

Ridgway Town Council  
Regular Meeting Agenda  
Wednesday, September 9, 2020

Due to COVID-19, and pursuant to the Town's Electronic Participation Policy,  
the meeting will be conducted via a virtual meeting portal

Join Zoom Meeting

<https://us02web.zoom.us/j/82222817336?pwd=M05GR1dTd0NUd25VV0g2Q2JuVkppQT09>

Meeting ID: 822 2281 7336  
Passcode: 083938

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**5:30 p.m.**

**ROLL CALL** Councilors Tessa Cheek, Kevin Grambley, Beth Lakin, Russ Meyer, Terry Schuyler, Mayor Pro Tem Eric Johnson and Mayor John Clark.

**ADDITIONS & DELETIONS TO THE AGENDA**

**ADOPTION OF CONSENT CALENDAR** All matters listed under the consent calendar are considered to be routine by the Town Council and enacted by one motion. The Council has received and considered reports and recommendations prior to assigning consent calendar designations. Copies of the reports are on file in the Town Clerk's Office and are available to the public. There will be no separate discussion on these items. If discussion is requested, that item will be removed from the consent calendar and considered separately.

1. Minutes of the Regular Meeting of August 12, 2020
2. Minutes of the Joint Workshop Meeting of August 6, 2020.
3. Minutes of the Joint Workshop Meeting of August 20, 2020.
4. Minutes of the Joint Workshop Meeting of September 3, 2020.
5. Register of Demands for September 2020.
6. Water leak adjustment for Account 5150.1/Wheeler.

**PUBLIC COMMENTS** Established time for the public to address the Council regarding any item not otherwise listed on the agenda. Comments will be limited to 5 minutes per person.

**PUBLIC REQUESTS AND PRESENTATIONS** Public comments will be limited to 5 minutes per person; discussion of each item may be limited to 20 minutes.

7. Proclamation honoring Randy Barnes for his years of service to the Town - Mayor Clark.
8. Proclamation declaring September 2020 as National Suicide Prevention Awareness and Recovery Month - Sami Damsky, Tri-County Health Network.

9. Presentation from EcoAction Partners regarding community energy analysis, Greenhouse Gas Inventory, regional programs and request for funding - Kim Wheels, EcoAction Partners.
10. Presentation from San Miguel Power Association regarding new programs, projects and opportunity for questions - Wiley Freeman, San Miguel Power Association.

**POLICY MATTERS** Public comments will be limited to 5 minutes per person; overall discussion of each item may be limited to 20 minutes.

11. Review of Memorandum of Understanding between Ouray County and Town of Ridgway regarding 2020 Operational Funding Requests, Road and Bridge Apportionment from County to Town, and Future Goals - Town Manager.
12. Review and direction on anchor build as part of Region 10, Phase 2 DOLA Broadband Grant - Town Manager.
13. Direction on dedication plaque for new pavilion at the Athletic Park - Town Planner.
14. Resolution adopting Stormwater Standards - Public Works Services Administrator.
15. Introduction of Ordinance adopting a New Chapter 14-7 of Title 14 of the Ridgway Municipal Code establishing Small Cell Regulations - Town Manager.
16. Update and direction on Heritage Park Improvements Project - Town Manager.
17. Review and action pertaining to Order Extending the Declaration of Local Disaster in and for the Town of Ridgway related to the COVID-19 pandemic - Town Manager.
18. Emergency Ordinance extending temporary amendments to the zoning regulations related to temporary signage - Town Manager.

**WRITTEN REPORTS** Written reports may be provided for informational purposes prior to the meeting updating Council on various matters that may or may not warrant discussion and action.

19. Town Manager's Report.

**COUNCIL COMMITTEE REPORTS** Informational verbal reports from Councilors pertaining to the following committees, commissions and organizations:

Committees, Commissions, Task Forces:

Ridgway Parks, Trails & Open Space Committee - Mayor Pro Tem Johnson  
Ridgway Planning Commission - Councilor Cheek and Mayor Clark  
Ridgway Creative District Creative Advocacy Team - Councilor Grambley  
Ridgway Scholarship Committee - Mayor Pro Tem Johnson and Mayor Clark

Board Appointments:

Ouray County Weed Board - Councilor Lakin; alternate - Town Engineer  
Ouray County Joint Planning Board - Councilor Meyer, citizens Rod Fitzhugh & Tom McKenney;  
alternate - Mayor Pro Tem Johnson  
Sneffels Energy Board - Councilor Lakin and Public Works Services Administrator; alternate -  
Mayor Pro Tem Johnson  
Region 10 Board - Mayor Clark

WestCO Dispatch Board - Town Marshal; alternate - Town Manager  
Gunnison Valley Transportation Planning Region - Town Manager; alternate - Public Works  
Services Administrator  
Ouray County Transit Committee - Public Works Services Administrator; alternate - Town Manager  
Ouray County Water Users Association - Councilor Meyer

Liaisons and Participation:

Chamber of Commerce - Councilmember Lakin  
Communities That Care Coalition - Mayor Clark  
Ouray County Fairgrounds - Councilor Schuyler

**ADJOURNMENT**

Deadline for agenda items for next regular meeting, Wednesday, October 7, 2020 at 4:00 p.m.,  
Town Clerk's Office, 201 N. Railroad Street, Ridgway, Colorado.

# Consent Agenda

RIDGWAY TOWN COUNCIL  
MINUTES OF REGULAR MEETING  
AUGUST 12, 2020

The Town Council convened via Zoom Meeting, a virtual meeting platform, pursuant to the Town's Electronic Participation Policy, due to the COVID-19 pandemic.

CALL TO ORDER

The Mayor called the meeting to order at 5:30 p.m. via Zoom Meeting. In attendance Councilors Grambley, Lakin, Meyer, Schuyler, Mayor Pro Tem Johnson and Mayor Clark. Councilor Cheek was absent.

EXECUTIVE SESSION

The Town Attorney suggested the Town Council enter into a closed session pursuant to Colorado Revised Statutes 24-6-402(4)(b) for the purpose of receiving legal advice to discuss the matter of David Gottorff v. Marshal Shane Schmalz and Deputy Ryan Hanson.

ACTION:

It was moved by Councilor Meyer, seconded by Councilor Lakin and unanimously carried on a roll call vote to enter into closed session.

The Council entered into executive session at 5:30 p.m. with the Town Attorney, Town Manager, and Town Clerk.

The Council reconvened to open session at 5:40 p.m.

The regular meeting began at 6:00 p.m.

CONSENT AGENDA

1. Minutes of the Regular Meeting of July 8, 2020
2. Minutes of the Joint Workshop Meeting of July 16, 2020.
3. Minutes of the Joint Workshop Meeting of July 23, 2020.
4. Register of Demands for August 2020.
5. Renewal of liquor store license for High Spirits.
6. Renewal of tavern liquor license for Star Saloon.
7. Renewal of tavern liquor license for Provisions.
8. Water leak adjustment for Account 5870.0/Mann.
9. Termination of Professional Services Agreement with J. David Reed, P.C.
10. Modification of premises of brewery liquor license for Colorado Boy Depot.

ACTION:

It was moved by Councilor Lakin, seconded by Councilmember Meyer and unanimously carried by a roll call vote to approve the consent calendar.

PUBLIC REQUESTS AND PRESENTATIONS

11. Request to submit a letter of support to legislators regarding the Save Our Stages Act

Staff Report dated 8-5-20 from the Town Manager presenting a request from the Chautauqua Society for endorsement of a letter to legislators to approve small business administration grants for music and theater venues.

Robb Austin, board member of the Ridgway Chautauqua Society, requested the Council authorize the Mayor to sign a letter encouraging legislators to support the Save our Stages Act, to aid independently operated cultural venues affected by COVID 19 shutdowns.

ACTION:

Moved by Councilor Lakin, seconded by Mayor Pro Tem Johnson to authorize Mayor Clark, on behalf of the Town Council, to sign the letter of support for the Save Our Stages Act. With the motion on the floor there was a comment by Sue Williamson from the audience. On a call for the vote, the roll call vote carried unanimously.

12. Presentation from the Dark Sky Committee

On behalf of the Dark Sky Committee Val Szwarc thanked the Town Council for supporting the initiative to designate the Town as a dark sky community. He presented a framed photograph of the milky way over the Cimarron Mountain Range, to display at Town Hall.

13. Request to submit letter of support for designation of Top of the Pines as an International Dark Sky Park

Staff Report dated 8-5-20 from the Town Manager presenting a request from Top of the Pines to approve a letter of support for an application to designate the area as an International Dark Sky Park.

Brad Wallace addressed the Council on behalf of the Board for Top of the Pines, seeking support for the request to be designated through the International Dark Sky Association as a dark sky park. He explained support from the Board of County Commissioners and Ouray City Council are also being solicited.

ACTION:

It was moved by Councilor Meyer, seconded by Councilor Grambley and unanimously carried on a roll call vote to authorize Mayor Clark, on behalf of the Town Council, to sign the letter of support for Top of the Pines to be designated as an International Dark Sky Park.

14. Update from Uncompahgre Watershed Partnership

Tanya Ishikawa spoke to the Council on behalf of the Uncompahgre Watershed Partnership. She presented goals and updates on projects, and made a request for financial support in

next years budget for the non-profit organization. She explained formation of a 2021-23 strategic plan and establishing long term goals, and requested input from the Council.

#### SPEAKING FROM THE AUDIENCE:

Tom McKenney noted the need for water flow into Cottonwood Creek to help protect the trees.

Andy Michelich reported the Solar Ranch Homeowners Association is reviewing ways the subdivision can divert water into the creek.

#### 15. Presentation on 5g wireless technology and small cell facilities

Mayor Clark introduced Dave Zelenok and Ken Price, civil engineers with HR Green, who gave a PowerPoint presentation on ways to regulate 5g and small cell facility construction in Town.

Mr. Zelenok explained through a FCC mandate placement of 5g and small cell facilities most be allowed, yet local jurisdictions can place regulations which can act as deterrents, "but they can not say no" to companies that chose to install the technology. Senate Bill 152 allows cities some exemptions to the regulations, and 114 cities have implemented requirements which could deter companies.

He explained 5g technology is wireline, and uses fiber, either aerial or underground. Mr. Zelenok stated "you have every reason to be concerned about this". The technology "creates a shot clock" of "low, medium and high frequency waves" which "may be a health hazard". "Be proactive, position yourselves"; "take proactive steps to clamp down" "on small cell" transmitters, he stated. He explained companies distance transmitters and cell towers every 300 feet. "Your Town is two square miles", and "you could have 600 transmitters in Town" he stated. He noted "you can't say no" but with regulations addressing "cell density" and "tower height", "you will show" "you do not welcome 5g" and "you will go to the bottom of the list". He further stressed the "Council should think about" "how this gets deployed".

Mr. Price addressed the health concerns of 5g technology. He stated the FCC allows the "maximum permissible exposure" of "electromagnetic frequency (EMF) radiation" and "it does not appear" there will be an "adjustment to the limits". He presented health concerns related to the radiation. He reviewed a number of municipalities that have filed "court challenges" to the FCC order.

He explained in 2018 the FCC approved an order to place small cell towers in public rights-of-ways, the order also allows for local aesthetic guidelines. He noted examples of regulations that can be implemented including small cell aesthetics and no placement near residences. He encouraged the Town to "developed policies for proactive steps", "develop a community strategy" and offered the companies services to assist in the implementation.

There was discussion by the Council. It was agreed to immediately take action to adopt a plan implementing limitations, and be "known as a community not friendly to 5g technology".

The Town Manager noted staff would prepare an ordinance pertaining to small cell regulations.

SPEAKING FROM THE AUDIENCE:

Greg Overton explained he has studied EMF radiation and the health effects created by 5g. He reported there is a group called the 5g Summit of “attorneys and cities resisting the FCC” and some of the “lawyers have been successful shutting it down” “around the country”. He suggested the Town consider “advanced legal counsel”.

Andy Michelich spoke in support of establishing regulations.

Kristine Skovli Martinez supported the creation of regulations and suggested listing preservation of endangered species of birds.

Jake Niece suggested the regulations include power for transmitters must be 100% renewable energy.

Christa Meyer spoke in support of the proposed regulations.

Raymond Ferguson spoke in support of the regulations.

There was discussion by the Council and it was agreed to introduce an ordinance at the next regular meeting.

16. Presentation on Baldy Mountain Landscape Resiliency and Habitat Improvements Project

Dana Gardunio, District Ranger for the Ouray Ranger District, gave a PowerPoint presentation of a proposed project on Baldy Mountain southeast of Town. The National Forest, Bureau of Land Management and a private landowner will be partnering on the project to clear dead vegetation from dense vegetated areas by use of mechanical treatments, hand thinning and prescribed fires on 2800 to 3000 acres. The burning will “be visible from the Town” she noted. The project will “reduce fuel loading, promote aspen regeneration and resiliency, and increase habit quality for bighorn sheep and elk”. Ranger Gardunio reported implementation will be “over several years” and noted conditions must be optimal for the prescribed burn.

POLICY MATTERS

17. Release of Subdivision Improvements and Lien Agreement for RiverSage PUD, Filing No. 2

Staff Report dated 8-12-20 from Town Planner presenting a release of the subdivision improvements agreement for Filing 2 of RiverSage PUD.

Planner Shay Coburn reported the subdivision improvements agreement for RiverSage PUD, Filing 2 was recorded in January of this year, after approval of the final plat by the Council. The terms of the agreement have been met, and staff is recommending release of the lien agreement.

ACTION:

Councilor Schuyler moved to release the Subdivision Improvements and Lien Agreement for RiverSage PUD Filing 2, recorded in Ouray County at Reception Number 224554 on January 9, 2020, as the terms of the agreement have been met. Mayor Pro Tem Johnson seconded the motion, which carried unanimously on a roll call vote.



18. Voluntary water restrictions

Staff Report from the Town Manager dated 8-5-20 presenting a request to ratify voluntary water restrictions.

Manager Preston Neill explained at the end of July staff began promoting voluntary water restrictions. He requested the Council formally ratify the restrictions.

There was discussion by the Council and it was suggested staff research regulations regarding the use of grey water.

ACTION:

Councilmember Schuyler moved, with Council Grambley seconding to ratify the voluntary water restrictions for the Town of Ridgway, the motion carried unanimously on a roll call vote.

19. Restrictions on burning and fires within Town

Staff Report dated 8-5-20 from the Town Manager suggesting rescinding the stage one fire restrictions which were implemented on July 2<sup>nd</sup>, as other local agencies transitioned out on July 30<sup>th</sup>.

The Mayor noted next week agencies in the region will be implementing the stage one restrictions again, and suggested the Council not rescind the current restrictions. There was discussion by the Council and it was agreed to enter back into stage one fire restrictions.

ACTION:

Moved by Mayor Pro Tem Johnson to cancel the rescission of the emergency restrictions on burning and fires within the Town and implement Stage One Fire Restrictions, Councilor Meyer seconded, and on a roll call vote the motion carried unanimously.

20. Authorization to expend budgeted funds and enter into a contract to purchase a patrol vehicle

Town Manager Staff Report dated 8-7-20 requesting expenditure of budgeted funds.

Manager Neill requested authorization for staff to expend budgeted funds to purchase a patrol vehicle for the Marshals Department. He noted the department lacks a reliable back up vehicle and has priced a 2020 Dodge Durango, all wheel drive, fully outfitted with law enforcement equipment for \$42,960, which is under the budgeted amount.

There was discussion between Council and staff.

ACTION:

Mayor Pro Tem Johnson moved, with Councilmember Lakin seconding to authorize staff to expend budgeted funds and enter into a contract to purchase a patrol vehicle for the Marshal's Department at a total sales price of \$42,960. On a call for the vote the motion carried unanimously on a roll call vote.

21. Order extending the Declaration of Local Disaster related to the COVID-19 pandemic

Staff Report dated 8-5-20 from the Town Manager requesting due to the ongoing nature of the COVID 19 pandemic, to extend the Declaration of a Local Disaster to September 10<sup>th</sup>.

There was discussion between Council and staff.

**ACTION:**

Councilor Meyer moved, with Councilmember Grambley seconding to extend the order of the Declaration of a Local Disaster in and for the Town of Ridgway. The motion carried unanimously on a roll call vote.

**22. Application for Revitalizing Main Street grant funds**

The Town Manager explained the Colorado Department of Transportation (CDOT) is receiving applications for grant monies, up to \$50,000 requiring a 10% match, to revitalize main streets. Staff is proposing to prepare a grant request to fund improvements on Highway 62 to install parking stop bars and delineate the bike lanes. The Town's match would be from funds already budgeted in the current fiscal year, for the items.

The Council agreed to the application for CDOT grant funds.

**23. Appointment to the CML Policy Committee**

Manager Neill reported the Colorado Municipal League (CML) is soliciting appointments from member municipalities to appoint a member to the policy committee. He reviewed the duties of the representatives. There was discussion by the Council.

The Mayor reported he was recently appointed to the CML broadband deployment board.

**STAFF REPORTS**

The Town Manager presented a written monthly report and reviewed the proposed meeting schedule for preparation of the 2021 Budget.

**ADJOURNMENT**

The meeting adjourned at 9:00 p.m.

Respectfully Submitted,

Pam Kraft, MMC  
Town Clerk

MINUTES OF JOINT WORKSHOP  
RIDGWAY TOWN COUNCIL,  
OURAY COUNTY BOARD OF COMMISSIONERS,  
OURAY CITY COUNCIL

AUGUST 6, 2020

The Town Council convened at 6:00 p.m. for a Joint Workshop with the Ouray County Commissioners and Ouray City Council via Zoom Meeting, a virtual meeting platform, pursuant to the Town's Electronic Participation Policy, due to COVID-19. In attendance from the Council Councilors Meyer, Schuyler and Mayor Clark. Councilors Cheek, Grambley, Lakin and Mayor Pro Tem Johnson were absent.

Town Clerk's Notice of Joint Workshop dated August 4, 2020.

The purpose of the meeting was to allow the policymakers an opportunity to discuss and strategize about planning, recovery and economic impacts due to the COVID-19 pandemic.

ADJOURNMENT

The meeting adjourned at 6:55 p.m.

Respectfully Submitted,

Pam Kraft, Town Clerk

MINUTES OF JOINT WORKSHOP  
RIDGWAY TOWN COUNCIL,  
OURAY COUNTY BOARD OF COMMISSIONERS,  
OURAY CITY COUNCIL

AUGUST 20, 2020

The Town Council convened at 6:00 p.m. for a Joint Workshop with the Ouray County Commissioners and Ouray City Council via Zoom Meeting, a virtual meeting platform, pursuant to the Town's Electronic Participation Policy, due to COVID-19. In attendance from the Council Councilors Cheek, Grambley, Lakin, Meyer, Schuyler and Mayor Clark. Mayor Pro Tem Johnson was absent.

Town Clerk's Notice of Joint Workshop dated August 18, 2020.

The purpose of the meeting was to allow the policymakers an opportunity to discuss and strategize about planning, recovery and economic impacts due to the COVID-19 pandemic.

ADJOURNMENT

The meeting adjourned at 7:15 p.m.

Respectfully Submitted,

Pam Kraft, Town Clerk

MINUTES OF JOINT WORKSHOP  
RIDGWAY TOWN COUNCIL,  
OURAY COUNTY BOARD OF COMMISSIONERS,  
OURAY CITY COUNCIL

SEPTEMBER 3, 2020

The Town Council convened at 6:00 p.m. for a Joint Workshop with the Ouray County Commissioners and Ouray City Council via Zoom Meeting, a virtual meeting platform, pursuant to the Town's Electronic Participation Policy, due to COVID-19. In attendance from the Council Councilors Grambley, Lakin, Meyer, Schuyler and Mayor Clark. Councilmember Cheek and Mayor Pro Tem Johnson were absent.

Town Clerk's Notice of Joint Workshop dated August 31, 2020.

The purpose of the meeting was to allow the policymakers an opportunity to discuss and strategize about planning, recovery and economic impacts due to the COVID-19 pandemic.

ADJOURNMENT

The meeting adjourned at 8:35 p.m.

Respectfully Submitted,

Pam Kraft, Town Clerk

**Town of Ridgway**  
**Register of Demands**  
September 2020

Name	Memo	Account	Paid Amount
<b>Grand Junction Pipe &amp; Supply ...</b>		<b>Alpine-Operating Account</b>	
	Hartwell line break	931WOO · Maintenance & Repairs	-24.34
	TCW interconnection	931WOO · Maintenance & Repairs	-122.16
TOTAL			-146.50
<b>City of Delta</b>		<b>Alpine-Operating Account</b>	
		918SOO · Testing & Permits - sewer	-40.00
TOTAL			-40.00
<b>Xerox Financial Services</b>		<b>Alpine-Operating Account</b>	
	Xerox lease - Aug 2020	948SOO · Office Equipment - Leases	-7.63
	Xerox lease - Aug 2020	948WOO · Office Equipment - Leases	-15.26
	Xerox lease - Aug 2020	548GOO · Office Equipment - Leases	-129.75
TOTAL			-152.64
<b>Kim's Housekeeping LLC</b>		<b>Alpine-Operating Account</b>	
	Aug 2020	779POO · Janitorial Service - parks	-882.00
	Aug 2020	779PO1 · Janitorial Services - comm cntr	-189.00
	Aug 2020	545GOO · Janitorial Services	-189.00
TOTAL			-1,260.00
<b>Verizon Wireless</b>		<b>Alpine-Operating Account</b>	
		943WOO · Telephone	-35.04
TOTAL			-35.04
<b>True Value</b>		<b>Alpine-Operating Account</b>	
		632GO2 · Supplies & Materials	-0.83
		661GO2 · Vehicle & Equip Maint & Repair	-2.49
		732POO · Supplies & Materials	-193.15
		732PO1 · Supplies - community center	-21.48
		932SOO · Supplies & Materials	-0.83
		932WOO · Supplies & Materials	-26.98
TOTAL			-245.76
<b>Verizon Wireless</b>		<b>Alpine-Operating Account</b>	
		741POO · Telephone	-20.25
		943SOO · Telephone	-74.26
		943WOO · Telephone	-162.45
		843GO3 · Telephone	-161.96
		543GOO · Telephone	-91.05
		643GO2 · Telephone	-50.56
		552GOO · GIS Mapping - admin	-10.00
		952SOO · GIS Mapping - sewer	-10.01
		952WOO · GIS Mapping - water	-10.01
		830GO3 · Computer	-160.04
TOTAL			-750.59

**Town of Ridgway**  
**Register of Demands**  
September 2020

Name	Memo	Account	Paid Amount
<b>Pro Velocity</b>		<b>Alpine-Operating Account</b>	
	camera to monitor snow fall	615GO2 · IT Services	-382.50
		556GOO · IT Services	-106.25
TOTAL			-488.75
<b>Ouray County</b>		<b>Alpine-Operating Account</b>	
	2020 fuel usage MOU	660GO2 · Gas & Oil	-128.15
	2020 fuel usage MOU	760POO · Gas & Oil	-128.14
	2020 fuel usage MOU	860GO3 · Gas & Oil	-128.15
	2020 fuel usage MOU	960WOO · Gas & Oil	-128.14
	2020 fuel usage MOU	960SOO · Gas & Oil	-128.14
TOTAL			-640.72
<b>UNCC</b>		<b>Alpine-Operating Account</b>	
		915WOO · Dues & memberships	-20.86
		915SOO · Dues & Memberships	-20.86
TOTAL			-41.72
<b>Hartman Brothers Inc</b>		<b>Alpine-Operating Account</b>	
		661GO2 · Vehicle & Equip Maint & Repair	-2.28
		961SOO · Vehicle & Equip Maint & Repair	-2.27
		961WOO · Vehicle & Equip Maint & Repair	-2.27
TOTAL			-6.82
<b>Ouray County Road &amp; Bridge</b>		<b>Alpine-Operating Account</b>	
	Aug 2020	660GO2 · Gas & Oil	-222.64
	Aug 2020	760POO · Gas & Oil	-200.70
	Aug 2020	960WOO · Gas & Oil	-55.08
	Aug 2020	960SOO · Gas & Oil	-278.75
	Aug 2020	860GO3 · Gas & Oil	-585.15
TOTAL			-1,342.32
<b>SGS Accutest Inc</b>		<b>Alpine-Operating Account</b>	
		990WOO · Testing - water	-474.80
TOTAL			-474.80
<b>Western Paper Distributors</b>		<b>Alpine-Operating Account</b>	
		732PO1 · Supplies - community center	-75.10
		732POO · Supplies & Materials	-75.10
TOTAL			-150.20
<b>Pureline Treatment Systems</b>		<b>Alpine-Operating Account</b>	
	Sept 2020	989WOO · Plant Expenses - water	-1,650.00
TOTAL			-1,650.00

**Town of Ridgway**  
**Register of Demands**  
September 2020

<u>Name</u>	<u>Memo</u>	<u>Account</u>	<u>Paid Amount</u>
<b>Federal Express</b>		<b>Alpine-Operating Account</b>	
		990WOO · Testing - water	-413.01
TOTAL			-413.01
<b>Montrose Water Factory, LLC</b>		<b>Alpine-Operating Account</b>	
		632GO2 · Supplies & Materials	-13.63
		732POO · Supplies & Materials	-13.63
		932SOO · Supplies & Materials	-13.62
		932WOO · Supplies & Materials	-13.62
TOTAL			-54.50
<b>City of Grand Junction</b>		<b>Alpine-Operating Account</b>	
		918SOO · Testing & Permits - sewer	-355.00
TOTAL			-355.00
<b>Dana Kepner Company Inc</b>		<b>Alpine-Operating Account</b>	
		988WOO · Taps & Meters	-835.56
TOTAL			-835.56
<b>Mesa County HDR Laboratory</b>		<b>Alpine-Operating Account</b>	
		990WOO · Testing - water	-20.00
TOTAL			-20.00



**STAFF REPORT**

Subject: Request for water leak adjustment - Account #5150.1/Wheeler  
Initiated By: Pam Kraft, MMC, Town Clerk  
Date: August 26, 2020

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**BACKGROUND:**

Attached is a water leak adjustment request from Debbie Wheeler. A leak was found in the irrigation system at 610 Sabeta and repaired as soon as it was discovered.

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**ANALYSIS:**

Pursuant to Municipal Code Section 9-1-23 the Council has the authority to authorize water leak adjustments. The language is as follows:

**9-1-23: WATER BREAK ADJUSTMENTS.**

(A) The Town Council shall have authority to make an equitable adjustment to a water bill when the bill is extraordinarily high due to an undiscovered break downstream of the customer's meter if the break was not caused by the customer's negligence and the customer did not have a reasonable opportunity to discover the break more quickly than it was discovered.

(B) No adjustment shall be allowed unless the customer submits a written request for the adjustment within fifteen days of the mailing of the bill in question and unless the leak has been repaired.

(C) The adjustment shall not reduce the customer's bill below the cost to the Town of producing the water supplied through the meter.

The customer used 47,600 gallons in July and was billed \$655.00. This calculates to 42,600 gallons over the base allotment; based on the leak adjustment rate of \$11.00 for each 1,000 gallons between 5,000 and 10,000 gallons; \$13.00 between 10,000 and 18,000 gallons; and \$15.00 over 18,000 gallons, the customer can be awarded a water leak adjustment credit of \$159.30.

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**FINANCIAL CONSIDERATIONS:**

There is a loss in revenue when the water rate is decreased.

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**STAFF RECOMMENDATION:**

Approve the water leak adjustment credit of \$159.30 for Account #5150.1/Wheeler

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ATTACHMENT: Email dated August 25, 2020

**Pam Kraft**

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**From:** [REDACTED]  
**Sent:** Tuesday, August 25, 2020 8:28 AM  
**To:** Pam Kraft  
**Subject:** Water forgiveness

Pam. Please ask the counsel for water forgiveness on my upcoming bill. We discovered a leak 8 feet down between my irrigation system and my main water line Sincerely Debbie Wheeler  
610 Sabeta Drive

Sent from my iPhone

## AGENDA ITEM #7



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 2, 2020  
Agenda Topic: Proclamation honoring Randy Barnes for his years of service to the Town of Ridgway

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**SUMMARY:**

The Town Council is asked to consider adopting the attached Proclamation honoring Randy Barnes for his 40 years of service to the Town of Ridgway. Randy began his tenure with the Town on August 1, 1980. Randy will attend Wednesday's virtual meeting to be recognized and thanked for his exemplary dedication to the Town of Ridgway.

**PROPOSED MOTION:**

"I move to adopt the Proclamation honoring Randy Barnes for his years of service to the Town of Ridgway."

**ATTACHMENT:**

Proclamation



**PROCLAMATION  
TOWN OF RIDGWAY, COLORADO**

**A PROCLAMATION HONORING RANDY BARNES  
FOR HIS YEARS OF SERVICE TO THE TOWN OF RIDGWAY**

**WHEREAS**, Randy Barnes has served the Town of Ridgway as a member of the Public Works Department since August 1, 1980, joining the department while attending Ridgway High School; and

**WHEREAS**, Randy's 40 years of service have been marked by exemplary dedication to the interests of the community and service to citizens; and

**WHEREAS**, his colleagues know him as a steady, dependable co-worker and friend, who takes pride in his work and in this community, and who is always ready to lend moral support or a helping hand when needed; and

**WHEREAS**, he has distinguished himself as a hard-working and dedicated public servant, at all times committed to helping his community, and has provided invaluable leadership and guidance on many significant projects; and

**WHEREAS**, through Randy's remarkable resolve and resiliency the Town of Ridgway has been and will continue to be in good hands, with Randy tirelessly serving its citizens, visitors and business owners.

**NOW, THEREFORE BE IT PROCLAIMED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO, AS FOLLOWS:**

**Section 1.** The Town of Ridgway hereby expresses its sincere appreciation to Randy for his dedicated work and tireless efforts in Ridgway's Public Works Department.

**Section 2.** By virtue of Randy's community involvement, leadership and dedication, we, the Ridgway Town Council, proclaim September 10, 2020, as "**RANDY BARNES DAY**", in the Town of Ridgway, Colorado, and urge all Ridgway citizens to congratulate and thank Randy for his public service.

Dated this 9<sup>th</sup> day of September 2020

By: \_\_\_\_\_  
John Clark, Mayor

Attest: \_\_\_\_\_  
Pam Kraft, Town Clerk

## AGENDA ITEM #8



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 1, 2020  
Agenda Topic: Proclamation declaring September 2020 as National Suicide Prevention Awareness and Recovery Month

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**SUMMARY:**

The Town Council is asked to consider adopting the attached Proclamation declaring September 2020 as National Suicide Prevention Awareness and Recovery Month. Sami Damsky with Tri-County Health Network will attend Wednesday's virtual meeting to provide more information about National Suicide Prevention Awareness and Recovery Month.

**PROPOSED MOTION:**

"I move to adopt the Proclamation declaring September 2020 as National Suicide Prevention Awareness and Recovery Month."

**ATTACHMENT:**

Proclamation



**PROCLAMATION  
TOWN OF RIDGWAY, COLORADO**

**A PROCLAMATION DECLARING SEPTEMBER 2020  
NATIONAL SUICIDE PREVENTION AWARENESS AND RECOVERY MONTH**

**WHEREAS**, the week of September 6-12, 2020 is National Suicide Prevention Week, and September 2020 is both National Suicide Prevention Awareness Month and National Recovery Month, when millions of people around the world join their voices to share a message of hope and healing; and

**WHEREAS**, these observances are united in raising awareness that prevention is possible, treatment is effective, and people do recover; and

**WHEREAS**, in these challenging times messages of hope and healing are more needed than ever; and

**WHEREAS**, our residents should be able to access high quality prevention, support, rehabilitation, and treatment services that lead to recovery and a healthy lifestyle; and every day in our community people enter treatment into behavioral health services and community supports and begin the road to wellness and recovery; and

**WHEREAS**, resiliency begins early in life within families, daycares, and schools, and can be strengthened and reinforced throughout the life span; and recovery and wellness encompass the whole individual, including mind, body, spirit, and community; and

**WHEREAS**, the benefits of preventing and overcoming mental health challenges, suicide attempts and loss, and substance abuse are significant and valuable to individuals, families, and our community at large; and

**WHEREAS**, it is essential that we educate residents about suicide, mental health and substance abuse problems and the ways they affect all people in the community; and

**WHEREAS**, we must encourage relatives, friends, co-workers, and providers to recognize the signs of a problem, and guide those in need to appropriate services and supports; and

**WHEREAS**, Suicide Prevention Week, Suicide Prevention Awareness Month and Recovery Month inspire millions of Americans to raise awareness, build resiliency, and find hope.



**THEREFORE**, we, as the Ridgway Town Council, do hereby proclaim the month of September 2020 as:

***Suicide Prevention Awareness and Recovery Month: "Finding Hope, Building Resiliency, Supporting Recovery"***

**NOW THEREFORE**, as the Ridgway Town Council, we also call upon the citizens, government agencies, public and private institutions, businesses, and schools in Ouray County to recommit our community to increasing awareness and understanding of the many reasons why suicide occurs in our community, the steps our citizens can take to help their fellow citizens who are considering suicide, and the need for appropriate and accessible services for all people who are living with mental health challenges.

Dated this 9<sup>th</sup> day of September 2020

By: \_\_\_\_\_  
John Clark, Mayor

Attest: \_\_\_\_\_  
Pam Kraft, Town Clerk

## AGENDA ITEM #9



## Memo

To: Preston Neil, Ridgway Town Manager  
From: Emma Gerona & Kim Wheels, EcoAction Partners  
Date: September 9<sup>th</sup>, 2020  
Re: EcoAction Partners Programs Updates, Funding Request 2021

**Mission: EcoAction Partners' mission is to track regional greenhouse gas emissions and coordinate programs that reduce energy use and waste throughout the San Miguel region.**

EcoAction Partners would like to thank the Town of Ridgway for your commitment towards lowering greenhouse gas emissions and your generous support of our organization in this goal. The Town of Ridgway has demonstrated unwavering leadership, reducing energy consumption of government operations and leading the way for the community to do the same. EcoAction Partners continues to engage residents & businesses in programs that support the Ridgway community's commitment to strive towards carbon neutrality.

To support the facilitation of our program areas in partnership with Ridgway we are requesting \$5,000. These funds allow EAP to successfully track and analyze regional greenhouse gas emissions and energy use, administer EAP programs throughout the Ridgway community, attend and partner with ROCC's Clean Energy Group, work toward a Ridgway community compost program including grant application assistance, and other ongoing support to accomplish regional energy and waste reduction goals.

Looking ahead, we are excited to further our work with the Town of Ridgway on emissions reduction efforts through our collaborative programs, including facilitation of the Sneffels Energy Board, SMPA IQ Weatherization, Green Business Certification, Truth or Dare, Greenlights and waste reduction programs. We are committed to supporting the Town of Ridgway in achieving your sustainability goals and continuing to expand these opportunities and programs to historically underserved populations within our communities. We are excited to welcome our new Executive Director, Emma Gerona to the EAP team as we look forward with renewed energy and direction in our mission to reduce energy and waste in our region.

We look forward to continuing our work with the Ridgway government and community going forward. Thank you very much for your 2020 support, participation in EAP programs, and consideration of EcoAction Partners' 2021 funding request.

**Background:**

EcoAction Partners (EAP) has provided our partners and community with greenhouse gas emissions data since 2010 when we secured a grant for the development of a baseline GHG inventory for San Miguel and Ouray counties. The initial inventory was led by the University of Colorado, Denver with assistance from EAP's own Kim Wheels. Since the initial inventory, Wheels has managed and updated the regions GHG data, as well as creating and updating jurisdiction specific inventories to reflect the diverse communities in our region. This data has been used to create and implement GHG reduction actions and goals across the region.

**2020 Highlights:**

- EcoAction Partners is excited to welcome our new Executive Director, Emma Gerona to the EAP team
- Although a few of our programs were temporarily suspended or postponed due to COVID-19 (IQ Weatherization, Green Business, Greenlights, & Plastic Film), all are fully operational and expected to meet and exceed goals by the end of 2020.
- 2010-2019 GHG Inventory and energy analysis. 10-years of data tracking has provided a better understanding of our GHG emissions and energy use. Further information on this data will be providing during our presentation at the Town of Ridgway's September 9<sup>th</sup> town council meeting.
- An update of our regional 2010 Sustainability Action Plan is underway, with plans to complete this process by Spring 2021.

## **EcoAction Partners Program Overview:**

### **Sneffles Energy Board:**

EcoAction Partners coordinates the Sneffles Energy Board in partnership with government and staff representatives from San Miguel and Ouray counties, the towns of Ridgway, Mountain Village, Ophir, Norwood, Telluride, the City of Ouray as well as utility partners, San Miguel Power Association, Black Hills Energy and various citizen group representatives.

These local leaders collaborate on various efforts to accomplish regional sustainability goals including developing and updating a regional sustainability action plan to guide program implementation, and reviewing the progress of GHG emission reductions through the annual update of our regional GHG inventory. This group is currently in the process of updating the regional Sustainability Action Plan that was developed collaboratively in 2010.

Partners of the board meet quarterly to share best practices, design successful regional programs, identify new opportunities and analyze progress made to-date. This regional approach provides a stronger voice to influence political change, greater grant leverage, and the ability to address region specific challenges through enhanced engagement with community stakeholders.

### **Greenlights**

The Greenlights program exists to promote one of the easiest ways to reduce greenhouse gas emissions: replace incandescent and CFL bulbs with LED bulbs. LED bulbs use on average 85% less electricity than a traditional incandescent bulb. SMPA has historically offered a 50% rebate on LED bulbs, requiring members to purchase bulbs at full price and then submit a reimbursement application. Greenlights seeks to simplify the purchasing process by offering this rebate upfront and contributing an additional 25% off of bulb prices through municipality contributions, without any of the paperwork. Since the inception of the project we have sold over 1,800 bulbs in Ridgeway, saving 99,488 kWh and reducing 80.06 Metric tons of CO<sub>2</sub> annually.

This year the program faced some uncertainty due to the COVID-19 pandemic and was reimagined to focus on business-only sales in the contributing jurisdictions. EcoAction looks forward to re-expanding the program to the general public in summer 2021.

### **Greenlights Statistics:**

2015-2019

Total Bulbs Sold: 17,495

kWh reduced (yearly): 950,000

kWh reduced (bulb lifetime): 18,600,000

Metric Tons CO<sub>2</sub> saved (yearly): 788

Metric Tons CO<sub>2</sub> saved (bulb lifetime): 15,200

Municipal Contributions: \$52,643

SMPA/Tri-State Contributions: \$110,555

### Green Business Certification Program

Thank you to the Town of Ridgway for supporting EcoAction Partners Green Business Certification Program. This program is dedicated to making it easier for commercial buildings to understand and reduce their energy use. As a new Black Hills Energy trade ally, EAP works as a contractor to fill gaps in weatherization services not otherwise offered in our region.

#### **Ridgway Businesses Currently Certified:**

Alpine Bank  
Alternative Power Enterprises  
Amulet Arts  
Bennett Forgeworks  
Carry On Reusables  
Panji Bags (pending new location)  
RIGS  
SMPA Ridgway Office

### Plastic Film Upcycling

This program grew out of the need for plastic film recycling (polyethylene 2 & 4) from the businesses participating in the Green Business Certification Program. Retailers in particular receive all their merchandise individually wrapped in plastic and have complained about the inability to recycle these materials. EcoAction Green Business staff found that TREX uses this recycled material in the production of decking and their TREX furniture and have a drop off location in Montrose. This program launched in May of 2019, and to-date EcoAction has collected and recycled more than 1000 pounds of plastic film. This is an immense amount of plastic considering the lightweight nature of plastic film products. There is a public collection box available at the Alpine Bank location in Ridgway.

### SMPA Rebate Administration

EcoAction Partners is now managing energy efficiency rebates for SMPA. The rebates cover upgrades for a variety of items including electric heat pumps, kitchen appliances, LED bulbs, electric vehicles and much more. EcoAction developed new online submission forms in order to speed up rebate processing, reduce paper use and keep physical contact to a minimum. These new forms were launched at the end of March and are being promoted by EAP & SMPA. We were able to expand and simplify rebate offerings, and now offer faster processing and customer support. So far in 2020 EAP has administered various SMPA rebates for 199 SMPA members, with \$37,125 worth of rebates processed. 38 SMPA Ridgway customers have participated, with a rebate total of \$3,897.

### SMPA Income Qualified (IQ) Weatherization Program

The SMPA IQ program funded by Energy Outreach Colorado, San Miguel Power Association and Black Hills Energy continues to be a much needed and appreciated program. Though many participants are located in the west-end, the program is available throughout the SMPA service area. Year-to-date, EcoAction has served 66 homes since the program began in 2018. In the last year alone, we have received 43 approved applications and are on track to surpass our original goal of 40 homes completed in 2020. To-date we have completed 4 weatherization projects within Ridgway this year.

Once an energy audit is performed, EAP completes recommended updates such as changing light bulbs to LED, efficient water fixture replacements, attic and floor insulation, Energy Star appliance upgrades, air sealing, and more, all at no cost to the client! Once the audit and updates are completed, SMPA offers a free credit on the clients' electricity bill from the Norwood Community Solar Array. Beyond reducing residential GHG emissions, The SMPA Income Qualified Weatherization Program makes a real difference in the quality of life of the participants every day by putting dollars back into their pockets that would otherwise be spent on needlessly high energy bills. As the demand for this program continues to grow EAP is seeking to expand our funding sources to better support the need for weatherization in our community.

### Truth or Dare

Truth or Dare is an elective educational program designed for 9-12 year-olds. The program challenges students to significantly reduce their carbon footprints and conserve resources through various actionable 'dares'. Over the course of a week, students earn points for these sustainable actions such as unplugging gadgets, recycling, taking shorter showers, carpooling/taking public transit and more. SMPA sponsors prizes for the top performing students to celebrate their dedication to sustainability.

In 2019, EAP presented to over 900 students, of which 174 actively participated, completing 6887 'dares' throughout the week. These actions equate to a reduction of approximately 6 mT-CO<sub>2</sub>e and inspires ongoing awareness around the small actions individuals can take to make a big difference.

Student testimonials after participating in the Truth or Dare program:

*"I learned that helping the world is easy and it is just the little things you can do to change the world!"* – Ridgway Elementary School student

*"I learned that it's fun to care for the earth and that if we take care of it we can make it last longer!"* – Telluride Mountain School Student

Due to the COVID-19 pandemic the 2020 Truth or Dare program has been tentatively delayed until the fall semester. EAP is currently working with the various participating school districts on an updated COVID-safe way to conduct this program.

### Festival Compost Recycling and Trash

EcoAction Partners was unable to provide our usual Compost Recycling and Trash (CRT) services for festivals and events due to cancellations in response to the COVID-19 pandemic. We plan to continue to work with the various events and festivals in 2020-2021 pending their occurrence. In the past EAP has worked with: Mountain Film, Telluride Bluegrass Festival, Ride Festival, Telluride Jazz Celebration, Blues and Brews, and the Yeti Tribe event.

### Composting and E-Waste

Green Waste composting (branches, landscaping waste) is now available through 3XM composting located in Olathe for regional jurisdictions with a drop off/pick up fee for a 40-yard dumpster. When a jurisdiction orders a 40-yard bin, Mautz will provide compost and other soil material at a discounted price to be delivered in the bin. 3XM is also researching bear-proof bin solutions for potential food and compostable material pick up for the future. This could be a potential solution for smaller scale events and possibly restaurant or residential composting solutions in the future. EcoAction Partners is working with various local stakeholders to explore these and other local level composting solutions for our region.

### CC4CA GHG Inventory Working Group

At the recommendation of local CC4CA members, Kim Wheels was engaged with a statewide sub-committee of CC4CA, providing input for the development of a statewide GHG Inventory based on local GHG Inventory expertise. The group provided information from the perspective of community-level detail related to GHG Inventories. These efforts are helping to shape legislation in ways that would be useful for improving statewide GHG data collection, reporting and tracking effectiveness in hopes to reduce GHG emissions.

EAP's goal is to provide guidance to staff as the Colorado Air Quality Control Commission goes through inventory rulemaking. During the legislative process the working group will consider the guidance developed by the previous GHG inventory working group, CDPHE's initial work for the upcoming rulemaking, and key documents regarding the rulemaking process.

Our report was assembled as preparations were underway for the Air Quality Control Commission Regulation 22 rulemaking on GHG Inventory Reporting. Some of the findings and examples from our report were incorporated into the joint hearing statements filed with CC4CA partners. The report recommends an overall CC4CA position on the development of the state inventory: CC4CA advocates the development of a statewide GHG emissions inventory and a forecasting process and product that will: (1) produce policy-relevant insights to inform data driven decision-making at the state and local government levels; and (2) augment local government efforts by creating or unlocking previously inaccessible but needed data.





To: Ridgway Town Council & Preston Neil, Town Manager  
From: Emma Gerona, EcoAction Partners  
Date: September 9th, 2020  
Re: Greenlights LED Lightbulb Program

EcoAction Partners would like to thank the Town of Ridgway for their support of and participation in the Greenlights Program. Greenlights promotes one of the easiest ways to reduce GHG emissions: replace incandescent and CFL bulbs with LEDs. Through the generous support of SMPA and municipalities, including the Town of Ridgway, EAP offers SMPA's 50% rebate along with an additional 25% off of bulb price. In partnership with San Miguel Power Association, EcoAction Partners is able to provide SMPA's 50% rebate upfront, removing the need for individuals to purchase bulbs at their full price, and fill out rebate forms after the fact.

From 2015-2019 the Greenlights program sold 17,495 bulbs across San Miguel and Ouray counties with the support of \$163,198 in municipality and SMPA/Tri-State contributions, saving 15,200 Metric Tons of CO2 across the bulbs' lifetime. The financial contributions made by municipalities are passed directly to community members and businesses through the 75% discount on all LED bulbs.

In 2020 we reassessed the Greenlights Program due to viability and safety concerns related to COVID and decided to focus the program on business only sales for the year. We look forward to re-expanding to the general public and returning to various markets and in person events for summer 2021.

EcoAction Partners is once again inviting the Town of Ridgway to participate in the program for 2021. Based on 2019 and 2020 participation, an allocation of \$1200 for the residents/businesses in the Town of Ridgway will likely be adequate for the governmental rebate. As in the past, this funding is a direct pass-through to community participants and only the amount of the governmental rebate actually used by citizens will be billed to the government. Thank you for your consideration and generous support.

Respectfully,

Emma Gerona  
EcoAction Partners Executive Director  
[Emma@ecoactionpartners.org](mailto:Emma@ecoactionpartners.org)  
970-728-1340

## AGENDA ITEM #10



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TOWN HALL PO Box 10 | 201 N. Railroad Street | Ridgway, Colorado 81432 | 970.626.5308 | [www.town.ridgway.co.us](http://www.town.ridgway.co.us)

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To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 1, 2020  
Agenda Topic: Presentation from San Miguel Power Association regarding new programs, projects and opportunity for questions

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**SUMMARY:**

Wiley Freeman with San Miguel Power Association (SMPA) will attend Wednesday's virtual meeting to update Council on SMPA's programs and projects.

**ATTACHMENT:**

SMPA Presentation

# THE NEW REALITY



SAN MIGUEL POWER ASSOCIATION

A Touchstone Energy® Cooperative





**THE  
NEW  
NORM.**



# SYSTEM HARDENING

*Redundancy, reliability, resilience*



- “A combined system of actions to strengthen infrastructure to better protect utility customers from unplanned outages.”
- Sectionalizing Equipment
  - Ilium Rd, near Two Rivers
- Mtn. Village Blvd., near San Joaquin Dr.
- Vegetation Management / Fire Mitigation



# RELIABILITY PROJECTS



- 3<sup>rd</sup> year of a 4-year work plan
  - Replacing aging equipment
  - Installing protective equipment
- Red Mountain Electrical Reliability and Broadband Improvement Project
  - Rebuild 46 kV transmission line
  - Middle-mile fiber-optics (Staged approach)

# EFFICIENCY & REBATES

Now administered by

**ECOACTION  
PARTNERS**



***2020 Rebate Programs are shifting towards incentivizing Fuel Switching energy use***

**New Beneficial Electrification Rebates will include:**

- ***Electric Heat Pumps***
- ***Outdoor Electric Power Equipment***
- ***Electric Vehicles and EV Charging Stations***



# BENEFICIAL ELECTRIFICATION

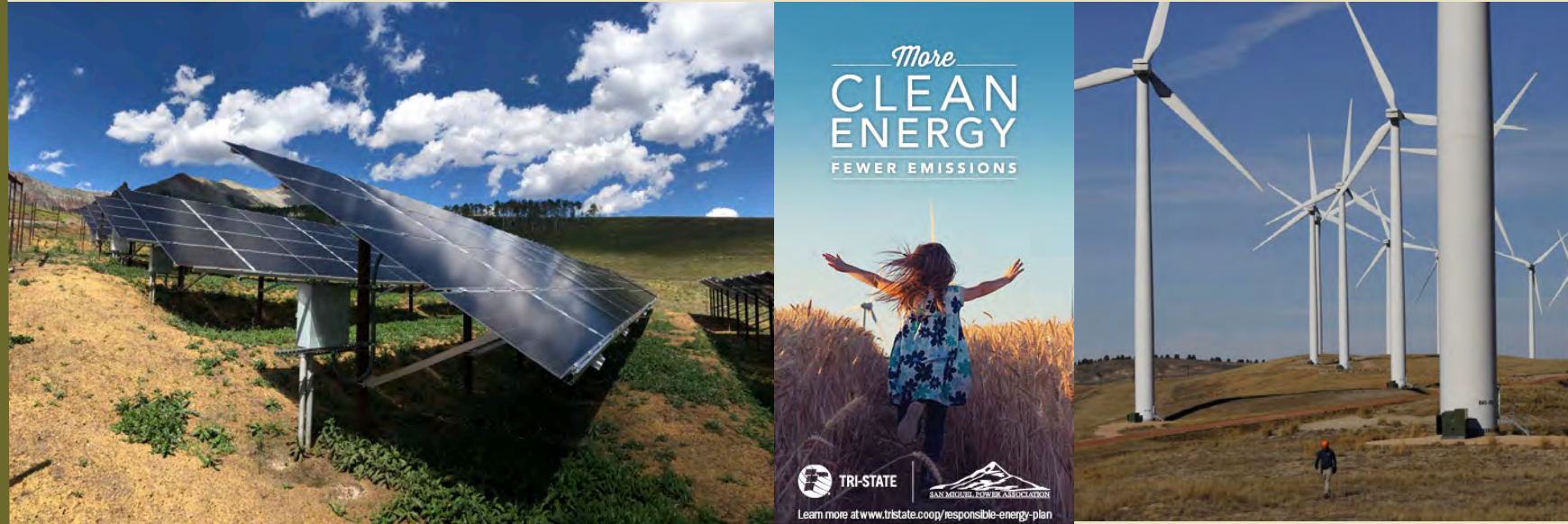


Historically the principal way to reduce GHG emissions from the electric sector was to ***reduce energy consumption*** through energy conservation and energy efficiency, now there are increasing opportunities to reduce emissions through ***increased use of electricity*** by encouraging ***Beneficial Electrification***.

***Beneficial Electrification*** - application of electricity to end-uses that would otherwise consume fossil fuels

- ***save consumers money***
- ***improve product quality***
- ***reduce [GHG] emissions***
- ***foster a more resilient grid.***

# POWER SUPPLY



- In alignment with current SMPA Strategic Objective...to explore all options.
- RFP for power supply... SMPA Board decision, first review of RFP results in September, no timeline for final decision at this time. Seeking best value, Tri-State also responding to RFP.
- Tri-State Responsible Energy Plan

# SMARTPAY

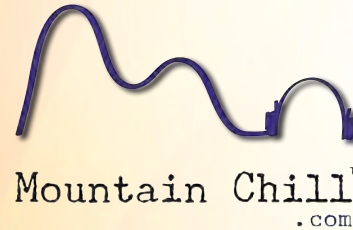
*Rethinking one-size-fits-all-billing*



- Voluntary Pre-pay program
- No late fees / deposits
- Ideal for Seasonal Residents
- Relies on texts / emails – no paper bill
- Timing
  - (When I get paid) vs.  
(When the bill is due)



# TOTALLY GREEN



- Totally Green** is SMPA's newest and simplest way for members to use electricity from 100% renewable sources.
- 248 subscribers since program inception
  - All voluntary contributions go to SMPA **Green Fund**
  - The “pay it forward” investment results in lower carbon footprint for members while supporting expansion of local renewable energy projects

# THANK YOU.



Touchstone Energy® Cooperatives  
*The power of human connections®*

## AGENDA ITEM #11



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 3, 2020  
Agenda Topic: Review and direction on Memorandum of Understanding between Ouray County and Town of Ridgway Re 2020 Operational Funding Requests, Road and Bridge Apportionment from County to Town, and Future Goals

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**SUMMARY:**

In December 2019, the Town of Ridgway and Ouray County entered into a Memorandum of Understanding (MOU) regarding 2020 Operational funding requests, Road and Bridge apportionment from the County to the Town, and future goals. The executed MOU is attached to this memo. The term of the MOU is for calendar year 2020.

As specified in the MOU, the parties agreed to review the MOU in September 2020 for revision and reconsideration for the 2021 budget year. Representatives from Ouray County plan to attend Wednesday's virtual meeting to participate in this discussion.

**ATTACHMENT:**

MOU between Ouray County and Town of Ridgway Re 2020 Operational Funding Requests, Road and Bridge Apportionment from County to Town, and Future Goals

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
OURAY COUNTY and TOWN OF RIDGWAY**

**RE: 2020 Operational Funding Requests,  
Road and Bridge Apportionment from County to Town, and  
Future Goals**

**THIS MEMORANDUM OF UNDERSTANDING** is entered into this 17<sup>th</sup> day of DECEMBER, 2019, by and between the Town of Ridgway, State of Colorado; hereinafter referred to as "Town" and the County of Ouray, State of Colorado, hereinafter referred to as "County".

**WHEREAS**, the Town and the County agree that it is in the best interest of the constituency to work together on various efforts; and

**WHEREAS**, the Town and the County are authorized by C.R.S. 29-1-203 to enter into agreements to provide or share and cooperate on functions, services and facilities; and

**WHEREAS**, the Town and the County recognize that the tasks and objectives of this Memorandum of Understanding are aspirational in nature rather than binding contractual commitments; and

**WHEREAS**, the collaborative efforts listed here may not all be accomplished in 2020 and may be multi-year efforts for the Town and the County.

**NOW THEREFORE**, the Town and County agree to share and cooperate on the following matters, in consideration of the mutual budget request listed below:

**1. OPERATIONAL FUNDING REQUESTS:**

**The Town is requesting funding from the County for the following:**

Ridgway Mosquito Control: \$8,000.00 (cash payment)

The Town will provide the County a written report indicating the locations treated, dates, etc.

**The County is requesting funding from the Town for the following:**

Wireless Emergency Notification System (WENS)/Emergency Management Services and Emergency Public Telecommunications (Repeater/Antenna Mgt. and Repair): \$6,000 (cash payment)

**2. ROAD AND BRIDGE APPORTIONMENT TO TOWN FROM COUNTY:**

Road and Bridge Apportionment Payment: \$26,382.18

**3. FUTURE GOALS:**

**Both parties agree to work together in good faith towards the following:**

**The Town desires:**

- The ability to continue purchasing aggregate material from the County in future years. Aggregate cost may be deducted from the Road and Bridge Apportionment or billed by the County to the Town.
- To work collaboratively with the County to pursue and implement the goals and action items identified for Town and County collaboration in the Town's 2019 Master Plan.

**The County desires:**



- Support from the Town for Ouray County's Conceptual Plan and improvements to Ouray County's 37-acre property located adjacent to the Town of Ridgway. Such improvements include: water line upgrades to the existing water service line to improve water quality and water flow, the ability to connect to the Town's sewer system in the future for future facility improvements and construction of a satellite County facility.

#### **2020 Collaborative Efforts:**

- Support each entity's grant efforts
- Have Town/County meetings as needed
- Collaborate on regional sustainability
- Affordable Housing: Work together on affordable housing, including the Town's efforts on the Space to Create Program and collaborating on affordable, workforce housing efforts, including but not limited to establishing goals, partnerships, funding, and communications, and consider incorporating workforce housing into future public buildings and facilities
- Affordable Housing: Collaborate with other jurisdictions in the region to inform state leadership (legislators and governor) of the significantly limited resources in the region and the need to develop state-level legislative solutions, such as removing existing restrictions on the use of real estate transfer tax (RETT) and/or removing rent control restrictions in state statute and funding a state trust fund
- Affordable Housing: work collaboratively to identify opportunities for affordable housing with the influx of state funding commencing in 2020
- Work together on strategies and planning regarding water resources for all county stakeholders
- Work together on regional broadband efforts
- Support increased utilization of WENS and CodeRED
- Work collaboratively with Multi-agency Coordination group on emergency management
- Develop and maintain a local emergency response and management plan, as well as a plan for the continuation of government operations during and following an emergency event.
- Collaborate on Dispatch Services for the benefit of the entire County
- Collaboration on Victim's Assistance Grant and Victim Advocates for Ouray County
- Participate with County to finalize the update the Multi-jurisdictional Hazard Mitigation Plan in 2020 as an in-kind contribution to the State PDM 17 Grant
- Work together on Regional Transportation and Transit including Park-n-Ride(s) improvements and collaboration on planning, funding and development of the Uncompahgre RiverWay Trail from Ouray to Montrose
- Sharing Short Term Rental Information
- Cooperate on weed and pest management
- Explore opportunities for mental health support and outreach
- Collaborate on a design for South Amelia Street
- Maintain IGA with the County to continue to protect surrounding rural lands
- Work together to update the 2002 Town/County Land Use IGA in follow-up to the Town's Master Plan process in 2018-2020, including any updates to the Town's Urban Growth Boundary/ Urban Growth Management Area, Area of Influence Boundary and 3-Mile Boundary
- Work together to regulate uses or activities allowed within or adjacent to the Town's Source Water Protection Area to reduce the risk of pollution or other contaminants entering the Town's water supply and ensure the Town has access as needed, and including establishing development setbacks to the Ridgway Ditch
- Collaborate on outreach and communications with property owners who have properties encumbered by the Ridgway Ditch and that are located within the Town's Source Water Protection Area.

#### **Future Collaborative Efforts:**

- Work together on child care needs within Ouray County
- Work together on county-wide economic development

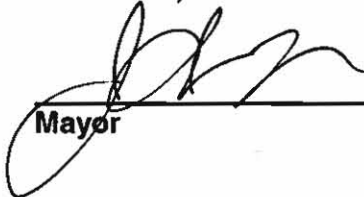
- Work with FEMA to maintain up-to-date maps of the 100-year floodplain and floodway along all waterways flowing through Ridgway
- Multi-modal access through Ridgway USA to County Property
- Work together on improving, hard-surfacing and financing Amelia Street from the north town boundary to the south/west town boundary at County Road 5
- Consider collaboration on a Mosquito Control District
- Prioritize the conservation and preservation of community valued natural resources such as environmentally sensitive areas, view and wildlife corridors, riparian areas and wetlands, river corridor, natural filtration and storm water drainage areas
- Work with Land Trust organizations and other partners to identify opportunities for land preservation

4. **TERM:**

This Memorandum of Understanding provides for agreement to cooperate and collaborate, as provided herein, for calendar year 2020. The parties agree to review this Memorandum of Understanding in September of 2020 for revision and reconsideration for the 2021 budget year. Both the Town and the County understand and agree that budget requests may or may not be funded and are subject to availability of funds, which availability may be altered by unanticipated events at any time. The Town and the County each agree to work cooperatively on the items specified in good faith, but failure to successfully complete any project will not be grounds for litigation.

EXECUTED on this 17<sup>th</sup> day of December, 2019.


**TOWN OF RIDGWAY  
RIDGWAY, COLORADO**

  
\_\_\_\_\_  
Mayor

ATTEST:

  
\_\_\_\_\_  
Pam Kraft, Town Clerk

**BOARD OF COUNTY COMMISSIONERS  
OURAY COUNTY, COLORADO**

  
\_\_\_\_\_  
Chair

ATTEST:

  
\_\_\_\_\_  
County Clerk and Recorder  
By: Deputy Clerk of the Board



## AGENDA ITEM #12



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 4, 2020  
Agenda Topic: Review and direction on anchor build as part of Region 10-Phase 2 DOLA Broadband Grant

#### SUMMARY:

Several years ago, Region 10 members requested and received funding from the Department of Local Affairs (DOLA) to develop a regional broadband implementation plan. As a result, a plan was developed to improve the broadband infrastructure within the region. Great strides have been made in establishing a fiber network for the communities within Region 10. The network aims to provide abundant and redundant services to the community that utilizes existing networks, prevents overbuild, and brings affordable services into the region.

A number of partnerships have formed as part of this project. Specific to our area, the following organizations are involved:

- Ouray County
- Town of Ridgway
- City of Ouray
- Montrose County
- San Miguel Power Association
- DOLA
- Universal Service Admin. Company

Matching grant funding from DOLA has been set aside for the various communities to pursue connections to anchor institutions. Funding in the amount of \$50,000 has been earmarked in the Town of Ridgway 2020 Fiscal Year Budget to match the DOLA funding in order to complete the following list of anchor builds by way of Indefeasible Rights of Use (IRUs). An IRU is a contractual agreement that confers an indefeasible and exclusive right of access to, in this case, fiber strands for an agreed-upon period in return for an upfront payment.

<b><u>Anchor Name</u></b>	<b><u>Cost using IRU's w/ 10% overage</u></b>	<b><u>Estimated cost for building new fiber</u></b>	<b><u>IRU fiber owner</u></b>
Ridgway Public Works	\$6,907.78	\$6,279.80	CNL
Regional Athletic Park	\$17,713.30	\$83,758.00	CLEARNETWORKX
Town Hall	\$12,777.60	\$36,651.00	CLEARNETWORKX
Water Treatment Plant	\$29,424.18	\$110,603.00	CLEARNETWORKX
Ridgway Elementary School	\$15,211.35	\$54,716.00	CLEARNETWORKX
Ridgway Secondary School	\$22,562.10	\$103,591.00	CLEARNETWORKX
<b>TOTAL</b>	<b>\$104,596.31</b>	<b>\$395,598.80</b>	
Pros	Less expensive	Town would own full, dedicated fiber lines	
Cons	Ongoing O&M costs; limited IRU term	More expensive	



Please note that the IRU costs are based on a 20-year IRU and that there would be yearly operations and maintenance costs to the tune of \$0.10 per linear foot. The footages are based on Clearnetworkx's existing and planned fiber builds, and, based on the list above, the footage totals 24,935. Based on that, the Town's yearly O&M cost would be \$2,493.50.

Region 10 is requesting a response from the Town soon on how the Town would like to proceed given that the term of the DOLA grant expires at the end of 2020. There may be a possibility of having the term extended through the first quarter of 2021.

**DIRECTION REQUESTED:**

Council is asked to provide direction on the list of connections to anchor institutions. Staff has met with Region 10 twice over the last few weeks and has heard that the recommended option is to pursue IRUs in order to complete most, if not all, of the anchor connections on the list above. Opting for new build option would substantially increase the total cost and would decrease the amount of anchor builds the Town could complete this year. Again, the Town has only budgeted \$50,000 in this year's budget to match the DOLA grant funding to complete anchor connections.

Representatives from Region 10 and Clearnetworkx will attend Wednesday's virtual meeting to help answer questions and provide more information about this project.

## AGENDA ITEM #13



**To:** Town Council  
**From:** Shay Coburn, Town Planner  
**Date:** September 2, 2020  
**Re:** Ridgway Athletic Park Pavilion – Thank You Plaque from Town

---

#### SUMMARY

The Town received a generous donation of \$400,000 from an anonymous donor to build a Pavilion in the Athletic Park. As such, it seems appropriate for the Town to somehow memorialize this gift and thank the anonymous donor. Staff is proposing a plaque somewhat similar to the ones installed on the Hwy 62 bridge over the river, picture below. The plaque is envisioned to be about 8" x 10", maybe made of metal, and would be installed on the Pavilion.



#### REQUEST

Staff would like Council's review and input on the content for the plaque:

"In gratitude to the incredibly generous donor for your contribution to this Pavilion at Frontier Field.

Town of Ridgway, 2020"

## AGENDA ITEM #14



**RESOLUTION NO. 20-10**

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF  
RIDGWAY, COLORADO, ADOPTING THE TOWN OF  
RIDGWAY STORMWATER MANAGEMENT  
MINIMUM DESIGN STANDARDS**

**WHEREAS**, the Town of Ridgway, Colorado (the “Town”) is a home rule municipality and political subdivision of the State of Colorado organized and existing under a home rule charter pursuant to Article XX of the Constitution of the State; and

**WHEREAS**, the Ridgway Town Council adopted the Town of Ridgway Stormwater Master Plan on April 8, 2020; and

**WHEREAS**, the Town is committed to protecting water quality while providing the community with exceptional service

**WHEREAS**, the Town is committed to protecting public health while balancing social, environmental and fiscal responsibilities in a sustainable manner; and

**WHEREAS**, the Town Council finds that the proper management of stormwater is critical to the protection of the health, safety and welfare of the public, the citizens of the Town, as well as natural resources and the environment; and

**WHEREAS**, the Town Council has determined that a comprehensive set of design standards for stormwater management is necessary to provide a reasonable degree of assurance that the development of public and private improvements will safeguard and protect the health, safety, welfare and property of the Town and citizens; and

**WHEREAS**, minimum design standards for stormwater management assure a degree of uniformity in performance of public and private improvements thereby securing for Town residents the benefits of development while protecting against deterioration of the quality of the natural and manmade environment; and

**WHEREAS**, the Town Council finds this Resolution to be in the best interest and welfare of the residents of the Town.

**NOW THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO** the following:

**Section 1. Recitals Incorporated.** The above and foregoing recitals are true and correct and are incorporated herein by this reference.

**Section 2. Approval.** The Town of Ridgway Stormwater Management Minimum Design Standards in the form attached as Exhibit A is hereby approved.

**Section 3.      Effective Date.** This resolution shall take effect immediately upon adoption.

**APPROVED AND ADOPTED by the Town Council at a regular public meeting held on the 9<sup>th</sup> day of September 2020.**

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John Clark, Mayor

ATTEST:

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Pam Kraft, Town Clerk



## TOWN OF RIDGWAY

## STORMWATER STANDARDS

September 2020

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## 1. **INTRODUCTION**

These Stormwater Management Minimum Design Standards (Standards) are established by the Town of Ridgway and are intended to apply to all Development in the Town. Note that within the rights-of-way of State Highways 62 and 550, which fall in part under the jurisdiction of the Colorado Department of Transportation (CDOT), the more stringent requirements of the Town or CDOT will apply.

The purpose of these Standards is to provide a reasonable degree of assurance that the Development of public and private improvements will safeguard and protect the health, safety, welfare and property of the Town and citizens; and to assure a degree of uniformity in performance of public and private improvements thereby securing for Town residents benefits of Development while protecting against deterioration of the quality of the natural and manmade environment. These Standards provide the minimum acceptable standards for safe, consistent, effective, and economical infrastructure. Actual site design may require additional detail or more conservative design parameters to address site-specific issues. All proposed Development shall submit to the Town a drainage design report that contains all design calculations, imperviousness's, spreadsheets, nomographs, and other documentation necessary for the design of the improvements in accordance with these Standards. This design report and the design of all required improvements shall be signed and stamped by a Colorado Registered Professional Engineer.

### 1.1. **Standards Overview**

The following is an overview of general requirements pertaining to stormwater. Detailed standards can be found in sections 2 through 9 below.

- Development shall not exceed Historical peak flow from the parcel unless a stormwater system is in place which anticipated such improvements when the parcel was created.
- If a parcel cannot maintain its Historical flow rate(s) after Development, all downstream stormwater systems must be sized to accompany the flow rate(s) identified in the Stormwater Master Plan.
- Building entries shall be 12" above adjacent drainage features with positive drainage away from the foundation.
- A parcel may be required to treat for Water Quality Capture Volume even if Development does not affect peak flows. Refer to Section 6.5 Water Quality Capture Volume.

### 1.2. **Definitions and Abbreviations**

#### 1.2.1. **Definitions**

Words defined below are capitalized throughout the document for reference. Wherever the following words, phrases or abbreviations appear in the specifications, they shall have the following meanings when in reference to stormwater:

CDOT STANDARDS shall refer to Colorado Department of Transportation Standard Specifications for Road and Bridge Construction or the Colorado Department of Transportation M&S Standards Plans List

DEVELOPMENT shall mean any increase of imperviousness greater than 0.05 acres, or an improvement which results in a parcel's imperviousness percentage greater than the land use default impervious values (Table 3 below), or the creation of a PUD, or any parcel within the Uncompahgre River Overlay District. Development does not include improvements to

existing Town owned rights-of-way. “Development”, “project” and “improvement” may be used interchangeably in these Standards.

HISTORIC shall refer- to the condition as it relates to runoff, drainage, flows or any other reference condition present at the time of adoption of these Standards with the impervious area being what is legally on record with the Ouray County Assessor or the impervious area that can be clearly delineated with 2019 or earlier National Agriculture Imagery Program (NAIP) Imagery and is still present on the parcel at the time of Development.

MAJOR STORM shall refer to a storm with a recurrence interval of 100 years.

MINOR STORM shall refer to a storm with a recurrence interval of 25 years.

RIPRAP refers to a protective blanket of large loose stones which are usually placed by machine to achieve a desired configuration.

SOIL RIPRAP is a mix of riprap and native soil. Soil riprap consists of 35% by volume of native soil taken from the channel excavation and 65% by volume of riprap of the specified gradation.

STANDARDS shall mean the Stormwater Management Minimum Design Standards

TOWN STANDARDS shall refer to the Town of Ridgway Standard Specification and Typical Drawings for Infrastructure Construction

### 1.2.2. Abbreviations

Wherever any of the following abbreviations appear, they shall have the following meaning:

CMP	Corrugated metal pipe
FAA	Federal Aviation Authority
FHWA	Federal Highway Administration
Fr	Froude number
HDPE	High density polyethylene
HGL	Hydraulic grade line
MHFD	Mile High Flood District, formerly known as the Urban Drainage and Flood Control District (UDFCD).
NAIP	National Agriculture Imagery Program
NOAA	National Oceanic and Atmospheric Administration
PVC	Polyvinyl chloride
RCBC	Reinforced concrete box culvert
RCP	Reinforced concrete pipe
SWMM	Storm Water Management Model

UDFCD	See MHFD
USDCM	Urban Storm Drainage Criteria Manual
WQCV	Water Quality Capture Volume resulting from a 1.25year storm

## 2. **RUNOFF**

Runoff can be calculated using the Rational Method for watersheds up to a total size of 160 acres. Theoretically SWMM may be used to calculate runoff for basins of any size, however for simplicity, the Town has limited its use to basins over 160 acres unless approved by the Town. Runoff from a parcel after any Development or improvement shall not exceed Historical flows for any parcel unless:

- 1) The parcel is part of a larger Development plan where its impact has already been incorporated into an existing stormwater drainage plan or system.
- 2) The increase in impervious area is less than 0.05 acres, the improvement results in a parcel's imperviousness percentage below the land use default values (Table 3), and the increased flow will result in less than a 1% increase in peak flow on any portion of the downstream stormwater system from current conditions at the time of adoption of these Standards.

### 2.1. Rational Method

The Rational Method may be used for watersheds up to a total size of 160 acres. When using the Rational Method, individual subwatershed sizes are to be no greater than 20 acres, and each subwatershed should be reasonably homogeneous for existing and projected land use.

The Rational Method is based on the following formula:

$$Q = CIA \quad \text{Equation 1}$$

Where:

Q = maximum rate of runoff (cfs)

C = runoff coefficient per Table 1

I = rainfall intensity (inches per hour)

A = contributing watershed area (acres)

The rainfall intensity discussed below is the peak rainfall rate for a given return period storm having a duration equal to the time of concentration, calculated using Equation 2.

The time of concentration,  $t_c$ , is the time it takes for runoff to flow from the most remote part of the watershed to the point of interest. This parameter is necessary to determine the maximum flow at a specific point within the watershed. The time of concentration for both non-urbanized and urbanized watersheds is calculated as follows:

$$t_c = t_i + t_t \quad \text{Equation 2}$$

Where:

$t_c$  = time of concentration (minutes)

$t_i$  = initial flow time (minutes)



$t_t$  = travel time in the ditch, channel, swale, gutter, storm drain, etc. (minutes)

For non-urban watersheds, those with up to 20% imperviousness, the minimum recommended total time of concentration is 10 minutes, and the initial flow time can be calculated as follows:

$$t_i = 0.395 (1.1 - C_{25}) * \frac{L_i^{1/2}}{S^{1/3}} \quad \text{Equation 3}$$

Where:

$C_{25}$  = runoff coefficient for 25-year return period per Table 1

$L_i$  = length of initial flow (feet, 300 max)

$S$  = average slope along the initial flow path (percent)

**Table 1: Runoff Coefficients**

Percent Impervious	Runoff Coefficients, $C_x$						
	1.25-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
0%	0.003	0.04	0.15	0.25	0.37	0.44	0.50
5%	0.03	0.08	0.18	0.28	0.39	0.46	0.52
10%	0.06	0.11	0.21	0.30	0.41	0.47	0.53
15%	0.10	0.14	0.24	0.32	0.43	0.49	0.54
20%	0.13	0.17	0.26	0.34	0.44	0.50	0.55
25%	0.16	0.20	0.28	0.36	0.46	0.51	0.56
30%	0.18	0.22	0.30	0.38	0.47	0.52	0.57
35%	0.22	0.25	0.33	0.40	0.48	0.53	0.57
40%	0.25	0.28	0.35	0.42	0.50	0.54	0.58
45%	0.28	0.31	0.37	0.44	0.51	0.55	0.59
50%	0.31	0.34	0.40	0.46	0.53	0.57	0.60
55%	0.34	0.37	0.43	0.48	0.55	0.58	0.62
60%	0.36	0.41	0.46	0.51	0.57	0.60	0.63
65%	0.42	0.45	0.49	0.54	0.59	0.62	0.65
70%	0.47	0.49	0.53	0.57	0.62	0.65	0.68
75%	0.52	0.54	0.58	0.62	0.66	0.68	0.71
80%	0.58	0.60	0.63	0.66	0.70	0.72	0.74
85%	0.64	0.66	0.68	0.71	0.75	0.77	0.79
90%	0.71	0.73	0.75	0.77	0.80	0.82	0.83
95%	0.79	0.80	0.82	0.84	0.87	0.88	0.89
100%	0.88	0.89	0.90	0.92	0.94	0.95	0.96

The initial flow length for both non-urbanized and urbanized watersheds is the length over which flow is expected to be sheet flow, prior to becoming concentrated in a swale. If the distance between the most remote part of the basin and the point of interest is longer than 300 feet, travel time must be added to initial flow time to calculate total time of concentration. Time to concentration shall be calculated using Manning's equation (discussed later in these Standards) or can be approximated by

using Equation 4 to determine the time to concentration. The minimum conveyance factor that shall be used for a developed site shall be 7.

$$t = \frac{d}{K S_w^{1/2}} \quad \text{Equation 4}$$

Where:

t = approximated time to concentration (seconds)

d = distance between most remote part of basin and point of interest (ft)

S<sub>w</sub> = watercourse slope (ft/ft)

K = conveyance factor per Table 2

**Table 2: Travel Time Conveyance Factors**

Land Surface	Conveyance Factor, K
Heavy meadow	2.5
Tillage/Field	5
Short pasture and lawns	7
Nearly bare ground	10
Grassed waterways	15
Paved areas, shallow swales, and storm sewers	20

In urbanized watersheds, those with greater than 20% imperviousness, the total time of concentration shall not exceed that calculated using Equation 5 below and shall be no less than 5 minutes.

$$t_c = (26 - 17i) + \frac{L_t}{60 (14i + 9) \sqrt{S_t}} \quad \text{Equation 5}$$

Where:

t<sub>c</sub> = minimum time of concentration for the first design point (minutes)

L<sub>t</sub> = length of channelized flow path (feet)

i = imperviousness as a decimal

S<sub>t</sub> = slope of the channelized flow path (feet/foot)

The runoff coefficients in Table 1 correspond with the composite imperviousness of the drainage basin for which peak flow is being calculated. General imperviousness values for several types of land use are in Table 3. If more specific data on imperviousness is known for a drainage basin, that data is to be used to develop a composite imperviousness to be used with Table 1 to obtain applicable C values.

**Table 3: Default Imperviousness Values**

Land Use or Cover	Percent Imperviousness
Undeveloped/Vacant Land	2
Parks, Open Space and Natural Areas	10
Rural Neighborhoods	20
Institutional	50
Residential Single-Family Neighborhoods	50
Town Core Residential Neighborhoods	50
Commercial/Industrial/Employment Areas	60
Mixed Use Residential AKA Mixed Neighborhoods	60
Mixed Use Business	70
Town Core	90

## 2.2. Rainfall Intensity

When using the Rational Method to determine runoff, rainfall intensity shall be determined using Equation 6 below. Equation 6 is used to calculate rainfall intensities for a given time of concentration and return period. The equation was developed based on data from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 8 for the Ridgway area.

$$I = P_1 \times \frac{36.65}{(T_d + 7.05)^{0.855}} \quad \text{Equation 6}$$

Where:

I = rainfall intensity (inches per hour)

P<sub>1</sub> = 1-hour rainfall depth (inches)

T<sub>d</sub> = storm duration (minutes)

Table 4 includes 1-hour rainfall depths associated with various return periods to use with Equation 6 in the first two columns. Within the other columns of Table 4, various rainfall intensities are displayed which were calculated from the corresponding return period and storm duration utilizing Equation 6. The design of stormwater infrastructure within the Town will have different design standards for the Minor and Major Storm events. The Minor Storm shall be defined as a storm with a 25-year return period, and the Major Storm shall be defined as a storm with a 100-year return period. In some locations, designing infrastructure using the Major or Minor storm may be impractical. If the designer feels that there are site specific challenges that prohibit using this Standard, the designer shall prepare and submit a report to the Town explaining the challenges and proposing an alternative Major or Minor

Storm event for the location-specific challenges with the rationale for using that storm. The Town will review the request for deviation and work with the designer to determine the storm to be accommodated while also assessing downstream impacts. Such deviations Minor Storm will be determined on a site-specific basis rather than a project-wide basis.

**Table 4: One-Hour Rainfall Depths and Intensity-Duration-Frequency Values**

Return Period	P <sub>1</sub>	Storm Duration and Resulting Rainfall Intensity (in/hr)				
		5-min	10-min	15-min	30-min	60-min
1.25-year	0.24	1.05	0.78	0.63	0.40	0.24
2-year	0.48	2.09	1.55	1.25	0.80	0.48
5-year	0.61	2.67	1.98	1.59	1.02	0.61
10-year	0.74	3.23	2.40	1.93	1.24	0.75
25-year	0.95	4.16	3.09	2.48	1.59	0.96
50-year	1.14	4.97	3.70	2.97	1.90	1.15
100-year	1.36	5.93	4.41	3.54	2.27	1.37
500-year	1.94	8.47	6.29	5.05	3.24	1.95

When using SWMM, rainfall should be determined using the latest NOAA Atlas 14, Volume 8 rainfall values. The SCS Type II 6-hr storm distribution should be used to generate the hyetograph in the model. This information can be found in an appendix of Ridgway's Stormwater Master Plan or online.

### **2.3. Storm Water Management Model**

It is not anticipated that EPA's Storm Water Management Model (SWMM) will be used frequently in the Town to calculate runoff as it is typically used for large basins. If SWMM is used, recommendations in the SWMM user's manual shall be followed and design methodology shall be presented to the Town in the drainage design report detailing the parameters used including each basin's; imperviousness, area, characteristic width, slope, hydrologic soil group, precipitation losses using Horton's infiltration method, and any other relevant data. Within the model, dynamic wave routing shall be used to be consistent with the Town's Stormwater Master Plan unless the Town approves the use of kinematic wave routing. If kinematic wave routing is proposed, an explanation must be provided to the Town as to why this method is preferred.

## **3. ROADWAY DRAINAGE**

Streets are a major component of the drainage system, but their use for stormwater drainage must be limited to prevent interference with traffic. A street's flow capacity is based upon its cross-sectional geometry, longitudinal slope, and the maximum allowed depth or spread of runoff. During a Major Storm event, streets may become emergency runoff channels, routing floodwaters away from structures. During these events many streets will be inundated to the point they are impassable to most vehicles.

### **3.1. Allowable Encroachment**

Table 5 below lists the allowable encroachment criteria for different types of roadways within the Town of Ridgway. Roadway designation can be found in the Town's Master Plan or contact the Town for roadway designation.

**Table 5: Allowable Roadway Encroachment**

Criteria	Collector & Arterial Criteria	
	Minor Storm	Major Storm
Depth at gutter flow line <sub>1</sub>	6"	12"
Depth at outside edge of pavement <sub>2</sub>	6"	12"
Center clear lane for emergencies	N/A	12 feet
Street flow velocity	N/A	8 fps
Max flow spread	N/A	Stay within public ROW
Criteria	All Other Roadways Criteria	
	Minor Storm	Major Storm
Depth at gutter flow line <sub>1</sub>	N/A	12"
Depth at outside edge of pavement <sub>2</sub>	N/A	12"
Depth at roadway crown	0"	6"
Street flow velocity	N/A	8 fps
Max flow spread	N/A	Stay within public ROW

Where flow exceeds what is allowable within a street, a roadside ditch or enclosed drainage system must be used to capture and convey the excess flow. Areas of existing Development or redevelopment may have roadside ditches or enclosed drainage systems, while new areas of Development are expected to have enclosed drainage systems. Roadside ditches are discussed in detail later in these Standards. When designing or redesigning a roadway with buildings already present Table 16 will also need to be consulted and met regarding to building entry elevations. If the designer feels that there are site specific challenges that prohibit being able to meet existing entry height(s) the designer shall prepare and submit a report to the Town explaining the challenges and proposing an alternate.

### 3.2. Street Flow Calculations

Calculations for flow capacity and velocity in a street section are based upon the limits specified for each type of roadway and the assumption that area outside the street right-of-way does not contribute to the capacity of the street drainage system. For calculation purposes, it is assumed that an infinitely high vertical wall of zero roughness exists at the right-of-way boundary, and any flow area outside this boundary is not considered in analysis. For new street designs, a combination of the storm drainage system and curb and gutter can be utilized to convey the Minor event. All street capacity calculations should be completed on a half-street basis and the same vertical-wall assumption applies to the street centerline as to the right-of-way. The Mile High Flood District (MHFD), maintains an excel spreadsheet that will calculate street hydraulic capacity given detailed user input. The spreadsheet is titled UD-Inlet and is available on the MHFD website under Technical Downloads. The website should be checked to ensure the most recent version of UD-Inlet is being used as the MHFD often updates its technical materials as new data becomes available. Detailed street flow calculations that can be completed by hand can be found in the Federal Highway Administration's (FHWA) HEC-22 Urban Drainage Design Manual.

### 3.3. Roadside Ditches

Roadside ditches are open channels but are discussed here because they are specifically part of the roadway drainage system. They will ideally be grass-lined and shall be designed to prevent erosion of the ditch lining. If an enclosed drainage system is present or anticipated upstream or downstream, a roadside ditch will not be allowed unless approved by the Town. Maximum longitudinal slope shall

result in a Froude number no higher than 0.80 and a maximum velocity of 7 feet per second during the Major Storm as calculated using Manning's equation. For grass-lined channels, the Manning's n value, velocity and capacity calculations shall use the appropriate retardance curve in Figure 1. Retardance curves A and B are not used within the Town. The Froude number for roadside ditches shall be calculated as follows:

$$Fr = \frac{V}{\left(\frac{gA}{T}\right)} 0.5 = \frac{V}{(gD_h)} 0.5 \quad \text{Equation 7}$$

Where:

Fr = Froude number (dimensionless)

V = average ditch velocity (fps)

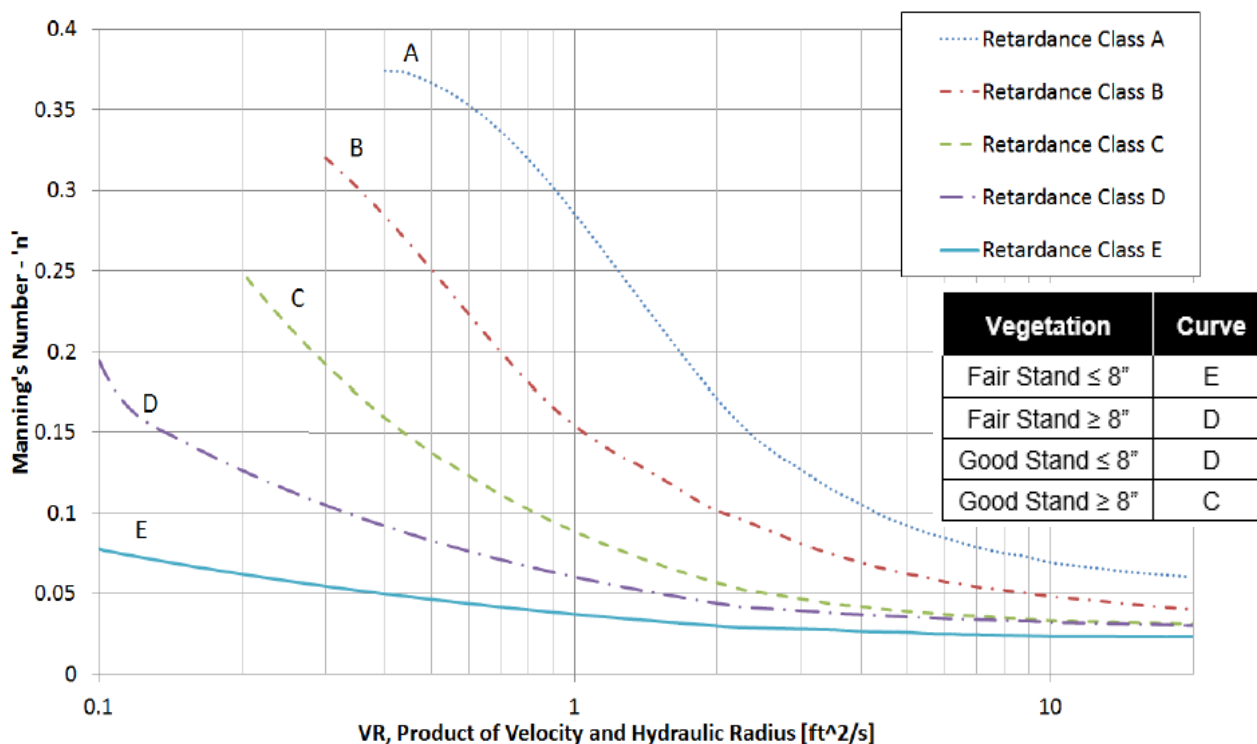
g = gravitational acceleration (32.2 ft/s<sup>2</sup>)

A = cross sectional flow area (square feet)

T = top width of flow area (feet)

D<sub>h</sub> = hydraulic depth = A/T (feet)

Using Figure 1 requires a trial-and-error approach, first assuming an "n" value and then calculating the various parameters repeatedly until the intersection of the product of velocity and hydraulic radius (VR) and the Froude number falls on the specified retardance curve dictated by vegetation.



**Figure 1: Retardance Curves**

Alternately, the MHFD has a spreadsheet that will calculate several parameters given a user-specified ditch geometry, flow depth, and Retardance Curve. The spreadsheet is titled UD-Channels and is

available on the MHFD website under Technical Downloads. The user should use the "Rating" worksheet.

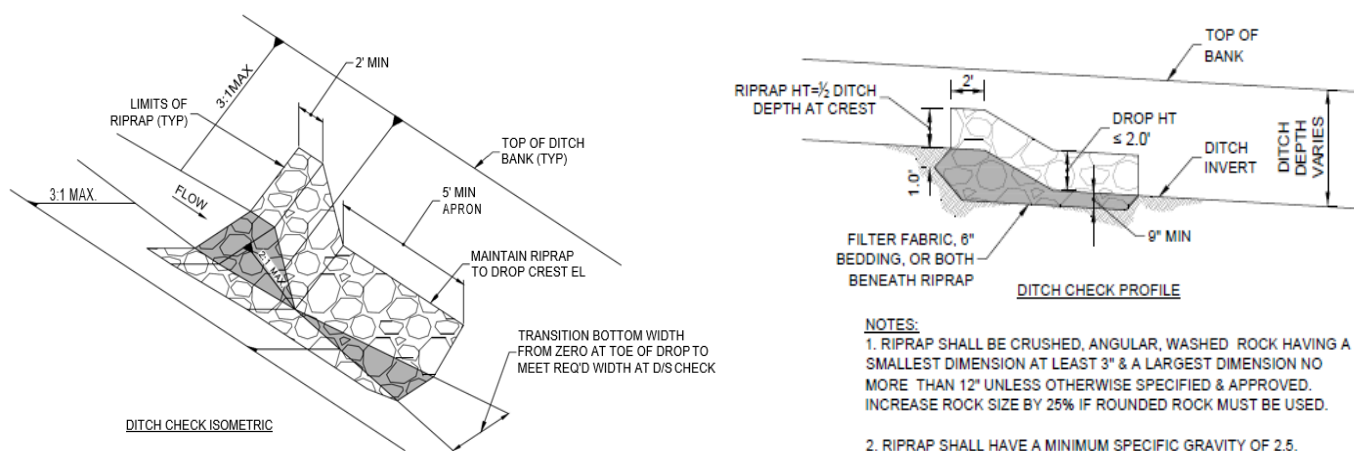
The following criteria shall be used to design roadside ditches:

1. For all types of roadways and Development, encroachment and flow depth criteria shall be the same for roadside ditches as it is for enclosed drainage systems with curb and gutter for the Minor and Major Storms (see Table 5).
2. The Major Storm water surface elevation shall meet the requirements of Table 16 for the lowest point of entry of structures.
3. Side slopes of roadside ditches shall be no steeper than 3H:1V.
4. No roadside ditch shall have a flow depth greater than 3 feet.
5. A minimum velocity of 2.0 fps during a Minor storm is required to discourage sediment build-up unless approved by Town as a detention swale.

### 3.4. Ditch Checks

The natural topography of the area may result in relatively steep roadside ditch slopes. Ditch checks are required where the Froude number exceeds 0.80 or the velocity exceeds 8 feet per second. The upstream side of each ditch check shall be buried, and the downstream side can have no more than a 2-foot drop at a slope of 2H:1V. Each drop must have a soil riprap or ordinary riprap plus bedding apron extending at least 5 feet downstream of the toe of the ditch check. Ditch checks shall be installed longitudinally at the interval required to meet Froude number and velocity requirements for the design storm.

The ditch cross section at the downstream toe of each ditch check will be a standard v-ditch. At this location, the bottom of the ditch has no width. The ditch width transitions from 0 at this point to 2 times the height of the next ditch check at its crest (assuming the ditch side slopes are 3H:1V and the face of the check is 2H:1V). In this fashion, the side slopes of the roadside ditch will remain constant through each of the ditch checks. Figure 2 is of a typical ditch check.



**Figure 2: Ditch Check Schematic**

### 3.5. Culverts

Design methodology in this section is generally based on the Federal Highway Administration (FHWA) Hydraulic Design of Highway Culverts, Hydraulic Design Series No. 5 (HDS-5), available online.

Culvert flow is either under inlet control or outlet control. Identifying if the inlet or the outlet controls the culvert will depend on the flow rate being considered, the culvert and drainageway characteristics. Both inlet and outlet control conditions must be evaluated, and the condition which produces the greater energy loss for the design condition dictates which situation will control the design.

Under inlet control, the flow through the culvert is controlled by the headwater on the culvert and the inlet geometry. Inlet control can be unsubmerged or submerged. In an unsubmerged condition, the headwater is not enough to submerge the top of the culvert and the culvert slope is supercritical. In this situation, the culvert inlet acts like a weir. In a submerged condition, headwater submerges the top of the culvert, but the pipe does not flow full. In this situation, the culvert inlet acts like an orifice.

Under outlet control, the flow through the culvert is controlled primarily by culvert slope, roughness, and tailwater elevation. This occurs when the culvert is not capable of conveying as much flow as the inlet opening will accept. The control section may be within the barrel, at the barrel exit or even further downstream. Outlet control will govern if the tailwater is high enough, the culvert slope is relatively flat, or the culvert relatively long. Outlet control will exist primarily under two conditions. The first and less common is when the headwater does not submerge the culvert inlet and the culvert slope is subcritical. The more common condition is when the culvert is flowing full. Culvert hydraulic calculations shall be performed using rating nomographs and/or culvert hydraulic analysis programs such as the FHWA's HY8 Culvert Analysis.

### **3.5.1. Culvert Design Procedure**

Design shall consider design flow, culvert size and material, upstream channel and entrance configuration, downstream channel and outlet configuration, and erosion protection. Material and shape shall be based on required hydraulic capacity and the ability to meet the HS-20 loading.

Inlet control calculations shall be completed using inlet control nomographs from the FHWA's HDS-5 for typical configurations, available online. Various types of culvert entrance configurations included in HDS-5 may be used, except for projecting entrances, which must be approved by the Town. Note that if using a flared end section on a round culvert that chart 55B should be used.

Outlet control calculations result in the headwater elevation required to convey the design discharge through the selected culvert in outlet control. Critical depth charts and outlet control nomographs are also used in the design process. The procedure and variables in HDS-5 for culvert design should be followed. Several commonly used inlet control and outlet control nomographs are included in the appendix. Additional nomographs and critical depth charts are available in HDS-5.

### **3.5.2. Culvert Design Criteria**

The information below shall be used for culvert design and provided to the Town for review. Culverts crossing State Highway 62 (Sherman Street) and U.S. 550 are also subject to the requirements of CDOT.

1. Design discharge shall be the Major Storm event when crossing under an arterial or collector roadway and shall be the Minor event for other roadways unless the roadway is the only road providing access to an area, in which case the Major Storm shall be used. Check the Town's Master Plan or contact the Town for roadway classification.
2. Upstream headwater on culverts under all types of roadways shall meet the encroachment requirements in Table 5. Headwater divided by culvert diameter or height (HW/D) shall not exceed 1.5 during the design storm. No increase in backwater from a culvert will be permitted to extend onto an adjacent property.
3. Tailwater shall be calculated as the depth of water downstream of the culvert measured from the outlet invert. Backwater calculations from a downstream control point are required unless



downstream channel normal depth approximations using Manning's Equation are considered by the designer to be adequate and there is no downstream structure, roadway, obstruction or improvements causing backwater. The designer shall receive Town approval prior to using normal depth approximations.

4. Velocity at the culvert outlet cannot exceed the maximum permissible velocity for the channel lining in Table 8. Velocities exceeding these values require outlet protection discussed below. Minimum culvert velocity for the Minor Storm shall be 2 feet per second. Culverts shall have a maximum design-flow velocity of 8 feet per second during the Major Storm unless approved otherwise by the Town. Design shouldn't subject the culvert or surrounding channel lengths to velocities greater than the culvert or surrounding channel lining can handle.
5. Minimum cover over a culvert shall be 1 foot or 8 inches to the bottom of the pavement. Culverts passing under roadways shall maintain their shape and function under an HS-20 loading. Maximum or minimum allowable cover will depend on pipe size and material and should follow the manufacturer's recommendations.
6. The minimum size for all public culverts and private culverts placed in a public drainage way such as a roadside ditch shall be an 18-inch diameter round pipe or any shape with an equivalent area. For public drains through sidewalks a 12-inch-wide by 8-inch-deep chase drain shall be used. Private drainage culverts on private property may be as small as 8-inch diameter if supported by a drainage letter or study.
7. Culverts shall comply with the Town Standards and CDOT Standards. Culverts shall be galvanized corrugated metal pipe (CMP) or dual walled high-density polyethylene (HDPE) with a smooth interior and a corrugated exterior. Reinforced concrete pipe (RCP), or reinforced concrete box culverts (RCBC) may be used with Town approval. Culverts may be circular, elliptical, arch, or box-shaped.
8. For public culverts and storm drain pipes placed in areas having corrosive soils, high density polyethylene pipe shall be used.
9. Culverts shall be placed to completely drain all runoff where a swale or channel intersects a road or sidewalk. All areas where water may be impounded shall be considered for culvert locations. Culvert placement shall not include any abrupt changes in flow direction at either end. If it is not possible for a culvert to have the same alignment as the channel, headwalls, wingwalls, and aprons shall be used as protection against scour and to provide a more efficient inlet.
10. Culvert inlets and outlets shall have a flared end section unless headwalls or wingwalls are included in the design.

### 3.5.3. Outlet Velocity Calculation

The outlet velocity is calculated as follows:

1. If design headwater is based on inlet control, determine the normal depth and velocity in the culvert barrel. The velocity at normal depth is assumed to be the outlet velocity.
2. If design headwater is based on outlet control, determine the area of flow at the outlet (and corresponding velocity) based on the barrel geometry and the following:
  - a. Critical depth if the tailwater is below critical depth.
  - b. Tailwater depth if the tailwater is between critical depth and the top of the barrel.
  - c. Height of the barrel if the tailwater is above the top of the barrel.

### 3.5.4. Outlet Protection

Table 8 below presents maximum permissible mean channel velocities for various types of channel linings. When outlet velocities exceed allowable channel velocity, a riprap apron or riprap basin (also

called a low tailwater basin) is required. The design of riprap aprons and basins shall be completed in accordance with the FHWA's HEC-14 or the USDCM published by the MHFD.

The gradation and materials for riprap shall be as specified in the CDOT Standards. Also note that the riprap sizing calculations are for angular rocks with fractured faces, nearly rectangular in shape with a breadth or thickness at least 1/3 its length. Where these riprap materials are not available, rounded river rock may be used if channel side slopes are flattened to 4H:1V and the required gradation is increased by at least 25%.

### **3.5.5. Computer Applications**

The FHWA's HY8 Culvert Analysis may be used in lieu of nomographs. Other programs must receive Town approval.

## **4. STORM DRAIN SYSTEMS**

Storm drains are used to convey runoff in locations where street capacity is exceeded. Typically, storm drains are sized to convey peak runoff from the Minor Storm in excess of street flow capacity as designated in Table 5. The first inlet will either be located at or upstream of where runoff first exceeds street capacity or where there is a vertical sag in the street.

Occasionally, inlets and storm drains must be sized to convey more than the Minor Storm event, up to the entire Major Storm event flow. Four examples of this situation are:

1. Locations where street flow is not in the desired direction and there is no other feasible drainage solution.
2. Locations where the standard allowable Major Storm street capacities do not apply, such as negative slopes outside the curb but within the right-of-way.
3. Locations where there is no viable overflow option for the Major Storm event without adversely impacting private property.
4. When a storm drain system sized for the Minor event results in flooding during the Major event that exceeds the allowable encroachment criteria in Table 5, in which case the storm drain system must be upsized so that the criteria for all storm events are met.

### **4.1. General Storm Drain System Design Procedure**

The general design process for a storm drainage system is below.

1. Choose a system layout based on street rights-of-way and other drainage easements, developed topography, utility locations, and likely cost and performance. This layout should include preliminary inlet and manhole locations.
2. Complete the hydrologic analysis of the project area. Compute peak flow in each street starting at the upper end of the project area and working downstream. The runoff from multiple streets will eventually converge at a point, so all streets that are tributary to that point must be evaluated before moving on downstream. An inlet should be located wherever the Minor or Major Storm peak street flow exceeds the allowable capacity for that street and at all sump locations.
3. Initial storm drain sizing begins at the uppermost inlet for each street, combining individual street storm drains where appropriate. The design flow for a given storm drain segment is

based on the sum of all flow from upstream pipes and the larger of the Major and Minor street flows exceeding the respective street capacity at the inlet just upstream from that segment.

4. Use Manning's open channel flow, including approximate junction head losses, to compute required pipe size and slope for each pipe segment. Evaluate pipe size and/or slope at locations where significant energy losses may occur, such as large or complex pipe junctions and major pipe bends and increase the pipe size as deemed appropriate. Downstream pipes should not be smaller than upstream pipes unless the flow rate decreases significantly.

Regardless of if computer software is used to model storm drain systems, hand calculations should be used to spot-check the computer models to ensure the software is functioning properly.

#### 4.2. Allowable Capacity and Velocity

A storm drain shall be designed to convey all the design storm runoff from areas tributary to it as identified in Ridgway's Stormwater Master Plan. The design of surcharged storm pipes is not allowed for the Minor Storm, and capacity and velocity should generally be calculated using the Manning's equation (Equation 9). A minimum design flow velocity of 2 feet per second is required for a Minor storm. The maximum design flow velocity is 10 feet per second during any storm. The Town will review requests for a storm drain design where the design storm velocity exceeds 10 fps. Maximum outfall velocities are more restrictive as discussed in this section.

Table 6 provides Manning's n value. The designer shall consider aging of the pipe and possible abrasions, corrosion, dents, deflection, joint conditions, and potential sediment buildup when selecting roughness values.

**Table 6: Manning's Roughness Coefficients for Storm Drains**

Type of Conduit	Interior Wall Description	Manning's n
Concrete Pipes and Boxes	Smooth	0.013
Spiral-Rib Metal Pipes	Smooth	0.012-0.013
Corrugated Metal Pipes & Boxes		
Annular Corrugations	68mm x 13mm (2-2/3" x 1/2") corrugations	0.022-0.027
Helical Corrugations	68mm x 13mm (2-2/3" x 1/2") corrugations	0.011-0.023
	150mm x 25 mm (6" x 1") corrugations	0.022-0.025
	125mm x 25mm (5" x 1") corrugations	0.025-0.026
	75mm x 25mm (3" x 1") corrugations	0.027-0.028
Structural Plate Corrugations	230mm x 64mm (9" x 2 1/2") corrugations	0.033-0.037
	150mm x 50mm (6" x 2") corrugations	0.033-0.035
Corrugated Polyethylene (HDPE)	Smooth	0.008-0.015
	Corrugated	0.018-0.025
Polyvinyl Chloride (PVC)	Smooth	0.008-0.012
Cast-Iron Pipe, uncoated		0.013
Steel Pipe		0.009-0.013

Reference: Adapted from HDS-4 and HEC-22

#### 4.3. Storm System Requirements

Minimum and maximum cover are determined by the size, material, and class of pipe, as well as by the characteristics of the cover material and the expected surface loading. Consult the CDOT

Standards, the Concrete Pipe Design Manual, the Handbook of Steel Drainage and Highway Construction Products, and manufacturer specifications to determine cover requirements. Storm drains under railroads and roadways must comply with any cover requirements specified for culverts, as well as with any criteria the railroad and roadway owners may have. When designing and building a storm system, the Town Standards Section 02723 will act as the governing requirements for any details not called out.

Pipes installed under any driving or parking area shall be designed for H-20 minimum live load, and all pipes shall have a minimum of 1 foot of cover from finished grade and at least 8 inches below the bottom of the pavement to top of outside of pipe regardless of location unless special bedding is provided per the manufacturer's recommendations. In a manhole, the lowest inlet pipe invert elevation must be at least 0.2 feet higher than the outlet pipe invert elevation. Where the downstream pipe is larger than the largest upstream pipe, pipe crowns should be matched. The storm sewer system alignment shall be designed to minimize the length of pipe, stay a consistent distance from the right of way centerline, and provide a reasonably uniform pipe slope throughout. Local utility companies shall be consulted to determine the location of their existing lines and their required minimum clearances. Pipe encasement may be required in some locations where minimum utility clearances are not met. The Town and affected utility shall determine when encasement is required and approve the design of any required encasement. Designs that request relocation of utilities shall be avoided whenever possible.

Manholes or other junction structures are required at all bends, vertical drops, and changes in main line pipe size or slope. All manholes must provide access to the storm drain for maintenance and inspection. All manhole inverts shall be formed with a minimum of a half bench to provide more hydraulically-efficient flow through the manhole. The bench shall be flared up to the spring line along the length of the bench through the manhole for 12-inch pipes to facilitate camera work and cleaning. Maximum allowable manhole spacing is 400 feet.

All storm drain pipes shall have a minimum diameter of 12 inches. For non-circular pipes, these minimum diameters represent equivalent diameters based on cross-sectional areas. All storm drain pipes shall comply with the Town's Standards as well as the most recent edition of the CDOT Standards. Public storm drain pipes shall be dual walled high-density polyethylene (HDPE) with a smooth interior and a corrugated exterior with water tight bell and spigot joints or SDR 35 polyvinyl chloride (PVC). In limited cases where design constraints necessitate the use of reinforced concrete, Town approval is required.

Structure foundation drains up to 4-inch diameter may be connected directly into a storm drain pipe where an enclosed storm drain system exists but there is no storm drain manhole conveniently located to connect into. In these instances, a wye-shaped fitting shall be installed on the main and the 4-inch leg of the wye shall be used to extend the foundation drain connection to the property line, where it will terminate in a clean-out for the foundation drain. The connection shall be done in a manner that the connecting pipe does not restrict the flow capacity of the mainline storm sewer pipe nor allows root entry. No strap-on taps are permitted. A restrained connection is required for pumped flow.

The required diameter of the manhole barrel is dependent upon the size and configurations of the pipes connecting to it. For all manholes, at least 12 inches of clearance must be present from the openings for the pipes in where they intersect the inside of the manhole to preserve the structural integrity of the manhole. Approved manhole designs are in the Town Standards for 4' and 5' manholes. See CDOT Standards for 6' diameter and larger manholes.

#### **4.4. Hydraulic Calculations**

The Mile High Flood District, maintains the program UD-Sewer which calculates the hydraulic grade line (HGL) within a storm sewer system. UD-Sewer is available on the MHFD website under Technical

Downloads. The website should be checked to ensure the most recent version of UD-Sewer is being used as the MHFD often updates its technical materials as new data becomes available. The Town shall approve the use of any software other than UD-Sewer.

Detailed street flow calculations that can be completed by hand can be found in the FHWA's HEC-22 Urban Drainage Design Manual. Pipe friction and manhole losses are significant source of energy dissipation in storm drain systems. If calculating an HGL by hand, pipe friction losses need to be considered as well as manhole losses for changes in pipe diameter at a manhole, differences in flow depth upstream and downstream of a manhole, more than two pipes using a manhole, plunging flow, and manhole benching. Pipe sizes shall be initially selected based on capacity calculated using Manning's equation for open channel flow (Equation 9) starting at the uppermost reach of the storm drain system. Alternately, Equation 8 may be used to directly solve for the minimum required pipe diameter for circular pipes, rounding up to the nearest standard pipe size.

$$D_i = \left[ \frac{2.16nQ_p}{S_o^{1/2}} \right]^{3/8} \quad \text{Equation 8}$$

Where:

- $D_i$  = initial design minimum pipe diameter (feet)
- $Q_p$  = initial design peak flow rate (cfs)
- $n$  = Manning roughness coefficient (see Table 7)
- $S_o$  = initial design pipe slope (feet/foot)

The HGL shall be calculated for each storm drain system by starting with the water surface elevation of the outfall and working upstream, accounting for losses due to pipe friction, manholes, bends, junctions, and pipe entrances and exits in accordance with procedures in HEC-22 or using UD-Sewer. Compliance with minimum and maximum flow velocities is based on peak design flow for each segment. Note that pressure flow is not allowed for the Minor Storm, and the depth of water in a pipe shall not exceed 0.8 times the pipe diameter for the Minor Storm.

#### 4.5. Storm Inlet Selection, Sizing, and Location

When flow in a street impacted by new Development exceeds allowable limits of encroachment during either the Minor or Major event, an enclosed drainage system with inlets must be added. The standard street inlets for use in Ridgway are the CDOT Type 13 and Type R inlets with a bicycle safe grate. A Denver Type 13/16 Combination inlet may also be used. Note that if using a Type R inlet, the standard 2-inch local depression of the throat section should be reduced to 1 inch. Each inlet shall have a 1-foot sump (inlet sump) below the lowest pipe invert elevation to collect sediment and debris. Area inlets approved for public use where no potential traffic loads exist include CDOT Type C and D inlets with a close mesh or bicycle safe grates and the CDOT Type 13 area inlet with a No. 13 grate.

##### 4.5.1. Guidelines for Inlet Location and Spacing

Inlets should be placed where allowable encroachment limits are exceeded. At no time shall inlets be located within a curb ramp, but an inlet shall be located within approximately 50 feet upstream of all curb ramps. Inlets shall be located to prevent bypass flows from the Minor Storm from crossing any street, although Minor Storm flows shall be allowed to cross alleys. During the Major Storm, flow depth across any street shall meet the requirements of Table 5. Additional street inlet locations shall be determined using the following iterative process:

1. The location of sump inlets is fixed at the sag of the roadway vertical alignment. The inlet should be sized to maintain water depth and spread within the allowable limits in Table 5. If the Town determines a sump inlet becomes excessively large, additional inlets upgradient from the sump shall be considered.
2. Consider the change in tributary area to the inlet associated with any upstream or downstream location adjustment and recalculate flow depth and spread.
3. A typical design interception efficiency of an on-grade inlet is 70 to 80 percent. On-grade inlets designed to capture 100 percent of runoff are less effective hydraulically and economically.
4. Include any carryover or bypass flow from an upstream inlet when calculating the flow at a downstream inlet. Although the peak runoff to an inlet may not coincide with the peak carryover flow from an upstream inlet, these two peak flows shall be added to find the total peak flow to the downstream inlet.
5. Maximizing the use of sump inlets tends to increase the overall efficiency of the inlet system, and inlets must be installed at all street sags and at all sumps formed by intersections except where other drainage provisions have been made. Sump inlets should be located prior to the placement of any on-grade inlets during the design process.

Sumps in paved areas or in unpaved open spaces shall not pond more than 6 inches during the Minor Storm. Building entrances shall be no less than 12 inches above the Major Storm ponding depth.

#### **4.5.2. Inlets on Continuous Grade**

Inlets on a continuous grade may allow some flow to bypass to the next downstream inlet and this bypass flow must be accounted for. Inlet capacity calculations shall include standard clogging factors. UD-Inlet, the spreadsheet developed by the MHFD and mentioned earlier in this section, will calculate hydraulic capacity of an inlet on grade given detailed geometric input. This spreadsheet shall be used to calculate the hydraulic capacity of an inlet on grade. Any carryover flow calculated at an inlet on grade shall be added to the design discharge at the next inlet. Note also that inlets on grade are typically designed to capture between 70 and 80 percent of the design discharge.

#### **4.5.3. Inlets in Sump Conditions**

Street inlets in sump conditions, such as the low point in a vertical sag, must have the capacity to capture all the runoff draining to them without exceeding maximum allowable flow depth and spread. To ensure maximum allowable ponding depth is not exceeded, and to protect against failure, flanker inlets shall be considered. Flanker inlets are located upgradient 10 to 50 feet from the primary sump inlet. Two flanker inlets shall have a combined design capacity equal to or greater than that of the primary sump inlet or inlets.

UD-Inlet will calculate hydraulic capacity of a street or area inlet in a sump condition and shall be used to calculate the hydraulic capacity of an inlet in a sump condition. The default values for clogging factors and for orifice and weir coefficients shall be used unless site conditions specifically dictate the use of different values.

#### **4.5.4. Inlet Grate Selection**

Bicycle-safe grates must be used in all areas that may receive pedestrian or bicycle traffic unless specifically approved by the Town. The types of grates permitted for use with the Type 13/16 Combination inlet are valley grates in single, double, and triple-inlet configurations. Vane grates are not allowed.

When a combination inlet is to be installed with a valley grate, this is sometimes designated as a Type 13/16 Combination inlet depending on the manufacturer. The designer should consult with the manufacturer to ensure compliance with these Standards and not unconditionally specify a Type 13/16 Combination inlet. There are several valley grates that maybe used with a Type 13/16 Combination inlet. Neenah Foundry and East Jordan Ironworks are nationwide manufacturers. In public sump areas not in a roadway, such as a parking lot or unpaved open area, the CDOT close mesh grate may be used with the Type C and Type D area inlets. A CDOT Type 13 area inlet may also be used.

A “drains to river” stamp shall be included in all grate inlets. Inlet grates shall be submitted to the Town for approval.

## **5. CHANNEL AND RESERVOIR ROUTING**

When a large or non-homogeneous watershed is being investigated, it will be required to be divided into smaller and more homogeneous subwatersheds. The storm hydrograph for each subwatershed can then be routed through the channel and combined with individual subwatershed hydrographs to develop a storm hydrograph for the entire watershed. A SWMM model must be used to route hydrographs if the complexity of the relationship between the subbasins is such that simply adding the peak flows together is not an appropriate solution. Additionally, detention storage volume may be sized using routing techniques rather than the direct Federal Aviation Authority (FAA) Method calculation provided later in these Standards.

### **5.1. Improved Open Channel Design Criteria**

All open channel improvements for grassed channels and channels composed of native materials shall be designed in accordance with the latest version of the Urban Storm Drainage Criteria Manual (USDCM) by the Mile High Flood District (MHFD). If localized energy dissipation is required along an open channel, such as at a drop, it will also be designed in accordance with the latest version of the USDCM. All open channels within the Town of Ridgway shall be designed to convey water in a subcritical flow condition ( $Fr < 0.8$ ) where achievable. All open channels shall be designed with public safety in mind and adequate maintenance access shall be provided.

### **5.2. Open Channel Flow**

The computation of uniform flow and normal depth in any open channel shall be based upon the Manning’s or Uniform Flow Equation:

$$Q = \frac{1.49}{n} A R^{2/3} \sqrt{S} \quad \text{Equation 9}$$

Where:

- Q = flow rate (cfs)
- n = Manning roughness coefficient (see Table 7)
- A = area (square feet)
- P = wetted perimeter (feet)
- R = hydraulic radius = A/P (feet)
- S = slope of the energy grade line (feet/foot)

**Table 7: Manning's Roughness Coefficients**

Type of Channel and Description	Roughness Coefficient
<b>Excavated or Dredged</b>	
Earth, straight and uniform	
Clean, recently completed	.018
Clean, after weathering	.022
Gravel, uniform section, clean	.025
With short grass, few weeds	.027
Earth, winding and sluggish	
No vegetation	.025
Grass, some weeds	.030
Dense weeds or aquatic plants in deep channels	.035
Earth bottom and rubble sides	.030
Stony bottom and weedy banks	.035
Cobble bottom and clean sides	.040
Dragline-excavated or dredged	
No vegetation	.035
Light brush on banks	.040
Rock cuts	
Smooth and uniform	.035
Jagged and irregular	.040
Channels not maintained, weeds and brush	
Dense weeds, high as flow depth	.080
Clean bottom, brush on sides	.050
Same as above, but highest state of flow	.070
Dense brush, high state	.100
<b>Lined or Built-Up Channels</b>	<b>Roughness Coefficient</b>
Concrete	
Trowel Finish	.013
Float Finish	.015
Gunit, good section	.019
Gunit, wavy section	.022
Concrete Bottom	
Dressed stone in mortar	.017
Random stone in mortar	.020
Dry rubble or riprap	.030
Gravel bottom with sides of	
Formed concrete	.020
Random stone in mortar	.023
Dry rubble or riprap	.033
Asphalt	
Smooth	.013
Rough	.016
Grassed	Figure 1
Riprap	Equation 14

Reference: Chow, V.T., Open Channel Hydraulics, 1959



### 5.3. Flow Depth and Froude Number

Backwater from culverts, storm drain inlets, or channel constrictions can cause channel flow depth to be greater than normal depth. In these cases of gradually varied flow, the water surface can be computed using HEC-RAS. Other computer software may be used for water surface calculation if approved by the Town.

Critical flow depth in a channel occurs when the Froude number ( $Fr$ ) is equal to 1.0. Channels should not be designed to flow at or near critical state ( $0.80 < Fr < 1.2$ ) because flow is unstable in this range. Within this range, factors causing only minor changes in specific energy, such as channel debris or minor variation in roughness, will cause a major change in depth. The Froude number is defined as follows:

$$Fr = \frac{v}{\sqrt{gD_h}} \quad \text{Equation 10}$$

Where:

$Fr$  = Froude number (dimensionless)

$v$  = velocity (fps)

$g$  = gravitational acceleration ( $32.2 \text{ ft/s}^2$ )

$D_h$  = hydraulic depth =  $A/T$  (feet)

Where:

$A$  = channel flow area (square feet)

$T$  = top width of flow area (feet)

### 5.4. Channel Velocity

Each channel lining is only stable up to a certain velocity. Channel design shall consider reducing the potential for erosion and may require a decrease in slope, change in channel bottom material, or the addition of revetment. Table 8 gives the Major Storm maximum permissible velocity for common channel linings. Erosive soils include; loams, sands, and noncolloidal silts. Less erosive soils include; clays, shales, cobbles, and gravel. Channel velocities may be restricted to values below those listed in Table 8 in other sections of this document.

**Table 8: Maximum Permissible Mean Channel Velocity**

Channel Lining	Maximum 100-Year Velocity (fps)
Grass in Erosive Soils	5.0
Grass in Less Erosive Soils	7.0
Cobble in Erosive Soils	5.0
Cobble in Less Erosive Soils	7.0
Angular Riprap	15.0
Semi-Angular Riprap	12.0
Grouted Riprap	15.0
Gabions	15.0

Soil Cement	15.0
Concrete	20.0

### 5.5. Types of Channels

Native materials, grass, concrete, and riprap are generally the different types of channel linings found within the Town. Channels composed of native materials and channels that are grass-lined are preferred within the Town as concrete and riprap-lined channels have higher capital, maintenance costs and potential safety concerns. The latter channel types may be considered on a case-by-case basis based on site conditions and flow characteristics. Each channel lining should be evaluated for its longevity, integrity, maintenance requirements and costs, and general suitability for community needs, among other factors.

Selection of a channel lining that is most appropriate for the site should be based on a multi-disciplinary evaluation to include hydraulic, structural, environmental, sociological, maintenance, economic, and regulatory factors. New channels should closely mimic similarly sized natural channels in the area if possible. If a hard channel lining is proposed, the designer shall consult with the Town to arrive at an acceptable design using the criteria in this section. Channel improvements should maintain the existing flow rate and alignment. New Development must not increase the peak runoff a natural channel receives unless it was designed to accommodate the added flow.

#### 5.5.1. Concrete Lined Channels

Rigid channel linings such as concrete are not recommended due to safety concerns, potential loss of long-term structural integrity, and aesthetics, but they may be required at some sites because of restrictive site characteristics. HEC-15 by the Federal Highway Administration (FHWA) offers extensive guidance on the design of concrete channels. If design flow is supercritical in a concrete-lined channel, imperfections at joints can cause their rapid deterioration or complete failure. High velocities at cracks or joints can cause uplift forces under the liner. Concrete linings must be designed by a structural engineer. Concrete linings shall be continuously reinforced longitudinally and laterally to resist hydrostatic uplift forces, including from groundwater and potential local inflow behind the lining. All joints shall be designed to prevent differential movement. Construction joints are required for all cold joints and where the lining thickness changes. Reinforcement shall be continuous through the joint. The design criteria for a concrete lined channel can be found in Table 9.

**Table 9: Concrete-Lined Channel Design Criteria**

Criteria	Controlling Values
Maximum Velocity	15 fps
Froude Number	$Fr \leq 0.8$ or $Fr \geq 1.2$
Max Side Slope	1.5H:1V
Min Channel Radius Subcritical	2 times 100-year top width
Min Channel Radius Supercritical	Not Allowed
Min Concrete Thickness Subcritical	5"
Min Concrete Thickness Supercritical	7"
Outfalls into Concrete Channel	12" above invert
Min Bedding Layer Subcritical	6"
Min Bedding Layer Supercritical	9"
Min Freeboard	1.0' and per Equation 11
Concrete Finish	Per Table 10

Maintenance Access	Per Town
EGL and HGL	Plotted on channel profiles
Safety Fencing and Steps	Required unless waived by the town due to very low hazard

Flow in a concrete channel with a Froude number between 0.8 and 1.2 is unstable and increases the possibility of unanticipated hydraulic jumps forming in the channel. It should be avoided at all flows, not just the design flow. To calculate velocity and capacity, the designer should use Manning's Equation with the n values in Table 10. Contact the Town to determine acceptable concrete finishes, typically a troweled and broomed finish is preferred.

**Table 10: Concrete-Lined Channel Manning's n Values**

Type of Concrete Finish	Manning's n Values		
	Minimum	Typical	Maximum
Trowel finish	0.011	0.013	0.015
Float finish	0.013	0.015	0.016
Finished, with gravel on bottom	0.015	0.017	0.020
Broomed	-	0.016	-
Unfinished	0.014	0.017	0.020
Shotcrete, troweled, not wavy	0.016	0.018	0.023
Shotcrete, troweled, wavy	0.018	0.020	0.025
Shotcrete, unfinished	0.020	0.022	0.027
On good excavated rock	0.017	0.020	0.023
On irregular excavated rock	0.022	0.027	0.030

Freeboard in a concrete channel shall be no less than 1 foot for channels with a top width up to 10 feet and the concrete lining shall be extended above the flow depth to provide the required freeboard. The Town shall be consulted for larger channels. Freeboard will be calculated as:

$$H_{fb} = 2.0 + 0.025V(y_o)^{1/3} + \Delta y \quad \text{Equation 11}$$

Where:

$H_{fb}$  = freeboard height (feet)

$V$  = velocity of flow (fps)

$y_o$  = depth of flow (feet)

$\Delta y$  = increase in water surface elevation due to super elevation at bends

$$\text{and } \Delta y = \frac{V^2 T}{2gr_c} \quad \text{Equation 12}$$

Where:

$V$  = mean flow velocity (fps)

$r_c$  = radius of curvature (feet)

T = top width of channel under design flow conditions (feet)

g = standard gravity (32ft/s<sup>2</sup>)

Longitudinal underdrains shall be provided along the channel bottom on 10-foot centers within a free-draining bedding layer. The underdrains shall be free draining and daylight at drops or at other locations suggested by the designer and approved by the Town. A weep hole detail and installation pattern in channel side slopes to relieve hydrostatic pressure shall be provided to the Town for review.

The Town may require a low-flow swale if a small base flow is expected to avoid bottom slime, noxious odors, and mosquito breeding. Fencing and gates for maintenance should be considered if the 100-year design depth exceeds 3ft or is near areas of public access. Manhole-type steps are required for design flows which result in depths over 2ft in case emergency evacuation is required.

### 5.5.2. Riprap Lined Channels

Riprap lined channels are not preferred by the Town but may be required based on site specific conditions such as high velocities that cannot be lowered by flattening the channel slope, limited space requiring channel side slopes steeper than 3H:1V, and where rapid changes in channel geometry occur. Use of riprap-lined channels must be approved by the Town. FHWA's HEC-15 offers extensive guidance on the design of riprap-lined channels.

Riprap refers to a protective blanket of large loose stones which are usually placed by machine to achieve a desired configuration. Soil riprap is a mix of riprap and native soil. Soil riprap consists of 35% by volume of native soil taken from the channel excavation and 65% by volume of riprap of the specified gradation. It is mixed on-site, before placement. When a riprap lining is used, all areas above frequent flow zones be protected with soil riprap, covered with 6 inches of topsoil, and revegetated with native grasses. Due to its small size, all riprap linings with a d<sub>50</sub> of 6 inches and smaller should be soil riprap. Recommended seed mixtures for where riprap is buried are shown in Table 11. The riparian seed mix is for perennial streams (near constant water in the invert) and the upland seed mix is for ephemeral streams (typically dry stream bed). Seed mixes other than those listed in Table 11 require Town approval.

**Table 11: Seed Mixes**

PLS (lbs/ac)	Mix %	Riparian Seed Mix	
		Botanic Name	Common Name
1.9	10%	Juncus articus	Arctic Rush
1.9	10%	Calamagrostis canadensis	Bluejoint Reedgrass
1.9	10%	Poa secunda	Cany Bluegrass
1.9	10%	Glyceria striata	Fowl Mannagrass
3.7	20%	Elymus trachycaulus	Slender Wheatgrass
3.7	20%	Deschampsia Caespitosa	Tufted Hairgrass
3.7	20%	Pascopyrum smithii	Western Wheatgrass
18.7	100%	Total lbs/acre	
PLS (lbs/ac)	Mix %	Upland Seed Mix	
		Botanic Name	Common Name
3.0	11.2%	Achnatherum hymenoides 'Rimrock'	'Rimrock' Indian Ricegrass
4.0	14.9%	Agropyron desertorum 'Hycrest'	'Hycrest' Crested Wheatgrass
2.5	9.3%	Bouteloua curtipendula	Sideoats Grama

## EXHIBIT A

## CHANNEL AND RESERVOIR ROUTING

## STORMWATER STANDARDS

2.0	7.4%	Bouteloua gracilis 'Lovington'	'Lovington' Blue Grama
3.0	11.2%	Bromus marginatus 'Garnet'	'Garnet' Mountain Brome
2.1	7.8%	Cleome lutea VNS	Yellow Beeplant
3.2	11.9%	Cleome serrulata VNS	Rocky Mountain Beeplant
0.7	2.6%	Chrysothamus nauseosus albicaulis	Tall Blue Rabbitbrush
0.4	1.5%	Eschscholzia californica VNS	California poppy
0.5	1.9%	Eriogonum umbellatum VNS	Sulphur-flower buckwheat
0.5	1.9%	Gaillardia pulchella VNS	Indian blanketflower
0.4	1.5%	Glandularia gooddingii VNS	Desert Verbena
0.5	1.9%	Machaeranthera bigelovii var. bigelovii VNS	Bigelow's tansyaster
0.1	0.4%	Linum lewisii	Blue Flax
0.3	1.1%	Lupinus prunophilus	Chokecherry Lupine
2.5	9.3%	Pascopyrum smithii 'Arriba'	'Arriba' Western Wheatgrass
0.2	0.7%	Penstemon eatonii	Firecracker Penstemon
0.3	1.1%	Penstemon palmeri VNS	Palmer Penstemon
0.7	2.6%	Penstemon strictus VNS	Rocky Mountain Penstemon
26.9	100%	Total lbs/acre	

Riprap failures result from: too many undersized individual rocks within the size range; poor gradation of the rock; and/or improper bedding. There is no maximum depth criterion for riprap-lined channels. Stone sizing for ordinary riprap shall be calculated as:

$$d_{50} = \sqrt{\left( \frac{VS^{0.17}}{4.5(G_s - 1)^{0.66}} \right)} \quad \text{Equation 13}$$

Where:

$d_{50}$  = mean rock size (feet)

$V$  = mean design channel velocity (fps)

$S$  = longitudinal channel slope (feet/foot)

$G_s$  = specific gravity of stone (2.50 minimum)

The riprap layer thickness shall be 2.0 times the calculated  $d_{50}$  and should be increased by 50% at the upstream and downstream termination of a riprap lining for at least 3 feet to prevent undercutting. The physical characteristics of riprap stone and the gradation resulting from the  $d_{50}$  calculated using Equation 14 **Error! Bookmark not defined.** are defined in the CDOT Standards. The designer should round up the  $d_{50}$  size specified in the construction plans if the calculated  $d_{50}$  falls between two standard gradations. Equation 13 is not to be used for sizing riprap for rundowns (chutes) or culvert outlet protection.

Manning roughness coefficients for manmade ordinary riprap or soil riprap channels shall be calculated as:

$$n = 0.0395 d_{50}^{1/6} \quad \text{Equation 14}$$

Where:

$n$  = Manning's roughness coefficient

$d_{50}$  = mean stone size (feet)

Proper bedding is required for long-term stability of riprap channel protection and should extend up the side slopes at least 1 foot above the design water surface. Bedding is not required for a soil riprap lining. Table 12 shows bedding thickness for different riprap gradations and native soil conditions. When a channel is excavated where 50% or more of the native material is retained on the #40 sieve by weight, only a single layer of Type II material (see Table 13) is required. Otherwise, a two-layer system is required. Alternatively, a single 12-inch layer of Type II bedding can be used.

**Table 12: Granular Bedding Layer Requirements**

Size of $d_{50}$	Minimum Bedding Thickness		
	Fine-Grained Native Soils		Coarse-Grained Native Soils
	Type I	Type II	Type II
$d_{50} = 6"$ and $d_{50} = 9"$	4"	4"	6"
$d_{50} = 12"$	4"	4"	6"
$d_{50} = 18"$	4"	6"	8"
$d_{50} = 24"$	4"	6"	8"

Type I bedding is the lower layer in a two-layer system and Type II is the upper layer. Type I and Type II bedding material specifications are given in Table 13. Type I is equivalent to the CDOT specification for fine aggregate for concrete and Type II is equivalent to the CDOT specification for Class A filter material. Landscaping, filter or other types of fabric are not a substitute for granular bedding.

**Table 13: Granular Bedding Gradation Requirements**

Bedding Layer Requirements	Percent Passing by Weight	
	Type I	Type II
3 inches	-----	90-100
1½ inches	-----	-----
¾ inches	-----	20-90
3/8 inches	100	-----
#4	95-100	0-20
#16	50-85	-----
#50	10-30	-----
#100	2-10	-----
#200	-----	0-3

The potential for erosion increases along the outside bank of a channel bend so it may be necessary to provide additional erosion protection at those locations. The minimum radius of curvature for a riprap-lined channel is two times the top width of the design flow. When radius of curvature divided by the flow top width is equal or greater to 8.0, no increase in protection is needed. Where the radius is smaller than this, an adjusted velocity shall be used to size the bends riprap size. Velocity along the outside of a bend shall be estimated using Equation 15. Bend riprap protection is to be applied to the outside quarter of the channel bottom and to the outside channel side slope a distance of at least 2 times the top width of the flow. Riprap does not need to extend upstream of the start of the curve.

Velocity along the outside of a bend can be calculated as:

$$V_a = \left( -0.147 \frac{r_c}{T} + 2.176 \right) V \quad \text{Equation 15}$$

Where:

$V_a$  = adjusted channel velocity for riprap sizing along the outside of channel bends (fps)

$V$  = mean channel velocity for the peak flow of the Major Storm event (fps)

$r_c$  = channel centerline radius (feet)

$T$  = flow top width during Major Storm event (feet)

Riprap protection for other channel transitions where the Froude number is 0.8 or less can be calculated using Equation 13 with the maximum velocity in the transition increased by 25%. Transition protection should extend upstream of the transition entrance at least 5 feet and downstream of the transition exit for a distance of at least 5 times the design flow depth. Design criteria for riprap lined channels is in Table 14.

**Table 14: Riprap-Lined Channel Design Criteria**

Criteria	Controlling Values
Maximum Velocity	12-15 fps (see Table 8)
Froude Number	$Fr \leq 0.8$
Manning's n	Per Equation 9
Steepest Side Slope	2.5H:1V
Stone Specific Gravity	Minimum of 2.5
Riprap Gradation ( $d_{50}$ )	Per Equation 13
Riprap Blanket Thickness	2x $d_{50}$
Minimum Radius of Curvature	2x flow top width
Riprap for Bend Protection	Use Equations 13 and 15
Outfalls into Concrete Channel	1' to 2' above invert
Bedding Layer	Per Table 12 and Table 13
Minimum Freeboard	1.0' and per Equation 11
Use of Soil Riprap	Riprap $d_{50}$
Use of Buried Soil Riprap	Riprap $d_{50}$
Seed Mix	Water Availability
Maintenance Access	Site Specific
EGL and HGL	Plotted on channel profiles
Safety Fencing and Steps	Required unless waived by the Town due to very low hazard

### 5.5.3. High Gradient Channels

Natural channels can sometimes have steep longitudinal slopes with rip-rap, cobble or rock along their bottoms. These channels are often predicted to have supercritical flow and very high velocities. However, field observations show these channels are often configured so that they are protected by natural armoring. These configurations include short, steep drops with larger rocks situated to resist flow followed by longer, flatter sections of channel. For a more in-depth discussion, the designer is encouraged to review Determination of Roughness Coefficients for Streams in Colorado by Robert D. Jarrett in cooperation with the Colorado Water Conservation Board. Equation 16 may be used as an aid to predict the roughness coefficient of a high-gradient channel provided the criteria below are met. The designer may research how to determine the friction slope if unknown as it is outside the intent of these standards.

$$n = 0.393 S_f^{0.38} R^{-0.16} \quad \text{Equation 16}$$

Where:

$n$  = Manning's roughness coefficient

$S_f$  = friction slope or water surface slope (feet/foot)

$R$  = hydraulic radius, (wetted area/wetted perimeter) (feet)

The basic guidelines for when this equation should be used are:

1. The channel must be a natural channel that has a relatively stable bank material and a cobble or boulder bed material.
2. The channel friction slope must be between 0.01 and 0.04 feet per foot and the hydraulic radius must be between 0.5 and 7 feet.
3. The channel must not be affected by backwater.

In all cases, a Major Storm flow shall never exceed a depth greater than 5.0 feet or have less than 1.0 foot of freeboard at any point along the channel.

### 5.5.4. Grouted Boulders

Grouted boulders may be used for drop structures in channels. The design of all grouted boulder drop structures, including materials specifications, shall be in accordance the latest version of the USDCM. Consult with the Town prior to designing a grouted boulder drop structure. A riprap ditch check (Section 3.4) is preferred over a grouted feature.

## 6. DETENTION AND WATER QUALITY

Development of a parcel must not result in peak runoff rates of a Minor or Major Storm that are greater than Historic conditions, unless the entire site drains directly to a public storm sewer designed to carry the undetained flow, or the Uncompahgre River. Detention basins can help Developments meet these criteria. Total site runoff rate is the sum of detention basin release and direct runoff, both of which must be considered separately and in combination. All detention basins must include a water quality outlet to drain the water quality capture volume within between 12 and 40 hours and must fully drain within 72 hours. Peak runoff rates can be calculated as indicated previously in Section 2 of these Standards. The maximum discharge rate from a detention basin shall not exceed the peak runoff rate of a respective storm at the time of adoption of these regulations.

New subdivisions that include multiple lots should provide a coordinated system of detention for the entire subdivision to minimize the number of detention basins and maintenance requirements.



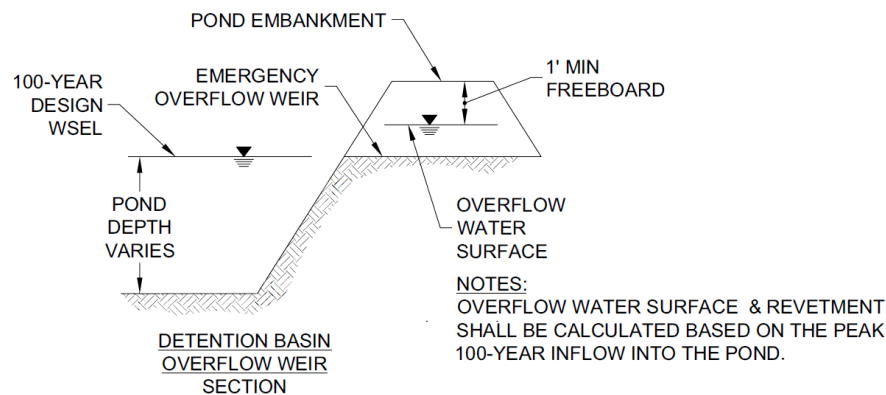
Individual facilities on each lot within a subdivision are not permitted. Detention ponds should be designed as landscaped areas integrated into the site.

### 6.1. Maintenance

All detention basins must facilitate and plan for maintenance; all private facilities must be regularly maintained by their owners to remove accumulated sediment and ensure the outlet drains freely. All basins that serve more than a single lot or site must have access ramps to the basin outlet to facilitate sediment removal and other maintenance within the basin. Detention basin maintenance is the responsibility of the Development served by the basin.

### 6.2. Basin Geometry

An emergency overflow weir shall be included at the 100-year water surface elevation. The design flow rate for sizing the overflow weir and revetment shall be the 100-year peak inflow into the pond to account for outlet becoming fully clogged. The embankment above the overflow weir and around the basin shall provide 1.0 foot of freeboard minimum above the design flow depth over the weir. Figure 3 offers a schematic. Weir flow is discussed later in this section. Basin side slopes may be no steeper than 3H:1V. The basin invert shall be sloped at 2 percent or more towards the outlet. Detention basins should have a length-to-width ratio not less than 2. A forebay is required to consolidate incoming sediment for ease of maintenance. Forebay sizing shall be per the Urban Storm Drainage Criteria Manual (USDCM) developed by the MHFD.



**Figure 3: Basin Freeboard Schematic**

### 6.3. Basin Sizing Using the FAA Method

If the Rational Method is used to calculate peak flows, the FAA Method described in this subsection shall be used to determine required basin volume. The FAA Method is a simplified hydrograph routing procedure that is appropriate for watersheds smaller than 200 acres that don't have multiple detention basins or unusual watershed storage characteristics. Rainfall intensity values can be determined by NOAA Atlas 14 estimates which can be found online or in Ridgway's Stormwater Master Plan.

1. Determine the inflow volume by multiplying the peak flow rate by the time of concentration to the detention basin as calculated by the Rational Method.

$$V_i = (CIA)(T_c)(60 \text{ seconds/minute}) \quad \text{Equation 17}$$

Where:

$V_i$  = inflow volume (cubic feet)

$C$  = Rational Method runoff coefficient for the Major or Minor Storm

$I$  = design rainfall intensity (inches/hour)

$A$  = watershed area draining to the detention pond (acres)

$T_c$  = Rational Method time of concentration (minutes)

2. Determine the outflow volume by multiplying the allowable release rate by the same time of concentration used in step 1.

$$V_o = (R_a)(T_c)(60 \text{ seconds/minute}) \quad \text{Equation 18}$$

Where:

$V_o$  = outflow volume (cubic feet)

$T_c$  = Rational Method time of concentration used in step 1 (minutes)

$R_a$  = allowable release rate as determined per these Standards (cfs)

3. The required detention pond volume for each design storm is the difference between the inflow volume and the outflow volume at the design time of concentration and rainfall intensity.

If the entire site is not tributary to the detention pond, the allowable release rate from the detention basin must be decreased to compensate for site runoff that is not detained. The allowable release rate from the detention basin is the total site existing conditions peak runoff rate minus the post-Development undetained flow rate from areas not draining to the detention basin. A maximum of 5 percent of the total site may bypass the detention basin unless approved by the Town.

#### 6.4. Basin Sizing Using SWMM

If SWMM is used to calculate peak runoff rates, it can be used to develop inflow hydrographs at the detention basin site. The program can then be used to determine the required storage volume and outlet design based on an iterative reservoir routing procedure. Initial estimates of outlet size are made, and the program is run. The output is reviewed, and changes are made to the outlet configuration as needed until the peak flow and an acceptable drain time are achieved. Assumptions made during detention basin design, all design calculations, and SWMM input and output text files shall be provided to the Town for review. Files shall be highlighted and design values shall reference calculations. The outputs shall include comments and/or be summarized periodically to ease in the review process.

#### 6.5. Water Quality Capture Volume

The water quality capture volume (WQCV) represents the volume associated with the 1.25-year return period storm. Detaining this volume is considered to provide the best value in water quality treatment. All detention basins will be designed with a water quality outlet in addition to the Minor and Major Storm outlets, but the WQCV can be assumed to be contained within the Minor and Major Storm volume for FAA Method basin sizing. Any increase of imperviousness greater than 0.05 acres, or an improvement which results in a parcel's imperviousness percentage over land use default values (Table 3), or the creation of a PUD or a parcel within the Uncompahgre River Overlay District is required to provide WQCV detention for the entire parcel onsite, even if other detention is not required. The WQCV detention is to be based on the entire parcels imperviousness, including existing or Historic features when further Development occurs. The MHFD has spreadsheets that can aid in the design of the WQCV outlet. The equation to calculate the WQCV in Ridgway is:

$$WQCV = \frac{0.65Aa(0.91i^3 - 1.19i^2 + 0.78i)}{12} \quad \text{Equation 19}$$

Where:

WQCV = water quality capture volume (acre-feet)

A = area draining to the detention basin (acres)

a = 0.8, the WQCV drain time coefficient corresponding to a 12-hour drain time

i = imperviousness as a decimal percentage

Assuming 100% imperviousness, the above equation can be simplified to approximate required treatment volume in cubic feet if desired.

$$\mathbf{WQCV_{cft} = 0.022A_{ft}} \quad \text{Equation 20}$$

Where:

WQCV<sub>cft</sub> = water quality capture volume (cubic feet)

A<sub>ft</sub> = total impervious area (square feet)

The particular treatment method for the WQCV can be determined by the owner or developer but is subject to Town approval. Treatment methods shall be recognized by the Mile High Flood District or other referenced standards.

### 6.6. Outlet Design Concepts

Detention basin outlets are complex because of the need to detain multiple events to different release rates. Several different outlet design examples can be found in the Urban Storm Drainage Criteria Manual (USDCM) developed by the MHFD. The MHFD also provides spreadsheets that can be used to aid in designing multi-stage outlets. While flow out of a detention basin is often controlled by an orifice plate, no outlet pipe shall be smaller than 12 inches in diameter so that it may be easily cleaned. The invert of the lowest outlet shall be set at the lowest point in the basin or at the minimum pool elevation, if applicable. The outlet pipe shall discharge into a standard manhole or into a drainageway with proper erosion protection. All orifice plates shall be removable. The outlet structure shall be located along the downstream embankment of the basin and in a location that can be accessed for maintenance. In no case shall the outlet structure be in the middle of the pond.

Each detention basin shall include a water quality outlet designed to drain the WQCV in 12 hours, a Minor Storm outlet, and a Major Storm outlet that allows for the release of any detained water at the allowable flow rate. An emergency overflow path shall be provided in the event the outlet becomes clogged or a storm larger than the Major Storm occurs. The emergency overflow shall provide conveyance of the Major Storm inflow so that there is no damage to the surrounding area or to downstream facilities. The invert of the emergency overflow should be set at or above the 100-year water surface elevation.

### 6.7. Outlet Hydraulic Design

Hydraulic design of outlets consists of one or more weirs and orifices. The equation for a broad crested weir is:

$$\mathbf{Q = CL(H)^{3/2}} \quad \text{Equation 21}$$

Where:

Q = discharge (cfs)

C = weir coefficient (see Table 15)

L = horizontal length (feet)

H = total energy head (feet)

Another common weir is the v-notch, whose equation is as follows:

$$Q = 2.5 \tan (\theta/2) H^{5/2} \quad \text{Equation 22}$$

Where:

$\theta$  = angle of the notch at the apex (degrees)

**Table 15: Weir Coefficients**

SHAPE	COEFFICIENT	COMMENTS	SCHEMATIC
Sharp Crested	-		
Projection Ratio (H/P = 0.4)	3.4	H < 1.0	
Projection Ratio (H/P = 2.0)	4.0	H > 1.0	
Broad Crested	-		
W/Sharp U/S Corner	2.6	Minimum Value	
W/Rounded U/S Corner	3.1	Critical Depth	
Triangular Section	-		
A) Vertical U/S Slope	-		
1:1 D/S Slope	3.8	H > 0.7	
4:1 D/S Slope	3.2	H > 0.7	
10:1 D/S Slope	2.9	H > 0.7	
B) 1:1 U/S Slope	-		
1:1 D/S Slope	3.8	H > 0.5	
3:1 D/S Slope	3.5	H > 0.5	
Trapezoidal Section			
1:1 U/S Slope, 2:1 D/S Slope	3.4	H > 1.0	
2:1 U/S Slope, 2:1 D/S Slope	3.4	H > 1.0	
Road Crossings			
Gravel	3.0	H > 1.0	
Paved	3.1	H > 1.0	

Reference: King & Brater, Handbook of Hydraulics, 1963

The equation for orifice flow is:

$$Q = (C_d)(A)(2gH)^{1/2} \quad \text{Equation 23}$$

Where:

Q = flow (cfs)

$C_d$  = orifice coefficient

A = area (square feet)

g = gravitational constant (32.2 feet/second<sup>2</sup>)

H = head on orifice measured from orifice centerline (feet)

An orifice coefficient of 0.65 shall be used for sizing squared edged orifice openings and plates.

### 6.8. State Engineer's Office

Dams constructed for the purpose of storing water, with a surface area, volume, or dam height as specified in Colorado Revised Statutes 37-87-105 as amended, shall require approval by the State Engineer's Office.

Colorado Revised Statute (CRS) §37-92-602 (8) provides legal protection for any detention basin in the Town, provided it meets the following criteria:

1. It is owned or operated by a governmental entity or is subject to oversight by a governmental entity;
2. It continuously releases or infiltrates at least 97% of the runoff from a rainfall event that is less than or equal to a 5-year storm within 72 hours after the end of the event;
3. It continuously releases or infiltrates as quickly as practicable, but in all cases releases or infiltrates at least 99% of the runoff within 120 hours after the end of events greater than a 5-year storm; and
4. It operates passively and does not subject the stormwater runoff to any active treatment process (e.g., coagulation, flocculation, disinfection, etc.)

All new detention basins including individual site basins built by private parties must meet the criteria above and be reported by the engineer of record to the state stormwater notification portal online.

Operation, maintenance, repair, and replacement of all detention basins is the responsibility of the party that develops the basin or its successors in interest. The Town assumes no responsibility for the operation, maintenance, or function of any detention or water quality basin.

## 7. BUILDING ENTRIES

To help prevent flooding of a building, all building entrances must be at an elevation above the adjacent drainage feature or roadway. The burden shall be on the owner to show that any criteria required below have been met. Minimum building elevations can be seen in Table 16. Where one is allowed to build to lot line, garage floors will be allowed to be 12 inches lower than minimum building entry elevation if all doors entering into habitable space, mechanical, plumbing, electrical and other appliances meet the elevation requirements below. Buildings shall also have positive drainage away from the foundation and shall not result in flooding of a neighboring property.

**Table 16: Minimum Building Entry Elevations**

Road Drainage Type	Min. Building Entry Elevation
Areas with curb and gutter only	12" above top of gutter
Areas with roadside ditches only	12" above outside edge of roadway or top of ditch, whichever is higher

If a property owner or their designated representative can display practical difficulty or unnecessary hardship in achieving the above minimum building entry elevation requirements, the entry

requirements may be a minimum of 12 inches above surrounding final parcel grade with Town Staff approval.

In the event building entry elevations cannot meet either of the above situations, a mitigation plan can be provided by a licensed engineer and the following sections of Ridgway Municipal Code 6-2 "Flood Plain Management Regulations" shall apply; 6-2-1, 6-2-2(C)(1) through 6-2-2(C)(6), 6-2-3, 6-2-4(B) through 6-2-4(P), 6-2-5, 6-2-8 and 6-2-9. Any reference to flood, flood plain or similar when referencing Ridgway Municipal Code 6-2 shall be interpreted as 12" above final parcel grade for the purpose of these stormwater regulations. The mitigation plan shall be submitted to Town staff for review and approval.

## **8. BRIDGES**

If a bridge is required or desired within the Town, its design must consider flow velocity through the bridge, pier and abutment scour, backwater effects, and roadway overtopping. Bridge openings should result in as little change in flow characteristics as is reasonable, consistent with good design and economics. The Town will review bridge designs based on the guidance in this section, however, the designer is required to contact FEMA for additional requirements if the bridge is on a FEMA-regulated waterway. At the time of adoption, the Uncompahgre River and Cottonwood Creek are the only two regulated waterways within Town limits.

### **8.1. Hydraulic Analysis**

The hydraulic analysis of bridges shall be completed in accordance with the FHWA Hydraulics of Bridge Waterways, FHWA HY-4, or HEC-RAS.

### **8.2. Bridge Design Standards**

The method of planning for a bridge opening begins with calculation of the channel's 100-year water surface profile without the presence of the bridge. The following criteria shall then be met:

1. The addition of the bridge to the channel shall cause no more than 1.0 foot of rise in the 100-year water surface elevation anywhere on the channel.
2. The 100-year water surface elevation within the bridge shall also be a minimum of 1.0 foot below the lowest chord of the bridge.
3. Where bridge abutments and foundations are located below the 100-year water surface elevation, concrete wingwalls at angles of 40 degrees to 60 degrees shall be tied to the existing side slopes to prevent erosion behind the abutments.
4. Where supercritical flow exists in a lined channel, the bridge shall have no influence on the flow. There shall be no encroachment into the 100-year water surface elevation.
5. The design and supporting calculations for all bridges and low water crossings shall be prepared and certified by a Colorado Registered Professional Engineer (as is required for all stormwater design work).
6. In all instances, all bridges shall meet all applicable FEMA floodplain regulations. The Town of Ridgway requires a Floodplain Development Permit for any work located within a FEMA designated floodplain per Ridgway Municipal Code 6-2.

## **9. FEMA FLOWS AND FLOODPLAINS**

The Federal Emergency Management Agency (FEMA) maintains a floodplain map of the Uncompahgre River. For this waterway, the flow rates and water surface elevations for each of the return periods studied in the effective model shall be used for design of improvements including site grading and layout as well as channel improvements. Additionally, no Development of any kind may be completed within the floodplain boundaries designated by FEMA without a floodplain development

permit issued by the Town per Ridgway Municipal Code 6-2. Contact the Town for additional floodplain restrictions and requirements. FEMA has defined a flood zone for Cottonwood Creek but does not have a model available.

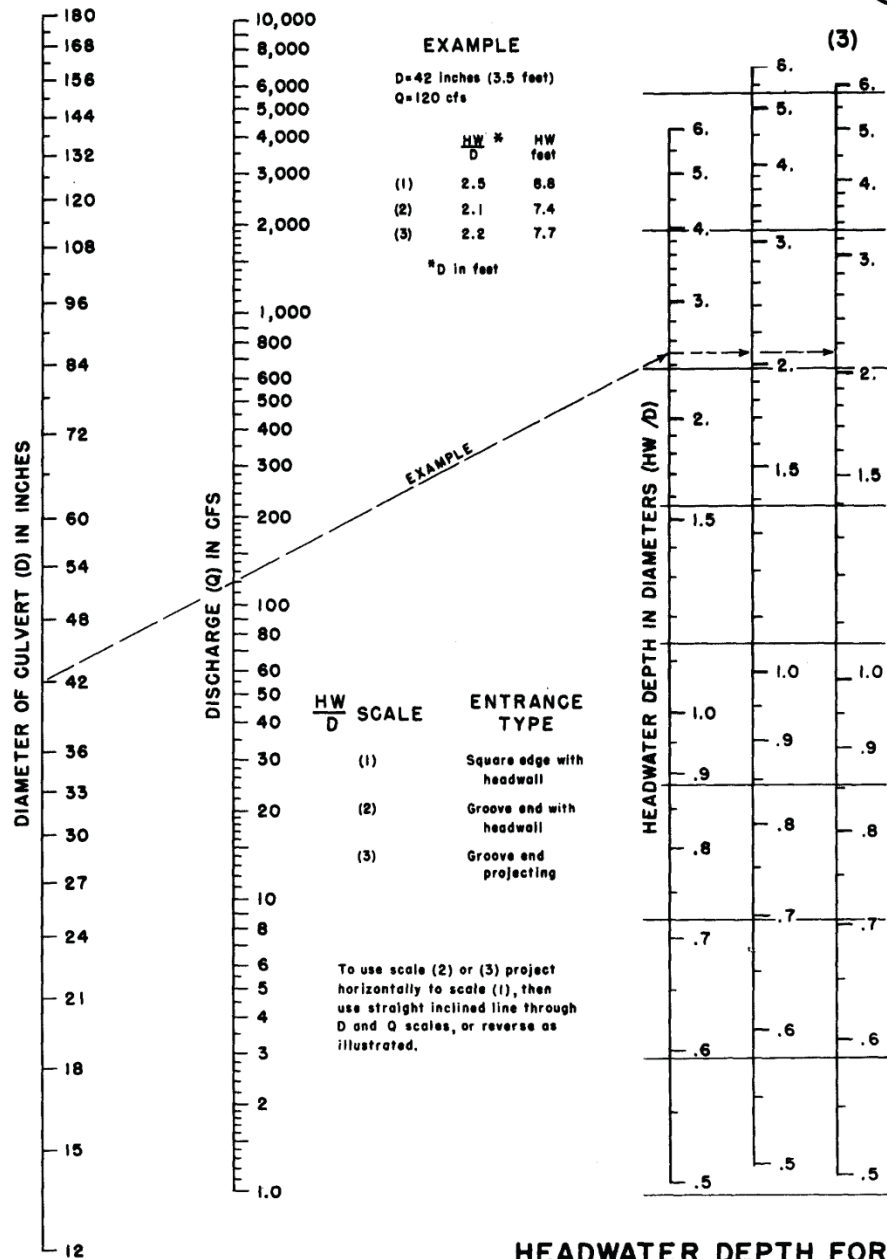
#### **10. CONSTRUCTION WATER QUALITY**

The Colorado Department of Public Health and Environment (CDPHE), as authorized by the Clean Water Act, issues permits to prevent the discharge of pollutants to waterways during construction. At the time of adoption, construction sites that will disturb one acre or more or are part of a common plan of development (such as a subdivision or commercial development) or sale are required to apply for and receive a permit for stormwater discharges associated with construction activities from the State. The CDPHE also issues permits for construction dewatering and other construction related activities. Information on the applicability of these permits and the associated requirements can be found via online for CDPHE water quality construction permits.

**11. APPENDIX A: Nomographs**



## CHART 1B

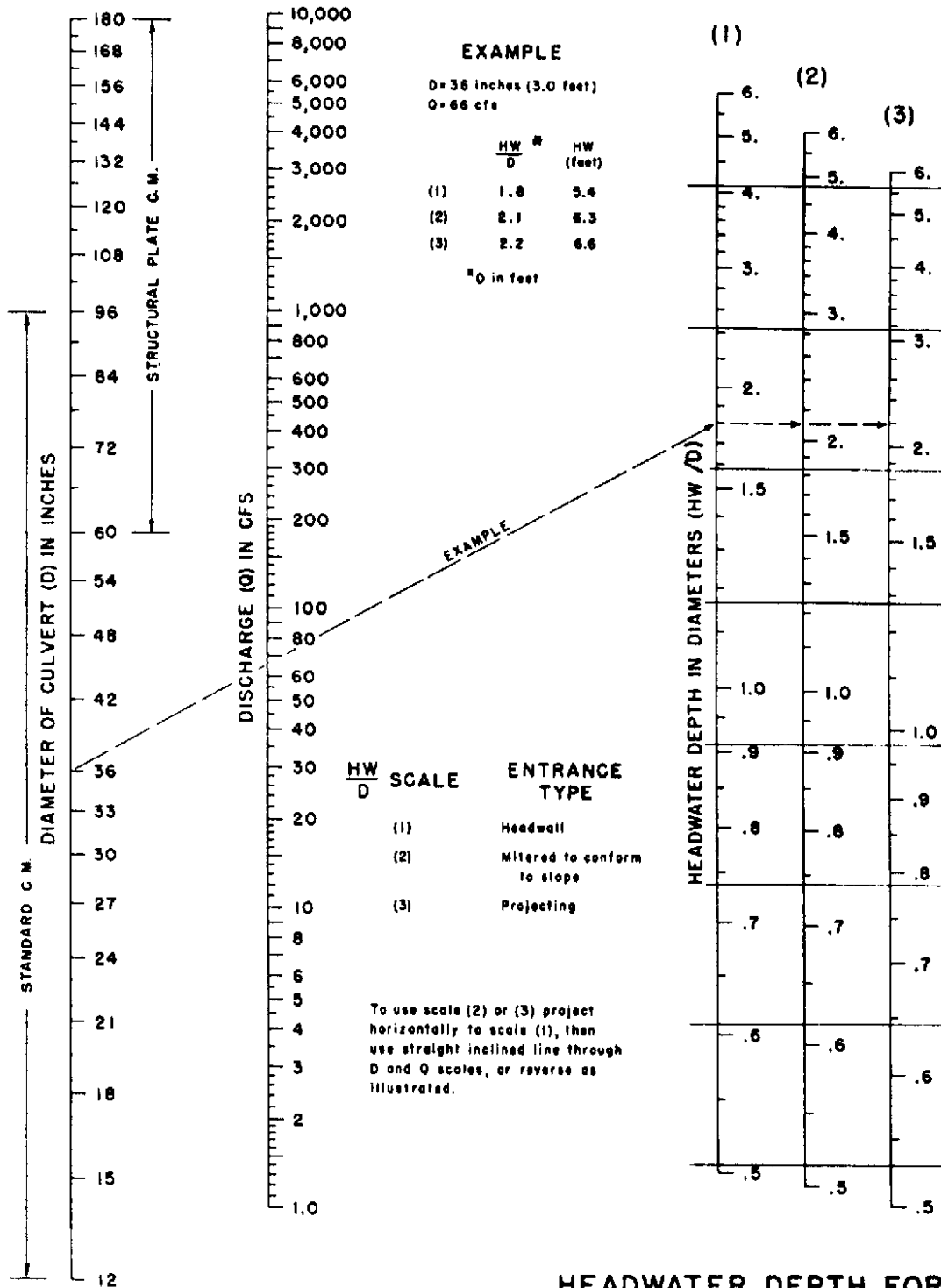


HEADWATER SCALES 2 &amp; 3

REVISED MAY 1964

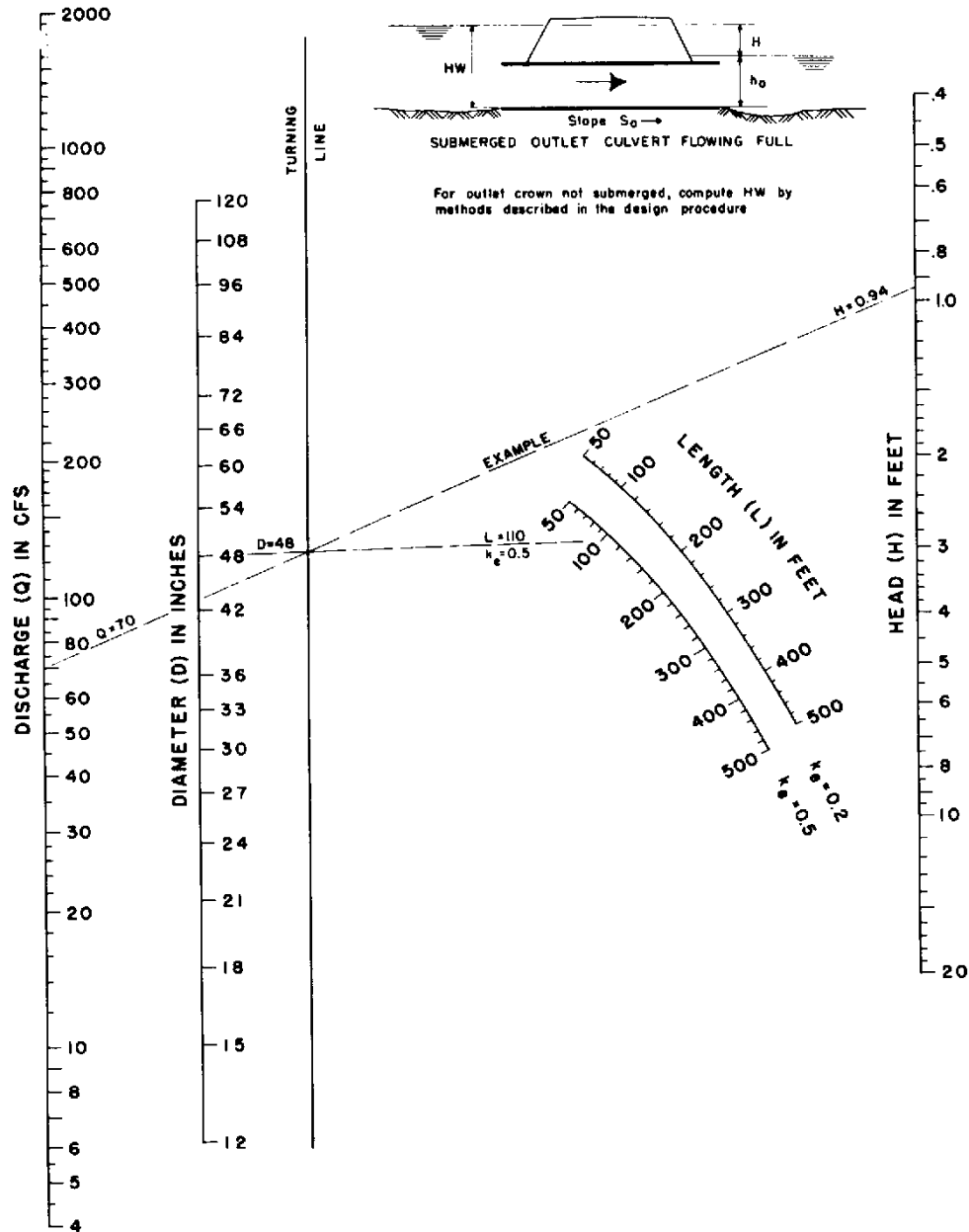
BUREAU OF PUBLIC ROADS JAN. 1963

## CHART 2B



BUREAU OF PUBLIC ROADS JAN. 1963

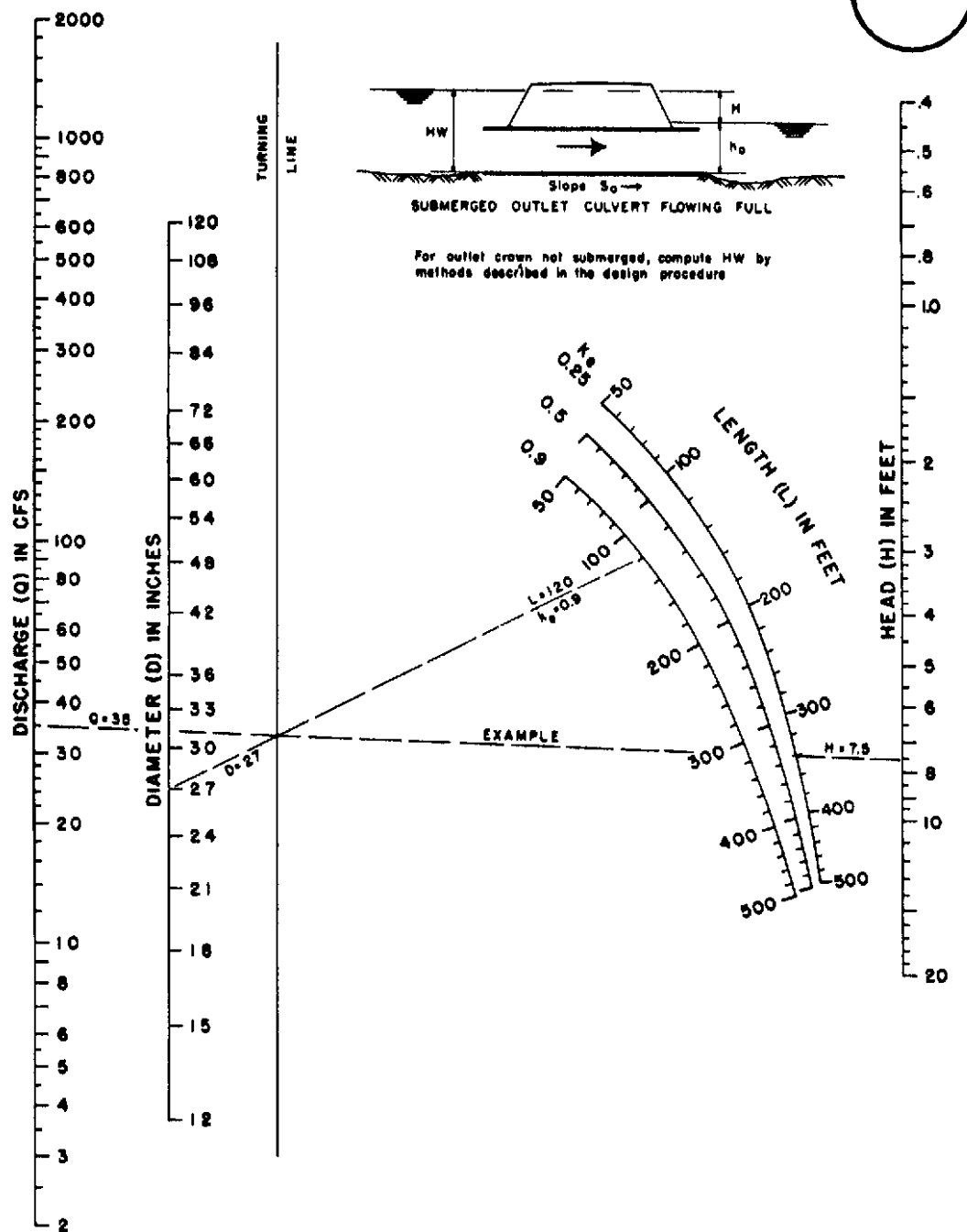
## CHART 5B



HEAD FOR  
CONCRETE PIPE CULVERTS  
FLOWING FULL  
 $n = 0.012$

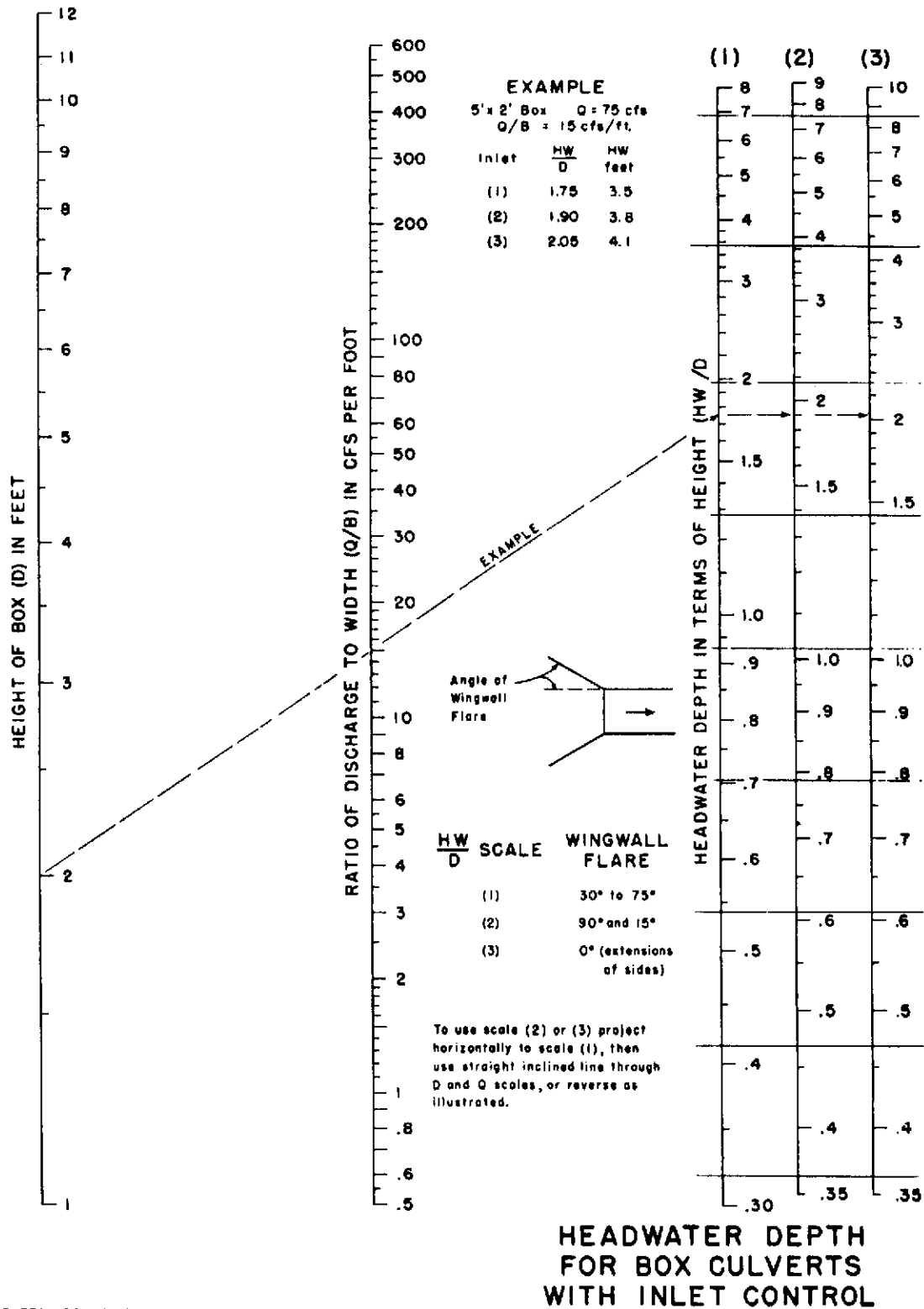
BUREAU OF PUBLIC ROADS JAN. 1963

## CHART 6B



BUREAU OF PUBLIC ROADS JAN. 1963

CHART 8B



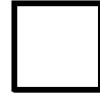
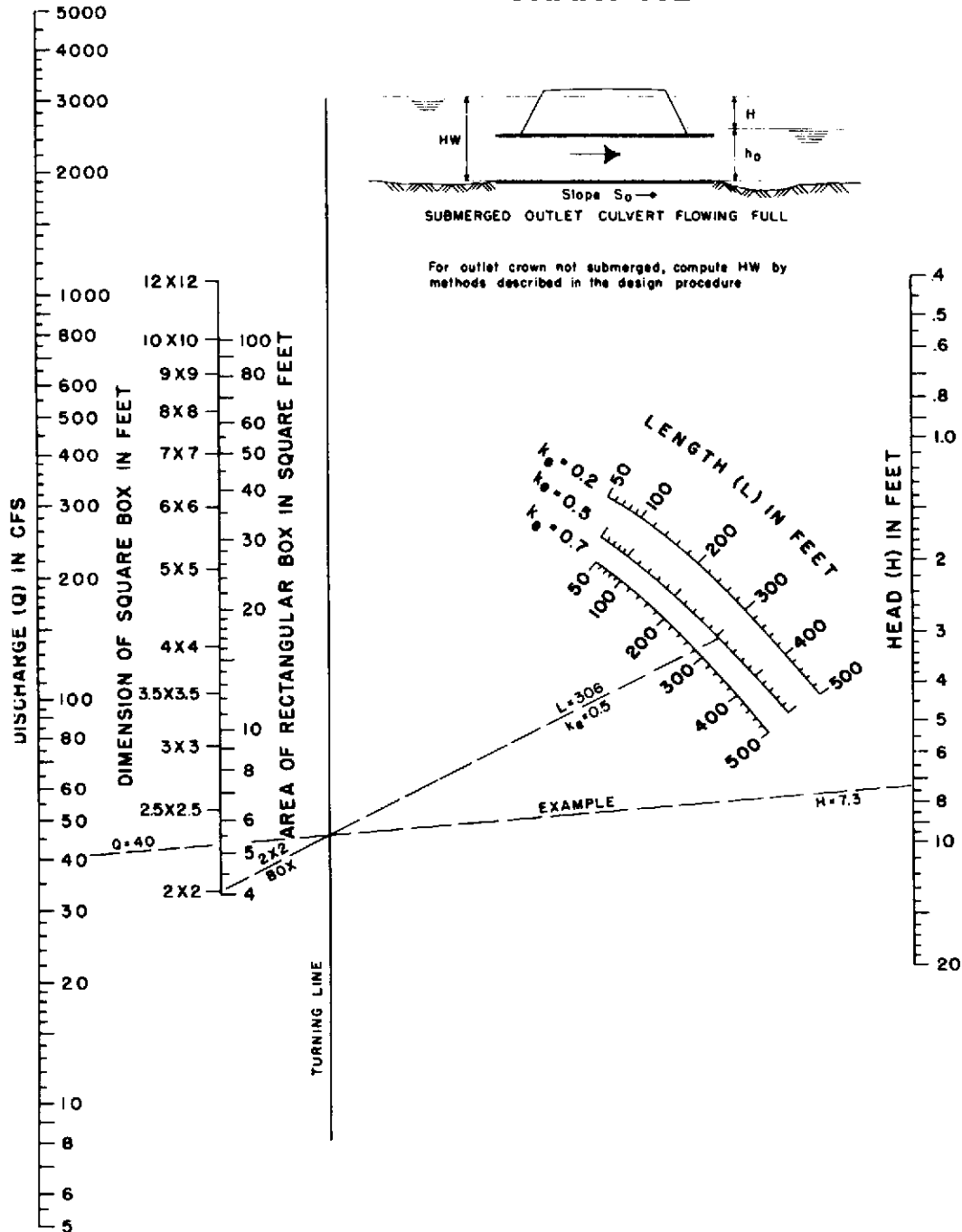
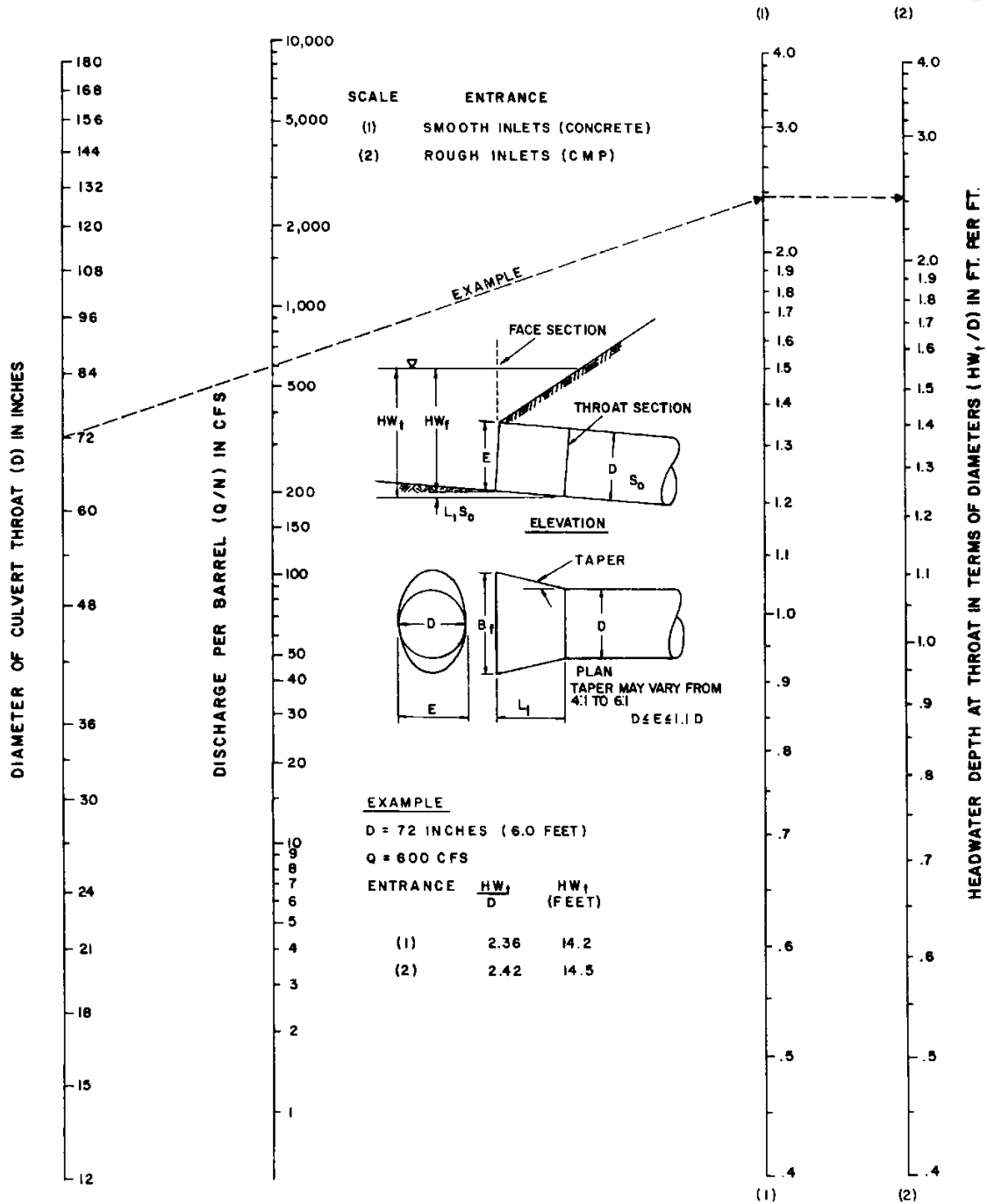


CHART 15B



HEAD FOR  
CONCRETE BOX CULVERTS  
FLOWING FULL  
 $n = 0.012$

CHART 55B



THROAT CONTROL  
FOR SIDE-TAPERED INLETS TO PIPE CULVERT  
(CIRCULAR SECTION ONLY)

## AGENDA ITEM #15





To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 2, 2020  
Agenda Topic: Introduction of Ordinance Adopting a New Chapter 14-7 of Title 14 of the Ridgway Municipal Code Establishing Small Cell Regulations

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#### **SUMMARY:**

At the March 11, 2020 Council meeting, Council discussed small cell facilities, House Bill 17-1193, and the new generation of mobile broadband known as 5G. The subject was again discussed during the August 12, 2020 Council meeting when Dave Zelenok with HR Green gave a presentation on the topic of 5G wireless technology and small cell facilities. At that meeting, Council provided direction to staff to prepare an ordinance establishing small cell regulations for Council's consideration. Attached for introduction and first reading is an Ordinance that would establish new Small Cell Regulations, implementing House Bill 17-1193. House Bill 17-1193 was adopted to require expedited permitting of small cell facilities within local government right-of-ways. Under the bill, small cell facilities are cellular and broadband equipment which are generally smaller in size and which are installed more frequently in urbanized areas to enhance wireless cellular and broadband services. Small cell facilities are an emerging technology that are currently being introduced in metropolitan areas.

The Town of Ridgway currently does not have any procedures or a permitting process for small cell facilities. Staff has reviewed House Bill 17-1193 along with several small cell regulations ranging from small communities to large cities. The proposed regulations under the enclosed Ordinance are intended to be concise while providing the Town with appropriate design standards and protections.

#### **OVERVIEW OF REGULATIONS:**

House Bill 17-1193 requires expedited permitting for small cell facilities in local government right-of-ways which is a State of Colorado interpretation and implementation of the Federal Telecommunications Act of 1996. It does not require the Town to permit installation of small cell facilities on Town properties which are not right-of-ways. In such case, the Town has the discretion as a property owner to permit, or not permit, such installation.

Generally, small cell facilities are attached to existing utility poles. Small cell facilities are defined by dimension to not exceed 3 cubic feet for the antenna, 17 cubic feet for primary equipment enclosures, and 24" x 15" x 12" for "micro wireless facilities". The design standards require, to the greatest extent possible, that the design of such facilities are not visually intrusive.

Under the bill, minimum permit standards include requirements for indemnification, bonding, removal, and expiration of permits. The permit applications would currently be administered by the Town Planner, but could be any designee of the Town Manager, who is currently delegated with the discretion to adopt permit application forms, procedures and additional standards which are not inconsistent with Chapter 14-7. The Town Manager or his/her designee also has discretion to approve alternative designs where necessary provided that such alternative designs meet the purpose and intent of the regulations (i.e., that the small cell facilities are visually unobtrusive). There is a procedure to appeal a decision to the Town Council if a permit application is denied by Town staff.



**FINANCIAL IMPLICATIONS:**

This Ordinance is not expected to have an appreciable impact on the Town's budget.

**PROPOSED MOTION:**

"I move to introduce Ordinance Adopting a New Chapter 14-7 of Title 14 of the Ridgway Municipal Code Establishing Small Cell Regulations."

**ATTACHMENT:**

Ordinance No. 2020-04

**TOWN OF RIDGWAY, COLORADO  
ORDINANCE NO. 2020-04**

**ADOPTING A NEW CHAPTER 14-7 OF TITLE 14 OF THE RIDGWAY  
MUNICIPAL CODE ESTABLISHING SMALL CELL REGULATIONS**

**WHEREAS**, the Town of Ridgway, Colorado (“Town”) is a home rule municipality existing pursuant to the laws of the Colorado Constitution, the Colorado Revised Statutes and the Town's Home Rule Charter; and

**WHEREAS**, the Town Council finds that the passage of House Bill 17-1193 requires an expedited permitting process for small cell facilities and small cell networks within local government right-of-ways, such as the Town’s, for telecommunications providers, including broadband providers; and

**WHEREAS**, the Town Council desires to adopt “Small Cell Regulations” implementing House Bill 17-1193; and

**WHEREAS**, the Town has the power to adopt this ordinance pursuant to the powers contained in the Ridgway Town Charter, House Bill 17-1193, and its general police power; and

**WHEREAS**, the Town Council finds that the adoption of Small Cell Regulations will promote the health, safety and general welfare of the Ridgway community; and

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO** the following:

**Section 1. Recitals Incorporated.** The above and foregoing recitals are incorporated herein by reference and adopted as findings and determinations of the Town Council.

**Section 2. Addition of Chapter 14-7 to Title 14 of the Ridgway Municipal Code.** Title 14 of the Ridgway Municipal Code is hereby amended with the addition of a new Chapter 14-7, to read as set forth in Exhibit A: Addition of Chapter 14-7 to Title 14 of the Ridgway Municipal Code, attached hereto and incorporated herein.

**Section 3. Codification of Amendments.** The Town Clerk, as the codifier of the Town’s Municipal Code, is hereby authorized to make such numerical and formatting changes as may be necessary to incorporate the provisions of this Ordinance within the Ridgway Municipal Code. The Town Clerk is authorized to correct, or approve the correction by the codifier, of any typographical error in the enacted regulations, provided that such correction shall not substantively change any provision of the regulations adopted in this Ordinance. Such corrections may include spelling, reference, citation, enumeration, and grammatical errors.

**Section 4. Severability.** If any provision of this Ordinance, or the application of such provision to any person or circumstance, is for any reason held to be invalid, such invalidity shall not affect other provisions or applications of this Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared to be severable. The Town Council hereby declares that it would have passed this Ordinance and each provision thereof, even though any one of the provisions might be declared unconstitutional or invalid. As used in this Section, the term “provision” means and includes any part, division, subdivision, section, subsection, sentence, clause or phrase; the term “application” means and includes an application of an ordinance or any part thereof, whether considered or construed alone or together with another ordinance or ordinances, or part thereof, of the Town.

**Section 5. Effective Date.** This Ordinance shall take effect thirty (30) days after the date of final passage in accordance with Article 3-7 of the Ridgway Charter.

**Section 6. Safety Clause.** The Town Council hereby finds, determines and declares that this Ordinance is promulgated under the general police power of the Town of Ridgway, that it is promulgated for the health, safety and welfare of the public, and that this Ordinance is necessary for the preservation of health and safety and for the protection of public convenience and welfare. The Town Council further determines that the Ordinance bears a rational relation to the proper legislative object sought to be obtained.

**Section 7. No Existing Violation Affected.** Nothing in this Ordinance shall be construed to release, extinguish, alter, modify, or change in whole or in part any penalty, liability or right or affect any audit, suit, or proceeding pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing which may have been incurred or obtained under any ordinance or provision hereby repealed or amended by this Ordinance. Any such ordinance or provision thereof so amended, repealed, or superseded by this Ordinance shall be treated and held as remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings and prosecutions, for the enforcement of such penalty, liability, or right, and for the purpose of sustaining any judgment, decree or order which can or may be rendered, entered, or made in such actions, suits or proceedings, or prosecutions imposing, inflicting, or declaring such penalty or liability or enforcing such right, and shall be treated and held as remaining in force for the purpose of sustaining any and all proceedings, actions, hearings, and appeals pending before any court or administrative tribunal.

**Section 8. Publication.** The Town Clerk is ordered to publish this Ordinance in accordance with Article 3-7 of the Ridgway Charter.

*[Execution Page follows]*

**INTRODUCED AND REFERRED TO PUBLIC HEARING** on September 9, 2020 and setting such public hearing for October 14, 2020 at Ridgway Town Hall, located at 201 N. Railroad Street, Ridgway, Colorado.

BY:

ATTEST:

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John Clark, Mayor

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Pam Kraft, Town Clerk

**ADOPTED** on October 14, 2020.

BY:

ATTEST:

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John Clark, Mayor

---

Pam Kraft, Town Clerk

APPROVED AS TO FORM:

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Bo James Nerlin, Town Attorney

## **EXHIBIT A: Chapter 14-7 – Small Cell Regulations**

### **CHAPTER 14**

#### **SECTION 7**

##### **Small Cell Regulations**

###### **Subsections:**

14-7-1	PURPOSE AND INTENT
14-7-2	DEFINITIONS
14-7-3	UNLAWFUL ACTS
14-7-4	PERMITTING PROCESS
14-7-5	DESIGN STANDARDS
14-7-6	PERMIT STANDARDS
14-7-7	APPEAL TO COUNCIL
14-7-8	VIOLATION; PENALTY

###### **14-7-1 PURPOSE AND INTENT.**

It is the purpose and intent of this Chapter to adopt Small Cell Regulations, to implement House Bill 17-1193 and revisions to C.R.S. §29-27-401 et. seq., to adopt an expedited permitting process for the installation of small cell facilities; and small cell networks with the Town of Ridgway's right-of-ways. It is also the purpose and intent of this Chapter to adopt minimum design standards and criteria to ensure that the installation of small cell facilities does not result in visual clutter or detract from the existing and planned aesthetic design of the Town of Ridgway right-of-way streetscapes and that the installation of small cell facilities does not interfere with the existing and future use of Town of Ridgway right-of-ways. This Chapter 14-7 shall be limited to the installation of small cell facilities in Town of Ridgway right-of-ways and shall not restrict installation of small cell facilities on private property and shall not authorize installation of small cell facilities on Town of Ridgway properties which are not within right-of-ways.

###### **14-7-2 DEFINITIONS.**

For purposes of this Chapter, the following terms shall have the following meanings:

*Abandonment* means discontinuance of use of a small cell facility for a period of twelve (12) months or the failure to repair a small cell facility within three (3) months.

*Antenna* means communications equipment that transmits or receives electromagnetic radio frequency signals used to provide wireless services.

*Broadband facility* means any infrastructure used to deliver broadband service or for the provision of broadband service.

*Micro wireless facility* means a small wireless facility that is no larger in dimensions than twenty-four inches (24") in length, fifteen inches (15") in width, and twelve inches (12") in height and that has an exterior antenna, if any, that is no more than eleven inches (11") in length.

*Permittee* means the owner of the small cell facility located within the Town of Ridgway right-of-way.

*Small cell facility* means:

- (a) A personal wireless service facility as defined by the federal “Telecommunications Act of 1996”, as amended as of August 6, 2014; or
- (b) A wireless service facility that meets both of the following qualifications:
  - (i) Each antenna is located inside an enclosure of no more than three (3) cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an imaginary enclosure of no more than three (3) cubic feet; and
  - (ii) Primary equipment enclosures are no larger than seventeen (17) cubic feet in volume. The following associated equipment may be located outside of the primary equipment enclosure and, if so located, is not included in the calculation of equipment volume: Electric meter concealment, telecommunications demarcation box, ground-based enclosures, back-up power systems, grounding equipment, power transfer switch, and cut-off switch; or
- (c) A micro wireless facility.

*Tower* means any structure built for the sole or primary purpose of supporting antennas licensed or authorized by the federal communications commission and the antennas’ associated facilities, including structures that are constructed for wireless communications services including private, broadcast, and public safety services; unlicensed wireless services; fixed wireless services such as backhaul; and the associated site.

*Utility pole* means any pole within the Ridgway right-of-way which is used for utilities or signage.

*Wireless service facility* means a facility for the provision of wireless services; except that “wireless service facility” does not include coaxial or fiber-optic cable that is not immediately adjacent to, or directly associated with, a particular antenna.

### **14-7-3 UNLAWFUL ACTS.**

It is unlawful to install or modify a small cell facility on Ridgway right-of-ways without a valid permit for small cell facilities.

### **14-7-4 PERMITTING PROCESS.**

The Town Manager shall review and act upon permit applications for small cell facilities. The Town Manager may create permit application forms, procedures and criteria which are not inconsistent with this Chapter 14-7, which shall include consolidating applications by the same provider for multiple small cell facilities. The Town Manager may refer permit applications for review and comment by other Town

staff members, to the Town Planning Commission and/or Town Council, or by third parties where appropriate. The Town Manager shall act to approve or deny an application for a small cell facility within ninety (90) days after receipt of a completed application. The Town Manager may delegate any and all responsibilities under this permitting process.

#### **14-7-5 DESIGN STANDARDS.**

- (a) Height: All small cell facilities shall not extend ten feet (10') above the utility pole or a building structure to which they are attached. When new utility poles are proposed as an alternative, the height of such poles shall be similar to existing utility/light poles in the vicinity but shall not exceed ten feet (10') higher than existing utility poles in the vicinity.
- (b) Setback: A new freestanding pole or structure for a small cell facility shall be located a minimum of two hundred and fifty feet (250') from existing or planned detached single family or duplex residential structures, unless such setback would result in a lack of service coverage, in which case new freestanding poles or structures shall be located between properties to minimize impacts to views and shall incorporate a camouflaged design with the equipment completely enclosed within the pole.
- (c) Spacing: No small cell facility shall be located within three hundred feet (300') feet of any other such facility by the same provider unless the applicant can demonstrate that such minimum space will inhibit or degrade the provision of service.
- (d) Design: Small cell facilities shall have a consistent design with the utility pole or structure on which it is installed, including but not limited to; matching paint and color, matching materials, and, enclosure design which is similar to the pole or structure. To the greatest degree possible, support equipment shall be located underground. The design of small cell facilities shall blend with the design of existing poles and structures, to the greatest degree possible, avoid, or minimize, if complete avoidance is not possible, the appearance of the small cell facility and increased visual clutter on utility poles and structures.
- (e) Location: Small cell facilities are permitted in Ridgway right-of-ways, upon existing or new utility poles or structures owned by the Town, or owned by third parties with permission of such third parties, under the following preferences in order of priority:
  - (i) On existing Town owned utility pole, if any, which shall be removed and replaced with a pole designed to contain all antennae and equipment within the utility pole to conceal any ground-based support equipment. The ownership of such new pole must be conveyed to the Town.
  - (ii) On existing Town owned utility poles or third party owned utility pole (with the consent of the third-party owner), with attachment of the small cell facility in a configuration and design approved by the Town.
  - (iii) On a freestanding or ground mounted facility which is located on Town of Ridgway right-of-way at a site which does not interfere with existing or planned utilities and right-of-way uses and which utilizes a design that is consistent and compatible with



the design of utility poles and structures in the vicinity. The location of new poles or structures shall be sited to minimize visual impacts to adjacent and nearby property owners.

- (f) Alternative Design: The Town Manager or designee has the authority to approve alternative designs for small cell facilities which do not meet the standards set forth above with the following findings:
  - (i) Compliance with the Design Standards is not reasonably possible and would impose a significant financial hardship on the small cell facility operator; and
  - (ii) The proposed alternative design meets the purpose and intent of this Chapter 14-7.

#### **14-7-6 PERMIT STANDARDS.**

Permits for small cell facilities in Town of Ridgway right-of-ways shall include the following minimum requirements:

- (a) Indemnification: The permittee shall indemnify the Town from and against all liability and claims arising as a result of that location or attachment, including repair and replacement of damaged utility poles and equipment, in such form approved by the Town.
- (b) Bonding: The permittee shall provide a bond, in a form approved by the Town, to guarantee payment for any damages to real property not owned by the small cell facility owner and to guarantee the removal of the small cell facility or facilities upon abandonment.
- (c) Location and Design: The permittee shall include information to show the proposed location of all facilities and design of such facilities.
- (d) Relocation and Removal: The permittee shall remove and/or relocate small cell facilities at the permittee's expense in the event that the Town of Ridgway's use of the right-of-way conflicts with or precludes the continued location of such small cell facility.
- (e) Expiration: A permit for approval of a small cell facility shall expire twelve (12) months after approval unless construction of the permitted structure has commenced. The Town Manager or designee may grant multiple extensions of a permit approval provided that each such extension shall not exceed twelve (12) months and provided that the permit conforms to any amendments to this Chapter 14-7, including amendments to the design standards and/or permit standards.
- (f) Consolidated Application: The applicant, at its discretion, may file a consolidated application and receive a single permit for the small cell network.

#### **14-7-7 APPEAL TO COUNCIL.**

Any person whose application for small cell facility is denied or partially approved may appeal such decision to the Town Council in accordance with the procedures and requirements of this Section.

The applicant shall file a written appeal in writing with the Town Clerk within thirty (30) days after the date of transmittal of the decision to deny such application. The failure to file a written appeal within thirty (30) days after the date of transmittal of the decision to deny the application shall bar any further consideration of the application, shall bar any appeal to the Town Council and shall bar any judicial review by a Colorado court. The written appeal shall state the reasons for the appeal. An appeal which is filed timely shall be considered and acted upon by the Town Council within forty-five (45) days after the date of receipt. The Town shall provide at least three (3) days prior notice to the applicant stating the date, time and location where the Town Council will consider the appeal. It shall not be necessary for the Town Council to provide written findings or conclusions, except upon request of the Applicant, or other party participating in the hearing. The Town Council shall determine whether to approve, partially approve or deny the application based on compliance with standards set forth in this Chapter 14-7. The failure by the Town Council to hear and decide an appeal within forty-five (45) days after the receipt of the appeal shall not result in the approval of the application.

**14-7-8 VIOLATION; PENALTY.**

It is unlawful to install or modify small cell facilities without a permit. A person who is convicted of installing or modifying a small cell facility without a permit shall be punished as provided in Chapter 1-1-6 – General Penalty.

## AGENDA ITEM #16



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 4, 2020  
Agenda Topic: Update and direction on Heritage Park Improvements Project

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**RECAP:**

The Town issued a Request for Bids (RFB) for the Heritage Park Improvements Project in early March. The RFB sought qualified contractors to construct Phases 1 and 2 of the Heritage Park/Visitors Center landscape and irrigation improvements. Phases 1 and 2 of the Project have been designed by DHM Design. Phase 1 of the project generally consists of delivery, set-up and general construction for all labor, materials and services for Phase 1 irrigation and landscaping around the Ridgway Visitor Center, including installing irrigation system, soil improvements, planting shrubs, perennials, and ornamental grasses, and all other work necessary to complete Phase 1. Phase 2 generally consists of delivery, set-up and general construction for all labor, materials and services for installing hardscape, landscape, and irrigation along Highway 62 at Ridgway Heritage Park, and all other work necessary to complete Phase 2.

Both phases were budgeted for in the Capital Project Fund of the 2020 Fiscal Year Budget at a total amount of \$77,500.00. That amount includes awarded grant funding in the amount of \$20,000.00 to support this project. The Town received \$10,000.00 from Colorado Creative Industries (CCI) and \$10,000.00 from the Colorado Main Street Program (COMS).

The Town received one bid from Western States Reclamation, Inc. Their overall bid came in substantially over the budgeted amount, with the Phase 1 bid at \$84,219.00 and the Phase 2 bid at \$142,688.63. On April 8<sup>th</sup>, Council decided, for a number of reasons, to hold off on the Heritage Park Improvements Project. Those reasons included 1) the COVID-19 pandemic, 2) the fact that the Town only received one bid, and 3) the fact that the bid amount came in substantially over the budgeted figure.

**UPDATE:**

The \$10,000 that was received from CCI was repurposed to assist local businesses with costs associated with the reopening phase of the COVID-19 pandemic and the \$5,000 COMS 2019 mini-grant was utilized to clean up, level, lay gravel, and place picnic tables in an area near the parking lot, south of the Visitor Center's pergola, with labor and equipment from Public Works used as the match for the \$5,000 grant. The Town still has funding available from the \$5,000 COMS 2020 mini-grant, as well as an additional \$5,000 from AARP that Diedra Silbert was able to procure. AARP has developed close ties with the Colorado Main Street Program, and they elected to collaborate with us to support the implementation of this project, which they feel will bring significant value to our community.

Staff has spent a considerable amount of time brainstorming if and how the Town can take a small step forward to further this project. Staff recently tailored and distributed the attached Project Quote Packet by identifying that the work will consist of delivery, set-up and general construction for all labor, materials and services for just the irrigation elements of Phase 1 around the Ridgway Visitor Center.



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TOWN HALL PO Box 10 | 201 N. Railroad Street | Ridgway, Colorado 81432 | 970.626.5308 | [www.town.ridgway.co.us](http://www.town.ridgway.co.us)

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**DIRECTION REQUESTED:**

At the time of publishing this Council packet, no quotes have been received. Staff is hoping to have multiple quotes to present to Council during Wednesday's virtual meeting. Staff is seeking direction on how to proceed on this project during the remainder of FY 2020.



## **Heritage Park/Visitor Center Landscape & Irrigation – Phase 1 Fall 2020**

### **PROJECT DESCRIPTION**

The work will generally consist of delivery, set-up and general construction for all labor, materials and services for Phase 1 **installation of an irrigation system around the Ridgway Visitor Center**. All other work necessary to complete the project is indicated in the Construction Documents. All construction shall be performed in accordance with these specifications.

### **QUOTE PROCEDURE TIMETABLE**

Quotes Due to Town of Ridgway	<b>Wednesday, September 9, 2020 - by 5:00pm</b>
Contracting	<b>Week of September 14, 2020</b>
Notice to Proceed	<b>September 18, 2020</b>
Project Commences	<b>September 21, 2020</b>
<b>Project Completion</b>	<b>November 27, 2020</b> Nov. 15 is the final day for any work involving Racecourse Rd.



## QUOTE SCHEDULE

### Heritage Park/Visitor Center Landscape & Irrigation – Phase 1

August 28, 2020

ITEM	CONTRACT ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	Irrigation Materials	LS	1		
2	Irrigation Installation	LS	1		
	<b>TOTAL QUOTE:</b>				\$

*Please Note: Raw water will be turned off at this site after the first hard frost. Testing of the irrigation system will have to take place in the spring, if water is turned off. Work in the driving lane of Racecourse Rd. needs to finish by Nov. 15, 2020, to mitigate for settling issues. The rest of project must complete by Nov. 27, 2020. Funds expire by the end of 2020.*

## QUOTE SCHEDULE DESCRIPTIONS

The selected Contractor shall be responsible for completing all items shown in the drawings and Specifications per Timetable. This includes all labor, equipment, and materials to complete the work as shown in the drawings and Specifications. (Plantings are not included in this initial phase.)

The following Quote Schedule items include, but are not limited to, a description of major categories of work. If specific irrigation-related items are not mentioned in this Quote Schedule and Description, but are shown in the drawings or Specifications, the contractor is responsible for installing those items.



## **PHASE I ITEMS**

### **ITEMS NO. 01 and 02- IRRIGATION (MATERIALS & INSTALLATION)**

A. Description: These items consist of all labor, materials, and equipment costs associated with installation of the irrigation system per the construction drawings and specifications.

B. Payment: Measurement for payment will be lump sum. No separate measurement will be made for pipe, wiring, trenching, sleeves, valves, controller, irrigation heads, bubblers or any other items required to complete the required work for the irrigation system.

*Please see 100% Construction Documents – Technical Specs for further details on General Requirements and Exterior Improvements. (Note: The “Bid Schedule” in the Technical Specs has been replaced by the above Quote Schedule.)*

*Please review 100% Construction Documents – Drawings.*

### **Agreements (also see Contract Sample)**

Quoting Contractor agrees to perform all work described and contained on the Project Plans for the unit prices or lump sums as shown on the Quote Schedule.

Quoting Contractor acknowledges that quantities are estimated and are only for the purpose of comparing quotes.

Quoting Contractor acknowledges that payment will be based on the lump sum prices or the actual quantities furnished, installed or constructed as provided for in the Specifications.

Quoting Contractor is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. The failure or omission of any Quoting Contractor to do any of the foregoing shall in no way relieve any Quoting Contractor from any obligation in respect to submitted Quote.



## AGENDA ITEM #17



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 1, 2020  
Agenda Topic: Review and action on Order Extending the Declaration of a Local Disaster in and for the Town of Ridgway

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**ACTION BEFORE COUNCIL:**

Due to the ongoing nature of the COVID-19 pandemic, Council is asked to consider approving the attached Order that would extend the Declaration of a Local Disaster to January 14, 2021.

**PROPOSED MOTION:**

"I move to approve the Order Extending the Declaration of a Local Disaster in and for the Town of Ridgway."

**SUMMARY:**

On March 17, 2020, the Town Manager issued an Order Declaring a Local Disaster in and for the Town of Ridgway. The Order was issued pursuant to the authority granted to the Town Manager and issued with the approval and support of the Mayor. Subsequently, the Town Council has extended the Declaration several times and it is now set to expire on September 10, 2020. With the Town of Ridgway and Ouray County continuing to navigate the immediate response to COVID-19, as well as the subsequent phases of reopening and economic recovery, staff is recommending that the Declaration be extended to January 14, 2021. The recommended date comes from the discussion Council held during the August 12, 2020 Regular meeting. Council showed interest in extending the Order to the end of the year. Ultimately, Council elected to extend the Order to September 10, 2020 with an intent to revisit the end of the year extension discussion during the September 9, 2020 Regular meeting.

**ATTACHMENT:**

Order Extending the Declaration of a Local Disaster in and for the Town of Ridgway

**TOWN OF RIDGWAY, COLORADO**  
**ORDER EXTENDING THE DECLARATION OF A LOCAL DISASTER IN AND FOR**  
**THE TOWN OF RIDGWAY**

**WHEREAS**, the Colorado Disaster Emergency Act, C.R.S. § 24-33.5-701, et. seq. (the “Act”), provides procedures for statewide and local prevention of, preparation for, response to, and recovery from disasters; and

**WHEREAS**, pursuant to C.R.S. § 24-33.5-709, a local disaster emergency may be declared unilaterally by the principal executive officer of a political subdivision; for the Town of Ridgway, Colorado (the “Town”), the principal executive officer is the Town Manager; and

**WHEREAS**, the Town Manager issued an Order Declaring a Local Disaster (the “Order”) on March 17, 2020; and

**WHEREAS**, the Order was issued pursuant to the authority granted to the Town Manager, and issued with the approval and support of the Mayor for the Town; and

**WHEREAS**, on March 20, 2020, the Town Council extended the Declaration of a Local Disaster to May 14, 2020; and

**WHEREAS**, on May 13, 2020, the Town Council extended the Declaration of a Local Disaster to June 11, 2020; and

**WHEREAS**, on June 10, 2020, the Town Council extended the Declaration of a Local Disaster to July 9, 2020; and

**WHEREAS**, on July 8, 2020, the Town Council extended the Declaration of a Local Disaster to August 13, 2020; and

**WHEREAS**, on August 12, 2020, the Town Council extended the Declaration of a Local Disaster to September 10, 2020; and

**WHEREAS**, the Town Council wishes to extend the Declaration of a Local Disaster; and

**WHEREAS**, pursuant to the Act, an "emergency" is an unexpected event that places life or property in danger and requires an immediate response through the use of state and community resources and procedures, and an "emergency epidemic" is cases of an illness or condition, communicable or noncommunicable, caused by bioterrorism, pandemic influenza, or novel and highly fatal infectious agents or biological toxins; and

**WHEREAS**, pursuant to C.R.S. § 24-33.5-709, this Declaration activates the response and recovery aspects of any applicable disaster emergency plans and authorizes the furnishing of aid and assistance under such plans; and

**WHEREAS**, pursuant to C.R.S. § 24-33.5-709(1), the declaration of a local emergency shall not be continued beyond a period of seven (7) days or removed except by action of the governing board of the political subdivision for the Town, the Town Council; and

**WHEREAS**, pursuant to C.R.S. § 24-33.5-709(1), any order declaring, continuing, or terminating a local disaster "shall be given prompt and general publicity and shall be filed promptly with the county clerk and recorder, the [Town] clerk ... and with the office of emergency management"; and

**WHEREAS**, because of the COVID-19 pandemic, which was recognized by the Governor of the State of Colorado on March 10, 2020, the Town is suffering and has suffered a disaster emergency as defined in the Act.

**NOW, THEREFORE, IT IS HEREBY ORDERED** on this 9<sup>th</sup> day of September, 2020, that the disaster emergency that was declared in and for the Town of Ridgway beginning on March 17, 2020, is extended to January 14, 2021, unless further extended or amended by action of the Town Council for the Town.

**IT IS FURTHER ORDERED** that this Declaration shall be given prompt and general publicity, filed immediately with the office of the Ouray County Emergency Manager and a copy filed with the Ouray County Clerk and Recorder, as well as to the Colorado Office of Emergency Management.

**APPROVED BY THE TOWN COUNCIL ON THIS 9<sup>th</sup> DAY OF SEPTEMBER  
2020**

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John Clark, Mayor

ATTEST:

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Pam Kraft, Town Clerk

## AGENDA ITEM #18



To: Honorable Mayor Clark and Ridgway Town Council  
From: Preston Neill, Town Manager  
Date: September 3, 2020  
Agenda Topic: Emergency Ordinance No. 2020-05 an Emergency Ordinance of the Town of Ridgway, Colorado Extending Temporary Amendments to the Sign Regulations

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**SUMMARY:**

Due to the COVID-19 pandemic, on May 13, 2020, Council adopted temporary amendments to the Town's Sign Regulations by way of Emergency Ordinance No. 2020-02. More specifically, that emergency ordinance relaxed certain signage requirements for lawfully operating businesses for a four-month period until September 13, 2020. Normally a business must apply for a sign permit before installing a portable sign within the Town right-of-way. In recognition of the difficult business environment created by the COVID-19 pandemic and orders related to business operations, that emergency ordinance waived the need for a portable sign on Town right-of-way proposal/sign permit application to be submitted to the Town with applicable fee and be reviewed and approved by Town staff.

With the expiration date quickly approaching, staff has prepared the attached emergency ordinance extending the temporary amendments to the Town's Sign Regulations in the event that Council has an interest in extending the deadline.

**OPTIONS:**

1. Approve Emergency Ordinance No. 2020-05 extending temporary amendments to the Town's Sign Regulations, as written. This would extend the temporary amendments to November 12, 2020.
2. Extend the temporary amendments to the Town's Sign Regulations for a shorter or longer period of time.
3. Take no action. This would mean that Emergency Ordinance No. 2020-02 will expire on September 13, 2020, reinstating the enforcement of Section 7-3-12(G)(2)(c) and (d).

**MOTION:**

"I move to approve Emergency Ordinance No. 2020-05 an Emergency Ordinance of the Town of Ridgway, Colorado Extending Temporary Amendments to the Sign Regulations."

**ATTACHMENTS:**

Emergency Ordinance No. 2020-05

**EXHIBIT 1**

**TOWN OF RIDGWAY, COLORADO  
EMERGENCY ORDINANCE NO. 2020-05**

**AN EMERGENCY ORDINANCE OF THE TOWN OF RIDGWAY, COLORADO  
EXTENDING TEMPORARY AMENDMENTS TO THE SIGN REGULATIONS**

**WHEREAS**, on May 13, 2020, the Town Council of the Town of Ridgway passed an Emergency Ordinance adopting temporary amendments to the sign regulations due to the COVID-19 pandemic; and

**WHEREAS**, the Emergency Ordinance of May 13, 2020, adopting temporary amendments to the sign regulations is set to expire on September 13, 2020; and

**WHEREAS**, the COVID-19 pandemic has and will continue to have a severe economic impact on local business that may threaten the continued existence of many those businesses with locations within the Town. It is the intent of the Town Council to temporarily extend amendments to the Town's Sign Regulations in Section 7-3-12 of the Ridgway Municipal Code in order to relax certain signage requirements for lawfully operating businesses who may want additional signs during the time the Emergency Declaration is in effect.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO,**

1. Extension of Temporary Amendments to the Sign Regulations. *Emergency Ordinance No. 20-02 an Emergency Ordinance of the Town of Ridgway, Colorado Adopting Temporary Amendments to the Sign Regulations*, attached and incorporated in its entirety, be and hereby is extended for a period of two months or until November 12, 2020.

**EFFECTIVE THIS 9<sup>TH</sup> DAY OF SEPTEMBER 2020**

BY:

ATTEST:

\_\_\_\_\_  
John Clark, Mayor

\_\_\_\_\_  
Pam Kraft, Town Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Bo James Nerlin, Town Attorney

**TOWN OF RIDGWAY, COLORADO  
ORDINANCE NO. 02-2020**

**AN EMERGENCY ORDINANCE OF THE TOWN OF RIDGWAY, COLORADO  
ADOPTING TEMPORARY AMENDMENTS TO THE SIGN REGULATIONS**

**WHEREAS**, the Town of Ridgway, Colorado ("Town") is a home rule municipality existing pursuant to the laws of the Colorado Constitution, the Colorado Revised Statutes and the Town's Home Rule Charter; and

**WHEREAS**, Article 3-8 of the Ridgway Charter allows for the adoption of an emergency ordinance when the Town Council determines that the ordinance is necessary to the immediate preservation of the public peace, health and safety and includes such a declaration within the ordinance and is adopted by the affirmative vote of six members of the Town Council; and

**WHEREAS**, the Town Manager issued an Order Declaring a Local Disaster related to the COVID-19 pandemic on March 17, 2020; and

**WHEREAS**, on March 20, 2020, the Town Council ratified and extended the Declaration of a Local Disaster to May 14, 2020; and

**WHEREAS**, on May 13, 2020, the Town Council extended the Declaration of a Local Disaster to June 11, 2020; and

**WHEREAS**, Colorado Governor Jared Polis issued a statewide "Safer-At-Home" order on April 27, 2020 and the month prior, the Governor ordered the closure of in-person dining at restaurants and bars and closures of other establishments to limit large gathering places. These orders have created a significant economic impact to the operation of businesses within the Town; and

**WHEREAS**, the health crisis has and will continue to have a severe economic impact on local business that may threaten the continued existence of many those businesses with locations within the Town. It is the intent of this emergency ordinance to temporarily adopt amendments to the Town's Sign Regulations in Section 7-3-12 of the Ridgway Municipal Code in order to relax certain signage requirements for lawfully operating businesses who may want additional signs during the time the Emergency Declaration is in effect.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO** the following:

**Section 1. Recitals Incorporated.** The above and foregoing recitals are incorporated herein by reference and adopted as findings and determinations of the Town Council.

**Section 2. Amendment to the Code.** Section 7-3-12(G)(2)(c) and (d) are hereby placed in abeyance for a period of four months or until September 13, 2020. Accordingly, the installation of a portable sign within the Town right-of-way does not require a sign permit. All other provisions of the sign code regulating signs and portable signs shall apply.

**Section 3.** No signage is allowed to cause any type of public safety hazard by restricting visibility, creating trip hazards, or impacting traffic safety.



**Section 4.** This temporary amendment to the Town's Sign Regulations in Section 7-3-12 of the Ridgway Municipal Code applies only to lawfully operating businesses.

**Section 5. Severability.** If any provision of this Ordinance, or the application of such provision to any person or circumstance, is for any reason held to be invalid, such invalidity shall not affect other provisions or applications of this Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared to be severable. The Town Council hereby declares that it would have passed this Ordinance and each provision thereof, even though any one of the provisions might be declared unconstitutional or invalid. As used in this Section, the term "provision" means and includes any part, division, subdivision, section, subsection, sentence, clause or phrase; the term "application" means and includes an application of an ordinance or any part thereof, whether considered or construed alone or together with another ordinance or ordinances, or part thereof, of the Town.

**Section 6. Effective Date.** This Emergency Ordinance shall take effect immediately upon its adoption by the Town Council in accordance with Article 3-8 of the Ridgway Charter.

**Section 7. Safety Clause.** The Town Council hereby finds, determines and declares that this Ordinance is promulgated under the general police power of the Town of Ridgway, that it is promulgated for the health, safety and welfare of the public, and that this Ordinance is necessary for the preservation of health and safety and for the protection of public convenience and welfare. The Town Council further determines that the Ordinance bears a rational relation to the proper legislative object sought to be obtained.

**Section 8. No Existing Violation Affected.** Nothing in this Ordinance shall be construed to release, extinguish, alter, modify, or change in whole or in part any penalty, liability or right or affect any audit, suit, or proceeding pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing which may have been incurred or obtained under any ordinance or provision hereby repealed or amended by this Ordinance. Any such ordinance or provision thereof so amended, repealed, or superseded by this Ordinance shall be treated and held as remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings and prosecutions, for the enforcement of such penalty, liability, or right, and for the purpose of sustaining any judgment, decree or order which can or may be rendered, entered, or made in such actions, suits or proceedings, or prosecutions imposing, inflicting, or declaring such penalty or liability or enforcing such right, and shall be treated and held as remaining in force for the purpose of sustaining any and all proceedings, actions, hearings, and appeals pending before any court or administrative tribunal.

**Section 9. Repeal.** This Ordinance shall expire on September 13, 2020 reinstating the enforcement of Section 7-3-12(G)(2)(c) and (d).

**Section 10. Publication.** The Town Clerk is ordered to publish this Ordinance in accordance with Article 3-8 of the Ridgway Charter.

*[Execution Page follows]*

**INTRODUCED, READ, HEARD AND FINALLY ADOPTED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO, THIS 13<sup>TH</sup> DAY OF MAY, 2020.**

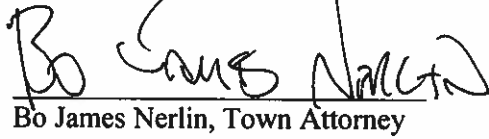
BY:

  
John Clark, Mayor

ATTEST:

  
Pam Kraft, Town Clerk

APPROVED AS TO FORM:

  
Bo James Nerlin, Town Attorney

## AGENDA ITEM #19