COLERAIN
EST. 1794

Regular Meeting of the Board of Trustees - July 28

July 28, 2020

1. **Opening of Meeting**
2. **Pledge of Allegiance** 7:00 PM
3. **Meditation (Moment of Silence)**
4. **Fiscal Office** – Approval of Minutes from July 14, 2020
5. **Presentations**
    a. Solid Waste Contract Presentation
    b. Retirement Proclamation – Firefighter Paramedic Steve M. Fortunski
6. **Citizens Address**
7. **Administrative Reports**
8. **Trustees' Report**
9. **New Business**

Public Safety

a. Motion to Authorize the Township Administrator to Execute an Agreement with Northwest Local School District
b. Motion to Authorize the Township Administrator to Execute an Agreement with Hamilton County Public Health for Quick Response Team Operation

Public Services

a. Motion to Accept Grant Funding - Safety Grant - Pippin Road Sidewalks
b. Resolution Authorizing Participation in the ODOT Cooperative Purchasing Program
c. Motion to Issue a Request for Bids for Colerain Park Playground Project

Planning & Zoning

a. Resolution Declaring Nuisance and Ordering Abatement
b. Resolution to Approve Zoning Case ZA2020-03 Changing The Zoning On The Site From R-6 (Urban Residential) to PD-R (Planned Development - Residential) - Lake Gloria Development

Administration

a. Resolution - Ballot Language - Fire Department - 3.0 mills

b. Motion to Reappoint Dan Unger as the Alternate Member of the District 2 Integrating Committee

c. Resolution Adopting Amended Appropriations

d. Motion to Modify in Person Citizen Participation due to COVID-19

10. Old Business

a. Discussion - 2021 Strategic Plan

11. Consent Items

a. Contract - Police - Duke Energy - LED Lighting Upgrade

b. New Hire - Code Enforcement Specialist - Planning & Zoning

12. Fiscal Office Report

13. Adjournment

14. Executive Session – if needed

PRESENTATIONS

Department: Administration

Department Head:

Solid Waste Contract Presentation

Rationale:

COLERAIN
Est. 1794

MEMORANDUM

To: Board of Trustees

CC: Jeff Weckbach, Assistant Township Administrator

From: Geoff Milz, Township Administrator

Subject: Solid Waste Contract Update and Next Steps

Date: June 16, 2020

BACKGROUND

Colerain Township currently has an existing agreement with Rumpke for solid waste and recycling for all residential structures in the Township. This contract is a joint contract with Springfield Township and Ross Township. The agreement was effective April 1, 2016 and will expire on March 31, 2021.

For historical context, the three Townships listed above initiated a formal RFP process in 2015 that resulted in two proposals for consideration. After several public hearings by all jurisdictions, it was determined that the Rumpke RFP response was the best response and would provide the residents of Colerain Township with a lower rate for solid waste and recycling service.

As part of this agreement, all residential houses in the three Townships are required to have solid waste and recycling with Rumpke. There are a couple of exemptions outlined in the contract. When this contract was implemented, there were a number of residences in Colerain that had zero trash service. This contract did help to alleviate some nuisance trash issues and to correct for some circumstances where residents were burning their trash or illegally dumping their trash to avoid service.

A copy of the full contract, with all appropriate rates, is available on our website at:
https://www.colerain.org/DocumentCenter/View/1614/Rumpke-Service-Agreement-2016

ANALYSIS

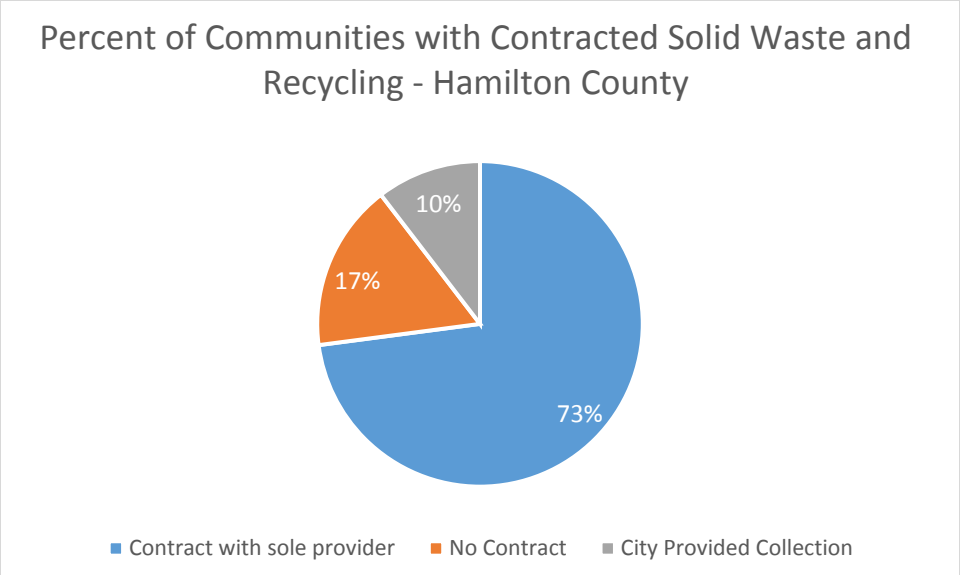
The Data

The Hamilton County Solid Waste District compiles data from all communities in Hamilton County that outlines the average solid waste and recycling rates for residential consumers. This annual report serves as the baseline for the following charts, graphs, and analysis. For jurisdictions that do not have a sole service contract, the District determines the average price for residential units based on available market data.

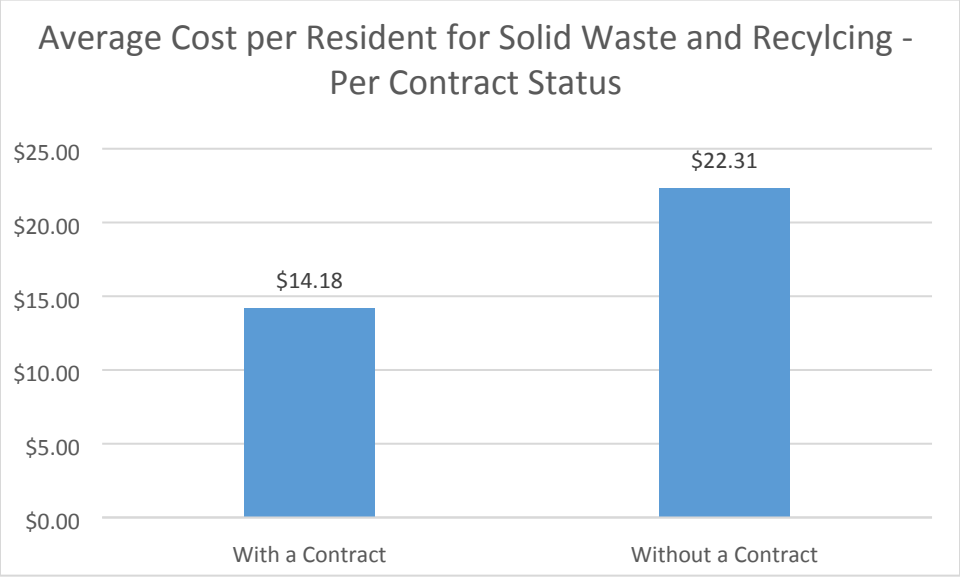
Colerain Township • 4200 Springdale Road • Colerain Township, Ohio 45251
gmilz@colerain.org • www.colerain.org
Phone (513) 385-7500 • Fax (513) 245-6503

Trustees: Matthew Wahlert, Raj Rajagopal, Daniel Unger
Fiscal Officer: Jeff Baker
Administrator: Geoff Milz

COLERAIN

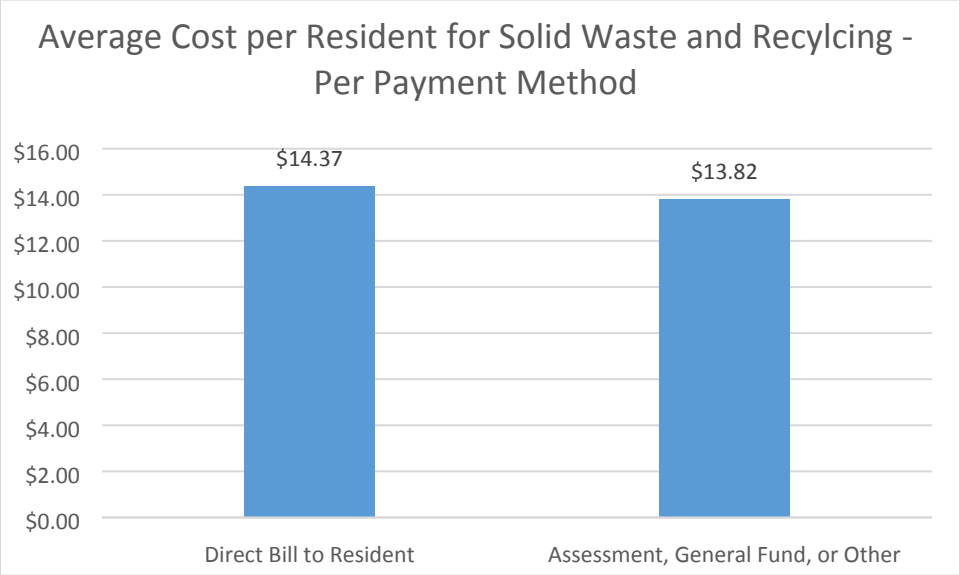


The above chart provides an overview of the percent of communities in Hamilton County that currently have a direct sole service provider contract with a vendor for solid waste and recycling services, (this includes Colerain Township). It is worth noting that the City of Madeira is the only community that has a contract with an entity other than Rumpke (they contract with Republic). The five communities that provide their own trash service are City of Cheviot, City of Cincinnati, City of the Village of Indian Hill, Village of Lockland, and Village of St. Bernard. There are eight communities in Hamilton County without a contract, all of which are Townships (Anderson, Crosby, Delhi, Green, Harrison, Sycamore, Symmes, and Whitewater).

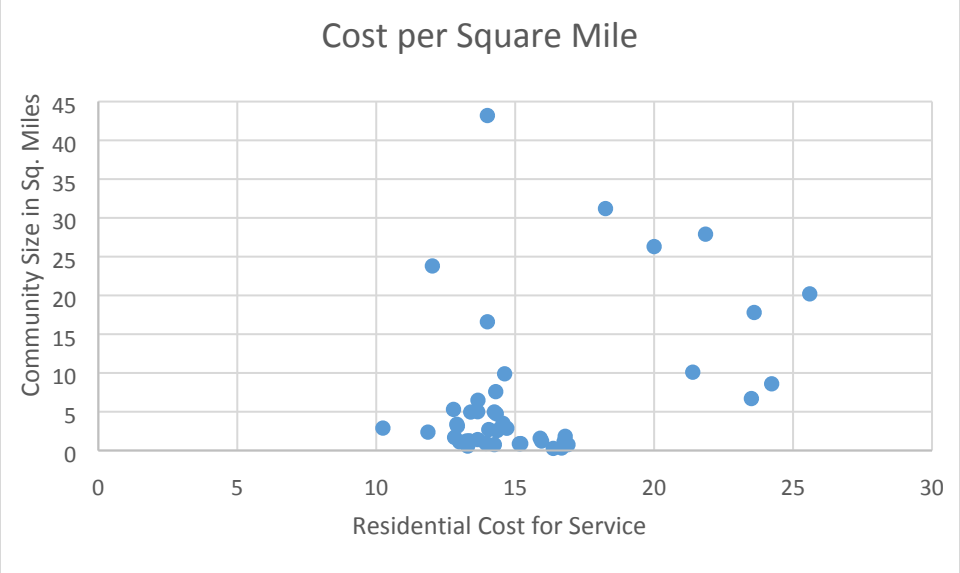


It is also worth noting that the average cost for communities that have a sole provider contract is lower than those communities that have no contract for service. The average difference is approximately $8.13. However, knowing the current rates for Colerain, the difference is closer to $4 per household per month. At a minimum, Colerain residents saved $240 over the life of the existing Rumpke contract. This

suggests that there is a cost to having the choice of provider. The economy of scale is lost under a non-contract model as there are likely multiple trash services picking up within the same neighborhood.



The Township wanted to explore if there were likely cost savings associated with a different billing model. While the average suggest that there are cost savings, the total amount is less than one dollar and may be driven by other factors such as square mileage.



Finally, the Township wanted to explore if there was a direct, noticeable correlation between the cost for service and the square mileage of the jurisdiction. In theory, a more spread out jurisdiction would cost more because of the need for more fuel. The above scatter plot shows the results of that analysis. Unfortunately, there is no statistical significance between the two data series and the data suggests that square mileage only accounts for 13% of the cost discrepancy.

SERVICE OPTIONS

The Trustees can consider several options for the future of solid waste and recycling service in Colerain Township. These options are detailed below in bullet point format.

1. Extend the existing contract with Rumpke
    a. Description: There is a clause in the existing contract with Rumpke that would allow for an extension of the contract if mutually agreed on by all parties.
    b. Pros: Administratively, this would be the easiest process and would continue service under all existing parameters for all residents.
    c. Cons: A partner agency may not want to go this route. This process would also exclude any potential competitors from bidding on the service.
    d. Next Steps: If desired, the next step would be to contact our partner communities to seek their desire for renewal or extension.

2. Colerain only contract for residential solid waste with one vendor
    a. Description: Under this model, the Township would enter into an RFP process by itself for residential solid waste and recycling. This process would not involve other communities.
    b. Pros: The largest pro to this model is that Colerain Township would have direct control on all facets of the RFP and could potentially include additional services such as abatements, dumpster rentals for resident clean up events, or trash can pick up on any newly installed community trash cans in highly walkable neighborhoods.
    c. Cons: This model does not allow for resident choice in their trash provider. It also would require us to move on from an existing partnership with Ross Township and Springfield Township.
    d. Next Steps: If the Board desires this option, the next step would be to develop an RFP and solicit citizen comment on desired additions or changes to the existing contract for inclusion in the RFP.

3. Joint contract with other municipalities for residential solid waste with one vendor
    a. Description: This would essentially be a mirror of the process used in 2015.
    b. Pros: Depending on which municipalities are included, a joint contract could result in a better price for our residents.
    c. Cons: This model would provide Colerain Township with less control over the final bid documents and less control on the vendor selection.
    d. Next Steps: The Township would need to determine which communities might be interested and develop a joint bid.

4. No contract for service
    a. Description: Under this model, the Township would simply let the existing contract expire and residents would be able to independently choose their solid waste and recycling provider.
    b. Pros: The biggest pro to this model is that it would allow for a freedom of choice for each individual resident.

c. Cons: There are several cons to this model, that likely were the motivation for developing a sole provider contract in 2015 that include:
    i. A risk of having people dump trash in their backyard/along the roadway or burn their trash in order to avoid having any trash service.
    ii. Increased noise in neighborhoods as more trash collectors come through each neighborhood and less control on trash collection times.
    iii. An increase in traffic of heavy equipment on Township roads.
d. Next Steps: The next steps under this model would be to let the contract expire and to send notice to Ross Township, Springfield Township, and Rumpke of the decision.

PAYMENT OPTIONS

Should the Board decide that some form of solid waste contract is desirable, it is worth noting that there are a variety of different ways to potentially pay for the service arrangement that are employed by various communities in the region.

1. Direct bill to resident
    a. This set up would be the same as our current arrangement, where the Solid Waste Contract Provider would have an individual account with each resident and would directly bill the resident on a monthly, quarterly, or other basis.
    b. Under this scenario, the Township has experienced a few issues worth noting. The first is that under many circumstances, landlords do not require their tenant to have a trash collection contract. Therefore, many renters will stop paying; resulting in a bill that goes to collections and service that is subsequently shut off for non-payment. The bill is eventually forwarded to the landowner for payment. If the landlord does not pay, they are then sent to collections.
    c. While alluded to in the above statement, another issue that often times appears is that trash service may be discontinued for non-payment by a resident. Under these circumstances, the resident then starts to accumulate the trash on their property and become a public health nuisance.
2. Direct bill to Township – paid via special assessment
    a. Under this scenario, the Township could pay the Solid Waste Contract directly for all service on an annual basis. The Township could then assess the property taxes of each owner for service that they received over the course of the year. A number of communities has implemented this model.
    b. The primary benefit to this model is that it is easier for the resident and the contracted vendor because there are fewer bills each year.
    c. In addition, the Township would be guaranteed that all residents would have trash service and there would not be any circumstances where service would be cancelled by the vendor for non-payment by the resident.
    d. The difficulty of this model is that it would create an additional level of administrative burden for the Township, where staff would need to reconcile and exempt parcels each year to ensure payment of the special assessment. There is also financial risk, as property tax collection rates are not 100%, and, from a cash flow standpoint, the Township would make payment prior to collection of the revenue from the property owner.

3. Direct bill to Township – paid via general fund
    a. Under this scenario, the Township would subsidize all trash service for residential properties.
    b. This would be the easiest scenario for the resident and it would create a situation where the residential tax base is offered an incentive that is not offered to commercial, agricultural, or industrial properties. This would uniquely position Colerain Township in comparison to neighboring jurisdictions due to this extra benefit.
    c. Administratively, this would also be easier for both the Township and the vendor.
    d. However, this model means that the Township may have to stop doing something else or divert revenues from other projects, as the likely all in cost on an annual basis would exceed $4M (roughly 20,000 parcels, $18/month).

POLICY QUESTIONS

Below is a list of several policy questions that will help staff navigate and develop an approach for residential solid waste collection over the next several years. Several of the proposed questions are dependent on the first and more important policy question.

1. Does the Township wish to have one contract for all residential solid waste and recycling?
    a. If Yes:
        i. Would the Township prefer direct billing to resident, billing to Township passed along via special assessment, or billing to the Township paid via General Fund?
        ii. Are there additional services that the Township would like to have included in the next contract such as pick up of trash in common areas for any newly installed trash cans, automatic rates for trash abatements, or other items.
        iii. How many years should this contract be in place for?
        iv. Should the Township consider extension of the current agreement?
            1. If No:
                a. Should the Township collaborate with other municipalities for a joint RFP process?

2. How would the Board like staff to solicit feedback on this process or communication of the final decision of the Board?

Several administrative steps and processes must occur prior to the execution of any contract that will likely take several months to implement. In order to start the conversation and work toward a solution that is right for Colerain Township, staff is requesting that the Board of Trustees deliberate and provide direction on this issue at the next several public meetings.

ATTACHMENTS/LINKS

Attachment A: Solid Waste Cost Index from Hamilton County Solid Waste District

Solid Waste Cost Index KPI:
https://coleraintownshiphamiltonoh.opengov.com/data/#/41204/query=618C6706DD9469E62B16178EE7051CD0&embed=n

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Addyston					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	-----	-----	-----	$13.95	-----	-----	-----	-----	-----	240	hauler charges residents		Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.15	bin only
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	xmas tree drop	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Amberley					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2018	12/31/2020	2	$10.00	$10.00	$10.00	$10.40	$10.82	rent	1,352	utility bill	-----	
Curbside Recycling	Rumpke	1/1/2018	12/31/2020	2	$4.00	$4.00	$4.00	$4.16	$4.33	64-gallon	1,352	utility bill	-----	
Drop-Off Recycling	Rumpke	1/1/2018	12/31/2020	2	no cost	-----	-----	-----	-----	-----	1,352	utility bill	-----	
Yard Trimmings	curbside, self-ha	-----	-----	-----	-----	-----	-----	-----	-----	no	1,352	utility bill	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Anderson Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$18.25	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$0.00	cart
Drop-Off Recycling	Rumpke	?									16,684	general fund	-----	
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Arlington Heights					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	12/1/2019	11/30/2022	0	$12.80	$13.12	$13.15	-----	-----	96-gallon	335	utility bill	-----	
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.57	
Drop-Off Recycling	Rumpke	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	year round curb	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Blue Ash					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2016	12/31/2016	4	$9.55	$9.80	$10.00	$10.20	$10.40	96-gallon	3,951	general fund	-----	
Curbside Recycling	Rumpke	1/1/2016	12/31/2016	4	$3.50	$3.60	$3.70	$3.80	$3.90	64-gallon	3,951	general fund	-----	
Drop-Off Recycling	Rumpke	1/1/2016	12/31/2016	4	$14.00	$14.50	$15.00	$15.50	$16.00	-----	5,143	general fund	-----	cost is per unit per pickup
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	4,015	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Cheviot					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	no	-----	utility bill	-----	
Curbside Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Drop-Off Recycling	Rumpke	no contract	no contract	no contract	$136.62	-----	-----	-----	-----	-----	4,194	utility bill	-----	drop off costs are per container
Yard Trimmings	none	1/1/2018	12/31/2019	-----	$8.00/ cu yd	$8.00/ cu yd	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	Rumpke	1/1/2018	12/31/2019	-----	$13.75	13.75	-----	-----	-----	-----	4,194	utility bill	-----	per cubic yard, renewed for two
Cincinnati					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	general fund	-----	
Curbside Recycling	Rumpke	8/1/2014	7/31/2021	3	$2.10	$2.15	$2.20	$2.26	$2.32	-----	85,000	general fund	-----	have payback incentive
Drop-Off Recycling	Rumpke	8/1/2014	7/31/2021	4	$55.05	$56.43	$57.84	$59.29	$60.77	-----	161,095	general fund	-----	
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	general fund	-----	

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Waste Disposal	Rumpke	1/1/2012	12/31/2016	2	$31.10	$31.10	$31.10	$31.10	$31.10	-----	161,095	general fund	-----	per ton
Cleves					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2016	12/31/2020	0	$11.35	$11.65	$11.95	$12.25	$12.55	no	1,116	residents bille	-----	
Curbside Recycling	subscription	-----	-----	0	-----	-----	-----	-----	-----	64-gallon	-----	residents bille	$3.35	residents must subscribe for rec
Drop-Off Recycling	Rumpke	1/1/2016	12/31/2020	0	$46.35	$46.35	$46.35	$46.35	$46.35	-----	1,190	general fund	-----	
Yard Trimmings	xmas tree drop	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Colerain Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	4/1/2016	3/31/2021	0	$12.95	$13.20	$13.45	$13.75	$14.00	95-gallon	17,400	residents bille	-----	Rumpke bills residents directly
Curbside Recycling	Rumpke	4/1/2016	3/31/2021	0	included	included	included	included	included	65-gallon	17,400	residents bille	-----	Residents limited to one 95-gall
Drop-Off Recycling	Rumpke	1/1/2015	unknown	none	$40.30	$40.30	-----	-----	-----	-----	24,015	general fund	-----	
Yard Trimmings	xmas tree drop	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Columbia Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2018	12/31/2020	0	$9.90	$10.10	$10.30	-----	-----	-----	1,640	levy	-----	
Curbside Recycling	Rumpke	1/1/2018	12/31/2020	0	$3.60	$3.67	$3.75	-----	-----	65-gallon	1,640	levy	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Crosby Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$25.60	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		cart
Drop-Off Recycling	None	-----	-----	-----	-----	-----	-----	-----	-----	-----	1,168	general fund	-----	
Yard Trimmings	drop-off	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Deer Park					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2018	12/31/2020	2	$10.00	$10.00	$10.00	$10.40	$10.82	rent	2,209	utility bill		
Curbside Recycling	Rumpke	1/1/2018	12/31/2020	2	$4.00	$4.00	$4.00	$4.16	$4.33	64-gallon	2,209	utility bill		
Drop-Off Recycling	Rumpke	1/1/2018	12/31/2020	2	no cost	-----	-----	-----	-----	-----	2,784			
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Delhi Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$18.64	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$2.75	cart
Drop-Off Recycling	Rumpke	10/1/2016	9/30/2019	0	$55.00	$55.00	$55.00	$55.00	$55.00	-----	11,079	general fund	-----	
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Elmwood Place					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	6/1/2018	5/31/2019	2	$11.76	$12.53	$12.92	-----	-----	none	685	utility bill	-----	

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.75	Rumpke
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Evendale					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2019	12/31/2021	2	$13.50	$13.91	$14.32	-----	-----	95-gallon	1,100	general fund	-----	
Curbside Recycling	Rumpke	1/1/2019	12/31/2019	2	included	included	included	included	included	65-gallon	1,100	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Fairfax					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	3/1/2016	2/28/2019	2	$13.40	$13.40	$13.40	$13.80	$14.25	no	838	/ and general f	-----	waste consortium
Curbside Recycling	Rumpke	3/1/2016	2/28/2019	2	included	included	included	included	included	65-gallon	838	/ and general f	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Forest Park					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	10/1/2018	9/30/2023	0	$13.25	$13.39	$13.66	$13.93	$14.10	96-gallon	5,234	utility bill	-----	eco-tier available
Curbside Recycling	Rumpke	10/1/2018	9/30/2023	0	included	included	included	included	included	65-gallon	5,234	utility bill	-----	
Drop-Off Recycling	Rumpke	10/1/2018	9/30/2023	0	$65.00	$65.65	$66.96	$68.30	$69.67	-----	5,349	utility bill	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Glendale					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	6/1/2014	5/31/2019	0	$9.25	$9.44	$9.62	$9.82	$10.01	-----	1,090	general fund	-----	
Curbside Recycling	Rumpke	6/1/2014	5/31/2019	0	$2.60	$2.65	$2.71	$2.76	$2.81	65-gallon	1,090	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Golf Manor					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	10/1/2013	9/30/2021	0	$12.62	$12.79	$12.96	$13.12	$13.29	95-gallon	1,166	utility bill	-----	see contract for additional years
Curbside Recycling	Rumpke	10/1/2013	9/30/2021	0	included	included	included	included	included	65-gallon	1,166	utility bill	-----	prices for multifamily too
Drop-Off Recycling	Rumpke	10/1/2013	9/30/2021	0	included	included	included	included	included	-----	1,837	utility bill	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Green Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$18.64	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.21	cart
Drop-Off Recycling	Rumpke	12/4/2015	12/4/2018	0	$30.00	$30.00	$30.00	-----	-----	-----	24,666	general fund	-----	per container per pick up
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Greenhills					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	3/1/2016	2/28/2019	2	$12.55	$12.55	$12.55	$12.95	$13.35	can rent	1,634	utility bill	-----	village covering charge from wat
Curbside Recycling	Rumpke	3/2/2016	2/28/2019	2	included	included	included	included	included	65-gallon	1,634	utility bill	-----	waste consortium
Drop-Off Recycling	Rumpke	3/2/2016	2/28/2019	2	included	included	included	included	included	-----	1,645	utility bill	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Harrison (City)					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	8/1/2015	7/31/2020	0	$13.40	$13.40	$13.40	$13.40	$13.40	can rent	3,300	utility bill	-----	no fuel adjustment clauses
Curbside Recycling	Rumpke	8/1/2015	7/31/2020	0	included	included	included	included	included	65-gallon	3,300	utility bill	-----	
Drop-Off Recycling	None	-----	-----	-----	-----	-----	-----	-----	-----	-----	4,054	general fund	-----	8 yard picked up twice per week
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Harrison Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$20.35	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.25	cart
Drop-Off Recycling	None	-----	-----	-----	-----	-----	-----	-----	-----	-----	1,742	-----	-----	
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Indian Hill					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Curbside Recycling	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	Rumpke	no contract	no contract	no contract	$32.20 per ton	-----	-----	-----	-----	-----	2,061	general fund	-----	do not pay at MRF
Lincoln Heights					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2017	12/31/2019	2	$13.00	$13.00	$13.00	$13.50	$13.50	96 gallon	930	utility bill	-----	
Curbside Recycling	Rumpke	1/1/2017	12/31/2019	2	$3.25	$3.25	$3.25	$3.40	$3.40	18 gallon	930	utility bill	-----	8 gal default but 64 gal on reque
Drop-Off Recycling	Rumpke	-----	-----	-----	included	included	included	included	included	-----	1,564		-----	
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Lockland					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	self-haul	1/1/2019	12/31/2021	-----	13.25	13.25	13.25	-----	-----	-----	1,738	utility bill	-----	
Curbside Recycling	none	-----	-----	-----	included	included	included	-----	-----	-----	1,738	utility bill	-----	
Drop-Off Recycling	Rumpke	1/1/2019	12/31/2021		$108.20	$108.20	$108.20	-----	-----	-----	1,738	utility bill	-----	per month per container
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	Rumpke	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$14 per month on water bill
Loveland					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	3/1/2016	2/28/2021	2	$13.65	$13.65	$13.65	$13.65	$13.65	no	4,884	utility bill	-----	waste consortium

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Curbside Recycling	Rumpke	3/1/2016	2/28/2021	2	included	included	included	included	included	city provided	4,884	utility bill	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Madeira					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Republic	1/1/2017	12/31/2021	0	$11.81	$12.16	$12.53	$12.90	$13.29	35 gallon	3,565	general fund	-----	PAYT program $0.75 per bag out
Curbside Recycling	Republic	1/1/2017	12/31/2021	0	included	included	included	included	included	65 gallon	3,565	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Mariemont					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2018	12/31/2019	3	$11.45	$11.45	-----	-----	-----	no	1,425	utility bill	-----	back door trash service
Curbside Recycling	Rumpke	1/1/2018	12/31/2019	3	$3.75	$3.75	-----	-----	-----	65-gallon	1,425	utility bill	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	1/1/2018	12/31/2019	-----	$2.50	$2.50	-----	-----	-----	-----	1,425	utility bill	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Miami Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2015	12/31/2018	1	$11.10	$11.32	$11.54	$11.77	$12.02	u/k	4,051	tax levy	-----	year 2-4 calculated based on ma
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$2.75	Rumpke
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	xmas tree drop	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Montgomery					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2018	12/31/2022	2	$9.05	$9.05	$9.05	$9.05	$9.05	95-gallon	3,444	general fund	-----	
Curbside Recycling	Rumpke	1/1/2018	12/31/2022	2	$3.73	$3.73	$3.73	$3.73	$3.73	65-gallon	3,444	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	1/1/2018	12/31/2022	2	$1.75	$1.75	$1.75	$1.75	$1.75	-----	3,444	general fund	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Mt. Healthy					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	3/1/2016	2/28/2021	-----	$13.65	$13.65	$13.65	$13.65	$13.65	none	2,061	utility bill	-----	waste consortium
Curbside Recycling	Rumpke	3/1/2016	2/28/2021	-----	included	included	included	included	included	65-gallon	2,061	utility bill	-----	
Drop-Off Recycling	Rumpke	3/1/2016	2/28/2021	-----	included	included	included	included	included	-----	3,034	utility bill	-----	
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Newtown					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2015	12/31/2017	2	$11.94	$11.94	$11.94	$8.91	$8.91	none	954	general fund	-----	
Curbside Recycling	Rumpke	1/1/2015	12/31/2017	2	included	included	included	$2.95	$2.95	65-gallon	954	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsic	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
North Bend					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2019	12/31/2022	1	$12.75	$13.01	$13.27	$13.54	-----	none	354	esidents billed	-----	year 2-4 calculated based on ma
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	esidents billed	$3.75	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	xmas tree drop	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
North College Hill					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2016	12/31/2020	2	$15.50	$15.78	$16.07	$16.47	$16.80	95-gallon	3,500	utility bill	-----	
Curbside Recycling	Rumpke	1/1/2016	12/31/2020	2	included	included	included	included	included	65-gallon	3,500	utility bill	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Norwood					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2018	12/31/2020	2	$9.40	$9.40	$9.40	$9.68	$9.68	none	7,182	utility bill	-----	also have business and multi-far
Curbside Recycling	Rumpke		12/31/2020	2	$3.15	$3.15	$3.15	$3.24	$3.24	65-gallon	7,182	utility bill	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	1/1/2018	12/31/2020	2	$1.65	$1.65	$1.65	$1.70	$1.70	-----	7182	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Reading					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2017	12/31/2019		$9.65	$9.94	$10.24				3,426	utility bill	-----	
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	675	utility bill	$3.95	recycling fee charged on utility b
Drop-Off Recycling	Rumpke	1/1/2017	12/31/2019		included	included	included				4,962	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
St. Bernard					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Curbside Recycling	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	self-haul	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	Republic	3/1/2017	2/28/2019	-----	$34.65	-----	-----	-----	-----	-----	2,200	utility bill	-----	recycling is based on market val
Sharonville					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	6/1/2019	6/1/2023	0	$9.75	$10.04	$10.34	$10.65	$10.97	none	4,000	general fund	-----	
Curbside Recycling	Rumpke	6/1/2019	6/1/2023	0	$3.25	$3.35	$3.45	$3.55	$3.65	95-gallon	4,000	general fund	-----	Recycling collected every-other
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Silverton					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	7/1/2018	6/30/2023	2	$10.25	$10.25	$10.25	$10.25	$10.25	none	2,194	utility bill	-----	

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Curbside Recycling	Rumpke	7/1/2023	6/30/2023	2	$2.75	$2.75	$2.75	$2.75	$2.75	65-gallon	2194	-----	-----	
Drop-Off Recycling	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Springdale					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	3/1/2016	2/28/2019	2	$10.15	$10.15	$10.15	$10.45	$10.80	can rent	3,080	general fund	-----	waste consortium
Curbside Recycling	Rumpke	3/1/2016	2/28/2019	2	$3.25	$3.25	$3.25	$3.35	$3.45	can rent	3,080	general fund	-----	
Drop-Off Recycling	Rumpke	3/1/2016	2/28/2019	2	included	included	included	included	included	-----	4,906	general fund	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Springfield Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	4/1/2016	3/31/2021	0	$12.95	$13.20	$13.45	$13.75	$14.00	95-gallon	12,800	residents bille	-----	Rumpke bills residents directly
Curbside Recycling	Rumpke	4/1/2016	3/31/2021	0	included	included	included	included	included	65 gallon	12,800	residents bille	-----	Residents limited to one 95-gall
Drop-Off Recycling	Rumpke	4/1/2016	3/31/2021	0	$39.00	$39.00	$39.00	-----	-----	-----	15,091	general fund	-----	Full-service available for $16.20
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Price for drop off specific to loca
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Sycamore Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$21.00	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$2.50	
Drop-Off Recycling	Rumpke	no contract	-----	-----	$50.40	-----	-----	-----	-----	-----		general fund	-----	cost per pick up
Yard Trimmings	seasonal curbsi	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Symmes Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$21.00	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.23	
Drop-Off Recycling	Rumpke	no contract	-----	-----	$60.00	-----	-----	-----	-----	-----		general fund	-----	
Yard Trimmings	drop-off	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Terrace Park					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	11/1/2018	10/31/2023	none	$12.30	$12.30	$12.55	$12.85	$13.15	rent	800	general fund	-----	
Curbside Recycling	Rumpke	11/1/2018	10/31/2023	none	$3.55	$3.65	$3.75	$3.85	$3.95	65-gallon	800	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Whitewater Township					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$16.78	Rumpke
Curbside Recycling	subscription	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$3.22	
Drop-Off Recycling	None	-----	-----	-----	-----	-----	-----	-----	-----	-----	2,466	general fund	-----	average cost per container, rang
Yard Trimmings	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	

	Service Provider	Contract Effective Date	Contract End Date	Contract Option Years	Monthly Contract Cost (per household)					Recycling and Waste Carts	Number of Households Served	Funding Source	Monthly Subscription Costs	
Woodlawn					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	10/30/2017	10/29/2022	0	$10.25	$10.25	$10.25	$10.25	$10.25	rent	824	utility bill	-----	
Curbside Recycling	Rumpke	10/30/2017	10/29/2022	0	$4.10	$4.10	$4.10	$4.10	$4.10	64-gallon	824	utility bill	-----	
Drop-Off Recycling	Rumpke	10/30/2017	10/29/2022	0	Included in contract					-----	824	utility bill	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Wyoming					Year 1	Year 2	Year 3	Year 4	Year 5					
Waste Collection	Rumpke	1/1/2016	12/31/2018	2	$9.95	$10.05	$10.20	$10.60	$10.95	none	3,252	general fund	-----	can pay a separate tonnage fee
Curbside Recycling	Rumpke	1/1/2016	12/31/2018	2	$3.25	$3.35	$3.45	$3.60	$3.75	65-gallon	3,252	general fund	-----	
Drop-Off Recycling	none	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Yard Trimmings	curbside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	e for yard trimmings brought to f
Waste Disposal	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Average waste cost	$10.98													
Average recycling contracted cost	$3.19													
Average waste and recycling combined	$13.46													
Average drop-off cost	$52.63	Charges not consistently based												
Average waste disposal cost	$48.09	Cheviot $ based on estimate of cubic yards per ton												
Average Subscription Waste	$20.03													
Average Subscription Recycling	$3.03													
Households served with non-subscription recycling			186,808											

Solid Waste Contract

Colerain Township Board of Trustees Meeting

July 28, 2020

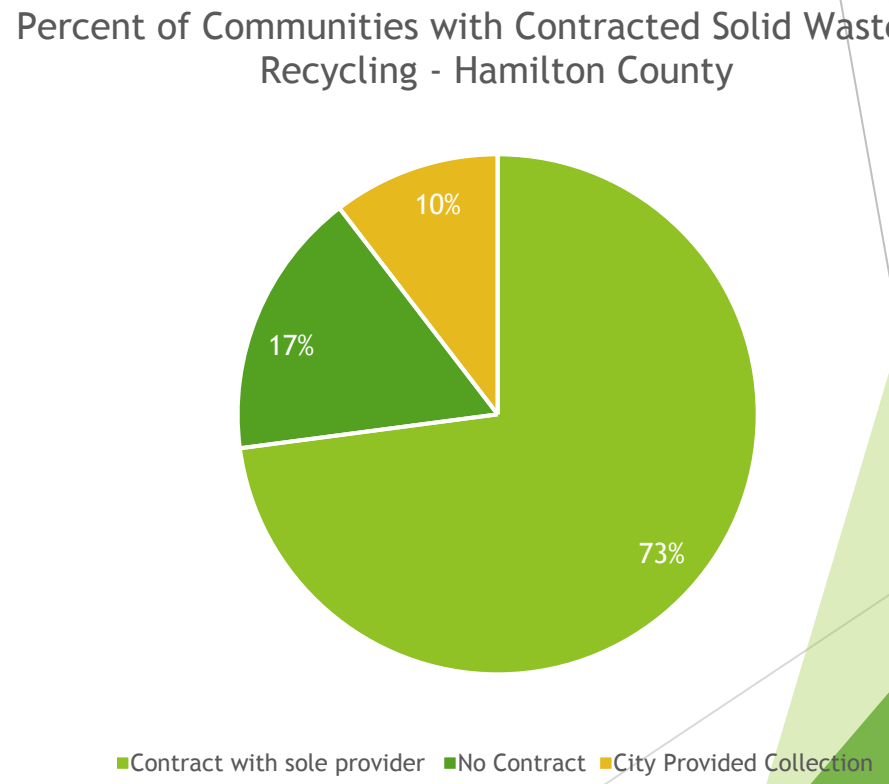
Background

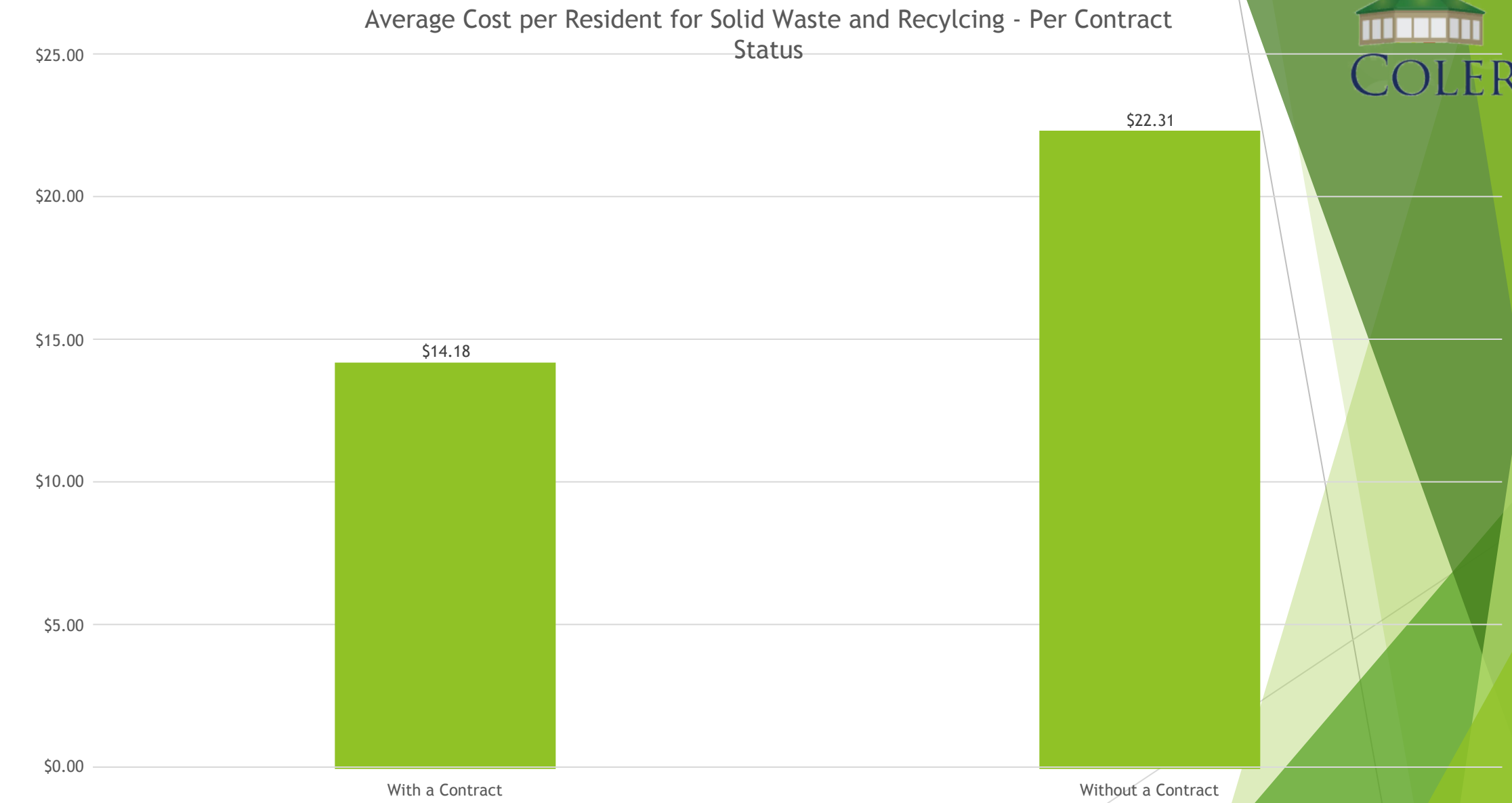
- Contract with Rumpke, Springfield Township, and Ross Township
  - Effective 4/1/2016
  - Adopted after a competitive bidding process and several public hearings
- Expires 3/31/2021
- All residents are required to have trash service with Rumpke, unless one of two exemptions are met and verified (CAUV or trash removal at place of employment)

Solid Waste Contract Comparison – Hamilton County

- All but one contract with Rumpke (Madeira with Republic)
- Trash provided by municipality
  - City of Cheviot
  - City of Cincinnati
  - City of the Village of Indian Hill
  - Village of Lockland
  - Village of St. Bernard
- No contract
  - Anderson Township
  - Crosby Township
  - Delhi Township
  - Green Township
  - Harrison Township
  - Sycamore Township
  - Symmes Township
  - Whitewater Township

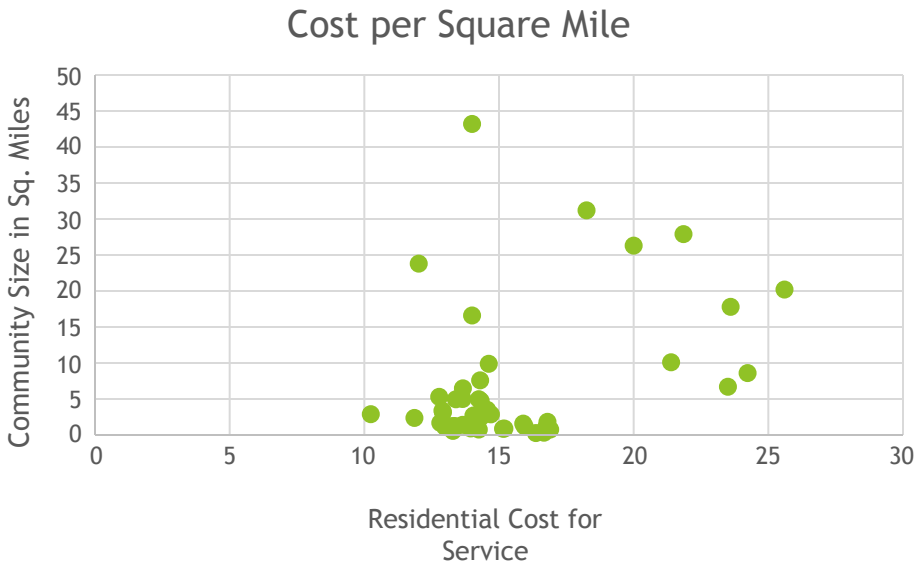
*All information from Hamilton County Recycling and Solid Waste District

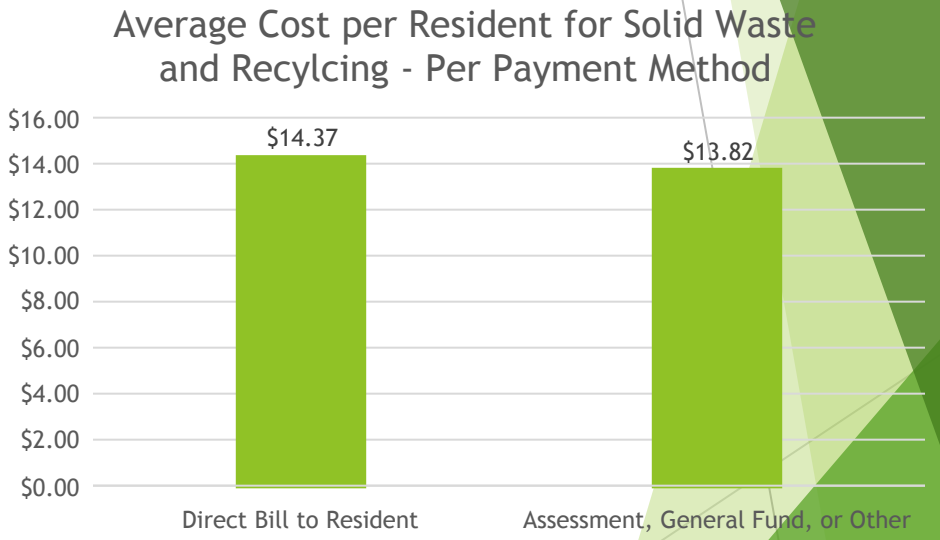




*All information from Hamilton County Recycling and Solid Waste District

Variables





*All information from Hamilton County Recycling and Solid Waste District

Service Options

1. Extend the existing contract with Rumpke
2. Colerain only contract for residential solid waste with one vendor
3. Joint contract with other municipalities for residential solid waste with one vendor
4. No contract for service

Payment Options

1. Direct bill to resident
2. Direct bill to Township – paid via special assessment
3. Direct bill to Township – paid via general fund

Why Discuss this Now?

- On the next slide are several policy questions, the answers to these questions will likely take time explore and will take time to implement or communicate.
- In order to start the conversation and work toward a solution that is right for Colerain Township, staff is requesting that the Board of Trustees deliberate and provide direction on this issue at the next several public meetings.

Policy Questions - Discussion

- Does the Township wish to have one contract for all residential solid waste and recycling?
  - If Yes:
    - Would the Township prefer direct billing to resident, billing to Township passed along via special assessment, or billing to the Township paid via General Fund?
    - Are there additional services that the Township would like to have included in the next contract such as pick up of trash in common areas for any newly installed trash cans, automatic rates for trash abatements, or other items.
    - How many years should this contract be in place for?
    - Should the Township consider extension of the current agreement?
      - If No:
        - Should the Township collaborate with other municipalities for a joint RFP process?
- How would the Board like staff to solicit feedback on this process or communication of the final decision of the Board?

PRESENTATIONS

Department: Fire

Department Head: Frank Cook, Fire Chief

Retirement Proclamation – Firefighter Paramedic Steve M. Fortunski

Rationale:

Recognize retired Captain Steve M. Fortunski for his over 31 years of service to the community.

PROCLAMATION FOR CAPTAIN STEVE M. FORTUNSKI FOR HIS YEARS OF DEDICATED SERVICE TO COLERAIN TOWNSHIP, OHIO

Whereas Captain Steve M. Fortunski was hired on April 25th of 1989 as an employee of the Colerain Township Department of Fire and Emergency Medical Services; and

Whereas Captain Steve M. Fortunski has demonstrated professionalism, allegiance, service, commitment and excellence through his contributions as a firefighter, emergency medical technician paramedic, instructor, fire officer, employee, and friend during his tenure with the Department; and

Whereas Captain Steve M. Fortunski retired on June 26th, 2020, after more than 31 years of commendable dedication to providing fire protection, emergency medical, and community risk reduction services to the Colerain Township community.

Therefore, be it resolved, that the Colerain Township Board of Trustees recognizes Captain Steve M. Fortunski as an outstanding employee and that he contributed greatly to our community during his long tenure of public service.

Be it further resolved that in recognition of all that Captain Steve M. Fortunski has done for Colerain Township, the Colerain Township Board of Trustees hereby proclaim Tuesday, July 28th, 2020 as a special day of recognition for Steve M. Fortunski to acknowledge his contributions to our community and wish him continued success in retirement.

Raj Rajagopal Trustee	Dan Unger Trustee	Matt Wahlert Trustee

Date: July 28, 2020

PUBLIC SAFETY

Department: Police

Department Head: Mark Denney, Police Chief

Motion to Authorize the Township Administrator to Execute an Agreement with Northwest Local School District

Rationale:

5/26/20

Contracts Procedure

Please submit this form to the Business Office along with your contract when Board Approval is needed.
****MUST BE SUBMITTED no later than ONE WEEK before the Board Meeting****

Name of Vendor:

Coleraine Township

Time Frame of the contract:

June 15, 2020 – June 14, 2023

Amount of Contract:

Police Sergeant 119,550.00/yr. (2) SRO - 209,564.00/yr. (2) SSO - 113,846.00
Total 442,960 annual cost.

Description of contract:

Security Services

Please check if applicable:

- ☐ Involves Federal Funds
- ☐ Medicaid Billable
- ☐ SERS Language
- ☐ Auxiliary Funds
- ☐ STRS
- ☐ Included in July 1st budget?
- ☐ In addition to July 1st budget?
- ☐ Paid to NWLSD

Your contract will be submitted for Board Approval. The contract will be returned to you for processing.

.....

Please fill out the following information:
Contract submitted by:

Chris McKee
(Name of person submitting contract)

Business Office — 5/20/20
(Department) *(Date)*

This contract has been reviewed by Christopher P. McKee [signature]
(Signature)

SCHOOL RESOURCE OFFICER AGREEMENT

This Agreement entered into this 26th day of May 2020, by and between **COLERAIN TOWNSHIP, OHIO**, an Ohio township ("Township"), and the **BOARD OF EDUCATION OF THE NORTHWEST LOCAL SCHOOL DISTRICT**, a local school district and political subdivision of the State of Ohio ("Board").

1. The Township agrees to provide police officers to the Board to provide safety and security to the Board's schools. The number of officers to be supplied is included in Addendum 2.

2. The duties of the school resource officers, school safety officers and investigators shall be as described in the official job descriptions.

   a. All of the contracted officers' primary assignment during the school year shall be to the Board, unless an immediate need for them to respond as a police officer is identified on behalf of the community or Colerain Township Police Department.

   b. The Township shall cause the officers and equipment hereby under contract will, at all times, be under the direct supervision and control of the Colerain Police Department (to perform those tasks and duties set out in the job description for the positions) and of the Chief of Police of Colerain Township, and subject to the rules, regulations, and policies of the Colerain Police Department, and the laws of the State of Ohio and the United States Government.

      The officers shall also be supervised by the school Superintendent, or a designee, when serving in the capacity and performing duties as the school resource officer; however, the school resource officers' primary supervisor shall at all times be the Chief of Police of Colerain Township or his/her designee..

   c. The officers will extend cooperation to the administrators as a security and educational resource person in law enforcement topics, and in cooperation with school personnel.

3. The Board and the Township agree to the following financial and placement arrangement:

   a. The placement of the school resource officers pursuant to the terms of this Agreement shall be made by the mutual agreement of the Board and Township, or their respective designees. This includes locations for the placement of the school resource officers as well as the days and hours to be worked by the school resource officers.

   b. In the event an assigned school resource officer is sick, in required training, or otherwise off work for more than two consecutive working days, a replacement officer shall be assigned by the Township at the same rate of pay as the normally assigned officer, regardless of the replacement officer's current rate of pay. The Township will make an effort to provide a substitute school resource officer for absences with fewer than two consecutive working days notice; however, the Board understands that a substitute may not always be available and that the availability depends on the specific needs of the Colerain Police Department, which needs shall be determined by the Chief of Police.

4. The Board agrees to pay the Township as defined in Addendum 1

   a. The Township shall provide an invoice for the cost of the officers monthly to the Board. The invoices will be sent to Northwest Local School District, Attn: Treasurer, 3240 Banning Road, Cincinnati, Ohio 45239 or such other address as provided by the Board.

   b. The Board will make such payment to the Township within thirty days of receipt of an invoice.

5. The term of this Agreement commences on June 15, 2020 and shall end on June 14, 2023. The parties must agree to any subsequent renewal in writing.

   a. This Agreement may be terminated by either party upon providing thirty (30) days prior written notice to the other party. Changes, including the addition or subtraction of provided officers, to this

agreement may be made by either party upon providing thirty (30) days prior written notice to the other party.

6. Should state, federal or other grants or funds become available to pay all or a portion of the costs of the officers, the Board and Township agree to cooperate as follows:

   a. Both the Board and Township must agree to the conditions of the grant or other funding source, even if only one of the parties is required to make formal application for said grants or funds.

   b. The proceeds of all grants or other funding source shall be utilized by the Board and Township equally to reduce the costs incurred by both parties.

7. Independent Contractor:

   The Township, through its Police Department, agrees to perform all services pursuant to this Agreement as an independent contractor, and further agrees that no employment-related benefits or withholdings shall be paid for or made to the Township Police Department and/or the school resource officer by the Board. In the event that any benefits or withholdings are later required by operation of law, or later determined to be required, the Township agrees that the cost or amount of such benefits or withholdings may be deducted from the future amount payable pursuant to this agreement as contract payments are made to the Township, or if there is no unpaid balance on this agreement or such balance is insufficient, the difference shall be reimbursed to the Board by the Township within ten (10) days following receipt of an invoice therefore.

8. Liability Insurance:

   The Township shall maintain public liability insurance which shall cover the duties performed by the school resource officer and which shall name the Board as an additional insured. Such coverage shall be written as a primary policy, which does not contribute to and is not in excess of coverage, which the Board may carry. The Board will also maintain public liability insurance, which will cover the school resource officer's duties and responsibilities and will also name the Township as an additional insured on said policy. Each

party hereby waives its rights against the other with respect to losses insured against by such party under this paragraph. The policies required to be carried under this paragraph shall provide for waivers of any right of subrogation that the insurer of such party may acquire against the other party hereto with respect to any such losses.

9. Equipment and Facility:

The Township shall be responsible for providing and maintaining all uniforms and equipment necessary for the school resource officer to perform his/her duties as a police officer. The Board shall provide the school resource officer with sufficient space to prepare reports, meet with students, staff, etc. The Board shall also provide a school radio and/or cellular phone to the school resource officer when he/she is on duty on school grounds.

10. The Township shall cause all records of performance of services to be maintained by the Colerain Police Department, which shall also conduct quarterly and yearly evaluations of the officers assigned to the Board. The Township shall cause Colerain Police supervisors to seek input from Northwest Local School District personnel while preparing these reviews.

11. The employment rights, promotional opportunities, training opportunities, and fringe benefits of the employee assigned to these positions under this contractual agreement shall not be limited based on the employee's participation in this contractual agreement.

12. Notwithstanding anything herein to the contrary, the Board shall have the right to suspend the services of one or more officers during any period when the schools are unable to hold classes due to governmental restrictions and/or orders. Such suspension shall only be effective upon the Board providing written notice to the Township and shall only continue during the period that the Board is unable to hold classes.

13. Either party may request a meeting to review or revise this Agreement, if needed. This Agreement may only be amended by the written agreement of both parties.

WITNESS the signature of the parties aforesaid, this ____ day of _____ 2020.

NORTHWEST LOCAL SCHOOL DISTRICT

By: Amy M. Wells 05/26/2020
Amy M. Wells, CFO/ Treasurer Date

By: Mark Gilbert 07/15/2020
Mark Gilbert, Board President Date

COLERAIN TOWNSHIP, OHIO

By: _____
Geoff Milz, Administrator Date

Approved as to Form By: _____
Mr. Larry Barbiere, Township Law Director Date

Addendum 1

Cost of Officers

June 15, 2020-June 14, 2021

Police Sergeant serving as District Safety and Security Coordinator: $119,550
School Resource Officer: $104,782
District Truancy Investigator: $104,782
School Safety Officer: $56,923

June 15, 2021-June 14, 2022

Police Sergeant serving as District Safety and Security Coordinator: $123,137
School Resource Officer: $107,925
District Truancy Investigator: $107,925
School Safety Officer: $58,631

June 15, 2022-June 14, 2023

Police Sergeant serving as District Safety and Security Coordinator: $126,831
School Resource Officer: $111,163
District Truancy Investigator: $111,163
School Safety Officer: $60,390

Addendum 2

Staffing Levels

June 15, 2020-June 14, 2021

1 Police Sergeant serving as District Safety and Security Coordinator
2 School Resource Officer
0 District Truancy Investigator
2 School Safety Officer

June 15, 2021-June 14, 2022

___ Police Sergeant serving as District Safety and Security Coordinator
___ School Resource Officer
___ District Truancy Investigator
___ School Safety Officer

June 15, 2022-June 14, 2023

___ Police Sergeant serving as District Safety and Security Coordinator
___ School Resource Officer
___ District Truancy Investigator
___ School Safety Officer

PUBLIC SAFETY

Department: Fire

Department Head: Frank Cook, Fire Chief

Motion to Authorize the Township Administrator to Execute an Agreement with Hamilton County Public Health for Quick Response Team Operation

Rationale:

Statement of Agreement/Commitment
For Quick Response Team (QRT) Operation - Colerain Township

This two-party agreement is made and entered into between Colerain Township, Ohio (Township), and the Hamilton County General Health District DBA Hamilton County Public Health of Cincinnati (HCPH).

Recitals
Pursuant to the mission of the partnership between Colerain Township Department of Public Safety and the Hamilton County Public Health, the parties hereto mutually desire to partner for the formation and continuation of the Quick Response Team (QRT) within Colerain Township.

Now, therefore, it is mutually agreed between the parties as follows:

1. Colerain Township Department of Public Safety will schedule the necessary staffing for the operation of QRT with the express performance objective to proactively follow-up with individuals coming in contact with Colerain police, fire or EMS services concerning substance use disorders and with a specific focus on opioid use/overdose.
2. Hamilton County Public Health Cincinnati will provide care coordination/linkage to care for services, directly or via sub-contractor, for a period of 13 months from August 1, 2020 thru August 31, 2021.

In witness thereof, Colerain Township has caused this to be executed by its Colerain Township Administrator; and HCPH has caused this agreement to be executed by the Hamilton County Health Commissioner; said agreement to become effective and operative upon fixing of the last signature hereto

Signatures for the agreement:

_____ Date:_____

Colerain Township Administrator

_____ Date:_____

Hamilton County Public Health Commissioner

PUBLIC SERVICES

Department: Administration

Department Head: Jackie O'Connell, Director - Public Services

Motion to Accept Grant Funding - Safety Grant - Pippin Road Sidewalks

Recommend acceptance of $742,086 in grant funding.

Rationale:

"Creating Connections" is the theme of the 2020 Strategic Plan. In furtherance of this theme, Township staff was charged with exploring and finding funding alternatives to construct new sidewalk connections in critical areas of Colerain. As such, the Township applied for and has now been awarded Safety Grant Funds to construct a sidewalk along Pippin Road from Struble to Stout. There is a zero percent match associated with this project and sidewalk construction is expected to be completed in 2024.

OHIO DEPARTMENT OF TRANSPORTATION
Mike DeWine, *Governor*
Jack Marchbanks, Ph.D., *Director*

District 8
505 S. State Route 741, Lebanon, OH 45036
513-933-6568
transportation.ohio.gov

Geoff Milz
Township Administrator
Colerain Township
4200 Springdale Road
Colerain Township, OH 45251

Date: July 10, 2020

Re: 2020 Safety Funding Application in Colerain Township – HAM CR 90 3.89 PID 113713

Dear Mr. Milz:

Thank you for helping to submit a safety funding application for the spring 2020 funding round of the Highway Safety Improvement Program. Decision-making is always difficult. ODOT districts and local governments submitted a record setting 77 applications worth more than $197 million this application round. Projects were reviewed based on a variety of criteria.

The Ohio Department of Transportation (ODOT) is pleased to inform you that your application has been selected for funding, which is outlined in the table below. The project will include: new sidewalk along the west side of Pippin Road between Struble and Stout and improve the crossings at the intersections. The Project Identification number (PID) is 113713.

Project Phase	Fiscal Year	Amount
Preliminary Engineering	2021	$64,153
Detailed Design	2022	$31,597
Right of Way	2023	$50,000
Construction	2024	$542,124
Construction Engineering	2024	$54,212

The next step will be for ODOT, Colerain Township and the Central Office Task Order consultant to schedule a PIP field review and complete the LPA scope of services form. Please contact me at (513) 933-6624 or brianne.hetzel@dot.ohio.gov to coordinate the field review, which will be held virtually. I look forward to working with you and the Township as we develop these improvements.

Respectfully,

Brianne Hetzel

Brianne Hetzel, P.E.
ODOT District 8 - Traffic Studies Engineer

C:
File

PUBLIC SERVICES

Department: Public Services

Department Head: Jackie O'Connell, Director - Public Services

Resolution Authorizing Participation in the ODOT Cooperative Purchasing Program

Recommend approval of a resolution to participate in the ODOT Cooperative Purchasing Program to use products and services bid by the state.

Rationale:

ORC Section 5513.01 (B) provides the opportunity for Townships to participate in contracts of the Ohio Department of Transportation for the purchase of machinery, material, supplies or other articles. Public Services' initial use would be for capesealing/microsurfacing by Strawser Construction on contract 101g-21 in FY 2020, as budgeted.

The Board of Trustees of Colerain Township, County of Hamilton, State of Ohio, met in regular session at ___p.m., on the __ day of July, 2020, at the Colerain Township Administration Building, 4200 Springdale Road, Cincinnati, Ohio 45251, with the following members present:

Mr. Raj Rajagopal, Mr. Dan Unger, and Mr. Matthew Wahlert

Mr. _____ introduced the following resolution and moved its adoption:

RESOLUTION NO.: _____-20

RESOLUTION AUTHORIZING PARTICIPATION IN THE ODOT COOPERATIVE PURCHASING PROGRAM

WHEREAS, Ohio Revised Code Section 5513.01 (B) provides the opportunity for political subdivisions such as Colerain Township the ability to participate in contracts in which the Director of Transportation (hereinafter the "Director") and/or the Ohio Department of Transportation (hereinafter "ODOT") has entered for the purchase of machinery, materials, supplies, or other articles; and

WHEREAS, any such political subdivision desiring to participate in the above-referenced purchase contracts of the Director of Transportation and/or the ODOT shall file with the Director an ordinance or resolution of the legislative authority requesting authorization to participate in such contracts and agreeing to be bound by such terms and conditions as the Director prescribes; and

WHEREAS, any such purchases made by a political subdivision such as Colerain Township under Ohio Revised Code Section 5513.01 are exempt from any competitive bidding required by law for the purchase of machinery, materials, supplies, or other articles; and WHEREAS, Colerain Township is desiring to procure materials and supplies under Ohio Revised Code Section 5513.01 through this program for road improvements in Colerain Township.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Trustees of Colerain Township, Hamilton County, Ohio, as follows;

1. That pursuant to Ohio Revised Code Section 5513.01 (B), the Colerain Township Board of Trustees hereby request authority in the name of Colerain Township to participate in the contracts for the purchase of machinery, materials, supplies or other articles in which either the Director and/or ODOT have. has entered.

2. That with respect to the aforementioned contracts, the Colerain Township Board of Trustees agrees to be bound by all terms and conditions as the Director prescribes.

3. That the Colerain Township Board of Trustees authorizes and agrees to directly pay vendors, under each such contract of the Director and/or ODOT in which Colerain Township participates, for items it receives pursuant to any corresponding contract.

4. That Colerain Township agrees to be responsible for resolving all claims or disputes arising out of its participation in the cooperative purchasing program set forth under Section 5513.01 of the Ohio Revised Code and agrees to waive any claims, actions, expenses, or other damages arising out of its participation in the cooperative purchasing program which Colerain Township may have or claim to have against the Director, ODOT, or its employees, unless such liability is the result of negligence on the part of the Director, ODOT, or its employees.

5. That it is hereby found and determined that all formal actions of this Board concerning and relating to the passage of this Resolution were taken in meetings open to the public, in compliance with all legal requirements including §121.22 of the Ohio Revised Code.

6. That the Board by a majority vote hereby dispenses with the requirement that this Resolution be read on two separate days, pursuant to Section 504.10 of the Ohio Revised Code, and hereby authorizes the adoption of the Resolution upon its first reading.

7. This resolution shall take effect at the earliest period allowed by law.

Mr. _____ seconded the Resolution, and the roll being called upon the question of its adoption, the vote resulted as follows:

Vote Record: Mr. Rajagopal_____ Mr. Unger_____ and Mr. Wahlert_____

ADOPTED this _____day of July, 2020.

BOARD OF TRUSTEES:

_____

Raj Rajagopal, Trustee

_____
Dan Unger, Trustee

_____
Matthew Wahlert, Trustee

ATTEST:

_____
Jeff Baker,
Fiscal Officer

Resolution prepared by and approved as to form:

_____
Lawrence E. Barbiere (0027106)
Colerain Township Law Director
Scott Sollmann (0081467)
Colerain Township Assistant Law Director
5300 Socialville Foster Rd., Suite 200
Mason, OH 45040
(513) 583-4200

AUTHENTICATION

This is to certify that this Resolution was duly passed and filed with the Colerain Township Fiscal Officer this _____ day of July, 2020.

_____
Jeff Baker
Colerain Township Fiscal Officer

PUBLIC SERVICES

Department: Public Services

Department Head: Jackie O'Connell, Director - Public Services

Motion to Issue a Request for Bids for Colerain Park Playground Project

Recommend approval of a motion to issue a Request for Bids for the Colerain Park Playground Project.

Rationale:

The Colerain Park Playground Project has been in the works since Megaland was torn down in 2019. Local landscape architect design firm Human Nature has taken input from residents to design a unique play space in Colerain Park.

The bid documents solicit bids from vendors that allow them to put their own artistic take on the playground. The playground build is currently structured in two phases, as the state capital fund monies have not yet been appropriated.

Once approved, we will release for bid with a planned award date in Fall 2020. Completion estimated early summer 2021.

REQUEST FOR PROPOSALS (RFP)

COLERAIN PARK PLAYGROUND
for
Colerain Township

Release Date: 07/29/2020
Response Deadline: 08/21/2020

4200 Springdale Road
Colerain Township, OH 45251

513-385-7503

GUIDELINES AND INSTRUCTIONS
FOR REQUEST FOR PROPOSAL (RFP) FOR COLERAIN PARK PLAYGROUND

Colerain Township
4200 Springdale Road
Cincinnati, Ohio 45251
Phone: 513-385-7503

NOTICE TO RESPONDENTS

Colerain Township is soliciting proposals for a new playground construction for a playground in Colerain Park located at 4725 Springdale Road in Colerain Township until, August 21, 2020.

All clarifying questions for this proposal should be direct to Jackie O'Connell, Public Services Director, via email at joconnell@colerain.org. All questions should be submitted by August 7, 2020.

Six hard copy, signed proposals should be submitted to the Township to the attention of Jackie O'Connell, Director of Public Services, Re: Colerain Park Playground, at the address listed above not later than 3:00 p.m., August 21, 2020. In lieu of hard copies, digital copies will also be accepted if received on a flash drive by the deadline.

Respondents should be aware that any records they submit to the Township, or that are used by the Township may be public records. The Township will promptly disclose public records upon request unless a statute exempts them from disclosure. Respondents should also be aware that if even a portion of a record is exempt from disclosure, generally, the rest of the record must be disclosed.

GENERAL INFORMATION

Please refer to Attachment A for more information related to the exact specifications for the playground. This playground project is being bid as a design intent project, where the goal is to be presented with a final design that is consistent with proposed design found in Attachment A. There are two phases associated with this initial RFP. The second phase is entirely dependent on the award of dollars from the State of Ohio through their Capital Budget. To the extent that a State Capital Budget and subsequent award to Colerain does not occur, then Phase Two of the project may be cancelled.

At a minimum, the proposal must address all items requested in the project scope of services and provide a guaranteed maximum price for completion of each phase of the project.

TIMELINES

1. Township Trustees RFP Approval: July 28, 2020
2. Proposal Deadline: 3:00 p.m. (local time) on August 21, 2020
3. Projected Township approval: September 8, 2020
4. Projected Site Improvement Begin: September 9, 2020 or as soon as possible
5. Phase 1 Construction Completion: December 31, 2020 or as soon as possible

6. Phase 2 Construction Completion: To be determined at a later date

The Township will not be responsible for proposals that are received after the 3:00 p.m. deadline on August 21, 2020.

Deadlines are negotiable as part of the final contract.

PROPOSAL FORMAT

All proposals shall be submitted in the following format. Failure to abide by this format may result in the disqualification of the submission.

It is requested that all proposals be submitted in the following format to expedite the review and selection process.

1. Cover Letter – A cover letter signed by an individual who is authorized to submit the response to the Request for Proposals.

2. Experience with Public Sector – A listing of three comparable projects with a description of services rendered (including any subcontracting).

3. Timeline – The estimated timeline for completion. The dates referenced in the project timeline are an estimate and goal as set by the Township.

4. List of Key Staff – A complete list of key personnel who will be involved with this project, including their experience and qualifications. In addition, any key sub-contractors and their staff should also be identified.

5. Public Sector References – A list of a minimum of three (3) public sector references with contact information.

6. Conflicts of Interest – Responses must disclose any conflicts of interest to their accepting an award of the contract with Colerain Township. If a conflict of interest exists, the manner in which said conflict of interest would be rectified, if said contract is awarded to the proposer.

7. Legal Disclosure – Please disclose your firm's current legal and financial situation, including: any bankruptcies filed; and, any material (in excess of $50,000) claims, judgments, arbitrations investigations or lawsuits pending.

8. Design Intent Documentation – Please provide documentation that shows each element of playground equipment that is intended to be procured or constructed as part of this project. These items must be received in a format that will allow the Township's design firm to adequately compare and vet the proposal against their design and construction documents for consistency with the design intent.

9. Cost Proposal/Fee Structure – Total project cost with a line item cost breakdown of all projected itemizations. The Township is currently accepting monetary sponsorships related to this project. If the respondent desires to submit in-kind donations as part their proposal, they are encouraged to identify the in-kind contribution on the cost proposal/fee structure.

10. Sample Contract – A copy of sample agreement/contract. This will allow the Township to expedite the review/award process. *Please note that Phase Two of this project is entirely tied to outside funding and will either move forward or not based on funding awards.

11. Other Information – A statement of any other pertinent information that should be known in order to effectively evaluate the proposal.

Terms and Conditions

Colerain Township reserves the right to reject any or all proposals, to award contracts in whole or in part, or to waive any informalities or irregularities in the submitted proposals.

The response to this Request for Proposals is entirely voluntary. The Request for Proposal does not commit the Colerain Township to award a contract, to pay any costs incurred in the preparation of a proposal to this request, or to procure or contract for services or supplies.

Colerain Township may reject responses that do not meet the requirements of the Request for Proposals in any respect. Proposals which contain false or misleading statements, or which provide references that do not support an attribute or condition contended by the Vendor, may be rejected. If, in the opinion of Colerain Township, information is intended to mislead Colerain Township, in its evaluation of the proposal and the attribute, condition, or capability, the proposal will be rejected.

Colerain Township reserves the right to expand or reduce the work subject to negotiating with the successful contract. Colerain Township reserves the right to choose a company from the proposals or to further interview companies after proposals are submitted.

Colerain Township reserves the right to ask for additional information after proposals are received.

This Request for Proposals is conditioned upon the availability of federal, state, or local funds, which are appropriated or allocated for payment of the proposed goods or services. If, during any stage of this Request for Proposals process, funds are not allocated and available for the proposed services, the Request for Proposals process will be cancelled.

COLERAIN PARK PLAYGROUND
PHASE I

COLERAIN TOWNSHIP, OHIO

ISSUED FOR BID

22 JULY 2020

COLERAIN
1794 225TH ANNIVERSARY 2019

DESIGN TEAM

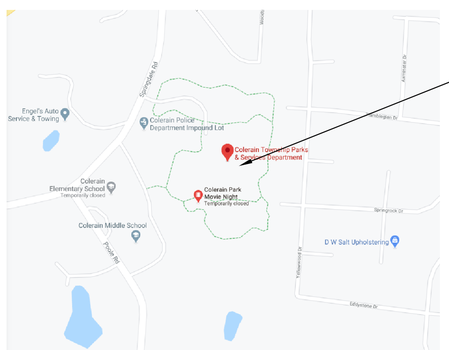
LANDSCAPE ARCHITECT/
LEAD DESIGNER

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206

CIVIL ENGINEER

IBI
23 Triangle Park Dr.
Cincinnati, OH 45246

LOCATION MAP



COLERAIN PARK PLAYGROUND
4160 SPRINGDALE RD,
CINCINNATI, OHIO 45251

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TREE PRESERVATION

PART 1-GENERAL

1.1 RELATED DOCUMENTS
A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS APPLY TO THIS SECTION.

1.2 DEFINITIONS
A. DIAMETER SHALL BE DEFINED AT BREAST HEIGHT (DBH) WHICH IS THE AVERAGE TREE DIAMETER AT 4.5 FEET FROM THE GROUND ON THE UPHILL SIDE OF THE TREE.
B. CALIPER SHALL BE DEFINED AS THE DIAMETER OF THE TRUNK AT 6 INCHES ABOVE THE SOIL FOR TREES UP TO 6 INCHES IN CALIPER AND DIAMETER AT 12 INCHES ABOVE THE SOIL FOR TREES UP TO 12-INCH CALIPER.
C. ROOT ZONE SHALL BE DEFINED AS 1 FOOT OF RADIUS AROUND TRUNK FOR EVERY INCH OF TRUNK DIAMETER AT 4.5 FEET ABOVE GROUND LEVEL ON THE UPHILL SIDE OF THE TREE.
D. DRIP LINE SHALL BE DEFINED AS THE OUTER LIMITS OF THE TREE CANOPY FOR EACH TREE PROJECTED DOWNWARD ONTO THE GROUND AS SHOWN IN THE DRAWINGS.
E. TREE PRESERVATION AREA SHALL BE DEFINED AS ALL AREAS WHICH CONTAIN TREES AND ALL EXISTING TREES NOTED TO REMAIN AND BE PROTECTED WITHIN THE LIMITS OF CONSTRUCTION. PROTECTIVE FENCING SHALL BE ERECTED AS SHOWN IN THE DRAWINGS.
F. DAMAGE SHALL BE DEFINED AS ANY NEGATIVE PHYSICAL IMPACT TO AN EXISTING TREE TRUNK, CANOPY, AND/OR ROOTS CAUSED BY ACCIDENTAL OR NEGLIGENT CONSTRUCTION ACTIVITIES, ALSO INCLUDING UNAUTHORIZED ENCROACHMENT INTO THE TREE PRESERVATION AREAS PROTECTED BY FENCING OR FAILURE TO COMPLY WITH SPECIFICATIONS AND DRAWINGS WHETHER FENCING IS PRESENT OR NOT, AT ANY TIME DURING THE CONSTRUCTION PROCESS, INCLUDING THE FINISHING STEPS OF LANDSCAPE INSTALLATION AND FINE GRADING OPERATIONS.

1.3 QUALITY ASSURANCE
A. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE GENERAL CONTRACTOR AND ALL CONTRACTORS IN ATTENDANCE SO THAT THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT MAY EXPLAIN TREE PRESERVATION DURING THE CONSTRUCTION PROCESS.
B. NO SITE PREPARATION WORK, INCLUDING DEMOLITION, STAGING OR ANY DELIVERY/STORAGE OF MATERIALS, SHALL BEGIN IN AREAS WHERE TREES ARE DESIGNATED TO REMAIN AND BE PROTECTED UNTIL PROTECTION AND TREATMENT MEASURES HAVE BEEN AGREED UPON AND COMPLETED.
C. TREE PRESERVATION MEASURES ALONG WITH TREATMENT MEASURES AND MATERIALS WILL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE, CERTIFIED ARBORIST, AND PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PROTECTION OF TREES OR WOODY SHRUBS IDENTIFIED TO REMAIN MEANS MAINTENANCE OF THE TREES IN GOOD HEALTH AND VITALITY, AS WELL AS PROTECTION FROM PHYSICAL DAMAGE AND DISEASE.
D. PUBLICATIONS LISTED HEREIN ARE PART OF THIS SPECIFICATION TO EXTENT REFERENCED:
1. TREE CARE INDUSTRY ASSOCIATION (FORMERLY NATIONAL ARBORIST ASSOCIATION) STANDARDS.
2. ISA-INTERNATIONAL SOCIETY OF ARBORICULTURE
3. AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS.
a. ANSI Z133.1-1994.
b. ANSI A300-1995.
4. AMERICAN NURSERYMAN ASSOCIATION STANDARDS.
E. CONTRACTOR QUALIFICATIONS:
1. MINIMUM OF FIVE YEARS' EXPERIENCE IN ARBORICULTURE WITHIN THE GREATER CINCINNATI REGION.
2. THREE REFERENCES FROM PUBLIC CLIENTS FOR WHOM SIMILAR SERVICES HAVE BEEN SUPPLIED.
3. STAFF THAT ARE ISA CERTIFIED ARBORISTS.
F. TREES ON SITE WHICH ARE TO BE PRESERVED SHALL BE PREPARED AND TREATED TO INCREASE THEIR POTENTIAL FOR SURVIVAL AND IMPROVE THEIR HEALTH AND CONDITION. CONTRACTOR SHALL MEET OR EXCEED THE MOST RECENTLY PUBLISHED TREE CARE INDUSTRY ASSOCIATION (FORMERLY NATIONAL ARBORIST ASSOCIATION) STANDARDS FOR ALL WORK. ALL WORK IS TO BE PERFORMED COMPLETELY AS SPECIFIED UNLESS CHANGES ARE AGREED UPON IN WRITING DUE TO UNFORESEEN LIMITING CIRCUMSTANCES.
G. EQUIPMENT AND SAFETY:
1. EQUIPMENT SHALL BE MODERN AND WELL MAINTAINED. ANY INSTRUMENTS USED TO CUT ROOTS AND LIMBS SHALL BE SHARPENED WELL ENOUGH TO MAKE CLEAN CUTS. CONTRACTOR SHALL ADHERE TO ALL APPLICABLE STATE AND FEDERAL REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PROPERTY RESULTING FROM EQUIPMENT, INCLUDING FLUID LEAKAGE OR DAMAGE RESULTING FROM EQUIPMENT FAILURE. INCIDENTS OF THIS TYPE SHALL BE REPORTED IMMEDIATELY TO OWNER'S REPRESENTATIVE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, INSTALLATIONS, FIXTURES, PAVING, CONCRETE, PLANT MATERIALS AND OTHER ITEMS ON THE SITE WHICH RESULT FROM THE EXECUTION OF WORK PRESCRIBED.

1.4 PERFORMANCE STANDARD
A. DAMAGED TREES, AS DETERMINED BY A CERTIFIED ARBORIST AND AGREED UPON BY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE, LESS THAN 12 INCHES IN DIAMETER SHALL BE REPLACED WITH TREES OF EQUAL CALIPER OR THE LARGEST COMMERCIALLY AVAILABLE TREES OF THE SAME SPECIES.
B. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXPENSES RELATED TO THE REPLACEMENT OF DAMAGED TREES INCLUDING: LOCATING REPLACEMENT TREES AT NURSERIES, TAGGING, REVIEW/APPROVAL OF REPLACEMENTS, PURCHASING, TRANSPORTING, INSTALLING, WARRANTY FOR ONE YEAR, AND ANY OTHER ASSOCIATED EXPENSES.
C. CONTRACTOR IS RESPONSIBLE FOR DAMAGE FOR ANY TREES DAMAGED AS A RESULT OF CONTRACTOR ERROR OR FAILURE TO FOLLOW CONTRACT SPECIFICATIONS. CONTRACTOR MAY BE REQUIRED TO REMOVE TREE AND STUMP FOR TREES DETERMINED TO BE DESTROYED AS A RESULT OF CONTRACTOR NEGLIGENCE. DAMAGED TREES GREATER THAN 12 INCHES IN DIAMETER SHALL BE COMPENSATED FOR BY THE CONTRACTOR AT $500.00 PER INCH OF DIAMETER, I.E. A DAMAGED 18 INCHES TREE = $9,000.00 DUE TO THE OWNER.
D. DIAMETERS OF DAMAGED TREES, IF ANY, SHALL BE DETERMINED BY AN ARBORIST FOR THE ASSESSMENT OF DAMAGES.
E. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A QUALIFIED CERTIFIED ARBORIST TO CONDUCT WORK THAT MAY BE REQUIRED DUE TO DAMAGE TO TREES DURING CONSTRUCTION. CERTIFIED ARBORIST IS TO MEET THE QUALIFICATIONS OUTLINED HEREIN.

1.5 SUBMITTALS
A. LIST PRODUCTS TO BE USED AND COMPANIES/PERSONNEL, INCLUDING THEIR QUALIFICATIONS THAT WILL BE PERFORMING THE REQUIRED WORK.

1.6 SUMMARY
A. FURNISH ALL LABOR, MATERIALS, SUPPLIES, EQUIPMENT AND TOOLS TO PERFORM ALL OPERATIONS IN CONNECTION WITH AND REASONABLY INCIDENTAL TO PRESERVE OR REPAIR TREES DAMAGED BY CONSTRUCTION. THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO, THE FOLLOWING:
1. ERECTING AND MAINTAINING TREE PROTECTION FENCES
2. ROOT PRUNING AS INDICATED ON DRAWINGS.
3. REPAIR OPERATIONS.
4. PAYMENTS OR REPLACEMENTS FOR DAMAGED TREES AS IDENTIFIED BY OWNER'S REPRESENTATIVE.
B. CONSTRUCTION ACTIVITY WITHIN THE ROOT ZONE OF EXISTING TREES TO REMAIN AND BE PROTECTED SHALL BE PROHIBITED AND CAN BE CONSIDERED AS DAMAGE TO THE TREE. THIS SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING ACTIVITIES:
1. REMOVING TREE PRESERVATION FENCING.
2. PARKING OR DRIVING EQUIPMENT, MACHINERY OR VEHICLES.
3. STORING CONSTRUCTION MATERIALS, EQUIPMENT, STOCKPILING, EXCAVATION OR FILL, SOIL, GRAVEL, ETC.
4. DUMPING CHEMICALS, WASH-OUT MATERIALS FROM CLEANING EQUIPMENT, CONCRETE OR MORTAR REMAINDER, TRASH, GARBAGE, OR DEBRIS.
5. BURNING WITHIN OR IN PROXIMITY TO PROTECTED AREAS.
6. TRENCHING OR GRADING WITHIN THE DRIP LINES OF PROTECTED TREES WITHOUT NOTIFYING OWNER'S REPRESENTATIVE IN WRITING 10 DAYS IN ADVANCE OF OPERATION. THIS INCLUDES UTILITIES, LIGHTING, IRRIGATION, DRAINAGE, PAVING, STRUCTURES, ETC.
7. TRENCHING OR GRADING WITHOUT ROOT PRUNING.
8. ANY CONSTRUCTION ACTIVITY WITHIN THE DRIP LINE OF AN EXISTING TREE.
C. TIMING: IF DISTURBANCE IS REQUIRED DURING THE ACTIVE GROWING SEASON, ADDITIONAL MEASURES MAY BE NEEDED TO PROTECT THE TREE. THESE MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO: MULCHING/PROTECTION OF DISTURBED ROOTS AND TEMPORARY IRRIGATION OF DISTURBED TREES.
D. SILT SHALL NOT BE ALLOWED TO BUILD UP AGAINST THE TREE PRESERVATION AREA SILT FENCES.
E. CONTRACTOR SHALL WORK WITH OWNER'S REPRESENTATIVE TO MAKE FIELD ADJUSTMENTS AS NECESSARY IN ORDER TO PROMOTE LONG-TERM HEALTH AND VIABILITY OF THE TREES.

PART 2-PRODUCTS

2.1 MATERIALS
A. THE USE OF TRADE NAME AND SUPPLIER'S NAME AND ADDRESS IS TO INDICATE A POSSIBLE SOURCE OF THE PRODUCT. PRODUCTS OF THE SAME TYPE FROM OTHER SOURCES SHALL NOT BE EXCLUDED, PROVIDED THEY POSSESS LIKE PHYSICAL AND FUNCTIONAL CHARACTERISTICS AND ARE APPROVED BY OWNER'S REPRESENTATIVE.
B. EVERY EFFORT SHALL BE MADE TO UTILIZE CHEMICALS OF AN ORGANIC OR BIODEGRADABLE NATURE IN ORDER TO OFFER LEAST IMPACT TO THE NATURAL ENVIRONMENT. CONTRACTOR IS RESPONSIBLE FOR MIXING, APPLYING AND DISPOSAL OF ALL CHEMICALS IN ACCORDANCE WITH STRICT ADHERENCE TO MANUFACTURERS' DIRECTIONS. PROTECT ADJACENT STRUCTURES, VEHICLES, PEDESTRIANS, PAVEMENT AND PLANTS FROM EXPOSURE TO ANY CHEMICALS.
C. TREE PROTECTION FENCING: POSTS TO BE STEEL FENCE POSTS SPACED 6'-0" ON CENTER WITH STANDARD SNOW FENCING OR ORANGE POLYETHYLENE CONSTRUCTION FENCING, EXPOSED HEIGHT ABOVE GRADE 4'- 0". SIGNS SHALL BE AFFIXED TO THE FENCING EVERY 100 FEET WITH APPROPRIATE LANGUAGE, SUCH AS "TREE PROTECTION ZONE (TPZ)-NO GRADE CHANGE, STORAGE OF MATERIALS, OR EQUIPMENT IS PERMITTED WITHIN THIS TPZ."

PART 3-EXECUTION

3.1 TREE IDENTIFICATION
A. INDIVIDUAL TREES AND TREE PROTECTION AREAS ARE AS SHOWN ON THE DRAWINGS.
B. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL TAG AND NUMBER EVERY EXISTING TREE THAT WILL REMAIN ON SITE, AS IDENTIFIED ON THE PLANS. AFTER THE TREES ARE TAGGED AND NUMBERED, THE CONTRACTOR SHALL HIRE A CERTIFIED ARBORIST TO EVALUATE ALL TREES DESIGNATED TO REMAIN AND MAKE THE OWNER AND LANDSCAPE ARCHITECT AWARE OF ANY POTENTIAL CONCERNS REGARDING HEALTH, STRUCTURE, RISKS AND ANY RECOMMENDED REMEDIAL MEASURES TO IMPROVE THE LIKELIHOOD OF THE TREES' SURVIVAL AND GOOD HEALTH AFTER CONSTRUCTION.

3.2 COORDINATION
A. BEFORE START OF WORK, MEET AT THE WORK SITE WITH ALL PARTIES INVOLVED. REVIEW AREAS OF SCHEDULING AND POSSIBLE CONFLICT WITH VARIOUS TRADES AND OTHER SITE WORK. COORDINATE LAYOUT OF WORK AND RESOLVE CONFLICTS BEFORE PROCEEDING WITH WORK. ALL TREE PRESERVATION STRATEGIES SHALL BE AGREED UPON BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
B. TREE PRESERVATION FENCING SHALL GO UP PRIOR TO BEGINNING ANY AND ALL SITE WORK. ONCE THE FENCING IS IN PLACE, IT SHALL NOT BE MOVED OR CROSSED ANY TIME DURING CONSTRUCTION. IF A CONFLICT ARISES DURING CONSTRUCTION BETWEEN PROPOSED PLANS AND TREE PRESERVATION FENCING, THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT SHALL BE CONTACTED IMMEDIATELY BEFORE ANY WORK IS DONE IN THE CONFLICTED AREA.
C. ALL TREE REMOVAL, TREE PRUNING, AND WORK AFFECTING EXISTING TREES AND TREE PRESERVATION, SHALL BE REVIEWED WITH OWNER'S REPRESENTATIVE PRIOR TO ANY WORK STARTING IN THE TREE PRESERVATION AREA.

3.3 TREE WORK AGENDA
A. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY TREES WHICH MAY INTERFERE WITH PROJECT ACCESS OR WORK AT ANY TIME DURING CONSTRUCTION, A MINIMUM OF 14 DAYS PRIOR TO THE START OF THE PROPOSED WORK. ANY SPECIAL PROVISIONS OR ADJUSTMENTS TO THE TREE PRESERVATION STRATEGIES MUST BE APPROVED BY OWNER'S REPRESENTATIVE.

3.4 PRE-CONSTRUCTION PRUNING
A. ASSESSMENT BY CONTRACTOR IS REQUIRED PER AREA OF WORK TO ENSURE THERE IS ADEQUATE CLEARANCE TO DO WORK UNDER EXISTING TREES TO REMAIN. REVIEW ANY CLEARANCE ISSUES WITH OWNER'S REPRESENTATIVE. ALL REQUIRED TRIMMING SHALL BE PERFORMED BY CONTRACTOR AFTER REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE.

3.5 TREE REMOVAL
A. TREES MARKED ON PLANS AND/OR DESIGNATED IN THE FIELD BY OWNER'S REPRESENTATIVE SHALL BE REMOVED FROM SITE AS NOTED IN THE DRAWINGS AND SPECIFICATIONS.
B. TREES NOTED FOR REMOVAL SHALL BE REMOVED WITHOUT DAMAGE TO ADJACENT TREES TO BE PROTECTED, EXISTING STRUCTURES, UTILITIES, ETC.
C. ALL CANOPY BRANCHES AND TOPS OF TREES SHALL BE HAULED OFF SITE AND PROPERLY DISPOSED OF.
D. STUMPS SHOULD BE GROUND OR REMOVED FROM SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND CERTIFIED ARBORIST.

3.6 GENERAL
A. REVIEW OF TREE PRESERVATION PLANS AND LIMITS OF CLEARING:
1. THE CONTRACTOR SHALL BE REQUIRED TO HOLD A MEETING IN THE FIELD WITH THE SUBCONTRACTORS, THE OWNER'S REPRESENTATIVE, THE LANDSCAPE ARCHITECT, AND THE CERTIFIED ARBORIST TO REVIEW THE LOCATION OF TREES TO BE PRESERVED AND THE REQUIREMENTS OF TREE PRESERVATION COORDINATION AND DAMAGES. CONCERNS RELATING TO TREE PRESERVATION SHALL BE BROUGHT TO THE CERTIFIED ARBORIST'S ATTENTION AT THAT TIME.
B. ANY WORK REQUIRED BY PLANS WHICH IS IN A TREE PRESERVATION AREA SHALL BE PERFORMED BY HAND OR METHOD(S) OTHERWISE APPROVED BY LANDSCAPE ARCHITECT. ALL WORK WILL BE PERFORMED IN A MANNER TO PREVENT COMPACTION, SILTATION, AND DISTURBANCE OF THE ROOT MAT OF ALL ASSOCIATED TREES AND UNDERSTORY TREES.
C. IN AREAS WHERE TREE ROOTS ARE TO BE EXPOSED TO DAMAGE BY DEMOLITION OR CONSTRUCTION ACTIVITY, THE EXPOSED ROOTS SHALL BE KEPT MOIST AT ALL TIMES. EXPOSED ROOTS SHALL BE COVERED WITH A LAYER OF MULCH OR WOOD CHIPS.
D. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL SUBCONTRACTORS ARE AWARE OF, AND ADHERE TO, TREE PRESERVATION REQUIREMENTS.

3.2 DAMAGES AND PENALTIES
A. ALL TREES MARKED ON PLANS AND/OR DESIGNATED IN THE FIELD WITHIN THE FENCE LINES SHALL BE PRESERVED BY THE CONTRACTOR. TREES MARKED FOR PRESERVATION WITHIN SENSITIVE TREE AREAS INDICATED ON PLAN MAY BE ASSESSED DAMAGES. COMPENSATION FOR DAMAGE OF TREES DUE TO CONTRACTOR NEGLIGENCE AND/OR ACCIDENTS SHALL BE ASSESSED BY OWNER'S REPRESENTATIVE. PENALTIES WILL BE IN THE FORM OF A FINE LEVIED AGAINST THE CONTRACTOR FOR EACH SPECIFIC VIOLATION.
B. CONTRACTOR IS RESPONSIBLE FOR DAMAGE COMPENSATION FOR ANY TREES DAMAGED AS A RESULT OF CONTRACTOR ERROR OR FAILURE TO FOLLOW CONTRACT SPECIFICATIONS. CONTRACTOR MAY BE REQUIRED TO REMOVE TREE AND STUMP FOR TREES DETERMINED TO BE DESTROYED AS A RESULT OF CONTRACTOR NEGLIGENCE. DAMAGED TREES GREATER THAN 12 INCHES IN DIAMETER SHALL BE COMPENSATED FOR BY THE CONTRACTOR AT $500 PER INCH OF DIAMETER, I.E. A DAMAGED 18 INCHES TREE = $9,000.00 DUE TO THE OWNER.

3.3 SITE MONITORING
A. THE CERTIFIED ARBORIST SHALL CONDUCT PERIODIC SITE VISITS TO ENSURE COMPLIANCE WITH TREE PRESERVATION REQUIREMENTS. PROMPT RESPONSE SHALL BE MADE TO REQUESTS BY CERTIFIED ARBORIST, WHICH AFFECTS THE SURVIVAL OF TREES TO BE PRESERVED.
B. THE OWNER'S REPRESENTATIVE MAY CONDUCT PERIODIC SITE VISITS TO ENSURE COMPLIANCE WITH TREE PRESERVATION REQUIREMENTS. PROMPT RESPONSE SHALL BE MADE TO REQUESTS BY OWNER'S REPRESENTATIVE, WHICH AFFECTS THE SURVIVAL OF TREES TO BE PRESERVED.

3.4 SITE MAINTENANCE
A. CONTRACTOR SHALL KEEP ALL TRAVELED AREAS WATERED REGULARLY OR APPLY OTHER APPROVED DUST CONTROL METHODS TO PREVENT EXCESSIVE DUST ACCUMULATION ON FOLIAGE OF TREES TO BE PRESERVED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMOVAL OF EXCESSIVE DUST FROM THE FOLIAGE OF TREES.

3.5 TREE TRIMMING
A. CONTRACTOR SHALL ASSESS AREA OF WORK TO ENSURE THERE IS ADEQUATE CLEARANCE TO DO WORK UNDER EXISTING TREES TO REMAIN. REVIEW ANY CLEARANCE ISSUES WITH THE OWNER'S REPRESENTATIVE. ALL REQUIRED TRIMMING SHALL BE PERFORMED BY CONTRACTOR AFTER REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE.
B. TRIMMING FOR ADEQUATE CLEARANCE TO FACILITATE EQUIPMENT USE AND CONSTRUCTION ACTIVITIES WILL BE PERFORMED PRIOR TO THE WORK COMMENCING.
C. TRIMMING FOR WORKER AND PUBLIC SAFETY AND FOR THE HEALTH AND VIGOR OF PRESERVED TREES, AS DIRECTED BY THE CERTIFIED ARBORIST, IS ALSO REQUIRED PRIOR TO CONSTRUCTION WORK COMMENCING.

3.6 ROOT PRUNING
A. WHERE EXCAVATION OR CONSTRUCTION WITHIN THE DRIP LINE OF A TREE IS NECESSARY OR AS NOTED ON THE DRAWINGS, ROOT PRUNING MAY BE REQUIRED. A ROOT CUT SHALL BE MADE AS DESCRIBED BELOW.
1. BLADE SHALL BE SHARPENED PRIOR TO USE.
2. ROOT CUTS SHALL BE MARKED IN THE FIELD BY CONTRACTOR AND REVIEWED BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT PRIOR TO CUTTING.
1. THE ARBORIST SHALL ALSO MAKE ANY RECOMMENDATIONS RELATED TO PRESERVING ANY CRITICAL STRUCTURAL ROOTS (E.G., THIS IS THE CLOSEST POINT TO THIS PARTICULAR TREE THAT THE SOIL CAN BE DISTURBED.) DURING THE ROOT PRUNING PROCESS.
2. ONCE REVIEWED BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT, CONTRACTOR SHALL FOLLOW HIS/HER RECOMMENDATIONS TO CUT ALONG THE APPROVED MARKS PRIOR TO ANY EXCAVATION.
3. CONTRACTOR SHALL PRUNE ALL ROOTS AS DIRECTED WITH CIRCULAR SAWS OF VARYING TYPES AND/OR A ROTARY TYPE STUMP GRINDER TO A DEPTH OF 18" OR TO THE MAXIMUM DEPTH OF THE REQUIRED GRADING CUT, WHICHEVER IS LESS.
4. ROOT PRUNING SHALL BE COORDINATED WITH THE TREE PROTECTION FENCING. IN SOME CASES THAT FENCE LINE IS ON THE ROOT CUT, PROVISIONS FOR ROOT PRUNING NEED TO BE ACCOMMODATED BEFORE THE FENCE IS ERECTED.
5. DURING THE EXCAVATION PROCESS, IF ROOTS GREATER THAN 2 INCHES IN DIAMETER THAT HAVE NOT BEEN ROOT PRUNED ARE ENCOUNTERED, THEY SHALL BE REVIEWED BY THE CERTIFIED ARBORIST TO DETERMINE STRUCTURAL STABILITY OF THE TREE. CONTRACTOR SHALL FOLLOW INSTRUCTIONS FROM THE CERTIFIED ARBORIST FOR CUTTING (E.G., CUTTING WITH A SAW OR SHARP AXE). ROOTS SHALL NOT BE RIPPED WITH EARTH MOVING EQUIPMENT.

3.7 TREE PROTECTION FENCING
A. TREE PROTECTION FENCING SHALL BE INSTALLED IN THE LOCATIONS INDICATED ON THE DRAWINGS.
B. INSTALL APPROVED PROTECTIVE FENCING AROUND EACH TREE DESIGNATED TO REMAIN AND BE PROTECTED. MAINTAIN FENCING THROUGHOUT DURATION OF PROJECT. CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR LIABILITIES ASSOCIATED WITH PROTECTIVE FENCING THAT IS NOT APPROPRIATELY MAINTAINED. TEMPORARY REMOVAL OF FENCING SHALL REQUIRE APPROVAL OF OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
C. TREE PROTECTION FENCING SHALL BE AS SPECIFIED AND INCLUDE APPROVED SIGNAGE AS DESCRIBED IN SECTION 2.1 C.
D. NO ACCESS TO FENCED AREAS SHALL BE PERMITTED BY ANYONE OTHER THAN THE CERTIFIED ARBORIST WITHOUT PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE
E. CONTRACTOR SHALL PROVIDE MAINTENANCE, REPAIR, AND REMOVAL OF FENCE DURING DURATION OF THIS CONTRACT.
F. TREE PROTECTION FENCING SHALL BE IN-PLACE AND IN GOOD CONDITION UPON THE COMPLETION OF THE CONSTRUCTION PROCESS.
G. AT SUBSTANTIAL COMPLETION AND ONLY AFTER DIRECTED BY THE OWNER'S REPRESENTATIVE, CONTRACTOR SHALL REMOVE TREE PROTECTION FENCING AND ALL SUCH MATERIALS.

3.8 MULCHING
A. SELECTED TREES IN HIGH IMPACT AREAS, IF IDENTIFIED ON THE PLANS, ADJACENT TO CONSTRUCTION SHALL BE MULCHED WITH A 2-INCH DEPTH OF SHREDDED HARDWOOD BARK MULCH.

3.9 OTHER REMEDIAL ACTIVITIES
A. CONTRACTOR SHALL PROVIDE OTHER ARBORICULTURAL SERVICES AS NEEDED TO RESPOND TO DAMAGE BY CONSTRUCTION ACTIVITIES. THESE SERVICES MAY INCLUDE ANY OF THE ABOVE, AS WELL AS FENCE REPAIR, VERTICAL MULCHING, ETC. CONTRACTOR SHALL RESPOND TO CALLS FOR REMEDIAL WORK WITHIN 48 HOURS OF NOTIFICATION.
B. AS RECOMMENDED BY THE CERTIFIED ARBORIST, VERTICAL MULCHING TECHNIQUES SHALL BE USED TO REDUCE COMPACTION WHERE IT MAY BE CAUSING TREES STRESS. HOLES SHALL BE AUGERED USING A 2-3 INCHE MECHANICAL AUGER TO A DEPTH OF 12-18 INCHES. HOLES SHALL BE EVENLY DISTRIBUTED THROUGHOUT THE AFFECTED ROOT ZONE IN AN 18-TO 24-INCH GRID PATTERN AND BACKFILLED WITH HUMUS. CARE SHALL BE GIVEN TO AVOID DAMAGING LARGE ROOTS WHEN WITHDRAWING.

3.10 CLEANUP
A. REMOVE FROM SITE ALL EXCESS MATERIALS, SOIL, DEBRIS, AND EQUIPMENT DIRECTLY RELATED TO TREE PRESERVATION ACTIVITIES.

END OF SECTION

PLAYGROUND EQUIPMENT

PART 1--GENERAL

1.1 SECTION INCLUDES
A. WORK INCLUDED:
1. PLAYGROUND EQUIPMENT.
2. LOCATION OF EACH ITEM OF PLAYGROUND EQUIPMENT IS INDICATED ON THE DESIGN INTENT DRAWINGS.

1.2 RELATED SECTIONS AND DIVISIONS
A. SECTION 32 13 13 - CONCRETE PAVING.
B. SECTION 32 18 16.13 - PLAYGROUND PROTECTIVE SURFACING.

1.3 REFERENCE STANDARDS
A. ASTM F 1292 - STANDARD SPECIFICATION FOR IMPACT ATTENUATION OF SURFACING MATERIALS WITHIN THE USE ZONE OF PLAYGROUND EQUIPMENT; 2004.
B. ASTM F 1487 - STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE; 2007A.
C. CPSC PUB. NO. 325 - HANDBOOK FOR PUBLIC PLAYGROUND SAFETY; CONSUMER PRODUCTS SAFETY COMMISSION; 2008.
D. IPEMA FOR CERTIFIED PUBLIC PLAY EQUIPMENT AND PLAY SURFACING.

1.4 DEFINITIONS
A. PLAY EVENT: A PIECE OF PLAYGROUND EQUIPMENT THAT SUPPORTS ONE OR MORE PLAY ACTIVITIES.
B. USE ZONE: THE AREA UNDER AND AROUND A PLAY EVENT WITHIN WHICH THE GROUND SURFACING MUST MEET FALL IMPACT ATTENUATION REQUIREMENTS OF ASTM F1292 WHEN TESTED AT THE FALL HEIGHT SPECIFIED FOR THE PLAY EVENT.
C. FALL HEIGHT: THE VERTICAL DISTANCE BETWEEN THE FINISHED ELEVATION OF THE DESIGNATED PLAY SURFACE AND THE FINISHED ELEVATION OF THE PROTECTIVE SURFACING BENEATH IT, AS DEFINED IN ASTM F 1487.
D. PROTECTIVE SURFACING: RESILIENT GROUND SURFACING AS SPECIFIED IN SECTION 32 18 16.13 - PLAYGROUND PROTECTIVE SURFACING. THE CHARACTERISTICS OF THE PROTECTIVE SURFACING ARE BASED ON THE FALL HEIGHT OF THE PLAYGROUND EQUIPMENT. CHANGES IN EITHER THE SURFACING OR THE FALL HEIGHT, PARTICULARLY REDUCING THE RESILIENCE OF THE PROTECTIVE SURFACING OR INCREASING THE FALL HEIGHT, WILL REDUCE SAFETY-RELATED PERFORMANCE.
E. SUBGRADE: THE SURFACE OF THE GROUND ON WHICH THE PROTECTIVE SURFACING IS INSTALLED; THE SUBBASE FOR THE PROTECTIVE SURFACING IS INSTALLED OVER THE SUBGRADE.

1.5 SUBMITTALS
A. PROPOSALS FOR SUBSTITUTIONS: SUBSTITUTIONS THAT WILL INCREASE THE FALL HEIGHT, PLATFORM HEIGHT, OR MAXIMUM EQUIPMENT HEIGHT WILL NOT BE CONSIDERED. SUBMIT SHOP DRAWINGS WITH PROPOSED MODIFICATIONS CLEARLY IDENTIFIED AND SUFFICIENT INFORMATION TO DETERMINE COMPLIANCE WITH SPECIFIED CRITERIA.
B. PRODUCT DATA: FOR ALL MANUFACTURED EQUIPMENT, PROVIDE MANUFACTURER'S PRODUCT DATA SHOWING MATERIALS OF CONSTRUCTION, COMPLIANCE WITH SPECIFIED STANDARDS, INSTALLATION PROCEDURES, SAFETY LIMITATIONS, AND THE NUMBER OF USERS PERMITTED.
1. CERTIFICATIONS: PROVIDE INTERNATIONAL PLAY EQUIPMENT MANUFACTURERS ASSOCIATION (IPEMA) CERTIFICATION THAT PRODUCT COMPLIES WITH ASTM F 1487.
C. PRODUCT DATA: FOR FABRICATED ITEMS, PROVIDE THE FOLLOWING:
1. WOOD FINISHES: PROVIDE INFORMATION ON WOOD FINISH CHEMICAL CONTENT AND VOLATILITY LEVEL.
2. GALVANIZED STEEL: CERTIFICATION OF GALVANIZED COATING THICKNESS.
D. SHOP DRAWINGS: PROVIDE DETAILED SCALE DRAWINGS FOR EACH PLAYGROUND SITE ELEMENT AND PLAY EVENT
1. PLAY EVENT SHOP DRAWINGS ONLY SHOW: PLAY EVENT LAYOUT, USE ZONE PERIMETERS, AND FALL HEIGHT
2. SHOW LOCATIONS AND DIMENSIONS OF FOOTINGS AND ANCHORAGE POINTS.
3. SHOW LOCATIONS OF RELATED CONSTRUCTION SUCH AS WALKWAYS AND ROADWAYS, FENCES, SITE FURNISHINGS, AND PLANTINGS.
4. SHOW LOCATIONS FOR EXISTING TREES TO BE PRESERVED AS THEY RELATE TO ANY POTENTIAL CONSTRUCTION CONSTRAINT. NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY IF A CONSTRAINT IS IDENTIFIED.
E. SAMPLES: FOR EACH ITEM FOR WHICH COLOR MUST BE SELECTED PROVIDE COLOR CHART SHOWING FULL RANGE OF COLORS AND FINISHES.
F. MAINTENANCE DATA: PROVIDE MANUFACTURER'S RECOMMENDED MAINTENANCE INSTRUCTIONS AND LIST OF REPLACEABLE PARTS FOR EACH EQUIPMENT ITEM, WITH ADDRESS AND PHONE NUMBER OF SOURCE OF SUPPLY.
G. WARRANTY: SUBMIT MANUFACTURER WARRANTY AND ENSURE THAT FORMS HAVE BEEN COMPLETED IN OWNER'S NAME AND REGISTERED WITH MANUFACTURER.

1.6 QUALITY ASSURANCE
A. MAINTAIN ONE COPY OF THE LATEST EDITION OF ASTM F 1487 AND CPSC PUB. NO. 325 AT PROJECT SITE.
B. MANUFACTURER QUALIFICATIONS: COMPANY IS REGULARLY ENGAGED IN MANUFACTURING MATERIALS AND PRODUCTS SPECIFIED IN THIS SECTION, WITH NOT LESS THAN THREE YEARS OF EXPERIENCE.
1. PROVIDE DOCUMENTATION SHOWING THAT PLAYGROUND EQUIPMENT SIMILAR TO THAT SPECIFIED HAS BEEN INSTALLED IN MINIMUM TEN SITES AND BEEN IN SUCCESSFUL SERVICE FOR MINIMUM OF FIVE YEARS; PROVIDE ADDRESSES.
2. PROVIDE CERTIFICATE OF INSURANCE AA RATED FOR MINIMUM 1,000,000 DOLLARS COVERING BOTH PRODUCT AND GENERAL LIABILITY.
3. MANUFACTURER'S REPRESENTATIVE: PROVIDE NAME, COMPANY NAME AND ADDRESS, AND PLAYGROUND SAFETY TRAINING CERTIFICATE.
C. INSTALLER QUALIFICATIONS: COMPANY CERTIFIED BY MANUFACTURER FOR TRAINING AND EXPERIENCE INSTALLING PLAY EVENTS AND EQUIPMENT.

1.7 DELIVERY, STORAGE, AND HANDLING
A. DELIVER, HANDLE, AND STORE EQUIPMENT TO PROJECT SITE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
B. STORE MATERIALS IN A DRY, COVERED AREA, ELEVATED ABOVE GRADE.

1.8 WARRANTY
A. PROVIDE DATA AND DOCUMENTS THAT CONFORM WITH MANUFACTURERS STANDARD WARRANTY.

PART 2--PRODUCTS

2.1 PLAYGROUND EQUIPMENT - GENERAL
A. DESIGN ASSU

1. USE STAINLESS STEEL FOR WOOD-TO-WOOD AND WOOD-TO-METAL CONNECTIONS.
2. USE STAINLESS STEEL WITH PLASTIC COMPONENTS.
3. BEARINGS: SELF LUBRICATING.
4. HOOKS, INCLUDING S-HOOKS: CLOSED LOOP; MAXIMUM GAP 0.04 INCHES (1 MM), LESS THAN THE THICKNESS OF A DIME.
5. RAILS, LOOPS, AND HAND BARS: SAME METAL AS ITEM IS MOUNTED ON OR ALUMINUM; WITH POWDER COATING.
6. ANCHORS: IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

E. POWDER COATING FOR STEEL: ELECTROSTATICALLY APPLIED AND OVEN CURED POLYESTER POWDER OVER ELECTROSTATIC ZINC COATING.

F. CONCRETE: AS SPECIFIED.

PART 3--EXECUTION

3.1 LAYING OUT THE WORK

A. STAKE THE LOCATION OF ALL PLAYGROUND ELEMENTS, INCLUDING USE ZONE PERIMETERS, PERIMETER OF PROTECTIVE SURFACING, ACCESS AND EGRESS POINTS, HARD SURFACES, WALLS, FENCES, AND STRUCTURES, AND PLANTING LOCATIONS FOR REVIEW BY OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT AND PLAYGROUND CONSULTANT.

B. STAKE THE LAYOUT OF THE ENTIRE USE ZONE PERIMETER BEFORE STARTING ANY WORK AND BEFORE SUBBASE UNDER RESILIENT SURFACING IS LAID.

1. VERIFY THAT USE ZONE PERIMETERS DO NOT OVERLAP HARD SURFACES, WHETHER CURRENTLY INSTALLED OR NOT.
2. VERIFY THAT USE ZONE PERIMETERS DO NOT OVERLAP OTHER USE ZONES THAT, BY REGULATIONS AND PLAY EVENTS, MAY NOT OVERLAP.
3. VERIFY THAT USE ZONES ARE FREE OF OBSTRUCTIONS THAT WOULD EXTEND INTO THE RESILIENT PORTION OF THE PROTECTIVE SURFACING.
4. IF CONFLICTS OR OBSTRUCTIONS EXIST, NOTIFY LANDSCAPE ARCHITECT
5. DO NOT PROCEED UNTIL REVISED DRAWINGS HAVE BEEN PROVIDED, SHOWING CORRECTED LAYOUT, AND OBSTRUCTIONS HAVE BEEN REMOVED.

3.2 EXAMINATION

A. VERIFY THAT PLAYGROUND EQUIPMENT FOOTINGS HAVE BEEN INSTALLED IN PROPER LOCATIONS AND AT PROPER ELEVATIONS.

B. VERIFY LOCATION OF UNDERGROUND UTILITIES AND FACILITIES IN THE PLAYGROUND AREA. DAMAGE TO UNDERGROUND UTILITIES AND FACILITIES WILL BE REPAIRED AT CONTRACTOR'S EXPENSE.

3.3 INSTALLATION

A. COORDINATE WORK WITH PREPARATION FOR AND INSTALLATION OF PROTECTIVE SURFACING SPECIFIED IN SECTION 32 18 16.13. THE RESILIENT PORTION OF THE PROTECTIVE SURFACING IS TO BE INSTALLED AFTER PLAYGROUND EQUIPMENT INSTALLATION.

B. INSTALL IN ACCORDANCE WITH CPSC PUB. NO. 325, ASTM F 1487, MANUFACTURER'S INSTRUCTIONS, AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

C. ANCHOR EQUIPMENT SECURELY BELOW THE BOTTOM ELEVATION OF THE RESILIENT SURFACING LAYER.

D. INSTALL WITHOUT SHARP POINTS, EDGES, OR PROTRUSIONS; ENTANGLEMENT HAZARDS; OR PINCH, CRUSH, OR SHEAR POINTS.

E. DO NOT MODIFY PLAY EVENTS ON SITE WITHOUT WRITTEN APPROVAL OF MANUFACTURER.

F. INSTALL REQUIRED SIGNAGE IF NOT FACTORY-INSTALLED.

G. ALL ELEMENTS REQUIRING SHOP DRAWINGS SHALL BE INSTALLED ONLY AFTER APPROVAL BY OWNER'S REPRESENTATIVE AND PLAYGROUND CONSULTANT.

3.4 FIELD QUALITY CONTROL

A. OWNER'S REPRESENTATIVE AND PLAYGROUND CONSULTANT WILL INSPECT PLAYGROUND EQUIPMENT AFTER INSTALLATION TO VERIFY THAT PLAYGROUND MEETS SPECIFIED DESIGN SAFETY AND ACCESSIBILITY REQUIREMENTS.

B. REPAIR OR REPLACE REJECTED WORK UNTIL COMPLIANCE IS ACHIEVED.

3.5 CLEANING

A. RESTORE ADJACENT EXISTING AREAS THAT HAVE BEEN DAMAGED FROM THE CONSTRUCTION.

B. CLEAN PLAYGROUND EQUIPMENT OF CONSTRUCTION MATERIALS, DIRT, STAINS, FILINGS, AND BLEMISHES DUE TO SHIPMENT OR INSTALLATION. CLEAN IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, USING CLEANING AGENTS AS RECOMMENDED BY MANUFACTURER.

C. CLEAN PLAYGROUND AREA OF EXCESS CONSTRUCTION MATERIALS, DEBRIS, AND WASTE.

D. REMOVE EXCESS AND WASTE MATERIAL AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

3.6 PROTECTION

A. PROTECT INSTALLED PRODUCTS UNTIL SUBSTANTIAL COMPLETION.

B. REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.

END OF SECTION

PLAYGROUND PROTECTIVE SURFACING

PART 1--GENERAL

1.1 SECTION INCLUDES

A. PROTECTIVE SURFACING FOR PLAYGROUND AREA.

B. MAINTENANCE AND CLEANING INSTRUCTIONS

C. WARRANTY

1.2 RELATED REQUIREMENTS

A. SECTION 02 41 01 - TREE PRESERVATION: EXISTING TREE PROTECTION REQUIREMENTS.

1.3 REFERENCE STANDARDS

A. US CONSUMER PRODUCT SAFETY COMMISSION (CPSC) PUBLIC PLAYGROUND SAFETY HANDBOOK

B. ASTM C 136 - TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES; 2006.

C. ASTM F 1292 - STANDARD SPECIFICATION FOR IMPACT ATTENUATION OF SURFACING MATERIALS WITHIN THE USE ZONE OF PLAYGROUND EQUIPMENT; 2004.

D. ASTM F 1951 - STANDARD SPECIFICATION FOR DETERMINATION OF ACCESSIBILITY OF SURFACE SYSTEMS UNDER AND AROUND PLAYGROUND EQUIPMENT

E. ASTM F 1487 - STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE; 2007A.

F. ASTM F 2075 - STANDARD SPECIFICATION FOR ENGINEERED WOOD FIBER FOR USE AS A PLAYGROUND SAFETY SURFACE UNDER AND AROUND PLAYGROUND EQUIPMENT; 2004.

G. CPSC PUB. NO. 325 - HANDBOOK FOR PUBLIC PLAYGROUND SAFETY; CONSUMER PRODUCTS SAFETY COMMISSION; 2008.

H. IPEMA CERTIFICATIONS FOR MANUFACTURED PLAY EQUIPMENT AND SURFACING

1.4 DEFINITIONS

A. USE ZONE: THE AREA BENEATH AND IMMEDIATELY ADJACENT TO A PLAY STRUCTURE OR EQUIPMENT (PLAY EVENT) THAT IS DESIGNATED FOR UNRESTRICTED CIRCULATION AROUND EQUIPMENT, AND ON WHOSE SURFACE IT IS PREDICTED THAT A USER WOULD LAND WHEN FALLING FROM OR EXITING THE EQUIPMENT.

B. PROTECTIVE SURFACING: RESILIENT GROUND SURFACING. THE CHARACTERISTICS OF THE PROTECTIVE SURFACING ARE BASED ON THE FALL HEIGHT OF THE PLAYGROUND EQUIPMENT. CHANGES IN EITHER THE SURFACING OR THE FALL HEIGHT, PARTICULARLY REDUCING THE RESILIENCE OF THE PROTECTIVE SURFACING OR INCREASING THE FALL HEIGHT, WILL REDUCE SAFETY-RELATED PERFORMANCE.

C. SUBGRADE: THE SURFACE OF THE GROUND ON WHICH THE PROTECTIVE SURFACING IS INSTALLED.

1.5 SUBMITTALS

A. SEE SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS, FOR SUBMITTAL PROCEDURES.

B. PRODUCT DATA: FOR ALL SURFACING PRODUCTS, PROVIDE MANUFACTURER'S PRODUCT DATA SHOWING MATERIALS OF CONSTRUCTION, COMPLIANCE WITH SPECIFIED STANDARDS, INSTALLATION PROCEDURES, AND SAFETY LIMITATIONS.

1. INCLUDE IPEMA CERTIFICATIONS WHERE REQUIRED.
2. ASTM 1028 SKID RESISTANCE TEST ON APPLICABLE PRODUCTS.
3. MANUFACTURER'S TEST DATA CERTIFYING SPECIFIED DEPTH REQUIRED FOR PROPOSED EQUIPMENT FALL HEIGHTS.

C. SAMPLES:

a. FOR EACH PRODUCT FOR WHICH COLOR MUST BE SELECTED PROVIDE COLOR CHART SHOWING FULL RANGE OF COLORS AND ONE 6" X 6" SAMPLE FOR EACH PRODUCT WITH SPECIFIED TEXTURE, COLOR, AND THICKNESS.

b. 2 QUART SAMPLE OF ENGINEERED WOOD FIBER MATERIAL

D. MAINTENANCE DATA:

1. FOR MANUFACTURED SURFACING PRODUCTS, PROVIDE MANUFACTURER'S RECOMMENDED MAINTENANCE AND CLEANING INSTRUCTIONS AND LIST OF REPAIR PRODUCTS, WITH ADDRESS AND PHONE NUMBER OF SOURCE OF SUPPLY.
2. ATTENUATION DATA: IF CRITICAL FALL HEIGHT IS REQUIRED, ATTENUATION TEST RESULTS SHALL BE SUBMITTED BY THE INSTALLER TO THE OWNER PRIOR TO INSTALLATION OF THE SURFACE. THE RESULTS SHALL BE SUBMITTED ON LETTERHEAD OF THE INDEPENDENT TESTING LAB. IMPACT ATTENUATION RESULTS SHALL COMPLY WITH ASTM 1292 FOR THE CRITICAL FALL HEIGHT OF THE EQUIPMENT.

E. WARRANTY: SUBMIT MANUFACTURER'S WARRANTY.

1.6 QUALITY ASSURANCE

A. MAINTAIN ONE COPY OF THE LATEST EDITION OF ASTM F 1487 AND CPSC PUB. NO. 325 AT PROJECT SITE.

B. MANUFACTURER QUALIFICATIONS: COMPANY REGULARLY ENGAGED IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION, WITH NOT LESS THAN THREE YEARS OF EXPERIENCE.

1. SURFACING INSTALLED IN MINIMUM 10 SITES AND BEEN IN SUCCESSFUL SERVICE MINIMUM 5 YEARS.
2. MANUFACTURER'S REPRESENTATIVE: PROVIDE NAME, COMPANY NAME AND ADDRESS, AND QUALIFICATIONS.

C. INSTALLER QUALIFICATIONS: COMPANY CERTIFIED IN INSTALLING THE PROTECTIVE SURFACING; PROVIDE INSTALLER'S COMPANY NAME AND ADDRESS, AND TRAINING AND EXPERIENCE CERTIFICATE.

1.7 DELIVERY, STORAGE, AND HANDLING

A. DELIVERY: DELIVER MATERIALS TO SITE IN MANUFACTURER'S ORIGINAL, UNOPENED CONTAINERS AND PACKAGING, WITH LABELS CLEARLY IDENTIFYING PRODUCT NAME AND MANUFACTURER.

B. STORAGE: STORE MATERIALS IN A DRY, COVERED AREA, ELEVATED ABOVE GRADE AT A MINIMUM TEMPERATURE OF 40 DEGREES F.

C. HANDLING: PROTECT MATERIALS DURING HANDLING AND INSTALLATION TO PREVENT DAMAGE OR CONTAMINATION.

1.8 ENVIRONMENTAL REQUIREMENTS

A. MATERIAL TEMPERATURE: ENSURE MATERIAL TEMPERATURE IS A MINIMUM OF 40 DEGREES F AT TIME OF INSTALLATION.

B. AIR TEMPERATURE: ENSURE AIR TEMPERATURE IS A MINIMUM OF 40 DEGREES F FOR A MINIMUM OF 24 HOURS BEFORE, DURING, AND A MINIMUM OF 72 HOURS AFTER INSTALLATION.

C. PRECIPITATION: ENSURE NO PROSPECT OF PRECIPITATION DURING AND A MINIMUM OF 72 HOURS AFTER INSTALLATION.

1.9 LIMITATIONS

A. THE FOLLOWING CHEMICALS MAY CAUSE DAMAGE TO THE BONDED RUBBER EXERCISE SURFACING AND SHOULD BE AVOIDED: DISINFECTANTS, CONCENTRATED CHLORINE BLEACH, GASOLINE, DIESEL FUEL, HYDRAULIC AND LUBRICATING OILS, ACIDS AND ORGANIC SOLVENTS.

B. DISSOLVED MINERALS AND OTHER CHEMICALS SUCH AS HYDROCHLORIDES FROM WATER PLAY AREAS, POOL SURROUNDS AND SIMILAR APPLICATION MAY CAUSE SURFACE DISCOLORATION.

C. AN AMBER SHADING MAY BE NOTICEABLE WHEN USING STANDARD BINDING AGENT.

D. AREAS IN EXCESS OF 1,000 SQUARE FEET OR COMPOSED OF ADJACENT COLORS MAY CONTAIN A COLD JOINT OR SEAM DUE TO THE NATURE OF THE INSTALLATION PROCESS. LARGE AREAS OR ADJACENT COLORS REQUIRE THE MATERIALS TO BE INSTALLED ON SEPARATE DAYS.

1.10 WARRANTY

A. THE INSTALLED SURFACING SYSTEM SHALL BE WARRANTED BY THE MANUFACTURER AND INSTALLER FOR ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP LABOR FOR A PERIOD OF NO LESS THAN FIVE YEARS FROM FINAL ACCEPTANCE OF THE SURFACING BY THE OWNER AND LANDSCAPE ARCHITECT.

B. THE INSTALLED SURFACING SYSTEM SHALL BE WARRANTED BY THE MANUFACTURER AND THE INSTALLER FOR COLOR DEGRADATION AND FADING OF NOT LESS THAN 10% FOR A PERIOD OF NO LESS THAN FIVE YEARS FROM FINAL ACCEPTANCE OF THE SURFACING BY THE OWNER AND LANDSCAPE ARCHITECT.

C. THE WRITTEN AND DATED WARRANTY MUST BE SUBMITTED TO THE OWNER BY THE MANUFACTURER AND/OR INSTALLER PRIOR TO RECEIVING FINAL PAYMENT.

PART 2--PRODUCTS

2.1 DESIGN CRITERIA

A. BECAUSE THE SAFETY OF THE RUBBERIZED SURFACE AREA DEPENDS ON STRICT CONFORMANCE TO THE DESIGN CRITERIA, THIS INFORMATION IS PROVIDED FOR CONTRACTOR'S INFORMATION.

1. THE TOP ELEVATION OF THE PROTECTIVE SURFACING IS INTENDED TO BE FLUSH WITH ADJACENT GRADES.

B. IF DEVIATION FROM SPECIFIED DEPTH IS REQUIRED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LANDSCAPE ARCHITECT. IN THE CASE OF IMPACTING EXISTING TREES, THE OWNER'S CERTIFIED ARBORIST SHALL ALSO BE CONTACTED. THE CONTRACTOR SHALL TO MAKE ALL CHANGES REQUIRED TO MAINTAIN SPECIFIED TOP ELEVATION AND REQUIRED IMPACT ATTENUATION AT NO EXTRA COST TO OWNER; OBTAIN APPROVAL PRIOR TO PROCEEDING WITH ANY DEVIATIONS OF SPECIFIED DEPTH; FOLLOW APPROVAL REQUEST PROCEDURE AS SPECIFIED FOR SUBSTITUTIONS.

2.2 MATERIALS

A. ENGINEERED WOOD FIBER

1. PRODUCT IS MANUFACTURED OF A GROUND WOOD FIBER COMPRISED OF SOFTWOODS AND/OR HARDWOODS, CONSISTING OF RANDOMLY SIZED WOOD FIBERS THE MAJORITY OF WHICH DO NOT EXCEED 2" IN LENGTH AND NO MORE THAN 15% FINES TO AID IN COMPACTION.
2. NON-TOXIC AND DOES NOT CONTAIN PAINT, CHEMICALS OR ADDITIVES
3. CONTAINS MINIMAL BARK AND IS FREE OF TWIGS, LEAF DEBRIS, AND OTHER ORGANIC MATERIALS.
4. PRODUCT DEPTH, AFTER INSTALLATION, MUST BE IN ACCORDANCE WITH THE PROCEDURE DESCRIBED IN ASTM F1292 AND MEET GUIDELINES FOR CRITICAL HEIGHT AS SET FORTH BY THE CONSUMER PRODUCT SAFETY COMMISSION FOR USE OF WOOD PRODUCTS FOR PROTECTIVE SURFACING.
5. MANUFACTURER BASIS OF DESIGN: GAMETIME GT IMPAX ENGINEERED WOOD FIBER OR APPROVED EQUAL.

B. CRUSHED AGGREGATE BASE

1. PER DRAWINGS

PART 3--EXECUTION

3.1 EXAMINATION

A. EXAMINE AREAS TO RECEIVE PLAYGROUND SAFETY SURFACING. ENSURE ALL APPLICABLE SITE WORK, INCLUDING SUBSURFACE PREPARATION, FENCING, SITE FEATURE FOUNDATIONS, LIGHTING, SITE FURNISHINGS AND ALL OTHER RELEVANT WORK, HAS BEEN COMPLETED. NOTIFY OWNER IF AREAS ARE NOT ACCEPTABLE. DO NOT BEGIN INSTALLATION UNTIL UNACCEPTABLE CONDITIONS HAVE BEEN CORRECTED.

B. THE SURFACE TO RECEIVE THE SAFETY SURFACE SHALL BE INSPECTED BY THE INSTALLER, AND PRIOR TO THE BEGINNING OF INSTALLATION, THE INSTALLER MUST ACCEPT IN WRITING THE SUB-BASE SURFACE PLANARITY AND COMPACTION. THE SURFACE MUST BE PERFECTLY CLEAN AS INSTALLATION COMMENCES AND SHALL BE MAINTAINED IN THAT CONDITION THROUGHOUT THE PROCESS.

C. VERIFY LOCATION OF UNDERGROUND UTILITIES AND FACILITIES IN THE PLAYGROUND AREA. DAMAGE TO UNDERGROUND UTILITIES AND FACILITIES WILL BE REPAIRED AT CONTRACTOR'S EXPENSE.

D. VERIFY THAT SUBGRADES ARE AT PROPER ELEVATIONS AND THAT SMOOTH GRADING IS COMPLETE.

E. ASSURE MOUNTING DETAILS AND FOUNDATIONS OF EQUIPMENT ARE PROPERLY SET. TOPS OF FOUNDATIONS MUST BE BELOW THE BOTTOM OF REQUIRED SAFETY SURFACE DEPTH. CONCRETE MUST BE FINISHED SMOOTH WITHOUT POTENTIALLY HARMFUL IRREGULARITIES.

3.2 PREPARATION

A. PREPARE SUBSURFACE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO ENSURE PROPER SUPPORT AND DRAINAGE FOR SPECIFIED PLAYGROUND SAFETY SURFACING. FINISHED ELEVATIONS OF SUBSURFACE SHALL BE AS INDICATED ON THE DRAWINGS. FINISHED ELEVATIONS OF ADJACENT AREAS/BORDERS/EDGING SHALL BE AS INDICATED ON THE DRAWINGS. SUBSURFACE SHALL BE INSTALLED IN A TRUE, EVEN PLANE AND SLOPED TO DRAIN UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

B. CORRECT SUBGRADE IRREGULARITIES TO ENSURE THAT REQUIRED DEPTH OF PROTECTIVE SURFACING CAN BE INSTALLED, AND SUBGRADE ELEVATION IS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

C. REMOVE ROCKS, DEBRIS, AND OTHER SIMILAR ITEMS.

D. AGGREGATE SUBSURFACE: PER THE DRAWINGS. THE COMPACTION OF THE AGGREGATE BASE SHALL BE 95%, ACCORDING TO THE MODIFIED PROCTOR PROCEDURE (ASTM D1557), AND THE SURFACE TOLERANCE SHALL NOT EXCEED 0-1/4 INCH OVER 10 FEET AND 0-1/2" FROM DESIGN GRADE.

E. CONCRETE SUBSURFACE: PER THE DRAWINGS.

F. BEFORE PLACING WOOD FIBER SURFACING, MARK PROPER DEPTH OF SURFACING ON ALL VERTICAL POSTS OF PLAY EQUIPMENT. THIS CAN BE DONE WITH PAINT OR PERMANENT LABELS PROVIDED BY THE PLAY EQUIPMENT MANUFACTURER. PLACE WOOD FIBER MATERIAL TO MEET OR EXCEED REQUIRED DEPTH.

3.3 INSTALLATION

A. ONCE SITE PREPARATION IS COMPLETE AND THERE ARE FAVORABLE CONDITIONS, INSTALL SYSTEMS PER MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY ADHERE TO THE INSTALLATION PROCEDURES OUTLINED UNDER THIS SECTION AND PER THE MANUFACTURER SPECIFICATIONS. ANY VARIANCE FROM THESE REQUIREMENTS MUST BE ACCEPTED IN WRITING, BY THE MANUFACTURER'S ON-SITE REPRESENTATIVE, AND SUBMITTED TO THE OWNER, VERIFYING THAT THE CHANGES DO NOT IN ANY WAY AFFECT THE WARRANTY.

B. INSTALL PROPER DEPTH THROUGHOUT USE ZONE(S), MOUNDING IN THE CENTER OF THE PLAY AREAS OF THE PLAYGROUND. EXTRA MATERIALS SHOULD BE PROVIDED TO ALLOW FOR COMPACTION.

C. AT THE TIME OF INSTALLATION, SURFACE AND AIR TEMPERATURES MUST BE WITHIN THE RANGES SPECIFIED BY THE MATERIAL MANUFACTURER.

D. ALL MATERIALS SHALL BE PROTECTED FROM WEATHER AND OTHER DAMAGES PRIOR TO INSTALLATION, DURING INSTALLATION AND WHILE CURING.

E. COORDINATE THE TIMING OF INSTALLATION WITH OTHER CONSTRUCTION ACTIVITY SO AS TO PREVENT DAMAGE TO THE COMPLETED SAFETY SURFACING INSTALLATION BY SUBSEQUENT ACTIVITIES. PROTECT COMPLETED SURFACING WITH APPROPRIATE TEMPORARY COVERING AS REQUIRED TO PREVENT DAMAGE.

F. ADHERE SAFETY SURFACE TO CURB WHERE INDICATED WITH MANUFACTURER RECOMMENDED ADHESIVE AND STAINLESS STEEL MECHANICAL FASTENER IF RECOMMENDED BY MANUFACTURER.

G. INSTALL EDGES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND AS INDICATED ON THE DRAWINGS.

H. INSTALL MATERIAL ABOVE GRADE TO ALLOW FOR COMPACTION.

I. ENGINEERED WOOD FIBER NEEDS TO BE COMPACTED TO BE HANDICAPPED ACCESSIBLE.

3.4 CLEANING

A. PROTECT INSTALLED SAFETY SURFACE FROM SUBSEQUENT CONSTRUCTION OPERATIONS.

B. DO NOT PERMIT TRAFFIC OVER UNPROTECTED FLOOR SURFACE.

C. CONTRACTOR SHALL PROVIDE THE LABOR, SUPPLIES, AND EQUIPMENT AS NECESSARY FOR FINAL CLEANING OF SURFACES AND INSTALLED ITEMS.

D. ALL USABLE REMNANTS OF NEW MATERIAL SHALL BECOME THE PROPERTY OF THE CINCINNATI PARK BOARD.

E. THE CONTRACTOR SHALL KEEP THE AREA CLEAN THROUGHOUT THE PROJECT AND CLEAR OF DEBRIS.

F. SURFACES, RECESSES, ENCLOSURES, ETC. SHALL BE CLEANED AS NECESSARY TO LEAVE THE WORK AREA IN A CLEAN, IMMACULATE CONDITION READY FOR IMMEDIATE OCCUPANCY AND USE BY THE OWNER.

3.5 FINISHING

A. FINAL INSPECTION: THE CONTRACTOR WILL CONDUCT A FINAL INSPECTION OF THE SAFETY SURFACE WITH THE OWNER, GENERAL CONTRACTOR, AND LANDSCAPE ARCHITECT. DURING THIS INSPECTION THE ENTIRE SURFACE SHALL BE INSPECTED. THE CONTRACTOR SHALL RECTIFY ANY CONCERNS REGARDING THE SURFACE TO THE GENERAL CONTRACTOR.

B. AFTER 30 DAYS, RE-APPLY WOOD FIBER SURFACING TO COMPENSATE FOR SETTLEMENT/COMPACTION.

C. UPON SUBSTANTIAL COMPLETION, PROVIDE OWNER WITH REPAIR KITS FOR EACH TYPE OF SYNTHETIC TURF FROM THE MANUFACTURER.

END OF SECTION

HARDSCAPE / MATERIALS NOTES

1. SEE CIVIL ENGINEER DRAWINGS FOR ALL GRADING, STORM WATER POLLUTION PREVENTION AND EROSION PREVENTION AND SEDIMENT CONTROL REQUIREMENTS.
2. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
3. 4'x4' MOCK-UP REQUIRED FOR ALL PAVING TYPES. MOCK-UP MAY ULTIMATELY BE PART OF FINISHED PAVED AREA IF APPROVED. REVIEW MOCK-UP WITH LANDSCAPE ARCHITECT.
4. DIGITAL LAYOUT INFORMATION PROVIDED BY CIVIL ENGINEER. SEE SITE GRADING SHEETS FOR MORE INFORMATION.
5. COORDINATE ALL SURFACE ELEMENTS OF ELECTRICAL UTILITIES & STORM DRAINAGE STRUCTURES WITH HARDSCAPE ELEMENTS; CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS AND AGREE UPON RESOLUTION(S) PRIOR TO EXECUTION OF THE WORK.
6. ALL CONCRETE TO BE LIGHT BROOM FINISH WITH NON-TOOLED EDGES. DIRECTION OF BROOM FINISH TO BE PERPENDICULAR PATHWAY. ALL EXTERIOR CONCRETE PAVING TO BE AIR ENTRAINED PER ASTM C260.
7. 1/2" EXPANSION JOINTS TO BE PLACED AT ALL FIXED FOUNDATIONS OR OBJECTS AND WHERE SHOWN ON PLAN.
8. PROVIDE CLEAR CURE AND SEAL ON STANDARD CONCRETE FINISH.
9. SUBMITTALS:

A. PRODUCT DATA: FOR THE FOLLOWING:

CONCRETE; JOINT MATERIAL; LIMESTONE STEPS AND FLAGSTONE STEPPING STONES.

B. QUALIFICATION DATA: CONTRACTOR TO DEMONSTRATE THEIR CAPABILITIES & EXPERIENCE. QUALIFICATION DATA SUBMITTAL TO INCLUDE LISTS OF COMPLETED PROJECTS WITH PROJECT NAMES AND ADDRESSES, NAMES AND ADDRESSES OF ARCHITECTS AND OWNERS, AND OTHER INFORMATION SPECIFIED.

C. MOCKUPS: BEFORE INSTALLING CONCRETE, BUILD MOCKUPS FOR EACH TYPE OF PAVEMENT REQUIRED TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND QUALITIES OF MATERIALS AND EXECUTION.

C.1. BUILD MOCKUPS USING MATERIALS INDICATED FOR THE COMPLETED WORK, INCLUDING SAME BASE CONSTRUCTION, SPECIAL FEATURES FOR EXPANSION JOINTS, AND CONTIGUOUS WORK AS INDICATED.

C.2. BUILD MOCKUPS IN THE LOCATION AND OF THE SIZE INDICATED, OR IF NOT INDICATED, AS DIRECTED BY LANDSCAPE ARCHITECT.

C.3. NOTIFY LANDSCAPE ARCHITECT SEVEN DAYS IN ADVANCE OF DATES AND TIMES WHEN MOCKUPS WILL BE CONSTRUCTED.

C.4. DEMONSTRATE THE PROPOSED RANGE OF AESTHETIC EFFECTS AND WORKMANSHIP.

C.5. OBTAIN LANDSCAPE ARCHITECT'S APPROVAL OF MOCKUPS BEFORE STARTING FINAL PAVEMENT INSTALLATION.

C.6. MAINTAIN MOCKUPS DURING CONSTRUCTION IN AN UNDISTURBED CONDITION AS A STANDARD FOR JUDGING THE COMPLETED WORK.

C.7. DEMOLISH AND REMOVE MOCKUPS WHEN DIRECTED.

C.8. APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

15. PROJECT CONDITIONS:

15.1. ESTABLISH AND MAINTAIN REQUIRED LEVELS AND GRADE ELEVATIONS. REVIEW INSTALLATION PROCEDURES AND COORDINATE PAVING WORK WITH OTHER WORK AFFECTED BY THE UNIT PAVING WORK.

15.2. COLD-WEATHER PROTECTION: DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST. DO NOT BUILD ON FROZEN SUBGRADE OR SETTING BEDS. REMOVE AND REPLACE UNIT PAVER WORK DAMAGED BY FROST OR FREEZING.

16. PROVIDE TEMPORARY BARRICADES AND WARNING LIGHTS AS REQUIRED FOR PROTECTION OF PROJECT WORK AND PUBLIC SAFETY.

17. PROTECT ADJACENT WORK FROM DAMAGE, SOILING AND STAINING DURING PAVING OPERATIONS.

18. REFERENCE STANDARDS

A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).

B. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.

C. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 2010.

D. ACI 306R - Cold Weather Concreting; American Concrete Institute International; 2010.

E. ASTM A185/A185M - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete; 2007.

F. ASTM A497/A497M - Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete; 2007.

G. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2012.

H. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2011a.

I. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2012a.

J. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2012.

K. ASTM C150/C150M - Standard Specification for Portland Cement; 2012.

L. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2010b.

M. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a.

N. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2011.

O. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2012.

P. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2012.

Q. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing; 2011.

R. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (non extruding and Resilient Bituminous Types); 2004 (Reapproved 2008).

S. ASTM D1752 - Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction; 2004a (Reapproved 2008).

19. ALL MATERIALS USED IN THE CONCRETE MIXTURE, THE PROPORTIONING AND MIXING SHALL CONFORM TO ODOT ITEM 499, 608 AND 609.

20. THE SUBGRADE SHALL BE SHAPED AND COMPACTED TO MEET THE REQUIREMENTS OF ODOT ITEM 203.

21. FORMS SHALL BE OF WOOD OR METAL AND EXTEND FOR THE FULL DEPTH OF THE CONCRETE. AND OF SUFFICIENT STRENGTH TO RESIST THE PRESSURE OF THE CONCRETE WITHOUT SPRINGING.

22. CONCRETE SHALL BE CURED AS REQUIRED IN ODOT ITEM 608 AND 609

END OF SECTION

SITE FURNISHINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. VILLAGE LOCK GATE

B. DRINKING FOUNTAIN

C. WATER DROPLET SCULPTURE

D. GRATES

E. TRENCH DRAIN AND GRATE

F. DETERRENT BOLLARD

G. PEDESTRIAN GUARDRAIL

1.2 RELATED REQUIREMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISIONS 1 THROUGH 33 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

B. ASTM A 53/A 53M - STANDARD SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED, WELDED AND SEAMLESS; 2000.

C. ASTM A 283/A 283M - STANDARD SPECIFICATION FOR LOW AND INTERMEDIATE TENSILE STRENGTH CARBON STEEL PLATES; 2000.

D. ASTM A 325 - STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT TREATED, 120/105 KSI MINIMUM TENSILE STRENGTH; 2000.

E. ASTM A 325M - STANDARD SPECIFICATION FOR HIGH-STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS (METRIC); 2000.

F. ASTM A 500 - STANDARD SPECIFICATION FOR COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES; 1999.

G. AWS D1.1 - STRUCTURAL WELDING CODE - STEEL; AMERICAN WELDING SOCIETY; 2002.

1.3 SUBMITTALS

A. SEE ADMINISTRATIVE REQUIREMENTS SECTION, FOR SUBMITTAL PROCEDURES.

B. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT SPECIFIED, INCLUDING DETAILED INSTALLATION DIAGRAMS AND RECOMMENDED INSTALLATION METHODS.

C. SELECTION SAMPLES: FOR EACH PRODUCT SPECIFIED, TWO SETS OF CHIPS REPRESENTING MANUFACTURER'S COLORS/FINISHES AS SPECIFIED.

07/22/20 - 11:01pm TAB: LAYOUT1
X:\21000 PROJECTS\21910 LOCKERAIN PARK\GRAPHICS\AUTOCAD\DWG\PROJECT SPECIFICATIONS.DWG

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:

IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE

PART 2 - PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

A. BASIS OF DESIGN: MANUFACTURERS LISTED ARE THE BASIS OF DESIGN OR APPROVED EQUAL. OTHER ALTERNATIVES WILL BE CONSIDERED ON A PRE-APPROVED BASIS ONLY.

B. BENCH

1. MANUFACTURER: DUMOR
   P.O. BOX 142
   MIFFLINTOWN, PA 17059
   800-598-4018
   WWW.DUMORE.COM
   SALES@DUMORE.COM
2. MODEL: BENCH105-60PL
3. PLASTIC COLOR: REDWOOD; METAL COLOR: TEXTURED RUST
4. SIZE: 6'

C. TRASH RECEPTACLE

1. MANUFACTURER: DUMOR
   P.O. BOX 142
   MIFFLINTOWN, PA 17059
   800-598-4018
   WWW.DUMORE.COM
   SALES@DUMORE.COM
2. MODEL: RECEPTACLE 44-22PL
3. PLASTIC COLOR: REDWOOD; METAL COLOR: TEXTURED RUST
4. SIZE: STANDARD

2.2 FABRICATION

A. SHOP ASSEMBLE SITE FURNISHINGS FOR DELIVERY TO SITE IN UNITS EASILY HANDLED AND TO PERMIT SHIPMENT WITHOUT DISASSEMBLY.

B. ENSURE THAT WORK IS SMOOTH AND FREE OF EDGES THAT COULD SNAG CLOTHING OR CAUSE INJURY.

PART 3 - EXECUTION

3.1 EXAMINATION

A. QUANTITY OF UNITS ARE AS SHOWN ON DRAWINGS.

B. DO NOT BEGIN INSTALLATION UNTIL REQUIRED UTILITIES/HOOK-UPS, FOUNDATIONS AND/OR PAVING SURFACES HAVE BEEN PROPERLY PREPARED.

C. IF PREPARATION IS THE RESPONSIBILITY OF ANOTHER CONTRACTOR/INSTALLER, NOTIFY LANDSCAPE ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.

3.2 INSTALLATION

A. LOCATE ALL FURNISHINGS AS INDICATED ON DRAWINGS AND NOTIFY LANDSCAPE ARCHITECT AT LEAST ONE WEEK BEFORE MOUNTING IN THE EVENT THAT FIELD ADJUSTMENTS ARE REQUIRED.

B. REVIEW ALL FURNISHINGS LOCATIONS WITH LANDSCAPE ARCHITECT PRIOR TO FINAL INSTALLATION/MOUNTING.

C. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

D. MOUNTING HARDWARE IS TO BE TOUCHED UP WITH TOUCH UP PAINT FROM THE MANUFACTURER.

E. ALL MOUNTING FASTENERS TO BE STAINLESS STEEL OR HOT-DIP GALVANIZED UNLESS OTHERWISE APPROVED.

3.3 PROTECTION

A. PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT.

B. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS AFTER SUBSTANTIAL COMPLETION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY REPAIRS DEEMED UNSUITABLE.

C. PROVIDE TOUCH-UP PAINT AND MATERIALS TO OWNER AFTER SUBSTANTIAL COMPLETION.

END OF SECTION

PLANTING PREPARATION

PART 1 - GENERAL

1.1 SUMMARY

A. WORK INCLUDED: FURNISHING, PREPARATION AND PLACING OF SOIL ASSOCIATED WITH DISTURBED OR NEW VEGETATED AREAS.

B. FURNISH ALL LABOR, MATERIALS, FACILITIES, TRANSPORTATION, TESTING AND SERVICES TO COMPLETE ALL CONSTRUCTION AND INSTALLATION OF ALL SOIL TYPES AND RELATED WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

1.2 RELATED SECTIONS AND DIVISIONS

A. APPLICABLE PROVISIONS OF DIVISION 1 SHALL GOVERN WORK IN THIS SECTION.

B. SECTION 31 00 00 - EARTHWORK.

C. SECTION 31 23 33 - TRENCHING AND BACKFILLING.

D. SECTION 32 92 23 - SODDING.

E. SECTION 32 93 00 - EXTERIOR PLANTS.

F. SUBMITTALS ARE INCLUDED IN SECTION 01 33 00.

1.3 REFERENCES

A. STANDARD SPECIFICATIONS: UNLESS OTHERWISE NOTED, STANDARD SPECIFICATIONS WITHIN THIS SECTION SHALL REFER TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, INCLUDING ALL ISSUED SUPPLEMENTAL SPECIFICATIONS

B. THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATIONS TO THE EXTENT REFERENCED. THE PUBLICATIONS ARE REFERRED TO IN THE TEXT BY THE BASIC DESIGNATION ONLY.

1. ASTM D4427-92 - STANDARD CLASSIFICATION OF PEAT SAMPLES BY LABORATORY TESTING
2. ASTM C136 - SIEVE ANALYSIS OF FINE & COARSE AGGREGATES
3. ASTM D3665 - RANDOM SAMPLING OF CONSTRUCTION MATERIALS
4. ASTM D2487-00 - STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM)
5. ASTM D854-02 - STANDARD TEST METHODS FOR SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER
6. ASTM D2974-00 - STANDARD TEST METHODS FOR MOISTURE, ASH AND ORGANIC MATTER OF PEAT AND OTHER ORGANIC SOILS
7. ASTM F1632-02 - STANDARD TEST METHOD FOR PARTICLE SIZE ANALYSIS AND SAND SHAPE GRADING OF GOLF COURSE PUTTING GREENS AND SPORTS FIELD ROOTZONE MIXES
8. ASTM F1647-02 - STANDARD TEST METHODS FOR ORGANIC MATTER CONTENT OF PUTTING GREENS AND SPORTS FIELD ROOT ZONE MIXES (METHOD A & B)

C. USDA SOIL TEXTURE CLASSIFICATION

SOIL PARTICLE	SIZE RANGE
SAND	0.05 MM TO < 2.0MM
SILT	0.05 MM TO 0.002 MM
CLAY	<0.002 MM

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1.4 DEFINITIONS

A. WHEN USED WITHIN THIS SPECIFICATION, THE FOLLOWING DEFINITIONS SHALL APPLY:

OWNER'S TESTING AGENCY - AN INDEPENDENT LABORATORY, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN USDA AGRICULTURAL SOIL TESTING, PLANTING SOIL MIXES, AND THE TYPES OF TESTS TO BE PERFORMED.

FINISH GRADE: ELEVATION OF FINISHED SURFACE OF A PLANTING MIX.

B. SUBGRADE: SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER COMPLETING EXCAVATION OR BACKFILL OF SOILS OR OTHER MATERIALS IMMEDIATELY BENEATH THE PLANTING MIX.

C. COMPOST: AN ORGANIC MATERIAL THAT HAS BEEN AEROBICALLY COMPOSTED AND STABILIZED FROM FEEDSTOCKS SUCH A GREEN WASTE (YARD DEBRIS) OR OTHER SUITABLE ORGANIC MATERIALS

D. HARDSCAPE: ALL STRUCTURAL AND FIXED ITEMS SUCH AS CONCRETE, CUT STONE, PAVING MATERIALS, LIGHTING FIXTURES, BENCHES AND OTHER FABRICATED ITEMS.

E. DEBRIS: ELEMENTS INCLUDING, BUT NOT LIMITED TO, CONCRETE, CONCRETE MASONRY, WOOD, EXCAVATED ROCK AND ROCK FRAGMENTS, RUBBLE, OVERBURDEN SOILS, ABANDONED UTILITY STRUCTURES, TRASH, REFUSE AND LITTER.

1.5 SUBMITTALS

A. CONFORM TO REQUIREMENTS OF APPLICABLE DIVISION ONE AND DIVISION TWO SPECIFICATIONS, GENERAL CONDITIONS AND SPECIAL PROVISIONS

B. BIDDER QUALIFICATIONS: CONTRACTOR SHALL BE ACTIVELY AND DIRECTLY ENGAGED IN CONSTRUCTING NATURAL GRASS AND ESTABLISHING PLANTING BEDS FOR A PERIOD OF FIVE (5) OR MORE YEARS. PROVIDE PROOF OF THREE (3) SUCH INSTALLATIONS THAT HAVE BEEN IN USE FOR THREE (3) OR MORE YEARS. SEE 1.06.A FOR CONTRACTOR QUALIFICATION REQUIREMENTS AND SUBMIT DOCUMENTATION TO SUPPORT THOSE QUALIFICATIONS.

1. ANY CONTRACTOR NOT ABLE TO MEET THE ABOVE REQUIREMENT SHALL SUBMIT A STATEMENT OF CONSIDERATIONS THAT MAY QUALIFY HIM/HER AS A QUALIFIED BIDDER. ITEMS INCLUDE, BUT ARE NOT LIMITED TO:
   a. DESCRIPTION OF SIMILAR TYPE CONSTRUCTION EXPERIENCE WITH NAMES AND PHONE NUMBERS OF CLIENT CONTACT, DATE OF INSTALLATION, ETC.
   b. RESUMES OF PERSONNEL TO BE USED ON PROJECT.
   c. LISTING OF TYPE OF EQUIPMENT TO BE USED ON CONSTRUCTION.
2. PROJECTED SCHEDULE: ALL CONTRACTORS SHALL SUBMIT A PROPOSED SCHEDULE FOR THE PROJECT.
3. THE LANDSCAPE ARCHITECT SHALL REVIEW THIS INFORMATION FOR ACCEPTANCE OR REJECTION OF THE PROPOSED CONTRACTOR.

C. PRE-CONSTRUCTION SOILS ANALYSIS: PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO ORDERING:

SOIL COMPOSITION, NUTRIENT AND PH ANALYSIS BY A QUALIFIED SOIL-TESTING LABORATORY FOR TEST CRITERIA LISTED IN SECTION 2 FOR ALL SOIL TYPES. A MINIMUM OF TWO SAMPLES FROM EACH DIFFERENT SOIL AREA AND TYPE AND FROM EACH ON-SITE STOCKPILE SOURCE AND IMPORTED SOIL SOURCE IS REQUIRED. THE LABORATORY ANALYSIS CRITERIA FOR THE ACCEPTED SUBMITTALS WILL BECOME THE BASELINE FOR THE ACCEPTANCE OR REJECTION OF MATERIALS SUBMITTED DURING THE QUALITY CONTROL PHASE OF THE PROJECT DURING CONSTRUCTION.

1. REPORT SUITABILITY OF SOILS FOR PLANT GROWTH. STATE RECOMMENDED QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY SOIL FOR EACH PLANTING TYPE (TURF, PERENNIALS, NATIVES, WOODY PLANT MATERIAL, ETC.).
2. SUBMIT SAMPLES A MINIMUM OF 8 WEEKS PRIOR TO THE ANTICIPATED DATE OF THE START OF SOIL INSTALLATION.
3. LOCATION OF SOURCE(S) OF THE MATERIAL AND PAST USE OF EACH OF THE SOURCE(S) SHALL BE PROVIDED WITH THE SUBMITTAL FOR REVIEW.

D. TESTING DURING CONSTRUCTION: IF THERE APPEARS TO BE ANY CHANGE IN SOIL MATERIAL FROM POINT OF SUPPLY AND/OR PRE-CONSTRUCTION SOIL ANALYSIS TO ON-SITE INSTALLATION, THE OWNER AND LANDSCAPE ARCHITECT RESERVE THE RIGHT TO REQUIRE AN IN-SITU SOIL TEST OF THE IMPORTED SOIL AT THE COST OF THE CONTRACTOR. IF THIS SHALL BE ENFORCED, THE FOLLOWING PROTOCOL SHALL BE FOLLOWED: CONTRACTOR SHALL SUBMIT A ONE-GALLON SAMPLE OF EACH DIFFERENT SOIL TYPE IN SITU AT THE PROPER LOCATION AND DEPTH AS INDICATED IN THE DRAWINGS TO THE PHYSICAL TESTING LABORATORY. THESE SAMPLES WILL THEN BE COMPARED WITH THE APPROVED MATERIAL FROM THE PRE-CONSTRUCTION BASELINE TESTING.

1. PAYMENT FOR ALL TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY TEST WHICH MUST BE REPEATED ON MATERIALS THAT HAVE FAILED TO MEET SPECIFICATIONS OR ARE AS A RESULT OF SHORTAGES WILL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT COPIES OF ALL SUBMITTAL FORMS AND TESTING RESULTS FROM THE TESTING LABORATORY TO THE LANDSCAPE ARCHITECT AND OWNER.

E. APPROVED TESTING AGENTS - THE FOLLOWING FIRM IS AN ACCEPTABLE TESTING AGENCY FOR THE VARIOUS COMPONENTS. OTHER LABORATORIES WILL NEED APPROVAL FOR MATERIAL TESTING PRIOR TO TESTING.

CLC LABS
325 VENTURE DRIVE
WESTERVILLE, OH 43081
PHONE: 614-888-1663
FAX: 614-888-1330
CONTACT: CLCLABS@AOL.COM

ALL SOIL ANALYSIS TESTING SHALL BE PERFORMED ON THE MOST CURRENT, UP-TO-DATE SAMPLES OF SOILS BEING PREPARED FOR USE ON THE CURRENT PROJECT AND WITHIN 6 MONTHS OF INSTALLATION. TEST REPORTS MUST INCLUDE: DATE ISSUED, PROJECT TITLE AND NAMES OF CONTRACTOR AND SUPPLIER, LOCATION OF MATERIAL SOURCE AND TESTING LABORATORY NAME, ADDRESS AND TELEPHONE NUMBER WITH NAME(S) AS APPLICABLE OF LABORATORY CONTACT. OUT OF DATE OR PREVIOUS TESTING RESULTS FROM OUT-OF-DATE STOCKPILES OR PREVIOUS SUPPLIER SOURCES ARE NOT ACCEPTABLE.

F. SOIL ANALYSIS REQUIREMENT APPLIES TO ALL SOIL TYPES WITHIN THIS PROJECT, INCLUDING IMPORT SOILS AND ONSITE SOILS.

G. SUBMIT PRODUCT DATA ON ALL PRE-MANUFACTURED SOIL MIXES AND PRODUCT LITERATURE SHOWING CERTIFIED CHEMICAL ANALYSIS OF ALL SOIL AMENDMENTS.

1.6 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: THE INSTALLER SHALL BE A FIRM HAVING AT LEAST 5 YEARS OF EXPERIENCE OF A SCOPE SIMILAR TO THAT REQUIRED FOR THE WORK, INCLUDING THE PREPARATION, MIXING AND INSTALLATION OF SOIL MIXES TO SUPPORT PLANTING.

1. THE BIDDERS LIST FOR WORK UNDER THIS SECTION SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
2. INSTALLER FIELD SUPERVISION: WHEN ANY TOPSOIL, PLANTING SOIL OR BIORETENTION SOIL WORK IS IN PROGRESS, INSTALLER SHALL MAINTAIN, ON SITE, AN EXPERIENCED FULL-TIME SUPERVISOR WHO CAN COMMUNICATE IN ENGLISH WITH THE LANDSCAPE ARCHITECT.
3. INSTALLER'S FIELD SUPERVISOR SHALL HAVE A MINIMUM OF FIVE YEARS' EXPERIENCE AS A FIELD SUPERVISOR INSTALLING SOIL, SHALL BE TRAINED AND PROFICIENT IN THE USE OF FIELD SURVEYING EQUIPMENT TO ESTABLISH GRADES AND CAN COMMUNICATE IN ENGLISH WITH THE LANDSCAPE ARCHITECT.
4. THE INSTALLER'S CREW SHALL BE EXPERIENCED IN THE INSTALLATION OF PLANTING SOIL, PLANTINGS, AND IRRIGATION (WHERE APPLICABLE) AND INTERPRETATION OF PLANTING PLANS, SOIL INSTALLATION PLANS, AND IRRIGATION PLANS (WHERE APPLICABLE).
5. SUBMIT REFERENCES OF PAST PROJECTS AND EMPLOYEE TRAINING CERTIFICATIONS THAT SUPPORT THAT THE CONTRACTORS MEET ALL OF THE ABOVE INSTALLER QUALIFICATIONS AND APPLICABLE LICENSURES.

B. SOIL TESTING LABORATORY QUALIFICATIONS: AN INDEPENDENT LABORATORY, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN USDA AGRICULTURAL SOIL TESTING, PLANTING SOIL MIXES, AND THE TYPES OF TESTS TO BE PERFORMED.

C. ALL ON-SITE, DELIVERED AND INSTALLED SOILS SHALL CONFORM TO THE APPROVED SUBMITTALS SAMPLE COLOR, TEXTURE AND APPROVED TEST ANALYSIS.

1. IF SOIL CONDITIONS APPEAR TO CHANGE DURING INSTALLATION, THE OWNER OR LANDSCAPE ARCHITECT MAY REQUEST SAMPLES OF THE DELIVERED OR INSTALLED SOIL BE TESTED FOR ANALYSIS TO CONFIRM THE SOIL CONFORMS TO THE APPROVED MATERIAL. THIS WOULD BE IN ADDITION TO THE REQUIRED IN SITU SOIL TESTS.
2. ALL TESTING SHALL BE PERFORMED BY THE SAME SOIL LAB THAT PERFORMED THE ORIGINAL SOIL TESTING.
3. ANY SOIL THAT FAILS TO MEET THE ABOVE CRITERIA, IF REQUESTED BY THE OWNER OR LANDSCAPE ARCHITECT, SHALL BE REMOVED AND NEW SOIL INSTALLED.

D. SOIL COMPACTION TESTING: FOLLOWING INSTALLATION OR MODIFICATION OF SOILS, THE ACCEPTABLE COMPACTION LEVEL SHALL BE WITHIN THE RANGE OF 75-85% BY STANDARD PROCTOR METHOD.

1.7 SITE CONDITIONS

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE AND SUBSURFACE CONDITIONS, AND TO NOTIFY THE LANDSCAPE ARCHITECT, IN WRITING, OF ANY CIRCUMSTANCES THAT WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

1. SHOULD SUBSURFACE DRAINAGE OR SOIL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO GROWTH OR SURVIVAL OF PLANT MATERIAL, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING, STATING THE CONDITIONS AND SUBMIT A PROPOSAL COVERING COST OF CORRECTIONS. IF THE CONTRACTOR FAILS TO NOTIFY THE LANDSCAPE ARCHITECT OF SUCH CONDITIONS, THEY SHALL REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTEE CLAUSE OF THE SPECIFICATIONS.

B. PLANTING AREAS CONSTRUCTION OPERATIONS SHALL NOT BE CONDUCTED UNDER THE FOLLOWING CONDITIONS:

1. FREEZING WEATHER
2. HIGH WINDS
3. EXCESSIVELY WET CONDITIONS.

1.8 DELIVERY, STORAGE, AND HANDLING

A. GENERAL:

1. HANDLE AND STORE ALL PRODUCTS OF THIS SECTION IN SUCH A MANNER AS TO PROTECT THEM FROM DAMAGE AT ALL TIMES.
2. STORAGE OF PRODUCTS ON-SITE SHALL BE COORDINATED BY THE CONTRACTOR IN AN ORDERLY MANNER SO AS NOT TO UNNECESSARILY IMPEDE THE WORK OR REASONABLE USE OF THE PROJECT SITE.

B. FERTILIZERS:

1. DELIVER IN ORIGINAL, UNOPENED CONTAINERS WITH ORIGINAL LABELS INTACT AND LEGIBLE WHICH STATE THE GUARANTEED CHEMICAL ANALYSIS.

C. BULK MATERIAL:

1. COORDINATE DELIVERY AND STORAGE OF BULK MATERIAL WITH LANDSCAPE ARCHITECT.
2. CONFINE MATERIALS TO NEAT PILES IN AREAS ACCEPTABLE TO LANDSCAPE ARCHITECT.

1.9 GUARANTY

A. ALL WORK EXECUTED AND ALL MATERIALS PROVIDED UNDER OR USED UNDER THIS SECTION SHALL BE GUARANTEED TO BE FREE OF DEFECTS AND POOR WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.

B. REPAIR ALL DEFECTIVE MATERIALS AND WORK AS ACCEPTABLE TO THE LANDSCAPE ARCHITECT DURING GUARANTY PERIOD.

PART 2 - PRODUCTS

2.1 MATERIALS

A. SOIL TYPE 1 - EXISTING SOIL TO BE REUSED FOR ALL TURF AREAS. THE FOLLOWING PERFORMANCE CRITERIA IS TO BE USED ONLY IF THERE BECOMES INSUFFICIENT EXISTING SOIL QUANTITIES:

1. A LOAMY, FRIABLE MINERAL SOIL ESSENTIALLY FREE FROM HEAVY OR STIFF CLAY LUMPS, STONES, CINDERS, CONCRETE, BRICK, ROOTS, STICKS BRUSH, LITTER, PLASTICS, METALS, REFUSE OR OTHER DELETERIOUS MATERIALS IN ACCORDANCE WITH ASTM D 5286-92. THE SOIL SHALL BE FREE OF HERBICIDES, PETROLEUM-BASED MATERIALS OR OTHER SUBSTANCES OF A HAZARDOUS OR TOXIC NATURE WHICH MAY INHIBIT PLANT GROWTH. THE SOIL SHALL BE FREE OF NOXIOUS WEEDS, SEEDS OR VEGETATIVE PARTS OF WEEDY PLANTS THAT CANNOT BE SELECTIVELY CONTROLLED IN THE PLANTING. LOCATION OF SOURCE(S) OF THE MATERIAL AND PAST USE OF EACH OF THE SOURCE(S) SHALL BE PROVIDED WITH THE SUBMITTAL FOR REVIEW.
2. THE SOIL SHALL BE TAKEN FROM THE A HORIZON OF A WELL-DRAINED SITE AND HAVE A USDA SOIL TEXTURE CLASSIFICATION OF CLAY LOAM TO LOAM WITHIN THE ALLOWABLE LIMITS IN THE CHART BELOW. THE ORGANIC CONTENT AND PARTICLE SIZE DISTRIBUTION SHALL BE THE RESULT OF NATURAL SOIL FORMATION. THE TOPSOIL SHALL HAVE THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

USDA particle name	size (mm)	allowable limit
Gravel	2.00-4.75	less than 5%
Sand	0.05-2.00	40-80%
Silt	0.002-0.05	10-50%
Clay	minus 0.002	10-25%

   a. THE TOPSOIL SHALL MEET THE FOLLOWING SPECIFICATIONS. PERFORM THE FOLLOWING TESTS AND SUBMIT TEST REPORTS SHOWING THE FOLLOWING CRITERIA ARE MET:
      i. THE USDA SOIL TEXTURE AS DEFINED ABOVE.
      ii. THE PARTICLE SIZE ANALYSIS AS DEFINED ABOVE.
      iii. THE PH SHALL BE 5.5 TO 7.8.
      iv. THE SOLUBLE SALTS SHALL BE LESS THAN 1.5 MMOH/CM.
      v. THE ORGANIC MATTER CONTENT SHALL BE 3.0 TO 6.0 PERCENT.
   b. PROVIDE CERTIFICATION FROM THE SUPPLIER THAT THE TOPSOIL DOES NOT CONTAIN ANY TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH.
   c. OFF-SITE (BORROW) TOPSOILS MEETING THE CRITERIA SHOWN ABOVE MUST BE USED FOR THE PLANTING MIX AND THEIR SOURCE OR LOCATION COMMUNICATED TO THE LANDSCAPE ARCHITECT.
   d. SOIL NUTRIENT/ PH ANALYSIS TO BE PERFORMED BY AN AGRONOMIC SOIL TESTING AGENCY; APPLY & INCORPORATE ANY RECOMMENDED FERTILIZERS OR SOIL AMENDMENTS TO ACHIEVE PROPER GROWING CONDITIONS. TESTING FOR TOPSOIL SUITABILITY TO MEET THESE SPECIFICATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR. RESULTS TO BE SUPPLIED TO LANDSCAPE ARCHITECT AND OWNER.
3. TOPSOIL FROM THE SITE MAY BE USED IF IT MEETS THE ABOVE REQUIREMENTS. ADDITIONAL TOPSOIL SHALL BE PROVIDED AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. TOPSOIL STOCKPILED FROM THE SITE SHALL BE TESTED AND AMENDED PER THE RECOMMENDATIONS OF THE TESTING AGENCY TO MEET THE ABOVE REQUIREMENTS.
4. IN PLANTING AREAS UNDER EXISTING TREE DRIPLINES USE ONLY NATIVE TOPSOIL FOR BACKFILL UNLESS OTHERWISE NOTED IN DRAWINGS. IF NO NATIVE TOPSOIL IS AVAILABLE IN THESE AREAS, USE PLANTING SOIL TYPE 1.

B. SOIL TYPE 2

1) SUPERSOIL BY EVANS LANDSCAPING, OR APPROVED EQUAL, 3700 ROUNDBOTTOM ROAD, CINCINNATI, OH 45244, 513.271.1119
   a. PROVIDE CERTIFICATION FROM THE SUPPLIER THAT THE SOIL DOES NOT CONTAIN ANY TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH.
   b. SOIL COMPOSITION, NUTRIENT AND PH ANALYSIS TO BE PERFORMED BY AN AGRONOMIC SOIL TESTING AGENCY. RESULTS TO BE SUPPLIED TO LANDSCAPE ARCHITECT AND OWNER.

C. TOPSOIL SUPPLY & SOURCES

1. ADEQUATE QUANTITIES OF TOPSOIL MATERIALS SHALL BE PROVIDED TO ATTAIN, AFTER COMPACTION AND NATURAL SETTLEMENT, ALL DESIGN FINISH GRADES. VERIFY QUANTITIES FOR PLACEMENT AS SPECIFIED TO SUIT SITE CONDITIONS.
2. STOCKPILES SHOULD BE NO MORE THAN 6 FEET IN HEIGHT TO PREVENT ANAEROBIC CONDITIONS WITHIN THE PILE.

2.2 INORGANIC SOIL AMENDMENTS

A. LIME: ASTM C 602, AGRICULTURAL LIMESTONE CONTAINING A MINIMUM 80 PERCENT CALCIUM CARBONATE EQUIVALENT AND AS FOLLOWS: ANY APPLICATION OF LIME RECOMMENDED BY CONTRACTOR MUST BE SUBSTANTIATED BY LAB TESTS RESULTS APPROVED BY LANDSCAPE ARCHITECT.

1. CLASS: CLASS T, WITH A MINIMUM 99 PERCENT PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM 75 PERCENT PASSING THROUGH NO. 60 (0.25-MM) SIEVE.
2. CLASS: CLASS O, WITH A MINIMUM 95 PERCENT PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM 55 PERCENT PASSING THROUGH NO. 60 (0.25-MM) SIEVE.
3. PROVIDE LIME IN FORM OF DOLOMITIC LIMESTONE.

B. SULFUR: GRANULAR, BIODEGRADABLE, CONTAINING A MINIMUM OF 90 PERCENT SULFUR, WITH A MINIMUM 99 PERCENT PASSING THROUGH NO. 6 (3.35-MM) SIEVE AND A MAXIMUM 10 PERCENT PASSING THROUGH NO. 40 (0.425-MM) SIEVE.

C. IRON SULFATE: GRANULATED FERROUS SULFATE CONTAINING A MINIMUM OF 30-35 PERCENT IRON AND 30-50 PERCENT SULFUR AND SUPPLIED BY A COMMERCIAL FERTILIZER SUPPLIER.

D. ALUMINUM SULFATE: COMMERCIAL GRADE, UNADULTERATED.

E. PERLITE: HORTICULTURAL PERLITE, SOIL AMENDMENT GRADE.

F. AGRICULTURAL GYPSUM: FINELY GROUND, CONTAINING A MINIMUM OF 90 PERCENT CALCIUM SULFATE.

G. SAND: CLEAN, WASHED, NATURAL OR MANUFACTURED, FREE OF TOXIC MATERIALS.

H. DIATOMACEOUS EARTH: CALCINED, DIATOMACEOUS EARTH, 90 PERCENT SILICA, WITH APPROXIMATELY 140 PERCENT WATER ABSORPTION CAPACITY BY WEIGHT.

I. ZEOLITES: MINERAL CLINOPTILOLITE WITH AT LEAST 60 PERCENT WATER ABSORPTION BY WEIGHT.

J. HYDROGEL: "SOIL MOIST"(TM) HYDRO BY JRM CHEMICAL INC. (1-800-962-4010) OR APPROVED EQUAL, APPLIED AND MIXED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

2.3 ORGANIC SOIL AMENDMENTS

A. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH (19-MM) SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS; AND AS FOLLOWS:

1. ORGANIC MATTER CONTENT: 50 PERCENT OF DRY WEIGHT.
2. FEEDSTOCK: AGRICULTURAL, FOOD, OR INDUSTRIAL RESIDUALS; BIOSOLIDS; YARD TRIMMINGS; OR SOURCE-SEPARATED OR COMPOSTABLE MIXED SOLID WASTE.

B. PEAT: SPHAGNUM PEAT MOSS, PARTIALLY DECOMPOSED, FINELY DIVIDED OR GRANULAR TEXTURE, WITH A PH RANGE OF 3.1 TO 5.0.

C. PEAT: FINELY DIVIDED OR GRANULAR TEXTURE, WITH A PH RANGE OF 6 TO 7.5, CONTAINING PARTIALLY DECOMPOSED MOSS PEAT, NATIVE PEAT, OR REED-SEDGE PEAT AND HAVING A WATER-ABSORBING CAPACITY OF 1100 TO 2000 PERCENT.

D. WOOD DERIVATIVES: DECOMPOSED, NITROGEN-TREATED SAWDUST, GROUND BARK, OR WOOD WASTE; OF UNIFORM TEXTURE, FREE OF CHIPS, STONES, STICKS, SOIL, OR TOXIC MATERIALS.

1. IN LIEU OF DECOMPOSED WOOD DERIVATIVES, MIX PARTIALLY DECOMPOSED WOOD DERIVATIVES WITH AT LEAST 0.15 LB (2.4 KG) OF AMMONIUM NITRATE OR 0.25 LB (4 KG) OF AMMONIUM SULFATE PER CUBIC FOOT (CUBIC METER) OF LOOSE SAWDUST OR GROUND BARK.

E. MANURE: WELL-ROTTED, UNLEACHED, STABLE OR CATTLE MANURE CONTAINING NOT MORE THAN 25 PERCENT BY VOLUME OF STRAW, SAWDUST, OR OTHER BEDDING MATERIALS; FREE OF TOXIC SUBSTANCES, STONES, STICKS, SOIL, WEED SEED, AND MATERIAL HARMFUL TO PLANT GROWTH.

2.4 FERTILIZER

A. DO NOT APPLY ANY FERTILIZER OTHER THAN COMPOST TO ANY AREA TO BE INSTALLED WITH PLANT PLUGS.

B. CONTAINING FIFTY PERCENT OF THE ELEMENTS DERIVED FROM ORGANIC SOURCE; OF PROPORTION NECESSARY TO ELIMINATE AND DEFICIENCIES OF TOPSOIL, AS INDICATED IN ANALYSIS.

C. BONEMEAL: COMMERCIAL, RAW OR STEAMED, FINELY GROUND; A MINIMUM OF 4 PERCENT NITROGEN AND 20 PERCENT PHOSPHORIC ACID.

D. SUPERPHOSPHATE: COMMERCIAL, PHOSPHATE MIXTURE, SOLUBLE; A MINIMUM OF 20 PERCENT AVAILABLE PHOSPHORIC ACID.

E. COMMERCIAL FERTILIZER: COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF FAST- AND SLOW-RELEASE NITROGEN, 50 PERCENT DERIVED FROM NATURAL ORGANIC SOURCES OF UREA FORMALDEHYDE, PHOSPHOROUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION:

F. COMPOSITION: NITROGEN, PHOSPHOROUS, AND POTASSIUM IN AMOUNTS RECOMMENDED IN SOIL REPORTS FROM A QUALIFIED SOIL-TESTING AGENCY.

G. SLOW-RELEASE FERTILIZER: GRANULAR OR PELLETED FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHOROUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION:

H. COMPOSITION: NITROGEN, PHOSPHOROUS, AND POTASSIUM IN AMOUNTS RECOMMENDED IN SOIL REPORTS FROM A QUALIFIED SOIL-TESTING AGENCY.

I. CALCIUM NITRATE: AGRICULTURAL GRADE CONTAINING 15-1/2 PERCENT NITROGEN.

2.5 INOCULANT/BIO-FERTILIZER

A. LIQUID SOIL MICROBIAL INOCULANT:

1. VERMAPLEX (APPLY AT LABEL RATES): CONCENTRATED PLANT EXTRACTS AND MICROBES INCLUDING ENDO AND ECTO MYCORRHIZAE.

VERMITECHNOLOGY
P.O. BOX 130
ORANGE LAKE, FL 32681
PHONE: (352) 591-1111
E-MAIL: VERMI_TECH@YAHOO.COM
WEB: WWW.VERMITECHNOLOGY.COM

2.6 HERBICIDE

A. PREEMERGENT HERBICIDE: GRANULAR TYPE, TREFLAN OR EQUAL, TO BE APPLIED AT A RATE PER MANUFACTURER'S RECOMMENDATION.

2.7 MULCHES

A. ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS LOCALLY HARVESTED AND PRODUCED, AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, ALL PLANTING BEDS AND TREE PLANTINGS NOT IN PAVEMENT SHALL BE TOPDRESSED WITH 2" OF APPROVED HARDWOOD MULCH.

2.8 MISCELLANEOUS PRODUCTS

A. ANTIDESSICANT: WATER-INSOLUBLE EMULSION, PERMEABLE MOISTURE RETARDER, FILM FORMING, FOR TREES AND SHRUBS. DELIVER IN ORIGINAL SEALED, AND FULLY LABELED CONTAINERS AND MIX ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

PART 3 - EXECUTION

3.1 SITE EXAMINATION

A. PRIOR TO INSTALLATION OF SOILS, EXAMINE SITE TO CONFIRM THAT EXISTING CONDITIONS ARE SATISFACTORY FOR THE WORK OF THIS SECTION TO PROCEED.

1. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED.
2. CONFIRM THA

A. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.

B. COORDINATE THE INSTALLATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED.

C. PORTIONS OF THIS WORK AREA ARE OVER AN UNDERGROUND ODOT TUNNEL. CONTRACTOR TO COORDINATE WORK EFFORTS WITH OWNER AND CIVIL ENGINEER FOR COORDINATION, ANY LIMITATIONS ON ACCESS OR EQUIPMENT TYPES AND LEVELS OF PROTECTION OF WATERPROOFING AND DRAINAGE THAT MAY BE REQUIRED. IF DEPTHS INDICATED ON PLAN ARE NOT ATTAINABLE, NOTIFY LANDSCAPE ARCHITECT.

3.3 INSTALLATION

A. SEQUENCING OF WORK TO PREVENT COMPACTION

1. ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE PLANTING SOILS SHALL BE WIDE TRACK OR BALLOON TIRE MACHINES RATED WITH A GROUND PRESSURE OF 4 PSI OR LESS. ALL GRADING AND SOIL DELIVERY EQUIPMENT SHALL HAVE BUCKETS EQUIPPED WITH 6 INCH LONG TEETH TO SCARIFY ANY SOIL THAT BECOMES COMPACTED.
2. PHASE WORK SUCH THAT EQUIPMENT TO DELIVER OR GRADE SOIL DOES NOT HAVE TO OPERATE OVER PREVIOUSLY INSTALLED SOILS. WORK IN ROWS OF LIFTS THE WIDTH OF THE EXTENSION OF THE BUCKET ON THE LOADER. INSTALL ALL LIFTS IN ONE ROW BEFORE PROCEEDING TO THE NEXT. WORK OUT FROM THE FURTHEST PART OF EACH BED FROM THE SOIL DELIVERY POINT TO THE EDGE OF EACH BED AREA.
3. WHERE POSSIBLE PLACE LARGE TREES FIRST AND FILL PLANTING SOIL AROUND THE ROOT BALL.
4. WHERE TRAVEL OVER INSTALLED SOIL IS UNAVOIDABLE, LIMIT PATHS OF TRAFFIC TO REDUCE THE IMPACT OF COMPACTION IN PLANTING SOIL. WHERE POSSIBLE, USE PLYWOOD, STEEL OR OTHER APPROVED SHEETING AS DIRECTED BY LANDSCAPE ARCHITECT TO PROTECT SOILS BENEATH FROM COMPACTION. COMPLY WITH THE PARAGRAPH "COMPACTION REDUCTION" (SECTION 3.03 B) IN THE EVENT THAT SOIL BECOMES OVER COMPACTED.
5. THE DEPTHS AND GRADES SHOWN ON THE DRAWINGS ARE THE FINAL GRADES AFTER SETTLEMENT AND SHRINKAGE OF THE INSTALLED SOILS. THE CONTRACTOR SHALL INSTALL ALL SOILS AT A HIGHER LEVEL TO ANTICIPATE THIS REDUCTION IN SOIL VOLUME. A MINIMUM SETTLEMENT OF APPROXIMATELY 10-15% OF THE SOIL DEPTH IS EXPECTED.
6. MAINTAIN MOISTURE CONDITIONS WITHIN THE PLANTING SOILS DURING INSTALLATION OR MODIFICATION TO ALLOW FOR SATISFACTORY COMPACTION. SUSPEND OPERATIONS IF THE SOIL BECOMES WET. APPLY WATER IF THE SOIL IS OVERLY DRY.
7. PROVIDE ADEQUATE EQUIPMENT TO ACHIEVE CONSISTENT AND UNIFORM COMPACTION OF THE PLANTING SOILS. USE THE SMALLEST EQUIPMENT THAT CAN REASONABLY PERFORM THE TASK OF SPREADING AND COMPACTION.
8. DO NOT PASS MOTORIZED EQUIPMENT OVER PREVIOUSLY INSTALLED AND COMPACTED SOIL EXCEPT AS AUTHORIZED BELOW.
   a. LIGHT WEIGHT EQUIPMENT SUCH AS TRENCHING MACHINES OR MOTORIZED WHEEL BARROWS IS PERMITTED TO PASS OVER FINISHED SOIL WORK.
   b. IF WORK AFTER THE INSTALLATION AND COMPACTION OF SOIL COMPACTS THE SOIL TO LEVELS GREATER THAN DESIRED, FOLLOW THE REQUIREMENTS OF THE PARAGRAPH "OVER COMPACTION REDUCTION" BELOW.

B. IN PERFORMING THIS WORK, CONTRACTOR SHALL AVOID DAMAGE TO ANY EXISTING STRUCTURES OR FEATURES OF THE PARK OR FEATURES UNDER CONSTRUCTION, SUCH AS DRAINAGE AND IRRIGATION SYSTEMS. THE CONTRACTOR AT HIS OWN EXPENSE SHALL REPAIR ANY SUCH DAMAGE.

C. OVER COMPACTION REDUCTION

1. ANY SOIL THAT BECOMES COMPACTED TO A GREATER DENSITY THAN SPECIFIED HEREIN SHALL BE DUG UP AND REINSTALLED. SEE PARAGRAPH 1.06 D "SOIL COMPACTION TESTING" IN THIS SECTION FOR ACCEPTABLE COMPACTION LEVELS. THIS REQUIREMENT INCLUDES COMPACTION CAUSED BY OTHER SUB-CONTRACTORS AFTER THE SOIL IS INSTALLED AND APPROVED.
2. SURFACE ROTO-TILLING SHALL NOT BE CONSIDERED ADEQUATE TO REDUCE OVER COMPACTION AT LEVELS 6 INCHES OR GREATER BELOW FINISHED GRADE.

D. TOPSOIL & PLANTING SOIL MIX INSTALLATION

1. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
2. PREPARE SUBSOIL TO ELIMINATE UNEVEN AREAS. MAINTAIN PROFILES AND CONTOURS. MAKE CHANGES IN GRADE GRADUAL. BLEND SLOPES INTO LEVEL AREAS. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
3. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, OTHER FACILITIES, AND LAWNS AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY SOIL INSTALLATION OPERATIONS.

E. PLANTING SOIL MIXES THROUGHOUT THE PLANTING AREAS ON-SITE SHALL THEN BE CAREFULLY SMOOTHED AND COMPACTED TO THE FINISHED GRADE BY ALTERNATELY RAKING, WATERING AND ROLLING. THE PLANTING AREAS SHALL THEN BE CHECKED FOR IRREGULARITIES AND ADJUSTED TO A UNIFORM GRADE. COMPACTION OF THE PLANTING MIXES SHALL BE WITHIN THE RANGE OF 85% TO 90% AND SHALL BE TESTED VIA NUCLEAR METHODS BY THE GEO-TECHNICAL ENGINEER ON THE SITE DURING CONSTRUCTION.

F. PREVENT CONTAMINATION OR MIXING OF PLANTING SOIL MIXES AND SUBGRADE SOIL MATERIAL. REMOVE CONTAMINATED MATERIALS AS DIRECTED BY THE LANDSCAPE ARCHITECT. MATERIALS TRUCKED INTO THE SITE MUST BE DONE IN SUCH A MANNER AS NOT TO ALTER THE SUBGRADE AND/OR DAMAGE DRAINAGE AND IRRIGATION DITCHES AND SYSTEMS. MATERIALS SHALL BE HANDLED IN A FASHION TO PREVENT THE MIXING OF OTHER SOIL AND MATERIALS WITH THE PLANTING SOIL MIXES.

1. PLACE TOPSOIL DURING DRY WEATHER AND ON DRY UNFROZEN SUBGRADE.
2. SPREAD TOPSOIL AND RAKE UNTIL SMOOTH.
3. MANUALLY SPREAD TOPSOIL AROUND TREES, PLANTS AND HARDSCAPES TO PREVENT DAMAGE.
4. WHILE SPREADING TOPSOIL, REMOVE FOREIGN MATERIALS, WEEDS AND UNDESIRABLE PLANTS AND THEIR ROOTS. REMOVE STONES LARGER THAN 1 INCH IN ANY DIMENSION. LEGALLY DISPOSE OF ALL REMOVED ITEMS OFF PARK BOARD PROPERTY.
5. GRADE TOPSOIL TO ELIMINATE ROUGH, LOW OR SOFT AREAS, AND TO ENSURE POSITIVE DRAINAGE. FINISHED GRADE SHALL BE WITHIN PLUS OR MINUS 0.1 FEET OF THE ELEVATION SHOWN ON THE DRAWINGS.
6. LEAVE STOCKPILE AREA AND SITE CLEAN AND RAKED, READY TO RECEIVE LANDSCAPING.

G. SOIL TYPE SHALL BE PLACED TO THICKNESSES, ELEVATIONS AND LOCATIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS AND DETAILS OR AS OTHERWISE CALLED OUT IN THE SPECIFICATIONS.

END OF SECTION

PLANTING NOTES

1. INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL ESTABLISHMENT OF EXTERIOR PLANTS FOR PROJECTS OF SIMILAR TYPE AND SIZE. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN EXTERIOR PLANTING IS IN PROGRESS.
2. SUBMITTALS:

2.A. INSTALLER QUALIFICATION DATA: PROVIDE PROOF OF FIVE (5) OR MORE COMPARABLE SUCCESSFUL INSTALLATIONS & RELATED REFERENCES.

2.B. MATERIAL LIST - PROVIDE LIST OF EACH LANDSCAPE MATERIAL (TREES, SHRUBS, PERENNIALS, SEED MIX, SOD) AND IDENTIFY INTENDED TYPE AND NURSERY SOURCE AND CERTIFICATION FROM SEED AND SOD SUPPLIERS OF GRASS SPECIES.

2.C. PHOTOGRAPH OF TREES - SUBMIT IMAGES WITHIN 14 DAYS OF ANTICIPATED DELIVERY TO SITE OF EACH PLACE SPECIES OF EACH SIZE AND QUALITY GRADE. EACH SPECIES PHOTO SHALL INCLUDE: 1) SCALE - YARDSTICK OR PERSON TO PROVIDE SCALE; 2) BACKGROUND - ENSURE FORM AND CONDITION OF PLANT IS CLEAR FROM BACKGROUND; 3) IDENTIFICATION - PROVIDE NAME OF PROJECT AND OWNER, NAME AND ADDRESS OF GROWER, DATE PHOTOGRAPH WAS TAKEN, SPECIES NAME AND QUALITY GRADE, AND DATE TREE WAS DUG OR WILL BE DUG.

3. FINAL GRADING SHALL BE COMPLETED PRIOR TO PLANTING OR PLANTING LAYOUT. THIS SHOULD INCLUDE DRAINAGE PER THE GRADING PLAN AND TOPSOIL AS SPECIFIED.
4. UNLESS NOTED, TREE AND PLANTING BED LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL STAKE OUT ALL LOCATIONS IN FIELD FOR REVIEW BY THE LANDSCAPE ARCHITECT.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE DRAWINGS OR MAY LIMIT PROPER PLANT GROWTH.
6. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING, REMOVAL OF MISCELLANEOUS DEBRIS AND ANY ADDITIONAL FILL PER TOPSOIL REQUIREMENTS REQUIRED TO CREATE A SMOOTH CONDITION PRIOR TO PLANTING IN ALL PLANTING AREAS.
7. PLANT SPACING IS AS INDICATED ON 'PLANT SCHEDULE' UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED IN THE PLANT SCHEDULE REMARKS.
8. TREES LOCATED IN AREAS PLANTED WITH STANDARD TURF SHOULD HAVE A MINIMUM 8' DIA. MULCH RING AROUND THE TRUNK.
9. ALL BALLED AND BURLAPPED PLANT MATERIAL TO BE GROWN IN SAME USDA ZONE AS PROJECT SITE. ANY MATERIAL SOUTH OF PROJECT SITE USDA ZONE WITHOUT PRIOR APPROVAL OF LANDSCAPE ARCHITECT WILL NOT BE ACCEPTED.
10. PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK."
11. MEASURE ACCORDING TO ANSI Z60.1 WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. DO NOT PRUNE TO OBTAIN REQUIRED SIZES. TAKE CALIPER MEASUREMENTS 6 INCHES (150 MM) ABOVE GROUND FOR TREES UP TO 4-INCH (100-MM) CALIPER SIZE, AND 12 INCHES (300 MM) ABOVE GROUND FOR LARGER SIZES. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD; DO NOT MEASURE BRANCHES OR ROOTS TIP-TO-TIP.
12. WARRANTY: WARRANT ALL EXTERIOR PLANTS, FOR ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION, AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.
13. REPLACEMENTS: REMOVE DEAD EXTERIOR PLANTS IMMEDIATELY. REPLACE IMMEDIATELY UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON. REPLACEMENTS SHALL BE THE SIZE AND SPECIES AS SPECIFIED WITH A NEW WARRANTY COMMENCING ON DATE OF REPLACEMENT. REPLACE EXTERIOR PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD AS DETERMINED BY LANDSCAPE ARCHITECT.
14. INSTALLATION COORDINATION: PLANT DURING THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION. DECIDUOUS & EVERGREEN MATERIAL: MARCH 1 TO MAY 30 OR SEPTEMBER 15 TO DECEMBER 1. HERBACEOUS MATERIAL: MARCH 1 TO MAY 30 OR SEPTEMBER 15 TO OCTOBER 31. OTHER PLANTING TIMES MAY BE CONSIDERED WITH PRIOR APPROVAL; IF THE PLANT MATERIAL IS DORMANT OR IF PLANT MATERIAL HAS BEEN DUG DURING DORMANCY AND HAS BEEN MAINTAINED IN A HOLDING AREA FOR AT LEAST TWO WEEKS AND NOT MORE THAN SIX WEEKS WITHOUT SIGNS OF WILTING, SCORCHING, OR OTHER SIGNS OF STRESS.
15. MAINTENANCE: MAINTAIN TREES, SHRUBS, PERENNIALS, GROUNDCOVER AND LAWN TURF FOR ONE YEAR FROM FROM SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES BUT IS NOT LIMITED TO: PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, TIGHTENING AND REPAIRING STAKES AND GUY SUPPORTS, AND RESETTING TO PROPER GRADES OR VERTICAL POSITION, AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS, RESEED OR PATCH SEEDED AREAS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE. RESTORE OR REPLACE DAMAGED TREE WRAPPINGS. CONTRACTOR TO PROVIDE OWNER 30 DAY NOTICE BEFORE END OF MAINTENANCE PERIOD. MAINTENANCE OF IRRIGATION SYSTEM SHALL ALSO BE INCLUDED IN MAINTENANCE PERIOD. CONTRACTOR RESPONSIBLE FOR WATER. WATERING, RAINFALL AND IRRIGATION SHALL SUPPLY A MINIMUM OF ONE INCH OF WATER PER WEEK.
16. PLANTING BEDLINES SHALL HAVE SMOOTH CURVES AND TRANSITION BETWEEN CURVES. EDGES SHALL BE CUT TO A DEPTH OF 4" AND BACKFILLED WITH MULCH.
17. MULCH: SHREDDED DARK HARDWOOD MULCH, WELL COMPOSTED, FREE FROM DELETERIOUS MATERIAL LOCALLY HARVESTED AND PRODUCED AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS. MULCH SHALL BE 2 INCHES IN DEPTH AND ACHIEVE COMPLETE COVERAGE.
18. EROSION CONTROL MAT: PER CIVIL ENGINEERS DRAWINGS

SEEDING NOTES

1. CONTRACTOR TO STAKE LIMITS OF ALL SEED AREAS AND REVIEW WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLING SEED.
2. LAWN AREAS SHOULD BE HYDROMULCHED AT A MINIMUM RATE OF 3,000 LBS PER ACRE AND SHALL ATTAIN COMPLETE SOIL COVERAGE WITH AN ADDITIONAL THIN LAYER ONCE COMPLETE COVER IS ACHIEVED. SEEDING MULCH SHALL MEET THE FOLLOWING SPECIFICATIONS:

2.A. HYDROMULCH: WOOD FIBER TYPE APPLEGATE WOOD-LOK BFM (WWW.APPLEGATEMULCH.COM) OR APPROVED EQUAL.

2.B. HYDROMULCH SHALL CONSIST OF LONG STRANDS OF VIRGIN WOOD FIBERS MADE FROM FRESH CUT, CLEAN WHOLE WOOD CHIPS, WITH EXTRA HOLDING POWER OF A HIGH STRENGTH, NON-TOXIC, HYDROCOLLOID-BASED BINDER. HYDROMULCH SHALL NOT DISSOLVE OR DISPERSE WHEN REWETTED.

2.C. THE HYDROMULCH SYSTEM SHALL SPRAY ON LIKE A MULCH AND FORM A BLANKET THAT ADHERES TO THE SOIL AND SHALL BE 100% BIODEGRADABLE. THE HYDROMULCH SHALL BE GREEN IN COLOR TO ALLOW VISUAL OF EVEN APPLICATION.

2.D. HYDROMULCH SHALL HAVE THE FOLLOWING COMPONENTS: 1) MOISTURE CONTENT: 12% (+/- 3%); 2) ORGANIC MATTER (OVEN DRIED BASIS): 99.3% (+/- 0.2%); 3) ASH CONTENT: (OVEN DRIED BASIS): 0.7% (+/- 0.2%); 4) PH AT 3% CONCENTRATION: 4.8% (+/- 0.5%); 5) WATER HOLDING CAPACITY (PER 100 GRAMS OVEN DRY FIBER): MIN. 1,250 GRAMS; 5) COLOR: GREEN; 6) TACKIFIER CONTENT (BASED ON TOTAL WEIGHT): 10%.

3. SEED AREAS SHOWN ON PLAN WITH THE FOLLOWING LAWN MIX:

Seed Mixture	Rate (lbs. per 1,000 SF)	Maximum by Weight Purity	Germination
Fine-leaf tall fescue (blend of three varieties)	4.8	98%	80%
Perennial rye	1.2	98%	90%

SEEDING RATE: 6 LBS. PER 1,000 S.F.

4. SEED MIXTURE SHALL BE FURNISHED IN NEW BAGS OR BAGS THAT ARE SOUND AND NOT MENDED; NO "BELOW STANDARD" SEED ACCEPTED. PACKAGES SHOULD SHOW WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE. SPECIES NOTED SHALL BE CERTIFIED AND WARRANTED SEED TRUE TO NAME; HARVESTED, DRIED, CLEANED, STORED AND SHIPPED AS APPLICABLE IN A MANNER TO INSURE MAXIMUM VIABILITY, OBTAINED FROM A REPUTABLE SUPPLIER TO BE APPROVED BY LANDSCAPE ARCHITECT; AND MEETS RECOGNIZED TOLERANCES, AS APPLICABLE, FOR PURITY AND PERCENT GERMINATION AS DESCRIBED UNDER STATE AND FEDERAL SEED LAWS.
5. PREPARE SUBGRADE: TOPSOIL MUST BE HAND-RAKED PRIOR TO HYDROSEEDING PLACEMENT.
6. FERTILIZER: RECOMMENDED FOR GRASS, WITH FIFTY PERCENT OF THE ELEMENTS DERIVED FROM ORGANIC SOURCES; OF PROPORTION NECESSARY TO ELIMINATE ANY DEFICIENCIES OF TOPSOIL, AS INDICATED BY ANALYSIS. APPLY FERTILIZER AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO INSTALLATION OF SEED OR SOD. APPLY FERTILIZER NO MORE THAN 48 HOURS BEFORE HYRDOSEEDING. MIX THOROUGHLY INTO UPPER 2 INCHES (50 MM) OF TOPSOIL.LIGHTLY WATER TO AID THE DISSIPATION OF FERTILIZER.
7. UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT, PERMANENT SEEDING OPERATIONS SHALL BE LIMITED TO THE FOLLOWING PLANTING PERIODS:

   SPRING: MARCH 15-MAY 30

   FALL: AUGUST 30-SEPTEMBER 30

7.A. TEMPORARY COVER: IF CONSTRUCTION REQUIRES SEEDING TO OCCUR AFTER FALL SEEDING WINDOW AS SPECIFIED ABOVE, INSTALL THE FOLLOWING WINTER-COVER MIX: ADD AN ADDITIONAL 3 POUNDS PER 1,000 SQUARE FEET OF ANNUAL RYE GRASS. IF CONSTRUCTION SCHEDULE PREVENTS SEEDING THE SPECIFIED MIXTURE BY OCTOBER 15, A TEMPORARY WINTER COVER OF ANNUAL RYE GRASS IS TO BE PROVIDED AT A RATE OF 5LBS PER 1,000 SQUARE FEET. ONCE CONDITIONS ARE FAVORABLE, THE AREA IS TO HAVE THE EXISTING VEGETATION MOWED AS CLOSE AS POSSIBLE AND THE AREA RESCARIFIED AND SEEDED WITH THE SPECIFIED SEED.

8. REPAIR, PREPARE AND RESEED AND MULCH AREAS OF WASH OR EROSION ON SEEDED AREAS AND AS REQUIRED TO ENSURE COMPLETE COVERAGE. IMMEDIATELY RESEED AREAS WHICH DO NOT SHOW A SATISFACTORY STAND OF ESTABLISHED GRASS.
9. MAINTAIN ALL LAWNS FOR NOT LESS THAN 30 DAYS AFTER SUBSTANTIAL COMPLETION. IF SEEDED IN FALL AND NOT GIVEN FULL 60 DAYS OF MAINTENANCE, OR IF NOT CONSIDERED ACCEPTABLE AT THAT TIME, CONTINUE MAINTENANCE THE FOLLOWING SPRING UNTIL ACCEPTABLE LAWN IS ESTABLISHED. FOR ALL SEEDED AREAS, CONTRACTOR IS RESPONSIBLE FOR WATERING DURING ESTABLISHMENT PERIOD. WATERING AND RAINFALL SHALL SUPPLY A MINIMUM OF 1 INCH OF WATER PER WEEK.
10. WEED CONTROL- CONTRACTOR IS RESPONSIBLE FOR CONTROLLING BOTH BROAD LEAF AND OTHER UNSPECIFIED INVASIVE VEGETATION DURING THE ESTABLISHMENT PERIOD USING THE FOLLOWING METHODS.

10.A. SPOT-SPRAYING WITH HERBICIDE. SPOT SPRAY INVASIVES BEFORE FLOWERING TO PREVENT SEED HEAD DEVELOPMENT.

10.B. OVERSEEDING OR REPLANTING.

11. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL LAWN AREAS UNTIL FINAL ACCEPTANCE OF THE SITE BY THE OWNER. MAINTENANCE OF LAWN AREAS TO INCLUDE: MOWING, REGULAR CONTROL OF INVASIVE AND EXOTIC PLANT MATERIALS, CONTROL OF EROSION OR GULLIES IN THE AREAS, RESEEDING TO ENSURE ESTABLISHMENT OF SPECIFIED SPECIES TO THE RATES SPECIFIED IN THESE DOCUMENTS, AND MANAGING THE IRRIGATION SYSTEM. MAINTENANCE MUST BE ON A MONTHLY TO QUARTERLY BASIS. CONTRACTOR TO SUBMIT MAINTENANCE SCHEDULE TO OWNER/LANDSCAPE ARCHITECT BEFORE ACCEPTANCE OF INITIAL SEEDING BY OWNER.
12. LAWN SEEDING SUBSTANTIAL ACCEPTANCE: THE ACKNOWLEDGEMENT BY THE LANDSCAPE ARCHITECT AND OWNER THAT THE LANDSCAPE WORK DEFINED BY THE PLANS AND SPECIFICATIONS IS SUBSTANTIALLY COMPLETE. LAWN AREAS ACCEPTABLE WHEN THE FOLLOWING CONDITIONS HAVE BEN MET:

12.A. AN AREA IS CONSIDERED ACCEPTABLE IF IT IS 95% COVERED WITH THE PERMANENT SPECIES OF GRASS REPRESENTATIVE OF THE SEED MIXTURE. THERE SHALL BE NO AREA LARGER THAN FOUR SQUARE INCHES THAT DOES NOT HAVE TURF PLANTS ESTABLISHED. IF AN ACCEPTABLE GROWTH IS NOT OBTAINED ON THE FIRST PLANTING, RESEEDING AND REMULCHING WILL BE REQUIRED. REGRADE AND RESEED ANY ERODED AREAS.

07/22/20 - 11:02am TAB: LAYOUT1
X:\1400 PROJECTS\1410 COLERAIN MEGALAND PLAYGROUND\AUTOCAD\LOGOS & PROJECT SPECIFICATIONS.DWG

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:
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07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PROJECT SPECIFICATIONS

SCALE: N/A
DRAWN BY: RS
CHECKED BY: GW

SHEET NUMBER:
G004

PROJECT NO.: 21910
DATE: 07.22.2020



1 L001 **EXISTING CONDITIONS**
SCALE: 1" = 20'-0"

GENERAL NOTES

1. BASE INFORMATION PROVIDED BY ABERCROMBIE & ASSOCIATES; 8111 CHEVIOT RD. SUITE 200; CINCINNATI, OHIO 45247; 513.385.5757
2. CONTRACTOR SHALL LOCATE ALL UTILITIES, STRUCTURES, PAVEMENT AND VEGETATION TO REMAIN, AND TAKE THE NECESSARY PRECAUTIONS FOR THEIR PROTECTION DURING CONSTRUCTION. ANY FIELD ADJUSTMENTS REQUIRED SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO IMPLEMENTATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ORDINANCES, RULES AND REGULATIONS DURING THE COURSE OF THIS PROJECT, INCLUDING BUT NOT LIMITED TO OSHA REQUIREMENTS FOR PUBLIC AND WORKER SAFETY.
4. CONTRACTOR SHALL COORDINATE WITH THE WORK OF OTHER TRADES TO ENSURE PROPER AND TIMELY EXECUTION OF THE WORK.
5. THESE GENERAL NOTES APPLY TO ALL "L" SERIES DRAWINGS

COLERAIN PARK PLAYGROUND PHASE 1

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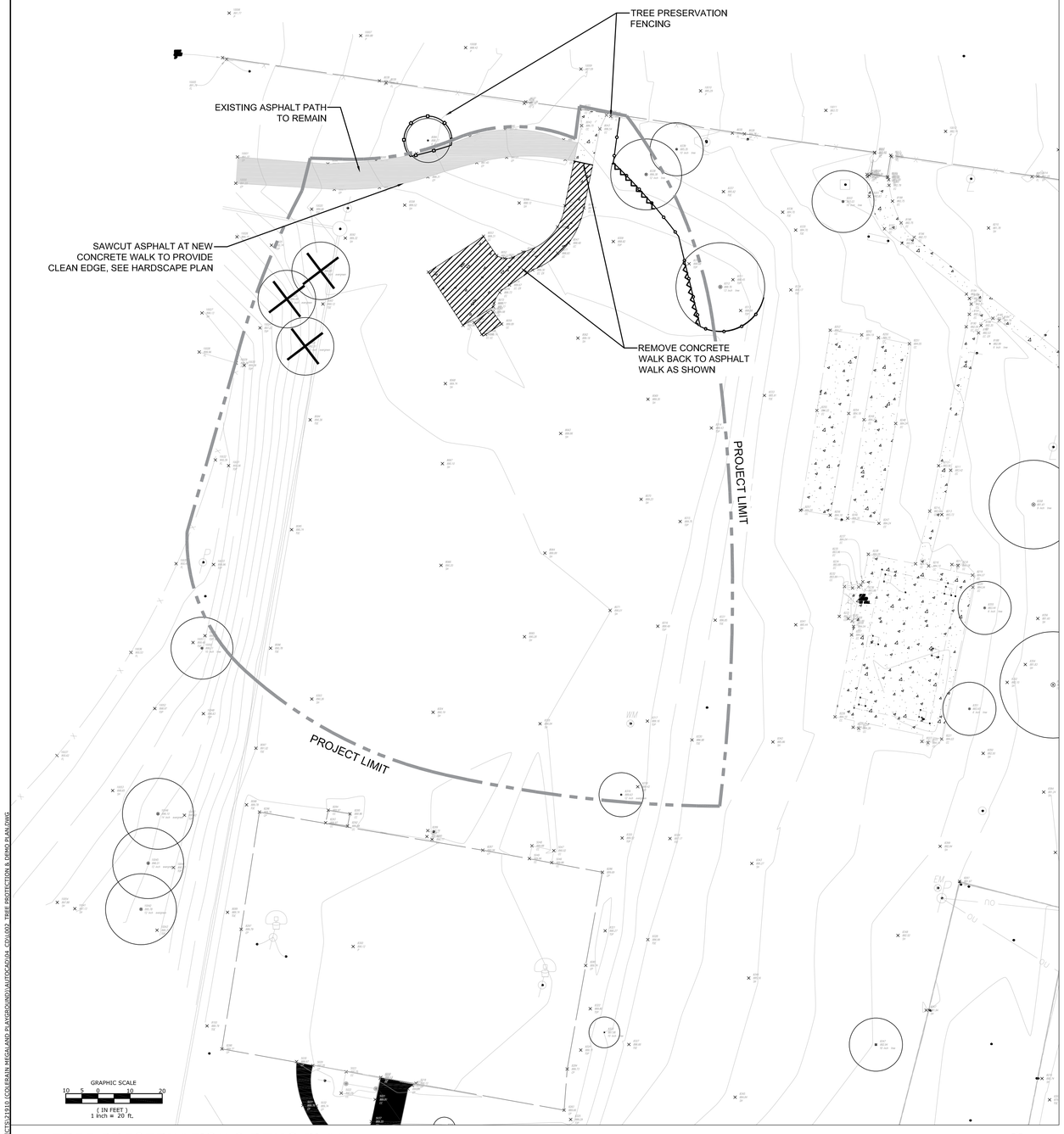
SHEET TITLE:
EXISTING CONDITIONS

SCALE: 1" =20'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L001

PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:04am TAB: LAYOUT1
X:\1900\PROJECTS\1931\COLERAIN MEGALAND PLAYGROUND\AUTOCAD\CIVIL\001 - EXISTING CONDITIONS.DWG



1 L001 **TREE PRESERVATION & DEMO PLAN**
SCALE:1" = 20'-0"

TREE PRESERVATION AND DEMOLITION LEGEND		
KEY	ITEM	COMMENTS
	EXISTING TREE TO REMAIN & BE PROTECTED	SEE NOTES & SPECIFICATIONS
	EXISTING TREE TO BE REMOVED	COORDINATE WITH CERTIFIED ARBORIST & LANDSCAPE ARCHITECT
	TREE PRESERVATION FENCING	ORANGE CONSTRUCTION TYPE FENCING, 4' HIGH WITH METAL POSTS SUPPORTING FENCE MATERIAL APPROX. 6' O.C.; FENCING ALONG EITHER HARDSCAPE OFFSET OR DRIP LINE, WHICHEVER IS CLOSER TO TREE, AS SHOWN IN PLAN
	ROOT PRUNING LOCATION	USE AIR SPADE TO LOCATE TREE ROOTS AS SPECIFIED PER PLAN. PRUNE ALL ROOTS, WITH A ROTARY TYPE STUMP GRINDER OR APPROVED ALTERNATIVE TO A DEPTH OF 18 INCHES OR TO THE MAXIMUM DEPTH OF THE REQUIRED GRADING CUT, WHICHEVER IS LESS
	CONCRETE TO BE REMOVED	PROVIDE A CLEAN SAWCUT EDGE WHERE CONCRETE IS TO BE REMOVED AGAINST CONCRETE THAT WILL REMAIN
	CONCRETE TO REMAIN	PROTECT EXISTING CONCRETE FROM CONSTRUCTION ACTIVITY AND DAMAGE. ANY EXISTING CONCRETE INTENDED TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION ACTIVITIES SHOULD BE REPLACED WITH SAME QUALITY AND FINISH AT CONTRACTOR'S EXPENSE
	ASPHALT TO REMAIN	PROTECT EXISTING ASPHALT FROM CONSTRUCTION ACTIVITY AND DAMAGE. ANY EXISTING ASPHALT INTENDED TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION ACTIVITIES SHOULD BE REPLACED WITH FULL DEPTH ASPHALT AT CONTRACTOR'S EXPENSE

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

SITE PREPARATION AND DEMOLITION

1) LAYOUT OF WORK
   A. PERMANENT LINE AND PERMANENT BENCH MARK(S) ARE TO BE ESTABLISHED BY THE CONTRACTOR, AND MAINTAINED THROUGHOUT CONSTRUCTION. (IF ANY BENCHMARKS ARE DISTURBED, THE CONTRACTOR SHALL UTILIZE THE SERVICES OF A LICENSED SURVEYOR, REPLACE THEM IN THEIR ORIGINAL POSITION AND CONDITION AT NO COST TO THE OWNER.)
   B. THE CONTRACTOR SHALL STAKE OUT THE CONSTRUCTION, ESTABLISH TEMPORARY BENCH MARKS, LINES, LEVELS, BATTERBOARDS, REFERENCE POINTS, CENTERLINES AND VERIFY ALL DIMENSIONS IN RELATION TO CONNECTION WITH EXISTING FACILITIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ERRORS IN CONNECTION WITH THIS WORK. THE CONTRACTOR SHALL PROVIDE ELEVATION CONTROLS AT APPROPRIATE INTERVALS.
   C. PRIOR TO COMMENCEMENT OF THE WORK, THE CONTRACTOR SHALL REPORT TO THE OWNER'S REPRESENTATIVE ANY INCONSISTENCIES IN THE PROPOSED LINES, LEVELS, GRADES, DIMENSIONS, OR LOCATIONS.
2) PROTECTION: PROTECT EXISTING BUILDINGS, STREETS, AND STRUCTURES WHICH ARE TO REMAIN FROM DAMAGE, AND REPAIR DAMAGE BY THIS WORK AT NO ADDITIONAL COST TO THE OWNER.
3) UTILITY LINES: CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE A MINIMUM OF TWO DAYS PRIOR TO START OF WORK (800) 3622764. CONTRACTOR SHALL VERIFY LOCATION OF ALL CHARTED AND UNCHARTED EXISTING UTILITIES PRIOR TO START OF WORK. LOCATIONS OF UTILITIES WHICH ARE MADE KNOWN TO THE CONTRACTOR PRIOR TO EXCAVATION, AND THAT ARE INDICATED TO BE RETAINED, AS WELL AS UTILITY LINES CONSTRUCTED DURING EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATING AND BACKFILLING, AND IF DAMAGED, SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. IF UTILITY LINES THAT ARE NOT INDICATED OR THAT THE CONTRACTOR IS NOT AWARE OF ARE ENCOUNTERED OR DAMAGED, THE AUTHORIZED OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY.
4) EXISTING WATER LINE AND OTHER UTILITIES INDICATED ON DRAWINGS IS APPROXIMATE, CONTRACTOR IS TO TEST DIG TO CONFIRM LOCATION AND DEPTH AT THE CRITICAL POINTS FOR THE COMPLETION OF THIS WORK.
5) THE CONTRACTOR SHALL ACCEPT PREMISES AS FOUND; REMOVE ITEMS AS SPECIFIED, NOTED, OR SHOWN. THE OWNER ASSUMES NO RESPONSIBILITY FOR CONDITIONS OF ITEMS ON SITE NOR CONTINUATION IN CONDITION EXISTING AS OF PROPOSAL INVITATION OR THEREAFTER.
6) ALL REMOVALS SHALL BE DONE IN A CAREFUL AND ORDERLY MANNER. THE CONTRACTOR SHALL ADHERE TO ALL GOVERNING SAFETY STANDARDS IN PROVIDING SAFE REMOVAL OF ALL ITEMS.
7) ALL CUTTING, PATCHING, FITTING, AND FINISHING OF EXISTING WORK SHALL BE DONE AS NECESSARY TO ACCOMMODATE OTHER WORK. WORK TEMPORARILY REMOVED FOR THE INSTALLATION OF NEW WORK SHALL BE PUT BACK IN PLACE, OR MODIFIED AS THE CASE REQUIRES. NO UNFINISHED SURFACE SHALL BE LEFT EXPOSED BUT SHALL BE FINISHED TO CONFORM WITH ADJACENT OR SIMILAR WORK. FINISH GENERALLY SHALL MATCH THAT OF ADJACENT OR SIMILAR SURFACES AND SHALL INCLUDE PAINTING.
8) PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK. PROTECT FROM DAMAGE EXISTING PAVEMENT, FENCING, VEGETATION, BUILDINGS, STREETS AND OTHER SITE FEATURES TO REMAIN IN PLACE. REMOVE PROTECTIONS AT COMPLETION OF WORK.
9) THE CONTRACTOR SHALL MAKE ALL UTILITY DISCONNECTIONS AND CONNECTIONS TO EXISTING LINES AS INDICATED ON THE DRAWINGS OR SPECIFICATIONS.
10) UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR MAKE ANY DISCONNECTIONS OR CONNECTIONS TO UTILITIES OR SERVICES, REQUIRING SHUTDOWN OR OUTAGE, UNTIL DATE AND DURATION FOR MAKING CONNECTIONS HAS BEEN APPROVED BY THE OWNER.
11) REROUTE ANY INTERRUPTED UTILITY SERVICE SUCH AS ELECTRICAL CONDUIT, TELEPHONE, WATER, ETC., THAT MAY BE ENCOUNTERED IN CONNECTION WITH REMOVAL/REPAIR OF WORK STATED IN THIS CONTRACT. ABANDONED UTILITIES WILL BE REMOVED AS DIRECTED ON THE CONSTRUCTION DRAWINGS.
12) PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK, INSPECT AREAS IN WHICH WORK WILL BE PERFORMED. PHOTOGRAPH EXISTING CONDITIONS OF STRUCTURE SURFACES, EQUIPMENT, OR SURROUNDING PROPERTIES THAT COULD BE MISCONSTRUED AS DAMAGE RESULTING FROM SELECTIVE DEMOLITION WORK; FILE WITH OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
13) DEMOLISH CONCRETE IN SMALL SECTIONS. CUT CONCRETE AT JUNCTURES WITH CONSTRUCTION TO REMAIN. PROVIDE SERVICES FOR EFFECTIVE AIR AND WATER POLLUTION CONTROLS, AS REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION.
14) DEMOLISH AND REMOVE MISCELLANEOUS ASPHALT AND CONCRETE DEBRIS, FOUNDATION WALLS, AND CONCRETE SLABS TO NOT LESS THAN 12" BELOW NEW FINISHED GRADES. REMOVE PAVEMENT BASE MATERIAL TO NOT LESS THAN 12" BELOW FINISHED GRADES IN AREAS OF NEW LAWNS AND LANDSCAPING.
15) COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION WORK. PROVIDE FILL CONSISTING OF APPROVED EARTH, GRAVEL, OR SAND, AND FREE OF TRASH AND DEBRIS, STONES OVER 6 INCHES IN DIAMETER, ROOTS, AND OTHER ORGANIC MATTER.
16) REMOVE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS FROM SITE. TRANSPORT AND LEGALLY DISPOSE OFF SITE. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, COMPLY WITH APPLICABLE REGULATIONS, LAWS, AND ORDINANCES CONCERNING REMOVAL, HANDLING, AND PROTECTION AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION. BURNING OF REMOVED MATERIALS IS NOT PERMITTED ON PROJECT SITE.
17) UPON COMPLETION OF DEMOLITION WORK, REMOVE TOOLS, EQUIPMENT, AND DEMOLISHED MATERIALS FROM SITE. REMOVE PROTECTIONS. REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED. RETURN SURFACES TO REMAIN TO CONDITION EXISTING PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK. REPAIR ADJACENT CONSTRUCTION OR SURFACES SOILED OR DAMAGED BY SELECTIVE DEMOLITION WORK.

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
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4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

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PRIME/LANDSCAPE ARCHITECT:

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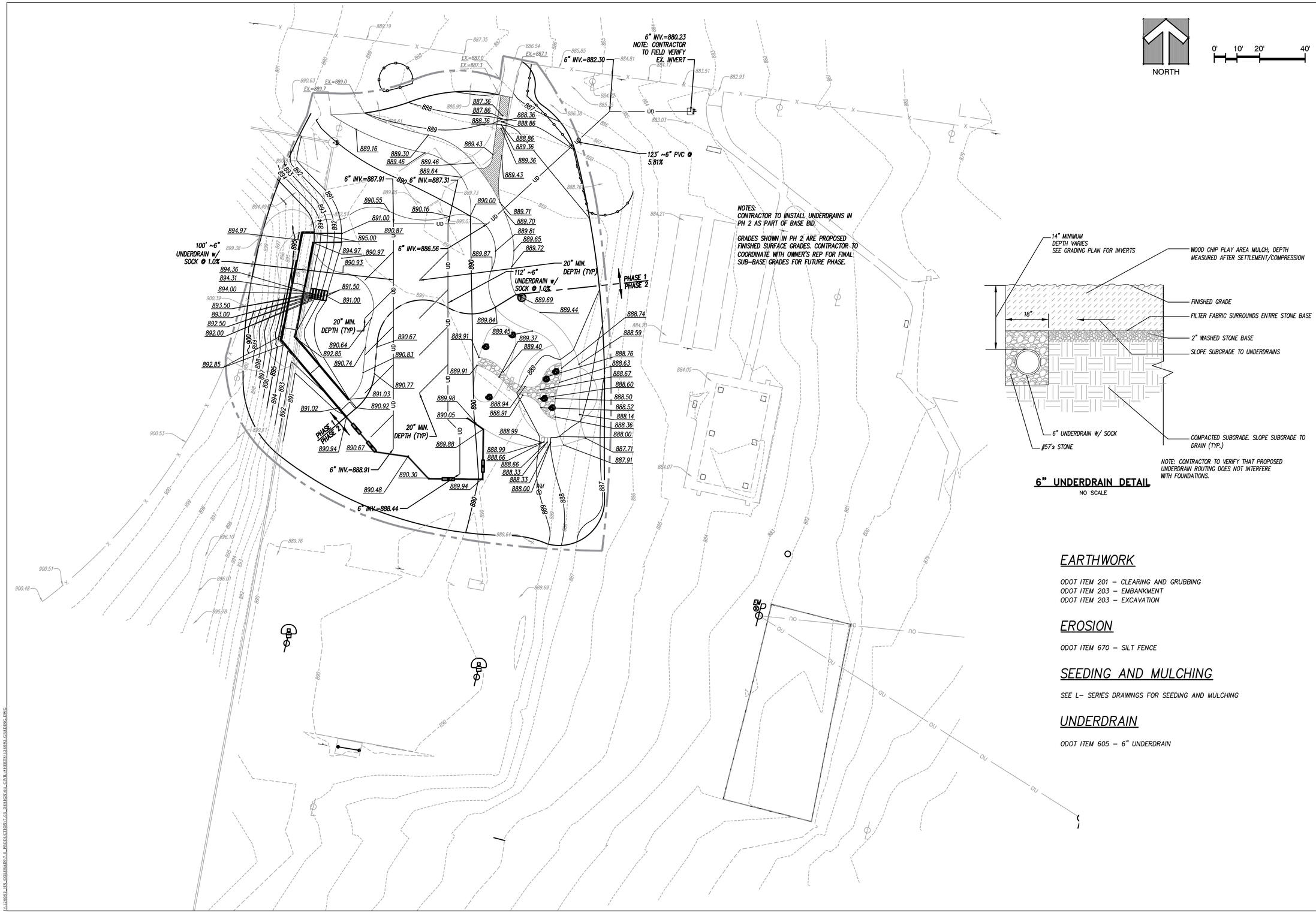
SHEET TITLE:
TREE PRESERVATION & DEMO PLAN

SCALE: 1" =20'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L002

PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:11am TAB: LAYOUT1
J:\21900 PROJECTS\21910 COLERAIN MEGHLAND PLAYGROUND\PLAYGROUND\AUTOCAD\04 CD\L002 TREE PROTECTION & DEMO PLAN.DWG



6" UNDERDRAIN DETAIL
NO SCALE

NOTE: CONTRACTOR TO VERIFY THAT PROPOSED UNDERDRAIN ROUTING DOES NOT INTERFERE WITH FOUNDATIONS.

EARTHWORK

ODOT ITEM 201 – CLEARING AND GRUBBING
ODOT ITEM 203 – EMBANKMENT
ODOT ITEM 203 – EXCAVATION

EROSION

ODOT ITEM 670 – SILT FENCE

SEEDING AND MULCHING

SEE L– SERIES DRAWINGS FOR SEEDING AND MULCHING

UNDERDRAIN

ODOT ITEM 605 – 6" UNDERDRAIN

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
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4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

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SHEET TITLE:
GRADING PLAN

SCALE:	DRAWN BY: HEB
1" =20'-0"	CHECKED BY: JBK

SHEET NUMBER:
C-100

PROJECT NO.:	DATE:
126092	07.19.2020

07/22/20 - 09:12am TAB: GRADING PLAN
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EROSION PREVENTION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR IS TO ADHERE TO THE OHIO EROSION & SEDIMENT CONTROL HANDBOOK AND THE REVISED NOTES AND REGULATIONS OF THE HAMILTON COUNTY SOIL & WATER CONSERVATION DISTRICT AND THE HAMILTON COUNTY STORM WATER DISTRICT GOVERNING EARTHWORK.
2. SEDIMENT AND EROSION CONTROL FACILITIES, AND STORM DRAINAGE FACILITIES SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONSTRUCTION.
3. ALL GRADED AREAS SHALL BE STABILIZED WITH A TEMPORARY FAST GROWING COVER AND/OR MULCH, IMMEDIATELY AFTER EARTH DISTURBING ACTIVITY ENDS IN THOSE AREAS WHERE GRADING ACTIVITY HAS CEASED AND FINE GRADING WILL NOT TAKE PLACE FOR AT LEAST 14 DAYS.
4. CONTRACTOR SHALL BE RESPONSIBLE DURING CONSTRUCTION FOR THE CONTINUOUS MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES AS CALLED FOR ON THE DRAWINGS AND PER NOTE 1 OF THIS SECTION.
5. SILT FENCE SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO WITHIN ONE FOOT OF TOP OF SILT FENCE AND/OR HAY BALES OR CAPACITY IS REDUCED BY 50%
6. MAXIMUM EMBANKMENT SLOPES TO BE AS FOLLOWS: CUT AREA 2:1; FILL AREAS 2:1 (UNLESS NOTED OTHERWISE).
7. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED REPAIRED AS NEEDED AND CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
8. SEEDING AND FERTILIZING RATES FOR TEMPORARY AND PERMANENT SEEDING OF GRASS SHALL BE PER CHAPTERS 7.8 AND 7.9 OF THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
9. IF FINES OR PENALTIES ARE LEVIED AGAINST THE PROPERTY OR PROPERTY OWNER BECAUSE OF LACK OF EROSION AND /OR SEDIMENT CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF SUCH FINES OR PENALTIES OR THE COSTS OF ANY FINES OR PENALTIES SHALL BE DEDUCTED FROM THE CONTRACT AMOUNT.
10. ALL SIDE DITCHES TO BE CLEANED AND/OR REGRADED TO PROVIDE PROPER DRAINAGE.
11. TOPSOIL IS TO BE SPREAD OVER LAWN AREAS AT COMPLETION OF CONTRACT (PROVIDE 4" MINIMUM SPREAD).
12. NEW FINISHED CONTOURS SHOWN ARE TOP OF PAVEMENT AND TOP OF TOPSOIL IN AREAS TO BE SEEDED.
13. GRADING CONTRACTOR SHALL COOPERATE AND WORK WITH ALL OTHER CONTRACTORS PERFORMING WORK ON THIS PROJECT TO INSURE PROPER AND TIMELY COMPLETION OF THIS PROJECT.
14. THE GRADING CONTRACTOR SHALL USE WHATEVER MEASURES ARE REQUIRED TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL EROSION, CONSERVATION AND SILTATION ORDINANCES. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND NOT BEFORE ALL AREAS DRAINING INTO THESE STRUCTURES ARE SUFFICIENTLY STABILIZED.
15. THE GRADING CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. THE CONTRACTOR SHALL CONTROL DUST BY SPRINKLING, OR BY OTHER METHODS AS DIRECTED BY THE ENGINEER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO OWNER.
16. IN NO CASE SHALL ANY PAVED AREAS BE LESS THAN 1.00% UNLESS OTHERWISE NOTED.
17. IT IS THE INTENT OF THIS PROJECT FOR THE CONTRACTOR TO VERIFY AND MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY ITEMS THAT DO NOT EXIST AS SHOWN.
18. THE CONTRACTOR SHALL REPAIR OR REPLACE IN-KIND ANY DAMAGE THAT OCCURS AS RESULT OF HIS WORK.
19. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL ABE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
20. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
21. RETENTION/DETENTION POND(S) WILL BE CLEAN AND FREE OF DEBRIS ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED.
22. NO WORK SHALL OCCUR OFFSITE ON PROPERTY OWNED BY OTHERS WITHOUT OWNER AND/OR CONTRACTOR OBTAINING WRITTEN PERMISSION TO DO SO.
23. IF ONSITE SEDIMENT BYPASSES THE INSTALLED EROSION CONTROL MEASURES AND ACCUMULATES OFFSITE ON ADJACENT PROPERTIES, THE CONTRACTOR MUST CONTACT MAP ENGINEERS FOR INSTRUCTIONS CONCERNING THE APPROPRIATE METHODS FOR REMOVAL AND DISPOSAL OF THE SEDIMENT. THE CONTRACTOR MUST ALSO CONTACT THE AFFECTED ADJACENT PROPERTY OWNERS AND OBTAIN THEIR PERMISSION TO PERFORM THE REQUIRED OFFSITE WORK TO PROPERLY REMOVE AND DISPOSE OF THE SEDIMENT.
24. CONTRACTOR SHALL UTILIZE PROPER DEWATERING PRACTICES FROM THE ONSITE WORK AREA WHEN DEWATERING ANY AREAS SO AS TO MINIMIZE THE ESCAPE OF SEDIMENT ONSITE. CONTRACTOR SHALL PROVIDE THE NECESSARY DETAILS AND INFORMATION TO TDEC SHOULD THIS WORK BE REQUIRED. THE CONTRACTOR MUST ALSO PROPERLY FILTER THE DISCHARGED WATER TO MINIMIZE THE ESCAPE OF SEDIMENT THROUGH USE OF FILTER SOCKS, OR OTHER APPROVED METHODS.
25. ALL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED, AND IF NECESSARY REPAIRED, AT LEAST TWICE EVERY SEVEN CALENDAR DAYS, BUT AT LEAST 72 HOURS APART AND WITHIN 24 HOURS BEFORE AND AFTER EACH RAINFALL EVENT GREATER OR EQUAL TO 0.5-INCH.

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCE TO STORMWATER RUNOFF

1. ONLY ENOUGH PRODUCT REQUIRED FOR THE JOB WILL BE STORED ONSITE.
2. ALL MATERIALS STORED ONSITE WILL BE IN A NEAT AND ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS, AND IF POSSIBLE, UNDER ROOF OR OTHER ENCLOSURE.
3. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABELS.
4. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
5. ALL OF THE PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER WHENEVER POSSIBLE.
6. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
7. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL PRACTICES ARE FOLLOWED.

SPILL CONTROL PRACTICES

1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE.
3. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
4. THE SPILL AREA WILL BE KEPT VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING.
5. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT A PARTICULAR TYPE OF SPILL FROM RE-OCCURRING. A DESCRIPTION OF EACH SPILL, THE CAUSE, AND CLEANUP MEASURES WILL BE INCLUDED.
6. THE SITE SUPERINTENDENT, WHO IS RESPONSIBLE FOR THE DAY-TO-DAY ONSITE CONSTRUCTION OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND WILL ASSIGN OTHER PERSONNEL, WHOSE NAMES WILL BE POSTED IN THE ONSITE OFFICE TRAILER OR OTHER ACCESSIBLE PLACE SUITABLE FOR THE PURPOSE, TO RECEIVE SPILL PREVENTION AND CLEANUP TRAINING.
7. IF A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTING QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD. THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE PERMITTEE WHO SHALL THEN DO THE FOLLOWING: NOTIFY THE NATIONAL RESPONSE CENTER (NRC) (800-424-8802) AND THE TENNESSEE EMERGENCY MANAGEMENT AGENCY (TEMA) (EMERGENCIES: 800-626-3300; NON-EMERGENCIES 800-626-3400); AS WELL AS THE LOCAL ENVIRONMENTAL ASSISTANCE CENTER. ALSO, THE SWPPP ENGINEER WILL PREPARE A REVISION OF THIS DOCUMENT TO IDENTIFY MEASURES TO PREVENT THE RE-OCCURRENCE OF SUCH RELEASES.

ADDITIONAL INSPECTION/MAINTENANCE NOTES

1. INSPECTIONS SHALL BE CONDUCTED ONCE A WEEK, A AND AFTER 0.5" OF RAINFALL ND BEFORE ANTICIPATED RAIN EVENTS. FILTER BARRIERS, INCLUDING BUT NOT LIMITED TO SILT FENCE AND INLET PROTECTION, SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY
2. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
3. INSPECTIONS WILL INCLUDE ALL DISTURBED AREAS, EROSION AND BMPS SEDIMENT CONTROL STRUCTURES, OUTFALL POINTS AND STREAMS LOCATED ON SITE. INSPECTION REPORTS AT A MINIMUM SHALL INCLUDE ALL ITEMS LISTED IN PART III, SECTION G.2.i OF THE OHIO EPA GENERAL PERMIT OHC000005.
4. INSPECTIONS WILL BE PROPERLY DOCUMENTED ACCORDING TO THE REQUIREMENTS OF THE GENERAL PERMIT.
5. IF INSPECTIONS FIND THAT MAINTENANCE (I.E. FAILURE OF CONTROL OR IMPROPER INSTALLATION) IS REQUIRED, ACTION TO CORRECT MUST BE TAKEN BEFORE THE NEXT STORM EVENT BUT NO LATER THAN 7 DAYS AFTER IDENTIFICATION.
6. IF THE INSPECTOR FINDS THAT CONTROLS ARE PROPERLY INSTALLED AND MAINTAINED BUT PROVIDE INADEQUATE PROTECTION, THE PROJECT ENGINEER SHALL MODIFY THE SWPPP WITHIN 7 DAYS OF IDENTIFICATION. THESE CHANGES SHALL BE IMPLEMENTED ON SITE WITHIN 3 DAYS.
7. IF THE FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, AND THE BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY.
8. INSPECTOR SHALL MAINTAIN A RAIN GAUGE ON SITE.
9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

NOTES

1. PRE-CONSTRUCTION IMPERVIOUS ACREAGE = AC.
   POST-CONSTRUCTION IMPERVIOUS ACREAGE = AC.
   CHANGE IN IMPERVIOUS ACREAGE = AC.
2. SITE EROSION CONTROLS SHALL BE CHECKED AND IF NECESSARY, REPAIR WEEKLY AND WITHIN 24 HOURS AFTER EACH RAINFALL GREATER THAN 1/2". IN THE EVENT OF CONTINUOUS RAINFALL, EROSION CONTROLS SHALL BE CHECKED DAILY.
3. ALL AREAS TO REMAIN BARE MORE THAN 15 DAYS MUST BE TEMPORARILY STABILIZED.
4. PROJECT IS ABOVE THE 100 YEAR FLOOD ELEVATION AS DETERMINED BY FEMA FLOOD MAP 39061C0201E, DATED FEBRUARY 17, 2010.

SOLID/SANITARY/TOXIC WASTES

1. CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL
2. BRICKS, HARDENING CONCRETE AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE.
3. CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.
4. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN APPROVED C&DD LANDFILL. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN AN APPROVED LANDFILL. ALSO, MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS.
5. AREA SHALL BE DESIGNATED BY CONTRACTOR AND SHOWN ON SWPPP MAP FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.
6. EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.
7. A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.
8. ALL DESIGNATED CONCRETE WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS OR OTHER STORMWATER DRAINAGE AREAS.
9. ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN AN APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES.
10. THE CONTRACTOR SHALL CONTACT TDEC, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.
11. OPEN BURNING IS NOT PERMITTED ON THE SITE.
12. EXPOSED LITTER, DEBRIS, CHEMICALS, ETC. SHALL BE PROPERLY STORED OR DISPOSED OF PRIOR TO ANTICIPATED STORM EVENTS.

INSPECTION/MAINTENANCE NOTES

1. ALL CONTROL MEASURES STATED IN THE SWPPP SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY A QUALIFIED PERSON IN ACCORDANCE TO THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED ACCORDING TO THE FOLLOWING:
   A. INLET PROTECTION DEVICES AND CONTROLS SHALL BE REPAIRED OR REPLACED WHEN THEY SHOW SIGNS OF UNDERMINING AND OR DETERIORATION.
   B. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STANDING OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
   C. SILT FENCES AND CHECK DAMS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION IF DAMAGED. SEDIMENT ACCUMULATION MUST BE REMOVED WHEN SEDIMENT HEIGHT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE OR CHECK DAM.
   D. OUTLET STRUCTURES IN SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT MUST BE REMOVED FROM BASINS AND OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 40%.
   E. MINIMIZE OFF-SITE SEDIMENT TRACING OF VEHICLES BY THE USE OF STONE MATERIAL IN ALL CONSTRUCTION ENTRANCES, ALONG WITH REGULARLY SCHEDULED SWEEPING/GOOD HOUSEKEEPING, STABILIZED CONSTRUCTION ENTRANCES TO BE PROPERLY MAINTAINED BY GENERAL CONTRACTOR AND IN GOOD WORKING ORDER AT ALL TIMES; THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE STONE AS CONDITIONS DEMAND.
   F. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE) BY GENERAL CONTRACTOR. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
2. CONTRACTORS AND SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ALL SEDIMENT FROM THE SITE, INCLUDING DETENTION PONDS, AND STORM SEWER SYSTEMS. SEDIMENT DEPOSITION DURING SITE STABILIZATION MUST ALSO BE REMOVED.
3. ALL RIP RAP MUST BE PLACED OVER GEOTEXTILE FILTER.
4. STONE CONSTRUCTION EXIT TO BE MAINTAINED BY GENERAL CONTRACTOR UNTIL SITE HAS BEEN PAVED OR IS NO LONGER REQUIRED.

GENERAL NOTES

1. ALL SLOPES GREATER THAN OR EQUAL TO 35% SHALL BE STABILIZED NO LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THESE SLOPES HAS TEMPORARILY OR PERMANENTLY CEASED.

SEQUENCE OF CONSTRUCTION

UNLESS NOTED OTHERWISE, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES IN STRICT ACCORDANCE WITH THE SWPPP THROUGHOUT THE DURATION OF THE PROJECT. BOTH THE SWPPP AND THE NOC SHALL REMAIN ON FILE WITHIN THE JOB TRAILER DURING CONSTRUCTION. A COPY OF THE NOC DOCUMENTS SHALL BE POSTED ON A JOB BOARD LOCATED NEAR THE CONSTRUCTION ENTRANCE. A SIGN ON THE JOB BOARD WILL INDICATE THAT THE SWPPP IS IN THE JOB TRAILER, AND WILL INCLUDE: SITE CONTACT/OWNER, COMPANY NAME, EMAIL ADDRESS, ADDRESS, AND TELEPHONE NUMBER OF THE SITE CONTACT/OWNER.

1. INSTALL EROSION CONTROL MEASURES INCLUDING DANDY BAGS AND SILT FENCE AS SHOWN ON THE SOIL EROSION PLAN. INSPECTION OF EROSION CONTROL MEASURES AS OUTLINED IN NOTES. REPAIRS AND /OR REPLACEMENTS SHALL BE MADE AS NECESSARY.
2. STRIP AND STOCKPILE TOPSOIL. PRE-CONSTRUCTION VEGETATION SHALL NOT BE DISTURBED MORE THAN 14 DAYS PRIOR TO ANY EXCAVATING ACTIVITIES.
3. MASS GRADE AS REQUIRED.
4. BEGIN BUILDING CONSTRUCTION.
5. INSTALL SANITARY SEWER AND WATER SERVICE.
6. INSTALL STORM SEWER SYSTEM AND WATER QUALITY BASIN AFTER THE CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
7. INSTALL ALL PUBLIC UTILITIES (GAS, ELECTRIC, AND TELEPHONE).
8. INSTALL ALL PAVEMENT
9. REDISTRIBUTE TOPSOIL PER LANDSCAPE PLAN. ALL AREAS DISTURBED BY CONSTRUCTION THAT WILL NOT BE PAVED SHALL BE GRADED AND HAVE VEGETATION ESTABLISHED.
10. COMPLETE BUILDING CONSTRUCTION.
11. REMOVE SOIL EROSION CONTROL MEASURES AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.

NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL SOIL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED.

-REFER TO C-100 FOR ALL PROPOSED GRADES.

-REFER TO C-200 – C-203 FOR FURTHER EROSION CONTROL NOTES AND DETAILS.

EROSION AND SEDIMENT CONTROL NARRATIVE

PLAN DESIGNER:
ME IBI GROUP
23 TRIANGLE PARK DRIVE
CINCINNATI, OHIO 45246

DESIGNER CONTACT: HOWARD BOWEN

P: 513-942-3141
F: 513-881-2263
E: HOWARD.BOWEN@IBIGROUP.COM

EXISTING SITE CONDITIONS:
PARK/PLAYGROUND

PROJECT DESCRIPTION:
REMOVE AND REPLACE EXISTING PLAYGROUND AREA WITH NEW PLAYGROUND AREA

DISTURBED AREA:
0.72 ACRES

SITE DRAINS TO:
THE SITE WILL SHEET FLOW TO AN EXISTING INLET, WHICH WILL CONNECT AND OUTLET TO THE HAMILTON COUNTY STORM SEWER SYSTEM.

RECEIVING STREAM:
UNIDENTIFIED TRIBUTARY OF BRIARLY CREEK

SITE BMP'S:
FINAL LOCATIONS OF ALL SITE BMP'S INCLUDE DUMPSTER, VEHICLE FUELING, AREAS, CONCRETE TRUCK WASH, MATERIAL STORAGE, AND TOPSOIL STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. IF FINAL LOCATION OF BMP'S DIFFER FROM THE LOCATIONS SHOWN, CONTRACTOR SHALL MODIFY SWPPP AND INFORM HAMILTON COUNTY OF NEW LOCATION OF BMP'S.

ADJACENT AREAS:
ADJACENT PROPERTIES ARE PARK AREA

SOILS:
SOILS ON SITE CONSIST OF: URBAN LAND-UDORTHENTS COMPLEX.

EROSION AND SEDIMENT MEASURES:
PROVIDE INLET PROTECTION OF ALL NEW AND EXISTING DRAINAGE STRUCTURES INDICATED ON THIS PLAN.

ANY OFF-SITE BORROW OR SPOIL AREAS SHALL BE SUBJECT TO THE REQUIREMENTS SET FORTH BY TDEC. ALL EROSION AND SEDIMENT CONTROL MEASURES FOR OFF-SITE AREAS NOT COVERED BY A SEPARATE NOI OR SWP3 SHALL BE COORDINATED WITH TDEC.

ALL TRENCH OR EXCAVATION GROUNDWATER CONTAINING SEDIMENT MUST BE EFFECTIVELY TREATED PRIOR TO DISCHARGE INTO THE STORM SEWER SYSTEM.

REMOVAL OF STANDING MUDDY WATER FROM THE SITE SHALL BE ACCOMPLISHED WITH A PUMP/FILTER BAG COMBINATION OR SAID WATER WILL BE DIVERTED INTO EXISTING SEDIMENT CONTROL DEVICES VIA A PUMP.

USE ALL MEANS NECESSARY TO CONTROL DUST ON THE SITE AND PREVENT TRACKING SOIL OFF SITE.

CRITICAL AREAS:
NONE

JURISDICTION:
ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF THE HAMILTON COUNTY ENGINEERS OFFICE AND/OR OEPA.

RUNOFF:
THE PRE-CONTRUCTION RUNOFF COEFFICIENT C=0.57(SHOPPING CENTER) C=0.78(SPEEDWAY) THE POST-CONTRUCTION RUNOFF COEFFICIENT C=0.83(ON-SITE) C=0.35(DIRECT DISCHARGE).

CONSTRUCTION:

ESTIMATED START DATE: 5/4/2020
ESTIMATED COMPLETION DATE: 9/8/2020

SEEDING TYPE & RATES:

SEE LANDSCAPE ARCHITECTURAL PLANS

A PRE-CONSTRUCTION MEETING IS REQUIRED WITH A REPRESENTATIVE OF THE OWNER/DEVELOPER, AND GENERAL CONTRACTOR PRIOR TO THE ISSUANCE OF THE EARTHWORK PERMIT AND THE START OF ANY EARTHWORK.

CHEY ALBERTO, CPESC
URBAN CONSERVATIONIST
HAMILTON COUNTY SOIL AND WATER CONSERVATION DISTRICT
1325 E KEMPER RD. SUITE 115
CINCINNATI, OHIO 45246
TEL: (513) 772-7645
FAX: (513) 772-7656

Know what's **below.**
Call before you dig.

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati. OH 45206

Subconsultant:
IBI Group
23 Triangle Park Drive, Ste. 2300
Cincinnati, Ohio 45246
P: 513.942.3141, **F:** 513.881.2263

ISSUE/ REVISION:

07.20.2020 90% DESIGN
07.22.2020 ISSUED FOR BID

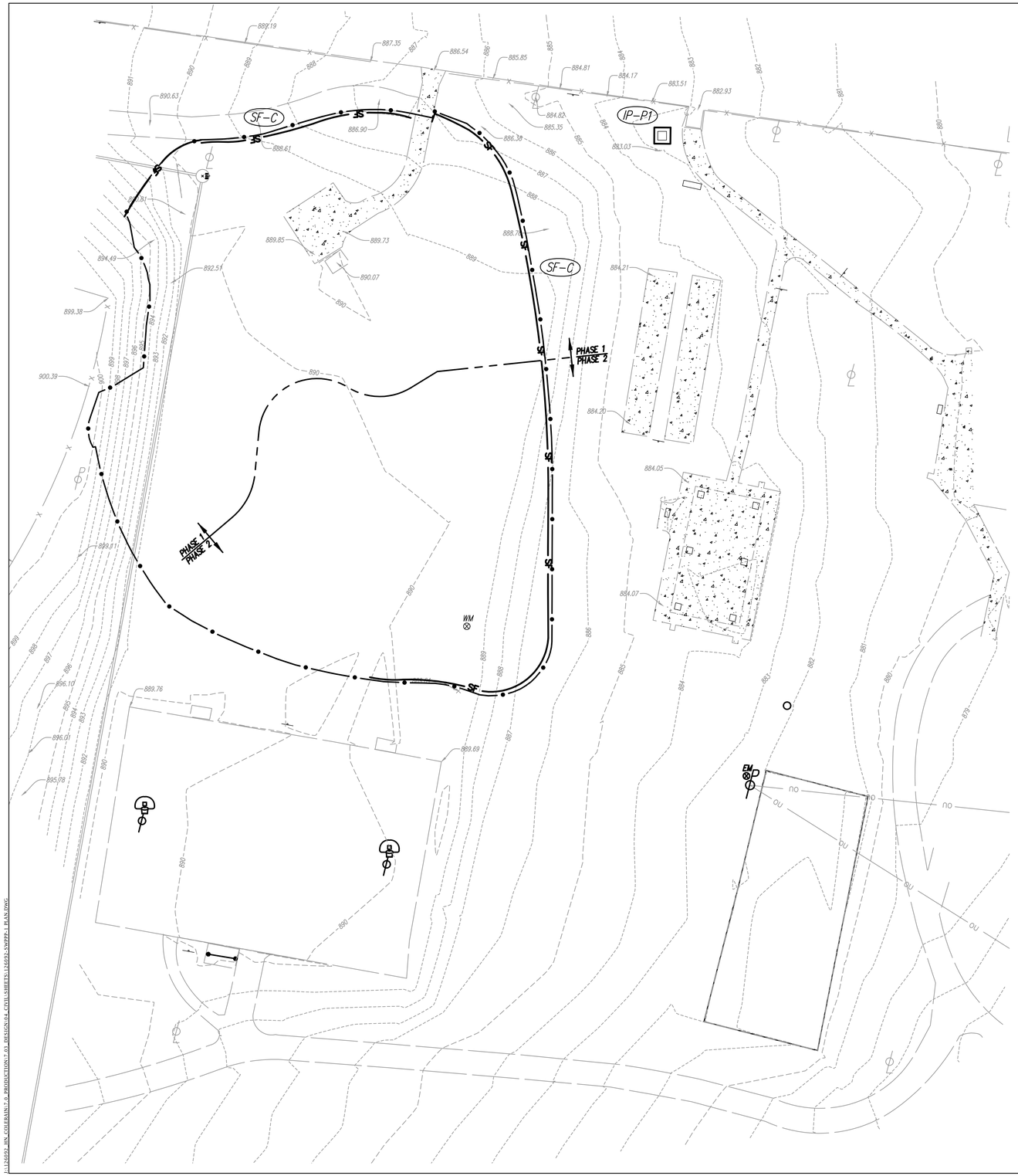
SHEET TITLE:
STORM WATER POLLUTION PREVENTION NOTES

SCALE:
DRAWN BY: HEB
CHECKED BY: JBK

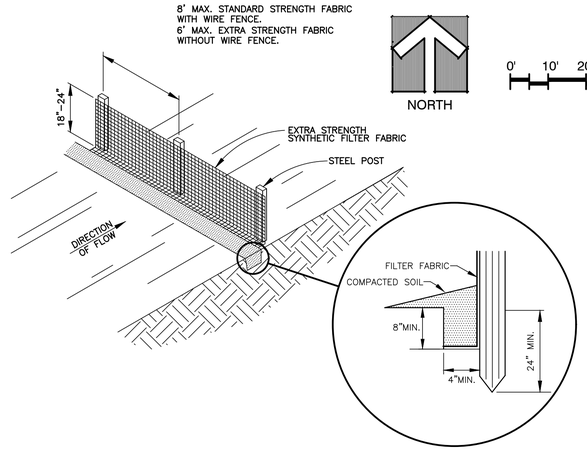
SHEET NUMBER:
C-200

PROJECT NO.: 126092
DATE: 07.19.2020

07/22/20 - 09:12am TAB: STORM WATER POLLUTION PREVENTION NOTES
I:\126092-JN COLERAIN\7-0_PRODUCTION\7-01_DESIGN\01-CIVIL\SHEETS\126092-SWPPP-NOTES.DWG



8' MAX. STANDARD STRENGTH FABRIC WITH WIRE FENCE.
6' MAX. EXTRA STRENGTH FABRIC WITHOUT WIRE FENCE.

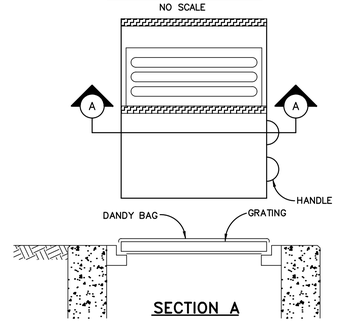


NOTES
FILTER FABRIC SHALL BE FASTENED TO STEEL POSTS USING PLASTIC OR WIRE TIES. FILTER FABRIC SHALL BE PLACED IN A CONTINUOUS ROLL TO MINIMIZE THE OCCURRENCE OF JOINTS. WHERE JOINTS CANNOT BE AVOIDED, FABRIC SHALL BE SPLICED TOGETHER AT SUPPORT POSTS, WITH A MINIMUM OF 6–INCH OVERLAP, AND SECURELY SEALED.

14–GAUGE WIRE FENCE REINFORCEMENT, 18–24 INCHES IN HEIGHT AND HAVING A MAXIMUM MESH SPACING OF 6 INCHES, MAY BE USED AS A FENCE SUPPORT. IF THE WIRE REINFORCEMENT IS USED,

SILT FENCE DETAIL (SF–C)

NO SCALE



SECTION A

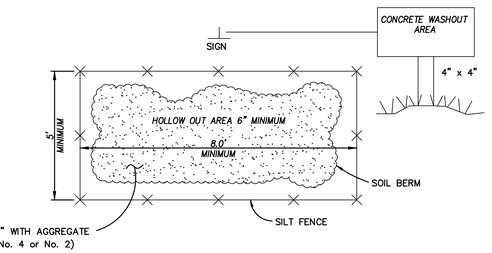
INSTALLATION: STAND GRATE ON END. PLACE DANDY BAG OVER GRATE. FLIP GRATE OVER SO THAT OPEN END IS UP. PULL UP SLACK. TUCK FLAP IN. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT FIT PROPERLY. HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH GRATE INSERTED INTO CATCH BASIN FRAME SO THAT RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE.

MAINTENANCE: AFTER SILT HAS DRIED, REMOVE IT FROM THE SURFACE OF DANDY BAG WITH BROOM.

DANDY BAG DETAIL (IP–P1)

NO SCALE

EROSION PREVENTION LEGEND		
SF–C	SEDIMENT BARRIER (TYPE C SILT FENCE)	SF–C –SF–
IP–P1	DANDY BAG	IP–P1
	LIMITS OF CONSTRUCTION	



CONCRETE WASHOUT AREA (CW)

NO SCALE

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati. OH 45206

Subconsultant:
IBI Group
23 Triangle Park Drive, Ste. 2300
Cincinnati, Ohio 45246
P: 513.942.3141, **F:** 513.881.2263

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SHEET TITLE:
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

SCALE: 1" =20'-0"
DRAWN BY: HEB
CHECKED BY: JBK

SHEET NUMBER:
C-201

PROJECT NO.: 126092
DATE: 07.19.2020

07/22/20 - 09:12am TAB: EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I
J:\126092-JDS_COLERAIN\C-P PRODUCTION\7-ID\DESIGN\4_CIVIL\SHEETS\126092-SWPPP-1.DGN,DWG



NORTH

0' 10' 20' 40'

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

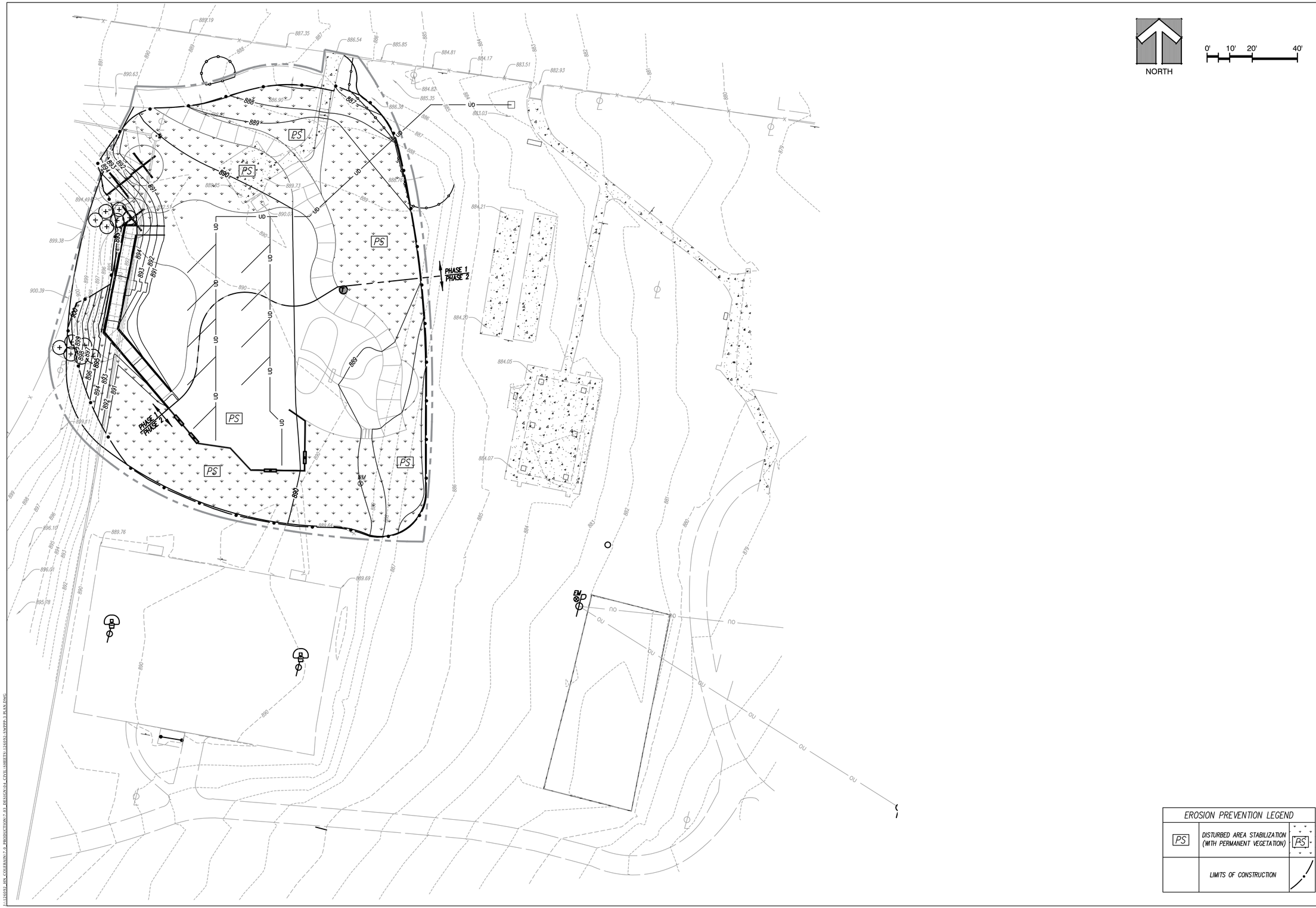
SCALE: 1" =20'-0"
DRAWN BY: HEB
CHECKED BY: JBK

SHEET NUMBER:
C-202

PROJECT NO.: 126092
DATE: 07.19.2020

EROSION PREVENTION LEGEND		
SF-C	SEDIMENT BARRIER (TYPE C SILT FENCE)	SF-C / SF
IP-P1	DANDY BAG	IP-P1
	LIMITS OF CONSTRUCTION	

07/22/20 - 09:13am TAB: EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II
I:\126092_HN-COLERAINTWP_PROJECTFOLDER\03-DESIGN\04-CIVIL\SHEETS\126092-SWPPP-2 PLAN.DWG



COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati. OH 45206

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Cincinnati, Ohio 45246
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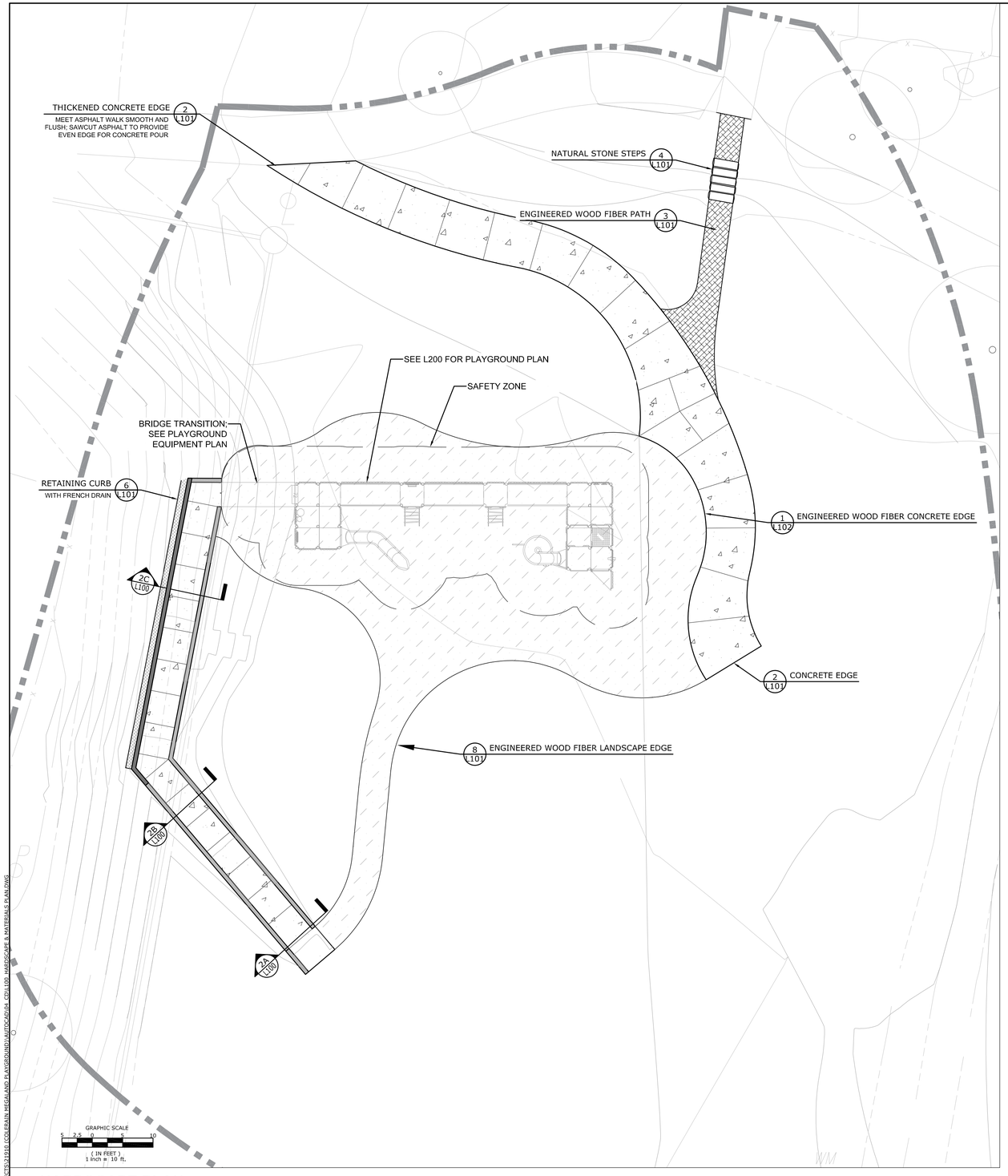
SHEET TITLE:
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

SCALE:	DRAWN BY:	HEB
1" =20'-0"	CHECKED BY:	JBK

SHEET NUMBER:
C-203

PROJECT NO.:	DATE:
126092	07.19.2020

07/22/20 - 09:13am TAB: EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III
I:\126092-JN-COLERAIN\7-0_PRODUCTION\7-1_DESIGN\04-CIVIL\SHEETS\126092-SWPPP-3 PLAN.DWG

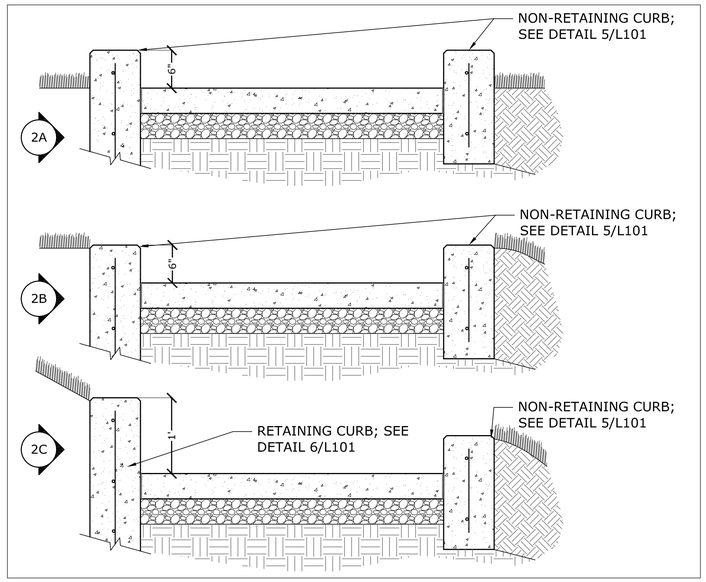


1 L100 **HARDSCAPE PLAN**
SCALE:1" = 10'-0"

HARDSCAPE MATERIAL SCHEDULE

KEY	ITEM	FINISH & SIZE	COLOR	SUPPLIER (BASIS OF DESIGN OR APPROVED EQUAL)	COMMENTS
	CONCRETE WALK	LIGHT BROOM FINISH PERPENDICULAR TO FLOW OF PEDESTRIAN TRAFFIC; UNLESS OTHERWISE NOTED, TOOLED JOINTS & EDGES; NO EDGE MARKS	STANDARD	N/A	JOINTS APPROX. 8' ON CENTER
	ENGINEERED WOOD FIBER PATH	GT IMPAX ENGINEERED WOOD FIBER	NATURAL	GAMETIME 150 PLAYCORE DRIVE SE FORT PAYNE, AL 35967 800.253.2440	SEE DETAIL 3 ON L101
	NATURAL STONE STEP	ROCK VALLEY LIMESTONE CUT SLABS; 18" x 7" x 48"	STANDARD	SEMCO OUTDOOR 11864 CHESTERDALE RD. CINCINNATI, OH 45246 513.725.0070	SEE DETAIL 4 ON L101
	ENGINEERED WOOD FIBER SAFETY SURFACE	GT IMPAX ENGINEERED WOOD FIBER	NATURAL	GAMETIME 150 PLAYCORE DRIVE SE FORT PAYNE, AL 35967 800.253.2440	SEE DETAIL 7 ON L101
	STANDARD CONCRETE CURB	LIGHT BROOM FINISH; UNLESS OTHERWISE NOTED, TOOLED JOINTS & EDGES; NO EDGE MARKS	STANDARD	N/A	SEE DETAIL 5 ON L101
	RETAINING CONCRETE CURB	LIGHT BROOM FINISH; UNLESS OTHERWISE NOTED, TOOLED JOINTS & EDGES; NO EDGE MARKS	STANDARD	N/A	SEE DETAIL 6 ON L101
	ROUNDED RIVER ROCK	1"-3"	IOWA RAINBOW	SEMCO OUTDOOR 11864 CHESTERDALE RD. CINCINNATI, OH 45246 513.725.0070	

* SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS



2 L100 **CONCRETE RAMP SECTIONS**
SCALE:N.T.S.

HARDSCAPE NOTES

1. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
2. 4'x4' MOCK-UP REQUIRED FOR ALL PAVING TYPES. MOCK-UP MAY ULTIMATELY BE PART OF FINISHED PAVED AREA IF APPROVED. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
3. DIGITAL LAYOUT INFORMATION PROVIDED BY ENGINEER.
4. COORDINATE ALL SURFACE ELEMENTS OF ELECTRICAL UTILITIES & STORM DRAINAGE STRUCTURES WITH HARDSCAPE ELEMENTS;ALL ELECTRICAL AND STORM ELEMENTS SHOULD BE FLUSH WITH ADJACENT PAVEMENT; CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS AND RESOLVE ISSUES IN THE FIELD.
5. PROPOSED USE ZONES SHOWN ON PLAN ARE A GUIDE. CONTRACTOR TO VERIFY FALL ZONES PER MANUFACTURER'S RECOMMENDATIONS AND SHOW USE ZONE ON SHOP DRAWINGS. BEFORE INSTALLATION OF EQUIPMENT, REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT.
6. ENGINEERED WOOD FIBER - SAFETY SURFACING IN AREAS INDICATED ON PLAN IS ENGINEERED WOOD FIBER SAFETY SURFACE. SEE DETAILS 7,8/L101 AND 1/L102. FULL DEPTH (12") IN USE ZONES AROUND PLAY EQUIPMENT AND 6" DEPTH IN ALL OTHER AREAS. ENGINEERED WOOD FIBER MUST MEET TESTING DATA FOR IMPACT ATTENUATION AND FOR ACCESSIBILITY MEASURED AFTER SETTLEMENT. CONTRACTOR TO SUPPLY DEPTH OF SAFETY SURFACE REQUIRED FOR HEIGHT OF SPECIFIED EQUIPMENT. DEPTHS ON DRAWINGS ARE A GUIDE. PROVIDE DOCUMENTATION FROM SURFACE MANUFACTURER THAT SPECIFIED DEPTH MEETS THE FALL REQUIREMENTS OF ALL APPLICABLE GUIDELINES.
7. THESE HARDSCAPE NOTES APPLY TO ALL "L1XX" SERIES DRAWINGS

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:

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07.22.2020 - ISSUED FOR BID

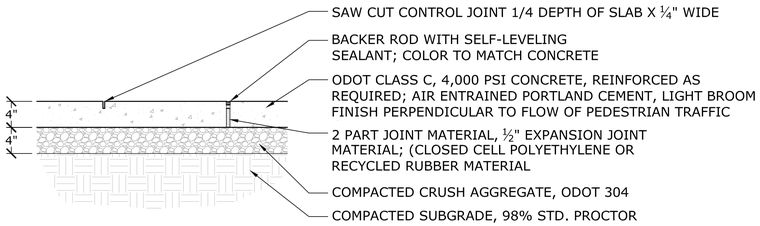
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HARDSCAPE AND MATERIALS PLAN

SCALE: 1" =10'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L100

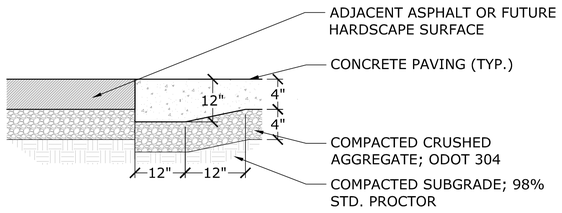
PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:07am TAB: LAYOUT1
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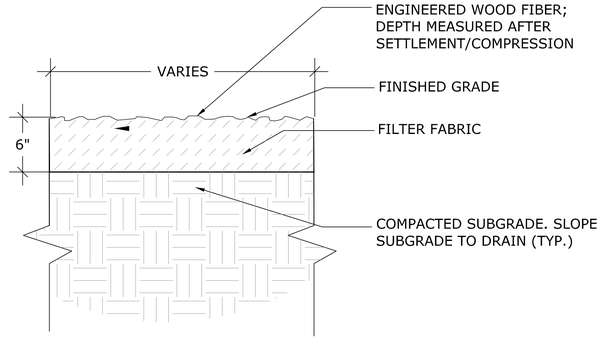


NOTES:
- CONDITIONS VARY. PROVIDE EXP. JOINT WHERE SIDEWALKS ARE POURED AGAINST CURBS AND/OR ALL OTHER VERTICAL SURFACES AND/OR DIFFERENT PAVING MATERIALS.
- MEET ADJACENT GRADES FLUSH.
- EXPANSION AND CONTROL JOINTS PER DRAWINGS
- ⅛" (1.04%) MIN. TO 3/46" (1.75%) MAXIMUM CROSS SLOPE ON PROPOSED WALK
- CONCRETE SHALL BE SEALED WITH WEATHER WORKER (TM) J29 OR APPROVED EQUAL
- PROVIDE ¼" NOM. RADIUS ON ALL EXPOSED EDGES; NO TOOL MARKS
- PROVIDE LIGHT BROOM FINISH ON CONCRETE SURFACE, AS INDICATED ON MATERIAL PLANS.

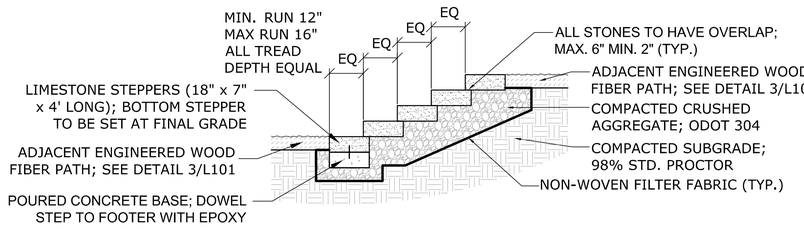
1 L101 **CONCRETE DETAIL**
SCALE:N.T.S.



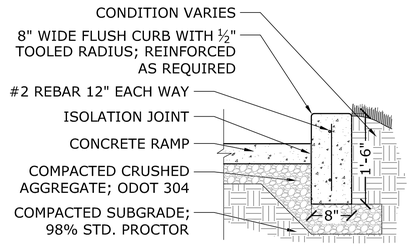
2 L101 **THICKENED CONCRETE EDGE DETAIL**
SCALE:N.T.S.



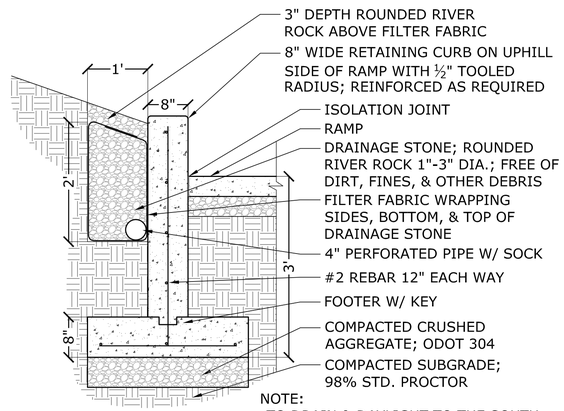
3 L101 **ENGINEERED WOOD FIBER PATH DETAIL**
SCALE:N.T.S.



4 L101 **STONE STEPS DETAIL**
SCALE:N.T.S.

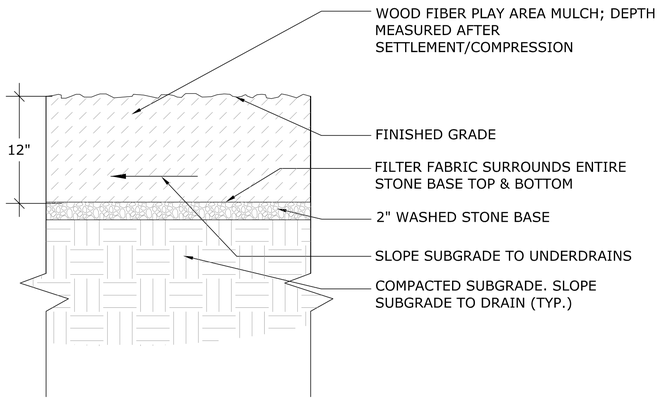


5 L101 **NON-RETAINING CURB DETAIL**
SCALE:N.T.S.

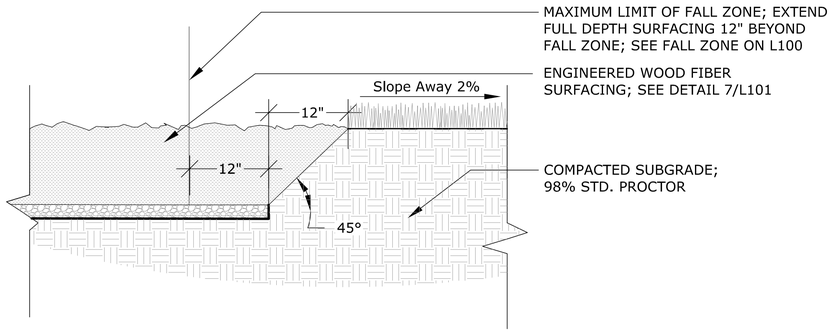


NOTE:
-TO DRAIN & DAYLIGHT TO THE SOUTH
-DAYLIT END TO BE CUT TO MATCH SLOPE & COVERED W/ 6" RIVERROCK

6 L101 **RETAINING CURB W/ FRENCH DRAIN DETAIL**
SCALE:N.T.S.



7 L101 **ENGINEERED WOOD FIBER SAFETY SURFACE DETAIL**
SCALE:N.T.S.



8 L101 **ENGINEERED WOOD FIBER EDGE DETAIL**
SCALE:N.T.S.

07/22/20 - 10:35am TAB: LAYOUT1
X:\21910 PROJECTS\21910 (COL) ERAIN MEGALAND PLAYGROUND\AUTOCAD\04 COL\101 HARDSCAPE DETAILS.DWG

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

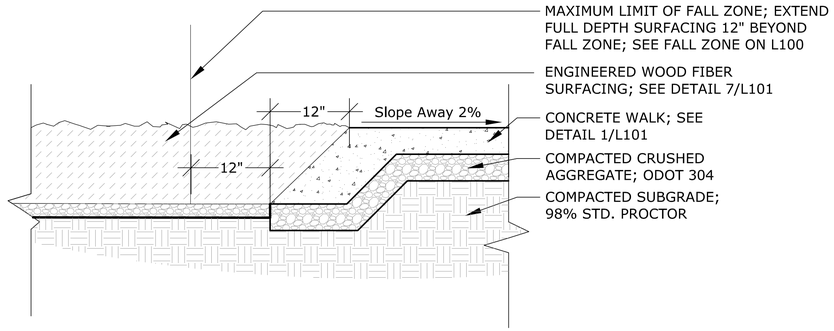
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SHEET TITLE:
HARDSCAPE DETAILS

SCALE: PER PLAN
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L101

PROJECT NO.: 21910
DATE: 07.22.2020



1 / L102 **ENGINEERED WOOD FIBER CONCRETE EDGE DETAIL**

SCALE:N.T.S.

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

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990 Saint Paul Drive
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Subconsultant:
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ISSUE/ REVISION:

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07.22.2020 - ISSUED FOR BID

SHEET TITLE:
HARDSCAPE DETAILS

SCALE:	DRAWN BY: NH
PER PLAN	CHECKED BY: GW

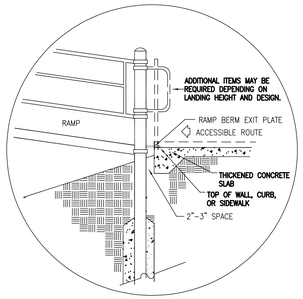
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L102

PROJECT NO.:	DATE:
21910	07.22.2020

07/22/20 - 09:17am TAB: LAYOUT1
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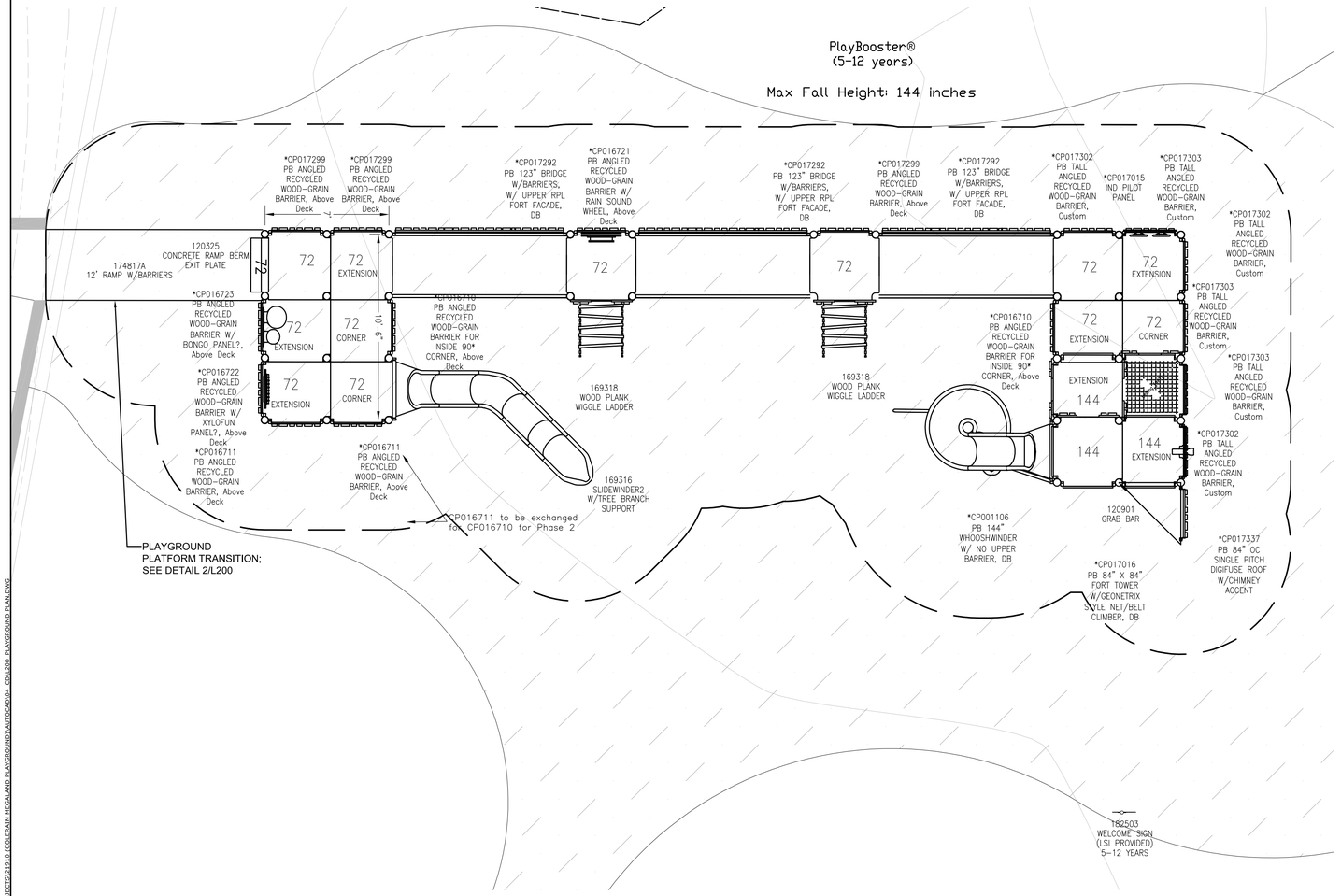
PLAYGROUND NOTES

1. SUBMIT SHOP DRAWINGS AND MANUFACTURER'S PRODUCT DATA FOR ALL PLAY EQUIPMENT FOR REVIEW BY OWNER & LANDSCAPE ARCHITECT.
2. ALL PLAY EQUIPMENT SHALL MEET ASTM F1487-12 STANDARDS FOR SAFETY. IPEMA CERTIFICATION DOCUMENT SHALL BE SUBMITTED WITH PRODUCT CUT SHEETS, SEE SPECIFICATIONS.
3. CONTRACTOR TO WORK WITH A CERTIFIED PLAYGROUND SAFETY INSPECTOR (CPSI) TO ENSURE PROPER EQUIPMENT INSTALLATION AND PROVIDE OWNER A LETTER STATING SUCCESSFUL COMPLETION OF INSPECTIONS.
4. EQUIPMENT SHOWN ARE FOR DESIGN INTENT. PRIOR TO ORDERING AND INSTALLATION, CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS, COLOR SAMPLES, MORE DETAILED LAYOUT PLANS, AND INSTALLATION REQUIREMENTS FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT .
5. CONTRACTOR, FABRICATOR, AND INSTALLER ARE RESPONSIBLE FOR STRUCTURAL INTEGRITY OF ALL EQUIPMENT, FOR PROPER INSTALLATION OF ALL EQUIPMENT, AND FOR MEETING ALL APPLICABLE SAFETY REQUIREMENTS.
6. ALL SAFETY SURFACING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND TO MEET FALL ZONE REQUIREMENTS AND IPEMA CERTIFICATION.
7. CONTRACTOR TO STAKE LOCATIONS OF PLAYGROUND ELEMENTS AND EQUIPMENT AND REVIEW WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THIS INCLUDES BUT IS NOT LIMITED TO ALL EQUIPMENT, CURBS, EDGES OF SAFETY SURFACES, CONCRETE, STONE WORK, AND LANDSCAPING. CONTRACTOR TO MAKE FIELD ADJUSTMENT AFTER REVIEW.
8. ALL RADII CONNECTIONS SHALL BE SMOOTH, TANGENT ARCS AS SHOWN.
9. CONTRACTOR TO PROVIDE A SAMPLE OF SYNTHETIC TURF PRIOR TO ORDERING AND DELIVERY. CONTRACTOR TO ALSO PROVIDE MOCK UPS FOR PLAY SURFACE AND PAVING FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.



SUGGESTED ELEVATED RAMP BERM EXIT PLATE
24" PLUS DECK TO GRADE/DB INSTALLATION
REFER TO RAMP BERM EXIT PLATE INSTALLATION SHEET
SEE PLAN FOR ELEVATION OF PLATE

2 / L200 **METAL RAMP**
SCALE:N.T.S.



1 / L200 **PLAYGROUND PLAN**
SCALE: 1/4" = 1'-0"

ITEM #	DESCRIPTION	MANUFACTURER (BASIS OF DESIGN OR APPROVED EQUAL)	QUANTITY
174817A	12' RAMP WITH BARRIERS	LANDSCAPE STRUCTURES, INC. 601 7TH STREET SOUTH P.O. BOX 198 DELANO, MINNESOTA 55328 PH: 1.800.328.0035 FAX: 1.763.972.6091	1
CP017337	84" OC SINGLE PITCH DIGIFUSE ROOF W/CHIMNEY ACCENT		1
CP017016	84" X 84" FORT TOWER W/GEONETRIX STYLE NET/BELT CLIMBER, 144" Tower		1
CP001106	144" WHOOSHWINDER W/ NO UPPER BARRIER		1
CP016710	ANGLED RECYCLED WOOD-GRAIN BARRIER FOR INSIDE 90° CORNER		2
CP017302	TALL ANGLED RECYCLED WOOD-GRAIN BARRIER		3
CP017303	TALL ANGLED RECYCLED WOOD-GRAIN BARRIER		3
169318F	Wood Plank Wiggle Ladder 72"Deck		2
CP017015	PILOT PANEL		1
CP017292	123" BRIDGE W/BARRIERS, W/ UPPER RPL FORT FACADE		3
CP017299	ANGLED RECYCLED WOOD-GRAIN BARRIER		3
CP016721	ANGLED RECYCLED WOOD-GRAIN BARRIER W/ RAIN SOUND WHEEL		1
120325A	Ramp Berm Exit Plate		2
CP016722	ANGLED RECYCLED WOOD-GRAIN BARRIER W/ XYLOFUN PANEL		1
CP016723	ANGLED RECYCLED WOOD-GRAIN BARRIER W/ BONGO PANEL		1
169316A	SlideWinder2 w/Tree Branch Support		1
120901A	Grab Bar		1
CP016711	ANGLED RECYCLED WOOD-GRAIN BARRIER		2
111230A	Square Deck Corner		3
111229A	Square Deck EXTENSION		7
111228A	Square Deck TENDERDECK		5
111405J	106"Steel Flush Post w/Standard Cap DB		3
111404M	148"Steel Post DB		4
111404W	156"Steel Post DB		9
111403K	182"Steel Post For Roof DB		10
182503C	Welcome Sign (LSI Provided) Ages 5-12 years Direct Bury		1

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:
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07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLAYGROUND PLAN

SCALE: 1/4" =1'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L200

PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:05am TAB: LAYOUT1
X:\2021 PROJECTS\21910 COLERAIN HIGHLAND PLAYGROUND\AUTOCAD\04 CD\L200 PLAYGROUND PLAN.DWG



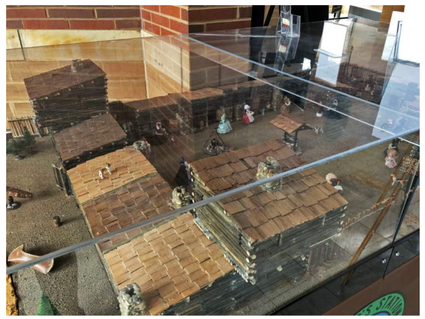


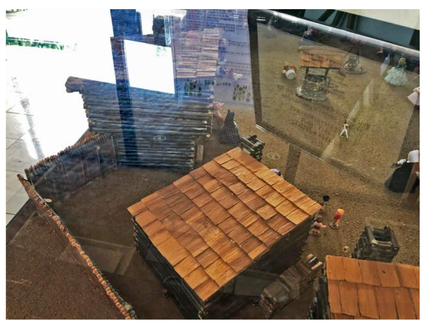


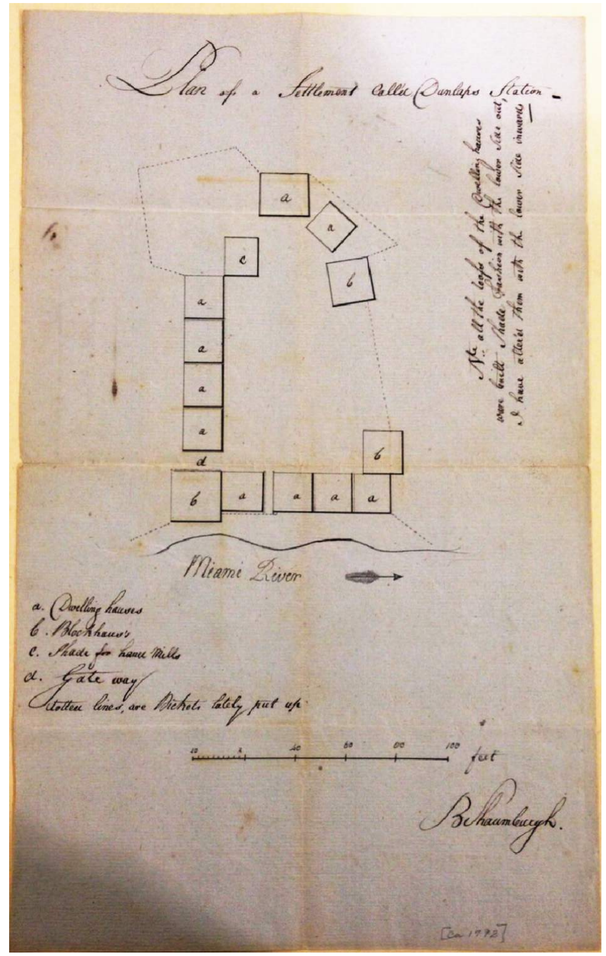
PHASE 1

- The layout and character of the playground has be inspired by the layout plan and history of the fort at Dunlap's Station.
- From the parking lot, visitors will see a fortress on the hill with a large tower on one end and a smaller, unroofed tower on the other end. The fort walls will have enough of a gap to enable people to see activity within the playground from the street. The fort wall will also have some openings so children can enter the playground from a number of locations.
- The towers will contain a variety of play elements from slides to climbing nets, spiral ramps, and other features.
- The elevated gangplanks that connect the three towers provide ADA access to the towers. In addition, play experiences such as climbing ladders/ropes, monkey bars, and tunnels will be below the gangplanks.
- An ADA ramp along the south edge of the playground (near the baseball field), allows access to all of the elevated activities.
- The playground equipment materials palette consists of recycled plastic composite planks (vertical and horizontal) and brown painted steel posts.
- The tall tower has a single pitch metal roof to provide shade and to suggest the sloped roofs of the towers of the historical Dunlap's Station.
- The safety surfacing consists of engineered wood fiber installed to a thickness recommended by the playground manufacturer for a safe fall height, per ASTM standards.









COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:

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07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLAYGROUND CHARACTER INTENT

SCALE:

DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L201

PROJECT NO.: 21910

DATE: 07.22.2020

07/22/20 - 09:22am TAB: LAYOUT1
X:\21910\PROJECTS\21910 COLERAIN PARKLAND PLAYGROUND\AUTOCAD\DRAWINGS\L201 PLAYGROUND CHARACTER INTENT.DWG



1 L400 **LANDSCAPE PLAN**
SCALE: 1" = 10'-0"

PLANTING NOTES

1. FINAL GRADING AND SITE PREPARATION SHALL BE COMPLETED PRIOR TO PLANTING. THIS SHOULD INCLUDE DRAINAGE PER THE GRADING PLAN, REMOVAL OF MISCELLANEOUS DEBRIS, ELIMINATION OF EXISTING PLANT MATERIAL AS DIRECTED, AND PLACEMENT OF ADDITIONAL TOPSOIL REQUIRED FOR PLANT ESTABLISHMENT.
2. COORDINATE ALL ELECTRICAL UTILITIES & DRAINAGE STRUCTURES WITH PLANTINGS; CONTRACTOR TO NOTIFY OWNER AND LANDSCAPE ARCHITECT OF ANY CONFLICTS AND RESOLVE ISSUES IN THE FIELD.
3. CONTRACTOR TO STAKE ALL TREE LOCATIONS & PLANTING BED LINES PRIOR TO INSTALLATION. REVIEW STAKING LOCATIONS WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AND MUST BE REPLACED WITH PLANT MATERIAL OF SIMILAR VARIETY AND SIZE IF IT IS DEAD, DAMAGED, DESTROYED, OR REMOVED UP TO ONE YEAR AFTER INSTALLATION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE OWNER OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS THE INSTALLATION OF PLANTS AS SHOWN ON THE DRAWINGS.
6. PLANT SPACING IS AS INDICATED ON 'PLANT SCHEDULE' UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS.
7. CONTRACTOR TO WATER-IN ALL PLANTS ON THE SAME DAY THEY ARE INSTALLED. CONTRACTOR SHALL NOT INSTALL MORE PLANTS THAN CAN BE WATERED-IN ON THE SAME DAY.
8. APPLY SHREDDED HARDWOOD MULCH TO A DEPTH OF 2 INCHES IN ALL TREE AND SHRUB PLANTING AREAS.
9. TREES LOCATED IN AREAS WITH ADJACENT SEEDING OR SODDING SHOULD HAVE A MINIMUM 6 FOOT DIAMETER MULCH RING AROUND THE TRUNK TO A MAXIMUM DEPTH OF 2 INCHES.
10. LANDSCAPED AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES DURING CONSTRUCTION.
11. SLOPES OVER 4:1 TO BE SEEDED AND COVERED IN EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES. SEE EROSION PROTECTION AND SEDIMENT CONTROL PLAN, NOTES AND DETAILS.
12. SEE SHEET L401 FOR TYPICAL PLANTING DETAILS.
13. SEE SPECIFICATIONS FOR ADDITIONAL PLANTING AND SOD REQUIREMENTS.

PLANT SCHEDULE

KEY	NAME	SIZE	COMMENTS
TREES			
AR	*Acer rubrum 'Red Sunset'* Red Sunset Maple	2 1/2" CAL.	B&B, SINGLE TRUNK, NON-SHEARED
TP	*Thuja plicata 'Green Giant'* Green Giant Western Arborvitae	6' HT.	B&B, SINGLE TRUNK, NON-SHEARED
UP	*Ulmus parvifolia 'Bosque'* Bosque Lacebark Elm	2 1/2" CAL.	B&B, SINGLE TRUNK, NON-SHEARED

LANDSCAPE LEGEND

KEY	ITEM	SIZE	QTY.
	EXISTING TREE TO REMAIN (SEE LTP101)	N/A	N/A
	CONIFEROUS TREES	6' HT	3
	FLOWERING & SHADE TREES	2.5" CAL	6
	TURFGRASS SEED MIX	N/A	N/A

COLERAIN PARK PLAYGROUND PHASE 1

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

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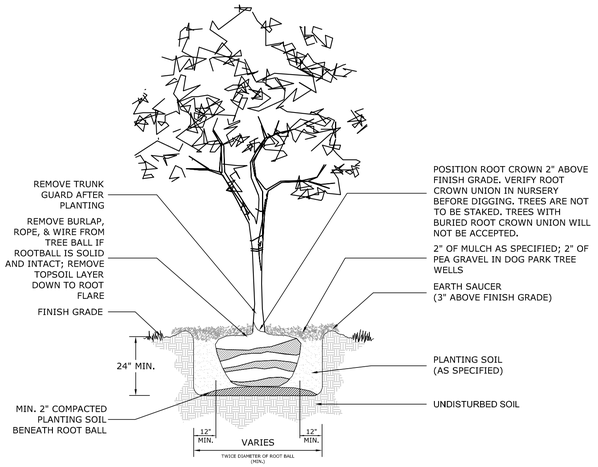
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PLANTING PLAN

SCALE: 1" =10'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L400

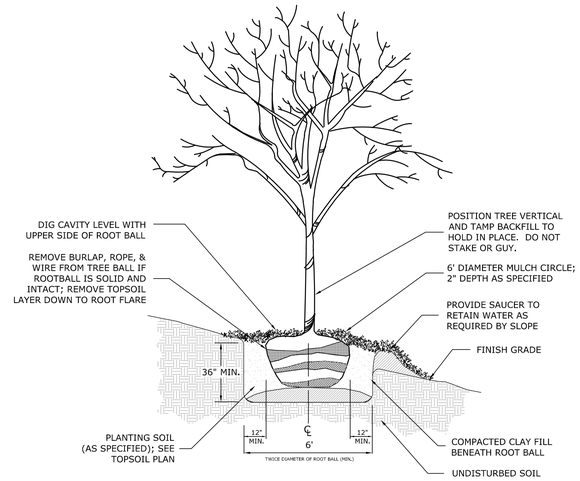
PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:09am TAB: LAYOUT1
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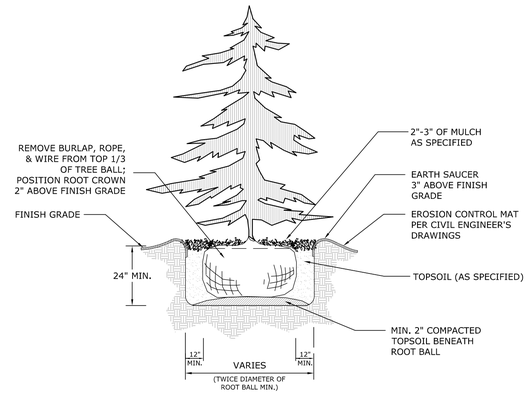
1 L401 **TYPICAL TREE PLANTING DETAIL**

SCALE:N.T.S.



2 L401 **TYPICAL TREE ON SLOPE PLANTING DETAIL**

SCALE:N.T.S.



3 L401 **TYPICAL CONIFEROUS PLANTING DETAIL**

SCALE:N.T.S.

COLERAIN PARK PLAYGROUND PHASE I

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

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ISSUE/ REVISION:

07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLANTING DETAILS

SCALE: PER PLAN

DRAWN BY: RS

CHECKED BY: ND

SHEET NUMBER:
L401

PROJECT NO.: 21910

DATE: 07.22.2020

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X:\21000 PROJECTS\21910 (COLERAIN MEGA) AND PLAYGROUND\AUTOCAD\04 CDS\L401 PLANTING DETAILS.DWG

COLERAIN PARK PLAYGROUND
PHASE 2

COLERAIN TOWNSHIP, OHIO

ISSUED FOR BID

22 JULY 2020

COLERAIN
1794 225TH ANNIVERSARY 2019

DESIGN TEAM

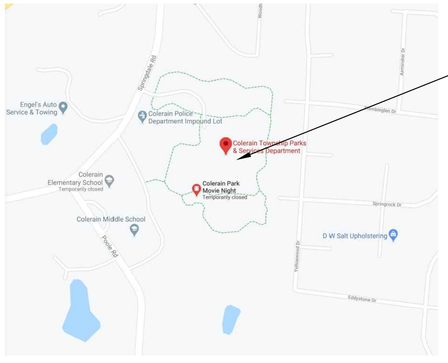
LANDSCAPE ARCHITECT/
LEAD DESIGNER

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CIVIL ENGINEER

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Cincinnati, OH 45246

LOCATION MAP



COLERAIN PARK PLAYGROUND
4160 SPRINGDALE RD,
CINCINNATI, OHIO 45251

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TREE PRESERVATION

PART 1-GENERAL

1.1 RELATED DOCUMENTS
A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS APPLY TO THIS SECTION.

1.2 DEFINITIONS
A. DIAMETER SHALL BE DEFINED AT BREAST HEIGHT (DBH) WHICH IS THE AVERAGE TREE DIAMETER AT 4.5 FEET FROM THE GROUND ON THE UPHILL SIDE OF THE TREE.
B. CALIPER SHALL BE DEFINED AS THE DIAMETER OF THE TRUNK AT 6 INCHES ABOVE THE SOIL FOR TREES UP TO 6 INCHES IN CALIPER AND DIAMETER AT 12 INCHES ABOVE THE SOIL FOR TREES UP TO 12-INCH CALIPER.
C. ROOT ZONE SHALL BE DEFINED AS 1 FOOT OF RADIUS AROUND TRUNK FOR EVERY INCH OF TRUNK DIAMETER AT 4.5 FEET ABOVE GROUND LEVEL ON THE UPHILL SIDE OF THE TREE.
D. DRIP LINE SHALL BE DEFINED AS THE OUTER LIMITS OF THE TREE CANOPY FOR EACH TREE PROJECTED DOWNWARD ONTO THE GROUND AS SHOWN IN THE DRAWINGS.
E. TREE PRESERVATION AREA SHALL BE DEFINED AS ALL AREAS WHICH CONTAIN TREES AND ALL EXISTING TREES NOTED TO REMAIN AND BE PROTECTED WITHIN THE LIMITS OF CONSTRUCTION. PROTECTIVE FENCING SHALL BE ERECTED AS SHOWN IN THE DRAWINGS.
F. DAMAGE SHALL BE DEFINED AS ANY NEGATIVE PHYSICAL IMPACT TO AN EXISTING TREE TRUNK, CANOPY, AND/OR ROOTS CAUSED BY ACCIDENTAL OR NEGLIGENT CONSTRUCTION ACTIVITIES, ALSO INCLUDING UNAUTHORIZED ENCROACHMENT INTO THE TREE PRESERVATION AREAS PROTECTED BY FENCING OR FAILURE TO COMPLY WITH SPECIFICATIONS AND DRAWINGS WHETHER FENCING IS PRESENT OR NOT, AT ANY TIME DURING THE CONSTRUCTION PROCESS, INCLUDING THE FINISHING STEPS OF LANDSCAPE INSTALLATION AND FINE GRADING OPERATIONS.

1.3 QUALITY ASSURANCE
A. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE GENERAL CONTRACTOR AND ALL CONTRACTORS IN ATTENDANCE SO THAT THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT MAY EXPLAIN TREE PRESERVATION DURING THE CONSTRUCTION PROCESS.
B. NO SITE PREPARATION WORK, INCLUDING DEMOLITION, STAGING OR ANY DELIVERY/STORAGE OF MATERIALS, SHALL BEGIN IN AREAS WHERE TREES ARE DESIGNATED TO REMAIN AND BE PROTECTED UNTIL PROTECTION AND TREATMENT MEASURES HAVE BEEN AGREED UPON AND COMPLETED.
C. TREE PRESERVATION MEASURES ALONG WITH TREATMENT MEASURES AND MATERIALS WILL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE, CERTIFIED ARBORIST, AND PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PROTECTION OF TREES OR WOODY SHRUBS IDENTIFIED TO REMAIN MEANS MAINTENANCE OF THE TREES IN GOOD HEALTH AND VITALITY, AS WELL AS PROTECTION FROM PHYSICAL DAMAGE AND DISEASE.
D. PUBLICATIONS LISTED HEREIN ARE PART OF THIS SPECIFICATION TO EXTENT REFERENCED:
1. TREE CARE INDUSTRY ASSOCIATION (FORMERLY NATIONAL ARBORIST ASSOCIATION) STANDARDS.
2. ISA-INTERNATIONAL SOCIETY OF ARBORICULTURE
3. AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS.
a. ANSI Z133.1-1994.
b. ANSI A300-1995.
4. AMERICAN NURSERYMAN ASSOCIATION STANDARDS.
E. CONTRACTOR QUALIFICATIONS:
1. MINIMUM OF FIVE YEARS' EXPERIENCE IN ARBORICULTURE WITHIN THE GREATER CINCINNATI REGION.
2. THREE REFERENCES FROM PUBLIC CLIENTS FOR WHOM SIMILAR SERVICES HAVE BEEN SUPPLIED.
3. STAFF THAT ARE ISA CERTIFIED ARBORISTS.
F. TREES ON SITE WHICH ARE TO BE PRESERVED SHALL BE PREPARED AND TREATED TO INCREASE THEIR POTENTIAL FOR SURVIVAL AND IMPROVE THEIR HEALTH AND CONDITION. CONTRACTOR SHALL MEET OR EXCEED THE MOST RECENTLY PUBLISHED TREE CARE INDUSTRY ASSOCIATION (FORMERLY NATIONAL ARBORIST ASSOCIATION) STANDARDS FOR ALL WORK. ALL WORK IS TO BE PERFORMED COMPLETELY AS SPECIFIED UNLESS CHANGES ARE AGREED UPON IN WRITING DUE TO UNFORESEEN LIMITING CIRCUMSTANCES.
G. EQUIPMENT AND SAFETY:
1. EQUIPMENT SHALL BE MODERN AND WELL MAINTAINED. ANY INSTRUMENTS USED TO CUT ROOTS AND LIMBS SHALL BE SHARPENED WELL ENOUGH TO MAKE CLEAN CUTS. CONTRACTOR SHALL ADHERE TO ALL APPLICABLE STATE AND FEDERAL REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PROPERTY RESULTING FROM EQUIPMENT, INCLUDING FLUID LEAKAGE OR DAMAGE RESULTING FROM EQUIPMENT FAILURE. INCIDENTS OF THIS TYPE SHALL BE REPORTED IMMEDIATELY TO OWNER'S REPRESENTATIVE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, INSTALLATIONS, FIXTURES, PAVING, CONCRETE, PLANT MATERIALS AND OTHER ITEMS ON THE SITE WHICH RESULT FROM THE EXECUTION OF WORK PRESCRIBED.

1.4 PERFORMANCE STANDARD
A. DAMAGED TREES, AS DETERMINED BY A CERTIFIED ARBORIST AND AGREED UPON BY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE, LESS THAN 12 INCHES IN DIAMETER SHALL BE REPLACED WITH TREES OF EQUAL CALIPER OR THE LARGEST COMMERCIALLY AVAILABLE TREES OF THE SAME SPECIES.
B. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXPENSES RELATED TO THE REPLACEMENT OF DAMAGED TREES INCLUDING: LOCATING REPLACEMENT TREES AT NURSERIES, TAGGING, REVIEW/APPROVAL OF REPLACEMENTS, PURCHASING, TRANSPORTING, INSTALLING, WARRANTY FOR ONE YEAR, AND ANY OTHER ASSOCIATED EXPENSES.
C. CONTRACTOR IS RESPONSIBLE FOR DAMAGE FOR ANY TREES DAMAGED AS A RESULT OF CONTRACTOR ERROR OR FAILURE TO FOLLOW CONTRACT SPECIFICATIONS. CONTRACTOR MAY BE REQUIRED TO REMOVE TREE AND STUMP FOR TREES DETERMINED TO BE DESTROYED AS A RESULT OF CONTRACTOR NEGLIGENCE. DAMAGED TREES GREATER THAN 12 INCHES IN DIAMETER SHALL BE COMPENSATED FOR BY THE CONTRACTOR AT $500.00 PER INCH OF DIAMETER, I.E. A DAMAGED 18 INCHES TREE = $9,000.00 DUE TO THE OWNER.
D. DIAMETERS OF DAMAGED TREES, IF ANY, SHALL BE DETERMINED BY AN ARBORIST FOR THE ASSESSMENT OF DAMAGES.
E. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A QUALIFIED CERTIFIED ARBORIST TO CONDUCT WORK THAT MAY BE REQUIRED DUE TO DAMAGE TO TREES DURING CONSTRUCTION. CERTIFIED ARBORIST IS TO MEET THE QUALIFICATIONS OUTLINED HEREIN.

1.5 SUBMITTALS
A. LIST PRODUCTS TO BE USED AND COMPANIES/PERSONNEL, INCLUDING THEIR QUALIFICATIONS THAT WILL BE PERFORMING THE REQUIRED WORK.

1.6 SUMMARY
A. FURNISH ALL LABOR, MATERIALS, SUPPLIES, EQUIPMENT AND TOOLS TO PERFORM ALL OPERATIONS IN CONNECTION WITH AND REASONABLY INCIDENTAL TO PRESERVE OR REPAIR TREES DAMAGED BY CONSTRUCTION. THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO, THE FOLLOWING:
1. ERECTING AND MAINTAINING TREE PROTECTION FENCES
2. ROOT PRUNING AS INDICATED ON DRAWINGS.
3. REPAIR OPERATIONS.
4. PAYMENTS OR REPLACEMENTS FOR DAMAGED TREES AS IDENTIFIED BY OWNER'S REPRESENTATIVE.
B. CONSTRUCTION ACTIVITY WITHIN THE ROOT ZONE OF EXISTING TREES TO REMAIN AND BE PROTECTED SHALL BE PROHIBITED AND CAN BE CONSIDERED AS DAMAGE TO THE TREE. THIS SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING ACTIVITIES:
1. REMOVING TREE PRESERVATION FENCING.
2. PARKING OR DRIVING EQUIPMENT, MACHINERY OR VEHICLES.
3. STORING CONSTRUCTION MATERIALS, EQUIPMENT, STOCKPILING, EXCAVATION OR FILL, SOIL, GRAVEL, ETC.
4. DUMPING CHEMICALS, WASH-OUT MATERIALS FROM CLEANING EQUIPMENT, CONCRETE OR MORTAR REMAINDER, TRASH, GARBAGE, OR DEBRIS.
5. BURNING WITHIN OR IN PROXIMITY TO PROTECTED AREAS.
6. TRENCHING OR GRADING WITHIN THE DRIP LINES OF PROTECTED TREES WITHOUT NOTIFYING OWNER'S REPRESENTATIVE IN WRITING 10 DAYS IN ADVANCE OF OPERATION. THIS INCLUDES UTILITIES, LIGHTING, IRRIGATION, DRAINAGE, PAVING, STRUCTURES, ETC.
7. TRENCHING OR GRADING WITHOUT ROOT PRUNING.
8. ANY CONSTRUCTION ACTIVITY WITHIN THE DRIP LINE OF AN EXISTING TREE.
C. TIMING: IF DISTURBANCE IS REQUIRED DURING THE ACTIVE GROWING SEASON, ADDITIONAL MEASURES MAY BE NEEDED TO PROTECT THE TREE. THESE MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO: MULCHING/PROTECTION OF DISTURBED ROOTS AND TEMPORARY IRRIGATION OF DISTURBED TREES.
D. SILT SHALL NOT BE ALLOWED TO BUILD UP AGAINST THE TREE PRESERVATION AREA SILT FENCES.
E. CONTRACTOR SHALL WORK WITH OWNER'S REPRESENTATIVE TO MAKE FIELD ADJUSTMENTS AS NECESSARY IN ORDER TO PROMOTE LONG-TERM HEALTH AND VIABILITY OF THE TREES.

PART 2-PRODUCTS

2.1 MATERIALS
A. THE USE OF TRADE NAME AND SUPPLIER'S NAME AND ADDRESS IS TO INDICATE A POSSIBLE SOURCE OF THE PRODUCT. PRODUCTS OF THE SAME TYPE FROM OTHER SOURCES SHALL NOT BE EXCLUDED, PROVIDED THEY POSSESS LIKE PHYSICAL AND FUNCTIONAL CHARACTERISTICS AND ARE APPROVED BY OWNER'S REPRESENTATIVE.
B. EVERY EFFORT SHALL BE MADE TO UTILIZE CHEMICALS OF AN ORGANIC OR BIODEGRADABLE NATURE IN ORDER TO OFFER LEAST IMPACT TO THE NATURAL ENVIRONMENT. CONTRACTOR IS RESPONSIBLE FOR MIXING, APPLYING AND DISPOSAL OF ALL CHEMICALS IN ACCORDANCE WITH STRICT ADHERENCE TO MANUFACTURERS' DIRECTIONS. PROTECT ADJACENT STRUCTURES, VEHICLES, PEDESTRIANS, PAVEMENT AND PLANTS FROM EXPOSURE TO ANY CHEMICALS.
C. TREE PROTECTION FENCING: POSTS TO BE STEEL FENCE POSTS SPACED 6'-0" ON CENTER WITH STANDARD SNOW FENCING OR ORANGE POLYETHYLENE CONSTRUCTION FENCING, EXPOSED HEIGHT ABOVE GRADE 4'- 0". SIGNS SHALL BE AFFIXED TO THE FENCING EVERY 100 FEET WITH APPROPRIATE LANGUAGE, SUCH AS "TREE PROTECTION ZONE (TPZ)-NO GRADE CHANGE, STORAGE OF MATERIALS, OR EQUIPMENT IS PERMITTED WITHIN THIS TPZ."

PART 3-EXECUTION

3.1 TREE IDENTIFICATION
A. INDIVIDUAL TREES AND TREE PROTECTION AREAS ARE AS SHOWN ON THE DRAWINGS.
B. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL TAG AND NUMBER EVERY EXISTING TREE THAT WILL REMAIN ON SITE, AS IDENTIFIED ON THE PLANS. AFTER THE TREES ARE TAGGED AND NUMBERED, THE CONTRACTOR SHALL HIRE A CERTIFIED ARBORIST TO EVALUATE ALL TREES DESIGNATED TO REMAIN AND MAKE THE OWNER AND LANDSCAPE ARCHITECT AWARE OF ANY POTENTIAL CONCERNS REGARDING HEALTH, STRUCTURE, RISKS AND ANY RECOMMENDED REMEDIAL MEASURES TO IMPROVE THE LIKELIHOOD OF THE TREES' SURVIVAL AND GOOD HEALTH AFTER CONSTRUCTION.

3.2 COORDINATION
A. BEFORE START OF WORK, MEET AT THE WORK SITE WITH ALL PARTIES INVOLVED. REVIEW AREAS OF SCHEDULING AND POSSIBLE CONFLICT WITH VARIOUS TRADES AND OTHER SITE WORK. COORDINATE LAYOUT OF WORK AND RESOLVE CONFLICTS BEFORE PROCEEDING WITH WORK. ALL TREE PRESERVATION STRATEGIES SHALL BE AGREED UPON BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
B. TREE PRESERVATION FENCING SHALL GO UP PRIOR TO BEGINNING ANY AND ALL SITE WORK. ONCE THE FENCING IS IN PLACE, IT SHALL NOT BE MOVED OR CROSSED ANY TIME DURING CONSTRUCTION. IF A CONFLICT ARISES DURING CONSTRUCTION BETWEEN PROPOSED PLANS AND TREE PRESERVATION FENCING, THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT SHALL BE CONTACTED IMMEDIATELY BEFORE ANY WORK IS DONE IN THE CONFLICTED AREA.
C. ALL TREE REMOVAL, TREE PRUNING, AND WORK AFFECTING EXISTING TREES AND TREE PRESERVATION, SHALL BE REVIEWED WITH OWNER'S REPRESENTATIVE PRIOR TO ANY WORK STARTING IN THE TREE PRESERVATION AREA.

3.3 TREE WORK AGENDA
A. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY TREES WHICH MAY INTERFERE WITH PROJECT ACCESS OR WORK AT ANY TIME DURING CONSTRUCTION, A MINIMUM OF 14 DAYS PRIOR TO THE START OF THE PROPOSED WORK. ANY SPECIAL PROVISIONS OR ADJUSTMENTS TO THE TREE PRESERVATION STRATEGIES MUST BE APPROVED BY OWNER'S REPRESENTATIVE.

3.4 PRE-CONSTRUCTION PRUNING
A. ASSESSMENT BY CONTRACTOR IS REQUIRED PER AREA OF WORK TO ENSURE THERE IS ADEQUATE CLEARANCE TO DO WORK UNDER EXISTING TREES TO REMAIN. REVIEW ANY CLEARANCE ISSUES WITH OWNER'S REPRESENTATIVE. ALL REQUIRED TRIMMING SHALL BE PERFORMED BY CONTRACTOR AFTER REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE.

3.5 TREE REMOVAL
A. TREES MARKED ON PLANS AND/OR DESIGNATED IN THE FIELD BY OWNER'S REPRESENTATIVE SHALL BE REMOVED FROM SITE AS NOTED IN THE DRAWINGS AND SPECIFICATIONS.
B. TREES NOTED FOR REMOVAL SHALL BE REMOVED WITHOUT DAMAGE TO ADJACENT TREES TO BE PROTECTED, EXISTING STRUCTURES, UTILITIES, ETC.
C. ALL CANOPY BRANCHES AND TOPS OF TREES SHALL BE HAULED OFF SITE AND PROPERLY DISPOSED OF.
D. STUMPS SHOULD BE GROUND OR REMOVED FROM SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND CERTIFIED ARBORIST.

3.6 GENERAL
A. REVIEW OF TREE PRESERVATION PLANS AND LIMITS OF CLEARING:
1. THE CONTRACTOR SHALL BE REQUIRED TO HOLD A MEETING IN THE FIELD WITH THE SUBCONTRACTORS, THE OWNER'S REPRESENTATIVE, THE LANDSCAPE ARCHITECT, AND THE CERTIFIED ARBORIST TO REVIEW THE LOCATION OF TREES TO BE PRESERVED AND THE REQUIREMENTS OF TREE PRESERVATION COORDINATION AND DAMAGES. CONCERNS RELATING TO TREE PRESERVATION SHALL BE BROUGHT TO THE CERTIFIED ARBORIST'S ATTENTION AT THAT TIME.
B. ANY WORK REQUIRED BY PLANS WHICH IS IN A TREE PRESERVATION AREA SHALL BE PERFORMED BY HAND OR METHOD(S) OTHERWISE APPROVED BY LANDSCAPE ARCHITECT. ALL WORK WILL BE PERFORMED IN A MANNER TO PREVENT COMPACTION, SILTATION, AND DISTURBANCE OF THE ROOT MAT OF ALL ASSOCIATED TREES AND UNDERSTORY TREES.
C. IN AREAS WHERE TREE ROOTS ARE TO BE EXPOSED TO DAMAGE BY DEMOLITION OR CONSTRUCTION ACTIVITY, THE EXPOSED ROOTS SHALL BE KEPT MOIST AT ALL TIMES. EXPOSED ROOTS SHALL BE COVERED WITH A LAYER OF MULCH OR WOOD CHIPS.
D. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL SUBCONTRACTORS ARE AWARE OF, AND ADHERE TO, TREE PRESERVATION REQUIREMENTS.

3.2 DAMAGES AND PENALTIES
A. ALL TREES MARKED ON PLANS AND/OR DESIGNATED IN THE FIELD WITHIN THE FENCE LINES SHALL BE PRESERVED BY THE CONTRACTOR. TREES MARKED FOR PRESERVATION WITHIN SENSITIVE TREE AREAS INDICATED ON PLAN MAY BE ASSESSED DAMAGES. COMPENSATION FOR DAMAGE OF TREES DUE TO CONTRACTOR NEGLIGENCE AND/OR ACCIDENTS SHALL BE ASSESSED BY OWNER'S REPRESENTATIVE. PENALTIES WILL BE IN THE FORM OF A FINE LEVIED AGAINST THE CONTRACTOR FOR EACH SPECIFIC VIOLATION.
B. CONTRACTOR IS RESPONSIBLE FOR DAMAGE COMPENSATION FOR ANY TREES DAMAGED AS A RESULT OF CONTRACTOR ERROR OR FAILURE TO FOLLOW CONTRACT SPECIFICATIONS. CONTRACTOR MAY BE REQUIRED TO REMOVE TREE AND STUMP FOR TREES DETERMINED TO BE DESTROYED AS A RESULT OF CONTRACTOR NEGLIGENCE. DAMAGED TREES GREATER THAN 12 INCHES IN DIAMETER SHALL BE COMPENSATED FOR BY THE CONTRACTOR AT $500.00 PER INCH OF DIAMETER, I.E. A DAMAGED 18 INCHES TREE = $9,000.00 DUE TO THE OWNER.

3.3 SITE MONITORING
A. THE CERTIFIED ARBORIST SHALL CONDUCT PERIODIC SITE VISITS TO ENSURE COMPLIANCE WITH TREE PRESERVATION REQUIREMENTS. PROMPT RESPONSE SHALL BE MADE TO REQUESTS BY CERTIFIED ARBORIST, WHICH AFFECTS THE SURVIVAL OF TREES TO BE PRESERVED.
B. THE OWNER'S REPRESENTATIVE MAY CONDUCT PERIODIC SITE VISITS TO ENSURE COMPLIANCE WITH TREE PRESERVATION REQUIREMENTS. PROMPT RESPONSE SHALL BE MADE TO REQUESTS BY OWNER'S REPRESENTATIVE, WHICH AFFECTS THE SURVIVAL OF TREES TO BE PRESERVED.

3.4 SITE MAINTENANCE
A. CONTRACTOR SHALL KEEP ALL TRAVELED AREAS WATERED REGULARLY OR APPLY OTHER APPROVED DUST CONTROL METHODS TO PREVENT EXCESSIVE DUST ACCUMULATION ON FOLIAGE OF TREES TO BE PRESERVED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMOVAL OF EXCESSIVE DUST FROM THE FOLIAGE OF TREES.

3.5 TREE TRIMMING
A. CONTRACTOR SHALL ASSESS AREA OF WORK TO ENSURE THERE IS ADEQUATE CLEARANCE TO DO WORK UNDER EXISTING TREES TO REMAIN. REVIEW ANY CLEARANCE ISSUES WITH THE OWNER'S REPRESENTATIVE. ALL REQUIRED TRIMMING SHALL BE PERFORMED BY CONTRACTOR AFTER REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE.
B. TRIMMING FOR ADEQUATE CLEARANCE TO FACILITATE EQUIPMENT USE AND CONSTRUCTION ACTIVITIES WILL BE PERFORMED PRIOR TO THE WORK COMMENCING.
C. TRIMMING FOR WORKER AND PUBLIC SAFETY AND FOR THE HEALTH AND VIGOR OF PRESERVED TREES, AS DIRECTED BY THE CERTIFIED ARBORIST, IS ALSO REQUIRED PRIOR TO CONSTRUCTION WORK COMMENCING.

3.6 ROOT PRUNING
A. WHERE EXCAVATION OR CONSTRUCTION WITHIN THE DRIP LINE OF A TREE IS NECESSARY OR AS NOTED ON THE DRAWINGS, ROOT PRUNING MAY BE REQUIRED. A ROOT CUT SHALL BE MADE AS DESCRIBED BELOW.
1. BLADE SHALL BE SHARPENED PRIOR TO USE.
2. ROOT CUTS SHALL BE MARKED IN THE FIELD BY CONTRACTOR AND REVIEWED BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT PRIOR TO CUTTING.
1. THE ARBORIST SHALL ALSO MAKE ANY RECOMMENDATIONS RELATED TO PRESERVING ANY CRITICAL STRUCTURAL ROOTS (E.G., THIS IS THE CLOSEST POINT TO THIS PARTICULAR TREE THAT THE SOIL CAN BE DISTURBED.) DURING THE ROOT PRUNING PROCESS.
2. ONCE REVIEWED BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT, CONTRACTOR SHALL FOLLOW HIS/HER RECOMMENDATIONS TO CUT ALONG THE APPROVED MARKS PRIOR TO ANY EXCAVATION.
3. CONTRACTOR SHALL PRUNE ALL ROOTS AS DIRECTED WITH CIRCULAR SAWS OF VARYING TYPES AND/OR A ROTARY TYPE STUMP GRINDER TO A DEPTH OF 18" OR TO THE MAXIMUM DEPTH OF THE REQUIRED GRADING CUT, WHICHEVER IS LESS.
4. ROOT PRUNING SHALL BE COORDINATED WITH THE TREE PROTECTION FENCING. IN SOME CASES THAT FENCE LINE IS ON THE ROOT CUT, PROVISIONS FOR ROOT PRUNING NEED TO BE ACCOMMODATED BEFORE THE FENCE IS ERECTED.
5. DURING THE EXCAVATION PROCESS, IF ROOTS GREATER THAN 2 INCHES IN DIAMETER THAT HAVE NOT BEEN ROOT PRUNED ARE ENCOUNTERED, THEY SHALL BE REVIEWED BY THE CERTIFIED ARBORIST TO DETERMINE STRUCTURAL STABILITY OF THE TREE. CONTRACTOR SHALL FOLLOW INSTRUCTIONS FROM THE CERTIFIED ARBORIST FOR CUTTING (E.G., CUTTING WITH A SAW OR SHARP AXE). ROOTS SHALL NOT BE RIPPED WITH EARTH MOVING EQUIPMENT.

3.7 TREE PROTECTION FENCING
A. TREE PROTECTION FENCING SHALL BE INSTALLED IN THE LOCATIONS INDICATED ON THE DRAWINGS.
B. INSTALL APPROVED PROTECTIVE FENCING AROUND EACH TREE DESIGNATED TO REMAIN AND BE PROTECTED. MAINTAIN FENCING THROUGHOUT DURATION OF PROJECT. CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR LIABILITIES ASSOCIATED WITH PROTECTIVE FENCING THAT IS NOT APPROPRIATELY MAINTAINED. TEMPORARY REMOVAL OF FENCING SHALL REQUIRE APPROVAL OF OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
C. TREE PROTECTION FENCING SHALL BE AS SPECIFIED AND INCLUDE APPROVED SIGNAGE AS DESCRIBED IN SECTION 2.1 C.
D. NO ACCESS TO FENCED AREAS SHALL BE PERMITTED BY ANYONE OTHER THAN THE CERTIFIED ARBORIST WITHOUT PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE
E. CONTRACTOR SHALL PROVIDE MAINTENANCE, REPAIR, AND REMOVAL OF FENCE DURING DURATION OF THIS CONTRACT.
F. TREE PROTECTION FENCING SHALL BE IN-PLACE AND IN GOOD CONDITION UPON THE COMPLETION OF THE CONSTRUCTION PROCESS.
G. AT SUBSTANTIAL COMPLETION AND ONLY AFTER DIRECTED BY THE OWNER'S REPRESENTATIVE, CONTRACTOR SHALL REMOVE TREE PROTECTION FENCING AND ALL SUCH MATERIALS.

3.8 MULCHING
A. SELECTED TREES IN HIGH IMPACT AREAS, IF IDENTIFIED ON THE PLANS, ADJACENT TO CONSTRUCTION SHALL BE MULCHED WITH A 2-INCH DEPTH OF SHREDDED HARDWOOD BARK MULCH.

3.9 OTHER REMEDIAL ACTIVITIES
A. CONTRACTOR SHALL PROVIDE OTHER ARBORICULTURAL SERVICES AS NEEDED TO RESPOND TO DAMAGE BY CONSTRUCTION ACTIVITIES. THESE SERVICES MAY INCLUDE ANY OF THE ABOVE, AS WELL AS FENCE REPAIR, VERTICAL MULCHING, ETC. CONTRACTOR SHALL RESPOND TO CALLS FOR REMEDIAL WORK WITHIN 48 HOURS OF NOTIFICATION.
B. AS RECOMMENDED BY THE CERTIFIED ARBORIST, VERTICAL MULCHING TECHNIQUES SHALL BE USED TO REDUCE COMPACTION WHERE IT MAY BE CAUSING TREES STRESS. HOLES SHALL BE AUGERED USING A 2-3 INCHE MECHANICAL AUGER TO A DEPTH OF 12-18 INCHES. HOLES SHALL BE EVENLY DISTRIBUTED THROUGHOUT THE AFFECTED ROOT ZONE IN AN 18-TO 24-INCH GRID PATTERN AND BACKFILLED WITH HUMUS. CARE SHALL BE GIVEN TO AVOID DAMAGING LARGE ROOTS WHEN WITHDRAWING.

3.10 CLEANUP
A. REMOVE FROM SITE ALL EXCESS MATERIALS, SOIL, DEBRIS, AND EQUIPMENT DIRECTLY RELATED TO TREE PRESERVATION ACTIVITIES.

END OF SECTION

PLAYGROUND EQUIPMENT

PART 1--GENERAL

1.1 SECTION INCLUDES
A. WORK INCLUDED:
1. PLAYGROUND EQUIPMENT.
2. LOCATION OF EACH ITEM OF PLAYGROUND EQUIPMENT IS INDICATED ON THE DESIGN INTENT DRAWINGS.

1.2 RELATED SECTIONS AND DIVISIONS
A. SECTION 32 13 13 - CONCRETE PAVING.
B. SECTION 32 18 16.13 - PLAYGROUND PROTECTIVE SURFACING.

1.3 REFERENCE STANDARDS
A. ASTM F 1292 - STANDARD SPECIFICATION FOR IMPACT ATTENUATION OF SURFACING MATERIALS WITHIN THE USE ZONE OF PLAYGROUND EQUIPMENT; 2004.
B. ASTM F 1487 - STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE; 2007A.
C. CPSC PUB. NO. 325 - HANDBOOK FOR PUBLIC PLAYGROUND SAFETY; CONSUMER PRODUCTS SAFETY COMMISSION; 2008.
D. IPEMA FOR CERTIFIED PUBLIC PLAY EQUIPMENT AND PLAY SURFACING.

1.4 DEFINITIONS
A. PLAY EVENT: A PIECE OF PLAYGROUND EQUIPMENT THAT SUPPORTS ONE OR MORE PLAY ACTIVITIES.
B. USE ZONE: THE AREA UNDER AND AROUND A PLAY EVENT WITHIN WHICH THE GROUND SURFACING MUST MEET FALL IMPACT ATTENUATION REQUIREMENTS OF ASTM F1292 WHEN TESTED AT THE FALL HEIGHT SPECIFIED FOR THE PLAY EVENT.
C. FALL HEIGHT: THE VERTICAL DISTANCE BETWEEN THE FINISHED ELEVATION OF THE DESIGNATED PLAY SURFACE AND THE FINISHED ELEVATION OF THE PROTECTIVE SURFACING BENEATH IT, AS DEFINED IN ASTM F 1487.
D. PROTECTIVE SURFACING: RESILIENT GROUND SURFACING AS SPECIFIED IN SECTION 32 18 16.13 - PLAYGROUND PROTECTIVE SURFACING. THE CHARACTERISTICS OF THE PROTECTIVE SURFACING ARE BASED ON THE FALL HEIGHT OF THE PLAYGROUND EQUIPMENT. CHANGES IN EITHER THE SURFACING OR THE FALL HEIGHT, PARTICULARLY REDUCING THE RESILIENCE OF THE PROTECTIVE SURFACING OR INCREASING THE FALL HEIGHT, WILL REDUCE SAFETY-RELATED PERFORMANCE.
E. SUBGRADE: THE SURFACE OF THE GROUND ON WHICH THE PROTECTIVE SURFACING IS INSTALLED; THE SUBBASE FOR THE PROTECTIVE SURFACING IS INSTALLED OVER THE SUBGRADE.

1.5 SUBMITTALS
A. PROPOSALS FOR SUBSTITUTIONS: SUBSTITUTIONS THAT WILL INCREASE THE FALL HEIGHT, PLATFORM HEIGHT, OR MAXIMUM EQUIPMENT HEIGHT WILL NOT BE CONSIDERED. SUBMIT SHOP DRAWINGS WITH PROPOSED MODIFICATIONS CLEARLY IDENTIFIED AND SUFFICIENT INFORMATION TO DETERMINE COMPLIANCE WITH SPECIFIED CRITERIA.
B. PRODUCT DATA: FOR ALL MANUFACTURED EQUIPMENT, PROVIDE MANUFACTURER'S PRODUCT DATA SHOWING MATERIALS OF CONSTRUCTION, COMPLIANCE WITH SPECIFIED STANDARDS, INSTALLATION PROCEDURES, SAFETY LIMITATIONS, AND THE NUMBER OF USERS PERMITTED.
1. CERTIFICATIONS: PROVIDE INTERNATIONAL PLAY EQUIPMENT MANUFACTURERS ASSOCIATION (IPEMA) CERTIFICATION THAT PRODUCT COMPLIES WITH ASTM F 1487.
C. PRODUCT DATA: FOR FABRICATED ITEMS, PROVIDE THE FOLLOWING:
1. WOOD FINISHES: PROVIDE INFORMATION ON WOOD FINISH CHEMICAL CONTENT AND TOXICITY LEVEL.
2. GALVANIZED STEEL: CERTIFICATION OF GALVANIZED COATING THICKNESS.
D. SHOP DRAWINGS: PROVIDE DETAILED SCALE DRAWINGS FOR EACH PLAYGROUND SITE ELEMENT AND PLAY EVENT
1. PLAY EVENT SHOP DRAWINGS ONLY SHOW: PLAY EVENT LAYOUT, USE ZONE PERIMETERS, AND FALL HEIGHT
2. SHOW LOCATIONS AND DIMENSIONS OF FOOTINGS AND ANCHORAGE POINTS.
3. SHOW LOCATIONS OF RELATED CONSTRUCTION SUCH AS WALKWAYS AND ROADWAYS, FENCES, SITE FURNISHINGS, AND PLANTINGS.
4. SHOW LOCATIONS FOR EXISTING TREES TO BE PRESERVED AS THEY RELATE TO ANY POTENTIAL CONSTRUCTION CONSTRAINT. NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY IF A CONSTRAINT IS IDENTIFIED.
E. SAMPLES: FOR EACH ITEM FOR WHICH COLOR MUST BE SELECTED PROVIDE COLOR CHART SHOWING FULL RANGE OF COLORS AND FINISHES.
F. MAINTENANCE DATA: PROVIDE MANUFACTURER'S RECOMMENDED MAINTENANCE INSTRUCTIONS AND LIST OF REPLACEABLE PARTS FOR EACH EQUIPMENT ITEM, WITH ADDRESS AND PHONE NUMBER OF SOURCE OF SUPPLY.
G. WARRANTY: SUBMIT MANUFACTURER WARRANTY AND ENSURE THAT FORMS HAVE BEEN COMPLETED IN OWNER'S NAME AND REGISTERED WITH MANUFACTURER.

1.6 QUALITY ASSURANCE
A. MAINTAIN ONE COPY OF THE LATEST EDITION OF ASTM F 1487 AND CPSC PUB. NO. 325 AT PROJECT SITE.
B. MANUFACTURER QUALIFICATIONS: COMPANY IS REGULARLY ENGAGED IN MANUFACTURING MATERIALS AND PRODUCTS SPECIFIED IN THIS SECTION, WITH NOT LESS THAN THREE YEARS OF EXPERIENCE.
1. PROVIDE DOCUMENTATION SHOWING THAT PLAYGROUND EQUIPMENT SIMILAR TO THAT SPECIFIED HAS BEEN INSTALLED IN MINIMUM TEN SITES AND BEEN IN SUCCESSFUL SERVICE FOR MINIMUM OF FIVE YEARS; PROVIDE ADDRESSES.
2. PROVIDE CERTIFICATE OF INSURANCE AA RATED FOR MINIMUM 1,000,000 DOLLARS COVERING BOTH PRODUCT AND GENERAL LIABILITY.
3. MANUFACTURER'S REPRESENTATIVE: PROVIDE NAME, COMPANY NAME AND ADDRESS, AND PLAYGROUND SAFETY TRAINING CERTIFICATE.
C. INSTALLER QUALIFICATIONS: COMPANY CERTIFIED BY MANUFACTURER FOR TRAINING AND EXPERIENCE INSTALLING PLAY EVENTS AND EQUIPMENT.

1.7 DELIVERY, STORAGE, AND HANDLING
A. DELIVER, HANDLE, AND STORE EQUIPMENT TO PROJECT SITE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
B. STORE MATERIALS IN A DRY, COVERED AREA, ELEVATED ABOVE GRADE.

1.8 WARRANTY
A. PROVIDE DATA AND DOCUMENTS THAT CONFORM WITH MANUFACTURERS STANDARD WARRANTY.

PART 2--PRODUCTS

2.1 PLAYGROUND EQUIPMENT - GENERAL
A. DESIGN ASS

1. USE STAINLESS STEEL FOR WOOD-TO-WOOD AND WOOD-TO-METAL CONNECTIONS.
2. USE STAINLESS STEEL WITH PLASTIC COMPONENTS.
3. BEARINGS: SELF LUBRICATING.
4. HOOKS, INCLUDING S-HOOKS: CLOSED LOOP; MAXIMUM GAP 0.04 INCHES (1 MM), LESS THAN THE THICKNESS OF A DIME.
5. RAILS, LOOPS, AND HAND BARS: SAME METAL AS ITEM IS MOUNTED ON OR ALUMINUM; WITH POWDER COATING.
6. ANCHORS: IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

E. POWDER COATING FOR STEEL: ELECTROSTATICALLY APPLIED AND OVEN CURED POLYESTER POWDER OVER ELECTROSTATIC ZINC COATING.

F. CONCRETE: AS SPECIFIED.

PART 3--EXECUTION

3.1 LAYING OUT THE WORK

A. STAKE THE LOCATION OF ALL PLAYGROUND ELEMENTS, INCLUDING USE ZONE PERIMETERS, PERIMETER OF PROTECTIVE SURFACING, ACCESS AND EGRESS POINTS, HARD SURFACES, WALLS, FENCES, AND STRUCTURES, AND PLANTING LOCATIONS FOR REVIEW BY OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT AND PLAYGROUND CONSULTANT.

B. STAKE THE LAYOUT OF THE ENTIRE USE ZONE PERIMETER BEFORE STARTING ANY WORK AND BEFORE SUBBASE UNDER RESILIENT SURFACING IS LAID.

1. VERIFY THAT USE ZONE PERIMETERS DO NOT OVERLAP HARD SURFACES, WHETHER CURRENTLY INSTALLED OR NOT.
2. VERIFY THAT USE ZONE PERIMETERS DO NOT OVERLAP OTHER USE ZONES THAT, BY REGULATIONS AND PLAY EVENTS, MAY NOT OVERLAP.
3. VERIFY THAT USE ZONES ARE FREE OF OBSTRUCTIONS THAT WOULD EXTEND INTO THE RESILIENT PORTION OF THE PROTECTIVE SURFACING.
4. IF CONFLICTS OR OBSTRUCTIONS EXIST, NOTIFY LANDSCAPE ARCHITECT
5. DO NOT PROCEED UNTIL REVISED DRAWINGS HAVE BEEN PROVIDED, SHOWING CORRECTED LAYOUT, AND OBSTRUCTIONS HAVE BEEN REMOVED.

3.2 EXAMINATION

A. VERIFY THAT PLAYGROUND EQUIPMENT FOOTINGS HAVE BEEN INSTALLED IN PROPER LOCATIONS AND AT PROPER ELEVATIONS.

B. VERIFY LOCATION OF UNDERGROUND UTILITIES AND FACILITIES IN THE PLAYGROUND AREA. DAMAGE TO UNDERGROUND UTILITIES AND FACILITIES WILL BE REPAIRED AT CONTRACTOR'S EXPENSE.

3.3 INSTALLATION

A. COORDINATE WORK WITH PREPARATION FOR AND INSTALLATION OF PROTECTIVE SURFACING SPECIFIED IN SECTION 32 18 16.13. THE RESILIENT PORTION OF THE PROTECTIVE SURFACING IS TO BE INSTALLED AFTER PLAYGROUND EQUIPMENT INSTALLATION.

B. INSTALL IN ACCORDANCE WITH CPSC PUB. NO. 325, ASTM F 1487, MANUFACTURER'S INSTRUCTIONS, AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

C. ANCHOR EQUIPMENT SECURELY BELOW THE BOTTOM ELEVATION OF THE RESILIENT SURFACING LAYER.

D. INSTALL WITHOUT SHARP POINTS, EDGES, OR PROTRUSIONS; ENTANGLEMENT HAZARDS; OR PINCH, CRUSH, OR SHEAR POINTS.

E. DO NOT MODIFY PLAY EVENTS ON SITE WITHOUT WRITTEN APPROVAL OF MANUFACTURER.

F. INSTALL REQUIRED SIGNAGE IF NOT FACTORY-INSTALLED.

G. ALL ELEMENTS REQUIRING SHOP DRAWINGS SHALL BE INSTALLED ONLY AFTER APPROVAL BY OWNER'S REPRESENTATIVE AND PLAYGROUND CONSULTANT.

3.4 FIELD QUALITY CONTROL

A. OWNER'S REPRESENTATIVE AND PLAYGROUND CONSULTANT WILL INSPECT PLAYGROUND EQUIPMENT AFTER INSTALLATION TO VERIFY THAT PLAYGROUND MEETS SPECIFIED DESIGN SAFETY AND ACCESSIBILITY REQUIREMENTS.

B. REPAIR OR REPLACE REJECTED WORK UNTIL COMPLIANCE IS ACHIEVED.

3.5 CLEANING

A. RESTORE ADJACENT EXISTING AREAS THAT HAVE BEEN DAMAGED FROM THE CONSTRUCTION.

B. CLEAN PLAYGROUND EQUIPMENT OF CONSTRUCTION MATERIALS, DIRT, STAINS, FILINGS, AND BLEMISHES DUE TO SHIPMENT OR INSTALLATION. CLEAN IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, USING CLEANING AGENTS AS RECOMMENDED BY MANUFACTURER.

C. CLEAN PLAYGROUND AREA OF EXCESS CONSTRUCTION MATERIALS, DEBRIS, AND WASTE.

D. REMOVE EXCESS AND WASTE MATERIAL AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

3.6 PROTECTION

A. PROTECT INSTALLED PRODUCTS UNTIL SUBSTANTIAL COMPLETION.

B. REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.

END OF SECTION

PLAYGROUND PROTECTIVE SURFACING

PART 1--GENERAL

1.1 SECTION INCLUDES

A. PROTECTIVE SURFACING FOR PLAYGROUND AREA.

B. MAINTENANCE AND CLEANING INSTRUCTIONS

C. WARRANTY

1.2 RELATED REQUIREMENTS

A. SECTION 02 41 01 - TREE PRESERVATION: EXISTING TREE PROTECTION REQUIREMENTS.

1.3 REFERENCE STANDARDS

A. US CONSUMER PRODUCT SAFETY COMMISSION (CPSC) PUBLIC PLAYGROUND SAFETY HANDBOOK

B. ASTM C 136 - TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES; 2006.

C. ASTM F 1292 - STANDARD SPECIFICATION FOR IMPACT ATTENUATION OF SURFACING MATERIALS WITHIN THE USE ZONE OF PLAYGROUND EQUIPMENT; 2004.

D. ASTM F 1951 - STANDARD SPECIFICATION FOR DETERMINATION OF ACCESSIBILITY OF SURFACE SYSTEMS UNDER AND AROUND PLAYGROUND EQUIPMENT

E. ASTM F 1487 - STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE; 2007A.

F. ASTM F 2075 - STANDARD SPECIFICATION FOR ENGINEERED WOOD FIBER FOR USE AS A PLAYGROUND SAFETY SURFACE UNDER AND AROUND PLAYGROUND EQUIPMENT: 2004.

G. CPSC PUB. NO. 325 - HANDBOOK FOR PUBLIC PLAYGROUND SAFETY; CONSUMER PRODUCTS SAFETY COMMISSION; 2008.

H. IPEMA CERTIFICATIONS FOR MANUFACTURED PLAY EQUIPMENT AND SURFACING

1.4 DEFINITIONS

A. USE ZONE: THE AREA BENEATH AND IMMEDIATELY ADJACENT TO A PLAY STRUCTURE OR EQUIPMENT (PLAY EVENT) THAT IS DESIGNATED FOR UNRESTRICTED CIRCULATION AROUND EQUIPMENT, AND ON WHOSE SURFACE IT IS PREDICTED THAT A USER WOULD LAND WHEN FALLING FROM OR EXITING THE EQUIPMENT.

B. PROTECTIVE SURFACING: RESILIENT GROUND SURFACING. THE CHARACTERISTICS OF THE PROTECTIVE SURFACING ARE BASED ON THE FALL HEIGHT OF THE PLAYGROUND EQUIPMENT. CHANGES IN EITHER THE SURFACING OR THE FALL HEIGHT, PARTICULARLY REDUCING THE RESILIENCE OF THE PROTECTIVE SURFACING OR INCREASING THE FALL HEIGHT, WILL REDUCE SAFETY-RELATED PERFORMANCE.

C. SUBGRADE: THE SURFACE OF THE GROUND ON WHICH THE PROTECTIVE SURFACING IS INSTALLED.

1.5 SUBMITTALS

A. SEE SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS, FOR SUBMITTAL PROCEDURES.

B. PRODUCT DATA: FOR ALL SURFACING PRODUCTS, PROVIDE MANUFACTURER'S PRODUCT DATA SHOWING MATERIALS OF CONSTRUCTION, COMPLIANCE WITH SPECIFIED STANDARDS, INSTALLATION PROCEDURES, AND SAFETY LIMITATIONS.

1. INCLUDE IPEMA CERTIFICATIONS WHERE REQUIRED.
2. ASTM 1028 SKID RESISTANCE TEST ON APPLICABLE PRODUCTS.
3. MANUFACTURER'S TEST DATA CERTIFYING SPECIFIED DEPTH REQUIRED FOR PROPOSED EQUIPMENT FALL HEIGHTS.

C. SAMPLES:

1. FOR EACH PRODUCT FOR WHICH COLOR MUST BE SELECTED PROVIDE COLOR CHART SHOWING FULL RANGE OF COLORS AND ONE 6" X 6" SAMPLE FOR EACH PRODUCT WITH SPECIFIED TEXTURE, COLOR, AND THICKNESS.
2. 2 QUART SAMPLE OF ENGINEERED WOOD FIBER MATERIAL

D. MAINTENANCE DATA:

1. FOR MANUFACTURED SURFACING PRODUCTS, PROVIDE MANUFACTURER'S RECOMMENDED MAINTENANCE AND CLEANING INSTRUCTIONS AND LIST OF REPAIR PRODUCTS, WITH ADDRESS AND PHONE NUMBER OF SOURCE OF SUPPLY.
2. ATTENUATION DATA: IF CRITICAL FALL HEIGHT IS REQUIRED, ATTENUATION TEST RESULTS SHALL BE SUBMITTED BY THE INSTALLER TO THE OWNER PRIOR TO INSTALLATION OF THE SURFACE. THE RESULTS SHALL BE SUBMITTED ON LETTERHEAD OF THE INDEPENDENT TESTING LAB. IMPACT ATTENUATION RESULTS SHALL COMPLY WITH ASTM 1292 FOR THE CRITICAL FALL HEIGHT OF THE EQUIPMENT.

E. WARRANTY: SUBMIT MANUFACTURER'S WARRANTY.

1.6 QUALITY ASSURANCE

A. MAINTAIN ONE COPY OF THE LATEST EDITION OF ASTM F 1487 AND CPSC PUB. NO. 325 AT PROJECT SITE.

B. MANUFACTURER QUALIFICATIONS: COMPANY REGULARLY ENGAGED IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION, WITH NOT LESS THAN THREE YEARS OF EXPERIENCE.

1. SURFACING INSTALLED IN MINIMUM 10 SITES AND BEEN IN SUCCESSFUL SERVICE MINIMUM 5 YEARS.
2. MANUFACTURER'S REPRESENTATIVE: PROVIDE NAME, COMPANY NAME AND ADDRESS, AND QUALIFICATIONS.

C. INSTALLER QUALIFICATIONS: COMPANY CERTIFIED BY MANUFACTURER FOR TRAINING AND EXPERIENCE INSTALLING THE PROTECTIVE SURFACING; PROVIDE INSTALLER'S COMPANY NAME AND ADDRESS, AND TRAINING AND EXPERIENCE CERTIFICATE.

1.7 DELIVERY, STORAGE, AND HANDLING

A. DELIVERY: DELIVER MATERIALS TO SITE IN MANUFACTURER'S ORIGINAL, UNOPENED CONTAINERS AND PACKAGING, WITH LABELS CLEARLY IDENTIFYING PRODUCT NAME AND MANUFACTURER.

B. STORAGE: STORE MATERIALS IN A DRY, COVERED AREA, ELEVATED ABOVE GRADE AT A MINIMUM TEMPERATURE OF 40 DEGREES F.

C. HANDLING: PROTECT MATERIALS DURING HANDLING AND INSTALLATION TO PREVENT DAMAGE OR CONTAMINATION.

1.8 ENVIRONMENTAL REQUIREMENTS

A. MATERIAL TEMPERATURE: ENSURE MATERIAL TEMPERATURE IS A MINIMUM OF 40 DEGREES F AT TIME OF INSTALLATION.

B. AIR TEMPERATURE: ENSURE AIR TEMPERATURE IS A MINIMUM OF 40 DEGREES F FOR A MINIMUM OF 24 HOURS BEFORE, DURING, AND A MINIMUM OF 72 HOURS AFTER INSTALLATION.

C. PRECIPITATION: ENSURE NO PROSPECT OF PRECIPITATION DURING AND A MINIMUM OF 72 HOURS AFTER INSTALLATION.

1.9 LIMITATIONS

A. THE FOLLOWING CHEMICALS MAY CAUSE DAMAGE TO THE BONDED RUBBER EXERCISE SURFACING AND SHOULD BE AVOIDED: DISINFECTANTS, CONCENTRATED CHLORINE BLEACH, GASOLINE, DIESEL FUEL, HYDRAULIC AND LUBRICATING OILS, ACIDS AND ORGANIC SOLVENTS.

B. DISSOLVED MINERALS AND OTHER CHEMICALS SUCH AS HYDROCHLORIDES FROM WATER PLAY AREAS, POOL SURROUNDS AND SIMILAR APPLICATION MAY CAUSE SURFACE DISCOLORATION.

C. AN AMBER SHADING MAY BE NOTICEABLE WHEN USING STANDARD BINDING AGENT.

D. AREAS IN EXCESS OF 1,000 SQUARE FEET OR COMPOSED OF ADJACENT COLORS MAY CONTAIN A COLD JOINT OR SEAM DUE TO THE NATURE OF THE INSTALLATION PROCESS. LARGE AREAS OR ADJACENT COLORS REQUIRE THE MATERIALS TO BE INSTALLED ON SEPARATE DAYS.

1.10 WARRANTY

A. THE INSTALLED SURFACING SYSTEM SHALL BE WARRANTED BY THE MANUFACTURER AND INSTALLER FOR ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP LABOR FOR A PERIOD OF NO LESS THAN FIVE YEARS FROM FINAL ACCEPTANCE OF THE SURFACING BY THE OWNER AND LANDSCAPE ARCHITECT.

B. THE INSTALLED SURFACING SYSTEM SHALL BE WARRANTED BY THE MANUFACTURER AND THE INSTALLER FOR COLOR DEGRADATION AND FADING OF NOT LESS THAN 10% FOR A PERIOD OF NO LESS THAN FIVE YEARS FROM FINAL ACCEPTANCE OF THE SURFACING BY THE OWNER AND LANDSCAPE ARCHITECT.

C. THE WRITTEN AND DATED WARRANTY MUST BE SUBMITTED TO THE OWNER BY THE MANUFACTURER AND/OR INSTALLER PRIOR TO RECEIVING FINAL PAYMENT.

D.

PART 2--PRODUCTS

2.1 DESIGN CRITERIA

A. BECAUSE THE SAFETY OF THE RUBBERIZED SURFACE AREA DEPENDS ON STRICT CONFORMANCE TO THE DESIGN CRITERIA, THIS INFORMATION IS PROVIDED FOR CONTRACTOR'S INFORMATION.

1. THE TOP ELEVATION OF THE PROTECTIVE SURFACING IS INTENDED TO BE FLUSH WITH ADJACENT GRADES.

B. IF DEVIATION FROM SPECIFIED DEPTH IS REQUIRED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LANDSCAPE ARCHITECT. IN THE CASE OF IMPACTING EXISTING TREES, THE OWNER'S CERTIFIED ARBORIST SHALL ALSO BE CONTACTED. THE CONTRACTOR SHALL TO MAKE ALL CHANGES REQUIRED TO MAINTAIN SPECIFIED TOP ELEVATION AND REQUIRED IMPACT ATTENUATION AT NO EXTRA COST TO OWNER; OBTAIN APPROVAL PRIOR TO PROCEEDING WITH ANY DEVIATIONS OF SPECIFIED DEPTH; FOLLOW APPROVAL REQUEST PROCEDURE AS SPECIFIED FOR SUBSTITUTIONS.

2.2 MATERIALS

A. PLAYGROUND GRASS ULTRA:

1. MANUFACTURER: FOREVER LAWN OF OHIO, 4449 EASTON WAY, COLUMBUS, OH 43219, 844.614.8873, WWW.OHIO.FOREVERLAWN.COM OR APPROVED EQUAL.
2. DESCRIPTION: SINGLE-DENSITY, RESILIENT, SEAMLESS, BONDED RUBBER, PLAYGROUND SAFETY SURFACING
3. COMPLIANCE: MEET OR EXCEED CPSC GUIDELINES FOR IMPACT ATTENUATION
4. COLORS AS NOTED PER PLAN.
5. CONTRACTOR TO PROVIDE REPAIR KIT(S) FOR SPECIFIED SAFETY SURFACE. REPAIR KITS SHALL BE TURNED OVER TO OWNER FOR STORAGE

B. ENGINEERED WOOD FIBER

1. PRODUCT IS MANUFACTURED OF A GROUND WOOD FIBER COMPRISED OF SOFTWOODS AND/OR HARDWOODS, CONSISTING OF RANDOMLY SIZED WOOD FIBERS THE MAJORITY OF WHICH DO NOT EXCEED 2" IN LENGTH AND NO MORE THAN 15% FINES TO AID IN COMPACTION.
2. NON-TOXIC AND DOES NOT CONTAIN PAINT, CHEMICALS OR ADDITIVES
3. CONTAINS MINIMAL BARK AND IS FREE OF TWIGS, LEAF DEBRIS, AND OTHER ORGANIC MATERIALS.
4. PRODUCT DEPTH, AFTER INSTALLATION, MUST BE IN ACCORDANCE WITH THE PROCEDURE DESCRIBED IN ASTM F1292 AND MEET GUIDELINES FOR CRITICAL HEIGHT AS SET FORTH BY THE CONSUMER PRODUCT SAFETY COMMISSION FOR USE OF WOOD PRODUCTS FOR PROTECTIVE SURFACING.
5. MANUFACTURER BASIS OF DESIGN: GAMETIME GT IMPAX ENGINEERED WOOD FIBER OR APPROVED EQUAL.

C. NAILER

6. THE SYNTHETIC TURF CONTRACTOR WILL PROVIDE ALL NECESSARY NAILERS TO ATTACH THE SYNTHETIC TURF SYSTEM. ALL SIDES OF THE TURF AREA SHALL BE ATTACHED TO THE NAILER, AS SHOWN IN THE CONTRACT DOCUMENTS. ALL NECESSARY PADDING AND TURF SHALL COVER THE NAILER AND CURB.
7. THE TYPE OF NAILER BOARD SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. THE BOARD MUST BE ABLE TO FORM THE SMOOTH GEOMETRIES DETAILED IN THE CONTRACT DOCUMENTS. THE EDGES SHALL BE SMOOTH ARCS.
8. ALL NAILER FASTENERS SHALL BE STAINLESS STEEL.
9. NAILER WITH NO CONCRETE PERIMETER CURB SHALL HAVE REBAR SPACED EVERY 4' ON CENTER MINIMUM AND PLACED WHERE THEY DO NOT DAMAGE THE ROOTS OF EXISTING TREES.

D. CRUSHED AGGREGATE BASE

1. PER DRAWINGS.

E. CONCRETE BASE

1. PER CONCRETE SPECIFICATION.

PART 3--EXECUTION

3.1 EXAMINATION

A. EXAMINE AREAS TO RECEIVE PLAYGROUND SAFETY SURFACING. ENSURE ALL APPLICABLE SITE WORK, INCLUDING SUBSURFACE PREPARATION, FENCING, SITE FEATURE FOUNDATIONS, LIGHTING, SITE FURNISHINGS AND ALL OTHER RELEVANT WORK, HAS BEEN COMPLETED. NOTIFY OWNER IF AREAS ARE NOT ACCEPTABLE. DO NOT BEGIN INSTALLATION UNTIL UNACCEPTABLE CONDITIONS HAVE BEEN CORRECTED.

B. THE SURFACE TO RECEIVE THE SAFETY SURFACE SHALL BE INSPECTED BY THE INSTALLER, AND PRIOR TO THE BEGINNING OF INSTALLATION, THE INSTALLER MUST ACCEPT IN WRITING THE SUB-BASE SURFACE PLANARITY AND COMPACTION. THE SURFACE MUST BE PERFECTLY CLEAN AS INSTALLATION COMMENCES AND SHALL BE MAINTAINED IN THAT CONDITION THROUGHOUT THE PROCESS.

C. VERIFY LOCATION OF UNDERGROUND UTILITIES AND FACILITIES IN THE PLAYGROUND AREA. DAMAGE TO UNDERGROUND UTILITIES AND FACILITIES WILL BE REPAIRED AT CONTRACTOR'S EXPENSE.

D. VERIFY THAT SUBGRADES ARE AT PROPER ELEVATIONS AND THAT SMOOTH GRADING IS COMPLETE.

E. ASSURE MOUNTING DETAILS AND FOUNDATIONS OF EQUIPMENT ARE PROPERLY SET. TOPS OF FOUNDATIONS MUST BE BELOW THE BOTTOM OF REQUIRED SAFETY SURFACE DEPTH. CONCRETE MUST BE FINISHED SMOOTH WITHOUT POTENTIALLY HARMFUL IRREGULARITIES.

3.2 PREPARATION

A. PREPARE SUBSURFACE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO ENSURE PROPER SUPPORT AND DRAINAGE FOR SPECIFIED RUBBER PLAYGROUND SAFETY SURFACING. FINISHED ELEVATIONS OF SUBSURFACE SHALL BE AS INDICATED ON THE DRAWINGS. FINISHED ELEVATIONS OF ADJACENT AREAS/BORDERS/EDGING SHALL BE AS INDICATED ON THE DRAWINGS. SUBSURFACE SHALL BE INSTALLED IN A TRUE, EVEN PLANE AND SLOPED TO DRAIN UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

B. CORRECT SUBGRADE IRREGULARITIES TO ENSURE THAT REQUIRED DEPTH OF PROTECTIVE SURFACING CAN BE INSTALLED, AND SUBGRADE ELEVATION IS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

C. REMOVE ROCKS, DEBRIS, AND OTHER SIMILAR ITEMS.

D. AGGREGATE SUBSURFACE: PER THE DRAWINGS. THE COMPACTION OF THE AGGREGATE BASE SHALL BE 95%, ACCORDING TO THE MODIFIED PROCTOR PROCEDURE (ASTM D1557), AND THE SURFACE TOLERANCE SHALL NOT EXCEED 0-1/4 INCH OVER 10 FEET AND 0-1/2" FROM DESIGN GRADE.

E. CONCRETE SUBSURFACE: PER THE DRAWINGS.

F. BEFORE PLACING WOOD FIBER SURFACING, MARK PROPER DEPTH OF SURFACING ON ALL VERTICAL POSTS OF PLAY EQUIPMENT. THIS CAN BE DONE WITH PAINT OR PERMANENT LABELS PROVIDED BY THE PLAY EQUIPMENT MANUFACTURER. PLACE WOOD FIBER MATERIAL TO MEET OR EXCEED REQUIRED DEPTH.

3.3 INSTALLATION

A. ONCE SITE PREPARATION IS COMPLETE AND THERE ARE FAVORABLE CONDITIONS, INSTALL SYSTEMS PER MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY ADHERE TO THE INSTALLATION PROCEDURES OUTLINED UNDER THIS SECTION. ANY VARIANCE FROM THESE REQUIREMENTS MUST BE ACCEPTED IN WRITING, BY THE MANUFACTURER'S ON-SITE REPRESENTATIVE, AND SUBMITTED TO THE OWNER, VERIFYING THAT THE CHANGES DO NOT IN ANY WAY AFFECT THE WARRANTY.

B. INSTALL PROPER DEPTH THROUGHOUT USE ZONE(S). FOR WOOD FIBER SURFACE MATERIAL, MOUND IN THE CENTER OF THE PLAY AREAS OF THE PLAYGROUND. EXTRA MATERIALS SHOULD BE PROVIDED TO ALLOW FOR COMPACTION.

C. THE CARPET ROLLS ARE TO BE INSTALLED DIRECTLY OVER THE PROPERLY PREPARED BASE PER PLANS. EXTREME CARE SHOULD BE TAKEN TO AVOID DISTURBING THE AGGREGATE BASE, BOTH IN REGARD TO COMPACTION AND PLANARITY. SYNTHETIC TURF CONTRACTOR IS RESPONSIBLE FOR NECESSARY ELEVATION REPAIRS TO AGGREGATE.

D. THE FULL WIDTH ROLLS SHALL BE LAID OUT ACROSS THE TURF AREA. UTILIZING STANDARD MANUFACTURER'S RECOMMENDATIONS ON GLUE AND TAPED SEAMS, EACH ROLL SHALL BE ATTACHED TO THE NEXT.

E. TURF TO BE FASTENED TO NAILER BOARD WITH STAINLESS STEEL STAPLES. SPACING OF STAPLES PER MANUFACTURER'S RECOMMENDATION TO ENSURE A TIGHT AND SECURE CONNECTION.

F. INSTALL PROPER THICKNESS THROUGHOUT USE ZONE(S).

G. AT THE TIME OF INSTALLATION, SURFACE AND AIR TEMPERATURES MUST BE WITHIN THE RANGES SPECIFIED BY THE MATERIAL MANUFACTURER.

H. ALL MATERIALS SHALL BE PROTECTED FROM WEATHER AND OTHER DAMAGES PRIOR TO INSTALLATION, DURING INSTALLATION AND WHILE CURING.

I. COORDINATE THE TIMING OF INSTALLATION WITH OTHER CONSTRUCTION ACTIVITY SO AS TO PREVENT DAMAGE TO THE COMPLETED SAFETY SURFACING INSTALLATION BY SUBSEQUENT ACTIVITIES. PROTECT COMPLETED SURFACING WITH APPROPRIATE TEMPORARY COVERING AS REQUIRED TO PREVENT DAMAGE.

J. ADHERE SAFETY SURFACE TO CURB WHERE INDICATED WITH MANUFACTURER RECOMMENDED ADHESIVE AND STAINLESS STEEL MECHANICAL FASTENER IF RECOMMENDED BY MANUFACTURER.

K. INSTALL EDGES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND AS INDICATED ON THE DRAWINGS.

L. INSTALL COLD SEAMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

3.4 CLEANING

A. PROTECT INSTALLED SAFETY SURFACE FROM SUBSEQUENT CONSTRUCTION OPERATIONS.

B. DO NOT PERMIT TRAFFIC OVER UNPROTECTED FLOOR SURFACE.

C. CONTRACTOR SHALL PROVIDE THE LABOR, SUPPLIES, AND EQUIPMENT AS NECESSARY FOR FINAL CLEANING OF SURFACES AND INSTALLED ITEMS.

D. ALL USABLE REMNANTS OF NEW MATERIAL SHALL BECOME THE PROPERTY OF THE CINCINNATI PARK BOARD.

E. THE CONTRACTOR SHALL KEEP THE AREA CLEAN THROUGHOUT THE PROJECT AND CLEAR OF DEBRIS.

F. SURFACES, RECESSES, ENCLOSURES, ETC. SHALL BE CLEANED AS NECESSARY TO LEAVE THE WORK AREA IN A CLEAN, IMMACULATE CONDITION READY FOR IMMEDIATE OCCUPANCY AND USE BY THE OWNER.

3.5 FINISHING

A. FINAL GROOM: THE SYNTHETIC TURF CONTRACTOR WILL COMPLETE THE FINAL GROOMING OF THE SURFACE. THE FINAL GROOMING SHALL CONSIST OF FOUR PASSES BY GROOMING EQUIPMENT IN EACH OF THE FOUR DIRECTIONS. THIS PROCESS WILL ENSURE THAT THE SURFACE IS AVAILABLE AND SAFE FOR USE.

B. FINAL INSPECTION: THE CONTRACTOR WILL CONDUCT A FINAL INSPECTION OF THE SAFETY SURFACE WITH THE OWNER, GENERAL CONTRACTOR, AND LANDSCAPE ARCHITECT. DURING THIS INSPECTION THE ENTIRE SURFACE SHALL BE INSPECTED. THE SYNTHETIC TURF CONTRACTOR SHALL RECTIFY ANY CONCERNS REGARDING THE SURFACE TO THE GENERAL CONTRACTOR.

C. AFTER 30 DAYS, RE-APPLY WOOD FIBER SURFACING TO COMPENSATE FOR SETTLEMENT/COMPACTION.

D. UPON SUBSTANTIAL COMPLETION, PROVIDE OWNER WITH REPAIR KITS FOR EACH TYPE OF SYNTHETIC TURF FROM THE MANUFACTURER.

END OF SECTION 32 18 16

HARDSCAPE / MATERIALS NOTES

1. SEE CIVIL ENGINEER DRAWINGS FOR ALL GRADING, STORM WATER POLLUTION PREVENTION AND EROSION PREVENTION AND SEDIMENT CONTROL REQUIREMENTS.
2. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
3. 4'x4' MOCK-UP REQUIRED FOR ALL PAVING TYPES. MOCK-UP MAY ULTIMATELY BE PART OF FINISHED PAVED AREA IF APPROVED. REVIEW MOCK-UP WITH LANDSCAPE ARCHITECT.
4. DIGITAL LAYOUT INFORMATION PROVIDED BY CIVIL ENGINEER. SEE SITE GRADING SHEETS FOR MORE INFORMATION.
5. COORDINATE ALL SURFACE ELEMENTS OF ELECTRICAL UTILITIES & STORM DRAINAGE STRUCTURES WITH HARDSCAPE ELEMENTS; CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS AND AGREE UPON RESOLUTION(S) PRIOR TO EXECUTION OF THE WORK.
6. ALL CONCRETE TO BE LIGHT BROOM FINISH WITH NON-TOOLED EDGES. DIRECTION OF BROOM FINISH TO BE PERPENDICULAR PATHWAY. ALL EXTERIOR CONCRETE PAVING TO BE AIR ENTRAINED PER ASTM C260.
7. 1/2" EXPANSION JOINTS TO BE PLACED AT ALL FIXED FOUNDATIONS OR OBJECTS AND WHERE SHOWN ON PLAN.
8. PROVIDE CLEAR CURE AND SEAL ON STANDARD CONCRETE FINISH.
9. SUBMITTALS:

A. PRODUCT DATA: FOR THE FOLLOWING:

CONCRETE; JOINT MATERIAL; LIMESTONE STEPS AND FLAGSTONE STEPPING STONES.

B. QUALIFICATION DATA: CONTRACTOR TO DEMONSTRATE THEIR CAPABILITIES & EXPERIENCE. QUALIFICATION DATA SUBMITTAL TO INCLUDE LISTS OF COMPLETED PROJECTS WITH PROJECT NAMES AND ADDRESSES, NAMES AND ADDRESSES OF ARCHITECTS AND OWNERS, AND OTHER INFORMATION SPECIFIED.

C. MOCKUPS: BEFORE INSTALLING CONCRETE, BUILD MOCKUPS FOR EACH TYPE OF PAVEMENT REQUIRED TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND QUALITIES OF MATERIALS AND EXECUTION.

C.1. BUILD MOCKUPS USING MATERIALS INDICATED FOR THE COMPLETED WORK, INCLUDING SAME BASE CONSTRUCTION, SPECIAL FEATURES FOR EXPANSION JOINTS, AND CONTIGUOUS WORK AS INDICATED.

C.2. BUILD MOCKUPS IN THE LOCATION AND OF THE SIZE INDICATED, OR IF NOT INDICATED, AS DIRECTED BY LANDSCAPE ARCHITECT.

C.3. NOTIFY LANDSCAPE ARCHITECT SEVEN DAYS IN ADVANCE OF DATES AND TIMES WHEN MOCKUPS WILL BE CONSTRUCTED.

C.4. DEMONSTRATE THE PROPOSED RANGE OF AESTHETIC EFFECTS AND WORKMANSHIP.

C.5. OBTAIN LANDSCAPE ARCHITECT'S APPROVAL OF MOCKUPS BEFORE STARTING FINAL PAVEMENT INSTALLATION.

C.6. MAINTAIN MOCKUPS DURING CONSTRUCTION IN AN UNDISTURBED CONDITION AS A STANDARD FOR JUDGING THE COMPLETED WORK.

C.7. DEMOLISH AND REMOVE MOCKUPS WHEN DIRECTED.

C.8. APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

15. PROJECT CONDITIONS:

15.1. ESTABLISH AND MAINTAIN REQUIRED LEVELS AND GRADE ELEVATIONS. REVIEW INSTALLATION PROCEDURES AND COORDINATE PAVING WORK WITH OTHER WORK AFFECTED BY THE UNIT PAVING WORK.

15.2. COLD-WEATHER PROTECTION: DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST. DO NOT BUILD ON FROZEN SUBGRADE OR SETTING BEDS. REMOVE AND REPLACE UNIT PAVER WORK DAMAGED BY FROST OR FREEZING.

16. PROVIDE TEMPORARY BARRICADES AND WARNING LIGHTS AS REQUIRED FOR PROTECTION OF PROJECT WORK AND PUBLIC SAFETY.

17. PROTECT ADJACENT WORK FROM DAMAGE, SOILING AND STAINING DURING PAVING OPERATIONS.

18. REFERENCE STANDARDS

A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).

B. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.

C. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 2010.

D. ACI 306R - Cold Weather Concreting; American Concrete Institute International; 2010.

E. ASTM A185/A185M - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete; 2007.

F. ASTM A497/A497M - Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete; 2007.

G. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2012.

H. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2011a.

I. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2012a.

J. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2012.

K. ASTM C150/C150M - Standard Specification for Portland Cement; 2012.

L. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2010b.

M. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a.

N. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2011.

O. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2012.

P. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2012.

Q. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing; 2011.

R. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (non extruding and Resilient Bituminous Types); 2004 (Reapproved 2008).

S. ASTM D1752 - Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction; 2004a (Reapproved 2008).

19. ALL MATERIALS USED IN THE CONCRETE MIXTURE. THE PROPORTIONING AND MIXING SHALL CONFORM TO ODOT ITEM 499, 608 AND 609.

20. THE SUBGRADE SHALL BE SHAPED AND COMPACTED TO MEET THE REQUIREMENTS OF ODOT ITEM 203.

21. FORMS SHALL BE OF WOOD OR METAL AND EXTEND FOR THE FULL DEPTH OF THE CONCRETE, AND OF SUFFICIENT STRENGTH TO RESIST THE PRESSURE OF THE CONCRETE WITHOUT SPRINGING.

22. CON

SITE FURNISHINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. VILLAGE LOCK GATE
B. DRINKING FOUNTAIN
C. WATER DROPLET SCULPTURE
D. GRATES
E. TRENCH DRAIN AND GRATE
F. DETERRENT BOLLARD
G. PEDESTRIAN GUARDRAIL

1.2 RELATED REQUIREMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISIONS 1 THROUGH 33 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
B. ASTM A 53/A 53M - STANDARD SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED, WELDED AND SEAMLESS; 2000.
C. ASTM A 283/A 283M - STANDARD SPECIFICATION FOR LOW AND INTERMEDIATE TENSILE STRENGTH CARBON STEEL PLATES; 2000.
D. ASTM A 325 - STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT TREATED, 120/105 KSI MINIMUM TENSILE STRENGTH; 2000.
E. ASTM A 325M - STANDARD SPECIFICATION FOR HIGH-STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS (METRIC); 2000.
F. ASTM A 500 - STANDARD SPECIFICATION FOR COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES; 1999.
G. AWS D1.1 - STRUCTURAL WELDING CODE - STEEL; AMERICAN WELDING SOCIETY; 2002.

1.3 SUBMITTALS

A. SEE ADMINISTRATIVE REQUIREMENTS SECTION, FOR SUBMITTAL PROCEDURES.
B. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT SPECIFIED, INCLUDING DETAILED INSTALLATION DIAGRAMS AND RECOMMENDED INSTALLATION METHODS.
C. SELECTION SAMPLES: FOR EACH PRODUCT SPECIFIED, TWO SETS OF CHIPS REPRESENTING MANUFACTURER'S COLORS/FINISHES AS SPECIFIED.

PART 2 - PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

A. BASIS OF DESIGN: MANUFACTURERS LISTED ARE THE BASIS OF DESIGN OR APPROVED EQUAL. OTHER ALTERNATIVES WILL BE CONSIDERED ON A PRE-APPROVED BASIS ONLY.
B. BENCH
1. MANUFACTURER: DUMOR
P.O. BOX 142
MIFFLINTOWN, PA 17059
800-598-4018
WWW.DUMORE.COM
SALES@DUMORE.COM
2. MODEL: BENCH105-60PL
3. PLASTIC COLOR: REDWOOD; METAL COLOR: TEXTURED RUST
4. SIZE: 6'
C. TRASH RECEPTACLE
1. MANUFACTURER: DUMOR
P.O. BOX 142
MIFFLINTOWN, PA 17059
800-598-4018
WWW.DUMORE.COM
SALES@DUMORE.COM
2. MODEL: RECEPTACLE 44-22PL
3. PLASTIC COLOR: REDWOOD; METAL COLOR: TEXTURED RUST
4. SIZE: STANDARD

2.2 FABRICATION

A. SHOP ASSEMBLE SITE FURNISHINGS FOR DELIVERY TO SITE IN UNITS EASILY HANDLED AND TO PERMIT SHIPMENT WITHOUT DISASSEMBLY.
B. ENSURE THAT WORK IS SMOOTH AND FREE OF EDGES THAT COULD SNAG CLOTHING OR CAUSE INJURY.

PART 3 - EXECUTION

3.1 EXAMINATION

A. QUANTITY OF UNITS ARE AS SHOWN ON DRAWINGS.
B. DO NOT BEGIN INSTALLATION UNTIL REQUIRED UTILITIES/HOOK-UPS, FOUNDATIONS AND/OR PAVING SURFACES HAVE BEEN PROPERLY PREPARED.
C. IF PREPARATION IS THE RESPONSIBILITY OF ANOTHER CONTRACTOR/INSTALLER, NOTIFY LANDSCAPE ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.

3.2 INSTALLATION

A. LOCATE ALL FURNISHINGS AS INDICATED ON DRAWINGS AND NOTIFY LANDSCAPE ARCHITECT AT LEAST ONE WEEK BEFORE MOUNTING IN THE EVENT THAT FIELD ADJUSTMENTS ARE REQUIRED.
B. REVIEW ALL FURNISHINGS LOCATIONS WITH LANDSCAPE ARCHITECT PRIOR TO FINAL INSTALLATION/MOUNTING.
C. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
D. MOUNTING HARDWARE IS TO BE TOUCHED UP WITH TOUCH UP PAINT FROM THE MANUFACTURER.
E. ALL MOUNTING FASTENERS TO BE STAINLESS STEEL OR HOT-DIP GALVANIZED UNLESS OTHERWISE APPROVED.

3.3 PROTECTION

A. PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT.
B. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS AFTER SUBSTANTIAL COMPLETION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY REPAIRS DEEMED UNSUITABLE.
C. PROVIDE TOUCH-UP PAINT AND MATERIALS TO OWNER AFTER SUBSTANTIAL COMPLETION.

END OF SECTION

PLANTING PREPARATION

PART 1 - GENERAL

1.1 SUMMARY

A. WORK INCLUDED; FURNISHING, PREPARATION AND PLACING OF SOIL ASSOCIATED WITH DISTURBED OR NEW VEGETATED AREAS.
B. FURNISH ALL LABOR, MATERIALS, FACILITIES, TRANSPORTATION, TESTING AND SERVICES TO COMPLETE ALL CONSTRUCTION AND INSTALLATION OF ALL SOIL TYPES AND RELATED WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

1.2 RELATED SECTIONS AND DIVISIONS

A. APPLICABLE PROVISIONS OF DIVISION 1 SHALL GOVERN WORK IN THIS SECTION.
B. SECTION 31 00 00 - EARTHWORK.
C. SECTION 31 23 33 - TRENCHING AND BACKFILLING.
D. SECTION 32 92 23 - SODDING.
E. SECTION 32 93 00 - EXTERIOR PLANTS.
F. SUBMITTALS ARE INCLUDED IN SECTION 01 33 00.

1.3 REFERENCES

A. STANDARD SPECIFICATIONS: UNLESS OTHERWISE NOTED, STANDARD SPECIFICATIONS WITHIN THIS SECTION SHALL REFER TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, INCLUDING ALL ISSUED SUPPLEMENTAL SPECIFICATIONS
B. THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATIONS TO THE EXTENT REFERENCED. THE PUBLICATIONS ARE REFERRED TO IN THE TEXT BY THE BASIC DESIGNATION ONLY.
1. ASTM D4427-92 - STANDARD CLASSIFICATION OF PEAT SAMPLES BY LABORATORY TESTING
2. ASTM C136 - SIEVE ANALYSIS OF FINE & COARSE AGGREGATES
3. ASTM D3665 - RANDOM SAMPLING OF CONSTRUCTION MATERIALS
4. ASTM D2487-00 - STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM)
5. ASTM D854-02 - STANDARD TEST METHODS FOR SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER
6. ASTM D2974-00 - STANDARD TEST METHODS FOR MOISTURE, ASH AND ORGANIC MATTER OF PEAT AND OTHER ORGANIC SOILS
7. ASTM F1632-02 - STANDARD TEST METHOD FOR PARTICLE SIZE ANALYSIS AND SAND SHAPE GRADING OF GOLF COURSE PUTTING GREENS AND SPORTS FIELD ROOTZONE MIXES
8. ASTM F1647-02 - STANDARD TEST METHODS FOR ORGANIC MATTER CONTENT OF PUTTING GREENS AND SPORTS FIELD ROOT ZONE MIXES (METHOD A & B)
C. USDA SOIL TEXTURE CLASSIFICATION

SOIL PARTICLE	SIZE RANGE
SAND	0.05 MM TO < 2.0MM
SILT	0.05 MM TO 0.002 MM
CLAY	<0.002 MM

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1.4 DEFINITIONS

A. WHEN USED WITHIN THIS SPECIFICATION, THE FOLLOWING DEFINITIONS SHALL APPLY:
OWNER'S TESTING AGENCY - AN INDEPENDENT LABORATORY, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN USDA AGRICULTURAL SOIL TESTING, PLANTING SOIL MIXES, AND THE TYPES OF TESTS TO BE PERFORMED.
FINISH GRADE: ELEVATION OF FINISHED SURFACE OF A PLANTING MIX.
B. SUBGRADE: SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER COMPLETING EXCAVATION OR BACKFILL OF SOILS OR OTHER MATERIALS IMMEDIATELY BENEATH THE PLANTING MIX
C. COMPOST: AN ORGANIC MATERIAL THAT HAS BEEN AEROBICALLY COMPOSTED AND STABILIZED FROM FEEDSTOCKS SUCH A GREEN WASTE (YARD DEBRIS) OR OTHER SUITABLE ORGANIC MATERIALS
D. HARDSCAPE: ALL STRUCTURAL AND FIXED ITEMS SUCH AS CONCRETE, CUT STONE, PAVING MATERIALS, LIGHTING FIXTURES, BENCHES AND OTHER FABRICATED ITEMS.
E. DEBRIS: ELEMENTS INCLUDING, BUT NOT LIMITED TO, CONCRETE, CONCRETE MASONRY, WOOD, EXCAVATED ROCK AND ROCK FRAGMENTS, RUBBLE, OVERBURDEN SOILS, ABANDONED UTILITY STRUCTURES, TRASH, REFUSE AND LITTER.

1.5 SUBMITTALS

A. CONFORM TO REQUIREMENTS OF APPLICABLE DIVISION ONE AND DIVISION TWO SPECIFICATIONS, GENERAL CONDITIONS AND SPECIAL PROVISIONS
B. BIDDER QUALIFICATIONS: CONTRACTOR SHALL BE ACTIVELY AND DIRECTLY ENGAGED IN CONSTRUCTING NATURAL GRASS AND ESTABLISHING PLANTING BEDS FOR A PERIOD OF FIVE (5) OR MORE YEARS. PROVIDE PROOF OF THREE (3) SUCH INSTALLATIONS THAT HAVE BEEN IN USE FOR THREE (3) OR MORE YEARS. SEE 1.06.A FOR CONTRACTOR QUALIFICATION REQUIREMENTS AND SUBMIT DOCUMENTATION TO SUPPORT THOSE QUALIFICATIONS.
1. ANY CONTRACTOR NOT ABLE TO MEET THE ABOVE REQUIREMENT SHALL SUBMIT A STATEMENT OF CONSIDERATIONS THAT MAY QUALIFY HIM/HER AS A QUALIFIED BIDDER. ITEMS INCLUDE, BUT ARE NOT LIMITED TO:
a. DESCRIPTION OF SIMILAR TYPE CONSTRUCTION EXPERIENCE WITH NAMES AND PHONE NUMBERS OF CLIENT CONTACT, DATE OF INSTALLATION, ETC.
b. RESUMES OF PERSONNEL TO BE USED ON PROJECT.
c. LISTING OF TYPE OF EQUIPMENT TO BE USED ON CONSTRUCTION.
2. PROJECTED SCHEDULE: ALL CONTRACTORS SHALL SUBMIT A PROPOSED SCHEDULE FOR THE PROJECT.
3. THE LANDSCAPE ARCHITECT SHALL REVIEW THIS INFORMATION FOR ACCEPTANCE OR REJECTION OF THE PROPOSED CONTRACTOR.
C. PRE-CONSTRUCTION SOILS ANALYSIS: PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO ORDERING:
SOIL COMPOSITION, NUTRIENT AND PH ANALYSIS BY A QUALIFIED SOIL-TESTING LABORATORY FOR TEST CRITERIA LISTED IN SECTION 2 FOR ALL SOIL TYPES. A MINIMUM OF TWO SAMPLES FROM EACH DIFFERENT SOIL AREA AND TYPE AND FROM EACH ON-SITE STOCKPILE SOURCE AND IMPORTED SOIL SOURCE IS REQUIRED. THE LABORATORY ANALYSIS CRITERIA FOR THE ACCEPTED SUBMITTALS WILL BECOME THE BASELINE FOR THE ACCEPTANCE OR REJECTION OF MATERIALS SUBMITTED DURING THE QUALITY CONTROL PHASE OF THE PROJECT DURING CONSTRUCTION.
1. REPORT SUITABILITY OF SOILS FOR PLANT GROWTH. STATE RECOMMENDED QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY SOIL FOR EACH PLANTING TYPE (TURF, PERENNIALS, NATIVES, WOODY PLANT MATERIAL, ETC.).
2. SUBMIT SAMPLES A MINIMUM OF 8 WEEKS PRIOR TO THE ANTICIPATED DATE OF THE START OF SOIL INSTALLATION.
3. LOCATION OF SOURCE(S) OF THE MATERIAL AND PAST USE OF EACH OF THE SOURCE(S) SHALL BE PROVIDED WITH THE SUBMITTAL FOR REVIEW.
D. TESTING DURING CONSTRUCTION: IF THERE APPEARS TO BE ANY CHANGE IN SOIL MATERIAL FROM POINT OF SUPPLY AND/OR PRE-CONSTRUCTION SOIL ANALYSIS TO ON-SITE INSTALLATION, THE OWNER AND LANDSCAPE ARCHITECT RESERVE THE RIGHT TO REQUIRE AN IN-SITU SOIL TEST OF THE IMPORTED SOIL AT THE COST OF THE CONTRACTOR. IF THIS SHALL BE ENFORCED, THE FOLLOWING PROTOCOL SHALL BE FOLLOWED: CONTRACTOR SHALL SUBMIT A ONE-GALLON SAMPLE OF EACH DIFFERENT SOIL TYPE IN SITU AT THE PROPER LOCATION AND DEPTH AS INDICATED IN THE DRAWINGS TO THE PHYSICAL TESTING LABORATORY. THESE SAMPLES WILL THEN BE COMPARED WITH THE APPROVED MATERIAL FROM THE PRE-CONSTRUCTION BASELINE TESTING.
1. PAYMENT FOR ALL TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY TEST WHICH MUST BE REPEATED ON MATERIALS THAT HAVE FAILED TO MEET SPECIFICATIONS OR ARE AS A RESULT OF SHORTAGES WILL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT COPIES OF ALL SUBMITTAL FORMS AND TESTING RESULTS FROM THE TESTING LABORATORY TO THE LANDSCAPE ARCHITECT AND OWNER.
E. APPROVED TESTING AGENTS - THE FOLLOWING FIRM IS AN ACCEPTABLE TESTING AGENCY FOR THE VARIOUS COMPONENTS. OTHER LABORATORIES WILL NEED APPROVAL FOR MATERIAL TESTING PRIOR TO TESTING.
CLC LABS
325 VENTURE DRIVE
WESTERVILLE, OH 43081
PHONE: 614-888-1663
FAX: 614-888-1330
CONTACT: CLCLABS@AOL.COM

ALL SOIL ANALYSIS TESTING SHALL BE PERFORMED ON THE MOST CURRENT, UP-TO-DATE SAMPLES OF SOILS BEING PREPARED FOR USE ON THE CURRENT PROJECT AND WITHIN 6 MONTHS OF INSTALLATION. TEST REPORTS MUST INCLUDE: DATE ISSUED, PROJECT TITLE AND NAMES OF CONTRACTOR AND SUPPLIER, LOCATION OF MATERIAL SOURCE AND TESTING LABORATORY NAME, ADDRESS AND TELEPHONE NUMBER WITH NAME(S) AS APPLICABLE OF LABORATORY CONTACT. OUT OF DATE OR PREVIOUS TESTING RESULTS FROM OUT-OF-DATE STOCKPILES OR PREVIOUS SUPPLIER SOURCES ARE NOT ACCEPTABLE.

F. SOIL ANALYSIS REQUIREMENT APPLIES TO ALL SOIL TYPES WITHIN THIS PROJECT, INCLUDING IMPORT SOILS AND ONSITE SOILS.
G. SUBMIT PRODUCT DATA ON ALL PRE-MANUFACTURED SOIL MIXES AND PRODUCT LITERATURE SHOWING CERTIFIED CHEMICAL ANALYSIS OF ALL SOIL AMENDMENTS.

1.6 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: THE INSTALLER SHALL BE A FIRM HAVING AT LEAST 5 YEARS OF EXPERIENCE OF A SCOPE SIMILAR TO THAT REQUIRED FOR THE WORK, INCLUDING THE PREPARATION, MIXING AND INSTALLATION OF SOIL MIXES TO SUPPORT PLANTING.
1. THE BIDDERS LIST FOR WORK UNDER THIS SECTION SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
2. INSTALLER FIELD SUPERVISION: WHEN ANY TOPSOIL PLANTING SOIL OR BIORETENTION SOIL WORK IS IN PROGRESS, INSTALLER SHALL MAINTAIN, ON SITE, AN EXPERIENCED FULL-TIME SUPERVISOR WHO CAN COMMUNICATE IN ENGLISH WITH THE LANDSCAPE ARCHITECT.
3. INSTALLER'S FIELD SUPERVISOR SHALL HAVE A MINIMUM OF FIVE YEARS' EXPERIENCE AS A FIELD SUPERVISOR INSTALLING SOIL, SHALL BE TRAINED AND PROFICIENT IN THE USE OF FIELD SURVEYING EQUIPMENT TO ESTABLISH GRADES AND CAN COMMUNICATE IN ENGLISH WITH THE LANDSCAPE ARCHITECT.
4. THE INSTALLER'S CREW SHALL BE EXPERIENCED IN THE INSTALLATION OF PLANTING SOIL, PLANTINGS, AND IRRIGATION (WHERE APPLICABLE) AND INTERPRETATION OF PLANTING PLANS, SOIL INSTALLATION PLANS, AND IRRIGATION PLANS (WHERE APPLICABLE).
5. SUBMIT REFERENCES OF PAST PROJECTS AND EMPLOYEE TRAINING CERTIFICATIONS THAT SUPPORT THAT THE CONTRACTORS MEET ALL OF THE ABOVE INSTALLER QUALIFICATIONS AND APPLICABLE LICENSURES.
B. SOIL TESTING LABORATORY QUALIFICATIONS: AN INDEPENDENT LABORATORY, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN USDA AGRICULTURAL SOIL TESTING, PLANTING SOIL MIXES, AND THE TYPES OF TESTS TO BE PERFORMED.
C. ALL ON-SITE, DELIVERED AND INSTALLED SOILS SHALL CONFORM TO THE APPROVED SUBMITTALS SAMPLE COLOR, TEXTURE AND APPROVED TEST ANALYSIS.
1. IF SOIL CONDITIONS APPEAR TO CHANGE DURING INSTALLATION, THE OWNER OR LANDSCAPE ARCHITECT MAY REQUEST SAMPLES OF THE DELIVERED OR INSTALLED SOIL BE TESTED FOR ANALYSIS TO CONFIRM THE SOIL CONFORMS TO THE APPROVED MATERIAL. THIS WOULD BE IN ADDITION TO THE REQUIRED IN SITU SOIL TESTS.
2. ALL TESTING SHALL BE PERFORMED BY THE SAME SOIL LAB THAT PERFORMED THE ORIGINAL SOIL TESTING.
3. ANY SOIL THAT FAILS TO MEET THE ABOVE CRITERIA, IF REQUESTED BY THE OWNER OR LANDSCAPE ARCHITECT, SHALL BE REMOVED AND NEW SOIL INSTALLED.
D. SOIL COMPACTION TESTING: FOLLOWING INSTALLATION OR MODIFICATION OF SOILS, THE ACCEPTABLE COMPACTION LEVEL SHALL BE WITHIN THE RANGE OF 75-85% BY STANDARD PROCTOR METHOD.

1.7 SITE CONDITIONS

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE AND SUBSURFACE CONDITIONS, AND TO NOTIFY THE LANDSCAPE ARCHITECT, IN WRITING, OF ANY CIRCUMSTANCES THAT WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
1. SHOULD SUBSURFACE DRAINAGE OR SOIL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO GROWTH OR SURVIVAL OF PLANT MATERIAL, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING, STATING THE CONDITIONS AND SUBMIT A PROPOSAL COVERING COST OF CORRECTIONS. IF THE CONTRACTOR FAILS TO NOTIFY THE LANDSCAPE ARCHITECT OF SUCH CONDITIONS, THEY SHALL REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTEE CLAUSE OF THE SPECIFICATIONS.
B. PLANTING AREAS CONSTRUCTION OPERATIONS SHALL NOT BE CONDUCTED UNDER THE FOLLOWING CONDITIONS:
1. FREEZING WEATHER
2. HIGH WINDS
3. EXCESSIVELY WET CONDITIONS.

1.8 DELIVERY, STORAGE, AND HANDLING

A. GENERAL:
1. HANDLE AND STORE ALL PRODUCTS OF THIS SECTION IN SUCH A MANNER AS TO PROTECT THEM FROM DAMAGE AT ALL TIMES.
2. STORAGE OF PRODUCTS ON-SITE SHALL BE COORDINATED BY THE CONTRACTOR IN AN ORDERLY MANNER SO AS NOT TO UNNECESSARILY IMPEDE THE WORK OR REASONABLE USE OF THE PROJECT SITE.
B. FERTILIZERS:
1. DELIVER IN ORIGINAL, UNOPENED CONTAINERS WITH ORIGINAL LABELS INTACT AND LEGIBLE WHICH STATE THE GUARANTEED CHEMICAL ANALYSIS.
C. BULK MATERIAL:
1. COORDINATE DELIVERY AND STORAGE OF BULK MATERIAL WITH LANDSCAPE ARCHITECT.
2. CONFINE MATERIALS TO NEAT PILES IN AREAS ACCEPTABLE TO LANDSCAPE ARCHITECT.

1.9 GUARANTY

A. ALL WORK EXECUTED AND ALL MATERIALS PROVIDED UNDER OR USED UNDER THIS SECTION SHALL BE GUARANTEED TO BE FREE OF DEFECTS AND POOR WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.
B. REPAIR ALL DEFECTIVE MATERIALS AND WORK AS ACCEPTABLE TO THE LANDSCAPE ARCHITECT DURING GUARANTY PERIOD.

PART 2 - PRODUCTS

2.1 MATERIALS

A. SOIL TYPE 1 - EXISTING SOIL TO BE REUSED FOR ALL TURF AREAS. THE FOLLOWING PERFORMANCE CRITERIA IS TO BE USED ONLY IF THERE BECOMES INSUFFICIENT EXISTING SOIL QUANTITIES:
1. A LOAMY, FRIABLE MINERAL SOIL ESSENTIALLY FREE FROM HEAVY OR STIFF CLAY LUMPS, STONES, CINDERS, CONCRETE, BRICK, ROOTS, STICKS BRUSH, LITTER, PLASTICS, METALS, REFUSE OR OTHER DELETERIOUS MATERIALS IN ACCORDANCE WITH ASTM D 5286-92. THE SOIL SHALL BE FREE OF HERBICIDES, PETROLEUM-BASED MATERIALS OR OTHER SUBSTANCES OF A HAZARDOUS OR TOXIC NATURE WHICH MAY INHIBIT PLANT GROWTH. THE SOIL SHALL BE FREE OF NOXIOUS WEEDS, SEEDS OR VEGETATIVE PARTS OF WEEDY PLANTS THAT CANNOT BE SELECTIVELY CONTROLLED IN THE PLANTING. LOCATION OF SOURCE(S) OF THE MATERIAL AND PAST USE OF EACH OF THE SOURCE(S) SHALL BE PROVIDED WITH THE SUBMITTAL FOR REVIEW.
2. THE SOIL SHALL BE TAKEN FROM THE A HORIZON OF A WELL-DRAINED SITE AND HAVE A USDA SOIL TEXTURE CLASSIFICATION OF CLAY LOAM TO LOAM WITHIN THE ALLOWABLE LIMITS IN THE CHART BELOW. THE ORGANIC CONTENT AND PARTICLE SIZE DISTRIBUTION SHALL BE THE RESULT OF NATURAL SOIL FORMATION. THE TOPSOIL SHALL HAVE THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

USDA particle name	size (mm)	allowable limit
Gravel	2.00-4.75	less than 5%
Sand	0.05-2.00	40-80%
Silt	0.002-0.05	10-50%
Clay	minus 0.002	10-25%

a. THE TOPSOIL SHALL MEET THE FOLLOWING SPECIFICATIONS. PERFORM THE FOLLOWING TESTS AND SUBMIT TEST REPORTS SHOWING THE FOLLOWING CRITERIA ARE MET:
i. THE USDA SOIL TEXTURE AS DEFINED ABOVE.
ii. THE PARTICLE SIZE ANALYSIS AS DEFINED ABOVE.
iii. THE PH SHALL BE 5.5 TO 7.8.
iv. THE SOLUBLE SALTS SHALL BE LESS THAN 1.5 MMOH/CM.
v. THE ORGANIC MATTER CONTENT SHALL BE 3.0 TO 6.0 PERCENT.
b. PROVIDE CERTIFICATION FROM THE SUPPLIER THAT THE TOPSOIL DOES NOT CONTAIN ANY TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH.
c. OFF-SITE (BORROW) TOPSOILS MEETING THE CRITERIA SHOWN ABOVE MUST BE USED FOR THE PLANTING MIX AND THEIR SOURCE OR LOCATION COMMUNICATED TO THE LANDSCAPE ARCHITECT.
d. SOIL NUTRIENT/ PH ANALYSIS TO BE PERFORMED BY AN AGRONOMIC SOIL TESTING AGENCY; APPLY & INCORPORATE ANY RECOMMENDED FERTILIZERS OR SOIL AMENDMENTS TO ACHIEVE PROPER GROWING CONDITIONS. TESTING FOR TOPSOIL SUITABILITY TO MEET THESE SPECIFICATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR. RESULTS TO BE SUPPLIED TO LANDSCAPE ARCHITECT AND OWNER.
3. TOPSOIL FROM THE SITE MAY BE USED IF IT MEETS THE ABOVE REQUIREMENTS. ADDITIONAL TOPSOIL SHALL BE PROVIDED AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. TOPSOIL STOCKPILED FROM THE SITE SHALL BE TESTED AND AMENDED PER THE RECOMMENDATIONS OF THE TESTING AGENCY TO MEET THE ABOVE REQUIREMENTS.
4. IN PLANTING AREAS UNDER EXISTING TREE DRIPLINES USE ONLY NATIVE TOPSOIL FOR BACKFILL UNLESS OTHERWISE NOTED IN DRAWINGS. IF NO NATIVE TOPSOIL IS AVAILABLE IN THESE AREAS, USE PLANTING SOIL TYPE 1.

B. SOIL TYPE 2
1) SUPERSOIL BY EVANS LANDSCAPING, OR APPROVED EQUAL, 3700 ROUNDBOTTOM ROAD, CINCINNATI, OH 45244, 513.271.1119
a. PROVIDE CERTIFICATION FROM THE SUPPLIER THAT THE SOIL DOES NOT CONTAIN ANY TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH.
b. SOIL COMPOSITION, NUTRIENT AND PH ANALYSIS TO BE PERFORMED BY AN AGRONOMIC SOIL TESTING AGENCY. RESULTS TO BE SUPPLIED TO LANDSCAPE ARCHITECT AND OWNER.

C. TOPSOIL SUPPLY & SOURCES
1. ADEQUATE QUANTITIES OF TOPSOIL MATERIALS SHALL BE PROVIDED TO ATTAIN, AFTER COMPACTION AND NATURAL SETTLEMENT, ALL DESIGN FINISH GRADES. VERIFY QUANTITIES FOR PLACEMENT AS SPECIFIED TO SUIT SITE CONDITIONS.
2. STOCKPILES SHOULD BE NO MORE THAN 6 FEET IN HEIGHT TO PREVENT ANAEROBIC CONDITIONS WITHIN THE PILE.

2.2 INORGANIC SOIL AMENDMENTS

A. LIME: ASTM C 602, AGRICULTURAL LIMESTONE CONTAINING A MINIMUM 80 PERCENT CALCIUM CARBONATE EQUIVALENT AND AS FOLLOWS: ANY APPLICATION OF LIME RECOMMENDED BY CONTRACTOR MUST BE SUBSTANTIATED BY LAB TESTS RESULTS APPROVED BY LANDSCAPE ARCHITECT.
1. CLASS: CLASS T, WITH A MINIMUM 99 PERCENT PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM 75 PERCENT PASSING THROUGH NO. 60 (0.25-MM) SIEVE.
2. CLASS: CLASS O, WITH A MINIMUM 95 PERCENT PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM 55 PERCENT PASSING THROUGH NO. 60 (0.25-MM) SIEVE.
3. PROVIDE LIME IN FORM OF DOLOMITIC LIMESTONE.
B. SULFUR: GRANULAR, BIODEGRADABLE, CONTAINING A MINIMUM OF 90 PERCENT SULFUR, WITH A MINIMUM 99 PERCENT PASSING THROUGH NO. 6 (3.35-MM) SIEVE AND A MAXIMUM 10 PERCENT PASSING THROUGH NO. 40 (0.425-MM) SIEVE.
C. IRON SULFATE: GRANULATED FERROUS SULFATE CONTAINING A MINIMUM OF 30-35 PERCENT IRON AND 30-50 PERCENT SULFUR AND SUPPLIED BY A COMMERCIAL FERTILIZER SUPPLIER.
D. ALUMINUM SULFATE: COMMERCIAL GRADE, UNADULTERATED.
E. PERLITE: HORTICULTURAL PERLITE, SOIL AMENDMENT GRADE.
F. AGRICULTURAL GYPSUM: FINELY GROUND, CONTAINING A MINIMUM OF 90 PERCENT CALCIUM SULFATE.
G. SAND: CLEAN, WASHED, NATURAL OR MANUFACTURED, FREE OF TOXIC MATERIALS.
H. DIATOMACEOUS EARTH: CALCINED, DIATOMACEOUS EARTH, 90 PERCENT SILICA, WITH APPROXIMATELY 140 PERCENT WATER ABSORPTION CAPACITY BY WEIGHT.
I. ZEOLITES: MINERAL CLINOPTILOLITE WITH AT LEAST 60 PERCENT WATER ABSORPTION BY WEIGHT.
J. HYDROGEL: "SOIL MOIST"(TM) HYDRO BY JRM CHEMICAL INC. (1-800-962-4010) OR APPROVED EQUAL. APPLIED AND MIXED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

2.3 ORGANIC SOIL AMENDMENTS

A. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH (19-MM) SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS; AND AS FOLLOWS:
1. ORGANIC MATTER CONTENT: 50 PERCENT OF DRY WEIGHT.
2. FEEDSTOCK: AGRICULTURAL, FOOD, OR INDUSTRIAL RESIDUALS, BIOSOLIDS; YARD TRIMMINGS; OR SOURCE-SEPARATED OR COMPOSTABLE MIXED SOLID WASTE.
B. PEAT: SPHAGNUM PEAT MOSS, PARTIALLY DECOMPOSED, FINELY DIVIDED OR GRANULAR TEXTURE, WITH A PH RANGE OF 3.1 TO 5.0.
C. PEAT: FINELY DIVIDED OR GRANULAR TEXTURE, WITH A PH RANGE OF 6 TO 7.5, CONTAINING PARTIALLY DECOMPOSED MOSS PEAT, NATIVE PEAT, OR REED-SEDGE PEAT AND HAVING A WATER-ABSORBING CAPACITY OF 1100 TO 2000 PERCENT.
D. WOOD DERIVATIVES: DECOMPOSED, NITROGEN-TREATED SAWDUST, GROUND BARK, OR WOOD WASTE; OF UNIFORM TEXTURE, FREE OF CHIPS, STONES, STICKS, SOIL, OR TOXIC MATERIALS.
1. IN LIEU OF DECOMPOSED WOOD DERIVATIVES, MIX PARTIALLY DECOMPOSED WOOD DERIVATIVES WITH AT LEAST 0.15 LB (2.4 KG) OF AMMONIUM NITRATE OR 0.25 LB (4 KG) OF AMMONIUM SULFATE PER CUBIC FOOT (CUBIC METER) OF LOOSE SAWDUST OR GROUND BARK.
E. MANURE: WELL-ROTTED, UNLEACHED, STABLE OR CATTLE MANURE CONTAINING NOT MORE THAN 25 PERCENT BY VOLUME OF STRAW, SAWDUST, OR OTHER BEDDING MATERIALS; FREE OF TOXIC SUBSTANCES, STONES, STICKS, SOIL, WEED SEED, AND MATERIAL HARMFUL TO PLANT GROWTH.

2.4 FERTILIZER

A. DO NOT APPLY ANY FERTILIZER OTHER THAN COMPOST TO ANY AREA TO BE INSTALLED WITH PLANT PLUGS.
B. CONTAINING FIFTY PERCENT OF THE ELEMENTS DERIVED FROM ORGANIC SOURCE; OF PROPORTION NECESSARY TO ELIMINATE AND DEFICIENCIES OF TOPSOIL, AS INDICATED IN ANALYSIS.
C. BONEMEAL: COMMERCIAL, RAW OR STEAMED, FINELY GROUND; A MINIMUM OF 4 PERCENT NITROGEN AND 20 PERCENT PHOSPHORIC ACID.
D. SUPERPHOSPHATE: COMMERCIAL, PHOSPHATE MIXTURE, SOLUBLE; A MINIMUM OF 20 PERCENT AVAILABLE PHOSPHORIC ACID.
E. COMMERCIAL FERTILIZER: COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF FAST- AND SLOW-RELEASE NITROGEN, 50 PERCENT DERIVED FROM NATURAL ORGANIC SOURCES OF UREA FORMALDEHYDE, PHOSPHOROUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION:
F. COMPOSITION: NITROGEN, PHOSPHOROUS, AND POTASSIUM IN AMOUNTS RECOMMENDED IN SOIL REPORTS FROM A QUALIFIED SOIL-TESTING AGENCY.
G. SLOW-RELEASE FERTILIZER: GRANULAR OR PELLETED FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION:
H. COMPOSITION: NITROGEN, PHOSPHOROUS, AND POT

2.7 MULCHES

A. ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS, LOCALLY HARVESTED AND PRODUCED, AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, ALL PLANTING BEDS AND TREE PLANTINGS NOT IN PAVEMENT SHALL BE TOPDRESSED WITH 2" OF APPROVED HARDWOOD MULCH.

2.8 MISCELLANEOUS PRODUCTS

A. ANTIDESSICANT: WATER-INSOLUBLE EMULSION, PERMEABLE MOISTURE RETARDER, FILM FORMING, FOR TREES AND SHRUBS. DELIVER IN ORIGINAL, SEALED, AND FULLY LABELED CONTAINERS AND MIX ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

PART 3 - EXECUTION

3.1 SITE EXAMINATION

A. PRIOR TO INSTALLATION OF SOILS, EXAMINE SITE TO CONFIRM THAT EXISTING CONDITIONS ARE SATISFACTORY FOR THE WORK OF THIS SECTION TO PROCEED.

I. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED.

2. CONFIRM THAT THE SURFACE OF ALL AREAS TO BE FILLED WITH PLANTING SOILS ARE FREE OF CONSTRUCTION DEBRIS, REFUSE, COMPRESSIBLE OR BIODEGRADABLE MATERIALS, STONES GREATER THAN 2 INCHES IN DIAMETER, SOIL CRUSTING FILMS OF SILT OR CLAY, AND/OR STANDING WATER. REMOVE UNSUITABLE MATERIAL FROM THE SITE.

3. CONFIRM NO ADVERSE DRAINAGE CONDITIONS ARE PRESENT.

4. CONFIRM THAT NO CONDITIONS ARE PRESENT WHICH ARE DETRIMENTAL TO PLANT GROWTH.

5. CONFIRM THAT UTILITY WORK HAS BEEN COMPLETED PER THE DRAWINGS.

6. CONFIRM THAT IRRIGATION WORK, WHICH IS SHOWN TO BE INSTALLED BELOW PREPARED SOIL LEVELS, HAS BEEN COMPLETED.

B. IF UNSATISFACTORY CONDITIONS ARE ENCOUNTERED, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY TO DETERMINE CORRECTIVE ACTION BEFORE PROCEEDING.

3.2 COORDINATION WITH PROJECT WORK

A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.

B. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.

C. COORDINATE THE INSTALLATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED.

D. PORTIONS OF THIS WORK AREA ARE OVER AN UNDERGROUND ODOT TUNNEL. CONTRACTOR TO COORDINATE WORK EFFORTS WITH OWNER AND CIVIL ENGINEER FOR COORDINATION. ANY LIMITATIONS ON ACCESS OR EQUIPMENT TYPES AND LEVELS OF PROTECTION OF WATERPROOFING AND DRAINAGE THAT MAY BE REQUIRED. IF DEPTHS INDICATED ON PLAN ARE NOT ATTAINABLE, NOTIFY LANDSCAPE ARCHITECT.

3.3 INSTALLATION

A. SEQUENCING OF WORK TO PREVENT COMPACTION

I. ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE PLANTING SOILS SHALL BE WIDE TRACK OR BALLOON TIRE MACHINES RATED WITH A GROUND PRESSURE OF 4 PSI OR LESS. ALL GRADING AND SOIL DELIVERY EQUIPMENT SHALL HAVE BUCKETS EQUIPPED WITH 6 INCH LONG TEETH TO SCARIFY ANY SOIL THAT BECOMES COMPACTED.

2. PHASE WORK SUCH THAT EQUIPMENT TO DELIVER OR GRADE SOIL DOES NOT HAVE TO OPERATE OVER PREVIOUSLY INSTALLED SOILS. WORK IN ROWS OF LIFTS THE WIDTH OF THE EXTENSION OF THE BUCKET ON THE LOADER. INSTALL ALL LIFTS IN ONE ROW BEFORE PROCEEDING TO THE NEXT. WORK OUT FROM THE FURTHEST PART OF EACH BED FROM THE SOIL DELIVERY POINT TO THE EDGE OF EACH BED AREA.

3. WHERE POSSIBLE PLACE LARGE TREES FIRST AND FILL PLANTING SOIL AROUND THE ROOT BALL.

4. WHERE TRAVEL OVER INSTALLED SOIL IS UNAVOIDABLE, LIMIT PATHS OF TRAFFIC TO REDUCE THE IMPACT OF COMPACTION IN PLANTING SOIL. WHERE POSSIBLE, USE PLYWOOD, STEEL OR OTHER APPROVED SHEETING AS DIRECTED BY LANDSCAPE ARCHITECT TO PROTECT SOILS BENEATH FROM COMPACTION. COMPLY WITH THE PARAGRAPH "COMPACTION REDUCTION" (SECTION 3.03 B) IN THE EVENT THAT SOIL BECOMES OVER COMPACTED.

5. THE DEPTHS AND GRADES SHOWN ON THE DRAWINGS ARE THE FINAL GRADES AFTER SETTLEMENT AND SHRINKAGE OF THE INSTALLED SOILS. THE CONTRACTOR SHALL INSTALL ALL SOILS AT A HIGHER LEVEL TO ANTICIPATE THIS REDUCTION IN SOIL VOLUME. A MINIMUM SETTLEMENT OF APPROXIMATELY 10-15% OF THE SOIL DEPTH IS EXPECTED.

6. MAINTAIN MOISTURE CONDITIONS WITHIN THE PLANTING SOILS DURING INSTALLATION OR MODIFICATION TO ALLOW FOR SATISFACTORY COMPACTION. SUSPEND OPERATIONS IF THE SOIL BECOMES WET. APPLY WATER IF THE SOIL IS OVERLY DRY.

7. PROVIDE ADEQUATE EQUIPMENT TO ACHIEVE CONSISTENT AND UNIFORM COMPACTION OF THE PLANTING SOILS. USE THE SMALLEST EQUIPMENT THAT CAN REASONABLY PERFORM THE TASK OF SPREADING AND COMPACTION.

8. DO NOT PASS MOTORIZED EQUIPMENT OVER PREVIOUSLY INSTALLED AND COMPACTED SOIL EXCEPT AS AUTHORIZED BELOW.

a. LIGHT WEIGHT EQUIPMENT SUCH AS TRENCHING MACHINES OR MOTORIZED WHEEL BARROWS IS PERMITTED TO PASS OVER FINISHED SOIL WORK.

b. IF WORK AFTER THE INSTALLATION AND COMPACTION OF SOIL COMPACTS THE SOIL TO LEVELS GREATER THAN DESIRED, FOLLOW THE REQUIREMENTS OF THE PARAGRAPH "OVER COMPACTION REDUCTION" BELOW.

B. IN PERFORMING THIS WORK, CONTRACTOR SHALL AVOID DAMAGE TO ANY EXISTING STRUCTURES OR FEATURES OF THE PARK OR FEATURES UNDER CONSTRUCTION, SUCH AS DRAINAGE AND IRRIGATION SYSTEMS. THE CONTRACTOR AT HIS OWN EXPENSE SHALL REPAIR ANY SUCH DAMAGE.

C. OVER COMPACTION REDUCTION

I. ANY SOIL THAT BECOMES COMPACTED TO A GREATER DENSITY THAN SPECIFIED HEREIN SHALL BE DUG UP AND REINSTALLED. SEE PARAGRAPH 1.06 D "SOIL COMPACTION TESTING" IN THIS SECTION FOR ACCEPTABLE COMPACTION LEVELS. THIS REQUIREMENT INCLUDES COMPACTION CAUSED BY OTHER SUB-CONTRACTORS AFTER THE SOIL IS INSTALLED AND APPROVED.

2. SURFACE ROTO-TILLING SHALL NOT BE CONSIDERED ADEQUATE TO REDUCE OVER COMPACTION AT LEVELS 6 INCHES OR GREATER BELOW FINISHED GRADE.

D. TOPSOIL & PLANTING SOIL MIX INSTALLATION

I. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.

2. PREPARE SUBSOIL TO ELIMINATE UNEVEN AREAS. MAINTAIN PROFILES AND CONTOURS. MAKE CHANGES IN GRADE GRADUAL. BLEND SLOPES INTO LEVEL AREAS. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.

3. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, OTHER FACILITIES, AND LAWNS AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY SOIL INSTALLATION OPERATIONS.

E. PLANTING SOIL MIXES THROUGHOUT THE PLANTING AREAS ON-SITE SHALL THEN BE CAREFULLY SMOOTHED AND COMPACTED TO THE FINISHED GRADE BY ALTERNATELY RAKING, WATERING AND ROLLING. THE PLANTING AREAS SHALL THEN BE CHECKED FOR IRREGULARITIES AND ADJUSTED TO A UNIFORM GRADE. COMPACTION OF THE PLANTING MIXES SHALL BE WITHIN THE RANGE OF 85% TO 90% AND SHALL BE TESTED VIA NUCLEAR METHODS BY THE GEO-TECHNICAL ENGINEER ON THE SITE DURING CONSTRUCTION.

F. PREVENT CONTAMINATION OR MIXING OF PLANTING SOIL MIXES AND SUBGRADE SOIL MATERIAL. REMOVE CONTAMINATED MATERIALS AS DIRECTED BY THE LANDSCAPE ARCHITECT. MATERIALS TRUCKED INTO THE SITE MUST BE DONE IN SUCH A MANNER AS NOT TO ALTER THE SUBGRADE AND/OR DAMAGE DRAINAGE AND IRRIGATION DITCHES AND SYSTEMS. MATERIALS SHALL BE HANDLED IN A FASHION TO PREVENT THE MIXING OF OTHER SOIL AND MATERIALS WITH THE PLANTING SOIL MIXES.

I. PLACE TOPSOIL DURING DRY WEATHER AND ON DRY UNFROZEN SUBGRADE.

2. SPREAD TOPSOIL AND RAKE UNTIL SMOOTH.

3. MANUALLY SPREAD TOPSOIL AROUND TREES, PLANTS AND HARDSCAPES TO PREVENT DAMAGE.

4. WHILE SPREADING TOPSOIL REMOVE FOREIGN MATERIALS, WEEDS AND UNDESIRABLE PLANTS AND THEIR ROOTS. REMOVE STONES LARGER THAN 1 INCH IN ANY DIMENSION. LEGALLY DISPOSE OF ALL REMOVED ITEMS OFF PARK BOARD PROPERTY.

5. GRADE TOPSOIL TO ELIMINATE ROUGH, LOW OR SOFT AREAS, AND TO ENSURE POSITIVE DRAINAGE. FINISHED GRADE SHALL BE WITHIN PLUS OR MINUS 0.1 FEET OF THE ELEVATION SHOWN ON THE DRAWINGS.

6. LEAVE STOCKPILE AREA AND SITE CLEAN AND RAKED, READY TO RECEIVE LANDSCAPING.

G. SOIL TYPE SHALL BE PLACED TO THICKNESSES, ELEVATIONS AND LOCATIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS AND DETAILS OR AS OTHERWISE CALLED OUT IN THE SPECIFICATIONS.

END OF SECTION

PLANTING NOTES

1. INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL ESTABLISHMENT OF EXTERIOR PLANTS FOR PROJECTS OF SIMILAR TYPE AND SIZE. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN EXTERIOR PLANTING IS IN PROGRESS.

2. SUBMITTALS:

2.A. INSTALLER QUALIFICATION DATA: PROVIDE PROOF OF FIVE (5) OR MORE COMPARABLE SUCCESSFUL INSTALLATIONS & RELATED REFERENCES.

2.B. MATERIAL LIST - PROVIDE LIST OF EACH LANDSCAPE MATERIAL (TREES, SHRUBS, PERENNIALS, SEED MIX, SOD) AND IDENTIFY INTENDED TYPE AND NURSERY SOURCE AND CERTIFICATION FROM SEED AND SOD SUPPLIERS OF GRASS SPECIES.

3. PHOTOGRAPH OF TREES - SUBMIT IMAGES WITHIN 14 DAYS OF ANTICIPATED DELIVERY TO SITE OF EACH PLACE SPECIES OF EACH SIZE AND QUALITY GRADE. EACH SPECIES PHOTO SHALL INCLUDE: 1) SCALE - YARDSTICK OR PERSON TO PROVIDE SCALE; 2) BACKGROUND - ENSURE FORM AND CONDITION OF PLANT IS CLEAR FROM BACKGROUND; 3) IDENTIFICATION - PROVIDE NAME OF PROJECT AND OWNER, NAME AND ADDRESS OF GROWER, DATE PHOTOGRAPH WAS TAKEN, SPECIES NAME AND QUALITY GRADE, AND DATE TREE WAS DUG OR WILL BE DUG.

4. PHOTOGRAPHS OF STONE MATERIAL

4.A. CONTRACTOR SHALL SUBMIT PHOTOS TO THE LANDSCAPE ARCHITECT OF SAMPLE COLOR, SIZE AND CHARACTER OF BOULDERS AND STONE STEPS. STONES SHALL BE FREE OF MUD AND GRAVEL AT TIME OF PHOTO.

4.B. CONTRACTOR TO PROVIDE REPRESENTATIVE SAMPLES OF EACH TYPE OF STONE

5. MOCK-UPS: PROVIDE MOCK-UPS OF EACH STONE TYPE LISTED IN SECTION 2 PRODUCTS. MOCK-UPS SHALL BE APPROXIMATELY PROPORTIONATE IN SIZE TO THE TYPE OF STONE BEING INSTALLED TO ALLOW A SOLID REPRESENTATION OF THE STONE INSTALLATION.

6. FINAL GRADING SHALL BE COMPLETED PRIOR TO PLANTING OR PLANTING LAYOUT. THIS SHOULD INCLUDE DRAINAGE PER THE GRADING PLAN AND TOPSOIL AS SPECIFIED.

7. UNLESS NOTED, TREE AND PLANTING BED LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL STAKE OUT ALL LOCATIONS IN FIELD FOR REVIEW BY THE LANDSCAPE ARCHITECT.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE DRAWINGS OR MAY LIMIT PROPER PLANT GROWTH.

9. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING, REMOVAL OF MISCELLANEOUS DEBRIS AND ANY ADDITIONAL FILL PER TOPSOIL REQUIREMENTS REQUIRED TO CREATE A SMOOTH CONDITION PRIOR TO PLANTING IN ALL PLANTING AREAS.

10. PLANT SPACING IS AS INDICATED ON 'PLANT SCHEDULE' UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED IN THE PLANT SCHEDULE REMARKS.

11. TREES LOCATED IN AREAS PLANTED WITH STANDARD TURF SHOULD HAVE A MINIMUM 8' DIA. MULCH RING AROUND THE TRUNK.

12. ALL BALLED AND BURLAPPED PLANT MATERIAL TO BE GROWN IN SAME USDA ZONE AS PROJECT SITE. ANY MATERIAL SOUTH OF PROJECT SITE USDA ZONE WITHOUT PRIOR APPROVAL OF LANDSCAPE ARCHITECT WILL NOT BE ACCEPTED.

13. PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK."

14. MEASURE ACCORDING TO ANSI Z60.1 WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. DO NOT PRUNE TO OBTAIN REQUIRED SIZES. TAKE CALIPER MEASUREMENTS 6 INCHES (150 MM) ABOVE GROUND FOR TREES UP TO 4-INCH (100-MM) CALIPER SIZE, AND 12 INCHES (300 MM) ABOVE GROUND FOR LARGER SIZES. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD; DO NOT MEASURE BRANCHES OR ROOTS TIP-TO-TIP.

15. WARRANTY: WARRANT ALL EXTERIOR PLANTS, FOR ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION, AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.

16. REPLACEMENTS: REMOVE DEAD EXTERIOR PLANTS IMMEDIATELY. REPLACE IMMEDIATELY UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON. REPLACEMENTS SHALL BE THE SIZE AND SPECIES AS SPECIFIED WITH A NEW WARRANTY COMMENCING ON DATE OF REPLACEMENT. REPLACE EXTERIOR PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD AS DETERMINED BY LANDSCAPE ARCHITECT.

17. INSTALLATION COORDINATION: PLANT DURING THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION. DECIDUOUS & EVERGREEN MATERIAL: MARCH 1 TO MAY 30 OR SEPTEMBER 15 TO DECEMBER 1. HERBACEOUS MATERIAL: MARCH 1 TO MAY 30 OR SEPTEMBER 15 TO OCTOBER 31. OTHER PLANTING TIMES MAY BE CONSIDERED WITH PRIOR APPROVAL; IF THE PLANT MATERIAL IS DORMANT OR IF PLANT MATERIAL HAS BEEN DUG DURING DORMANCY AND HAS BEEN MAINTAINED IN A HOLDING AREA FOR AT LEAST TWO WEEKS AND NOT MORE THAN SIX WEEKS WITHOUT SIGNS OF WILTING, SCORCHING, OR OTHER SIGNS OF STRESS.

18. MAINTENANCE: MAINTAIN TREES, SHRUBS, PERENNIALS, GROUNDCOVER AND LAWN TURF FOR ONE YEAR FROM FROM SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES BUT IS NOT LIMITED TO: PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, TIGHTENING AND REPAIRING STAKES AND GUY SUPPORTS, AND RESETTING TO PROPER GRADES OR VERTICAL POSITION, AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS, RESEED OR PATCH SEEDED AREAS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE. RESTORE OR REPLACE DAMAGED TREE WRAPPINGS. CONTRACTOR TO PROVIDE OWNER 30 DAY NOTICE BEFORE END OF MAINTENANCE PERIOD. MAINTENANCE OF IRRIGATION SYSTEM SHALL ALSO BE INCLUDED IN MAINTENANCE PERIOD. CONTRACTOR RESPONSIBLE FOR WATER. WATERING, RAINFALL AND IRRIGATION SHALL SUPPLY A MINIMUM OF ONE INCH OF WATER PER WEEK.

19. PLANTING BEDLINES SHALL HAVE SMOOTH CURVES AND TRANSITION BETWEEN CURVES. EDGES SHALL BE CUT TO A DEPTH OF 4" AND BACKFILLED WITH MULCH.

20. MULCH: SHREDDED DARK HARDWOOD MULCH, WELL COMPOSTED, FREE FROM DELETERIOUS MATERIAL LOCALLY HARVESTED AND PRODUCED AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS. MULCH SHALL BE 2 INCHES IN DEPTH AND ACHIEVE COMPLETE COVERAGE.

21. EROSION CONTROL MAT: PER CIVIL ENGINEERS DRAWINGS

SEEDING NOTES

1. CONTRACTOR TO STAKE LIMITS OF ALL SEED AREAS AND REVIEW WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLING SEED.

2. LAWN AREAS SHOULD BE HYDROMULCHED AT A MINIMUM RATE OF 3,000 LBS PER ACRE AND SHALL ATTAIN COMPLETE SOIL COVERAGE WITH AN ADDITIONAL THIN LAYER ONCE COMPLETE COVER IS ACHIEVED. SEEDING MULCH SHALL MEET THE FOLLOWING SPECIFICATIONS:

2.A. HYDROMULCH: WOOD FIBER TYPE APPLEGATE WOOD-LOK BFM (WWW.APPLEGATEMULCH.COM) OR APPROVED EQUAL.

2.B. HYDROMULCH SHALL CONSIST OF LONG STRANDS OF VIRGIN WOOD FIBERS MADE FROM FRESH CUT, CLEAN WHOLE WOOD CHIPS, WITH EXTRA HOLDING POWER OF A HIGH STRENGTH, NON-TOXIC, HYDROCOLLOID-BASED BINDER. HYDROMULCH SHALL NOT DISSOLVE OR DISPERSE WHEN REWETTED.

2.C. THE HYDROMULCH SYSTEM SHALL SPRAY ON LIKE A MULCH AND FORM A BLANKET THAT ADHERES TO THE SOIL AND SHALL BE 100% BIODEGRADABLE. THE HYDROMULCH SHALL BE GREEN IN COLOR TO ALLOW VISUAL OF EVEN APPLICATION.

2.D. HYDROMULCH SHALL HAVE THE FOLLOWING COMPONENTS: 1) MOISTURE CONTENT: 12% (+/- 3%); 2) ORGANIC MATTER (OVEN DRIED BASIS): 99.3% (+/- 0.2%); 3) ASH CONTENT: (OVEN DRIED BASIS): 0.7% (+/- 0.2%); 4) PH AT 3% CONCENTRATION: 4.8% (+/- 0.5%); 5) WATER HOLDING CAPACITY (PER 100 GRAMS OVEN DRY FIBER): MIN. 1,250 GRAMS; 5) COLOR: GREEN; 6) TACKIFIER CONTENT (BASED ON TOTAL WEIGHT): 10%.

3. SEED AREAS SHOWN ON PLAN WITH THE FOLLOWING LAWN MIX:

Seed Mixture	Rate (lbs. per 1,000 SF)	Maximum by Weight Purity	Germination
Fine-leaf tall fescue (blend of three varieties)	4.8	98%	80%
Perennial rye	1.2	98%	90%

SEEDING RATE: 6 LBS. PER 1,000 S.F.

4. SEED MIXTURE SHALL BE FURNISHED IN NEW BAGS OR BAGS THAT ARE SOUND AND NOT MENDED. NO "BELOW STANDARD" SEED ACCEPTED. PACKAGES SHOULD SHOW WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE. SPECIES NOTED SHALL BE CERTIFIED AND WARRANTED SEED TRUE TO NAME; HARVESTED, DRIED, CLEANED, STORED AND SHIPPED AS APPLICABLE IN A MANNER TO INSURE MAXIMUM VIABILITY, OBTAINED FROM A REPUTABLE SUPPLIER TO BE APPROVED BY LANDSCAPE ARCHITECT; AND MEETS RECOGNIZED TOLERANCES, AS APPLICABLE, FOR PURITY AND PERCENT GERMINATION AS DESCRIBED UNDER STATE AND FEDERAL SEED LAWS.

5. PREPARE SUBGRADE: TOPSOIL MUST BE HAND-RAKED PRIOR TO HYDROSEEDING PLACEMENT.

6. FERTILIZER: RECOMMENDED FOR GRASS, WITH FIFTY PERCENT OF THE ELEMENTS DERIVED FROM ORGANIC SOURCES; OF PROPORTION NECESSARY TO ELIMINATE ANY DEFICIENCIES OF TOPSOIL, AS INDICATED BY ANALYSIS. APPLY FERTILIZER AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO INSTALLATION OF SEED OR SOD. APPLY FERTILIZER NO MORE THAN 48 HOURS BEFORE HYRDOSEEDING. MIX THOROUGHLY INTO UPPER 2 INCHES (50 MM) OF TOPSOIL.LIGHTLY WATER TO AID THE DISSIPATION OF FERTILIZER.

7. UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT, PERMANENT SEEDING OPERATIONS SHALL BE LIMITED TO THE FOLLOWING PLANTING PERIODS:

SPRING: MARCH 15-MAY 30

FALL: AUGUST 30-SEPTEMBER 30

7.A. TEMPORARY COVER: IF CONSTRUCTION REQUIRES SEEDING TO OCCUR AFTER FALL SEEDING WINDOW AS SPECIFIED ABOVE, INSTALL THE FOLLOWING WINTER-COVER MIX: ADD AN ADDITIONAL 3 POUNDS PER 1,000 SQUARE FEET OF ANNUAL RYE GRASS. IF CONSTRUCTION SCHEDULE PREVENTS SEEDING THE SPECIFIED MIXTURE BY OCTOBER 15, A TEMPORARY WINTER COVER OF ANNUAL RYE GRASS IS TO BE PROVIDED AT A RATE OF 5LBS PER 1,000 SQUARE FEET. ONCE CONDITIONS ARE FAVORABLE, THE AREA IS TO HAVE THE EXISTING VEGETATION MOWED AS CLOSE AS POSSIBLE AND THE AREA RESCARIFIED AND SEEDED WITH THE SPECIFIED SEED.

8. REPAIR, PREPARE AND RESEED AND MULCH AREAS OF WASH OR EROSION ON SEEDED AREAS AND AS REQUIRED TO ENSURE COMPLETE COVERAGE. IMMEDIATELY RESEED AREAS WHICH DO NOT SHOW A SATISFACTORY STAND OF ESTABLISHED GRASS.

9. MAINTAIN ALL LAWNS FOR NOT LESS THAN 30 DAYS AFTER SUBSTANTIAL COMPLETION. IF SEEDED IN FALL AND NOT GIVEN FULL 60 DAYS OF MAINTENANCE, OR IF NOT CONSIDERED ACCEPTABLE AT THAT TIME, CONTINUE MAINTENANCE THE FOLLOWING SPRING UNTIL ACCEPTABLE LAWN IS ESTABLISHED. FOR ALL SEEDED AREAS, CONTRACTOR IS RESPONSIBLE FOR WATERING DURING ESTABLISHMENT PERIOD. WATERING AND RAINFALL SHALL SUPPLY A MINIMUM OF 1 INCH OF WATER PER WEEK.

10. WEED CONTROL- CONTRACTOR IS RESPONSIBLE FOR CONTROLLING BOTH BROAD LEAF AND OTHER UNSPECIFIED INVASIVE VEGETATION DURING THE ESTABLISHMENT PERIOD USING THE FOLLOWING METHODS.

10.A. SPOT-SPRAYING WITH HERBICIDE. SPOT SPRAY INVASIVES BEFORE FLOWERING TO PREVENT SEED HEAD DEVELOPMENT.

10.B. OVERSEEDING OR REPLANTING.

11. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL LAWN AREAS UNTIL FINAL ACCEPTANCE OF THE SITE BY THE OWNER. MAINTENANCE OF LAWN AREAS TO INCLUDE: MOWING, REGULAR CONTROL OF INVASIVE AND EXOTIC PLANT MATERIALS, CONTROL OF EROSION OR GULLIES IN THE AREAS, RESEEDING TO ENSURE ESTABLISHMENT OF SPECIFIED SPECIES TO THE RATES SPECIFIED IN THESE DOCUMENTS, AND MANAGING THE IRRIGATION SYSTEM. MAINTENANCE MUST BE ON A MONTHLY TO QUARTERLY BASIS. CONTRACTOR TO SUBMIT MAINTENANCE SCHEDULE TO OWNER/LANDSCAPE ARCHITECT BEFORE ACCEPTANCE OF INITIAL SEEDING BY OWNER.

12. LAWN SEEDING SUBSTANTIAL ACCEPTANCE: THE ACKNOWLEDGEMENT BY THE LANDSCAPE ARCHITECT AND OWNER THAT THE LANDSCAPE WORK DEFINED BY THE PLANS AND SPECIFICATIONS IS SUBSTANTIALLY COMPLETE. LAWN AREAS ACCEPTABLE WHEN THE FOLLOWING CONDITIONS HAVE BEN MET:

12.A. AN AREA IS CONSIDERED ACCEPTABLE IF IT IS 95% COVERED WITH THE PERMANENT SPECIES OF GRASS REPRESENTATIVE OF THE SEED MIXTURE. THERE SHALL BE NO AREA LARGER THAN FOUR SQUARE INCHES THAT DOES NOT HAVE TURF PLANTS ESTABLISHED. IF AN ACCEPTABLE GROWTH IS NOT OBTAINED ON THE FIRST PLANTING, RESEEDING AND REMULCHING WILL BE REQUIRED. REGRADE AND RESEED ANY ERODED AREAS.

DECORATIVE STONE NOTES

PART 1 - SUBMITTALS:

A. PHOTOGRAPHS OF STONE MATERIAL

I. CONTRACTOR SHALL SUBMIT PHOTOS TO THE LANDSCAPE ARCHITECT OF SAMPLE COLOR, SIZE AND CHARACTER OF BOULDERS AND STONE STEPS. STONES SHALL BE FREE OF MUD AND GRAVEL AT TIME OF PHOTO.

2. CONTRACTOR TO PROVIDE REPRESENTATIVE SAMPLES OF EACH TYPE OF STONE

B. MOCK-UPS: PROVIDE MOCK-UPS OF EACH STONE TYPE LISTED IN SECTION 2 PRODUCTS. MOCK-UPS SHALL BE APPROXIMATELY PROPORTIONATE IN SIZE TO THE TYPE OF STONE BEING INSTALLED TO ALLOW A SOLID REPRESENTATION OF THE STONE INSTALLATION.

C. STONE INSTALLER IS RESPONSIBLE FOR VERIFYING STONE FOUNDATIONS MEET DRAWING REQUIREMENTS PRIOR TO STONE PLACEMENT.

D. STONE INSTALLER IS RESPONSIBLE FOR VERIFYING ALL FINISHED GRADE IN AREA OF STONE LOCATIONS.

PART 2 - GENERAL

A. LANDSCAPE STONE SHALL BE FREE FROM STRUCTURAL DEFECTS SUCH AS SEAMS OF SHALE AND HAVE A SIMILAR DURABILITY TO RIPRAP (SEE SECTION 35 42 37 2.02 A).

B. ALL STONE SHALL BE REGIONALLY SOURCED (WITHIN 200-MILE RADIUS OF PROJECT LOCATION) PER THE TYPE AND SIZE SPECIFIED IN THE DRAWINGS OF EACH SIZE OR APPROVED EQUAL.

C. ALL LANDSCAPE STONE TYPE, COLOR, AND SIZE IS PER DRAWINGS.

PART 3 - SITE PREP

A. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES, AND LAWNS AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY STONE INSTALLATION.

B. ALL STONE SHALL BE CLEANED PRIOR TO PLACING OR INSTALLING MASTIC FOR STONES THAT WILL STACKED.

C. STACKED STONES ARE TO BE STABLE AND FIXED WITHOUT MOVEMENT - HIGH STRENGTH GROUT BETWEEN STONES MAY BE REQUIRED.

07/22/20 - 11:25am TABI LAYOUT1
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COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

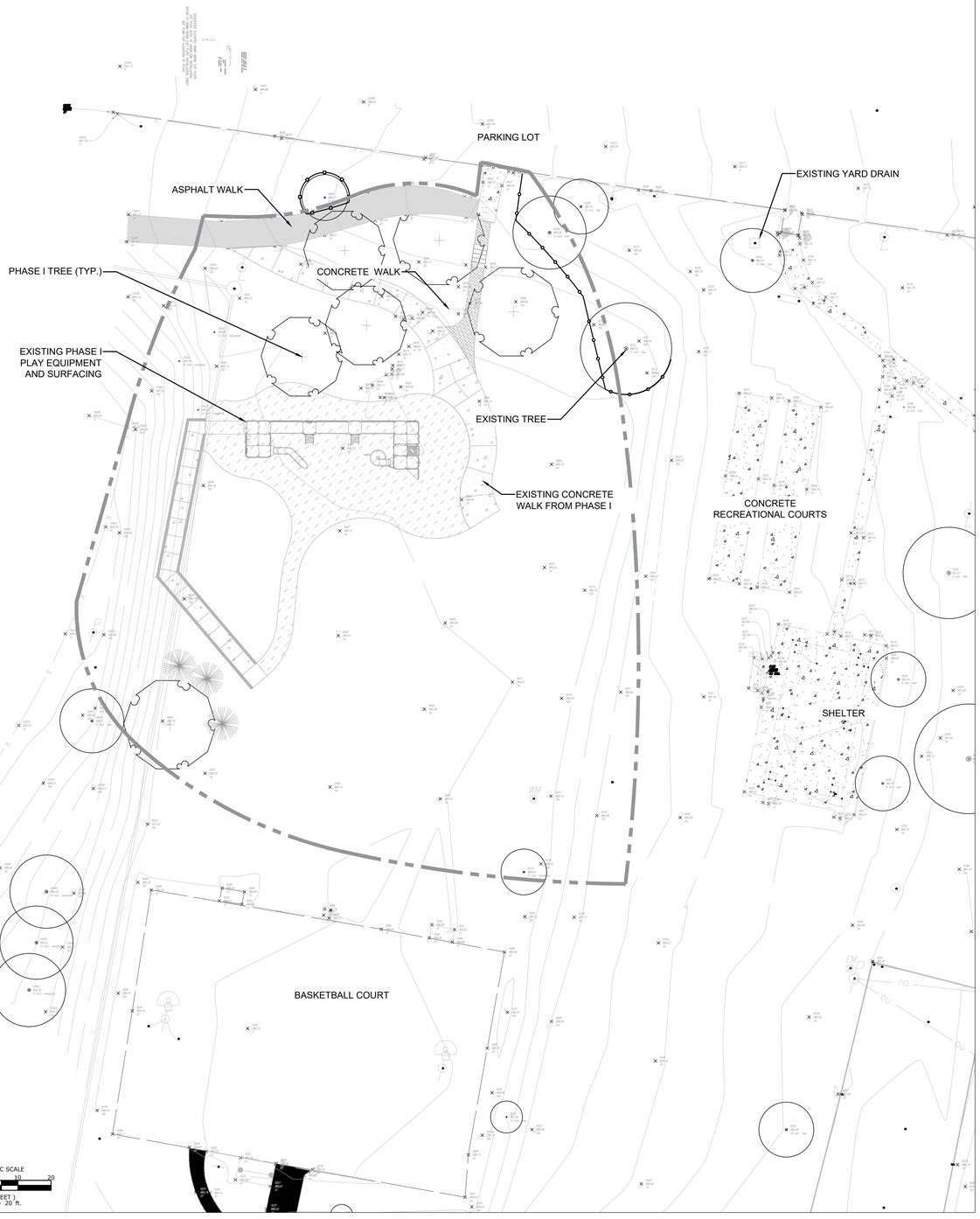
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SHEET TITLE:
PROJECT SPECIFICATIONS

SCALE: N/A
DRAWN BY: RS
CHECKED BY: GW

SHEET NUMBER:
G004

PROJECT NO.: 21910
DATE: 07.22.2020



1 L001 **EXISTING CONDITIONS**

SCALE: 1" = 20'-0"

GENERAL NOTES

1. BASE INFORMATION PROVIDED BY ABERCROMBIE & ASSOCIATES; 8111 CHEVIOT RD. SUITE 200; CINCINNATI, OHIO 45247; 513.385.5757
2. CONTRACTOR SHALL LOCATE ALL UTILITIES, STRUCTURES, PAVEMENT AND VEGETATION TO REMAIN, AND TAKE THE NECESSARY PRECAUTIONS FOR THEIR PROTECTION DURING CONSTRUCTION. ANY FIELD ADJUSTMENTS REQUIRED SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO IMPLEMENTATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ORDINANCES, RULES AND REGULATIONS DURING THE COURSE OF THIS PROJECT, INCLUDING BUT NOT LIMITED TO OSHA REQUIREMENTS FOR PUBLIC AND WORKER SAFETY.
4. CONTRACTOR SHALL COORDINATE WITH THE WORK OF OTHER TRADES TO ENSURE PROPER AND TIMELY EXECUTION OF THE WORK.
5. THESE GENERAL NOTES APPLY TO ALL "L" SERIES DRAWINGS

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
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ISSUE/ REVISION:

07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

SHEET TITLE:
EXISTING CONDITIONS

SCALE: 1" =20'-0"

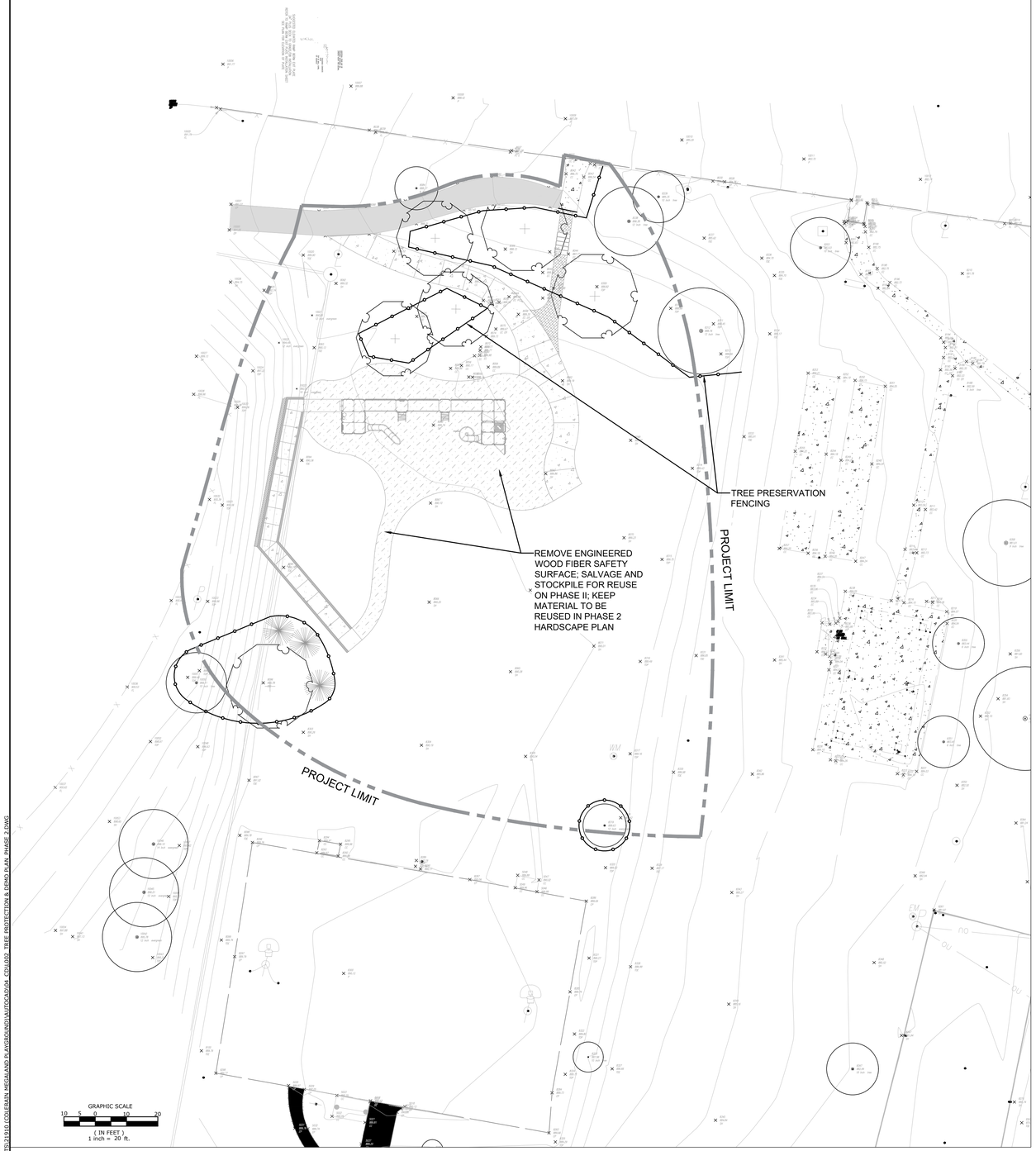
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L001

PROJECT NO.: 21910

DATE: 07.22.2020

07/22/20 - 11:25am TAB: LAYOUT1
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1 L001 **TREE PRESERVATION & DEMO PLAN**

SCALE: 1" = 20'-0"

TREE PRESERVATION AND DEMOLITION LEGEND		
KEY	ITEM	COMMENTS
○	EXISTING TREE TO REMAIN & BE PROTECTED	SEE NOTES & SPECIFICATIONS
⊗	EXISTING TREE TO BE REMOVED	COORDINATE WITH CERTIFIED ARBORIST & LANDSCAPE ARCHITECT
	TREE PRESERVATION FENCING	ORANGE CONSTRUCTION TYPE FENCING, 4' HIGH WITH METAL POSTS SUPPORTING FENCE MATERIAL APPROX. 6' O.C.; FENCING ALONG EITHER HARDSCAPE OFFSET OR DRIP LINE, WHICHEVER IS CLOSER TO TREE, AS SHOWN IN PLAN
	ROOT PRUNING LOCATION	USE AIR SPADE TO LOCATE TREE ROOTS AS SPECIFIED PER PLAN. PRUNE ALL ROOTS, WITH A ROTARY TYPE STUMP GRINDER OR APPROVED ALTERNATIVE TO A DEPTH OF 18 INCHES OR TO THE MAXIMUM DEPTH OF THE REQUIRED GRADING CUT, WHICHEVER IS LESS
	CONCRETE TO REMAIN	PROTECT EXISTING CONCRETE FROM CONSTRUCTION ACTIVITY AND DAMAGE, ANY EXISTING CONCRETE INTENDED TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION ACTIVITIES SHOULD BE REPLACED WITH SAME QUALITY AND FINISH AT CONTRACTOR'S EXPENSE
	ASPHALT TO REMAIN	PROTECT EXISTING ASPHALT FROM CONSTRUCTION ACTIVITY AND DAMAGE, ANY EXISTING ASPHALT INTENDED TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION ACTIVITIES SHOULD BE REPLACED WITH FULL DEPTH ASPHALT AT CONTRACTOR'S EXPENSE

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

SITE PREPARATION AND DEMOLITION

1) LAYOUT OF WORK

A. PERMANENT LINE AND PERMANENT BENCH MARK(S) ARE TO BE ESTABLISHED BY THE CONTRACTOR, AND MAINTAINED THROUGHOUT CONSTRUCTION. (IF ANY BENCHMARKS ARE DISTURBED, THE CONTRACTOR SHALL UTILIZE THE SERVICES OF A LICENSED SURVEYOR, REPLACE THEM IN THEIR ORIGINAL POSITION AND CONDITION AT NO COST TO THE OWNER.)

B. THE CONTRACTOR SHALL STAKE OUT THE CONSTRUCTION, ESTABLISH TEMPORARY BENCH MARKS, LINES, LEVELS, BATTERBOARDS, REFERENCE POINTS, CENTERLINES AND VERIFY ALL DIMENSIONS IN RELATION TO CONNECTION WITH EXISTING FACILITIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ERRORS IN CONNECTION WITH THIS WORK. THE CONTRACTOR SHALL PROVIDE ELEVATION CONTROLS AT APPROPRIATE INTERVALS.

C. PRIOR TO COMMENCEMENT OF THE WORK, THE CONTRACTOR SHALL REPORT TO THE OWNER'S REPRESENTATIVE ANY INCONSISTENCIES IN THE PROPOSED LINES, LEVELS, GRADES, DIMENSIONS, OR LOCATIONS.

2) PROTECTION: PROTECT EXISTING BUILDINGS, STREETS, AND STRUCTURES WHICH ARE TO REMAIN FROM DAMAGE, AND REPAIR DAMAGE BY THIS WORK AT NO ADDITIONAL COST TO THE OWNER.

3) UTILITY LINES: CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE A MINIMUM OF TWO DAYS PRIOR TO START OF WORK (800) 3622764. CONTRACTOR SHALL VERIFY LOCATION OF ALL CHARTED AND UNCHARTED EXISTING UTILITIES PRIOR TO START OF WORK. LOCATIONS OF UTILITIES WHICH ARE MADE KNOWN TO THE CONTRACTOR PRIOR TO EXCAVATION, AND THAT ARE INDICATED TO BE RETAINED, AS WELL AS UTILITY LINES CONSTRUCTED DURING EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATING AND BACKFILLING, AND IF DAMAGED, SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. IF UTILITY LINES THAT ARE NOT INDICATED OR THAT THE CONTRACTOR IS NOT AWARE OF ARE ENCOUNTERED OR DAMAGED, THE AUTHORIZED OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY.

4) EXISTING WATER LINE AND OTHER UTILITIES INDICATED ON DRAWINGS IS APPROXIMATE, CONTRACTOR IS TO TEST DIG TO CONFIRM LOCATION AND DEPTH AT THE CRITICAL POINTS FOR THE COMPLETION OF THIS WORK.

5) THE CONTRACTOR SHALL ACCEPT PREMISES AS FOUND; REMOVE ITEMS AS SPECIFIED, NOTED, OR SHOWN. THE OWNER ASSUMES NO RESPONSIBILITY FOR CONDITIONS OF ITEMS ON SITE NOR CONTINUATION IN CONDITION EXISTING AS OF PROPOSAL INVITATION OR THEREAFTER.

6) ALL REMOVALS SHALL BE DONE IN A CAREFUL AND ORDERLY MANNER. THE CONTRACTOR SHALL ADHERE TO ALL GOVERNING SAFETY STANDARDS IN PROVIDING SAFE REMOVAL OF ALL ITEMS.

7) ALL CUTTING, PATCHING, FITTING, AND FINISHING OF EXISTING WORK SHALL BE DONE AS NECESSARY TO ACCOMMODATE OTHER WORK. WORK TEMPORARILY REMOVED FOR THE INSTALLATION OF NEW WORK SHALL BE PUT BACK IN PLACE, OR MODIFIED AS THE CASE REQUIRES. NO UNFINISHED SURFACE SHALL BE LEFT EXPOSED BUT SHALL BE FINISHED TO CONFORM WITH ADJACENT OR SIMILAR WORK. FINISH GENERALLY SHALL MATCH THAT OF ADJACENT OR SIMILAR SURFACES AND SHALL INCLUDE PAINTING.

8) PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK. PROTECT FROM DAMAGE EXISTING PAVEMENT, FENCING, VEGETATION, BUILDINGS, STREETS AND OTHER SITE FEATURES TO REMAIN IN PLACE. REMOVE PROTECTIONS AT COMPLETION OF WORK.

9) THE CONTRACTOR SHALL MAKE ALL UTILITY DISCONNECTIONS AND CONNECTIONS TO EXISTING LINES AS INDICATED ON THE DRAWINGS OR SPECIFICATIONS.

10) UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR MAKE ANY DISCONNECTIONS OR CONNECTIONS TO UTILITIES OR SERVICES, REQUIRING SHUTDOWN OR OUTAGE, UNTIL DATE AND DURATION FOR MAKING CONNECTIONS HAS BEEN APPROVED BY THE OWNER.

11) REROUTE ANY INTERRUPTED UTILITY SERVICE SUCH AS ELECTRICAL CONDUIT, TELEPHONE, WATER, ETC., THAT MAY BE ENCOUNTERED IN CONNECTION WITH REMOVAL/REPAIR OF WORK STATED IN THIS CONTRACT. ABANDONED UTILITIES WILL BE REMOVED AS DIRECTED ON THE CONSTRUCTION DRAWINGS.

12) PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK, INSPECT AREAS IN WHICH WORK WILL BE PERFORMED. PHOTOGRAPH EXISTING CONDITIONS OF STRUCTURE SURFACES, EQUIPMENT, OR SURROUNDING PROPERTIES THAT COULD BE MISCONSTRUED AS DAMAGE RESULTING FROM SELECTIVE DEMOLITION WORK; FILE WITH OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.

13) DEMOLISH CONCRETE IN SMALL SECTIONS. CUT CONCRETE AT JUNCTURES WITH CONSTRUCTION TO REMAIN. PROVIDE SERVICES FOR EFFECTIVE AIR AND WATER POLLUTION CONTROLS, AS REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION.

14) DEMOLISH AND REMOVE MISCELLANEOUS ASPHALT AND CONCRETE DEBRIS, FOUNDATION WALLS, AND CONCRETE SLABS TO NOT LESS THAN 12" BELOW NEW FINISHED GRADES. REMOVE PAVEMENT BASE MATERIAL TO NOT LESS THAN 12" BELOW FINISHED GRADES IN AREAS OF NEW LAWNS AND LANDSCAPING.

15) COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION WORK. PROVIDE FILL CONSISTING OF APPROVED EARTH, GRAVEL, OR SAND, AND FREE OF TRASH AND DEBRIS, STONES OVER 6 INCHES IN DIAMETER, ROOTS, AND OTHER ORGANIC MATTER.

16) REMOVE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS FROM SITE. TRANSPORT AND LEGALLY DISPOSE OFF SITE. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, COMPLY WITH APPLICABLE REGULATIONS, LAWS, AND ORDINANCES CONCERNING REMOVAL, HANDLING, AND PROTECTION AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION. BURNING OF REMOVED MATERIALS IS NOT PERMITTED ON PROJECT SITE.

17) UPON COMPLETION OF DEMOLITION WORK, REMOVE TOOLS, EQUIPMENT, AND DEMOLISHED MATERIALS FROM SITE. REMOVE PROTECTIONS. REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED. RETURN SURFACES TO REMAIN TO CONDITION EXISTING PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK. REPAIR ADJACENT CONSTRUCTION OR SURFACES SOILED OR DAMAGED BY SELECTIVE DEMOLITION WORK.

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
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Subconsultant:
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SHEET TITLE:
TREE PRESERVATION & DEMO PLAN

SCALE: 1" =20'-0"

DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L002

PROJECT NO.: 21910

DATE: 07.22.2020

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1 L100 **HARDSCAPE PLAN**
SCALE: 1" = 10'-0"

HARDSCAPE MATERIAL SCHEDULE

KEY	ITEM	FINISH & SIZE	COLOR	SUPPLIER (BASIS OF DESIGN OR APPROVED EQUAL)	COMMENTS
	CONCRETE WALK	LIGHT BROOM FINISH PERPENDICULAR TO FLOW OF PEDESTRIAN TRAFFIC; UNLESS OTHERWISE NOTED, TOOLED JOINTS & EDGES; NO EDGE MARKS	STANDARD	N/A	SEE CIVIL DRAWINGS FOR DETAILS
	FLAGSTONE & CRUSHED LIMESTONE CHIPS	LIMESTONE FLAGSTONE; 2"-3" x 1'-2'	STANDARD	SEMCO OUTDOOR 11864 CHESTERDALE ROAD CINCINNATI, OHIO 45246 513.725.0070 WWW.SEMCOOUTDOOR.COM/CINCINNATI	1"-2" GAPS; INFILL GAPS W/ CRUSHED LIMESTONE CHIPS
	NATURAL STONE STEP	ROCK VALLEY LIMESTONE CUT SLABS; 18" x 6"-7" x 48"	STANDARD	SEMCO OUTDOOR 11864 CHESTERDALE ROAD CINCINNATI, OHIO 45246 513.725.0070 WWW.SEMCOOUTDOOR.COM/CINCINNATI	THICKNESS OF STONE PER DETAILS 4/L101 & 7/L102; NUMBER OF STEPS PER PLAN
	BOULDERS	GRANITE; 18" - 30"	STANDARD	SEMCO OUTDOOR 11864 CHESTERDALE ROAD CINCINNATI, OHIO 45246 513.725.0070 WWW.SEMCOOUTDOOR.COM/CINCINNATI	
	SYNTHETIC TURF SAFETY SURFACE	PLAYGROUND GRASS ULTRA	GREEN	FOREVER LAWN OF OHIO 4449 EASTON WAY COLUMBUS, OH 43219 844.614.8873; WWW.FOREVERLAWN.COM	
	SYNTHETIC TURF SAFETY SURFACE	PLAYGROUND GRASS ULTRA	LAGOON BLUE	FOREVER LAWN OF OHIO 4449 EASTON WAY COLUMBUS, OH 43219 844.614.8873; WWW.FOREVERLAWN.COM	
	SYNTHETIC TURF SAFETY SURFACE	PLAYGROUND GRASS ULTRA	GOLD	FOREVER LAWN OF OHIO 4449 EASTON WAY COLUMBUS, OH 43219 844.614.8873; WWW.FOREVERLAWN.COM	
	ENGINEERED WOOD FIBER PATH	GT IMPAX ENGINEERED WOOD FIBER	NATURAL	GAMETIME 150 PLAYCORE DRIVE SE FORT PAYNE, AL 35967 800.253.2440	SEE DETAIL 3 ON L101
	ENGINEERED WOOD FIBER SAFETY SURFACE	GT IMPAX ENGINEERED WOOD FIBER; FALL HEIGHT DEPTH AS REQUIRED FOR ADJACENT EQUIPMENT	NATURAL	GAMETIME 150 PLAYCORE DRIVE SE FORT PAYNE, AL 35967 800.253.2440	SEE DETAIL 7 ON L101
	FLUSH CONCRETE CURB	LIGHT BROOM FINISH; UNLESS OTHERWISE NOTED, TOOLED JOINTS & EDGES; NO EDGE MARKS	STANDARD	N/A	SEE DETAIL 5 ON L101

* SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS

HARDSCAPE NOTES

1. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
2. 4'x4' MOCK-UP REQUIRED FOR ALL PAVING TYPES. MOCK-UP MAY ULTIMATELY BE PART OF FINISHED PAVED AREA IF APPROVED. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
3. DIGITAL LAYOUT INFORMATION PROVIDED BY ENGINEER.
4. COORDINATE ALL SURFACE ELEMENTS OF ELECTRICAL UTILITIES & STORM DRAINAGE STRUCTURES WITH HARDSCAPE ELEMENTS;ALL ELECTRICAL AND STORM ELEMENTS SHOULD BE FLUSH WITH ADJACENT PAVEMENT; CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS AND RESOLVE ISSUES IN THE FIELD.
5. PROPOSED USE ZONES SHOWN ON PLAN ARE A GUIDE. CONTRACTOR TO VERIFY FALL ZONES PER MANUFACTURER'S RECOMMENDATIONS AND SHOW USE ZONE ON SHOP DRAWINGS. BEFORE INSTALLATION OF EQUIPMENT, REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT.
6. ENGINEERED WOOD FIBER - SAFETY SURFACING IN AREAS INDICATED ON PLAN IS ENGINEERED WOOD FIBER SAFETY SURFACE. SEE DETAILS 7,8/L101 AND 1/L102. FULL DEPTH (12") IN USE ZONES AROUND PLAY EQUIPMENT AND 6" DEPTH IN ALL OTHER AREAS. ENGINEERED WOOD FIBER MUST MEET TESTING DATA FOR IMPACT ATTENUATION AND FOR ACCESSIBILITY MEASURED AFTER SETTLEMENT. CONTRACTOR TO SUPPLY DEPTH OF SAFETY SURFACE REQUIRED FOR HEIGHT OF SPECIFIED EQUIPMENT. DEPTHS ON DRAWINGS ARE A GUIDE. PROVIDE DOCUMENTATION FROM SURFACE MANUFACTURER THAT SPECIFIED DEPTH MEETS THE FALL REQUIREMENTS OF ALL APPLICABLE GUIDELINES.
7. THESE HARDSCAPE NOTES APPLY TO ALL "L1XX" SERIES DRAWINGS

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:
07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

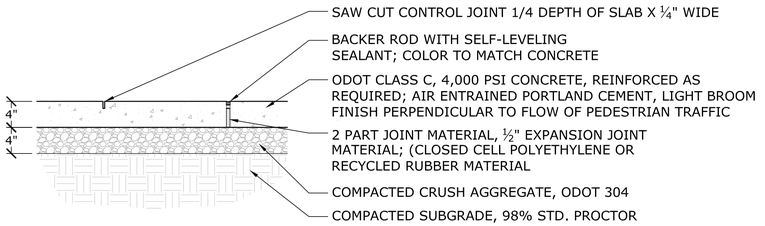
SHEET TITLE:
HARDSCAPE AND MATERIALS PLAN

SCALE: 1" =10'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L100

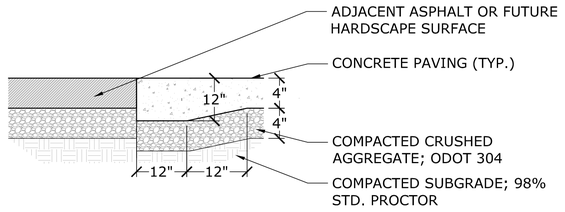
PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:22am TAB: LAYOUT1
X:\21000 PROJECTS\21910 (COLERAIN MEGOLAND PLAYGROUND)\AUTOCAD\04 CDs\L100 HARDSCAPE & MATERIALS PLAN PHASE 2.DWG

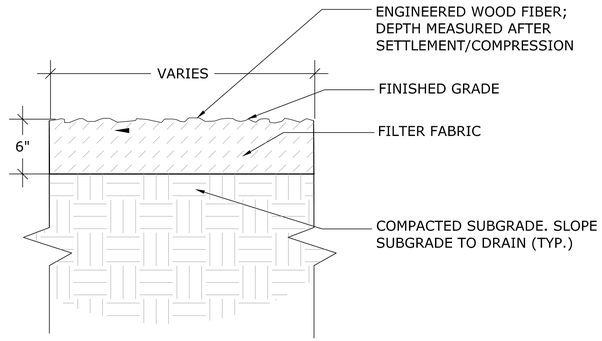


NOTES:
- CONDITIONS VARY. PROVIDE EXP. JOINT WHERE SIDEWALKS ARE POURED AGAINST CURBS AND/OR ALL OTHER VERTICAL SURFACES AND/OR DIFFERENT PAVING MATERIALS.
- MEET ADJACENT GRADES FLUSH.
- EXPANSION AND CONTROL JOINTS PER DRAWINGS
- ⅛" (1.04%) MIN. TO 3/46" (1.75%) MAXIMUM CROSS SLOPE ON PROPOSED WALK
- CONCRETE SHALL BE SEALED WITH WEATHER WORKER (TM) J29 OR APPROVED EQUAL
- PROVIDE ¼" NOM. RADIUS ON ALL EXPOSED EDGES; NO TOOL MARKS
- PROVIDE LIGHT BROOM FINISH ON CONCRETE SURFACE, AS INDICATED ON MATERIAL PLANS.

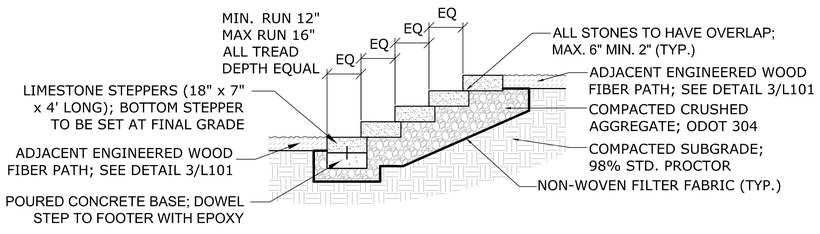
1 L101 CONCRETE DETAIL
SCALE:N.T.S.



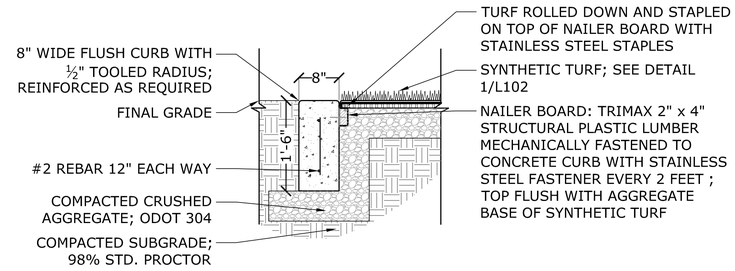
2 L101 THICKENED CONCRETE EDGE DETAIL
SCALE:N.T.S.



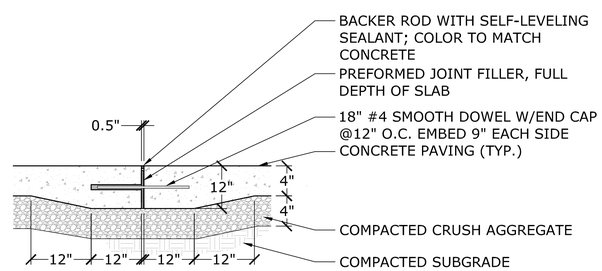
3 L101 ENGINEERED WOOD FIBER PATH DETAIL
SCALE:N.T.S.



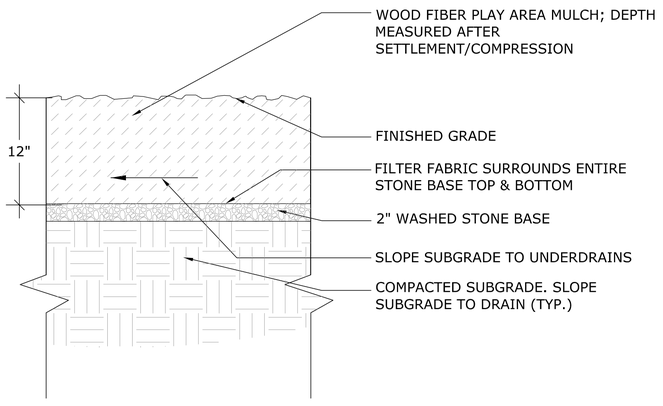
4 L101 STONE STEPS DETAIL
SCALE:N.T.S.



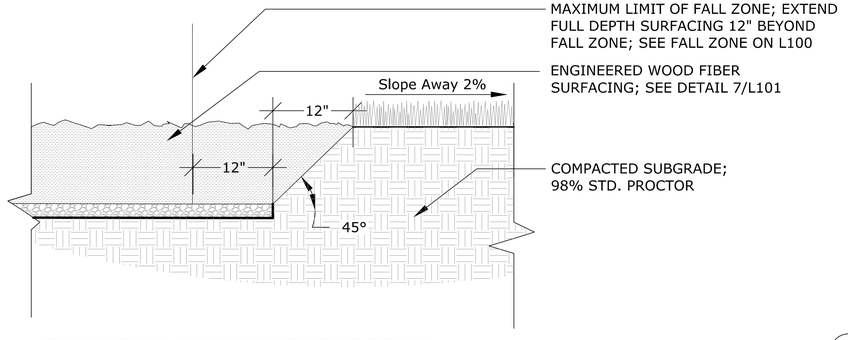
5 L101 FLUSH SYNTHETIC TURF CURB DETAIL
SCALE:N.T.S.



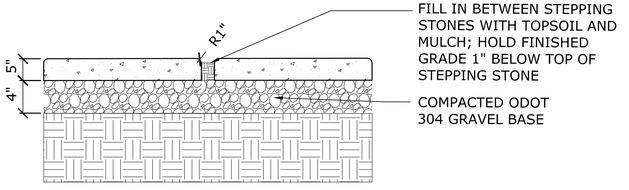
6 L101 CONCRETE TO CONCRETE EDGE DETAIL
SCALE:N.T.S.



7 L101 ENGINEERED WOOD FIBER SECTION DETAIL
SCALE:N.T.S.



8 L101 ENGINEERED WOOD FIBER EDGE DETAIL
SCALE:N.T.S.



9 L101 FLAGSTONE STEPPER DETAIL
SCALE:N.T.S.

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:
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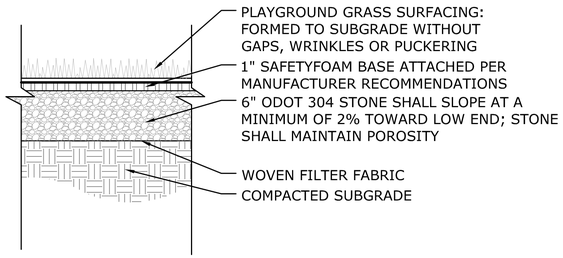
SHEET TITLE:
HARDSCAPE DETAILS

SCALE: PER PLAN
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L101

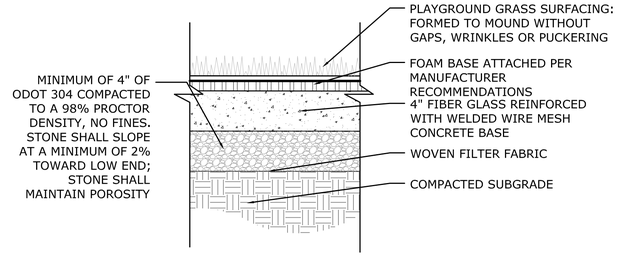
PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 10:34am TAB: LAYOUT1
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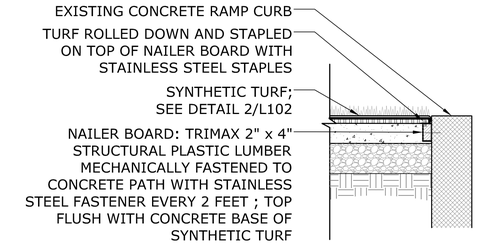
1 L102 TYPICAL SYNTHETIC TURF WITH AGGREGATE BASE DETAIL

SCALE:N.T.S.



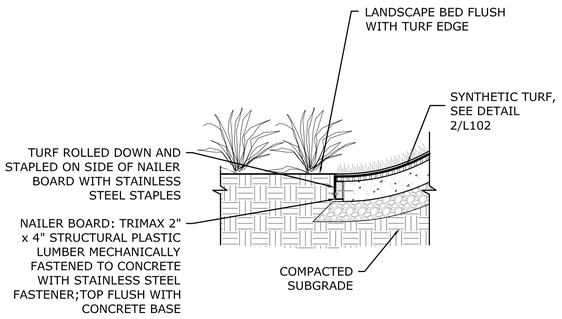
2 L102 TYPICAL SYNTHETIC TURF WITH CONCRETE BASE DETAIL

SCALE:N.T.S.



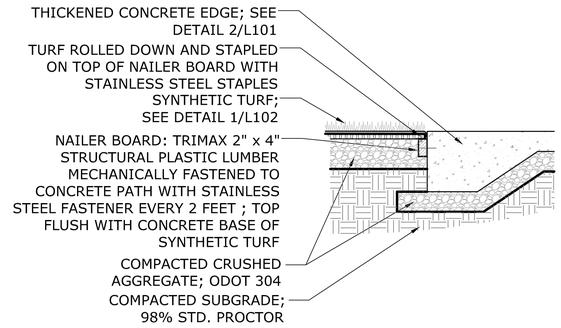
3 L102 SYNTHETIC TURF AT CONCRETE RAMP CURB DETAIL

SCALE:N.T.S.



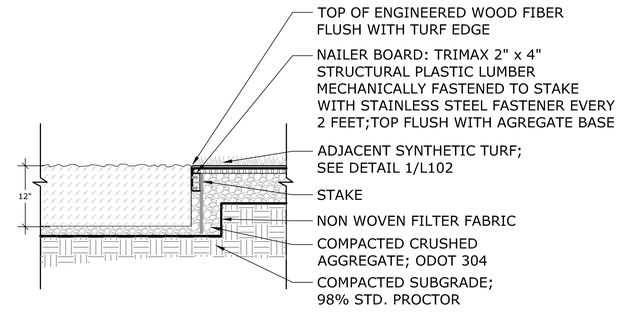
4 L102 TYPICAL SYNTHETIC TURF WITH LANDSCAPE EDGE DETAIL

SCALE:N.T.S.



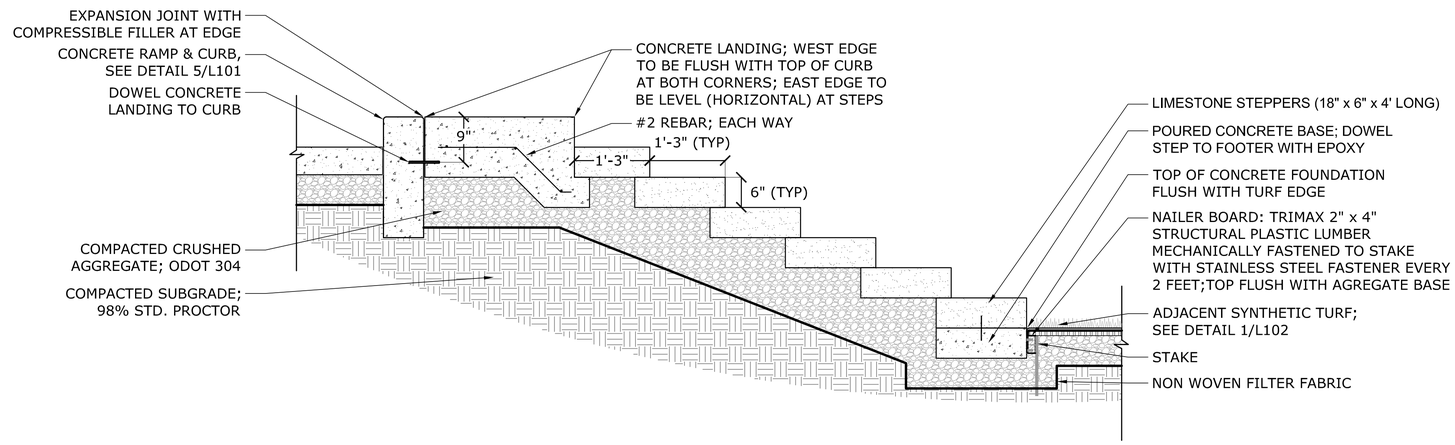
5 L102 SYNTHETIC TURF WITH THICKENED CONCRETE EDGE DETAIL

SCALE:N.T.S.



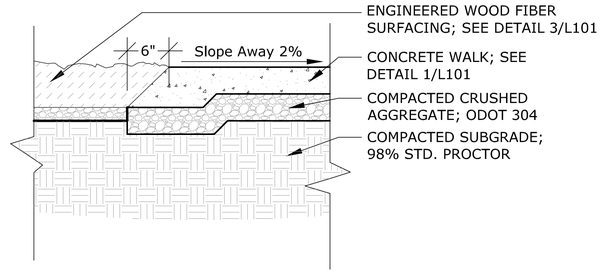
6 L102 TYPICAL SYNTHETIC TURF WITH EWF EDGE DETAIL

SCALE:N.T.S.



7 L102 PLAYGROUND STEPS DETAIL

SCALE:N.T.S.



8 L102 ENGINEERED WOOD FIBER PATH CONCRETE EDGE DETAIL

SCALE:N.T.S.

07/22/20 - 09:18am TAB: LAYOUT1
X:\21900 PROJECTS\21910 COLERAIN MEGA LAND PLAYGROUND\AUTOCAD\04 CD\L102 HARDSCAPE DETAILS-2 PHASE 2.DWG

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

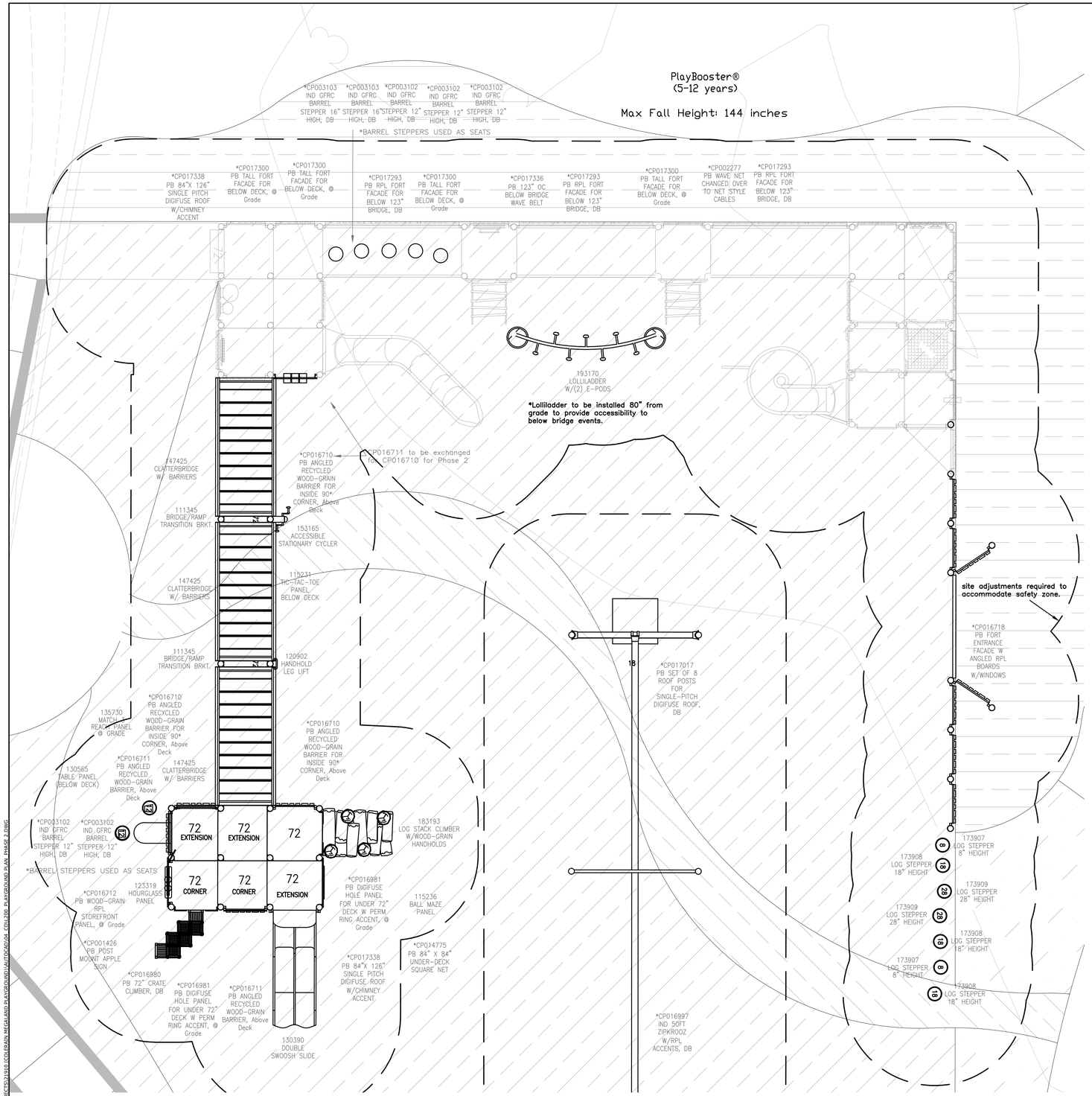
ISSUE/ REVISION:
- 07.20.2020 - 90% DESIGN
- 07.22.2020 - ISSUED FOR BID

SHEET TITLE: HARDSCAPE DETAILS

SCALE: PER PLAN
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER: L102

PROJECT NO.: 21910
DATE: 07.22.2020



1 L200 **PLAYGROUND PLAN (north end)**
SCALE:1/4" = 1'-0"

2 L200 **PLAYGROUND PLAN (south end)**
SCALE:1/4" = 1'-0"

PLAYGROUND EQUIPMENT & MATERIALS SCHEDULE

MANUFACTURER
(BASIS OF DESIGN OR APPROVED EQUAL)
LANDSCAPE STRUCTURES, INC.
601 7TH STREET SOUTH
P.O. BOX 198
DELANO, MINNESOTA 55328
PH: 1.800.328.0035
FAX: 1.763.972.6091

ITEM #	DESCRIPTION	QUANTITY
173907A	Log Stepper 8"Height	2
173908A	Log Stepper 18"Height	3
173909A	Log Stepper 28"Height	2
130390A	Double Swoosh Slide 72"DK DB	1
CP016710	ANGLED RECYCLED WOOD-GRAIN BARRIER FOR INSIDE 90° CORNER	3
111405J	106"Steel Flush Post w/Standard Cap DB	2
111404Q	116"Steel Post DB	4
111404M	148"Steel Post DB	4
111404W	156"Steel Post DB	8
111403K	182"Steel Post For Roof DB	10
153165A	Stationary Cycler Accessible	1
120902A	Handhold Leg Lift	1
CP017293	RPL FORT FACADE FOR BELOW 123" BRIDGE	3
CP002277	WAVE NET CHANGED OVER TO NET STYLE CABLES	1
CP016993	OODLE SWING W/ RPL ACCENT PANELS ON EACH SIDE	3
CP017300	TALL FORT FACADE FOR BELOW DECK	4
CP017336	123" OC BELOW BRIDGE WAVE BELT	1
CP016997	50FT ZIPKROOZ W/RPL ACCENTS	1
CP003102	GFRC BARREL STEPPER 12" HIGH, 12" diameter mold	5
CP003103	GFRC BARREL STEPPER 16" HIGH, 12" diameter	2
CP017338	84"X 126" SINGLE PITCH DIGIFUSE ROOF W/CHIMNEY ACCENT	2

ITEM #	DESCRIPTION	QUANTITY
115231B	Tic-Tac-Toe Panel Ground Level	1
135730A	Match 3 Reach Panel Ground Level	1
123319A	Hourglass Panel Above Deck	1
193170A	LolliLadder w/2 E-Pods	1
115236A	Ball Maze Panel Above Deck	1
130565A	Table Panel DB	1
111230A	Square Deck Corner	2
111229A	Square Deck EXTENSION	3
111228A	Square Deck TENDERDECK	1
CP016712	WOOD-GRAIN RPL STOREFRONT PANEL	1
CP001426	POST MOUNT APPLE SIGN, 4" x 12" sign	1
CP016718	FORT ENTRANCE FACADE W ANGLED RPL BOARDS W/WINDOWS	1
CP016981	DIGIFUSE HOLE PANEL FOR UNDER 72" DECK W PERM RING ACCENT	2
CP016711	ANGLED RECYCLED WOOD-GRAIN BARRIER	2
CP014775	84" X 84" UNDER-DECK SQUARE NET	1
CP016980	72" CRATE CLIMBER	1
CP014004	5' LONG BARREL TUNNEL/CLIMBER	1
183193B	Log Stack Climber 72"Deck w/Wood-Grain Handholds DB	1
147425A	Clatterbridge 123 w/Barriers	3
111345A	Bridge/Ramp Transition Bracket	2

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

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07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLAYGROUND PLAN

SCALE: 1/4" =1'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L200

PROJECT NO.: 21910
DATE: 07.22.2020

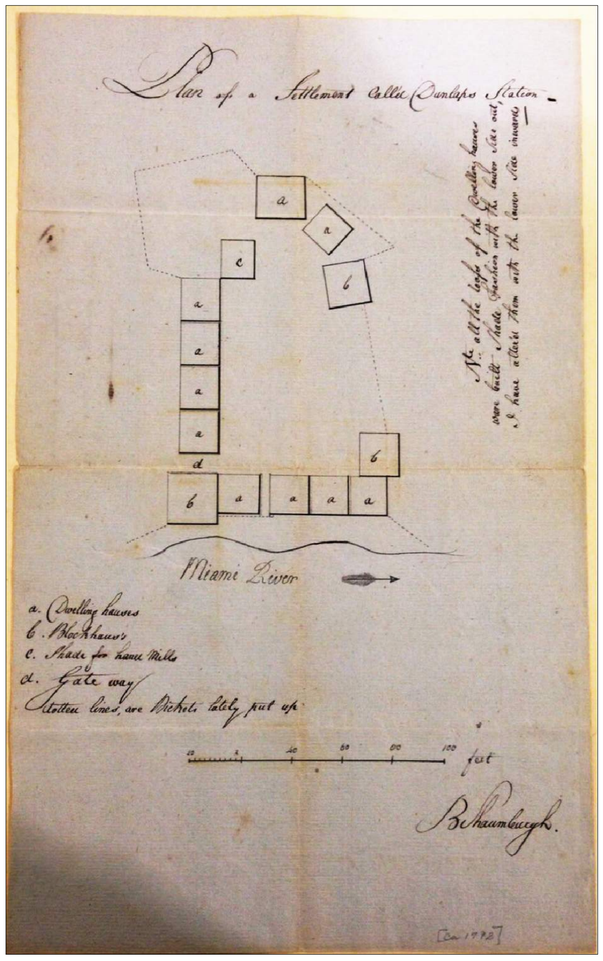
07/22/20 - 11:21am TAB: LAYOUT1
X:\21900 PROJECTS\21910 COLERAIN MEGALAND PLAYGROUND\AUTOCAD\A0A CDs\200 PLAYGROUND PLAN PHASE 2.DWG











PHASE 2

- One 50' long zip line for adventure fun.
- A disc swing for a social swinging experience that is different than the typical swing set that exists on site.
- Multiple seating opportunities around the perimeter of the playground
- Quiet spaces and places to sit can be found around the perimeter of the playground an in a small, secluded seating areas defined by trees on one side of the space.
- As short “bridge” will encourage children to cross a dry creek bed.
- The safety surfacing consists of synthetic play turf over a cushioned sub-basee to a depth recommended by the playground manufacturer for a safe fall height, per ASTM standards.



COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
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www.humannature.cc

Subconsultant:
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23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:

07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLAYGROUND CHARACTER INTENT

SCALE:

DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L201

PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 09:23am TAB: LAYOUT1
J:\21900 PROJECTS\21910 COLERAIN MEGA LAND PLAYGROUND\AUTOCAD\04 CDs\01 PLAYGROUND CHARACTER INTENT PHASE 2.DWG

PLAYGROUND NOTES

1. SUBMIT SHOP DRAWINGS AND MANUFACTURER'S PRODUCT DATA FOR ALL PLAY EQUIPMENT FOR REVIEW BY OWNER & LANDSCAPE ARCHITECT.

2. ALL PLAY EQUIPMENT SHALL MEET ASTM F1487-12 STANDARDS FOR SAFETY. IPEMA CERTIFICATION DOCUMENT SHALL BE SUBMITTED WITH PRODUCT CUT SHEETS, SEE SPECIFICATIONS.

3. CONTRACTOR TO WORK WITH A CERTIFIED PLAYGROUND SAFETY INSPECTOR (CPSI) TO ENSURE PROPER EQUIPMENT INSTALLATION AND PROVIDE OWNER A LETTER STATING SUCCESSFUL COMPLETION OF INSPECTIONS.

4. EQUIPMENT SHOWN ARE FOR DESIGN INTENT. PRIOR TO ORDERING AND INSTALLATION, CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS, COLOR SAMPLES, MORE DETAILED LAYOUT PLANS, AND INSTALLATION REQUIREMENTS FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT .

5. CONTRACTOR, FABRICATOR, AND INSTALLER ARE RESPONSIBLE FOR STRUCTURAL INTEGRITY OF ALL EQUIPMENT, FOR PROPER INSTALLATION OF ALL EQUIPMENT, AND FOR MEETING ALL APPLICABLE SAFETY REQUIREMENTS.

6. ALL SAFETY SURFACING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND TO MEET FALL ZONE REQUIREMENTS AND IPEMA CERTIFICATION.

7. CONTRACTOR TO STAKE LOCATIONS OF PLAYGROUND ELEMENTS AND EQUIPMENT AND REVIEW WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THIS INCLUDES BUT IS NOT LIMITED TO ALL EQUIPMENT, CURBS, EDGES OF SAFETY SURFACES, CONCRETE, STONE WORK, AND LANDSCAPING. CONTRACTOR TO MAKE FIELD ADJUSTMENT AFTER REVIEW.

8. ALL RADII CONNECTIONS SHALL BE SMOOTH, TANGENT ARCS AS SHOWN.

9. CONTRACTOR TO PROVIDE A SAMPLE OF SYNTHETIC TURF PRIOR TO ORDERING AND DELIVERY. CONTRACTOR TO ALSO PROVIDE MOCK UPS FOR PLAY SURFACE AND PAVING FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

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Subconsultant:
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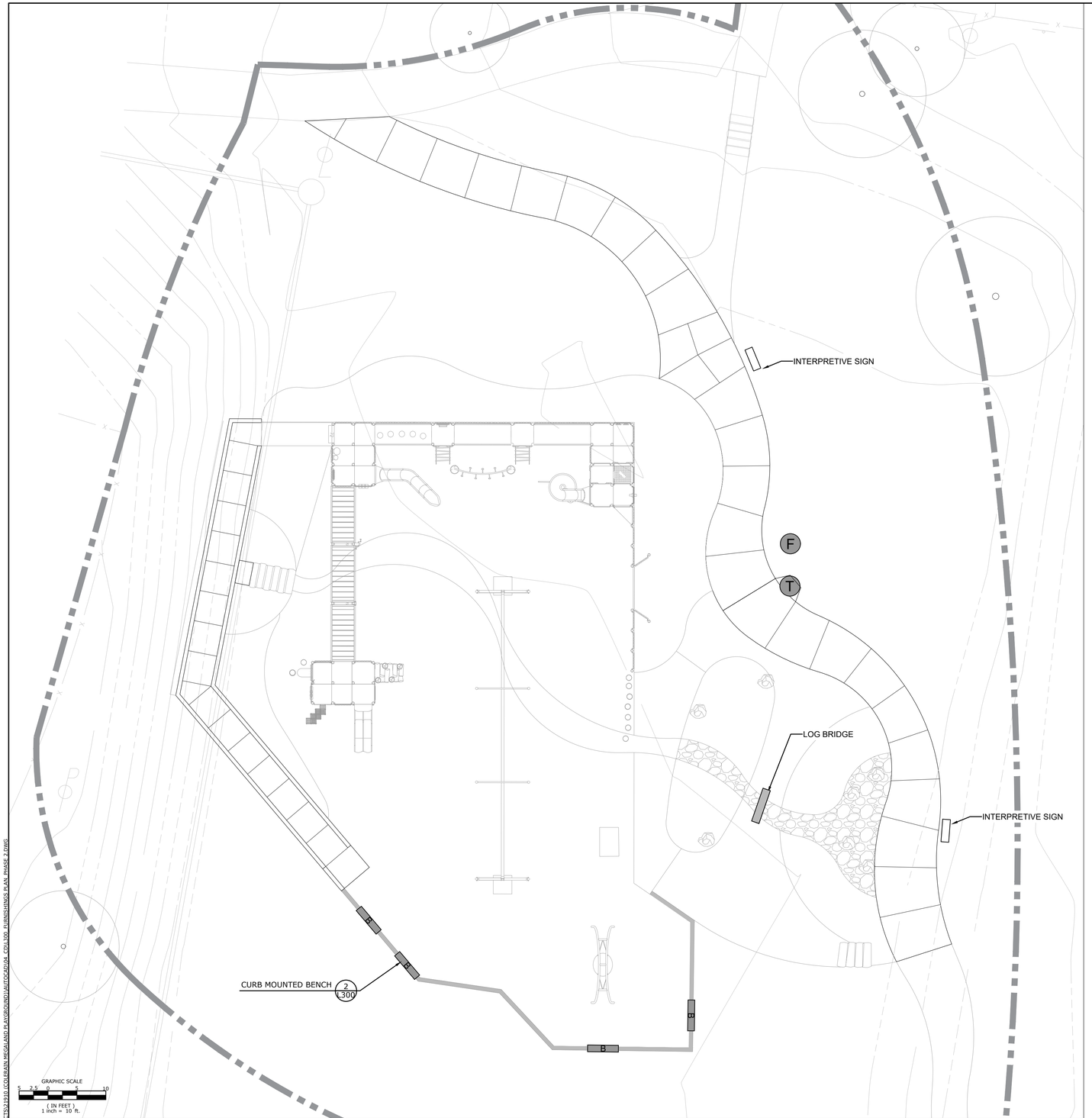
SHEET TITLE:
PLAYGROUND NOTES

SCALE:	DRAWN BY:	CHECKED BY:
PER PLAN	NH	GW

SHEET NUMBER:
L202

PROJECT NO.:	DATE:
21910	07.22.2020

07/22/20 - 09:22am TAB: LAYOUT1
X:\21900 PROJECTS\21910 (COLERAIN MEGALAND PLAYGROUND)\AUTOCAD\04 CDs\202_PLAYGROUND DETAILS & NOTES_PHASE 2.DWG



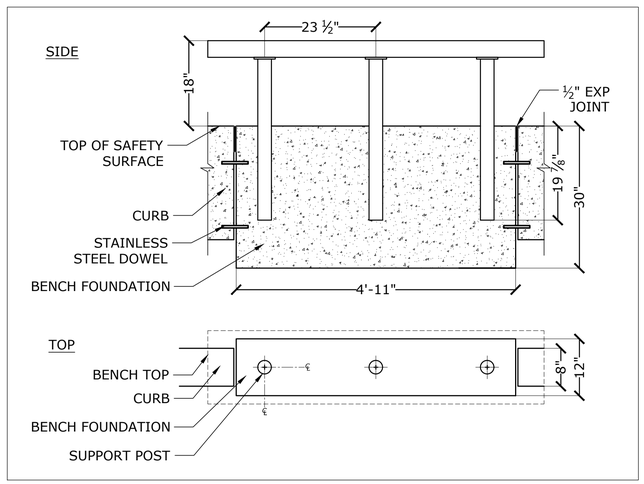
1 L300 **FURNISHINGS PLAN**
SCALE: 1/4" = 1'-0"

SITE FURNISHINGS SCHEDULE

KEY	IMAGE	ITEM	MANUFACTURER	MODEL	COLOR/OPTIONS	QTY
B		BENCH	DUMOR P.O. BOX 142 MIFFINTOWN, PA 17059 WWW.DUMOR.COM 800.598.4018	BENCH 105-60PL	6' BACKLESS BENCH, RECYCLED PLASTIC SLATS, PLASTIC COLOR: REDWOOD, METAL COLOR: TEXTURED RUST; EMBEDDED MOUNTING	4
T		TRASH RECEPTACLE	DUMOR P.O. BOX 142 MIFFINTOWN, PA 17059 WWW.DUMOR.COM 800.598.4018	RECEPTACLE 44-22PL	SIDE DEPOSIT RECEPTACLE, RECYCLED PLASTIC SLATS, PLASTIC COLOR: REDWOOD, METAL COLOR: TEXTURED RUST, SURFACE MOUNTED	1
		LOG BRIDGE	LANDSCAPE STRUCTURES, INC. 601 7TH STREET SOUTH P.O. BOX 198 DELANO, MINNESOTA 55328 PH: 1.800.328.0035	LOG BENCH 173595	EMBED IN GROUND; TOP TO BE NO MORE THAN 6" FROM FINISH GRADE	1
F		FLAG POLE	AMERICAN FLAGPOLE CO. 26252 HILLMAN HIGHWAY, ABINGDON, VA 24210 800-527-3902 WWW.CONCORDAMERICAN FLAGPOLE.COM	ARCHITECTURAL ELITE TELESCOPING, ATK25T31BZT	25' HT.; BRONZE TONE POWDER COAT; CONCRETE FOUNDATION; INSTALL PER MANUFACTURER'S REQUIREMENTS; FINAL LOCATION TO BE APPROVED BY OWNER	1
		INTERPRETIVE SIGN	N/A	N/A	FINAL CONTENT AND LOCATION PROVIDED BY OWNER	2

FURNISHINGS NOTES

1. INSTALLATION OF ALL FURNISHINGS PER MANUFACTURER'S RECOMMENDATIONS.
2. ALL METAL FINISHES TO BE AS NOTED IN THE FURNISHINGS SCHEDULE. SUBMIT SAMPLES FOR REVIEW BY LANDSCAPE ARCHITECT PRIOR TO ORDERING.
3. FIELD LOCATE AND STAKE ALL FURNISHINGS AND REVIEW LOCATION WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. SUBMIT SHOP DRAWINGS AND MANUFACTURER'S PRODUCT DATA FOR ALL FURNISHINGS FOR REVIEW BY LANDSCAPE ARCHITECT.



2 L300 **BENCH MOUNTING DETAIL**
SCALE: NTS

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:

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Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

ISSUE/ REVISION:
07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

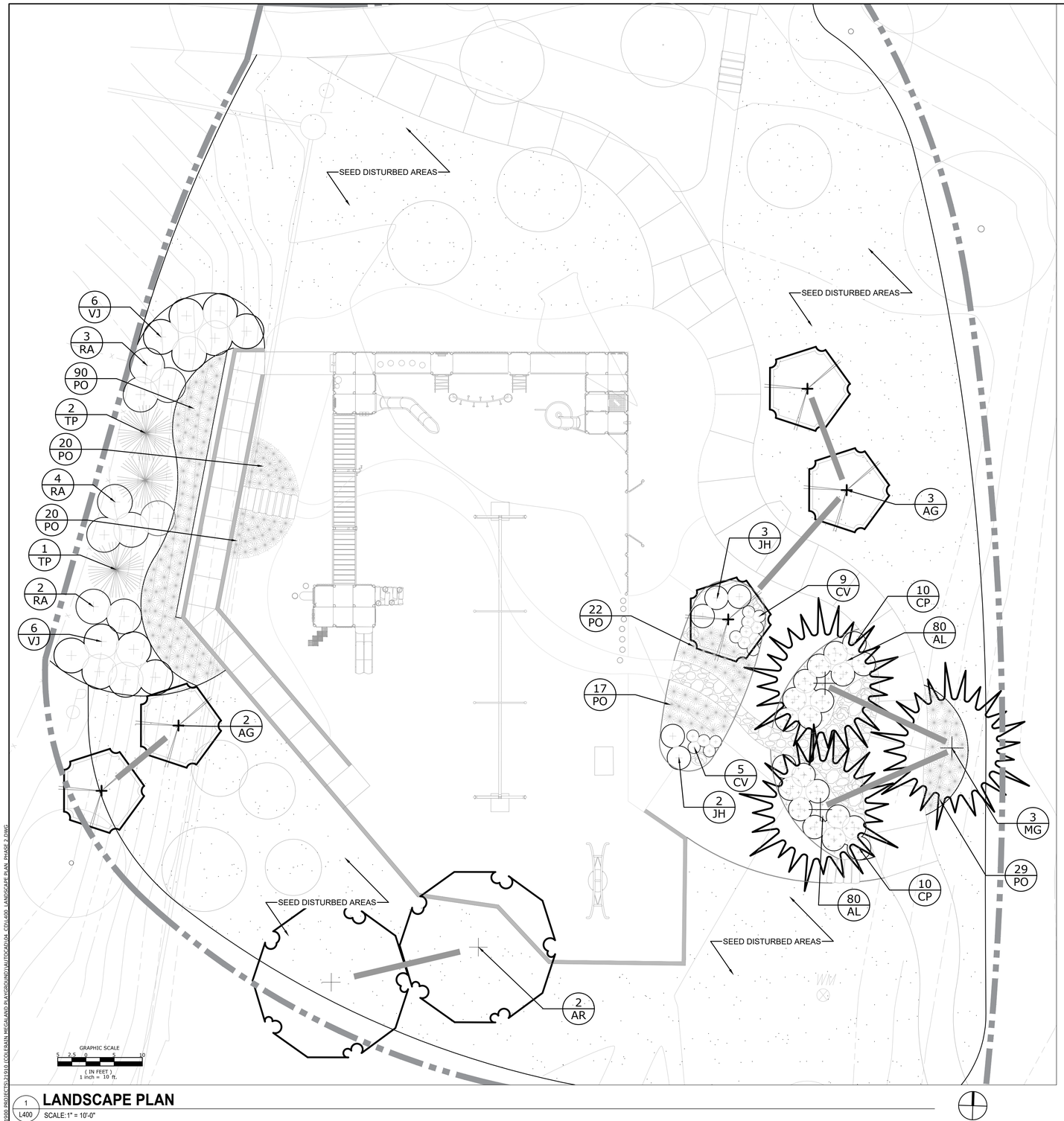
SHEET TITLE:
FURNISHINGS PLAN

SCALE: 1/4" =1'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L300

PROJECT NO.: 21910
DATE: 07.22.2020

07/22/20 - 11:20am TAB: LAYOUT1
X:\21300 PROJECTS\21910 (COLERAIN MEGALAND PLAYGROUND)\AUTOCAD\04 CDs\L300_FURNISHINGS PLAN_PHASE 2.DWG



1 L400 **LANDSCAPE PLAN**
SCALE: 1" = 10'-0"

07/22/20 - 11:19am TAB: LAYOUT1
X:\21600_PROJECTS\21910 (COLERAIN MEGA LAND PLAYGROUND)\AUTOCAD\04_CDs\400_LANDSCAPE PLAN_PHASE 2.DWG

PLANTING NOTES

1. FINAL GRADING AND SITE PREPARATION SHALL BE COMPLETED PRIOR TO PLANTING. THIS SHOULD INCLUDE DRAINAGE PER THE GRADING PLAN, REMOVAL OF MISCELLANEOUS DEBRIS, ELIMINATION OF EXISTING PLANT MATERIAL AS DIRECTED, AND PLACEMENT OF ADDITIONAL TOPSOIL REQUIRED FOR PLANT ESTABLISHMENT.
2. COORDINATE ALL ELECTRICAL UTILITIES & DRAINAGE STRUCTURES WITH PLANTINGS; CONTRACTOR TO NOTIFY OWNER AND LANDSCAPE ARCHITECT OF ANY CONFLICTS AND RESOLVE ISSUES IN THE FIELD.
3. CONTRACTOR TO STAKE ALL TREE LOCATIONS & PLANTING BED LINES PRIOR TO INSTALLATION. REVIEW STAKING LOCATIONS WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AND MUST BE REPLACED WITH PLANT MATERIAL OF SIMILAR VARIETY AND SIZE IF IT IS DEAD, DAMAGED, DESTROYED, OR REMOVED UP TO ONE YEAR AFTER INSTALLATION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE OWNER OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS THE INSTALLATION OF PLANTS AS SHOWN ON THE DRAWINGS.
6. PLANT SPACING IS AS INDICATED ON 'PLANT SCHEDULE' UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS.
7. CONTRACTOR TO WATER-IN ALL PLANTS ON THE SAME DAY THEY ARE INSTALLED. CONTRACTOR SHALL NOT INSTALL MORE PLANTS THAN CAN BE WATERED-IN ON THE SAME DAY.
8. APPLY SHREDDED HARDWOOD MULCH TO A DEPTH OF 2 INCHES IN ALL TREE AND SHRUB PLANTING AREAS.
9. TREES LOCATED IN AREAS WITH ADJACENT SEEDING OR SODDING SHOULD HAVE A MINIMUM 6 FOOT DIAMETER MULCH RING AROUND THE TRUNK TO A MAXIMUM DEPTH OF 2 INCHES.
10. LANDSCAPED AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES DURING CONSTRUCTION.
11. ALL DISTURBED AREAS TO BE COVERED IN EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES. SEE EROSION PROTECTION AND SEDIMENT CONTROL PLAN, NOTES AND DETAILS.
12. SEE SPECIFICATIONS FOR ADDITIONAL PLANTING AND SEED REQUIREMENTS.

PLANT SCHEDULE

TREES			
AG	*Amelanchier x grandiflora 'Autumn Brilliance'* Autumn Brilliance Serviceberry	2 1/2" CAL.	B&B, SINGLE TRUNK, NON-SHEARED
AR	*Acer rubrum 'Red Sunset'* Red Sunset Maple	2 1/2" CAL.	B&B, SINGLE TRUNK, NON-SHEARED
MG	*Metasequoia glyptostroboides* Dawn Redwood	2 1/2" CAL.	B&B, SINGLE TRUNK, NON-SHEARED
TP	*Thuja plicata 'Green Giant'* Green Giant Western Arborvitae	6' HT.	B&B, SINGLE TRUNK, NON-SHEARED
SHRUBS			
CP	*Comptonia peregrina* Sweet Fern	#1	4' O.C.
JH	*Juniperus horizontalis 'Blue Chip'* Blue Chip Juniperus	#3	4' O.C.
RA	*Rhus aromatica 'Gro-Low'* Gro-Low Fragrant Sumac	#3	6' O.C.
VC	*Viburnum x juddii* Judd Viburnum	2.5' HT.	B&B, 6' O.C.
PERENNIALS & GRASSES			
AL	*Allium 'Persian Blue'* Persian Blue Allium	ea.	~18" O.C.
CV	*Coreopsis verticillata " Moonbeam'* Moonbeam Coreopsis	#1	2' O.C.
PO	*Pennisetum orientale "Karley Rose"* Karley Rose Fountain Grass	#1	2' O.C.

LANDSCAPE LEGEND

KEY	ITEM
	EXISTING TREE TO REMAIN (SEE LTP101)
	CONIFEROUS TREES
	FLOWERING & SHADE TREES
	TURFGRASS SEED MIX
	BULB CO-PLANTING

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

NOT FOR CONSTRUCTION

PRIME/LANDSCAPE ARCHITECT:
HUMAN NATURE
990 Saint Paul Drive
Cincinnati, OH 45206
P: 513.281.2211
www.humannature.cc

Subconsultant:
IBI Group
23 Triangle Park Drive
Cincinnati, Ohio 45246
P: 513.942.3141

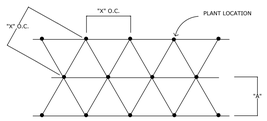
ISSUE/ REVISION:
07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLANTING PLAN

SCALE: 1" =10'-0"
DRAWN BY: NH
CHECKED BY: GW

SHEET NUMBER:
L400

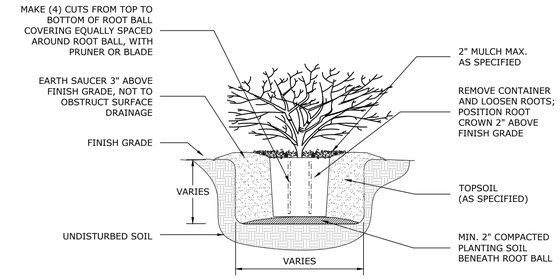
PROJECT NO.: 21910
DATE: 07.22.2020



SPACING SCHEDULE	
SPACING "X"	ROW "A"
8" O.C.	7"
12" O.C.	10 1/2"
18" O.C.	15 1/2"
24" O.C.	20 3/4"
30" O.C.	26"
36" O.C.	31"
42" O.C.	3'-0"
5' O.C.	4'-4"

1 L401 TYPICAL PLANT SPACING DETAIL

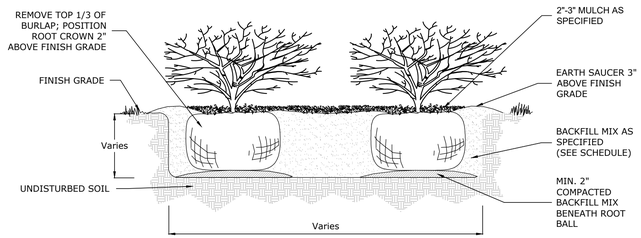
SCALE:N.T.S.



2 L401 TYPICAL SHRUB CONTAINER PLANTING DETAIL

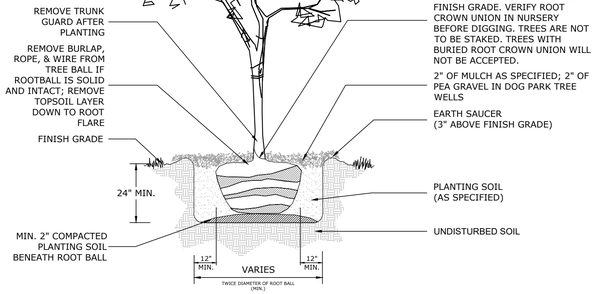
SCALE:N.T.S.

NOTE:DO NOT EXCAVATE LARGE AREAS FOR BED PREP OR ROTOTILL AROUND EXISTING TREES/ROOTS. COORDINATE ALL PLANTINGS UNDER DRIPLINE OF EXISTING TREES WITH CERTIFIED ARBORIST. ADJUST LAYOUT AS NECESSARY TO AVOID ROOTS. DO NOT DAMAGE TRUNKS OR ROOTS.



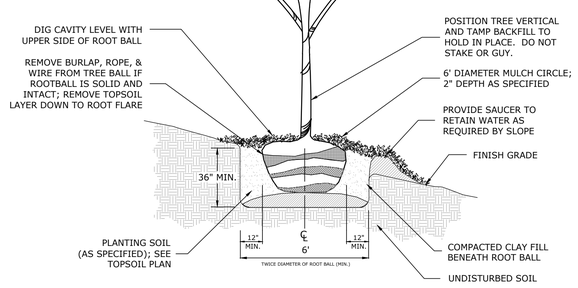
3 L401 TYPICAL SHRUB B&B PLANTING DETAIL

SCALE:N.T.S.



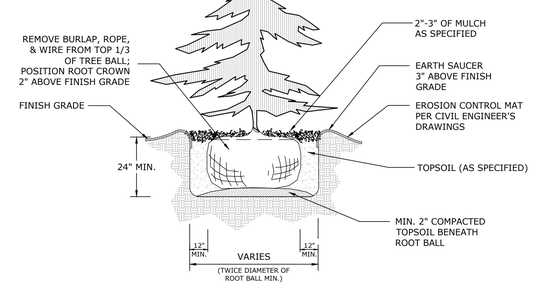
4 L401 TYPICAL TREE PLANTING DETAIL

SCALE:N.T.S.



5 L401 TYPICAL TREE ON SLOPE PLANTING DETAIL

SCALE:N.T.S.



6 L401 TYPICAL CONIFEROUS PLANTING DETAIL

SCALE:N.T.S.

07/22/20 - 11:28am TARI LAYOUT1
X:\21900 PROJECTS\21910 (COLERAIN MEGALAND PLAYGROUND)\AUTOCAD\04 -CD\L401_PLANTING DETAILS_PHASE 2.DWG

COLERAIN PARK PLAYGROUND PHASE 2

COLERAIN TOWNSHIP, OHIO

OWNER:
COLERAIN TOWNSHIP
4160 SPRINGDALE ROAD
CINCINNATI, OH 45251

STAMP:

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ISSUE/ REVISION:

07.20.2020 - 90% DESIGN
07.22.2020 - ISSUED FOR BID

SHEET TITLE:
PLANTING DETAILS

SCALE: PER PLAN
DRAWN BY: RS
CHECKED BY: ND

SHEET NUMBER:
L401

PROJECT NO.: 21910
DATE: 07.22.2020

PLANNING & ZONING

Department: Planning & Zoning

Department Head: Mike Ionna, Director - Planning and Zoning

Resolution Declaring Nuisance and Ordering Abatement

Recommend approval of a Resolution declaring nuisance and ordering abatement.

Rationale:

This resolution allows for the removal of uncontrolled vegetation and/or refuse at the following properties:

9952 Capstan
9929 Capstan
7992 Cheviot
2816 Klondike
9924 Loralinda
6691 Memory
9870 Pinedale
3506 Poole
3561 West Kemper
2459 Wilson

All properties that are abated by the Township will have their property taxes assessed in order to reimburse the Township for the abatement services. This resolution and the Township's abatement process comport with the Ohio Revised Code for nuisance violations.

The Board of Trustees of Colerain Township, County of Hamilton, State of Ohio, met in regular session at 7:00 p.m., on the 28th day of July, 2020, at the Colerain Township Administration Building, 4200 Springdale Road, Cincinnati, Ohio 45251, with the following members present:

Raj Rajagopal, Dan Unger, Matthew Wahlert

Mr. _____ introduced the following resolution and moved its adoption:

RESOLUTION NO. _____

RESOLUTION DECLARING NUISANCE AND ORDERING ABATEMENT

WHEREAS Uncontrolled vegetation and/or refuse and debris were reported at the properties listed below:

Address	Book-Page-Parcel No.
9952 Capstan	510-0111-0182-00
9929 Capstan	510-0111-0156-00
7992 Cheviot	510-0082-0189-00
2816 Klondike	510-0034-0232-00
9924 Loralinda	510-0112-0203-00
6691 Memory	510-0074-0247-00
9870 Pinedale	510-0044-0265-00
3506 Poole	510-0104-0140-00
3561 W. Kemper	510-0140-0048-00
2459 Wilson	510-0031-0332-00

WHEREAS Ohio Revised Code Section 505.87 provides that, at least seven days prior to providing for the abatement, control or removal of any vegetation, garbage, refuse or debris, the Board of Trustees shall notify the owner of the land and any holders of liens of record upon the land; and

WHEREAS Ohio Revised Code Section 505.87 provides that, if the Board of Trustees determines within twelve consecutive months after a prior nuisance determination that the same owner's maintenance of vegetation, garbage refuse, or other debris on the same land in the township constitutes a nuisance, at least four days prior to providing for the abatement, control or removal of the nuisance, the Board must send notice of the subsequent nuisance determination to the landowner and to any lienholders of record by first class mail; and

WHEREAS In accordance with Ohio Revised Code Section 505.87, the Township Trustees have the authority to contract to abate the nuisances and have the costs incurred assessed to the property tax bills; therefore

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of Colerain Township, Hamilton County, Ohio, as follows:

1. That this Board specifically finds and hereby determines that the uncontrolled growth of vegetation and/or the refuse and debris on each of the said properties listed above constitute a nuisance within the meaning of Ohio Revised Code Section 505.87, and the Board directs that notice of this action be given to owners of the said property and lienholders in the manner required by Ohio Revised Code Section 505.87;

2. That this Board hereby orders the owners of said property to remove and abate the nuisances within seven days after notice of this order is given to the owners and lienholders of record, and within four days after notice of this order is given to the owners and lienholders of record for properties previously

determined to be a nuisance. If said nuisances are not removed and abated by the said owners, or if no agreement for removal and abatement is reached between the Township and the owners and lienholders of record within four or seven days after notice is given, the Zoning Inspector shall cause the nuisances to be removed, and the Township shall notify the County Auditor to assess such cost plus administrative expense to the property tax bills for the said parcel, as provided in Ohio Revised Code Section 505.87;

3. That it is hereby found and determined that all formal actions of this Board concerning and relating to the passage of this Resolution were taken in an open meeting of this Board, and that all deliberations of this Board and any of its committees that resulted in such formal action were taken in meetings open to the public, in compliance with all legal requirements including §121.22 of the Ohio Revised Code; and

4. That the Board by a majority vote hereby dispenses with the requirement that this Resolution be read on two separate days and hereby authorizes the adoption of the Resolution upon its first reading.

5. That this Resolution shall be effective at the earliest date allowed by law.

Mr._____ seconded the Resolution, and the roll being called upon the question of its adoption, the vote resulted as follows:

Vote Record: Mr. Rajagopal_____, Mr. Unger_____, Mr. Wahlert_____

ADOPTED this 28th day of July, 2020.

BOARD OF TRUSTEES:

_____
Raj Rajagopal, Trustee

_____
Dan Unger, Trustee

_____
Matthew Wahlert, Trustee

ATTEST:

_____
Jeff Baker,
Colerain Township Fiscal Officer

Resolution prepared by and approved as to form:

_____
Lawrence E. Barbiere (0027106)
5300 Socialville Foster Rd., Suite 200
Mason, OH 45040 (513) 583-4200
Colerain Township Law Director

AUTHENTICATION

This is to certify that this Resolution was duly passed and filed with the Colerain Township Fiscal Officer this 28th day of July, 2020.

_____
Jeff Baker
Colerain Township Fiscal Officer

PLANNING & ZONING

Department: Planning & Zoning

Department Head: Mike Ionna, Director - Planning and Zoning

Resolution to Approve Zoning Case ZA2020-03 Changing The Zoning On The Site From R-6 (Urban Residential) to PD-R (Planned Development - Residential) - Lake Gloria Development

Recommend approval of a resolution to approve the proposed zone change on the site in question.

Rationale:

Staff is recommending approval of a resolution approving the zone change on the site in question from R-6 to PD-R.

The Colerain Township Zoning Commission, following the public hearing held on June 16, 2020, voted to provide a favorable recommendation of the proposed zone change to the Colerain Township Board of Trustees subject to the conditions in the proposed resolution. See attached documents for additional information. To view all case materials, please visit the now pending page on the Colerain Township Planning:

https://www.colerain.org/185/Zoning-Commission

The Board of Trustees of Colerain Township, County of Hamilton, State of Ohio, met in regular session at 7:00 p.m., on the 28th day of July, 2020, at the Colerain Township Administration Building, 4200 Springdale Road, Cincinnati, Ohio, 45251, with the following members present:

Raj Rajagopal, Dan Unger, Matt Wahlert

Mr./Ms. _____ introduced the following resolution and moved its adoption:

RESOLUTION NO. _____-20

Case No. ZA2020-03
10511 Pippin Road
Approval of a Re-Zoning Request
From R-6 Urban Residential to PD-R (Planned Development – Residential)
Parcel 510-0033-0023-00

WHEREAS, the Applicant, Redwood USA, LLC on behalf of KVR LLC and Equity Trust Company, has submitted an application for a Zoning Map Amendment for the re-zoning of the property located at 10511 Pippin Road from R-6 (Urban Residential) to PD-R (Planned Development – Residential); and,

WHEREAS, the Colerain Township Zoning Commission conducted its public hearing on the application on June 16, 2020, and after staff presentation, public comments, exhibits, and other materials submitted, voted 4-1 to recommend approval of the zoning request; and,

WHEREAS, the Colerain Township Board of Trustees conducted its public hearing on the case on July 14th, 2020, and after consideration of the recommendation of the Zoning Commission, and all public comments, exhibits, and other materials submitted, voted 4-1 to approve the application for the Zoning Map Amendment request from R-6 (Urban Residential) to PD-R (Planned Development – Residential).

NOW, THEREFORE, BE IT RESOLVED that the Board of Trustees of Colerain Township, Hamilton County, Ohio accepts the recommendation of the Colerain Township Zoning Commission for a Zoning Map Amendment, and that the Board of Trustees does hereby approve the request for Parcel 510-0033-0023-00, subject to the following conditions:

(1) That the applicant either (1) construct a public sidewalk or (2) secure a sidewalk waiver from the Board of Trustees for the Pippin Road frontage of the property in compliance with all applicable design standards.
(2) That a concrete sidewalk be constructed on both sides of the primary (north) entry drive from Pippin Road to the first intersection of the private drive. After this intersection, a sidewalk located along one side of the private drive shall be permitted.
(3) That the Final Development Plan include a landscape plan that addresses the preservation of existing buffering along the north property border and care and maintenance of open space

throughout the development. Particular consideration should be given to providing additional screening and buffering form the adjacent residential uses along this property boundary line.
(4) That the Final Development Plan be in keeping with the Submission Materials submitted with the Preliminary Development Plan.

The Board of Trustees of Colerain Township, Hamilton County, Ohio approve the change in zoning on the site in question for the reason that the Zoning Map Amendment would be in the best interest of the Township and the health, safety, morals and welfare of the public, is consistent with the Colerain Township Comprehensive Plan previously adopted by the Township, and is in keeping with good land use planning; and,

BE IT FURTHER RESOLVED by the Board of Trustees of Colerain Township, Hamilton County, Ohio, as follows:

1. That a certified copy of this Resolution be directed by the Fiscal Officer of Colerain Township to the Hamilton County Recorder and the Colerain Township Zoning Inspector.

2. That it is hereby found and determined that all formal actions of this Board concerning and relating to the passage of this Resolution were taken in an open meeting of this Board, and that all deliberations of this Board and any of its committees that resulted in such formal action were taken in meetings open to the public, in compliance with all legal requirements including §121.22 of the Ohio Revised Code; and

3. That the Board by a majority vote hereby dispenses with the requirement that this Resolution be read on two separate days and hereby authorizes the adoption of the Resolution upon its first reading; and

4. That this Resolution shall be effective at the earliest date allowed by law.

Mr._____ seconded the Resolution, and the roll being called upon the question of its adoption, the vote resulted as follows:

Vote Record: Mr. Rajagopal_____, Mr. Unger_____, Mr. Wahlert_____,

ADOPTED this 28th day of July, 2020.

BOARD OF TRUSTEES:

_____
Raj Rajagopal, Trustee

_____
Dan Unger, Trustee

_____
Matt Wahlert, Trustee

ATTEST:

_____
Jeff Baker,
Colerain Township Fiscal Officer

Resolution prepared by and approved as to form:

_____
Lawrence E. Barbiere (0027106)
5300 Socialville Foster Rd., Suite 200
Mason, OH 45040 (513) 583-4200
Colerain Township Law Director

AUTHENTICATION

This is to certify that this Resolution was duly passed and filed with the Colerain Township Fiscal Officer this 28th day of July, 2020.

_____
Jeff Baker
Colerain Township Fiscal Officer

APPLICATION TYPE: MAP AMENDMENT	
Case No:	ZA2020-03
Location:	50511 Pippin Road
Applicant:	Redwood USA, LLC on behalf of KVR LLC and Equity Trust Company
Reviewer:	Michael Ionna, AICP

GENERAL CASE INFORMATION

Redwood USA, LLC has submitted a Zoning Map Amendment request on behalf of property owners KVR LLC and Equity Trust Company to rezone approximately 49 acres at 10511 Pippin Road (parcels 510-0033-0023 and 510-0033-0099) from Urban Residential (R-6) to Planned Development Residential (PD-R). The request is for approval of a Preliminary Development Plan for the development of 139 multi-family residential units.

ZONING COMMISSION RECOMMENDATION

Following a public hearing, the Colerain Township Zoning Commission voted to provide a favorable recommendation on the proposed zone change subject to the following conditions:

(1) That a public sidewalk be constructed on the Pippin Road frontage of the property in compliance with the design standards of the Hamilton County Engineer.

(2) That a concrete sidewalk be constructed on both sides of the primary (north) entry drive from Pippin Road to the first intersection of the private drive. After this intersection, a sidewalk located along one side of the private drive shall be permitted.

(3) That the Final Development Plan include a landscape plan that addresses the preservation of existing buffering along the north property border and care and maintenance of open space. Particular consideration should be given to providing additional screening and buffering form the adjacent residential uses along this property boundary line.

(4) That the Final Development Plan be in keeping with the Submission Materials submitted with the Preliminary Development Plan.

DEVELOPMENT REVIEW PROCESS

The zoning approval process for a PD-R zone map amendment is as follows (Section 4.5):

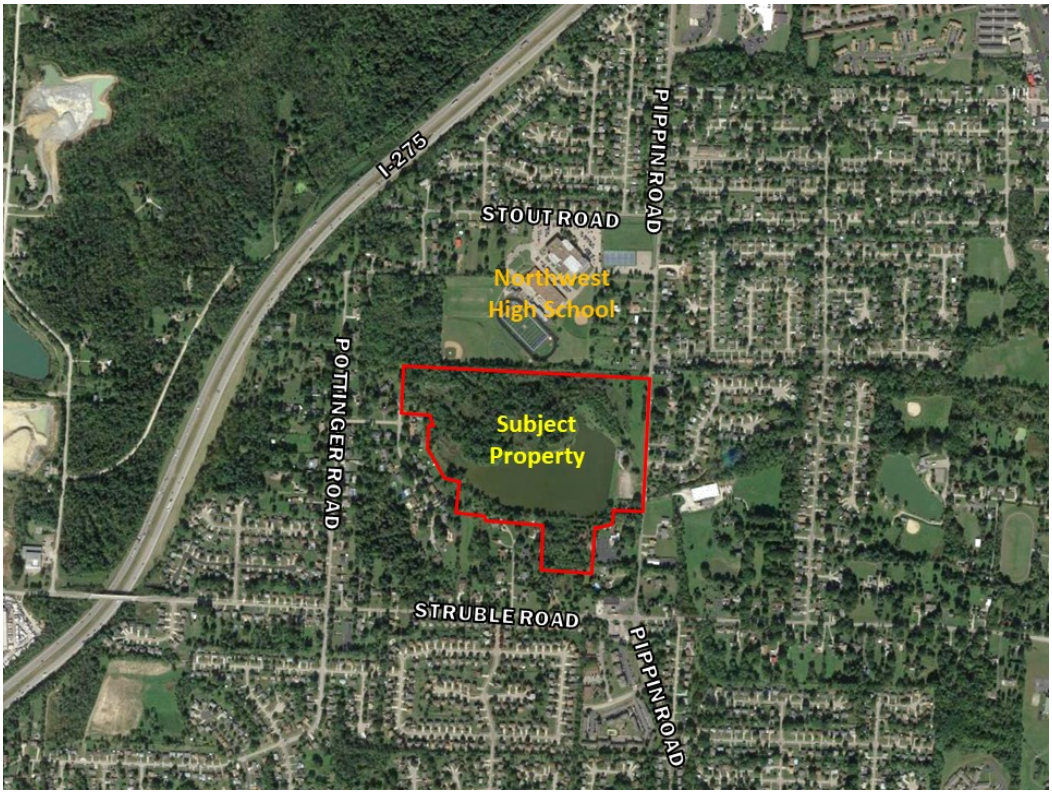
1. Submission of a Preliminary Development Plan
    - Zoning Commission public hearing and recommendation (Current Status of Application)
    - Township Board of Trustees hearing and approval
2. Submission of a Final Development Plan
    - Zoning Commission review and approval
3. Submission of a Subdivision Plat and Public Improvement Drawings to Hamilton County Regional Planning Commission (if applicable)
4. Submission of a Zoning Certificate Application for administrative approval.

HISTORY

The subject property is commonly known as Lake Gloria and is on the west side of Pippin Road between Struble Road and Stout Road. The construction date of the lake was possibly in the 1940s since the lake appears on the USGS survey map from 1954 but is not in an aerial photo of the area taken in 1939. The property has been used as a golf course, a pay fishing lake and other recreational uses. The only structure remaining on the property is the former golf pro shop/fishing store building.

In August, 2007 a Preliminary Development Plan called “Mallard Pointe” was approved for this property by the Hamilton County Regional Planning Commission under the standard subdivision review process. The proposed Development Plan complied with the R-6 zoning standards. The plan included the development of public streets with individual lots containing a four-family structure on each lot. The subject property was approved for 26 lots containing 104 residential units plus an additional 9 lots with 36 units on an adjacent tract fronting on Stout Road. The file does not indicate why this project did not move forward for development, however several other residential projects in Colerain were stalled due to the economic downturn of 2008. The Mallard Pointe plan could still be approved by the Regional Planning Commission via the standard subdivision process under the current R-6 (Urban Residential) zoning regulations.

FIGURE 1. LOCATION MAP



SITE LOCATION AND BACKGROUND

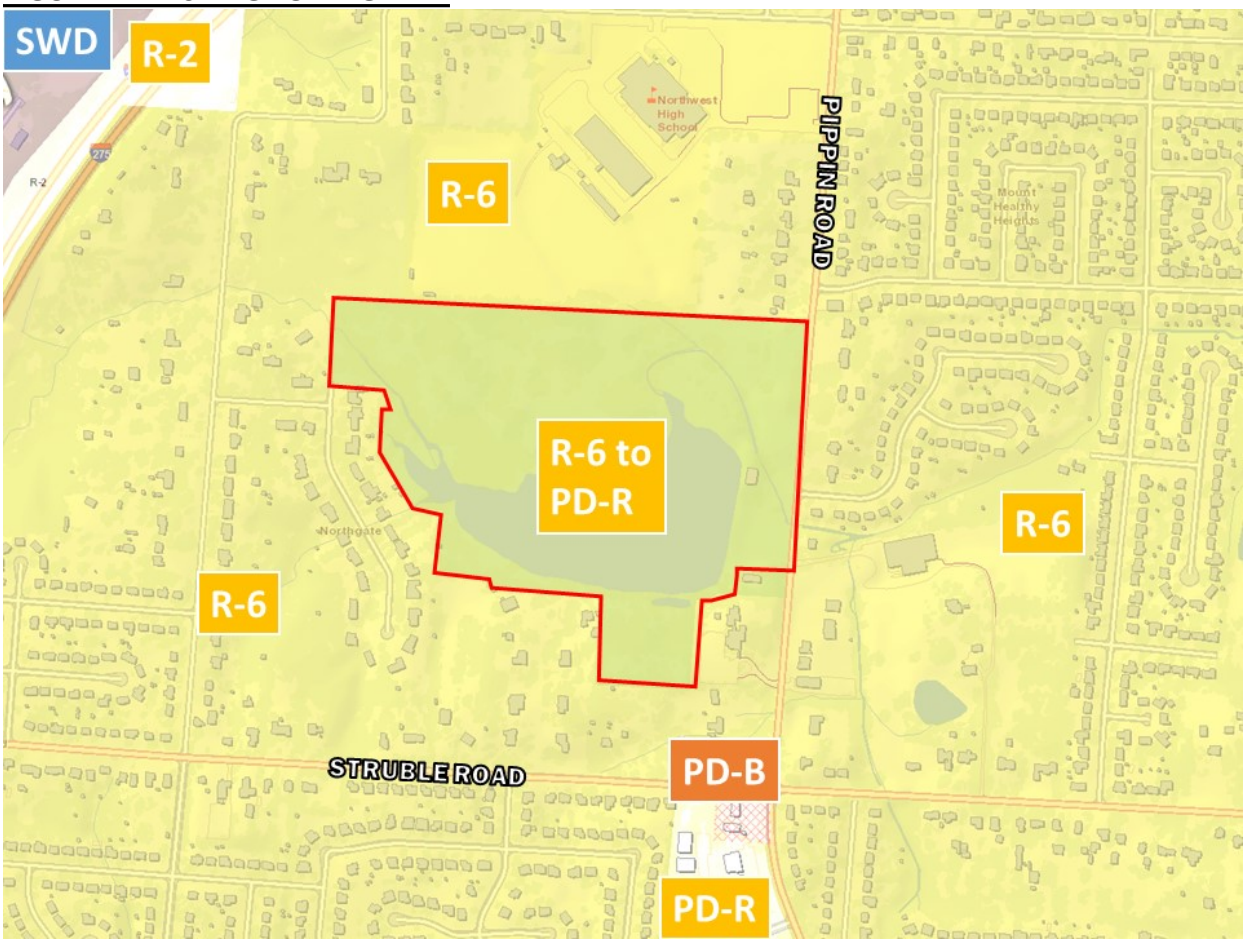
The subject property contains approximately 49 acres with a lake that has a surface area of about 13 acres covering about ¼ of the site. The configuration of the lake blocks vehicle access to the land area to the south and west of the lake. This six acre portion of the site is proposed to remain as vacant open space. The lowest elevation is at the southeast corner of the site and rises about 40 feet to the northwest corner of the property over a distance of about 1,500 feet. The lake is retained by an earth dam that parallels Pippin Road and is fed by a stream entering the property at the northwest corner, and is drained by a spillway on the northeast side of the lake. The lake has a maximum depth of about 20 feet. The former golf course area on the north side of the lake contained mature trees but is now mostly overgrown with scrub trees and invasive vegetation.

ANALYSIS

1. **Current Zoning and Land Use:**

	ZONING	MINIMUM LOT SIZE	MAXIMUM DENSITY	CURRENT USE
Subject Property	**R-6**	7,500 sq ft / unit	N/A	Vacant
NORTH	**R-6**	7,500 sq ft / unit	N/A	Single Family, High School
SOUTH	**R-6**	7,500 sq ft / unit	N/A	Single Family, Church
EAST	**R-6**	7,500 sq ft / unit	N/A	Single Family, Greenhouse
WEST	**R-6**	7,500 sq ft / unit	N/A	Single Family

FIGURE 2. EXISTING ZONING MAP



SUBMISSION MATERIALS

The applicant has submitted the following information and materials (attached):

1. An application form submitted on behalf of the developer.
2. An application form submitted on behalf of the property owners.
3. A booklet of information containing the following:
    - Project Introduction
    - Company Profile
    - Architectural Materials
    - Application Copy
    - Legal Description
    - Plan Exhibits
4. Drawing "Illustrative Preliminary Development Plan"
5. Drawing "Architectural Character Exhibit"
6. Drawing "FEMA Flood Map"
7. Drawing "Conceptual Sanitary Exhibit"
8. Drawing "Open Space Plan"
9. Drawing "Conceptual Landscape Plan"
10. Drawing "Preliminary Storm 1 of 2"
11. Drawing "Preliminary Storm 2 of 2"
12. Mailing List of Surrounding Property Owners

PROJECT DESCRIPTION

The Preliminary Development Plan is intended to illustrate the proposed density, intensity and use of the property. Design details such as architectural design, lighting, detailed landscaping, etc. are typically reviewed and approved with the Final Development Plan which is submitted after the approval of the Preliminary Development Plan. The developer has submitted additional details with the Preliminary Development Plan illustrating the architectural design of the buildings and a general landscaping plan in order to clarify the intent of the project.

The proposed Preliminary Development Plan calls for the construction of 139 residential units in 30 buildings containing from one to eight units each. The majority of the residential units are four unit buildings. All units are single floor with 2 bedrooms, 2 bathrooms and attached 2 car garages. The exterior materials are a combination of lap siding, shingle siding and stone accents. Other interior features include vaulted ceilings, granite counters, and laundry. The overall project density is 2.83 units per acre compared to an allowable density of 5.8 units per acre that is permissible on individual lots under the current zoning. (this density does not account for the undevelopable portions of the site.)

All units have two parking spaces in addition to the two-car garage parking and there are 45 shared parking spaces scattered throughout the development. The vehicle access is by private drive with a sidewalk on one side of the drive. Access from Pippin Road is by a primary entry towards the north portion of the frontage and a second entry towards the south portion of the site at the location of the current entry to Lake Gloria. The second entry is for a single eight unit building and the existing pro shop which is proposed to be converted to a single residential unit. A third entry from Pippin road towards the center of the site is proposed to access a public overlook of the lake.

APPROVAL CRITERIA FOR A PRELIMINARY DEVELOPMENT PLAN AND STAFF FINDINGS (Section 4.5.3)

(1) The PD District and preliminary development plan are consistent with the adopted Colerain Township Land Use Plan and Colerain Township Comprehensive Plan;

The proposed development is in the Bevis/Pleasant Run character area and borders on the Rural North/Dunlap area to the west. Development policies relating to residential development include development with access to central sewers, minimizing cul-de-sacs, development of pedestrian infrastructure, interconnection between developments, and development with densities similar to existing development. The proposed development would have access to central sewers and will have sidewalks throughout the development and along Pippin Road. The density is concentrated on a portion of the site while leaving the remainder as open space. The overall density is similar to the surrounding neighborhood.

The general policies of the Comprehensive Plan stresses high quality for new housing development that will "withstand the test of time". Quality factors include landscaping, signage, building materials and site design. The comprehensive plan lists "attached residential" as an appropriate land use for this area.

(2) The proposed uses will have a beneficial effect on the community;

About 76 percent of Colerain's housing is single-family detached units. Of the occupied housing in Colerain, 74 percent is owner occupied. A market study prepared by Dinn Focused Marketing in 2018 for the potential redevelopment of Northgate Mall indicated a "strong first-ring suburb market depth for new rental housing choices". Much of Colerain's multi-family housing is more than 30 years old and there is a need to high-quality rental options. This area of Colerain Township has not experienced new housing construction in many years.

(3) The internal streets and primary and secondary roads that are proposed properly interconnect with the surrounding existing road network.

The internal roads are proposed to be private drives. The proposed width is about 20 feet which can accommodate two way traffic at low speeds. An advantage of private drives is that it eliminates Township costs for repair and

maintenance of the roads. Rather than parallel on-street parking on public streets, the overflow parking is located at strategic locations throughout the development. The points of intersection with Pippin Road appear to have adequate sight distance. A Traffic Impact Study (TIS) will be required by the Hamilton County Engineer to assess safety issues regarding the access of the proposed development to Pippin Road.

(4) The site will be accessible from public roads that are generally adequate to carry the traffic that will be imposed upon them by the proposed development and the streets and driveways on the site will be adequate to serve the residents or occupants of the proposed development;

The access to the development is from Pippin Road which is under the jurisdiction of the Hamilton County Engineer. The development plan has been forwarded to the County Engineer for comment. A Traffic Impact Study (TIS) will be required for the project that will address issues such as roadway access sign distances, the need for turn lanes, and traffic capacity on Pippin Road.

As it pertains to connectivity, the proposed development will provide sidewalk along that portion of the site fronting Pippen Road which is currently a major gap in the sidewalk network along an important and highly traveled pedestrian thoroughfare in the region.

(5) The minimum common open space areas have been designated and shall be duly transferred to a legally established Homeowners Association, where applicable, or have been dedicated to, and accepted by, Colerain Township or another public or quasi-public agency as provided in Subsection 9.3.7 (Common Open Space).

The entire project including the open space is proposed to be owned and maintained under a single owner. Additionally, the submitted development plan preserves Lake Gloria and other natural areas along its banks. Furthermore, the proposed development plan provides a gazebo and viewing areas of the Lake that is open to the public preserving the heritage of the site as a place for Colerain residents to enjoy.

(6) The preliminary development plan is consistent with the intent and purpose of this Resolution and, in particular, the furtherance of the purpose of the PD District as set forth in Section 9.3.1.

The PD-R zone requires that a minimum of 25 percent of the site to be set aside for open space which would be a minimum of 12.275 acres. The proposed project calls for the preservation of about 35 acres of open space representing 69 percent of the site area. The development preserves the natural features of the site including the lake and wooded area on the south side of the lake. The proposed multi-family housing would be permitted within R-7 Multi-family

Residential District with a maximum of 355 units compared to the 139 proposed. The Planned Development District gives the Township the ability to regulate additional qualities of the project such are architectural features, landscaping and other beneficial site features that cannot be regulated under the current zoning classification.

(7) The preliminary development plan has been transmitted to all other agencies and departments charged with responsibility of review.

Hamilton County Storm Water & Infrastructure
- o Response Attached

Colerain Township Fire Department
- o No Response

Hamilton County GIS
- o No response

Hamilton County Soil & Water Conservation District
- o Comments Attached

ODOT
- o No response (not adjacent to a State highway)

Hamilton County Engineer
- o Comments Attached.

Metropolitan Sewer District
- o Comments Attached

ADDITIONAL STAFF FINDINGS

1. The overall density of the proposed development of 2.83 units per acre compared to an allowable density of 5.8 units per acre that is permissible on individual lots under the current zoning should minimize the impact on surrounding neighborhoods and street network.
2. The proposed development has very little direct contact with the adjacent properties since the lake buffers the existing residences to the south and west of the property and the school athletic fields provide a buffer to the high school building to the north. The adjacent church to the south of the site is a Conditional Use in the residential zone and a non-conforming greenhouse operation on the opposite side of Pippin Road tend to be more intensive land uses that the surrounding residential.
3. The current zoning permits multi-family up to four units in a single building on lots facing a public street. The proposal for multi-family building on a private drive will tend to create a more intimate residential neighborhood character to the development since the private drives will be narrower, prohibit on-street parking, and will tend to calm traffic speeds.

PLANNING STAFF RECOMMENDATION

Staff recommends for **APPROVAL** of the proposed Preliminary Development Plan and Zoning Map Amendment from R-6 Urban Residential District to PD-R Planned Development Residential District subject to the following variance and conditions:

Variance:

Section 13.3.4(A) of the Zoning Resolution allows for a maximum number of parking spaces to be ten percent above the required number. The required number of parking spaces is two per unit. With each unit having a two-car garage, two spaces in the driveway, and an average of one-third parking spaces in the shared parking area, the total provided is 4.33 spaces per unit. The maximum allowed is 2.2 spaces per unit. Staff recommends a variance to allow the proposed 4.33 parking spaces per unit.

Conditions:

(1) That a public sidewalk be constructed on the Pippin Road frontage of the property in compliance with the design standards of the Hamilton County Engineer.

(2) That a concrete sidewalk be constructed on both sides of the primary (north) entry drive from Pippin Road to the first intersection of the private drive. After this intersection, a sidewalk located along one side of the private drive shall be permitted.

(3) That the Final Development Plan include a landscape plan that addresses the preservation of existing buffering along the north property border and care and maintenance of open space. Particular consideration should be given to providing additional screening and buffering form the adjacent residential uses along this property boundary line.

(4) That the Final Development Plan be in keeping with the Submission Materials submitted with the Preliminary Development Plan.





VICINITY MAP
N.T.S.

SITE DATA

CURRENT ZONING:	R-6
PROPOSED ZONING:	PD-R
TOTAL ACREAGE:	± 49.1 AC
DWELLING UNITS:	139
DENSITY:	± 2.83 DU/AC
PARKING PROVIDED:	601
2 CAR GARAGE:	278
2 CAR DRIVE WAY:	278
GUEST:	45

DEVELOPER

Greg Thurman
VP of Entitlement & Due Diligence
7510 Pleasant Valley Rd.
Independence, Ohio 44131
(513) 458-9810

Redwood APARTMENT NEIGHBORHOODS™

DESIGN TEAM

POD design
landscape architecture | planning | urban design

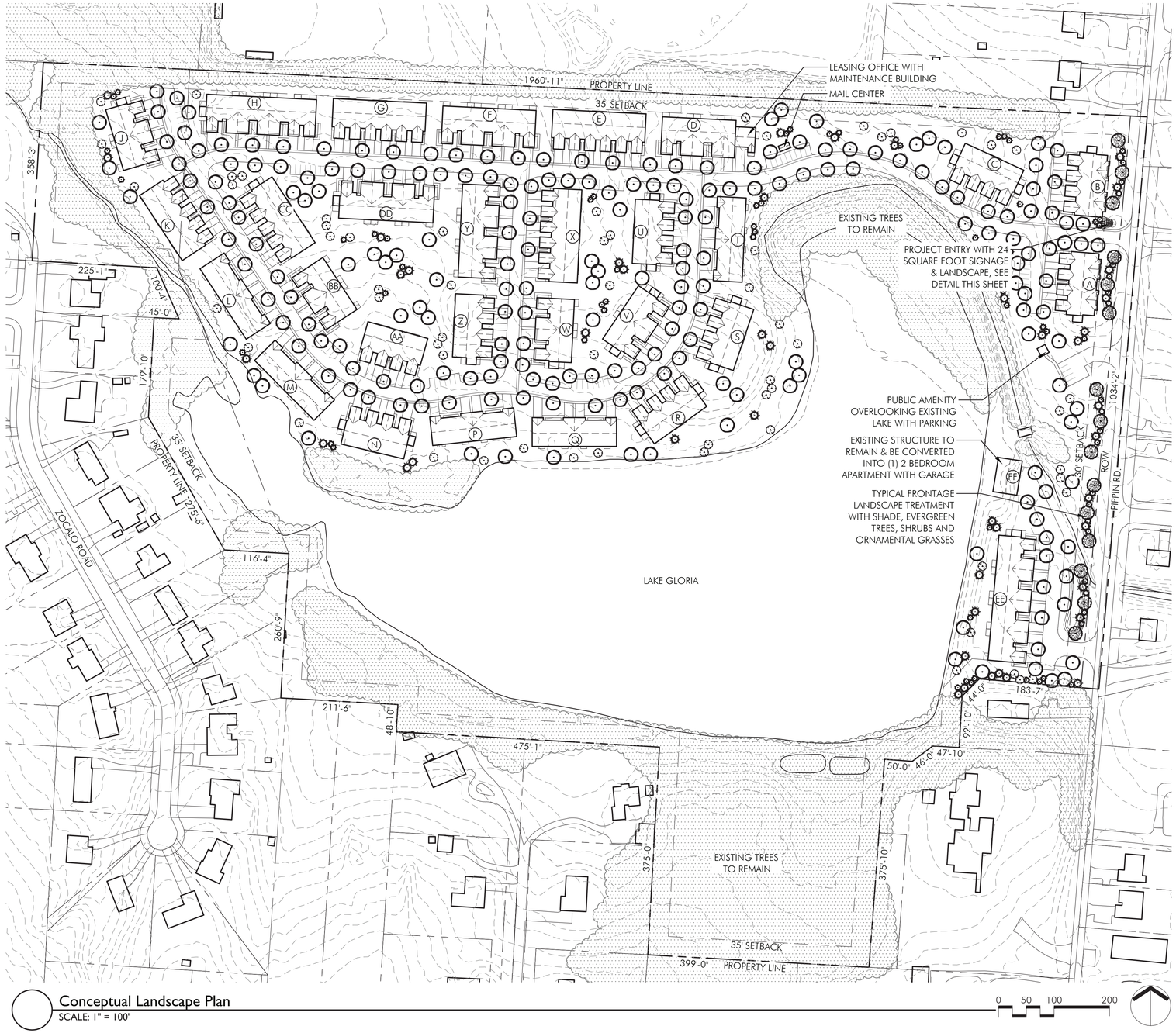
Todd Foley
Principal
100 Northwoods Blvd, Suite A
Columbus, Ohio 43235
(614) 360-3055

CESO

Mark Belmont
Program Director
395 Springdale Drive, Suite 202
Akron, OH 44333
(330) 396-5678

MPG MANN • PARSONS • GRAY ARCHITECTS

James Keys
3660 Embassy Parkway
Fairlawn, Ohio, 44333
(330) 666-5770



Conceptual Landscape Plan
SCALE: 1" = 100'

0 50 100 200

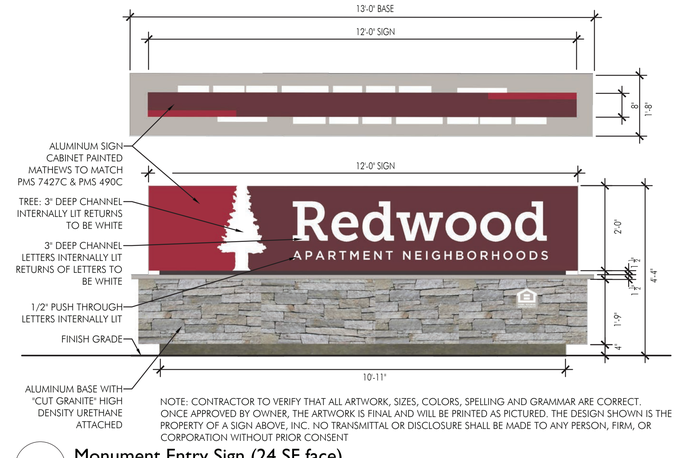
LEGEND

EXISTING TREES TO BE PRESERVED

PROPOSED DECIDUOUS TREE

PROPOSED ORNAMENTAL TREE

PROPOSED EVERGREEN TREE



NOTE: CONTRACTOR TO VERIFY THAT ALL ARTWORK, SIZES, COLORS, SPELLING AND GRAMMAR ARE CORRECT. ONCE APPROVED BY OWNER, THE ARTWORK IS FINAL AND WILL BE PRINTED AS PICTURED. THE DESIGN SHOWN IS THE PROPERTY OF A SIGN ABOVE, INC. NO TRANSMITTAL OR DISCLOSURE SHALL BE MADE TO ANY PERSON, FIRM, OR CORPORATION WITHOUT PRIOR CONSENT

Monument Entry Sign (24 SF face)
1/2"=1'-0"



Open Space Plan
SCALE: 1" = 100'

0 50 100 200

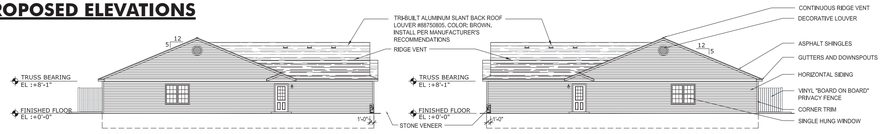
LEGEND

EXISTING TREES TO REMAIN

PROPOSED OPEN SPACE

SITE DATA	
TOTAL ACREAGE	±49.1 AC
OPEN SPACE REQUIRED	±12.275 AC (25%)
OPEN SPACE PROVIDED	±34.02 AC (69%)

PROPOSED ELEVATIONS



5 A4.12 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0" BLDG. Q

4 A4.12 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0" BLDG. Q

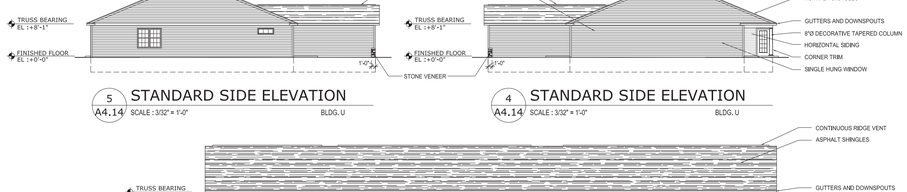


3 A4.12 REAR ELEVATION
SCALE : 3/32" = 1'-0" BLDG. Q



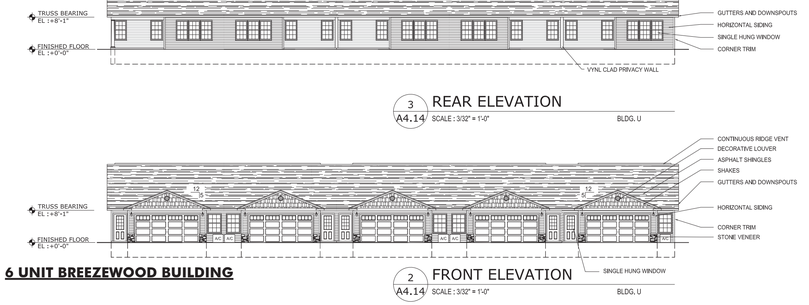
6 UNIT MEADOWOOD BUILDING

2 A4.12 FRONT ELEVATION
SCALE : 3/32" = 1'-0" BLDG. Q



5 A4.14 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0" BLDG. U

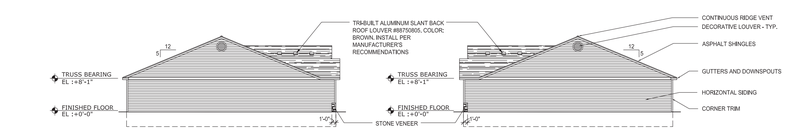
4 A4.14 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0" BLDG. U



3 A4.14 REAR ELEVATION
SCALE : 3/32" = 1'-0" BLDG. U

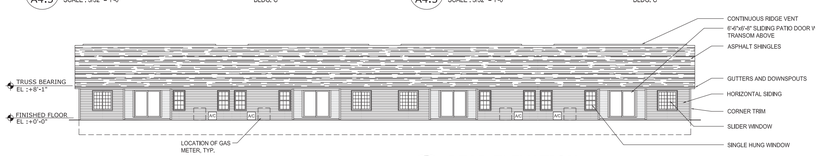
6 UNIT BREEZEWOOD BUILDING

2 A4.14 FRONT ELEVATION
SCALE : 3/32" = 1'-0" BLDG. U

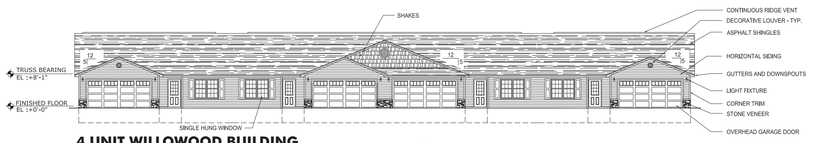


5 A4.3 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0" BLDG. C

4 A4.3 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0" BLDG. C

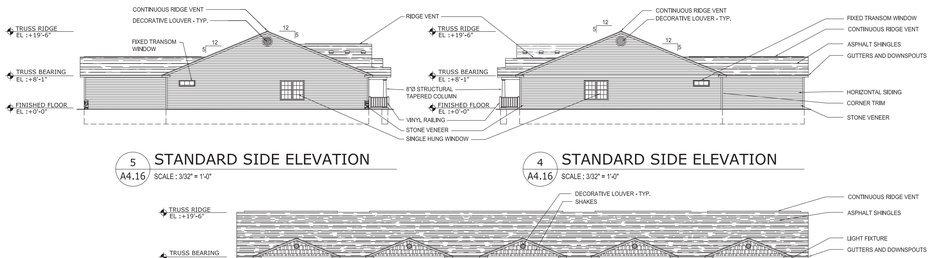


3 A4.3 REAR ELEVATION
SCALE : 3/32" = 1'-0" BLDG. C



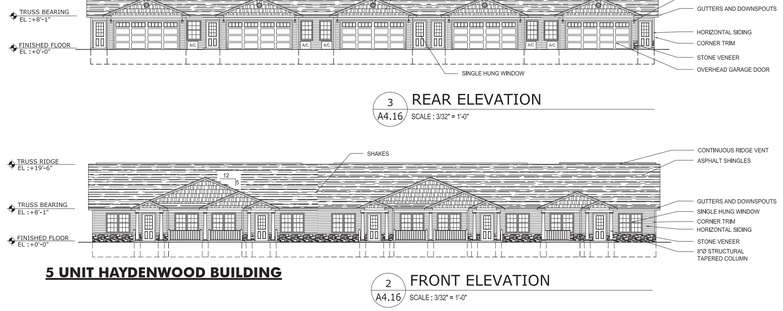
4 UNIT WILLOWOOD BUILDING

2 A4.3 FRONT ELEVATION
SCALE : 3/32" = 1'-0" BLDG. C



5 A4.16 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0"

4 A4.16 STANDARD SIDE ELEVATION
SCALE : 3/32" = 1'-0"



3 A4.16 REAR ELEVATION
SCALE : 3/32" = 1'-0"

5 UNIT HAYDENWOOD BUILDING

2 A4.16 FRONT ELEVATION
SCALE : 3/32" = 1'-0"

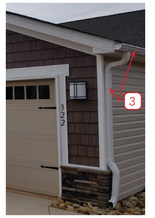
EXTERIOR FINISH MATERIAL SELECTIONS

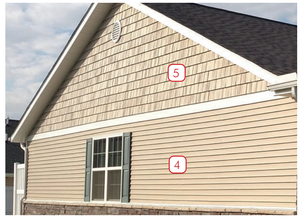
	ITEM	MATERIAL/STYLE	COLOR
1	DECORATIVE LOUVER	VINYL	WHITE
2	ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
3	GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
4	HORIZONTAL SIDING	VINYL	VARIES (SEE PAGE 19)
5	SHAKE SIDING	VINYL	VARIES (SEE PAGE 19)
6	CORNER TRIM	VINYL	WHITE
7	STONE VENEER	PRESTIGE	OHIO WHITE VEIN
8	OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
9	SINGLE HUNG WINDOW	VINYL	STANDARD WHITE
10	SLIDING PATIO DOOR	VINYL	WHITE
11	COACH LIGHT	METAL & GLASS	BLACK
12	COLUMN	VINYL	WHITE
13	LOUVER	ALUMINUM	BROWN
14	PRIVACY FENCE	VINYL	WHITE

ARCHITECTURAL MATERIALS



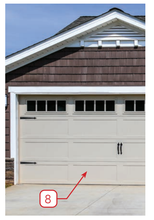




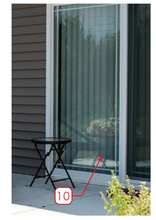




















SIDING COLORS - BY NORANDEX









NOTES:
1. BUILDING FRONT SIDING COLORS WILL VARY BETWEEN THE ABOVE 3 OPTIONS
2. SHAKES BY FOUNDRY SPECIALTY SIDING - TO MATCH SIDING COLORS

AS BUILT ARCHITECTURAL EXAMPLES







ADMINISTRATION

Department: Administration

Department Head: Geoff Milz, Administrator

Resolution - Ballot Language - Fire Department - 3.0 mills

Recommend approval of a resolution to proceed to levy a tax exceeding ten-mill limitation for fire and emergency medical services for Colerain Township in the amount of 3.0 mills.

Rationale:

The Trustees adopted a resolution on July 14 in the same manner. When the Township went to file the resolution, the Board of Elections requested a change in the resolution. The intent of the resolution remains the same as the prior resolution.

The Board of Trustees of Colerain Township, County of Hamilton, State of Ohio, met in regular session at ____p.m., on the __ day of July, 2020, at the Colerain Township Administration Building, 4200 Springdale Road, Cincinnati, Ohio 45251, with the following members present:

Mr. Raj Rajagopal, Mr. Dan Unger, and Mr. Matthew Wahlert

Mr. _____ introduced the following resolution and moved its adoption:

RESOLUTION NO.: _____-20

RESOLUTION TO PROCEED TO LEVY A TAX EXCEEDING TEN-MILL LIMITATION FOR FIRE AND EMERGENCY MEDICAL SERVICES FOR COLERAIN TOWNSHIP

WHEREAS, the amount of taxes which may be raised within the ten-mill limitation will be insufficient to provide an adequate amount for the necessary requirements of Colerain Township, Hamilton County, Ohio; and

WHEREAS, Ohio Revised Code 5705.19(I) provides that a taxing authority may levy a continuing tax for the purpose of providing for the fire services of the township and its residents; and

WHEREAS, on May 26, 2020, the Board of Trustees of Colerain Township, Hamilton County, Ohio passed Resolution 26-20 declaring the necessity to levy a tax exceeding the ten mill limitation, in order to generate funds for the purposes of providing for the Fire Department of the township, pursuant to section 5705.19(I) of the Revised Code at a rate of 3.0 mills for each one dollar of valuation, for a continuing period of time pursuant to Revised Code Section 5705.19; and

WHEREAS, the Hamilton County Auditor has certified to the Board of Trustees of Colerain Township, Hamilton County, Ohio that the dollar amount of revenue that would be generated by the tax levy during the first year of collection is $3,485,920 based on the current assessed valuation of Colerain Township, Hamilton County, Ohio of $1,161,973,240.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Trustees of Colerain Township, Hamilton County, Ohio, as follows;

1. That the Board shall proceed with submission of an additional tax levy at the rate of 3.0 mills for the purposes set for in Ohio Revised Code Section 5705.19(I) as follows: for providing and maintaining fire apparatus, mechanical resuscitators, underwater rescue and recovery equipment, or other fire equipment and appliances, buildings and sites therefor, or sources of water supply and materials therefor, for the establishment and maintenance of lines of fire-alarm communications, for the payment of firefighting companies or permanent, part-time, or volunteer firefighting, emergency medical service, administrative, or communications personnel to operate the same, including the payment of any employer contributions required for such personnel under section 145.48 or 742.34 of the Revised

Code, for the purchase of ambulance equipment, for the provision of ambulance, paramedic, or other emergency medical services operated by a fire department or firefighting company, or for the payment of other related costs; which amounts to thirty cents ($0.300) for each one hundred dollars ($100.00) of valuation, for a continuing period of time pursuance to Revised Code Section 5705.19.

2. That the Colerain Township Board of Trustees hereby orders that the levy be placed upon the tax lists for the current tax year, in compliance with Ohio Revised Code section 5705.34, for a continuing period, if a majority of the electors voting thereon vote in favor thereof.

3. That the Colerain Township Board of Trustees hereby orders that the question of such tax levy shall be submitted to the electors of Colerain Township at the election to be held therein on November 3, 2020; and

4. That the Fiscal Officer is hereby directed to certify, not less than 90 days prior to the election, to the Board of Elections, Hamilton County, Ohio, a copy of Resolution 26-20 and a copy of this resolution together with the Certification of the Hamilton County Auditor, and notify the Board of Elections to cause notice of election on the question of levying the tax to be given as required by law.

5. That it is hereby found and determined that all formal actions of this Board concerning and relating to the passage of this Resolution were taken in meetings open to the public, in compliance with all legal requirements including §121.22 of the Ohio Revised Code.

6. That the Board by a majority vote hereby dispenses with the requirement that this Resolution be read on two separate days, pursuant to Section 504.10 of the Ohio Revised Code, and hereby authorizes the adoption of the Resolution upon its first reading.

7. This resolution shall take effect at the earliest period allowed by law.

Mr. _____ seconded the Resolution, and the roll being called upon the question of its adoption, the vote resulted as follows:

Vote Record: Mr. Rajagopal_____ Mr. Unger_____ and Mr. Wahlert_____

ADOPTED this _____day of July, 2020.

BOARD OF TRUSTEES:

_____
Raj Rajagopal, Trustee

_____
Dan Unger, Trustee

_____
Matthew Wahlert, Trustee

ATTEST:

_____
Jeff Baker,
Fiscal Officer

Resolution prepared by and approved as to form:

_____
Lawrence E. Barbiere (0027106)
Scott Sollmann
5300 Socialville Foster Rd., Suite 200
Mason, OH 45040
(513) 583-4200
Colerain Township Law Director

AUTHENTICATION

This is to certify that this Resolution was duly passed and filed with the Colerain Township Fiscal Officer this __th day of July, 2020.

_____
Jeff Baker
Colerain Township Fiscal Officer

County of Hamilton

DUSTY RHODES
AUDITOR
COUNTY ADMINISTRATION BUILDING
138 EAST COURT STREET
CINCINNATI, OHIO 45202

CERTIFICATE OF ESTIMATED PROPERTY TAX REVENUE
TO BE PRODUCED FROM A SPECIFIED AMOUNT OF MILLAGE
Pursuant to Ohio Revised Code § 5705.03(B)
D.T.E. 140

The County Auditor of Hamilton County, Ohio does hereby certify the following:

On June 10, 2020, the taxing authority of the Board of Trustees of Colerain Township, County of Hamilton, Ohio, certified a copy of its resolution No. 26-20, adopted May 26, 2020, requesting the County Auditor to certify the current tax valuation of Colerain Township and the amount of revenue that would be produced by 3.00 mills. The levy is a tax outside the ten-mill limitation for the purpose of providing for the fire services of the township and its residents, at a rate not exceeding 3.00 mills, pursuant to Section 5705.19(I) of the Ohio Revised Code, and will be placed on the ballot at the November 3, 2020, election. The levy type is additional.

The estimated property tax revenue that will be produced by the stated millage, assuming the tax valuation of Colerain Township remains constant throughout the life of the levy, is calculated to be $3,485,920 per year.

The total estimated tax valuation of Colerain Township used in calculating the estimated property tax revenue is $1,161,973,240.

DUSTY RHODES, AUDITOR
Hamilton County, Ohio

June 17, 2020
Date

GCC/IBT 830-M

County of Hamilton
DUSTY RHODES
AUDITOR
138 E. Court St. Rm. 504
Cincinnati, Ohio 45202

TAX LEVY INFORMATION

TAXING DISTRICT	***Colerain Township***
ELECTION DATE	November 3, 2020
LEVY TYPE	Additional
LEVY PURPOSE	Fire
TERM OF LEVY	Continuing
PROPOSED MILLAGE	3.00
ESTIMATED ANNUAL REVENUE	$3,485,920.00
ESTIMATED ANNUAL COST TO HOMEOWNER $100,000 MARKET VALUE*	$105.00
CURRENT ANNUAL COST TO HOMEOWNER $100,000 MARKET VALUE*	$0.00

**Estimated cost based on a $100,000 (market value) residential property not receiving the non-business, owner occupancy, and sales tax credits on the additional levy.*

HAMILTON COUNTY AUDITOR DUSTY RHODES

ADMINISTRATION

Department: Administration

Department Head: Geoff Milz, Administrator

Motion to Reappoint Dan Unger as the Alternate Member of the District 2 Integrating Committee

Rationale:

ADMINISTRATION

Department: Administration

Department Head: Jeff McElravy, Finance Director

Resolution Adopting Amended Appropriations

Recommend approval of a Resolution for Amended Appropriations in the amount of $38,917,293.60.

Rationale:

Supplemental appropriations are required in various funds in order to account for changes in expenditures due to decreases in revenues as a result of the financial crisis from the global COVID-19 pandemic.

COLERAIN
Est. 1794

MEMORANDUM

To: Board of Trustees

CC: Jeff Weckbach, Assistant Township Administrator
Jeff McElravy, Finance Director
Jeff Baker, Fiscal Officer

From: Geoff Milz, Township Administrator

Subject: Mid-Year Review of Revenues and Expenses

Date: July 24, 2020

EXECUTIVE SUMMARY

With the reductions in expenditures proposed below, amounting to $2.9M, we believe that Colerain Township will end the year with approximately $750k ***more*** in the all-funds fund balance than expected at the time of Permanent Appropriations despite significant ($2.1M) reductions in anticipated revenues. This analysis does not take into account CARES Act funding from the County allocation, HB 481 or potential revenues from SB 4.

BACKGROUND

Jeff McElravy, Jeff Weckbach and I met with each Department Director to evaluate the year to date revenues in each department. Following an analysis of every revenue line in every department we looked for expenditures that could be postponed or eliminated from our workplan given the current circumstances at this point in 2020. The anticipated reduction in revenue by department and fund are listed below as well as proposed reductions in expenditures by department and fund. We believe that the proposals to reduce expenditures made below are fiscally responsible and will not drastically reduce essential township services. We feel that the Township is well positioned to be able to weather the financial crisis that is occurring concurrent along with the global health pandemic.

ANALYSIS

Projected Changes to Annual Revenue by Department

Police	($327,000)
Fire	$80,000
Public Services	($1,031,000)
Planning	($33,000)
General	($797,000)
Other	($2,000)
Total Revenue Change	**($2,128,000)**

Colerain Township • 4200 Springdale Road • Colerain Township, Ohio 45251
gmilz@colerain.org • www.colerain.org
Phone (513) 385-7500 • Fax (513) 245-6503

Trustees: Raj Rajagopal, Daniel Unger, Matt Wahlert
Fiscal Officer: Jeff Baker
Administrator: Geoff Milz

Projected Changes to Revenue by Fund

1000 – General Fund - $863k reduction
- 20% ($100k) decrease in the Local Government Fund
- $25k decrease in Liquor Permit Fees
- $800k decrease in State Capital revenues for playground replacement
- $93k increase in interest on investments
- $53k decrease in energy aggregation revenues
- $22k increase in fire escrow revenues
- $66k increase in rentals and leases due to unbudgeted cell tower revenue

2011 – Motor Vehicle License Tax - $4k reduction
- 10% ($4k) reduction from $44k to $40k

2021 – Gasoline Tax - $71k reduction
- 10% ($71k) reduction from $713k to $641k

2031 – Road and Bridge - $7k reduction
- 50% ($7k) reduction in street sweeper revenues from $13k to $7k

2081 – Police District - $327k reduction
- $33k increase in State Receipts from DOJ Grant
- $60k decrease in Walmart Contract
- $230k decrease in NWLSD Contract
- $70k decrease in Northgate Mall Contract

2111 – Fire District - $80k Increase
- $80k increase in State Receipts from Workers Comp rebate

2181 – Planning - $33k reduction
- $18k decrease in Vacant Foreclosed Property Registries
- $15k decrease in Vacant Building Maintenance Licenses

2231 – Permissive Motor Vehicle License Tax - $48k reduction
- 10% ($48k) decrease in Motor Vehicle License Tax

2261 – Law Enforcement Trust – No Change

2271 – Enforcement and Education – No Change

2281 – Ambulance and EMS – No Change

2401 – Special Assessment Lighting Districts – No Change

2902 – Recycling Incentive - $2k reduction

2908 – CDBG – No Change

2911 – Parks – $838k reduction
- $38k decrease in shelter, amphitheater and ballfield rentals
- $800k decrease in State Capital revenue (we anticipate receiving this revenue in 2021) for playground replacement

2912 – Community Center - $81k reduction
- $81k decrease in Hall Rentals

Proposed Changes to Annual Expenses by Department

Police	($305,000)
Fire	($27,000)
Public Services	($1,586,000)
Planning	($35,000)
General	($904,000)
Other	$0
Total Expenditure Change	**($2,857,000)**

Proposed Changes to Expenses

1000 – General Fund - $904k decrease

- $6k reduction in Travel and Meeting Expenses
- $63k reduction in Contracted Services
- $35k reduction in other initiatives including wellness initiative, abatements and overpass sign
- $800k reduction in transfers out to Parks for playground replacement project

2011 – Motor Vehicle License Tax – No Change

2021 – Gasoline Tax - $494k reduction

- $93k decrease in Salary and fringe associated with budgeted but not filled position
- $5k decrease in repairs and maintenance
- $277k decrease in contracted services including the elimination of Mt. Healthy Heights repaving project and road markings project
- $133k decrease in motor vehicle purchases including the elimination of the Swap-a-Bed lift and one medium-duty truck.
- $14k net increase in misc. lines.

2031 – Road and Bridge - $80k reduction

- $80k decrease in contracted services related to Commons Circle headwall repair project being delivered underbudget.

2081 – Police District - $405k reduction

- $290k decrease in salary and fringe associated with contracted services and moving $100k in police salaries to Law Enforcement Trust Fund
- $84k decrease in Communication Center fees
- $10k decrease in fuel costs
- $30k decrease in equipment purchases
- $9k increase in misc. lines.

2111 – Fire District - $19k reduction

- $13k decrease in Communication Center fees
- $6k decrease in maintenance projects due to projects being delivered underbudget

2181 – Planning - $35k reduction

- $26k decrease in contracted services eliminating Colerain Ave. Traffic Study and reducing design service fees due to project being delivered underbudget
- $3k decrease in mini grant program
- $8k decrease in planning consultants eliminating planning intern and GIS consultant
- $1k decrease in training

- $1K decrease in travel and meeting expenses
- $2k increase in postage
- $2k increase in legal advertising

2231 – Permissive Motor Vehicle License Tax – $18k increase

- $18k increase resulting from the double payment of the tax from the Hamilton County Auditor

2261 – Law Enforcement Trust – $100k increase

- $100k increase in expenditure from this fund to relieve pressure on 2081 – Police District Fund

2271 – Enforcement and Education – No Change

2281 – Ambulance and EMS – $8k reduction

- $8k reduction due to contractual change to patient refunds

2401 – Special Assessment Lighting Districts – No Change

2902 – Recycling Incentive – No Change

2908 – CDBG – No Change

2911 – Parks – $878k reduction

- $62k reduction in salaries and fringe due to reduction in part-time staffing
- $15k reduction in Property services in shelters, restrooms, buildings, skatepark and sprayground
- $7k reduction in contracted services
- $800k reduction in playground replacement project
- $7k reduction in misc. lines
- $5k increase in shelter refunds

2912 – Community Center - $152k reduction

- $59k reduction in salaries from event workers
- $10 reduction in building maintenance from completed project delivered underbudget
- $30 increase in rental refunds
- $113k decrease in Improvement of Sites from cancellation of back-up generator project, planned exterior upgrades, lot striping and garage upgrades.

RECOMMENDATION

Staff recommends adopting a Supplemental Appropriations Resolution reflecting the proposed changes to expenditures.

The Board of Trustees of Colerain Township, County of Hamilton, State of Ohio, met in regular session at _____ p.m., on the _____ day of July, 2020, at the Colerain Township Administration Building, 4200 Springdale Road, Cincinnati, Ohio 45251, with the following members present:

Raj Rajagopal, Dan Unger, Matthew Wahlert

Mr. _____ introduced the following resolution and moved its adoption:

RESOLUTION NO. _____-20

RESOLUTION AUTHORIZING THE ADOPTION OF AMENDED APPROPRIATIONS FOR THE YEAR 2020

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of Colerain Township, Hamilton County, Ohio, hereby agree to:

1. Authorize the Fiscal Officer to prepare and submit a schedule of Amended Permanent Appropriations for the year ending December 31, 2020 to the Hamilton County Budget Commission, as follows;

Fund	Description	Permanent Appropriations
1000	General	6,424,191.27
2011	Motor Vehicle License Tax	57,299.46
2021	Gasoline Tax	1,357,785.01
2031	Road & Bridge	1,103,613.13
2081	Police District	8,729,495.10
2111	Fire District	14,249,132.74
2181	Zoning	476,525.76
2231	Permissive Motor Vehicle License Tax	545,357.52
2261	Law Enforcement Trust	361,963.00
2271	Enforcement & Education	1,500.00
2281	Ambulance & Emergency Medical Services	1,906,278.05
2401	Special Assessment Lighting District	155,151.51
2901	TIF - Kroger	239,425.00
2902	Recycling Incentive	85,056.68
2903	TIF - Colerain Towne Center	0
2907	TIF - Stone Creek	0
2908	CDBG	200,000.00
2910	TIF - Best Buy	0
2911	Parks & Services	1,547,369.31
2912	Community Center	536,150.06
3102	Bond Retirement Parks	308,200.00

3103	**Bond Retirement PW Bldg.**	**216,200.00**
3105	**Bond Retirement - Streetscape**	**178,400.00**
3301	**Bond Retirement - Special Fire Assessment**	**238,200.00**
4401	**NSP**	**0**
4409	**OPWC**	**0**

2. That it is hereby found and determined that all formal actions of this Board concerning and relating to the passage of this Resolution were taken in an open meeting of this Board, and that all deliberations of this Board and any of its committees that resulted in such formal action were taken in meetings open to the public, in compliance with all legal requirements including §121.22 of the Ohio Revised Code; and

3. That the Board by a majority vote hereby dispenses with the requirement that this Resolution be read on two separate days and hereby authorizes the adoption of the Resolution upon its first reading.

4. That this Resolution shall be effective at the earliest date allowed by law.

Mr._____ seconded the Resolution, and the roll being called upon the question of its adoption, the vote resulted as follows:

Vote Record: Mr. Rajagopal_____, Mr. Unger_____, Mr. Wahlert_____

ADOPTED this _____ day of July, 2020.

BOARD OF TRUSTEES:

_____
Raj Rajagopal, Trustee

_____
Dan Unger, Trustee

_____
Matthew Wahlert, Trustee

ATTEST:

_____
Jeff Baker,
Colerain Township Fiscal Officer

Resolution prepared by and approved as to form:

_____
Lawrence E. Barbiere (0027106)
Colerain Township Law Director

Scott A. Sollmann (0081467)
Colerain Township Asst. Law Director
5300 Socialville Foster Rd., Suite 200
Mason, OH 45040
(513) 583-4200

AUTHENTICATION

This is to certify that this Resolution was duly passed and filed with the Colerain Township Fiscal Officer this ____day of July, 2020.

_____
Jeff Baker
Colerain Township Fiscal Officer

ADMINISTRATION

Department: Administration

Department Head:

Motion to Modify in Person Citizen Participation due to COVID-19

Recommend adoption of a motion to modify citizen and public comment, public hearings, and in person attendance according to the attached chart.

Rationale:

Governor Mike DeWine recently implemented a Public Health Advisory Alert System, which will provide data and information to help combat COVID-19 flare-ups in the State of Ohio. Four alert levels will indicate to the public and officials the current situation in each individual Ohio County across 3 weeks:

- Alert Level 1 (Yellow): County has triggered 0 or 1 of the indicators and there is active exposure and spread.
- Alert Level 2 (Orange): County has triggered 2 or 3 of the indicators and there is increased exposure and spread.
- Alert Level 3 (Red): County has triggered 4 or 5 of the indicators and there is a very high exposure and spread.
- Alert Level 4 (Purple): County has triggered 6 or 7 of the indicators and there is severe exposure and spread.

ALERT LEVEL	COLOR	CITIZEN COMMENT	PUBLIC HEARINGS	ATTENDANCE
1	Yellow	In person comments only.	In person testimony only.	Residents may attend meetings in person.
2	Orange	In person (per established process*) or via email.	In person (per established process*) only.	Residents are not permitted to attend in person.
3	Red	Via email only.	In person (per established process*) only.	Residents are not permitted to attend in person.
4	Purple	Via email only.	Public Hearings will be rescheduled.	Residents are not permitted to attend in person.

*The established process refers to the parameters found in:
https://app.cerkl.com/org/story.php?id=9642056

CONSENT ITEMS

Department: Administration

Department Head: Geoff Milz, Administrator

Contract - Police - Duke Energy - LED Lighting Upgrade

Recommend approval of all consent items.

Rationale:

The attached contract is for an LED lighting upgrade at 4725 Springdale Road in the amount of $5,802.76.

Participation Agreement

Business Name:	COLERAIN TOWNSHIP PARKS DEPT
Billing Address:	4725 Springdale rd Cincinnati OH 45251
Duke Energy Customer Name:	Colerain Township Parks Dept
Facility Address:	4725 Springdale rd, Cincinnati, OH, 45251
Phone: 513-923-5015	Fax:
E-Mail Address:	Nspears@colerain.org
Lime Energy Project Number:	DEO00011016.1

PARTICIPATING CUSTOMER

Signature:

Date: 7/15/2020

Print Name: ~~Nancy Spears~~ Jeff Wacksal

Title: ~~Business Manager~~ Asst. Admin.

SUMMARY OF PROPOSAL PURCHASE PRICE

Final Purchase Price	$9,641.01
Project Incentive Duke Energy project incentive paid directly to Lime Energy.	$3,838.25
Customer Deposits	$0.00
Customer Balance	$5,802.76

This Participation Agreement constitutes a contract between the individual or entity listed below in the box labelled Participating Customer (the Participating Customer) and Lime Energy Services Co. (the "Company" and with the Participating Customer, a "Party" and together the "Parties"). By signing below, the Participating Customer agrees to the applicability of the terms and conditions set forth herein. An updated energy assessment may be required if the proposed scope of work is not accepted and this Participation Agreement executed within 45 days.

PAYMENT TERMS

Number of Months	1
Monthly Payment Amount	$5,802.76
Discounted Customer Price	$5,802.76

Monthly Payment Amount is approximate. The actual Monthly Payment Amount will be specified in the Financing Agreement between Participating Customer and Lender.

LIME ENERGY SERVICES CO.

Name:	Josh Makin
Title:	Energy Service Representative
Address:	11400 Mosteller Rd, Suite 2 Cincinnati, OH 45241
Telephone/Fax:	(513)313-3606 / **(704) 892-5907**
Email:	josh.makin@lime-energy.com

The Participating Customer pays its cost contribution to Lime Energy Services Co.("Company") by (check one):

- [x] **Lump Sum Payment.** Initial Payment of $0.00 upon signing this Participation Agreement, with the remaining balance of $5,802.76 paid upon completion of the Work.
- [ ] **12 Payments.** Participating Customer Deposit of $0.00 upon signing this Participation Agreement, with the remaining balance payable in twelve (12) monthly payments of $543.33 per month beginning 30 days after completion of the Work, in accordance with Financing Agreement between Participating Customer and Lender.
- [ ] **24 Payments.** Participating Customer Deposit of $0.00 upon signing this Participation Agreement, with the remaining balance payable in twenty-four (24) monthly payments of $271.67 per month beginning 30 days after completion of the Work, , in accordance with Financing Agreement between Participating Customer and Lender.
- [ ] **Extended Financing Option.** Participating Customer payments over time will be made in accordance with Financing Agreement between Participating Customer and Lender.

CERTIFICATION STATEMENT Participating Customer certifies that the information provided in this Participation Agreement is true and accurate and that they are financially responsible for payment of the Duke Energy bill for the Duke Energy Customer Name and Facility Address referenced above. Participating Customer further certifies that the Measures described in this Participation Agreement have or will be installed in the Premises owned by the Participating Customer and the equipment installed will not be removed and resold. The Measures together with all proceeds of the purchase price (as defined in the Extended Payment Terms and Conditions attached hereto and incorporated herein) will be used for commercial and not for consumer household or family purposes. If the Participating Customer does not own the Premises, Participating Customer hereby represents and warrants that it has obtained all necessary consents and authorizations for the Work, including, without limitation, consent from the owner of the Premises. Participating Customer shall solely be liable for the Work done at the Premises, whether or not owned by Participating Customer, and the Company shall look solely to Participating Customer and not the owner of the Premises, for performance of Participating Customer's obligations hereunder. Participating Customer acknowledges that the rights in this Participation Agreement shall be binding upon Participating Customer's successors and permitted assigns. Participating Customer agrees to incorporate this Participation Agreement by reference in leases, sales contracts, or other similar documents relating to the end use and ownership of the Premises.

Participation Agreement

1. Program and Measure Installation:

Lime Energy Services Co. (the "Company") will install, in a good and workmanlike manner, the measures described in the Scope of Work, (the "Measures"). The Company shall use commercially reasonable efforts to install the Measures within thirty (30) days of the participating customer (the "Participating Customer") signing this Small Business Energy Saver Program Participation Agreement (this "Agreement"). The Company shall furnish all preliminary audit requirements, labor, equipment, materials and such other items reasonably required for the installation of the Measures (collectively, the "Work") unless noted as an exception on Proposed Scope of Work. The Work to be provided under the Small Business Energy Saver Program (the "Program") is limited to work directly associated with the evaluation and installation of Measures and shall in no way include work by the Company in connection with the correction of any existing safety issues or building code violations, whether apparent or hidden, nor shall Company or the Installation Contractor be obligated to identify or notify Participating Customer of any such safety issues or building code violations. An independent contractor (the "Installation Contractor") shall be hired by the Company to install the Measures at Participating Customer's property (the "Premises"). The Installation Contractor shall permanently disable (make them unfit for reuse) all lamps replaced pursuant to this Participation Agreement. The disposal of any lighting equipment which is removed as a part of the Work will be the responsibility of the Company. When undertaking the installation, the Installation Contractor or the Company, at their sole discretion, may choose not to make the installation of the Measures for reasons related to safety, health concerns, code violations, discovery of unforeseen conditions, the presence of asbestos or other reasons that may result in higher than anticipated installation costs. Notwithstanding anything to the contrary herein, the Company reserves the right to amend or rescind and terminate the offer set forth in this Agreement at any time, including after the execution of this Agreement, if in the Company's sole discretion, the cost, timing or availability of products or services regarding this Agreement changes or if there are changes materially that require Measures that are not approved for the Program incentives. The Company shall provide the Participating Customer notice of such amendment or rescission and termination by email, in person, or by phone. All Work shall be performed during normal business hours, Monday through Friday unless the Participating Customer, Company and Installation Contractor agree otherwise. In this case the Company shall not be entitled to any additional compensation for Work performed outside of such normal business hours unless agreed to in writing between the Company and Participating Customer. The Company shall use commercially reasonable efforts to make timely delivery and installation of equipment. In no event will the Company be responsible for lost or reduced savings or financial incentives due to delays in completion of the Work. In the event that the Work spans multiple days, the Installation Contractor may store equipment and materials at the Participating Customer's facility. Title to equipment and material shall remain with the Company until it is fully paid for by Participating Customer. Risk of loss for equipment and material shall pass to Participating Customer at the time equipment and/or material is delivered to the Premises. Customer shall provide Company and Installation Contractor with reasonable access to all necessary areas of the Premises during agreed upon days and hours.

The Company or Installation Contractor may discover a condition at the premises that prohibits installation of certain Measures, a condition that requires installation of additional measures, and/or a condition that requires different quantities of certain Measures. These additional Measures may include Measures that were omitted from the original Proposed Scope of Work due to certain conditions including but not limited to missed rooms, miscounts, code violations, or other unforeseen omissions, collectively to be known as "the Amended Measures." In the event that the Company or Implementation Contractor discovers a condition the requires Amended Measures, the participating Customer hereby consents to allow Company to install or cause to be installed (through the Installation Contractor) such Amended Measures without further notice to or authorization from Participating Customer, provided that the installation of the Amended Measures does not increase the Customer Price by more than ten percent (10%). Following the installation of any Amended Measures, the Company shall provide the Participating Customer with a Revised Scope of Work that lists the Amended Measures and their corresponding energy savings metrics. In the case of a Measure that was not installed due to a condition on or at the Premises, the Revised Scope of Work shall note that such Measure was not installed. In the event that the installation of any Amended Measures will increase the Customer Price by more than ten percent (10%), then Company shall notify the Participating Customer and shall obtain written approval from the Participating Customer before proceeding with or directing any installation of the Amended Measure(s).
If the actual cost at completion of the installation is less than the estimated cost, or if the Company chooses not to install Measures in accordance with this agreement, the Company shall adjust the Participating Customer's contribution and the final invoice accordingly. If the Participating Customer has selected aPayment Plan or Extended Payment Option, the customer's monthly payment shall be adjusted to reflect any applicable decrease in the total amount due from Participating Customer.

Initial:

2. Warranty and Disclaimers:

The Company shall provide the following warranties against all defects in material or workmanship, unless caused by the action or inaction of the Participating Customer, its agents, subcontractors, vendors or such other party under the control of the Participating Customer:

a **Workmanship Warranty –** The Company shall warranty all workmanship for a period of one (1) year from the completion date of the Work. Participating Customer's sole remedy with respect to such warranty shall be Company's repair of any defective installation.
b. **Material Warranty** - For all material defects the Company will pass through the material warranty periods provided by the manufacturer or distributor of any material or equipment installed by Company at the Premises as part of the Work. The Company will act on the Participating Customer's behalf to get replacement product or credit for any material or equipment that fails within the warranty period. Manufacturer warranty periods for eligible equipment from the date of installation are as follows: Lamps – 1 year; LED Exit Signs –10 years; Ballasts – 5 years; Fixtures – 1 year; Occupancy Sensors – 5 years; LED lamps – 5 years; LED fixtures – 5 to 10 years (depending on type/manufacturer); LED wall packs – 5 to 10 years (depending on type/manufacturer); LED Screw-ins – 5 years
c. **Energy Savings Disclaimer -** Neither Duke Energy nor the Company guarantees that the installed Measures will save any level of energy or result in the reduction in Customer's electric utility bill. For lighting improvements, estimated kilowatt hour energy savings displayed in this Agreement are calculated according to the wattage saved per line in the Proposed Scope of Work multiplied by the annual hours of use per line that were indicated at the time of the energy assessment.

The Company makes no other warranties, whether express or implied, with respect to the Work, including without limitation, all warranties with respect to merchantability and fitness for a particular purpose.

Dimmer Disclosure: LED's proposed for installation on lighting circuits with existing dimmers, as detailed in the scope of work under this contract, may require the installation of an LED-compatible dimmer(s). Lime Energy does not guarantee operation of LED's on lighting circuits currently operated by existing dimmer(s), nor their compatibility with newly installed dimmer(s), and is not responsible for any costs incurred by dimmer replacement(s) or installation thereof.

Construction or Product Warranty Questions

For participating SBES customers, please call **1.855.232.1042** or visit **www.sbeswarranty.com** for any construction questions and/or warranty related issues.

3. Confidentiality:

Without limiting the generality or specificity of any other provision of this Participation Agreement or any other agreement between Participating Customer and Company, Company and any subcontractor of Company's agrees to comply with all applicable laws, rules and regulations regarding the use, disclosure, protection and safeguarding of personally identifiable information ("PII") that Company creates or receives from or on behalf of Duke Energy Carolinas, LLC (Duke Energy) relating to the Work. Company shall only use PII for the purpose of providing the Work and will not use or disclose PII for any other purpose, including Company's own purposes.

Except to the extent necessary to provide the Work, Company shall not use PII to create any de-identified or aggregated data without prior written consent of the Participating Customer. Company shall comply with and conform to recognized common body of knowledge standards and best practices regarding information security relating to sensitive data such as PII. Company will use and disclose only the minimum necessary amount of PII to accomplish the intended purpose of the Work. Company will employ administrative, physical, and technical safeguards to prevent the unauthorized use, insecure disclosure, compromise, or loss of PII. Upon completion of the Work, Company shall return or destroy all PII, keep no copies of PII, and certify in writing to the Participating Customer that such return or destruction is complete. Company will immediately report to Participating Customer any suspected or actual security incident involving any systems containing PII and any use, disclosure, compromise, or loss of PII not authorized under this Participation Agreement. Company will fully cooperate with Participating Customer in response to any such incident. Company will report to Participating Customer and fully cooperate with Participating Customer in responding to any complaints or questions regarding Company's or Duke Energy's privacy practices regarding PII. Company shall comply with all privacy and security policies relating to PII of Duke Energy that Duke Energy provides to Company. Company agrees to defend, indemnify and hold harmless Duke Energy and Participating Customer and their respective parent, officers, directors, agents, affiliates, distributors, franchisees and employees against any loss, proceeding, lawsuit, claim, demand, damage, expense, or cost, including reasonable attorneys' fees (including allocated costs for in house legal services) ("Liabilities") arising out of any act or omission related to or a failure of Company to comply with the terms of this section of the Participation Agreement. In the event of any conflict between the indemnification provision in this section and any other indemnification provision(s) in the Participation Agreement, the indemnity provision more specific to the Liabilities shall apply.

4. Equipment and Customer Contribution:

a. The estimated cost of the installation including the estimated Participating Customer's contribution is itemized on Proposal. The Participating Customer may choose one of the payment options as set forth on the Proposal. The Company and lender shall have sole discretion in determining whether to approve Participating Customer for extended payment terms, and Participating Customer shall provide all information reasonably requested by the Company and lender with respect to making any such determination. The Company reserves the right to receive and review credit profiles on the participating customer when deciding whether to approve extended payment terms.

b. If you have not paid your Lump Sum Account Balance in full within 45 days from the completion of the project, as determined by Lime Energy, your account is in **default. If you are in default, you will forfeit any previously agreed upon discounts**, including Lump Sum pricing, and must immediately pay your total portion of the unpaid Instalment pricing project cost Account Balance in addition to a monthly Service (Finance) Charge fee equal to 1.50% of the Account Balance. If the minimum Instalment payment due is not paid for three (3) consecutive periods and the Account Balance is greater or equal to the sum of those three (3) minimum required payments as determined by their Due Dates, your account is in default and you must immediately pay your total portion (all past due and future amounts) of the unpaid pricing project cost Account Balance in addition to a monthly Service (Finance) Charge fee equal to 1.50% of the total past due Account Balance. A Returned Payment Fee in the amount of $50.00 will be charged to your Account by Lime Energy for each payment on your Account, either by, credit card, ACH, check or other means, that is returned to Lime Energy unpaid and or dishonored. Upon project completion, any changes to the original scope of work and associated costs will be documented and reflected in the close out process and reflected in the Project Completion Form, including any required changes to the Extended Payment Terms and Conditions.

   Customer also acknowledges that the total amount due from Customer may be increased (or decreased) due to and in accordance with Section 1 hereof. Should the total amount due from Customer be increased or decreased pursuant to Section 1, Customer understands that his/her monthly payment (if Customer has selected one of the Payment Plans or the Extended Financing Option) will be automatically increased or decreased to reflect the adjusted (increased or decreased) total amount due over the applicable payment term. Customer hereby consents to and agrees to a relevant adjustment in his/her monthly payment obligation without further notice from Company.

c. Any amount due from Participating Customer and not received by Company within 30 days of its due date shall bear interest at the rate of one and one-half percent (1.50%) per month from the date such invoice was originally due to Company.

d. Participating Customer shall pay Company or Lender, as the case may be, all costs and expenses including reasonable attorney fees and/or collection agency fees incurred in collection of any past due amounts.

5. Follow-up Visits and On Site Monitoring:

The Company, Duke Energy or agents of either party reserve the right to make a reasonable number of both pre-installation and post-installation follow-up visits during the 36 months following the completion date of the Work. Such visit(s) will be at a time convenient to the Participating Customer. The purpose of the follow-up visit(s) is to provide the Company and Duke Energy with an opportunity to evaluate the installed Measures in order to determine the actual kW reduction and energy savings for program evaluation purposes.

6. Indemnification from Participating Customer:

As part of agreeing to participate in the Program, which includes financial incentives to reduce the Participating Customer's net project costs, the Participating Customer shall protect, indemnify, and hold harmless the Company, Lender (if applicable) and Duke Energy (including their parent, officers, directors, agents, affiliates, distributors, franchisees and employees) from and against any and all claims, demands, suits, actions or causes of action, liabilities, losses, damages, judgments, settlements, penalties, costs and expenses (including without limitation, attorney's fees and expenses) (collectively, "Losses") imposed upon or incurred by or asserted against the Company, Lender (if applicable) or Duke Energy resulting from, arising out of, or relating to the Company's performance of this Participation Agreement, other than Losses resulting from the negligence or willful misconduct of, or the breach of this Participation Agreement by, the Company, but specifically including any Losses resulting from breach or default by Participating Customer of the terms and conditions of this Participation Agreement. This indemnity obligation under this section shall survive any expiration or termination of this Participation Agreement.

7. Indemnification from Company:

The Company shall indemnify and hold harmless Participating Customer from and against any and all Losses to the extent such Losses directly arise from the Company's (a) breach or default of any material provision of this Participation Agreement, or (b) negligent or willful misconduct in the performance of this Participation Agreement.

8. Limitation on Liability:

Company's liability to Participating Customer for all Losses pursuant to this Participation Agreement will be limited to any invoiced amounts actually received by Company from Participating Customer with respect to the Work. Notwithstanding the foregoing, the Company and Duke Energy shall not be responsible or liable for (a) the condition, maintenance or repair of any electrical wiring or other existing condition located in or on the Premises, (b) repairs or replacements of fixtures or lamps damaged or destroyed by acts of negligence of persons not under the direct supervision of the Company, (c) delays in the completion of the Work or for failure to give notice for such delays unless such delays are caused by the negligence of the Company, or (d) for the non-performance of any of the terms or conditions of this Participation Agreement directly attributable to a strike, national emergency, act of God or any other act for which the Company and Duke Energy are not responsible and over which Company and Duke Energy have no control. Neither the Company nor Duke Energy shall, in any event, be liable to Participating Customer for incidental, indirect, special, punitive, exemplary or consequential damages.

9. Representations of Customer:

Participating Customer represents, covenants and warrants to Company that Participating Customer (a) has corporate or other authority to enter into and perform under the terms of this Participation Agreement; (b) will not violate any provisions of applicable law or its organizational documents by performing under this Participation Agreement; and (c) entering into this Participation Agreement will not result in the breach of any agreement to which Participating Customer is a party.

10. Entire Agreement:

This Participation Agreement, including all Exhibits to this Participation Agreement and all other agreements incorporated herein by reference, constitutes the entire agreement between the parties relating to the subject matter hereof and supersedes all prior or simultaneous representations, discussions, negotiations, and agreements, whether written or oral with respect to the subject matter hereof. All provisions of this Participation Agreement shall be considered as separate terms and conditions and in the event any one of them shall be held illegal, invalid or unenforceable in an arbitration or by a court of competent jurisdiction, all other provisions hereof shall remain in full force and effect if the illegal, invalid or unenforceable provisions were not a part hereof.

11. Miscellaneous:

This Participation Agreement is not assignable except by written agreement entered into by the Parties hereto. Neither Party hereto shall unreasonably withhold consent to the other Party's assignment of this Participation Agreement. Any attempted assignment without the consent of the other Party hereto shall be null and void and of no effect. The Parties to this Participation Agreement are independent contractors. As used herein this Participation Agreement, the term "Duke Energy" shall mean Duke Energy Progress, Inc., Duke Energy Carolinas, LLC., Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc. or Duke Energy Indiana, Inc. depending upon the Participating Customer's regulated utility account and Facility Address. of this Participation Agreement.

12. Arbitration:

In the event of any dispute relating to this Participation Agreement, the Parties will attempt in good faith to resolve the dispute by conducting a minimum of two discussions between senior executives of each Party having authority to settle the dispute. If such discussions do not result in a resolution of the dispute within sixty (60) days, the dispute shall finally be settled by arbitration by a sole arbitrator in North Carolina, Ohio, Kentucky, or Indiana in accordance with the Arbitration Rules of the American Arbitration Association ("AAA"). The arbitrator will not have the authority to award punitive damages to either Party. Each Party shall bear its own expenses, but the Parties will share equally the expenses of the arbitrator and the AAA. This Participation Agreement will be enforceable, and any arbitration award will be final, and judgment thereon may be entered in any court of competent jurisdiction.

13. Governing Law:

This Agreement shall be governed by and construed in accordance with the laws of the state of North Carolina, Ohio, Kentucky, or Indiana.

14. Customer Responsibility for Additional Equipment and Services

For any additional services included in the Non-Incentivized Scope of Work, Lime Energy agrees to provide the work although the costs for this additional work will be the responsibility of the customer. Additional services may include permit fees, fixture relocations, wiring, disposal, lift equipment, any work performed outside of normal business hours, costs required to maintain compliance with electrical codes, other costs listed in the following section, and any other special project applications.

15. Contributions for Non-Incentivized Work

For all eligible customers, this program provides incentives of up to 80% of the cumulative fixed unit price (one-for-one replacement or retro-fit of existing equipment and utilizing the existing electrical wiring and mounting hardware) of measures installed by the installation contractor. Work or services outside of this defined scope should be itemized on the "Non-Incentivized Work Form." If the implementation contractor discovers any unforeseen additional work outside of the program's scope, the customer should be informed of this additional work and any associated costs at that time. Should any additional work be required for measure installation, the customer will reserve the right to cancel the work for which additional costs are required. All of the following will be considered additional work **and all costs associated with them shall be the responsibility of the customers**: All incremental costs for specialty products above the costs of standard equipment; All mounting requirements, wiring needs, and other material and labor costs outside the standard scope of a one-for-one replacement or retrofit of existing equipment, including wiring, material, and labor costs associated with compliance with electrical codes. All incremental costs to comply with Prevailing Wage Laws for additional work needed to complete work at the customer's premises; All costs for general waste containers delivered to the installation site (if customer cannot provide general waste containers); All aerial lifts; All staging costs; All costs related to delays to measure implementation that are caused by obstructions, immovable objects, or other impediments to reasonable access to all lighting fixtures and equipment being replaced; All costs associated with the additional time needed to stabilize equipment connected to mislabeled circuit panels; If any work is cancelled by the customer because of the customer's responsibility for non-incentivized work, then all related costs, savings, and incentives proposed for the affected measures will be removed and reflected in the customer's final invoice.

Payment Information

Participation Customer: COLERAIN TOWNSHIP PARKS DEPT EIN:

Facility Address: 4725 Springdale rd Cincinnati OH 45251

Phone Number: 513-923-5015 Email Address: Nspears@colerain.org

Thank you for allowing Lime Energy Services Co. ("Lime") to assist you with your energy efficiency project. We want to make the process of making payments under your payment plan as easy as possible for each customer. Deposits and Lump Sum payments will be made directly to Lime. We offer multiple ways to pay:

DEPOSIT: If a deposit was required by your Program Agreement or Energy Savings Agreement, you will pay a deposit at the time you sign your Program Agreement or Energy Savings Agreement. This deposit amount will be deducted from the total cost of the work. This Payment Authorization Form will apply to any other amounts owed under your Program Agreement or Energy Savings Agreement.

MAKING PAYMENTS: You have a number of ways to make your payments to Lime. These payment methods will depend upon the billing option that you chose in your Program Agreement or Energy Savings Agreement. Your selection will be shown on your Project Completion Form.

LUMP SUM PAYMENTS: If you elected to pay Lime in a lump sum, you have a number of ways of making your payment. You will be invoiced by Lime for the amount due. Payments can be made using:

- *A Paper Check:* Mail your check to the following address and include your Project Number in the memo line.
  Lime Accounts Receivable Department
  100 Mulberry Street, 4 Gateway Center, 4th Floor
  Newark, NJ 07102

- *Lime's Online Payment Portal*: You can set up a payment by credit or debit card, or an ACH transfer from your bank account using Lime's Payment Portal, available at **www.paylime.com**.

- *Lime's Payment by Phone Service*: You can call Lime to set up a payment by credit or debit card, or an ACH transfer from your bank account. To make payment arrangements by phone, please call 1-833-PAY-LIME or (1-833-729-5463) during normal customer service hours (9:00 a.m. ET to 5:00 p.m. ET, each business day).

All electronic payments are subject to the following Payment Terms and Conditions:

- By arranging electronic payments, you hereby represent that you authorize Lime Energy Services Co., its agents, successors, and assigns, hereinafter called "we," "us," or "Company" to initiate debit entries to your card or bank account, at the bank or credit union you designate. You represent that you are an authorized signer on the account or card that you provide for payment. You further authorize us to debit your card or account for each payment owing under your Project Proposal, the Program Participation Agreement (including any payment plan terms), the Energy Savings Agreement (including any payment plan terms), and the associated Project Completion Form (collectively, the "AGREEMENTS," which incorporate any change orders or changes incorporated in the Project Completion Form). Your authorization will include the right to debit your card or account for all amounts due under the AGREEMENTS (or such lesser or greater amount as may be owing) including any returned payment charge, insufficient funds charge, or other amounts owing under the AGREEMENTS because of your default. You acknowledge that the origination of debits to your card or account must comply with the provisions of U.S. law and the various network rules.

- You understand and acknowledge that you may terminate an electronic payment authorization by notifying us in such time and manner as to afford us and your bank/credit union a reasonable opportunity to act on it. In no event will we be able to terminate an authorization with less than five (5) days' notice. Any revocation will have no effect on payments previously made.

- **IF YOU ELECT TO TERMINATE A PAYMENT AUTHORIZATION WITHOUT PROVIDING UPDATED PAYMENT INFORMATION TO COMPANY, YOU WILL BE IMMEDIATELY INVOICED FOR THE LUMP SUM PAYMENT AMOUNT SHOWN IN THE AGREEMENTS, LESS ANY AMOUNTS YOU PREVIOUSLY PAID.**

Payment Information

- For payments you arrange electronically, you understand that because these are electronic transactions, these funds may be withdrawn from your account or card as soon as the listed payment date. In the case of an ACH transaction being rejected for Non-Sufficient Funds ("NSF") I understand that Lime may, at its discretion, attempt to process the charge again within thirty (30) days, and agree to an additional $50.00 charge (or the maximum amount allowed by your state's law) for each attempt returned for NSF which will be initiated as a separate transaction from the authorized recurring payment.
- **A RETURNED PAYMENT FEE OF $50.00 WILL BE CHARGED IF ANY PAYMENT IS RETURNED AS UNPAID, DISHONORED, OR DUE TO INSUFFICIENT FUNDS.**

PAYMENT PLANS OR EXTENDED FINANCING: If you elected to pay under a payment plan or extended financing, the terms of that arrangement are contained in your Financing Agreement with the Lender. The payment plan or extended financing you selected will be shown on the Project Completion Form. You are responsible for making all payments under the Program Agreement or Energy Savings Agreement directly to the Lender.

CONSENT ITEMS

Department: Administration

Department Head: Mike Ionna, Director - Planning and Zoning

New Hire - Code Enforcement Specialist - Planning & Zoning

Recommend approval of all consent items.

Rationale:

The position of Code Enforcement Specialist was posted, applications were received and interviews conducted. A conditional offer of employment was extended to the following individual: Tamaria Monday.

The wage for this job is $12.00 per hour for 20 hours per week through the season. Contingent upon Board approval, she would be eligible to begin work on July 29, 2020.

COLERAIN
1794 225TH ANNIVERSARY 2019

NEW HIRE AUTHORIZATION

TO BE COMPLETED BY HUMAN RESOURCES

☐ New position
☐ Reconfiguration of position
☒ Replacement existing vacancy

Job Code: 167 Position Number: 3101

Status: ☐Full Time ☒Permanent ☐FLSA Exempt ☐CBA Position
☒Part Time ☐Temporary/Seasonal ☒FLSA Non-Exempt ☒Non-CBA Position

TO BE COMPLETED BY HIRING DEPARTMENT HEAD

Employee name: Tamaria Monday

Hourly rate: 12.00 Employee Supervisor: Michael Ionna

Min/Max hours/week: 20 hours / week

Proposed start date: TBD Eligibility Date: 7/29/2020

Tentative schedule of hours: 4 hours per day; 4-5 days per week

Does this position supervise staff? ☐ Yes ☒No

Comments:

Department Head Name: Michael Ionna

Signature: M. Ionna Date: 7/20/2020

TO BE COMPLETED BY THE TOWNSHIP ADMINISTRATOR

The Colerain Township Administrator conditionally approves this hire. This hire shall be fully effective after approval by the Board of Trustees at the next possible Trustee meeting. The employee will be required to serve a probationary period, as defined by the Township Policy Manual or Collective Bargaining Agreement.

For hiring purposes, the employees first eligible start date, pending completion of all necessary background checks, physicals, and drug tests is: 7/29/2020

Administrator Signature: Date: 7.21.20

JOB POSTING INFORMATION – TO BE COMPLETED BY HUMAN RESOURCES

The Position was posted on the following locations:

☒Township Website

☐Internal Bulletin Board

☐Social media

- ☐Facebook
- ☐LinkedIn
- ☐Twitter
- ☐Other

☐Newspapers

☒Other job boards

Hiring Process Timeline:

Date of initial posting: 07/07/2020

Date posting closed: 07/21/2020

Interview Committee: Mike Ionna, Chris Cavallaro, Jeff Weckbach, Renetta Edwards

Interview dates: 7/17/2020

Number of applications: 13

Number of candidates interviewed: 3