

Committee of the Whole  
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Council Chambers  
1369 25 Avenue  
Columbus, NE 68601

{{Name: Agenda Item Name}}

{{Rationale: Agenda Item Rationale}} {{AgendaItemEnd}}

- 1. Statement of compliance with Open Meetings Act and roll call.**
- 2. Presentation from Firststar Fiber, Inc. on options for recycling services.**
- 3. Update on enforcement of the International Property Maintenance Code.**
- 4. Adjournment.**

FEBRUARY 2019

# Columbus Needs Assessment Report

Nebraskans Investing In Communities  
Economies & Environment



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By  
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“Financing provided through the Waste Reduction and Recycling Incentive Grant Program, Nebraska Department of Environmental Quality”



Nebraska Department  
of Environmental Quality

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## Executive Summary

Community and rural recycling programs frequently report being faced with barriers that prevent their programs from being sustainable or ultimately successful. These barriers often include difficulty in establishing reliable end markets for the collected materials and maintaining economic feasibility.

This Needs Assessment Report has been developed as part of the NICE<sup>2</sup> (Nebraskans Investing in Communities Economies and Environment) program and is designed to help the City of Columbus develop a recycling program that is sustainable and economically feasible, while creating a cleaner environment and greater landfill diversion, supporting local jobs and economics, and reducing direct disposal costs, and the environmental and social costs associated with landfilling wastes.

### The NICE<sup>2</sup> Training Program – Goals and Objectives

The NICE<sup>2</sup> 3 part training program seeks to address the barriers experienced by rural communities by 1) Providing training designed to help communities broaden the knowledge and understanding of the industry, information sources and options that are available across a host of recycling topics, 2) provide one-on-one training and coaching, needs assessment and community engagement, and 3) provide support and delivery assistance to the communities based on the needs assessment including provision of reliable end markets and development of sustainable programs:

#### PART ONE - Training Materials – Presentations (PowerPoint), Video, Handout Materials (PDF)

Part one includes the development of an informational training package. Not directly targeted at a specific community, it is designed to broaden the knowledge and understanding of the industry, information sources and options that are available across a host of topics. This will enable the training materials to be disseminated to other communities on completion of the project.

- Collection Strategies
- Recycling Program Best Practice
- Improving material quality for sale, grades of material and handling
- End markets
- Equipment needs
- Economics of recycling vs. the true cost of waste disposal options
- Partnering with private companies
- Available sources of funding

#### PART TWO - Community Engagement and Needs Assessment

This program recognizes that no two communities are the same nor do they have the same available resources or face the same barriers as their neighboring communities.

- Community Research – Identifying the opportunities, needs and barriers specific to each community.
- Needs Assessment Recommendations Report – Development of a recommendation report for each community based on their individual specific needs and limitations.
- Plant Tours – Providing tours of MRF Processor and End Market to provide communities with an entire “systems approach” understanding of the entire supply and demand chain.
- Engagement and Education – working with community partners i.e. local officials, schools, environmental groups, potential business supporters to improve capture, volume and quality.

#### PART THREE - Community Support and Delivery Assistance

- Providing end markets to communities for their recyclable commodities, potentially through contract with the communities to provide reliable end markets and longer-term stability of recycling programs.
- Customized training and coaching program for local recycling operators / organizers – Hands on custom training targeted to the community to address the identified opportunities, needs and barriers. This will be varied based

on the needs of each community but could range from training on how to develop programs, technical training on better operations of available equipment, staff training on decreasing contamination, to training for officials on how to best support local programs.

- Assistance with grant writing to address specific funding needs, e.g., the NET small equipment grant program.

### Disclaimer

The contents of this report are offered as guidance. Firstar Fiber, Inc. and GreenFiber and all technical sources referenced in this report do not:

a) make any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of the information contained within this report, or that the use of any information, apparatus, method, or process disclosed in the report may not infringe on privately owned rights:      b) assume any liabilities with respect to the use of, or damages resulting in the use of, any information, apparatus, method or process disclosed in the report.

This report does not reflect the official views or policy of the above-mentioned institutions. Mention of trade names or commercial products does not constitute endorsement or recommendation of use.

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## Baseline

### Why does Columbus need a Needs Assessment Report?

#### Challenges Faced by Rural Recycling Programs

The need for better recycling programs in communities and rural areas is supported by increasing environmental awareness among residents, however these programs are frequently reporting being faced with barriers that prevent their programs from being sustainable or ultimately successful. These barriers often include difficulty in establishing reliable end markets for the collected materials and maintaining economic feasibility.

An added challenge for rural communities is their limited size, which underpins a whole host of complications, starting with how long it might take them to generate sufficient quantities of marketable recyclables. Commingling all the recyclables together can mitigate the problem, but it negates the material's value, which in turn hampers recycling's justification. In turn, because towns generate fewer valuable materials, recycling companies devote their limited resources to recruit and work with larger communities where they can earn better return on their investments. Sadly, as a result, smaller rural towns are locked into an ever increasingly costly solid waste management system, which on a per capita basis, costs more than it does for residents of cities.

#### Why a Needs Assessment Report?

This Needs Assessment report is a valuable playbook to assist the City of Columbus in the steps that can be taken to improve its recycling program and help in the decision-making processes for additional improvements. It evaluates the existing recycling facilities within Columbus and provides a series of recommendations with the overarching goal of efficiently managing its resources by preventing its generation and increasing reuse, recycling and recovery.

#### Why Call them Resources and Not Waste?

The terms used to describe a situation often set the tone for the responses that follow. Recognizing the materials in question as items worthy of recovery – even when portions appear at times to have low economic value – is the appropriate attitude to adopt when considering the hidden costs of waste disposal and environmental stewardship.

#### Environmental Stewardship

Waste management can have a huge impact on the local environment far beyond what many may consider as they dispose of their trash on a daily basis. Waste can impact on hazardous gas emissions, water quality and contamination, energy consumption and carbon emissions, natural habitat degradation, biodegradation, poor visual aesthetics from litter and illegal dumping, and public health considerations. This Needs Assessment Report seeks to provide recommendations to improve recycling and recovery and maximize landfill diversion.

#### Social Drivers

Residents and businesses are becoming more aware of the economic, environmental and social impacts of efficient management of solid wastes and resource recovery and recycling. As such Columbus has the opportunity to provide leadership within the community by encouraging sensible management of waste resources. A key component of that includes connecting with the community, ensuring availability of services, educating the community and ensuring that residents and businesses have access to the information as they need it.

#### Project Team

Firstar Fiber, Inc. and GreenFiber have partnered together to create the **Nebraskans Investing in Communities' Economy and Environment**, that is, the **NICE<sup>2</sup>** training program. Together we are uniquely qualified to use our extensive

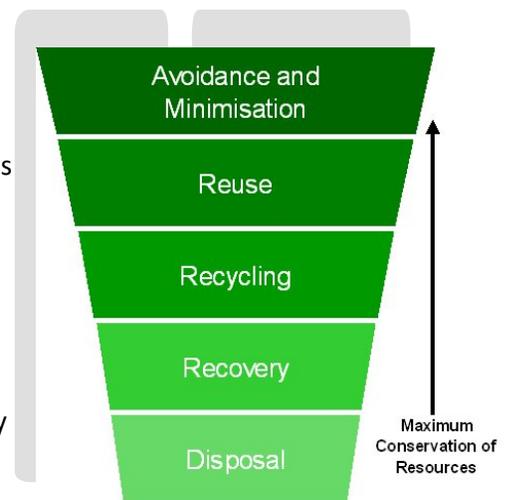


Figure 1 - Waste Hierarchy

experience, knowledge base, collective strengths and offerings as a large Material Recovery Facility (MRF) processor and end market to show the means to ensure economically sustainable recycling programs across the supply chain. This “systems approach” keeps in mind how the objectives of all parties must mesh with the needs of the other parties involved; from the community, to the processor, to the end market. In other words, collaboration goes a long way to ensuring success.

#### About Firstar Fiber, Inc.

Firstar Fiber Corporation is the largest mechanical MRF in Nebraska. We process recyclables for businesses and communities throughout the Midwest and market over 100,000 tons annually to end markets throughout the country and internationally. Firstar Fiber has over 20 years of working with communities to improve their waste management processes and understand the value and importance of sustainable recycling practices. Firstar Fiber can provide communities with the unique insight as to what is needed by processors and end markets to make their recyclable commodities a saleable product and achieve that in an economically feasible manner. Firstar is proud to employ a team of industry-leading recycling and waste management experts that are well-versed in the many ways in which communities and rural recycling programs can be both successful and sustainable.



Figure 2 - PET Quality Control Sort Line at Firstar Fiber

#### About GreenFiber



Figure 3 - GreenFiber Cellulose Insulation is made from 85% recycled materials from local sources

GreenFiber is the largest cellulose insulation manufacturer in the USA and currently Nebraska’s only end market for newspaper. GreenFiber has been providing an end market to Nebraskan communities for over 40 years.

GreenFiber uses 85% recycled materials from local sources to manufacture environmentally friendly cellulose insulation.

GreenFiber can provide communities with the unique perspective of what is needed from recycling programs as an end user of the materials collected and assist them in motivating residents through closed loop educational efforts.

## Columbus

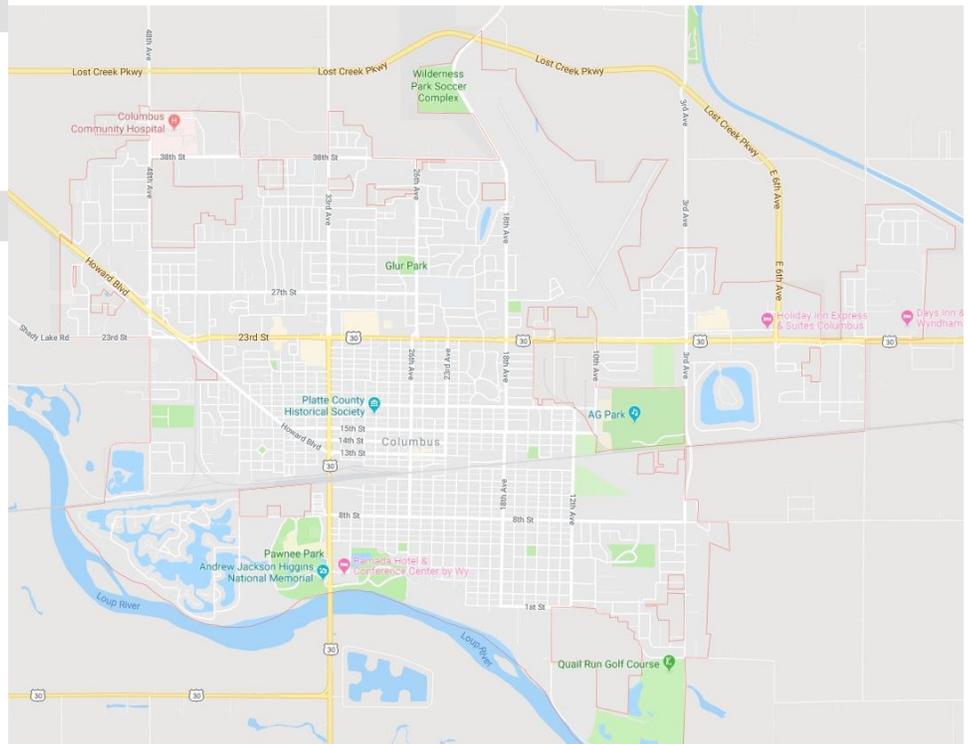
Columbus is a city in the Platte River Valley and the county seat of Platte County with a population of 22,111<sup>1</sup>.

The city is located 85 miles west of Omaha and 75 miles northwest of Lincoln and has convenient transport routes as it is served by U.S. Highways 31 and 81 which intersect in the city and the main line of the Union Pacific Railroad passes through the city.

Columbus's economy is primarily based on agriculture and manufacturing. The City of Columbus is known as the City of Power and Progress with many industrial companies attracted by the plentiful hydroelectric power provided through the Loup Canal Hydroelectric Plant. Columbus is the most highly industrial city per capita in the state of Nebraska.



Figure 4 Columbus Location Map



<sup>1</sup> 2010 U.S. Census, census.gov

# Waste Disposal and Processing in Columbus

## Current Waste Collection Systems

Columbus operates a small Transfer Station that collects municipal solid waste (MSW) and source separated yard and wood waste. This is the primary method of MSW management for the City of Columbus.

Residents served by the city transfer station are charged a Sanitation Fee of \$2 per month for with commercial businesses being charged \$6 per month and industrial enterprises paying \$10 per month via their water bill. If MSW is brought to the Transfer Station by anyone other than a licensed hauler, there is a \$65/ton fee with a minimum charge of \$10 per vehicle up to 320 lbs.

Customers living outside of city limits primarily use the independent waste haulers and do not pay a sanitation fee to the city.

## Independent Waste Haulers

Most residents elect to use a private waste hauler to collect their trash and there are four waste haulers that operate services within the Columbus area, being Ace Sanitation, Diamond Sanitation, U&I Sanitation and Waste Connections.

Of these haulers, Waste Connections is the only waste hauler that offers a curbside recycling collection service to residents, however, anecdotal evidence suggests that uptake of this service remains low with additional cost being cited as the primary reason.

## Waste Licensing

The City of Columbus operates a Waste Hauler Licensing program with a \$150 annual fee + bond in an amount equal to 1/4 of the total transfer station charges incurred by the licensed hauler during the preceding calendar year. Those haulers not in business for one full year will post a bond of \$5,000.

## Columbus Transfer Station

The new Solid Waste Transfer Station was constructed in 2014 and operates daily with shorter operating hours and is closed on Sundays during the winter season. MSW brought to the Transfer Station by a licensed hauler is charged a tipping fee of \$38/ton plus an Occupation Tax of \$27/ton. All wastes collected within Columbus by a licensed hauler must be tipped at the Columbus Transfer Station.



1. Entrance
2. Weigh Scale
3. Tipping Bays
4. Below grade open top trailer
5. Trailer storage
6. Wood & Yard Waste Piles
7. Former Transfer Station (Condemned)

Figure 5 Columbus Solid Waste Transfer Station

Vehicles entering the Solid Waste Transfer Station are weighed and then proceed up the ramp to one of five tipping bays to dispose of their wastes. Wastes are then pushed by way of a front-end loader over the “pit” edge where an open topped trailer is parked below grade. Wastes are tamped down into the open top trailer by a ram connected to the front-end loader.



Figure 6 Transfer Station Tipping Bays and Pit



Figure 7 Wood waste and brush collection piles

Yard Wastes and Wood Wastes are collected separately and are free of charge to dispose of to residents. Wood wastes and brush are ground into mulch which is provided to the public free of charge.

There are no facilities to recycle or divert recoverable resources from the landfill at the Solid Waste Transfer Station.

### Landfill

Columbus is a member of the Northeast Nebraska Solid Waste Coalition. The Northeast Nebraska Solid Waste Coalition (the Coalition) is a joint venture composed of twenty-four cities and counties in Northeast Nebraska formed pursuant to the Nebraska Interlocal Cooperation Act for the purpose of providing solid waste management to their respective entities. Waste collected at the Columbus Solid Waste Transfer Station is sent to the Coalition landfill in Clarkson, Stanton County, Nebraska. The landfill is 41 miles from the transfer station. Day-to-day landfill operations are managed by Waste Connections. The current landfill tipping fee is \$24/t. The City of Norfolk, a member of the Coalition, provides administrative services for the Coalition.

Columbus is a member of the



Figure 8 Clarkson Landfill

## Recycling and Waste Diversion in Columbus

There is currently limited capability for residents and businesses to recycle in the City of Columbus.

In November, 2017, the city-funded recycling service closed leaving limited options for residents who wished to continue to recycle. There is one hauler that operates within the city that provides a curbside collection service, however many have found the additional cost for curbside collection to be prohibitive.

Some residents are taking their recyclable materials to neighboring Schuyler, some 17 miles away, however this is not a practical long-term solution.

Green Fiber has a community collection program for fiber-based recyclables materials at local schools, churches, non-profit organizations throughout the city, however with the speed that these bins are getting filled with the absence of other recycling facilities and the combination of a national driver shortage, the frequency of servicing these containers often mean they are full.

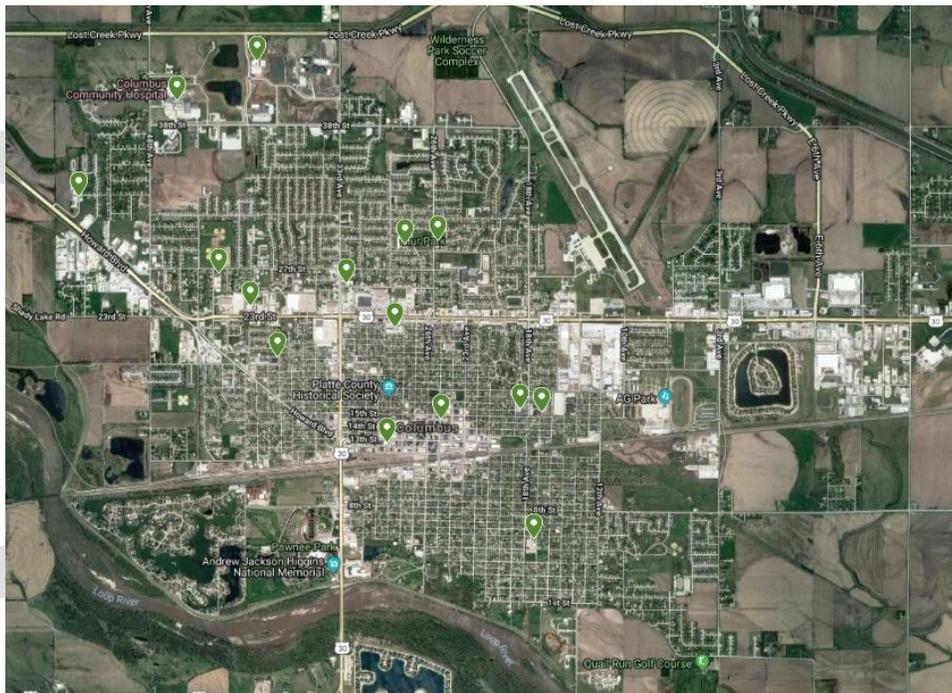


Figure 9 Location of Green Fiber Community Fiber Collection Bins

Alter Metal Recycling will accept aluminum cans, scrap, steel cans, copper, nickel, lead, brass, and large household appliances.

The limited options available and the lack of a one-stop drop off in the local area has resulted in the vast majority of recyclable materials being generated within the city of Columbus being sent to landfill.

## Management of Unique Waste Streams

The City of Columbus does not provide a collection service for the management of unique waste streams such as Household Hazardous Wastes, however Keep Columbus Beautiful runs collection events for scrap tires, electronics and Household Hazardous Waste where possible when grant funding is available.

## Business and Commercial Waste

Businesses and commercial enterprises are also served by the Columbus Transfer Station. Given that Columbus is the most highly industrial city per capita in the state of Nebraska and that Nebraskan businesses accounting for almost 50% of the solid waste sent to landfill, it is in the best interests of Columbus businesses to look at the way they manage their waste and resource streams.

As indicated in the US Chamber of Commerce Foundation Corporate Citizenship Center in its 2015 “Trash to Treasure: Changing Waste Streams to Profit Streams”, the business community is highly motivated to take waste disposal seriously. The US Chamber Foundation made the point that businesses in particular should be most attuned to recycle, writing “Waste production is a serious problem for all American businesses and industries.” It went on to advise businesses – though indeed this is sound guidance for all segments of society – that, “by not accurately estimating, measuring or managing their waste streams, American companies are throwing away significant opportunities for profit and improved efficiency...” It then went on to suggest the great importance of considering costs otherwise routinely ignored.

### Waste Characterization and Composition

Information provided by the City of Columbus Public Works Department indicated that in 2018, the Transfer Station averaged four 46,000lb loads per day to the landfill, 5 days per week which equates to approximately 23,920 tons per year or 5.93 pounds of waste to landfill per person per day. This is in line with and actually slightly below the 2013 University of Nebraska Public Policy Center’s Nebraska Recycling Study which placed the figure for all wastes for all Nebraskans at 7 lbs. per person per day.

At this present time there has not been a Waste Characterization Study carried out for waste going to landfill for the City of Columbus so there is no specific breakout of the composition of the waste generated within the municipality. However, the State of Nebraska 2009 Waste Characterization Study can serve as a reliably comparison to guide the city’s future plans, albeit with some caveats to account for likely differences (chief among them the age of that study and the evolving of packaging, which will be discussed below.

For the City of Columbus’ purpose here, the chief finding from the State’s review of what was being buried in nine publicly owned landfills across the state was that almost 70 percent was identifiable as items commonly considered as recyclable: paper, plastics, metal and glass. Furthermore, the study indicated that almost another 20 percent was comprised of compostable organics – yard and food wastes:

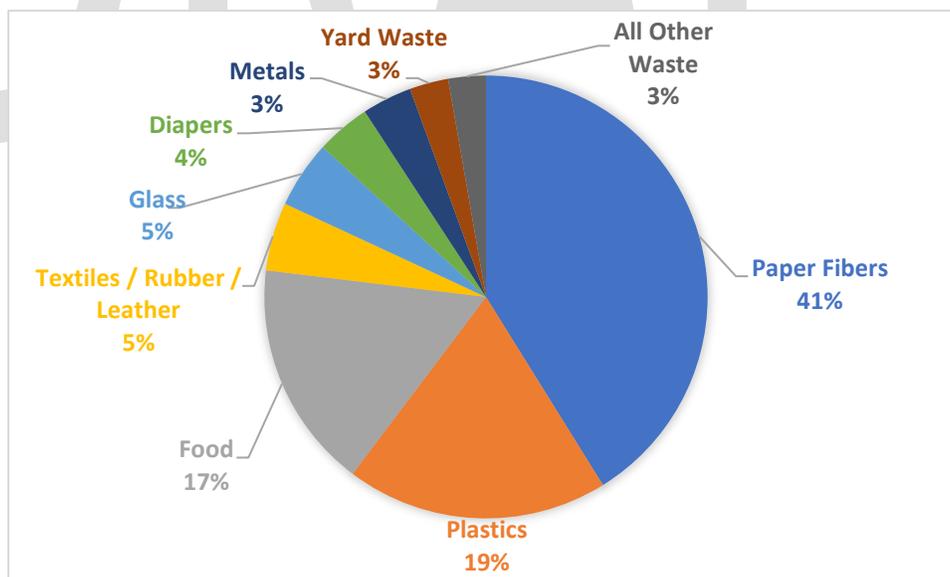


Figure 10 - Discarded Materials - NDEQ Waste Characterization Study, 2009

Using this study as a baseline, it is conceivable that the following could apply to the landfilled waste from the City of Columbus:

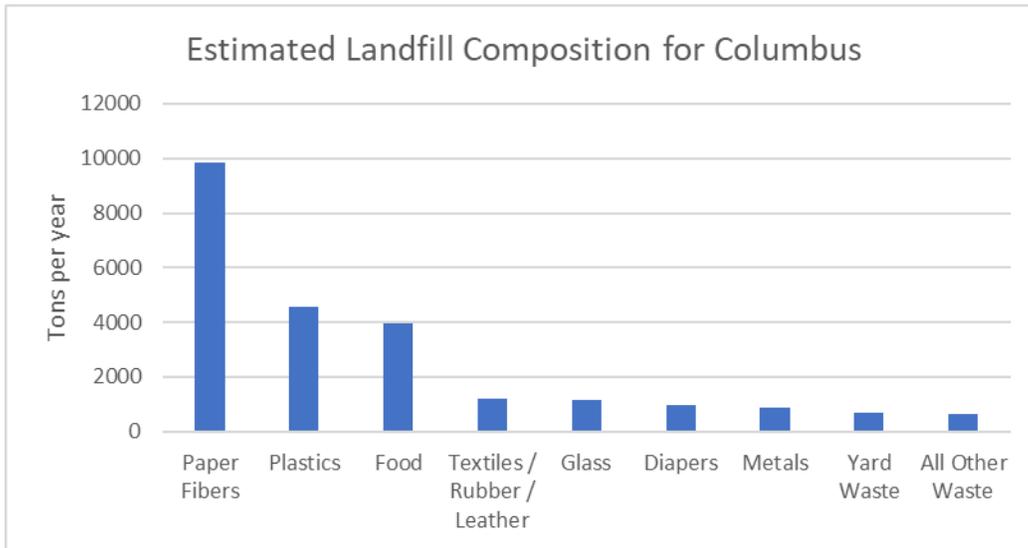


Figure 11 - Estimated tons to Landfill based on 2009 NDEQ Waste Composition Study Percentages

As mentioned previously, it must be taken into consideration that the waste characterization report was compiled in 2009 and the waste stream is continuously adapting and changing. Indeed, the one consistency is just how quickly things can change. The materials that go into making packages and products are in a constant state of flux due to a wide range of factors. To name just a few, the composition of the waste stream can be affected by changing customer safety and taste preferences, major cultural shifts (e.g. electronic media’s impact on newspaper readership) and energy and manufacturing efficiency considerations. For example, manufacturers shifting toward the lightweight flexibility of plastics over traditional glass and we have all witnessed the “Amazon age” bringing about a prevalence of cardboard.

On a more positive note, consumer pressures have led brand companies to put greater emphasis on sustainability issues and thanks to manufacturers; heightened interest in sustainability, markets have developed for previously unrecyclable or unrecoverable materials. This suggests an opportunity exists to make significant strides towards comprehensive and fully impactful landfill diversion and recycling efforts. It is a given that the more potentially recoverable materials that are available, the better justification for recovery systems.

As evident by this study is that the 3 largest components going to landfill have significant possibilities when it comes to resource recovery and the potential economic impact for the city of Columbus.

## The Economic Impacts of Waste Disposal in Columbus

Economics – or more to the point “what will it cost” is where most discussions end up when efforts are suggested that deviate from long accepted norms and practices. If the answers to such questions are to decide whether and how to make changes, one also needs to know the true cost of current practices. In other words, when weighting the merits of recycling or any other alternative to landfilling, the cost for landfilling is equally critical. The following is a breakdown of the City of Columbus Approved 2018/2019 budget for what it costs to manage its municipal solid waste:

	Operating Expenses	Capital Improvements (e.g. property)	Other Capital Outlay (e.g. equipment)	Debt Service	Other	TOTAL
<b>MSW 18/19 Budget</b>	\$1,390,492	\$0	\$194,500	\$242,000	\$214,000	<b>\$2,040,992</b>
<b>Approx per ton cost</b>	<b>\$ 58.13 / ton</b>					<b>\$85.33 / ton</b>

One of the challenges faced by rural recycling programs is establishing reliable markets and end markets for the materials received. By establishing formal agreements (Refer to Recommendation [Establish Formal End Market](#)

[Agreement](#)) with processors and end markets, Columbus can ensure reliable end markets and longer-term stability of its recycling program with fair market value for the resources generated.

An added challenge for rural communities is their size, which underpins a host of complications, starting with how long it might take for them to generate sufficient quantities of marketable materials when source separating at the recycling center. Likewise, participation and capture levels are lower as residents do not find it convenient. In contrast Commingling all recyclables together into a single stream can mitigate the problem, but it negates the materials' value, which in turn hampers recycling's justification.

By altering the status quo and implementing recommendations to improve on the capture of recyclable materials, revenue could be greatly increased. For example, if a dual stream recycling system was implemented (Refer to Recommendation [Dual Stream Recycling](#)) captured at the modest percentages of the recyclable materials going to landfill below, this could have generated the following revenue increases based on current market pricing (\*Feb 2018 Pricing of \$140/t for container stream and \$40/t for fiber stream):

Example Revenue Dual Stream / year*	10% Capture Rate	20% Capture Rate	30% Capture Rate	40% Capture Rate	50% Capture Rate
<b>Container Stream</b>	\$76,252.18	\$152,504.40	\$228,756.50	\$305,008.70	\$381,260.90
<b>Fiber Stream</b>	\$39,372.32	\$78,744.64	\$118,116.96	\$157,489.28	\$196,861.60
<b>TOTAL</b>	\$115,624.50	\$231,249.04	\$346,873.46	\$462,497.98	\$578,122.50

Caution must be taken when looking at these figures that this is a rather simplistic view of dual stream that can be impacted by many things including participation, correct presentation i.e. baling, composition and commodity pricing. It is also important to note that commodity prices can fluctuate considerably month to month. It is also important that a wholistic approach is taken and the expenditure saved from landfill diversion is taken into account.

## Public Perception, Engagement and Education

For any recycling efforts to achieve success, it is important that it has the support of the residents, communities and businesses involved. Public education and engagement are critical and residents, businesses and communities need to be armed with the appropriate knowledge and information; to that end, the benefits of waste resource management must be explained and the specific ways to recycle made clear. Communication is vital in achieving participation and behavioral change, resulting in higher diversion rates, environmental benefits and financial incentives. The lack of public education can lead to low recycling rates, contamination of commodities, excessive operating costs and rejected loads at recycling processors.

### Developing a Comprehensive Communications Effort

Through dialogue with residents, businesses and enterprises in the preparation of this report, it was apparent that there is a need for a central source of information, with many providing feedback that they were not even sure what, why, where and how to manage the recyclables they were producing.

As a trusted resource, Columbus City Council not only has the responsibility, but is in the position to be able to provide municipal leadership and support, by directing enquiries and raising awareness of recycling and reuse avenues to foster better use of wasted resources. A good example is the recycling awareness campaign "I Want to Be Recycled" by Recycle for America (<http://iwanttoberecycled.org/>) which utilizes both an online presence and various social media channels including YouTube, Facebook and Twitter to promote the message of making a recycling a daily social norm. Although this is a national campaign, the overarching premise of a localized branded "go-to" resource for Columbus residents, businesses and key-stakeholders would prove to be a valuable resource.

As part of the NICE<sup>2</sup> process, a communications plan is being developed for the city of Columbus. A good comprehensive communications plan includes the following components:

## Online

In this age of technology and instant information, people regularly turn to the internet for answers to queries and information resources. Columbus City Council has an existing website page to provide information and education on the city waste management and recycling efforts. By updating and developing a comprehensive online presence for its efforts, Columbus would have the ability to localize information and make it truly relevant to the needs of residents and businesses, thus increasing its effectiveness. Providing both a localized service directory and educational awareness on recycling practices and what happens to the recycled product post-consumer has been shown to greatly increase diversion rates.

## Social Media

For many people, social media has become part of daily life both, professionally and personally, with a great number of people now getting their news and other information primarily through their Facebook and Twitter feeds. Social media is becoming a prominent method of sharing information and also provides the organization with a free and easy platform to engage with residents on prominent issues related to the plan. Websites such as Facebook, Twitter and YouTube are increasingly being utilized by government organizations and community groups across the country in an effort to interact with residents on issues to influence and change public behavior.

## Traditional Media

Just as it is important to develop an online presence, the use of traditional media to inform should not be overlooked, particularly in a community such as Columbus which has such a diverse population in terms of age and lifestyle. The primary traditional media source is the Columbus Telegram newspaper and has a circulation of 8,285.

## Partnership Working

Columbus has a well-developed network of community groups who can be an additional resource for further outreach, news articles or advertising, and engagement. Columbus City Council is in the unique position to facilitate partnership working and encourage good communication between all these community groups and to facilitate the sharing of information that can lead to greater delivery of those working to complementary objectives to the benefit of all.

Some of the organizations that Columbus should consider engaging in its efforts to increase recycling are discussed below. It is important to note that this is not an exhaustive list of organizations and partnership working should be fostered where ever possible and advantageous:

### *Community, Faith, Youth Groups and Organizations*

Partnership working with youth and community organizations such as Scouts, Rotary International etc. can be a very useful method of disseminating information and implementing social behavioral changes. Partnership with these organizations can also lead to increased diversion of certain recyclables through joint collection programs and also provide valuable volunteer resource.

### *Professional Organizations*

As discussed earlier, businesses produce over half of the wasted resources produced and therefore have the most to gain from effectively managing these resources. Given this, it would be wise to work in partnership with some of the Professional and Business Development Organizations that operate within the area such as Columbus Nebraska Economic Development and the Columbus Chamber of Commerce.

### *Community Improvement Groups*

Keep Columbus Beautiful (KCB) is a local, in-county, affiliate of Keep America Beautiful. Their mission is to educate, enable and encourage all Columbus residents to take greater responsibility for enhancing their community environment through providing the expertise, programs and resources to help people end littering, improve recycling and beautifying the local community. KCB is very active and well respected within the Columbus community. They provide education programs, recycling programs and clean-up days along with special events such as Household Hazardous Waste Events.

The Nebraska Recycling Council is a state-wide non-profit organization focused on the recycling industry within Nebraska. They are a useful resource for information and research. The Nebraska Recycling Council also administers a state-wide Recycling Equipment Grant with funds from the Nebraska Environmental Trust.

The Lower Loup Natural Resources District has the general purpose to conserve, develop and manage the water and land resources of the District for the common good of all people. Given the impact of wasted resources on both land and water, effective resource management runs alongside the purpose of the LLNRD.

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## Recommendations

Based on the assessment of the current facilities and services available within Columbus, a series of needs have been identified and recommendations compiled to help Columbus develop recycling capabilities and address deficiencies to maximize the potential of the resources within the City. Although a long list, this clearly starts with a commitment in which Columbus has made the first step by participating in the NICE2 program for which they should be commended for. The recommendations following are split into short-term “quick wins” which provide the foundation for Columbus to build on with more in-depth medium and long-term objectives.

### Quick Wins and Short-Term Actions

#### Development of Recycling Facility Recommendations

The City of Columbus is in the unique position that it is developing its recycling program from scratch. As such there are multiple options that could be considered for the development of community recycling drop off sites:

#### *Option A: Community Collaboration Effort - Recommended*

One of the least expensive and thus common means to provide community recycling opportunities are drop off centers. Residents are encouraged to transport their recoverable materials to centralized locations. To lower the cost of operation even more, centers are unstaffed. On first blush, this low-cost approach seems to offer advantages over curbside service, however, there are many challenges that need to be considered:

- 1) They are not nearly as convenient as weekly curbside collection services.
- 2) Unless routinely policed (one daresay continually), they can attract illegal dumping.
- 3) The materials deposited at the centers – and this even more true when there are multiple sites offered for the convenience of residents – must then be transported to yet a processing site to aggregate the material for shipment.
- 4) Participation by residents can be quite low, especially if the centers compete with weekly curbside collection of trash. Consequently, the volumes of recovered materials will be low, thereby mitigating the economic justification for the centers, i.e., the ability to sell the collected commodities.

Columbus experienced all of these challenges in its past approach to recycling and any recommendation needs to address how to eliminate or at a minimum, greatly mitigate these inherent problems.

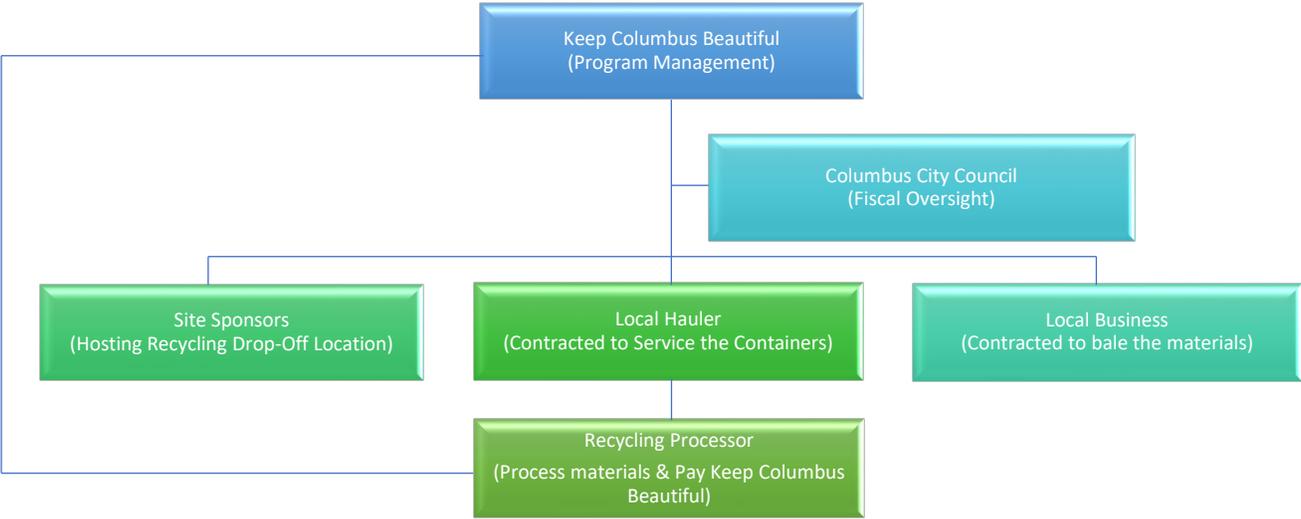
Firstar Fiber therefore recommends that the means to run a successful program is through community collaboration. To appreciate how that can be accomplished, consider the key components of a successful drop off center program:

- It needs site sponsors who value the program and the patrons who are allowed to use the site. The former can be achieved if the site sponsors can use the service to recycle their materials. The latter is possible if the site is limited to the sponsors’ employees and their families, who see it as a convenient way for them to recycle. Some site sponsors might also appreciate that a well-run site open to the public can attract potential customers.
- The program must receive ongoing promotion and, if possible, incentives to convince patrons to use and most importantly– not abuse – the site.
- It needs a management structure keenly devoted to the mission of resource conservation, and thus will stay on top of the vendors engaged to service the collection containers.
- The requirements for what can be accepted and in what fashion must be simple so as not to confuse patrons. One easy solution: simply require patrons sort materials into two streams: fiber (i.e., paper), containers (bottles and cans) and non-recyclable but recoverable items (the Hefty® EnergyBag® program).

The good news, as this chart suggests, Columbus has and can draw on many resources to relaunch a recycling program. Arguably, it is because these potential collaborators have self-interests that only a collaborative effort can satisfy, this represents the means Columbus can establish and maintain a successful, hence sustainable, recycling program.

Responsibility	Collaborators & Their Roles	Self-interest benefits	Community benefits
----------------	-----------------------------	------------------------	--------------------

Sponsor sites	Local businesses: Monitor sites either within their shops for employees solely on their lots for public access	1) A lower cost recycling & trash disposal 2) Employee perks 3) Public goodwill	Access to recycling sites that are well managed
Manage the program	Local nonprofit groups, e.g., Keep Columbus Beautiful: promote the program, recruit site sponsors, arrange pickup service, pay the hauler to pull the containers from the drop off site(s) to the processor, be paid for the recovered materials & manage payments to the contracted vendors	1) It's their mission 2) Payment for the recyclables 3) Grants for attractive bins and ongoing educational materials	<ul style="list-style-type: none"> <li>• A cleaner city</li> <li>• Community pride</li> </ul>
Provide fiscal support	City of Columbus: provide fiscal oversight, build & manage a sinking fund, provide accounting personnel support hours, assist with RFP for servicing containers, assistance with site allocation, provide initial match funding for container grants	1) Low-cost investment to provide residential recycling program 2) Appreciative residents	Fiscally responsible measure to reduce landfill costs
Service the containers	Local haulers: Pull the bins from sites to the processor	1) Hauling contract	A sustainable program
Process the materials	Local business, e.g., Shred Monster: Receive, bale & store materials prior to shipment	1) Maximize existing capital 2) Added revenue	A sustainable program
Recycle the materials	Firstar Fiber: Design & maximize the program so as to enhance diversion & participation (dual stream & Hefty® EnergyBag®) and buy the processed materials	A long-term, sustainable approach to recycle cleaner, marketable materials	<ul style="list-style-type: none"> <li>• A sustainable program</li> <li>• Convenience (minimal sorting)</li> <li>• All of the above</li> </ul>



### *Option B: City Sponsored Recycling Facility*

At present some residents are taking their recyclable materials to the Recycling Center at neighboring Schuyler, some 17 miles away. This facility is run by Keep Colfax County Beautiful and is a prime example of a successfully run rural recycling program.



*Figure 12 Drive through Bunker Collection at Recycling Center Schuyler Nebraska*

There is some interest by Keep Columbus Beautiful to emulate this facility in Columbus. In order for any recycling program established in Columbus to be sustainable, the following considerations for this option would need to be considered:

- Highly dependent on grant funding to cover operational expenditure. With recent grant developments and funding being more difficult to obtain, the long-term sustainability of this option is called into question. In order for this program to be successful, it would require ongoing operational fiscal support and leadership from the City of Columbus.
- Dependent on securing the funding and necessary facility that is in a convenient location to encourage residents to participate
- Dependent on securing the funding and necessary operational equipment like balers etc. to be able to commence operations

### *Option C: Add Recycling Collection to Existing Transfer Station*

Another option to be considered is the addition of recycling facilities to the Columbus City Solid Waste Transfer Station. For this to be considered a viable option, the following considerations would need to be accounted for:

- Space considerations on site and traffic flow
- The Transfer Station does not have baling capabilities so necessary operational equipment such as a baler would need to be procured and housed, or containerized collection systems such as walking-floor trailers utilized

## Implementation of Dual Stream Recycling Collection Receptacles

The implementation of dual stream recycling collection receptacles would have many benefits to improving the capture rate of recyclables for the city of Columbus



Figure 13 Dual Stream Recycling Model

Benefits to implementing a dual stream collection service include:

- ✓ Increased capture and participation - Many studies show that the primary barrier to people recycling is convenience. If it is not simple, people won't do it. In source separated programs, residents must separate the various different recyclable materials and put into the correct containers. This is both time and space consuming and discourages participation. By simplifying the collection to two streams it is both easier and more convenient for the householder to participate in recycling.
- ✓ Decreased congestion of traffic – By providing two well signed recycling containers in a designated recycling area on an easy flow through route, residents are able to deposit their recyclable materials quickly and keep moving without the need to separate into the various commodities.
- ✓ Reduced reliance on staff – providing two clearly signed containers enables the general public and users of the recycling facility to be able to deposit their own recyclables without needing to rely on staff to sort the recyclables into their respective containers.
- ✓ Improved space utilization and number of materials collected – by condensing the collection of recyclable materials into two containers it frees up space making a safer works environment and by commingling the materials to 2 streams, more types of materials are able to be collected as there isn't a need to have a separate container for each commodity.
- ✓ Balances resource collection efficiencies and revenue from commodities. Granted, completely source separated materials are likely to gain a slightly higher market value due to reduced processing costs, given

the economies of scale, dual stream recycling balances this with increased capture and commodities collected while maintaining financial benefit to the customer.

- ✓ Administrative and Transport Efficiencies

As part of the NICE2 Program, the authors of this report can work with staff to establish which collection containers would be most appropriate i.e. Walking floor trailers or roll offs etc. and help to prepare applications for grant funding to assist in the purchase of the desired containers.

### The Hefty® EnergyBag® program

The Hefty® EnergyBag® program is a groundbreaking initiative that collects previously hard-to-recycle plastics – like candy wrappers, juice pouches, foam to-go containers – and converts them into valuable energy resources. The Hefty® EnergyBag® program is a significant step towards achieving positive long-term environmental and economic advantages, including new alternative energy resources through processes, such as pyrolysis, and fewer tons of plastic ending up in landfill.

How the Hefty® EnergyBag® Program works:

1. Residents and businesses put clean and dry non-recycled plastics in the Hefty® EnergyBag® orange bags.
2. When full, the bags are securely tied
3. Place the bags into the container collection at the Transfer Station

**IF YOU DON'T BIN IT, BAG IT!**

Check this list for the many non-recycled plastics that can be collected in your Hefty® EnergyBag™ orange bags that currently may not belong in your recycling bin or cart.

- Potato chip bags & other snack bags
- Candy wrappers
- Granola bar & energy bar wrappers
- Plastic and foam cups, plates & bowls
- Shredded cheese packages
- Salad bags
- Plastic pet food bags
- Frozen fruit & vegetable bags
- Pudding cups
- Stand-up pouches
- Squeezable baby food pouches
- Foam to-go boxes
- Packing peanuts
- Plastic utensils
- Plastic straws & stirrers
- Cake mix liners & other dry powder mix liners
- Plastic toothpaste tubes
- Condiment packets
- All other non-recycled plastic bags

**EXCEPTIONS**  
The following items are not accepted in the Hefty® EnergyBag™ orange bags - aluminum and steel cans, water and soda bottles, paper and cardboard, glass, food and other packaging contents and liquids of any kind.

The Hefty® EnergyBag™ program does not replace your current recycling program. Please continue to recycle cans, bottles, jugs and newspapers where available and continue to support store drop-off programs for other recyclable items such as plastic shopping bags, newspaper bags and dry cleaning bags.

**Reynolds**  
Consumer Products

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For more information on the Hefty® EnergyBag™ program, please visit: [www.heftyenergybag.com](http://www.heftyenergybag.com)



Figure 14 Hefty EnergyBag Program

The 2009 Waste Characterization Study by the Nebraska Department of Environmental Quality indicated that plastics comprised 19.13% of what was going to publicly owned landfills and of this 50-60% was considered recyclable. The Hefty® EnergyBag® program is designed to target the remaining hard-to-recycle plastics which are estimated to make up 40-50% percent of the MSW waste stream currently going to landfill.

To participate in the program residents simply purchase a roll of bags and when full, place the tied bags in with their container recycling at the Transfer Station. The Hefty® EnergyBag® program is currently only available through Firstar Fiber, Inc. The bags are received at its regional Materials Recovery Facility, baled and sent to end markets that process the materials into the alternative energy resources. The orange bags are available in three sizes; 8-gallon residential bags, and 30 or 55-gallon bags for commercial enterprises.

Municipalities such as the City of Columbus may purchase the 8-gallon residential rolls wholesale from Firstar Fiber, Inc. Cities are then able to sell the rolls to the community at City Hall at a similar or higher cost so that the program is self-funded. There are no additional charges to participate in the program. The Hefty® EnergyBag® program could also be used as a fundraising opportunity for the local school or various community groups to sell the bags to residents at a price that also provides them with a revenue stream and could serve as yet another means to motivate participation.

### Implement Improvements to Waste Hauler Licensing for Independent Haulers

Licensing waste haulers allows the city to hold waste haulers accountable for practicing safe and environmentally sound transportation methods. More importantly, licensing provides communities with better information about the flow of solid waste, facility capacity and control of costs. A licensing program provides the following information:

- Which haulers are collecting MSW and which are collecting recyclable materials
- What type of MSW is being collected
- How much waste is being collected
- How much waste is being collected for residential vs. businesses
- Vehicle information and Insurance Requirements

The Waste Hauler License fee brings in revenue, albeit small, which could be set aside to support the city's resource management goals or conservation efforts by local community groups. A second benefit to implementing a Waste Hauler Licensing Permit would be to provide a future mechanism to incentivize haulers to support the city's resource and recycling goals.

### Incentivize or Mandate Waste Haulers to offer Recycling Services

One of the most frequently reported barriers to recycling is that it is not perceived to be "convenient". By incentivizing or mandating waste haulers who operate within city limits to make curbside recycling services available to residents, there may be an increase in residents and businesses willing to recycle.

One such method of incentivizing haulers to offer recycling services is via the Waste Hauler Licensing Program and by setting the licensing fees higher, but then offering discounts for practices that result in demonstrated diversion gains. As example, a sliding fee scale based on the haulers' respective volumes of recovered materials versus solid waste volumes could be weighted so as to nudge haulers to actively persuade their customers to recycle.

Another method is to adopt an ordinance requiring the licensing of haulers specifying minimum service levels including recycling. It is recommended that if this option is pursued by the City that it is mandated hauler either embeds the cost of the recycling service into the price of their solid waste collection or that a variable rate pricing that rewards recycling.

### Establish Formal End Market Agreements

One of the challenges faced by rural recycling programs is establishing reliable markets and end markets for the materials received. By establishing formal agreements with processors and end markets, Columbus can ensure reliable end markets and longer-term stability of its recycling program with fair market value for the resources generated.

*Full disclosure: Firstar Fiber Corporation is the largest MRF in Nebraska. We process recyclables for businesses and communities throughout the Midwest and market over 100,000 tons annually to end markets throughout the country and internationally. Green Fiber is the largest cellulose insulation manufacturer in the USA and currently Nebraska's only local end market for newspaper.*

## Establish a Formal Environment & Recycling Stewardship Council

An engaged and active community is best driven from within and it is recommended that a Stewardship Council is established for the City of Columbus, ideally comprised of volunteers recruited from both the private and public sector. The purpose of the Stewardship Council would be to promote environmental and recycling activities, identify potential projects for improvement and encourage residents and businesses to recycle. While it would be easy to simply establish a community “Green Team,” the establishment of a Stewardship Council that reported directly to the City Council would clearly demonstrate the City’s commitment and ongoing involvement to recycling and other environmental topics.

## Implement Communication and Outreach Plan

Communication and outreach plans are an integral part of any municipal recycling program. To participate fully in a recycling program, residents need to know clearly what their services are, what can and can’t be recycled, what the rules of service are and what happens to their recycling after it is collected. The ultimate aim of any recycling communications campaign is to improve recycling performance. Communication should be ongoing and regularly appraised to keep it fresh and at the forefront of people’s minds. A communication and outreach plan is being developed as part of this grant and will be provided to the City of Columbus to use as a resource.

## Medium-Term Actions

### Investigate Municipal Models of Waste Management including PAYT

At present, residents of Columbus are able to dispose of all of their wastes by either taking it to the Transfer Station or by self-procuring independent waste haulers and there is no official collection system in place. As public attitudes towards protecting the environment, customers desire for improved services, and pressure to divert waste from landfill increase, there are many benefits to looking at implementing municipal models of waste collection systems including the establishment of quality trash collection services, increased accountability, increased tonnages of recyclables, improved customer service, and cleaner neighborhoods and city environments.

Optimizing the collection of recyclables requires three key components including a collection infrastructure that makes it easy for residents to participate, a consistent educational and promotional message and an economic incentive to recycle. It is recommended that the City of Columbus carries out a feasibility study for the implementation of an organized municipal collection model. Some examples of municipal collection models are included as [Appendix 4](#).

## Long-Term Goals

### Carry out a Waste Assessment

Once the short and medium-term recommendations have been implemented it is recommended that a Waste Assessment is carried out on both the solid waste still going to landfill and the recyclable streams. By identifying what is in each stream, the City is able to analyze what further commodities are able to be diverted from the landfill and where communications efforts can be targeted.

### Publicize Successes

Publicizing the successes that have been achieved to increase recycling help to further improve community participation by providing residents with tangible and trusted reasoning for their efforts. Highlighting successes helps to foster community pride and further mobilize the community to continual improvement of recycling behaviors.

### Build Community Pride and Reputation through Public Space Recycling

As recycling behavior becomes ingrained with the residents, the City of Columbus has the prime opportunity lead by example and enhance Columbus’ core public waste service in public areas by adding a recycling option at the point of disposal in the park, on sidewalks and other public spaces.



Figure 15 - Example of a Public Space Recycling Bin

By adding a recycling option where a landfill option currently exists, this encourages constituents to properly dispose of their recyclable waste. Public space recycling also helps to reinforce the expectation that recycling is something that you do daily, wherever you are. By leveraging the existing public space waste management service, community-wide public-space recycling can be implemented. There are grants available to assist the City of Columbus in implementing a public space recycling program. Assistance can be provided with the application process.

#### Work with Businesses and Public / Private Partnerships

With Nebraskan businesses accounting for almost 50% of the solid waste sent to landfill, it is in the best interests of Columbus businesses to look at the way they manage their waste and resource streams. The US Chamber of Commerce stated:

*“Waste Production is a serious problem for all American businesses and industries...  
... by not accurately estimating, measuring or managing their waste streams, American companies are throwing away significant opportunities for profit and increased efficiency, and improved brand”*

- US Chamber of Commerce Foundation Corporate Citizenship Center  
Trash to Treasure: Changing Waste Streams to Profit Streams, 2015

It would be prudent for the City of Columbus to work with the Columbus Chamber of Commerce and local businesses to encourage them to evaluate their waste management process and identify potential landfill diversion opportunities and resources that can be recovered and recycled. By partnering with local businesses, Columbus has the potential to maximize the valuable resources that can be collected within the municipality.

#### Evaluating Efficiencies and Developing Partnerships

There is always room to improve programs, especially when it comes to recycling. Rural communities can benefit by partnering with their neighbors to increase recycling efficiency of scale. By developing partnerships to accept neighboring towns' recyclables, Columbus has the potential to increase the revenue generated by recyclable materials while saving on transportation costs for partnering communities.

## Appendix

### Appendix 1 – Columbus NICE2 Resolution

#### RESOLUTION NO. R18-51

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF COLUMBUS, NEBRASKA, AUTHORIZING THE CITY TO WORK WITH FIRSTAR FIBER FOR THE PURPOSE OF WASTE PREVENTION, REUSE, RECYCLING AND COMPOSTING WASTE MANAGEMENT STRATEGIES; TO AUTHORIZE THE MAYOR TO EXECUTE THE SAME ON BEHALF OF THE CITY OF COLUMBUS, NEBRASKA; AND TO REPEAL ALL RESOLUTIONS OR PORTIONS THEREOF IN CONFLICT HEREWITH.

WHEREAS, the City of Columbus is committed to the principles of sustainability and environmental responsibility that serves to protect the quality of life in the city of Columbus, Nebraska now and for future generations;

WHEREAS, the City of Columbus understands that local government should lead by example and that waste management, reuse, recycling and composting are waste management strategies that conserve our finite natural resources while reducing environmental impacts;

WHEREAS, Firstar Fiber has received a grant from the Nebraska Department of Environmental Quality for the Nebraskans Investing in Communities Economies & Environment (NICE2) program;

WHEREAS, Firstar Fiber can offer a three-part program to the City of Columbus, Nebraska consisting of:

PART ONE - Training Materials – Presentations (PowerPoint), Video, Handout Materials.

PART TWO - Community Engagement and Needs Assessment

This program recognizes that no two communities are the same nor do they have the same available resources or face the same barriers as their neighboring communities.

- Community Research – Identifying the opportunities, needs and barriers specific to each community.
- Needs Assessment Recommendations Report – Development of a recommendation report for each community based on their individual specific needs and limitations.
- Plant Tours – Providing tours of MRF Processor and End Market to provide communities with an entire “systems approach” understanding of the entire supply and demand chain.
- Engagement and Education – working with community partners i.e. local officials, schools, environmental groups, potential business supporters to improve capture, volume and quality.

PART THREE - Community Support and Delivery Assistance

- Providing end markets to communities for their recycle-able commodities, potentially through contract with the communities to provide reliable end markets and longer-term stability of recycling programs.
- Customized training and coaching program for local recycling operators / organizers – Hands on custom training targeted to the community to address the identified opportunities, needs and barriers. This will be varied based on the needs of each community but could range from training on how to develop programs, technical training on better operations of available equipment, staff training on decreasing contamination, to training for officials on how to best support local programs.

Print

Columbus, Nebraska City Code

**CHAPTER 50: SOLID WASTE**

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Section

*General Provisions*

- 50.01 Definitions
- 50.02 Duty of Public Works/Environmental Services Department
- 50.03 City transfer station hours

*Collection*

- 50.20 Collector's license; fees; posting of bond
- 50.21 Collection periods
- 50.22 Office of collector
- 50.23 Contents of vaults, cesspools
- 50.24 Dumping grounds
- 50.25 Vehicle requirements

*Regulations*

- 50.40 Burning of garbage
- 50.41 Disposal receptacles
- 50.42 Manure and dead animals
- 50.43 Removal of dead animals; route
- 50.44 Removal of garbage/refuse required
- 50.45 Parking of vehicle in residential district
- 50.46 Concrete disposal
- 50.47 Dumping onto City streets
- 50.48 Separation of yard waste required
- 50.49 Private composting
- 50.50 Yard waste ban

*Cross-reference:*

## Appendix 3 – Example End Market Agreement

### AGREEMENT FOR RECYCLING PROCESSING SERVICES

THIS AGREEMENT made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between FIRSTAR FIBER, INC., hereinafter referred to as “Company” and CITY OF COLUMBUS, a Nebraska municipality, hereinafter referred to as “City”.

#### WITNESSETH:

WHEREAS, Company is agreeable to accepting recyclable materials from City and desires to provide a resource recovery system that encourages protection of the environment and conservation of resources that eliminates or reduces the necessity for long term sanitary landfills as a primary disposal method for recyclable materials; and

WHEREAS, City encourages innovative diversion solutions, wherever practical, that will assist the City in its commitment to the principles of sustainability and environmental responsibility, which serve to protect the quality of life in Columbus now and for future generations; and

WHEREAS, City has reviewed the Needs Assessment Report prepared by the Company and has determined that the agreement for recycling processing services provides a sustainable solution for the recyclable materials generated within the City and is in City’s best interest; and

NOW THEREFORE, in consideration of the mutual promises and covenants herein contained, the parties hereby agree as follows:

#### 1. Company’s Obligations

- A. Recycling Obligations. Company shall accept all of the acceptable Recyclable Materials that originated within the municipal boundary of City, delivered by the City, and shall process the acceptable material for delivery to end markets at the Company’s Omaha Mechanical Recycling Facility. Where volumes of source separated acceptable material warrant, the Company may broker Mill Direct services to ensure maximum revenue return to City for the recyclable materials.

In the event of an emergency at Company’s Processing Facility that prohibits Company from accepting, processing or sale of Acceptable Materials at the Facility, Company shall notify City immediately. If the emergency situation is not rectified within forty-eight (48) hours, Company will work with City Manager to find alternative disposal options for the material.

Upon acceptance of recyclable materials from City, Company shall be solely responsible for the control and ultimate disposition of all such materials.

- B. Monthly Reports. Company shall provide a monthly report to City under this agreement. The report shall include the details of all Recyclables deliveries for the month by City, including the recycling streams and tons delivered for each transaction.
- C. Hours of Operation. Company shall maintain minimum normal hours of operation to facilitate delivery of City’s recyclable materials between 7:00am and 06:00pm, excluding legal holidays coordinated with City. Company shall extend operating hours on the Saturday following any legal holiday to

accommodate deliveries delayed by the holiday. Company also shall provide City with emergency contact information for after-hours issues that may arise.

- D. Prohibitions. Under no circumstances shall Company's activities under this Agreement cause: (a) pollution; (b) litter; or (c) nuisance conditions.
- E. Material Rejection. If any Hazardous Waste, Biomedical Waste, or Radioactive Waste is detected in the Acceptable Waste delivered to the Recycling Facility; Company shall immediately notify City Manager. Company is responsible for properly isolating, and protecting the Hazardous Waste, Biomedical Waste, or Radioactive Waste to prevent runoff, cross contamination of recyclable materials, and expansion of the affected area, in accordance with applicable laws. Disposal cost and associated costs of Hazardous Waste, Biomedical Waste and Radioactive Waste will be assumed by the City in a direct pass-through charge.
- F. Unacceptable Waste. If Unacceptable Waste is delivered to the Recycling Facility by City, Company shall notify City Manager immediately and provide City with an estimate of the cost to dispose of the material, and City shall be given the opportunity to remove the Unacceptable Waste at its expense. If the City does not remove the Unacceptable Waste within forty-eight (48) hours of notification, Company shall remove the Unacceptable Waste from the Recycling Facility and dispose of it in a lawful manner at City's expense.

Additionally, if a load of Recyclables contains more than twenty percent (20%) Contaminants, Company shall immediately notify City Manager. City shall have the option of taking back the load to sort, or paying Company a surcharge for additional sorting and Waste Disposal costs.

- G. Permits and Licenses. Company, at its sole cost and expense, shall maintain throughout the term of this Agreement (including any extensions, if applicable) all licenses and approvals necessary or required for the Company to perform the services described herein.
- H. Insurance. Company shall maintain throughout the full term of this Agreement (including any extensions, if applicable), at Company's sole cost and expense, insurance coverage and endorsements necessary and relevant for the Company to perform the services described herein.
- I. Compliance with Laws and Regulations. Company agrees that, in the performance of all work and services under this Agreement, Company will qualify and comply with any and all federal, state and local laws and regulations now in effect, or hereinafter enacted during the term of this Agreement, which are applicable to Company, its employees, agents or subcontractors, if any, with respect to the work and the services described herein, including but not limited to, all environmental regulations relating to disposal and/or recycling of solid wastes.
- J. Payment to City for Recyclables.
- a. Company agrees to market recycled materials and obtain payment and revenue from sale of recycled materials.
  - b. Average Market Value is defined as the regional average commodity prices (U.S. Dollar per Ton) posted on the first week of the month for the Mid-West USA on the websites SecondaryMaterialsPricing.com or SecondaryFiberPricing.com for the commodities identified.

- c. Company will pay City for the recyclable materials. The amount (Revenue) paid by Company to City will be negotiated depending on material quality, level of recovered materials and mutually agreed upon services provided over the course of the contract.
- d. During the term of this agreement, should the material quantities delivered by City appear to differ from anticipated, a composition study may be carried out and adjustment to the composition may be implemented.
- e. Company will make payment to City within sixty (60) days of month end once the City account exceeds \$250 credit.

2. City's Obligation

A. Recycling Obligations. City shall send all of the acceptable Recyclable Materials that originated within the municipal boundary of City, to be processed for delivery to end markets at the Company's Omaha Mechanical Recycling Facility (MRF). Where volumes of source separated acceptable material warrant, the City will work with the Company who may broker Mill Direct services to ensure maximum revenue return to City for the recyclable materials.

B. Service Fee. The City agrees to pay an Environmental Fee of \$15.00 per ton delivered into the MRF.

C. Delivery. City shall assume complete responsibility for delivery or procurement of delivery services for Recyclables to the MRF. To the extent allowed by law and within City's lawful control, City will deliver, or direct delivery of Acceptable Recyclable Materials to the MRF. City will not knowingly deliver Unacceptable Waste to the MRF.

D. Collector Responsibilities. City shall be responsible for compliance with any federal, state or local laws, including city and county ordinances, governing the transportation and solid waste by City.

3. Term of Agreement. The term of this Agreement shall be for a period of five (5) years from the date of this Agreement. The five (5) year term can be extended by mutual agreement of the parties for two additional five (5) year terms upon the same terms and conditions.
4. Communications. Company and City agree that representatives from each party shall meet as needed or at City's request in order to discuss working in cooperation with City.
5. Title to Waste. Prior to acceptance by Company, City shall possess right, title and ownership of all Solid Waste and Recyclables that are delivered to the MRF by City and Contracted Haulers. All right, title, ownership and responsibility for City delivered Acceptable Waste shall pass to Company when materials are deposited by City at the MRF.
6. Relationship of the Parties. Company shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant or employee of City. Nothing herein shall be construed to create the relationship between the parties of principal and agent, or of partnership or joint venture, or of employer and employee; it being expressly agreed that the relationship of Company to City is that of an independent contractor.

IN WITNESS WHEREOF, City and Company have executed this Agreement on the day above written.

Witnesses as to

City of Columbus  
Municipality

\_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Firststar Fiber, Inc.  
Company

\_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

DRAFT

## Appendix 4 – Example Municipal Collection Models

### Municipal Contract

A city run contract where a municipality contracts with a single/multiple waste hauler for the provision of waste and recycling collection services. The municipality is able to set expectations in form of a Request for Proposals prior to awarding the contract. Costs are frequently passed through to residents via charges on a water bill or similar method. Municipal contracts are ideal where cities may wish to implement waste volume reduction schemes such as Pay-As-You-Throw.

### Waste Hauler & Recycling Subscription

An “open” system where residents and businesses are responsible for self-procuring waste management and recycling services. Municipalities have minimal input and control, however, can mandate certain requirements, such as offering curbside recycling, through a Waste Hauler Licensing Scheme. Can result in multiple haulers running multiple routes through an area at any given time.

### Pay-As-You-Throw

PAYT is a usage-based system for more equitable rates for household trash. Unlike most utilities, such as electricity, gas and water, where householders are charged on the amount used, garbage services in Columbus are based on fixed collection rates. PAYT systems can have the added benefit of incentivizing waste reduction and implementing a “polluter pays” principle.

PAYT systems have been implemented in many different ways:

- Full pricing: Users pay for all the garbage they want collected in advance by paying for a tag, bag or set size container.
- Partial pricing: A municipality sets a maximum volume of waste with additional bags or containers available for purchase should the user exceed the permitted amount.
- Variable: Users pay for containers of varying sizes, with the price corresponding to the amount of waste generated.

The EPA PAYT website reports that in communities that implement PAYT, overall waste disposal can decline by 14 to 27 percent on average. In addition, recycling rates typically increase between 32 and 59 percent. A state level example, Imperial City, Nebraska, reports a reduction in solid waste generation of 50% through the implementation of a PAYT system and vigorous education campaign.

### Zero Waste

Zero Waste is not a municipal waste collection model but rather a concept is that waste is no longer waste, it is a valuable resource which we need to re-use, recover and recycle from. The following definition has been included within this report as it is a topic frequently mentioned when referencing solid waste management and recycling.

*“Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health.”*

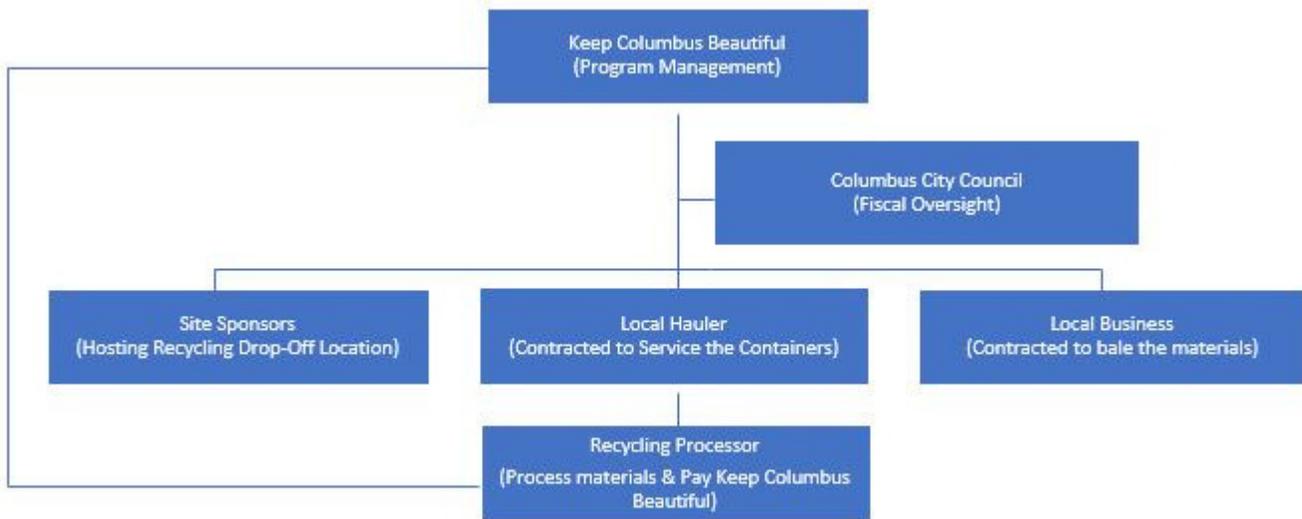
– Zero Waste International Alliance ([zwia.org](http://zwia.org)).

# RECYCLING PROGRAM RECOMMENDATIONS

## Recommendation One: Development of Public / Private / Non-Profit Partnership Recycling Center

The City of Columbus is in the unique position that it is developing its recycling program from scratch. As part of the Needs Assessment Report, several different models of recycling facilities and collection programs were assessed with the following key criteria:

1. Program needs to be sustainable and economically feasible and not reliant on grant funding
2. Program needs to be convenient, simple to use to promote engagement and higher capture rates
3. Program needs to have a management structure devoted to resource recovery and conservation



Responsibility	Collaborators & Their Roles	Self-interest benefits	Community benefits
Sponsor sites	Local businesses: Monitor sites either within their shops for employees solely on their lots for public access	<ol style="list-style-type: none"> <li>1) A lower cost recycling &amp; trash disposal</li> <li>2) Employee perks</li> <li>3) Public goodwill</li> </ol>	Access to recycling sites that are well managed
Manage the program	Local nonprofit groups, e.g., Keep Columbus Beautiful: promote the program, recruit site sponsors, arrange pickup service, pay the hauler to pull the containers from the drop off site(s) to the processor, be paid for the recovered materials & manage payments to the contracted vendors	<ol style="list-style-type: none"> <li>1) It's their mission</li> <li>2) Payment for the recyclables</li> <li>3) Grants for attractive bins and ongoing educational materials</li> </ol>	<ul style="list-style-type: none"> <li>• A cleaner city</li> <li>• Community pride</li> </ul>
Provide fiscal support	City of Columbus: provide fiscal oversight, build & manage a sinking fund, provide accounting personnel support hours, assist with RFP for servicing containers, assistance with site allocation, provide initial match funding for container grants	<ol style="list-style-type: none"> <li>1) Low-cost investment to provide residential recycling program</li> <li>2) Appreciative residents</li> </ol>	Fiscally responsible measure to reduce landfill costs
Service the containers	Local haulers: Pull the bins from sites to the processor	<ol style="list-style-type: none"> <li>1) Hauling contract</li> </ol>	A sustainable program
Process the materials	Local business, e.g., Shred Monster: Receive, bale & store materials prior to shipment	<ol style="list-style-type: none"> <li>1) Maximize existing capital</li> <li>2) Added revenue</li> </ol>	A sustainable program
Recycle the materials	Firstar Fiber: Design & maximize the program so as to enhance diversion & participation (dual stream & Hefty® EnergyBag®) and buy the processed materials	A long-term, sustainable approach to recycle cleaner, marketable materials	<ul style="list-style-type: none"> <li>• A sustainable program</li> <li>• Convenience (minimal sorting)</li> <li>• All of the above</li> </ul>

## Recommendation Two: Operate a Dual Stream Recycling Program

Implementation of a Dual Stream recycling program has many benefits for a city like Columbus:

- **Increased capture and participation** - Many studies show that the primary barrier to people recycling is convenience. If it is not simple, people won't do it. By simplifying the collection to two streams it is both easier and more convenient for the householder to participate in recycling.
- **Decreased congestion of traffic** – By providing two well signed recycling containers in a designated recycling area on an easy flow through route, residents are able to deposit their recyclable materials quickly and keep moving without the need to separate into the various commodities.
- **Reduced reliance on staff** – providing two clearly signed containers enables the general public and users of the recycling facility to be able to deposit their own recyclables without needing to rely on staff to sort the recyclables into their respective containers.
- **Improved space utilization and number of materials collected** – by condensing the collection of recyclable materials into two containers it frees up space making a safer works environment and by commingling the materials to 2 streams, more types of materials are able to be collected as there isn't a need to have a separate container for each commodity.
- **Balances resource collection efficiencies and revenue** from commodities. Granted, completely source separated materials are likely to gain a slightly higher market value due to reduced processing costs, given the economies of scale, dual stream recycling balances this with increased capture and commodities collected while maintaining financial benefit to the customer.
- **Administrative and Transport Efficiencies**



### Fiber Stream

Newspaper  
Office Paper  
Magazines  
Books (softcover or hardcover removed)  
Chipboard Boxes  
Cardboard



### Container Stream

#1 PET Containers  
#2 HDPE Containers  
#5 PP Containers  
Cartons & Tetra Pak  
Hefty® EnergyBag® bags



## Recommendation Three: Implement the Hefty® EnergyBag® Program

The Hefty® EnergyBag® program is a groundbreaking initiative that collects previously hard-to-recycle plastics – like candy wrappers, juice pouches, foam to-go containers – and converts them into valuable energy resources. The Hefty® EnergyBag® program is a significant step towards achieving positive long-term environmental and economic advantages, including new alternative energy resources through processes, such as pyrolysis, and fewer tons of plastic ending up in landfill.

# City of Columbus Building Department Code Enforcement

Daniel Curtis

Barbara Swedenburg

Ken Steiner

Andrew Woehrer

Jamie Adame

# IMPC-2012



# Structural Items







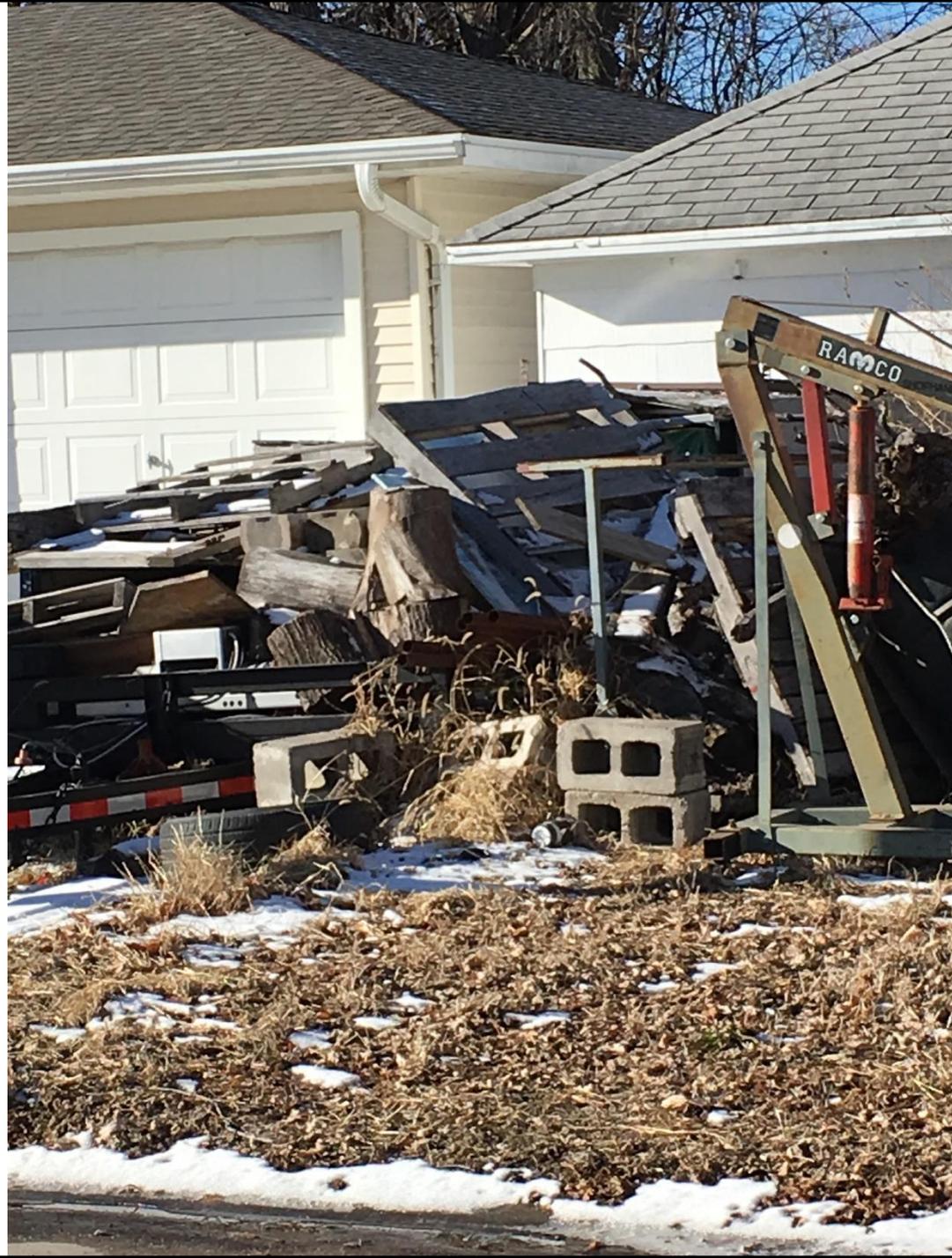








# Nuisance Items









# Building Violations





# Violation Report

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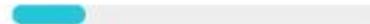
## Edit Previous Reports

[https://docs.google.com/spreadsheets/d/1RzvJqtd5y8s\\_3T9UUJschuPfw3rZaUT7c5-1AyQXrho/edit#gid=2014467642](https://docs.google.com/spreadsheets/d/1RzvJqtd5y8s_3T9UUJschuPfw3rZaUT7c5-1AyQXrho/edit#gid=2014467642)

## View Map

<https://drive.google.com/open?id=10VohIZhtHibLURuwZPcj32rxad1-eZuO&usp=sharing>

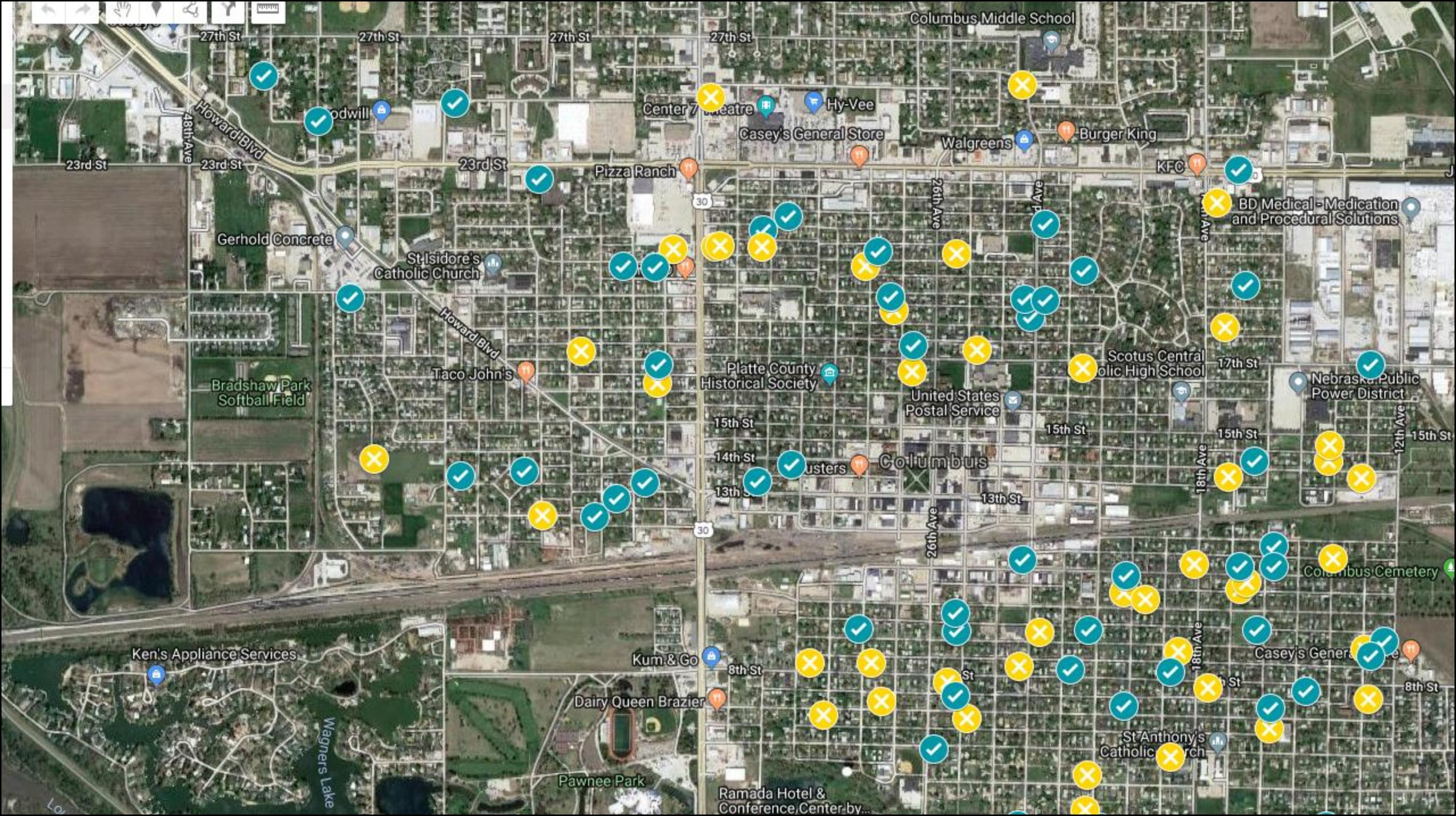
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F	G	H	I	J	K	L	M	N
	Additional Notes	Add a file (optional)	Violation Status	Report Opened Date	Please enter any follow up	Report Closed Date		Marker Status
Landscaping	Porch roof has large hole	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	9/11/2018		11/13/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	Small shed in the back ne	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	10/30/2018		11/20/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	Garage in the back of the	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/22/2018		9/27/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
oning	Complaint of large trailer	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Initial Finding / Red Tag,	11/6/2018		11/7/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Parking	Columbus Police Departm	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Initial Finding / Red Tag,	8/22/2018		9/12/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ng, Parking, Tr	Trees in front yard and or	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Initial Finding / Red Tag,	8/14/2018		9/4/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Trash / Rubbis	Siding on home and large	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Initial Finding / Red Tag,	8/23/2018		9/14/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ng, Trash / Rut	26inch grass and trash or	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Initial Finding / Red Tag,	9/24/2018		10/24/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Parking, Trash	Home has wood on the fr	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Initial Finding / Red Tag,	8/21/2018		11/19/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
bbish	Cabinets on front porch n	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	10/4/2018		10/23/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Parking, Trash	The home has small shed	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	9/27/2018		12/3/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Landscaping, F	House needs to have sidi	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/29/2018		10/4/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ash / Rubbish	Unregistered vehicle park	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/29/2018		10/4/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ash / Rubbish	Complaint that there is a l	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/16/2018		8/28/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	Garage in back of home r	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/29/2018		11/8/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
		<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	10/30/2018		11/8/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	There is a hold in the porc	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	9/20/2018		11/5/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	Shed in back yard to the s	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/14/2018		10/29/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	Garage needs to be straig	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/23/2018		9/19/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	1/2 structure in the back c	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/29/2018		10/4/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ng	Trees in the front of the h	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/17/2018		9/4/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Landscaping	Home is under Demo per	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/14/2018		10/22/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	Owner needs to take dow	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/29/2018		11/26/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ng	Per CST #63 he would lik	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	10/10/2018		10/17/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ng	Tree overgrown onto the	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	9/20/2018		10/22/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
bbish	Lots of misc. household it	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	10/4/2018		10/22/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ash / Rubbish	Owner had many unregist	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/17/2018		9/20/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
ng, Trash / Rub	Back yard is full of misc. i	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	9/13/2018		10/4/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
Landscaping	Home has overgrown vine	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	8/15/2018		11/8/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	1/2 of garage needs to be	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	10/30/2018		11/5/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated
	City complaint from	<a href="https://drive.google.com/c">https://drive.google.com/c</a>	Abated	11/6/2018		11/7/2018	<a href="https://docs.google.com/f">https://docs.google.com/f</a>	Abated



City, State

Your answer

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Property Owner

Your answer

---

Owner's Phone Number

Your answer

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Category \*

- Structural
- Landscaping
- Pest
- Parking
- Trash / Rubbish
- Permitting

## Additional Notes

Your answer

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### Add a file (optional)

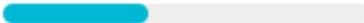
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- Initial Finding / Red Tag
- Follow Up
- Owner Contact
- Courtesy Letter
- Final Letter
- Abated
- Unfounded

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### Report Opened Date \*

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Please enter any follow up information

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## Report Closed

### Report Closed Date

MM DD YYYY

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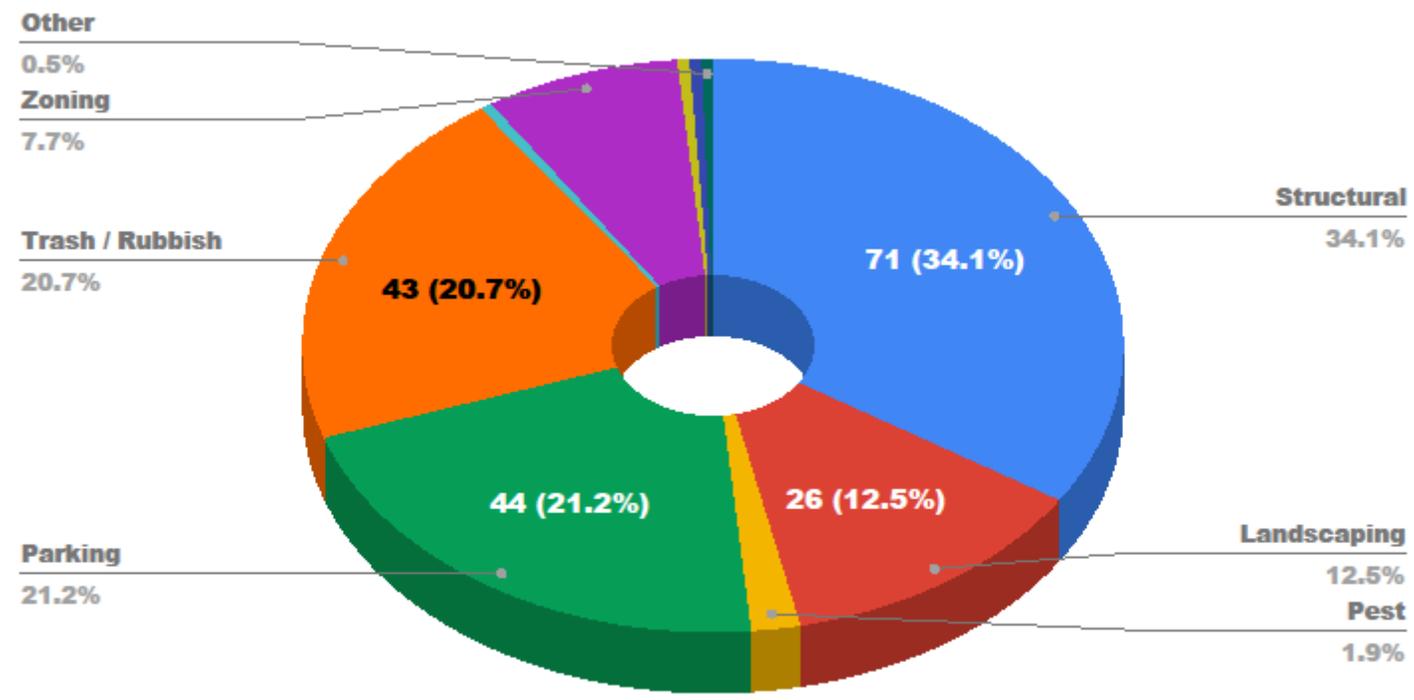
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**Attention Columbus Landlords**  
**You are Invited to Learn about**  
**the City of Columbus Building**  
**Codes**

**Date: Wednesday, February 27th, 2019**

**Time: 9:00 am**

**Location: Columbus Housing Authority**

**Heritage House Community Room, 2554 40th Ave, Columbus**

**Refreshments will be served**

***Presenter will be Jamie Adame, Code Enforcement Officer***  
***with the City of Columbus***

**Topics covered will include:**

- **Duties & powers of the Code Official**
- **Responsibilities of Landlords**
- **Violations**
- **Notices & Orders**
- **Unsafe Structures & Equipment**
- **Emergency Measures**
- **Demolition**
- **Exterior & Interior Structures**
- **Parking**
- **Pest & Elimination**



**Sponsored by the City of Columbus, Columbus Area United Way, and the**  
**Columbus Housing Authority**

Questions or Comments