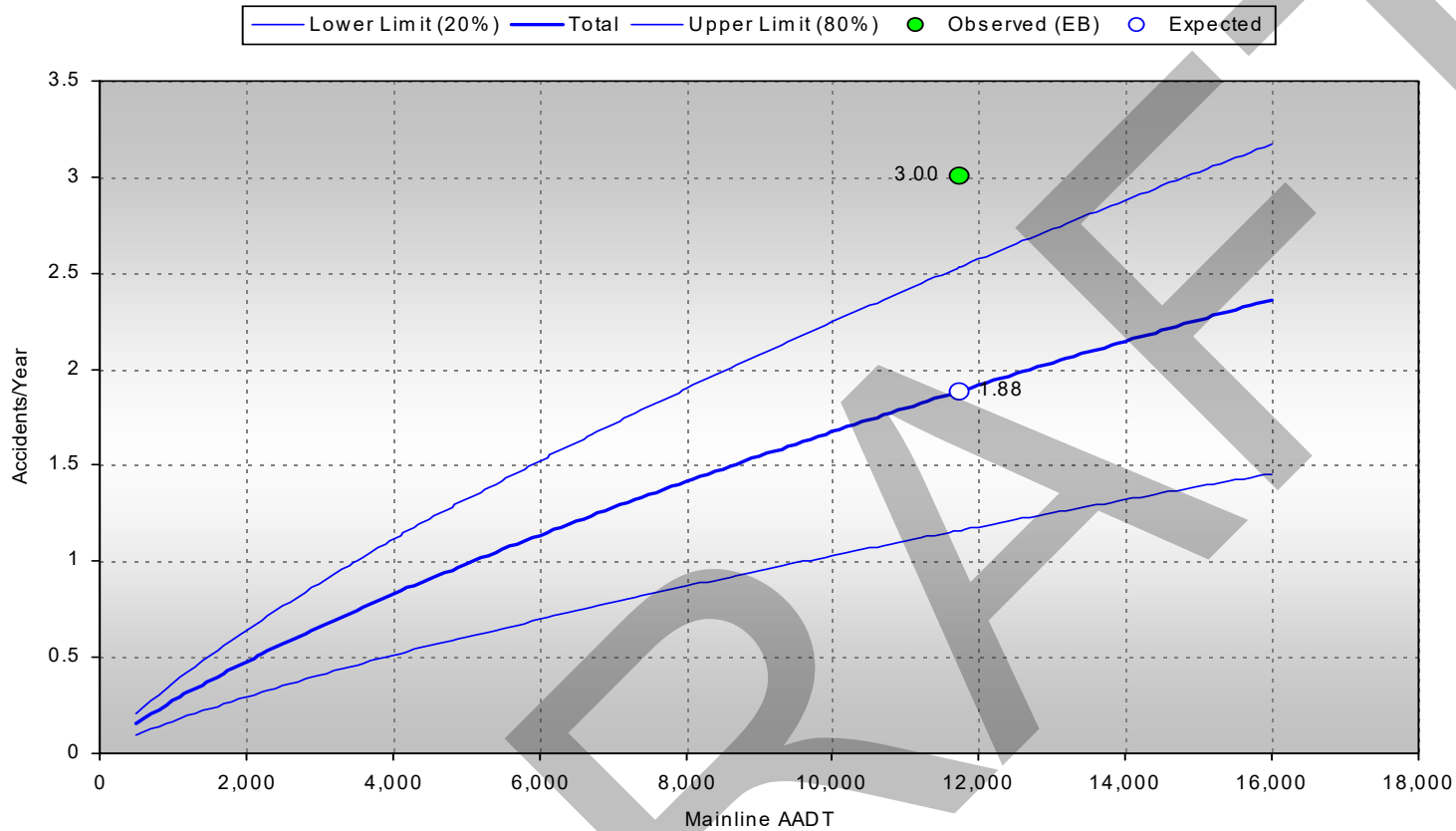
05/12/2022

SPF Model: CO - Rural 2-Lane Divided Unsignalized 3-Leg Intersections (2018)

Job #: 20220512144513

Location: Accident History for CR 19 and CR 74

From:06/30/2015 To:06/30/2020





Weld County Public Works Department
DiExSys™ Roadway Safety Systems

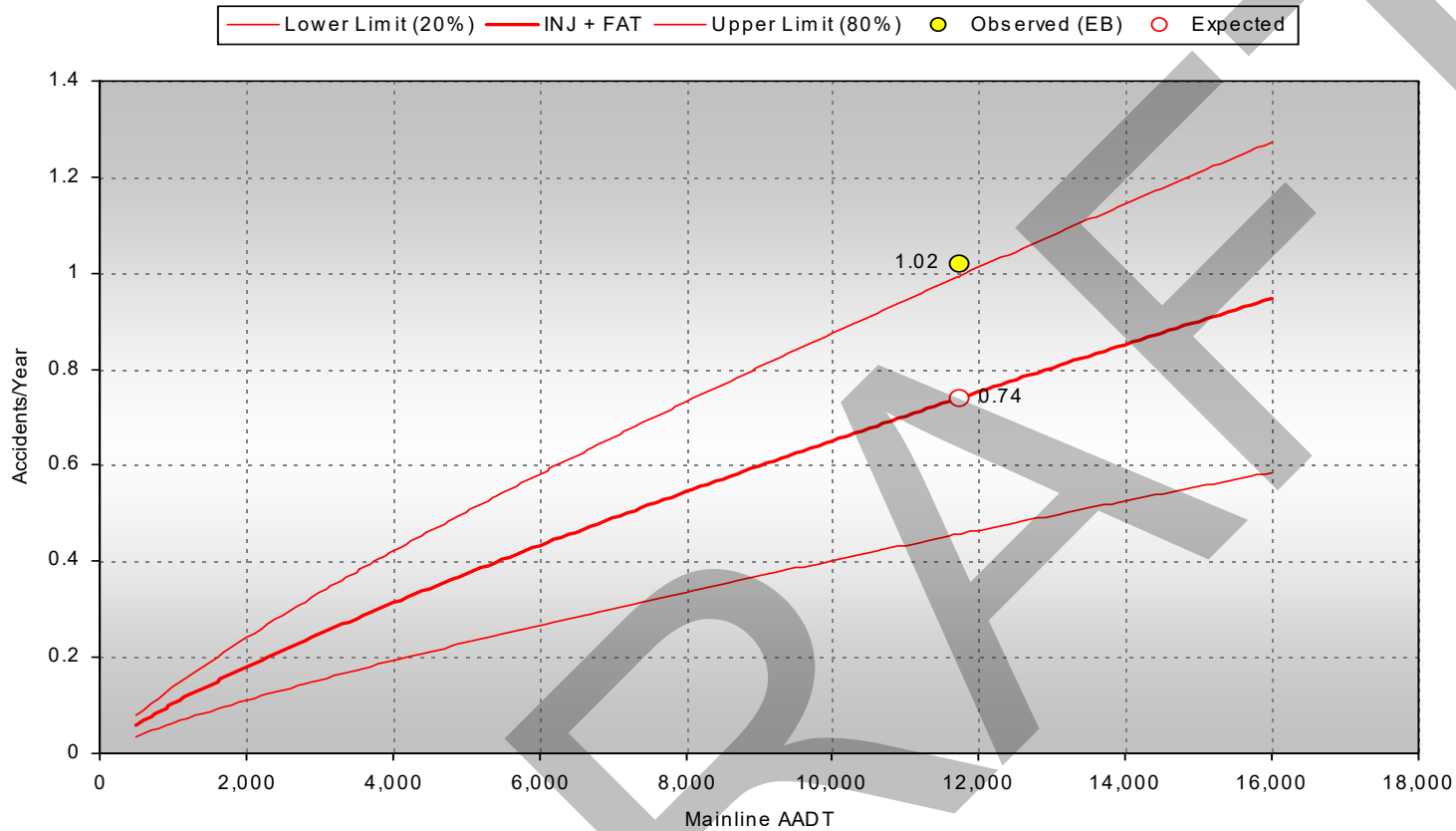
05/12/2022

SPF Model: CO - Rural 2-Lane Divided Unsignalized 3-Leg Intersections (2018)

Job #: 20220512144554

Location: Accident History for CR 19 and CR 74

From:06/30/2015 To:06/30/2020





Weld County Public Works Department
DiExSys™ Roadway Safety Systems
Direct Diagnostics (Spot Location) Analysis

05/12/2022

Job #: 20220512141650

Location File: DIRECT_DIAGNOSTICS_FOR_CR_74_AND_CR_19

Cutoff: 5 Acc's @ 95%

Baseline Statistics

CATEGORY	Statewide Average		This Location		Probability
	# Crashes	%	# Crashes	%	%
Property Damage Only (PDO)	67	65.69%	11	61.11%	42.63%
Injury (INJ)	34	33.33%	7	38.89%	77.67%
Fatal (FAT)	1	0.98%	0	0.00%	N/A
Persons Injured	63		11		
Persons Killed	1		0		N/A
Single Vehicle Accidents	22	21.57%	1	5.56%	7.50%
Two Vehicle Accidents	76	74.51%	16	88.89%	96.41%
Three or More Vehicle Accidents	4	3.92%	1	5.56%	84.43%
Unknown Number of Vehicles	0	0.00%	0	0.00%	N/A
On Road	79	77.45%	17	94.44%	98.99%
Off Road	23	22.55%	1	5.56%	6.28%
Off Road Left	4	3.92%	1	5.56%	84.43%
Off Road Right	11	10.78%	0	0.00%	N/A
Off Road at Tee	8	7.84%	0	0.00%	N/A
Off Road in Median	0	0.00%	0	0.00%	N/A
Unknown Road Location	0	0.00%	0	0.00%	N/A
Overtaking	6	5.88%	0	0.00%	N/A
Other Non Collision	0	0.00%	0	0.00%	N/A
Vehicle Cargo or Debris	0	0.00%	0	0.00%	N/A
Pedestrian	0	0.00%	0	0.00%	N/A
Broadside	22	21.57%	7	38.89%	97.47%
Head On	0	0.00%	0	0.00%	N/A
Rear End	31	30.39%	4	22.22%	31.96%
Sideswipe (Same Direction)	4	3.92%	1	5.56%	84.43%
Sideswipe (Opposite Direction)	3	2.94%	0	0.00%	N/A
Approach Turn	13	12.75%	4	22.22%	93.07%
Overtaking Turn	1	0.98%	1	5.56%	98.68%
Parked Motor Vehicle	2	1.96%	0	0.00%	N/A
Railway Vehicle	0	0.00%	0	0.00%	N/A
Bicycle or Pedal Cycle	0	0.00%	0	0.00%	N/A
Motorized Bicycle	0	0.00%	0	0.00%	N/A
Domestic Animal	0	0.00%	0	0.00%	N/A
Wild Animal	1	0.98%	0	0.00%	N/A
Light or Utility Pole	1	0.98%	0	0.00%	N/A
Bridge Rail	0	0.00%	0	0.00%	N/A
Guard Rail	4	3.92%	0	0.00%	N/A
Cable Rail	0	0.00%	0	0.00%	N/A
Concrete Barrier	0	0.00%	0	0.00%	N/A
Bridge Abutment	0	0.00%	0	0.00%	N/A
Culvert or Headwall	0	0.00%	0	0.00%	N/A
Delineator Post	1	0.98%	0	0.00%	N/A
Large Boulders or Rocks	0	0.00%	0	0.00%	N/A
Rocks in Roadway	0	0.00%	0	0.00%	N/A
Barricade	0	0.00%	0	0.00%	N/A
Wall or Building	0	0.00%	0	0.00%	N/A
Mailbox	0	0.00%	0	0.00%	N/A
Other Fixed Object	0	0.00%	0	0.00%	N/A
Road Maintenance Equipment	0	0.00%	0	0.00%	N/A
Unknown Accident Type	0	0.00%	0	0.00%	N/A

Highway Class: CO - Rural 2-Lane Divided UnSignalized 3-Leg Intersections (2018)



Weld County Public Works Department
DiExSys™ Roadway Safety Systems
Direct Diagnostics (Spot Location) Analysis

05/12/2022

Job #: 20220512141650

Location File: DIRECT_DIAGNOSTICS_FOR_CR_74_AND_CR_19

Cutoff: 5 Acc's @ 95%

Baseline Statistics

CATEGORY	Statewide Average		This Location		Probability
	# Crashes	%	# Crashes	%	%
Total Fixed Objects	19	18.63%	1	5.56%	12.53%
Total Other Objects	0	0.00%	0	0.00%	N/A
Daylight	76	74.51%	14	77.78%	71.07%
Dawn or Dusk	9	8.82%	1	5.56%	51.99%
Dark - Lighted	2	1.96%	1	5.56%	95.22%
Dark - Unlighted	15	14.71%	2	11.11%	49.39%
Unknown Lighting	0	0.00%	0	0.00%	N/A
No Adverse Weather	86	84.31%	14	77.78%	30.92%
Rain	4	3.92%	1	5.56%	84.43%
Snow or Sleet or Hail	10	9.80%	0	0.00%	N/A
Fog	2	1.96%	1	5.56%	95.22%
Dust	0	0.00%	0	0.00%	N/A
Wind	0	0.00%	1	5.56%	100.00%
Unknown Weather	0	0.00%	1	5.56%	100.00%
Dry Road	78	76.47%	16	88.89%	94.77%
Wet Road	12	11.76%	1	5.56%	35.73%
Muddy Road	0	0.00%	0	0.00%	N/A
Snowy Road	2	1.96%	0	0.00%	N/A
Icy Road	6	5.88%	1	5.56%	71.36%
Slushy Road	2	1.96%	0	0.00%	N/A
Foreign Material Road	0	0.00%	0	0.00%	N/A
With Road Treatment	0	0.00%	0	0.00%	N/A
Dry with Icy Road Treatment	0	0.00%	0	0.00%	N/A
Wet with Icy Road Treatment	0	0.00%	0	0.00%	N/A
Snowy with Icy Road Treatment	2	1.96%	0	0.00%	N/A
Icy with Icy Road Treatment	0	0.00%	0	0.00%	N/A
Slushy with Icy Road Treatment	0	0.00%	0	0.00%	N/A
Unknown Road Condition	0	0.00%	0	0.00%	N/A
Driver 1 - No Apparent Contributing Factor	57	55.88%	12	66.67%	87.77%
Driver 1 - Asleep at the Wheel	1	0.98%	0	0.00%	N/A
Driver 1 - Illness	1	0.98%	0	0.00%	N/A
Driver 1 - Distracted by Passenger	0	0.00%	0	0.00%	N/A
Driver 1 - Driver Inexperience	10	9.80%	3	16.67%	90.72%
Driver 1 - Driver Fatigue	1	0.98%	0	0.00%	N/A
Driver 1 - Driver Preoccupied	10	9.80%	1	5.56%	46.15%
Driver 1 - Driver Unfamiliar with Area	7	6.86%	0	0.00%	N/A
Driver 1 - Driver Emotionally Upset	0	0.00%	0	0.00%	N/A
Driver 1 - Evading Law Enforcement Officer	0	0.00%	0	0.00%	N/A
Driver 1 - Physical Disability	0	0.00%	0	0.00%	N/A
Driver 1 - Unknown Contributing Factor	15	14.71%	2	11.11%	49.39%
Driver 1 - No Impairment Suspected	97	95.10%	17	94.44%	59.53%
Driver 1 - Alcohol Involved	4	3.92%	1	5.56%	84.43%
Driver 1 - RX, Medication, or Drugs Involved	0	0.00%	0	0.00%	N/A
Driver 1 - Illegal Drugs Involved	0	0.00%	0	0.00%	N/A
Driver 1 - Alcohol and Drugs Involved	1	0.98%	0	0.00%	N/A
Driver 1 - Driver/Pedestrian not Observed	0	0.00%	0	0.00%	N/A
Driver 1 - Unknown Condition of Driver/Pedestrian	0	0.00%	0	0.00%	N/A
Total Accidents	102		18		
Total Number of Records	46		0		N/A

Highway Class: CO - Rural 2-Lane Divided UnSignalized 3-Leg Intersections (2018)



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Ordinance 2022-11: Ordinance Regarding Suspension on the Community Development Department's Acceptance and Processing of Certain New Land Use Applications for Residential Development on Land Within the Boundaries of the Town of Severance Water Utility Enterprise (Tabled)	Keith Martin, Town Attorney	Keith Martin, Town Attorney
ACTION REQUESTED		
Management and Legal ask the Town Council to discuss the proposed Ordinance 2022-11 regarding a suspension on the Community Development Department's acceptance and processing of certain new land use applications and take action: • Actions that may be taken: ○ Move to approve Ordinance 2022-11 ○ Table Ordinance 2022-11 for the Next Available Meeting ○ Take no action		<u>Ordinance</u>
BRIEF SUMMARY		
The current Water Service Agreement (inclusive of the 1st and 2nd Amendments thereto) between the Town and North Weld County Water District ("District") confers upon the Town's water utility enterprise the right to use and receive a defined daily peak demand capacity (or flow) of water based upon 1,040 plant investment taps amounting to 1,040 GPM ("Water Flow Requirement") for operation of the Town's potable water system. The current Water Flow Requirement is adequate to serve all existing customers and all approved projects within the boundaries of the Town's water utility enterprise service area. It is not, however, sufficient to meet anticipated maximum peak flow demands for any new residential projects within the Town's water enterprise service area that may receive future land use approvals. Moreover, unless and until the Town and the District execute a new water service agreement, the Town is unable to purchase any additional, new plant investment taps from the District under the terms of the current Water Service Agreement. This ordinance would direct the Community Development Department to halt the acceptance and processing of subdivision, zoning, use by additional review or site plan applications regarding prospective residential developments on land within the boundaries of the Town's water utility enterprise service area until December 31, 2022 to allow the Town and the District to negotiate and execute a new water service agreement that would provide for the future purchase of additional plant investment taps, and in the meantime prevent certain land use applications from going forward that, if ultimately approved before		

an agreement is in place, would entitle the creation of future residential dwellings without the availability of water service, posing a risk of eroding the overall operation of the Town's potable water system and the quality of service to be provided to customers of the Town's potable water utility enterprise.

PUBLIC SUPPORT/CONCERN

None at this time.

ANALYSIS AND RECOMMENDATION

None at this time.

MATERIALS SUBMITTED

The following materials were submitted and included in this packet:

1. C.3- Ord 2022-11-Development Land Use Applications Suspension
2. Water Service Area

**TOWN OF SEVERANCE
ORDINANCE NO. 2022-11**

**AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF SEVERANCE,
COLORADO, REGARDING A SUSPENSION ON THE COMMUNITY
DEVELOPMENT DEPARTMENT'S ACCEPTANCE AND PROCESSING OF CERTAIN
NEW LAND USE APPLICATIONS FOR RESIDENTIAL DEVELOPMENT ON LAND
WITHIN THE BOUNDARIES OF THE TOWN OF SEVERANCE WATER UTILITY
ENTERPRISE**

WHEREAS, the Town of Severance Water Utility Enterprise ("Town") owns, maintains and operates a system for the storage and distribution of potable water ("Town System") to its residents and customers within the area described and depicted on **Exhibit A**, attached hereto ("Town Service Area"), utilizing the Town's own water supply that includes water resulting from existing water supplies, future water supply projects and existing and after-acquired water rights; and

WHEREAS, North Weld County Water District ("District") owns, maintains and operates a system for the treatment, storage and distribution of potable water ("District System") within Weld County; and

WHEREAS, the Town System, although separate and independent from the District's System, relies solely and exclusively upon the District System to treat and deliver the Town's water supply to the Town's System through two master meters ("Delivery Points"); and

WHEREAS, the Town does not presently own separate and independent water infrastructure or facilities capable of treating and delivering the Town's water supply to the Town System; and

WHEREAS, the District and the Town have entered into an Amended and Restated Water Service Agreement, dated March 9, 2019, as amended by that certain First Amendment to Amended and Restated Water Service Agreement, dated October 25, 2019, and as amended by that certain Second Amendment to Amended and Restated Water Service Agreement, dated April 12, 2022 (collectively, the "Water Service Agreement"), which outlines the rights, duties, and obligations of the District and Town regarding the Town's purchase of taps or plant investment taps from the District and the District's obligation to provide and deliver treated, potable water to the Town System up to the Delivery Points; and

WHEREAS, the Water Service Agreement confers upon the Town the right to use the District System upstream of the Delivery Points to treat and deliver to the Delivery Points a defined annual and daily peak demand capacity (or flow) of water based upon 1,040 plant investment taps ("Water Flow Requirement"), for the operation of the Town System downstream of the Delivery Points and, ultimately, the furnishing of potable water service by the Town to customers within the Town Service Area; and

WHEREAS, presently, the Town System serves approximately 2,595 existing single-family dwellings in the Town; and

WHEREAS, the Town anticipates permitting the construction of approximately 370 additional single-family dwellings for two fully-entitled existing residential developments located entirely within the Town Service Area; and

WHEREAS, the current Water Flow Requirement is capable of serving the 2,595 existing structures in the Town, and is capable of meeting the anticipated needs of new customer demand generated by the approximately 370 new single-family dwellings to be constructed over the course of the next two years; and

WHEREAS, the current Water Flow Requirement, however, would be insufficient to meet anticipated maximum peak flow demands for any new residential projects within the Town Service Area that may receive future land use approvals; and

WHEREAS, the Town and the District, in recognition of the deficiencies and limitations presently existing under the terms of the current Water Service Agreement, agreed as part of the Second Amendment to work in good-faith to negotiate and enter into a new water service agreement; and

WHEREAS, unless and until the Town and the District execute a new water service agreement, the Town is unable to purchase any additional, new plant investment taps from the District under the terms of the current Water Service Agreement; and

WHEREAS, without any additional plant investment taps immediately available for purchase from the District, the Town cannot deliver any amount of additional water to the Delivery Points above and beyond the current Water Flow Requirement now or in the foreseeable future, much less serve *new* residential development in the Town's Service Area (beyond what is already approved and entitled) at a level that would be adequate even to meet minimum health and safety standards and at the same time provide a level of service adequate to meet the needs of existing customers and of the new customers to be generated by residential developments already approved and entitled; and

WHEREAS, halting the acceptance and processing of certain new land use applications for new residential development on land within the Town Service Area is necessary to safeguard and preserve the public health, safety and welfare of the community, because allowing the creation of future residential dwellings within the Town Service Area without adequate water service available from the Town System, would render such dwellings uninhabitable, posing a serious health and safety hazard to their occupants; and

WHEREAS, suspending the acceptance and processing of certain new land use applications for new residential development on land within the Town Service Area is also necessary to protect existing service levels and the overall operation of the Town System, because the entitlement of any new residential development projects within the Town Service Area would pose an imminent risk of eroding the overall operation of the Town's potable water system and the quality of service to be provided to existing customers of the Town's System; and

WHEREAS, the duration of the moratorium imposed by this ordinance is reasonable in length and is no longer than is required to allow the Town to work with the District on negotiating, finalizing and executing a new water service agreement; and

WHEREAS, owners and developers of real property affected by this ordinance desiring to apply for land use approvals to entitle future residential development projects will not be unfairly prejudiced by the imposition of the short, temporary interruption proposed by this ordinance; and

WHEREAS, this ordinance is enacted pursuant to the Town of Severance's home rule authority under Article XX, § 6 of the Constitution of the State of Colorado, and pursuant to the Town of Severance's police powers, in order to safeguard and preserve the public health, safety and welfare of the community.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF SEVERANCE, COLORADO:

Section 1. Incorporation of recitals. The preceding recitals contained in the ordinance are hereby adopted and made a part of this ordinance and serve as findings of fact by the Town Council.

Section 2. Suspension of Development Review. The Community Development Department is directed not to accept, process, analyze, review or approve the following types of land use applications:

- (a) any *new* applications for subdivision approval for residential lots (of any size) on land or residential zoned property within the Town Service Area, including without limitation, concept plan, preliminary plat, final plat, replats, or minor plat approvals sought pursuant to Article IV, Chapter 16 of the Severance Land Use Code;
- (b) any *new* applications for subdivision approval for planned residential development projects or activities on land or residential zoned property within the Town Service Area, including without limitation, concept plan, preliminary plat, final plat, replats, or minor plat approvals sought pursuant to Article IV, Chapter 16 of the Severance Land Use Code;
- (c) any *new* applications for subdivision approval for mixed-use development projects proposing a residential use on land within the Town Service Area, including without limitation, concept plan, preliminary plat, final plat, replats, or minor plat approvals sought pursuant to Article IV, Chapter 16 of the Severance Land Use Code;
- (d) any *new* applications for site plans seeking development of multi-family dwellings or structures on land within the Town Service Area pursuant to Article V, Chapter 16 of the Severance Land Use Code
- (e) any *new* applications for site plans seeking development of residential accessory dwelling units on land or residential zoned property within the Town Service Area pursuant to Article V, Chapter 16 of the Severance Land Use Code;

- (f) any *new* applications for a major amendment to an existing, approved site plan proposing an expansion of a residential dwelling unit on land or residential zoned property within the Town Service Area or that would have the effect of increasing the gross square footage or net livable area pursuant to Section 16.5.10(c) of the Severance Land Use Code;
- (g) any *new* land use applications for any residential uses requiring additional review approval on land within the Town Service Area pursuant to Article V, Chapter 16 of the Severance Land Use Code;
- (h) any *new* applications for initial zoning of land within the Town Service Area to the Rural Residential or Suburban Perimeter zoning districts for all residential uses pursuant to Article III, Chapter 16 of the Severance Land Use Code; and
- (i) any *new* applications for rezoning of land within the Town Service Area seeking a change in use from an existing non-residential use to a residential use or to allow for a new residential use pursuant to Article III, Chapter 16 of the Severance Land Use Code.

Section 3. Duration. The suspension imposed on the Community Development Department in processing certain land use applications for proposed residential development in the Town Service Area through this ordinance shall commence as of the effective date of this ordinance, and shall expire on December 31, 2022, unless sooner repealed by the Town Council.

Section 4. Exclusions. The Community Development Department shall continue to accept, process, analyze, review or approve the following:

- (a) any application for a residential subdivision or residential development project or activity on land within the Town Service Area that has received final plat or final site plan approval prior to or at the time of passage of this ordinance, so long as such subdivision or development project is confined to the limits, provisions, and conditions of its respective existing Town approvals;
- (b) any application for a phase or filing of a phased residential subdivision or residential development project or activity on land within the Town Service Area that has received final plat or final site plan approval prior to or at the time of passage of this ordinance, so long as such phase or filing is confined to the limits, provisions, and conditions of their respective existing Town approvals;
- (c) any application for a mixed-use subdivision or development project or activity involving a residential use on land within the Town Service Area that has received final plat or final site plan approval prior to or at the time of passage of this ordinance, so long as such subdivision or development project is confined to the limits, provisions, and conditions of its respective existing Town approvals;
- (d) any application for a phase or filing of a phased mixed-use subdivision or development project or activity involving a residential use on land within the Town Service Area that has received final plat or final site plan approval prior to or at the

time of passage of this ordinance, so long as such phase or filing is confined to the limits, provisions, and conditions of their respective existing Town approvals;

- (e) any application for a development, as that term is defined in Section 16.7.10 of the Severance Land Use Code, on land within the Town Service Area submitted on or before the effective date of this ordinance and deemed complete by Town staff, including payment of all development review fees, or currently being processed by the Community Development Department;
- (f) any application for a minor variation to existing, approved site plan pursuant to Section 16.5.10(c) of the Severance Land Use Code;
- (g) building permit applications for any approved development projects or activities on land within the Town Service Area;
- (h) building permit applications for demolition or repair of uninhabitable residential structures on land within the Town Service Area; or
- (i) any application for a development project or activity on land within the Town Service Area that has received or is otherwise eligible to receive a building permit on or at any time after the effective date of this ordinance.

Section 5. Special exceptions. The Town Council shall have the power to grant a special exception to the suspension established in Section 2 of this ordinance, and to order the acceptance and processing of applications that would otherwise be prohibited by this ordinance, if the following conditions are met to the sole satisfaction and discretion of the Town Council:

- (a) A written application for the special exception must be submitted to the Town Clerk, indicating the specific nature of the project proposed, the specific application sought to be submitted, and the land use approval or request sought to be obtained, and stating with particularity the circumstances of the undue, substantial hardship that the applicant will suffer if a special exception is not granted.
- (b) Within 30 days of the Town Clerk's receipt of written application for a special exception, the Town Council shall hold a public hearing on the application for a special exception. Notice shall be given by mail to the owner of the property and applicant, or its agent, at least seven (7) days in advance of the public hearing. Notice of such hearing shall be posted on the property and shall be published in a newspaper of general circulation within the Town of Severance at least seven (7) days prior to the public hearing.
- (c) The Town Council may grant a special exception if it finds all of the following:
 - (i) The acceptance and processing of the subdivision, zoning, use by additional review or site plan application is necessary to: (1) prevent undue, substantial hardship for the applicant, or (2) to allow beneficial use of property that has no adverse impact on the public health, safety, or welfare of the community and such use will not endanger the overall operation of the Town's potable

water system and the quality of service to be provided to existing customers of the Town's System; and

- (ii) The acceptance and processing of the subdivision, zoning, use by additional review or site plan application will not affect the public interest in, or the purpose and reasons for, postponing the processing and review of any such application
- (d) The acceptance and processing of any subdivision, zoning, use by additional review or site plan application pursuant to a special exception granted by the Town Council shall be in accordance with all of the ordinances and regulations of the Town of Severance as if the suspension were not in effect.

Section 6. The provisions of this ordinance and the moratorium imposed hereby shall not affect or otherwise prohibit the acceptance and processing of land use applications for uses and development proposals outside of the specific scope defined herein.

Section 7. If any article, section, paragraph, sentence, clause, or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The Town Council hereby declares it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 8. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portion hereof are hereby repealed to the extent of such inconsistency or conflict.

Section 9. This ordinance is deemed necessary for the immediate protection of the health, welfare and safety of the community.

INTRODUCED, READ, ADOPTED, APPROVED, AND ORDERED PUBLISHED IN FULL this 26th day of April, 2022.

TOWN OF SEVERANCE, COLORADO

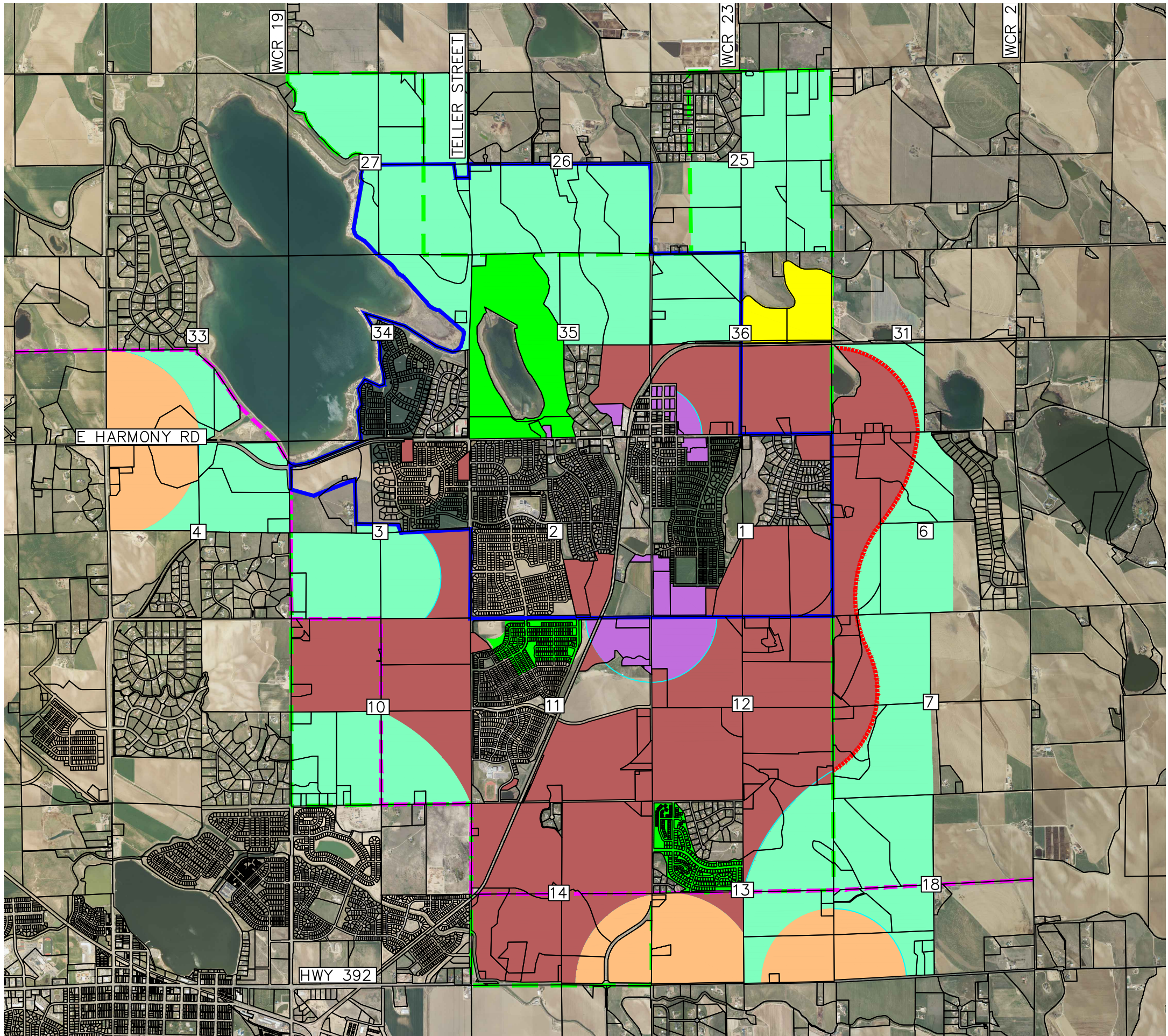
Matthew Fries, Mayor

ATTEST:

Leah Vanarsdall, MMC, Town Clerk

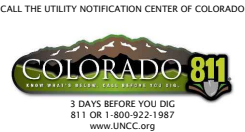
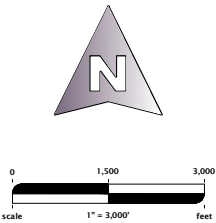
APPROVED AS TO FORM:

Hayashi & Macsalka, LLC, Town Attorney



LEGEND

- SUBURBAN PERIMETER
- TOWN CORE
- DEVELOPMENT NODE AND RESTRICTED INDUSTRIAL
- RURAL RESIDENTIAL (SEPTIC)
- PENDING DEVELOPMENT
- CHAPARRAL AREA FOR NWCWD EXCLUSION
- TOWN OF SEVERANCE WATER SERVICE AREA BOUNDARY
- TOWN OF SEVERANCE SANITARY SEWER SERVICE AREA BOUNDARY (EX SEV WWTP/INTERCEPTOR)
- TOWN OF WINDSOR SANITARY SEWER SERVICE BOUNDARY (WINDSOR WWTP)
- FUTURE TOWN OF SEVERANCE SANITARY SEWER SERVICE BOUNDARY (INTERCEPTOR)



0" 1" BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS	
DATE	DESCRIPTION



COLORADO
CIVIL
GROUP, INC.
ENGINEERING CONSULTANTS

2204 HOFFMAN DRIVE
LOVELAND, COLORADO 80538
(970) 278-0029

TOWN OF SEVERANCE

FUTURE LAND USE/UTILITY SERVICE AREAS

EXHIBIT 1

FILE NAME: 0042.0000.10_XP-LAND USE (OCTOBER 2020)
DESIGNED: LJC
CHECKED: CEM
JOB NO: 0042.0000.10
SCALE: 1"=3,000'
DATE: NOVEMBER 23, 2020
SHEET: 1 OF 1